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滑台專用



高速重負載型



DIN認證

Rotary Series

RFBY



RLBF



RBBY



RBLY



RFSY



RLSF



RSSY



RSLY



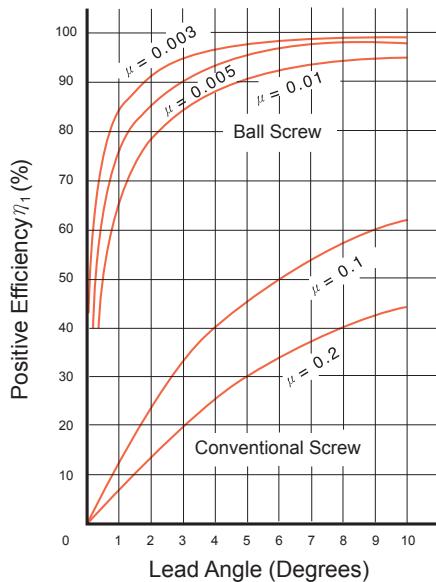
ABOUT BALL SCREW

C

Ball Screw

(1) High Reliability

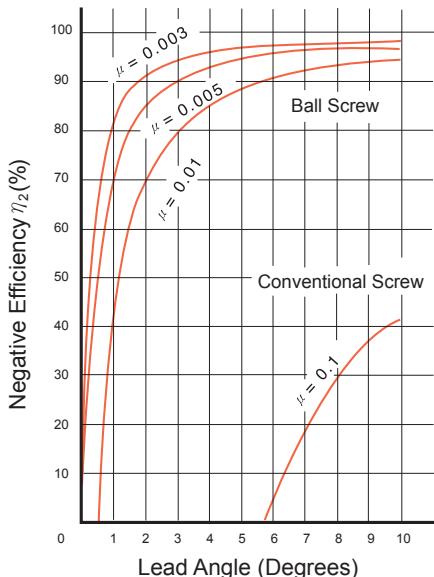
applies stringent quality control standards on every production process. With proper lubrication and use, trouble-free operation for an extended period of time is possible.



Normal usage (to convert rotary motion to linear motion)

(2) Smooth Operation

The high efficiency of ball screw is vastly superior than conventional screws as shown in Fig 1.1.1. It takes less than 30% torque to make the linear motion into rotary motion.



Special usage (to convert linear motion to rotary motion)

μ : Friction Coefficient (Ground Ball Screw $\mu=0.005$, Rolled Ball Screw $\mu=0.01$)

$$P = \frac{2\pi\eta_1 \times T}{\ell}$$

T = Torque kgf · cm
 P = Force kgf
 ℓ
 η_1 = Efficiency

$$T = \frac{\ell \times \eta_2 \times P}{2\pi}$$

T = Torque kgf · cm
 P = Force kgf
 ℓ
 η_2 = Efficiency

Fig 1.1.1 Mechanical Efficiency of Ball Screws

(3) High Rigidity and Preload

As figure 1.1.2 shown in below, the ball screw of is designed with Gothic arch groove, which makes the screw easy to rotate even using minimum axial play. To make the rigidity more appropriate to using condition, you can change the preload between one or two screw nuts to reduce axial play.



Fig 1.1.2 Groove Shape of Precision Ball Screw

(4) Circulation Method

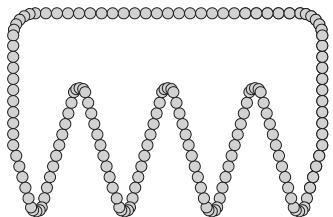


Fig 1.1.3 External Ball Circulation Nuts

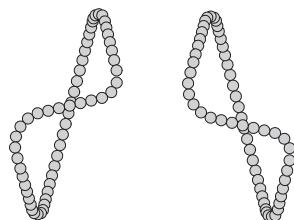


Fig 1.1.4 Internal Ball Circulation Nuts

(5) High Durability

Rigidly selected materials, intensive heat treating and processing techniques, backed by years of experience, have resulted in the most durable ball screws manufactured. (See Table1.1.1 & Fig1.1.5)

Table 1.1.1 Material and Heat Treatment

Item	Material	Hardness
Screw	High-Carbon Steel Chrome Molybdenum Steel	HRC 58°~64°
Nut	Chrome Molybdenum Steel	HRC 58°~62°
Steel Ball	Chrome Molybdenum Steel	HRC 62°UP

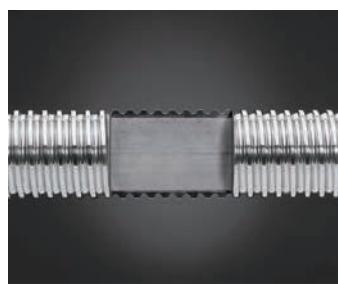
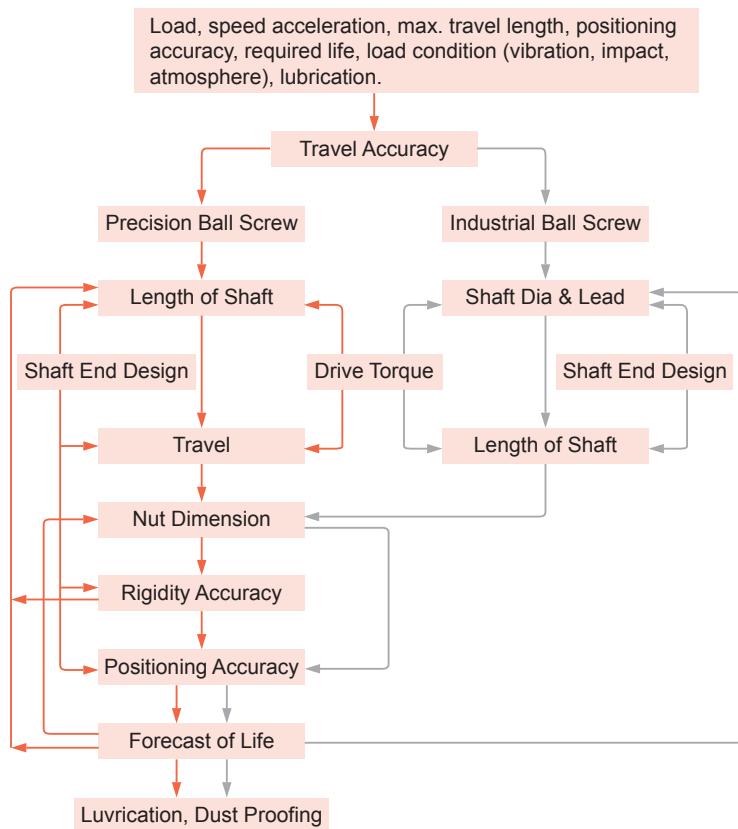


Fig 1.1.5 Heat Treatment

ABOUT BALL SCREW

1-2 Ball Screw Selection Precedure



Accuracy (C05)
Screw Shaft Design (C11)
Drive Torque (C17)
Nut Design (C19)

- Rigidity (C21)
- Positioning Accuracy (C24)
- Life Design (C26)
- Lubrication and safety design (C32)

1-3 Accuracy

■ 1-3-1 Lead/Travel Accuracy

According to the standard of JIS, we classified our lead accuracy through E, e, e_{300} and $e_{2\pi}$, four main regulations. As figure 1.3.1 ~ 1.3.3 shown in below, all the definition and tolerance are specified. To test the accumulated travel deviations for grade C7 and C10, the tolerance will be chosen in random 300mm of useful length and evaluated if it is qualified with the e_{300} table of 1.3.3.

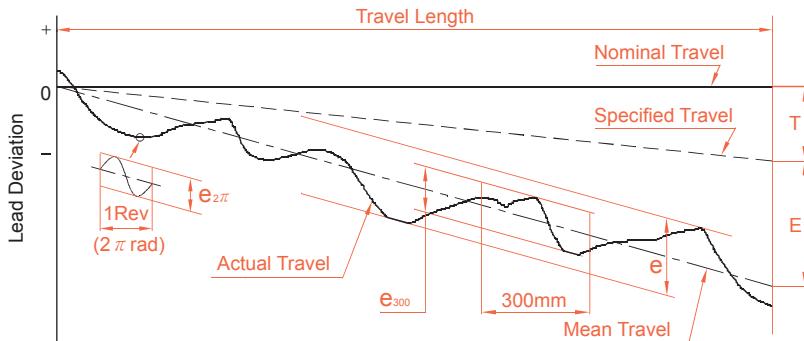


Fig 1.3.1 Diagram of Lead Accuracy

C

Ball Screw

Terms	Reference	Definition	Allowable
Travel Compensation	T	Travel compensation is the deduction between specified and nominal travel in the useful travel. A slightly smaller value compared with nominal travel is often selected by customer, to compensate for an expected elongation caused by temperature rise or external load. Therefore " T " is usually a negative value. Note : if no compensation is needed, specified travel is the same as nominal travel.	
Actual Travel		Actual travel is the axial displacement of the nut relative to the screw shaft.	
Mean Travel		Mean travel is the linear best fit line of actual. This could be obtained by the least squares method. This line represents the tendency of actual travel.	
Mean Travel Deviation	E	Mean travel deviation is the deduction between mean travel and specified travel within travel length.	Table 1.3.2
Travel Variations	e e_{300} $e_{2\pi}$	Travel variations is the coverage of 2 lines drawn parallel to the mean travel. Maximum width of variation within the travel length. Actual width of variation for the length of 300mm taken anywhere within the travel length. Wobble error, actual width of variation for one revolution (2π radian)	Table 1.3.2 Table 1.3.3 Table 1.3.3

ABOUT BALL SCREW

1-3 Accuracy

Table 1.3.2 Mean Travel Deviation ($\pm E$) and Travel Variation (e) (JIS B 1192)

Unit : μm

Grade		C0		C1		C2		C3		C5		C7		C10	
Travel Length (mm)	Over	Incl.	$\pm E$	e	$\pm E$	e	$\pm E$	e	$\pm E$	e	$\pm E$	e	e	e	
	100	100	3	3	3.5	5	5	7	8	8	18	18	$\pm 50/300\text{mm}$	$\pm 210/300\text{mm}$	
	200	200	3.5	3	4.5	5	7	7	10	8	20	18			
	315	315	4	3.5	6	5	8	7	12	8	23	18			
	400	400	5	3.5	7	5	9	7	13	10	25	20			
	500	500	6	4	8	5	10	7	15	10	27	20			
	630	630	6	4	9	6	11	8	16	12	30	23			
	800	800	7	5	10	7	13	9	18	13	35	25			
	1000	1000	8	6	11	8	15	10	21	15	40	27			
	1250	1250	9	6	13	9	18	11	24	16	46	30			
	1600	1600	11	7	15	10	21	13	29	18	54	35			
	2000	2000			18	11	25	15	35	21	65	40			
	2500	2500			22	13	30	18	41	24	77	46			
	3150	3150			26	15	36	21	50	29	93	54			
	3150	4000			30	18	44	25	60	35	115	65			
	4000	5000					52	30	72	41	140	77			
	5000	6300					65	36	90	50	170	93			
	6300	8000							110	60	210	115			
	8000	10000									260	140			
	10000	12500									320	170			

Table 1.3.3 International standard of accuracy grade for ball screw

Unit : μm

Grade		Ground					Ground		
		C0	C1	C2	C3	C5	C5	C7	C10
e_{300}	ISO, DIN	-	6	-	12	23	23	52	210
	JIS	3.5	5	-	8	18	18	50	210
		3.5	5	7	8	18	23	50	210

■ 1-3-2 Axial Play

Axial play of precision ball screw is shown below:

Table 1.3.4 Classification of Axial Play

Grade	P0	P1	P2	P3	P4
Axial Play	Yes	No	No	No	No
Preload	No	No	Light	Medium	Heavy

Excessive preload increases the friction torque and generates heat which will reduce the life expectancy. However, insufficient preload will reduce stiffness and increase the possibility of lost motion. recommends that the preload applied on CNC machine tools should not heavier than 8% of the dynamic load; 5% for industrial automation X-Y table.

Table 1.3.5 The reference spring force of (P2)

Model No.	Spring Force (Kg) Single Nut	Spring Force(Kg) Double Nut
1605	0.1~0.3	0.3~0.6
2005	0.1~0.3	0.3~0.6
2505	0.2~0.5	0.3~0.6
3205	0.2~0.5	0.5~0.8
4005	0.2~0.5	0.5~0.8
2510	0.2~0.5	0.5~0.8
3210	0.3~0.6	0.5~0.8
4010	0.3~0.6	0.5~0.8
5010	0.3~0.6	0.8~1.2
6310	0.6~1.0	0.8~1.2
8010	0.6~1.0	0.8~1.2

Table 1.3.6 Axial Play (P0) Clearance in the Axial Direction of Rolled and Ground Ball Screw

Unit : mm

Nominal Diameter	Rolled Ball Screw Clearance in the Axial Direction (max.)	Ground Ball Screw Clearance in the Axial Direction (max.)
Ø04~Ø14 miniature ball screw	0.05	0.015
Ø15~Ø40 middle size of ball screw	0.08	0.025
Ø50~Ø100 big size of ball screw	0.12	0.05

ABOUT BALL SCREW

1-3 Accuracy

■ 1-3-3 Definition of Mounting Accuracy and Tolerance on Ball Screw

The main items of the mounting accuracy of ball screw are listed in below.

- (1) Periphery run-out of the supporting part of the screw shaft to the screw groove.
- (2) Concentricity of a mounting portion of the shaft to the adjacent ground portion of the screw shaft.
- (3) Perpendicularity of the shoulders to the adjacent ground portion of the screw shaft.
- (4) Perpendicularity of the nut flange to the axis of the screw shaft.
- (5) Concentricity of the ball nut diameter to the screw groove.
- (6) Parallelism of the mounting surface of a ball nut to the screw groove.
- (7) Total run-out of the screw shaft to the axis of the screw shaft.

All ball screws are manufactured, inspected and guaranteed to be within specifications.

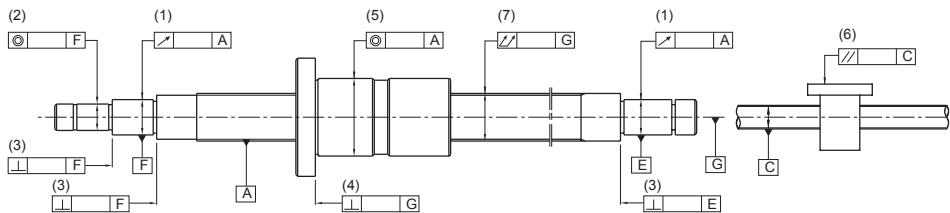


Fig 1.3.2 Mounting Accuracy and Tolerance

■ 1-3-4 Preload Torque

As figure 1.3.3 shown in below, it specified all the type of preload torque generated by rotating a preloaded ball screw.

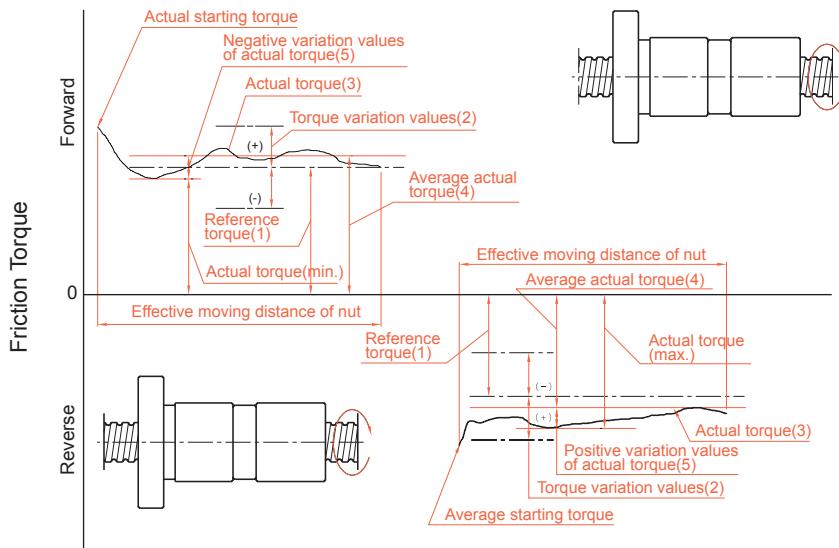


Fig 1.3.3 Descriptions of preload torque

Glossary

(1) Preload

To generate the inner force inside the ball screw to decrease the clearance and increase the rigidity, a set of one gage (approximately 2μ) larger steel balls is filled inside the nut or two nuts which are executing mutual displacement in axial direction.

(2) Preload dynamic torque

The dynamic torque required for continuously rotating the screws shaft or the nuts under unload condition and the preload has applied to the ball screws.

(3) Reference torque

The targeted preload dynamic torque Fig 1.3.3-(1)

(4) Torque variation values

The variation values of the targeted preload torque variation rates are specified generally based on JIS standards as indicated in Fig 1.3.3.

(5) Torque variation rate

The variation ratio of reference torque.

(6) Actual torque

The actual measured preload dynamic torque of the ball screws.

(7) Average actual torque

The arithmetic average of the maximal and minimal actual torque values measured when the nuts are doing reciprocating movements.

(8) Actual torque variation values

After the nut doing reciprocating movements on the effective length of the thread, the biggest variation tested will be the actual torque variation value, which is covered between the positive and negative minimum value relative to the actual torque.

(9) Actual torque variation rate

The rate of actual torque variation values in relation of the average actual torque.

ABOUT BALL SCREW

1-3 Accuracy

Table 1.3.7 Permissible ranges of torque variation rates

Reference torque kgf· cm		Effective threading length mm										
		Below 4000								4000~10000		
		Slenderness 1 : below 40				Slenderness1 : 40~1 : 60				-		
		Grade				Grade				Grade		
Over	Incl	C0	C1	C2, C3	C5	C0	C1	C2, C3	C5	C1	C2, C3	C5
2	4	±35%	±40%	±45%	±55%	±45%	±45%	±55%	±65%	-	-	-
4	6	±25%	±30%	±35%	±45%	±38%	±38%	±45%	±50%	-	-	-
6	10	±20%	±25%	±30%	±35%	±30%	±30%	±35%	±40%	-	±40%	±45%
10	25	±15%	±20%	±25%	±30%	±25%	±25%	±30%	±35%	-	±35%	±40%
25	63	±10%	±15%	±20%	±25%	±20%	±20%	±25%	±30%	-	±30%	±35%
63	100	-	-	±15%	±20%	-	-	±20%	±25%	-	±25%	±30%

Remarks : 1. Slenderness is the value of dividing the screws shaft outside diameter with the screws shaft threading length.

Calculation of Reference Torque T_p

The equation for computing reference torque of the ball screws is given in following :

$$T_p = 0.05 (\tan\beta)^{-0.5} \cdot \frac{F_{ao} \cdot l}{2\pi}$$

Where, F_{ao} = Preload (kgf)

β = Lead angle

l = Lead (cm)

Measurement Conditions

The measure condition as indicated in Fig 1.3.4, the preload dynamic torque will be the multiplication of F (The force to make the nut stay still during rotating the screw) and L (The arm of force).

$$T_p = F \cdot L$$

Measure conditions

- (1) Measurment is executed under the condition of unattached with scraper.
- (2) The rotating speed during measurement maintains at 100 rpm.
- (3) According to JSK2001(industrial oil viscosity standard), the lubrication oil used should be in compliance with ISO VG68.

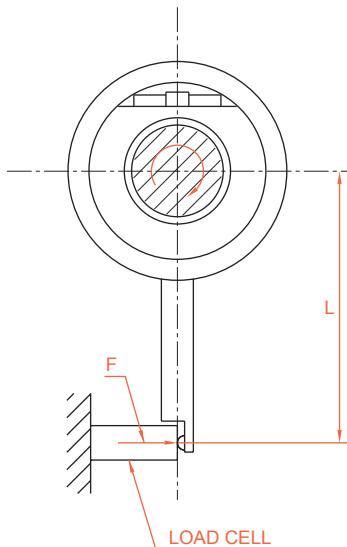


Fig 1.3.4 Preload dynamic torque measuring method

1-4 Screw Shaft Design

■ 1-4-1 Mounting Methods

It's important to consider mounting method (Fig 1.4.1~1.4.8) during your selection of ball screw specification. If you have special requirement related with mounting method,

(Mounting Screw and Nut)

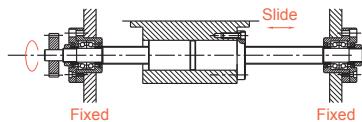


Fig 1.4.1

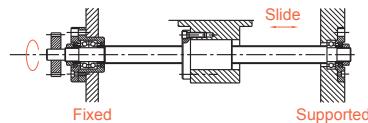


Fig 1.4.5

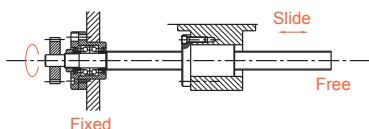


Fig 1.4.2

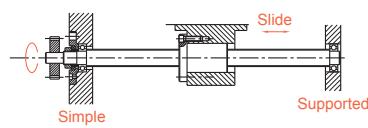


Fig 1.4.6

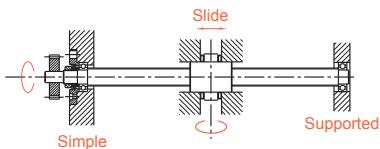


Fig 1.4.3

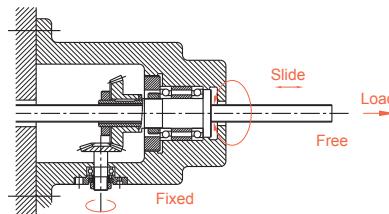


Fig 1.4.7

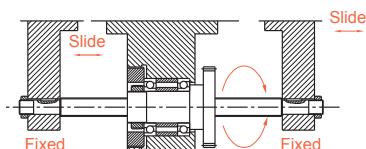


Fig 1.4.4

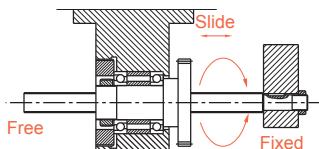


Fig 1.4.8

ABOUT BALL SCREW

1-4 Screw Shaft Design

(The mounting method for common types of machinery.)

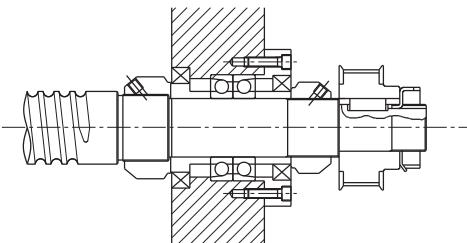


Fig 1.4.9

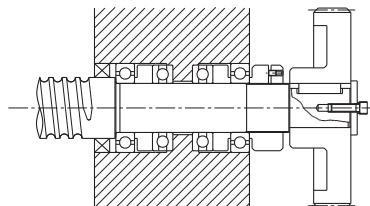


Fig 1.4.11

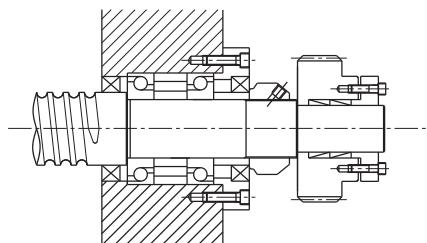


Fig 1.4.10

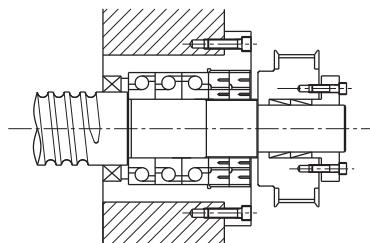


Fig 1.4.12

(The mounting method for bearing in a given pretension.)

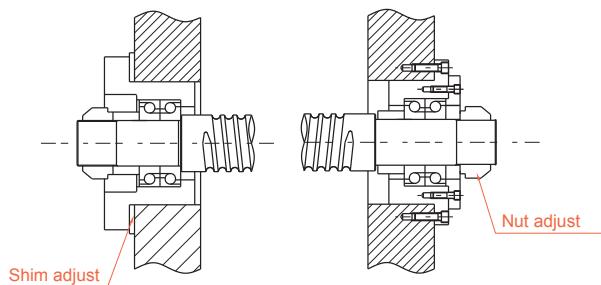


Fig 1.4.13

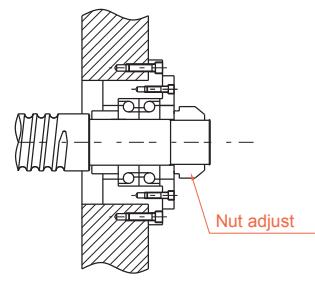
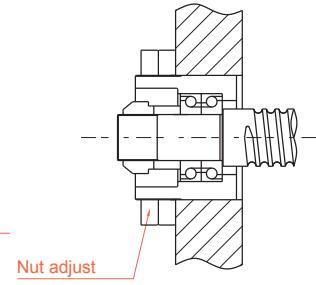


Fig 1.4.14



Nut adjust

Fig 1.4.15

■ 1-4-2 Allowable Load of Axial Direction

(1) Buckling Load

The safety of the screw shaft against buckling needs to be checked when the shaft is expected to receive buckling loads. Fig 1.4.16 shows a diagram which summarizes the allowable compressive load for buckling for each nominal outside diameter of screw shaft. (Calculate with the equation shown in below when the nominal outside diameter of the screw shaft exceeds 125mm.)

Select the graduation of allowable axial load according to the method of ball screw support method.

$$P = \alpha \cdot \frac{I \cdot N \cdot \pi^2 \cdot E}{L^2} = m \frac{dr^4}{L^2} \cdot 10^3$$

Where

α = Safty Factor ($\alpha= 0.5$)

E : Vertical elastic modules ($E = 2.1 \cdot 10^4 \text{kgf/mm}^2$)

I : Min. secondary moment of screw shaft sectional area

$$I = \frac{\pi}{64} dr^4 (\text{mm}^4)$$

dr : Screw shaft root diameter (mm)

L : Mounting distance (mm)

$m \cdot N$: Coefficient determined from mounting method of ball screw

Floated-Floated $m = 5.1$ ($N = 1$)

Fixed-Floated $m = 10.2$ ($N = 2$)

Fixed-Fixed $m = 20.3$ ($N = 4$)

Fixed-Free $m = 1.3$ ($N = 1/4$)

(2) Allowable Tensile/Buckling Load

With shorter mounting distance, please calculate the two items describe in below.

1. The allowable tensile / buckling load which equals to the derating stress.

2. Allowable load of the screw's groove.

$$P = \sigma A = 11.8 dr^2 (\text{kgf})$$

Where,

P : Buckling load (kgf)

σ : Allowable tensile compressive stress (kgf/mm^2)

A : Sectional area of screw shaft root bottom diameter (mm^2)

dr : Screw shaft root diameter (mm)

ABOUT BALL SCREW

1-4 Screw Shaft Design

C

Ball Screw

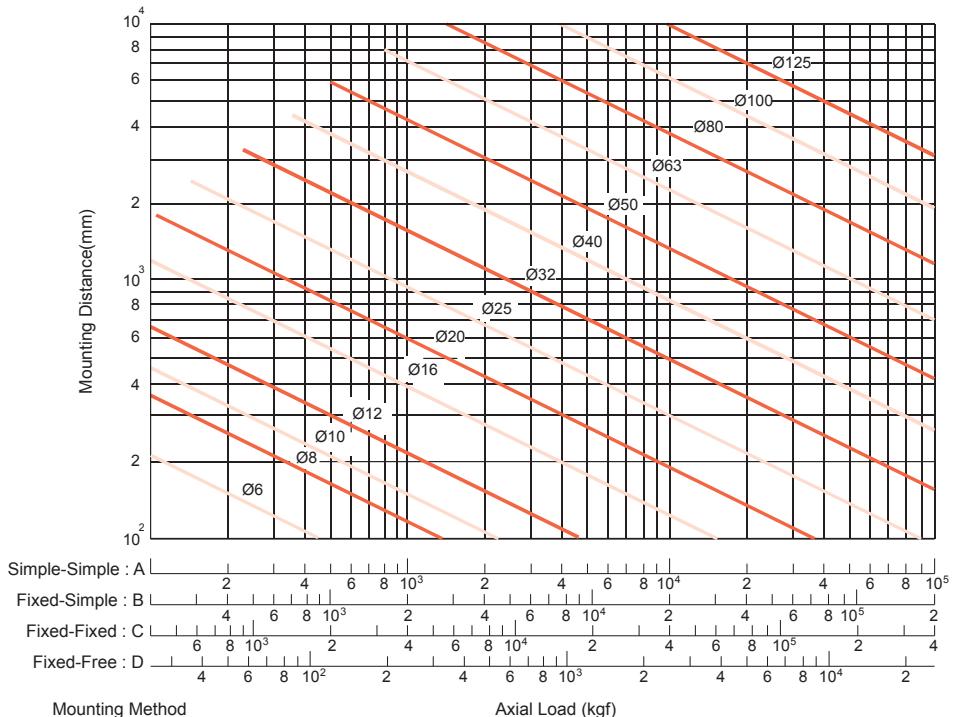


Fig 1.4.16 Buckling Load vs. Nominal Diameter and Length

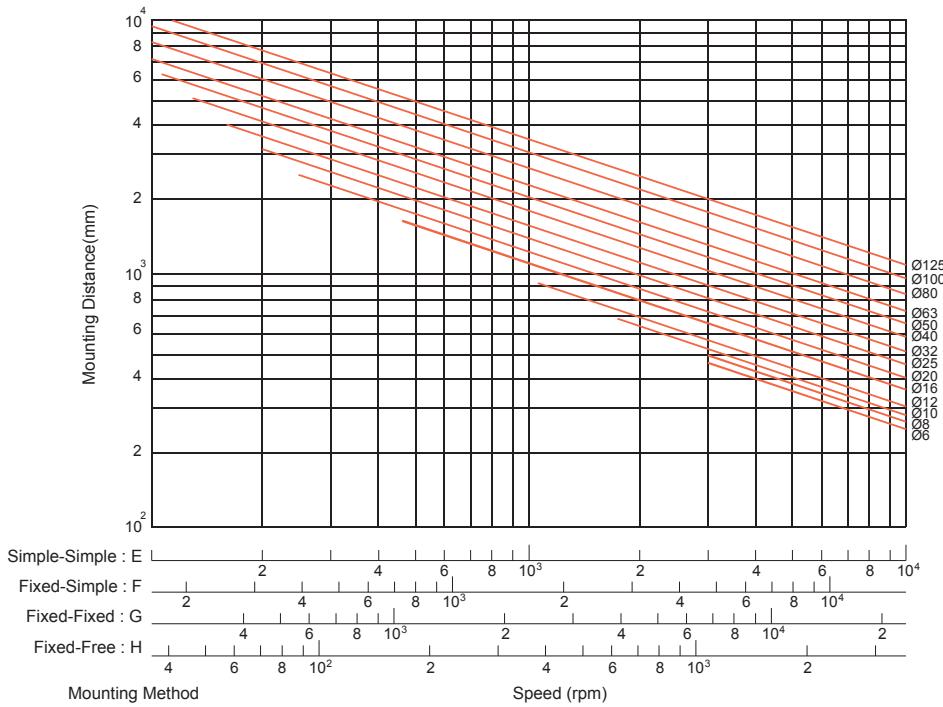


Fig 1.4.17 Critical Speed vs. Nominal Diameter

ABOUT BALL SCREW

1-4 Screw Shaft Design

■ 1-4-3 Critical Speed

(1) Dangerous speed

To prevent the screw's natural frequency attain resonance which will occur critical speed, it's necessary to look into the ball screw allowable rotation speed (Below 80% of the Critical Speed). More detail of allowable rotation speed classified though screw diameter please refer to Fig 1.4.17.

C

Ball Screw

(2) Dm•n value

The allowable rotation speed is regulated also by the Dm x N value (Dm : diameter of central circle of steel ball, N : Revolution speed, rpm) which expresses the peripheral speed.

Generally,

For precision

(Ground shaft C7 to C0)
Dm x N ≤ 70,000

For general industry (Rolled shaft)
Dm x N ≤ 50,000

$$n = \alpha \cdot \frac{60\lambda^2}{2\pi L^2} \sqrt{\frac{Eg}{\gamma A}} = f \frac{dr}{L^2} \cdot 10^7 (\text{rpm})$$

Where

α : Safty factor ($\alpha = 0.8$)

E : Verticle elastic modules ($E = 2.1 \cdot 10^4 \text{kgf/mm}^2$)

I : Minimum secondary torque of axial section plane

$$I = \frac{\pi}{64} dr^4 (\text{mm}^4)$$

dr : Screw shaft root diameter (mm)

g : Acceleration of gravity ($g = 9.8 \cdot 10^3 \text{mm/s}^2$)

γ : Density ($\gamma = 7.8 \cdot 10^6 \text{kgf/mm}^3$)

A : Screw shaft sectional area ($A = \pi dr^2 / 4 \text{ mm}^2$)

L : Mounting distance (mm)

f λ : Coefficient determined from the ball screw
mounting method

Floated-Floated $f = 9.7$ ($\lambda = \pi$)

Fixed-Floated $f = 15.1$ ($\lambda = 3.927$)

Fixed-Fixed $f = 21.9$ ($\lambda = 4.730$)

Fixed-Free $f = 3.4$ ($\lambda = 1.875$)

1-5 Driving Torque

■ 1-5-1 Driving torque T_s of the transmission shaft

$T_s = T_p + T_d + T_f$ (in fixed speed)

$T_s = T_g + T_p + T_d + T_f$ (when accelerating)

T_g : Acceleration torque (1) T_p : Load torque (2)

T_d : Preload torque (3) T_f : Friction torque (4)

(1) Acceleration T_g

$$T_g = J\alpha(\text{kgf} \cdot \text{cm})$$

$$\alpha = \frac{2\pi n}{60\Delta t} (\text{rad/s}^2)$$

J : Moment of inertia ($\text{kgf} \cdot \text{cm} \cdot \text{s}^2$)

α : Angular acceleration (rad/s^2)

n : Revolutions (min^{-1})

$\triangle t$: Starting time (sec)

(3) Preload torque T_d

$$T_d = \frac{K \cdot P_{pl} \cdot \ell}{\sqrt{\tan \alpha} \cdot 2\pi} (\text{kgf} \cdot \text{cm})$$

K : Internal coefficient

(0.05 is usually adopted)

P_{pl} : Preload (kgf)

ℓ : Lead (cm)

α : Lead angle

(4) Friction torque T_f

$$T_f = T_B + T_o + T_J (\text{kgf} \cdot \text{cm})$$

T_B : Friction torque of bracing shaft

T_o : Friction torque of free shaft

T_J : Friction torque motor shaft

The friction torque of the bracing shaft would be affected by the volume of lubrication oil. Besides, be careful with the excessive tight end seal may lead to unexpected over friction torque or temperature rise.

【For reference】 Moment of inertia of load (refer to Table 1.5.1)

$$J = J_{BS} + J_{CU} + J_W + J_M$$

J_{BS} : Moment of inertia Ball screws shaft

J_{CU} : Moment of inertia Coupler

J_W : Moment of inertia Linear motion part

J_M : Moment of inertia Roller shaft part of motor shaft

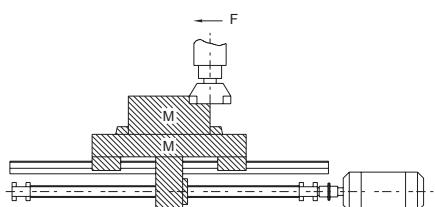


Fig 1.5.1 Moment of inertia of load

ABOUT BALL SCREW

1-5 Driving Torque

Table1.5.1 Conversion formula for moment of inertia of load

Formula	J
Moment of inertia converted from motor shaft	
Cylinder load	$\frac{\pi \rho L D^4}{32}$
Linearly moving object	$\frac{M}{4} \left(\frac{V_L}{\pi \cdot N_M} \right)^2 = \frac{M}{4} \left(\frac{P}{\pi} \right)^2$
Unit	kg . m ²
Moment of inertia during deceleration	$J_M = \left(\frac{J_L}{N_M} \right)^2 J_L$

ρ : Density (kg/m^3) $\rho = 7.8 \cdot 10^3$

L : Cylinder length (m)

D : Cylinder diameter(m)

M : Mass of the linear motion part (kg)

V : Velocity of the linear moving object (m/min)

N_M : Motor shaft revolutions (min^{-1})

P : The moving magnitude of the linearly moving object per rotation of the motor (m)

N_L : Rotations in longitudinal moving direction (min^{-1})

J_L : Moment of inertia in load direction

J_M : Moment of inertia in motor direction

■ 1-6-1 Selection of Nut

(1) Series

When making selection of series, please take demanded accuracy, intended delivery time, dimensions(the outside diameter of screw, ratio of lead/ the outside diameter of screw) preload and etc into consideration.

(2) Circulation type

Selection of circulation type : Please consider the efficiency of screw nut's mounting space. The advantage of each circulation type will be specified in figure 1.6.1.

(3) Number of loop circuits

Performance and service life should be considered when selecting number of loop circuits.

(4) Shape of flanges (FLANGE)

Please make selection based on the available space for the installation of nuts.

(5) Oil hole

Oil holes are provided for the precision ball screws, please use them during machine assembling and regular furnishing.

1-6 Nut Design

Table 1.6.1 Circulation type

Circulation type	Model		Characteristic
	Single Nut	Double Nuts	
Internal circulation type	SFM SFNI SFK SFNU BSH	OFU OFI	<ul style="list-style-type: none"> • Delicated diameter of screw takes only little space. • Applicable to those with smaller lead / the outside diameter of the screw
External circulation type	SFV XSV BSH	OFV	<ul style="list-style-type: none"> • Economy • Applicable to larger lead and diameter. • Applicable for high loading purpose. (patent nut)
End-caps circulation type	SFY SFH SFJ SFA SFYA		<ul style="list-style-type: none"> • Suitable for high speed positioning

■ 1-6-2 Nut Types

U, I, M - Type Nut

In these types of nuts, by using the internal circulator which makes the ball pass over the crest diagonally, the ball will return to the starting point. Normally, one roll of balls will fit with one circulation. As figure 1.6.1 specified, these types of nuts need at least one side which is completely threading, which is applicable for smaller shaft diameter.

