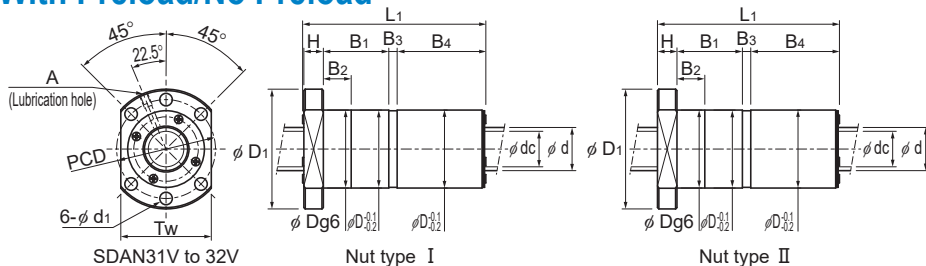


SDAN-V With Preload/No Preload

DN value	SDAN-V (Caged Ball)	160000
	SDAN-VX (Full-Ball)	130000



SDAN31V to 32V

Nut type I

Nut type II

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	
						SDAN-V (Caged Ball)		SDAN-VX (Full-Ball)		SDAN-V (Caged Ball)	SDAN-VX (Full-Ball)
						Ca kN	C _{0a} kN	Ca kN	C _{0a} kN	K N/μm	K N/μm
SDAN 3110V-5	31	10	32	25.4	1×5	57.1	94.7	54.4	99.7	1059	1108
SDAN 3112V-5	31	12	32	25.4	1×5	57	94.7	54.3	99.9	1058	1109
SDAN 3116V-5	31	16	32	25.4	1×5	56.8	96	54.1	100.5	1068	1112
SDAN 3120V-5	31	20	32	25.4	1×5	56.6	90.3	53.9	95.1	1065	1116
SDAN 3205V-4	32	5	32.75	29.5	1×4	18.8	38.5	17.9	41.7	776	832
SDAN 3206V-5	32	6	33	28.9	1×5	31.4	62.4	29.9	66.1	1027	1082
SDAN 3208V-5	32	8	33	28.9	1×5	31.4	62.4	29.9	66.2	1026	1082
SDAN 3210V-5	32	10	33	28.9	1×5	31.3	62.9	29.8	66.3	1033	1083
SDAN 3210VA-5	32	10	33	26.4	1×5	58.1	98.9	55.3	103.1	1097	1138
SDAN 3212VA-5	32	12	33	26.4	1×5	58	98.9	55.3	103.3	1096	1139
SDAN 3216VA-5	32	16	33	26.4	1×5	57.8	98.9	55.1	103.8	1094	1141
SDAN 3220VA-5	32	20	33	26.4	1×5	57.6	94.3	54.9	98.2	1104	1145
SDAN 3606V-4	36	6	37	32.9	1×4	26.9	55.6	25.6	58.6	902	945
SDAN 3610V-5	36	10	37	30.4	1×5	61.7	110.6	58.8	116.4	1196	1252
SDAN 3612V-5	36	12	37	30.4	1×5	61.7	110.6	58.7	116.6	1195	1253
SDAN 3616V-5	36	16	37	30.4	1×5	61.5	111.9	58.6	117.1	1206	1255
SDAN 3620V-5	36	20	37	30.4	1×5	61.3	105.2	58.4	110.6	1203	1258
SDAN 3810V-5	38	10	39	32.4	1×5	63.4	117.7	60.4	123.1	1257	1308
SDAN 3812V-5	38	12	39	32.4	1×5	63.4	117.7	60.3	123.3	1256	1309
SDAN 3816V-5	38	16	39	32.4	1×5	63.2	117.7	60.2	123.7	1254	1311
SDAN 3820V-5	38	20	39	32.4	1×5	63.0	111.9	60.0	116.9	1265	1314
* SDAN 4008VX-5	40	8	41.25	36.3	1×5	—	—	42.2	99.4	—	1326
SDAN 4010VA-5	40	10	41.75	35.2	1×5	65.6	126.4	62.5	132.3	1329	1384
SDAN 4012VA-5	40	12	41.75	35.2	1×5	65.5	126.4	62.4	132.5	1328	1385
SDAN 4016VA-5	40	16	41.75	35.2	1×5	65.4	126.4	62.3	132.9	1326	1387
SDAN 4020VA-5	40	20	41.75	35.2	1×5	65.2	127.7	62.1	133.4	1336	1389

Note) Models marked with an asterisk (*) in the specification table are only compatible with Model SDAN-VX (full-ball type).

Model number coding

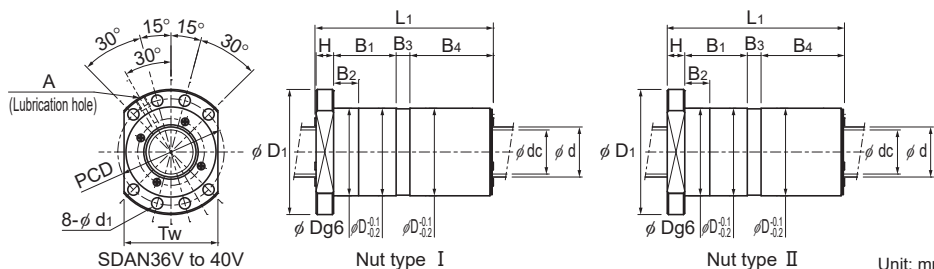
SDAN3110V X -5 TT G0 +830L C5

Model No. | Number of turns | Overall screw shaft length (in mm) | Accuracy symbol (*2)

Full-ball type code (No code for caged ball type)

Contamination protection accessory symbol (*1) | Symbol for clearance in the axial direction (G0 for all SDAN-V variations)

(*1) See **A15-334**. (*2) See **A15-12**.



