polymer...

dry-tech®... linear technology 2023 ... motion plastics® ... igus.eu





... lead screw drive ... drive technology ... Low Cost Automation ...

...dry-tech®

www.igus.eu/dry-tech

Tech up, Cost down

igus® dry-tech® bearings offer an alternative to lubricated plain, linear and rolling bearings. igus® develops tribopolymers for continuous dry operation. By avoiding lubrication, dry-tech® bearing technology attains superior service life: from -100°C up to +250°C at continuous exposure, from cleanrooms to extreme dirt exposure, from vacuum to extreme humidity.



Available from stock.

Ready to ship from 24hrs, earlier upon request.

The delivery times indicated are the average time until the ordered goods are dispatched.



No minimum order value. No surcharges.

No minimum order value with igus®. Just order the amount you need. You can find our prices online at **www.igus.eu**



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Order hotline

Phone +49-2203 9649-145
Fax +49-2203 9649-334



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Product finder, configurator, online catalogue,
CAD modules and many more. Order around-the-clock!



Calculate and configure online

Download 3D CAD models free of charge and quickly find the product you are looking for with our product finders and intelligent filters.



igus® live chat

There are many ways to reach us.
For example, you can use our online live chat.



Do you have any questions?

If you have any questions, simply call us or use our online tools at **www.igus.eu**



drylin®

Modular linear technology

- ▶ Online service life calculation
- ▶ System configurator online

From page 23



dryspin®

Efficient lead screw technology

- ▶ Online service life calculation
- ▶ System configurator online

From page 349

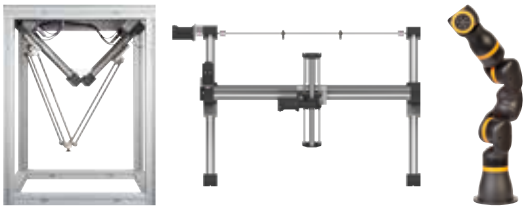


drylin®

Drive technology

- ▶ Online service life calculation
- ▶ System configurator online

From page 493



Low Cost Automation

- ▶ Online service life calculation
- ▶ Online product finder

From page 689

Imperial dimensions

From page 743

Online tools and more

From page 753

Disclaimer
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The information in this catalogue does not constitute a legally binding assurance of certain properties or suitability for a specific purpose. Due to constant technical refinement, we reserve the right to make technical changes to products at any time. Subject to printing errors.

Our offers are directed to traders/resellers only. The delivery times indicated correspond to the time until the goods are dispatched, and transport costs are not included in the price. We recommend that you always check the suitability of the products for a particular purpose in a practical trial. Contact us for advice.

All products that are marked "New" in the catalogue have been added since the last version of the catalogue was published in May 2020.

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All catalogues at a glance

motion plastics®



Bearing technology
Plain bearings, piston rings, slewing rings, bar stock, gears, 3D printing, spherical bearings and ball bearings



Linear technology
Linear technology, lead screw technology, drive technology, Low Cost Automation



e-chains® and e-chain systems®
- Online service life calculation
- System configurator online



chainflex® cables
- Online service life calculation
- System configurator online



New products journal
All motion plastics® new products at a glance

igus® Kiosk
Brochures, journals and catalogues to browse through

Proven.
Predictable.
Performance.

iglidur® plastic plain bearings from igus® are lubrication-free, maintenance-free, cost-effective and versatile. They are suitable for mass-produced automotive products or for the construction of special machines, for underwater applications, for the food and packaging industry, for extreme resistance to chemicals and temperature fluctuations or for simple metal-sheet bearings: iglidur® plain bearings always offer a solution - either from the product range in the catalogue or as a special customised bearing solution - no minimum order quantity!
For more than 30 years, iglidur® plain bearings, which conform with RoHS, have been a technically and economically advantageous alternative to metal bearings of all kinds. The industry's biggest test laboratory with approximately 15,000 tests per year enables reliable predictability.

Longer service life, no maintenance, available immediately.

The most cost-effective bearing for any application

- 17 standard materials from high temperature to seawater, from food to the automotive
- More than 7,000 standard-compliant bearings available
- Savings potential up to 40%
- 100% lubrication-free and maintenance-free
- 100% corrosion-free
- 100% RoHS-compliant
- Online: product finder and service life calculator, prices, ordering, CAD etc.





Sustainability at igus®
We have been focusing on sustainability in manufacturing and products. As a result, we are now also able to state the CO_2 footprint of a large number of our iglidur® plain bearings. In addition, there are new products that are largely or completely made from recycled material.



Resistant to dirt with igus®
Zero-maintenance and dirt resistance are not the only advantages of iglidur® and drylin® linear technology. Cost down, life up!



No lubrication with igus®
The lubrication-free design of iglidur® also permits its use in the food and pharmaceutical industries. Don't wait any longer!



No maintenance with igus®
iglidur® materials for wide variety of operating conditions. Large program of dimensions compatible with nearly all applications. Predictable service life!



No corrosion with igus®
Lightweight, corrosion resistance as well as zero maintenance and lubrication achieve solutions for almost all types of applications. Fit and forget!

Reduce process costs: bearings technology on the web

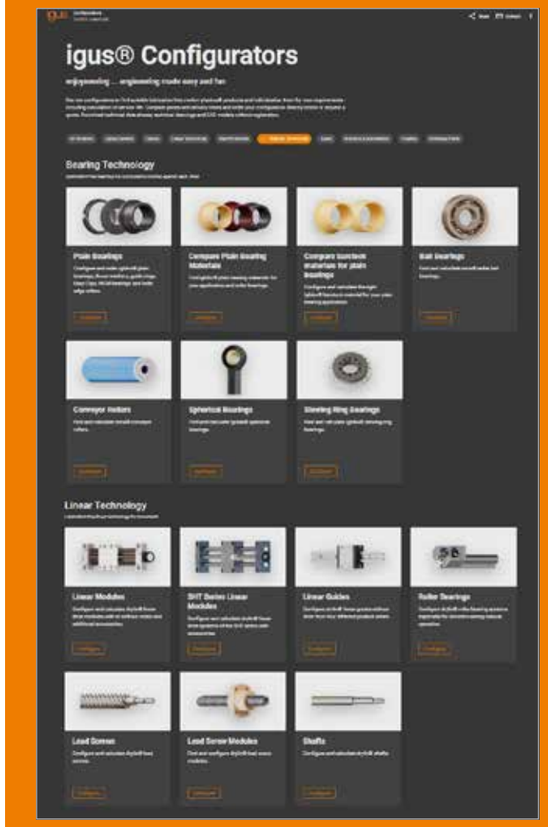
For every product in this catalogue, there is a special quick link or direct online pointer to further details, data and facts. These include:

- Online tools for calculating service life
- 3D CAD files
- DXF data
- Download of current catalogues, brochures, videos and assembly instructions
- Application pictures
- Imperial dimensions
- Personal support
- Catalogue and sample ordering
- Online price list and online shop

More than 40 online tools help you to quickly find, configure and calculate the right product. No registration necessary. 3D CAD models online for downloading. Easy to use.

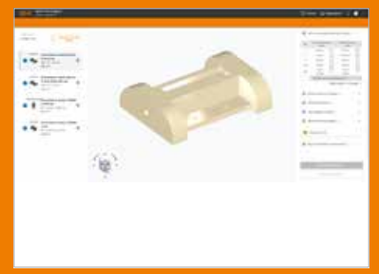
▶ **www.igus.eu/CAD**

▶ **www.igus.eu/online-tools**









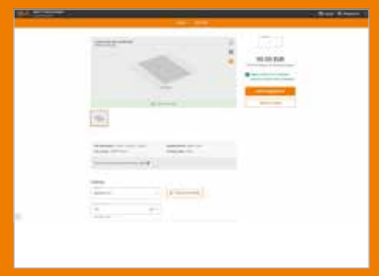












ONLINE TOOLS
Fast selection of the right product incl. Service life calculation

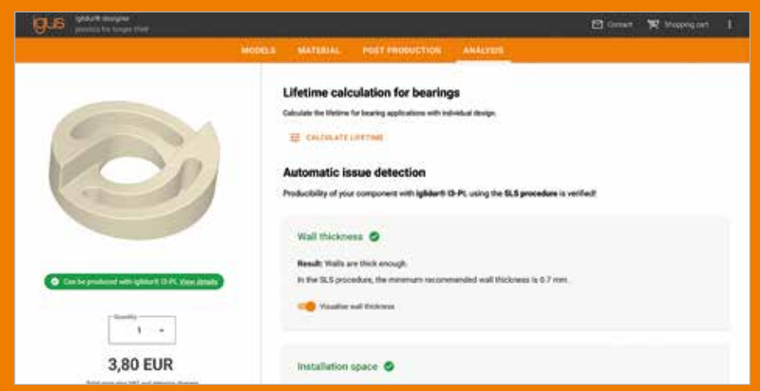
CONFIGURATORS
Assemble your required product, also with individual accessories and post-processing.

SERVICES
Custom machining and other tools.

Individual components

- Service life calculation
- Feasibility analysis
- Instant price





Quality from the igus® test laboratory

Tested thousands of times.
Proven millions of times.

Applications involving high duty cycles, speeds and acceleration or demanding environmental conditions require proven systems especially for polymer plain bearings and linear systems. igus® constantly conducts tests at its own laboratory under real-world conditions. More than 15,000 tests are conducted each year. These tests focus on push/pull forces, coefficient of friction and wear rates. Other factors like speed, load, dirt, weathering, temperature and impact are also tested.

Our laboratory is also at your disposal. If we don't have data for your type of application, we can conduct a test representative of your requirements.

▶ **www.igus.eu/test**

Explore the igus® test laboratory virtually:
▶ igusvr.igus.eu

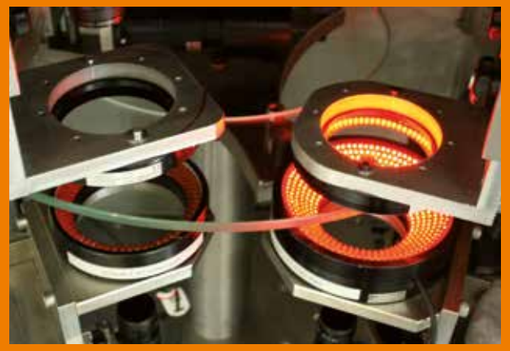
All products are tested and available from one source.

Examples of test certificates and quality seals for igus® products ... more certificates upon request at

▶ **www.igus.eu/quality**



igus® quality assurance ...



... 100% visual inspection ...



... tested in the 250m² dry-tech® lab



More than 15,000 tribological tests per year on more than 50 test rigs ...



... 549 customer tests per year ...



... or heavy duty tests up to 250MPa



Worldwide, quick and reliable - the igus® service

Delivery and consultation daily from 7am to 8pm, Saturday from 8am to 12pm!

No minimum order quantity, delivery from 24hrs, over 200,000 products from stock. Order an iglidur® plain bearing or a harnessed standard system from stock in 24 hours at no extra cost. Rapid delivery worldwide guaranteed. Spare parts are delivered from stock in the shortest possible time.

Take advantage of further service options from igus®:

- **Installation service:** Our installation experts help you to install igus® solutions in your application easily and quickly
- **Free samples:** We will be happy to send you free samples for testing in your application. online request ▶ **www.igus.eu/sample**
- **The monthly newsletter:** we keep you regularly informed about new igus® solutions. Register here ▶ **www.igus.eu/newsletter**

Order at igus®:
No minimum order quantities, no surcharges.

24hrs

Single components
For example:
iglidur® W300 plain bearings; igubal® rod end bearings or drylin® linear bearings.



24 - 48hrs

Custom-made linear systems
Example:
2.46m drylin® T profile rail with carriages.



24 - 72hrs

Complete drive modules
Example:
Lead screw linear systems made to your individual requirements and dimensions.



3 - 7 days

FastLine service
Example:
Customised injection-moulded plain bearings.



3 - 10 days

Machined components or 3D printed special parts
Example:
online configured and machined shafts, lead screws, special parts and bar stock made to design.



speedigus®
production for custom injection moulded or machined parts made of polymer



3 - 6 weeks

Initial samples from new tools
Example:
Injection moulding of parts made to your design.







Shipped from 24hrs



No minimum order quantity



7am to 8pm plus Saturday service

Free igus® online services

Reduce process costs ... discover potential ... gain knowledge ...

Our motion plastics® are already moving your machines and other installed equipment but did you know that we offer unique services on top of this?

From your application evaluation to our free in-house exhibitions directly on your premises, to specific tests performed exactly according to your requirements.
We are always happy to work with you and support you.
Find out about our free offers for your application now.

Use services now
▶ www.igus.eu/service



Handle and test
Free sample parts for tests and prototypes



Assessment of your project application
Our technical sales department will assess your project application with you.



We make your machines smart
Predictive maintenance:
Free assessment at your premises.



No time for trade show visits?
Free in-house exhibitions at your premises. We take care of everything.



Virtual factory tour
Discover our operations from injection moulding to the tool shop, to quality control or our laboratory.



Interchange of digital catalogue data made easy
BMEcat and EDI: talk to us about your preferred data exchange formats.



igus® Corner
A sales colleague will bring the display unit to you, set it up on request and equip the compartments with the products of your choice.



Tests according to your specifications
Application and custom tests in the largest laboratory in the industry.



No minimum order quantity
Whether 3D printed or as a series injection-moulded part, whether 1 metre of cable or hundreds of metres on a drum.



Qualification and training of your employees
Free training courses on installation/assembly and the use of our products.



Quickly available on site, worldwide
More than 700 field representatives are there for you in 30 countries.



The motion plastics® game: igumania
In the igus® game, you install lubricant and maintenance-free products to reduce production maintenance times.



Ready-to-install energy supply systems
Design, harnessing, delivery up to complete assembly of energy chains.



Products developed for you
Numerous innovations every year, to meet customer requests.



Recycling made easy
Make a contribution towards the reduction of plastic waste and the improvement of recycling in industry.



Experience motion plastics® live
Free tickets or in-house tours in Cologne.



Free 3D CAD library
Quickly generate complete 3D models, free and without registration.



Samples for prototypes
We will send you samples for your prototypes and exhibition machines.



We test your Low Cost Automation solution
Just send us your workpiece and we will provide you with a live video of our test or show you the feasibility.



igus® motion plastics® show (imps) - the virtual/real trade show
Experience the new products at our virtual-real imps booth, which you can explore on your own or with a guide.



Low Cost Automation roadshow
Experts demonstrate the robots live at your premises and program your individual application.

The flexible igus® factory

Investments in better technology and faster delivery times

Nearly 200,000 customers worldwide trust "motion plastics®" - manufacturing products at low-cost, while also ensuring quality. We have been developing, making and selling our products according to this principle for years. Wear-resistant parts as catalogue items are on stock, to allow us to complete customer requests within hours and ship.

igus® is continuing its growth trend and is focusing more than ever on sophisticated yet simpler solutions for all applications and budgets.



Material preparation



Injection moulding



Warehouse



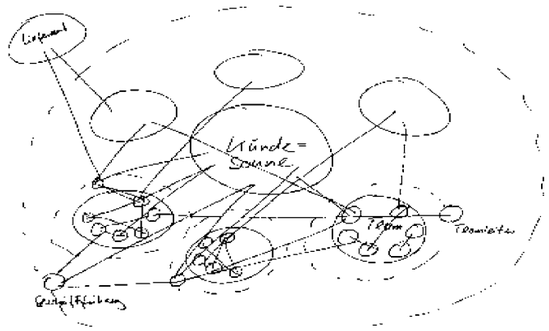
Assembly factory



Toolmaking



Open offices



"For us, customers have the same significance as the sun to life on earth. The sun gives light, warmth and energy; our customers give us ideas, work and money."



Global standards - igus® is close to you

Individual consultation worldwide by phone or at your premises. 30 subsidiaries worldwide.

A large network of sales engineers are at your disposal in Germany and worldwide. We will gladly provide consultation at your premises, supply assembly instructions and tools to installation sites, as well as measure installation spaces and check environmental conditions on site.
There are 4,500 employees in Germany and 30 international subsidiaries, plus distributors in another 52 countries to guarantee a rapid delivery worldwide.

- **Customer-specific projects and special solutions:** for every challenge, we will work with you to find a solution and provide a sample for your application free of charge
- **We are wherever you need us:** numerous e-chain® and plain bearing consultants are at your disposal at any time
- Hands-on with our products at 200 trade shows worldwide
- Individually at your premises with our mobile company trade show stand

▶ **www.igus.eu/worldwide**



igus® motion plastics® show - at your premises or virtually



Technical consultation at your premises



Worldwide open offices - for example in China



Worldwide modular factories - for example in the USA



igus® in-house trade show stand



igus® at trade shows





igus® offices and distributors
All addresses on last page.

Sustainable product development

Plastic is a much-discussed material. We know that high-performance polymers can make a contribution to the protection of resources and to the environment, and have made this the focus of our activities. We look at plastics in three phases: during production, in use and at the end of the product's life. We will give you our answers to sustainability questions for both our products and everyday life at igus®. Much remains unanswered, and for some things, especially with regard to sustainable production, we are still working on answers and solutions.

▶ **www.igus.eu/sustainability**



ECO product range



Cost-effective and versatile.
The new, sustainable iglidur® ECO materials consist of regranulates of our top materials, which have proven themselves for many years.

CO_2 footprint



CO_2 footprint in the online shop
igus® has been focusing more and more on sustainability in manufacturing and products since 2018. As a result, we are now also able to state the carbon footprint of a large number of our iglidur® plain bearings. In addition, there are new products that are largely or completely made from recycled material from our own production. And these are also tested in the laboratory and have a predictable service life.

chainge program



Recycling made easy
As a plastics processing and manufacturing company, we are very concerned about making our contribution to sustainable, resource-conserving use of plastic. We focus on technical plastics because that is exactly what our business is. Make a contribution towards the reduction of plastic waste and the improvement of recycling in industry.
▶ **www.chainge.igus.eu**

igus:bike



Yesterday's waste for tomorrow's mobility: he first motion plastics® bike in the world
The idea for the igus:bike project was born with this vision. The project aims to use plastic waste dumps worldwide as resources for a recycled bicycle. On the newly created igus:bike platform, we want to work with other bicycle and component manufacturers to create a sustainable, corrosion-free, maintenance-free alternative for urban mobility. We are taking the first step with mtrl, a start-up we are supporting during development and production of a bicycle made entirely of plastic.
▶ **www.igus.bike**

Fit and forget

For all tasks - the appropriate solution in any batch size from stock

Different industries need different solutions. From mechanical engineering, automotive assembly or medical technology, to the robotics industry - igus® offers customised solutions for specific applications. igus® possesses many years of experience in most branches of industry and has competent specialists that can be contacted when necessary. If your industry is not listed, please let us know. We're here to help.

Go online and find solutions for almost every branch of industry
▶ www.igus.eu/industry

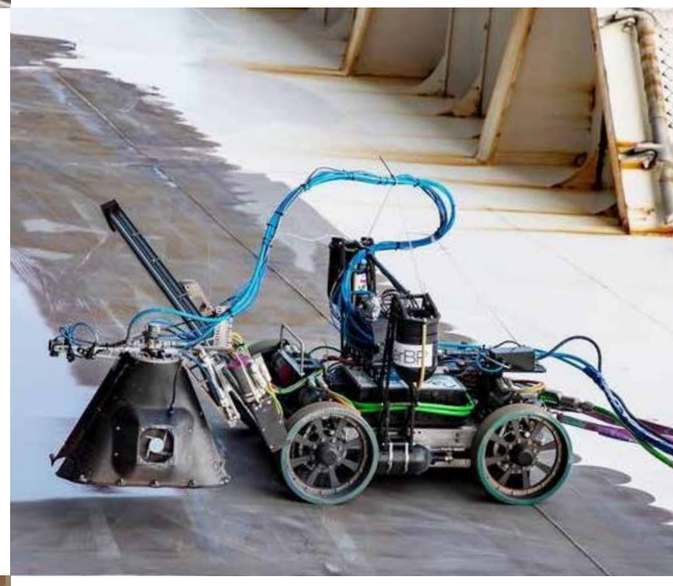


Drilling system
Amrikart, a Canadian company, is developing a linear guide system for positioning drills in aircraft construction. That is why the engineers are using drylin® T guide rails and carriages (TS-01 and TW-01-15-HKA). The components are lightweight and compact, but can be set precisely with high repeatability.

High-pressure cleaner for municipal vehicles
Cleaning using water under high pressure and whipping up dirt poses enormous challenges. To meet this challenge, the German company Fiedler Maschinenbau und Technikvertrieb GmbH has developed the FSB 1.500 / 2.600 double spray boom, which is mounted in front of the vehicle which is equipped with side nozzles, a middle section, and electronically switchable high-pressure underfloor nozzles for cleaning surfaces with high water pressure. The engineers use a drylin® W double rail WS and drylin® W pillow block for the telescopic function. It is used by municipalities and municipal service providers to clean dirty streets, pavements and squares.



Offshore robot
When the surface of ships and offshore platforms are cleaned, large quantities of harmful substances normally end up in the oceans. With Remotion's solution, this is avoided: the material residues are collected directly by vacuum extraction and fed into a filter system. The components of such a system have to withstand high water pressure, salt water and contamination from abrasive particles. Remotion was able to solve the numerous problems with igus® components. All components, such as the toothed belt axis, the linear rail or the bearings, convinced with their low maintenance requirements and low weight.





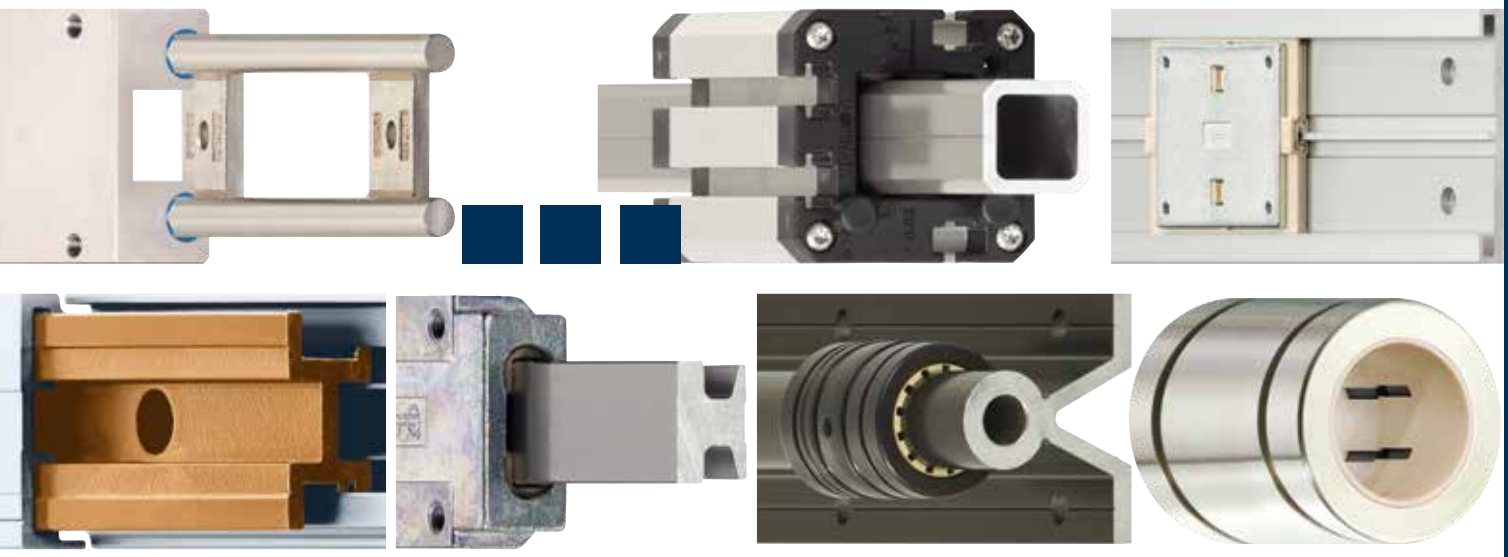
Filling systems for reaction vessels
The vessels are transported via a vibrating conveyor and brought to a pick-up position. Grippers from the top remove vessels one by one and bring them to a pump unit for filling before they are brought for sealing. After closing, the gripper opens and the vessel drops gently into the practical pedestal box. The drylin® lead screw drives are used for feed mechanisms and linear movements. For this, the customer combines an iglidur® W300 trapezoidal lead screw nut with a rolled trapezoidal lead screw made from (stainless steel) AISI 304.



Refrigerated counter closure system
An automatic closure system for refrigerated counters is being built by the Italian company Cisaplast. For the door movement guides, the experts use drylin® stepper motors and dryspin® flanged lead screw nuts made of the high-performance polymer iglidur® J. The components work without external lubricants, are maintenance-free, lightweight, cost-effective and durable.

drylin®...

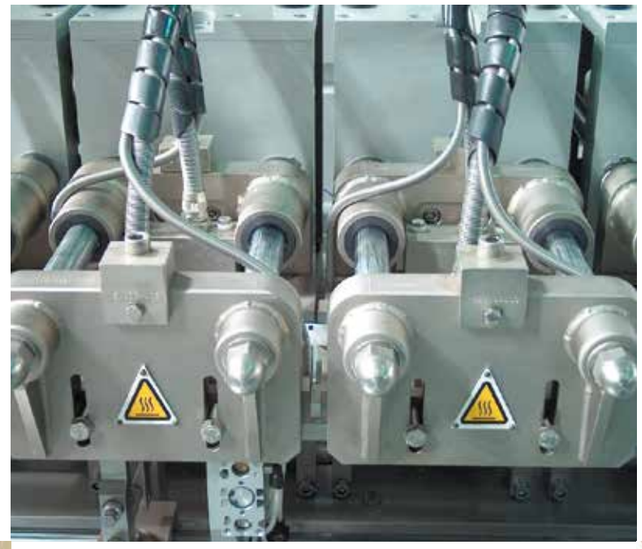
Linear technology



...plastics

Tech up ... Cost down

For years the igus® motto has been motion plastics® - high-performance polymers for motion. By this we mean the production of innovative plastic products which reduce maintenance work, achieve technical improvements, at the same time as reducing costs and increasing service life, everything delivered immediately from stock. Our references from the practice show the proven employment from drylin® guides in a wide variety of applications.



Forming, filling and sealing machine
Lubrication-free drylin® high temperature linear bearings (up to +120°C) are used in the tool guide system of this forming, filling and sealing machine. (Unifill SpA, Italy)



Label feeding system (packaging technology)
Quick and flexible lubrication-free format adjustment at lower costs - implemented with drylin® T rail guide. Further advantage: guide carriage with manual clamp.
(Geset Etikettier-Systeme GmbH, Germany)

Door adjustment
The smooth, quiet operation and the enormous cost advantages are obtained by the use of drylin® R linear plain bearings on the hard-anodised guide shafts to guide the doors of machine tools. (Alzmetall GmbH + Co. KG, Germany)





Champagne bottle sealing machine
Due to freedom from lubricants and chemical resistance, drylin® guides score highly in facilities in the food sector.
(Sick International Kellereimaschinen GmbH, Germany)



System for the production of aluminium cartridges
The absolute freedom from lubricants and the resistance to prevailing paint mist led to the application of drylin® R linear plain bearings. (Mall + Herlan GmbH, Germany)

drylin® W profile guides



Single rails, square:

WSQ-XX

▶ **Page 62**



Pillow blocks, square:

WJ200QM

▶ **Page 64**

New



Pillow blocks, square, for narrow assemblies:

WJ200QMS

▶ **Page 65**



Single rails, round:

WS-XX

▶ **Page 66**



Single rails, round made of stainless steel:

WS-XX-ES-(FG)

▶ **Page 68**



Pillow blocks, round:

WJ200UM

▶ **Page 69**



Pillow blocks, round made of stainless steel:

WJUM-XX-ES-(FG)

▶ **Page 69**

New



Pillow blocks, single, round, made from solid plastic:

WJBMP-01-10

▶ **Page 70**

drylin® W profile guides



Tandem pillow blocks:

WJ200UMT-XX-AL

▶ **Page 71**



Manual clearance adjustment:

WJ(200)UME

▶ **Page 72**



With spring pre-load:

WJ(200)UM-XX-P

▶ **Page 73**



Pillow blocks, single, round:

WJ200UMA-XX-AL

▶ **Page 74**

New



Pillow blocks, round made of stainless steel:

WXUMA-01-10-ES

▶ **Page 75**

New



Pillow blocks, round, for narrow assemblies:

WJ200UMS

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New



Pillow blocks, tandem, round, for narrow assemblies:

WJ200UMTS

▶ **Page 77**



Double rails:

square

WSQ

▶ **Page 78**

drylin® W profile guides



High torsional rigidity: high profile rails, square

WSX

▶ **Page 79**



Linear guides - lightweight, non-metallic:

WSPC

▶ **Page 80**



Linear guides - lightweight, non-metallic:

WSPG

▶ **Page 81**



Complete carriages: square

WWQ

▶ **Page 82**



Mono-slide carriages:

WWC

▶ **Page 83**



Double rails:

round

WS-XX-XX

▶ **Page 84**



High torsional rigidity: high profile rails, round

WSX

▶ **Page 86**



Round double rails, made of stainless steel:

WS-XX-XX-ES-(FG)

▶ **Page 87**

drylin® W profile guides



Complete carriages: round

WW

▶ **Page 88**

New



Linear sliding carriage directly replace ball bearings guide:

WW-XX-XX-T15

▶ **Page 90**

New



Slim linear carriages:

WWS

▶ **Page 91**



Assembled stainless steel guide carriages, round:

WW-XX-XX-GESG-PES

▶ **Page 92**

New



Mono-slide carriages, with snap mechanism:

WWC-06-30-06-LM

▶ **Page 93**

New



Linear carriages with wear measurement, round:

WW-XX-XX-IS-LED

▶ **Page 94**

New



Linear carriages with integrated manual clamp:

WW-XX-XX-XX-HKX

▶ **Page 95**

New



Clip-on linear carriages:

WW-10-40-10-TC

▶ **Page 96**

drylin® W profile guides

New



Clip-on linear carriages with clamping:

WW-10-40-10-CC

▶ **Page 97**



Curved rail profiles:

WSB

▶ **Page 98**



Curved rail profiles:

WSB-XX-XX-RX300Q

▶ **Page 100**



Single bearings for curved rails:

WI3UBP-XX-LLZ

▶ **Page 102**



Carriage for curved rails:

WWB

▶ **Page 103**



Double rails with machine recesses:

WS(Q)-XX-CAM

▶ **Page 104**



Complete carriages for slider:

WW-XX-SL

▶ **Page 105**



Hybrid slider carriages with four double roller bearings:

WWH-XX-SL

▶ **Page 106**

drylin® W hybrid roller bearings



Hybrid rails for lateral installation:
WSR
▶ Page 112



Hybrid roller bearings for hybrid lateral rail:
WJRM-31/41
▶ Page 113



Single hybrid roller bearings:
WJRM-01
▶ Page 114



Double hybrid roller bearings:
WJRM-21
▶ Page 115

New



Hybrid roller bearings with two rollers:
WRJM-XX-XX-AL
▶ Page 116

New



Tandem roller bearings with ball bearings:
WRJM-XX-XX-BB-AL
▶ Page 117



Hybrid single and double rollers, stainless steel:
WRJM-XX-ES-FG
▶ Page 118



Hybrid carriages for lateral installation:
WWR-21-XX
▶ Page 119

drylin® W hybrid roller bearings



Hybrid carriages with four double roller bearings:
WWH-21
▶ Page 120



Hybrid carriages for horizontal installation:
WWH-10
▶ Page 121



Mounting plate for drylin® W hybrid roller bearing:
WWYR
▶ Page 122

drylin® linear technology - accessories



Manual clamp for simple positioning:
WHKA-XX-(AL)/WHKAQ
▶ Page 124/125



Manual clamp for higher holding force:
WHKD
▶ Page 125



Manual clamp for drylin® W hybrid roller bearings:
WJRM-21-XX-HKA
▶ Page 126



Liners made from dry-tech® polymers
▶ Page 127

drylin® linear technology - accessories



Plastic liners:
J200UMA-XX
▶ Page 128

New



End caps for drylin® W rails:
WSZ-101201-KIT
▶ Page 128

New



End caps for drylin® W single rails:
WSZ-16-KIT
▶ Page 128



End caps for drylin® high profile rails WSX:
WSX-XX-EC
▶ Page 129



Mounting plate for linear carriage:
WWY
▶ Page 130

drylin® N low-profile guides



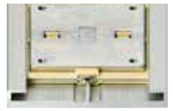
For small spaces and high load capacity:
Installation size 17
▶ Page 138



The largest variety of carriages (options):
Installation size 27
▶ Page 140



Suitable for aluminium construction profiles:
Installation size 40
▶ Page 142



High loads with reduced height:
Installation size 80
▶ Page 144



Prism rails:
NSV-01-27
▶ Page 146



Prism carriages:
NWV-XX
▶ Page 147



Accessories:
Manual clamp
NW-XX-HKA
▶ Page 150



Accessories:
end caps
NSKB, NSK
▶ Page 151

drylin® N low-profile guides

New



Accessories:
End caps
NSVK
▶ Page 152

drylin® N telescopic rails



Telescopic rails:
NT-35
▶ Page 154



Telescopic rails with locking mechanism:
NT-LM-35
▶ Page 155



Telescopic guide for higher loads:
NT-60
▶ Page 156

New



Telescopic rails with prism carriages:
NTV-27
▶ Page 157

New



Telescopic rails made of solid plastic:
NTP-27
▶ Page 158

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drylin® T rail guides



Guide rails:
TS-01
▶ Page 166



High performance carriages:
TW-12
▶ Page 167



Manual clearance adjustment:
TW-01
▶ Page 168



Automatic clearance adjustment:
TWA-01
▶ Page 169



With manual clamp:
TW-01-XX-HKA
▶ Page 170



Heavy-duty version:
TW-02
▶ Page171



Compact design:
TW-03
▶ Page 172



Accessories:
TWBM-11
▶ Page 173

drylin® T rail guides



Accessories:
TWBM-01
▶ Page 173



Miniature guides:
TS-04
▶ Page 174



New

Miniature guide carriages with iglidur® E3 liners:
TW-14-XX
▶ Page 174



Miniature guide carriages:
TW-04
▶ Page 175



New

Miniature guides, pre-loaded:
TW-04-XX-XX
▶ Page 175



Adjustable miniature guides:
TWE-04
▶ Page 176



Accessories:
End caps for holes
TSZ
▶ Page 176



Accessories:
Replacement plastic sliders
TEK
▶ Page 176

drylin® R liners made from iglidur® J



Long, closed design for shafts:
JUM-01
▶ Page 188



Long, open design for supported shafts:
JUMO-01
▶ Page 189



Long, closed design, precise:
JUM-11
▶ Page 190



Long, open design, precise:
JUMO-11
▶ Page 191



Short, closed design for shafts:
JUM-02
▶ Page 192

... made from iglidur® J200



Long, closed design for shafts:
J200UM-01
▶ Page 193



Long, open design for shafts:
J200UMO-01
▶ Page 194

... made from iglidur® E7



Long, closed design for shafts:
E7UM-01
▶ Page 195



Long, open design for supported shafts:
E7UMO-01
▶ Page 196



Short, closed design for shafts:
E7UM-02
▶ Page 197

... made from iglidur® X



Long, closed design, high temperature:
XUM-01
▶ Page 198



Long, open design, high temperature:
XUMO-01
▶ Page 199



Short, closed design, high temperature:
XUM-02
▶ Page 200

... made from iglidur® A180



Long, closed design for shafts:
A180UM-01
▶ Page 201



Long, open design for supported shafts:
A180UMO-01
▶ Page 202

... made from iglidur® A160



Long, closed design for shafts:
A160UM-01
▶ Page 203



New

Long, open design for supported shafts:
A160UMO-01
▶ Page 204



New

Short, closed design for shafts:
A160UM-02
▶ Page 205

drylin® R special designs



Slide disks for large force displacement:
RSDJ
▶ Page 206



Clip-on liners:
JUCM
▶ Page 207



Press-fit bearings made from iglidur® L100:
WLM/WLFM
▶ Page 208/209

drylin® R solid plastic bearings



Standard design made from iglidur® J:
RJM-01
▶ Page 210



Standard design, precise, made from iglidur® J:
RJMP-01
▶ Page 211



New

Standard design made from iglidur® A180:
RA180M-01-10
▶ Page 212



New

Standard design made from iglidur® A160:
RA160M-01-10
▶ Page 213



Japanese dimensions made from iglidur® J4:
RJ4JP-01
▶ Page 214



Low-cost made from iglidur® J260:
RJ260UM-02
▶ Page 215

drylin® R linear plain bearings



Closed aluminium adapters:
RJUM-01
▶ Page 216



Closed aluminium adapters, precise:
RJUM-11
▶ Page 217



New

Adapter with clip-in liners made from iglidur® W360:
RW360CM-01-12
▶ Page 218



Closed adapters made of stainless steel 303:
RJUM-ES
▶ Page 220



Closed, anodised aluminium adapters:
RE7UM-01
▶ Page 221



Closed, aluminium adapters, short design:
RJUM-02
▶ Page 222



Closed, anodised aluminium adapters, short design:
RE7UM-02
▶ Page 223



Closed aluminium adapters floating bearings:
RJUM-03
▶ Page 224

drylin® R linear plain bearings



Split aluminium adapters:
TJUM-01
▶ Page 225



Split aluminium adapters, floating bearings:
TJUM-03
▶ Page 226



Open, anodised aluminium adapters, for supported shafts:
OJUM-01
▶ Page 227



Open aluminium adapters, floating bearing:
OJUM-03
▶ Page 228

drylin® R pillow blocks



Closed aluminium adapters, short design:
RJUM-05
▶ Page 230



Closed, adjustable aluminium adapters, short design:
RJUME-05
▶ Page 231



Split aluminium adapters, short design:
TJUM-05
▶ Page 232



Closed aluminium adapters, tandem design:
RJUMT-05
▶ Page 233

drylin® R pillow blocks



Closed aluminium adapters, long design:
RJUM-06
▶ Page 234



Closed aluminium adapters, with manual clamp:
RJUM-06-XX-HK
▶ Page 235



Closed housings, floating bearings:
RJUM-06-XX-LL
▶ Page 236



Open housings, floating bearings:
OJUM-06-XX-LL
▶ Page 237



Open aluminium adapters, long design:
OJUM-06
▶ Page 238



Open aluminium adapters, with manual clamp:
OJUM-06-XX-HK
▶ Page 239



Open, adjustable aluminium adapters, long design:
OJUME-06
▶ Page 240



New

Split linear housings made of solid plastic:
RJUMP-05-12
▶ Page 241

drylin® R flanged linear plain bearings



Closed aluminium adapters, round flange:
FJUM-01
▶ Page 242



Closed aluminium adapters, square flange:
FJUM-02
▶ Page 244



Closed aluminium adapters, round flange, tandem design:
FJUMT-01
▶ Page 246



Closed aluminium adapters, square flange, tandem design:
FJUMT-02
▶ Page 248



New

Adapter with clip-in liners made from iglidur® W360, round flange
FRW360CM-XX-XX
▶ Page 250

drylin® R pillow blocks



Quad blocks, closed design:
RQA
▶ Page 252



Quad blocks, open design:
OQA
▶ Page 253



Closed tandem design:
RTA
▶ Page 254



Open tandem design:
OTA
▶ Page 255



Closed, long design:
RGA
▶ Page 256



Open, long design:
OGA
▶ Page 257



Closed, short design:
RGAS
▶ Page 258

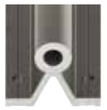


Open, short design:
OGAS
▶ Page 259

drylin® shafts



Precision aluminium shafts:
AWMP/AWMR
▶ Page 268



Supported aluminium shafts:
AWMU
▶ Page 269



Steel shafts:
SWM/SWMH
▶ Page 270



Supported steel shafts:
SWUM/SWUMN
▶ Page 271



Stainless steel shafts:
EWM/EEWM/EWMR
▶ Page 272



Supported stainless steel shafts:
EWUM
▶ Page 274



Low-level supported stainless steel shafts:
EWUMN
▶ Page 275



Partially supported stainless steel shafts:
EWUM-ES/EWUMS-ES
▶ Page 276

drylin® shafts



Low-level partially supported stainless steel shafts:
EWUMN-/EWUMSN-ES
▶ Page 278



Carbon fibre shafts:
CWM
▶ Page 280



Shaft end supports, floating:
TA
▶ Page 281



Shaft end supports, fixed:
TAF
▶ Page 282



Shaft end blocks, standard design:
WA
▶ Page 283



Shaft end blocks, compact design:
WAC
▶ Page 284



Shaft end blocks, narrow design:
WAS
▶ Page 285



Flanged shaft end blocks:
WAF
▶ Page 286

drylin® Q square linear guides



Square section linear rails:
AWMQ
▶ Page 292



Adjustable linear carriages:
QWE-01
▶ Page 293



Adjustable linear carriages with manual clamp:
QWE-01-XX-HKA
▶ Page 294



Pillow blocks:
QJRM(T)-05
▶ Page 295



Fixed flange bearings with round flange:
QJFM(T)-01
▶ Page 296



Fixed flange bearings with square flange:
QJFM(T)-02
▶ Page 296



Solid plastic linear bearings:
QJRMP-01
▶ Page 297



Accessories for drylin® Q
▶ Page 298

drylin® Q square linear guides



Clearance adjustment for columns:
ASDJ
▶ Page 299

drylin® digital measuring systems



Integrated measuring systems for drylin® Q:
QKM
▶ Page 306



Ready-to-install measuring systems for drylin® SLW linear modules:
SLWM
▶ Page 307



Digital measuring system for drylin® W:
WKM2
▶ Page 308



Measuring system with positionable readout display for drylin® W:
WKMEDR
▶ Page 309



Measuring systems for external data output for drylin® W:
WKMEX
▶ Page 310



Stop motion measuring system with rail scale:
NKV-27-MES-XXXX
▶ Page 311

drylin® carbon fibre



Extremely lightweight linear guides:
WSPC. WWPL
▶ Page 316



Non-metallic toothed belt axis:
ZLW-XX-P
▶ Page 317



Linear module with carbon fibre high profile:
SAW-XX-P
▶ Page 318



Linear module with carbon fibre hollow shaft:
SHTP-XX-CWM
▶ Page 319



Carbon fibre hollow shafts:
CWM
▶ Page 320

drylin® stainless steel



Closed adapters made of stainless steel 303:
RJUM-XX-ES
▶ Page 323



Stainless steel guides, single rails:
WS-XX-ES-FG
▶ Page 324



Pillow blocks, made from 316 stainless steel:
WJUM-XX-ES-FG
▶ Page 325



Hybrid roller bearings made of stainless steel:
WJRM-01/WJRM-21
▶ Page 326



New

Pillow blocks, round made of stainless steel:
WXUMA-01-10-ES
▶ Page 327



Stainless steel guides, double rails:
WS-10-XX-ES-FG
▶ Page 328



Assembled stainless steel guide carriages, round:
WW-XX-GESG-PES
▶ Page 329



Supported single rails, hygienic design:
WS-20-ES2-HYD
▶ Page 330

drylin® stainless steel



Supported double rails, hygienic design:
WS-20-120-ES2-HYD
▶ Page 331



Stainless steel shafts:
EWM/EEWM/EWMR
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Supported stainless steel shafts:
EWUM
▶ Page 334



Partially supported stainless steel shafts:
EWUM-ES/EWUMS-ES
▶ Page 336



Low-level supported stainless steel shafts:
EWUMN
▶ Page 338



Low-level partially supported stainless steel shafts:
EWUMN
▶ Page 340



Stainless-steel linear modules:
SHT-ESJ
▶ Page 342



"Hygienic design" linear module:
SHTC-XX-HYD
▶ Page 343

drylin® stainless steel



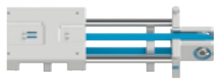
Stainless steel linear modules:
SLW-ES
▶ Page 344



XY table stainless steel version:
SLW-XY-ES
▶ Page 345



Stainless steel toothed belt modular drive system:
ZLW-20
▶ Page 346



New

ZLW linear module, hygienic design:
ZLW-20120-HYD
▶ Page 347

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Lubrication-free drylin® linear guides

drylin® is a product range of lubrication-free linear plain bearings based on the principle of sliding instead of rolling. Tribologically optimised iglidur® high-performance polymers are used as sliding surfaces. The drylin® linear systems use dry operation and are maintenance-free. Linear guides with rails or shafts are available.
The focus is on, besides the freedom from maintenance and lubrication, the ruggedness and insensitivity to influences such as dirt, water, chemicals, heat or impacts.

- Lubrication-free and resistant to dust and dirt
- High static load capacity
- Light, quiet and clean
- Robust and cost-effective

Typical application areas

- Mechanical engineering
- Woodworking industry
- Medical and rehabilitation technologies
- Interior design (furniture/aircraft)
- Automation

Available from stock
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Service life calculation
▶ **www.igus.eu/drylin-expert**

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drylin® rail guides

drylin® W profile guides

- Complex modular systems with more than 30 different profiles and more than 50 carriage options
- Versatile
- Easy installation

▶ **From page 53**

drylin® N low-profile guides

- Low profile installation heights from 6 to 12mm
- Lightweight
- Many carriage options - also with pre-load
- Pre-load prism slide for controlled adjustment

▶ **From page 131**

drylin® T rail guides

- Same dimensions as ball guide systems
- Adjustable bearing clearance
- Automatic clearance adjustment
- High static load capacity

▶ **From page 159**

drylin® shaft guides



drylin® R shaft guides

- Dimensions identical to recirculating ball bearings
- For all shaft materials
- Lightweight
- Replaceable liners

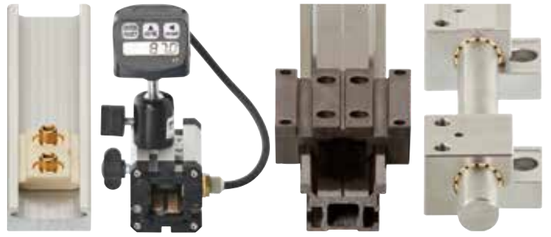
▶ **From page 179**



drylin® Q square linear guides

- Lubrication-free, torque-resistant square linear guides
- Lightweight profiles made from hard-anodised aluminium
- Manual adjustable carriages with/without manual clamp
- Numerous fastening options

▶ **From page 289**



Measuring systems

▶ **From page 301**

Special solutions with carbon fibre and stainless steel

▶ **From page 313**

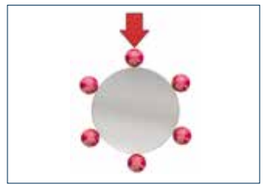
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drylin® is a range of maintenance and lubrication-free linear plain bearings. This range includes linear units with lead screw, rack and toothed belt drives. The focus is on, besides the freedom from maintenance and lubrication, the ruggedness and insensitivity to influences such as dirt, water, chemicals, heat or impacts.



- Maintenance-free
- Wear-resistant
- Resistant to impacts and vibrations
- Corrosion-resistant
- Resistant to dirt, dust and humidity
- Low coefficient of friction
- Weight reduction
- Dry operation
- Suited for short-stroke applications
- High static load capacity
- High speeds and accelerations possible
- Self-lubricating
- Extremely quiet operation
- Low level of magnetism





Rolling bearings - Point contact





Plain bearings - Surface contact





Resistant to dirt, dust and moisture - by lubrication free insert and dirt channels.

Optimum load distribution

drylin® linear plain bearings operate on sliding elements unlike the traditional recirculating ball bearing systems. This gives a larger contact surface resulting in lower surface pressure. This leads to advantages which include:

- The use of non-hardened shafts
- The use of non-metallic shafts
- Scratching and shaft damage is completely excluded

Shafts and rail materials

The large surface area of drylin® linear plain bearings, when compared to traditional ball bearings, means that under a given load the bearing pressure is greatly reduced. This allows soft shaft materials to be used, including hard-anodised aluminium, which in turn gives additional benefits in friction and wear rate values, carbon fibre shafts, which offer the lightest option and stainless steel for the highest chemical resistance. Of course, hardened steel and stainless steel shafts as well as hard-chromed shafts can also be used with drylin® linear bearings.

Dry operation, without lubrication

drylin® linear bearing systems are designed for dry operation. As there is no grease or oil present, the application tends to naturally self clean, any particles are wiped away from the sliding surface by the ribbed design of the drylin® polymer bearing. This works well in coarse dirt or even sand. Particles are repelled from the contact surface by the movement itself. Here the front of the sliders works like a wiper. The contact surface remains clean.

drylin® linear technology | Slides instead of rolling!

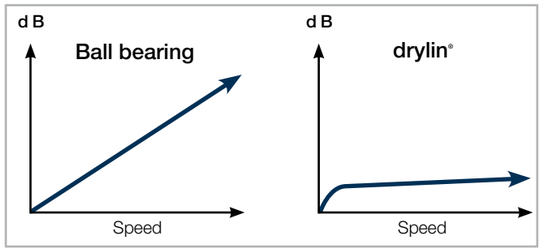
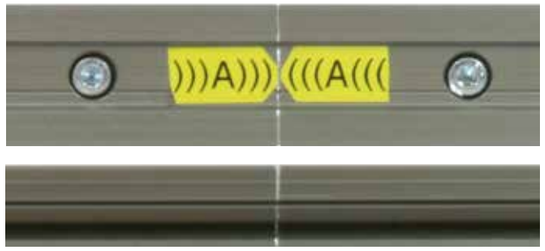


Figure 01: Comparison of noise development

Quiet

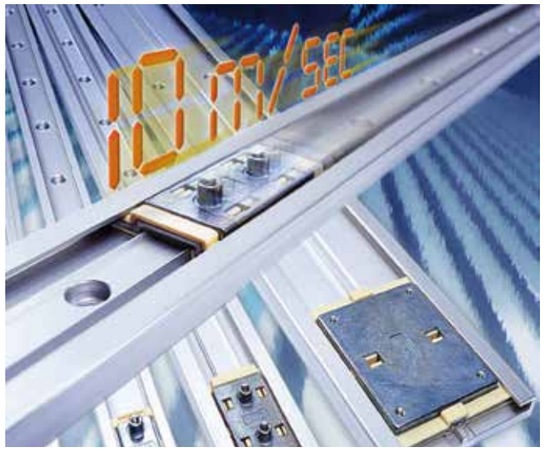
The quiet operation is also a benefit of sliding rather than rolling. There are no loud collisions between a hard steel ball and the glide surface. The sliding motion is extremely quiet and only a light friction noise is audible.



Track joint

Maximum stroke lengths

The lining up of guide rails (joining) poses no challenge for drylin® linear guides. The guide rails are slightly chamfered, aligned and simply placed behind each other. The joint can be passed over by the sliding element without problems. With the drylin® linear plain bearings, a ball or roller cannot get stuck. In this way stroke lengths of more than 20 meters can be implemented. Assembly is simplified by the distinctive joint marking provided at the factory.



Thermal conductivity	[W / m · K]
Aluminium	235
Unalloyed steel	48 - 58
High-alloyed steel	15

Table 01: Thermal conductivity

Average surface speed

= Travel distance per cycle [m] / total cycle time [sec].

Permitted speeds/acceleration

drylin® linear plain bearings do without rollers and balls. This makes the bearing independent of the mass inertia of this body and can be used with high speeds up to 10m/s and accelerations up to 100g.

drylin® linear bearings are therefore especially suitable for applications with light loads, where the speeds should be increased. The use of hard-anodised aluminium as a friction partner lowers the operating temperature in the bearing due to the high thermal conductivity of aluminium. Thus the operation can be carried out with a high frequency even at very short stroke lengths.

The maximum average surface speed results from the load on the bearings. With decreasing surface load, higher speeds can be achieved. More important than the maximum speed reached is the average speed over a period of time, because this has the most influence on the heating of the bearing system. In cases with breaks between the individual cycles, the maximum average surface speed is critical, which is achieved during a period of 10 to 30 minutes.

drylin® linear technology | Slides instead of rolling!



Extreme application conditions in the offshore industry



Filling machine, Krones AG, Rosenheim (Germany)

Corrosion behaviour

The low humidity absorption of iglidur® J, J200 and X permits even underwater applications. The application of stainless steel or anodised aluminium shafts provide for a corrosion-resistant guide. Anodised aluminium is resistant to chemically neutral substances in the range pH 2 to 7. For special applications separate tests are recommended for coated aluminium sample parts for that specific application.

Chemical resistance

iglidur® J is resistant to weak acids, diluted alkalis as well as to fuels and all kinds of lubricants. The intensive cleaning of machines with standard commercial cleaning agents, even in the food sector, is therefore not a problem for the guides. For applications in environments with aggressive chemicals, it is recommended to use drylin® R linear bearings equipped with iglidur® X liners. The resistance of linear bearing systems is equally dependent on the counter partner. The most chemical-resistant option can be a high-alloyed steel stainless steel shaft, for instance high grade steel (AISI 440B), or alternatively the use of soft VA steels (e.g. (AISI 316Ti).

Operating temperatures

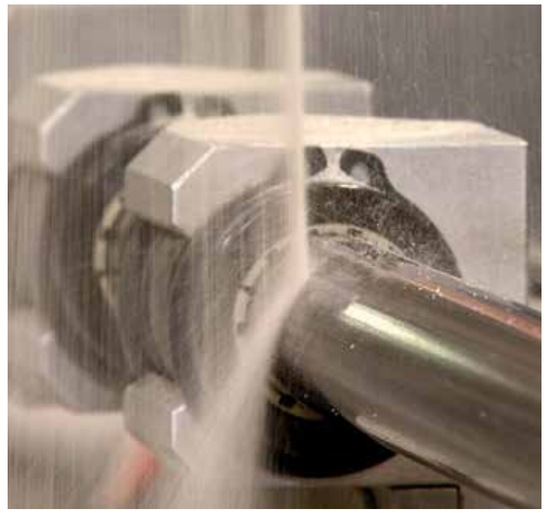
Sliding elements made from iglidur® J and J200 can be used in the temperature range between -40 and +90°C. The continuous operating temperature for overmoulded sliding elements is +50°C. In applications with aluminium shafts and/ or rails, distinctly higher loads and speeds can be attained due to the excellent thermal conductivity. Sliding elements made from iglidur® X can be used in the range of -100°C to +250°C.

Use in dirt

Even the application under coarse dirt and sand is possible. Particles are repelled from the contact surface by the movement itself. Seals can be dispensed with due to the dry operation. Dust and dirt cannot stick to grease or oil.

Surfaces

Hard-anodised surfaces are characterised by good wear properties, high chemical resistance and a high degree of hardness. It is a technical and not a decorative surface. Colour alteration and slight cracking may occur, but do not influence the resistance, the corrosion behaviour or the sliding properties.
Eloxal stands for the electrolytic oxidation of aluminium. This gives the CA rail profiles a silver/colourless surface that is resistant to corrosion and wear. A lot of aluminium profiles are also available as black anodised (AR anti-reflect) versions. Both variants (CA/AR) are suitable for applications that require consistent colouring.
Cutting surfaces and machined surfaces are uncoated.



Lubrication-free and resistant to dust and dirt



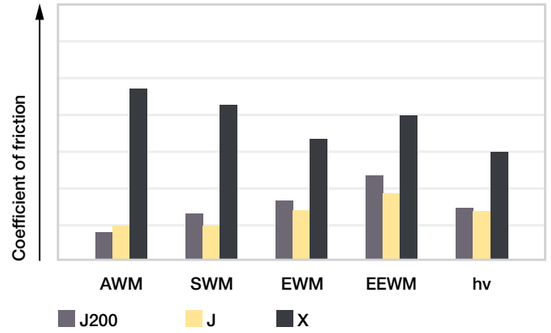
The iglidur® X material in heavy-duty use under high temperatures in foundries

	 **The All-rounder - iglidur® J**	 **The specialist - iglidur® J200**	 **The extreme - iglidur® X**
Application temperature	-50 up to +90°C	-50 up to +90°C	-100°C up to +250°C
Best coefficient of friction with	Steel shaft	Aluminium, hard-anodised	Hard-chromed steel
Volume resistance	> 10^{13}Ωcm	> 10^{8}Ωcm	< 10^{5}Ωcm
Moisture absorption	1.3% weight	0.7% weight	0.5% weight
Maximum service life with	Hard-anodised aluminium	Aluminium, hard-anodised	Hardened stainless steel
Potential counter partner	All shaft materials	Aluminium, hard-anodised	Hardened stainless steel
Permissible stat. surface pressure	35MPa	23MPa	150MPa
Part No.	JUM-...	J200UM-...	XUM-...

	 **The endurance runner - iglidur® E7**	 **The FDA-compliant - iglidur® A180**	 **Blue Sky Thinking FDA/ EU-compliant - iglidur® A160**
Application temperature	-50°C up to +70°C	-50 up to +90°C	-50 up to +90°C
Best coefficient of friction with	Steel/stainless steel shaft	Stainless steel shaft	Hardened stainless steel shafts
Volume resistance	> 10^{9}Ωcm	> 10^{12}Ωcm	> 10^{12}Ωcm
Moisture absorption	< 0.1wt.-%	0.2% weight	< 0.1wt.-%
Maximum service life with	Steel/stainless steel shaft	Stainless steel shaft	Hardened stainless steel shafts
Potential counter partner	Steel/stainless steel shaft	All shaft materials	Stainless steel
Permissible stat. surface pressure	18MPa	28MPa	15MPa
Part No.	E7UM-...	A180UM-...	A160UM-...

drylin® linear technology | Materials

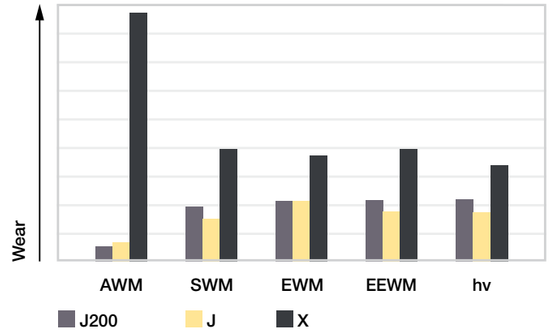
igus® provides various materials for sliding elements and mating partners for drylin® linear systems. Extensive lab tests and years of field experience have shown that iglidur® J, J 200 and X are the ideal materials for most linear applications due to their favourable wear and friction properties.



Ideal material combinations

iglidur® J:
- Maintenance-free dry operation
- Low coefficient of friction with all materials
- Excellent wear resistance
- Low moisture absorption

▶ More about iglidur® J ▶ **www.igus.eu/J-material**



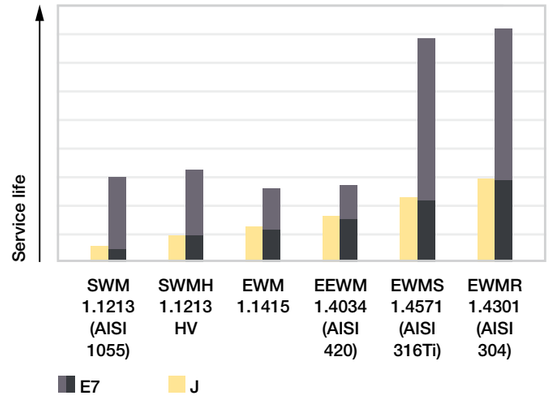
iglidur® J200:
- Completely maintenance-free
- Extremely long service life on hard-anodised aluminium
- Low coefficient of friction with anodised aluminium
- Excellent wear resistance with anodised aluminium

▶ More about iglidur® J200 ▶ **www.igus.eu/J200-material**

iglidur® X:
- Completely maintenance-free
- Temperature-resistant from -100°C to +250°C
- Continuous operation
- Universal chemical resistance
- Low moisture absorption

▶ More about iglidur® X ▶ **www.igus.eu/X-material**

Other possible materials:
iglidur® A180, FDA-compliant
▶ More about iglidur® A180 ▶ **www.igus.eu/A180-material**
iglidur® A160, Compliant with Regulation (EU) No. 10/2011 and FDA guidelines
▶ More about iglidur® A160 ▶ **www.igus.eu/A160-material**
iglidur® E7, the endurance runner all-rounder
▶ More about iglidur® E7 ▶ **www.igus.eu/E7-material**



drylin® linear technology | Product selection

Properties	Installation sizes	Lubrication-free and quiet operation	Dimensionally interchangeable with recirculating ball bearings	Profile rails	Shafts	Square profiles	Single pillow block	Complete carriage	Hybrid roller bearing
drylin® W	5	●	●	●			●	●	●
drylin® N	4	●		●				●	
drylin® Q	3	●				●	●	●	
drylin® T	4	●	●	●				●	
drylin® T mini	4	●	●	●				●	
drylin® R	12	●	●		●		●		

Special features	Loads > 100kg	For robust requirements	Resistant to dirt	Compact, space-saving	Particularly light weight	Torque-resistant	Torsionally stable	Unsupported installation
drylin® W	✚	✚	✚✚	✚	✚	✚	✚✚	✚
drylin® N			✚	✚✚	✚✚	✚		
drylin® Q			✚	✚	✚	✚✚	✚	✚✚
drylin® T	✚	✚	✚			✚	✚	
drylin® T mini			✚	✚✚	✚✚	✚		
drylin® R	✚✚	✚✚	✚✚					✚

Technical options	Manual adjustable bearing clearance	Automatic adjustable bearing clearance	Automatic pre-load	Floating bearing function	Manual clamp	with measuring system	with lead screw drive	with toothed belt drive
drylin® W	✚		✚✚	✚	✚	✚	✚	✚
drylin® N			✚✚	✚	✚		✚	✚
drylin® Q	✚				✚	✚		
drylin® T	✚	✚		✚	✚			
drylin® T mini	✚			✚			✚	
drylin® R				✚			✚	

Application areas	Stainless steel components	Temperatures above +90°C	Chemical-resistant	FDA-compliant	Cleanroom and ESD	Door/control panel adjustments	Camera slider	3D-print components
drylin® W	✚✚	✚✚	✚✚	✚✚	✚	✚✚	✚✚	✚✚
drylin® N		✚			✚	✚	✚	✚✚
drylin® Q					✚			
drylin® T		✚			✚✚			
drylin® T mini					✚	✚		✚✚
drylin® R	✚✚	✚✚	✚✚	✚✚	✚			✚✚

✚ suitable ✚✚ particularly suitable

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drylin® linear technology | Technical data rails/profiles/shafts

Aluminium profiles	
	Aluminium, extruded section according to EN AW 6061/6060
Shafts and rail profiles	**Surfaces**
drylin® W, drylin® T[155], drylin® R, drylin® Q	hard-anodised, bare surface
drylin® N, profile with CA marking	clear-anodised, bare surface
drylin® N, profile with AR marking	black-anodised (anti-reflect), bare surface

[155] Exception: TS-11-20 clear-anodised

Profile straightness tolerances	
Shafts AWMP/AWMR	DIN 754-3; 2mm/m, local 0.6mm/300mm
Profile rails AWMU/AWMQ, WS/NS/TS	DIN EN 12020-2 Total length up to 1,000mm; Straightness 0.7mm Total length up to 2,000mm; Straightness 1.3mm Total length up to 3,000mm; Straightness 1.8mm Total length up to 4,000mm; Straightness 2.2mm

For linear guide systems in conjunction with igus® plain bearings made of iglidur® materials, we recommend drylin® aluminium guide shafts AWMP. The mentioned tolerance specification (h8) refers to the interaction of the components to a bearing and provides information on the basic bearing clearance. Due to the manufacturing process, aluminium shafts have areas with diameter fluctuations above the nominal dimension in the µm range, which are not critical for use within a linear plain bearing. For use as a piston rod, dowel pin or ball bearings, we recommend SWM steel or EWM stainless steel shafts with tolerance h6.

Length tolerances of the profiles cut-to-length by igus® [mm]

Length	<400	>400-1,000	>1,000-2,000	>2,000-4,000
Permissible variations of the standard saw length according to DIN ISO 2768-m	±0.5	±0.8	±1.2	±2.0

Minimum rail profile saw lengths [mm]

drylin® W	Hole spacing		Without holes
	C4 = 60[162]	C4 = 120[162]	
Rail profiles WS, WSQ, WSX	100	160	100
drylin® N	C4 = 60[162]	C4 = 150[162]	
Size 17/27 (miniature) NS, NS-AR, NSV, NSV-AR	100	–	70
Size 40/80 NS, NS-AR	100	200	100

drylin® T	C4 = 15/20/25/40	C4 = 60[162]	C4 = 80[162]	C4 = 120[162]	
Installation size 04 (miniature) TS-04	70	–	–	–	70
Installation size 01/11 TS-01/TS-11	–	100	120	160	100

[162] L min: C5 min + C4 + C6 min; saw length examples: drylin® WS-20 rail: C5 min = 20 min; C4 = 120mm; C6 = 20mm; 20mm + 120mm + 20mm = 160mm (min. saw lengths). Lengths less than the minimum saw length upon request

Minimum shaft/square shaft saw lengths [mm]

drylin® R	Hole spacing				
Shafts AWMP/AWMR	100				
	T1 = 75[163]	T1 = 100[163]	T1 = 120[163]	T1 = 150[163]	T1 = 200[163]
Supported shaft AWMU	115	140	160	190	240
drylin® Q					
Square profile AWMQ	100				

[163] L min: C5 min + T1 + C6 min; saw length examples: AWMU-20 supported shaft: C5 min = 20mm; T1 = 100mm; C6 min = 20mm; 20mm + 100mm + 20mm = 140mm (min. saw length)
Lengths less than the minimum saw length upon request

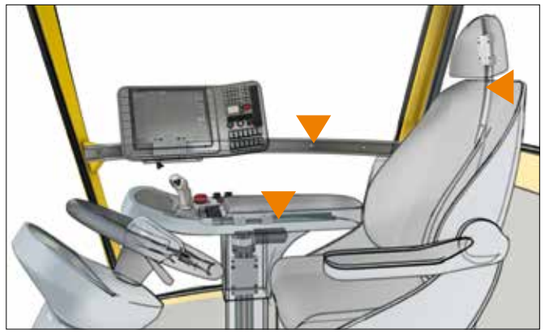
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drylin® curved linear guide profiles

igus® provides customised curved rails for the drylin® W product range. This is especially for the requirements in operating ergonomics, e.g. guiding monitors and control systems in a radius to ensure safe and easy accessibility. New standards can be set in design and construction with a drylin® curved guide.

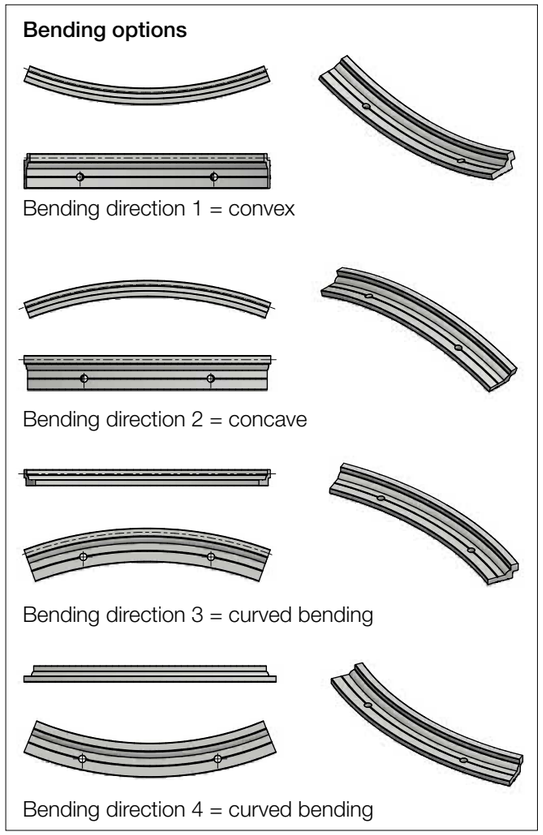
- Lubrication-free drylin® W carriages for curved rails
  ▶ Page 103
- Variable profile directions
- Torque-resistant alternative to curved tube profiles
- Bending option depending on the radius, rail length, bearing/carriage and mounting
- Customised project service





Curved drylin® linear technology - for ergonomic operation and optimal field of view

Bending can give rise to surface changes (anodising, torsion) as a result of the deformation. Rail profiles with clear anodised (CA) surfaces that are undersized by up to 0.15 below nominal diameters are used to improve the surface finish of the curved rails. We recommend a bend radius of no less than 300mm and would like to point out that the surface finish quality after the bending process depends on the material quality. It may vary from batch to batch.



Different radii and bending directions available upon request

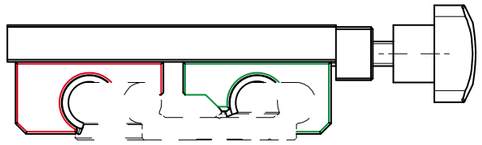
Curved rail profiles
▶ Page 98

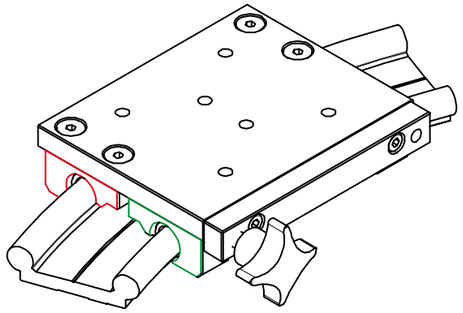
More Information and checklist online
▶ www.igus.eu/curved

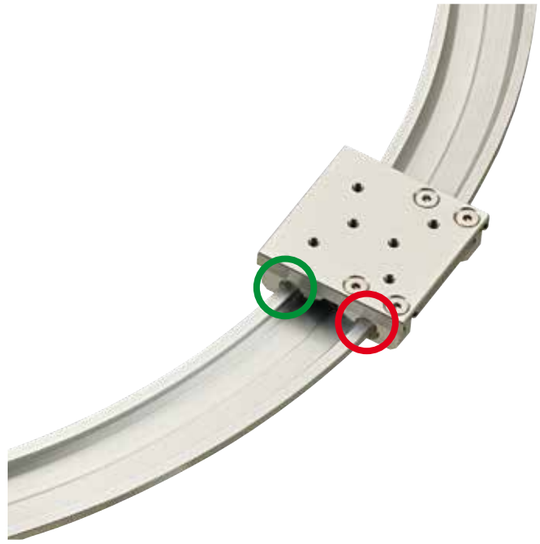
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Installation of curved guides

The floating bearing side should always be located on the inner guidance when bending in a curve. This is due to the fact that the rail is compressed on the inside and requires a larger bearing diameter. The fixed bearing can be easily identified by the bearing housings, which are attached with four screws. The floating bearings are also marked on the bearing element.

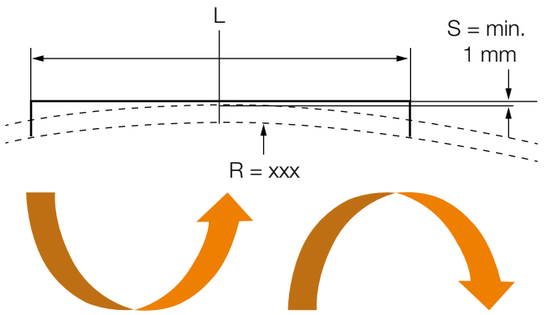




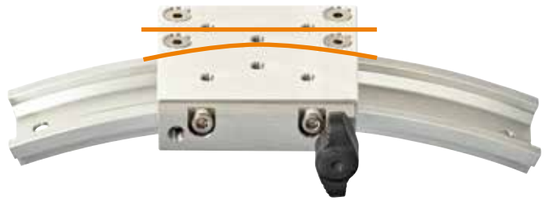


■ **Floating bearing**

■ **Fixed bearing**



With the concave/convex rails, the length (L) of the carriage is decisive for the desired radius. If the radius decreases and the sliding distance (L) increases, the gap (S) shrinks. The gap must be at least 1mm wide to prevent the rail from colliding with the carriage even after the wear limit has been reached.



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Floating bearings for guide systems

In the case of a system with two parallel guides, one side needs to be fitted with floating bearings. A suitable solution comprising fixed and floating bearings is available for every installation position, whether horizontal, vertical or lateral. This type of assembly prevents jamming and blockage on the guides resulting from discrepancies in parallelism. Floating bearings are created through a controlled extension of the clearance in the direction of the expected parallelism error.

During installation, take care that the floating bearing has approximately the same clearance on both sides. You can see the version of the fixed/floating bearing system recommended by us in the designs shown in the individual sections about the systems. The mounting surfaces of the guides and carriages should possess a good evenness (e.g. machined surface) to prevent twisting in the system. Smaller areas of mounting surface unevenness can be compensated to a certain extent by the floating bearing.

Eccentric forces

To ensure successful use of maintenance-free drylin® linear bearings, it is necessary to follow certain recommendations: if the distance between the driving force point and the fixed bearings is more than twice the bearing spacing (2:1 rule), a static friction value of 0.25 can theoretically result in jamming on the guides.

This principle applies regardless of the value of the load or drive force. The friction product is always related to the fixed bearings. The greater the distance between the drive and the guide bearing, the higher the wear and required drive force.

Failure to observe the 2:1 rule during a use of linear plain bearings can result in uneven motion or even system blockage. Such situations can often be remedied with relatively simple modifications.

If you have any questions on design and/or assembly, please make use of our technical support.

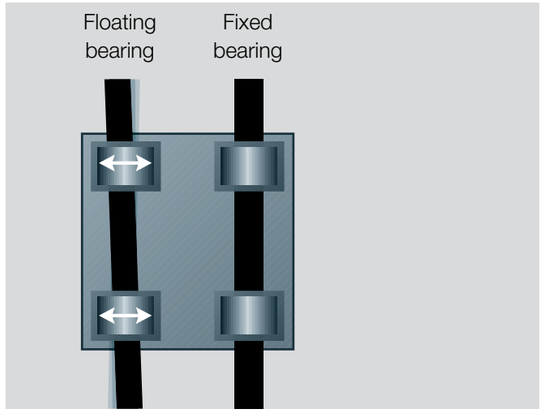


Figure 02: Automatic compensation of parallelism errors

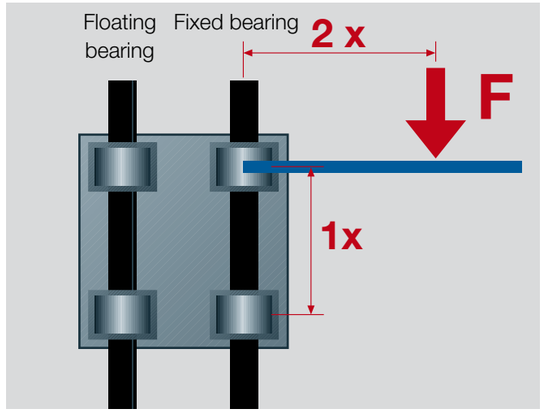


Figure 03: The 2:1 rule

Tightening torque for drylin® metallic screws

Metric thread (Da)	tightening torque [Nm]	Recommended tightening torque [Nm]
M3	0.5 - 1.1	0.7
M4	1.0 - 2.8	1.5
M5	2.0 - 5.5	3.0
M6	4.0 - 10.0	6.0
M8	8.0 - 23.0	15.0
M10	22.0 - 46.0	30.0

Please be aware of the minimal screw-in depth for aluminium and zinc die-casting parts: 1.5xDa

Cleanroom suitability and ESD compatibility of drylin®

drylin® linear guides from igus®

All drylin® guides are clearly qualified for cleanroom applications. The differentiation between the various cleanroom classes is only dependent on load and speed of the application. The combination of iglidur® J and hard-anodised aluminium is classified as level 1 in the ESD compatibility according to SEMI E78-0998 (highest rank).

IPA Fraunhofer TESTED® DEVICE igus Energieführungsketten/ Lineargleitführung Report No. IG 0308-295

The following drylin® guides from igus® were tested: N40, W10, T25 and T30.
See below for detailed results.

drylin® TK-10-30-01 linear guide system

"For the linear guide system drylin® TK-10-30-01 by igus® GmbH, it is possible, on the calculations of the likelihood of violation of threshold values of the detection sizes 0.2µm, 0.3µm, 0.5µm, and 5µm with motion speed of v = 0.1m/s, to clearly derive suitability for cleanrooms classified as ISO Class 3 according to DIN EN ISO 14644-1."

NK-02-40-02 drylin® linear guide system

"For the linear guide system drylin® NK-02-40-02 by igus® GmbH, it is possible, on the calculations of the likelihood of violation of threshold values of the detection sizes 0.2µm, 0.3µm, 0.5µm, and 5µm with motion speed of v =1m/s, to clearly derive suitability for cleanrooms classified as ISO Class 6 according to DIN EN ISO 14644-1."

The measurement results of the ESD compatibility according to SEMI E78-0998 show that the linear guide system drylin® NK-02-40-02 can be classified as "level 1" (highest rank). See Fraunhofer IPA Report No.: IG 0308-295 73

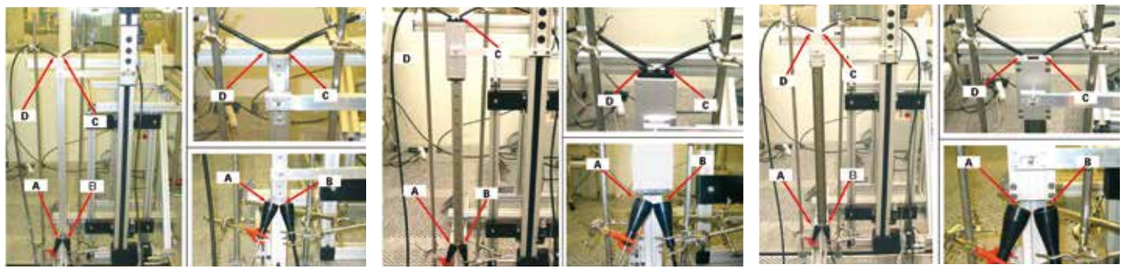
TK-01-25-02 drylin® linear guide system

"For the linear guide system drylin® TK-01-25-02 by igus® GmbH, it is possible, on the calculations of the likelihood of violation of threshold values of the detection sizes 0.2µm, 0.3µm, 0.5µm, and 5µm with motion speed of v = 1m/s, to clearly derive suitability for cleanrooms classified as ISO Class 5 according to DIN EN ISO 14644-1."
The measurement results of the ESD compatibility according to SEMI E78-0998 show that the linear guide system drylin® TK-01-25-02 can be classified as "level 1" (highest rank).

WK-10-40-15-01 drylin® linear guide system

"For the linear guide system drylin® WK-10-40-15-01 by igus® GmbH, it is possible, on the calculations of the likelihood of violation of threshold values of the detection sizes 0.2µm, 0.3µm, 0.5µm, and 5µm with motion speed of v = 1m/s, to clearly derive suitability for cleanrooms classified as ISO Class 6 according to DIN EN ISO 14644-1."
The measurement results of the ESD compatibility according to SEMI E78-0998 show that the linear guide system drylin® WK-10-40-15-01 can be classified as "level 1" (highest rank).

See Fraunhofer IPA Report No.: IG 0308-295 74





Expert for linear guides: System selection and service life calculation with CAD

Configure and calculate the service life of linear bearings - constantly expanded by new sizes and products

Easily calculate the service life of your required linear guide and configure with a few clicks. Select a drylin® system and add the relevant environmental parameters. Select the bearing size, carriage, number and position. Then enter the distance between the rails and the mounting. Define more relevant parameter of the guidance and select a rail length. The results are displayed.

▶ **www.igus.eu/drylin-expert**

Download the online tool app now

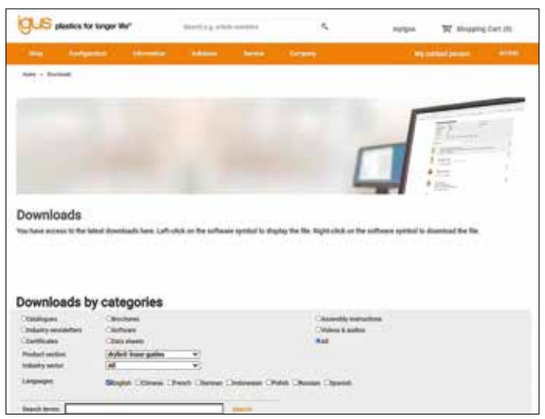
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drylin® CAD configurator: Generate complete 3D models for drylin® linear technology according to your specifications

The igus® CAD online configurator gives you the ability to design and save your linear guide as a system, individual components directly as a 3D model in all commonly used formats, or to have these sent by e-mail - free of charge and without registration.

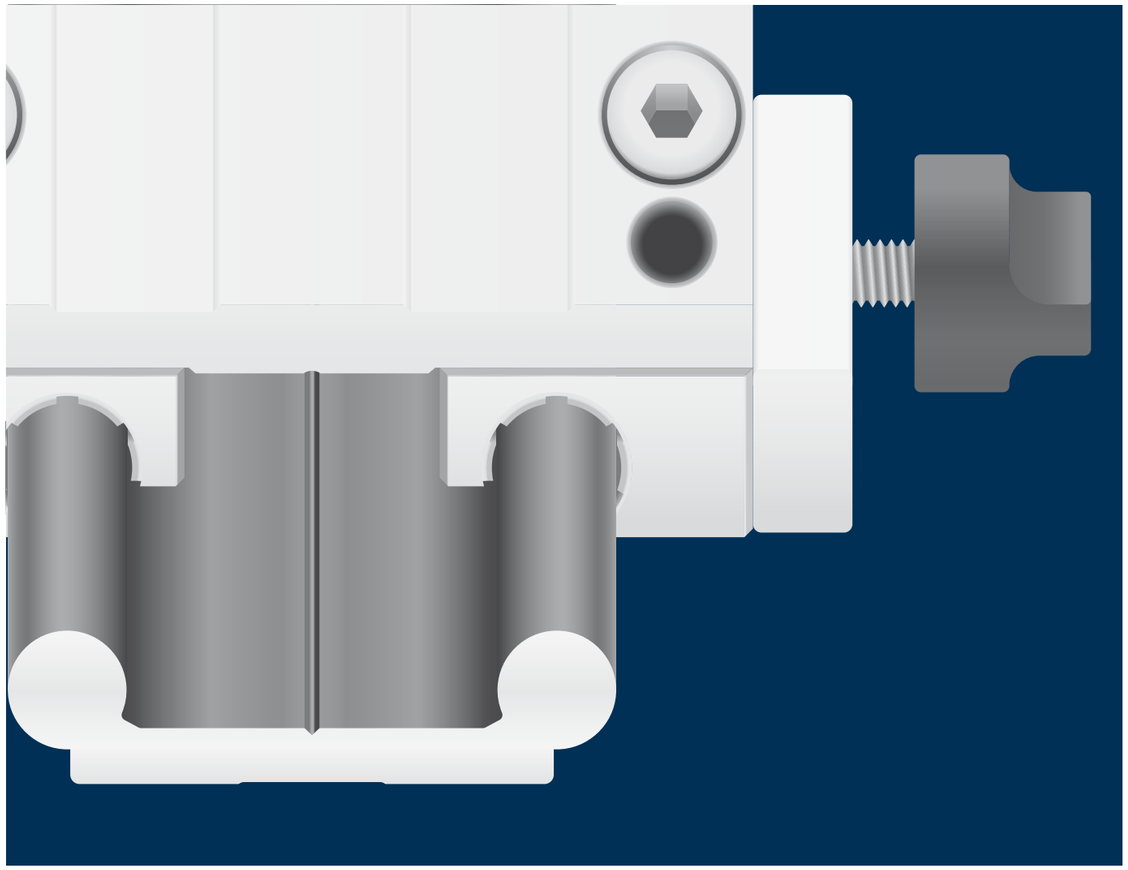
▶ **www.igus.eu/drylin-CAD**



More information about the products can be found in the igus® download area

- Assembly instructions
- Assembly videos
- System design
- Catalogues

▶ **www.igus.eu/downloads**



drylin® linear technology - drylin® W profile guides

Modular linear guides

Replaceable lubrication-free drylin® liners

Robust linear housings

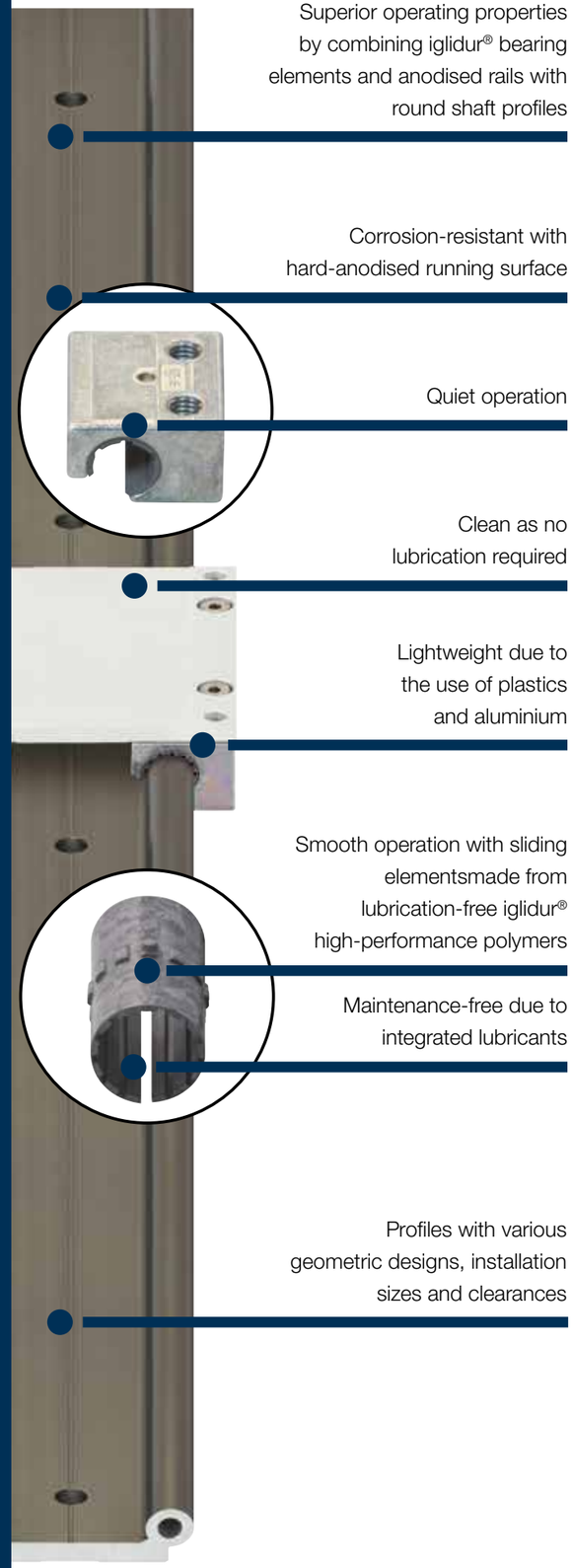
Ready-to-install linear carriages

Single and double rails



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Lubrication-free, light, quiet, long service life, cost-effective



Lubrication-free linear system - drylin® W

drylin® W profile guides are a cost-effective pre-assembled system. The design allows extremely high flexibility in the construction and installation due to the use of individual or double rails. Hard-anodised aluminium is used as rail material and provides the best friction and wear results. The absence of lubrication makes the profile guide system extremely insensitive to dirt and, due to its cleanliness, it is also suitable for applications in clean and hygienic environments.

- Easy installation, maintenance-free
- Resistant to dirt thanks to dry operation
- Lightweight and quiet
- Square rail with floating bearing function for 90° installation
- Bearing with manual clearance adjustment available

Typical application areas

- Agricultural machinery
- Automotive
- Medical technology
- Packaging industry
- Furniture

Available from stock
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Max. +200°C
Min. -40°C

Carriage lengths: 60-250mm
Carriage widths: 54-195mm
Rail length: up to 4,000mm

Service life calculation
▶ www.igus.eu/drylin-expert

Profile guides for almost unlimited design freedom



Individual components: Pillow blocks

- Material: Zinc die-casting, aluminium or stainless steel
- Round or square design
- Liners made from iglidur® high-performance polymers

▶ From page 64



Single components: Single and double rails

- Material: Aluminium, hard-anodised
- Design freedom
- 316 stainless steel rails

▶ From page 62



Assembled systems: Complete carriages

- Pre-assembled
- Variable lengths and widths
- Mono-slide carriage made from aluminium

▶ From page 82



Linear carriage with optional features

- Carriage with wear measurement
- Carriage with hand lever
- Clip carriage with/without manual clamp
- Locking carriages

▶ From page 94



Hybrid guides

- Linear housing with integrated single or double roller
- Low drive forces
- Available as single housing or complete carriage

▶ From page 107



Accessories

- Manual clamp for single bearing housing and complete carriages
- End caps for high profile rails

▶ From page 124

Based on drylin® W



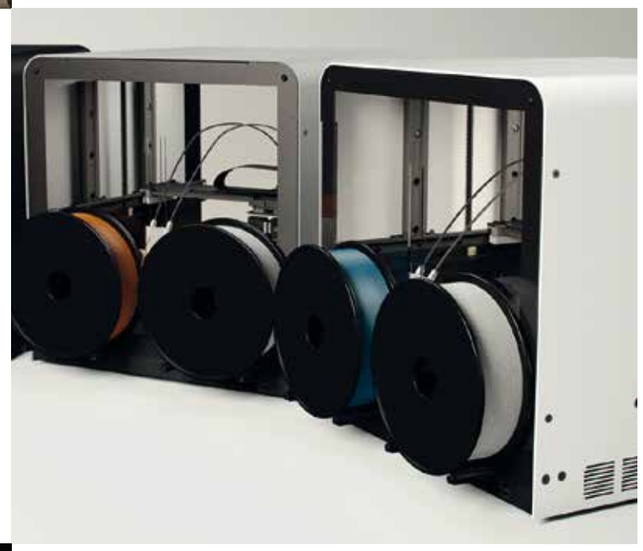
Measuring systems
▶ From page 301



Linear modules
SLW/SAW/GRW/ZLW
▶From page 538



Pick & place
drylin® linear bearings enable precise positioning at high speeds. Unlike conventional bearings, they do not require lubrication and are corrosion free.



3D printer
Lightweight due to the use of plastic and aluminium with a corrosion-free coating, the guides in the drylin® range impress with their quiet and precise running.



Casting machine
The closing mechanism on this casting machine is subjected to high temperatures and dirt. To make it as durable as possible despite this, it is mounted with a drylin® W profile guide.



Expert for linear guides: System selection and service life calculation with CAD

Configure and calculate the service life of linear bearings - constantly expanded by new sizes and products

Easily calculate the service life of your required linear guide and configure with a few clicks. Select a drylin® system and add the relevant environmental parameters. Select the bearing size, carriage, number and position. Then enter the distance between the rails and the mounting. Define more relevant parameter of the guidance and select a rail length. The results are displayed.

▶ www.igus.eu/drylin-expert

Download the online tool app now

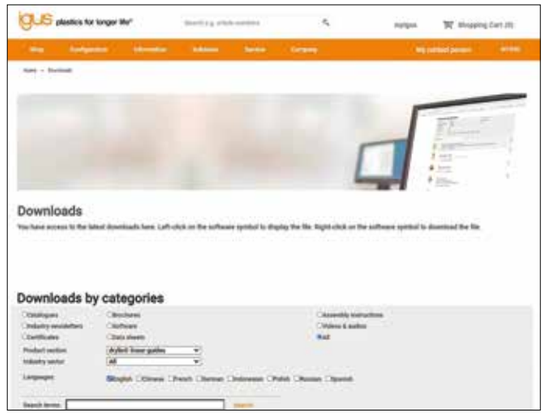
Download on the App Store



drylin® CAD configurator: Generate complete 3D models for drylin® linear technology according to your specifications

The igus® CAD online configurator gives you the ability to design and save your linear guide as a system, individual components directly as a 3D model in all commonly used formats, or to have these sent by e-mail - free of charge and without registration.

▶ www.igus.eu/drylin-CAD



More information about the products can be found in the igus® download area

- Assembly instructions
- Assembly videos
- System design
- Catalogues

▶ www.igus.eu/downloads

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Lubrication-free iglidur® high-performance polymers

Form-fit anti-rotation feature

Vibration-dampening

Low coefficient of friction, low wear



Corrosion-resistant

Form-fit locating spigot

Resistant to dirt

Integrated flute design for dirt to pass through

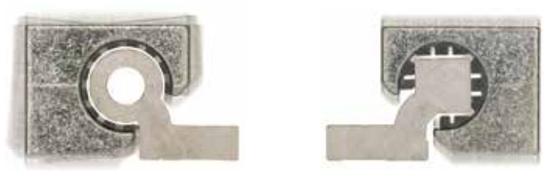
Open geometric design for rapid assembly

drylin® liners made from high-performance polymers

Extremely wear-resistant tribopolymers improved by precisely blended additions of strengthening materials and solid lubricants, tested a thousand times and proved a million times - that is iglidur®. Further to the general properties, every iglidur® bearing material has a series of special features, which account for its particular suitability for certain applications and requirements. The detailed description of the materials can be found in the respective sections.

- Lubrication-free
- Corrosion-resistant
- Low coefficient of friction
- Maintenance-free
- High resistance to dirt
- Lightweight
- High wear resistance
- Excellent price-performance ratio

	 The All-rounder - iglidur® J	 The specialist - iglidur® J200	 The extreme - iglidur® X	 The endurance runner - iglidur® E7	 The FDA-compliant - iglidur® A180	 Blue Sky Thinking FDA/EU-compliant - iglidur® A160
Application temperature	-50 up to +90°C	-50 up to +90°C	-100°C up to +250°C	-50°C up to +70°C	-50 up to +90°C	-50 up to +90°C
Best coefficient of friction with	Steel shaft	Aluminium, hard-anodised	Hard-chromed steel	Steel/stainless steel shaft	Stainless steel shaft	Hardened stainless steel shafts
Volume resistance	> 10^{13} Ωcm	> 10^{8} Ωcm	< 10^{5} Ωcm	> 10^{9}Ωcm	> 10^{12}Ωcm	> 10^{12}Ωcm
Moisture absorption	1.3% weight	0.7% weight	0.5% weight	< 0.1wt.-%	0.2% weight	< 0.1wt.-%
Maximum service life with	Hard-anodised aluminium	Aluminium, hard-anodised	Hardened stainless steel	Steel/stainless steel shaft	Stainless steel shaft	Hardened stainless steel shafts
Potential counter partner	All shaft materials	Aluminium, hard-anodised	Hardened stainless steel	Steel/stainless steel shaft	All shaft materials	Stainless steel
Permissible stat. surface pressure	35MPa	23MPa	150MPa	18MPa	28MPa	15MPa
Part No.	JUM-...	J200UM-...	XUM-...	E7UM-...	A180UM-...	A160UM-...



Floating bearings for all directions (up to ±1mm) compensate misalignments and parallelism errors.

Floating bearings aid assembly - when using single rails

Assembly is easy with the drylin® WQ square profile. Floating bearings for all directions (±1mm) compensate misalignments and parallelism errors between rails. This eliminates jamming, otherwise only prevented by time-consuming manual alignment of the system. Although drylin® W is a profile rail system, it is able to compensate angular errors about the x-axis. An angular adjustment of ±7° is possible here. This effectively eliminates the misalignment known to occur when assembling to sheet metal fabrications.

Possible combinations in assembled rail systems

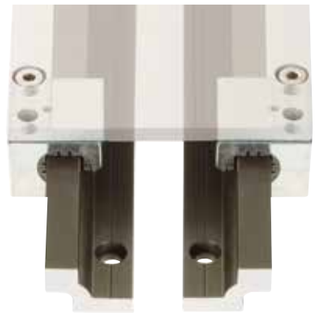
Fixed bearing Floating bearing



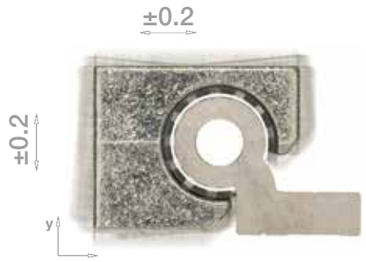
Fixed bearing Floating bearing



Fixed bearing Floating bearing



Available floating bearing blocks



LL - round



LLY - square



LLZ - square



rotating - square

drylin® W profile guides | Product selection

Profiles	Installation sizes 06	10	16	20	25	Liner material J	J200	X	A180	E7	A160
Single rail, round		●	●	●	●	●	●	●	●	●	●
Single rail, square	●	●	●	●	●		●				
Double rail, round		●	●	●	●	●	●	●	●	●	●
Double rail, square	●	●	●	●			●				
High profile, round		●	●			●	●	●	●	●	●
High profile, square	●						●				
Stainless steel		●	●	●	●	●	●	●	●	●	●
Carbon fibre/fibreglass	●										
Curved rail	●	●									
Bearing housing - material											
Zinc die-cast	●	●	●	●	●	●	●	●	●	●	●
Aluminium	●	●	●	●	●	●	●	●	●	●	●
Stainless steel		●	●	●	●	●	●	●	●	●	●
Bearing housing - options											
With manual clamp	●	●	●	●	●	●	●	●	●	●	●
Clearance adjustment		●	●	●		●	●				
Hybrid roller bearings		●	●	●	●	●					
Pre-load		●	●	●							
Bearing can be changed on the rail		●	●	●	●		●				
linear guides											
Pre-assembled carriages	●	●	●	●	●	●	●	●	●	●	●
Hybrid carriage		●	●	●		●					
Mono-slide carriage	●	●	●	●		●					
Systems											
Lead screw modules	●	●	●	●	●	●	●	●	●	●	●
Toothed belt axis	●	●	●	●			●				
With measuring system		●		●		●					

● Standard
● Optional

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drylin® W profile guides | Liners

Available pillow blocks and carriages	Suitable liners: iglidur® J200	iglidur® J	iglidur® X	iglidur® E7	iglidur® A180	iglidur® A160
Pillow block, square						
Standard	●					
Aluminium	●					
Pillow block, round						
Standard	●	●	●	●	●	●
Stainless steel	●	●	●	●	●	●
Aluminium	●	●	●	●	●	●
Aluminium, tandem	●	●	●	●	●	●
"Turn-to-fit"	●	●				
Spring pre-load	●					
Bearing can be changed on the rail	●					
Hybrid - roll and slide		●				
Guide carriage, fitted						
Standard, assembled, square	●					
Standard, assembled, round	●	●	●	●	●	●
Hybrid, round		●				
"Turn-to-fit", round		●				
Complete carriages						
Mono-slide, square		●				
Mono-slide, round	●					

● Standard ● Optional

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drylin® W profile guides | Product range

Single rail, square, hard-anodised aluminium



WSQ-06



WSQ-10



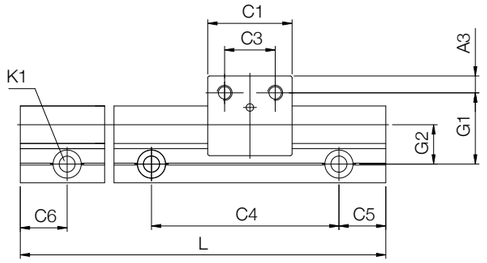
WSQ-16

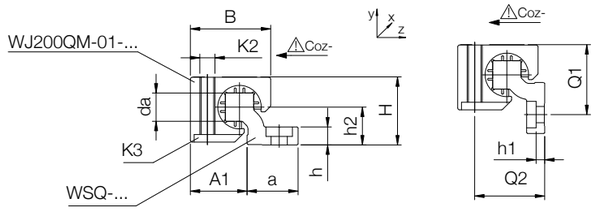


WSQ-20



WSQ-25





Order key - single rail

Type			Length
WS	Q -	06 -	□
Guide rail	Square	Shafts Ø	Rail length [mm]

Hard-anodised surfaces
▶ Page 43

Curved rail profiles
▶ Page 48

Technical data and dimensions [mm]

Part No.	Weight	H[57]	da	L	a	h	h1	h2	G1	G2	A1	Q1	Q2
		±0.25	-0.1	max.									
	[kg/m]												
WSQ-06	0.23	14	5.0	3,000	14	4.0	4.0[58]	7.5	18.0	10.5	13.5	17.0	15
WSQ-10	0.54	20	7.5	4,000	25	5.5	5.5[58]	11.0	27.0	17.0	18.5	26.0	21
WSQ-16	0.94	27	11.5	4,000	27	7.5	3.5	14.0	33.0	19.0	25.0	32.0	28
WSQ-20	1.41	36	15.0	4,000	27	9.5	4.5	20.0	38.0	21.0	30.0	37.0	37
WSQ-25	1.94	45	18.5	4,000	32	11.5	5.5	25.0	46.5	25.5	37.5	45.5	46

Part No.	C4	C5	C5	C6	C6	K1 for screw	Geometrical moment of inertia		Moment of resistance	
		min.	max.	min.	max.		Iy	Iz	Wby	Wbz
						DIN 912	[mm⁴]	[mm⁴]	[mm³]	[mm³]
WSQ-06	60	20	49.5	20	49.5	M4[58]	2,200	640	220	100
WSQ-10	120	20	79.5	20	79.5	M6[58]	16,100	3,300	950	350
WSQ-16	120	20	79.5	20	79.5	M8	33,000	10,800	1,700	910
WSQ-20	120	20	79.5	20	79.5	M8	56,500	34,000	2,600	2,100
WSQ-25	150	25	99.5	25	99.5	M10	115,900	73,500	4,500	3,700

Standard hole pattern: C5 = C6, please order with drawing for C5 ≠ C6

[57] Height dimension minus the bearing clearance tolerance

[58] Plain holes

Can be combined with:



WJ200QM-...

drylin® W profile guides | Product range

Pillow blocks, square, made from zinc die-casting or aluminium



Suitable mounting plate
▶ Page 130

Order key - pillow block

Type	Size

WJ200QM-01-10

drylin® W | Liner material iglidur® J200 | Pillow block, square | Standard | Size

Options:
Blank: Fixed bearing
LLY: Floating bearing in y-direction
LLZ: Floating bearing in z-direction
AL: Pillow block made from aluminium

Technical data and dimensions [mm]

Part No.	Floating bearing clearance	Floating bearing direction	Weight [g]	Weight -AL	B	C1	C3	A3	K2	K3 for countersunk head screw	Static load capacity Coy [N]	Coz+ [N]	Coz– [N]
WJ200QM-01-06	–	–	16	7	18.0	19	10	4.5	M4	M3	420	420	140
WJ200QM-01-06-AL	–	–	16	7	18.0	19	10	4.5	M4	M3	420	420	140
WJ200QM-01-06-LLY	± 0.5	y / z	16	7	18.0	19	10	4.5	M4	M3	420	420	140
WJ200QM-01-06-LLZ	± 0.5	y / z	16	7	18.0	19	10	4.5	M4	M3	420	420	140
WJ200QM-01-10	–	–	41	21	26.0	29	16	6.5	M6	M5	1,200	1,200	250
WJ200QM-01-10-AL	–	–	41	21	26.0	29	16	6.5	M6	M5	1,200	1,200	250
WJ200QM-01-10-LLY	± 0.7	y / z	41	21	26.0	29	16	6.5	M6	M5	1,200	1,200	250
WJ200QM-01-10-LLZ	± 0.7	y / z	41	21	26.0	29	16	6.5	M6	M5	1,200	1,200	250
WJ200QM-01-16	–	–	100	51	34.5	36	18	9.0	M8	M6	2,100	2,100	400
WJ200QM-01-16-AL	–	–	100	51	34.5	36	18	9.0	M8	M6	2,100	2,100	400
WJ200QM-01-16-LLY	± 1.0	y / z	100	51	34.5	36	18	9.0	M8	M6	2,100	2,100	400
WJ200QM-01-16-LLZ	± 1.0	y / z	100	51	34.5	36	18	9.0	M8	M6	2,100	2,100	400
WJ200QM-01-20	–	–	190	104	42.5	45	27	9.0	M8	M6	3,200	3,200	500
WJ200QM-01-20-AL	–	–	190	104	42.5	45	27	9.0	M8	M6	3,200	3,200	500
WJ200QM-01-20-LLY	± 1.0	y / z	190	104	42.5	45	27	9.0	M8	M6	3,200	3,200	500
WJ200QM-01-20-LLZ	± 1.0	y / z	190	104	42.5	45	27	9.0	M8	M6	3,200	3,200	500
WJ200QM-01-25	–	–	435	212	52.5	58	36	11.0	M10	M8	4,800	4,800	950
WJ200QM-01-25-AL	–	–	435	212	52.5	58	36	11.0	M10	M8	4,800	4,800	950
WJ200QM-01-25-LLY	± 1.0	y / z	435	212	52.5	58	36	11.0	M10	M8	4,800	4,800	950
WJ200QM-01-25-LLZ	± 1.0	y / z	435	212	52.5	58	36	11.0	M10	M8	4,800	4,800	950

Order example: **WJ200QM-01-06**: Pillow block, square
WJ200QM-01-06-LLZ: Pillow block, square, with floating bearing in z-direction
WJ200QM-01-06-AL: Pillow block, square, made from aluminium

Can be combined with:

WSQ-... WSQ-... WSX-...

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drylin® W profile guides

drylin® W profile guides | Product range New

Pillow blocks, square, for narrow assemblies

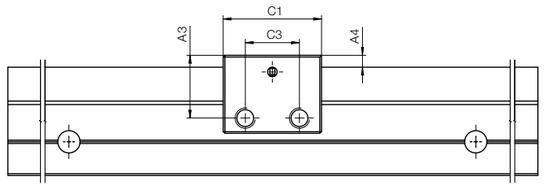


Order key - pillow block

Type	Size

WJ200QM S-01-10-AL

drylin® W | Liner material iglidur® J200 | Pillow block, square | Narrow | Standard | Size | Aluminium



Technical data and dimensions [mm]

Part No.	Weight [g]	B	C1	C3	A3	A4	K2	H ±0.25	Static load capacity Coy [N]	Coz+ [N]	Coz– [N]
WJ200QMS-01-06-AL New	6.3	18	19	10	13.5	3.50	M4	14	210	140	210
WJ200QMS-01-10-AL New	17.1	23	29	16	18.5	4.75	M6	20	600	250	600
WJ200QMS-01-16-AL New	43.1	35	36	18	28.5	7.25	M8	27	1,050	400	1,050
WJ200QMS-01-20-AL New	90.1	42	45	27	35.0	9.00	M8	36	1,600	500	1,600
WJ200QMS-01-25-AL New	182.4	52	58	36	43.0	10.75	M10	45	2,400	950	2,400

Can be combined with:

WSQ-... WSQ-... WSX-...

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drylin® W profile guides | Product range

Single rail, round, hard-anodised and clear-anodised aluminium



WS-10



WS-10-CA, aluminium, clear anodised



WS-16



WS-20



WS-25

Hard-anodised surfaces
▶ Page 43

Clear anodised surface
▶ Page 43

Stainless steel version available
▶ Page 324

Curved rail profiles
▶ Page 48

Technical data and dimensions [mm]

Part No.	Weight [kg/m]	H[57] ±0.25	da -0.1	di	L max.	a	h	h1	h2	G1	G2	A1	Q1	Q2
WS-10	0.62	18	10	–	4,000	27	5.5	5.5[58]	9	27.0	17.0	16.5	–	–
WS-10-CA New	0.62	18	10	–	4,000	27	5.5	5.5	9	27.0	17.0	16.5	–	–
WS-16	0.98	27	16	8.0	4,000	27	7.5	3.5	14	33.0	19.0	25.0	32.0	28
WS-16-CA New	0.98	27	16	8.0	4,000	27	7.5	3.5	14	33.0	19.0	25.0	32.0	28
WS-20	1.32	36	20	10.2	4,000	27	9.5	4.5	20	38.0	21.0	30.0	37.0	37
WS-20-CA New	1.32	36	20	10.2	4,000	27	9.5	4.5	20	38.0	21.0	30.0	37.0	37
WS-25	2.03	45	25	14.0	4,000	32	11.5	5.5	25	46.5	25.5	37.5	45.5	46

C1	C3	C4	C5 min.	C5 max.	C6 min.	C6 max.	A3	K1 for screw DIN 912	Geometrical moment of inertia ly [mm⁴]	Geometrical moment of inertia lz [mm⁴]	Moment of resistance Wby [mm³]	Moment of resistance Wbz [mm³]
29	16	120	20	79.5	20	79.5	6.5	M6[58]	19,000	2,850	1,000	310
29	16	120	20	79.5	20	79.5	6.5	M6[58]	19,000	2,850	1,000	310
36	18	120	20	79.5	20	79.5	9	M8	36,000	12,900	1,800	940
36	18	120	20	79.5	20	79.5	9	M8	36,000	12,900	1,800	940
45	27	120	20	79.5	20	79.5	9	M8	57,100	35,000	2,700	1,900
45	27	120	20	79.5	20	79.5	9	M8	57,100	35,000	2,700	1,900
58	36	150	25	99.5	25	99.5	11	M10	129,000	86,000	4,900	3,800

Standard hole pattern: C5 = C6, please order with drawing for C5 ≠ C6

[57] Height dimension minus the bearing clearance tolerance

[58] Plain holes

Can be combined with:



WJ200UM(T)-…



WJ200UME-…



WJ200UMS-…



WJUM-..-ES-FG

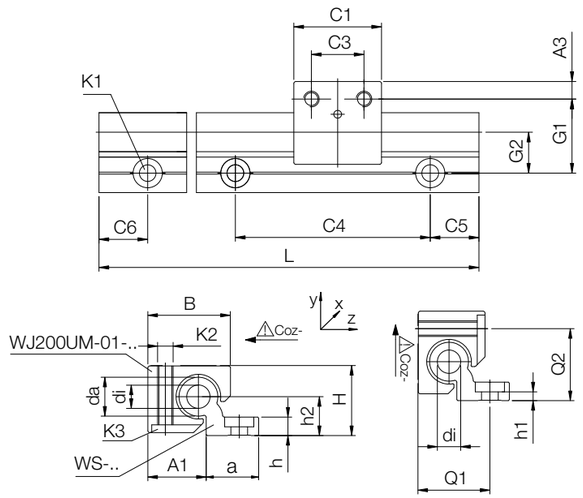


WJRM-…

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drylin® W profile guides

drylin® W profile guides | Product range



This assembled position not possible for WS-10

Order key - single rail

Type	Option
WS-10-	CA

Guide rail

Shafts Ø

Clear anodised

Option:
CA: Clear anodised

Optional:
Econ series with clear anodising (silver)

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drylin® W profile guides | Product range

Single rails round, made of 316 stainless steel



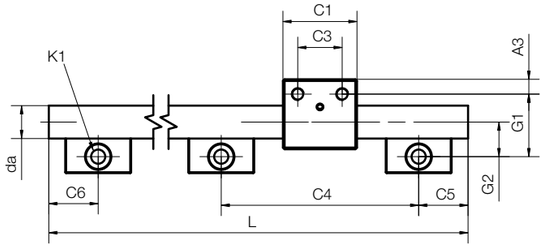
STAIN-LESS STEEL

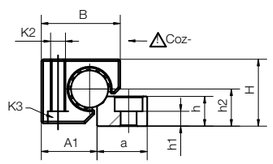
Housing and shaft support material
AISI 316
Shafts material
(AISI 316Ti)

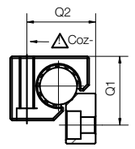
Order key - single rail

Type	Material
WS-10-ES-FG	

Guide rail | Shafts Ø | Stainless steel | Precision casting







This assembled position is not possible for WS-10

Technical data and dimensions [mm]

Part No.	Weight	H[57]	da	L	a	h	h1	h2	G1	G2	A1	Q1	Q2
		±0.25	-0.1	max.	-0.3								
	[kg/m]												
WS-10-ES-FG	0.87	18	10	3,000	27	5.5	5.5[58]	9	27.0	17.0	16.5	–	–
WS-16-ES-FG	2.22	27	16	3,000	27	12.0	4.5	14	33.0	19.0	25.0	32.0	28
WS-20-ES-FG	3.37	36	20	3,000	27	16.0	8.0	20	38.0	21.0	30.0	37.0	37
WS-25-ES-FG	5.21	45	25	3,000	32	20.0	9.0	25	46.5	25.5	37.5	45.5	46

Part No.	C1	C3	C4	C5	C5	C6	C6	A3	K1 for screw	Geometrical moment of inertia		Moment of resistance	
				min.	max.	min.	max.			Iy	Iz	Wby	Wbz
									DIN 912	[mm⁴]	[mm⁴]	[mm³]	[mm³]
WS-10-ES-FG	29	16	120	20	79.5	20	79.5	6.5	M6[58]	491	491	98	98
WS-16-ES-FG	36	18	120	20	79.5	20	79.5	9.0	M8	3,217	3,217	402	402
WS-20-ES-FG	45	27	120	20	79.5	20	79.5	9.0	M8	7,854	7,854	785	785
WS-25-ES-FG	58	36	150	25	99.5	25	99.5	11.0	M10	19,175	19,175	1,534	1,534

[57] Height dimension minus the bearing clearance tolerance

[58] Plain holes

Can be combined with:


WJ200UM(T)-…


WJ200UME-…


WJUM-..-ES-FG


WJRM-…

Suitable liner material:


iglidur® J


iglidur® E7


iglidur® A180

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drylin® W profile guides

drylin® W profile guides | Product range

Pillow blocks, round, made from zinc die-casting or aluminium







Order key

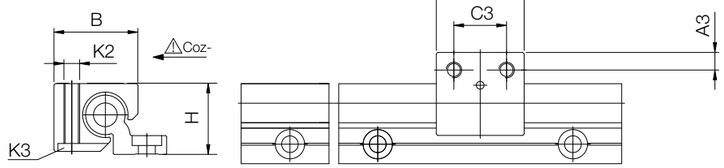
Type	Size	Options
WJ200UM-01- 10		-AL

drylin® W | Liner material iglidur® J200 | Pillow block, round | Standard | Size | Aluminium

Order example:
WJ200UM-01-10:
Pillow block, round
WJ200UM-01-10-LL:
Pillow block, round, floating bearing
WJ200UM-01-10-AL:
Pillow block, round, made from aluminium

Suitable mounting plate
▶ Page 130

Options:
Blank: Fixed bearing
LL: Floating bearing
AL: Pillow block made from aluminium
ES: Stainless steel
ES-FG: Stainless steel precision casting



Technical data and dimensions [mm]

Part No.	Floating bearing clearance	Weight	B	C1	C3	A3	K2	K3 for countersunk head screw	Static load capacity Coy	Coz+	Coz–
		[g]							[N]	[N]	[N]
WJ200UM-01-10	–	41	26.0	29	16	6.5	M6	M5	1,200	1,200	250
WJ200UM-01-10-LL	±0.2	41	26.0	29	16	6.5	M6	M5	1,200	1,200	250
WJ200UM-01-10-AL	–	20	26.0	29	16	6.5	M6	M5	1,200	1,200	250
WJUM-01-10-ES-FG[59]	–	57	26.0	29	16	6.5	M6	M5	3,800	3,800	950
WJ200UM-01-16	–	100	34.5	36	18	9.0	M8	M6	2,100	2,100	400
WJ200UM-01-16-LL	±0.2	100	34.5	36	18	9.0	M8	M6	2,100	2,100	400
WJ200UM-01-16-AL	–	48	34.5	36	18	9.0	M8	M6	2,100	2,100	400
WJUM-01-16-ES-FG[59]	–	134	34.5	36	18	9.0	M8	M6	6,900	6,900	1,450
WJ200UM-01-20	–	190	42.5	45	27	9.0	M8	M6	3,200	3,200	500
WJ200UM-01-20-LL	±0.25	190	42.5	45	27	9.0	M8	M6	3,200	3,200	500
WJ200UM-01-20-AL	–	99	42.5	45	27	9.0	M8	M6	3,200	3,200	500
WJUM-01-20-ES-FG[59]	–	280	42.5	45	27	9.0	M8	M6	11,000	11,000	1,900
WJ200UM-01-25	–	425	52.5	58	36	11.0	M10	M8	4,800	4,800	950
WJ200UM-01-25-LL	±0.25	425	52.5	58	36	11.0	M10	M8	4,800	4,800	950
WJ200UM-01-25-AL	–	250	52.5	58	36	11.0	M10	M8	4,800	4,800	950
WJUM-01-25-ES-FG[59]	–	564	52.5	58	36	11.0	M10	M8	16,000	16,000	3,600

[59] Alternative with XUMO-01-... liners for high temperatures available. Part No.: WXUM-01-...

EN 09/2023

drylin® W profile guides | Product range New

Pillow blocks, single, round, made from solid plastic

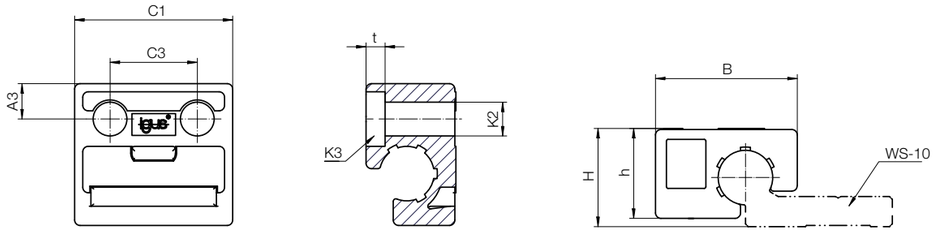


Order key

Type	Size
WJBM P -01-10	

drylin® W | iglidur® JB | Metric | Solid plastic | Standard | Size

Material:
iglidur® JB ▶ Page 779



Technical data and dimensions [mm]

Part No.	Weight	B	C1	C3	A3	K2	H	h	t	K3 Hexagonal design for M6 hexagon nut (ISO 4035)	Static load capacity Coy±	Coz±
	[g]										[N]	[N]
WJBMP-01-10 New	10	26	29	16	6.5	Ø6.2	18	16.5	3.5	10	25	15

drylin® W profile guides | Product range

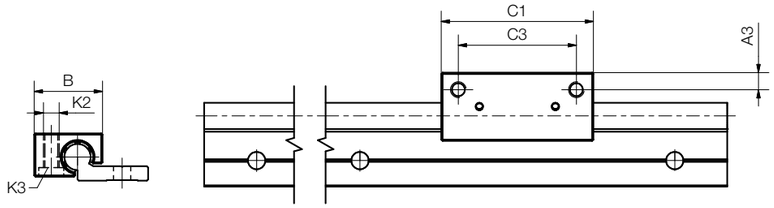
Pillow blocks, tandem, round, anodised aluminium



Order key

Type	Size	Material
WJ200UM T -01- 10		-AL

drylin® W | Liner material iglidur® J200 | Pillow block, round | Tandem | Standard | Size | Aluminium



Technical data and dimensions [mm]

Part No.	Weight	B	C1	C3	A3	K2	K3 for countersunk head screw	Static load capacity Coy	Coz+	Coz–
	[g]							[N]	[N]	[N]
WJ200UMT-01-10-AL	43	26	58	45	6.5	M6	M5	2,000	2,000	420
WJ200UMT-01-16-AL	102	34.5	72	54	9	M8	M6	3,400	3,400	670
WJ200UMT-01-20-AL	182	42.5	80	62	9	M8	M6	5,300	5,300	830

Can be combined with:

WS-... | WS-..-ES-FG-... | WS-... | WS-...-ES-FG | WSX-...

Suitable liner material:

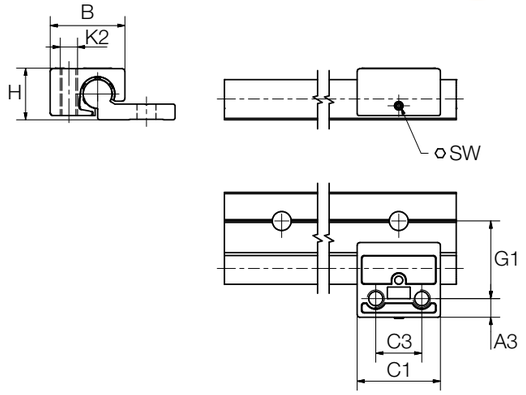
iglidur® J | iglidur® J200 | iglidur® X | iglidur® E7 | iglidur® A180

drylin® W profile guides | Product range

Pillow blocks, round, adjustable bearing clearance







Order key

Type	Size
WJ200UM E	-01-10

drylin® W	Liner material iglidur® J200	Pillow block, round	Adjustable	Standard	Size

Allen key supplied



Suitable mounting plate
▶ Page 130

Technical data and dimensions [mm]

Part No.	Weight	B	C1	C3	A3	K2	H	SW	G1	Static load capacity Coy	Coz+	Coz–
	[g]						±0.25			[N]	[N]	[N]
WJUME-01-10	43	26	29	16	6.5	M6	18	1.5	27	560	560	250
WXUME-01-10	43	26	29	16	6.5	M6	18	1.5	27	560	560	250
WJUME-01-10-AL	19	26	29	16	6.5	M6	18	1.5	27	560	560	250
WJUME-01-10-ES	56	26	29	16	6.5	M6	18	1.5	27	560	560	250
WJ200UME-01-10	43	26	29	16	6.5	M6	18	1.5	27	560	560	250
WJ200UME-01-16	110	34.5	36	18	9	M8	27	2.5	33	980	980	400
WJ200UME-01-16-AL	45	34.5	36	18	9	M8	27	2.5	33	980	980	400
WJ200UME-01-16-ES	132	34.5	36	18	9	M8	27	2.5	33	980	980	400
WJ200UME-01-20	222	42.5	45	27	9	M8	36	2.5	38	1,500	1,500	500
WJ200UME-01-20-AL	95	42.5	45	27	9	M8	36	2.5	38	1,500	1,500	500
WJ200UME-01-20-ES	275	42.5	45	27	9	M8	36	2.5	38	1,500	1,500	500
WJ200UME-01-25	431	52.5	58	36	11	M10	45	2.5	46.5	2,250	2,250	950
WJ200UME-01-25-AL	194	52.5	58	36	11	M10	45	2.5	46.5	2,250	2,250	950
WJ200UME-01-25-ES	539	52.5	58	36	11	M10	45	2.5	46.5	2,250	2,250	950

Can be combined with:



WS-... WS-..-ES-FG-... WS-... WS-...-ES-FG WSX-...

Suitable liner material:



iglidur® J iglidur® J200

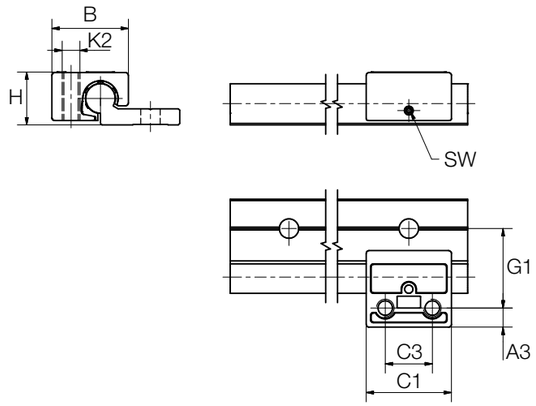
igus EN 09/2023

drylin® W profile guides

drylin® W profile guides | Product range

Pillow blocks, round, with spring pre-load





Order key

Type	Size	Material
WJ200UM-	01-16-	□-P40

drylin® W	Liner material iglidur® J200	Pillow block, round	Standard	Size	Housing material	Pre-load

Options:
Blank: Zinc die-casting (Zn)
AL: Aluminium
ES: Stainless steel (AISI 316Ti, machined)

Suitable mounting plate
▶ Page 130

drylin® stop motion full product range online
▶ www.igus.eu/drylinstopmotion

Technical data and dimensions [mm]

Part No.	Spring colour	Pre-load	Weight (Zn)	Weight -ES	Weight -AL	B	C1	C3	A3	K2	H	SW	G1
		[N]	[g]	[g]	[g]						±0.25		
WJ200UM-01-10-□-P40	Blue	4	43	56	19	26	29	16	6.5	M6	18	1.5	27
WJ200UM-01-10-□-P90	Yellow	9	43	56	19	26	29	16	6.5	M6	18	1.5	27
WJ200UM-01-10-□-P140	Red	14	43	56	19	26	29	16	6.5	M6	18	1.5	27
WJ200UM-01-16-□-P40	Blue	4	110	132	46	34.5	36	18	9	M8	27	2.5	33
WJ200UM-01-16-□-P90	Yellow	9	110	132	46	34.5	36	18	9	M8	27	2.5	33
WJ200UM-01-16-□-P140	Red	14	110	132	46	34.5	36	18	9	M8	27	2.5	33
WJ200UM-01-16-□-P230	green	23	110	132	46	34.5	36	18	9	M8	27	2.5	33
WJ200UM-01-20-□-P40	Blue	4	222	275	95	42.5	45	27	9	M8	36	2.5	38
WJ200UM-01-20-□-P90	Yellow	9	222	275	95	42.5	45	27	9	M8	36	2.5	38
WJ200UM-01-20-□-P140	Red	14	222	275	95	42.5	45	27	9	M8	36	2.5	38
WJ200UM-01-20-□-P230	green	23	222	275	95	42.5	45	27	9	M8	36	2.5	38

Can be combined with:



WS-... WS-..-ES-FG-... WS-... WS-...-ES-FG WSX-...

Suitable liner material:



iglidur® J iglidur® J200

EN 09/2023 igus

drylin® W profile guides | Product range

Pillow blocks, round; change the liner without disassembly

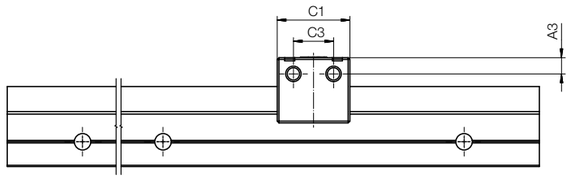


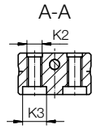


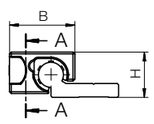
Order key

Type	Size
WJ200UM A -01-10-AL	

drylin® W	Liner material iglidur® J200	Pillow block, round	Replaceable	Standard	Size	Aluminium



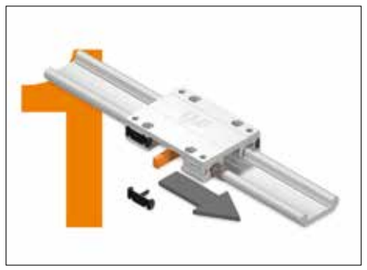




Technical data and dimensions [mm]

Part No.	Weight	B	C1	C3	A3	K2	K3[150)]	H	Static load capacity		
									Coy	Coz+	Coz–
	[g]							±0.25	[N]	[N]	[N]
WJ200UMA-01-10-AL	18	26.0	29	16	6.5	M6	M5	18	1,000	1,000	200
WJ200UMA-01-16-AL	44	34.5	36	18	9.0	M8	M6	27	1,250	1,250	275
WJ200UMA-01-20-AL	91	42.5	45	27	9.0	M8	M6	36	1,500	1,500	350

[150)] Counterbore for socket cap bolt







Simple bearing liner replacement.

Suitable mounting plate
▶ Page 130

More installation can be found online
▶ www.igus.eu/replacement-bearing-installation

Can be combined with:



WS-... WS-..-ES-FG-... WS-... WS-...-ES-FG WSX-...

Suitable liner material/accessories



iglidur® J200 Assembling aid Replacement liners

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drylin® W profile guides

drylin® W profile guides | Product range New

Stainless steel pillow blocks, round; change the liner without disassembly

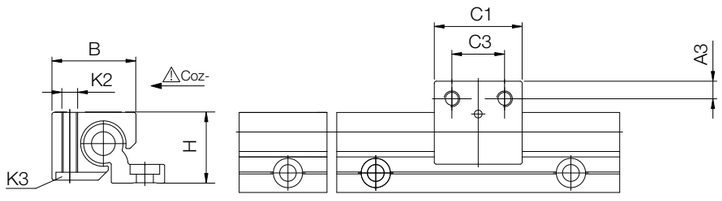


Order key

Type	Size
W□UM A -01-10-ES	

drylin® W	iglidur® material	Pillow block, round	Replaceable	Standard	Size	Stainless steel

iglidur® material
X: iglidur® X
A180: iglidur® A180
A160: iglidur® A160
E7: iglidur® E7



Technical data and dimensions [mm]

Part No.	Weight	B	C1	C3	A3	K2	H	K3	Static load capacity		
								for countersunk head screw	Coy	Coz+	Coz–
	[g]						±0.25		[N]	[N]	[N]
W□UMA-01-10-ES New	57	26.0	29	16	6.5	M6	18	M5	1,200	1,200	250
W□UMA-01-16-ES New	138	34.5	36	18	9.0	M8	27	M6	2,100	2,100	400
W□UMA-01-20-ES New	283	42.5	45	27	9.0	M8	36	M6	3,200	3,200	500
W□UMA-01-25-ES New	575	52.5	58	36	11.0	M10	45	M8	4,800	4,800	950





Installation guide online
▶ www.igus.eu/WXUMA

EN 09/2023

drylin® W profile guides | Product range New

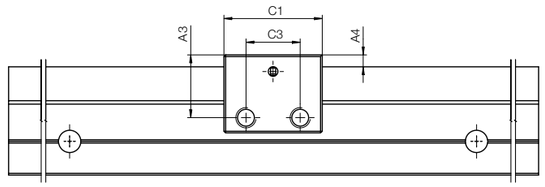
Pillow blocks, round, anodised aluminium, for narrow assemblies



Order key

Type	Size
WJ200UM S	-01-10-AL

drylin® W	Liner material iglidur® J200	Pillow block, round	Narrow	Standard	Size	Aluminium



Technical data and dimensions [mm]

Part No.		Weight	B	C1	C3	A3	A4	K2	H	Static load capacity		
									±0.25	Coy	Coz+	Coz–
		[g]								[N]	[N]	[N]
WJ200UMS-01-10-AL	New	16.0	23	29	16	18.5	3.5	M6	18	600	250	600
WJ200UMS-01-16-AL	New	40.5	35	36	18	28.5	5.0	M8	27	1,050	400	1,050
WJ200UMS-01-20-AL	New	85.0	42	45	27	35.0	6.5	M8	36	1,600	500	1,600
WJ200UMS-01-25-AL	New	172.6	52	58	36	43.0	7.5	M10	45	2,400	950	2,400

Can be combined with:



WS-... WS-..-ES-FG-... WS-... WS-...-ES-FG WSX-...

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drylin® W profile guides | Product range New

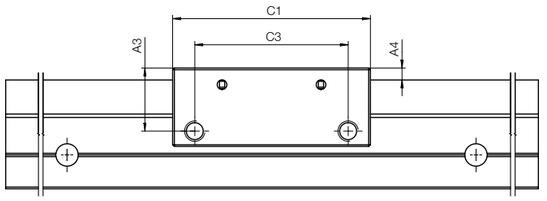
Pillow blocks, tandem, round, anodised aluminium, for narrow assemblies



Order key

Type	Size
WJ200UM T S	-01-10-AL

drylin® W	Liner material iglidur® J200	Pillow block, round	Tandem	Narrow	Standard	Size	Aluminium



Technical data and dimensions [mm]

Part No.		Weight	B	C1	C3	A3	A4	K2	H	Static load capacity		
									±0.25	Coy	Coz+	Coz–
		[g]								[N]	[N]	[N]
WJ200UMTS-01-10-AL	New	33	23	58	45	18.5	3.5	M6	18	1,200	420	1,200
WJ200UMTS-01-16-AL	New	84	35	72	54	28.5	5.0	M8	27	2,100	670	2,100

Can be combined with:



WS-... WS-..-ES-FG-... WS-... WS-...-ES-FG WSX-...

Suitable liner material:



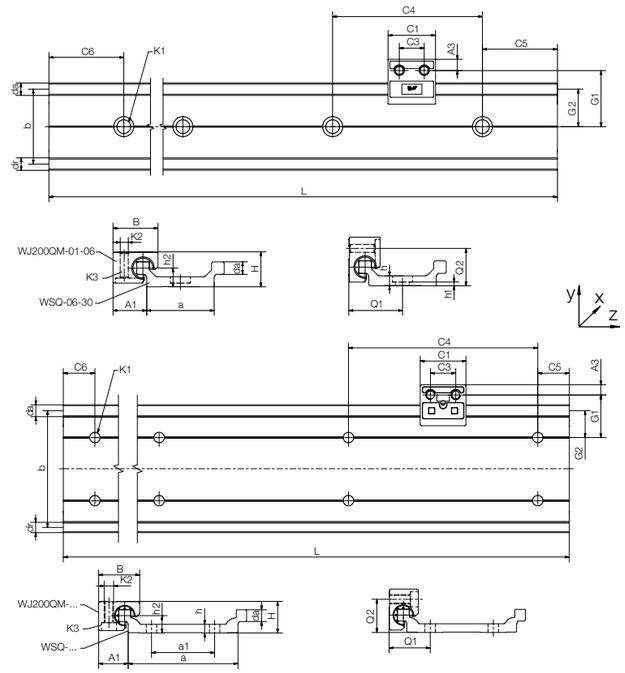
iglidur® J iglidur® J200 iglidur® X iglidur® E7 iglidur® A180

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drylin® W profile guides | Product range

Double rails, square, hard-anodised aluminium





Hard-anodised surfaces
▶ Page 43

Curved rail profiles
▶ Page 48

Technical data and dimensions [mm]

Part No.	Weight	H[57]	da	dr	L	a	A1	b	h	h1	h2	G1	G2	a1[61]	Q1	Q2
	[kg/m]	±0.25	-0.1		max.											
WSQ-06-30	0.45	14	5	5	3,000	27-0.4	13.5	30	4	4[58]	7.5	22.5	15	–	21.5	15
WSQ-06-60	0.70	14	5	5	3,000	58-0.4	13.5	61	4	4[58]	7.0	42.5	30.5	40	17	15
WSQ-10-40	0.92	20	7.5	6.7	4,000	36-0.5	18.5	40	5.5	5.5[58]	11	30	20	–	29	21
WSQ-10-80	1.41	20	7.5	6.7	4,000	70-0.7	18.5	74	5.5	5.5[58]	11	27	17	40	26	21
WSQ-10-120	2.02	20	7.5	6.7	4,000	116-0.7	18.5	120	5.5	5.5[58]	11	30	20	80	29	21
WSQ-16-60	1.84	27	11.5	10.7	4,000	54-0.5	25.0	58	7.5	3.5	14	43	29	–	42	28
WSQ-20-80	3.30	36	15	14.1	4,000	74-0.7	30.0	82	9.5	4.5	20	38	21	40	37	37

Part No.	C4	C5		C6		K1 for screw	Geometrical moment of inertia		Moment of resistance	
		min.	max.	min.	max.		Iy	Iz	Wby	Wbz
						DIN 912	[mm⁴]	[mm⁴]	[mm³]	[mm³]
WSQ-06-30	60	20	49.5	20	49.5	M5[58]	19,000	1,250	1,100	200
WSQ-06-60	60	20	49.5	20	49.5	M4[58]	117,900	1,600	3,500	290
WSQ-10-40	120	20	79.5	20	79.5	M6[58]	71,600	5,580	3,000	610
WSQ-10-80	120	20	79.5	20	79.5	M6[58]	335,000	7,070	8,300	700
WSQ-10-120	120	20	79.5	20	79.5	M6[58]	1,175,000	8,000	18,400	760
WSQ-16-60	120	20	79.5	20	79.5	M8	324,700	20,500	9,400	1,700
WSQ-20-80	120	20	79.5	20	79.5	M8	1,145,000	75,300	23,600	4,500

[57] Height dimension minus the bearing clearance tolerance [58] With plain holes [61] WSQ-06-30/-10-40/-16-60 a single row of mounting holes down the centreline; WSQ-06-60/10-80/-10-120/-20-80 two parallel rows of mounting holes

Can be combined with:


WJQM-...

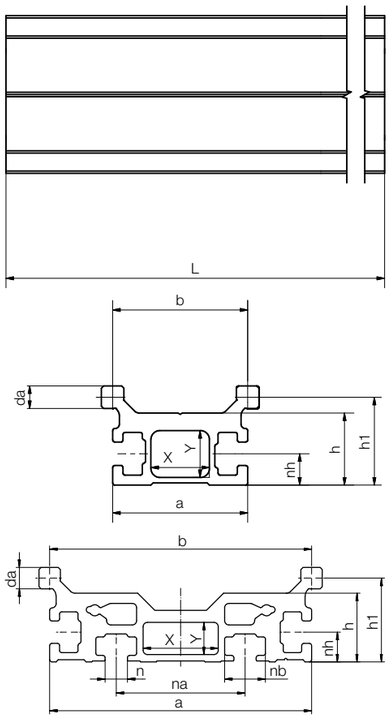

WW-...

WWC-...

drylin® W profile guides | Product range

High profile rails, square, hard-anodised aluminium





Suitable end caps
▶ Page 129

Order example:
WSX-06-30/06-60: High profile rail, square
WSQ-06-30: Standard double rail, square

Technical data and dimensions [mm]

Part No.	Weight	da	L	a	b	h	h1	nh	n	nb	na	X	Y	Geometrical moment of inertia		Moment of resistance	
														Iy	Iz	Wby	Wbz
	[kg/m]	-0.1	max.											[mm⁴]	[mm⁴]	[mm³]	[mm³]
WSX-06-30	0.76	5	4,000	29.7	30	16	19.5	7	–	–	–	12	10	30,391	11,674	1,736	845
WSX-06-60	1.39	5	4,000	61	61	16	19.5	6.9	5.2	9.5	30	17.5	7.5	212,826	17,018	6,448	1,398

Order key

Type	Length
WS Q	- 06 - 30 - 3000
Profile rail	
Square	
Shaft Ø	
Rail width [mm]	
Rail length [mm]	

Order key

Type	Length
WS X	- 06 - 30 - 4000
Profile rail	
High profile rail	
Shaft Ø	
Rail width [mm]	
Rail length [mm]	

Can be combined with:


WJQM-...


WW-...

WWC-...

drylin® W profile guides | Product range

Linear guides - lightweight, non-metallic, strong and X-ray transparent

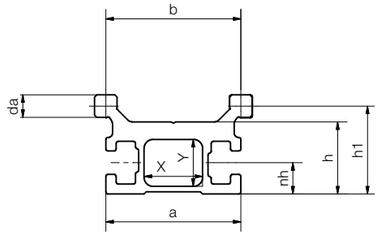


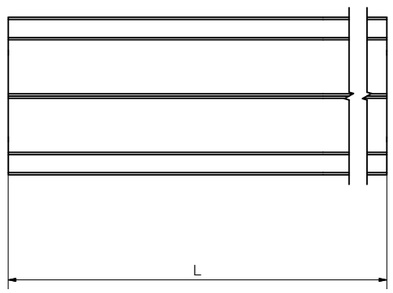
Order key

Type	Dimensions [mm]/Type

W S P C - 06 - 30 - 1000

drylin® W	Rail	Polymer	Carbon	Shaft Ø	Rail width	Rail length





Technical data - guide rail

Part No.	Fmax. radial		Weight	Iy	Iz
	stat.	dyn.			
	[N]	[N]	[g/m]	[mm⁴]	[mm⁴]
WSPC-06-30	300	60	410	30,391	11,674

Dimensions [mm] - guide profile

Part No.	a	b	da -0.1	h	h1	nh	X	Y	L
WSPC-06-30	30	30	5	16	19.5	7	13	10	3,000

drylin® W profile guides

drylin® W profile guides | Product range

Linear guides - lightweight, non-metallic, strong and cost-effective

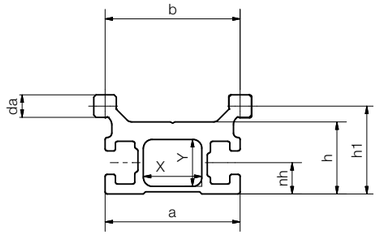


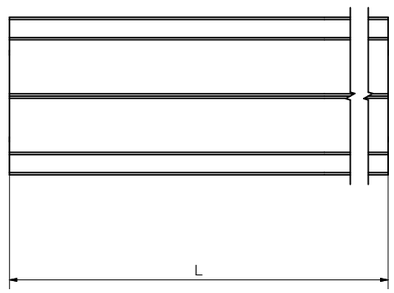
Order key

Type	Dimensions [mm]/Type

W S P G - 06 - 30 - 1000

drylin® W	Rail	Polymer	Glas fibre	Shaft Ø	Rail width	Rail length





Technical data - guide rail

Part No.	Fmax. radial		Weight	Iy	Iz
	stat.	dyn.			
	[N]	[N]	[g/m]	[mm⁴]	[mm⁴]
WSPG-063001	200	50	505	30,391	11,674

Dimensions [mm] - guide profile

Part No.	a	b	da -0.1	h	h1	nh	X	Y	L
WSPG-063001	30	30	5	16	19.5	7	13	10	2,000

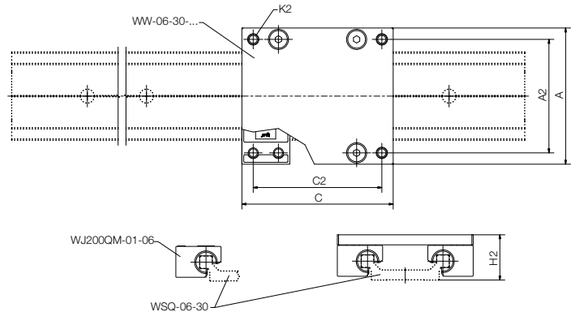
Dimensions [mm] - complete system

Part No.	H	A1	A	A2	C	C2
WSPG-063001	30	12	52	45	60	51

drylin® W profile guides | Product range

Guide carriages, assembled, square





Order key

Type	Size
WW Q	-06-30-06

Guide carriage	Square	Shafts Ø [mm]	Profile width	Carriage length

Technical data and dimensions [mm]

Part No.[54]	Weight	A	C	A2	C2	K2	H2[57]	Static load capacity				
		Width	Length				±0.25	Coy	Coz	Mox	Moy	Moz
	[kg]							[N]	[N]	[Nm]	[Nm]	[Nm]
WWQ-06-30-06	0.10	54	60	45	51	M4	18	1,680	840	25	34	34
WWQ-06-30-08	0.11	54	80	45	71	M4	18	1,680	840	25	51	51
WWQ-06-30-10	0.12	54	100	45	91	M4	18	1,680	840	25	68	68
WWQ-06-60-06	0.13	85	60	76	51	M4	18	1,680	840	50	34	34
WWQ-06-60-08	0.15	85	80	76	71	M4	18	1,680	840	50	51	51
WWQ-06-60-10	0.17	85	100	76	91	M4	18	1,680	840	50	68	68
WWQ-10-40-10	0.29	73	100	60	87	M6	26	4,800	2,400	96	170	170
WWQ-10-40-15	0.34	73	150	60	137	M6	26	4,800	2,400	96	290	290
WWQ-10-40-20	0.40	73	200	60	187	M6	26	4,800	2,400	96	410	410
WWQ-10-80-10	0.34	107	100	94	87	M6	26	4,800	2,400	178	170	170
WWQ-10-80-15	0.42	107	150	94	137	M6	26	4,800	2,400	178	290	290
WWQ-10-80-20	0.50	107	200	94	187	M6	26	4,800	2,400	178	410	410
WWQ-10-120-10	0.41	153	100	140	87	M6	26	4,800	2,400	288	170	170
WWQ-10-120-15	0.54	153	150	140	137	M6	26	4,800	2,400	288	290	290
WWQ-10-120-20	0.66	153	200	140	187	M6	26	4,800	2,400	288	410	410
WWQ-16-60-10	0.71	104	100	86	82	M8	35	8,400	4,200	240	270	270
WWQ-16-60-15	0.84	104	150	86	132	M8	35	8,400	4,200	240	480	480
WWQ-16-60-20	0.97	104	200	86	182	M8	35	8,400	4,200	240	690	690
WWQ-20-80-15	1.20	134	150	116	132	M8	44	12,800	6,400	525	670	670
WWQ-20-80-20	1.30	134	200	116	182	M8	44	12,800	6,400	525	990	990
WWQ-20-80-25	1.50	134	250	116	232	M8	44	12,800	6,400	525	1,250	1,250

[57] Height dimension minus the bearing clearance tolerance [64] Optional with manual clamp, suffix "-HKA"

Can be combined with:



WSQ-... WSXQ-...

Suitable liner material:

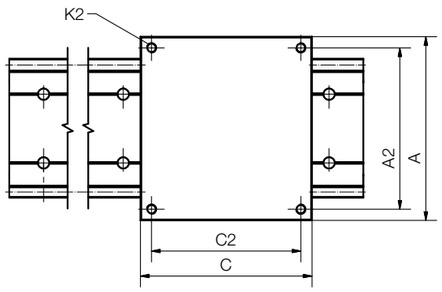


iglidur® J200

drylin® W profile guides | Product range

Mono-slide carriages, anodised aluminium





Order key

Type	Size
WWC	-10-40-10

Mono-slide guide carriage	Shafts Ø [mm]	Profile width	Carriage length

Technical data and dimensions [mm]

Part No.	Weight	A	C	A2	C2	K2	H2[57]	Static load capacity				
		Width	Length				±0.2	Coy	Coz	Mox	Moy	Moz
	[kg]							[N]	[N]	[Nm]	[Nm]	[Nm]
WWC-06-30-06	0.07	54	60	45	51	M4	16	1,680	840	25	34	34
WWC-06-30-08	0.09	54	80	45	71	M4	16	1,680	840	25	51	51
WWC-06-30-10	0.12	54	100	45	91	M4	16	1,680	840	25	68	68
WWC-06-60-06 New	0.09	85	60	76	51	M4	16	1,680	840	50	34	34
WWC-06-60-08 New	0.12	85	80	76	71	M4	16	1,680	840	50	51	51
WWC-06-60-10 New	0.15	85	100	76	91	M4	16	1,680	840	50	68	68
WWC-10-40-10	0.21	73	100	60	87	M6	22	4,800	2,400	96	170	170
WWC-10-40-15	0.32	73	150	60	137	M6	22	4,800	2,400	96	290	290
WWC-10-40-20	0.42	73	200	60	187	M6	22	4,800	2,400	96	410	410
WWC-10-80-10	0.28	107	100	94	87	M6	22	4,800	2,400	178	170	170
WWC-10-80-15	0.42	107	150	94	137	M6	22	4,800	2,400	178	290	290
WWC-10-80-20	0.56	107	200	94	187	M6	22	4,800	2,400	178	410	410
WWC-10-120-10	0.36	153	100	140	87	M6	22	4,800	2,400	288	170	170
WWC-10-120-15	0.54	153	150	140	137	M6	22	4,800	2,400	288	290	290
WWC-10-120-20	0.72	153	200	140	187	M6	22	4,800	2,400	288	410	410
WWC-16-60-10	0.41	104	100	86	82	M8	30	8,400	4,200	240	270	270
WWC-16-60-15	0.61	104	150	86	132	M8	30	8,400	4,200	240	480	480
WWC-16-60-20	0.80	104	200	86	182	M8	30	8,400	4,200	240	690	690
WWC-20-80-15	0.99	134	150	116	132	M8	40	12,800	6,400	525	670	670
WWC-20-80-20	1.33	134	200	116	182	M8	40	12,800	6,400	525	990	990
WWC-20-80-25	1.66	134	250	116	232	M8	40	12,800	6,400	525	1,250	1,250

[57] Height dimension minus the bearing clearance tolerance

Can be combined with:



WSQ-... WSXQ-...

Suitable liner material:



iglidur® J

drylin® W profile guides | Product range

Double rails, round, hard-anodised and clear-anodised aluminium



WS-10-30





WS-10-30-CA

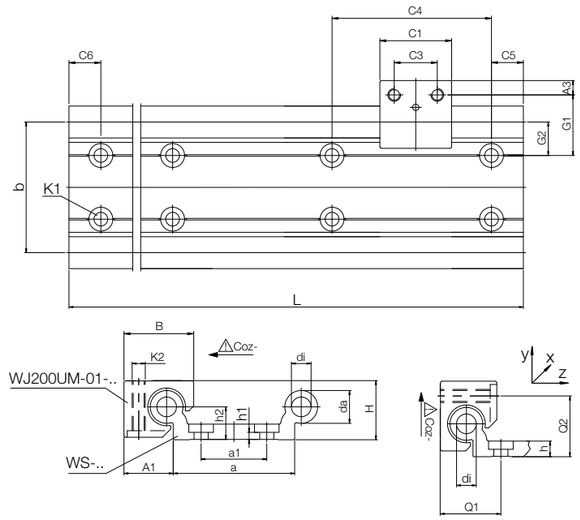
Hard-anodised surfaces
▶ Page 43

Clear anodised surface
▶ Page 43

Curved rail profiles
▶ Page 48

drylin® W profile guides

drylin® W profile guides | Product range



This orientation not possible for
WS-10-30/WS-10-40/
WS-10-80/WS-10-120

Order key

Type				Option
WS-	10 -	40 -	CA	
Profile rail, round	Shaft Ø	Rail width [mm]	Clear anodised	

Option:
CA: Clear anodised

Optional:
Econ series with clear anodising (silver)

Technical data and dimensions [mm]

Part No.		Weight	H[57]	da	di	L	a	A1	b	h	h1	h2	G1	G2
			±0.25			max.								
		[kg/m]												
WS-10-30		0.85	18	10-0.1	–	4,000	30-0.5	16.5	30	5.5	5.5[58]	9	25	15
WS-10-30-CA	New	0.85	18	10	–	4,000	30-0.5	16.5	30	5.5	5.5	9	25	15
WS-10-40		1.00	18	10-0.1	–	4,000	40-0.5	16.5	40	5.5	5.5[58]	9	30	20
WS-10-40-CA	New	1.00	18	10	–	4,000	40-0.5	16.5	40	5.5	5.5	9	30	20
WS-10-80		1.50	18	10-0.1	–	4,000	74-0.7	16.5	74	5.5	5.5[58]	9	27	17
WS-10-80-CA	New	1.50	18	10	–	4,000	74-0.7	16.5	74	5.5	5.5	9	27	17
WS-10-120		2.02	18	10-0.1	–	4,000	120-0.7	16.5	120	5.5	5.5[58]	9	30	20
WS-10-120-CA	New	2.02	18	10	–	4,000	120	16.5	120	5.5	5.5	9	30	20
WS-16-60		1.96	27	16-0.1	8.0	4,000	54-0.5	25.0	58	7.5	3.5	14	43	29
WS-16-60-CA	New	1.96	27	16	8.0	4,000	54-0.5	25.0	58	7.5	3.5	14	43	29
WS-16-120	New	3.14	27	16-0.1	8.0	4,000	116-0.4	25.0	120	7.5	3.5	14	34	20
WS-20-80		3.30	36	20-0.1	10.2	4,000	74-0.7	30.0	82	9.5	4.5	20	38	21
WS-20-80-CA	New	3.30	36	20	10.2	4,000	74-0.7	30.0	82	9.5	4.5	20	38	21
WS-25-120		5.8	45	25-0.15	14.0	4,000	120-0.7	37.5	131	11.5	5.5	25	46.5	25.5

a1[62]	Q1	Q2	C4	C5		C6		K1 for screw	Surface inertia-moment		Moment of resistance	
				min.	max.	min.	max.	DIN 912	Iy	Iz	Wby	Wbz
									[mm⁴]	[mm⁴]	[mm³]	[mm³]
–	–	–	120	20	79.5	20	79.5	M5[58]	47,500	4,400	2,370	540
–	–	–	120	20	79.5	20	79.5	M5[58]	47,500	4,400	2,370	540
–	–	–	120	20	79.5	20	79.5	M6[58]	91,000	5,100	3,600	590
–	–	–	120	20	79.5	20	79.5	M6[58]	91,000	5,100	3,600	590
40	–	–	120	20	79.5	20	79.5	M6[58]	388,000	6,100	9,200	650
40	–	–	120	20	79.5	20	79.5	M6[58]	388,000	6,100	9,200	650
80	–	–	120	20	79.5	20	79.5	M6[58]	1,303,000	7,100	20,000	720
80	–	–	120	20	79.5	20	79.5	M6[58]	1,303,000	7,100	20,000	720
–	32	28	120	20	79.5	20	79.5	M8	367,600	26,100	9,900	1,900
–	32	28	120	20	79.5	20	79.5	M8	367,600	26,100	9,900	1,900
80	33	28	120	20	79.5	20	79.5	M8	2,114,000	33,200	31,100	2,150
40	37	37	120	20	79.5	20	79.5	M8	1,080,000	78,700	21,000	4,000
40	37	37	120	20	79.5	20	79.5	M8	1,080,000	78,700	21,000	4,000
80	45.5	46	150	25	99.5	25	99.5	M10	4,867,000	215,000	62,400	8,500

[57] Height dimension minus the bearing clearance tolerance
[58] Plain holes
[62] WS-10-40/-16-60 a single row of mounting holes down the centreline; WS-10-80/-10-120/-20-80/-25-120 two parallel rows of mounting holes
Standard hole pattern: C5 = C6, please order with drawing for C5 ≠ C6.

drylin® W profile guides | Product range

High profile rails, round, hard-anodised aluminium



WSX-10-40



WSX-10-80

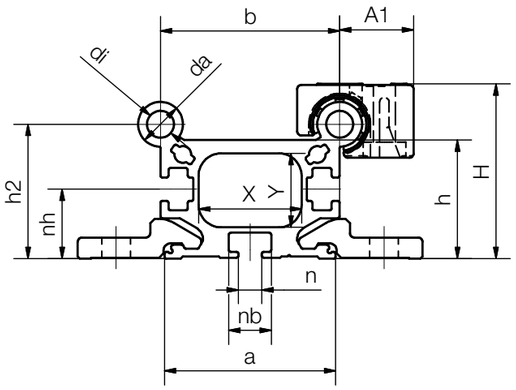


WSX-16-60

Order key

Type	Length
WS X	-10-40-4000

Profile rail	High profile rail	Shaft Ø	Rail width [mm]	Rail length [mm]



Technical data and dimensions [mm]

Part No.	Weight	H[57]	da	di	L	a	A1	b	h	h2	Øs	K1	C1	C3	G1
		±0.25	-0.1		max.										
	[kg/m]														
WSX-10-40	1.3	39	10	6	4,000	38.2	16.5	40	26.5	30	60	M6	29	16	30
WSX-10-80	2.0	39	10	6	4,000	72.2	16.5	74	26.5	30	94	M6	29	16	47
WSX-16-60	4.2	65	16	6	4,000	62.0	25.0	58	49.0	52	100	M8	36	18	50

Part No.	nh	n	nb	X	Y	Surface inertia-moment		Moment of resistance	
						ly	lz	Wby	Wbz
						[mm⁴]	[mm⁴]	[mm³]	[mm³]
WSX-10-40	15.5	5.2	9.5	23	16.0	97,560	54,910	3,902	3,074
WSX-10-80	15.5	5.2	9.5	55	16.0	483,653	83,613	11,515	4,684
WSX-16-60	27.6	10.0	15.4	40	27.0	540,876	773,489	14,618	24,586

[57] Height dimension minus the bearing clearance tolerance

drylin® W profile guides | Product range

Round double rails, made of stainless steel



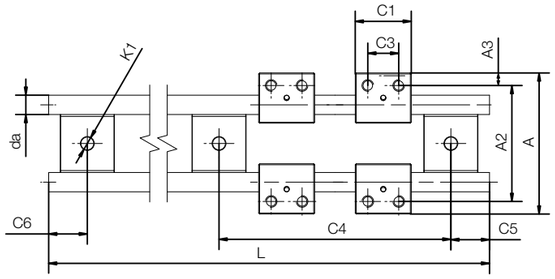
Order key

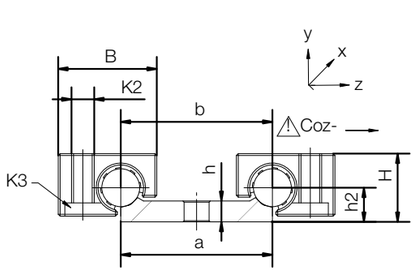
Type
WS-10-40-ES-FG

Profile rail, round	Shaft Ø	Rail width [mm]	Stainless steel	Precision casting

Installation size 10-20
Housing and shaft support material AISI 316
Shaft material AISI 316Ti

Installation size 25
Shaft, shaft support and housing material AISI 316Ti





Technical data and dimensions [mm]

Part No.		Weight	H[57]	da	L	a	b	h	h2	A	A2
			±0.25	h9	max.						
		[kg/m]									
WS-10-30-ES	New	1.53	24	10	3,000	30 ±0.3	30	5.5	9	47	38
WS-10-40-ES-FG		1.58	18	10	3,000	40 ±0.4	40	5.5	9	73	60

Part No.	C4	C5 min.	C5 max.	C6 min.	C6 max.	K1 for screw DIN 912
WS-10-30-ES	120	30	30.0	30	30.0	M6
WS-10-40-ES-FG	120	20	79.5	20	79.5	M6

[57] Height dimension minus the bearing clearance tolerance

drylin® W profile guides | Product range

High profile rails, round, hard-anodised aluminium



WSX-10-40



WSX-10-80

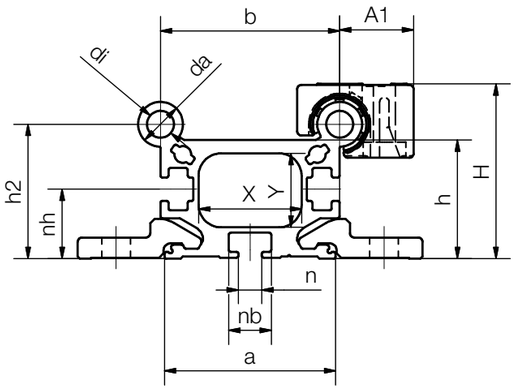


WSX-16-60

Order key

Type	Length
WS X	-10-40-4000

Profile rail	High profile rail	Shaft Ø	Rail width [mm]	Rail length [mm]



Technical data and dimensions [mm]

Part No.	Weight	H[57]	da	di	L	a	A1	b	h	h2	Øs	K1	C1	C3	G1
		±0.25	-0.1		max.										
	[kg/m]														
WSX-10-40	1.3	39	10	6	4,000	38.2	16.5	40	26.5	30	60	M6	29	16	30
WSX-10-80	2.0	39	10	6	4,000	72.2	16.5	74	26.5	30	94	M6	29	16	47
WSX-16-60	4.2	65	16	6	4,000	62.0	25.0	58	49.0	52	100	M8	36	18	50

Part No.	nh	n	nb	X	Y	Surface inertia-moment		Moment of resistance	
						ly	lz	Wby	Wbz
						[mm⁴]	[mm⁴]	[mm³]	[mm³]
WSX-10-40	15.5	5.2	9.5	23	16.0	97,560	54,910	3,902	3,074
WSX-10-80	15.5	5.2	9.5	55	16.0	483,653	83,613	11,515	4,684
WSX-16-60	27.6	10.0	15.4	40	27.0	540,876	773,489	14,618	24,586

[57] Height dimension minus the bearing clearance tolerance

drylin® W profile guides | Product range

Round double rails, made of stainless steel



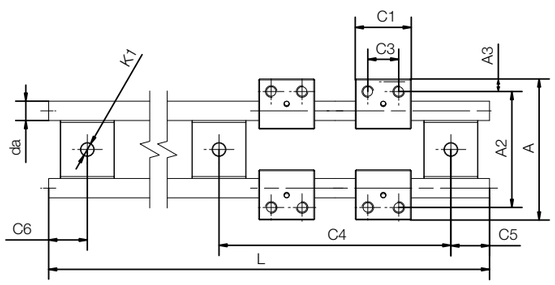
Order key

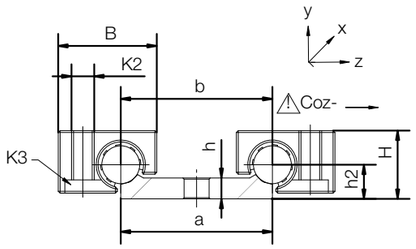
Type
WS-10-40-ES-FG

Profile rail, round	Shaft Ø	Rail width [mm]	Stainless steel	Precision casting

Installation size 10-20
Housing and shaft support material AISI 316
Shaft material AISI 316Ti

Installation size 25
Shaft, shaft support and housing material AISI 316Ti





Technical data and dimensions [mm]

Part No.		Weight	H[57]	da	L	a	b	h	h2	A	A2
			±0.25	h9	max.	-0.3					
		[kg/m]									
WS-10-30-ES	New	1.53	24	10	3,000	30	30	5.5	9	47	38
WS-10-40-ES-FG		1.58	18	10	3,000	40	40	5.5	9	73	60

Part No.	C4	C5 min.	C5 max.	C6 min.	C6 max.	K1 for screw DIN 912
WS-10-30-ES	120	30	30.0	30	30.0	M6
WS-10-40-ES-FG	120	20	79.5	20	79.5	M6

[57] Height dimension minus the bearing clearance tolerance

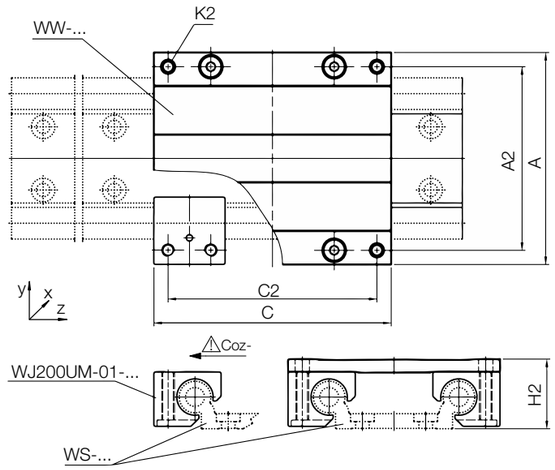
drylin® W profile guides | Product range

Assembled guide carriages, round





In the following sizes, also available with adjustable bearing clearance:
10, 16 and 20; order example: WWE-10-40-15



Order key

Type

WS-10-30-08

Profile rail, round	Shaft Ø	Rail width [mm]	Length

Technical data and dimensions [mm]

Part No.[64]	Weight	A	C	A2	C2	K2	H2[57]	Static load capacity				
		Width	Length				±0.25	Coy	Coz	Mox	Moy	Moz
	[kg]							[N]	[N]	[Nm]	[Nm]	[Nm]
WW-10-30-08	0.26	63	80	50	67	M6	24	4,800	2,400	72	120	120
WW-10-30-10	0.28	63	100	50	87	M6	24	4,800	2,400	72	170	170
WW-10-30-15	0.32	63	150	50	137	M6	24	4,800	2,400	72	290	290
WW-10-40-10	0.29	73	100	60	87	M6	24	4,800	2,400	96	170	170
WW-10-40-15	0.34	73	150	60	137	M6	24	4,800	2,400	96	290	290
WW-10-40-20	0.40	73	200	60	187	M6	24	4,800	2,400	96	410	410
WW-10-80-10	0.34	107	100	94	87	M6	24	4,800	2,400	178	170	170
WW-10-80-15	0.42	107	150	94	137	M6	24	4,800	2,400	178	290	290
WW-10-80-20	0.50	107	200	94	187	M6	24	4,800	2,400	178	410	410
WW-10-120-10	0.41	153	100	140	87	M6	24	4,800	2,400	288	170	170
WW-10-120-15	0.54	153	150	140	137	M6	24	4,800	2,400	288	290	290
WW-10-120-20	0.66	153	200	140	187	M6	24	4,800	2,400	288	410	410
WW-16-60-10	0.71	104	100	86	82	M8	35	8,400	4,200	240	270	270
WW-16-60-15	0.84	104	150	86	132	M8	35	8,400	4,200	240	480	480
WW-16-60-20	0.97	104	200	86	182	M8	35	8,400	4,200	240	690	690
WW-16-120-15 New	1.00	166	150	148	132	M8	35	8,400	4,200	504	480	480
WW-16-120-20 New	1.17	166	200	148	182	M8	35	8,400	4,200	504	690	690
WW-16-120-25 New	1.35	166	250	148	232	M8	35	8,400	4,200	504	900	900
WW-20-80-15	1.20	134	150	116	132	M8	44	12,800	6,400	525	670	670
WW-20-80-20	1.30	134	200	116	182	M8	44	12,800	6,400	525	990	990
WW-20-80-25	1.50	134	250	116	232	M8	44	12,800	6,400	525	1,250	1,250
WW-25-120-15	2.54	195	150	173	128	M10	55	19,200	9,600	1,250	880	880
WW-25-120-20	2.80	195	200	173	178	M10	55	19,200	9,600	1,250	1,360	1,360
WW-25-120-25	3.07	195	250	173	228	M10	55	19,200	9,600	1,250	1,840	1,840

[57] Height dimension minus the bearing clearance tolerance [64] Optional with manual clamp, suffix "-HKA"

Can be combined with:

WS-...

WS-...-ES-FG


WSX-...

Suitable liner material:


iglidur® J


iglidur® J200


iglidur® X


iglidur® E7


iglidur® A180

drylin® W profile guides | Product range New

Linear sliding carriage directly replace ball bearing guide



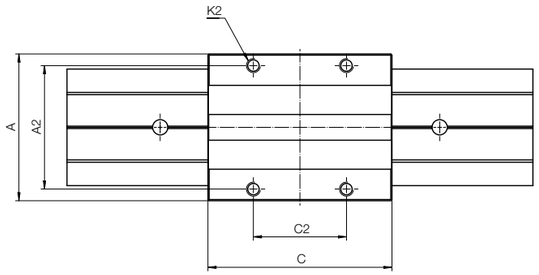


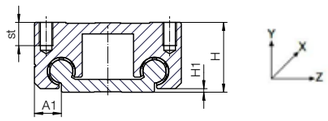
Order key

Type

WW-10-30-T15-AL

Guide carriage	Shaft Ø	Rail width [mm]	Installation size	Aluminium





Technical data and dimensions [mm]

Part No.	H	A	C	A1	A2	C2	K2	st	H1	Weight [g]
WW-10-30-T15-AL New	24	47	59	8.5	38	30	M5	6	1.5	87.8
WW-10-30-T20-AL New	30	63	79	11.5	53	40	M6	10	1.5	210.0

Linear sliding carriage directly replace ball bearing guide - made of stainless steel



Order key

Type

WW-10-30-T15-ES2-□

Guide carriage	Shaft Ø	Rail width [mm]	Installation size	Stainless steel	iglidur® material

iglidur® material
A160: iglidur® A160
E7: iglidur® E7

Technical data and dimensions [mm]

Part No.	H	A	C	A1	A2	C2	K2	st	H1	Weight [kg]
WW-10-30-T15-ES2-□ New	24	47	59	8.5	38	30	M5	6	1.5	0.25
WW-10-40-T20-ES2-□ New	30	63	79	11.5	53	40	M6	10	1.5	0.60

drylin® W profile guides

drylin® W profile guides | Product range New

Slim linear carriages

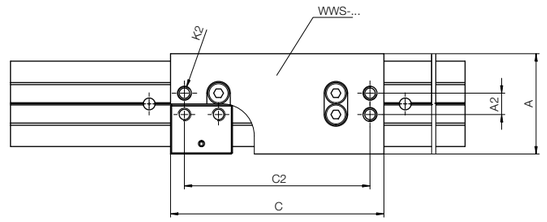


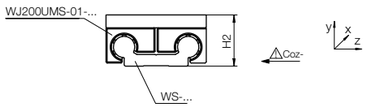
Order key

Type

WWS-10-30-10-AL

Guide carriage, slim	Shaft Ø	Rail width [mm]	Length	Aluminium





Technical data and dimensions [mm]

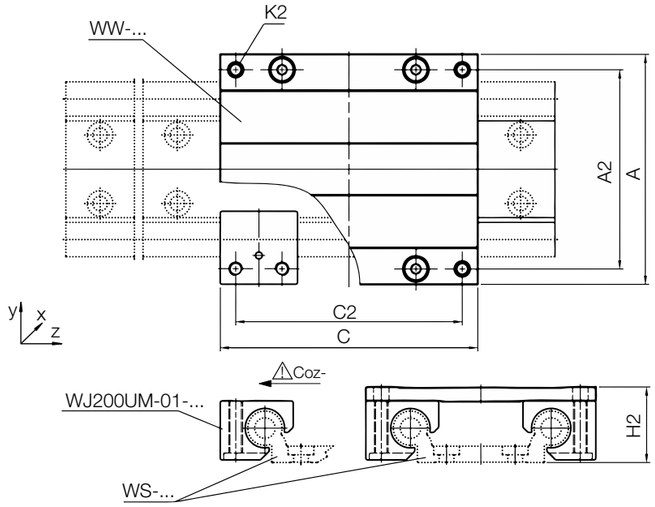
Part No.	A Width	C Length	A2	C2	K2	H2 ±0.25	Weight [kg]	Static load capacity Coy [N]	Coz [N]	Mox [N]	Moy [N]	Moz [N]
WWS-10-30-10-AL New	47	100	10	87	M6	24	0.15	2,400	1,200	36	85	85
WWS-16-60-15-AL New	84	150	27	132	M8	35	0.45	4,200	2,100	120	240	240

drylin® W profile guides | Product range

Assembled stainless steel guide carriages, round







Technical data and dimensions [mm]

Part No.[64]	Weight	A	C	A2	C2	K2	H2[57]	Static load capacity				
		Width	Length				±0.25	Coy	Coz	Mox	Moy	Moz
	[kg]							[N]	[N]	[Nm]	[Nm]	[Nm]
WW-10-40-10-J200-GESG-PES	0.29	73	100	60	87	M6	24	4,800	2,400	96	170	170
WW-10-40-15-J200-GESG-PES	0.34	73	150	60	137	M6	24	4,800	2,400	96	290	290
WW-10-40-20-J200-GESG-PES	0.40	73	200	60	187	M6	24	4,800	2,400	96	410	410

[57] Height dimension minus the bearing clearance tolerance

[64] Optional with manual clamp, suffix "-HKA"

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drylin® W profile guides

drylin® W profile guides | Product range New

Mono-slide carriages, anodised aluminium, with locking mechanism

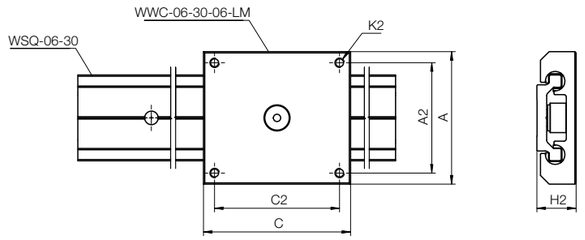


Order key

Type	Size

WWC-06-30-06-LM

Mono-slide guide carriage	Shafts Ø [mm]	Profile width	Carriage length	Locking mechanism



Technical data and dimensions [mm]

Part No.	Weight	A	C	A2	C2	K2	H2[57]	Static load capacity				
		Width	Length	max.	±0.6		±0.2	Coy	Coz	Mox	Moy	Moz
	[kg]	±0.25	-0.1					[N]	[N]	[Nm]	[Nm]	[Nm]
WWC-06-30-06-LM New	0.07	54	60	45	51	M4	16	1,680	840	25	34	34

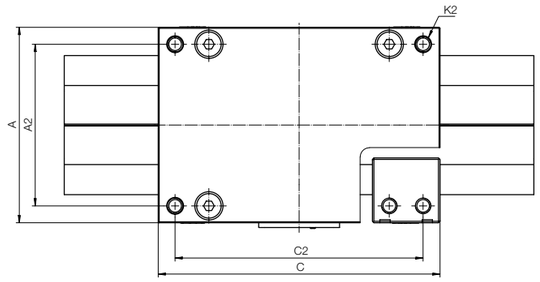
[57] Height dimension minus the bearing clearance tolerance

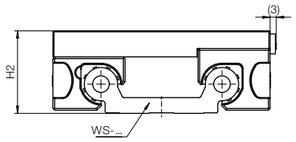
EN 09/2023

drylin® W profile guides | Product range New

Linear carriages with wear measurement, round







Order key

Type	Size	Option

WW-10-40-10-IS-LED

Guide carriage, round	Shaft Ø	Profile width [mm]	Carriage length [mm]	i.Sense	LED display

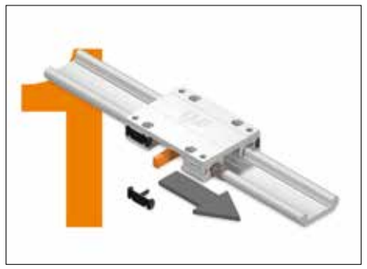
Option:

LED: With LED display

Technical data and dimensions [mm]

Part No.		Weight	A	C	A2	C2	K2	H2[57]	Static load capacity				
			Width	Length				±0.25	Coy	Coz	Mox	Moy	Moz
		[kg]							[N]	[N]	[Nm]	[Nm]	[Nm]
WW-10-40-10-IS.LED	New	0.3	73	100	60	87	M6	30.5	4,800	2,400	96	170	170
WW-10-40-10-IS.LED-02	New	0.3	73	100	60	87	M6	30.5	4,800	2,400	96	170	170
WW-10-40-15-IS.LED	New	0.4	73	150	60	137	M6	30.5	4,800	2,400	96	290	290
WW-10-80-10-IS.LED	New	0.4	107	100	94	87	M6	30.5	4,800	2,400	178	170	170
WW-16-60-15-IS.LED	New	0.7	104	150	86	132	M8	39.5	8,400	4,200	240	480	480
WW-20-80-15-IS.LED	New	1.0	134	150	116	132	M8	48.5	12,800	6,400	525	670	670

[57] Height dimension minus the bearing clearance tolerance







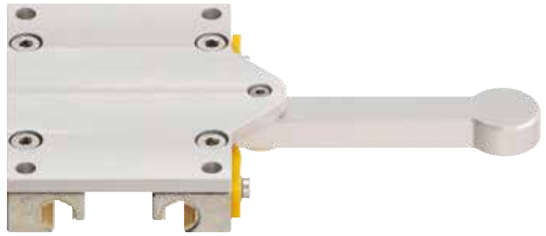
Simple bearing liner replacement. Version with signal transmission, without LED.

Also available with online condition monitoring.
▶ www.igus.eu/led

drylin® W profile guides

drylin® W profile guides | Product range New

Linear carriage with integrated manual clamp

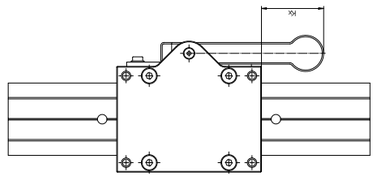


Order key

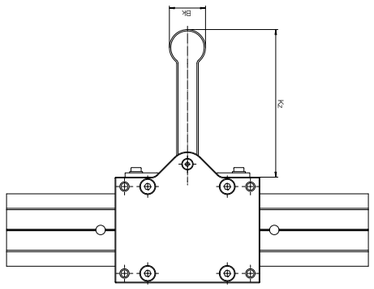
Type	Size

WW-10-40-10-HKX

Guide carriage, round	Shaft Ø	Profile width [mm]	Carriage length [mm]	Clamp system



Open clamp



Closed clamp

Technical data and dimensions [mm]

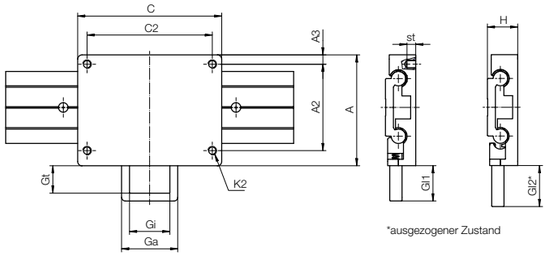
Part No.		Min. holding force	Static load capacity				
			Coy	Coz	Mox	Moy	Moz
		[N]	[N]	[N]	[Nm]	[Nm]	[Nm]
WW-10-40-10-HKX	New	30	4,800	2,400	96	170	170
WW-16-60-15-HKX	New	60	8,400	4,200	240	480	480
WW-20-80-15-HKX	New	60	12,800	6,400	525	670	670

Part No.		Weight	A	C	A2	C2	K2	H2	Kx	Kz	Bk
		[kg]						±0.25			
WW-10-40-10-HKX	New	0.41	73	100	60	87	M6	24	45.5	104.5	25
WW-16-60-15-HKX	New	0.98	104	150	86	132	M8	35	28.0	108.0	25
WW-20-80-15-HKX	New	1.51	134	150	116	132	M8	44	28.0	107.0	25

drylin® W profile guides | Product range New

Clip-on linear carriages





*ausgezogener Zustand

Order key

Type	Size

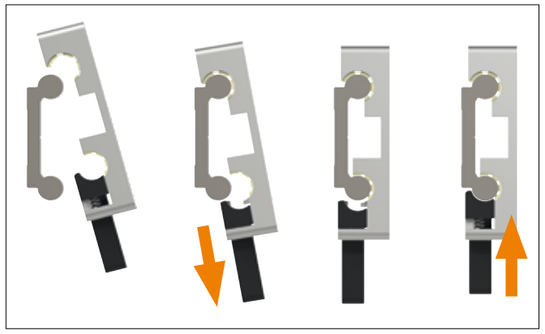
WW-10-40-10-TC

Guide carriage, round	Shaft Ø	Profile width [mm]	Carriage length [mm]	Clip mechanism

Technical data and dimensions [mm]

Part No.	Weight [g]	Gt	Gi	Ga	Gl1	Gl2
WW-10-40-10-TC New	176	19	28	39	24.5	28.5

Part No.	H	A	C	A2	A3	C2	K2	st	H1
WW-10-40-10-TC New	21	77	100	60	6.5	87	M6	6	1.5



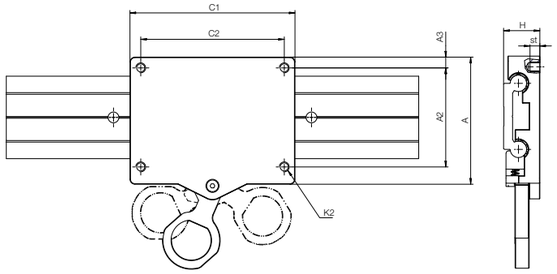
Install and remove the linear carriage at the desired position. Put the carriage on, pull the lever down and clip it in place.

drylin® W profile guides

drylin® W profile guides | Product range New

Clip-on linear carriages with clamping





Order key

Type	Size

WW-10-40-10- CC

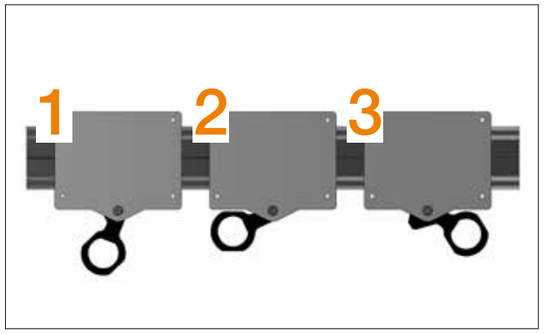
Guide carriage, round	Shaft Ø	Profile width [mm]	Carriage length [mm]	Clip and clamping mechanisms

Technical data and dimensions [mm]

Part No.	Weight [g]	Min. holding force[67] [N]
WW-10-40-10-CC New	212	30

Part No.	H	A	C1	A2	A3	C2	K2	st	H
WW-10-40-10-CC New	22	77	100	60	6.5	87	M6	6	1.5

[67] Condition: dry rail surface



1. Adjustment as linear carriage on drylin® W double rail
2. Clamping position (no linear movement possible)
3. Clip-on mechanism for removing the linear carriage from the rail

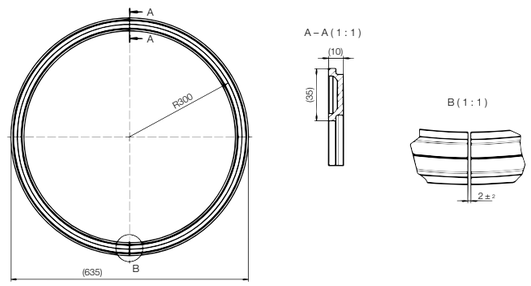
The manual clamp was developed for simple tasks. The creep behaviour of the clamped plastic causes a reduction in clamping force over time, so no safety-relevant parts should be clamped. The actual holding force depends on environmental influences.

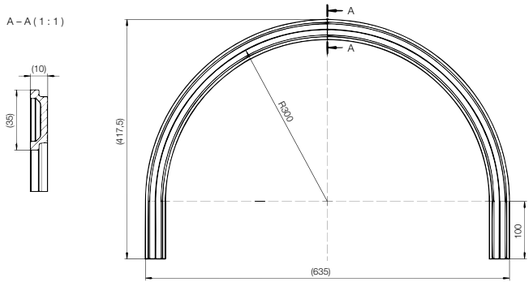
drylin® W profile guides | Product range

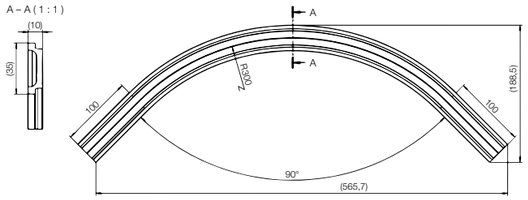
Curved rail profiles, square



WSB-06-30-RK300QS







More information
▶ www.igus.eu/curved

Curved rail profiles
▶ Page 48

Technical data and dimensions [mm]

Part No.	Matching carriage for curved rail	Form	Bend radius	End straight
WSB-06-30-RK300F[151)]	WWB-06-30-06-R300-□[188)]-□[64)]	Full circle	300	–
WSB-06-30-RK300HS	WWB-06-30-06-R300-□[188)]-□[64)]	Half circle	300	100
WSB-06-30-RK300QS	WWB-06-30-06-R300-□[188)]-□[64)]	Quarter circle	300	100
WSB-06-30-RK500HS	WWB-06-30-06-R500-□[188)]-□[64)]	Half circle	500	100
WSB-06-30-RK500QS	WWB-06-30-06-R500-□[188)]-□[64)]	Quarter circle	500	100

[151)] The F version (full circle) has a transition of 2mm (±0.2). Due to the bending process, material displacement tolerances, which can be up to several millimetres depending on the bend direction and radius, must be taken into account.
[188)] Optional with spring pre-load
[64)] Optional with manual clamp, suffix "-HKA"
RK: Radius curved bending
S: Straight rail ends in the case of semicircle and quarter circle

Can be combined with:



WWB-...

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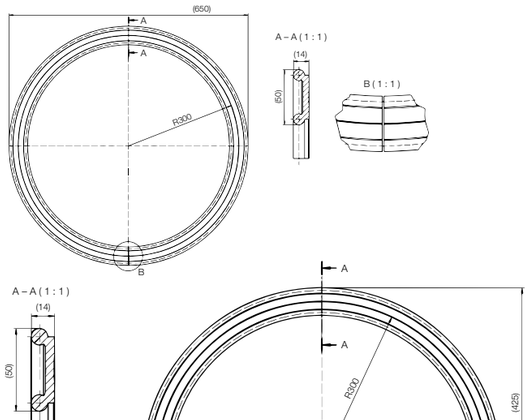
drylin® W profile guides

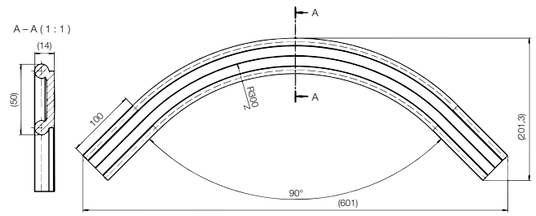
drylin® W profile guides | Product range

Curved rail profiles, round



WSB-10-40-RK300QS





Order key

Type	Size	Option

WSB-06-30-RK 300- F

Curved rail profile	Shaft Ø	Profile width [mm]	Radius curved bending	Bend radius	Form

Options:
F: Full circle
H: Half circle, end straight (HS)
Q: Quarter circle, end straight (QS)

Technical data and dimensions [mm]

Part No.	Matching carriage for curved rail	Form	Bend radius	End straight
WSB-10-40-RK300F[151)]	WWB-10-40-10-R300-□[188)]-□[64)]	Full circle	300	–
WSB-10-40-RK300HS	WWB-10-40-10-R300-□[188)]-□[64)]	Half circle	300	100
WSB-10-40-RK300QS	WWB-10-40-10-R300-□[188)]-□[64)]	Quarter circle	300	100
WSB-10-40-RK500F[151)]	WWB-10-40-10-R500-□[188)]-□[64)]	Full circle	500	–
WSB-10-40-RK500HS	WWB-10-40-10-R500-□[188)]-□[64)]	Half circle	500	100
WSB-10-40-RK500QS	WWB-10-40-10-R500-□[188)]-□[64)]	Quarter circle	500	100

[151)] The F version (full circle) has a transition of 2mm (±0.2). Due to the bending process, material displacement tolerances, which can be up to several millimetres depending on the bend direction and radius, must be taken into account.
[188)] Optional with spring pre-load
[64)] Optional with manual clamp, suffix "-HKA"
RK: Radius curved bending
S: Straight rail ends in the case of semicircle and quarter circle

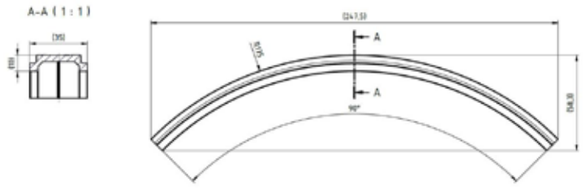
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drylin® W profile guides | Product range New

Curved rail profiles, square



WSB-06-30-RX300Q



More information
▶ www.igus.eu/curved

Technical data and dimensions [mm]

Part No.	Matching carriage for curved rail	Form	Bend radius	Profile direction
WSB-06-30-RX300Q New	WWB-06-30-04 WWB-06-30-06-□[188]-□[64]	Quarter circle	300	concave/convex

[188] Optional with spring pre-load
[64] Optional with manual clamp, suffix "-HKA"

Can be combined with:



WWB-...

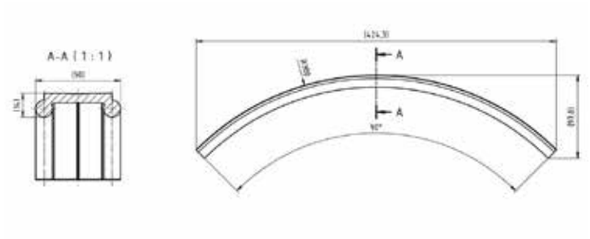
drylin® W profile guides

drylin® W profile guides | Product range New

Curved rail profiles, round



WSB-10-40-RX300Q



Order key

Type	Size	Option

WSB-06-30-RX 300-Q

Curved rail profile	Shaft Ø	Profile width [mm]	Radius concave/convex	Bend radius	Form

Design options:
Q: Quarter circle

Technical data and dimensions [mm]

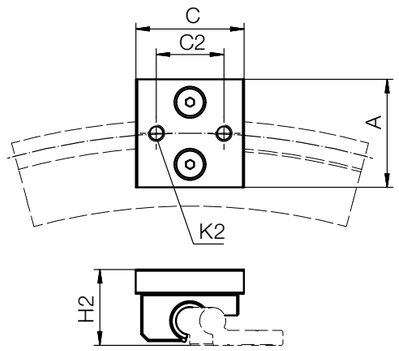
Part No.	Matching carriage for curved rail	Form	Bend radius	Profile direction
WSB-10-40-RX300Q New	WWB-10-40-10-□[188]-□[64]	Quarter circle	300	concave/convex

[188] Optional with spring pre-load
[64] Optional with manual clamp, suffix "-HKA"

drylin® W profile guides | Product range

Single bearings for curved rails





Order key

Type	Option	Option
WI3U B	P	-01-10-LLZ

drylin® W	Liner material iglidur® i3	Curved	Polymer	Standard	Size	Floating bearing in y-direction

Dimensions [mm]

Part No.	Weight [g]	A	C	C2	K2	H2
WI3UBP-01-10	50	40	40	25	M6	28
WI3UBP-01-10-R300-LLZ	44	40	40	25	M6	28
WI3UBP-01-10-R500-LLZ	44	40	40	25	M6	28
WI3UBP-01-10-LLZ	44	40	40	25	M6	28

Can be combined with:

WSB-...

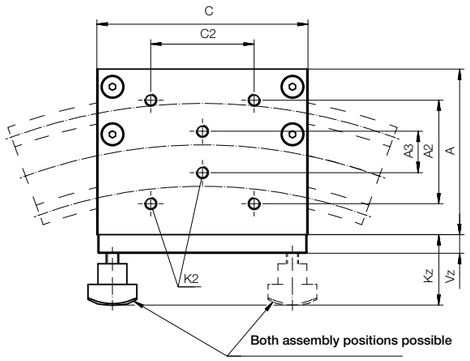
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drylin® W profile guides | Product range

Carriage for curved rails







Order key

Type	Size	Option
WWB-10-40-10-	P	-HKA

Guide carriage for curved rails	Shaft Ø	Profile width [mm]	Carriage length [mm]	With spring pre-load	With manual clamp

Options:
Blank: Standard
P: With spring pre-load
P-HKA: With spring pre-load and manual clamp
HKA: With manual clamp

Curved rail profiles
▶ Page 48

Technical data and dimensions [mm]

Part No.	Weight [kg]	A ±0.25	C -0.1	A2	A3	C2	K2	H2	Vz	Kz
WWB-06-30-06-R300-□-□	0.31	58	60	30	16	30	M4	20	7.5	29
WWB-06-30-06-R500-□-□	0.31	58	60	30	16	30	M4	20	7.5	29
WWB-10-40-10-R300-□-□	0.35	80	102	50	20	50	M6	28	9	34
WWB-10-40-10-R500-□-□	0.35	80	102	50	20	50	M6	28	9	34

Can be combined with:

WS-... WS-...-ES-FG WSB-...

More information
▶ www.igus.eu/curved

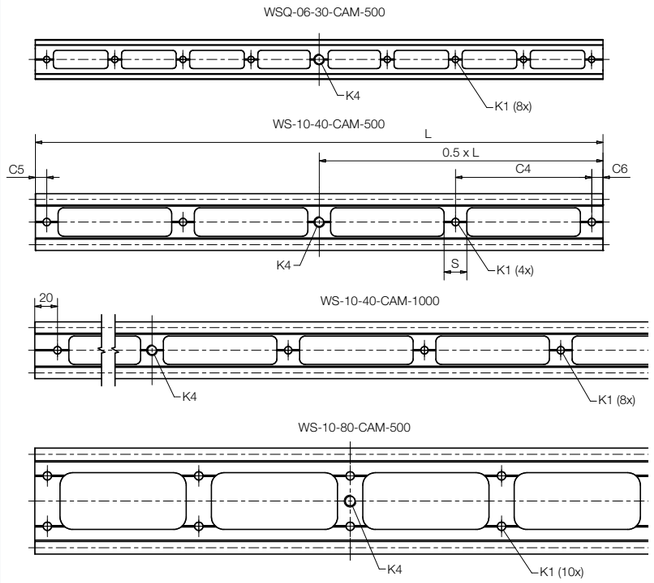
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drylin® W profile guides | Product range

Double rails, reduced weight, hard-anodised aluminium



- 30 % weight reduction through machined recesses
- Suitable pillow blocks and carriages made from plastic, aluminium, zinc die-casting or stainless steel



drylin® W guide rails - dimensions [mm]

Part No.	Identical profile	L	C4	C5	C6	S	K1 for screw DIN 192	K4	Weight [g]
WSQ-06-30-CAM-500	**WSQ-06-30**	500	60	10	10	12	M5	3/8" 16-UNC[63)]	159
WS-10-40-CAM-500	**WS-10-40**	500	120	10	10	20	M6	3/8" 16-UNC[63)]	353
WS-10-40-CAM-1000	**WS-10-40**	1,000	120	20	20	20	M6	3/8" 16-UNC[63)]	706
WS-10-80-CAM-500	**WS-10-80**	500	120	10	10	20	M6	3/8" 16-UNC[63)]	482

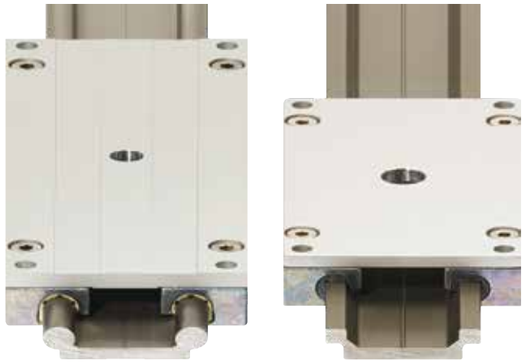
[63)] UNC = Unified National Coarse, Anglo-American. Screw thread standard



Application example:
camera slider with standard rail and carriage
▶ www.igus.eu/camera

drylin® W profile guides | Product range

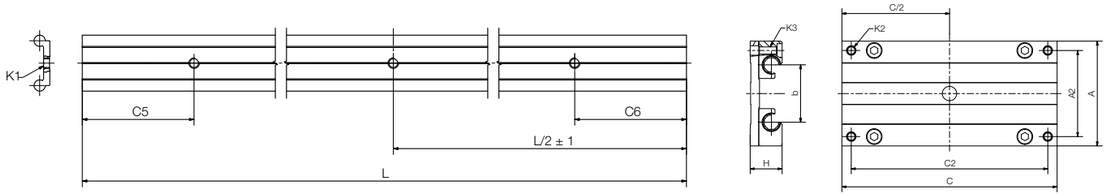
Double rails/carriages for camera slider



- Wear-resistant, smooth and quiet motion
- Adjustable brake level due to the turn-to-fit function
- Easy and fast assembly
- Further dimensions such as standard WS rails
  ▶ **Page 84**

Technical options:

- Adjustable bearing housing ▶ **Page 72**
- Manual clamp ▶ **Page 124**



drylin® W special rails with 3 holes, 3/8" thread Dimensions [mm]

Part No.	Size	L	C5 ± 1	C6 ± 1	Weight [kg/m]
WSQ-06-30-SL-1000	06	1,000	100	100	0.45
WSQ-06-30-SL-1500	06	1,500	100	100	0.45
WS-10-30-SL-1000	10	1,000	100	100	0.85
WS-10-30-SL-1500	10	1,500	100	100	0.85
WS-10-40-SL-1500	10	1,500	100	100	1.00
WS-10-80-SL-1000	10	1,000	100	100	1.50
WS-10-80-SL-1500	10	1,500	100	100	1.50
WS-16-60-SL-1000	16	1,000	100	100	1.96
WS-16-60-SL-1500	16	1,500	100	100	1.96
WS-20-80-SL-1000	20	1,000	100	100	3.30
WS-20-80-SL-1500	20	1,500	100	100	3.30

drylin® W complete carriage with Ø10mm through hole for 3/8" thread Dimensions [mm]

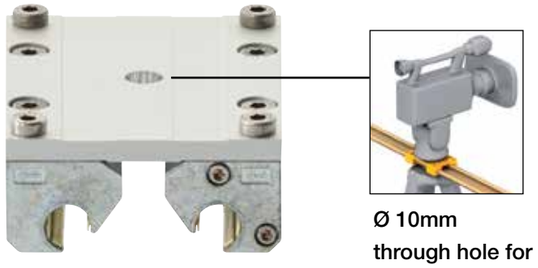
Part No.	Size	C	A
WW-06-30-06-SL	06	60	54
WW-06-30-08-SL	06	80	54
WW-06-30-10-SL	06	100	54
WW-10-30-10-SL[64) 65)]	10	100	63
WW-10-30-15-SL[64) 65)]	10	150	63
WW-10-40-10-SL[64) 65)]	10	100	73
WW-10-40-15-SL[64) 65)]	10	150	73
WW-10-40-20-SL[64) 65)]	10	200	73
WW-10-80-10-SL[64) 65)]	10	100	107
WW-10-80-15-SL[64) 65)]	10	150	107
WW-10-80-20-SL[64) 65)]	10	200	107
WW-16-60-10-SL[65)]	16	100	104
WW-16-60-15-SL[64) 65)]	16	150	104
WW-16-60-20-SL[64) 65)]	16	200	104
WW-20-80-15-SL[64) 65)]	20	150	134
WW-20-80-20-SL[64) 65)]	20	200	134
WW-20-80-25-SL[64) 65)]	20	250	134

[64)] Optional with manual clamp, suffix "-HKA"

[65)] Optional with adjustable "Turn-To-Fit" bearing (Order example: WWE-…)

drylin® W profile guides | Product range

Hybrid slider carriages with four double roller bearings



Ø 10mm
through hole for
3/8" thread for
cameras

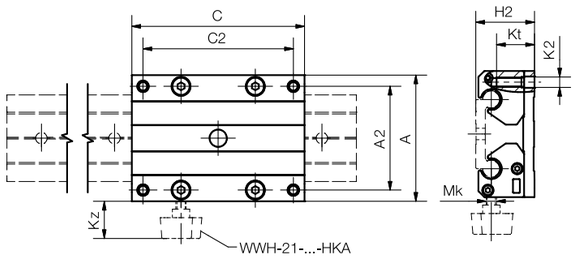
Order key

Type	Dimensions	Design

W WH- 21- 10- 40- 10- SL

drylin® W	Hybrid carriage	Double roller bearing	Installation size	Carriage length [mm]	Slider carriage

Optional with manual clamp,
suffix "-HKA"



Technical data and dimensions [mm]

Part No.	Weight	A Width	C Length	A2	C2	K2	Kt	H2	Stat. load capacity Coy
	[kg]								[N]
WWH-21-10-40-10-SL	0.59	73	100	60	87	M6	21	34	1,400
WWH-21-10-40-15-SL	0.64	73	150	60	137	M6	21	34	1,400
WWH-21-10-40-20-SL	0.70	73	200	60	187	M6	21	34	1,400
WWH-21-10-80-10-SL	0.64	107	100	94	87	M6	21	34	1,400
WWH-21-10-80-15-SL	0.72	107	150	94	137	M6	21	34	1,400
WWH-21-10-80-20-SL	0.80	107	200	94	187	M6	21	34	1,400
WWH-21-16-60-10-SL	1.31	104	100	86	82	M8	29	49	2,400
WWH-21-16-60-15-SL	1.44	104	150	86	132	M8	29	49	2,400
WWH-21-16-60-20-SL	1.57	104	200	86	182	M8	29	49	2,400
WWH-21-20-80-15-SL	1.72	134	150	116	132	M8	24	57	3,360
WWH-21-20-80-20-SL	1.82	134	200	116	182	M8	24	57	3,360
WWH-21-20-80-25-SL	2.02	134	250	116	232	M8	24	57	3,360

Can be combined with:



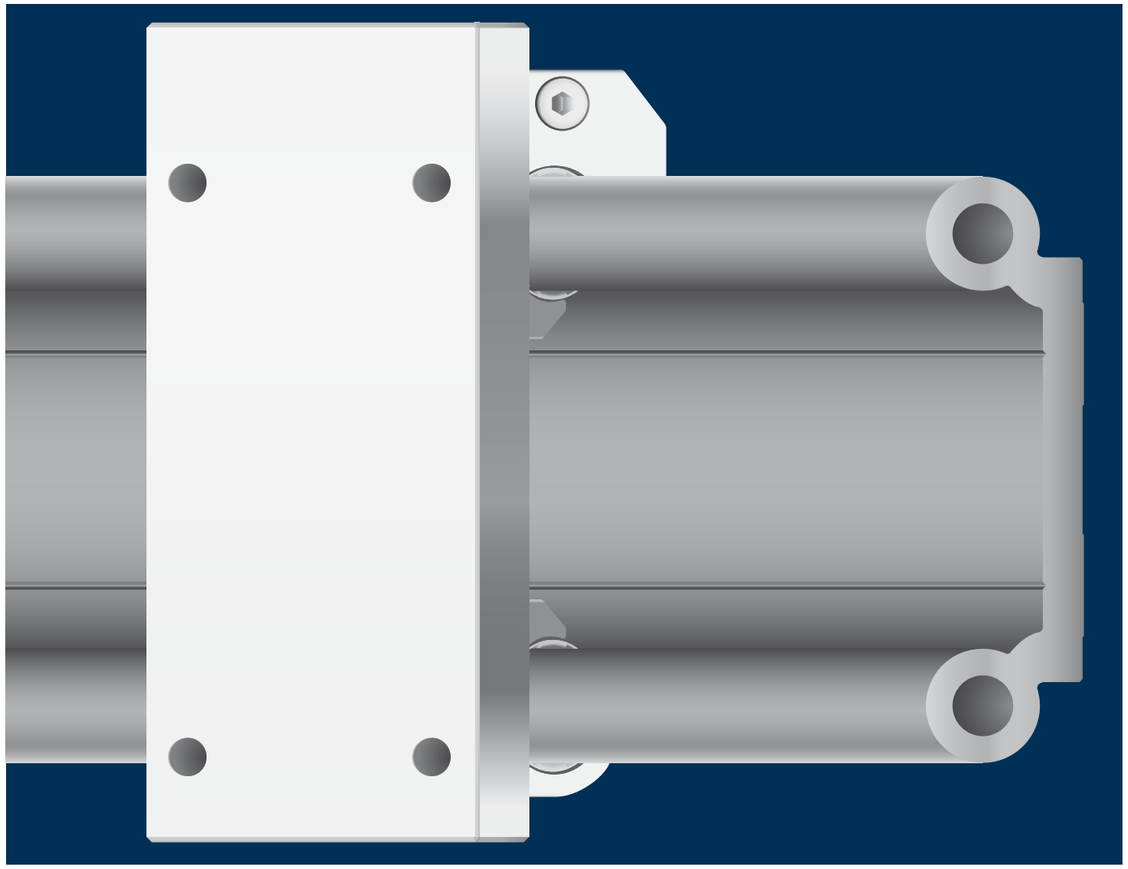
WS-20-80 WS-...-ES-FG WSX-...

Can be combined with camera slider rails

▶ Page 104

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drylin® linear technology - drylin® W hybrid roller bearings

Lubrication-free roll and slide and roller bearings

Low drive forces

For manual adjustment

Suitable for radial loads

Single bearings and complete carriages



drylin® W hybrid roller bearings | Advantages

Hybrid roller bearings from the drylin® W linear system



Combined sliding and rolling for low driving forces

drylin® hybrid roller bearings offer an unique lubrication-free combination of plain and roller bearings. The integrated rollers achieve low drive forces, while the sliding effect simultaneously protect against radial loads. This makes drylin® hybrid roller bearings ideal for manual adjustments in door applications (e.g. machine doors, safety doors), but also in mobile control panels. The efficient design using plastics with zinc die-casting also cuts costs. Hybrid bearings can be used on various hard-anodised aluminium profiles from the drylin® W linear system.

- Smooth operation
- Low-profile
- Offset and abuse forces are easily absorbed by sliding elements
- Location on rail ensures reliability
- Matching guide rails made from hard-anodised aluminium
- Low drive force required
- Cost-effective

Typical application areas

- Machine doors
- Safety doors
- Operator panels

Available from stock
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Service life calculation
▶ **www.igus.eu/drylin-expert**

Tightening torque for drylin® metallic screws
▶ **Page 50**

drylin® W hybrid roller bearings | Product overview

Slide and roll



Hybrid roller bearing rails

- Ideal for flat structures
- Geometry optimised for hybrid roller bearings
- Low profile design with wide support

▶ **Page 112**



Hybrid roller bearings for WSR roller bearing rails

- Suitable for WAS hybrid roller bearing rails
- Hybrid roller bearing with double rollers for better force absorption
- Hybrid roller bearings with single rollers as support

▶ **Page 113**



Hybrid roller bearings with single roller/ tandem roller

- Lubrication-free due to bearing supported plastic roller
- Low drive forces
- Can be combined with drylin® W single and double rails

▶ **Page 114**



Hybrid roller bearings with double rollers

- Low coefficient of rolling friction is still maintained with deviating load directions
- Increased load capacity
- Variable bearing removed, but the housing is now available in corrosion-resistant stainless steel as well.

▶ **Page 115**



Complete carriages WWR

- Complete carriage for lateral adjustments
- Guidance via a double rail without support
- Also available as a short, compact carriage for variable multi-carriage solution

▶ **Page 119**



Complete carriages WWH

- Complete carriage with 4 integrated hybrid roller bearings
- For horizontal installation
- Variable carriage lengths and widths

▶ **Page 120**



Suitable rail profiles
▶ **From page 66**



Camera slider
▶ **From page 105**



Machine tools
The smooth, quiet operation and the enormous cost advantages are obtained by the use of the drylin® linear bearings on the hard-anodised guide shaft to guide the doors of machine tools.



Control panel unit
Lightweight due to the use of plastic and aluminium with a corrosion-free coating, the guides in the drylin® range impress with their quiet and precise running.



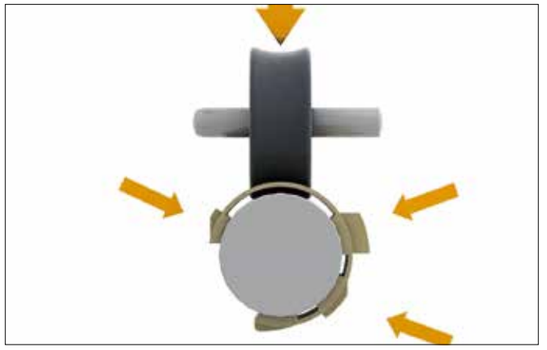
Camera adjustment
Lightweight due to the use of plastic and aluminium with a corrosion-free coating, the guides in the drylin® range impress with their quiet and precise running.

drylin® W hybrid roller bearings type 01

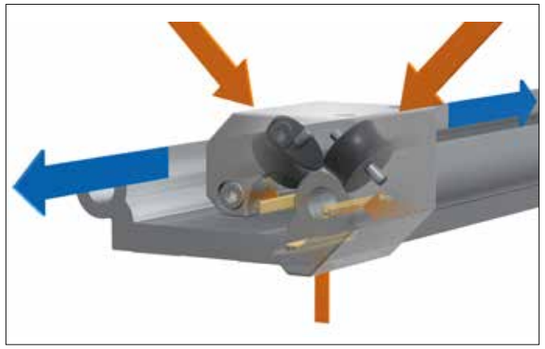
The drylin® W hybrid roller bearings from the WJRM-01-... type series are each equipped with a bearing-supported plastic roller.The bearing housing is available in three installation sizes and can be used with drylin® W single or double shaft rails in two installation positions. The hybrid roller bearing should be installed so that the load capacity is applied in the roll direction. Different load directions are possible but causes higher displacement forces.

drylin® W hybrid roller bearings type 21

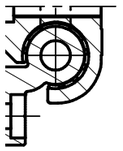
The drylin® W hybrid roller bearings in the WJRM-21-... type series are each equipped with two bearing-supported plastic rollers at an angle of 70° or 80°. Available in three installation sizes, they can be combined with drylin® W single and double rails. The double roller bearings offer a higher load capacity than with a vertical bearing load on the installation area (y-direction). The low coefficient of rolling friction is still maintained with load directions that slightly deviate from this.



Forces absorbed by hybrid roller bearing



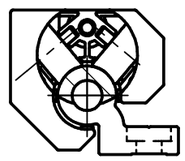
Hybrid double roller bearing applicable force absorption

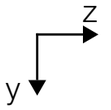


Installation position 01

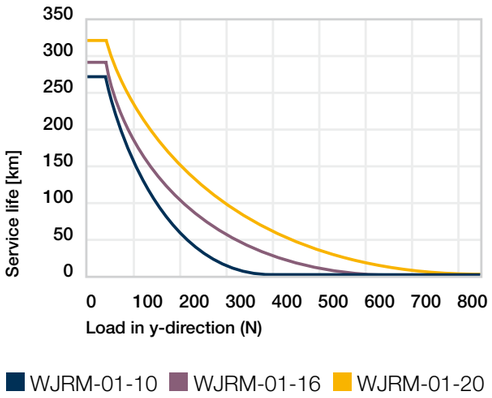


Installation position 02

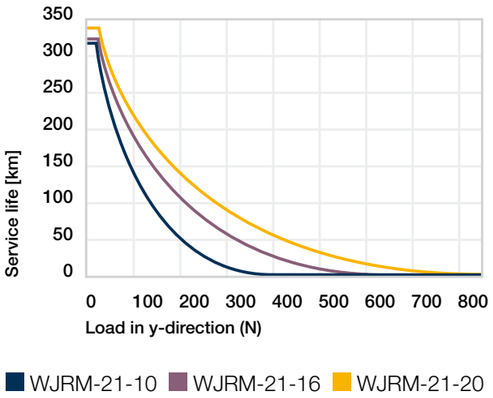




Installation position WJRM-01-...



Installation position WJRM-21-...

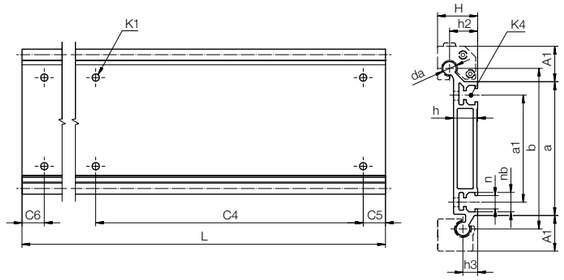


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drylin® W hybrid roller bearings | Product range

Hybrid rails for lateral installation





Order key

Type	Size
WSR-10	-120-4000

Hybrid roller bearing rail	Shaft Ø	Rail width [mm]	Rail length [mm]

Technical data and dimensions [mm]

Part No.	Geometrical moment of inertia		Moment of resistance		K1 for screw	K4 for slot nut	Weight
	Iy [mm⁴]	Iz [mm⁴]	Wby [mm³]	Wbz [mm³]			[kg/m]
WSR-10-120	1,443,000	38,700	22,000	2,600	M6	–	2.58
WSR-10-120-UNGEBOHRT	1,443,000	38,700	22,000	2,600	–	MSX-B-0001-M6	2.58

Part No.	H	da	L	a	A1	b	h	h2	h3	a1	n	nb	C4	C5 = C6	
	±0.25	-0.1	max.	±0.6										min.	max.
WSR-10-120	30	10	4,000	100	26.5	120	18	21	11	80	10	14.5	240	20	199.5
WSR-10-120-UNGEBOHRT	30	10	4,000	100	26.5	120	18	21	11	80	10	14.5	–	–	–

End caps for roller bearing rails ▶ Page 128

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drylin® W hybrid roller bearings

drylin® W hybrid roller bearings | Product range

Hybrid roller bearings for hybrid lateral rails

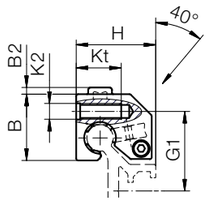


WJRM-31-10

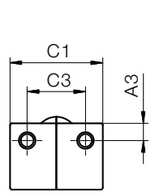


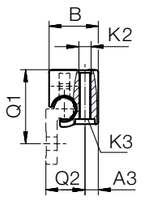
WJRM-41-10





WJRM-41





WJRM-31
Installation position 01

Order key

Type	Size	Option
WJRM-31-	10	-BB

Hybrid roller bearings	Double roller bearing	Size 10	Ball bearing

Options:
31: Single roller bearing, bottom assembly for better support
41: Double roller bearing, top assembly for better force absorption
BB: Ball bearing supported plastic roller

Suitable mounting plate
▶ Page 122

Technical data [mm]

Part No.	Stat. load capacity Co [N]	Dyn. load capacity Cz+ at total running distance [km] 10 [N]	100 [N]	200 [N]	Coefficient of friction in z-direction [µ]	F · v max. [N · m/s]	Weight [g]
WJRM-31-10	250	250	90	50	< 0.1	50	91
WJRM-41-10	250	250	90	50	< 0.1	50	97
WJRM-31-10-BB New	250	250	90	50	< 0.03	100	85
WJRM-41-10-BB New	250-350	250-350	90-125	50-70	< 0.03	50	91

Dimensions [mm]

Part No.	A3	B	B2	C1	C3	H	G1	K2 for thread	K3 for screw	Q1	Q2	kt
WJRM-31-10	6.5	24	–	35	22	28	27	M6	M5	36	19	16
WJRM-41-10	6.5	25	2.5	35	22	30	30	M6	M5	–	–	–
WJRM-31-10-BB New	6.5	24	–	35	22	28	27	M6	M5	36	19	–
WJRM-41-10-BB New	6.5	25	2.5	35	22	30	30	M6	M5	–	–	16

Can be combined with:

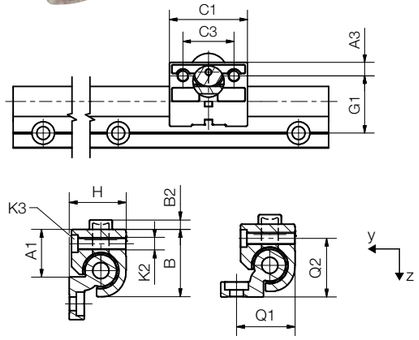
WSR-...

