Customized products

In order to meet the needs of customer's requested design, we offer customized products.
To reduce design process at customer, each Nut type is standardized.

●Variety of Customized products

Customized Precision Ball Screws and Rolled Ball Screws are both standardized in Ball Nut dimension only.
Please refer to description about Standardized Ball Nut type in page A503.
If you need special Ball Nut other than page A503, feel free to ask KSS.
KSS will provide with required Ball Nut as a special order.

●Table of Shaft dia. and Lead combination

Note)* means Bi-directional Nut with Flange.

Shaft dia. (Ød)	Lead (mm) 0.5	1	1.5	2	2.5	3	4	5	6	8	10	12	15	20	30
1.8	FBS														
3	FBS	FBS BS													
4	FBS	FKB FBS BS MS FKB* MRB MRB(K) BSR MSR		FBS BS MRB BSR			FEB			FEB					
5	FBS	FKB FBS BS FKB*					FBS BS MRB BSR								
6	FBS	FKB FBS BS KS FKB* MRB MRB(K) BSR	FBS BS	FBS BS MS KS MRB BSR	FBS BS				FEB MRB		FEB MRB	FEB			
8	FBS	FKB FBS BS KS FKB* MRB MRB(K) BSR	FKB FBS BS MS FKB*	FKB FBS BS MS KS FKB* MRB MRB(K) BSR MSR	FDB FBS BS MS MRB BSR MSR	FBS BS MS	FBS BS MS	FBS BS MS MRB BSR MSR		FEB MRB	FEB MRB	FEB MRB			
10		FKB FBS BS KS FKB*	FKB FBS BS FKB*	FKB FBS BS MS KS FKB* MRB MRB(K) BSR MSR	FKB FBS BS FKB*	FBS BS FBS* MRB BSR MSR	FBS BS FBS* MRB BSR	FDB FBS BS FBS* MRB BSR	MRB BSR		FEB MRB	FEB MRB	FEB MRB	FEB MRB	FEB
12		FKB FBS BS FKB*		FKB FBS BS MS FKB* MRB MRB(K) BSR MSR	FKB FBS BS FKB*	FKB FBS BS FKB*	FBS BS MS FBS*	FBS BS			FEB FBS MRB				
13												FEB MRB	FEB MRB	FEB MRB	
14		FBS BS FBS*		FKB FBS BS MS FKB* MRB BSR MSR	FKB FBS BS FKB*	FKB FBS BS FKB*	FKB FBS BS MS FKB* MRB BSR MSR	FBS BS FBS*							
15							FBS	FEB FBS MRB			FEB FBS MRB			FEB FBS MRB	FEB
16		FBS BS FBS*		FKB FBS BS FKB*	FKB FBS BS FKB*	FKB FBS BS FKB* FBS*	FKB FBS BS FKB*	FBS BS FBS*							

●Nut style list

Nut type	Precision Ball Screws	Rolled Ball Screws
Single Nut with Flange	FKB FBS FDB FEB	MRB
Sleeve type Single Nut	BS	BSR
Single Nut with M-thread	MS	MSR
Square type Single Nut	KS	—
Bi-directional Nut with Flange	FBS* FKB*	—

Note)* means Bi-directional Nut with Flange.

●Maximum limit of overall lengths

Unit:mm

Accuracy grade / Shaft nominal dia.	C0	C1	C3	C5	C7 & C10 (Rolled Ball Screw)
4	90	120	160	170	240
5	90	120	160	170	300
6	140	180	240	250	350
8	200	250	330	350	450
10	260	320	420	450	650
12	320	390	510	550	700
13	320	390	510	550	700
14	380	460	600	660	700
15	380	460	600	660	1000
16	450	540	700	770	-

●Single Nut with Flange

It is the most simple Single Nut type. Normally Ball Screws are used with small Axial play, but using oversized Balls allows the application of light preloading and eliminates backlash(only Precision grade). Nut should be mounted using bolt holes in Flange. FBS,MRB(Return-plate), FKB(Internal-deflector), FDB(End-deflector), FEB (End-cap) circulation system can be distinguished. Please refer to dimension table .

Precision & Rolled Ball Screws

●Sleeve type Single Nut

It is Cylindrical Single Nut which is compact. Alike Single Nut with Flange, Axial play can be eliminated(only Precision grade). The Nut should be mounted by clamping on the key way on the Nut outer and Nut end surface.

Precision & Rolled Ball Screws

●Single Nut with M-thread

The Cylindrical type with M-thread at the Nut end. The Nut should be mounted using M-thread. It is suitable for mounting with cylinder.

Precision & Rolled Ball Screws

●Square type Single Nut

The Square Nut is finished with a large mounting face parallel to the Nut center. Nut itself has Housing function. This allows more compact design compared to Flange type.

Precision Ball Screws only

●Bi-directional Nut with Flange

Since there are both Right-handed thread and Left-handed thread on a Shaft, it has Bi-directional function.
Single Nut with Flange type is standardized, but it is also possible to manufacture Sleeve type Nut. In addtion, absolute positon control for both Nut is available.

Precision Ball Screws only

●Others

KSS can provide Double Nut style as one of choices for pre-loaded Ball Screws as special customized products.
Please ask KSS representative if necessary.

Double Nut with Flange

Sleeve type Double Nut

●Model number notation

FBS 04 01 B — 100 R 120 C3 — 05
① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨

①Ball Nut type No.
FBS : Precision Ball Screws Single Nut with Flange
BS : Precision Ball Screws Sleeve type Single Nut
MS : Precision Ball Screws Single Nut with M-thread
KS : Precision Ball Screws Square type Single Nut

MRB : Rolled Ball Screws Single Nut with Flange
BSR : Rolled Ball Screws Sleeve type Single Nut
MSR : Rolled Ball Screws Single Nut with M-thread

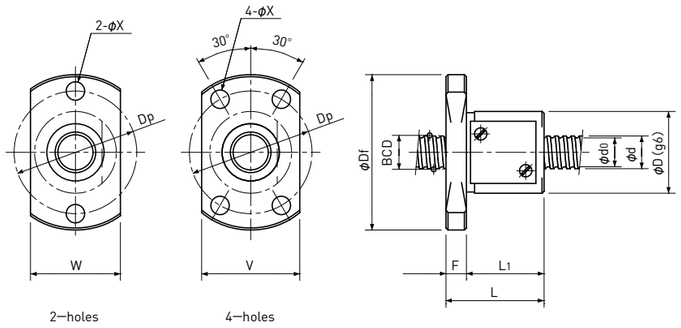
②Screw Shaft nominal diameter(mm)
③Lead(mm)
④Re-circulation number(In detail refer to dimension table)
⑤Screw thread length(mm)
⑥Thread direction(R=Right-hand, L=Left-hand)
⑦Screw shaft total length(mm)
⑧Accuracy grade(C0,C1,C3,C5,C7,C10)
⑨Axial play(μm)

●Precaution

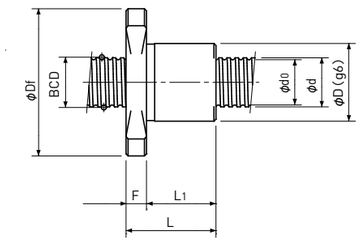
- Please refer to dimension table of each model regarding dimension, Load Rating, Rigidity.
- Please refer to Technical Description in p-A801 regarding Accuracy, Axial play, Material, production range and so on.
- Shaft configuration, Shaft dimension of Customized products are not standardized. KSS will create a Drawing based on customer's specifications.
- When designing Shaft configuration, fixed end or supported end (in case of Bi-directional Ball Screws and Rolled Ball Screw, both ends) should be smaller than Shaft Root diameter due to Nut assemble.
- Please refer to「Precaution of storage, handling, and operating」in p-A901 in detail other than the above.

Single Nut with Flange

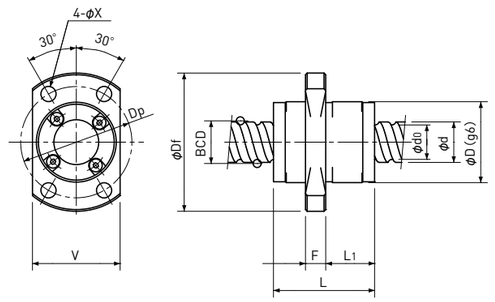
Backlash type/Preload type



Type-1:Return-plate type



Type-2:Internal-deflector type or
End-deflector type



Type-3:End-cap type or End-deflector type

Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension											Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	Df	L	L_1	F	W	V	Dp	Bolt Hole X		
FBS 01800.5 A	1.8	0.5	0.4	1.95	4°40′	1.5	2.7×1	110 / —	130 / —	19 / —		1	6	14	8.5	7	1.5	8	—	10	2.4		FBS 01800.5 A
FBS 0300.5 A	3	0.5	0.4	3.10	2°56′	2.6	2.7×1	150 / —	220 / —	29 / —		1	8	16	11	8	3	8	—	12	2.4		FBS 0300.5 A
FBS 0301 B	3	1	0.6	3.18	5°43′	2.4	3.7×1	330 / —	440 / —	42 / —		1	9	19	14	11	3	11	—	14	2.9		FBS 0301 B
FBS 0400.5 A	4	0.5	0.4	4.10	2°13′	3.6	2.7×1	160 / —	290 / —	36 / —		1	10	20	13	10	3	12	—	15	2.9		FBS 0400.5 A
FKB 0401 A	4	1	0.6	4.15	4°23′	3.4	1×3	300 / 300	430 / 430	38 / 59		2	9	19	13	10	3	11	13	14	2.9		FKB 0401 A
FBS 0401 A	4	1	0.8	4.15	4°23′	3.3	2.7×1	420 / 270	570 / 290	40 / 34		1	10	20	12	9	3	12	14	15	2.9		FBS 0401 A
FBS 0401 B	4	1	0.8	4.15	4°23′	3.3	3.7×1	560 / 350	790 / 400	54 / 45		1	11	23	17	13	4	13	15	17	3.4		FBS 0401 B
FBS 0402 A	4	2	0.8	4.15	8°43′	3.3	2.7×1	420 / 260	570 / 290	39 / 33		1	11	23	19	15	4	13	15	17	3.4		FBS 0402 A
FEB 0404 A	4	4	0.8	4.2	16°51′	3.3	2.6×2	750 / —	1150 / —	73 / —		3	11	23	17.5	11	3	—	15	17	3.4		FEB 0404 A
FEB 0408 A	4	8	0.6	4.15	31°32′	3.4	1.7×4	590 / —	1110 / —	78 / —		3	11	23	20	12	3	—	15	17	3.4		FEB 0408 A

