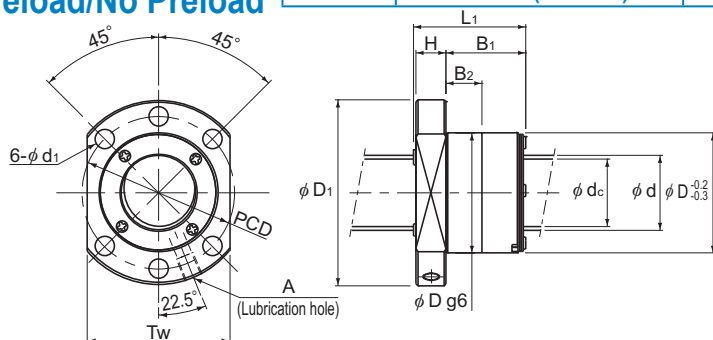


SDA-V/SDA-VZ With Preload/No Preload



SDA28V to 32V

Model No.	Screw shaft outer diameter d	Lead Ph	Ball center-to-center diameter dp	Screw shaft thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating				Rigidity	
						SDA-V (Caged Ball)		SDA-VZ (Full-Ball)		SDA-V (Caged Ball)	SDA-VZ (Full-Ball)
						Ca kN	C _{0a} kN	Ca kN	C _{0a} kN	K N/μm	K N/μm
SDA 2806V-5	28	6	29	24.9	1×5	29.6	54.5	28.2	57.7	462	487
SDA 3110V-5	31	10	32	25.4	1×5	57.1	94.7	54.4	99.7	529	554
SDA 3112V-5	31	12	32	25.4	1×5	57	94.7	54.3	99.9	529	555
SDA 3116V-5	31	16	32	25.4	1×5	56.8	96	54.1	100.5	534	556
SDA 3120V-5	31	20	32	25.4	1×5	56.6	90.3	53.9	95.1	533	558
SDA 3132V-2	31	32	32	25.4	1×2	23.2	33.8	22.1	35.4	206	214
SDA 3205V-4	32	5	32.75	29.1	1×4	18.8	38.5	17.9	41.7	388	416
SDA 3210V-5	32	10	33	28.9	1×5	31.3	62.9	29.8	66.3	517	541
SDA 3610V-5	36	10	37	30.4	1×5	61.7	110.6	58.8	116.4	598	626
SDA 3612V-5	36	12	37	30.4	1×5	61.7	110.6	58.7	116.6	598	627
SDA 3616V-5	36	16	37	30.4	1×5	61.5	111.9	58.6	117.1	603	628
SDA 3620V-5	36	20	37	30.4	1×5	61.3	105.2	58.4	110.6	602	629
SDA 3636V-2	36	36	37	30.4	1×2	25.1	39.3	23.9	41.3	232	242
SDA 3810V-5	38	10	39	32.4	1×5	63.4	117.7	60.4	123.1	629	654
SDA 3812V-5	38	12	39	32.4	1×5	63.4	117.7	60.3	123.3	628	655
SDA 3816V-5	38	16	39	32.4	1×5	63.2	117.7	60.2	123.7	627	656
SDA 3820V-5	38	20	39	32.4	1×5	63	111.9	60	116.9	632	657
SDA 3825V-4	38	25	39	32.4	1×4	51.1	87.8	48.6	92.7	500	525
SDA 3830V-3	38	30	39	32.4	1×3	38.7	64.9	36.9	68.2	373	390
SDA 3840V-2	38	40	39	32.4	1×2	25.7	42	24.4	43.9	244	253

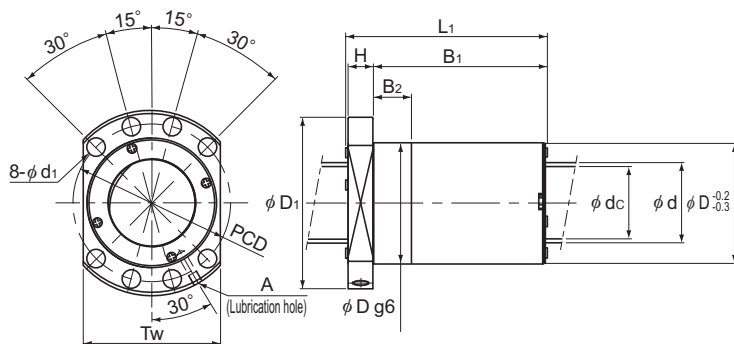
Model number coding

SDA3810V Z -5 TT G0 +830L C5

Model No.	Number of turns	Overall screw shaft length (in mm)	Accuracy symbol (*3)
Full-ball type code (No code for caged ball type)	Contamination protection accessory symbol (*1)	Axial direction clearance code (*2) (Preloaded products: GO Clearance, Non-preloaded products: GT Clearance)	

(*1) See **A15-326**. (*2) See **A15-19**. (*3) See **A15-12**.