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drylin® W hybrid roller bearings | Product range

Hybrid roller bearings with a plastic roller





Installation position 01

Installation position 02

Order key

Type	Size
WJRM - 01 - 10	

Hybrid roller bearings | With single roller | Size 10

Options:
Blank: Bearing supported plastic roller
BB: Ball bearing supported plastic roller

Suitable mounting plate
▶ Page 122

Installation position 02 in installation size Ø10 when using a WJRM-02-10 hybrid roller bearing

Technical data and dimensions [mm]

Part No.	Stat. load capacity Co	Dyn. load capacity Cy+ at total running distance [km]			F · v	Weight
		10	100	200	max.	
	[N]	[N]	[N]	[N]	[N · m/s]	[g]
WJRM-01-10[71)]	250	250	90	50	50	46
WJRM-01-10-BB[71)]	250	250	90	50	100	46
WJRM-01-16	400	400	140	70	80	131
WJRM-01-16-BB	400	400	140	70	160	131
WJRM-01-20	550	550	200	100	80	232
WJRM-01-20-BB	550	550	200	100	160	232

Part No.	Coefficient of friction in z-direction	A1	A3	B	B2	C1	C3	G1	H	K2 for thread	K3 for screw	Q1	Q2
	[µ]												
WJRM-01-10[71)]	< 0.10	16.5	6.5	26.0	2.5	35	22	27	18	M6	M5	–	–
WJRM-01-10-BB[71)]	< 0.03	16.5	6.5	26.0	2.5	35	22	27	18	M6	M5	–	–
WJRM-01-16	< 0.10	25.0	9.0	34.5	5.0	48	30	33	27	M8	M6	32	28
WJRM-01-16-BB	< 0.03	25.0	9.0	34.5	5.0	48	30	33	27	M8	M6	32	28
WJRM-01-20	< 0.10	30.0	9.0	42.5	6.0	52	34	38	36	M8	M6	37	37
WJRM-01-20-BB	< 0.03	30.0	9.0	42.5	6.0	52	34	38	36	M8	M6	37	37

[71)] Deviating from WJRM-02-10, available with an expanded opening angle for installation position 02

Can be combined with:

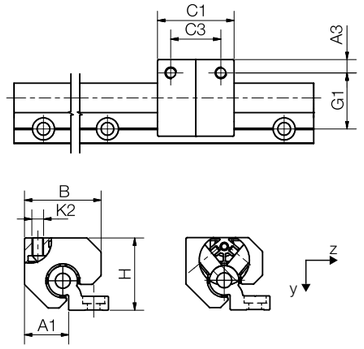
WS-... | WS-..-ES-FG-... | WS-... | WS-...-ES-FG | WSX-...

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drylin® W hybrid roller bearings | Product range

Hybrid roller bearings with integrated double angled rollers





Order key

Type	Size
WJRM - 21 - 10	

Hybrid roller bearings | Double roller bearing | Size 10

Options:
Blank: Bearing supported plastic roller
BB: Ball bearing supported plastic roller

Suitable mounting plate
▶ Page 122

Optional with manual clamp, suffix "-HKA"



Technical data and dimensions [mm]

Part No.	Stat. load capacity Co	Dyn. load capacity Cz+ at total running distance [km]			F · v	Weight
		10	100	200	max.	
	[N]	[N]	[N]	[N]	[N · m/s]	[g]
WJRM-21-10	350	350	125	70	50	115
WJRM-21-10-BB	350	350	125	70	100	115
WJRM-21-16	600	600	210	105	80	250
WJRM-21-16-BB	600	600	210	105	160	250
WJRM-21-20	840	840	300	150	80	320
WJRM-21-20-BB	840	840	300	150	160	320

Part No.	Coefficient of friction in y-direction	A1	A3	B	C1	C3	G1	H	K2 for screw
	[µ]								
WJRM-21-10	< 0.10	16.5	6.5	31	35	22	27	28	M6
WJRM-21-10-BB	< 0.03	16.5	6.5	31	35	22	27	28	M6
WJRM-21-16	< 0.10	25.0	9.0	44	48	30	33	41	M8
WJRM-21-16-BB	< 0.03	25.0	9.0	44	48	30	33	41	M8
WJRM-21-20	< 0.10	30.0	9.0	52	52	34	38	49	M8
WJRM-21-20-BB	< 0.03	30.0	9.0	52	52	34	38	49	M8

WJRM-21-10 and WJRM-21-16: 70° angle between the rollers / WJRM-21-20: 80° angle between the rollers

Can be combined with:

WS-... | WS-..-ES-FG-... | WS-... | WS-...-ES-FG | WSX-...

EN 09/2023

drylin® W hybrid roller bearings | Product range New

Hybrid roller bearings with two rollers

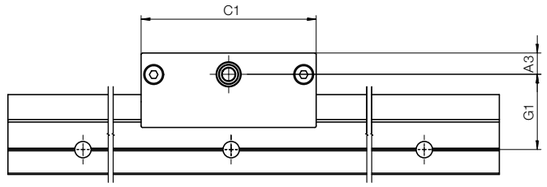


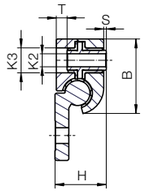
Order key

Type	Size	Material
WJRM-51-	10	-AL

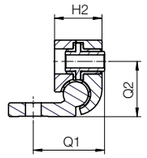
Hybrid roller bearings | With double roller | Size 10 | Aluminium

Material
AL: Aluminium





Installation position 01



Installation position 02

Technical data and dimensions [mm]

Part No.	Stat. load capacity Co	Dyn. load capacity Cy+ at total running distance [km] 10	100	200	F · v max.	Weight
	[N]	[N]	[N]	[N]	[N · m/s]	[g]
WJRM-51-10-AL New	500	500	180	100	50	70
WJRM-51-16-AL New	800	800	280	140	80	123
WJRM-51-20-AL New	1,100	1,100	400	200	80	215

Part No.	Coefficient of friction in z-direction	A3	B	C1	G1	S	H	H2	T	K2	K3	Q1	Q2
	[µ]									Ø	Ø		
WJRM-51-10-AL New	< 0.10	8.5	29.8	70	30.1	1	20.5	19.0	4.3	5.2	10	28.5	22.1
WJRM-51-16-AL New	< 0.10	9.5	39.5	85	37.5	1	27.5	25.0	7.0	6.2	12	31.5	32.5
WJRM-51-20-AL New	< 0.10	11.0	48.5	100	42.0	1	36.0	34.5	14.0	8.2	17	37.0	41.0

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drylin® W hybrid roller bearings

drylin® W hybrid roller bearings | Product range New

Tandem roller bearings with ball bearings



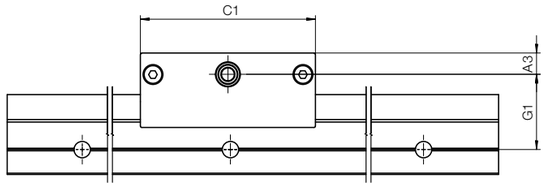


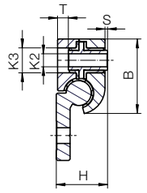
Order key

Type	Size	Material
WJRM-51-	10	-BB-AL

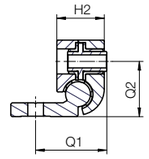
Hybrid roller bearings | With double roller | Size 10 | Roller with ball bearing | Aluminium

Material
AL: Aluminium





Installation position 01



Installation position 02

Technical data and dimensions [mm]

Part No.	Stat. load capacity Co	Dyn. load capacity Cy+ at total running distance [km] 10	100	200	F · v max.	Weight
	[N]	[N]	[N]	[N]	[N · m/s]	[g]
WJRM-51-10-BB-AL New	500	500	180	100	50	70
WJRM-51-16-BB-AL New	800	800	280	140	80	123
WJRM-51-20-BB-AL New	1,100	1,100	400	200	80	215

Part No.	Coefficient of friction in y-direction	A3	B	C1	G1	S	H	H2	T	K2	K3	Q1	Q2
	[µ]									Ø	Ø		
WJRM-51-10-BB-AL New	< 0.03	8.5	29.8	70	30.1	1	20.5	19.0	4.3	5.2	10	28.5	22.1
WJRM-51-16-BB-AL New	< 0.03	9.5	39.5	85	37.5	1	27.5	25.0	7.0	6.2	12	31.5	32.5
WJRM-51-20-BB-AL New	< 0.03	11.0	48.5	100	42.0	1	36.0	34.5	14.0	8.2	17	37.0	41.0

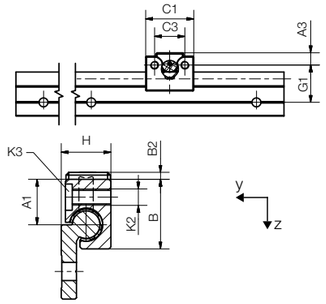
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drylin® W hybrid roller bearings | Product range

Hybrid roller bearings made of stainless steel

WJRM-01 with single roller





Order key

Type	Size	Material
WJRM-01-	10	-ES

Hybrid roller bearings | With single roller | Size 10 | Stainless steel

Material
ES: Stainless steel 1.4571 (AISI 316Ti)
ES-FG: Stainless steel precision casting AISI 316
AL: Aluminium

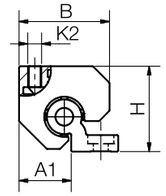
Technical data and dimensions [mm]

Part No.	Stat. load capacity	Dyn. load capacity Cz+ at total running distance [km]			F · v
	Co	10	100	200	max.
	[N]	[N]	[N]	[N]	[N · m/s]
WJRM-01-10-ES-FG	250	250	90	50	50
WJRM-01-10-AL	250	250	90	50	50

Part No.	Coefficient of friction in z-direction	Coefficient of friction in y-direction	Weight	A1	A3	B	B2	C1	C3	G1	H	K2	K3 for screw
	[µ]	[µ]	[g]										
WJRM-01-10-ES-FG	< 0.1	–	57	16.5	6.5	26	2.5	35	22	22	18	M6	M5
WJRM-01-10-AL	< 0.1	–	18	16.5	6.5	26	2.5	35	22	22	18	M6	M5

WJRM-21 with double roller







Order key

Type	Size	Material
WJRM-21-	20	-ES

Hybrid roller bearings | Double roller bearing | Size 20 | Stainless steel

Material
ES: Stainless steel 1.4571 (AISI 316Ti)
ES-FG: Stainless steel precision casting AISI 316

Technical data and dimensions [mm]

Part No.	Stat. load capacity	Dyn. load capacity Cz+ at total running distance [km]			F · v
	Co	10	100	200	max.
	[N]	[N]	[N]	[N]	[N · m/s]
WJRM-21-20-ES-FG	840	840	300	150	80

Part No.	Coefficient of friction in z-direction	Coefficient of friction in y-direction	Weight	A1	A3	B	C1	C3	G1	H	K2	K3 for screw
	[µ]	[µ]	[g]									
WJRM-21-20-ES-FG	–	< 0.1	504	30	9	52	52	34	38	49	M8	M5

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drylin® W hybrid roller bearings | Product range

Hybrid carriages for lateral installation



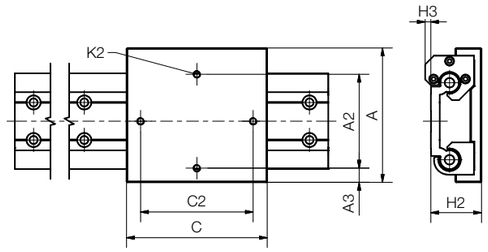


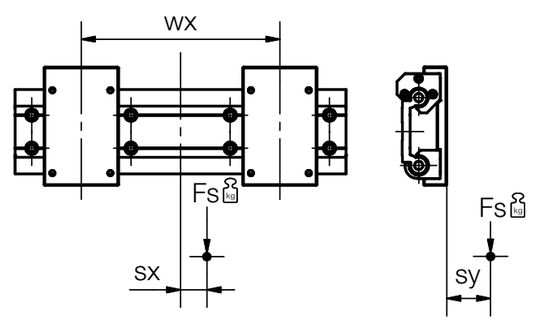
Order key

Type	Size	Option
WWR-21-	80	- 01

drylin® W | Hybrid carriage | Double roller bearing | Installation size | Compact

Options:
01: Carriage, short design
15: Carriage, long design





Technical data and dimensions [mm]

Part No.	A Width	C Length	A2	C2	K2	H2 ±0.17	A3	H3	sx min.	sx max.	sy min.	sy max.
WWR-21-80-01	143	90	100	70	M8	54	15	6	-49	+49	-34	+34
WWR-21-80-15	143	150	100	120	M8	54	15	6	-wx/2	+wx/2	-34	+34

Order example:
WWR-21-80-01 = Assembled single hybrid carriage as a "door opener" with two single roller hybrid bearings and two double roller hybrid bearings

Can be combined with:



WS-20-80 | WS-...-ES-FG | WSX-...

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drylin® W hybrid roller bearings | Product range

Hybrid carriages with four double roller bearings



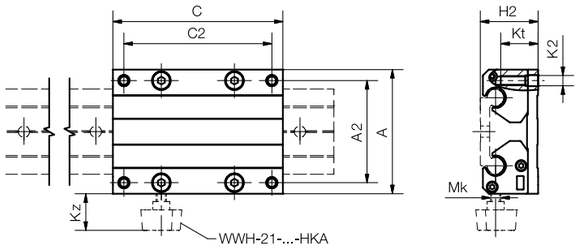
Order key

Type	Dimensions

W WH- 21-10-40-10

drylin® W	Hybrid carriage	Double roller bearing	Installation size	Carriage length [mm]

Optional with manual clamp, suffix "-HKA"



Technical data and dimensions [mm]

Part No.	Weight	A Width	C Length	A2	C2	K2	Kt	H2	Stat. load capacity Coy
	[kg]								[N]
WWH-21-10-40-10	0.59	73	100	60	87	M6	21	34	1,400
WWH-21-10-40-15	0.64	73	150	60	137	M6	21	34	1,400
WWH-21-10-40-20	0.70	73	200	60	187	M6	21	34	1,400
WWH-21-10-80-10	0.64	107	100	94	87	M6	21	34	1,400
WWH-21-10-80-15	0.72	107	150	94	137	M6	21	34	1,400
WWH-21-10-80-20	0.80	107	200	94	187	M6	21	34	1,400
WWH-21-10-120-10	0.71	153	100	140	87	M6	21	34	1,400
WWH-21-10-120-15	0.84	153	150	140	137	M6	21	34	1,400
WWH-21-10-120-20	0.96	153	200	140	187	M6	21	34	1,400
WWH-21-16-60-10	1.31	104	100	86	82	M8	29	49	2,400
WWH-21-16-60-15	1.44	104	150	86	132	M8	29	49	2,400
WWH-21-16-60-20	1.57	104	200	86	182	M8	29	49	2,400
WWH-21-16-120-15 New	1.58	166	150	148	132	M8	29	49	2,400
WWH-21-16-120-20 New	1.76	166	200	148	182	M8	29	49	2,400
WWH-21-16-120-25 New	1.93	166	250	148	232	M8	29	49	2,400
WWH-21-20-80-15	1.72	134	150	116	132	M8	24	57	3,360
WWH-21-20-80-20	1.82	134	200	116	182	M8	24	57	3,360
WWH-21-20-80-25	2.02	134	250	116	232	M8	24	57	3,360

Can be combined with:

WS-20-80 WS-...-ES-FG WSX-...

drylin® W hybrid roller bearings | Product range

Hybrid carriages with four single roller bearings for horizontal installation

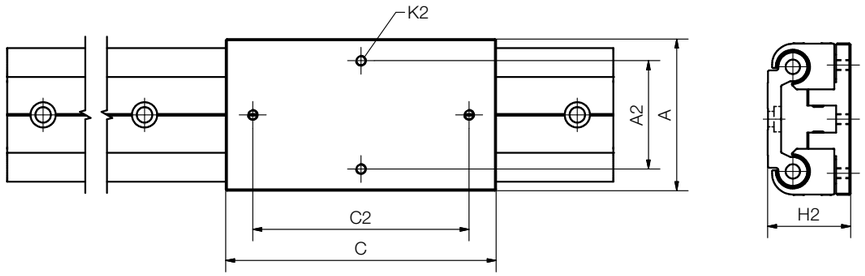


Order key

Type	Dimensions

W WH-10-40-10

drylin® W	Hybrid carriage	Installation size	Carriage length [mm]



Technical data and dimensions [mm]

Part No.	Weight	A	A2	C	C2	K2	H2	Static load capacity Coy	Coz	Mox	Moy	Moz
	[kg]						±0.17	[N]	[N]	[Nm]	[Nm]	[Nm]
WWH-10-40-10	0.35	58	40	100	80	M5	34	1,000	1,000	20	16	32
WWH-16-60-15	0.96	84	60	150	120	M6	46	1,600	1,600	45	38	77
WWH-20-80-25	1.78	114	90	250	220	M6	55	2,200	2,200	90	435	435

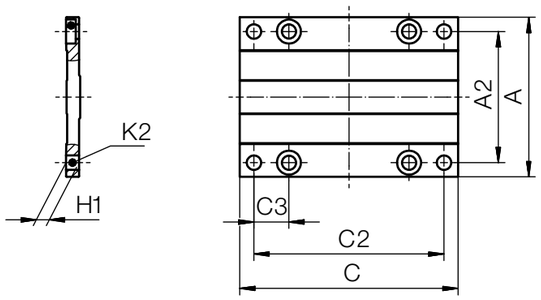
Can be combined with:

WS-... WS-...-ES-FG WSX-...

drylin® W hybrid roller bearings | Product range

Carriage plates for drylin® W hybrid roller bearings





With four pillow blocks and the mounting plate, a linear carriage can be installed in less than a minute. Mounting plates are available in 3 lengths in each installation size and width.

- Robust corrosion-resistant anodised aluminium
- A variety of combinations of liners/bearings/slide plates are possible, also with manual clamp
- Required combination bearing and mounting plate also available pre-assembled

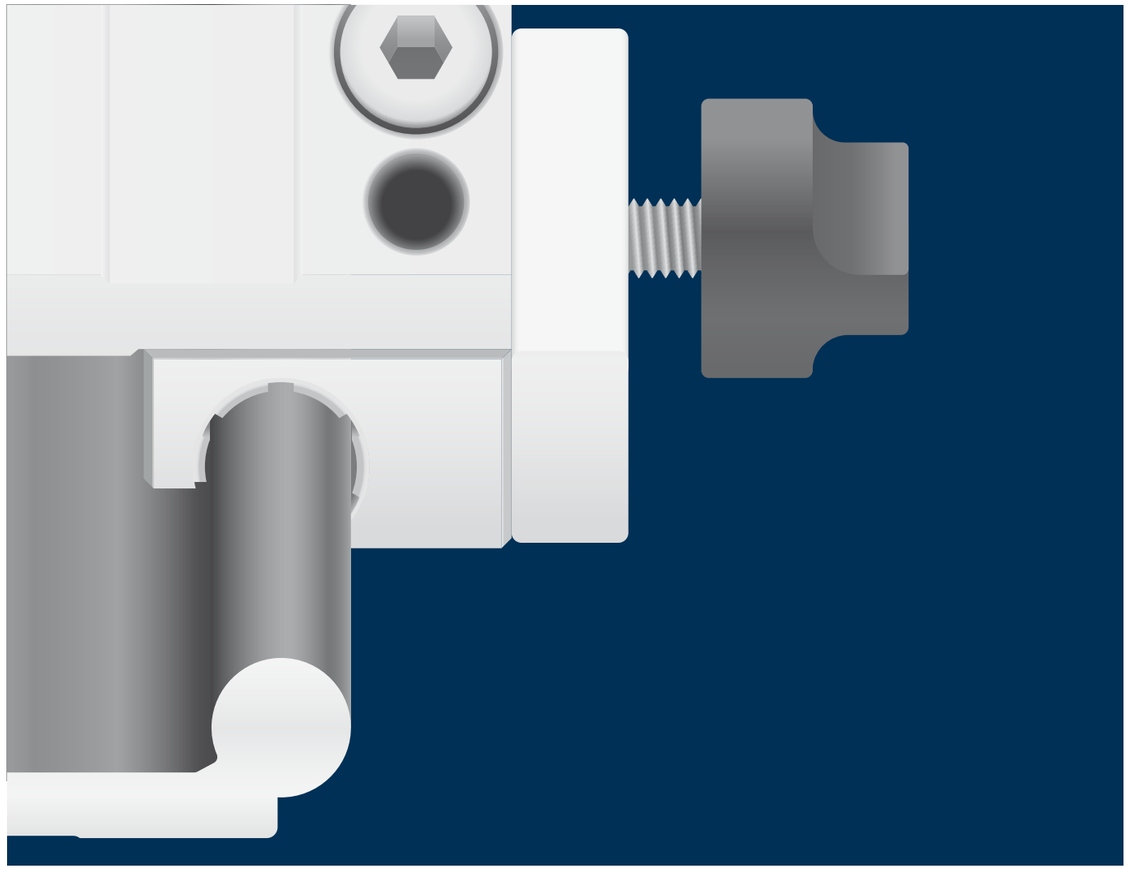
Modular system:
Can be combined with the complete drylin® linear bearing product range. 4 screws included in delivery.

Technical data and dimensions [mm]

Part No.	C	C3	A	H1	A2	K2	Mounting screws included
WWYR-10-30-08-AL	80	22	63	6.5	50	M6	M6
WWYR-10-30-10-AL	100	22	63	6.5	50	M6	M6
WWYR-10-30-15-AL	150	22	63	6.5	50	M6	M6
WWYR-10-40-10-AL	100	22	73	6.5	60	M6	M6
WWYR-10-40-15-AL	150	22	73	6.5	60	M6	M6
WWYR-10-40-20-AL	200	22	73	6.5	60	M6	M6
WWYR-10-80-10-AL	100	22	107	6.5	94	M6	M6
WWYR-10-80-15-AL	150	22	107	6.5	94	M6	M6
WWYR-10-80-20-AL	200	22	107	6.5	94	M6	M6
WWYR-10-120-10-AL	100	22	153	6.5	140	M6	M6
WWYR-10-120-15-AL	150	22	153	6.5	140	M6	M6
WWYR-10-120-20-AL	200	22	153	6.5	140	M6	M6
WWYR-16-60-10-AL	100	30	104	8.5	86	M8	M8
WWYR-16-60-15-AL	150	30	104	8.5	86	M8	M8
WWYR-16-60-20-AL	200	30	104	8.5	86	M8	M8
WWYR-20-80-15-AL	150	34	134	8.5	116	M8	M8
WWYR-20-80-20-AL	200	34	134	8.5	116	M8	M8
WWYR-20-80-25-AL	250	34	134	8.5	116	M8	M8

Suitable for rails ▶ Page 84, 86, 112
Suitable for bearings ▶ Page 113, 114, 115, 118

Available from stock



drylin® linear technology - accessories

Manual clamps
Liners
End caps
Slot nuts
Clamps

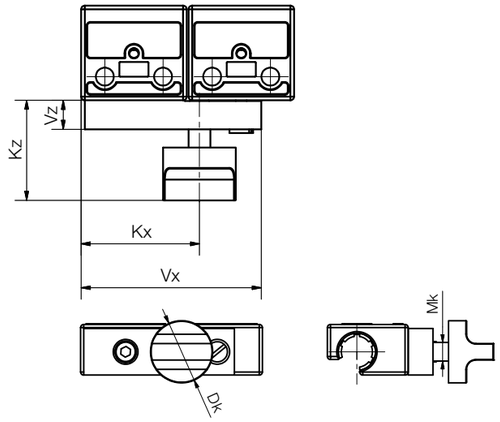


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drylin® W profile guides | Product range

Accessories: Manual clamp for simple positioning





Technical data and dimensions [mm]

Part No.	Mk	Vx	Kx	Vz	Kz	Dk	Min. holding force[67]	Min. tightening torque
WHKA-10[66]	M6	50	33	8	28	20	30N	0.8 Nm
WHKA-16[66]	M8	72	41	10	31	28	60 N	1.5 Nm
WHKA-20[66]	M8	90	62	10	31	28	70 N	1.5 Nm
WHKA-25[66]	M8	96	65	12	31	28	70 N	1.5 Nm

[67] Condition: dry rail surface

[66] The manual clamp is also available assembled as a complete carriage (suffix "-HKA", order example: WW-10-40-10-HKA). Dimensions complete carriage WWQ ▶ Page 88

Accessories: Aluminium manual clamp



Technical data and dimensions [mm]

Part No.	Mk	Vx	Kx	Vz	Kz	Dk	Min. holding force[67]	Min. tightening torque
WHKA-10-AL[68]	M6	50	33	8	28	20	30N	0.8 Nm
WHKA-16-AL[68]	M8	72	41	10	31	28	60 N	1.5 Nm
WHKA-20-AL[68]	M8	90	62	10	31	28	70 N	1.5 Nm
WHKA-25-AL[68]	M8	96	65	12	31	28	70 N	1.5 Nm

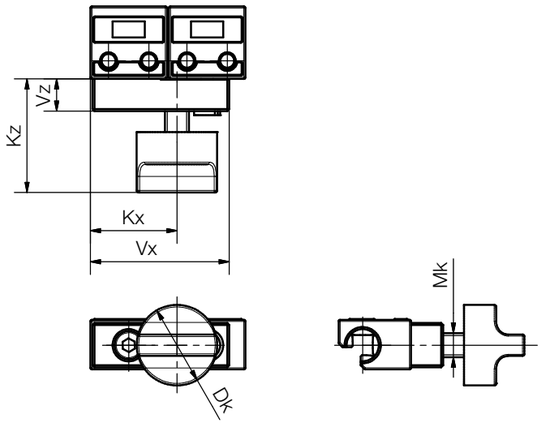
[67] Condition: dry rail surface

[68] The manual clamp is also available assembled as a complete carriage (suffix "AL-HKA", order example: WW-10-40-10-AL-HKA). Dimensions complete carriage WWQ ▶ Page 88

drylin® W profile guides | Product range

Accessories: Manual clamp for square rails





Technical data and dimensions [mm]

Part No.	Mk	Vx	Kx	Vz	Kz	Dk	Min. holding force[67]	Min. tightening torque
WHKAQ-06[133] [137]	M6	34.5	21.5	8	28	20	30N	0.8 Nm
WHKAQ-10[137]	M6	50	33	8	28	20	30N	0.8 Nm
WHKAQ-16[137]	M8	72	41	10	31	28	60 N	1.5 Nm
WHKAQ-20[137]	M8	90	62	10	31	28	70 N	1.5 Nm

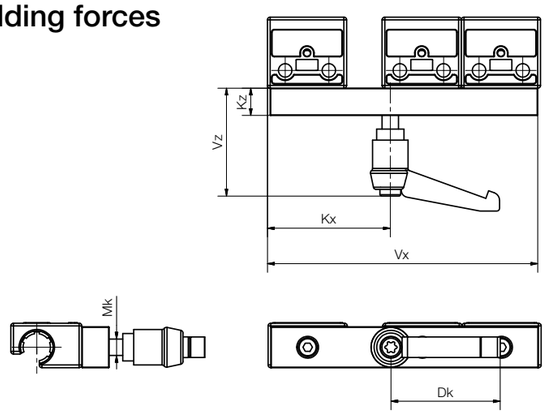
[67] Condition: dry rail surface

[133] Aluminium version available, suffix "-AL"

[137] The manual clamp is also available assembled as a complete carriage (suffix "-HKAQ", order example: WW-06-30-06-HKAQ). Dimensions complete carriage WWQ ▶ Page 82

Accessories: Manual clamp for higher holding forces





Technical data and dimensions [mm]

Part No.	Mk	Vx	Kx	Vz	Kz	Dk	Min. holding force[67]	Min. tightening torque
WHKD-1010[69]	M6	100	45	40	10	40	70 N	2.5 Nm
WHKD-1015[69]	M6	150	95	40	10	40	70 N	2.5 Nm
WHKD-1615[69]	M8	150	81	40	12	40	90 N	3.5Nm
WHKD-1620[69]	M8	200	131	40	12	40	90 N	3.5Nm
WHKD-2015[69]	M8	150	63	40	12	40	90 N	3.5Nm
WHKD-2020[69]	M8	200	113	40	12	40	90 N	3.5Nm

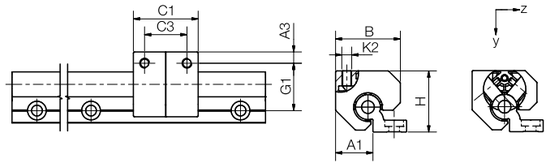
[67] Condition: dry rail surface

[69] The manual clamp is also available assembled as a complete carriage (suffix "-HKD", order example: WW-10-40-10-HKD). Dimensions complete carriage WWQ ▶ Page 88

drylin® W profile guides | Product range

Accessories: Manual clamp for drylin® W hybrid roller bearings





Order key

Type	Size	Material
WJRM-21-	10	-HKA

Type
- Hybrid roller bearings
- Double roller bearing

Size
- Size 10

Material
- Stainless steel

Material
ES: Stainless steel 1.4571 (AISI 316Ti)
ES-FG: Stainless steel precision casting AISI 316
AL: Aluminium

Technical data and dimensions [mm]

Part No.	Weight	A1	A3	B	C1	C3	G1	H	K2 for screw	Kz
	[g]									max.
WJRM-21-10-HKA	115	16.5	6.5	31	35	22	27	28	M6	25
WJRM-21-16-HKA	250	25	9	44	48	30	32	41	M8	25
WJRM-21-20-HKA	320	30	9	52	52	34	38	49	M8	25

drylin® W profile guides | Product range

Accessories: Liners and end caps for high profile rails

drylin® W plastic liners - long, open design

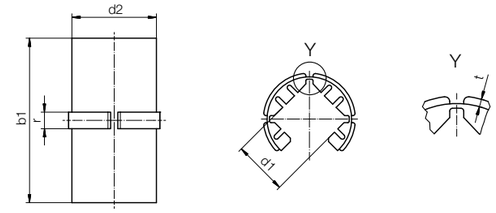


Size	Material	Pillow blocks	Part No. Liners	in the drylin® R chapter
10/16/20/25 (standard)	iglidur® J200	WJ200UM-01-Ø	J200UMO-01-Ø[70)]	▶ Page 194
		WJ200UM-11-Ø	J200UMO-11-Ø[70)]	
10/16/20/25	iglidur® J	WJUM-01-Ø	JUMO-01-Ø	▶ Page 188
		WJUM-11-Ø	JUMO-11-Ø	
10/16/20/25 (High temperature)	iglidur® X	WXUM-01-Ø	XUMO-01-Ø	▶ Page 199
10/16/20/25	iglidur® E7	WE7UM-01-Ø	E7UMO-01-Ø	▶ Page 196
10/16/20/25	iglidur® A160	WA160UM-01-Ø	A160UMO-01-Ø	▶ Page 204
10/16/20/25	iglidur® A180	WA180UM-01-Ø	A180UMO-01-Ø	▶ Page 202

[70)] Available also as floating bearing, Part No. J200UMO-01-Ø-LL

drylin® W liners - long design, square



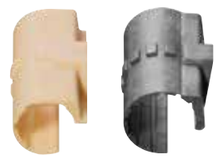


Dimensions [mm]

Part No.	d1	d1 tolerance	d2	b1	r	t
J200QM-01-06	5.0	+0.020 +0.080	8	19	3.0	0.5
J200QM-01-10	7.5	+0.020 +0.080	12	28	3.0	0.8
J200QM-01-16	11.5	+0.020 +0.080	18	35	3.0	0.8
J200QM-01-20	15.0	+0.020 +0.080	23	44	3.5	0.8

Available also as floating bearing J200QM-01-Ø-LLZ (z-direction), J200QM-01-Ø-LLY (y-direction)

drylin® W plastic liners - adjustable



Size	Material	Pillow blocks	Part No. Liners
10 (adjustable)	iglidur® J	WJUME-01-10	JUME-01-10
16/20 (adjustable)	iglidur® J200	WJ200UME-01-Ø	J200UME-01-Ø

drylin® W profile guides | Product range

Accessories: Replacement liners

drylin® W replacement plastic liners





Size	Material	Pillow blocks	Part No. Liners
10	iglidur® J200	**WJ200UMA-01-10-AL**	**J200UMA-01-10**
16	iglidur® J200	**WJ200UMA-01-16-AL**	**J200UMA-01-16**
20	iglidur® J200	**WJ200UMA-01-20-AL**	**J200UMA-01-20**

Replacement kit for WJ200UMA-01-10-AL pillow block

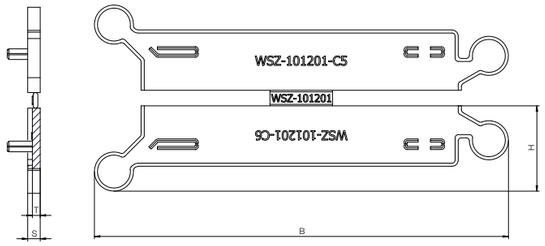
Consisting of
- 4 liners
- 4 housing end caps
- Assembly tool

Part No.:
WEKA-01-10-J200
WEKA-01-16-J200
WEKA-01-20-J200



Accessories: Stop ends for drylin® W roller bearing rails New



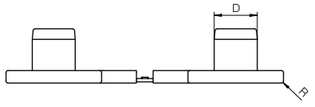


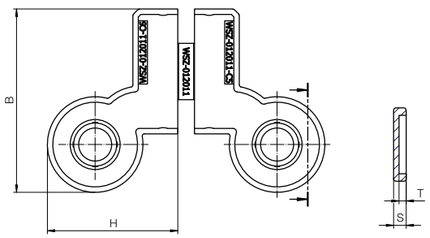
Technical data and dimensions [mm]

Part No.		B	H	S	T	Weight [g]	Suitable for
WSZ-101201-KIT	New	132.4	27.3	4.0	2.5	20	WSR-10-120

Accessories: Stop ends for drylin® W single rails New







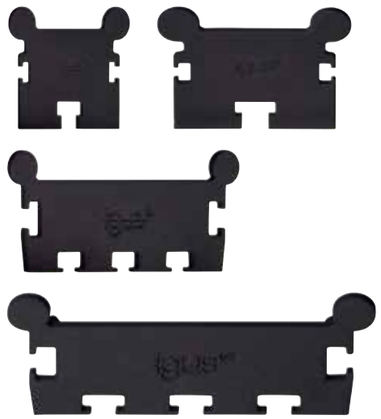
Technical data and dimensions [mm]

Part No.		B	H	D	R	S	T	Suitable for
WSZ-16-KIT	New	39.3	23.0	(8.0)	0.3	2.5	1.5	WS-16/WS-16-CA
WSZ-20-KIT	New	44.0	31.3	(10.3)	0.5	3.0	1.7	WS-20/WS-20-CA
WSZ-25-KIT	New	53.3	39.0	(14.1)	0.5	3.5	2.0	WS-25/WS-25-CA

drylin® W profile guides | Product range

Accessories

End caps for drylin® high profile rails WSX



- For drylin® W high profile rails WSX
  ▶ **Page 86**
- 4 installation sizes
- Protection of the hollow chambers against the entry of foreign particle
- Easy to fit, easy sideways
- End caps for cutting edges

Part No.:
WSX-063001-EC
WSX-104001-EC
WSX-108001-EC
WSX-166001-EC

Slot nuts for mounting



- Fully adjustable
- Ideal for drylin® limit and reference switches
- Suitable for T-slots of the drylin® WSX high-profile rails
  ▶ **Page 79, 86**
- Secure retention
- Can be retrofitted

Part No.	Suitable for rail profile
NOR-20602	WSX-06-30
NOR-20602	WSX-10-40
NOR-20602	WSX-10-80
NOR-20602	AWMQ-12/20
NOR-20602	WSX-16-60
NOR-20605	WSX-16-60

Clamps for WSX high profile rails



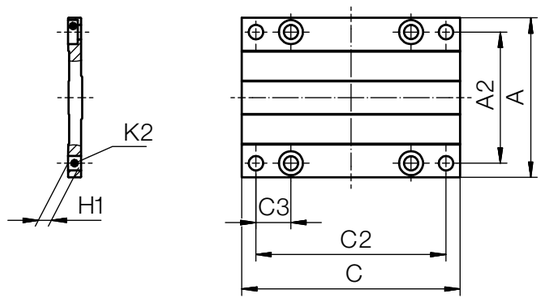
- Secure mounting
- Fully adjustable
- For drylin® SAW linear modules and ZLW toothed belt axes
- For drylin® WSX high-profile rails
  ▶ **Page 79, 86**

Part No.	Suitable for toothed belt axis
ZTZ-063006	ZLW-0630
75.40-ZLW	ZLW-1040
75.40-ZLW	ZLW-1080
75.50-ZLW	ZLW-1660

drylin® W profile guides | Product range

Extension of the drylin® W modular system





With four pillow blocks and the mounting plate, a linear carriage can be installed in less than a minute. Mounting plates are available in 3 lengths in each installation size and width.

- Robust corrosion-resistant anodised aluminium
- A variety of combinations of liners/bearings/slide plates are possible, also with manual clamp
- Required combination bearing and mounting plate also available pre-assembled

Modular system:
Can be combined with the complete drylin® linear bearing product range. 4 screws included in delivery.

Technical data and dimensions [mm]

Part No.	C	A	H1	A2	K2	Mounting screws included
WWY-06-30-06-AL	60	54	4.0	45	M4	M4
WWY-06-30-08-AL	80	54	4.0	45	M4	M4
WWY-06-30-10-AL	100	54	4.0	45	M4	M4
WWY-06-60-06-AL	60	85	4.0	76	M4	M4
WWY-06-60-08-AL	80	85	4.0	76	M4	M4
WWY-06-60-10-AL	100	85	4.0	76	M4	M4
WWY-10-30-08-AL	80	63	6.5	50	M6	M6
WWY-10-30-10-AL	100	63	6.5	50	M6	M6
WWY-10-30-15-AL	150	63	6.5	50	M6	M6
WWY-10-40-10-AL	100	73	6.5	60	M6	M6
WWY-10-40-15-AL	150	73	6.5	60	M6	M6
WWY-10-40-20-AL	200	73	6.5	60	M6	M6
WWY-10-80-10-AL	100	107	6.5	94	M6	M6
WWY-10-80-15-AL	150	107	6.5	94	M6	M6
WWY-10-80-20-AL	200	107	6.5	94	M6	M6
WWY-10-120-10-AL	100	153	6.5	140	M6	M6
WWY-10-120-15-AL	150	153	6.5	140	M6	M6
WWY-10-120-20-AL	200	153	6.5	140	M6	M6
WWY-16-60-10-AL	100	104	8.5	86	M8	M8
WWY-16-60-15-AL	150	104	8.5	86	M8	M8
WWY-16-60-20-AL	200	104	8.5	86	M8	M8
WWY-20-80-15-AL	150	134	8.5	116	M8	M8
WWY-20-80-20-AL	200	134	8.5	116	M8	M8
WWY-20-80-25-AL	250	134	8.5	116	M8	M8
WWY-25-120-15-AL	150	195	10.0	173	M10	M10
WWY-25-120-20-AL	200	195	10.0	173	M10	M10
WWY-25-120-25-AL	250	195	10.0	173	M10	M10

Suitable for rails ▶ Page 78, 79, 80, 81, 84, 86
Suitable for bearings ▶ Page 62, 69, 78, 73, 74

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drylin® linear technology - drylin® N low-profile guide systems

- Low profile and lightweight
- Lubrication-free dry-tech® sliding elements
- Anodised aluminium rails
- High speed and acceleration possible
- Quiet operation



Lightweight, maintenance-free, corrosion-resistant



Lubrication-free low-profile linear guides - drylin® N

The low-profile range drylin® N offers extremely low profiles in several widths. Like all drylin® products the carriages run without lubrication in an anodised aluminium profile. The selected materials and the unique design make drylin® N a cost-effective and flexible guide system.

- Low profile between 6 and 12mm
- Lightweight
- Many carriage options - also with pre-load
- Maintenance-free dry operation
- Corrosion-resistant
- Low wear with low coefficient of friction
- Silver or black-anodised rails

Typical application areas

- Agricultural machinery
- Automotive
- Medical technology
- Facade construction
- Packaging industry

Available from stock
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Max. +90°C
(+50°C for overmoulded sliding elements)
Min. -40°C

17mm - 80mm

Service life calculation
▶ www.igus.eu/drylin-expert

Cleanroom certificated
IPA Fraunhofer

Free from toxins
2011/65/EU (RoHS)

ESD-compatible
(electrostatic discharge)

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Numerous options in four different widths for small installation heights



Guide rails

- Four installation sizes: 17, 27, 40 and 80mm
- Low profile, lightweight design
- Clear anodised (silver) or black anodised surfaces

▶ From page 138



Guide carriage - installation size 17

- Solid plastic made from high-performance polymer iglidur® J
- Compact for the smallest installation spaces
- Length of carriage up to 40mm

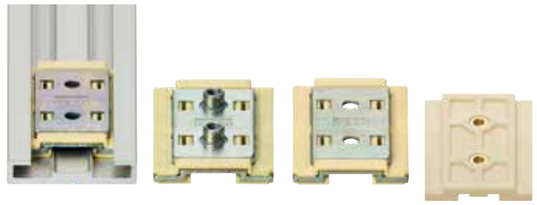
▶ Page 139



Guide carriage - installation size 27

- Carriage with changeable sliding elements
- Sliding carriages with captive overmoulded sliding elements
- Variable lengths and screw on options

▶ Page 141



Guide carriage - installation size 40

- Carriage with thread pin or plain hole
- Pre-load version available

▶ Page 143



Guide carriage - installation size 80

- Carriage with wide load-bearing surface
- Lubrication-free due to high-performance polymers iglidur® J/J200
- Low profile design due to threaded holes

▶ Page 145



Telescopic system

- Continuous lengths up to 2,000mm (total extension)
- Available with partial, total or overextension
- With locking mechanism if required

▶ Page 154



Pre-load prism slides

- No rattling and precisely adjustable
- Four pre-load classes
- Guaranteed drive force and holding force
- Extremely lightweight and low-profile

▶ From page 146



Based on drylin® N
drylin® SLN miniature linear module

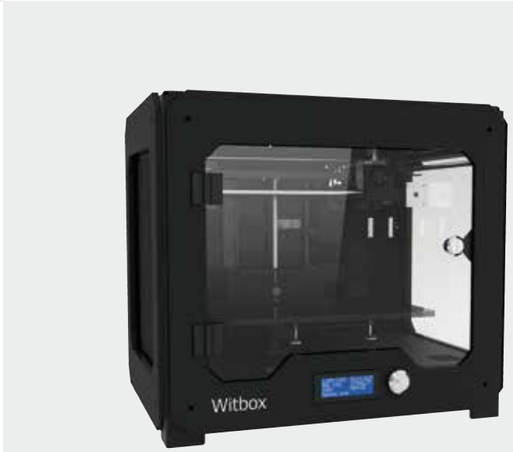
▶ From page 573

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3D printer
The most important decision criterion for drylin® N low-profile linear guides is the low installation height as this makes it possible to achieve a maximum load.

3D printer
drylin® N low-profile linear guides and drylin® SD lead screw drives perform the height adjustments. As a black-anodised profile, drylin® N blends into the design of the 3D printer.





Vending machine
In the redesigning of the table guidance for this automated teller, the focus was on a ready-to-install, cost-effective, durable and lubrication-free bearing and system.



Expert for linear guides: System selection and service life calculation with CAD
Configure and calculate the service life of linear bearings - constantly expanded by new sizes and products
Easily calculate the service life of your required linear guide and configure with a few clicks. Select a drylin® system and add the relevant environmental parameters. Select the bearing size, carriage, number and position. Then enter the distance between the rails and the mounting. Define more relevant parameter of the guidance and select a rail length. The results are displayed.

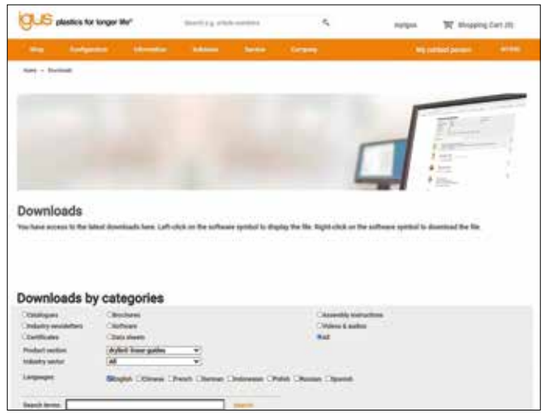
▶ www.igus.eu/drylin-expert

Download the online tool app now
Download on the App Store



drylin® CAD configurator: Generate complete 3D models for drylin® linear technology according to your specifications
The igus® CAD online configurator gives you the ability to design and save your linear guide as a system, individual components directly as a 3D model in all commonly used formats, or to have these sent by e-mail - free of charge and without registration.

▶ www.igus.eu/drylin-CAD



More information about the products can be found in the igus® download area
- Assembly instructions
- Assembly videos
- System design
- Catalogues

▶ www.igus.eu/downloads

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Floating bearings version



NW-... NW-... LLZ NW-... LLY NW-... LLYZ

LLZ Floating bearing in z-direction
LLY Floating bearing in y-direction
LLYZ Floating bearing in yz-direction

Floating bearing	NW-17	NW-27	NW-40	NW-80
LLY	0.6	0.45	0.4	0.6
LLZ	0.5	0.8	0.8	0.8
LLYZ	Y: 0.6 Z: 0.5	Y: 0.3 Z: 0.4	Y: 0.4 Z: 0.8	Y: 0.6 Z: 0.8

Technical details on floating bearings
▶ Page 50
The 2:1 Rule ▶ Page 50

Technical options for drylin® low-profile linear guides

Clip-on sliding elements

Depending on the installation size, up to three lubrication-free sliding elements made from the high-performance polymer iglidur® J are clipped on around the zinc die-casting carriage body. These can be changed any time simply and fast, the zinc die-casting carriage can be reused. A set of appropriate sliding elements is available for every clip-on carriage (Part No. NEK... ▶ Page 152).

Overmoulded sliding elements

With this carriage type, the zinc die-casting body is made as an integral part of the high-performance polymer iglidur® J/J200 during the injection moulding process. For the user this production process offers the advantage, that the sliding surface is connected captive and insolubly to the carriage. This makes it quicker to install the carriages in the profile. Robust storage is possible, including in the form of bulk goods, as the sliding elements cannot come loose. It is not possible to retrofit sliding elements; the carriages must be entirely replaced at the end of their service life. The continuous operating temperature for overmoulded sliding elements is +50°C

Pre-load function

The use of sliding elements with an integrated spring pre-load function prevents the carriages in the rail profile from rattling. Adjustment occurs silently using the pre-load principle, making the guide suitable for use in noise-sensitive environments such as the automotive, medical or furniture sectors. Pre-load increases the displacement force by max. 10N.

Anodised surfaces

All drylin® N guide rails are anodised and are distinguished by good wear properties and corrosion resistance. All rail sizes are available as clear-anodised version (silver) as well as anti-reflect version with black-anodised surface. These are technical surfaces and not decorative. Slight crack formations and colour variations cannot be prevented during production, but they do not affect the resistance, the corrosion behaviour or the sliding properties. Cutting surfaces and machined surfaces are uncoated.

Tightening torque for drylin® metallic screws

Metric thread (Da)	tightening torque [Nm]	Recommended tightening torque [Nm]
M3	0.5 - 1.1	0.7
M4	1.0 - 2.8	1.5
M5	2.0 - 5.5	3.0
M6	4.0 - 10.0	6.0
M8	8.0 - 23.0	15.0
M10	22.0 - 46.0	30.0

Please be aware of the minimal screw-in depth for aluminium and zinc die-casting parts: 1.5xDa

System selection				
System	**N17**	**N27**	**N40**	**N80**
Rail width	17mm	27mm	40mm	80mm
Installation height	6mm	9.5mm	9.5mm	12mm
General properties				
Rail weight	150g/m	290g/m	450g/m	1,140g/m
Carriage weight	1.7g	9-12.5g	30g	100g
Max. rail length	2,000mm	3,000mm	3,000mm	4,000mm
Load capacity, static				
Fy	50N	500N	700N	1,000N
Fz	50N	500N	700N	1,000N
Mx	0.31 Nm	5Nm	10Nm	32.4Nm
My, Mz	0.18Nm	2.5 Nm	6Nm	15Nm
Carriage options				
Floating bearing in y-direction	●	●	●	●
Floating bearing in z-direction	●	●	●	●
Floating bearing in yz-direction	●	●	●	●
Pre-load (1N)	●	●	●	–
Overmoulded version	–	●	●	●
Carriage with plain hole	–	●	●	–
Carriage with threaded pin	●	●	●	–
Carriage with threaded hole	–	–	–	●

Table 01: System selection ● available – not available

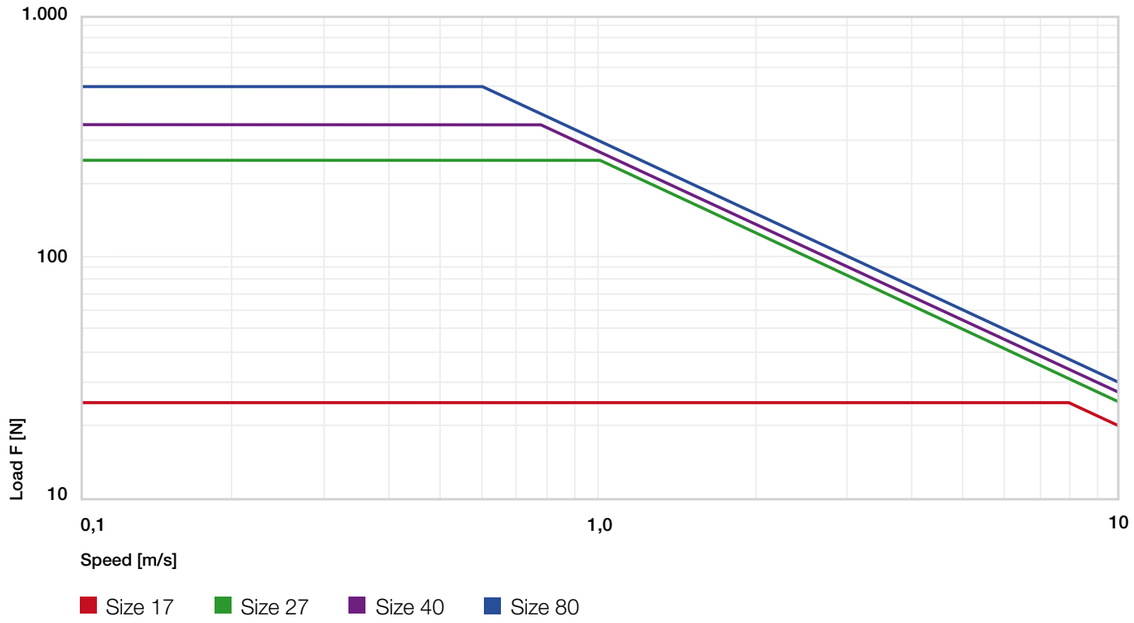


Diagram 01: F v diagram, maximum permissible dynamic load

drylin® N low-profile linear guides | Product range

Guide rails and carriages - installation size 17



Complete system

Order key

Type	Installation size	Options
N W-	22 -	17 - 30 - LLY

drylin® N	Guide carriages	Type of carriage	Rail width	Carriage length	Floating bearing in y-direction

Type of carriage:

02: Carriage with threaded pin

22: Double carriage with threaded pin

Options:

P: Pre-load

Floating bearing

LLY: y-direction (not possible with "P“ option)

LLZ: z-direction

LLYZ: yz-direction

Guide rail - dimensions [mm]

Part No.	L max.	a	C4	C5 C6 min.	C5 C6 max.	h	h1	K1[73]	Iy [mm⁴]	Iz [mm⁴]	Weight [g/m]
NS-01-17- □[72]	2,000	17	60	20	49.5	5.5	0.9	Ø3.5	1,700	120	150
NS-01-17-UNGEBOHRT- □[72]	2,000	17	–	–	–	5.5	0.9	–	1,700	120	150
NS-01-17-AR- □[72]	2,000	17	60	20	49.5	5.5	0.9	Ø3.5	1,700	120	150

Guide carriage - dimensions [mm]

Part No.	H ±0.35	A	C	C2	K3[74]	Sp	Dp[159]	Weight [g]
NW-02-17	6.0	9.6	20	14	M3	2.5	5.0	1.7
NW-02-17-P	6.0	9.6	20	14	M3	2.5	5.0	1.7
NW-22-17-30	6.0	9.6	30	18	M3	2.5	5.0	2.4
NW-22-17-40	6.0	9.6	40	28	M3	2.5	5.0	2.6

[72] Please give the required length in mm, symmetrical standard hole pattern C5=C6

[73] For cap screw with low head (e.g. DIN 7984, DIN 6912, DIN 84, EN ISO 1707)

[74] Metal thread

[159] Hole min. Ø

All elements can be ordered individually or as assembled systems

NS-01-17-1500: Guide rail, installation size 17, 1,500mm length

NK-02-17-02-500-LLY: Complete system with two solid plastic guide carriages with threaded pins, installation size 17, floating bearing in y-direction and 500mm guide rails with standard holes

drylin® N low-profile linear guides

drylin® N low-profile linear guides | Product range

The linear guide for the smallest installation space



Standard

without holes

Anti-reflect



NW-02-17



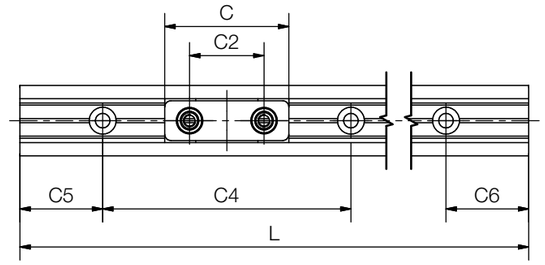
NW-02-17-P

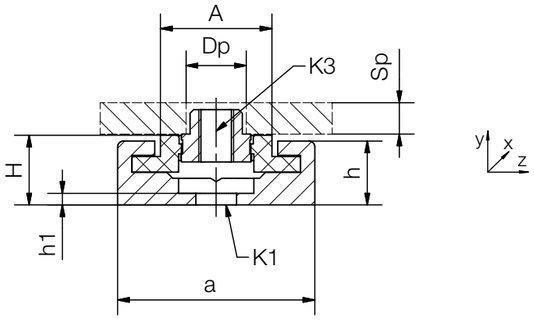


NW-22-17-30



NW-22-17-40





Selection aid - guide carriage

Part No.	Single	Double	Plain hole	Threaded pin	Threaded hole	Pre-load	Solid plastic	Clipped-on	Over-moulded	High temp.
NW-02-17	●			●			●			
NW-02-17-P	●			●		●	●			
NW-22-17-30		●		●			●			
NW-22-17-40		●		●			●			

drylin® N low-profile linear guides | Product range

Guide rails and carriages - installation size 27



Complete system

Order key

Type	Size	Options
N W-	01-	27 -HT-LLY

drylin® N	Guide carriages	Type of carriage	Rail width	Carriage length	Floating bearing in y-direction
	W	01	27		

Type of carriage:
See selection aid

Options:
P: Pre-load
HT: High temperature

Floating bearing
LLY: y-direction
LLZ: z-direction
LLYZ: yz-direction

Guide rail - dimensions [mm]

Part No.	L max.	a	C4	C5 min.	C6 max.	h	h1	K1[73]	Iy [mm⁴]	Iz [mm⁴]	Weight [g/m]
NS-01-27- □[72]	3,000	27	60	20	49.5	9	1.1	Ø4.5	6,524	588	290
NS-01-27-UNGEBOHRT- □[72]	3,000	27	–	–	–	9	1.1	–	6,524	588	290
NS-01-27-AR- □[72]	3,000	27	60	20	49.5	9	1.1	Ø4.5	6,524	588	290

Guide carriage - dimensions [mm]

Part No.	H ±0.35	A	C	C1	C2	H2	K[73]	K3[74]	M[75] [Nm]	Sp	Dp[159]	Weight [g]
NW-01-27	9.5	14.0	40	30	20	1.2	Ø4.5	–	–	–	–	10.8
NW-11-27	9.5	14.0	34	30	20	1.2	Ø4.5	–	–	–	–	10.8
NW-01-27-P	9.5	14.0	40	30	20	1.2	Ø4.5	–	–	–	–	10.8
NW-01-27-HT	9.5	14.0	40	30	20	1.2	Ø4.5	–	–	–	–	11.0
NW-02-27	9.5	14.0	40	30	20	–	–	M4	1.2	5.0	6.5	12.5
NW-12-27	9.5	14.0	34	30	20	–	–	M4	1.2	5.0	6.5	12.5
NW-02-27-P	9.5	14.0	40	30	20	–	–	M4	1.2	5.0	6.5	12.5
NW-02-27-HT	9.5	14.0	40	30	20	–	–	M4	–	5.0	6.5	13.0
NW-21-27-60-P	9.5	14.0	60	60	20	0.7	Ø4.5	–	–	–	–	9.0
NW-22-27-60-P	9.5	14.0	60	60	20	–	–	M4	1.2	5.0	6.5	12.0
NW-31-27-60-P	9.5	14.0	60	60	40	0.7	–	M4	–	–	–	9
NW-32-27-60-P	9.5	14.0	60	60	40	–	–	M4	1.2	5	6.5	12
NW-11-27-80	9.5	14.0	80	76	60	1.2	Ø4.5	–	–	–	–	25.0
NW-12-27-80	9.5	14.0	80	76	60	–	–	M4	1.2	5.0	6.5	25.0

[72] Please give the required length in mm, symmetrical standard hole pattern C5=C6
[73] For cap screw with low head (e.g. DIN 7984, DIN 6912, DIN 84, EN ISO 1707)
[74] Metal thread [75] Max. screw tightening torque [159] Hole min. Ø

All elements can be ordered individually or as assembled systems
NS-01-27-1500: Guide rail, installation size 27, 1,500mm length
NW-02-27-P-LL: Guide carriage with threaded pin, installation size 27, pre-load, floating bearing in y-direction
NK-02-27-02-500-LLY: Complete system with two clipped-on guide carriages with threaded pins, installation size 27, floating bearing in y-direction and 500mm guide rails with standard holes

drylin® N low-profile linear guides

drylin® N low-profile linear guides | Product range

The installation size with the largest variety of carriages



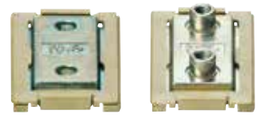
Standard | without holes | Anti-reflect



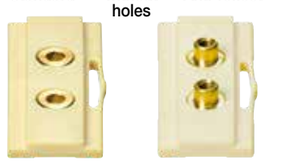
NW-01-27 | NW-02-27



NW-01-27-P | NW-02-27-P



NW-01-27-HT | NW-02-27-HT



NW-21-27-60-P | NW-22-27-60-P



NW-11-27 | NW-12-27

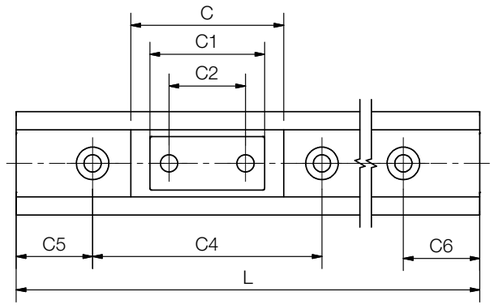


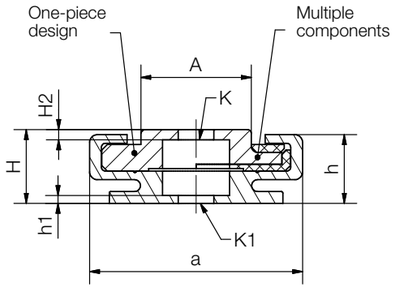
NW-32-27-60-P

NW-11-27-80

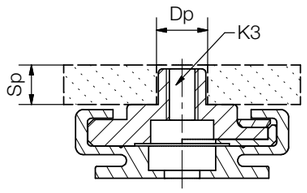


NW-12-27-80









Selection aid - guide carriage

Part No.	Single	Double	Plain hole	Threaded pin	Threaded hole	Pre-load	Solid plastic	Clipped-on	Over-moulded	High temp.
NW-01-27	●		●					●		
NW-11-27	●		●						●	
NW-01-27-P	●		●			●		●		
NW-01-27-HT	●		●					●		●
NW-02-27	●			●				●		
NW-12-27	●			●					●	
NW-02-27-P	●			●		●		●		
NW-02-27-HT	●			●				●		●
NW-21-27-60-P	●		●			●	●			
NW-22-27-60-P	●			●		●	●			
NW-31-27-60-P	●		●			●	●			
NW-32-27-60-P	●			●		●	●			
NW-11-27-80		●	●						●	
NW-12-27-80		●		●					●	

drylin® N low-profile linear guides | Product range

Guide rails and carriages - installation size 40



Complete system

Order key

Type	Size	Options

N W - 01 - 40 - P - LLY

- drylin® N
- Guide carriages
- Type of carriage
- Rail width
- Pre-load
- Floating bearing in y-direction

Type of carriage:
See selection aid

Options:
P: Pre-load

Floating bearing
LLY: y-direction
LLZ: z-direction
LLYZ: yz-direction

Guide rail - dimensions [mm]

Part No.	L	a	C4	C5 C6		h	h1	K1[73]	Iy	Iz	Weight
	max.			min.	max.				[mm⁴]	[mm⁴]	[g/m]
NS-01-40- ☐[72]	3,000	40	60	20	49.5	8.7	1.3	Ø4.5	26,400	970	450
NS-01-40-UNGEBOHRT- ☐[72]	3,000	40	–	–	–	8.7	1.3	–	26,400	970	450
NS-01-40-AR- ☐[72]	3,000	40	60	20	49.5	8.7	1.3	Ø4.5	26,400	970	450

Guide carriage - dimensions [mm]

Part No.	H ±0.35	A	C	C1	C2	H2	K[73]	K3[74]	Sp	Dp[159]	Weight [g]
NW-01-40	9.5	23.0	50	40	20	1.3	Ø4.5	–	–	–	30.0
NW-01-40-P	9.5	23.0	50	40	20	1.3	Ø4.5	–	–	–	30.0
NW-11-40	9.5	23.0	52	40	20	1.3	Ø4.5	–	–	–	30.0
NW-02-40	9.5	23.0	50	40	20	–	–	M4	5.0	6.5	30.0
NW-02-40-P	9.5	23.0	50	40	20	–	–	M4	5.0	6.5	30.0
NW-12-40	9.5	23.0	52	40	20	–	–	M4	5.0	6.5	30.0
NW-22-40 New	9.3	23.0	50	40	20	–	–	M4	–	–	12.0

[72] Please give the required length in mm, symmetrical standard hole pattern C5=C6
[73] For cap screw with low head (e.g. DIN 7984, DIN 6912, DIN 84, EN ISO 1707)
[74] Metal thread
[159] Hole min. Ø

All elements can be ordered individually or as assembled systems
NS-01-40-1500: Guide rail, installation size 40, 1,500mm length
NW-02-40-P-LLY: Guide carriage with threaded pin, installation size 40, pre-load, floating bearing in y-direction
NK-02-40-02-500-LLY: Complete system with two clipped-on guide carriages with threaded pins, installation size 40, floating bearing in y-direction and 500mm guide rails with standard holes

drylin® N low-profile linear guides

drylin® N low-profile linear guides | Product range

Suitable for aluminium construction profiles



Standard



without holes



Anti-reflect



NW-01-40



NW-02-40



NW-01-40-P



NW-02-40-P



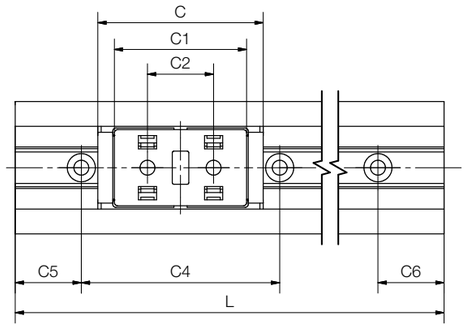
NW-11-40

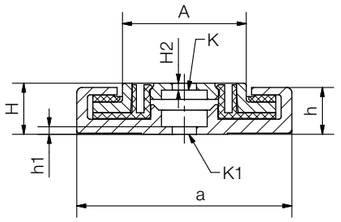


NW-12-40

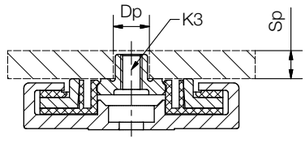


NW-22-40









Selection aid - guide carriage

Part No.	Single	Double	Plain hole	Threaded pin	Threaded hole	Pre-load	Solid plastic	Clipped-on	Overmoulded	High temp.
NW-01-40	●		●					●		
NW-01-40-P	●		●			●		●		
NW-11-40	●		●						●	
NW-02-40	●			●				●		
NW-02-40-P	●			●		●		●		
NW-12-40	●			●					●	
NW-22-40 New	●				●		●			

drylin® N low-profile linear guides | Product range

Guide rails and carriages - installation size 80



Complete system

Order key

Type	Size	Options
N W-02-	80	- P - LLY

drylin® N	Guide carriages	Type of carriage	Rail width	Pre-load	Floating bearing in y-direction

Type of carriage:
See selection aid

Options:
P: Pre-load

Floating bearing
LLY: y-direction
LLZ: z-direction
LLYZ: yz-direction

Guide rail (standard/without holes/AR anti-reflect) - dimensions [mm]

Part No.	L max.	a	C4	A3	C5 min.	C6 max.	h	h1	K1[73]	Iy [mm⁴]	Iz [mm⁴]	Weight [g/m]
NS-01-80- □[72]	4,000	80	150	40	25	99.5	11	1.5	Ø4.5	271,200	2,900	1,140
NS-01-80-UNGEBOHRT- □[72]	4,000	80	–	–	–	–	11	1.5	–	271,200	2,900	1,140
NS-01-80-AR- □[72]	4,000	80	150	40	25	99.5	11	1.5	Ø4.5	271,200	2,900	1,140

Guide carriage - dimensions [mm]

Part No.	H ±0.35	A	C	C1	C2	A2	K4[74]	Weight [g]
NW-02-80	12.0	57.0	80	68	56	45	M4	100.0
NW-02-80-P New	12.0	57.0	80	68	56	45	M4	100.0
NW-12-80	12.0	57.0	83	68	56	45	M4	146.3

[72] Please give the required length in mm, symmetrical standard hole pattern C5=C6
[73] For cap screw with low head (e.g. DIN 7984, DIN 6912, DIN 84, EN ISO 1707)
[74] Metal thread

All elements can be ordered individually or as assembled systems
NS-01-80-1500: Guide rail, size 80, 1,500mm length
NW-02-80-LLY: Guide carriage, clip-on, installation size 80, floating bearing in y-direction,
NK-02-80-02-500-LLY: Complete system with two clipped-on guide carriages with threaded pins, installation size 80, floating bearing in y-direction and 500mm guide rails with standard holes

drylin® N low-profile linear guides

drylin® N low-profile linear guides | Product range

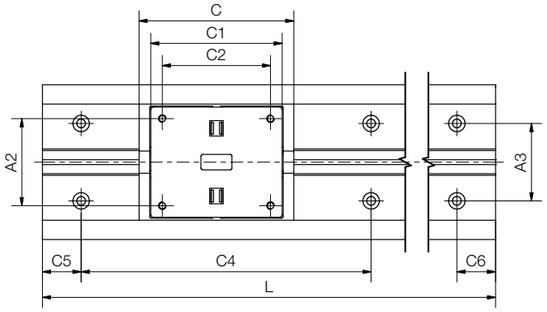
For high speeds at low loads



Standard



without holes





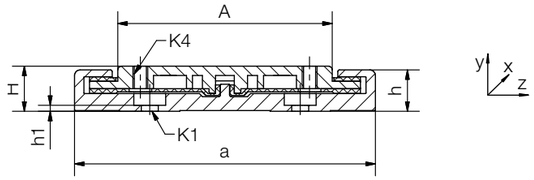
Anti-reflect



NW-12-80



NW-02-80





NW-02-80-P

Selection aid - guide carriage

Part No.	Single	Double	Plain hole	Threaded pin	Threaded hole	Pre-load	Solid plastic	Clipped-on	Over-moulded	High temp.
NW-02-80	●				●			●		
NW-02-80-P New	●				●	●		●		
NW-12-80	●				●				●	

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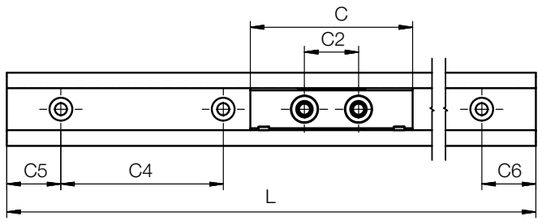
Prism rails



Order key

Type	Installation size	Options
NSV-	01 -	27 -AR- UNGEBOHRT

Guide rail for pre-load prism slide	Type	Installation size	Anti-reflect



Guide rail - dimensions [mm]

Part No.	L	a	C4	C5	C6	h	h1	K1	Iy	Iz	Weight
	max.			min.	max.				[mm⁴]	[mm⁴]	[g/m]
NSV-01-27	3,000	27	60	20	49.5	8.8	1.1	Ø4.5	11,250	766	409
NSV-01-27-AR	3,000	27	60	20	49.5	8.8	1.1	Ø4.5	11,250	766	409
NSV-01-27-□[72)]	3,000	27	–	–	–	8.8	1.1	–	11,250	766	409
NSV-01-27-□-AR[72)]	3,000	27	–	–	–	8.8	1.1	–	11,250	766	409

[72)] Please give the required length in mm, symmetrical standard hole pattern C5=C6

Accessories:
NSVK-27 ▶ Page 152
NSVZ-27 ▶ Page 152
NSVA-27 ▶ Page 152

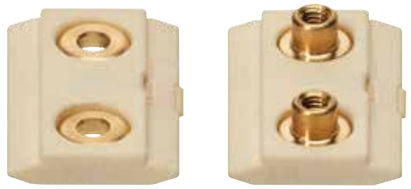
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drylin® N low-profile linear guides | Product range

Standard prism carriage with single pre-load

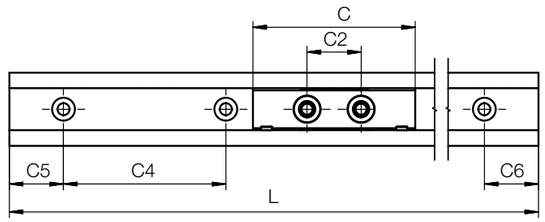


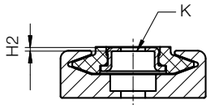
With threaded pin 22 or with plain hole 21

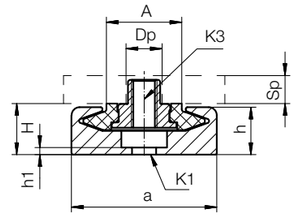
Order key

Type	Installation size	Options
NWV-	21-	27- 35 - P05

Pre-load prism slide	Type of carriage	Rail width	Carriage length	Pre-load







Guide carriage - dimensions [mm]

Part No.	Pre-load	H	A	C	C2	H2	K	K3	M[75)]	SP	Dp[159)]	Weight
										min.		
	[N]	±0.35							[Nm]			[g]
NWV-21-27-35-P05	0.5	9.5	14	35	20	0.7	Ø4.5	–	–	–	–	6
NWV-21-27-35-P11	1.1	9.5	14	35	20	0.7	Ø4.5	–	–	–	–	6
NWV-21-27-35-P23	2.3	9.5	14	35	20	0.7	Ø4.5	–	–	–	–	6
NWV-21-27-35-P38	3.8	9.5	14	35	20	0.7	Ø4.5	–	–	–	–	6
NWV-21-27-35-P80	8.0	9.5	14	35	20	0.7	Ø4.5	–	–	–	–	6
NWV-22-27-35-P05	0.5	9.5	14	35	20	–	–	M4	1.2	5	6.5	11
NWV-22-27-35-P11	1.1	9.5	14	35	20	–	–	M4	1.2	5	6.5	11
NWV-22-27-35-P23	2.3	9.5	14	35	20	–	–	M4	1.2	5	6.5	11
NWV-22-27-35-P38	3.8	9.5	14	35	20	–	–	M4	1.2	5	6.5	11
NWV-22-27-35-P80	8.0	9.5	14	35	20	–	–	M4	1.2	5	6.5	11

[75)] Max. screw tightening torque
[159)] Hole min. Ø

drylin® stop motion full product range online
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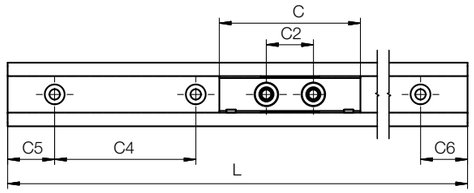
EN 09/2023

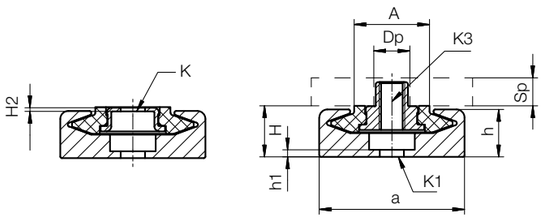
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Long prism carriage with dual pre-load



With threaded pin 22 or with plain hole 21





Order key

Type	Installation size	Options

NWV - 21 - 27 - 60 - P10

Pre-load prism slide	Type of carriage	Rail width	Carriage length	Pre-load

Guide carriage - dimensions [mm]

Part No.	Pre-load	H	A	C	C2	H2	K	K3	M[75)]	SP min.	Dp[159)]	Weight
	[N]	±0.35							[Nm]			[g]
NWV-21-27-60-P10	1.0	9.5	14	60	20	0.7	Ø4.5	–	–	–	–	10
NWV-21-27-60-P22	2.2	9.5	14	60	20	0.7	Ø4.5	–	–	–	–	10
NWV-21-27-60-P46	4.6	9.5	14	60	20	0.7	Ø4.5	–	–	–	–	10
NWV-21-27-60-P76	7.6	9.5	14	60	20	0.7	Ø4.5	–	–	–	–	10
NWV-21-27-60-P160	16.0	9.5	14	60	20	0.7	Ø4.5	–	–	–	–	6
NWV-22-27-60-P10	1.0	9.5	14	60	20	–	–	M4	1.2	5	6.5	13
NWV-22-27-60-P22	2.2	9.5	14	60	20	–	–	M4	1.2	5	6.5	13
NWV-22-27-60-P46	4.6	9.5	14	60	20	–	–	M4	1.2	5	6.5	13
NWV-22-27-60-P76	7.6	9.5	14	60	20	–	–	M4	1.2	5	6.5	13
NWV-22-27-60-P160	16.0	9.5	14	60	20	–	–	M4	1.2	5	6.5	11

[75)] Max. screw tightening torque

[159)] Hole min. Ø

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drylin® N low-profile linear guides | Technical data





Standard carriages

Part No.	Average displacement force [N]
NWV-21/22-27-35-P05	1.0
NWV-21/22-27-35-P11	2.2
NWV-21/22-27-35-P23	4.6
NWV-21/22-27-35-P38	7.6
NWV-21/22-27-35-P80	16.0

Part No.	Guaranteed holding force [N]
NWV-21/22-27-35-P05	0.5
NWV-21/22-27-35-P11	1.1
NWV-21/22-27-35-P23	2.3
NWV-21/22-27-35-P38	3.8
NWV-21/22-27-35-P80	8.0

Long carriages

Part No.	Average displacement force [N]
NWV-21/22-27-60-P10	2.0
NWV-21/22-27-60-P22	4.4
NWV-21/22-27-60-P46	9.2
NWV-21/22-27-60-P76	15.2
NWV-21/22-27-60-P160	32.0

Part No.	Guaranteed holding force [N]
NWV-21/22-27-60-P10	1.0
NWV-21/22-27-60-P22	2.2
NWV-21/22-27-60-P46	4.6
NWV-21/22-27-60-P76	7.6
NWV-21/22-27-60-P160	16.0

Note:
The average displacement force values apply to unloaded carriages at centric drive. The real displacement forces depend to a large extent on the displacement speed. At creep movement (few mm/min.), the values are slightly over the guaranteed holding force. At higher displacement forces, the values can considerably exceed the average displacement force. The values do not apply for applications in which dirt and moisture ingress into the system. The holding force cited is a minimum value - the displacement force required to move the carriage may be higher.

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drylin® N low-profile linear guides | Product range

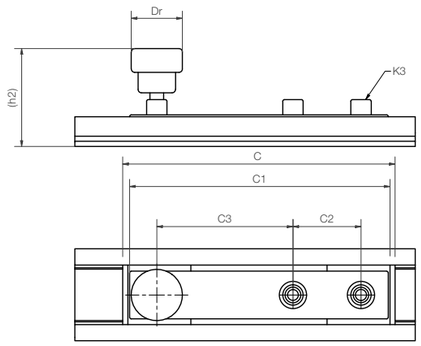
Accessories: Manual clamp

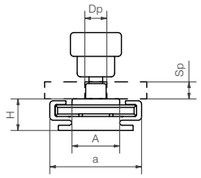


Order key

Type	Size	Version
N W-	12 -	27 - 80 - HKA

drylin® N	Guide carriages	Type of carriage	Rail width	Carriage length	Manual clamp





Dimensions [mm]

Part No.	H	(h2)	A	a	C	C1	C2	C3	K3	M [Nm]	Sp	Dp	Dr	Weight [g]
NW-12-27-80-HKA	9.5	32	14	27	80	76	20	40	M4	1.2	5	6.5	15	32

M: Permissible torque of the complete system

Order example:
NW-12-27-80-HKA: Manual clamp for NW-12-27-80 carriage

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drylin® N low-profile linear guides | Product range

Accessories: End caps

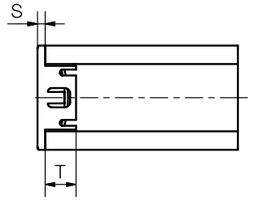


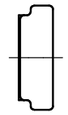
Order key

Type	Size
NSK B -	40

drylin® N - end caps	Push-fit	Rail width







Dimensions [mm]

Part No.	S	T	For rail
NSKB-17	1.5	7	**NS-01-17**
NSKB-27	2.0	8	**NS-01-27**
NSK-40	1.5	8	**NS-01-40**
NSKB-80	2.0	17	**NS-01-80**

Order example:
NSK-40: End caps for guide rail size 40, bolted



Easily assembled and disassembled by hand using a screwdriver. Part No.: NSKB



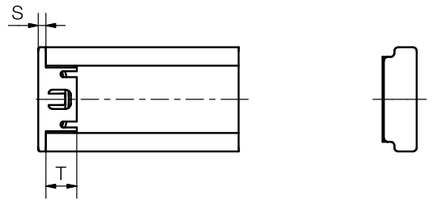
End caps for rail size 40, screwed
Part No.: NSK-40

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drylin® N low-profile linear guides | Product range New

Accessories: End caps





Order key

Type	Size
NSV K	- 27

drylin® N - end caps | Type | Rail width

Type:
K: Aesthetic end cap for prism rail
A: Rail end cap, bolted
Z: Variable rail end cap, can be clamped

Dimensions [mm]

Part No.		S	T	For rail	Min. static holding force [N]
NSVK-27	New	1.5	8	**NSV-01-27**	–
NSVZ-27	New	–	10	**NSV-01-27**	200
NSVA-27	New	–	10	**NSV-01-27**	100

drylin® N replacement plastic sliders (set)

Material iglidur® J

Carriage type	Part No. Sliding part set
NW-01/02/27	NEK-01-27
NW-01/02-27P	NEK-01-27-P
NW-01/02-27-LLY	NEK-01-27-LLY
NW-01/02-27-LLZ	NEK-01-27-LLZ
NW-01/02-40	NEK-02-40
NW-01/02-40P	NEK-01-40-P
NW-01/02-40-LLY	NEK-02-40-LLY
NW-01/02-40-LLZ	NEK-02-40-LLZ
NW-02-80	NEK-02-80
NW-02-80-LLY	NEK-02-80-LLY
NW-02-80-LLZ	NEK-02-80-LLZ

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drylin® linear technology - drylin® N telescopic rails

Continuously extendable

Lubrication-free dry-tech® sliding elements

Quiet, sliding movement

Full extension, partial extension, overextension



drylin® N low-profile linear guides | Product range

Telescopic rails





- Robust polymer/aluminium version
- Lightweight
- Cost-effective
- Corrosion-resistant
- Continuous lengths of up to 1,200mm (total extension)

Order key partial extension

Type	Size	Option

N T - 35 - 300 - 200 - AR

drylin® N	Telescopic system	Rail width	Length [mm]	Partial extension [mm]	Anti-reflect

Option:

For partial extension "-200", for overextension "-320"

partial extension

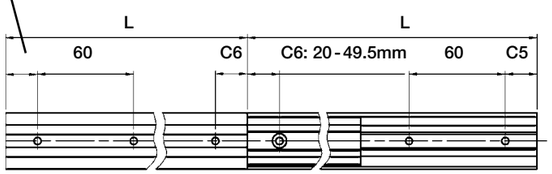
(example: compressed length 300mm, extended length 500mm)

AR: Anti-reflect, black

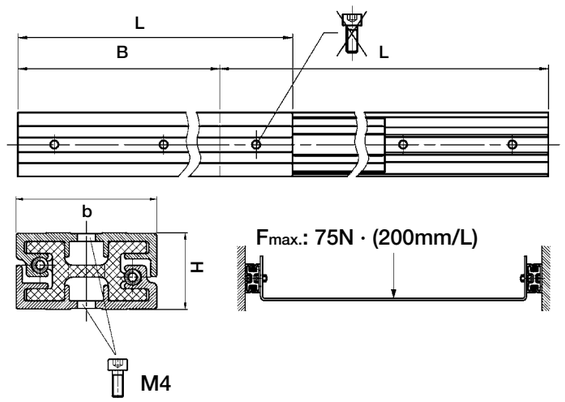
HT: Temperature-resistant up to +130°C with sliding element made of iglidur® Q2

NT-35-"L" - Total extension

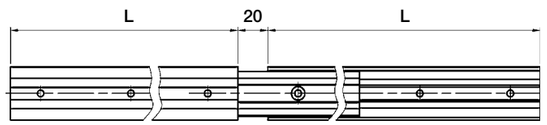
C5: 20 - 49.5mm



NT-35-"L"-"B" - Partial extension



NT-35-"L"-"L+20" - Overextension



Dimensions [mm]

Part No.		b	H	C4	C5 = C6		L	
					min.	max.	min.	max.
NT-35-… mm		35	19	60	20	49.5	100	600
NT-35-AR	New	35	19	60	20	49.5	100	600
NT-35-HT-… mm	New	35	19	60	20	49.5	100	600
NT-LM-35-HT-… mm	New	35	19	60	20	49.5	140	600

Tip:

F_{max} calculated using this formula allows an easy manual use. Higher loads can be taken up by the system, but need a higher drive force.

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drylin® N low-profile linear guides

drylin® N low-profile linear guides | Product range

Telescopic rails with locking mechanism

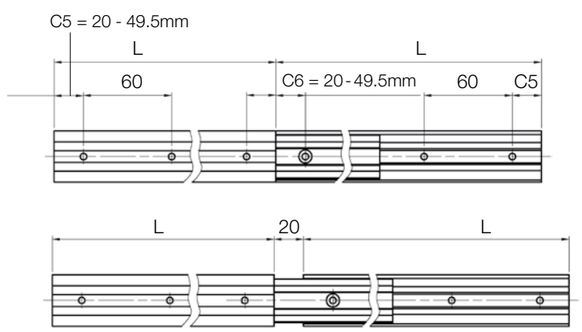


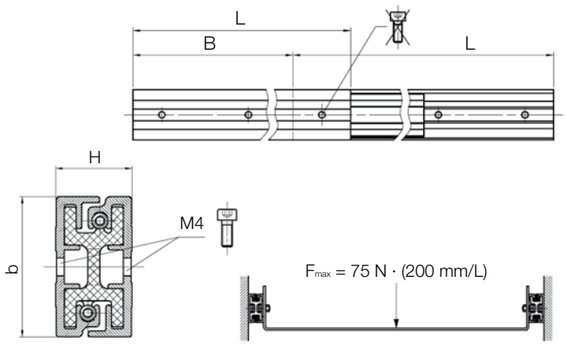
Order key

Type	Size	Option

N T - LM - 35 - 300

drylin® N	Telescopic system	Locking mechanism	Rail width	Length [mm]







drylin® NT LM in adjustment of Perspex guard



drylin® NT LM in guard door adjustment in a machine tool

drylin® detent in end and centre position at full extension - dimensions [mm]

Part No.	b	H	Lmin.	Lmax.
NT-LM-35-...mm	35	19	140	600

Individual position detent upon request; The length divided by the locking distance must be an even number. e.g. length 250mm, latching in 62.5mm step: 250/62.5: 4

Order example:

NT-LM-35-300: drylin® N telescopic rail with locking mechanism, 35mm width, retracted length 300mm

drylin® stop motion full product range online

▶ www.igus.eu/drylinstopmotion

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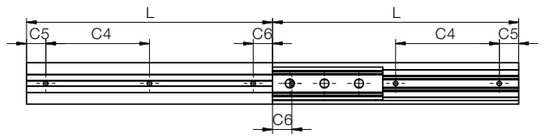
drylin® N low-profile linear guides | Product range

Telescopic guide for heavy loads and rigidity

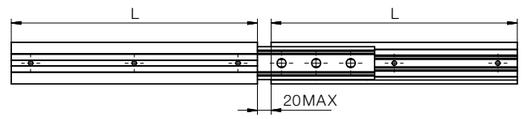




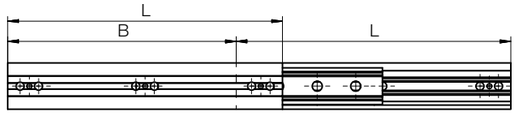
NT-60-"L" - Total extension

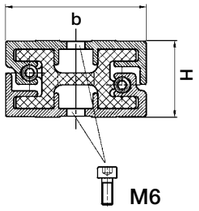


NT-60-„L“-„L+max. 20“ - Overextension



NT-60-"L"-"B" - Partial extension





$F_{max.}$: 100N · (200mm/L)



Tip:
F_{max} calculated using this formula allows an easy manual use. Higher loads can be taken up by the system, but need a higher drive force.

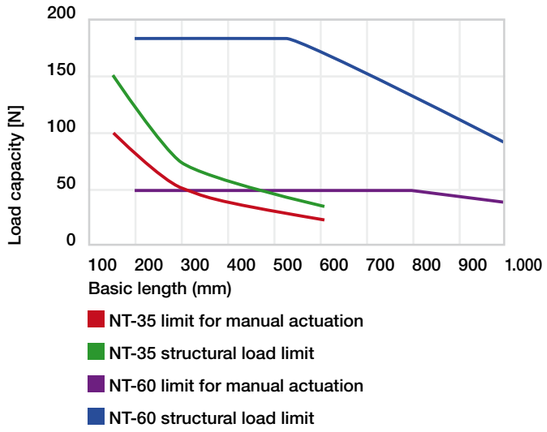
Order key partial extension

Type	Size	Option

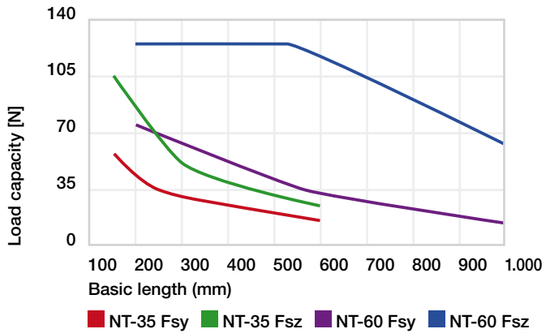
N T - 60 - 200 - 200 - AR

drylin® N	Telescopic system	Rail width	Length [mm]	Partial extension [mm]	Anti-reflect

Option: For partial extension „-200“, for overextension „-320“
Partial extension: (example: compressed length 300mm, extended length 500mm)
AR: Anti-reflect, black



drylin® N telescope systems load capacity of a drawer with two systems installed upright



drylin® N telescope static load capacity in different load directions

Dimensions [mm]

Part No.		b	H	C4	C5 = C6		L	
					min.	max.	min.	max.
NT-60-… mm		60	24	150	25	99.5	200	1,000
NT-60-AR	New	60	24	150	25	99.5	200	1,000

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drylin® N low-profile linear guides

drylin® N low-profile linear guides | Product range New

Telescopic rails with prism carriages



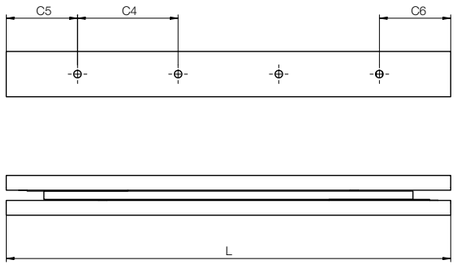
- Consistent telescopic rail due to spring pre-load mechanism
- Constant drive forces with various
- Spring pre-load
- Extension lengths in 50mm increments

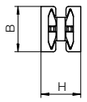
Order key

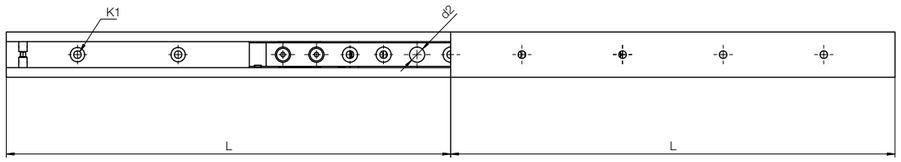
Type	Size

N T V - 27

drylin® N	Telescopic system	Pre-loaded	Rail width







Dimensions [mm]

Part No.		d2	K1	B	H	C4	C5 = C6		L	
			Ø				min.	max.	min.	max.
NTV-27	New	9	4.5	27	23.7	60	25	49.5	150	500

Order example:
NTV-27-300: drylin® N telescopic rail with locking mechanism, 27mm width, retracted length 300mm

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drylin® N low-profile linear guides | Product range New

Telescopic rails made of solid plastic



- 100% self-lubricating with iglidur® high-performance polymers
- Rattle-free and quiet due to pretensioning segments

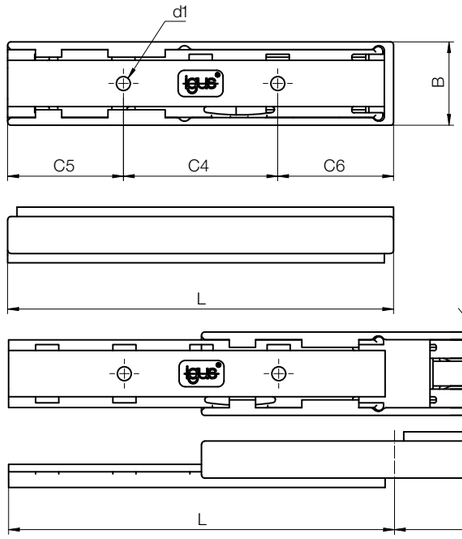
Order key

Type	Size

N T P -27-18-□-125

drylin® N	Telescopic system	Polymer	Rail width	Rail height	Colour	Length

Colour options:
01: anthracite, **02:** white, **03:** light grey, **04:** blue, **05:** orange



Use only countersunk head screws (e.g. DIN7984)

Dimensions [mm]

Part No.		d	C4	C5 = C6	B	H	d2	L	Weight [g]
NTP-27-18-□-125	New	4.5	50	37.5	27	18	10	125	45
NTP-27-18-□-150	New	4.5	75	37.5	27	18	10	150	53

Forces - installation situation

		Fsx	Fsy	Fsz	F
Fmax.	[N]	40	8	12.5	–
F	[N]	–	–	–	27

Order example:
NTP-27-125: drylin® N telescopic rail with locking mechanism, 27mm width, retracted length 125mm

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www.igus.eu/drylinstopmotion

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drylin® linear technology - drylin® T rail guides

- Robust linear guides
- Adjustable bearing clearance
- Wear-resistant and durable
- Dimensionally identical to recirculating ball-bearing guides
- Lubrication and maintenance-free



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Resistant to dirt, low vibration, quiet, long service life



Lubrication-free rail guides - drylin® T

drylin® T rail guides were originally developed for applications in both automation and materials handling. The goal was to create a robust linear guide for use in the most diverse, even extreme environments. Their dimensions are identical to most recirculating ball bearing guides.

- 100 % lubrication-free
- Adjustable bearing clearance
- Automatic clearance adjustment
- High static load capacity
- Service life up to 50,000km
- Resistant to dirt
- Low vibration and quiet

Typical application areas

- Mechanical engineering
- Woodworking industry
- Machine tools
- Handling

Available from stock
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Max. +90°C
Min. -40°C

7 carriage types
Rail length up to 4,000mm

Service life calculation
▶ www.igus.eu/drylin-expert

Cleanroom certificated
IPA Fraunhofer

Free from toxins
2011/65/EU (RoHS)

ESD-compatible
(electrostatic discharge)

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Dimensionally identical to most recirculating ball-bearing guides



Performance

- 50% longer service life due to iglidur® J200 sliding elements
- Fast assembly
- Adjustable bearing clearance

▶ **From page 167**



Standard / with manual clamp

- Manual clearance adjustment on the carriage
- Long service life with iglidur® J sliding elements
- Manual clamp on carriage (optional)

▶ **From page 168**



Automatic

- Automatic clearance adjustment
- Easy assembly with pre-load key
- Long service life with iglidur® J sliding elements

▶ **Page 169**



Heavy duty

- Robust design, factory clearance adjustment
- Long service life with iglidur® J sliding elements
- Fast assembly

▶ **Page 171**



Compact

- Narrow guide carriages for small spaces
- Captive plastic sliders
- Corrosion-resistant

▶ **Page 172**



Miniature guides / adjustable miniature guides

- Small compact design
- Easy to fit
- Clearance adjustment or pre-load (optional)

▶ **Page 174**



Clamps

- Compact or heavy duty design
- Available for installation sizes 15-30mm
- Holding force up to 500N

▶ **Page 173**



drylin® T rails

- Lightweight, aluminium extruded section
- Robust and corrosion-resistant hard-anodised surfaces
- Shaft length delivered with millimetre precision up to max. 4,000mm

▶ **Page 166**



Based on drylin® T
drylin® SLT linear module

▶ **From page 569**

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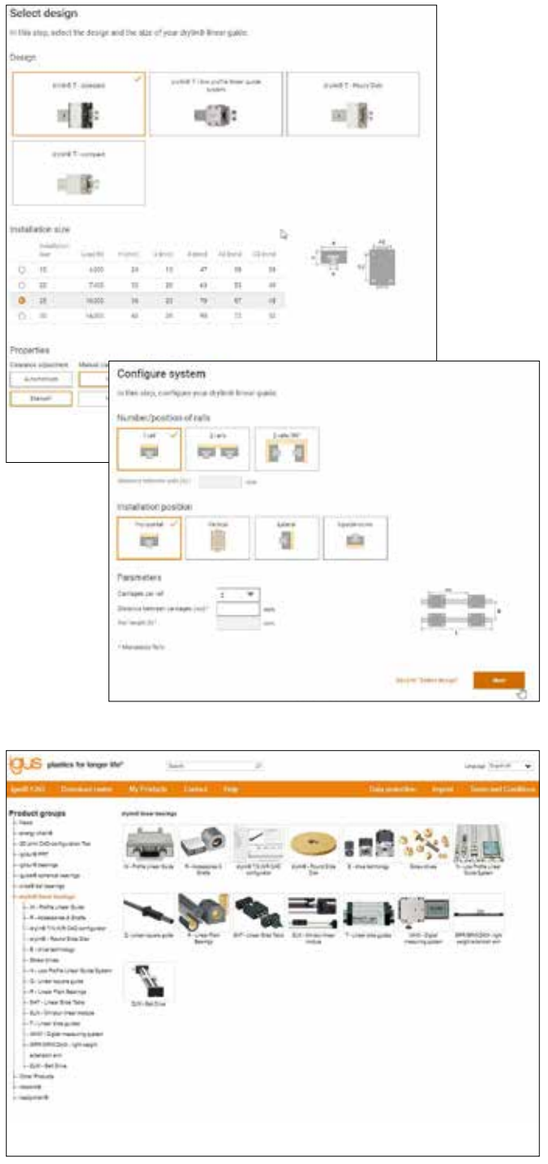
Long service life and food grade quality are also prerequisites for the application like insensitivity to pungent detergents and humidity.



The adjustment of the pressing roller and the compensation of the imbalance of the grinding tools are implemented with drylin® T in place of recirculating ball bearing guides.



The drylin® T linear guides are used in these enveloping machines to guide an envelope suction opener that is mounted on one side.



Expert for linear guides: System selection and service life calculation with CAD

Configure and calculate the service life of linear bearings - constantly expanded by new sizes and products

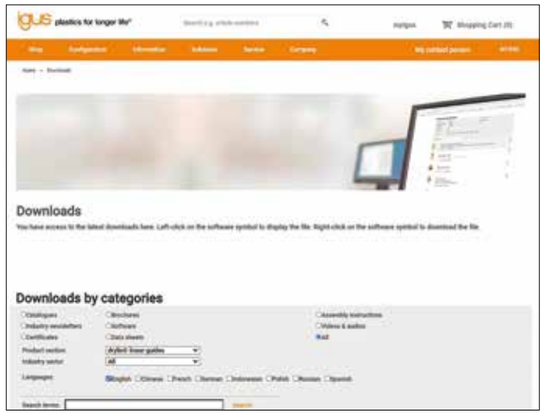
Easily calculate the service life of your required linear guide and configure with a few clicks. Select a drylin® system and add the relevant environmental parameters. Select the bearing size, carriage, number and position. Then enter the distance between the rails and the mounting. Define the coordinates for the drive location and the centre of gravity, or enter these via the keyboard. Define the weight, acceleration, and distance of the bearing and select a rail length. The results are displayed.

▶ www.igus.eu/drylin-expert

drylin® CAD configurator: Generate complete 3D models for drylin® linear technology according to your specifications

The igus® CAD online configurator gives you the ability to design and save your linear guide as a system, individual components directly as a 3D model in all commonly used formats, or to have these sent by e-mail - free of charge and without registration.

▶ www.igus.eu/drylin-CAD



More information about the products can be found in the igus® download area

- Assembly instructions
- Assembly videos
- System design
- Catalogues

▶ www.igus.eu/downloads

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Design tip

The compensation of parallelism errors up to a maximum of 0.5mm between mounted rails is possible with a fixed/floating bearing. During installation, take care that the floating bearing has approximately the same clearance on both sides.
In the adjacent designs you can see the version of the fixed/floating bearing system recommended by us.
The mounting surfaces of the rails and guide carriages should be very flat (e.g. machined surface) to prevent twisting in the system. Small discrepancies in the mounting surfaces can be compensated up to a certain amount (0.5mm) by a greater clearance adjustment. The clearance adjustment is possible only in unloaded state. If you have any questions on design and/or assembly, please make use of our technical support.

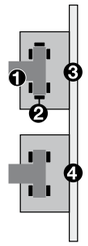
Technical details on floating bearings
▶ Page 50
The 2:1 Rule ▶ Page 50

Installation drylin® T linear guide system

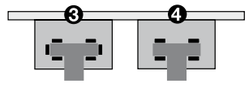
Make sure to assemble the side of the carriage saying "Reset Clearance" onto the rail first (see picture).

Version with floating bearing in z-direction

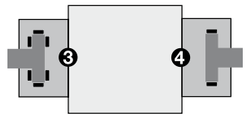
❶ Rail
❷ Sliding elements
❸ Carriage with fixed bearings
❹ Carriage with floating bearings
LLZ or LLY



Horizontal version with floating bearing in z-direction

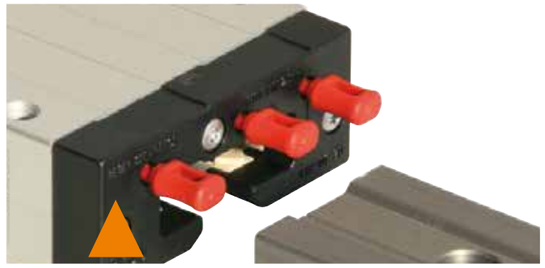


Horizontal version with floating bearing in the y-direction and lateral guide carriage





TW series, adjustable clearance



TWA series, automatic

Tightening torque for drylin® metallic screws

Metric thread (Da)	tightening torque [Nm]	Recommended tightening torque [Nm]
M3	0.5 - 1.1	0.7
M4	1.0 - 2.8	1.5
M5	2.0 - 5.5	3.0
M6	4.0 - 10.0	6.0
M8	8.0 - 23.0	15.0
M10	22.0 - 46.0	30.0

Minimal screw-in depth for aluminium and zinc die-casting parts: 1.5 x Da

Floating bearing clearances for drylin® T miniature guides

LLZ: Floating bearing in z-direction
LLY: Floating bearing in y-direction

Floating bearing clearances	TW-04-07	TW-04-09	TW-04-12	TW-04-15
LLY	–	0.4	0.5	0.7
LLZ	0.4	0.4	0.5	0.7

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Guide rail	
Material	Aluminium, extruded section
Material	EN AW-6060 T66
Coating	Hard-anodised aluminium, 50µm
Hardness	500 HV
Guide carriages	
Base structure	Aluminium, extruded section
Material	EN AW-6060 T66
Coating	Anodised aluminium
Sliding elements	Maintenance-free plain bearings materials iglidur® J, iglidur® J200 (TW-12/TW-04-07)
Bolts, springs	Stainless steel
Lid	Plastic (TW-01/TWA-01), steel (TW-02)/TW-03/TW-12
Max. surface speed	5m/s
Temperature range	from -40°C up to +90°C

Table 01: drylin® - technical data

Type	C_{0Y} [kN]	$C_{0(-Y)}$ [kN]	C_{0Z} [kN]	M_{0X} [Nm]	M_{0Y} [Nm]	M_{0Z} [Nm]
04-07	0.2	0.2	0.1	1.2	0.6	0.6
04-/14-09	0.48	0.48	0.24	3.4	1.8	1.8
04-/14-12	0.96	0.96	0.48	9.2	4.4	4.4
04-12 (TWE)	0.48	0.48	0.24	4.6	2.2	2.2
04-/14-15	1.4	1.4	0.7	17	8	8
04-15 (TWE)	0.7	0.7	0.35	8.5	4	4
01-/12-15	4	4	2	32	25	25
01-/02-/12-20	7.4	7.4	3.7	85	45	45
01-/02-/03-/12-25	10	10	5	125	65	65
01-/02-/12-30	14	14	7	200	100	100

Table 02: drylin® - permissible static load capacity

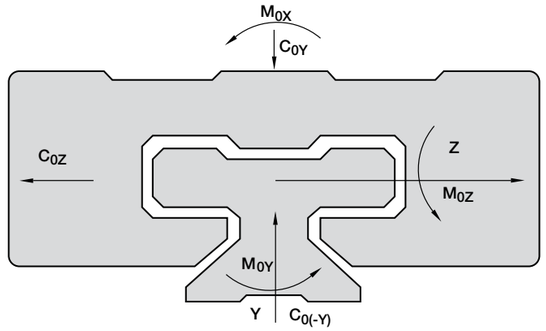


Diagram 01: Marking of the directions

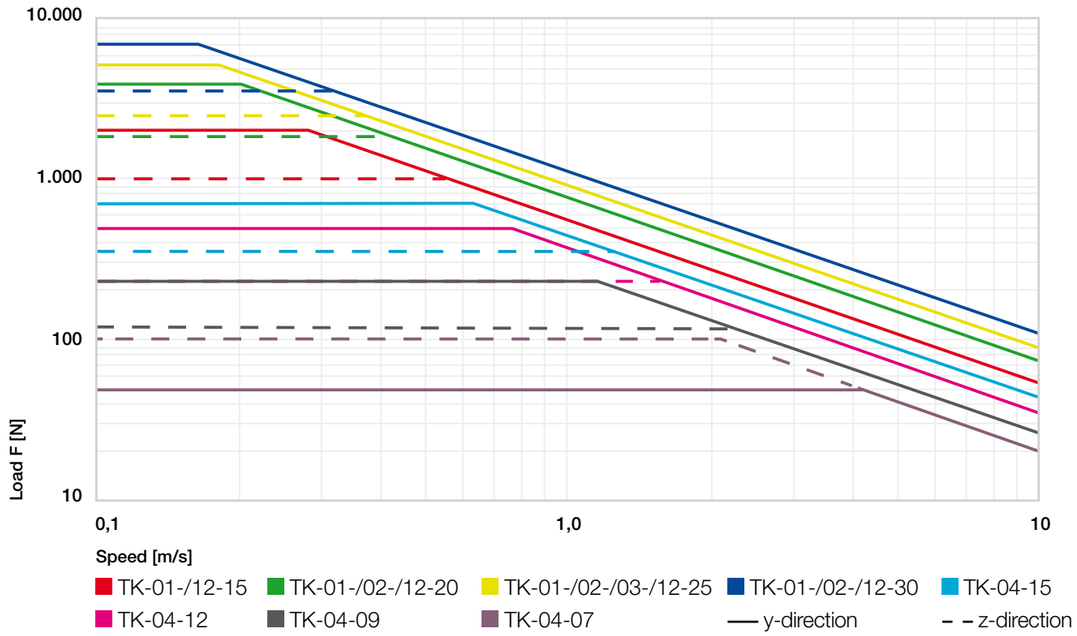


Diagram 02: drylin® T - permissible dynamic load capacity

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drylin® T rail guides | Product range

Guide rails



TS-01 TS-01-CA TS-11

Curved rail profiles
▶ Page 48

Order key

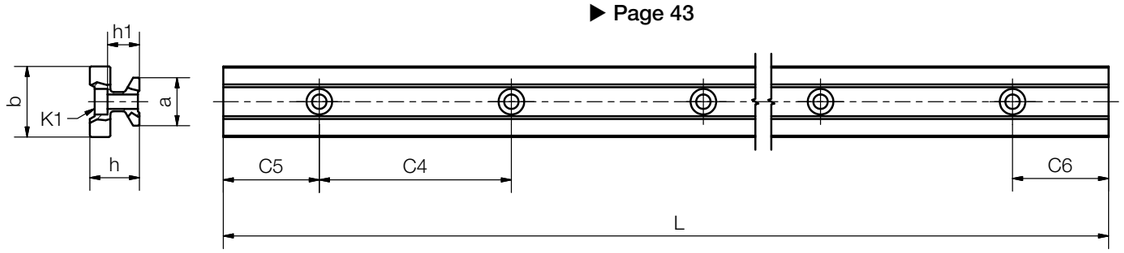
Type	Options
TS-01-15	-1000-CA

Guide rail | Standard | Installation size | Rail length [mm] | Aluminium, clear anodised

Options:

TS-01: Standard rail, hard-anodised
TS-01-CA: Clear anodised aluminium/econ version
TS-11: Weight-reduced rail, clear-anodised

Hard-anodised surfaces
▶ Page 43



Dimensions [mm]

Part No.	Weight	L	a	C4	C5	C5	C6	C6	h	h1	K1 for screw	b	Iy	Iz	Wby	Wbz
		max.	-0.2		min.	max.	min.	max.								
	[kg/m]										DIN 912		[mm⁴]	[mm⁴]	[mm³]	[mm³]
TS-01-15	0.6	4,000	15	60	20	49.5	20	49.5	15.5	10.0	M4	22	6,440	4,290	585	488
TS-01-15-CA New	0.6	4,000	15	60	20	49.5	20	49.5	15.5	10.0	M4	22	6,440	4,290	585	488
TS-01-20	1.0	4,000	20	60	20	49.5	20	49.5	19.0	12.3	M5	31	22,570	11,520	1,456	1,067
TS-01-20-CA New	1.0	4,000	20	60	20	49.5	20	49.5	19.0	12.3	M5	31	22,570	11,520	1,456	1,067
TS-11-20	0.5	4,000	20	120	20	79.5	20	79.5	19.0	12.3	M5	31	12,140	6,360	780	620
TS-01-25	1.3	4,000	23	60	20	49.5	20	49.5	21.5	13.8	M6	34	34,700	19,300	2,041	1,608
TS-01-25-CA New	1.3	4,000	23	60	20	49.5	20	49.5	21.5	13.8	M6	34	34,700	19,300	2,041	1,608
TS-01-30	1.9	4,000	28	80	20	59.5	20	59.5	26.0	15.8	M8	40	70,040	40,780	3,502	2,832
TS-01-30-CA New	1.9	4,000	28	80	20	59.5	20	59.5	26.0	15.8	M8	40	70,040	40,780	3,502	2,832

Standard hole pattern symmetric C5 : C6
For rails without mounting holes, please use part number suffix "UNGEBOHRT"

Can be combined with:



TW-01-... TWA-01-... TW-01-HKA TW-02-... TW-03-...

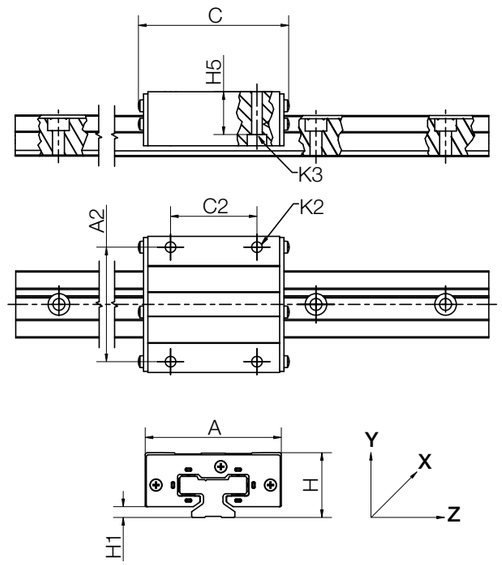
Technical data
▶ Page 165

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drylin® T rail guides | Product range

High performance carriage with clearance adjustment





Order key

Type
TW-12-15

Guide carriages | Performance | Installation size

Dimensions [mm]

Part No.	Weight	H	H5	A	C	A2	C2	H1	K2	K3 for	Sliding
		±0.35						±0.35	thread	cap screw	elements
	[kg]										
TW-12-15	0.11	24	16.0	47	63	38	30	4.0	M5	M4	iglidur® J200
TW-12-20	0.19	30	19.8	63	72	53	40	5.0	M6	M5	iglidur® J200
TW-12-25	0.29	36	24.8	70	82	57	45	5.0	M8	M6	iglidur® J200
TW-12-30	0.50	42	27.0	90	94	72	52	6.5	M10	M8	iglidur® J200

Can be combined with:



TS-01-20 TS-11-20

Technical data
▶ Page 165

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drylin® T rail guides | Product range

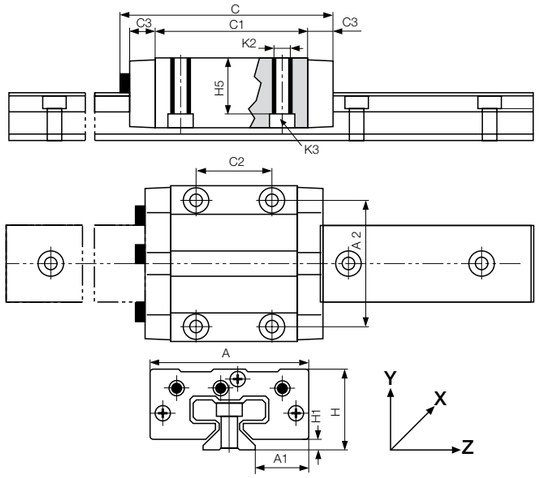
Guide carriages - manual clearance adjustment



TW-01



Complete system online



Order key

Type

TW-01-15

Guide carriages	Standard	Installation size

Options:

LLY: Floating bearing in y-direction

LLZ: Floating bearing in z-direction

Dimensions [mm]

Part No.	Weight	H ±0.35	A	C	A1 ±0.35	A2	C1	C2	C3	H1 ±0.35	H5	K2 thread	Tightening torque max.	K3 for screw
	[kg]												[Nm]	DIN 912
TW-01-15	0.11	24	47	74	16.0	38	50	30	9	4.0	16.0	M5	1.5	M4
TW-01-20	0.19	30	63	87	21.5	53	61	40	10	5.0	19.8	M6	2.5	M5
TW-01-25	0.29	36	70	96	23.5	57	68	45	11	5.0	24.8	M8	6.0	M6
TW-01-30	0.50	42	90	109	31.0	72	79	52	12	6.5	27.0	M10	15.0	M8

All elements can be ordered individually or as assembled systems

TW-01-20-LLY: Standard guide carriage with manually adjustable clearance, installation size 20 and floating bearing in y-direction

TK-01-20-2-500: Complete system with two standard guide carriages type 01, installation size 20 and standard guide rail, 500mm length

Can be combined with:

TS-01-...

Technical data
▶ Page 165

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drylin® T rail guides

drylin® T rail guides | Product range

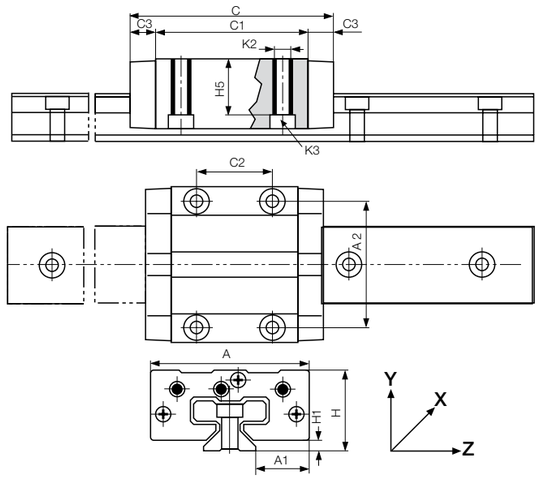
Guide carriages - automatic clearance adjustment



TWA-01



Complete system online



Order key

Type

TWA-01-15

Guide carriages Automatic version	Standard	Installation size

Options:

LLY: Floating bearing in y-direction

LLZ: Floating bearing in z-direction

Dimensions [mm]

Part No.	Weight	H ±0.35	A	C	A1 ±0.35	A2	C1	C2	C3	H1 ±0.35	H5	K2-Thread	Tightening torque max.	K3 for screw
	[kg]												[Nm]	DIN 912
TWA-01-15	0.11	24	47	68	16.0	38	50	30	9	4.0	16.0	M5	1.5	M4
TWA-01-20	0.19	30	63	81	21.5	53	61	40	10	5.0	19.8	M6	2.5	M5
TWA-01-25	0.29	36	70	90	23.5	57	68	45	11	5.0	24.8	M8	6.0	M6
TWA-01-30	0.50	42	90	103	31.0	72	79	52	12	6.5	27.0	M10	15.0	M8

All elements can be ordered individually or as assembled systems

TWA-01-20-LLY: Guide carriage with automatic clearance adjustment, installation size 20 and floating bearing in y-direction

TKA-01-20-2-500: Complete system with two standard guide carriages type 01, automatic clearance adjustment, installation size 20 and standard guide rail, 500mm length

Can be combined with:

TS-01-...

Technical data
▶ Page 165

EN 09/2023 igus

drylin® T rail guides | Product range

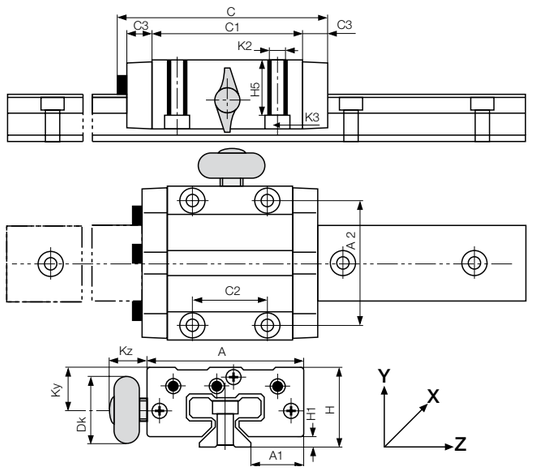
Guide carriages - with manual clamp



TW-01-HKA



Complete system online



Order key

Type	Options
TW-01-15-HKA	

Guide carriages | Standard | Installation size | Manual clamp

Other dimensions as standard design
TW-01-... ▶ Page 169

Dimensions [mm]

Part No.	Size	Kz	Ky	Dk	Manual clamp thread
TW-01-15-HKA	15	19.0	11.5	20.0	M6
TW-01-20-HKA	20	18.0	15.0	28.0	M8
TW-01-25-HKA	25	17.0	19.0	28.0	M8
TW-01-30-HKA	30	20.0	21.5	28.0	M8

All elements can be ordered individually or as assembled systems
TW-01-20-HKA: Guide carriage with manually adjustable clearance, installation size 20 and manual clamp
TK-01-20-HKA-2-500: Complete system with two standard guide carriages type 01 with manual clamp, installation size 20 and standard guide rail, 500mm length

The manual clamp was developed for simple tasks. The creep behaviour of the clamped plastic causes a reduction in clamping force over time (up to 70%). so no safety-relevant parts should be clamped. Please contact our technical consultant, if you require other options for the clamping.

Can be combined with:

TS-01-...

Technical data
▶ Page 165

drylin® T rail guides | Product range

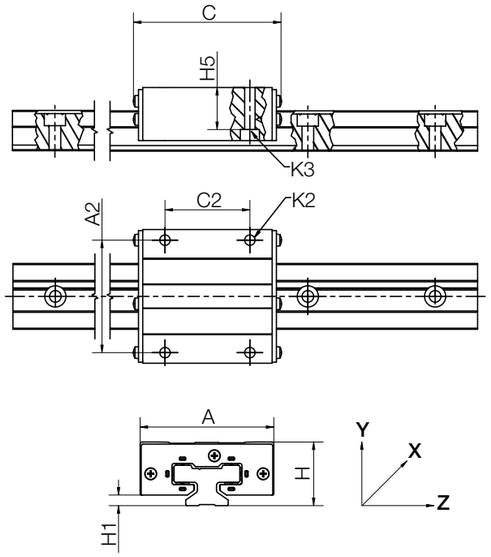
Guide carriages - heavy duty for extreme conditions



TW-02



Complete system online



Order key

Type
TW-02-20

Guide carriages | Heavy duty | Installation size

Floating bearing upon request

Dimensions [mm]

Part No.	Weight [kg]	H ±0.35	H5	A	C	A2	C2	H1 ±0.35	K2	K3
TW-02-20	0.19	30	19.8	63	70	53	40	5.0	M6	M5
TW-02-25	0.29	36	24.8	70	77	57	45	5.0	M8	M6
TW-02-30	0.50	42	27.0	90	92	72	52	6.5	M10	M8

All elements can be ordered individually or as assembled systems
TW-02-20: Heavy duty guide carriage, installation size 20
TK-02-20-2-500: Complete system with two heavy duty guide carriages type 02, installation size 20 and standard guide rail, 500mm length

Can be combined with:

TS-01-...

Technical data
▶ Page 165

drylin® T rail guides | Product range

Compact for tough applications



TW-03



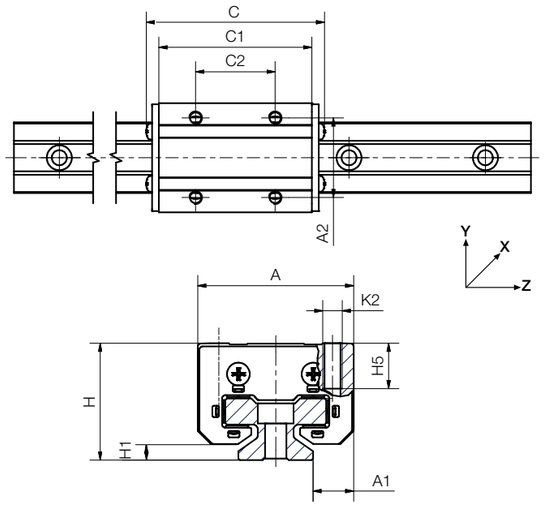
Complete system online

Order key

Type

TW-03-25

Guide carriages | Reduced weight | Installation size



Dimensions [mm]

Part No.	Weight [kg]	H ±0.35	A	C	A1	A2	C1	C2	H1 ±0.35	H5	K2	Tightening torque max. [Nm]
TW-03-25	0.16	36	48	81	14	35	67.4	35	5	13	M6	6.0

All elements can be ordered individually or as assembled systems

TW-03-25: Compact guide carriage, installation size 25

TK-03-25-2-500: Complete system with two compact guide carriages type 03, installation size 25 and standard guide rail, 500mm length

Can only be combined with:

TS-01-20 TS-11-20

Technical data ▶ Page 165

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drylin® T rail guides

drylin® T rail guides | Product range

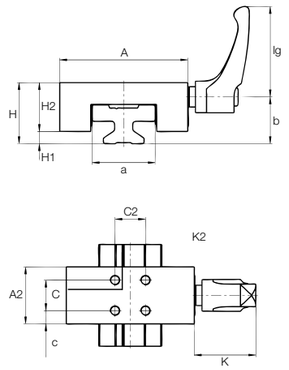
Accessories: Manual clamp

Compact design

Plastic clamping elements



TWBM-11



Order key

Type

TWBM-11-15

Manual clamp | Compact | Installation size

Dimensions [mm]

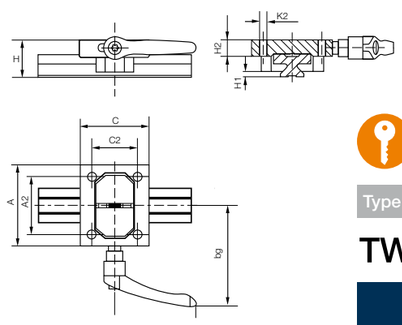
Part No.	Clamp force [N]	A	a	A2	H	H1	H2	K	K2	C	C2	c	lg	b
TWBM-11-15	180	47	22	23	24	4	20	30	M4	15	15	4	44	18.9
TWBM-11-20	180	63	31	28	30	5	24	30	M5	15	15	6.5	44	23.0
TWBM-11-25	400	70	34	35	36	5	31	39	M6	20	20	7.5	63.63	26.2
TWBM-11-30	500	90	40	38	42	6.5	35.5	47	M6	20	20	9	78	32.4

Standard design

with brass clamp



TWBM-01



Order key

Type

TWBM-01-25

Manual clamp | Standard | Installation size

Dimensions [mm]

Part No.	Clamp force [N]	A	A2	H	H1	H2	K2	C	C2	lg	bg
TWBM-01-25	500	80	57	36	5	16	M8	68	45	80	99

Can only be combined with:

TS-01-...

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drylin® T rail guides | Product range

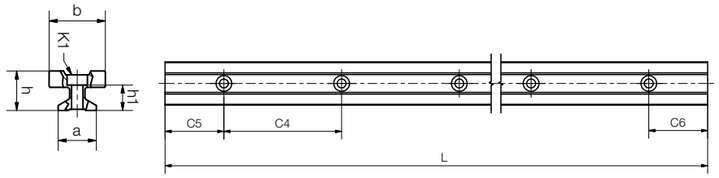
Miniature guides



TS-04



Complete system online



Order key

Type

TS-04-07

Guide rail | Miniature | Installation size

Curved rail profiles
▶ Page 48

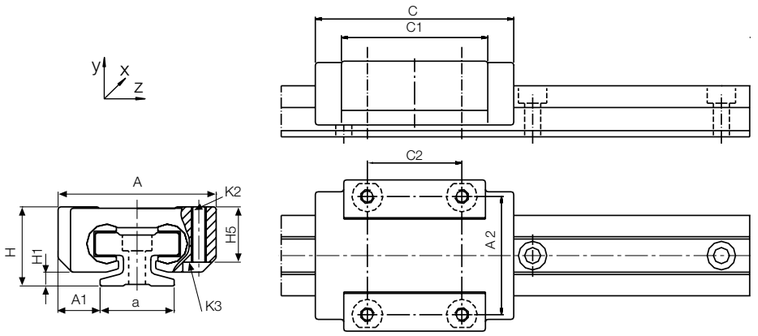
Dimensions [mm]

Part No.	Weight	L	a	C4	C5	C5	C6	C6	h	h1	K1 for screw	b	Iy	Iz	Wby	Wbz
		max.	-0.2		min.	max.	min.	max.								
	[kg/m]										DIN 912		[mm⁴]	[mm⁴]	[mm³]	[mm³]
TS-04-07	0.08	2,000	7	15	5	12	5	12	5.5	3.7	M2	8	131	90	32	29
TS-04-09	0.11	2,000	9	20	5	14.5	5	14.5	6.3	4.6	M2	9.6	252	169	52	49
TS-04-12	0.20	2,000	12	25	5	17.0	5	17.0	8.6	5.9	M3	13	856	574	132	120
TS-04-15	0.33	3,000	15	40	10	29.5	10	29.5	10.8	7.0	M3	17	2,420	1,410	285	239

Miniature guide carriages with iglidur® E3 liners New



TW-14



Dimensions [mm]

Part No.	Weight	H	A	C	A1	A2	C1	C2	H1	H5	K2 thread	Tightening torque	K3 for screw
		±0.2	-0.2	±0.35					±0.35				
	[g]											[Nm]	DIN 912
TW-14-09 New	17	10	20	29	5.5	15	18	13	1.7	7.2	M2	0.25	–
TW-14-12 New	34	13	27	34	7.5	20	22	15	2.2	9.5	M3	0.50	M2
TW-14-15 New	61	16	32	42	8.5	25	31	20	2.8	11.0	M3	0.50	M2

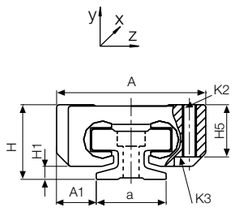
EN 09/2023

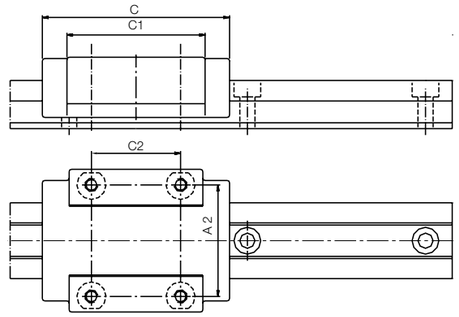
drylin® T rail guides | Product range

Miniature guide carriages - standard



TW-04





Order key

Type

TW-04-07

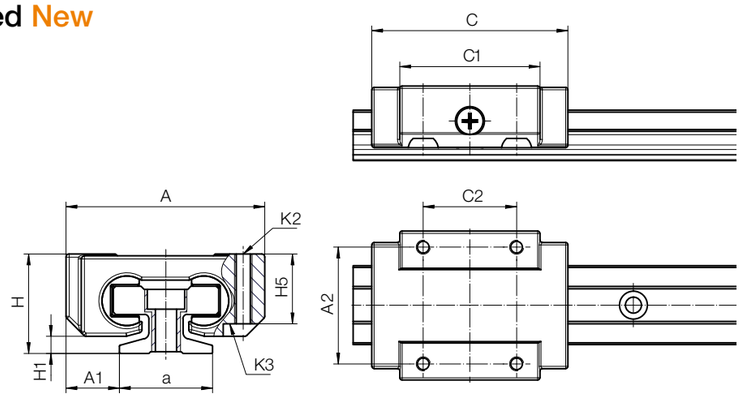
Guide rail | Miniature | Installation size

Dimensions [mm]

Part No.	Weight	H	A	C	A1	A2	C1	C2	H1	H5	K2 thread	Tightening torque	K3 for screw
		±0.2	-0.2	±0.3	±0.35				±0.35				
	[g]											[Nm]	DIN 912
TW-04-07	8	8	17	23	5	12	21	8	1.5	–	M2	0.25	–
TW-04-09	17	10	20	29	5.5	15	18	13	1.7	7.2	M2	0.25	–
TW-04-12	34	13	27	34	7.5	20	22	15	2.2	9.5	M3	0.50	M2
TW-04-15	61	16	32	42	8.5	25	31	20	2.8	11	M3	0.50	M2

Miniature guides, pre-loaded New





Dimensions [mm]

Part No.	Weight	Pre-load	H	A	C	A1	A2	C1	C2	H1	H5	a	K2 thread	Tightening torque	K3 for screw
			±0.2	-0.2	±0.3	±0.35				±0.35		-0.2			
	[g]	[N]												[Nm]	DIN 912
TW-04-09-P30 New	18.0	3	10	20	29	5.5	15	18	13	1.7	7.2	9	M2	0.25	-
TW-04-12-P40 New	36.0	4	13	27	34	7.5	20	22	15	2.2	9.5	12	M3	0.5	M2
TW-04-12-P90 New	36.0	9	13	27	34	7.5	20	22	15	2.2	9.5	12	M3	0.5	M2
TW-04-15-P40 New	64.0	4	16	32	42	8.5	25	31	20	2.8	11.0	15	M3	0.5	M2
TW-04-15-P90 New	64.0	9	16	32	42	8.5	25	31	20	2.8	11.0	15	M3	0.5	M2

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drylin® T rail guides | Product range

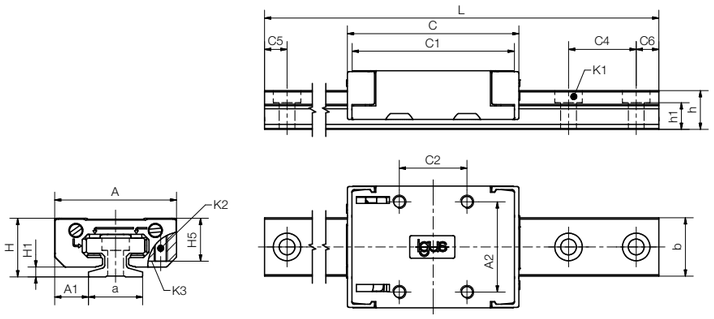
Adjustable miniature guide carriages



TWE-04



Complete system online



Order key

Type

TW E -04-12

Guide carriages | Adjustable clearance | Miniature | Installation size

High corrosion resistance by use of e-coating finish

Dimensions [mm]

Part No.	Weight	H	A	C	A1	A2	C1	C2	H1	H5	K2 thread	K3 for screw
	[g]	±0.2	-0.2	±0.3	±0.35				±0.35			DIN 912
TWE-04-12	36	13	27	38	7.5	20	36	15	2.2	9.5	M3	M2
TWE-04-15	61	16	32	45	8.5	25	31	20	2.8	11	M3	M2

Press in, turn, snap into place



Tool: screwdriver with 3mm edge wide



Right side: setting the height clearance



Left side: setting the lateral clearance

Can be combined with:

TS-04-...

Technical data ▶ Page 165

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drylin® T rail guides

drylin® T rail guides | Ordering options



drylin® T replacement plastic sliding elements (set)

Material iglidur® J ▶ www.igus.eu/J-material
Material iglidur® J200 ▶ www.igus.eu/J200-material
Material iglidur® E3

Guide carriages	Part No. Sliding part set
TW-12-15	TEK-12-15 (J200)
TW-12-20	TEK-12-20 (J200)
TW-12-25	TEK-12-25 (J200)
TW-12-30	TEK-12-30 (J200)
TW-14-09	TEK-14-09 (E3)
TW-14-12	TEK-14-12 (E3)
TW-14-15	TEK-14-15 (E3)
TW-01-15	TEK-01-15 (J)
TW-01-20	TEK-01-20 (J)
TW-01-25	TEK-01-25 (J)
TW-01-30	TEK-01-30 (J)
TW-02-20	TEK-02-20 (J)
TW-02-25	TEK-02-25 (J)
TW-02-30	TEK-02-30 (J)
TW-04-09	TEK-04-09 (J)
TW-04-12	TEK-04-12 (J)
TWE-04-12	TEK-E-04-12 (J)
TW-04-15	TEK-04-15 (J)
TWE-04-15	TEK-E-04-15 (J)



drylin® T end caps for series 01 guide rail holes:

Rail	Part No. End cap
TS-01-15	TSZ-011501
TS-01-20	TSZ-012001
TS-01-25	TSZ-012501
TS-01-30	TSZ-013001

When using the end caps, screws with a low screw head must be used to attach the rail.

Part No.	$F_{ymax.}$, $F_{zmax.}$ [N]
TW-01/-12-15	2,000
TW-01/-02/-12-20	3,700
TW-01/-02/-03/-12-25	5,000
TW-01/-02/-12-30	7,000

drylin® T - system design

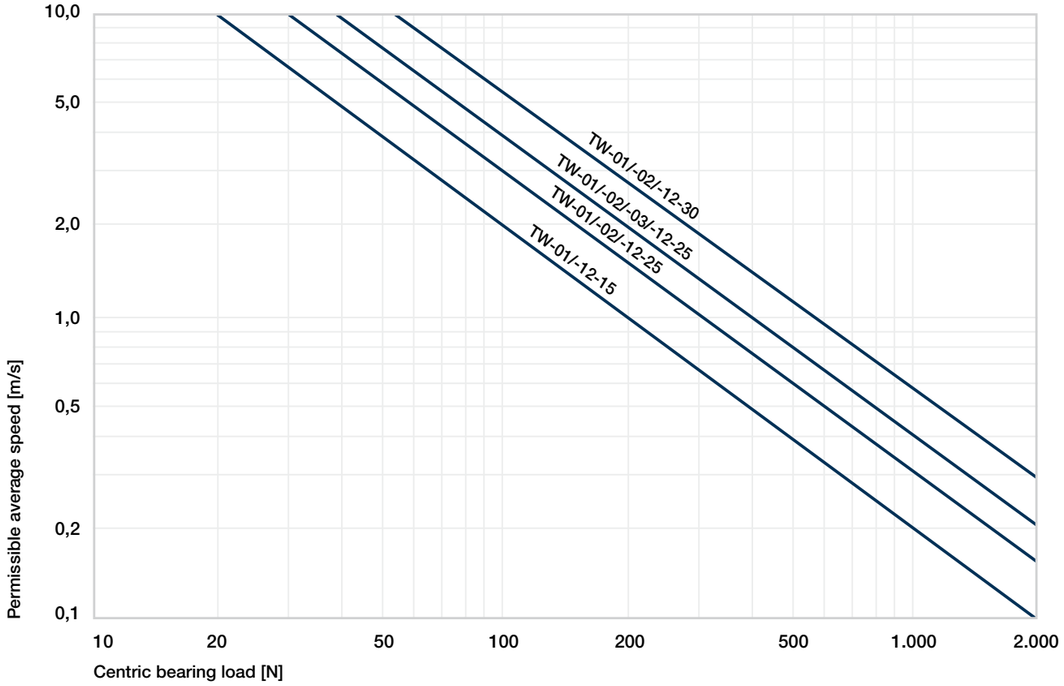


Diagram 04: Determination of the maximum permitted speed for the load



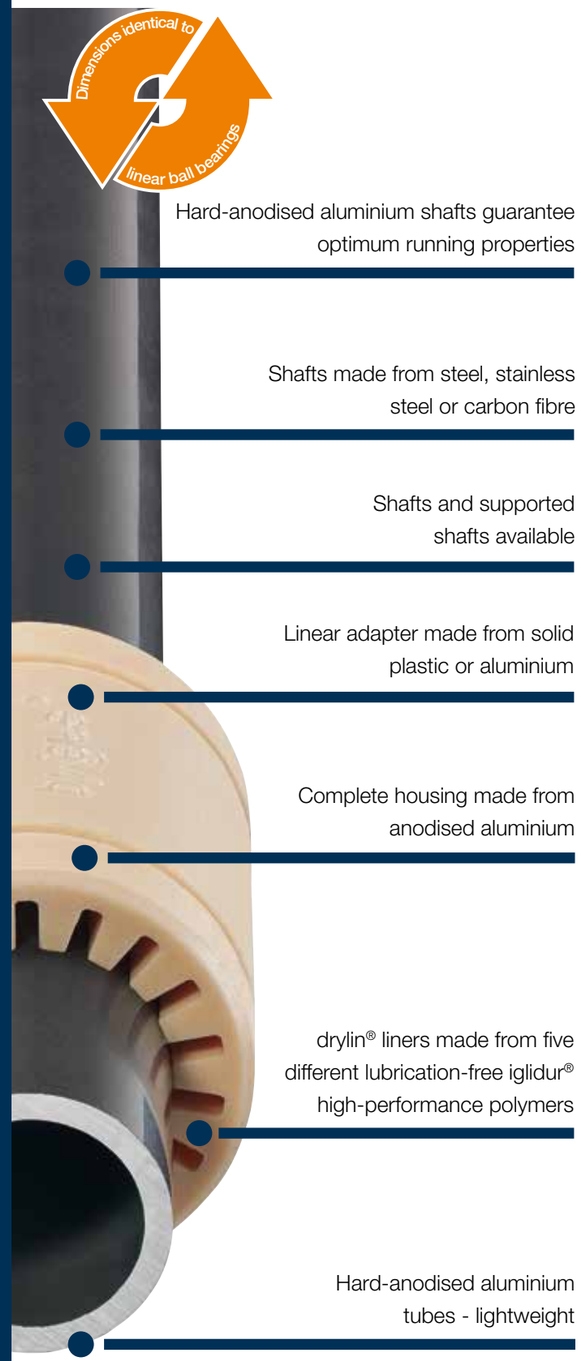
drylin® linear technology - drylin® R shaft guides

- Lubrication-free drylin® liners
- Resistance to dust and dirt
- Low coefficient of friction
- Extremely quiet operation
- Many adapter and housing options



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Extremely wear-resistant, robust in challenging environments and lightweight



Lubrication-free shaft guides - drylin® R

drylin® R shaft guides are based on extremely wear-resistant polymers specially developed for the linear technology. The dimensions are compatible with standard ball bearings. The special geometry guarantees reliability even in extreme environments.

- 100% lubrication-free
- Dimensionally interchangeable with standard recirculating ball bearings
- Large variety of choice in housing shapes
- Shafts, shaft end blocks and accessories available from stock
- Replaceable liners
- Stainless steel housings available

Typical application areas

- Agricultural machinery
- Automotive
- Medical technology
- Facade construction
- Packaging industry

Available from stock
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Max. +200°C
Min. -40°C

Up to Ø 60mm
More dimensions upon request.

Imperial dimensions available
▶ From page 746

Service life calculation
▶ www.igus.eu/drylin-expert

Cleanroom certificated
IPA Fraunhofer

Free from toxins
2011/65/EU (RoHS)

ESD-compatible
(electrostatic discharge)

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Dimensions correspond to standard for recirculating ball bearings



Liners and press-fit bearings

- Made from iglidur® high-performance polymers
- Easy to fit
- Unaffected by dirt and dust
- Low coefficient of friction, optimised wear quality

▶ Page 188



Linear plain bearings

- Dimensionally interchangeable with standard recirculating ball bearings
- Extremely lightweight solid plastic bearing
- Aluminium and stainless steel adapters equipped with iglidur® liners

▶ Page 210



W360CM linear plain bearing (precision)

- High rigidity
- Low bearing clearance
- Linear bearings or flanged bearings

▶ Page 218



Linear bearings and pillow blocks, open/ closed design

- For unsupported shafts ▶ Page 268
- For supported shafts ▶ Page 269
- Fixed bearing/floating bearing/tandem bearing/ clearance adjustment

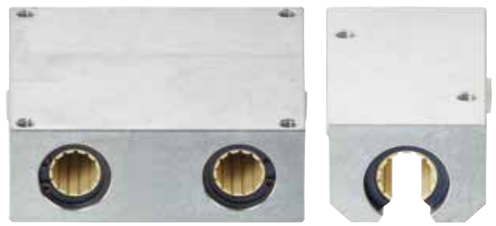
▶ Page 237



Flanged linear plain bearings

- Pre-assembled housings with drylin® liners
- Round or square flange
- Tandem flange housing for additional stability

▶ Page 242

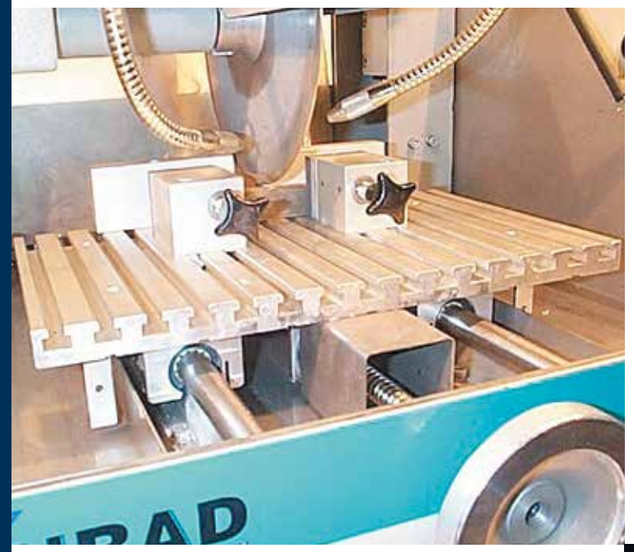


Quad block

- Closed and open design
- Torque-resistant quad block housing with four linear adapters
- Also available as tandem housing

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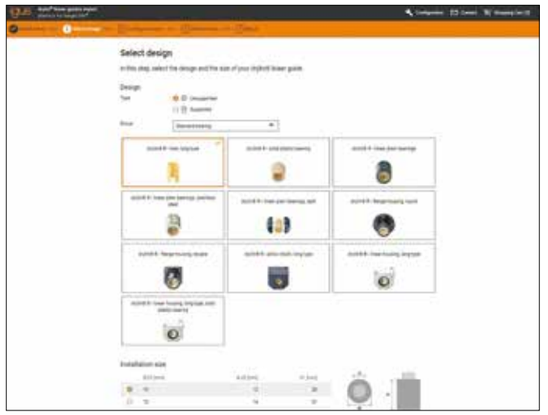
Cutting table
drylin® R linear plain bearings on supported aluminium shafts are used in this grinder to guide the cutting table. The drylin® components stand for extreme dirt resistance, accurate guidance and smooth operation.



Angle stop in sawmill
Saw mill: linear guide with iglidur® J plastic liner for the angle stops.iglidur® J liners are best suited for most linear applications due to their low wear and low friction properties.



Concrete pipe cutter
The machine now runs entirely free of troubles for multiple years with drylin® RJUM-01 linear bearings despite the extremely heavy-duty operation.



Expert for linear guides: System selection and service life calculation with CAD
Configure and calculate the service life of linear bearings - constantly expanded by new sizes and products
Easily calculate the service life of your required linear guide and configure with a few clicks. Select a drylin® system and add the relevant environmental parameters. Select the bearing size, carriage, number and position. Then enter the distance between the rails and the mounting. Define more relevant parameter of the guidance and select a rail length. The results are displayed.

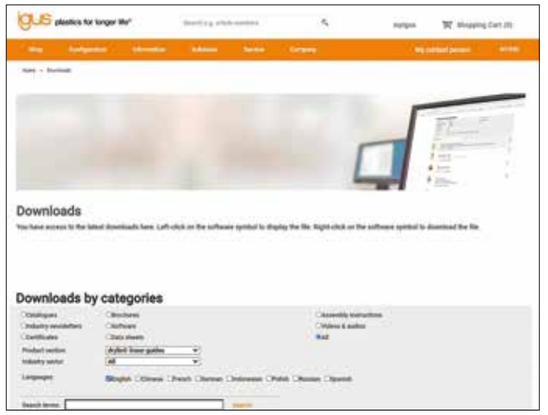
▶ **www.igus.eu/drylin-expert**

Download the online tool app now
Download on the App Store



drylin® CAD configurator: Generate complete 3D models for drylin® linear technology according to your specifications
The igus® CAD online configurator gives you the ability to design and save your linear guide as a system, individual components directly as a 3D model in all commonly used formats, or to have these sent by e-mail - free of charge and without registration.

▶ **www.igus.eu/drylin-CAD**

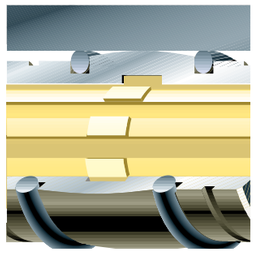


More information about the products can be found in the igus® download area
- Assembly instructions
- Assembly videos
- System design
- Catalogues

▶ **www.igus.eu/downloads**

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drylin® R linear plain bearings



The drylin® standard round bearings consist of an interchangeable iglidur® J liner that is manufactured to be a mechanical fit into an anodised aluminium adapter. The locating spigot of the liner is carried out by a snap ring groove. drylin® R linear plain bearings, made from solid plastic, are dimensionally equivalent to standard ball bearings. They are made entirely out of wear-resistant iglidur® J material and can off er technical advantages in addition to the clear price advantage. Thus, applications in which machine parts are primarily stainless steel, e.g. food and filling equipment, are well suited for the use of solid plastic bearings. An additional weight-saving is also easily obtained.

Both versions are designed for the installation in housing holes with the tolerance H7. The mounting is done like in ball bearings with circlips according to DIN 471/472.

The narrow design of the 02 series linear plain bearings, is clipped into the H7 housing hole. Standard commercial 2-component adhesives can be used for this purpose.

Dirt, dust, fibres

An important feature of all the available linear bearings is their tolerance of dirt. For most systems the application of wipers or seals is recommended for even low dirt accumulation. No other system features such a high safety with dust, lint and coarse dirt as drylin®. The patented design of the bearing surface using individual slide pads connected by thin film sections, provides performance benefits for dirty environments. Dirt, even when it becomes wet on the shaft, is wiped away by the individual glide pads and is moved into the open areas. The running sections of the drylin® bearing then slide on the shaft that has been cleared of all contaminants.

Split linear bearings

Applications that are on the edge of technical feasibility or in extremely harsh environments often require frequent replacement of the bearings. In many cases, drylin® can give a multiple increase in the service life. However, in extreme applications, replacement of the bearings is necessary, even with drylin®. drylin® linear plain bearings can provide considerable cost reductions in such cases as only the polymer bearing liner has to be replaced. This often means a reduction of more than 90% in replacement part costs. In addition the dismantling of the shafts is avoided.







	 The All-rounder - iglidur® J	 The specialist - iglidur® J200	 The extreme - iglidur® X	 The endurance runner - iglidur® E7	 The FDA-compliant - iglidur® A180	 Blue Sky Thinking FDA/EU-compliant - iglidur® A160
Application temperature	-50 up to +90°C	-50 up to +90°C	-100°C up to +250°C	-50°C up to +70°C	-50 up to +90°C	-50 up to +90°C
Best coefficient of friction with	Steel shaft	Aluminium, hard-anodised	Hard-chromed steel	Steel/stainless steel shaft	Stainless steel shaft	Hardened stainless steel shafts
Volume resistance	> 10^{13} Ωcm	> 10^{8} Ωcm	< 10^{5} Ωcm	> 10^{9}Ωcm	> 10^{12}Ωcm	> 10^{12}Ωcm
Moisture absorption	1.3% weight	0.7% weight	0.5% weight	< 0.1wt.-%	0.2% weight	< 0.1wt.-%
Maximum service life with	Hard-anodised aluminium	Aluminium, hard-anodised	Hardened stainless steel	Steel/stainless steel shaft	Stainless steel shaft	Hardened stainless steel shafts
Potential counter partner	All shaft materials	Aluminium, hard-anodised	Hardened stainless steel	Steel/stainless steel shaft	All shaft materials	Stainless steel
Permissible stat. surface pressure	35MPa	23MPa	150MPa	18MPa	28MPa	15MPa
Part No.	JUM-...	J200UM-...	XUM-...	E7UM-...	A180UM-...	A160UM-...

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drylin® R shaft guides | Technical data

The split bearings are easily pulled off the housing and opened. The slotted liner can be simply mounted on the shaft. With this product range of split drylin® bearings, installation times can be reduced to a minimum.

Series L1 - low-clearance press-fit bearings

The series L1 plain bearings are composed of the iglidur® L100 bearing material, an extremely wear-resistant plastic compound. They are sub-divided into a press-fit area and a gliding range. The gliding range is composed of individual crossbars which are linked to each other by thin film bridges. These film bridges compensate the elongation of the bearing through heating or moisture. This separation enables the almost clearance-free design of the bearings, as there is no clamping of the shaft. The cylinder-shaped press-fit area is also visually very distinct from the gliding range. The function of this area, which shows a distinct clearance compared to the shaft, is to fix the bushing firmly in the housing by means of a press fit.

Compressive strength

iglidur® plain bearings are homogeneously filled with solid lubricants. In this way, lubricants cannot be removed, even at high loads. The iglidur® L100 material allows an average static surface pressure of 70MPa. However, only half of the load-bearing surface can carry loads and this is taken into account in the calculation.

Surface speeds

The following table shows possible surface speeds of L1 bearings.

- Extremely wear-resistant
- Low coefficient of friction
- Vibration-dampening
- High static compressive strength
- Good chemical resistance
- Highly resistant to dirt
- Also suitable for soft and rough shafts

iglidur® L100	Rotating	Oscillating	linear
Continuous [m/s]	1.5	1.5	3
Short-term [m/s]	3	3	10

Table 02: Maximum surface speed for iglidur® L100

Material properties:
iglidur® J ▶ www.igus.eu/J-material
iglidur® J200 ▶ www.igus.eu/J200-material
iglidur® X ▶ www.igus.eu/X-material
iglidur® E7 ▶ www.igus.eu/E7-material
iglidur® A160 ▶ www.igus.eu/A160-material
iglidur® A180 ▶ www.igus.eu/A180-material
iglidur® L100 ▶ Seite 775



Coefficient of friction

Plain bearings of the L1 series are designed for dry operation against steel. The best results are attained with surface finishes from 0.3 to 0.8Ra. The coefficient of sliding friction reduces with increasing load. Typical coefficient of friction in dry operation are 0.2 to 0.3. But the value can be higher with less suitable shafts.

Operating temperatures

Temperatures affect the compressive strength, the wear and the securing of the bearing in the housing. A firm fit could be determined in all the tests up to a temperature of +70°C. At higher temperatures, an additional securing of the bearing is recommended. With effective securing, L1 plain bearings could also be used at temperatures over +130°C.

iglidur® L100	Application temperatures
Minimum	-30°C
Max. long-term	+100°C
Maximum, short-term	+190 °C

Table 03: Temperature limits for iglidur® L100

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Floating bearings for linear plain bearings

drylin® 03 series linear plain bearings off er great advantages in applications with parallel shafts. With their geometry, they are able to compensate for alignment and parallelism errors and should be used on the shaft located furthest from the drive mechanism. The design provides a spherical area on the outside diameter of the aluminium adapter for self-alignment. Reductions in load capacity are prevented, since the shaft always lies on the total projected surface. Due to the even load distribution over the entire bearing, edge pressure is not possible with the self-aligning drylin® linear bearings. In order to compensate parallelism errors between two shafts, the outer diameter is designed to be smaller than the housing hole diameter by 0.2 to 0.3mm (depending on the size). With the use of mounted O-rings, these bearings have an elastic bearing seat. The clearance between the bearing and housing allows for the maximum compensation of possible shaft miss-alignment.

The drylin® R self-aligning bearings are supplied hard-anodised. These surfaces guarantee the highest wear resistance if the aluminium bearing moves in the housing during compensation adjustments. Another option are the pillow blocks in the OJUM-06 LL and RJUM-06 LL design series. The mounting of the bearing allows a parallelism adjustment between the shafts by ±3mm. The particular suspension of the supporting housing on an axis running in the z-direction enables an angular error compensation of up to 3.5°.

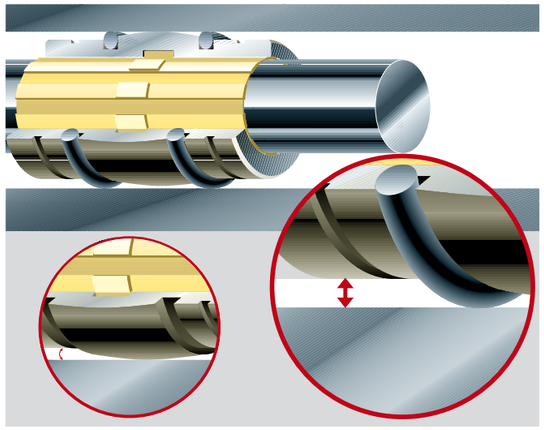


Diagram 02: By defined installation clearance and externally mounted O-rings, the self-aligning drylin® R bearings of the type series 03 can compensate parallelism errors. The spherical drylin® adapter can compensate for parallelism errors. A hard-anodisation protects the aluminium adapter from wear.

Eccentric forces

To ensure successful use of maintenance-free drylin® linear bearings, it is necessary to follow certain recommendations: if the distance between the driving force point and the fixed bearings is more than twice the bearing spacing (2:1 rule), a static friction value of 0.25 can theoretically result in jamming on the guides.

This principle applies regardless of the value of the load or drive force. The friction product is always related to the fixed bearings. The greater the distance between the drive and the guide bearing, the higher the wear and required drive force.

Failure to observe the 2:1 rule during a use of linear plain bearings can result in uneven motion or even system blockage. Such situations can often be remedied with relatively simple modifications. If you have any questions on design and/or assembly, please make use of our technical support.

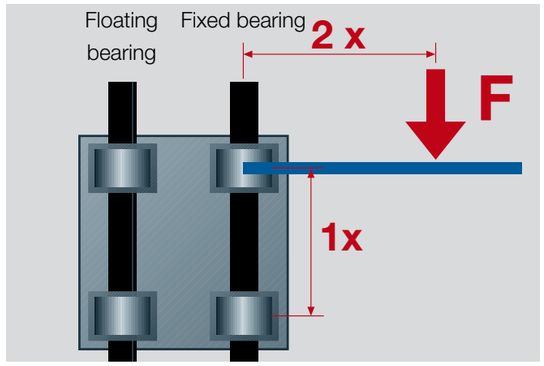


Figure 03: The 2:1 rule



RJUM-06-LL
▶ Page 236

OJUM-06-LL
▶ Page 237

RJUM-03/OJUM-03 series	±0.5°
RJUM-06-LL/OJUM-06-LL series	±3.5°

Table 04: Compensation of misalignment errors

RJUM-03/OJUM-03 series	±0.1mm
RJUM-06-LL/OJUM-06-LL series	±3.0mm

Table 05: Compensation of parallelism errors

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drylin® R shaft guides are designed for completely lubrication-free operation. The dimensions of the respective linear adapter and housing meet the standard for recirculating ball bearings. During assembly, please note the following installation instructions:

Design tips for drylin® linear plain bearings:
The mentioned values for "$F_{max.}$" relate to the performance of the iglidur® liners made from high-performance plastics and cannot be used as the only selection tool for the calculation of an application. The maximum carrying capacity of the entire bearing system depends on the geometry, housing shape, the housing material, the connection including the screws used and requires a separate inspection. For a detailed analysis, please use our online configurator at
▶ www.igus.eu/drylin-expert

Recommended tolerance for the shaft: h6-h10
Surface roughness [Ra]: 0.15-0.6
Guide shafts round/supported **▶ Shafts page 263**

Recommended housing hole H7
Linear plain bearings RJUM-01/03, TJUM-01/03, RJM, RJMP, RJ260(U)M02, press-fit bearings WLM, WLFM



Liners:
_UM-01, _UMO-01, _UM-11, _UMO-11, _UM-02
● Interlocking with the housing bore ● Locating spigot is supported by a snap ring groove ● Anti-rotation feature through engagement of the pin in hole Ø z



Press-fit bearings:
WLM, WLFM
● Press-fit installation into the H7 housing hole ▶ Assembly instructions, **www.igus.eu/WLM**



Linear plain bearings:
RJUM-01, RJUM-11, RJUM-ES, TJUM-01, RJUM-03, TJUM-03, RJUI-01, RJUI-03, TJUI-01, TJUI-03
● Secured by DIN 471 or 472 circlips, metric types (not included)



Solid plastic bearings:
RJM, RJI-01
● Fastening with circlips according to DIN 471 or 472 (not included) ● The E9 inner tolerance applies only after the press-fit



Solid plastic bearings:
RJMP
● Easy assembly by soft press-fit ● Secured by DIN 471 or 472 circlips (not included)



Linear plain bearings:
RJUM-02
● Secured by press-fit in steel housing hole H7 or aluminium housing hole K7
● Alternatively, the adapter can be glued with commercially available 2-component adhesive into a housing



Compact bearings:
RJ260 (UM-02)
● Locating spigot and press-fit into housing bore H7
● Alternatively, the adapter can be glued with commercially available 2-component adhesive into a housing



Linear plain bearings:
OJUM-01, OJUM-03, OJUI-01, OJUI-03
● Adapter secured with set screws (not included)



Quad blocks: RQA, RGA
Tandem design: RTA
● The bearing in the housing is secured by DIN 472 circlips



Linear housings:
RGAS
● The bearing in the housing is secured by DIN 471 circlips



Quad blocks: OQA, OGA,
Linear housings: OGAS,
Tandem design: OTA
● The bearings is secured by screws



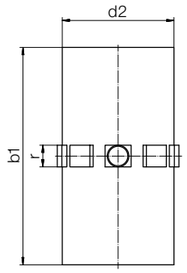
Pillow blocks: RJUM/E/T-05, RJUM-06/-LL, OJUM/E-06/-LL,
Flange housings: FJUM/T-01/02;
Quad blocks: RGA, OGA;
Tandem designs: RTA, OTA;
Linear bearings: RGAS, OGAS
● Mounting screws of the housing DIN 912-8.8 ● Circlips according to DIN 7980

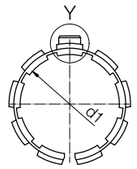
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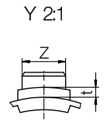
drylin® R liners | Product range

Long, closed design for shafts - made from iglidur® J (the all-rounder)









Order key

Type				Size
J	U	M	-01	-10
iglidur® J	Liner	Metric	Standard	Inner Ø d1

The all-rounder for all shaft surfaces in indoor and outdoor applications

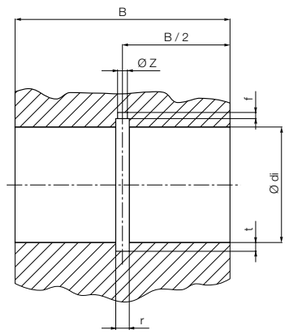
78) According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -50°C
Max. +90°C

Dimensions [mm]

d1	d1 tolerance78)	d2	b1	r	t	Z	Weight [g]	Part No.
10	+0.030 +0.070	12	28	3.0	0.8	2.5	1.10	**JUM-01-10**
12	+0.030 +0.070	14	31	3.0	0.8	3.0	1.50	**JUM-01-12**
16	+0.030 +0.070	18	35	3.5	0.8	3.5	2.20	**JUM-01-16**
20	+0.030 +0.070	23	44	5.0	0.8	3.5	4.90	**JUM-01-20**
25	+0.030 +0.070	28	57	5.0	0.8	4.0	8.23	**JUM-01-25**
30	+0.040 +0.085	34	67	5.0	0.8	4.0	14.95	**JUM-01-30**
35	+0.040 +0.085	39	69	5.0	0.8	4.0	18.20	**JUM-01-35**
40	+0.040 +0.085	44	79	6.0	1.3	5.0	23.16	**JUM-01-40**
50	+0.050 +0.150	55	99	7.0	1.3	6.0	45.35	**JUM-01-50**
60	+0.050 +0.150	65	124	8.0	2.0	6.5	70.00	**JUM-01-60**79)

Housing hole for JUM-01 | Dimensions [mm]

Shaft Ø	di H7	B h10	r +0.05	t +0.1	f +0.5	Z +0.2	Part No.
10	12	29	3.0	1.0	1.0	2.6	**JUM-01-10**
12	14	32	3.0	1.0	1.5	3.1	**JUM-01-12**
16	18	36	3.5	1.0	1.7	3.6	**JUM-01-16**
20	23	45	5.0	1.0	2.0	3.6	**JUM-01-20**
25	28	58	5.0	1.0	2.0	4.1	**JUM-01-25**
30	34	68	5.0	1.0	2.0	4.1	**JUM-01-30**
35	39	70	5.0	1.0	2.0	4.1	**JUM-01-35**
40	44	80	6.0	1.5	2.5	5.1	**JUM-01-40**
50	55	100	7.0	1.5	2.5	6.1	**JUM-01-50**
60	65	125	8.0	2.5	3.0	6.5	**JUM-01-60**79)



79) In two parts

Can be combined with:


RJUM-01/-03
TJUM-01/-03


RJUM-06/-06-LL


FJUM-01/-02

Imperial dimensions ▶ Page 746

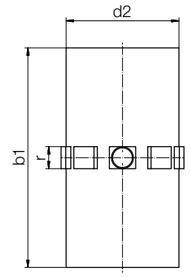
EN 09/2023

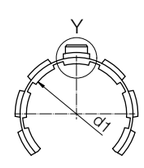
drylin® R shaft guides

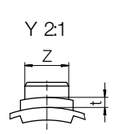
drylin® R liners | Product range

Long, open design for supported shafts - made from iglidur® J (the all-rounder)









Order key

Type					Size
J	U	M	O	-01	-10
iglidur® J	Liner	Metric	Open	Standard	Inner Ø d1

The all-rounder for all shaft surfaces in indoor and outdoor applications

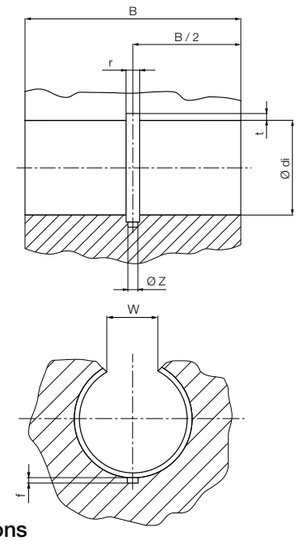
78) According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -50°C
Max. +90°C

Dimensions [mm]

d1	d1 tolerance78)	d2	b1	r	t	Z	Weight [g]	Part No.
10	+0.030 +0.070	12	28	3.0	0.8	2.5	0.90	**JUMO-01-10**
12	+0.030 +0.070	14	31	3.0	0.8	3.0	1.16	**JUMO-01-12**
16	+0.030 +0.070	18	35	3.5	0.8	3.5	1.71	**JUMO-01-16**
20	+0.030 +0.070	23	44	5.0	0.8	3.5	4.16	**JUMO-01-20**
25	+0.030 +0.070	28	57	5.0	0.8	4.0	6.97	**JUMO-01-25**
30	+0.040 +0.085	34	67	5.0	0.8	4.0	12.38	**JUMO-01-30**
40	+0.040 +0.085	44	79	6.0	1.3	5.0	20.18	**JUMO-01-40**
50	+0.050 +0.150	55	99	7.0	1.3	6.0	38.60	**JUMO-01-50**
60	+0.050 +0.150	65	124	8.0	2.0	6.5	60.10	**JUMO-01-60**79)

Housing hole for JUMO-01 | Dimensions [mm]

Shaft Ø	di H7	B h10	W	r +0.5	t +0.05	f +0.1	Z +0.2	Part No.
10	12	29	7.3	3.0	1.0	1.0	2.6	**JUMO-01-10**
12	14	32	9.0	3.0	1.0	1.5	3.1	**JUMO-01-12**
16	18	36	11.6	3.5	1.0	1.7	3.6	**JUMO-01-16**
20	23	45	12.0	5.0	1.0	2.0	3.6	**JUMO-01-20**
25	28	58	14.5	5.0	1.0	2.0	4.1	**JUMO-01-25**
30	34	68	16.6	5.0	1.0	2.0	4.1	**JUMO-01-30**
40	44	80	21.0	6.0	1.5	2.5	5.1	**JUMO-01-40**
50	55	100	25.5	7.0	1.5	2.5	6.1	**JUMO-01-50**
60	65	125	27.2	8.0	2.5	3.0	6.5	**JUMO-01-60**79)



79) In two parts

Can be combined with:


OJUM-01/-03


OJUM-06/-06-LL

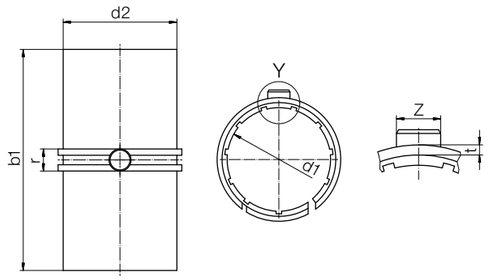
Imperial dimensions ▶ Page 746

EN 09/2023

drylin® R liners | Product range

Long, closed design, precise for shafts - made from iglidur® J (the all-rounder)





Order key

Type	Size
J U M	-11-10

iglidur® J	Liner	Metric	Precision	Inner Ø d1

- Max. bearing clearance reduced by 50%
- Increased contact surface: longer service life

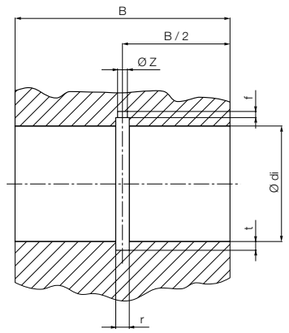
78) According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -50°C
Max. +90°C

Dimensions [mm]

d1	d1 tolerance78)	d2	b1	r	t	Z	Weight [g]	Part No.
10	+0.000 +0.040	12	28	3.0	0.8	2.5	1.23	**JUM-11-10**
12	+0.000 +0.040	14	31	3.0	0.8	3.0	1.65	**JUM-11-12**
16	+0.000 +0.040	18	35	3.5	0.8	3.5	2.42	**JUM-11-16**
20	+0.000 +0.040	23	44	5.0	0.8	3.5	5.49	**JUM-11-20**
25	+0.000 +0.040	28	57	5.0	0.8	4.0	8.86	**JUM-11-25**
30	+0.000 +0.050	34	67	5.0	0.8	4.0	16.63	**JUM-11-30**
40	+0.000 +0.050	44	79	6.0	1.3	5.0	26.06	**JUM-11-40**
50	+0.000 +0.060	55	99	7.0	1.3	6.0	48.82	**JUM-11-50**

Housing hole for JUM-11 | Dimensions [mm]

Shaft Ø	di H7	B h10	r +0.05	t +0.1	f +0.5	Z +0.2	Part No.
10	12	29	3.0	1.0	1.0	2.6	**JUM-11-10**
12	14	32	3.0	1.0	1.5	3.1	**JUM-11-12**
16	18	36	3.5	1.0	1.7	3.6	**JUM-11-16**
20	23	45	5.0	1.0	2.0	3.6	**JUM-11-20**
25	28	58	5.0	1.0	2.0	4.1	**JUM-11-25**
30	34	68	5.0	1.0	2.0	4.1	**JUM-11-30**
40	44	80	6.0	1.5	2.5	5.1	**JUM-11-40**
50	55	100	7.0	1.5	2.5	6.1	**JUM-11-50**



Can be combined with:


RJUM-01/-03
TJUM-01/-03

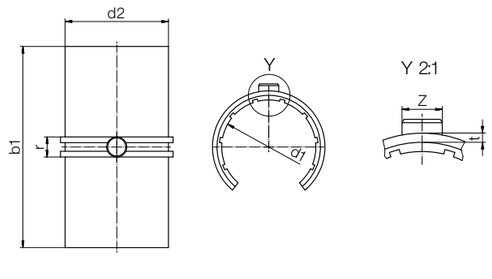

RJUM-06/-06-LL


FJUM-01/-02

drylin® R liners | Product range

Long, open design, precise for supported shafts - made from iglidur® J (the all-rounder)





Order key

Type	Size
J U M O	-11-10

iglidur® J	Liner	Metric	Open	Precision	Inner Ø d1

- Max. bearing clearance reduced by 50%
- Increased contact surface: longer service life

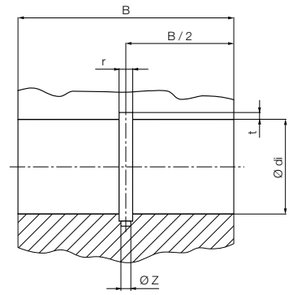
78) According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -50°C
Max. +90°C

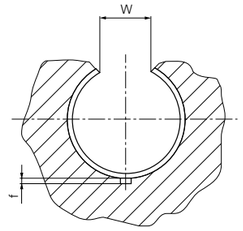
Dimensions [mm]

d1	d1 tolerance78)	d2	b1	r	t	Z	Weight [g]	Part No.
10	+0.000 +0.040	12	28	3.0	0.8	2.5	1.10	**JUMO-11-10**
12	+0.000 +0.040	14	31	3.0	0.8	3.0	1.50	**JUMO-11-12**
16	+0.000 +0.040	18	35	3.5	0.8	3.5	2.20	**JUMO-11-16**
20	+0.000 +0.040	23	44	5.0	0.8	3.5	4.90	**JUMO-11-20**
25	+0.000 +0.040	28	57	5.0	0.8	4.0	8.23	**JUMO-11-25**
30	+0.000 +0.050	34	67	5.0	0.8	4.0	14.95	**JUMO-11-30**
40	+0.000 +0.050	44	79	6.0	1.3	5.0	23.16	**JUMO-11-40**
50	+0.000 +0.060	55	99	7.0	1.3	6.0	45.35	**JUMO-11-50**

Housing hole for JUMO-11 | Dimensions [mm]

Shaft Ø	di H7	B h10	W +0,2	r +0,05	t +0,1	f +0,5	Z +0,2	Part No.
10	12	29	7.3	3.0	1.0	1.0	2.6	**JUMO-11-10**
12	14	32	9.0	3.0	1.0	1.5	3.1	**JUMO-11-12**
16	18	36	11.6	3.5	1.0	1.7	3.6	**JUMO-11-16**
20	23	45	12.0	5.0	1.0	2.0	3.6	**JUMO-11-20**
25	28	58	14.5	5.0	1.0	2.0	4.1	**JUMO-11-25**
30	34	68	16.6	5.0	1.0	2.0	4.1	**JUMO-11-30**
40	44	80	21.0	6.0	1.5	2.5	5.1	**JUMO-11-40**
50	55	100	25.5	7.0	1.5	2.5	6.1	**JUMO-11-50**





Can be combined with:

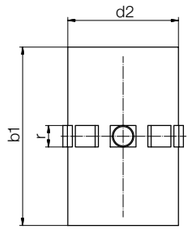

OJUM-01/-03

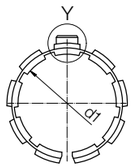

OJUM-06/-06-LL

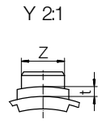
drylin® R liners | Product range

Short, closed design for shafts - made from iglidur® J (the all-rounder)









Order key

Type	Size
J U M	-02-10

iglidur® J	Liner	Metric	Compact	Inner Ø d1

The all-rounder for all shaft surfaces in indoor and outdoor applications

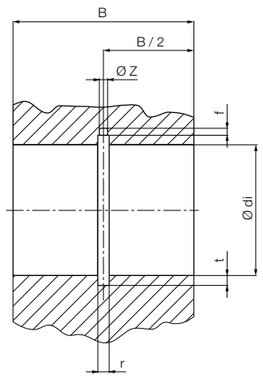
78) According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -50°C
Max. +90°C

Dimensions [mm]

d1	d1 tolerance78)	d2	b1	r	t	Z	Weight [g]	Part No.
10	+0.030 +0.070	12	25	3.0	0.8	2.5	1.02	**JUM-02-10**
12	+0.030 +0.070	14	27	3.0	0.8	3.0	1.27	**JUM-02-12**
16	+0.030 +0.070	18	29	3.5	0.8	3.5	1.82	**JUM-02-16**
20	+0.030 +0.070	23	29	5.0	0.8	3.5	3.27	**JUM-02-20**
25	+0.030 +0.070	28	39	5.0	0.8	4.0	5.75	**JUM-02-25**
30	+0.040 +0.085	34	49	5.0	0.8	4.0	11.28	**JUM-02-30**
40	+0.040 +0.085	44	59	6.0	1.3	5.0	17.94	**JUM-02-40**
45	+0.040 +0.085	50	59	7.0	1.3	6.0	27.00	**JUM-02-45**
50	+0.050 +0.150	55	69	7.0	1.3	6.0	32.56	**JUM-02-50**

Housing hole for JUM-02 | Dimensions [mm]

Shaft Ø	di H7	B h10	r +0.05	t +0.1	f +0.5	Z +0.2	Part No.
10	12	26	3.0	1.0	1.0	2.6	**JUM-02-10**
12	14	28	3.0	1.0	1.5	3.1	**JUM-02-12**
16	18	30	3.5	1.0	1.7	3.6	**JUM-02-16**
20	23	30	5.0	1.0	2.0	3.6	**JUM-02-20**
25	28	40	5.0	1.0	2.0	4.1	**JUM-02-25**
30	34	50	5.0	1.0	2.0	4.1	**JUM-02-30**
40	44	60	6.0	1.5	2.5	5.1	**JUM-02-40**
45	50	60	7.0	1.5	2.5	6.1	**JUM-02-45**
50	55	70	7.0	1.5	2.5	6.1	**JUM-02-50**



Can be combined with:


RJUM-02

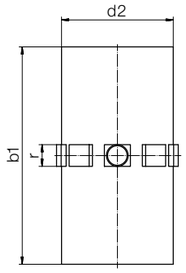

RJUM-05/RJUME-05
TJUM-05/RJUMT-05

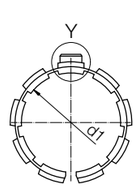

FJUMT-01/-02

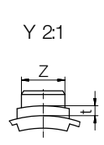
drylin® R liners | Product range

Long, closed design for shafts - made from iglidur® J200 (the specialist)









Order key

Type	Size
J200 U M	-01-10

iglidur® J200	Liner	Metric	Standard	Inner Ø d1

The "specialist" with the best running performance on aluminium

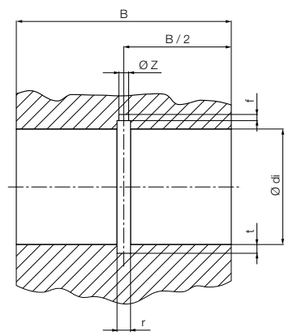
78) According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -50°C
Max. +90°C

Dimensions [mm]

d1	d1 tolerance78)	d2	b1	r	t	Z	Weight [g]	Part No.
10	+0.030 +0.070	12	28	3.0	0.8	2.5	1.10	**J200UM-01-10**
12	+0.030 +0.070	14	31	3.0	0.8	3.0	1.50	**J200UM-01-12**
16	+0.030 +0.070	18	35	3.5	0.8	3.5	2.54	**J200UM-01-16**
20	+0.030 +0.070	23	44	5.0	0.8	3.5	5.66	**J200UM-01-20**
25	+0.030 +0.070	28	57	5.0	0.8	4.0	9.51	**J200UM-01-25**
30	+0.040 +0.085	34	67	5.0	0.8	4.0	17.27	**J200UM-01-30**
40	+0.040 +0.085	44	79	6.0	1.3	5.0	26.75	**J200UM-01-40**
50	+0.050 +0.150	55	99	7.0	1.3	6.0	52.38	**J200UM-01-50**

Housing hole for J200UM-01 | Dimensions [mm]

Shaft Ø	di H7	B h10	r +0.05	t +0.1	f +0.5	Z +0.2	Part No.
10	12	29	3.0	1.0	1.0	2.6	**J200UM-01-10**
12	14	32	3.0	1.0	1.5	3.1	**J200UM-01-12**
16	18	36	3.5	1.0	1.7	3.6	**J200UM-01-16**
20	23	45	5.0	1.0	2.0	3.6	**J200UM-01-20**
25	28	58	5.0	1.0	2.0	4.1	**J200UM-01-25**
30	34	68	5.0	1.0	2.0	4.1	**J200UM-01-30**
40	44	80	6.0	1.5	2.5	5.1	**J200UM-01-40**
50	55	100	7.0	1.5	2.5	6.1	**J200UM-01-50**



Can be combined with:


RJUM-01/-03
TJUM-01/-03

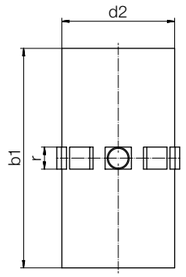

RJUM-06/-06-LL

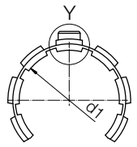

FJUM-01/-02

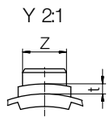
drylin® R liners | Product range

Long, open design for supported shafts - made from iglidur® J200 (the specialist)









Order key

Type					Size
J200	U	M	O	-	01-10
iglidur® J200	Liner	Metric	Open	Standard	Inner Ø d1

The "specialist" with the best running performance on aluminium

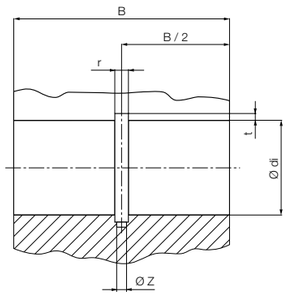
78) According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -50°C
Max. +90°C

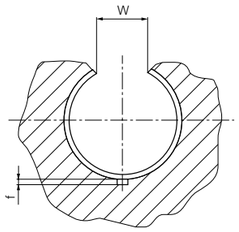
Dimensions [mm]

d1	d1 tolerance[78]	d2	b1	r	t	Z	Weight [g]	Part No.
10	+0.030 +0.070	12	28	3.0	0.8	2.5	1.04	**J200UMO-01-10**
12	+0.030 +0.070	14	31	3.0	0.8	3.0	1.34	**J200UMO-01-12**
16	+0.030 +0.070	18	35	3.5	0.8	3.5	1.98	**J200UMO-01-16**
20	+0.030 +0.070	23	44	5.0	0.8	3.5	4.80	**J200UMO-01-20**
25	+0.030 +0.070	28	57	5.0	0.8	4.0	8.05	**J200UMO-01-25**
30	+0.040 +0.085	34	67	5.0	0.8	4.0	14.30	**J200UMO-01-30**
40	+0.040 +0.085	44	79	6.0	1.3	5.0	23.31	**J200UMO-01-40**

Housing hole for J200UMO-01 | Dimensions [mm]

Shaft Ø	di H7	B h10	W	r +0.5	t +0.05	f +0.1	Z +0.2	Part No.
10	12	29	7.3	3.0	1.0	1.0	2.6	**J200UMO-01-10**
12	14	32	9.0	3.0	1.0	1.5	3.1	**J200UMO-01-12**
16	18	36	11.6	3.5	1.0	1.7	3.6	**J200UMO-01-16**
20	23	45	12.0	5.0	1.0	2.0	3.6	**J200UMO-01-20**
25	28	58	14.5	5.0	1.0	2.0	4.1	**J200UMO-01-25**
30	34	68	16.6	5.0	1.0	2.0	4.1	**J200UMO-01-30**
40	44	80	21.0	6.0	1.5	2.5	5.1	**J200UMO-01-40**





Can be combined with:


OJUM-01/-03

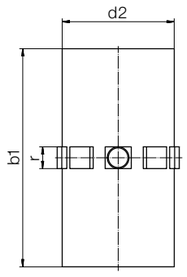

OJUM-06/-06-LL

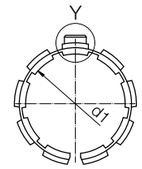
EN 09/2023

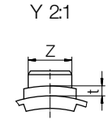
drylin® R liners | Product range

Long, closed design for shafts - made from iglidur® E7 (the endurance runner)









Order key

Type					Size
E7	U	M	-	01-10	
iglidur® E7	Liner	Metric	Standard	Inner Ø d1	

The "endurance runner" up to 8 times longer service life on steel shafts

78) According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -50°C
Max. +70°C

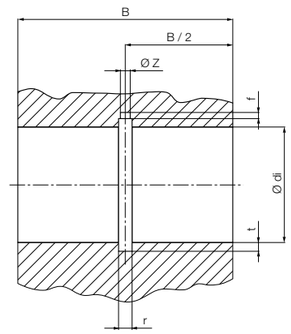
Dimensions [mm]

d1	d1 tolerance[78]	d2	b1	r	t	Z	Weight [g]	Part No.
10	+0.030 +0.070	12	28	3.0	0.8	2.5	0.73	**E7UM-01-10**
12	+0.030 +0.070	14	31	3.0	0.8	3.0	1.01	**E7UM-01-12**
16	+0.030 +0.070	18	35	3.5	0.8	3.5	1.45	**E7UM-01-16**
20	+0.030 +0.070	23	44	5.0	0.8	3.5	3.25	**E7UM-01-20**
25	+0.030 +0.070	28	57	5.0	0.8	4.0	5.44	**E7UM-01-25**
30	+0.040 +0.085	34	67	5.0	0.8	4.0	9.88	**E7UM-01-30**
40	+0.040 +0.085	44	79	6.0	1.3	5.0	17.30	**E7UM-01-40**
50	+0.050 +0.150	55	99	7.0	1.3	6.0	36.30	**E7UM-01-50[79]**
60	+0.050 +0.150	65	124	8.0	2.5	6.5	54.80	**E7UM-01-60[79]**

Housing hole for E7UM-01 | Dimensions [mm]

Shaft Ø	di H7	B h10	r +0.5	t +0.05	f +0.1	Z +0.2	Part No.
10	12	29	3.0	1.0	1.0	2.6	**E7UM-01-10**
12	14	32	3.0	1.0	1.5	3.1	**E7UM-01-12**
16	18	36	3.5	1.0	1.7	3.6	**E7UM-01-16**
20	23	45	5.0	1.0	2.0	3.6	**E7UM-01-20**
25	28	58	5.0	1.0	2.0	4.1	**E7UM-01-25**
30	34	68	5.0	1.0	2.0	4.1	**E7UM-01-30**
40	44	80	6.0	1.5	2.5	5.1	**E7UM-01-40**
50	55	100	7.0	1.5	2.5	6.1	**E7UM-01-50[79]**
60	65	125	8.0	2.5	3.0	6.5	**E7UM-01-60[79]**

79) In two parts



Can be combined with:


RJUM-01/-03
TJUM-01/-03


RJUM-01-ES


RJUM-06/-06-LL


FJUM-01/-02

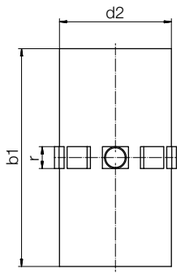
Imperial dimensions
▶ Page 746

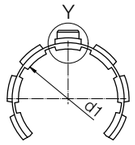
EN 09/2023

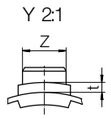
drylin® R liners | Product range

Long, open design for supported shafts - made from iglidur® E7 (the endurance runner)









Order key

Type					Size
E7	U	M	O	-01-10	
iglidur® E7	Liner	Metric	Open	Standard	Inner Ø d1

The "endurance runner" up to 8 times longer service life on steel shafts

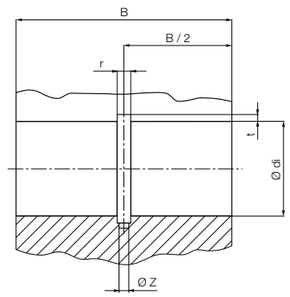
78) According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -50°C
Max. +70°C

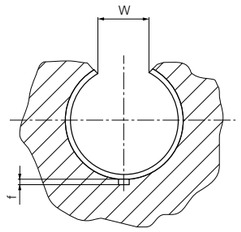
Dimensions [mm]

d1	d1 tolerance78)	d2	b1	r	t	Z	Weight [g]	Part No.
10	+0.030 +0.070	12	28	3.0	0.8	2.5	0.73	**E7UMO-01-10**
12	+0.030 +0.070	14	31	3.0	0.8	3.0	1.01	**E7UMO-01-12**
16	+0.030 +0.070	18	35	3.5	0.8	3.5	1.45	**E7UMO-01-16**
20	+0.030 +0.070	23	44	5.0	0.8	3.5	3.25	**E7UMO-01-20**
25	+0.030 +0.070	28	57	5.0	0.8	4.0	5.44	**E7UMO-01-25**
30	+0.040 +0.085	34	67	5.0	0.8	4.0	9.88	**E7UMO-01-30**
40	+0.040 +0.085	44	79	6.0	1.3	5.0	17.30	**E7UMO-01-40**
50	+0.050 +0.150	55	99	7.0	1.3	6.0	36.40	**E7UMO-01-50**79)
60	+0.050 +0.150	65	124	8.0	2.5	6.5	54.80	**E7UMO-01-60**79)

Housing hole for E7UMO-01 | Dimensions [mm]

Shaft Ø	di H7	B h10	W	r +0.5	t +0.05	f +0.1	Z +0.2	Part No.
10	12	29	7.3	3.0	1.0	1.0	2.6	**E7UMO-01-10**
12	14	32	9.0	3.0	1.0	1.5	3.1	**E7UMO-01-12**
16	18	36	11.6	3.5	1.0	1.7	3.6	**E7UMO-01-16**
20	23	45	12.0	5.0	1.0	2.0	3.6	**E7UMO-01-20**
25	28	58	14.5	5.0	1.0	2.0	4.1	**E7UMO-01-25**
30	34	68	16.6	5.0	1.0	2.0	4.1	**E7UMO-01-30**
40	44	80	21.0	6.0	1.5	2.5	5.1	**E7UMO-01-40**
50	55	100	25.5	7.0	1.5	2.5	6.1	**E7UMO-01-50**79)
60	65	125	27.2	8.0	2.5	3.0	6.5	**E7UMO-01-60**79)





79) In two parts

Can be combined with:



OJUM-01/-03

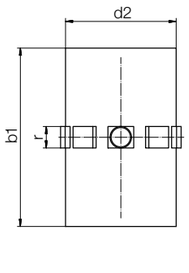


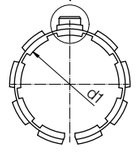
OJUM-06/-06-LL

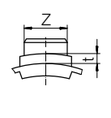
drylin® R liners | Product range

Short, closed design for shafts - made from iglidur® E7 (the endurance runner)









Order key

Type					Size
E7	U	M	-02-10		
iglidur® E7	Liner	Metric	Compact	Inner Ø d1	

The "endurance runner" up to 8 times longer service life on steel shafts

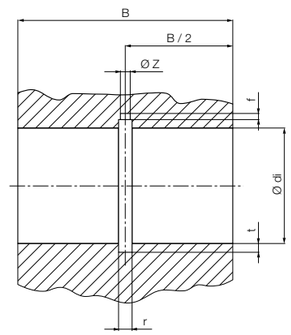
78) According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -50°C
Max. +70°C

Dimensions [mm]

d1	d1 tolerance78)	d2	b1	r	t	Z	Weight [g]	Part No.
10	+0.030 +0.070	12	25	3.0	0.8	2.5	0.73	**E7UM-02-10**
12	+0.030 +0.070	14	27	3.0	0.8	3.0	1.01	**E7UM-02-12**
16	+0.030 +0.070	18	29	3.5	0.8	3.5	1.45	**E7UM-02-16**
20	+0.030 +0.070	23	29	5.0	0.8	3.5	3.25	**E7UM-02-20**
25	+0.030 +0.070	28	39	5.0	0.8	4.0	5.44	**E7UM-02-25**
30	+0.040 +0.085	34	49	5.0	0.8	4.0	9.88	**E7UM-02-30**
40	+0.040 +0.085	44	59	6.0	1.3	5.0	17.30	**E7UM-02-40**

Housing hole for E7UM-02 | Dimensions [mm]

Shaft Ø	di H7	B h10	r +0.05	t +0.1	f +0.5	Z +0.2	Part No.
10	12	26	3.0	1.0	1.0	2.6	**E7UM-02-10**
12	14	28	3.0	1.0	1.5	3.1	**E7UM-02-12**
16	18	30	3.5	1.0	1.7	3.6	**E7UM-02-16**
20	23	30	5.0	1.0	2.0	3.6	**E7UM-02-20**
25	28	40	5.0	1.0	2.0	4.1	**E7UM-02-25**
30	34	50	5.0	1.0	2.0	4.1	**E7UM-02-30**
40	44	60	6.0	1.5	2.5	5.1	**E7UM-02-40**



Can be combined with:



RJUM-02



RJUM-05/RJUME-05
TJUM-05/RJUMT-05

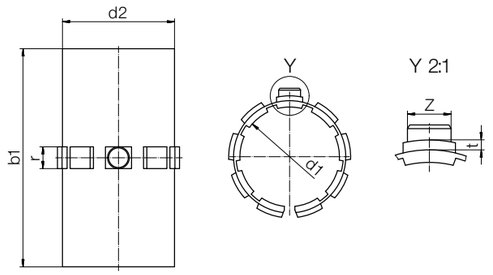


FJUMT-01/-02

drylin® R liners | Product range

Long, closed design for shafts, two-piece - made from iglidur® X (the extreme)





Order key

Type	Size
X U M - 01 - 12	

iglidur® X	Liner	Metric	Standard	Inner Ø d1

The "extreme", resistant to temperature and chemicals on stainless steel and chromed shafts

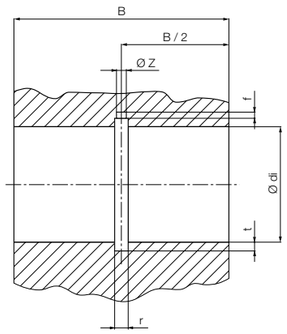
[78] According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -100°C
Max. +250°C

Dimensions [mm]

d1	d1 tolerance[78]	d2	b1	r	t	Z	Weight [g]	Part No.
12	+0.030 +0.070	14	31	3.0	0.8	3.0	1.50	**XUM-01-12**
14	+0.030 +0.070	18	35	3.5	0.8	3.5	2.13	**XUM-01-14**
16	+0.030 +0.070	18	35	3.5	0.8	3.5	2.20	**XUM-01-16**
20	+0.030 +0.070	23	44	5.0	0.8	3.5	4.90	**XUM-01-20**
25	+0.040 +0.085	28	57	5.0	0.8	4.0	8.23	**XUM-01-25**
30	+0.040 +0.085	34	67	5.0	0.8	4.0	14.95	**XUM-01-30**
40	+0.025 +0.125	44	79	6.0	1.3	5.0	23.16	**XUM-01-40**

Housing hole for XUM-01 | Dimensions [mm]

Shaft Ø	di H7	B h10	r +0,05	t +0,1	f +0,5	Z +0,2	Part No.
12	14	32	3.0	1.0	1.5	3.1	**XUM-01-12**
14	16	30	3.5	1.0	1.7	3.6	**XUM-01-14**
16	18	36	3.5	1.0	1.7	3.6	**XUM-01-16**
20	23	45	5.0	1.0	2.0	3.6	**XUM-01-20**
25	28	58	5.0	1.0	2.0	4.1	**XUM-01-25**
30	34	68	5.0	1.0	2.0	4.1	**XUM-01-30**
40	44	80	6.0	1.5	2.5	5.1	**XUM-01-40**



Can be combined with:


RJUM-01/-03
TJUM-01/-03

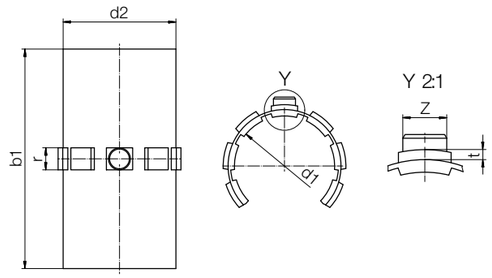

RJUM-06/-06-LL


FJUM-01/-02

drylin® R liners | Product range

Long, open design for supported shafts, two-piece - made from iglidur® X (the extreme)





Order key

Type	Size
X U M O - 01 - 10	

iglidur® X	Liner	Metric	Open	Standard	Inner Ø d1

The "extreme", resistant to temperature and chemicals on stainless steel and chromed shafts

[78] According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -100°C
Max. +250°C

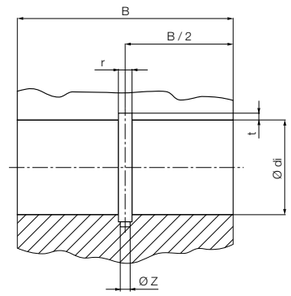
Dimensions [mm]

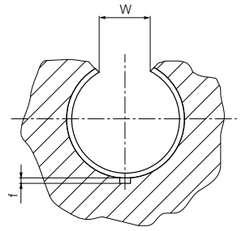
d1	d1 tolerance[78]	d2	b1	r	t	Z	Weight [g]	Part No.
10	+0.000 +0.020	12	28	3.0	0.8	2.5	1.00	**XUMO-01-10**[110]
12	+0.030 +0.070	14	31	3.0	0.8	3.0	1.20	**XUMO-01-12**
16	+0.030 +0.070	18	35	3.5	0.8	3.5	2.30	**XUMO-01-16**
20	+0.030 +0.070	23	44	5.0	0.8	3.5	4.30	**XUMO-01-20**
25	+0.030 +0.070	28	57	5.0	0.8	4.0	6.80	**XUMO-01-25**
30	+0.040 +0.085	34	67	5.0	0.8	4.0	13.30	**XUMO-01-30**
40	+0.040 +0.085	44	79	6.0	1.3	5.0	22.60	**XUMO-01-40**

Housing hole for XUMO-01 | Dimensions [mm]

Shaft Ø	di H7	B h10	W +0.2	r +0.05	t +0.1	f +0.5	Z +0.2	Part No.
10	12	29	7.3	3.0	1.0	1.0	2.6	**XUMO-01-10**[110]
12	14	32	9.0	3.0	1.0	1.5	3.1	**XUMO-01-12**
16	18	36	11.6	3.5	1.0	1.7	3.6	**XUMO-01-16**
20	23	45	12.0	5.0	1.0	2.0	3.6	**XUMO-01-20**
25	28	58	14.5	5.0	1.0	2.0	4.1	**XUMO-01-25**
30	34	68	16.6	5.0	1.0	2.0	4.1	**XUMO-01-30**
40	44	80	21.0	6.0	1.5	2.5	5.1	**XUMO-01-40**

[110] One-piece





Can be combined with:

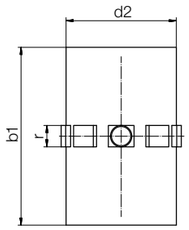

OJUM-01/-03
TJUM-01/-03

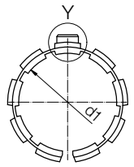

OJUM-06/-06-LL

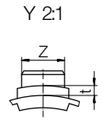
drylin® R liners | Product range

Short, closed design for shafts, two-piece - made from iglidur® X (the extreme)









Order key

Type				Size
X	U	M	-02	-12
iglidur® X	Liner	Metric	Compact	Inner Ø d1

The "extreme", resistant to temperature and chemicals on stainless steel and chromed shafts

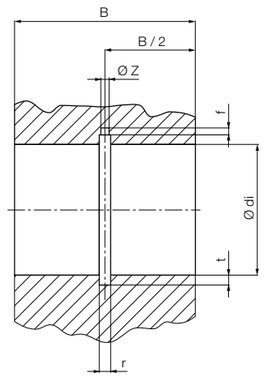
78) According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -100°C
Max. +250°C

Dimensions [mm]

d1	d1 tolerance78)	d2	b1	r	t	Z	Weight [g]	Part No.
12	+0.030 +0.070	14	27	3.0	0.8	3.0	1.3	**XUM-02-12**
16	+0.030 +0.070	18	29	3.5	0.8	3.5	2.5	**XUM-02-16**
20	+0.030 +0.070	23	29	5.0	0.8	3.5	3.4	**XUM-02-20**
25	+0.030 +0.070	28	39	5.0	0.8	4.0	5.6	**XUM-02-25**
30	+0.040 +0.085	34	49	5.0	0.8	4.0	12.0	**XUM-02-30**
40	+0.040 +0.085	44	59	6.0	1.3	5.0	20.0	**XUM-02-40**

Housing hole for XUM-02 | Dimensions [mm]

Shaft Ø	di H7	B h10	r +0.05	t +0.1	f +0.5	Z +0.2	Part No.
12	14	28	3.0	1.0	1.5	3.1	**XUM-02-12**
16	18	30	3.5	1.0	1.7	3.6	**XUM-02-16**
20	23	30	5.0	1.0	2.0	3.6	**XUM-02-20**
25	28	40	5.0	1.0	2.0	4.1	**XUM-02-25**
30	34	50	5.0	1.0	2.0	4.1	**XUM-02-30**
40	44	60	6.0	1.5	2.5	5.1	**XUM-02-40**



Can be combined with:


RJUM-02


RJUM-01-ES

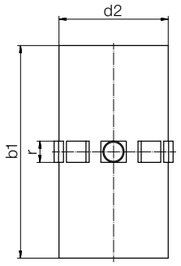

RJUM-05/RJUME-05
TJUM-05/RJUMT-05

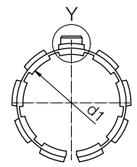

FJUMT-01/-02

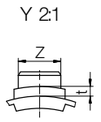
drylin® R liners | Product range

Long, closed design for round shafts - made from iglidur® A180 (FDA-compliant)









Order key

Type				Size
A180	U	M	-01	-10
iglidur® A180	Liner	Metric	Standard	Inner Ø d1

The FDA-compliant for the food and pharmaceutical industry

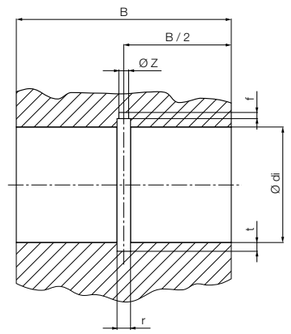
78) According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -50°C
Max. +90°C

Dimensions [mm]

d1	d1 tolerance78)	d2	b1	r	t	Z	Weight [g]	Part No.
10	+0.000 +0.020	12	28	3.0	0.8	2.5	1.08	**A180UM-01-10**
12	+0.030 +0.070	14	31	3.0	0.8	3.0	1.47	**A180UM-01-12**
16	+0.030 +0.070	18	35	3.5	0.8	3.5	2.16	**A180UM-01-16**
20	+0.030 +0.070	23	44	5.0	0.8	3.5	4.80	**A180UM-01-20**
25	+0.030 +0.070	28	57	5.0	0.8	4.0	8.07	**A180UM-01-25**
30	+0.040 +0.085	34	67	5.0	0.8	4.0	14.65	**A180UM-01-30**
40	+0.040 +0.085	44	79	6.0	1.3	5.0	22.70	**A180UM-01-40**
50	+0.050 +0.150	55	99	7.0	1.3	6.0	44.44	**A180UM-01-50**

Housing hole for A180UM-01 | Dimensions [mm]

Shaft Ø	di H7	B h10	r +0.05	t +0.1	f +0.5	Z +0.2	Part No.
10	12	29	3.0	1.0	1.0	2.6	**A180UM-01-10**
12	14	32	3.0	1.0	1.5	3.1	**A180UM-01-12**
16	18	36	3.5	1.0	1.7	3.6	**A180UM-01-16**
20	23	45	5.0	1.0	2.0	3.6	**A180UM-01-20**
25	28	58	5.0	1.0	2.0	4.1	**A180UM-01-25**
30	34	68	5.0	1.0	2.0	4.1	**A180UM-01-30**
40	44	80	6.0	1.5	2.5	5.1	**A180UM-01-40**
50	55	100	7.0	1.5	2.5	6.1	**A180UM-01-50**



Can be combined with:


RJUM-01/-03
TJUM-01/-03

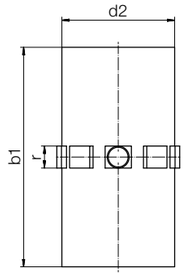

RJUM-06/-06-LL

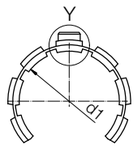

FJUM-01/-02

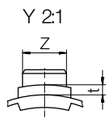
drylin® R liners | Product range

Long, open design for supported shafts - made from iglidur® A180 (FDA-compliant)









Order key

Type					Size
A180	U	M	O	-01	-10
iglidur® A180	Liner	Metric	Open	Standard	Inner Ø d1

The FDA-compliant for the food and pharmaceutical industry

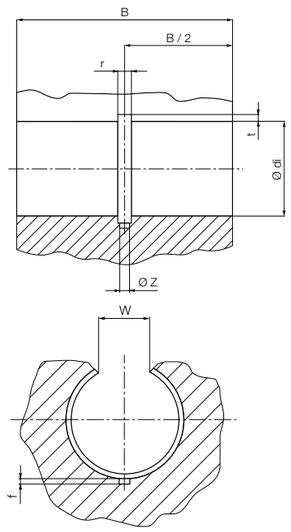
[78] According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -50°C
Max. +90°C

Dimensions [mm]

d1	d1 tolerance[78]	d2	b1	r	t	Z	Weight [g]	Part No.
10	+0.000 +0.020	12	28	3.0	0.8	2.5	1.08	**A180UMO-01-10**
12	+0.030 +0.070	14	31	3.0	0.8	3.0	1.47	**A180UMO-01-12**
16	+0.030 +0.070	18	35	3.5	0.8	3.5	2.16	**A180UMO-01-16**
20	+0.030 +0.070	23	44	5.0	0.8	3.5	4.80	**A180UMO-01-20**
25	+0.030 +0.070	28	57	5.0	0.8	4.0	8.07	**A180UMO-01-25**
30	+0.040 +0.085	34	67	5.0	0.8	4.0	14.65	**A180UMO-01-30**
40	+0.040 +0.085	44	79	6.0	1.3	5.0	22.70	**A180UMO-01-40**

Housing hole for A180UMO-01 | Dimensions [mm]

Shaft Ø	di H7	B h10	W	r +0.5	t +0.05	f +0.1	Z +0.2	Part No.
10	12	29	7.3	3.0	1.0	1.0	2.6	**A180UMO-01-10**
12	14	32	9.0	3.0	1.0	1.5	3.1	**A180UMO-01-12**
16	18	36	11.6	3.5	1.0	1.7	3.6	**A180UMO-01-16**
20	23	45	12.0	5.0	1.0	2.0	3.6	**A180UMO-01-20**
25	28	58	14.5	5.0	1.0	2.0	4.1	**A180UMO-01-25**
30	34	68	16.6	5.0	1.0	2.0	4.1	**A180UMO-01-30**
40	44	80	21.0	6.0	1.5	2.5	5.1	**A180UMO-01-40**



Can be combined with:



OJUM-01/-03
TJUM-01/-03



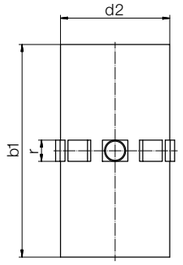
OJUM-06/-06-LL

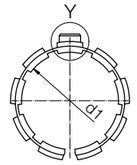
EN 09/2023

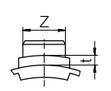
drylin® R liners | Product range

Long, closed design for round shafts - made from iglidur® A160 (compliant with Regulation (EU) No. 10/2011 and FDA guidelines)









Order key

Type					Size
A160	U	M		-01	-10
iglidur® A160	Liner	Metric		Standard	Inner Ø d1

Compliant with Regulation (EU) No. 10/2011 and FDA guidelines for longer service life on hardened stainless steel shafts

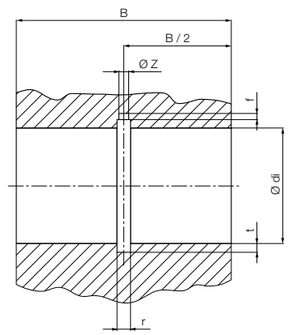
[78] According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -50°C
Max. +90°C

Dimensions [mm]

d1	d1 tolerance[78]	d2	b1	r	t	Z	Weight [g]	Part No.
10	+0.03 +0.07	12	28	3.0	0.8	2.5	0.7	**A160UM-01-10**
12	+0.03 +0.07	14	31	3.0	0.8	3.0	1.0	**A160UM-01-12**
16	+0.03 +0.07	18	35	3.5	0.8	3.5	1.5	**A160UM-01-16**
20	+0.03 +0.07	23	44	5.0	0.8	3.5	3.3	**A160UM-01-20**
25	+0.03 +0.07	28	57	5.0	0.8	4.0	5.4	**A160UM-01-25**
30	+0.04 +0.09	34	67	5.0	0.8	4.0	9.9	**A160UM-01-30**
40	+0.04 +0.09	44	79	6.0	1.3	5.0	17.3	**A160UM-01-40**
50	+0.05 +0.15	55	99	7.0	1.3	6.0	36.3	**A160UM-01-50**

Housing hole for A160UM-01 | Dimensions [mm]

Shaft Ø	di H7	B h10	r +0.05	t +0.1	f +0.5	Z +0.2	Part No.
10	12	29	3.0	1.0	1.0	2.6	**A160UM-01-10**
12	14	32	3.0	1.0	1.5	3.1	**A160UM-01-12**
16	18	36	3.5	1.0	1.7	3.6	**A160UM-01-16**
20	23	45	5.0	1.0	2.0	3.6	**A160UM-01-20**
25	28	58	5.0	1.0	2.0	4.1	**A160UM-01-25**
30	34	68	5.0	1.0	2.0	4.1	**A160UM-01-30**
40	44	80	6.0	1.5	2.5	5.1	**A160UM-01-40**
50	55	100	7.0	1.5	2.5	6.1	**A160UM-01-50**



Can be combined with:



RJUM-01/-03
TJUM-01/-03



RJUM-06/-06-LL



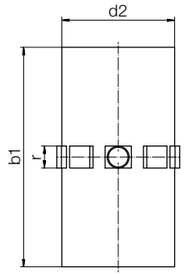
FJUM-01/-02

EN 09/2023

drylin® R liners | Product range New

Long, open design for supported shafts - made from iglidur® A160 (compliant with Regulation (EU) No. 10/2011 and FDA guidelines)





Order key

Type					Size
A160	U	M	O	-01-10	
iglidur® A160	Liner	Metric	Open	Standard	Inner Ø d1

Compliant with Regulation (EU) No. 10/2011 and FDA guidelines for longer service life on hardened stainless steel shafts

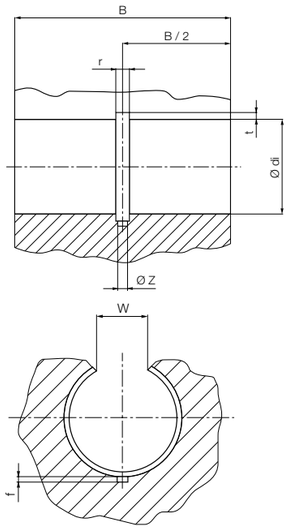
78) According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -50°C
Max. +90°C

Dimensions [mm]

d1	d1 tolerance78)	d2	b1	r	t	Z	Weight [g]	Part No.	
10	+0.000 +0.020	12	28	3.0	0.8	2.5	1.08	**A160UMO-01-10**	New
12	+0.030 +0.070	14	31	3.0	0.8	3.0	1.47	**A160UMO-01-12**	New
16	+0.030 +0.070	18	35	3.5	0.8	3.5	2.16	**A160UMO-01-16**	New
20	+0.030 +0.070	23	44	5.0	0.8	3.5	4.80	**A160UMO-01-20**	New
25	+0.030 +0.070	28	57	5.0	0.8	4.0	8.07	**A160UMO-01-25**	New
30	+0.040 +0.085	34	67	5.0	0.8	4.0	14.65	**A160UMO-01-30**	New
40	+0.040 +0.085	44	79	6.0	1.3	5.0	22.70	**A160UMO-01-40**	New

Housing hole for A160UM-01 | Dimensions [mm]

Shaft Ø	di H7	B h10	W	r +0.5	t +0.05	f +0.1	Z +0.2	Part No.	
10	12	29	7.3	3.0	1.0	1.0	2.6	**A160UMO-01-10**	New
12	14	32	9.0	3.0	1.0	1.5	3.1	**A160UMO-01-12**	New
16	18	36	11.6	3.5	1.0	1.7	3.6	**A160UMO-01-16**	New
20	23	45	12.0	5.0	1.0	2.0	3.6	**A160UMO-01-20**	New
25	28	58	14.5	5.0	1.0	2.0	4.1	**A160UMO-01-25**	New
30	34	68	16.6	5.0	1.0	2.0	4.1	**A160UMO-01-30**	New
40	44	80	21.0	6.0	1.5	2.5	5.1	**A160UMO-01-40**	New



Can be combined with:



OJUM-01/-03
TJUM-01/-03

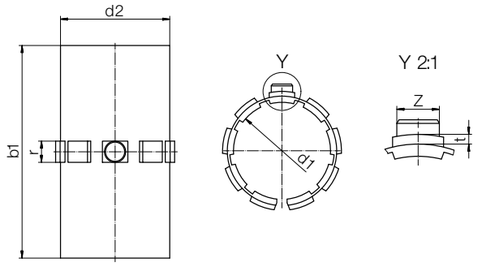


OJUM-06/-06-LL

drylin® R liners | Product range New

Short, closed design for round shafts - made from iglidur® A160 (compliant with Regulation (EU) No. 10/2011 and FDA guidelines)





Order key

Type					Size
A160	U	M	-02-10		
iglidur® A160	Liner	Metric	Compact		Inner Ø d1

Compliant with Regulation (EU) No. 10/2011 and FDA guidelines for longer service life on hardened stainless steel shafts

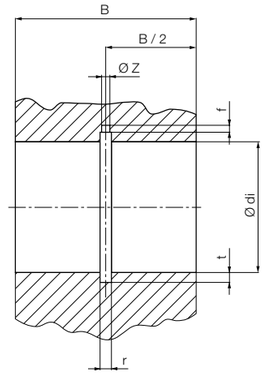
78) According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187
Min. -50°C
Max. +90°C

Dimensions [mm]

d1	d1 tolerance78)	d2	b1	r	t	Z	Weight [g]	Part No.	
10	+0.030 +0.070	12	25	3.0	0.8	2.5	1.02	**A160UM-02-10**	New
12	+0.030 +0.070	14	27	3.0	0.8	3.0	1.27	**A160UM-02-12**	New
16	+0.030 +0.070	18	29	3.5	0.8	3.5	1.82	**A160UM-02-16**	New
20	+0.030 +0.070	23	29	5.0	0.8	3.5	3.27	**A160UM-02-20**	New
25	+0.030 +0.070	28	39	5.0	0.8	4.0	5.75	**A160UM-02-25**	New
30	+0.040 +0.085	34	49	5.0	0.8	4.0	11.28	**A160UM-02-30**	New
40	+0.040 +0.085	44	59	6.0	1.3	5.0	17.94	**A160UM-02-40**	New
50	+0.050 +0.150	55	69	7.0	1.3	6.0	32.56	**A160UM-02-50**	New

Housing hole for A160UM-02 | Dimensions [mm]

Shaft Ø	di H7	B h10	r +0.05	t +0.1	f +0.5	Z +0.2	Part No.	
10	12	26	3.0	1.0	1.0	2.6	**A160UM-02-10**	New
12	14	28	3.0	1.0	1.5	3.1	**A160UM-02-12**	New
16	18	30	3.5	1.0	1.7	3.6	**A160UM-02-16**	New
20	23	30	5.0	1.0	2.0	3.6	**A160UM-02-20**	New
25	28	40	5.0	1.0	2.0	4.1	**A160UM-02-25**	New
30	34	50	5.0	1.0	2.0	4.1	**A160UM-02-30**	New
40	44	60	6.0	1.5	2.5	5.1	**A160UM-02-40**	New
50	55	70	7.0	1.5	2.5	6.1	**A160UM-02-50**	New



Can be combined with:



RJUM-02



RJUM-05/RJUME-05
TJUM-05/RJUMT-05

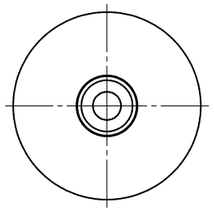


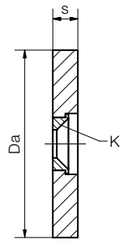
FJUMT-01/-02

drylin® R sliding discs | Product range

Large force displacement on different surfaces







Order key

Type	Size
RSD J	-40-06

Sliding plate | iglidur® J | Outer Ø | Width

- Made from the high-performance plastic iglidur® J
- Low coefficient of friction
- Screw through the reinforced hole in the middle for a firm hold

Min. -50°C
Max. +90°C

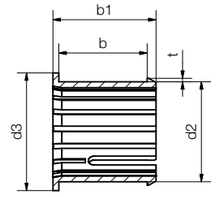
Dimensions [mm]