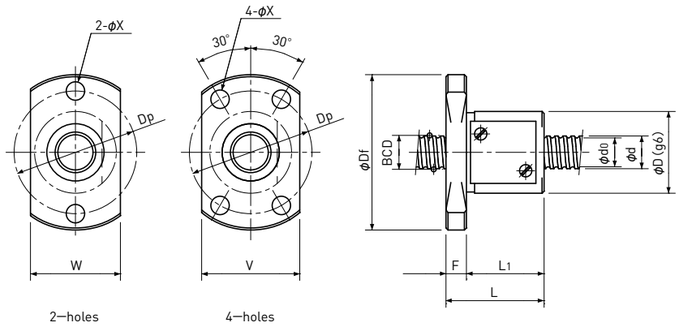
Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

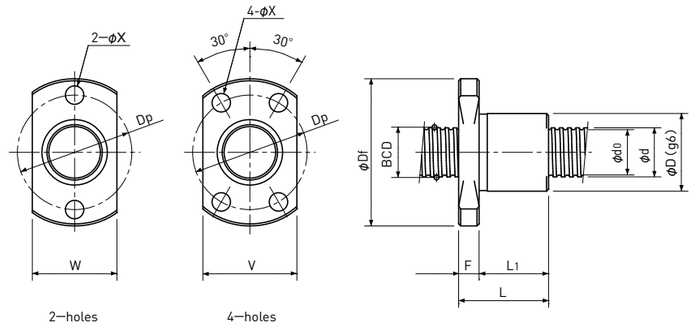
Preload type
Backlash type

Single Nut with Flange

Backlash type/Preload type



Type-1:Return-plate type



Type-2:Internal-deflector type or End-deflector type

Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension											Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	Df	L	L_1	F	W	V	Dp	Bolt Hole X	
FBS 0500.5 A	5	0.5	0.4	5.10	1°47′	4.6	2.7×1	180 / —	370 / —	44 / —		1	11	23	13	10	3	13	—	17	3.4		FBS 0500.5 A
FKB 0501 A	5	1	0.6	5.15	3°32′	4.4	1×3	330 / 330	560 / 560	45 / 70		2	10	20	13	10	3	12	14	15	2.9		FKB 0501 A
FBS 0501 B	5	1	0.8	5.15	3°32′	4.3	3.7×1	630 / 400	1000 / 500	65 / 55		1	12	24	17	13	4	14	15	18	3.4		FBS 0501 B
FBS 0504 A	5	4	0.8	5.15	13°53′	4.3	2.7×1	470 / 300	720 / 360	47 / 39		1	12	24	22	18	4	14	15	18	3.4		FBS 0504 A

Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

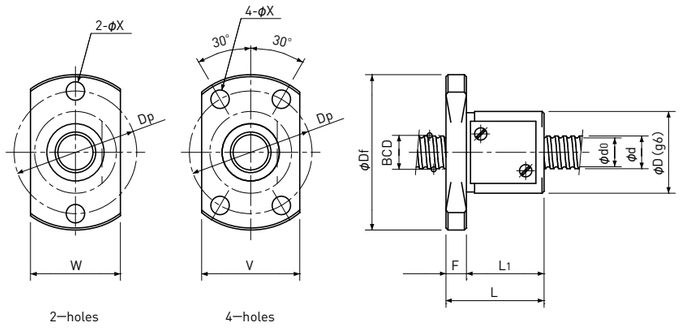
Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

Preload type
Backlash type

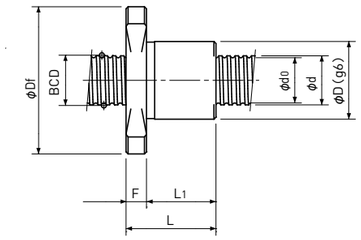
Precision Ball Screws

Single Nut with Flange

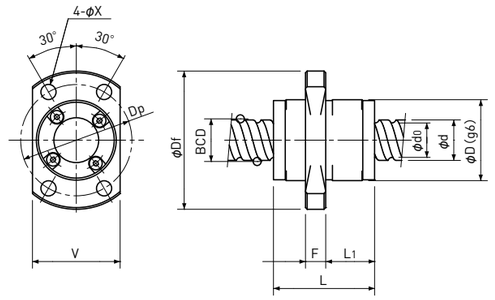
Backlash type/Preload type



Type-1:Return-plate type



Type-2:Internal-deflector type or End-deflector type



Type-3:End-cap type or End-deflector type

Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension											Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	Df	L	L_1	F	W	V	Dp	Bolt Hole X		
FBS 0600.5 A	6	0.5	0.4	6.10	1°30′	5.6	2.7×1	190 / —	440 / —	50 / —		1	12	25	13	10	3	14	—	19	3.4		FBS 0600.5 A
FKB 0601 A	6	1	0.8	6.20	2°56′	5.3	1×3	560 / 560	950 / 950	55 / 86		2	11	23	14.5	11	3.5	13	15	17	3.4		FKB 0601 A
FBS 0601 B	6	1	0.8	6.15	2°58′	5.3	3.7×1	680 / 430	1200 / 610	75 / 63		1	13	28	17	13	4	15	17	21.5	3.4		FBS 0601 B
FBS 0601.5 B	6	1.5	1.0	6.20	4°24′	5.1	3.7×1	980 / 620	1600 / 800	79 / 67		1	14	28	19	15	4	16	17	22	3.4		FBS 0601.5 B
FBS 0602 A	6	2	1.0	6.20	5°52′	5.1	2.7×1	750 / 470	1200 / 590	58 / 49		1	15	29	17	13	4	17	18	23	3.4		FBS 0602 A
FBS 0602.5 A	6	2.5	1.0	6.20	7°19′	5.1	2.7×1	750 / 470	1200 / 590	59 / 49		1	15	29	18	14	4	17	18	23	3.4		FBS 0602.5 A
FEB 0606 A	6	6	1.0	6.30	16°52′	5.2	1.6×2	870 / —	1450 / —	67 / —		3	14	27	17	8	4	—	16	21	3.4		FEB 0606 A
FEB 0610 A	6	10	1.2	6.30	26°48′	5.0	1.2×2	950 / —	1600 / —	50 / —		3	14	27	23	11.5	4	—	16	21	3.4		FEB 0610 A
FEB 0612 A	6	12	1.2	6.30	31°13′	5.0	0.7×2	600 / —	950 / —	29 / —		3	14	27	16	8.3	4	—	16	21	3.4		FEB 0612 A

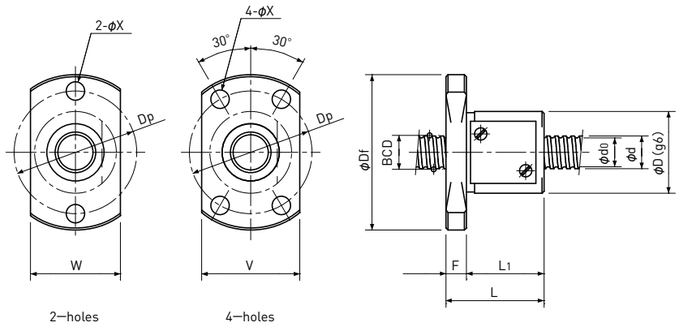
Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

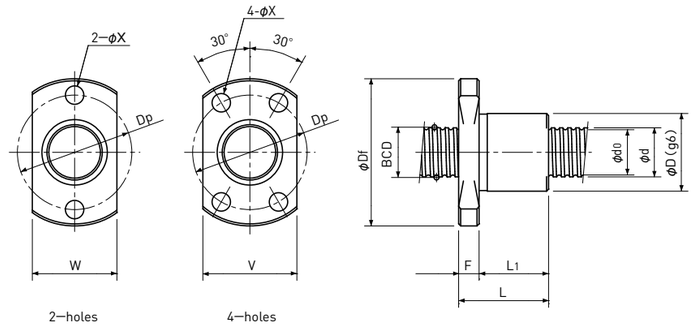
Preload type
Backlash type

Single Nut with Flange

Backlash type/Preload type



Type-1:Return-plate type



Type-2:Internal-deflector type or End-deflector type

Unit:mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension											Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	Df	L	L_1	F	W	V	Dp	Bolt Hole X		
FBS 0800.5 A	8	0.5	0.4	8.10	1°08′	7.6	2.7×1	220 / —	590 / —	64 / —		1	14	27	13	10	3	16	—	21	3.4		FBS 0800.5 A
FKB 0801 A	8	1	0.8	8.20	2°13′	7.3	1×3	650 / 650	1300 / 1300	70 / 109		2	13	26	15	11	4	15	17	20	3.4		FKB 0801 A
FBS 0801 B	8	1	0.8	8.15	2°15′	7.3	3.7×1	780 / 490	1650 / 820	95 / 80		1	16	30	17	13	4	18	18	24	3.4		FBS 0801 B
FKB 0801.5 A	8	1.5	1.0	8.30	3°18′	7.2	1×3	890 / 890	1650 / 1650	73 / 113		2	15	28	20	16	4	17	19	22	3.4		FKB 0801.5 A
FBS 0801.5 B	8	1.5	1.0	8.20	3°20′	7.1	3.7×1	1100 / 700	2200 / 1100	99 / 83		1	16	30	19	15	4	18	18	24	3.4		FBS 0801.5 B
FKB 0802 A	8	2	1.2	8.30	4°23′	7.0	1×3	1300 / 1300	2300 / 2300	77 / 121		2	15	28	18	14	4	17	19	22	3.4		FKB 0802 A
FBS 0802 B(1)	8	2	1.0	8.20	4°26′	7.1	3.7×1	1100 / 700	2200 / 1100	99 / 83		1	16	30	21	17	4	18	18	24	3.4		FBS 0802 B(1)
FBS 0802 B(2)	8	2	1.5875	8.30	4°23′	6.6	3.7×1	2400 / 1550	4100 / 2100	111 / 94		1	20	38	24	19	5	22	23	30	4.5		FBS 0802 B(2)

Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

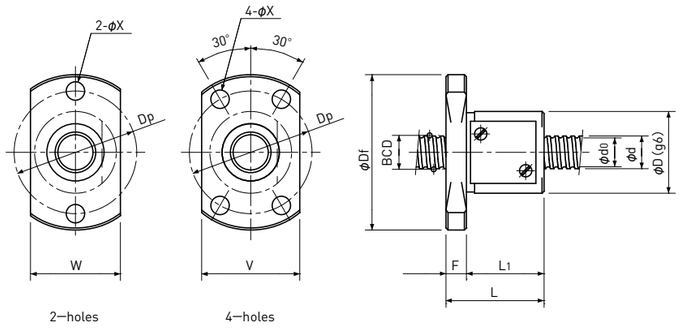
Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

