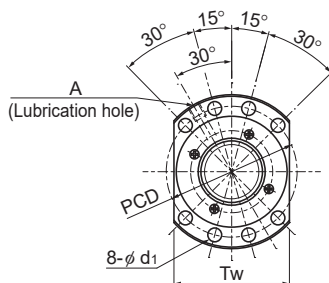


# SDAN-V

## With Preload/No Preload

DN value	SDAN-VX (Full-Ball)	130,000
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Model No.	Screw shaft outer diameter d	Lead Ph	Ball center-to-center diameter dp	Thread minor diameter dc	No. of loaded circuits Rows X turns	Basic load rating				Rigidity	
						SDAN-V (Caged Ball)		SDAN-VX (Full-Ball)		SDAN-V (Caged Ball)	SDAN-VX (Full-Ball)
						Ca kN	C <sub>0a</sub> kN	Ca kN	C <sub>0a</sub> kN	K N/μm	K N/μm
* SDAN 5510VX-4	55	10	56	49.4	1×4	—	—	58.2	141.6	—	1,400
* SDAN 5510VAX-4	55	10	56.75	50.2	1×4	—	—	58.5	143.6	—	1,416
* SDAN 5512VX-4	55	12	56	49.4	1×4	—	—	58.1	141.7	—	1,401
* SDAN 5512VAX-4	55	12	56.75	50.2	1×4	—	—	58.5	143.7	—	1,416
* SDAN 5516VX-4	55	16	56	49.4	1×4	—	—	58.1	142	—	1,402
* SDAN 5516VAX-4	55	16	56.75	50.2	1×4	—	—	58.4	144	—	1,417
* SDAN 5520VX-4	55	20	56	49.4	1×4	—	—	58	142.3	—	1,403
* SDAN 5520VAX-4	55	20	56.75	50.2	1×4	—	—	58.3	144.3	—	1,419
* SDAN 6310VX-4	63	10	64	57.4	1×4	—	—	61.6	162.7	—	1,560
* SDAN 6312VX-4	63	12	65	57.6	1×4	—	—	72.9	185.2	—	1,603
* SDAN 6316VX-4	63	16	65	57.6	1×4	—	—	72.8	185.5	—	1,604
* SDAN 6320VX-4	63	20	65	57.6	1×4	—	—	72.7	185.8	—	1,606
* SDAN 6325VX-4	63	25	65	57.6	1×4	—	—	72.6	186.3	—	1,607
* SDAN 6330VX-4	63	30	65	57.6	1×4	—	—	72.5	186.9	—	1,610
* SDAN 6340VX-3	63	40	65	57.6	1×3	—	—	55	129.2	—	1,197

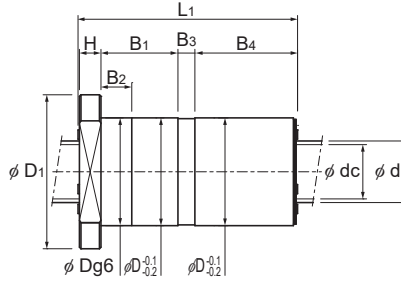
Note: Models marked with an asterisk (\*) in the dimensional table are only compatible with Model SDAN-VX (Full-Ball type).

### Model number coding

**SDAN5510V X -4 TT G0 +830L C5**

Model No. Full-ball type code (No code for caged ball type)	Number of turns Contamination protection accessory symbol (*1)	Overall screw shaft length (in mm) Symbol for clearance in the axial direction (G0 for all SDAN-V variations)	Accuracy symbol (*2)
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(\*1) See **A15-354**. (\*2) See **A15-12**.



Unit: mm

Nut dimensions													Screw shaft inertial moment/mm <sup>2</sup>	Nut mass	Shaft mass	Permissible rotational speed	
Outer diameter	Flange diameter	Overall length	H	B <sub>1</sub>	B <sub>2</sub>	Spacer thickness	B <sub>3</sub>	B <sub>4</sub>	PCD	d <sub>1</sub>	T <sub>w</sub>	Lubrication hole				kg·m <sup>2</sup> /mm	kg
D	D <sub>1</sub>	L <sub>1</sub>	H	B <sub>1</sub>	B <sub>2</sub>	B <sub>3</sub>	B <sub>4</sub>	PCD	d <sub>1</sub>	T <sub>w</sub>	A	kg·m <sup>2</sup> /mm	kg	kg/m	min <sup>-1</sup>	min <sup>-1</sup>	
80	118	115	18	33	20	11	52	100	11	92	M8×1	7.05×10 <sup>-6</sup>	2.54	17.02	—	2,630	
82	120	115	18	33	20	11	52	102	11	94	M8×1	7.05×10 <sup>-6</sup>	2.73	17.32	—	2,590	
80	118	134	18	40	20	15.6	60	100	11	92	M8×1	7.05×10 <sup>-6</sup>	2.89	17.3	—	2,630	
82	120	134	18	40	20	15.6	60	102	11	94	M8×1	7.05×10 <sup>-6</sup>	3.11	17.55	—	2,590	
80	118	157	18	55	20	8.8	74	100	11	92	M8×1	7.05×10 <sup>-6</sup>	3.35	17.65	—	2,630	
82	120	157	18	55	20	8.8	74	102	11	94	M8×1	7.05×10 <sup>-6</sup>	3.6	17.84	—	2,590	
80	118	192	18	70	20	14	89	100	11	92	M8×1	7.05×10 <sup>-6</sup>	4	17.86	—	2,630	
82	120	192	18	70	20	14	89	102	11	94	M8×1	7.05×10 <sup>-6</sup>	4.3	18.01	—	2,590	
90	125	115	18	33	20	11	52	108	11	95	M8×1	1.21×10 <sup>-5</sup>	2.97	22.61	—	2,260	
95	135	135	20	39	25	14.6	61	115	13.5	100	M8×1	1.21×10 <sup>-5</sup>	4.18	22.89	—	2,250	
95	135	158	20	54	25	7.8	75	115	13.5	100	M8×1	1.21×10 <sup>-5</sup>	4.84	23.3	—	2,250	
95	135	193	20	69	25	13	90	115	13.5	100	M8×1	1.21×10 <sup>-5</sup>	5.8	23.55	—	2,250	
95	135	237	20	88	25	19.3	109	115	13.5	100	M8×1	1.21×10 <sup>-5</sup>	7.02	23.74	—	2,250	
95	135	266	20	107	25	10.2	128	115	13.5	100	M8×1	1.21×10 <sup>-5</sup>	7.84	23.87	—	2,250	
95	135	269	20	105	25	17.2	126	115	13.5	100	M8×1	1.21×10 <sup>-5</sup>	7.87	24.04	—	2,250	

## Axial Clearance

Unit: mm

Clearance symbol	G0
Axial clearance	0 or less

Note: L<sub>1</sub> and B<sub>4</sub> 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.

Note: The rigidity values in the table represent spring constants, each obtained from the load and the elastic deformation under an axial load equal to 3 times the applied preload, which itself is 10% 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 in the table as the actual value. If the axial load (F<sub>a0</sub>) is not 10% of Ca, the rigidity value (K<sub>v</sub>) is obtained from the following formula.

$$K_v = K \left( \frac{F_{a0}}{0.1C_a} \right)^{\frac{1}{3}}$$

K: Rigidity value in the dimensional table