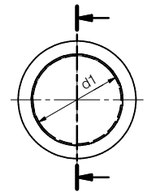
OuterØ Da	Wear limit	Width Øs	K For countersunk screw	Max. static load capacity [N]	Part No.
40	1.5	6 ± 0.05	M6	28,500	**RSDJ-40-06**
60	2.5	8 ± 0.05	M8	66,000	**RSDJ-60-08**
80	2.5	8 ± 0.05	M8	120,000	**RSDJ-80-08**

drylin® R clip in | Product range

Clip-on liners







Order key

Type	Size
J U C M	-1216-16

iglidur® J | Liner | Clip-on | Metric | Inner Ø d1 | Outer Ø d2 | Length b

- Quick installation by hand for sheet thicknesses of 12 to 30mm
- No locating spigot required

[78] According to igus® testing method ▶ Page 260
[82] Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Min. -50°C
Max. +90°C

Dimensions [mm]

d1	d2	d3	b +0.05 / +0.25	b1	t	Part No.
12	16	20	16	20.5	0.8	**JUCM-1216-16**
14	18	22	18	22.5	0.8	**JUCM-1418-18**
15	17	22	15	18.0	0.8	**JUCM-1517-15**
16	20	25	20	24.5	0.8	**JUCM-1620-20**
18	22	26	20	24.5	0.8	**JUCM-1822-20**
20	24	30	25	30.0	1.0	**JUCM-2024-25**
22	27	34	27	32.0	1.0	**JUCM-2227-27**
22	27	32	34	39.5	1.0	**JUCM-2227-34**
25	29	35	30	35.5	1.0	**JUCM-2529-30**
30	34	40	30	35.0	1.2	**JUCM-3034-30**

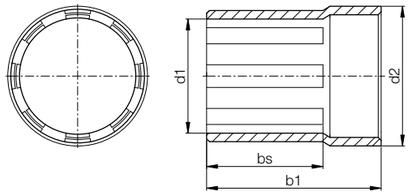
Technical data

Part No.	d1 tolerance[78] [mm]	Fmax. dynamic[82] p = 5MPa [N]	Fmax. static[82] p = 35MPa [N]	Weight [g]
JUCM-1216-16	+0.04 +0.10	320	1,600	2.5
JUCM-1418-18	+0.04 +0.10	440	2,200	2.9
JUCM-1517-15	+0.04 +0.10	380	1,900	1.4
JUCM-1620-20	+0.04 +0.10	560	2,800	3.9
JUCM-1822-20	+0.04 +0.10	630	3,150	4.2
JUCM-2024-25	+0.04 +0.12	880	4,400	5.8
JUCM-2227-27	+0.04 +0.12	1,000	5,000	9.4
JUCM-2227-34	+0.04 +0.12	1,300	6,500	10.3
JUCM-2529-30	+0.04 +0.12	1,300	6,500	8.6
JUCM-3034-30	+0.04 +0.12	1,500	7,500	10.0

drylin® R press-fit bearings | Product range

Made from iglidur® L100





Order key

Type			Size			
W	L	M-	06	08	-	10
iglidur® L100	L1 series	Metric	Inner Ø d1	Outer Ø d2		Length

- Extremely wear-resistant
- Low coefficient of friction

80) Measured with plug gauge

Please note: Installation instructions ▶ Page 187

Material properties ▶ Page 775

Min. -40°C

Max. +100 °C

Dimensions [mm]

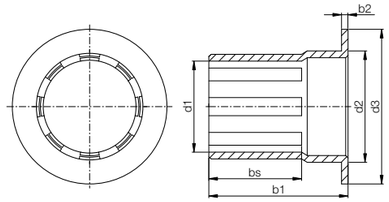
d1	d1 tolerance[80)]	d2	b1	bs	Part No.
6	+0.000 +0.040	8	10	6	**WLM-0608-10**
8	+0.000 +0.050	10	12	8	**WLM-0810-12**
10	+0.000 +0.050	12	14.5	10	**WLM-1012-14**
10	+0.000 +0.050	12	16	10	**WLM-1012-16**
12	+0.000 +0.050	14	16	10	**WLM-1214-16**
12	+0.000 +0.050	14	25	15	**WLM-1214-25**
16	+0.000 +0.050	18	18	10	**WLM-1618-18**
16	+0.000 +0.050	18	26	16	**WLM-1618-26**
20	+0.000 +0.060	23	22.5	12.5	**WLM-2023-22**
20	+0.000 +0.060	23	30	20	**WLM-2023-30**
22	+0.000 +0.060	25	30	20	**WLM-2225-30**
25	+0.000 +0.060	28	29	19	**WLM-2528-29**
25	+0.000 +0.060	28	35	25	**WLM-2528-35**
30	+0.000 +0.060	34	34	24	**WLM-3034-34**
30	+0.000 +0.060	34	40	30	**WLM-3034-40**
40	+0.000 +0.060	44	40	30	**WLM-4044-40**
40	+0.000 +0.060	44	50	40	**WLM-4044-50**
50	+0.000 +0.070	55	50	40	**WLM-5055-50**
50	+0.000 +0.070	55	60	50	**WLM-5055-60**

drylin® R shaft guides

drylin® R press-fit bearings | Product range

Made from iglidur® L100





Order key

Type				Size			
W	L	F	M-	12	14	-	15
iglidur® L100	L1 series	With flange	Metric	Inner Ø d1	Outer Ø d2		Length

- Extremely wear-resistant
- Low coefficient of friction

80) Measured with plug gauge

Please note: Installation instructions ▶ Page 187

Material properties ▶ Page 775

Min. -40°C

Max. +100 °C

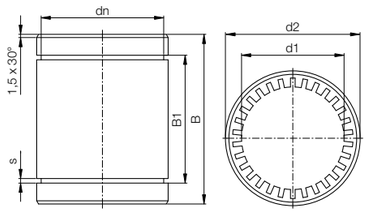
Dimensions [mm]

d1	d1 tolerance[80)]	d2	d3	b1	b2	bs	Part No.
12	+0.000 +0.050	14	20	15.0	1.0	9	**WLFM-1214-15**
16	+0.000 +0.050	18	24	16.0	1.0	10	**WLFM-1618-16**
20	+0.000 +0.060	23	30	16.5	1.5	10	**WLFM-2023-16**
25	+0.000 +0.060	28	35	21.5	1.5	11	**WLFM-2528-21**
30	+0.000 +0.060	34	42	27.0	2.0	15	**WLFM-3034-27**
40	+0.000 +0.060	44	52	32.0	2.0	20	**WLFM-4044-32**
50	+0.000 +0.070	55	63	37.5	2.5	25	**WLFM-5055-37**

drylin® R solid plastic bearings | Product range

Standard design made from iglidur® J (the all-rounder)





Order key

Type	Size
R J M	-01-10

Closed	iglidur® J	Metric	Standard	Inner Ø d1

- Assembly by press-fitting
- Secured by circlips

Min. -20°C
Max. +60°C

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
83) Applies by room temperature: press-fit decrease with time depending on the temperature
Please note: Installation instructions ▶ Page 187
Imperial dimensions ▶ Page 747

Dimensions [mm]

d1	d2	B	B1	Øs	dn	Part No.
8	16	25	16.2	1.10	15.2	**RJM-01-08**
10	19	29	21.6	1.30	17.5	**RJM-01-10**
12	22	32	22.6	1.30	20.5	**RJM-01-12**
16	26	36	24.6	1.30	24.2	**RJM-01-16**
20	32	45	31.2	1.60	29.6	**RJM-01-20**
25	40	58	43.7	1.85	36.5	**RJM-01-25**
30	47	68	51.7	1.85	43.5	**RJM-01-30**
40	62	80	60.3	2.15	57.8	**RJM-01-40**

Technical data

Part No.	d1 tolerance78)	Fmax. dynamic82) p = 2.5MPa	Fmax. static82) p = 17.5MPa	Weight	Press-fit force83)
	[mm]	[N]	[N]	[g]	[N]
RJM-01-08	+0.025 +0.061	250	1,750	4	400
RJM-01-10	+0.025 +0.061	363	2,538	7	700
RJM-01-12	+0.032 +0.075	480	3,360	9	1,300
RJM-01-16	+0.032 +0.075	720	5,040	13	1,100
RJM-01-20	+0.040 +0.092	1,125	7,875	24	1,500
RJM-01-25	+0.040 +0.092	1.813	12,688	47	3,500
RJM-01-30	+0.040 +0.092	2,550	17,850	72	4,500
RJM-01-40	+0.050 +0.112	4,000	28,000	127	4,200

Can be combined with:


RQA-04


RTA-04

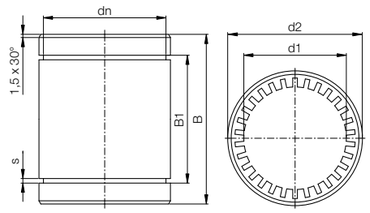

RGA-04


RGAS-04

drylin® R solid plastic bearings | Product range

Standard design, precise, made from iglidur® J (the all-rounder)





Order key

Type	Size
R J M P	-01-10

Closed	iglidur® J	Metric	Precision	Standard	Inner Ø d1

- Easy assembly by soft press-fit
- Reduced bearing clearance
- Secured by circlips

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187
Min. -20°C
Max. +60°C
Imperial dimensions ▶ Page 747

Dimensions [mm]

d1	d2	B	B1	Øs	dn	Part No.
6	12	19	13.5	1.10	11.5	**RJMP-01-06**
8	16	25	16.2	1.10	15.2	**RJMP-01-08**
10	19	29	21.6	1.30	17.5	**RJMP-01-10**
12	22	32	22.6	1.30	20.5	**RJMP-01-12**
16	26	36	24.6	1.30	24.2	**RJMP-01-16**
20	32	45	31.2	1.60	29.6	**RJMP-01-20**
25	40	58	43.7	1.85	36.5	**RJMP-01-25**
30	47	68	51.7	1.85	43.5	**RJMP-01-30**

Technical data

Part No.	d1 tolerance78)	Fmax. dynamic82) p = 2.5MPa	Fmax. static82) p = 17.5MPa	Weight
	[mm]	[N]	[N]	[g]
RJMP-01-06	+0.000 +0.030	200	1,400	2
RJMP-01-08	+0.000 +0.040	250	1,750	4
RJMP-01-10	+0.000 +0.040	363	2,538	7
RJMP-01-12	+0.000 +0.040	480	3,360	9
RJMP-01-16	+0.000 +0.040	720	5,040	13
RJMP-01-20	+0.000 +0.040	1,125	7,875	24
RJMP-01-25	+0.000 +0.050	1.813	12,688	47
RJMP-01-30	+0.000 +0.050	2,550	17,850	72

Can be combined with:


RQA-04


RTA-04

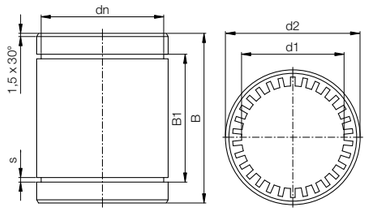

RGA-04


RGAS-04

drylin® R solid plastic bearings | Product range New

Standard design made from iglidur® A180 (for contact with food)





Order key

Type				Size
R A180	M	- 01	- 10	
Closed	iglidur® A180	Metric	Standard	Inner Ø d1

- FDA-compliant igus® polymer for use in the food environment

Min. -20°C
Max. +60°C

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
83) Applies by room temperature: press-fit decrease with time depending on the temperature
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	d2	B	B1	Øs	dn	Part No.
12	22	32	22.6	1.3	20.5	**RA180M-01-12** New
16	26	36	24.6	1.3	24.2	**RA180M-01-16** New
20	32	45	31.2	1.6	29.6	**RA180M-01-20** New

Technical data

Part No.	d1 tolerance[78]	Fmax. dynamic[82] p = 2MPa	Fmax. static[82] p = 2MPa	Weight	Press-fit force[83]
	[mm]	[N]	[N]	[g]	[N]
RA180M-01-12 New	+0.03 +0.08	400	1,600	9	1,300
RA180M-01-16 New	+0.03 +0.07	700	2,800	13	1,100
RA180M-01-20 New	+0.04 +0.09	1,000	4,000	24	1,500

Can be combined with:


RQA-04


RTA-04


RGA-04

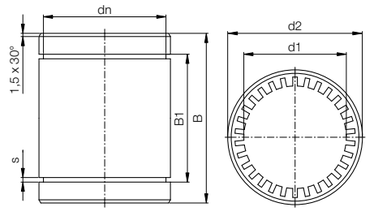

RGAS-04

drylin® R solid plastic bearings | Product rangeNew

Standard design made from iglidur® A160 (for contact with food), visually detectable

drylin® R shaft guides





Order key

Type				Size
R A160	M	- 01	- 10	
Closed	iglidur® A160	Metric	Standard	Inner Ø d1

- FDA-compliant igus® polymer for use in the food environment

Min. -20°C
Max. +60°C

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
83) Applies by room temperature: press-fit decrease with time depending on the temperature
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	d2	B	B1	Øs	dn	Part No.
12	22	32	22.6	1.3	20.5	**RA160M-01-12** New
16	26	36	24.6	1.3	24.2	**RA160M-01-16** New
20	32	45	31.2	1.6	29.6	**RA160M-01-20** New

Technical data

Part No.	d1 tolerance[78]	Fmax. dynamic[82] p = 2MPa	Fmax. static[82] p = 2MPa	Weight	Press-fit force[83]
	[mm]	[N]	[N]	[g]	[N]
RA160M-01-12 New	+0.03 +0.08	400	1,600	9	1,300
RA160M-01-16 New	+0.03 +0.07	700	2,800	13	1,100
RA160M-01-20 New	+0.04 +0.09	1,000	4,000	24	1,500

Can be combined with:


RQA-04


RTA-04

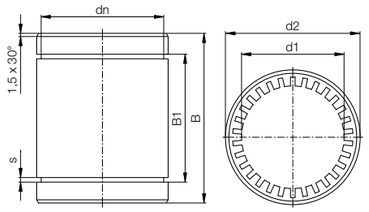

RGA-04


RGAS-04

drylin® R solid plastic bearings | Product range

Linear plain bearings with Japanese dimensions made from iglidur® J4





Order key

Type						Size
R	J4	J	P	-	01-10	
Closed	iglidur® J4	Japan standard	Precision	Standard		Inner Ø d1

- Alternative to ball bearings with Japanese dimension
- Quickly assembled
- Secured by circlips

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187
Material properties ▶ Page 772

Min. -20°C
Max. +60°C

Dimensions [mm]

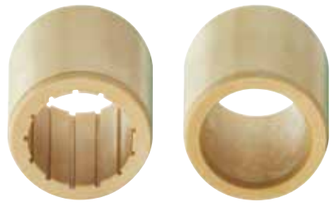
d1	d2	B	B1	Øs	dn	Part No.
8	15	24	17.5	1.1	14.3	**RJ4JP-01-08**
10	19	29	22.0	1.3	18.0	**RJ4JP-01-10**
12	21	30	23.0	1.3	20.0	**RJ4JP-01-12**
16	28	37	26.5	1.6	26.6	**RJ4JP-01-16**
20	32	42	30.5	1.6	30.3	**RJ4JP-01-20**
25	40	59	41.1	1.85	37.5	**RJ4JP-01-25**
30	45	64	44.6	1.85	42.5	**RJ4JP-01-30**

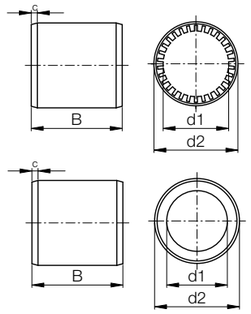
Technical data

Part No.	d1 tolerance78)	Fmax. dynamic82) p = 5MPa	Fmax. static82) p = 35MPa	Weight
	[mm]	[N]	[N]	[g]
RJ4JP-01-08	+0.000 +0.040	200	800	2
RJ4JP-01-10	+0.000 +0.040	300	1,200	6
RJ4JP-01-12	+0.000 +0.040	400	1,600	8
RJ4JP-01-16	+0.000 +0.040	700	2,800	16
RJ4JP-01-20	+0.000 +0.040	1,000	4,000	23
RJ4JP-01-25	+0.000 +0.050	1,550	6,500	47
RJ4JP-01-30	+0.000 +0.050	2,200	8,500	72

drylin® R solid plastic bearings | Product range

Low-cost linear plain bearings made from iglidur® J260





Order key

Type						Size
R	J260	U	M	-	02-12	
Closed	iglidur® J260	Grooved	Metric	Compact		Inner Ø d1

- 2 variations: RJ260M (with plain design) and RJ260UM (grooved structure)

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Min. -20°C
Max. +60°C

Dimensions [mm]

d1	d2	B	C	Part No.
12	19	28	1.5x15°	**RJ260UM-02-12**
16	24	30	1.5x15°	**RJ260UM-02-16**
20	28	30	2.0x15°	**RJ260UM-02-20**
25	35	40	2.0x15°	**RJ260UM-02-25**

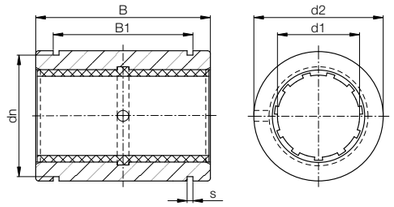
Technical data

Part No.	d1 tolerance78)	Fmax. dynamic82) p = 2.5MPa	Fmax. static82) p = 17.5MPa	Weight
	[mm]	[N]	[N]	[g]
RJ260UM-02-12	+0.035 +0.080	420	2,940	6.2
RJ260UM-02-16	+0.035 +0.080	600	4,200	9.7
RJ260UM-02-20	+0.040 +0.095	750	5,250	11.7
RJ260UM-02-25	+0.040 +0.095	1,250	8,750	22.8

drylin® R linear plain bearings | Product range

Closed, anodised aluminium adapters





Order key

Type					Size
R	J	U	M	-	01-10
Closed	iglidur® J	Liner	Metric	Standard	Inner Ø d1

- Secured by circlips

Imperial dimensions ▶ Page 749

78) According to igus® testing method ▶ Page 260
81) Ø < 10mm use press-fitted sleeve plain bearings
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	d2	B	B1	Øs	dn	Part No.
	h7	h10	H10	H10	h10	
5	12	22	14.2	1.10	11.5	**RJZM-01-05**[81]
6	12	22	14.2	1.10	11.5	**RJZM-01-06**[81]
8	16	25	16.2	1.10	15.2	**RJZM-01-08**[81]
10	19	29	21.6	1.30	17.5	**RJUM-01-10**
12	22	32	22.6	1.30	20.5	**RJUM-01-12**
16	26	36	24.6	1.30	24.2	**RJUM-01-16**
20	32	45	31.2	1.60	29.6	**RJUM-01-20**
25	40	58	43.7	1.85	36.5	**RJUM-01-25**
30	47	68	51.7	1.85	43.5	**RJUM-01-30**
40	62	80	60.3	2.15	57.8	**RJUM-01-40**
50	75	100	77.3	2.65	70.5	**RJUM-01-50**
60	90	125	101.7	3.15	86.5	**RJUM-01-60**

Technical data

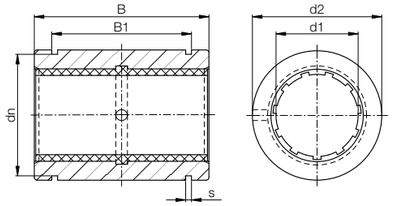
Part No.	d1 tolerance[78]	Fmax. dynamic[82] p = 5MPa	Fmax. static[82] p = 35MPa	Weight
	[mm]	[N]	[N]	[g]
RJZM-01-05[81]	+0.025 +0.060	525	3,675	5
RJZM-01-06[81]	+0.025 +0.060	525	3,675	5
RJZM-01-08[81]	+0.032 +0.070	960	6,720	9
RJUM-01-10	+0.030 +0.088	725	5,075	14
RJUM-01-12	+0.030 +0.088	960	6,720	21
RJUM-01-16	+0.030 +0.088	1,440	10,080	28
RJUM-01-20	+0.030 +0.091	2,250	15,750	49
RJUM-01-25	+0.030 +0.091	3,625	25,375	108
RJUM-01-30	+0.040 +0.110	5,100	35,700	162
RJUM-01-40	+0.040 +0.115	8,000	56,000	334
RJUM-01-50	+0.050 +0.130	9,000	87,500	579
RJUM-01-60	+0.050 +0.140	12,000	120,000	1,070

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drylin® R linear plain bearings | Product range

Closed, anodised aluminium adapters, precise





Order key

Type					Size
R	J	U	M	-	11-10
Closed	iglidur® J	Liner	Metric	Precision	Inner Ø d1

- Max. bearing clearance reduced by 50%
- Secured by circlips

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	d2	B	B1	Øs	dn	Part No.
	h7	h10	H10	H10	h10	
10	19	29	21.6	1.30	17.5	**RJUM-11-10**
12	22	32	22.6	1.30	20.5	**RJUM-11-12**
16	26	36	24.6	1.30	24.2	**RJUM-11-16**
20	32	45	31.2	1.60	29.6	**RJUM-11-20**
25	40	58	43.7	1.85	36.5	**RJUM-11-25**
30	47	68	51.7	1.85	43.5	**RJUM-11-30**
40	62	80	60.3	2.15	57.8	**RJUM-11-40**
50	75	100	77.3	2.65	70.5	**RJUM-11-50**

Technical data

Part No.	d1 tolerance[78]	Fmax. dynamic[82] p = 5MPa	Fmax. static[82] p = 35MPa	Weight
	[mm]	[N]	[N]	[g]
RJUM-11-10	+0.000 +0.058	725	5,075	14
RJUM-11-12	+0.000 +0.058	960	6,720	21
RJUM-11-16	+0.000 +0.058	1,440	10,080	28
RJUM-11-20	+0.000 +0.061	2,250	15,750	49
RJUM-11-25	+0.000 +0.061	3,625	25,375	108
RJUM-11-30	+0.000 +0.075	5,100	35,700	162
RJUM-11-40	+0.000 +0.080	8,000	56,000	334
RJUM-11-50	+0.000 +0.090	12,500	87,500	579

Can be combined with:


RQA-01


RTA-01


RGA-01


RGAS-01

Available with drylin® liners (optional: J200/A180):


J


E7

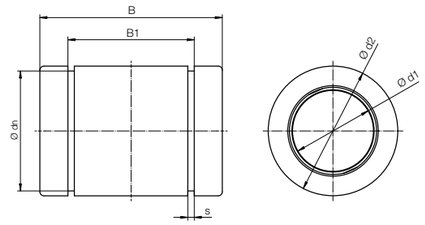

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EN 09/2023

drylin® R linear plain bearings | Product range New

Adapter with clip-in liners made from iglidur® W360 (precision)





- Easy-running lubrication-free clip-on films with reduced elasticity
- Up to 50% lower clearance in operation

Order key

Type					Size
R	W360	C	M	-	01-12
Closed	iglidur® W360	Clip-in liner	Metric	Standard	Inner Ø d1

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	d2	B	B1	Øs	dn	Part No.
	h6	+0.1	-0.1	H10	h10	
12	22	32	22.6	1.30	20.5	**RW360CM-01-12** New
16	26	36	24.6	1.30	24.2	**RW360CM-01-16** New
20	32	45	31.2	1.60	29.6	**RW360CM-01-20** New

Technical data

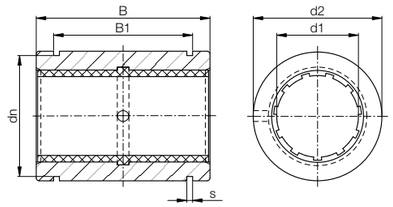
Part No.	d1 tolerance[78]	Fmax. dynamic[82]	Fmax. static[82]	Weight
	[mm]	[N]	[N]	[g]
RW360CM-01-12 New	+0.01 +0.05	960	1,920	21
RW360CM-01-16 New	+0.01 +0.05	1,140	2,280	28
RW360CM-01-20 New	+0.01 +0.05	2,250	4,500	55

Notes

drylin® R linear plain bearings | Product range

Closed stainless steel adapters made of stainless steel 303





Order key

Type					Size	Material
R	J	U	M	-01-	12	-ES
Closed	iglidur® J	Liner	Metric	Standard	Inner Ø d1	Stainless steel

● Secured by circlips

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	d2	B	B1	Øs	dn	Part No.
	h7	h10	H10	H10	h10	
12	22	32	22.6	1.30	20.5	**RJUM-01-12-ES**
16	26	36	24.6	1.30	24.2	**RJUM-01-16-ES**
20	32	45	31.2	1.60	29.6	**RJUM-01-20-ES**
25	40	58	43.7	1.85	36.5	**RJUM-01-25-ES**
30	47	68	51.7	1.85	43.5	**RJUM-01-30-ES**

Technical data

Part No.	d1 tolerance78)	Fmax. dynamic82) p = 5MPa	Fmax. static82) p = 35MPa	Weight
	[mm]	[N]	[N]	[g]
RJUM-01-12-ES	+0.030 +0.088	960	6,720	60
RJUM-01-16-ES	+0.030 +0.088	1,440	10,080	84
RJUM-01-20-ES	+0.030 +0.091	2,250	15,750	147
RJUM-01-25-ES	+0.030 +0.091	3,625	25,375	324
RJUM-01-30-ES	+0.040 +0.110	5,100	35,700	486

Available with drylin® liners (optional: J200/A180):


J


E7


X

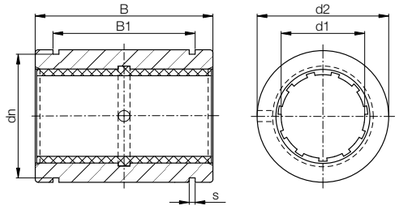
EN 09/2023

drylin® R shaft guides

drylin® R linear plain bearings | Product range

Closed, anodised aluminium adapters with iglidur® E7 liner





Order key

Type						Size
R	E7	U	M	-01-	10	
Closed	iglidur® E7	Liner	Metric	Standard	Inner Ø d1	

● Secured by circlips

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	d2	B	B1	Øs	dn	Part No.
	h7	h10	H10	H10	h10	
10	19	29	21.6	1.30	17.5	**RE7UM-01-10**
12	22	32	22.6	1.30	20.5	**RE7UM-01-12**
16	26	36	24.6	1.30	24.2	**RE7UM-01-16**
20	32	45	31.2	1.60	29.6	**RE7UM-01-20**
25	40	58	43.7	1.85	36.5	**RE7UM-01-25**
30	47	68	51.7	1.85	43.5	**RE7UM-01-30**
40	62	80	60.3	2.15	57.8	**RE7UM-01-40**
50	75	100	77.3	2.65	70.5	**RE7UM-01-50**
60	90	125	101.7	3.15	86.5	**RE7UM-01-60**

Technical data

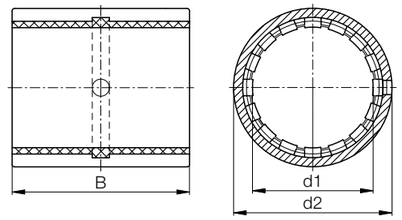
Part No.	d1 tolerance 78)	Fmax. dynamic 82) p = 2.5MPa	Fmax. static 82) p = 18MPa	Weight
	[mm]	[N]	[N]	[g]
RE7UM-01-10	+0.030 +0.088	360	2,610	14
RE7UM-01-12	+0.030 +0.088	480	3,450	21
RE7UM-01-16	+0.030 +0.088	720	5,180	28
RE7UM-01-20	+0.030 +0.091	1,120	8,100	49
RE7UM-01-25	+0.030 +0.091	1,810	13,050	108
RE7UM-01-30	+0.040 +0.110	2,550	18,360	162
RE7UM-01-40	+0.040 +0.115	4,000	28,800	334
RE7UM-01-50	+0.050 +0.180	4,500	45,000	579
RE7UM-01-60	+0.050 +0.190	6,000	61,700	1,070

EN 09/2023

drylin® R linear plain bearings | Product range

Closed, anodised aluminium adapters, short design





Order key

Type						Size		
R	J	U	M	-	02	-	10	
Closed	iglidur® J	Liner	Metric		Compact		Inner Ø d1	

- Also available as a reduced clearance version RJUM-12 (Ø 10-50mm)

78) According to igus® testing method ▶ Page 260
81) Ø < 10mm use press-fitted sleeve bearings
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	d2	B	Part No.
	k7	h10	
6	12	22	**RJZM-02-06**[81]
8	15	24	**RJZM-02-08**[81]
10	17	26	**RJUM-02-10**
12	19	28	**RJUM-02-12**
16	24	30	**RJUM-02-16**
20	28	30	**RJUM-02-20**
25	35	40	**RJUM-02-25**
30	40	50	**RJUM-02-30**
40	52	60	**RJUM-02-40**
50	62	70	**RJUM-02-50**

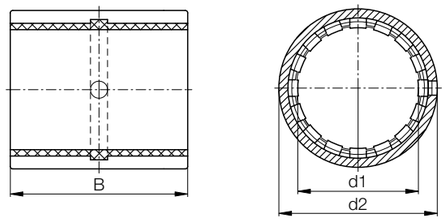
Technical data

Part No.	Housing hole Ø H7	d1 tolerance[78]	Fmax. dynamic[82] p = 5MPa	Fmax. static[82] p = 35MPa	Weight
	[mm]	[mm]	[N]	[N]	[g]
RJZM-02-06[81]	12	+0.032 +0.070	600	4,200	4
RJZM-02-08[81]	15	+0.032 +0.070	650	4,550	6
RJUM-02-10	17	+0.030 +0.088	650	4,550	8
RJUM-02-12	19	+0.030 +0.088	840	5,880	10
RJUM-02-16	24	+0.030 +0.088	1,200	8,400	17
RJUM-02-20	28	+0.030 +0.091	1,500	10,500	18
RJUM-02-25	35	+0.030 +0.091	2,500	17,500	42
RJUM-02-30	40	+0.040 +0.110	3,750	26,250	56
RJUM-02-40	52	+0.040 +0.115	6,000	42,000	113
RJUM-02-50	62	+0.050 +0.130	8,750	61,250	147

drylin® R linear plain bearings | Product range

Closed, anodised aluminium adapters, short design with iglidur® E7 liner





Order key

Type						Size		
R	E7	U	M	-	02	-	10	
Closed	iglidur® E7	Liner	Metric		Compact		Inner Ø d1	

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	d2	B	Part No.
	k7	h10	
10	17	26	**RE7UM-02-10**
12	19	28	**RE7UM-02-12**
16	24	30	**RE7UM-02-16**
20	28	30	**RE7UM-02-20**
25	35	40	**RE7UM-02-25**
30	40	50	**RE7UM-02-30**
40	52	60	**RE7UM-02-40**
50	62	70	**RE7UM-02-50**

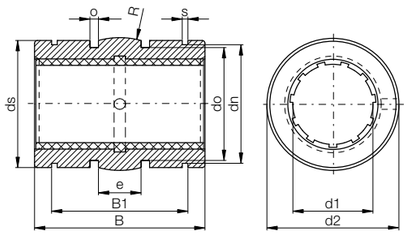
Technical data

Part No.	Housing hole Ø H7	d1 tolerance[78]	Fmax. dynamic[82] p = 2.5MPa	Fmax. static[82] p = 18MPa	Weight
	[mm]	[mm]	[N]	[N]	[g]
RE7UM-02-10	17	+0.030 +0.088	325	2,340	8
RE7UM-02-12	19	+0.030 +0.088	420	3,020	10
RE7UM-02-16	24	+0.030 +0.088	600	4,320	17
RE7UM-02-20	28	+0.030 +0.091	750	5,400	18
RE7UM-02-25	35	+0.030 +0.091	1,250	9,000	42
RE7UM-02-30	40	+0.040 +0.110	1.875	13,500	56
RE7UM-02-40	52	+0.040 +0.115	3,000	21,600	113
RE7UM-02-50	62	+0.050 +0.180	4,375	31,500	147

drylin® R linear plain bearings | Product range

Closed aluminium adapters (floating bearing)





Order key

Type						Size	
R	J	U	M	-	03	-	10
Closed	igliduR® J	Liner	Metric	Self-aligning		Inner Ø d1	

- With reduced outer diameter, spherical middle area, O-rings for elastic fit and hard-anodised surface

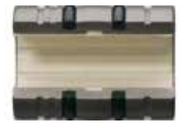
[78] According to igus® testing method ▶ Page 260
[81] Ø < 10mm use press-fitted sleeve plain bearings
[82] Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187
Floating bearing ▶ Page 186
Imperial dimensions ▶ Page 749

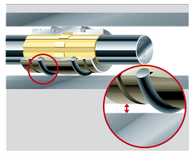
Dimensions [mm]

d1	d2	B	B1	Øs	dn	ds	do	o	e	R	Part No.
	h8	h10	H10	H10	h10	h10		+0.1			
8	15.8	24.9	16.4	1.10	15.0	15.5	13.2	1.86	5.0	20.0	**RJZM-03-08**[81]
10	18.8	28.9	21.8	1.30	17.5	18.5	15.4	1.86	5.0	13.0	**RJUM-03-10**
12	21.8	31.9	22.8	1.30	20.5	21.5	18.4	1.86	6.0	18.0	**RJUM-03-12**
16	25.8	35.9	24.9	1.30	24.2	25.5	20.4	2.86	8.0	32.0	**RJUM-03-16**
20	31.8	44.8	31.5	1.60	29.6	31.5	26.4	2.86	10.0	50.0	**RJUM-03-20**
25	39.8	57.8	44.1	1.85	36.5	39.0	34.4	2.86	12.5	39.0	**RJUM-03-25**
30	46.7	67.8	52.1	1.85	43.5	46.0	41.4	2.86	15.0	57.0	**RJUM-03-30**
40	61.7	79.8	60.9	2.15	57.8	61.0	56.4	2.86	20.0	100.0	**RJUM-03-40**
50	74.7	99.8	78.0	2.65	70.5	74.0	69.4	2.86	25.0	157.0	**RJUM-03-50**

Technical data

Part No.	Housing hole	d1 tolerance[78]	Fmax. dynamic[82] p = 5MPa	Fmax. static[82] p = 35MPa	Weight
	Ø H7 [mm]	[mm]	[N]	[N]	[g]
RJZM-03-08[81]	16	+0.032 +0.070	960	6,720	8
RJUM-03-10	19	+0.030 +0.088	725	5,075	11
RJUM-03-12	22	+0.030 +0.088	960	6,720	17
RJUM-03-16	26	+0.030 +0.088	1,440	10,080	23
RJUM-03-20	32	+0.030 +0.091	2,250	15,750	44
RJUM-03-25	40	+0.030 +0.091	3,625	25,375	92
RJUM-03-30	47	+0.040 +0.110	5,100	35,700	145
RJUM-03-40	62	+0.040 +0.115	8,000	56,000	311
RJUM-03-50	75	+0.050 +0.150	12,500	87,500	542





Can be combined with:


RQA-03


RTA-03


RGA-03


RGAS-03

Available with drylin® liners (optional: J200/A180):


J

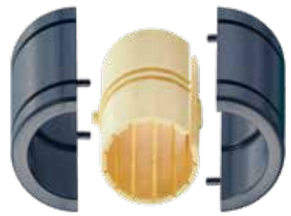

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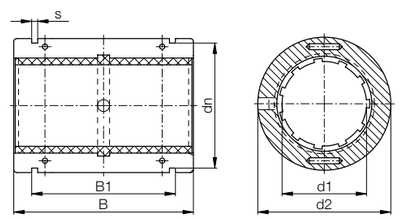

X

EN 09/2023

drylin® R linear plain bearings | Product range

Split anodised aluminium adapters





Order key

Type						Size	
T	J	U	M	-	01	-	10
Splittable	igliduR® J	Liner	Metric	Standard		Inner Ø d1	

- Quick replacement of the liner without removing the shaft

[78] According to igus® testing method ▶ Page 260
[82] Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187
Imperial dimensions ▶ page 750

Dimensions [mm]

d1	d2	B	B1	Øs	dn	Part No.
		h10	H10	H10	h10	
10	19 -0.020 -0.040	29	21.6	1.30	17.5	**TJUM-01-10**
12	22 -0.020 -0.040	32	22.6	1.30	20.5	**TJUM-01-12**
16	26 -0.020 -0.040	36	24.6	1.30	24.2	**TJUM-01-16**
20	32 -0.020 -0.045	45	31.2	1.60	29.6	**TJUM-01-20**
25	40 -0.030 -0.055	58	43.7	1.85	36.5	**TJUM-01-25**
30	47 -0.030 -0.055	68	51.7	1.85	43.5	**TJUM-01-30**
40	62 -0.030 -0.060	80	60.3	2.15	57.8	**TJUM-01-40**
50	75 -0.030 -0.060	100	77.3	2.65	70.5	**TJUM-01-50**

Technical data

Part No.	d1 tolerance[78]	Fmax. dynamic[82] p = 5MPa	Fmax. static[82] p = 35MPa	Weight
	[mm]	[N]	[N]	[g]
TJUM-01-10	+0.030 +0.092	725	5,075	14
TJUM-01-12	+0.030 +0.097	960	6,720	19
TJUM-01-16	+0.030 +0.097	1,440	10,080	27
TJUM-01-20	+0.030 +0.103	2,250	15,750	49
TJUM-01-25	+0.030 +0.103	3,625	25,375	106
TJUM-01-30	+0.040 +0.124	5,100	35,700	166
TJUM-01-40	+0.040 +0.124	8,000	56,000	347
TJUM-01-50	+0.050 +0.196	12,500	87,500	577

Can be combined with:


RQA-01


RTA-01


RGA-01


RGAS-01

Available with drylin® liners (optional: J200/A180):


J


E7

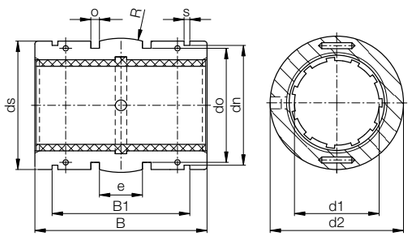

X

EN 09/2023

drylin® R linear plain bearings | Product range

Split aluminium adapters (floating bearing)





Order key

Type						Size
T	J	U	M	-	03	- 10
Splittable	iglidur® J	Liner	Metric	Self-aligning		Inner Ø d1

- Split aluminium adapter with spherical middle area for automatic compensation of misalignments and O-rings for elastic seating

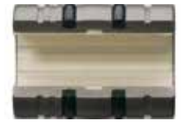
78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187
Floating bearing ▶ Page 186
Imperial dimensions ▶ page 750

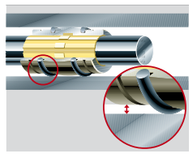
Dimensions [mm]

d1	d2	B	B1	Øs	dn	ds	do	o	e	R	Part No.
		h10	H10	H10	h10	h10		+0.1			
10	19 -0.020 -0.040	28.9	21.8	1.30	17.5	18.5	15.4	1.86	5.0	13.0	**TJUM-03-10**
12	22 -0.020 -0.040	31.9	22.8	1.30	20.5	21.5	18.4	1.86	6.0	18.0	**TJUM-03-12**
16	26 -0.020 -0.040	35.9	24.9	1.30	24.2	25.5	20.4	2.86	8.0	32.0	**TJUM-03-16**
20	32 -0.020 -0.045	44.8	31.5	1.60	29.6	31.5	26.4	2.86	10.0	50.0	**TJUM-03-20**
25	40 -0.030 -0.055	57.8	44.1	1.85	36.5	39.0	34.4	2.86	12.5	39.0	**TJUM-03-25**
30	47 -0.030 -0.055	67.8	52.1	1.85	43.5	46.0	41.4	2.86	15.0	57.0	**TJUM-03-30**
40	62 -0.030 -0.060	79.8	60.9	2.15	57.8	61.0	56.4	2.86	20.0	100.0	**TJUM-03-40**
50	75 -0.030 -0.060	99.8	78.0	2.65	70.5	74.0	69.4	2.86	25.0	157.0	**TJUM-03-50**

Technical data

Part No.	d1 tolerance78)	Fmax. dynamic82) p = 5MPa	Fmax. static82) p = 35MPa	Weight
	[mm]	[N]	[N]	[g]
TJUM-03-10	+0.030 +0.092	725	5,075	11
TJUM-03-12	+0.030 +0.097	960	6,720	17
TJUM-03-16	+0.030 +0.097	1,440	10,080	23
TJUM-03-20	+0.030 +0.103	2,250	15,750	44
TJUM-03-25	+0.030 +0.103	3,625	25,375	92
TJUM-03-30	+0.040 +0.124	5,100	35,700	145
TJUM-03-40	+0.040 +0.124	8,000	56,000	311
TJUM-03-50	+0.050 +0.196	12,500	87,500	542





Can be combined with:


RQA-03


RTA-03


RGA-03


RGAS-03

Available with drylin® liners (optional: J200/A180):


J


E7


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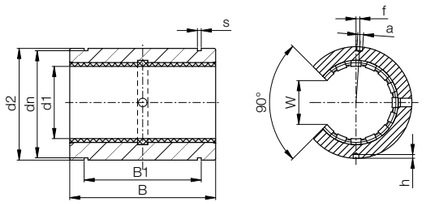
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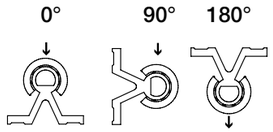
drylin® R shaft guides

drylin® R linear plain bearings | Product range

Open, anodised aluminium adapters - for supported shafts







Order key

Type						Size
O	J	U	M	-	01	- 10
Open	iglidur® J	Liner	Metric	Standard		Inner Ø d1

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187
Imperial dimensions ▶ Page 748

Dimensions [mm]

d1	d2	B	W	a	dn	B1	Øs	f	h	Part No.
	h7	h10	-1	+0.1	h10	H10	H10	±0.2	-0.5	
10	19	29	7.3	0.0	17.5	21.6	1.30	0	1.2	**OJUM-01-10**
12	22	32	9.0	3.0	20.5	22.6	1.30	1.33 (7°)	1.2	**OJUM-01-12**
16	26	36	11.6	2.2	24.2	24.6	1.30	0	1.2	**OJUM-01-16**
20	32	45	12.0	2.2	29.6	31.2	1.60	0	1.2	**OJUM-01-20**
25	40	58	14.5	3.0	36.5	43.7	1.85	-1.5 (-4.3°)	1.5	**OJUM-01-25**
30	47	68	16.6	3.0	43.5	51.7	1.85	2 (4.9°)	2.0	**OJUM-01-30**
40	62	80	21.0	3.0	57.8	60.3	2.15	1.5 (2.8°)	2.0	**OJUM-01-40**
50	75	100	25.5	5.0	70.5	77.3	2.65	2.5 (3.8°)	2.0	**OJUM-01-50**

Technical data

Part No.	d1 tolerance78)	Fmax. dynamic82) p = 5MPa			Fmax. static82) p = 35MPa			Weight
		0°	90°	180°	0°	90°	180°	[g]
OJUM-01-10	+0.030 +0.088	725	500	196	5,075	3,500	1,370	11
OJUM-01-12	+0.030 +0.088	960	635	240	6,720	4,445	1,680	15
OJUM-01-16	+0.030 +0.088	1,440	990	396	10,080	6,943	2,772	21
OJUM-01-20	+0.030 +0.091	2,250	1,800	900	15,750	12,600	6,300	42
OJUM-01-25	+0.030 +0.091	3,625	2.953	1,523	25,375	20,670	10,658	70
OJUM-01-30	+0.040 +0.110	5,100	4,250	2,278	35,700	29,735	15,946	132
OJUM-01-40	+0.040 +0.115	8,000	6,810	3,800	56,000	47,660	26,660	278
OJUM-01-50	+0.050 +0.150	12,500	10,750	6,125	87,500	75,265	42,875	479

Can be combined with:


RQA-01


RTA-01


RGA-01


RGAS-01

Available with drylin® liners (optional: J200/A180):


J


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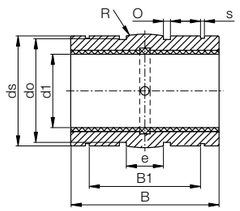

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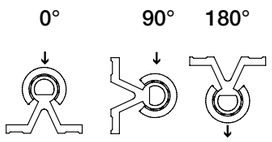
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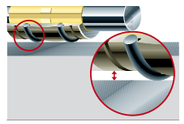
drylin® R linear plain bearings | Product range

Open, anodised aluminium adapters, floating bearing









- With reduced outer diameter, spherical middle area, O-rings for elastic fit and hard-anodised surface

Order key

Type	Size
O J U	M-03-10

Open	igliduR® J	Liner	Metric	Self-aligning	Inner Ø d1

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187
Imperial dimensions ▶ Page 748

Dimensions [mm]

d1	d2	ds	e	o	do	B1	Øs	B	R	W	a	f	h	Part No.
	h8	h10		+0.1		H10	H10	h10		-1	+0.1	±0.2	-0.5	
10	18.8	18.5	5.0	1.86	15.4	21.8	1.30	28.9	13.0	7.3	0.0	0	1.2	**OJUM-03-10**
12	21.8	21.5	6.0	1.86	18.4	22.8	1.30	31.9	18.0	9.0	3.0	1.33 (7°)	1.2	**OJUM-03-12**
16	25.8	25.5	8.0	2.86	20.4	24.9	1.30	35.9	32.0	11.6	2.2	0	1.2	**OJUM-03-16**
20	31.8	31.5	10.0	2.86	26.4	31.5	1.60	44.8	50.0	12.0	2.2	0	1.2	**OJUM-03-20**
25	39.8	39.0	12.5	2.86	34.4	44.1	1.85	57.8	39.0	14.5	3.0	-1.5 (-4.3°)	1.5	**OJUM-03-25**
30	46.7	46.0	15.0	2.86	41.4	52.1	1.85	67.8	57.0	16.6	3.0	2 (4.9°)	2	**OJUM-03-30**
40	61.7	61.0	20.0	2.86	56.4	60.9	2.15	79.8	100.0	21.0	3.0	1.5 (2.8°)	2	**OJUM-03-40**
50	74.7	74.0	25.0	2.86	69.4	78.0	2.65	99.8	157.0	25.5	5.0	2.5 (3.8°)	2	**OJUM-03-50**

Technical data

Part No.	Housing hole	d1 tolerance78)	Fmax. dynamic82)			Fmax. static82)			Weight
	Ø H7		p = 5MPa			p = 35MPa			
	[mm]		0°	90°	180°	0°	90°	180°	[g]
OJUM-03-10	19	+0.030 +0.088	725	500	196	5,075	3,500	1,370	10
OJUM-03-12	22	+0.030 +0.088	960	635	240	6,720	4,445	1,680	13
OJUM-03-16	26	+0.030 +0.088	1,440	990	396	10,080	6,943	2,772	19
OJUM-03-20	32	+0.030 +0.091	2,250	1,800	900	15,750	12,600	6,300	38
OJUM-03-25	40	+0.030 +0.091	3,625	2.953	1,523	25,375	20,670	10,658	63
OJUM-03-30	47	+0.040 +0.110	5,100	4,250	2,278	35,700	29,735	15,946	119
OJUM-03-40	62	+0.040 +0.115	8,000	6,810	3,800	56,000	47,660	26,600	250
OJUM-03-50	75	+0.050 +0.150	12,500	10,750	6,125	87,500	75,265	42,875	431

Can be combined with:


RQA-03


RTA-03


RGA-03


RGAS-03

Available with drylin® liners (optional: J200/A180):


J

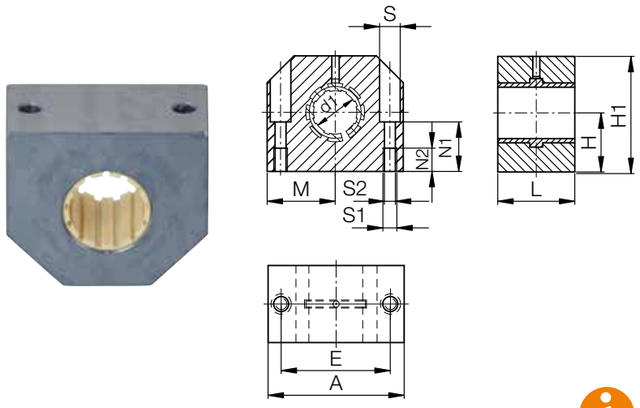

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Notes

drylin® R pillow blocks | Product range

Closed, anodised aluminium housing, short design



Order key

Type						Size
R	J	U	M	-	05	- 10
Closed	iglidur® J	Liner	Metric	Compact		Inner Ø d1

78) According to igus® testing method ▶ Page 260
81) Ø < 10mm use press-fitted sleeve bearings
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	H	H1	A	M	E	S	S1	S2	N1	N2	L	Part No.
	+0.01 -0.014				±0.15							
8	14	27	32	16.0	23	6.0	M4	3.4	13	9	24	**RJZM-05-08**[81]
10	16	33	40	20.0	29	8.0	M5	4.3	16	11	26	**RJUM-05-10**
12	17	33	40	20.0	29	8.0	M5	4.3	16	11	28	**RJUM-05-12**
16	19	38	45	22.5	34	8.0	M5	4.3	18	11	30	**RJUM-05-16**
20	23	45	53	26.5	40	9.5	M6	5.3	22	13	30	**RJUM-05-20**
25	27	54	62	31.0	48	11.0	M8	6.6	26	18	40	**RJUM-05-25**
30	30	60	67	33.5	53	11.0	M8	6.6	29	18	50	**RJUM-05-30**
40	39	76	87	43.5	69	15.0	M10	8.4	38	22	60	**RJUM-05-40**
50	47	92	103	51.5	82	18.0	M12	10.5	46	26	70	**RJUM-05-50**

Technical data

Part No.	d1 tolerance[78]	Fmax. dynamic[82] p = 5MPa	Fmax. static[82] p = 35MPa	Weight
	[mm]	[N]	[N]	[g]
RJZM-05-08[81]	+0.032 +0.070	960	6,720	46
RJUM-05-10	+0.030 +0.088	650	4,550	71
RJUM-05-12	+0.030 +0.088	840	5,880	78
RJUM-05-16	+0.030 +0.088	1,200	8,400	106
RJUM-05-20	+0.030 +0.091	1,500	10,500	132
RJUM-05-25	+0.030 +0.091	2,500	17,500	253
RJUM-05-30	+0.040 +0.110	3,750	26,250	374
RJUM-05-40	+0.040 +0.115	6,000	42,000	713
RJUM-05-50	+0.050 +0.150	8,750	61,250	1,168

Available with drylin® liners (optional: J200/A180):



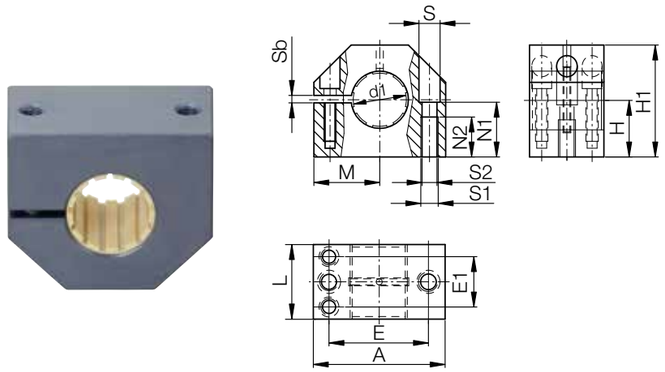
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EN 09/2023

drylin® R shaft guides

drylin® R pillow blocks | Product range

Adjustable anodised aluminium housing, short design



● With adjustable clearance

Order key

Type							Size
R	J	U	M	E	- 05	- 12	
Closed	iglidur® J	Liner	Metric	Adjustable	Compact		Inner Ø d1

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	H	H1	A	M	E	E1	S	S1	S2	Sb	N1	N2	L	Part No.
	+0.01 -0.014				±0.15	±0.15								
12	17	33	40	20.0	29	18.0	8.0	4.3	M5	2	16	11	28	**RJUME-05-12**
16	19	38	45	22.5	34	19.0	8.0	4.3	M5	2	18	11	30	**RJUME-05-16**
20	23	45	53	26.5	40	20.0	9.5	5.3	M6	2	22	13	30	**RJUME-05-20**
25	27	54	62	31.0	48	25.5	11.0	6.6	M8	2	26	18	40	**RJUME-05-25**
30	30	60	67	33.5	53	30.5	11.0	6.6	M8	2	29	18	50	**RJUME-05-30**
40	39	76	87	43.5	69	36.0	15.0	8.4	M10	2	38	22	60	**RJUME-05-40**
50	47	92	103	51.5	82	44.0	18.0	10.5	M12	2	46	26	70	**RJUME-05-50**

Technical data

Part No.	d1 tolerance[78]	Fmax. dynamic[82] p = 5MPa	Fmax. static[82] p = 35MPa	Weight
	[mm]	[N]	[N]	[g]
RJUME-05-12	adjustable	840	5,880	78
RJUME-05-16	adjustable	1,200	8,400	106
RJUME-05-20	adjustable	1,500	10,500	132
RJUME-05-25	adjustable	2,500	17,500	253
RJUME-05-30	adjustable	3,750	26,250	374
RJUME-05-40	adjustable	6,000	42,000	713
RJUME-05-50	adjustable	8,750	61,250	1,168

Available with drylin® liners (optional: J200/A180):



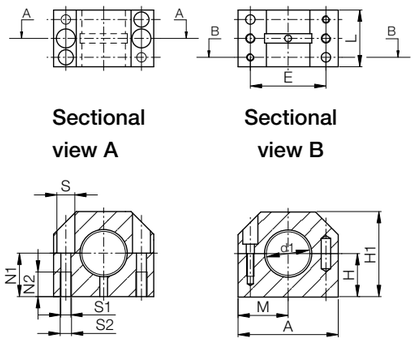
J E7 X

EN 09/2023

drylin® R pillow blocks | Product range

Split anodised aluminium housing, screwed, short design





Order key

Type						Size
T	J	U	M	-	05	- 16
Splittable	iglidur® J	Liner	Metric	Compact		Inner Ø d1

- Replacement of the liner without removing the shaft

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	H ±0.02	H1	A	M	E ±0.15	S	S1	S2	N1	N2	L	Part No.
16	19	38	45	22.5	34	8.0	M5	4.3	18	11	30	**TJUM-05-16**
20	23	45	53	26.5	40	9.5	M6	5.3	22	13	30	**TJUM-05-20**
25	27	54	62	31.0	48	11.0	M8	6.6	26	18	40	**TJUM-05-25**
30	30	60	67	33.5	53	11.0	M8	6.6	29	18	50	**TJUM-05-30**
40	39	76	87	43.5	69	15.0	M10	8.4	38	22	60	**TJUM-05-40**

Technical data

Part No.	d1 tolerance78)	Fmax. dynamic82) p = 5MPa	Fmax. static82) p = 35MPa	Weight
	[mm]	[N]	[N]	[g]
TJUM-05-16	+0.030 +0.120	1,200	8,400	105
TJUM-05-20	+0.030 +0.120	1,500	10,500	137
TJUM-05-25	+0.030 +0.120	2,500	17,500	253
TJUM-05-30	+0.040 +0.135	3,750	26,250	377
TJUM-05-40	+0.040 +0.135	6,000	42,000	720

Available with drylin® liners (optional: J200/A180):


J


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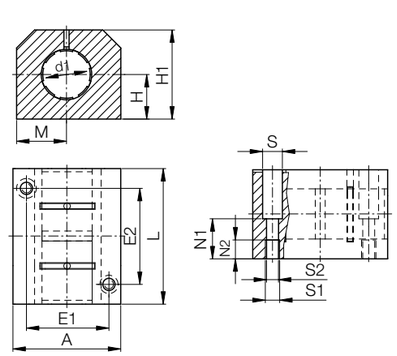

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EN 09/2023

drylin® R pillow blocks | Product range

Closed, anodised aluminium housing, tandem design





Order key

Type							Size
R	J	U	M	T	-	05	- 12
Closed	iglidur® J	Liner	Metric	Tandem	Compact		Inner Ø d1

- Tandem design
- Equipped with two liners to increase the guide length

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	H +0.01 -0.014	H1	A	M	E1 ±0.15	E2 ±0.15	S	S1	S2	N1	N2	L	Part No.
12	17	33	40	20	29	35	8.0	M5	4.3	16.0	11	60	**RJUMT-05-12**
16	19	38	45	22.5	34	40	8.0	M5	4.3	18.0	11	65	**RJUMT-05-16**
20	23	45	53	26.5	40	45	9.5	M6	5.3	22.0	13	65	**RJUMT-05-20**
25	27	54	62	31	48	55	11.0	M8	6.6	26.0	18	85	**RJUMT-05-25**
30	30	60	67	33.5	53	70	11.0	M8	6.6	29.0	18	105	**RJUMT-05-30**
40	39	76	87	43.5	69	85	15.0	M10	8.4	38.0	22	125	**RJUMT-05-40**
50	47	92	103	51.5	82	100	18.0	M12	10.5	46.0	26	145	**RJUMT-05-50**

Technical data

Part No.	d1 tolerance78)	Fmax. dynamic82) p = 5MPa	Fmax. static82) p = 35MPa	Weight
	[mm]	[N]	[N]	[g]
RJUMT-05-12	+0.030 +0.088	840	5,880	170
RJUMT-05-16	+0.030 +0.088	1,200	8,400	250
RJUMT-05-20	+0.030 +0.091	1,500	10,500	300
RJUMT-05-25	+0.030 +0.091	2,500	17,500	550
RJUMT-05-30	+0.040 +0.110	3,750	26,250	750
RJUMT-05-40	+0.040 +0.115	6,000	42,000	1,500
RJUMT-05-50	+0.050 +0.150	8,750	61,250	2,400

Available with drylin® liners (optional: J200/A180):


J


E7

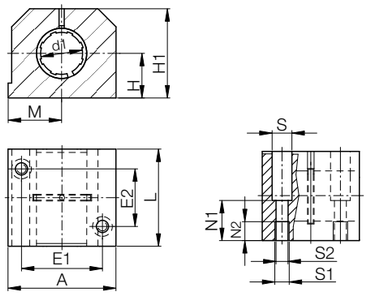

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EN 09/2023

drylin® R pillow blocks | Product range

Closed, anodised aluminium housing, long design





Order key

Type						Size
R	J	U	M	-	06	- 12
Closed	iglidur® J	Liner	Metric		Long design	Inner Ø d1

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	H	H1	A	M	E1	E2	S	S1	S2	N1	N2	L	Part No.
	+0.01 -0.014			±0.02	±0.15	±0.15							
12	18	35	43	21.5	32	23	8.0	M5	4.3	16.5	11	39	**RJUM-06-12**
16	22	42	53	26.5	40	26	10.0	M6	5.3	21.0	13	43	**RJUM-06-16**
20	25	50	60	30.0	45	32	11.0	M8	6.6	24.0	18	54	**RJUM-06-20**
25	30	60	78	39.0	60	40	15.0	M10	8.4	29.0	22	67	**RJUM-06-25**
30	35	70	87	43.5	68	45	15.0	M10	8.4	34.0	22	79	**RJUM-06-30**
40	45	90	108	54.0	86	58	18.0	M12	10.5	44.0	26	91	**RJUM-06-40**
50	50	105	132	66.0	108	50	20.0	M16	13.5	49.0	34	113	**RJUM-06-50**

Technical data

Part No.	d1 tolerance78)	Fmax. dynamic82) p = 5MPa	Fmax. static82) p = 35MPa	Weight
	[mm]	[N]	[N]	[g]
RJUM-06-12	+0.030 +0.088	960	6,720	121
RJUM-06-16	+0.030 +0.088	1,440	10,080	211
RJUM-06-20	+0.030 +0.091	2,250	15,750	323
RJUM-06-25	+0.030 +0.091	3,625	25,375	651
RJUM-06-30	+0.040 +0.110	5,100	35,700	1,050
RJUM-06-40	+0.040 +0.115	8,000	56,000	1,820
RJUM-06-50	+0.050 +0.150	12,500	87,500	3,250

Available with drylin® liners (optional: J200/A180):


J


E7


X

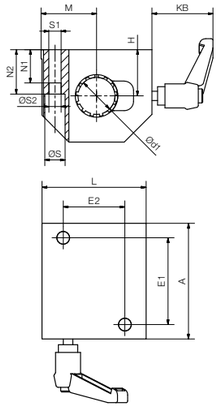
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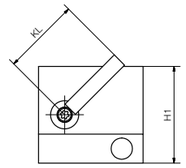
drylin® R shaft guides

drylin® R pillow blocks | Product range

Closed, anodised aluminium housing, long design with manual clamp







Order key

Type						Size	Version
R	J	U	M	-	06	- 12	-HK
Closed	iglidur® J	Liner	Metric		Long design	Inner Ø d1	Manual clamp

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	H	H1	A	M	E1	E2	S	S1	S2	N1	N2	W	L	KL	KB	Part No.
	+0.01; -0.014			±0.02	±0.15	±0.15							-1			
12	18	35	43	21.5	32	23	8	M5	4.3	16.5	11	10.2	39	40	33	**RJUM-06-12-HK**
16	22	42	53	26.5	40	26	10	M6	5.3	21	13	11.6	43	40	33	**RJUM-06-16-HK**
20	25	50	60	30	45	32	11	M8	6.6	24	18	12	54	40	33	**RJUM-06-20-HK**
25	30	60	78	39	60	40	15	M10	8.4	29	22	14.5	67	65	46	**RJUM-06-25-HK**
30	35	70	87	43.5	68	45	15	M10	8.4	34	22	16.6	79	65	46	**RJUM-06-30-HK**
40	45	90	108	54	86	58	18	M12	10.5	44	26	21	91	65	46	**RJUM-06-40-HK**
50	50	105	132	66	108	50	20	M16	13.5	49	34	25.5	113	65	46	**RJUM-06-50-HK**

Technical data

Part No.	d1 tolerance78)	Fmax. dynamic82) p = 5MPa	Fmax. static82) p = 35MPa	Clamp force axial	Weight
		0°	0°	[N]	[g]
RJUM-06-12-HK	+0.030 +0.088	960	6720	400	0.098
RJUM-06-16-HK	+0.030 +0.088	1440	10080	400	0.164
RJUM-06-20-HK	+0.030 +0.091	2250	15750	400	0.275
RJUM-06-25-HK	+0.030 +0.091	3625	25375	1,000	0.544
RJUM-06-30-HK	+0.040 +0.110	5100	35700	1,000	0.832
RJUM-06-40-HK	+0.040 +0.115	8000	56000	1,000	1.513
RJUM-06-50-HK	+0.050 +0.150	12500	87500	1,000	2.568

Available with drylin® liners (optional: J200/A180):


J


E7

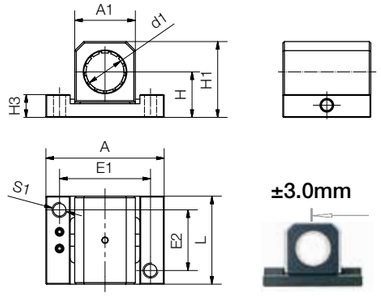

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drylin® R pillow blocks | Product range

Closed, anodised aluminium, floating pillow blocks





Order key

Type							Size	Version
R	J	U	M	-06-			12	-LL
Closed	iglidur® J	Liner	Metric	Long design	Inner Ø d1	Floating bearing		

- Compensation of parallelism errors up to 6mm
- Quick assembly even on raw profiles

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187
Floating bearing ▶ Page 186

Dimensions [mm]

d1	H	H1	A	E1	E2	S1	L	A1	H3	Part No.
	±0.01			±0.15	±0.15					
12	18	28	43	32	23	M5	32	20	11	**RJUM-06-12-LL**
16	22	35	53	40	26	M6	36	26	11	**RJUM-06-16-LL**
20	25	41	60	45	32	M8	45	32	12.5	**RJUM-06-20-LL**
25	30	50	78	60	40	M10	58	40	15	**RJUM-06-25-LL**
30	35	59	87	68	45	M10	68	48	15	**RJUM-06-30-LL**
40	45	76	108	86	58	M12	80	62	20	**RJUM-06-40-LL**
50	50	89	132	108	50	M16	100	78	24	**RJUM-06-50-LL**

Technical data

Part No.	d1 tolerance78)	Fmax. static or dynamic82)	Weight
	[mm]	[N]	[g]
RJUM-06-12-LL	+0.030 +0.088	560	50
RJUM-06-16-LL	+0.030 +0.088	920	80
RJUM-06-20-LL	+0.030 +0.091	2,100	130
RJUM-06-25-LL	+0.030 +0.091	3,550	280
RJUM-06-30-LL	+0.040 +0.110	5,300	430
RJUM-06-40-LL	+0.040 +0.115	8,000	850
RJUM-06-50-LL	+0.050 +0.150	12,500	1,550

Available with drylin® liners (optional: J200/A180):


J


E7

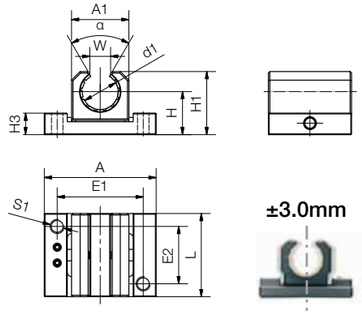

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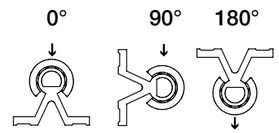
igus EN 09/2023

drylin® R pillow blocks | Product range

Open, anodised aluminium, floating pillow blocks







Order key

Type							Size	Version
O	J	U	M	-06-			12	-LL
Open	iglidur® J	Liner	Metric	Long design	Inner Ø d1	Floating bearing		

- Compensation of parallelism errors up to 6mm

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187
Floating bearing ▶ Page 186

Dimensions [mm]

d1	H	H1	A	E1	E2	S1	L	A1	H3	W	α	Part No.
	±0.01			±0.15	±0.15					-1	[°]	
12	18	24.5	43	32	23	M5	32	20	11	10.2	90	**OJUM-06-12-LL**
16	22	30.5	53	40	26	M6	36	26	11	11.6	90	**OJUM-06-16-LL**
20	25	37.0	60	45	32	M8	45	32	12.5	12.0	60	**OJUM-06-20-LL**
25	30	44.0	78	60	40	M10	58	40	15	14.5	60	**OJUM-06-25-LL**
30	35	52.5	87	68	45	M10	68	48	15	16.8	60	**OJUM-06-30-LL**
40	45	69.0	108	86	58	M12	80	62	20	21.0	60	**OJUM-06-40-LL**
50	50	80.0	132	108	50	M16	100	78	24	25.5	60	**OJUM-06-50-LL**

Technical data

Part No.	d1 tolerance78)	Fmax. static or dynamic82)	Fmax. static82) with load at 180°	Weight
	[mm]	[N]	[N]	[g]
OJUM-06-12-LL	+0.030 +0.088	560	240	40
OJUM-06-16-LL	+0.030 +0.088	920	400	70
OJUM-06-20-LL	+0.030 +0.091	2,100	900	115
OJUM-06-25-LL	+0.030 +0.091	3,550	1,520	240
OJUM-06-30-LL	+0.040 +0.110	5,100	2,280	370
OJUM-06-40-LL	+0.040 +0.115	8,000	3,800	750
OJUM-06-50-LL	+0.050 +0.150	12,500	6,100	1,400

Available with drylin® liners (optional: J200/A180):


J


E7

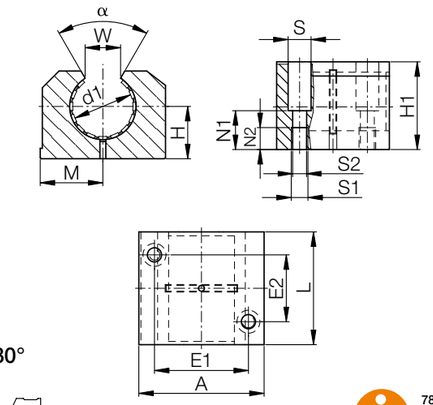

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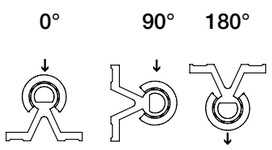
EN 09/2023 igus

drylin® R pillow blocks | Product range

Open, anodised aluminium housing, long design







Order key

Type						Size
O	J	U	M	-	06	- 12
Open	iglidur® J	Liner	Metric		Long design	Inner Ø d1

[78] According to igus® testing method ▶ Page 260
[82] Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	H	H1	A	M	E1	E2	S	S1	S2	N1	N2	W	α	L	Part No.
	+0.01; -0.014			±0.02	±0.15	±0.15						-1	[°]		
12	18	28	43	21.5	32	23	8.0	M5	4.3	16.5	11	10.2	78	39	**OJUM-06-12**
16	22	35	53	26.5	40	26	10.0	M6	5.3	21.0	13	11.6	78	43	**OJUM-06-16**
20	25	42	60	30.0	45	32	11.0	M8	6.6	24.0	18	12.0	60	54	**OJUM-06-20**
25	30	51	78	39.0	60	40	15.0	M10	8.4	29.0	22	14.5	60	67	**OJUM-06-25**
30	35	60	87	43.5	68	45	15.0	M10	8.4	34.0	22	16.6	57	79	**OJUM-06-30**
40	45	77	108	54.0	86	58	18.0	M12	10.5	44.0	26	21.0	56	91	**OJUM-06-40**
50	50	88	132	66.0	108	50	20.0	M16	13.5	49.0	34	25.5	54	113	**OJUM-06-50**

Technical data

Part No.	d1 tolerance[78]	Fmax. dynamic[82] p = 5MPa			Fmax. static[82] p = 35MPa			Weight
		0°	90°	180°	0°	90°	180°	[g]
OJUM-06-12	+0.030 +0.088	960	635	240	6,720	4,445	1,680	95
OJUM-06-16	+0.030 +0.088	1440	990	396	10,080	6,943	2,772	158
OJUM-06-20	+0.030 +0.091	2250	1,800	900	15,750	12,600	6,300	266
OJUM-06-25	+0.030 +0.091	3625	2.953	1,523	25,375	20,670	10,658	530
OJUM-06-30	+0.040 +0.110	5100	4,250	2,278	35,700	29,735	15,946	818
OJUM-06-40	+0.040 +0.115	8000	6,810	3,800	56,000	47,660	26,600	1,485
OJUM-06-50	+0.050 +0.150	12,500	10,750	6,125	87,500	75,265	42,875	2,750

Available with drylin® liners (optional: J200/A180):


J


E7


X

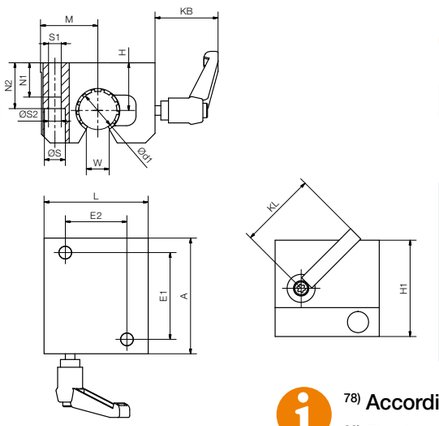
EN 09/2023

drylin® R shaft guides

drylin® R pillow blocks | Product range

Open, anodised aluminium housing, long design with manual clamp





Order key

Type						Size	Version
O	J	U	M	-	06	- 12	-HK
Open	iglidur® J	Liner	Metric		Long design	Inner Ø d1	Manual clamp

[78] According to igus® testing method ▶ Page 260
[82] Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	H	H1	A	M	E1	E2	S	S1	S2	N1	N2	W	L	KL	KB	Part No.
	+0.01; -0.014			±0.02	±0.15	±0.15						-1				
12	18	28	43	21.5	32	23	8	M5	4.3	16.5	11	10.2	39	40	33	**OJUM-06-12-HK**
16	22	35	53	26.5	40	26	10	M6	5.3	21	13	11.6	43	40	33	**OJUM-06-16-HK**
20	25	42	60	30.0	45	32	11	M8	6.6	24	18	12.0	54	40	33	**OJUM-06-20-HK**
25	30	51	78	39.0	60	40	15	M10	8.4	29	22	14.5	67	65	46	**OJUM-06-25-HK**
30	35	60	87	43.5	68	45	15	M10	8.4	34	22	16.6	79	65	46	**OJUM-06-30-HK**
40	45	77	108	54.0	86	58	18	M12	10.5	44	26	21.0	91	65	46	**OJUM-06-40-HK**
50	50	88	132	66.0	108	50	20	M16	13.5	49	34	25.5	113	65	46	**OJUM-06-50-HK**

Technical data

Part No.	d1 tolerance[78]	Fmax. dynamic[82] p = 5MPa			Fmax. static[82] p = 35MPa			Clamp force axial	Weight
		0°	90°	180°	0°	90°	180°	[N]	[g]
OJUM-06-12-HK	+0.030 +0.088	960	635	240	6720	4445	1680	400	0.098
OJUM-06-16-HK	+0.030 +0.088	1440	990	396	10080	6943	2772	400	0.164
OJUM-06-20-HK	+0.030 +0.091	2250	1800	900	15750	12600	6300	400	0.275
OJUM-06-25-HK	+0.030 +0.091	3625	2953	1523	25375	20670	10658	1,000	0.544
OJUM-06-30-HK	+0.040 +0.110	5100	4250	2278	35700	29735	15946	1,000	0.832
OJUM-06-40-HK	+0.040 +0.115	8000	6810	3800	56000	47660	26600	1,000	1.513
OJUM-06-50-HK	+0.050 +0.150	12500	10750	6125	87500	75265	42875	1,000	2.568

Available with drylin® liners (optional: J200/A180):


J


E7

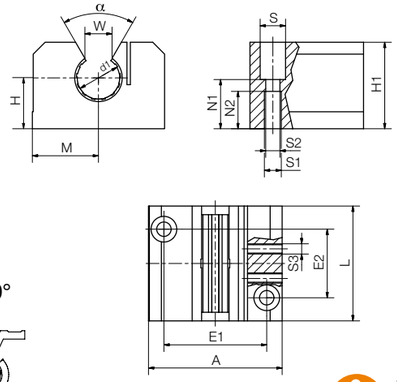

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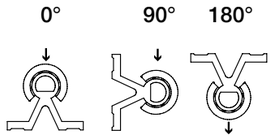
EN 09/2023

drylin® R pillow blocks | Product range

Open, anodised aluminium housing, long design, adjustable







- With two set screws (DIN 913), clearance adjustment possible

Order key

Type							Size
O	J	U	M	E	-	06-12	

Open	iglidur® J	Liner	Metric	Adjustable	Long design	Inner Ø d1

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	H	H1	A	M	E1	E2	S	S1	S2	S3	N1	N2	W	α	L	Part No.
	+0.01; -0.014			±0.02	±0.15	±0.15							-1	[°]		
12	18	28	43	21.5	32	23	8.0	M5	4.3	M4	16.5	11	10.2	78	39	**OJUME-06-12**
16	22	35	53	26.5	40	26	10.0	M6	5.3	M4	21.0	13	11.6	78	43	**OJUME-06-16**
20	25	42	60	30.0	45	32	11.0	M8	6.6	M5	24.0	18	12.0	60	54	**OJUME-06-20**
25	30	51	78	39.0	60	40	15.0	M10	8.4	M6	29.0	22	14.5	60	67	**OJUME-06-25**
30	35	60	87	43.5	68	45	15.0	M10	8.4	M6	34.0	22	16.6	57	79	**OJUME-06-30**
40	45	77	108	54.0	86	58	18.0	M12	10.5	M8	44.0	26	21.0	56	91	**OJUME-06-40**
50	50	88	132	66.0	108	50	20.0	M16	13.5	M8	49.0	34	25.5	54	113	**OJUME-06-50**

Technical data

Part No.	d1 tolerance78)	Fmax. dynamic82) p = 5MPa			Fmax. static82) p = 35MPa			Weight
		0°	90°	180°	0°	90°	180°	[g]
OJUME-06-12	adjustable	960	635	240	6,720	4,445	1,680	100
OJUME-06-16	adjustable	1,440	990	396	10,080	6,943	2,772	160
OJUME-06-20	adjustable	2,250	1,800	900	15,750	12,600	6,300	270
OJUME-06-25	adjustable	3,625	2.953	1,523	25,375	20,670	10,658	530
OJUME-06-30	adjustable	5,100	4,250	2,278	35,700	29,735	15,946	820
OJUME-06-40	adjustable	8,000	6,810	3,800	56,000	47,660	26,600	1,490
OJUME-06-50	adjustable	12,500	10,750	6,125	87,500	75,265	42,875	2,750

Available with drylin® liners (optional: J200/A180):


J


E7


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drylin® R shaft guides

drylin® R pillow blocks | Product range New

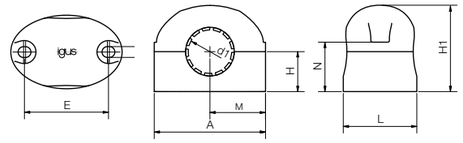
Split linear housings made of solid plastic, econ

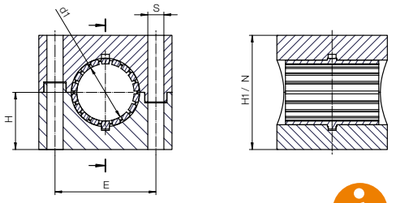


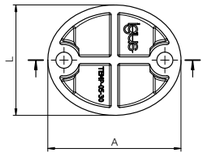
Installation size 12-20



Installation size 25/30







Order key

Type							Size
R	J	U	M	P	-	05-12	

Closed	iglidur® J	Liner	Metric	Polymer	Compact	Inner Ø d1

78) According to igus® testing method ▶ Page 260
82) Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

- Linear housings made of robust lightweight igus® polymers
- Suitable for all type 02 liners (compact bearing)

Dimensions [mm]

d1	H	H1	A	M	E	S	N	L	Screws	Part No.
			min.	max.	min.	max.				
12	15	33	40	20.0	29	4.2	18.5	32	M4	**RJUMP-05-12** New
16	17	36	45	22.5	34	4.2	20.5	35	M4	**RJUMP-05-16** New
20	19	41	53	26.5	40	5.2	23.5	35	M5	**RJUMP-05-20** New
25	27	54	65	–	48	8.5 -0.1	54.0	45	M8	**RJUMP-05-25** New
30	30	60	70	–	53	8.5 -0.1	60.0	58	M8	**RJUMP-05-30** New

Technical data

Part No.	d1 tolerance78)	Permissible loads	Max. T.179)	Weight
	[mm]	[N]	[Nm]	[g]
RJUMP-05-12 New	+0.0 / +0.1	160	0.5	78
RJUMP-05-16 New	+0.0 / +0.1	240	1.0	106
RJUMP-05-20 New	+0.1 / +0.2	300	2.0	132
RJUMP-05-25 New	+0.1 / +0.2	400	10.0	90
RJUMP-05-30 New	+0.1 / +0.2	500	10.0	121

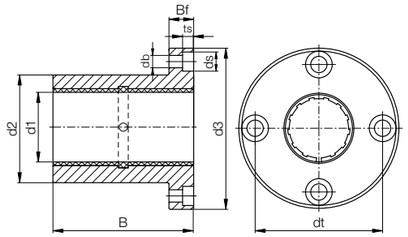
179) Recommended fastening screw tightening torque; screw lock recommended

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drylin® R flanged linear plain bearings | Product range

Closed, anodised aluminium adapters, round flange





[78] According to igus® testing method ▶ Page 260
[82] Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Order key

Type						Size	
F	J	U	M	-	01	- 10	- LL
With flange	iglidur® J	Liner	Metric		Round design	Inner Ø d1	

Option:
LL: Floating bearing

Dimensions [mm]

d1	d2 h7	d3	dt	B	Bf	ts	db	ds
8.0	16	32	24	25	8	3.1	3.5	6.0
10.0	19	39	29	29	9	4.1	4.5	7.5
10.4	19	39	29	29	9	4.1	4.5	7.5
12.0	22	42	32	32	9	4.1	4.5	7.5
12.4	22	42	32	32	9	4.1	4.5	7.5
16.0	26	46	36	36	9	4.1	4.5	7.5
16.4	26	46	36	36	9	4.1	4.5	7.5
20.0	32	54	43	45	11	5.1	5.5	9.0
20.5	32	54	43	45	11	5.1	5.5	9.0
25.0	40	62	51	58	11	5.1	5.5	9.0
25.5	40	62	51	58	11	5.1	5.5	9.0
30.0	47	76	62	68	14	6.1	6.6	11.0
30.6	47	76	62	68	14	6.1	6.6	11.0
40.0	62	98	80	80	18	8.1	9.0	14.0
50.0	75	112	94	100	18	8.1	9.0	14.0

Technical data

d1 tolerance[78] [mm]	Fmax. dynamic[82] p = 5MPa [N]	Fmax. static[82] p = 35MPa [N]	Weight [g]	Part No.
+0.032 +0.070	960	6,720	20	**FJZM-01-08**
+0.030 +0.088	725	5,075	32	**FJUM-01-10**
+0.030 +0.088	725	5,075	32	**FJUM-01-10-LL**
+0.030 +0.088	960	6,720	42	**FJUM-01-12**
+0.030 +0.088	960	6,720	42	**FJUM-01-12-LL**
+0.030 +0.088	1,440	10,080	51	**FJUM-01-16**
+0.030 +0.088	1,440	10,080	51	**FJUM-01-16-LL**
+0.030 +0.091	2,250	15,750	88	**FJUM-01-20**
+0.030 +0.091	2,250	15,750	88	**FJUM-01-20-LL**
+0.030 +0.091	3,625	25,375	152	**FJUM-01-25**
+0.030 +0.091	3,625	25,375	152	**FJUM-01-25-LL**
+0.040 +0.110	5,100	35,700	266	**FJUM-01-30**
+0.040 +0.110	5,100	35,700	266	**FJUM-01-30-LL**
+0.040 +0.115	8,000	56,000	552	**FJUM-01-40**
+0.050 +0.150	12,500	87,500	853	**FJUM-01-50**

Available with drylin® liners (optional: J200/A180):


J

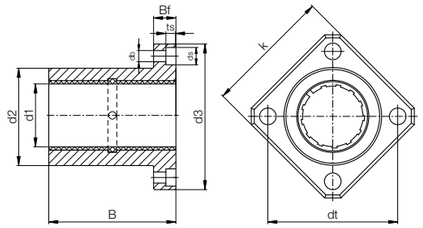

E7


X

drylin® R flanged linear plain bearings | Product range

Closed, anodised aluminium adapters, square flange





[78)] According to igus® testing method ▶ Page 260
[82)] Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	d2 h7	d3	dt ±0.15	k ±0.15	B	Bf	ts	db	ds
8.0	16	32	24	25	25	8	3.1	3.5	6.0
10.0	19	39	29	30	29	9	4.1	4.5	7.5
10.4	19	39	29	30	29	9	4.1	4.5	7.5
12.0	22	42	32	32	32	9	4.1	4.5	7.5
12.4	22	42	32	32	32	9	4.1	4.5	7.5
16.0	26	46	36	35	36	9	4.1	4.5	7.5
16.4	26	46	36	35	36	9	4.1	4.5	7.5
20.0	32	54	43	42	45	11	5.1	5.5	9.0
20.5	32	54	43	42	45	11	5.1	5.5	9.0
25.0	40	62	51	50	58	11	5.1	5.5	9.0
25.5	40	62	51	50	58	11	5.1	5.5	9.0
30.0	47	76	62	60	68	14	6.1	6.6	11.0
30.6	47	76	62	60	68	14	6.1	6.6	11.0
40.0	62	98	80	75	80	18	8.1	9.0	14.0
50.0	75	112	94	88	100	18	8.1	9.0	14.0

Available with drylin® liners (optional: J200/A180):


J


E7


X

drylin® R shaft guides
drylin® R flanged linear plain bearings | Product range

Order key

Type						Size	
F	J	U	M	-02-	10	-	LL
With flange	iglidur® J	Liner	Metric	Square design	Inner Ø d1		

Option:
LL: Floating bearing

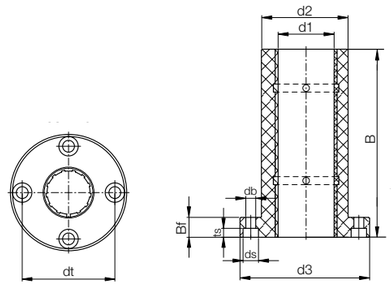
Technical data

d1 tolerance[78)] [mm]	Fmax. static or dynamic[82)] [N]	Fmax. static[82)] with load at 180° [N]	Weight [g]	Part No.
+0.032 +0.070	960	6,720	17	**FJZM-02-08[82)]**
+0.030 +0.088	725	5,075	25	**FJUM-02-10**
+0.030 +0.088	725	5,075	25	**FJUM-02-10-LL**
+0.030 +0.088	960	6,720	32	**FJUM-02-12**
+0.030 +0.088	960	6,720	32	**FJUM-02-12-LL**
+0.030 +0.088	1,440	10,080	41	**FJUM-02-16**
+0.030 +0.088	1,440	10,080	41	**FJUM-02-16-LL**
+0.030 +0.091	2,250	15,750	73	**FJUM-02-20**
+0.030 +0.091	2,250	15,750	73	**FJUM-02-20-LL**
+0.030 +0.091	3,625	25,375	135	**FJUM-02-25**
+0.030 +0.091	3,625	25,375	135	**FJUM-02-25-LL**
+0.040 +0.110	5,100	35,700	228	**FJUM-02-30**
+0.040 +0.110	5,100	35,700	228	**FJUM-02-30-LL**
+0.040 +0.115	8,000	56,000	454	**FJUM-02-40**
+0.050 +0.150	12,500	87,500	735	**FJUM-02-50**

drylin® R flanged linear plain bearings | Product range

Closed, anodised aluminium adapters, round flange, tandem design





● Equipped with two liners to increase the guide length

78) According to igus® testing method ▶ Page 260
85) Fitted with two pieces of JSM-0810-16
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	d2 h7	d3	dt	B	Bf	ts	db	ds
8.0	16	32	24	45	8	3.1	3.5	6.0
10.0	19	39	29	52	9	4.1	4.5	7.5
10.4	19	39	29	52	9	4.1	4.5	7.5
12.0	22	42	32	57	9	4.1	4.5	7.5
12.4	22	42	32	57	9	4.1	4.5	7.5
16.0	26	46	36	70	9	4.1	4.5	7.5
16.4	26	46	36	70	9	4.1	4.5	7.5
20.0	32	54	43	80	11	5.1	5.5	9.0
20.5	32	54	43	80	11	5.1	5.5	9.0
25.0	40	62	51	112	11	5.1	5.5	9.0
25.5	40	62	51	112	11	5.1	5.5	9.0
30.0	47	76	62	123	14	6.1	6.6	11.0
30.6	47	76	62	123	14	6.1	6.6	11.0
40.0	62	98	80	151	18	8.1	9.0	14.0
50.0	75	112	94	192	18	8.1	9.0	14.0

Available with drylin® liners (optional: J200/A180):


J


E7


X

drylin® R shaft guides

drylin® R flanged linear plain bearings | Product range

Order key

Type						Size
F	J	U	M	T	-	01-10-LL
With flange	iglidur® J	Liner	Metric	Tandem	Round design	Inner Ø d1

Option:
LL: Floating bearing

Technical data

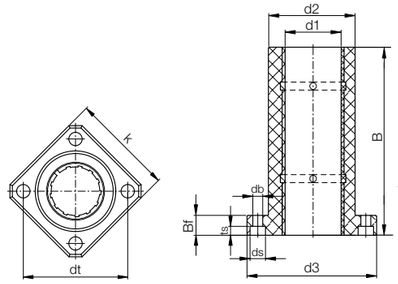
Dimension nominal diameter [mm]	d1 tolerance[78] [mm]	Guide length [mm]	Projected bearing surface [mm²]	Weight [g]	Part No.
8	+0.032 +0.070	45	256	27.13	**FJZMT-01-08[85]**
10	+0.030 +0.088	52	250	43.75	**FJUMT-01-10**
10	+0.030 +0.088	52	250	43.75	**FJUMT-01-10-LL**
12	+0.030 +0.088	57	324	57.00	**FJUMT-01-12**
12	+0.030 +0.088	57	324	57.00	**FJUMT-01-12-LL**
16	+0.030 +0.088	70	464	78.28	**FJUMT-01-16**
16	+0.030 +0.088	70	464	78.28	**FJUMT-01-16-LL**
20	+0.030 +0.091	80	580	126.42	**FJUMT-01-20**
20	+0.030 +0.091	80	580	126.42	**FJUMT-01-20-LL**
25	+0.030 +0.091	112	975	248.85	**FJUMT-01-25**
25	+0.030 +0.091	112	975	248.85	**FJUMT-01-25-LL**
30	+0.040 +0.110	123	1,470	388.37	**FJUMT-01-30**
30	+0.040 +0.110	123	1,470	388.37	**FJUMT-01-30-LL**
40	+0.040 +0.115	151	2,360	835.00	**FJUMT-01-40**
50	+0.050 +0.150	192	3,450	1,352.30	**FJUMT-01-50**

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drylin® R flanged linear plain bearings | Product range

Closed, anodised aluminium adapters, square flange, tandem design





● Equipped with two liners to increase the guide length

78) According to igus® testing method ▶ Page 260
85) Fitted with two pieces of JSM-0810-16
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	d2 h7	d3	dt	k	B	Bf	ts	db	ds
8.0	16	32	24	25	45	8	3.1	3.5	6.0
10.0	19	39	29	30	52	9	4.1	4.5	7.5
10.4	19	39	29	30	52	9	4.1	4.5	7.5
12.0	22	42	32	32	57	9	4.1	4.5	7.5
12.4	22	42	32	32	57	9	4.1	4.5	7.5
16.0	26	46	36	35	70	9	4.1	4.5	7.5
16.4	26	46	36	35	70	9	4.1	4.5	7.5
20.0	32	54	43	42	80	11	5.1	5.5	9.0
20.5	32	54	43	42	80	11	5.1	5.5	9.0
25.0	40	62	51	50	112	11	5.1	5.5	9.0
25.5	40	62	51	50	112	11	5.1	5.5	9.0
30.0	47	76	62	60	123	14	6.1	6.6	11.0
30.6	47	76	62	60	123	14	6.1	6.6	11.0
40.0	62	98	80	75	151	18	8.1	9.0	14.0
50.0	75	112	94	88	192	18	8.1	9.0	14.0

Available with drylin® liners (optional: J200/A180):


J


E7


X

drylin® R shaft guides

drylin® R flanged linear plain bearings | Product range

Order key

Type						Size
F	J	U	M	T	-02-	10-LL
With flange	iglidur® J	Liner	Metric	Tandem	Square design	Inner Ø d1

Option:
LL: Floating bearing

Technical data

Dimension nominal diameter [mm]	d1 tolerance[78)] [mm]	Guide length [mm]	Projected bearing surface [mm²]	Weight [g]	Part No.
8	+0.032 +0.070	45	256	23.00	**FJZMT-02-08[85)]**
10	+0.030 +0.088	52	250	36.58	**FJUMT-02-10**
10	+0.030 +0.088	52	250	36.58	**FJUMT-02-10-LL**
12	+0.030 +0.088	57	324	48.19	**FJUMT-02-12**
12	+0.030 +0.088	57	324	48.19	**FJUMT-02-12-LL**
16	+0.030 +0.088	70	464	67.79	**FJUMT-02-16**
16	+0.030 +0.088	70	464	67.79	**FJUMT-02-16-LL**
20	+0.030 +0.091	80	580	110.06	**FJUMT-02-20**
20	+0.030 +0.091	80	580	110.06	**FJUMT-02-20-LL**
25	+0.030 +0.091	112	975	230.06	**FJUMT-02-25**
25	+0.030 +0.091	112	975	230.06	**FJUMT-02-25-LL**
30	+0.040 +0.110	123	1,470	350.74	**FJUMT-02-30**
30	+0.040 +0.110	123	1,470	350.74	**FJUMT-02-30-LL**
40	+0.040 +0.115	151	2,360	739.30	**FJUMT-02-40**
50	+0.050 +0.150	192	3,450	1,249.30	**FJUMT-02-50**

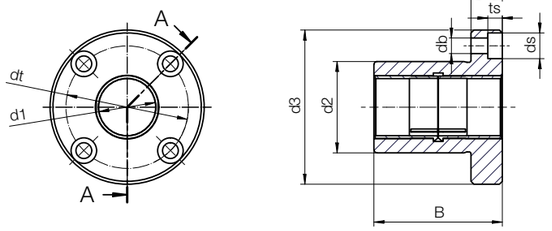
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drylin® R flanged linear plain bearings | Product range New

Adapter with clip-in liners made from iglidur® W360 (precision), round flange



- Up to 50% lower clearance in operation



Order key

Type						Size		
F	R	W360	C	M	T	-	01-12	
With flange	drylin® R	iglidur® W360	Clip-in liner	Metric	Tandem	Square design	Inner Ø d1	

Option:
T: Tandem

Dimensions [mm] - flanged linear plain bearing

d1 +0.01 +0.05	d2 H7	d3	dt	B	Bf	ts	db	ds	Part No.	
12	22	42	32	32	9	4.1	4.5	7.5	**FRW360CM-01-12**	New
16	26	46	36	36	9	4.1	4.5	7.5	**FRW360CM-01-12**	New
20	32	54	43	45	11	5.1	5.5	9.0	**FRW360CM-01-12**	New

Dimensions [mm] - flanged linear plain bearing, tandem design

d1 +0.04 +0.01	d2 H7	d3	dt	B	Bf	ts	db	ds	Part No.	
12	22	42	32	57	9	4.1	4.5	7.5	**FRW360CMT-01-12**	New
16	26	46	36	70	9	4.1	4.5	7.5	**FRW360CMT-01-12**	New
20	32	54	43	80	11	5.1	5.5	9.0	**FRW360CMT-01-12**	New

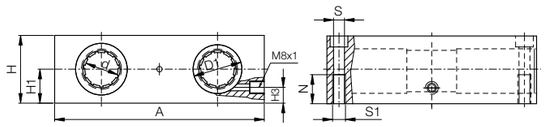
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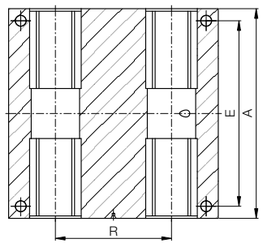
drylin® R quad blocks | Product range

Closed design



● Housing: Aluminium, equipped with four drylin® R linear plain bearings





Order key

Type	Option	Size
RQ A-	01	-10

Quad block with RJUM bearings | Aluminium housing | Standard with RJUM-01 | Inner Ø d1

Options:
01: Standard with RJUM-01
03: with RJUM-03
04: with RJM-01

Please note:
Installation instructions
▶ Page 187

Dimensions [mm]

d	D1	A	H	H1	H3	R	N	E	S	S1	Part No. Standard with RJUM-01	Self-aligning with RJUM-03	Solid plastic bearings with RJM-01
8	16	65	23	11.5	8	32	11	55	4.3	M5	**RQA-01-08**	–	**RQA-04-08**
10	19	70	25	12.5	10	34	13	60	4.3	M5	**RQA-01-10**	**RQA-03-10**	**RQA-04-10**
12	22	85	32	16	13	42	13	73	5.3	M6	**RQA-01-12**	**RQA-03-12**	**RQA-04-12**
16	26	100	36	18	15	54	13	88	5.3	M6	**RQA-01-16**	**RQA-03-16**	**RQA-04-16**
20	32	130	46	23	19	72	18	115	6.6	M8	**RQA-01-20**	**RQA-03-20**	**RQA-04-20**
25	40	160	56	28	24	88	22	140	8.4	M10	**RQA-01-25**	**RQA-03-25**	**RQA-04-25**
30	47	180	64	32	27	96	26	158	10.5	M12	**RQA-01-30**	**RQA-03-30**	**RQA-04-30**
40	62	230	80	40	35	122	34	202	13.5	M16	**RQA-01-40**	**RQA-03-40**	**RQA-04-40**

Are equipped with:


RJUM-01


RJUM-03


RJM-01

Available with drylin® liners (optional: J200/A180):


J


E7


X

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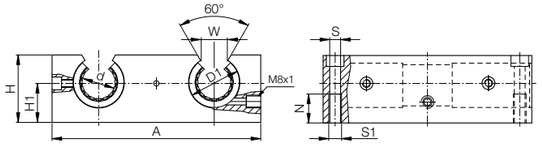
drylin® R shaft guides

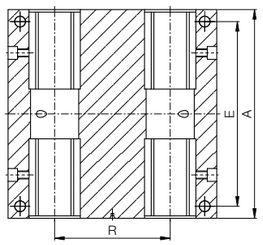
drylin® R quad blocks | Product range

Open design



● Housing: Aluminium, equipped with four drylin® R linear plain bearings





Order key

Type	Option	Size
OQ A-	01	-12

Quad block with OJUM bearings | Aluminium housing | Standard with OJUM-01 | Inner Ø d1

Options:
01: Standard with OJUM-01
03: with OJUM-03

Please note:
Installation instructions
▶ Page 187

Dimensions [mm]

d	D1	A	H	H1	W	R	N	E	S	S1	Part No. Standard with OJUM-01	Self-aligning with OJUM-03
12	22	85	30	18	14	42	13	73	5.3	M6	**OQA-01-12**	**OQA-03-12**
16	26	100	35	22	17	54	13	88	5.3	M6	**OQA-01-16**	**OQA-03-16**
20	32	130	42	25	17	72	18	115	6.8	M8	**OQA-01-20**	**OQA-03-20**
25	40	160	51	30	21	88	22	140	9.0	M10	**OQA-01-25**	**OQA-03-25**
30	47	180	60	35	21	96	26	158	10.5	M12	**OQA-01-30**	**OQA-03-30**
40	62	230	77	45	27	122	34	202	13.5	M16	**OQA-01-40**	**OQA-03-40**

Are equipped with:


OJUM-01


OJUM-03

Available with drylin® liners (optional: J200/A180):


J


E7


X

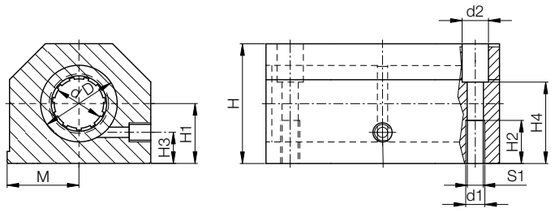
EN 09/2023 igus

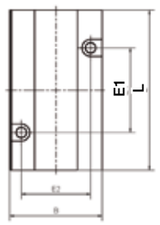
drylin® R quad blocks | Product range

Closed tandem design



● Housing: Aluminium, equipped with two drylin® R linear plain bearings to increase the guide length





Order key

Type	Option	Size
RT A-	01	-08
Tandem housing with RJUM bearing	Aluminium housing	Standard with RJUM-01	Inner Ø

Options:
01: Standard with RJUM-01
03: with RJUM-03
04: with RJM-01

Please note:
Installation instructions
▶ Page 187

Dimensions [mm]

d	D H6	H	H1 +0.01 -0.02	H2	H3	H4	S1	B	L +0.3	M ±0.02	E1 ±0.15	E2 ±0.15	d1	d2	Part No. Standard with RJUM-01	Self-aligning with RJUM-03	Solid plastic bearings with RJM-01
8	16	28	13	13	8	23	M5	35	62	17.5	35	25	4.20	8	**RTA-01-08**	–	**RTA-04-08**
12	22	35	18	13	10	25	M6	43	76	21.5	40	30	5.20	10	**RTA-01-12**	**RTA-03-12**	**RTA-04-12**
16	26	42	22	13	12	30	M6	53	84	26.5	45	36	5.20	10	**RTA-01-16**	**RTA-03-16**	**RTA-04-16**
20	32	50	25	18	13	34	M8	60	104	30.0	55	45	6.80	11	**RTA-01-20**	**RTA-03-20**	**RTA-04-20**
25	40	60	30	22	15	40	M10	78	130	39.0	70	54	8.60	15	**RTA-01-25**	**RTA-03-25**	**RTA-04-25**
30	47	70	35	26	16	48	M12	87	152	43.5	85	62	10.30	18	**RTA-01-30**	**RTA-03-30**	**RTA-04-30**
40	62	90	45	34	20	60	M16	108	176	54.0	100	80	14.25	20	**RTA-01-40**	**RTA-03-40**	**RTA-04-40**

Are equipped with:


RJUM-01


RJUM-03


RJM-01

Available with drylin® liners (optional: J200/A180):


J


E7


X

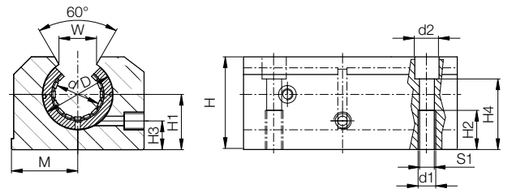
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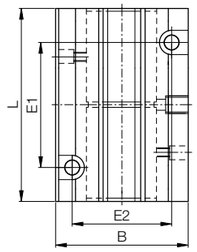
drylin® R quad blocks | Product range

Open tandem design



● Housing: Aluminium, equipped with two drylin® R linear plain bearings to increase the guide length





Order key

Type	Option	Size
OT A-	01	-12
Tandem housing with OJUM bearings	Aluminium housing	Standard with OJUM-01	Inner Ø

Options:
01: Standard with OJUM-01
03: with OJUM-03

Please note:
Installation instructions
▶ Page 187

Dimensions [mm]

d	D H6	H	H1 +0.01 -0.02	H2	H3	H4	S1	B	L +0.3	M ±0.02	E1 ±0.15	E2 ±0.15	d1	d2	W	Part No. Standard with OJUM-01	Self-aligning with OJUM-03
12	22	30	18	13	10	25	M6	43	76	21.5	40	30	5.20	10	14	**OTA-01-12**	**OTA-03-12**
16	26	35	22	13	12	30	M6	53	84	26.5	45	36	5.20	10	17	**OTA-01-16**	**OTA-03-16**
20	32	42	25	18	13	34	M8	60	104	30.0	55	45	6.80	11	17	**OTA-01-20**	**OTA-03-20**
25	40	51	30	22	15	40	M10	78	130	39.0	70	54	8.60	15	21	**OTA-01-25**	**OTA-03-25**
30	47	60	35	26	16	48	M12	87	152	43.5	85	62	10.30	18	21	**OTA-01-30**	**OTA-03-30**
40	62	77	45	34	20	60	M16	108	176	54.0	100	80	14.25	20	27	**OTA-01-40**	**OTA-03-40**

Are equipped with:


OJUM-01


OJUM-03

Available with drylin® liners (optional: J200/A180):


J


E7


X

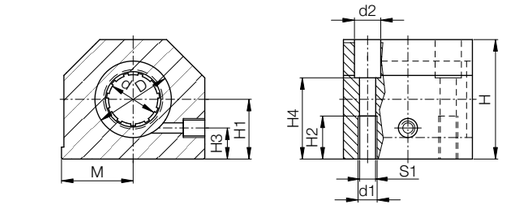
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drylin® R quad blocks | Product range

Closed, long design



- Housing: Aluminium, equipped with drylin® R linear plain bearings



Order key

Type	Option	Size
RG A-	01	-12

Linear housing with RJUM bearings | Aluminium housing | Standard with RJUM-01 | Inner Ø

Options:

01: Standard with RJUM-01
03: with RJUM-03
04: with RJM-01

Please note:
Installation instructions
▶ Page 187

Dimensions [mm]

d	D H6	H	H1 +0.01 -0.02	H2	H3	H4	S1	B	L ±0.3	M ±0.02	E1 ±0.15	E2 ±0.15	d1	d2	Part No. Standard with RJUM-01	Self-aligning with RJUM-03	Solid plastic bearings with RJM-01
8	16	28	13	10	8	14	M4	35	32	17.5	25	20	3.2	6	**RGA-01-08**	**–**	**RGA-04-08**
12	22	35	18	11	10	25	M5	43	39	21.5	32	23	4.2	6	**RGA-01-12**	**RGA-03-12**	**RGA-04-12**
16	26	42	22	13	12	30	M6	53	43	26.5	40	26	5.2	10	**RGA-01-16**	**RGA-03-16**	**RGA-04-16**
20	32	50	25	18	13	34	M8	60	54	30.0	45	32	6.8	11	**RGA-01-20**	**RGA-03-20**	**RGA-04-20**
25	40	60	30	22	15	40	M10	78	67	39.0	60	40	8.6	15	**RGA-01-25**	**RGA-03-25**	**RGA-04-25**
30	47	70	35	22	16	48	M10	87	79	43.5	68	45	8.6	15	**RGA-01-30**	**RGA-03-30**	**RGA-04-30**
40	62	90	45	26	20	60	M12	108	91	54.0	86	58	10.3	18	**RGA-01-40**	**RGA-03-40**	**RGA-04-40**

Are equipped with:


RJUM-01


RJUM-03


RJM-01

Available with drylin® liners (optional: J200/A180):


J


E7


X

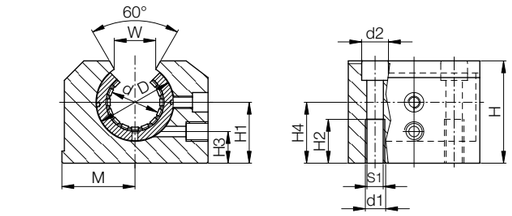
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drylin® R quad blocks | Product range

Open, long design



- Housing: Aluminium, equipped with drylin® R linear plain bearings



Order key

Type	Option	Size
OG A-	01	-12

Linear housing with OJUM bearings | Aluminium housing | Standard with OJUM-01 | Inner Ø

Options:

01: Standard with OJUM-01
03: with OJUM-03

Please note:
Installation instructions
▶ Page 187

Dimensions [mm]

d	D H6	H	H1 +0.01 -0.02	H2	H3	H4	S1	B	L ±0.3	M ±0.02	E1 ±0.15	E2 ±0.15	d1	d2	W +0.6	Part No. Standard with OJUM-01	Self-aligning with OJUM-03
12	22	28	18	11	8	25	M5	43	39	21.5	32	23	4.2	8	14	**OGA-01-12**	**OGA-03-12**
16	26	35	22	13	12	30	M6	53	43	26.5	40	26	5.2	10	17	**OGA-01-16**	**OGA-03-16**
20	32	42	25	18	13	34	M8	60	54	30.0	45	32	6.8	11	17	**OGA-01-20**	**OGA-03-20**
25	40	51	30	22	15	40	M10	78	67	39.0	60	40	8.6	15	21	**OGA-01-25**	**OGA-03-25**
30	47	60	35	22	16	48	M10	87	79	43.5	68	45	8.6	15	21	**OGA-01-30**	**OGA-03-30**
40	62	77	45	26	20	60	M12	108	91	54.0	86	58	10.3	18	27	**OGA-01-40**	**OGA-03-40**

Are equipped with:


OJUM-01


OJUM-03

Available with drylin® liners (optional: J200/A180):


J


E7


X

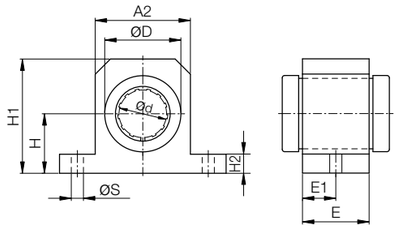
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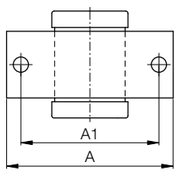
drylin® R pillow blocks | Product range

Closed, short design



- Housing: Aluminium, equipped with drylin® R linear plain bearings
- Variations:
  Standard: RGAS-01-Ø
  Self-aligning: RGAS-03-Ø
  Solid plastic bearing (cost-effective, lightweight): RGAS-04-Ø





Order key

Type	Option	Size
RG A S-	01	-12

Linear housing with RJUM bearings | Aluminium housing | Small | Standard with RJUM-01 | Inner Ø

Options:
01: Standard with RJUM-01
03: with RJUM-03
04: with RJM-01

Please note:
Installation instructions
▶ Page 187

Dimensions [mm]

d	D	H	H1	H2	A	A1	A2	E	E1	S	Part No. Standard with RJUM-01	Self-aligning with RJUM-03	Solid plastic bearings with RJM-01
12	22	18	35.0	6	52	42	30	20	10	5.3	**RGAS-01-12**	**RGAS-03-12**	**RGAS-04-12**
16	26	22	40.5	7	56	46	34	22	11	5.3	**RGAS-01-16**	**RGAS-03-16**	**RGAS-04-16**
20	32	25	48.0	8	70	58	40	28	14	6.4	**RGAS-01-20**	**RGAS-03-20**	**RGAS-04-20**
25	40	30	58.0	10	80	68	50	40	20	6.4	**RGAS-01-25**	**RGAS-03-25**	**RGAS-04-25**
30	47	35	67.0	10	88	76	58	48	24	6.4	**RGAS-01-30**	**RGAS-03-30**	**RGAS-04-30**
40	62	45	85.0	12	108	94	74	56	28	8.4	**RGAS-01-40**	**RGAS-03-40**	**RGAS-04-40**

Are equipped with:


RJUM-01


RJUM-03


RJM-01

Available with drylin® liners (optional: J200/A180):


J


E7


X

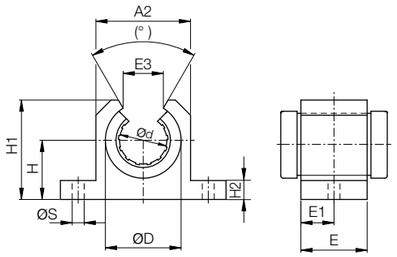
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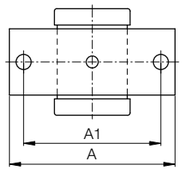
drylin® R pillow blocks | Product range

Open, short design



- Housing: Aluminium, equipped with drylin® R linear plain bearings
- Variations:
  Standard: OGAS-01-Ø
  Self-aligning: OGAS-03-Ø





Order key

Type	Option	Size
OG A S-	01	-12

Linear housing with OJUM bearings | Aluminium housing | Small | Standard with OJUM-01 | Inner Ø

Options:
01: Standard with OJUM-01
03: with OJUM-03

Please note:
Installation instructions
▶ Page 187

Dimensions [mm]

d	D	H	H1	H2	A	A1	A2	E	E1	E3	(°)	S	Part No. Standard with OJUM-01	Self-aligning with OJUM-03
12	22	18	28	6	52	42	30	20	10	14	78	5.3	**OGAS-01-12**	**OGAS-03-12**
16	26	22	33.5	7	56	46	34	22	11	17	78	5.3	**OGAS-01-16**	**OGAS-03-16**
20	32	25	42	8	70	58	40	28	14	17	60	6.4	**OGAS-01-20**	**OGAS-03-20**
25	40	30	51	10	80	68	50	40	20	21	60	6.4	**OGAS-01-25**	**OGAS-03-25**
30	47	35	60	10	88	76	58	48	24	21	54	6.4	**OGAS-01-30**	**OGAS-03-30**
40	62	45	77	12	108	94	74	56	28	27	54	8.4	**OGAS-01-40**	**OGAS-03-40**

Are equipped with:


OJUM-01


OJUM-03

Available with drylin® liners (optional: J200/A180):


J


E7


X

EN 09/2023 igus

igus® testing method for measuring the tolerance of drylin® linear plain bearings

To ensure the correct function of a drylin® R linear plain bearing, it is necessary to use the bearing with a defined minimum oversize (bearing clearance). The quality control of this part is carried out with a plug gauge test. For this purpose, specific force is defined with which the plug gauge is loaded when the plain bearing is tested.

Part No.	Test force	Øi test housing	Min. bearing Øi (plug gauge falls)	Max. bearing Øi (plug gauge sticks)
	[N]	[mm]	[mm]	[mm]
J / J200 / E7 / A180 / A160UM-01/02-10	0.981	12.000	10.030	10.070
J / J200 / E7 / A180 / A160UM-01/02-12	1.373	14.000	12.030	12.070
J / J200 / E7 / A180 / A160UM-01/02-16	1.864	18.000	16.030	16.070
J / J200 / E7 / A180 / A160UM-01/02-20	2.649	23.000	20.030	20.070
J / J200 / E7 / A180 / A160UM-01/02-25	3.729	28.000	25.030	25.070
J / J200 / E7 / A180 / A160UM-01/02-30	4.807	34.000	30.040	30.090
J / J200 / E7 / A180 / A160UM-01/02-40	7.063	44.000	40.040	40.090
J / J200 / E7 / A180 / A160UM-01/02-50	9.810	55.000	50.050	50.150
J / J200 / E7UM-01/02-60	13.047	65.000	60.050	60.150
	[N]	[Imperial dimension]	[Imperial dimension]	[Imperial dimension]
JUI-01-06	0.981	0.4684	0.3768	0.3776
JUI-01-08	1.373	0.5934	0.5016	0.5024
JUI-01-10	1.864	0.7184	0.6268	0.6276
JUI-01-12	2.649	0.8747	0.7516	0.7524
JUI-01-16	3.729	1.1247	1.0016	1.0024
JUI-01-20	4.807	1.4058	1.2520	1.2531
JUI-01-24	7.063	1.6558	1.5020	1.5031
JUI-01-32	9.810	2.1870	2.0024	2.0039
	[N]	[mm]	[mm]	[mm]
RJM / RJMP / RJ4JP-01-08	–	16.000	8.025	8.061
RJM / RJMP / RJ4JP-01-10	–	19.000	10.025	10.061
RJM / RJMP / RJ4JP-01-12	–	22.000	12.032	12.075
RJM / RJMP / RJ4JP-01-16	–	26.000	16.032	16.075
RJM / RJMP / RJ4JP-01-20	–	32.000	20.040	20.092
RJM / RJMP / RJ4JP-01-25	–	40.000	25.040	25.092
RJM / RJMP / RJ4JP-01-30	–	47.000	30.040	30.092
RJM / RJMP-01-40	–	62.000	40.050	40.112
	[N]	[Imperial dimension]	[Imperial dimension]	[Imperial dimension]
RJI-01-06	0.981	0.6250	0.3762	0.3776
RJI-01-08	1.373	0.8750	0.5013	0.5030
RJI-01-10	1.864	1.1250	0.6265	0.6282
RJI-01-12	2.649	1.2500	0.7516	0.7536
RJI-01-16	3.729	1.5625	1.0035	1.0056
RJI-01-20	4.807	2.0000	1.2520	1.2544
RJI-01-24	7.063	2.3750	1.5020	1.5044
RJI-01-32	9.810	3.0000	2.0024	2.0053
	[N]	[mm]	[mm]	[mm]
RJ260(U)M-02-12	–	19.000	12.032	12.084
RJ260(U)M-02-16	–	24.000	16.032	16.084
RJ260(U)M-02-20	–	28.000	20.040	20.100
RJ260(U)M-02-25	–	35.000	25.040	25.100

drylin® R shaft guides | igus® testing method

Part No.	Test force	Øi test housing	Min. bearing Øi (plug gauge falls)	Max. bearing Øi (plug gauge sticks)
	[N]	[mm]	[mm]	[mm]
XUMO-01-10	0.981	12.000	9.98	10.02
XUM-01/02-12	1.373	14.000	12.02	12.06
XUM-01-14	1.500	16.000	14.02	14.06
XUM-01/02-16	1.864	18.000	16.02	16.06
XUM-01/02-20	2.649	23.000	20.03	20.07
XUM-01/02-25	3.729	28.000	24.97	25.01
XUM-01/02-30	4.807	34.000	29.96	30.01
XUM-01/02-40	7.063	44.000	40.00	40.05

Explanation:
The iglidur® X material has a higher stiffness than iglidur® J. This causes shifts - depending on the diameter - compared to the ratio of test force to LD diameter. The parts are designed in such a way that under load the clearance between the iglidur® X and iglidur® J plain bearings is as identical as possible. Thereby in the use of iglidur® X liners, increased shifting forces can occur in the unloaded new condition on an h-toleranced shaft.

When using a plain bearing (e.g. JUM/RJM) in connection with an adapter/ housing (e.g. RJUM, OJUM, RGA) the factory tolerance of the housing hole (standard case: H7) is also added to the minimum clearance stated above. The total from these two values then produces the maximum possible bearing tolerance.

The effective bearing clearance is also influenced by the shaft tolerance. The maximum shaft undersize value should be added to give the maximum possible clearance.

F_{max} dynamic:
The maximum values are the result of the projected surface and 5MPa surface pressure.

F_{max} static:
The maximum values are the result of the projected surface and 35MPa surface pressure.

Due to the manufacturing process, the anti-rotation feature of the JUM-01/JUM-02-/JUM-11 liners can be either round or square. Both shapes have no effect on the technical function in all igus® bearing housings and defined housing bores.

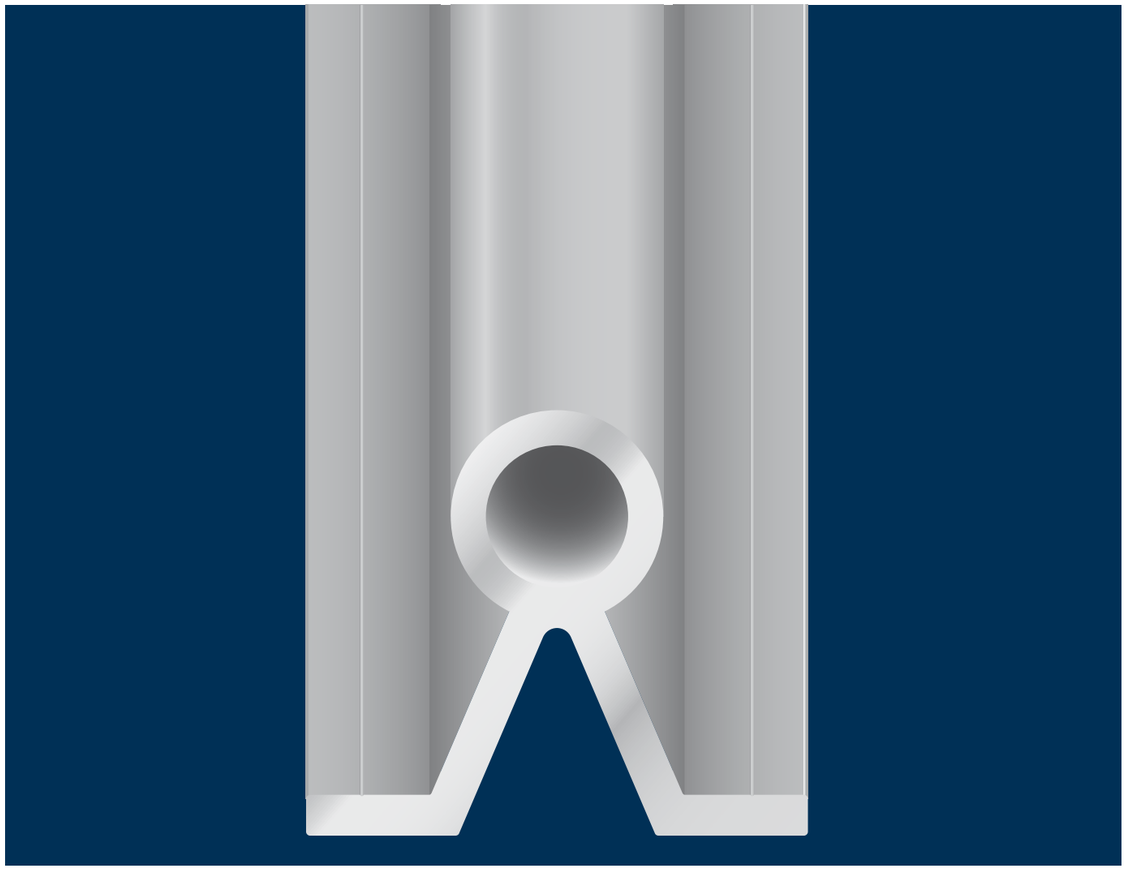
Installation instructions ▶ Page 187

Tightening torque for drylin® metallic screws

Metric thread (Da)	tightening torque	Recommended tightening torque
	[Nm]	[Nm]
M3	0.5 - 1.1	0.7
M4	1.0 - 2.8	1.5
M5	2.0 - 5.5	3.0
M6	4.0 - 10.0	6.0
M8	8.0 - 23.0	15.0
M10	22.0 - 46.0	30.0

Please be aware of the minimal screw-in depth for aluminium and zinc die-casting parts: 1.5xDa

Notes



drylin® linear technology - drylin® shafts

Hard-anodised aluminium shafts for optimum running performance

Stainless steel for high corrosion resistance

Hardened steel and stainless steel shafts

Carbon fibre shafts

Round shafts with or without support



EN 09/2023

drylin® shafts | Advantages

Suitable liner materials:



	The All-rounder - iglidur® J	The specialist - iglidur® J200	The extreme - iglidur® X	The endurance runner - iglidur® E7	The FDA-compliant - iglidur® A180	Blue Sky Thinking FDA/EU-compliant - iglidur® A160
Potential counter partner	All shaft materials	Aluminium, hard-anodised	Hardened stainless steel	Steel/stainless steel shaft	All shaft materials	Stainless steel
Application temperature	-50 up to +90°C	-50 up to +90°C	-100°C up to +250°C	-50°C up to +70°C	-50 up to +90°C	-50 up to +90°C
Best coefficient of friction with	Steel shaft	Aluminium, hard-anodised	Hard-chromed steel	Steel/stainless steel shaft	Stainless steel shaft	Hardened stainless steel shafts
Maximum service life with	Hard-anodised aluminium	Aluminium, hard-anodised	Hardened stainless steel	Steel/stainless steel shaft	Stainless steel shaft	Hardened stainless steel shafts
Permissible stat. surface pressure	35MPa	23MPa	150MPa	18MPa	28MPa	15MPa
Moisture absorption	1.3% weight	0.7% weight	0.5% weight	< 0.1wt.-%	0.2% weight	< 0.1wt.-%
Volume resistance	> 10^{13} Ωcm	> 10^{8} Ωcm	< 10^{5} Ωcm	> 10^{8}Ωcm	> 10^{12}Ωcm	> 10^{12}Ωcm
More information	▶ www.igus.eu/J-material	▶ www.igus.eu/J200-material	▶ www.igus.eu/X-material	▶ www.igus.eu/E7-material	▶ www.igus.eu/A180-material	▶ www.igus.eu/A160-material

Available shaft materials:

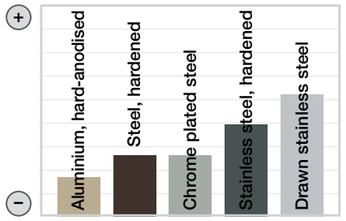
Aluminium
- Ideal in combination with liners made from iglidur® J/J200
- Lightweight
- Low wear of plain bearings
- Corrosion-resistant
- Available from stock

Steel
- E7 liners for up to 8 times longer service life
- Cost-effective standard
- High load capacity
- Dry area applications
- Hard chrome plated also available
- Lower coefficient of friction against polymer bearings

Stainless steel
- A180 liners for food and pharmaceutical applications
- Corrosion-resistant
- Chemical-resistant
- Ideal solution for wet applications
- 316 stainless steel for extremely chemical intensive applications

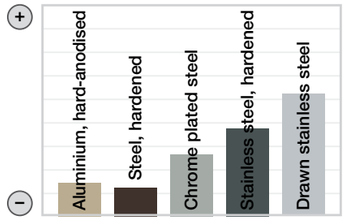
Please remember that this is a technical surface. Small colour variations are possible due to variable coating depths.

Wear



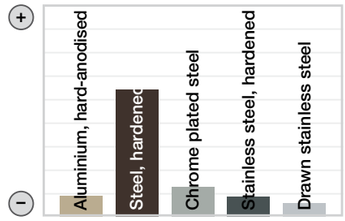
iglidur® J against particular shaft materials

Coefficient of friction



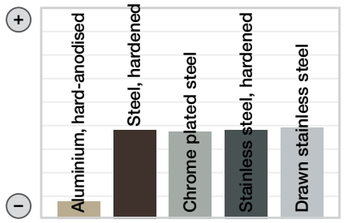
iglidur® J against particular shaft materials

Corrosion



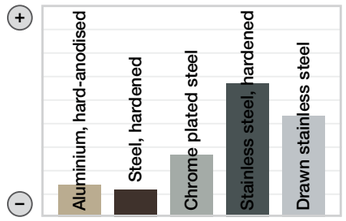
iglidur® J against particular shaft materials

Weight



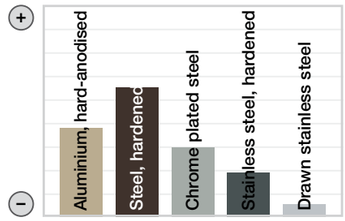
iglidur® J against particular shaft materials

Costs



iglidur® J against particular shaft materials

Chemical charge

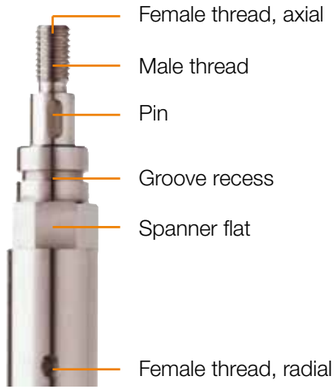


iglidur® J against particular shaft materials

drylin® shafts | Product range | Machining

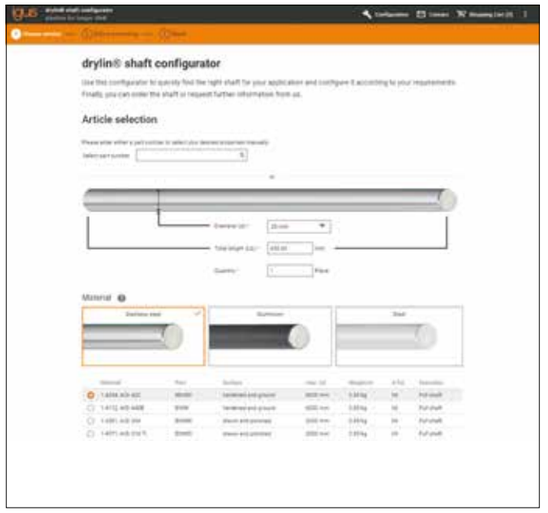


Enquiries can be put online as well:
▶ **www.igus.eu/shaftenquiry**



Special machining

All shafts can be individually machined. Please send us your drawing. We can then provide a quick quotation.

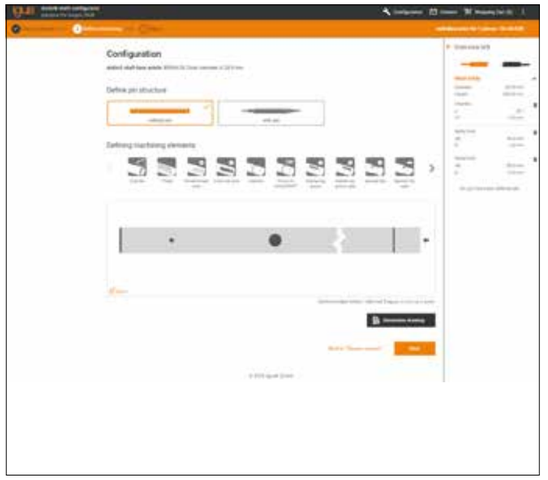


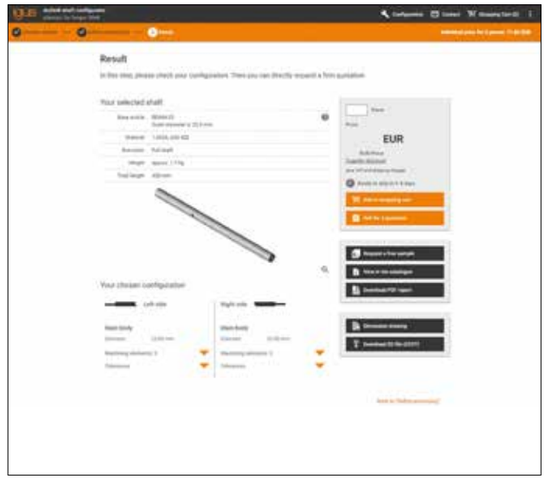
Configurator for guide shafts:

guide shafts with machining - anyone can configure online

With this online tool, guide shafts with and without machining can be individually configured and directly ordered. Fast and easy with no previous CAD experience. All in all, the tool allows ordering seven shaft materials, Ø 6 to 50mm. Orders made directly online and delivered quickly.
- Add chamfers with just one click
- Offset machined end possible
- Radial and axial holes, with or without female thread
- With plausibility check
- Live price display

▶ **www.igus.eu/shaft-configurator**





drylin® shafts | Product range

Material	Aluminium			Steel			
Designation	AWMP AWMPV	AWMU	AWMR	SWM	SWUM SWUMN	SWMH	SWUMH SWUMHN
Material	EN AW 6061/6060			AISI 1055		1.1213 HV	
Availability							
Ø 6	●			▲		▲	
Ø 8	●			▲		▲	
Ø 10	●	●		▲		▲	
Ø 12	●	●	●	▲	▲	▲	▲
Ø 16	●	●	●	▲	▲	▲	▲
Ø 20	●	●	●	▲	▲	▲	▲
Ø 25	●	●	●	▲	▲	▲	▲
Ø 30	●[164)] / ●	●		▲	▲	▲	▲
Ø 40	●[164)] / ●	●		▲	▲	▲	▲
Ø 50	●[164)]			▲	▲	▲	▲
Ø 60	●[164)]						
Ø Tolerance	h8	-0.1mm	h9	h6	h6	h7	h7
Max. supply length Ø 8-10mm	3,000	–	–	3,000	–	–	3,000
Max. supply length Ø 12-50mm	3,000	4,000	3,000	6,000	6,000	6,000	6,000
Surface	hard-anodised			hardened/ground		hard-chromed	
Surface roughness Ra	< 0.6			0.15-0.3			
Hardness	up to 550 HV			60+4 HRC			
Roundness	≤ 1/2 ø Tolerance			≤ 1/2 ø Tolerance			

	Stainless steel, hardened				Drawn stainless steel			Carbon
	EWM	EWUM EWUMN	EEWM	EEWUM EEWUMN	EWMR	EWMS	EWUMS	CWM
Material	AISI 440B		1.4034 (AISI 420)		1.4301 (AISI 304)	1.4571 (AISI 316Ti)		CFK composite
Availability								
Ø 6	▲		▲		▲	▲		
Ø 8	▲		▲		▲	▲		
Ø 10	▲		▲		▲	▲		
Ø 12	▲	▲	▲	▲	▲	▲	▲	▲
Ø 16	▲	▲	▲	▲	▲	▲	▲	▲
Ø 20	▲	▲	▲	▲	▲	▲	▲	▲
Ø 25	▲	▲	▲	▲	▲	▲	▲	
Ø 30	▲	▲	▲	▲	▲	▲	▲	▲
Ø 40	▲	▲	▲		▲	▲	▲	
Ø 50	▲	▲	▲	▲	▲			
Ø 60								
Ø Tolerance	h6	h6	h6	h6	h9	h9	h9	-0.1mm
Max. supply length Ø 8-10mm	–	–	3,000	–	–	–	–	2,000
Max. supply length Ø 12-50mm	6,000	6,000	6,000	6,000	3,000	3,000	3,000	2,000
Surface	hardened/ground				drawn, polished			UCU unidirectional/ cross winding/ unidirectional
Surface roughness Ra	0.15-0.3				0.3-0.6			< 0.6µm
Hardness	52+8 HRC				unhardened			–
Roundness	≤ 1/2 ø Tolerance				≤ 1/2 ø Tolerance			± 0.05 mm

Delivery time: ● From stock ▲ simply cut shafts 3-8 days; machined shafts 12 days

[164)] Hollow profile 30 · 7.5; 40 · 10; 50 · 11

drylin® shafts | Product range

Precision aluminium shafts



AWMR AWMP

igus® recommendation: linear plain bearings equipped with iglidur® J200 liners for the longest service life

- Material: EN AW 6061/6060
- Straightness: EN 754-3
- Hardness: 75 HB
- Surface: hard anodised
- Hardness: up to 550 HV
- Imperial shafts available upon request

Order key

Type	Size	Options
AW M P -	06	- 2000

Aluminium shaft | Metric | Precision | Outer Ø | Shaft length [mm]

AWMP:
Solid shaft up to Ø25mm
Hollow shaft from Ø30mm
AWMR:
Tube

Hard anodised surfaces
▶ Page 43
Minimum saw lengths
▶ Page 47

Please contact us!
drylin® shafts can be individually machined. Please send us your drawing or make the configuration online. We can then provide a quick quotation.
▶ **www.igus.eu/shaft-configurator**

Dimensions [mm]

Part No.	Design	Outer Ø	Tolerance	Wall thickness	Inner Ø	Max. length	Weight [kg/m]
AWMP-06	Solid shaft	6	h8	–	–	3,000	0.08
AWMP-08	Solid shaft	8	h8	–	–	3,000	0.14
AWMP-10	Solid shaft	10	h8	–	–	3,000	0.22
AWMP-12	Solid shaft	12	h8	–	–	3,000	0.32
AWMR-12	Tube	12	h8	2	8	3,000	0.17
AWMP-16	Solid shaft	16	h8	–	–	3,000	0.56
AWMR-16	Tube	16	h8	2	12	3,000	0.25
AWMP-20	Solid shaft	20	h8	–	–	3,000	0.88
AWMR-20	Tube	20	h9	2	16	3,000	0.32
AWMP-25	Solid shaft	25	h8	–	–	3,000	1.37
AWMR-25	Tube	25	h9	3	19	3,000	0.59
AWMP-30	Hollow shaft	30	h8	7.5	15	3,000	1.48
AWMPV-30	Solid shaft	30	h8	–	–	3,000	1.9
AWMP-40	Hollow shaft	40	h8	10	20	3,000	2.63
AWMPV-40	Solid shaft	40	h8	–	–	3,000	3.4
AWMP-50	Hollow shaft	50	h8	11	28	3,000	3.75
AWMP-60	Hollow shaft	60	h8	11	38	3,000	4.7

Order example:
AWMP-12-500: precision aluminium shaft, 12mm Ø, 500mm length

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drylin®
shafts

drylin® shafts | Product range

Supported aluminium shafts



AWMU

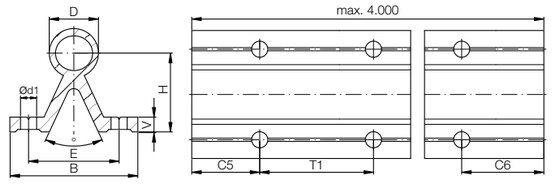
- Material: EN AW 6061/6060
- Straightness: DIN 12020
- Hardness: 75 HB
- Surface: hard anodised
- Hardness: up to 550 HV
- Symmetrical standard hole pattern C5 = C6

Order key

Type	Size	Options
AW M U -	12	- 2000

Aluminium shaft | Metric | Supported | Outer Ø | Shaft length [mm]

Hard anodised surfaces
▶ Page 43
Minimum saw lengths
▶ Page 47



Dimensions [mm]

Part No.	D -0.1	B	H ±0.25	V	d1	(°)	E ±0.25	T1	C5/C6 min.	C5/C6 max.	Max. length	Weight [kg/m]	Iy [mm⁴]	Iz [mm⁴]	Wby [mm³]	Wbz [mm³]
AWMU-12	12	40	22	5	4.5	50	29	75	20	57	4,000	0.75	26,600	19,700	1,330	1,091
AWMU-16	16	45	26	5	5.5	50	33	100	20	69	4,000	1.00	40,000	39,200	1,778	1,844
AWMU-20	20	52	32	6	6.6	50	37	100	20	69	4,000	1.42	76,600	86,200	2,946	3,336
AWMU-25	25	57	36	6	6.6	50	42	120	20	79	4,000	1.81	109,800	146,700	3,853	5,103
AWMU-30	30	69	42	7	9.0	50	51	150	20	94	4,000	2.69	226,900	328,700	6,577	10,049
AWMU-40[86)]	40	73	50	8	9.0	50	55	200	20	119	4,000	4.06	382,100	734,800	10,468	19,160

[86)] **The tolerance for the shaft diameter D amounts -0.15**

Order example:
AWMU-16-500: supported aluminium shaft, 16mm Ø, 500mm length

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drylin® shafts | Product range

Standard steel shafts



SWM SWUMN SWUM

- Completely supported and mounted with standard aluminium support
- Available shaft materials:
  - ▶ Cf53 steel (AISI 1055), hardened/ground
  - ▶ Cf53 steel (AISI 1055), hard chrome
- For supported shafts:
  - ▶ Partial shaft support supplied in lengths of 600mm max.
  - ▶ Standard pitch T2, T1 also possible upon request
  - ▶ Symmetrical hole pitches C5 = C6

Order key

Type	Size	Options
SW M-	06	-2000
Steel shaft	Metric	Outer Ø	Shaft length [mm]

igus® recommendation: linear plain bearings equipped with iglidur® E7 liners for 8 times longer service life

Dimensions [mm] - steel shafts 1.1213

Part No.	Outer Ø	Weight [kg/m]	Max. length	Effective hardness depth (at 1.1213)
SWM-06	6	0.222	3,000	0.8
SWM-08	8	0.359	4,000	0.9
SWM-10	10	0.617	4,000	0.9
SWM-12	12	0.888	6,000	1.0
SWM-16	16	1.578	6,000	1.2
SWM-20	20	2.466	6,000	1.6
SWM-25	25	3.853	6,000	1.8
SWM-30	30	5.549	6,000	2.0
SWM-40	40	9.865	6,000	2.2
SWM-50	50	15.413	6,000	2.4

Dimensions [mm] - hard chrome steel shafts 1.1213

Part No.	Outer Ø	Weight [kg/m]	Max. length	Effective hardness depth (at 1.1213)
SWMH-06	6	0.222	3,000	0.8
SWMH-08	8	0.359	4,000	0.9
SWMH-10	10	0.617	4,000	0.9
SWMH-12	12	0.888	6,000	1.0
SWMH-16	16	1.578	6,000	1.2
SWMH-20	20	2.466	6,000	1.6
SWMH-25	25	3.853	6,000	1.8
SWMH-30	30	5.549	6,000	2.0
SWMH-40	40	9.865	6,000	2.2
SWMH-50	50	15.413	6,000	2.4

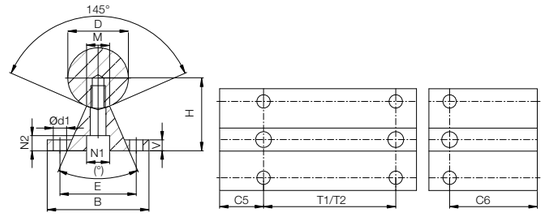
Order example:
SWM-16-500: steel shaft 16mm Ø **1.1213, 500mm length**

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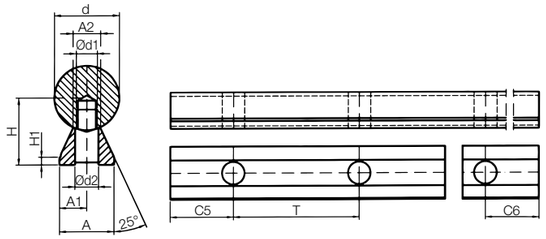
drylin® shafts | Product range

Supported standard steel shafts

SWUM



SWUMN



Contact us!
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▶ **www.igus.eu/shaft-configurator**

Dimensions [mm] - supported steel shafts 1.1213

Part No.	D	B	H ±0.02	V	N1	N2	d1	M	(°)	E	T1 ±0.15	C5/C6 min. for T1	C5/C6 max. for T1	T2 Standard	C5/C6 min. for T2 Standard	C5/C6 max. for T2 Standard	Weight [kg/m]
SWUM-12	12	40	22	5	8.0	5.0	4.5	5.8	50	29	75	20	57	120	20	79	1.75
SWUM-16	16	45	26	5	9.5	6.0	5.5	7.0	50	33	100	20	69	150	20	94	2.64
SWUM-20	20	52	32	6	11.0	6.5	6.6	8.3	50	37	100	20	69	150	20	94	3.97
SWUM-25	25	57	36	6	14.0	8.5	6.6	10.8	50	42	120	20	79	200	20	119	5.65
SWUM-30	30	69	42	7	17.0	10.5	9.0	11.0	50	51	150	20	94	200	20	119	7.93
SWUM-40	40	73	50	8	17.0	10.5	9.0	15.0	50	55	200	20	119	300	20	169	12.88
SWUM-50	50	84	60	9	19.0	12.5	11.0	19.0	46	63	200	20	119	300	20	169	19.60

Dimensions [mm] - low-level supported steel shafts 1.1213

Part No.	d	H ±0.02	H1	A	A1	A2 ±0.02	d1	d2	T	C5/C6 min.	C5/C6 max.	Weight [kg/m]
SWUMN-12	12	14.5	3	11	5.5	5.4	M4	4.5	75	20	57	1.62
SWUMN-16	16	18	3	14	7.0	7.0	M5	5.5	75	20	57	2.54
SWUMN-20	20	22	3	17	8.5	8.1	M6	6.6	75	20	57	3.81
SWUMN-25	25	26	3	21	10.5	10.3	M8	9.0	75	20	57	5.62
SWUMN-30	30	30	3	23	11.5	11.0	M10	11.0	100	20	69.5	7.63
SWUMN-40	40	39	4	30	15.0	15.0	M12	13.5	100	20	69.5	13.47
SWUMN-50	50	46	5	35	17.5	19.0	M14	15.5	100	20	69.5	20.31

Low-level supported shafts are delivered unassembled.

Order example:
SWUM-16-500: supported steel shaft 16mm ø **made from 1.1213, 500mm length**

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drylin® shafts | Product range

Stainless steel shafts



EWM EEWM EWMR

igus® recommendation: linear plain bearings equipped with iglidur® E7 liners for 8 times longer service life

Contact us!
drylin® shafts can be individually machined. Please send us your drawing or make the configuration online. We can then provide a quick quotation.
▶ **www.igus.eu/shaft-configurator**

Dimensions [mm] - hardened stainless steel AISI 440B

Part No.	Outer Ø	Weight [kg/m]	Max. length	Effective hardness depth
EWM-06	6	0.222	3,000	0.8
EWM-08	8	0.359	4,000	0.9
EWM-10	10	0.617	4,000	0.9
EWM-12	12	0.888	6,000	1.0
EWM-16	16	1.578	6,000	1.2
EWM-20	20	2.466	6,000	1.6
EWM-25	25	3.853	6,000	1.8
EWM-30	30	5.549	6,000	2.0
EWM-40	40	9.865	6,000	2.2
EWM-50	50	15.413	6,000	2.4

drylin® shafts

drylin® shafts | Product range

Materials: AISI 440B, AISI 420C, AISI 304, AISI 316Ti

Order key

Type	Size	Options
EW M	- 06	- 2000
Steel shaft	Metric	Outer Ø	Shaft length [mm]

Available shaft materials:
AISI 440B, hardened/ground ▶ EWM
AISI 420C, hardened/ground ▶ EEWM
AISI 304, drawn ▶ EWMR
AISI 316Ti, drawn ▶ EWMS

Dimensions [mm] - hardened stainless steel AISI 420C

Part No.	Outer Ø	Weight [kg/m]	Max. length	Effective hardness depth
EEWM-06	6	0.222	3,000	0.8
EEWM-08	8	0.359	4,000	0.9
EEWM-10	10	0.617	4,000	0.9
EEWM-12	12	0.888	6,000	1.0
EEWM-16	16	1.578	6,000	1.2
EEWM-20	20	2.466	6,000	1.6
EEWM-25	25	3.853	6,000	1.8
EEWM-30	30	5.549	6,000	2.0
EEWM-40	40	9.865	6,000	2.2
EEWM-50	50	15.413	6,000	2.4

Dimensions [mm] - stainless steel AISI 304 (EWMR) or AISI 316Ti soft stainless steel (EWMS)

Part No.		Outer Ø	Weight [kg/m]	Max. length
EWMR-06	**EWMS-06**	6	0.222	3,000
EWMR-08	**EWMS-08**	8	0.359	3,000
EWMR-10	**EWMS-10**	10	0.617	3,000
EWMR-12	**EWMS-12**	12	0.888	3,000
EWMR-16	**EWMS-16**	16	1.578	3,000
EWMR-20	**EWMS-20**	20	2.466	3,000
EWMR-25	**EWMS-25**	25	3.853	3,000
EWMR-30	**EWMS-30**	30	5.549	3,000
EWMR-40	**EWMS-40**	30	5.549	3,000
EWMR-50		30	5.549	3,000

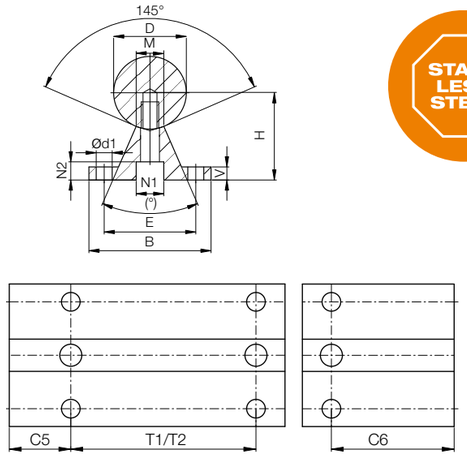
Order example:
EWM-16-500: Stainless steel shaft (AISI 440B) with 16mm Ø, 500mm length

drylin® shafts | Product range

Supported stainless steel shafts



EWUM. EEWUM



STAIN-LESS STEEL

igus® recommendation: linear plain bearings equipped with iglidur® E7 liners for 8 times longer service life

- Completely supported and mounted with standard aluminium support
- For supported shafts:
  - ▶ Partial shaft support supplied in lengths of 600mm max.
  - ▶ Standard pitch T2, T1 also possible upon request
  - ▶ Symmetrical hole pitches C5 = C6

Dimensions [mm] - supported stainless steel shafts EWM (AISI 440B) / EEWM (AISI 420)

Part No.	D	B	H	V	N1	N2	d1	M	(°)	E	T1	C5/C6		T2	C5/C6		Weight
												min.	max.		min.	max.	
			±0.02								±0.15	for T1		Standard	for T2 Standard		[kg/m]
☐WUM-12	12	40	22	5	8.0	5.0	4.5	5.8	50	29	75	20	57	120	20	79	1.75
☐WUM-16	16	45	26	5	9.5	6.0	5.5	7.0	50	33	100	20	69	150	20	94	2.64
☐WUM-20	20	52	32	6	11.0	6.5	6.6	8.3	50	37	100	20	69	150	20	94	3.97
☐WUM-25	25	57	36	6	14.0	8.5	6.6	10.8	50	42	120	20	79	200	20	119	5.65
☐WUM-30	30	69	42	7	17.0	10.5	9.0	11.0	50	51	150	20	94	200	20	119	7.93
☐WUM-40	40	73	50	8	17.0	10.5	9.0	15.0	50	55	200	20	119	300	20	169	12.88
☐WUM-50	50	84	60	9	19.0	12.5	11.0	19.0	46	63	200	20	119	300	20	169	19.60

Order example:
EWUM-16-500-T1: Supported stainless steel shaft EWM (AISI 440B), with 16mm outer Ø, 500mm length, T1 pitch
EEWUM-16-500-T1: Supported stainless steel shaft (AISI 420C) with 16mm outer Ø, 500mm length, T1 pitch

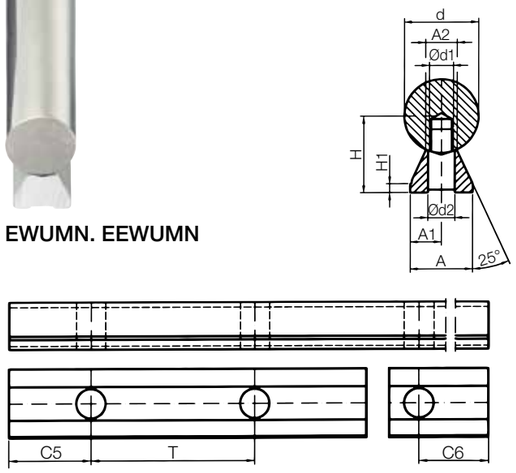
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drylin® shafts | Product range

Low-level supported stainless steel shafts



EWUMN. EEWUMN



Order key

Type	Size	Options
EWUMN-	20	-2000-T1
Low-level supported stainless steel shaft, metric	Outer Ø	Shaft length [mm] / Hole pattern

EWUM, EEWUM: Supported stainless steel shaft
EWUMN,EEWUMN: Low-level supported stainless steel shafts

Further available materials:
AISI 440B, hardened/ground: EWM
AISI 420C, hardened/ground: EEWM

Hole pattern:
T2: T2 pitch (standard)
T1: T1 pitch (upon request)

Dimensions [mm] - low-level supported steel shafts EWM (AISI 440B) / EEWM (AISI 420)

Part No.	Outer Ø	H	H1	A	A1	A2	d1	d2	T	C5/C6		Weight
	d									min.	max.	
		±0.02				±0.02						[kg/m]
☐WUMN-12	12	14.5	3	11	5.5	5.4	M4	4.5	75	20	57.0	1.62
☐WUMN-16	16	18.0	3	14	7.0	7.0	M5	5.5	75	20	57.0	2.54
☐WUMN-20	20	22.0	3	17	8.5	8.1	M6	6.6	75	20	57.0	3.81
☐WUMN-25	25	26.0	3	21	10.5	10.3	M8	9.0	75	20	57.0	5.62
☐WUMN-30	30	30.0	3	23	11.5	11.0	M10	11.0	100	20	69.5	7.63
☐WUMN-40	40	39.0	4	30	15.0	15.0	M12	13.5	100	20	69.5	13.47
☐WUMN-50	50	46.0	5	35	17.5	19.0	M14	15.5	100	20	69.5	20.31

Low-level supported shafts are delivered unassembled.

Order example:
EWUMN-16-500: Low level supported stainless steel shaft EWM (AISI 440B), with 16mm outer Ø, 500mm length, T pitch
EEWUM-16-500: Low-level supported stainless steel shaft EEWM (AISI 420C), 16mm outer Ø, 500mm length, T pitch

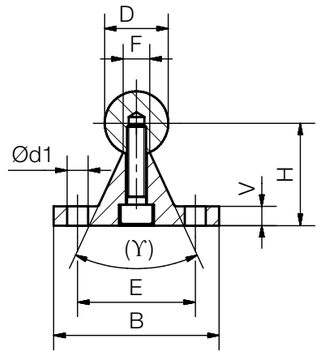
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drylin® shafts | Product range

Partially supported stainless steel shafts



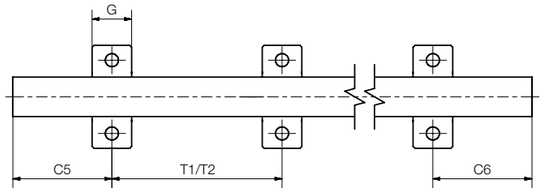
EWUM-ES/
EWUMS-ES



igus® recommendation: linear plain bearings equipped with iglidur® E7 liners for 8 times longer service life

Standard shaft support blocks made of stainless steel
- Connection sizes are identical to aluminium supports

▶ Page 274



Dimensions [mm] - partially supported stainless steel shafts AISI 440B

Part No.	D	B	H	V	d1	E	ϒ	F	G	T1	C5/C6 for T1		T2	C5/C6 for T2	
	h6		±0.02										Standard		
											min.	max.		min.	max.
EWUM-ES-12	12	40	22	5	4.5	29	–	5.8	14	75	20	57	120	20	79
EWUM-ES-16	16	45	26	5	5.5	33	–	7.0	16	100	20	69	150	20	94
EWUM-ES-20	20	52	32	6	6.6	37	50°	8.3	20	100	20	69	150	20	94
EWUM-ES-25	25	57	36	6	6.6	42	–	10.8	25	150	20	79	200	20	119
EWUM-ES-30	30	69	42	7	9.0	51	–	11.0	25	150	20	94	200	20	119
EWUM-ES-40	40	73	50	8	9.0	55	–	15.0	25	200	20	119	300	20	169

Order example:
EWUM-ES-20-500, partially supported stainless steel shaft (shaft and support made of stainless steel), AISI 440B material, T2 pitch, outer Ø 20mm, L = 500mm

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drylin® shafts

drylin® shafts | Product range

STAIN-LESS STEEL

Order key

Type	Size	Options

EWUMS-ES-20-500-T2

Partially supported stainless steel shaft, metric	Material	Outer Ø	Shaft length [mm]	Hole pattern

Available materials and lengths:
AISI 440B, max 6,000mm
▶ EWUM
AISI 316Ti, max 3,000mm
▶ EWUMS

Options:
Blank: AISI 440B material
S: AISI 316Ti
Hole pattern:
T2: T2 pitch (standard)
T1: T1 pitch

Dimensions [mm] - partially supported stainless steel shafts AISI 316Ti

Part No.	D	B	H	V	d1	E	ϒ	F	G	T1	C5/C6 for T1		T2	C5/C6 for T2	
	h6		±0.02										Standard		
											min.	max.		min.	max.
EWUMS-ES-12	12	40	22	5	4.5	29	–	5.8	14	75	20	57	120	20	79
EWUMS-ES-16	16	45	26	5	5.5	33	–	7.0	16	100	20	69	150	20	94
EWUMS-ES-20	20	52	32	6	6.6	37	50°	8.3	20	100	20	69	150	20	94
EWUMS-ES-25	25	57	36	6	6.6	42	–	10.8	25	150	20	79	200	20	119
EWUMS-ES-30	30	69	42	7	9.0	51	–	11.0	25	150	20	94	200	20	119
EWUMS-ES-40	40	73	50	8	9.0	55	–	15.0	25	200	20	119	300	20	169

Order example:
EWUMS-ES-20-500, partially supported stainless steel shaft (shaft and support made of stainless steel), AISI 316Ti material, T1 pitch, outer Ø 20mm, L = 500mm

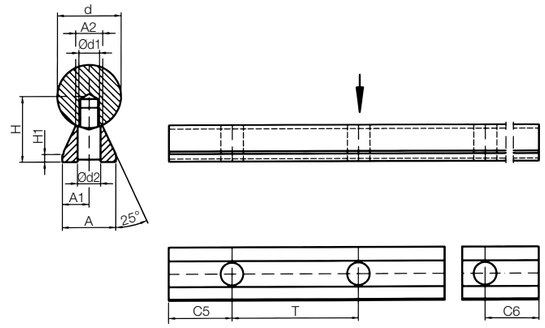
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drylin® shafts | Product range

Low-level partially supported stainless steel shafts



EWUMN-ES/
EWUMSN-ES



igus® recommendation: linear plain bearings equipped with iglidur® E7 liners for 8 times longer service life

Low level shaft support blocks made of stainless steel

- Connection sizes are identical to low-level aluminium supports ▶ **Page 275**

Dimensions [mm] - low-level partially supported stainless steel shafts AISI 440B

Part No.	d	H	H1	A	A1	A2	d1	d2	T	C5/C6		Weight
		±0.02								min.	max.	[kg/m]
EWUMN-ES-12	12	14.5	3	11	5.5	5.4	M4	4.2	75	20	57.0	1.00
EWUMN-ES-16	16	18.0	3	14	7.0	7.0	M5	5.2	75	20	57.0	1.76
EWUMN-ES-20	20	22.0	3	17	8.5	8.1	M6	6.2	75	20	57.0	2.77
EWUMN-ES-25	25	26.0	3	21	10.5	10.3	M8	8.2	75	20	57.0	4.35
EWUMN-ES-30	30	30.0	3	23	11.5	11.0	M10	10.2	100	20	69.5	6.01
EWUMN-ES-40	40	39.0	4	30	15.0	15.0	M12	12.5	100	20	69.5	10.80

Low-level partially supported stainless steel shafts are supplied unassembled

Order example:
EWUMN-ES-20-500: Low-level partially supported stainless steel shaft. AISI 440B material, T2 pitch (standard), with 20mm outer Ø, 500mm length

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drylin® shafts

drylin® shafts | Product range

STAIN-LESS STEEL

Order key

Type	Size	Options

EWUMSN-ES- 20 -500-T2

Partially supported stainless steel shaft, metric	Material	Outer Ø	Shaft length [mm]	Hole pattern

Available materials and lengths:
AISI 440B, max 6,000mm
▶ EWUMN
AISI 316Ti, max 3,000mm
▶ EWUMSN

Dimensions [mm] - low-level partially supported stainless steel shafts AISI 316Ti

Part No.	d	H	H1	A	A1	A2	d1	d2	T	C5/C6		Weight
		±0.02								min.	max.	[kg/m]
EWUMSN-ES-12	12	14.5	3	11	5.5	5.4	M4	4.2	75	20	57.0	1.00
EWUMSN-ES-16	16	18.0	3	14	7.0	7.0	M5	5.2	75	20	57.0	1.76
EWUMSN-ES-20	20	22.0	3	17	8.5	8.1	M6	6.2	75	20	57.0	2.77
EWUMSN-ES-25	25	26.0	3	21	10.5	10.3	M8	8.2	75	20	57.0	4.35
EWUMSN-ES-30	30	30.0	3	23	11.5	11.0	M10	10.2	100	20	69.5	6.01
EWUMSN-ES-40	40	39.0	4	30	15.0	15.0	M12	12.5	100	20	69.5	10.80

Low-level partially supported stainless steel shafts are supplied unassembled

Order example:
EWUMSN-ES-20-500-T2: Low-level partially supported stainless steel shaft. AISI 316Ti material, T2 pitch, with 20mm outer Ø, 500mm length

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drylin® shafts | Product range

Carbon fibre shafts



CWM

- Material: CFK composite
- Roundness tolerance: ±0.05mm
- Diameter tolerance: -0.1mm
- Application temperature: Max. +80°C
- Colour: black

Order key

Type	Size	Options
CW M-	12	-1000
Carbon fibre shaft	Metric	Outer Ø	Shaft length [mm]

Dimensions [mm]

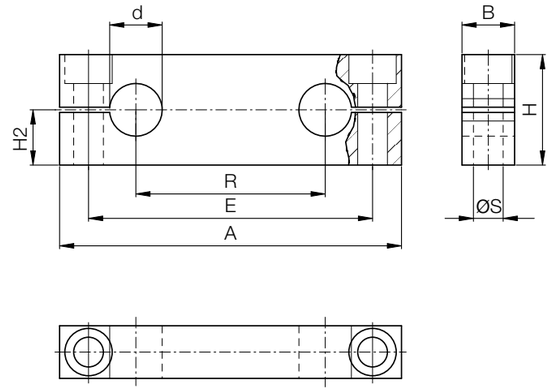
Part No.	Design	Outer Ø -0.1	Inner Ø -0.1	Max. length	Weight [g/m]
CWM-12	Hollow shaft	12	9.0	2,000	70
CWM-16	Hollow shaft	16	12.5	2,000	120
CWM-20	Hollow shaft	20	16.0	2,000	170
CWM-30	Hollow shaft	30	26.0	2,000	270

Order example:
CWM-16-500: carbon fibre shaft, 16mm outer Ø, 500mm length

drylin® shafts | Product range

Shaft end supports, floating





Order key

Type	Size
TA -	08
Shaft end supports, floating	Inner Ø

Material: aluminium
Threaded fixing hole

Dimensions [mm]

Part No.	d	A	B	H	H2 ±0.015	ø S	E	R	Weight [g]
TA-08	8	65	12	22	11	M5	52	32	40
TA-10	10	70	12	21	10.5	M5	55	34	37
TA-12	12	85	14	28	14	M6	70	42	70
TA-16	16	100	18	32	16	M8	82	54	130
TA-20	20	130	20	42	21	M10	108	72	220
TA-25	25	160	25	52	26	M12	132	88	440
TA-30	30	180	25	58	29	M12	150	96	560
TA-40	40	230	30	72	36	M16	190	122	1,000

Order example:
TA-10: floating shaft end support with inner Ø 10mm

drylin® shafts | Product range

Shaft end supports, fixed

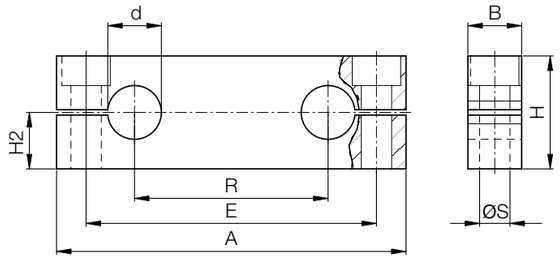


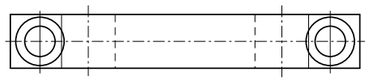
Order key

Type	Size
TA F -	08

Shaft end support | Fixed | Inner Ø

Material: aluminium
Through fixing hole





Dimensions [mm]

Part No.	d	A	B	H	H2 ±0.015	ø S	E	R	Weight [g]
TAF-08	8	65	12	23	12.5	5.5	52	32	40
TAF-10	10	70	12	25	14.0	5.5	55	34	45
TAF-12	12	85	14	32	18.0	6.6	70	42	90
TAF-16	16	100	18	36	20.0	9.0	82	54	140
TAF-20	20	130	20	46	25.0	11.0	108	72	250
TAF-25	25	160	25	56	30.0	13.5	132	88	470
TAF-30	30	180	25	64	35.0	13.5	150	96	620
TAF-40	40	230	30	80	44.0	17.5	190	122	1,150

Order example:
TAF-12: fixed shaft end support with 12mm inner Ø

drylin® shafts | Product range

Shaft end blocks, standard design

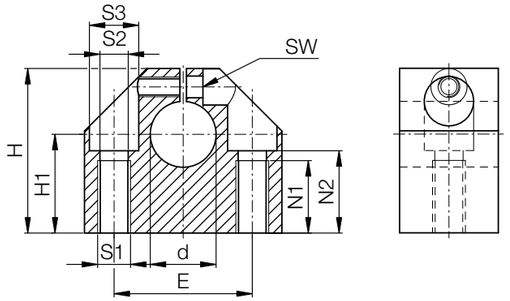


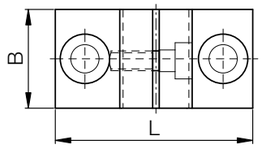
Order key

Type	Size
WA -	08

Shaft end block Standard design | Inner Ø

Material: aluminium





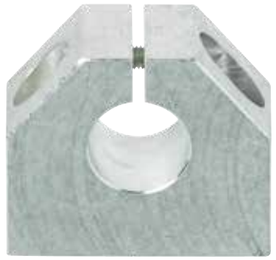
Dimensions [mm]

Part No.	d H8	B	H	H1 ±0.02	L	S1	S2	S3	E ±0.1	N1	N2	SW	l ±0.02	a	c	Weight [g]
WA-08	8	18	28	15	32	M4	3.3	6	22	9	13.0	2.5	16.0	5	0.5	40
WA-12	12	20	35	20	43	M6	5.2	10	30	13	16.5	3.0	21.5	6	0.5	100
WA-16	16	24	42	25	53	M8	6.8	11	38	18	21.0	4.0	26.5	7	0.5	150
WA-20	20	30	50	30	60	M10	8.6	15	42	22	25.0	5.0	30.0	7	0.5	230
WA-25	25	38	60	35	78	M12	10.3	18	56	26	30.0	6.0	39.0	7	0.5	410
WA-30	30	40	70	40	87	M12	10.3	18	64	26	34.0	6.0	43.5	7	0.5	530
WA-40	40	48	90	50	108	M16	14.25	20	82	34	44.0	8.0	54.0	7	0.5	990
WA-50	50	58	105	60	132	M20	17.5	26	100	43	49.0	10.0	66.0	7	0.5	1,250
WA-60	60	74	130	75	164	M27	22.0	33	124	43	59.0	10.0	82.0	13	1.0	2,950

Order example:
WA-08: shaft end block, standard design with inner Ø 8mm

drylin® shafts | Product range

Shaft end blocks, compact design

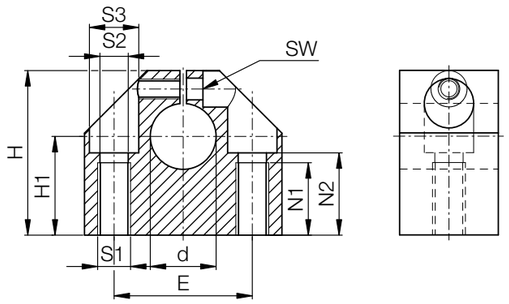


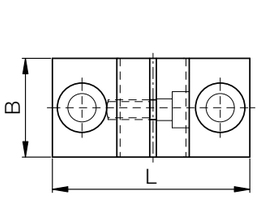
Order key

Type	Size
WA C - 06	

Shaft end block | Compact design | Inner Ø

Material: aluminium





Dimensions [mm]

Part No.	d	B	H	H1 from +0.01 to +0.02	L	S1	S2	S3	E ±0.1	N1	N2	SW	Weight [g]
WAC-06	6	16	27	15	32	M5	4.2	8	22	11	13	2.5	30
WAC-08	8	16	27	16	32	M5	4.2	8	22	11	13	2.5	30
WAC-10	10	18	33	18	40	M6	5.2	10	27	13	16	3.0	50
WAC-12	12	18	33	19	40	M6	5.2	10	27	13	16	3.0	50
WAC-14	14	20	38	20	45	M6	5.2	10	32	13	18	3.0	70
WAC-16	16	20	38	22	45	M6	5.2	10	32	13	18	3.0	70
WAC-20	20	24	45	25	53	M8	6.8	11	39	18	22	4.0	120
WAC-25	25	28	54	31	62	M10	8.6	15	44	22	26	5.0	170
WAC-30	30	30	60	34	67	M10	8.6	15	49	22	29	5.0	220
WAC-40	40	40	76	42	87	M12	10.3	18	66	26	38	6.0	480
WAC-50	50	50	92	50	103	M16	14.25	20	80	34	46	8.0	820

Order example:
WAC-12: shaft end block, compact design with inner Ø 12mm

drylin® shafts | Product range

Shaft end blocks, narrow design

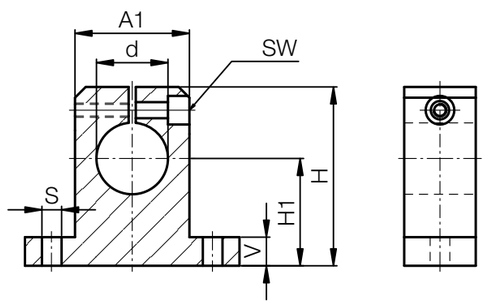


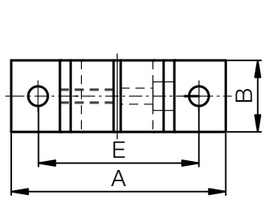
Order key

Type	Size
WA S - 08	

Shaft end block | Narrow design | Inner Ø

Material: aluminium





Dimensions [mm]

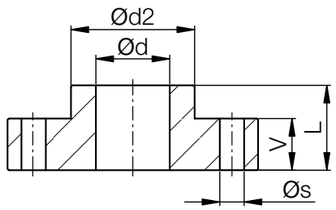
Part No.	d	H	H1 ±0.02	A	A1	B	E	S	V	SW	Weight [g]
WAS-08	8	27	15	32	16	10	25	4.5	5.0	2.5	12
WAS-12	12	35	20	42	20	12	32	5.5	5.5	3.0	23
WAS-16	16	42	25	50	26	16	40	5.5	6.5	3.0	35
WAS-20	20	50	30	60	32	20	45	5.5	8.0	4.0	67
WAS-25	25	58	35	74	38	25	60	6.6	9.0	4.0	140
WAS-30	30	68	40	84	45	28	68	9.0	10.0	5.0	200
WAS-40	40	86	50	108	56	32	86	11.0	12.0	6.0	480

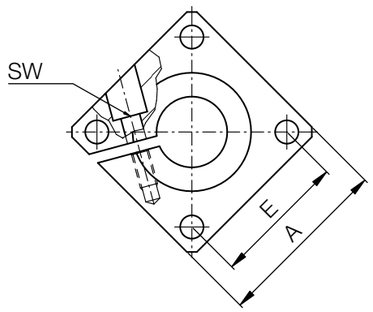
Order example:
WAS-12: shaft end block, narrow design with inner Ø 12mm

drylin® shafts | Product range

Flange shaft support







Order key

Type	Size
WA F	-12

Shaft end block
With flange
Inner Ø

Material: aluminium

Dimensions [mm]

Part No.	Ø d	A	L	Ø d2	E	Ø s	V	SW	Weight [g]
WAF-12	12	40	20	23.5	30 ± 0.12	5.5	12	3	60
WAF-16	16	50	20	27.5	35 ± 0.12	5.5	12	3	80
WAF-20	20	50	23	33.5	38 ± 0.15	6.6	14	4	100
WAF-25	25	60	25	42.0	42 ± 0.15	6.6	16	5	150
WAF-30	30	70	30	49.5	54 ± 0.15	9.0	19	6	300
WAF-40	40	100	40	65.0	68 ± 0.25	11.0	26	8	700
WAF-50	50	100	50	75.0	75 ± 0.25	11.0	36	8	1,200

Order example:
WAF-16: flanged shaft end block with inner Ø 16mm

drylin® expert 2.0 | Online tools



Expert for linear guides: System selection and service life calculation with CAD

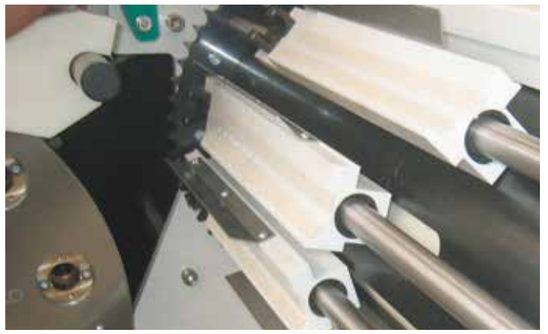
Configure and calculate the service life of linear bearings - constantly expanded by new sizes and products

Easily calculate the service life of your required linear guide and configure with a few clicks. Select a drylin® system and add the relevant environmental parameters. Select the bearing size, carriage, number and position. Then enter the distance between the rails and the mounting. Define more relevant parameter of the guidance and select a rail length. The results are displayed.

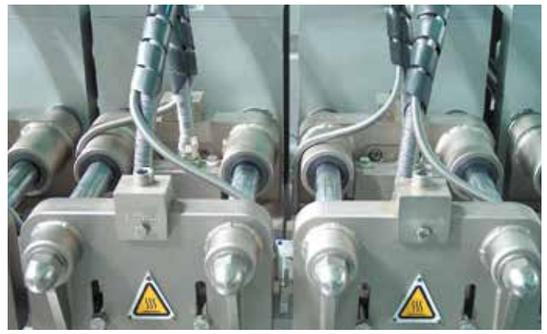
▶ **www.igus.eu/drylin-expert**

Download the online tool app now

Download on the App Store



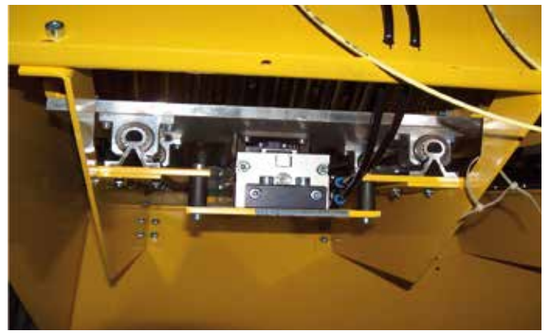
Aluminium shafts in combination with iglidur® J enable high speeds due to the lightweight.



Stainless steel shafts combined with iglidur® X, offer maximum resistance at +120 °C. Cleaning in filling machine.

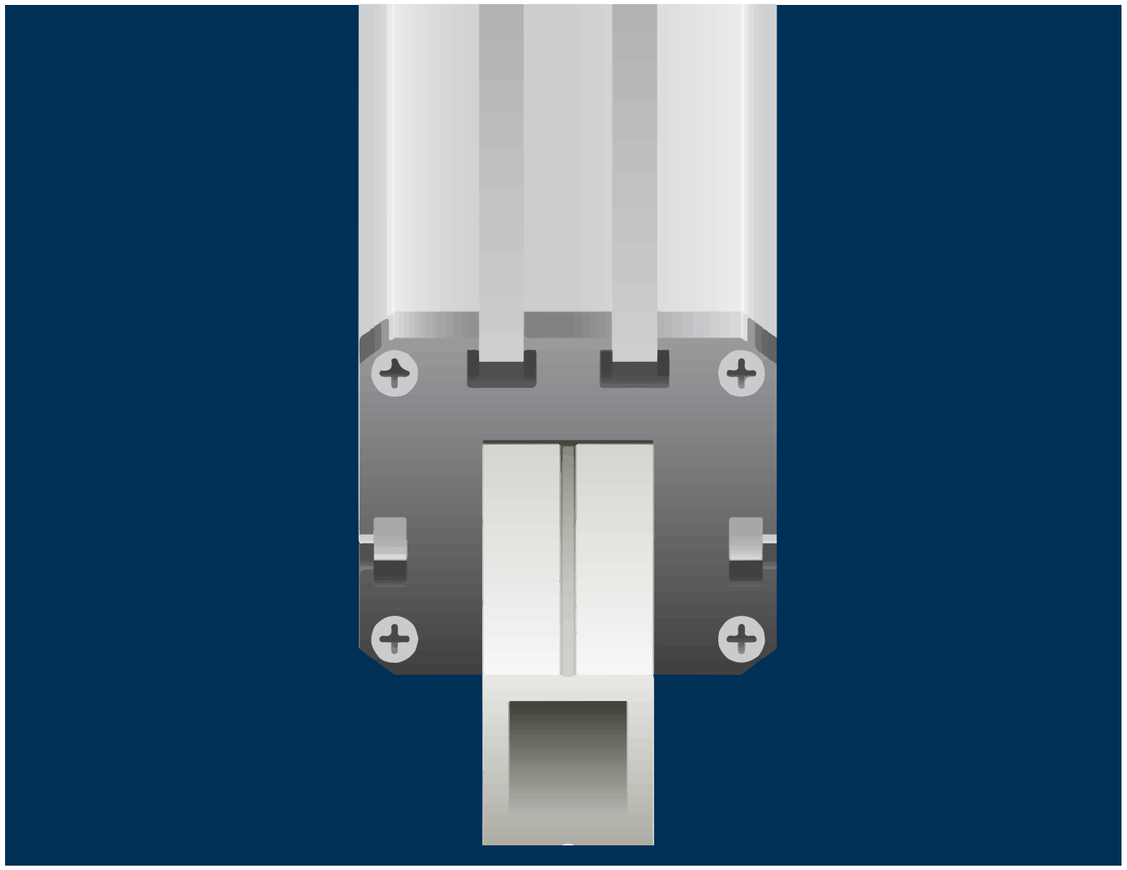


Stainless steel combined with iglidur® J in cut-off grinding machine. Grinding particles and coolants, extreme conditions.



Cost-effective guide for work piece carriage in a machine tool with supported aluminium shaft.

Notes



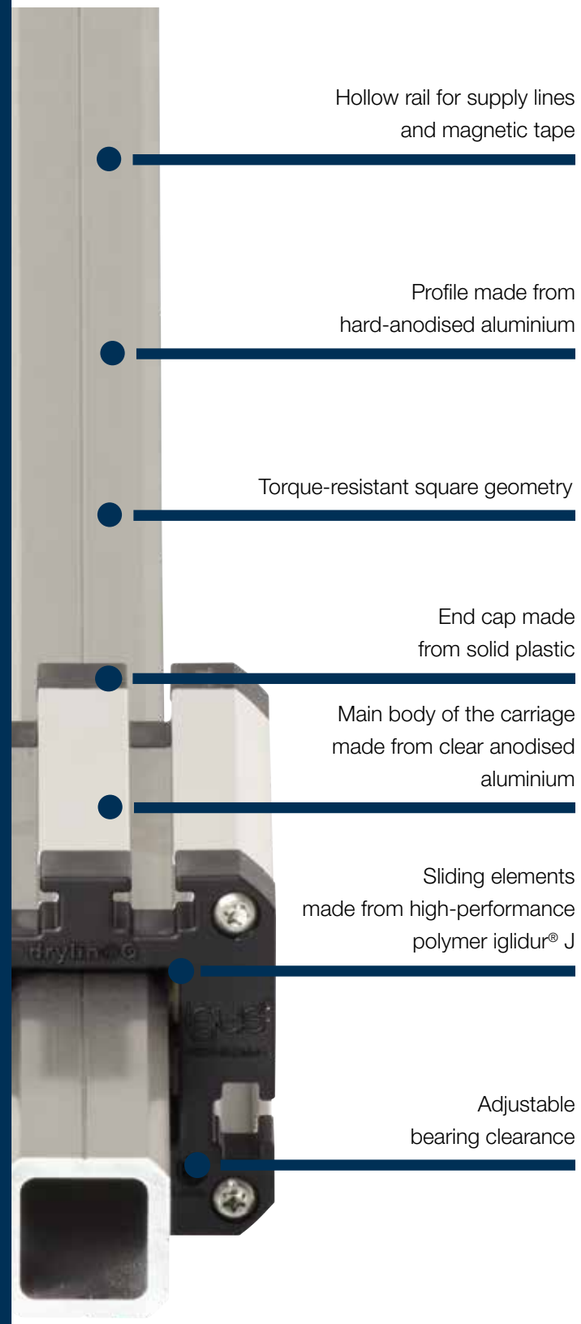
drylin® linear technology - drylin® Q square linear guides

- Torque-resistant linear guides
- Square section linear rail made from hard-anodised aluminium
- Apply moments up to 10 Nm
- Adjustable linear carriage with or without manual clamp
- Lubrication-free and lightweight



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Torque-resistant, space-saving, light, unsupported installation



Lubrication-free square linear guides - drylin® Q

Linear movement with torque resistance, completely lubrication-free. The drylin® Q linear system offers the user maximum flexibility in the design. Individual housing options such as solid plastic bearings or adjustable housings with or without manual clamp are available.Due to the hollow design, the robust hard-anodised aluminium profile is very light and is suitable for the installation of supply cables. Options for mounting are extensive, among others, using slot nuts; installation size 20 can also be combined with all 20/20 aluminium profiles.

- 100 % lubrication-free
- Torque-resistant
- Adjustable bearing clearance
- Absorption of force from all directions
- High resistance to dirt
- Low vibration and quiet
- Numerous mounting options

Typical application areas

- Mechanical engineering
- Woodworking industry
- Machine tools
- Handling

Available from stock
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Max. +90°C
Min. -40°C

3 installation sizes (10/12/20)
Rail length: 1,500/3,000mm

Technical details on floating bearings, 2:1 Rule, tightening torque for drylin® metallic screws ▶ Page 50

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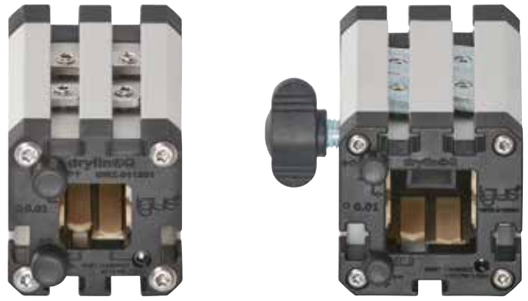
Linear system with individual housing versions



Square section linear rails

- Material: aluminium, hard-anodised
- Lightweight and corrosion-resistant
- Hollow rail design for cables to feed-through

▶ Page 292



Linear carriage

- Unsupported carriage version with/without manual clamp
- Numerous fastening options on all sides via slot nuts
- Bearing clearance adjustable

▶ Page 293



Bearing housing

- Enclosed anodised aluminium housing
- Apply moments up to 3Nm (size 10), 10Nm (size 20)
- Torque-resistant sliding elements made from iglidur® J

▶ Page 295



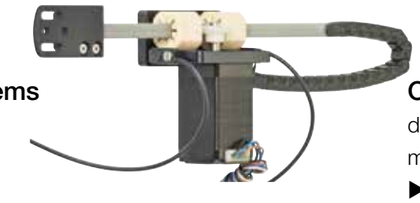
Sliding plates for clearance adjustment

- Tolerance compensation for profiles, including columns
- Adjustment mechanism included
- Easy assembly

▶ Page 299



Measuring systems
drylin® QKM
▶ Page 301



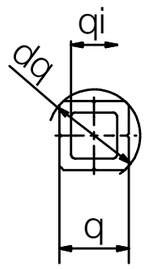
Cantilever axis
drylin® GRQ miniature linear module
▶ Page 597

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drylin® Q square linear guides | Product range

Square section linear rails





Order key

Type	Size	Option
AW M Q -	10	-1000

- AW: Aluminium shaft
- M: Metric
- Q: Square design
- 10: Installation size
- 1000: Length [mm]

Minimum saw lengths
▶ Page 47

Dimensions [mm]

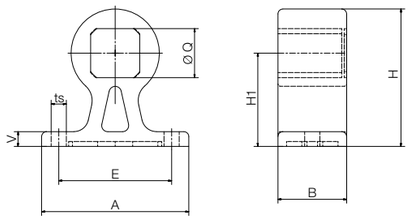
Part No.	Weight [kg/m]	q -0.05	dq -0.1	qi ±0.4	Max. length
AWMQ-10	0.082	7.5	10	5	1,500
AWMQ-12	0.193	12	16	8.5	1,500
AWMQ-20	0.46	20	25	15	3,000

Accessories

Shaft end supports made from plastic



- Cost-effective mounting option
- Can also be used as floating bearing

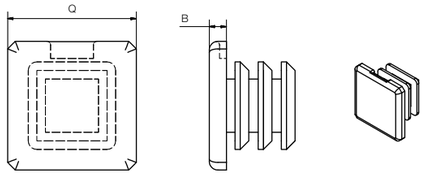


Dimensions [mm]

Part No.	A	H	B	Q	H1	E	ts	V
STZ-Q10-01-FL	30	21	14	7.5	14	20	3.3	3
STZ-Q20-01-FL	60	56	28	20	38	46	6.2	6

End caps for square section linear rail





Dimensions [mm]

Part No.	Q	B
STZ-Q10-01-C	7.5	1
STZ-Q20-01-C	20	5

drylin® Q square linear guides

drylin® Q square linear guides | Product range

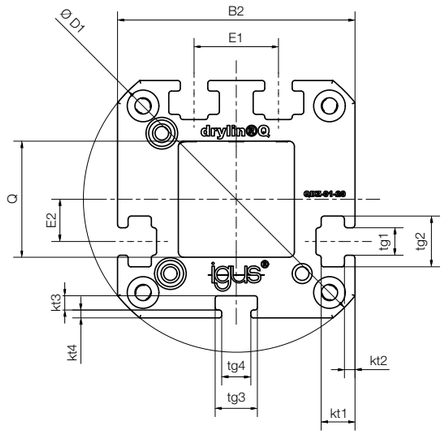
Adjustable linear carriage

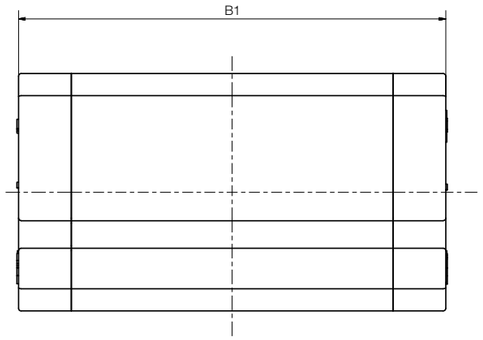


Order key

Type	Size
Q W E -	01 - 20

- Q: Square
- W: Linear carriage
- E: Adjustable
- 01: Standard design
- 20: Installation size





Dimensions [mm]

Part No.	Weight [g]	M max. [Nm]	B1	B2 h7	D1	Q	E1	E2	tg1	tg2	tg3	tg4	kt1	kt2	kt3	kt4
QWE-01-12	110	5	80	34	44	12	12	6	5.5	8	8	–	–	–	3	1.25
QWE-01-20	210	10	81	45	58	20	16	8	5.5	9.6	8	5.5	6.4	2	2.7	1.5

Accessories: Slot nuts



Slot nuts offers attachment options (for example sensors) on four sides of the housing. 8 pieces are included in the delivery of a QWE carriage.
Part No.: **NOR-20615 for QWE-01-12**
Part No.: **NOR-20602 for QWE-01-20**

Can be combined with:


AWMQ-12


AWMQ-20

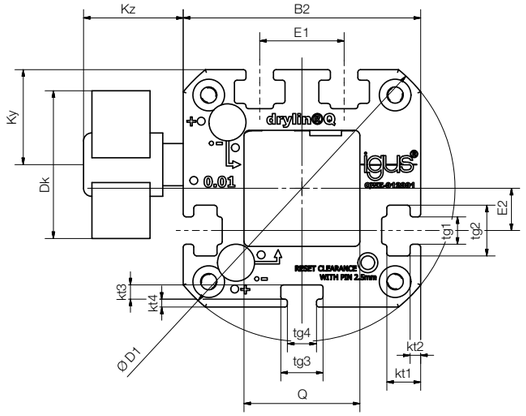
drylin® Q square linear guides | Product range

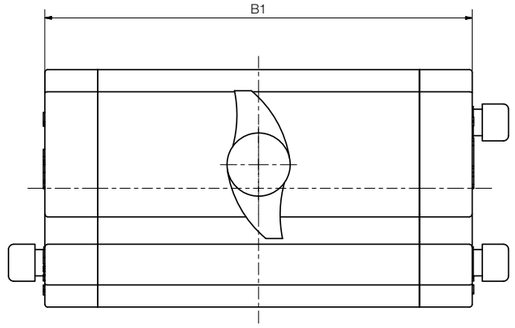
Adjustable linear carriage with manual clamp



Order key

Type				Size	Options
Q	W	E	- 01 -	20	- HKA
Square	Linear carriage	Adjustable	Standard design	Installation size	Manual clamp





Dimensions [mm]

Part No.	Weight	M max.	B1	B2	D1	Q	E1	E2	tg1	tg2	tg3	tg4
	[g]	[Nm]		h7								
QWE-01-12-HKA	–	–	80	34	44	12	12	6	5.5	8	8	–
QWE-01-20-HKA	215	10	81	45	58	20	16	8	5.2	9.6	8	5.5

Part No.	kt1	kt2	kt3	kt4	Dk	Ky	Kz
QWE-01-12-HKA	–	–	3	1.25	18	14	19
QWE-01-20-HKA	6.4	2	2.7	1.5	28	18	19

The manual clamp was developed for simple tasks. The creep behaviour of the clamped plastic causes a reduction in clamping force over time (up to 70%). so no safety-relevant parts should be clamped. Please contact our technical consultant, if you require other options for the clamping.

Can be combined with:



AWMQ-20

drylin® Q square linear guides

drylin® Q square linear guides | Product range

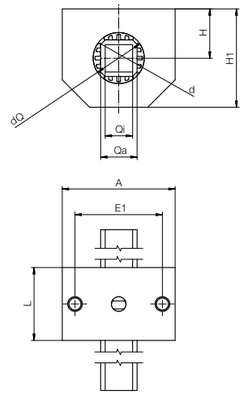
Q20 pillow blocks



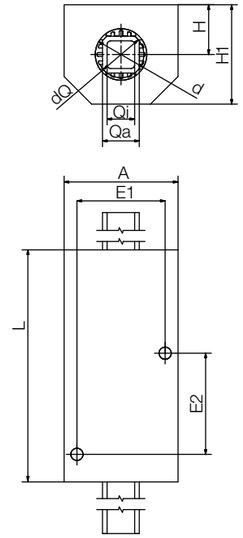
Order key

Type							Size	
Q	J	R	M	T	- 05	- 20		
Square	iglidur® J	Closed design	Metric	Tandem (optional)	Compact design	Installation size		

QJRM-05-20



QJRMT-05-20



Technical data [mm]

Part No.	Weight	Mx	Surface pressure	
	[kg]	[Nm]	dynamic [N]	static [N]
QJRM-05-20	0.25	5	1,500	10,500
QJRMT-05-20	0.55	10	1,500	10,500

Dimensions [mm]

Part No.	A	H	H1	dQ	Qa	Qi	E1	E2	d	L
		±0.02					±0.15	±0.15		
QJRM-05-20	62	27	54	25	20	15	48	–	28	40
QJRMT-05-20	62	27	54	25	20	15	48	55	28	85

Can be combined with:



AWMQ-20

drylin® Q square linear guides | Product range

With flange



QJFM-02-...



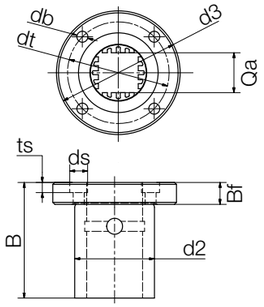
QJFMT-01-...

Order key

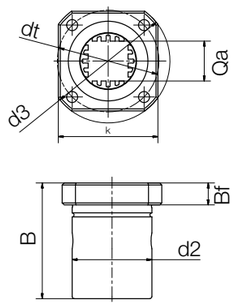
Type					Option	Size
Q	J	F	M	T	- 02	- 10
Square	iglidur® J	With flange	Metric	Tandem (optional)	Type	Installation size

Options:
01 = Round flange
02 = Square flange

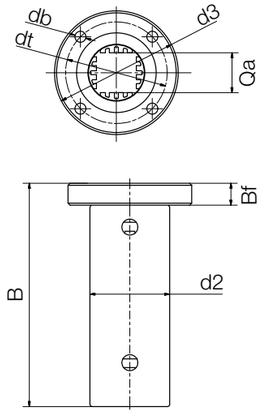
QJFM-01



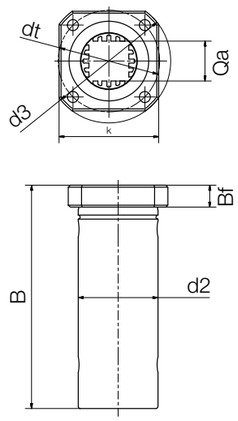
QJFM-02



QJFMT-01



QJFMT-02



Technical data and dimensions [mm]

Part No.	Weight	Surface pressure		Mx
	[kg]	dynamic [N]	static [N]	[Nm]
QJFM-01-20	0.14	1,500	10,500	5
QJFM-02-20	0.14	1,500	10,500	5
QJFMT-02-10	0.038	–	–	3
QJFMT-01-20	0.24	1,500	10,500	10
QJFMT-02-20	0.24	1,500	10,500	10

Part No.	k	d2	Bf	Qa	d3	dt	B	db	ds	ts
		h7			±0.15	±0.15				
QJFM-01-20	–	40	11	20	62	51	58	5.5	9.0	5.1
QJFM-02-20	50	40	11	20	62	51	58	5.5	9.0	5.1
QJFMT-02-10	30	19	9	7.5	39	29	52	4.5	7.5	4.1
QJFMT-01-20	–	40	11	20	62	51	112	5.5	9.0	5.1
QJFMT-02-20	50	40	11	20	62	51	112	5.5	9.0	5.1

Can be combined with:



AWMQ-10



AWMQ-20

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drylin® Q square linear guides

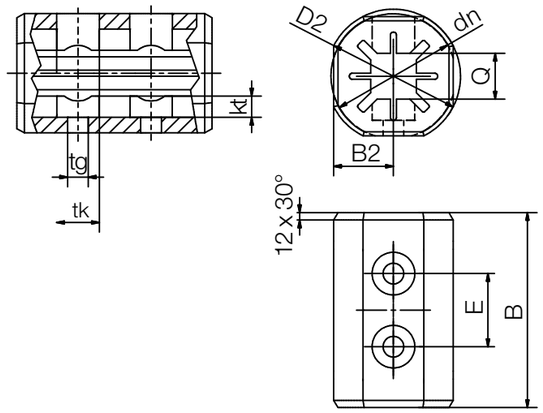
drylin® Q square linear guides | Product range

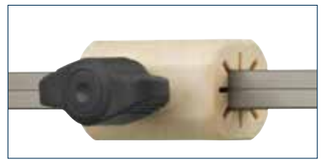
Q10 pillow block



Order key

Type						Size
Q	J	R	M	P	- 01	- 10
Square	iglidur® J	Closed design	Metric	Solid plastic	Standard design	Installation size

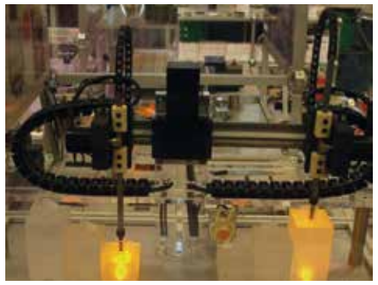




Manual clamp available.
Suffix "-HKA"

Dimensions [mm]

Part No.	Weight	M max.	B	B2	D2	dn	E	Q	tk	tg	kt
	[g]	[Nm]									
QJRMP-01-10	11.3	3	32	9.8	22	22	12	7.5	6	3.4	3.5



Pipette unit equipped with drylin® Q square linear guide combined with drylin® GRW cantilever axis and NEMA stepper motor

Can be combined with:



AWMQ-10

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drylin® Q square linear guides | Product range

Accessories



- Hollow rail for supply lines (compressed air, cable)
- Small space requirement
- A host of possible applications

Single components



Adapter for flange shaft block

Part No.
STZ-Q10-AR-1012-16



Adapter kit e.g. for grippers/sensors

Part No.
STZ-Q10-01-AM



Shaft end supports made from plastic

Part No.
STZ-Q10-01-FL
STZ-Q10-01-LL



Chain connection for e-chain® E2 micro

Part No.
STZ-Q10-01-AC-E2



End caps for square-section linear rail

Part No.
STZ-Q10-01-C
STZ-Q20-01-C

drylin® Q square linear guides

drylin® Q square linear guides | Product range

Clearance adjustment for lifting columns

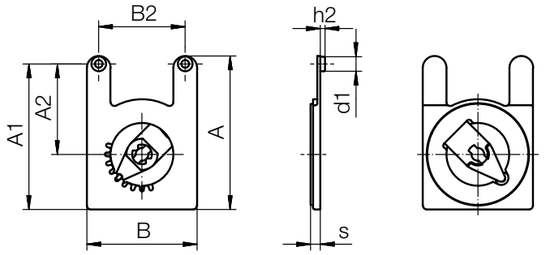




- Clearance-reduced guidance of the lifting columns by adjustment mechanism
- Low-cost due to injection moulding
- Lightweight solid polymer solution
- Lubrication-free, wear-resistant, maintenance-free due to dry-tech® polymer iglidur® J
- Corrosion-resistant

Order key

Type	Option	Size
ASD	J -	28 - 025
Type	iglidur® J	Width B	Installation size

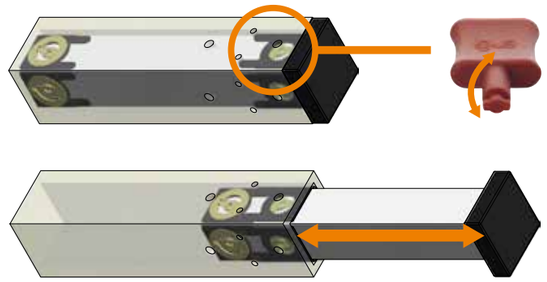


Dimensions [mm]

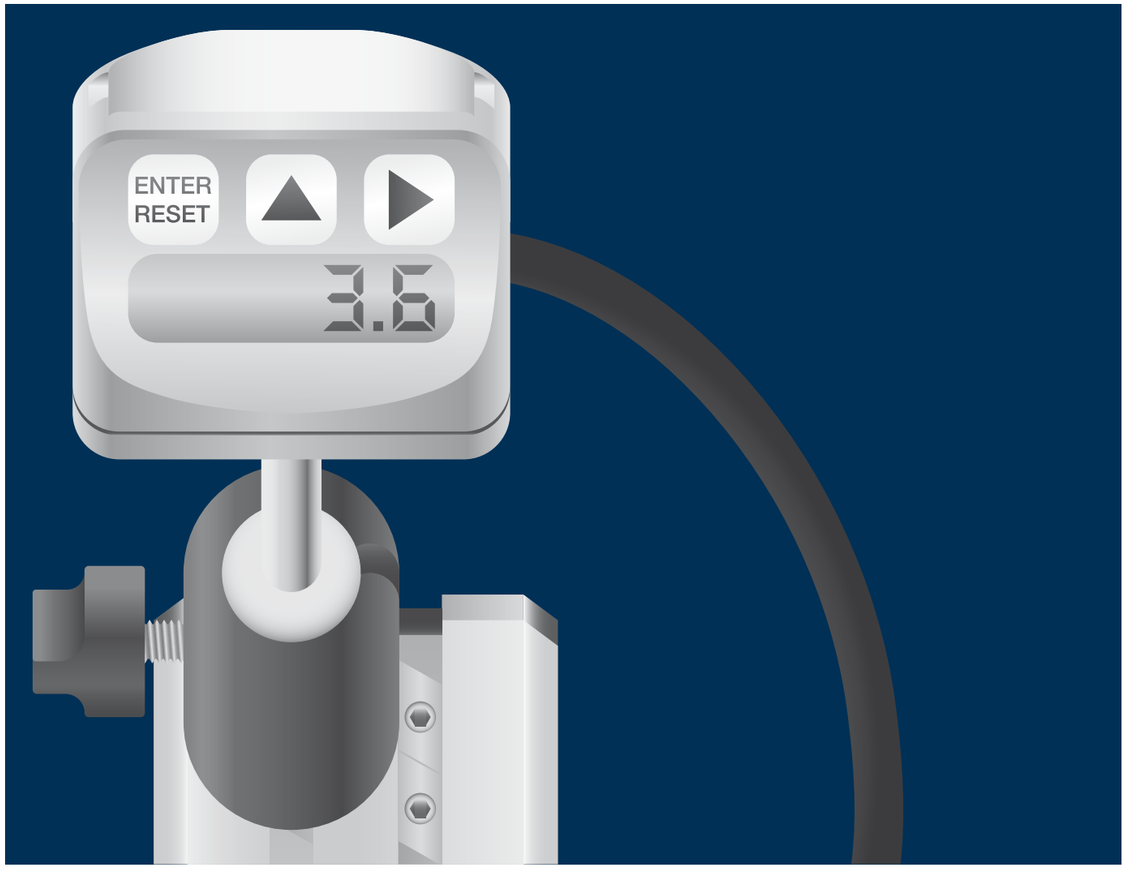
Part No.	Weight	Øs		A	B	A1	A2	B2	d1	h2
	[g]	min.	max.					±0.15	-0.1	±0.1
ASDJ-28-025	1.9	2.2	2.8	39	28	37	23	22	3.7	1.2



Adjustment key Part No.
ASDZ-012817



Notes



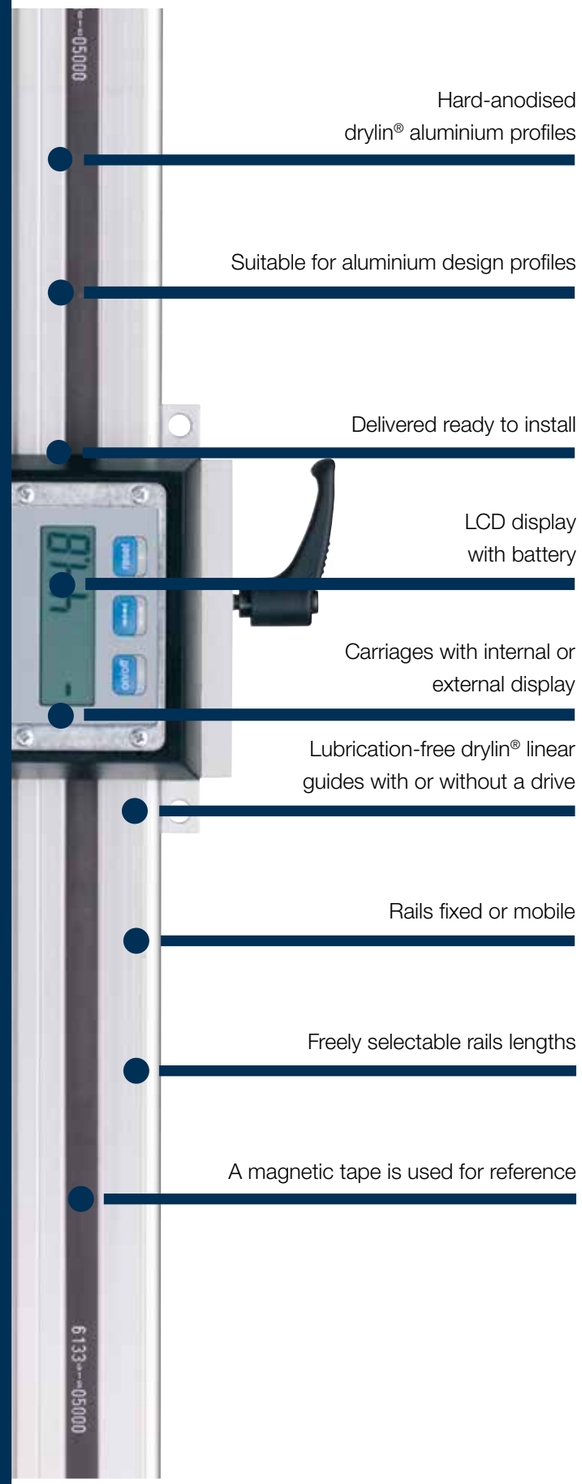
drylin® linear technology - digital measuring systems

- Ready-to-install complete systems
- Sensor, measuring display, magnetic tape included
- Battery operation
- Ideal for positional stops
- Operation without mains supply



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Lubrication-free, light, quiet, long service life, cost-effective



Digital drylin® measuring systems

The drylin® measuring systems use magnetic tape with incremental measuring systems. The integrated battery ensures a service life of many years and enables almost absolute measurement. The sensor, measuring display and magnetic tape are integrated in lubrication-free drylin® W and Q linear guides. With customer-specific rail lengths, systems are supplied as ready-to-install linear modules. Typical application areas are format adjustments and mechanical stop adjustments.