Preload type
Backlash type

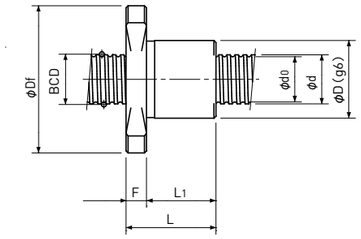
Precision Ball Screws

Single Nut with Flange

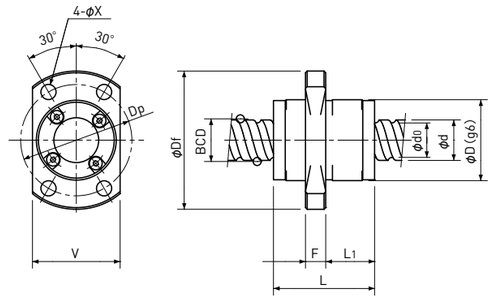
Backlash type/Preload type



Type-1:Return-plate type



Type-2:Internal-deflector type or
End-deflector type



Type-3:End-cap type or End-deflector type

Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension											Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	Df	L	L_1	F	W	V	Dp	Bolt Hole X		
FDB 0802.5 A	8	2.5	1.5875	8.00	5°41′	6.3	2.7×1	1850 / —	3000 / —	80 / —		2	16	29	16	12	4	—	18	23	3.4		FDB 0802.5 A
FBS 0802.5 B	8	2.5	1.5875	8.30	5°29′	6.6	3.7×1	2400 / 1550	4100 / 2100	111 / 93		1	20	38	26	21	5	22	23	30	4.5		FBS 0802.5 B
FBS 0803 A	8	3	2.0	8.30	6°34′	6.2	2.7×1	2600 / 1650	4200 / 2100	85 / 70		1	20	38	25	20	5	22	23	30	4.5		FBS 0803 A
FBS 0804 A	8	4	2.0	8.30	8°43′	6.2	2.7×1	2600 / 1650	4200 / 2100	84 / 70		1	21	39	28	23	5	23	23	31	4.5		FBS 0804 A
FBS 0805 A	8	5	1.5875	8.30	10°51′	6.6	2.7×1	1850 / 1150	3000 / 1500	82 / 67		1	18	31	28	24	4	20	20	25	3.4		FBS 0805 A
FEB 0808 A	8	8	1.5875	8.40	16°52′	6.7	1.6×2	2200 / —	3800 / —	95 / —		3	18	31	20	10	4	—	20	25	3.4		FEB 0808 A
FEB 0810 A	8	10	1.5875	8.40	20°45′	6.7	1.6×2	2200 / —	3900 / —	92 / —		3	18	31	24	13	4	—	20	25	3.4		FEB 0810 A
FEB 0812 A	8	12	1.5875	8.40	24°27′	6.7	1.6×2	2200 / —	4000 / —	90 / —		3	18	31	27	17	4	—	20	25	3.4		FEB 0812 A

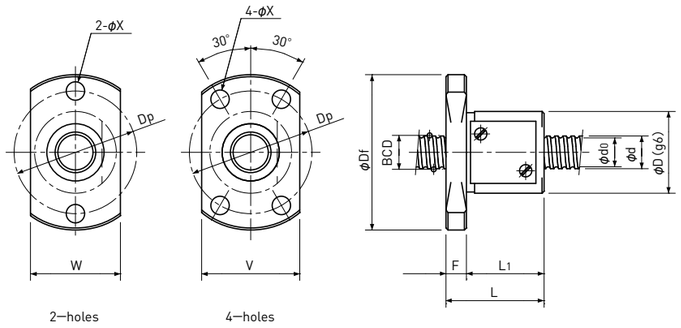
Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

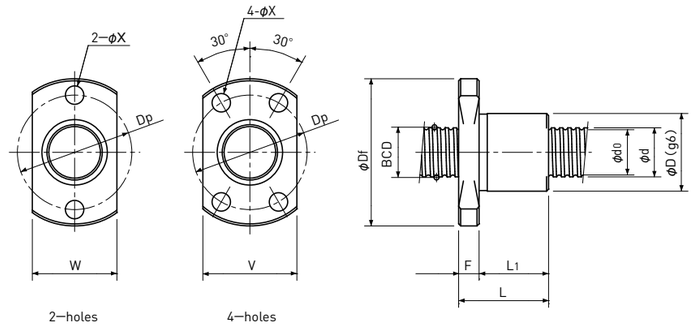
Preload type
Backlash type

Single Nut with Flange

Backlash type/Preload type



Type-1:Return-plate type



Type-2:Internal-deflector type or End-deflector type

Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension											Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	Df	L	L_1	F	W	V	Dp	Bolt Hole X	
FKB 1001 A	10	1	0.8	10.20	1°47′	9.3	1×3	720 / 720	1650 / 1650	84 / 131		2	15	28	15	11	4	17	19	22	3.4		FKB 1001 A
FBS 1001 B	10	1	0.8	10.15	1°48′	9.3	3.7×1	840 / 530	2000 / 1000	113 / 95		1	19	37	18	13	5	21	22	29	4.5		FBS 1001 B
FKB 1001.5 A	10	1.5	1.0	10.30	2°39′	9.2	1×3	990 / 990	2100 / 2100	87 / 136		2	17	34	21	16	5	19	21	26	4.5		FKB 1001.5 A
FBS 1001.5 B	10	1.5	1.0	10.20	2°41′	9.1	3.7×1	1250 / 790	2800 / 1400	120 / 101		1	19	37	20	15	5	21	22	29	4.5		FBS 1001.5 B
FKB 1002 A	10	2	1.2	10.30	3°32′	9.0	1×3	1450 / 1450	3000 / 3000	93 / 144		2	17	34	19	14	5	19	21	26	4.5		FKB 1002 A
FBS 1002 B	10	2	1.5875	10.30	3°32′	8.6	3.7×1	2700 / 1750	5300 / 2700	134 / 112		1	23	41	24	19	5	25	25	33	4.5		FBS 1002 B
FKB 1002.5 A	10	2.5	1.5875	10.40	4°23′	8.7	1×3	2100 / 2100	3800 / 3800	96 / 150		2	18	35	21	16	5	20	22	27	4.5		FKB 1002.5 A
FBS 1002.5 B	10	2.5	1.5875	10.30	4°25′	8.6	3.7×1	2700 / 1750	5300 / 2700	133 / 112		1	24	44	27	21	6	26	27	35	5.5		FBS 1002.5 B

Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

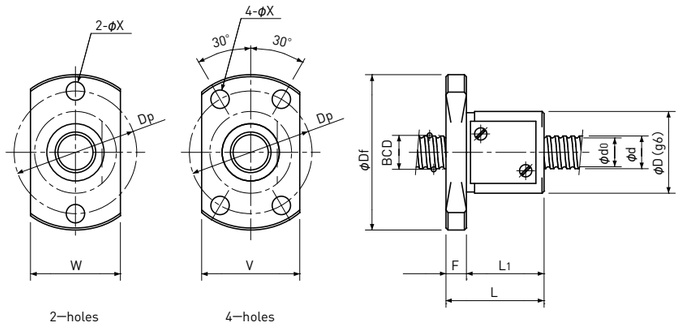
Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

Preload type
Backlash type

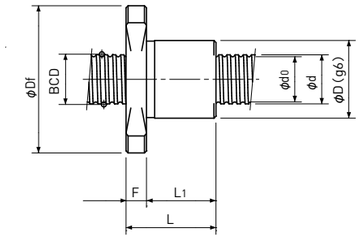
Precision Ball Screws

Single Nut with Flange

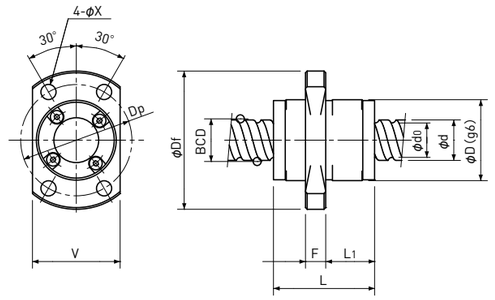
Backlash type/Preload type



Type-1:Return-plate type



Type-2:Internal-deflector type or
End-deflector type



Type-3:End-cap type or End-deflector type

Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension											Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	Df	L	L_1	F	W	V	Dp	Bolt Hole X		
FBS 1003 B	10	3	2.0	10.30	5°18′	8.2	3.7×1	3900 / 2500	7200 / 3600	140 / 118		1	24	44	30	24	6	26	27	35	5.5		FBS 1003 B
FBS 1004 A	10	4	2.0	10.30	7°03′	8.2	2.7×1	3000 / 1800	5200 / 2600	104 / 86		1	24	44	29	23	6	26	27	35	5.5		FBS 1004 A
FDB 1005 A	10	5	2.0	10.30	8°47′	8.2	2.7×1	3000 / —	5200 / —	103 / —		2	23	40	26	21	5	—	25	32	4.5		FDB 1005 A
FBS 1005 A	10	5	2.0	10.30	8°47′	8.2	2.7×1	3000 / 1800	5200 / 2600	103 / 85		1	24	44	34	28	6	26	27	35	5.5		FBS 1005 A
FEB 1010 A	10	10	2.0	10.50	16°52′	8.4	1.6×2	3300 / —	5900 / —	117 / —		3	23	40	24	13	5	—	25	32	4.5		FEB 1010 A
FEB 1015 A	10	15	2.0	10.50	24°27′	8.4	1.6×2	3300 / —	6400 / —	110 / —		3	23	40	33	22	5	—	25	32	4.5		FEB 1015 A
FEB 1020 A	10	20	1.5875	10.40	31°28′	8.7	0.7×4	2100 / —	4000 / —	88 / —		3	20	37	23	13	5	—	22	29	4.5		FEB 1020 A
FEB 1030 A	10	30	1.5875	10.40	42°33′	8.7	0.7×4	2100 / —	4000 / —	76 / —		3	20	37	31.5	21.7	5	—	22	29	4.5		FEB 1030 A