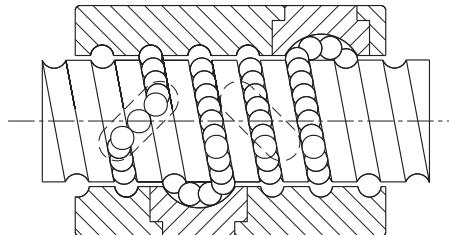


Fig 1.6.1 U, I, M - Type Nut

K - Type Nut

It applies the similar circulation as that of I-type, but circulation takes place in key slots of identical angle for different circulation. (see Fig 1.6.2)

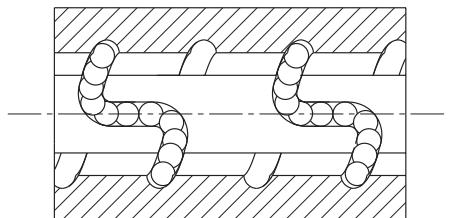


Fig 1.6.2 K - Type Nut

ABOUT BALL SCREW

1-6 Nut Design

V - Type Nut

Using outer circulation, the special design of circulator allows the balls to roll along the thread direction. By so, the smoothness of circulation is increased and meanwhile decrease the mutual collision. It's a suitable type for high speed and heavy loading.

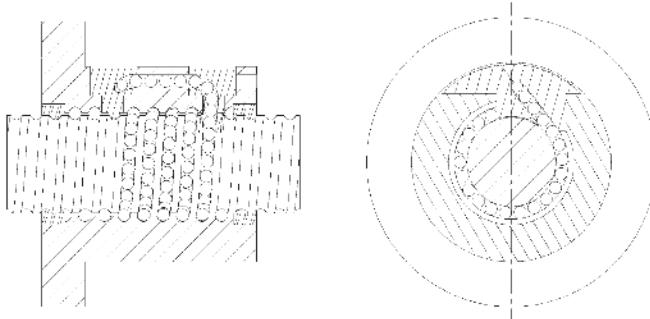


Fig 1.6.3 V - Type Nut

Y, YA, H, A, J - Type Nut

By using thin and flexible dust cap on both side, the performance of wiping had been enhanced. Moreover, the enhancement of circulation structure increase both the function of high rigidity and speed.

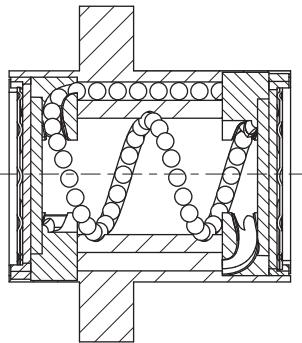


Fig 1.6.4 Y, YA, H, A, J - type nut

1-7 Rigidity

Excessively weak rigidity of the screw's peripheral structure is one of the primary causes that result in lost motion. Therefore, in order to achieve excellent position accuracy for the precision machines such as NC working machines and etc, axial rigidity balance as well as torsional rigidity for the parts at various portions of the transmission screw have to be taken into consideration at time of designing.

Static Rigidity K

The axial elastic deformation and rigidity of the transmission screw system can be determined by the formula below.

$$K = \frac{P}{e} \text{ (kgf/mm)}$$

P : Axial load (kgf) borne by the transmission screw system

e : Axial flexural displacement (mm)

$$\frac{1}{K} = \frac{1}{K_S} + \frac{1}{K_N} + \frac{1}{K_B} + \frac{1}{K_H} \text{ (mm/kgf)}$$

K_S : Axial rigidity of screw shaft (1)

K_B : Axial rigidity of support shaft (3)

K_N : Axial rigidity of nut (2)

K_H : Axial rigidity of installation (4)

(1) Axial rigidity K_S and displacement δ_S

$$K_S = \frac{P}{\delta_S} \text{ (kgf/mm)}$$

P : Axial load (kgf)

For places of Fixed - Fixed installation

$$\delta_{SF} = \frac{PL}{4AE} \text{ (mm)}$$

For places other than Fixed - Fixed installation

$$\delta_{SS} = \frac{PL_0}{AE} \text{ (mm)}$$

$$\delta_{SS} = 4\delta_{SF}$$

δ_{SF} : Directional displacement at places of fixed-fixed

δ_{SS} : Directional displacement at places excluding fixed-fixed installation

A : Cross-sectional area of the screw shaft tooth root diameter (mm²)

E : Longitudinal elastic modulus (2.1 · 10⁴kgf/mm²)

L : Distance between installations (mm)

L₀ : Distance between load applying points (mm)

ABOUT BALL SCREW

1-7 Rigidity

(2) Axial rigidity K_N and displacement δ_N of nuts

$$K_N = \frac{P}{\delta_s} \text{ (kgf/mm)}$$

(a) In case of single nut

$$\delta_{NS} = \frac{K}{\sin\beta} \left(\frac{Q^2}{d} \right)^{\frac{1}{3}} \cdot \frac{1}{\zeta} \text{ (mm)}$$

$$Q = \frac{P}{n \cdot \sin\beta} \text{ (kgf)}$$

$$n = \frac{D_0 \pi m}{d} \text{ (each)}$$

Q : Load of one steel ball (kgf)

n : Amount of steel ball

k : Constant determined based on material, shape, dimensions

$$k \approx 5.7 \cdot 10^{-4}$$

β : Angle of contact (45°)

P : Axial load (kgf)

d : Steel ball diameter (mm)

ζ : Accuracy, internal structure coefficient

m : Effective amount of balls

D_0 : Steel ball center diameter (mm)

$$D_0 = \frac{\ell}{\tan\alpha \cdot \pi} \text{ (kgf/mm)}$$

ℓ : Lead (mm)

α : Lead angle

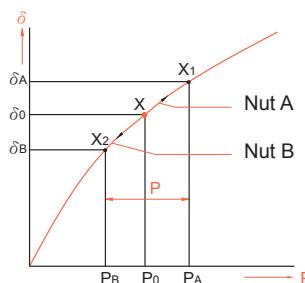


Fig 1.7.1

(b) In case of double nuts

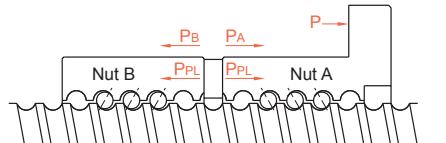


Fig 1.7.2 Preloaded for the double nuts

As bearing weight of preload (P_{PL}) exert, there will be approximately three times of axial loading(P). To eliminate the preload of nut b, please set the bearing weight of preload (P_{PL}) under 1/3 of the maximum axial load weight. Take 0.25 Ca as maximum load weight of preload. When the displacement under the preload which equals to three times of the bearing load of the axial direction, the value will be 1/2 of single nut's displacement.

$$K_N = \frac{P}{\delta_{NW}} = \frac{3P_{PL}}{\delta_{NS/2}} = \frac{6P_{PL}}{\delta_{NS}} \text{ (kgf/mm)}$$

δ_{NS} : Displacement of single nut(mm)

δ_{NW} : Displacement of double nuts(mm)

(Explanation of the rigidity of double nuts)

As shown in Fig 1.7.1 and 1.7.2, when a preload P_{PL} is applied on the nut A and B both nuts A, B would produce flexural deformations that will reach point X. If an external force P is exerted from here, nut A moves from point X to point X1, while nut B moves from X to X2.

Then, based on the computing formula for displacement δ_{NS} of the single nut, we can obtain :

$$\delta_0 = aP_{PL}^{\frac{2}{3}}$$

Since nut A and B have the displacement of $\delta_a = aP_{PL}^{\frac{2}{3}}$ while external force (P) gave the same displacement on nut A and B, we can obtain that $\delta_A - \delta_0 = \delta_0 - \delta_B$.

In other cases, if external force applied on nut A and B is P only, and cause the increase of P_A , we will get the formula of $P_A - P_B = P - \delta_B = 0$

$$P_A - P_B = P$$

$$\delta_B = 0$$

For preventing the external force applied on nut B being absorbed by nut A thus decreasing, so when $\delta_B = 0$

$$aP_A^{\frac{2}{3}} - aP_{PL}^{\frac{2}{3}} = aP_{PL}^{\frac{2}{3}}$$

$$P_A^{\frac{2}{3}} = 2P_{PL}^{\frac{2}{3}}$$

$$P_A = \sqrt[3]{8} P_{PL} \approx 3P_{PL}$$

As Fig 1.7.3 shown in below, if the axial direction loading weight equals to three times of preload, the single nut's displacement will be cut into half and gain two times stronger of rigidity.

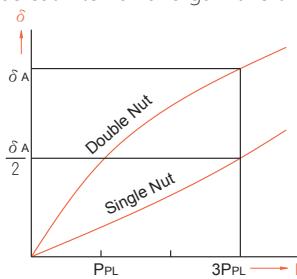


Fig 1.7.3

(3) Axial rigidity K_B and displacement δ_B of support shaft

$$K_B = \frac{P}{\delta_B} \text{ (kgf/mm)}$$

Q : Load of one steel ball (kgf)

n : Amount of steel balls

β : Angle of contact (45°)

P : Axial load (kgf)

d : Steel ball diameter (mm)

a : Effective stroke

$$\delta_B = \frac{2}{\sin\beta} \left(\frac{Q^2}{d} \right)^{\frac{1}{3}} \text{ (mm)} \quad Q = \frac{P}{n \cdot \sin\beta} \text{ (kgf)}$$

(4) Look into the nut and bearing mounting part's axial direction, the rigidity K_H and displacement δ_H should aware of the requirement of high rigidity on mounting portion during the initial machine development.

$$K_H = \frac{P}{\delta_H} \text{ (kgf/mm)}$$

ABOUT BALL SCREW

1-8 Positioning Accuracy

Among the factors that cause feed accuracy errors, lead accuracy and feed system rigidity are the key points for review, while other factors such as heat deformation due to temperature rise as well as assembly accuracy for the guiding surface, etc. should also be considered.

■ 1-8-1 Accuracy Selection

Table 1.8.1 shows the recommended application ranges for various ball screws accuracy classes based on different.

Table 1.8.1 Examples of ball screws accuracy classes for different uses

Application		Accuracy Grade								
		C0	C1	C2	C3	C5	C7	C10		
NC Machine Tools	Lathe	X	O	O	O	O	O			
		Y			O	O	O			
	Milling Machine Boring Machine	XY		O	O	O	O			
		Z		O	O	O	O			
	Machine Center	XY		O	O	O	O			
		Z		O	O	O	O			
	Jig Borer	Y	O	O						
		Z	O	O						
	Drilling Machine	XY			O	O	O			
		Z				O	O			
	Grinding Machine	X	O	O	O	O	O			
		Z		O	O	O	O			
	Electro-discharge Machine (EDM)	XY		O	O	O	O			
		(Z)		O	O	O	O			
	Wire Cut (EDM)	Y		O	O	O				
		UV		O	O	O	O			
	Punching Press	XY			O	O	O			
	Laser Cutting Mathine	XY			O	O				
		Z			O	O				
Wood Working Machine					O	O	O	O		
Machines of General use and special Use					O	O	O	O		
Semiconductor Machines	Explosion Equipments		O	O						
	Chemical Treatment				O	O	O	O		
	Wire Bonder		O	O	O					
	Prober		O	O	O					
	Inserter			O	O	O	O			
	PCB Driller		O	O	O	O	O			
Industrial Robots	Orthogonal Type	As'sy		O	O	O	O			
		Others				O	O	O		
	Multi-joints Type	As'sy		O	O	O				
		Others			O	O	O			
	SCARA Type			O	O	O	O			
Machines for Steel molding						O	O	O		
Injection Molding Machines						O	O	O		
Three-Dimensionnal Measuring Machines				O	O	O				
Business Machines						O	O	O		
Pattern Image Machines				O	O					
Nuclear	Rod Control				O	O	O			
	Mechnaical Snubber						O	O		
	Aircrafts				O	O				

■ 1-8-2 Countermeasure Against Thermal Displacement

Thermal displacement of the screw shaft results in deterioration of the position accuracy. The magnitude of the thermal displacement is calculated as follows :

$$\triangle \ell = \alpha \cdot \triangle t \cdot L$$

$\triangle \ell$: Thermal displacement

α : Coefficient of thermal expansion

$\triangle t$: Temperature rise (deg) at screw shaft

L : Effective length of screw thread

Namely, the screw shaft develops elongation of $12\mu\text{m}$ per 1m when the temperature rises by 1°C . The ball screw, which lead has been machined to high accuracy, may fail to meet high level requirements because of the thermal displacement due to temperature rise. As high speed is applied during ball screw usage, the heat will rise as well and cause more influence.

The thermal displacement countermeasures for ball screws include the following :

(1) Control of heat generation

- Optimization of preload
- Correct selection and supply of lubricant
- Increase in ball screw lead, with reduced rotation speed

(2) Forced cooling

- Hollow screw shaft to allow cooling fluid to flow through
- Cooling of screw shaft exterior with cooling oil or air

(3) Avoid influence of temperature rise

Warming up the machine through high speed to attain the stable temperature :

- Operates after the temperature become stable
- Pre-tension on screw shaft
- Preset a negative value on target value of the cumulative lead.
- Use the closed loop for positioning

ABOUT BALL SCREW

1-9 Service Life Design

■ 1-9-1 Service Life of Ball Screws

Even the ball screw is used under correct conditions, it would still fail after a period time of usage. From the beginning to the unusable condition of ball screw, this period of time is called service life of ball screw, which is generally classified into the fatigue life when delamination phenomenon occurs and the accuracy deterioration life caused by wear-out, etc.

■ 1-9-2 Basic Static Load Rating C_{sa}

The basic load rating is an axial static load which will produce a permanent deformation at contact points of the steel balls to ball grooves equal to 0.01% of ball diameter.

■ 1-9-3 Basic Dynamic Load Rating C_a

The basic dynamic load rating is an axial load which allow 90% of a group of identical ball screws (rotated under the same condition) to rotate without flaking for 10^6 revolutions. This basic dynamic load rating is shown in the table of dimensions.

$$\text{Relation between load and service life } L_{\alpha} = \left(\frac{1}{P} \right)^3 \quad L : \text{Service life} \quad P : \text{Load}$$

■ 1-9-4 Fatigue Life

Average load P_e

(1) When axial load keeps changing, please calculate in order the average load for the equivalent fatigue life under different load condition changes. (see Table 1.9.1)

$$(P_e = \frac{P_1^3 n_1 t_1 + P_2^3 n_2 t_2 + \dots + P_n^3 n_n t_n}{n_1 t_1 + n_2 t_2 + \dots + n_n t_n})^{\frac{1}{3}} \text{ (kgf)}$$

Axial Load (kgf)	Rotating Speed (min^{-1})	Time(%)
P1	n1	t1
P2	n2	t2
.	.	.
.	.	.
.	.	.
Pn	nn	tn

But, $t_1 + t_2 + t_3 + \dots + t_n = 100$

Table 1.9.1 Service Life in Different Application.

Usage	Life in hours (h)
Working machines	20000
General industrial machines	10000
Automatic control machines	15000
Measurement machines	15000

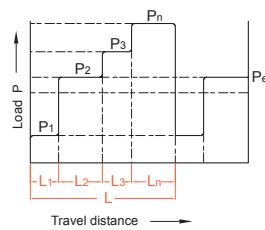


Fig 1.9.1

$$P_e = \frac{2P_{\max} + P_{\min}}{3} \text{ (kgf)}$$

P_{\max} : Maximal axial load (kgf)

P_{\min} : Minimal axial load (kgf)

(2) When load changes according to sine curve
(see Fig 1.9.2)

$P_e \approx 0.65 P_{\max}$ (Fig A)

$P_e \approx 0.75 P_{\max}$ (Fig B)

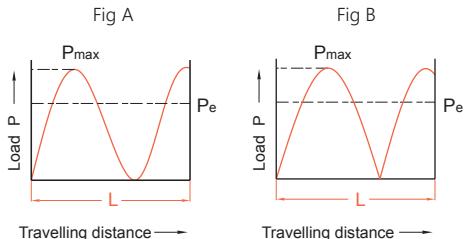


Fig 1.9.2

■ 1-9-5 Calculation of Service Life

The fatigue life is generally expressed by the total number of revolutions. The total rotation hours or total travel distance may also be used to express service life. The fatigue life is calculated as follow :

$$L = \left(\frac{C_a}{P_a \cdot f_w} \right)^3 \cdot 10^6$$

$$L_t = \frac{L}{60n}$$

$$L_s = \frac{L \cdot \ell}{10^6}$$

Where

L : Rated fatigue life (rev)

L_s : Life in travel distance (km)

P_a : Axial load (kgf)

f_w : Load Coefficient

(Required coefficient to operate)

L_t : Life in hours (h)

C_a : Basic dynamic load rating (kgf)

n : Rotating speed (rpm)

ℓ : Lead (mm)

Table 1.9.2 Load Factor (fw)

Vibration and impact	Velocity (V)	fw
Minor	$V \leq 0.25 \text{ m/s}$	Very Low
		1~1.2
Little	$0.25 < V \leq 1 \text{ m/s}$	Low
		1.2~1.5
Moderate	$1 < V \leq 2 \text{ m/s}$	Medium
		1.5~2
Heavy	$V > 2 \text{ m/s}$	High
		2~3.5

Table 1.9.3 Factor of Safety (fs)

Usage	Operation	fs
Machine tool	Normal operation	1.0 ~ 1.3
	Operation with impact and vibration	2.0 ~ 3.0
Industrial machine	Normal operation	1.0 ~ 1.5
	Operation with impact and vibration	2.5 ~ 7.0

Basic Dynamic Load Rating C_a

$$C_a = P_e \cdot f_s$$

Basic Static Load Rating C_{sa}

$$C_{sa} = P_{\max} \cdot f_s$$

ABOUT BALL SCREW

1-9 Life Design

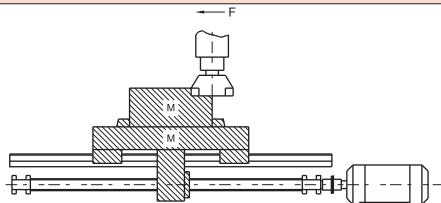
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Ball Screw

Key Points for Ball Screws Selection

To choose a perfect fit ball screw, users need to understand operating requirement, which is the fundamental principal of deciding the design. Besides, the main factors of selection include load weight, stroke, torque, positioning accuracy in a single time and repeatedly, rigidity, lead and nut's inner diameter. Among all the factors, any single factor's change will cause the change of other factors. Therefore, the balance between all factors is a must to pay attention to.

Calculation for Ball Screws Selection



Design conditions

- | | |
|---|-------------------------------|
| 1. Working table weight | 300 Kg |
| 2. Working object weight | 400 Kg |
| 3. Max Stroke | 700 mm |
| 4. Feeding speed | 10 m/min |
| 5. Minimal disassembly ability | 10µm/stroke |
| 6. Driving motor DC motor | (MAX 1000 min ⁻¹) |
| 7. Guiding surface friction coefficient | ($\mu = 0.05 \sim 0.1$) |
| 8. Running rate | 60 % |
| 9. Accuracy review items | |
| 10. Inertia generated during acceleration/deceleration | |
| can be neglected because the time periods involved are comparatively small. | |

1. Setting of operation conditions

(a) Machine service life time calculation of H (hr)

$$H = \boxed{\text{ }} \cdot \boxed{\text{ }} \cdot \boxed{\text{ }} \cdot \boxed{\text{ }}$$

hours/day days/year life years running rate

(b) Mechanical conditions

Calculation Items Different Operations	Speed/ rotations	Cutting resistance	Sliding resistance	Time used
Fast feed	m/min/min ⁻¹	kgf	kgf	%
Light cutting	/			
Medium cutting	/			
Heavy cutting	/			

(c) Position determination accuracy

Feed accuracy error factor includes load accuracy and system rigidity. Other factors which caused by temperature rise such as heat deformation and mounting accuracy of surface are needed to be considered.

1. Setting of operation conditions

(a) Machine service life time calculation of H (hr)

$$H = 12 \text{ hr} \cdot 250 \text{ days} \cdot 10 \text{ years} \cdot 0.6 \text{ Running rate} = 18000 \text{ hr}$$

(b) Mechanical conditions

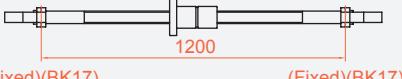
Calculation Items Different Operations	Speed/ rotations	Cutting resistance	Sliding resistance	Time used
Fast feed	10 _{min} / _{1000min⁻¹}	0 kgf	70 kgf	10 %
Light cutting	6/600	100	70	50
Medium cutting	2/200	200	70	30
Heavy cutting	1/100	300	70	10

$$\text{Sliding resistance} = (300 + 400) \cdot 0.1 = 70 \text{ kgf}$$

Key Points for Ball Screws Selection	Calculation for Ball Screws Selection
<p>2. Ball screw lead ℓ (mm)</p> $\ell = \frac{\text{Feeding speed (m/min)} \cdot 1000}{\text{Max. Rotating speed (min}^{-1}\text{) of motor}} \text{ (mm)}$	<p>2. Ball screw lead ℓ (mm)</p> $\ell = \frac{10000}{1000} = 10 \text{ (mm)}$ <p>Minimal disassembly = $\frac{10 \text{ mm}}{1000 \text{ stroke}} = 0.01 \text{ mm/stroke}$</p>
<p>3. Computation of average load P_e (kgf)</p> $P_e = \left(\frac{P_1^3 n_1 t_1 + P_2^3 n_2 t_2 + \dots + P_n^3 n_n t_n}{n_1 t_1 + n_2 t_2 + \dots + n_n t_n} \right)^{\frac{1}{3}}$ $P_e = \frac{2P_{\max} + P_{\min}}{3}$ $P_e \approx 0.65 P_{\max}$ $P_e \approx 0.75 P_{\max}$	<p>3. Computation of average load P_e (kgf)</p> $P_e = \left(\frac{70^3 \cdot 1000 \cdot 10 + 170^3 \cdot 600 \cdot 50 + 270^3 \cdot 200 \cdot 30 + 370^3 \cdot 100 \cdot 10}{1000 \cdot 10 + 600 \cdot 50 + 200 \cdot 30 + 100 \cdot 10} \right)^{\frac{1}{3}}$ $= \left(\frac{31.7 \cdot 10^{10}}{4.7 \cdot 10^4} \right)^{\frac{1}{3}}$ $\approx 189 \text{ kgf}$
<p>4. Average number of rotations n_m</p> $n_m = \frac{n_1 t_1 + n_2 t_2 + \dots + n_n t_n}{100}$	<p>4. Average number of rotations n_m</p> $n_m = \frac{1000 \cdot 10 + 600 \cdot 50 + 200 \cdot 30 + 100 \cdot 10}{100}$ $= \frac{4.7 \cdot 10^4}{100} = 470 \text{ min}^{-1}$
<p>5. Calculation of required dynamic rated load C_a</p> $C_a = P_e \cdot f_s$	<p>5. Calculation of required dynamic rated load C_a</p> $C_a = 189 \cdot 5 = 945 \text{ (kgf)}$
<p>6. Calculation of required static rated load C_{oa}</p> $C_{oa} = P_{\max} \cdot f_s$	<p>6. Calculation of required static rated load C_{oa}</p> $C_{oa} = 369 \cdot 5 = 1845 \text{ (kgf)}$
<p>7. Selection of nut type</p> <p>$C_a > 945 \quad C_{oa} > 1845$</p> <p>Select the nut types with basic dynamic rated load and basic static rated load as specified above.</p>	<p>7. Selection of nut type</p> <p>Choose SFNI 2510 on the catalogue</p> $C_a = 2954 \text{ (kgf)}$ $C_{oa} = 7295 \text{ (kgf)}$

ABOUT BALL SCREW

1-9 Life Design

Key Points for Ball Screws Selection	Calculation for Ball Screws Selection
8. Calculation of service life L_t (h) $L_t = \frac{L}{60_h} = \left(\frac{C_a}{P_e \cdot f_w} \right)^3 \cdot 10^6 \cdot \frac{1}{60_h}$	8. Calculation of service life L_t (h) $L_t = \left(\frac{2954}{189 \cdot 2} \right)^3 \cdot 10^6 \cdot \frac{1}{60 \cdot 470} = 42544(h)$
9. Mounting distance between supporting bearings	9. Mounting distance between supporting bearings  (Fixed)(BK17) 1200 (Fixed)(BK17)
10. Determination of screw length Screw length = Maximal stroke + Nut length + Two reserved length at shaft end	10. Determination of screw length Screw length = $700 + 85 + 76 + 76 = 937$ mm 937 mm < 1200 mm
11. Permissible axial load	11. Permissible axial load Omitted because of F-F support
12. Permissible revolution speed n and DN $n = \alpha \cdot \frac{60\lambda^2}{2\pi L^2} \sqrt{\frac{Eg}{\gamma A}} = f \cdot \frac{dr}{L^2} \cdot 10^7 (\text{rpm})$ DN = Shaft dia · Maximal speed	12. Permissible revolution speed n and DN $n = \frac{21.9 \cdot 21.86 \cdot 10^7}{1200^2} = 3324 \text{ min}^{-1} < n_{\max}$ DN = $25 \cdot 1000 = 25000 < 50000$
13. Countermeasure against thermal displacement $\Delta l = \alpha \cdot \Delta t \cdot L$ Δl : Thermal displacement α : Coefficient of thermal expansion Δt : Temperature rise (deg) at screw shaft L : Effective length of screw thread	13. Countermeasure against thermal displacement It is estimated there would be a temperature rise 2~5°C with the ball screws of the general machinery, take temperature rise of 2°C to compute the extension of ball screw. $\Delta l = \alpha \cdot \Delta t \cdot L = 11.7 \cdot 10 \cdot 2 \cdot 700 \text{ mm}$ $\approx 0.016 \text{ mm}$ $F_p = \frac{EA\Delta l}{L}$ $= \frac{2.06 \cdot 10^4 \cdot \frac{\pi \cdot 21.86^2}{4} \cdot 0.016}{700}$ $\approx 177(\text{kgf})$

Key Points for Ball Screws Selection	Calculation for Ball Screws Selection
<p>14. Rigidity</p> <p>(1) Axial rigidity K_s and displacement δ_s of screw shaft</p> $K_s = \frac{P}{\delta_s} \text{ (kgf/mm)}$ <p>P : Axial load (kgf)</p> $\delta_{sf} = \frac{PL}{4AE} \text{ (mm)} \dots \text{(with reference to page C21)}$ <p>(2) Axial rigidity K_N and displacement δ_s of nut</p> $\delta_{ns} = \frac{K}{\sin\beta} \left(\frac{Q^2}{d} \right)^{\frac{1}{3}} \cdot \frac{1}{\zeta} \text{ (mm)}$ $Q = \frac{P}{n \cdot \sin\beta} \text{ (kgf)}$ $n = \frac{D_0 \pi m}{d} \text{ (each)} \dots \text{(with reference to page C22)}$ <p>(3) Axial rigidity K_B and displacement δ_B of bracing shaft</p> $K_B = \frac{P}{\delta_B} \text{ (kgf/mm)} \dots \text{(with reference to page C23)}$	<p>14. Rigidity</p> <p>Deviation can be corrected by estimating the temperature rise per extension of 0.016 mm, and taking into consideration of the pre-tension of 177 kgf.</p> <p>(1) Directional rigidity</p> $\delta_{sf} = \frac{PL}{4AE} = \frac{27 \cdot 1200}{4 \cdot \frac{\pi \cdot 21.86^2}{4} \cdot 2.06 \cdot 10^4}$ $= 0.00105 \text{ (mm)}$ $K_s = \frac{370}{0.00105} = 3.5 \cdot 10^5 \text{ kgf/mm}$ <p>(2) Rigidity of steel ball and nut groove</p> $n = \frac{26.62 \cdot \pi \cdot 4}{4.762} = 70$ $Q = \frac{370}{70 \sin 45^\circ} = 10$ $\delta_{ns} = \frac{0.00057}{\sin 45^\circ} \left(\frac{10^2}{4.762} \right)^{\frac{1}{3}} \cdot \frac{1}{0.7}$ $= 3.2 \cdot 10 \text{ mm}$ $K_N = \frac{370}{3.2 \cdot 10^{-3}} = 1.27 \cdot 10^5 \text{ kgf/mm}$ <p>(3) Rigidity of support bearings</p> <p>Where, nut rigidity 50 kgf/μm</p> $\delta_B = \frac{370}{51 \cdot 2} = 3.6 \mu\text{m}$ $K_B = \frac{370}{0.0036} = 1 \cdot 10^5 \text{ kgf/mm}$ <ul style="list-style-type: none"> $\bullet \delta_{TOTAL} = 1.05 + 3.2 + 3.6 = 7.85 \mu\text{m}$
15. Confirmation of the ball screw life	15. Confirmation of the ball screw life $L = 42544 \text{ (h)} > 18000 \text{ (h)}$

ABOUT BALL SCREW

1-10 Cautions About Use of Ball Screws

Ball screw assemblies are delicate components. Therefore, extra care must be taken to prevent the ball track from damages that caused by edged component or tools. Meanwhile, to prevent steel ball fall out of the nut through the disassembly of screw and nut or over stroke, please be careful while operating. If the steel ball falls out, (Do not attempt to reassemble, which might cause permanent damage to the ball screw.)

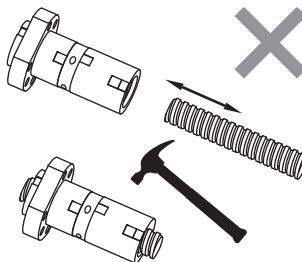


Fig 1.10.1 Error installation

If disassemble is required, please use a transfer pipe which has minor diameter than the screw diameter to transfer the nut to prevent falling out of the steel balls.

■ 1-10-1 Lubrication

Adequate lubrication must be provided when ball screw is used, insufficient lubrication will result in collision of metal, which leads to increase of friction and detrition, thus cause failure or shortening the service life.

Lubricants applied to ball screws can be divided into 2 types, namely lubricating oil and consistent grease. In general speaking, in respect of maintenance, consistent grease will lead to increase of dynamic friction torque linearly along with increase of rotating speed, hence oil lubrication is deemed the better way when speed exceeds 3-5 m/min; however, don't forget the fact that there have been examples that using grease has been capable of achieving speed of 10 m/min, with respect to the equipment.

In terms of equipments, there are some cheaper lubricant that can be used. In general, to fully utilize the function of ball screw, lubricating oil of 5m/minute is the best option to choose. In figure 1.10.1, we provide the standard of lubricating oil inspection and supplement interval. Before replenishing, please clean up the previous grease to continue.

Table 1.10.1 Inspection of lubrication and interval of refill

Method	Interval	Check Item	Replenish or Change Interval
Auto. Periodial oil supply	Weekly	Oil level, contamination	Add at each check, as required depending on tank level
Grease	Initially 2~3 months	Contamination on entry of chip	replenish yearly or according to the inspection result.
Oil bath	Daily	Oil level	To be determined according to consumption

■ 1-10-2 Dust Proof / Prevention

Any foreign matter or water, if entering to the ball screw, may increase friction and cause damage. For example, the entry of chips or cutting oil may be expected with machine tools according to the work environment. Where entry of foreign matter is anticipated, use a bellows or telescopic cover as shown in Fig 1.10.2, to cover the screw shaft completely.

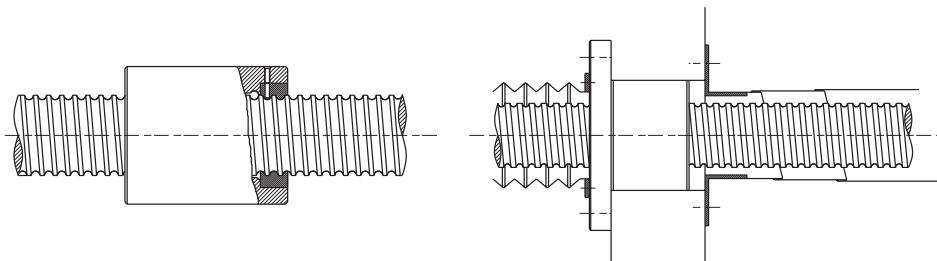


Fig 1.10.2 Dust proof Method by Telescopic Cover and Bellows

■ 1-10-3 Offset Load

When offset load phenomenon occurs, screw life and noise tend to be directly affected, which would usually be accompanied with hand feel of rough running. As the smoothness of single shaft and assembled ball screw might be different. In addition to single shaft's accuracy, the offset phenomenon was mostly occurred by failed assemble accuracy which is shown in Fig 1.10.3.

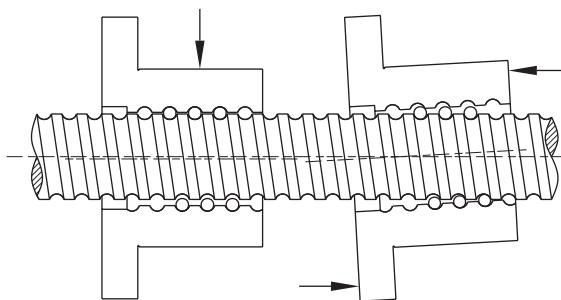


Fig 1.10.3 Offset Load

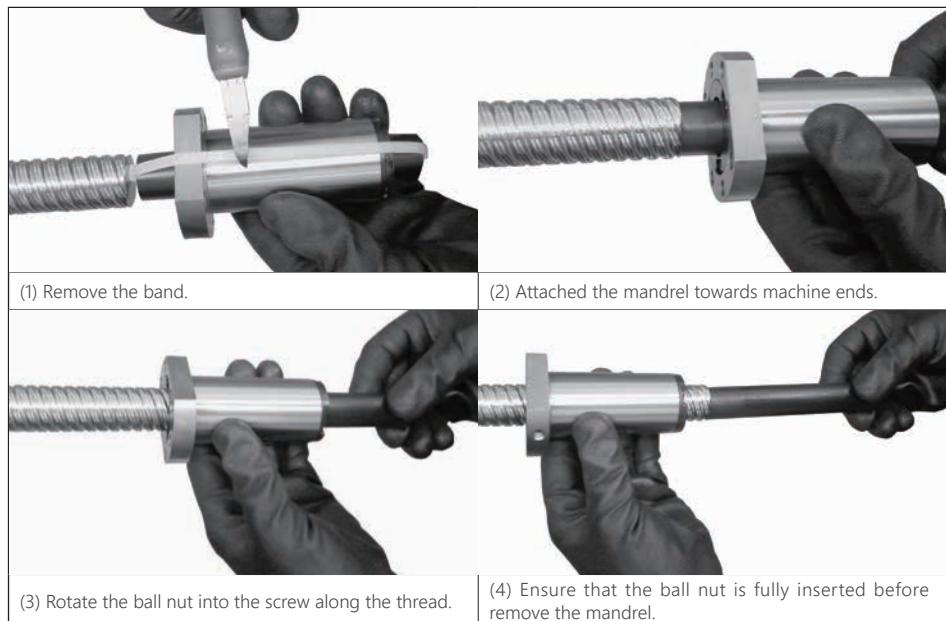
ABOUT BALL SCREW

1-10 Cautions About Use of Ball Screws

■ 1-10-4 Assembling the Ball Screws

If rolled ball nut is shipped un-assembled please follow the procedure as below.

Table 1.10.2 Procedure



C

Ball Screw

■ 1-10-5 Machining Specifications

(1) For the Ball Screws with internal or end cap type circulation ball nut, it is required to have at least one end with complete thread to the end of screw, it is also required to have the journal area is with diameter to be smaller than the diameter of thread root as Fig 1.10.4 shown.

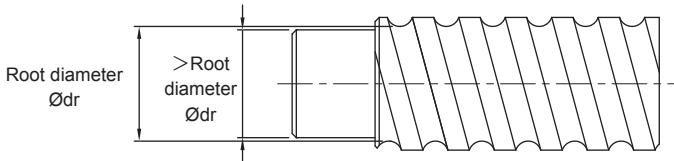


Fig 1.10.4 For Internal Circulation

(2) The thread on screw shaft are hardened by induction hardening. It shall cause about 10~20mm at both ends journal purpose. The unhardened area will be labeled.

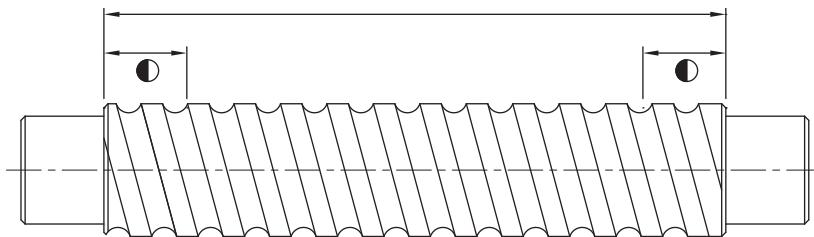


Fig 1.10.5 Harden Area

2-1 Nominal Model Code of Ball Screw

SFU R 025 05 T4 D G C5 - 600 - P1 - B2 + N3 N3

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13)

(1)	(2)	(5)	(7)
Nominal Model	Threading Direction	Number of Turns (Turn·Row)	Product Code
S : S : Single nut	R : Right	Turn : T : 1	G : Ground
F : With flange	L : Left	A : 1.5 (or 1.7/1.8)	F : Rolled
C : Without flange		B : 2.5/2.8	
NI : NI type nut	(3)	C : 3.5	(8)
NU : NU type nut	Nominal Diameter	D : 4.8	Accuracy Grade
H : H type nut	Unit : mm	E : 5.8	C0, C1, C2, C3, C5, C7, C10
A : A type nut		ex : (2.5 × 2 = B2)	
J : J type nut			
NH : NH nut (A solution for slide table)	(4)	(6)	(9)
Y : Y type nut	Lead	Flange Type	Overall Length of Shaft
YA : YA type nut	Unit : mm	N : Not cutting	Unit : mm
V : V type nut		S : Single cutting	
U : U type nut		D : Double cutting	
M : M type nut			
K : K type nut			

(10)	(11)
Axial Clearance and Preload Value	Number of Nut
P0, P1, P2, P3, P4	(Leave blank if only one nut is required) Ex : Install two nuts on a shaft B2
(12)	(13)
Nut Surface Treatment	Shaft Surface Treatment
S : Standard	S : Standard
B1 : Black Oxidation	B1 : Black Oxidation
N1 : Hard Chrome Plating	N1 : Hard Chrome Plating
P : Phosphating	P : Phosphating
N3 : Nickel Plating	N3 : Nickel Plating
N4 : Raydent	N4 : Raydent
N5 : Chrome Plating	N5 : Chrome Plating

*No symbol required when plating is not needed.