- Simple installation
- Easy to adjust
- Lubrication and maintenance-free
- Battery powered
- Unsupported use
- Optional:
  Mounted rail -> measuring carriage moves
  Mounted measuring rail -> rail moves

Typical application areas

- Format adjustments
- Bending machines
- Band saws
- Stop-dog positioning for profiles, frames, plates, tubes, wood and bar stock

Available from stock
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Max. +70°C
Min. -10°C

Carriage widths: 45 - 134mm
Rail length: up to 4,000mm

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Profile guides for almost unlimited design freedom



drylin® Q for unsupported structures

- Carriage with integrated measuring sensor
- With fixed or flexible adjustable display
- Protected magnetic tape

▶ **Page 306**



drylin® SLW with integrated measuring sensor

- Driven by trapezoidal thread
- Programmable display
- Positioning can be freely adjusted and locked

▶ **Page 307**



drylin® W with digital measuring display

- Max. rail length up to 4,000mm
- Measuring display attached to the side of the carriage
- Lubrication-free adjusting of the carriage

▶ **Page 308**



drylin® W with fixed measuring display

- Max. rail length: up to 2,000mm
- Measuring display fixed in place
- Moving rail with stationary carriage

▶ **Page 308**



drylin® W with external measuring display

- Carriage with integrated sensor
- Flexible positioning of the measuring sensor
- Including manual clamp

▶ **Page 309**



drylin® W for external data output

- Variable sensor type, output power and cable length
- Cable guide and protection through igus® e-chain®
- 1 and 4 edge triggering

▶ **Page 310**



Stop motion measuring system with rail scale

- econ measuring system based on drylin® pre-load prism slide
- Carriages with individually adjustable pre-load in 4 different strengths
- Including scaling on the rail

▶ **Page 311**

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Measuring display for series SLWM/QKM



Properties	
Measuring principle	Incremental, with zero function
Display	LCD display 7.5mm high digits
Display accuracy	Max. 0.1mm
Display/display area	-99999 …+99999
Function	Digit direction, decimal point, unit of measurement (mm, imperial), preset activation
Power supply	Battery 1/2 AA, 3.6V integrated, service life of up to 4 years
Magnetic sensor	Securely connected (external)
Type	Installation housing
Housing	Polymer
Protection class	IP54 display IP67 sensor
Working temperature	0…+50°C
Humidity	35-85%
Speed	Max. 2.5m/s
Display keyboard	3 function buttons

Measuring displays for series WKM2/WKMEDR



Properties	
Measuring principle	Incremental, with absolute value function
Display	Low power LCD with integrated sensor, quasi absolute, battery operated
Display accuracy	Max. 0.1mm
Repeatability	± 1 digit
Display/display area	-99999 …+99999
Function	Freely programmable, e.g. parameter, resolution or offset
Resolution	0.01 0.05 0.1 1mm 0.001, 0.01 inch Freely programmable angled display
Keys	3 keys, membrane keypad
Power supply	Battery integrated, service life of up to 10 years
Magnetic sensor	Securely connected
Reading distance	≤ 1.5mm integrated sensor ≤ 2mm external Sensor
Type	Installation housing
Housing	Zinc die-casting
Protection class	IP20 overall device IP60 display page
Working temperature	0…+60°C
Humidity	≤ 95% rel. humidity, condensation not permissible
Speed	≤ 10m/s
EMC	EN61000-6-2 interference immunity / immission EN 61326-1 emitted interference / emission (class B)

Length measuring system WKMEX



Properties	
Measuring principle	Incremental
Repeatability	± 0.025mm
Measuring principle	Linear
Pole division	5mm
Sensor housing	Zinc die-casting
Protection class	IP67
Application temperature	-10 … +70°C
Bearing temperature	-25 … +85°C
Max. humidity	95%, non-condensing
Max. travel speed	4.0m/s
VDC power supply	5 VDC or 10… 30 VDC
Current draw	5 VDC: Max. 200mA 30 VDC: Max. 150mA
Evaluation electronics	Sensor with integrated evaluation electronics and index impulse
Output power	5 V-TTL line driver or 10.. 30 V_HTL
Source tracks	A, A‘,B, B‘, Z, Z‘
Max. cable length	Max. cable length 5V/5V-TTL: 10m 10-30V/10-30V: 30m 10-30V/5V-TTL: 50m
Max. permissible distance from magnetic tape	2.0mm
Connection method	Open cable ends

Magnetic tape for measuring display WKM



Properties	
Encoding	Incremental, single-track system
Basic pole division	5mm pole division
Band width	10mm
Operating temperature, processed	0° ... +60°C
Tape structure	Magnetic tape stuck on with adhesive tape
External magnetic influence	External magnetic fields on the magnetic tape surface must not exceed 64mT (640Oe; 52KA/m) as this can damage or destroy the magnetic tape encoding
Protection class	Carrier tape, stainless steel (optional)

Digital drylin® measuring systems | Product range

Integrated measuring systems





Order key

Type	Option	Size
QKM-	01	-20

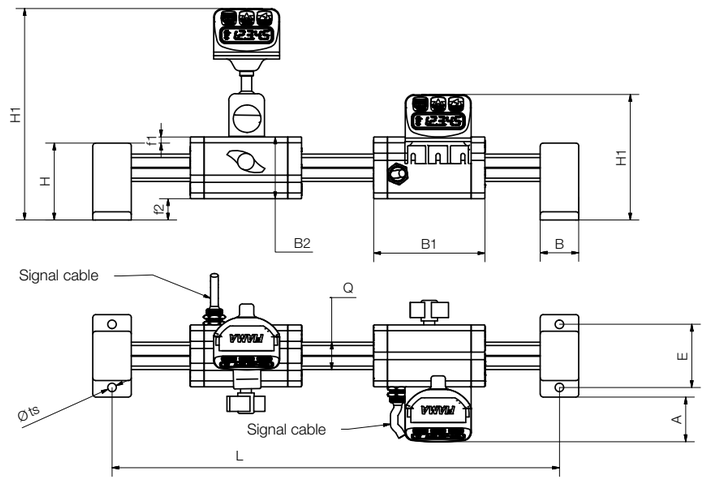
Square | Measuring system | Metric | Carriage type | Installation size

Options:

01: Display flexible with angle joint

02: Display fixed in place

- Protected magnetic tape
- Attachment options using slot nuts
- Manual clamp on carriage
- Unsupported attachment
- Profile AWMQ-20 max. Length 1,500mm
- Sensor integrated in the carriage, saving space
- Technical data ▶ **Page 304**



QKM-02-20 QKM-01-20

Dimensions [mm]

Part No.	M max. [Nm]	L Shaft end support + carriage + stroke	B h7	B1	B2	H	H1	E	Q	ts	f1	f2	A
QKM-01-20	10	28 + 94 + stroke	28	94	45	58	155	46	20	6.2	4.5	15.5	33
QKM-02-20	10	28 + 94 + stroke	28	94	45	58	92	46	20	6.2	4.5	15.5	33

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drylin® digital measuring systems

Digital drylin® measuring systems | Product range

Ready-to-install systems for external data output

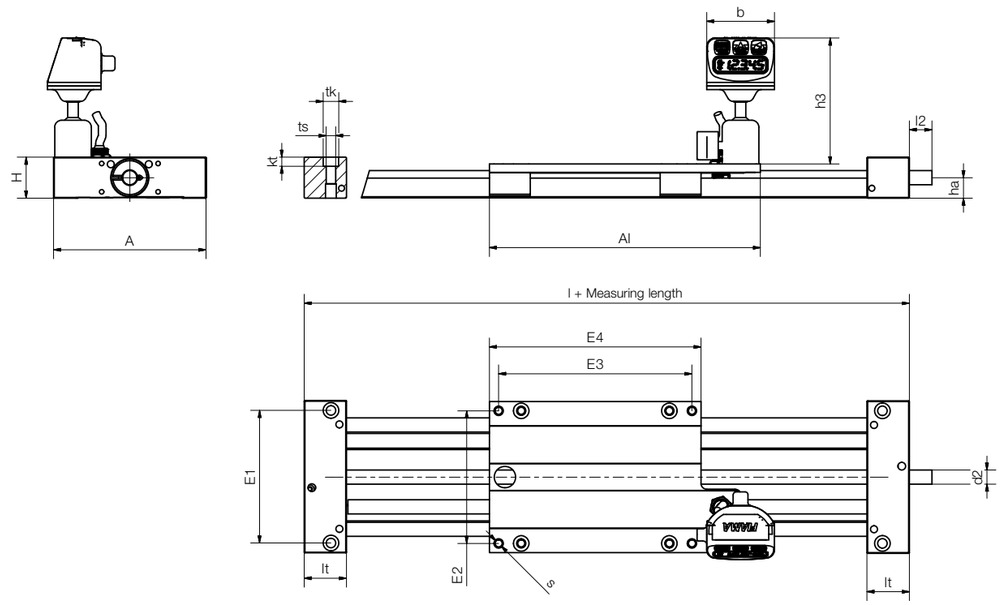


Order key

Type	Size
SLW M-	1080

drylin® SLW linear module | Measuring system | Installation size SLW linear module

- Space-saving sensor integrated in the carriage
- Operation without mains supply
- Integrated magnetic tape
- Extensive accessories available
- Technical data ▶ **Page 304**
- Technical data drylin® linear module SLW ▶**Page 538**



Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	E4	l	l2	lt	tk	kt	ts	Øs	ha	d2	h3	b
SLWM-1080	108	192	29	94	94	137	150	236	17	22	11	6.4	6.8	6.6	14.5	Tr10x2	90	50

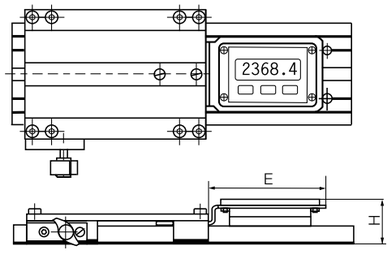
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Digital drylin® measuring systems | Product range

Digital measuring systems with position readout

WKM2, series 10 and 20





Order key

Type	Design
WKM2-10-80-15-01-	R

drylin® W measuring system	Installation size	Rail width	Carriage length	Number of carriages	Display right-mounted

- Lockable carriage
- Display optionally to the right (R) or left (L) of the guide carriage
- Max. rail length 4,000mm (effective measuring length max. 3,757mm)
- Technical data ▶ **Page 305**

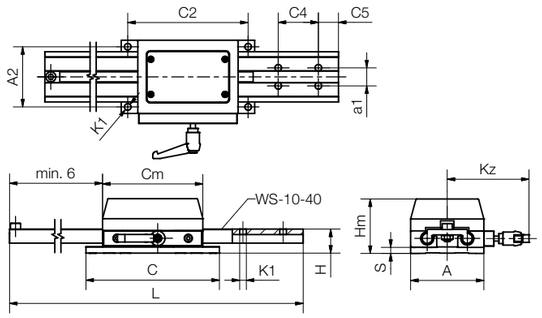
Dimensions [mm]

Part No.	drylin® rail profile[89)]	H	E
WKM2-10-80-15-01-L	WS-10-80	36	93
WKM2-10-80-15-01-R	WS-10-80	36	93
WKM2-20-80-15-01-L	WS-20-80	40	93
WKM2-20-80-15-01-R	WS-20-80	40	93

[89)] Profile dimensions ▶ Page 46

WKM2, series 11





Dimensions [mm]

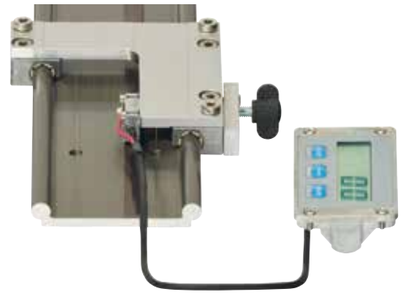
Part No.	L max.	C4	C5	a1	C2	A2	K1	C	A	H	S	Cm	Hm	kz
WKM2-11-40	2,000	40	20	18	120	60	6.6	133	73	24	6	100	54	82

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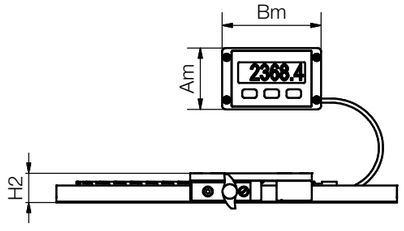
drylin® digital measuring systems

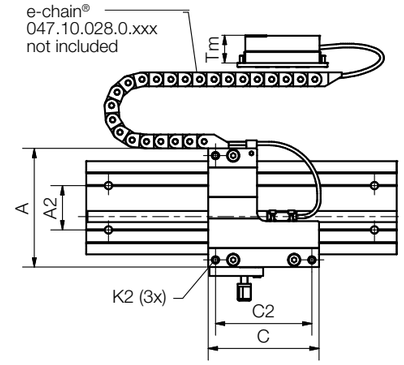
Digital drylin® measuring systems | Product range

Measuring system with positionable readout display



- Technical data ▶ **Page 304**





Order key

Type	Size
WKMED R	-10-80-10-0.3-01-2400

drylin® W measuring system	External Display	Assembly right	Installation size	Rail width	Carriage length	Cable length[165)]	One measuring carriage per rail	Rail length [mm]

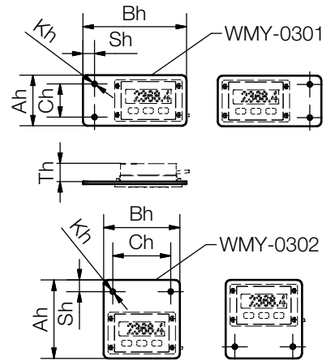
Options:

R: Assembly to the right of the guide carriage

L: Assembly to the left of the guide carriage

[165)] **Cable length:**

Cable length between sensor and display [m] (0.1/0.2/0.3 up to max. 2.0)



Assembly options of the external display

Dimensions [mm]

Part No.	A Width	C Length	A2	C2	K2	H2 ±0.17	Am	Bm	Tm
WKMED-□[90)]-10-80-10	107	100	94	87	M6	24	82	51	25
WKMED-□2[90)]-10-80-10	107	100	94	87	M6	24	82	51	25

[90)] Suitable for assembly on the right (R) or left (L)

Bracket dimensions [mm]

Part No.	Ah	Bh	Ch	Sh	Kh	Th
WMY-0301	61	125	40	14	ø5.4	22
WMY-0302	94.5	92	70	14	ø5.4	22

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Digital drylin® measuring systems | Product range

Ready-to-install system for external data output

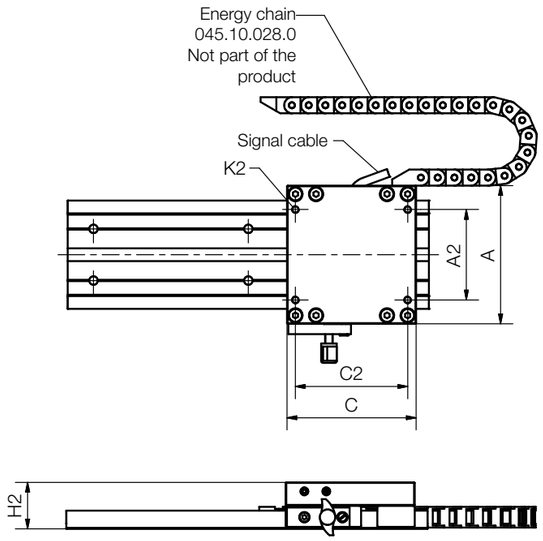


Order key

Type	Size/Design
WKMEX	-10-80-10-2.5-00-01-1000

drylin® W measuring system	External data output	Installation size (shaft Ø)	Rail width	Rail length 100mm	Cable length [m]	Sensor version	Number of carriages	Rail length [mm]

- At 4 edge triggering (setting parameters of the display or control system, for example IW4) and +20°C ambient temperature: resolution: ±(0.025 + 0.02 · L) L = measurement length in metres; repeatability: ±0.025mm
- At 1 edge triggering (setting parameters of the display or control system, for example IW1) and +20°C ambient temperature: resolution: ±(0.1 + 0.02 · L) L = measurement length in metres; repeatability: ±0.025mm
- Small sensor with integrated evaluation electronics
- Output signals: push-pull continuous short-circuit proof with inverted signals (A. A/, B, B/, Z, Z/)
- Technical data ▶ **Page 305**



Dimensions [mm]

Part No.	H2	C	C2	A	A2	K2	Resolution
WKMEX-10-80	36	100	87	107	70	M6	0.1

Versions

Sensor version	Nominal voltage	Output power	Max. length of signal cable
00	10-30V	HTL 10-30V	30m
01	10-30V	TTL Line Driver	50m
11	5V	TTL Line Driver	10m

To place an order, please add the sensor type to the part number.
Order example: WKMEX-10-80-10-2.5-00

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drylin® digital measuring systems

Digital drylin® measuring systems | Product range

Stop motion measuring system with rail scale

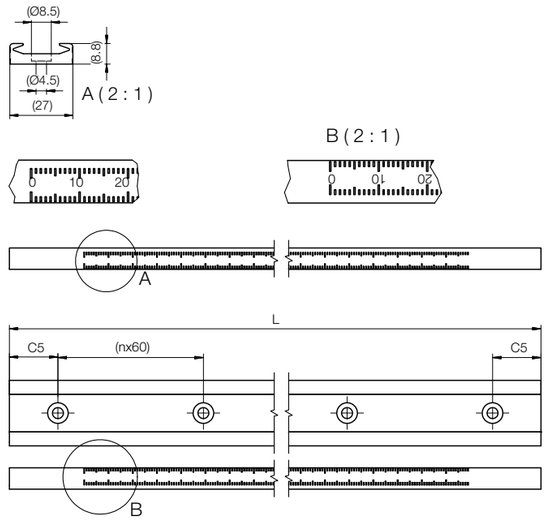


Order key

Type	Size
NKV	-27- MES -1000

drylin® pre-load prism slides	Installation size	Measuring system	Measuring length

- econ measuring system based on drylin® pre-load prism slide
- Carriages with individually adjustable pre-load in 4 different strengths
- Including scaling on the rail
- Cost-effective, durable, practical
- Guaranteed holding forces from 1.3N to 11.7N
- Due to stop motion pre-loading, the measuring system is suitable for vertical installation without any further clamping



Dimensions [mm]

Part No.	A ±0.2	Al -0.1	H ±0.2	E1 ±0.15	E2 ±0.15	E3 ±0.15	L[149]
NKV-27-MES-1000	27	35/60	22	15	18	30	35/53/60/78
NKV-27-MES-2000	27	35/60	22	15	18	30	35/53/60/78

Part No.	hw ±0.25	lt ±0.2	lb	ts	tg	Average displacement force [N]	K1
NKV-27-MES-1000	22.5	20.5	5.5	3.5	M3	2 - 15	4.5
NKV-27-MES-2000	22.5	20.5	5.5	3.5	M3	2 - 15	4.5

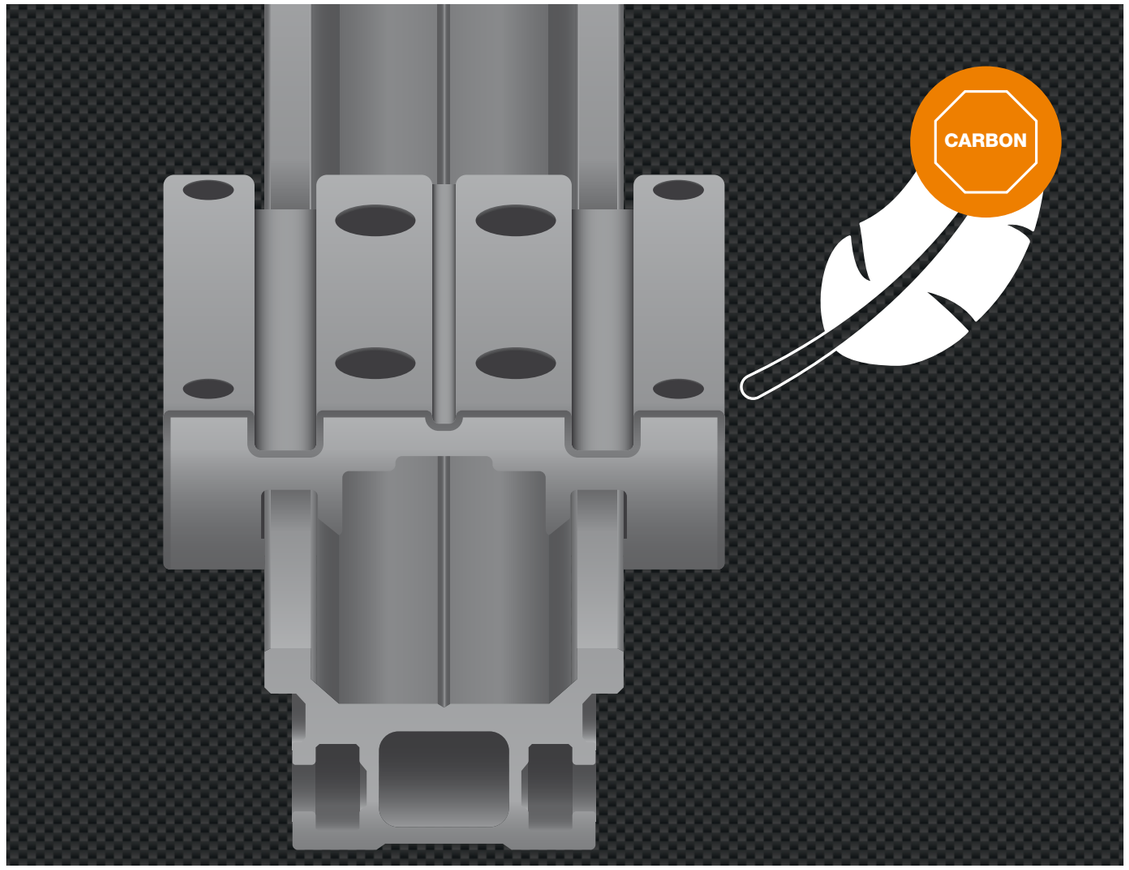
[149] **Depends on selected variant**

drylin® stop motion full product range online
▶ www.igus.eu/drylinstopmotion

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Notes

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drylin® linear technology - carbon fibre

- Lightweight and robust
- Non-metallic
- Non-magnetic
- X-ray transparent
- Lubrication and maintenance-free



Extremely light and 100% lubrication-free



Extremely lightweight: drylin® carbon fibre

Extremely lightweight and yet extremely strong - tribologically optimised drylin® linear systems made from plastic and carbon fibre combine these properties. Whether as guide or linear axis: All systems are 100% lubrication and maintenance-free.

- Extremely lightweight
- Wear-resistant
- Tough and reliable
- Non-metallic
- Non-magnetic
- X-ray transparent

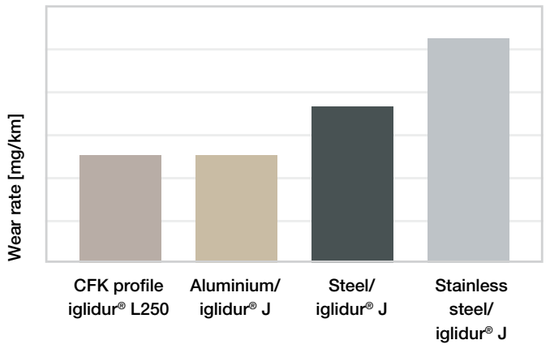
Typical application areas

- Aircraft interior
- Laboratory and medical technology
- Measuring technology

Available in 3-8 days
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Max. +60°C
Min. 0°C



Linear guides and modules made of solid plastic and carbon fibre



drylin® W linear guide made of carbon/solid plastic

- Extremely lightweight and strong carbon profile
- Tribologically optimised
- Solid plastic carriage made from iglidur® L250

▶ **Page 316**



drylin® ZLW toothed belt axis with carbon profile

- Absolutely non-metallic
- Neoprene toothed belt drive with glass fibre reinforcement
- Max. stroke length 1,000mm

▶ **Page 317**



drylin® SAW linear module made from carbon fibre

- drylin® W profile made of carbon fibre
- Drive: Trapezoidal or high-helix lead screw
- Lightest version with carbon, solid plastic, aluminium lead screw

▶ **Page 318**



drylin® SHTP linear module with round carbon fibre shafts

- Very lightweight due to carbon fibre hollow shafts and solid plastic
- Ideal for multi-carriage solutions, also opposite
- Configurable with accessories for manual and electric adjustment

▶ **Page 319**



drylin® CWM round shaft made from carbon fibre

- Very lightweight due to hollow shaft geometry
- Hollow rail for supply lines
- Surface UCU (unidirectional/cross-winding/ unidirectional)

▶ **Page 320**

drylin® W carbon fibre | Product range

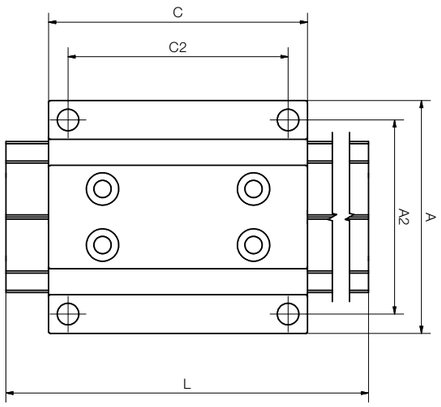
Linear guide system - extremely lightweight and strong

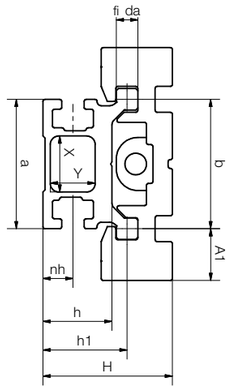


Order key
Complete system

Type	Dimensions [mm]/Type
W K P C	-06-30-06

drylin® W	Complete system	Polymer	Carbon	Shaft Ø	Rail width	Carriage length





Technical data - guide rail made from carbon

Part No.	Fmax. radial		Weight	Iy	Iz
	stat.	dyn.			
	[N]	[N]	[g/m]	[mm⁴]	[mm⁴]
WSPC-06-30	300	60	410	30,391	11,674

Dimensions [mm] - guide profile made from carbon

Part No.	a	b	da	h	h1	nh	X	Y	L
			-0.1						
WSPC-06-30	30	30	5	16	19.5	7	13	10	3,000

Dimensions [mm] solid plastic guide carriage made from iglidur® polymer

Part No.	H	A1	A	A2	C	C2
WWPL-06-30-06	30	12	54	45	60	51

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drylin® ZLW carbon fibre | Product range

Toothed belt axis - non-metallic

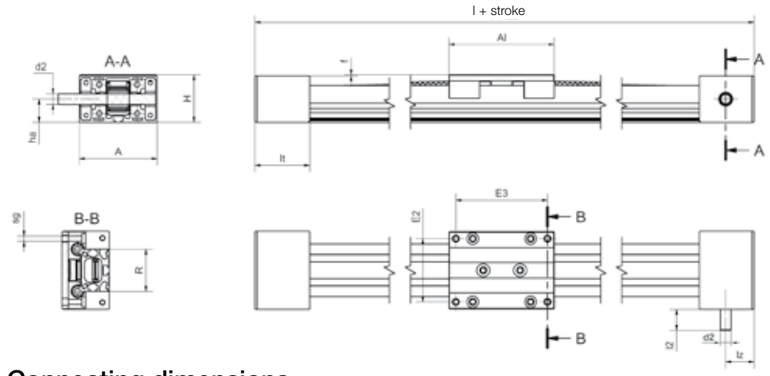


- Guide profile made from carbon
- Linear carriage made from iglidur® polymer

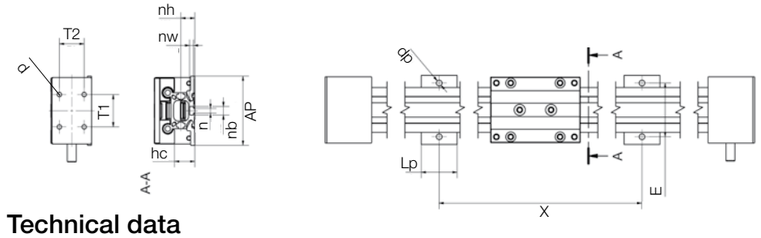
Order key

Type	Dimensions [mm]/Type
ZLW-06	30- P -1000

Toothed belt axis	Shaft Ø	Rail width	Polymer	Stroke length



Connecting dimensions



Technical data

Part No.	Weight without stroke	Weight 100mm stroke	Max. stroke length	Trans-mission	Tooth profile	Material	Drive belt width	Drive belt Tension
	[kg]	[kg]	[mm]	[mm/rev]			[mm]	[N]
Basic 02 P	0.3	0.08	1,000	54	HTD 3M	Neoprene with GF	9	25

Dimensions [mm]

Part No.	A	Al	H	E2	E3	l	R	f	lt	ha	lz	l2	d2
	-0.3			±0.15	±0.15		±0.15		-0.3				h9
ZLW-0630-P	54	60	31	45	51	144	30	3	42	14	20	20	8

Connecting dimensions

Part No.	X	E	AP	Lp	dp	d	T1	T2
		±0.2	-1.0				±0.25	-0.3
ZLW-0630-P	variable	40	52	15	5.5	3	20	21

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drylin® SAW carbon fibre | Product range

Linear module with high profile carbon fibre - lightweight and robust



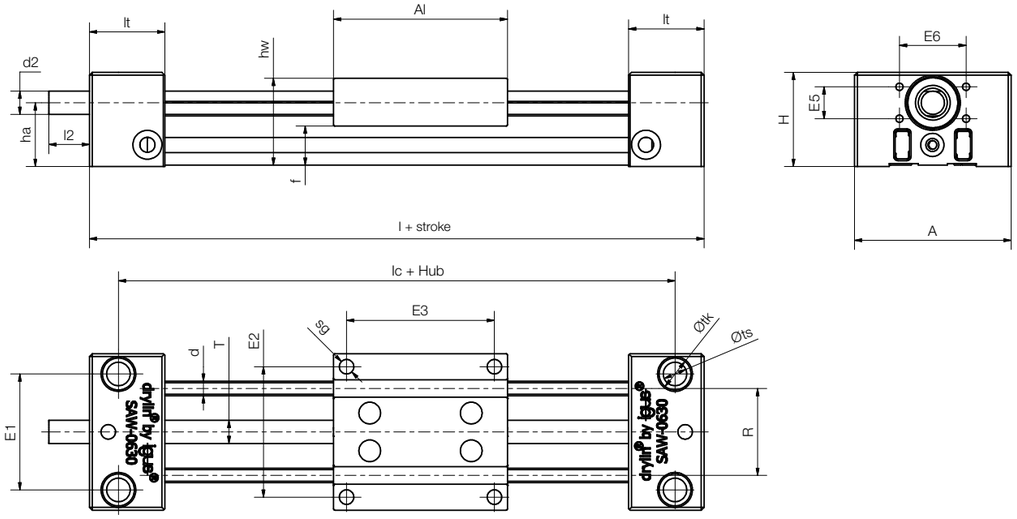
- Guide profile made from carbon
- Linear carriage made from iglidur® polymer

Order key

Complete system

Type	Dimensions [mm]/Type
SAW-0630- P -1000	

drylin® linear module	Shaft Ø	Rail width	Polymer	Stroke length



Technical data

Part No.	Stroke length	Weight		Max. rotational speed	Max. static load capacity	
		Standard	Additional			
	[mm]	[kg]	per 100mm [kg]	[1/min]	axial [N]	radial [N]
SAW-0630-P-...	300	0.25	0.07	1,000	50	50

Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	E5	E6	l	lc	hw	f	lt
	-0.3			±0.15	±0.15	±0.15							±0.1
SAW-0630-P-...	54	60	32.5	40	45	51	11	23	112	92	80	13.5	26

Part No.	tk	ts	sg	d	T ø	l2	d2	ha
SAW-0630-P-...	11	6.6	5	□ 5	8	15	Tr8x1.5	22

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drylin® SHTP carbon fibre | Product range

Linear module with carbon fibre hollow shafts - ideal for multi-carriage solutions



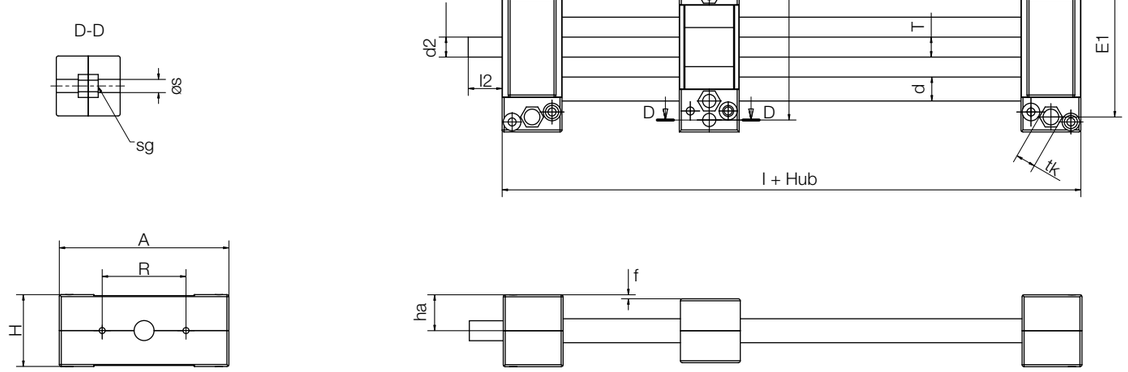
- Lead screws made from carbon
- Linear carriage made from iglidur® polymer

Order key

Complete system

Type	Dimensions [mm]/Type
SHT P - 01-12-CWM	

Linear module	Polymer	Design	Dimension	Carbon fibre shaft



Technical data

Part No.	Max. stroke length	Carbon fibre shaft		More information
		Weight	additional [kg]	
	[mm]	[kg]	(per 100mm)	
SHTP-01-12-CWM	500	0.3	0.06	Drive nut and linear bearings made from iglidur® J
SHTP-02-12-CWM	500	0.3	0.06	Bearing and nut integrated into the carriage

Dimensions [mm]

Part No.	A	Al	H	E1	E2	l	R	f	lt	tk	ts
									±0.1		+0.15
SHTP-01-12-CWM	85	30	36	70	73	90	42	2	30	10	6.0
SHTP-02-12-CWM	85	30	36	70	73	90	42	2	30	10	6.0

Part No.	Øs	sg	d	T	l2	d2[99)]	ha	Max. static load capacity	
								axial	radial
								[N]	[N]
SHTP-01-12-CWM	6.3	M6	12	Tr10x2	17	Tr10x2	18	100	100
SHTP-02-12-CWM	6.3	M6	12	Tr10x2	17	Tr10x2	18	100	100

[99)] Lead screw end unmachined (standard)

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drylin® carbon fibre | Product range

Carbon fibre hollow shafts



- Material: CFK composite
- Roundness tolerance: ±0.05mm
- Diameter tolerance: -0.1mm
- Application temperature: Max. +80°C

CARBON

Order key

Type	Dimensions [mm]		
CW	M	-12	-300
Carbon fibre shaft	Metric	Outer Ø	Shaft length

Dimensions [mm]

Part No.	Design	Diameter -0.1	Max. length	Weight [g]
CWM-12	Hollow shaft	12/9	2,000	70
CWM-16	Hollow shaft	16/12.5	2,000	120
CWM-20	Hollow shaft	20/16	2,000	170
CWM-30	Hollow shaft	30/26	2,000	270



drylin® linear technology - stainless steel

- Temperature-resistant up to +250°C
- Corrosion-resistant
- Chemical resistance
- Ready-to-install linear guides and modules
- Lubrication and maintenance-free



EN 09/2023

drylin® stainless steel | Advantages

Machine parts made of stainless steel are designed to survive in the worst environments. Heat, pressure, seawater, liquid and gaseous media like detergents and other chemicals. If these machine parts also have to work as a bearing, the combination with iglidur® high-performance polymers is ideal. All bearings are lubrication-free and the plastic parts are secured axially and radially in the housings with positive fit.



The suitable iglidur® material can be selected according to the application and used for linear and/or rotary movements.

- Lubrication-free
- Temperature-resistant up to +250°C
- Corrosion-resistant
- Chemical resistance
- Cost-effective

The use of **AISI 316Ti** and **AISI 304** makes of the guides resistant to seawater and chemical contact corrosion, and the guide shafts are also made from AISI 316Ti. Despite the lack of surface hardness, required for instance by recirculating ball bearings, they are suitable for use with plain bearings. The large contact surface of a plain bearing diminishes the surface pressure to a mostly safe value.

Typical application areas

- Food and bottling industry
- meat processing
- Harbour and crane facilities
- Yacht building
- Chemical industry
- Electroplating industry
- Medical and rehabilitation technologies
- Packaging industry



Lubrication freedom with drylin® for a baking and conveyor unit



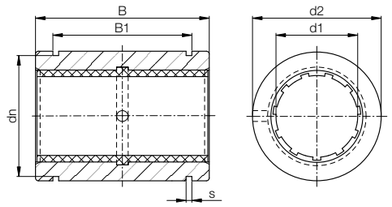
drylin® W guide rails are accredited to cleanroom-standards and therefore used in this blister machine

EN 09/2023

drylin® R linear plain bearings | Product range

Closed stainless steel adapters made of stainless steel 303





- Secured by circlips

Order key

Type					Size	Material
R	J	U	M-	01-	12 -	ES
Closed	iglidur® J	Liner	Metric	Standard	Inner Ø d1	Stainless steel

[78] According to igus® testing method ▶ Page 260
[82] Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Dimensions [mm]

d1	d2	B	B1	Øs	dn	Part No.
	H7	h10	H10	H10	h10	
12	22	32	22.6	1.30	20.5	**RJUM-01-12-ES**
16	26	36	24.6	1.30	24.2	**RJUM-01-16-ES**
20	32	45	31.2	1.60	29.6	**RJUM-01-20-ES**
25	40	58	43.7	1.85	36.5	**RJUM-01-25-ES**
30	47	68	51.7	1.85	43.5	**RJUM-01-30-ES**

Technical data

Part No.	d1 tolerance[78]	Fmax. dynamic[82] p = 5MPa	Fmax. static[82] p = 35MPa	Weight
	[mm]	[N]	[N]	[g]
RJUM-01-12-ES	+0.030 +0.088	960	6,720	60
RJUM-01-16-ES	+0.030 +0.088	1,440	10,080	84
RJUM-01-20-ES	+0.030 +0.091	2,250	15,750	147
RJUM-01-25-ES	+0.030 +0.091	3,625	25,375	324
RJUM-01-30-ES	+0.040 +0.110	5,100	35,700	486

Available with drylin® liners (optional: J200/A180):



J



E7



X

EN 09/2023

drylin® W profile guides | Product range

Single rails round, made of 316 stainless steel



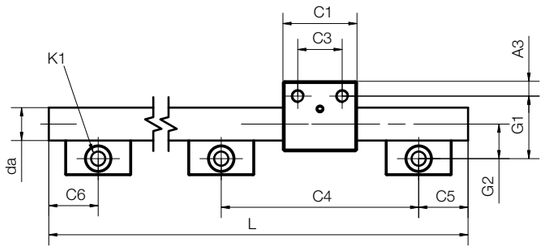
STAIN-LESS STEEL

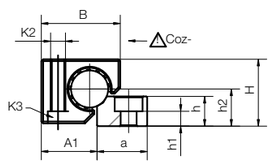
Order key - single rail

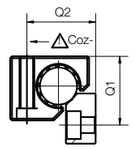
Type	Material
WS-10-ES-FG	

Guide rail	Shafts Ø	Stainless steel	Precision casting

Housing and shaft support material
AISI 316
Shafts material
(AISI 316Ti)







This assembled position is not possible for WS-10

Technical data and dimensions [mm]

Part No.	Weight	H[57]	da	L	a	h	h1	h2	G1	G2	A1	Q1	Q2
		±0.25	-0.1	max.	-0.3								
	[kg/m]												
WS-10-ES-FG	0.87	18	10	3,000	27	5.5	5.5[58]	9	27.0	17.0	16.5	–	–
WS-16-ES-FG	2.22	27	16	3,000	27	12.0	4.5	14	33.0	19.0	25.0	32.0	28
WS-20-ES-FG	3.37	36	20	3,000	27	16.0	8.0	20	38.0	21.0	30.0	37.0	37
WS-25-ES-FG	5.21	45	25	3,000	32	20.0	9.0	25	46.5	25.5	37.5	45.5	46

Part No.	C1	C3	C4	C5	C5	C6	C6	A3	K1 for screw	Geometrical moment of inertia		Moment of resistance	
				min.	max.	min.	max.			Iy	Iz	Wby	Wbz
									DIN 912	[mm⁴]	[mm⁴]	[mm³]	[mm³]
WS-10-ES-FG	29	16	120	20	79.5	20	79.5	6.5	M6[58]	491	491	98	98
WS-16-ES-FG	36	18	120	20	79.5	20	79.5	9.0	M8	3,217	3,217	402	402
WS-20-ES-FG	45	27	120	20	79.5	20	79.5	9.0	M8	7,854	7,854	785	785
WS-25-ES-FG	58	36	150	25	99.5	25	99.5	11.0	M10	19,175	19,175	1,534	1,534

[57] Height dimension minus the bearing clearance tolerance

[58] Plain holes

Can be combined with:


WJ200UM(T)-…


WJ200UME-…


WJUM-..-ES-FG


WJRM-…

Suitable liner material:


iglidur® J


iglidur® E7


iglidur® A180

drylin® W profile guides | Product range

Pillow blocks, made from 316 stainless steel



Order key

Type	Design
W J UM-01-10-ES-FG	

drylin® W	iglidur® J liner	Pillow block, round	Standard	Size 10	Stainless steel	Precision casting

Material
ES-FG: Stainless steel precision casting AISI 316

Technical data and dimensions [mm]

Part No.	Weight	B	C1	C3	A3	K2	K3	Stat. load capacity		
							Countersunk head screw	Coy	Coz+	Coz-
	[g]							[N]	[N]	[N]
WJUM-01-10-ES-FG[59]	57	26.0	29	16	6.5	M6	M5	3,800	3,800	950
WJUM-01-16-ES-FG[59]	134	34.5	36	18	9.0	M8	M6	6,900	6,900	1,450
WJUM-01-20-ES-FG[59]	280	42.5	45	27	9.0	M8	M6	11,000	11,000	1,900
WJUM-01-25-ES-FG[59]	564	52.5	58	36	11.0	M10	M8	16,000	16,000	3,600

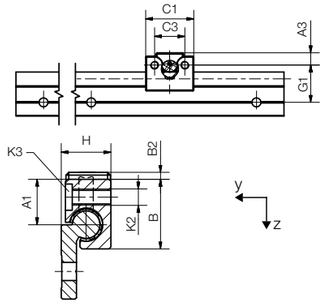
[59] Alternative with XUMO-01-... liners for high temperatures available. Part No.: WXUM-01-...

drylin® W profile guides | Product range

Hybrid roller bearings made of stainless steel

WJRM-01 with single roller





Order key

Type	Size	Material
WJRM-01-	10	-ES

- Hybrid roller bearings
- With single roller
- Size 10
- Stainless steel

Material
ES: Stainless steel 1.4571 (AISI 316Ti)
ES-FG: Stainless steel precision casting AISI 316

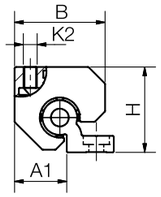
Technical data and dimensions [mm]

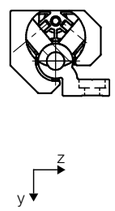
Part No.	Stat. load capacity Co [N]	Dyn. load capacity Cz+ at total running distance [km] 10 [N]	100 [N]	200 [N]	F · v max. [N · m/s]
WJRM-01-10-ES-FG	250	250	90	50	50

Part No.	Coefficient of friction in z-direction [µ]	y-direction [µ]	Weight [g]	A1	A3	B	B2	C1	C3	G1	H	K2	K3 for screw
WJRM-01-10-ES-FG	< 0.1	–	57	16.5	6.5	26	2.5	35	22	22	18	M6	M5

WJRM-21 with double roller







Order key

Type	Size	Material
WJRM-21-	20	-ES

- Hybrid roller bearings
- Double roller bearing
- Size 20
- Stainless steel

Material
ES: Stainless steel 1.4571 (AISI 316Ti)
ES-FG: Stainless steel precision casting AISI 316

Technical data and dimensions [mm]

Part No.	Stat. load capacity Co [N]	Dyn. load capacity Cy+ at total running distance [km] 10 [N]	100 [N]	200 [N]	F · v max. [N · m/s]
WJRM-21-20-ES-FG	840	840	300	150	80

Part No.	Coefficient of friction in z-direction [µ]	y-direction [µ]	Weight [g]	A1	A3	B	B2	C1	C3	G1	H	K2	K3 for screw
WJRM-21-20-ES-FG	–	< 0.1	504	30	9	52	–	52	34	38	49	M8	M5

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drylin® W profile guides | Product range New

Stainless steel pillow blocks, round; change the liner without disassembly

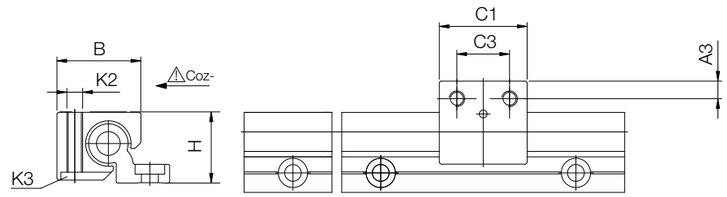


Order key

Type	Size
W□UM A -	01-10-ES

- drylin® W
- iglidur® material
- Pillow block, round
- Replaceable
- Standard
- Size
- Stainless steel

iglidur® material
X: iglidur® X
A180: iglidur® A180
A160: iglidur® A160
E7: iglidur® E7



Technical data and dimensions [mm]

Part No.	Weight [g]	B	C1	C3	A3	K2	H ±0.25	K3 for countersunk head screw	Static load capacity Coy [N]	Coz+ [N]	Coz– [N]
W□UMA-01-10-ES New	57	26.0	29	16	6.5	M6	18	M5	1,200	1,200	250
W□UMA-01-16-ES New	138	34.5	36	18	9.0	M8	27	M6	2,100	2,100	400
W□UMA-01-20-ES New	283	42.5	45	27	9.0	M8	36	M6	3,200	3,200	500
W□UMA-01-25-ES New	575	52.5	58	36	11.0	M10	45	M8	4,800	4,800	950





Installation guide online
▶ www.igus.eu/WXUMA

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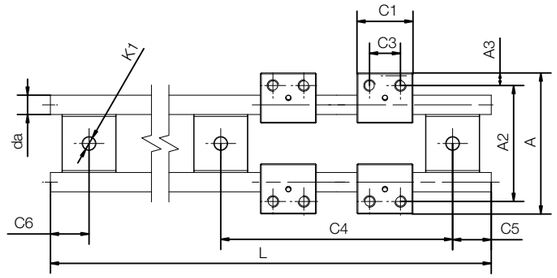
drylin® W hybrid roller bearings | Product range

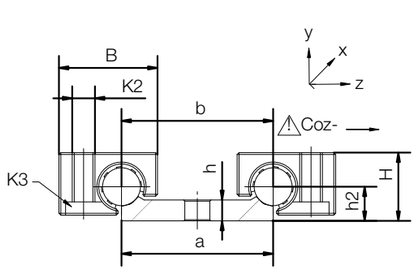
Round double rail, made of stainless steel



Installation size 10-20
Housing and shaft support material
AISI 316
Shaft material AISI 316Ti

Installation size 25
Shaft, shaft support
and housing material AISI 316Ti





Order key

Type

WS-10-40-ES-FG

Profile rail, round	Shaft Ø	Rail width [mm]	Stainless steel	Precision casting

Technical data and dimensions [mm]

Part No.		Weight	H[57]	da	L	a	b	h	h2	A	A2
			±0.25	h9	max.	-0.3					
		[kg/m]									
WS-10-30-ES	New	1.53	24	10	3,000	30	30	5.5	9	47	38
WS-10-40-ES-FG		1.58	18	10	3,000	40	40	5.5	9	73	60

Part No.	C4	C5 min.	C5 max.	C6 min.	C6 max.	K1 for screw DIN 912
WS-10-30-ES	120	30	30.0	30	30.0	M6
WS-10-40-ES-FG	120	20	79.5	20	79.5	M6

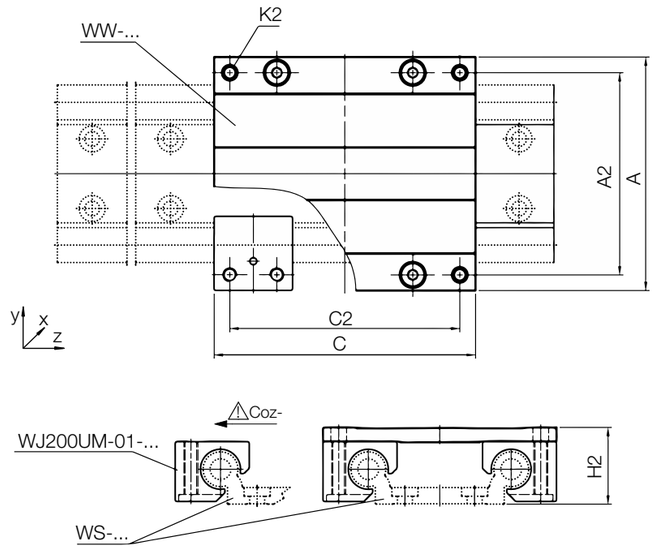
[57] Height dimension minus the bearing clearance tolerance

EN 09/2023

drylin® W profile guides | Product range

Assembled stainless steel guide carriages, round





Technical data and dimensions [mm]

Part No.[64]	Weight	A	C	A2	C2	K2	H2[57]	Static load capacity				
		Width	Length				±0.25	Coy	Coz	Mox	Moy	Moz
	[kg]							[N]	[N]	[Nm]	[Nm]	[Nm]
WW-10-40-10-J200-GESG-PES	0.29	73	100	60	87	M6	24	4,800	2,400	96	170	170
WW-10-40-15-J200-GESG-PES	0.34	73	150	60	137	M6	24	4,800	2,400	96	290	290
WW-10-40-20-J200-GESG-PES	0.40	73	200	60	187	M6	24	4,800	2,400	96	410	410

[57] Height dimension minus the bearing clearance tolerance [64] Optional with manual clamp, suffix "-HKA"

Linear sliding carriage directly replace ball bearing guide - made of stainless steel



Order key

Type

WW-10-30-T15-ES2-□

Guide carriage	Shaft Ø	Rail width [mm]	Installation size	Stainless steel	iglidur® material

iglidur® material
A160: iglidur® A160
E7: iglidur® E7

Technical data and dimensions [mm]

Part No.		H	A	C	A1	A2	C2	K2	st	H1	Weight
											[kg]
WW-10-30-T15-ES2-□	New	24	47	59	8.5	38	30	M5	6	1.5	0.25
WW-10-40-T20-ES2-□	New	30	63	79	11.5	53	40	M6	10	1.5	0.60

EN 09/2023

drylin® W profile guides | Product range New

drylin® W modular system based on hygienic design



Order key

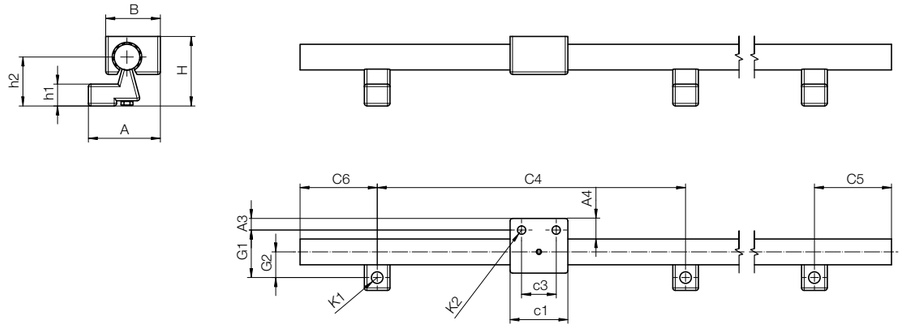
Type

WS-20-ES2-HYD

Profile rail, round	Shaft Ø	Stainless steel	Hygienic design



- Flexible, supported single rails
- Robust double shaft rails
- Smooth round design without corners
- Liner made of iglidur® A160 (compliant with FDA and EU guideline 10/2011 EC)



Technical data and dimensions [mm]

Part No.	H	A	da	B	h1	h2	a1	G1	A3	c1	c3	c4	K1	K2	G2
WS-20-ES2-HYD New	54	56	20	42.5	17	38	80	37	9	45	27	240	9	6.5	20

Part No.	H	B	A3	A4	c1	c3	K2	Weight [g]
WA160UM-01-20-ES2-HYD New	54	42.5	9	16	45	27	6.5	268

EN 09/2023

drylin® stainless steel

drylin® W profile guides | Product range New

drylin® W modular system based on hygienic design



Order key

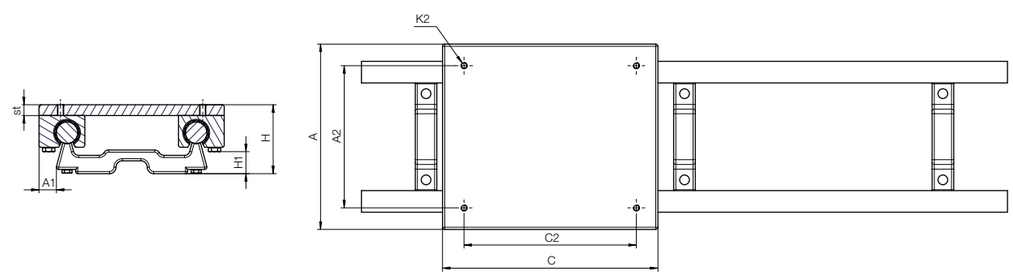
Type

WS-20-120-ES2-HYD

Profile rail, round	Shaft Ø	Shaft Ø	Stainless steel	Hygienic design



- Linear guide according to hygienic design guidelines
- Resistant due to VA stainless steels
- Liners meet conformities for FDA and EU10/2011



Technical data and dimensions [mm]

Part No.	H	A	da	B	a	b	a1	K1	c1	c2	c3	c4	K2	Weight [kg/100mm]
WS-20-120-ES2-xxx-HYD New	54	172	20	42.5	104	120	80	9	45	154	27	240	6.5	0.721

Part No.	H	A	A2	C2	K2	st	A1	H1	Weight [kg]
WW-20-120-20-ES2-HYD New	64	172	132	160	M6	10	16.1	20.5	3.85

EN 09/2023

drylin® shafts | Product range

Stainless steel shafts



EWM EEWM EWMR

STAIN-LESS STEEL

igus® recommendation: linear plain bearings equipped with iglidur® E7 liners for 8 times longer service life

Contact us!
drylin® shafts can be individually machined. Please send us your drawing or make the configuration online. We can then provide a quick quotation.
▶ **www.igus.eu/shaft-configurator**

- Completely supported and mounted with standard aluminium support
- For supported shafts:
  - ▶ Partial shaft support supplied in lengths of 600mm max.
  - ▶ Standard pitch T2, T1 also possible upon request
  - ▶ Symmetrical hole pitches C5 = C6

Dimensions [mm] - hardened stainless steel AISI 440B

Part No.	d	Weight [kg/m]	Max. length	Effective hardness depth
EWM-06	06	0.222	3,000	0.8
EWM-08	08	0.359	4,000	0.9
EWM-10	10	0.617	4,000	0.9
EWM-12	12	0.888	6,000	1.0
EWM-16	16	1.578	6,000	1.2
EWM-20	20	2.466	6,000	1.6
EWM-25	25	3.853	6,000	1.8
EWM-30	30	5.549	6,000	2.0
EWM-40	40	9.865	6,000	2.2
EWM-50	50	15.413	6,000	2.4

EN 09/2023

drylin® stainless steel

drylin® shafts | Product range

Materials: AISI 440B, AISI 420C, AISI 304, AISI 316Ti

Order key

Type	Size	Options
EW M	- 06	-

- Steel shaft
- Metric
- Outer Ø
- Shaft length [mm]

Available shaft materials:
AISI 440B, hardened/ground ▶ EWM
AISI 420C, hardened/ground ▶ EEWM
AISI 304, drawn ▶ EWMR
AISI 316Ti, drawn ▶ EWMS

Dimensions [mm] - hardened stainless steel AISI 420C

Part No.	d	Weight [kg/m]	Max. length	Effective hardness depth
EEWM-06	06	0.222	3,000	0.8
EEWM-08	08	0.359	4,000	0.9
EEWM-10	10	0.617	4,000	0.9
EEWM-12	12	0.888	6,000	1.0
EEWM-16	16	1.578	6,000	1.2
EEWM-20	20	2.466	6,000	1.6
EEWM-25	25	3.853	6,000	1.8
EEWM-30	30	5.549	6,000	2.0
EEWM-40	40	9.865	6,000	2.2
EEWM-50	50	15.413	6,000	2.4

Dimensions [mm] - stainless steel AISI 304 (EWMR) or AISI 316Ti soft stainless steel (EWMS)

Part No.	d	Weight [kg/m]	Max. length
EWMR-10	10	0.617	4,000
EWMS-10	10	0.617	3,000
EWMR-12	12	0.888	6,000
EWMR-16	16	1.578	6,000
EWMR-20	20	2.466	3,000
EWMS-20	20	2.466	3,000
EWMR-25	25	3.853	6,000
EWMR-30	30	5.549	6,000

Order example:
EWM-16-500: Stainless steel shaft (AISI 440B), with 16mm Ø, 500mm length

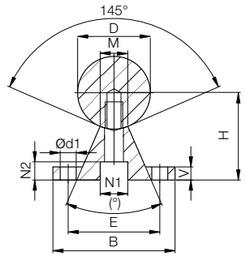
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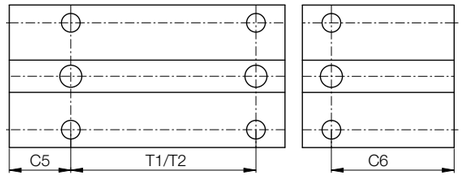
drylin® shafts | Product range

Supported stainless steel shafts



EWUM. EEWUM





STAIN-LESS STEEL

igus® recommendation: linear plain bearings equipped with iglidur® E7 liners for 8 times longer service life

- Completely supported and mounted with standard aluminium support
- For supported shafts:
  - ▶ Partial shaft support supplied in lengths of 600mm max.
  - ▶ Standard pitch T2, T1 also possible upon request
  - ▶ Symmetrical hole pitches C5 = C6

Dimensions [mm] - supported stainless steel shafts EWM (AISI 440B) / EEWM (AISI 420)

Part No.	D	B	H	V	N1	N2	d1	M	(°)	E	T1	C5/C6		T2	C5/C6		Weight
												min.	max.		min.	max.	
			±0.02								±0.15	for T1		Standard	for T2 Standard		[kg/m]
☐**WUM-12**	12	40	22	5	8.0	5.0	4.5	5.8	50	29	75	20	57	120	20	79	1.75
☐**WUM-16**	16	45	26	5	9.5	6.0	5.5	7.0	50	33	100	20	69	150	20	94	2.64
☐**WUM-20**	20	52	32	6	11.0	6.5	6.6	8.3	50	37	100	20	69	150	20	94	3.97
☐**WUM-25**	25	57	36	6	14.0	8.5	6.6	10.8	50	42	120	20	79	200	20	119	5.65
☐**WUM-30**	30	69	42	7	17.0	10.5	9.0	11.0	50	51	150	20	94	200	20	119	7.93
☐**WUM-40**	40	73	50	8	17.0	10.5	9.0	15.0	50	55	200	20	119	300	20	169	12.88
☐**WUM-50**	50	84	60	9	19.0	12.5	11.0	19.0	46	63	200	20	119	300	20	169	19.60

Order example:
EWUM-16-500-T1: Supported stainless steel shaft EWM (AISI 440B) with 16mm outer Ø, 500mm length, T1 pitch
EEWUM-16-500-T1: Supported stainless steel shaft EEWM (AISI 420C) with 16mm outer Ø, 500mm length, T1 pitch

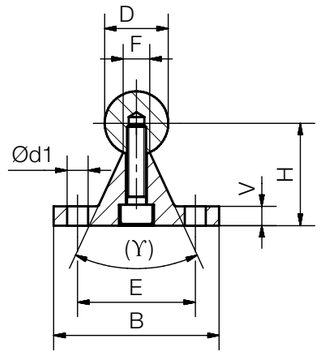
Notes

drylin® shafts | Product range

Partially supported stainless steel shafts



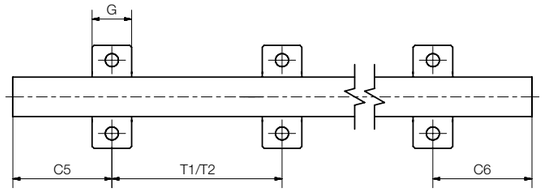
EWUM-ES/
EWUMS-ES



igus® recommendation: linear plain bearings equipped with iglidur® E7 liners for 8 times longer service life

Shaft support blocks for Ø 20mm made of stainless steel VA

- Connecting sizes as standard supports made from aluminium



Dimensions [mm] - partially supported stainless steel shafts AISI 440B

Part No.	D h6	B	H ±0.02	V	d1	E	ϒ	F	G	T1	C5/C6 for T1 min.	C5/C6 for T1 max.	T2 Standard	C5/C6 for T2 min.	C5/C6 for T2 max.
EWUM-ES-12	12	40	22	5	4.5	29	–	5.8	14	75	20	57	120	20	79
EWUM-ES-16	16	45	26	5	5.5	33	–	7.0	16	100	20	69	150	20	94
EWUM-ES-20	20	52	32	6	6.6	37	50°	8.3	20	100	20	69	150	20	94
EWUM-ES-25	25	57	36	6	6.6	42	–	10.8	25	150	20	79	200	20	119
EWUM-ES-30	30	69	42	7	9.0	51	–	11.0	25	150	20	94	200	20	119
EWUM-ES-40	40	73	50	8	9.0	55	–	15.0	25	200	20	119	300	20	169

T2 pitch as standard, T1 upon request

Order example:
EWUM-ES-20-500: Partially supported stainless steel shaft. AISI 440B material, T2 pitch (standard), with 20mm outer Ø, 500mm length

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drylin® shafts | Product range

drylin® stainless steel

STAIN-LESS STEEL

Order key

Type	Size	Options

EWUM S - ES - 20 - ☐ - T1

Partially supported stainless steel shaft, metric	Material	Outer Ø	Shaft length [mm]	Hole pattern

Available materials and lengths:
AISI 440B, max 6,000mm
▶ EWUM
AISI 316Ti, max 3,000mm
▶ EWUMS

Options
Blank: AISI 440B material
S: AISI 316Ti
Hole pattern
T2: T2 pitch (standard)
T1: T1 pitch

Dimensions [mm] - partially supported stainless steel shafts AISI 316Ti

Part No.	D h6	B	H ±0.02	V	d1	E	ϒ	F	G	T1	C5/C6 for T1 min.	C5/C6 for T1 max.	T2 Standard	C5/C6 for T2 min.	C5/C6 for T2 max.
EWUMS-ES-12	12	40	22	5	4.5	29	–	5.8	14	75	20	57	120	20	79
EWUMS-ES-16	16	45	26	5	5.5	33	–	7.0	16	100	20	69	150	20	94
EWUMS-ES-20	20	52	32	6	6.6	37	50°	8.3	20	100	20	69	150	20	94
EWUMS-ES-25	25	57	36	6	6.6	42	–	10.8	25	150	20	79	200	20	119
EWUMS-ES-30	30	69	42	7	9.0	51	–	11.0	25	150	20	94	200	20	119
EWUMS-ES-40	40	73	50	8	9.0	55	–	15.0	25	200	20	119	300	20	169

T2 pitch as standard, T1 upon request

Order example:
EWUMS-ES-20-500-T1: Partially supported stainless steel shaft. AISI 316Ti material, T1 pitch, with 20mm outer Ø, 500mm length

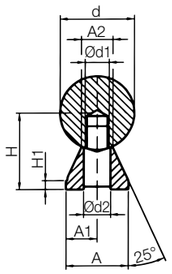
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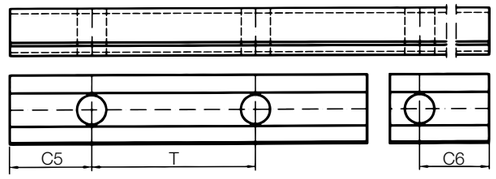
drylin® shafts | Product range

Low-level supported stainless steel shafts



EWUMN. EEWUMN





Order key

Type	Size	Options
EWUMN-	20	-2000-T1
Low-level supported stainless steel shaft, metric	Outer Ø	Shaft length [mm] / Hole pattern

EWUM, EEWUM: Supported stainless steel shaft
EWUMN,EEWUMN: Low-level supported stainless steel shafts

Available materials and lengths:
AISI 440B, hardened/ground: EWM
AISI 420C, hardened/ground: EEWM

Hole pattern:
T2: T2 pitch (standard)
T1: T1 pitch (upon request)

Dimensions [mm] - low-level supported steel shafts EWM (AISI 440B) / EEWM (AISI 420)

Part No.	Outer Ø d	H ±0.02	H1	A	A1	A2 ±0.02	d1	d2	T	C5/C6 min.	C5/C6 max.	Weight [kg/m]
☐WUMN-12	12	14.5	3	11	5.5	5.4	M4	4.5	75	20	57.0	1.62
☐WUMN-16	16	18.0	3	14	7.0	7.0	M5	5.5	75	20	57.0	2.54
☐WUMN-20	20	22.0	3	17	8.5	8.1	M6	6.6	75	20	57.0	3.81
☐WUMN-25	25	26.0	3	21	10.5	10.3	M8	9.0	75	20	57.0	5.62
☐WUMN-30	30	30.0	3	23	11.5	11.0	M10	11.0	100	20	69.5	7.63
☐WUMN-40	40	39.0	4	30	15.0	15.0	M12	13.5	100	20	69.5	13.47
☐WUMN-50	50	46.0	5	35	17.5	19.0	M14	15.5	100	20	69.5	20.31

Low-level supported shafts are delivered unassembled.

Order example:
EWUMN-16-500: Low level supported stainless steel shaft EWM (AISI 440B), with 16mm outer Ø, 500mm length, T pitch
EEWUMN-16-500: Low level supported stainless steel shaft EEWM (AISI 420C), 16mm outer Ø, 500mm length, T pitch

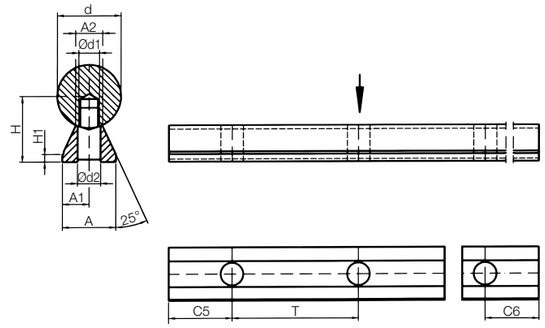
Notes

drylin® shafts | Product range

Low-level partially supported stainless steel shafts



EWUMN-ES/
EWUMSN-ES



igus® recommendation: linear plain bearings equipped with iglidur® E7 liners for 8 times longer service life

Low level shaft support blocks made of stainless steel

- Connection sizes are identical to low-level aluminium supports ▶ **Page 275**

Dimensions [mm] - low-level partially supported stainless steel shafts AISI 440B

Part No.	d	H	H1	A	A1	A2	d1	d2	T	C5/C6		Weight
		±0.02								min.	max.	[kg/m]
EWUMN-ES-12	12	14.5	3	11	5.5	5.4	M4	4.2	75	20	57.0	1.00
EWUMN-ES-16	16	18.0	3	14	7.0	7.0	M5	5.2	75	20	57.0	1.76
EWUMN-ES-20	20	22.0	3	17	8.5	8.1	M6	6.2	75	20	57.0	2.77
EWUMN-ES-25	25	26.0	3	21	10.5	10.3	M8	8.2	75	20	57.0	4.35
EWUMN-ES-30	30	30.0	3	23	11.5	11.0	M10	10.2	100	20	69.5	6.01
EWUMN-ES-40	40	39.0	4	30	15.0	15.0	M12	12.5	100	20	69.5	10.80

Low-level partially supported stainless steel shafts are supplied unassembled

Order example:
EWUMN-ES-20-500: Partially supported stainless steel shaft. AISI 440B material, T2 pitch (standard), with 20mm outer Ø, 500mm length

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drylin® shafts | Product range

drylin® stainless steel

STAIN-LESS STEEL

Order key

Type	Size	Options
EWUMSN-	ES - 20	-☐ -T1

- Stainless steel shaft with low level support, metric
- Stainless steel partial support
- Outer Ø
- Shaft length [mm]
- Hole pattern

Available materials and lengths:
AISI 440B, max 6,000mm
▶ EWUMN
AISI 316Ti, max 3,000mm
▶ EWUMSN

Dimensions [mm] - low-level partially supported stainless steel shafts AISI 316Ti

Part No.	d	H	H1	A	A1	A2	d1	d2	T	C5/C6		Weight
		±0.02								min.	max.	[kg/m]
EWUMSN-ES-12	12	14.5	3	11	5.5	5.4	M4	4.2	75	20	57.0	1.00
EWUMSN-ES-16	16	18.0	3	14	7.0	7.0	M5	5.2	75	20	57.0	1.76
EWUMSN-ES-20	20	22.0	3	17	8.5	8.1	M6	6.2	75	20	57.0	2.77
EWUMSN-ES-25	25	26.0	3	21	10.5	10.3	M8	8.2	75	20	57.0	4.35
EWUMSN-ES-30	30	30.0	3	23	11.5	11.0	M10	10.2	100	20	69.5	6.01
EWUMSN-ES-40	40	39.0	4	30	15.0	15.0	M12	12.5	100	20	69.5	10.80

Low-level partially supported stainless steel shafts are supplied unassembled

Order example:
EWUMSN-ES-20-500-T1: Partially supported stainless steel shaft. AISI 316Ti material, T1 pitch, with 20mm outer Ø, 500mm length

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drylin® SHT linear modules | Product range

Stainless-steel linear modules



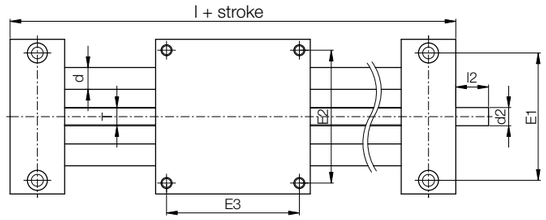
- Corrosion-resistant carriages and shaft end supports made of stainless steel
- High grade stainless steel shafts (AISI 440B)
- Stainless steel lead screw
- Temperature-resistant
- Up to +180°C with iglidur® X
- Food-compliant with iglidur® A180
- Can be configured online as SHTC compact version

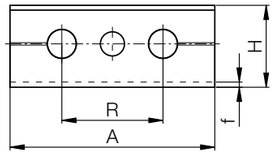
reddot design award winner 2006

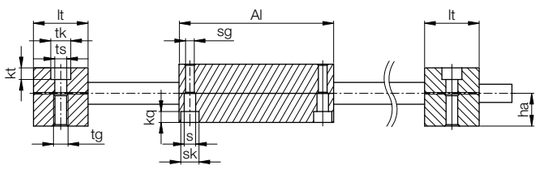
Order key

Type	Size	Options
SHT-	ES J	- 08

Standard | Stainless steel | Bearing material | Shaft material







Technical data

Part No.	Max. stroke length	Aluminium shaft		Steel shaft		Max. static load capacity	
		Weight	addit. (per 100mm)	Weight	addit. (per 100mm)	axial	radial
	[mm]	[kg]	[kg]	[kg]	[kg]	[N]	[N]
SHT-ESJ-08	300	0.24	0.05	0.27	0.1	100	360
SHT-ESJ-12	750	1.1	0.1	1.3	0.2	700	2,800
SHT-ESJ-20	1,000	3.2	0.3	3.9	0.6	1,600	6,400
SHT-ESJ-30	1,250	8.6	0.6	10.9	1.4	2,500	10,000

Dimensions [mm]

Part No.	A -0.3	Al -0.3	H	E1 ±0.15	E2 ±0.15	E3 ±0.15	l	R	f	lt	tk	ts
SHT-ESJ-08	65	65	23	52	55	55	96	32	1.5	15.5	10	5.5
SHT-ESJ-12	85	85	34	70	73	73	145	42	2.0	30.0	11	6.6
SHT-ESJ-20	130	130	48	108	115	115	202	72	2.0	36.0	15	9.0
SHT-ESJ-30	180	180	68	150	158	158	280	96	4.0	50.0	20	13.5

Part No.	tg	kt ±0.1	Øs	sk	sg	kq	d	T	l2	d2 Standard	ha
SHT-ESJ-08	M6x8	7.0	4.2	8	M5	4.6	8	Tr6x2	17	Tr6x2	13
SHT-ESJ-12	M8x18	6.4	6.3	10	M6	6.0	12	Tr10x2	17	Tr10x2[92)]	18
SHT-ESJ-20	M10x23	8.6	6.4	11	M8	7.0	20	Tr18x4	26	12h9	23
SHT-ESJ-30	M16x40	12.6	11.0	18	M12	10.6	30	Tr24x5	38	14h9	36

92) Lead screw end unmachined

drylin® SHT linear modules | Product range

Hygienic design



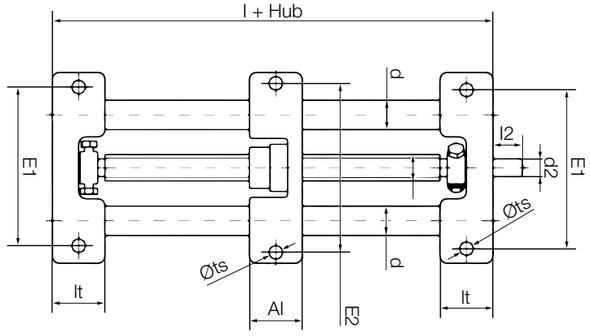
STAIN-LESS STEEL

- Easily cleaned solution
- Wide gaps
- Materials: plastic and stainless steel
- Lead screw nuts made of FDA-compliant iglidur® A180
- Accessories available ▶ **Page 613**

Order key

Type	Size	Shaft	Option
SHTC-	20	-EWM	-HYD

Flexible | Installation size | Shaft material | Hygienic design



FDA

The lead screw linear unit can be delivered with complete FDA-compliant materials.

Dimensions [mm]

Part No.	A -0.3	Al -0.3	H	E1 ±0.15	E2 ±0.15	l	R	f	lt	ts	d	T	l2	d2	ha
SHTC-20-EWM-HYD	130	36	48	108	115	108	72	2	36	9.0	20	Tr18x4	26	12 h9	23

drylin® SLW linear modules | Product range

Made of stainless steel



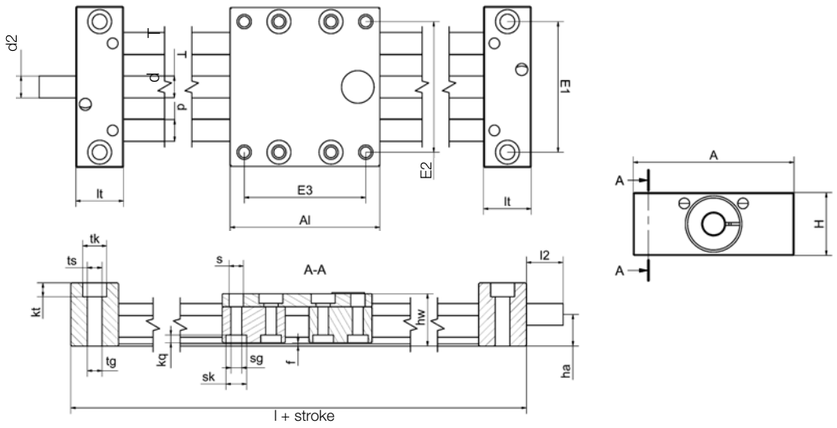
- Stainless steel version with corrosion-resistant steel components (AISI 303, AISI 316 and (AISI 316Ti)
- Choice of bearing material:
  iglidur® J = Standard
  iglidur® A180 = FDA-compliant
  iglidur® X = High temperature up to +150°C[117)]
- Accessories available
  ▶ **Page 613**

Order key

Type	Size
SLW-ES J	-1040

Compact	Stainless steel	iglidur® J bearing	Installation size

STAIN-LESS STEEL



Technical data

Part No.	Shaft Ø	Max. stroke length	Weight	additional (per 100mm)	Max. stat. load capacity	
	[mm]	[mm]	[kg]	[kg]	axial [N]	radial [N]
SLW-ESJ-1040	10	750	1.4	0.2	700	2,800
SLW-ESX-1040	10	750	1.4	0.2	700	2,800
SLW-ESA180-1040	10	750	1.4	0.2	700	2,800
SLW-ESJ-2080	20	1,000	5.7	0.64	1,600	6,400
SLW-ESA180-2080	20	1,000	5.7	0.64	1,600	6,400

Dimensions [mm]

Part No.	A -0.3	Al -0.3	H	E1 ±0.15	E2 ±0.15	E3 ±0.15	l	hw	f	lt	tk	ts	tg
SLW-ES-1040	74	100	29	60	60	87	144	24	1.5	22	11	6.8	M8x10
SLW-ES-2080	134	150	46	116	116	132	206	44	1.5	28	15	8.6	M10x15

Part No.	kt ±0.1	Øs	sk	sg	kq	d	T	l2	d2 Standard	ha
SLW-ES-1040	6.4	6.6	9.5	M6	4.4	10	Tr10x2	17	Tr10x2[92)]	14.5
SLW-ES-2080	8.6	9.0	14	M8	5.5	20	Tr18x4	26	12h9	23.0

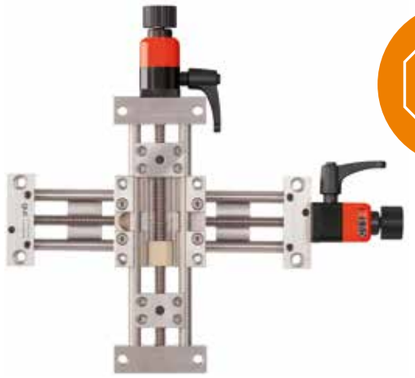
[92)] Lead screw end unmachined

[117)] In the event of severe temperature fluctuations during transport, storage and use, thermal expansion effects cannot be ruled out

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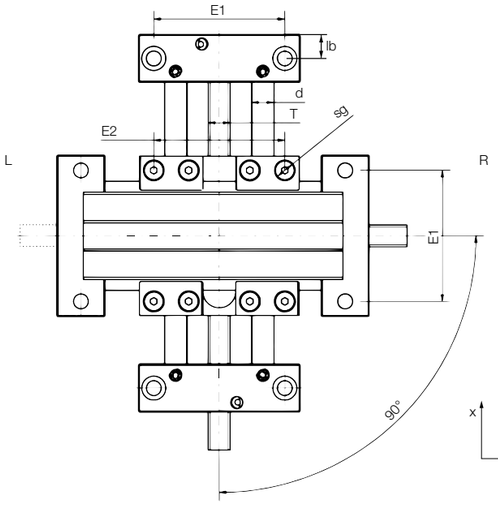
drylin® SLW XY tables | Product range

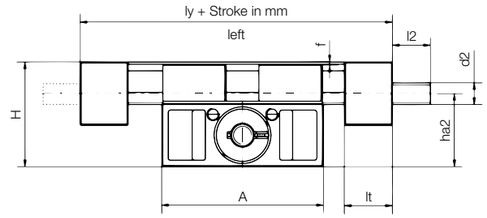
XY tables - stainless steel version

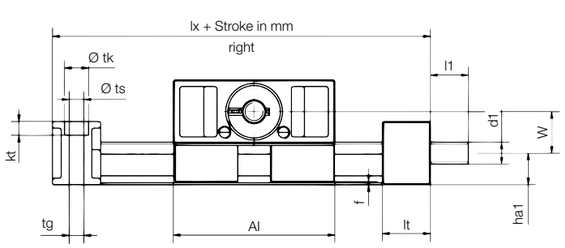


STAIN-LESS STEEL

- For manual adjustments
- High torsional stability
- Structure entirely made from 316 stainless steel materials
- Chemical and corrosion-resistant
- Accessories available ▶ **Page 613**







Dimensions [mm]

Part No.	Max. stroke length [mm]	A -0.3	Al	H	E1 ±0.15	E2 ±0.15	Base length lx	Base length ly	f	lt	tk ±0.1	ts	tg	kt
SLW-XY-ESJ-1040	300	74	73	48	60	60	117	117	1.5	22	11	6.8	M8x10	6.4

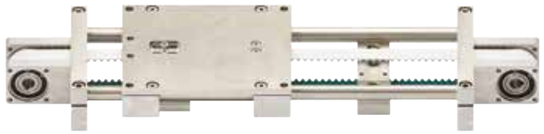
Part No.	sg	d	T	l1	d1 Standard	d1 Alternative	l2	d2 Standard	d2 Alternative	ha1	ha2	W ha2-ha1
SLW-XY-ESJ-1040	M6	10	Tr10x2	17	Tr10x2	6 h9	17	Tr10x2	6 h9	14.5	33.5	19

The hand wheel can be ordered left or right-mounted in the y-direction.
Left: SLW-XY-ESJ-1040-L-200-300 for 200mm stroke length on the x-axis and 300mm on the y-axis
Right: SLW-XY-ESJ-1040-R-200-300 for 200mm stroke length on the x-axis and 300mm on the y-axis

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drylin® ZLW linear modules | Product range

Stainless steel toothed belt modular drive system



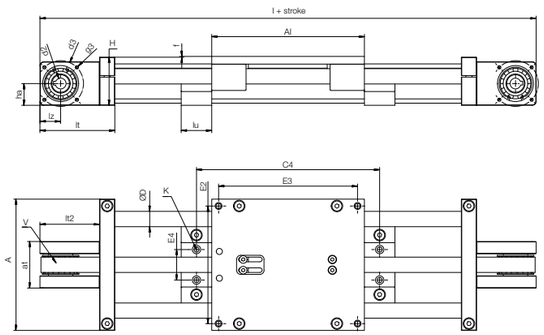
- High speed with ball bearing supported drive shaft
- Robust wide round belt
- Central belt adjustment on the carriage
- Based on lubrication-free drylin® W linear guide
- Variable motor connection due to solid and hollow shafts

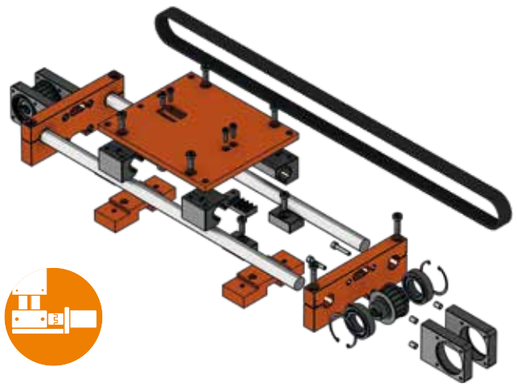
Order key

Type	Size	Options

ZLW-20120-ES-02-S-200-H-2000

Toothed belt axis	Installation size	Axis distance	Design	Version	Carriage length	Drive shaft	Stroke length





Technical data

Part No.	Max. stroke length [mm]	Transmission [mm/rev]	Tooth profile	Drive belt Material	Drive belt Tension [N]
ZLW-20120-ES	2,500	144	8M	PU with steel cable	750
ZLW-20160-ES	2,500	144	8M	PU with steel cable	750
ZLW-20200-ES	2,500	144	8M	PU with steel cable	750

Dimensions [mm]

Part No.	A	Al	H	E2	E3	E4	C4	f	lt	ha	lz	l	d2 h7	d3	g3	D	K For DIN912 - M6	at	lt2	lu	V [mm/rev]
ZLW-20120-ES	172	200	63	154	182	40	240	–	98	28.5	27	396	14	60	M5	20	M8	61	78	40	144
ZLW-20160-ES	212	200	63	194	182	80	240	–	98	28.5	27	396	14	60	M5	20	M8	61	78	40	144
ZLW-20200-ES	252	200	63	234	182	120	240	–	98	28.5	27	396	14	60	M5	20	M8	61	78	40	144

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drylin® ZLW linear modules | Product range New

Linear axis with hygienic design



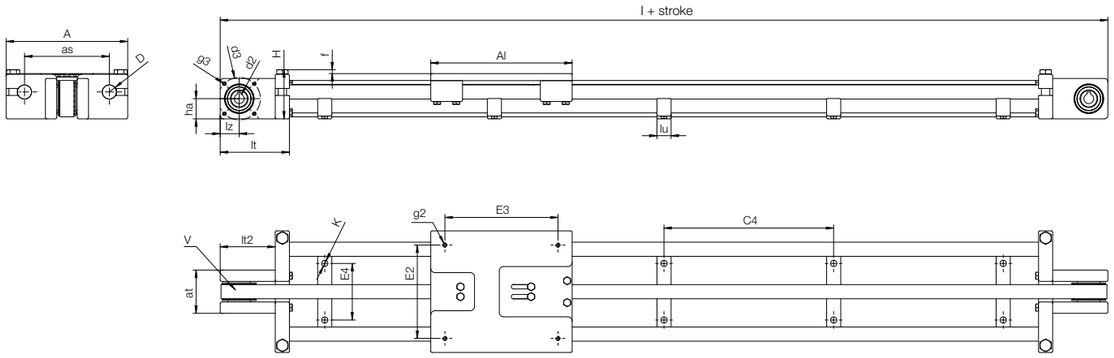
- Linear axis compliant with hygienic design
- Bearing points FDA-compliant through iglidur® A160
- Corrosion-resistant

Order key

Type	Size	Options

ZLW-20120-HYD-02-S-200-H-2000

Toothed belt axis	Installation size	Axis distance	Design	Version	Carriage length	Drive shaft	Stroke length



Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	Weight additional (per 100mm) [kg]	Transmission [mm/rev]	Tooth profile	Toothed belt material	Toothed belt tension
ZLW-20120-HYD New	3,000	2.03	0.16	144	8M	PU (FDA) + stainless steel	750

Dimensions [mm]

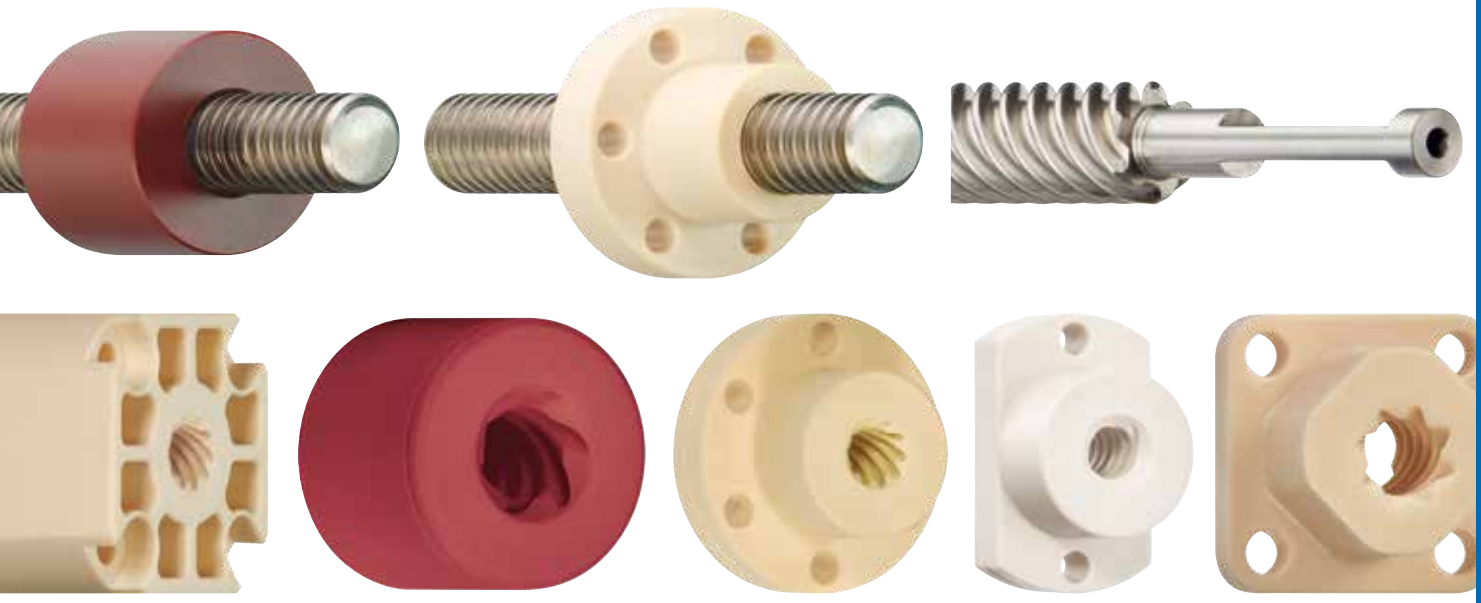
Part No.	A	Al	H	E2	E3	E4	C4	f	lt	ha
ZLW-20120-HYD New	172	200	69.4	132	Al-40	80	240	5.4	98	28.5

Part No.	lz	l	d2 H7	d3	g3	D	K	at	lt2	lu
ZLW-20120-HYD New	27	396	14	60	M5	20	9	61	78	20

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drypin®...

Lead screw technology

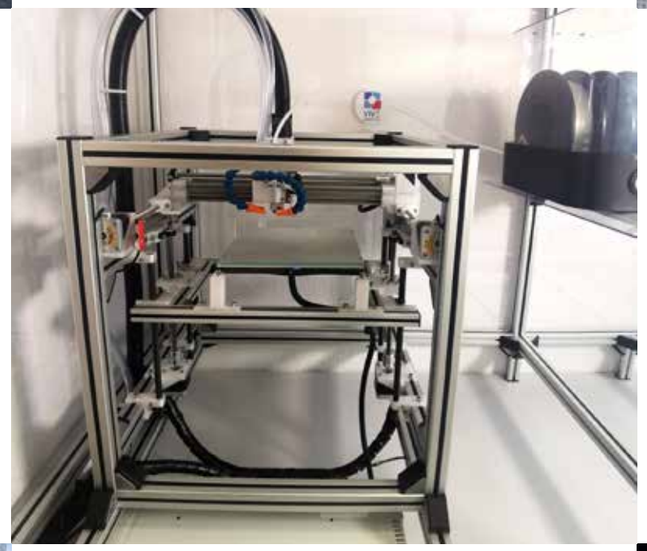


...plastics



CNC equipment
The dryspin® lead screw drives are subjected to high loads in this application, as Peter Urban explains: "When the tool mills a circle into the material, high and overlapping forces act on the axes". Because the machine processes a wide variety of materials, and at very different feed speeds, it is not possible to completely rule out the possibility of vibration from a design point of view. In this case, according to the experience of the Stepcraft designers, a drop of oil helps as a damper: "Then there is an even better running behaviour."
▶ **www.igus.eu/milling**

Cleanroom 3D printer
In this application, a precise, reliable cleanroom 3D printer is used for processing thermoplastics. High helix and trapezoidal lead screws with high efficiency for all drive axes were the ultimate solution to the problem of VIVECube - Clean Precision cleanroom capability. It was the only suitable solution for low-abrasion linear drives that was also cost-effective.
▶ **www.igus.eu/cleanroom-printer**



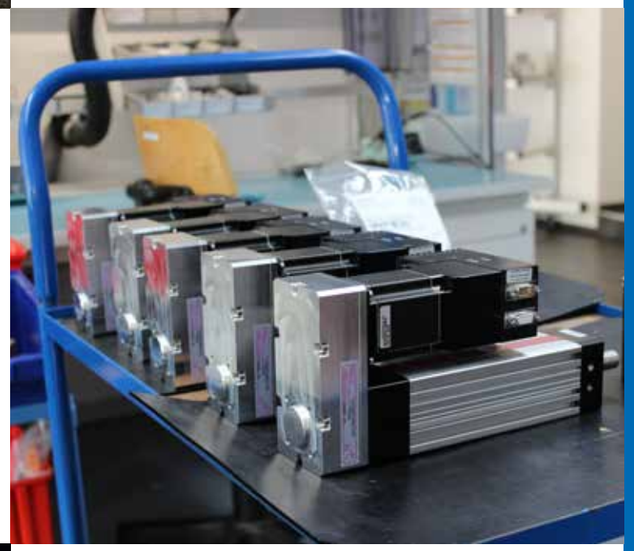


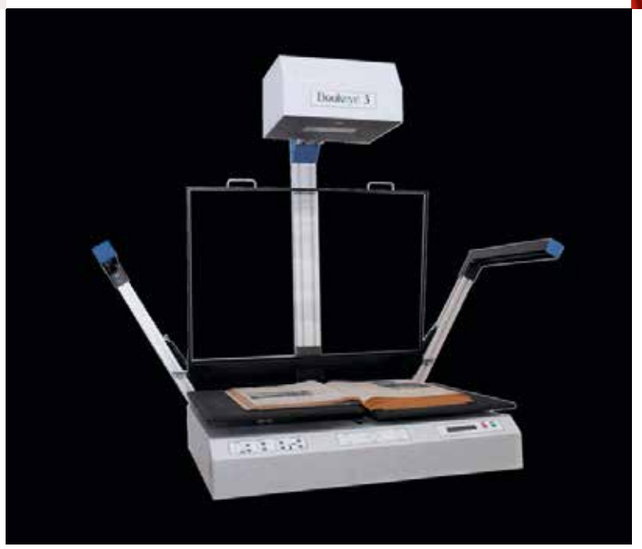
Actuator
Precise movement and positioning of the actuators without regular maintenance and with the highest accuracy, even under adverse environmental conditions, was required. The freedom from lubrication and maintenance does not allow dirt and dust to adhere. ARIS uses dryspin® drives from the igus® standard product range, and only the outer geometry of the nut has been individually adjusted. In the lead screw support block, two axial plain bearings made of the igus® high-performance polymer iglidur® Q ensure the absorption of high loads; at the same time, the clearance of the unit can be adjusted via the thrust bearing.
▶ **www.igus.eu/actuators**



Aircraft simulator
The lead screw drives were used to control the two throttle levers. The system worked so well that a similar system was used to drive the speed brake lever (to control the simulated air brakes) mounted in the same throttle module. The products were the perfect blend of low cost, high reliability, and very simple reverse control. The low costs made it possible to meet the target price for the simulated throttle valves.
▶ **www.igus.eu/aircraft-throttle**

Compact automation solution
An easy-to-use, high-quality automation solution was required. Further requirements were high precision and flexibility, reliable and high-performance components, as well as the highest hygiene standards. Without the use of oils or fats as lubricants, we can meet the highest hygiene requirements with our lead screw technology. In addition, use in dry operation saves a large amount of cleaning and maintenance costs and wear is also significantly reduced.
▶ **www.igus.eu/dryspin-automation**





All of the main components of the mechanical movements, such as the linear axis, plain bearings, guide systems, etc. use igus® products. Further applications from a wide range of industries can be found at
▶ **www.igus.eu/dryspin-applications**

dryspin® lead screw technology | Product overview

Lead screws - dryspin® thread and dryspin® high helix thread



dryspin®
high helix lead screws

▶ Page 374



dryspin®
lead screws with
standard pitches

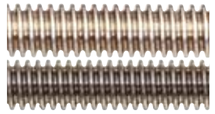
▶ Page 378



High helix lead screws with
right/left opposite drive

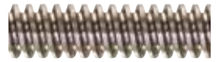
▶ Page 380

Lead screws - trapezoidal thread according to DIN 103



Trapezoidal
lead screws

▶ Page 382



Multi start trapezoidal
lead screw

▶ Page 384



LH/RH trapezoidal
lead screws

▶ Page 386

Lead screws - metric and ACME threads



Metric
lead screws

▶ Page 388



USA - standard
"ACME"

▶ Page 390

Lead screws - motor spindles - ready-to-install



Lead screws
with precision machining

▶ Page 391



Lead screws
with splines

▶ Page 392

Lead screw nuts - with dryspin® thread geometry



Cylindrical
lead screw nuts

▶ Page 398



Cylindrical
lead screw nuts
with spanner flat

▶ Page 402



Lead screw nuts
with flange

▶ Page 406



Lead screw nuts
with spanner flat
and flange

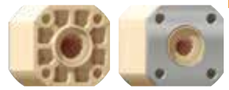
▶ Page 410



Injection-moulded
lead screw nuts with
machined thread

▶ Page 414

New



dryspin® heavy duty
lead screw nuts

▶ Page 422

Lead screw nuts - trapezoidal thread



Cylindrical
lead screw nuts

▶ Page 428



Cylindrical
lead screw nuts
with spanner flat

▶ Page 434



Lead screw nuts
with flange

▶ Page 436



Lead screw nuts
with spanner flat
and flange

▶ Page 440



Injection-moulded
lead screw nuts with
machined thread

▶ Page 442



Injection-moulded
lead screw nuts

▶ Page 444

Metric thread



Cylindrical lead screw nuts,
lead screw nuts with flange
metric

▶ Page 448



Injection-moulded
lead screw nuts with
machined thread

▶ Page 450

Lead screw nuts - ACME threads



Cylindrical
lead screw nuts

▶ Page 452



Lead screw nuts
with flange

▶ Page 453



Injection-moulded
lead screw nuts with
machined thread

▶ Page 454

dryspin® lead screw technology | Product overview

Low-clearance lead screw nuts - dryspin® thread



Zero-backlash lead screw nuts (ZB)
▶ Page 457



Flange lead screw nuts with pre-load (PL)
▶ Page 458

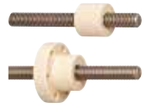


Low-clearance lead screw nuts (LC)
▶ Page 460

Low-clearance lead screw nuts - trapezoidal thread



Low-clearance lead screw nuts (LC)
▶ Page 464



Anti-backlash lead screw nuts (AB)
▶ Page 466

Lead screw nuts for linear modules



For SHT-1210
▶ Page 470



For SHT-2018
▶ Page 471



For SLW-0630
▶ Page 472



For SLW-25120
▶ Page 473



For SLW-1040
▶ Page 474



For SLW-1660
▶ Page 474



For SLW-2080
▶ Page 475

Special designs



Split lead screw nuts with injection-moulded thread
▶ Page 476



Pillow block with split lead screw nut
▶ Page 477



Spherical lead screw nuts in flanged bearing housing
▶ Page 478



Spherical lead screw nuts in pillow block bearing housing
▶ Page 479



Lead screw nuts with quick-release
▶ Page 480



Lead screw nut lock disk
▶ Page 481

Accessories - lead screw nut housings



Complete lead screw nut housing, including lead screw nut (standard)
▶ Page 482



Complete lead screw nut housing, including lead screw nut (zero-backlash)
▶ Page 482



Complete lead screw nut housing, including lead screw nut (linear module)
▶ Page 482

Accessories - lead screw support blocks



Lead screw support block with fixed bearing
▶ Page 484



Lead screw support block with floating bearing
▶ Page 484



Lead screw support blocks with ball bearings
▶ Page 489



Clamping rings
▶ Page 490

dryspin® lead screw technology - special designs



The benefits of the dryspin® design
▶ Page 356



Interesting facts about lead screw technology
▶ Page 360



Material overview
▶ Page 364



Industry examples
▶ www.igus.eu/dryspin-applications



The biggest lead screw shop online
▶ www.igus.eu/leadscrewshop



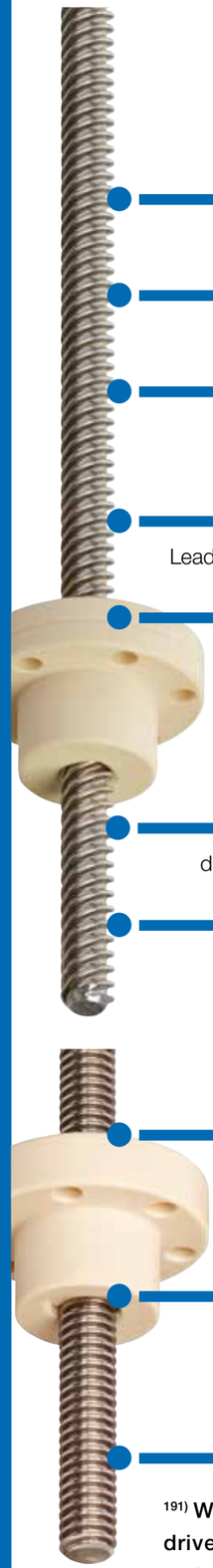
Lead screw configurator
▶ www.igus.eu/lead-screw-configurator



Service life calculator
▶ www.igus.eu/drylin-expert

dryspin® lead screw technology | Advantages

Maintenance-free, quiet operation, dirt-resistant and corrosion-resistant



Lubrication-free dryspin® lead screw technology

Lead screw drives are machine elements that convert rotary movement into linear motion. dryspin® lead screw drives are always based on self-lubricating plastic nuts, enabling long-lasting operation without external lubrication. The dryspin® technology offers a longer service life and greater efficiency for high helix threads thanks to the properties and geometries being tailored to the plastic nut and the lead screw.

- Efficient and durable dryspin® threads and high helix threads
- Self-locking trapezoidal and metric threads
- Maintenance-free dry operation
- Quiet
- Corrosion-free
- Resistant to dirt

Typical application areas

- Format adjustments
- Drive technology
- Optical equipment
- Furniture industry
- Automotive industry

Available from stock
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

max. +150°C
Min. -20°C[191)]

Service life calculation
▶ www.igus.eu/drylin-expert

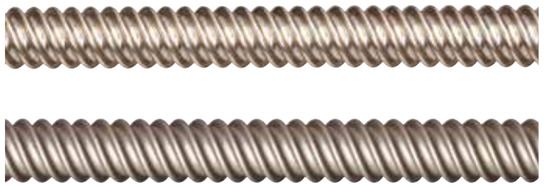
Imperial dimensions and ACME thread (USA standard) ▶ Page 390

In accordance with EC Directive 2011/65/EU (RoHS 2) Restriction (of the use of certain) hazardous substances

[191)] With falling temperatures, the required drive torque can increase due to the material.

dryspin® lead screw technology | Product overview

Threads and high helix threads with dryspin® technology



Threads and high helix threads

- Material: stainless steel or anodised aluminium
- Better efficiency due to optimisedflank angle
- Quiet due to thread geometry
- Long service life due to asymmetric geometry

▶ From page 374

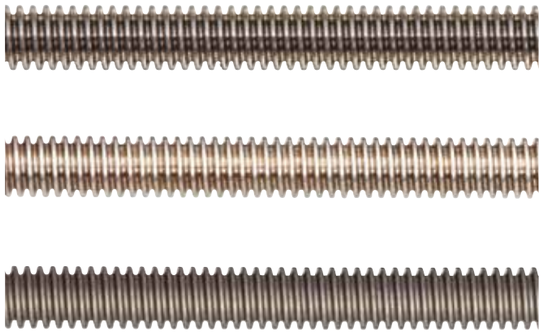


Suitable lead screw nuts

- Lubrication-free lead screw nuts made from 6 materials
- Types: cylindrical, with flange or spanner flat
- Reduced clearance through zero-backlash

▶ From page 398

Self-locking trapezoidal and metric threads



Trapezoidal and metric lead screws

- Material: steel, stainless steel or anodised aluminium
- Product range from M3 to Tr50x8
- Multi start lead screws and right/left opposite drive available

▶ From page 382



Trapezoidal and metric lead screw nuts

- Lubrication-free lead screw nuts made from 7 different materials
- Types: cylindrical, with flange or spanner flat
- Clearance reduction via anti-backlash feature

▶ From page 428



Special designs

- Heavy-duty lead screw nuts with the same dimensions as ball threads
- Linear module lead screw nut
- Split and spherical lead screw nuts with housing

▶ From page 469

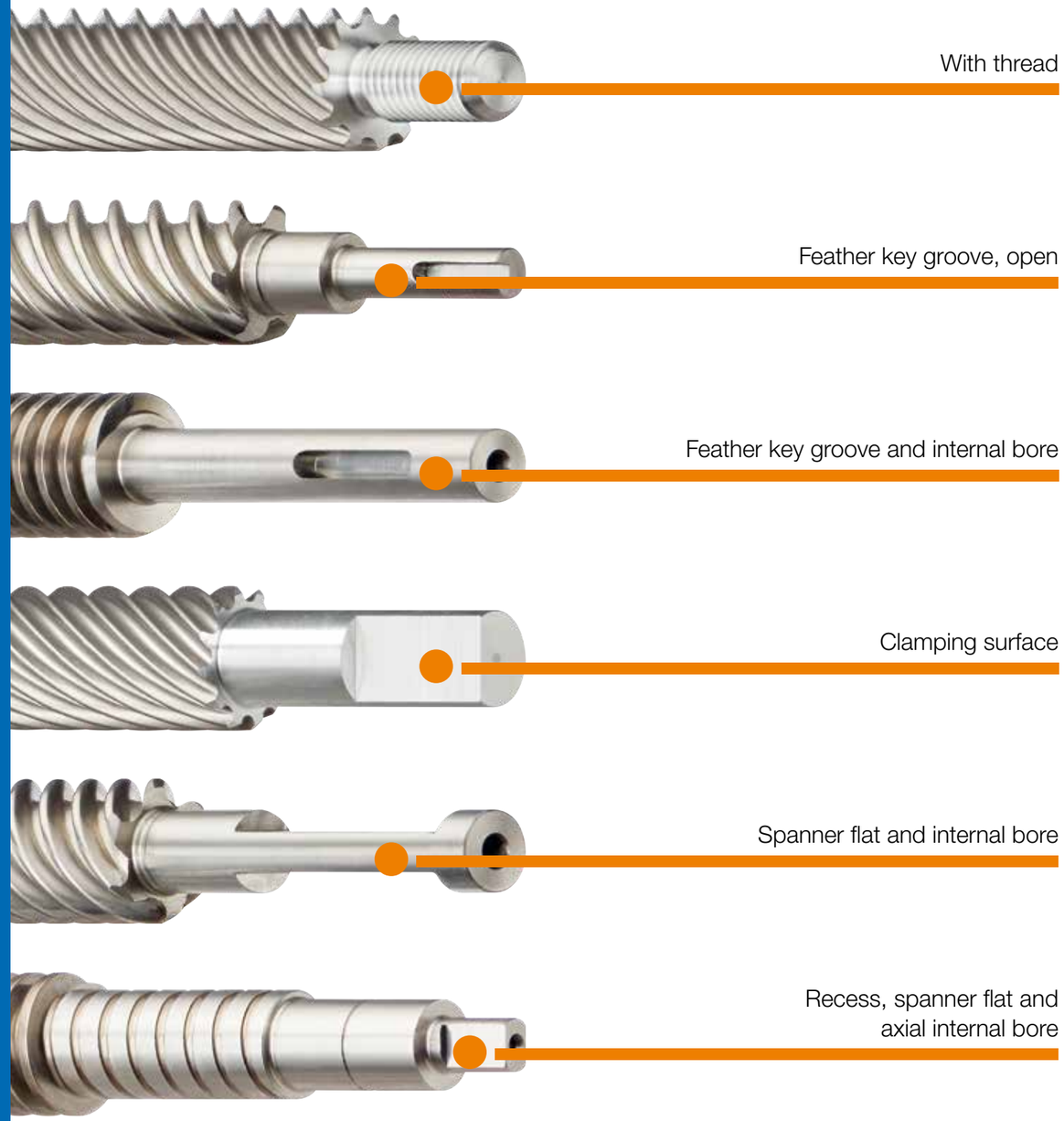


Lead screw technology accessories

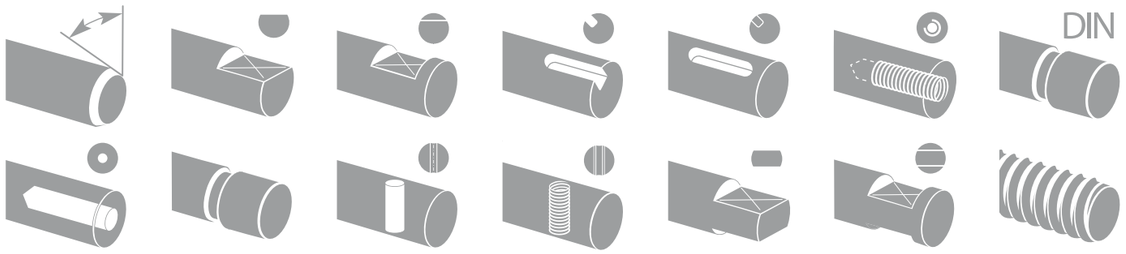
- Nut housing for dryspin® lead screw nuts
- Anodised lead screw support blocks, on plain or ball bearings
- Clamping ring for securing lead screw

▶ From page 484

Lead screw end machining options



A host of machining elements:



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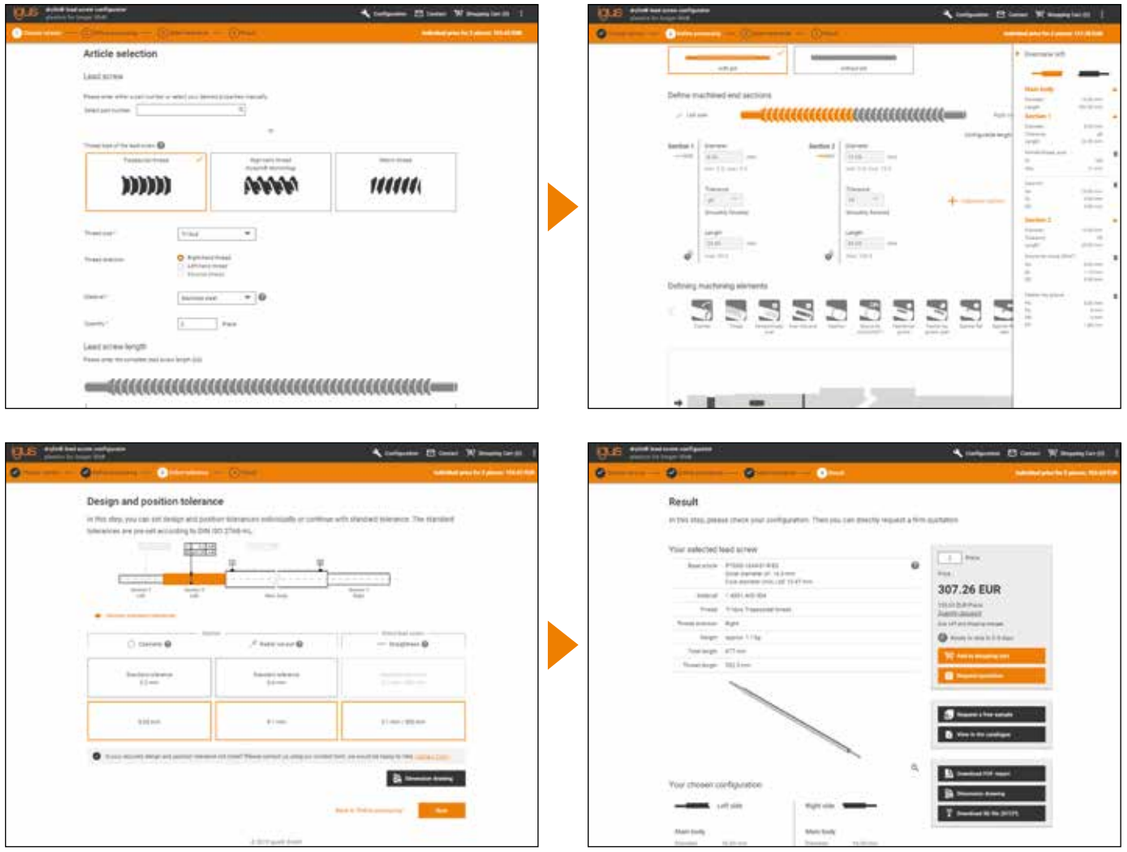
dryspin® configurators

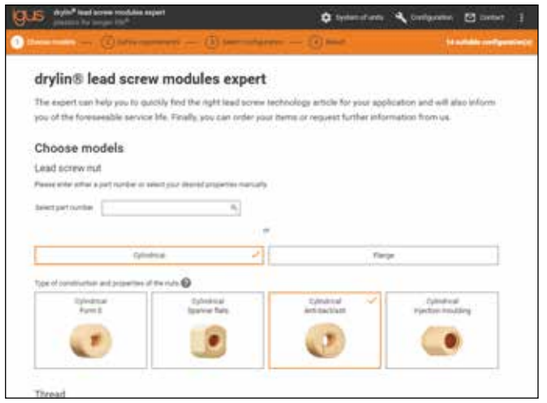
Lead screw configurator

Individually configured lead screws and machined ends can now be generated with just a few clicks. In addition to selection of the lead screw geometry and the materials, there are up to 7 options for machined ends.

- Individual pin machining without CAD software
- 2D dimensioned drawing and 3D step file, generated directly online
- Immediate price calculation with online ordering

▶ **www.igus.eu/lead-screw-configurator**





Expert for lead screw drives: find and calculate suitable lead screw drives

Our drylin® expert systems for lead screw drives help you to find the right product quickly whilst giving the predicted service life. You have the option to configure and request your required dimension for lead screw nuts and lead screws.

▶ **www.igus.eu/leadscrew-expert**

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dryspin® lead screw technology | Introduction

dryspin® lead screw technology

The dryspin® lead screw technology includes a wide product range of shapes and dimensions for lubrication-free and maintenance-free lead screw drives, with pitches between 0.5 and 100mm.

These include:

- dryspin® threads and high helix threads with optimised thread profile
- Metric thread according to DIN 976
- Trapezoidal thread according to DIN 103
- American ACME threads according to ANSI/SME B1.5

In addition to the freedom from maintenance and lubrication, the main focus is always the insensitivity to external influences such as dirt, water, chemicals or impact loads. A dryspin® lead screw drive consists of a metallic lead screw made of steel, stainless steel or aluminium and a lead screw nut made of tribologically optimised iglidur® high-performance polymers. There are seven different standard materials available for different purposes: iglidur® J, iglidur® J350, iglidur® A180, iglidur® E7, iglidur® R, iglidur® J200 and iglidur® W300. The use of different tribologically optimised materials enables lead screw technology to meet many required specifications, e.g. withstanding high loads, temperature resistance or FDA conformity. In addition to a large selection of standard materials for the lead screw technology, igus® also offers a large number of variants in the lead screw nut geometry itself. Moreover, lead screw nuts made by injection moulding or machined from iglidur® bar stock have already been able to improve many applications.



dryspin® lead screw technology | Technical terms

General definition of a lead screw drive

Outer diameter:
The distance between the outermost edges of the opposite lead screw flanks is called the lead screw outer diameter, i.e. it is the largest possible diameter on the lead screw. The outer diameter is also known as the nominal diameter.

Core diameter:
The distance between the base of the lead screw, i.e. the lowest point, and the opposite base of the lead screw gives the core diameter. This means it is the smallest diameter on the lead screw.

Pitch diameter:
The distance perpendicular to the axis between two opposite flanks, or the space between the profile centre lines, is called pitch diameter.

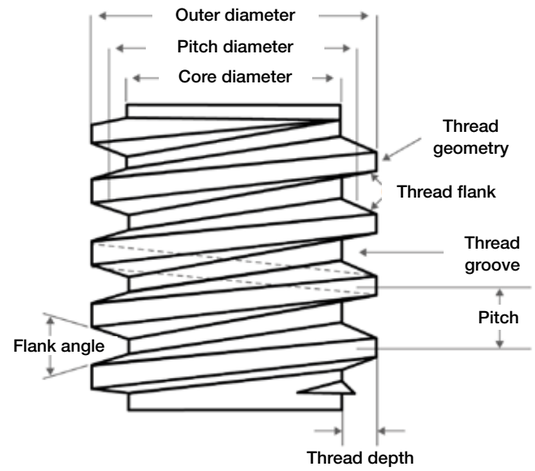
Thread flank:
The flank results from the extension of the line from the lead screw base to the tooth flanks or to the end of the profile centre line.

Flank angle:
The flank angle is present on all lead screws. It describes the angle from one flank of the lead screw to the other.

Pitch:
The pitch describes the distance, measured parallel to the axis, between two adjacent and parallel flanks of the same lead screw. It thus indicates in mm the linear travel per revolution of the lead screw. In contrast to a metric or a trapezoidal lead screw, the high helix lead screw has a high pitch. The high helix lead screw can convert a small radial movement into a relatively large axial movement with one revolution.

Thread pitch:
The full circumference of the helical curve of a lead screw.

Manufacturing tolerances:
Trapezoidal threads are manufactured according to DIN 103, metric lead screws according to DIN 976 and the dryspin® high helix and plain lead screws with an outer diameter tolerance of -0.1mm.

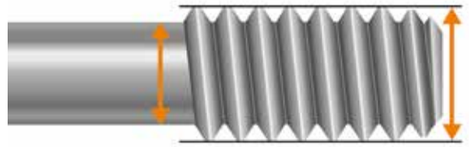


Manufacturing processes:
The thread rolling is a non-cutting manufacturing process that, according to DIN 8580, belongs to the forming manufacturing process. The thread is rolled into the surface of the raw material by cold forming. The forming is generated by compressive stress of the tool on the workpiece. Cold forming achieves a high surface quality and high strength. For large quantities of rolled sold by the metre products, the production process is faster and more cost-effective than the "thread whirling" production process.

Benefits:

- Rounded thread flank tips
- High surface quality, high strength
- Producibility of multi start threads with high pitches

Rolled thread



Diameter of the raw material | **Large thread diameter**

More combinations available in the thread section

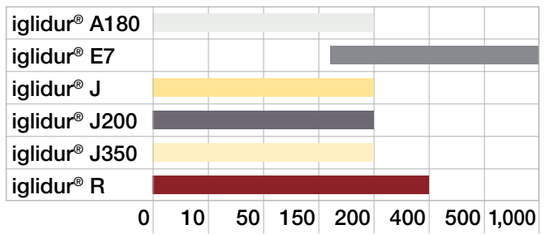
The right lead screw nut material for every technical requirement

dryspin® lead screw nuts are available in the standard range for every technical requirement. The range includes lead screw nuts made from seven lubrication-free iglidur® high-performance polymers, in cylindrical type or flange variants. The iglidur® plastics enable the cost-effective production of components for moving applications and are ideally suited for the production of prototypes and high volume requirements. Due to its specifications, each material becomes a specialist for a specific area of application. The right iglidur® materials are available for almost every application from high temperatures to seawater, from food to automotive . All materials have been specially developed for dynamic applications and have low friction and wear coefficients. These are made up of various components: base polymer for greater wear resistance, fibres and fillers reinforce the components to absorb high forces. Solid lubricants in our materials mean that the components made from them are self-lubricating and thus reduce the friction of the system and reduce wear. With the use of iglidur® materials you increase the service life of your components and reduce costs and maintenance. It doesn't matter whether it's a standard solution from the catalogue product range or your lead screw nut in the desired shape, desired quantity and desired material, manufactured by us according to your drawing.

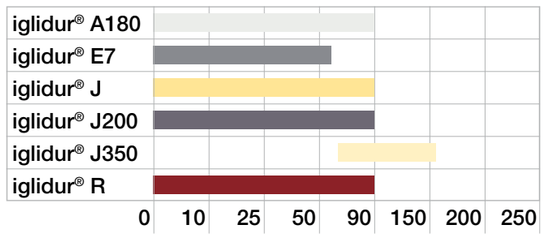
- Lubrication and maintenance-free
- Calculate service life online
- No minimum order value
- No minimum order quantity

Find and calculate suitable lead screw drives
▶ www.igus.eu/leadscrewdrives-finder

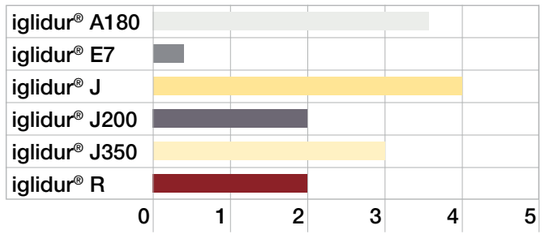
Correct choice of material



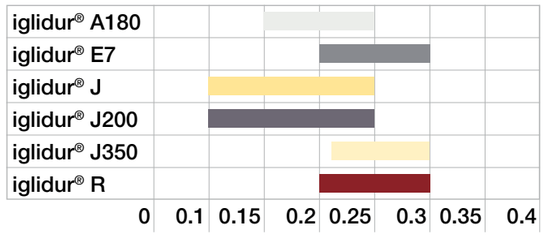
Speed [rpm]



Temperature [°C]



Surface pressure in the thread [MPa]



Coefficient of friction [µ]

iglidur® J200 most suitable in combination with hard anodised aluminium

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dryspin® technology | Material properties

Seven standard materials

General properties	Unit	iglidur® J	iglidur® J350	iglidur® R	iglidur® A180	iglidur® E7	iglidur® W300	iglidur® J200
Density	[g/cm³]	1.49	1.44	1.39	1.46	1.05	1.24	1.72
Colour		yellow	yellow	red	white	dark grey	yellow	matt grey
Max. moisture absorption at +23°C and 50% relative humidity	[% weight]	0.3	0.3	0.2	0.2	0.1	1.3	0.2
Max. waterabsorption	[% weight]	1.3	1.6	1.1	1.3	0.1	6.5	0.7
pv value, max. (dry)	[MPa · m/s]	0.34	0.45	0.27	0.31	0.08	0.23	0.30
Mechanical properties								
Max. permissible surface pressure on the thread (DS(TR) at +20°C	[MPa]	2.5 / 4.0	2.5 / 3.0	2.0 / 2.0	2.5 / 3.5	0.5 / 0.5	- / 5.0	2.0 / 2.0
Shore D hardness		74	80	77	76	61	77	70
Physical and thermal properties								
Max. continuous operating-temperature	[°C]	+90	+150	+90	+90	+70	+90	+90
Max. short-term operating temperature	[°C]	+120	+150	+90	+90	+70	+180	+90
Min. application temperature[191)]	[°C]	-20	-20	-20	-20	-20	-20	-20
Thermal conductivity	[W/m · K]	0.25	0.24	0.25	0.25	0.25	0.24	0.24
Coefficient of thermal expansion at +23°C	[$K^{-1} \cdot 10^{-5}$]	10	7	11	11	11	9	8
Electrical properties								
Specific contact resistance	[Ωcm]	> 10^{13}	> 10^{13}	> 10^{12}	> 10^{12}	> 10^{9}	> 10^{13}	> 10^{8}
Surface resistance	[Ω]	> 10^{12}	> 10^{10}	> 10^{12}	> 10^{11}	> 10^{9}	> 10^{12}	> 10^{8}
Chemical resistance								
Alcohols		+	+	+	+	x	+ to 0	+
Hydrocarbons		+	+ to 0	+	+	x	+	+
Greases, oils without additives		+	+	+	+	x	+	+
Diluted acids		0 to –	+	0 to –	0 to –	x	0 to –	0 to –
Diluted alkalines		+	+	+	+	x	+	+
Lubricants, mineral		+	x	+	+	x	+	+
Lubricants, synthetic		0	x	0	0	x	0	0
More material properties ▶ www.igus.eu/dryspin-material								

Resistance classification: + resistant; 0 conditionally resistant; – not resistant; x no data available
The lead screw nuts are not chemically attacked by these substances. However, there may be a dimensional change due to total moisture absorption.
[191)] With falling temperatures, the required drive torque can increase due to the material

EN 09/2023

dryspin® lead screw nuts | Material overview

All our lead screw nuts are made from the wear-resistant iglidur® high-performance polymers.

There are seven different standard materials available for different applications: iglidur® J - high efficiency at all speeds, iglidur® J350 - for temperatures up to +150°C, iglidur® A180 - FDA-compliant for the food and pharmaceutical industry, iglidur® E7 - for high speeds with low loads, iglidur® R - anti-oscillation and anti-vibration, iglidur® J200 - the best reverse partner for aluminium and iglidur® W300 - for high-load applications.



Lead screw nuts made from iglidur® J - high efficiency at all speeds

Our all-rounder is the lead screw nut made of the high performance polymer iglidur® J. The material can be used at almost all speeds and is characterised by a high degree of efficiency.

Other benefits:
- Low coefficient of friction - low wear rates
- Up to +90°C max. long-term application temperature
- Permitted continuous surface pressure in the threads from 0MPa to 4.0MPa



Lead screw nuts made from iglidur® J350 - high-temperature material up to +150°C

Our threaded nuts made of the high-performance polymer iglidur® J350 enable use in medium to high ambient temperatures. The long-term application temperature ideally should be between +60 and +150°C in order to obtain the maximum performance out of the material.

Other benefits:
- Dimensionally stable at high temperatures
- Can be certified according to EN 45545 HL3, R24
- Good coefficient of friction with medium loads
- Up to +150°C max. long-term application temperature
- Permitted continuous surface pressure in the threads from 0MPa to 3.0MPa



Lead screw nuts made from iglidur® R - for medium to high speeds - vibration dampening

Our lead screw nut made of the high-performance polymer iglidur® R enables a reduction of the vibrations between the lead screw and the lead screw nuts through its dampening properties and ensures a low-vibration and quiet running behaviour.

Other benefits:
- High wear resistance at low loads
- Soft material - vibration-dampening
- Up to +90°C max. long-term application temperature
- Permitted continuous surface pressure in the threads from 0MPa to 2.0MPa



Lead screw nuts made from iglidur® A180 - FDA-compliant for the food and pharmaceutical industries

Our lead screw nut made of the high-performance polymer iglidur® A180 is FDA-compliant and suitable for applications with low to medium loads in the direct environment or contact with food or drugs as well as moisture.

Other benefits:
- FDA-compliant - for contact with food
- Compliant with Regulation (EU) No. 10/2011
- Up to +90°C max. long-term application temperature
- Permitted continuous surface pressure in the threads from 0MPa to 3.5MPa

The base material is also reinforced by technical fibres or filling materials. The solid lubricants are microscopic particles, embedded in millions of tiny chambers of the material. This is adequate to sufficiently lubricate the immediate surrounding area and to reduce the friction of the system. These additives stabilise our lead screw nuts decisively for wear resistance.



Lead screw nuts made from iglidur® J200 - best mating partner for hard anodised aluminium

Our lead screw nut made of the high-performance polymer iglidur® J200 is characterised by a low coefficient of friction and minimal wear, especially on hard anodised aluminium lead screws.

Other benefits:
- Best combination with aluminium lead screws
- Low wear rates - long service life
- For low and medium loads
- Up to +90°C max. long-term application temperature
- Permitted continuous surface pressure in the threads from 0MPa to 2.0MPa



Lead screw nuts made from iglidur® E7 - for high speeds at low loads

Our lead screw nut made from the high-performance polymer iglidur® E7 offers good vibration-dampening specifications and good coefficients of friction at low loads. Thanks to its vibration-dampening properties, speeds of up to 1,200rpm are possible.

Other benefits:
- High speeds up to 1,200rpm at low loads up to 200N
- Noise-dampening
- Up to +60°C max. long-term application temperature
- Permitted continuous surface pressure in the threads from 0MPa to 0.5MPa



Lead screw nuts made from iglidur® W300 - for heavy duty applications up to 5MPa

Our lead screw nut made of the high-performance polymer iglidur® W300 gives excellent wear resistance, even in harsh environments. Of all iglidur® materials, iglidur® W300 is the most resistant to these conditions. It should only be noted that for lower loads or high dynamic applications, iglidur® J (all-rounder) is probably a better alternative, as the material tends to vibrate at low loads due to its high strength. We will be happy to help you with the right material selection.

Other benefits:
- Wear-resistant at high loads - high static strength
- For low speeds
- Up to +90°C max. long-term application temperature
- recommended continuous surface pressure in the threads from 4.0MPa to 5.0MPa

Pitch [mm]

Outer diameter [mm]	1	1.5	2	2.4	2.54	3	4	5	5.08	6	6.35	7	8	10	12	12.7	15	20	24	25	25.4	30	35	40	40.6	50	60	70	80	90	100
4				● *																											
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50													●																		

* Only available with right-hand threads

Scan the QR code now to check the current dimensions

● = dryspin® high helix thread
● = Trapezoidal thread
◎ = Available with a reverse thread

Radial loads

dryspin® lead screw nuts are designed to absorb axial forces. By using tribologically optimised iglidur® sliding materials, dryspin® lead screw drives can also absorb slight radial forces in contrast to ball screws. However, uncontrolled radial forces lead to uneven wear and thus to a reduced service life. Any radial forces occurring in the application should be absorbed by additional linear guides.

Temperature

dryspin® lead screw nuts, made from the maintenance-free iglidur® materials, are generally suitable for use in the temperature range from -20°C to +90°C (+150°C, depending on the material). It should be noted, however, that in addition to a change in the clearance due to temperature expansion, there is also a change in the maximum permissible load. From a temperature of <0 °C, due to the different temperature expansion coefficients between metal and plastic, there can be an increase in the required drive torque, which results in sluggishness. In this case, the lead screw nuts should be manufactured with a slight allowance or recut.
When the application is exposed to temperature and load extremes, we recommend testing the suitability of the lead screw nuts in this specific case by a practical test. In order to provide for the use in all temperature ranges, we have lead screw nuts available in various clearance classes.

Wet environments

Trapezoidal lead screw nuts made from iglidur® J or iglidur® A180 must be used for applications in humid environments, especially for wet applications. These material are characterised by very low moisture absorption.

Dirt

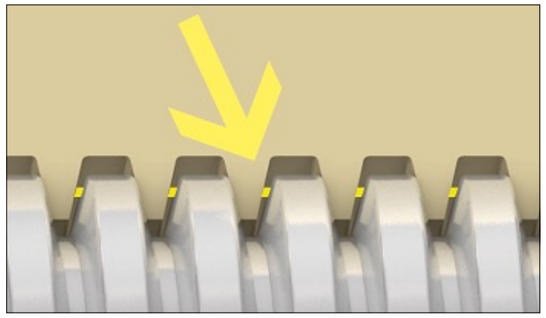
With the use of the maintenance-free iglidur® materials for lead screw nut production, dryspin® lead screw drives feature completely dry operation. Due to the deliberate avoidance of lubricants, the adhesion of soft particles such as dust and fibres is reduced. When compared to conventional, lubricated materials, it is common to see significant improvements in the service life in contaminated environments. However, in environments with significant contamination and hard particles, such as metal swarf or granite dust, the lead screw should be covered.

Lead screw drive inspection

dryspin® trapezoidal lead screw drives are manufactured in accordance with DIN 103. Inspection is performed with standard thread plug gauges after production. The DIN 103 standard is converted to the corresponding size for any thread sizes that are not shown in the standard table. The hygroscopic and thermal properties of the material must be taken into account during selection. Dimensional changes can occur as a result of moisture and/or thermal exposure at the point of use. For these reasons, general DIN compatibility cannot be guaranteed.

Noise

Noises can generally occur with lead screw drives. This applies in particular to long lead screws or long travels or to lead screws that are only supported on one side. Such thread systems can lead to self-generated vibrations. Lead screw nuts made from the tribologically optimised iglidur® materials tend to be significantly quieter than conventional plastics or metallic materials such as bronze or brass due to their good sliding properties when operating dry. In general, one can say that tougher materials such as iglidur® R or E7 produce the least amount of noise and are therefore particularly suitable for highly dynamic applications. Another option for noise reduction are pre-loaded lead screw nut types. If is noise in your lead screw drive, please speak to our experts and we will find a suitable material pairing for you.



Yellow markings show the axial clearance of a standard lead screw nut

Clearance

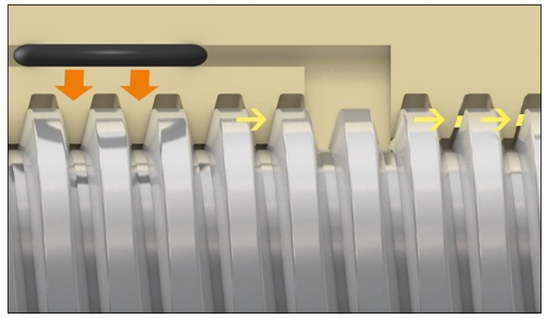
Axial clearance can be used to describe the lost motion, the "dead travel", on the lead screw as a result of the gap between the lead screw and the lead screw nut. The term clearance is also often associated with it, but the correct technical term is axial clearance. It is thus the movement of the lead screw nut in the axial direction without movement of the lead screw. Lead screw units require a minimum clearance to maintain their function. If the axial clearance is too small, the torque required to move the lead screw nut will also increase. Application-specific parameters must be observed in addition to the lead screw drive clearance caused by manufacturing tolerances. In addition to thermal and hygroscopic environmental influences, the minimum clearance to be considered in the application must also take into account the friction heat generated by the application. This plays a decisive role in connection with the expansion behaviour of the polymer material used. As the axial clearance in the system can change with temperature fluctuations. For lubrication-free lead screw drives, the basic clearance is approx. from 30µ to 50µ. An effective measure for reducing unwanted clearance, in addition to the correct material choice, is a pretensioning mechanism. The use of lead screw drives is therefore not recommended for precision drives without conducting practical tests. In addition to the solutions from our standard product range, our technical support team will be pleased to discuss other options.

Levels of efficiency

Efficiency is the ratio between the output and input power rating. In the calculation, the efficiency is abbreviated with a small eta (η). dryspin® lead screw nuts are characterised by a low coefficient of friction, resulting in high efficiencies. Single start trapezoidal lead screw nuts achieve efficiencies between 14 and 48% in dry operation. High helix lead screw nuts achieve efficiencies up to 82% in dry operation. Even though dryspin® lead screw nuts were developed for completely dry operation, lubrication can help to additionally increase efficiency.

Self-locking

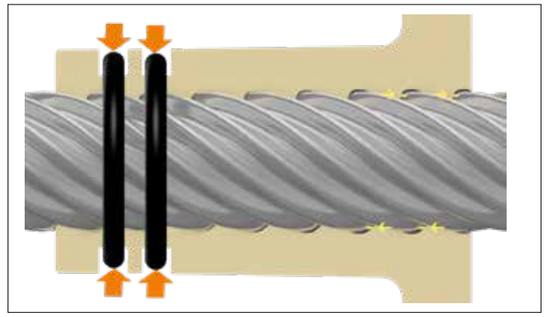
Single start trapezoidal screw drives are self-locking in most cases. This means that the flank angle and the sliding friction prevent movement of the nut or the lead screw without the application of outside forces. As soon as the static friction is exceeded, the components are no longer self-locking. Multi start trapezoidal screw systems have a "residual self-locking" feature; high helix screw drives have no self-locking feature. Since the self-locking depends both on the pitch angle and on the coefficient of friction of the sliding pair, a loss of self-locking can occur with very low coefficients of friction even with single start trapezoidal threads.



8 anti-backlash lead screw nuts (AB) - yellow = axial clearance, orange = pre-load

Anti-backlash lead screw nuts (AB)

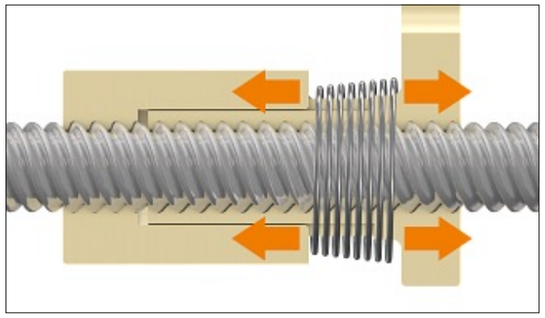
Backlash is created on the lead screw drive by the axial clearance. By adding a small radial pre-load, vibrations are significantly reduced. Though a significant backlash reduction cannot be achieved.
▶ **Page 466**



9 lead screw nuts with radial pre-load (low clearance, LC) - yellow = axial clearance, orange = pre-load

Lead screw nuts with radial pre-load (low clearance, LC)

LC lead screw nuts reduce backlash caused by axial clearance in a lead screw drive. The rear part of a slotted lead screw nut is radially pre-loaded around the lead screw by means of a strong, radial pretension using two elastomer rings (O-rings). The tooth flanks of the nuts are pressed far into the lead screw profile so that there is a pretension and thus a reduction in the axial clearance.
▶ **Page 460**

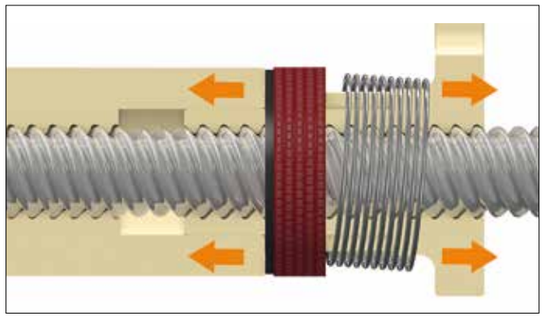


10 pre-load lead screw nuts (PL) - orange = pre-load direction

Pre-load lead screw nuts (PL)

PL lead screw nuts reduce the axial clearance in a lead screw drive by preloading two lead screw nut parts with a compression spring. The spring pushes the two halves of the lead screw nuts apart axially in the direction of the spindle flanks. As long as the axial load in the lead screw drive is lower than the spring pretension, the entire lead screw drive has a minimised backlash. This also permanently reduces clearance caused by wear.

▶ Page 458



Self-adjusting zero-backlash principle, orange = pre-load direction

Zero-backlash lead screw nuts (ZB)

One of the most precise solutions is the ZB lead screw nut. It consists of several components and is self-adjusting. It is particularly suitable for lead screw drives with high helix threads for quick adjustment of small loads and ensures minimal clearance over the entire service life. Ideal for precise positioning and feed movements in medical, laboratory and printing technology as well as in the wide range of life sciences. The lead screw nut consists of a support nut, a fixing collar with a torsion spring, a friction disc and the axial element. As with the PL nut, it works by means of axial spring pretension. In contrast to the PL nut, a torsion spring is used with the ZB lead screw nut. In conjunction with a friction disc and a fixing collar, it ensures that ZB lead screw nuts are load-independent and therefore also work with high axial loads and large thread pitches.

▶ Page 457

Installation of lead screw nuts

dryspin® lead screw nuts must be secured against twisting and axial migration. However, the lead screw nuts are not designed for a press fit, since the oversize would have a negative effect on the thread clearance.

Lead screw nuts with flange

The maximum tightening torque for the flanged lead screw nut fastening screws is 2.5Nm. We recommend that assembly screws are secured with a semi-permanent thread locking glue. Metallic ferrules should be used for even higher tightening torques.

Cylindrical lead screw nuts

The outer diameter of cylindrical lead screw nuts is not designed for a press fit. We therefore recommend the use of spanner flats. In practice, a screw mount has proven to be effective with low forces. Gluing lead screws nuts is not recommended. If however, the securing of the lead screw nuts by adhesives is planned, individual tests and iglidur® material compatibility are necessary in each case.

Lead screw selection

The suitability and the operating behaviour of the system largely depend on the lead screws used with the nut. We recommend purchasing the nut and lead screw as a system from one source. Lead screws are inspected with DIN 103-compliant gauges. In principle, dryspin® lead screw drives can be used with lead screws made from steel, stainless steel or hard-anodised aluminium. Split and LH/RH lead screws (right and left-handed threads on one lead screw) are available in addition to right-hand and left-hand versions.

Custom lead screws

Take advantage of our machining service - we manufacture ready-to-fit lead screws based on your requirements. In addition to the standard sold by the metre option , we also offer the possibility to machine the lead screw directly, according to the specifications of the application, simply configured online with our free lead screw configurator. A CAD software or knowledge in handling CAD programmes is not required. Thanks to the integrated design tool, all entries are automatically checked for plausibility. 2D dimensioned drawing and 3D step file, generated directly online. The live pricing also gives a good impression of the costs involved in the individual processing steps. If a desired configuration cannot be displayed via the online configurator, we would be pleased to receive your enquiry. We will check the manufacturability and issue you with a quotation.

Custom nuts

Take advantage of our machining service even for custom lead screw nuts - we manufacture ready-to-fit lead screw nuts based on your requirements. Please send us your drawing. We can then provide a quick quotation and recommend the right material.

Service life

dryspin® lead screw nuts are made from tribologically optimised materials. Already during the development phase, the focus is on optimising the friction properties of the dryspin® lead screw drives, with the objective of attaining the lowest possible coefficient of wear and friction. In order to make the most precise statements about service life and wear resistance, several hundred tests are conducted each year on the test equipment at the igus® test laboratory in Cologne. Our experts will gladly test your application as well. The results of these tests form the basis of our service life calculation tools, such as our lead screw drive expert.

Lubrication

Many people think that greasing some products is essential to ensure that they do not seize up and can continue a smooth movement. However, it is easy to forget that lubrication is not a prerequisite for all products.
Our lead screw systems are developed for maintenance-free dry operation. Basically, you should not compare a lubricated lead screw system one-to-one with a dry-operating system. Due to the external lubrication, the coefficient of friction is lower compared to a dry-operating lead screw system. However, the lubricant also causes a high maintenance effort and additional costs that are often not accounted for. In an abrasive environment, lubricants can become an "emery paste" that damages the system. In justified cases, however, external lubrication of iglidur® lead screw nuts can be considered to reduce the coefficient of friction or to increase the speeds without noise generation. Please consult one of our experts to find out whether this really makes sense for your application.

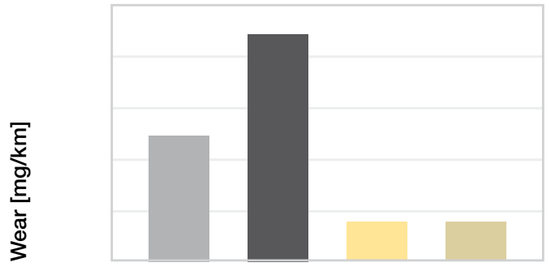


Diagram 01: Wear test on a rolled trapezoidal lead screw

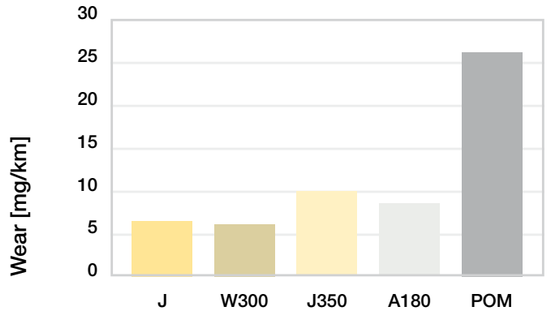


Diagram 02: Wear test on a C15 lead screw
Stroke 140mm, 50N, lead screw C15 rolled, 450rpm

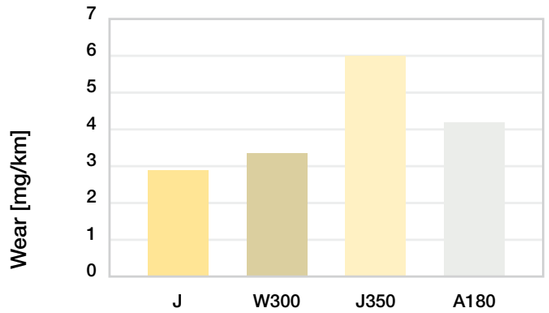
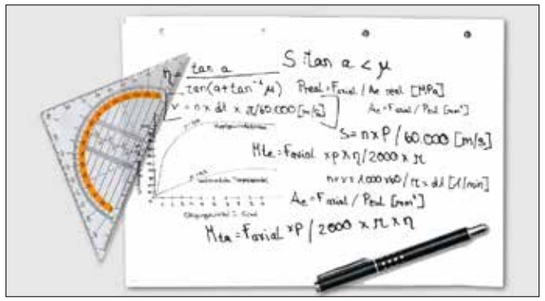


Diagram 03: Wear test on a VA lead screw
Stroke 140mm, 50N, lead screw VA rolled, 450rpm

The dryspin® lead screw technology patented in 2016 by the development team. Particular emphasis was placed on increasing service life and improving efficiency. The dryspin® product portfolio includes lead screws and high-helix lead screws with 0.1mm outer diameter tolerance and are available in pitches from 1mm to 100mm.
dryspin® offers better efficiency thanks to the specifications and geometries tailored to the plastic nut and lead screw. Efficiencies of up to 82% and a longer service life are achieved compared to metal lead screw drives. In combination with an igus® lead screw nut, clean and dry operation is possible, without dust and dirt getting stuck.
The dryspin® high helix threads are not self-locking. The lead screw nut and lead screw can be moved even without applying external force. This means that the lead screw nut and lead screw can be moved even without external drive or lead screw.

Higher efficiency due to optimised flank angle

Due to a flatter thread angle in dryspin® high helix lead screws (similar to a trapezoidal thread), the applied force is efficiently converted into a linear motion. Compared with a steeper thread angle, this means a lower power loss.



You can find more information on our efficiency rates in the material overview or in our online blog on this topic.

Silent and vibration-dampening due to rounded tooth geometry

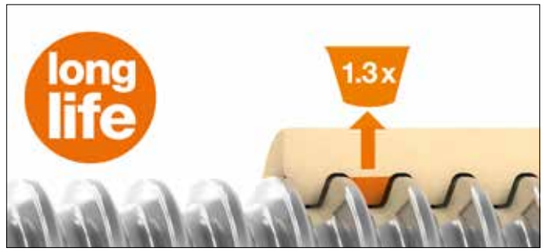
Due to the rounded tooth geometry, the contact surface between the lead screw nut and the lead screw is reduced. Thereby the dryspin® lead screw nuts move without vibration, virtually silent. This is due to the fact that the greater the contact of two surfaces moving against one another, the more vibrations are transmitted, which can be perceived as a rattle or squeak. The round teeth minimise this effect and the thread moves without lubrication or noise.



Reduction of the radial contact surfaces through rounded tooth geometry

Longer service life thanks to asymmetry

Due to larger distances between the individual dryspin® thread pitches, the thread ideally adapts to the specifications of the lubrication-free igus® high-performance polymers. The proportion of the tribologically optimised polymer content in the thread pitches can be increased by a factor of 1.3 for all sizes. More wear-resistant material and higher efficiency are decisive for a service life that is up to five times longer than standard geometries. The larger the lead screw diameter, the stronger is this effect. Backlash can be minimised for life by using dryspin® zero backlash lead screw nuts with integrated spring pre-load.

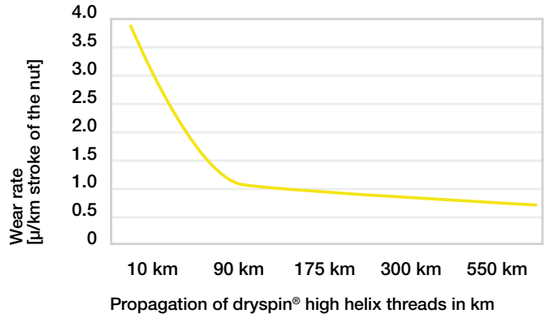


Asymmetry - increasing the proportion of wear material in the thread pitch

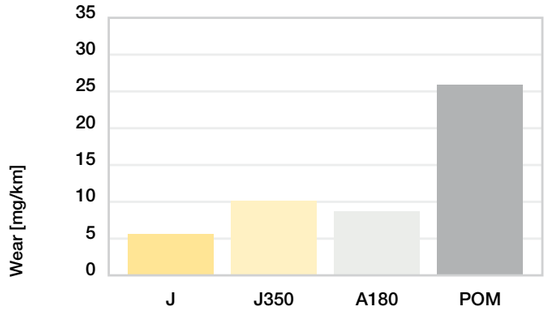
dryspin® lead screw technology | General information

Lead screw length [mm]	Standard	Aligned
<300	0.3	0.1
<600	0.6	0.2
<900	0.9	0.3
<1,200	1.2	0.4
<1,500	1.5	0.5
<1,800	1.8	0.6
<2,100	2.1	0.7

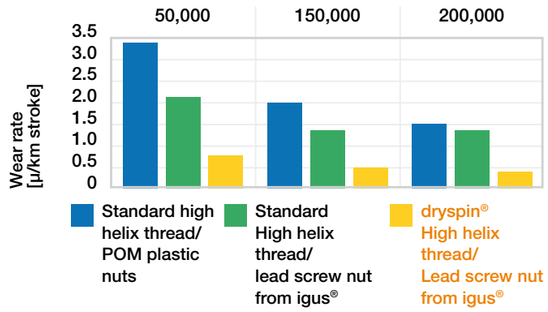
Overview table of specified lead screw straightness



Wear test dryspin® high helix thread
DST 10x25, load 175N, 540mm stroke, 125rpm



Wear test on C15 lead screw [mg/km]
Stroke 140mm, 50N, lead screw C15 rolled, 450rpm



Wear-resistant high helix thread 10x50, dryspin® high helix thread / standard high helix thread, load 36N, 100rpm for 50,000/150,000/200,000 cycles

Lead screw straightness

The dryspin® lead screws are designed in the igus® standard for a straightness of 0.3 per 300mm or part thereof. For higher requirements, the dryspin® lead screws can be aligned to a straightness of 0.1 per 300mm or part thereof.

Tested: Lubrication-free iglidur® materials from igus®

Liners, sliding elements and lead screw nuts from dryspin® adapted for your application: lubrication-free, tested and predictable.

- 12,000 tribology tests per year
- More than 300 parallel test facilities
- 140 trillion test movements
- Continuous testing of dryspin® products

▶ **www.igus.eu/tests**

dry-tech® tribo-plastics

In all dryspin® linear and drive units as well as screw drives, igus® high-performance polymers are used. Due to the homogeneously incorporated solid lubricants, the bearing materials are designed for continuous dry operation, i.e. maintenance-free over the complete service life.

Material selection

dryspin® lead screw nuts are made from tribologically optimised materials. Already during the development phase, the focus is on optimising the friction properties of the dryspin® lead screw drives, with the objective of attaining the lowest possible coefficient of wear and friction.

Service life

Every year, several hundred tests are set up and performed on test rigs in the igus® test laboratory. The results are incorporated into easily accessible online tools, where the service life and the required torque can be determined.

▶ **www.igus.eu/leadscrew-expert**

dryspin® technology | Lead screws | Product range

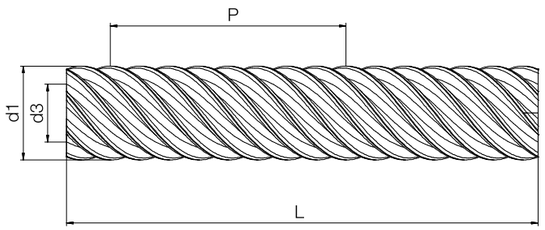
dryspin® high helix lead screws - corrosion-resistant



Stainless steel, rolled, AISI 304



Aluminium, rolled (EN AW 6082)



Technical data

Pitch variation	0.1mm / 300mm
Straightness (standard)	0.3mm / 300mm
Aligned	<0.1mm / 300mm

The tensile/compressive strength of the EN AW 6082 lead screw material is 160MPa (elongation limit 0.2mm).

Technical data

Thread	Direction of rotation		Material		Pitch	Number of thread pitches	Pitch angle	Weight	
	Right	Left	Stainless steel	Aluminium	P		α	Stainless steel	Aluminium
			AISI 304	EN AW 6082	[mm]		[°]	[kg/m]	[kg/m]
Ds5x5	●	–	●	–	5	2	17.66	0.16	–
Ds5x10	●	–	●	–	10	4	32.48	0.16	–
Ds6.35x6.35	●	–	●	–	6.35	3	17.66	0.25	–
Ds6.35x12.7	●	–	●	–	12.7	4	32.48	0.25	–
Ds6.35x25.4	●	–	●	–	25.4	8	51.85	0.25	–
Ds8x8	●	–	●	–	8	4	17.66	0.40	–
Ds8x10	●	●	●	●	10	4	21.70	0.40	0.14
Ds8x15	●	●	●	●	15	6	30.83	0.40	0.14
Ds8x24	●	–	●	–	24	8	43.78	0.40	–
Ds8x40	●	–	●	–	40	8	57.86	0.40	–
Ds10x12	●	●	●	●	12	4	21.54	0.62	0.21
Ds10x25	●	●	●	●	25	8	38.51	0.62	0.21
Ds10x50	●	●	●	●	50	10	57.86	0.62	0.21
Ds12.7x12.7	●	–	●	–	12.7	4	17.66	1.00	–
Ds12x15	●	–	●	–	15	5	21.69	0.89	–
Ds12x25	●	●	●	●	25	8	33.55	0.89	0.31
Ds14x25	●	●	●	●	25	5	29.61	1.22	0.42
Ds14x30	●	–	●	●	30	6	34.30	1.22	0.42
Ds14x40.6	●	–	●	–	40.6	8	42.71	1.22	–
Ds14x70	●	–	●	–	70	8	57.86	1.22	–
Ds16x35	●	–	●	●	35	7	34.85	1.59	0.54
Ds18x24	●	●	●	●	24	6	22.99	2.01	0.69
Ds18x40	●	●	●	●	40	8	35.55	2.01	0.69

Available from stock
On request

EN 09/2023

dryspin® technology

Order key

Part number	Thread	Options

DST - LS - 10X50 - R - 1000 - ES

dryspin® technology	Lead screw	Diameter	Pitch	Direction of rotation	Length [mm]	Lead screw material

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread
Length in mm: Freely selectable (see table)
Lead screw material
ES: Stainless steel, rolled
AL: Aluminium, rolled

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All dryspin® leads screws can be custom machined. Please configure this online or send us your drawing. We can then provide a quick quotation.
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Dimensions [mm]

Outer Ø d1 -0.1	Core Ø d3 -0.1	Max. total length L ES	Max. total length L AL	Part No.	
5.0 -0.05	3.30 -0.05	1,000	–	DST-LS-5X5-R-□-ES	
5.0 -0.05	3.80 -0.05	1,000	–	DST-LS-5X10-R-□-ES	New
6.35 -0.05	4.33 -0.05	1,000	–	DST-LS-6.35X6.35-R-□-ES	New
6.35 -0.05	4.35 -0.05	1,000	–	DST-LS-6.35X12.7-R-□-ES	
6.35 -0.05	4.10 -0.05	1,000	–	DST-LS-6.35X25.4-R-□-ES	
8.0	5.78	1,500	–	DST-LS-8X8-R-□-ES	New
8.0	5.63	1,500	1,000	DST-LS-8X10-□-□-ES	
8.0	5.63	1,500	1,000	DST-LS-8X15-□-□-ES	
8.0	5.55	1,500	–	DST-LS-8X24-R-□-ES	
8.0	5.80	1,500	–	DST-LS-8X40-R-□-ES	New
10.0	6.90	3,000	1,000	DST-LS-10X12-□-□-ES	
10.0	7.10	3,000	1,000	DST-LS-10X25-□-□-ES	
10.0	7.35	3,000	1,000	DST-LS-10X50-□-□-ES	
12.7	9.60	3,000	–	DST-LS-12.7X12.7-R-□-ES	
12.0	9.10	3,000	–	DST-LS-12X15-R-□-ES	
12.0	8.97	3,000	1,500	DST-LS-12X25-R-□-ES	New
14.0	9.60	3,000	1,500	DST-LS-14X25-□-□-ES	
14.0	9.60	3,000	1,500	DST-LS-14X30-R-□-ES	
14.0	9.65	3,000	–	DST-LS-14X40.6-R-□-ES	
14.0	9.95	3,000	–	DST-LS-14X70-R-□-ES	New
16.0	11.60	3,000	1,500	DST-LS-16X35-R-□-ES	
18.0	14.33	3,000	1,500	DST-LS-18X24-□-□-ES	
18.0	13.60	3,000	1,500	DST-LS-18X40-□-□-ES	

EN 09/2023

dryspin® technology | Lead screws | Product range

dryspin® high helix lead screws - corrosion-resistant

Technical data

Thread	Direction of rotation		Material		Pitch	Number	Pitch angle	Weight	
	Right	Left	Stainless steel	Aluminium	P	of thread pitches	α	Stainless steel	Aluminium
			AISI 304	EN AW 6082	[mm]		[°]	[kg/m]	[kg/m]
Ds18x80	●	●	●	●	80	12	54.74	2.01	0.69
Ds18x100	●	●	●	●	100	12	60.51	2.01	0.69
Ds20x20	●	●	●	●	20	4	17.66	2.48	0.85
Ds20x50	●	–	●	●	50	8	38.51	2.48	0.85
Ds20x60	●	●	●	●	60	8	43.68	2.48	0.85
Ds20x80	●	●	●	●	80	12	51.85	2.48	0.85
Dx20x90	●	●	●	●	90	12	55.08	2.48	0.85

Dimensions [mm]

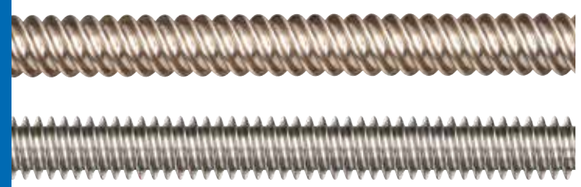
Outer Ø d1 -0.1	Core Ø d3 -0.1	Max. total length L ES	Max. total length L AL	Part No.
18.0	14.00	3,000	1,500	**DST-LS-18X80-□-□-ES**
18.0	13.55	3,000	1,500	**DST-LS-18X100-□-□-ES**
20.0	15.20	3,000	1,500	**DST-LS-20X20-□-□-ES**
20.0	15.58	3,000	1,500	**DST-LS-20X50-□-□-ES**
20.0	15.55	3,000	1,500	**DST-LS-20X60-□-□-ES**
20.0	15.98	3,000	1,500	**DST-LS-20X80-□-□-ES**
20.0	15.55	3,000	1,500	**DST-LS-20X90-□-□-ES**

Available from stock
On request

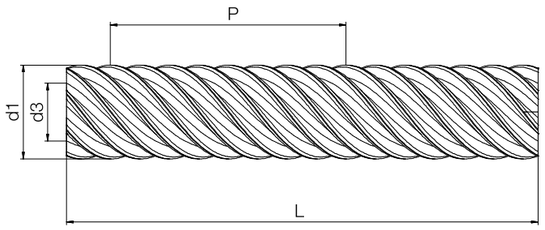
EN 09/2023 igus

dryspin® technology | Lead screws | Product range

dryspin® lead screws - corrosion-resistant



Stainless steel, rolled, AISI 304



Technical data

Pitch variation	0.1mm / 300mm
Straightness (standard)	0.3mm / 300mm
Aligned	<0.1mm / 300mm

The tensile/compressive strength of the EN AW 6082 lead screw material is 160MPa (elongation limit 0.2mm).

Order key

Part number: DST-LS-4X2.4-R-1000-ES

- dryspin® technology
- Lead screw
- Diameter
- Pitch
- Direction of rotation
- Length [mm]
- Lead screw material

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread
Length in mm: Freely selectable (see table)
Lead screw material
ES: Stainless steel, rolled
AL: Aluminium, rolled

Please contact us!
All dryspin® leads screws can be custom machined. Please configure this online or send us your drawing. We can then provide a quick quotation.
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Technical data

Thread	Direction of rotation		Material		Pitch	Number of thread pitches	Pitch angle	Weight	
	Right	Left	Stainless steel	Aluminium	P		α	Stainless steel	Aluminium
			AISI 304	EN AW 6082	[mm]		[°]	[kg/m]	[kg/m]
Ds4x2.4	●	–	●	–	2.4	2	10.81	0.10	–
Ds6.35x1	●	–	●	–	1	1	2.87	0.25	–
Ds6.35x2.54	●	●	●	–	2.54	2	7.26	0.25	–
Ds6.35x5.08	●	–	●	–	5.08	4	14.29	0.25	–
Ds10x2	●	●	●	–	2	1	3.64	0.62	–
Ds10x3	●	●	●	–	3	2	5.45	0.62	–
Ds12x3	●	–	●	–	3	1	4.55	0.89	–
Ds12x5	●	–	●	●	5	2	7.55	0.89	0.31
Ds14x4	●	●	●	–	4	1	5.20	1.22	–
Ds16x5	●	–	●	–	5	1	5.68	1.59	–
Ds16x10	●	–	●	–	10	2	11.25	1.59	–
Ds18x4	●	●	●	–	4	1	4.04	2.01	–
Ds20x5	●	–	●	–	5	1	4.55	2.48	–
Ds20x10	●	–	●	–	10	2	9.04	2.48	–

Dimensions [mm]

Outer Ø d1 -0.1	Core Ø d3 -0.1	Max. total length L ES	Max. total length L AL	Part No.	
4.0 -0.05	3.05 -0.05	1,000	–	**DST-LS-4X2.4-R-□□□-ES**	
6.35 -0.05	5.35 -0.05	1,000	–	**DST-LS-6.35X1-R-□□□-ES**	New
6.35 -0.05	4.35 -0.05	1,000	–	**DST-LS-6.35X2.54-□-□□□-ES**	
6.35 -0.05	4.85 -0.05	1,000	–	**DST-LS-6.35X5.08-R-□□□-ES**	
10.0	7.77	3,000	–	**DST-LS-10X2-□-□□□-ES**	New
10.0	7.85	3,000	–	**DST-LS-10X3-□-□□□-ES**	New
12.0	8.77	3,000	–	**DST-LS-12X3-R-□□□-ES**	New
12.0	9.60	3,000	1,500	**DST-LS-12X5-R-□□□-ES**	
14.0	9.95	3,000	–	**DST-LS-14X4-□-□□□-ES**	New
16.0	11.15	3,000	–	**DST-LS-16X5-R-□□□-ES**	New
16.0	11.55	3,000	–	**DST-LS-16X10-R-□□□-ES**	New
18.0	13.95	3,000	–	**DST-LS-18X4-□-□□□-ES**	New
20.0	15.20	3,000	–	**DST-LS-20X5-R-□□□-ES**	New
20.0	15.60	3,000	–	**DST-LS-20X10-R-□□□-ES**	New

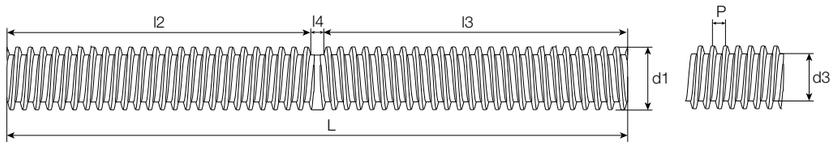
Available from stock
On request

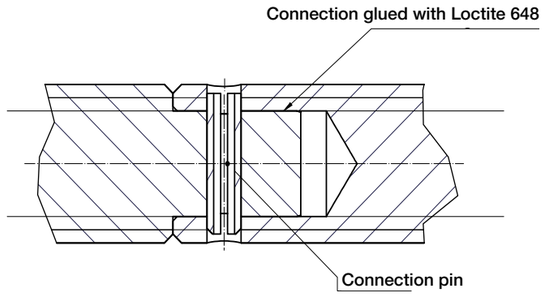
dryspin® technology | Lead screws | Product range

dryspin® high helix lead screw - with right/left opposite drive



Stainless steel, rolled, AISI 304





Our reverse lead screws with dryspin® thread geometry are mechanically connected in a non-positive and positive manner using metal adhesive and dowel pins.

Technical data - dryspin® high helix lead screws

Thread	Max. transferable torque [Nm]	Max. tensile strength [N]	Material Stainless steel AISI 304	Pitch P [mm]	Number of thread pitches	Pitch angle α [°]
Ds10x12	2.0	450	●	12	4	21.54
Ds10x25	2.0	450	●	25	8	38.51
Ds10x50	2.0	450	●	50	10	57.86
Ds14x25	4.0	1,000	●	25	5	29.61
Ds14x30	4.0	1,000	●	30	6	34.30
Ds14x40.6	4.0	1,000	●	40.6	8	42.71
Ds18x24	7.5	1,600	●	24	6	22.99
Ds18x40	7.5	1,600	●	40	8	35.55
Ds18x80	7.5	1,600	●	80	12	54.74
Ds18x100	7.5	1,600	●	100	12	60.51
Ds20x20	11.0	2,500	●	20	4	17.66
Ds20x50	11.0	2,500	●	50	8	38.51
Ds20x60	11.0	2,500	●	60	8	43.68
Ds20x80	11.0	2,500	●	80	12	51.85
Ds20x90	11.0	2,500	●	90	12	55.08
dryspin® lead screws						
Ds14x4	4.0	1,000	●	4	1	5.2
Ds18x4	7.5	1,600	●	4	1	4.04
Ds20x5	11.0	2,500	●	5	1	4.55
Ds20x10	11.0	2,500	●	10	2	9.04

[46] Non-usable thread transition

[47] Fixed length (L)

[48] Lead screw material

EN 09/2023

dryspin® technology

Order key

Part number	Thread	Options

DST - LS - 10X50 - R/L - □ - ES

- dryspin® technology
- Lead screw
- Diameter
- Pitch
- Direction of rotation
- Fixed length
- Lead screw material

Options:
- Length in mm
- Lead screw material
- **ES:** Stainless steel, rolled

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Do you need an individual cut length instead of a fixed length? Configure your personal length easily and quickly using our dryspin® lead screw configurator.
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1,000mm standard length and 2,000mm total length incl. thread transition - available from stock for individual further processing

Dimensions [mm]

Outer Ø d1 -0.10	Core Ø d3 -0.10	Thread transition l4[46]	Max. thread length l2[48]	Max. thread length l3[47]	Max. total length L	Part No.	
10	6.95	25	487	487	1,000	**DST-LS-10X12-R/L-□-ES**	
10	7.10	25	487	487	1,000	**DST-LS-10X25-R/L-□-ES**	
10	7.35	25	487	487	1,000	**DST-LS-10X50-R/L-□-ES**	
14	9.60	25	987	987	2,000	**DST-LS-14X25-R/L-□-ES**	
14	9.60	25	987	987	2,000	**DST-LS-14X30-R/L-□-ES**	New
14	9.65	25	987	987	2,000	**DST-LS-14X40.6-R/L-□-ES**	New
18	14.40	25	987	987	2,000	**DST-LS-18X24-R/L-□-ES**	
18	1360	25	987	987	2,000	**DST-LS-18X40-R/L-□-ES**	
18	14.00	25	987	987	2,000	**DST-LS-18X80-R/L-□-ES**	
18	13.55	25	987	987	2,000	**DST-LS-18X100-R/L-□-ES**	
20	15.20	25	987	987	2,000	**DST-LS-20X20-R/L-□-ES**	New
20	15.58	25	987	987	2,000	**DST-LS-20X50-R/L-□-ES**	New
20	15.55	25	987	987	2,000	**DST-LS-20X60-R/L-□-ES**	New
20	15.98	25	987	987	2,000	**DST-LS-20X80-R/L-□-ES**	New
20	15.55	25	987	987	2,000	**DST-LS-20X90-R/L-□-ES**	New
14	9.95	25	987	987	2,000	**DST-LS-14X4-R/L-□-ES**	New
18	13.95	25	987	987	2,000	**DST-LS-18X4-R/L-□-ES**	New
20	15.20	25	987	987	2,000	**DST-LS-20X5-R/L-□-ES**	New
20	15.60	25	987	987	2,000	**DST-LS-20X10-R/L-□-ES**	New

EN 09/2023

dryspin® TR | Lead screws | Product range

Single start trapezoidal lead screw



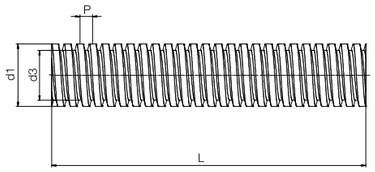
CF15, rolled, AISI 1015



Stainless steel, rolled



Aluminium, rolled (EN AW 6082)



Technical data

Pitch variation	0.1mm / 300mm
Straightness (standard)	0.3mm / 300mm
Aligned (optional)	<0.1mm / 300mm
Tolerance (according to DIN 103)	7e

The tensile/compressive strength of the EN AW 6082 lead screw material is 160MPa (elongation limit 0.2mm).

Technical data

Thread	Direction of rotation		Material						Pitch	Pitch angle
	Right	Left	C15	Stainless steel AISI 304	Stainless steel AISI 303	Stainless steel AISI 316L	Stainless steel AISI 321	Aluminium EN AW 6082	P [mm]	α [°]
Tr8x1.5	●	●	●	●	–	–	–	–	1.5	3.42
Tr10x2	●	●	●	●	–	–	–	●	2	3.64
Tr10x3	●	●	●	–	–	●	–	–	3	5.45
Tr12x2	●	–	–	●	–	–	–	–	2	3.04
Tr12x3	●	●	●	●	–	–	–	●	3	4.55
Tr14x3	●	●	●	●	–	–	–	–	3	3.90
Tr14x4	●	●	●	–	–	–	●	–	4	5.20
Tr16x2	●	●	●	–	●	–	–	–	2	2,28
Tr16x4	●	●	●	●	–	–	–	●	4	4.55
Tr18x2	●	–	–	●	–	–	–	–	2	2.03
Tr18x4	●	●	●	●	–	–	–	●	4	4.05
Tr20x4	●	●	●	●	–	–	–	●	4	3.64
Tr22x2	●	●	–	●	–	–	–	–	2	1.66
Tr24x5	●	●	●	●	–	–	–	–	5	3.79
Tr26x5	●	●	●	●	–	–	–	–	5	3.50
Tr28x5	●	●	●	●	–	–	–	–	5	3.25
Tr30x6	●	●	●	●	–	–	–	–	6	3.64
Tr32x6	●	●	●	–	●	–	–	–	6	3.42
Tr36x6	●	●	●	–	●	–	–	–	6	3.04
Tr40x7	●	●	●	●	–	–	–	–	7	3.19
Tr50x8	●	●	●	–	●	–	–	–	8	2.92

Please contact us!

All dryspin® leads screws can be custom machined. Please configure this online or send us your drawing. We can then provide a quick quotation.

▶ **www.igus.eu/lead-screw-configurator**

Order key

Part number	Thread	Options
PTGSG-	10X2 -	01- R -1000-ES

Lead screw | Diameter | Pitch | Number of thread pitches | Direction of rotation | Length [mm] | Lead screw material

Options:

Direction of rotation
R: Right-hand thread
L: Left-hand thread
Length in mm: Freely selectable (see table)
Lead screw material
Blank: C15, rolled
ES: Stainless steel, rolled
AL: Aluminium, rolled

ACME thread (US standard)
▶ Page 390

Dimensions [mm]

Weight			Outer Ø		Core Ø		Max. total length		Part No.
C15 [kg/m]	Stainless steel [kg/m]	Aluminium [kg/m]	d1 min.	d1 max.	d3 min.	d3 max.	L C15 / ES	L AL	
0.39	0.40	0.14	7.8	8	5.4	6.2	1,500	–	PTGSG-8X1.5-01-□-▭-□
0.62	0.62	0.21	9.8	10	7.2	7.5	3,000	1,000	PTGSG-10X2-01-□-▭-□
0.62	0.62	0.21	9.8	10	6.2	6.5	3,000	–	PTGSG-10X3-01-□-▭-□
–	0.89	–	11.8	12	9.2	9.5	3,000	–	PTGSG-12X2-01-□-▭-□ New
0.89	0.89	0.31	11.8	12	7.7	8.5	3,000	1,000	PTGSG-12X3-01-□-▭-□
1.21	1.22	0.42	13.8	14	9.7	10.5	3,000	–	PTGSG-14X3-01-□-▭-□
1.21	1.22	0.42	13.7	14	9.1	9.5	3,000	–	PTGSG-14X4-01-□-▭-□
1.58	1.59	0.54	15.8	16	11.8	12.8	3,000	–	PTGSG-16X2-01-□-▭-□
1.58	1.59	0.54	15.7	16	10.5	11.5	3,000	1,000	PTGSG-16X4-01-□-▭-□
–	2.01	–	17.8	18	15.2	15.5	3,000	–	PTGSG-18X2-01-□-▭-□ New
2.00	2.01	0.69	17.7	18	12.5	13.5	3,000	2,000	PTGSG-18X4-01-□-▭-□
2.47	2.48	0.85	19.7	20	14.5	15.5	3,000	2,000	PTGSG-20X4-01-□-▭-□
–	3.00	–	21.8	22	18.1	18.5	3,000	–	PTGSG-22X2-01-□-▭-□ New
3.55	3.57	1.22	23.7	24	17.3	18.5	3,000	–	PTGSG-24X5-01-□-▭-□
4.17	4.19	1.43	25.7	26	19.3	20.5	3,000	–	PTGSG-26X5-01-□-▭-□
4.83	4.86	1.66	27.7	28	21.3	22.5	3,000	–	PTGSG-28X5-01-□-▭-□
5.55	5.58	1.91	29.6	30	21.6	23.0	3,000	–	PTGSG-30X6-01-□-▭-□
6.31	6.35	2.17	31.6	32	24.5	25.0	3,000	–	PTGSG-32X6-01-□-▭-□
7.99	8.04	2.75	35.6	36	27.6	29.0	3,000	–	PTGSG-36X6-01-□-▭-□
9.86	9.93	3.39	39.6	40	30.4	32.0	3,000	–	PTGSG-40X7-01-□-▭-□
15.41	15.51	5.30	49.6	50	39.2	41.0	3,000	–	PTGSG-50X8-01-□-▭-□



The biggest lead screw shop online

▶ **www.igus.eu/leadscrewshop**

dryspin® TR | Lead screws | Product range

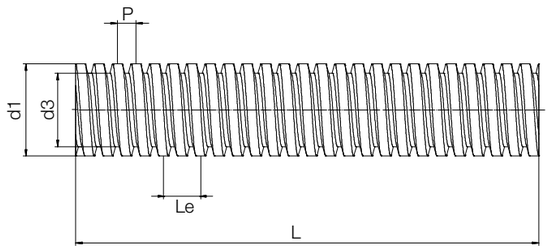
Multi start trapezoidal lead screw



CF15, rolled, AISI 1015



Stainless steel, rolled, AISI 304



Technical data

Pitch variation	0.1mm / 300mm
Straightness (standard)	0.3mm / 300mm
Aligned (optional)	<0.1mm / 300mm
Tolerance (according to DIN 103)	7e

P = Pitch
Le = Lead/pitch

Order key

Part number	Threads	Options

PTGSG-10X4 P2-02-R-1000-ES

Lead screw	Diameter	Pitch	Pitch	Number of thread pitches	Direction of rotation	Length [mm]	Lead screw material

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread
Length in mm: Freely selectable (see table)
Lead screw material
Blank: C15, rolled, AISI 1015
ES: Stainless steel, rolled, AISI 304
AL: Aluminium, rolled

Please contact us!
Do you need an individual configuration and/or machined end for your lead screw? This is not a problem with the help of the dryspin® lead screw configurator: configure lead screw at
▶ **www.igus.eu/lead-screw-configurator**

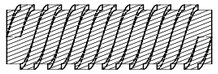
Technical data

Thread	Direction of rotation		Material		Total pitch	Pitch	Pitch	Weight	
	Right	Left	C15	Stainless steel AISI 304	Le [mm]	P [mm]	angle α [°]	C15 [kg/m]	Stainless steel [kg/m]
Tr06x2P1	●	–	–	●	2	1	6,06	0.22	0.22
Tr10x4P2	●	–	–	●	4	2	7.26	0.62	0.62
Tr12x6P3	●	●	●	●	6	3	9.04	0.89	0.89
Tr16x8P4	●	●	●	●	8	4	9.04	1.58	1.59
Tr18x8P4	●	●	●	●	8	4	8.05	2.00	2.01
Tr20x8P4	●	●	●	●	8	4	7.26	2.47	2.48

Dimensions [mm]

Outer Ø d1		Core Ø d3		Max. Total length	Part No.
d1		d3		Total length	
min.	max.	min.	max.	L	
5.9	6	3.4	3.5	1,000	PTGSG-06X2P1-02-□-□-□
9.8	10	7.2	7.5	3,000	PTGSG-10X4P2-02-□-□-□
11.8	12	7.7	8.5	3,000	PTGSG-12X6P3-02-□-□-□
15.7	16	10.5	11.5	3,000	PTGSG-16X8P4-02-□-□-□
17.7	18	12.5	13.5	3,000	PTGSG-18X8P4-02-□-□-□
19.7	20	14.5	15.5	3,000	PTGSG-20X8P4-02-□-□-□

Definition: Multi start trapezoidal lead screw
Example 8P4 pitch



Pitch [P] = Pitch: distance to the next thread pitch, e.g. P4 = 4mm
Lead [Le] = Pitch: distance between threads flanks per thread pitch, e.g. Pitch 8 = Distance of 8mm

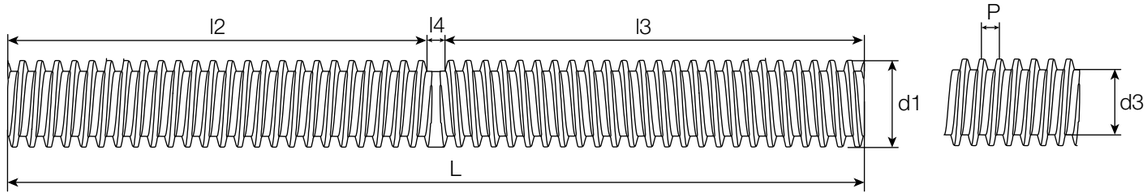
dryspin® TR | Lead screws | Product range

LH/RH trapezoidal lead screws



Technical data

Pitch variation	0.1mm / 300mm
Straightness (standard)	0.3mm / 300mm
Aligned (optional)	<0.1mm / 300mm
Tolerance (according to DIN 103)	7e



Order key

Part number	Thread	Options

PTGSG-10X2-01-R/L-□-ES

- Lead screw
- Diameter
- Pitch
- Thread pitches
- Reverse
- Fixed length
- Lead screw material

Options:
Length in mm
Blank: C15, rolled, AISI 1015
ES: Stainless steel, rolled, AISI 304

Please contact us!
Do you need an individual cut length instead of a fixed length? Configure your personal length easily and quickly using our dryspin® lead screw configurator.
▶ **www.igus.eu/lead-screw-configurator**

1,000mm fixed length and 2,000mm total length incl. thread transition - available from stock for individual further processing.

Technical data

Thread	Material		Pitch	Pitch	Weight	
	C15	Stainless steel AISI 304	P [mm]	angle α [°]	C15 [kg/m]	Stainless steel [kg/m]
Tr8x1.5	●	●	1.5	3.42	0.40	0.40
Tr10x2	●	●	2	3.64	0.62	0.62
Tr10x3	●	●	3	5.45	0.62	0.62
Tr12x3	●	●	3	4.55	0.89	0.89
Tr14x4	●	●	4	5.20	1.21	1.22
Tr16x3	●	●	3	3.42	1.58	1.59
Tr16x4	●	●	4	4.55	1.58	1.58
Tr18x4	●	●	4	4.05	2.00	2.01
Tr20x4	●	●	4	3.64	2.47	2.48
Tr24x5	●	●	5	3.79	3.55	3.57

[46] Non-usable thread transition - the thread is not fully formed in this area
[47] Fixed length (L)
[48] Lead screw material

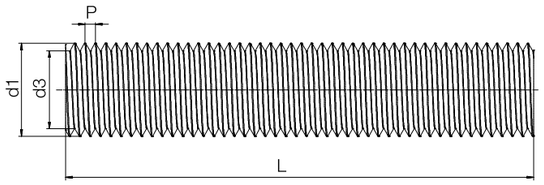
Dimensions [mm]

Outer Ø d1		Core Ø d3		Thread transition	Max. total length	Part No.	
min.	max.	min.	max.	l4[46]	L		
7.0	8	5.4	6.2	25	1,000	PTGSG-8X1.5-01-R/L-□[47]-□[48]	New
9.8	10	7.2	7.5	20	1,000	PTGSG-10X2-01-R/L-□[47]-□[48]	
9.8	10	6.2	6.5	45	1,000	PTGSG-10X3-01-R/L-□[47]-□[48]	New
11.8	12	7.7	8.5	45	1,000	PTGSG-12X3-01-R/L-□[47]-□[48]	
13.7	14	9.1	9.5	60	1,000	PTGSG-14X4-01-R/L-□[47]-□[48]	
15.8	16	11.8	12.8	60	1,000	PTGSG-16X3-01-R/L-□[47]-□[48]	New
15.7	16	10.5	11.5	60	1,000	PTGSG-16X4-01-R/L-□[47]-□[48]	
17.7	18	12.5	13.5	80	2,000	PTGSG-18X4-01-R/L-□[47]-□[48]	
19.7	20	14.5	15.5	80	2,000	PTGSG-20X4-01-R/L-□[47]-□[48]	
23.7	24	17.3	18.5	90	2,000	PTGSG-24X5-01-R/L-□[47]-□[48]	

dryspin® TR | Lead screws | Product range

Metric lead screws





Technical data

Pitch variation	0.1mm / 300mm
Tolerance (according to DIN 976)	6g

Order key

Part number	Thread	Options

PTGSG-M3-01-R-1000-ES

Lead screw	Thread size	Thread pitches	Direction of rotation	Length [mm]	Lead screw material

Options:
Length in mm: Freely selectable (see table)
Lead screw material
ES: Stainless steel, rolled, AISI 304

Please contact us!
Do you need an individual configuration and/or machined end for your lead screw? This is not a problem with the help of the dryspin® lead screw configurator: configure lead screw at
▶ **www.igus.eu/lead-screw-configurator**

Technical data

Thread	Direction of rotation Right	Material Stainless steel AISI 304	Pitch P [mm]	Pitch angle α [°]	Weight [kg/m]
M3	●	●	0.5	3.04	0.06
M4	●	●	0.7	3.19	0.10
M5	●	●	0.8	2.92	0.16
M6	●	●	1.0	3.04	0.22
M8	●	●	1.25	2.85	0.40
M10	●	●	1.5	2.73	0.62

Dimensions [mm]

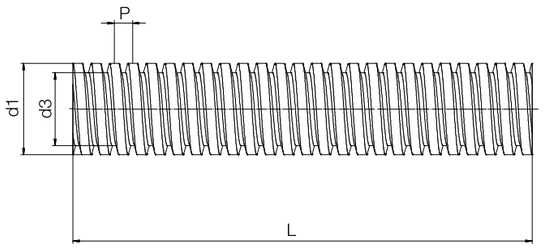
Outer Ø d1 min.	Outer Ø d1 max.	Core Ø d3 min.	Core Ø d3 max.	Max. Total length L	Part No.
2.8	3.0	2.2	2.3	1,000	PTGSG-M3-01-R-□-ES
3.8	4.0	2.9	3.1	1,000	PTGSG-M4-01-R-□-ES
4.8	4.9	3.8	4.0	1,000	PTGSG-M5-01-R-□-ES
5.7	5.9	4.5	4.7	1,000	PTGSG-M6-01-R-□-ES
7.8	8.0	6.47	6.65	1,000	PTGSG-M8-01-R-□-ES
9.8	10.0	8.16	8.38	1,000	PTGSG-M10-01-R-□-ES

dryspin® technology | Lead screws | Product range

Lead screws - "ACME" USA standard



Stainless steel, rolled, AISI 304



Technical data

Pitch variation	0.25mm / 300mm
Straightness (standard)	0.625mm / 300mm
Aligned	<0.1mm / 300mm
Tolerance (ANSI/ASME B1.5)	Class 2C

Technical data

Thread	Hand of rotation right	Pitch P [mm]	Number of thread pitches per inch	Pitch angle	Weight [lb]	Part No.
1/4-16	●	1,59	16	4,56°	0.25	ACME-1/4-16-R-ES
3/8-20	●	1,27	20	2,43°	0.56	ACME-3/8-20-R-ES
3/8-12	●	2,12	12	4,03°	0.56	ACME-3/8-12-R-ES
3/8-10	●	2,54	10	4,85°	0.56	ACME-3/8-10-R-ES
1/2-10	●	2,54	10	3,64°	1.00	ACME-1/2-10-R-ES
5/8-8	●	3,18	8	3,65°	1.60	ACME-5/8-8-R-ES
3/4-10	●	2,54	10	4,04°	2.25	ACME-3/4-10-R-ES
3/4-6	●	4,23	6	2,43°	2.25	ACME-3/4-6-R-ES
1-10	●	2,54	10	3,64°	4.00	ACME-1-10-R-ES
1-5	●	3,08	5	1,82°	4.00	ACME-1-5-R-ES

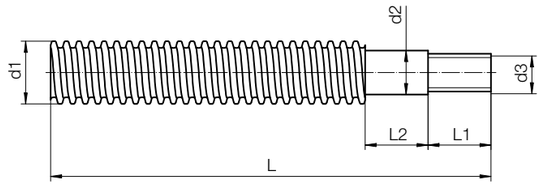
Dimensions

Outer Ø d1 [mm]	Outer Ø d1 [inch]	Core Ø d3 [mm]	Core Ø d3 [inch]	Max. length [mm]	Part No.
6.35	0.250	4,76	0.187	1,829	ACME-1/4-16-R-ES
9.52	0.375	8.26	0.325	1,829	ACME-3/8-20-R-ES
9.52	0.375	7.40	0.292	1,829	ACME-3/8-12-R-ES
9.52	0.375	7.00	0.275	1,829	ACME-3/8-10-R-ES
12,70	0.500	10,16	0.400	1,829	ACME-1/2-10-R-ES
15,88	0.625	12,70	0.500	1,829	ACME-5/8-8-R-ES
19,05	0.750	14,87	0.585	1,829	ACME-3/4-10-R-ES
19,05	0.750	16,50	0.650	1,829	ACME-3/4-6-R-ES
25,40	1,000	20,30	0.800	1,829	ACME-1-10-R-ES
25,40	1,000	22,86	0.900	1,829	ACME-1-5-R-ES

dryspin® technology | Lead screws | Product range New

dryspin® lead screws with precision machining





Order key

Order example

DST-LS-MOT-5X5-R-□-ES

dryspin® technology	Lead screws with precision machining	Diameter	Pitch	Direction of rotation	Total length	Stainless steel

ES: Stainless steel, rolled, AISI 304

Lead screw motor expert:
Assemble a complete system.
▶ **www.igus.eu/DSE**

Suitable motor size

Male thread	Motor size	Distance over hubs
M3	NEMA11/NEMA17S	28/42
M6	NEMA17M/NEMA23	42/56

Technical data and dimensions [mm]

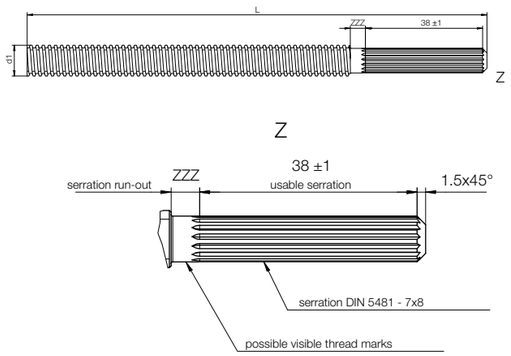
Thread	d1 [mm]	d2 g7 [mm]	d3	Pitch P [mm]	Number of gears	Pitch angle [°]	Part No.	
DS5x5	5.0	4	M3	5.0	2	17.66	DST-LS-MOT-5X5-R-□-ES	New
DS5x10	5.0	4	M3	10.0	4	32.48	DST-LS-MOT-5X10-R-□-ES	New
TR06x2P1	6.0	4	M3	2.0	1	6,06	PTGSG-MOT-06X2P1-R-01-□-ES	New
DS6.35x1	6.35	4	M3	1.0	1	2.87	DST-LS-MOT-6.35X1-R-□-ES	New
DS6.35x2.54	6.35	4	M3	2.54	2	7.26	DST-LS-MOT-6.35X2.54-R-□-ES	New
DS6.35x5.08	6.35	4	M3	5.08	4	14.29	DST-LS-MOT-6.35X5.08-R-□-ES	New
DS6.35x6.35	6.35	4	M3	6.35	3	17.66	DST-LS-MOT-6.35X6.35-R-□-ES	New
DS6.35x12.7	6.35	4	M3	12.7	4	32.48	DST-LS-MOT-6.35X12.7-R-□-ES	New
DS6.35x25.4	6.35	4	M3	25.4	8	51.85	DST-LS-MOT-6.35X25.4-R-□-ES	New
TR08x1.5	8.0	7	M6	1.5	1	3.42	PTGSG-MOT-08X1.5-R-01-□-ES	New
DS8x10	8.0	7	M6	10.0	4	21.70	DST-LS-MOT-8X10-R-□-ES	New
DS8x15	8.0	7	M6	15.0	6	30.83	DST-LS-MOT-8X15-R-□-ES	New
DS8x24	8.0	7	M6	24.0	8	43.70	DST-LS-MOT-8X24-R-□-ES	New
DS8x40	8.0	7	M6	40.0	8	57.86	DST-LS-MOT-8X40-R-□-ES	New
DS10x2	10.0	4	M3	2.0	1	3.64	DST-LS-MOT4-10X2-R-□-ES	New
DS10x2	10.0	7	M6	2.0	1	3.64	DST-LS-MOT-10X2-R-□-ES	New
DS10x3	10.0	4	M3	3.0	2	5.45	DST-LS-MOT4-10X3-R-□-ES	New
DS10x3	10.0	7	M6	3.0	2	5.45	DST-LS-MOT-10X3-R-□-ES	New
DS10x12	10.0	4	M3	12.0	4	21.54	DST-LS-MOT4-10X12-R-□-ES	New
DS10x12	10.0	7	M6	12.0	4	21.54	DST-LS-MOT-10X12-R-□-ES	New
DS10x25	10.0	7	M6	25.0	8	38.51	DST-LS-MOT-10X25-R-□-ES	New
DS10x50	10.0	7	M6	50.0	10	57.86	DST-LS-MOT-10X50-R-□-ES	New
DS12x5	12.0	7	M6	5.0	2	21.69	DST-LS-MOT-12X5-R-□-ES	New
DS12x15	12.0	7	M6	15.0	8	33.55	DST-LS-MOT-12X15-R-□-ES	New

310mm fixed length and 490mm total length incl. machined end length - available from stock for individual further processing or assembly. A suitable force-diverting lead screw support must be ensured.

dryspin® technology | Lead screws | Product range New

dryspin® lead screws with spline





Order key

Order example

DST-LS-MOTK-10X2-R-1000-ES

dryspin® technology	Lead screws with spline	Diameter	Pitch	Direction of rotation	Total length	Stainless steel

ES: Stainless steel, rolled, AISI 304

Please contact us!
Do you need an custom machined end or length of your lead screw?
▶ **www.igus.eu/lead-screw-configurator**

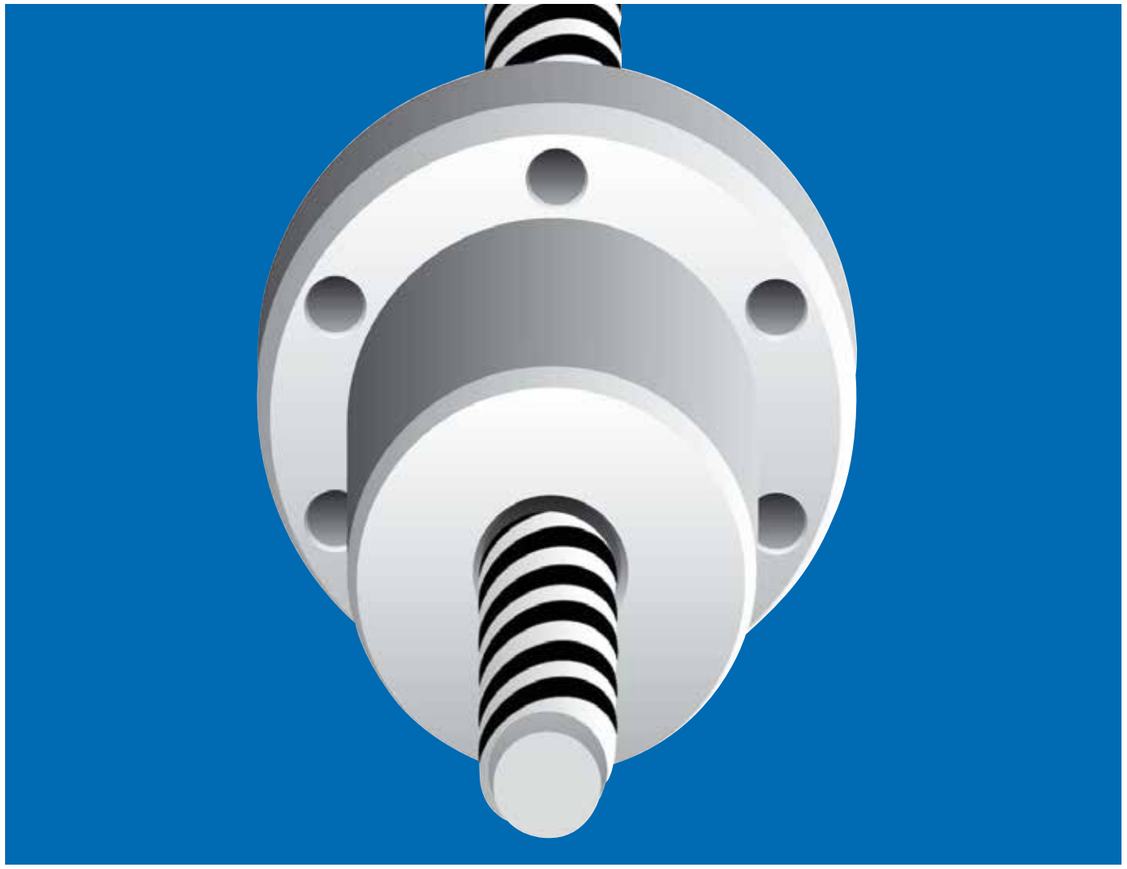
Technical data and dimensions

Thread	d1	Pitch P	Number of gears	Pitch angle	ZZZ	Weight	Part No.	
	[mm]	[mm]		[°]	[mm]	[kg]		
DS10x2	10	2	1	3.64	5.0	0.62	**DST-LS-MOTK-10X2-R-1000-ES**	New
DS10x3	10	3	2	5.45	5.0	0.62	**DST-LS-MOTK-10X3-R-1000-ES**	New
DS10x12	10	12	4	21.54	5.0	0.62	**DST-LS-MOTK-10X12-R-1000-ES**	New
DS10x25	10	25	8	38.51	5.0	0.62	**DST-LS-MOTK-10X25-R-1000-ES**	New
DS10x50	10	50	10	57.86	5.0	0.62	**DST-LS-MOTK-10X50-R-1000-ES**	New
DS12x5	12	5	2	7.55	6.5	0.89	**DST-LS-MOTK-12X5-R-1000-ES**	New
DS12x15	12	15	5	21.20	6.5	0.89	**DST-LS-MOTK-12X15-R-1000-ES**	New
DS12x25	12	25	8	33.55	6.5	0.89	**DST-LS-MOTK-12X25-R-1000-ES**	New
DS14x4	14	4	1	5.20	7.0	1.22	**DST-LS-MOTK-14X4-R-1000-ES**	New
DS14x25	14	25	5	29.61	7.0	1.22	**DST-LS-MOTK-14X25-R-1000-ES**	New
DS18x4	18	4	1	4.04	8.0	2.01	**DST-LS-MOTK-18X4-R-1000-ES**	New
DS18x24	18	24	6	22.99	8.0	2.01	**DST-LS-MOTK-18X24-R-1000-ES**	New

Left-hand thread upon request

Lead screw motor expert:
Assemble a complete system.
▶ **www.igus.eu/DSE**

1,000mm fixed total length incl. machined end length - available from stock for individual further processing or assembly. A suitable force-diverting lead screw support must be ensured.



dryspin® lead screw technology - lead screw nuts

- dryspin® lead screw technology
- Trapezoidal and metric threads
- ACME thread
- Maintenance-free dry operation
- Resistant to dirt and long service life



EN 09/2023

Highly efficient at all speeds: iglidur® J

Thread	Efficiency	Coefficient of friction
	η	μ
Ds4x2.4	41 - 64	0.1 - 0.25
Ds5x5	52 - 74	0.1 - 0.25
Ds5x10	60 - 81	0.1 - 0.25
Ds6.35x2.54	33 - 55	0.1 - 0.25
Ds6.35x5.08	47 - 70	0.1 - 0.25
Ds6.35x6.35	52 - 74	0.1 - 0.25
Ds6.35x12.7	60 - 81	0.1 - 0.25
Ds6.35x25.4	57 - 81	0.1 - 0.25
Ds8x10	55 - 77	0.1 - 0.25
Ds8x15	60 - 81	0.1 - 0.25
Ds8x24	60 - 82	0.1 - 0.25
Ds8x40	52 - 79	0.1 - 0.25
Ds10x3	27 - 48	0.1 - 0.25
Ds10x12	55 - 76	0.1 - 0.25
Ds10x25	61 - 82	0.1 - 0.25
Ds10x50	52 - 79	0.1 - 0.25
Ds12x5	34 - 56	0.1 - 0.25
Ds12.7x12.7	52 - 74	0.1 - 0.25
Ds12x15	55 - 77	0.1 - 0.25
Ds12x25	61 - 81	0.1 - 0.25
Ds14x4	26 - 47	0.1 - 0.25
Ds14x25	60 - 80	0.1 - 0.25
Ds14x30	61 - 81	0.1 - 0.25
Ds14x40.6	61 - 82	0.1 - 0.25
Ds14x70	52 - 79	0.1 - 0.25
Ds16x5	28 - 49	0.1 - 0.25
Ds16x10	42 - 65	0.1 - 0.25
Ds16x35	61 - 81	0.1 - 0.25
Ds18x4	22 - 41	0.1 - 0.25
Ds18x24	56 - 77	0.1 - 0.25
Ds18x40	61 - 81	0.1 - 0.25
Ds18x80	55 - 80	0.1 - 0.25
Ds18x100	49 - 78	0.1 - 0.25
Ds20x5	24 - 44	0.1 - 0.25
Ds20x10	37 - 60	0.1 - 0.25
Ds20x20	52 - 74	0.1 - 0.25
Ds20x50	61 - 82	0.1 - 0.25
Ds20x60	60 - 82	0.1 - 0.25
Ds20x80	57 - 81	0.1 - 0.25
Ds20x90	55 - 80	0.1 - 0.25

For temperatures up to +150°C: iglidur® J350

Efficiency	Coefficient of friction
η	μ
41 - 51	0.17 - 0.25
52 - 62	0.17 - 0.25
60 - 70	0.17 - 0.25
33 - 42	0.17 - 0.25
47 - 57	0.17 - 0.25
62 - 74	0.17 - 0.25
60 - 70	0.17 - 0.25
57 - 69	0.17 - 0.25
55 - 65	0.17 - 0.25
60 - 70	0.17 - 0.25
60 - 71	0.17 - 0.25
66 - 70	0.17 - 0.25
27 - 35	0.17 - 0.25
55 - 65	0.17 - 0.25
61 - 71	0.17 - 0.25
52 - 66	0.17 - 0.25
34 - 43	0.17 - 0.25
52 - 62	0.17 - 0.25
55 - 65	0.17 - 0.25
61 - 71	0.17 - 0.25
26 - 34	0.17 - 0.25
60 - 70	0.17 - 0.25
61 - 71	0.17 - 0.25
61 - 71	0.17 - 0.25
52 - 66	0.17 - 0.25
28 - 36	0.17 - 0.25
42 - 52	0.17 - 0.25
61 - 71	0.17 - 0.25
22 - 29	0.17 - 0.25
56 - 66	0.17 - 0.25
61 - 71	0.17 - 0.25
55 - 68	0.17 - 0.25
49 - 64	0.17 - 0.25
24 - 31	0.17 - 0.25
37 - 47	0.17 - 0.25
52 - 62	0.17 - 0.25
61 - 71	0.17 - 0.25
60 - 71	0.17 - 0.25
57 - 69	0.17 - 0.25
55 - 68	0.17 - 0.25

For medium to high speeds: iglidur® R

Thread	Efficiency	Coefficient of friction
	η	μ
Ds4x2.4	37 - 47	0.2 - 0.3
Ds5x5	47 - 58	0.2 - 0.3
Ds5x10	55 - 66	0.2 - 0.3
Ds6.35x2.54	29 - 38	0.2 - 0.3
Ds6.35x5.08	42 - 53	0.2 - 0.3
Ds6.35x6.35	47 - 58	0.2 - 0.3
Ds6.35x12.7	55 - 66	0.2 - 0.3
Ds6.35x25.4	50 - 64	0.2 - 0.3
Ds8x10	55 - 61	0.2 - 0.3
Ds8x15	55 - 66	0.2 - 0.3
Ds8x24	54 - 67	0.2 - 0.3
Ds8x40	44 - 61	0.2 - 0.3
Ds10x3	23 - 32	0.2 - 0.3
Ds10x12	55 - 61	0.2 - 0.3
Ds10x25	55 - 67	0.2 - 0.3
Ds10x50	44 - 61	0.2 - 0.3
Ds12x5	29 - 39	0.2 - 0.3
Ds12.7x12.7	47 - 58	0.2 - 0.3
Ds12x15	55 - 61	0.2 - 0.3
Ds12x25	55 - 67	0.2 - 0.3
Ds14x4	23 - 31	0.2 - 0.3
Ds14x25	60 - 72	0.2 - 0.3
Ds14x30	61 - 74	0.2 - 0.3
Ds14x40.6	61 - 75	0.2 - 0.3
Ds14x70	44 - 61	0.2 - 0.3
Ds16x5	22 - 33	0.2 - 0.3
Ds16x10	37 - 48	0.2 - 0.3
Ds16x35	61 - 74	0.2 - 0.3
Ds18x4	19 - 26	0.2 - 0.3
Ds18x24	51 - 62	0.2 - 0.3
Ds18x40	61 - 74	0.2 - 0.3
Ds18x80	55 - 71	0.2 - 0.3
Ds18x100	40 - 58	0.2 - 0.3
Ds20x5	20 - 28	0.2 - 0.3
Ds20x10	33 - 43	0.2 - 0.3
Ds20x20	52 - 65	0.2 - 0.3
Ds20x50	55 - 67	0.2 - 0.3
Ds20x60	60 - 74	0.2 - 0.3
Ds20x80	50 - 64	0.2 - 0.3
Ds20x90	55 - 71	0.2 - 0.3

FDA-compliant for the food/ pharmaceutical industry: iglidur® A180

Efficiency	Coefficient of friction
η	μ
41 - 54	0.15 - 0.25
52 - 65	0.15 - 0.25
60 - 73	0.15 - 0.25
33 - 45	0.15 - 0.25
47 - 61	0.15 - 0.25
65 - 74	0.15 - 0.25
60 - 73	0.15 - 0.25
57 - 72	0.15 - 0.25
55 - 68	0.15 - 0.25
60 - 73	0.15 - 0.25
60 - 74	0.15 - 0.25
52 - 70	0.15 - 0.25
27 - 38	0.15 - 0.25
55 - 68	0.15 - 0.25
61 - 74	0.15 - 0.25
52 - 70	0.15 - 0.25
34 - 46	0.15 - 0.25
52 - 65	0.15 - 0.25
55 - 68	0.15 - 0.25
61 - 81	0.15 - 0.25
26 - 37	0.15 - 0.25
60 - 72	0.15 - 0.25
61 - 74	0.15 - 0.25
61 - 74	0.15 - 0.25
52 - 70	0.15 - 0.25
28 - 39	0.15 - 0.25
42 - 55	0.15 - 0.25
61 - 74	0.15 - 0.25
22 - 32	0.15 - 0.25
56 - 69	0.15 - 0.25
61 - 74	0.15 - 0.25
55 - 71	0.15 - 0.25
49 - 68	0.15 - 0.25
24 - 34	0.15 - 0.25
37 - 50	0.15 - 0.25
52 - 65	0.15 - 0.25
61 - 74	0.15 - 0.25
60 - 74	0.15 - 0.25
57 - 72	0.15 - 0.25
55 - 71	0.15 - 0.25

dryspin® technology | Lead screw nuts | Technical data

Lead screw nuts - "ACME" USA standard, iglidur® J (standard)

Technical data - iglidur® J

Thread	Efficiency	Idling torque[118)]	Coefficient of friction
	η	[Nm]	μ
1/4-16	24 - 44	0.0029	0.1 - 0.25
3/8-20	14 - 30	0.0034	0.1 - 0.25
3/8-12	22 - 41	0.0041	0.1 - 0.25
3/8-10	25 - 46	0.0044	0.1 - 0.25
1/2-10	20 - 39	0.0052	0.1 - 0.25
5/8-8	20 - 39	0.0065	0.1 - 0.25
3/4-6	22 - 41	0.0082	0.1 - 0.25
3/4-10	14 - 30	0.0068	0.1 - 0.25
1-5	20 - 39	0.0105	0.1 - 0.25
1-10	11 - 24	0.0084	0.1 - 0.25

[118)] Theoretical idling torque assuming the best coefficient of friction at a 5N load

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For high speeds: iglidur® E7

Thread	Efficiency	Coefficient of friction
	η	μ
Ds4x2.4	37 - 47	0.2 - 0.3
Ds5x5	47 - 58	0.2 - 0.3
Ds5x10	55 - 66	0.2 - 0.3
Ds6.35x2.54	29 - 38	0.2 - 0.3
Ds6.35x5.08	42 - 53	0.2 - 0.3
Ds6.35x6.35	47 - 58	0.2 - 0.3
Ds6.35x12.7	55 - 66	0.2 - 0.3
Ds6.35x25.4	50 - 64	0.2 - 0.3
Ds8x10	55 - 61	0.2 - 0.3
Ds8x15	50 - 66	0.2 - 0.3
Ds8x24	54 - 67	0.2 - 0.3
Ds8x40	44 - 61	0.2 - 0.3
Ds10x3	23 - 32	0.2 - 0.3
Ds10x12	55 - 61	0.2 - 0.3
Ds10x25	55 - 67	0.2 - 0.3
Ds10x50	44 - 61	0.2 - 0.3
Ds12x5	29 - 39	0.2 - 0.3
Ds12.7x12.7	47 - 58	0.2 - 0.3
Ds12x15	55 - 61	0.2 - 0.3
Ds12x25	55 - 67	0.2 - 0.3
Ds14x4	23 - 31	0.2 - 0.3
Ds14x25	60 - 72	0.2 - 0.3
Ds14x30	61 - 74	0.2 - 0.3
Ds14x40.6	61 - 75	0.2 - 0.3
Ds14x70	44 - 61	0.2 - 0.3
Ds16x5	–	–
Ds16x10	–	–
Ds16x35	–	–
Ds18x4	–	–
Ds18x24	–	–
Ds18x40	–	–
Ds18x80	–	–
Ds18x100	–	–
Ds20x5	–	–
Ds20x10	–	–
Ds20x20	–	–
Ds20x50	–	–
Ds20x60	–	–
Ds20x80	–	–
Ds20x90	–	–

The specialist on hard anodised aluminium: iglidur® J200

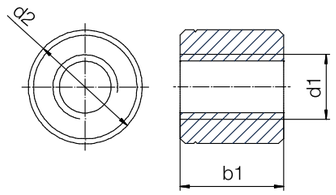
Efficiency	Coefficient of friction
η	μ
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
–	–
28 - 49	0.1 - 0.25
42 - 65	0.1 - 0.25
61 - 81	0.1 - 0.25
22 - 41	0.1 - 0.25
56 - 77	0.1 - 0.25
61 - 81	0.1 - 0.25
55 - 80	0.1 - 0.25
49 - 78	0.1 - 0.25
24 - 44	0.1 - 0.25
37 - 60	0.1 - 0.25
52 - 74	0.1 - 0.25
61 - 82	0.1 - 0.25
60 - 82	0.1 - 0.25
57 - 81	0.1 - 0.25
55 - 80	0.1 - 0.25

dryspin® technology | Lead screw nuts | Product range

Lead screw nuts, cylindrical (form S)



iglidur® J | iglidur® J350 | iglidur® R | iglidur® A180 | iglidur® J200



Order key

Type	d2	b1	Thread

DST-□ S R M-1413 DS 10X12

dryspin® technology	iglidur® material	Form S	Direction of rotation	Metric	Outer Ø [mm]	Length [mm]	Thread type	Diameter [mm]	Pitch

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread

J	High efficiency at all speeds	Standard
J350	For temperatures up to +150°C	Optional
R	Vibration-dampening and vibration-inhibiting	Optional
A180	FDA-compliant for the food and pharmaceutical industries	Optional
J200	The specialist on hard anodised aluminium	Optional

Technical data

Thread	Direction of rotation		Effective supporting surface	Pitch P	Max. stat. axial F [N] iglidur®				
	Right	Left	[mm²]	[mm]	J	J350	R	A180	J200
Ds4x2.4	●	–	57	2.4	142	142	114	142	–
Ds5x5	●	–	58	5	144	144	115	144	–
Ds5x10	●	–	43	10	108	108	86	108	–
Ds6.35x1	●	–	119	1	299	299	239	299	–
Ds6.35x2.54	●	●	172	2.54	430	430	344	430	–
Ds6.35x5.08	●	–	135	5.08	338	338	270	338	–
Ds6.35x6.35	●	–	104	6.35	260	260	208	260	–
Ds6.35x12.7	●	–	69	12.7	172	172	138	172	–
Ds6.35x25.4	●	–	76	25.4	189	189	151	189	–
Ds8x8	●	–	144	8	360	360	288	360	–
Ds8x10	●	●	122	10	304	304	244	304	–
Ds8x15	●	●	122	15	304	304	244	304	–
Ds8x24	●	–	103	24	258	258	206	258	–
Ds8x40	●	–	57	40	143	143	114	143	–
Ds10x2	●	●	299	2	1,196	897	598	1,046	–
Ds10x3	●	●	402	3	1,608	1,206	804	1,407	–
Ds10x12	●	●	274	12	685	685	549	685	–
Ds10x25	●	●	249	25	623	623	499	623	–
Ds10x50	●	●	144	50	361	361	289	361	–
Ds12x3	●	–	422	3	1,686	1,265	843	1,475	–

Dimensions [mm]

d1[156]	d2[156]	b1[156]	Weight [g] iglidur®					Part No.	
			J	J350	R	A180	J200		
4	14	13	2.74	2.65	2.55	2.68	–	DST-□SRM-131315DS4X2.4	
5	14	13	2.6	2.5	2.4	2.6	–	DST-□SRM-1413DS5X5	
5	14	13	2.6	2.5	2.4	2.6	–	DST-□SRM-1413DS5X10	New
6.35	14	13	2.4	2.3	2.2	2.3	–	DST-□SRM-1413DS6.35X1	New
6.35	14	13	2.4	2.3	2.2	2.3	–	DST-□S□M-1413DS6.35X2.54	
6.35	14	13	2.4	2.3	2.2	2.3	–	DST-□SRM-1413DS6.35X5.08	
6.35	14	13	2.4	2.3	2.2	2.3	–	DST-□SRM-1413DS6.35X6.35	New
6.35	14	13	2.4	2.3	2.2	2.3	–	DST-□SRM-1413DS6.35X12.7	
6.35	14	13	2.4	2.3	2.2	2.3	–	DST-□SRM-1413DS6.35X25.4	
8	18	12	3.7	3.5	3.4	3.6	–	DST-□SRM-1812DS8X8	New
8	18	12	3.7	3.5	3.4	3.6	–	DST-□S□M-1812DS8X10	
8	18	12	3.7	3.5	3.4	3.6	–	DST-□S□M-1812DS8X15	
8	18	12	3.7	3.5	3.4	3.6	–	DST-□SRM-1812DS8X24	
8	18	12	3.7	3.5	3.4	3.6	–	DST-□SRM-1812DS8X40	New
10	22	20	9.0	8.7	8.4	8.8	–	DST-□S□M-2220DS10X2	New
10	22	20	9.0	8.7	8.4	8.8	–	DST-□S□M-2220DS10X3	New
10	22	20	9.0	8.7	8.4	8.8	–	DST-□S□M-2220DS10X12	
10	22	20	9.0	8.7	8.4	8.8	–	DST-□S□M-2220DS10X25	
10	22	20	9.0	8.7	8.4	8.8	–	DST-□S□M-2220DS10X50	
12	26	24	14.9	14.4	13.9	14.6	–	DST-□SRM-2624DS12X3	

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® technology | Lead screw nuts | Product range

dryspin® technology

Technical data

Thread	Direction of rotation		Effective	Pitch	Max. stat. axial F [N]				
	Right	Left	supporting surface	P	iglidur®				
			[mm²]	[mm]	J	J350	R	A180	J200
Ds12x5	●	–	391	5	1.563	1,173	782	1,368	–
Ds12.7x12.7	●	–	410	12.7	1,026	1,026	821	1,026	–
Ds12x15	●	–	384	15	961	961	769	961	–
Ds12x25	●	●	383	25	958	958	767	958	–
Ds14x4	●	●	514	4	2,057	1,543	1,028	1,800	–
Ds14x25	●	●	440	25	1,101	1,101	881	1,101	–
Ds14x30	●	–	440	30	1,101	1,101	881	1,101	–
Ds14x40.6	●	–	430	40.6	1,075	1,075	860	1,075	–
Ds14x70	●	–	235	70	588	588	470	588	–
Ds16x5	●	–	662	5	2,648	1,986	1,324	2,317	1,324
Ds16x10	●	–	616	10	2,465	1,849	1,232	2,157	1,232
Ds16x35	●	–	610	35	1,526	1,526	1,221	1,526	1,221
Ds18x4	●	●	915	4	3,659	2,744	1,829	3,201	1,829
Ds18x24	●	●	839	24	2,097	2,097	1,677	2,097	1,677
Ds18x40	●	●	786	40	1,966	1,966	1,573	1,966	1,573
Ds18x80	●	●	543	80	1,357	1,357	1,086	1,357	1,086
Ds18x100	●	●	476	100	1,191	1,191	953	1,191	953
Ds20x5	●	–	1.062	5	4,246	3,185	2,123	3,716	2,123
Ds20x10	●	–	994	10	3.976	2,982	1,988	3,479	1,988
Ds20x20	●	●	984	20	2,460	2,460	1,968	2,460	1,968
Ds20x50	●	–	790	50	1,976	1,976	1,581	1,976	1,581
Ds20x60	●	●	663	60	1,657	1,657	1,325	1,657	1,325
Ds20x80	●	●	682	80	1,704	1,704	1,363	1,704	1,363
Ds20x90	●	●	663	90	1,657	1,657	1,325	1,657	1,325

Dimensions [mm]

d1[156]	d2[156]	b1[156]	Weight [g]					Part No.	
			iglidur®						
			J	J350	R	A180	J200		
12	26	24	14.9	14.4	13.9	14.6	–	**DST-□SRM-2624DS12X5**	
12.7	26	24	14.5	14.0	13.5	14.2	–	**DST-□SRM-2624DS12.7X12.7**	
12	26	24	14.9	14.4	13.9	14.6	–	**DST-□SRM-2624DS12X15**	
12	26	24	14.9	14.4	13.9	14.6	–	**DST-□S□M-2624DS12X25**	New
14	30	27	22.2	21.5	20.8	21.8	–	**DST-□S□M-3027DS14X4**	New
14	30	27	22.2	21.5	20.8	21.8	–	**DST-□S□M-3027DS14X25**	
14	30	27	22.2	21.5	20.8	21.8	–	**DST-□SRM-3027DS14X30**	
14	30	27	22.2	21.5	20.8	21.8	–	**DST-□SRM-3027DS14X40.6**	
14	30	27	22.2	21.5	20.8	21.8	–	**DST-□SRM-3027DS14X70**	New
16	36	32	39.0	37.6	36.3	38.2	45.0	**DST-□SRM-3632DS16X5**	New
16	36	32	38.9	37.6	36.3	38.2	45.0	**DST-□SRM-3632DS16X10**	New
16	36	32	38.9	37.6	36.3	38.2	45.0	**DST-□SRM-3632DS16X35**	
18	40	36	53.8	52.0	50.2	52.7	62.1	**DST-□SRM-4036DS18X4**	New
18	40	36	53.8	52.0	50.2	52.7	62.1	**DST-□S□M-4036DS18X24**	
18	40	36	53.8	52.0	50.2	52.7	62.1	**DST-□S□M-4036DS18X40**	
18	40	36	53.8	52.0	50.2	52.7	62.1	**DST-□S□M-4036DS18X80**	
18	40	36	53.8	52.0	50.2	52.7	62.1	**DST-□S□M-4036DS18X100**	
20	45	40	76.1	73.5	71.0	74.5	87.8	**DST- JSRM-4540DS20X5**	New
20	45	40	76.1	73.5	71.0	74.5	87.8	**DST-□SRM-4540DS20X10**	New
20	45	40	76.1	73.5	71.0	74.5	87.8	**DST-□S□M-4540DS20X20**	
20	45	40	76.1	73.5	71.0	74.5	87.8	**DST-□SRM-4540DS20X50**	
20	45	40	76.1	73.5	71.0	74.5	87.8	**DST-□S□M-4540DS20X60**	
20	45	40	76.1	73.5	71.0	74.5	87.8	**DST-□S□M-4540DS20X80**	
20	45	40	76.1	73.5	71.0	74.5	87.8	**DST-□S□M-4540DS20X90**	

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

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Cylindrical lead screw nuts with spanner flat



iglidur® J



iglidur® J350



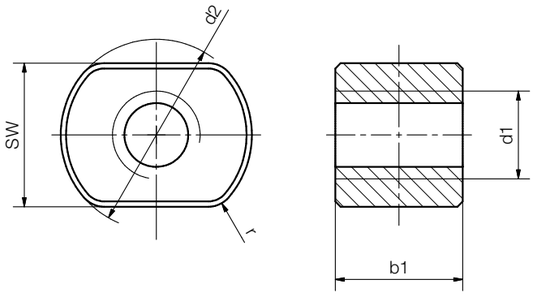
iglidur® R



iglidur® A180



iglidur® J200



Order key

Type											SW	d2	b1	Thread
DST-	□	S	R	M-	17	22	20	DS	10	X12				

dryspin® technology	iglidur® material	Form S	Direction of rotation	Metric	Spanner flat [mm]	Outer Ø [mm]	Length [mm]	Thread type	Diameter [mm]	Pitch

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread

J	High efficiency at all speeds	Standard
J350	For temperatures up to +150°C	Optional
R	Vibration-dampening and vibration-inhibiting	Optional
A180	FDA-compliant for the food and pharmaceutical industries	Optional
J200	The specialist on hard anodised aluminium	Optional

Technical data

Thread	Direction of rotation		Effective	Pitch	Max. stat. axial F [N]				
	Right	Left	support surface	P	iglidur®				
			[mm²]	[mm]	J	J350	R	A180	J200
DS10x2	●	●	299	2	1,196	897	598	1,046	–
DS10x3	●	●	402	3	1,608	1,206	804	1,407	–
DS10x12	●	●	274	12	686	686	549	686	–
DS10x25	●	●	249	25	623	623	499	623	–
DS10x50	●	●	144	50	361	361	289	361	–
DS12x3	●	–	422	3	1,686	1,265	843	1,475	–
DS12x5	●	–	391	5	1.563	1,173	782	1,368	–
DS12.7x12.7	●	–	410	12.7	1,026	1,026	821	1,026	–
DS12x15	●	●	384	15	961	961	769	961	–
DS12x25	●	–	383	25	958	958	767	958	–
DS14x4	●	–	514	4	2,057	1,543	1,028	1,800	–
DS14x25	●	●	440	25	1,101	1,101	881	1,101	–
DS14x30	●	–	440	30	1,101	1,101	881	1,101	–
DS14x40.6	●	–	430	40.6	1,075	1,075	860	1,075	–
DS14x70	●	–	235	70	588	588	470	588	–
DS16x5	●	–	662	5	2,648	1,986	1,324	2,317	1,324
DS16x10	●	–	616	10	2,465	1,849	1,232	2,157	1,232
DS16x35	●	–	610	35	1,526	1,526	1,221	1,526	1,221
DS18x4	●	–	915	4	3,659	2,744	1,829	3,201	1,829
DS18x24	●	●	839	24	2,097	2,097	1,677	2,097	1,677

Dimensions [mm]

d1[156]	d2[156]	b1[156]	SW	Weight [g]					Part No.	
				iglidur®						
				J	J350	R	A180	J200		
10	22	20	17	6.65	6.42	6.20	6.51	–	DST-□S□M-172220DS10X2	New
10	22	20	17	6.65	6.42	6.20	6.51	–	DST-□S□M-172220DS10X3	New
10	22	20	17	6.65	6.42	6.20	6.51	–	DST-□S□M-172220DS10X12	
10	22	20	17	6.65	6.42	6.20	6.51	–	DST-□S□M-172220DS10X25	
10	22	20	17	6.65	6.42	6.20	6.51	–	DST-□S□M-172220DS10X50	
12	26	24	19	10.90	10.53	10.17	10.68	–	DST-□SRM-192624DS12X3	New
12	26	24	19	10.90	10.53	10.17	10.68	–	DST-□SRM-192624DS12X5	
12.7	26	24	19	9.93	9.59	9.26	9.73	–	DST-□SRM-192624DS12.7X12.7	New
12	26	24	19	10.90	10.53	10.17	10.68	–	DST-□S□M-192624DS12X15	
12	26	24	19	10.90	10.53	10.17	10.68	–	DST-□SRM-192624DS12X25	
14	30	27	25	16.05	15.51	14.97	15.73	–	DST-□SRM-253027DS14X4	New
14	30	27	25	16.05	15.51	14.97	15.73	–	DST-□S□M-253027DS14X25	
14	30	27	25	16.05	15.51	14.97	15.73	–	DST-□SRM-253027DS14X30	
14	30	32	25	19.02	18.39	17.75	18.64	–	DST-□SRM-253027DS14X40.6	
14	30	32	25	19.02	18.39	17.75	18.64	–	DST-□SRM-253027DS14X70	New
16	36	36	27	33.03	31.92	30.81	32.36	–	DST-□SRM-273632DS16X5	New
16	36	36	27	33.03	31.92	30.81	32.36	–	DST-JSRM-273632DS16X10	New
16	36	36	27	33.03	31.92	30.81	32.36	–	DST-□SRM-273632DS16X35	
18	40	36	27	40.11	38.76	37.41	39.30	46.30	DST-□SRM-274036DS18X4	New
18	40	36	27	40.11	38.76	37.41	39.30	46.30	DST-□S□M-274036DS18X24	

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

Technical data

Thread	Direction of rotation		Effective	Pitch	Max. stat. axial F [N]				
	Right	Left	support surface	P	iglidur®				
			[mm²]	[mm]	J	J350	R	A180	J200
DS18x40	●	●	786	40	1,966	1,966	1,573	1,966	1,573
DS18x80	●	●	543	80	1,357	1,357	1,086	1,357	1,086
DS18x100	●	●	476	100	1.191	1.191	953	1.191	953
DS20x5	●	–	1.062	5	4,246	3,185	2,123	3,716	2,123
DS20x10	●	–	994	10	3.976	2,982	1,988	3,479	1,988
DS20x20	●	●	984	20	2,460	2,460	1,968	2,460	1,968
DS20x50	●	–	790	50	1,976	1,976	1,581	1,976	1,581
DS20x60	●	●	663	60	1,657	1,657	1,325	1,657	1,325
DS20x80	●	●	382	80	1,704	1,704	1,363	1,704	1,363
DS20x90	●	●	663	90	1,657	1,657	1,325	1,657	1,325

