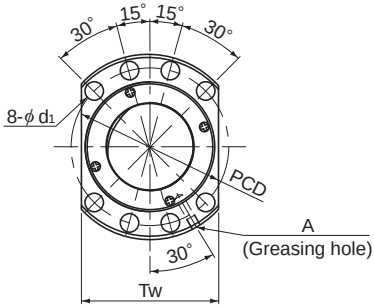
SDA-V/SDA-VZ
With Preload/No Preload

DN value	SDA-V (With Retainer)	160000
	SDA-VZ (Full-Ball)	130000



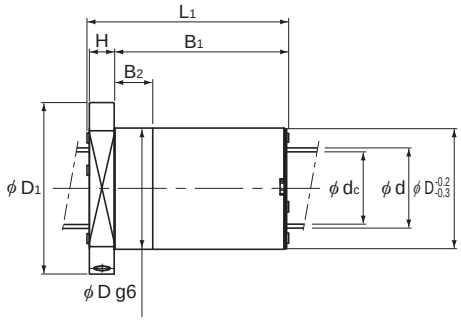
Model No.	Screw shaft outer diameter	Lead	Ball center-to-center diameter	Screw shaft Thread minor diameter	No. of loaded circuits	Basic load rating SDA-V (With Retainer)		Basic load rating SDA-VZ (Full-Ball)		Rigidity SDA-V (With Retainer)	Rigidity SDA-VZ (Full-Ball)
						Ca	C0a	Ca	C0a	K	K
	d	Ph	dp	dc	Rows × turns	kN	kN	kN	kN	N/μm	N/μm
SDA 4510V-5	45	10	46	39.4	1×5	68.7	139.4	65.4	146.5	717	749
SDA 4512V-5	45	12	46	39.4	1×5	68.6	139.4	65.4	146.7	717	750
SDA 4516V-5	45	16	46	39.4	1×5	68.5	140.7	65.3	147	722	751
SDA 4520V-5	45	20	46	39.4	1×5	68.4	140.7	65.1	147.5	721	752
SDA 4525V-4	45	25	46	39.4	1×4	55.5	104	52.8	109.8	572	600
SDA 4530V-4	45	30	46	39.4	1×4	55.3	105.3	52.6	110.5	577	602
SDA 4540V-3	45	40	46	39.4	1×3	41.7	78.3	39.7	81.9	431	449
SDA 5010V-5	50	10	51	44.4	1×5	72	155.2	68.6	163.2	780	815
SDA 5012V-5	50	12	51	44.4	1×5	72	155.2	68.5	163.3	779	816
SDA 5016V-5	50	16	51	44.4	1×5	71.9	156.6	68.4	163.7	785	816
SDA 5020V-5	50	20	51	44.4	1×5	71.7	156.6	68.3	164.2	784	817
SDA 5025V-4	50	25	51	44.4	1×4	58.2	123.6	55.5	129.8	624	652
SDA 5030V-4	50	30	51	44.4	1×4	58	117.5	55.3	122.6	629	654
SDA 5040V-3	50	40	51	44.4	1×3	43.9	86.5	41.8	90.7	467	487
SDA 5050V-2	50	50	51	44.4	1×2	29.2	55.5	27.8	58	303	316

Model number coding

SDA4510V Z -5 TT G0 +830L C5

- SDA4510V: Model No.
- Z: Full-Ball type code (No code for retainer type)
- -5: Number of turns
- TT: Contamination protection accessory symbol (*1)
- G0: Axial direction clearance code (*2) (Preloaded products: GO Clearance, Non-preloaded products: GT Clearance)
- +830L: Overall screw shaft length (in mm)
- C5: Accuracy symbol (*3)

(*1) See **A15-308**. (*2) See **A15-19**. (*3) See **A15-12**.



Unit: mm

	Nut dimensions										Screw shaft inertial moment/mm	Nut mass	Shaft mass	Permissible Rotational Speed	
	Outer diameter	Flange diameter	Overall length							Greasing hole				SDA-V (With Retainer)	SDA-VZ (Full-Ball)
	D	D1	L1	H	B1	B2	PCD	d1	Tw	A	kg•m²/mm	kg	kg/m	min-1	min-1
	70	105	65	16	48	20	88	11	80	M8	3.16×10-6	1.35	11.16	3470	2820
	70	105	74	16	57	20	88	11	80	M8	3.16×10-6	1.5	11.38	3470	2820
	70	105	93	16	76	20	88	11	80	M8	3.16×10-6	1.81	11.67	3470	2820
	70	105	112	16	95	20	88	11	80	M8	3.16×10-6	2.11	11.84	3470	2820
	70	105	110	16	93	20	88	11	80	M8	3.16×10-6	2.04	11.95	3470	2820
	70	105	130	16	113	20	88	11	80	M8	3.16×10-6	2.36	12.04	3470	2820
	70	105	129	16	112	20	88	11	80	M8	3.16×10-6	2.33	12.16	3470	2820
	75	110	65	16	48	20	93	11	85	M8	4.82×10-6	1.46	13.93	3130	2540
	75	110	74	16	57	20	93	11	85	M8	4.82×10-6	1.63	14.19	3130	2540
	75	110	93	16	76	20	93	11	85	M8	4.82×10-6	1.96	14.5	3130	2540
	75	110	112	16	95	20	93	11	85	M8	4.82×10-6	2.29	14.69	3130	2540
	75	110	110	16	93	20	93	11	85	M8	4.82×10-6	2.22	14.82	3130	2540
	75	110	130	16	113	20	93	11	85	M8	4.82×10-6	2.57	14.92	3130	2540
	75	110	128	16	111	20	93	11	85	M8	4.82×10-6	2.52	15.06	3130	2540
	75	110	107	16	90	20	93	11	85	M8	4.82×10-6	2.13	15.13	3130	2540

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 A15-318 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.

$$K_N = K \left(\frac{Fa}{0.3Ca} \right)^{\frac{1}{3}}$$

K: Rigidity value in the dimensional table.

Options⇒A15-307