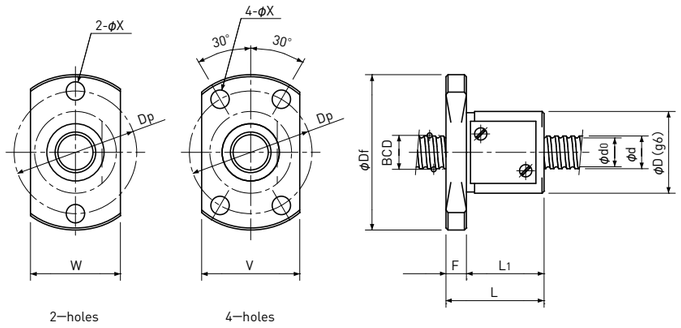
Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

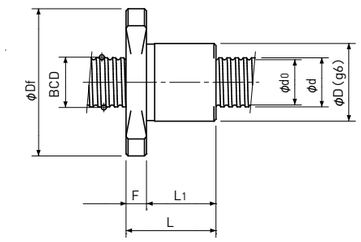
Preload type
Backlash type

Single Nut with Flange

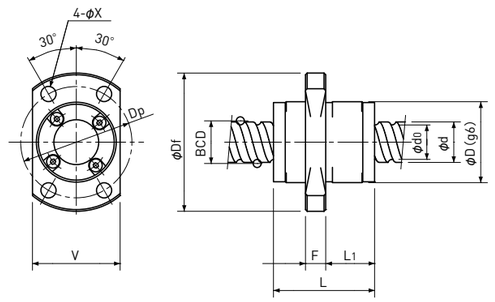
Backlash type/Preload type



Type-1:Return-plate type



Type-2:Internal-deflector type or
End-deflector type



Type-3:End-cap type or End-deflector type

Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension											Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	Df	L	L_1	F	W	V	Dp	Bolt Hole X		
FKB 1201 A	12	1	0.8	12.20	1°30′	11.3	1×3	780 / 780	2000 / 2000	97 / 152		2	17	34	16	11	5	19	21	26	4.5		FKB 1201 A
FBS 1201 B	12	1	0.8	12.15	1°30′	11.3	3.7×1	910 / 570	2400 / 1200	131 / 110		1	22	40	18	13	5	24	24	32	4.5		FBS 1201 B
FKB 1202 A	12	2	1.2	12.30	2°58′	11.0	1×3	1600 / 1600	3700 / 3700	109 / 169		2	19	36	19	14	5	21	23	28	4.5		FKB 1202 A
FBS 1202 B	12	2	1.5875	12.30	2°58′	10.6	3.7×1	3000 / 1900	6400 / 3200	156 / 132		1	25	45	25	19	6	27	27	36	5.5		FBS 1202 B
FKB 1202.5 A	12	2.5	1.5875	12.40	3°41′	10.7	1×3	2300 / 2300	4700 / 4700	112 / 174		2	20	37	21	16	5	22	24	29	4.5		FKB 1202.5 A
FBS 1202.5 B	12	2.5	1.5875	12.30	3°42′	10.6	3.7×1	3000 / 1850	6400 / 3200	156 / 130		1	26	46	27	21	6	28	28	37	5.5		FBS 1202.5 B
FKB 1203 A	12	3	2.0	12.50	4°22′	10.4	1×3	3100 / 3100	5700 / 5700	115 / 179		2	22	41	32	26	6	24	26	32	5.5		FKB 1203 A
FBS 1203 B	12	3	2.0	12.30	4°26′	10.2	3.7×1	4300 / 2800	8700 / 4300	162 / 137		1	28	48	30	24	6	30	30	39	5.5		FBS 1203 B
FBS 1204 B	12	4	2.381	12.30	5°55′	9.8	3.7×1	5400 / 3400	10200 / 5100	165 / 139		1	28	48	33	27	6	30	30	39	5.5		FBS 1204 B
FBS 1205 A	12	5	2.381	12.30	7°22′	9.8	2.7×1	4100 / 2500	7400 / 3700	122 / 101		1	28	48	33	27	6	30	30	39	5.5		FBS 1205 A

Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

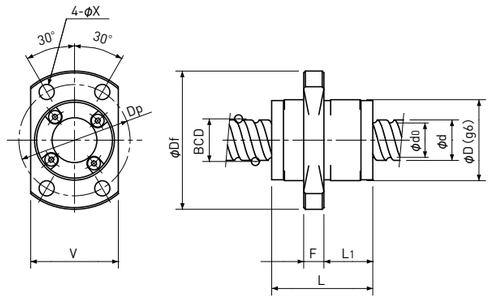
Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

Preload type
Backlash type

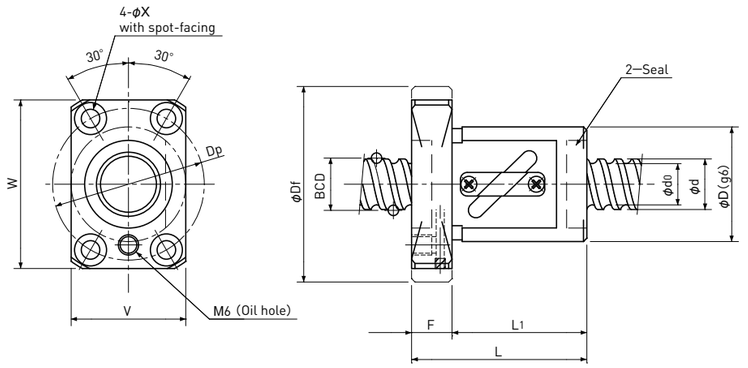
Precision Ball Screws

Single Nut with Flange

Backlash type/Preload type



Type-3:End-cap type or End-deflector type



Type-4:Return-tube type

Unit:mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension										Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	Df	L	L_1	F	W	V	Dp	Bolt Hole X	
FEB 1210 A	12	10	2.381	12.65	14°07′	10.2	1.7×2	5100 / —	9800 / —	152 / —		3	24	41	30	14.5	6	—	26	33	4.5	FEB 1210 A
FBS 1210 T	12	10	2.381	12.65	14°07′	10.2	2.5×1	3800 / 2350	7100 / 3350	113 / 93		4	30	50	50	40	10	45	32	40	4.5	FBS 1210 T
FEB 1312 A	13	12	2.381	13.50	15°48′	11.0	1.6×2	5000 / —	9900 / —	151 / —		3	28	45	30	17	5	—	30	37	4.5	FEB 1312 A
FEB 1315 A	13	15	2.381	13.50	19°29′	11.0	1.6×2	5000 / —	10300 / —	147 / —		3	28	45	35	22	5	—	30	37	4.5	FEB 1315 A
FEB 1320 A	13	20	2.381	13.50	25°15′	11.0	1.6×2	5000 / —	10700 / —	142 / —		3	28	45	43	29	5	—	30	37	4.5	FEB 1320 A

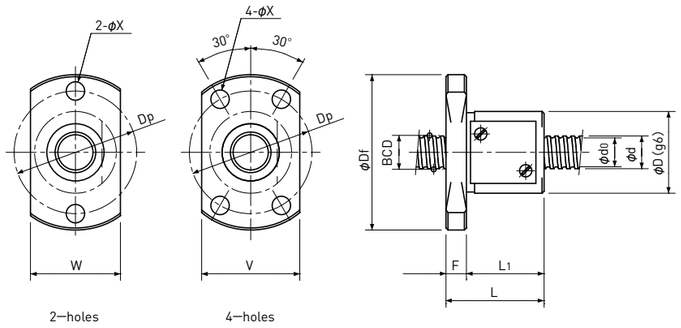
Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

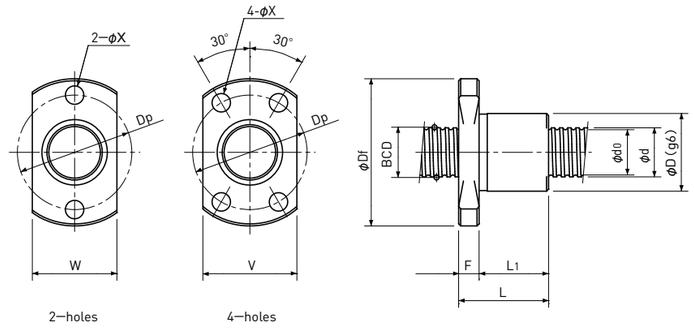
Preload type
Backlash type

Single Nut with Flange

Backlash type/Preload type



Type-1:Return-plate type



Type-2:Internal-deflector type or End-deflector type

Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension											Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	Df	L	L_1	F	W	V	Dp	Bolt Hole X	
FBS 1401 B	14	1	0.8	14.15	1°17′	13.3	3.7×1	960 / 610	2900 / 1450	148 / 124		1	26	46	21	15	6	28	28	37	5.5		FBS 1401 B
FKB 1402 A	14	2	1.2	14.30	2°33′	13.0	1×3	1700 / 1700	4300 / 4300	122 / 190		2	21	40	20	14	6	23	26	31	5.5		FKB 1402 A
FBS 1402 B	14	2	1.5875	14.30	2°33′	12.6	3.7×1	3200 / 2000	7500 / 3800	176 / 148		1	26	46	25	19	6	28	28	37	5.5		FBS 1402 B
FKB 1402.5 A	14	2.5	1.5875	14.40	3°10′	12.7	1×3	2500 / 2500	5600 / 5600	127 / 197		2	22	41	22	16	6	24	26	32	5.5		FKB 1402.5 A
FBS 1402.5 B	14	2.5	1.5875	14.30	3°11′	12.6	3.7×1	3200 / 2000	7500 / 3700	176 / 148		1	28	48	27	21	6	30	30	39	5.5		FBS 1402.5 B
FKB 1403 A	14	3	2.0	14.50	3°46′	12.4	1×3	3400 / 3400	6800 / 6800	131 / 204		2	24	43	32	26	6	26	27	34	5.5		FKB 1403 A
FBS 1403 B	14	3	2.0	14.30	3°49′	12.2	3.7×1	4600 / 2900	10100 / 5000	184 / 154		1	30	51	30	24	6	32	32	42	5.5		FBS 1403 B
FKB 1404 A	14	4	2.381	14.65	4°58′	12.2	1×3	4500 / 4500	8600 / 8600	136 / 212		2	26	45	29	23	6	28	28	36	5.5		FKB 1404 A
FBS 1404 B	14	4	2.381	14.30	5°05′	11.8	3.7×1	5700 / 3600	11600 / 5800	187 / 157		1	30	51	33	27	6	32	32	42	5.5		FBS 1404 B
FBS 1405 B	14	5	2.381	14.30	6°21′	11.8	3.7×1	5700 / 3600	11600 / 5800	186 / 157		1	30	51	39	33	6	32	32	42	5.5		FBS 1405 B