Dimensions [mm]

d1[156]	d2[156]	b1[156]	SW	Weight [g]					Part No.	
				iglidur®						
				J	J350	R	A180	J200		
18	40	36	27	40.11	38.76	37.41	39.30	46.30	**DST-□S□M-274036DS18X40**	
18	40	36	27	40.11	38.76	37.41	39.30	46.30	**DST-□S□M-274036DS18X80**	
18	40	36	27	44.56	43.07	41.57	43.67	51.44	**DST-□S□M-274036DS18X100**	
20	45	40	27	57.34	55.42	53.49	56.19	66.19	**DST-JSRM-304540DS20X5**	New
20	45	40	27	57.34	55.42	53.49	56.19	66.19	**DST-□SRM-304540DS20X10**	New
20	45	40	30	57.34	55.42	53.49	56.19	66.19	**DST-□S□M-304540DS20X20**	
20	45	40	30	57.34	55.42	53.49	56.19	66.19	**DST-□S□M-304540DS20X50**	
20	45	40	30	57.34	55.42	53.49	56.19	66.19	**DST-□S□M-304540DS20X60**	
20	45	40	30	57.34	55.42	53.49	56.19	66.19	**DST-□S□M-304540DS20X80**	
20	45	40	30	57.34	55.42	53.49	56.19	66.19	**DST-□S□M-304540DS20X90**	

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® technology | Lead screw nuts | Product range

Lead screw nuts with flange (form F)



iglidur® J



iglidur® J350



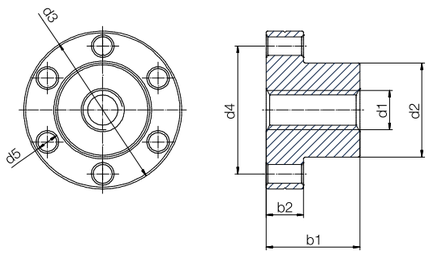
iglidur® R



iglidur® A180



iglidur® J200



Order key

Type											d2	b1	Thread		
DST-	□	F	R	M-	25	25	D	S	10	X12					

dryspin® technology	iglidur® material	Form F	Direction of rotation	Metric	Outer Ø [mm]	Length [mm]	Thread type	Diameter [mm]	Pitch

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread

J	High efficiency at all speeds	Standard 24hrs
J350	For temperatures up to +150°C	Optional
R	Vibration-dampening and vibration-inhibiting	Optional
A180	FDA-compliant for the food and pharmaceutical industries	Optional
J200	The specialist on hard anodised aluminium	Optional

Technical data

Thread	Direction of rotation		Effective supporting surface	Pitch	Max. stat. axial F [N] iglidur®				
	Right	Left	[mm²]	P [mm]	J	J350	R	A180	J200
Ds4x2.4	●	–	69	2.4	164	164	132	164	–
Ds5x5	●	–	66	5	166	166	133	166	–
Ds5x10	●	–	50	10	124	124	100	124	–
Ds6.35x1	●	–	138	1	345	345	276	345	–
Ds6.35x2.54	●	●	199	2.54	496	496	397	496	–
Ds6.35x5.08	●	–	156	5.08	390	390	312	390	–
Ds6.35x6.35	●	–	120	6.35	300	300	240	300	–
Ds6.35x12.7	●	–	79	12.7	199	199	159	199	–
Ds6.35x25.4	●	–	87	25.4	218	218	174	218	–
Ds8x8	●	–	240	8	601	601	481	601	–
Ds8x10	●	●	203	10	507	507	406	507	–
Ds8x15	●	●	203	15	507	507	406	507	–
Ds8x24	●	–	172	24	430	430	344	430	–
Ds8x40	●	–	95	40	238	238	191	238	–
Ds10x2	●	●	374	2	1,495	1,121	747	1.308	–
Ds10x3	●	●	502	3	2,009	1,507	1,005	1,758	–
Ds10x12	●	●	343	12	857	857	686	857	–
Ds10x25	●	●	312	25	779	779	623	779	–
Ds10x50	●	●	181	50	451	451	361	451	–
Ds12x3	●	–	570	3	2,459	1,844	1,229	2.152	–
Ds12x5	●	–	570	5	2,280	1,710	1,140	1,995	–

Dimensions [mm]

d1[156]	d2[156]	d3	d4	d5	b1[156]	b2	Weight [g] iglidur®					Part No.	
							J	J350	R	A180	J200		
4.0	13	25	19	3.2	15	5	5.4	5.2	5.0	5.3	–	DST-□FRM-1315DS4X2.4	
5.0	13	25	19	3.2	15	5	5.2	5.0	4.9	5.1	–	DST-□FRM-1315DS5X5	
5.0	13	25	19	3.2	15	5	5.2	5.0	4.9	5.1	–	DST-□FRM-1315DS5X10	New
6.35	13	25	19	3.2	15	5	4.9	4.8	4.6	4.8	–	DST-□F□M-1315DS6.35X1	New
6.35	13	25	19	3.2	15	5	4.9	4.8	4.6	4.8	–	DST-□F□M-1315DS6.35X2.54	
6.35	13	25	19	3.2	15	5	4.9	4.8	4.6	4.8	–	DST-□FRM-1315DS6.35X5.08	
6.35	13	25	19	3.2	15	5	4.9	4.8	4.6	4.8	–	DST-□F□M-1315DS6.35X6.35	New
6.35	13	25	19	3.2	15	5	4.9	4.8	4.6	4.8	–	DST-□FRM-1315DS6.35X12.7	
6.35	13	25	19	3.2	15	5	4.9	4.8	4.6	4.8	–	DST-□FRM-1315DS6.35X25.4	
8	20	34	28	4	20	5	12.3	11.9	11.5	12.0	–	DST-□F□M-2020DS8X8	New
8	20	34	28	4	20	5	12.3	11.9	11.5	12.0	–	DST-□F□M-2020DS8X10	
8	20	34	28	4	20	5	12.3	11.9	11.5	12.0	–	DST-□F□M-2020DS8X15	
8	20	34	28	4	20	5	12.3	11.9	11.5	12.0	–	DST-□FRM-2020DS8X24	
8	20	34	28	4	20	5	12.3	11.9	11.5	12.0	–	DST-□FRM-2020DS8X40	New
10	25	42	34	5	25	10	28.7	27.7	26.8	28.1	–	DST-□F□M-2525DS10X2	New
10	25	42	34	5	25	10	28.7	27.7	26.8	28.1	–	DST-□F□M-2525DS10X3	New
10	25	42	34	5	25	10	28.7	27.7	26.8	28.1	–	DST-□F□M-2525DS10X12	
10	25	42	34	5	25	10	28.7	27.7	26.8	28.1	–	DST-□F□M-2525DS10X25	
10	25	42	34	5	25	10	28.7	27.7	26.8	28.1	–	DST-□F□M-2525DS10X50	
12	28	48	38	6	35	12	47.6	46.0	44.4	46.6	–	DST-□FRM-2835DS12X3	New
12	28	48	38	6	35	12	47.6	46.0	44.4	46.6	–	DST-□FRM-2835DS12X5	

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® technology | Lead screw nuts | Product range

Lead screw nuts with flange (form F)

Technical data

Thread	Direction of rotation		Effective	Pitch	Max. stat. axial F [N]				
	Right	Left	supporting surface	P	iglidur®				
			[mm²]	[mm]	J	J350	R	A180	J200
Ds12.7x12.7	●	–	599	12.7	1.496	1.496	1,197	1.496	–
Ds12x15	●	●	561	15	1,402	1,402	1,121	1,402	–
Ds12x25	●	●	559	25	1,397	1,397	1,118	1,397	–
Ds14x4	●	–	677	4	2,666	2,000	1,333	2,333	–
Ds14x25	●	●	571	25	1,427	1,427	1.142	1,427	–
Ds14x30	●	–	571	30	1,427	1,427	1.142	1,427	–
Ds14x40.6	●	–	557	40.6	1,393	1,393	1,114	1,393	–
Ds14x70	●	–	305	70	762	762	609	762	–
Ds16x5	●	–	724	5	2,896	2,172	1,448	2,534	1,448
Ds16x10	●	–	674	10	2,696	2,022	1,348	2,359	1,348
Ds16x35	●	–	668	35	1,669	1,669	1,335	1,669	1,335
Ds18x4	●	–	889	4	3,557	2,668	1,778	3,112	1,778
Ds18x24	●	●	815	24	2,038	2,038	1,631	2,038	1,631
Ds18x40	●	●	764	40	1,911	1,911	1,529	1,911	1,529
Ds18x80	●	●	528	80	1,319	1,319	1,056	1,319	1,056
Ds18x100	●	●	463	100	1,158	1,158	926	1,158	926
Ds20x5	●	–	1,168	5	4,671	3,503	2,336	4,087	2,336
Ds20x10	●	–	1,093	10	4,374	3,280	2,187	3,827	2,187
Ds20x20	●	●	1,083	20	2,707	2,707	2,165	2,707	2,165
Ds20x50	●	–	870	50	2,174	2,174	1,739	2,174	1,739
Ds20x60	●	●	729	60	1,822	1,822	1,458	1,822	1,458
Ds20x80	●	●	750	80	1,874	1,874	1,500	1,874	1,500
Ds20x90	●	●	729	90	1,822	1,822	1.458	1,822	1,342

Dimensions [mm]

d1[156]	d2[156]	d3	d4	d5	b1[156]	b2	Weight [g]					Part No.	
							iglidur®						
							J	J350	R	A180	J200		
12	28	48	38	6	35	12	47.6	46.0	44.4	46.6	–	**DST-□FRM-2835DS12.7X12.7**	
12	28	48	38	6	35	12	47.6	46.0	44.4	46.6	–	**DST-□FRM-2835DS12X15**	
12	28	48	38	6	35	12	47.6	46.0	44.4	46.6	–	**DST-□F□M-2835DS12X25**	New
14	28	48	38	6	35	12	45.4	43.9	42.4	44.5	–	**DST-□FRM-2835DS14X4**	New
14	28	48	38	6	35	12	45.4	43.9	42.4	44.5	–	**DST-□F□M-2835DS14X25**	
14	28	48	38	6	35	12	45.4	43.9	42.4	44.5	–	**DST-□FRM-2835DS14X30**	
14	28	48	38	6	35	12	45.4	43.9	42.4	44.5	–	**DST-□FRM-2835DS14X40.6**	
14	28	48	38	6	35	12	45.4	43.9	42.4	44.5	–	**DST-□FRM-2835DS14X70**	New
16	28	48	38	6	35	12	43.0	41.5	40.1	42.1	–	**DST-□FRM-2835DS16X5**	New
16	28	48	38	6	35	12	43.0	41.5	40.1	42.1	49.6	**DST-□FRM-2835DS16X10**	New
16	28	48	38	6	35	12	43.0	41.5	40.1	42.1	49.6	**DST-□FRM-2835DS16X35**	
18	28	48	38	6	35	12	40.2	38.4	37.5	39.4	46.4	**DST-□FRM-2835DS18X4**	New
18	28	48	38	6	35	12	40.2	38.4	37.5	39.4	46.4	**DST-□F□M-2835DS18X24**	
18	28	48	38	6	35	12	50.9	49.2	47.5	49.8	46.4	**DST-□F□M-2835DS18X40**	
18	28	48	38	6	35	12	50.9	49.2	47.5	49.8	46.4	**DST-□F□M-2835DS18X80**	
18	28	48	38	6	35	12	50.9	49.2	47.5	49.8	46.4	**DST-□F□M-2835DS18X100**	
20	32	55	45	7	44	12	60.2	58.2	56.2	59.0	69.5	**DST-□FRM-3244DS20X5**	New
20	32	55	45	7	44	12	60.2	58.2	56.2	59.0	69.5	**DST-□FRM-3244DS20X10**	New
20	32	55	45	7	44	12	60.2	58.2	56.2	59.0	69.5	**DST-□F□M-3244DS20X20**	
20	32	55	45	7	44	12	60.2	58.2	56.2	59.0	69.5	**DST-□F□M-3244DS20X50**	
20	32	55	45	7	44	12	60.2	58.2	56.2	59.0	69.5	**DST-□F□M-3244DS20X60**	
20	32	55	45	7	44	12	60.2	58.2	56.2	59.0	69.5	**DST-□F□M-3244DS20X80**	
20	32	55	45	7	44	12	60.2	58.2	56.2	59.0	69.5	**DST-□F□M-3244DS20X90**	

156) Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® technology | Lead screw nuts | Product range

Lead screw nuts with spanner flat and flange



iglidur® J



iglidur® J350



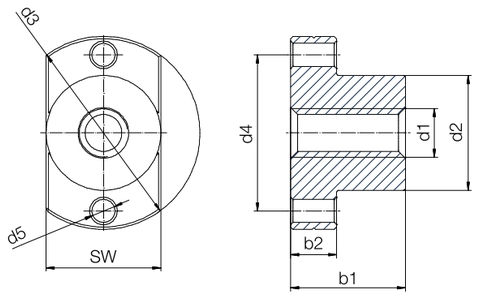
iglidur® R



iglidur® A180



iglidur® J200



Order key

Type											SW	d2	b1	Thread
DST-	□	F	R	M-	25	25	25	DS	10	X12				

dryspin® technology	iglidur® material	Form F	Direction of rotation	Metric	Spanner flat [mm]	Outer Ø [mm]	Length [mm]	Thread type	Diameter [mm]	Pitch

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread

J	High efficiency at all speeds	Standard
J350	For temperatures up to +150°C	Optional
R	Vibration-dampening and vibration-inhibiting	Optional
A180	FDA-compliant for the food and pharmaceutical industries	Optional
J200	The specialist on hard anodised aluminium	Optional

Technical data and dimensions [mm]

Thread	Direction of rotation		Effective	Pitch	Max. stat. axial F [N]					d1[156]	d2[156]	d3
	Right	Left	supporting surface	P	iglidur®							
			[mm²]	[mm]	J	J350	R	A180	J200			
Ds4x2.4	●	–	66	2.4	164	164	132	164	–	4.0	13	25
Ds5x5	●	–	66	5	166	166	133	166	–	5.0	13	25
Ds5x10	●	–	50	10	124	124	100	124	–	5.0	13	25
Ds6.35x1	●	–	138	1	345	345	276	345	–	6.35	13	25
Ds6.35x2.54	●	●	199	2.54	496	496	397	496	–	6.35	13	25
Ds6.35x5.08	●	–	156	5.08	390	390	312	390	–	6.35	13	25
Ds6.35x6.35	●	–	120	6.35	300	300	240	300	–	6.35	13	25
Ds6.35x12.7	●	–	79	12.7	199	199	159	199	–	6.35	13	25
Ds6.35x25.4	●	–	87	25.4	218	218	174	218	–	6.35	13	25
Ds8x8	●	–	240	8	601	601	481	601	–	8	20	34
Ds8x10	●	●	203	10	507	507	406	507	–	8	20	36
Ds8x15	●	●	203	15	507	507	406	507	–	8	20	36
Ds8x24	●	●	172	24	430	430	344	430	–	8	20	36
Ds8x40	●	–	95	40	238	238	191	238	–	8	20	36
Ds10x2	●	●	374	2	1,495	1,121	747	1.308	–	10	25	42
Ds10x3	●	●	502	3	2,009	1,507	1,005	1,758	–	10	25	42
Ds10x12	●	●	343	12	857	857	686	857	–	10	25	42
Ds10x25	●	●	312	25	779	779	623	779	–	10	25	42
Ds10x50	●	●	181	50	451	451	361	451	–	10	25	42
Ds12x3	●	–	570	3	2,459	1,844	1,229	2.152	–	12	28	48
Ds12x5	●	–	570	5	2,280	1,710	1,140	1,995	–	12	28	48

Dimensions [mm]

d4	d5	b1[156]	b2	SW	Weight [g]					Part No.	
					iglidur®						
					J	J350	R	A180	J200		
19	3.2	15	5	13	4.1	3.98	3.84	4.04	–	DST-□FRM-131315DS4X2.4	
19	3.2	15	5	13	4.0	3.8	3.7	3.9	–	DST-□FRM-131315DS5X5	
19	3.2	15	5	13	4.0	3.8	3.7	3.9	–	DST-□FRM-131315DS5X10	New
19	3.2	15	5	13	4.9	4.8	4.6	4.8	–	DST-□FRM-131315DS6.35X1	New
19	3.2	15	5	13	3.7	3.6	3.4	3.6	–	DST-□F□M-131315DS6.35X2.54	
19	3.2	15	5	13	3.7	3.6	3.4	3.6	–	DST-□FRM-131315DS6.35X5.08	
19	3.2	15	5	13	3.7	3.6	3.4	3.6	–	DST-□FRM-131315DS6.35X6.35	New
19	3.2	15	5	13	3.7	3.6	3.4	3.6	–	DST-□FRM-131315DS6.35X12.7	
19	3.2	15	5	13	3.7	3.6	3.4	3.6	–	DST-□FRM-131315DS6.35X25.4	
28	4	20	5	20	12.3	11.9	11.5	12.0	–	DST-□FRM-202020DS8X8	New
28	4	20	8	20	12.7	12.3	11.8	12.4	–	DST-□F□M-202020DS8X10	
28	4	20	8	20	12.7	12.3	11.8	12.4	–	DST-□F□M-202020DS8X15	
28	4	20	8	20	12.7	12.3	11.8	12.4	–	DST-□F□M-202020DS8X24	
28	4	20	8	20	12.7	12.3	11.9	12.5	–	DST-□FRM-202020DS8X40	New
34	5	25	10	25	28.7	27.7	26.8	28.1	–	DST-□F□M-252525DS10X2	New
34	5	25	10	25	23.7	22.9	22.1	23.2	–	DST-□F□M-252525DS10X3	New
34	5	25	10	25	23.7	22.9	22.1	23.2	–	DST-□F□M-252525DS10X12	
34	5	25	10	25	23.7	22.9	22.1	23.2	–	DST-□F□M-252525DS10X25	
34	5	25	10	25	23.7	22.9	22.1	23.2	–	DST-□F□M-252525DS10X50	
38	6	35	12	28	47.6	46.0	44.4	46.6	–	DST-□FRM-282835DS12X3	New
38	6	35	12	28	39.2	37.9	36.6	38.4	–	DST-□FRM-282835DS12X5	

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® technology | Lead screw nuts | Product range

Lead screw nuts with spanner flat and flange

Technical data

Thread	Direction of rotation		Effective	Pitch	Max. stat. axial F [N]					d1[156]	d2[156]	d3
	Right	Left	supporting surface	P	iglidur®							
			[mm²]	[mm]	J	J350	R	A180	J200			
Ds12.7x12.7	●	–	599	12.7	1.496	1.496	1,197	1.496	–	12.7	28	48
Ds12x15	●	●	561	15	1,402	1,402	1,121	1,402	–	12	28	48
Ds12x25	●	–	559	25	1,397	1,397	1,118	1,397	–	12	28	48
Ds14x4	●	–	667	4	2,666	2,000	1,333	2,333	–	14	28	48
Ds14x25	●	●	571	25	1,427	1,427	1,142	1,427	–	14	28	48
Ds14x30	●	–	571	30	1,427	1,427	1,142	1,427	–	14	28	48
Ds14x40.6	●	–	557	40.6	1,393	1,393	1,114	1,393	–	14	28	48
Ds14x70	●	–	305	70	762	762	609	762	–	14	28	48
Ds16x5	●	–	724	5	2,896	2,172	1,448	2,534	1,448	16	28	48
Ds16x10	●	–	674	10	2,696	2,022	1,348	2,359	1,348	16	28	48
Ds16x35	●	–	668	35	1,669	1,669	1,335	1,669	1,335	16	28	48
Ds18x4	●	–	889	4	3,557	2,668	1,778	3,112	1,778	18	28	48
Ds18x24	●	●	815	24	2,038	2,038	1,631	2,038	1,631	18	28	48
Ds18x40	●	●	764	40	1,911	1,911	1,529	1,911	1,529	18	28	48
Ds18x80	●	●	528	80	1,319	1,319	1,056	1,319	1,056	18	28	48
Ds18x100	●	●	463	100	1,158	1,158	926	1,158	926	18	28	48
Ds20x5	●	–	1,168	5	4,671	3,503	2,336	4,087	2,336	20	32	55
Ds20x10	●	–	1,093	10	4,374	3,280	2,187	3,827	2,187	20	32	55
Ds20x20	●	●	1,083	20	2,707	2,707	2,165	2,707	2,165	20	32	55
Ds20x50	●	–	870	50	2,174	2,174	1,739	2,174	1,739	20	32	55
Ds20x60	●	●	729	60	1,822	1,822	1,458	1,822	1,458	20	32	55
Ds20x80	●	●	750	80	1,874	1,874	1,500	1,874	1,500	20	32	55
Ds20x90	●	●	729	90	1,822	1,822	1,458	1,822	1,458	20	32	55

Dimensions [mm]

d4	d5	b1[156]	b2	SW	Weight [g]					Part No.	
					iglidur®						
					J	J350	R	A180	J200		
38	6	35	12	28	38.5	37.2	35.9	37.8	–	**DST-□FRM-282835DS12.7X12.7**	New
38	6	35	12	28	47.5	45.9	44.3	46.5	–	**DST-□F□M-282835DS12X15**	
38	6	35	12	28	39.2	37.9	36.6	38.4	–	**DST-□FRM-282835DS12X25**	
38	6	35	12	28	37.1	35.9	34.6	36.4	–	**DST-□FRM-282835DS14X4**	New
38	6	35	12	28	37.1	35.9	34.6	36.4	–	**DST-□F□M-282835DS14X25**	
38	6	35	12	28	37.1	35.9	34.6	36.4	–	**DST-□FRM-282835DS14X30**	
38	6	35	12	28	37.1	35.9	34.6	36.4	–	**DST-□FRM-282835DS14X40.6**	
38	6	35	12	28	37.1	35.9	34.6	36.4	–	**DST-□FRM-282835DS14X70**	New
38	6	35	12	28	34.7	33.5	32.3	34.0	40.0	**DST-□FRM-282835DS16X5**	New
38	6	35	12	28	34.7	33.5	32.3	34.0	40.0	**DST-□FRM-282835DS16X10**	New
38	6	35	12	28	34.7	33.5	32.3	34.0	40.0	**DST-□FRM-282835DS16X35**	
38	6	35	12	28	34.7	33.5	32.3	34.0	36.8	**DST-□FRM-282835DS18X4**	New
38	6	35	12	28	31.9	30.8	29.7	31.2	36.8	**DST-□F□M-282835DS18X24**	
38	6	35	12	28	31.9	30.8	29.7	31.2	36.8	**DST-□F□M-282835DS18X40**	
38	6	35	12	28	31.9	30.8	29.7	31.2	36.8	**DST-□F□M-282835DS18X80**	
38	6	35	12	28	31.9	30.8	29.7	31.2	36.8	**DST-□F□M-282835DS18X100**	
45	7	44	12	32	49.2	47.6	45.9	48.2	56.8	**DST-□FRM-323244DS20X5**	New
45	7	44	12	32	49.2	47.6	45.9	48.2	56.8	**DST-□FRM-323244DS20X10**	New
45	7	44	12	32	49.2	47.6	45.9	48.2	56.8	**DST-□F□M-323244DS20X20**	
45	7	44	12	32	49.2	47.6	45.9	48.2	56.8	**DST-□F□M-323244DS20X50**	
45	7	44	12	32	49.2	47.6	45.9	48.2	56.8	**DST-□F□M-323244DS20X60**	
45	7	44	12	32	49.2	47.6	45.9	48.2	56.8	**DST-□F□M-323244DS20X80**	
45	7	44	12	32	49.2	47.6	45.9	48.2	56.8	**DST-□F□M-323244DS20X90**	

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® technology | Lead screw nuts | Product range

Cost-effective injection-moulded lead screw nuts, cylindrical (form S)

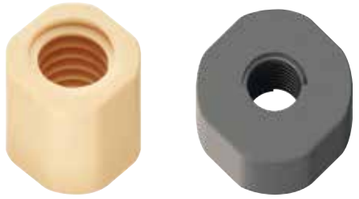
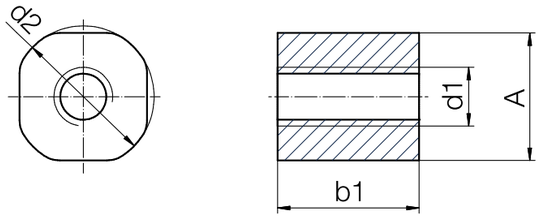


Image exemplary



Order key

Type										d2	b1	Thread
DST-	□	S	□	M-	C	-01-	DS	10	X12			

dryspin® technology	iglidur® material	Form S	Direction of rotation	Metric	Thread: cut	Type	Thread type	Diameter [mm]	Pitch
DST-	□	S	□	M-	C	-01-	DS	10	X12

J	High efficiency at all speeds	Standard 24hrs
E7	For high speeds and low loads	Optional

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread

Technical data

Thread	Direction of rotation		Effective supporting surface	Pitch P	Max. stat. axial F [N] iglidur®	
	Right	Left	[mm²]	[mm]	J	E7
Ds4x2.4	●	–	53	2.4	132	26
Ds5x5	●	–	53	5	133	27
Ds5x10	●	–	40	10	100	20
Ds6.35x1	●	–	110	1	276	55
Ds6.35x2.54	●	●	159	2.54	397	79
Ds6.35x5.08	●	–	125	5.08	312	62
Ds6.35x6.35	●	–	96	6.35	240	48
Ds6.35x12.7	●	–	64	12.7	159	32
Ds6.35x25.4	●	–	70	25.4	174	35
Ds8x8	●	–	240	8	601	120
Ds8x10	●	●	203	10	507	101
Ds8x15	●	●	203	15	507	101
Ds8x24	●	–	173	24	430	86
Ds8x40	●	–	95	40	238	48
Ds10x2	●	●	299	2	1,196	149
Ds10x3	●	●	402	3	1,608	201
Ds10x12	●	●	274	12	686	137
Ds10x25	●	●	249	25	623	125
Ds10x50	●	●	144	50	361	72
Ds12x3	●	–	439	3	1,756	220
Ds12x5	●	–	407	5	1,629	204
Ds12.7x12.7	●	–	428	12.7	1,069	214
Ds12x15	●	–	400	15	998	200
Ds12x25	●	●	399	25	1,069	200
Ds14x4	●	–	476	4	1,905	238

Dimensions [mm]

d1[156]	d2[156]	A	b1[156]	Weight [g] iglidur®		Part No.	
				J	E7		
4	12	11.0	12	1.80	1.27	DST-□SRM-C-01-DS4X2.4	
5	12	11.0	12	1.67	1.18	DST-□SRM-C-01-DS5X5	
5	12	11.0	12	1.67	1.18	DST-□SRM-C-01-DS5X10	New
6.35	12	11.0	12	1.46	1.03	DST-□SRM-C-01-DS6.35X1	New
6.35	12	11.0	12	1.46	1.03	DST-□S□M-C-01-DS6.35X2.54	
6.35	12	11.0	12	1.46	1.03	DST-□SRM-C-01-DS6.35X5.08	
6.35	12	11.0	12	1.46	1.03	DST-□SRM-C-01-DS6.35X6.35	New
6.35	12	11.0	12	1.46	1.03	DST-□SRM-C-01-DS6.35X12.7	
6.35	12	11.0	12	1.46	1.03	DST-□SRM-C-01-DS6.35X25.4	
8	20	18.0	20	7.86	5.54	DST-□SRM-C-01-DS8X8	New
8	20	18.0	20	7.86	5.54	DST-□S□M-C-01-DS8X10	
8	20	18.0	20	7.86	5.54	DST-□S□M-C-01-DS8X15	
8	20	18.0	20	7.86	5.54	DST-□SRM-C-01-DS8X24	
8	20	18.0	20	7.86	5.54	DST-□SRM-C-01-DS8X40	New
10	20	18.0	20	7.02	4.95	DST-□S□M-C-01-DS10X2	New
10	20	18.0	20	7.02	4.95	DST-□S□M-C-01-DS10X3	New
10	20	18.0	20	7.02	4.95	DST-□S□M-C-01-DS10X12	
10	20	18.0	20	7.02	4.95	DST-□S□M-C-01-DS10X25	
10	20	18.0	20	7.02	4.95	DST-□S□M-C-01-DS10X50	
12	24	22.6	25	12.64	8.91	DST-□SRM-C-01-DS12X3	New
12	24	22.6	25	12.64	8.91	DST-□SRM-C-01-DS12X5	
12.7	24	22.6	25	12.13	8.55	DST-□SRM-C-01-DS12.7X12.7	
12	24	22.6	25	12.64	8.91	DST-□SRM-C-01-DS12X15	
12	26	22.6	25	12.64	8.91	DST-□S□M-C-01-DS12X25	New
14	24	22.6	25	11.00	12.12	DST-□SRM-C-01-DS14X4	New

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® technology | Lead screw nuts | Product range

Cost-effective injection-moulded lead screw nuts, cylindrical (form S)

Technical data

Thread	Direction of rotation		Effective	Pitch	Max. stat. axial F [N]	
	Right	Left	supporting surface	P	iglidur®	
			[mm²]	[mm]	J	E7
Ds14x25	●	●	408	25	1,019	204
Ds14x30	●	–	408	30	1,019	204
Ds14x40.6	●	–	398	40.6	995	199
Ds14x70	●	–	218	70	544	109
Ds16x5	●	–	517	5	2,068	–
Ds16x10	●	–	481	10	1,926	–
Ds16x35	●	–	477	35	1.192	–
Ds18x4	●	–	635	4	2,541	–
Ds18x24	●	●	582	24	1,456	–
Ds18x40	●	●	546	40	1,365	–
Ds18x80	●	●	377	80	942	–
Ds18x100	●	●	331	100	827	–
Ds20x5	●	–	1.062	5	4,246	–
Ds20x10	●	–	994	10	3.976	–
Ds20x20	●	●	984	20	2,460	–
Ds20x50	●	–	790	50	1,976	–
Ds20x60	●	●	663	60	1,657	–
Ds20x80	●	●	682	80	1,704	–
Ds20x90	●	●	663	90	1,657	–

Dimensions [mm]

d1[156]	d2[156]	A	b1[156]	Weight [g]		Part No.	
				iglidur®			
				J	E7		
14	24	22.6	25	11.12	12.12	**DST-□S□M-C-01-DS14X25**	
14	24	22.6	25	11.12	12.12	**DST-□SRM-C-01-DS14X30**	
14	28	22.6	25	17.20	12.12	**DST-□SRM-C-01-DS14X40.6**	New
14	28	22.6	25	17.20	12.12	**DST-□SRM-C-01-DS14X70**	New
16	28	26.2	25	15.00	–	**DST-JSRM-C-01-DS16X5**	New
16	28	26.2	25	15.45	–	**DST-JSRM-C-01-DS16X10**	New
16	28	26.2	25	15.45	–	**DST-JSRM-C-01-DS16X35**	
18	28	26.2	25	13.00	–	**DST-JSRM-C-01-DS18X4**	New
18	28	26.2	25	13.46	–	**DST-JS□M-C-01-DS18X24**	
18	28	26.2	25	13.46	–	**DST-JS□M-C-01-DS18X40**	
18	28	26.2	25	13.46	–	**DST-JS□M-C-01-DS18X80**	New
18	28	26.2	25	13.46	–	**DST-JS□M-C-01-DS18X100**	New
20	32	26.2	40	47.53	–	**DST-JSRM-C-01-DS20X5**	New
20	32	29.0	40	47.53	–	**DST-JSRM-C-01-DS20X10**	New
20	32	29.0	40	47.54	–	**DST-JS□M-C-01-DS20X20**	New
20	32	29.0	40	47.54	–	**DST-JSRM-C-01-DS20X50**	New
20	32	29.0	40	47.54	–	**DST-JS□M-C-01-DS20X60**	New
20	32	29.0	40	47.54	–	**DST-JS□M-C-01-DS20X80**	New
20	32	29.0	40	47.54	–	**DST-JS□M-C-01-DS20X90**	New

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® technology | Lead screw nuts | Product range

Cost-effective injection-moulded lead screw nuts with flange (form F)

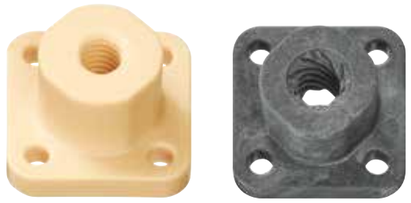
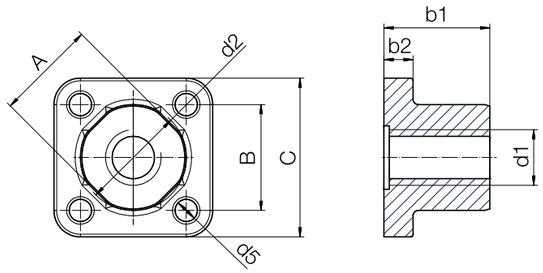


Image exemplary



Order key

Type										d2	b1	Thread
DST-	□	F	□	M-	C	-	01-	DS	10X12			

dryspin® technology	iglidur® material	Form F	Direction of rotation	Metric	Thread: cut	Type	Thread type	Diameter [mm]	Pitch
	J								
	E7								

J	High efficiency at all speeds	Standard 24hrs
E7	For high speeds and low loads	Optional

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread

Technical data

Thread	Direction of rotation		Effective	Pitch	Max. stat. axial F [N]	
	Right	Left	supporting surface	P	iglidur®	
			[mm²]	[mm]	J	E7
Ds5x5	●	–	53	5	133	27
Ds5x10	●	–	40	10	100	20
Ds6.35x1	●	–	110	1	276	55
Ds6.35x2.54	●	●	159	2.54	397	79
Ds6.35x5.08	●	–	125	5.08	312	62
Ds6.35x6.35	●	–	96	6.35	240	48
Ds6.35x12.7	●	–	64	12.7	159	32
Ds6.35x25.4	●	–	70	25.4	174	35
Ds8x8	●	–	240	8	601	120
Ds8x10	●	●	203	10	507	101
Ds8x15	●	●	203	15	507	101
Ds8x24	●	–	172	24	430	86
Ds8x40	●	●	95	40	238	48
Ds10x2	●	●	299	2	1,196	149
Ds10x3	●	●	402	3	1,608	201
Ds10x12	●	●	274	12	686	137
Ds10x25	●	●	249	25	623	125
Ds10x50	●	●	144	50	361	72
Ds12x3	●	–	439	3	1,756	220
Ds12x5	●	–	407	5	1,629	204
Ds12.7x12.7	●	–	428	12.7	1,069	214

Dimensions [mm]

d1[156]	d2[156]	A	B	C	d5	b1[156]	b2	Weight [g] iglidur®		Part No.	
								J	E7		
5.0	12	11.0	12	18	3.2	12	4.0	2,28	1.61	DST-□FRM-C-01-DS5X5	
5.0	12	11.0	12	18	3.2	12	4.0	2,28	1.61	DST-□FRM-C-01-DS5X10	New
6.35	12	11.0	18	12	3.2	12	4.0	2.07	1.46	DST-□FRM-C-01-DS6.35X1	New
6.35	12	11.0	12	18	3.2	12	4.0	2.07	1.46	DST-□F□M-C-01-DS6.35X2.54	
6.35	12	11.0	12	18	3.2	12	4.0	2.07	1.46	DST-□FRM-C-01-DS6.35X5.08	
6.35	12	11.0	12	18	3.2	12	4.0	2.07	1.46	DST-□FRM-C-01-DS6.35X6.35	New
6.35	12	11.0	12	18	3.2	12	4.0	2.07	1.46	DST-□FRM-C-01-DS6.35X12.7	
6.35	12	11.0	12	18	3.2	12	4.0	2.07	1.46	DST-□FRM-C-01-DS6.35X25.4	
8	20	19.0	20	30	4.2	20	5.5	10.21	7.19	DST-□FRM-C-01-DS8X8	New
8	20	19.0	20	30	4.2	20	5.5	8.24	7.19	DST-□F□M-C-01-DS8X10	
8	20	19.0	20	30	4.2	20	5.5	8.24	7.19	DST-□F□M-C-01-DS8X15	
8	20	19.0	20	30	4.2	20	5.5	8.24	7.19	DST-□FRM-C-01-DS8X24	
8	20	19.0	20	30	4.2	20	5.5	8.24	7.19	DST-□F□M-C-01-DS8X40	New
10	20	19.0	20	30	4.2	20	5.5	9.36	6.60	DST-□F□M-C-01-DS10X2	New
10	20	19.0	20	30	4.2	20	5.5	9.36	6.60	DST-□F□M-C-01-DS10X3	New
10	20	19.0	20	30	4.2	20	5.5	9.36	6.60	DST-□F□M-C-01-DS10X12	
10	20	19.0	20	30	4.2	20	5.5	9.36	6.60	DST-□F□M-C-01-DS10X25	
10	20	19.0	20	30	4.2	20	5.5	9.36	6.60	DST-□F□M-C-01-DS10X50	
12	24	22.6	24	34	5.0	25	6.0	15.89	11.20	DST-□FRM-C-01-DS12X3	New
12	24	22.6	24	34	5.0	25	6.0	15.89	11.20	DST-□FRM-C-01-DS12X5	
12	24	22.6	24	34	5.0	25	6.0	15.89	11.20	DST-□FRM-C-01-DS12.7X12.7	

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® technology | Lead screw nuts | Product range

Cost-effective injection-moulded lead screw nuts with flange (form F)

Technical data

Thread	Direction of rotation		Effective	Pitch	Max. stat. axial F [N]	
	Right	Left	supporting surface	P	iglidur®	
			[mm²]	[mm]	J	E7
Ds12x15	●	●	400	15	1,001	200
Ds12x25	●	–	399	25	998	200
Ds14x4	●	–	476	4	1,905	238
Ds14x25	●	●	408	25	1,019	109
Ds14x30	●	–	408	30	1,019	204
Ds14x40.6	●	–	398	40.6	995	199
Ds14x70	●	–	218	70	544	109
Ds16x5	●	–	517	5	2,068	–
Ds16x10	●	–	481	10	1,926	–
Ds16x35	●	–	477	35	1.192	–
Ds18x4	●	–	635	4	2,541	–
Ds18x24	●	●	582	24	1,456	–
Ds18x40	●	●	546	40	1,365	–
Ds18x80	●	●	377	80	942	–
Ds18x100	●	●	331	100	827	–
Ds20x5	●	–	664	5	2,654	–
Ds20x10	●	–	615	10	2,460	–
Ds20x20	●	–	615	20	1,538	–
Ds20x50	●	●	494	50	1,235	–
Ds20x60	●	●	414	60	1,035	–
Ds20x80	●	●	426	80	1,065	–
Ds20x90	●	●	414	90	1,035	–

Dimensions [mm]

d1[156]	d2[156]	A	B	C	d5	b1[156]	b2	Weight [g] iglidur®		Part No.	
								J	E7		
12	24	22.6	24	34	5.0	25	6.0	15.89	11.20	**DST-□F□M-C-01-DS12X15**	
12	24	22.6	24	34	5.0	25	6.0	15.89	11.20	**DST-□FRM-C-01-DS12X25**	New
14	24	22.6	24	34	5.0	25	6.0	14.37	10.13	**DST-□FRM-C-01-DS14X4**	New
14	24	22.6	24	34	5.0	25	6.0	14.37	10.13	**DST-□F□M-C-01-DS14X25**	
14	24	22.6	24	34	5.0	25	6.0	14.37	10.13	**DST-□FRM-C-01-DS14X30**	
14	24	22.6	24	34	5.0	25	6.0	14.37	10.13	**DST-□FRM-C-01-DS14X40.6**	New
14	24	22.6	24	34	5.0	25	6.0	14.37	10.13	**DST-□FRM-C-01-DS14X70**	New
16	28	25.5	27	38	6.0	25	6.5	19.42	–	**DST-JFRM-C-01-DS16X5**	New
16	28	25.5	27	38	6.0	25	6.5	27.15	–	**DST-JFRM-C-01-DS16X10**	New
16	28	25.5	27	38	6.0	25	6.5	37.01	–	**DST-JFRM-C-01-DS16X35**	
18	28	25.5	27	38	6.0	25	6.5	47.01	–	**DST-JFRM-C-01-DS18X4**	New
18	28	25.5	27	38	6.0	25	6.5	61.13	–	**DST-JF□M-C-01-DS18X24**	
18	28	25.5	27	38	6.0	25	6.5	77.38	–	**DST-JF□M-C-01-DS18X40**	
18	28	25.5	27	38	6.0	25	6.5	95.76	–	**DST-JF□M-C-01-DS18X80**	New
18	28	25.5	27	38	6.0	25	6.5	116.28	–	**DST-JF□M-C-01-DS18X100**	New
20	32	29.0	30	42	6.0	25	8.0	23.69	–	**DST-JFRM-C-01-DS20X5**	New
20	32	29.0	30	42	6.0	25	8.0	23.69	–	**DST-JFRM-C-01-DS20X10**	New
20	32	29.0	30	42	6.0	25	8.0	23.69	–	**DST-JFRM-C-01-DS20X20**	New
20	32	29.0	30	42	6.0	25	8.0	23.69	–	**DST-JF□M-C-01-DS20X50**	New
20	32	29.0	30	42	6.0	25	8.0	23.69	–	**DST-JF□M-C-01-DS20X60**	New
20	32	29.0	30	42	6.0	25	8.0	23.69	–	**DST-JF□M-C-01-DS20X80**	New
20	32	29.0	30	42	6.0	25	8.0	23.69	–	**DST-JF□M-C-01-DS20X90**	New

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® | Special geometries | Product range New

dryspin® heavy duty lead screw nuts



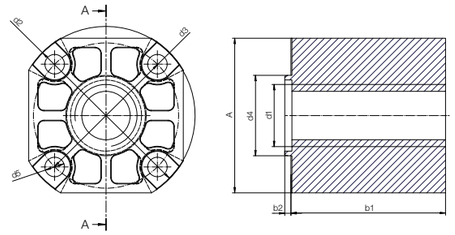


Injection moulded lead screw nut blank incl. machined cut thread
You can find more information at:
▶ www.igus.eu/ball crews-vs-dryspin

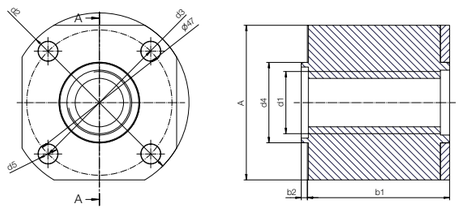
Robust and with conventional connection sizes

The new type of the DST-JGRM series with optimised injection-moulded design is the robust alternative to a flange lead screw nut. It is characterised by connection sizes and pitches that are identical to those of standard ball screw nuts. The special design enables easy installation and is especially suitable for radial loads. Also available as "heavy duty" version with stainless steel plate

- Connecting dimensions and pitches identical to conventional ball screws
- Lubrication- and maintenance-free with high-performance polymers iglidur® J
- Cost-effective through plastic injection moulding
- Robust and strong design
- Available in 2 installation sizes for threads in Ø 14/16 and 18/20
- Heavy-duty version with 30% higher max. static axial loads



Design C-01



Design HD-02

Order key

Type									Option	Thread		
DST-	J	G	R	M-	□				-DS	14X25		
dryspin® technology	iglidur® material	Lead screw drive	Direction of rotation	Metric	Design				Thread type	Diameter [mm]		Pitch

Options:
C-01 : Standard
HD-02 : Heavy duty

Technical data and dimensions [mm]

Thread	d1	d2	d3	d4	d5	b1	b1	b2	A □
						Form			
d1 x P						□ C-01	□ HD-02		
Ds14x25	14	48	38	20	5.3	45	42	2	40
Ds14x30	14	48	38	20	5.3	45	42	2	40
Ds14x70	14	48	38	20	5.3	45	42	2	40
Ds16x5	16	48	38	20	5.3	45	42	2	40
Ds16x10	16	48	38	20	5.3	45	42	2	40
Ds16x35	16	48	38	20	5.3	45	42	2	40
Ds18x24	18	58	47	26	6.3	50	46	2	50
Ds18x40	18	58	47	26	6.3	50	46	2	50
Ds18x80	18	58	47	26	6.3	50	46	2	50
Ds18x100	18	58	47	26	6.3	50	46	2	50
Ds20x5	20	58	47	26	6.3	50	46	2	50
Ds20x10	20	58	47	26	6.3	50	46	2	50
Ds20x20	20	58	47	26	6.3	50	46	2	50
Ds20x50	20	58	47	26	6.3	50	46	2	50
Ds20x60	20	58	47	26	6.3	50	46	2	50
Ds20x80	20	58	47	26	6.3	50	46	2	50
Ds20x90	20	58	47	26	6.3	50	46	2	50

Effective support surface [mm²]		Max. static load axial [N]		Part No.	
□ C-01	□ HD-02	□ C-01	□ HD-02		
734	685	2,936	4,110	**DST-JGRM-□-DS14X25**	New
734	685	2,936	4,110	**DST-JGRM-□-DS14X30**	New
392	366	1,567	2,194	**DST-JGRM-□-DS14X70**	New
867	809	3,466	4,853	**DST-JGRM-□-DS16X5**	New
867	809	3,466	4,853	**DST-JGRM-□-DS16X10**	New
858	801	3,434	4,807	**DST-JGRM-□-DS16X35**	New
1,179	1,085	4,716	6,508	**DST-JGRM-□-DS18X24**	New
1,092	1,005	4,368	6,028	**DST-JGRM-□-DS18X40**	New
754	694	3,016	4,162	**DST-JGRM-□-DS18X80**	New
662	609	2,646	3,652	**DST-JGRM-□-DS18X100**	New
1,255	1,154	5,019	6,924	**DST-JGRM-□-DS20X5**	New
1,255	1,154	5,019	6,926	**DST-JGRM-□-DS20X10**	New
1,230	1,132	4,921	6,791	**DST-JGRM-□-DS20X20**	New
1,008	927	4,031	5,562	**DST-JGRM-□-DS20X50**	New
828	762	3,313	4,572	**DST-JGRM-□-DS20X60**	New
852	784	3,408	4,703	**DST-JGRM-□-DS20X80**	New
828	762	3,313	4,572	**DST-JGRM-□-DS20X90**	New

□ = C-01/HD-02
Order example: DST-JGRM-C-01-DS14x25: C-01 lead screw nut made of iglidur® J, with 14x25 right-hand thread

dryspin® TR | Lead screw nuts | Technical data

dryspin® trapezoidal thread

Highly efficient at all speeds: iglidur® J

Highly resilient and wear-resistant: iglidur® W300

For temperatures up to +150°C: iglidur® J350

For medium to high speeds: iglidur® R

Thread	Efficiency	Coefficient of friction	Efficiency	Coefficient of friction	Efficiency	Coefficient of friction	Efficiency	Coefficient of friction
	η	μ	η	μ	η	μ	η	μ
Single start								
Tr8x1.5	19 - 37	0.1 - 0.25	19 - 33	0.12 - 0.25	19 - 26	0.17 - 0.25	16 - 23	0.2 - 0.3
Tr10x2	20 - 39	0.1 - 0.25	20 - 34	0.12 - 0.25	20 - 27	0.17 - 0.25	17 - 24	0.2 - 0.3
Tr10x3	27 - 48	0.1 - 0.25	27 - 44	0.12 - 0.25	27 - 35	0.17 - 0.25	23 - 32	0.2 - 0.3
Tr12x3	24 - 44	0.1 - 0.25	24 - 39	0.12 - 0.25	24 - 34	0.17 - 0.25	20 - 28	0.2 - 0.3
Tr14x3	24 - 40	0.1 - 0.25	21 - 36	0.12 - 0.25	21 - 28	0.17 - 0.25	18 - 25	0.2 - 0.3
Tr14x4	26 - 47	0.1 - 0.25	26 - 43	0.12 - 0.25	26 - 34	0.17 - 0.25	23 - 31	0.2 - 0.3
Tr16x2	14 - 28	0.1 - 0.25	14 - 25	0.12 - 0.25	14 - 19	0.17 - 0.25	12 - 16	0.2 - 0.3
Tr16x4	24 - 44	0.1 - 0.25	24 - 39	0.12 - 0.25	24 - 31	0.17 - 0.25	20 - 28	0.2 - 0.3
Tr18x4	22 - 41	0.1 - 0.25	22 - 37	0.12 - 0.25	22 - 29	0.17 - 0.25	19 - 26	0.2 - 0.3
Tr20x4	20 - 39	0.1 - 0.25	20 - 34	0.12 - 0.25	20 - 27	0.17 - 0.25	17 - 24	0.2 - 0.3
Tr24x5	21 - 40	0.1 - 0.25	21 - 35	0.12 - 0.25	21 - 28	0.17 - 0.25	18 - 25	0.2 - 0.3
Tr26x5	19 - 38	0.1 - 0.25	19 - 34	0.12 - 0.25	19 - 26	0.17 - 0.25	17 - 23	0.2 - 0.3
Tr28x5	18 - 36	0.1 - 0.25	18 - 32	0.12 - 0.25	18 - 25	0.17 - 0.25	16 - 22	0.2 - 0.3
Tr30x6	20 - 39	0.1 - 0.25	20 - 34	0.12 - 0.25	20 - 27	0.17 - 0.25	17 - 24	0.2 - 0.3
Tr32x6	19 - 37	0.1 - 0.25	19 - 33	0.12 - 0.25	19 - 26	0.17 - 0.25	16 - 23	0.2 - 0.3
Tr36x6	17 - 34	0.1 - 0.25	17 - 30	0.12 - 0.25	17 - 24	0.17 - 0.25	–	–
Tr40x7	18 - 36	0.1 - 0.25	18 - 31	0.12 - 0.25	18 - 24	0.17 - 0.25	–	–
Tr50x8	17 - 34	0.1 - 0.25	17 - 30	0.12 - 0.25	–	–	–	–
Multi start								
Tr06x2P1	29 - 51	0.1 - 0.25	29 - 46	0.12 - 0.25	29 - 38	0.17 - 0.25	25 - 34	0.2 - 0.3
Tr10x4P2	33 - 55	0.1 - 0.25	33 - 51	0.12 - 0.25	33 - 42	0.17 - 0.25	29 - 38	0.2 - 0.3
Tr12x6P3	37 - 60	0.1 - 0.25	37 - 56	0.12 - 0.25	37 - 47	0.17 - 0.25	33 - 43	0.2 - 0.3
Tr16x8P4	37 - 60	0.1 - 0.25	37 - 56	0.12 - 0.25	37 - 47	0.17 - 0.25	33 - 43	0.2 - 0.3
Tr18x8P4	35 - 58	0.1 - 0.25	35 - 53	0.12 - 0.25	35 - 44	0.17 - 0.25	31 - 40	0.2 - 0.3
Tr20x8P4	33 - 55	0.1 - 0.25	33 - 51	0.12 - 0.25	33 - 42	0.17 - 0.25	29 - 38	0.2 - 0.3
Metric								
M3	17 - 34	0.1 - 0.25	17 - 30	0.12 - 0.25	17 - 24	0.17 - 0.25	15 - 21	0.2 - 0.3
M4	18 - 36	0.1 - 0.25	18 - 31	0.12 - 0.25	18 - 24	0.17 - 0.25	15 - 22	0.2 - 0.3
M5	17 - 34	0.1 - 0.25	17 - 30	0.12 - 0.25	17 - 23	0.17 - 0.25	14 - 20	0.2 - 0.3
M6	17 - 34	0.1 - 0.25	17 - 30	0.12 - 0.25	17 - 24	0.17 - 0.25	15 - 21	0.2 - 0.3
M8	16 - 33	0.1 - 0.25	16 - 29	0.12 - 0.25	16 - 22	0.17 - 0.25	14 - 20	0.17 - 0.25
M10	16 - 32	0.1 - 0.25	16 - 28	0.12 - 0.25	16 - 22	0.17 - 0.25	14 - 19	0.17 - 0.25

dryspin® TR | Nuts | Product range

FDA-compliant for the food/ pharmaceutical industry: iglidur® A180

For high speeds: iglidur® E7

Thread	Efficiency η	Coefficient of friction μ	Efficiency η	Coefficient of friction μ
Single start				
Tr8x1.5	19 - 28	0.15 - 0.25	16 - 23	0.2 - 0.3
Tr10x2	20 - 30	0.15 - 0.25	17 - 24	0.2 - 0.3
Tr10x3	27 - 38	0.15 - 0.25	23 - 32	0.2 - 0.3
Tr12x3	24 - 44	0.15 - 0.25	20 - 28	0.2 - 0.3
Tr14x3	21 - 31	0.15 - 0.25	18 - 25	0.2 - 0.3
Tr14x4	26 - 47	0.15 - 0.25	23 - 31	0.2 - 0.3
Tr16x2	14 - 21	0.15 - 0.25	–	–
Tr16x4	24 - 34	0.15 - 0.25	–	–
Tr18x4	22 - 32	0.15 - 0.25	–	–
Tr20x4	20 - 30	0.15 - 0.25	–	–
Tr24x5	21 - 30	0.15 - 0.25	–	–
Tr26x5	19 - 29	0.15 - 0.25	–	–
Tr28x5	18 - 27	0.15 - 0.25	–	–
Tr30x6	20 - 30	0.15 - 0.25	–	–
Tr32x6	19 - 28	0.15 - 0.25	–	–
Tr36x6	17 - 26	0.15 - 0.25	–	–
Tr40x7	18 - 27	0.15 - 0.25	–	–
Tr50x8	–	–	–	–
Multi start				
Tr06x2P1	29 - 41	0.15 - 0.25	25 - 34	0.2 - 0.3
Tr10x4P2	33 - 45	0.15 - 0.25	29 - 38	0.2 - 0.3
Tr12x6P3	37 - 50	0.15 - 0.25	33 - 43	0.2 - 0.3
Tr16x8P4	37 - 50	0.15 - 0.25	–	–
Tr18x8P4	35 - 48	0.15 - 0.25	–	–
Tr20x8P4	33 - 45	0.15 - 0.25	–	–
Metric				
M3	17 - 26	0.15 - 0.25	15 - 21	0.2 - 0.3
M4	18 - 27	0.15 - 0.25	15 - 22	0.2 - 0.3
M5	17 - 25	0.15 - 0.25	14 - 20	0.2 - 0.3
M6	17 - 26	0.15 - 0.25	15 - 21	0.2 - 0.3
M8	16 - 25	0.15 - 0.25	14 - 20	0.2 - 0.3
M10	16 - 24	0.15 - 0.25	14 - 19	0.2 - 0.3

The specialist on hard anodised aluminium: iglidur® J200

Thread	Efficiency η	Coefficient of friction μ
Single start		
Tr8x1.5	–	–
Tr10x2	–	–
Tr10x3	–	–
Tr12x3	–	–
Tr14x3	–	–
Tr14x4	–	–
Tr16x2	–	–
Tr16x4	24 - 44	0.1 - 0.25
Tr18x4	22 - 41	0.1 - 0.25
Tr20x4	20 - 39	0.1 - 0.25
Tr24x5	21 - 40	0.1 - 0.25
Tr26x5	19 - 38	0.1 - 0.25
Tr28x5	18 - 36	0.1 - 0.25
Tr30x6	20 - 39	0.1 - 0.25
Tr32x6	19 - 37	0.1 - 0.25
Tr36x6	17 - 34	0.1 - 0.25
Tr40x7	18 - 36	0.1 - 0.25
Tr50x8	17 - 34	0.1 - 0.25
Multi start		
Tr06x2P1	29 - 51	0.1 - 0.25
Tr10x4P2	33 - 55	0.1 - 0.25
Tr12x6P3	37 - 60	0.1 - 0.25
Tr16x8P4	37 - 60	0.1 - 0.25
Tr18x8P4	35 - 58	0.1 - 0.25
Tr20x8P4	33 - 55	0.1 - 0.25
Metric		
M3	17 - 34	0.1 - 0.25
M4	18 - 36	0.1 - 0.25
M5	17 - 34	0.1 - 0.25
M6	17 - 34	0.1 - 0.25
M8	16 - 33	0.1 - 0.25
M10	–	–

dryspin® TR | Lead screw nuts | Product range

Single start lead screw nuts, cylindrical (form S)



iglidur® J



iglidur® W300



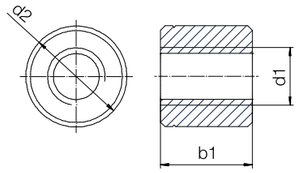
iglidur® J350



iglidur® R



iglidur® A180



Order key

Type				d2	b1	Thread
☐	S	R	M-2215	TR	10X2	

iglidur® material	Form S	Direction of rotation	Metric	Outer Ø [mm]	Length [mm]	Thread type	Diameter [mm]	Pitch

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread

J	High efficiency at all speeds	Standard
J350	For temperatures up to +150°C	Optional
R	Vibration-dampening and vibration-inhibiting	Optional
A180	FDA-compliant for the food and pharmaceutical industries	Optional
W(300)	Extremely strong and wear-resistant	Optional

Technical data

Thread	Direction of rotation		Effective supporting surface	Max. stat. axial F [N] iglidur®				
	Right	Left	[mm²]	J	W300	J350	R	A180
Tr8x1.5	●	●	205	500[43)]	500[43)]	500[43)]	500[43)]	500[43)]
Tr8x1.5	●	●	137	547	683	410	273	478
Tr10x2	●	●	212	848	1,060	636	424	742
Tr10x2	●	●	283	1,131	1,414	848	565	990
Tr10x3	●	●	200	801	1,001	601	401	701
Tr10x3	●	●	267	1,068	1,335	801	534	935
Tr12x3	●	●	297	1,188	1,484	891	594	1,039
Tr12x3	●	●	396	1,583	1,979	1,188	792	1,385
Tr14x3	●	●	550	2,199	2,749	1,649	1,100	1,924
Tr14x4	●	●	396	1,583	1,979	1,188	792	1,385
Tr14x4	●	●	528	2,111	2,639	1,583	1,056	1,847
Tr16x2	●	●	565	2,262	2,827	1,696	1,131	1,979
Tr16x2	●	●	754	3,016	3,770	2,262	1,508	2,639
Tr16x4	●	●	528	2,111	2,639	1,583	1,056	1,847
Tr16x4	●	●	528	2,111	2,639	1,583	1,056	1,847
Tr16x4	●	●	704	2,815	3,519	2,111	1,407	2,463
Tr18x4	●	●	679	2,362[43)]	2,362[43)]	2,362[43)]	2,362[43)]	2,362[43)]
Tr18x4	●	●	679	2,714	3,393	2,036	1,357	2,375
Tr18x4	●	●	905	3,619	4,524	2,714	1,810	3,167

[43)] **Reduced axial load due to nut geometry**

Dimensions [mm]

d1[156)]	d2[156)]	b1[156)]	Weight [g] iglidur®					Part No.
			J	W300	J350	R	A180	
8	14	18	2.8	2.9	2.7	2.6	2.7	☐S☐M-1418TR8X1.5
8	18	12	3.7	3.8	3.5	3.4	3.6	☐S☐M-1812TR8X1.5
10	22	15	6.7	7.0	6.5	6.3	6.6	☐S☐M-2215TR10X2
10	22	20	9.0	9.3	8.7	8.4	8.8	☐S☐M-2220TR10X2
10	22	15	6.7	7.0	6.5	6.3	6.6	☐S☐M-2215TR10X3
10	22	20	9.0	9.3	8.7	8.4	8.8	☐S☐M-2220TR10X3
12	26	18	11.2	11.6	10.8	10.5	11.0	☐S☐M-2618TR12X3
12	26	24	14.9	15.4	14.4	13.9	14.6	☐S☐M-2624TR12X3
14	30	28	23.1	23.8	22.3	21.5	22.6	☐S☐M-3028TR14X3
14	30	21	17.3	17.9	16.7	16.1	17.0	☐S☐M-3021TR14X4
14	30	28	23.1	23.8	22.3	21.5	22.6	☐S☐M-3028TR14X4
16	36	24	29.2	30.1	28.2	27.2	28.6	☐S☐M-3624TR16X2
16	36	32	38.9	40.2	37.6	36.3	38.2	☐S☐M-3632TR16X2
16	30	24	18.1	18.7	17.5	16.9	17.7	☐S☐M-3024TR16X4
16	36	24	29.2	30.1	28.2	27.2	28.6	☐S☐M-3624TR16X4
16	36	32	38.9	40.2	37.6	36.3	38.2	☐S☐M-3632TR16X4
18	30	27	18.2	18.8	17.6	17.0	17.8	☐S☐M-3027TR18X4
18	40	27	40.3	41.6	39.0	37.6	39.5	☐S☐M-4027TR18X4
18	40	36	53.8	55.5	52.0	50.1	52.7	☐S☐M-4036TR18X4

[156)] **Tolerances according to DIN ISO 2768-1, tolerance class m (medium)**

dryspin® TR | Lead screw nuts | Product range

Single start lead screw nuts, cylindrical (form S)



iglidur® J



iglidur® W300



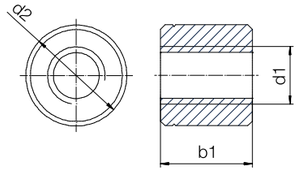
iglidur® J350



iglidur® R



iglidur® A180



Order key

Type	d2	b1	Thread
☐ S R	M-30	25	TR 20X4

iglidur® material	Form S	Direction of rotation	Metric	Outer Ø [mm]	Length [mm]	Thread type	Diameter [mm]	Pitch

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread

J	High efficiency at all speeds	Standard
J350	For temperatures up to +150°C	Optional
R	Vibration-dampening and vibration-inhibiting	Optional
A180	FDA-compliant for the food and pharmaceutical industries	Optional
W(300)	Extremely strong and wear-resistant	Optional

Technical data

Thread	Direction of rotation		Effective supporting surface	Max. stat. axial F [N] iglidur®				
	Right	Left	[mm²]	J	W300	J350	R	A180
Tr20x4	●	●	707	2,827	3,534	2,121	1,414	2,474
Tr20x4	●	●	848	3,393	4,241	2,545	1,696	2,969
Tr20x4	●	●	1,131	4,524	5,655	3,393	2,262	3,958
Tr24x5	●	●	1,216	4,863	6,079	3,647	2,432	4,255
Tr24x5	●	●	1,621	6,484	8,105	4,863	3,242	5,674
Tr26x5	●	●	1,440	5,759	7,198	4,319	2,879	5,039
Tr26x5	●	●	1,920	7,678	9,598	5,759	3,839	6,718
Tr28x5	●	●	1,682	6,729	8,412	5,047	3,365	5,888
Tr28x5	●	●	2,243	8,972	11,215	6,729	4,486	7,851
Tr30x6	●	●	1,909	7,634	9,543	5,726	3,817	6,680
Tr30x6	●	●	2,545	10,179	12,723	7,634	5,089	8,906
Tr32x6	●	●	2,733	10,933	13,666	8,200	5,466	9,566
Tr36x6	●	●	3,732	14,929	18,661	–	–	13,063
Tr40x7	●	●	4,587	18,347	22,934	–	–	16,054
Tr50x8	●	●	7,226	28,903	–	–	–	–

Dimensions [mm]

d1[156]	d2[156]	b1[156]	Weight [g] iglidur®					Part No.
			J	W300	J350	R	A180	
20	30	25	14.6	15.1	14.1	13.6	14.3	**☐S☐M-3025TR20X4**
20	45	30	57.0	58.9	55.1	53.2	55.9	**☐S☐M-4530TR20X4**
20	45	40	76.1	78.5	73.5	71.0	74.5	**☐S☐M-4540TR20X4**
24	50	36	81.1	83.6	78.3	75.6	79.4	**☐S☐M-5036TR24X5**
24	50	48	108.1	111.5	104.4	100.8	105.9	**☐S☐M-5048TR24X5**
26	50	39	83.2	85.9	80.5	77.7	81.6	**☐S☐M-5039TR26X5**
26	50	52	111.0	114.5	107.3	103.5	108.8	**☐S☐M-5052TR26X5**
28	60	42	138.4	142.8	133.8	129.1	135.6	**☐S☐M-6042TR28X5**
28	60	56	184.5	190.4	178.3	172.2	180.8	**☐S☐M-6056TR28X5**
30	60	45	142.2	146.7	137.4	132.6	139.3	**☐S☐M-6045TR30X6**
30	60	60	189.6	195.6	183.2	176.9	185.8	**☐S☐M-6060TR30X6**
32	60	60	180.9	186.7	174.8	168.7	177.2	**☐S☐M-6060TR32X6**
36	75	72	364.8	376.4	–	–	357.4	**☐S☐M-7572TR36X6**
40	76	80	391.0	403.4	–	–	383.1	**☐S☐M-7680TR40X7**
50	90	100	655.3	–	–	–	–	**☐S☐M-90100TR50X8**

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® TR | Lead screw nuts | Product range

Multi start lead screw nuts, cylindrical (form S)



iglidur® J



iglidur® W300



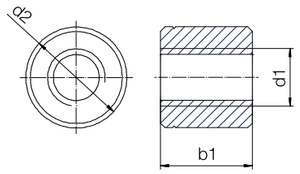
iglidur® J350



iglidur® R



iglidur® A180



Order key

Type	d2	b1	Thread
☐ S R	M-28	35	TR 12X6P3

iglidur® material	Form S	Direction of rotation	Metric	Outer Ø [mm]	Length [mm]	Thread type	Diameter [mm]	Pitch

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread

J	High efficiency at all speeds	Standard
J350	For temperatures up to +150°C	Optional
R	Vibration-dampening and vibration-inhibiting	Optional
A180	FDA-compliant for the food and pharmaceutical industries	Optional
W(300)	Extremely strong and wear-resistant	Optional

Technical data

Thread	Direction of rotation		Effective	Max. stat. axial F [N]				
	Right	Left	supporting surface	iglidur®				
			[mm²]	J	W300	J350	R	A180
Tr06x2P1	●	–	112	382	477	286	191	334
Tr10x4P2	●	●	283	961	1,202	721	481	841
Tr12x6P3	●	●	396	1,346	1,682	1,009	673	1,178
Tr16x8P4	●	●	528	1,794	2,243	1,346	897	1,570
Tr16x8P4	●	●	704	2,393	2,991	1,794	1,196	2,094
Tr18x8P4	●	–	905	3,076	3,845	2,307	1,538	2,692
Tr20x8P4	●	–	1,131	3,845	4,807	2,884	1,923	3,365

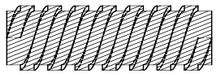
Reduced axial load compared to single start threads due to nut geometry.

Dimensions [mm]

d1[156]	d2[156]	b1[156]	Weight [g]					Part No.
			iglidur®					
			J	W300	J350	R	A180	
6	14	13	2.4	2.5	2.4	2.3	2.4	☐SRM-1413TR06X2P1
10	26	24	14.9	12.4	14.4	13.9	14.6	☐S☐M-2624TR10X4P2
12	30	24	21.2	17.7	20.5	19.8	20.8	☐S☐M-3024TR12X6P3
16	30	24	18.1	15.1	17.5	16.9	17.7	☐S☐M-3024TR16X8P4
16	36	32	38.9	32.4	37.6	36.3	38.2	☐S☐M-3632TR16X8P4
18	40	36	53.8	44.7	52.0	50.1	52.7	☐SRM-4036TR18X8P4
20	45	40	76.1	63.3	73.5	71.0	74.5	☐SRM-4540TR20X8P4

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

Definition: Multi start trapezoidal lead screw
Example 8P4 pitch



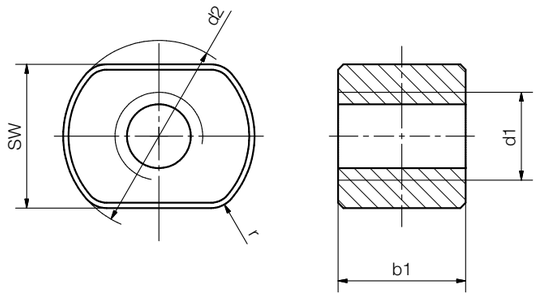
P4 pitch: Distance to the next thread pitch 4mm
Pitch 8: Pitch 8mm

dryspin® TR | Lead screw nuts | Product range

Cylindrical lead screw nuts with spanner flat



iglidur® J | iglidur® W300 | iglidur® J350 | iglidur® R | iglidur® A180



Order key

Type	SW	d2	b1	Thread
☐S R	M-17	22	20	TR 10X2

iglidur® material	Form S	Direction of rotation	Metric	Width across flats	Outer Ø [mm]	Length [mm]	Trapezoidal thread	Diameter [mm]	Pitch

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread

J	High efficiency at all speeds	Standard
J350	For temperatures up to +150°C	Optional
R	Vibration-dampening and vibration-inhibiting	Optional
A180	FDA-compliant for the food and pharmaceutical industries	Optional
W(300)	Extremely strong and wear-resistant	Optional

Technical data

Thread	Direction of rotation		Effective support surface	Pitch P	Max. stat. axial F [N] iglidur®				
	Right	Left	[mm²]	[mm]	J	W300	J350	R	A180
Tr08x1.5	●	●	228	1.5	911	1,139	683	456	797
Tr10x2	●	●	283	2	1,131	1,414	848	565	990
Tr10x3	●	●	267	3	1,068	1,335	801	534	935
Tr12x3	●	●	396	3	1,583	1,979	1,188	792	1,385
Tr16x2	●	●	528	2	2,262	2,827	1,696	1,131	1,979
Tr16x4	●	●	528	4	2,111	2,639	1,583	1,056	1,847
Tr18x4	●	●	603	4	2.413	3,016	1,810	1,206	2,111
Tr20x4	●	●	1,131	4	4,524	5,655	3,393	2,262	3,958
Tr24x5	●	●	1,621	5	6,484	8,105	4,863	3,242	5,674
Tr28x5	●	●	1,682	5	6,729	8,412	5,047	3,365	5,888
Tr30x6	●	●	2,545	6	10,179	12,723	7,634	5,089	8,906

Dimensions [mm]

d1[156]	d2[156]	b1[156]	SW	Weight [g] iglidur®					Part No.	
				J	W300	J350	R	A180		
8	22	20	17	8.9	7.4	8.6	8.3	8.7	☐S☐M-172220TR8X1.5	New
10	22	20	17	4.7	3.9	4.5	4.4	4.6	☐S☐M-172220TR10X2	
10	22	20	17	8.4	7.0	8.1	7.8	8.2	☐S☐M-172220TR10X3	New
12	26	24	19	10.9	9.1	10.5	10.2	10.7	☐S☐M-192624TR12X3	
16	36	24	27	27.0	22.5	26.1	25.2	26.4	☐S☐M-273624TR16X2	New
16	36	24	27	22.0	18.3	21.3	20.5	21.6	☐S☐M-273624TR16X4	
18	36	24	27	27.0	22.5	26.1	25.2	26.4	☐S☐M-273624TR18X4	New
20	45	40	30	57.3	47.7	55.4	53.5	56.2	☐S☐M-304540TR20X4	
24	50	48	36	75.7	63.0	73.2	70.6	74.2	☐S☐M-365048TR24X5	
28	60	42	45	123.2	102.5	119.1	115.0	120.7	☐S☐M-456042TR28X5	New
30	60	60	45	126.4	105.2	123.8	122.1	117.9	☐S☐M-456060TR30X6	

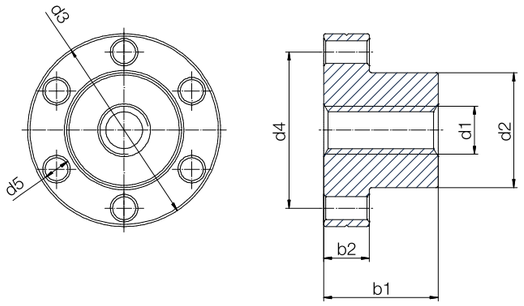
[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® TR | Lead screw nuts | Product range

Single start lead screw nuts with flange (form F)



iglidur® J | iglidur® W300 | iglidur® J350 | iglidur® R | iglidur® A180 | iglidur® J200



Order key

Type	d2	b1	Thread
☐ F R	M-22	20	TR 10X2

iglidur® material	Form F	Direction of rotation	Metric	Outer Ø [mm]	Length [mm]	Trapezoidal thread	Diameter [mm]	Pitch

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread

J	High efficiency at all speeds	Standard 24hrs
J350	For temperatures up to +150°C	Optional
R	Vibration-dampening and vibration-inhibiting	Optional
A180	FDA-compliant for the food and pharmaceutical industries	Optional
W(300)	Extremely strong and wear-resistant	Optional
J200	The specialist on hard anodised aluminium	Optional

Technical data

Thread	Direction of rotation Right	Direction of rotation Left	Effective supporting surface [mm²]	Max. stat. axial F [N] iglidur® J	W300	J350	R	A180	J200
Tr8x1.5	●	●	228	911	1,139	683	456	797	–
Tr10x2	●	●	353	1,414	1,767	1,060	707	1,237	–
Tr10x3	●	●	334	1,335	1,669	1,001	668	1,168	–
Tr12x3	●	●	577	2,309	2,886	1,732	1,155	2.020	–
Tr14x3	●	●	687	2,749	3,436	2,062	1.374	2,405	–
Tr14x4	●	●	660	2,639	3,299	1,979	1,319	2,309	–
Tr16x2	●	●	825	3,299	4,123	2,474	1,649	2,886	1,650
Tr16x4	●	●	770	3,079	3,848	2,309	1,539	2,694	1,540
Tr18x4	●	●	880	3,519	4,398	2,639	1,759	3,079	1,760
Tr20x4	●	●	1,244	4,976	6,220	3,732	2,488	4,354	2,488
Tr24x5	●	●	1,486	5,944	7,430	4,458	2,972	5,201	2,972
Tr26x5	●	●	1,698	6,320[43)]	6,320[43)]	6,320[43)]	6,320[43)]	6,320[43)]	–
Tr28x5	●	●	1,843	4,560[43)]	4,560[43)]	4,560[43)]	4,560[43)]	4,560[43)]	–
Tr30x6	●	●	1,951	3,576[43)]	3,576[43)]	3,576[43)]	3,576[43)]	3,576[43)]	–
Tr30x6	●	●	1,951	7,804	9,755	–	–	6,828	–
Tr32x6	●	●	2,095	8,382	10,477	–	–	–	–
Tr36x6	●	●	3,629	14,514	–	–	–	–	–
Tr40x7	●	●	4,013	16,054	–	–	–	–	–

[43)] Reduced load due to nut geometry

Dimensions [mm]

d1[156)]	d2[156)]	d3	d4	d5	b1[156)]	b2	Weight [g] iglidur® J	W300	J350	R	A180	J200	Part No.
8	20	36	28	4	20	8	16.3	13.5	15.7	15.2	15.9	–	**☐F☐M-2020TR8X1.5**
10	25	42	34	5	25	10	28.7	23.9	27.7	26.8	28.1	–	**☐F☐M-2525TR10X2**
10	25	42	34	5	25	10	28.7	23.9	27.7	26.8	28.1	–	**☐F☐M-2525TR10X3**
12	28	48	38	6	35	12	47.6	39.6	46.0	44.4	46.6	–	**☐F☐M-2835TR12X3**
14	28	48	38	6	35	12	45.4	37.8	43.9	42.4	44.5	–	**☐F☐M-2835TR14X3**
14	28	48	38	6	35	12	45.4	37.8	43.9	42.4	44.5	–	**☐F☐M-2835TR14X4**
16	28	48	38	6	35	12	43.0	35.8	41.5	40.1	42.1	50	**☐F☐M-2835TR16X2**
16	28	48	38	6	35	12	43.0	35.8	41.5	40.1	42.1	50	**☐F☐M-2835TR16X4**
18	28	48	38	6	35	12	40.2	33.4	38.8	37.5	39.4	48	**☐F☐M-2835TR18X4**
20	32	55	45	7	44	12	60.2	50.1	58.2	56.2	59.0	73	**☐F☐M-3244TR20X4**
24	32	55	45	7	44	12	51.2	42.6	49.5	47.7	50.1	66	**☐F☐M-3244TR24X5**
26	38	62	50	7	46	14	80.7	67.1	78.0	75.2	79.0	–	**☐F☐M-3846TR26X5**
28	38	62	50	7	46	14	74.8	62.3	72.3	69.8	73.3	–	**☐F☐M-3846TR28X5**
30	38	62	50	7	46	14	68.6	57.1	66.3	64.0	67.2	–	**☐F☐M-3846TR30X6**
30	45	70	58	7	46	16	114.4	95.2	–	–	112.1	–	**☐F☐M-4546TR30X6**
32	45	70	58	7	46	16	72.6	60.4	–	–	–	–	**☐F☐M-4546TR32X6**
36	67	95	81	7	70	25	394.3	–	–	–	–	–	**☐F☐M-6770TR36X6**
40	67	95	81	7	70	25	369.4	–	–	–	–	–	**☐F☐M-6770TR40X7**

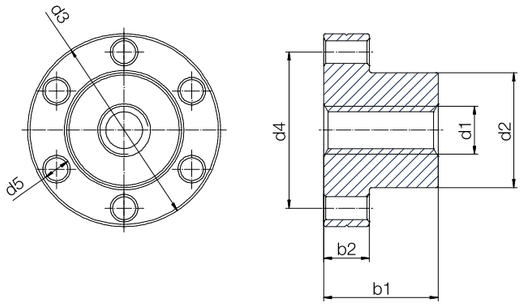
[156)] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® TR | Lead screw nuts | Product range

Multi start lead screw nuts with flange (form F)



iglidur® J | iglidur® W300 | iglidur® J350 | iglidur® R | iglidur® A180 | iglidur® J200



Order key

Type	d2	b1	Thread
☐ F R	M-28	35	TR 12X6P3

iglidur® material	Form F	Direction of rotation	Metric	Outer Ø [mm]	Length [mm]	Thread type	Diameter [mm]	Pitch

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread

J	High efficiency at all speeds	Standard 24hrs
J350	For temperatures up to +150°C	Optional
R	Vibration-dampening and vibration-inhibiting	Optional
A180	FDA-compliant for the food and pharmaceutical industries	Optional
W(300)	Extremely strong and wear-resistant	Optional
J200	The specialist on hard anodised aluminium	Optional

Technical data

Thread	Direction of rotation		Effective supporting surface	Max. stat. axial F [N] iglidur®					
	Right	Left	[mm²]	J	W300	J350	R	A180	J200
Tr06x2P1	●	–	130	441	551	1,124	936	386	–
Tr10x4P2	●	–	353	1,202	1,502	1,051	3,064	2,552	–
Tr12x6P3	●	●	577	1,963	2,453	5,005	4,171	1,717	–
Tr16x8P4	●	●	770	2,617	3,271	6,673	5,561	2,290	1,540
Tr18x8P4	●	–	880	2,991	3,738	7,627	6,355	2,617	1,760
Tr20x8P4	●	–	1,244	4,230	5,287	10,786	8,988	3,701	2,488

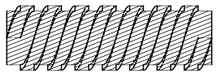
Reduced axial load compared to single start threads due to nut geometry.

Dimensions [mm]

d1[156]	d2[156]	d3	d4	d5	b1[156]	b2	Weight [g] iglidur®						Part No.
							J	W300	J350	R	A180	J200	
6	13	25	19	3.2	15	5	5.0	4.2	4.8	4.7	4.9	–	☐FRM-1315TR06X2P1
10	25	42	34	5	25	10	25.6	21.3	25.1	24.8	23.9	–	☐FRM-2525TR10X4P2
12	28	48	38	6	35	12	47.6	39.6	46.0	44.4	46.6	–	☐F☐M-2835TR12X6P3
16	28	48	38	6	35	12	43.0	35.8	41.5	40.1	42.1	50	☐F☐M-2835TR16X8P4
18	28	48	38	6	35	12	40.2	33.4	38.8	37.5	39.4	48	☐FRM-2835TR18X8P4
20	32	55	45	7	44	12	60.2	50.1	58.2	56.2	59.0	73	☐FRM-3244TR20X8P4

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

Definition: Multi start trapezoidal lead screw
Example 8P4 pitch



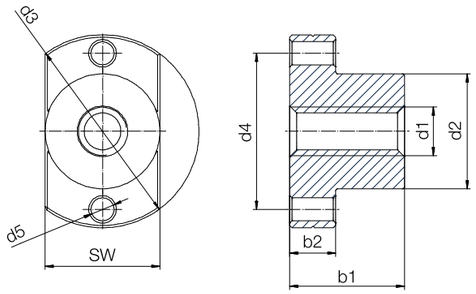
P4 pitch: Distance to the next thread pitch 4mm
Pitch 8: Pitch 8mm

dryspin® TR | Lead screw nuts | Product range

Lead screw nuts with spanner flat and flange



iglidur® J | iglidur® W300 | iglidur® J350 | iglidur® R | iglidur® A180



Order key

Type				SW	d2	b1	Thread
☐ F	R	M-	13	13	13	TR	6X2 P1

iglidur® material	Form F	Direction of rotation	Metric	Width across flats	Outer Ø [mm]	Length [mm]	Trapezoidal thread	Diameter [mm]	Pitch

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread

J	High efficiency at all speeds	Standard
J350	For temperatures up to +150°C	Optional
R	Vibration-dampening and vibration-inhibiting	Optional
A180	FDA-compliant for the food and pharmaceutical industries	Optional
W(300)	Extremely strong and wear-resistant	Optional

Technical data

Thread	Direction of rotation		Effective	Pitch	Max. stat. axial F [N]				
	Right	Left	support surface	P	iglidur®				
Single start			[mm²]	[mm]	J	W300	J350	R	A180
Tr8x1.5	●	●	228	1.5	911	1,139	683	456	797
Tr10x2	●	●	353	2	1,414	1,767	1,060	707	1,237
Tr10x3	●	●	334	3	1,335	1,669	1,001	668	1,168
Tr12x3	●	●	577	3	2,309	2,886	1,732	1,155	2,020
Tr14x4	●	●	660	4	2,639	3,299	1,979	1,319	2,309
Tr16x2	●	●	825	2	3,299	4,213	2,474	1,649	2,886
Tr16x4	●	●	770	4	3,079	3,848	2,309	1,539	2,694
Tr18x4	●	●	880	4	3,519	4,398	2,639	1,759	3,079
Multi start									
Tr06x2P1	●	–	130	6	441	551	330	220	386
Tr12x6P3	●	●	577	6	1,963	2,453	5,005	4,171	1,717
Metric									
M5	●	–	101	0.8	75[43)]	75[43)]	75[43)]	75[43)]	75[43)]
M8	●	–	249	1.25	994	1,243	746	497	870
M10	●	–	390	1.5	1,559	1,949	1,169	780	1,364

[43)] Reduced load due to nut geometry

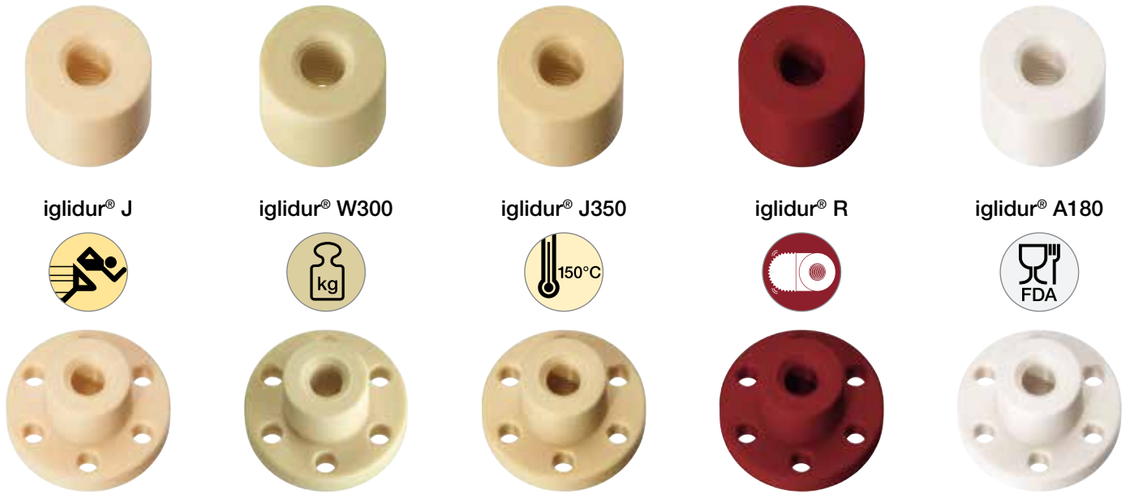
Dimensions [mm]

d1[156)]	d2[156)]	d3	d4	d5	b1[156)]	b2	SW	Weight [g] iglidur® J	W300	J350	R	A180	Part No.	
8	20	36	28	4	20	8	20	12.7	10.6	–	–	12.4	**☐F☐M-202020TR8X1.5**	
10	25	42	34	5	25	10	25	23.7	19.7	12.28	22.10	23.2	**☐F☐M-252525TR10X2**	
10	25	42	34	5	25	10	25	23.7	19.7	12.28	22.10	23.2	**☐F☐M-252525TR10X3**	New
12	28	48	38	6	35	12	28	39.2	32.7	37.92	36.60	38.4	**☐F☐M-282835TR12X3**	
14	28	48	38	6	35	12	28	37.1	30.9	35.86	34.61	36.4	**☐F☐M-282835TR14X4**	
16	28	48	38	6	35	12	28	34.6	28.8	33.48	32.32	33.9	**☐F☐M-282835TR16X2**	New
16	28	48	38	6	35	12	28	34.6	28.8	33.48	32.32	33.9	**☐F☐M-282835TR16X4**	
18	28	48	38	6	35	12	28	31.9	26.5	30.79	29.72	31.2	**☐F☐M-282835TR18X4**	
6	13	25	19	3.2	15	5	13	3.8	3.1	3.5	–	3.7	**☐FRM-131315TR06X2P1**	
12	28	48	38	6.0	35	12	28	39.2	32.7	37.92	36.30	38.4	**☐F☐M-282835TR12X6P3**	New
5	9	18	15.2	3.2	13	3	9	1.3	1.1	1.2	–	1.3	**☐FRM-090913M5**	
8	20	36	28	4	20	8	20	12.7	10.57	12.28	11.85	12.45	**☐FRM-202020M8**	
10	25	42	34	5	25	10	25	23.7	19.70	22.90	22.10	23.20	**☐FRM-252525M10**	

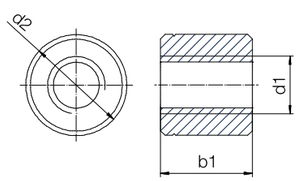
[156)] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

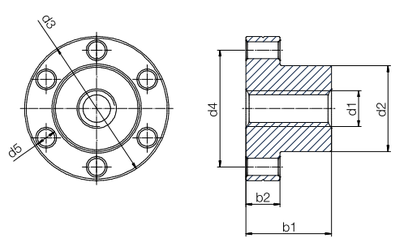
dryspin® TR | Lead screw nuts | Product range

Metric lead screw nuts, right-hand thread



iglidur® J | iglidur® W300 | iglidur® J350 | iglidur® R | iglidur® A180





Also available as flanged nut and spanner flats
▶ Page 440

Order key

Type	d2	b1	Thread
☐ S	R	M-14	13 M3

iglidur® material	Form S	Direction of rotation	Metric	Outer Ø [mm]	Length [mm]	Diameter

Options:
Form S: Cylindrical
Form F: With flange

J	High efficiency at all speeds	Standard
J350	For temperatures up to +150°C	Optional
R	Vibration-dampening and vibration-inhibiting	Optional
A180	FDA-compliant for the food and pharmaceutical industries	Optional
W(300)	Extremely strong and wear-resistant	Optional

Technical data

Thread	Effective supporting surface [mm²]	Max. stat. axial F [N] iglidur® J	W300	J350	R	A180
Cylindrical (form S)						
M3	56	225	281	168	112	197
M4	75	298	373	224	149	261
M5	94	376	470	282	188	329
M6	112	449	562	337	225	393
M8	151	602	753	452	301	527
M10	189	756	944	567	378	661
With flange (form F)						
M3	56	225	281	168	112	197
M4	75	298	373	224	149	261
M5	94	376	470	282	188	329
M6	130	518	648	389	259	454
M8	228	911	1,139	683	456	797
M10	253	1,414	1,767	1,060	707	1,237

Dimensions [mm]

d1[156]	d2[156]	b1[156]	Weight [g] iglidur® J	W300	J350	R	A180	Part No.
3	14	13	2.8	2.4	2.7	2.7	2.8	☐SRM-1413M3
4	14	13	2.7	2.3	2.6	2.6	2.7	☐SRM-1413M4
5	14	13	2.6	2.2	2.5	2.4	2.5	☐SRM-1413M5
6	14	13	2.4	2.0	2.4	2.3	2.4	☐SRM-1413M6
8	20	18	7.08	5.89	6.69	6.60	6.94	☐SRM-2018M8
10	22	20	8.99	7.48	8.69	8.38	8.81	☐SRM-2220M10

d1	d2	d3	d4	d5	b1	b2						
3	9	18	15.2	3.2	13	3	1.9	1.6	1.9	1.8	1.9	☐FRM-0913M3
4	9	18	15.2	3.2	13	3	1.8	1.5	1.8	1.7	1.8	☐FRM-0913M4
5	9	18	15.2	3.2	13	3	1.7	1.4	1.6	1.6	1.7	☐FRM-0913M5
6	13	25	19.0	3.2	15	5	4.7	3.9	4.5	4.4	4.6	☐FRM-1315M6
8	20	36	28.0	4.0	20	8	16.25	13.53	15.93	15.71	15.17	☐FRM-2020M8
10	25	42	34.0	5.0	25	10	28.69	23.88	28.11	27.73	26.76	☐FRM-2525M10

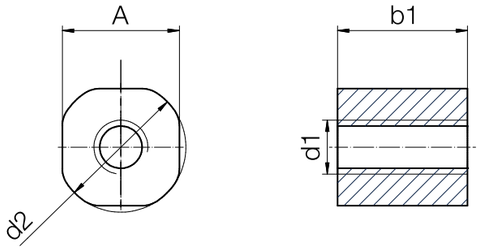
[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® TR | Lead screw nuts | Product range

Cost-effective injection-moulded lead screw nuts, cylindrical (form S)



Image exemplary



Order key

Type				d2	b1	Thread
J	S	□	M-	C	-01-	TR 10X12

iglidur® material	Form S	Direction of rotation	Metric	Thread: cut	Type	Thread type	Diameter [mm]	Pitch

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread

J	High efficiency at all speeds	Standard 24hrs
E7	For high speeds and low loads	Optional

Injection moulded lead screw nut blank incl. machined cut thread

Technical data

Thread	Direction of rotation		Effective	Pitch	Max. stat. axial F [N]	
	Right	Left	supporting surface	P	iglidur®	
			[mm²]	[mm]	J	E7
single start						
Tr8x1.5	●	●	228	1.5	911	114
Tr10x2	●	●	283	2	1,131	141
Tr10x3	●	●	267	3	1,068	134
Tr12x3	●	●	412	3	1,649	206
Tr14x3	●	●	491	3	1,963	245
Tr14x4	●	●	471	4	1,885	236
Tr16x2	●	●	589	2	2,356	–
Tr16x4	●	●	550	4	2,199	–
Tr18x4	●	●	628	4	2,513	–
Tr20x4	●	●	1,131	4	4,524	–
multi start						
Tr6x2P1	●	–	104	2	352	52
Tr10x4P2	●	–	283	4	961	141
Tr12x6P3	●	●	412	6	1,402	206
Tr16x8P4	●	●	550	8	1,869	–
Tr18x8P4	●	●	628	8	3,845	–
Tr20x8P4	●	●	1,131	8	3,845	–

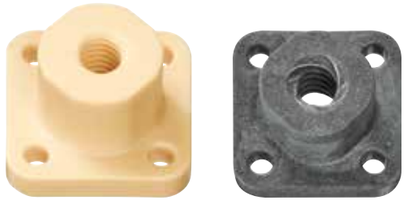
Dimensions [mm]

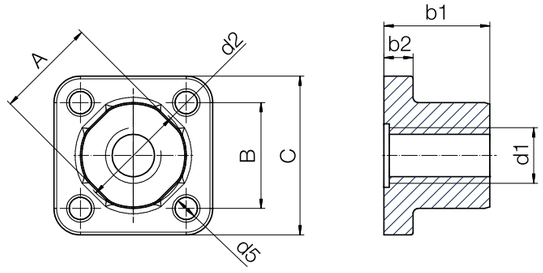
d1[156]	d2[156]	A	b1[156]	Weight [g] iglidur®		Part No.	
				J	E7		
8	20	18.0	20	7.6	5.4	□S□M-C-01-TR8X1.5	
10	20	18.0	20	7.1	5.0	□S□M-C-01-TR10X2	
10	20	18.0	20	7.1	5.0	□S□M-C-01-TR10X3	
12	24	22.6	25	13.9	9.8	□S□M-C-01-TR12X3	
14	24	22.6	25	12.7	9.8	□S□M-C-01-TR14X3	
14	24	22.6	25	12.7	9.8	□S□M-C-01-TR14X4	
16	28	26.2	25	16.2	–	JS□M-C-01-TR16X2	
16	28	26.2	25	16.2	–	JS□M-C-01-TR16X4	
18	28	26.2	25	16.2	–	JS□M-C-01-TR18X4	
20	32	29.0	40	32.7	–	JS□M-C-01-TR20X4	New
6	12	11.0	12	1.5	1.0	□SRM-C-01-TR6X2P1	New
10	20	18.0	20	7.1	5.0	□SRM-C-01-TR10X4P2	
12	24	22.6	25	13.9	9.8	□S□M-C-01-TR12X6P3	
16	28	26.2	25	16.2	–	JS□M-C-01-TR16X8P4	
18	28	26.2	25	16.2	–	JS□M-C-01-TR18X8P4	
20	32	29.0	40	32.7	–	JS□M-C-01-TR20X8P4	New

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® TR | Lead screw nuts | Product range

Cost-effective injection-moulded lead screw nuts with flange (form F)





Order key

Type				d2	b1	Thread
J	F	□	M-	C -	01-	TR 10X12

iglidur® material	Form F	Direction of rotation	Metric	Thread: cut	Type	Thread type	Diameter [mm]	Pitch

J	High efficiency at all speeds	Standard 24hrs
E7	For high speeds and low loads	Optional

Options:
Direction of rotation
R: Right-hand thread
L: Left-hand thread

Injection moulded lead screw nut blank incl. machined cut thread

Technical data

Thread	Direction of rotation		Effective	Pitch	Max. stat. axial F [N]	
	Right	Left	supporting surface	P	iglidur®	
			[mm²]	[mm]	J	E7
single start						
Tr8x1.5	●	●	228	1.5	911	114
Tr10x2	●	●	283	2	1,131	141
Tr10x3	●	●	267	3	1,068	134
Tr12x3	●	●	412	3	1,649	206
Tr14x3	●	●	491	3	1,963	245
Tr14x4	●	●	471	4	1,885	236
Tr16x2	●	●	589	2	2,356	–
Tr16x4	●	●	550	4	2,199	–
Tr18x4	●	●	628	4	2,513	–
Tr20x4	●	●	1,131	4	4,524	–
multi start						
Tr6x2P1	●	–	104	2	352	52
Tr10x4P2	●	–	283	4	961	141
Tr12x6P3	●	●	412	6	1,402	206
Tr16x8P4	●	●	550	8	1,869	–
Tr18x8P4	●	●	628	8	2,136	–
Tr20x8P4	●	●	1,131	8	3,845	–

Dimensions [mm]

d1[156]	d2[156]	A	B	C	d5	b1[156]	b2	Weight [g] iglidur®		Part No.	
								J	E7		
8	20	19.0	20	30	4.2	20	5.5	11.6	8.3	□F□M-C-01-TR8X1.5	
10	20	19.0	20	30	4.2	20	5.5	11.8	8.3	□F□M-C-01-TR10X2	
10	20	19.0	20	30	4.2	20	5.5	11.8	8.3	□F□M-C-01-TR10X3	
12	24	22.6	24	34	5.0	25	6.0	19.3	13.6	□F□M-C-01-TR12X3	
14	24	22.6	24	34	5.0	25	6.0	19.3	13.6	□F□M-C-01-TR14X3	
14	24	22.6	24	34	5.0	25	6.0	19.3	13.6	□F□M-C-01-TR14X4	
16	28	25.5	27	38	6.0	25	6.5	24.1	–	JF□M-C-01-TR16X2	
16	28	25.5	27	38	6.0	25	6.5	24.1	–	JF□M-C-01-TR16X4	
18	28	25.5	27	38	6.0	25	6.5	22.7	–	JF□M-C-01-TR18X4	
20	32	29.0	30	42	6.0	25	8.0	30.4	–	JF□M-C-01-TR20X4	New
6	12	11.0	12	18	3.2	12	4.0	2.5	1.8	□FRM-C-01-TR6X2P1	New
10	20	19.0	20	30	4.2	20	5.5	11.8	8.3	□FRM-C-01-TR10X4P2	
12	24	22.6	24	34	5.0	25	6.0	19.3	13.6	□FRM-C-01-TR12X6P3	
16	28	25.5	27	38	6.0	25	6.5	24.1	–	JFRM-C-01-TR16X8P4	
18	28	25.5	27	38	6.0	25	6.5	22.7	–	JFRM-C-01-TR18X8P4	
20	32	29.0	30	42	6.0	25	8.0	30.7	–	JFRM-C-01-TR20X8P4	New

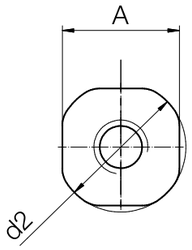
[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

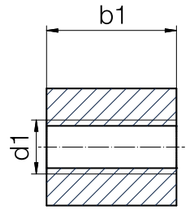
dryspin® TR | Lead screw nuts | Product range

Cost-effective metric injection-moulded lead screw nuts

Cylindrical (form S)

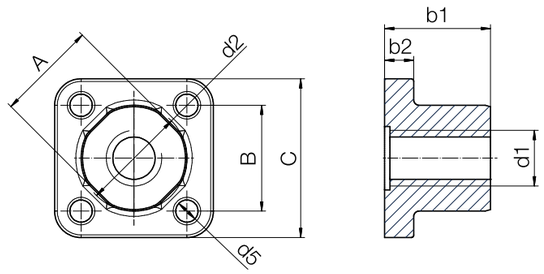






With flange (form F)





Order key

Type				d2	b1	Thread	
J	S	R	M-	C	-01-	M5	
iglidur® material	Form S	Direction of rotation	Metric	Thread: cut	Type	Diameter	

Options:
Form S: Cylindrical
Form F: With flange

Injection moulded lead screw nut blank incl. machined cut thread

Technical data

Thread	Effective supporting surface [mm²]	Max. static axial F [N]
Cylindrical (form S)		
M5	94	376
M6	112	449
M8	151	602
With flange (form F)		
M5	90	358
M6	104	415
M8	232	927

Dimensions [mm]

d1[156]	d2[156]	A	b1[156]	Weight [g]	Part No.
5	12	11	12	1.74	**JSRM-C-01-M5**
6	12	11	12	1.44	**JSRM-C-01-M6**
8	20	19	20	7.58	**JSRM-C-01-M8**

d1	d2	A	B	C	d5	b1	b2	[g]	
5	12	11	12	18	3.2	12	4	2.59	**JFRM-C-01-M5**
6	12	11	12	18	3.2	12	4	2.62	**JFRM-C-01-M6**
8	20	19	20	30	4.2	20	5.5	12.2	**JFRM-C-01-M8**

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

EN 09/2023

dryspin® TR | Lead screw nuts | Product range

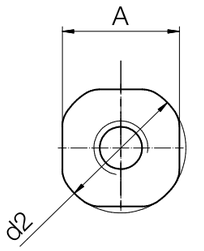
Injection-moulded lead screw nuts

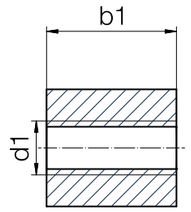
Cylindrical (form S)

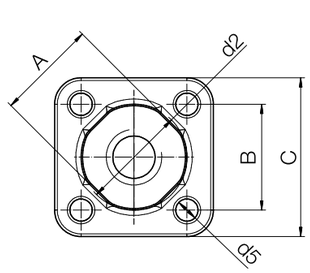


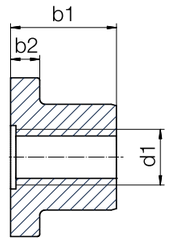
With flange (form F)











Order key

Type				d2	b1	Thread			
J	F	R	M-	M	-01-	TR	10X12		
iglidur® material	Form F	Direction of rotation	Metric	Thread: injection moulding	Type	Thread type	Diameter [mm]	Pitch	

Options:
Form S: Cylindrical
Form F: With flange

Completely injection-moulded lead screw nut (off-the-tool) incl. injection-moulded thread

Technical data

Thread	Direction of rotation Right	Left	Effective supporting surface [mm²]	Pitch P [mm]	Max. static axial F [N]
Cylindrical (form S)					
Tr8x1.5	●	–	228	1.5	500[43]
Tr10x2	●	–	283	2	1,131
Tr12x3	●	–	412	3	1,649
Tr16x2	●	–	589	2	2,356
Tr16x4	●	–	550	4	2,199
With flange (form F)					
Tr8x1.5	●	–	118	1.5	471
Tr10x2	●	–	228	2	911
Tr12x3	●	–	412	3	1,649
Tr16x2	●	–	589	2	2,356
Tr16x4	●	–	353	4	1,414

[43] Reduced load due to nut geometry

Dimensions [mm]

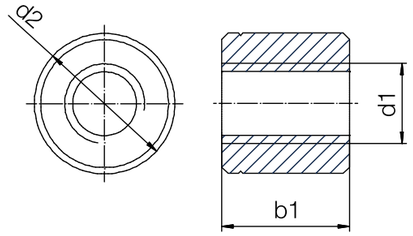
d1[156]	d2[156]	A	b1[156]	Weight [g]	Part No.	
8	20	18	20	7.86	**JSRM-M-01-TR8X1.5**	
10	20	18	20	7.02	**JSRM-M-01-TR10X2**	
12	24	22.6	25	12.64	**JSRM-M-01-TR12X3**	New
16	28	26.2	25	15.45	**JSRM-M-01-TR16X2**	New
16	28	26.16	25	15.45	**JSRM-M-01-TR16X4**	

d1	d2	A	B	C	d5	b1	b2	[g]		
8	20	19.0	20	30	4.2	20	5.5	7.38	**JFRM-M-01-TR8X1.5**	
10	20	19.0	20	30	4.2	20	5.5	7.38	**JFRM-M-01-TR10X2**	
12	24	22.6	24	34	5.0	25	6.0	10.3	**JFRM-M-01-TR12X3**	New
16	28	25.5	27	38	6.0	25	6.5	13.99	**JFRM-M-01-TR16X2**	New
16	28	25.5	27	38	6.0	25	6.5	13.99	**JFRM-M-01-TR16X4**	

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

Lead screw nuts - "ACME" USA standard, iglidur® J





Technical data and dimensions - cylindrical lead screw nuts

Thread	Hand of rotation right	Effective support surface [mm²]	Max. static, axial F [N] J/W300/J350/A180/R	Part No.
1/4-16	●	111	200	**JSRI-01-1/4-16**
3/8-20	●	256	1,024	**JSRI-01-3/8-20**
3/8-12	●	254	1,018	**JSRI-01-3/8-12**
3/8-10	●	245	980	**JSRI-01-3/8-10**
1/2-10	●	449	1,796	**JSRI-01-1/2-10**
5/8-8	●	568	2,272	**JSRI-01-5/8-8**
3/4-10	●	913	3,652	**JSRI-01-3/4-10**
3/4-6	●	978	3,912	**JSRI-01-3/4-6**
1-10	●	1,830	7,320	**JSRI-01-1-10**
1-5	●	1,896	7,584	**JSRI-01-1-5**

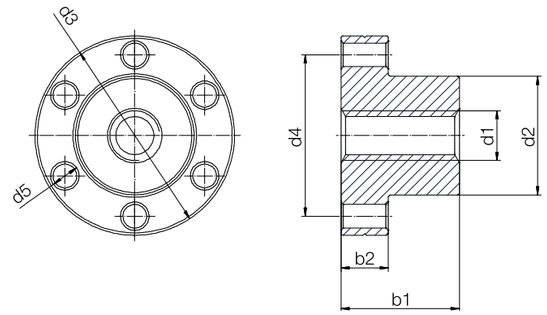
Dimensions - cylindrical lead screw nuts

d1 [inch]	d2 [inch]	b1 [inch]	Weight [lb] J/A180/R/J350/W300	Part No.
0.250	0.625	0.500	0.006 - 0.007	**JSRI-01-1/4-16**
0.380	0.875	0.750	0.016 - 0.020	**JSRI-01-3/8-20**
0.380	0.875	0.750	0.016 - 0.020	**JSRI-01-3/8-12**
0.380	0.875	0.750	0.016 - 0.020	**JSRI-01-3/8-10**
0.500	1,000	1,000	0.026 - 0.032	**JSRI-01-1/2-10**
0.630	1.375	1,000	0.053 - 0.063	**JSRI-01-5/8-8**
0.750	1,500	1.375	0.080 - 0.096	**JSRI-01-3/4-10**
0.750	1,500	1.375	0.080 - 0.096	**JSRI-01-3/4-6**
1,000	2,000	2,000	0.212 - 0.255	**JSRI-01-1-10**
1,000	2,000	2,000	0.212 - 0.255	**JSRI-01-1-5**

Full product range online
Split lead screw nuts made from 5 iglidur® materials
▶ **www.igus.eu/ACME-thread**

High efficiency at all speeds





Technical data - with flange

Thread	Hand of rotation right	Effective support surface [mm²]	Max. static, axial F [N] J/A180/R/J350/W300	Part No.
1/4-16	●	111	111	**JFRI-01-1/4-16**
3/8-20	●	341	1,364	**JFRI-01-3/8-20**
3/8-12	●	327	1,320	**JFRI-01-3/8-12**
3/8-10	●	326	1,304	**JFRI-01-3/8-10**
1/2-10	●	618	2,472	**JFRI-01-1/2-10**
5/8-8	●	781	3,124	**JFRI-01-5/8-8**
3/4-10	●	913	3,652	**JFRI-01-3/4-10**
3/4-6	●	978	3,912	**JFRI-01-3/4-6**
1-10	●	1,601	6.404	**JFRI-01-1-10**
1-5	●	1,659	6.636	**JFRI-01-1-5**

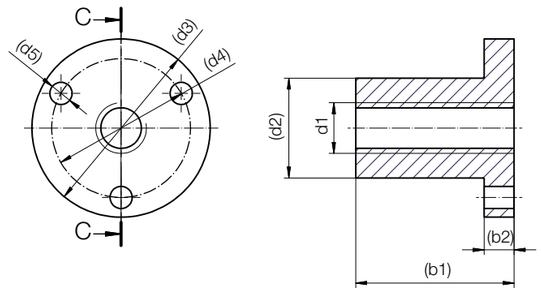
Dimensions - with flange

d1 [inch]	d2 [inch]	d3 [inch]	d4 [inch]	d5 [inch]	b1 [inch]	b2 [inch]	Weight [lb] J/A180/R/J350/W300	Part No.
0.250	0.500	1,000	0.750	0.130	0.500	0.200	0.008 - 0010	**JFRI-01-1/4-16**
0.380	1,000	1.630	1.310	1,200	1,000	0.380	0.052 - 0.062	**JFRI-01-3/8-20**
0.380	1,000	1.630	1.310	0.200	1,000	0.380	0.052 - 0.062	**JFRI-01-3/8-12**
0.380	1,000	1.630	1.310	0.200	1,000	0.380	0.052 - 0.062	**JFRI-01-3/8-10**
0.500	1,125	1.880	1,000	0.240	1.380	0.500	0.080 - 0.097	**JFRI-01-1/2-10**
0.630	1,125	1.880	1,000	0.240	1.380	0.500	0.082 - 0.098	**JFRI-01-5/8-8**
0.750	1,125	1.880	1,500	0.240	1.380	0.500	0.072 - 0.087	**JFRI-01-3/4-10**
0.750	1,125	1.880	1,500	0.240	1.380	0.500	0.072 - 0.087	**JFRI-01-3/4-6**
1,000	1,500	2,500	2,000	0.280	1,750	0.590	0.160 - 0.192	**JFRI-01-1-10**
1,000	1,500	2,500	2,000	0.280	1,750	0.590	0.160 - 0.192	**JFRI-01-1-5**

dryspin® technology | Lead screw nuts | Product range

High efficiency at all speeds





Material iglidur® J4:
Cost-effective and wear-resistant

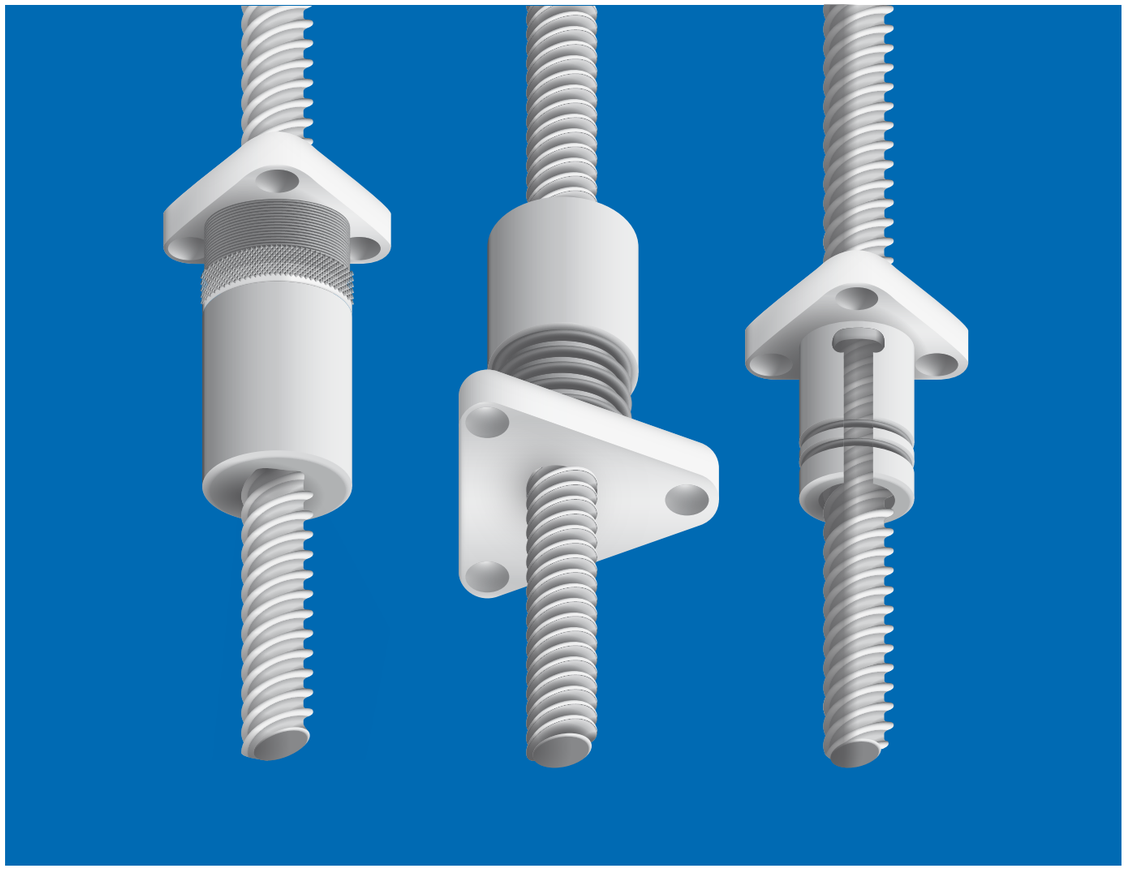
Injection moulded lead screw nut blank incl. machined cut thread

Technical data - with flange

Thread	Hand of rotation right	Effective support surface [mm²]	Max. stat. axial F [N] J4	Part No.
1/4-16	●	111	175	**J4FRI-C-01-1/4-16**
3/8-10	●	341	1,352	**J4FRI-C-01-3/8-10**
3/8-12	●	327	1,318	**J4FRI-C-01-3/8-12**
3/8-20	●	326	1,320	**J4FRI-C-01-3/8-20**
1/2-10	●	674	3,136	**J4FRI-C-01-1/2-10**
5/8-8	●	852	3,902	**J4FRI-C-01-5/8-8**
3/4-6	●	1,328	6.739	**J4FRI-C-01-3/4-6**
3/4-10	●	1,423	6.385	**J4FRI-C-01-3/4-10**
1-5	●	1,830	6.385	**J4FRI-C-01-1-5**
1-10	●	1,896	6.385	**J4FRI-C-01-1-10**

Dimensions - with flange

d1 [inch]	d2 [mm²]	d3 [mm²]	d4 [mm²]	d5 [mm²]	b1 [mm²]	b2 [mm²]	Weight [lb]	Part No.
0.250	0.50	1.00	0.750	0.140	1.0	0,19	6.90	**J4FRI-C-01-1/4-16**
0.380	0.63	1,125	0.876	0.140	1.0	0,19	9.24	**J4FRI-C-01-3/8-10**
0.380	0.63	1,125	0.876	0.140	1.0	0,19	9.24	**J4FRI-C-01-3/8-12**
0.500	0.63	1,125	0.876	0.140	1.0	0,19	9.24	**J4FRI-C-01-3/8-20**
0.630	0.75	1.50	1.126	0.140	1.5	0,19	19.5	**J4FRI-C-01-1/2-10**
0.750	0.875	1.50	1.188	0.203	1.5	0.188	21.3	**J4FRI-C-01-5/8-8**
0.630	1,13	1.75	1.438	0.203	2.0	0.25	48.1	**J4FRI-C-01-3/4-6**
0.750	1,13	1.75	1.438	0.203	2.0	0.25	48.1	**J4FRI-C-01-3/4-10**
1,000	1/1.5	2.25	1.876	0.203	2.0	0.25	83.4	**J4FRI-C-01-1-5**
1,000	1/1.5	2.25	1.876	0.203	2.0	0.25	83.4	**J4FRI-C-01-1-10**



dryspin® lead screw technology - low-clearance lead screw nuts

Zero-backlash lead screw nuts

Pre-load lead screw nuts

Low-clearance lead screw nuts

Anti-backlash lead screw nuts

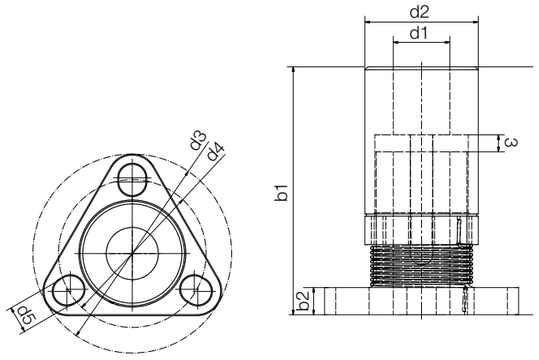


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dryspin® technology | Lead screw nuts | Product range

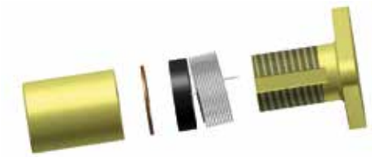
Zero-backlash option





Backlash is created on the lead screw drive by the axial clearance. By adding a radial pre-load, vibrations are significantly reduced.

We recommend using our zero backlash lead screw nuts at constant temperatures. Large temperature differences can cause the lead screw nut develop unwanted adjustment, which can increase the required driving torque of the lead screw nut.



Installation instructions and video tutorials
▶ www.igus.eu/zero-backlash-nut

Technical data

Thread	Max. stat. axial F	Max. idling torque (with spring)[170] from	Weight
	[N]	[Nm]	[g]
Ds5x5	75	0.02	6.5
Ds6.35x2.54	75	0.02	6.2
Ds6.35x5.08	75	0.02	6.2
Ds6.35x12.7	75	0.02	6.2
Ds6.35x25.4	75	0.02	6.2
Ds8x10	150	0.03	17.7
Ds8x15	150	0.03	17.7
Ds8x24	150	0.03	17.7
Ds10x12	150	0.04	16.8
Ds10x25	150	0.04	16.8
Ds10x50	150	0.04	16.8
DS12x3	500	0.08	29.3
DS12x5	500	0.08	29.3
DS12.7x12.7	500	0.08	29.3
DS12x15	500	0.08	29.3
DS12x25	500	0.08	29.3
DS14x4	500	0.08	27.7
DS14x24	500	0.08	27.7
DS14x30	500	0.08	27.7

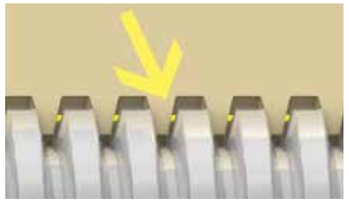
[170] The idling torque of the zero-backlash lead screw nut increases with service life. When calculating the dimensions, it is recommended that the maximum idling torque be taken into account.

Order key

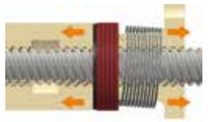
Part number	Type	Thread

DST - J F R M - ZB - 0001 - DS 10X12

dryspin® technology	igidur® J	Form F	Direction of rotation	Metric	Zero-Backlash	Type 0001	Thread type	Thread Ø [mm]	Pitch



Yellow markings show the axial clearance of a standard lead screw nut



The lead screw nut consists of a support nut, an adjusting ring with torsion spring, a friction disc and the axial element. With the help of the torsion spring, the pretension is brought into the lead screw system.

Dimensions [mm]

d1[156]	d2[156]	d3	d4	d5	b1[40) 156]	b2	Part No.	
5	13.5	28	22.2	3.7	31 - 36	4.1	**DST-JFRM-ZB-0001-DS5X5**	
6.35	13.5	28	22.2	3.7	31 - 36	4.1	**DST-JFRM-ZB-0001-DS6.35X2.54**	
6.35	13.5	28	22.2	3.7	31 - 36	4.1	**DST-JFRM-ZB-0001-DS6.35X5.08**	
6.35	13.5	28	22.2	3.7	31 - 36	4.1	**DST-JFRM-ZB-0001-DS6.35X12.7**	
6.35	13.5	28	22.2	3.7	31 - 36	4.1	**DST-JFRM-ZB-0001-DS6.35X25.4**	
8	20	38.1	28.3	5.2	41 - 47	4.8	**DST-JFRM-ZB-0001-DS8X10**	
8	20	38.1	28.3	5.2	41 - 47	4.8	**DST-JFRM-ZB-0001-DS8X15**	
8	20	38.1	28.3	5.2	41 - 47	4.8	**DST-JFRM-ZB-0001-DS8X24**	
10	20	38.1	28.3	5.2	41 - 47	4.8	**DST-JFRM-ZB-0001-DS10X12**	
10	20	38.1	28.3	5.2	41 - 47	4.8	**DST-JFRM-ZB-0001-DS10X25**	
10	20	38.1	28.3	5.2	41 - 47	4.8	**DST-JFRM-ZB-0001-DS10X50**	
12	24	41.2	31.8	5.2	55 - 61	7.0	**DST-JFRM-ZB-0001-DS12X3**	New
12	24	41.2	31.8	5.2	55 - 61	7.0	**DST-JFRM-ZB-0001-DS12X5**	New
12	24	41.2	31.8	5.2	55 - 61	7.0	**DST-JFRM-ZB-0001-DS12.7X12.7**	New
12	24	41.2	31.8	5.2	55 - 62	7.0	**DST-JFRM-ZB-0001-DS12X15**	New
12	24	41.2	31.8	5.2	55 - 63	7.0	**DST-JFRM-ZB-0001-DS12X25**	New
14	24	41.2	31.8	5.2	55 - 64	7.0	**DST-JFRM-ZB-0001-DS14X4**	New
14	24	41.2	31.8	5.2	55 - 65	7.0	**DST-JFRM-ZB-0001-DS14X24**	New
14	24	41.2	31.8	5.2	55 - 66	7.0	**DST-JFRM-ZB-0001-DS14X30**	New

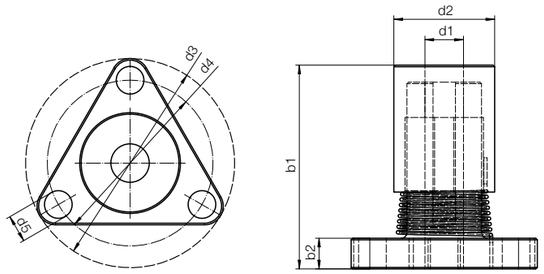
[40] Variable according to thread pitch / clearance

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® technology | Lead screw nuts | Product range New

Pre-load lead screw nut with dryspin® thread





Backlash is created on the lead screw drive by the axial clearance. By adding a radial pre-load, vibrations are significantly reduced.

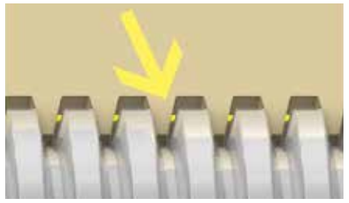


Order key

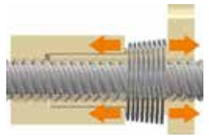
Part number	Type	Thread

DST - J F R M - PL - 0001 - DS 10X12

dryspin® technology	iglidur® J	Form F	Direction of rotation	Metric	Pre-load	Type 0001	Thread type	Thread Ø [mm]	Pitch



Yellow markings show the axial clearance of a standard lead screw nut



It is the cost-effective alternative to the zero backlash lead screw nuts and perfectly suited for small pitches. This is the proven preload principle from SHT-PL.

Technical data

Thread	Max. stat. axial F	Max. idling torque (with spring) from	Weight
	[N]	[Nm]	[g]
DS6.35x2.54	30	0.10	5.1
DS6.35x5.08	30	0.10	5.1
DS6.35x6.35	30	0.10	5.1
DS6.35x1	30	0.10	5.1
DS10x2	40	0.10	22.0
DS10x3	40	0.10	22.0
DS10x12	35	0.10	22.0

Dimensions [mm]

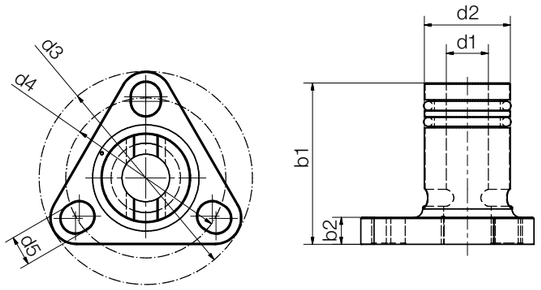
d1[156)]	d2[156)]	d3	d4	d5	b1[156)]	b2	Part No.	
6.35	13.5	28.0	22.2	3.7	31 - 36	4.1	**DST-JFRM-PL-0001-DS6.35X2.54**	New
6.35	13.5	28.0	22.2	3.7	31 - 36	4.1	**DST-JFRM-PL-0001-DS6.35X5.08**	New
6.35	13.5	28.0	22.2	3.7	31 - 36	4.1	**DST-JFRM-PL-0001-DS6.35X6.35**	New
6.35	13.5	28.0	22.2	3.7	31 - 36	4.1	**DST-JFRM-PL-0001-DS6.35X1**	New
10.0	20.0	38.1	28.2	5.2	41 - 46	4.8	**DST-JFRM-PL-0001-DS10X2**	New
10.0	20.0	38.1	28.2	5.2	41 - 46	4.8	**DST-JFRM-PL-0001-DS10X3**	New
10.0	20.0	38.1	28.2	5.2	41 - 46	4.8	**DST-JFRM-PL-0001-DS10X12**	New

[156)] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® technology | Lead screw nuts | Product range

Lead screw nuts with radial pre-load





Backlash is created on the lead screw drive by the axial clearance. By adding a radial pre-load, vibrations are significantly reduced.

The pre-load can increase the maximum idling torque by up to 0.2Nm.

Technical data

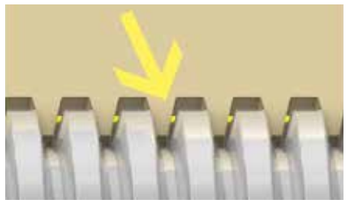
Thread	Max. stat. axial F	Weight
	[N]	[g]
Ds5x5	40	3.0
Ds5x10	40	3.0
Ds6.35x1	40	2.7
Ds6.35x2.54	40	3.8
Ds6.35x5.08	40	3.8
Ds6.35x6.35	40	2.7
Ds6.35x12.7	40	3.8
Ds6.35x25.4	40	3.8
Ds8x8	75	8.2
Ds8x10	75	12.1
Ds8x15	75	12.1
Ds8x24	75	8.2
Ds8x40	75	8.2
Ds10x2	75	7.3
Ds10x3	75	7.3
Ds10x12	75	12.1
Ds10x25	75	12.1
Ds10x50	75	12.1
Ds12x3	125	15.1
Ds12x5	125	15.1
Ds12.7x12.7	125	15.1
Ds12x15	125	15.1
Ds12x25	125	15.1

Order key

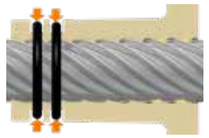
Part number	Type	Thread

DST - J F R M - LC - 0001 - DS 10X12

dryspin® technology	iglidur® J	Form F	Direction of rotation	Metric	Low Clearance	Type 0001	Thread type	Thread Ø [mm]	Pitch



Yellow markings show the axial clearance of a standard lead screw nut



The O-rings apply a circumferential radial pretension to the thread system, pressing the flanks of the lead screw nut and the threads of the lead screw. This ensures a constant axial and radial pretension of the nut.

Dimensions [mm]

d1[156)]	d2[156)]	d3	d4	d5	b1[156)]	b2	Part No.	
5	10	28	22.2	3.7	25.0	4.1	**DST-JFRM-LC-0001-DS5X5**	New
5	10	28	22.2	3.7	25.0	4.1	**DST-JFRM-LC-0001-DS5X10**	New
6.35	10	28	22.2	3.7	25.0	4.1	**DST-JFRM-LC-0001-DS6.35X1**	New
6.35	10	28	22.2	3.7	25.0	4.1	**DST-JFRM-LC-0001-DS6.35X2.54**	
6.35	10	28	22.2	3.7	25.0	4.1	**DST-JFRM-LC-0001-DS6.35X5.08**	
6.35	10	28	22.2	3.7	25.0	4.1	**DST-JFRM-LC-0001-DS6.35X6.35**	New
6.35	10	28	22.2	3.7	25.0	4.1	**DST-JFRM-LC-0001-DS6.35X12.7**	
6.35	10	28	22.2	3.7	25.0	4.1	**DST-JFRM-LC-0001-DS6.35X25.4**	
8	16	38.1	28.2	5.2	28.8	4.8	**DST-JFRM-LC-0001-DS8X8**	New
8	16	38.1	28.2	5.2	28.8	4.8	**DST-JFRM-LC-0001-DS8X10**	
8	16	38.1	28.2	5.2	28.8	4.8	**DST-JFRM-LC-0001-DS8X15**	
8	16	38.1	28.2	5.2	28.8	4.8	**DST-JFRM-LC-0001-DS8X24**	New
8	16	38.1	28.2	5.2	28.8	4.8	**DST-JFRM-LC-0001-DS8X40**	New
10	16	38.1	28.2	5.2	28.8	4.8	**DST-JFRM-LC-0001-DS10X2**	New
10	16	38.1	28.2	5.2	28.8	4.8	**DST-JFRM-LC-0001-DS10X3**	New
10	16	38.1	28.2	5.2	28.8	4.8	**DST-JFRM-LC-0001-DS10X12**	
10	16	38.1	28.2	5.2	28.8	4.8	**DST-JFRM-LC-0001-DS10X25**	
10	16	38.1	28.2	5.2	28.8	4.8	**DST-JFRM-LC-0001-DS10X50**	
12	20	41.2	31.8	5.2	44.0	7.0	**DST-JFRM-LC-0001-DS12X3**	New
12	20	41.2	31.8	5.2	44.0	7.0	**DST-JFRM-LC-0001-DS12X5**	
12	20	41.2	31.8	5.2	44.0	7.0	**DST-JFRM-LC-0001-DS12.7X12.7**	New
12	20	41.2	31.8	5.2	44.0	7.0	**DST-JFRM-LC-0001-DS12X15**	New
12	20	41.2	31.8	5.2	44.0	7.0	**DST-JFRM-LC-0001-DS12X25**	

[156)] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

Technical data

Thread	Max. stat. axial F [N]	Weight [g]
Ds14x4	125	14.2
Ds14x25	125	14.2
Ds14x30	125	14.2
Ds14x40.6	125	14.2
Ds14x70	125	14.2

Dimensions [mm]

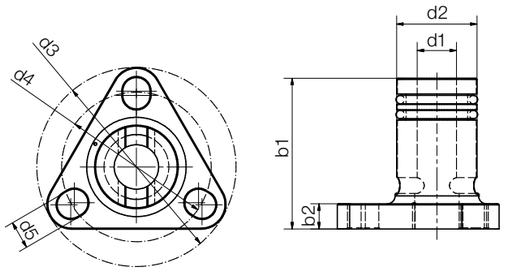
d1[156)]	d2[156)]	d3	d4	d5	b1[156)]	b2	Part No.	
14	20	41.2	31.8	5.2	44.0	7.0	**DST-JFRM-LC-0001-DS14X4**	New
14	20	41.2	31.8	5.2	44.0	7.0	**DST-JFRM-LC-0001-DS14X25**	
14	20	41.2	31.8	5.2	44.0	7.0	**DST-JFRM-LC-0001-DS14X30**	
14	20	41.2	31.8	5.2	44.0	7.0	**DST-JFRM-LC-0001-DS14X40.6**	
14	20	41.2	31.8	5.2	44.0	7.0	**DST-JFRM-LC-0001-DS14X70**	New

[156)] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® TR | Lead screw nuts | Product range

Flange lead screw nuts with pre-load





Backlash is created on the lead screw drive by the axial clearance. By adding a radial pre-load, vibrations are significantly reduced.

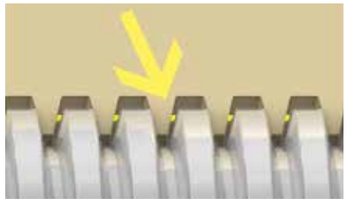
The pre-load can increase the maximum idling torque by up to 0.2Nm.

Order key

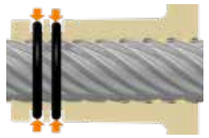
Type	Thread

J F R M-LC-0001-TR 10X2

iglidur® material	Form F	Direction of rotation	Metric	Low Clearance	Type	Trapezoidal thread	Diameter [mm]	Pitch



Yellow markings show the axial clearance of a standard lead screw nut



The O-rings apply a circumferential radial pretension to the thread system, pressing the flanks of the lead screw nut and the threads of the lead screw. This ensures a constant axial and radial pretension of the nut.

Technical data

Thread	Max. static axial F	Weight
Single start	[N]	[g]
Tr8x1.5	75	8.2
Tr10x2	75	7.3
Tr10x3	75	7.3
Tr12x3	125	15.1
Tr14x3	125	14.2
Tr14x4	125	14.2
Multi start		
Tr06x2P1	40	3.9
Tr12x6P3	125	18.0

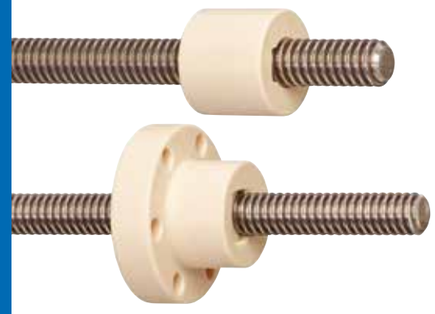
Dimensions [mm]

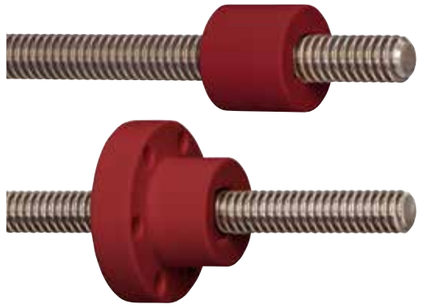
d1[156)]	d2[156)]	d3	d4	d5	b1[156)]	b2	Part No.
8	16.0	38.1	28.2	5.2	28.3	4.8	**JFRM-LC-0001-TR8X1.5**
10	16.0	38.1	28.2	5.2	28.3	4.8	**JFRM-LC-0001-TR10X2**
10	16.0	38.1	28.2	5.2	28.3	4.8	**JFRM-LC-0001-TR10X3**
12	20	41.2	31.8	5.2	44.0	7.0	**JFRM-LC-0001-TR12X3**
14	20	41.2	31.8	5.2	44.0	7.0	**JFRM-LC-0001-TR14X3**
14	20	41.2	31.8	5.2	44.0	7.0	**JFRM-LC-0001-TR14X4**
6	10.0	28.0	22.2	3.7	25.0	4.1	**JFRM-LC-0001-TR06X2P1**
12	20	41.2	31.8	4.8	44.0	7.0	**JFRM-LC-0001-TR12X6P3**

[156)] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® TR | Lead screw nuts | Product range

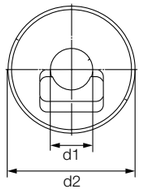
Anti-backlash lead screw nuts, cylindrical/with flange

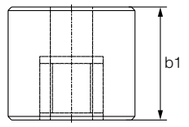




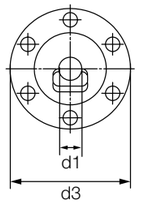


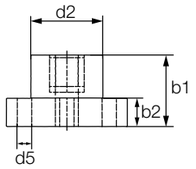
In the case of this lead screw nut, an elastomer ring applies a force on an insert with a matching thread, which is pressed into the threads of the lead screw. It is important that this pretensioning is not present over the entire length or the entire circumference. This ensures low axial clearance in only a small range.





Cylindrical (form S)





With flange (form F)

Order key

Type					d2	b1	Thread		
☐	S	R	M	-AB-	25	25	TR	10	X2

iglidur® material	Form S	Direction of rotation	Metric	Anti-backlash	Outer Ø [mm]	Length [mm]	Trapezoidal thread	Diameter [mm]	Pitch

Options:
Form S: Cylindrical
Form F: With flange

J	High efficiency at all speeds
R	Vibration-dampening and vibration-inhibiting

Technical data - cylindrical design

Thread	Direction of rotation		Effective	Pitch	Max. stat. axial F [N]	
	Right	Left	supporting surface	P	iglidur®	
Cylindrical - form S			[mm²]	[mm]	J	R
Tr8x1.5	●	–	228	1.5	683	342
Tr10x2	●	●	283	2	848	424
Tr12x3	●	–	396	3	1,188	594
Tr16x2	●	–	613	2	1,838	919
Tr16x4	●	–	613	4	1,838	919
Tr18x4	●	●	905	4	2,714	1,357
Tr20x4	●	●	1,131	4	3,393	1,696
Tr24x5	●	–	1,621	5	4,863	2,432

Technical data - with flange

Thread	Direction of rotation		Effective	Pitch	Max. stat. axial F [N]	
	Right	Left	supporting surface	P	iglidur®	
With flange - form F			[mm²]	[mm]	J	R
Tr8x1.5	●	–	285	1.5	683	342
Tr10x2	●	●	353	2	1,060	530
Tr10x3	●	–	334	3	1,001	501
Tr12x3	●	–	396	3	1,188	594
Tr14x4	●	●	471	4	1,414	707
Tr16x2	●	●	613	2	1,838	919
Tr16x4	●	●	445	4	1,336	668
Tr18x4	●	●	905	4	2,714	1,357
Tr18x8P4	●	–	1,002	8P4	2,243	1,153
Tr20x4	●	●	1,131	4	3,393	1,696
Tr20x8P4	●	–	1,255	8P4	3,172	1,442
Tr24x5	●	●	1,621	5	4,863	2,432

Backlash is created on the lead screw drive by the axial clearance. By adding a radial pre-load, vibrations are significantly reduced.

Dimensions [mm] - cylindrical design

d1[156]	d2[156]	b1[156]	Weight [g] iglidur®		Part No.	
			J	R		
8	22	20	11.8	11.0	☐SRM-AB-2220-TR8X1.5	
10	22	20	11.0	10.2	☐S☐M-AB-2220-TR10X2	
12	26	24	17.2	16.0	☐SRM-AB-2624-TR12X3	
16	36	32	44.8	41.9	☐SRM-AB-3632-TR16X2	New
16	36	32	44.8	41.9	☐SRM-AB-3632-TR16X4	
18	40	36	59.7	55.8	☐S☐M-AB-4036-TR18X4	
20	45	40	83.1	77.7	☐S☐M-AB-4540-TR20X4	
24	50	48	112.1	104.8	☐SRM-AB-5048-TR24X5	

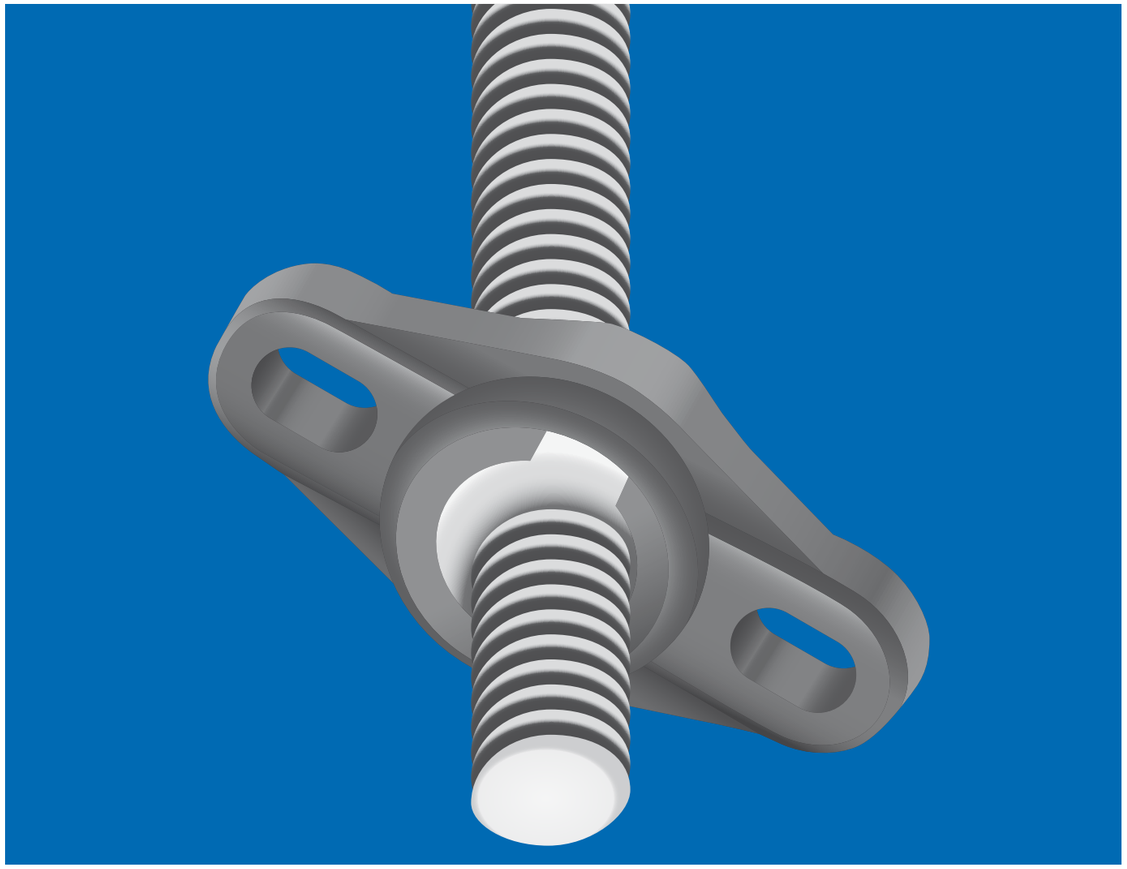
Dimensions [mm] - with flange

d1[156]	d2[156]	d3	d4	d5	b1[156]	b2	Weight [g] iglidur®		Part No.	
							J	R		
8	20	36	28	4	20	8	17.5	16.3	☐FRM-AB-2020-TR8X1.5	New
10	25	42	34	5	25	10	28.9	27.0	☐F☐M-AB-2525-TR10X2	
10	25	42	34	5	25	10	28.7	26.8	☐FRM-AB-2525-TR10X3	
12	28	48	35	5	35	12	30.3	28.3	☐FRM-AB-2835-TR12X3	
14	28	48	38	6	35	12	45.2	42.1	☐F☐M-AB-2835-TR14X4	
16	28	48	38	6	35	12	45.0	42.0	☐F☐M-AB-2835-TR16X2	
16	28	48	38	6	35	12	42.6	39.7	☐F☐M-AB-2835-TR16X4	
18	28	48	38	6	35	12	43.5	40.5	☐F☐M-AB-2835-TR18X4	
18	28	48	38	6	35	12	43.5	40.5	☐FRM-AB-2835-TR18X8P4	New
20	32	55	45	7	44	12	62.5	58.3	☐F☐M-AB-3244-TR20X4	
20	32	55	45	7	44	12	62.5	58.3	☐FRM-AB-3244-TR20X8P4	New
24	32	55	45	7	44	12	49.7	46.4	☐F☐M-AB-3244-TR24X5	

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

Installation instructions
▶ www.igus.eu/assembly-DST-AB

Notes



dryspin® lead screw technology - special designs and accessories

- Linear module lead screw nuts
- Angular compensation with spherical balls
- With "Fast Forward" quick release mechanism
- Split lead screw nuts
- Lead screw support block
- Clamping rings



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dryspin® | Special geometries | Product range

Lead screw nuts for linear modules

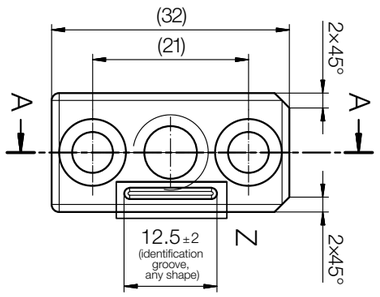
Square lead screw nuts



DST-SHT-1210



SHT-1210-TR



Order key

Order example

DST-SHT-1210-DS10x12-□-□

dryspin® geometry	SHT linear module	Installation size	Thread	iglidur® material	Hand of rotation

Options:
Hand of rotation
RH: Right-Hand
LH: Left-hand

Dimensions

Part No.	Direction of rotation		Thread d1xP	Max. stat. axial F [N] iglidur®		Weight [g] iglidur®		From SLW linear module
	Right	Left		J	A180	J	A180	
DST-SHT-1210-DS10X2-□-□	●	●	Ds10x2	750	750	10	10	SHT-12 ▶ Page 524
DST-SHT-1210-DS10X3-□-□	●	●	Ds10x3	1,000	1,000	10	10	SHT-12 ▶ Page 524
DST-SHT-1210-DS10X12-□-□	●	●	Ds10x12	700	700	10	10	SHT-12 ▶ Page 524
DST-SHT-1210-DS10X25-□-□	●	●	Ds10x25	625	625	10	10	SHT-12 ▶ Page 524
DST-SHT-1210-DS10X50-□-□	●	●	Ds10x50	370	370	10	10	SHT-12 ▶ Page 524
SHT-1210-DS10X2-□-□	●	●	Tr10x2	750	750	10	10	SHT-12 ▶ Page 524
SHT-1210-DS10X3-□-□	●	●	Tr10x3	910	910	10	10	SHT-12 ▶ Page 524

Part number suffix LH for left-hand thread, RH for right-hand thread
From SHT linear module SHT-12 ▶ Page 524

Assembly instructions ▶ Page 368
and ▶ www.igus.eu/dryspin-assembly-instructions



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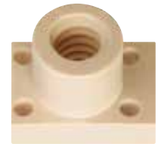
dryspin® | Special geometries | Product range

dryspin® trapezoidal thread

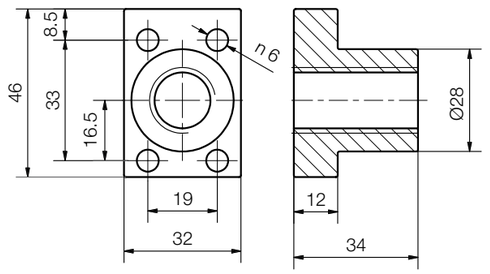
Lead screw nuts with flange



DST-SHT-2018



SHT-2018-TR



Please note: not symmetrical

Order key

Order example

DST-SHT-2018-DS18x24-J-□

dryspin® geometry	SHT linear module	Installation size	Thread	iglidur® material	Hand of rotation

Options:
Hand of rotation
RH: Right-Hand
LH: Left-hand

Dimensions

Part No.	Direction of rotation		Thread d1xP	Max. stat. axial F [N] iglidur®		Weight [g] iglidur®		From SLW linear module
	Right	Left		J	A180	J	A180	
DST-SHT-2018-DS18X4-□-□	●	●	Ds18x4	2,400	2,400	32	36	SHT-20 ▶ Page 524
DST-SHT-2018-DS18X24-□-□	●	●	Ds18x24	1,688	1,688	32	36	SHT-20 ▶ Page 524
DST-SHT-2018-DS18X40-□-□	●	●	Ds18x40	1,528	1,528	32	36	SHT-20 ▶ Page 524
DST-SHT-2018-DS18X80-□-□	●	●	Ds18x80	1,056	1,056	32	36	SHT-20 ▶ Page 524
DST-SHT-2018-DS18X100-□-□	●	●	Ds18x100	985	985	32	36	SHT-20 ▶ Page 524
SHT-2018-TR18X4-□-□	●	●	Tr18x4	2,400	2,400	32	36	SHT-20 ▶ Page 524
SHT-2018-TRM18X8P4-□-□	●	●	Tr18x8p4	1,960	1,960	32	36	SHT-20 ▶ Page 524

Part number suffix LH for left-hand thread, RH for right-hand thread
From SHT linear module SHT-20 ▶ Page 524

Assembly instructions ▶ Page 368
and ▶ www.igus.eu/dryspin-assembly-instructions



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dryspin® | Special geometries | Product range

Lead screw nuts for linear modules

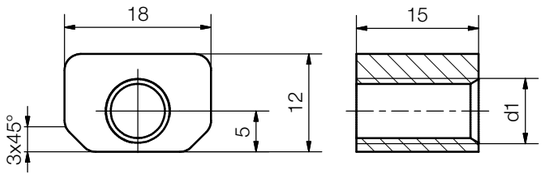
Lead screw nuts



DST-SLW-063001



SWZ-063009



Order key

Order example

DST-SLW-063001-DS8x10-J-☐

dryspin® geometry	SLW linear module	Installation size	Thread	iglidur® material	Hand of rotation

Options:

Hand of rotation

RH: Right-Hand

LH: Left-hand

Dimensions

Part No.		Direction of rotation		Thread d1xP	Max. stat. axial F	Weight	From SLW linear module	
		Right	Left		[N]	[g]		
DST-SLW-063001-DS8X8-J-☐	New	●	–	Ds8x8	150	3.5	SLW-0630	▶ Page 538
DST-SLW-063001-DS8X10-☐		●	●	Ds8x10	130	3.5	SLW-0630	▶ Page 538
DST-SLW-063001-DS8X15-☐		●	●	Ds8x15	140	3.5	SLW-0630	▶ Page 538
SLW-063001-M8-J-☐		●	●	M8	165	3.5	SLW-0630	▶ Page 538
SLW-063001-TR8X1.5-J-☐		●	●	Tr8x1.5	200	3.5	SLW-0630	▶ Page 538

Part number suffix LH for left-hand thread, RH for right-hand thread

Partly reduced axial loads due to the component geometry

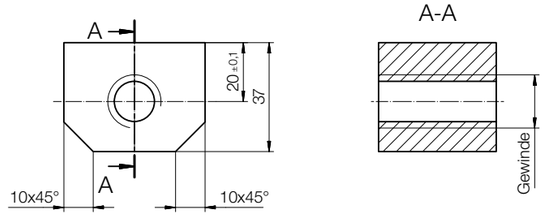
Assembly instructions ▶ Page 368
and ▶ www.igus.eu/dryspin-assembly-instructions

dryspin® | Special geometries | Product range

dryspin® trapezoidal thread

Lead screw nuts





Order key

Order example

DST-SLW-25120-DS18x24-J-☐

dryspin® geometry	SLW linear module	Installation size	Thread	iglidur® material	Hand of rotation

Options:

Hand of rotation

RH: Right-Hand

LH: Left-hand

Dimensions

Part No.		Direction of rotation		Thread d1xP	Max. stat. axial F	Weight	From SLW linear module	
		Right	Left		[N]	[g]		
DST-SLW-25120-DS18X4-J-☐	New	●	●	Ds18x4	3,350	90	SLW-25120	▶ Page 538
DST-SLW-25120-DS18X24-J-☐		●	●	Ds18x24	2,330	90	SLW-25120	▶ Page 538
DST-SLW-25120-DS18X40-J-☐		●	●	Ds18x40	2,184	90	SLW-25120	▶ Page 538
DST-SLW-25120-DS18X80-J-☐		●	●	Ds18x80	1,506	90	SLW-25120	▶ Page 538
DST-SLW-25120-DS18X100-J-☐		●	●	Ds18x100	1,322	90	SLW-25120	▶ Page 538
DST-SLW-25120-DS20X5-J-☐	New	●	●	Ds20x5	4,200	90	SLW-25120	▶ Page 538
DST-SLW-25120-DS20X10-J-☐	New	●	●	Ds20x10	3,975	90	SLW-25120	▶ Page 538
DST-SLW-25120-DS20X20-J-☐	New	●	●	Ds20x20	2,460	90	SLW-25120	▶ Page 538
DST-SLW-25120-DS20X50-J-☐	New	●	●	Ds20x50	1,976	90	SLW-25120	▶ Page 538
DST-SLW-25120-DS20X60-J-☐	New	●	●	Ds20x60	1,656	90	SLW-25120	▶ Page 538
DST-SLW-25120-DS20X80-J-☐	New	●	●	Ds20x80	1,703	90	SLW-25120	▶ Page 538
DST-SLW-25120-DS20X90-J-☐	New	●	●	Ds20x90	1,656	90	SLW-25120	▶ Page 538
SLW-25120-TR24X5-J-☐	New	●	●	Tr24x5	5,403	90	SLW-25120	▶ Page 538

Part number suffix LH for left-hand thread, RH for right-hand thread

dryspin® | Special geometries | Product range

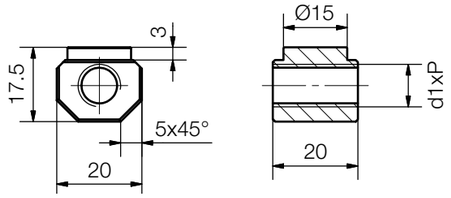
Lead screw nuts with locating spigot



DST-SLW-1040



SWZ-W-10XX

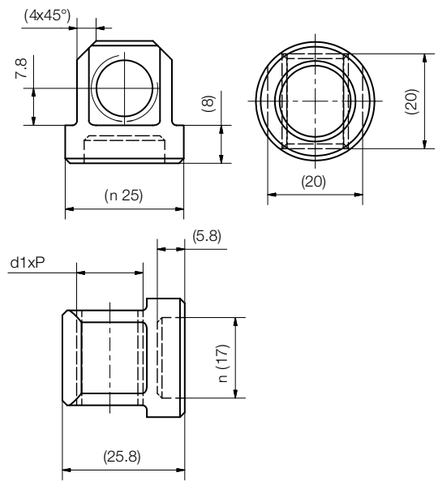


Dimensions

Part No.		Hand of rotation Right	Hand of rotation Left	Thread d1xP	Max. stat. axial F [N]	Weight [g]	From SLW linear module
DST-SLW-1040-DS10X2-J-☐	New	●	●	Ds10x2	747	8	SLW-1040 ▶ Page 538
DST-SLW-1040-DS10X3-J-☐	New	●	●	Ds10x3	1,005	8	SLW-1040 ▶ Page 538
DST-SLW-1040-DS10X12-J-☐		●	●	Ds10x12	686	8	SLW-1040 ▶ Page 538
DST-SLW-1040-DS10X25-J-☐		●	●	Ds10x25	623	8	SLW-1040 ▶ Page 538
DST-SLW-1040-DS10X50-J-☐		●	●	Ds10x50	361	8	SLW-1040 ▶ Page 538
SLW-1040-TR10X2-J-☐		●	●	Tr10x2	1,131	8	SLW-1040 ▶ Page 538
SLW-1040-TR10X3-J-☐		●	●	TR10x3	1,068	8	SLW-1040 ▶ Page 538



SWZ-W-16XX



Dimensions

Part No.	Hand of rotation Right	Hand of rotation Left	Thread d1xP	Max. stat. axial F [N]	Weight [g]	From SLW linear module
DST-SLW-1660-DS14X4-J-☐	●	●	Ds14x4	952	13	SLW-1660 ▶ Page 538
DST-SLW-1660-DS14X25-J-☐	●	●	Ds14x25	825	13	SLW-1660 ▶ Page 538
DST-SLW-1660-DS14X30-J-☐	●	●	Ds14x30	825	13	SLW-1660 ▶ Page 538
SLW-1660-TR14X3-J-☐	●	●	Tr14x3	1,570	13	SLW-1660 ▶ Page 538
SLW-1660-TR14X4-J-☐	●	●	Tr14x4	1,508	13	SLW-1660 ▶ Page 538

dryspin® | Special geometries | Product range

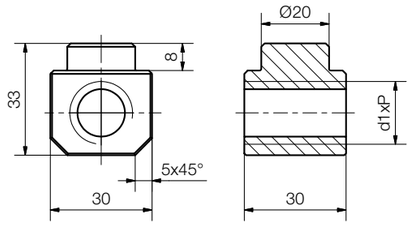
dryspin® lead screw technology



DST-SLW-2080



SWZ-W-20XX



SWZ-W-2080..

Part No.		Hand of rotation Right	Hand of rotation Left	Thread d1xP	Max. stat. axial F [N]	Weight [g]	From SLW linear module
DST-SLW-2080-DS18X4-J-☐	New	●	●	Ds18x4	2,513	30	SLW-2080 ▶ Page 538
DST-SLW-2080-DS18X24-J-☐		●	●	Ds18x24	1,747	30	SLW-2080 ▶ Page 538
DST-SLW-2080-DS18X40-J-☐		●	●	Ds18x40	1,638	30	SLW-2080 ▶ Page 538
DST-SLW-2080-DS18X80-J-☐		●	●	Ds18x80	1,130	30	SLW-2080 ▶ Page 538
DST-SLW-2080-DS18X100-J-☐		●	●	Ds18x100	992	30	SLW-2080 ▶ Page 538
SLW-2080-TR18X4-J-☐		●	●	Tr18x4	2,513	30	SLW-2080 ▶ Page 538
SLW-2080-TR18X8P4-J-☐		●	●	Tr18x8P4	2,991	30	SLW-2080 ▶ Page 538

dryspin® | Special geometries | Product range

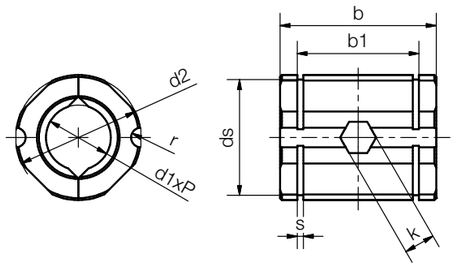
Split lead screw nuts made from iglidur® J



Order key

Part number				Dimension		Thread			
J	T	R	M-	22	30	-TR	10	X	2
iglidur® material	Split nut	Direction of rotation	Metric	d2	b1	Trapezoidal thread	Diameter [mm]		Pitch

This part includes 2 nut halves and 1 piece nut each based on DIN 934 made from 304 stainless steel to prevent twisting



Technical data

Part No.	Max. axial load static[50] [N]	Max. axial load static[51] [N]	Mounting with nut DIN 934
JTRM-2230TR10X2	300	500	M4
JTRM-3240TR20X4	1,000	1,500	M5
JTRM-3240TR20X8P4	1,000	1,500	M5

Dimensions [mm]

Thread	b	b1[156]	d2	ds	k	r	Øs	Part No.
Tr10x2	30	22.6	22	20.5	7	1.5	1.3	JTRM-2230TR10X2
Tr20x4	40	31.2	32	29.6	8	2.5	1.6	JTRM-3240TR20X4
Tr20x8P4	40	31.2	32	29.6	8	2.5	1.6	JTRM-3240TR20X8P4

[50] Mounting in the housing via radially inserted nut DIN 934

[51] Mounting in the housing via circlips DIN471

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin®
lead screw
technology

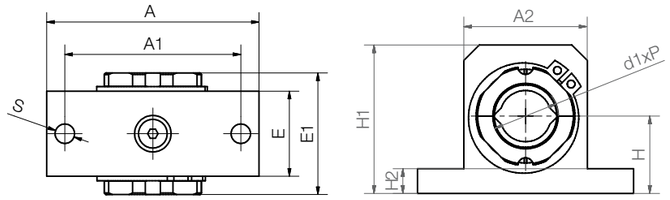
dryspin® | Special geometries | Product range

Also available with housing block



Order key

Part number								Thread		
RG	A	S -	J	T	R	M-	TR	10	X	2
Linear housing	Aluminium	Small	iglidur® material	Split nut	Direction of rotation	Metric	Trapezoidal thread	Diameter [mm]		Pitch



Technical data

Part No.	Nut	Locking ring
RGAS-JTRM-TR10X2	DIN 439 M4	DIN 471-A22
RGAS-JTRM-TR20X4	DIN 439 M5	DIN 471-A32
RGAS-JTRM-TR20X8P4	DIN 439 M5	DIN 471-A32

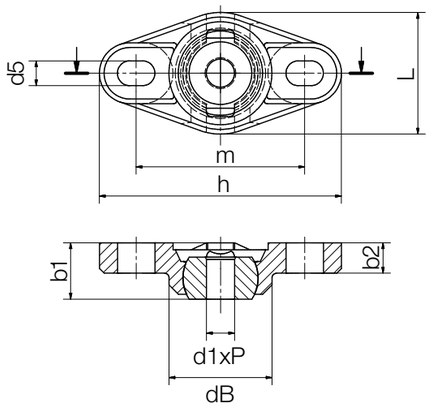
Dimensions [mm]

Thread	H	H1	H2	A	A1	A2	E	E1	S	Part No.
Tr10x2	18	35	6	52	42	30	20	32	5.3	RGAS-JTRM-TR10X2
Tr20x4	25	48	8	70	58	40	28	40	6.4	RGAS-JTRM-TR20X4
Tr20x8P4	25	48	8	70	58	40	28	40	6.4	RGAS-JTRM-TR20X8P4

dryspin® | Special geometries | Product range

Spherical lead screw nuts with spherical ball in flanged bearing housing





Order key

Part number	Thread
J F R K M-EFOM-TR 8X1.5	

iglidur® material	Form F	Direction of rotation	K series	Metric	Flanged bearing housing	Trapezoidal thread	Diameter [mm]	Pitch
J	F	R	K	M	EFOM	TR	8	X1.5

Options:
DS: High helix thread
TR: Trapezoidal thread

Dimensions [mm] - trapezoidal thread

Thread	Effective support surface [mm²]	d1[156)]	h	L	b1[156)]	b2	m	dB	d5	Max. static, axial F [N]	Pivoting angle stat.	Pivoting angle dyn.	Part No.
Tr8x1.5	102	8	52	26	12	6.5	36	22.2	5.3x8	100	25°	30°	**JFRKM-EFOM-TR8X1.5**
Tr10x2	127	10	52	26	12	6.5	36	22.2	5.3x8	100	25°	30°	**JFRKM-EFOM-TR10X2**
Tr10x3	120	10	52	26	12	6.5	36	22.2	5.3x8	100	25°	30°	**JFRKM-EFOM-TR10X3**

Dimensions [mm] - high helix thread

Thread	Effective support surface [mm²]	d1[156)]	h	L	b1[156)]	b2	m	dB	d5	Max. static, axial F [N]	Pivoting angle stat.	Pivoting angle dyn.	Part No.
Ds8x15	61	8	52	26	12	6.5	36	22.2	5.3x8	50	25°	30°	**JFRKM-EFOM-DS8X15**
Ds10x12	82	10	52	26	12	6.5	36	22.2	5.3x8	50	25°	30°	**JFRKM-EFOM-DS10X12**

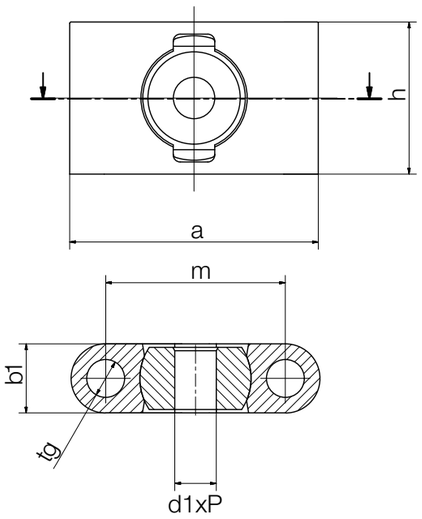
[156)] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin®
lead screw
technology

dryspin® | Special geometries | Product range

Spherical lead screw nuts with spherical ball in pillow block bearing housing





Order key

Part number	Thread
J F R K M-ESTM-TR 8X1.5	

iglidur® material	Form F	Direction of rotation	K series	Metric	Pillow block bearing housing	Trapezoidal thread	Diameter [mm]	Pitch
J	F	R	K	M	ESTM	TR	8	X1.5

Options:
DS: High helix thread
TR: Trapezoidal thread

Dimensions [mm] - trapezoidal thread

Thread	Effective support surface [mm²]	h	a	b1[156)]	m	tg	Max. static, axial F [N]	Pivoting angle stat.	Pivoting angle dyn.	Part No.
Tr8x1.5	102	22	36	10	26	5.5	100	25°	30°	**JFRKM-ESTM-TR8X1.5**
Tr10x2	127	22	36	10	26	5.5	100	25°	30°	**JFRKM-ESTM-TR10X2**
Tr10x3	120	22	36	10	26	5.5	100	25°	30°	**JFRKM-ESTM-TR10X3**

Dimensions [mm] - high helix thread

Thread	Effective support surface [mm²]	h	a	b1[156)]	m	tg	Max. static, axial F [N]	Pivoting angle stat.	Pivoting angle dyn.	Part No.
Ds8x15	61	22	36	10	26	5.5	50	25°	30°	**JFRKM-ESTM-DS8X15**
Ds10x12	82	22	36	10	26	5.5	50	25°	30°	**JFRKM-ESTM-DS10X12**

[156)] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® | Special geometries | Product range

Lead screw nut with quick-release - Fast Forward



Quick release mechanism: a combination of accurate positioning and fast manual adjustment with trapezoidal lead screw nuts.

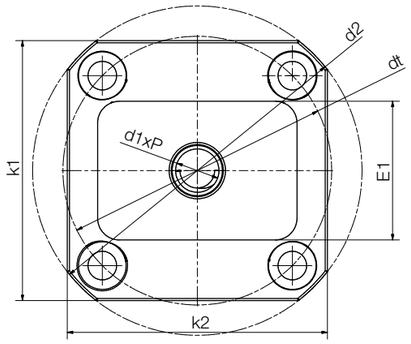
- For quick format adjustments
- Incl. "stop/go" through automatic self-locking with thread
- Housing: AL anodised, lead screw nut made from iglidur® J
- Tough and reliable
- Only recommended for horizontal applications
- Max. axial load stat.: 200N, dyn.: 50N

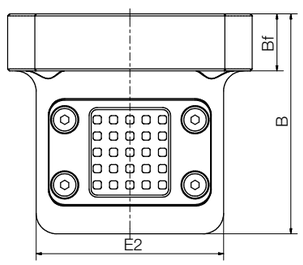
see SHT-FF ▶ **Page 533**

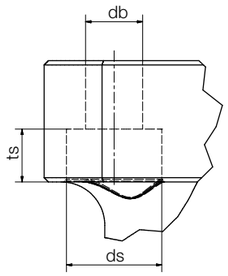
Order key

Part number	Thread
F T R M-FF-	10X2

Form F	Trapezoidal thread	Direction of rotation	Metric	Fast Forward	Diameter	Pitch







Dimensions [mm]

Thread	d2[156]	dt	B	Bf	ts	db	ds	k1	k2	E1	E2	Part No.
Tr10x2	76	62	54	14	6.1	6.6	11	60	60	32	46	**FTRM-FF-10X2**

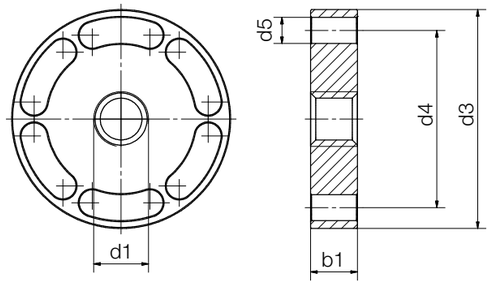
[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin®
lead screw
technology

dryspin® | Special geometries | Product range

dryspin® discs, made from iglidur® J





Order key

Type	d3	b1	Thread
J D R M-42	09	TR	10X2

iglidur® material	Form: disc	Direction of rotation	Metric	Outer Ø [mm]	Height [mm]	Trapezoidal thread	Diameter	Pitch

Material properties:
iglidur® J ▶ ww.igus.eu/J-material

Technical data and dimensions [mm]

Thread	Effective supporting surface [mm²]	Max. stat. axial F[49] [N]	d1[156]	d3	d4	d5	b1[156]	Weight [g]	Part No.
Tr10x2	127	508	10	42	34	5	9	17.5	**JDRM-4209TR10X2**
Tr12x3	181	724	12	48	38	6	11	27.8	**JDRM-4811TR12X3**
Tr14x4	207	828	14	48	38	6	11	27.1	**JDRM-4811TR14X4**
Tr16x4	241	964	16	48	38	6	11	26.4	**JDRM-4811TR16X4**
Tr18x4	276	1,104	18	48	38	6	11	25.5	**JDRM-4811TR18X4**
Tr20x4	367	1,468	20	55	45	7	13	39.9	**JDRM-5513TR20X4**
Tr24x5	439	1,756	24	55	45	7	13	37.3	**JDRM-5513TR24X5**
Tr30x6	551	2,204	30	62	50	7	14	48.2	**JDRM-6214TR30X6**
Tr36x6	829	3,316	36	70	58	7	16	67.5	**JDRM-7016TR36X6**

[49] Max. stat. F axial can be added when used with flange nut

[156] Tolerances according to DIN ISO 2768-1, tolerance class m (medium)

dryspin® | Special geometries | Product range

Assembled dryspin® lead screw nut housing, including lead screw nut



- Standard lead screw nuts secured with fixing screws
- Can be fixed from above
- One housing is suitable for many thread geometries
- Limitless combinations

Please use MHM (assembled lead screw nut housing, including lead screw nut) for fully assembled systems. Order example: MHM-1210-AL-TR10x2-R-J

Order key

Part number

MH-1210-AL-TR10X2-R-J

Lead screw nut housing without nut	Lead screw nut design (see drawing)	Aluminium	Thread size	Right-hand thread	iglidur® J nut

Order key

Part number

MHM-1210-AL-TR10X2-R-J

Lead screw nut housing with nut	Lead screw nut design (see drawing)	Aluminium	Thread size	Right-hand thread	iglidur® J nut

MHM-2835-AL-☐ / MHM-3244-AL-☐



MHM-ZB0810-AL-☐



MHM-2018-AL-☐



MHM-1210-AL-☐



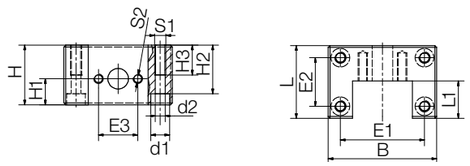
igus EN 09/2023

dryspin®
lead screw
technology

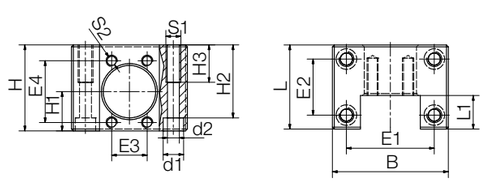
dryspin® | Special geometries | Product range

dryspin® lead screw nut housings and lead screw nuts as an individual part

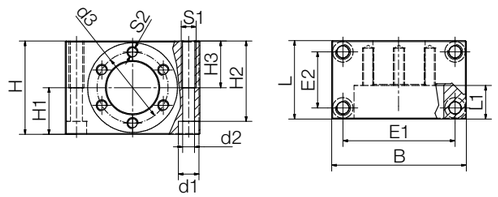
MH-1210-AL



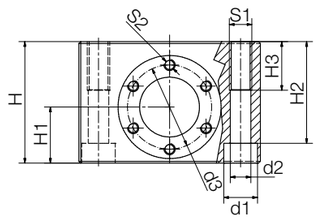
MH-2018-AL



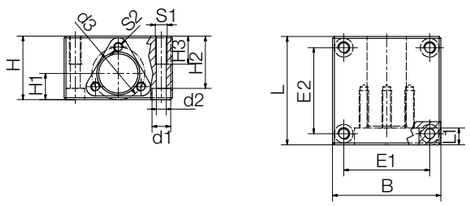
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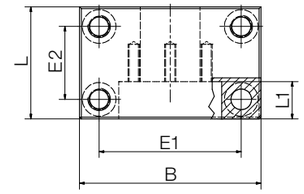


MH-3244-AL



MH-ZB0810-AL





Dimensions [mm]

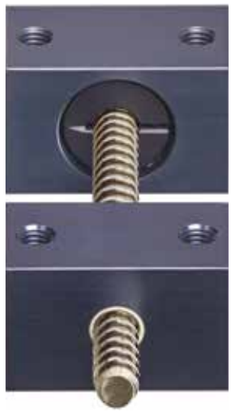
Part No.	H	H1	H2	H3	S1	S2	B ±0.3	L ±0.3	L1	E1 ±0.15	E2 ±0.15	E3	E4	d1	d2	d3	Can be combined with laser sintering
MH-1210-AL	32	14	26	16	M6	M5	58	39	20	45	26	21	–	10	5.3	–	●
MH-2018-AL	46	21	39	20	M8	M6	62	45	18	47	30	19	33	11	6.4	–	●
MH-2835-AL	50	25	43	25	M8	M6	72	42	18	60	30	–	–	11	6.4	38	
MH-3244-AL	65	30	54.4	26	M12	M6	97	60	20	76	39	–	–	18	11	45	●
MH-ZB0810-AL	34	14	28	15	M6	M5	58	34	9	46	46	–	–	10	5.3	28.2	●

Part No.	Lead screw nut design	Thread size DS	Thread size TR
MH-1210-AL	☐-SHT-1210-☐	Ds10x2 / Ds10x3 / Ds10x12 / Ds10x25 / Ds10x50	Tr10x2 / Tr10x3
MH-2018-AL	☐-SHT-2018-☐	Ds18x4 / Ds18x24 / Ds18x40 / Ds18x80 / Ds18x100	Tr18x4 / Tr18x8P4
MH-2835-AL	☐FRM-2835	Ds12x3 / Ds12x5 / Ds12x25 / Ds14x4 / Ds16x5 / Ds16x10 / Ds18x4 / Ds18x24 / Ds18x40 / Ds18x80 / Ds18x100	Tr12x3 / Tr12x6P3 / Tr14x3 / Tr14x4 / Tr16x2 / Tr16x4 / Tr16x8P4 / Tr18x4 / Tr18x8P4
MH-3244-AL	☐FRM-3244	Ds20x5 / Ds20x10 / Ds20x20 / Ds20x50 / Ds20x60 / Ds20x80 / Ds20x90	Tr20x4 / Tr20x8P4 / Tr24x5
MH-ZB0810-AL	Zero-Backlash	Ds8x8 / Ds8x10 / Ds8x15 / Ds8x24 / Ds8x40 / Ds10x12 / Ds10x25 / Ds10x50	–

EN 09/2023

dryspin® | Special geometries | Product range

Lead screw support blocks





▶ Page 625

Scope of delivery: Anodised lead screw support block

FL: Fixed bearing with anodised clamping ring with RH thread (standard) and maintenance-free iglidur® plain bearing[52)]

LL: Floating bearing with lubrication-free iglidur® plain bearing

Order key

Part No.	Thread	Options
SLS -	10X2	-FL -LH

Lead screw support block | Diameter | Pitch | Fixed bearing | Option left-hand thread

Order key

Part No.	Options
SLS - S6	-FL

Lead screw support block | Lead screw/machined end outer diameter | Fixed bearing

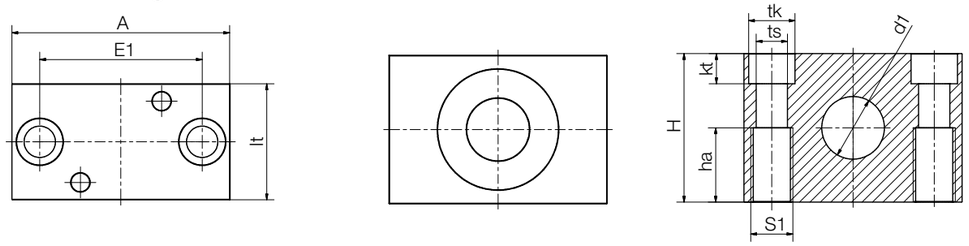
Options:

FL: Fixed bearing

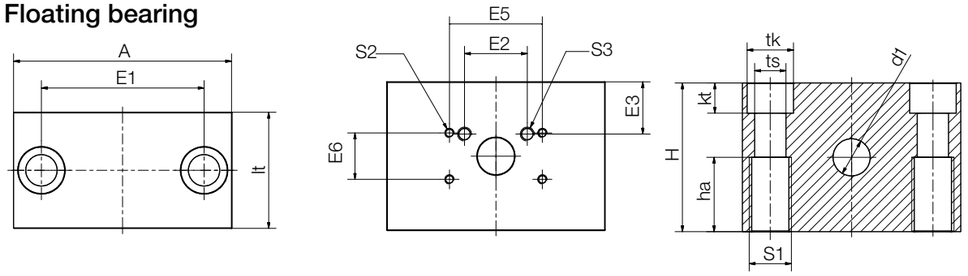
LL: Floating bearing

LH: Left-hand thread option only for Tr10x2, Tr10x3, Tr18x4, Tr24x5

Fixed bearing



Floating bearing



Technical data and dimensions [mm] - (for both right and left-hand threads)

Part No.	Weight [g]	Max. static load capacity axial [N]	S1	S2	S3
SLS-10X2-FL (-LH)	88	700	M8	–	–
SLS-10X2-LL	115	–	M8	M4	M6
SLS-10X3-FL (-LH)	88	700	M8	–	–
SLS-10X3-LL	115	–	M8	M4	M6
SLS-12X3-FL	205	1,600	M12	–	–
SLS-12X3-LL	295	–	M12	M4	M6
SLS-14X3-FL	205	1,600	M12	–	–
SLS-14X3-LL	295	–	M12	M4	M6

Dimensions [mm] - (for both right and left-hand threads)

A	H	E1	E2	E3	E5	E6	lt	kt	tk	ts	d1	ha
50	32	36	–	–	–	–	30	6.5	11	6.6	10	16
50	32	36	27	6.5	40	20	30	6.5	11	6.6	10	16
50	32	36	–	–	–	–	30	6.5	11	6.6	10	16
50	32	36	27	6.5	40	20	30	6.5	11	6.6	10	16
72	46	54	–	–	–	–	36	8.6	15	9	12	23
72	46	54	27	13.5	40	20	36	8.6	15	9	12	23
72	46	54	–	–	–	–	36	8.6	15	9	14	23
72	46	54	27	13.5	40	20	36	8.6	15	9	14	23

[52)] FL lead screw support block with trapezoidal thread TR10x2, TR10x3, TR18x4, TR24x5 lead screw also available with clamping rings with left-hand thread

[53)] Can exceed max. stat. load of the lead screw nut

[54)] Lead screw end must be turned to d1 value

[55)] Lead screw end must be turned to 18mm

dryspin® | Special geometries | Product range

Lead screw support blocks

Technical data and dimensions [mm] - (for both right and left-hand threads)

Part No.	Weight [g]	Max. static load capacity axial [N]	S1	S2	S3	A	H	E1	E2	E3	E5	E6	lt	kt	tk	ts	d1	ha
SLS-14X4-FL	205	1,600	M12	–	–	72	46	54	–	–	–	–	36	8.6	15	9	14	23
SLS-14X4-LL	295	–	M12	M4	M6	72	46	54	27	13.5	40	20	36	8.6	15	9	14	23
SLS-16X2-FL	205	1,600	M12	–	–	72	46	54	–	–	–	–	36	8.6	15	9	16	23
SLS-16X2-LL[54)]	295	–	M12	M4	M6	72	46	54	27	13.5	40	20	36	8.6	15	9	12	23
SLS-16X4-FL	205	1,600	M12	–	–	72	46	54	–	–	–	–	36	8.6	15	9	16	23
SLS-16X4-LL[54)]	295	–	M12	M4	M6	72	46	54	27	13.5	40	20	36	8.6	15	9	12	23
SLS-18X4-FL-(LH)	205	1,600	M12	–	–	72	46	54	–	–	–	–	36	8.6	15	9.0	18	23
SLS-18X4-LL[54)]	295	–	M12	M4	M6	72	46	54	27	13.5	40	20	36	8.6	15	9.0	18	23
SLS-18X8P4-FL	205	1,600	M10	–	–	72	46	54	–	–	–	–	36	8.6	15	9.0	18	23
SLS-18X8P4-LL[54)]	295	–	M10	M4	M6	72	46	54	27	13.5	40	20	36	8.6	15	9.0	18	23
SLS-20X4-FL	525	2,500	M16	–	–	94	64	70	–	–	–	–	50	13	20	13.5	20	32
SLS-20X4-LL	725	–	M16	M4	M6	94	64	70	27	22.5	40	20	50	13	20	13.5	20	32
SLS-24X5-FL-(LH)	525	2,500	M16	–	–	94	64	70	–	–	–	–	50	13	20	13.5	24	32
SLS-24X5-LL[54)]	725	–	M16	M4	M6	94	64	70	27	22.5	40	20	50	13	20	13.5	24	32
Lead screw support blocks with plain bearings (clamping rings without thread) | Suitable for both right and left-hand threads																		
SLS-S6-FL	115	–	M8	–	–	50	32	36	–	–	–	–	30	6.5	11	6.6	6	16
SLS-S6-LL[54)]	88	150	M8	M4	M6	50	32	36	27	6.5	40	20	30	6.5	11	6.6	6	16
SLS-S6.35-FL	115	–	M8	–	–	50	32	36	–	–	–	–	30	6.5	11	6.6	6.35	16
SLS-S6.35-LL[54)]	88	150	M8	M4	M6	50	32	36	27	6.5	40	20	30	6.5	11	6.6	6.35	16
SLS-S8-FL	115	–	M8	–	–	50	32	36	–	–	–	–	30	6.5	11	6.6	8	16
SLS-S8-LL[54)]	88	500	M8	M4	M6	50	32	36	27	6.5	40	20	30	6.5	11	6.6	8	16
SLS-S10-FL	88	700	M8	–	–	50	32	36	–	–	–	–	30	6.5	11	6.6	10	16
SLS-S10-LL[54)]	115	–	M8	M4	M6	50	32	36	27	6.5	40	20	30	6.5	11	6.6	10	16
SLS-S12-FL	205	1,600	M10	–	–	72	46	54	–	–	–	–	36	8.6	15	9.0	12	23
SLS-S12-LL[54)]	295	–	M10	M4	M6	72	46	54	27	13.5	40	20	36	8.6	15	9.0	12	23
SLS-S14-FL	205	1,600	M10	–	–	72	46	54	–	–	–	–	36	8.6	15	9.0	14	23
SLS-S14-LL[54)]	295	–	M10	M4	M6	72	46	54	27	13.5	40	20	36	8.6	15	9.0	14	23
SLS-S16-FL	205	1,600	M10	–	–	72	46	54	–	–	–	–	36	8.6	15	9.0	16	23
SLS-S16-LL[54)]	295	–	M10	M4	M6	72	46	54	27	13.5	40	20	36	8.6	15	9.0	16	23
SLS-S18-FL	205	1,600	M10	–	–	72	46	54	–	–	–	–	36	8.6	15	9.0	18	23
SLS-S18-LL[54)]	295	–	M10	M4	M6	72	46	54	27	13.5	40	20	36	8.6	15	9.0	18	23
SLS-S20-FL	525	2,500	M16	–	–	94	64	70	–	–	–	–	50	13.0	20	13.5	20	32
SLS-S20-LL[54)]	725	–	M16	M4	M6	94	64	70	27	22.5	40	20	50	13.0	20	13.5	20	32

[53)] Can exceed max. stat. load of the lead screw nut

[54)] Lead screw end must be turned to d1 value

[55)] Lead screw end must be turned to 18mm

dryspin® | Special geometries | Product range

Lead screw support blocks with ball bearings



▶ Page 625

Order key

Part No.	Thread	Options
SLS -	10X2	-BB

Lead screw support block

Diameter

Pitch

Ball bearing

Options:
- **BB:** Ball bearings
- **FL:** Fixed bearing
- **LL:** Floating bearing

Order key

Part No.	Options
SLS - S6	-BB

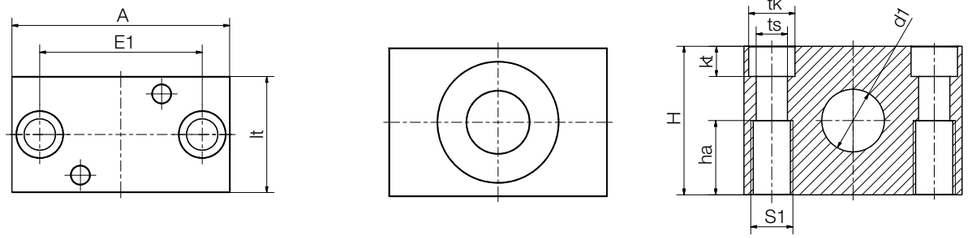
Lead screw support block

Lead screw/machined end outer diameter

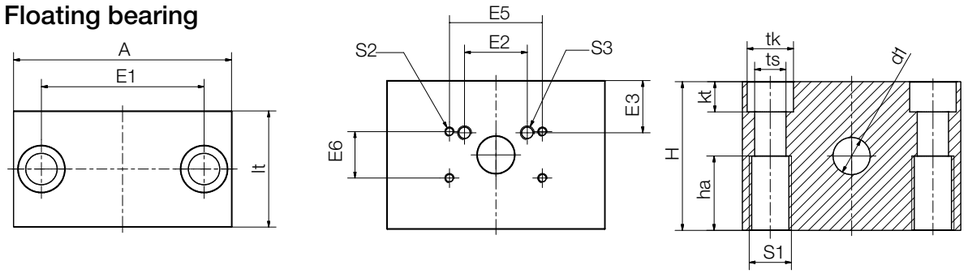
Ball bearing

Options:
- **BB:** Ball bearings
- **FL:** Fixed bearing
- **LL:** Floating bearing

Fixed bearing



Floating bearing



Technical data and dimensions, ball bearing [mm]

Part No.	Weight [g]	Max. static load capacity axial [N]	S1	S2
SLS-S6-BB	110	150	M8	M4
SLS-S6.35-BB	110	150	M8	M4
SLS-S8-BB	110	350	M8	M4
SLS-S10-BB	110	350	M8	M4
SLS-S12-BB	265	1,000	M12	M4
SLS-S14-BB	265	1,000	M12	M4
SLS-S16-BB	265	1,000	M12	M4
SLS-S18-BB	265	1,000	M12	M4
SLS-S20-BB	350	1,500	M16	M4
SLS-10X2-BB	110	350	M8	M4
SLS-10X3-BB	110	350	M8	M4
SLS-12X3-BB	265	1,000	M12	M4
SLS-14X4-BB	265	1,000	M12	M4
SLS-16X2-BB	265	1,000	M12	M4
SLS-16X4-BB	265	1,000	M12	M4
SLS-18X4-BB	265	1,000	M12	M4
SLS-18X8P4-BB	265	1,000	M10	M4
SLS-20X4-BB	350	1,500	M16	M4
SLS-24X5-BB	350	1,500	M16	M4

[55] Lead screw end must be turned to 18mm

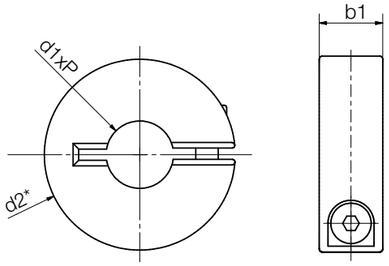
Dimensions, ball bearing [mm]

A	H	E1	E5	E6	lt	kt	tk	ts	d1	ha
50	32	36	40	20	30	6.5	11	6.6	6	16
50	32	36	40	20	30	6.5	11	6.6	6.35	16
50	32	36	40	20	30	6.5	11	6.6	8	16
50	32	36	40	20	30	6.5	11	6.6	10	16
72	46	54	48	36	36	8.6	15	9.0	12	23
72	46	54	48	36	36	8.6	15	9.0	14	23
72	46	54	48	36	36	8.6	15	9.0	16	23
72	46	54	48	36	36	8.6	15	9.0	18	23
94	64	70	48	36	50	13.0	20	13.5	20	32
50	32	36	40	20	30	6.5	11	6.6	10	16
50	32	36	40	20	30	6.5	11	6.6	10	16
72	46	54	48	36	36	8.6	15	9.0	12	23
72	46	54	48	36	36	8.6	15	9.0	14	23
72	46	54	48	36	36	8.6	15	9.0	16	23
72	46	54	48	36	36	8.6	15	9.0	16	23
72	46	54	48	36	36	8.6	15	9.0	18	23
72	46	54	48	36	36	8.6	15	9.0	18	23
94	64	70	48	36	50	13.0	20	13.5	20	32
94	64	70	48	36	50	13.0	20	13.5	24	32

dryspin® | Special geometries | Product range

dryspin® clamping rings, right and left-hand thread





Order key

Part number	Thread

CR R - 01 - TR 10X 2

Clamping ring	Direction of rotation	Type	Trapezoidal thread	Diameter	Pitch

Dimensions [mm]

Thread	d2[56] h9	b1	Part No. Right-hand thread
Tr8x1.5	16	9	CRR-01-TR8X1.5
Tr10x2	24	8	CRR-01-TR10X2
Tr12x3	28	8	CRR-01-TR12X3
Tr14x4	30	11	CRR-01-TR14X4
Tr16x2	34	11	CRR-01-TR16X2 New
Tr16x4	34	11	CRR-01-TR16X4
Tr18x4	36	13	CRR-01-TR18X4
Tr20x4	45	15	CRR-01-TR20X4
Tr24x5	45	15	CRR-01-TR24X5
Tr26x5	45	15	CRR-01-TR26X5 New
Tr30x6	54	15	CRR-01-TR30X6 New

Thread	d2[56] h9	b1	Part No. Left-hand thread
Tr8x1.5	16	9	CRL-01-TR8X1.5
Tr10x2	24	8	CRL-01-TR10X2
Tr10x3	24	8	CRL-01-TR10X3 New
Tr12x3	28	8	CRL-01-TR12X3
Tr14x4	30	11	CRL-01-TR14X4
Tr16x4	34	11	CRL-01-TR16X4
Tr18x4	36	13	CRL-01-TR18X4
Tr20x4	45	15	CRL-01-TR20X4
Tr24x5	45	15	CRL-01-TR24X5
Tr26x5	45	15	CRL-01-TR26X5 New
Tr30x6	54	15	CRL-01-TR30X6 New

[56] Clamping ring outer dimension. Screw head may protrude. Installation dimension d2 (+2mm)

Dimensions [mm] - clamping ring without thread

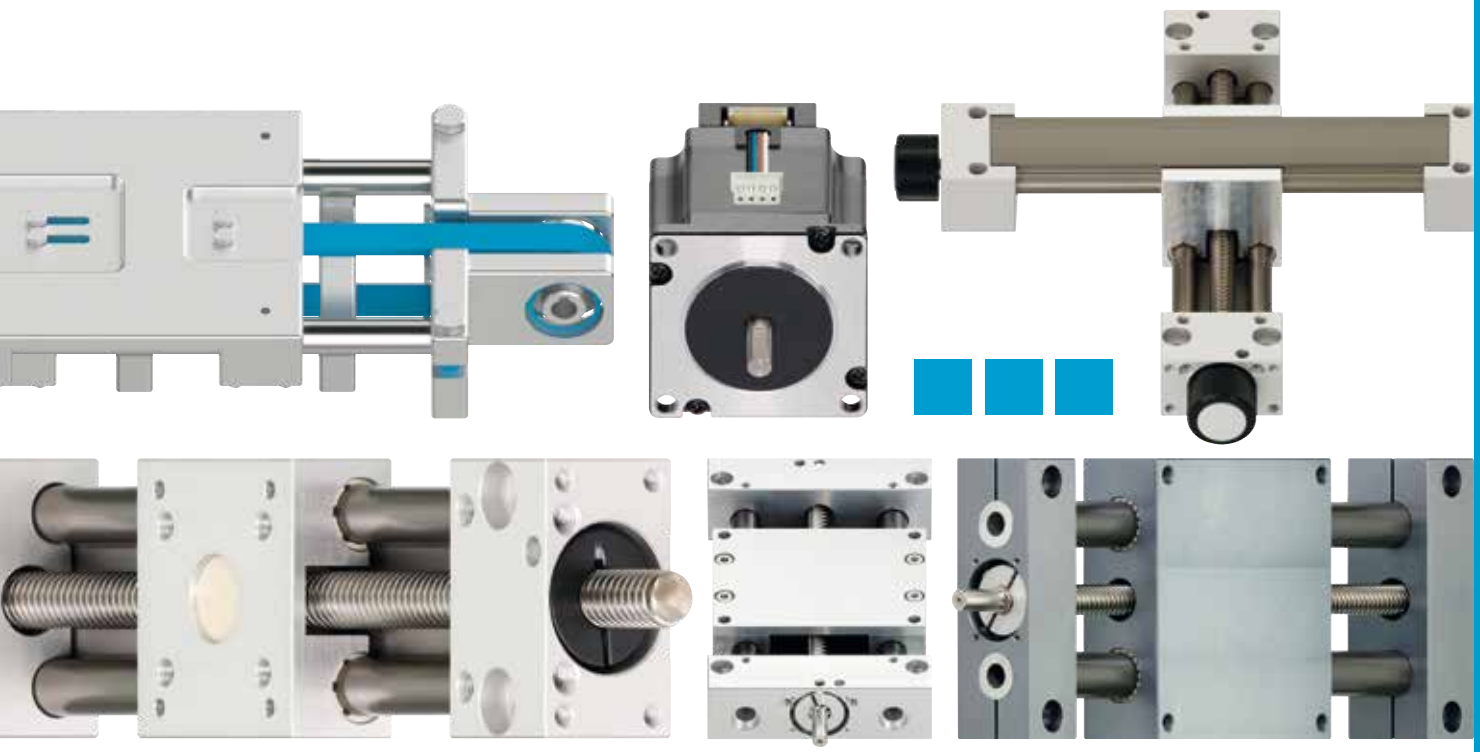
Ø	d2	b1	Part No.	
6	14	8	KRM-S6-V	New
6.35	14	8	KRM-S6.35-V	New
8	14	8	KRM-S-8-V	New
10	24	8	KRM-S10-V	
12	28	11	KRM-S12-V	
14	30	11	KRM-S14-V	
16	34	11	KRM-S16-V	
18	36	13	KRM-S18-V	
20	45	15	KRM-S20-V	New
24	45	15	KRM-S24-V	
30	54	15	KRM-S30-V	New



Notes

drylin®...

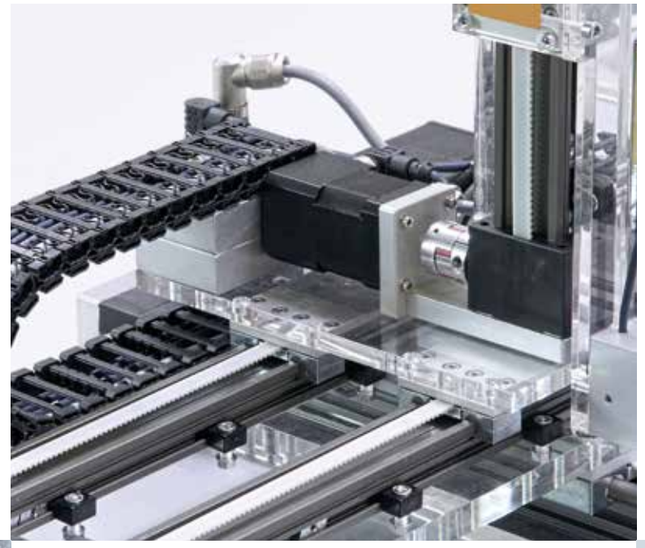
Drive technology



...plastics



Camera/laser adjustment in labelling system
In a labelling system the camera and laser positioning are guided with two drylin® SHT/SLWE-XY XY table units. (Fa. Pago Etikettiersysteme GmbH)

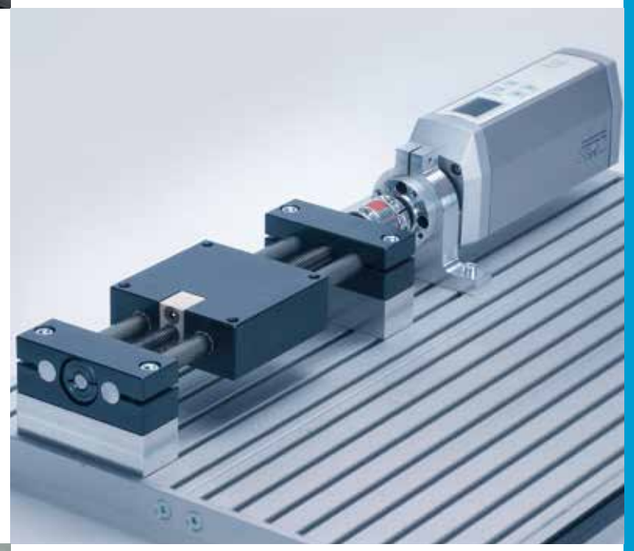


Pick & place
Quick and maintenance-free handling with drylin® toothed belt axes as a room linear robot (X, Y, Z-axis).

Positioning of milling heads
Aluminium dust and swarf cannot stick due to the absence of lubricants at any of the bearing points of the drylin® SHT linear module. (Berchtold GmbH)

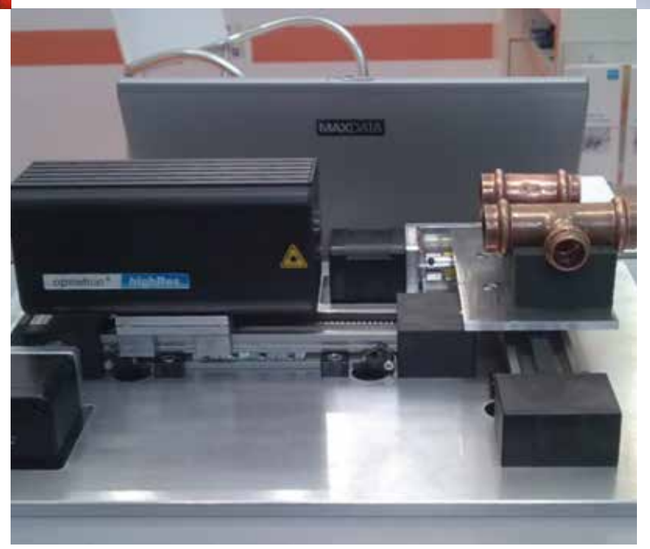


Electric actuator
drylin® linear module combined with an electric actuator for use in a variety of format adjustments. (Festo AG & Co. KG)





Height adjustment of coding device
The drylin® linear module gives variable and precise adjustment, free from any maintenance or lubrication. (Filtec Europe GmbH)



Adjustment of inspection camera
drylin® ZLW toothed belt axis in an inspection camera adjustment for checking the position of sealing rings. (OLPE Jena GmbH)

drylin® drive technology | Product overview

drylin® drive technology - SHT linear modules



Self-locking:
SHT
▶ Page 524



Axial pre-load, radial adjustment:
SHT-PL
▶ Page 525



Compact design:
SHTC
▶ Page 526



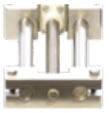
The fast one with dryspin® high helix thread:
SHTS
▶ Page 527



With ball bearing supported lead screw:
SHT-BB
▶ Page 528



Made of stainless steel:
SHT-ESJ
▶ Page 530



Hygienic design:
SHTC-HYD
▶ Page 531



With quick-release mechanism:
SHTC-FF
▶ Page 532

SHT linear modules



With quick-release mechanism:
SHT-FF
▶ Page 533



XY tables:
SHT-XY
▶ Page 534

SLW linear modules



Self-locking:
SLW
▶ Page 538



New

With short carriages:
SLWC
▶ Page 540



Axial pre-load, radial adjustment:
SLWE-PL
▶ Page 541



With ball bearing supported lead screws:
SLEW-BB
▶ Page 542



The fast one with dryspin® high helix thread:
SLWS
▶ Page 544



With protected lead screw:
SLW-PT
▶ Page 546

SLW linear modules



Dual action linear system:
SLWT
▶ Page 547



Stainless steel version:
SLW-ES
▶ Page 548



XY tables:
SLW-XY
▶ Page 550



XY tables - stainless steel version:
SLW-XY-ES
▶ Page 552

SAW linear modules



Robust design:
SAW
▶ Page 556



Clearance-reduced with pre-load:
SAW-PL
▶ Page 557



Direct drive in short design:
SAWC
▶ Page 558

easytube linear units



Single tube linear unit easytube:
SET
▶ Page 562



easytube with double flange:
SET-F
▶ Page 563



easytube with single flange:
SETB
▶ Page 564



easytube with measurement scale:
SETM-SC
▶ Page 565



easytube "light":
SETC
▶ Page 566

Flat linear modules



Ball bearing supported lead screws based on drylin® T:
SLT-BB
▶ Page 569

Miniature linear modules



Pre-load miniature linear module:
SLN-27
▶ Page 573



Prism module for precise adjustment:
SLNV
▶ Page 574

ZLW toothed belt axes



Standard toothed belt axes:
ZLW
▶ Page 586



Modular toothed belt axes:
ZLW-AL/-ES
▶ Page 588



New

Linear axis with hygienic design:
ZLW-HYD
▶ Page 590



Tandem toothed belt axis:
ZLWT
▶ Page 591



Opposite drive toothed belt axes:
ZLW-OD
▶ Page 592

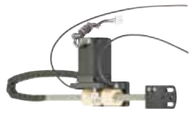


Cost-effective econ toothed belt axis:
ZLN econ
▶ Page 594

drylin® electric drive technology - cantilever axes



Dynamic z-axis for linear robot structures:
drylin® GRW
▶ Page 596



Extremely light axis for pick & place:
drylin® GRQ
▶ Page 597



Lightweight z-axis with direct rack drive:
drylin® GRR
▶ Page 598

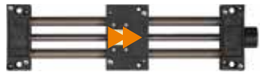


Cantilever axis:
drylin® ZAW
▶ Page 599

econ entry-level series



The cost-effective SHT version:
SHTP-AWM
▶ Page 608



With quick-release mechanism:
SHTP-AWM-FF
▶ Page 609



Miniature linear modules:
SLN basic
▶ Page 610



Cost-effective toothed belt axis:
ZLW-E
▶ Page 611

drylin® E - motors



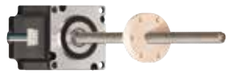
Lead screw stepper motors:
drylin®
lead screw stepper motors
▶ Page 642



EC/BLDC motors:
drylin®
EC/BLCD motors
▶ Page 647



DC motors:
drylin®
direct-current motors
▶ Page 651



Linear actuators:
drylin®
linear actuators
▶ Page 660

drylin® E - motors

New



Motor-driven:
Planetary gear for stepper motors
▶ Page 666



Jaw couplings:
Vibration dampening and pluggable
▶ Page 669

drylin® E - accessories



Accessories for drylin® E
Motor flanges, cables and mounting accessories
▶ Page 671

Low Cost Automation



New

Low Cost Automation Accessories
▶ Page 720



robolink® D worm gears
▶ Page 724



drygear® Apiro® modular gearbox system
▶ Page 730



New

drygear® strain wave gear
▶ Page 739

igus EN 09/2023

econ entry-level series



The SLW entry-level model:
SLWP-E
▶ Page 604



The SLT entry-level model:
SLTP-E
▶ Page 605



The SHT miniature version:
SHTP-AWM
▶ Page 606



The lightweight entry-level model:
SHTP
▶ Page 607

drylin® accessories - control elements



Accessories for manual positioning and Format adjustment
▶ Page 613

drylin® E - motors



Stepper motors:
drylin®
stepper motors
▶ Page 632



New

Specialist stepper motors
▶ Page 640

drylin® E - motors



Motor control system:
D1 dryve
▶ Page 662



Motor control system:
D3 dryve
▶ Page 663



Motor control system:
D7/8/9 dryve
▶ Page 664

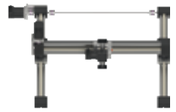


Motor control system:
D5/6 dryve
▶ Page 665

Low Cost Automation



Articulated arm robot
ReBeL® cobot
robolink® DC/DP
▶ Page 697



Linear robots and other Kinematics
▶ Page 703



New

SCARA robot
▶ Page 714



robolink® igus® robot control system
▶ Page 718

Low Cost Automation



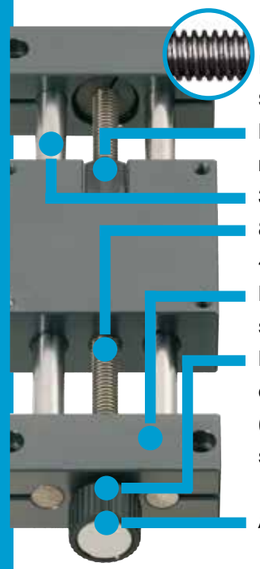
New

drygear® planetary gearboxes
▶ Page 740

EN 09/2023 igus

drylin® drive technology | Linear modules

The drylin® product portfolio provides lubrication-free linear modules that are driven either by a trapezoidal thread, high helix thread or toothed belt. The user can choose a suitable individual solution from lightweight solid plastic units up to heavy-duty stainless steel solutions. In all systems, the stroke length is freely selectable and the drive given either via hand wheel or motor.



Linear modules with lead screw drive

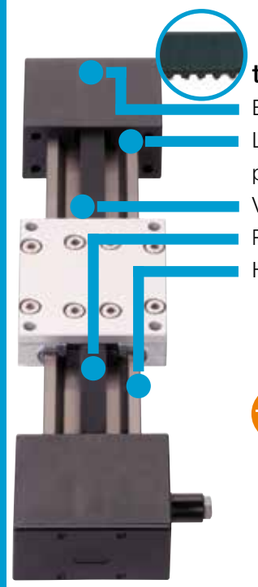
Polymer bearings and lead screw nuts give lubrication-free operation
3 shaft materials
8 trapezoidal thread pitches, 4 high helix thread pitches
Body material made of stainless steel, aluminium, zinc or polymer
Lead screw machined to drawing or plain drive shaft (lead screws made of steel, stainless steel or aluminium)

Accessories available

Standard **min. 0°C**
Max. +60°C
Stainless steel version with iglidur® X
Min. 0°C
Max. +180°C

When to use it?
- For format adjustments
- In extreme environments
- When a cost-effective, ready-to-fit solution is required
- When corrosion resistance is required
- When a quiet operation is required

When not to use it?
- When high loads need to travel at highly dynamic forces
- When positioning accuracy <0.1mm is required
- When high running performance is required in continuous operation



toothed belt axes

End supports with ball bearing
Lubrication-free linear guide with polymer plain bearings
Various carriage lengths
Polyurethane or neoprene toothed belts
Hard-anodised aluminium profile

Standard[91)] **min. 0°C**
Max. +60°C
LT version **min. –30°C**
Max. +60°C

[91)] Does not apply to accessories

When to use it?
- Fast positioning of small loads
- Quiet operation
- Slim design
- Underwater use with UW belt
- Cost-effective solution as basic version
- Continuous operation

When not to use it?
- When high loads need to travel at highly dynamic forces
- When positioning accuracy <0.1mm is required

drylin® drive technology | Product overview



SHT linear modules

- Drive: trapezoidal or high-helix lead screw
- Ball-bearing mounted lead screw drives for higher dynamic forces
- Carriage in either quad block or compact design

▶ **Page 521**



SLW linear modules

- Based on drylin® W
- Drive: trapezoidal or high-helix lead screw
- Torsion-resistant double shaft systems

▶ **Page 535**



SAW linear modules

- Drive: Ball bearing supported lead screw
- Rail profile in high design
- Extremely torsion-resistant

▶ **Page 553**



SET easytube linear modules

- Corrosion-resistant
- Lightweight due to aluminium and polymer
- Simple, smooth design, protected lead screw

▶ **Page 559**



SLT linear modules

- Variable pitch
- Adjustable drylin® T miniature carriage
- Lead screw arrangement can be selected either left or right

▶ **Page 567**



SLN miniature linear modules

- Based on drylin® N, low installation height
- Basic, adjustable and pre-load versions

▶ **Page 571**



ZLW toothed belt axes

- Versions basic, standard and econ
- For fast positioning
- End supports with ball bearing

▶ **Page 575**



econ entry-level series

- Lightweight
- Cost-effective
- Corrosion-resistant

▶ **Page 601**



drylin® - automation

- Lubrication-free linear modules with motor
- Ready to install with motor, cable and initiator
- Drive: Lead screw, toothed belt or rack

▶ **Page 689**



Cantilever axis GRW

- Dynamic force transmission through rack
- Assembly option for limit and reference switch

▶ **Page 596**



Accessories for linear modules

- Position indicator, hand wheels, lead screw clamps, angular drives and more

▶ **Page 613**

Linear module						
Linear module	Shaft Ø [mm]	Thread	Pitch	Lead screw Self-locking	Carriage length [mm]	Motor connection possible
SHT(C)-08	8	TR	6x2P1	+	38 / 65	+
		DS	6.35x2.54	–	38 / 65	+
		DS	6.35x5.08	–	38 / 65	+
		DS	6.35x12.7	–	38 / 65	+
		DS	6.35x25.4	–	38 / 65	+
SHT(C)-12	12	TR	10x2	+	30 / 85	+
		DS	10x2	+	30 / 85	+
		TR	10x3	+	30 / 85	+
		DS	10x3	–	30 / 85	+
		TR	10x4	+	30 / 85	+
		DS	10x12	–	30 / 85	+
		DS	10x25	–	30 / 85	+
		DS	10x50	–	30 / 85	+
SHT(C)-20	20	TR	18x4	+	36 / 130	+
		DS	18x4	+	36 / 130	+
		TR	18x8P4	+	36 / 130	+
		DS	18x24	–	36 / 130	+
		DS	18x40	–	36 / 130	+
		DS	18x80	–	36 / 130	+
		DS	18x100	–	36 / 130	+
SHT(C)-30	30	DS	20x5	–	50 / 180	+
		DS	20x10	–	50 / 180	+
		DS	20x20	–	50 / 180	+
		DS	20x50	–	50 / 180	+
		DS	20x60	–	50 / 180	+
		DS	20x80	–	50 / 180	+
		DS	20x90	–	50 / 180	+
		TR	24x5	+	50 / 180	+
SHTC-40	40	TR	26x5	+	70	+
SHTC-50	50	TR	30x6	+	80	+
SLW-0630	6	TR	8x1.5	+	20 / 60 / 100 / 150	+
		DS	8x10	–	20 / 60 / 100 / 150	+
		DS	8x15	–	20 / 60 / 100 / 150	+
SLW-0660	6	TR	8x1.5	+	60 / 100 / 150	+ (121)
		DS	8x10	–	60 / 100 / 150	+ (121)
		DS	8x15	–	60 / 100 / 150	+ (121)

[120] When configuring your linear module, we ask that you note the igus® specifications for maximum stroke lengths. The performance and load specifications shown above for all drive units are based exclusively on stroke lengths within the recommended values. Exceeding these can result in undesirable effects to the function such as increased wear and noise. Belt or lead screw contact cannot be excluded, and the rated performance and load specifications may not be attainable.

drylin® drive technology | Technical data

Lead screw with plain bearing support[121]					Ball bearing supported lead screws				
Max. stroke length[120] [mm]	Max. static, axial load capacity [N]	Max. static, radial load capacity [N]	Max. speed [rpm]	Max. feed rate [m/min]	Max. stroke length[120] [mm]	Max. static, axial load capacity [N]	Max. static, radial load capacity [N]	Max. speed [rpm]	Max. feed rate [m/min]
300	100	400	100	0.1	300	100	360	500	0.5
300	100	360	100	0.254	300	100	360	1,000	2.54
300	70	280	100	0.508	300	70	280	1,000	5.08
300	35	140	100	1.27	300	35	140	1,000	12.7
300	18	72	100	2.54	300	18	72	1,000	25.4
500	700	2,800	100	0.2	500	350	1,400	500	1.0
500	700	2,800	100	0.2	500	500	2,000	1,000	2.0
500	500	2,000	100	0.3	500	350	1,400	500	1.5
500	500	2,000	100	0.2	500	500	2,000	1,000	3.0
500	400	1,600	100	0.4	500	350	1,400	500	2.0
500	400	1,600	100	1.2	500	300	1,200	1,000	12.0
500	250	1,000	100	2.5	500	250	1,000	1,000	25.0
500	100	400	100	5.0	500	100	400	1,000	50.0
900	1,600	6,400	100	0.4	900	1,000	4,000	500	2.0
900	1,600	6,400	100	0.4	900	1,000	4,000	500	2.0
900	1,200	4,800	100	0.4	900	1,200	4,800	500	2.0
900	800	3,200	100	2.4	900	800	3,200	1,000	24.0
900	500	2,000	100	4.0	900	500	2,000	1,000	40.0
900	250	1,000	100	8.0	900	250	1,000	900	72.0
900	200	800	100	10.0	900	200	800	750	75.0
–	–	–	–	–	1,000	1,500	6,000	1,000	–
–	–	–	–	–	1,000	1,200	4,800	1,000	–
–	–	–	–	–	1,000	1,000	4,000	1,000	–
–	–	–	–	–	1,000	700	2,800	1,000	–
–	–	–	–	–	1,000	600	2,400	1,000	–
–	–	–	–	–	1,000	400	1,600	1,000	–
–	–	–	–	–	1,000	300	1,200	1,000	–
1,000	2,500	10,000	100	0.5	1,000	1,500	6,000	500	2.5
1,500	4,000	16,000	100	0.5	–	–	–	–	–
1,500	6,250	25,000	100	0.6	–	–	–	–	–
300	100	400	100	0.15	300	100	400	500	0.75
300	100	400	100	1.0	300	100	400	1,000	10.0
300	100	400	100	1.5	300	100	400	1,000	15.0
300	100	200	100	0.15	300	100	400	500	0.75
300	100	400	100	1.0	300	100	400	1,000	10.0
300	100	400	100	1.5	300	100	400	1,000	15.0

[121] Linear modules on plain bearings require an aluminium shaft end support when connected to a motor. The technical values in the specifications are maximum values for each criterion, e.g. speed, stroke length etc.; they are not cumulative values. Suitability under consideration of the individual parameters for usage can be checked online at www.igus.eu/linearmodule-finder.