*An inspection report is provided for ground ball screws with an accuracy higher than C5.

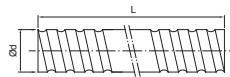


Fig 2.1.1 Screw Shaft Nominal Diameter

Table 2.1.1 Ground Ball Screw Specifications Ø4~32

Model No.	Accuracy Grade	Threading Direction R : Right L : Left	Number of Grooves	Standard Code of Shaft	Type of Nut		
					Ød		
4	1	0.8	C7, C5, C3	R	1	SCR00401	K
6	1	0.8	C7, C5, C3	R	1	SCR00601	K
	6	1.2	C7, C5, C3	R	1	SCR00606	J
	1	0.8	C7, C5, C3	R/L	1	SCR00801	K
8	2	1.2	C7, C5, C3	R/L	1	SCR00802	K
	2.5	1.2	C7, C5, C3	R	1	SCR0082.5	K, BSH
	8	1.2	C7, C5, C3	R	1	SCR00808	J
10	2	1.2	C7, C5, C3	R/L	1	SCR01002	K, BSH
	4	2	C7, C5, C3	R	1	SCR01004	K, BSH
	2	1.2	C7, C5, C3	R/L	1	SCR01202	K
12	4	2.5	C7, C5, C3	R	1	SCR01204	U, BSH
	5	2.5	C7, C5, C3	R	1	SCR01205	K
	5	2.5	C7, C5, C3	R	1	SSR01205	V, BSH, H, A, J
	10	2.5	C7, C5, C3	R	1	SCR01210-B	V
14	2	1.2	C7, C5, C3	R/L	1	SCR01402	K
	4	2.5	C7, C5, C3	R	1	SCR01404	K, BSH
15	10	3.175	C7, C5, C3	R	1	SCR01510	V
	20	3.175	C7, C5, C3	R	1	SCR01520	V
16	2	1.2	C7, C5, C3	R/L	1	SCR01602	K
	4	2.381	C7, C5, C3	R	1	SCR01604(N)	V, I, U, BSH
	5	3.175	C7, C5, C3	R/L	1	SCR01605	V, NI, NU, BSH
	10	3.175	C7, C5, C3	R/L	1	SCR01610	V, NI, NU, BSH
	16	2.778	C7, C5, C3	R	2	SCR01616	Y, YA
	32	2.778	C7, C5, C3	R	2	SCR01632	Y, YA
20	2	1.2	C7, C5, C3	R	1	SCR02002	K
	4	2.381	C7, C5, C3	R	1	SCR02004(N)	V, I, U
	5	3.175	C7, C5, C3	R/L	1	SCR02005	V, NI, NU, BSH, H, A, J
	10	3.969	C7, C5, C3	R	1	SCR02010	V
	20	3.175	C7, C5, C3	R	1	SCR02020	H, A, J
	20	3.175	C7, C5, C3	R	2	SCR02020	V, Y, YA
	40	3.175	C7, C5, C3	R	2	SCR02040	Y, YA
25	2	1.2	C7, C5, C3	R	1	SCR02502	K
	4	2.381	C7, C5, C3	R	1	SCR02504(N)	I, U
	5	3.175	C7, C5, C3	R/L	1	SCR02505	V, NI, NU, BSH, H, A, J
	6	3.969	C7, C5, C3	R	1	SCR02506	V, U
	8	4.762	C7, C5, C3	R	1	SCR02508	V, U
	10	4.762	C7, C5, C3	R/L	1	SCR02510-A	NI, NU, BSH
	10	6.35	C7, C5, C3	R	1	SCR02510-B	V
	25	3.969	C7, C5, C3	R	2	SCR02525	Y, YA
32	50	3.969	C7, C5, C3	R	2	SCR02550	Y, YA
	4	2.381	C7, C5, C3	R	1	SCR03204(N)	V, I, U
	5	3.175	C7, C5, C3	R/L	1	SCR03205	V, NI, NU, M, H, A
	6	3.969	C7, C5, C3	R	1	SCR03206	V, U
	8	4.762	C7, C5, C3	R	1	SCR03208	V, U
	10	6.35	C7, C5, C3	R/L	1	SCR03210	V, NI, NU
	20	6.35	C7, C5, C3	R	1	SCR03220	V
	32	4.762	C7, C5, C3	R	2	SCR03232	Y, YA
	64	4.762	C7, C5, C3	R	2	SCR03264	Y, YA

2-1 Nominal Model Code of Ball Screw

Table 2.1.2 Standard Specifications Ø40~80

Unit : mm

Model No.			Accuracy Grade	Threading Direction	Number of Grooves	Standard Code of Shaft	Type of Nut
Ød	I	Da		R : Right L : Left			
40	5	3.175	C7, C5, C3	R / L	1	SCR04005	V, NI, NU, H, A
	6	3.969	C7, C5, C3	R	1	SCR04006	V, U
	8	4.762	C7, C5, C3	R	1	SCR04008	V, U
	10	6.35	C7, C5, C3	R / L	1	SCR04010	V, NI, NU
	20	6.35	C7, C5, C3	R	1	SCR04020	V
	40	6.35	C7, C5, C3	R	2	SCR04040	Y, YA
	80	6.35	C7, C5, C3	R	2	SCR04080	Y, YA
50	5	3.175	C7, C5, C3	R	1	SCR05005	V, H, A
	10	6.35	C7, C5, C3	R / L	1	SCR05010	V, NI, NU
	20	7.144	C7, C5, C3	R	1	SCR05020	NU
	20	9.525	C7, C5, C3	R	1	SCR05020	V
	50	7.938	C7, C5, C3	R	2	SCR05050	Y, YA
	100	7.938	C7, C5, C3	R	2	SCR050100	Y, YA
63	10	6.35	C7, C5, C3	R	1	SCR06310	V, NI, NU
	20	9.525	C7, C5, C3	R	1	SCR06320	V, NU
80	10	6.35	C7, C5, C3	R	1	SCR08010	V, NI, NU
	20	9.525	C7, C5, C3	R	1	SCR08020	V, NU

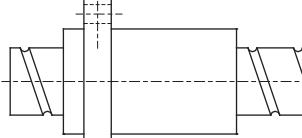
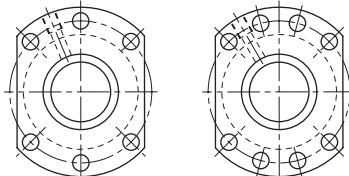
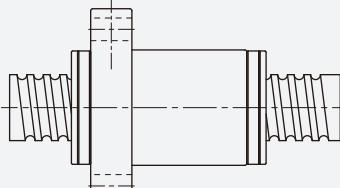
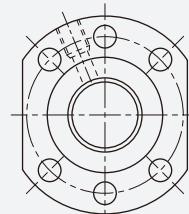
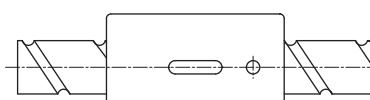
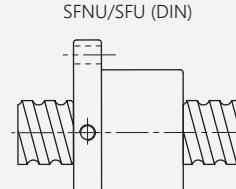
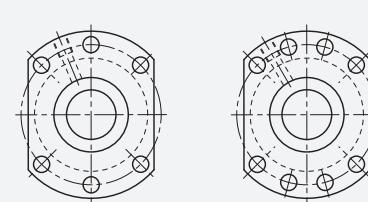
Table 2.1.3 H/A/J-type Specifications Ø16~50

Unit : mm

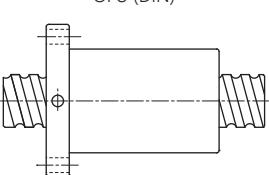
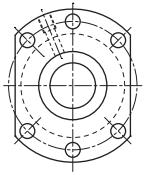
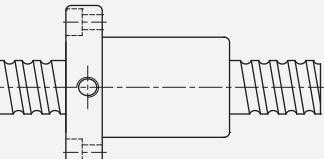
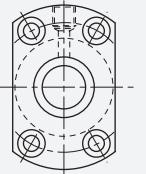
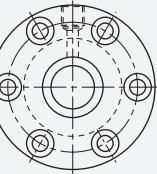
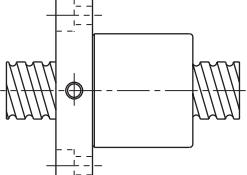
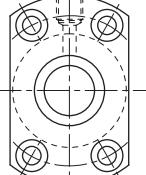
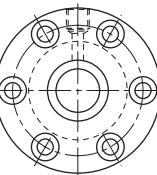
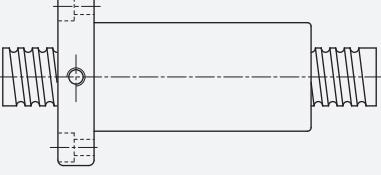
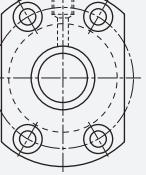
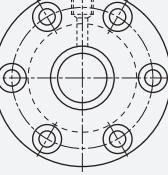
Model No.			Accuracy Grade	Threading Direction	Number of Grooves	Type-H Code of Shaft	Type of Nut	
Ød	I	Da		R : Right L : Left				
16	12	10	2.5	C7, C5, C3	R	1	SSR01210	H, A, J
	5	2.778	C7, C5, C3	R	1	SSR01605	H, A, J	
	10	2.778	C7, C5, C3	R	1	SSR01610	H, A, J	
	16	2.778	C7, C5, C3	R	1	SSR01616	H, A, J	
	20	2.778	C7, C5, C3	R	1	SSR01620	H, A, J	
	30	2.778	C7, C5, C3	R	1	SSR01630	A	
	20	10	3.175	C7, C5, C3	R	1	SSR02010	H, A, J
25	10	3.175	C7, C5, C3	R	1	SSR02510	H, A, J	
	25	3.175	C7, C5, C3	R	1	SSR02525	H, A, V, J	
	10	3.969	C7, C5, C3	R	1	SSR03210	H, A	
	32	20	3.969	C7, C5, C3	R	1	SSR03220	H, A
32	32	6.35	C7, C5, C3	R	1	SSR03232	H, A	
	10	6.35	C7, C5, C3	R	1	SSR04010	H, A	
	20	6.35	C7, C5, C3	R	1	SSR04020	H, A	
	40	6.35	C7, C5, C3	R	1	SSR04040	H, A	
50	10	6.35	C7, C5, C3	R	1	SSR05010	H, A	
	20	6.35	C7, C5, C3	R	1	SSR05020	H, A	
	50	6.35	C7, C5, C3	R	1	SSR05050	H, A	

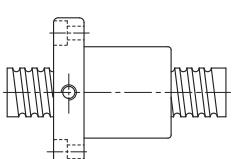
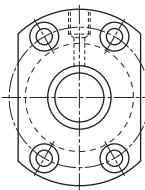
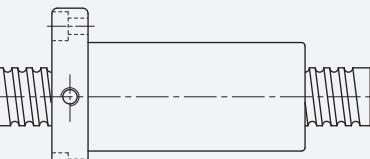
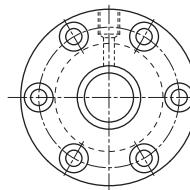
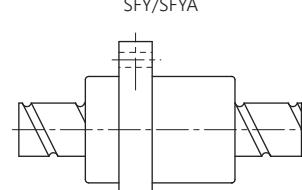
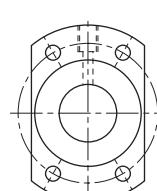
2-2 Precision Ground Ball Screw Series

■ 2-2-1 Nut of Precision Ground Ball Screw Type

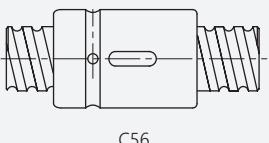
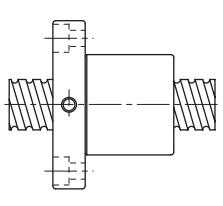
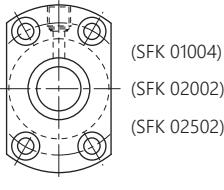
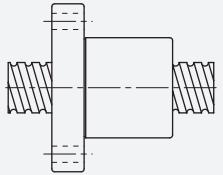
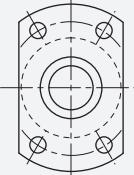
Nut Type	Flange Type
NH/H/A (A solution for slide table/High Speed/Strong dust-proof type)	 SFNH/SFH/SFA (DIN) C44-45
	 d≤32 d≥40
~, (Low Noise/Strong dust-proof type)	 SFJ (DIN) C46
	
CZH (A solution for slide table)	 SCNH C47
	No-Flange
NU/U (Strong dust-proof type)	 SFNU/SFU (DIN) C48
	 d≤32 d≥40

2-2 Precision Ground Ball Screw Series

	Nut Type	Flange Type
OFU (OFF set double nut)	<p>OFU (DIN)</p>  <p>C49</p>	 
N/I (Strong dust-proof type)	<p>SFNI/SFI</p>  <p>C50</p>	 
Σ (Design for Milling)	<p>SFM</p>  <p>C50</p>	 
$\bar{\Sigma}$ (OFF set double nut)	<p>OFI</p>  <p>C51</p>	 

	Nut Type	Flange Type
✓ (High Load External Circulation type)	SFV  C52	
OFV (OFF set double nut)	OFV  C53	
Y/YA (High DM-N Rating)	SFY/SFYA  C54, 55	

2-2 Precision Ground Ball Screw Series

	Nut Type	Flange Type
CNI/I (Standard)	 <p>SCNI/SCI C56</p>	No-Flange
✗ (Miniature type)	 <p>SFK C57</p>	 <p>(SFK 01004) (SFK 02002) (SFK 02502)</p>
	 <p>SFK C57</p>	

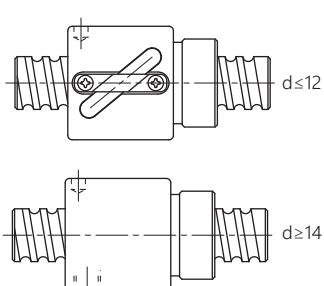
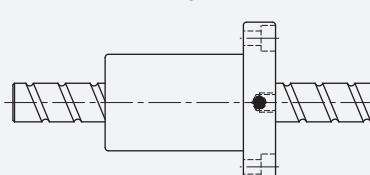
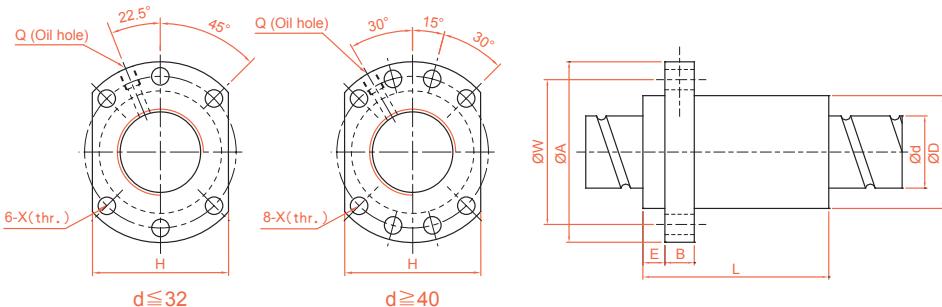
	Nut Type	Flange Type
BSH	 <p>BSH d ≤ 12 d ≥ 14</p> <p>C58</p>	No-Flange
XSV (Design for factory automation)	 <p>XSV C59~63</p>	

Table 2.2.1 Preload Chart

Preload	I, U, M-type	H, A, J-type	Y, YA-type	V-type	BSH-type	K-type
P0						
P1	√	√	√	√	√	√
P2	√	√	√	√	√	
P3	√	√	√	√	√	
P4				√		

2-2 Precision Ground Ball Screw Series

SFNH/SFH (DIN 69051 FORM B) Series Specifications

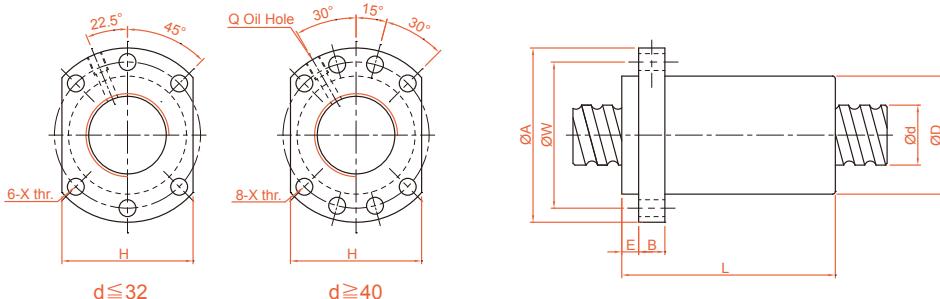


Unit : mm

Model No.	d	l	Da	Dimension										Load Rating		K kgf/ μ m
				D	A	E	B	L	W	H	X	Q	n	Ca (kgf)	Coa (kgf)	
SFH01205-2.8*	12	5	2.5	24	40	5	10	30	32	30	4.5		2.8x1	661	1316	19
SFH01210-2.8*		10	2.5	24	40	5	10	45	32	30	4.5		2.8x1	642	1287	19
SFH01605-3.8*	15	5	2.778	28	48	5	10	37	38	40	5.5	M6	3.8x1	1112	2507	30
SFH01610-2.8*		10	2.778	28	48	5	10	45	38	40	5.5	M6	2.8x1	839	1821	23
SFH01616-1.8*	16	2.778	28	48	5	10	45	38	40	5.5	M6	1.8x1		552	1137	14
SFH01616-2.8*	16	2.778	28	48	5	10	61	38	40	5.5	M6	2.8x1		808	1769	22
SFH01620-1.8*	20	2.778	28	48	7	10	58	38	40	5.5	M6	1.8x1		554	1170	14
SFH02005-3.8*	20	5	3.175	36	58	7	10	37	47	44	6.6	M6	3.8x1	1484	3681	37
SFH02010-3.8*		10	3.175	36	58	7	10	55	47	44	6.6	M6	3.8x1	1516	3833	40
SFH02020-1.8*		20	3.175	36	58	7	10	54	47	44	6.6	M6	1.8x1	764	1758	19
SFH02020-2.8*		20	3.175	36	58	7	10	74	47	44	6.6	M6	2.8x1	1118	2734	29
SFH02505-3.8*	25	5	3.175	40	62	7	10	37	51	48	6.6	M6	3.8x1	1650	4658	43
SFH02510-3.8*		10	3.175	40	62	7	12	55	51	48	6.6	M6	3.8x1	1638	4633	45
SFH02525-1.8*		25	3.175	40	62	7	12	64	51	48	6.6	M6	1.8x1	843	2199	22
SFH02525-2.8*		25	3.175	40	62	7	12	89	51	48	6.6	M6	2.8x1	1232	3421	34
SFH03205-3.8	32	5	3.175	50	80	9	12	37	65	62	9	M6	3.8x1	1839	6026	51
SFH03210-3.8	31	10	3.969	50	80	9	12	57	65	62	9	M6	3.8x1	2460	7255	55
SFH03220-2.8		20	3.969	50	80	9	12	76	65	62	9	M6	2.8x1	1907	5482	43
SFH03232-1.8		32	3.969	50	80	9	12	80	65	62	9	M6	1.8x1	1257	3426	27
SFH03232-2.8		32	3.969	50	80	9	12	112	65	62	9	M6	2.8x1	1838	5329	42
SFH04005-3.8	40	5	3.175	63	93	9	15	42	78	70	9	M8	3.8x1	2018	7589	60
SFH04010-3.8	38	10	6.35	63	93	9	14	60	78	70	9	M8	3.8x1	5035	13943	67
SFH04020-2.8		20	6.35	63	93	9	14	80	78	70	9	M8	2.8x1	3959	10715	54
SFH04040-1.8		40	6.35	63	93	9	14	98	78	70	9	M8	1.8x1	2585	6648	34
SFH04040-2.8		40	6.35	63	93	9	14	138	78	70	9	M8	2.8x1	3780	10341	52
SFH05005-3.8	50	5	3.175	75	110	10.5	15	42	93	85	11	M8	3.8x1	2207	9542	68
SFH05010-3.8	48	10	6.35	75	110	10.5	18	60	93	85	11	M8	3.8x1	5638	17852	79
SFH05020-3.8		20	6.35	75	110	10.5	18	100	93	85	11	M8	3.8x1	5749	18485	87
SFH05050-1.8		50	6.35	75	110	10.5	18	120	93	85	11	M8	1.8x1	2946	8749	42
SFH05050-2.8		50	6.35	75	110	10.5	18	170	93	85	11	M8	2.8x1	4308	13610	65

* ★ Actuator type available (SFNH series).

SFA (DIN 69051 FORM B) Series Specifications



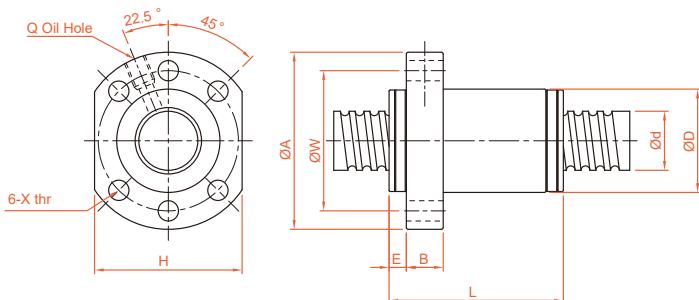
Unit : mm

Model No.	d	I	Da	Dimension										Load Rating		K kgf/ μ m
				D	A	E	B	L	W	H	X	Q	n	Ca (kgf)	Coa (kgf)	
SFA1205-2.8*	12	5	2.5	24	40	5	10	30	32	30	4.5		2.8×1	661	1316	19
SFA1210-2.8*		10	2.5	24	40	5	10	42	32	30	4.5		2.8×1	642	1287	19
SFA1605-3.8*	15	5	2.778	28	48	5	10	31	38	40	5.5	M6	3.8×1	1112	2507	30
SFA1610-2.8*		10	2.778	28	48	5	10	42	38	40	5.5	M6	2.8×1	839	1821	23
SFA1616-1.8*	16	2.778	28	48	5	10	43	38	40	5.5	M6	1.8×1	552	1137	14	
SFA1616-2.8*		16	2.778	28	48	5	10	59	38	40	5.5	M6	2.8×1	808	1769	22
SFA1620-1.8*	20	2.778	28	48	5	10	50	38	40	5.5	M6	1.8×1	554	1170	14	
SFA1630-1.8*		30	2.778	28	48	7	10	70	38	40	5.5	M6	1.8×1	534	1195	14
SFA2005-3.8*	20	5	3.175	36	58	7	10	33	47	44	6.6	M6	3.8×1	1484	3681	37
SFA2010-3.8*		10	3.175	36	58	7	10	52	47	44	6.6	M6	3.8×1	1516	3833	40
SFA2020-1.8*	20	3.175	36	58	7	10	52	47	44	6.6	M6	1.8×1	764	1758	19	
SFA2020-2.8*		20	3.175	36	58	7	10	72	47	44	6.6	M6	2.8×1	1118	2734	29
SFA2505-3.8*	25	5	3.175	40	62	7	10	33	51	48	6.6	M6	3.8×1	1650	4658	43
SFA2510-3.8*		10	3.175	40	62	7	12	52	51	48	6.6	M6	3.8×1	1638	4633	45
SFA2525-1.8*	25	3.175	40	62	7	12	60	51	48	6.6	M6	1.8×1	843	2199	22	
SFA2525-2.8*		25	3.175	40	62	7	12	85	51	48	6.6	M6	2.8×1	1232	3421	34
SFA3205-3.8	32	5	3.175	50	80	9	12	35	65	62	9	M6	3.8×1	1839	6026	51
SFA3210-3.8		10	3.969	50	80	9	12	53	65	62	9	M6	3.8×1	2460	7255	55
SFA3220-2.8	31	20	3.969	50	80	9	12	72	65	62	9	M6	2.8×1	1907	5482	43
SFA3232-1.8		32	3.969	50	80	9	12	78	65	62	9	M6	1.8×1	1257	3426	27
SFA3232-2.8		32	3.969	50	80	9	12	110	65	62	9	M6	2.8×1	1838	5329	42
SFA4005-3.8	40	5	3.175	63	93	9	14	39	78	70	9	M8	3.8×1	2018	7589	60
SFA4010-3.8		10	6.35	63	93	9	14	57	78	70	9	M8	3.8×1	5035	13943	67
SFA4020-2.8	38	20	6.35	63	93	9	14	78	78	70	9	M8	2.8×1	3959	10715	54
SFA4040-1.8		40	6.35	63	93	9	14	96	78	70	9	M8	1.8×1	2585	6648	34
SFA4040-2.8	48	40	6.35	63	93	9	14	136	78	70	9	M8	2.8×1	3780	10341	52
SFA5005-3.8		50	5	3.175	75	110	10.5	15	42	93	85	11	M8	3.8×1	2207	9542
SFA5010-3.8	48	10	6.35	75	110	10.5	18	57	93	85	11	M8	3.8×1	5638	17852	79
SFA5020-3.8		20	6.35	75	110	10.5	18	98	93	85	11	M8	3.8×1	5749	18485	87
SFA5050-1.8	48	50	6.35	75	110	10.5	18	117	93	85	11	M8	1.8×1	2946	8749	42
SFA5050-2.8		50	6.35	75	110	10.5	18	167	93	85	11	M8	2.8×1	4308	13610	65

※ ★ Actuator type available.

2-2 Precision Ground Ball Screw Series

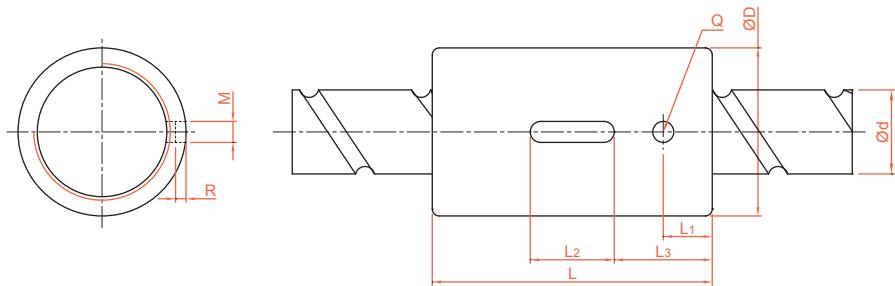
SFJ (DIN 69051 FORM B) Series Specifications



単位: mm

Model No.	d	l	Da	Dimension									Load Rating		K kgf/ μm	
				D	A	E	B	L	W	H	X	Q	n	Ca (kgf)	Coa (kgf)	
SFJ00606-1.8	6	6	1.2	14	27	3	4	21	21	16	3.4	-	1.8x1	78	122	4
SFJ00808-1.8	8	8	1.2	18	31	3	4	26	25	20	3.4	-	1.8x1	89	164	5
SFJ01205-2.8	12	5	2.5	24	40	3.5	10	31	32	30	4.5	-	2.8x1	418	753	12
		10		24	40	4.7	10	48.5	32	30	4.5	-	2.8x1	405	752	12
SFJ01605-3.8		5	2.778	28	48	4	10	38	38	40	5.5	M6x1	3.8x1	706	1472	20
SFJ01610-2.8		10		28	48	4.7	10	48	38	40	5.5	M6x1	2.8x1	532	1082	15
SFJ01616-1.8		16		28	48	4	10	45.5	38	40	5.5	M6x1	1.8x1	364	693	10
SFJ01620-1.8		20		28	48	4.7	10	56.5	38	40	5.5	M6x1	1.8x1	351	696	10
SFJ02005-3.8		5	3.175	36	58	6	10	40	47	44	6.6	M6x1	3.8x1	975	2293	25
SFJ02010-3.8		10		36	58	4	10	57	47	44	6.6	M6x1	3.8x1	996	2302	27
SFJ02020-1.8		20		36	58	4	10	57	47	44	6.6	M6x1	1.8x1	503	1056	12
SFJ02505-3.8		5	3.175	40	62	6	10	40	51	48	6.6	M6x1	3.8x1	1084	2879	30
SFJ02510-3.8		10		40	62	5.5	12	62	51	48	6.6	M6x1	3.8x1	1076	2863	31
SFJ02525-1.8		25		40	62	6	12	70	51	48	6.6	M6x1	1.8x1	554	1351	15

SCNH Series Specifications

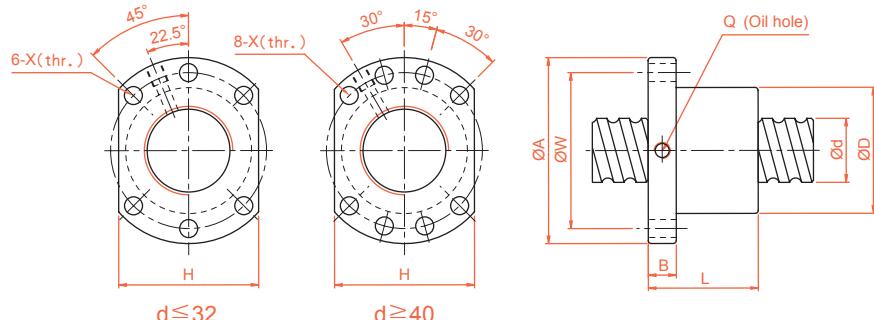


Unit : mm

Model No.	d	I	Da	Dimension									Load Rating		K kgf/ μ m
				D	L	L1	L2	L3	M	R	Q	n	Ca (kgf)	Coa (kgf)	
SCNH01205-4.8	12	5	2.5	24	40	7	12	14	3	1.5	3	4.8x1	1011	2105	34
SCNH01210-2.8		10	2.5	24	45	8	15	15	3	1.5	3	2.8x1	642	1287	19
XCNH01210-1.8		10	2.5	24	40	10.5	12	14	3	1.5	3	1.8x1	439	827	33
SCNH01605-5.8	15	5	2.778	28	45	7	20	12.5	5	3	3	5.8x1	1599	3827	49
SCNH01610-2.8		10	2.778	28	45	7	20	12.5	5	3	3	2.8x1	839	1821	23
SCNH01616-1.8		16	2.778	28	45	7	20	12.5	5	3	3	1.8x1	552	1137	18
SCNH01620-1.8		20	2.778	28	58	10	20	19	5	3	3	1.8x1	554	1170	14
SCNH02005-5.8	20	5	3.175	36	47	8	20	13.5	5	3	3	5.8x1	2134	5619	60
SCNH02010-3.8		10	3.175	36	55	8	20	17.5	5	3	3	3.8x1	1516	3833	40
SCNH02020-1.8		20	3.175	36	55	8	20	17.5	5	3	3	1.8x1	764	1758	19

2-2 Precision Ground Ball Screw Series

SFNU/SFU (DIN 69051 FORM B) Series Specifications

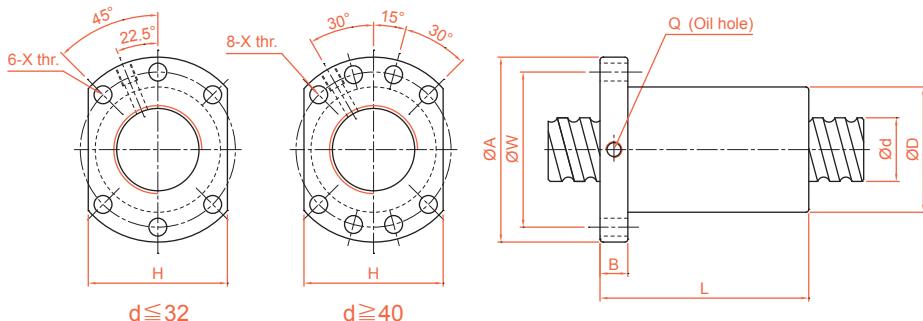


Unit : mm

Model No.	d	I	Da	Dimension								Load Rating		K kgf/μm	
				D	A	B	L	W	H	X	Q	n	Ca (kgf)	Coa (kgf)	
SFNU01605-4*	16	5	3.175	28	48	10	45	38	40	5.5	M6	1x4	1380	3052	32
SFNU01610-3*		10	3.175	28	48	10	57	38	40	5.5	M6	1x3	1103	2401	26
SFNU02005-4*	20	5	3.175	36	58	10	51	47	44	6.6	M6	1x4	1551	3875	39
SFNU02505-4*	25	5	3.175	40	62	10	51	51	48	6.6	M6	1x4	1724	4904	45
SFNU02510-4*		10	4.762	40	62	12	80	51	48	6.6	M6	1x4	2954	7295	50
SFNU03205-4*	32	5	3.175	50	80	12	52	65	62	9	M6	1x4	1922	6343	54
SFNU03210-4*		10	6.35	50	80	12	85	65	62	9	M6	1x4	4805	12208	61
SFNU04005-4*	40	5	3.175	63	93	14	55	78	70	9	M8	1x4	2110	7988	63
SFNU04010-4*		10	6.35	63	93	14	88	78	70	9	M8	1x4	5399	15500	73
SFNU05010-4*	50	10	6.35	75	110	16	88	93	85	11	M8	1x4	6004	19614	85
SFNU05020-4	50	20	7.144	75	110	16	138	93	85	11	M8	1x4	7142	22588	94
SFNU06310-4	63	10	6.35	90	125	18	93	108	95	11	M8	1x4	6719	25358	99
SFNU06320-4	63	20	9.525	95	135	20	149	115	100	13.5	M8	1x4	11444	36653	112
SFNU08010-4	80	10	6.35	105	145	20	93	125	110	13.5	M8	1x4	7346	31953	109
SFNU08020-4	80	20	9.525	125	165	25	154	145	130	13.5	M8	1x4	12911	47747	138
SFU01204-4	12	4	2.5	24	40	10	40	32	30	4.5		1x4	902	1884	26
SFU01604-4	16	4	2.381	28	48	10	40	38	40	5.5	M6	1x4	973	2406	32
SFU02004-4	20	4	2.381	36	58	10	42	47	44	6.6	M6	1x4	1066	2987	38
SFU02504-4	25	4	2.381	40	62	10	42	51	48	6.6	M6	1x4	1180	3795	43
SFU02506-4		6	3.969	40	62	10	54	51	48	6.6	M6	1x4	2318	6057	47
SFU02508-4		8	4.762	40	62	10	63	51	48	6.6	M6	1x4	2963	7313	49
SFU03204-4	32	4	2.381	50	80	12	44	65	62	9	M6	1x4	1296	4838	51
SFU03206-4		6	3.969	50	80	12	57	65	62	9	M6	1x4	2632	7979	57
SFU03208-4		8	4.762	50	80	12	65	65	62	9	M6	1x4	3387	9622	60
SFU04006-4	40	6	3.969	63	93	14	60	78	70	9	M6	1x4	2873	9913	66
SFU04008-4		8	4.762	63	93	14	67	78	70	9	M6	1x4	3712	11947	70
SFU10020-4	100	20	9.525	150	202	30	180	170	155	17.5	M8	1x4	14303	60698	162

※ ☆ Left helix available ※ Standard ball nut SFU01204-4 is assembled without wiper

OFU (DIN 69051 FORM B) Series Specifications

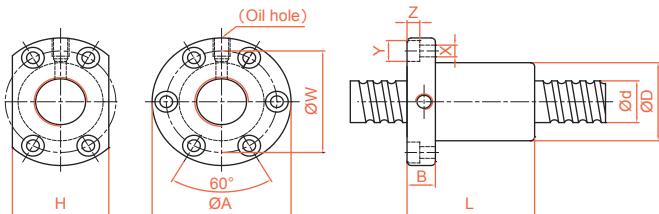


Unit : mm

Model No.	d	I	Da	Dimension								Load Rating		K kgf/ μ m	
				D	A	B	L	W	H	X	Q	n	Ca (kgf)	Coa (kgf)	
OFU01605-4	16	5	3.175	28	48	10	75	38	40	5.5	M6	1x4	1380	3052	44
OFU02005-4	20	5	3.175	36	58	10	85	47	44	6.6	M6	1x4	1551	3875	53
OFU02505-4	25	5	3.175	40	62	10	86	51	48	6.6	M6	1x4	1724	4904	62
OFU02510-4	25	10	4.762	40	62	12	130	51	48	6.6	M6	1x4	2954	7295	67
OFU03205-4		5	3.175	50	80	12	87	65	62	9	M6	1x4	1922	6343	74
OFU03210-4	32	10	6.35	50	80	12	145	65	62	9	M6	1x4	4805	12208	82
OFU04005-4		5	3.175	63	93	14	90	78	70	9	M8	1x4	2110	7988	87
OFU04010-4	40	10	6.35	63	93	14	148	78	70	9	M8	1x4	5399	15500	99
OFU05010-4		50	10	6.35	75	110	16	148	93	85	11	M8	1x4	6004	19614
OFU06310-4	63	10	6.35	90	125	18	153	108	95	11	M8	1x4	6719	25358	139
OFU08010-4	80	10	6.35	105	145	20	153	125	110	13.5	M8	1x4	7346	31953	156