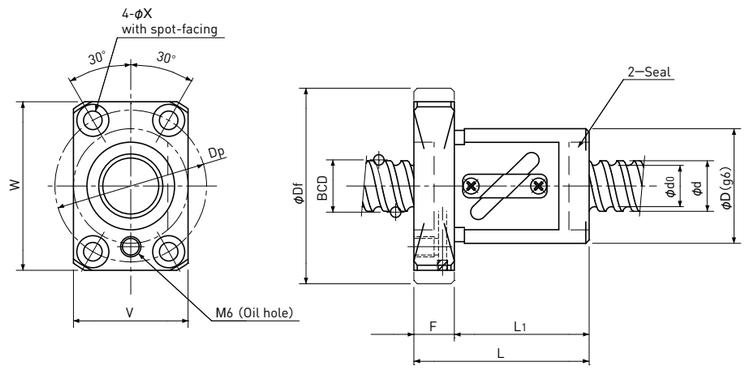
Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

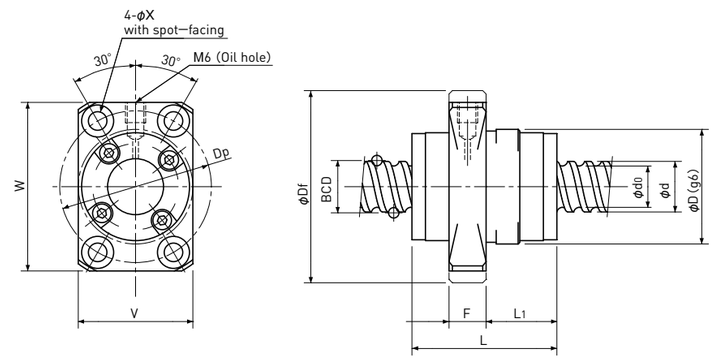
Preload type
Backlash type

Single Nut with Flange

Backlash type/Preload type



Type-4:Return-tube type



Type-5:End-deflector type

Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension										Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	Df	L	L_1	F	W	V	Dp	Bolt Hole X	
FBS 1504 T	15	4	2.381	15.50	4°42′	13.0	2.5×1	4100 / 2580	8550 / 4300	136 / 112		4	32	56	41	31	10	48	32	43	5.5	FBS 1504 T
FEB 1505 A	15	5	3.175	15.50	5°41′	12.2	3.7×1	8900 / —	17000 / —	208 / —		5	34	57	33	16	11	50	34	45	5.5	FEB 1505 A
FBS 1505 T	15	5	3.175	15.80	5°45′	12.4	2.5×1	6900 / 4350	12500 / 6250	148 / 122		4	34	58	44	34	10	50	34	45	5.5	FBS 1505 T
FEB 1510 A	15	10	3.175	15.50	11°36′	12.2	2.7×2	12000 / —	25000 / —	289 / —		5	34	57	43	21	11	50	34	45	5.5	FEB 1510 A
FBS 1510 T	15	10	3.175	15.80	11°23′	12.4	1.5×1	4400 / 2540	7900 / 3450	87 / 69		4	34	58	52	40	12	50	34	45	6.0	FBS 1510 T
FEB 1520 A	15	20	3.175	15.75	22°01′	12.4	1.7×2	8000 / —	16000 / —	178 / —		5	34	57	52	28.5	11	50	34	45	5.5	FEB 1520 A
FBS 1520 T	15	20	3.175	15.80	21°56′	12.4	1.5×1	4400 / 2540	7900 / 3450	84 / 67		4	34	58	62	50	12	50	34	45	6.0	FBS 1520 T
FEB 1530 A	15	30	3.175	15.75	31°14′	12.4	1.7×2	8000 / —	16000 / —	163 / —		5	34	57	71	45.5	11	50	34	45	5.5	FEB 1530 A

Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

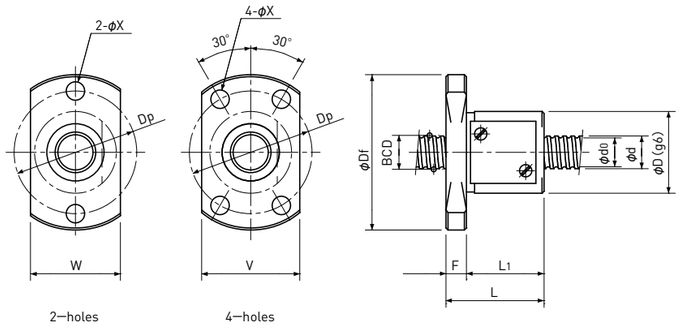
Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

Preload type
Backlash type

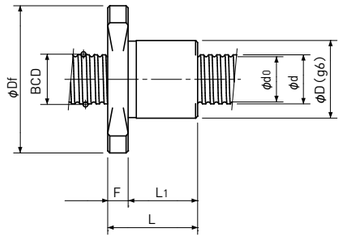
Precision Ball Screws

Single Nut with Flange

Backlash type/Preload type



Type-1:Return-plate type



Type-2:Internal-deflector type or
End-deflector type

Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension											Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	Df	L	L_1	F	W	V	Dp	Bolt Hole X		
FBS 1601 B	16	1	0.8	16.15	1°08′	15.3	3.7×1	1000 / 640	3300 / 1650	164 / 138		1	28	48	21	15	6	30	30	39	5.5		FBS 1601 B
FKB 1602 A	16	2	1.2	16.30	2°14′	15.0	1×3	1850 / 1850	5000 / 5000	137 / 213		2	24	43	20	14	6	26	27	34	5.5		FKB 1602 A
FBS 1602 B	16	2	1.5875	16.30	2°14′	14.6	3.7×1	3400 / 2100	8600 / 4300	197 / 163		1	28	48	25	19	6	30	30	39	5.5		FBS 1602 B
FKB 1603 A	16	3	2.0	16.50	3°19′	14.4	1×3	3600 / 3600	8000 / 8000	146 / 227		2	26	45	32	26	6	28	28	36	5.5		FKB 1603 A
FBS 1603 B	16	3	2.0	16.30	3°21′	14.2	3.7×1	4900 / 3100	11600 / 5800	205 / 172		1	32	53	30	24	6	34	34	44	5.5		FBS 1603 B
FKB 1604 A	16	4	2.381	16.65	4°22′	13.9	1×3	4800 / 4800	10000 / 10000	152 / 237		2	28	47	29	23	6	30	30	38	5.5		FKB 1604 A
FBS 1604 B	16	4	2.381	16.30	4°28′	13.8	3.7×1	6200 / 3900	13600 / 6800	209 / 174		1	34	54	34	28	6	36	36	45	5.5		FBS 1604 B
FBS 1605 B	16	5	3.175	16.50	5°31′	13.2	3.7×1	9100 / 5700	18200 / 9100	217 / 182		1	38	57	42	36	6	40	40	48	5.5		FBS 1605 B

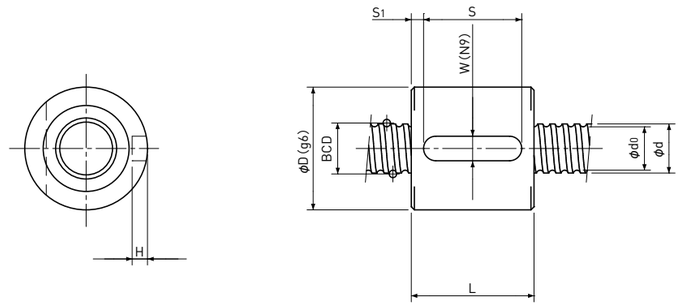
Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

Preload type
Backlash type

Sleeve type Single Nut

Backlash type/Preload type



Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension						Ball Nut Model number
								Dynamic Ca	Static Coa			D	L	W	H	S	S_1	
BS 0301 B	3	1	0.6	3.18	5°43′	2.4	3.7×1	330 / —	440 / —	42 / —		9	12	2	1.2	8	2	BS 0301 B
BS 0401 A	4	1	0.8	4.15	4°23′	3.3	2.7×1	420 / 270	570 / 290	40 / 34		10	12	2	1.2	8	2	BS 0401 A
BS 0401 B	4	1	0.8	4.15	4°23′	3.3	3.7×1	560 / 350	790 / 400	54 / 45		11	14	3	1.8	8	3	BS 0401 B
BS 0402 A	4	2	0.8	4.15	8°43′	3.3	2.7×1	420 / 260	570 / 290	39 / 33		11	16	3	1.8	8	4	BS 0402 A
BS 0501 B	5	1	0.8	5.15	3°32′	4.3	3.7×1	630 / 400	1000 / 500	65 / 55		12	14	3	1.8	8	3	BS 0501 B
BS 0504 A	5	4	0.8	5.15	13°53′	4.3	2.7×1	470 / 300	720 / 360	47 / 39		12	22	3	1.8	12	5	BS 0504 A
BS 0601 B	6	1	0.8	6.15	2°58′	5.3	3.7×1	680 / 430	1200 / 610	75 / 63		13	14	3	1.8	10	2	BS 0601 B
BS 0601.5 B	6	1.5	1.0	6.20	4°24′	5.1	3.7×1	980 / 620	1600 / 800	79 / 67		14	16	3	1.8	10	3	BS 0601.5 B
BS 0602 A	6	2	1.0	6.20	5°52′	5.1	2.7×1	750 / 470	1200 / 590	58 / 49		15	15	3	1.8	10	2.5	BS 0602 A
BS 0602.5 A	6	2.5	1.0	6.20	7°19′	5.1	2.7×1	750 / 470	1200 / 590	59 / 49		15	16	3	1.8	10	3	BS 0602.5 A

Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above,
see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

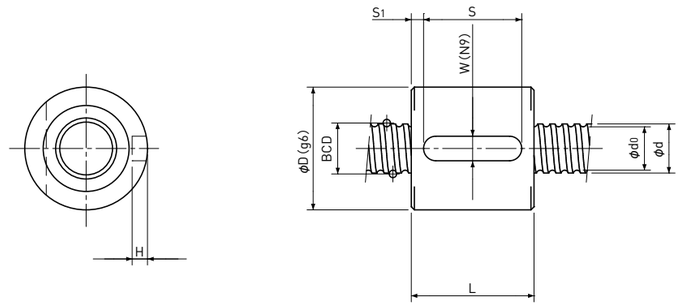
Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