Linear module						
Linear module	Shaft Ø [mm]	Thread	Pitch	Lead screw Self-locking	Carriage length [mm]	Motor connection possible
SLW-1030	10	TR	10x2	+	48 / 69 / 100	+
		DS	10x2	+	48 / 69 / 100	+
		TR	10x3	+	48 / 69 / 100	+
		DS	10x3	–	48 / 69 / 100	+
		TR	10x4	+	48 / 69 / 100	+
		DS	10x12	–	48 / 69 / 100	+
		DS	10x25	–	48 / 69 / 100	+
SLW-1040	10	TR	10x2	+	29 / 69 / 87 / 100	+
		DS	10x2	+	29 / 69 / 87 / 100	+
		TR	10x3	+	29 / 69 / 87 / 100	+
		DS	10x3	–	29 / 69 / 87 / 100	+
		TR	10x4	+	29 / 69 / 87 / 100	+
		DS	10x12	–	29 / 69 / 87 / 100	+
		DS	10x25	–	29 / 69 / 87 / 100	+
		DS	10x50	–	29 / 69 / 87 / 100	+
SLW-1080	10	TR	10x2	+	100 / 150 / 200	+
		DS	10x2	+	100 / 150 / 200	+
		TR	10x3	+	100 / 150 / 200	+
		DS	10x3	–	100 / 150 / 200	+
		TR	10x4	+	100 / 150 / 200	+
		DS	10x12	-	100 / 150 / 200	+
		DS	10x25	–	100 / 150 / 200	+
		DS	10x50	–	100 / 150 / 200	+
SLW-10120	10	TR	10x2	+	100 / 150 / 200	+
		DS	10x2	+	100 / 150 / 200	+
		TR	10x3	+	100 / 150 / 200	+
		DS	10x3	–	100 / 150 / 200	+
		TR	10x4	+	100 / 150 / 200	+
		DS	10x12	–	100 / 150 / 200	+
		DS	10x25	–	100 / 150 / 200	+
		DS	10x50	–	100 / 150 / 200	+
SLW-1660	16	TR	14x3	+	36 / 100 / 150 / 200	+
		TR	14x4	+	36 / 100 / 150 / 200	+
		DS	14x4	+	36 / 100 / 150 / 200	+
		DS	14x25	–	36 / 100 / 150 / 200	+
		DS	14x30	–	36 / 100 / 150 / 200	+
		DS	14x40.6	–	36 / 100 / 150 / 200	+

[120)] When configuring your linear module, we ask that you note the igus® specifications for maximum stroke lengths. The performance and load specifications shown above for all drive units are based exclusively on stroke lengths within the recommended values. Exceeding these can result in undesirable effects to the function such as increased wear and noise. Belt or lead screw contact cannot be excluded, and the rated performance and load specifications may not be attainable.

Lead screw with plain bearing support[121)]					Ball bearing supported lead screws				
Max. stroke length[120)] [mm]	Max. static, axial load capacity [N]	Max. static, radial load capacity [N]	Max. speed [rpm]	Max. feed rate [m/min]	Max. stroke length[120)] [mm]	Max. static, axial load capacity [N]	Max. static, radial load capacity [N]	Max. speed [rpm]	Max. feed rate [m/min]
–	–	–	–	–	500	250	1,000	1,000	2.0
–	–	–	–	–	500	500	2,000	500	1.0
–	–	–	–	–	500	400	1,600	500	1.5
–	–	–	–	–	500	500	2,000	500	1.5
–	–	–	–	–	500	100	400	1,000	4.0
–	–	–	–	–	500	500	2,000	1,000	12.0
–	–	–	–	–	500	500	2,000	1,000	25.0
500	700	2,800	100	0.2	500	500	2,000	500	1.0
500	700	2,800	100	0.2	500	500	2,000	500	2.0
500	700	2,000	100	0.3	500	500	2,000	500	1.5
500	500	2,000	100	0.3	500	500	2,000	1,000	3.0
500	400	1,600	100	0.4	500	400	1,600	500	2.0
500	400	1,600	100	1.2	500	300	1,200	1,000	12.0
500	250	1,000	100	2.5	500	250	1,000	1,000	25.0
500	100	400	100	5.0	500	100	400	1,000	50.0
500	700	2,800	100	0.2	500	500	2,000	500	1.0
500	700	2,800	100	0.2	500	500	2,000	1,000	2.0
500	500	2,000	100	0.3	500	500	2,000	1,000	1.5
500	500	2,000	100	0.3	500	500	2,000	500	1.5
500	500	2,000	100	0.3	500	500	2,000	1,000	3.0
500	400	1,600	100	0.4	500	400	1,600	500	2.0
500	400	1,600	100	1.2	500	300	1,200	1,000	12.0
500	250	1,000	100	2.5	500	250	1,000	1,000	25.0
500	100	400	100	5.0	500	100	400	1,000	50.0
500	700	2,800	100	0.2	500	500	2,000	500	1.0
500	700	2,800	100	0.2	500	500	2,000	1,000	2.0
500	500	2,000	100	0.3	500	500	2,000	1,000	1.5
500	500	2,000	100	0.3	500	500	2,000	100	3.0
500	400	1,600	100	0.4	500	400	1,600	500	2.0
500	400	1,600	100	1.2	500	300	1,200	1,000	12.0
500	250	1,000	100	2.5	500	250	1,000	1,000	25.0
500	100	400	100	5.0	500	100	400	1,000	50.0
750	1,200	4,600	100	0.3	750	700	2,800	500	1.5
750	1,200	4,600	100	0.4	750	700	2,800	500	2.0
750	1,200	4,600	100	0.4	750	700	2,800	1,000	4.0
750	1,200	4,600	100	2.5	750	350	1,400	1,000	25.0
750	400	1,600	100	3.0	750	350	1,400	1,000	30.0
750	250	1,000	100	4.06	750	250	1,000	1,000	40.6

[121)] Linear modules on plain bearings require an aluminium shaft end support when connected to a motor. The technical values in the specifications are maximum values for each criterion, e.g. speed, stroke length etc.; they are not cumulative values. Suitability under consideration of the individual parameters for usage can be checked online at www.igus.eu/linearmodule-finder.

Linear module						
Linear module	Shaft Ø [mm]	Thread	Pitch	Lead screw Self-locking	Carriage length [mm]	Motor connection possible
SLW-16120	16	TR	14x3	+	150 / 200 / 250	+
		TR	14x4	+	150 / 200 / 250	+
		DS	14x4	+	150 / 200 / 250	+
		DS	14x25	–	150 / 200 / 250	+
		DS	14x30	–	150 / 200 / 250	+
		DS	14x40.6	–	150 / 200 / 250	+
SLW-2080	20	TR	18x4	+	45 / 150 / 200 / 250	+
		DS	18x4	+	45 / 100 / 150 / 200	+
		TR	18x8P4	+	45 / 150 / 200 / 250	+
		DS	18x24	–	45 / 150 / 200 / 250	+
		DS	18x40	–	45 / 150 / 200 / 250	+
		DS	18x80	–	45 / 150 / 200 / 250	+
		DS	18x100	–	45 / 150 / 200 / 250	+
SLW-25120	25	DS	20x5	–	150 / 200 / 250	+
		DS	20x10	–	150 / 200 / 250	+
		DS	20x20	–	150 / 200 / 250	+
		DS	20x50	–	150 / 200 / 250	+
		DS	20x60	–	150 / 200 / 250	+
		DS	20x80	–	150 / 200 / 250	+
		DS	20x90	–	150 / 200 / 250	+
		TR	25x4	+	150 / 200 / 250	+
SAW-0630	6	TR	8x1.5	+	50 / 60 / 100	+
		DS	8x10	–	50 / 60 / 100	+
		DS	8x15	–	50 / 60 / 100	+
SAW-0660	6	TR	10x2	+	100	+
		DS	10x2	+	100	+
		DS	10x3	–	100	+
		DS	10x12	–	100	+
		DS	10x25	–	100	+
		DS	10x50	–	100	+
SAW-1040	10	TR	10x2	+	69 / 100 / 150	+
		DS	10x2	+	69 / 100 / 150	+
		TR	10x3	+	69 / 100 / 150	+
		DS	10x3	–	69 / 100 / 150	+
		TR	10x4	+	69 / 100 / 150	+
		DS	10x12	–	69 / 100 / 150	+
		DS	10x25	–	69 / 100 / 150	+
		DS	10x50	–	69 / 100 / 150	+

[120] When configuring your linear module, we ask that you note the igus® specifications for maximum stroke lengths. The performance and load specifications shown above for all drive units are based exclusively on stroke lengths within the recommended values. Exceeding these can result in undesirable effects to the function such as increased wear and noise. Belt or lead screw contact cannot be excluded, and the rated performance and load specifications may not be attainable.

Lead screw with plain bearing support[121]					Ball bearing supported lead screws				
Max. stroke length[120] [mm]	Max. static, axial load capacity [N]	Max. static, radial load capacity [N]	Max. speed [rpm]	Max. feed rate [m/min]	Max. stroke length[120] [mm]	Max. static, axial load capacity [N]	Max. static, radial load capacity [N]	Max. speed [rpm]	Max. feed rate [m/min]
750	1,200	4,600	100	0.3	750	700	2,800	500	1.5
750	1,200	4,600	100	0.4	750	700	2,800	500	2.0
750	1,200	4,600	100	0.4	750	700	2,800	1,000	4.0
750	600	2,400	100	2.5	750	350	1,400	1,000	25.0
750	600	1,600	100	3.0	750	350	1,400	1,000	30.0
750	250	1,000	100	4.06	750	250	1,400	1,000	40.6
900	1,600	6,400	100	0.4	900	1,250	5,000	500	2.0
900	1,600	6,400	100	0.4	900	1,000	4,000	500	2.0
900	1,200	4,800	100	0.8	900	1,200	4,800	500	2.0
900	800	3,200	100	2.4	900	800	3,200	1,000	24.0
900	500	2,000	100	4.0	900	500	2,000	1,000	40.0
900	250	1,000	100	8.0	900	250	1,000	900	72.0
900	200	800	100	10.0	900	200	800	750	75.0
–	–	–	–	–	1,000	1,500	6,000	1,000	5.0
–	–	–	–	–	1,000	1,200	4,800	1,000	10.0
–	–	–	–	–	1,000	1,000	4,000	1,000	20.0
–	–	–	–	–	1,000	700	2,800	1,000	50.0
–	–	–	–	–	1,000	600	2,800	1,000	60.0
–	–	–	–	–	1,000	400	1,600	1,000	80.0
–	–	–	–	–	1,000	300	1,200	1,000	90.0
1,000	2,500	10,000	100	0.5	1,000	1,500	6,000	500	2.5
–	–	–	–	–	300	100	200	500	0.75
–	–	–	–	–	300	100	200	1,000	10.0
–	–	–	–	–	300	100	200	1,000	15.0
–	–	–	–	–	500	100	400	500	1.0
–	–	–	–	–	500	500	2,000	1,000	2.0
–	–	–	–	–	500	500	2,000	1,000	3.0
–	–	–	–	–	500	100	400	1,000	12.0
–	–	–	–	–	500	100	400	1,000	25.0
–	–	–	–	–	500	100	400	1,000	3.0
–	–	–	–	–	500	500	2,000	500	1.0
–	–	–	–	–	500	500	2,000	1,000	2.0
–	–	–	–	–	500	500	2,000	500	1.5
–	–	–	–	–	500	500	2,000	1,000	3.0
–	–	–	–	–	500	400	1,600	500	2.0
–	–	–	–	–	500	300	1,200	1,000	12.0
–	–	–	–	–	500	250	1,000	1,000	25.0
–	–	–	–	–	500	100	400	1,000	50.0

[121] Linear modules on plain bearings require an aluminium shaft end support when connected to a motor. The technical values in the specifications are maximum values for each criterion, e.g. speed, stroke length etc.; they are not cumulative values. Suitability under consideration of the individual parameters for usage can be checked online at www.igus.eu/linearmodule-finder.

Linear module						
Linear module	Shaft Ø [mm]	Thread	Pitch	Lead screw Self-locking	Carriage length [mm]	Motor connection possible
SAW-1080	10	TR	12x3	+	100 / 150	+
		TR	12x6P3	+	100 / 150	+
		DS	12x5	+	100 / 150	+
		DS	12x25	–	100 / 150	+
SAW-1660	16	TR	14x3	+	100 / 150 / 200	+
		TR	14x4	+	100 / 150 / 200	+
		DS	14x4	+	100 / 150 / 200	+
		DS	14x25	–	100 / 150 / 200	+
		DS	14x30	–	100 / 150 / 200	+
		DS	14x40.6	–	100 / 150 / 200	+
SLT-0412	5	TR	8x1,5	+	38	+
		DS	8x10	–	38	+
		DS	8x15	–	38	+
SLT-0415	10	TR	12x3	+	45	+
		TR	12x6P3	+	45	+
		DS	12x5	+	45	+
		DS	12x25	–	45	+
SLN(V)-27	27	M	M5x0.8	+	35	+
		DS	5x5	–	35	+
		DS	6.35x2.54	–	35	+
		DS	6.35x5.08	–	35	+
		DS	6.35x12.7	–	35	+
		DS	6.35x25.4	–	35	+
SHTP–01-06	6	M	M8x1.25	+	45	+
SHTP–01-10	10	TR	8x1.5	+	26	+
SHTP–01-12	12	TR	10x2	+	55	+
SHTP–02-12	12	TR	10x2	+	55	–
SET-12	12	M	M4x0.7	+	30	–
SET-25	25	TR	10x2	+	55	–
SET-30	30	TR	12x3	+	55	–

[120)] When configuring your linear module, we ask that you note the igus® specifications for maximum stroke lengths. The performance and load specifications shown above for all drive units are based exclusively on stroke lengths within the recommended values. Exceeding these can result in undesirable effects to the function such as increased wear and noise. Belt or lead screw contact cannot be excluded, and the rated performance and load specifications may not be attainable.

drylin® drive technology | Technical data

Lead screw with plain bearing support[121)]					Ball bearing supported lead screws				
Max. stroke length[120)] [mm]	Max. static, axial load capacity [N]	Max. static, radial load capacity [N]	Max. speed [rpm]	Max. feed rate [m/min]	Max. stroke length[120)] [mm]	Max. static, axial load capacity [N]	Max. static, radial load capacity [N]	Max. speed [rpm]	Max. feed rate [m/min]
–	–	–	–	–	750	750	2,000	500	1.5
–	–	–	–	–	750	400	1,600	500	1.5
–	–	–	–	–	750	300	1,200	1,000	1.5
–	–	–	–	–	750	200	800	300	25.0
–	–	–	–	–	750	700	2,800	1,000	4.5
–	–	–	–	–	750	700	2,800	1,000	6.0
–	–	–	–	–	750	700	2,800	1,000	6.0
–	–	–	–	–	750	350	1,400	400	10.0
–	–	–	–	–	750	350	1,400	400	12.0
–	–	–	–	–	750	250	1,000	400	16.24
–	–	–	–	–	300	100	400	1,000	1.5
–	–	–	–	–	300	25	100	600	6.0
–	–	–	–	–	300	25	100	600	9.0
–	–	–	–	–	600	200	800	1,000	4.5
–	–	–	–	–	600	100	400	750	4.5
–	–	–	–	–	600	100	400	750	3.75
–	–	–	–	–	600	100	400	750	18.75
300	10	40	100	0.08	300	10	40	250	0.2
250	10	40	100	0.5	250	10	40	100	0.5
300	10	40	100	0.254	300	10	40	500	1.27
300	10	40	100	0.508	300	10	40	500	2.54
300	10	40	100	1.27	300	10	40	500	6.35
300	10	40	100	2.54	300	10	40	500	12.7
300	50	50	100	0.125	–	–	–	–	–
300	100	200	100	0.15	–	–	–	–	–
500	200	400	100	0.2	–	–	–	–	–
500	200	800	100	0.2	–	–	–	–	–
100	10	20	100	0.07	–	–	–	–	–
500	150	300	100	0.2	–	–	–	–	–
750	200	400	100	0.3	–	–	–	–	–

[121)] Linear modules on plain bearings require an aluminium shaft end support when connected to a motor. The technical values in the specifications are maximum values for each criterion, e.g. speed, stroke length etc.; they are not cumulative values. Suitability under consideration of the individual parameters for usage can be checked online at www.igus.eu/linearmodule-finder.

drylin® drive technology | Linear modules with dryspin® ...

... lead screw technology

Linear module

		dryspin® thread sizes							
		5x5	5x10	6.35x1	6.35x2.54	6.35x5.08	6.35x6.35	6.35x12.7	6.35x25.4
SHT (C)	-08			●	●	●	●	●	●
	-12								
	-20								
	-30								
SLW	-06								
	-10								
	-1660								
	-16120								
	-20								
	-25								
SAW	-0630								
	-0660								
	-1040								
	-1080								
	-16								
SLN	-27	●	●	●	●	●	●	●	●
SLNV	-27	●	●	●	●	●	●	●	●
SHTP	-0112								
SLT	-04-12								
	-04-15								

8x8	8x10	8x15	8x24	8x40	10x2	10x3	10x12	10x25	10x50	12x3	12x5
					●	●	●	●	●		
●	●	●	●	●							
					●	●	●	●	●		
●	●	●	●	●							
					●	●	●	●	●		
					●	●	●	●	●		
										●	●
●	●	●	●	●							
										●	●

● = dryspin® thread
● = Upon request

drylin® drive technology | Linear modules with dryspin® ...

... lead screw technology

Linear module		dryspin® thread sizes							
		12x5	15x25	14x4	14x25	14x30	14x70	18x4	18x24
SHT (C)	-08								
	-12								
	-20							●	●
	-30								
SLW	-06								
	-10								
	-1660			●	●	●	●		
	-16120			●	●	●	●		
	-20							●	●
	-25								
SAW	-0630								
	-0660								
	-1040								
	-1080	●	●						
	-16			●	●	●			
SLN	-27								
SLNV	-27								
SHTP	-0112								
SLT	-04-12								
	-04-15	●	●						

18x40	18x80	18x100	20x5	20x10	20x20	20x50	20x60	20x80	20x90
●	●	●							
			●	●	●	●	●	●	●
●	●	●							
			●	●	●	●	●	●	●

● = dryspin® thread
● = Upon request

drylin® drive technology | Technical options

In addition to the standard configurations, drylin® drives offer numerous solutions for the many requirements of different applications.

The following options can be configured online with the SHT configurator: www.igus.eu/sht-configurator

Pre-load (PL)

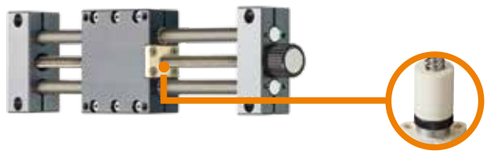
The axial preload reduces the backlash of the system. Positioning and repeatability can be optimised. The required drive torque increases only slightly.



For SHT, SLW and SAW linear modules

Zero-backlash (ZB)

Self-adjusting zero-backlash lead screw nuts are available for SHT modules in sizes 08 and 12. For movements that require repeatability and which are implemented through high helix thread, the ZB function provides a minimal lifelong backlash.



Linear modules with ball-bearing mounted lead screw

The SHT and SLW linear modules with ball bearing supported lead screws give reduced vibration, and increased dynamic capability. These are also suitable for applications with motor drives.



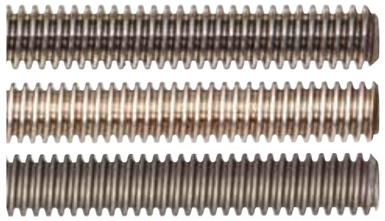
Shaft materials

When using linear modules of the SHT series, you can choose a shaft material from steel, stainless steel, or hard-anodised aluminium (standard). The short delivery time and excellent coefficient of friction and wear make the aluminium version the most common choice.



Lead screw materials

All drylin® linear modules can be delivered with self-locking trapezoidal steel and stainless steel lead screws; upon request, these can also be made from hard-anodised aluminium. The SHT and SLW series can also be configured with dryspin® high helix lead technology. This allows for much higher pitches and drive speeds, but without the self-locking feature.



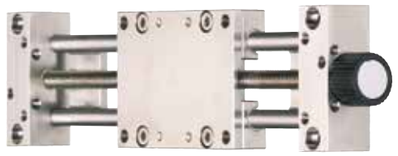
Bearing materials

The bearing surfaces of the drylin® drive units are equipped with lubrication and maintenance-free igus® high performance polymers. Options include materials for high temperature application up to +180°C (iglidur® X, SHT-ES series), and also for FDA-compliant environments (iglidur® A180).



Complete solutions made of stainless steel

The use of AISI 316Ti and AISI 304 makes of the guides resistant to seawater and chemical contact corrosion. The guide shafts are also made from AISI 316Ti.

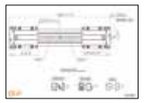


drylin® drive technology | Technical options

Linear modules with several carriages

All drylin® linear modules can be configured with multiple carriages. The short carriages from the SHTC series are perfectly suited for this. The second (or additional) carriage can be installed as a freely moving unit without lead screw, or as a fixed unit with its own trapezoidal lead screw nut.



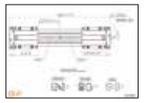


Online customer drawing
▶ www.igus.eu/customerdrawing

Right/left opposite drive

In addition to the standard right-handed lead screws, left-hand lead screws and opposite drive lead screws can also be used. This option often used in format adjustments can be specified for all diameters and types. Also available as a multi-carriage system or with right/left opposite drive.





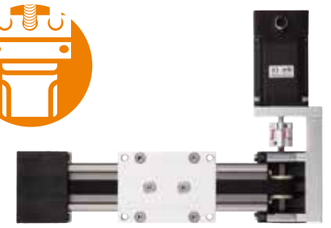
Online customer drawing
▶ www.igus.eu/customerdrawing

Linear axes with motor: www.igus.eu/drylinE-finder

Linear modules with motor

Several drylin® drive units are compatible with the drylin® modular kit. As linear axes, they can be easily and quickly configured directly to the matching igus® stepper motors, power cables and proximity switches - assembled and tested from one source.





More options:

Adjustable radial clearance

The "turn to fit" feature allows individual clearance adjustment by hand. The adjustment is done in 0.01-mm increments and cannot be triggered unintentionally during the operation (SLW series 10-20).



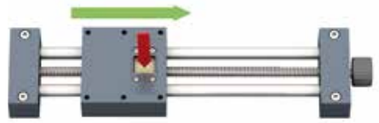
For SLW and SAW linear modules



For SHT linear modules

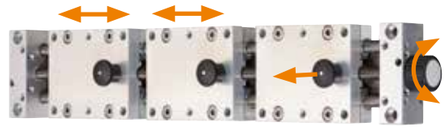
Fast Forward (FF)

SHT linear modules and SHTP plastic linear modules with quick-release mechanism offer a combination of accurate positioning and fast manual adjustment.



drylin® SLW "Stop and Go"

This additional function for linear carriages enables the use of an unlimited number of carriages on one guide - controlled by only one lead screw. The connection to the lead screw is engaged or released via the button.



XY-tables

The SHT and SLW linear modules can also be configured as XY tables. XY adjustments can therefore be given with a single unit.



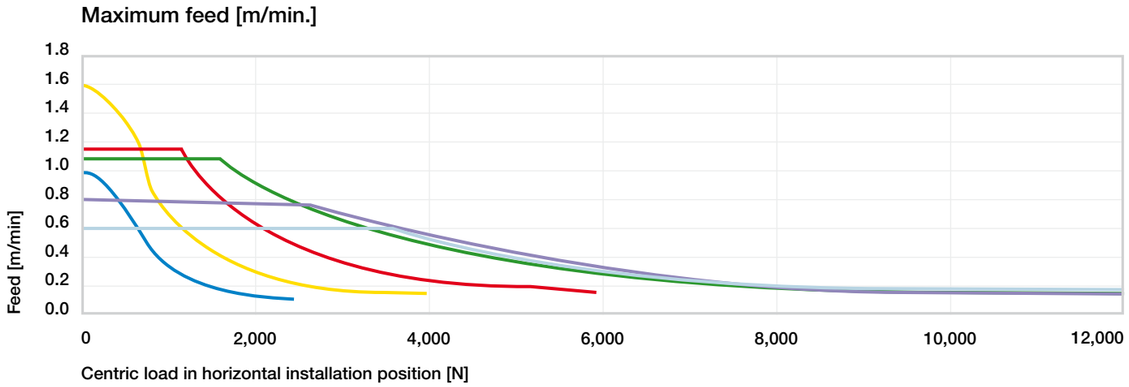


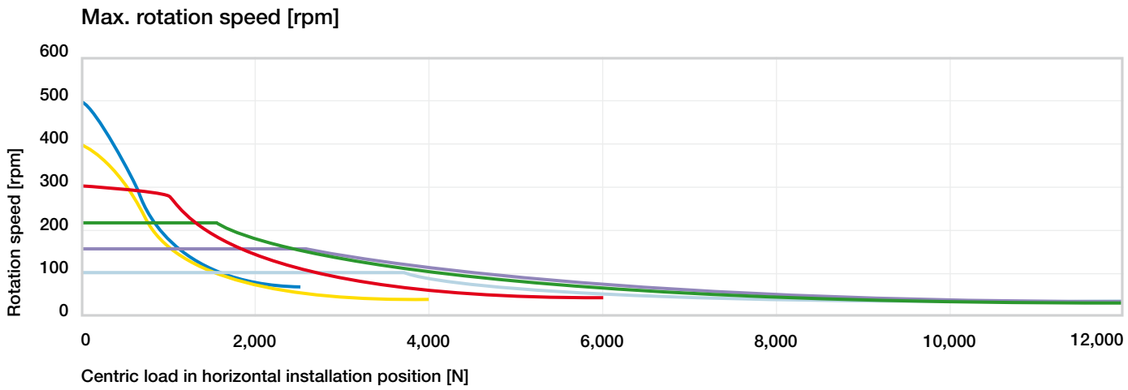
drylin® linear modules have been developed for position settings of all types. The linear setting is achieved by means of trapezoidal lead screws that can be operated manually or by motor. The maximum linear continuous speed is 1.6m/min depending on thread pitch and load. The suitability of the lead screw linear units for an application can be checked using the graphs below.

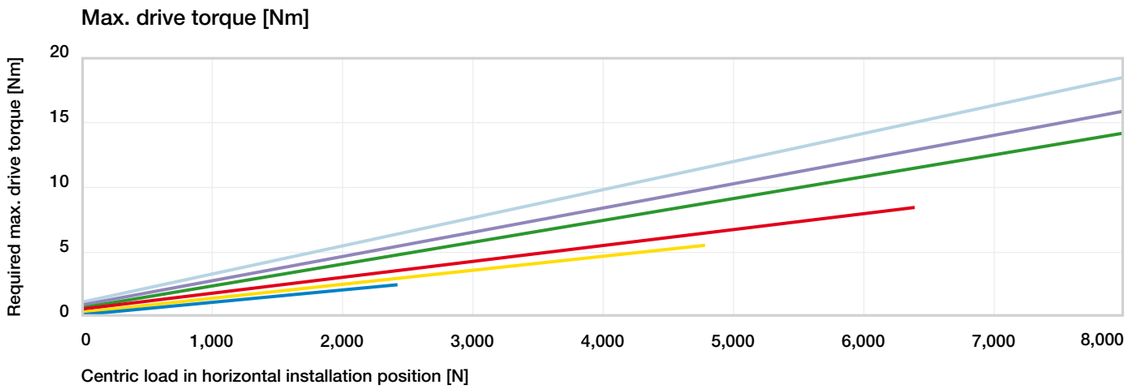
HORIZONTAL



HORIZONTAL







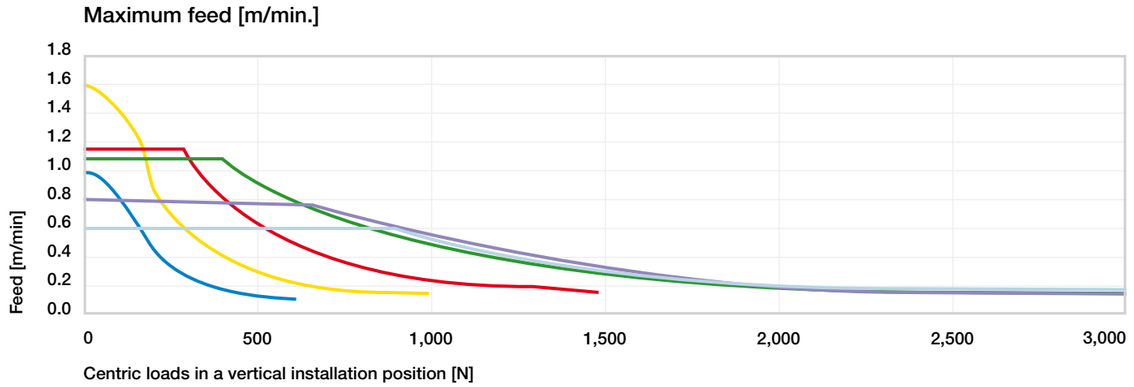
The following trapezoidal lead screw drive sizes are used in SHT, SLW and SET linear modules:

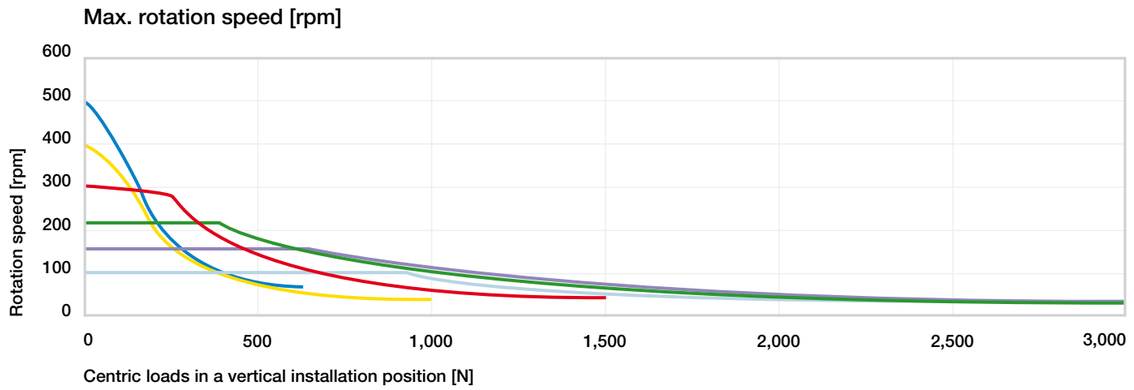
- **Tr10x2:** SHT-12, SHTC-12, SHTP-12, SLW-1040, SLW-1080, SLW-1040-ES, SET-25
- **Tr14x4:** SLW-1660
- **Tr18x4:** SHT-20, SHTC-20, SLW-2080
- **Tr24x5:** SHT-30, SHTC-30, SLW-25120
- **Tr26x5:** SHTC-40
- **Tr30x6:** SHTC-50

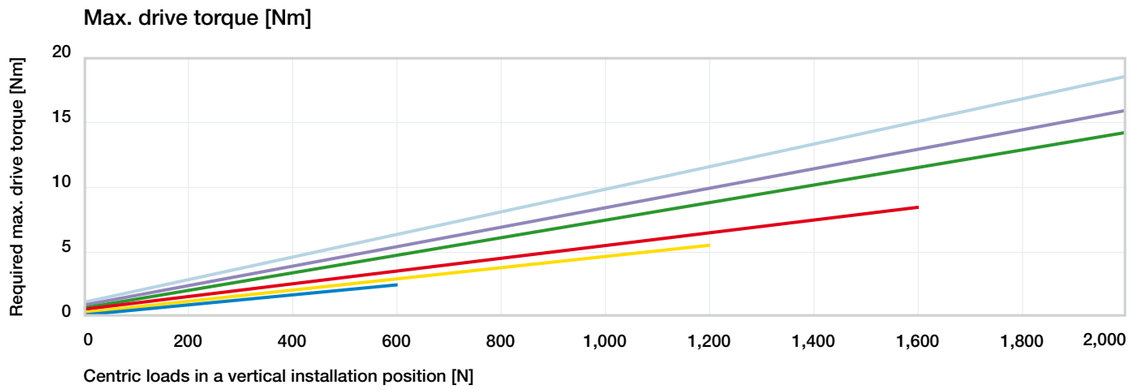
VERTICAL



VERTICAL







drylin® DL | Linear modules | Product range

Linear modules with lead screw or toothed belt - deliverable within 24 hours

Example configurations:

drylin® SHT-12, Tr10x2



With machined end Ø 6h9,
17mm length
DL-SHT-0926, 250mm stroke
DL-SHT-0927, 500mm stroke

With position indicator, lead screw clamp and hand wheel
DL-SHT-0928, 250mm stroke
DL-SHT-0929, 500mm stroke

drylin® SLW-1040, Tr10x2



With machined end Ø 6h9,
17mm length
DL-SLW-0549, 250mm stroke
DL-SLW-0550, 500mm stroke

With position indicator, lead screw clamp and hand wheel
DL-SHT-0551, 250mm stroke
DL-SHT-0552, 500mm stroke

drylin® SAW-0660, Ds10x25



With machined end Ø 6h9,
15mm length
DL-SAW-0085, 100mm stroke
DL-SAW-0086, 500mm stroke

drylin® ZLW-0660-S



Toothed belt axis ZLW-0660-S
DL-ZLW-0709, 250mm stroke

Toothed belt axis ZLW-1080-S
DL-ZLW-0711, 500mm stroke
DL-ZLW-00712, 1,000mm stroke

drylin® SAW-0630, Tr8x1.5



With NEMA17 stepper motor
with stranded wires
DLE-SA-0004, 250mm stroke

SAW-1040 linear module, Tr10x2
With NEMA23 stepper motor
with stranded wires
DLE-SA-0005, 500mm stroke

drylin® ZLW-1040-B



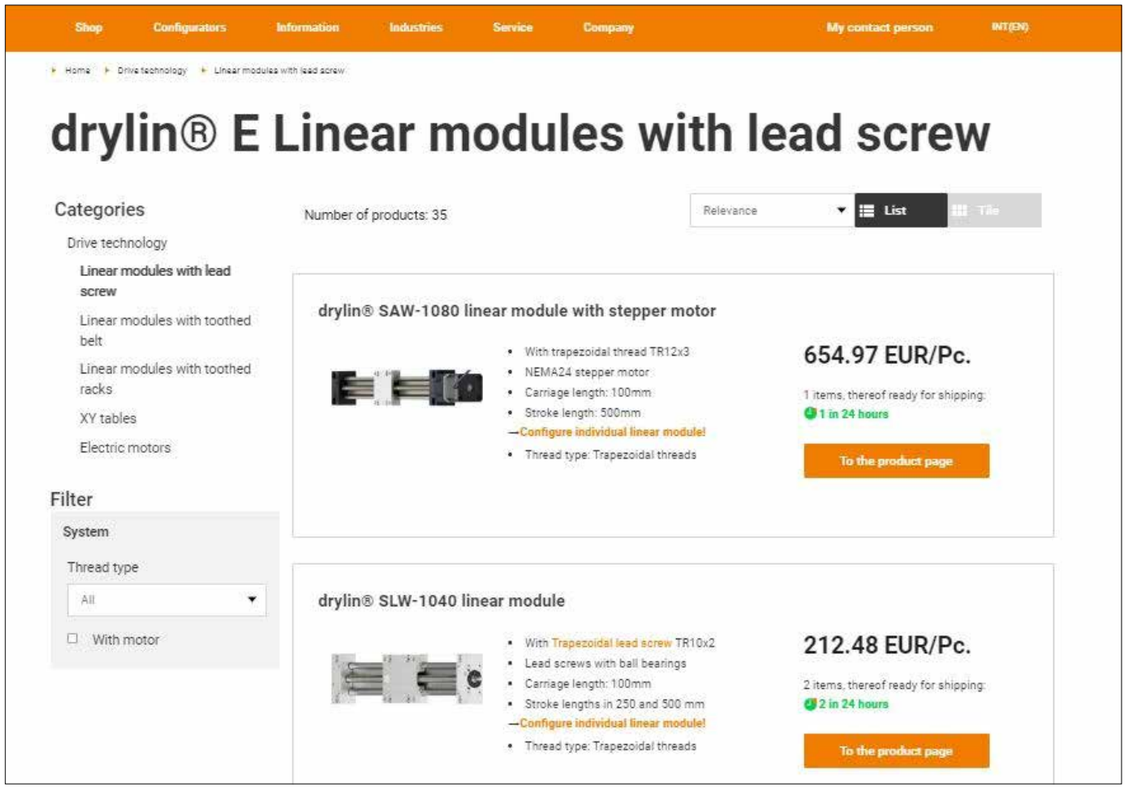
With NEMA23 stepper motor
with stranded wires
DLE-SA-0002, 500mm stroke

Toothed belt axis ZLW-1080-S
With NEMA23XL stepper motor
with stranded wires
DLE-SA-0003, 1,000mm stroke

More information
▶ www.igus.eu/drylin-express

drylin® drive technology | Design and calculation

Online shop for drylin® linear modules



Linear modules with just one click

- Simple ordering from the online shop: ready-to-connect linear modules and linear axes
- Two defined stroke lengths for each system
- With drive pins for manual and electric drive
- Ready-to-install with lead screw clamp, position indicator, hand wheel for fast adjustments or NEMA stepper motor.

More information and prices online
▶ www.igus.eu/linear-module-shop

drylin® drive technology | Online product finder

Online configuration of linear units



Complete drive technology configurable with or without motor

After you have selected your application parameters, the product finder shows an overview of the linear systems and the motors that are suitable. The product finder calculates the individual price of the linear axis as well as the utilisation rate of the motors and the service life in strokes. With just a few clicks, you can put together a complete linear axis including motor, connection cables and built-on parts.

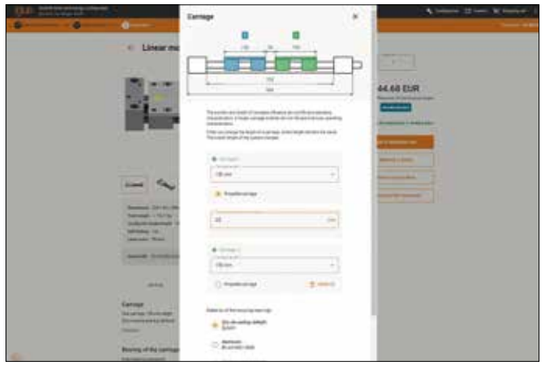
▶ **www.igus.eu/linearmodule-configurator**

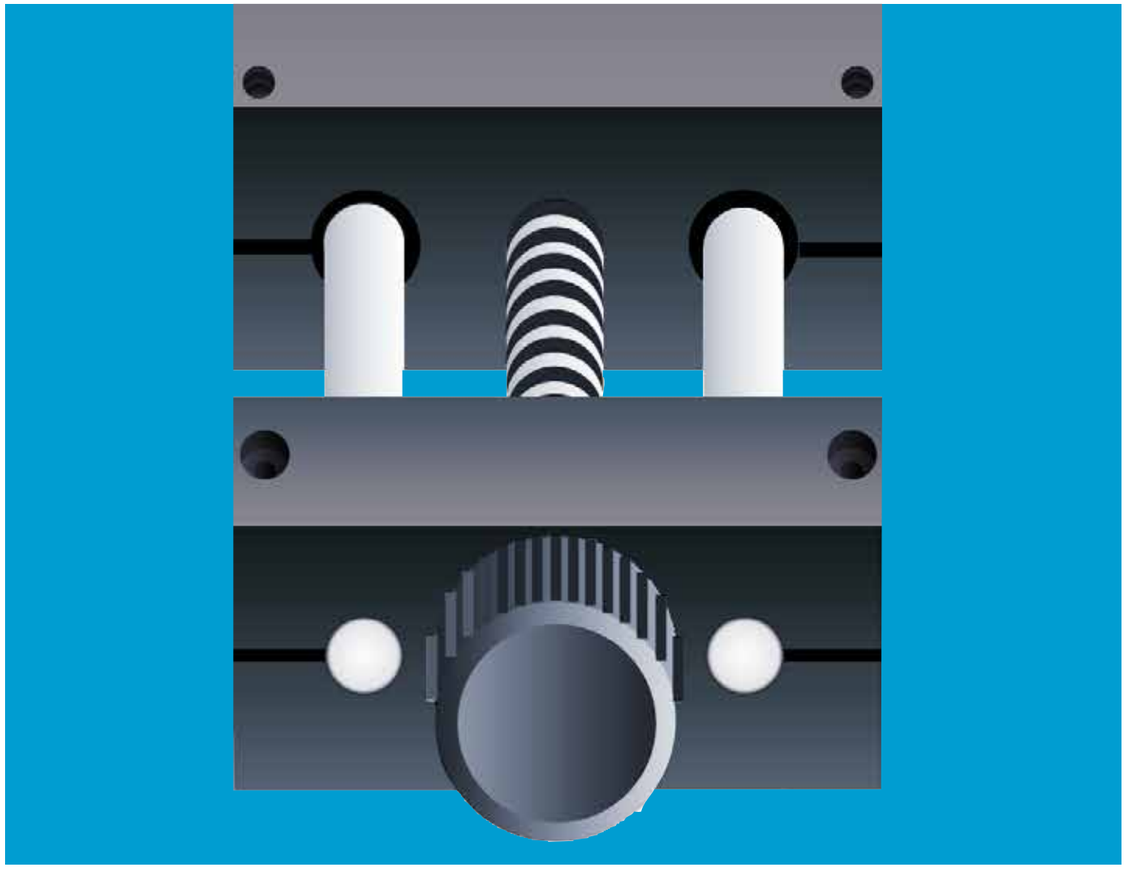


Product finder for drylin® linear module

Whether on laptop, pad or smart phone, selecting the right linear module is now very convenient and easy. Simply select the right system with a few technical parameters and the desired stroke length.

▶ **www.igus.eu/linear-module-product-finder**





drylin® drive technology - SHT linear modules

- Drive: trapezoidal or high-helix lead screw
- Ball-bearing mounted lead screw drives for higher dynamic forces
- Lead screws made from steel, stainless steel or aluminium
- Carriage in either quad block or compact design
- Configurable online



EN 09/2023

Robust and precise



Basic parts (shaft end supports/carriages) are made from machined aluminium with anodised surfaces or from stainless steel

Drive: Self-locking trapezoidal thread or fast adjust high helix thread

Bearing elements/ lead screw nut made from lubrication-free iglidur® polymers

Carriages in long or short "compact" design

Shaft material: aluminium, steel or stainless steel

Lead screw material: steel or stainless steel, plain or ball bearings

For manual adjustments, large range of accessories available ▶ **Page 613**

Configurable with motor as a ready-to-install linear drive

Lubrication-free linear modules - drylin® SHT

The drylin® SHT linear modules can be moved lubrication-free, while also offering high precision and robust components. The units can be individually configured with various shaft and lead screw materials, carriage lengths and additional functions. The SHT series is suitable for manual and motorised operation and is supplied ready for connection with drylin® motors.

- All bearing positions are completely lubrication-free due to the use of iglidur® high performance polymers
- Freely selectable stroke lengths
- High temperature version available
- SHT linear modules can be configured as a multi-carriage system or with right/left opposite drive

Typical application areas

- Format adjustment
- Actuators
- Sensor adjustment
- Marking and engraving technology
- Laboratory equipment

Available in 3-8 days
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

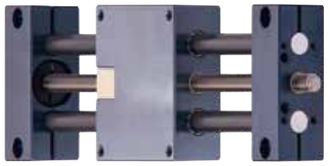
Carriage lengths: 30-180mm
Pitch: 2-100mm/rotation
Stroke lengths: up to 1,500mm

Product finder
▶ www.igus.eu/sht-productfinder

Configure SHT modules quickly and easily online
▶ www.igus.eu/drylin-sht-configurator

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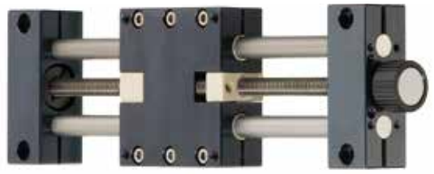
100% lubrication and maintenance-free



SHT linear module - standard

- Solid design
- Three different sizes
- Various materials for shaft and lead screw
- Maintenance-free and optionally corrosion-resistant

▶ **Page 524**



SHT-PL linear modules, pre-load

- Pre-loaded trapezoidal lead screw nuts, pre-load force: 50N
- Manually and continuously adjustable radial clearance
- Lightweight due to aluminium and polymer

▶ **Page 525**



SHTC linear module - variable

- Design flexibility due to short carriages
- Ideal for 2 carriages
- 5 sizes from Ø 12 up to 50mm

▶ **Page 526**



SHTS linear module - the fast one

- With high helix lead screw
- High-speed solution for fast positioning
- Up to 100mm stroke/rotation

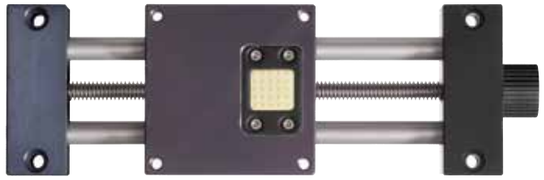
▶ **Page 527**



SHT-BB linear module - ball-bearing supported

- Higher rotation speed and higher precision
- Belt drive permits radial loads
- Constant drive torque
- Less axial clearance

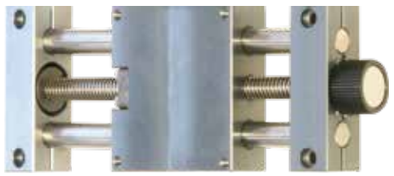
▶ **Page 528**



SHT-FF linear module - "Fast-Forward"

- With quick-release mechanism
- Precise and fast positioning
- Including self-locking brake
- Only recommended for horizontal applications

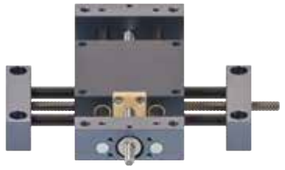
▶ **Page 532**



SHT linear module made from stainless steel

- All components (shaft end supports, carriages, shafts, lead screws) made of corrosion-resistant stainless steel
- Select bearings from three different iglidur® materials

▶ **Page 530**



XY-tables

- XY tables standard and pre-load

▶ **Page 534**

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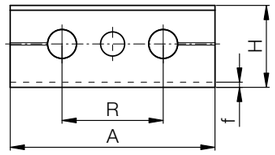
drylin® SHT | Linear modules | Product range

Self-locking



- Solid design
- Various materials for shaft and lead screw
- Maintenance-free and optionally corrosion-resistant
- Tr6x2, Tr10x2, Tr18x4, Tr24x5
- Temperature-resistant up to +60°C
- Accessories available ▶ **Page 613**
- Lead screw nuts are available separately ▶ **Page 470**
- **Available with motor**

reddot design award winner 2006



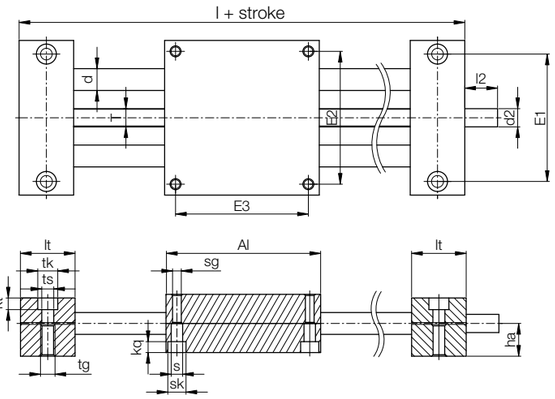
Configurable online
▶ www.igus.eu/drylin-SHT-configurator

Order key

Order example

SHT-12-AWM

Standard | Installation size | Shaft material



Technical data

Part No.	Max. stroke length	Aluminium shaft		Steel shaft		Max. static load capacity	
		Weight	addit. (per 100mm)	Weight	addit. (per 100mm)	axial	radial
	[mm]	[kg]	[kg]	[kg]	[kg]	[N]	[N]
SHT-08-AWM	300	0.24	0.05	0.27	0.1	100	360
SHT-12-AWM	750	1.1	0.1	1.3	0.2	700	2,800
SHT-20-AWM	1,000	3.2	0.3	3.9	0.6	1,600	6,400
SHT-30-AWM	1,250	8.6	0.6	10.9	1.4	2,500	10,000

Dimensions [mm]

Part No.	A -0.3	Al -0.3	H	E1 ±0.15	E2 ±0.15	E3 ±0.15	l	R	f	lt	tk	ts
SHT-08-AWM	65	65	23	52	55	55	96	32	1.5	15.5	10	5.5
SHT-12-AWM	85	85	34	70	73	73	145	42	2	30	11	6.6
SHT-20-AWM	130	130	48	108	115	115	202	72	2	36	15	9.0
SHT-30-AWM	180	180	68	150	158	158	280	96	4	50	20	13.5

Part No.	tg	kt ±0.1	Øs	sk	sg	kq	d	T	l2	d2 Standard	ha
SHT-08-AWM	M6x8	7	4.2	8	M5	4.6	8	Tr6x2	17	Tr6x2	13
SHT-12-AWM	M8x18	6.4	5.3	10	M6	6.0	12	Tr10x2[157]	17	Tr10x2[92] [157]	18
SHT-20-AWM	M10x23	8.6	6.4	11	M8	7.0	20	Tr18x4	26	12h9	23
SHT-30-AWM	M16x25	12.6	11.0	18	M12	10.6	30	Tr24x5	38	14h9	36

[92] Lead screw end unmachined; [157] Also available with Tr10x3

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drylin® SHT linear modules

drylin® SHT | Linear modules | Product range

Axial pre-load, radial adjustment





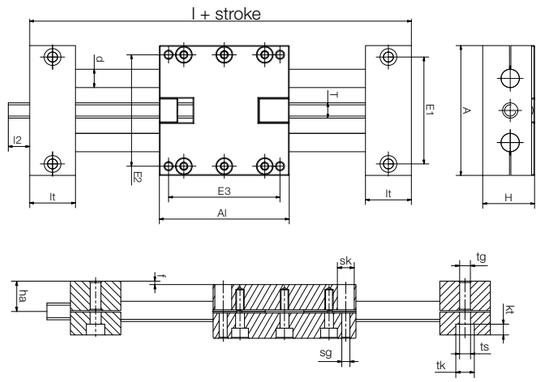
Pre-loaded trapezoidal lead screw nut

Order key

Order example

SHT-12-AWM-PL

Standard | Installation size | Shaft material | Clearance-free, pre-loaded



- Pre-loaded trapezoidal lead screw nuts, pre-load force: 50N
- Manually and continuously adjustable radial clearance
- Lightweight due to aluminium and polymer
- Lead screw end unmachined
- Temperature-resistant up to +60°C
- Accessories available ▶ **Page 613**
- Lead screw nuts are available separately ▶ **Page 470**
- **Available with motor**

Configurable online
▶ www.igus.eu/drylin-SHT-configurator

Technical data

Part No.	Max. stroke length	Aluminium shaft		Steel shaft		Max. static load capacity	
		Weight	addit. (per 100mm)	Weight	addit. (per 100mm)	axial	radial
	[mm]	[kg]	[kg]	[kg]	[kg]	[N]	[N]
SHT-12-AWM-PL	750	1.1	0.1	1.3	0.2	700	2,800
SHT-20-AWM-PL	1,000	3.2	0.3	3.9	0.6	1,600	6,400
SHT-30-AWM-PL	1,250	8.6	0.6	10.9	1.4	2,500	10,000

Dimensions [mm]

Part No.	A -0.3	Al -0.3	H	E1 ±0.15	E2 ±0.15	E3 ±0.15	l	R	f	lt	tk	ts
SHT-12-AWM-PL	85	85	34	70	73	73	145	42	2	30	11	6.6
SHT-20-AWM-PL	130	130	48	108	115	115	202	72	2	36	15	9.0
SHT-30-AWM-PL	180	180	68	150	158	158	280	96	4	50	20	13.5

Part No.	tg	kt ±0.1	sk	sg	d	T	l2	d2 Standard	ha
SHT-12-AWM-PL	M8x18	6.4	10	M6	12	Tr10x2[157]	17	Tr10x2[92] [157]	18
SHT-20-AWM-PL	M10x23	8.6	11	M8	20	Tr18x4	26	12h9	23
SHT-30-AWM-PL	M16x25	12.6	18	M12	30	Tr24x5	38	14h9	36

[92] Lead screw end unmachined; [157] Also available with Tr10x3

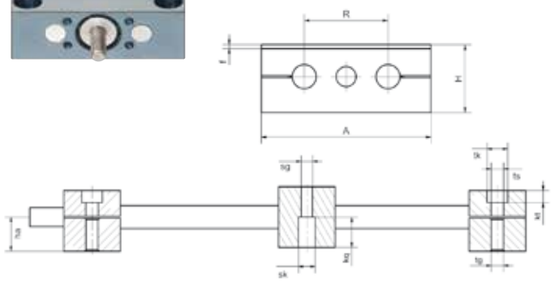
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drylin® SHT | Linear modules | Product range

Compact design



- Design flexibility
- Ideal for 2 carriages
- Adjustable bearing clearance
- Accessories available
  ▶ **Page 613**
- Lead screw nuts are available separately ▶ **Page 470**
- **Available with motor**



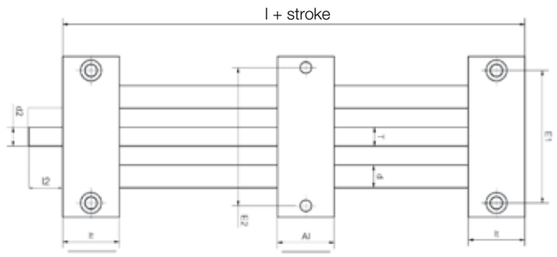
Configurable online
▶ **www.igus.eu/drylin-SHT-configurator**

Order key

Order example

SHTC-12-AWM

Flexible	Installation size	Shaft material



Technical data and dimensions [mm]

Part No.	Max. stroke length	Aluminium shaft		Steel shaft		Max. static load capacity	
		Weight	addit. (per 100mm)	Weight	addit. (per 100mm)	axial	radial
	[mm]	[kg]	[kg]	[kg]	[kg]	[N]	[N]
SHTC-08-AWM	300	0.2	0.05	0.23	0.1	100	360
SHTC-12-AWM	750	0.7	0.1	0.8	0.2	700	2,800
SHTC-20-AWM	1,000	1.9	0.3	2.3	0.6	1,600	6,400
SHTC-30-AWM	1,250	4.6	0.6	5.8	1.4	2,500	10,000
SHTC-40-SWMH	1,500	11.0	0.9	16.0	2.4	4,000	16,000
SHTC-50-SWMH	1,500	17.0	1.2	26.3	3.5	6,250	25,000

Part No.	A -0.3	Al -0.3	H	E1 ±0.15	E2 ±0.15	l	R	f	lt	tk	ts	tg
SHTC-08-AWM	65	38	23	55	55	69	32	1.5	15.5	10	5.5	M6x8
SHTC-12-AWM	85	30	34	70	73	90	42	2	30	11	6.6	M8x18
SHTC-20-AWM	130	36	48	108	115	108	72	2	36	15	9.0	M10x23
SHTC-30-AWM	180	50	68	150	158	150	96	4	50	20	13.5	M16x25
SHTC-40-SWMH	230	70	84	202	202	210	122	4	70	20	13.5	M16x40
SHTC-50-SWMH	280	80	100	250	250	240	152	4	80	20	13.5	M16x35

Part No.	kt ±0.1	sk	sg	kq	d	T	l2	d2 Standard	ha
SHTC-08-AWM	7	8	M5	4.6	8	Tr6x2	17	Tr6x2	13
SHTC-12-AWM	6.4	10	M6	6.0	12	Tr10x2[157)]	17	Tr10x2[92) 157)]	18
SHTC-20-AWM	8.6	11	M8	7.0	20	Tr18x4	26	12h9	23
SHTC-30-AWM	12.6	18	M12	10.6	30	Tr24x5	38	14h9	36
SHTC-40-SWMH	12.6	20	M16	39	40	Tr26x5	45	16h9	44
SHTC-50-SWMH	12.6	20	M16	49	50	Tr30x6	50	20h9	52

[92)] Lead screw end unmachined; [157)] Also available with Tr10x3

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drylin® SHT | Linear modules | Product range

The fast one with dryspin® high helix thread

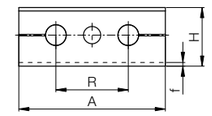


- Pitch Ds10x12, Ds10x50, Ds18x100
- High-speed solution
- Accessories available
  ▶ **Page 613**
- Lead screw nuts are available separately ▶ **Page 470**
- **Available with motor**

reddot design award
winner 2006

Configurable online
▶ **www.igus.eu/drylin-SHT-configurator**

The complete overview of the available lead screw sizes can be found on ▶ Page 510

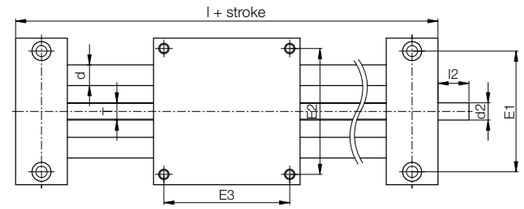


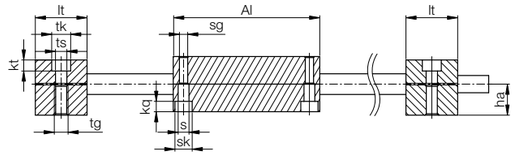
Order key

Order example

SHT S-12-AWM-10x12

Standard	High helix thread	Dimension	Shaft material	Pitch





Technical data and dimensions [mm]

Part No.		Max. stroke length	Aluminium shaft		Max. static load capacity	
			Weight	additional (per 100mm)	axial	radial
		[mm]	[kg]	[kg]	[N]	[N]
SHTS-12-AWM-10x12		750	1.1	0.1	100	400
SHTS-12-AWM-10x50		750	1.1	0.1	100	400
SHTS-20-AWM-18x100		1,000	3.2	0.3	400	1,600
SHTS-30-AWM-20x5	New	1,000	8.6	0.6	1,000	4,000

Dimensions [mm]

Part No.		A	Al	H	E1 ±0.15	E2 ±0.15	E3 ±0.15	l	R	f	lt	tk	ts	tg
SHTS-12-AWM-10x12		85	85	34	70	73	73	145	42	2	30	11	6.6	M6x8
SHTS-12-AWM-10x50		85	85	34	70	73	73	145	42	2	30	11	6.6	M6x8
SHTS-20-AWM-18x100		130	130	48	108	115	115	202	72	2	36	15	9.0	M10x23
SHTS-30-AWM-20x5	New	180	180	68	150	158	158	280	96	4	50	20	13.5	M16x25

Part No.		kt ±0.1	Øs	sk	sg	kq	d	T	l2	d2 Standard	ha
SHTS-12-AWM-10x12		6.4	6.3	10	M6	6.0	12	10x12	17	Ds10x12[92)]	18
SHTS-12-AWM-10x50		6.4	6.3	10	M6	6.0	12	10x50	17	Ds10x50[92)]	18
SHTS-20-AWM-18x100		8.6	6.4	11	M8	7.0	20	18x100	26	12h9	23
SHTS-30-AWM-20x5	New	12.6	11	18	M12	10.6	30	Ds20x5	38	14h9	36

[92)] Lead screw end unmachined

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drylin® SHT | Linear modules | Product range

With ball bearing supported lead screw



- Higher speeds
- Higher precision
- Reduced axial clearance
- Belt drive permits radial loads
- Constant drive torque
- Zero-backlash function available for sizes 08 and 12
- Accessories available
  ▶ **Page 613**
- Lead screw nuts are available separately ▶ **Page 470**
- **Available with motor**

Configurable online
▶ **www.igus.eu/drylin-SHT-configurator**

Order key

Order example

SHT - BB - 12 - AWM

Standard	Ball bearing	Installation size	Shaft material

Order key

Order example

SHT - 08 - ZB - AWM

Standard	Installation size	Ball bearing, zero-backlash	Shaft material

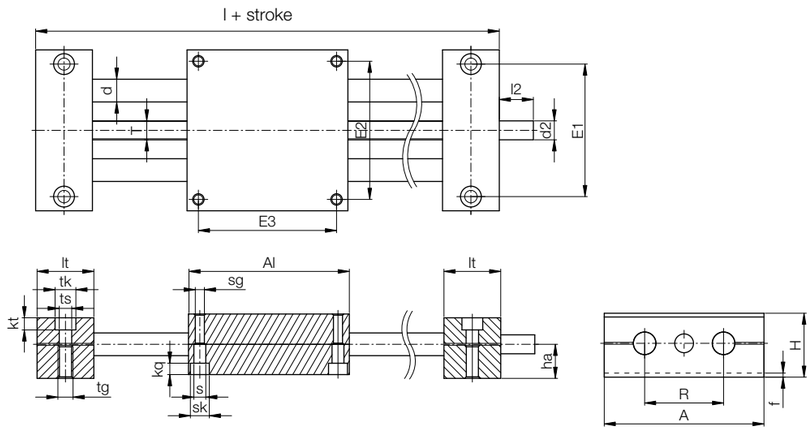
Technical data

Part No.	Max. stroke length	Aluminium shaft		Steel shaft		Max. static load capacity	
		Weight	addit. (per 100mm)	Weight	addit. (per 100mm)	axial	radial
	[mm]	[kg]	[kg]	[kg]	[kg]	[N]	[N]
SHTC-08-ZB-AWM	300	0.240	0.05	0.270	0.094	100	360
SHT-08-ZB-AWM-6X2P1	300	0.205	0.05	0.228	0.103	100	400
SHT-08-ZB-AWM-6.35x12.7	300	0.205	0.05	0.228	0.103	100	400
SHT-12-ZB-AWM-10x12	500	1.1	0.1	1.3	0.2	150	600
SHT-BB-12-AWM	500	1.1	0.1	1.3	0.2	350	1,400
SHT-BB-20-AWM	900	3.2	0.3	3.9	0.6	1,000	4,000
SHT-BB-30-AWM	1,000	8.6	0.6	10.9	1.4	1,500	6,000

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drylin® SHT linear modules

drylin® SHT | Linear modules | Product range



Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	l	R	f	lt	tk	ts
	-0.3	-0.3		±0.15	±0.15	±0.15						
SHTC-08-ZB-AWM	65	38	23	52	55	26	96	32	1.5	15.5	10	5.5
SHT-08-ZB-AWM-6X2P1	65	65	23	52	55	55	96	32	1.5	15.5	10	5.5
SHT-08-ZB-AWM-6.35x12.7	65	65	23	52	55	55	96	32	1.5	15.5	10	5.5
SHT-12-ZB-AWM-10x12	85	85	34	70	73	73	145	42	2	30	11	6.6
SHT-BB-12-AWM	85	85	34	70	73	73	145	42	2	30	11	6.6
SHT-BB-20-AWM	130	130	48	108	115	115	202	72	2	36	15	9.0
SHT-BB-30-AWM	180	180	68	150	158	158	280	96	4	50	20	13.5

Part No.	tg	kt	Øs	sk	sg	kq	d	T	l2	d2	ha
		±0.1								Standard	
SHTC-08-ZB-AWM	M6x8	7	4.2	8	M5	4.6	8	6 / 6.35	15	6 / 6.35	13
SHT-08-ZB-AWM-6X2P1	M6x8	7	4.2	8	M5	4.6	8	Tr6x2	15	Tr6x2[92)]	13
SHT-08-ZB-AWM-6.35x12.7	M6x8	7	4.2	8	M5	4.6	8	6.35x12.7	15	6.35[92)]	13
SHT-12-ZB-AWM-10x12	M8x18	6.4	6.3	10	M6	6.0	12	10x12	17	10x12[92)]	18
SHT-BB-12-AWM	M8x18	6.4	6.3	10	M6	6.0	12	Tr10x2	17	Tr10x2[92)]	18
SHT-BB-20-AWM	M10x23	8.6	6.4	11	M8	7.0	20	Tr18x4	26	12h9	23
SHT-BB-30-AWM	M16x25	12.6	11.0	18	M12	10.6	30	Tr24x5	38	14h9	36

[92)] **Lead screw end unmachined**

EN 09/2023

drylin® SHT | Linear modules | Product range

Made of stainless steel



- Corrosion-resistant carriages and shaft end supports made of stainless steel
- High grade stainless steel shafts (AISI 440B)
- Choice of bearing material:
  iglidur® J = Standard
  iglidur® A180 = FDA-compliant
  iglidur® X = High temperature up to +150°C[117)]
- Can be configured online as SHTC compact version

Order key

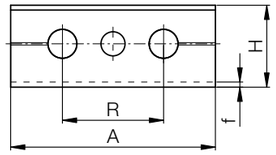
Order example

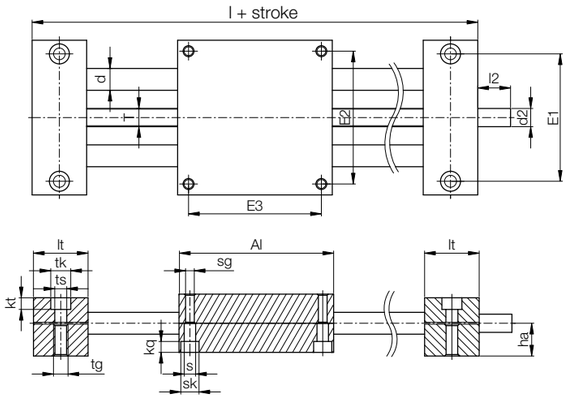
SHT-ES J-08

Standard	Stainless steel	Bearing material	Installation size

Configurable online
▶ **www.igus.eu/drylin-SHT-configurator**

reddot design award winner 2006





Technical data

Part No.	Max. stroke length	Steel shaft Weight	Steel shaft additional (per 100mm)	Max. static load capacity axial	Max. static load capacity radial
	[mm]	[kg]	[kg]	[N]	[N]
SHT-ESJ-08	300	1.01	0.1	100	360
SHT-ESJ-12	750	2.81	0.24	700	2,800
SHT-ESJ-20	1,000	8.72	0.7	1,600	6,400
SHT-ESJ-30	1,250	24.11	1.47	2,500	10,000

Dimensions [mm]

Part No.	A -0.3	Al -0.3	H	E1 ±0.15	E2 ±0.15	E3 ±0.15	l	R	f	lt	tk	ts
SHT-ESJ-08	65	65	23	52	55	55	96	32	1.5	15.5	10	5.5
SHT-ESJ-12	85	85	34	70	73	73	145	42	2	30	11	6.6
SHT-ESJ-20	130	130	48	108	115	115	202	72	2	36	15	9.0
SHT-ESJ-30	180	180	68	150	158	158	280	96	4	50	20	13.5

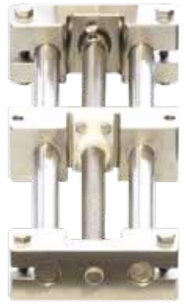
Part No.	tg	kt ±0.1	Øs	sk	sg	kq	d	T	l2	d2 Standard	ha
SHT-ESJ-08	M6x8	7	4.2	8	M5	4.6	8	Tr6x2	17	Tr6x2	13
SHT-ESJ-12	M8x18	6.4	6.3	10	M6	6.0	12	Tr10x2	17	Tr10x2[92)]	18
SHT-ESJ-20	M10x23	8.6	6.4	11	M8	7.0	20	Tr18x4	26	12h9	23
SHT-ESJ-30	M16x25	12.6	11.0	18	M12	10.6	30	Tr24x5	38	14h9	36

[92)] Lead screw end unmachined

[117)] In the event of severe temperature fluctuations during transport, storage and use, thermal expansion effects cannot be ruled out

drylin® SHT | Linear modules | Product range

Hygienic design



STAIN-LESS STEEL

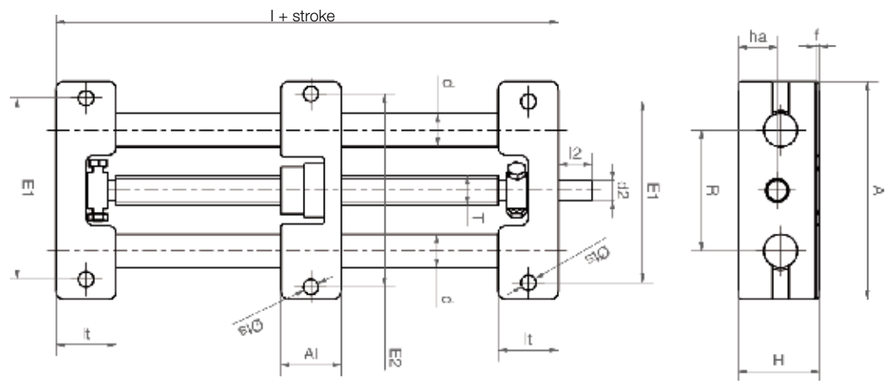
Order key

Order example

SHTC-20-EWM-HYD

Flexible	Dimension	Shaft material	Hygienic design

- Lightweight
- For washdown
- Wide gaps
- Materials: plastic and stainless steel
- Lead screw nuts made of FDA-compliant iglidur® A180
- Accessories available ▶ **Page 613**



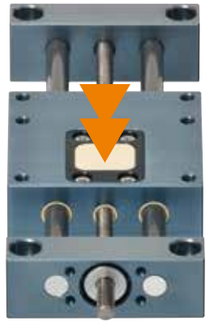
The lead screw linear unit can be delivered with complete FDA-compliant materials.

Dimensions [mm]

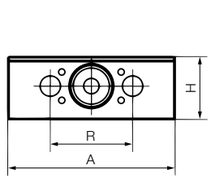
Part No.	A -0.3	Al -0.3	H	E1 ±0.15	E2 ±0.15	l	R	f	lt	ts	d	T	l2	d2	ha
SHTC-20-EWM-HYD	130	35	48	108	115	108	72	2	36	9.0	20	Tr18x4	26	12 h9	23

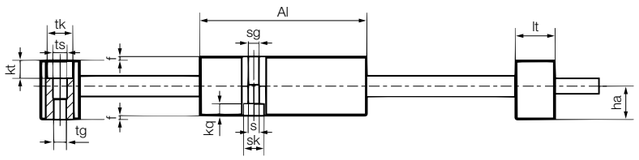
drylin® SHT | Linear modules | Product range

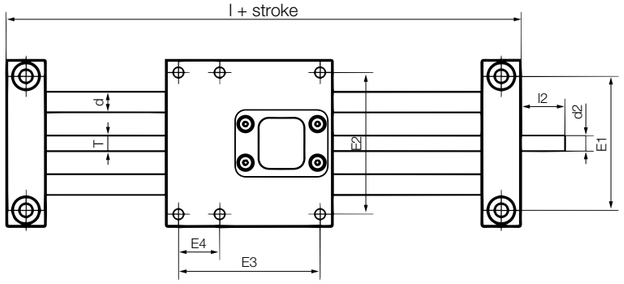
With "Fast-Forward" quick release mechanism



- Fast manual format adjustments
- Precise aluminium version
- Variable stroke length
- Multi-carriage solutions
- Recommended only for horizontal applications
- Accessories available ▶ **Page 613**
- **Available with motor**







Technical data

Part No.	Max. stroke length	Aluminium shaft		Max. static axial load
		Weight	addit. (per 100mm)	
	[mm]	[kg]	[kg]	[N]
SHT-08-AWM-FF	300	0.35	0.04	100
SHT-12-AWM-FF	750	1.1	0.1	150

Dimensions [mm]

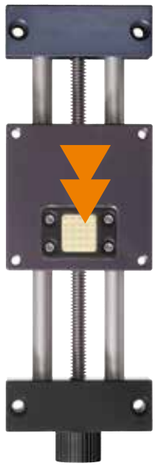
Part No.	A	Al	H	E1	E2	E3	E4	l	R	lt	l2	d2
SHT-08-AWM-FF	65	65	23	52	55	55	16	96	32	15.5	17	6
SHT-12-AWM-FF	85	85	34	70	73	73		145	42	30	17	Tr10x2[92)]

Part No.	f	tk ±0.1	ts	tg	kt	Øs	sk	sg	kg	d Standard	T	ha
SHT-08-AWM-FF	1.5	10	5.5	M6x8	7	4.2	8	M5	4.6	8	6	13
SHT-12-AWM-FF	2	11	6.6	M8x18	6.4	6.3	10	M6	6.0	12	Tr10x2	18

[92)] Lead screw end unmachined

drylin® SHT | Linear modules | Product range

With "Fast-Forward" quick release mechanism



- Fast manual format adjustments
- Aluminium version
- For fast format adjustments
- Including self-locking brake
- Variable stroke length
- Only recommended for horizontal applications
- Max. stat. axial load 200N (horizontal mounting position)
- Max. dynamic. axial load 50N
- Accessories available ▶ **Page 613**
- **Available with motor**

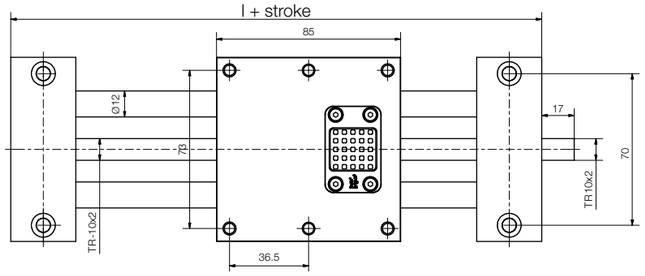
product design award 2011

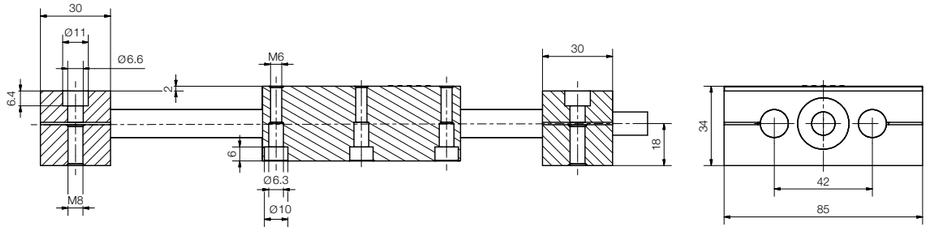
Order key

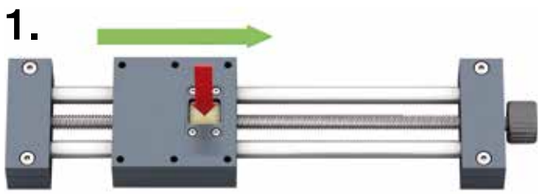
Order example

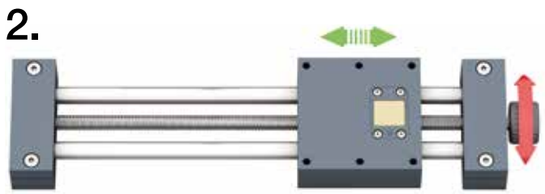
SHT-12-AWM-FF

Standard	Installation size	Shaft material	Fast Forward





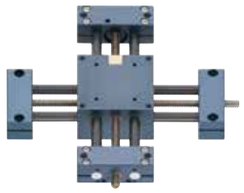




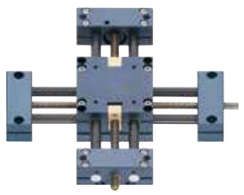
press > disengage > move manually > click into place > fine-tuning

drylin® SHT | XY tables | Product range

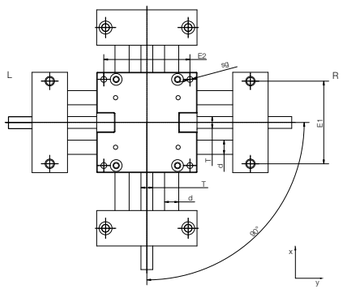
XY table standard/pre-load



drylin® SHT



drylin® SHT-PL



- Available as standard and pre-loaded version
- High precision, extreme stiffness and accurate alignment due to the single-piece carriage
- Adjustments by trapezoidal thread
- Assembly of upper unit with left or right alignment possible
- Accessories available ▶ **Page 613**

Select versions and accessories online
▶ www.igus.eu/drylinSHT

Order key

Order example

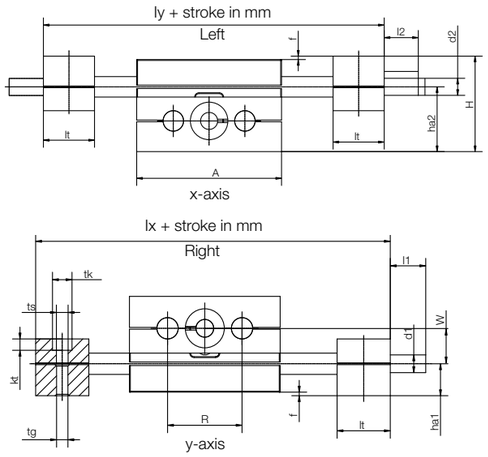
SHT-XY-12-AWM-PL-R

Standard	XY table	Dimension	Shaft material	Pre-load (optional)	Unit

Options: **unit**

R: y-unit
right adjustment

L: y-unit
left adjustment



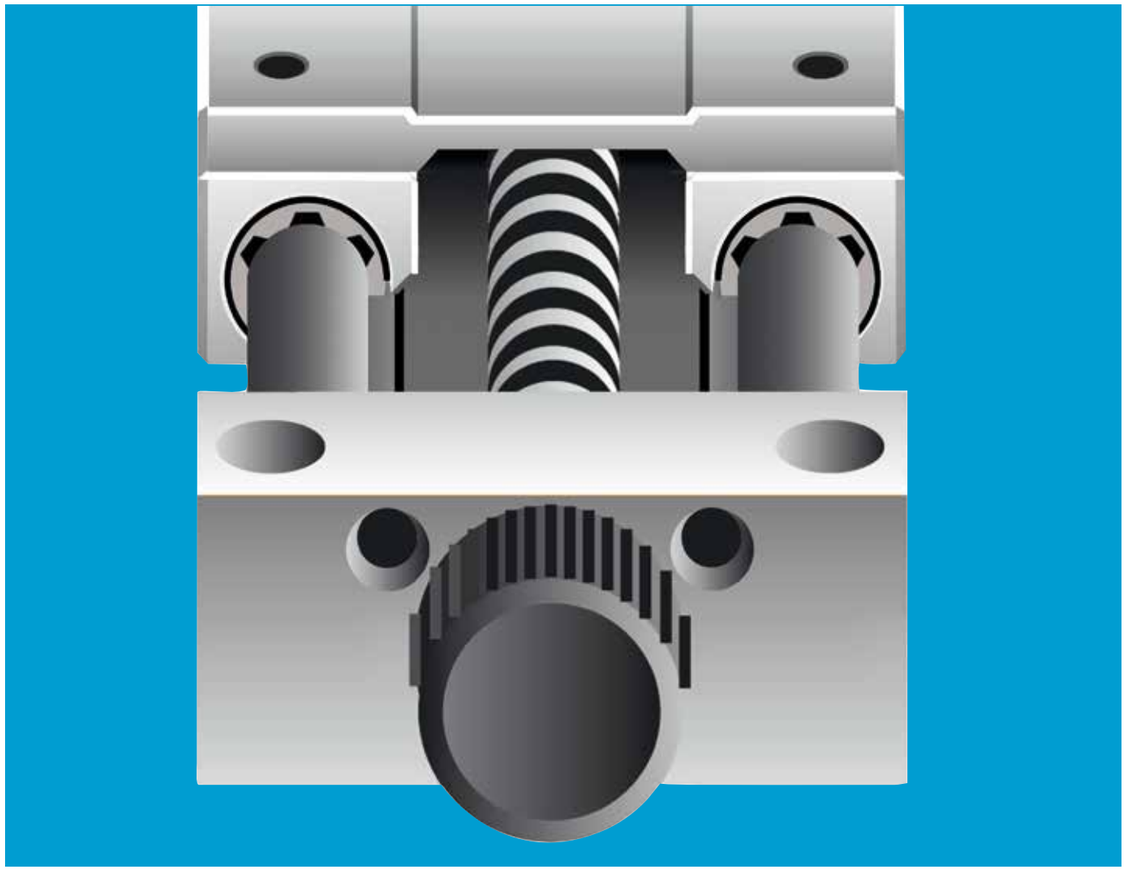
Dimensions [mm]

Part No.	Max. stroke length	A	H	E1	E2	Base length	Base length	R	f	lt	tk	ts	tg	kt
	[mm]	-0.3		±0.15	±0.15	lx	ly							
SHT-XY-08-AWM	150	65	42	52	56	96	96	32	1.5	15.5	10	5.5	M6x8	7
SHT-XY-12-AWM	350	85	56	70	73	145	145	42	2	30	11	6.6	M8x18	6.4
SHT-XY-12-AWM-PL	350	85	56	70	73	145	145	42	2	30	11	6.6	M8x18	6.4
SHT-XY-20-EWM-PL[93)]	500	130	86	108	115	202	202	72	2	36	15	9.0	M10x23	8.6

Part No.	sg	d	T	l1	d1	d1	l2	d2	d2	ha1	ha2	W
					Standard	Alternative		Standard	Alternative			ha2–ha1
SHT-XY-08-AWM	M5	8	Tr6x2/ Tr6.35x2.54	15	Tr6x2/ Tr6.35x2.54	–	15	5	–	13	29	16
SHT-XY-12-AWM	M6	12	Tr10x2	17	Tr10x2	6 h9	17	Tr10x2	6 h9	18	38	20
SHT-XY-12-AWM-PL	M6	12	Tr10x2	17	Tr10x2	6 h9	17	Tr10x2	6 h9	18	38	20
SHT-XY-20-EWM-PL[93)]	M8	20	TR18x4	26	TR18x4	12 h9	26	12 h9	–	23	63	40

Required accessories (e. g. hand wheel) can be ordered left- or right-mounted in the y-direction.
Order example for SHT-XY-12-AWM-L-200-300-HR, left adjustment, stroke 200/300mm, two hand wheels
[93)] For size 20 we recommend stainless steel shafts (EWM), AWM also available

EN 09/2023



drylin® general drive technology - SLW linear modules

Lubrication-free linear modules based on drylin® W guides

Drive: Trapezoidal or high helix lead screw

Torsion-resistant double shaft systems

Many carriage and rail options

Suitable for manual and motor-operated adjustments



EN 09/2023

Modular design



Shaft end supports are made from anodised aluminium or from zinc die-casting

Lead screw mounted with plain or ball bearings

drylin® W linear guide system

Lubrication and maintenance-free drylin® lead screw nuts

Mounting plates made from anodised aluminium

Fully configured carriages with four drylin® W individual bearing housings with lubrication-free drylin® liners

Lead screw material: steel or stainless steel

Drive: Self-locking trapezoidal thread or fast adjust high helix thread

For manual adjustments, large range of accessories available ▶ **Page 613**

Configurable with motor as a ready-to-install linear drive

Lubrication-free linear modules - drylin® SLW

Torsion-resistant aluminium double shaft rails with many carriage versions characterise the drylin® W product range, and form a well rounded modular kit for the drylin® SLW linear modules. The modules are low profile, as well as robust. The drylin® SLW linear modules are ideal for manual adjustments, but can also be fitted with a motor to make an electrical linear actuator.

- Variable carriage widths and lengths
- Flat drylin® guide rails or high profile
- Corrosion-resistant option made of stainless steel available

Typical application areas

- Format and lane adjustments
- Packaging technology
- Height adjustments
- 3D printer
- Camera adjustment

Available in 3-8 days
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Carriage lengths: 60-250mm
Carriage widths: 54-195mm
Stroke lengths: up to 1,250mm

Product finder
▶ www.igus.eu/slw-productfinder

Flat and torsion-resistant



SLW linear module - compact

- High torsional stability, fully supported
- Cost-effective
- Shaft end supports made from zinc, anodised aluminium or plastic (depending on installation size)

▶ **Page 538**



SLWE-PL linear module, pre-load

- Lubrication-free and precise
- Pre-loaded trapezoidal lead screw nut (pre-load force: 50N)
- Manually adjustable radial clearance, reduction of the axial clearance

▶ **Page 541**



SLWE-BB linear module, ball bearing

- Efficient and dynamic
- Quiet, reduced clearance
- Up to 1,500rpm (depending on length and load)

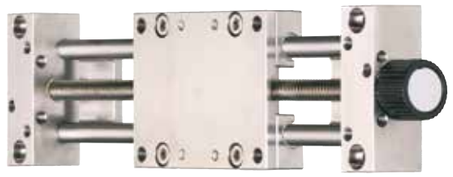
▶ **Page 543**



SLWS linear module with dryspin® high helix technology

- Fast positioning
- High-helix lead screw drives
- Up to 100mm stroke per rotation

▶ **Page 544**



SLW-ES linear module - stainless steel version

- With corrosion-resistant steel components
- Choice of bearing material: iglidur® J (standard), iglidur® A180 (FDA-compliant), iglidur® X (high temperature up to +150°C)
- For environments involving contact with water and chemicals

▶ **Page 548**



Linear module special designs

- SLW with protect mechanism for applications with high levels of dirt
- High flexibility through SLWT with double lead screw
- XY table solutions

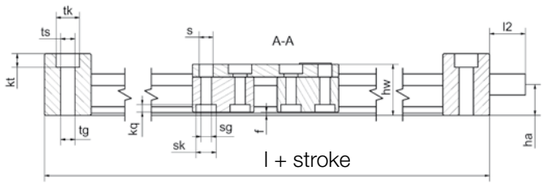
▶ **Page 551**

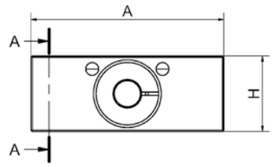
drylin® SLW | Linear modules | Product range

Self-locking



- Flat and compact
- High torsional stability
- Fully supported
- Aluminium drylin® W guide rails, hard-anodised
- Accessories available
  ▶ Page 613
- Lead screw nuts are available separately ▶ Page 472
- **Available with motor**





Select versions and accessories online
▶ www.igus.eu/drylinSLW

Technical data and dimensions [mm]

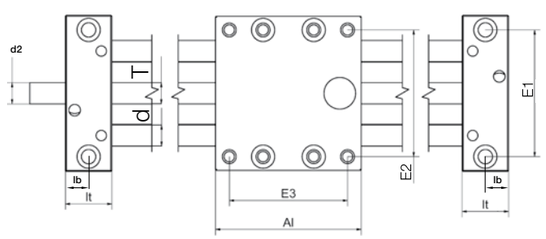
Part No.	Form	Max. stroke length [mm]	Weight [kg]	addit. (per 100mm) [kg]	Max. static load capacity axial [N]	radial [N]	Shaft end support material
SLW-0630	■	300	0.2	0.08	50	200	Polymer
SLW-1040	●	750	0.7	0.10	700	2,800	Zinc die-casting
SLW-1080	●	750	0.9	0.20	700	2,800	Aluminium
SLW-10120	●	750	1.6	0.25	700	2,800	Aluminium
SLW-1660	●	750	1.5	0.30	1,200	4,600	Aluminium
SLW-16120 New	●	750	1.7	0.40	1,200	4,600	Aluminium
SLW-2080	●	1,000	3.0	0.40	1,600	6,400	Aluminium
SLW-25120	●	1,250	5.9	0.90	2,500	10,000	Aluminium

Part No.	A -0.3	Al[94] -0.3	H	E1 ±0.15	E2 ±0.15	E3 ±0.15	l
SLW-0630	54	60	20	40	45	51	100
SLW-1040	74	69	29	60	60	56	113
SLW-1080	108	100	29	94	94	87	144
SLW-10120	154	100	29	140	140	87	144
SLW-1660	104	100	37	84	86	82	150
SLW-16120 New	166	100	37	84	86	82	150
SLW-2080	134	150	46	116	116	132	206
SLW-25120	200	150	60	173	173	128	220

[92] Lead screw end unmachined; [94] Carriages also in 100, 150, 200 and 250mm lengths available upon request

drylin® SLW linear modules

drylin® SLW | Linear modules | Product range



Order key

Order example

SLW-1040

Compact

Dimension

kt ±0.1	Øs	sk	sg	kq	d	T	l2	d2 Standard	ha
6.0	4.5	7.0	M4	2.0	6	M8	15	M8	9.5
6.4	6.6	9.5	M6	4.4	10	Tr10x2	17	Tr10x2[92]	14.5
6.4	6.6	9.5	M6	4.4	10	Tr10x2	17	Tr10x2[92]	14.5
M8	6.4	9.5	M6	4.4	10	Tr10x2	17	Tr10x2[92]	14.5
8.6	9.0	11	M8	5.5	16	Tr14x4	20	Tr14x4[92]	18.5
8.6	9.0	11	M8	5.5	16	Tr14x4	20	Tr14x4[92]	18.5
8.6	9.0	14	M8	5.5	20	Tr18x4	26	12 h9	23.0
12.6	11.0	15	M10	5.0	25	Tr24x5	38	14 h9	30.0

Part No.	hw	f	lt	lb	tk	ts	tg
SLW-0630	18	1.2	20	8	9	7.0	–
SLW-1040	24	1.5	22	11	11	6.8	M8x10
SLW-1080	24	1.5	22	11	11	6.8	M8x10
SLW-10120	24	1.5	22	11	11	6.8	M8x10
SLW-1660	35	1.5	25	12.5	15	9.0	M10x20
SLW-16120 New	35	1.5	25	12.5	15	9.0	M10x20
SLW-2080	44	1.5	28	14	15	8.6	M10x15
SLW-25120	55	2.5	35	17.5	20	13.5	M16x30

drylin® SLW | Linear modules | Product range New

With short carriages



- For small installation spaces
- Save up to 70% installation space with a short linear carriage
- Ideal for multi-carriage or right/ left opposite drives

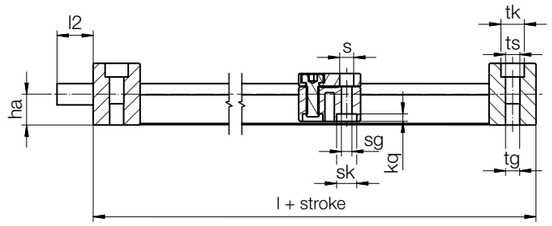
Order key

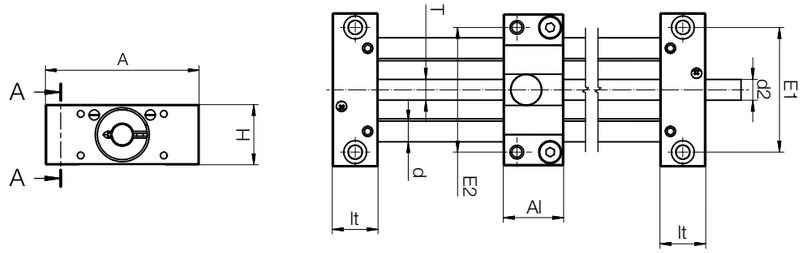
Order example

SLWC-0630

Flexible | Dimension

Select versions and accessories online
▶ **www.igus.eu/drylinSLWC**





Technical data ▶ Similar to SLW, page 538

Dimensions [mm]

Part No.		A -0.3	Al -0.3	H	E1 ±0.15	E2 ±0.15	l	hw	f	lt +0.1	tk +0.1	ts
SLWC-0630	New	54	20	20	40	45	60	18	1.2	20	11	6.2
SLWC-1040	New	74	29	29	60	60	73	24	1.5	22	11	6.8
SLWC-1660	New	104	36	37	84	86	86	35	1.5	25	15	9.0
SLWC-2080	New	134	45	46	116	116	101	44	1.5	28	15	8.6
SLWC-25120	New	200	58	60	173	173	128	55	2.5	35	20	13.5

Part No.		tg	kt ±0.1	Øs	sk	sg	kq	d	T	l2	d2 Standard	d2 Optional	ha
SLWC-0630	New	M8x12	8.0	4.5	7.0	M4	2.0	6	Tr08x1.5	15	Tr08x1.5	–	9.5
SLWC-1040	New	M8x10	6.4	6.6	9.5	M6	4.4	10	Tr10x2	17	Tr10x2	6 h9	14.5
SLWC-1660	New	M10x20	8.6	9.0	11.0	M8	5.5	16	Tr14x4	20	Tr14x4	8 h9	18.5
SLWC-2080	New	M10x15	8.6	9.0	14.0	M8	5.5	20	Tr18x4	26	12 h9	–	23.0
SLWC-25120	New	M16x30	12.6	11.0	15.0	M8	5.0	25	Tr24x5	38	12 h9	14 h9	30.0

EN 09/2023

drylin® SLW | Linear modules | Product range

Axial pre-load, radial adjustment



- Radial and axial pre-load
- Manual adjustable clearance
- High torsional stability
- Fully supported
- Aluminium drylin® W guide rails, hard-anodised
- Accessories available ▶ **Page 613**
- Lead screw nuts are available separately ▶ **Page 470**
- **Available with motor**

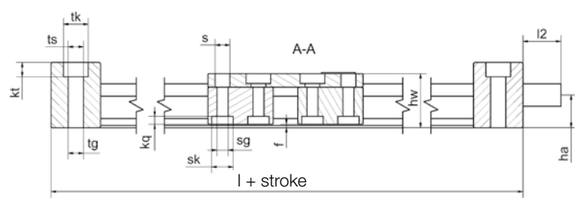
Order key

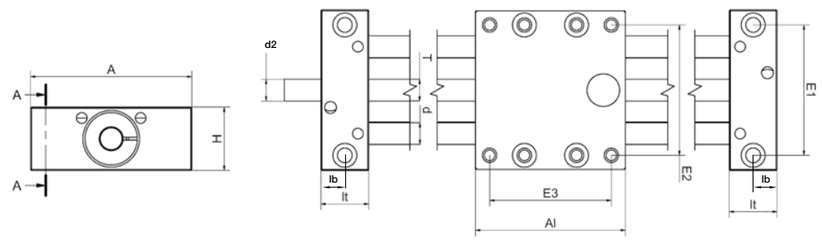
Order example

SLW E-1040-PL

Compact | Adjustable clearance | Dimension | Clearance-free, pre-loaded

Select versions and accessories online
▶ **www.igus.eu/drylinSLW**





Technical data ▶ Similar to SLW, page 538

Dimensions [mm]

Part No.	A -0.3	Al[94] -0.3	H	E1 ±0.15	E2 ±0.15	E3 ±0.15	l	hw	f	lt	lb	tk	ts
SLWE-1040-PL	74	69	29	60	60	56	113	24	1.5	22	11	11	6.8
SLWE-1080-PL	108	100	29	94	94	87	144	24	1.5	22	11	11	6.8
SLWE-10120-PL New	154	100	29	140	140	87	144	24	1.5	22	11	11	6.8
SLWE-1660-PL	104	100	37	84	86	82	150	35	1.5	25	12.5	15	9.0
SLWE-2080-PL	134	150	46	116	116	132	206	44	1.5	28	14	15	8.6

Part No.	tg	kt ±0.1	Øs	sk	sg	kq	d	T	l2	d2 Standard	ha
SLWE-1040-PL	M8x10	6.4	6.6	9.5	M6	4.4	10	Tr10x2	17	Tr10x2[92]	14.5
SLWE-1080-PL	M8x10	6.4	6.6	9.5	M6	4.4	10	Tr10x2	17	Tr10x2[92]	14.5
SLWE-10120-PL New	M8x10	M8	6.4	9.5	M6	4.4	10	Tr10x2	17	Tr10x2[92]	14.5
SLWE-1660-PL	M10x20	8.6	9.0	11.0	M8	5.5	16	Tr14x4	20	Tr14x4[92]	18.5
SLWE-2080-PL	M10x15	8.6	9.0	14.0	M8	5.5	20	Tr18x4	26	12 h9	23.0

[92] Lead screw end unmachined; [94] Carriages also in 100, 150, 200 and 250mm lengths available upon request

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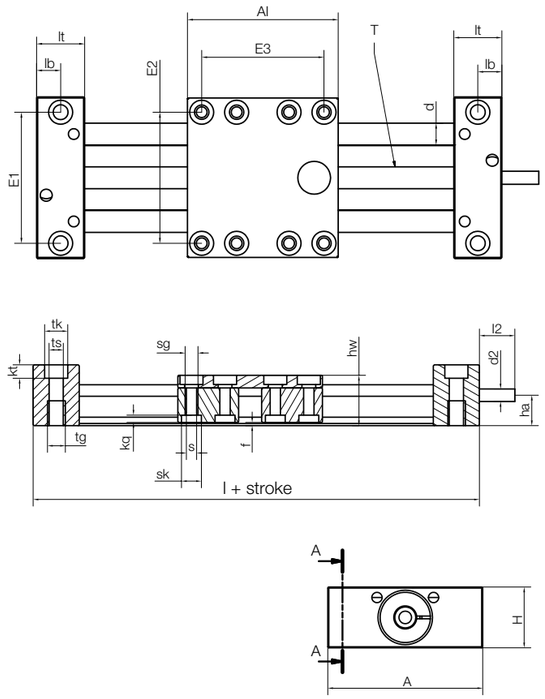
drylin® SLW | Linear modules | Product range

With ball bearing supported lead screw



- Lower drive force
- Optimised clearance
- Up to 1,500rpm (depending on length and load)
- Aluminium drylin® W guide rails, hard-anodised
- Quiet operation - reduced vibration of the overall system
- Ball bearings in both shaft end supports
- Accessories available ▶ **Page 613**
- Lead screw nuts are available separately ▶ **Page 470**
- **Available with motor**

Select versions and accessories online
▶ www.igus.eu/drylinSLW



Order key

Order example

SLW E -BB-1040

Compact | Adjustable clearance | Ball bearing | Dimension

Technical data and dimensions [mm]

Part No.	Design[96]	Max. stroke length [mm]	Weight [kg]	additional (per 100mm) [kg]	Max. static load capacity axial [N]	Max. static load capacity radial [N]	Max. speed [1/min]
SLW-BB-0630	■	300	0.25	0.08	100	200	1,000
SLWE-BB-1040	●	500	0.90	0.10	500	2,000	1,500
SLWE-BB-1080	●	500	1.10	0.20	500	2,000	1,500
SLWE-BB-1660	●	750	1.80	0.30	700	2,800	1,500
SLW-BB-16120 New	●	750	1.90	0.40	700	2,800[186]	1,500
SLWE-BB-2080	●	900	3.30	0.40	1,250	5,000	1,500
SLW-BB-25120	●	1,000	3.30	0.40	1,500	6,000	1,200

Part No.	Max. feed rate [m/min]	kt ±0.1	sk	sg	kq	Øs	d	T	l2	d2 Standard	d2[95]	ha
SLW-BB-0630	1.5	8.0	7.0	M4	2.0	4.5	6	Tr8x1.5	15	Tr08x1.5	–	9.5
SLWE-BB-1040	3.0	6.4	9.5	M6	4.4	6.6	10	Tr10x2	17	Tr10x2	6 h9	14.5
SLWE-BB-1080	3.0	6.4	9.5	M6	4.4	6.6	10	Tr10x2	17	Tr10x2	6 h9	14.5
SLWE-BB-1660	6.0	8.6	11.0	M8	5.5	9.0	16	Tr14x4	20	Tr14x4	8 h9	18.5
SLW-BB-16120 New	4.5	8.6	11.0	M8	5.5	9.0	16	Tr14x3	20	Tr14x3	8 h9	18.5
SLWE-BB-2080	6.0	8.6	14.0	M8	5.5	9.0	20	Tr18x4	26	12 h9	–	23.0
SLW-BB-25120	6.0	12.6	15	M10	5.0	11.0	25	Tr24x5	38	14 h9	–	30.0

Dimensions [mm]

Part No.	A -0.3	Al -0.3	H	E1 ±0.15	E2 ±0.15	E3 ±0.15
SLW-BB-0630	54	60	20	40	45	51
SLWE-BB-1040	74	69	29	60	60	56
SLWE-BB-1080	108	100	29	94	94	87
SLWE-BB-1660	104	100	37	84	86	82
SLW-BB-16120 New	166	150	37	146	148	132
SLWE-BB-2080	134	150	46	116	116	132
SLW-BB-25120	200	150	60	173	173	128

Part No.	l	hw	f	lt	lb	tk	ts	tg
SLW-BB-0630	112	18	1.2	26	14.0	11	6.8	M8x12
SLWE-BB-1040	129	24	1.5	30	19.0	11	6.8	M8x10
SLWE-BB-1080	160	24	1.5	30	19.0	11	6.8	M8x10
SLWE-BB-1660	170	35	1.5	35	22.5	15	9.0	M10x20
SLW-BB-16120 New	200	35	1.5	35	17.5	15	9.0	M10x20
SLWE-BB-2080	230	44	1.5	40	26.0	15	8.6	M10x15
SLW-BB-25120	220	55	2.5	49	17.5	20	13.5	M16x30

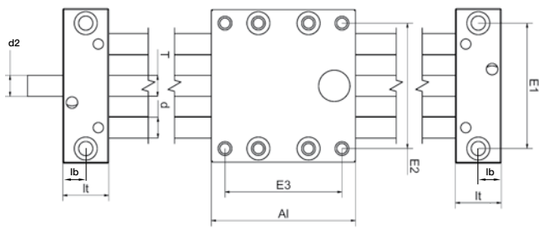
[95] Version with turned lead screw end available
[96] Double rail, square ▶ Page 78, round ▶ Page 84
[186] Only bearing load without consideration of possible shaft deflection
[187] Other carriage lengths: 200mm and 250mm

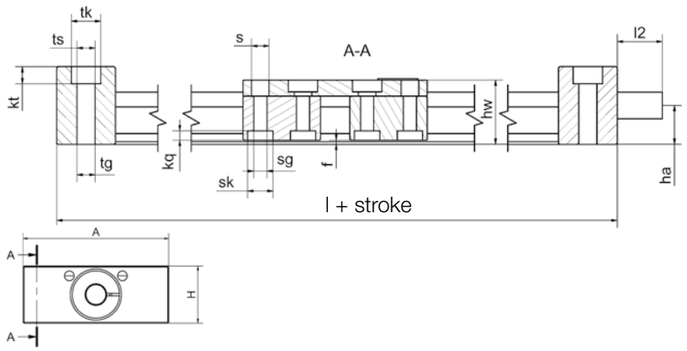
drylin® SLW | Linear modules | Product range

Compact with dryspin® high helix thread



- High torsional stability
- Aluminium drylin® W guide rails, hard-anodised
- BB version with ball bearing supported lead screw available
- Accessories available ▶ **Page 613**
- Lead screw nuts are available separately ▶ **Page 470**





Order key

Order example

SLW S - 0630 - 08x15

Compact	High helix thread	Dimension	Pitch

Select versions and accessories online
▶ www.igus.eu/drylinSLW

The complete overview of the available lead screw sizes can be found on ▶ Page 510

Technical data and dimensions [mm]

Part No.	Design[96]	Max. stroke length	Weight	addit. (per 100mm)	Max. static load capacity axial	Max. static load capacity radial
			[kg]	[kg]	[N]	[N]
SLWS-0630-08x15		300	0.2	0.08	50	200
SLWS-1040-10x12		750	0.7	0.10	100	400
SLWS-1040-10x50		750	0.7	0.10	100	400
SLWS-1080-10x12		750	0.9	0.20	100	400
SLWS-1080-10x50		750	0.9	0.20	100	400
SLWS-16120	New	750	1.5	0.30	250	1,000
SLWS-2080-18x100		750	0.9	0.20	400	1,600
SLWS-25120	New	1,250	5.9	0.90	1,000	4,000

Part No.	lt	lb	tk	ts	tg	kt ±0.1	Øs
SLWS-0630-08x15	20	10.0	9	7.0	–	6.0	4.5
SLWS-1040-10x12	22	11.0	11	6.8	M8x12	6.4	6.6
SLWS-1040-10x50	22	11.0	11	6.8	M8x10	6.4	6.6
SLWS-1080-10x12	22	11.0	11	6.8	M8x10	6.4	6.6
SLWS-1080-10x50	22	11.0	11	6.8	M8x10	6.4	6.6
SLWS-16120	New 25	12.5	15	9.0	M10x20	8.6	9.0
SLWS-2080-18x100	28	14.0	15	8.6	M10x15	12.6	11.0
SLWS-25120	New 49	17.5	20	13.5	M16x30	12.6	11.0

[92] Lead screw end unmachined [96] Double rails, square ▶ Page 78, round ▶ Page 84

A -0.3	Al -0.3	H	E1 ±0.15	E2 ±0.15	E3 ±0.15	l	hw	f
54	60	20	40	45	51	100	17.5	1.2
74	69	29	60	60	56	113	24	1.5
74	69	29	60	60	56	113	24	1.5
108	100	29	94	94	87	144	24	1.5
108	100	29	94	94	87	144	24	1.5
166	150	37	146	148	132	200	35	1.5
134	150	46	116	116	132	206	44	1.5
200	150	60	173	173	128	220	55	2.5

Part No.	sk	sg	kq	d	T	l2	d2	ha
SLWS-0630-08x15	7.0	M4	2.0	6	Ds08x15	15	Ds8x15[92]	9.5
SLWS-1040-10x12	9.5	M6	4.4	10	Ds10x12	17	Ds10x12[92]	14.5
SLWS-1040-10x50	9.5	M6	4.4	10	Ds10x50	17	Ds10x50[92]	14.5
SLWS-1080-10x12	9.5	M6	4.4	10	Ds10x12	17	Ds10x12[92]	14.5
SLWS-1080-10x50	9.5	M6	4.4	10	Ds10x50	17	Ds10x50[92]	14.5
SLWS-16120	New 11.0	M8	5.5	16	Tr14x3	20	Tr14x3	18.5
SLWS-2080-18x100	15.0	M8	5.0	25	Ds18x100	38	14 h9	30.0
SLWS-25120	New 15.0	M10	5.0	25	Tr24x5	38	14 h9	30.0

drylin® SLW | Linear modules | Product range

With protected lead screw



- drylin® W profile rail as a protective mechanism
- Available with pitches 10x2, 10x12, 10x25, 10x50
- Low profile design
- **Available with motor**

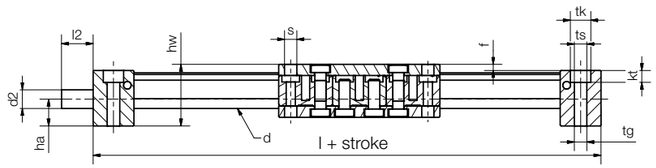
Order key

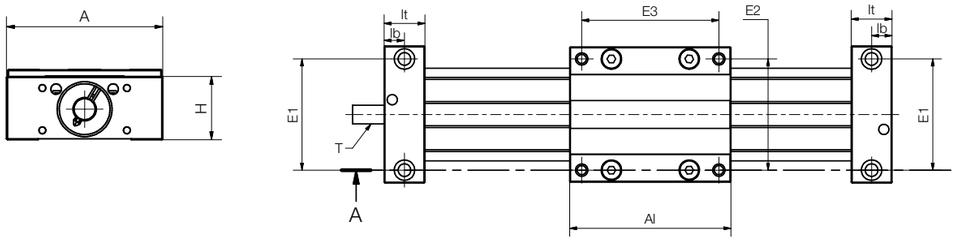
Order example

SLW-BB-PT-1040

Compact	Ball bearing	Protect	Dimension

Select versions and accessories online
▶ www.igus.eu/drylinSLW





Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	additional (per 100mm) [kg]	Max. static load capacity axial [N]	Max. static load capacity radial[97] [N]	Shaft end support material
SLW-PT-1040	750	0.75	0.20	700	2,000	Aluminium
SLW-BB-PT-1040	750	1.10	0.20	500	2,000	Aluminium

Dimensions [mm]

Part No.	A -0.3	Al -0.3	H	E1/E2 ±0.15	E3 ±0.15	l	hw	f	lt	lb	tk	ts	tg
SLW-PT-1040	74	87	29	60	74	131	33.25	3.25	22	11	11	6.8	M8x10
SLW-BB-PT-1040	74	87	29	60	74	147	33.25	3.25	30	19	11	6.8	M8x10

Part No.	kt ±0.1	d	T	l2	d2	d2[98]	ha
SLW-PT-1040	6.4	10	Tr10x2	17	Tr10x2	6 h9	14.50
SLW-BB-PT-1040	6.4	10	Tr10x2	17	Tr10x2	6 h9	14.50

[97] Depends on load and rotation speed [98] Thread/remaining thread visible

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drylin® SLW | Linear modules | Product range

Dual action linear system



- Carriages can be controlled separately
- Different lead screw pitches can be applied
- Separate manual adjustment of carriages
- Design flexibility
- Clearance adjustment (optional)

Order key

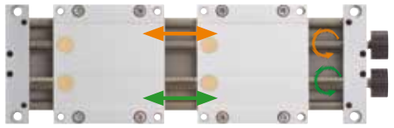
Order example

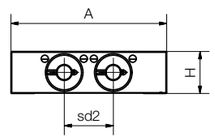
SLW T -1080

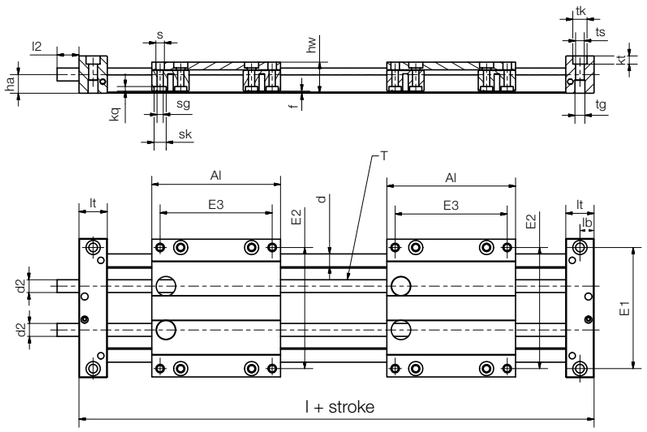
Compact	Double linear unit	Dimension

Options:
BB Ball bearings

Select versions and accessories online
▶ www.igus.eu/drylinSLW







Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	additional (per 100mm) [kg]	Max. static load capacity axial [N]	Max. static load capacity radial [N]	Shaft end support material
SLWT-1080	750	1.6	0.25	700	2,800	Aluminium
SLWT-16120 New	750	1.8	0.50	1,200	4,600	Aluminium
SLWT-BB-1080	750	1.6	0.25	700	2,800	Aluminium
SLWT-BB-16120 New	750	2.1	0.50	700	2,800	Aluminium

Dimensions [mm]

Part No.	A -0.3	Al -0.3	H	E1 ±0.15	E2 ±0.15	E3 ±0.15	l	hw	f ±0.1	lt	tk	ts	tg ±0.1	lb
SLWT-1080	108	100	29	94	94	87	244	24	1.5	22	11	6.8	M8x10	11.0
SLWT-16120 New	166	150	37	146	148	132	200	35	1.5	25	15	9.0	M10x20	12.5
SLWT-BB-1080	108	100	29	94	94	87	244	24	1.5	30	11	6.8	M8x10	19.0
SLWT-BB-16120 New	166	150	37	146	148	132	220	35	1.5	35	15	9.0	M10x20	17.5

Part No.	kt ±0.1	sk	Øs	sg	kq	d Standard	d Alternative	T	l2	d2 Standard	d2 Alternative	ha	sd2
SLWT-1080	6.4	9.5	6.6	M6	4.4	10	Tr10x2[92]	17	Tr10x2	6 h9	14.50	34	
SLWT-16120 New	8.6	11.0	9.0	M8	5.5	16	Tr14x3	20	Tr14x3	8 h9[186]	18.50	65	
SLWT-BB-1080	6.4	9.5	6.6	M6	4.4	10	Tr10x2[92]	17	Tr10x2	6 h9	14.50	34	
SLWT-BB-16120 New	8.6	11.0	9.0	M8	5.5	16	Tr14x3	20	Tr14x3	8 h9[186]	18.50	65	

[92] Lead screw end unmachined; [186] Only bearing load without consideration of possible shaft deflection

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drylin® SLW | Linear modules | Product range

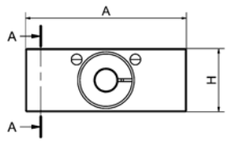
Made of stainless steel



- Stainless steel version with corrosion-resistant steel components (AISI 303, AISI 316 and (AISI 316Ti)
- Choice of bearing material:
  iglidur® J = Standard
  iglidur® A180 = FDA-compliant
  iglidur® X = High temperature up to +150°C[117)]
- Accessories available
  ▶ Page 613

Select versions and accessories online
▶ www.igus.eu/drylinSLW

STAIN-LESS STEEL

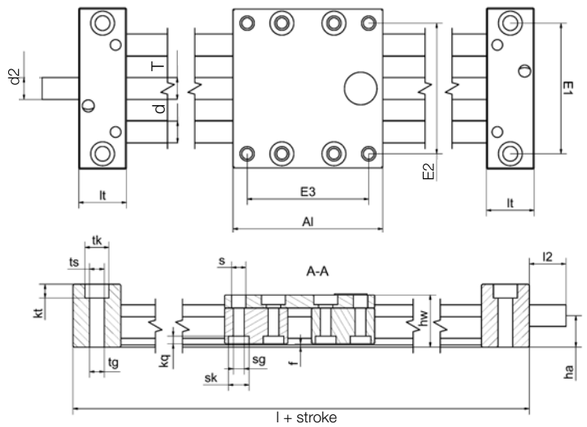


Order key

Order example

SLW-ES J-1040

Compact	Stainless steel	Bearing material	Dimension



Technical data

Part No.	Shaft Ø	Max. stroke length	Weight	additional (per 100mm)	Max. stat. load capacity	
	[mm]	[mm]	[kg]	[kg]	axial [N]	radial [N]
SLW-ESJ-1040	10	750	1.4	0.2	700	2,800
SLW-ESX-1040	10	750	1.4	0.2	700	2,800
SLW-ESA180-1040	10	750	1.4	0.2	700	2,800
SLW-ESJ-2080	20	1,000	5.7	0.64	1,600	6,400
SLW-ESA180-2080	20	1,000	5.7	0.64	1,600	6,400

Dimensions [mm]

Part No.	A -0.3	Al -0.3	H	E1 ±0.15	E2 ±0.15	E3 ±0.15	l	hw	f	lt	lb	tk	ts	tg
SLW-ES-1040	74	100	29	60	60	87	144	24	1.5	22	11	11	6.8	M8x10
SLW-ES-2080	134	150	46	116	116	132	206	44	1.5	28	14	15	8.6	M10x15

Part No.	kt ±0.1	Øs	sk	sg	kq	d	T	l2	d2 Standard	ha
SLW-ES-1040	6.4	6.6	9.5	M6	4.4	10	Tr10x2	17	Tr10x2[92)]	14.5
SLW-ES-2080	8.6	9.0	14	M8	5.5	20	Tr18x4	26	12 h9	23.0

[92)] Lead screw end unmachined

[117)] In the event of severe temperature fluctuations during transport, storage and use, thermal expansion effects cannot be ruled out

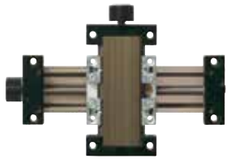
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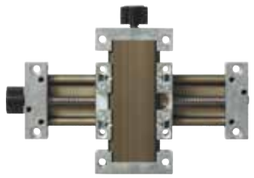
Notes

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drylin® SLW | XY tables | Product range

Compact XY tables for manual adjustments


SLW-XY-0630


SLW-XY-1040


SLW-XY-1080

- Aluminium drylin® W guide rails, hard-anodised
- Pre-load SLWE-XY-PL version also available (optional, sizes: 1040/1080)
- Accessories available ▶ **Page 613**

Select versions and accessories online
▶ www.igus.eu/drylinSLW

Dimensions [mm]

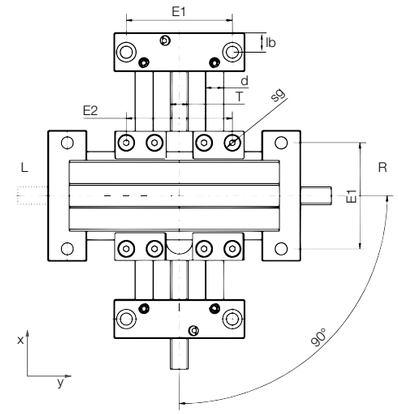
Part No.		Max. stroke length [mm]	A -0.3	Al	H	E1 ±0.15	E2 ±0.15
SLW-XY-0630		150	54	54	38.0	40	45
SLW-XY-0660	New	150	85	85	37.4	71	76
SLW-XY-1040		300	74	73	48.0	60	60
SLW-XY-1080		300	108	107	48.0	94	94
SLW-XY-1660	New	400	104	104	72.5	84	86
SLW-XY-16120	New	500	166	166	72.5	146	148
SLW-XY-2080	New	500	134	134	82.0	116	116

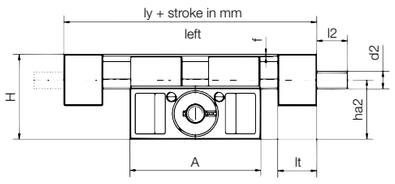
Dimensions [mm]

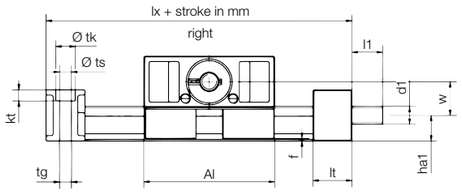
Part No.		sg	d	T	l1	d1 Standard
SLW-XY-0630		M4	5	M8	15	M8
SLW-XY-0660	New	M4	5	Tr08x1.5	15	Tr08x1.5
SLW-XY-1040		M6	10	Tr10x2	17	Tr10x2
SLW-XY-1080		M6	10	Tr10x2	17	Tr10x2
SLW-XY-1660	New	M8	16	Tr14x4	20	Tr14x4
SLW-XY-16120	New	M8	16	Tr14x3	20	Tr14x3
SLW-XY-2080	New	M8	20	Tr18x4	26	12 h9

The hand wheel can be ordered left or right-mounted in the y-direction.
Left: SLW-XY-1040-L-200-300 for 200mm stroke length on the x-axis and 300mm on the y-axis
Right: SLW-XY-1040-R-200-300 for 200mm stroke length on the x-axis and 300mm on the y-axis

drylin® SLW | XY tables | Product range







Order key

Order example

SLW-XY-1040-PL

Compact	XY table	Dimension	Preload

Options:
Preload
optional with sizes 1040 and 1080

Base length lx	Base length ly	f	lt	lb	tk	ts	tg	kt
94	94	1.5	20	10.0	9	7.0	–	6.0
125	125	1.5	20	10.0	11	6.6	–	8.0
117	117	1.5	22	11.0	11	6.8	M8x10	6.4
151	151	1.5	22	11.0	11	6.8	M8x10	6.4
154	154	1.5	25	12.5	15	9.0	M10x20	8.6
216	216	1.5	25	12.5	15	9.0	M10x20	8.6
190	190	1.5	28	14.0	15	8.6	M10x15	8.6

d1 Alternative	l2	d2 Standard	d2 Alternative	ha1	ha2	W ha2-ha1
–	15	M8	–	9.5	28.5	18.4
–	15	Tr08x1.5	–	9.5	28.0	18.5
6 h9	17	Tr10x2	6 h9	14.5	33.5	19.0
6 h9	17	Tr10x2	6 h9	14.5	33.5	19.0
8 h9	20	Tr14x4	8 h9	18.5	54.0	35.5
8 h9	20	Tr14x3	8 h9	18.5	54.0	35.5
–	26	12 h9	–	23.0	59.0	36.0

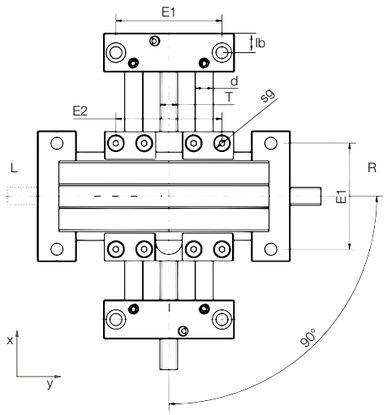
drylin® SLW | XY tables | Product range

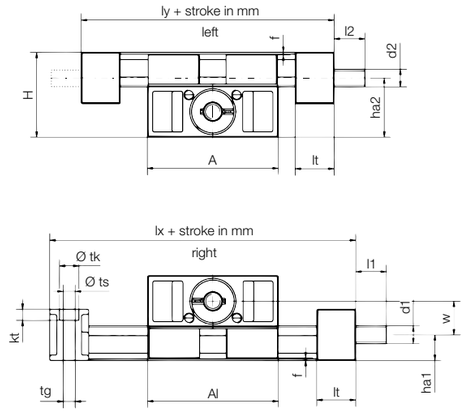
XY tables - stainless steel version



STAIN-LESS STEEL

- For manual adjustments
- High torsional stability
- Structure entirely made from 316 stainless steel materials
- Chemical and corrosion-resistant
- Accessories available ▶ **Page 613**





Select versions and accessories online
▶ www.igus.eu/drylinSLW

Dimensions [mm]

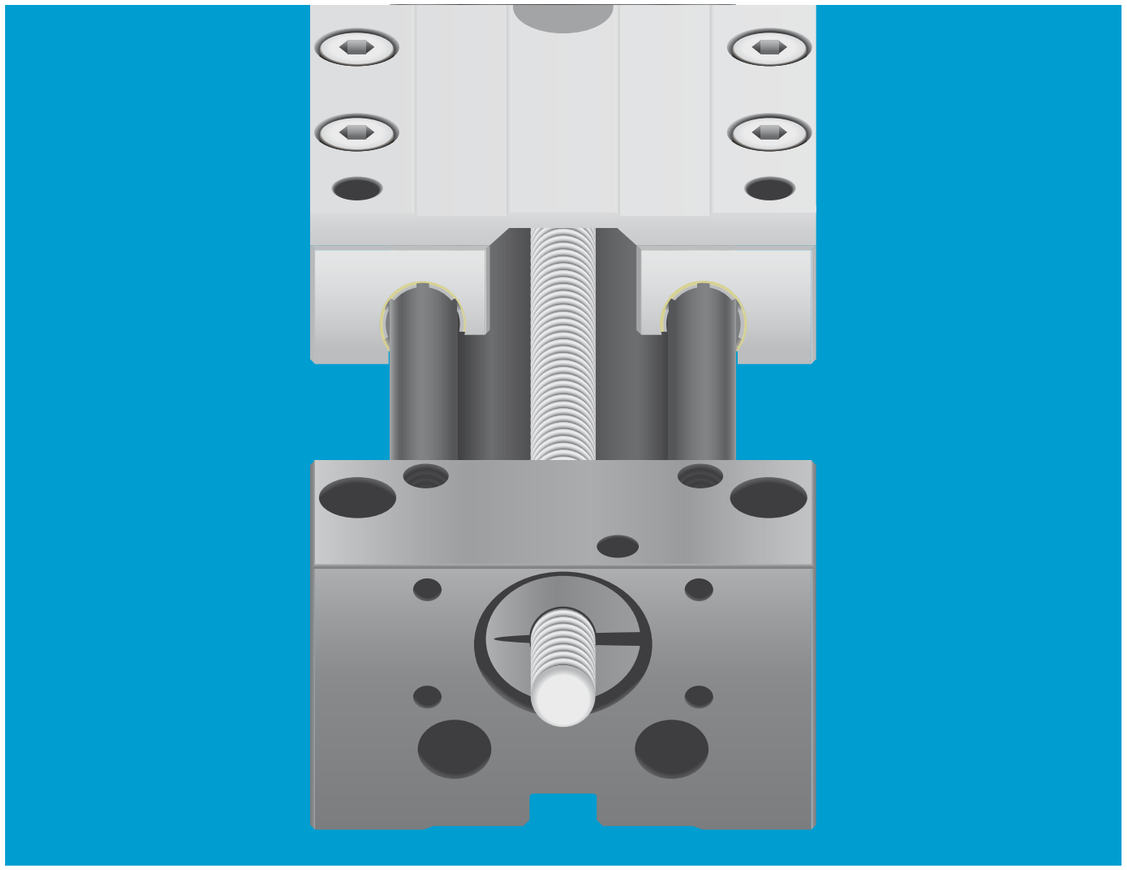
Part No.	Max. stroke length	A	Al	H	E1	E2	Base length	Base length	f	lt	lb	tk	ts	tg	kt
	[mm]	-0.3			±0.15	±0.15	lx	ly				±0.1			
SLW-XY-ESJ-1040	300	74	73	48	60	60	117	117	1.5	22	11	11	6.8	M8x10	6.4

Dimensions [mm]

Part No.	sg	d	T	l1	d1	d1	l2	d2	d2	ha1	ha2	W
					Standard	Alternative		Standard	Alternative			ha2–ha1
SLW-XY-ESJ-1040	M6	10	Tr10x2	17	Tr10x2	6 h9	17	Tr10x2	6 h9	14.5	33.5	19

The hand wheel can be ordered left or right-mounted in the y-direction.
Left: SLW-XY-ESJ-1040-L-200-300 for 200mm stroke length on the x-axis and 300mm on the y-axis
Right: SLW-XY-ESJ-1040-R-200-300 for 200mm stroke length on the x-axis and 300mm on the y-axis

EN 09/2023



drylin® general drive technology - SAW linear modules

Lubrication-free linear modules based on drylin® W guides

Drive: Trapezoidal or high helix lead screw

Robust design

Ready-to-install stepper or DC motors

Ball bearing



EN 09/2023

Compact high design



Lubrication-free linear modules - drylin® SAW

The drylin® W high profile provides the torsion-resistant base for the linear axes of the SAW series. Thanks to the ball bearing supported lead screw and high profile design, the SAW linear modules are perfectly suitable for the direct connection to stepper or DC motors. Slots in profile sections enable initiators to be freely positioned and, at the same time, enable set-up as a multi-axis linear robot by means of suitable adapter plates.

- Optimised unit for motor connection
- drylin® W high profile with variable mounting options using clamping elements or slot nuts
- For manual or electrical adjustments
- Ideal for single and/or multi-axial constructions

Typical application areas

- Positioning functions
- 3D scanner
- Format adjustments
- Linear robot structures
- Height adjustments

Available in 3-8 days
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Carriage lengths: 60-250mm
Carriage widths: 54-107mm
Stroke lengths: up to 750mm

Product finder
▶ www.igus.eu/saw-productfinder

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Ball bearings



SAW linear module

- Robust high design in 4 sizes
- Drive: Trapezoidal or high helix lead screw
- For manual positioning or motorised operation

▶ Page 556



SAWC linear module

- Compact short design
- With integrated drylin® lead screw motor
- Optimised ratio of useful length to total length

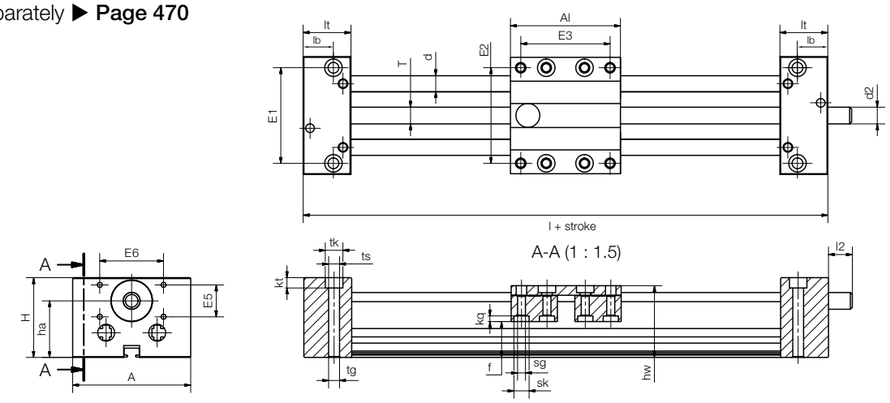
▶ Page 558

drylin® SAW | Linear modules | Product range

Robust design



- Trapezoidal or high helix threads
- Ball bearing supported lead screw
- Rail profile in high design, extremely torsion-resistant
- Aluminium drylin® W guide rails, hard-anodised
- High strength
- Cost-effective and 100% lubrication-free
- Accessories available ▶ **Page 613**
- Lead screw nuts are available separately ▶ **Page 470**



Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	Additional (per 100mm)	Max. rotational speed [rpm]	Max. static load capacity axial [N]	radial [N]
SAW-0630	300	0.5	0.1	1,000	100	400
SAW-0660	500	0.9	0.1	1,000	100	400
SAW-1040	500	1.0	0.1	1,500	500	2,000
SAW-1080	750	1.9	0.2	1,500	750	2,000
SAW-1660	750	2.8	0.5	1,500	750	3,000

Dimensions [mm]

Part No.	A -0.3	Al -0.3	H	E1 +0.15	E2 +0.15	E3 +0.15	E5	E6	l	lc	hw	f	lt	lb
SAW-0630	54	60/100	32	40	45	51/91	11	23	112/152	92	30	13.5	26	10
SAW-0660	85	100	38	71	76	91	–	–	156	–	34	13.7	28	–
SAW-1040	74	69/100/150	50	60	60	56/87/137	20	40	129/160/210	91	45	22.5	30	19
SAW-1080	108	100	58	94	94	87	–	–	163	131.5	49	22.5	31.5	15.75
SAW-1660	104	150	77	84	86	132	20	40	220	175	72	38.5	35	22.5

Part No.	tk	ts	tg	kt ±0.1	sk	sg	kq	d	T Ø	l2	d2	ha
SAW-0630	11	6.6	–	20	–	M4	10	□5	Tr8x1.5	15	Tr8x1.5	21.5
SAW-0660	–	–	M8x12	20	7	M4	2	□6	Tr10x2	15	Tr10x2	23.0
SAW-1040	11	6.8	M8x20	6.4	9.5	M6	3.5	10	Tr10x2	17	Tr10x2 Ø6 h9[113)]	35.5
SAW-1080	11	6.8	M8x20	18	9.5	M6	3.5	10	Tr12x3	17	Tr12x3 Ø8 h9[113)]	37.5
SAW-1660	15	9.0	M10x29	8.6	11	M8	5.5	16	Tr14x4	20	Tr14x4 Ø8 h9[113)]	59.0

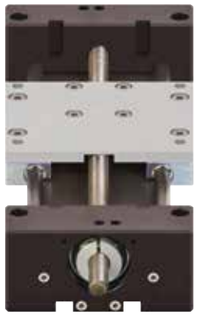
[113)] Lead screw end unmachined, also available with machined end

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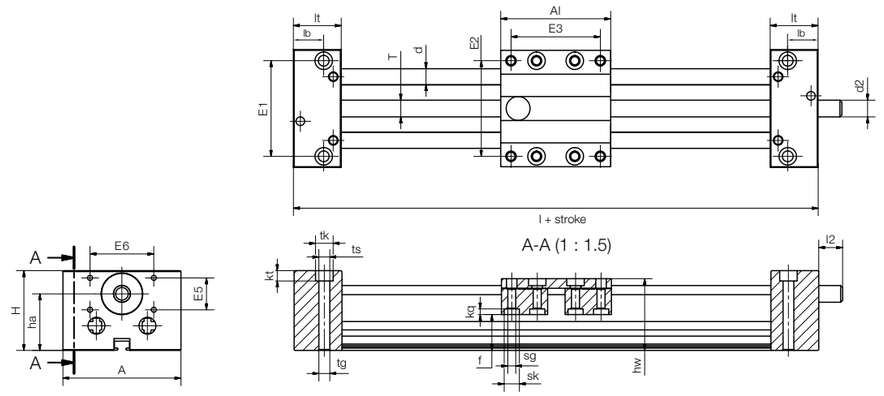
drylin® SAW

drylin® SAW | Linear modules | Product range

Reduced clearance with pretension in lead screw support and lead screw nut



- Lubrication and maintenance-free
- Quiet, reduced backlash
- Trapezoidal or high helix threads
- 3 carriage lengths (100/150/200mm) with spring-loaded second lead screw nut
- Liners made from wear-resistant high-performance polymers
- For manual and electric adjustment even in multi-axis linear robots



Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	Additional (per 100mm)	Max. rotational speed [rpm]	Max. static load capacity axial [N]	radial [N]
SAW-1080-PL	750	1.9	0.2	1,500	750	2,000

Dimensions [mm]

Part No.	A -0.3	Al -0.3	H	E1 +0.15	E2 +0.15	E3 +0.15	E5	E6	l	lc	hw	f	lt	lb
SAW-1080-PL	108	100	58	94	94	87	–	–	163	131.5	49	22.5	31.5	15.75

Part No.	tk	ts	tg	kt ±0.1	sk	sg	kq	d	T Ø	l2	d2	ha
SAW-1080-PL	11	6.8	M8x20	18	9.5	M6	3.5	10	Tr12x3	17	Tr12x3 Ø8 h9[113)]	37.5

[113)] Lead screw end unmachined, also available with machined end

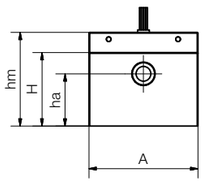
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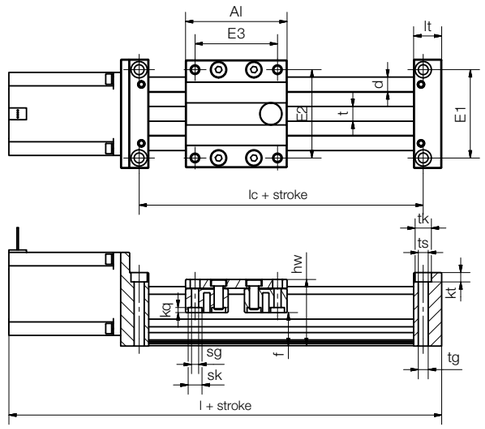
drylin® SAWC | Linear modules | Product range

Direct drive in short design



- Smaller installation space and more stroke
- Compact short design due to the use of drylin® lead screw motors
- Optimised ratio of useful length to total length (compared to the SAW series, up to 70mm)
- Improved operating characteristics
- Space-saving and lightweight





Technical data

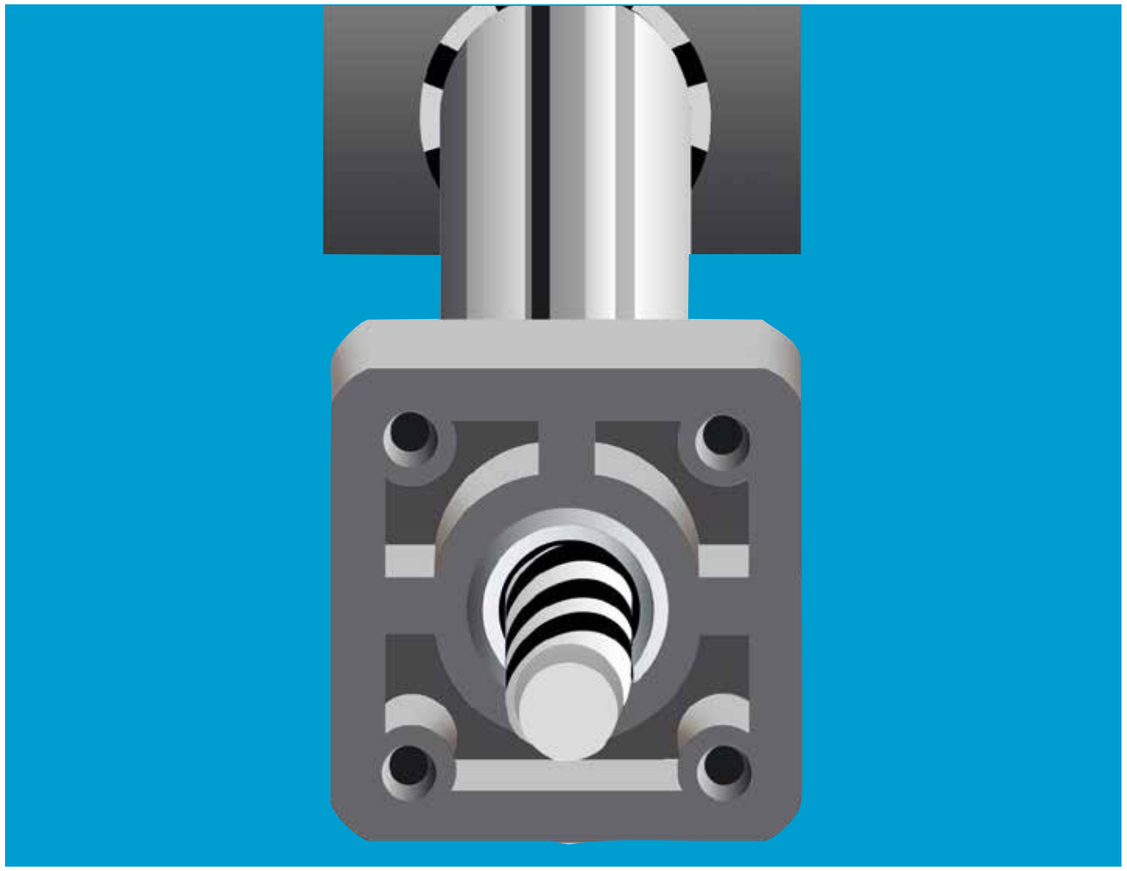
Part No.	Max. stroke length [mm]	Weight [kg]	Additional (per 100mm)	Max. rotational speed [rpm]	Max. static load capacity axial [N]	radial [N]
SAWC-0630	300	0.5	0.1	1,000	100	200
SAWC-1040	500	1.0	0.1	1,500	500	2,000

Dimensions [mm]

Part No.	A -0.3	Al -0.3	H	E1 +0.15	E2 +0.15	E3 +0.15	l	lc	hw	f	lt	lb
SAWC-0630	54	60/100	42.5	40	45	51	139	75	30	13.5	15	7.5
SAWC-1040	74	69/100/150	50.0	60	60	56	183	82	45	22.5	19	9.5

Part No.	tk	ts	tg	kt ±0.1	sk	sg	kq	d	T Ø	ha
SAWC-0630	8	4.2	M5x12	20	7	M4	2	5	Tr08x1.5 Ds08x15	21.5
SAWC-1040	11	6.8	M6x20	6.4	9.5	M6	3.5	10	Tr10x2[92)] Ds10x12	35.5

[92)] Lead screw end unmachined



drylin® general drive technology - SET linear modules

Lubrication-free single-tube adjustment

Drive: trapezoidal thread

Simple, smooth design

Lightweight due to aluminium and polymer

Temperature resistance up to +50°C



EN 09/2023

Single-tube adjustment



Lubrication-free linear unit "easytube"

The linear unit for easy adjustment functions is characterised by a simple but effective and solid design. A complete system is built up from few components. The outer anodised aluminium tube guides the carriage/s and at the same time protects the trapezoidal lead screw and lead screw nut from external influences. Carriage, torque support and trapezoidal lead screw nut are in one component and are made from a special plain bearing high-performance polymer. This guarantees freedom from lubrication with simultaneously low coefficient of friction and optimal wear rates. The iglidur® bearing materials are also used in the thrust bearings of the lead screw.

- Protected lead screw
- Effective design
- Available with measurement scale without lead screw
- Flanged version for axial mounting in surfaces and profiles

Typical application areas

- Sensor and camera positioning
- Format adjustment

Available in 3-8 days
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Carriage lengths: 30-55mm
Stroke lengths: up to 850mm

Product finder
▶ www.igus.eu/set-productfinder

Efficient design with protected lead screw and variable mounting



easytube single tube linear unit

- For light format adjustments
- Protected lead screw, torque-resistant
- Drive: trapezoidal or high-helix lead screw

▶ Page 562



easytube with double flange

- For axial mounting
- Simple, smooth design

▶ Page 563



easytube with single flange

- For horizontal and vertical adjustments
- Single aluminium flange
- Space-saving structure

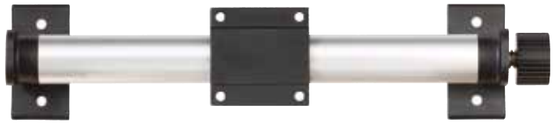
▶ Page 564



easytube with measurement scale

- With lasered, wash-proof scale
- Carriage with clamp
- Available with/without lead screw

▶ Page 565



easytube "light"

- Lightweight linear carriage
- Compact structure
- Also available as flanged version

▶ Page 566



Accessories for linear modules

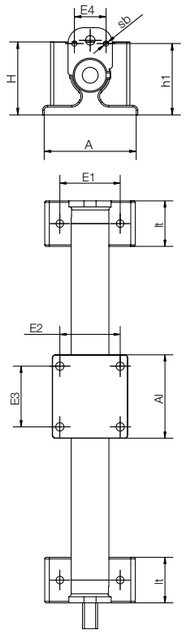
- Position indicator, hand wheels, lead screw clamps, angular drives and more

▶ From page 613

drylin® SET | easytube | Product range

easytube



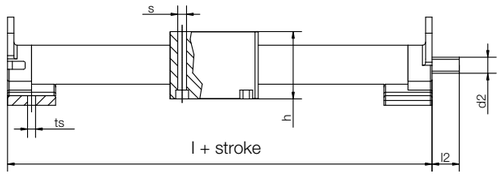


Order key

Order example

SET - 25 - AWM

easytube	Dimension	Shaft material



- For simple adjustments
- With protected lead screw
- Corrosion-free with stainless steel lead screw
- Lightweight due to aluminium and polymer
- Temperature-resistant up to +60°C
- Accessories available ▶ **Page 613**

Technical data

Part No.	Max. stroke length	Aluminium shaft Weight shaft end supports and guide carriage	Aluminium shaft additional (per 100mm)	Max. static load capacity axial	Max. static load capacity radial
	[mm]	[kg]	[kg]	[N]	[N]
SET-12-AWM	200	0.05	0.03	10	20
SET-25-AWM	750	0.15	0.12	150	300
SET-30-AWM	850	0.20	0.21	200	400

Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	E4	l	h	h1	lt	ts	Øs	sb	l2	d2[92)]
SET-12-AWM	30	30	23.5	20	20	20	–	60	22	–	15	3.3	4.2	–	10	M4
SET-25-AWM	60	55	44	40	40	40	20	115	39	45	30	5.2	5.2	M4	17	Tr10x2
SET-30-AWM	80	55	49	60	40	40	20	125	39	50	35	6.5	5.2	M4	20	Tr12x3

[92)] **Lead screw end unmachined**

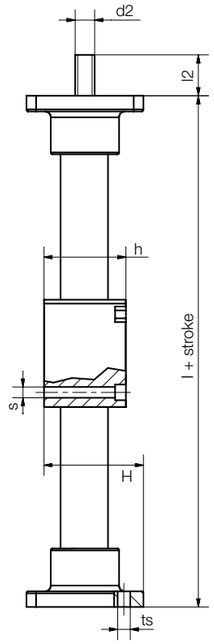
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drylin®
SET
easytube

drylin® SET | easytube | Product range

With flange



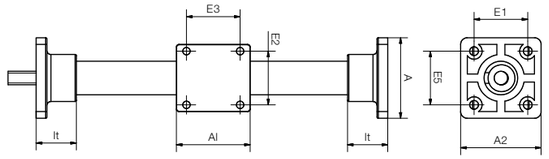


Order key

Order example

SET - 25 - AWM - F

easytube	Dimension	Shaft material	With flange



- Flanged version for axial mounting
- Simple, smooth design
- Accessories available ▶ **Page 613**

Technical data

Part No.	Max. stroke length	Aluminium shaft Weight shaft end supports and guide carriage	Aluminium shaft additional (per 100mm)	Max. static load capacity axial	Max. static load capacity radial
	[mm]	[kg]	[kg]	[N]	[N]
SET-25-AWM-F	750	0.15	0.12	150	300
SET-30-AWM-F	850	0.20	0.21	200	400

Dimensions [mm]

Part No.	Al	A	A2	H	E1	E2	E3	E5	l	h	lt	ts	Øs	l2	d2[92)]
SET-25-AWM-F	55	60	60	49	40	40	40	40	115	39	30	5.2	5.2	27	Tr10x2
SET-30-AWM-F	55	60	80	59	60	40	40	40	125	39	35	6.5	5.2	30	Tr12x3

[92)] **Lead screw end unmachined**

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drylin® SET | easytube | Product range

Pre-loaded on one side

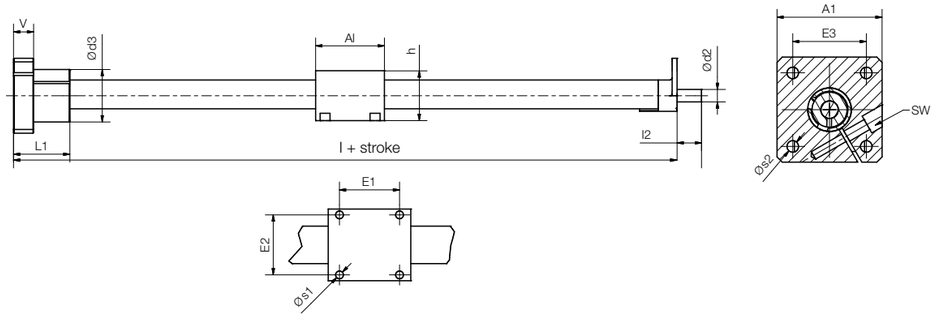


Order key

Order example

SETB - 25 - AWM

easytube	Dimension	Shaft material



- Horizontal and vertical installation at one end
- Ideal for the positioning of sensors and cameras in format adjustments
- Easy assembly
- Flexible installation
- Space-saving
- Protected lead screw

Technical data

Part No.	Max. stroke length	Max. static load capacity	
		axial	radial[128]
	[mm]	[N]	[N]
SETB-25-AWM	300	150	12.5

Dimensions [mm]

Part No.	A1	Al	h	E1	E2	E3	V	L1	l2	d2[92]	d3	l	s1	s2	SW
SETB-25-AWM	60	55	39	40	40	42	16	45	17	Tr10x2	42	130	5.2	6.6	5

[92] Lead screw end unmachined

More dimensions upon request

[128] The supporting torque at the clamping flange must not exceed 10Nm

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drylin®
SET
easytube

drylin® SET | easytube | Product range

With measurement scale



Order key

Order example

SET M - 25 - AWM - 200 - SC

easytube	Manual	Dimension	Shaft material	Stroke length	Scaling

Options:

Manual

without lead screw (optional)

- Lasered, wash-proof scale
- Corrosion-resistant
- Multi-position clamp
- Available with/without lead screw
- 3 stroke lengths available from stock

Technical data		
F radial	[N]	300
Max. extension at maximum load	[mm]	66
Max. extension at 100N nominal load	[mm]	200
Max. drive force without load	[N]	10
Max. holding force	[N]	100
Max. stroke length	[mm]	600

Dimensions [mm]

Part No. measurement scale without lead screw	Part No. measurement scale with trapezoidal lead screw 10x2	Stroke length
		[mm]
SETM-25-AWM-200-SC	SET-25-AWM-200-SC	200
SETM-25-AWM-400-SC	SET-25-AWM-400-SC	400
SETM-25-AWM-600-SC	SET-25-AWM-600-SC	600

More dimensions see SET ▶ Page 562

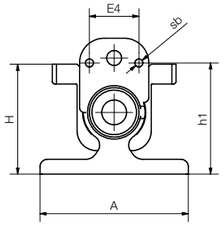
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drylin® SET | easytube | Product range

Lightweight carriage option



- Weight-optimised
- Cost-effective
- Simplified assembly
- Light, clean and quiet

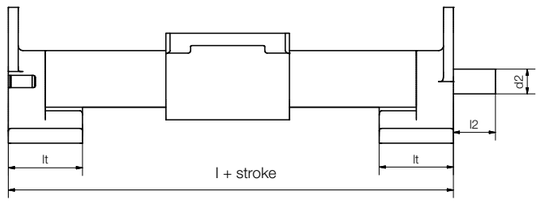


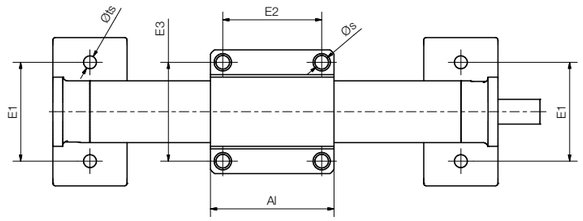
Order key

Order example

SETC - 25 - AWM

easytube	Dimension	Shaft material





Technical data

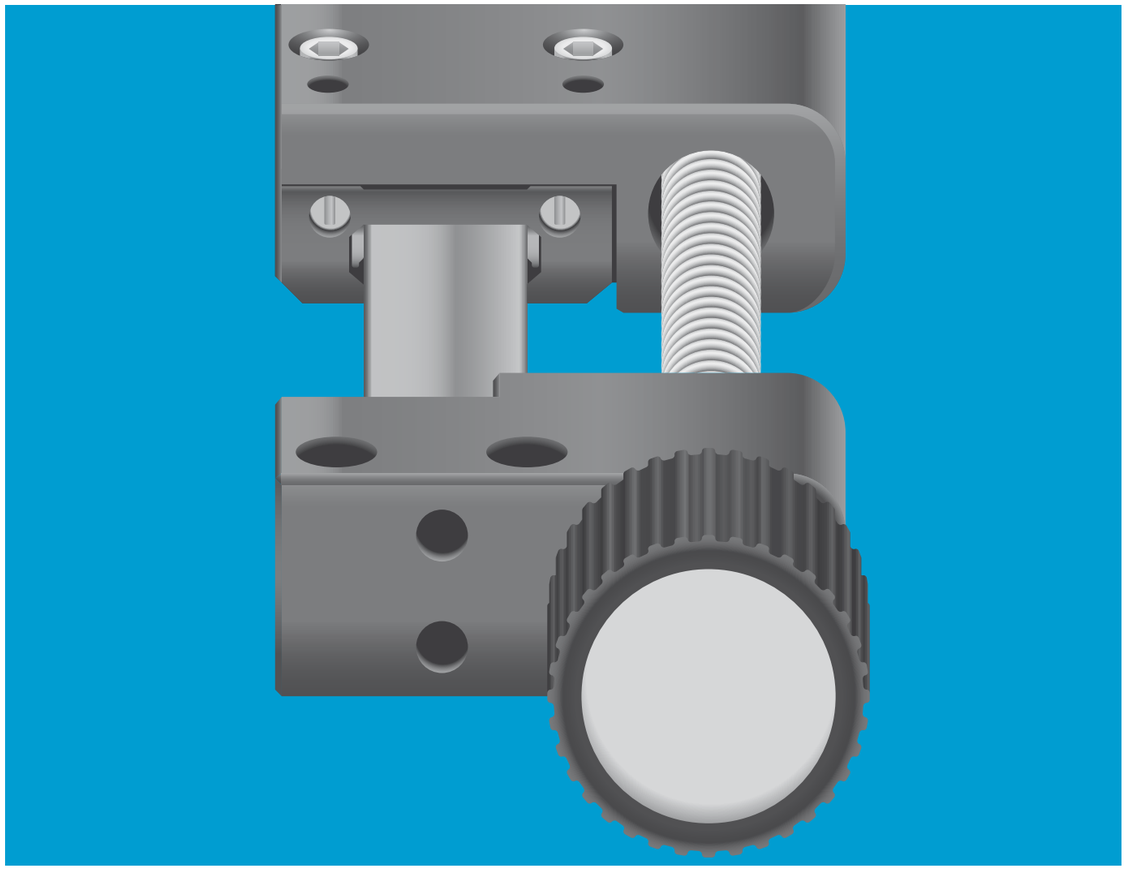
Part No.	Weight	Max. stroke length	Max. static load capacity	
			axial	radial
	[kg]	[mm]	[N]	[N]
SETC-25-AWM	0.15	750	150	300

Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	E4	l	h1	lt	ts	Øs	sb	l2	d2[92)]
SETC-25-AWM	60	55	44	40	40	40	20	115	45	30	5.2	5.2	M4	17	Tr10x2

[92)] Lead screw end unmachined

More dimensions upon request



drylin® general drive technology - SLT linear modules

Based on lubrication-free drylin® T miniature guide

Drive: Trapezoidal or high helix lead screw

Low-profile and compact design

Carriages with individual clearance adjustment

Variable lead screw options



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drylin® SLT | Linear modules | Advantages

Flat, lightweight and lubrication-free



Lubrication-free linear modules - drylin® SLT

The low profile, the lateral lead screw arrangement and a striking design, are just some of the reasons why the drylin® SLT linear module was honoured with the 2014 IF Award. Technically, the system impresses with ball bearing mounted trapezoidal or high helix thread lead screws for motorised or manual operation. The basis of the SLT series is the drylin® T miniature guide in sizes 12 and 15.

- Low-profile structure through lateral lead screw arrangement
- Lubrication-free, corrosion-resistant, lightweight
- Variable pitch
- Adjustable drylin® T miniature carriage
- Lead screw arrangement can be selected either left or right

Typical application areas

- Format adjustments
- Laboratory and medical technology
- Optical equipment

Available in 3-8 days
Detailed information about delivery time online.

Max. +60°C
min. -40°C

Stroke lengths 300-600mm
More dimensions upon request.

Product finder
▶ www.igus.eu/slt-productfinder

product design award 2013

Can be configured as ready-to-connect linear axis with motor and initiators
▶ www.igus.eu/drylin-automation

RoHS-II

In accordance with EC Directive 2011/65 EU (RoHS 2) Restriction (of the use of certain) hazardous substances

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drylin® SLT | Linear modules | Product range

With ball bearing supported lead screw



Order key

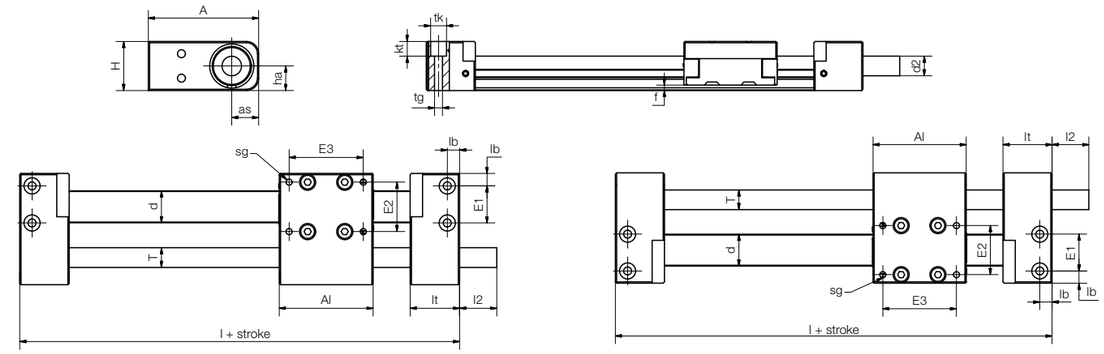
Order example

SLT - BB - 0412 - E R - S 0015 R G - □

Type	Design	Installation size	Adjustable carriage TWE	Lead screw alignment	Lead screw	Pitch	Thread	Lead screw end	Stroke length in mm
SLT	BB	0412	E	R	S	0015	R	G	□

Options:

Design
BB: With ball bearings
Lead screw alignment
R: Right (standard)
L: Left
Lead screw
S: Steel
ES Stainless steel
Thread
R: Right
Lead screw end
G: Threaded end



Lead screw alignment left

Lead screw alignment right

Technical data and dimensions [mm]

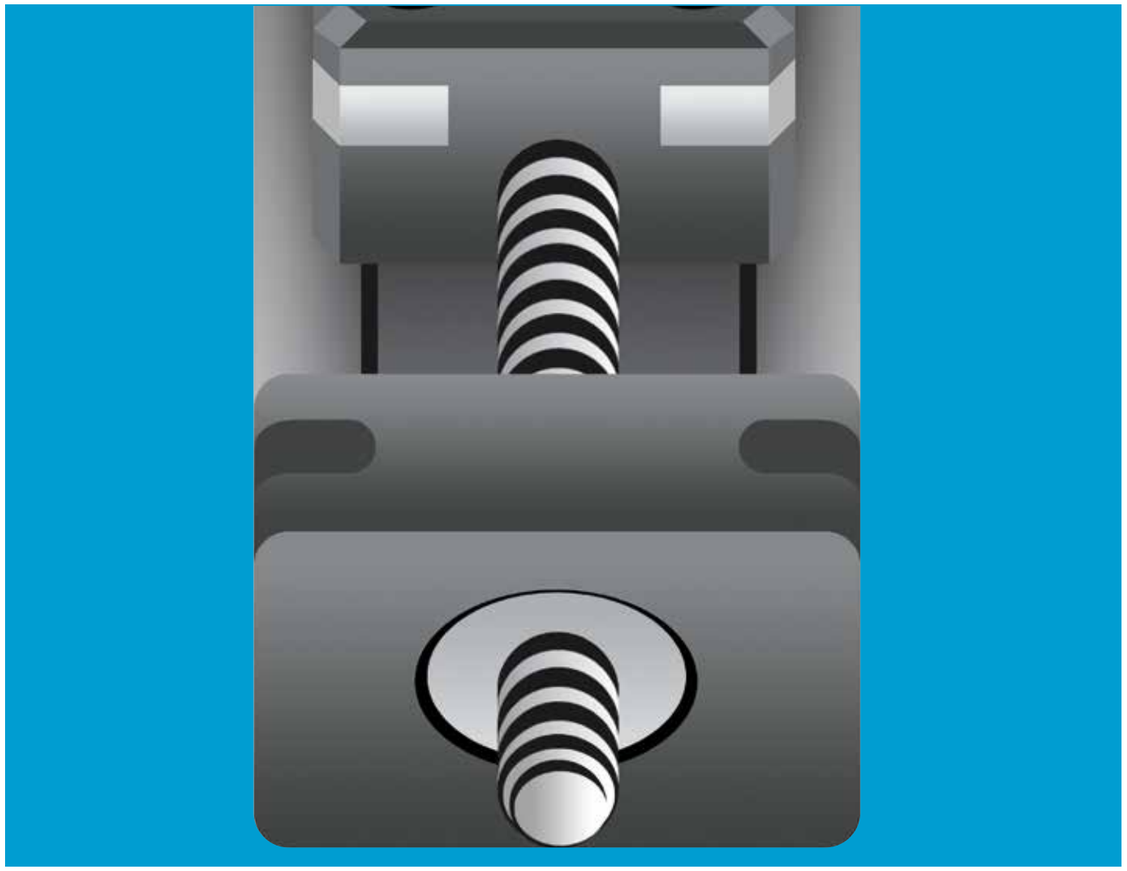
Part No.	Pitch	Max. stroke length	Weight additional (per 100mm)		Max. static load capacity axial	Max. static load capacity radial	Max. speed	Max. speed
			[kg]	[kg]	[N]	[N]	[1/min]	[m/min]
SLT-BB-0412	Ds8x15	300	0.15	0.06	25	100	1,000	15
SLT-BB-0415	Ds12x25	600	0.40	0.12	100	400	1,000	25

Part No.	A	Al	H	E1	E2	E3	l	l2	d2	ha	sg	tk	kt	tg	f	lb	lt	d	T	as
SLT-BB-0412	45	38	20	15	20	30	78	15	–	10	M3-7	6.5	6	M4	2.2	5	20	13	Tr08x1.5	11
SLT-BB-0415	58	45	30	19	25	35	89	17	12	15	M3-13	8	4.5	M5–15	2.8	6.5	22	17	Tr12x3	16

Also see econ chapter ▶ Page 605

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Notes



drylin® general drive technology - SLN/SLNV linear modules

- Based on lubrication-free drylin® N low-profile linear guide
- Drive: Trapezoidal or high helix lead screw
- Compact design
- Clearance adjustment on carriage
- Precise with pre-load



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Compact, precise and lubrication-free



Shaft end supports made from corrosion-resistant, robust plastic

Lead screw mounted with plain or ball bearings

Cost-effective, robust plastic carriages (basic series 03)

Carriage with manual height clearance adjustment (standard series 04)

Metal thread inserts

Minimal backlash with pre-load (pre-load series 05)

Rail made from anodised aluminium

Lead screws made from stainless steel with pitch M5 (5x0.8mm) or high helix thread (5x5, 6x12.7)

Hand wheel available ▶ **Page 621**

Configurable with motor as a ready-to-install linear drive

Lubrication-free miniature linear modules - drylin® SLN

drylin® SLN linear axes is a compact solution. The axis measures 28 x 22mm and can be configured with stroke lengths of up to 250mm. Thanks to the lubrication-free plastic sliders, it is quiet and very light. The axis is based on the tried-and-tested drylin® N system, size 27. It is available both mounted on plain bearings or on ball bearings in the shaft end supports. The drylin® SLN linear axis can be adjusted manually using the hand wheel or combined with the drylin® E stepper and DC motors.

- Ultra-compact design
- 3 carriage types (basic/adjustable/pre-load)
- Lubrication-free drylin® low-profile linear guide
- Modular design

Typical application areas

- Sensor technology
- Inspection technology
- Laboratory technology
- Medical technology

Available in 3-8 days
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Carriage length: 35mm
Stroke lengths: up to 250mm

Product finder
▶ www.igus.eu/sln-productfinder

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Miniature linear module, pre-load version



- Based on maintenance-free drylin® N low-profile linear guides size 27
- BB version (ball bearing) for minimal backlash run
- Manual and motorised operation possible
- Linear carriage with individual height clearance adjustment and pre-load (optional)
- Accessories available
  ▶ **Page 613**
- Also see econ chapter
  ▶ **Page 610**
- **Available with motor**

Order key

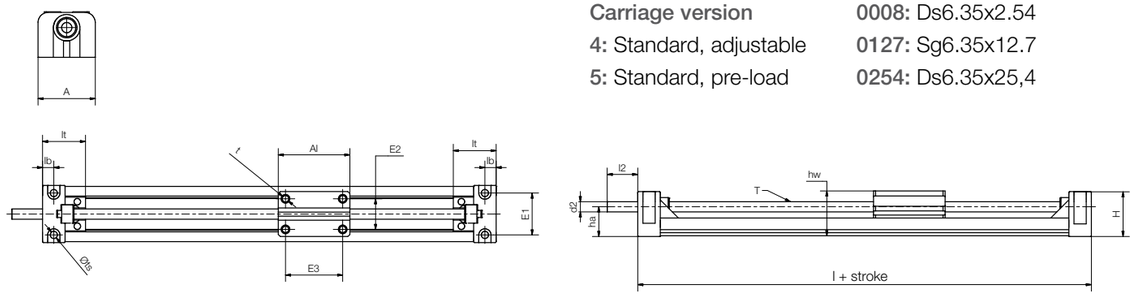
Order example

SLN- 27 - 1 4 - 0008

Linear module	drylin® N size 27	Shaft end support design	Carriage version	Pitch

Options:

Shaft end support design	Pitch
0: Plain bearing	**0008:** M5x0.8
1: Ball bearing	**0050:** Sg5x5
Carriage version	**0008:** Ds6.35x2.54
4: Standard, adjustable	**0127:** Sg6.35x12.7
5: Standard, pre-load	**0254:** Ds6.35x25,4



Technical data

Part No.	Max. stroke length[101]	Weight	addit.	Max. static load capacity		Max. speed	Max. drive torque
			[kg]	axial	radial		
	[mm]	[kg]	(per 100mm)	[N]	[N]	[rpm]	[Nm]
SLN-27-04	250	0.06	0.04	10	40	100	0.1
SLN-27-05	250	0.06	0.04	10	40	100	0.1
SLN-27-14	250	0.06	0.04	10	40	300	0.1
SLN-27-15	250	0.06	0.04	10	40	300	0.1

Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	E11[102]	l	hw	lt	lb	ts	d2[98]	l2	ha
	±0.2	-0.1	±0.2	±0.15	±0.15	±0.15			±0.2	±0.2			Ø		
SLN-27-04	28	35	22	20.5	15	28	15	77	22.5	21	5	3.5	5 (4 h7)	15	14.5
SLN-27-05	28	35	22	20.5	15	28	15	77	22.5	21	5	3.5	5 (4 h7)	15	14.5
SLN-27-14	28	35	22	20.5	15	28	15	77	22.5	21	5	3.5	Ø4h9[98]	15	14.5
SLN-27-15	28	35	22	20.5	15	28	15	77	22.5	21	5	3.5	Ø4h9[98]	15	14.5

[101] **Fixed stroke lengths for SLN option with ball bearings: 100/150/200/250mm**
[102] **The dimension E11 can only be found in conjunction with the igus® motor connection** [98] **Thread/ remaining thread visible**

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drylin® SLN | Miniature linear modules | Product range

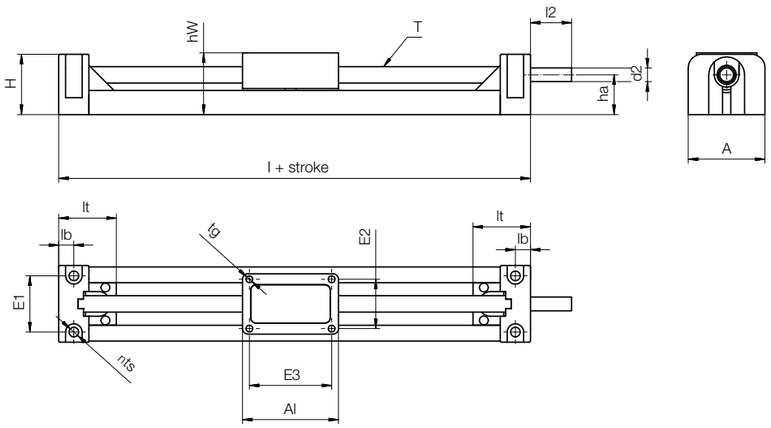
drylin® SLNV prism module for precise adjustment



- SLNV linear module for the smallest installation spaces
- For stroke lengths up to 250mm
- High precision due to stop motion preload prism slide
- Clearance reduction in z and y directions due to pre-load
- Lead screw with plain or ball bearing
- Self-locking with trapezoidal thread Tr6x2
- Fast and efficient with pre-load
- Feed rate up to 25.4mm per rotation

Typical application areas:

- Medical technology
- Dental equipment
- Research and development
- Measuring technology



Technical data

Part No.	Max. stroke length	Weight	addit. (per 100mm)	Max. static load capacity axial	radial	Maximum rotational speed	Maximum drive torque
	[mm]	[g]	[g]			[rpm]	[Nm]
SLNV-27-0025	250	80	56	10	40	300	0.1
SLNV-27-0051	250	80	56	10	40	300	0.1
SLNV-27-0127	250	80	56	10	40	300	0.1
SLNV-27-0254	250	80	56	10	40	300	0.1

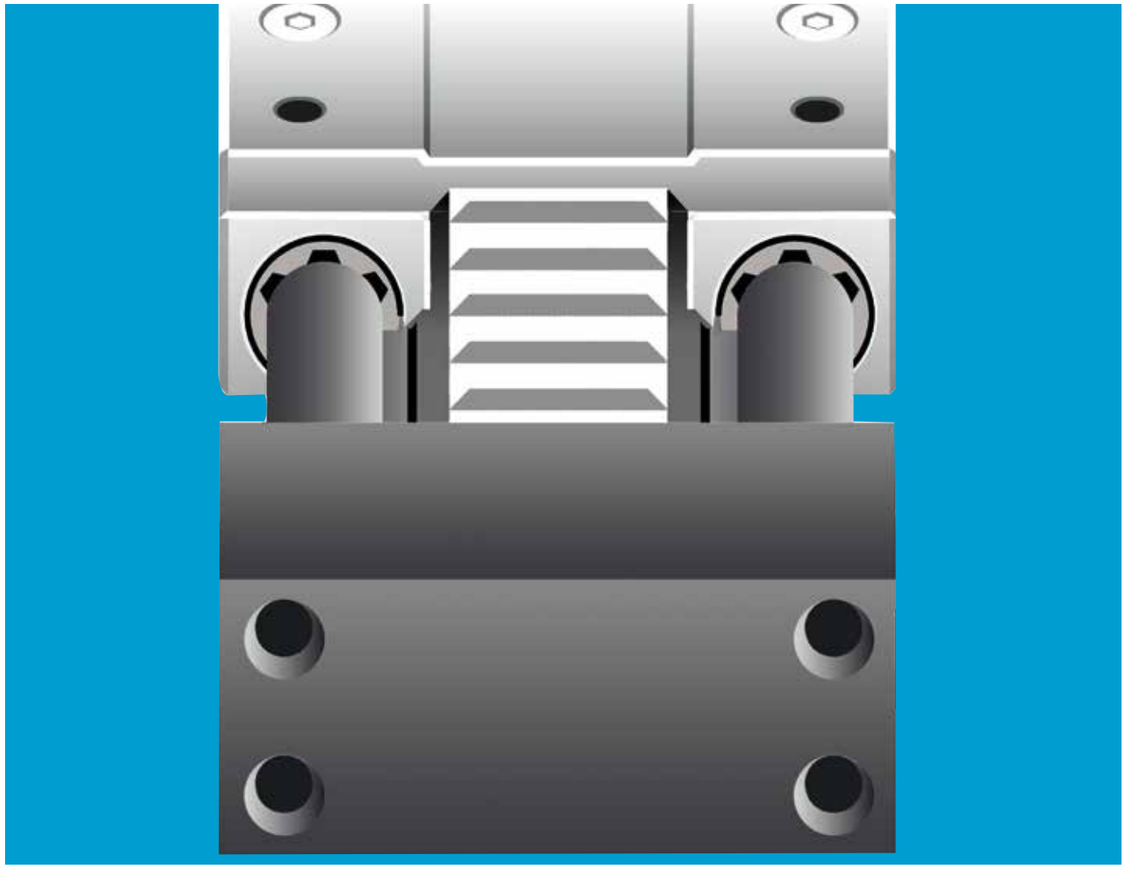
Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	l	hw	lt	lb	ts	tg	d2[98]	l2	ha
	±0.2	-0.1	±0.2	±0.15	±0.15	±0.15		±0.3	±0.2				4 h7		
SLNV-27-0025	28	35	22	20.5	18	30	77	22.5	21	5.5	3.5	6.35x2.54	5	15	14.5
SLNV-27-0051	28	35	22	20.5	18	30	77	22.5	21	5.5	3.5	6.35x5.08	5	15	14.5
SLNV-27-0127	28	35	22	20.5	18	30	77	22.5	21	5.5	3.5	6.35x12.7	5	15	14.5
SLNV-27-0254	28	35	22	20.5	18	30	77	22.5	21	5.5	3.5	6.35x25.4	5	15	14.5

[98] Thread/remaining thread visible

drylin® stop motion full product range online
▶ www.igus.eu/drylinstopmotion

igus EN 09/2023



drylin® general drive technology - toothed belt axes

Lubrication-free linear modules based on drylin® W guides

Drive: Toothed belt

For fast positioning

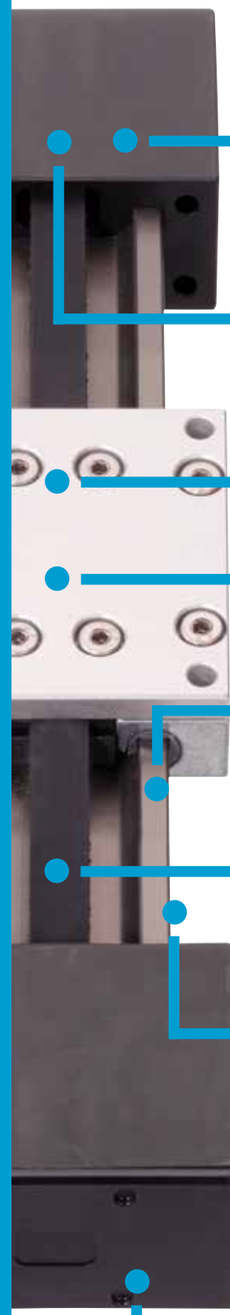
End supports with deep groove ball bearings

As single axis or for multi-axis linear robots



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Fast and powerful



Lubrication-free toothed belt axes - drylin® ZLW

The drylin® toothed belt axes in the ZLW series are suitable for many different positioning and adjustment tasks. The lubrication-free drylin® W profile guide acts as a linear guide and a toothed belt acts as a drive.The stroke is freely selectable. Thanks to the lightweight design using plastic and aluminium, drylin® ZLW toothed belt axes have a low mass inertia, making them highly efficient. Whether as an individual system or a linear robot structure, the ZLW series offers the ideal solution in both confined spaces and applications that require a high level of support. All drylin® ZLW toothed belt axes can be ordered ready for connection and configured with drylin® stepper and DC motors. It is also possible to integrate other motor components.

- Completely lubrication-free operation
- 3 types: econ/basic/standard
- Variable carriage lengths
- Many motor kits available

Typical application areas

- Medical and laboratory technology
- Handling
- Positioning tasks (pick & place)
- Camera/sensor adjustment
- Machine construction

Available in 3-8 days
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Carriage lengths: 60-250mm
Carriage widths: 54-107mm
Stroke length: up to 3,000mm

Product finder
▶ **www.igus.eu/zlw-productfinder**

Positioning with lubrication-free toothed belt drive



ZLW econ series

- Cost-effective starter axis in 2 sizes
- Lightweight
- Carriage and deflection housing made of plastic
- Anodised drylin® W aluminium profile section

▶ **Page 586**



ZLW basic series

- Cost-effective deflection axis consisting of stainless-steel square section and high-performance polymer
- Neoprene toothed belts with fibre glass reinforcement
- Hard-anodised drylin® W aluminium profile
- For installation sizes 0630 and 1040

▶ **Page 586**



ZLW standard series

- Effective PU toothed belt with steel cables
- Single-section deflection axis made of stainless steel (shaft and tooth rim)
- Hard-anodised drylin® W aluminium profile
- For installation sizes 0630/1040/1080/1660

▶ **Page 586**



ZLW specialists

- Deep-freeze LT version for applications down to -30°C
- UW version for underwater use
- SW version for splash water applications
- For installation size 1040

▶ **Page 586**



ZLW-OD reverse

- For quick reverse positioning
- Fast right/left adjustment
- Compact due to flat drylin® W double rails
- With angle flange

▶ **Page 592**



ZAW - cantilever axis

- Secure mounting of the drive unit
- Traversing of profile section and load
- Fixed end block and floating shaft end support
- Size 1040 for max. stroke up to 1,000mm

▶ **Page 599**



ZLW - open design in installation size 20

- Variable shaft span of 120/160/200mm
- Effective deflection axis and toothed belt
- Lightweight aluminium version available
- Corrosion-resistant stainless steel version

▶ **Page 588**



Motors and mounting accessories

▶ **Page 613**

drylin® ZLW | Toothed belt axes | Technical data

Toothed belt axis	Version	Shaft Ø	Weight		Max. stroke length[120]	Trans-mission	Tooth profile	Carriage length
			without stroke	100mm stroke				
		[mm]	[kg]	[kg]	[mm]	[mm/rev]		[mm]
ZLN-40	–	40	0.24	0.05	750	60	T2.5	50
ZLW-0630-…								
…-02-E	econ	□6	0.30	0.08	500	54	HTD 3M	60
…-02-B	Basic	□6	0.38	0.08	1,000	54	HTD 3M	60/100
…-02-S	Standard	8	0.43	0.08	1,000	54	MTD3	60/100
…-OD-B	Reverse basic	□6	0.40	0.1	1,000	54	HTD 3M	60/100
…-OD-S	Reverse standard	8	0.45	0.1	1,000	54	HTD 3M	60/100
ZLW-0660-S-02-	Standard	10	0.88	0.15	1,000	54	HTD 3M	100/150/200
ZLW-1040-…								
…-02-E	econ	10	0.70	0.14	1,000	66	RPP 3M	100/150/200
…-02-B	Basic	10	0.90	0.14	2,000	66	RPP 3M	100/150/200
…-02-S	Standard	10	1.00	0.14	2,000	70	AT5	100/150/200
…-02-LT	Deep-freeze	10	1.00	0.14	2,000	70	AT5	100/150/200
…-02-UW	Underwater	10	1.00	0.14	1,000	70	AT5	100/150/200
…-02-SW	Splash water	10	1.00	0.14	2,000	70	AT5	100/150/200
…-OD-B	Reverse basic	10	1.00	0.17	1,500	66	RPP 3M	100/150/200
…-OD-S	Reverse standard	10	1.00	0.17	1,500	70	AT5	100/150/200
ZLW-1080-…								
…-02-S	Standard	10	1.30	0.21	2,000	70	AT5	100/150/200
ZLW-10120	Standard	10	2.03	0.16	2,000	75	3M	150/200/250
ZLW-10160	Standard	10	2,28	0.17	2,000	75	3M	151/200/250
ZLW-10200	Standard	10	2.54	0.19	2,000	75	3M	152/200/250
ZLW-1660-…								
…-02-S	Standard	14	4.00	0.5	3,000	120	AT5	100/150/200/250
ZLW-20…								
…120	Standard	20	5.36	0.386	3,000	144	20 RPP8	200/250/300
…120-HYD	Hygienic design	20	2.03	0.16	2,500	144	8M	200
…160	Standard	20	5.78	0.426	3,000	144	20 RPP8	200/250/300
…200	Standard	20	62	0.466	3,000	144	20 RPP8	200/250/300

[120] When configuring your linear module, we ask that you note the igus® specifications for maximum stroke lengths. The performance and load specifications shown above for all drive units are based exclusively on stroke lengths within the recommended values. Exceeding these can result in undesirable effects to the function such as increased wear and noise. Belt or lead screw contact cannot be excluded, and the rated performance and load specifications may not be attainable.

Tightening torque for drylin® metallic screws

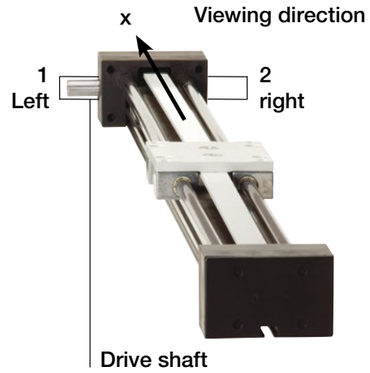
Metric thread (Da)	Tightening torque	Recommended tightening torque
	[Nm]	[Nm]
M3	0.5 - 1.1	0.7
M4	1.0 - 2.8	1.5
M5	2.0 - 5.5	3.0
M6	4.0 - 10.0	6.0
M8	8.0 - 23.0	15.0
M10	22.0 - 46.0	30.0

Please be aware of the minimal screw-in depth for aluminium and zinc die-casting parts: 1.5xDa

Max. radial load	Toothed belt material	Toothed belt width	Toothed belt tension	Guide bearing	Max. speed	Max. position accuracy	Idle torque	Max. drive torque
[N]		[mm]	[N]		[m/s]	[mm]	[Nm]	[Nm]
45	PU with steel	6	30	Deep groove ball bearings	2.0	± 0.30	0.15	0.4
30	Neoprene with GF	9	20	Deep groove ball bearings	1.0	± 0.40	0.10	0.30
100	Neoprene with GF	9	75	Deep groove ball bearings	2.0	± 0.35	0.10	0.75
150	PU with steel	9	100	Deep groove ball bearings	2.0	± 0.30	0.15	1.00
50	Neoprene with GF	9	75	Deep groove ball bearings	1.0	± 0.35	0.10	0.75
75	PU with steel	9	100	Deep groove ball bearings	1.0	± 0.30	0.15	1.00
150	PU with steel	15	100	Deep groove ball bearings	5.0	± 0.30	0.15	1.25
100	Neoprene with GF	15	50	Deep groove ball bearings	2.0	± 0.35	0.1	0.5
200	Neoprene with GF	16	150	Deep groove ball bearings	3.0	± 0.30	0.2	1.75
300	PU with steel	16	200	Deep groove ball bearings	5.0	± 0.20	0.3	2.40
300	TPUKF2	16	200	Cold ball bearing	5.0	± 0.20	0.3	2.40
100	PU + Aramid	16	50	xiros® ball bearings	1.0	± 0.50	0.15	0.50
200	PU + stainless steel	16	200	Stainless steel ball bearing	5.0	± 0.20	0.30	2.40
100	Neoprene with GF	16	150	Deep groove ball bearings	1.5	± 0.30	0.15	1.75
150	PU with steel	16	200	Deep groove ball bearings	2.5	± 0.20	0.25	2.40
300	PU with steel	16	200	Deep groove ball bearings	5.0	± 0.20	0.25	2.40
300	Neoprene with GF	15	200	Deep groove ball bearings	5.0	± 0.20	0.35	2.50
300	Neoprene with GF	15	200	Deep groove ball bearings	5.0	± 0.20	0.35	2.50
2,000	PU with steel	32	500	Deep groove ball bearings	5.0	± 0.20	0.4	10.00
3,000	PU with stainless steel	20	750	Deep groove ball bearings	5.0	± 0.20	1.0	15.00
750	PU (FDA) with stainless steel	20	750	FDA-compliant deep groove ball bearings	5.0	± 0.20	1.0	15.00
3,000	PU with stainless steel	20	750	Deep groove ball bearings	5.0	± 0.20	1.0	15.00
3,000	PU with stainless steel	20	750	Deep groove ball bearings	5.0	± 0.20	1.0	15.00

The technical values in the specifications are maximum values for each criterion, e.g. speed, stroke length etc.; they are not cumulative values. Suitability under consideration of the individual parameters for usage can be checked online at www.igus.eu/linearmodule-finder.

Drive pin alignment for all ZLW toothed belt axis



Drive shaft

L: Drive pin left

R: Drive pin right

L/R: Drive pin, both sides

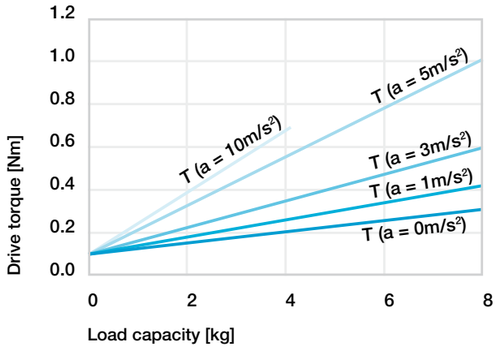


Diagram 01: Required drive torque[138]; horizontal orientation - ZLW-0630, version basic 02

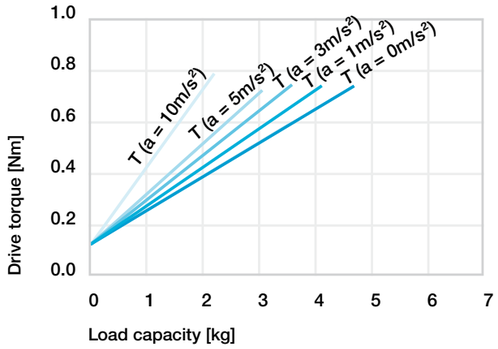


Diagram 02: Required drive torque[138]; vertical orientation - ZLW-0630, basic 02 version

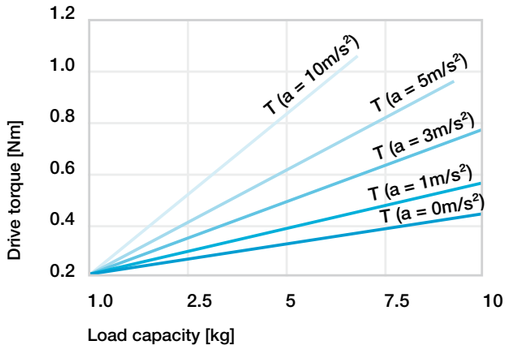


Diagram 03: Required drive torque[138]; horizontal orientation - ZLW-0630, version standard 02

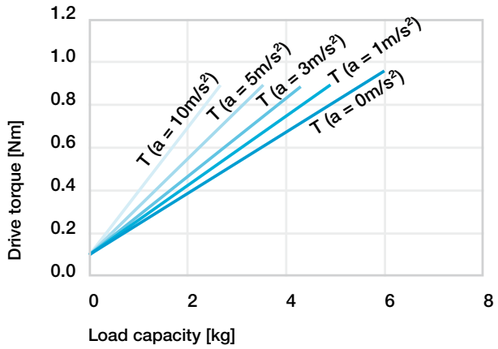


Diagram 04: Required drive torque[138]; vertical orientation - ZLW-0630, version standard 02

[138] Assumption: The moving mass is located in a circumscribed circle with a max. R = 100mm to the middle of the guiding rail, max. permissible torque, ZLW-0630 basic 02: 0.75Nm, a = 0m/s², ZLW-0630 standard 02: 1Nm, a = 0m/s², constant drive without nominal acceleration value

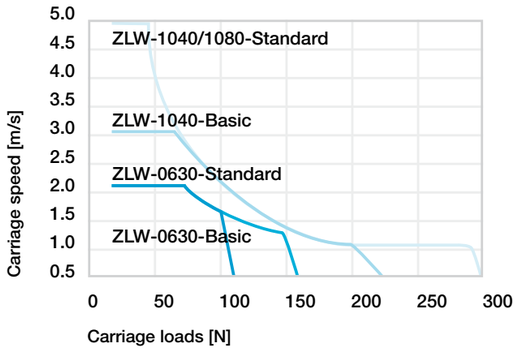


Diagram 05: Maximum load compared: ZLW-0630 and ZLW-1040/1080, 60% ED (duty cycle). The graph accounts for the sum of all forces active on the carriage.

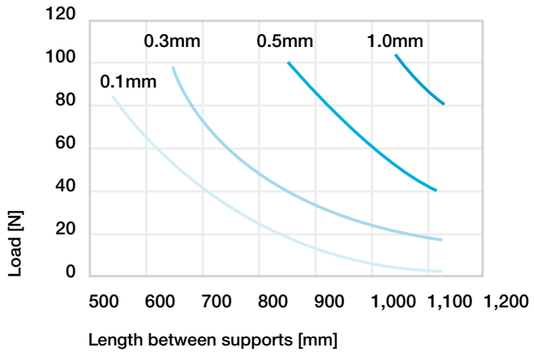


Diagram 06: Sag between unsupported end blocks ZLW-0630, basic 02 and standard 02 version. Sag permissible up to 2mm maximum.

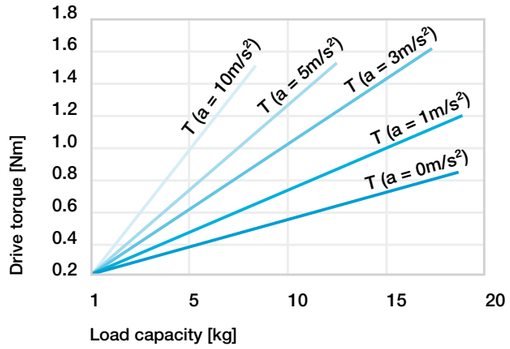


Diagram 07: Required drive torque[139]; horizontal orientation - ZLW-1040, version basic 02

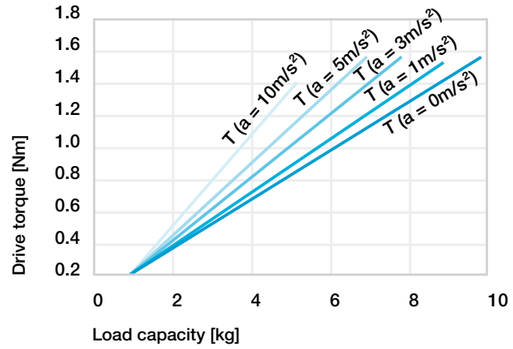


Diagram 08: Required drive torque[139]; vertical orientation - ZLW-1040, basic 02 version

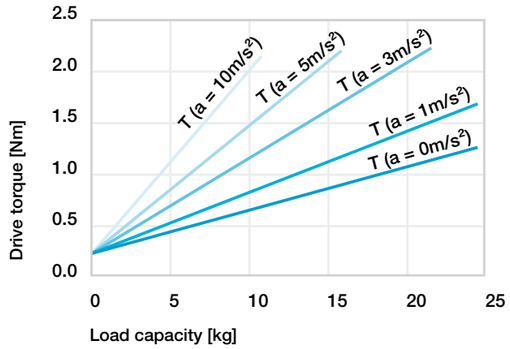


Diagram 09: Required drive torque[139]; horizontal orientation - ZLW-1040/1080, version standard 02

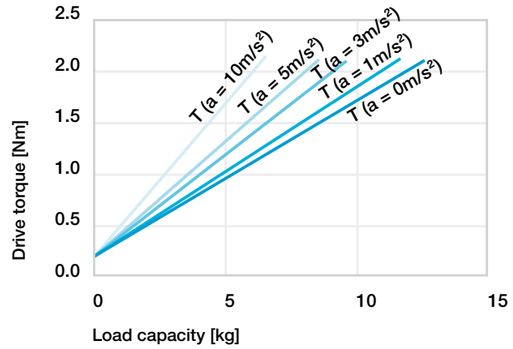


Diagram 10: Required drive torque[139]; vertical orientation - ZLW-1040/1080, version standard 02

[139] Assumption: The moving mass is located in a circumscribed circle with a max. R = 100mm to the middle of the guiding rail, max. permissible torque ZLW-1040/1080 basic 02: 1.75Nm, a = 0m/s², ZLW-1040/1080 standard 02: 2.4Nm, a = 0m/s², constant drive without nominal acceleration value

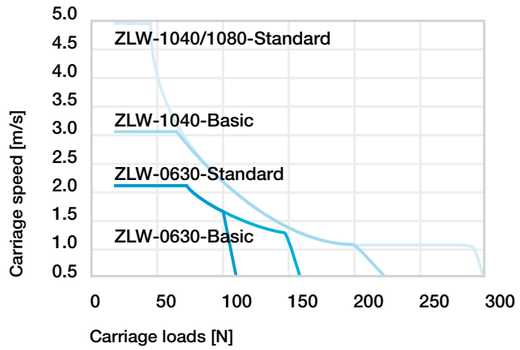


Diagram 11: Maximum load compared: ZLW-0630 and ZLW-1040/1080, 100% ED (duty cycle). The graph accounts for the sum of all forces active on the carriage.

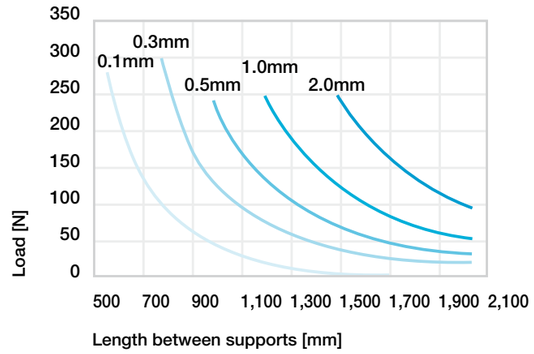


Diagram 12: Sag between unsupported end blocks ZLW-1040, basic version and ZLW-1040/1080 standard 02 version. Sag permissible up to 2mm maximum - horizontal orientation

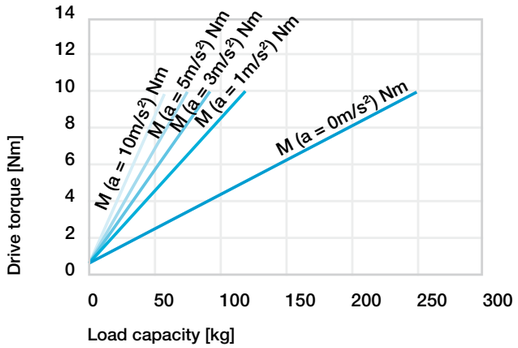


Diagram 13: Required drive torque[140]; horizontal orientation - ZLW-1660, standard 02 version

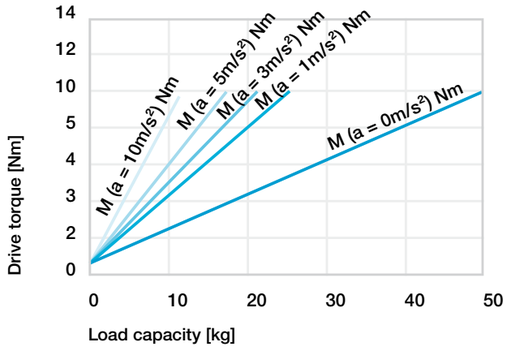


Diagram 14: Required drive torque[140]; vertical orientation - ZLW-1660, standard 02 version

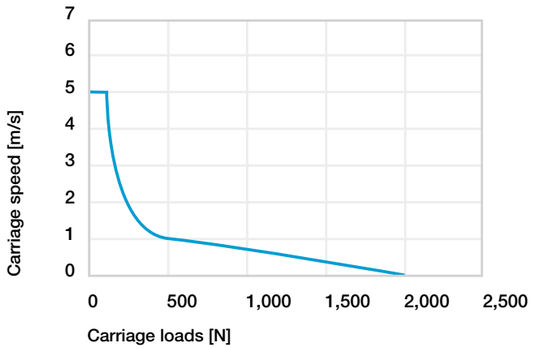


Diagram 15: Maximal load, horizontal installation; the graph accounts for the sum of all forces active on the carriage.

[140] Assumption: The moving mass is located in a circumscribed circle with R = 100mm to the middle of the guiding rail, max. permissible torque ZLW-1660 standard 02: 10Nm, a = 0m/s², constant drive without nominal acceleration value

Technical data

Part No.	Geometrical moment of inertia		Moment of resistance	
	Iy	Iz	Wby	Wbz
ZLW-0630	30,391	11,674	1,736	845
ZLW-0660	212,826	17,018	6,448	1,398
ZLW-1040	97,560	54,910	3,902	3,076
ZLW-1080	483,653	486,613	11,515	4,684
ZLW-1660	540,876	4,773,489	14,618	24,586

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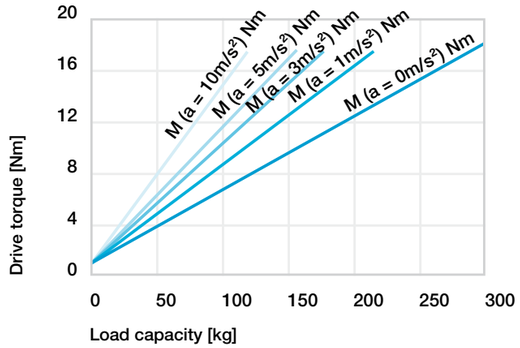


Diagram 17: Required drive torque[140]; horizontal orientation - ZLW-20120, version standard 02

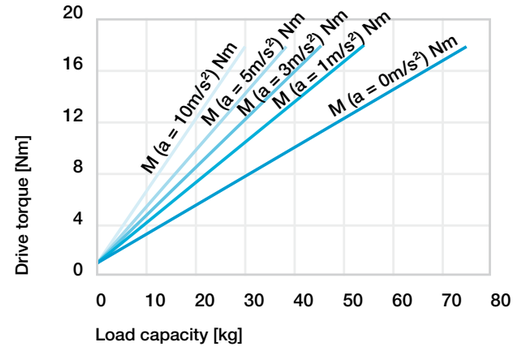


Diagram 16: Required drive torque[140]; vertical orientation - ZLW-20120, version standard 02

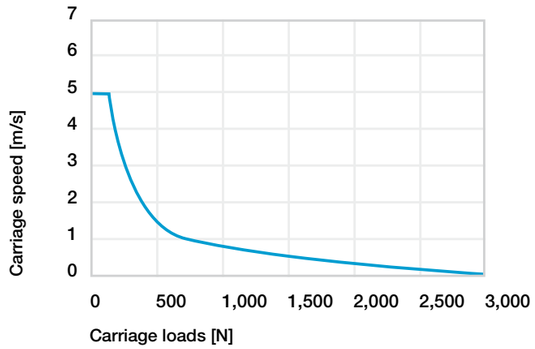


Diagram 18: Maximal load, horizontal installation; the graph accounts for the sum of all forces active on the carriage.

[174] Assumption: The moving mass is located in a circumscribed circle with R = 100mm to the middle of the guiding rail, max. permissible torque: 20Nm, a = 0m/s², constant drive without nominal acceleration value

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econ series

Many infeed movements require cost-effective linear axes that focus on pure adjustment tasks. This econ series with toothed belt was developed for the fast positioning of light loads. With its compact design and being lightweight due to aluminium and plastic, the ZLW econ is the perfect alternative to self-made solutions.



Basic series

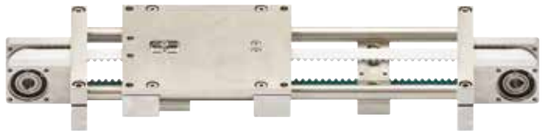
Lubrication-free linear guide also driven by a toothed belt made from fibre-glass reinforced neoprene (black). The drive shaft, consisting of a square stainless steel and toothed pulley made of high-performance polymer, rests on 2 deep groove ball bearings. The drive pin is 6x6mm square and made of stainless steel. The scope of delivery includes a plastic adapter for a pin diameter of 10mm.



Standard series

The lubrication-free linear guide is also driven by a toothed belt made from steel reinforced polyurethane (white). Deflection shaft and drive pulley (single-piece) are made from plated steel or stainless steel. The pulley shafts are mounted in two deep groove ball bearings.





Modular kit series

A high degree of flexibility characterises the ZLW modular system series. A modular construction system based on individual rails from the drylin® W linear system. 3 widths up to 200mm, 8M PU with stainless steel reinforcement for smooth running, either in aluminium or stainless steel.

The ZLW specialists



LT

For use at temperatures down to -30°C, the drive and deflection shaft end supports are fitted with ball bearings. Drive is a toothed belt suitable for low temperatures.



UW

Maximum protection against corrosion is provided by the toothed belt axis; for underwater applications, among others. Linear carriages, drive and deflection shaft end supports made of anodised aluminium, incl. lubrication-free xiros® ball bearings. A flexible toothed belt with aramid reinforcing serves as the belt.



SW

The SW ZLW version is suitable for applications where there is contact with spray water. Corrosion-resistant due to PU toothed belt with stainless steel tie beams and stainless steel ball bearings, as well as shaft end support housing made of anodised aluminium.



ES

The ZLW modular axis made of stainless steel offers maximum corrosion protection. All components are manufactured in stainless steel, driven by 8M PU toothed belt with stainless steel reinforcing.