SDAN36V to 40V

Nut type I

Nut type II

Unit: mm

Nut type	Nut dimensions												Screw shaft inertial moment/mm ²	Nut mass kg	Shaft mass kg/m	Permissible rotational speed				
	Outer diameter D	Flange diameter D ₁	Overall length L ₁	H	B ₁	B ₂	Spacer thickness		PCD	d ₁	T _w	Lubrication hole A				kg·m ² /mm	kg	kg/m	SDAN-V (Caged Ball)	SDAN-VX (Full-Ball)
							B ₃	B ₄											min ⁻¹	min ⁻¹
I	56	86	135	14	47	20	11	62	71	9	65	M6	7.07 × 10 ⁻⁷	1.83	5.02	5000	4060			
I	56	86	158	14	56	20	15.6	72	71	9	65	M6	7.07 × 10 ⁻⁷	2.1	5.17	5000	4060			
I	56	86	189	14	75	20	8.9	90	71	9	65	M6	7.07 × 10 ⁻⁷	2.5	5.36	5000	4060			
I	56	86	232	14	94	20	14.1	109	71	9	65	M6	7.07 × 10 ⁻⁷	3.01	5.48	5000	4060			
II	50	80	62	12	16.5	16.5	4.5	29	65	9	62	M6	8.08 × 10 ⁻⁷	0.66	5.89	4880	3960			
II	50	80	84	12	27.2	27.2	5.8	39	65	9	62	M6	8.08 × 10 ⁻⁷	0.85	5.79	4840	3930			
II	50	80	108	12	37	20	10.4	49	65	9	62	M6	8.08 × 10 ⁻⁷	1.03	5.87	4840	3930			
II	50	80	121	12	46	20	5	58	65	9	62	M6	8.08 × 10 ⁻⁷	1.17	6	4840	3930			
I	57	87	135	14	47	20	11	62	72	9	66	M6	8.08 × 10 ⁻⁷	1.87	5.38	4840	3930			
I	57	87	158	14	56	20	15.6	72	72	9	66	M6	8.08 × 10 ⁻⁷	2.14	5.54	4840	3930			
I	57	87	189	14	75	20	8.7	90	72	9	66	M6	8.08 × 10 ⁻⁷	2.56	5.73	4840	3930			
I	57	87	232	14	94	20	13.9	109	72	9	66	M6	8.08 × 10 ⁻⁷	3.08	5.85	4840	3930			
II	54	84	72	14	19.2	19.2	5.8	33	69	9	66	M6	1.29 × 10 ⁻⁶	0.84	7.4	4320	3510			
I	61	91	135	14	47	20	11	62	76	9	68	M8×1	1.29 × 10 ⁻⁶	2	6.93	4320	3510			
I	61	91	158	14	56	20	15.6	72	76	9	68	M8×1	1.29 × 10 ⁻⁶	2.31	7.11	4320	3510			
I	61	91	189	14	75	20	8.8	90	76	9	68	M8×1	1.29 × 10 ⁻⁶	2.77	7.34	4320	3510			
I	61	91	232	14	94	20	14	109	76	9	68	M8×1	1.29 × 10 ⁻⁶	3.33	7.47	4320	3510			
I	63	93	135	14	47	20	11.1	62	78	9	70	M8×1	1.60 × 10 ⁻⁶	2.08	7.79	4100	3330			
I	63	93	158	14	56	20	15.7	71	78	9	70	M8×1	1.60 × 10 ⁻⁶	2.4	7.97	4100	3330			
I	63	93	189	14	75	20	8.9	90	78	9	70	M8×1	1.60 × 10 ⁻⁶	2.89	8.21	4100	3330			
I	63	93	232	14	94	20	14.2	109	78	9	70	M8×1	1.60 × 10 ⁻⁶	3.44	8.35	4100	3330			
II	61	91	111	14	38	20	7.4	52	76	9	68	M8×1	1.97 × 10 ⁻⁶	1.47	9.08	—	3150			
I	70	100	135	14	47	20	10.9	62	85	9	75	M8×1	1.97 × 10 ⁻⁶	2.68	8.9	3830	3110			
I	70	100	158	14	56	20	15.5	72	85	9	75	M8×1	1.97 × 10 ⁻⁶	3.1	9.06	3830	3110			
I	70	100	189	14	75	20	8.7	90	85	9	75	M8×1	1.97 × 10 ⁻⁶	3.7	9.27	3830	3110			
I	70	100	232	14	94	20	13.9	109	85	9	75	M8×1	1.97 × 10 ⁻⁶	4.45	9.39	3830	3110			

Axial Clearance

Unit: mm

Clearance symbol	G0
Axial clearance	0 or less

Note) L₁, B₁, and B₂ dimensions are those when a thin film seal (TT) has been installed. Dimensions without the seal are shown in parentheses. It is not possible to chamfer both ends of the screw shaft. When designing your system this way, contact THK.

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 (Fa₀) is not 0.1 Ca, the rigidity value (K_N) is obtained from the following formula.

$$K_N = K \left(\frac{Fa_0}{0.1Ca} \right)^{\frac{1}{3}}$$

K: Rigidity value in the dimensional table