Preload type
Backlash type

Ball Screw
Customized products Precision Ball Screws

Sleeve type Single Nut

Backlash type/Preload type



Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension						Ball Nut Model number
								Dynamic Ca	Static : Coa			D	L	W	H	S	S_1	
BS 0801 B	8	1	0.8	8.15	2°15′	7.3	3.7×1	780 / 490	1650 / 820	95 / 80		16	14	3	1.8	10	2	BS 0801 B
BS 0801.5 B	8	1.5	1.0	8.20	3°20′	7.1	3.7×1	1100 / 700	2200 / 1100	99 / 83		16	16	3	1.8	10	3	BS 0801.5 B
BS 0802 B(1)	8	2	1.0	8.20	4°26′	7.1	3.7×1	1100 / 700	2200 / 1100	99 / 83		16	18	3	1.8	12	3	BS 0802 B(1)
BS 0802 B(2)	8	2	1.5875	8.30	4°23′	6.6	3.7×1	2400 / 1550	4100 / 2100	111 / 94		20	20	4	2.5	16	2	BS 0802 B(2)
BS 0802.5 A	8	2.5	1.5875	8.00	5°41′	6.3	2.7×1	1850 / —	3000 / —	80 / —		16	16	3	1.8	8	4	BS 0802.5 A
BS 0802.5 B	8	2.5	1.5875	8.30	5°29′	6.6	3.7×1	2400 / 1550	4100 / 2100	111 / 93		20	22	4	2.5	16	3	BS 0802.5 B
BS 0803 A	8	3	2.0	8.30	6°34′	6.2	2.7×1	2600 / 1650	4200 / 2100	85 / 70		20	22	4	2.5	16	3	BS 0803 A
BS 0804 A	8	4	2.0	8.30	8°43′	6.2	2.7×1	2600 / 1650	4200 / 2100	84 / 70		21	26	4	2.5	20	3	BS 0804 A
BS 0805 A	8	5	1.5875	8.30	10°51′	6.6	2.7×1	1850 / 1150	3000 / 1500	82 / 67		18	28	4	2.5	20	4	BS 0805 A

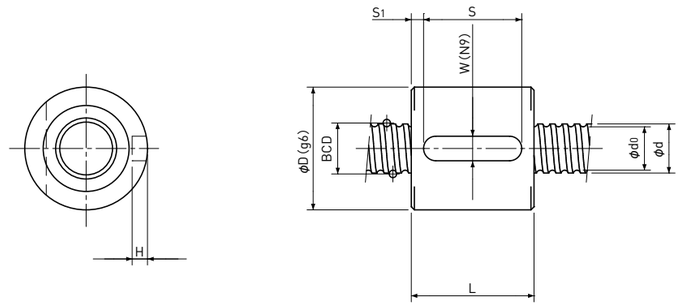
Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above,
see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

Preload type
Backlash type

Sleeve type Single Nut

Backlash type/Preload type



Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension						Ball Nut Model number
								Dynamic Ca	Static : Coa			D	L	W	H	S	S_1	
BS 1001 B	10	1	0.8	10.15	1°48′	9.3	3.7×1	840 / 530	2000 / 1000	113 / 95		19	14	3	1.8	10	2	BS 1001 B
BS 1001.5 B	10	1.5	1.0	10.20	2°41′	9.1	3.7×1	1250 / 790	2800 / 1400	120 / 101		19	16	3	1.8	10	3	BS 1001.5 B
BS 1002 B	10	2	1.5875	10.30	3°32′	8.6	3.7×1	2700 / 1750	5300 / 2700	134 / 112		23	20	5	3	16	2	BS 1002 B
BS 1002.5 B	10	2.5	1.5875	10.30	4°25′	8.6	3.7×1	2700 / 1750	5300 / 2700	133 / 112		24	22	5	3	16	3	BS 1002.5 B
BS 1003 B	10	3	2.0	10.30	5°18′	8.2	3.7×1	3900 / 2500	7200 / 3600	140 / 118		24	26	5	3	20	3	BS 1003 B
BS 1004 A	10	4	2.0	10.30	7°03′	8.2	2.7×1	3000 / 1800	5200 / 2600	104 / 86		24	26	5	3	20	3	BS 1004 A
BS 1005 A(1)	10	5	2.0	10.30	8°47′	8.2	2.7×1	3000 / —	5200 / —	103 / —		23	26	5	3	16	5	BS 1005 A(1)
BS 1005 A(2)	10	5	2.0	10.30	8°47′	8.2	2.7×1	3000 / 1800	5200 / 2600	103 / 85		24	34	5	3	28	3	BS 1005 A(2)

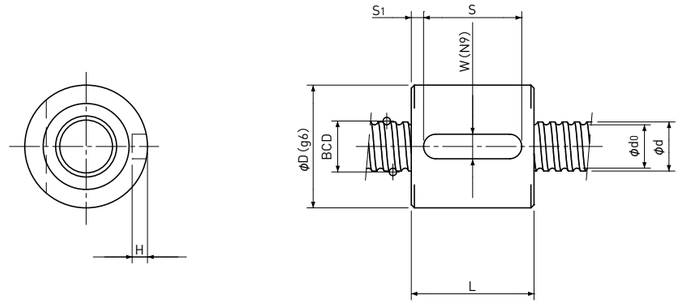
Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above,
see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

Preload type
Backlash type

Sleeve type Single Nut

Backlash type/Preload type



Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension						Ball Nut Model number
								Dynamic Ca	Static : Coa			D	L	W	H	S	S_1	
BS 1201 B	12	1	0.8	12.15	1°30′	11.3	3.7×1	910 / 570	2400 / 1200	131 / 110		22	14	4	2.5	10	2	BS 1201 B
BS 1202 B	12	2	1.5875	12.30	2°58′	10.6	3.7×1	3000 / 1900	6400 / 3200	156 / 132		25	20	5	3	16	2	BS 1202 B
BS 1202.5 B	12	2.5	1.5875	12.30	3°42′	10.6	3.7×1	3000 / 1850	6400 / 3200	156 / 130		26	22	5	3	16	3	BS 1202.5 B
BS 1203 B	12	3	2.0	12.30	4°26′	10.2	3.7×1	4300 / 2800	8700 / 4300	162 / 137		28	26	5	3	20	3	BS 1203 B
BS 1204 B	12	4	2.381	12.30	5°55′	9.8	3.7×1	5400 / 3400	10200 / 5100	165 / 139		28	31	5	3	25	3	BS 1204 B
BS 1205 A	12	5	2.381	12.30	7°22′	9.8	2.7×1	4100 / 2500	7400 / 3700	122 / 101		28	31	5	3	25	3	BS 1205 A
BS 1401 B	14	1	0.8	14.15	1°17′	13.3	3.7×1	960 / 610	2900 / 1450	148 / 124		26	16	5	3	10	3	BS 1401 B
BS 1402 B	14	2	1.5875	14.30	2°33′	12.6	3.7×1	3200 / 2000	7500 / 3800	176 / 148		26	20	5	3	16	2	BS 1402 B
BS 1402.5 B	14	2.5	1.5875	14.30	3°11′	12.6	3.7×1	3200 / 2000	7500 / 3700	176 / 148		28	22	5	3	16	3	BS 1402.5 B
BS 1403 B	14	3	2.0	14.30	3°49′	12.2	3.7×1	4600 / 2900	10100 / 5000	184 / 154		30	26	5	3	20	3	BS 1403 B
BS 1404 B	14	4	2.381	14.30	5°05′	11.8	3.7×1	5700 / 3600	11600 / 5800	187 / 157		30	31	5	3	25	3	BS 1404 B
BS 1405 B	14	5	2.381	14.30	6°21′	11.8	3.7×1	5700 / 3600	11600 / 5800	186 / 157		30	38	5	3	28	5	BS 1405 B

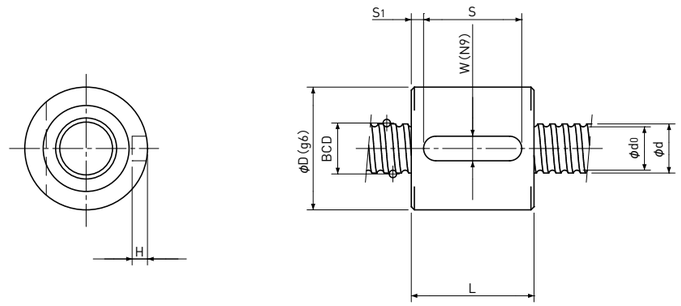
Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above,
see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

Preload type
Backlash type

Sleeve type Single Nut

Backlash type/Preload type



Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension						Ball Nut Model number
								Dynamic Ca	Static : Coa			D	L	W	H	S	S_1	
BS 1601 B	16	1	0.8	16.15	1°08′	15.3	3.7×1	1000 / 640	3300 / 1650	164 / 138		28	16	5	3	10	3	BS 1601 B
BS 1602 B	16	2	1.5875	16.30	2°14′	14.6	3.7×1	3400 / 2100	8600 / 4300	197 / 163		28	20	5	3	16	2	BS 1602 B
BS 1603 B	16	3	2.0	16.30	3°21′	14.2	3.7×1	4900 / 3100	11600 / 5800	205 / 172		32	26	5	3	20	3	BS 1603 B
BS 1604 B	16	4	2.381	16.30	4°28′	13.8	3.7×1	6200 / 3900	13600 / 6800	209 / 174		34	32	5	3	25	3.5	BS 1604 B
BS 1605 B	16	5	3.175	16.50	5°31′	13.2	3.7×1	9100 / 5700	18200 / 9100	217 / 182		38	38	5	3	28	5	BS 1605 B

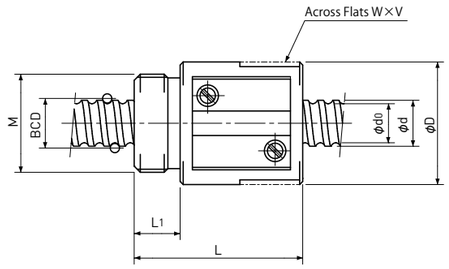
Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above,
see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