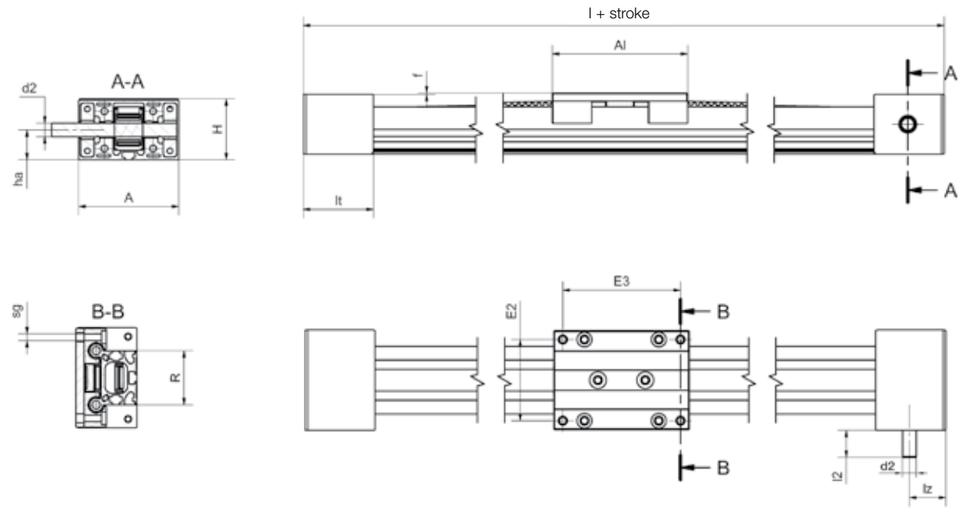
More Information online
▶ www.igus.eu/ZLW

drylin® ZLW | Toothed belt axes | Product range

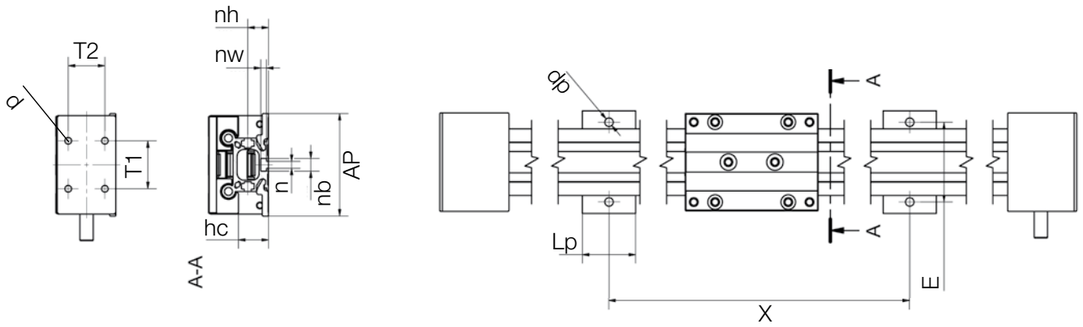
Toothed belt axis in econ, basic and standard version



- Fast positioning of small loads
- Quiet operation and flat design
- Drive pin on one or both sides
- Linear carriages available in different lengths (except for econ version)
- Configurable with motor as a ready-to-install linear drive
- Specialist in deep-freeze, underwater and spray-water areas ▶ **Page 585**



Connecting dimensions



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drylin® ZLW toothed belt axes

drylin® ZLW | Toothed belt axes | Product range

Order key

Order example

ZLW-0630-02-B

Toothed belt axis	Installation size	Version	Design

Options:

Version

02: With deep groove ball bearings

Design

E: econ series (630/1040)
B: basic series (0630/1040)
S: Standard series (all sizes)

Order key specialists

Order example

ZLW-1040-LT-02-S

Toothed belt axis	Installation size	Version	Version	Design

Options:

Version

LT: For deep-freeze applications down to -30°C
UW: For underwater applications
SW: For spray-water applications

Version

02: With deep groove ball bearings

Design

S: Standard series

Dimensions [mm]

Part No.	A	Al	H	E2	E3	l	R	f	lt	sg	ha	hc	lz	l2	d2
	-0.3			±0.15	±0.15		±0.15		±0.3						h9
ZLW-0630-02	54	60	31	45	51	144	30	3	42	M4	14	22.5	20.5	20	8
ZLW-0660	85	100	31	76	91	184	61	3	42	M4	14	22.5	20.5	19.5	8
ZLW-1040-02	74	100	44	60	87	204	40	1	52	M6	22	22.5	27	20	10
ZLW-1040-LT-02-S	74	100	44	60	87	204	40	1	52	M6	22	22.5	27	20	10
ZLW-1040-UW-02-S	74	100	44	60	87	204	40	1	52	M6	22	22.5	27	20	10
ZLW-1040-SW-02-S	74	100	44	60	87	204	40	1	52	M6	22	22.5	27	20	10
ZLW-1080-02	90	100	44	94	87	204	74	1	52	M6	22	22.5	24.5	12	10
ZLW-1660-02	104	100	72	86	82	252	60	2	76	M8	43	22.5	38	20	14

Connecting dimensions [mm]

Part No.	X	E	AP	Lp	dp	n	nb	nw	nh	T1	T2	d
		±0.2	-1.0							±0.25	±0.25	
ZLW-0630-02[109)]	variable	40	52	15	5.5	–	-	4.3	7	20	21	3.2
ZLW-0660	variable	71	52	15	5.5	5.2	9.5	4.3	7	20	21	3.2
ZLW-1040-02	variable	60	78	40	6.4	5.2	9.5	4.3	15.5	36	26.5	5.0
ZLW-1040-LT-02-S	variable	60	78	40	6.4	5.2	9.5	4.3	15.5	36	26.5	5.0
ZLW-1040-UW-02-S	variable	60	78	40	6.4	5.2	9.5	4.3	15.5	36	26.5	5.0
ZLW-1040-SW-02-S	variable	60	78	40	6.4	5.2	9.5	4.3	15.5	36	26.5	5.0
ZLW-1080-02	variable	94	111	40	6.4	5.2	9.5	4.36	15.5	36	27	M6
ZLW-1660-02	variable	100	122	40	9	10	15.4	13	27.6	65	60	M5

[109)] **Basic version: 6mm square, plastic adapter for pin diameter 10mm included**

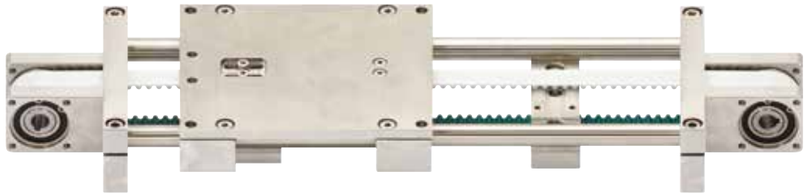
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drylin® ZLW | Toothed belt axes | Product range

Modular kit for toothed belt axes



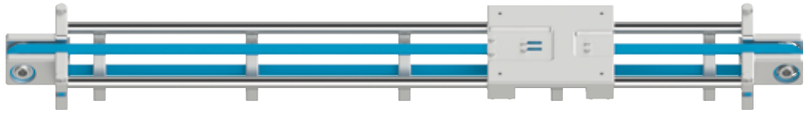
Aluminium version



Stainless steel version



ZLWA design with exchangeable liners



Hygienic design
▶ Page 590



Tandem toothed belt axis
▶ Page 591

Technical data

Part No.	Max. stroke length -ES [mm]	Max. stroke length -AL [mm]	Transmission [mm/rev]	Tooth profile	Toothed belt material	Toothed belt tension [N]
ZLW-10120[166)]	2,000	2,000	75	3M	Neoprene with fibre glass	200
ZLW-10160[166)]	2,000	2,000	75	3M	Neoprene with fibre glass	200
ZLW-10200[166)]	2,000	2,000	75	3M	Neoprene with fibre glass	200
ZLW-20120	2,500	3,000	144	8M	PU with stainless steel reinforcement	750
ZLW-20160	2,500	3,000	144	8M	PU with stainless steel reinforcement	750
ZLW-20200	2,500	3,000	144	8M	PU with stainless steel reinforcement	750

[166)] Option for WJ200UMA pillow blocks with exchangeable liners, ZLWA-□

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drylin® ZLW toothed belt axes

drylin® ZLW | Toothed belt axes | Product range

Toothed belt axis made of aluminium or stainless steel

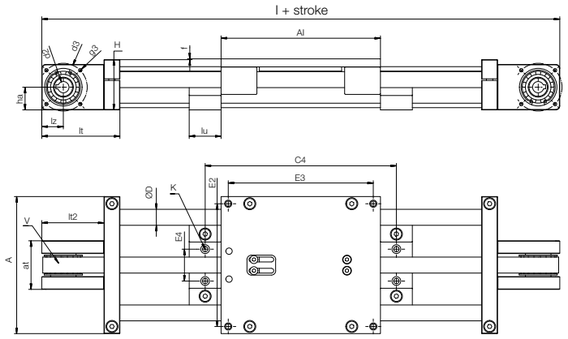
- High speed with ball bearing supported drive shaft
- Robust wide round belt
- Central belt adjustment on the carriage
- Based on lubrication-free drylin® W linear guide
- Variable motor connection due to solid and hollow shafts

Order key

Order example

ZLW A -20120-AL

Toothed belt axis	Replaceable	Installation size	Axis distance	Design



Options:

Axis distance
120: 120mm
160: 160mm
200: 200mm

Drive shaft
Hollow shaft

Stroke length
Max. 3.000mm (AL)
Max. 2,500mm (SS)

Design
AL: Aluminium
ES: Stainless steel

Carriage length
200: 200mm

Dimensions [mm]

Part No.	A	Al	H	E2	E3	E4	C4	f	lt	ha	lz	l
ZLW-10120	153	150	40.0	140	137	40	240	1	74	18.0	18	198
ZLW-10160	193	150	40.0	180	177	90	240	1	74	18.0	18	198
ZLW-10200	233	150	40.0	220	217	120	240	1	74	18.0	18	198
ZLW-20120	172	200	63.0	154	182	40	240	–	98	28.5	27	396
ZLW-20160	212	200	63.0	194	182	80	240	–	98	28.5	27	396
ZLW-20200	252	200	63.0	234	182	120	240	–	98	28.5	27	396

Part No.	d2 H7	d3	g3	D	K For DIN912 - M6	at	lt2	lu	V [mm/rev]
ZLW-10120	10	38	M4	10	M6[158)]	43	59	20	75
ZLW-10160	10	38	M4	10	M6[158)]	43	59	20	75
ZLW-10200	10	38	M4	10	M6[158)]	43	59	20	75
ZLW-20120	14	60	M5	20	M8	61	78	40	144
ZLW-20160	14	60	M5	20	M8	61	78	40	144
ZLW-20200	14	60	M5	20	M8	61	78	40	144

[158)] For DIN912 - M5

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drylin® ZLW | Toothed belt axes | Product range New

Linear axis with hygienic design



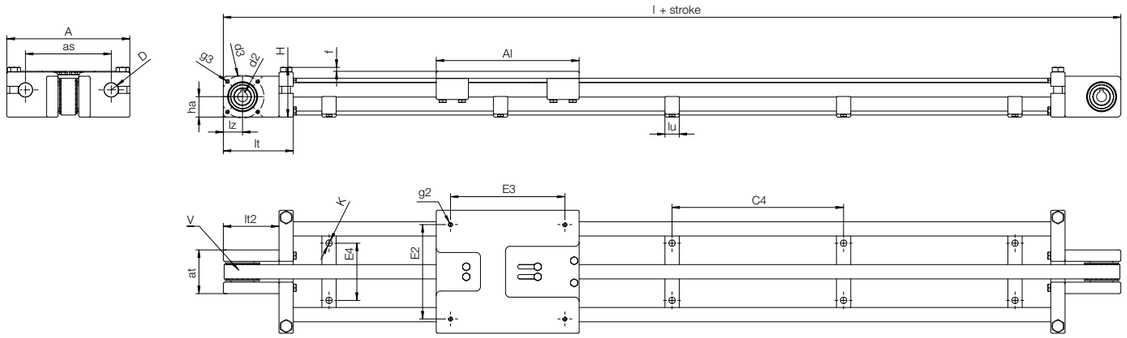
- Linear axis compliant with hygienic design
- Bearing points FDA-compliant through iglidur® A160
- Corrosion-resistant

Order key

Order example

ZLW-20120-HYD

Toothed belt axis	Installation size	Hygienic design
ZLW	20120	HYD



Technical data

Part No.	Max. stroke length [mm]	Trans-mission [mm/rev]	Tooth profile	Toothed belt material	Toothed belt tension [N]	Weight [kg]	addit. (per 100mm) [kg]
ZLW-20120-HYD New	3,000	144	8M	PU (FDA) + stainless steel	750	2.03	0.16

Dimensions [mm]

Part No.	A	Al	H	E2	E3	E4	C4	f	lt	ha	lz	l
ZLW-20120-HYD New	172	200	69.4	132	Al-40	80	240	5.4	98	28.5	27	396

Part No.	d2 H7	d3	g3	D	K For DIN912 - M6	at	lt2	lu	V [mm/rev]
ZLW-20120-HYD New	14	60	M5	20	9	61	78	20	144

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drylin® ZLW | Toothed belt axes | Product range

Tandem toothed belt axis



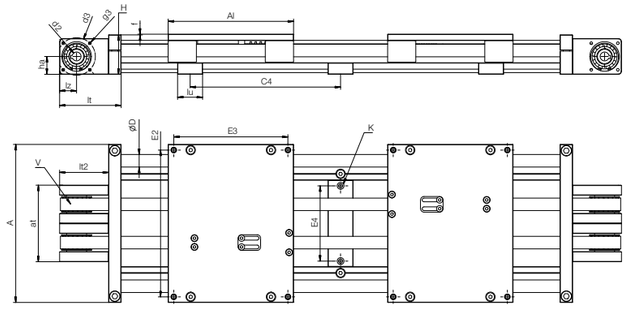
- Addition to the tandem toothed belt axis installation size 10/20
- Compact tandem toothed belt axis with two drive belts in one unit
- Two carriages can be controlled synchronously or separately
- With drylin® W exchange bearings for fast bearing exchange on the rail
- Can be supplied ready-to-connect with igus® motors and drylin® D1 dryve motor control system

Order key

Order example

ZLWT-10160

Toothed belt axis	Installation size
ZLWT	10160



Technical data

Part No.	Max. stroke length [mm]	Transmission [mm/rev]	Tooth profile	Drive belt Material	Tension [N]	Weight [kg]	addit. (per 100mm) [kg]
ZLWT-10160	2,000	75	3M	Neoprene with fibre glass	200	4.0	0.25
ZLWT-10200	2,000	75	3M	Neoprene with fibre glass	200	4.5	0.30
ZLWT-20200	3,000	144	8M	PU with stainless steel reinforcement	750	11.0	0.50
ZLWT-20300	3,000	144	8M	PU with stainless steel reinforcement	750	12.5	0.65

Dimensions [mm]

Part No.	A	Al	H	E2	E3	E4	C4	f	lt	ha	lz	l	d2 h7
ZLWT-10160	193	150/200/250	40	180	Al-13	90	240	1	74	18,0	18	448	10
ZLWT-10200	233	150/200/250	40	220	Al-13	120	240	1	74	18,0	18	448	10
ZLWT-20200	252	200/250/300/350	63	234	Al-18	120	240	1	98	28,5	27	596	14
ZLWT-20300	352	200/250/300/350	63	334	Al-18	200	240	1	98	28,5	27	596	14

Part No.	d3	g3	D	K For DIN912 - M6	at	lt2	lu	V [mm/rev]
ZLWT-10160	38	M4	10	M6	107	59	20	75
ZLWT-10200	38	M4	10	M6	107	59	20	75
ZLWT-20200	60	M5	20	M8	122	78	40	144
ZLWT-20300	60	M5	20	M8	122	78	40	144

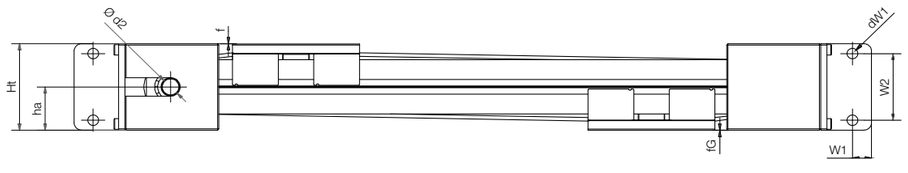
EN 09/2023

drylin® ZLW | Toothed belt axes | Product range

Opposite drive toothed belt with angle flange

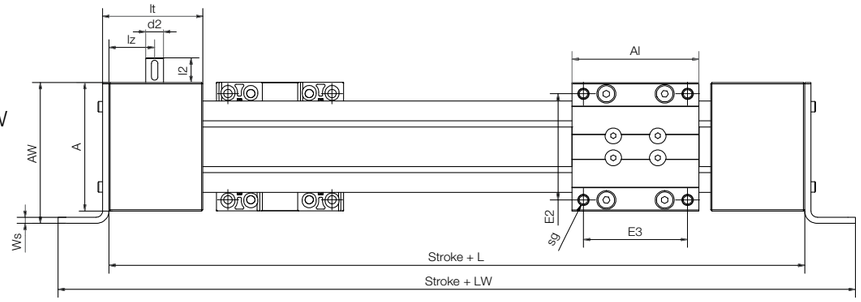


- Quick reverse positioning
- Fast right/left adjustment
- Available as standard and basic version
- Incl. angle flange for fixing
- Individual stroke lengths up to max. 3,000mm
- Radial loads up to 200N

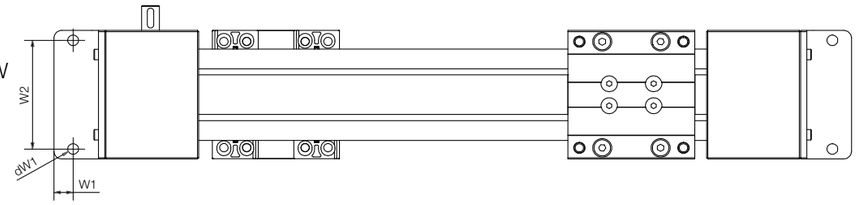


Angle flange alignment:

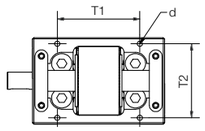
"02" version
mounted on the side, ZLW alignment on the edge



"04" version
mounted horizontally, ZLW alignment horizontal



"03" version
mounted on the front



drylin® ZLW toothed belt axes

drylin® ZLW | Toothed belt axes | Product range

Order key

Order example

ZLW-1040-OD-02

Toothed belt axis	Installation size	Design	Version
ZLW	1040	OD	02

Options:
Design
OD: Right/left opposite drive
Version
02: With deep groove ball bearings

Dimensions [mm]

Part No.	A	Al	H	Ht	E2	E3	L	R	f	fg	lt	sg	ha	lz	Max. stroke length
	-0.3				±0.15	±0.15		±0.15			±0.3				[mm]
ZLW-0630-OD[109)]	54	60	31	28	45	51	144	30	3	7	42	M4	14	20	1,000
ZLW-1040-OD	74	100	45	44	60	87	204	40	1	3	52	M6	22	27	1,500
ZLW-1660-OD-02	104	100	70	70	86	82	248	58	0	0	79	M8	35	36	3,000
ZLW-1660-OD-03	104	100	70	70	86	82	248	58	0	0	79	M8	35	36	3,000
ZLW-1660-OD-04	104	100	70	70	86	82	248	58	0	0	74	M8	35	36	3,000

Part No.	l2	d2	d	T1	T2	Ws	W1	W2	dW1	LW	AW
		h9		±0.25	±0.25						
ZLW-0630-OD[109)]	20	8	4	20	21	2	20	2	5.5	260	60
ZLW-1040-OD	20	10	5	36	26.5	3	25	3	6.6	296	80
ZLW-1660-OD-02	20	14	M5-10 deep	65	60	5	15	54	8.5	328	114
ZLW-1660-OD-03	20	14	M5-10 deep	65	60	5	15	88	8.5	328	75
ZLW-1660-OD-04	20	14	M5-10 deep	65	60	5	–	–	–	248	70

[109)] **Basic version: 6mm square, plastic adapter for pin diameter 10mm included**

drylin® econ | Linear axes | ZLN econ

Cost-effective, space-saving low-cost toothed belt axis



Order key

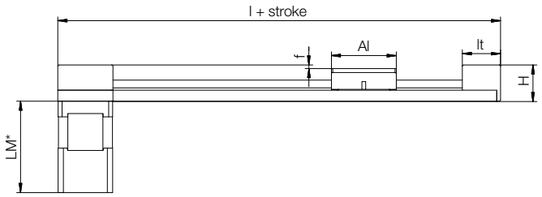
Order example

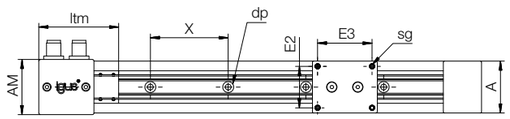
ZLN - 40

Toothed belt axis

Installation size

- Motor can now be mounted on the bottom as well as on top
- Low-profile design, 27mm height
- Vertical load from 30N
- Ready-to-install with NEMA stepper motors or BLDC/ DC motors
- Delivery from 24 hours



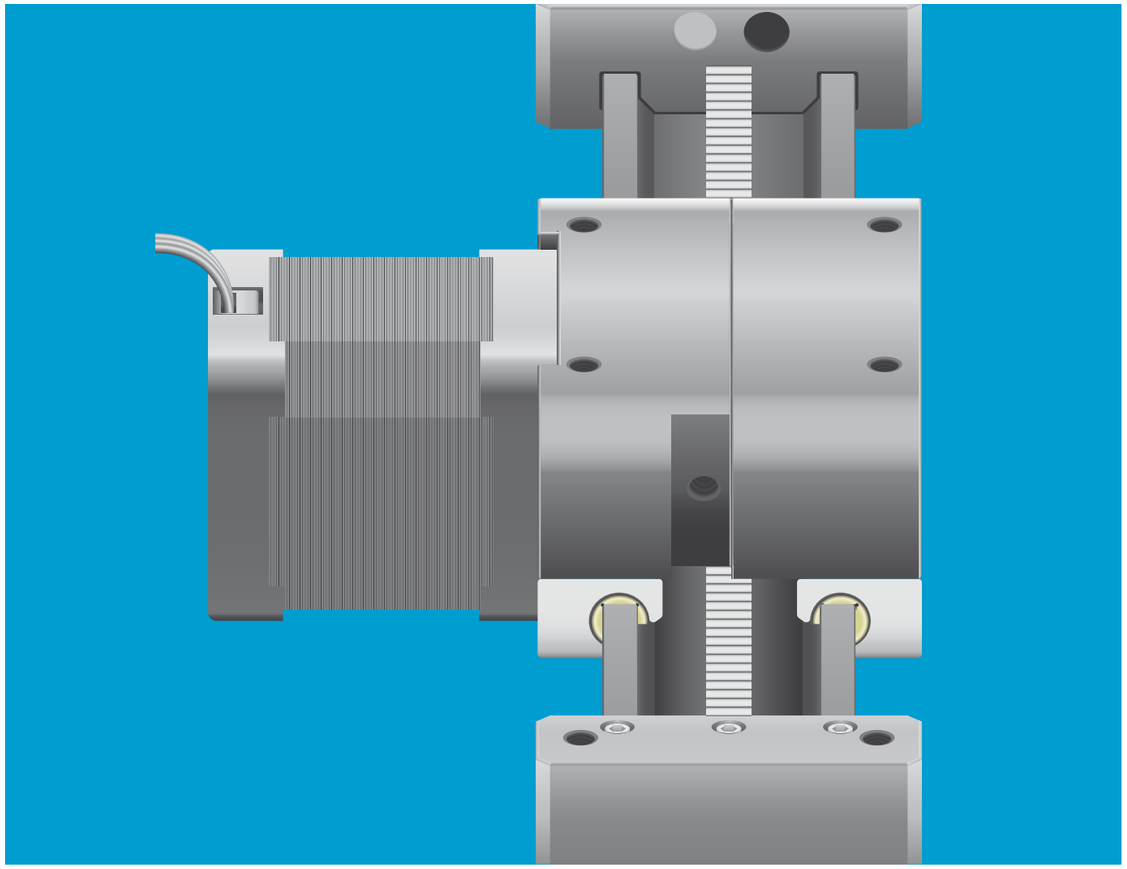


Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	addit. [kg] (per 100mm)	Max. static load capacity axial [N]	Max. static load capacity radial [N]	Shaft end support material [Nm]
ZLN-40	750	0.24	0.05	30	80	0.15

Dimensions [mm]

Part No.	A	Al	H	X	E2	E3	AM	LM	lt	ltm	dp	sg	l	v	f
ZLN-40	40	50	28	60	32	42	42.5	70	30	61.5	4.5	M3 ↧	141.5	60	2.8



drylin® electric drive technology - cantilever axes

High dynamics

Drive: Rack or toothed belt

Lightweight design

For z-axis in multi-axis gantries

Lubrication and maintenance-free



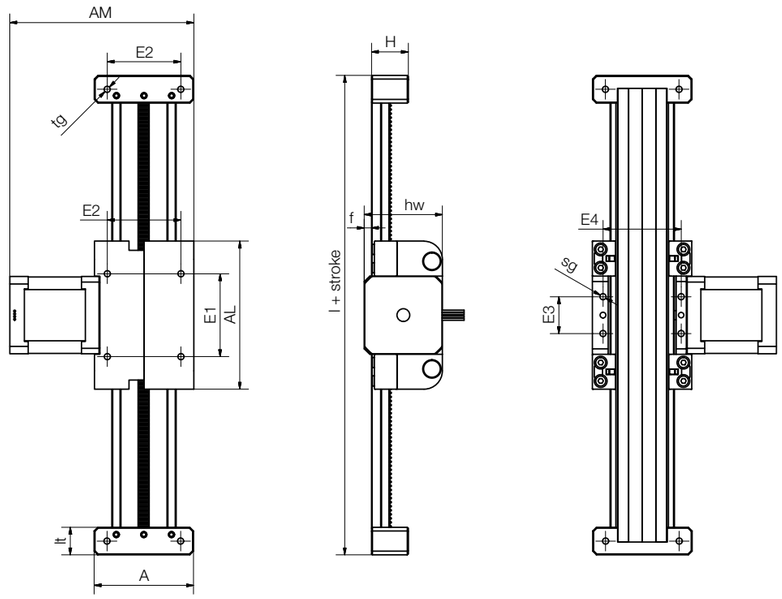
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drylin® GRW | Cantilever axes | Product range

Dynamic z-axis for linear robot structures



- Direct force transfer via rack
- Compact structure
- Handling for loads up to 10N
- Accessories available ▶ **Page 613**
- **Available with motor**



Technical data

Part No.	Stroke length [mm]	Weight [kg]	Additional (per 100mm)	Max. Feed rate [mm/rev]	Max. Load axial [N]
GRW-0630-A	150	0.5	0.1	44	10
GRW-0630-B	300	0.5	0.1	44	10

Dimensions [mm]

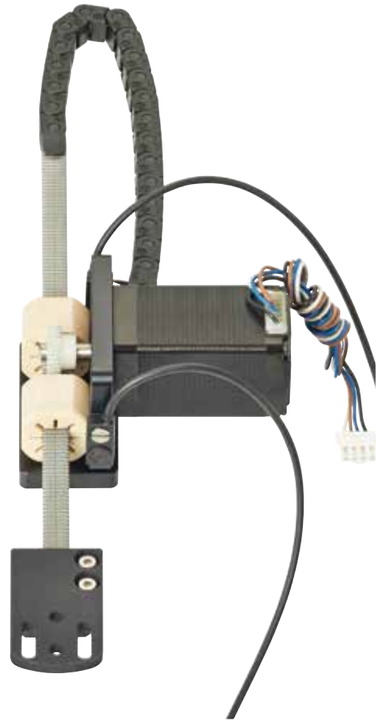
Part No.	A -0.3	Al	H	E1 +0.15	E2 +0.15	E3	E4	l	lt	hw	f	AM[131)]	tg	sg
GRW-0630-A	54	80.5	20	45	40	20	42.5	110.5	15	42.5	4	100.0	M4	M4-8
GRW-0630-B	54	80.5	20	45	40	20	42.5	110.5	15	42.5	4	121.4	M4	M4-8

[131)] Depending on the type of motor

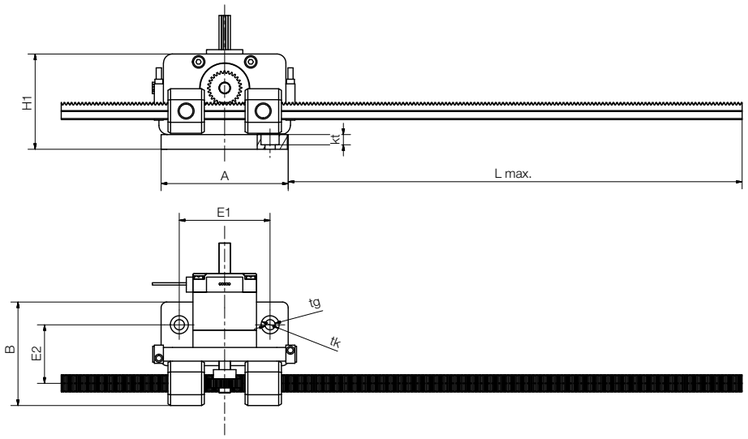
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drylin® GRQ | Gripper axes | Product range

Extremely light axis for Pick & Place



- Toothed, hard-anodised, corrosion-resistant square hollow section
- Loads up to 500g with a speed of up to 0.7m/s
- iglidur® J plain bearings
- Drive: NEMA11 stepper motor with gear wheel



Dimensions [mm]

Part No.	F [N]	v [m/s]	L max.	A	H1	E1	E2	B	tg	tk	kt	Q	D2
GRQ-10-A-56-120-11-L-01-000	5	0.7	200	56	42	40	26	46	4.5	8	4.5	7.5	22

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drylin® GRR | Lightweight z-axis | Product range

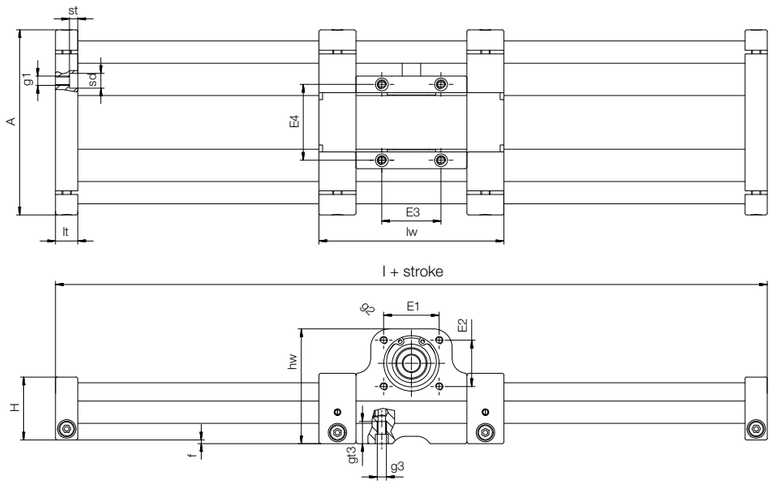
drylin® GRR lightweight z-axis with direct rack drive

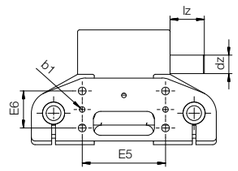


- Made from aluminium and plastic
- Ideal for linear robots
- Direct rack drive
- Torsionally rigid due to drylin® AWMR aluminium hollow shafts
- Lubrication-free and maintenance-free due to drylin® R liners

Typical application areas:

- Handling
- Sprue pickers
- Room linear robots
- Lifting equipment
- Lab automation





Technical data

Part No.	Max. stroke length [mm]	Transmission [mm/rev]	Tooth profile	Weight without stroke [kg]	Max. static load capacity axial [N]
GRR-1280	750	72.26	Module 1	0.86	50
GRR-20120 New	1,000	72.26	Module 1	1.62	75

Dimensions [mm]

Part No.	L	A	H	lw	hw	lz	dz h7	f	lt	E1	E2	g2
GRR-1280	124	100	34	100	62	18	10	2	12	30	25	M4-10
GRR-20120 New	202	150	50	172	78	18	10	2	15	30	25	M4-10

Part No.	E3	E4	g3	gt3	E5	E6	g1	sd	st	b1 h7	sd3	st3	D
GRR-1280	32	41	M5	12	45	20	M5	8	4.5	3	–	–	–
GRR-20120 New	147	80	M8	–	50	20	M5	8	4.5	3	11	6.6	20

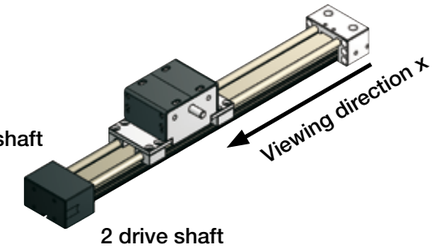
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drylin® ZAW | Toothed belt axes | Product range

Cantilever axis

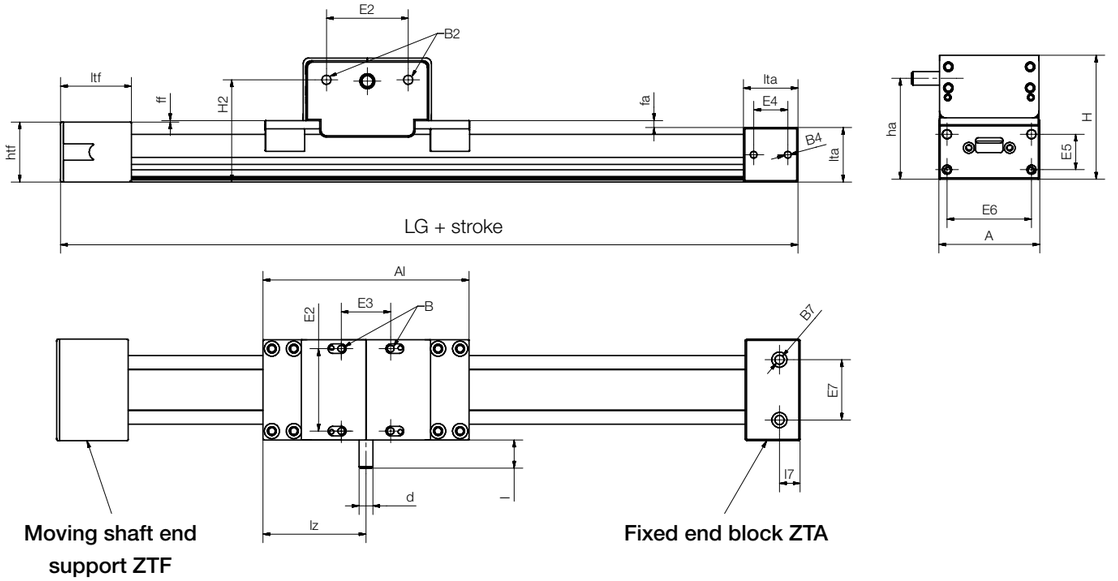


- Fixed drive unit
- Hard-anodised aluminium axis profile
- Lightweight
- Max. stroke 1,000mm
- Max. axial load 50N
- Permissible load for carriage $M_{y\,max.}$: 15Nm



1 drive shaft right

2 drive shaft left



Moving shaft end support ZTF

Fixed end block ZTA

Order key

Cantilever axis with ball bearings

ZAW-1040-02-S-150-L-500

Cantilever axis	Installation size	Version	Design	Carriage length [mm]	Drive shaft	Stroke length

Options:

Design

S: Standard

Drive shaft

L: Drive pin left

R: Drive pin right

L/R: Drive pin, both sides

Stroke length

Max. 1,000mm

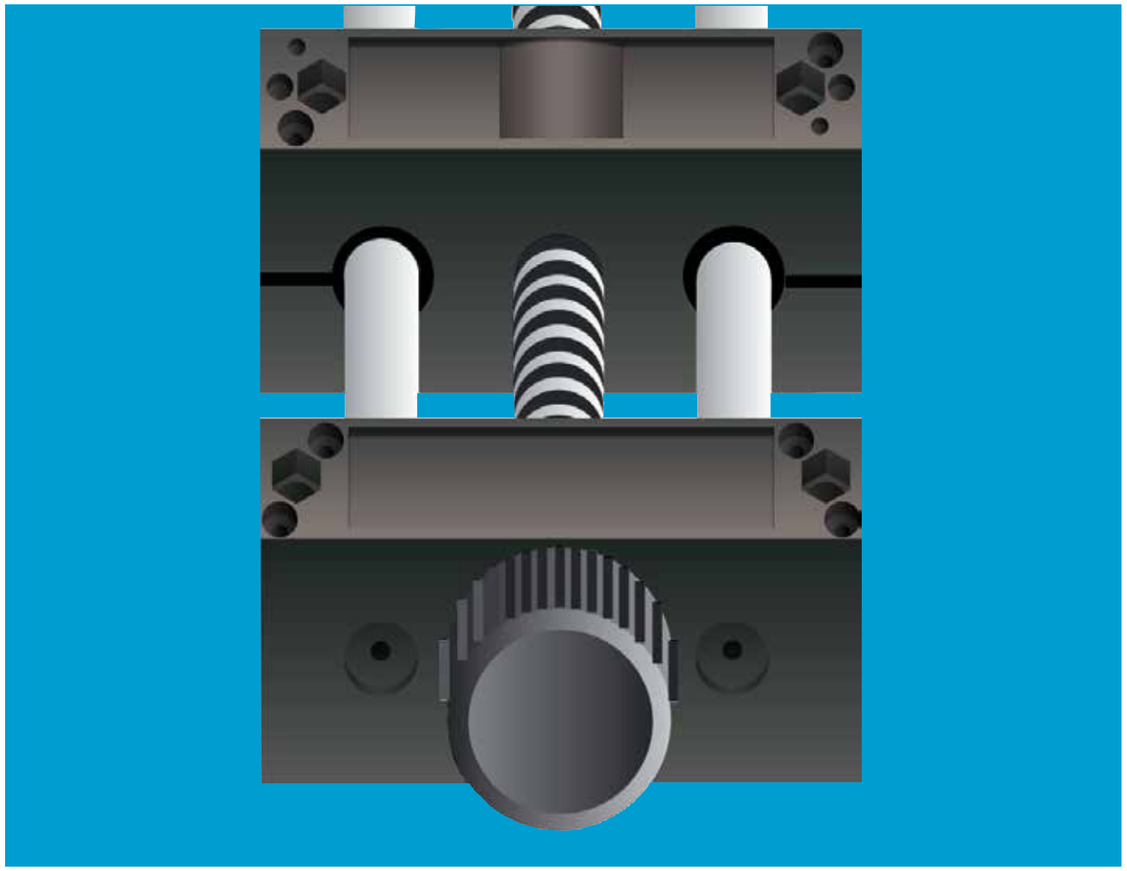
Dimensions [mm]

Part No.	A -0.3	H	H2	LG	Al ±0.3	ha ±0.1	d h9	l +1	l7	lz	E2 ±0.15	E3 ±0.15
ZAW-1040	74	91	75	242	150	74	10	20	15	75	60	60

Part No. / Connecting dimensions	B -0.3	B2	htf	ltf ±0.3	ff ±0.1	fa h9	lta ±0.1	E4	B4 ±0.15	B7	E5 ±0.15	E6	E7
ZAW-1040	M6	M8	44	52	2	5	40	20	M6	M6	26	62	44

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Notes



drylin® general drive technology - econ entry-level series

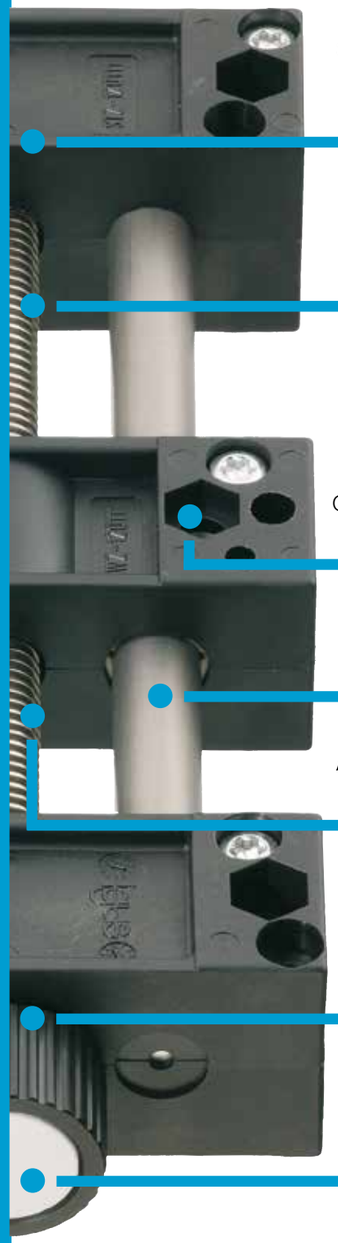
- Cost-effective linear modules
- Drive: Trapezoidal and high helix lead screws, toothed belt
- Lightweight construction
- Corrosion-resistant
- For positioning and adjusting tasks



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lightweight and cost-effective



Lubrication-free linear modules - drylin® econ

With econ, igus® defines the cost-effective maintenance-free entry-level models of the drylin® linear axes. There are suitable entry-level models in almost every product line and installation size, either with a lead screw or toothed belt. The econ series is characterised by cost-eff ective components produced via injection moulding, anodised aluminium profiles and fast assembly. drylin® econ models are configured and delivered so that they are ready to install and are thus the perfect alternative to complex in-house solutions for simple adjustment tasks.

- Lightweight construction thanks to plastic-aluminium combination
- Designed for a fast assembly
- Cost-effective thanks to injection moulding and clear anodising

Typical application areas

- Gripper technology
- Format adjustments
- Camera adjustment

Available in 3-8 days
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Carriage lengths: 26-45mm
Stroke length max. 500mm

Product finder
▶ www.igus.eu/shtp-productfinder

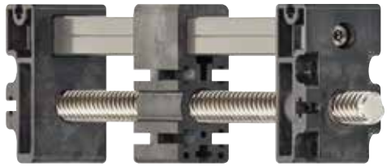
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drylin® econ SLWP linear module - robust in 2 sizes

- Flat and torsion-resistant due to drylin® W double shaft profiles
- Lead screw with self-locking trapezoidal or metric thread
- Fast adjustment due to dryspin® high helix thread

▶ Page 604



drylin® econ SLTP linear system - savings thanks to injection moulding

- Developed with 3D printing, produced cost-effectively thanks to injection moulding
- Very fast assembly due to few components
- Carriage with a lot of fastening options

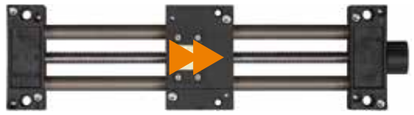
▶ Page 605



drylin® econ SHTP linear module - flexible in 3 sizes

- Lead screws made from aluminium, carbon, steel, stainless steel
- Carriage with integrated lead screw nuts and drylin® R liner
- With trapezoidal or high helix thread

▶ Page 606



drylin® econ SHTP-FF linear module - Fast-Forward

- With quick-release mechanism
- For fast adjustment
- Self-locking
- Variable stroke lengths

▶ Page 609



drylin® econ SLN miniature module - small and fast

- Slim, narrow design
- Lead screw mounted on plain bearings with metric thread or dryspin® high helix thread
- Feed rate of up to 25mm per rotation

▶ Page 610



drylin® econ ZLW toothed belt axis - light and fast

- Lightweight due to use of plastic and aluminium
- Variable attachment by means of slot nuts and clamping elements
- Individual stroke lengths (sizes 0630 to 500mm, 1040 to 1,000mm)

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drylin® econ | Linear modules | Product range

The SLW entry-level model



- Based on drylin® W profile guides
- Clear anodised guide rails
- Torsion-resistant double shaft systems
- Self-locking due to metric or trapezoidal thread
- Fast operation without self-locking due to dryspin® high helix thread
- Accessories available

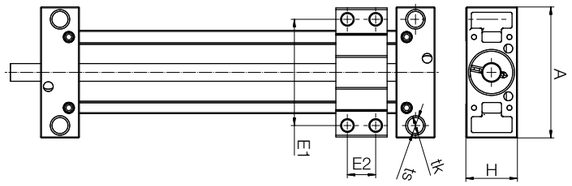
▶ **Page 613**

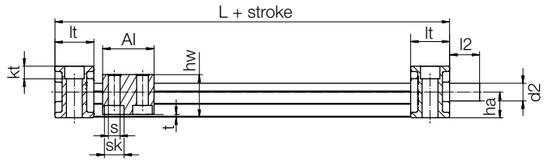
Order key

Order example

SLWP-0630-E

Compact | Dimension | econ series





Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	additional (per 100mm) [kg]	Max. stat. load capacity axial [N]	Max. stat. load capacity radial [N]
SLWP-0630-E	300	0.15	0.08	50	50
SLWP-1040-E	500	0.30	0.10	50	50

Dimensions [mm]

Part No.	A -0.3	Al -0.3	H	E1 ±0.2	E2 ±0.2	E3 ±0.15	l	hw	f	lt ±0.1	tk	ts
SLWP-0630-E	54	60	20	40	45	51	100	18.0	1.5	20	11	6.6
SLWP-1040-E	74	29	29	60	16	–	73	23.5	1.5	22	11	6.8

Part No.	kt ±0.1	Øs	sk	d	T	l2	d2 Standard	ha
SLWP-0630-E	8.0	5.0	6Kt M4	5.0	Tr8x1.5	15	Tr8x1.5[160]	9.5
SLWP-1040-E	9.0	6.3	6Kt M6	7.5	Tr10x2	17	Tr10x2[161]	14.5

[160] Alternative: M8, Tr8x1,5, Ds8x10, Ds8x15

[161] Alternative: Tr10x2, Tr10x3, Ds10x12, Ds10x25, Ds10x50

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drylin® econ

drylin® econ | Linear modules | Product range

The SLT entry-level model



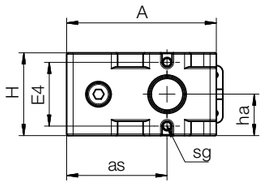
- Extremely cost-effective
- Torque-resistant due to AWMQ aluminium square profile
- Flexible design
- Left or right-hand lead screw option
- Carriage with many connection options

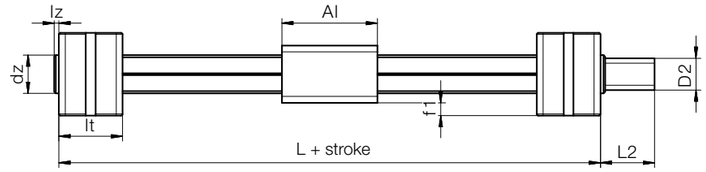
Order key

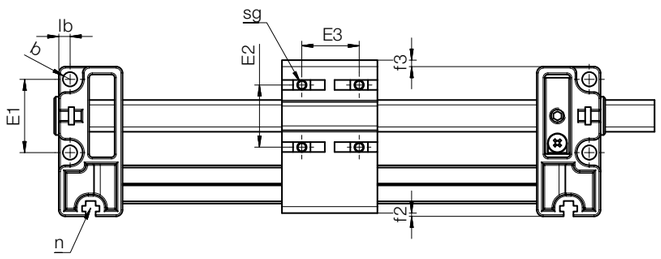
Order example

SLTP-1012-E

Compact | Dimension | econ series







Technical data

Part No.	Max. stroke length [mm]	Weight [kg]	additional (per 100mm) [kg]	Max. stat. load capacity axial [N]	Max. stat. load capacity radial [N]	Max. Rotational speed [rpm]	Max. Speed [m/min]
SLTP-1012-E	300	0.147	0.081	50	100	250	0.5

Dimensions [mm]

Part No.	A	H	L + stroke	Al	L2	D2	E1	E2	E3	E4	T[152]
SLTP-1012-E	47	26	70	30	17	10	23	19.5	8.5-24.5	20	Tr10x2

Part No.	lt	dz -0.05	lz	b	lb	sg[153] (DIN562)	ha	as	n	f1	f2	f3
SLTP-1012-E	20	12	1.5	4.5	3.5	M3	13	31.5	M3	4	1	2

[152] Alternative: Tr10x3, Tr10x4P2, Ds10x12, Ds10x25, Ds10x50

[153] 6 pieces of M3-DIN562 screws included in delivery

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drylin® econ | Linear modules | Product range

The SHT miniature version



- Miniature version
- Lightweight
- Cost-effective
- Corrosion-resistant
- Carriages and shaft end supports made from high-performance polymers
- Accessories available

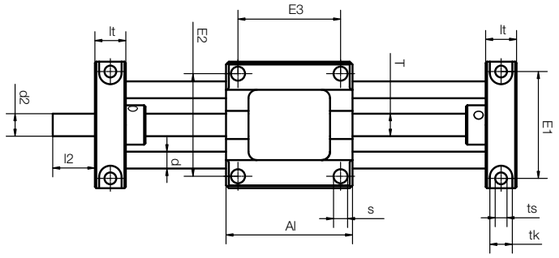
▶ Page 613

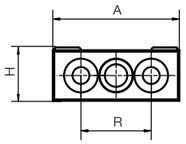
Order key

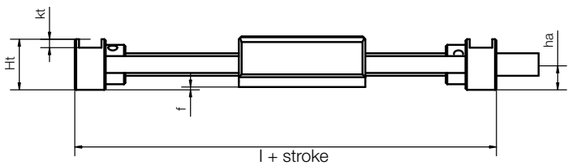
Order example

SHTP-01-06-AWM

SHT polymer	Design	Dimension	Shaft material







Technical data

Part No.	Max. stroke length [mm]	Aluminium shaft Weight [kg]	Aluminium shaft additional [kg] (per 100mm)	Max. static load capacity axial [N]	Max. static load capacity radial [N]	More information
SHTP-01-06-AWM	300	0.11	0.06	50	50	Carriage, square, with 4 symmetrical mounting holes

Dimensions [mm]

Part No.	A	Al	H	Ht	E1	E2	E3	l	R	f	kt	lt	tk	ts
SHTP-01-06-AWM	45	45	19	18	38	36.5	36.5	67	25	1	3	11	8	4.2

Part No.	Øs	d	T	l2	d2[99)]	ha
SHTP-01-06-AWM	5.1	6	M8	15	M8	9

[99)] **Lead screw end unmachined (standard)**

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drylin® econ | Linear modules | Product range

SHTP - the lightweight SHT entry-level model



- Very light
- Low-profile design
- Ideal for multi-carriage solutions
- Accessories available

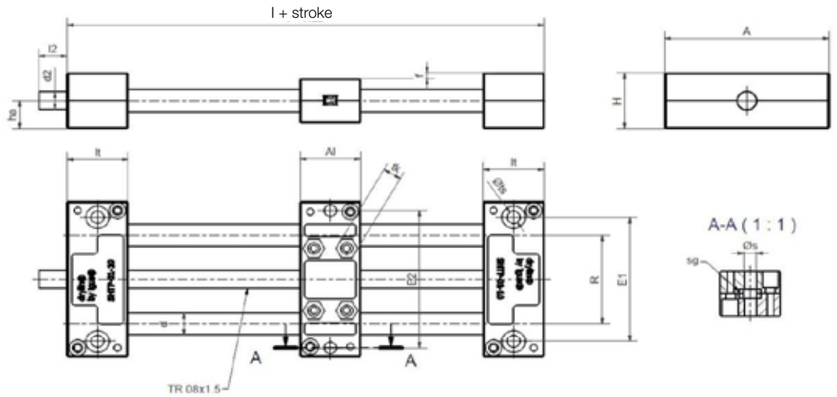
▶ Page 613

Order key

Order example

SHTP-01-10

SHT polymer	Design	Dimension



Technical data

Part No.	Max. stroke length [mm]	Aluminium shaft Weight [kg]	Aluminium shaft additional [kg] (per 100mm)	More information
SHTP-01-10	350	0.2	0.08	Drive nut and linear bearings made from iglidur® J

Dimensions [mm]

Part No.	A	Al	H	E1	E2	l	R	f	lt ±0.1	tk	ts +0.15
SHTP-01-10	70	26	25	56	62	78	40	2.5	26	8	5.5

Part No.	Øs	sg	d	T	l2	d2[99)]	ha	Max. static load capacity axial [N]	Max. static load capacity radial [N]
SHTP-01-10	5.2	M5	10	Tr08x1.5	15	Tr08x1.5	12.5	100	400

[99)] **Lead screw end unmachined (standard)**

EN 09/2023

drylin® econ | Linear modules | Product range

SHTP - the cost-effective SHT version



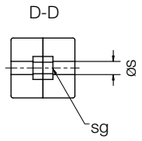
- Solid polymer design
- Lightweight
- Cost-effective
- Corrosion-resistant
- Accessories available
  ▶ Page 613
- **Available with motor**

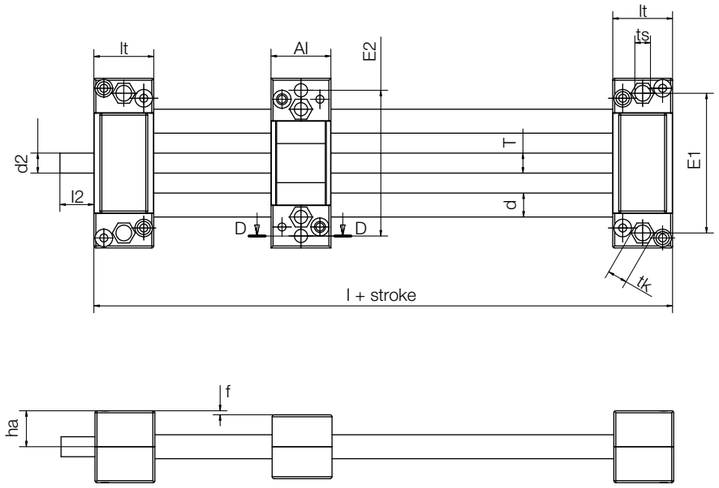
Order key

Order example

SHTP-01-12-AWM

SHT polymer	Design	Dimension	Shaft material





Technical data

Part No.	Max. stroke length [mm]	Aluminium shaft Weight [kg]	Aluminium shaft additional [kg] (per 100mm)	More information
SHTP-01-12	500	0.35	0.11	Drive nut and linear bearings made from iglidur® J
SHTP-02-12	500	0.35	0.11	Bearing and nut integrated into the carriage

Dimensions [mm]

Part No.	A	Al	H	E1	E2	l	R	f	lt ±0.1	tk	ts +0.15
SHTP-01-12	85	30	36	70	73	90	42	2	30	10	6.0
SHTP-02-12	85	30	36	70	73	90	42	2	30	10	6.0

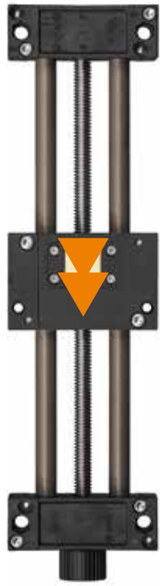
Part No.	Øs	sg	d	T	l2	d2[99]	ha	Max. static load capacity axial [N]	Max. static load capacity radial [N]
SHTP-01-12	6.3	M6	12	Tr10x2	17	Tr10x2	18	200	400
SHTP-02-12	6.3	M6	12	Tr10x2	17	Tr10x2	18	200	400

[99] **Lead screw end unmachined (standard)**

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drylin® econ | Linear modules | Product range

With "Fast Forward" quick release mechanism



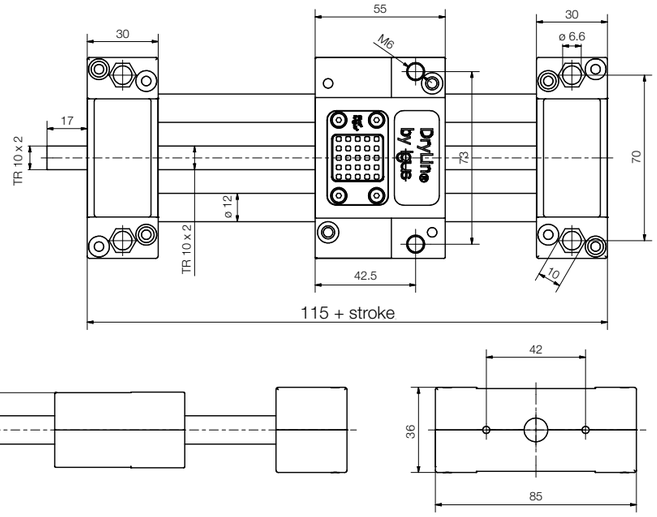
- Light solid polymer model
- For fast format adjustments
- Self-locking
- Variable stroke length
- Only recommended for horizontal applications
- Max. stat. axial load 200N
- Max. dynamic. axial load 50N
- Accessories available
  ▶ Page 613

Order key

Order example

SHTP-01-12-AWM-FF

SHT polymer	Design	Dimension	Shaft material	Fast Forward

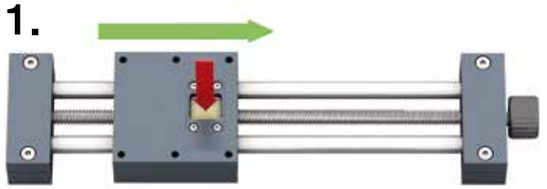


Technical data

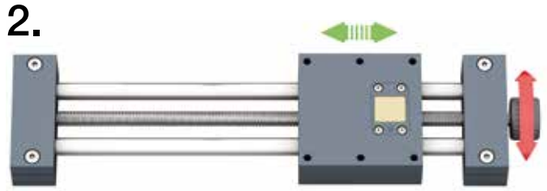
Part No.	Max. stroke length [mm]	Weight [kg]	Additional weight (per 100mm)
SHTP-01-12-AWM-FF[100]	500	0.35	0.11

[100] **Liners and lead screw nuts made from iglidur® J**

1.



2.



press > disengage > move manually > click into place > fine-tuning

EN 09/2023

drylin® econ | Linear modules | Product range

Miniature linear module, basic version



- Single parts made from aluminium and plastic
- Entry-level model
- Lead screw with plain bearing support
- Retrofitting possible
- Accessories available
  ▶ **Page 613**
- **Available with motor**

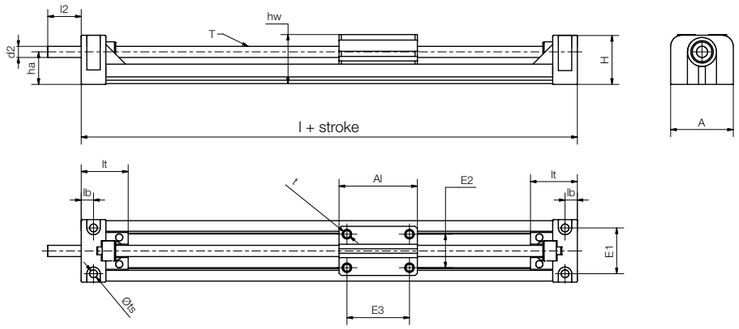
Order key

Order example

SLN-27-03-0008

Standard	Dimension	Carriage version	Pitch
		03: Basic	

Options:
Carriage version
03: Basic



Technical data

Part No.	Max. stroke length	Weight	addit.	Max. static load capacity		Max. speed	Max. drive torque
			[kg]	axial	radial		
	[mm]	[kg]	(per 100mm)	[N]	[N]	[rpm]	[Nm]
SLN-27-03-0008	250	0.06	0.04	10	40	100	0.10
SLN-27-03-0025	250	0.06	0.04	10	40	100	0.15
SLN-27-03-0051	250	0.06	0.04	10	40	100	0.20
SLN-27-03-0127	250	0.06	0.04	10	40	100	0.30
SLN-27-03-0254	250	0.06	0.04	10	40	100	0.40

Dimensions [mm]

Part No.	A	Al	H	E1	E2	E3	E11[102]	l	hw	lt	lb	ts	t	T	d2[98]	l2	ha
	±0.2	-0.1	±0.2	±0.15	±0.15	±0.15			±0.2	±0.2							
SLN-27-03-0008	28	35	22	20.5	15	28	15	77	22	21	5.5	3.5	3.2	M5	4	15	14.5
SLN-27-03-0025	28	35	22	20.5	15	28	15	77	22	21	5.5	3.5	3.2	6.35x2.54	5	15	14.5
SLN-27-03-0051	28	35	22	20.5	15	28	15	77	22	21	5.5	3.5	3.2	6.35x5.08	5	15	14.5
SLN-27-03-0127	28	35	22	20.5	15	28	15	77	22	21	5.5	3.5	3.2	6.35x12.7	5	15	14.5
SLN-27-03-0254	28	35	22	20.5	15	28	15	77	22	21	5.5	3.5	3.2	6.35x25.4	5	15	14.5

[102] The dimension E11 can only be found in conjunction with the igus® motor connection

[98] Thread/remaining thread visible

With manual clamp (optional): Part No. SLN-27-HK-...

drylin® econ | Linear axes | ZLW econ

Linear axes with toothed belt



- Fast positioning of small loads
- Quiet operation and flat design
- Drive pin on one or both sides
- Plastic linear carriage
- Lightweight due to combination of plastic and aluminium
- Technical data
  ▶ **Page 578**

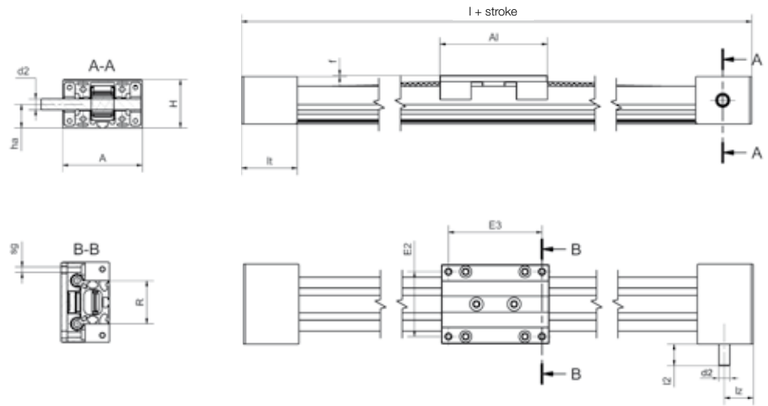
Order key

Order example

ZLW-0630-02-E

Toothed belt axis	Installation size	Version	Design
		02: With deep groove ball bearings	E: econ series (0630/1040)

Options:
Version
02: With deep groove ball bearings
Design
E: econ series (0630/1040)



Dimensions [mm]

Part No.	A	Al	H	E2	E3	l	R	f	lt	sg	ha	hc	lz	l2	d2
	-0.3			±0.15	±0.15		±0.15		±0.3						h9
ZLW-0630-02	54	60	31	45	51	144	30	3	42	M4	14	22.5	20.5	20	8
ZLW-1040-02	74	100	44	60	87	204	40	1	52	M6	22	22.5	27	20	10

Connecting dimensions [mm]

Part No.	X	E	AP	Lp	dp	n	nb	nw	nh	T1	T2	d
		±0.2	-1.0							±0.25	±0.25	
ZLW-0630-02[109]	variable	40	52	15	5.5	–	–	4.3	7	20	21	3.2
ZLW-1040-02	variable	60	78	40	6.4	5.2	9.5	4.3	15.5	36	26.5	5.0

[109] Basic version: 6mm square, plastic adapter for pin diameter 10mm included

Notes

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drylin® accessories - control elements

Accessories for manual positioning and format adjustment

Angular drive

Position indicator

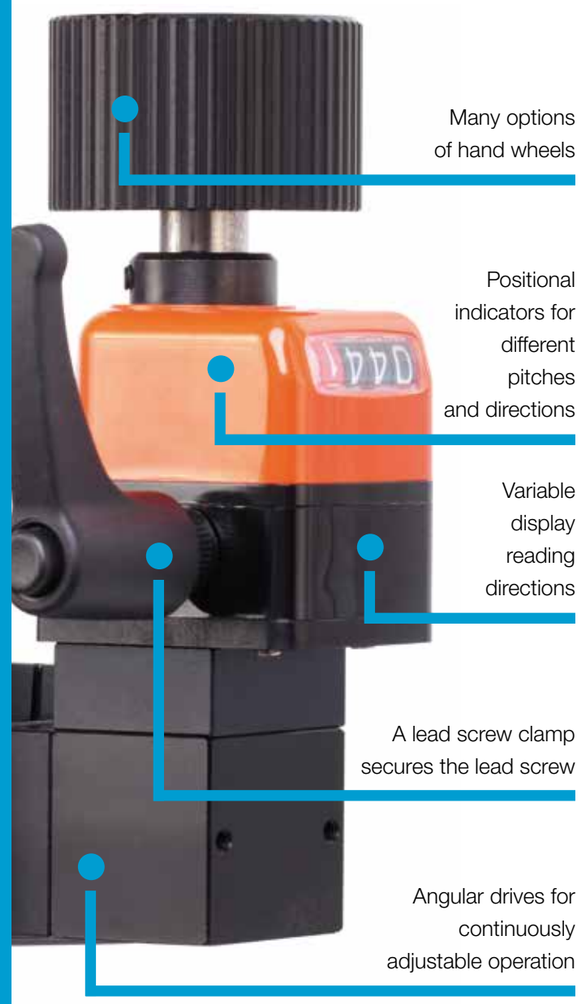
Hand wheels

Control units



EN 09/2023

Secure, reproduce and turn



Accessories for drylin® drive technology - manual positioning

An extensive range of accessories is available for many drylin® drive units to perform manual adjustments quickly and conveniently. When directly configuring the linear unit with the order, the units are shipped completely assembled. Any subsequent reconfiguration may result in the lead screw having to be exchanged because the lead screw ends may be too short.

- Fast and precise positioning
- Ergonomic operation
- Provides a mechanical brake

Available from stock
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Manual operation, manual positioning



Angular drive
- 360° continuously adjustable
- Fixing of setting angle with clamp
- Small flange saves installation space

▶ Page 616



Position indicator
- Direct read-out of the carriage position for the lead screw drive
- Bore reducers included to enable fitting to the entire product

▶ Page 618



Lead screw clamp
- For clamping of the lead screw
- Provides a mechanical brake to the lead screw
- Material: polymer housing with aluminium shaft clamp

▶ Page 620



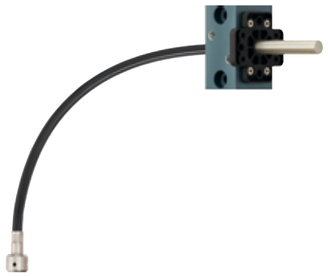
Adapter plate
- Position indicator and/or lead screw clamp
- Suitable for linear modules of SHT/SLW/SHTP series
- Material: plastic igumid® G

▶ Page 687



Hand wheels
- Rotary knob: Defined standard for complete units
- Different outer diameters available
- Different handles available

▶ Page 621



Flex shaft incl. remote control unit
- Optional offset operation of the drylin® linear modules
- Controls can be positioned independently
- Available in length 300, 500 and 1,000mm
- Can be combined with other accessories

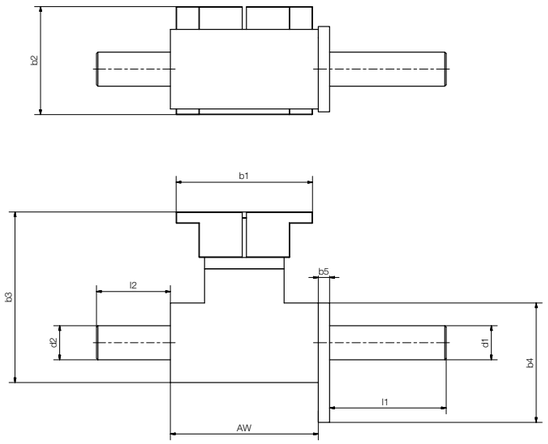
▶ Page 623

drylin® drive technology | Accessories | Product range

Angular drives - flexible positioning

In addition to safety technology aspects, limited operating space requires drylin® drives to be operated with flexibility and ease. We provide a product range of continuously adjustable angular drives for adjustment options from a defined direction. For manual adjustments, the angular drives can also be configured with position indicator, clamp and hand wheel, and are shipped pre-assembled. Angular drives with keyed/grooved shafts are available for motor interfaces with increased torque transfers.





- Double-side shaft output for angular drives WT-3 and WT-4
- For rotary transmissions of 90°
- Configuration with lead screw clamping/position indicator/hand wheel possible
- Position indicator, lead screw clamp and hand wheel available ▶ **Page 618**

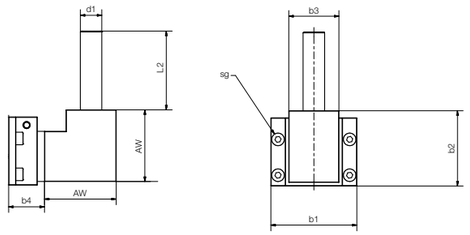
Dimensions [mm]

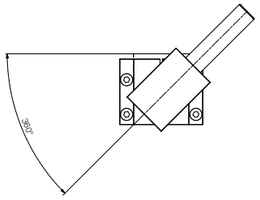
Part No.	M max. [N]	i[105)]	AW	d1	d2	l1	l2	b1	b2	b3	b4	b5
WT-3000-T	3	01:01	52	12	12	26 / 41 / 59 / 74	26	48	38	60	42	4
WT-4000-T	6	01:01	60	14	14	26 / 47 / 65 / 80	26	56	46	83	50	10

[105)] Gear ratio



- Flexible adjusting to your installation with continuously variable adjustment (can be oscillated 360°)
- Max. drive torque 3Nm
- Clamping using set screw
- Ø 12mm h7 output shaft





Depending on the design, an adapter plate is used for connection to the linear system

Dimensions [mm]

Part No.	i[105)]	AW	b1	b2	b3	b4	L2	d1	sg
WT-3000 | 3100 | 3500	1:1	40	48	42	28	20	26	12	M4
WT-3600 | 3700	1:1	40	48	42	28	30	26	12	M4

[105)] Gear ratio

drylin® drive technology | Accessories | Product range

Angular drives for heavy duty and hygienic design



drylin® angular drives provide for a maximum of positioning flexibility. The form fitting connection can give a maximum torque of up to 6Nm.

- Flexible adjusting to your installation with continuously variable adjustment (can be oscillated 360°)
- Max. drive torque 6Nm through coupling
- Fixed using feather key groove
- Input shaft Ø 14mm h7 with size
- Compatible with drylin® SHT/SHTC/SLW (sizes 16, 20 and 30)
- Position indicator, lead screw clamp and hand wheel available ▶ **Page 618**

Dimensions [mm]

Part No.	i[105)]	AW	b1	b2	b3	b4	L2	d1	sg
WT-4000 | 4100 | 4200 | 4700	1:1	60	52	51	40	23	26	14	M4
WT-4600	1:1	60	52	51	40	33	26	14	M4

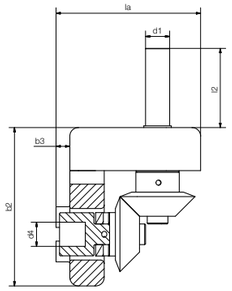
[105)] Gear ratio

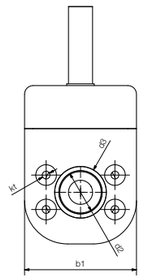


Angular drive with hand wheel (optional)

Following the idea of "Hygienic Design" the angular drive is available as maintenance-free and washable stainless steel/polymer system.

- Max. drive torque 3Nm
- Single parts made of stainless steel
- Easy to clean/rinse with water
- Compatible with drylin® SHTC-20-EWM-HYD ▶ **Page 531**
- Position indicator, lead screw clamp and hand wheel available ▶ **Page 618**





Dimensions [mm]

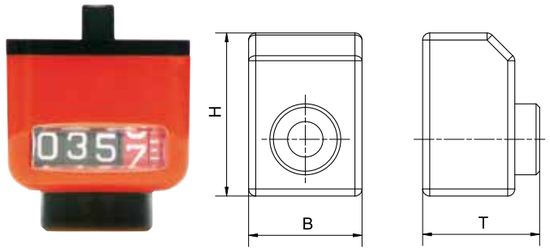
Part No.	i[105)]	la	kt	b1	b2	b3	d4	l2	d1	d2	d3	sg
WT-1100	1:1	84	4.5	65	92	8	12	26	14	25	30	M4

[105)] Gear ratio

drylin® drive technology | Accessories | Product range

Position indicator - safe reproducibility

To keep downtime to a minimum and make adjustments quickly, the indicator is used to create repeatable values. These can be shipped from stock for almost any linear units, in the required counting and viewing direction and in a variety of colours.



- Plastic analogue indicator for adjustment and direct reading of carriage position
- Counter with 3 (P1), 4 (P3) or 5 (P6) digits (red digit to indicate tenths)
- Can be combined with manual clamps and hand wheels
- Reduction sleeves included
- Suitable adapter plate available ▶ **Page 687**

Installation options



0 degrees | **90 degrees** | **180 degrees** | **270 degrees**

Display orientation



A
Standard

B (optional)
for vertical fitting position: display turned 180°

Order key

Order example

SHT-P3-A-1.50-1-DX-O-F-ES

Standard	Installation size	Display orientation	Pitch	Decimal places	Counting direction	Housing colour	Material	Material

Options:

Display orientation
A: Display orientation 0°
B: Display orientation 180° (optional)

Pitch
< 10.00: One decimal place
> 10.00: No decimal place

Decimal places
1: One decimal place (red digit)
0: No decimal place (red digit)

Counting direction
DX: clockwise
SX: anti-clockwise

Housing colour
O: Orange

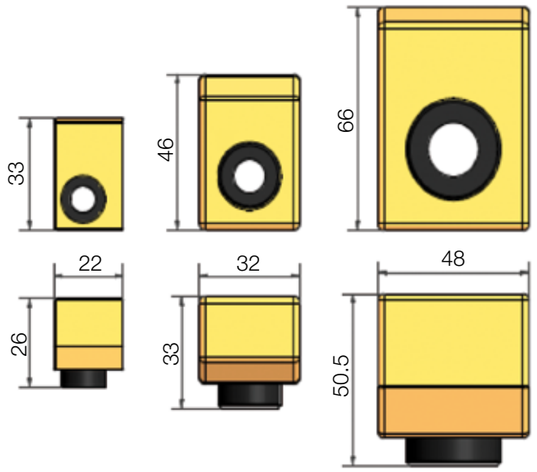
Material
ES: Hollow stainless steel shaft made from (optional)

Technical data [mm]

Position indicator	Digits	Decimal places	ID hollow shaft ø	Reduction sleeves ø
SHT-P1	3	1	8	6 + 6.35
SHT-P3	4	1	14	10 + 12.00
SHT-P6	5	1	20	14 + 16.00

Dimensions [mm]

Position indicator	H	B	T
SHT-P1	33	22	26.0
SHT-P3	46	32	33.0
SHT-P6	66	48	50.5



P1
SLW-0630
SHTP-01-06

P3
all other linear systems

P6
SHTC-40
SHTC-50

drylin® drive technology | Accessories | Product range

Digital position indicator for even more exact settings



Order key

Order example

SHT-P3-E02-2.00-1-DX-O-S

Standard	Installation size	Display orientation	Pitch	Decimal places	Counting direction	Housing colour	Material

Options:

Display orientation
E02: Standard: Display orientation 0°
E04: Display orientation rotated by 180°

The electronic position indicator (battery operated) for drylin® linear modules can be programmed by the factory for the individual thread pitch. Ideal for use with dryspin® high helix lead screws. LCD display with 5 digits and special characters, long battery life and easy battery change without removal of the device.

- Electronic digital display
- 5-digit LCD display
- Features such as incremental adjustment, offset and reset, operated via keys on the position indicator
- Battery life 8 years
- Battery change without any tools
- Increase counting in either direction, clockwise or anti-clockwise
- Display orientation standard or through 180°

Note: reduction sleeves included in delivery

Technical data

Part No.	Rotational speed [rpm]	Weight [g]	Temperature [°C]	Protection class
SHT-P3-E02-2.00-1-DX-O-S	600	60	-10 … +60	IP51

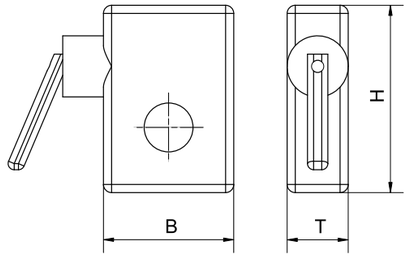
drylin® drive technology | Accessories | Product range

Lead screw clamp

Linear modules with trapezoidal threads are equipped with a self-locking mechanism. Many applications call for an additional clamping option as an additional safeguard against unintentional movement.



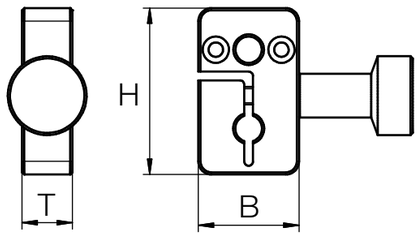
- Shaft clamp adapter for attaching to the position indicator and subsequent clamping of the lead screw.
- Provides a mechanical brake to the lead screw
- Material: plastic housing with aluminium shaft clamp
- Reduction sleeves for further diameters available



Assembly and positioning with adapter plate
▶ Page 687

Dimensions [mm]

Part No.	SHT-HK-12	SHT-HK-16	SHT-HK-20	SHT-HK-30
Lead screw size	10	14	12	14
Dimensions (B x H x T)	32 x 46 x 15	32 x 46 x 15	32 x 46 x 15	32 x 46 x 15



Dimensions [mm]

Part No.	SHT-HK-06	SHT-HK-06.35	SHT-HK-08
Lead screw size	6	6.35	8
Dimensions (B x H x T)	23 x 38 x 11.5	23 x 38 x 11.5	23 x 38 x 11.5

EN 09/2023

drylin® drive technology accessories

drylin® drive technology | Accessories | Product range

Hand wheels for drylin® linear modules

We have an extensive selection of hand wheels available to ship from stock for the most varied requirements. They range from small, compact sizes up to Ø125 with or without handles and in various configurations.

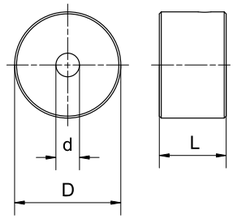


Standard



With handle (optional)

- Rotary knob: Defined standard for complete units
- Different outer diameters available
- Different handles available



Order key

Order example

SHT-HR- 8 -27-17-OG

Standard	Hand wheel	Inner diameter	Outer diameter	Length	Handle (optional)

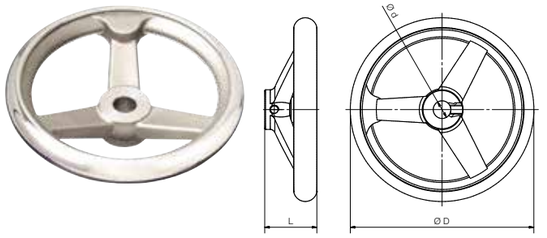
Options:
Handle (optional)
OG: Without handle
FG: Fixed handle
UG: Folding handle
SG: Security handle

Dimensions [mm]

d	D	L	OG	FG	UG	SG[104)]
4	22	15	●			
5	22	15	●			
8	27	17	●	–	–	–
10	27	17	●	–	–	–
12	42	23	●	–	–	–
14	42	23	●	–	–	–
6	50	52	–	●	–	–
8	80	75	–	●	●	●

d	D	L	OG	FG	UG	SG[104)]
10	80	75	–	●	●	●
12	80	75	–	●	●	●
12	125	109	–	●	●	●
14	125	109	–	●	●	●
16	125	109	–	●	●	●
20	198	141	–	●	–	–

[104)] The automatic panning will return on release



Stainless steel hand wheel

- Designed for application in food and pharmaceutical industries
- Corrosion-free stainless steel

Dimensions [mm]

Part No.	d	D	L	OG	Weight [g]
SHT-HR-12-125-36-OG-ES	12	125	36	●	625

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drylin® drive technology | Accessories | Product range

Flex shaft - separately located control of linear modules

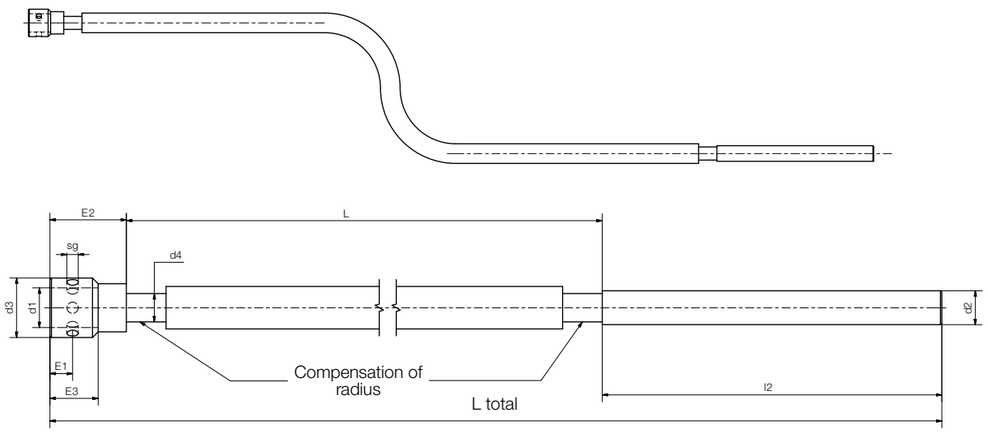


The ideal complement to drylin® linear modules. The flex shaft enables the positioning of the hand wheel independent of the installation position of the linear unit. Distance up to 500mm and offset by 85°.

- Lengths: 300mm, 500mm und 1,000mm (flexible area)
- Flexible shaft: Burnished steel
- Plastic coated: Rilsan
- Connection piece: Stainless steel AISI 303
- For all journal diameters (10, 12 and 14mm)
- Flexible installation
- Space-saving
- Can be combined with lead screw support block ▶ **Page 484**
- Position indicator, lead screw clamp and hand wheel available ▶ **Page 618**



Example of the function of an offset operating unit



Dimensions [mm]

Part No.	d1	d2	d3	d4	l2	sg	E1	E2	E3	L	L total	L max.	T max. [Nm]	Min. Bend radius
FS-06-500-Z12X120-AA	14h7	12h7	21	6	120	M4	8.5	36.5	14.5	500	657	1,000	3	70
FS-08-1000-Z12X120-AA	14h7	12h7	21	8	120	M4	8.5	36.5	14.5	1,000	1,157	1,000	4.5	90

More dimensions upon request

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drylin® | Linear axes with motor | SHT-ROU

With the drylin® Remote Operation Unit ROU, linear modules can be controlled remotely

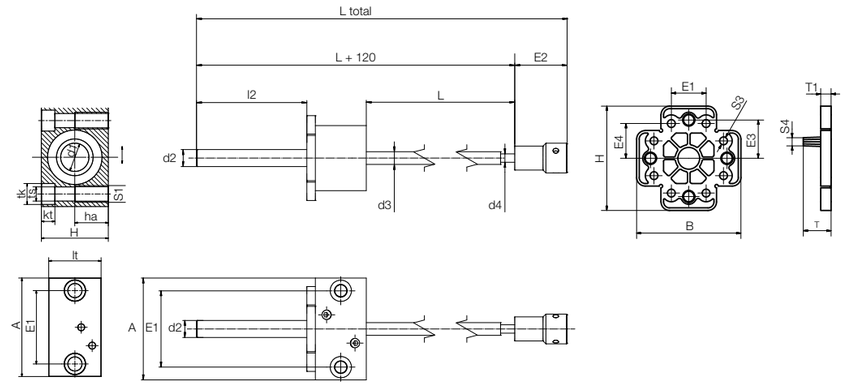
With the Remote Operation Unit, hazards such as chemicals or heat can be avoided. Thanks to the flex shaft, they can also be easily manipulated.

- Use e. g. of chemicals, heat, places that are hazardous for people working in them
- Enables manual remote control of linear modules
- Ergonomic operation via flex shaft
- Safe control of linear modules outside the work area
- Available with flex shaft with Ø 6 and 8mm in different lengths
- Thanks to the adapter plate, position indicators as well as lead screw clamps can be fitted in 4 operating directions (0°, 90°, 180°, 270°)
- Reduction sleeves for quick and simple connection to lead screw size Ø8/10/12 available AK-0047 (Ø14->8mm); AK-0048 (Ø14->10mm), AK-0049 (Ø14->12mm)



Typical application areas:

- Format adjustment
- Cabin construction
- Hazard areas



Dimensions [mm]

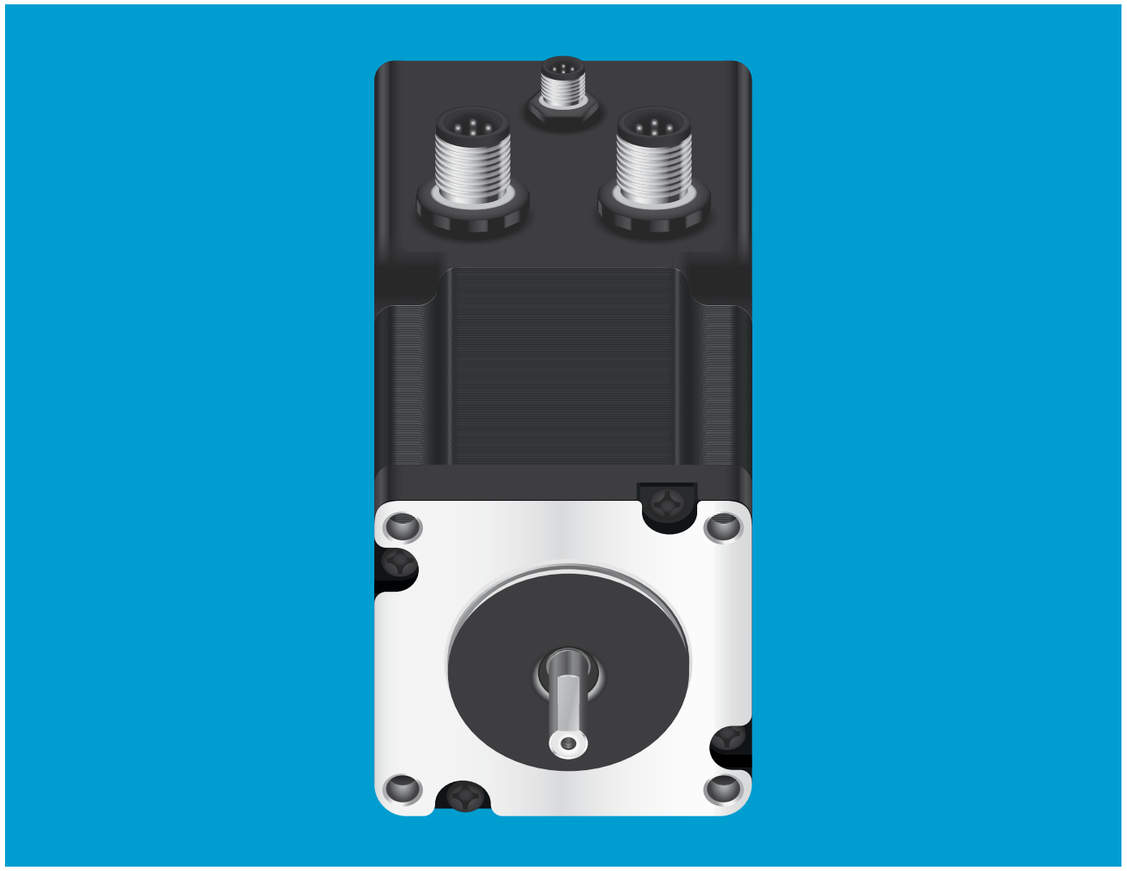
Part No.	L	L Total	l2	d2	d3	d4	E1	E2	E3	E4	S3	H
SHT-ROU-06-300	300	457	78	12	9	6	20	37	22	20	4.5	60
SHT-ROU-06-500	500	657	78	12	9	6	20	37	22	20	4.5	60
SHT-ROU-08-500	500	657	78	12	11	8	20	37	22	20	4.5	60
SHT-ROU-08-1000	1000	1157	78	12	11	8	20	37	22	20	4.5	60

Part No.	B	T1	A	E5	lt	tk	ts	kt	ha	S1	d1
SHT-ROU-06-300	60	6	72	54	36	15	9	8.6	23	M10	14H7
SHT-ROU-06-500	60	6	72	54	36	15	9	8.6	23	M11	14H7
SHT-ROU-08-500	60	6	72	54	36	15	9	8.6	23	M12	14H7
SHT-ROU-08-1000	60	6	72	54	36	15	9	8.6	23	M13	14H7

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Notes

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drylin® electric drive technology - motors

- 2-phase hybrid motor (bipolar)
- Protection class up to IP68
- Motor connection with metric connector/ stranded wire or cable
- Optional, encoder / brake
- Accessories for drive technology



EN 09/2023



Efficient, precise and compact - drylin® E stepper motors

drylin® with the lead screw motor range is the optimum solution for systems that need a stepper motor and integrated lead screw. The stand-alone versions have a compact design and are available with NEMA stepper motors with or without an encoder. The lead screw is centred and, in combination with the dryspin® high helix thread technology, the system has a long service life.

- 5 stepper motor sizes
- Lubrication-free drylin® lead screw technology
- Available ready to connect

Typical application areas

- Medical technology
- Tool building
- Laboratory technology

Available from stock
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Product finder
▶ **www.igus.eu/drylinE-finder**

Stand-alone solution for customer requirements - with or without encoder



drylin® E - shaft stepper motors

- Compatible with the most common motor controls
- Positioning also possible without encoder
- Available with encoder, brake, encoder and brake as standard

▶ **Page 633**



drylin® E - specialist stepper motors

- For vacuum applications
- For splash water and underwater applications
- 1m cable

▶ **Page 640**



drylin® E - lead screw stepper motors

- Compatible with the most common motor controls
- Positioning also possible without encoder
- Available with encoder in short design as standard

▶ **Page 644**



drylin® - EC/BLCD motors

- Compatible with the most common motor controls
- Positioning also possible without encoder
- Available with hall, encoder, encoder and brake

▶ **Page 647**



drylin® - DC motors

- Planetary gearbox
- Spur gear
- Protect variants

▶ **Page 651**



drylin® - motor control systems

- For DC, EC and stepper motors
- Simple and intuitive user interface
- Quick initial operation

▶ **Page 662**



drylin® - motor drives

- For igus® stepper motors with flange sizes NEMA 23, 24, 34
- Available gear reductions: 3, 5, 10, 15, 20, 40
- Max. output torque for heavy loads

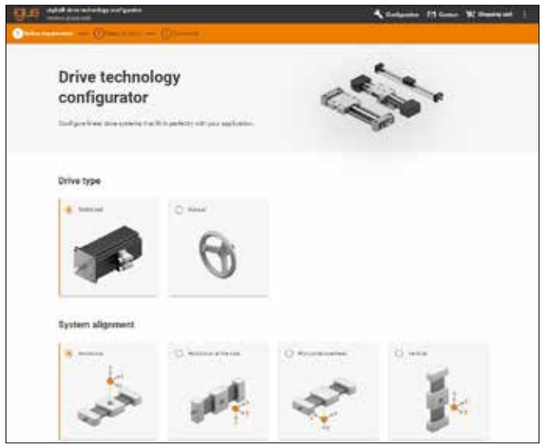
▶ **Page 666**



drylin® - couplings

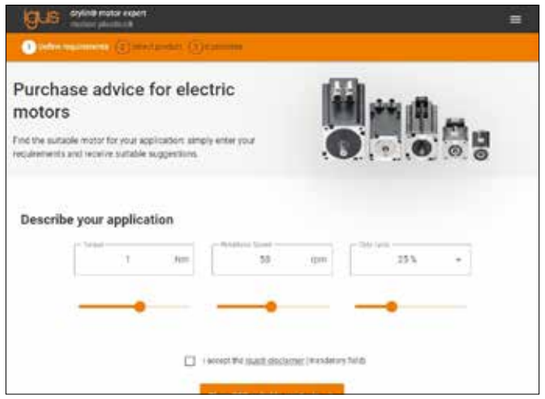
- More than 400 versions from stock
- Vibration dampening and pluggable

▶ **Page 669**



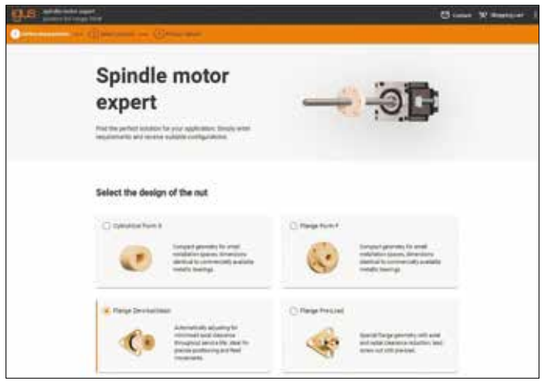
Configurator for drive technology
Individually configured single axes with electrical drive can be generated with just a few clicks.
After the parameters are set, connection cables, proximity switch kits, and control systems can be added.

▶ **www.igus.eu/DDX**



Configurator for electric motors
After torque and speed is entered, the tool calculates the motor set that is right for you. Reduction gearboxes are included in the tool. You can also choose between encoder and brake.

▶ **www.igus.eu/DMX**



Configurator for lead screw motors
Our lead screw drive experts help you to find the right linear actuator quickly and determine predicted service life. You can choose among four nut categories and different lead screws.

▶ **www.igus.eu/DSE**

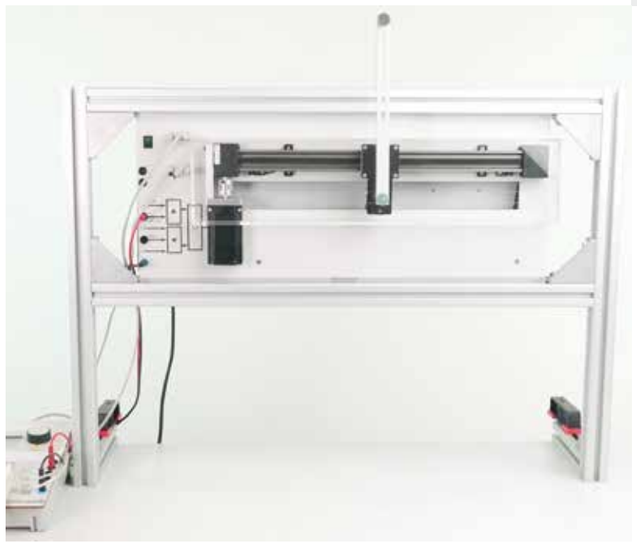
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Winding machine
The requirement for this fabric unwinding system is that it be lubrication-free with adjustable speeds. igus® has the solution with two linear axes running in parallel and connected to a main shaft.

Cylindrical grinding machine
The customer needs two linear axes for his cylindrical grinding machine, which can move in the hundredth range and when wet. A maximum overall length is also stipulated. The SAW with side installation in conjunction with an IP65 stepper motor is the solution for achieving the desired protection class and maximum overall length.





Pendulum machine
The customer wants to be able to program the parameters for the school laboratory himself. A higher-level control system regulates the D1 dryve analogue inputs with an angular encoder attached to the central pendulum pivot point and can thus stipulate the position specifications for erecting the pendulum with the motor.

Various NEMA stepper motor options



Motor with stranded wire
Motors with stranded wires are the least expensive and the most common stepper motors. The connecting wires (length 30cm) for this type exit from the housing and will be configured with a JST connector. They are usually installed in machines and equipment that have an additional housing or are used in clean environments.



Motor with connector
The connector interface provides a high IP65 protection level (IP: International Protection). The higher the IP rating, the better the motor is protected from the ingress of dirt and water.



Motor with connector and encoder
The encoder (for increased machine reliability) sends signals from the motor to the motor control. The encoder verifies that the required linear motion has occurred precisely as required.



Motor with connector, encoder and brake
The brake can hold the payload in position when the motor is not under power. This is used as a safety feature during power failures - recommended for vertically mounted systems.

All motors are delivered with a machined flat motor shaft (D-cut) for increased torque resistance.

Installation sizes of NEMA stepper motors

NEMA11: tiny but with plenty of power
This motor has very compact dimensions. Even so, heavy loads can be moved with a suitable lead screw pitch. This motor is typically used on small test and analysis equipment and miniature adjustments.

NEMA17: small, but lots of power
This little motor has impressive torque and high RPMs. Reliable operation at fast travel with low loads.

NEMA23: the best known stepper motor size
Versatile choice due to the high torque and rotational speed. This motor is the best choice for most applications with medium loads.

NEMA24: power motor in medium installation size
A development extension of the typical NEMA23 with nearly twice the torque. The assembly dimensions are identical to the NEMA23, allowing many applications.

NEMA34: the power pack in large installation size
Applications with higher loads are implemented using the largest installation size. Heavy-duty format adjustments or parallel dual axis setups are among its primary duties.

drylin® | Motors | Product explanation

NEMA dimensions

NEMA stands for "National Electrical Manufacturers Association", an American standardisation organisation comparable to the German DIN Institute or the ISO (International Standard Organization).
Since NEMA is an American association, its dimensions are imperial. The motors are divided into different sizes according to their edge dimensions (flange dimensions). Rounding errors occur during conversion from inches to millimetres.

Shaft stepper motors
Shaft stepper motors from igus® are maintenance-free and durable. They are available in various sizes and extendable with two connectors, brakes and encoders. The shaft stepper motors are available in installation sizes: NEMA11, 17, 23, 23, 24 and 34 - with flange dimensions 28mm, 42mm, 56mm, 60mm and 86mm. The motors work at temperatures between -10 and +50°C. Thanks to a standardised electrical connection, shaft stepper motors are not only compatible with igus® motor control systems, but also to most commonly available control systems of other manufacturers.

Lead screw stepper motors
Lead screw stepper motors from igus® are maintenance-free and durable. They are available in various sizes and extendable with encoders. The lead screw stepper motors are available in installation sizes: NEMA11, 17 and 23 - with flange dimensions 28mm, 42mm and 56mm. The motors work at temperatures between -10 and +50°C. Thanks to a standardised electrical connection, lead screw stepper motors are not only compatible with igus® motor control systems, but also to most commonly available control systems of other manufacturers.

EC/BLDC motors
igus® brushless DC motors are always delivered with three Hall sensors. Encoder and brake are also configured. Carbon brushes are eliminated, allowing up to 30,000 operating hours despite speeds of up to 3,000rpm.

DC spur gear
DC motors have the drive shaft below the centre of the motor because of the spur gear. The motors can be operated with batteries and the direction of rotation changed by simply reversing polarity.

DC planetary gearbox
DC motors have the drive shaft in the centre of the motor because of the planetary gearbox. The motors can be operated with batteries and the direction of rotation changed by simply reversing polarity.

DC protect
DC protect motors can have spur gears or planetary gearboxes as desired. The motors can be operated with batteries and the direction of rotation changed by simply reversing polarity. The protective housing achieves an IP41 protection class.

DC motors with spline
DC motors with spline are driven after the worm gear with two different plug-in shafts. The motors can be operated with batteries and the direction of rotation changed by simply reversing polarity. The protective housing achieves an IP41 protection class. The motors also have a Hall sensor that ensures greater machine reliability.

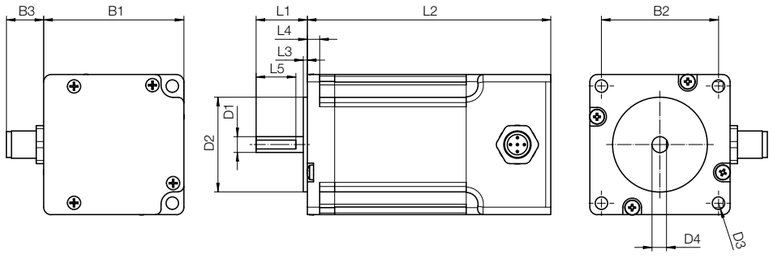
Linear actuator
Linear actuators are an interaction of lead screw stepper motor with lead screws and motors. In the igus® product range, they are available in installation sizes: NEMA11, 17 and 23 - with flange dimensions 28mm, 42mm and 56mm. Thanks to a standardised electrical connection, shaft stepper motors are not only compatible with igus® motor control systems, but also to most commonly available control systems of other manufacturers.

drylin® E | Motors | Product range

Stepper motors in short length



- Compatible with the most common motor controls
- Positioning also possible without encoder
- Available in several installation sizes
- Holding torque up to 3.6Nm
- Protection class: IP40



Technical data

Part No.	Distance over hubs [mm]	NEMA	Connection	Nominal current [A]	Holding torque [Nm]	Weight [kg]
MOT-AN-S-060-001-028-L-A-AAAO	28	NEMA11	JST stranded wire	0.7	0.06	0.11
MOT-AN-S-060-001-028-L-C-AAAO	28	NEMA11	JST stranded wire	0.7	0.06	0.11
MOT-AN-S-060-002-042-L-A-AAAO	42	NEMA17	JST stranded wire	1.4	0.20	0.17
MOT-AN-S-060-002-042-L-C-AAAO	42	NEMA17	JST stranded wire	1.4	0.20	0.17
MOT-AN-S-060-010-056-L-A-AAAO	56	NEMA23	JST stranded wire	2.8	1.00	0.61
MOT-AN-S-060-010-056-L-C-AAAO	56	NEMA23	JST stranded wire	2.8	1.00	0.61
MOT-AN-S-060-016-060-L-A-AAAO	60	NEMA24	JST stranded wire	4.3	1.70	0.75
MOT-AN-S-060-016-060-L-C-AAAO	60	NEMA24	JST stranded wire	4.3	1.70	0.75
MOT-AN-S-060-036-086-L-A-AAAO	86	NEMA34	Molex stranded wire	6.4	3.60	1.80
MOT-AN-S-060-036-086-L-C-AAAO	86	NEMA34	Molex stranded wire	6.4	3.60	1.80

Dimensions [mm]

Part No.	L1 ±1.0	L2 ±1.0	L6 ±1.0	D1 –0.013	D2 ±0.025	B1 ±0.2	B2 ±0.2
MOT-AN-S-060-001-028-L-A-AAAO	20.0	31.5	–	5.00	22.00	28.0	23.00
MOT-AN-S-060-001-028-L-C-AAAO	20.0	31.5	10.0	5.00	22.00	28.0	23.00
MOT-AN-S-060-002-042-L-A-AAAO	24.0	30.5	–	5.00	22.00	42.3	31.00
MOT-AN-S-060-002-042-L-C-AAAO	24.0	30.5	15.7	5.00	22.00	42.3	31.00
MOT-AN-S-060-010-056-L-A-AAAO	20.6	50.0	–	6.35	38.10	56.4	47.14
MOT-AN-S-060-010-056-L-C-AAAO	20.6	50.0	15.7	6.35	38.10	56.4	47.14
MOT-AN-S-060-016-060-L-A-AAAO	20.6	56.0	–	8.00	38.10	60.0	47.14
MOT-AN-S-060-016-060-L-C-AAAO	20.6	56.0	15.7	8.00	38.10	60.0	47.14
MOT-AN-S-060-036-086-L-A-AAAO	37.0	66.0	–	14.00	73.02	85.8	69.50
MOT-AN-S-060-036-086-L-C-AAAO	37.0	66.0	15.7	14.00	73.02	85.8	69.50

Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

igus EN 09/2023

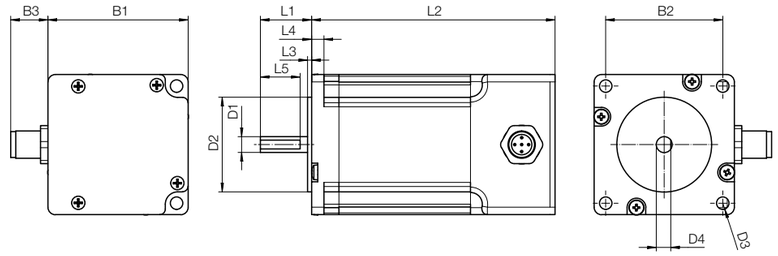
drylin®
motors

drylin® E | Motors | Product range

Stepper motors in medium length as standard



- Compatible with the most common motor controls
- Positioning also possible without encoder
- Available in several installation sizes
- Holding torque up to 5.9Nm
- Protection class: IP40 or IP52



Technical data

Part No.	Distance over hubs [mm]	NEMA	Connection	Nominal current [A]	Holding torque [Nm]	Weight [kg]
MOT-AN-S-060-001-028-L-A-AAAA	28	NEMA11	JST stranded wire	1.0	0.12	0.20
MOT-AN-S-060-001-028-M-A-AAAA	28	NEMA11	Metric	1.0	0.12	0.22
MOT-AN-S-060-005-042-L-A-AAAA	42	NEMA17	JST stranded wire	1.8	0.50	0.38
MOT-AN-S-060-005-042-M-A-AAAA	42	NEMA17	Metric	1.8	0.50	0.43
MOT-AN-S-060-020-056-L-A-AAAA	56	NEMA23	JST stranded wire	4.2	2.00	1.04
MOT-AN-S-060-020-056-M-A-AAAA	56	NEMA23	Metric	4.2	2.00	1.12
MOT-AN-S-060-035-060-L-A-AAAA	60	NEMA24	JST stranded wire	4.2	3.50	1.45
MOT-AN-S-060-035-060-M-A-AAAA	60	NEMA24	Metric	4.2	3.50	1.56
MOT-AN-S-060-059-086-L-A-AAAA	86	NEMA34	Molex stranded wire	6.4	5.90	2.90
MOT-AN-S-060-059-086-M-A-AAAA	86	NEMA34	Metric	6.4	5.90	3.20

Dimensions [mm]

Part No.	L1 ±1.0	L2 ±1.0	D1 –0.013	D2 ±0.025	B1 ±0.2	B2 ±0.2	B3
MOT-AN-S-060-001-028-L-A-AAAA	20.0	50	5.00	22.00	28.0	23.00	–
MOT-AN-S-060-001-028-M-A-AAAA	20.0	70	5.00	22.00	28.0	23.00	13.0
MOT-AN-S-060-005-042-L-A-AAAA	24.0	49	5.00	22.00	42.3	31.00	–
MOT-AN-S-060-005-042-M-A-AAAA	24.0	70	5.00	22.00	42.3	31.00	13.0
MOT-AN-S-060-020-056-L-A-AAAA	20.6	76	6.35	38.10	56.4	47.14	–
MOT-AN-S-060-020-056-M-A-AAAA	20.6	98	6.35	38.10	56.4	47.14	13.0
MOT-AN-S-060-035-060-L-A-AAAA	20.6	88	8.00	38.10	60.0	47.14	9.0
MOT-AN-S-060-035-060-M-A-AAAA	20.6	112	8.00	38.10	60.0	47.14	13.0
MOT-AN-S-060-059-086-L-A-AAAA	37.0	98	14.00	73.02	85.8	69.50	–
MOT-AN-S-060-059-086-M-A-AAAA	37.0	118	14.00	73.02	85.8	69.50	37.0

Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

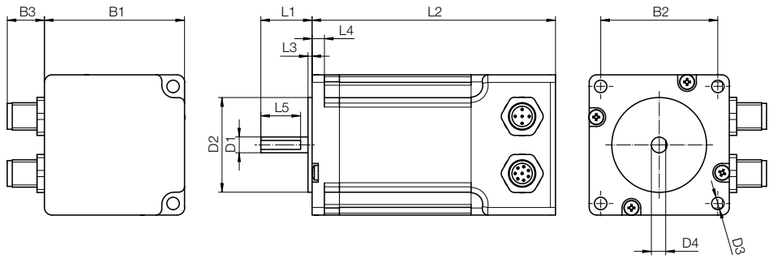
EN 09/2023 igus

drylin® E | Motors | Product range

Stepper motors with encoder in medium length



- Compatible with the most common motor controls
- Available in several installation sizes
- Holding torque up to 5.9Nm
- Protection class: IP40 or IP52
- Encoder with 500PPR



Technical data

Part No.	Distance over hubs [mm]	NEMA	Connection	Nominal current [A]	Holding torque [Nm]	Weight [kg]
MOT-AN-S-060-001-028-L-C-AAAC	28	NEMA11	JST stranded wire	1.0	0.12	0.27
MOT-AN-S-060-005-042-L-C-AAAC	42	NEMA17	JST stranded wire	1.8	0.50	0.40
MOT-AN-S-060-005-042-M-C-AAAC	42	NEMA17	Metric	1.8	0.50	0.45
MOT-AN-S-060-020-056-L-C-AAAC	56	NEMA23	JST stranded wire	4.2	2.00	1.05
MOT-AN-S-060-020-056-M-C-AAAC	56	NEMA23	Metric	4.2	2.00	1.14
MOT-AN-S-060-035-060-L-C-AAAC	60	NEMA24	JST stranded wire	4.2	3.50	1.35
MOT-AN-S-060-035-060-M-C-AAAC	60	NEMA24	Metric	4.2	3.50	1.58
MOT-AN-S-060-059-086-L-C-AAAC	86	NEMA34	Molex stranded wire	6.4	5.90	2.95
MOT-AN-S-060-059-086-M-C-AAAC	86	NEMA34	Metric	6.4	5.90	3.30

Dimensions [mm]

Part No.	L1 ±1.0	L2 ±1.0	L6	D1 -0.013	D2 ±0.025	B1 ±0.2	B2 ±0.2	B3 ±0.2
MOT-AN-S-060-001-028-L-C-AAAC	20.0	50	10	5.00	22.00	28.0	23.00	–
MOT-AN-S-060-005-042-L-C-AAAC	24.0	49	14	5.00	22.00	42.3	31.00	–
MOT-AN-S-060-005-042-M-C-AAAC	24.0	70	–	5.00	22.00	42.3	31.00	13.0
MOT-AN-S-060-020-056-L-C-AAAC	20.6	76	15	6.35	38.10	56.4	47.14	–
MOT-AN-S-060-020-056-M-C-AAAC	20.6	98	–	6.35	38.10	56.4	47.14	13.0
MOT-AN-S-060-035-060-L-C-AAAC	20.6	88	17	8.00	38.10	60.0	47.14	9.0
MOT-AN-S-060-035-060-M-C-AAAC	20.6	112	–	8.00	38.10	60.0	47.14	13.0
MOT-AN-S-060-059-086-L-C-AAAC	37.0	98	15	14.00	73.02	85.8	69.50	–
MOT-AN-S-060-059-086-M-C-AAAC	37.0	118	–	14.00	73.02	85.8	69.50	37.0

Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

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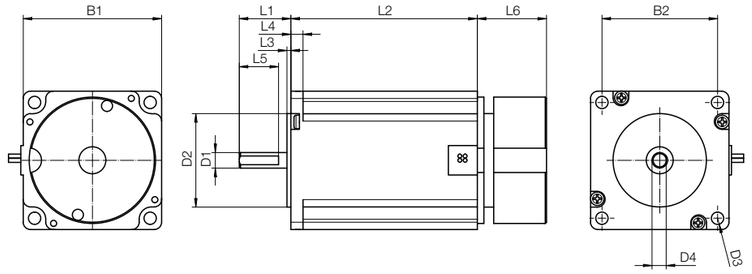
drylin®
motors

drylin® E | Motors | Product range

Stepper motors with stranded wire and brake in medium length



- Compatible with the most common motor controls
- Available in several installation sizes
- Holding torque up to 5.9Nm
- Protection class: IP40
- Brake up to 2Nm holding torque



Technical data

Part No.	Distance over hubs [mm]	NEMA	Connection	Nominal current [A]	Holding torque [Nm]	Brake holding torque [Nm]	Weight [kg]
MOT-AN-S-060-005-042-L-B-AAAA	42	NEMA17	JST stranded wire	1.8	0.5	0.5	0.5
MOT-AN-S-060-020-056-L-B-AAAA	56	NEMA23	JST stranded wire	4.2	2.0	1.0	1.3
MOT-AN-S-060-035-060-L-B-AAAA	60	NEMA24	JST stranded wire	4.2	3.5	1.0	1.7
MOT-AN-S-060-059-086-L-B-AAAA	86	NEMA34	Molex stranded wire	6.4	5.9	2.0	3.3

Dimensions [mm]

Part No.	L1 ±1.0	L2 ±1.0	L6	D1 -0.013	D2 ±0.025	B1 ±0.2	B2 ±0.2
MOT-AN-S-060-005-042-L-B-AAAA	24.0	49	29	5.00	22.0	42.3	31.0
MOT-AN-S-060-020-056-L-B-AAAA	20.6	76	29	6.35	38.1	56.4	47.14
MOT-AN-S-060-035-060-L-B-AAAA	20.6	88	30	8.00	38.1	60.0	47.14
MOT-AN-S-060-059-086-L-B-AAAA	37.0	98	32	14.00	73.02	85.8	69.5

Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

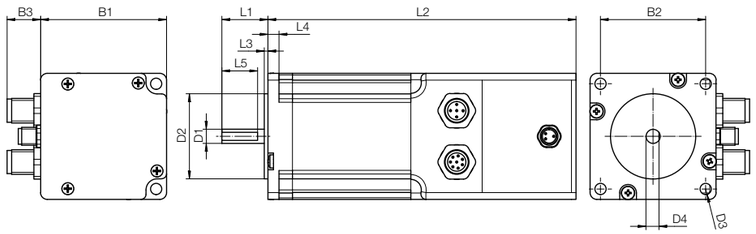
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drylin® E | Motors | Product range

Stepper motors with encoder and brake in medium length



- Compatible with the most common motor controls
- Available in several installation sizes
- Holding torque up to 5.9Nm
- Protection class: IP52
- Encoder with 500PPR
- Brake up to 2Nm holding torque



Technical data

Part No.	Flange dimension	NEMA	Connection	Nominal current	Holding torque	Brake holding torque	Weight
	[mm]			[A]	[Nm]	[Nm]	[kg]
MOT-AN-S-060-005-042-M-D-AAAD	42	NEMA17	Metric	1.8	0.5	0.4	0.58
MOT-AN-S-060-020-056-M-D-AAAD	56	NEMA23	Metric	4.2	2.0	1.0	1.36
MOT-AN-S-060-035-060-M-D-AAAD	60	NEMA24	Metric	4.2	3.5	1.0	1.82
MOT-AN-S-060-059-086-M-D-AAAD	86	NEMA34	Metric	6.4	5.9	2.0	3.60

Dimensions [mm]

Part No.	L1	L2	D1	D2	B1	B2	B3
	±1.0	±1.0	-0.013	±0.025	±0.2	±0.2	
MOT-AN-S-060-005-042-M-D-AAAD	24.0	115	5.00	22.00	42.3	31.00	13.0
MOT-AN-S-060-020-056-M-D-AAAD	20.6	138	6.35	38.10	56.4	47.14	13.0
MOT-AN-S-060-035-060-M-D-AAAD	20.6	150	8.00	38.10	60.0	47.14	13.0
MOT-AN-S-060-059-086-M-D-AAAD	37.0	188	14.00	73.02	85.8	69.50	37.0

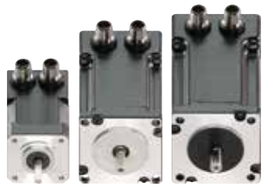
Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

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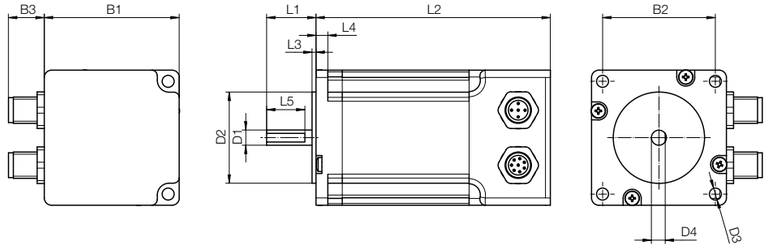
drylin®
motors

drylin® E | Motors | Product range

Stepper motors with encoder and IP65 protection class in medium length



- Compatible with the most common motor controls
- Available in several installation sizes
- Holding torque up to 3.5Nm
- Protection class IP65 thanks to the shaft seal
- Encoder with 500PPR



Technical data

Part No.	Distance over hubs	NEMA	Connection	Nominal current	Holding torque	Weight
	[mm]			[A]	[Nm]	[kg]
MOT-AN-S-060-005-042-M-C-AAAS	42	NEMA17	Metric	1.8	0.5	0.45
MOT-AN-S-060-020-056-M-C-AAAS	56	NEMA23	Metric	4.2	2.0	1.14
MOT-AN-S-060-035-060-M-C-AAAS	60	NEMA24	Metric	4.2	3.5	1.58

Dimensions [mm]

Part No.	L1	L2	D1	D2	B1	B2	B3
	±1.0	±1.0	-0.013	±0.025	±0.2	±0.2	
MOT-AN-S-060-005-042-M-C-AAAS	24.0	73	5.00	22.0	42.3	31.00	13.0
MOT-AN-S-060-020-056-M-C-AAAS	20.6	99	6.35	38.1	56.4	47.14	13.0
MOT-AN-S-060-035-060-M-C-AAAS	20.6	112	8.00	38.1	60.0	47.14	13.0

Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

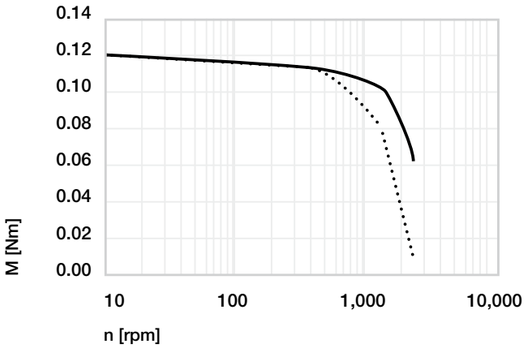
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drylin® E | Motors | Characteristic curves

Characteristic curves in medium length

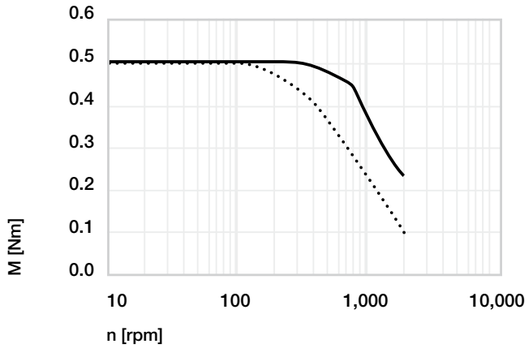
Flange size 28 (NEMA11)

MOT-AN-S-060-001-028-...



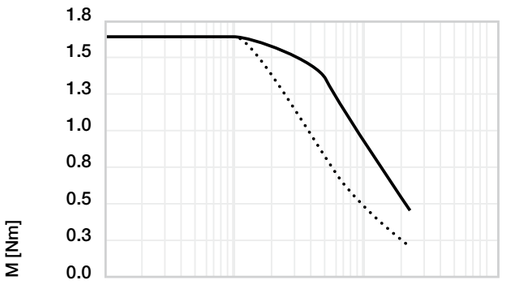
Flange size 42 (NEMA17)

MOT-AN-S-060-005-042-...



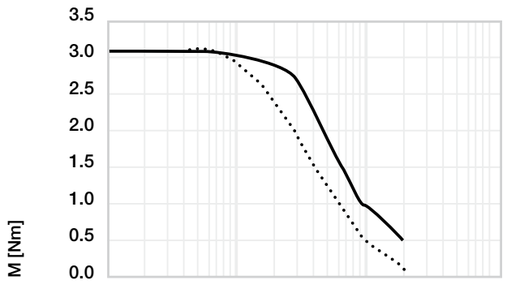
Flange size 56 (NEMA23)

MOT-AN-S-060-020-056-...



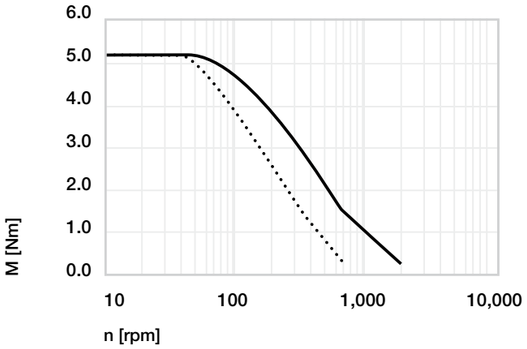
Flange size 60 (NEMA24)

MOT-AN-S-060-035-060-...



Flange size 86 (NEMA34)

MOT-AN-S-060-059-086-...



------- 24VDC —— 48VDC

The characteristic curves are determined in quarter step mode

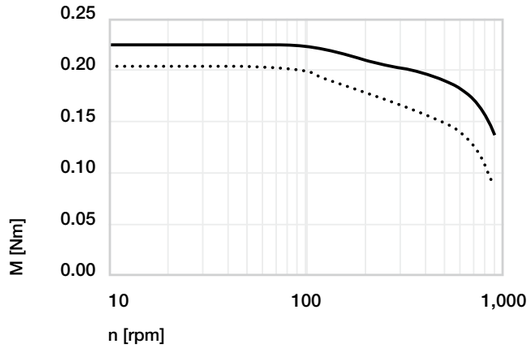
drylin® motors

drylin® E | Motors | Characteristic curves

Characteristic curves in short length

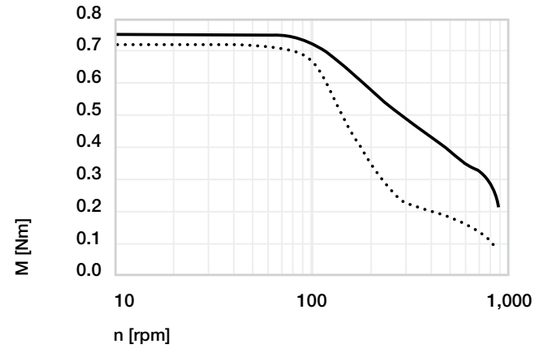
Flange size 42 (NEMA17)

MOT-AN-S-060-002-042-...-AAAO



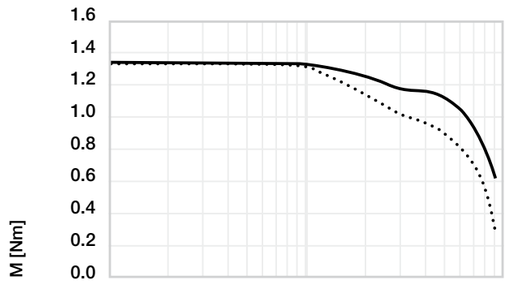
Flange size 56 (NEMA23)

MOT-AN-S-060-010-056-...-AAAO



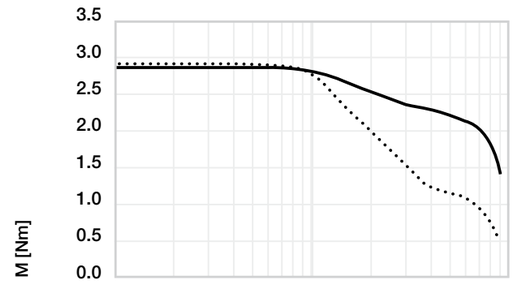
Flange size 60 (NEMA24)

MOT-AN-S-060-016-060-...-AAAO



Flange size 86 (NEMA34)

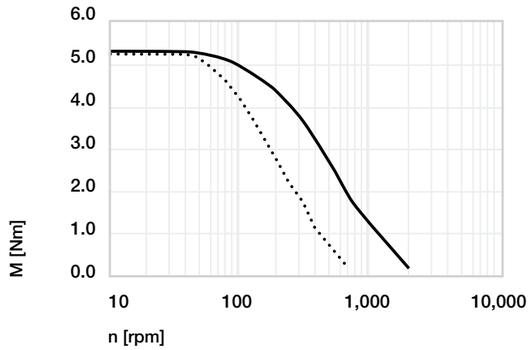
MOT-AN-S-060-036-086-...-AAAO



Characteristic curves for specialist stepper motors

Flange size 86 (NEMA34)

MOT-ST-086-C-A-C



------- 24VDC —— 48VDC

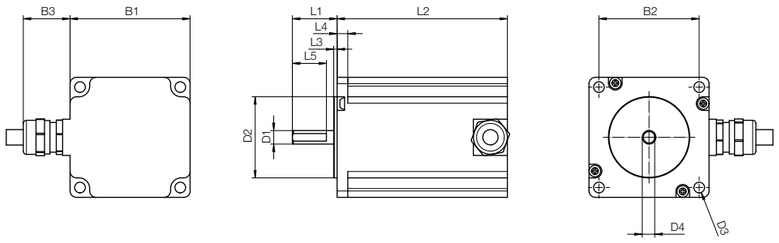
The characteristic curves are determined in quarter step mode

drylin® E | Motors | Product range New

Specialist stepper motors



- Compatible with the most common motor controls
- Available in several installation sizes
- Holding torque up to 5.9Nm
- Protection class from IP00 up to IP68



Technical data

Part No.		Distance over hubs [mm]	NEMA	Connection	Nominal current [A]	Holding torque [Nm]	Weight [kg]
MOT-AD-S-060-017-056-M-A-AAAK	New	56	NEMA23	Metric	3.0	1.7	1.20
MOT-AD-S-060-017-056-M-C-AAAL	New	56	NEMA23	Metric	3.0	1.7	1.25
MOT-AP-S-060-013-056-K-A-AAAI	New	56	NEMA23	Terminal box	4.2	1.3	1.47
MOT-AP-S-060-013-056-K-C-AAAM	New	56	NEMA23	Terminal box	4.2	1.3	1.51
MOT-AP-S-060-007-056-L-A-AAAJ	New	56	NEMA23	Stranded wire	2.5	0.7	1.00
MOT-ST-42-C-A-C	New	42	NEMA17	Molex cable	1.8	0.5	0.40
MOT-ST-56-C-A-C	New	56	NEMA23	Molex cable	4.2	2.0	1.04
MOT-ST-60-C-A-C	New	60	NEMA24	Molex cable	4.2	3.5	1.50
MOT-ST-86-C-A-C	New	86	NEMA34	Molex cable	6.4	5.9	3.10

Dimensions [mm]

Part No.		L1 ±1.0	L2 ±1.0	L3 ±0.25	L5 ±1.0	D1 -0.015	D2 ±0.05	B1 ±0.2	B2 ±0.2
MOT-AD-S-060-017-056-M-A-AAAK	New	20.6	106	–	16	6.35	38.10	56.40	47.14
MOT-AD-S-060-017-056-M-C-AAAL	New	20.6	106	–	16	6.35	38.10	56.40	47.14
MOT-AP-S-060-013-056-K-A-AAAI	New	17.0	134	–	–	6.35	38.10	56.80	47.10
MOT-AP-S-060-013-056-K-C-AAAM	New	17.0	154	–	–	6.35	38.10	56.80	47.10
MOT-AP-S-060-007-056-L-A-AAAJ	New	22.0	74.0	–	–	6.35	38.10	59.95	47.00
MOT-ST-42-C-A-C	New	24.0	53.0	2.0	–	–	22.00	42.3	31.00
MOT-ST-56-C-A-C	New	21.0	80.0	1.6	–	–	38.10	56.4	47.10
MOT-ST-60-C-A-C	New	21.0	94.5	1.6	–	–	38.10	60.0	47.10
MOT-ST-86-C-A-C	New	37.0	110.0	1.6	–	–	73.00	86.0	69.60

Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

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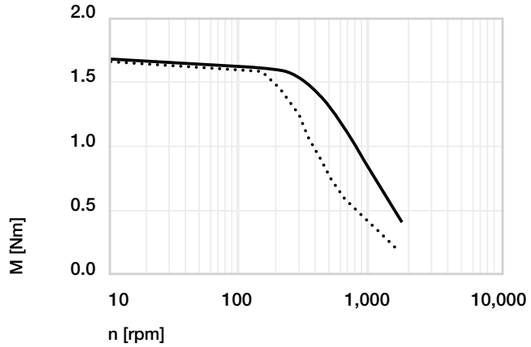
drylin® motors

drylin® E | Motors | Product range New

Characteristic curves for specialist stepper motors

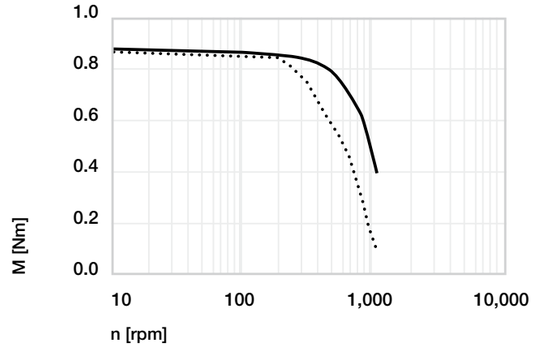
Flange size 56 (NEMA23)

MOT-AD-S-060-017-056-M-... (IP65 splash water)



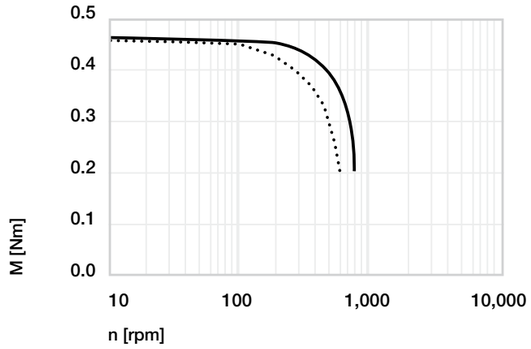
Flange size 56 (NEMA23)

MOT-AP-S-060-013-056-K-... (IP68 underwater)



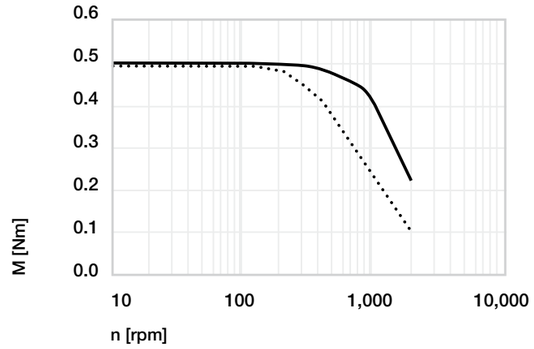
Flange size 56 (NEMA23)

MOT-AP-S-060-007-056-L-A-AAAJ (IP00 vacuum)



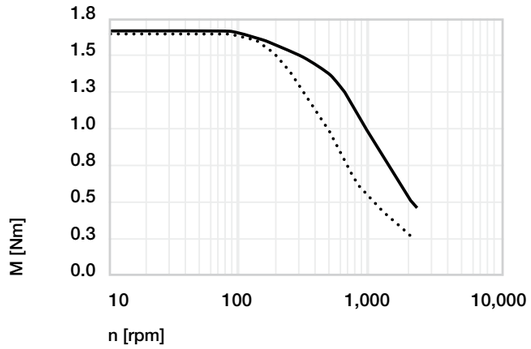
Flange size 42 (NEMA17)

MOT-ST-042-C-A-C



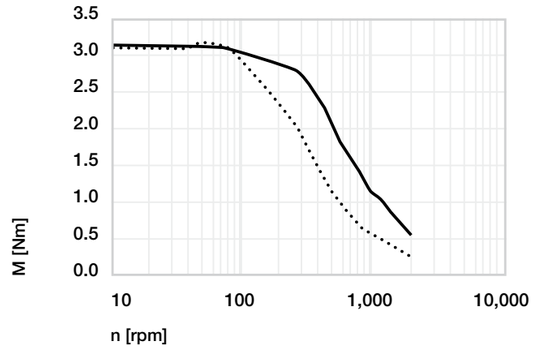
Flange size 56 (NEMA23)

MOT-ST-056-C-A-C



Flange size 60 (NEMA24)

MOT-ST-060-C-A-C



Flange size 86 (NEMA17) ▶ Page 639

------- 24VDC —— 48VDC

The characteristic curves are determined in quarter step mode

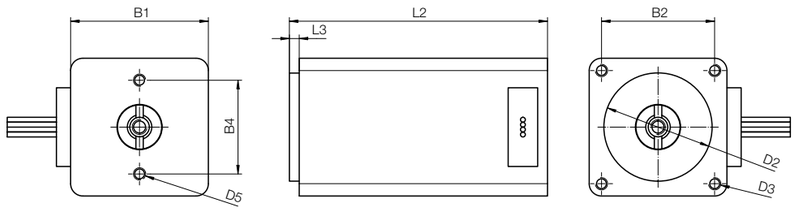
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drylin® E | Motors | Product range

Lead screw stepper motors with stranded wire in short length



- Compatible with the most common motor controls
- Available in several installation sizes
- Short design
- Holding torque up to 1Nm
- Protection class: IP42
- Axial load up to 500N



Technical data

Part No.	Distance over hubs	NEMA	Connection	Nominal current	Holding torque	Weight
	[mm]			[A]	[Nm]	[kg]
MOT-ST-28-L-A-B	28	NEMA11	JST stranded wire	0.67	0.06	0.11
MOT-ST-42-L-A-B	42	NEMA17	JST stranded wire	1.40	0.20	0.21
MOT-ST-56-L-A-B	56	NEMA23	JST stranded wire	2.80	1.00	0.63

Dimensions [mm]

Part No.	L2	L3	D2	B1	B2
	±1.0		±0.025		±0.2
MOT-ST-28-L-A-B	31.5	2.0	22.0	28.2	23.0
MOT-ST-42-L-A-B	30.5	2.0	22.0	42.3	31.0
MOT-ST-56-L-A-B	50.0	1.6	38.1	56.4	47.14

Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

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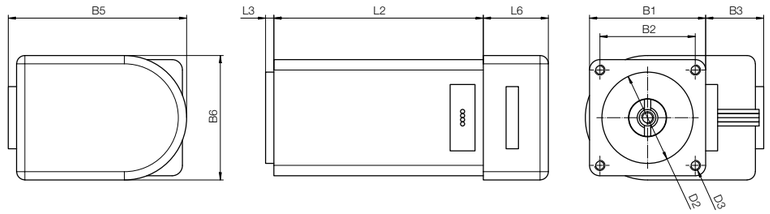
drylin®
motors

drylin® E | Motors | Product range

Lead screw stepper motors with encoder in short length



- Compatible with the most common motor controls
- Available in several installation sizes
- Short design
- Holding torque up to 1Nm
- Protection class: IP42
- Axial load up to 500N
- Encoder with 500PPR



Technical data

Part No.	Distance over hubs	NEMA	Connection	Nominal current	Holding torque	Weight
	[mm]			[A]	[Nm]	[kg]
MOT-ST-28-L-C-B	28	NEMA11	JST stranded wire	0.67	0.06	0.13
MOT-ST-42-L-C-B	42	NEMA17	JST stranded wire	1.40	0.20	0.23
MOT-ST-56-L-C-B	56	NEMA23	JST stranded wire	2.80	1.00	0.65

Dimensions [mm]

Part No.	L2	L3	L6	D2	B1	B2	B3
	±1.0					±0.2	±0.2
MOT-ST-28-L-C-B	31.5	2.0	15.7	22.0	28.2	23.00	12.5
MOT-ST-42-L-C-B	30.5	2.0	15.7	22.0	42.3	31.00	6.0
MOT-ST-56-L-C-B	50.0	1.6	15.7	38.1	56.4	47.14	–

Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

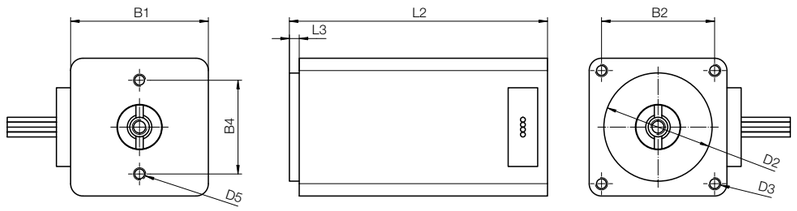
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drylin® E | Motors | Product range

Lead screw stepper motors in medium length



- Compatible with the most common motor controls
- Available in several installation sizes
- Holding torque up to 2Nm
- Protection class: IP42
- Axial load up to 500N



Technical data

Part No.	Distance over hubs	NEMA	Connection	Nominal current	Holding torque	Weight
	[mm]			[A]	[Nm]	[kg]
MOT-ST-28-L-A-A	28	NEMA11	JST stranded wire	1.0	0.12	0.25
MOT-ST-42-L-A-A	42	NEMA17	JST stranded wire	1.8	0.50	0.34
MOT-ST-56-L-A-A	56	NEMA23	JST stranded wire	4.2	2.00	1.00

Dimensions [mm]

Part No.	L2	L3	D2	B1	B2
	±1.0		±0.025		±0.2
MOT-ST-28-L-A-A	51	2.0	22.0	28.2	23.00
MOT-ST-42-L-A-A	49	2.0	22.0	42.3	31.00
MOT-ST-56-L-A-A	76	1.6	38.1	56.4	47.14

Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

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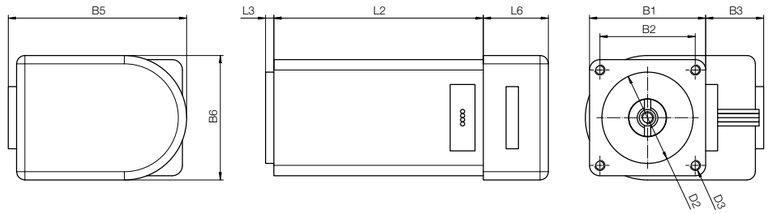
drylin®
motors

drylin® E | Motors | Product range

Lead screw stepper motors with encoder in medium length



- Compatible with the most common motor controls
- Available in several installation sizes
- Holding torque up to 2Nm
- Protection class: IP42
- Axial load up to 500N
- Encoder with 500PPR



Technical data

Part No.	Distance over hubs	NEMA	Connection	Nominal current	Holding torque	Weight
	[mm]			[A]	[Nm]	[kg]
MOT-ST-28-L-C-A	28	NEMA11	JST stranded wire	1.0	0.12	0.27
MOT-ST-42-L-C-A	42	NEMA17	JST stranded wire	1.8	0.50	0.36
MOT-ST-56-L-C-A	56	NEMA23	JST stranded wire	4.2	2.00	1.02

Dimensions [mm]

Part No.	L2	L3	L6	D2	B1	B2	B3
	±1.0					±0.2	±0.2
MOT-ST-28-L-C-A	51	2.0	15.2	22.0	28.2	23.00	12.5
MOT-ST-42-L-C-A	49	2.0	16.0	22.0	42.3	31.00	6.0
MOT-ST-56-L-C-A	76	1.6	16.0	38.1	56.4	47.14	–

Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

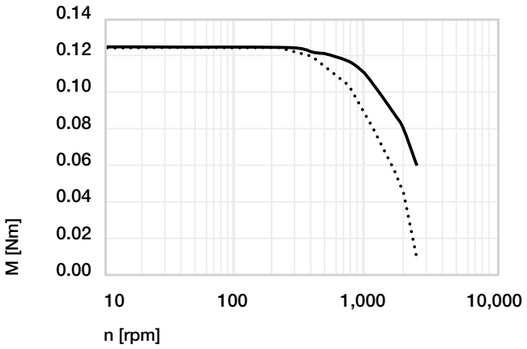
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drylin® E | Motors | Characteristic curves

Characteristic curves for lead screw motors

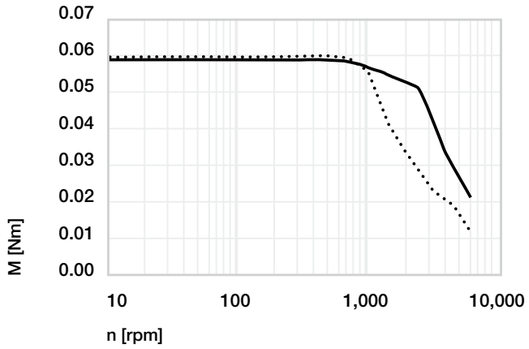
Flange size 28 (NEMA11)

MOT-ST-28-…



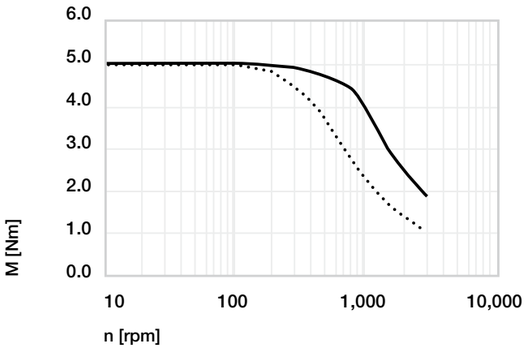
Flange size 28 (NEMA11)

MOT-ST-28-…



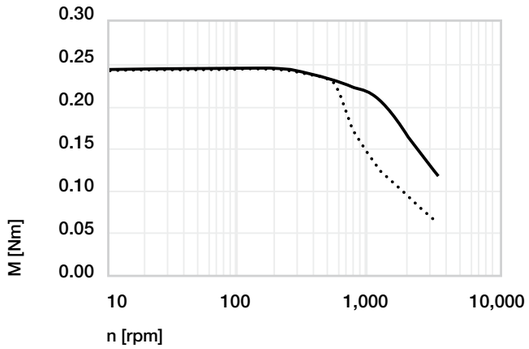
Flange size 42 (NEMA17)

MOT-ST-42-…



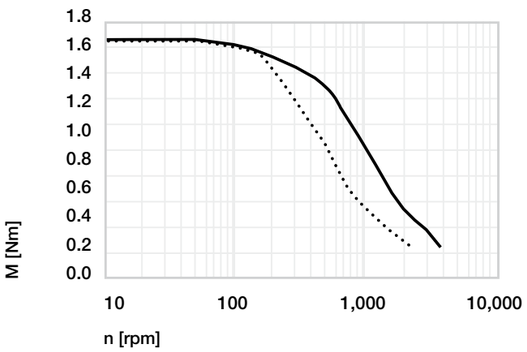
Flange size 42 (NEMA17)

MOT-ST-42-…



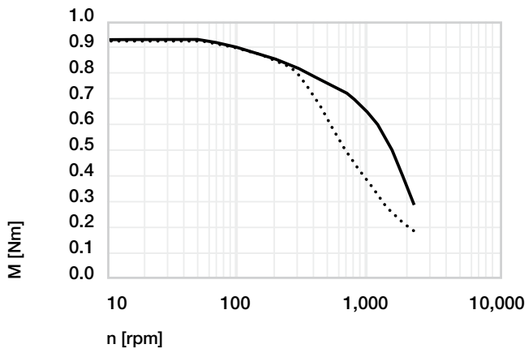
Flange size 56 (NEMA23)

MOT-ST-56-…



Flange size 56 (NEMA23)

MOT-ST-56-…



------- 24VDC ——— 48VDC

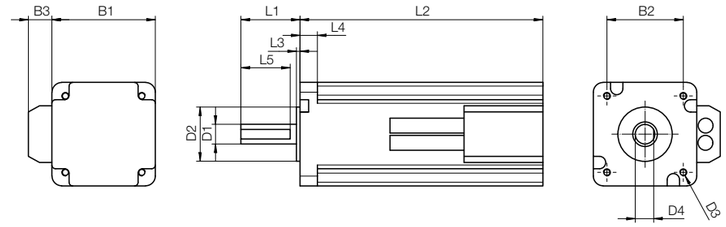
The characteristic curves are determined in quarter step mode

drylin® E | Motors | Product range

EC/BLDC motors with Hall sensor



- Compatible with the most common motor controls
- Available in several installation sizes
- Motor winding: 48 VDC
- Protection class: IP40
- Constant torque over the entire speed range



Technical data

Part No.	Distance over hubs [mm]	NEMA	Connection	Poles (pole pairs)	Nominal current [A]	Rated torque [Nm]	Weight [kg]
MOT-EC-42-C-H-A	42	NEMA17	Molex cable	8 (4)	2.6	0.3	0.75
MOT-EC-56-C-H-A	56	NEMA23	Molex cable	8 (4)	5.0	0.6	1.30
MOT-EC-60-C-H-A	60	NEMA24	Molex cable	8 (4)	7.5	0.8	1.35
MOT-EC-86-C-H-A	86	NEMA34	Molex cable	8 (4)	8.7	1.0	2.30

Dimensions [mm]

Part No.	L1 ±1.0	L2 ±1.0	D1 -0.013	D2 ±0.025	B1	B2 ±0.2	B3
MOT-EC-42-C-H-A	24	99.0	8	22.0	42.0	31.00	9
MOT-EC-56-C-H-A	21	98.0	8	38.1	56.4	47.14	9
MOT-EC-60-C-H-A	21	87.7	8	38.1	60.5	47.15	9
MOT-EC-86-C-H-A	35	80.5	14	73.0	86.0	69.60	9

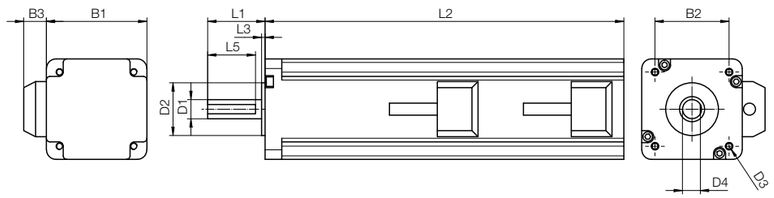
Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

drylin® E | Motors | Product range

EC/BLDC motors with Hall sensor and encoder



- Compatible with the most common motor controls
- Available in several installation sizes
- Encoder with 1,000PPR
- Motor winding: 48 VDC
- Protection class: IP40
- Constant torque over the entire speed range



Technical data

Part No.	Distance over hubs [mm]	NEMA	Connection	Poles (pole pairs)	Nominal current [A]	Rated torque [Nm]	Weight [kg]
MOT-EC-42-C-I-A	42	NEMA17	Molex cable	8 (4)	2.6	0.3	0.8
MOT-EC-56-C-I-A	56	NEMA23	Molex cable	8 (4)	5.0	0.6	1.4
MOT-EC-60-C-I-A	60	NEMA24	Molex cable	8 (4)	7.5	0.8	1.4
MOT-EC-86-C-I-A	86	NEMA34	Molex cable	8 (4)	8.7	1.0	2.5

Dimensions [mm]

Part No.	L1 ±1.0	L2 ±1.0	D1 -0.013	D2 ±0.025	B1	B2 ±0.2	B3
MOT-EC-42-C-I-A	24	115.0	8	22.0	42.0	31.00	9
MOT-EC-56-C-I-A	21	115.0	8	38.1	56.4	47.14	9
MOT-EC-60-C-I-A	21	97.0	8	38.1	60.5	47.15	9
MOT-EC-86-C-I-A	35	110.5	14	73.0	86.0	69.60	9

Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

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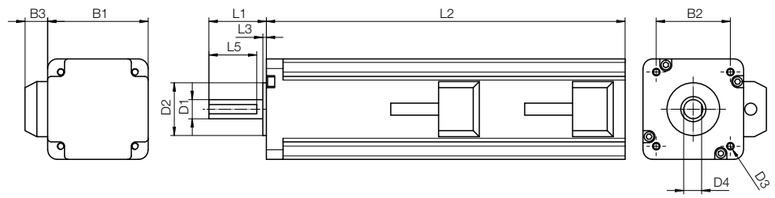
drylin®
motors

drylin® E | Motors | Product range

EC/BLDC motor with Hall sensor, encoder and brake



- Compatible with the most common motor controls
- Available in several installation sizes
- Encoder with 1,000PPR
- Brake up to 1.5Nm holding torque
- Motor winding: 48 VDC
- Protection class: IP40
- Constant torque over the entire speed range



Technical data

Part No.	Distance over hubs [mm]	NEMA	Connection	Poles (pole pairs)	Nominal current [A]	Rated torque [Nm]	Brake holding torque [Nm]	Weight [kg]
MOT-EC-42-C-K-A	42	NEMA17	Molex cable	8 (4)	2.6	0.3	0.5	0.95
MOT-EC-56-C-K-A	56	NEMA23	Molex cable	8 (4)	5.0	0.6	1.5	1.70
MOT-EC-60-C-K-A	60	NEMA24	Molex cable	8 (4)	7.5	0.8	1.5	1.50
MOT-EC-86-C-K-A	86	NEMA34	Molex cable	8 (4)	8.7	1.0	1.5	3.10

Dimensions [mm]

Part No.	L1 ±1.0	L2 ±1.0	D1 -0.013	D2 ±0.025	B1	B2 ±0.2	B3
MOT-EC-42-C-K-A	24	149	8	22.0	42.0	31.00	9
MOT-EC-56-C-K-A	21	149	8	38.1	56.4	47.14	9
MOT-EC-60-C-K-A	21	130	8	38.1	60.5	47.15	9
MOT-EC-86-C-K-A	35	151	14	73.0	86.0	69.60	9

Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

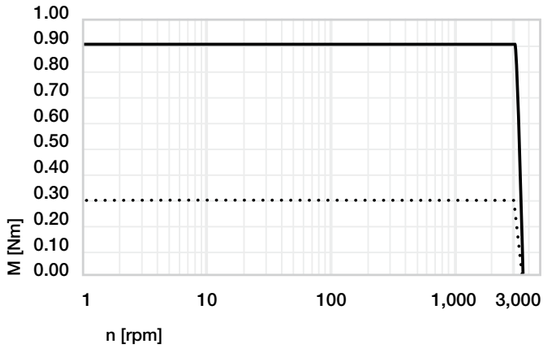
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drylin® E | Motors | Characteristic curves

Characteristic curves for EC motors

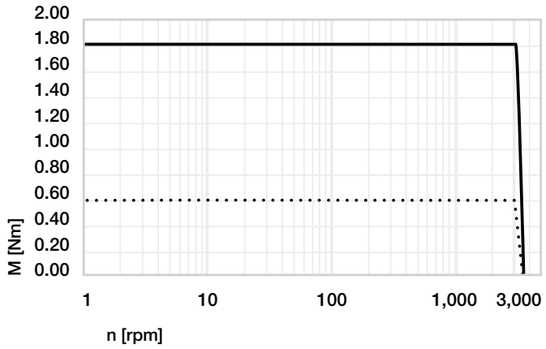
Flange size 42 (NEMA17)

MOT-EC-42-...



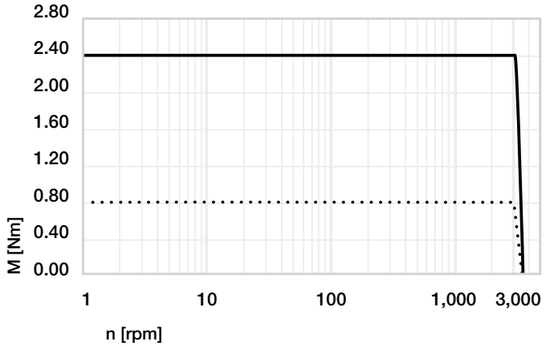
Flange size 56 (NEMA23)

MOT-EC-56-...



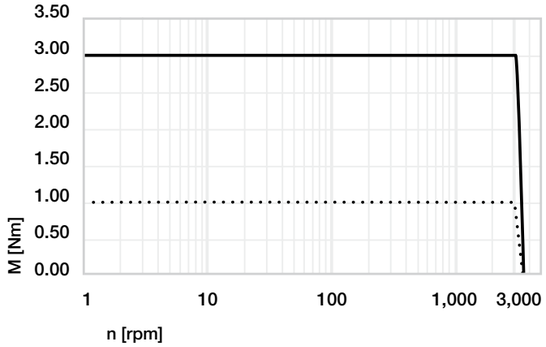
Flange size 60 (NEMA24)

MOT-EC-60-...



Flange size 86 (NEMA34)

MOT-EC-86-...



------- 48VDC nominal —— 48VDC peak

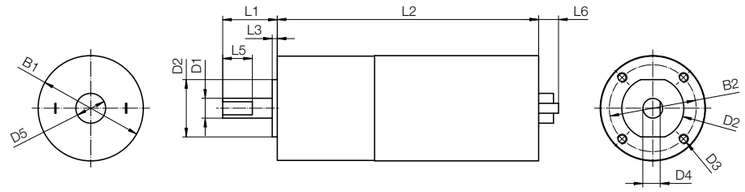
The characteristic curves are determined in quarter step mode

drylin® E | Motors | Product range

DC motors with planetary gear



- Compatible with the most common motor controls
- Available in several installation sizes
- Rated torque up to 1.8Nm
- Protection class: IP40 to IP52



Technical data

Part No.	Distance over hubs [mm]	Connection	Nominal current [A]	Rated torque [Nm]	Start up torque [Nm]	Weight [kg]
MOT-DC-22-F-A-D	22	Flat connector	0.15	0.025	0.13	0.062
MOT-DC-22-F-A-E	22	Flat connector	0.15	0.060	0.35	0.067
MOT-DC-22-F-A-J	22	Flat connector	0.15	0.210	1.18	0.092
MOT-AE-B-024-005-036-F-A-AAAA	36	Flat connector	0.90	0.500	1.00	0.450
MOT-AE-B-024-010-042-F-A-AAAA	42	Flat connector	2.30	1.000	3.00	0.650
MOT-AE-B-024-018-042-F-A-AAAA	42	Flat connector	2.00	1.800	6.00	0.690

Dimensions [mm]

Part No.	L1	L2 ±1.0	L6	D1 -0.013	D2 ±0.025	B1 ±0.3	B2 ±0.2
MOT-DC-22-F-A-D	14.0	50.1	4.5	4	14	22.0	18
MOT-DC-22-F-A-E	14.0	53.8	4.5	4	14	22.0	18
MOT-DC-22-F-A-J	14.0	57.4	4.6	4	14	22.0	18
MOT-AE-B-024-005-036-F-A-AAAA	19.3	85.6	13.5	6	20	36.0	26
MOT-AE-B-024-010-042-F-A-AAAA	22.0	105.2	13.5	8	25	42.4	35
MOT-AE-B-024-018-042-F-A-AAAA	22.0	111.9	13.5	8	25	42.4	35

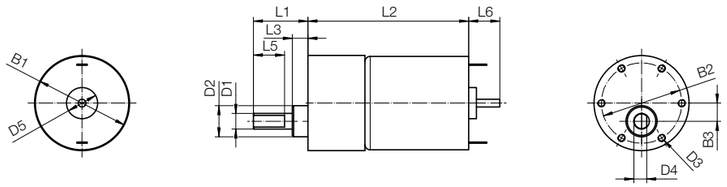
Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

drylin® E | Motors | Product range

Direct-current motors with spur gear



- Compatible with the most common motor controls
- Available in several installation sizes
- Rated torque up to 1.5Nm
- Protection class: IP30



Technical data

Part No.	Distance over hubs [mm]	Connection	Nominal current [A]	Rated torque [Nm]	Start up torque [Nm]	Weight [kg]
MOT-AE-B-024-001-037-F-A-AAAA	37	Flat connector	0.5	0.1	0.3	0.207
MOT-AE-B-024-003-037-F-A-AAAA	37	Flat connector	0.5	0.3	0.5	0.213
MOT-AE-B-024-007-037-F-A-AAAA	37	Flat connector	0.5	0.7	1.0	0.221
MOT-AE-B-024-015-037-F-A-AAAA	37	Flat connector	0.5	1.5	1.8	0.270

Dimensions [mm]

Part No.	L1	L2 ±1.0	L6	D1 -0.013	D2 ±0.025	B1 ±0.3	B2 ±0.3
MOT-AE-B-024-001-037-F-A-AAAA	21	59.5	12	6	12	37	31
MOT-AE-B-024-003-037-F-A-AAAA	21	62.0	12	6	12	37	31
MOT-AE-B-024-007-037-F-A-AAAA	21	64.5	12	6	12	37	31
MOT-AE-B-024-015-037-F-A-AAAA	21	67.0	12	6	12	37	31

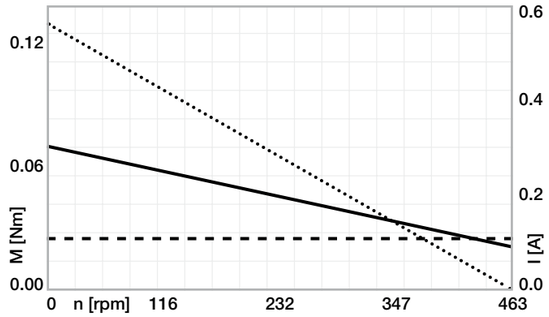
Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

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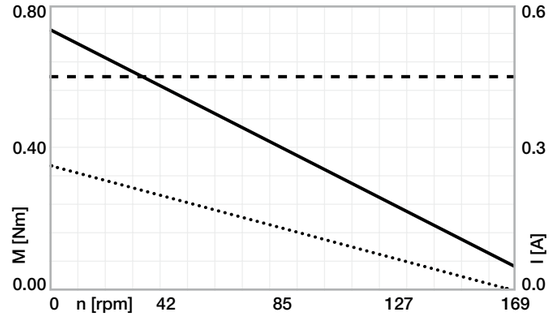
drylin® | DC motors | Characteristic curves

Characteristic curves 24VDC

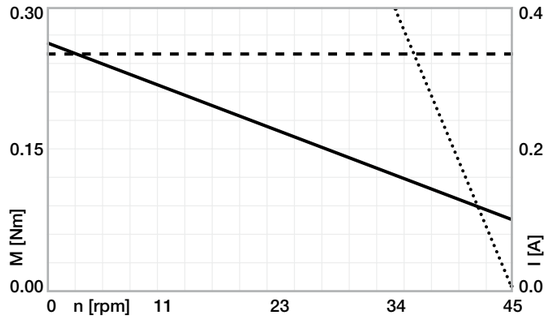
MOT-DC-22-F-A-D



MOT-DC-22-F-A-E

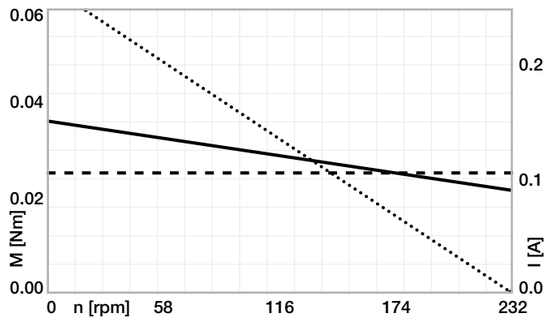


MOT-DC-22-F-A-J

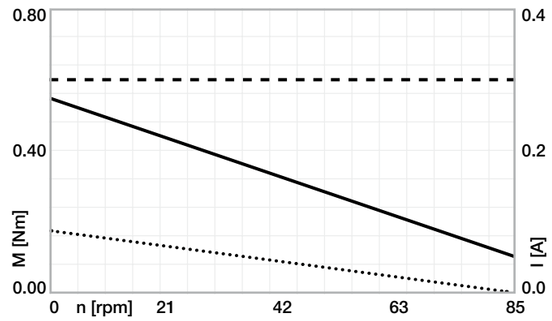


Characteristic curves 12VDC

MOT-DC-22-F-A-D



MOT-DC-22-F-A-E



------- Torque ------- Max. continuous torque —— Motor current

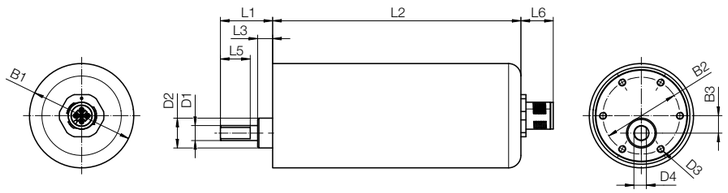
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drylin® E | Motors | Product range

DC motors with spur gear and protective housing



- Compatible with the most common motor controls
- Available in several installation sizes
- Rated torque up to 1.5Nm
- Protection class: IP41



Technical data

Part No.	Distance over hubs	Connection	Nominal current	Rated torque	Start up torque	Weight
	[mm]		[A]	[Nm]	[Nm]	[kg]
MOT-DC-37-M-A-A	37	Metric	0.5	0.1	0.3	0.28
MOT-DC-37-M-A-B	37	Metric	0.5	0.3	0.5	0.28
MOT-DC-37-M-A-D	37	Metric	0.5	0.7	1.0	0.28
MOT-DC-37-M-A-H	37	Metric	0.5	1.5	1.8	0.28

Dimensions [mm]

Part No.	L1	L2	L6	D1	D2	B1	B2
		±1.0		-0.013	±0.025	±0.3	±0.2
MOT-DC-37-M-A-A	21	100	13	6.0	12.0	42.0	31.0
MOT-DC-37-M-A-B	21	100	13	6.0	12.0	42.0	31.0
MOT-DC-37-M-A-D	21	100	13	6.0	12.0	42.0	31.0
MOT-DC-37-M-A-H	21	100	13	6.0	12.0	42.0	31.0

Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

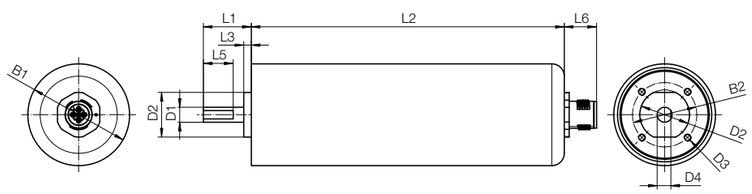
drylin®
motors

drylin® E | Motors | Product range

DC motors with planetary gearbox and protective housing



- Compatible with the most common motor controls
- Available in several installation sizes
- Rated torque up to 1.8Nm
- Protection class: IP41



Technical data

Part No.	Distance over hubs	Connection	Nominal current	Rated torque	Start up torque	Weight
	[mm]		[A]	[Nm]	[Nm]	[kg]
MOT-DC-36-M-A-D	36	Metric	0.9	0.5	1.0	0.42
MOT-DC-42-M-A-D	42	Metric	2.3	1.0	3.0	0.58
MOT-DC-42-M-A-F	42	Metric	2.0	1.8	6.0	0.58

Dimensions [mm]

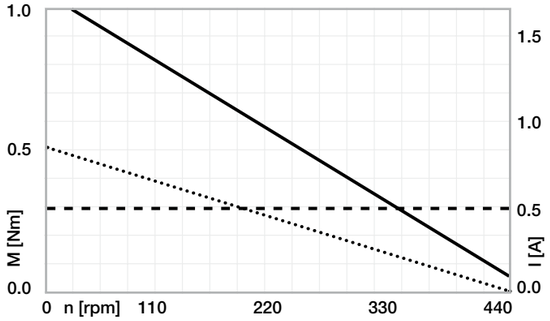
Part No.	L1	L2	L6	D1	D2	B1	B2
		±1.0		-0.013	±0.025	±0.3	±0.2
MOT-DC-36-M-A-D	19.3	126	13	6.0	20.0	41.0	26
MOT-DC-42-M-A-D	22.0	146	13	8.0	25.0	47.3	35
MOT-DC-42-M-A-F	22.0	146	13	8.0	25.0	47.3	35

Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

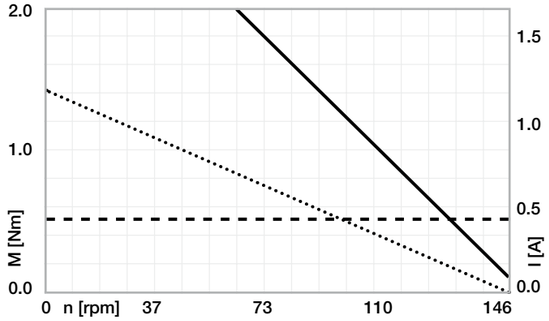
drylin® | DC motors | Characteristic curves

Characteristic curves 24VDC

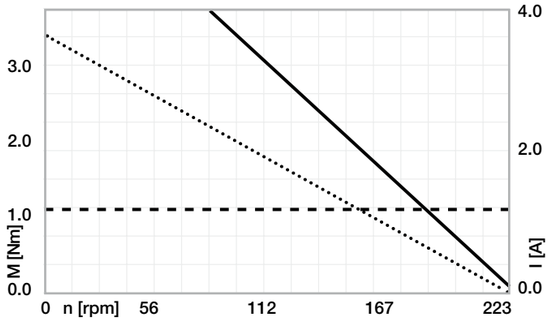
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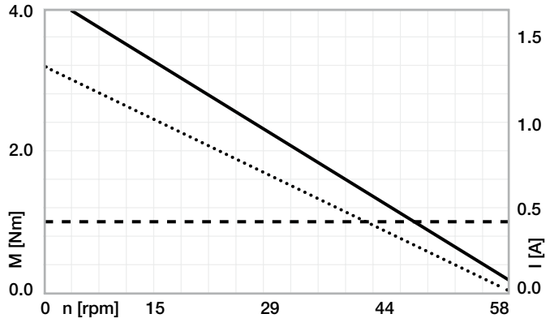
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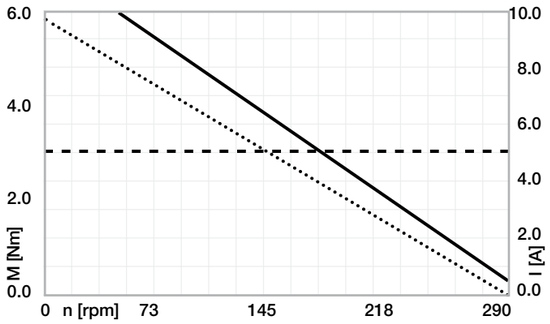
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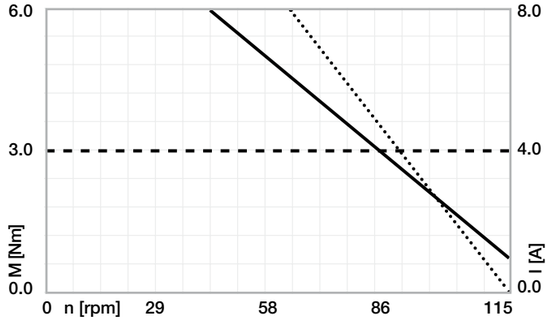
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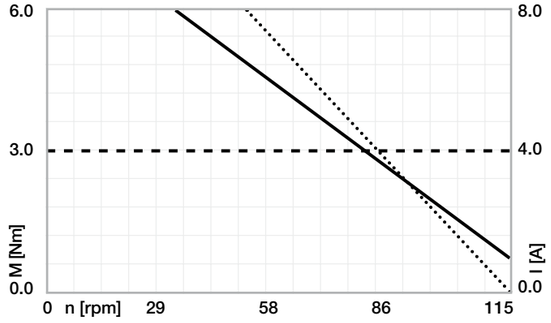
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MOT-AE-B-024-018-042-F-A-AAAA / MOT-DC-42-M-A-F



MOT-AE-B-024-020-042-F-A-AAAA / MOT-DC-42-M-A-F



------- Torque ------- Max. continuous torque —— Motor current

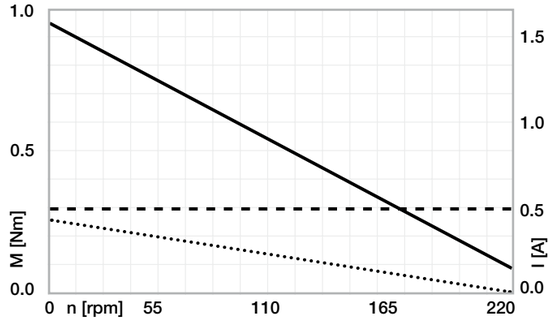
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drylin®
motors

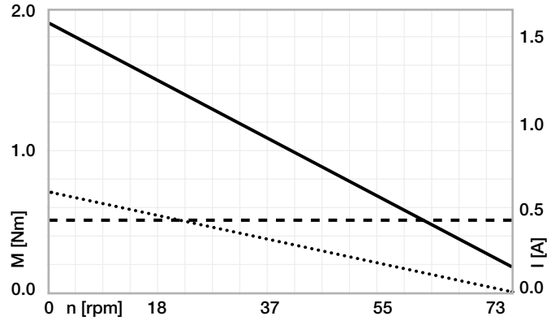
drylin® | DC motors | Characteristic curves

Characteristic curves 12VDC

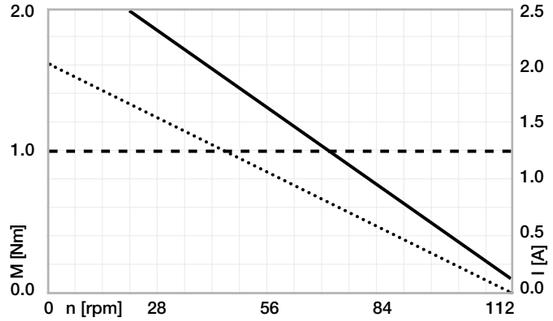
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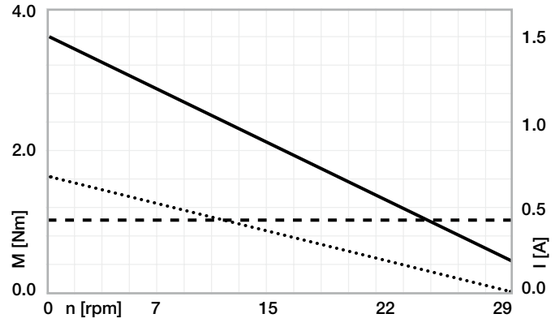
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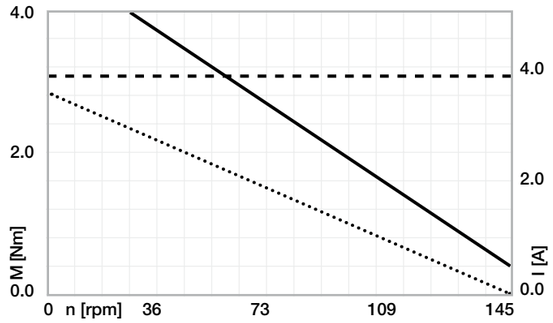
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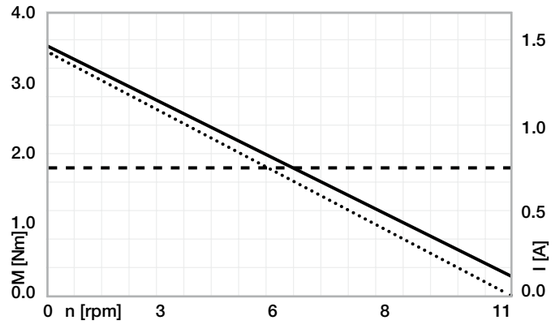
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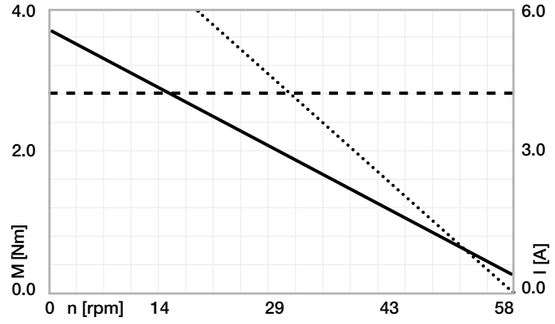
MOT-AE-B-024-010-042-F-A-AAAA / MOT-DC-42-M-A-D



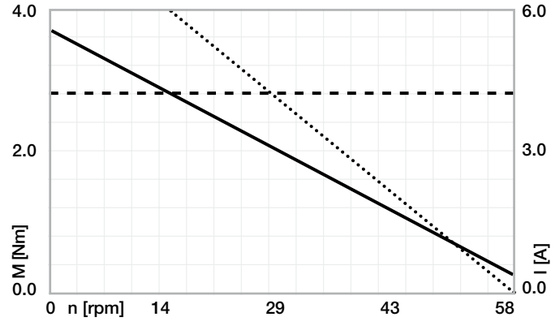
MOT-AE-B-024-015-037-F-A-AAAA / MOT-DC-37-M-A-H



MOT-AE-B-024-018-042-F-A-AAAA / MOT-DC-42-M-A-F



MOT-AE-B-024-020-042-F-A-AAAA / MOT-DC-42-M-A-F



------- Torque ------- Max. continuous torque —— Motor current

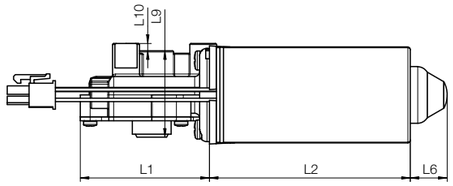
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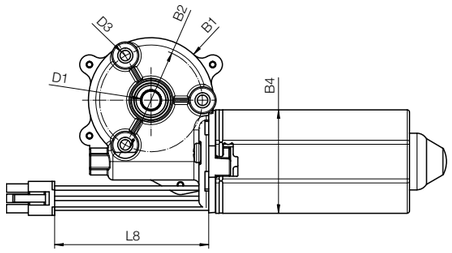
drylin® E | Motors | Product range New

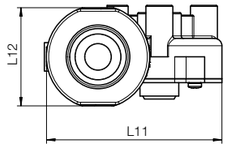
DC motors with spline gears



- Compatible with the most common motor controls
- Available in several installation sizes
- High torque with small motors
- Protection class: IP41
- Space-saving in conjunction with drive technology







Technical data

Part No.		Distance over hubs [mm]	Connection	Nominal current [A]	Rated torque [Nm]	Start up torque [Nm]	Weight [kg]
MOT-DC-42-J-H-B	New	42	Molex stranded wire	1.5	2.00	10.0	0.7
MOT-DC-42-J-H-D	New	42	Molex stranded wire	2.8	1.75	8.0	0.7
MOT-DC-42-J-H-F	New	42	Molex stranded wire	1.9	1.25	7.5	0.7
MOT-DC-42-J-H-H	New	42	Molex stranded wire	1.9	0.75	5.0	0.7
MOT-DC-42-J-H-J	New	42	Molex stranded wire	4.0	3.00	18.0	0.7
MOT-DC-42-J-H-L	New	42	Molex stranded wire	4.0	2.50	13.0	0.7
MOT-DC-42-J-H-N	New	42	Molex stranded wire	5.0	1.60	7.0	0.7
MOT-DC-42-J-H-P	New	42	Molex stranded wire	4.0	1.40	9.0	0.7

Dimensions [mm]

Part No.		L1	L2	L6	L8	D1	D2	B1	B2
MOT-DC-42-J-H-□	New	55	81.65	15.97	42	7x8	M5	51	42 (3x120°)

dryspin® motor lead screw with spline
▶ Page 392

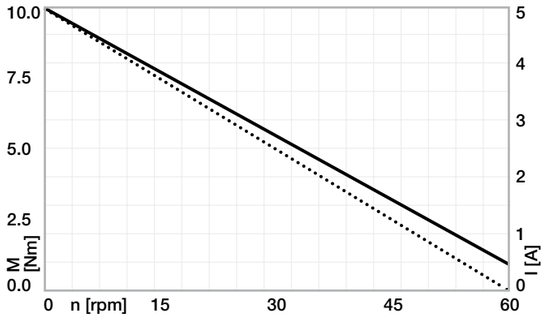
Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

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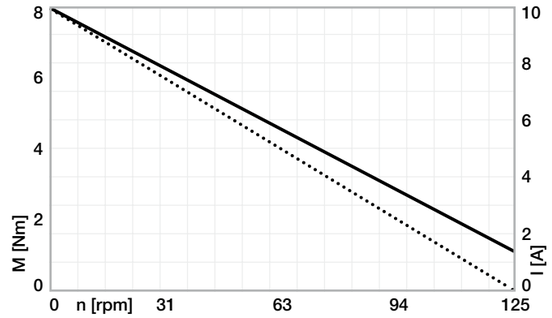
drylin® | DC motors | Characteristic curves

Characteristic curves 24VDC

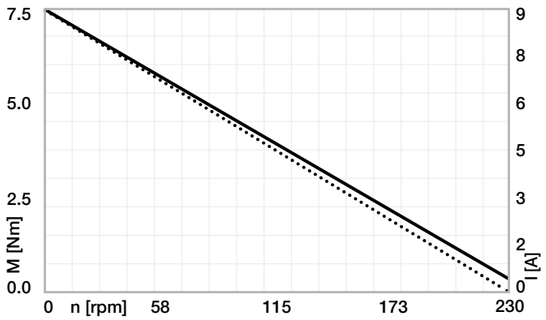
MOT-DC-42-J-H-B



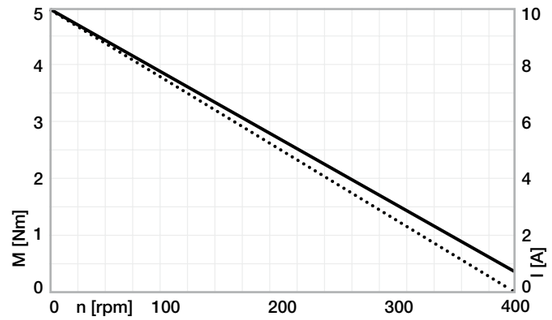
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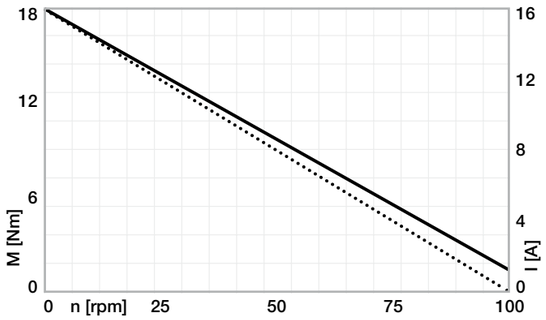
MOT-DC-42-J-H-F



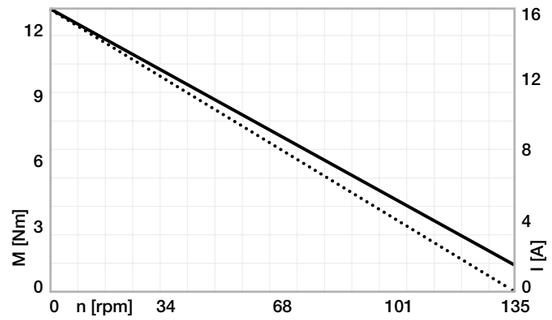
MOT-DC-42-J-H-H



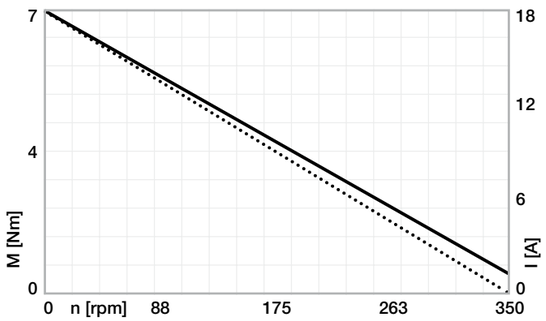
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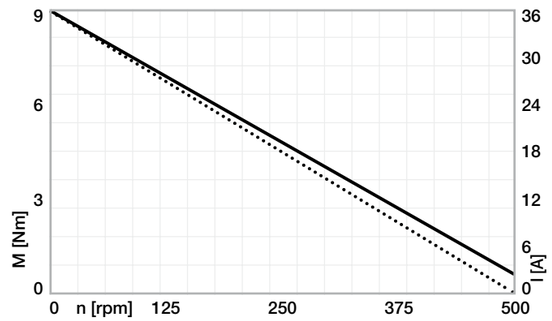
MOT-DC-42-J-H-L



MOT-DC-42-J-H-N



MOT-DC-42-J-H-P



------- Torque —— Motor current

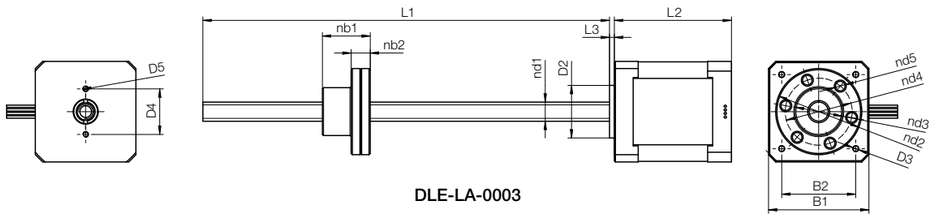
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drylin® E | Motors | Product range

Linear actuator



- Compatible with the most common motor controls
- Available in three installation sizes
- Holding torque up to 2Nm
- Protection class: IP40
- Axial load up to 500N
- Integrated lead screw and nut



DLE-LA-0003

Technical data

Part No.	Distance over hubs [mm]	NEMA	Connection	Nominal current [A]	Holding torque [Nm]	Max. Axial force [N]	dryspin® technology	Weight [kg]
DLE-LA-0001	28	NEMA11	Stranded wire	1.0	0.12	50	Ds6.35x5.08	0.225
DLE-LA-0003	42	NEMA17	Stranded wire	1.8	0.50	100	Ds8x15	0.44
DLE-LA-0005	56	NEMA23	Stranded wire	4.2	2.00	500	Ds10x12	1.18

Dimensions [mm]

Part No.	L2 ±1.0	L3	D2 ±0.025	B1	B2 ±0.2	Usable stroke
DLE-LA-0001	51	2.0	22.0	28.2	23.00	100
DLE-LA-0003	49	2.0	22.0	42.3	31.00	150
DLE-LA-0005	76	1.6	38.1	56.4	47.14	200

dryspin® lead screws with precision machined ends ▶ Page 391

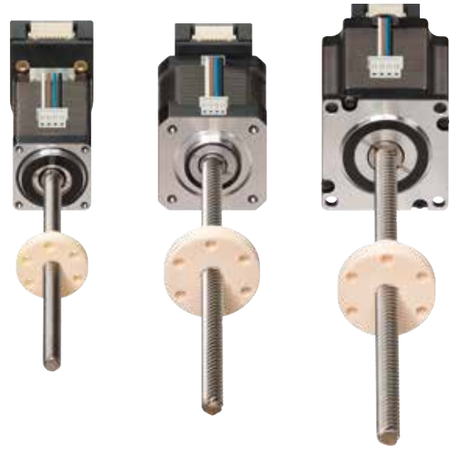
Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

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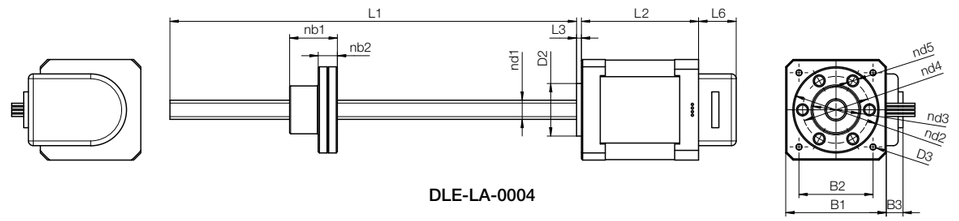
drylin®
motors

drylin® E | Motors | Product range

Linear actuator with encoder



- Compatible with the most common motor controls
- Available in several installation sizes
- Holding torque up to 2Nm
- Protection class: IP40
- Axial load up to 500N
- Integrated lead screw and nut



DLE-LA-0004

Technical data

Part No.	Distance over hubs [mm]	NEMA	Connection	Nominal current [A]	Holding torque [Nm]	Max. Axial force [N]	dryspin® technology	Weight [kg]
DLE-LA-0002	28	NEMA11	Stranded wire	1.0	0.12	50	Ds6.35x5.08	0.245
DLE-LA-0004	42	NEMA17	Stranded wire	1.8	0.50	100	Ds8x15	0.46
DLE-LA-0006	56	NEMA23	Stranded wire	4.2	2.00	500	Ds10x12	1.20

Dimensions [mm]

Part No.	L2 ±1.0	L3	L6	D2 ±0.025	B1	B2 ±0.2	Usable stroke
DLE-LA-0002	51	2.0	15.2	22.0	28.2	23.00	100
DLE-LA-0004	49	2.0	16.0	22.0	42.3	31.00	150
DLE-LA-0006	76	1.6	16.0	38.1	56.4	47.14	200

dryspin® lead screws with precision machined ends ▶ Page 391

Further technical data, downloads and ordering options at ▶ www.igus.eu/motors

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drylin® | Motor control systems | D1 dryve

For DC, EC/BLDC and stepper motors



Travel distances, positions, speeds, operating times - easily defined in the new web-based control system from igus®.

A simple and intuitive browser-based user interface, extensive functionality with the option of "remote control" via Ethernet (Intranet) or bus system - "dryve" is the simple motor control method from igus® for your linear guide system.

New: The drylin® D2 is a drylin® D1 (without housing) for small installation spaces, such as in desktop devices

- Control via laptop, tablet or smartphone possible
- Suitable for all drylin® axes
- For DC, EC and stepper motors
- Communication by means of CANopen, Ethernet and digital inputs and outputs
- Compatible with many industrial control systems
- Cost-effective



Connections and displays

1. Voltage supply
2. Digital inputs
3. Digital outputs
4. Analogue inputs
5. Motor & brake connection
6. Angular encoder
7. CANopen
8. Ethernet
9. Advertisement

Available from stock
Detailed information about delivery time online.

Technical data and further options
▶ www.igus.eu/dryve

drylin® | Motor control systems | D3 dryve

For DC motors

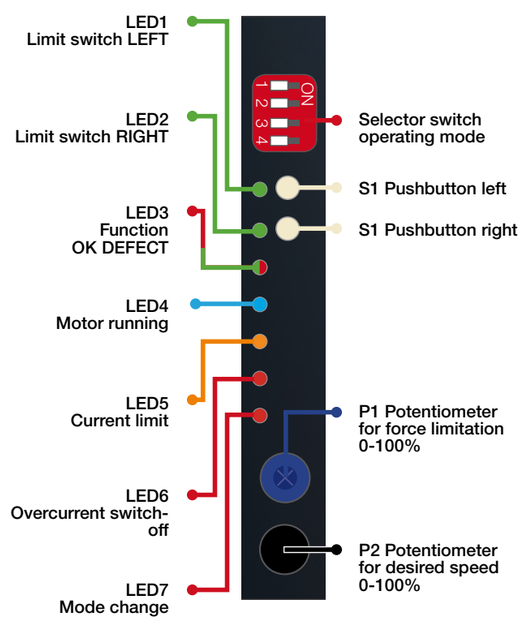


D3 dryve motor control unit makes it possible to easily control linear systems

The D3 dryve is a cost-effective control system for direct-current motors and is ready to use immediately. It can be connected quickly and is very easy to use – without any additional connection work. Buttons and rotary controls on the housing make it possible to control linear carriages without a PC, laptop or tablet. Different speeds as well as starting modes can be set.

- Easy to use, quick to connect
- Controls on the device make it possible to activate linear carriages, for example (anticlockwise/clockwise operation, speed, step mode or continuous operation)
- Different speeds and starting modes possible
- Can be combined with switches or joysticks
- Cost-effective, everything necessary and immediately ready for use for e. g. control on a camera slider

D3 dryve motor control system for all igus® DC motors



Available from stock
Detailed information about delivery time online.

Technical data and further options
▶ www.igus.eu/dryve

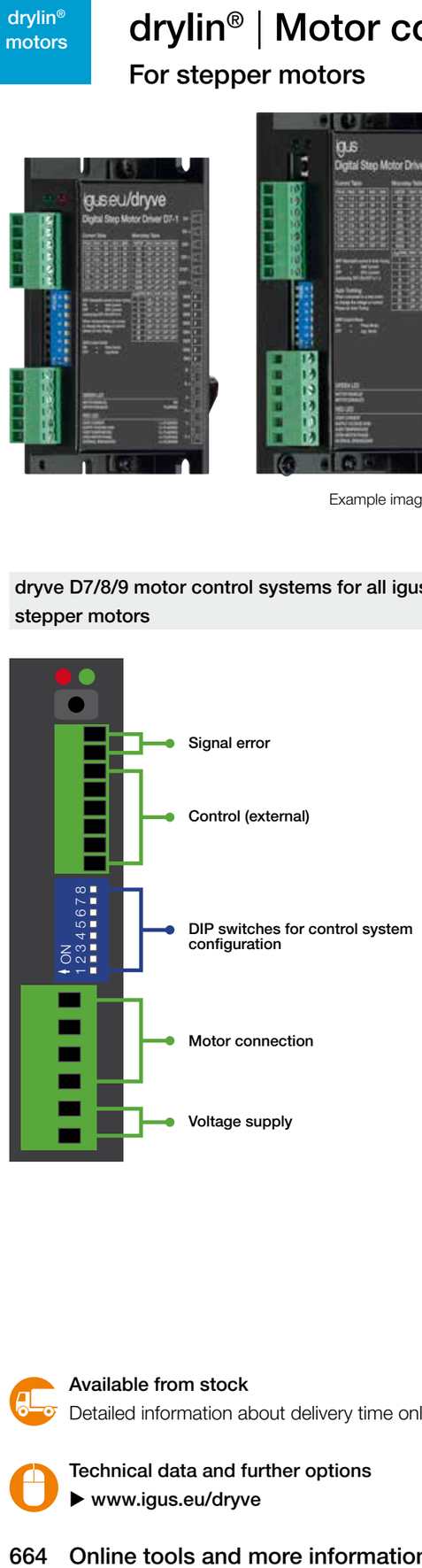
drylin® | Motor control system | D7/8/9 dryve New

For stepper motors



Example image

dryve D7/8/9 motor control systems for all igus® stepper motors



D7/8/9 dryve motor control units make it possible to easily control linear systems

The D7/8/9 control systems are low-cost, ready-to-use stepper motor controllers. They are quick and easy to connect. You can use the DIP switches to set the motor control system according to your needs.

- No software or app installation is necessary
- Quick initial operation
- Compatible with numerous industrial control systems (e.g. he Siemens S7 / Beckhoff)
- For stepper motors
- Cost-effective

Available from stock
Detailed information about delivery time online.

Technical data and further options
▶ www.igus.eu/dryve

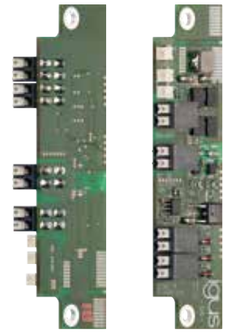
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drylin® | Motor control system | D5/6 dryve New

Drives for DC motors

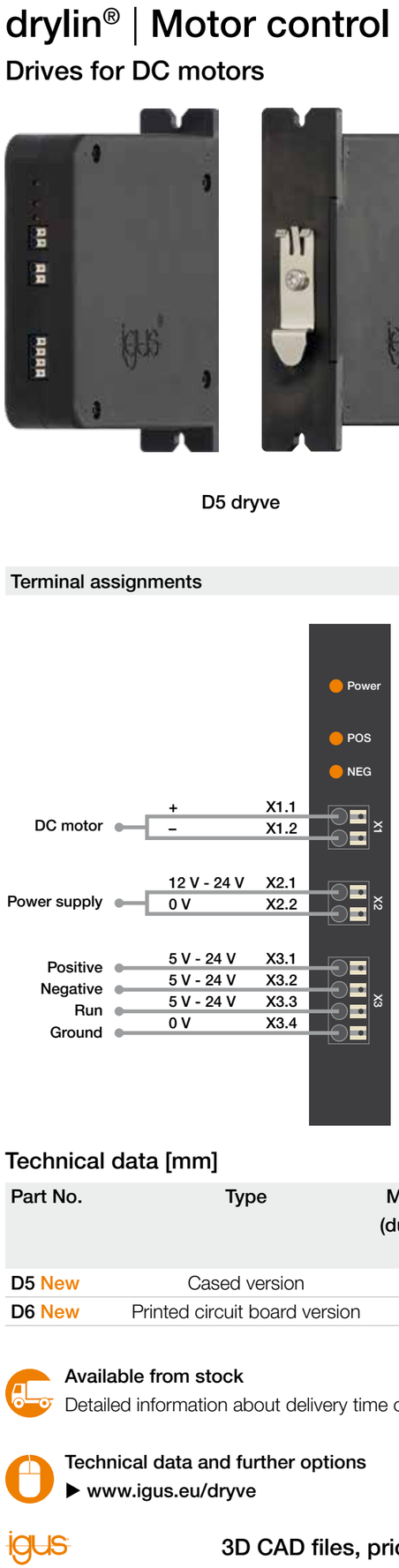


D5 dryve



D6 dryve

Terminal assignments



- Control DC motors
- Suitable for all igus® DC motors
- Motor speed can be controlled via PWM
- Easy installation of switch cabinet on TS35 rail

Technical data [mm]

Part No.	Type	Motor current (duration/peak) [A]	Nominal voltage [V]	Protection class	Weight [g]
D5 New	Cased version	10/30	12-24	IP20	130
D6 New	Printed circuit board version	10/30	12-24	IP00	20

Available from stock
Detailed information about delivery time online.

Technical data and further options
▶ www.igus.eu/dryve

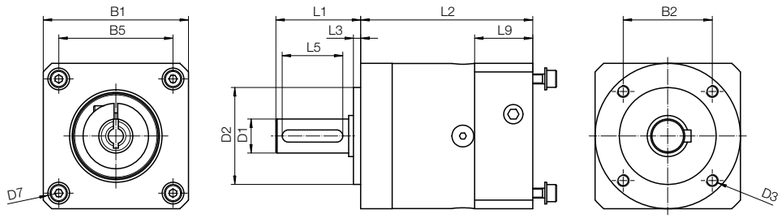
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drylin® | Motor control system | Accessories New

Planetary gear for stepper motors



- Planetary gearbox for EC/BLDC and stepper motors
- Increased torque
- Higher holding torque
- Various reduction ratios
- Compatible with motors with flange 42 / NEMA17



Technical data and dimensions [mm]

Part No.		Gear reduction	Suitable for motor size	Motor diameter	Length	Nominal output torque [Nm]	Drive shaft diameter	Weight [kg]
GEA-40-3-40-ST-050	New	3	NEMA17	5	66.5	11	50	0.35
GEA-40-3-40-ST-080	New	3	NEMA17	8	66.5	11	80	0.35
GEA-40-5-40-ST-050	New	5	NEMA17	5	66.5	14	50	0.35
GEA-40-5-40-ST-080	New	5	NEMA17	8	66.5	14	80	0.35
GEA-40-10-40-ST-050	New	10	NEMA17	5	66.5	5	50	0.35
GEA-40-10-40-ST-080	New	10	NEMA17	8	66.5	5	80	0.35
GEA-40-15-40-ST-050	New	15	NEMA17	5	79.5	18	50	0.45
GEA-40-15-40-ST-080	New	15	NEMA17	8	79.5	18	80	0.45
GEA-40-20-40-ST-050	New	20	NEMA17	5	79.5	20	50	0.45
GEA-40-20-40-ST-080	New	20	NEMA17	8	79.5	20	80	0.45
GEA-40-40-40-ST-050	New	40	NEMA17	5	79.5	18	50	0.45
GEA-40-40-40-ST-080	New	40	NEMA17	8	79.5	18	80	0.45

Part No.		B1	B2	D1	D2	L1	L2
GEA-40-3-40-ST-050	New	40	24	12	26	26	67.5
GEA-40-3-40-ST-080	New	40	24	12	26	26	67.5
GEA-40-5-40-ST-050	New	40	24	12	26	26	67.5
GEA-40-5-40-ST-080	New	40	24	12	26	26	67.5
GEA-40-10-40-ST-050	New	40	24	12	26	26	67.5
GEA-40-10-40-ST-080	New	40	24	12	26	26	67.5
GEA-40-15-40-ST-050	New	40	24	12	26	26	80.5
GEA-40-15-40-ST-080	New	40	24	12	26	26	80.5
GEA-40-20-40-ST-050	New	40	24	12	26	26	80.5
GEA-40-20-40-ST-080	New	40	24	12	26	26	80.5
GEA-40-40-40-ST-050	New	40	24	12	26	26	80.5
GEA-40-40-40-ST-080	New	40	24	12	26	26	80.5

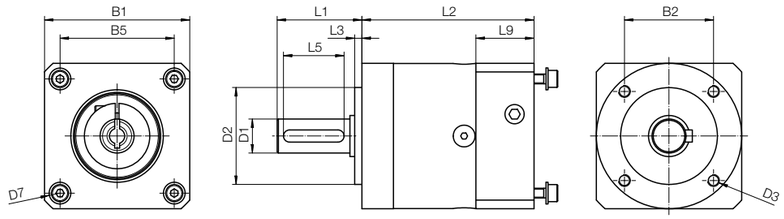
Available from stock
Detailed information about delivery time online.

drylin® | Motors | Accessories

Planetary gear for stepper motors



- Planetary gearbox for EC/BLDC and stepper motors
- Increased torque
- Higher holding torque
- Various reduction ratios
- Compatible with motors with flange 56 / NEMA23 and with flange 60 / NEMA24



Technical data and dimensions [mm]

Part No.	Gear reduction	Suitable for motor size	Nominal output torque [Nm]	Drive shaft diameter	Weight [kg]
GEA-60-3-60-ST-063	3	NEMA23	28	63	0.88
GEA-60-3-60-ST-080	3	NEMA24/23	28	80	0.88
GEA-60-5-60-ST-063	5	NEMA23	40	63	0.89
GEA-60-5-60-ST-080	5	NEMA24/23	40	80	0.89
GEA-60-10-60-ST-063	10	NEMA23	15	63	0.90
GEA-60-10-60-ST-080	10	NEMA24/23	15	80	0.90
GEA-60-15-60-ST-063	15	NEMA23	44	63	1.05
GEA-60-15-60-ST-080	15	NEMA24/23	44	80	1.05
GEA-60-20-60-ST-063	20	NEMA23	44	63	1.10
GEA-60-20-60-ST-080	20	NEMA24/23	44	80	1.10
GEA-60-40-60-ST-063	40	NEMA23	40	63	1.10
GEA-60-40-60-ST-080	40	NEMA24	40	80	1.10

Part No.	B1	B2	D1	D2	L1	L2
GEA-60-3-60-ST-063	60	36.7	14	40	35	71
GEA-60-3-60-ST-080	60	36.7	14	40	35	71
GEA-60-5-60-ST-063	60	36.7	14	40	35	71
GEA-60-5-60-ST-080	60	36.7	14	40	35	71
GEA-60-10-60-ST-063	60	36.7	14	40	35	71
GEA-60-10-60-ST-080	60	36.7	14	40	35	71
GEA-60-15-60-ST-063	60	36.7	14	40	35	84
GEA-60-15-60-ST-080	60	36.7	14	40	35	84
GEA-60-20-60-ST-063	60	36.7	14	40	35	84
GEA-60-20-60-ST-080	60	36.7	14	40	35	84
GEA-60-40-60-ST-063	60	36.7	14	40	35	84
GEA-60-40-60-ST-080	60	36.7	14	40	35	84

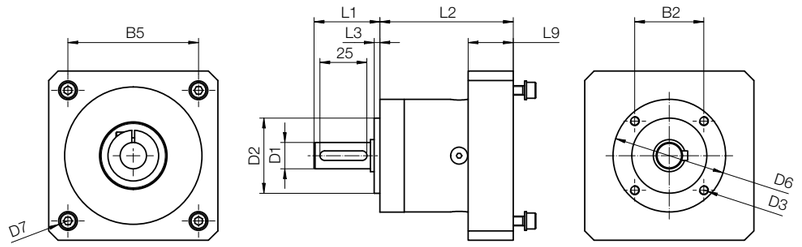
Available from stock
Detailed information about delivery time online.

drylin® | Motors | Accessories

Planetary gear for stepper motors



- Planetary gearbox for EC/BLDC and stepper motors
- Increased torque
- Higher holding torque
- Various reduction ratios
- Compatible with motors with flange 86 / NEMA34



Technical data and dimensions [mm]

Part No.	Gear reduction	Suitable for motor size	Nominal output torque [Nm]	Drive shaft diameter	Weight [kg]
GEA-60-3-90-ST-140	3	NEMA34	28	140	1.35
GEA-60-5-90-ST-140	5	NEMA34	28	140	1.37
GEA-60-10-90-ST-140	10	NEMA34	40	140	1.40
GEA-60-15-90-ST-140	15	NEMA34	40	140	1.55
GEA-60-20-90-ST-140	20	NEMA34	15	140	1.65
GEA-60-40-90-ST-140	40	NEMA34	15	140	1.65

Part No.	B1	B2	D1	D2	L1	L2
GEA-60-3-90-ST-140	60	36.7	14	40	35	86
GEA-60-5-90-ST-140	60	36.7	14	40	35	86
GEA-60-10-90-ST-140	60	36.7	14	40	35	86
GEA-60-15-90-ST-140	60	36.7	14	40	35	99
GEA-60-20-90-ST-140	60	36.7	14	40	35	99
GEA-60-40-90-ST-140	60	36.7	14	40	35	99

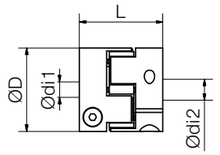
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drylin®
motors

drylin® | Motors | Accessories

Coupling - vibration dampening and easy fitting





The coupling connects the drive pin of the axis to the motor. An elastic polymer insert in the centre of the coupling transfers the motor torque. This damping element compensates for radial and axial clearance.

- 20 versions from stock
- Vibration dampening and pluggable

Coupling material: Aluminium. TPU elastomeric centre. Shore hardness: 98 Sh A. Temperature range -30°C to +100°C.

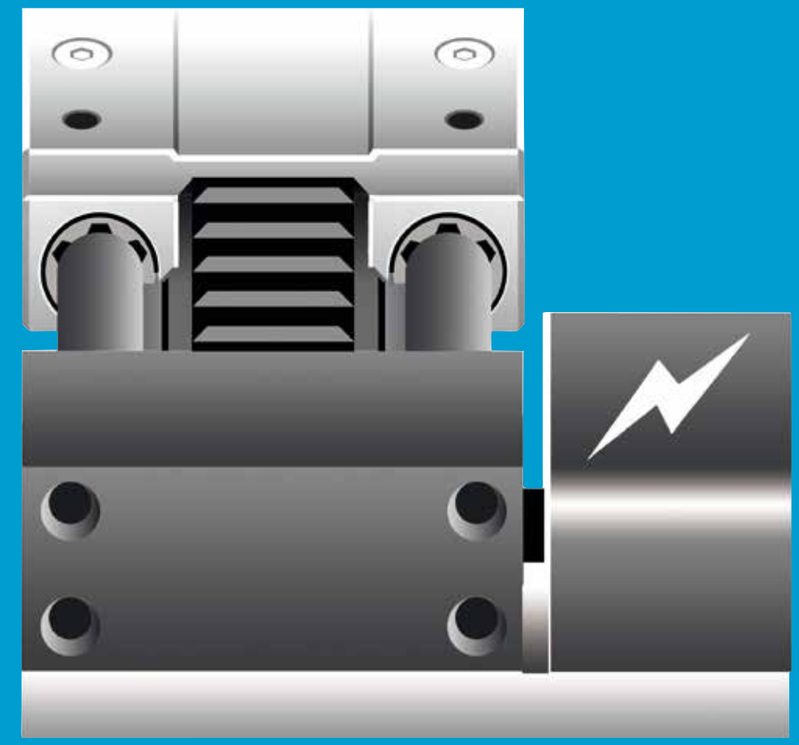
Toothed belt axis	Motor type	Coupling	Techn. data - coupling D [mm]	di1 [mm]	di2 [mm]	L [mm]	Weight [kg]
ZLW-0630-B	NEMA17	COU-AR-K-050-000-25-26-B-AAAB	25.00	5.00	□6.00	26.00	0.02
	NEMA23	COU-AR-K-063-000-25-26-B-AAAB	25.00	6.35	□6.00	26.00	0.02
	DC motor31	COU-AR-K-060-000-25-26-B-AAAB	25.00	6.00	□6.00	26.00	0.02
ZLW-0630-S	NEMA17	COU-AR-K-050-080-25-26-B-AAAA	25.00	5.00	8.00	26.00	0.02
	NEMA23	COU-AR-K-063-080-25-26-B-AAAA	25.00	6.35	8.00	26.00	0.02
	DC motor31	COU-AR-K-060-080-25-26-B-AAAA	25.00	6.00	8.00	26.00	0.02
ZLW-1040-B / ZAW	NEMA17	COU-AR-K-050-000-25-26-B-AAAB	25.00	5.00	□6.00	26.00	0.02
	NEMA23	COU-AR-K-063-000-25-26-B-AAAB	25.00	6.35	□6.00	26.00	0.02
	NEMA23XL	COU-AR-K-080-000-25-26-B-AAAB	25.00	8.00	□6.00	26.00	0.02
	DC motor31	COU-AR-K-060-000-25-26-B-AAAB	25.00	6.00	□6.00	26.00	0.02
ZLW-1040-S / ZAW	NEMA23	COU-AR-K-063-100-32-32-B-AAAA	32.00	6.35	10.00	32.00	0.05
	NEMA23XL	COU-AR-K-080-100-32-32-B-AAAA	32.00	8.00	10.00	32.00	0.05
	NEMA34	COU-AR-K-140-100-32-32-B-AAAA	32.00	14.00	10.00	32.00	0.05
	DC motor31	COU-AR-K-060-100-32-32-B-AAAA	32.00	6.00	10.00	32.00	0.05
ZLW-1660-S	NEMA34	COU-AR-K-140-140-32-32-B-AAAA	32.00	14.00	14.00	32.00	0.05

Lead screw axis	Motor type	Coupling	D	di1 [mm]	di2 [mm]	L [mm]	Weight [kg]
SAW-0630 / SLW-BB-0630	NEMA17	COU-AR-K-050-080-25-26-B-AAAA	25.00	5.00	8.00	26.00	0.02
	DC motor31	COU-AR-K-060-080-25-26-B-AAAA	25.00	6.00	8.00	26.00	0.02
SAW-1040 / SLW-(BB)-1040	NEMA17	COU-AR-K-050-100-32-32-B-AAAA	32.00	5.00	10.00	32.00	0.05
	NEMA23	COU-AR-K-063-100-32-32-B-AAAA	32.00	6.35	10.00	32.00	0.05
	NEMA23XL	COU-AR-K-080-100-32-32-B-AAAA	32.00	8.00	10.00	32.00	0.05
	DC motor31	COU-AR-K-060-100-32-32-B-AAAA	32.00	6.00	10.00	32.00	0.05
SLW-(BB)-1660	NEMA23	COU-AR-K-063-140-32-32-B-AAAA	32.00	6.35	14.00	32.00	0.05
	NEMA23XL	COU-AR-K-080-140-32-32-B-AAAA	32.00	8.00	14.00	32.00	0.05
SLW-(BB)-2080	NEMA23	COU-AR-K-063-120-32-32-B-AAAA	32.00	6.35	12.00	32.00	0.05
	NEMA23XL	COU-AR-K-080-120-32-32-B-AAAA	32.00	8.00	12.00	32.00	0.05
	NEMA34	COU-AR-K-140-120-32-32-B-AAAA	32.00	14.00	12.00	32.00	0.05
SHT-(BB)-12	NEMA17	COU-AR-K-050-100-32-32-B-AAAA	32.00	5.00	10.00	32.00	0.05
	NEMA23	COU-AR-K-063-100-32-32-B-AAAA	32.00	6.35	10.00	32.00	0.05
	NEMA23XL	COU-AR-K-080-100-32-32-B-AAAA	32.00	8.00	10.00	32.00	0.05
	DC motor31	COU-AR-K-060-100-32-32-B-AAAA	32.00	6.00	10.00	32.00	0.05
SHT-(BB)-20	NEMA23	COU-AR-K-063-120-32-32-B-AAAA	32.00	6.35	12.00	32.00	0.05
	NEMA23XL	COU-AR-K-080-120-32-32-B-AAAA	32.00	8.00	12.00	32.00	0.05
	NEMA34	COU-AR-K-140-120-32-32-B-AAAA	32.00	14.00	12.00	32.00	0.05
SHT-(BB)-30	NEMA34	COU-AR-K-140-140-32-32-B-AAAA	32.00	14.00	14.00	32.00	0.05

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Notes

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drylin® E - accessories

Cables and proximity switches

Brake resistors

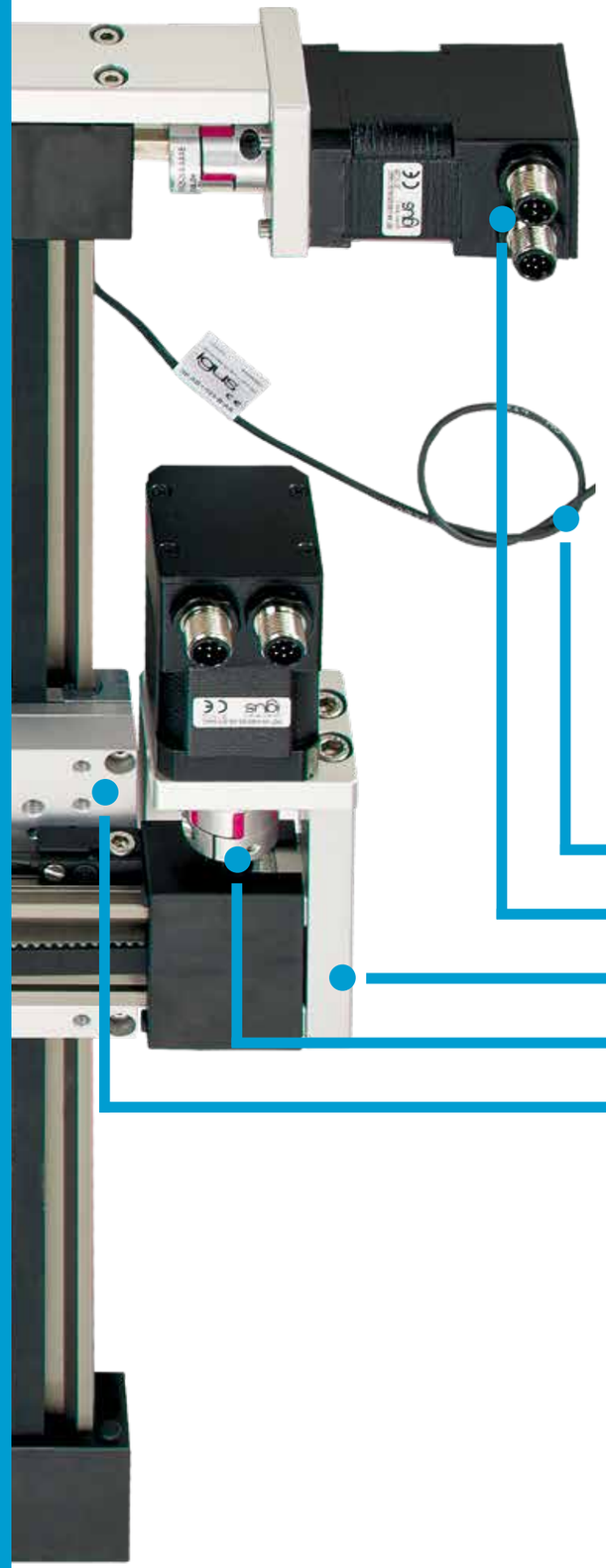
Motor flange

Mounting accessories

Fasteners



Automation from stock



Accessories for drylin® linear axes

Almost every drylin® linear axis can be retrofitted with a corresponding motor and accessories such as initiators (proximity switches). igus® offers a large modular system of motors, matching couplings and motor flanges plus many practical components for the combination of linear axes as well as fastening material.

- Connection of stepper motors and DC motors
- Linear robot structures
- Numerous fastening options

chainflex® motor and encoder cables

drylin® stepper and DC motors

Motor flange made of aluminium

Couplings for motor and shaft connection

Adapter plates for linear robot structures

Available from stock
Detailed information about delivery time online.

Electric traversing, manual installation





Cables and proximity switches

- chainflex® connection cables with straight or angled connectors
- Proximity switches: limit and reference switches
- For drylin® linear modules and toothed belt axes

▶ Page 674



Motor flange

- Motor connection for drylin® linear axes
- For stepper and DC motors
- Suitable for igus® couplings

▶ Page 680



Mounting accessories

- Adapter plates for linear robot structures
- Spacer for height adjustment of SHT/SLW linear modules
- Mounting material

▶ Page 681

drylin® E | Accessories | Product range

Connecting cables for NEMA stepper motors with metric connectors



The ideal complement to the drylin® product range provides chainflex® connection cables.

- Suitable for energy chains
- Shielded and oil-resistant
- Straight and angled connectors

Flange size 28 (NEMA11), 42 (NEMA17), 56 (NEMA23), 60 (NEMA24)

Part No.	Jacket	Cable type	Cable length [m]	Connector
Motor cable M12				
DLE904121451-3	TPE	CF9.03.05.INI	3.0	straight
DLE904121451-5	TPE	CF9.03.05.INI	5.0	straight
DLE904121451-10	TPE	CF9.03.05.INI	10.0	straight
DLE904121452-3	TPE	CF9.03.05.INI	3.0	angled
DLE904121452-5	TPE	CF9.03.05.INI	5.0	angled
DLE904121452-10	TPE	CF9.03.05.INI	10.0	angled
Motor cable JST				
DLE904121461-3 New	TPE	CF9.03.05.INI	3.0	straight
DLE904121461-5 New	TPE	CF9.03.05.INI	5.0	straight
DLE904121461-10 New	TPE	CF9.03.05.INI	10.0	straight
Encoder M12				
DLE904121455-3	PVC	CF240.02.08	3.0	straight
DLE904121455-5	PVC	CF240.02.08	5.0	straight
DLE904121455-10	PVC	CF240.02.08	10.0	straight
DLE904121456-3	PVC	CF240.02.08	3.0	angled
DLE904121456-5	PVC	CF240.02.08	5.0	angled
DLE904121456-10	PVC	CF240.02.08	10.0	angled
Encoder JST NEMA11				
DLE904121459-3 New	TPE	CF11.01.04.02	3.0	straight
DLE904121459-5 New	TPE	CF11.01.04.02	5.0	straight
DLE904121459-10 New	TPE	CF11.01.04.02	10.0	straight

drylin® E | Accessories | Product range

Flange size 86 (NEMA34)

Part No.	Jacket	Cable type	Cable length [m]	Connector
Motor cable with brake M17				
DLE904121457-3	PUR	CF78.UL.07.07	3.0	straight
DLE904121457-5	PUR	CF78.UL.07.07	5.0	straight
DLE904121457-10	PUR	CF78.UL.07.07	10.0	straight
Molex motor cable				
DLE904161278-3 New	TPE	CF880.07.05	3.0	straight
DLE904161278-5 New	TPE	CF880.07.05	5.0	straight
DLE904161278-10 New	TPE	CF880.07.05	10.0	straight
Encoder M17				
DLE904121458-3	PVC	CF211.009	3.0	straight
DLE904121458-5	PVC	CF211.009	5.0	straight
DLE904121458-10	PVC	CF211.009	10.0	straight
Encoder for NEMA17, 23, 24, 34				
DLE904121460-3 New	TPE	CF11.01.04.02	3.0	straight
DLE904121460-5 New	TPE	CF11.01.04.02	5.0	straight
DLE904121460-10 New	TPE	CF11.01.04.02	10.0	straight

Flange size 42 (NEMA17), 56 (NEMA23), 60 (NEMA24)

Part No.	Jacket	Cable type	Cable length [m]	Connector
Brake cable with M8 sensor cable				
DLE904121453-3	TPE	CF9.02.03.INI	3.0	straight
DLE904121453-5	TPE	CF9.02.03.INI	5.0	straight
DLE904121453-10	TPE	CF9.02.03.INI	10.0	straight
DLE904121454-3	TPE	CF9.02.03.INI	3.0	angled
DLE904121454-5	TPE	CF9.02.03.INI	5.0	angled
DLE904121454-10	TPE	CF9.02.03.INI	10.0	angled

DC motors

Part No.	Jacket	Cable type	Cable length [m]	Connector
Motor cable with flat connector				
DLE904137923-3 New	PVC	CF130.05.02.UL	3.0	flat
DLE904137923-5 New	PVC	CF130.05.02.UL	5.0	flat
DLE904137923-10 New	PVC	CF130.05.02.UL	10.0	flat
DLE904137924-3 New	PVC	CF130.05.02.UL	3.0	flat
DLE904137924-5 New	PVC	CF130.05.02.UL	5.0	flat
DLE904137924-10 New	PVC	CF130.05.02.UL	10.0	flat

DC motors with spline

Part No.	Jacket	Cable type	Cable length [m]	Connector
Motor and angular encoder cable				
DLE904121462-3 New	PVC	CF211.033	3.0	straight
DLE904121462-5 New	PVC	CF211.033	5.0	straight
DLE904121462-10 New	PVC	CF211.033	10.0	straight
DLE904121463-3 New	PVC	CF130.05.07.UL	3.0	straight
DLE904121463-5 New	PVC	CF130.05.07.UL	5.0	straight
DLE904121463-10 New	PVC	CF130.05.07.UL	10.0	straight

drylin® E | Accessories | Product range

Proximity switches - limit and reference switches



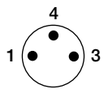
The compact and easy assembly of the proximity switches represent a logical extension of the kit approach for the drylin® range. The plastic housing makes the proximity switches, which can be used as limit, position or reference switches, particularly light and tough.

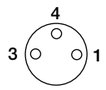
Technical data

Sensor/actuator	Unit	
Operating voltage	[VDC]	10…30
Max. trigger current	[mA]	100
Ambient temperature	[°C]	-25…+70
Trigger distance	[SN]	2.5
Protection class		IP67
Connector		M8

Pin assignment

Proximity switch	M8 3-pin	Proximity switch cable	
PIN	Signal	PIN	Colour
1	+	1	brown
3	–	3	blue
4	load	4	black





20-30mm of extra stroke length is required for each limit reference switch.

axis	Part No. Proximity switch kit	
	Opener	Closer
SAW-0630	IK-0001	IK-0002
SAW-1040	IK-0001	IK-0002
SAW-1660	IK-0003	IK-0004
SLW-BB-0630	–	–
SLW-BB-1040	IK-0006	IK-0017
SLW-BB-1080	IK-0007	IK-0018
SLW-BB-1660	IK-0008	IK-0019
SLW-BB-2080	IK-0009	IK-0020
SHT-BB-12	IK-0011	IK-0022
SHT-BB-20	IK-0012	IK-0023
SHT-BB-30	–	–
SLW-1040-AL	IK-0006	IK-0017
SLW-1080	IK-0007	IK-0018
SLW-1660	IK-0008	IK-0019
SLW-2080	IK-0009	IK-0020
SHT-12	IK-0011	IK-0022
SHT-20	IK-0012	IK-0023
SHT-30	–	–
ZLW-0630-B	IK-0001	IK-0002
ZLW-0630-S	IK-0001	IK-0002
ZLW-1040-B	IK-0001	IK-0002
ZLW-1040-S	IK-0001	IK-0002
ZAW-1040-B	IK-0001	IK-0002
ZAW-1040-S	IK-0001	IK-0002
ZLW-1660-S	IK-0003	IK-0004

Matching cables are added by including the following attachments:



A proximity switch kit for SAW & ZLW includes a proximity switch, a bracket and mounting screws



A proximity switch kit for SLW & SHT includes a proximity switch, two spacers and mounting screws.

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drylin® E accessories

drylin® E | Accessories | Product range

Proximity switches - kit with support



Part No.
IK-0201-2
Proximity PNP NC kit with straight support

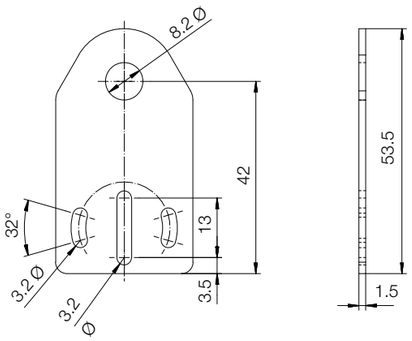


Part No.
IK-0200-2
Proximity PNP NC kit with angled support

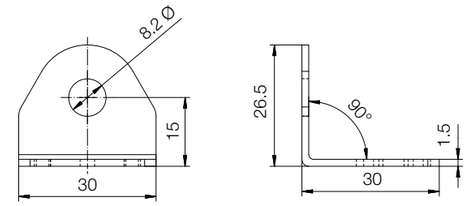
Reposition and adjustment is possible using a bracket with the proximity switch

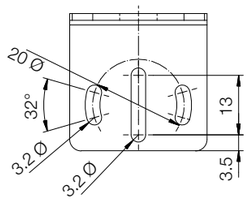
- Cable length: 2m
- Material holder: steel

ZSY-INI-AS-B

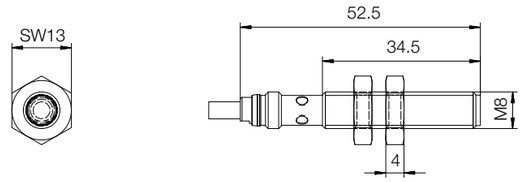


ZSY-INI-AS-A





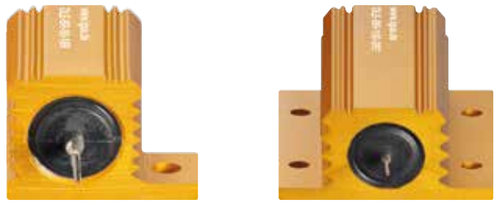
INI-AS-I-015-B-AA



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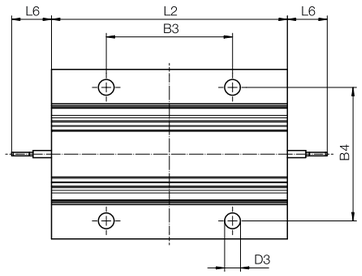
drylin® E | Accessories | Product range

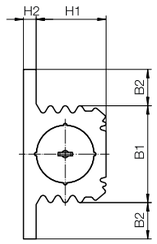
Brake resistors



Example image

- Braking resistors for safety at high speeds
- Compact
- Easy to connect





Technical data

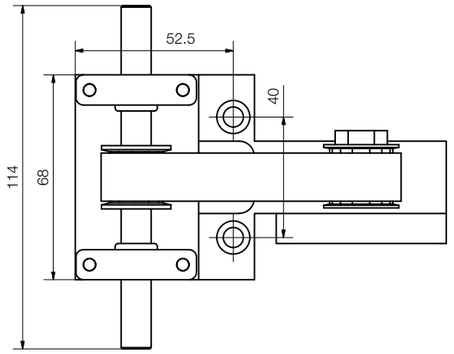
Part No.	Installation size	Performance class	Resistance value	Weight
		[W]	[Ω]	[kg]
DLE-BR-50-18R	NEMA17	50	18.0	0.030
DLE-BR-75-4R7	NEMA23	75	4.7	0.085
DLE-BR-100-3R3	NEMA24	100	3.3	0.115
DLE-BR-100-2R7	NEMA34	100	2.7	0.115

Dimensions [mm]

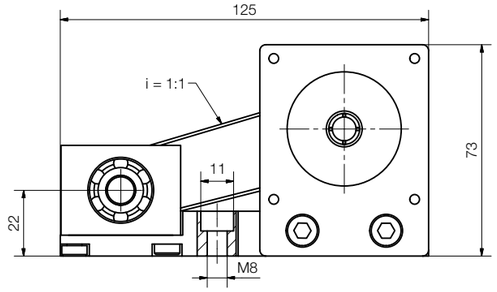
Part No.	L	A	H	C	L2	L6	B1	B2	H1	H2
		max.		max.			max.	max.		
	±0.5				±0.5	±0.5				
DLE-BR-50-18R	50.1	72.5	30	17	50.1	11.2	12.8	8.6	14.0	3
DLE-BR-75-4R7	48.9	71.0	48	26	48.9	11.1	26.0	11.0	22.0	4
DLE-BR-100-3R3	65.4	87.5	48	26	65.4	11.1	26.0	11.0	4.0	4
DLE-BR-100-2R7	65.4	87.5	48	26	65.4	11.1	26.0	11.0	4.0	4

Linear robot drives





- Connection of NEMA stepper motors in linear robot structures
- Space-saving
- More safety due to encoder and brake



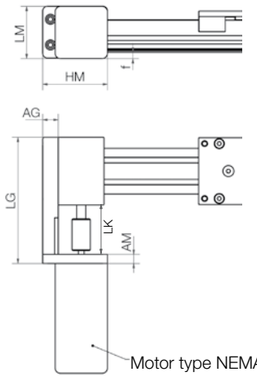
Dimensions [mm]

Part No.	Installation size	Motor	Design
GD-0001	1	NEMA23	Stranded wire
GD-0002	1	NEMA23	Connector
GD-0003	1	NEMA23	Encoder
GD-0004	1	NEMA23	Encoder and brake
GD-0005	1	NEMA23XL	Stranded wire
GD-0006	1	NEMA23XL	Connector
GD-0007	1	NEMA23XL	Encoder
GD-0008	1	NEMA23XL	Encoder and brake

drylin® drive technology | Accessories | Product range

Using motor flange for stepper and DC motors



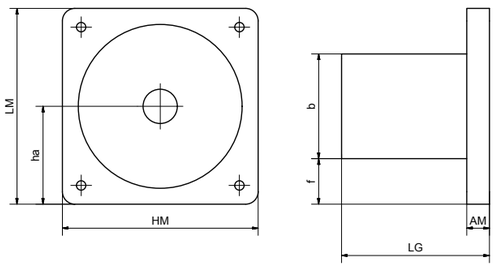


- 2 base plate lengths for each NEMA motor flange; others upon request
- Suitable for drylin® coupling ▶ **Page 669**

Dimensions [mm]

Part No.	Matching linear modules	Base plate				Motor flange		
		AG	LG	LK	AM	HM	LM	f
MF-0630-NEMA17-S	ZLW-0630	12	99.5	35.5	10	53	42	7
MF-0630-NEMA23-S	ZLW-0630	12	99.5	35.5	10	59	56	14
MF-1040-NEMA17-S	ZLW-1040	17	119	35	10	63	44	–
MF-1040-NEMA23-S	ZLW-1040	17	119	35	10	70.7	56.4	7
MF-1040-NEMA34-L	ZLW-1040	17	138	54	10	85	85	20.5
MF-1660-NEMA34-S	ZLW-1660	15	166	52	10	86	86	–
MF-2260-NEMA23-S	ZAW-1040	10	108	35	10	70.7	56.4	–
MF-0630-DC0310	ZLW-0630	12	99.5	35.5	10	53	42	7
MF-1040-DC0310	ZLW-1040	17	119	35	10	63	44	–
MF-1040-DC0350	ZLW-1040	17	119	35	10	63	44	–





The motor flange, sometimes called motor enclosure, encloses and protects the coupling and provides the matching mounting dimensions for your NEMA motor.

- Suitable for drylin® coupling ▶ **Page 669**

Dimensions [mm]

Part No.	Matching linear modules	LG	AM	HM	LM	b	f	ha
MF-1123-NEMA17	SAW/SLW-BB-0630	45	–	43	43	43	–	21.5
MF-2040-NEMA17	SAW/SLW-1040-AL, SHT-12	47	12	56	56	56	–	21.5
MF-2040-NEMA23-S	SAW/SLW-1040-AL, SHT-12/20	48	13	56	56	56	–	28
MF-3648-NEMA23	SHT-20, SHT-BB-20	56	13	56	56	56	–	28
MF-3648-NEMA34	SLW-1660/2080, SLW-BB-1660/2080	65	10	86	86	46	20	43
MF-3648-NEMA34-XL	SHT-30, SHT-BB-30	76	10	86	86	56	15	43
MF-1123-DC0310	SAW/SLW-BB-0630	45	–	43	43	43	–	21.5
MF-2040-DC0310	SAW/SLW-1040-AL, SHT12	47	12	43	43	43	–	21.5
MF-2040-DC0350	SAW/SLW-1040-AL, SHT12	47	12	43	43	43	–	21.5

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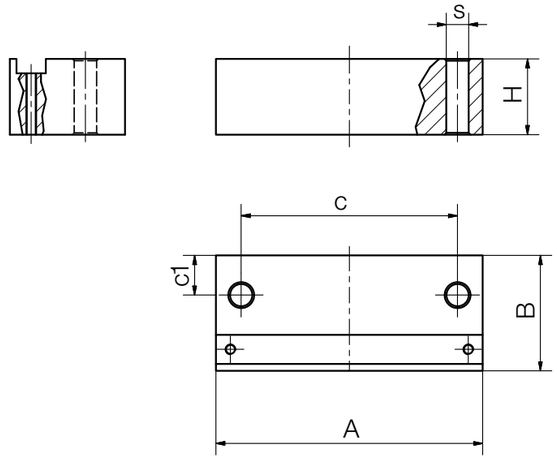
drylin® drive technology | Accessories | Product range

Spacer - height compensation for SLW/SHT linear modules



The spacer is an aluminium standoff that brings the selected drylin® linear unit to a height that matches your NEMA stepper motor. An attachment feature for proximity switches is already integrated. Retro-fitting is also possible.