2-2 Precision Ground Ball Screw Series

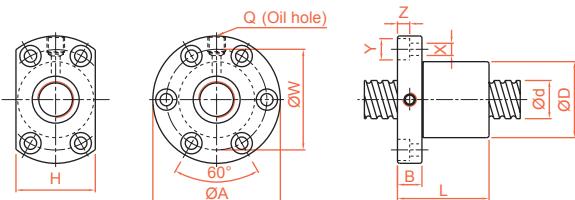
SFNI/SFI Series Specifications



Unit : mm

Model No.	d	I	Da	Dimension										Load Rating		K kgf/ μ m	
				D	A	B	L	W	H	X	Y	Z	Q	n	Ca (kgf)	Coa (kgf)	
SFNI01605-4*	16	5	3.175	30	49	10	45	39	34	4.5	8	4.5	M6	1x4	1380	3052	33
SFNI01610-3*		10	3.175	34	58	10	57	45	34	5.5	9.5	5.5	M6	1x3	1103	2401	27
SFNI02005-4*	20	5	3.175	34	57	11	51	45	40	5.5	9.5	5.5	M6	1x4	1551	3875	39
SFNI02505-4*		5	3.175	40	63	11	51	51	46	5.5	9.5	5.5	M8	1x4	1724	4904	45
SFNI02510-4*	25	10	4.762	46	72	12	80	58	52	6.5	11	6.5	M6	1x4	2954	7295	51
SFNI03205-4*		5	3.175	46	72	12	52	58	52	6.5	11	6.5	M8	1x4	1922	6343	52
SFNI03210-4*	32	10	6.35	54	88	15	85	70	62	9	14	8.5	M8	1x4	4805	12208	62
SFNI04005-4*		5	3.175	56	90	15	55	72	64	9	14	8.5	M8	1x4	2110	7988	59
SFNI04010-4*	40	10	6.35	62	104	18	88	82	70	11	17.5	11	M8	1x4	5399	15500	72
SFNI05010-4*		50	10	6.35	72	114	18	88	92	82	11	17.5	11	M8	1x4	6004	19614
SFNI06310-4	63	10	6.35	85	131	22	93	107	95	14	20	13	M8	1x4	6719	25358	95
SFNI08010-4	80	10	6.35	105	150	22	93	127	115	14	20	13	M8	1x4	7346	31953	109
SFI01604-4	16	4	2.381	30	49	10	45	39	34	4.5	8	4.5	M6	1x4	973	2406	32
SFI02004-4	20	4	2.381	34	57	11	46	45	40	5.5	9.5	5.5	M6	1x4	1066	2987	37
SFI0205T-4		5.08	3.175	34	57	11	51	45	40	5.5	9.5	5.5	M6	1x4	1550	3875	39
SFI02504-4*	25	4	2.381	40	63	11	46	51	46	5.5	9.5	5.5	M6	1x4	1180	3795	43
SFI0255T-4		5.08	3.175	40	63	11	51	51	46	5.5	9.5	5.5	M8	1x4	1724	4903	45
SFI03204-4	32	4	2.381	46	72	12	47	58	52	6.5	11	6.5	M6	1x4	1296	4838	49

SFM Series Specifications

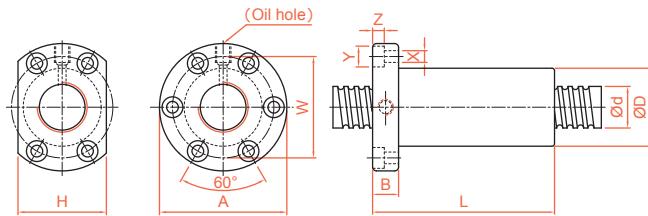


Unit : mm

Model No.	d	I	Da	Dimension										Load Rating		K kgf/ μ m	
				D	A	B	L	W	H	X	Y	Z	Q	n	Ca (kgf)	Coa (kgf)	
SFM03205-4*	32	5	3.175	48	74	12	52	60	60	6.5	11	6.5	M8	1x4	1922	6343	53
SFM0325T-4*		5.08	3.175	48	74	12	53	60	60	6.5	11	6.5	M8	1x4	1922	6343	53

* ☆ Left helix available

OFI Series Specifications

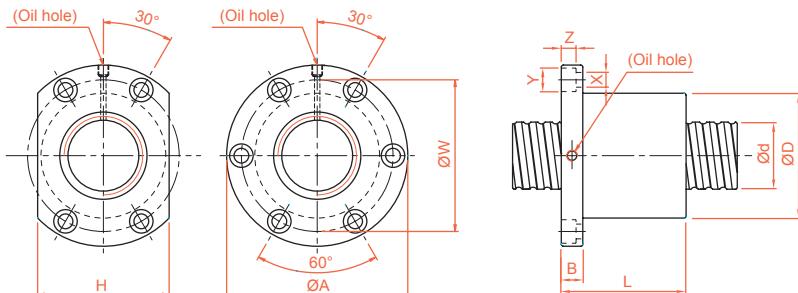


Unit : mm

ModelNo.	d	I	Da	Dimension										Load Rating		K kgf/ μ m	
				D	A	B	L	W	H	X	Y	Z	Q	n	Ca (kgf)	Coa (kgf)	
OFI01605-4	16	5	3.175	30	49	10	75	39	34	4.5	8	4.5	M6	1x4	1380	3052	44
OFI02005-4	20	5	3.175	34	57	11	85	45	40	5.5	9.5	5.5	M6	1x4	1551	3875	52
OFI02505-4	25	5	3.175	40	63	11	86	51	46	5.5	9.5	5.5	M8	1x4	1724	4904	62
OFI02510-4		10	4.762	46	72	12	130	58	52	6.5	11	6.5	M6	1x4	2954	7295	68
OFI03205-4	32	5	3.175	46	72	12	87	58	52	6.5	11	6.5	M8	1x4	1922	6343	72
OFI03210-4		10	6.35	54	88	15	145	70	62	9	14	8.5	M8	1x4	4805	12208	83
OFI04005-4	40	5	3.175	56	90	15	90	72	64	9	14	8.5	M8	1x4	2110	7988	84
OFI04010-4		10	6.35	62	104	18	148	82	70	11	17.5	11	M8	1x4	5399	15500	99
OFI05010-4	50	10	6.35	72	114	18	148	92	82	11	17.5	11	M8	1x4	6004	19614	115
OFI06310-4	63	10	6.35	85	131	22	153	107	95	14	20	13	M8	1x4	6719	25358	135
OFI08010-4	80	10	6.35	105	150	22	153	127	115	14	20	13	M8	1x4	7346	31953	156

2-2 Precision Ground Ball Screw Series

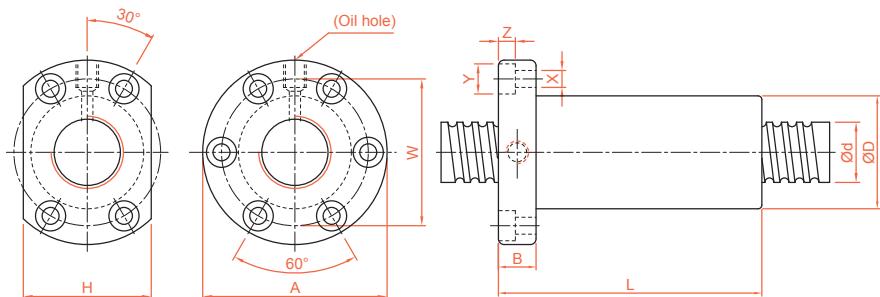
SFV Series Specifications



Unit : mm

Model No.	d	I	Da	Dimension										Load Rating	K kgf/ μ m	
				D	A	B	L	W	H	X	Y	Z	Q	n	Ca (kgf)	Coa (kgf)
SFV01205-2.8	12	5	2.5	30	50	10	42	40	32	4.5	8	4.5	M6	2.8x1	661	1316
SFV01210-2.7		10	2.5	30	50	10	53	40	32	4.5	8	4.5	M6	2.7x1	623	1241
SFV01510-2.7	15	10	3.175	34	58	10	57	45	34	5.5	9.5	5.5	M6	2.7x1	972	2020
SFV01604-3.8		4	2.381	34	57	11	45	45	34	5.5	9.5	5.5	M6	3.8x1	931	2285
SFV01605-4.8	16	5	3.175	40	63	11	58	51	42	5.5	9.5	5.5	M6	4.8x1	1614	3662
SFV01610-2.7		10	3.175	40	63	11	56	51	42	5.5	9.5	5.5	M6	2.7x1	1008	2161
SFV02004-4.8		4	2.381	40	60	10	50	50	40	4.5	8	4	M6	4.8x1	1247	3584
SFV02005-4.8	20	5	3.175	44	67	11	57	55	52	5.5	9.5	5.5	M6	4.8x1	1814	4650
SFV02010-2.7		10	3.969	46	74	13	57	59	46	6.6	11	6.5	M6	2.7x1	1518	3398
SFV02020-1.8		20	3.175	46	74	13	70	59	46	6.6	11	6.5	M6	1.8x1	764	1758
SFV02505-4.8		5	3.175	50	73	11	55	61	52	5.5	9.5	5.5	M8	4.8x1	2017	5884
SFV02506-4.8		6	3.969	53	76	11	62	64	58	5.5	9.5	5.5	M6	4.8x1	2711	7268
SFV02508-4.8	25	8	4.762	56	85	13	70	71	64	6.5	11	6.5	M6	4.8x1	3466	8776
SFV02510-2.7		10	6.35	68	102	15	70	84	82	9	14	8.5	M8	2.7x1	3040	6547
SFV02525-1.8		25	3.175	50	73	13	83	61	52	5.5	9.5	5.5	M8	1.8x1	843	2199
SFV03204-4.8		4	2.381	54	81	12	50	67	64	6.6	11	6.5	M6	4.8x1	1517	5806
SFV03205-4.8		5	3.175	58	85	12	56	71	64	6.6	11	6.5	M8	4.8x1	2249	7612
SFV03206-4.8	32	6	3.969	62	89	12	60	75	68	6.6	11	6.5	M8	4.8x1	3079	9575
SFV03208-4.8		8	4.762	66	100	15	75	82	76	9	14	8.5	M8	4.8x1	3962	11547
SFV03210-4.8		10	6.35	74	108	15	96	90	82	9	14	9	M8	4.8x1	5620	14649
SFV03220-2.7		20	6.35	74	108	16	100	90	82	9	14	8.5	M8	2.7x1	3509	8644
SFV04005-4.8		5	3.175	67	101	15	59	83	72	9	14	8.5	M8	4.8x1	2468	9586
SFV04010-4.8	40	10	6.35	82	124	18	100	102	94	11	17.5	11	M8	4.8x1	6316	18600
SFV04020-2.7		20	6.35	82	124	18	100	102	90	11	17.5	11	M8	2.7x1	3935	10893
SFV05005-4.8		5	3.175	80	114	15	60	96	82	9	14	8.5	M8	4.8x1	2698	12053
SFV05010-4.8	50	10	6.35	93	135	16	93	113	98	11	17.5	11	M8	4.8x1	7023	23537
SFV05020-2.7		20	9.525	105	152	28	121	128	110	14	20	13	M8	2.7x1	7336	19700
SFV06310-4.8	63	10	6.35	108	154	22	105	130	110	14	20	13	M8	4.8x1	7860	30430
SFV06320-2.7		20	9.525	122	180	28	120	150	130	18	26	17.5	M8	2.7x1	8162	24741
SFV08010-4.8		10	6.35	130	176	22	105	152	132	14	20	13	M8	4.8x1	8593	38344
SFV08020-4.8	80	20	9.525	143	204	28	180	172	148	18	26	18	M8	4.8x1	15103	57296
SFV08020-7.6		20	9.525	143	204	28	240	172	148	18	26	18	M8	3.8x2	22423	90719

OFV Series Specifications

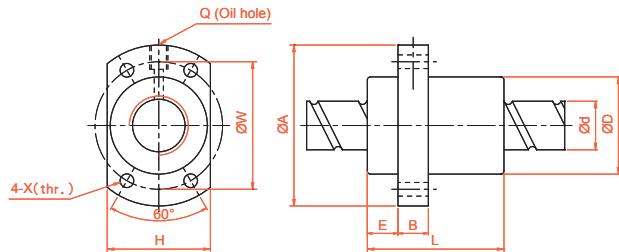


Unit : mm

Model No.	d	I	Da	Dimension										Load Rating		K kgf/ μ m	
				D	A	B	L	W	H	X	Y	Z	Q	n	Ca (kgf)	Coa (kgf)	
OFV01605-4.8	16	5	3.175	40	63	11	100	51	42	5.5	9.5	5.5	M6	4.8x1	1614	3662	53
OFV02005-4.8	20	5	3.175	44	67	11	102.5	55	52	5.5	9.5	5.5	M6	4.8x1	1814	4650	63
OFV02505-4.8	25	5	3.175	50	73	11	96	61	52	5.5	9.5	5.5	M8	4.8x1	2017	5884	75
OFV03205-4.8	32	5	3.175	58	85	12	98	71	64	6.6	11	6.5	M8	4.8x1	2249	7612	90
OFV03210-4.8		10	6.35	74	108	15	166	90	82	9	14	9	M8	4.8x1	5620	14649	101
OFV04005-4.8	40	5	3.175	67	101	15	100	83	72	9	14	8.5	M8	4.8x1	2468	9586	105
OFV04010-4.8		10	6.35	82	124	18	174	102	94	11	17.5	11	M8	4.8x1	6316	18600	121
OFV05010-4.8	50	10	6.35	93	135	16	167	113	98	11	17.5	11	M8	4.8x1	7023	23537	144
OFV06310-4.8	63	10	6.35	108	154	22	177	130	110	14	20	13	M8	4.8x1	7860	30430	172
OFV08010-4.8	80	10	6.35	130	176	22	178	152	132	14	20	13	M8	4.8x1	8593	38344	201

2-2 Precision Ground Ball Screw Series

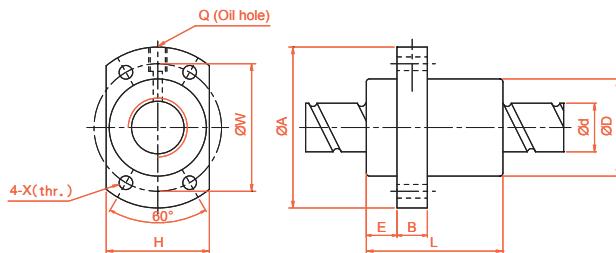
SFY Series Specifications



Unit : mm

Large Lead Model No.	d	l	Da	Dimension									Load Rating		K kgf/ μ m	
				D	A	E	B	L	W	H	X	Q	n	Ca (kgf)	Coa (kgf)	
SFY01616-3.6	16	16	2.778	32	53	10.1	10	45	42	34	4.5	M6	1.8x2	1073	2551	31
SFY01616-5.6		16	2.778	32	53	10.1	10	61	42	34	4.5	M6	2.8x2	1568	3968	47
SFY02020-3.6	20	20	3.175	39	62	13	10	52	50	41	5.5	M6	1.8x2	1387	3515	37
SFY02020-5.6		20	3.175	39	62	13	10	72	50	41	5.5	M6	2.8x2	2029	5468	56
SFY02525-3.6	25	25	3.969	47	74	15	12	64	60	49	6.6	M6	1.8x2	2074	5494	45
SFY02525-5.6		25	3.969	47	74	15	12	89	60	49	6.6	M6	2.8x2	3032	8546	69
SFY03232-3.6	32	32	4.762	58	92	17	12	78	74	60	9	M6	1.8x2	3021	8690	58
SFY03232-5.6		32	4.762	58	92	17	12	110	74	60	9	M6	2.8x2	4417	13517	88
SFY04040-3.6	40	40	6.35	73	114	19.5	15	99	93	75	11	M6	1.8x2	4831	14062	70
SFY04040-5.6		40	6.35	73	114	19.5	15	139	93	75	11	M6	2.8x2	7065	21874	106
SFY05050-3.6	50	50	7.938	90	135	21.5	20	117	112	92	14	M6	1.8x2	7220	21974	86
SFY05050-5.6		50	7.938	90	135	21.5	20	167	112	92	14	M6	2.8x2	10558	34182	131
Twin Lead Model No.	d	l	Da	Dimension									Ca (kgf)	Coa (kgf)	K kgf/ μ m	
				D	A	E	B	L	W	H	X	Q	n			
SFY01632-1.6	16	32	2.778	32	53	10.1	10	42.5	42	34	4.5	M6	0.8x2	493	1116	11
SFY01632-3.6		32	2.778	32	53	10.1	10	74.5	42	34	4.5	M6	1.8x2	989	2511	23
SFY02040-1.6	20	40	3.175	39	62	13	10	48	50	41	5.5	M6	0.8x2	653	1597	15
SFY02040-3.6		40	3.175	39	62	13	10	88	50	41	5.5	M6	1.8x2	1311	3592	30
SFY02550-1.6	25	50	3.969	47	74	15	12	58	60	49	6.6	M6	0.8x2	976	2495	19
SFY02550-3.6		50	3.969	47	74	15	12	108	60	49	6.6	M6	1.8x2	1960	5614	32
SFY03264-1.6	32	64	4.762	58	92	17	12	71	74	60	9	M6	0.8x2	1374	3571	22
SFY03264-3.6		64	4.762	58	92	17	12	135	74	60	9	M6	1.8x2	2759	8441	46
SFY04080-1.6	40	80	6.35	73	114	19.5	15	90	93	75	11	M6	0.8x2	2273	6387	29
SFY04080-3.6		80	6.35	73	114	19.5	15	170	93	75	11	M6	1.8x2	4566	14370	50
SFY050100-1.6	50	100	7.938	90	135	21.5	20	111	112	92	14	M6	0.8x2	3398	9980	35
SFY050100-3.6		100	7.938	90	135	21.5	20	211	112	92	14	M6	1.8x2	6824	22455	72

SFYA Series Specifications

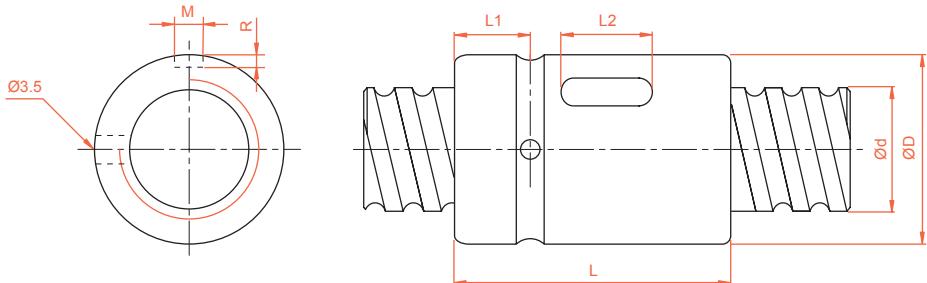


單位: mm

Large Lead Model No.	d	I	Da	Dimension									Load Rating		K kgf/ μ m	
				D	A	E	B	L	W	H	X	Q	n	Ca (kgf)	Coa (kgf)	
SFYA01616-3.6	16	16	2.778	32	53	10.1	10	45	42	34	4.5	M6	1.8*2	1073	2551	31
SFYA02020-3.6	20	20	3.175	39	62	13	10	52	50	41	5.5	M6	1.8*2	1387	3515	37
SFYA02525-3.6	25	25	3.969	47	74	15	12	64	60	49	6.6	M6	1.8*2	2074	5494	45
SFYA03232-3.6	32	32	4.762	58	92	17	12	78	74	60	9	M6	1.8*2	3021	8690	58
SFYA04040-3.6	40	40	6.35	73	114	19.5	15	99	93	75	11	M6	1.8*2	4831	14062	70
SFYA05050-3.6	50	50	7.938	90	135	21.5	20	117	112	92	14	M6	1.8*2	7220	21974	86
Twin Lead Model No.	d	I	Da	Dimension									Ca (kgf)	Coa (kgf)	K kgf/ μ m	
				D	A	E	B	L	W	H	X	Q	n			
SFYA01632-1.6	16	32	2.778	32	53	10.1	10	42.5	42	34	4.5	M6	0.8*2	493	1116	11
SFYA02040-1.6	20	40	3.175	39	62	13	10	48	50	41	5.5	M6	0.8*2	653	1597	15
SFYA02550-1.6	25	50	3.969	47	74	15	12	58	60	49	6.6	M6	0.8*2	976	2495	19
SFYA03264-1.6	32	64	4.762	58	92	17	12	71	74	60	9	M6	0.8*2	1374	3571	22
SFYA04080-1.6	40	80	6.35	73	114	19.5	15	90	93	75	11	M6	0.8*2	2273	6387	29
SFYA050100-1.6	50	100	7.938	90	135	21.5	20	111	112	92	14	M6	0.8*2	3398	9980	35

2-2 Precision Ground Ball Screw Series

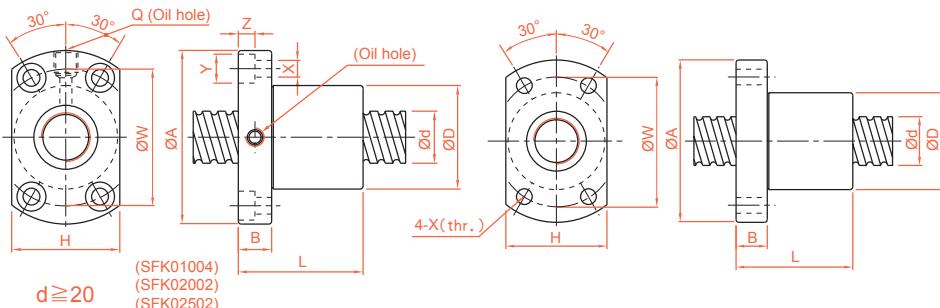
SCNI/SCI Series Specifications



Unit : mm

Model No.	d	I	Da	Dimension							Load Rating		K kgf/ μ m
				D	L	L1	L2	M	R	n	Ca (kgf)	Coa (kgf)	
SCNI 01605-4	16	5	3.175	30	45	9	20	5	3	1x4	1380	3052	33
SCNI 02005-4	20	5	3.175	34	45	9	20	5	3	1x4	1551	3875	39
SCNI 02505-4	25	5	3.175	40	45	9	20	5	3	1x4	1724	4904	45
SCNI 02510-4		10	4.762	46	85	13	30	5	3	1x4	2954	7295	51
SCNI 03205-4	32	5	3.175	46	45	9	20	5	3	1x4	1922	6343	52
SCNI 03210-4		10	6.35	54	85	13	30	5	3	1x4	4805	12208	62
SCNI 04005-4	40	5	3.175	56	45	9	20	5	3	1x4	2110	7988	59
SCNI 04010-4		10	6.35	62	85	13	30	5	3	1x4	5399	15500	72
SCNI 05010-4	50	10	6.35	72	85	13	30	5	3	1x4	6004	19614	83
SCNI 06310-4	63	10	6.35	85	85	13	30	6	3.5	1x4	6719	25358	95
SCNI 08010-4	80	10	6.35	105	85	13	30	8	4.5	1x4	7346	31953	109
SCI 01604-4	16	4	2.381	30	40	9	15	3	1.5	1x4	973	2406	32
SCI 02004-4	20	4	2.381	34	40	9	15	3	1.5	1x4	1066	2987	37
SCI 02504-4	25	4	2.381	40	40	9	15	3	1.5	1x4	1180	3795	43
SCI 03204-4	32	4	2.381	46	40	9	15	3	1.5	1x4	1296	4838	49

SFK Series Specifications



Unit : mm

Model No.	d	I	Da	Dimension										Ca (kgf)	Coa (kgf)	K kgf/ μ m		
				D	A	B	L	W	H	X	Y	Z	Q					
SFK00401	4	1	0.8	10	20	3	12	15	14	2.9	-	-	-	1x2	64	97	5	
SFK00601	6	1	0.8	12	24	3.5	15	18	16	3.4	-	-	-	1x3	111	224	9	
SFK00801*		1	0.8	14	27	4	16	21	18	3.4	-	-	-	1x4	161	403	14	
SFK00802*	8	2	1.2	14	27	4	18	21	18	3.4	-	-	-	1x3	222	458	13	
SFK0082.5		2.5	1.2	16	29	4	26	23	20	3.4	-	-	-	1x3	221	457	13	
SFK01002*	10	2	1.2	18	35	5	28	27	22	4.5	-	-	-	1x3	243	569	15	
SFK01004		4	2	20	37	6	34	29	28	4.5	-	-	-	1x3	468	905	17	
SFK01202*	12	2	1.2	20	37	5	28	29	24	4.5	-	-	-	1x4	334	906	22	
SFK01205		5	2.5	22	37	8	39	29	24	4.5	-	-	-	1x3	702	1409	17	
SFK01402*	14	2	1.2	21	40	6	23	31	26	5.5	-	-	-	1x4	354	1053	24	
SFK01404		4	2.5	25	42	10	45	35	29	4.5	-	-	-	1x4	957	2155	16	
SFK01602*	16	2	1.2	25	42	10	40	35	29	5.5	-	-	-	M6x1	1x4	373	1200	26
SFK02002	20	2	1.2	50	80	15	55	65	68	6.5	10.5	6	M6x1	1x6	581	2284	48	
SFK02502	25	2	1.2	50	80	13	43	65	68	6.5	10.5	6	M6x1	1x5	540	2381	46	
XSFK01004	10	4	2	26	46	10	34	36	28	4.5	8	4.5	M6x1	1x3	468	905	17	
XSFK01404	14	4	2.5	26	46	10	45	36	28	4.5	8	4.5	M6x1	1x4	957	2145	16	

※ ★ Left helix available

※ Standard ball nut SFK00401 is without wiper, other type K standard ball nut is available for with or without wiper.

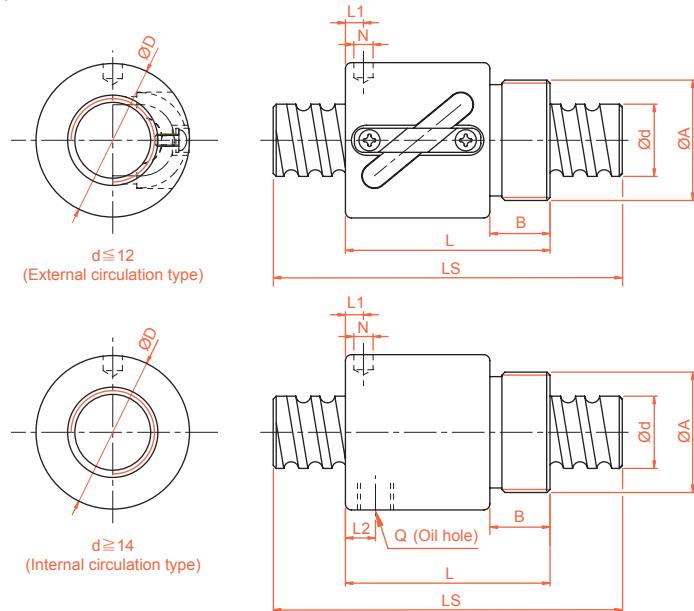
Unit : mm

Model No.	d	I	Da	Dimension										Ca (kgf)	Coa (kgf)	K kgf/ μ m	
				D	A	B	L	W	H	X	Y	Z	Q				
XSUR01204T3D-02	12	4	2.5	24	40	6	28	32	25	3.5	-	-	-	1x3	704	1413	-

※ Standard ball nut XSUR01204T3D-02 is assembled without wiper.

2-2 Precision Ground Ball Screw Series

BSH Series Specifications

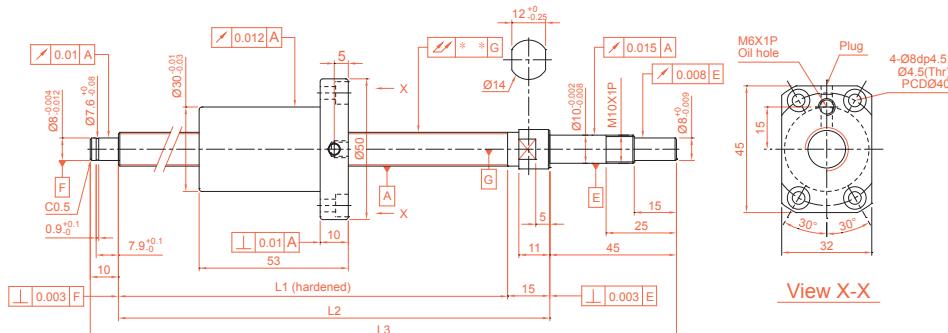


Unit : mm

Model No.	d	l	Da	Dimension									Ca (kgf)	Coa (kgf)	K kgf/ μ m
				D	A	B	L	L1	N	L2	Q	n			
BSHR0082.5-2.5	8	2.5	1.2	17.5	M15x1P	7.5	23.5	10	3	-	-	2.5x1	189	381	11
BSHR01002-3.5	10	2	1.2	19.5	M17x1P	7.5	22	3	3.2	-	-	3.5x1	277	664	17
BSHR01004-2.5		4	2	25	M20x1P	10	34	3	3	-	-	2.5x1	400	754	14
BSHR01204-3.5	12	4	2.5	25.5	M20x1P	10	34	13	3	-	-	3.5x1	804	1649	23
BSHR01205-3.5		5	2.5	25.5	M20x1P	10	39	16.25	3	-	-	3.5x1	801	1644	24
BSHR01404-3	14	4	2.5	32.1	M25x1.5P	10	35	11	3	-	-	1x3	748	1609	26
BSHR01604-3	16	4	2.381	29	M22x1.5P	8	32	4	3.2	-	-	1x3	759	1804	24
BSHR01605-3		5	3.175	32.5	M26x1.5P	12	42	19.25	3	-	-	1x3	1077	2289	25
BSHR01610-2		10	3.175	32	M26x1.5P	12	50	3	4	3	M4	1x2	779	1601	14
BSHR02005-3	20	5	3.175	38	M35x1.5P	15	45	20.3	3	-	-	1x3	1211	2906	30
BSHR02505-4	25	5	3.175	43	M40x1.5P	19	69	32.11	3	8	M6	1x4	1724	4904	37
BSHR02510-4		10	4.762	43	M40x1.5P	19	84	8	6	8	M6	1x4	2954	7295	41

※ Standard ball nut from $\phi 8$ ~ $\phi 16$ is assembled without wiper.

XSVR01210-01 Series Specifications (Finish Shaft Ends)



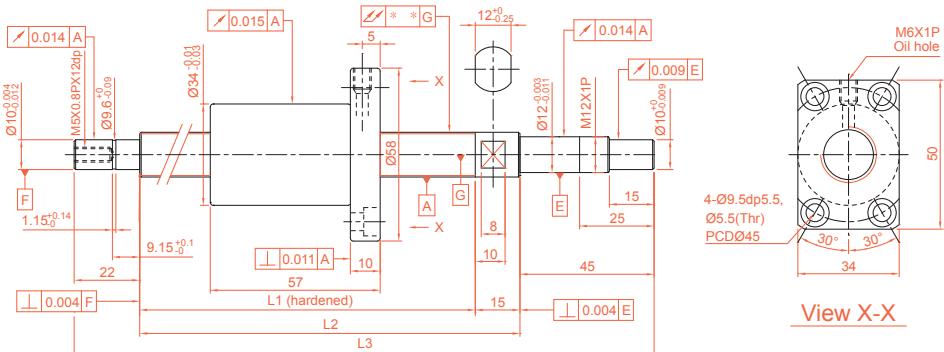
BCD	12.85
Ball Dia (mm)	2.5
Lead (mm)	10
No. of Turns	2.7x1
Lead Angle	13.91°
Threading Direction	R
Spring Force (kg)	0.1~0.2
Preload (kgf)	25
Dynamic Load Rating Ca (kgf)	411
Static Load Rating Coa (kgf)	638
Accuracy Grade	0.018

Unit : mm

Travel Length (mm)	Model No.	Shaft Length (mm)			Slant of Axle Center
		L1	L2	L3	
100	XSVR01210B1DGC5-230-P1	160	175	230	0.035
150	XSVR01210B1DGC5-280-P1	210	225	280	0.035
250	XSVR01210B1DGC5-380-P1	310	325	380	0.050
350	XSVR01210B1DGC5-480-P1	410	425	480	0.060
450	XSVR01210B1DGC5-580-P1	510	525	580	0.075

2-2 Precision Ground Ball Screw Series

XSVR01510-00 Series Specifications (Finish Shaft Ends)



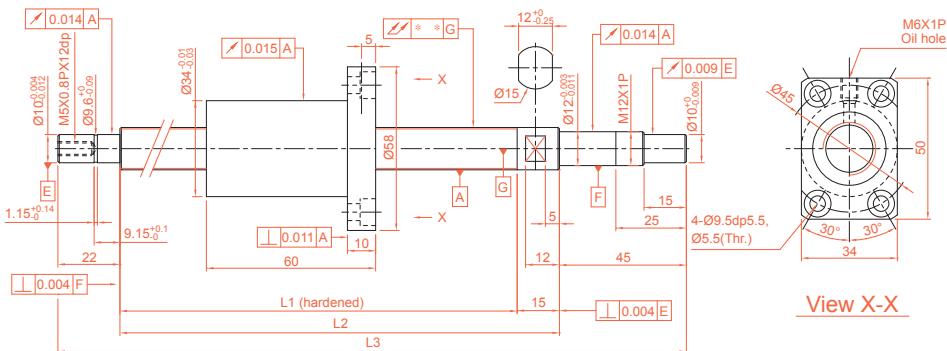
[View X-X](#)

BCD	15.5
Ball Dia (mm)	3.175
Lead (mm)	10
No. of Turns	2.7x1
Lead Angle	11.6°
Threading Direction	R
Spring Force (kg)	0.1~0.3
Preload (kgf)	38
Dynamic Load Rating Ca (kgf)	611
Static Load Rating Coa (kgf)	950
Accuracy Grade	0.018

Unit : mm

Travel Length (mm)	Model No.	Shaft Length (mm)			Slant of Axle Center
		L1	L2	L3	
100	XSVR01510B1DGC5-271-P1	189	204	271	0.025
150	XSVR01510B1DGC5-321-P1	239	254	321	0.035
200	XSVR01510B1DGC5-371-P1	289	304	371	0.035
250	XSVR01510B1DGC5-421-P1	339	354	421	0.040
300	XSVR01510B1DGC5-471-P1	389	404	471	0.040
350	XSVR01510B1DGC5-521-P1	439	454	521	0.050
400	XSVR01510B1DGC5-571-P1	489	504	571	0.050
450	XSVR01510B1DGC5-621-P1	539	554	621	0.050
500	XSVR01510B1DGC5-671-P1	589	604	671	0.065
550	XSVR01510B1DGC5-721-P1	639	654	721	0.065
600	XSVR01510B1DGC5-771-P1	689	704	771	0.065
700	XSVR01510B1DGC5-871-P1	789	804	871	0.085
800	XSVR01510B1DGC5-971-P1	889	904	971	0.085

XSVR01520-01 Series Specifications (Finish Shaft Ends)



BCD	15.5
Ball Dia (mm)	3.175
Lead (mm)	20
No. of Turns	1.8x1
Lead Angle	22.33°
Threading Direction	R
Spring Force (kg)	0.1~0.3
Preload (kgf)	38
Dynamic Load Rating Ca (kgf)	580
Static Load Rating Coa (kgf)	875
Accuracy Grade	0.018

Unit : mm

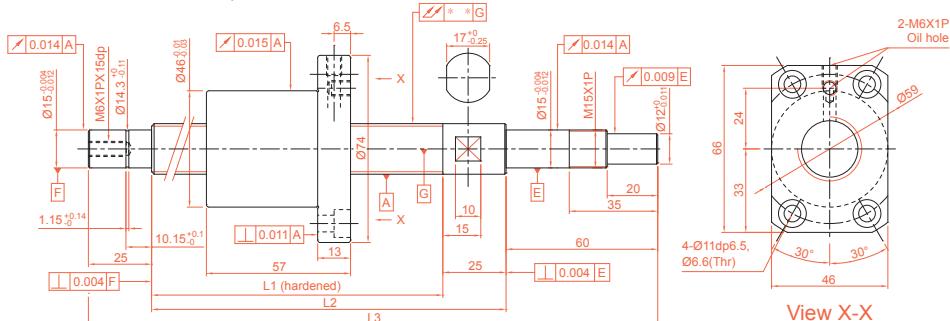
Travel Length (mm)	Model No.	Shaft Length (mm)			Slant of Axle Center
		L1	L2	L3	
100	XSVR01520A1DGC5-271-P1	189	204	271	0.025
150	XSVR01520A1DGC5-321-P1	239	254	321	0.035
200	XSVR01520A1DGC5-371-P1	289	304	371	0.035
250	XSVR01520A1DGC5-421-P1	339	354	421	0.040
300	XSVR01520A1DGC5-471-P1	389	404	471	0.040
350	XSVR01520A1DGC5-521-P1	439	454	521	0.050
400	XSVR01520A1DGC5-571-P1	489	504	571	0.050
450	XSVR01520A1DGC5-621-P1	539	554	621	0.050
500	XSVR01520A1DGC5-671-P1	589	604	671	0.065
550	XSVR01520A1DGC5-721-P1	639	654	721	0.065
600	XSVR01520A1DGC5-771-P1	689	704	771	0.065
700	XSVR01520A1DGC5-871-P1	789	804	871	0.085
800	XSVR01520A1DGC5-971-P1	889	904	971	0.085

C

Ball Screw

2-3 Rolled Ball Screw

XSVR02010-00 Series Specifications (Finish Shaft Ends)

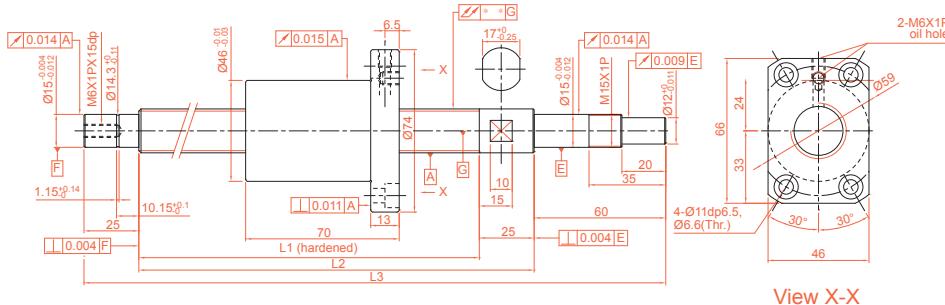


BCD	21.35
Ball Dia (mm)	3.969
Lead (mm)	10
No. of Turns	2.7x1
Lead Angle	8.48°
Threading Direction	R
Spring Force (kg)	0.1~0.3
Preload (kgf)	43
Dynamic Load Rating Ca (kgf)	977
Static Load Rating Coa (kgf)	1732
Accuracy Grade	0.018

Unit : mm

Travel Length (mm)	Model No.	Shaft Length (mm)			Slant of Axle Center
		L1	L2	L3	
200	XSVR02010B1DGC5-399-P1	289	314	399	0.035
300	XSVR02010B1DGC5-499-P1	389	414	499	0.040
400	XSVR02010B1DGC5-599-P1	489	514	599	0.050
500	XSVR02010B1DGC5-699-P1	589	614	699	0.065
600	XSVR02010B1DGC5-799-P1	689	714	799	0.065
700	XSVR02010B1DGC5-899-P1	789	814	899	0.085
800	XSVR02010B1DGC5-999-P1	889	914	999	0.085
900	XSVR02010B1DGC5-1099-P1	989	1014	1099	0.110
1000	XSVR02010B1DGC5-1199-P1	1089	1114	1199	0.110

XSVR02020-00 Series Specifications (Finish Shaft Ends)



View X-X

BCD	20.75
Ball Dia (mm)	3.175
Lead (mm)	20
No. of Turns	1.8x1
Lead Angle	17.05°
Threading Direction	R
Spring Force (kg)	0.1~0.3
Preload (kgf)	31
Dynamic Load Rating Ca (kgf)	649
Static Load Rating Coa (kgf)	1134
Accuracy Grade	0.018

Unit : mm

Travel Length (mm)	Model No.	Shaft Length (mm)			Slant of Axle Center
		L1	L2	L3	
200	XSVR02020A1DGC5-399-P1	289	314	399	0.035
300	XSVR02020A1DGC5-499-P1	389	414	499	0.040
400	XSVR02020A1DGC5-599-P1	489	514	599	0.050
500	XSVR02020A1DGC5-699-P1	589	614	699	0.065
600	XSVR02020A1DGC5-799-P1	689	714	799	0.065
700	XSVR02020A1DGC5-899-P1	789	814	899	0.085
800	XSVR02020A1DGC5-999-P1	889	914	999	0.085
900	XSVR02020A1DGC5-1099-P1	989	1014	1099	0.110
1000	XSVR02020A1DGC5-1199-P1	1089	1114	1199	0.110

2-3 Rolled Ball Screw

■ 2-3-1 Rolled Screws

Rolled screws are made through thread roller. Generally rolled screw has a smoother operation while lowering friction and backlash. Therefore, it gradually replaced the traditional ACME screws and trapezoidal screws. Moreover, rolled screws can eliminate axial play by preloading nut with a cost effective pricing compare to ground screw.