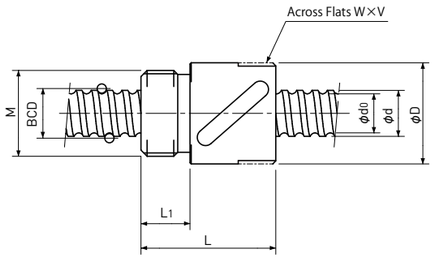
Preload type
Backlash type

Single Nut with M-thread

Backlash type/Preload type



Type-1:Return-plate type



Type-2:Return-tube type

Unit:mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension							Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	L	L_1	Across Flats width W	Across Flats length V	M	
MS 0401 B	4	1	0.8	4.15	4°23′	3.3	3.7x1	560 / 350	790 / 400	54 / 45		1	11	17	4	10	6	M9x0.75	MS 0401 B
MS 0602 A	6	2	1.0	6.20	5°52′	5.1	2.7x1	750 / 470	1200 / 590	58 / 49		1	16.5	22	8	14	4	M14x1.0	MS 0602 A
MS 0801.5 B	8	1.5	1.0	8.20	3°20′	7.1	3.7x1	1100 / 700	2200 / 1100	99 / 83		1	16.5	24	8	14	5	M14x1.0	MS 0801.5 B
MS 0802 B	8	2	1.5875	8.30	4°23′	6.6	3.7x1	2400 / 1550	4100 / 2100	111 / 94		1	20	27.5	7.5	18	5	M16x1.0	MS 0802 B
MS 0802.5 T(1)	8	2.5	1.5875	8.00	5°41′	6.3	3.5x1	2300 / —	3900 / —	102 / —		2	16.5	22	8	14	4	M14x1.0	MS 0802.5 T(1)
MS 0802.5 T(2)	8	2.5	1.5875	8.00	5°41′	6.3	3.5x1	2300 /—	3900 / —	102 / —		2	17.5	25.5	7.5	15	4	M15x1.0	MS 0802.5 T(2)
MS 0803 A	8	3	2.0	8.30	6°34′	6.2	2.7x1	2600 / 1650	4200 / 2100	85 / 70		1	20	28.5	7.5	18	5	M16x1.0	MS 0803 A
MS 0804 T	8	4	1.5875	8.00	9°03′	5.9	2.5x1	1750 / —	2800 / —	75 / —		2	16.5	24	8	14	4	M14x1.0	MS 0804 T
MS 0805 A	8	5	1.5875	8.30	10°51′	6.6	2.7x1	1850 / 1150	3000 / 1500	82 / 67		1	18	32.5	7.5	16	5	M15x1.0	MS 0805 A

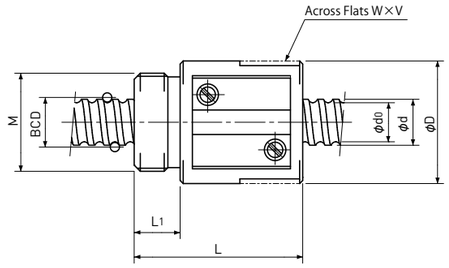
Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends. All type of Ball Nuts cannot equip with seals.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Across Flats or drill hole is available on the Ball Nut for the convenience of assembly. Please ask KSS representative.
Note 6) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

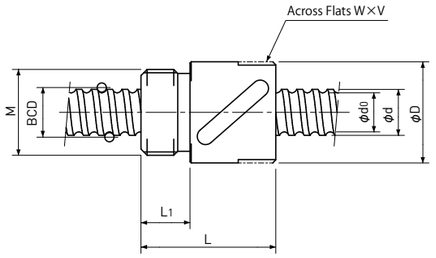
Preload type
Backlash type

Single Nut with M-thread

Backlash type/Preload type



Type-1:Return-plate type



Type-2:Return-tube type

Unit:mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension							Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	L	L_1	Across Flats width W	Across Flats length V	M	
MS 1002 B	10	2	1.5875	10.30	3°32′	8.6	3.7x1	2700 / 1750	5300 / 2700	134 / 112		1	23	27.5	7.5	21	5	M17x1.0	MS 1002 B
MS 1202 B	12	2	1.5875	12.30	2°58′	10.6	3.7x1	3000 / 1900	6400 / 3200	156 / 132		1	25	30	10	23	5	M20x1.0	MS 1202 B
MS 1204 T	12	4	2.381	12.30	5°55′	9.8	2.5x1	3900 / —	7000 / —	113 / —		2	25.5	34	10	23	5	M20x1.0	MS 1204 T
MS 1402 B	14	2	1.5875	14.30	2°33′	12.6	3.7x1	3200 / 2000	7500 / 3800	176 / 148		1	26	30	10	23	5	M22x1.5	MS 1402 B
MS 1404 B	14	4	2.381	14.30	5°05′	11.8	3.7x1	5700 / 3600	11600 / 5800	187 / 157		1	30	38	10	27	8	M25x1.0	MS 1404 B

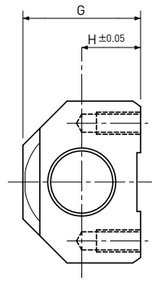
Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends. All type of Ball Nuts cannot equip with seals.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above,
see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Across Flats or drill hole is available on the Ball Nut for the convenience of assembly. Please ask KSS representative.
Note 6) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

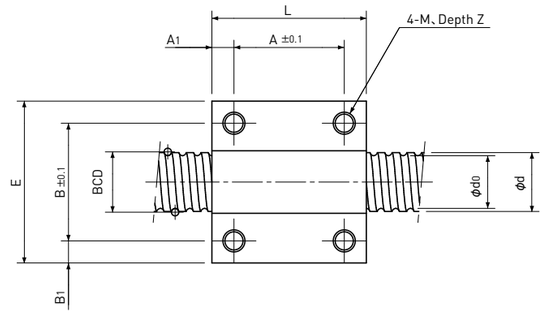
Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

Preload type
Backlash type

Square type Single Nut

Backlash type/Preload type





Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension										Ball Nut Model number
								Dynamic Ca	Static Coa			L	E	G	H	A	A_1	B	B_1	M	Z	
KS 0601 B	6	1	0.8	6.15	2°58′	5.3	3.7×1	680 / 430	1200 / 610	75 / 63		20	20	14	7	14	3	14	3	M3	6	KS 0601 B
KS 0602 A	6	2	1.0	6.20	5°52′	5.1	2.7×1	750 / 470	1200 / 590	58 / 49		20	20	14	7	14	3	14	3	M3	6	KS 0602 A
KS 0801 B	8	1	0.8	8.15	2°15′	7.3	3.7×1	780 / 490	1650 / 820	95 / 80		21	22	16	8	15	3	16	3	M3	6	KS 0801 B
KS 0802 A	8	2	1.0	8.20	4°26′	7.1	2.7×1	850 / 540	1600 / 800	74 / 61		21	22	16	8	15	3	16	3	M3	6	KS 0802 A
KS 1001 B	10	1	0.8	10.15	1°48′	9.3	3.7×1	840 / 530	2000 / 1000	113 / 95		26	28	22	12	18	4	20	4	M4	7	KS 1001 B
KS 1002 B	10	2	1.5875	10.30	3°32′	8.6	3.7×1	2700 / 1750	5300 / 2700	134 / 112		26	28	23.5	12	18	4	20	4	M4	7	KS 1002 B

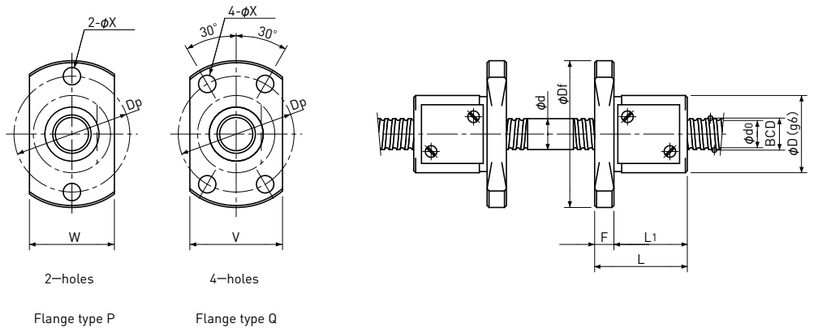
Note 1) The diameter of one of the Screw Shaft ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends. All type of Ball Nuts cannot equip with seals.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) All models are Right-hand Screw. If Left-hand Screw is required, please ask KSS representative.
Note 5) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

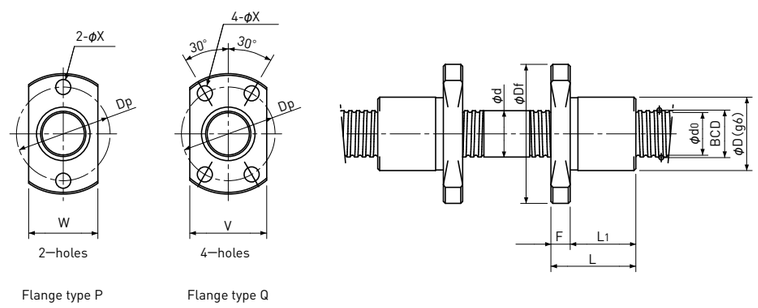
Preload type
Backlash type

Bi-directional Nut with Flange

Backlash type/Preload type



Type-1:Return-plate type



Type-2:Internal-deflector type

Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension												Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	Df	L	L_1	F	W	V	Dp	Bolt Hole X	Flange Type	
FKB 0401 A	4	1	0.6	4.15	4°23′	3.4	1×3	300 / 300	430 / 430	38 / 59		2	9	19	13	10	3	11	13	14	2.9	P,Q	FKB 0401 A
FKB 0501 A	5	1	0.6	5.15	3°32′	4.4	1×3	330 / 330	560 / 560	45 / 70		2	10	20	13	10	3	12	14	15	2.9	P,Q	FKB 0501 A
FKB 0601 A	6	1	0.8	6.20	2°56′	5.3	1×3	560 / 560	950 / 950	55 / 86		2	11	23	14.5	11	3.5	13	15	17	3.4	P,Q	FKB 0601 A
FKB 0801 A	8	1	0.8	8.20	2°13′	7.3	1×3	650 / 650	1300 / 1300	70 / 109		2	13	26	15	11	4	15	17	20	3.4	P,Q	FKB 0801 A
FKB 0801.5 A	8	1.5	1.0	8.30	3°18′	7.2	1×3	890 / 890	1650 / 1650	73 / 113		2	15	28	20	16	4	17	19	22	3.4	P,Q	FKB 0801.5 A
FKB 0802 A	8	2	1.2	8.30	4°23′	7.0	1×3	1300 / 1300	2300 / 2300	77 / 121		2	15	28	18	14	4	17	19	22	3.4	P,Q	FKB 0802 A
FKB 1001 A	10	1	0.8	10.20	1°47′	9.3	1×3	720 / 720	1650 / 1650	84 / 131		2	15	28	15	11	4	17	19	22	3.4	P,Q	FKB 1001 A
FKB 1001.5 A	10	1.5	1.0	10.30	2°39′	9.2	1×3	990 / 990	2100 / 2100	87 / 136		2	17	34	21	16	5	19	21	26	4.5	P,Q	FKB 1001.5 A
FKB 1002 A	10	2	1.2	10.30	3°32′	9.0	1×3	1450 / 1450	3000 / 3000	93 / 144		2	17	34	19	14	5	19	21	26	4.5	P,Q	FKB 1002 A
FKB 1002.5 A	10	2.5	1.5875	10.40	4°23′	8.7	1×3	2100 / 2100	3800 / 3800	96 / 150		2	18	35	21	16	5	20	22	27	4.5	P,Q	FKB 1002.5 A
FBS 1003 B	10	3	2.0	10.30	5°18′	8.2	3.7×1	3900 / 2500	7200 / 3600	140 / 118		1	24	44	30	24	6	26	27	35	5.5	P,Q	FBS 1003 B
FBS 1004 A	10	4	2.0	10.30	7°03′	8.2	2.7×1	3000 / 1800	5200 / 2600	104 / 86		1	24	44	29	23	6	26	27	35	5.5	P,Q	FBS 1004 A
FBS 1005 A	10	5	2.0	10.30	8°47′	8.2	2.7×1	3000 / 1800	5200 / 2600	103 / 85		1	24	44	34	28	6	26	27	35	5.5	P,Q	FBS 1005 A

