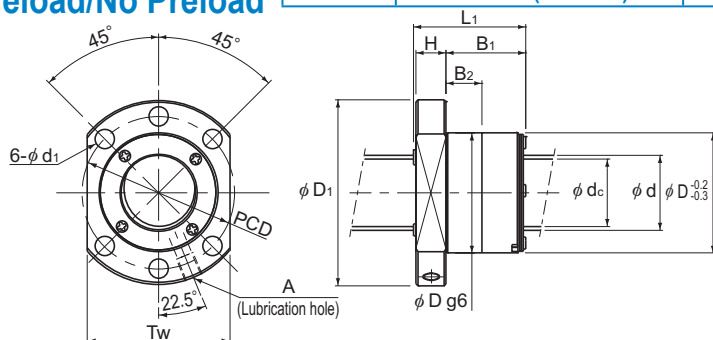


SDA-V/SDA-VZ With Preload/No Preload



SDA28V to 32VA

Model No.	Screw shaft outer diameter	Lead	Ball center- to-center diameter	Thread minor diameter	No. of loaded circuits	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 3206V-5	32	6	33	28.9	1×5	31.4	62.4	29.9	66.1	513	541
SDA 3208V-5	32	8	33	28.9	1×5	31.4	62.4	29.9	66.2	513	541
SDA 3210V-5	32	10	33	28.9	1×5	31.3	62.9	29.8	66.3	517	541
SDA 3210VA-5	32	10	33	26.4	1×5	58.1	98.9	55.3	103.1	548	569
SDA 3212VA-5	32	12	33	26.4	1×5	58	98.9	55.3	103.3	548	569
SDA 3216VA-5	32	16	33	26.4	1×5	57.8	98.9	55.1	103.8	547	571
SDA 3220VA-5	32	20	33	26.4	1×5	57.6	94.3	54.9	98.2	552	572
SDA 3232VA-2	32	32	33	26.4	1×2	23.6	35.2	22.5	36.5	213	220
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

Model number coding

SDA3610V Z -5 TT G0 +830L C5

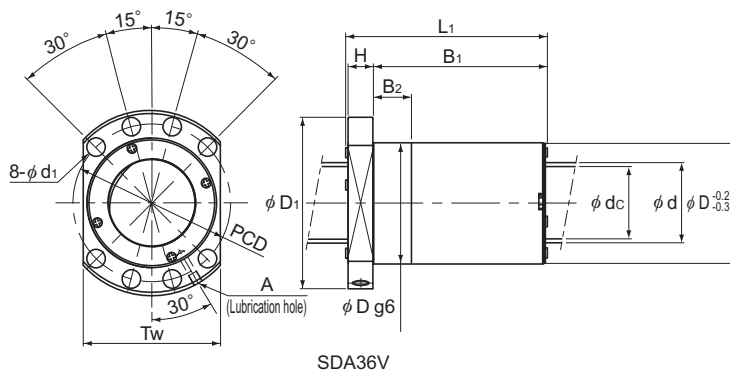
Model No. Number of turns Overall screw shaft length (in mm) Accuracy symbol³

Full-ball type code (No code for caged ball type) Contamination protection Axial direction clearance code²

accessory symbol¹

¹ See **A15-356**. ² See **A15-19**. ³ See **A15-12**.

Positioning, ISO 3408 compliant



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	27	65	9	62	M6	4.74×10^{-7}	0.49	4.37	5,000	4,480
	56	86	65	14	50	20	71	9	65	M6	7.07×10^{-7}	0.96	5.02	5,000	4,060
	56	86	74	14	59	20	71	9	65	M6	7.07×10^{-7}	1.08	5.17	5,000	4,060
	56	86	93	14	78	20	71	9	65	M6	7.07×10^{-7}	1.31	5.36	5,000	4,060
	56	86	112	14	97	20	71	9	65	M6	7.07×10^{-7}	1.54	5.47	5,000	4,060
	56	86	73	14	58	20	71	9	65	M6	7.07×10^{-7}	1.04	5.63	5,000	4,060
	50	80	32	12	20	17	65	9	62	M6	8.08×10^{-7}	0.41	5.89	4,880	3,960
	50	80	42	12	30	10	65	9	62	M6	8.08×10^{-7}	0.48	5.73	4,840	3,930
	50	80	52	12	40	20	65	9	62	M6	8.08×10^{-7}	0.56	5.87	4,840	3,930
	50	80	61	12	49	20	65	9	62	M6	8.08×10^{-7}	0.64	6	4,840	3,930
	57	87	65	14	50	20	72	9	66	M6	8.08×10^{-7}	0.98	5.38	4,840	3,930
	57	87	74	14	59	20	72	9	66	M6	8.08×10^{-7}	1.1	5.54	4,840	3,930
	57	87	93	14	78	20	72	9	66	M6	8.08×10^{-7}	1.34	5.73	4,840	3,930
	57	87	112	14	97	20	72	9	66	M6	8.08×10^{-7}	1.58	5.85	4,840	3,930
	57	87	73	14	58	20	72	9	66	M6	8.08×10^{-7}	1.07	6.01	4,840	3,930
	61	91	65	14	50	20	76	9	68	M8×1	1.29×10^{-6}	1.06	6.93	4,320	3,510
	61	91	74	14	59	20	76	9	68	M8×1	1.29×10^{-6}	1.19	7.11	4,320	3,510
	61	91	93	14	78	20	76	9	68	M8×1	1.29×10^{-6}	1.45	7.34	4,320	3,510
	61	91	112	14	97	20	76	9	68	M8×1	1.29×10^{-6}	1.7	7.47	4,320	3,510
	61	91	81	14	66	20	76	9	68	M8×1	1.29×10^{-6}	1.24	7.69	4,320	3,510

Notes: L₁ and B₁ dimensions in the dimensional table are those when a thin film seal has been installed.

At least one end of the shaft must accommodate the insertion of the nut onto the ball screw threads for assembly. Please contact THK if this impacts your desired system design.

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 30% of Ca, the rigidity value (K_a) is obtained from the following equation.

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

K: Rigidity value in the dimensional table