■ 2-3-2 The Features of MOTION Rolled Ball Screw

(1) Lead Accuracy Up to Grade C5

C7 and C10 Screws have been Standardized. C5 on request.

(2) Precision Ground Ball Nut

High Precision Ball Nut are interchangeable between ground and rolled screws.

(3) Available to ship separately

Ball screw and ball nuts can be shipped separately ensure shortest delivery time. The ball nuts are standardized with P0 preloaded, preload value can be adjusted through reballing.

■ 2-3-3 Nominal Model Code of Rolled Ball Screws

Nominal Model Code of Shaft

SC R 025 05 F C7 - 1000 + N3

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

①	④	⑦
Type of Screw Shaft	Lead	Overall Length of Shaft
SC : standard	Unit : mm	Unit : mm
SS : For H, NH type nut		
②	⑤	⑧
Threading Direction	Product Code	Shaft Surface Treatment
R : Right	F : Rolled	<input type="checkbox"/> Standard
L : Left		B1 : Black Oxidation
③	⑥	N1 : Hard Chrome Plating
Nominal Diameter	Accuracy Grade	P : Phosphating
Unit : mm	C5, C7, C10	N3 : Nickel Plating
		N4 : Raydent
		N5 : Chrome Plating

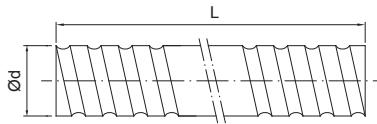


Fig 2.3.1 Screw Shaft Nominal Diameter

Table 2.3.1 Rolled Ball Screw Specifications Ø6~32

Unit : mm

Model No.			Accuracy Grade	Threading Direction	Number of Grooves	Standard Code of Shaft	Type of Nut	Overall Length of Shaft
d	I	Da		R : Right L : Left				
6	1	0.8	C10, C7, C5	R	1	SCR00601	K	1000
8	1	0.8	C10, C7, C5	R	1	SCR00801	K	1000
	2	1.2	C10, C7, C5	R	1	SCR00802	K	
	2.5	1.2	C10, C7, C5	R	1	SCR0082.5	K, BSH	
10	2	1.2	C10, C7, C5	R	1	SCR01002	K, BSH	3000
	4	2	C10, C7, C5	R	1	SCR01004	K, BSH	
12	2	1.2	C10, C7, C5	R	1	SCR01202	K	3000
	4	2.5	C10, C7, C5	R	1	SCR01204	U, BSH	
	5	2.5	C10, C7, C5	R	1	SCR01205	K	
	5	2.5	C10, C7, C5	R	1	SSR01205	V, BSH, H, A, J	
	10	2.5	C10, C7, C5	R	1	SCR01210-B	V	
14	20	2.5	C10, C7, C5	R	4	SCR01220	Y	3000
	2	1.2	C10, C7, C5	R	1	SCR01402	K	
	4	2.5	C10, C7, C5	R	1	SCR01404	K, BSH	
16	4	2.381	C10, C7, C5	R	1	SCR01604(N)	V, I, U, BSH	3000
	5	3.175	C10, C7, C5	R/L	1	SCR01605	V, NI, NU, BSH	
	10	3.175	C10, C7, C5	R	1	SCR01610	V, NI, NU, BSH	
	16	2.778	C10, C7, C5	R	4	SCR01616	Y, YA	
	32	2.778	C10, C7, C5	R	8	SCR01632	Y, YA	
20	4	2.381	C10, C7, C5	R	1	SCR02004(N)	V, I, U	3000
	5	3.175	C10, C7, C5	R/L	1	SCR02005	V, NI, NU, BSH, H, A, J	
	20	3.175	C10, C7, C5	R	4	SCR02020	V, Y, YA, H, A, J	
	40	3.175	C10, C7, C5	R	8	SCR02040	Y, YA	
25	4	2.381	C10, C7, C5	R	1	SCR02504(N)	I, U	6000
	5	3.175	C10, C7, C5	R/L	1	SCR02505	V, NI, NU, BSH, H, A, J	
	10	4.762	C10, C7, C5	R	1	SCR02510-A	NI, NU, BSH	
	25	3.969	C10, C7, C5	R	4	SCR02525	Y, YA	
	50	3.969	C10, C7, C5	R	8	SCR02550	Y, YA	
32	4	2.381	C10, C7, C5	R	1	SCR03204(N)	V, I, U	6000
	5	3.175	C10, C7, C5	R/L	1	SCR03205	V, NI, NU, M, H, A	
	10	6.35	C10, C7, C5	R/L	1	SCR03210	V, NI, NU	
	32	4.762	C10, C7, C5	R	4	SCR03232	Y, YA	
	64	4.762	C10, C7, C5	R	8	SCR03264	Y, YA	

2-3 Rolled Ball Screw

Table2.3.2 Standard Specifications Ø40~80

Unit : mm

Model No.			Accuracy Grade	Threading Direction	Number of Grooves	Standard Code of Shaft	Type of Nut	Overall Length of Shaft
d	I	Da		R : Right L : Left				
40	5	3.175	C10, C7, C5	R/L	1	SCR04005	V, NI, NU, H, A	6000
	10	6.35	C10, C7, C5	R/L	1	SCR04010	V, NI, NU	
	20	6.35	C10, C7, C5	R	1	SCR04020	V	
	40	6.35	C10, C7, C5	R	4	SCR04040	Y, YA	
	80	6.35	C10, C7, C5	R	8	SCR04080	Y, YA	
50*	5	3.175	C10, C7, C5	R	1	SCR05005	V, H, A	6000
	10	6.35	C10, C7, C5	R/L	1	SCR05010	V, NI, NU	
	20	9.525	C10, C7, C5	R	1	SCR05020	V	
	50	7.938	C10, C7, C5	R	4	SCR05050	Y, YA	
	100	7.938	C10, C7, C5	R	8	SCR05100	Y, YA	
63*	10	6.35	C10, C7, C5	R	1	SCR06310	V, NI, NU	7000
	20	9.525	C10, C7, C5	R	1	SCR06320	V, NU	
80*	10	6.35	C10, C7, C5	R	1	SCR08010	V, NI, NU	7000
	20	9.525	C10, C7, C5	R	1	SCR08020	V, NU	

Table2.3.3 H/A/J-Type Specifications Ø16~50

Unit : mm

Model No.			Accuracy Grade	Threading Direction	Number of Grooves	Type-H Code of Shaft	Type of Nut	Overall Length of Shaft
d	I	Da		R : Right L : Left				
12	10	2.5	C10, C7, C5	R	2	SSR01210	H, A, J	3000
	5	2.778	C10, C7, C5	R	1	SSR01605	H, A, J	
	10	2.778	C10, C7, C5	R	2	SSR01610	H, A, J	
	16	2.778	C10, C7, C5	R	4	SSR01616	H, A, J	
	20	2.778	C10, C7, C5	R	4	SSR01620	H, A, J	
20	10	3.175	C10, C7, C5	R	2	SSR02010	H, A, J	3000
	10	3.175	C10, C7, C5	R	2	SSR02510	H, A	
	25	3.175	C10, C7, C5	R	4	SSR02525	H, A, V, J	
32	10	3.969	C10, C7, C5	R	1	SSR03210	H, A	6000
	20	3.969	C10, C7, C5	R	2	SSR03220	H, A	
	32	3.969	C10, C7, C5	R	4	SSR03232	H, A	
40	10	6.35	C10, C7, C5	R	1	SSR04010	H, A	6000
	20	6.35	C10, C7, C5	R	2	SSR04020	H, A	
	40	6.35	C10, C7, C5	R	4	SSR04040	H, A	
50*	10	6.35	C10, C7, C5	R	1	SSR05010	H, A	6000
	20	6.35	C10, C7, C5	R	2	SSR05020	H, A	
	50	6.35	C10, C7, C5	R	4	SSR05050	H, A	

Nominal Model Code of Nut

G SFUR 025 05 T4 D + N3

①

Product Code

②

Nominal Model

S : Single nut

F : With flange

C : Without flange

NI : NI type nut

NU : NU type nut

H : H type nut

A : A type nut

J : J type nut

NH : NH nut

U : (A solution for slide table)

Y : Y type nut

YA : YA type nut

V : V type nut

U : U type nut

M : M type nut

K : K type nut

③

Threading Direction

R : Right

L : Left

④

Nominal Diameter

Unit : mm

⑤

Lead

Unit : mm

⑥

Number of Turns (Turn-Row)

Turn : T : 1

A : 1.5 (or 1.7/1.8)

B : 2.5/2.8

C : 3.5

D : 4.8

E : 5.8

ex : (2.5 × 2 = B2)

⑦

Flange Type

N : Not cutting

S : Single cutting

D : Double cutting

⑧

Nut Surface Treatment

S : Standard

B1 : Black Oxidation

N1 : Hard Chrome Plating

P : Phosphating

N3 : Nickel Plating

N4 : Raydent

N5 : Chrome Plating

■ 2-3-4 Preload of Rolled Ball Screw

The standard preloading for Rolled Ball Screw is P0. If P1 preloading is required, please contact

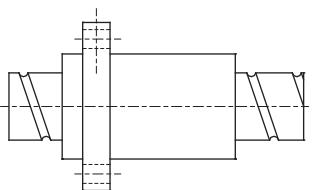
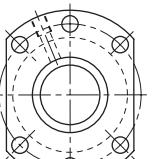
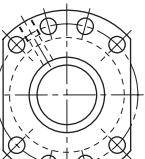
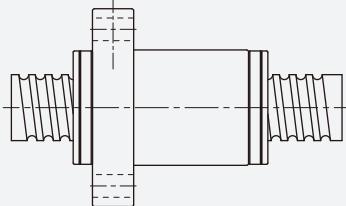
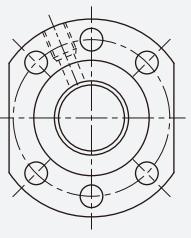
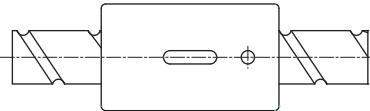
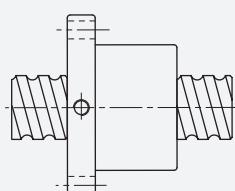
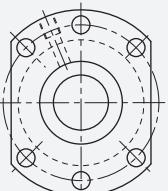
Table2.3.4 Accuracy grade of rolled ball screw

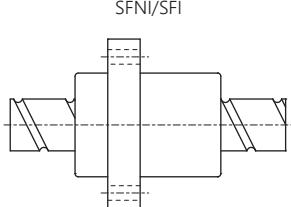
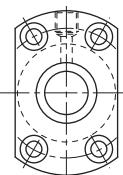
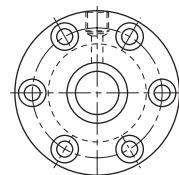
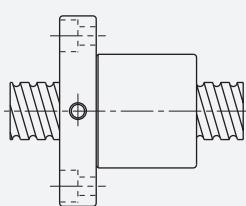
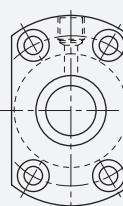
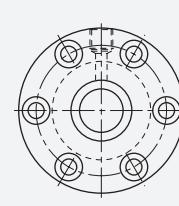
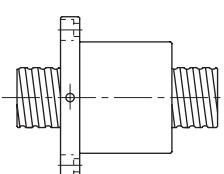
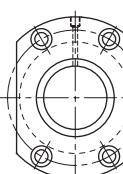
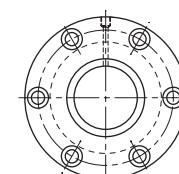
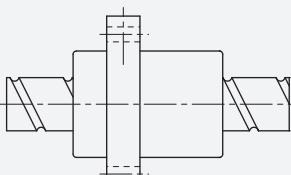
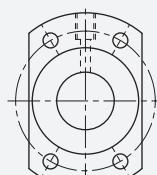
Unit : μm

Grade	Rolled			
	C5	C7	C10	
E ₃₀₀	ISO, DIN	23	52	210
	JIS	18	50	210
		23	50	210

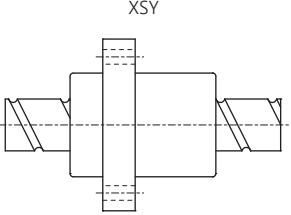
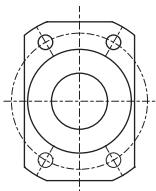
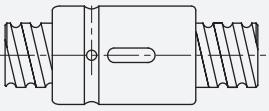
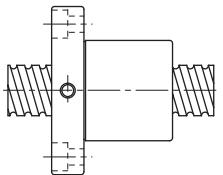
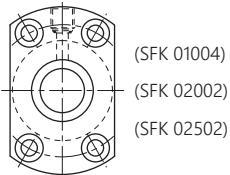
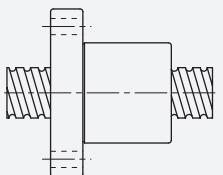
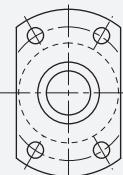
2-4 Rolled Ball Screw Series

■ 2-4-1 Nut of Rolled Ball Screw Type

	Nut Type	Flange Type
NH/H/A (A solution for slide table/High Speed/Strong dust-proof type)	<p>SFNH/SFH/SFA (DIN)</p>  <p>C72-73</p>	  <p>d≤32 d≥40</p>
~ (Low Noise/Strong dust-proof type)	<p>SFJ (DIN)</p>  <p>C74</p>	
CZH (A solution for slide table)	<p>SCNH</p>  <p>C75</p>	<p>No-Flange</p>
NU/U (Strong dust-proof type)	<p>SFNU/ SFU (DIN)</p>  <p>C76</p>	  <p>d≤32 d≥40</p>

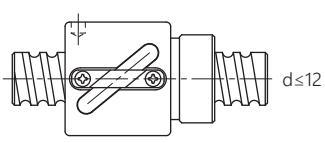
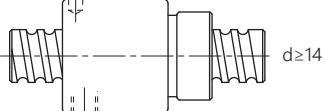
	Nut Type	Flange Type
N/I (Strong dust-proof type)	SFNI/SFI  C77	 
Σ (Design for Milling)	SFM  C77	 
∇ (High Load External Circulation type)	SFV  C78	 
Y/YA (High DM-N Rating)	SFY/SFYA  C79, 80	

2-4 Rolled Ball Screw Series

	Nut Type	Flange Type
XSY (Miniature type)	 XSY C81	
CNI/I (Standard)	 SCNI/SCI C82	No-Flange
K (Miniature type)	 SFK C83	 (SFK 01004) (SFK 02002) (SFK 02502)
	 SFK C83	

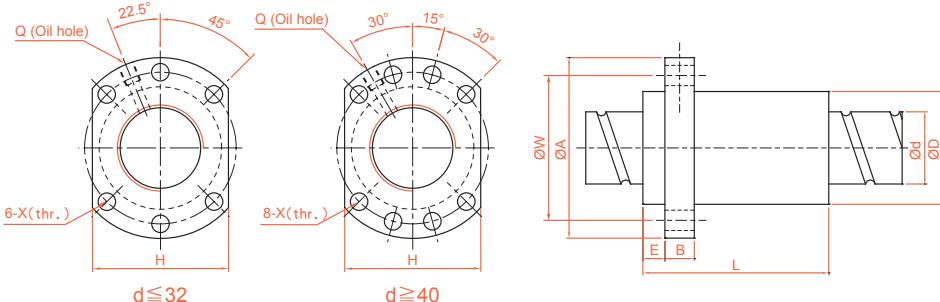
C

Ball Screw

	Nut Type	Flange Type
BSH	 BSH $d \leq 12$  C84 $d \geq 14$	No-Flange

2-4 Rolled Ball Screw Series

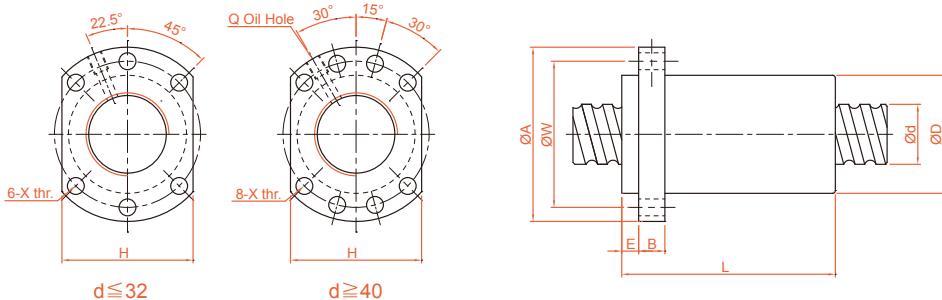
SFNH/SFH (DIN 69051 FORM B) Series Specifications



Unit : mm

Model No.	d	I	Da	Dimension									Load Rating		K kgf/ μ m	
				D	A	E	B	L	W	H	X	Q	n	Ca (kgf)	Coa (kgf)	
SFH01205-2.8*	12	5	2.5	24	40	5	10	30	32	30	4.5		2.8x1	661	1316	19
		10	2.5	24	40	5	10	45	32	30	4.5		2.8x1	642	1287	19
SFH01605-3.8*	15	5	2.778	28	48	5	10	37	38	40	5.5	M6	3.8x1	1112	2507	30
		10	2.778	28	48	5	10	45	38	40	5.5	M6	2.8x1	839	1821	23
SFH01616-1.8*	16	2.778	28	48	5	10	45	38	40	5.5	M6	1.8x1	552	1137	14	
		16	2.778	28	48	5	10	61	38	40	5.5	M6	2.8x1	808	1769	22
SFH01620-1.8*	20	2.778	28	48	7	10	58	38	40	5.5	M6	1.8x1	554	1170	14	
		5	3.175	36	58	7	10	37	47	44	6.6	M6	3.8x1	1484	3681	37
SFH02005-3.8*	20	10	3.175	36	58	7	10	55	47	44	6.6	M6	3.8x1	1516	3833	40
		20	3.175	36	58	7	10	54	47	44	6.6	M6	1.8x1	764	1758	19
SFH02020-1.8*	20	3.175	36	58	7	10	74	47	44	6.6	M6	2.8x1	1118	2734	29	
		5	3.175	40	62	7	10	37	51	48	6.6	M6	3.8x1	1650	4658	43
SFH02510-3.8*	25	10	3.175	40	62	7	12	55	51	48	6.6	M6	3.8x1	1638	4633	45
		25	3.175	40	62	7	12	64	51	48	6.6	M6	1.8x1	843	2199	22
SFH02525-1.8*	25	3.175	40	62	7	12	89	51	48	6.6	M6	2.8x1	1232	3421	34	
		5	3.175	50	80	9	12	37	65	62	9	M6	3.8x1	1839	6026	51
SFH03205-3.8	32	5	3.175	50	80	9	12	37	65	62	9	M6	3.8x1	2460	7255	55
		10	3.969	50	80	9	12	57	65	62	9	M6	3.8x1	1907	5482	43
SFH03220-2.8	31	20	3.969	50	80	9	12	76	65	62	9	M6	2.8x1	1257	3426	27
		32	3.969	50	80	9	12	80	65	62	9	M6	1.8x1	1838	5329	42
SFH03232-1.8	31	32	3.969	50	80	9	12	112	65	62	9	M6	2.8x1	10341	52	
		5	3.175	63	93	9	14	138	78	70	9	M8	2.8x1	2207	9542	68
SFH04005-3.8	40	5	6.35	63	93	9	14	42	78	70	9	M8	3.8x1	5035	13943	67
		10	6.35	63	93	9	14	60	78	70	9	M8	3.8x1	3959	10715	54
SFH04020-2.8	40	6.35	63	93	9	14	80	78	70	9	M8	2.8x1	2585	6648	34	
		40	6.35	63	93	9	14	98	78	70	9	M8	1.8x1	3780	10341	52
SFH05005-3.8*	50	5	3.175	75	110	10.5	15	42	93	85	11	M8	3.8x1	5638	17852	79
		10	6.35	75	110	10.5	18	60	93	85	11	M8	3.8x1	5749	18485	87
SFH05020-3.8*	50	6.35	75	110	10.5	18	100	93	85	11	M8	3.8x1	2946	8749	42	
		50	6.35	75	110	10.5	18	170	93	85	11	M8	2.8x1	4308	13610	65

SFA (DIN 69051 FORM B) Series Specifications

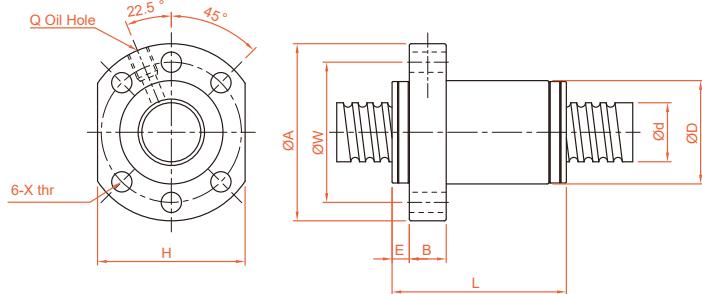


Unit : mm

Model No.	d	I	Da	Dimension									Load Rating		K kgf/ μm	
				D	A	E	B	L	W	H	X	Q	n	Ca (kgf)	Coa (kgf)	
SFA1205-2.8*	12	5	2.5	24	40	5	10	30	32	30	4.5	-	2.8×1	661	1316	19
SFA1210-2.8*		10	2.5	24	40	5	10	42	32	30	4.5	-	2.8×1	642	1287	19
SFA1605-3.8*	15	5	2.778	28	48	5	10	31	38	40	5.5	M6	3.8×1	1112	2507	30
SFA1610-2.8*		10	2.778	28	48	5	10	42	38	40	5.5	M6	2.8×1	839	1821	23
SFA1616-1.8*	16	5	2.778	28	48	5	10	43	38	40	5.5	M6	1.8×1	552	1137	14
SFA1616-2.8*		16	2.778	28	48	5	10	59	38	40	5.5	M6	2.8×1	808	1769	22
SFA1620-1.8*	20	5	2.778	28	48	5	10	50	38	40	5.5	M6	1.8×1	554	1170	14
SFA2005-3.8*		10	3.175	36	58	7	10	33	47	44	6.6	M6	3.8×1	1484	3681	37
SFA2010-3.8*	20	10	3.175	36	58	7	10	52	47	44	6.6	M6	3.8×1	1516	3833	40
SFA2020-1.8*		20	3.175	36	58	7	10	52	47	44	6.6	M6	1.8×1	764	1758	19
SFA2020-2.8*	20	20	3.175	36	58	7	10	72	47	44	6.6	M6	2.8×1	1118	2734	29
SFA2505-3.8*		5	3.175	40	62	7	10	33	51	48	6.6	M6	3.8×1	1650	4658	43
SFA2510-3.8*	25	10	3.175	40	62	7	12	52	51	48	6.6	M6	3.8×1	1638	4633	45
SFA2525-1.8*		25	3.175	40	62	7	12	60	51	48	6.6	M6	1.8×1	843	2199	22
SFA2525-2.8*	25	25	3.175	40	62	7	12	85	51	48	6.6	M6	2.8×1	1232	3421	34
SFA3205-3.8		5	3.175	50	80	9	12	35	65	62	9	M6	3.8×1	1839	6026	51
SFA3210-3.8	31	10	3.969	50	80	9	12	53	65	62	9	M6	3.8×1	2460	7255	55
SFA3220-2.8		20	3.969	50	80	9	12	72	65	62	9	M6	2.8×1	1907	5482	43
SFA3232-1.8	31	32	3.969	50	80	9	12	78	65	62	9	M6	1.8×1	1257	3426	27
SFA3232-2.8		32	3.969	50	80	9	12	110	65	62	9	M6	2.8×1	1838	5329	42
SFA4005-3.8	40	5	3.175	63	93	9	14	39	78	70	9	M8	3.8×1	2018	7589	60
SFA4010-3.8		10	6.35	63	93	9	14	57	78	70	9	M8	3.8×1	5035	13943	67
SFA4020-2.8	40	20	6.35	63	93	9	14	78	78	70	9	M8	2.8×1	3959	10715	54
SFA4040-1.8		40	6.35	63	93	9	14	96	78	70	9	M8	1.8×1	2585	6648	34
SFA4040-2.8	40	40	6.35	63	93	9	14	136	78	70	9	M8	2.8×1	3780	10341	52
SFA5005-3.8*		50	5	3.175	75	110	10.5	15	42	93	85	11	M8	3.8×1	2207	9542
SFA5010-3.8*	48	10	6.35	75	110	10.5	18	57	93	85	11	M8	3.8×1	5638	17852	79
SFA5020-3.8*		20	6.35	75	110	10.5	18	98	93	85	11	M8	3.8×1	5749	18485	87
SFA5050-1.8*	48	50	6.35	75	110	10.5	18	117	93	85	11	M8	1.8×1	2946	8749	42
SFA5050-2.8*		50	6.35	75	110	10.5	18	167	93	85	11	M8	2.8×1	4308	13610	65

2-4 Rolled Ball Screw Series

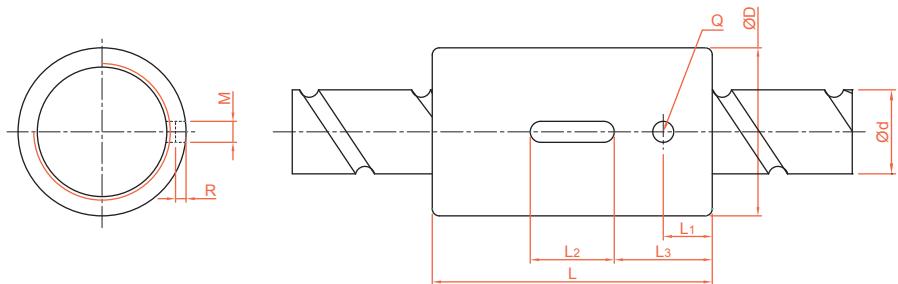
SFJ (DIN 69051 FORM B) Series Specifications



Unit : mm

Model No.	d	l	Da	Dimension										Load Rating		K kgf/ μm	
				D	A	E	B	L	W	H	X	Q	n	Ca (kgf)	Coa (kgf)		
SFJ01205-2.8	5		2.5	24	40	3.5	10	31	32	30	4.5	-	2.8x1	418	753	12	
				24	40	4.7	10	48.5	32	30	4.5	-	2.8x1	405	752	12	
SFJ01605-3.8	5		2.778	28	48	4	10	38	38	40	5.5	M6x1	3.8x1	706	1472	20	
				28	48	4.7	10	48	38	40	5.5	M6x1	2.8x1	532	1082	15	
SFJ01610-2.8	10			28	48	4	10	45.5	38	40	5.5	M6x1	1.8x1	364	693	10	
				28	48	4.7	10	56.5	38	40	5.5	M6x1	1.8x1	351	696	10	
SFJ01620-1.8	15	16		36	58	6	10	40	47	44	6.6	M6x1	3.8x1	975	2293	25	
				36	58	6	10	57	47	44	6.6	M6x1	3.8x1	996	2302	27	
SFJ02020-1.8	20	20	3.175	36	58	6	10	57	47	44	6.6	M6x1	1.8x1	503	1056	12	
				40	62	6	10	40	51	48	6.6	M6x1	3.8x1	1084	2879	30	
SFJ02505-3.8	25	10	3.175	40	62	6	12	62	51	48	6.6	M6x1	3.8x1	1076	2863	31	
				40	62	6	12	70	51	48	6.6	M6x1	1.8x1	554	1351	15	

SCNH Series Specifications

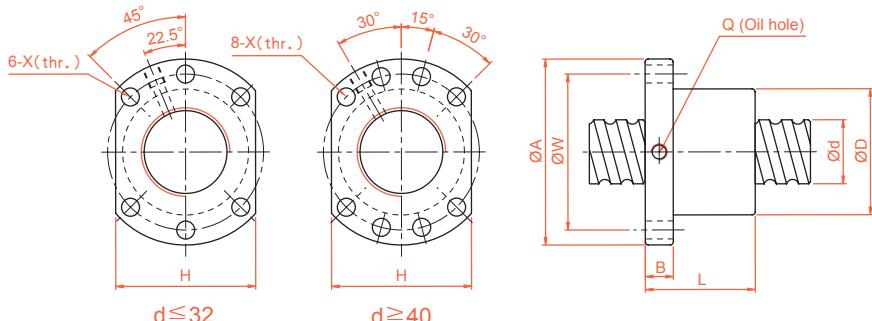


Unit : mm

Model No.	d	I	Da	Dimension									Load Rating		K kgf/ μ m
				D	L	L1	L2	L3	M	R	Q	n	Ca (kgf)	Coa (kgf)	
SCNH01205-4.8	12	5	2.5	24	40	7	12	14	3	1.5	3	4.8x1	1051	2255	34
SCNH01210-2.8		10	2.5	24	45	8	15	15	3	1.5	3	2.8x1	642	1287	19
XCNH01210-1.8		10	2.5	24	40	10.5	12	14	3	1.5	3	1.8x1	439	827	33
SCNH01605-5.8	15	5	2.778	28	45	7	20	12.5	5	3	3	5.8x1	1599	3827	49
SCNH01610-2.8		10	2.778	28	45	7	20	12.5	5	3	3	2.8x1	839	1821	23
SCNH01616-1.8		16	2.778	28	45	7	20	12.5	5	3	3	1.8x1	552	1137	18
SCNH01620-1.8		20	2.778	28	58	10	20	19	5	3	3	1.8x1	554	1170	14
SCNH02005-5.8	20	5	3.175	36	47	8	20	13.5	5	3	3	5.8x1	2134	5619	60
SCNH02010-3.8		10	3.175	36	55	8	20	17.5	5	3	3	3.8x1	1516	3833	40
SCNH02020-1.8		20	3.175	36	55	8	20	17.5	5	3	3	1.8x1	764	1758	19

2-4 Rolled Ball Screw Series

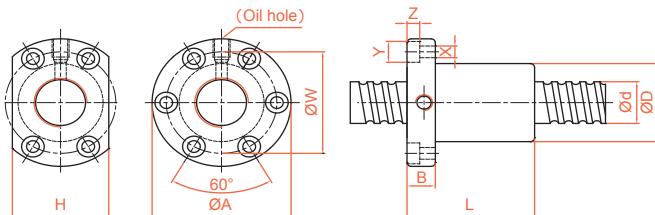
SFNU/SFU (DIN 69051 FORM B) Series Specifications



Unit : mm

Model No.	d	I	Da	Dimension								Load Rating		K kgf/ μm	
				D	A	B	L	W	H	X	Q	n	Ca (kgf)	Coa (kgf)	
SFNU01605-4*	16	5	3.175	28	48	10	45	38	40	5.5	M6	1x4	1380	3052	32
SFNU01610-3		10	3.175	28	48	10	57	38	40	5.5	M6	1x3	1103	2401	26
SFNU02005-4*	20	5	3.175	36	58	10	51	47	44	6.6	M6	1x4	1551	3875	39
SFNU02505-4*	25	5	3.175	40	62	10	51	51	48	6.6	M6	1x4	1724	4904	45
SFNU02510-4		10	4.762	40	62	12	80	51	48	6.6	M6	1x4	2954	7295	50
SFNU03205-4*	32	5	3.175	50	80	12	52	65	62	9	M6	1x4	1922	6343	54
SFNU03210-4*		10	6.35	50	80	12	85	65	62	9	M6	1x4	4805	12208	61
SFNU04005-4*	40	5	3.175	63	93	14	55	78	70	9	M8	1x4	2110	7988	63
SFNU04010-4*		10	6.35	63	93	14	88	78	70	9	M8	1x4	5399	15500	73
SFNU05010-4**	50	10	6.35	75	110	16	88	93	85	11	M8	1x4	6004	19614	85
SFNU06310-4*	63	10	6.35	90	125	18	93	108	95	11	M8	1x4	6719	25358	99
SFNU06320-4*	63	20	9.525	95	135	20	149	115	100	13.5	M8	1x4	11444	36653	112
SFNU08010-4*	80	10	6.35	105	145	20	93	125	110	13.5	M8	1x4	7346	31953	109
SFNU08020-4*	80	20	9.525	125	165	25	154	145	130	13.5	M8	1x4	12911	47747	138
SFU01204-4	12	4	2.5	24	40	10	40	32	30	4.5		1x4	902	1884	26
SFU01604-4	16	4	2.381	28	48	10	40	38	40	5.5	M6	1x4	973	2406	32
SFU02004-4	20	4	2.381	36	58	10	42	47	44	6.6	M6	1x4	1066	2987	38
SFU02504-4	25	4	2.381	40	62	10	42	51	48	6.6	M6	1x4	1180	3795	43
SFU03204-4	32	4	2.381	50	80	12	44	65	62	9	M6	1x4	1296	4838	51
SFU10020-4*	100	20	9.525	150	202	30	180	170	155	17.5	M8	1x4	14303	60698	162

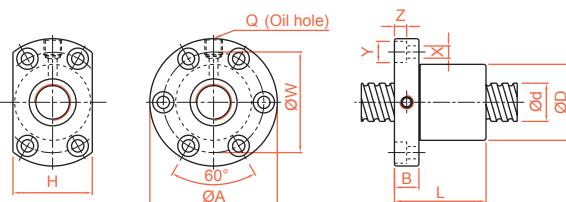
SFNI/SFI Series Specifications



Unit : mm

Model No.	d	I	Da	Dimension												Load Rating		K kgf/ μ m
				D	A	B	L	W	H	X	Y	Z	Q	n	Ca (kgf)	Coa (kgf)		
SFNI01605-4*	16	5	3.175	30	49	10	45	39	34	4.5	8	4.5	M6	1x4	1380	3052	33	
SFNI01610-3		10	3.175	34	58	10	57	45	34	5.5	9.5	5.5	M6	1x3	1103	2401	27	
SFNI02005-4*	20	5	3.175	34	57	11	51	45	40	5.5	9.5	5.5	M6	1x4	1551	3875	39	
SFNI02505-4*		5	3.175	40	63	11	51	51	46	5.5	9.5	5.5	M8	1x4	1724	4904	45	
SFNI02510-4	25	10	4.762	46	72	12	80	58	52	6.5	11	6.5	M6	1x4	2954	7295	51	
SFNI03205-4*		5	3.175	46	72	12	52	58	52	6.5	11	6.5	M8	1x4	1922	6343	52	
SFNI03210-4*	10	6.35	54	88	15	85	70	62	9	14	8.5	M8	1x4	4805	12208	62		
SFNI04005-4*	40	5	3.175	56	90	15	55	72	64	9	14	8.5	M8	1x4	2110	7988	59	
SFNI04010-4*		10	6.35	62	104	18	88	82	70	11	17.5	11	M8	1x4	5399	15500	72	
SFNI05010-4**	50	10	6.35	72	114	18	88	92	82	11	17.5	11	M8	1x4	6004	19614	83	
SFNI06310-4*	63	10	6.35	85	131	22	93	107	95	14	20	13	M8	1x4	6719	25358	95	
SFNI08010-4*	80	10	6.35	105	150	22	93	127	115	14	20	13	M8	1x4	7346	31953	109	
SFI01604-4	16	4	2.381	30	49	10	45	39	34	4.5	8	4.5	M6	1x4	973	2406	32	
SFI02004-4	20	4	2.381	34	57	11	46	45	40	5.5	9.5	5.5	M6	1x4	1066	2987	37	
SFI0205T-4		5.08	3.175	34	57	11	51	45	40	5.5	9.5	5.5	M6	1x4	1550	3875	39	
SFI02504-4	25	4	2.381	40	63	11	46	51	46	5.5	9.5	5.5	M6	1x4	1180	3795	43	
SFI0255T-4		5.08	3.175	40	63	11	51	51	46	5.5	9.5	5.5	M8	1x4	1724	4903	45	
SFI03204-4	32	4	2.381	46	72	12	47	58	52	6.5	11	6.5	M6	1x4	1296	4838	49	

SFM Series Specifications (Design for Milling)



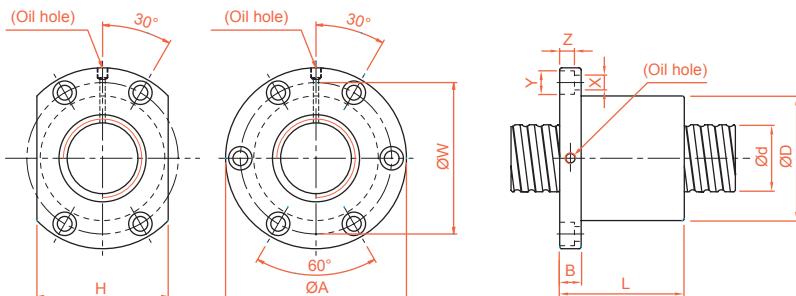
Unit : mm

Model No.	d	I	Da	Dimension												Load Rating		K kgf/ μ m
				D	A	B	L	W	H	X	Y	Z	Q	n	Ca (kgf)	Coa (kgf)		
SFM03205-4*	32	5	3.175	48	74	12	52	60	60	6.5	11	6.5	M8	1x4	1922	6343	53	
SFM0325T-4*		5.08	3.175	48	74	12	53	60	60	6.5	11	6.5	M8	1x4	1922	6343	53	