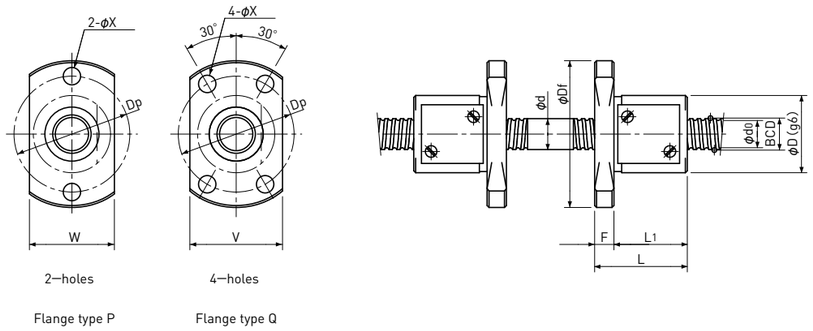
Note 1) The diameter of the Screw Shaft both ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

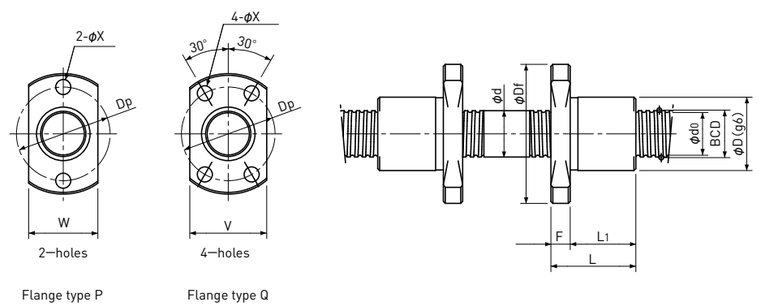
Preload type
Backlash type

Bi-directional Nut with Flange

Backlash type/Preload type



Type-1:Return-plate type



Type-2:Internal-deflector type

Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension												Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	Df	L	L_1	F	W	V	Dp	Bolt Hole X	Flange Type	
FKB 1201 A	12	1	0.8	12.20	1°30′	11.3	1×3	780 / 780	2000 / 2000	97 / 152		2	17	34	16	11	5	19	21	26	4.5	P,Q	FKB 1201 A
FKB 1202 A	12	2	1.2	12.30	2°58′	11.0	1×3	1600 / 1600	3700 / 3700	109 / 169		2	19	36	19	14	5	21	23	28	4.5	P,Q	FKB 1202 A
FKB 1202.5 A	12	2.5	1.5875	12.40	3°41′	10.7	1×3	2300 / 2300	4700 / 4700	112 / 174		2	20	37	21	16	5	22	24	29	4.5	P,Q	FKB 1202.5 A
FKB 1203 A	12	3	2.0	12.50	4°22′	10.4	1×3	3100 / 3100	5700 / 5700	115 / 179		2	22	41	32	26	6	24	26	32	5.5	P,Q	FKB 1203 A
FBS 1204 B	12	4	2.381	12.30	5°55′	9.8	3.7×1	5400 / 3400	10200 / 5100	165 / 139		1	28	48	33	27	6	30	30	39	5.5	P,Q	FBS 1204 B
FBS 1401 B	14	1	0.8	14.15	1°17′	13.3	3.7×1	960 / 610	2900 / 1450	148 / 124		1	26	46	21	15	6	28	28	37	5.5	P,Q	FBS 1401 B
FKB 1402 A	14	2	1.2	14.30	2°33′	13.0	1×3	1700 / 1700	4300 / 4300	122 / 190		2	21	40	20	14	6	23	26	31	5.5	P,Q	FKB 1402 A
FKB 1402.5 A	14	2.5	1.5875	14.40	3°10′	12.7	1×3	2500 / 2500	5600 / 5600	127 / 197		2	22	41	22	16	6	24	26	32	5.5	P,Q	FKB 1402.5 A
FKB 1403 A	14	3	2.0	14.50	3°46′	12.4	1×3	3400 / 3400	6800 / 6800	131 / 204		2	24	43	32	26	6	26	27	34	5.5	P,Q	FKB 1403 A
FKB 1404 A	14	4	2.381	14.65	4°58′	11.9	1×3	4500 / 4500	8600 / 8600	136 / 212		2	26	45	29	23	6	28	28	36	5.5	P,Q	FKB 1404 A
FBS 1405 B	14	5	2.381	14.30	6°21′	11.8	3.7×1	5700 / 3600	11600 / 5800	186 / 157		1	30	51	39	33	6	32	32	42	5.5	P,Q	FBS 1405 B

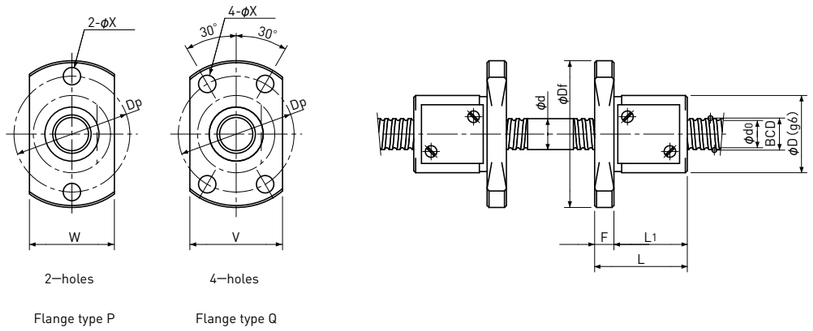
Note 1) The diameter of the Screw Shaft both ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

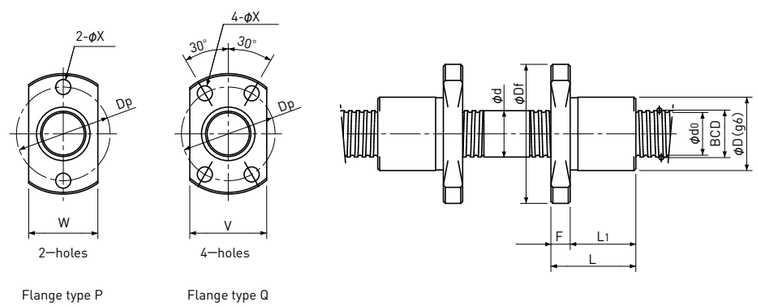
Preload type
Backlash type

Bi-directional Nut with Flange

Backlash type/Preload type



Type-1:Return-plate type



Type-2:Internal-deflector type

Unit : mm

Ball Nut Model number	Shaft nominal dia. d	Lead	Ball size	BCD	Lead angle	Root dia. d_0	Number of Circuit	Basic Load Rating N		Nut Rigidity N/μm		Nut dimension												Ball Nut Model number
								Dynamic Ca	Static Coa			Nut type	D	Df	L	L_1	F	W	V	Dp	Bolt Hole X	Flange Type	
FBS 1601 B	16	1	0.8	16.15	1°08′	15.3	3.7×1	1000 / 640	3300 / 1650	164 / 138		1	28	48	21	15	6	30	30	39	5.5	P,Q	FBS 1601 B
FKB 1602 A	16	2	1.2	16.30	2°15′	15.0	1×3	1850 / 1850	5000 / 5000	137 / 213		2	24	43	20	14	6	26	27	34	5.5	P,Q	FKB 1602 A
FKB 1603 A	16	3	2.0	16.50	3°19′	14.4	1×3	3600 / 3600	8000 / 8000	146 / 227		2	26	45	32	26	6	28	28	36	5.5	P,Q	FKB 1603 A
FKB 1604 A	16	4	2.381	16.65	4°22′	13.9	1×3	4800 / 4800	10000 / 10000	152 / 237		2	28	47	29	23	6	30	30	38	5.5	P,Q	FKB 1604 A
FBS 1605 B	16	5	3.175	16.50	5°31′	13.2	3.7×1	9100 / 5700	18200 / 9100	217 / 182		1	38	57	42	36	6	40	40	48	5.5	P,Q	FBS 1605 B

Note 1) The diameter of the Screw Shaft both ends must be less than the Screw Shaft Root diameter, otherwise Ball Nut cannot be installed.
Note 2) Ball Nut dimension is without seal at the both ends.
If the seals are required, Ball Nut dimension should be changed, in that case, please ask KSS.
Some type of Ball Nuts cannot equip with seals, please ask KSS representative.
Note 3) The Rigidity values shown in the table are theoretical values of Ball Nut Rigidity calculated from the amount of Elastic Displacement under the following conditions.
Backlash type ; Apply the Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca.
Preload type ; Apply the Preload equivalent to 5% of the Basic Dynamic Load Rating Ca.
For Axial load or Preload condition other than the above, see the formula in p-A823, you can calculate Rigidity using this formula.
Note 4) Basic Load Rating and Rigidity for Backlash type and Preload type are described in the same cell.

Basic Load Rating N		Nut Rigidity N/μm
Dynamic Ca	Static Coa	
1000 / 640	3300 / 1650	164 / 138

Preload type
Backlash type