Positioning, ISO 3408 compliant



SDA36V to 38V

Unit: mm

	Nut dimensions										Screw shaft inertial moment/mm	Nut mass	Shaft mass	Permissible rotational speed	
	Outer diameter	Flange diameter	Overall length							Lubrication hole				SDA-V (Caged Ball)	SDA-VZ (Full-Ball)
	D	D ₁	L ₁	H	B ₁	B ₂	PCD	d ₁	T _w	A				min ⁻¹	min ⁻¹
	46	80	42	12	30	10	65	9	62	M6	4.74×10^{-7}	0.49	4.37	5000	4480
	56	86	65	14	50	20	71	9	65	M6	7.07×10^{-7}	0.96	5.02	5000	4060
	56	86	74	14	59	20	71	9	65	M6	7.07×10^{-7}	1.08	5.17	5000	4060
	56	86	93	14	78	20	71	9	65	M6	7.07×10^{-7}	1.31	5.36	5000	4060
	56	86	112	14	97	20	71	9	65	M6	7.07×10^{-7}	1.54	5.47	5000	4060
	56	86	73	14	58	20	71	9	65	M6	7.07×10^{-7}	1.04	5.63	5000	4060
	50	80	32	12	20	16.5	65	9	62	M6	8.08×10^{-7}	0.41	5.89	4880	3960
	50	80	61	12	49	10	65	9	62	M6	8.08×10^{-7}	0.64	6.00	4840	3960
	61	91	65	14	50	20	76	9	68	M8	1.29×10^{-6}	1.06	6.93	4320	3510
	61	91	74	14	59	20	76	9	68	M8	1.29×10^{-6}	1.19	7.11	4320	3510
	61	91	93	14	78	20	76	9	68	M8	1.29×10^{-6}	1.45	7.34	4320	3510
	61	91	112	14	97	20	76	9	68	M8	1.29×10^{-6}	1.7	7.47	4320	3510
	61	91	81	14	66	20	76	9	68	M8	1.29×10^{-6}	1.24	7.69	4320	3510
	63	93	65	14	50	20	78	9	70	M8	1.60×10^{-6}	1.1	7.79	4100	3330
	63	93	74	14	59	20	78	9	70	M8	1.60×10^{-6}	1.23	7.97	4100	3330
	63	93	93	14	78	20	78	9	70	M8	1.60×10^{-6}	1.5	8.21	4100	3330
	63	93	112	14	97	20	78	9	70	M8	1.60×10^{-6}	1.77	8.35	4100	3330
	63	93	111	14	96	20	78	9	70	M8	1.60×10^{-6}	1.73	8.45	4100	3330
	63	93	100	14	85	20	78	9	70	M8	1.60×10^{-6}	1.56	8.53	4100	3330
	63	93	87	14	72	20	78	9	70	M8	1.60×10^{-6}	1.38	8.62	4100	3330

Axial Clearance

Unit: mm

Clearance symbol	G0	GT
Axial clearance	0 or less	0 to 0.005

Note) The overall length of the nut will increase when equipping the QZ lubricating device. See **A15-336** for further details.
It is not possible to chamfer both ends of the screw shaft. When designing your system this way, contact THK.

The rigidity values (K) in the table represent spring constants, each obtained from the load and the elastic deformation under an axial load equal to 30% of the basic axial dynamic load rating (Ca).
These values do not include the rigidity of the components related to mounting the ball screw nut. Therefore, it is normally appropriate to regard roughly 80% of the rigidity value (K) in the table as the actual value.
If the axial load (Fa) is not 0.3 Ca, the rigidity value (K_n) is obtained from the following equation.

$$K_n = K \left(\frac{F_a}{0.3 C_a} \right)^{\frac{1}{3}}$$

K: Rigidity value in the dimensional table