* ☆ Left helix available

2-4 Rolled Ball Screw Series

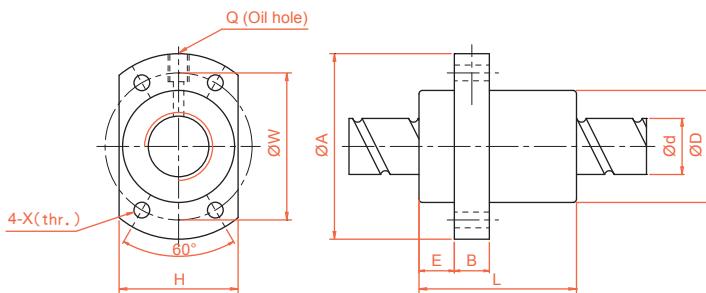
SFV Series Specifications



Unit : mm

Model No.	d	I	Da	Dimension										Load Rating		K kgf/ μ m	
				D	A	B	L	W	H	X	Y	Z	Q	n	Ca (kgf)	Coa (kgf)	
SFV01205-2.8	12	5	2.5	30	50	10	42	40	32	4.5	8	4.5	M6	2.8x1	661	1316	19
SFV01210-2.7		10	2.5	30	50	10	53	40	32	4.5	8	4.5	M6	2.7x1	623	1241	18
SFV01604-3.8	16	4	2.381	34	57	11	45	45	34	5.5	9.5	5.5	M6	3.8x1	931	2285	31
SFV01605-4.8		5	3.175	40	63	11	58	51	42	5.5	9.5	5.5	M6	4.8x1	1614	3662	40
SFV01610-2.7	10	3.175	40	63	11	56	51	42	5.5	9.5	5.5	M6	2.7x1	1008	2161	24	
SFV02004-4.8		4	2.381	40	60	10	50	50	40	4.5	8	4	M6	4.8x1	1247	3584	45
SFV02005-4.8	20	5	3.175	44	67	11	57	55	52	5.5	9.5	5.5	M6	4.8x1	1814	4650	47
SFV02020-1.8		20	3.175	46	74	13	70	59	46	6.6	11	6.5	M6	1.8x1	764	1758	19
SFV02505-4.8	25	5	3.175	50	73	11	55	61	52	5.5	9.5	5.5	M8	4.8x1	2017	5884	56
SFV02525-1.8		25	3.175	50	73	13	83	61	52	5.5	9.5	5.5	M8	1.8x1	843	2199	22
SFV03204-4.8	32	4	2.381	54	81	12	50	67	64	6.6	11	6.5	M6	4.8x1	1517	5806	62
SFV03205-4.8		5	3.175	58	85	12	56	71	64	6.6	11	6.5	M8	4.8x1	2249	7612	66
SFV03210-4.8		10	6.35	74	108	15	96	90	82	9	14	9	M8	4.8x1	5620	14649	76
SFV04005-4.8	40	5	3.175	67	101	15	59	83	72	9	14	8.5	M8	4.8x1	2468	9586	76
SFV04010-4.8		10	6.35	82	124	18	100	102	94	11	17.5	11	M8	4.8x1	6316	18600	90
SFV04020-2.7		20	6.35	82	124	18	100	102	90	11	17.5	11	M8	2.7x1	3935	10893	56
SFV05005-4.8•	50	5	3.175	80	114	15	60	96	82	9	14	8.5	M8	4.8x1	2698	12053	87
SFV05010-4.8•		10	6.35	93	135	16	93	113	98	11	17.5	11	M8	4.8x1	7023	23537	106
SFV05020-2.7•		20	9.525	105	152	28	121	128	110	14	20	13	M8	2.7x1	7336	19700	68
SFV06310-4.8•	63	10	6.35	108	154	22	105	130	110	14	20	13	M8	4.8x1	7860	30430	126
SFV06320-2.7•		20	9.525	122	180	28	120	150	130	18	26	17.5	M8	2.7x1	8162	24741	80
SFV08010-4.8•	80	10	6.35	130	176	22	105	152	132	14	20	13	M8	4.8x1	8593	38344	145
SFV08020-4.8•		20	9.525	143	204	28	180	172	148	18	26	18	M8	4.8x1	15103	57296	168
SFV08020-7.6•		20	9.525	143	204	28	240	172	148	18	26	18	M8	3.8x2	22423	90719	260

SFY Series Specifications

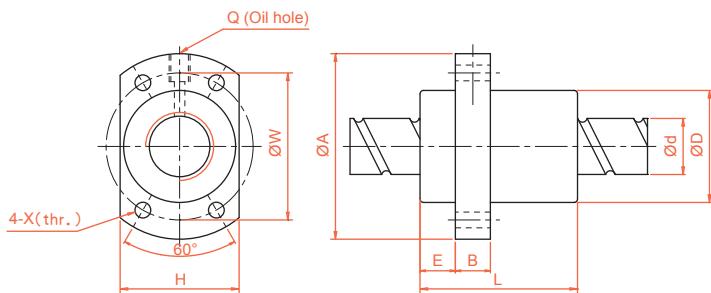


Unit : mm

Large Lead Model No.	d	I	Da	Dimension										Load Rating		K kgf/ μ m
				D	A	E	B	L	W	H	X	Q	n	Ca (kgf)	Coa (kgf)	
SFY01616-3.6	16	16	2.778	32	53	10.1	10	45	42	34	4.5	M6	1.8x2	1073	2551	31
SFY02020-3.6	20	20	3.175	39	62	13	10	52	50	41	5.5	M6	1.8x2	1387	3515	37
SFY02525-3.6	25	25	3.969	47	74	15	12	64	60	49	6.6	M6	1.8x2	2074	5494	45
SFY03232-3.6	32	32	4.762	58	92	17	12	78	74	60	9	M6	1.8x2	3021	8690	58
SFY04040-3.6	40	40	6.35	73	114	19.5	15	99	93	75	11	M6	1.8x2	4831	14062	70
SFY05050-3.6•	50	50	7.938	90	135	21.5	20	117	112	92	14	M6	1.8x2	7220	21974	86
Twin Lead Model No.	d	I	Da	Dimension										Ca (kgf)	Coa (kgf)	K kgf/ μ m
				D	A	E	B	L	W	H	X	Q	n			
SFY01632-1.6	16	32	2.778	32	53	10.1	10	42.5	42	34	4.5	M6	0.8x2	493	1116	11
SFY02040-1.6	20	40	3.175	39	62	13	10	48	50	41	5.5	M6	0.8x2	653	1597	15
SFY02550-1.6	25	50	3.969	47	74	15	12	58	60	49	6.6	M6	0.8x2	976	2495	19
SFY03264-1.6	32	64	4.762	58	92	17	12	71	74	60	9	M6	0.8x2	1374	3571	22
SFY04080-1.6	40	80	6.35	73	114	19.5	15	90	93	75	11	M6	0.8x2	2273	6387	29
SFY050100-1.6•	50	100	7.938	90	135	21.5	20	111	112	92	14	M6	0.8x2	3398	9980	35

2-4 Rolled Ball Screw Series

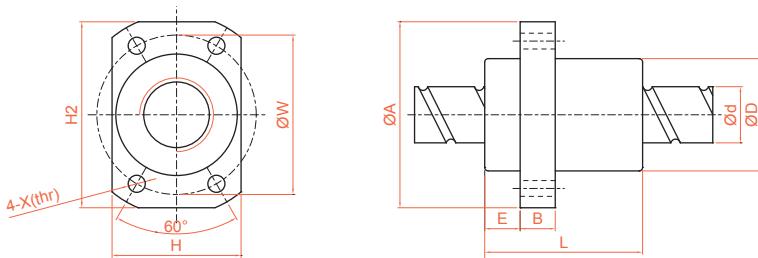
SFYA Series Specifications



Unit : mm

Large Lead Model No.	d	l	Da	Dimension										Load Rating		K kgf/ μ m
				D	A	E	B	L	W	H	X	Q	n	Ca (kgf)	Coa (kgf)	
SFYA01616-3.6	16	16	2.778	32	53	10.1	10	45	42	34	4.5	M6	1.8*2	1073	2551	31
SFYA02020-3.6	20	20	3.175	39	62	13	10	52	50	41	5.5	M6	1.8*2	1387	3515	37
SFYA02525-3.6	25	25	3.969	47	74	15	12	64	60	49	6.6	M6	1.8*2	2074	5494	45
SFYA03232-3.6	32	32	4.762	58	92	17	12	78	74	60	9	M6	1.8*2	3021	8690	58
SFYA04040-3.6	40	40	6.35	73	114	19.5	15	99	93	75	11	M6	1.8*2	4831	14062	70
SFYA05050-3.6	50	50	7.938	90	135	21.5	20	117	112	92	14	M6	1.8*2	7220	21974	86
Twin Lead Model No.	d	l	Da	Dimension										Ca (kgf)	Coa (kgf)	K kgf/ μ m
				D	A	E	B	L	W	H	X	Q	n	Ca (kgf)	Coa (kgf)	
SFYA01632-1.6	16	32	2.778	32	53	10.1	10	42.5	42	34	4.5	M6	0.8*2	493	1116	11
SFYA02040-1.6	20	40	3.175	39	62	13	10	48	50	41	5.5	M6	0.8*2	653	1597	15
SFYA02550-1.6	25	50	3.969	47	74	15	12	58	60	49	6.6	M6	0.8*2	976	2495	19
SFYA03264-1.6	32	64	4.762	58	92	17	12	71	74	60	9	M6	0.8*2	1374	3571	22
SFYA04080-1.6	40	80	6.35	73	114	19.5	15	90	93	75	11	M6	0.8*2	2273	6387	29
SFYA050100-1.6	50	100	7.938	90	135	21.5	20	111	112	92	14	M6	0.8*2	3398	9980	35

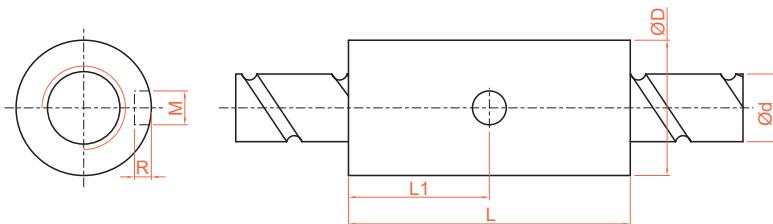
XSY Series Specifications



Unit : mm

Model No.	d	l	Da	Dimension									Load Rating		K kgf/ μ m	
				D	A	E	B	L	W	H	H2	X	n	Ca (kgf)	Coa (kgf)	
XSYR01220A2D-00	12	20	2.5	24	41	3.8	5	50	32	24	36	4.5	1.8x2	777	1718	13

XCYA Series Specifications

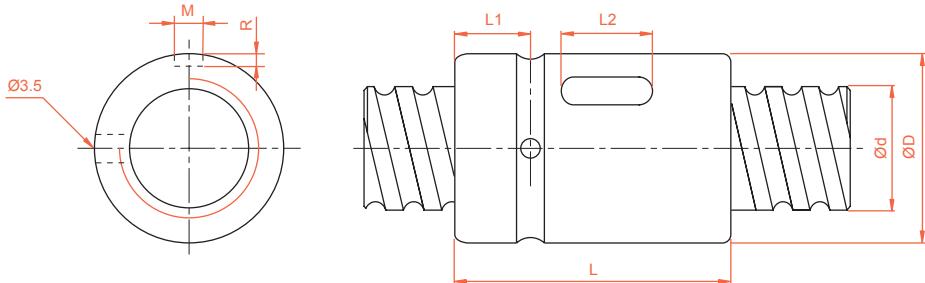


單位 : mm

Model No.	d	l	Da	Dimension							Load Rating		K kgf/ μ m
				D	A	E	B	L	W	Ca (kgf)	Coa (kgf)		
XCYAR01220A2-00	12	20	2.5	24	50	25	6	3	1.8*2	777	1718	13	

2-4 Rolled Ball Screw Series

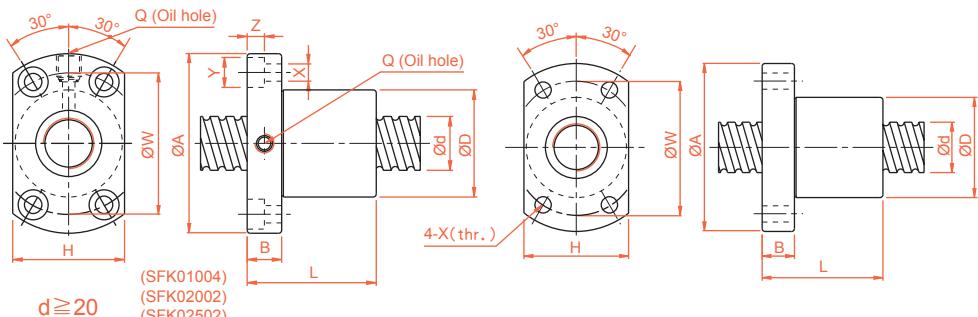
SCNI/SCI Series Specifications



Unit : mm

Model No.	d	l	Da	Dimension							Load Rating		K kgf/ μ m
				D	L	L1	L2	M	R	n	Ca (kgf)	Coa (kgf)	
SCNI 01605-4	16	5	3.175	30	45	9	20	5	3	1x4	1380	3052	33
SCNI 02005-4	20	5	3.175	34	45	9	20	5	3	1x4	1551	3875	39
SCNI 02505-4	25	5	3.175	40	45	9	20	5	3	1x4	1724	4904	45
SCNI 02510-4		10	4.762	46	85	13	30	5	3	1x4	2954	7295	51
SCNI 03205-4	32	5	3.175	46	45	9	20	5	3	1x4	1922	6343	52
SCNI 03210-4		10	6.35	54	85	13	30	5	3	1x4	4805	12208	62
SCNI 04005-4	40	5	3.175	56	45	9	20	5	3	1x4	2110	7988	59
SCNI 04010-4		10	6.35	62	85	13	30	5	3	1x4	5399	15500	72
SCNI 05010-4*	50	10	6.35	72	85	13	30	5	3	1x4	6004	19614	83
SCNI 06310-4*	63	10	6.35	85	85	13	30	6	3.5	1x4	6719	25358	95
SCNI 08010-4*	80	10	6.35	105	85	13	30	8	4.5	1x4	7346	31953	109
SCI 01604-4	16	4	2.381	30	40	9	15	3	1.5	1x4	973	2406	32
SCI 02004-4	20	4	2.381	34	40	9	15	3	1.5	1x4	1066	2987	37
SCI 02504-4	25	4	2.381	40	40	9	15	3	1.5	1x4	1180	3795	43
SCI 03204-4	32	4	2.381	46	40	9	15	3	1.5	1x4	1296	4838	49

SFK Series Specifications



Unit : mm

Model No.	d	I	Da	Dimension										Ca (kgf)	Coa (kgf)	K kgf/μm	
				D	A	B	L	W	H	X	Y	Z	Q				
SFK00601	6	1	0.8	12	24	3.5	15	18	16	3.4	-	-	-	1x3	111	224	9
SFK00801	8	1	0.8	14	27	4	16	21	18	3.4	-	-	-	1x4	161	403	14
SFK00802		2	1.2	14	27	4	18	21	18	3.4	-	-	-	1x3	222	458	13
SFK0082.5	10	2.5	1.2	16	29	4	26	23	20	3.4	-	-	-	1x3	221	457	13
SFK01002		2	1.2	18	35	5	28	27	22	4.5	-	-	-	1x3	243	569	15
SFK01004	12	4	2	20	37	6	34	29	28	4.5	-	-	-	1x3	468	905	17
SFK01202		2	1.2	20	37	5	28	29	24	4.5	-	-	-	1x4	334	906	22
SFK01205	14	5	2.5	22	37	8	39	29	24	4.5	-	-	-	1x3	702	1409	17
SFK01402		2	1.2	21	40	6	23	31	26	5.5	-	-	-	1x4	354	1053	24
SFK01404	10	4	2.5	25	42	10	40	35	29	4.5	-	-	-	1x4	957	2155	16
XSFK01004		4	2	26	46	10	34	36	28	4.5	8	4.5	M6x1	1x3	468	905	17
XSFK01404	14	4	2.5	26	46	10	45	36	28	4.5	8	4.5	M6x1	1x4	957	2145	16

Unit : mm

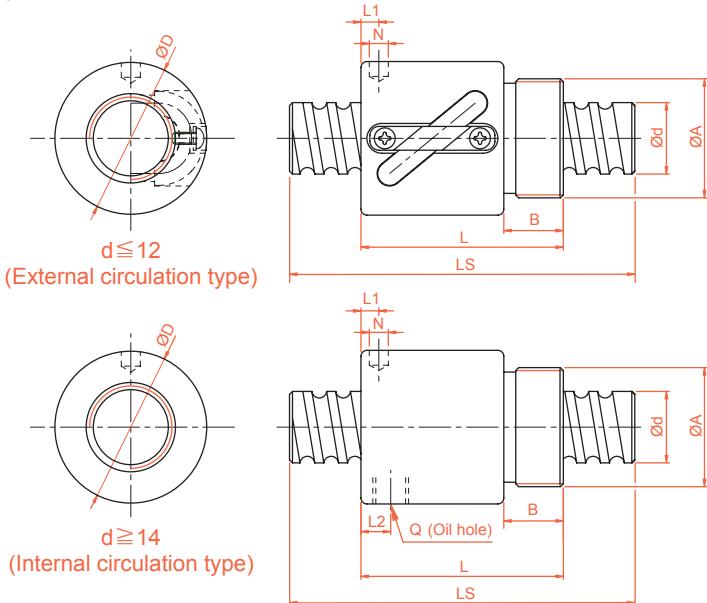
Model No.	d	I	Da	Dimension										Ca (kgf)	Coa (kgf)	K kgf/μm	
				D	A	B	L	W	H	X	Y	Z	Q				
XSUR01204T3D-02	12	4	2.5	24	40	6	28	32	25	3.5	-	-	-	1x3	704	1413	-

2-4 Rolled Ball Screw Series

BSH Series Specifications

C

Ball Screw



Unit : mm

Model No.	d	l	Da	Dimension									Ca (kgf)	Coa (kgf)	K kgf/ μ m
				D	A	B	L	L1	N	L2	Q	n			
BSHR0082.5-2.5	8	2.5	1.2	17.5	M15x1P	7.5	23.5	10	3	-	-	2.5x1	189	381	11
BSHR01002-3.5	10	2	1.2	19.5	M17x1P	7.5	22	3	3.2	-	-	3.5x1	277	664	17
BSHR01004-2.5		4	2	25	M20x1P	10	34	3	3	-	-	2.5x1	400	754	14
BSHR01204-3.5	12	4	2.5	25.5	M20x1P	10	34	13	3	-	-	3.5x1	804	1649	23
BSHR01205-3.5		5	2.5	25.5	M20x1P	10	39	16.25	3	-	-	3.5x1	801	1644	24
BSHR01404-3	14	4	2.5	32.1	M25x1.5P	10	35	11	3	-	-	1x3	748	1609	26
BSHR01604-3	16	4	2.381	29	M22x1.5P	8	32	4	3.2	-	-	1x3	759	1804	24
BSHR01605-3		5	3.175	32.5	M26x1.5P	12	42	19.25	3	-	-	1x3	1077	2289	25
BSHR01610-2		10	3.175	32	M26x1.5P	12	50	3	4	3	M4	1x2	779	1601	14
BSHR02005-3	20	5	3.175	38	M35x1.5P	15	45	20.3	3	-	-	1x3	1211	2906	30
BSHR02505-4	25	5	3.175	43	M40x1.5P	19	69	32.11	3	8	M6	1x4	1724	4904	37
BSHR02510-4		10	4.762	43	M40x1.5P	19	84	8	6	8	M6	1x4	2954	7295	41

※ Standard ballnut from Ø8~Ø16 is assembled without wiper.

2-5 Ball Screw Weight List

Model No.	Weight	
	Ball Nut(kg)	Screw Shaft(kg/m)
SFH		
SFH01205-2.8	0.11	0.87
SFH01210-2.8	0.144	0.87
SFH01605-3.8	0.184	1.37
SFH01610-2.8	0.212	1.37
SFH01616-1.8	0.208	1.37
SFH01616-2.8	0.26	1.37
SFH01620-1.8	0.24	1.37
SFH02005-3.8	0.246	2.45
SFH02010-3.8	0.336	2.45
SFH02020-1.8	0.332	2.45
SFH02020-2.8	0.442	2.45
SFH02505-3.8	0.27	3.83
SFH02510-3.8	0.384	3.83
SFH02525-1.8	0.43	3.83
SFH02525-2.8	0.576	3.83
SFH03205-3.8	0.65	6.29
SFH03210-3.8	0.65	5.89
SFH03220-2.8	0.8	5.89
SFH03232-1.8	0.84	5.89
SFH03232-2.8	1.114	5.89
SFH04005-3.8	0.808	9.84
SFH04010-3.8	1.026	8.82
SFH04020-2.8	1.282	8.82
SFH04040-1.8	1.518	8.82
SFH04040-2.8	2.158	8.82
SFH05005-3.8	1.098	15.39
SFH05010-3.8	1.458	14.12
SFH05020-3.8	2.172	14.12
SFH05050-1.8	2.486	14.12
SFH05050-2.8	3.524	14.12
SFA		
SFA01205-2.8	0.112	0.87
SFA01210-2.8	0.130	0.87
SFA01605-3.8	0.168	1.37
SFA01610-2.8	0.198	1.37
SFA01616-1.8	0.202	1.37
SFA01616-2.8	0.252	1.37
SFA01620-1.8	0.222	1.37
SFA01630-1.8	0.260	1.37
SFA02005-3.8	0.245	2.45
SFA02010-3.8	0.33	2.45
SFA02020-1.8	0.332	2.45
SFA02020-2.8	0.435	2.45
SFA02505-3.8	0.272	3.83
SFA02510-3.8	0.350	3.83

Model No.	Weight	
	Ball Nut(kg)	Screw Shaft(kg/m)
SFA0		
SFA02525-1.8	0.415	3.83
SFA02525-2.8	0.568	3.83
SFA03205-3.8	0.462	6.29
SFA03210-3.8	0.580	5.89
SFA03220-2.8	0.742	5.89
SFA03232-1.8	0.790	5.89
SFA03232-2.8	1.060	5.89
SFA04005-3.8	0.808	9.84
SFA04010-3.8	0.870	8.82
SFA04020-2.8	1.150	8.82
SFA04040-1.8	1.525	8.82
SFA04040-2.8	2.090	8.82
SFA05005-3.8	0.944	15.39
SFA05010-3.8	1.280	14.12
SFA05020-3.8	2.050	14.12
SFA05050-1.8	2.400	14.12
SFA05050-2.8	3.5	14.12
SFJ		
SFJ00606-1.8	0.019	0.2
SFJ00808-1.8	0.036	0.405
SFJ01205-2.8	0.09	0.87
SFJ01210-2.8	0.13	0.87
SFJ01605-3.8	0.15	1.37
SFJ01610-2.8	0.18	1.37
SFJ01616-1.8	0.178	1.37
SFJ01620-1.8	0.27	1.37
SFJ02005-3.8	0.201	2.45
SFJ02010-3.8	0.304	2.45
SFJ02020-1.8	0.306	2.45
SFJ02505-3.8	0.219	3.83
SFJ02510-3.8	0.355	3.83
SFJ02525-1.8	0.398	3.83
SCNH		
SCNH01205-4.8	0.092	0.87
SCNH01210-2.8	0.104	0.87
XCNH01210-1.8	0.08	0.87
SCNH01605-5.5	0.144	1.37
SCNH01610-2.8	0.14	1.37
SCNH01616-1.8	0.136	1.37
SCNH01620-1.8	0.17	1.37
SCNH02005-5.8	0.214	2.45
SCNH02010-3.8	0.254	2.45
SCNH02020-1.8	0.252	2.45
SFNU		
SFNU01605-4	0.19	1.56
SFNU01610-3	0.22	1.56

2-5 Ball Screw Weight List

Model No.	Weight		Model No.	Weight	
	Ball Nut(kg)	Screw Shaft(kg/m)		Ball Nut(kg)	Screw Shaft(kg/m)
SFNU02005-4	0.316	2.45	SFI01604-4	0.246	1.57
SFNU02505-4	0.35	3.83	SFI02004-4	0.312	2.45
SFNU02510-4	0.484	3.81	SFI0205T-4	0.332	2.45
SFNU03205-4	0.588	6.29	SFI02504-4	0.386	3.84
SFNU03210-4	0.832	6.23	SFI0255T-4	0.398	3.83
SFNU04005-4	0.97	9.84	SFI03204-4	0.46	6.30
SFNU04010-4	1.246	9.78	OFI		
SFNU05010-4	1.82	15.33	OFI01605-4	0.318	1.56
SFNU05020-4	2.674	15.31	OFI02005-4	0.44	2.45
SFNU06310-4	2.576	24.39	OFI02505-4	0.57	3.83
SFNU06320-4	4.888	24.28	OFI02510-4	1.348	3.81
SFNU08010-4	3.1	39.38	OFI03205-4	0.686	6.29
SFNU08020-4	9.016	39.27	OFI03210-4	1.796	6.23
SFU			OFI04005-4	1.184	9.84
SFU01204-4	0.138	0.87	OFI04010-4	2.326	9.78
SFU01604-4	0.184	1.57	OFI05010-4	2.84	15.33
SFU02004-4	0.294	2.45	OFI06310-4	3.835	24.39
SFU02504-4	0.384	3.84	OFI08010-4	5.080	39.38
SFU02506-4	0.356	3.82	SFM		
SFU02508-4	0.41	3.81	SFM03205-4	0.552	6.29
SFU03204-4	0.658	6.30	SFM0320T-4	0.562	6.29
SFU03206-4	0.66	6.28	SFV		
SFU03208-4	0.744	6.27	SFV01205-2.8	0.254	0.87
SFU04006-4	1.076	9.83	SFV01210-2.7	0.304	0.87
SFU04008-4	1.200	9.82	SFV01510-2.7	0.350	1.37
SFU010020-4	10	61.47	SFV01604-3.8	0.500	1.57
OFU			SFV01605-4.8	0.556	1.56
OFU01605-4	0.27	1.56	SFV01610-2.7	0.532	1.56
OFU02005-4	0.512	2.45	SFV02004-4.8	0.650	2.45
OFU02505-4	0.532	3.83	SFV02005-4.8	0.62	2.45
OFU02510-4	0.808	3.81	SFV02010-2.7	0.67	2.43
OFU03205-4	0.946	6.29	SFV02020-1.8	0.700	2.45
OFU03210-4	1.278	6.23	SFV02505-4.8	0.722	3.83
OFU04005-4	1.486	9.84	SFV02506-4.8	0.672	3.82
OFU04010-4	2.18	9.78	SFV02508-4.8	1.880	3.81
OFU05010-4	3.052	15.33	SFV02510-2.7	1.944	3.77
OFU06310-4	4.175	24.39	SFV02525-1.8	0.850	3.83
OFU08010-4	4.806	39.38	SFV03204-4.8	0.850	6.30
SFNI			SFV03205-4.8	0.962	6.29
SFNI01605-4	0.22	1.56	SFV03206-4.8	0.950	6.28
SFNI01610-3	0.382	1.56	SFV03208-4.8	1.500	6.27
SFNI02005-4	0.308	2.45	SFV03210-4.8	2.816	6.23
SFNI02505-4	0.396	3.83	SFV03220-2.7	2.908	6.23
SFNI02510-4	0.802	3.81	SFV04005-4.8	1.429	9.84
SFNI03205-4	0.472	6.29	SFV04010-4.8	3.61	9.78
SFNI03210-4	1.14	6.23			

Model No.	Weight	
	Ball Nut(kg)	Screw Shaft(kg/m)
SFV04020-2.7	3.58	9.78
SFV05005-4.8	1.836	15.39
SFV05010-4.8	3.944	15.33
SFV05020-2.7	7.306	15.23
SFV06310-4.8	5.858	24.39
SFV06320-2.7	9.43	24.28
SFV08010-4.8	7.856	39.38
SFV08020-4.8	17.05	39.27
SFV08020-7.6	21.478	39.27
OFV		
OFV01605-4.8	0.800	1.56
OFV02005-4.8	1.066	2.45
OFV02505-4.8	1.212	3.83
OFV03205-4.8	1.572	6.29
OFV03210-4.8	4.978	6.23
OFV04005-4.8	2.226	9.84
OFV04010-4.8	6.084	9.78
OFV05010-4.8	6.560	15.33
OFV06310-4.8	9.606	24.39
OFV08010-4.8	12.890	39.38
SFY		
SFY01616-3.6	0.238	1.55
SFY01616-5.6	0.31	1.55
SFY01632-1.6	0.222	1.55
SFY01632-3.6	0.36	1.55
SFY02020-3.6	0.38	2.42
SFY02020-5.6	0.506	2.42
SFY02040-1.6	0.348	2.42
SFY02040-3.6	0.604	2.42
SFY02525-3.6	0.652	3.79
SFY02525-5.6	0.884	3.79
SFY02550-1.6	0.596	3.79
SFY02550-3.6	1.056	3.79
SFY03232-3.6	1.168	6.22
SFY03232-5.6	1.598	6.22
SFY03264-1.6	1.066	6.22
SFY03264-3.6	2.006	6.22
SFY04040-3.6	2.288	9.70
SFY04040-5.6	3.24	9.70
SFY04080-1.6	2.096	9.70
SFY04080-3.6	3.902	9.70
SFY05050-3.6	4.12	15.15
SFY05050-5.6	5.762	15.15
SFY50100-1.6	3.818	15.15
SFY50100-3.6	7.12	15.15
SFYA		

Model No.	Weight	
	Ball Nut(kg)	Screw Shaft(kg/m)
SFYA01616-3.6	0.21	1.37
SFYA01632-1.6	0.2	1.37
SFYA02020-3.6	0.36	2.45
SFYA02040-1.6	0.33	2.45
SFYA02525-3.6	0.61	3.83
SFYA02550-1.6	0.57	3.83
SFYA03232-3.6	1.09	5.89
SFYA03264-1.6	1	5.89
SFYA04040-3.6	2.18	8.82
SFYA04080-1.6	2.01	8.82
SFYA05050-3.6	3.79	14.12
SFYA050100-1.6	3.61	14.12
SCNI		
SCNI01605-4	0.146	1.56
SCNI02005-4	0.17	2.45
SCNI02505-4	0.226	3.83
SCNI02510-4	0.664	3.81
SCNI03205-4	0.252	6.29
SCNI03210-4	0.784	6.23
SCNI04005-4	0.406	9.84
SCNI04010-4	0.932	9.78
SCNI05010-4	1.21	15.33
SCNI06310-4	1.52	24.39
SCNI08010-4	2.292	39.38
SCI01604-4	0.142	1.57
SCI02004-4	0.160	2.45
SCI02504-4	0.220	3.84
SCI03204-4	0.200	6.30
SFK		
SFK00401	0.024	0.1
SFK00601	0.014	0.22
SFK00801	0.018	0.39
SFK00802	0.019	0.39
SFK0082.5	0.034	0.39
SFK01002	0.046	0.61
SFK01004	0.055	0.61
SFK01202	0.05	0.88
SFK01205	0.08	0.87
SFK01402	0.05	1.21
SFK01404	0.116	1.2
SFK01602	0.116	1.58
SFK02002	1	2.46
SFK02502	0.38	3.85
XSFK01004	0.146	0.61

2-5 Ball Screw Weight List

Model No.	Weight	
	Ball Nut(kg)	Screw Shaft(kg/m)
XSFK01404	0.121	1.2
XSU		
XSU01204T3D-02	0.092	0.87
BSHR		
BSHR0082.5-2.5	0.033	0.39
BSHR01002-3.5	0.036	0.61
BSHR01004-2.5	0.088	0.61
BSHR01204-3.5	0.086	0.87
BSHR01205-3.5	0.102	0.87
BSHR01404-3	0.144	1.20
BSHR01604-3	0.112	1.57
BSHR01605-3	0.146	1.56
BSHR01610-2	0.180	1.56
BSHR02005-3	0.22	2.45
BSHR02505-4	0.388	3.83
BSHR02510-4	0.494	3.81
XSV		
XSV01210-01	0.27	0.87
XSV01510-00	0.332	1.37
XSV01520-01	0.348	1.37
XSV02010-00	0.632	2.43
XSV02020-00	0.758	0.39
XSY		
XSY01220A2D-00	0.132	0.87

SCREW/SPLINE

D

Rotary Ball Screw/Spline

Table 1.1.1 Mass series

Rotary Ball Screw - RFBY Type	Rotary Ball Spline - RLBF Type
Ball Screw/Spline - RBBY Type	Ball Screw/Spline - RBLF Type

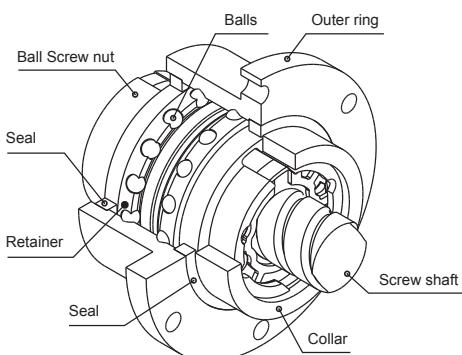


Fig 1.1.2 The Structure of RFBY - series

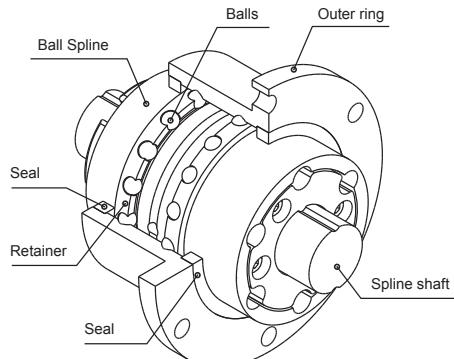
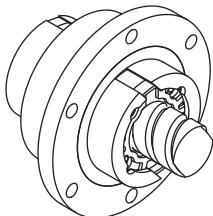
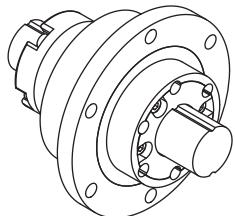
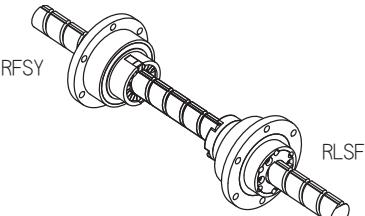
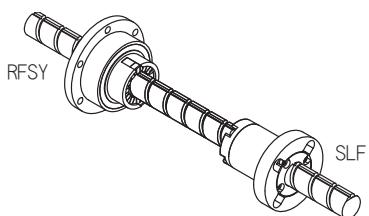


Fig 1.1.3 The Structure of RLBF - series

ABOUT PRECISION ROTARY BALL

1-1 Features of precision Rotary Ball Screw/Spline

Table 1.1.2 Compact series

Rotary Ball Screw - RFSY Type	Rotary Ball Spline - RLSF Type
	
Ball Screw/Spline - RSSY Type	Ball Screw/Spline - RSLY Type
	

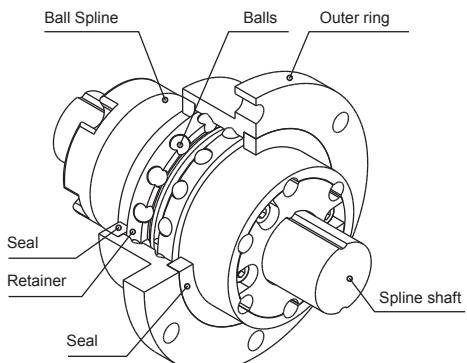
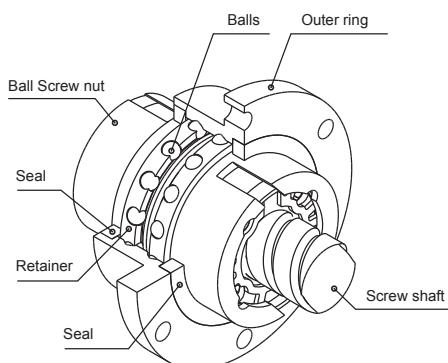


Fig 1.1.4 The Structure of RFSY - series

Fig 1.1.5 The Structure of RLSF - series

D

Rotary Ball Screw/Spline

SCREW/SPLINE

1-2 Accuracy

■ 1-2-1 RBBY, RBLY Accuracy Standards

The Ball Screw/Spline is manufactured as the following specifications.

【Ball Screw】

Axial clearance : 0 or less

Lead accuracy : C5

(Refer to C06 for more details)

【Ball Spline】

Clearance in the rotational direction : 0 or less

(P1 : light preload)

(Refer to B20-21 for more details)

Accuracy grade : class H

(Refer to B22 for more details)

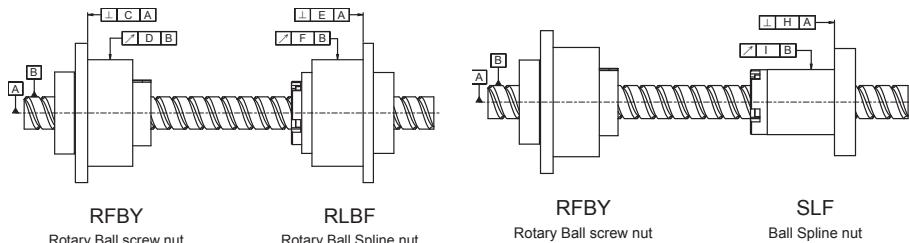


Fig 1.2.1 RBBY - series

Fig 1.2.2 RBLY - series

D

Rotary Ball Screw/Spline

Model No.	C	D	E	F	H	I
RBBY01616 RBLY01616	0.018	0.021	0.016	0.020	0.013	0.016
RBBY02020 RBLY02020	0.018	0.021	0.016	0.020	0.013	0.016
RBBY02525 RBLY02525	0.021	0.021	0.018	0.024	0.016	0.016
RBBY03232 RBLY03232	0.021	0.021	0.018	0.024	0.016	0.016
RBBY04040 RBLY04040	0.025	0.025	0.021	0.033	0.019	0.019
RBBY05050 RBLY05050	0.025	0.025	0.021	0.033	0.019	0.019

ABOUT PRECISION ROTARY BALL

1-2 Accuracy

■ 1-2-2 RFBY Accuracy Standards

The accuracy of model RFBY is according to JIS standard (JIS B 1192-1997) except for the circular runout of Ball Screw axis(D) and the perpendicularity of the flange-mounting surface against the screw axis (C).