- Adapter kit contains two spacers for connection of a linear module



Part No.	Suitable for linear module
AK-0001	SLW-1040
AK-0002	SLW-1080
AK-0003	SLW-1660
AK-0004	SLW-2080
AK-0027	SHT-08
AK-0006	SHT-12
AK-0007	SHT-20
AK-0008	SHT-30
AK-0009	SLW-25120

Dimensions [mm]

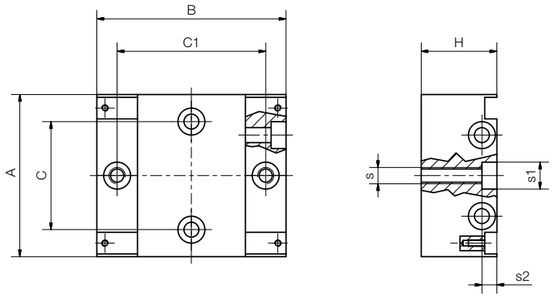
Part No.	A	B	H	c ±0.1	c1	Ø s +0.2
AK-0001	74	32.0	21.0	60	11.0	6.2
AK-0002	108	32.0	21.0	94	11.0	6.2
AK-0003	104 -0.2	35.0	24.5	84	12.5	8.1
AK-0004	134	38.0	20.0	116	14.0	9.0
AK-0027	65	25.5	13.0	52	7.75	5.5
AK-0006	85	40.0	17.5	70	15.0	6.2
AK-0007	130	46.0	22.0	108	18.0	10.5
AK-0008	180	60.0	10.0	150 ±0.2	25.0	13.5
AK-0009	200	45.0	16.0	173 ±0.2	17.5	13.5

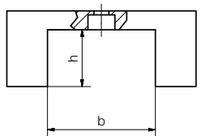
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drylin® drive technology | Accessories | Product range

Mounting bracket for SAW linear modules and ZLW toothed belt axes







For the assembly of drylin® ZLW toothed belt axes

- Available for drylin® WSX/SAW(C)/ZLW Sizes 0630/1040/1080/1660
- Material: anodised aluminium
- Connection options: T-slots profile, linear axis/ proximity switches
- Multiple positions
- Quick mounting without drilling
- Including swivel-in slot nuts and screws for fastening

Part No.	Suitable for		
	Rail profile	Linear module	Toothed belt axis
AK-0037	WSX-06-30	SAW(C)-0630	ZLW-0630
AK-0038	WSX-10-40	SAW(C)-1040	ZLW-1040
AK-0039	WSX-10-80	SAW-1080	ZLW-1080
AK-0040	WSX-16-60	SAW-1660	ZLW-1660

Dimensions [mm]

Part No.	A	B	H	h	b	C	C1	Øs	s1	s2
AK-0037	60	70	20	12	30	40	50	M6	Ø10	5.5
AK-0038	60	70	28	21	40	40	55	M6	Ø10	5.5
AK-0039	60	104	28	21	74	40	90	M6	Ø10	5.5
AK-0040	60	98	47	37	62	40	80	M8	Ø11	27

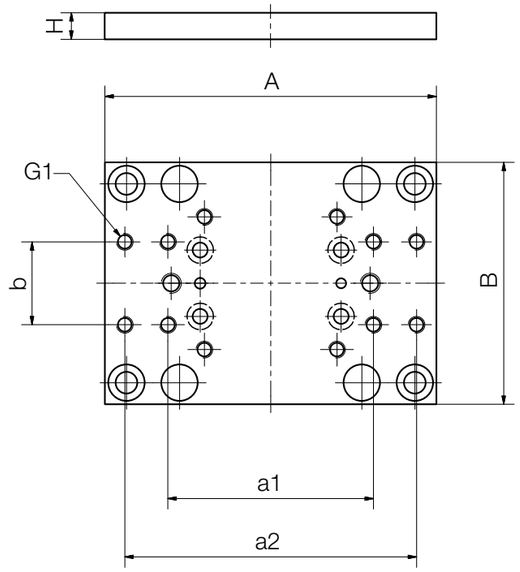
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drylin® drive technology | Accessories | Product range

drylin® E accessories

Adapter kit for linear robot setup





- Simple and fast multi-axes linear robot setup
- For lead screw and toothed belt axes
- Energy chain assembly preparation
- Anodised aluminium
- Space and weight-saving
- Mounting of y-axis on 2 x-axes

Mounting of y-axis on two x-axes

Part No.	x-axis	y-axis	Function linear robot setup
AK-0011	ZLW-0630, 100mm carriage	ZLW-0630, ZLW-1040	Assembly y-axis
AK-0012	ZLW-1040, 100mm carriage	ZLW-0630, ZLW-1040	Assembly y-axis
AK-0013	ZLW-1040, 150mm carriage	ZLW-0630, ZLW-1040, ZLW-1080	Assembly y-axis
AK-0014	ZLW-1660, 250mm carriage	ZLW-1040, ZLW-1080	Assembly y-axis
AK-0024	ZLW-1040, 200mm carriage	ZLW-0630, ZLW-1040, ZLW-1080	Assembly y-axis
AK-0025	ZLW-1080, 150mm carriage	ZLW-0630, ZLW-1040, GRW-0630	Assembly y-axis

Dimensions [mm]

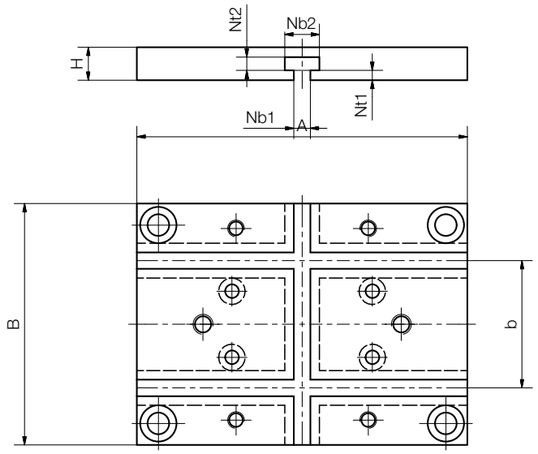
Part No.	A -0.3	B -0.3	G1	H	a1	a2 +0.2	b
AK-0011	100	54	M5	13	62	88	25
AK-0012	100	73	M5	8	62	88	25
AK-0013	150	73	M5	8	112	138	25
AK-0014	250	104	M5	10	–	232	35
AK-0024	200	73	M5	8	162	188	25
AK-0025	150	107	M5	8	112	138	25

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drylin® drive technology | Accessories | Product range

T-slot plates





- Anodised aluminium
- Various fixing options
- Can be retrofitted
- For XY linear robot structures
- Suitable igus® slot nuts available ▶ **Page 685**

Variable T-slot mounting plates

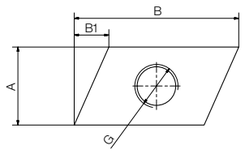
Part No.	Base axis	Axis to be mounted
AK-0021	SAW-1080, 100mm carriage	ZLW/SAW-0630, ZLW/SAW-1040, GRW-0630
AK-0022	SAW-1040, 100mm carriage	ZLW/SAW-0630, ZLW/SAW-1040, GRW-0630
AK-0023	SAW-1660, 150mm carriage	ZLW/SAW-1040, ZLW/SAW-1080, ZLW/SAW-1660

Dimensions [mm]

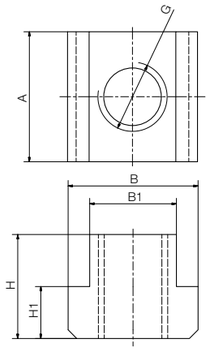
Part No.	A -0.3	B -0.3	H	b	Nb1 +0.2	Nb2	Nt1	Nt2 +0.2
AK-0021	100	107	10	42.5	5	10.5	3	4
AK-0022	100	73	10	38.5	5	10.5	3	4
AK-0023	150	104	10	42.5	5	10.5	3	4

Slot nuts for mounting





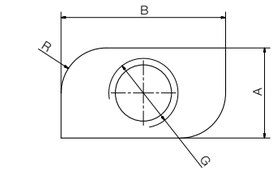
NOR-20602

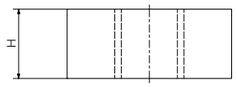


NOR-20605

For the drylin® W high-profile rail, slot nuts offer variable ways of fastening sensors and proximity switches, for example. The robust profile rail is the basis of SAW linear modules as well as ZLW toothed belt axes and has up to 5 T-slots for mounting slot nuts. Moreover, slot nuts are used as a fastening option in the case of drylin® Q linear carriages. Roll-in slot nuts are available for retrofitting in closed T-slots.

- Fully adjustable
- Ideal for drylin® limit and reference switches
- Suitable for T-slots of the drylin® WSX high-profile rail
- Secure retention
- Can be retrofitted





NOR-20613

Part No.	Suitable for rail profile	Linear module
NOR-20602	WSX-06-30	SAW-0630, SAWC-0630, ZLW-0630
NOR-20602	WSX-10-40	SAW-1040, SAWC-1040, ZLW-1040
NOR-20602	WSX-10-80	SAW-1080, ZLW-1080
NOR-20602	AWMQ-20	QWE-01-20
NOR-20602	WSX-16-60	SAW-1660, ZLW-1660 (lateral grooves)
NOR-20605	WSX-16-60	SAW-1660, ZLW-1660 (lower groove)
NOR-20615	AWMQ-12	QWE-01-12

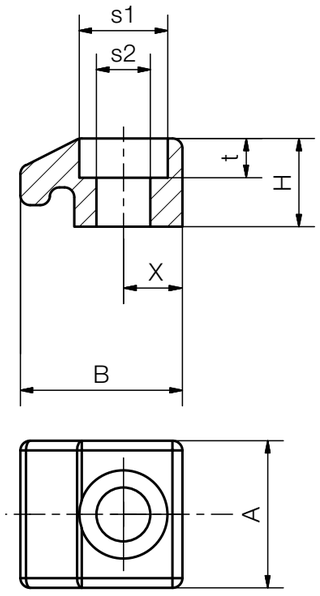
Dimensions [mm]

Part No.	A	B	B1	H	H1	G	R
NOR-20602	9.0	19.0	4	4	–	M5	–
NOR-20605	15.0	15.0	10	12	6	M8	–
NOR-20613[132)]	5.2	9.5	–	4	–	M4	2.5

[132)] **Optionally available: roll-in slot nut for retrofitting**

Clamping elements for linear modules and toothed belt axes





Fixing clamps offer a safe fastening of the drylin® linear axes on aluminium profiles. Designed for the drylin® W high-profile rail, the clamps can be inserted into the slots of the rail and used to fix the axis in place.

- Secure mounting
- Fully adjustable
- For drylin® SAW linear modules and ZLW toothed belt axes
- For drylin® WSX high-profile rails

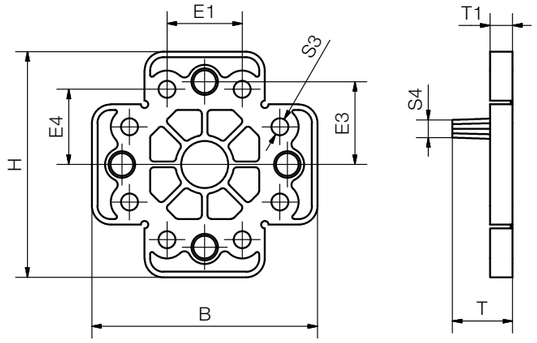
Part No.	Suitable for toothed belt axis
ZTZ-063006	ZLW-0630
75.40-ZLW	ZLW-1040
75.40-ZLW	ZLW-1080
75.50-ZLW	ZLW-1660

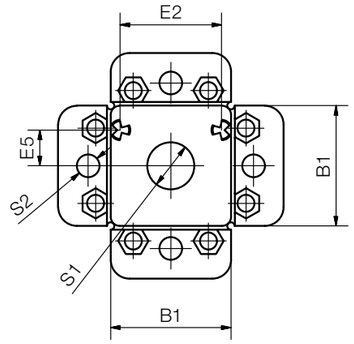
Dimensions [mm]

Part No.	B	A	H	X	s1	s2	t
ZTZ-063006	16.5	15	9.0	6.0	9	5.5	4
75.40-ZLW	27.65	40	8.7	8.6	–	6.4	–
75.50-ZLW	37.25	40	14.4	11.0	–	9.0	–

Adapter plate - variable arrangement of accessories







- Adapter plate for manual orientation of position indicators and manual clamps
- Suitable for drylin® linear modules of the SLW/SHT/SHTP series
- Material: Plastic

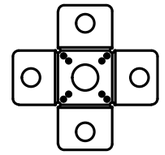
Installation note: Unused sections can be easily separated.

Part No.	Suitable for linear module
STZ-063008	SLW-0630/SHTP-06
STZ-104001	SLW-1040/SHT-12 SHT-20, SHTP-01/02-12
STZ-166001	SLW-1660
STZ-208001	SLW-2080, SLW-25120
STZ-302403	SHT-30

Dimensions [mm]

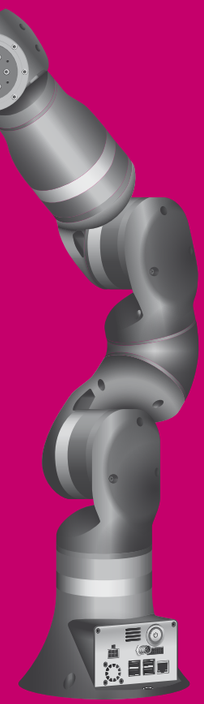
Part No.	H	B	B1	T	T1	E1	E2	E3	E4	E5	S1	S2	S3	S4
STZ-063008	48	48	18	8	5	–	14.4/11[106)]	18	–	7.2/5.5	8.5	6	–	Ø1.5
STZ-104001	60	60	32	16	6	20	27	22	20	9.5	12.5	6	4.5	M6
STZ-166001	60	71	32	20	6	20	58	22	20	4.5	14.5	6	4.5	Ø11
STZ-208001	60	71	32	16	6	20	58	22	20	13.0	14.5	6	4.5	M10
STZ-302403	60	60	32	16	6	20	27	22	20	9.5	14.5	6	4.5	M6

[106)] Adapter plate with 8 pins





Position indicators and lead screw clamps available ▶ Page 618



Low Cost Automation

Cobots

Articulated arm robot

Linear robots

Delta robot

SCARA robot

Control system/software

Accessories

Robot modular gearbox system



EN 09/2023

Low Cost Automation | Product overview

Cobots and articulated arm robots



New

Robot arm for service robots:
robolink® ReBeL®
▶ **Page 698**



New

Fully integrated strain wave gear for cobots:
robolink® ReBeL®
▶ **Page 699**



Robot arm - small option:
robolink® RL-DC
▶ **Page 700**



Robot arm - large option:
robolink® RL-DP
▶ **Page 701**



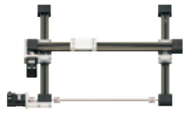
New

Splash-proof 5-axis robots:
robolink® RL-DP-SW
▶ **Page 702**

Linear robots

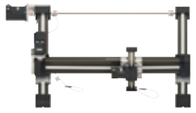


Line robot:
for vertical working planes
DLE-LG
▶ **Page 704**

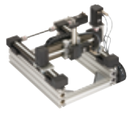


Flat linear robot:
for predefined surfaces
DLE-FG
▶ **Page 705**

Linear robots



Room linear robot:
for three dimensional applications - DLE-RG
▶ **Page 706**



Individual linear robots:
custom linear robots with no minimum order quantity
▶ **Page 707**

Delta robots - other kinematics



Delta robot
with 3-axis kinematics
▶ **Page 708**



New

Delta robot
with 2-axis kinematics
▶ **Page 710**



Lift/turn unit, linear and rotating:
drylin® HSQ
▶ **Page 712**



Torque-resistant linear module, controlled separately: drylin® SLQ
▶ **Page 713**

SCARA robot



New

Robot with three degrees of freedom:
drylin® SCARA
▶ **Page 715**



New

Robot with four degrees of freedom:
drylin® SCARA
▶ **Page 716**

SCARA robot



New

4 DOF with cladding:
drylin® SCARA
▶ **Page 717**



Modular control and software
igus® Robot Control
▶ **Page 718**



New

Adapter kits:
seventh axis for robots
▶ **Page 720**



New

Adapter kits:
rotary axis for robots
▶ **Page 721**



New

Robot cells for all igus® robots
▶ **Page 722**

Robot modular gearbox system



Worm gear with two PRT slewing rings, with plain bearings: robolink® D
▶ **Page 724**



Worm gear with one PRT slewing rings, with plain bearings: robolink® D
▶ **Page 725**

Robot modular gearbox system



Worm gear, ball bearing:
robolink® D
▶ **Page 726**



Worm gear, ball bearing:
robolink® D
▶ **Page 727**



Robot joint with direct drive:
robolink® D
▶ **Page 728**



Components with DC motor:
robolink® D
▶ **Page 729**



Worm gear joints:
drygear® Apiro®
▶ **Page 730**



New

Connection to linear units:
drygear® Apiro®
▶ **Page 734**

Robot modular gearbox system and ...



New

Robot gear set for eight systems:
Apiro® robotics kit
▶ **Page 738**



Cantilever axis:
robolink® Apiro®
▶ **Page 736**

...further kinematics



New

Planetary gearbox:
robolink® Apiro®
▶ **Page 737**



New

Strain wave gear output shaft:
drygear® strain wave gear
▶ **Page 739**



New

Planetary gearbox:
drygear® planetary gearbox RL-P
▶ **Page 740**

Online tools



ReBeL® configurator
▶ **Page 694**



robolink® designer
▶ **Page 694**



Linear robot configurator
▶ **Page 694**

RBTX
low cost robotix

Online marketplace for Low Cost Robotics RBTX
▶ **www.rbtx.com**

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Low Cost Automation

Low Cost Automation stands for significant increase in productivity processes with the help of a simple and affordable automation in the form of robotics components. Depending on the application, automation processes can be automated in whole or in part. At igus® you have everything you need for cost-effective process automation from a single source: complete robot arms, individual components for customised solutions or to expand existing applications, and a control system suited to robolink® with intuitive software.

- Maintenance-free dry operation
- Quiet
- Resistance to dust and dirt
- Corrosion-free
- Standard product range available in within 24hrs
- Free consultation and installation at your premises
- Feasibility check in the Customer Testing Area (CTA)

Typical application areas

- Pick & place
- Measurement and testing
- Labelling technology
- Component marking
- Assembly cells
- Sorting machines
- Safety systems

Available from stock
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

Toolmakers and their suppliers are facing major global challenges. The competition is becoming more intense, the price pressure is becoming greater, including the demand for local production. We offer complete cost-effective systems that automate tasks in order to produce faster and more effectively.



Cobots

- For service tasks
- With fully integrated strain wave gear

▶ **Page 698**



Articulated arm robot

- Up to 5 DOF (degrees of freedom)
- Modular and cost-effective

▶ **Page 700**



Linear robots

- Pre-configured assembly kits available from stock
- 3 different linear robot structures: line/flat/room

▶ **Page 704**



Parallel kinematics

- Kit or pre-installed kinematics

▶ **Page 708**



SCARA robot

- 4 DOF (degrees of freedom)
- IP44 version possible

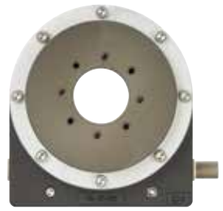
▶ **Page 716**



Workspace extension

- Axis 7 for linear movements
- Rotary axes

▶ **Page 720**



drygear® worm gear

- With PRT or slewing rings with ball bearings

▶ **Page 724**



drygear® Apiro® modular gearbox system

- Tribologically optimised worm gears
- Motor drive or manual drive

▶ **Page 730**



drygear® strain wave gear and planetary gearbox

- Small compact design
- Available transmission: 28:1

▶ **Page 739**



igus® Robot Control

- Control system for linear robots, delta robots and robolink® robot arms

▶ **From page 718**



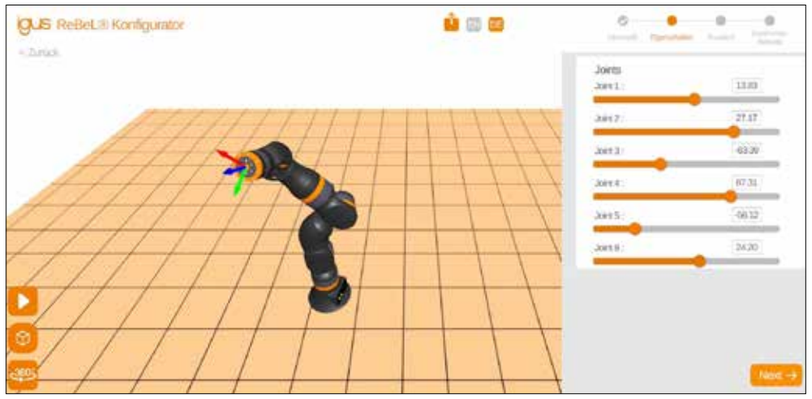
Motor control systems

▶ **From page 662**

Low Cost Automation | Online tools

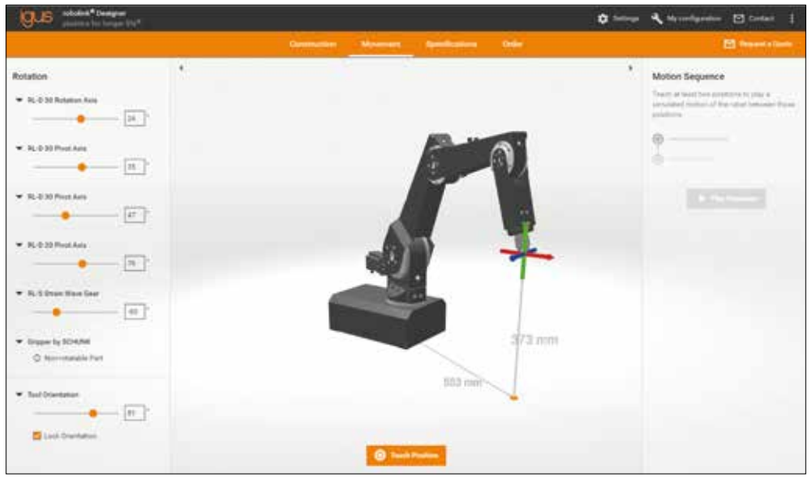
Calculate and configure robot arms

Configure your cobot



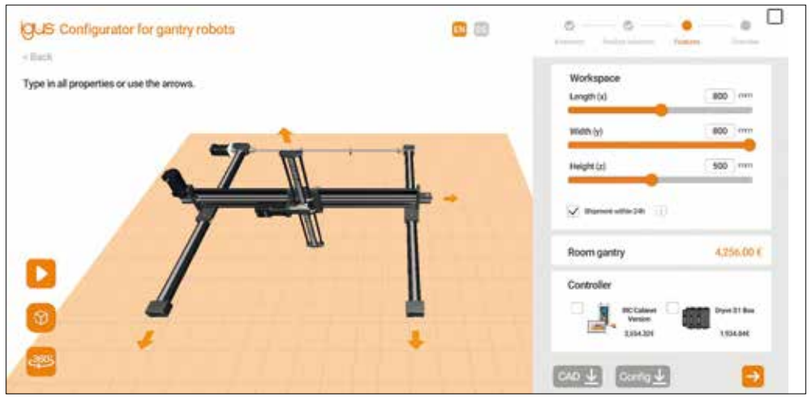
- Configure the igus® ReBeL® so that it is ready to connect
- Select axles, tools, accessories, and services
- ▶ **www.igus.eu/ rebel-configurator**

robolink® designer



- Configure ready-to-connect units directly in the online tool
- Create your individual robolink® D robot arm quickly and easily
- Configurations for individual axes to tools
- Simulates the solution with maximum range and payload
- ▶ **www.igus.eu/ robolink-designer**

Configure individual gantries in no time



- Quick selection of the appropriate linear robot system
- Configure ready-to-connect units directly in the online tool
- Selection of various control techniques
- All igus® standard linear robots available
- ▶ **www.igus.eu/ linear-robot-configurator**

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Low Cost Automation

Test in the Customer Testing Area



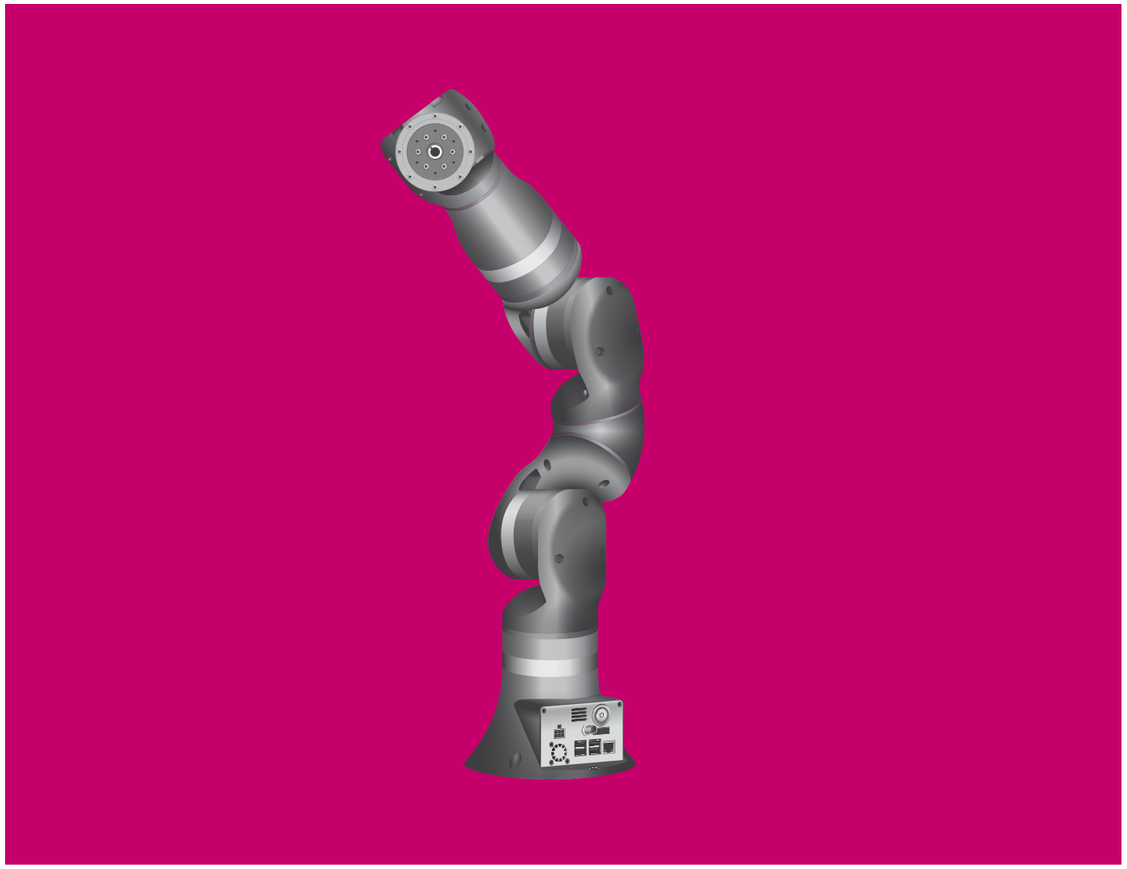
You want to be sure about your application's feasibility?
We offer a handling test. Just send us your workpiece/ object and we will provide you with a video of our test or show you the feasibility live.

- With accessories such as grippers or vision
- Test directly in the robot cells
- Over 1,000 customer tests
- 400m² Customer Testing Area
- Typical applications are pick & place, end of the line quality control or gluing and joining applications.

More information and prices online
▶ **www.igus.eu/customer-testing-area**

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Notes



Articulated arm robot

ReBeL® cobot

robolink® DC

robolink® DP

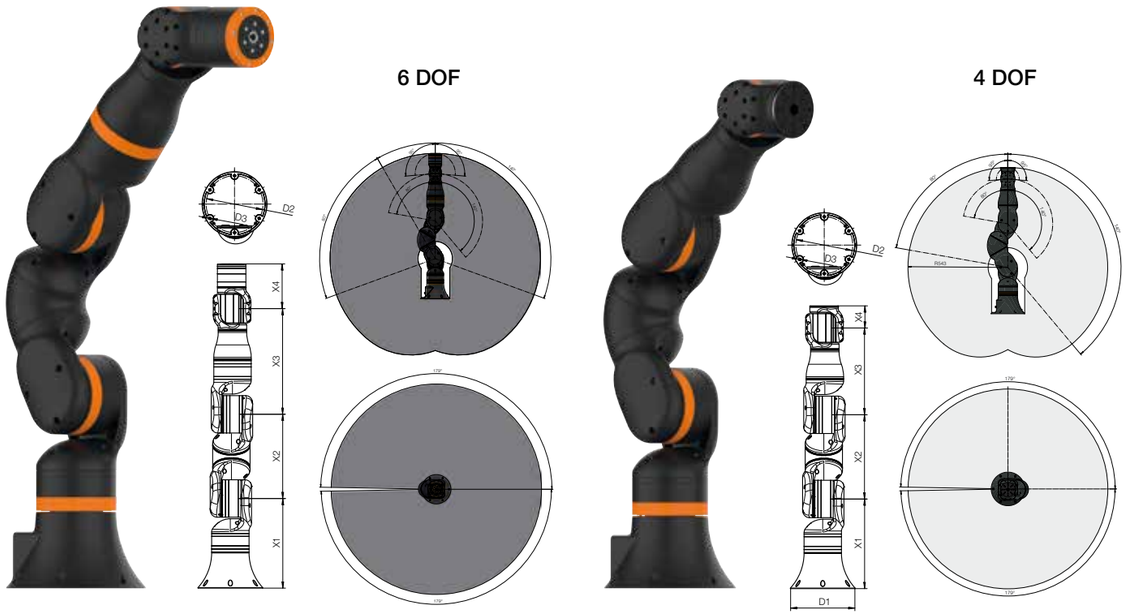
Splash water robolink® DP



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ReBeL® | Product range New

Robot arm for service robots



- Prepared for cobot function
- Plug-and-play and open-source variants available
- Assembling aid ▶ **Page 718**

Available in 4-6 weeks

Technical data - ReBeL® robot arm

		6 DOF[168)]	4 DOF[168)]
Kinematics/type		Articulated arm robot	Articulated arm robot
Application area		Service robotics	Service robotics
Number of axes		6	4
Total reach	[mm]	664	495
Nominal reach	[mm]	400	400
Joint rotation for axes 1, 4 and 6	[°]	360	360
Angular speed	[°/s]	45	45
Final speed TCP (full load)	[mm/s]	200	200
Floor space	[mm]	180	180
Ambient temperature	[°C]	0-50	0-50
Dynamics with 500g load capacity	[Picks/min]	7	7
Payload incl. tool	[kg]	2	3
Repetition accuracy	[mm]	±1	±1
Weight	[kg]	< 8	< 7
Plug & play solution with iRC			
Part No.		REBEL-6DOF-00	REBEL-4DOF-00
Open source variant			
Part No.		REBEL-6DOF-OS	REBEL-4DOF-OS

Dimensions [mm]

Part No.	L1	X1	X2	X3	X4	a2	b2	D1	D2	D3	D4	D5	D6	D7
ReBeL-6DOF-00 New	660	252	237	297	126	80	138.6	180	160	6.5	43	M3	–	–
ReBeL-4DOF-00 New	543	252	237	244	62	80	138.6	180	160	6.5	43	M3	62	M4

[168)] DOF: degree of freedom

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ReBeL® | Product range New

Fully integrated strain wave gears for cobots

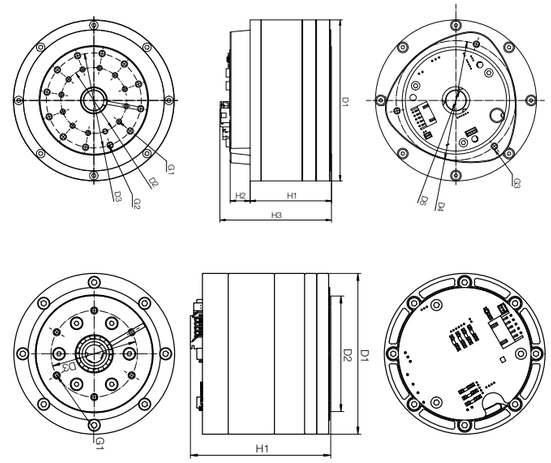


RL-SE-105-1-50-AL



RL-SE-80-1-50-AL

- 25% lighter than conventional strain wave gears thanks to igus® high-performance polymers
- Strain wave gear incl. power electronics, driver and encoder
- Minimum service life 1,000,000 cycles
- Direct connections of grippers to flange plate



Technical data

Part No.		Outer Ø [mm]	Height [mm]	Max. drive torque [Nm]	Rated torque [Nm]	Output speed [1/min]	Transmission	Weight [g]
RL-SE-80-1-50-AL	New	80	60	2.5	2	6.0	50:1	330
RL-SE-105-1-50-AL	New	105	62	20.5	10	6.0	50:1	900

Control data

Part No.		Nominal voltage Logic [V]	Nominal voltage Motor [V]	Nominal current [A]	Peak current [A]	Communication
RL-SE-80-1-50-AL	New	5	24	3	9	CAN500k with CPR-CANV2
RL-SE-105-1-50-AL	New	5	24	3	9	protocol

Dimensions [mm]

Part No.		D1 ø	D2 ø	D3 ø	D4 ø	D5 ø	D6 ø	H1	H2	H3	G1	G2	G3
RL-SE-80-1-50-AL	New	80	57.5	43	71	–	–	58.8	–	–	M3	M3	–
RL-SE-105-1-50-AL	New	105	43.0	62	78	17	13	49.0	52	13	M3	M4	M3

Available in 1-2 weeks

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robolink® RL-DC | Product range

Robot arm - small option



Small option



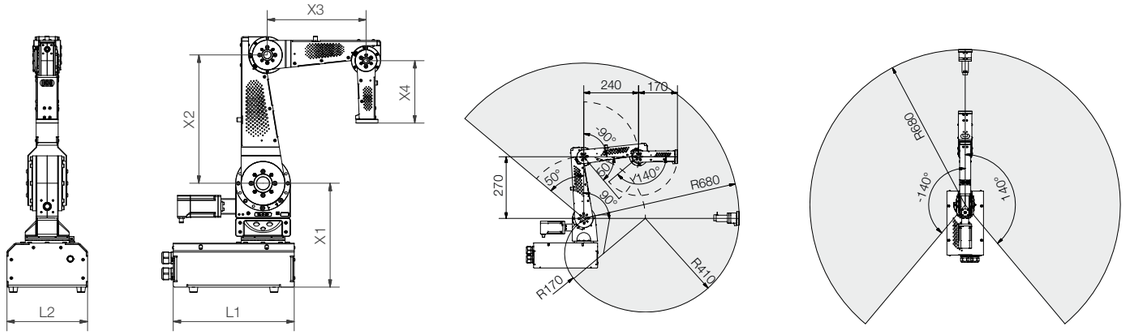
With integrated control system



Test the software free of charge

- Payload up to 10N
- Cycle times > 6s
- Reach up to 680mm
- Integrated gearbox
- With motor encoder
- Available as 4 DOF or 5 DOF[168)]
- Optimised bearing of the single axes for minimal backlash
- Black standard colour, individual colour and logo possible
- Available as a plug-and-play solution with igus® Robot Control
- More configuration options online

▶ www.igus.eu/DC



Technical data - small option (RL-DC)

		4 DOF[168)]	5 DOF[168)]
Part No.		RL-D-RBT-3322-BF	RL-D-RBT-3322S-BF
Operating voltage	[VDC]	24	24
Nominal power (at full load)	[W]	120	120
Weight (without power supply unit, ext. display)	[kg]	11	12
Precision (WDH precision)	[mm]	±0.5	±0.5
Max. speed (TCP)	[mm/s]	100	100
Reach	[mm]	600	680
Payload	[N]	10	5
With integrated control system			
Part No.		RL-DCi-4S-M-B	RL-DCi-5S-M-B

Articulated arm dimensions [mm]

Part No.	L1	L2	X1	X2	X3	X4
RL-D-RBT-3322-BF	280	160	217.5	270	240	170
RL-D-RBT-3322-BF-AE	280	160	227.5	270	240	170
RL-D-RBT-3322S-BF	330	220	273.5	350	270	170
RL-D-RBT-3322S-BF-AE	330	220	283.5	350	270	170

[168)] DOF: degree of freedom

For more information, see the technical data sheet ▶ www.igus.eu/DC

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robolink® RL-DP | Product range

Robot arm - large option



Large option



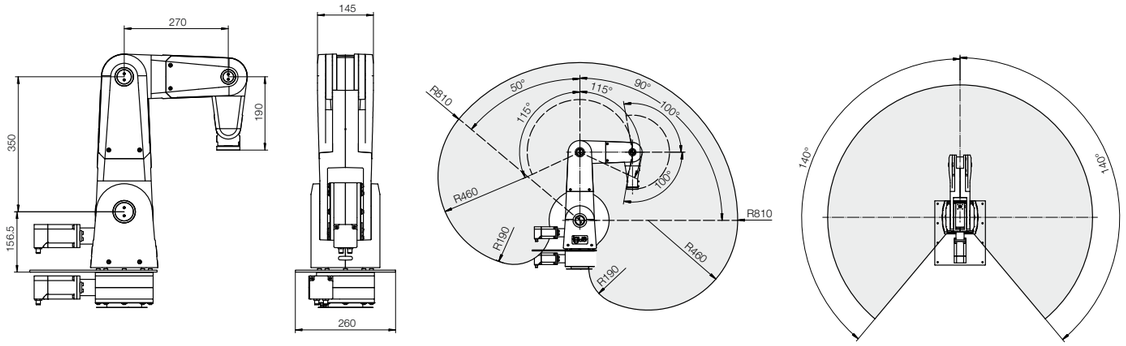
With integrated control system



Test the software free of charge

- Payload up to 30N
- Cycle times > 6s
- Up to 790mm of reach
- Integrated gearbox
- With motor encoder
- Available as 4 DOF or 5 DOF[168)]
- Optimised bearing of the single axes for minimal backlash
- Black standard colour, individual colour and logo possible
- Available as a plug-and-play solution with igus® Robot Control
- More configuration options online

▶ www.igus.eu/DP



Technical data - large option (RL-DP)

		4 DOF[168)]	5 DOF[168)]
Part No.		RL-DP-4	RL-DP-5
Operating voltage	[VDC]	24	24
Nominal power (at full load)	[W]	120	120
Weight (without power supply unit, ext. display)	[kg]	22	23
Precision (WDH precision)	[mm]	±0.5	±0.5
Max. speed (TCP)	[mm/s]	100	100
Reach	[mm]	790	790
Payload	[N]	30	30
With integrated control system			
With top hat (DIN) rail		RL-DP-4-24-0002-00-0	RL-DP-5-24-0002-00-0
With control cabinet		RL-DP-4-24-0004-00-0	RL-DP-5-24-0004-00-0



Small and large options:
Black standard colour, individual colour and logo possible

[168)] DOF: degree of freedom

For more information, see the technical data sheet ▶ www.igus.eu/DP

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robolink® RL-DP | Robot arm

Splash-proof 5-axis robot robolink® RL-DP-SW



- Splash-proof thanks to protection class IP 44
- Tribologically optimised robot joints
- Joining links made of stainless steel
- Software available free of charge
- igus® Robot Control ▶ **Page 718**



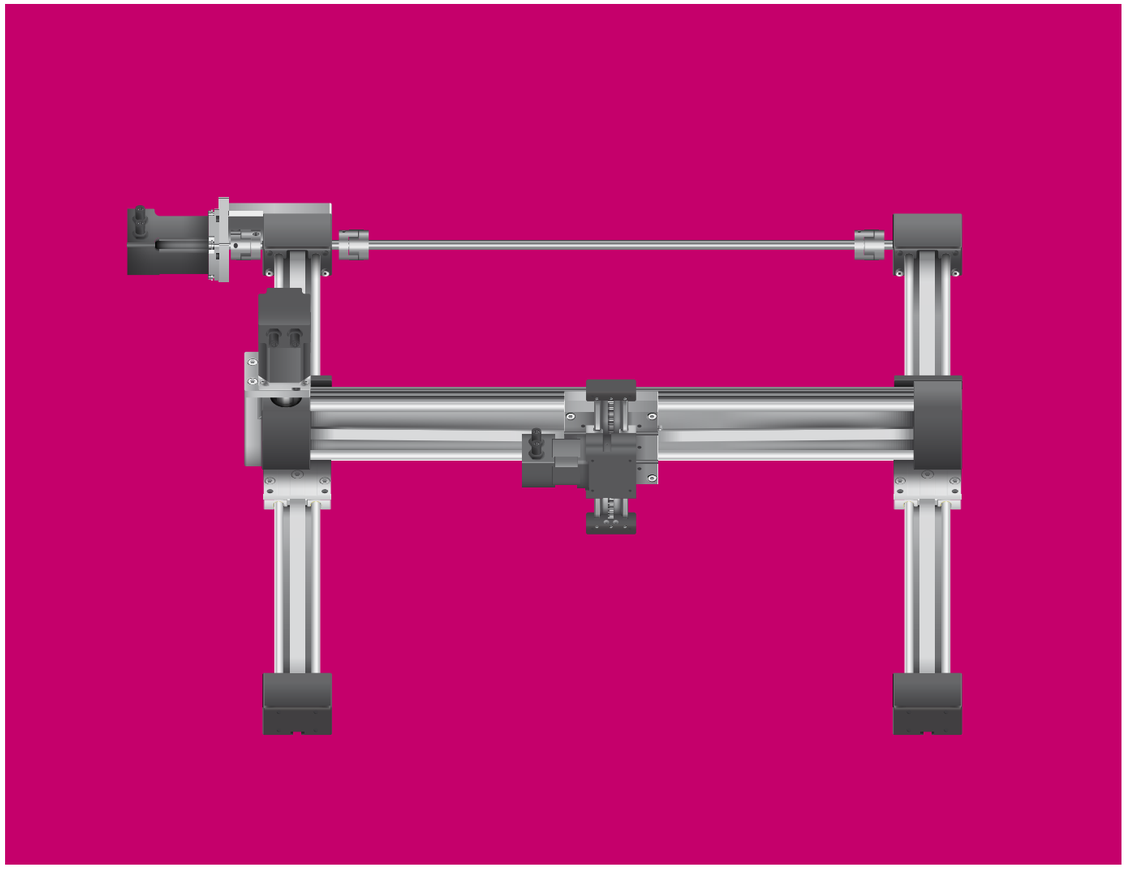
Test the software free of charge

Technical data

		4 DOF[168)]	5 DOF[168)]
Part No.		RL-DP-4-SW-24	RL-DP-5-SW-24
Payload	[N]	20	20
Speed	[Picks/min]	7	7
Workspace	[mm]	790	790
Nominal reach	[mm]	450	450
Weight	[kg]	23.6	23.6
Payload	[kg]	2	3
Precision (repeatability)	[mm]	±0.5	±0.5
Max. speed (TCP)	[m/s]	0.2	0.2
Ambient temperature	[°C]	0 to +50	0 to +50
With top hat (DIN) rail		RL-DP-4-SW-24-0002-00-0	RL-DP-5-SW-24-0002-00-0
With control cabinet		RL-DP-4-SW-24-0004-00-0	RL-DP-5-SW-24-0004-00-0

For more information, see the technical data sheet
▶ www.igus.eu/DP

[168)] DOF: degree of freedom



Linear robots and other kinematics

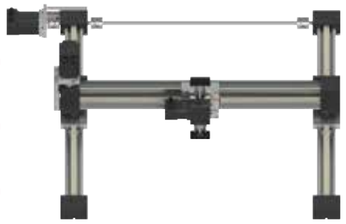
Linear robots

Delta robot

SCARA robot

Further kinematics

Accessories



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Low Cost Automation | Product range

Linear robot - for vertical working planes

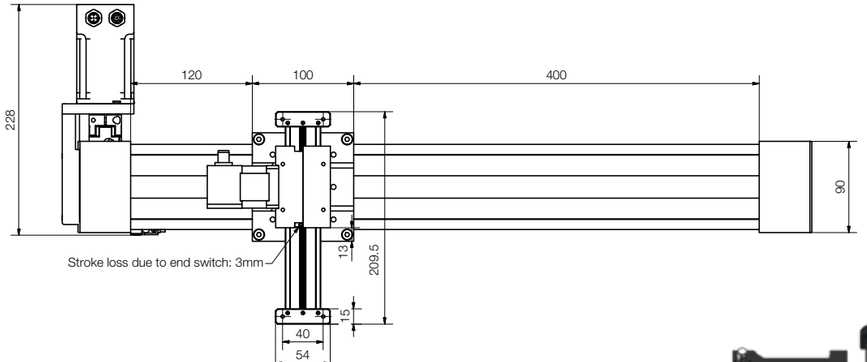


Part No.
DLE-LG-0001

- **x-axis:** drylin® GRW-0630 rack and pinion drive with NEMA17 stepper motor with encoder
- **y-axis:** drylin® ZLW-1080 toothed belt axis with NEMA23 stepper motor with encoder
- Proximity switches, connection cables, control systems and other installation sizes upon request



igus® Robot Control
▶ From page 718





- **y-axis:** drylin® ZLW-10120 toothed belt axis with NEMA 23 XL stepper motor with encoder
- **z-axis:** GRR-1280 rack axis with NEMA23 XL stepper motor with encoder
- Proximity switches and motor cables available

Part No.
DLE-LG-0002

Technical data

		DLE-LG-0001	DLE-LG-0002
Workspace[181)]	[mm]	500 x 100	800 x 500
Max. speed	[m/s]	1.0	1.0
Max. acceleration	[m/s²]	3.0	2.0
Repeatability	[mm]	0.2	0.3
Max. load capacity	[N]	25.0	50.0

[181)] **Customised stroke length upon request**

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Low Cost Automation

Low Cost Automation | Product range

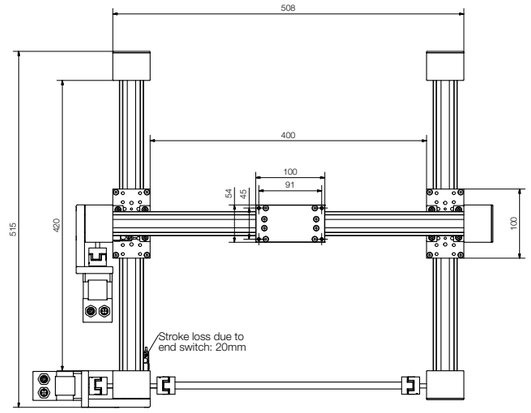
Flat linear robot - for predefined surfaces



Part No.
DLE-FG-0001 version with encoder
DLE-FG-0002 version with stranded wire
DLE-FG-0003 econ version
DLE-FG-0005 version with encoder
DLE-FG-0006 version with encoder



igus® Robot Control
▶ From page 718



DLE-FG-0001
- **x-axis:** drylin® ZLW-0630 toothed belt axis with NEMA17 stepper motor with encoder
- **y-axis:** drylin® ZLW-0630 toothed belt axis with NEMA17 stepper motor with encoder
- Proximity switches, connection cables, control systems and other installation sizes upon request

DLE-FG-0002
- **x-axis:** drylin® ZLW-0630 toothed belt axis with NEMA17 stepper motor with stranded wire
- **y-axis:** drylin® ZLW-0630 toothed belt axis with NEMA17 stepper motor with stranded wire
- Proximity switches, connection cables, control systems and other installation sizes upon request

DLE-FG-0003
- **x-axis:** drylin® ZLW-1040 econ toothed belt axis with NEMA23 stepper motor with stranded wire
- **y-axis:** drylin® ZLW-1040 econ toothed belt axis with NEMA17 stepper motor
- Proximity switches, connection cables, control systems and other installation sizes upon request

DLE-FG-0005
- **x-axis:** drylin® ZLW-1040-B toothed belt axis, NEMA23 stepper motor with encoder
- **y-axis:** drylin® ZLW-1040-B toothed belt axis, NEMA23 stepper motor with encoder
- **Accessories (supplied loose):** mounting plates, connecting shaft, couplings, clamps
- Proximity switches, connection cables, control systems and other installation sizes upon request

DLE-FG-0006
- **x-axis:** drylin® ZLW-1040S toothed belt axis, NEMA23 XL stepper motor with encoder
- **y-axis:** drylin® ZLW-1080S toothed belt axis, NEMA23 stepper motor with encoder
- With proximity switches and connecting cables
- Control systems and other installation sizes available

Technical data

		DLE-FG-0001	DLE-FG-0002	DLE-FG-0003	DLE-FG-0005	DLE-FG-0006
Workspace[181)]	[mm]	300 x 300	300 x 300	500 x 500	500 x 500	650 x 650
Max. speed	[m/s]	1.5	1.5	0.5	1.0	1.0
Max. acceleration	[m/s²]	10.0	10.0	1.0	1.0	1.0
Repeatability	[mm]	0.3	0.3	1.0	0.5	0.5
Max. load capacity	[N]	80.0	80.0	10.0	80.0	100.0

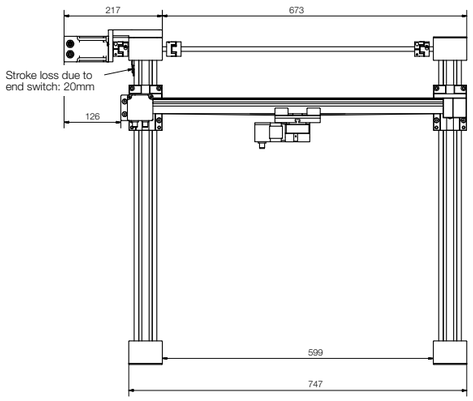
[181)] **Customised stroke length upon request**

EN 09/2023

Low Cost Automation | Product range

Room linear robot - for three dimensional applications





Part No.
DLE-RG-0001
DLE-RG-0002
DLE-RG-0003
DLE-RG-0004



igus® Robot Control
▶ From page 718

DLE-RG-0001
- **x-axis:** drylin® ZLW-1040 toothed belt axis with NEMA23 stepper motor with encoder
- **y-axis:** drylin® ZLW-1080 toothed belt axis with NEMA23 stepper motor with encoder
- **z-axis:** drylin® GRW cantilever axis with rack and pinion drive and NEMA17 stepper motor with encoder
- Proximity switches, connection cables, control systems and other installation sizes upon request

DLE-RG-0002
- **x-axis:** drylin® ZLW-0630 toothed belt axis with NEMA23 XL stepper motor with encoder
- **y-axis:** drylin® ZLW-0660 toothed belt axis with NEMA23 stepper motor with encoder
- **z-axis:** drylin® GRW-0630 cantilever axis with NEMA17 stepper motor with encoder
- Proximity switches, connection cables, control systems and other installation sizes upon request

DLE-RG-0003
- **x-axis:** drylin® ZLW-1040 toothed belt axis with NEMA23 XL stepper motor with encoder
- **y-axis:** drylin® ZLW-10120 toothed belt axis with NEMA23 XL stepper motor with encoder
- **z-axis:** GRR-1280 rack axis with NEMA23 XL stepper motor with encoder
- Proximity switches, connection cables, control systems and other installation sizes upon request

DLE-RG-0004
- **x-axis:** drylin® ZLW-20120S with NEMA24 stepper motor and 3:1 gearbox
- **y-axis:** drylin® ZLW-20200S with NEMA24 stepper motor and 3:1 gearbox
- **z-axis:** 1 x GRR-20120 rack axis with NEMA24 stepper motor
- Proximity switches, connection cables, control systems and other installation sizes upon request

Technical data

		DLE-RG-0001	DLE-RG-0002	DLE-RG-0003	DLE-RG-0004
Workspace[181)]	[mm]	500 x 500 x 100	400 x 400 x 150	800 x 800 x 500	2,000 x 2,000 x 1,000
Max. speed	[m/s]	0.5	0.5	0.5	0.5
Max. acceleration	[m/s²]	1.5	1.5	1.5	1.0
Repeatability	[mm]	0.8	0.8	0.8	0.8
load capacity	[N]	25.0	25.0	50.0	100.0

[181)] **Customised stroke length upon request**

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Low Cost Automation

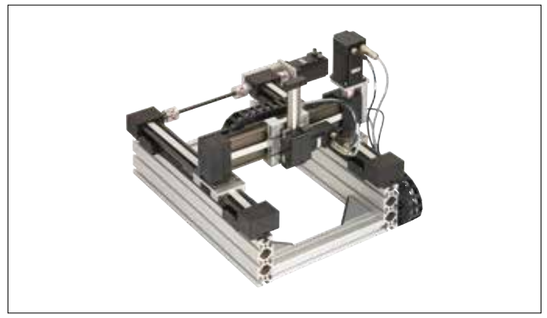
Low Cost Automation | Product range

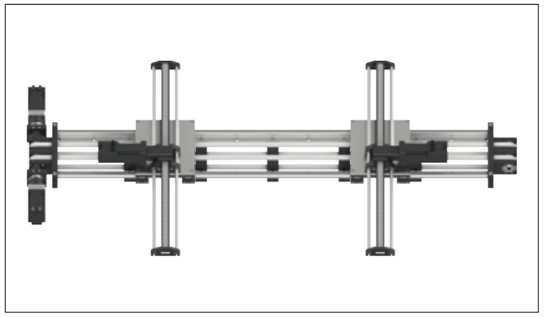
Individual linear robots

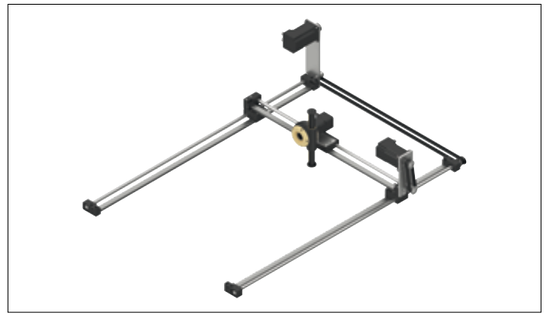
Customised linear robots from 1 piece

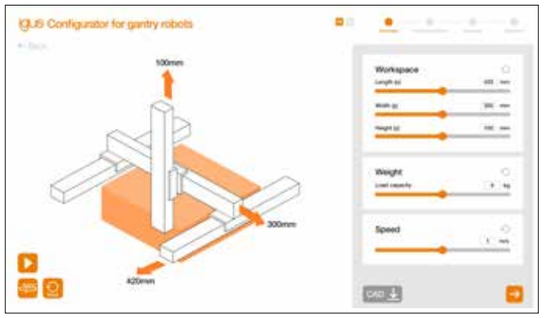
In addition to the two standard sizes in the online shop, special linear robots can be tailored to individual customer requirements. Contact us!

▶ **www.igus.eu/special-linear-robot**

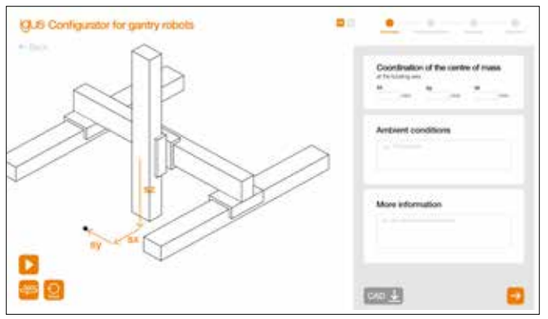


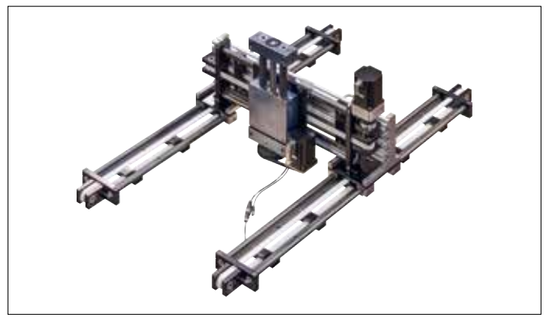












▶ **www.igus.eu/linear-robot-configurator**

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Low Cost Automation | Product range

Delta robot

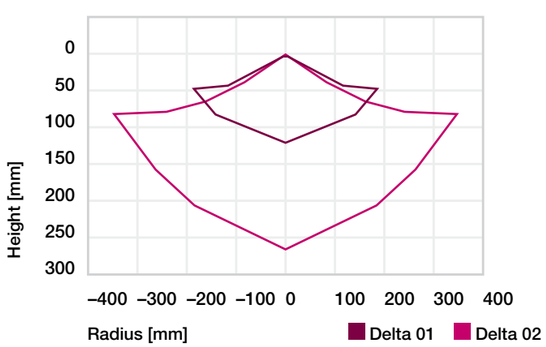


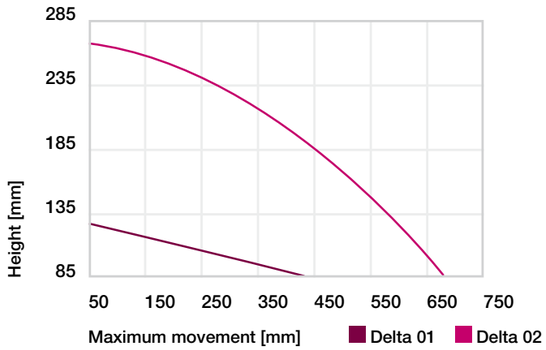
Delta robot consisting of:

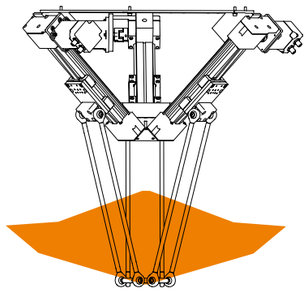
- 3 drylin® toothed belt axis with NEMA23 XL stepper motor with encoder
- Lightweight igubal® delta kinematics
- Mounting brackets for mounting in a frame and possibilities of adaptation for grippers/motor
- As a construction kit or completely pre-assembled in a transport rack
- Optional accessories: initiator kits, motor encoders and sensor cables
- Ready for connection with stepper motors for dryve D1 motor control system or as plug & play with the igus® Robot Control

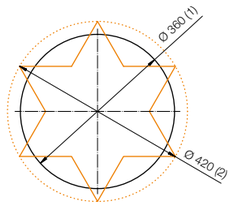
Technical data

Part No.		Delta 01 DLE-DR-0001	Delta 02 DLE-DR-0050
Positioning accuracy	[mm]	± 0.5	± 0.5
Working area diameter at 75mm	[mm]	360	660
Max. payload	[kg]	5	5
Max. process force at radius 0mm	[N]	100	100
Dynamics at 500g	[Picks/min]	Min. 60	Max. 30
Weight	[kg]	15	16
Track speed	[m/s]	3	0.7
Max. acceleration	[m/s²]	60	2









Travel
at a height of 75mm



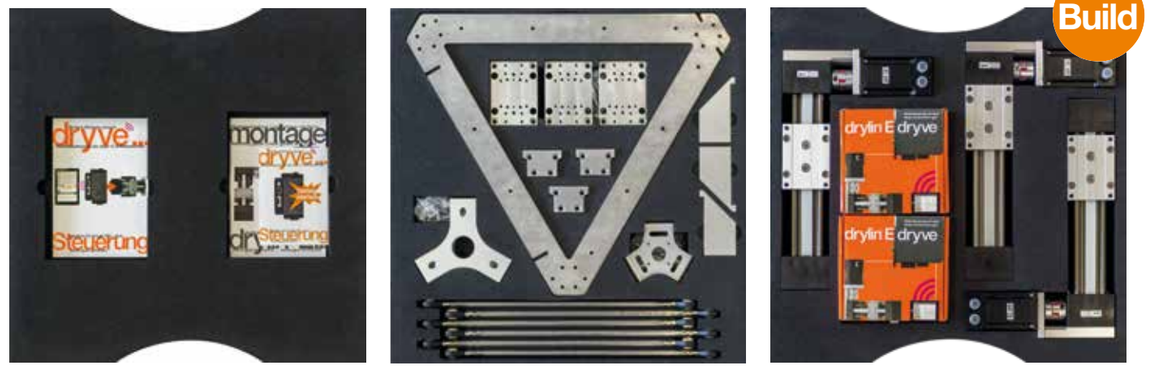
igus® Robot Control ▶ From page 718

EN 09/2023

Low Cost Automation

Low Cost Automation | Product range

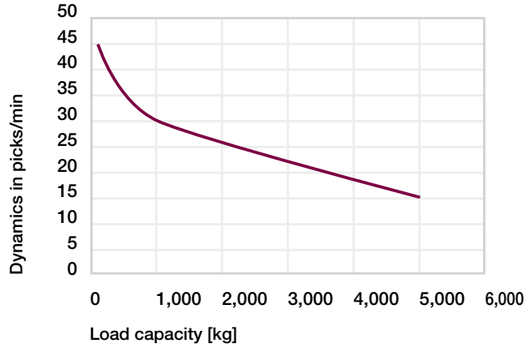
Delta robot kit

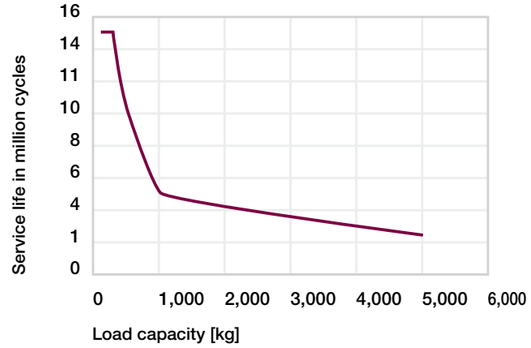


Optional accessories: initiator kits, motor encoders and sensor cables, calibrating pin, cable clip

▶ www.igus.eu/delta-robot

Part No. Delta 01	Delta 02	Description
DLE-DR-0001	DLE-DR-0050	Delta robot, kit in compact transport box
DLE-DR-0002	DLE-DR-0051	Delta robot, pre-installed kinematics, in transport rack made of profiled rails
DLE-DR-0003	DLE-DR-0052	Delta robot, kit in compact transport box, incl. 3x D1 dryve stepper motor control units
DLE-DR-0004	DLE-DR-0053	Delta robot, pre-installed kinematics, in transport box made of profiled rails, incl. 3x D1 dryve stepper motor control units





You can get the highest (picks/min) by using a master control system with path planning function. (e. g. Sinus acceleration ramp and optimised motor control parameters). Graph as shown applies to a load motor voltage of 48 [V] mounted in a stable and vibration-free frame.

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Low Cost Automation | Product range New

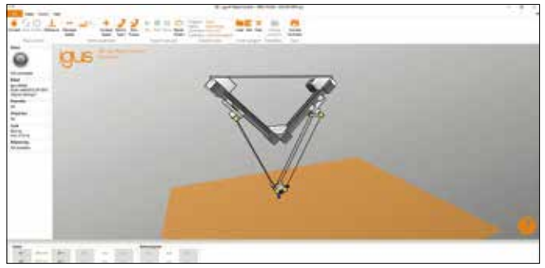
Delta robot as 2-axis kinematics



Delta robot consisting of:

- 2 drylin® toothed belt axis with NEMA23 XL stepper motor with encoder
- Lightweight igubal® delta kinematics
- For simple, fast and automated assembly tasks
- Ready for connection with stepper motors for dryve D1 motor control system or as plug & play with the igus® Robot Control

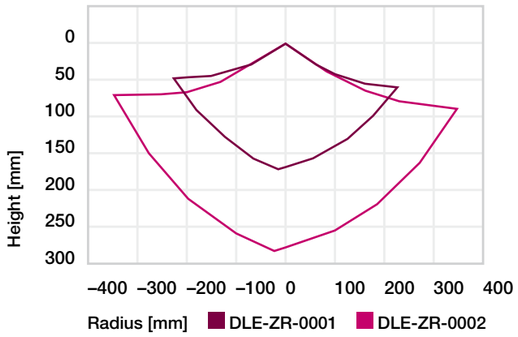
▶ Page 718

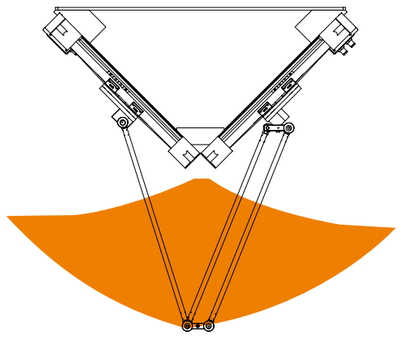


igus® Robot Control ▶ From page 718

Technical data

Part No.		DLE-ZR-0001	DLE-ZR-0002
Positioning accuracy	[mm]	± 0.5	± 0.5
Working area diameter at 75mm	[mm]	400	700
Max. payload	[kg]	5	5
Max. process force at radius 0mm	[N]	100	100
Dynamics at 500g	[Picks/min]	Min. 80	Max. 45
Weight	[kg]	15	16
Track speed	[m/s]	3	0.7
Max. acceleration	[m/s²]	60	2
Stroke -20mm for initiator	[mm]	200	315
Centre distance articulated rods	[mm]	450	550





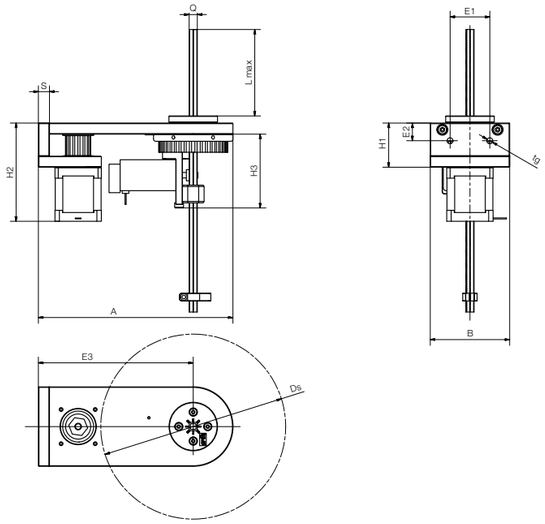
Notes

Low Cost Automation | Lift/turn unit | Product range

Compact, modular and lubrication-free



- Toothed, hard-anodised, corrosion-resistant square hollow section
- Combination with iglidur® J low friction element
- Modular design
- Drive: NEMA11 stepper motor



Further motors upon request/suitable initiators available

Dimensions [mm]

Part No.	F [g]	vL	vR	Lmax. ±0.15	(Ds) ±0.15	A	B ±0.15	H1	(H2) ±0.3	(H3)	E1	E2	E3	Q	tg h9	S
HSQ-10-1440-…	300	0.5	0.4	200	168	177	72	40	89	67	36	16	140	7.5	5.3	10

Order example
HSQ-10-1440-A-xxx-17-L-11-L
(incl. stepper motor NEMA17/11 with stranded wire)
HSQ-10-1440-A-xxx-17-E-11-E
(incl. stepper motor NEMA17/11 with encoder)

Low Cost Automation | SLQ linear module | Product range

Torque-resistant, controlled separately

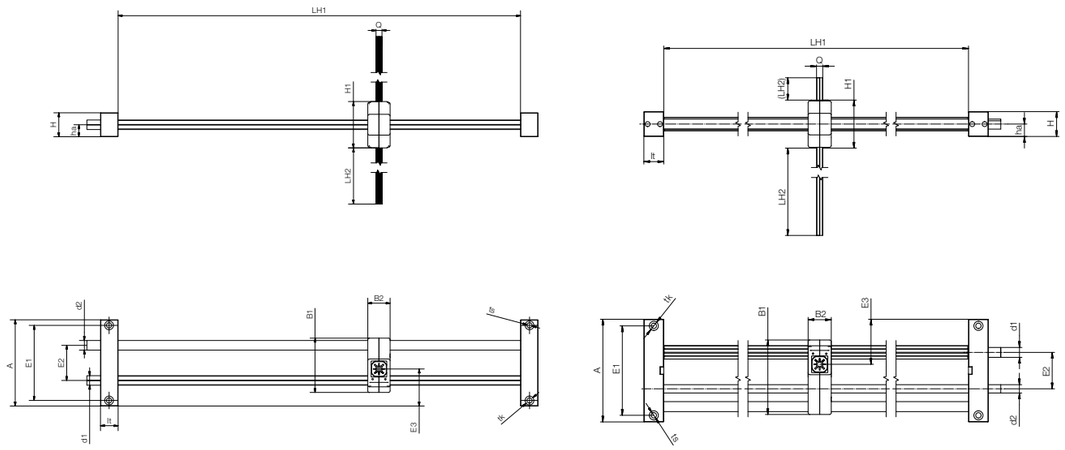


Torque-resistant, lubrication-free linear module. Low mass and compact in the working area.
One linear module with two directions of motion which can be controlled separately. This way, both drives are located outside the working area. This saves space and no unnecessary motor weight is moved. The linear guide is torque-resistant and thanks to the compact modular construction, high speeds can be reached with low power.

- Quiet and lightweight
- No electronics in the working area
- Compact structure
- Corrosion-resistant

Typical application areas:

- Medical technology
- Pick & place
- Gripper technology



Dimensions [mm]

Part No.	Max. axial F [N]	LH1	LH2	H	H1	ha	A	E1	E2
SLQ-1210-…	200	500	200	30	58	15	108	94	44
SLQ-121012-…	2	500	200	30	58	15	124	108	44

Part No.	E3	B1	B2	lt	d1	d2	ts	tk
SLQ-1210-…	46.5	68	28	22	12	12	6.6	–
SLQ-121012-…	30.0	90	28	22	12	10	6.6	11

Fast and flexible



Test the software free of charge

Fast, flexible and configurable: SCARA robots

Our SCARA robots can be used individually and flexibly. The SCARA can be used for applications with precision requirements of 0.5mm with a load of up to 2kg. This type of robot is typically used at cycle times of > 30 picks/minute. The suitable igus® Robot Control software can be downloaded free of charge in advance and is available as a version with control system in the control cabinet or as a top-hat (DIN) rail version. Our SCARA robots consist largely of our tribologically optimised plastics and enable significant cost savings. They also ensure a long service life and require no maintenance.

- For process speeds starting at two seconds
- With and without protective housing
- Individual z-axis lengths for RL-SCR-0101 available
- Can be controlled with igus® Robot Control ▶ **Page 718**

Available in 3-8 days
Detailed information about delivery time online.

Price breaks online
No minimum order value. No minimum order quantity

SCARA robot with three degrees of freedom



- Splash-proof thanks to protection class IP 44
- Tribologically optimised robot joints
- Joining links made of stainless steel
- Software available free of charge
- igus® Robot Control ▶ **Page 718**



Test the software free of charge

Technical data

		3 DOF[168)]
Part No.		RL-SCR-0102 New
Payload	[N]	20
Reach	[mm]	560
Speed	[Picks/min]	30
Min. service life	[Cycles]	10 million
IP protection class		IP44 splash water
Weight	[kg]	4.8
Workspace	[mm]	560
Precision (repeatability)	[mm]	±0.5
Max. acceleration	[m/s²]	1.5
Max. speed (TCP)	[m/s]	1.0
Ambient temperature	[°C]	0 to +50
Control system as a top-hat (DIN) rail version		RL-SCR-0102-48-0002-00-0
Control system as a switch cabinet version		RL-SCR-0102-48-0004-00-0

For more information, see the technical data sheet
▶ www.igus.eu/SCARA

[168)] **DOF: degree of freedom**

Low Cost Automation | SCARA | Product range New

Robot with four degrees of freedom



- Splash-proof thanks to protection class IP 45
- Tribologically optimised robot joints
- Joining links made of stainless steel
- Software available free of charge
- igus® Robot Control ▶ **Page 718**



Test the software free of charge

Technical data

		4 DOF[168)]
Part No.		RL-SCR-0101 New
Payload	[N]	20
Reach	[mm]	560
Reach along the z-axis	[mm]	500, can be customised upon request
Speed	[Picks/min]	30
Min. service life	[Cycles]	10 million
IP protection class		IP45 splash water
Weight	[kg]	8.7
Workspace	[mm]	560 x 500
Precision (repeatability)	[mm]	±0.5
Max. acceleration	[m/s²]	1.5
Max. speed (TCP)	[m/s]	1.0
Ambient temperature	[°C]	0 to +50
Control system as a top-hat (DIN) rail version		RL-SCR-0101-48-0002-00-0
Control system as a switch cabinet version		RL-SCR-0101-48-0004-00-0

For more information, see the technical data sheet
▶ www.igus.eu/SCARA

[168)] DOF: degree of freedom

Low Cost Automation

Low Cost Automation | SCARA | Product range New

SCARA robot with four degrees of freedom, with cladding



- Splash-proof thanks to protection class IP 45
- Tribologically optimised robot joints
- Joining links made of stainless steel
- Software available free of charge
- igus® Robot Control ▶ **Page 718**



Test the software free of charge

Technical data

		4 DOF[168)]
Part No.		RL-SCR-0100 New
Payload	[N]	20
Reach	[mm]	560
Reach along the z-axis	[mm]	500
Speed	[Picks/min]	30
Min. service life	[Cycles]	10 million
IP protection class		IP45 splash water
Weight	[kg]	20.3
Workspace	[mm]	560 x 500
Precision (repeatability)	[mm]	±0.5
Max. acceleration	[m/s²]	1.5
Max. speed (TCP)	[m/s]	1.0
Ambient temperature	[°C]	0 to +50
Control system as a top-hat (DIN) rail version		RL-SCR-0100-48-0002-00-0
Control system as a switch cabinet version		RL-SCR-0100-48-0004-00-0

For more information, see the technical data sheet
▶ www.igus.eu/SCARA

[168)] DOF: degree of freedom

robolink® | igus® robot control system

Modular control and software



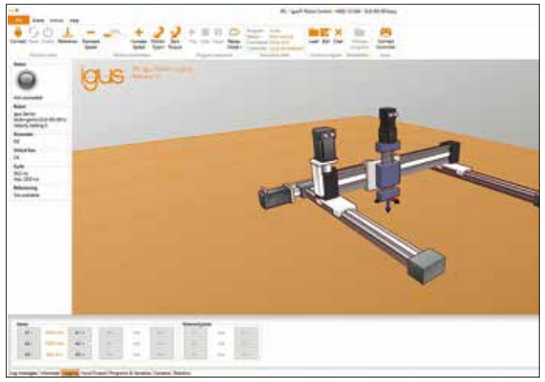
Option A, control cabinet
Part No.
RL-IRC-SJ-003-48-02-00-0

First robotics control software by igus®

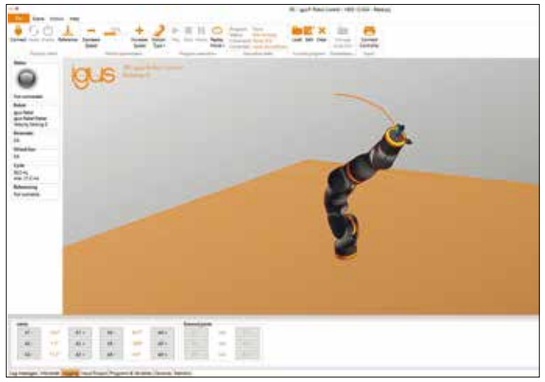
- Diverse automation tasks with simple programming software
- For single axes, linear, flat linear, room linear, and delta robots
- Easy software installation for Windows 10
- Use with a PC or tablet
- Seven digital inputs/outputs, CRI interface, ModbusTCP (gateway from CANopen) for connection to master control systems, e. g. Siemens or Beckhoff
- 1m cable length

Other functions:

- Teach-in: handheld control functions for linear robot systems and delta robots
- Interfaces: ModBus, digital I/Os, Ethernet CRI, ROS, etc
- Communication: Ethernet or Wi-Fi
- Sample programs: over 100 sample programs for igus® linear robots, delta robots, articulated arm robots, Scara, etc.
- Motion sequences: circular movement, velocity commands, if-then-else, matrix calculation, etc.











Option B, top-hat (DIN) rail
Part No.
RL-IRC-SJ-003-48-01-00-0

Option A/B
Control cabinet/top-hat (DIN) rail
Scope of delivery: top-hat (DIN) rail module support, top-hat (DIN) rail module stepper, top-hat (DIN) rail module digital IO, mounting brackets and cables (CAN, supply, motor connection, 24V power supply, etc.), igus® Robot Control software for Windows, documentation

On request
- ▶ www.igus.eu/linear-robots
- ▶ www.igus.eu/DP
- ▶ www.igus.eu/ReBel
- ▶ www.igus.eu/robolink/scara-robots

Software download
- ▶ www.igus.eu/irc-enquiry

Technical data

Protection class		IP30
Ambient temperature	[°C]	0 to +45
Length	[mm]	600
Width	[mm]	300
Height	[mm]	155
Logic voltage	[V/A]	24/5
Output voltage	[V DC]	48
Output current	[A]	10
Power	[W]	480
Signal indicators		LED status indicators on the modules
EC approval		EN 61000-6-2, EN 61000-6-3

Low Cost Automation

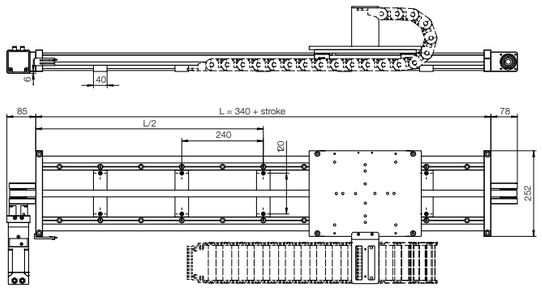
Low Cost Automation | Accessories | Product range New

Adapter kits: seventh axis for robots





- Up to four times more workspace for robots
- Ready-to-install linear axis 7 in robotics
- Flexible stroke length of up to 3,000mm; longer stroke lengths available upon request
- Suitable adapter kits for robolink® RL-DP, Epson Scara T3 and T6; articulated arm VT6; Universal Robots UR3e, UR5e, UR10e, UR16e; and many more
- 7th axis: ZLW-20 ▶ **Page 346**



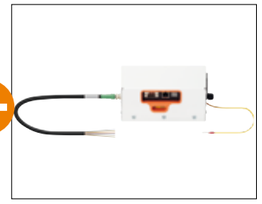
Adapter kit for 7th axis

Part No.		Suitable for
ZLW-20200S-7TH-DCUR-01-1	New	Universal Robots UR3, UR5, UR10, robolink® DC
ZLW-20200S-7TH-DP-01-xxxx	New	robolink® DP
ZLW-20200S-7TH-EPS-01-xxxx	New	Epson T3, T6, VT6
ZLW-20200S-7TH-IO-01-xxxx	New	ReBeL®

Complete system consisting of ZLW-20200 and adapter kit - Part No.: ZLW-20200S-7TH-DP-01-XXX. There is a specific part number with the right adapter kit for the robot in question.



Adapter plates for Omron, Franka Emika, Doosan, Yuanda Robotics, igus® robots and much more. Please contact us.



Switch cabinet integration for 7th axis

Adapter kit for UR3/UR5/UR7 is delivered in an unassembled condition. Energy chain not included in the scope of delivery. More information and ordering at: ▶ www.igus.eu/7th-axis

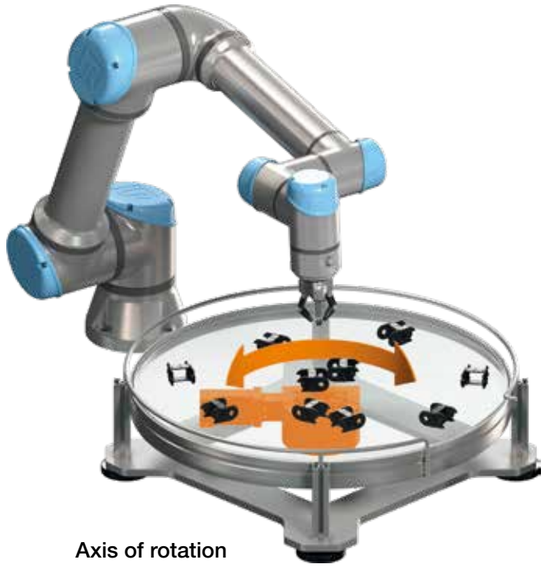
Delivery time from 4 weeks

igus EN 09/2023

Low Cost Automation

Low Cost Automation | Accessories | Product range New

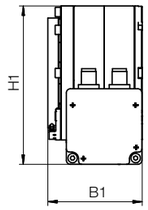
Rotary axis for robots

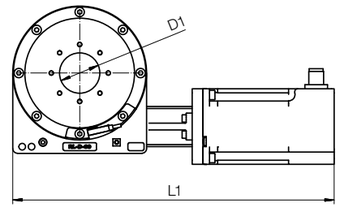


Axis of rotation

- Allows circular workpiece movements and continuous transport to various stations in a single work step
- Consists of the following components: worm gear, installation size 50, 48:1, and NEMA23XL stepper motor with connector, encoder, and proximity switch
- Worm gears with robolink® RL-D-A0210 are also possible for UR







Rotary axis for robots [mm]

Part No.		Max. tightening torque [Nm]	Rated speed [1/min]	Rated torque [Nm]	Installation size	Motor type	Mechanical service life [Cycles]
RL-D-50-A0210	New	50	6	15	50	Stepper motor	Min. 1,000,000

Dimensions

Part No.		D1	B1	H1	L1
RL-D-50-A0210	New	50	6	15.0	50

EN 09/2023 igus

Low Cost Automation | Accessories | Product range New

Robot cells for all igus® robots



- Suitable for igus® articulated arm, SCARA delta, and linear robots
- Robot frame made of aluminium profiles
- One module, 50 robot types, and endless applications
- With emergency stop, start, and stop display and CE documentation
- The robot and control cabinet are installed by igus®
- Energy chains not included in the price

For more information, see the technical data sheet
▶ www.igus.eu/lca-robocube

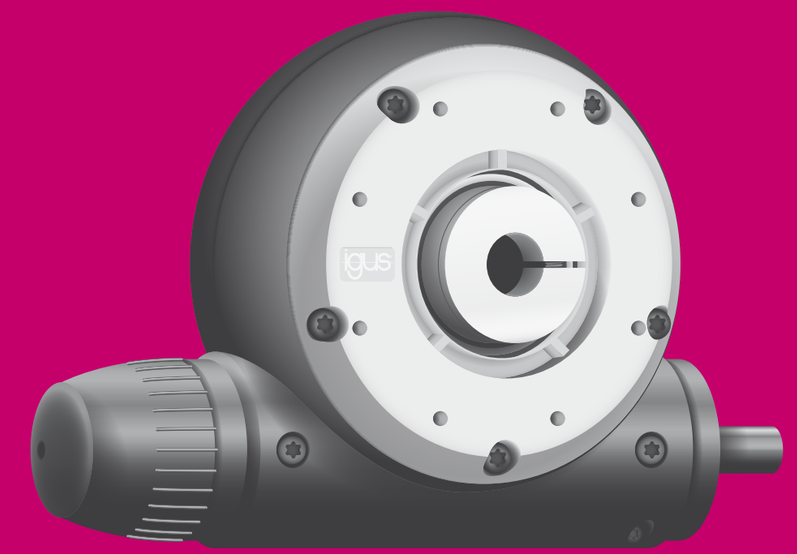
Technical data

Part No.	Length [mm]	Width [mm]	Height [mm]	Weight [kg]	EC guideline	Design
ROBOCUBE-0100 New	1,000	937.23	2,030	80	EMC guideline	With attachment openings
ROBOCUBE-0101 New	1,000	937.23	2,030	80	EMC guideline	With doors



Example image

EN 09/2023



Modular gearbox system

Worm gears

Planetary gearbox

Cantilever axis

Strain wave gear





robolink® D | Worm gears | Technical data

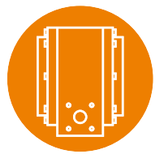
Worm gear with two PRT slewing rings, with plain bearings



Order key

Type	Options
RL - D - 20 - 101 - 38 - 01033	

robolink® | Direct drive | Installation size | Design | Transmission ratio | Version



Lateral view



Gearbox technology

● Available with motor or hand wheel

Technical data

Part No.	Size (H x W x D)	Shaft Ø	Transmission	Axis distance	Backlash	Breakaway torque	Max. axial dyn. load on output
	[mm]	[mm]	[mm/rev]	[mm]	[°]	[cNm]	[N]
RL-D-20-101-38-01033	90 x 80 x 67	8	1:38	31	<0.5°	< 5	> 500
RL-D-20-101-70-01033	90 x 80 x 67	8	1:70	31	<0.5°	< 5	> 500
RL-D-30-101-5-01033	110 x 100 x 94	10	1:5	40	<0.5°	< 7	> 700
RL-D-30-101-50-01033	110 x 100 x 94	10	1:50	40	<0.5°	< 7	> 700
RL-D-30-101-70-01033	110 x 100 x 94	10	1:70	40	<0.5°	< 7	> 700
RL-D-50-101-48-01033	170 x 150 x 103	15	1:48	63	<0.5°	< 10	> 1,200
RL-D-50-101-70-01033	170 x 150 x 103	15	1:70	63	<0.5°	< 10	> 1,200

Part No.	Speed at max. load	Weight	Efficiency	Breaking moment (static)	Max. output dynamic torque 12rpm	
					Periodic use (<30%)	Continuous use
	[rpm]	[g]		[Nm]	[Nm]	[Nm]
RL-D-20-101-38-01033	20	610	0.45	30	7.5	5
RL-D-20-101-70-01033	20	610	0.35	20	3.8	2.5 (9rpm)
RL-D-30-101-5-01033	12	1,180	0.65	40	7.5	5
RL-D-30-101-50-01033	12	1,180	0.40	60	15.0	10
RL-D-30-101-70-01033	12	1,180	0.30	30	11.3	7.5 (6rpm)
RL-D-50-101-48-01033	8	3,050	0.40	180	37.5	25
RL-D-50-101-70-01033	8	3,050	0.30	140	30.0	20

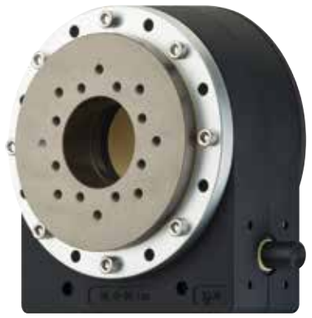
Delivery time
2-3 days

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Low Cost Automation

robolink® D | Worm gears | Technical data

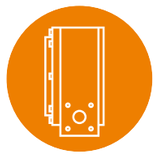
Worm gear with one PRT slewing rings, with plain bearings



Order key

Type	Options
RL - D - 20 - 102 - 38 - 01035	

robolink® | Direct drive | Installation size | Design | Transmission ratio | Version



Lateral view



Gearbox technology

● Available with motor or hand wheel

Technical data

Part No.	Size (H x W x D)	Shaft Ø	Transmission	Axis distance	Backlash	Breakaway torque	Max. axial dyn. load on output
	[mm]	[mm]	[mm/rev]	[mm]	[°]	[cNm]	[N]
RL-D-20-102-38-01035	90 x 80 x 67	8	1:38	31	<0.5°	< 5	> 500
RL-D-20-102-70-01035	90 x 80 x 67	8	1:70	31	<0.5°	< 5	> 500
RL-D-30-102-5-01035	110 x 100 x 94	10	1:5	40	<0.5°	< 7	> 700
RL-D-30-102-50-01035	110 x 100 x 94	10	1:50	40	<0.5°	< 7	> 700
RL-D-30-102-70-01035	110 x 100 x 94	10	1:70	40	<0.5°	< 7	> 700
RL-D-50-102-48-01035	170 x 150 x 103	15	1:48	63	<0.5°	< 10	> 1,200
RL-D-50-102-70-01035	170 x 150 x 103	15	1:70	63	<0.5°	< 10	> 1,200

Part No.	Speed at max. load	Weight	Efficiency	Breaking moment (static)	Max. output dynamic torque 12rpm	
					Periodic use (<30%)	Continuous use
	[rpm]	[g]		[Nm]	[Nm]	[Nm]
RL-D-20-102-38-01035	20	470	0.45	30	7.5	5
RL-D-20-102-70-01035	20	470	0.35	20	3.8	2.5 (9rpm)
RL-D-30-102-5-01035	12	890	0.65	40	7.5	5
RL-D-30-102-50-01035	12	890	0.40	60	15.0	10
RL-D-30-102-70-01035	12	890	0.30	30	11.3	7.5 (6rpm)
RL-D-50-102-48-01035	8	2,300	0.40	180	37.5	25
RL-D-50-102-70-01035	8	2,300	0.30	140	30.0	20

Delivery time
2-3 days

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robolink® D | Worm gears | Technical data

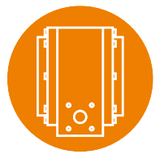
Worm gear, with ball bearings



Order key

Type	Options
RL - D - 20 - 105 - 38 - 010BB	

robolink® | Direct drive | Installation size | Design | Transmission ratio | Version



Lateral view



Gearbox technology

● Available with motor or hand wheel

Technical data

Part No.	Size (H x W x D)	Shaft Ø	Trans-mission	Axis distance	Backlash	Breakaway torque	Max. axial dyn. load on output
	[mm]	[mm]	[mm/rev]	[mm]	[°]	[cNm]	[N]
RL-D-20-105-38-010BB	90 x 80 x 67	8	1:38	31	<0.5°	< 5	> 250
RL-D-20-105-70-010BB	90 x 80 x 67	8	1:70	31	<0.5°	< 5	> 250
RL-D-30-105-5-010BB	110 x 100 x 94	10	1:5	40	<0.5°	< 7	> 450
RL-D-30-105-50-010BB	110 x 100 x 94	10	1:50	40	<0.5°	< 7	> 450
RL-D-30-105-70-010BB	110 x 100 x 94	10	1:70	40	<0.5°	< 7	> 450
RL-D-50-105-48-010BB	170 x 150 x 103	15	1:48	63	<0.5°	< 10	> 1,000
RL-D-50-105-70-010BB	170 x 150 x 103	15	1:70	63	<0.5°	< 10	> 1,000

Part No.	Speed at max. load	Weight	Efficiency	Breaking moment (static)	Max. output dynamic torque 12rpm	
					Periodic use (<30%)	Continuous use
	[rpm]	[g]		[Nm]	[Nm]	[Nm]
RL-D-20-105-38-010BB	20	320	0.45	30	7.5	5
RL-D-20-105-70-010BB	20	320	0.35	20	3.8	2.5 (9rpm)
RL-D-30-105-5-010BB	12	620	0.65	40	7.5	5
RL-D-30-105-50-010BB	12	620	0.40	60	15.0	10
RL-D-30-105-70-010BB	12	620	0.30	30	11.3	7.5 (6rpm)
RL-D-50-105-48-010BB	8	2,730	0.40	180	37.5	25
RL-D-50-105-70-010BB	8	2,730	0.30	140	30.0	20

Delivery time
2-3 days

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robolink® D | Worm gears | Technical data

Worm gears, with ball bearings

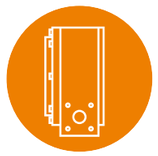
Low Cost Automation



Order key

Type	Options
RL - D - 20 - 106 - 38 - 010B5	

robolink® | Direct drive | Installation size | Design | Transmission ratio | Version



Lateral view



Gearbox technology

● Available with motor or hand wheel

Technical data

Part No.	Size (H x W x D)	Shaft Ø	Trans-mission	Axis distance	Backlash	Breakaway torque	Max. axial dyn. load on output
	[mm]	[mm]	[mm/rev]	[mm]	[°]	[cNm]	[N]
RL-D-20-106-38-010B5	90 x 80 x 67	8	1:38	31	<0.5°	< 5	> 250
RL-D-20-106-70-010B5	90 x 80 x 67	8	1:70	31	<0.5°	< 5	> 250
RL-D-30-106-5-010B5	110 x 100 x 94	10	1:5	40	<0.5°	< 7	> 450
RL-D-30-106-50-010B5	110 x 100 x 94	10	1:50	40	<0.5°	< 7	> 450
RL-D-30-106-70-010B5	110 x 100 x 94	10	1:70	40	<0.5°	< 7	> 450
RL-D-50-106-48-010B5	170 x 150 x 103	15	1:48	63	<0.5°	< 10	> 1,000
RL-D-50-106-70-010B5	170 x 150 x 103	15	1:70	63	<0.5°	< 10	> 1,000

Part No.	Speed at max. load	Weight	Efficiency	Breaking moment (static)	Max. output dynamic torque 12rpm	
					Periodic use (<30%)	Continuous use
	[rpm]	[g]		[Nm]	[Nm]	[Nm]
RL-D-20-106-38-010B5	20	280	0.45	30	7.5	5
RL-D-20-106-70-010B5	20	280	0.35	20	3.8	2.5 (9rpm)
RL-D-30-106-5-010B5	12	520	0.65	40	7.5	5
RL-D-30-106-50-010B5	12	520	0.40	60	15.0	10
RL-D-30-106-70-010B5	12	520	0.30	30	11.3	7.5 (6rpm)
RL-D-50-106-48-010B5	8	2,140	0.40	180	37.5	25
RL-D-50-106-70-010B5	8	2,140	0.30	140	30.0	20

Delivery time
2-3 days

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robolink® D | Worm gears | Product range

robolink® D worm gear with stepper motor



RL-D-20-A0206



RL-D-30-A0207



RL-D-50-A0129

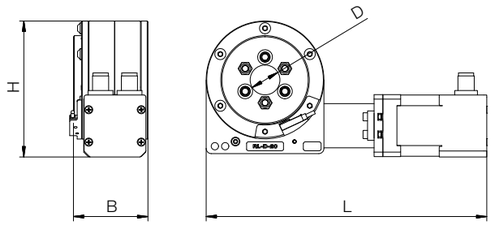


RL-D-30-A0171



Gearbox technology

- Adaptable to various motors, standard option: NEMA17 / 23 / 23XL stepper motor
- INI kit for zero position optionally adaptable
- Motor kits available online



Motor kit

Motor type igus® stepper motor	Distance over hubs [mm]	Versions
NEMA17, NEMA23, NEMA23XL	42, 56, 60	-00: with strand wires -01: with stepper motor without encoder -02: with motor encoder -NM: version without motor

Technical data

Joint		Installation size 20 RL-D-20-101-38-xxxxx	Installation size 30 RL-D-30-101-50-xxxxx		Installation size 50 RL-D-50-101-48-xxxxx	
Motor		**+ NEMA17**	**+ NEMA17**	**+ NEMA23**	**+ NEMA23**	**+ NEMA23XL**
Motor type			Stepper motor			
Weight (with standard joint)	[g]	890	1,140	1,860	2,540	2,970
Max. radial torque strength (short-term)	[Nm]	5	6	12	21	38
Max. radial torque strength (long-term)	[Nm]	4	5	8	18	33
Max. speed (at max. load)	[rpm]	5	4	4	4	4
Max. axial dynamic load (horizontal installation)	[N]	> 500	> 700	> 700	> 1,200	> 1,200

Delivery time
2-3 days

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robolink® D | Worm gears | Product range

robolink® D worm gear with DC motor



RL-D-20-A0202

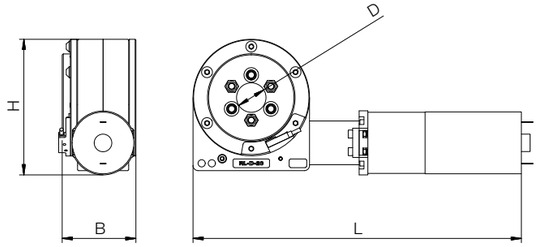


RL-D-30-A0203



RL-D-50-A0204

- Assembly of robot joint, motor kit, INI kit
- Optionally with cables ▶ **Page 674** and motor control systems ▶ **Page 662**
- Motor kits available online



Technical data

	Weight	Max. output torque	Max. speed (at max. load)	Service life gearbox
Installation size 20	[kg]	[Nm]	[rpm]	
RL-D-20-A0202	1.06	7.0	6	Min. 1,000,000 cycles[169)]
Installation size 30				
RL-D-30-A0203	1.50	15.0	3	Min. 1,000,000 cycles[169)]
Installation size 50				
RL-D-50-A0204	4.80	37.5	3	Min. 1,000,000 cycles[169)]

[169)] At a rated torque of 2.5Nm and a rated speed of 30rpm

Dimensions [mm]

Part No.	D	B	L	H
Installation size 20				
RL-D-20-A0202	20	50.5	233.7	90.0
Installation size 30				
RL-D-30-A0203	30	63.5	253.7	110.0
Installation size 50				
RL-D-50-A0204	50	87.5	303.77	170.5

Delivery time
2-3 days

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Low Cost Automation

Order key

Type	Options

RL - D - 20 - A0202

- robolink®
- Direct drive
- Installation size
- Version



Gearbox technology

drygear® Apiro® | Product range

Apiro® worm gear joints, basic shapes



Joint



Joint with coupling



Joint with turntable

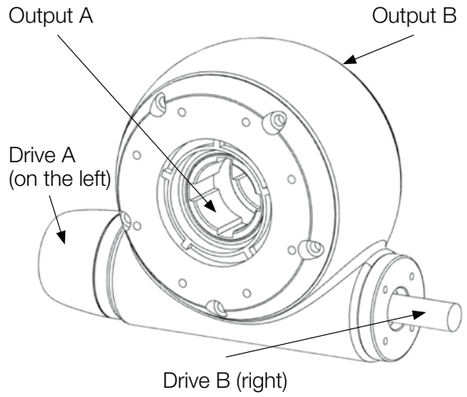




Joint with turntable on both sides



Gearbox technology



Technical data

Designation	Transmission	Self-locking	Max. speed [rpm]	Max. output torque [Nm]	Breaking moment [Nm]	F stat. axial [N]	Backlash [°]
Joint	4:1	–	160	2.5	20	250	< 0.5
	8:1	–	80	2.5	20	250	< 0.5
	32:1	–	20	2.5	20	250	< 0.5
	64:1	Yes	10	1.5	10	250	< 0.5

Apiro® iDeas



- Simply recreate ideas for automation systems
- With connection to dryspin®
- Select automation solution - download parts lists and CAD files

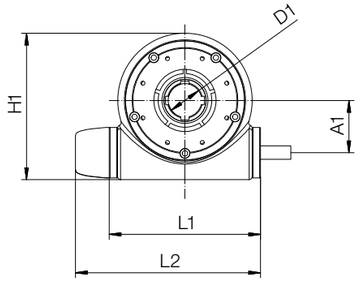
▶ **igus.eu/apiro-ideas**

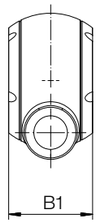
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drygear® Apiro® | Product range

Apiro® worm gear joints



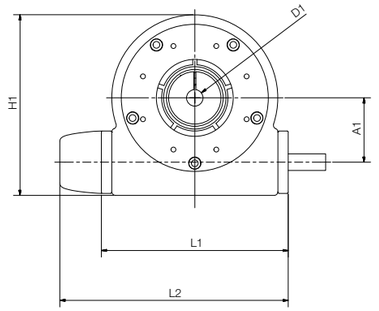


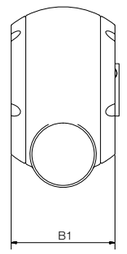


Technical data and dimensions [mm] - standard version

Part No.	Transmission	L1	L2	H1	B1	D1	D2 ØT	A1	Weight [g]
RL-A10.0105	4:1	90	110	87	50	8	20	31	230
RL-A10.0104	8:1	90	110	87	50	8	20	31	230
RL-A10.0106	32:1	90	110	87	50	8	20	31	230
RL-A10.0107	64:1	90	110	87	50	8	20	31	230







Technical data and dimensions [mm] - with coupling

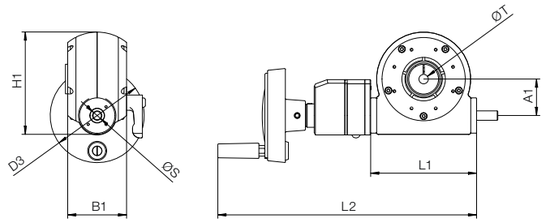
Part No.	Transmission	L1	L2	H1	B1	D1	D2 ØT	A1	Weight [g]
RL-A10.0117	4:1	90	110	87	50	8	8	31	240
RL-A10.0200	8:1	90	110	87	50	8	8	31	240
RL-A10.0118	32:1	90	110	87	50	8	8	31	240
RL-A10.0119	64:1	90	110	87	50	8	8	31	240
RL-A10.0220	4:1	90	110	87	50	8	12	31	240
RL-A10.0207	8:1	90	110	87	50	8	12	31	240
RL-A10.0204	32:1	90	110	87	50	8	12	31	240
RL-A10.0203	64:1	90	110	87	50	8	12	31	240

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drygear® Apiro® | Product range

Apiro® worm gear joints

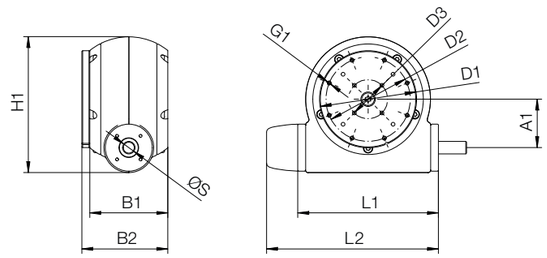




Technical data and dimensions [mm] - with coupling, manual clamp, position indicator and hand wheel

Part No.	Transmission	L1	L2	H1	B1	D1 ØS	D2 ØT	D3	A1	Weight [g]
RL-A10.0129 New	4:1	90	220	87	50	8	8	80	31	495
RL-A10.0208 New	8:1	90	220	87	50	8	8	80	31	495
RL-A10.0130 New	32:1	90	220	87	50	8	8	80	31	495
RL-A10.0131 New	64:1	90	220	87	50	8	8	80	31	495
RL-A10.0221 New	4:1	90	220	87	50	8	12	80	31	495
RL-A10.0222 New	8:1	90	220	87	50	8	12	80	31	495
RL-A10.0213 New	32:1	90	220	87	50	8	12	80	31	495
RL-A10.0219 New	64:1	90	220	87	50	8	12	80	31	495





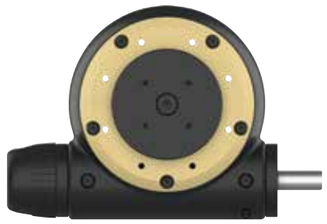
Technical data and dimensions [mm] - with turntable

Part No.	Transmission	L1	L2	H1	B1	B2	D1	D2	D3	S Ø	A1	G1	Weight [g]
RL-A10.0138 New	4:1	90	110	87	50	55	62	54	25	8	31	M3x0.5	250
RL-A10.0170 New	8:1	90	110	87	50	55	62	54	25	8	31	M3x0.5	250
RL-A10.0114 New	32:1	90	110	87	50	55	62	54	25	8	31	M3x0.5	250
RL-A10.0139 New	64:1	90	110	87	50	55	62	54	25	8	31	M3x0.5	250

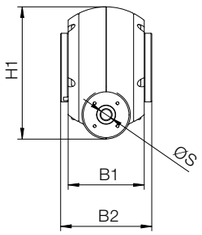
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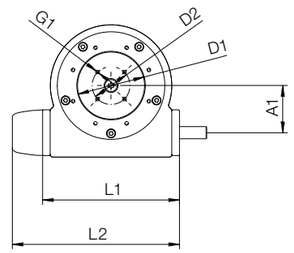
drygear® Apiro® | Product range

Low Cost Automation









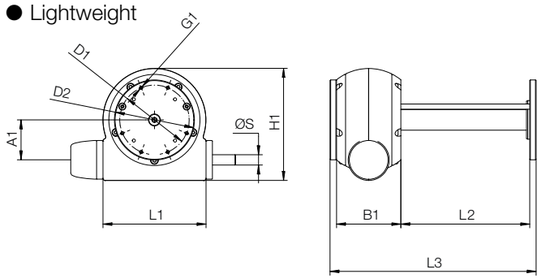
Technical data and dimensions [mm] - with turntable on both sides

Part No.	Transmission	L1	L2	H1	B1	B2	D1	D2	S Ø	A1	G1	Weight [g]
RL-A10.0209 New	4:1	90	110	87	50	55	45	25	8	31	M3x0.5	280
RL-A10.0206 New	8:1	90	110	87	50	55	45	25	8	31	M3x0.5	280
RL-A10.0210 New	32:1	90	110	87	50	55	45	25	8	31	M3x0.5	280
RL-A10.0211 New	64:1	90	110	87	50	55	45	25	8	31	M3x0.5	280

Apiro® lift/push drive



- Dry operation thanks to tribologically optimised plastics
- Adjustment can be motorised or manual
- Suitable for splash water applications
- Lightweight



Technical data and dimensions [mm]

Part No.	load [N]	Feed rate [mm/rev]	Stroke [mm]	Speed [mm/s]	L1	L2	H1	B1	D1	D2	S Ø	A1	G1
RL-A18.0101.□ New	250	0.5	10-250	5	80	10-250	87	50	27	62	8	31	M3

Stroke freely configurable from 10-250mm

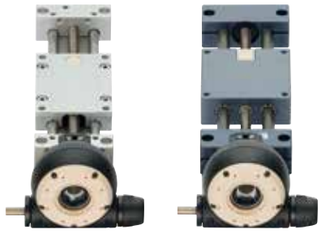
EN 09/2023

drygear® Apiro® | Product range New

Connection to linear units



Apiro® worm gear with adapter plate



Direct connection to drylin® drive technology

An adapter allows Apiro® gearboxes can be mounted directly on the output journal of drylin® SHT and SLW linear modules. Thanks to this structure, drylin® systems can be synchronized and several Apiro® gearboxes connected in series.

The right adapter plate is also required for connecting a linear unit.

- Combination and synchronisation with the drylin® drive technology modular system
- Set-up instructions including parts list

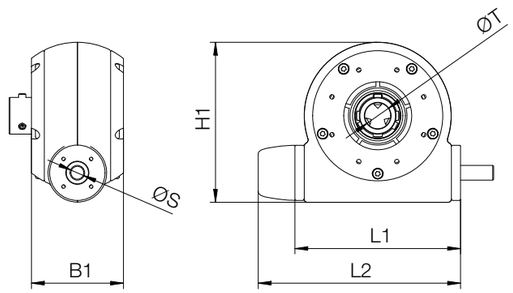
An Apiro® worm gear with connection to drylin® is also needed.

▶ **www.igus.eu/apiro-format-adjustment**

Technical data - adapter plate

Part No.	Available options
RL-A54.0114 New	SHT-12 / SLW-10xx
RL-A54.0113 New	SLW-1660
RL-A54.0115 New	SHT-20
RL-A54.0117 New	SHT-BB-20 / SLW-BB-2080
RL-A54.0116 New	SHT-30
RL-A54.0118 New	SHT-BB-30 / SLW-BB-25120
RL-A54.0121 New	SLW-10xx (zinc shaft end support)





Technical data and dimensions [mm] - with connection to drylin®

Part No.	Transmission	L1	L2	H1	B1	D1	D2 ØT	A1	Weight [g]
RL-A10.0182 New	4:1	90	110	87	50	8	14	31	240
RL-A10.0183 New	8:1	90	110	87	50	8	14	31	240
RL-A10.0184 New	32:1	90	110	87	50	8	14	31	240
RL-A10.0185 New	64:1	90	110	87	50	8	14	31	240

Also available with a hand wheel and other accessories ▶ www.igus.eu/apiro-drylin

EN 09/2023

drygear® Apiro® | Product range New

Connection to linear units



Direct connection to dryspin® lead screw technology

Lead screws with diameters of 10, 12, and 16mm can be connected directly to Apiro® gearboxes with the output journal. Depending on the thread pitch, the lead screw can be moved.

You will find the igus® lead screw shop online:

▶ **igus.eu/apiro-format-adjustment**

Technical data

Part No.	Transmission	Available options
RL-A10.0190 New	4:1	TR16x2
RL-A10.0191 New	32:1	TR16x2
RL-A10.0192 New	64:1	TR16x2
RL-A10.0193 New	4:1	DS10x25
RL-A10.0194 New	32:1	DS10x25
RL-A10.0195 New	64:1	DS10x25
RL-A10.0196 New	4:1	DS12x5
RL-A10.0197 New	32:1	DS12x5
RL-A10.0198 New	64:1	DS12x5



Synchronising drylin® linear axes with Apiro® worm gears allows automated format adjustment for the packaging and beverage industry

EN 09/2023

drygear® Apiro® | Product range

Rack gears



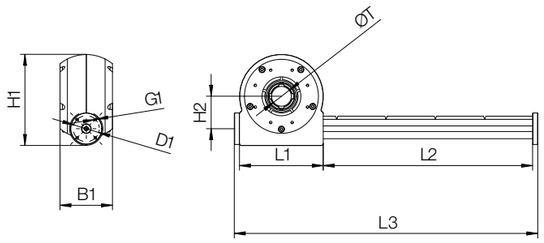
RL-A14.0107



RL-A14.0109

The rack gears allow different strokes in the application and include rack and pinion elements. They are configurable in different lengths - for pusher applications, for example. The version with coupling makes it easy to synchronise several rack and pinion gears.

- Motor drive or manual drive
- Modules can be connected in series or in parallel
- INI kit available for all options
- Application temperature: +5°C to +50°C



Order example
RL-A14.0107.3
(rack gear, 60mm stroke)

Technical data

Part No.	Feed rate per rotation [mm]	Backlash [°]	Max. load [N]	Weight [g]
RL-A14.0107.☐ New	125.66	< 0.5	25	ab 330
RL-A14.0109.☐ New	125.66	< 0.5	25	ab 330
RL-A14.0114.☐ New	125.66	< 0.5	25	ab 330

Dimensions [mm]

Part No.	T ø	L1	H1	H2	B1	D1	G1
RL-A14.0107.☐ New	20	80	87	31	50	25	M3
RL-A14.0109.☐ New	8	80	87	31	50	25	M3
RL-A14.0114.☐ New	12	80	87	31	50	25	M3

Part No. add-on ☐	L2 Stroke	L3 Total system length
... 3	60	150
... 4	110	200
... 5	155	245
... 6	200	290
... 7	250	340
... 8	295	385
... 9	345	435
... 10	390	480
... 11	440	530
... 12	485	575
... 13	530	620

Part No. add-on ☐	L2 Stroke	L3 Total system length
... 14	580	670
... 15	625	715
... 16	675	765
... 17	720	810
... 18	770	860
... 19	815	905
... 20	860	950
... 21	910	1000
... 22	955	1045
... 23	1005	1095
... 24	1,050	1140

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drygear® Apiro® | Product range New

Rack gears with integrated planetary gearbox



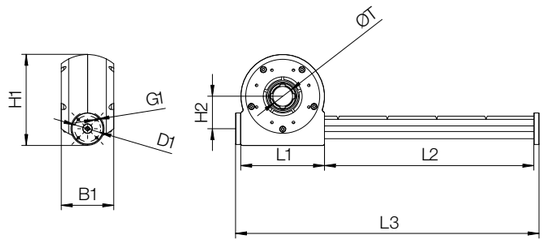
RL-A16.0102.XX



Gearbox technology

The Apiro® rack and pinion gear with integrated planetary gearbox allows direct connection of NEMA stepper motors or DC motors, creating a very compact unit.

- Lubrication and maintenance-free
- Greater forces possible with the same installation space
- High efficiency
- High positioning accuracy
- Transmission: 4:1



Technical data

Part No.	Profile diameter [mm]	Axis distance [mm]	Backlash [°]	Max. load [N]	Feed rate per rotation [mm]	Weight [g]
RL-A16.0102.☐ New	20	31	< 0.5	25	31.42	ab 280

Stroke lengths according to the additional table on the left

Dimensions [mm]

Part No.	L1	L2	L3	H1	H2	B1	D1	G1	T ø
RL-A16.0102.☐ New	80	60 - 1,050	150 - 1,140	87	31	50	25	M3	20

Delivery time
2-3 days

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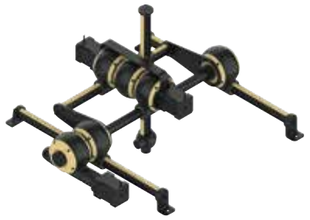
drygear® Apiro® | Robotics kit New

One robot gear set for eight systems

Apiro® robot modular gearbox systems now available as a starter kit. Assemble your own robot - includes instructions.

- Lightweight due to igus® high-performance polymers
- Infinite combination options
- Individual kinematics can be implemented
- Easy assembly with the help of instructions
- Motor and magnet picker included in delivery, control system available upon request

Part No. RL-A9.0200



Apiro® room linear robot



Apiro® flat linear robot



Apiro® mini articulated robot



Apiro® pusher



Apiro® 2-axis picker



Apiro® 3-axis picker



Apiro® 360° picker



Apiro® SCARA

Example image

igus EN 09/2023

drygear® strain wave gear | Product range New

Low Cost Automation

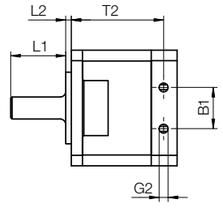
drygear® strain wave gear output shaft

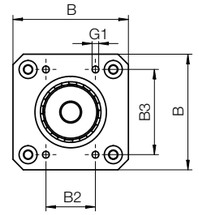


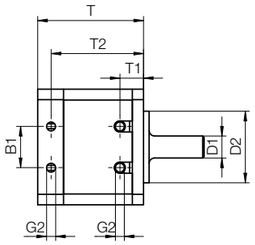


Gearbox technology

- Lightweight due to igus® high-performance polymers
- Extremely compact for integration into robotics
- All-round improved performance and running performance
- A direct output shaft enables the connection of various couplings such as shaft couplings, elastomer couplings, metal ball couplings

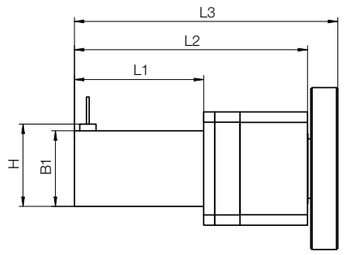


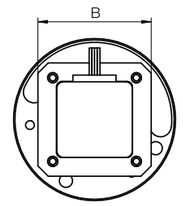




Dimensions [mm]

Part No.	B	B1	B2	B3	D1 ø	D2 ø	G1	G2	L1	T	T1	T2
RL-S-17-28-AA-02 New	42	15	18	31	8 h7	26 h7	M3x4	M4x4	20	38.5	8.6	33.6





Part No.	Design	B	B1	L1	L2	L3	H	Weight [g]
RL-S-17-28-AA-N11-00 New	With stranded wire	42.0	28.0	47.5	87.4	98.6	30.5	352
RL-S-17-28-AA-N11-01 New	With connector	42.0	–	67.5	107.4	118.6	41.0	375
RL-S-17-28-AA-N11-02 New	With stranded wire and encoder	42.0	28.0	57.5	97.4	108.6	30.5	361
RL-S-17-28-AA-N17-00 New	With stranded wire	42.0	–	49.0	83.4	94.6	46.0	553
RL-S-17-28-AA-N17-01 New	With connector	42.0	60.0	70.4	104.8	116.0	55.0	602
RL-S-17-28-AA-N17-02 New	With stranded wire and encoder	42.0	60.0	70.4	104.8	116.0	55.0	629
RL-S-17-28-AA-N17-03 New	With connector, encoder and brake	42.0	60.0	106.4	140.8	152.0	55.0	759



Optional couplings:
All drylin® E couplings for Ø8 shaft
Standard motor option:
Stepper motor, DC motor, BLDC motor

Delivery time
2-3 days

EN 09/2023

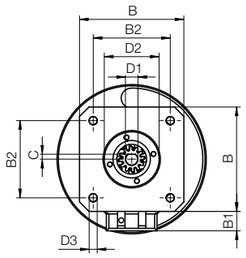
drygear® planetary gearbox | Product range New

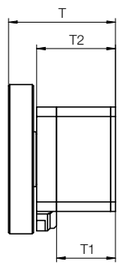
drygear® planetary gearbox RL-P

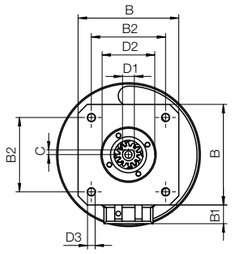


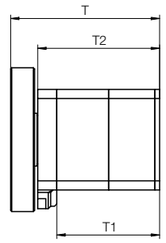


- Tribologically optimised high-performance polymers
- Flexible use of motors from the drylin® E product range
- Without lubrication for the planetary gears in the gearbox
- Lightweight construction (149.1g with a transmission of 4:1)











Gearbox technology

Technical data

Part No.	Number of gearbox stages	Max. drive speed [rpm]	Efficiency [%]	Backlash [°]	Mechanical service life [1/min]	Weight [g]
RL-P-17-4-AA New	1	>700	90	>7	1,000,000 cycles at 1Nm and 25rpm	149.1
RL-P-17-16-AA New	2	>700	80	>7	1,000,000 cycles at 3Nm and 25rpm	191.3

Dimensions [mm]

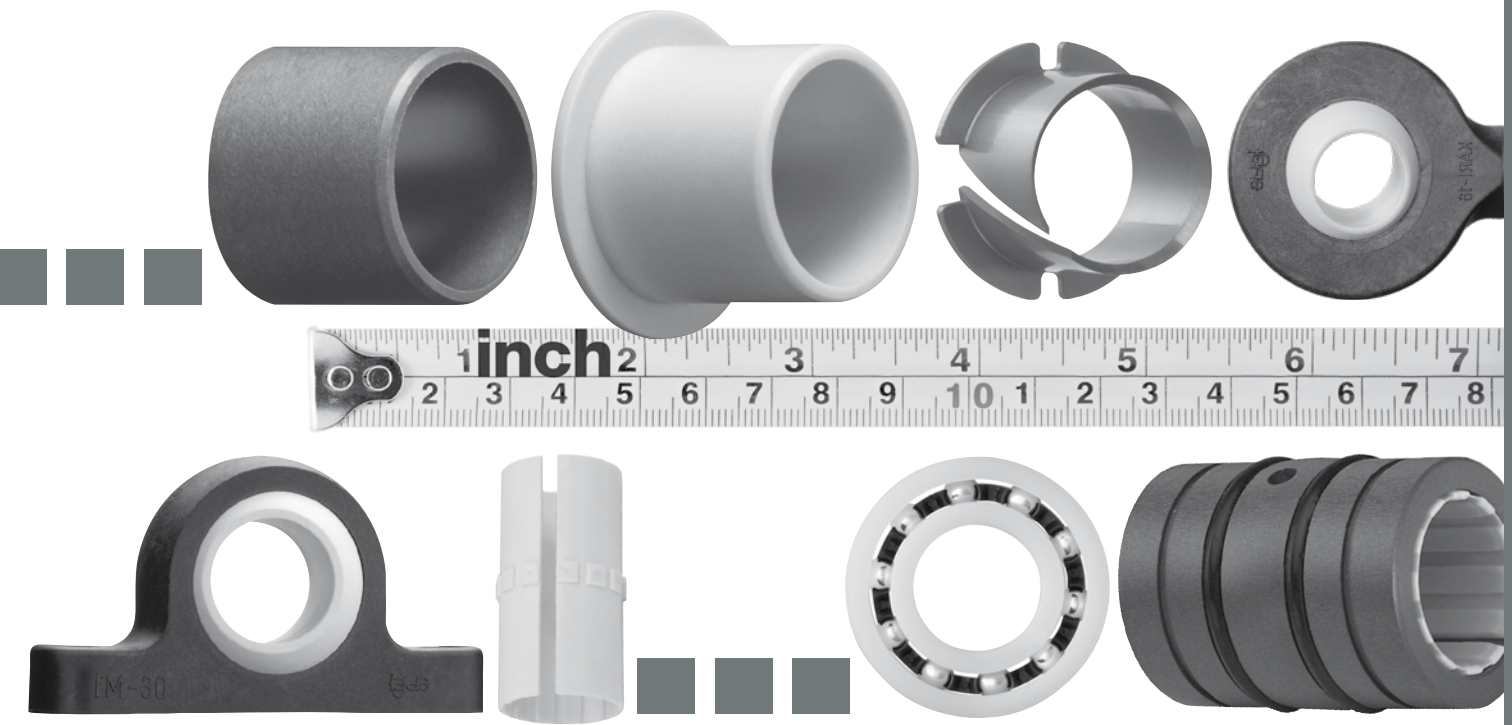
Part No.	B ø	B1 ø	B2 ø	D1 ø	D2 ø	D3 ø	C	T	T1	T2
RL-P-17-4-AA New	42	7.8	31	5x24	22x2	3.2	2	43.0	23.7	31.7
RL-P-17-16-AA New	42	7.8	31	5x24	22x2	3.2	2	62.2	42.9	50.9

Delivery time
2-3 days

Notes

inch...

Catalogue products in imperial sizes



...plastics

Imperial product range | Index

drylin® R - shaft guides

Liners	
JUI-01, closed design	▶ Page 746
JUIO-01, open design	▶ Page 746
RJI-01, solid plastic bearings	▶ Page 747
RJIP-01, solid plastic bearings, precise	▶ Page 747
Adapters	
OJUIO-01, open design	▶ Page 748
OJUI-03, open design, floating bearings	▶ Page 748
RJUI-01, closed design	▶ Page 749
RJUI-03, closed design, floating bearings	▶ Page 749
TJUI-01, split adapters	▶ Page 750
TJUI-03, split adapters with floating bearings	▶ Page 750

More products online

iglidur® plain bearings

- iglidur® - sleeve bearings
- iglidur® - flanged bearing
- iglidur® - thrust washers

iglidur® - more products

- iglidur® - more products

More products online

igubal® - spherical bearings

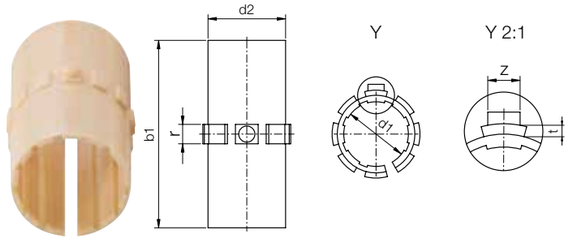
- igubal® - rod ends
- igubal® - pillow block bearings
- igubal® - clevis joints
- igubal® - fixed flange bearings
- igubal® - spherical bearings
- igubal® - spherical caps
- igubal® - spherical insert bearings

xiros® - polymer ball bearings

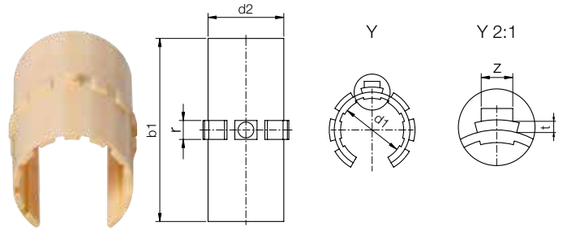
- xiros® - polymer ball bearings

Imperial product range | drylin® R | Liners

Closed, long design: JUI



Open, long design: JUIO



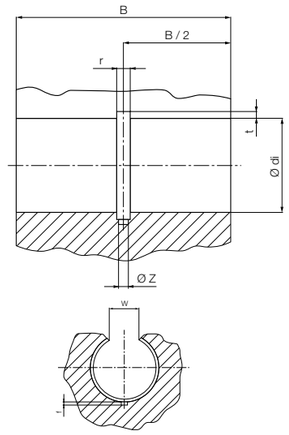
JUI-01/JUIO-01 Chapter ▶ page 188

Part No.		Shaft	Tolerance[78)]	d2	b1	r	t	z
closed	Open	Ø					-0.004	-0.020
JUI-01-06	–	3/8	+0.0016 +0.0024	0.4684	0.846	0.1250	0.024	0.0866
JUI-01-08	**JUIO-01-08**	1/2	+0.0016 +0.0024	0.5934	1,220	0.1250	0.032	0.1024
JUI-01-10	**JUIO-01-10**	5/8	+0.0016 +0.0024	0.7184	1.460	0.1406	0.032	0.1181
JUI-01-12	**JUIO-01-12**	3/4	+0.0016 +0.0024	0.8747	1.575	0.1875	0.032	0.1339
JUI-01-16	**JUIO-01-16**	1	+0.0016 +0.0024	1.1247	2.205	0.1875	0.032	0.1496
JUI-01-20	**JUIO-01-20**	1 1/4	+0.0020 +0.0032	1.4058	2.579	0.1875	0.032	0.1496
JUI-01-24	**JUIO-01-24**	1 1/2	+0.0020 +0.0032	1.6558	2.953	0.2500	0.052	0.1811
JUI-01-32	**JUIO-01-32**	2	+0.0024 +0.0040	2.1871	3.937	0.2813	0.052	0.2280

Housing hole for liner JUI-01/JUIO-01

Part No.		di		B	W	r	t	f	z
		H7		h10	+0.008	0.002	0.004	0.002	0.008
closed	Open	min.	max.						
JUI-01-06	–	.4680	.4684	.875	–	.1250	0.0311	.039	.102
JUI-01-08	**JUIO-01-08**	.5940	.5934	1.25	0.394	.1250	0.0391	.059	.122
JUI-01-10	**JUIO-01-10**	.7190	.7184	1.5	0.433	.1406	0.0391	.067	.142
JUI-01-12	**JUIO-01-12**	.8755	.8747	1.625	0.492	.1875	0.0391	.079	.142
JUI-01-16	**JUIO-01-16**	1.1255	1.1247	2.25	0.63	.1875	0.0391	.079	.161
JUI-01-20	**JUIO-01-20**	1.4068	1.4058	2.625	0.709	.1875	0.0391	.079	.161
JUI-01-24	**JUIO-01-24**	1.6568	1.6558	3	0.866	.2500	0.0652	.089	.200
JUI-01-32	**JUIO-01-32**	2.1881	2.1871	4	1.181	.2813	0.0652	.098	.240

[78)] According to igus® testing method ▶ Page 260
Please note: Installation instructions ▶ Page 187



Part No.	d1	d2	b1	r	t	z
E7UI-01-08	1/2	0.5934	1.22	0.125	0.0391	0.1024
E7UI-01-10	5/8	0.7184	1.46	0.146	0.0391	0.1181
E7UI-01-12	3/4	0.8747	1.575	1.575	0.0391	0.1339
E7UI-01-16	1	1.1247	2.205	2.205	0.0391	0.1496
E7UI-01-20	1 1/4	1.4058	2.579	2.579	0.0391	0.1496
E7UI-01-24	1 1/2	1.6558	2.953	2.953	0.0625	0.1811
E7UI-01-32	2	2.1871	3.937	3.937	0.0625	0.228

JUI can be combined with:



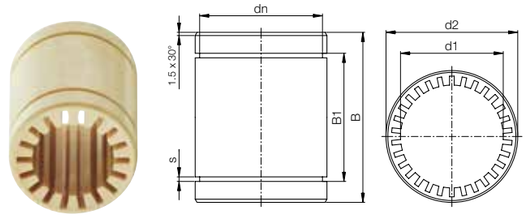
RJUI-01, RJUI-03,
TJUI-01, TJUI-03
▶ Page 749 and 750

JUIO can be combined with:

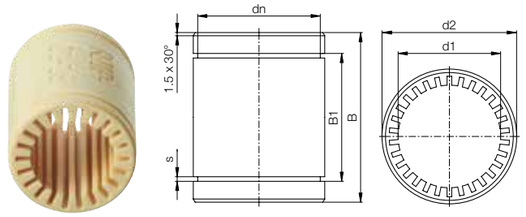


OJUI-01, OJUI-03
▶ Page 748

Standard design: RJI



Precise: RJIP



RJI-01/RJIP-01 Chapter ▶ Page 210

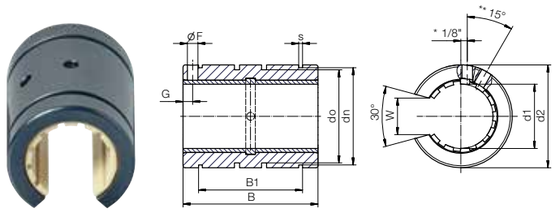
Part No.		Shaft	Tolerance[78)]	Tolerance[78)]	F max.	F max.
		Ø	Bearing inner diame-	Bearing inner diameter	dynamic[82)]	static[82)]
Standard	Precise		ter - RJI	- RJIP	P = 2.5MPa	P = 17.5MPa
–	**RJIP-01-04**	1/4	–	+ 0.00 +0.0014	180	1.267
RJI-01-06	**RJIP-01-06**	3/8	+0.0010 +0.0024	+ 0.00 +0.0014	265	1.855
RJI-01-08	**RJIP-01-08**	1/2	+0.0013 +0.0030	+ 0.00 +0.0017	505	3.535
RJI-01-10	**RJIP-01-10**	5/8	+0.0013 +0.0030	+ 0.00 +0.0017	755	5.285
RJI-01-12	**RJIP-01-12**	3/4	+0.0016 +0.0036	+ 0.00 +0.0020	982	6.877
RJI-01-16	**RJIP-01-16**	1	+0.0016 +0.0036	+ 0.00 +0.0020	1,815	12.705

Part No.		d1	d2	B	B1	Øs	dn
Standard	Precise						
–	**RJIP-01-04**	1/4	0.4999	0.74803	0.5188	0.0409	0.4669
RJI-01-06	**RJIP-01-06**	3/8	0.6250	0.87500	0.6890	0.0410	0.5870
RJI-01-08	**RJIP-01-08**	1/2	0.8750	1.25000	1.0125	0.0480	0.8200
RJI-01-10	**RJIP-01-10**	5/8	1.1250	1.50000	1.0950	0.0580	1.0600
RJI-01-12	**RJIP-01-12**	3/4	1.2500	1.62500	1.2500	0.0580	1.1770
RJI-01-16	**RJIP-01-16**	1	1.5625	2.25000	1.8640	0.0700	1.4710
RJI-01-20	**RJIP-01-20**	1 1/4	2.0000	2.62500	1.9840	0.0700	1.8890

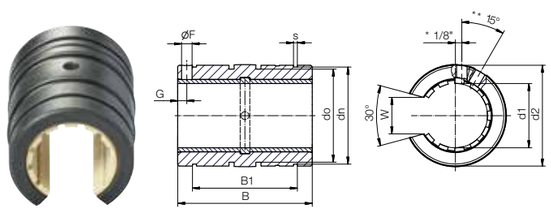
[78)] According to igus® testing method ▶ Page 260; [82)] Design tips ▶ Page 186
Please note: Installation instructions ▶ Page 187

Imperial product range | drylin® R | Adapters

Open, anodised aluminium adapters - 01 version (standard)



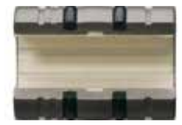
Open, anodised aluminium adapters - 03 version (floating bearing)

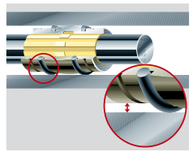


OJUI-01/OJUI-03 Chapter ▶ Page 227

Part No.	Shaft Ø	Tolerance[78)]	d2	B	W ±0.012
OJUI-01-08/-03-08	1/2	+0.0016 +0.0032	.8750/.8673	1.25/1.2461	.3940
OJUI-01-10/-03-10	5/8	+0.0016 +0.0032	1.125/1.1173	1.50/1.4961	.4330
OJUI-01-12/-03-12	3/4	+0.0016 +0.0032	1.25/1.2421	1.625/1.6173	.4920
OJUI-01-16/-03-16	1	+0.0016 +0.0032	1.5625/1.5547	2.25/2.2421	.6300
OJUI-01-20/-03-20	1 1/4	+0.0020 +0.0041	2.00/1.9881	2.625/2.6173	.7090
OJUI-01-24/-03-24	1 1/2	+0.0020 +0.0041	2.375/2.3634	3.00/2.9921	.8660
OJUI-01-32/-03-32	2	+0.0024 +0.0051	3.00/2.988	4.00/3.9921	1.181

Part No.	Øs	dn h10	B1	F +0.004	G +0.004	do
OJUI-01-08/-03-08	.0520	.8200	.9790/.9870	.1360	.6250	.6846
OJUI-01-10/-03-10	.0620	1.0600	1.124/1.136	.1360	.1250	.9346
OJUI-01-12/-03-12	.0620	1.177	1.186/1.198	.1360	.1250	1.0590
OJUI-01-16/-03-16	.0740	1.471	1.773/1.789	.1360	.1250	1.372
OJUI-01-20/-03-20	.0740	1.889	2.0230/2.0390	.2010	.1875	1.8094
OJUI-01-24/-03-24	.0950	2.241	2.44/2.463	.2010	.1875	2.113
OJUI-01-32/-03-32	.1110	2.839	3.222/3.249	.2650	.3125	2.7378



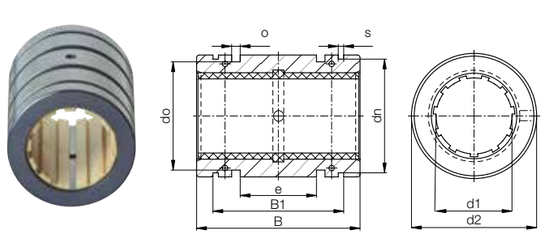


[78)] According to igus® testing method ▶ Page 260

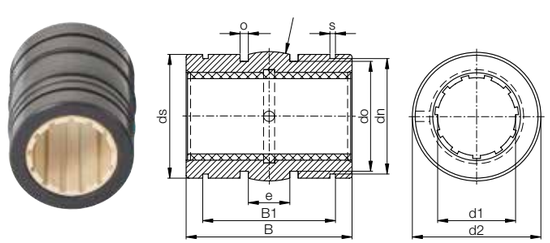
Please note: Installation instructions ▶ Page 187

Imperial product range | drylin® R | Adapters

Closed, anodised aluminium adapters - 01 version (standard)



Closed, anodised aluminium adapters - 03 version (floating bearing)

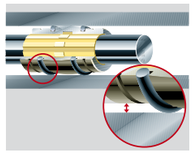


RJUI-01/RJUI-03 Chapter ▶ Page 216

Part No.	Shaft Ø	Tolerance[78)]	d2	B	B1
RJZI-01-04[110)]/-03-04[110)]	1/4	+0.0016 +0.0032	.5000/.4921	.7500/.7460	.5190/.5270
RJUI-01-06/-03-06	3/8	+0.0016 +0.0032	.6250/.6173	.8750/.8713	.6440/.6520
RJUI-01-08/-03-08	1/2	+0.0016 +0.0032	.8750/.8673	1.25/1.2461	.9790/.9870
RJUI-01-10/-03-10	5/8	+0.0016 +0.0032	1.125/1.1173	1.50/1.4961	1.124/1.136
RJUI-01-12/-03-12	3/4	+0.0016 +0.0032	1.25/1.2421	1.625/1.6173	1.186/1.198
RJUI-01-16/-03-16	1	+0.0016 +0.0032	1.5625/1.5547	2.25/2.2421	1.773/1.789
RJUI-01-20/-03-20	1 1/4	+0.0020 +0.0041	2.00/1.9881	2.625/2.6173	2.0230/2.0390
RJUI-01-24/-03-24	1 1/2	+0.0020 +0.0041	2.375/2.3634	3.00/2.9921	2.44/2.463
RJUI-01-32/-03-32	2	+0.0024 +0.0051	3.00/2.9881	4.00/3.9921	3.222/3.249

Part No.	Øs H10	dn h10	ds h10	do	e	o -0.004
RJZI-01-04[110)]/-03-04[110)]	.0410	.4670	.4803	.3990	.125	.0800
RJUI-01-06/-03-06	.0410	.5870	.6055	.5240	.243	.0800
RJUI-01-08/-03-08	.0520	.8200	.8556	.7120	.281	.1250
RJUI-01-10/-03-10	.0620	1.0600	1.1055	.9620	.312	.1250
RJUI-01-12/-03-12	.0620	1.177	1.23	1.0870	.312	.1250
RJUI-01-16/-03-16	.0740	1.471	1.5271	1.399	.500	.1250
RJUI-01-20/-03-20	.0740	1.889	1.9606	1.837	.625	.1250
RJUI-01-24/-03-24	.0950	2.241	2.3358	2.152	.650	.1620
RJUI-01-32/-03-32	.1110	2.839	2.9606	2.775	1.00	.1890





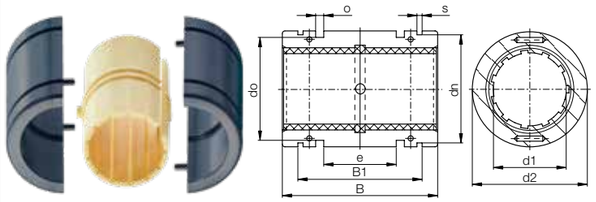
[78)] According to igus® testing method ▶ Page 260

[110)] Nominal width smaller than 3/8" are delivered with sleeve bearings

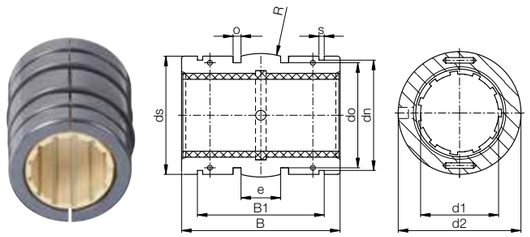
Please note: Installation instructions ▶ Page 187

Imperial product range | drylin® R | Adapters

Split aluminium adapters - 01 version (standard)



Split aluminium adapters - 03 version (floating bearing)

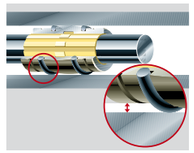


TJUI-01/TJUI-03 Chapter ▶ Page 225

Part No.	Shaft Ø	Tolerance[78)]	d2	d2 Tolerance[78)]	B	B1 H10
TJUI-01-08/-03-08	1/2	+0.0016 +0.0036	.8750	–0.0008 –0.0016	1.25/1.242	.9790
TJUI-01-10/-03-10	5/8	+0.0016 +0.0036	1,125	–0.0008 –0.0016	1.50/1.492	1.124
TJUI-01-12/-03-12	3/4	+0.0016 +0.0036	1.25	–0.0008 –0,0018	1.625/1.617	1.186
TJUI-01-16/-03-16	1	+0.0016 +0.0036	1.5625	–0.0012 –0.0022	2.25/2.2382	1.773
TJUI-01-20/-03-20	1 1/4	+0.0020 +0.0039	2.00	–0.0012 –0.0022	2.625/2.6134	2.0230
TJUI-01-24/-03-24	1 1/2	+0.0020 +0.0047	2.375	–0.0012 –0.0024	3.00/2.9843	2.44
TJUI-01-32/-03-32	2	+0.0024 +0.0057	3.00	–0.0012 –0.0024	4.00/3.9803	3.222

Part No.	Øs H10	dn h10	ds h10	do	e	o +0.008
TJUI-01-08/-03-08	.0520	.8200	0.8563	.7120	.281	.1250
TJUI-01-10/-03-10	.0620	1.0600	1.1039	.9620	.312	.1250
TJUI-01-12/-03-12	.0620	1.177	1.2276	1.0870	.312	.1250
TJUI-01-16/-03-16	.0740	1.471	1.535	1.399	.500	.1250
TJUI-01-20/-03-20	.0740	1.889	1.9654	1.837	.625	.1250
TJUI-01-24/-03-24	.0950	2.241	2.337	2.152	.650	.1620
TJUI-01-32/-03-32	.1110	2.839	2.9531	2.775	1.00	.1890





[78)] According to igus® testing method ▶ Page 260

Please note: Installation instructions ▶ Page 187

Notes

Service

Online tools, chemicals table,
material data, forms, addresses



...plastics

Online tools

Online expert tools
Quickly find the right lead screw technology part and an estimated service life for your application with igus® finder and expert online tools. You can also order your parts or request more information from us.

Online configurator tools
With the online configurators, you can assemble your individual product in just a few steps.
▶ **www.igus.eu/online**

igus® CAD
Our CAD application gives you access to 2D/3D CAD files in various formats. Alternatively, you can transfer CAD files directly to your CAD system using our Click2CAD toolbox. For 3D printing, you can configure individual 3D printing models online.

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Expert for plain bearings
Service life calculation
▶ www.igus.eu/IBD

iglidur® expert
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Find the right solution quickly
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iglidur® bar stock finder
Product finder for bar stock
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CAD configurator
Quickly generate complete 3D models
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xiros® expert
Service life calculator for plastic ball bearings
Service life calculation of polymer ball bearings
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Conveyor roller expert
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System selection & service life calculation with CAD
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Shaft configurator
Configure shafts
▶ www.igus.eu/DEK

drylin® lead screw drives configurator
Expert for lead screw drives
Find and calculate suitable lead screw drives
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Configure required dimensions
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Configurator for drive technology
Complete drive technology configurable with or without motor
▶ www.igus.eu/linearmodule-configurator

drylin® linear system configurator
Configurator for SHT drive technology
Configure the complete drylin® SHT lead screw linear system
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Configurator for robot arms
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Special parts according to customer request
igus® production service for customer-specific parts
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Download area:
igus® download
Free download of all product catalogues, brochures, instructions, videos, etc.
▶ www.igus.eu/downloads

Online services

FastLine service in the iglidur® bearing designer
With the igus® FastLine service, you receive customised injection-moulded plain bearings and thrust washers in a maximum of seven days. Apart from the immediate price indication, the iglidur® bearing designer shows you the manufacturing costs of our other production methods.

3D printing service
In the online 3D printing calculation, you not only receive 3D printing, but also analyse feasibility and prices of injection-moulded parts made with 3D-printed moulds (print2mold).

CNC service
Online CNC service for individually machined parts. Upload the 3D models of your machined parts in our online CNC tool, configure your requirements and get direct price feedback.

Coating service
iglidur® coating is a tribologically optimised polymer in powder form that can be applied to electrically conductive components using powder coating. With our iglidur® coating service, you will get your configuration at the push of a button.

Chemical resistance

Resistance classification: + resistant; o conditionally resistant; – not resistant; x no data available

Chemicals, iglidur®	A180 A181 J200 R UW xirodur® B180 xirodur® S180 xirodur® F180 xirodur® M180 FC180	A200, G GLW G V0 M250 N54, Q2 W300, C L250, L100 igumid® G xirodur® G220 igumid® FC	A350	A500 C500 UW500 X X6 xirodur® A500 L500 AX500	A290 F Q290 W360 G1	J J2 J3 J4 JB E	J260 M260	J350	H H1 H2 H370 H4 HLW iguton G H3, H5	F2 K P P210 P4 M210	Q
Acetaldehyde (aqueous), 40%	+	o	x	+	o	+	–	x	x	–	o
Acetaldehyde (aqueous), 40%	+	o	x	x	o	o	x	x	x	o	o
Acetamide (aqueous), 50%	+	4	x	+	4	+	–	x	x	x	4
Acetic acid, 10%	+	–	+	+	–	+	+	+	+	+	+
Acetic acid, 2%	+	–	+	+	–	+	+	+	+	+	o
Acetic acid, 90%	–	–	+	o	–	–	–	x	+	–	–
Acetone	+	+	–	+	o	+	–	–	+	–	+
Acetyl chloride	–	–	x	x	–	–	x	x	x	x	–
Acrylnitrile	o	+	x	+	+	o	–	x	x	–	+
Air, liquid	o	o	x	x	o	o	x	x	x	o	o
Allyl alcohol	+	o	x	+	o	+	x	x	+	+	+
Aluminium chloride (aqueous), 10%	o	o	x	+	o	o	o	x	+	o	o
Aluminium cleaner	–	–	x	o	–	–	x	x	o	x	–
Aluminium salts of mineral acids, 20%	o	o	x	x	o	o	x	x	x	o	o
Aluminium sulphate (aqueous), 10%	o	o	x	+	o	o	+	x	+	o	o
Ammonium carbonate (aqueous), 10%	+	4	x	+	4	+	o	x	+	+	4
Ammonium carbonate (aqueous), 10%	+	+	x	+	+	+	x	x	+	x	x
Ammonium chloride (aqueous), 10%	+	4	x	+	4	+	+	x	+	+	4
Amyl acetate, 100%	–	–	x	+	–	–	–	x	+	o	+
Amyl alcohol	+	+	x	+	+	+	+	x	+	o	+
Aniline (aqueous), saturated solution	o	o	x	+	o	o	–	x	+	o	o
Anodic solutions (HNO3 -30%/H2SO4 -10%)	–	o	x	x	o	–	x	x	x	o	o
Aqua regia HCl/HNO3 (75/50 vol.)	o	+	x	+	+	o	–	x	x	–	+
Aromatic compounds	+	+	+	x	+	+	x	x	x	o	x
Barium chloride (aqueous), 10%	+	o	x	+	o	+	+	x	+	+	4
Barium salts from mineral acids	+	o	x	x	o	o	x	x	x	o	o
Barium sulphate (aqueous), 10%	+	o	x	+	o	+	o	x	+	+	4
Benzaldehyde	+	o	x	+	o	o	–	x	o	–	o
Benzoic acid (aqueous), 20%	o	o	x	+	o	o	–	x	x	+	o
Benzyl alcohol	+	+	+	+	+	o	–	+	x	x	o
Biphenyl	+	+	x	x	+	+	x	x	x	–	x
Bitumen, DIN 51567	+	o	–	+	o	o	+	x	x	o	o
Bleaching lye	–	–	x	+	–	–	x	x	x	–	o
Bleaching lye (aqueous), 10%	–	–	x	+	–	–	x	x	+	o	o
Boric acid (aqueous), 10%	+	o	+	+	o	+	+	x	x	–	4
Brandy vinegar	o	o	x	+	o	o	x	x	+	o	o
Bromine (aqueous), 25%	–	–	x	+	–	–	–	x	–	–	–
Bromine vapours	–	–	x	x	–	–	x	x	x	–	–

Chemical resistance

"4" swelling, softening due to the water

V400	Z	B	D	T220	K230	PEP	A160 B160 UW160 xirodur® C160	E7	i170	i180 i180-BL	xirodur® D180	xiros® ball bearings with PEEK cage	 PP cage PE cage	 PA cage	i150	C210 P230	i3 i6 AB
x	x	o	+	–	x	o	+	x	x	–	x	+	+	o	–	x	+
x	x	x	o	o	x	x	o	x	x	x	x	o	+	–	–	x	o
x	x	x	+	x	x	4	x	x	+	–	x	+	x	+	x	x	+
+	+	–	+	+	x	o	+	x	+	+	x	+	+	–	+	+	+
+	+	–	+	+	o	o	+	x	+	+	–	x	x	o	+	+	+
+	+	–	–	–	x	–	+	x	–	–	x	+	+	–	–	–	–
+	+	o	o	–	o	+	+	o	–	–	x	+	+	+	–	+	+
x	x	x	–	x	x	–	x	x	x	x	x	x	x	–	–	x	–
x	x	–	o	–	x	+	+	x	x	–	x	+	+	+	–	x	+
x	x	x	o	o	x	x	x	x	x	x	x	x	x	–	x	o	o
x	x	x	o	o	x	x	x	x	x	x	x	x	x	+	o	x	o
x	+	o	o	o	x	o	+	+	+	+	x	+	+	o	+	x	o
x	+	o	+	+	x	4	+	+	+	o	x	+	+	+	+	x	x
x	+	x	+	x	x	+	x	x	x	x	x	+	+	+	x	x	+
x	+	o	+	+	x	4	+	+	x	+	o	+	+	+	+	x	–
x	+	–	o	o	x	o	o	x	–	–	x	+	o	–	+	+	–
x	o	o	+	+	x	+	+	x	+	+	x	+	+	+	+	+	+
x	x	–	o	o	x	o	+	o	–	–	x	+	+	o	x	x	o
x	x	x	–	o	x	–	x	x	x	x	x	x	x	+	o	x	o	o
x	x	–	o	–	x	+	+	+	o	–	x	+	x	+	–	–	–
x	x	x	x	o	x	x	x	x	x	x	x	x	x	+	x	o	+
x	+	–	+	+	x	4	+	–	+	+	x	+	+	o	+	x	o
x	x	x	o	o	x	x	x	x	x	x	x	x	x	o	x	+	+
x	+	o	+	+	x	4	+	x	x	o	x	+	+	o	x	x	o
x	x	–	o	–	x	o	+	x	–	–	x	+	+	o	–	x	o
x	+	o	o	+	x	o	+	x	+	+	x	+	+	o	+	+	o
x	o	o	o	x	x	o	+	+	–	–	x	+	+	+	x	x	+
x	x	x	x	–	x	x	x	x	x	x	x	x	x	+	–	–	+
x	+	–	o	o	x	o	o	+	x	+	x	+	o	o	+	x	o
x	+	–	–	–	x	–	x	x	x	x	x	+	x	–	x	x	–
x	+	–	–	o	x	–	x	x	+	+	x	+	x	–	x	x	–
x	+	–	–	+	x	4	+	+	+	+	o	+	+	o	+	+	o
x	+	o	o	o	x	o	+	x	x	x	x	+	+	o	x	x	o
x	o	–	–	–	x	–	–	x	–	–	x	+	–	–	x	x	–
x	x	x	–	–	x	–	o	x	x	x	x	x	o	–	–	–	–

Chemical resistance

Resistance classification: + resistant; o conditionally resistant; – not resistant; x no data available

Chemicals, iglidur®	A180 A181 J200 R UW xirodur® B180 xirodur® S180 xirodur® F180 xirodur® M180 FC180	A200, G GLW G V0 M250 N54, Q2 W300, C L250, L100 igumid® G xirodur® G220 igumid® FC	A350	A500 C500 UW500 X X6 xirodur® A500 L500 AX500	A290 F Q290 W360 G1	J J2 J3 J4 JB E	J260 M260	J350	H H1 H2 H370 H4 HLW iguton G H3, H5	F2 K P P210 P4 M210	Q
Bromochloromethane, 98%	x	o	x	+	o	x	x	x	x	o	o
Butanol	+	+	+	+	+	+	o	x	+	+	+
Butter	+	+	x	+	+	+	+	x	+	+	+
Butyl acetate	+	+	o	+	o	o	x	x	+	o	o
Butyl glycol	+	+	–	+	+	+	o	x	+	+	+
Butyl glycolate	+	+	x	x	+	+	x	x	x	+	x
Butyl phthalate	+	+	x	x	+	+	x	x	x	+	x
Butyric acid	o	o	x	+	o	–	–	x	+	o	–
Calcium chloride, saturated solution	+	4	x	+	4	+	+	x	+	+	4
Calcium hydroxide, aqueous	+	+	+	x	+	+	x	x	x	+	x
Calcium hypochlorite	+	+	x	x	+	+	x	x	x	o	x
Camphor	+	+	x	+	+	+	o	x	+	x	+
Carbon bisulphide	+	+	x	+	+	+	x	x	+	x	+
Carbon dioxide gas	+	+	x	+	+	+	+	x	+	+	x
Casein	+	+	x	x	+	+	x	x	x	+	x
Caustic potash lye (aqueous), 40%	+	+	x	+	+	+	x	x	x	x	x
Caustic potash, 10%	o	4	+	x	4	o	x	x	x	–	x
Caustic potash, 20%	–	o	+	+	o	–	–	x	+	–	x
Caustic potash, 50%	–	o	+	x	o	–	x	x	x	–	o
Caustic sodium bicarbonate (aqueous), 50%	o	o	x	+	o	o	x	x	x	x	x
Cellulose lacquer	+	+	x	x	x	+	x	x	x	x	x
Chloramine	x	–	x	x	–	–	x	x	x	–	–
Chlorinated water, saturated solution	–	–	x	+	–	–	o	x	x	–	o
Chlorine	–	–	x	x	–	–	x	x	x	–	–
Chlorine gas	–	–	x	–	–	–	–	x	–	–	–
Chloroacetic acid (aqueous), 10%	–	–	x	+	–	–	–	x	x	–	–
Chloroethanol	–	–	x	x	–	–	x	x	x	–	–
Chloroform	–	–	–	+	o	–	–	–	o	–	–
Chlorsulphonic acid (aq.)	–	–	x	–	o	–	–	x	–	–	–
Chromic acid (aq.), 10%	–	–	x	+	–	–	–	x	–	–	–
Chromic acid (aqueous), 1%	o	–	x	+	–	o	o	x	–	o	o
Citric acid (aqueous), 10%	+	4	+	+	4	+	+	x	+	+	o
Citric acid, concentrated solution	o	o	x	+	o	o	+	x	o	x	–
Citrus fruits	+	+	x	x	+	+	x	x	x	+	x
Cobalt salts (aqueous)	+	+	x	x	+	+	x	x	x	+	x
Copper sulphate, 0.5%	+	o	+	+	o	+	x	x	+	x	o
Copper sulphate, saturated solution	o	o	+	+	o	o	x	x	+	x	o
Cresol	–	–	x	+	–	–	–	x	+	–	–

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Chemical resistance

"4" swelling, softening due to the water

V400	Z	B	D	T220	K230	PEP	A160 B160 UW160 xirodur® C160	E7	i170	i180 i180-BL	xirodur® D180	xiros® ball bearings with PEEK cage	 PP cage PE cage	 PA cage	i150	C210 P230	i3 i6 AB
x	x	o	x	o	x	x	–	x	x	x	x	+	–	o	+	+	o
x	o	–	o	+	x	+	+	+	+	o	x	+	+	+	+	o	+
x	+	o	+	+	x	+	+	x	+	+	x	+	+	+	+	+	+
x	+	x	o	o	+	o	+	o	–	–	x	+	+	+	x	o	+
x	+	o	+	+	x	+	+	x	x	o	x	+	+	+	+	+	+
x	x	x	x	x	x	x	x	x	x	x	x	x	x	+	x	+	+
x	x	x	x	x	x	x	+	x	x	x	x	x	+	+	x	+	+
x	+	–	–	o	x	–	+	+	–	–	x	+	+	o	x	+	o
x	+	–	+	+	x	4	+	x	+	+	o	+	+	+	x	+	+
x	x	x	x	x	x	x	+	+	x	x	x	x	+	+	+	+	+
x	x	x	x	o	x	x	o	+	+	+	x	x	o	+	x	o	+
x	+	o	+	x	x	+	+	x	+	o	x	+	+	+	x	x	+
x	x	x	o	–	x	x	+	x	+	+	x	+	+	–	–	–	x
x	+	o	–	–	x	–	+	x	x	–	x	x	+	+	–	–	o
x	x	x	–	–	x	–	+	x	+	+	x	+	+	o	–	–	+
x	+	o	o	x	x	o	x	x	x	x	x	+	x	+	x	x	o
x	x	x	+	+	x	x	x	x	x	x	x	x	x	+	x	+	+
x	x	x	–	–	x	–	+	+	x	x	x	x	+	–	–	–	–
+	o	–	–	–	x	–	o	x	o	o	x	+	o	–	–	x	–
x	x	x	–	–	x	–	–	–	–	–	x	x	–	–	–	–	–
o	–	–	–	–	x	–	–	x	–	–	x	–	–	–	–	x	–
x	–	–	–	–	x	–	+	+	o	–	x	+	+	–	–	–	–
x	x	x	–	–	x	–	x	x	x	x	x	x	x	–	x	x	–
x	o	–	–	–	x	–	o	x	–	–	x	+	o	–	–	–	o
x	+	–	–	–	x	–	–	x	–	–	x	–	–	–	–	–	–
+	o	–	–	–	x	–	+	x	o	–	x	+	+	–	o	o	–
+	o	–	o	o	x	o	+	x	o	o	x	+	+	–	x	+	–
x	+	x	+	+	x	o	+	+	+	+	o	+	+	+	+	+	+
x	+	o	o	x	x	–	+	x	x	+	x	+	+	+	x	x	o
x	x	x	x	x	x	x	+	x	x	x	x	+	+	o	x	+	+
x	x	x	x	x	x	x	x	x	x	x	x	x	+	–	x	+	+
x	+	o	+	x	x	o	x	x	x	x	x	+	x	o	x	+	o
x	+	o	o	x	x	o	x	x	+	+	x	+	+	–	x	x	o
x	+	–	–	–	x	–	+	+	o	–	x	x	–	–	–	–	–

Chemical resistance

Resistance classification: + resistant; o conditionally resistant; – not resistant; x no data available

Chemicals, iglidur®	A180 A181 J200 R UW xirodur® B180 xirodur® S180 xirodur® F180 xirodur® M180 FC180	A200, G GLW G V0 M250 N54, Q2 W300, C L250, L100 igumid® G xirodur® G220 igumid® FC	A350	A500 C500 UW500 X X6 xirodur® A500 L500 AX500	A290 F Q290 W360 G1	J J2 J3 J4 JB E	J260 M260	J350	H H1 H2 H370 H4 HLW iguton G H3, H5	F2 K P P210 P4 M210	Q
Cyclohexane	+	+	+	+	+	+	o	x	+	–	+
Decahydronaphthalene = decalin	+	+	–	+	+	+	x	x	+	–	+
Dibutyl ether	+	+	x	x	+	+	x	x	x	+	x
Dibutylphthalate	+	+	x	+	+	+	–	x	+	+	+
Dichlorethylene	–	–	x	+	–	–	–	x	+	–	–
Dichlorobenzene	–	+	x	+	+	–	x	x	+	–	+
Dichloroethene	–	+	x	+	+	–	x	x	+	–	+
Diethyl ether	o	o	+	+	+	+	–	x	x	+	+
Dimethylformamide	o	+	+	+	+	+	–	x	+	+	+
Dioctylphthalate	+	+	+	+	+	+	x	x	+	o	+
Dioxane	o	+	x	+	+	o	–	x	+	+	+
Drilling oils	+	+	+	x	+	+	x	x	x	+	x
Edible fats, 100%	+	+	+	+	+	+	x	x	+	+	+
Edible oils	+	+	+	+	+	+	x	x	+	+	+
Ethanol (aqueous), 96%	+	o	+	+	o	o	+	x	+	–	o
Ethyl acetate	+	+	–	+	+	+	–	x	+	–	+
Ethylene	+	+	x	x	+	+	x	x	x	+	x
Ethylene chloride	+	+	–	+	+	+	–	x	+	–	+
Ethylene glycol (aqueous), 95%	+	o	x	+	o	+	o	x	+	+	o
Ethylene oxide (1.2 epoxyethane)	+	o	+	x	o	o	x	x	x	o	o
Ethylenediamine (1.2 ethanediamine)	+	+	x	+	+	+	o	x	o	+	+
Ferric chloride, 2.5%	+	o	x	x	o	+	x	x	+	x	o
Ferric chloride, 5%	–	o	x	o	o	–	o	x	+	x	o
Ferric chloride, saturated solution	+	o	x	x	o	+	x	x	+	x	o
Fluorinated hydrocarbons	o	+	x	+	o	+	o	x	+	o	+
Fluorine	–	–	+	x	–	–	x	x	x	–	–
Formaldehyde (aqueous), 30%	+	o	+	+	o	+	+	+	+	+	4
Formamide	+	o	–	+	o	+	o	x	x	x	o
Formic acid (aqueous), 2%	o	–	x	o	–	–	+	x	+	o	–
Formic acid, 10%	–	–	x	–	–	–	x	x	o	–	–
Formic acid, 90%	–	–	x	–	–	–	–	x	o	–	–
Fruit juices	+	+	–	x	+	+	x	x	x	+	x
Furfural	+	o	x	+	o	+	o	x	+	+	+
Glycerine	–	+	+	+	+	+	o	x	+	+	+
Glycol	+	o	+	+	o	o	x	x	+	+	o
Greases, cooking fat	+	+	x	+	+	+	o	x	+	+	+
Heptane	+	+	+	+	+	+	+	x	+	o	+
Hexachlorobenzene	+	–	x	+	–	–	x	x	x	x	–
Hexachloroethane	+	+	x	+	+	+	x	x	x	x	+

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Chemical resistance

"4" swelling, softening due to the water

V400	Z	B	D	T220	K230	PEP	A160 B160 UW160 xirodur® C160	E7	i170	i180 i180-BL	xirodur® D180	xiros® ball bearings with PEEK cage	 PP cage PE cage	 PA cage	i150	C210 P230	i3 i6 AB
x	+	–	–	–	x	+	+	+	+	o	x	x	+	+	+	+	+
x	+	–	–	–	x	+	–	x	+	+	x	+	+	+	o	o	+
x	x	x	x	x	x	x	o	o	x	x	x	+	–	+	+	+	+
x	+	o	+	+	x	+	+	x	x	–	x	x	o	+	x	+	+
x	+	–	–	–	x	–	x	x	x	–	x	+	+	+	–	x	–
x	o	x	–	–	x	–	o	o	–	–	x	+	+	+	x	x	+
x	o	x	–	–	x	–	+	x	x	x	x	+	o	+	–	–	+
x	+	o	o	+	x	+	o	o	–	–	x	+	x	–	x	+	+
+	+	o	+	+	o	+	+	+	–	–	x	+	o	o	+	+	+
x	+	x	o	o	x	+	+	–	x	x	x	+	+	+	+	+	+
x	+	x	o	+	x	o	+	+	–	–	x	+	+	o	–	–	+
x	x	x	x	x	x	–	x	x	x	x	x	+	+	+	x	+	+
x	+	o	+	–	x	+	+	o	x	–	x	x	x	+	–	–	+
+	+	–	+	+	+	o	+	+	x	o	x	+	+	+	+	+	o
x	x	x	o	o	x	x	–	x	x	x	x	+	+	o	+	+	o
+	+	o	o	x	x	+	+	+	x	o	x	+	+	+	o	x	+
x	+	o	+	x	x	o	x	x	x	x	x	o	+	+	x	x	o
x	+	o	–	x	x	–	x	x	x	o	x	+	+	–	x	x	o
x	+	o	+	x	x	o	+	x	x	x	x	x	x	+	x	x	o
x	o	x	o	o	x	+	x	x	x	o	x	x	–	–	+	+	+
x	x	x	–	–	x	–	–	–	x	x	x	+	+	+	–	–	–
x	+	o	+	+	x	4	+	+	+	+	x	+	+	–	+	+	o
x	+	–	o	x	x	o	+	x	x	o	x	+	+	o	x	x	o
x	o	–	–	o	x	–	+	x	+	+	x	o	+	–	+	+	+
x	–	–	–	–	x	–	+	x	+	+	x	–	+	–	x	+	+
x	–	–	–	–	x	–	+	x	+	–	x	–	+	–	x	x	–
x	x	x	x	x	x	x	+	x	x	x	x	+	+	o	+	+	+
x	+	o	+	+	x	+	o	+	–	–	x	x	+	+	+	+	o
x	+	x	+	+	x	+	+	x	+	o	x	+	+	o	+	+	+
x	+	o	o	+	x	o	+	x	+	+	x	+	o	o	+	+	+
x	+	o	+	+	x	+	+	x	x	o	x	x	–	o	+	+	+
x	+	–	–	o	+	+	+	+	+	+	x	+	+	+	+	+	+
x	o	x	–	–	x	–	x	x	+	+	x	+	+	+	x	x	–
x	o	x	–	–	x	–	–	x	x	x	x	+	x	–	x	x	+

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Chemicals, iglidur®	A180 A181 J200 R UW xirodur® B180 xirodur® S180 xirodur® F180 xirodur® M180 FC180	A200, G GLW G V0 M250 N54, Q2 W300, C L250, L100 igumid® G xirodur® G220 igumid® FC	A350	A500 C500 UW500 X X6 xirodur® A500 L500 AX500	A290 F Q290 W360 G1	J J2 J3 J4 JB E	J260 M260	J350	H H1 H2 H370 H4 HLW iguton G H3, H5	F2 K P P210 P4 M210	Q
Hexafluorosilicic acid (aqueous), 30%	x	–	x	x	–	–	x	x	x	–	–
Hexamethylphosphoramide	+	–	x	x	–	–	x	x	x	–	–
Hexane	+	+	+	+	+	+	+	x	+	–	+
Humic acids	o	o	x	x	o	o	x	x	x	o	o
Hydrobromic acid (aqueous), 10%	–	–	x	+	–	–	–	x	o	–	–
Hydrochloric acid, 10%	–	–	+	+	–	–	–	o	–	–	–
Hydrochloric acid, 2%	–	–	+	+	–	–	+	x	–	–	o
Hydrochloric gas	–	–	x	x	–	–	x	x	x	–	–
Hydrofluoric acid (aqueous), 4%	–	–	–	+	–	–	–	x	–	–	–
Hydrogen peroxide, 0.5%	+	+	–	+	+	+	+	o	+	+	+
Hydrogen peroxide, 30%	–	–	–	+	–	–	–	–	–	–	–
Hydrogen sulphide (aqueous)	+	o	x	x	o	+	x	x	x	o	o
Hydrogen sulphide (dry)	+	+	+	+	o	x	+	x	+	+	+
Hydroquinone (aqueous), 5%	o	–	x	+	–	o	o	x	x	o	–
Ink, printing ink	+	4	–	+	4	+	+	x	+	+	4
Inks	+	4	x	+	4	+	+	x	+	x	4
Iron (III) chloride (aqueous), acidic, 10%	–	–	x	+	+	–	–	x	+	–	o
Iron (III) chloride (aqueous), neutral, 10%	o	4	x	o	o	o	+	x	+	x	o
Isooctane, 80%	+	+	+	+	+	+	+	x	+	o	+
Isopropyl alcohol = isopropanol	+	+	+	+	+	+	+	x	+	+	o
Isopropylether	+	+	x	+	+	+	–	x	x	o	+
Ketones (aliphatic)	+	o	+	x	o	o	x	x	x	–	o
Lactic acid, 10%	+	+	+	+	+	+	+	x	+	+	o
Lactic acid, 90%	+	o	o	+	o	o	+	x	+	o	o
Lead acetate (aqueous), 10%	+	o	x	+	o	+	+	x	x	o	o
Lead stearate	+	+	x	+	+	+	+	x	+	+	+
Linseed oil	+	+	+	+	+	+	+	x	+	+	+
Lithium bromide/chloride/salts (aqueous), 50%	+	o	x	+	o	+	+	x	x	o	o
Lithium chloride in alcohol, 20%	+	–	x	x	–	–	x	x	x	x	–
Lubricating oil, mineral	+	+	+	+	+	+	+	x	+	o	+
Lubricating oil, synthetic	o	o	x	+	o	o	o	x	+	–	+
Magnesium chloride (aqueous), 10%	+	4	x	+	4	+	+	x	+	+	4
Magnesium hydroxide (aq.)	+	4	x	+	4	+	+	x	+	+	+
Maleic acid (aqueous), 10%	–	o	x	x	o	–	x	x	x	–	o
Maleic acid, concentrated solution	o	–	x	+	–	o	o	x	+	x	o
Malt	+	+	x	x	+	+	x	x	x	+	x
Manganese sulphate (aqueous), 10%	+	o	x	+	o	+	x	x	+	x	+
Mercury	+	+	x	+	+	+	+	x	+	+	+

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x	x	x	–	–	x	–	+	+	x	x	x	x	x	o	–	–	–
x	x	x	–	–	x	–	x	x	x	x	x	+	–	+	x	+	–
+	+	–	–	–	x	+	+	x	+	+	x	x	x	–	x	x	+
x	x	x	o	o	x	x	+	x	x	x	x	+	+	+	x	+	o
x	+	–	–	–	x	–	+	+	x	–	x	+	+	–	x	o	–
+	+	–	–	–	o	–	+	x	x	–	x	+	+	–	o	o	–
+	+	–	–	–	x	–	+	x	x	+	–	+	+	–	+	+	–
x	x	x	–	–	x	–	+	x	x	x	x	x	+	–		–	–
–	–	–	–	–	x	–	+	–	+	–	x	+	x	+	–	–	–
+	+	+	+	+	x	+	+	x	+	+	x	+	+	+	+	+	+
x	–	–	–	–	x	–	+	x	x	–	o	+	+	+	+	+	–
x	x	x	–	o	x	o	+	x	x	x	x	x	+	o	x	+	o
x	+	x	x	+	x	x	+	+	+	+	x	o	+	–	x	+	+
x	+	–	–	o	x	+	+	x	+	+	x	+	+	–	+	+	+
x	o	o	+	+	x	o	+	x	+	+	o	+	+	+	+	+	+
x	+	o	+	o	x	+	o	+	x	–	x	+	+	+	+	x	+
x	x	x	o	–	x	x	x	x	x	x	x	+	x	o	–	–	o
x	+	o	o	o	x	o	+	+	+	+	–	+	+	+	x	+	+
x	+	o	o	o	x	o	+	+	+	+	x	+	+	+	x	+	o
x	+	–	+	o	x	o	+	+	+	+	x	+	+	o	+	x	o
x	+	o	+	+	x	+	x	x	+	+	x	+	x	+	+	x	+
+	+	–	+	+	x	+	+	+	+	+	x	+	x	o	+	+	+
x	+	–	+	o	x	o	x	x	x	+	x	+	+	+	+	+	o
x	x	x	–	x	x	–	x	x	x	x	x	+	x	o	x	x	–
+	+	–	+	o	x	o	x	x	x	+	x	+	+	+	x	x	+
+	+	–	o	–	x	o	x	x	x	o	x	+	x	+	x	x	o
+	+	+	+	+	x	4	+	+	+	+	x	x	x	o	+	+	+
+	+	+	+	+	x	+	+	x	+	+	x	+	+	+	+	x	–
x	x	x	–	–	x	–	+	x	x	x	x	x	+	o	x	x	o
x	+	–	o	x	x	–	+	x	x	o	x	+	+	+	x	x	–
x	x	x	x	x	x	x	x	x	x	x	x	+	+	–	x	+	+
x	+	o	+	x	x	+	x	x	x	x	x	x	x	+	x	x	o
+	+	+	+	+	x	+	+	+	+	+	x	+	o	+	+	+	+

Chemical resistance

Resistance classification: + resistant; o conditionally resistant; – not resistant; x no data available

Chemicals, iglidur®	A180 A181 J200 R UW xirodur® B180 xirodur® S180 xirodur® F180 xirodur® M180 FC180	A200, G GLW G V0 M250 N54, Q2 W300, C L250, L100 igumid® G xirodur® G220 igumid® FC	A350	A500 C500 UW500 X X6 xirodur® A500 L500 AX500	A290 F Q290 W360 G1	J J2 J3 J4 JB E	J260 M260	J350	H H1 H2 H370 H4 HLW iguton G H3, H5	F2 K P P210 P4 M210	Q
Mercury chloride, 6%	–	–	x	+	–	–	+	x	o	o	–
Methane	+	+	+	+	+	+	+	+	+	+	x
Methanol	+	+	+	x	+	+	x	+	x	+	x
Methanol +20% CaCl2 or LiCl	+	–	x	o	o	o	–	x	o	+	o
Methyl acetate	o	+	x	+	+	o	x	x	+	o	+
Methyl ethyl ketone	o	+	–	+	+	o	–	–	+	–	+
Methylamine	+	+	x	x	+	+	x	x	x	+	x
Methylene chloride	o	–	–	x	–	–	x	–	+	–	–
Milk	+	4	+	+	4	+	+	x	+	+	4
Molasses	+	+	+	x	+	+	x	+	x	+	x
Mortar, cement, lime	+	+	x	x	+	+	x	x	x	+	x
Naphthalene	+	+	x	+	+	+	o	x	+	+	+
Naphthalenesulfonic acid	–	–	x	x	–	–	x	x	x	x	–
Nickel salts (aqueous), 10%	+	o	x	x	o	+	x	x	x	x	o
Nitric acetic acid	+	+	x	x	+	+	x	x	x	+	x
Nitric acid (aq.), 5%	–	–	x	+	–	–	–	x	–	–	–
Nitric acid (aqueous), 2%	–	–	+	+	–	–	o	+	–	–	–
Nitro gases	–	o	x	x	o	–	x	x	x	x	o
Nitrobenzene	o	–	–	+	–	o	–	x	o	–	o
Nitrocellulose lacquers, Hazard Class A I	+	o	x	x	o	+	x	x	x	o	o
Nitrocellulose lacquers, Hazard Class A II	+	+	x	x	+	+	x	x	x	o	x
Nitrogen oxides (dry)	–	o	x	x	o	–	x	x	x	o	o
Nitromethane	–	o	x	+	o	–	x	x	o	–	x
Nitrotoluene	o	o	x	x	o	o	x	x	x	–	o
Noble gases (argon, helium, neon)	+	+	x	x	+	+	x	x	x	+	x
Octane	x	+	x	x	+	+	x	x	x	+	x
Oil, cooking	+	+	+	+	+	+	+	+	+	+	+
Oleic acid	+	+	x	+	+	+	+	x	+	+	+
Oleum	–	–	–	–	–	–	–	–	–	–	–
Oxalic acid (aqueous), 10%	x	o	+	+	o	x	+	x	x	+	o
Oxygen gas +23°C, without pressure	+	+	x	+	+	+	+	x	+	+	x
Ozone	–	–	–	+	–	–	+	x	–	–	–
Palmitic acid	+	+	x	x	+	+	x	x	x	+	x
Paraffin oil	+	+	+	+	+	+	+	x	+	–	+
Paraffins	+	+	x	x	+	+	x	x	x	+	x
Perchlorethene	–	–	–	+	–	–	–	–	x	–	–
Perchloric acid, 10%	–	–	x	+	–	–	–	x	x	–	–
Perfume	+	+	x	x	+	+	x	x	x	+	x
Phenol (alcoholic), 70%	–	–	x	o	–	–	–	x	+	–	–

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Chemical resistance

"4" swelling, softening due to the water

V400	Z	B	D	T220	K230	PEP	A160 B160 UW160 xirodur® C160	E7	i170	i180 i180-BL	xirodur® D180	xiros® ball bearings with PEEK cage	 PP cage PE cage	 PA cage	i150	C210 P230	i3 i6 AB
x	x	–	–	o	x	–	+	x	+	+	x	+	+	+	+	x	–
x	x	–	+	+	x	x	+	x	x	x	x	x	+	+	+	+	+
x	x	x	x	x	o	x	+	+	o	o	–	+	+	+	+	+	+
+	o	+	+	+	x	o	x	x	–	–	x	x	+	+	x	x	–
x	+	x	o	o	x	o	+	x	x	x	x	o	x	–	+	o	+
x	+	–	o	–	o	o	+	x	x	–	x	x	–	–	–	–	+
x	x	x	x	x	x	x	+	x	x	x	x	+	+	+	x	x	+
+	o	o	–	–	x	–	–	o	–	–	x	x	+	+	x	–	–
+	+	+	+	+	x	4	+	+	+	+	x	+	+	+	+	+	+
x	x	x	x	x	x	x	+	+	x	x	x	x	+	+	+	+	+
x	x	x	x	x	x	x	x	x	x	x	x	+	x	+	x	+	+
+	+	–	–	–	x	–	+	–	x	–	x	+	+	–	+	x	–
+	+	–	–	–	x	–	+	+	x	o	–	+	+	–	+	+	–
x	x	x	–	x	x	–	x	x	x	x	x	+	+	–	x	x	o
+	–	–	–	–	x	–	+	+	–	–	x	x	x	+	+	+	o
x	x	x	–	o	x	o	x	x	x	x	x	x	x	o	x	o	o
x	x	x	x	o	x	x	x	x	x	x	x	x	x	o	x	o	+
x	x	x	–	o	x	–	–	x	x	x	x	+	+	+	x	+	o
x	+	o	–	–	x	–	+	x	x	x	x	x	x	+	x	o	o
x	x	x	o	–	x	x	+	x	x	x	x	+	+	o	+	+	o
x	x	x	x	x	x	x	x	x	x	x	x	+	+	+	x	+	+
x	x	x	x	x	x	x	+	x	x	x	x	x	+	o	x	+	+
+	+	o	+	+	x	+	+	x	x	+	x	x	+	+	+	+	+
+	+	o	+	+	x	+	+	+	+	+	x	–	–	–	+	+	+
–	–	–	–	–	x	–	–	+	x	–	x	+	+	+	–	–	–
x	+	–	x	+	x	x	+	x	x	+	x	+	+	+	+	+	o
x	x	–	+	+	x	x	+	x	x	+	x	x	x	–	x	+	+
x	+	–	–	–	x	–	o	x	+	+	x	x	+	o	–	x	–
x	x	x	x	x	x	x	+	+	+	+	x	+	x	+	+	+	+
x	+	–	–	–	x	+	+	+	+	+	x	x	+	+	x	+	+
x	x	x	x	x	x	x	+	+	x	x	x	x	+	+	+	+	+
x	+	–	–	–	x	–	o	x	o	–	x	x	+	+	o	o	–
x	+	–	–	–	x	–	+	+	x	–	x	+	o	–	x	x	–
x	x	x	x	x	x	x	+	x	x	x	x	+	+	+	+	+	+
x	+	–	–	–	x	–	+	x	x	–	x	+	+	–	–	x	–

Chemical resistance

Resistance classification: + resistant; o conditionally resistant; – not resistant; x no data available

Chemicals, iglidur®	A180 A181 J200 R UW xirodur® B180 xirodur® S180 xirodur® F180 xirodur® M180 FC180	A200, G GLW G V0 M250 N54, Q2 W300, C L250, L100 igumid® G xirodur® G220 igumid® FC	A350	A500 C500 UW500 X X6 xirodur® A500 L500 AX500	A290 F Q290 W360 G1	J J2 J3 J4 JB E	J260 M260	J350	H H1 H2 H370 H4 HLW iguton G H3, H5	F2 K P P210 P4 M210	Q
Phenol (aq.), 88%	+	–	–	x	–	–	x	x	x	x	–
Phenol (aqueous), 6%	–	–	–	x	–	–	–	x	+	–	–
Phosphoric acid (aqueous), 0.3%	+	o	x	+	o	+	+	x	o	–	o
Phosphoric acid (aqueous), 10%	–	–	–	+	–	–	o	x	–	–	–
Phosphoric acid (aqueous), 3%	–	o	x	+	–	o	+	x	o	–	o
Phthalic acid, saturated solution	+	o	x	+	o	+	o	x	o	+	o
Polyester resins (with styrene)	o	+	x	+	+	+	–	x	+	o	+
Potassium bromide (aqueous), 10%	+	o	x	+	o	o	+	x	+	o	4
Potassium carbonate (aqueous), 60%	+	4	x	+	4	+	+	x	+	o	4
Potassium chloride (aq.), 90%	+	4	x	+	4	+	+	x	+	+	4
Potassium chloride (aqueous), 10%	+	4	x	x	4	+	x	x	x	+	x
Potassium dichromate (aqueous), 5%	+	o	–	+	o	o	+	x	+	o	o
Potassium nitrate (aqueous), 10%	+	4	x	+	4	+	+	x	+	+	4
Potassium permanganate (aqueous), 1%	+	–	–	+	–	+	+	x	–	+	o
Potassium sulphate, saturated solution	+	4	x	+	4	+	+	x	+	o	4
Propane, propene	+	+	x	+	+	+	–	x	+	+	+
Propanol	+	+	–	+	+	+	+	x	o	+	+
Propenoic acid	o	–	x	x	–	–	x	x	x	–	–
Pyridine	o	+	–	+	+	o	–	x	+	x	+
Pyrocatechol (aqueous), 6%	–	–	x	+	–	–	–	x	x	–	o
Pyruvic acid (aqueous), 10%	x	o	x	x	o	x	x	x	x	o	o
Resorcinol (1.3-dihydroxybenzene), 50%	x	–	x	x	–	–	x	x	x	–	–
Salicylic acid	–	+	–	+	+	–	+	x	+	–	+
Seawater	+	+	+	+	+	+	+	+	+	+	+
Silicone oils	+	+	+	+	+	+	+	x	+	+	+
Silver nitrate	+	4	x	+	4	+	+	x	+	o	4
Soap solutions	+	4	+	+	4	+	+	x	+	+	4
Soda lye (aqueous), 10%	+	+	+	+	+	o	x	x	+	–	o
Soda lye (aqueous), 50%	o	o	x	+	o	o	x	x	x	x	x
Soda solution, 10%	+	4	+	+	4	+	x	x	+	+	4
Sodium acetate (aqueous), 10%	+	–	x	+	4	+	+	x	+	o	+
Sodium bisulphite (aqueous), 10%	+	4	–	+	4	+	o	x	+	+	4
Sodium bromide (aqueous), 10%	+	4	x	+	4	+	+	x	+	+	4
Sodium carbonate (aqueous), 21.5%	+	4	–	+	4	+	+	x	+	+	4
Sodium carbonate (aqueous), 50%	+	4	–	+	4	+	+	x	+	+	4
Sodium carbonate, 5%	+	4	–	+	4	+	+	x	+	+	4
Sodium chlorate (aqueous), 10%	+	o	x	x	o	o	x	x	x	o	o
Sodium chloride, saturated solution	+	4	x	+	4	+	+	x	+	+	4
Sodium dichromate (aqueous), 10%	x	o	x	x	o	x	x	x	x	o	o

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Chemical resistance

"4" swelling, softening due to the water

V400	Z	B	D	T220	K230	PEP	A160 B160 UW160 xirodur® C160	E7	i170	i180 i180-BL	xirodur® D180	xiros® ball bearings with PEEK cage	 PP cage PE cage	 PA cage	i150	C210 P230	i3 i6 AB
x	x	x	–	x	x	–	+	x	x	x	x	x	+	–	–	x	–
x	+	–	–	–	x	–	x	x	x	–	x	x	+	–	–	x	–
x	+	o	–	+	x	o	+	+	+	+	x	o	x	–	+	+	o
x	+	–	–	–	x	–	+	+	x	o	x	+	+	–	x	+	–
x	+	o	–	–	x	o	+	+	x	+	o	+	+	o	+	+	o
x	+	o	+	+	x	o	+	x	+	+	x	+	+	o	+	+	o
x	+	–	o	o	x	+	x	x	x	–	x	+	+	o	+	+	+
x	+	–	+	o	x	+	+	+	+	+	x	x	+	o	+	+	+
x	+	o	+	o	x	+	+	x	x	+	x	+	+	o	+	x	–
+	+	+	+	+	x	+	+	+	x	+	x	x	+	+	x	x	–
x	x	x	x	x	x	x	+	+	+	+	x	+	+	+	+	x	+
x	+	–	+	o	x	o	+	x	+	+	x	+	+	+	o	o	o
+	+	+	+	+	x	+	+	+	+	+	x	+	+	o	+	+	+
x	+	o	+	o	x	+	+	+	+	+	x	+	+	–	x	x	–
x	+	o	+	+	x	+	+	x	+	–	x	+	x	+	+	+	+
+	o	o	+	+	x	+	+	+	+	+	x	+	+	+	+	x	+
x	x	x	–	–	x	–	x	x	x	x	x	+	+	+	x	x	–
x	+	x	o	x	x	o	o	+	–	–	x	x	x	–	x	x	+
x	o	–	–	–	x	–	x	x	x	–	x	+	x	–	x	x	–
x	x	x	–	o	x	x	x	x	x	x	x	x	x	o	x	+	o
x	x	x	–	–	x	–	x	x	o	o	x	+	+	–	–	–	–
x	+	x	–	–	x	–	+	+	+	+	x	x	x	–	x	+	+
+	+	+	+	+	x	x	+	x	+	+	x	+	+	o	x	+	+
+	+	+	+	+	x	+	+	+	+	+	+	+	+	+	+	+	+
x	+	x	+	o	x	4	+	+	+	+	x	+	+	+	+	x	x
+	+	+	+	+	x	4	+	+	x	+	x	+	+	+	+	+	+
+	+	+	+	–	x	o	+	–	+	x	x	+	x	+	–	–	+
x	+	o	o	x	x	o	x	x	+	x	x	+	+	–	–	–	+
x	+	x	+	+	x	4	+	x	+	+	o	+	+	+	x	+	+
x	+	o	+	o	x	+	+	x	+	+	x	x	x	–	+	+	+
x	+	x	+	+	x	4	+	x	+	o	x	+	+	–	+	+	x
x	+	+	+	+	x	4	+	x	+	+	x	+	+	+	+	x	+
x	+	x	+	+	x	+	+	x	x	+	x	+	+	+	x	x	x
x	+	o	+	+	x	+	+	x	x	+	x	+	+	+	x	x	x
x	+	x	+	+	x	+	+	x	+	+	x	+	+	+	x	+	+
x	x	x	o	o	+	x	+	o	x	x	x	+	+	+	x	+	o
x	+	+	+	+	x	4	+	+	+	+	x	x	+	o	+	x	x
x	x	x	–	o	x	x	x	x	x	x	x	+	+	+	o	o	o

Chemical resistance

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Chemicals, iglidur®	A180 A181 J200 R UW xirodur® B180 xirodur® S180 xirodur® F180 xirodur® M180 FC180	A200, G GLW G V0 M250 N54, Q2 W300, C L250, L100 igumid® G xirodur® G220 igumid® FC	A350	A500 C500 UW500 X X6 xirodur® A500 L500 AX500	A290 F Q290 W360 G1	J J2 J3 J4 JB E	J260 M260	J350	H H1 H2 H370 H4 HLW iguton G H3, H5	F2 K P P210 P4 M210	Q
Sodium dodecylbenzenesulfonate	+	+	x	x	+	+	x	x	x	+	x
Sodium hypochlorite (aqueous), 10%	–	–	x	+	–	–	o	x	o	o	o
Sodium hypophosphite (aqueous), 10%	+	+	x	x	+	+	x	x	x	+	x
Sodium nitrate (aqueous), 10%	+	4	–	+	4	+	+	x	+	+	4
Sodium nitrilotriacetate (aqueous), 10%	+	+	x	x	+	+	x	x	x	+	x
Sodium oleate	+	+	x	x	+	+	x	x	x	+	x
Sodium salts, 10%	+	+	x	x	+	+	x	x	x	+	x
Sodium sulphate, 10%	+	4	x	+	4	+	+	x	+	+	4
Sodium sulphite, neutral, 2%	o	4	x	+	4	o	o	x	+	o	4
Sodium thiosulphate, 10%	+	4	–	+	4	+	+	x	+	+	4
Soldering fluid	–	–	x	x	–	–	x	x	x	–	–
Soluble glass (sodium silicate)	+	4	x	+	4	+	+	x	+	+	4
Steam	x	–	o	+	–	x	o	x	+	–	o
Styrene	o	+	x	+	+	o	–	x	+	–	+
Sulphur	+	+	x	+	+	+	+	x	+	+	+
Sulphuric acid (concentrated), 98%	–	–	–	–	–	–	–	x	–	–	–
Sulphuric acid, 10%	–	–	+	o	–	–	o	o	–	–	–
Sulphuric acid, 2%	–	–	+	o	–	–	o	+	o	–	–
Tallow	+	+	x	+	+	+	+	x	+	+	+
Tar	+	+	+	+	+	+	o	x	+	+	+
Tartaric acid	o	o	+	+	o	+	+	x	+	x	4
Tetrahydrofuran (solvent)	o	+	–	+	+	o	–	x	+	+	+
Tetralin	+	+	x	+	+	+	x	x	+	–	+
Thionyl chloride	o	o	–	+	o	o	–	x	x	x	o
Tincture of iodine, 3%	o	–	–	+	–	o	–	x	+	x	o
Toluol	o	+	o	+	+	o	–	o	+	–	+
Transformer oil	+	+	+	+	+	+	o	x	+	+	+
Trichloroacetic acid (aqueous), 50%	–	–	x	x	–	–	x	x	x	–	–
Trichloroethane	–	o	x	+	o	–	x	x	+	–	o
Trichloroethylene	–	–	–	+	–	–	–	–	o	–	–
Triethanolamine, 90%	+	4	–	+	4	+	+	x	+	+	4
Trisodium phosphate, 90%	+	+	x	+	+	+	+	x	+	+	+
Uranium fluorides	–	–	x	x	–	–	x	x	x	–	–
Urea	+	+	x	+	+	+	+	x	+	+	+
Uric acid (aqueous), 10%	+	+	+	x	+	+	x	x	x	+	x
Urine	+	+	+	+	+	+	+	+	+	+	+
Vaseline	o	o	+	+	+	+	o	x	+	o	+
Violet oil	+	+	x	+	+	+	x	x	+	x	+

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Chemical resistance

"4" swelling, softening due to the water

V400	Z	B	D	T220	K230	PEP	A160 B160 UW160 xirodur® C160	E7	i170	i180 i180-BL	xirodur® D180	xiros® ball bearings with PEEK cage	 PP cage PE cage	 PA cage	i150	C210 P230	i3 i6 AB
x	x	x	x	x	x	x	+	x	x	x	x	x	x	o	+	+	+
x	x	o	o	o	x	o	+	+	+	o	o	x	+	+	o	o	o
x	x	x	x	x	x	x	x	x	x	x	x	+	+	–	x	+	+
x	+	+	+	+	x	4	+	+	+	+	o	x	x	+	+	+	+
x	x	x	x	x	x	x	x	x	x	x	x	+	+	+	x	+	+
x	x	x	x	x	x	x	x	x	x	x	x	x	x	+	x	+	+
x	x	x	x	x	x	x	x	x	x	x	x	x	x	+	x	x	+
x	+	+	+	+	x	4	+	x	+	+	x	x	x	+	+	x	+
x	+	x	o	o	x	o	+	x	+	+	x	+	+	+	+	x	+
x	+	x	+	+	x	4	x	+	x	+	x	+	+	+	+	+	+
x	x	x	–	–	x	–	x	x	x	x	x	x	x	–	x	+	–
x	+	+	+	+	x	4	+	x	+	+	x	+	+	–	+	x	x
o	o	–	x	–	x	x	+	x	x	o	x	+	+	o	x	+	–
+	+	–	–	–	x	+	o	o	x	–	x	x	–	o	+	+	+
+	+	+	+	+	x	+	+	+	+	+	x	+	x	o	+	+	+
–	o	–	–	–	x	–	o	x	–	–	x	o	+	–	–	x	–
+	+	–	–	–	o	–	+	–	+	o	x	–	o	–	x	+	–
+	+	–	–	–	o	–	+	–	x	o	–	+	+	+	x	+	–
+	+	+	+	+	x	+	+	+	x	+	x	+	o	+	+	+	+
x	+	x	+	+	x	+	+	+	x	o	x	+	+	+	+	+	+
x	+	o	o	x	x	4	+	x	+	+	x	+	+	–	x	x	o
+	+	x	o	+	x	o	o	o	–	–	x	+	+	+	+	+	+
x	+	x	–	–	x	+	–	x	–	–	x	+	o	+	+	+	+
x	x	o	o	x	x	o	–	–	–	–	x	+	–	+	x	x	o
x	+	–	o	x	x	o	+	+	o	–	x	+	o	+	x	x	–
+	+	–	–	–	+	+	o	o	–	–	x	+	+	+	x	o	+
x	+	–	+	+	x	+	o	x	+	o	x	+	o	+	+	+	+
x	x	x	–	–	x	–	+	+	x	x	x	+	o	+	–	–	–
x	o	x	–	–	+	–	x	x	–	–	x	+	x	o	–	–	o
x	+	–	–	–	x	–	o	x	–	–	x	x	+	–	–	–	–
x	+	x	+	+	x	4	x	x	+	+	o	+	o	–	+	x	+
x	+	x	+	+	x	+	x	x	x	+	x	+	x	+	+	x	+
x	x	x	–	–	x	–	x	x	x	x	x	+	x	+	–	–	–
x	+	o	+	+	x	+	+	+	+	+	o	x	+	+	+	+	+
x	x	x	x	x	x	x	+	x	x	x	x	+	+	+	+	+	+
+	+	+	+	+	x	+	+	x	x	+	x	x	x	–	+	+	+
x	+	o	o	+	x	+	+	+	+	o	x	+	+	+	+	+	+
x	+	x	+	x	x	+	x	x	x	x	x	+	+	o	x	x	+

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Chemical resistance

Resistance classification: + resistant; o conditionally resistant; – not resistant; x no data available

Chemicals, iglidur®	A180 A181 J200 R UW xirodur® B180 xirodur® S180 xirodur® F180 xirodur® M180 FC180	A200, G GLW G V0 M250 N54, Q2 W300, C L250, L100 igumid® G xirodur® G220 igumid® FC	A350	A500 C500 UW500 X X6 xirodur® A500 L500 AX500	A290 F Q290 W360 G1	J J2 J3 J4 JB E	J260 M260	J350	H H1 H2 H370 H4 HLW iguton G H3, H5	F2 K P P210 P4 M210	Q
Washing machine cleaner (phosphoric and nitric acid)	+	o	x	+	o	–	x	x	+	+	o
Wax, melted	+	+	+	+	+	+	+	+	+	+	+
White spirit	+	+	x	+	+	+	o	x	+	+	+
Xylol	o	o	+	+	+	o	–	x	+	–	+
Zinc chloride (aqueous), 10%	–	–	x	+	+	–	–	x	+	–	o
Zinc oxide	+	+	x	+	+	+	+	x	+	+	+
Zinc sulphate (aq.), 10%	+	4	x	+	4	+	+	x	+	+	4
Zinc sulphate (aqueous), 10%	+	4	x	+	4	+	+	x	+	+	4

Resistance classification: + resistant; o conditionally resistant; – not resistant; x no data available

[4] The lead screw nuts are not chemically attacked by these substances. However, there may be a dimensional change due to total moisture absorption.

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Chemical resistance

"4" swelling, softening due to water

V400	Z	B	D	T220	K230	PEP	A160 B160 UW160 xirodur® C160	E7	i170	i180 i180-BL	xirodur® D180	xiros® ball bearings with PEEK cage	 PP cage PE cage	 PA cage	i150	C210 P230	i3 i6 AB
x	+	o	–	+	x	–	+	x	x	x	x	+	o	+	x	x	o
+	+	+	+	+	x	+	o	x	+	+	x	+	x	+	x	+	+
x	+	x	+	+	x	+	x	x	x	o	x	+	+	o	x	x	+
x	+	o	–	–	+	+	–	o	–	–	x	+	x	+	x	o	+
x	+	–	–	x	o	–	+	+	+	–	x	+	–	o	x	x	–
+	+	+	+	+	x	+	x	x	+	+	x	+	+	o	+	x	+
x	+	+	+	+	x	4	+	x	+	+	x	+	x	+	+	x	x
x	+	+	+	+	x	4	+	x	+	+	x	+	x	+	+	x	x

The data was determined using laboratory specimens or based on comparisons with similar chemicals. Therefore, this data can only act as a reference. No interaction is also considered between the single chemicals / media which can lead to a change of the resistance of iglidur® plain bearings. The chemical resistance of actual parts should be tested under application conditions. All data given concerns the chemical resistance at room temperature. Other temperatures may lead to different classifications of the chemical resistance. We therefore recommend custom-designed tests under real application conditions.

iglidur® J4

General properties	Unit	iglidur® J4	Testing method
Density	g/cm³	1.48	
Colour		grey	
Max. moisture absorption at +23°C/50% r.h.	% weight	0.3	DIN 53495
Max. moisture absorption	% weight	1.3	
Coefficient of sliding friction, dynamic against steel	µ	0.06 - 0.20	
pv value, max. (dry)	MPa · m/s	0.3	
Mechanical properties			
Flexural modulus	MPa	2,350	DIN 53457
Flexural strength at +20°C	MPa	70	DIN 53452
Compressive strength	MPa	55	
Max. recommended surface pressure (+20°C)	MPa	35	
Shore D hardness		74	DIN 53505
Physical and thermal properties			
Max. long-term application temperature	°C	+90	
Max. short-term application temperature	°C	+120	
Min. application temperature	°C	-50	
Thermal conductivity	W/m · K	0.25	ASTM C 177
Coefficient of thermal expansion (at +23°C)	$K^{-1} \cdot 10^{-5}$	10	DIN 53752
Electrical properties			
Specific transitional resistance	Ωcm	$> 10^{13}$	DIN IEC 93
Surface resistance	Ω	$> 10^{12}$	DIN 53482

iglidur® FC180

General properties	Unit	iglidur® FC180	Testing method
Density	g/cm³	1.73	
Colour		blue	
Max. moisture absorption at +23°C and 50% r.h.	% weight	0.7	DIN 53495
Max. moisture absorption	% weight	1.3	
Mechanical properties			
Flexural modulus	MPa	2,600	DIN 53457
Flexural strength at +20°C	MPa	68	DIN 53452
Max. recommended surface pressure (+20°C)	MPa	31	
Shore D hardness		69	DIN 53505
Physical and thermal properties			
Max. long-term application temperature	°C	+90	
Max. short-term application temperature	°C	+120	
Min. application temperature	°C	-40	
Electrical properties			
Specific transitional resistance	Ωcm	$> 10^{12}$	DIN IEC 93
Surface resistance	Ω	$> 10^{12}$	DIN 53482

Material properties

iglidur® i3

General properties	Unit	iglidur® i3	Testing method
Density	g/cm³	1.05	
Colour		yellow	
Max. moisture absorption at +23°C/50% r.h.	% weight	0.8	DIN 53495
Max. moisture absorption	% weight	1.9	
Mechanical properties			
Flexural modulus	MPa	1,400	DIN 53457
Flexural strength at +20°C	MPa	68/61[130)]	DIN 53452
Shore D hardness		70	DIN 53505
Physical and thermal properties			
Max. long-term application temperature	°C	+80	
Max. short-term application temperature	°C	+140	
Min. application temperature	°C	-40	
Electrical properties			
Specific transitional resistance	Ωcm	$> 10^{12}$	DIN IEC 93
Surface resistance	Ω	$> 10^{11}$	DIN 53482

[130)] **Printed flat/upright**

iglidur® K230

General properties	Unit	iglidur® K230	Testing method
Density	g/cm³	1.36	
Colour		dark grey	
Max. moisture absorption at +23°C/50% r.h.	% weight	0.8	DIN 53495
Max. moisture absorption	% weight	2.9	
Mechanical properties			
Flexural modulus	MPa	1,600	DIN 53457
Flexural strength at +20°C	MPa	40	DIN 53452
Max. recommended surface pressure (+20°C)	MPa	38	
Shore D hardness		68	DIN 53505
Physical and thermal properties			
Max. long-term application temperature	°C	+110	
Max. short-term application temperature	°C	+130	
Min. application temperature	°C	-30	
Electrical properties			
Specific transitional resistance	Ωcm	$> 10^{12}$	DIN IEC 93
Surface resistance	Ω	$> 10^{12}$	DIN 53482

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iglidur® A230

General properties	Unit	iglidur® A230	Testing method
Density	**g/cm³**	1.20	
Colour		blue	
Max. moisture absorption at +23°C/50% r.h.	**% weight**	0.3	DIN 53495
Max. moisture absorption	**% weight**	2.5	
Mechanical properties			
Flexural modulus	**MPa**	1,530	DIN 53457
Flexural strength at +20°C	**MPa**	53	DIN 53452
Max. recommended surface pressure (+20°C)	**MPa**	18	
Shore D hardness		73	DIN 53505
Physical and thermal properties			
Max. long-term application temperature	**°C**	+110	
Max. short-term application temperature	**°C**	+130	
Min. application temperature	**°C**	-30	
Electrical properties			
Specific transitional resistance	**Ωcm**	> 10^{12}	DIN IEC 93
Surface resistance	**Ω**	> 10^{12}	DIN 53482

Material properties

iglidur® L100

General properties	Unit	iglidur® L100	Testing method
Density	**g/cm³**	1.35	
Colour		yellow	
Max. moisture absorption at +23°C/50% r.h.	**% weight**	0.7	DIN 53495
Max. moisture absorption	**% weight**	5.2	
Mechanical properties			
Flexural modulus	**MPa**	5,500	DIN 53457
Flexural strength at +20°C	**MPa**	150	DIN 53452
Max. recommended surface pressure (+20°C)	**MPa**	70	
Shore D hardness		79	DIN 53505
Physical and thermal properties			
Max. long-term application temperature	**°C**	+100	
Max. short-term application temperature	**°C**	+190	
Max. short-term ambient temperature	**°C**	+200	
Min. application temperature	**°C**	-40	
Electrical properties			
Specific transitional resistance	**Ωcm**	> 10^{13}	DIN IEC 93
Surface resistance	**Ω**	> 10^{11}	DIN 53482

iglidur® P UV

General properties	Unit	iglidur® P UV	Testing method
Density	**g/cm³**	1.45	
Colour		black	
Max. moisture absorption at +23°C/50% r.h.	**% weight**	0.5	DIN 53495
Max. moisture absorption	**% weight**	0.5	
Mechanical properties			
Flexural modulus	**MPa**	4,250	DIN 53457
Flexural strength at +20°C	**MPa**	110	DIN 53452
Max. recommended surface pressure (+20°C)	**MPa**	n.s.	
Shore D hardness		78	DIN 53505
Physical and thermal properties			
Max. long-term application temperature	**°C**	+100	
Max. short-term application temperature	**°C**	+160	
Min. application temperature	**°C**	-40	
Electrical properties			
Specific transitional resistance	**Ωcm**	> 10^{11}	DIN IEC 93
Surface resistance	**Ω**	> 10^{11}	DIN 53482

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igumid® F300

General properties	Unit	igumid® F300	Testing method
Density	**g/cm³**	1.44	
Colour		grey	
Max. moisture absorption at +23°C and 50% r.h.	**% weight**	0.9	DIN 53495
Max. moisture absorption	**% weight**	3.9	
Mechanical properties			
Flexural modulus	**MPa**	5,900	DIN 53457
Flexural strength at +20°C	**MPa**	150	DIN 53452
Max. recommended surface pressure (+20°C)	**MPa**	45	
Shore D hardness		79	DIN 53505
Physical and thermal properties			
Max. long-term application temperature	**°C**	+90	
Max. short-term application temperature	**°C**	+170	
Min. application temperature	**°C**	-40	
Electrical properties			
Specific transitional resistance[5)]	**Ωcm**	> 10^4 - 10^9 [37)]	DIN IEC 93
Surface resistance[5)]	**Ω**	> 10^4 - 10^9 [37)]	DIN 53482

[5)] The good conductivity of this plastic material under certain circumstances can favour the generation of corrosion on the metallic contact components

[37)] Depending on the geometry

igumid® G

General properties	Unit	igumid® G	Testing method
Density	**g/cm³**	1.37	
Colour		black	
Max. moisture absorption at +23°C and 50% r.h.	**% weight**	1.4	DIN 53495
Max. moisture absorption	**% weight**	5.6	
Mechanical properties			
Flexural modulus	**MPa**	7,800	DIN 53457
Flexural strength at +20°C	**MPa**	240	DIN 53452
Shore D hardness		79	DIN 53505
Physical and thermal properties			
Max. long-term application temperature	**°C**	+120	
Max. short-term application temperature	**°C**	+180	
Min. application temperature	**°C**	-40	
Thermal conductivity	**W/m · K**	0.24	ASTM C 177
Coefficient of thermal expansion (at +23°C)	**$K^{-1} \cdot 10^{-5}$**	17	DIN 53752
Electrical properties			
Specific transitional resistance	**Ωcm**	> 10^{11}	DIN IEC 93
Surface resistance	**Ω**	> 10^{11}	DIN 53482

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Material properties

igumid® FC

General properties	Unit	igumid® FC	Testing method
Density	**g/cm³**	1.47	
Colour		dark blue	
Max. moisture absorption at +23°C and 50% r.h.	**% weight**	2.3	DIN 53495
Max. moisture absorption	**% weight**	5.2	
Mechanical properties			
Flexural modulus	**MPa**	7,083	DIN 53457
Flexural strength at +20°C	**MPa**	193	DIN 53452
Shore D hardness		83	DIN 53505
Physical and thermal properties			
Max. long-term application temperature	**°C**	+100	
Max. short-term application temperature	**°C**	+140	
Min. application temperature	**°C**	-30	
Electrical properties			
Specific transitional resistance	**Ωcm**	> 10^{12}	DIN IEC 93
Surface resistance	**Ω**	> 10^{12}	DIN 53482

iguton G

General properties	Unit	iguton G	Testing method
Density	**g/cm³**	1.69	
Colour		brown	
Max. moisture absorption at +23°C and 50% r.h.	**% weight**	0.1	DIN 53495
Max. moisture absorption	**% weight**	0.2	
Mechanical properties			
Flexural modulus	**MPa**	10,200	DIN 53457
Flexural strength at +20°C	**MPa**	140	DIN 53452
Max. recommended surface pressure (+20°C)	**MPa**	65	
Shore D hardness		85	DIN 53505
Physical and thermal properties			
Max. long-term application temperature	**°C**	+200	
Max. short-term application temperature	**°C**	+240	
Max. short-term ambient temperature[1]	**°C**	+260	
Min. application temperature	**°C**	-40	
Electrical properties			
Specific transitional resistance	**Ωcm**	> 10^{15}	DIN IEC 93
Surface resistance	**Ω**	> 10^{14}	DIN 53482

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POM black

General properties	Unit	POM black	Testing method
Density	g/cm³	1.41	
Colour		black	
Max. moisture absorption at +23°C and 50% r.h.	% weight	0.2	DIN 53495
Max. moisture absorption	% weight	1.1	
Mechanical properties			
Flexural modulus	MPa	1,900	DIN 53457
Flexural strength at +20°C	MPa	68	DIN 53452
Max. recommended surface pressure (+20°C)	MPa	23	
Shore D hardness		78	DIN 53505
Physical and thermal properties			
Max. long-term application temperature	°C	+90	
Max. short-term application temperature	°C	+120	
Min. application temperature	°C	-50	
Electrical properties			
Specific transitional resistance	Ωcm	> 10^{12}	DIN IEC 93
Surface resistance	Ω	> 10^{12}	DIN 53482

iglidur® RN33 + RN89

General properties	Unit	RN33	RN89	Testing method
Density	g/cm³	1.36	1.44	
Colour		black	grey	
Max. moisture absorption at +23°C and 50% r.h.	% weight	1.4	0.9	DIN 53495
Max. moisture absorption	% weight	6.0	3.9	
Mechanical properties				
Flexural modulus	MPa	3,200	5,900	DIN 53457
Flexural strength at +20°C	MPa	80	150	DIN 53452
Max. recommended surface pressure (+20°C)	MPa	60	45	
Shore D hardness		77	79	DIN 53505
Physical and thermal properties				
Max. long-term application temperature	°C	+90	+90	
Max. short-term application temperature	°C	+120	+170	
Min. application temperature	°C	-40	-40	
Electrical properties				
Specific transitional resistance	Ωcm	~ 10^{11}	10^{4} - 10^{9}	DIN IEC 93
Surface resistance	Ω	~ 10^{11}	10^{4} - 10^{9}	DIN 53482

iglidur® RN246 + RN248

General properties	Unit	RN246	RN248	Testing method
Density	g/cm³	1.49	1.25	
Colour		blue	black	
Max. moisture absorption at +23°C and 50% r.h.	% weight	2.0	1.4	DIN 53495
Max. moisture absorption	% weight	6.0	7.6	
Mechanical properties				
Flexural modulus	MPa	6,000	2,700	DIN 53457
Flexural strength at +20°C	MPa	180	99	DIN 53452
Max. recommended surface pressure (+20°C)	MPa	65	50	
Shore D hardness		85	–	DIN 53505
Physical and thermal properties				
Max. long-term application temperature	°C	+80	+90	
Max. short-term application temperature[1)]	°C	+120	+180	
Min. application temperature	°C	-40	-40	
Electrical properties				
Specific transitional resistance	Ωcm	> 10^{11}	> 10^{3}	DIN IEC 93
Surface resistance	Ω	> 10^{11}	> 10^{9}	DIN 53482

[1)] Without fill weight; no gliding movement; relaxation not excluded

iglidur® JB

General properties	Unit	iglidur® JB	Testing method
Density	g/cm³	1.49	
Colour		black	
Max. moisture absorption at +23°C and 50% r.h.	% weight	0.3	DIN 53495
Max. moisture absorption	% weight	1.3	
Mechanical properties			
Flexural modulus	MPa	2,400	DIN 53457
Flexural strength at +20°C	MPa	73	DIN 53452
Max. recommended surface pressure (+20°C)	MPa	35	
Shore D hardness		74	DIN 53505
Physical and thermal properties			
Max. long-term application temperature	°C	+90	
Max. short-term application temperature	°C	+120	
Min. application temperature	°C	-50	
Electrical properties			
Specific transitional resistance	Ωcm	> 10^{13}	DIN IEC 93
Surface resistance	Ω	> 10^{12}	DIN 53482

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- Connectors

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Flange bearings



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Slewing rings

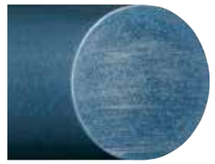


Toothed slewing rings



Accessories

iglidur® bar stock



Round bars



Hollow bars



Plates

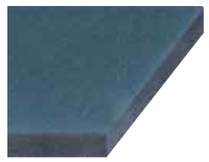


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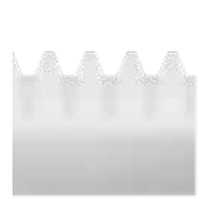
iglidur® gears



Spur gears



Gear wheels



Racks



Angular gearbox

iglidur® tribo 3D printing



Filaments



Selective Laser Sintering



Resin



Accessories

igubal® spherical bearings



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Accessories

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ball bearings



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Thrust bearings



Fixed flange ball bearings



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Conveyor rollers



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R shaft guides



Q square linear guides



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lead screw technology



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Lead screws



Accessories

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drive technology



Linear modules with lead screw



Linear modules with toothed belt



Linear modules with racks



XY-tables

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Electric motors

Low Cost Automation



Articulated arm robot



Linear robots



Further kinematics



Modular gearbox system



Accessories

Everything at a glance

e-chains® and e-chain systems®

e-chains® and e-chain systems®



Energy chains for linear motion



Special solutions



Rotary movements



Accessories



Complete set

smart plastics



Condition monitoring | i.Sense

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Complete system solutions

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Motor cables

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Robot cables



Special cables



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readychain®



Drive cables in accordance with manufacturers' standards



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Cables for robots



AIDA Standard



Accessories

Connectors



Plug-in connectors in accordance with manufacturers' standards

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MAT0075591.20



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New products journal 2023
MAT0075538.20

Notes

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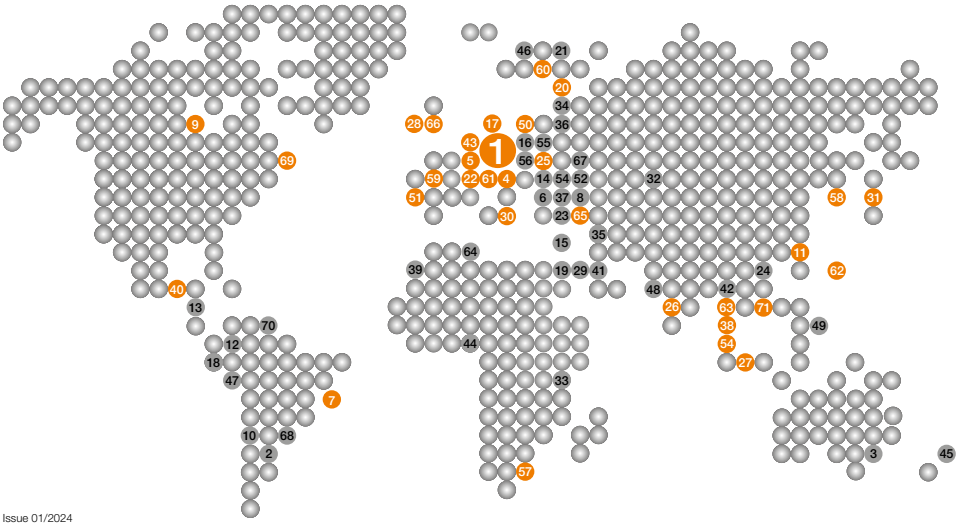
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