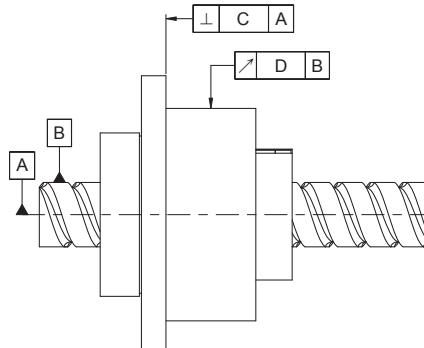


Fig 1.2.3 RFBY - series

Unit : mm

Lead angle accuracy	Rolled C7		Rolled C10		Ground C7		Ground C5		Ground C3	
Model No.	C	D	C	D	C	D	C	D	C	D
RFBY01616	0.035	0.065	0.035	0.065	0.023	0.035	0.016	0.020	0.013	0.017
RFBY02020	0.035	0.065	0.035	0.065	0.023	0.035	0.016	0.020	0.013	0.017
RFBY02525	0.035	0.065	0.035	0.065	0.023	0.035	0.018	0.024	0.015	0.020
RFBY03232	0.035	0.065	0.035	0.065	0.023	0.035	0.018	0.024	0.015	0.020
RFBY04040	0.046	0.086	0.046	0.086	0.026	0.046	0.021	0.033	0.018	0.026
RFBY05050	0.046	0.086	0.046	0.086	0.026	0.046	0.021	0.033	0.018	0.026

SCREW/SPLINE

■ 1-2-3 RSSY, RSLY Accuracy Standards

The Ball Screw/Spline is manufactured as the following specifications.

【Ball Screw】

Axial clearance : 0 or less

Lead accuracy : C5

(Refer to C06 for more details)

【Ball Spline】

Clearance in the rotational direction : 0 or less

(P1 : light preload)

(Refer to B20-21 for more details)

Accuracy grade : class H

(Refer to B22 for more details)

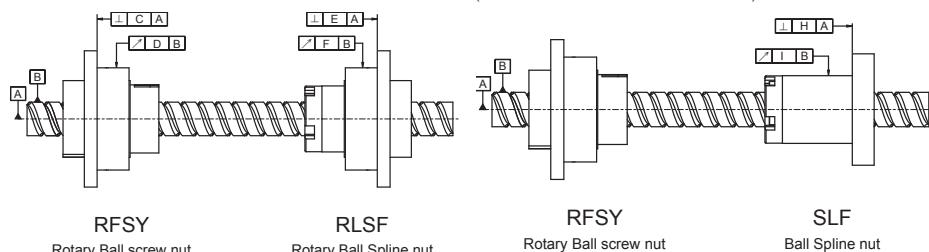


Fig 1.2.4 RSSY - series

Fig 1.2.5 RSLY - series

Model No.	C	D	E	F	H	I
RSSY01616 RSLY01616	0.018	0.021	0.016	0.020	0.013	0.016
RSSY02020 RSLY02020	0.018	0.021	0.016	0.020	0.013	0.016
RSSY02525 RSLY02525	0.021	0.021	0.018	0.024	0.016	0.016
RSSY03232 RSLY03232	0.021	0.021	0.018	0.024	0.016	0.016
RSSY04040 RSLY04040	0.025	0.025	0.021	0.033	0.019	0.019

■ 1-2-4 RFSY Accuracy Standards

The accuracy of model RFBY is according to JIS standard (JIS B 1192-1997) except for the circular runout of Ball Screw axis(D) and the perpendicularity of the flange-mounting surface against the screw axis (C).

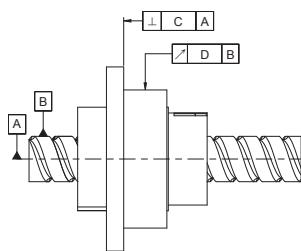


Fig 1.2.3 RFBY - series

D

Rotary Ball Screw/Spline

ABOUT PRECISION ROTARY BALL

1-2 Accuracy

Unit : mm

Lead angle accuracy	Rolled C7		Rolled C10		Ground C7		Ground C5		Ground C3	
Model No.	C	D	C	D	C	D	C	D	C	D
RFSY01616	0.035	0.065	0.035	0.065	0.023	0.035	0.016	0.020	0.013	0.017
RFSY02020	0.035	0.065	0.035	0.065	0.023	0.035	0.016	0.020	0.013	0.017
RFSY02525	0.035	0.065	0.035	0.065	0.023	0.035	0.018	0.024	0.015	0.020
RFSY03232	0.035	0.065	0.035	0.065	0.023	0.035	0.018	0.024	0.015	0.020
RFSY04040	0.046	0.086	0.046	0.086	0.026	0.046	0.021	0.033	0.018	0.026

■ 1-2-5 RLBF, RLSF Accuracy Standards

Accuracy Grades

The accuracy of the Ball Spline is determined by the nodding action of the spline-nut and classified into three accuracy class : Normal(N), High(H) and Precision(P).

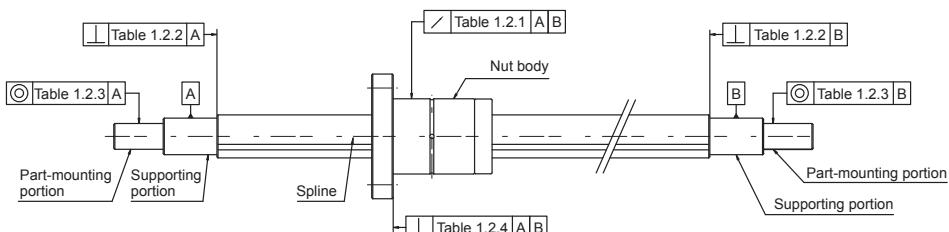


Fig 1.2.7

Accuracy Specification

Tables 1.2.1 ~ 5 indicate the the measurement items of Ball Spline.

Table 1.2.1 The Maximum nodding action of Spline Nut on the support unit.

Unit : μm

Length	Nominal Diameter	16, 20			25, 32			40, 50				
		Above	Below	N	H	P	N	H	P	N	H	P
-	200	56	34	18	53	32	18	53	32	16		
200	315	71	45	25	58	39	21	58	36	19		
315	400	83	53	31	70	44	25	63	39	21		
400	500	95	62	38	78	50	29	68	43	24		
500	630	112	-	-	88	57	34	74	47	27		
630	800	-	-	-	103	68	42	84	54	32		

SCREW/SPLINE

D

Rotary Ball Screw/Spline

Table1.2.2 The Maximum perpendicularity of Spline-shaft end on the support unit. Unit : μm

Nominal Diameter	Accuracy		Normal (N)	High (H)	Precision (P)
	16	20	27	11	8
25	32	33	13	9	
40	50	39	16	11	

Table1.2.3 The concentricity between components assembly part and attach surface. Unit : μm

Nominal Diameter	Accuracy		Normal (N)	High (H)	Precision (P)
	16	20	46	19	12
25	32	53	22	13	
40	50	62	25	15	

Table1.2.4 The perpendicularity of flange on the attach surface Unit : μm

Nominal Diameter	Accuracy				Normal (N)	High (H)	Precision (P)
	16	20	25	32	30	16	11
40	50	46	19	13			

Table1.2.5 The accuracy grade on the effective length accuracy Unit : μm

Accuracy	Normal (N)	High (H)	Precision (P)
Permissible Value	33	13	6

Note : Measurement only applies to any 100mm on the Spline shaft.

ABOUT PRECISION ROTARY BALL

1-3 Example of Assembly - RFBY

■ 1-3-1 Example of Mounting Rotary Ball Screw Nut Model RFBY

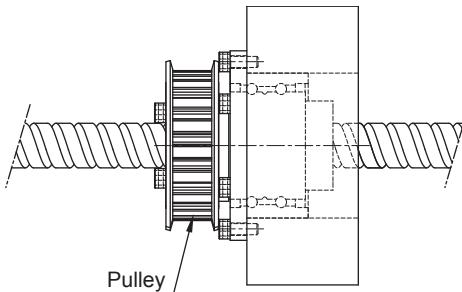


Fig 1.3.1

Example of Mounting Model RFBY

(1) Ball screw nut fixed, screw shaft floated. (Suitable for a long table)

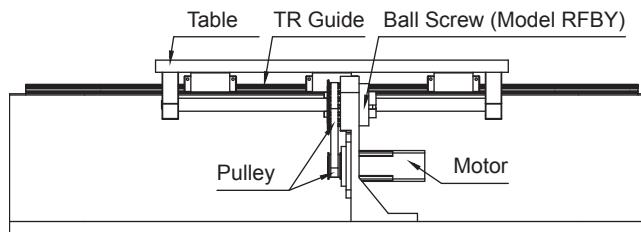


Fig 1.3.2

(2) Ball screw nut floated, screw shaft fixed. (Suitable for a short table and a long stroke)

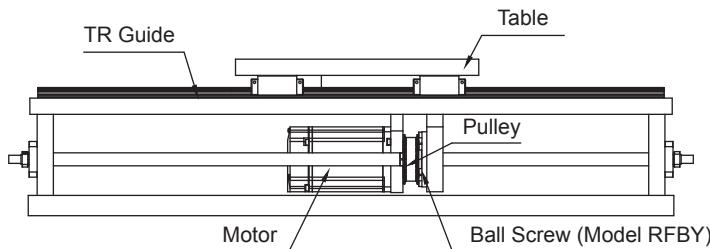


Fig 1.3.3

SCREW/SPLINE

1-4 Example of Assembly - RBBY

■ 1-4-1 Example of Mounting Precision Ball Screw/Spline Model RBBY

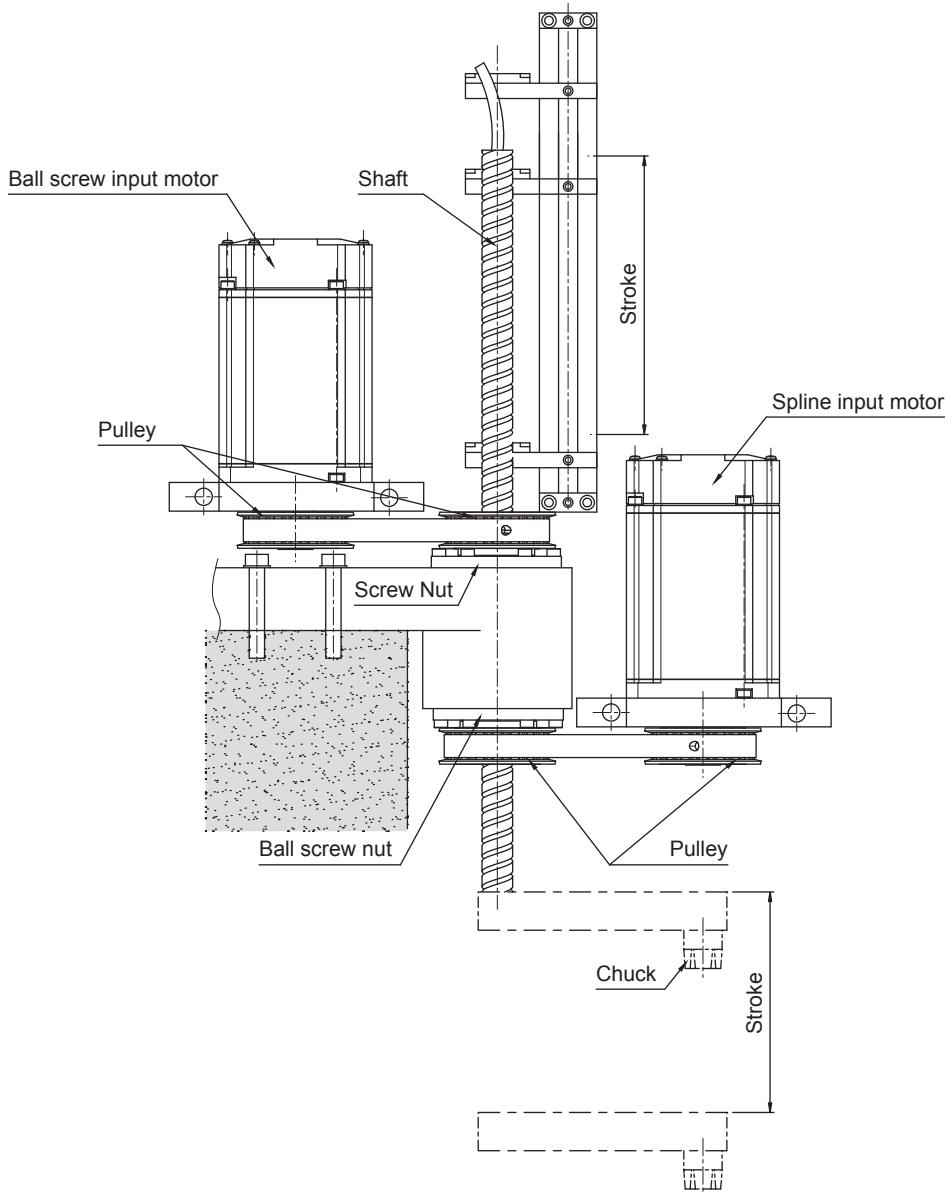


Fig 1.4.1

D

Rotary Ball Screw/Spline

ABOUT PRECISION ROTARY BALL

1-5 Nominal Model Code of Rotary Series

Nominal Model Code of Rotary Ball Screw

RFSY R 016 16 A2 N G C5 - 500 - P0 (2A)

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪

①	②	③	④
Nominal Model	Threading Direction	Nominal Diameter	Lead
RFSY	R : Right	Unit : mm	Unit : mm
RFBY			
⑤	⑥	⑦	⑧
Number of Turns (Turn-Row)	Flange Type	Product Code	Accuracy Grade
Turn : A : 1.8 ex : (1.8×2 = A2)	N : Round	G : Ground F : Rolled	C0, C1, C2, C3, C5, C7, C10
⑨	⑩	⑪	
Overall Length of Shaft	Axial Clearance and Preload Value	Number of Grooves	
Unit : mm	P0, P1, P2, P3, P4	1A : Single start screw 2A : Double start screw	

Nominal Model Code of Rotary Ball Spline

RLSF 016 T2 N N H - 500 - P0

① ② ③ ④ ⑤ ⑥ ⑦ ⑧

①	②	③
Nominal Model	Nominal Diameter	Groove
RLSF	Unit : mm	T2 : 2 Rows
RLBF		T4 : 4 Rows
④	⑤	⑥
Flange Type	Accuracy Grade of Spline Shaft	Spline Shaft Type
N : Round	N : Normal H : High P : Precision	S : Solid H : Hollow
⑦	⑧	
Overall Length of Shaft	Preload Value	
Unit : mm	P0 : No preload P1 : Light preload P2 : Medium preload	

SCREW/SPLINE

Nominal Model Code of Rotary Ball Screw and Ball Spline

RSSY R 016 16 A1 G C5 H H - 500 - P1 (1A)

① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩ ⑪ ⑫

① Nominal Model	② Threading Direction	③ Nominal Diameter
RSSY (RFSY+RLSF)	R : Right	Unit : mm
④ Lead	⑤ Number of Turns (Turn·Row)	⑥ Product Code
Unit : mm	Turn : A : 1.8 ex : (1.8×1 = A1)	G : Ground
⑦ Accuracy Grade of Ball Screw	⑧ Accuracy Grade of Spline Shaft	⑨ Spline Shaft Type
C5	H : High	S : Solid H : Hollow
⑩ Overall Length of Assembly	⑪ Preload Value	⑫ Number of Grooves
Unit : mm	P1 : Light preload	1A : Single start screw

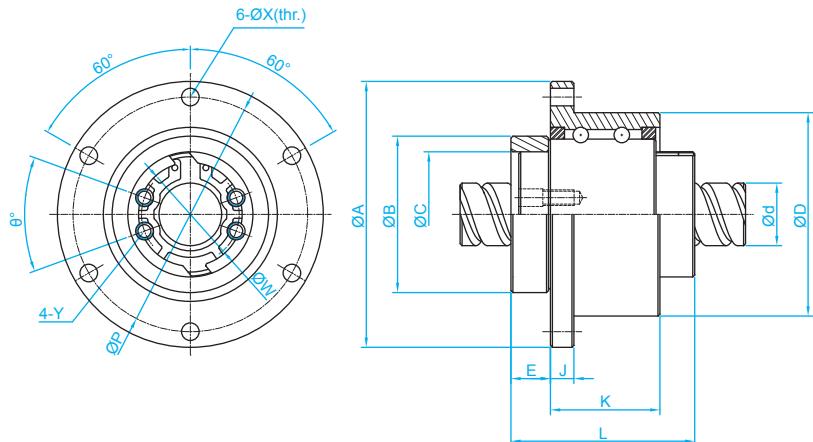
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Rotary Ball Screw/Spline

ABOUT PRECISION ROTARY BALL

1-5 Nominal Model Code of Rotary Series

RFBY Series Specifications

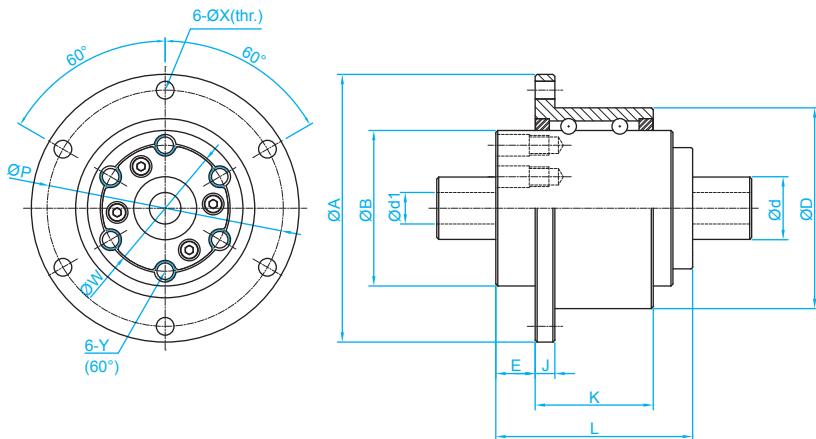


Unit : mm

Model No.	d	I	Da	n	Support Bearing Load Rating		Ball Screw Nut Dimension												Screw Nut Load Rating		
					Ca (kgf)	Coa (kgf)	D	A	B	L	C	E	J	K	P	X	W	Y	θ	Ca (kgf)	Coa (kgf)
RFBY01616-1.8	16	16	2.778	18x1	750	1593	52 ⁰ _{-0.007}	68	40 ⁰ _{-0.025}	47	32 ^{+0.025} ₀	10.1	6	28	60	4.5	25	M4	40	591	1275
RFBY01616-3.6	16	16	2.778	18x2	750	1593	52 ⁰ _{-0.007}	68	40 ⁰ _{-0.025}	47	32 ^{+0.025} ₀	10.1	6	28	60	4.5	25	M4	40	1073	2551
RFBY02020-1.8	20	20	3.175	18x1	1066	2452	62 ⁰ _{-0.007}	78	50 ⁰ _{-0.025}	53.5	39 ^{+0.025} ₀	11	7	34.5	70	4.5	31	M5	40	764	1758
RFBY02020-3.6	20	20	3.175	18x2	1066	2452	62 ⁰ _{-0.007}	78	50 ⁰ _{-0.025}	53.5	39 ^{+0.025} ₀	11	7	34.5	70	4.5	31	M5	40	1387	3515
RFBY02525-1.8	25	25	3.969	18x1	1119	2765	72 ⁰ _{-0.007}	92	58 ⁰ _{-0.03}	65	47 ^{+0.025} ₀	15.8	8	35	81	5.5	38	M6	40	1142	2747
RFBY02525-3.6	25	25	3.969	18x2	1119	2765	72 ⁰ _{-0.007}	92	58 ⁰ _{-0.03}	65	47 ^{+0.025} ₀	15.8	8	35	81	5.5	38	M6	40	2074	5494
RFBY03232-1.8*	32	32	4.762	18x1	2087	5586	80 ⁰ _{-0.007}	105	66 ⁰ _{-0.03}	81	58 ^{+0.03} ₀	21.5	9	42.5	91	6.6	48	M6	40	1664	4345
RFBY04040-1.8*	40	40	6.35	18x1	3183	9306	110 ⁰ _{-0.008}	140	90 ⁰ _{-0.035}	102	73 ^{+0.03} ₀	16.5	11	64.5	123	9	61	M8	50	2662	7031
RFBY05050-1.8*	50	50	7.938	18x1	4328	12573	120 ⁰ _{-0.008}	156	100 ⁰ _{-0.035}	121	90 ^{+0.035} ₀	29	12	70	136	11	75	M10	50	3978	10987

SCREW/SPLINE

RLBF Series Specifications



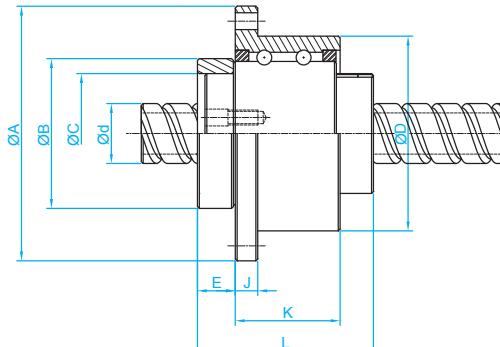
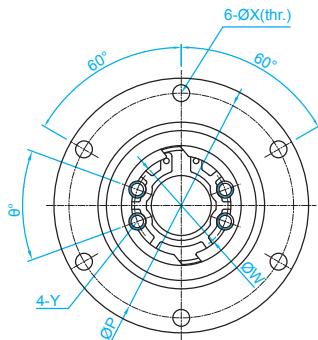
Unit : mm

Model No.	d	d1	Ball Ø	Row	Support Bearing Load Rating		Spline Nut Dimension										Ball Spline Load Rating		
					Ca (kgf)	Coa (kgf)	D	A	B	L	E	J	K	P	X	W	Y	Ca (kgf)	Coa (kgf)
RLBF016	16	8	2.778	2	746	1597	52 ⁰ _{-0.007}	68	39.5 ⁰ _{-0.025}	50	10	5	30	60	4.5	32	M5	545	849
RLBF020	20	10	3.175	2	1011	2138	56 ⁰ _{-0.007}	72	43.5 ⁰ _{-0.025}	63	12	6	42	64	4.5	36	M5	736	1124
RLBF025	25	15	3.5	4	1558	4616	62 ⁰ _{-0.007}	78	53 ⁰ _{-0.03}	71	13	6	49	70	4.5	45	M6	1003	1593
RLBF032	32	16	3.969	4	2087	5586	80 ⁰ _{-0.007}	105	65.5 ⁰ _{-0.03}	80	17	9	54	91	6.6	55	M6	1324	2251
RLBF040	40	20	6.35	4	3141	8705	100 ⁰ _{-0.008}	130	79.5 ⁰ _{-0.03}	100	23	11	63	113	9	68	M6	2972	4033
RLBF050	50	26	7.144	4	4317	12585	120 ⁰ _{-0.008}	156	99.5 ⁰ _{-0.035}	125	25	12	87	136	11	85	M10	4086	5615

ABOUT PRECISION ROTARY BALL

1-5 Nominal Model Code of Rotary Series

RBBY Series Specifications



RFBY

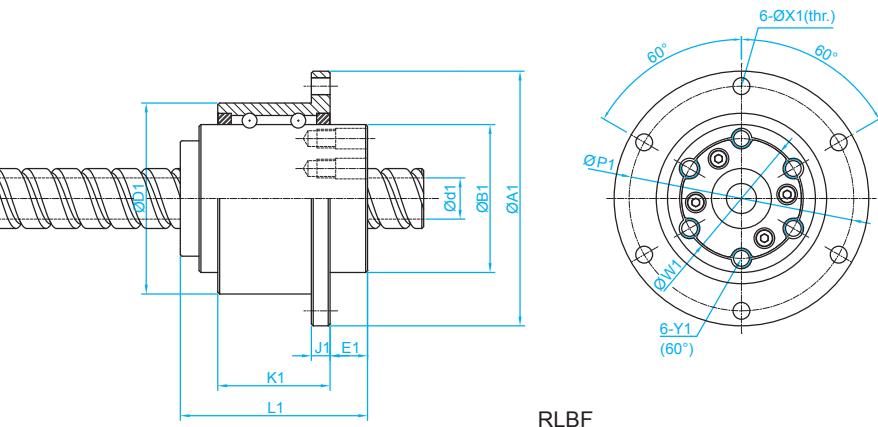
Unit : mm

Model No.	d	I	Da	n	Support Bearing Load Rating		Ball Screw Nut Dimension												Screw Nut Load Rating		
					Ca (kgf)	Coa (kgf)	D	A	B	L	C	E	J	K	P	X	W	Y	θ	Ca (kgf)	Coa (kgf)
RBBY01616-1.8	16	16	2.778	18x1	750	1593	52 ⁰ _{-0.007}	68	40 ⁰ _{-0.025}	47	32 ^{+0.025} ₀	10.1	6	28	60	4.5	25	M4	40	591	1275
RBBY02020-1.8	20	20	3.175	18x1	1066	2452	62 ⁰ _{-0.007}	78	50 ⁰ _{-0.025}	53.5	39 ^{+0.025} ₀	11	7	34.5	70	4.5	31	M5	40	764	1758
RBBY02525-1.8	25	25	3.969	18x1	1119	2765	72 ⁰ _{-0.007}	92	58 ⁰ _{-0.03}	65	47 ^{+0.025} ₀	15.8	8	35	81	5.5	38	M6	40	1142	2747
RBBY03232-1.8♦	32	32	4.762	18x1	2087	5586	80 ⁰ _{-0.007}	105	66 ⁰ _{-0.03}	81	58 ^{+0.03} ₀	21.5	9	42.5	91	6.6	48	M6	40	1664	4345
RBBY04040-1.8♦	40	40	6.35	18x1	3183	9306	110 ⁰ _{-0.008}	140	90 ⁰ _{-0.035}	102	73 ^{+0.03} ₀	16.5	11	64.5	123	9	61	M8	50	2662	7031
RBBY05050-1.8♦	50	50	7.938	18x1	4328	12573	120 ⁰ _{-0.008}	156	100 ⁰ _{-0.035}	121	90 ^{+0.035} ₀	29	12	70	136	11	75	M10	50	3978	10987

SCREW/SPLINE

D

Rotary Ball Screw/Spline



RLBF

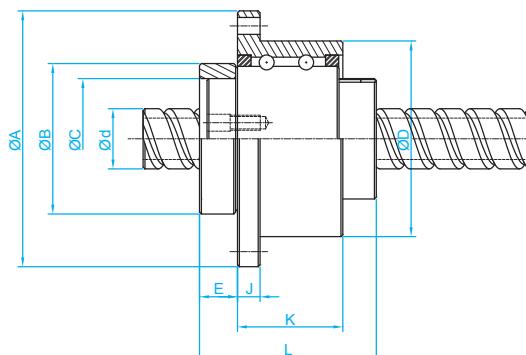
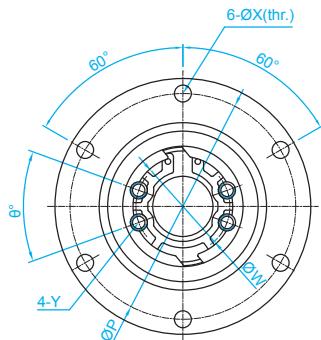
Unit : mm

Model No.	d	d1	Ball Ø	Row	Support Bearing Load Rating		Spline Nut Dimension												Ball Spline Load Rating	
					Ca (kgf)	Coa (kgf)	D1	A1	B1	L1	E1	J1	K1	P1	X1	W1	Y1	Ca (kgf)	Coa (kgf)	
RBBY01616	16	11	2.778	2	746	1597	52 ⁰ _{-0.007}	68	39.5 ⁰ _{-0.025}	50	10	5	30	60	4.5	32	M5	545	849	
RBBY02020	20	14	3.175	2	1011	2138	56 ⁰ _{-0.007}	72	43.5 ⁰ _{-0.025}	63	12	6	42	64	4.5	36	M5	736	1124	
RBBY02525	25	18	3.5	4	1558	4616	62 ⁰ _{-0.007}	78	53 ⁰ _{-0.03}	71	13	6	49	70	4.5	45	M6	1003	1593	
RBBY03232	32	23	3.969	4	2087	5586	80 ⁰ _{-0.007}	105	65.5 ⁰ _{-0.03}	80	17	9	54	91	6.6	55	M6	1324	2251	
RBBY04040	40	29	6.35	4	3141	8705	100 ⁰ _{-0.008}	130	79.5 ⁰ _{-0.03}	100	23	11	63	113	9	68	M6	2972	4033	
RBBY05050	50	36	7.144	4	4317	12585	120 ⁰ _{-0.008}	156	99.5 ⁰ _{-0.035}	125	25	12	87	136	11	85	M10	4086	5615	

ABOUT PRECISION ROTARY BALL

1-5 Nominal Model Code of Rotary Series

RBLY Series Specifications

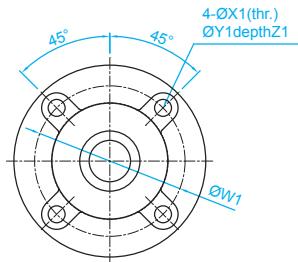
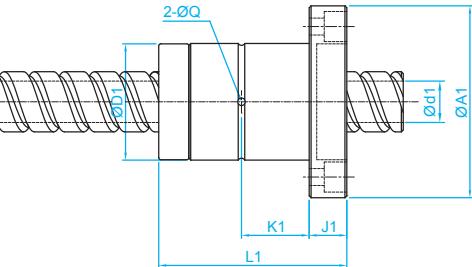


RFBY

Unit : mm

Model No.	d	I	Da	n	Support Bearing Load Rating		Ball Screw Nut Dimension												Screw Nut Load Rating		
					Ca (kgf)	Coa (kgf)	D	A	B	L	C	E	J	K	P	X	W	Y	θ	Ca (kgf)	Coa (kgf)
RBLY01616-1.8	16	16	2.778	18x1	750	1593	52 ⁰ _{-0.007}	68	40 ⁰ _{-0.025}	47	32 ^{+0.025} ₀	10.1	6	28	60	4.5	25	M4	40	591	1275
RBLY02020-1.8	20	20	3.175	18x1	1066	2452	62 ⁰ _{-0.007}	78	50 ⁰ _{-0.025}	53.5	39 ^{+0.025} ₀	11	7	34.5	70	4.5	31	M5	40	764	1758
RBLY02525-1.8	25	25	3.969	18x1	1119	2765	72 ⁰ _{-0.007}	92	58 ⁰ _{-0.03}	65	47 ^{+0.025} ₀	15.8	8	35	81	5.5	38	M6	40	1142	2747
RBLY03232-1.8*	32	32	4.762	18x1	2087	5586	80 ⁰ _{-0.007}	105	66 ⁰ _{-0.03}	81	58 ^{+0.03} ₀	21.5	9	42.5	91	6.6	48	M6	40	1664	4345
RBLY04040-1.8*	40	40	6.35	18x1	3183	9306	110 ⁰ _{-0.008}	140	90 ⁰ _{-0.035}	102	73 ^{+0.03} ₀	16.5	11	64.5	123	9	61	M8	50	2662	7031
RBLY05050-1.8*	50	50	7.938	18x1	4328	12573	120 ⁰ _{-0.008}	156	100 ⁰ _{-0.035}	121	90 ^{+0.035} ₀	29	12	70	136	11	75	M10	50	3978	10987

SCREW/SPLINE



SLF

Unit : mm

Model No.	d	d1	Row	Spline Nut Dimension										Ball Spline Load Rating	
				D1	A1	L1	J1	K1	W1	X1	Y1	Z1	Q	Ca (kgf)	Coa (kgf)
RBLY01616	16	11	2	31 ⁰ _{-0.016}	51	50	10	18	40	4.5	8	6	2	545	849
RBLY02020	20	14	2	35 ⁰ _{-0.016}	58	56	10	18	45	5.5	9.5	5.4	2	724	1109
RBLY02525	25	18	4	42 ⁰ _{-0.016}	65	71	13	26.5	52	5.5	9.5	8	3	1003	1593
RBLY03232	32	23	4	49 ⁰ _{-0.016}	77	80	13	30	62	6.6	11	6.5	3	1324	2251
RBLY04040	40	29	4	64 ⁰ _{-0.019}	100	100	18	36	82	9	14	12	4	2972	4033
RBLY05050	50	36	4	80 ⁰ _{-0.019}	124	125	20	46.5	102	11	17.5	12	4	4086	5615

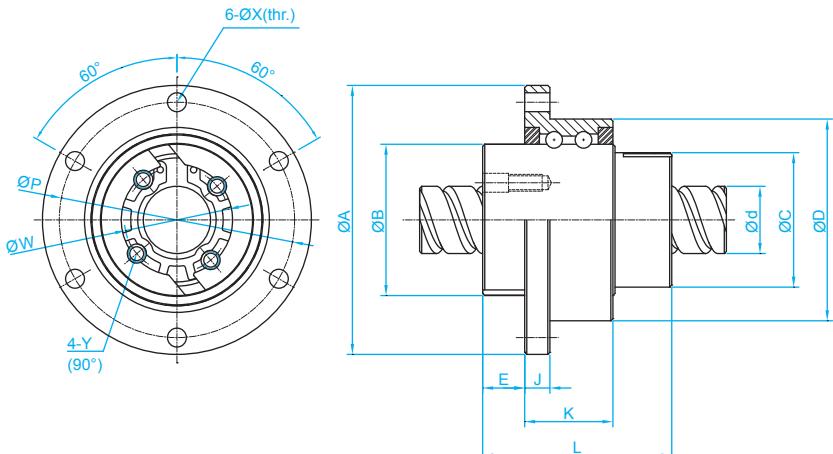
D

Rotary Ball Screw/Spline

ABOUT PRECISION ROTARY BALL

1-5 Nominal Model Code of Rotary Series

RFSY Series Specifications

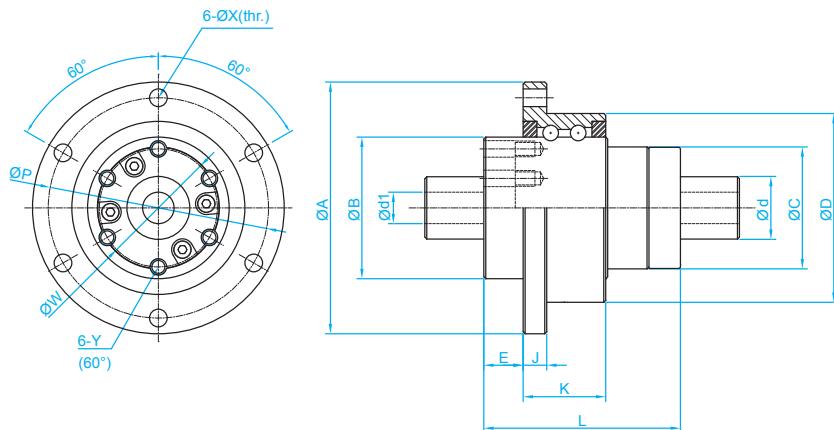


Unit : mm

Model No.	d	l	Da	n	Support Bearing Load Rating		Ball Screw Nut Dimension												Screw Nut Load Rating	
					Ca (kgf)	Coa (kgf)	D	A	B	L	C	E	J	K	P	X	W	Y	Ca (kgf)	Coa (kgf)
RFSY01616-1.8	16	16	2.778	1.8x1	730	1484	48 ^{-0.009} _{-0.025}	64	36 ⁰ _{-0.025}	45	32	10	6	21	56	4.5	25	M4	591	1275
RFSY01616-3.6	16	16	2.778	1.8x2	730	1484	48 ^{-0.009} _{-0.025}	64	36 ⁰ _{-0.025}	45	32	10	6	21	56	4.5	25	M4	1073	2551
RFSY02020-1.8	20	20	3.175	1.8x1	788	1811	56 ^{0.01} _{-0.029}	72	43.5 ⁰ _{-0.025}	52	39	11	6	21	64	4.5	31	M5	764	1758
RFSY02020-3.6	20	20	3.175	1.8x2	788	1811	56 ^{0.01} _{-0.029}	72	43.5 ⁰ _{-0.025}	52	39	11	6	21	64	4.5	31	M5	1387	3515
RFSY02525-1.8	25	25	3.969	1.8x1	1094	2607	66 ^{0.01} _{-0.029}	86	52 ⁰ _{-0.03}	64	47	13	7	25	75	5.5	38	M6	1142	2747
RFSY02525-3.6	25	25	3.969	1.8x2	1094	2607	66 ^{0.01} _{-0.029}	86	52 ⁰ _{-0.03}	64	47	13	7	25	75	5.5	38	M6	2074	5494
RFSY03232-1.8♦	32	32	4.762	1.8x1	1191	3233	78 ^{0.01} _{-0.029}	103	63 ⁰ _{-0.03}	78	58	14	8	25	89	6.6	48	M6	1664	4345
RFSY04040-1.8♦	40	40	6.35	1.8x1	2216	6685	100 ^{0.012} _{-0.034}	130	79.5 ⁰ _{-0.035}	99	73	16.5	10	33	113	9	61	M8	2662	7031

SCREW/SPLINE

RLSF Series Specifications



D

Rotary Ball Screw/Spline

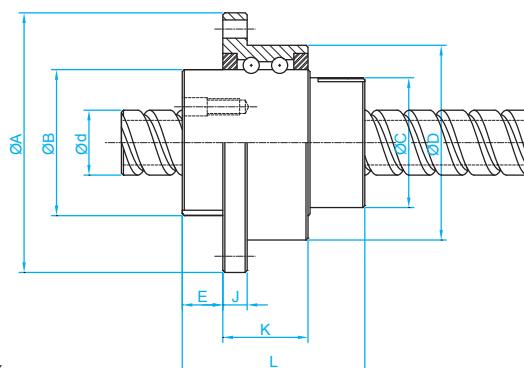
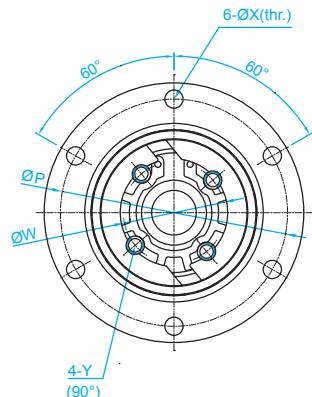
Unit : mm

Model No.	d	d1	Ball Ø	Row	Support Bearing Load Rating		Spline Nut Dimension										Ball Spline Load Rating			
					Ca (kgf)	Coa (kgf)	D	A	B	L	C	E	J	K	P	X	W	Y	Ca (kgf)	Coa (kgf)
RLSF016	16	8	2.778	2	730	1484	48 ^{-0.009} _{-0.025}	64	36 ⁰ _{-0.025}	50	31	10	6	21	56	4.5	30	M4	545	849
RLSF020	20	10	3.175	2	788	1811	56 ^{-0.01} _{-0.029}	72	43.5 ⁰ _{-0.025}	63	35	12	6	21	64	4.5	36	M5	736	1124
RLSF025	25	15	3.5	4	1094	2607	66 ^{-0.01} _{-0.029}	86	52 ⁰ _{-0.03}	71	42	13	7	25	75	5.5	44	M5	1003	1593
RLSF032	32	16	3.969	4	1191	3233	78 ^{-0.01} _{-0.029}	103	63 ⁰ _{-0.03}	80	52	17	8	25	89	6.6	54	M6	1324	2251
RLSF040	40	20	6.35	4	2216	6685	100 ^{-0.012} _{-0.034}	130	79.5 ⁰ _{-0.035}	100	64	20	10	33	113	9	68	M6	2972	4033

ABOUT PRECISION ROTARY BALL

1-5 Nominal Model Code of Rotary Series

RSSY series specifications

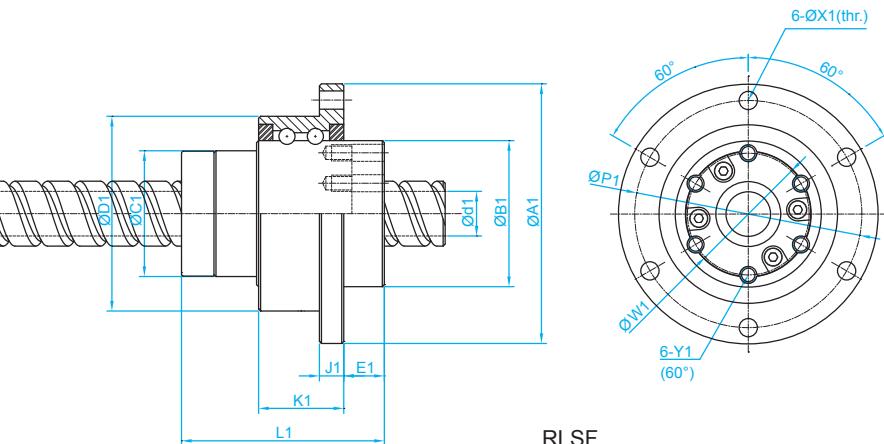


RFSY

Unit : mm

Model No.	d	l	Da	n	Support Bearing Load Rating		Ball Screw Nut Dimension												Screw Nut Load Rating	
					Ca (kgf)	Coa (kgf)	D	A	B	L	C	E	J	K	P	X	W	Y	Ca (kgf)	Coa (kgf)
RSSY01616-1.8	16	16	2.778	1.8x1	730	1484	48 ^{0.009} _{-0.025}	64	36 ⁰ _{-0.025}	45	32	10	6	21	56	4.5	25	M4	591	1275
RSSY02020-1.8	20	20	3.175	1.8x1	788	1811	56 ^{0.01} _{-0.029}	72	43.5 ⁰ _{-0.025}	52	39	11	6	21	64	4.5	31	M5	764	1758
RSSY02525-1.8	25	25	3.969	1.8x1	1094	2607	66 ^{0.01} _{-0.029}	86	52 ⁰ _{-0.03}	64	47	13	7	25	75	5.5	38	M6	1142	2747
RSSY03232-1.8*	32	32	4.762	1.8x1	1191	3233	78 ^{0.01} _{-0.029}	103	63 ⁰ _{-0.03}	78	58	14	8	25	89	6.6	48	M6	1664	4345
RSSY04040-1.8*	40	40	6.35	1.8x1	2216	6685	110 ^{0.012} _{-0.034}	130	79.5 ⁰ _{-0.035}	99	73	16.5	10	33	113	9	61	M8	2662	7031

SCREW/SPLINE



RLSF

D

Rotary Ball Screw/Spline

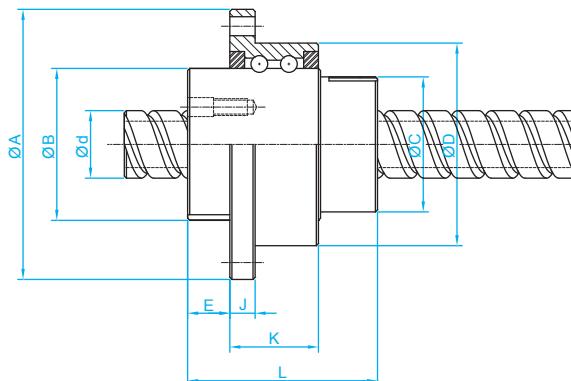
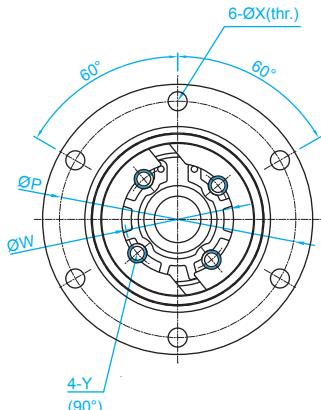
Unit : mm

Model No.	d	d1	Ball Ø	Row	Support Bearing Load Rating	Spline Nut Dimension												Ball Spline Load Rating		
						Ca (kgf)	Coa (kgf)	D1	A1	B1	L1	C1	E1	J1	K1	P1	X1	W1	Y1	Ca (kgf)
RSSY01616	16	11	2.778	2	730	1484	48 ^{-0.009} _{-0.025}	64	36 ⁰ _{-0.025}	50	31	10	6	21	56	4.5	30	M4	545	849
RSSY02020	20	14	3.175	2	788	1811	56 ^{-0.01} _{-0.029}	72	43.5 ⁰ _{-0.025}	63	35	12	6	21	64	4.5	36	M5	736	1124
RSSY02525	25	18	3.5	4	1094	2607	66 ^{-0.01} _{-0.029}	86	52 ⁰ _{-0.03}	71	42	13	7	25	75	5.5	44	M5	1003	1593
RSSY03232	32	23	3.969	4	1191	3233	78 ^{-0.01} _{-0.029}	103	63 ⁰ _{-0.03}	80	52	17	8	25	89	6.6	54	M6	1324	2251
RSSY04040	40	29	6.35	4	2216	6685	100 ^{-0.012} _{-0.034}	130	79.5 ⁰ _{-0.035}	100	64	20	10	33	113	9	68	M6	2972	4033

ABOUT PRECISION ROTARY BALL

1-5 Nominal Model Code of Rotary Series

RSLY Series Specifications



Unit : mm

Model No.	d	I	Da	n	Support Bearing Load Rating		Ball Screw Nut Dimension										Screw Nut Load Rating			
					Ca (kgf)	Coa (kgf)	D	A	B	L	C	E	J	K	P	X	W	Y	Ca (kgf)	Coa (kgf)
RSLY01616-1.8	16	16	2.778	1.8x1	730	1484	48 ^{-0.009} -0.025	64	36 ⁰ -0.025	45	32	10	6	21	56	4.5	25	M4	591	1275
RSLY02020-1.8	20	20	3.175	1.8x1	788	1811	56 ^{-0.01} -0.029	72	43.5 ⁰ -0.025	52	39	11	6	21	64	4.5	31	M5	764	1758
RSLY02525-1.8	25	25	3.969	1.8x1	1094	2607	66 ^{-0.01} -0.029	86	52 ⁰ -0.03	64	47	13	7	25	75	5.5	38	M6	1142	2747
RSLY03232-1.8*	32	32	4.762	1.8x1	1191	3233	78 ^{-0.01} -0.029	103	63 ⁰ -0.03	78	58	14	8	25	89	6.6	48	M6	1664	4345
RSLY04040-1.8*	40	40	6.35	1.8x1	2216	6685	100 ^{-0.012} -0.034	130	79.5 ⁰ -0.035	99	73	16.5	10	33	113	9	61	M8	2662	7031

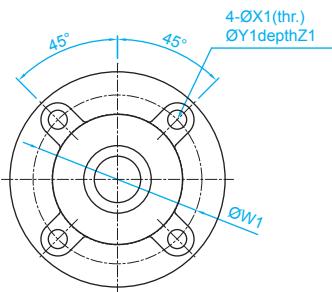
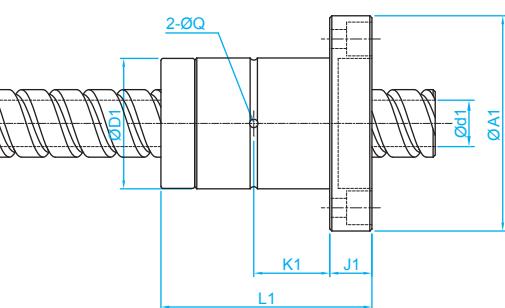
D

Rotary Ball Screw/Spline

SCREW/SPLINE

D

Rotary Ball Screw/Spline



Unit : mm

Model No.	d	d1	Row	Spline Nut Dimension										Ball Spline Load Rating	
				D1	A1	L1	J1	K1	W1	X1	Y1	Z1	Q	Ca (kgf)	Coa (kgf)
RSLY01616	16	11	2	31 ⁰ _{-0.016}	51	50	10	18	40	4.5	8	6	2	545	849
RSLY02020	20	14	2	35 ⁰ _{-0.016}	58	56	10	18	45	5.5	9.5	5.4	2	724	1109
RSLY02525	25	18	4	42 ⁰ _{-0.016}	65	71	13	26.5	52	5.5	9.5	8	3	1003	1593
RSLY03232	32	23	4	49 ⁰ _{-0.016}	77	80	13	30	62	6.6	11	6.5	3	1324	2251
RSLY04040	40	29	4	64 ⁰ _{-0.019}	100	100	18	36	82	9	14	12	4	2972	4033

ABOUT PRECISION ROTARY BALL

1-6 Roary Series Weight List

Mass series

Model No.	Weight			
	Ball Nut (kg)	Spline Nut (Kg)	Screw Shaft (kg/m)	Spline Shaft (kg/m)
RFBY				
RFBY01616-1.8	0.502	-	1.56	-
RFBY01616-3.6	0.462	-	1.55	-
RFBY02020-1.8	0.822	-	2.45	-
RFBY02020-3.6	0.538	-	2.42	-
RFBY02525-1.8	1.264	-	3.82	-
RFBY02525-3.6	1.274	-	3.79	-
RFBY03232-1.8	1.543	-	6.27	-
RFBY04040-1.8	4.648	-	9.78	-
RFBY05050-1.8	6.096	-	15.28	-
RLBF				
RLBF016	-	0.52	-	1.56
RLBF020	-	0.75	-	2.44
RLBF025	-	0.964	-	3.80
RLBF032	-	2.002	-	6.255
RLBF040	-	3.616	-	9.69
RLBF050	-	6.43	-	15.19
RBBY				
RBBY01616-1.8	0.502	0.52	1.54	-
RBBY02020-1.8	0.822	0.75	2.42	-
RBBY02525-1.8	1.264	0.964	3.77	-
RBBY03232-1.8	1.543	2.002	6.21	-
RBBY04040-1.8	4.648	3.616	9.61	-
RBBY05050-1.8	6.096	6.43	15.06	-
RBLY				
RBLY01616-1.8	0.502	0.226	1.54	-
RBLY02020-1.8	0.822	0.303	2.42	-
RBLY02525-1.8	1.264	0.458	3.77	-
RBLY03232-1.8	1.543	0.713	6.21	-
RBLY04040-1.8	4.648	1.430	9.61	-
RBLY05050-1.8	6.096	2.756	15.06	-

D

Rotary Ball Screw/Spline

SCREW/SPLINE

Compact series

Model No.	Weight			
	Ball Nut (kg)	Spline Nut (Kg)	Screw Shaft (kg/m)	Spline Shaft (kg/m)
RFSY				
RFSY01616-1.8	0.324	-	1.56	-
RFSY01616-3.6	0.372	-	1.55	-
RFSY02020-1.8	0.536	-	2.45	-
RFSY02020-3.6	0.534	-	2.42	-
RFSY02525-1.8	0.9	-	3.82	-
RFSY02525-3.6	0.906	-	3.79	-
RFSY03232-1.8	1.085	-	6.27	-
RFSY04040-1.8	2.214	-	9.78	-
RLSF				
RLSF016	-	0.37	-	1.56
RLSF020	-	0.552	-	2.44
RLSF025	-	0.650	-	3.80
RLSF032	-	0.629	-	6.255
RLSF040	-	1.999	-	9.69
RSSY				
RSSY01616-1.8	0.324	0.37	1.54	-
RSSY02020-1.8	0.536	0.552	2.42	-
RSSY02525-1.8	0.9	0.650	3.77	-
RSSY03232-1.8	1.085	0.629	6.21	-
RSSY04040-1.8	2.214	1.999	9.61	-
RSLY				
RSLY01616-1.8	0.324	0.37	1.54	-
RSLY02020-1.8	0.536	0.552	2.42	-
RSLY02525-1.8	0.9	0.650	3.77	-
RSLY03232-1.8	1.085	0.629	6.21	-
RSLY04040-1.8	2.214	1.999	9.61	-

D

Rotary Ball Screw/Spline

HISAKA

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COMPREHENSIVE SELECTION OF MINIATURE BALL SCREW

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➤ 滚珠丝杠轴径-导程速查表

BALL SCREW SHAFT DIAMETER LEAD QUICK REFERENCE TABLE

	Lead/导程(mm)								Lead/导程(mm)								
	0.5	1	1.5	2	2.25	2.5	3	4	5	6	8	10	12	15	20	30	40
Screws Shaft / 丝杆轴径(mm)	φ4	○	●		●			○			○						
	φ5	○	○		○			○			○						
	φ6	○	●	○	●		○			●							
	φ8	○	●	○	●	○	●	●		●							
	φ10		●	○	●		○	●	●	●							
	φ12		○		●			○		●							
	φ13																
	φ14		○		●		○	○	○	●							
	φ15									○							
	φ20										○						●

标准库存品 / Standard Products ● 接单生产 / Customized Products ○

➤ 滑动丝杆轴径-导程速查表

QUICK REFERENCE TABLE FOR DIAMETER LEAD OF SLIDING SCREW ROD

	Lead/导程(mm)								Lead/导程(mm)								
	1	2	2.5	3	4	5	6	8	9	10	12	15	18	20	24	30	36
Screws Shaft / 丝杆轴径(mm)	φ4	●	●														
	φ5				●												
	φ6	●	●					●									
	φ8	●	●	●	●	●	●	●									
	φ10	●	●		●	●	●	●									
	φ12		●			●	●	●								●	●
	φ15		●				●									●	●

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➤ 滚珠丝杠电机轴承-导程速查表

BALL SCREW MOTOR BEARING LEAD QUICK REFERENCE TABLE

		Lead/导程(mm)								Lead/导程(mm)							
		0.5	1	1.5	2	2.25	2.5	3	4	5	6	8	10	12	15	20	30
Screws Shaft / 丝杠轴径(mm)	φ4	○	●		●			○		○							
	φ5	○	○		○			○	●								
	φ6	○	●	○	●												
	φ8	○	●	○	●		○	○	○								
	φ10		○	○	●			○	○								
	φ12		○		●	○		○	●						●	●	○
	φ13														●		

标准库存品 / Standard Products ● 接单生产 / Customized Products ○

➤ 滑动丝杆电机直连型-轴径导程速查表

SLIDING SCREW MOTOR DIRECT CONNECTION SHAFT DIAMETER LEAD QUICK REFERENCE TABLE

		Lead/导程(mm)								Lead/导程(mm)							
		1	2	2.5	3	4	5	6	8	10	12	15	18	20	24	30	36
Screws Shaft / 丝杠轴径(mm)	φ4	●	●														
	φ5					●											
	φ6	●	●					●									
	φ8	●	●	○	●	○	●	○	●								
	φ10	●	●		○	●	●	○									
	φ12		●			●	●	○							●	●	●

标准库存品 / Standard Products ● 接单生产 / Customized Products ○

标准滚珠丝杆

Standard ball screw

冷轧滚珠丝杆GSR/BBS系列 (C5/Ct7/Ct10)

GSR series of cold rolled ball screw (C5 / Ct7 / Ct10)

标准滚珠丝杆标准库存品

● 公称型号的构成 Model number notation

GSR	06	01	K	—	200	R	200	Ct7
1	2	3	4		5	6	7	8

1 系列符号

GSR: 冷轧滚珠丝杆

BBS: 不锈钢冷轧滚珠丝杆

2 丝杆轴公称外径 (mm)

3 导程 (mm)

4 螺母类型

5 螺纹部长度 (mm)

6 螺纹旋向 (R=右旋)

7 丝杠轴总长 (mm)

8 精度等级 (C5/Ct7/Ct10)

1 Series of symbols:

GSR: cold rolled ball screw

BBS: stainless steel cold rolled ball screw

2 Nominal outer diameter of screw shaft (mm)

3 Lead (mm)

4 Nut type

5 Thread length (mm)

6 Thread direction (r = right)

7 Total length of screw shaft (mm)

8 Accuracy class (C5/Ct7/Ct10)

● 精度等级和轴向间隙

GSR系列 (冷轧滚珠丝杆、精密滚珠丝杆标准库存品) 及BBS系列 (不锈钢冷轧滚珠丝杆标准库存品) 的精度等级有JISC5/Ct7/Ct10三种。轴向间隙根据精度等级不同备有0.005mm/0.02mm/0.05mm。

● 材质和表面硬度

GSR系列 (冷轧滚珠丝杆、精密滚珠是按标准库存品) 的螺杆轴丝杆材料S55C (高频淬火) 、螺母材料SCM415H (渗碳淬火) , 滚珠丝杆部分的表面硬度为HRC58以上。

BBS系列 (不锈钢冷轧滚珠丝杆标准库存品) 的螺杆轴丝杆材料SUS440C (高频淬火) 、螺母材料SUS440 (真空淬火) , 滚珠丝杆部分的表面硬度为HRC55以上。

● 润滑

为防止生锈, 未对轴端进行加工的GSR系列 (冷轧滚珠丝杆、精密滚珠丝杆标准库存品) 及BBS系列 (不锈钢冷轧滚珠丝杆标准库存品) 产品均涂抹有防锈油。由于防锈油不具备润滑性, 因此在使用前请另行涂抹润滑剂。

● 轴端形状

GSR系列 (冷轧滚珠丝杆、精密滚珠丝杆标准库存品) 的轴端形状为进行标准化。

● 交货期快

轴端没有加工完成的GSR系列已经标准化, 常年备有库存、交货及时。丝杆和螺母, 可以单独订货。

● Accuracy Class & Axial Clearance

GSR series (standard stock of cold rolled ball screw and precision ball screw) and BBS series (standard stock of stainless steel cold rolled ball screw) have three precision grades jisc5 / Ct7 / Ct10. The axial clearance is provided according to the accuracy level 0.005mm/0.02mm/0.05mm。

● Material & Surface Hardness

GSR series (cold rolling ball screw and precision ball are standard stock) screw shaft screw material S55C (high frequency quenching), nut material scm415h (carburizing quenching), surface hardness of ball screw part is above hrc58.

The screw shaft screw material SUS440C (high frequency quenching) and nut material sus440 (vacuum quenching) of BBS series (standard stock of stainless steel cold rolling ball screw). The surface hardness of the ball screw part is above HRC55.

● Lubrication

In order to prevent rusting, GSR series (standard stock of cold rolled ball screw and precision ball screw) and BBS series (standard stock of stainless steel cold rolled ball screw) products that are not processed on the shaft end are coated with antirust oil. Since anti show oil does not have lubricity, please apply lubricant separately before use.

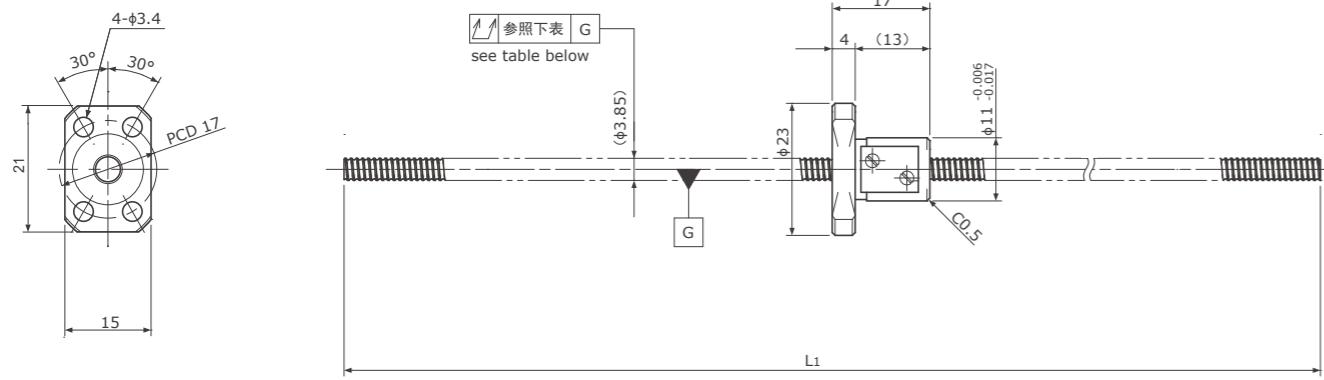
● Shaft End Shape

The shaft end shape of GSR series (cold rolled ball screw, precision ball screw standard stock) is standardized.

● Fast Delivery Time

The GSR series which has not been processed at the shaft end has been standardized, and has been kept in stock and delivered in time all the year round. Screw rod and nut can be ordered separately.

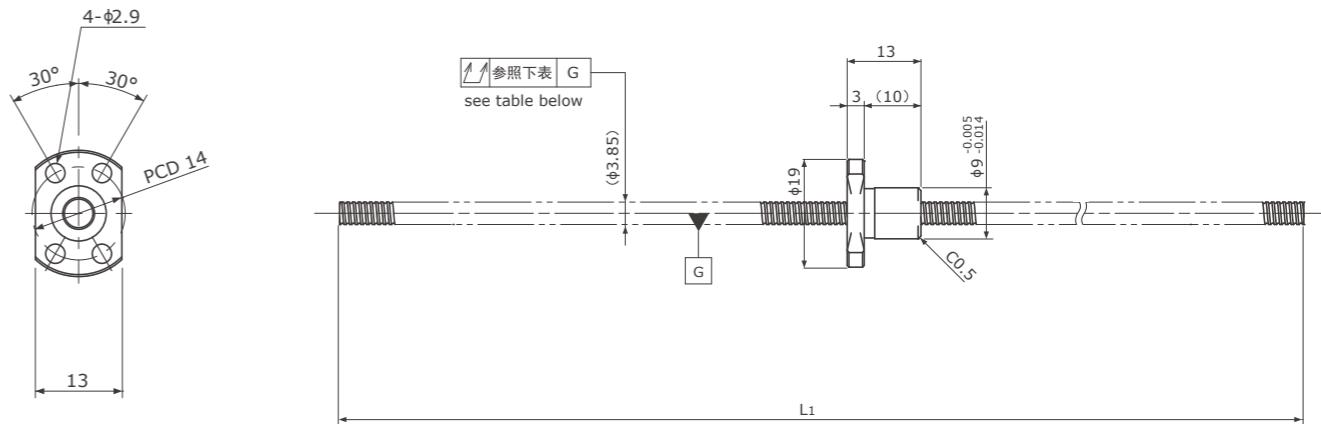
GSR0401 | Shaft dia.(轴径) $\phi 4$ Lead(导程)1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ3.3		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0401K | Shaft dia.(轴径) $\phi 4$ Lead(导程)1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ3.3		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

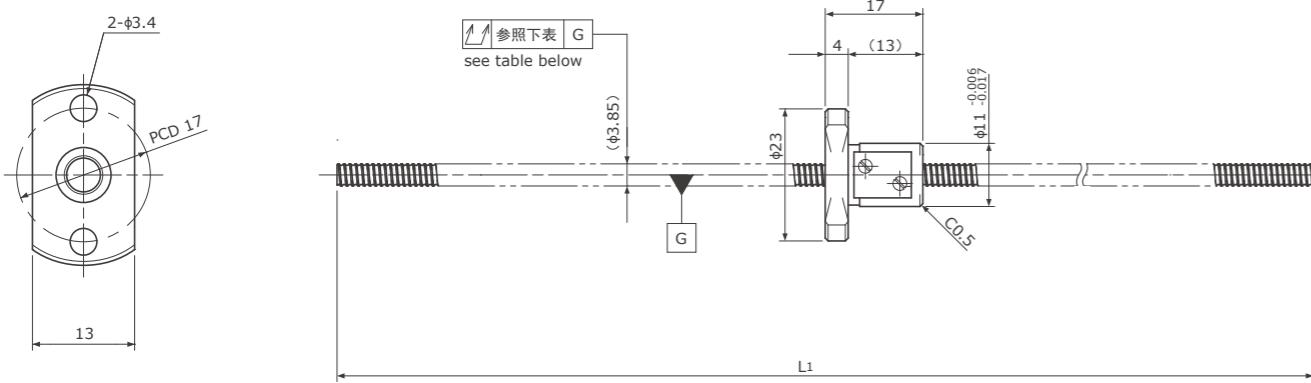
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L ₁	Lead accuracy 导程精度		Total Run-out 全跳动 ↑↓	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N		
				Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
				±0.030	0.018	0.090	~0.005		-	560	790
GSR0401-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005				
GSR0401-600R600C7	580	Ct7	600	±0.104	0.050	0.320	~0.020				
GSR0401-600R600C10	580	Ct10	600	±0.420	0.210	0.640	~0.050				

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L ₁	Lead accuracy 导程精度		Total Run-out 全跳动 ↑↓	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N		
				Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
GSR0401K-600R600C5	585	C5	600	±0.030	0.018	0.090	~0.005		-	420	570
GSR0401K-600R600C7	585	Ct7	600	±0.104	0.050	0.320	~0.020				
GSR0401K-600R600C10	585	Ct10	600	±0.420	0.210	0.640	~0.050				

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GSR0401G | Shaft dia.(轴径) $\phi 4$ Lead(导程) 1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	$\phi 0.8$		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	$\phi 3.3$		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	$\phi 0.8$		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	$\phi 3.3$		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

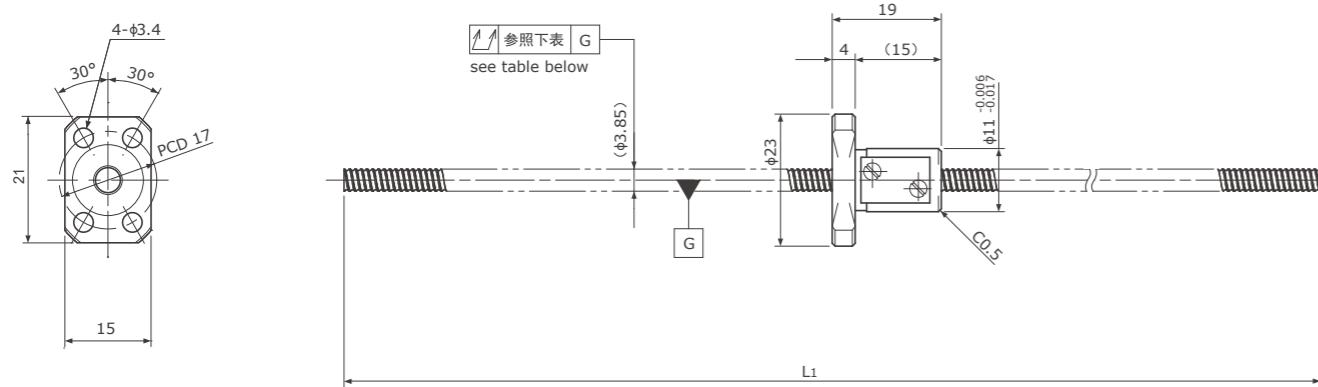
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0401G-600R600C5	580	C5	600	± 0.030	0.018	0.090	~ 0.005	-	560	790
GSR0401G-600R600C7	580	Ct7	600	± 0.104	0.050	0.320	~ 0.020			
GSR0401G-600R600C10	580	Ct10	600	± 0.420	0.210	0.640	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0401T-600R600C5	585	C5	600	± 0.030	0.018	0.090	~ 0.005	-	420	570
GSR0401T-600R600C7	585	Ct7	600	± 0.104	0.050	0.320	~ 0.020			
GSR0401T-600R600C10	585	Ct10	600	± 0.420	0.210	0.640	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

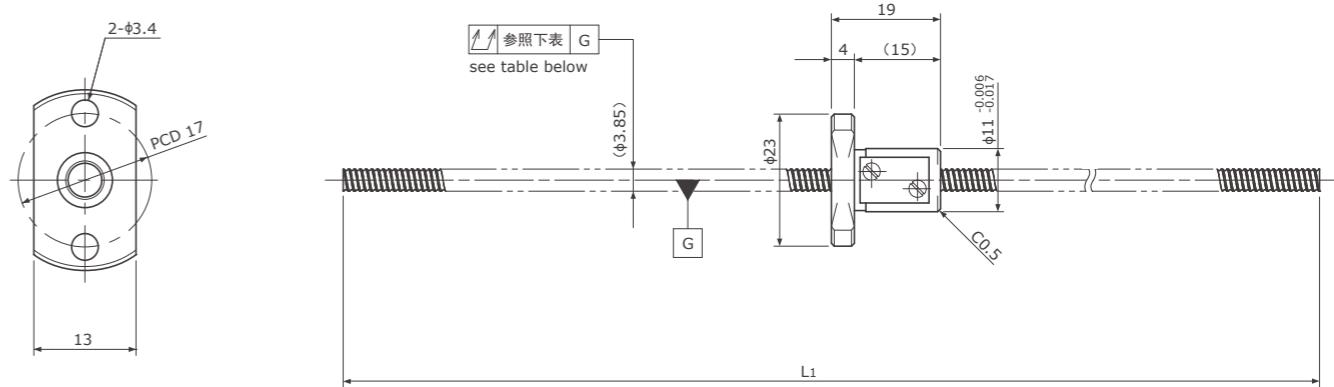
GSR0402 | Shaft dia.(轴径) $\phi 4$ Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ3.3		
Number of circuit 循环数	2.7×1		
Material 质材	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0402G | Shaft dia.(轴径) $\phi 4$ Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ3.3		
Number of circuit 循环数	2.7×1		
Material 质材	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

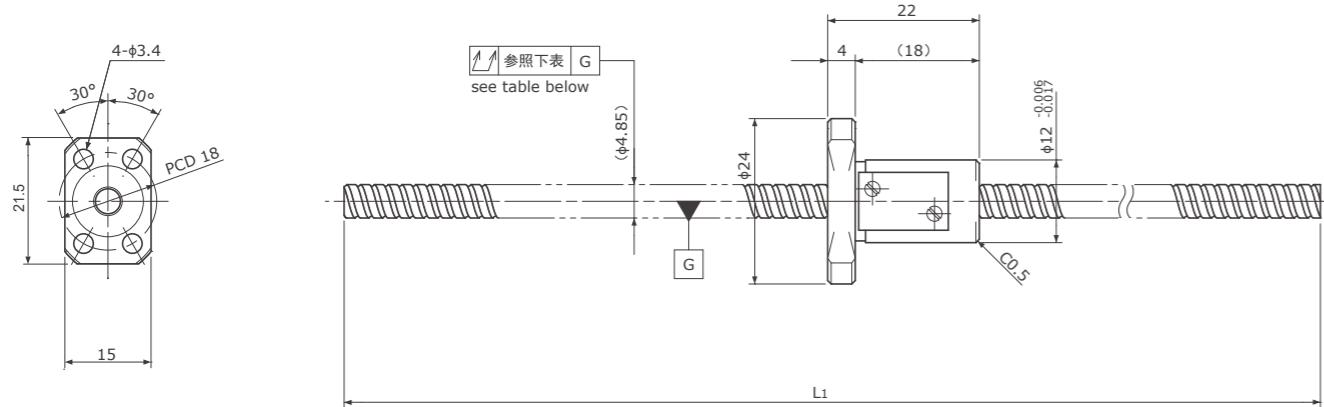
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
				±0.030	0.018	0.090	~0.005		-	420
GSR0402-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	420	570
GSR0402-600R600C7	580	Ct7	600	±0.104	0.050	0.320	~0.020			
GSR0402-600R600C10	580	Ct10	600	±0.420	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
				±0.030	0.018	0.090	~0.005		-	420
GSR0402G-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	420	570
GSR0402G-600R600C7	580	Ct7	600	±0.104	0.050	0.320	~0.020			
GSR0402G-600R600C10	580	Ct10	600	±0.420	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

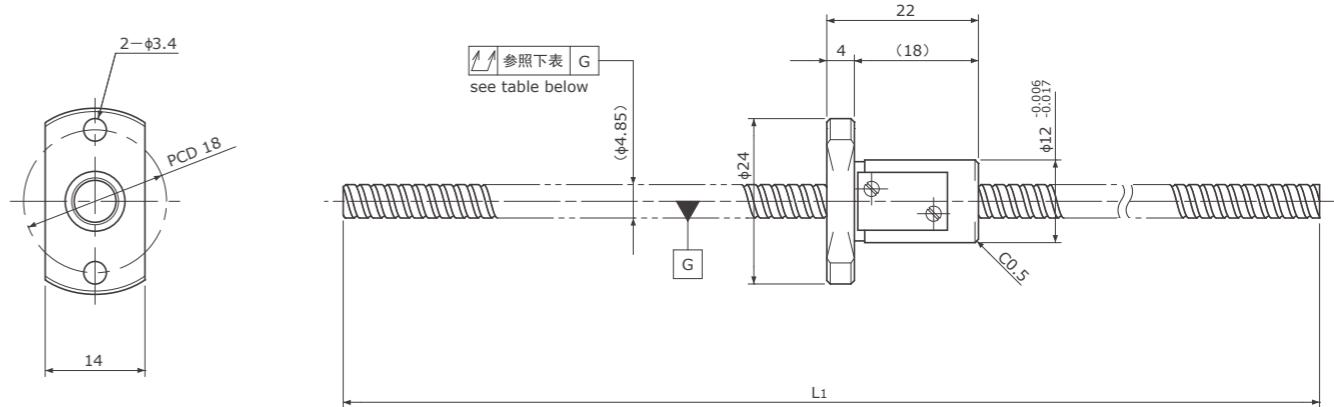
GSR0504 | Shaft dia.(轴径) φ 5 Lead(导程)4mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ4.3		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0504G | Shaft dia.(轴径) φ 5 Lead(导程)4mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ4.3		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

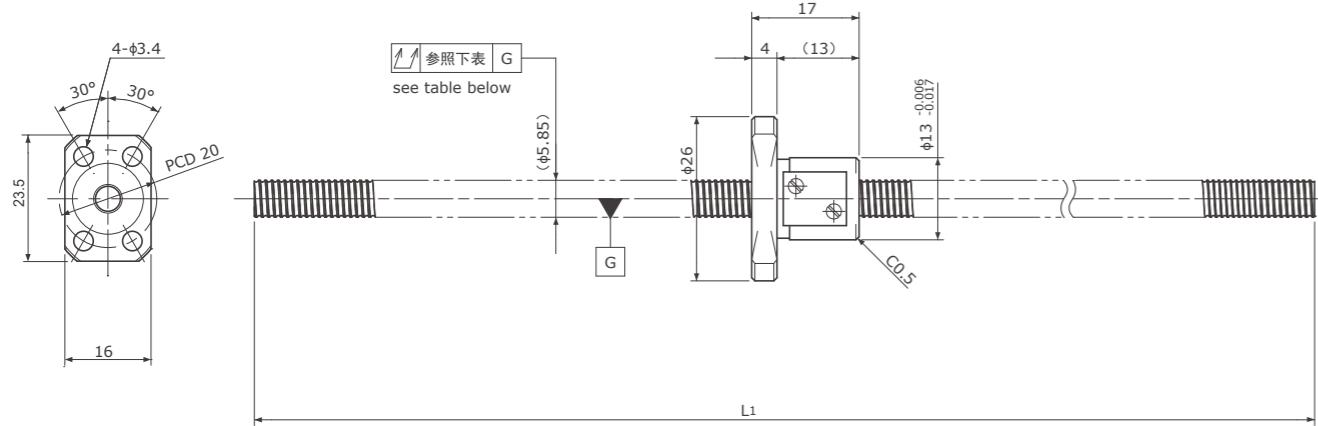
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N			
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa		
GSR0504-600R600C5	575	C5	600	±0.030	0.018	0.090	~0.005	-	470	720		
GSR0504-600R600C7	575	Ct7	600	±0.104	0.050	0.320	~0.020					
GSR0504-600R600C10	575	Ct10	600	±0.420	0.210	0.640	~0.050					

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N			
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa		
GSR0504G-600R600C5	575	C5	600	±0.030	0.018	0.090	~0.005	-	470	720		
GSR0504G-600R600C7	575	Ct7	600	±0.104	0.050	0.320	~0.020					
GSR0504G-600R600C10	575	Ct10	600	±0.420	0.210	0.640	~0.050					

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

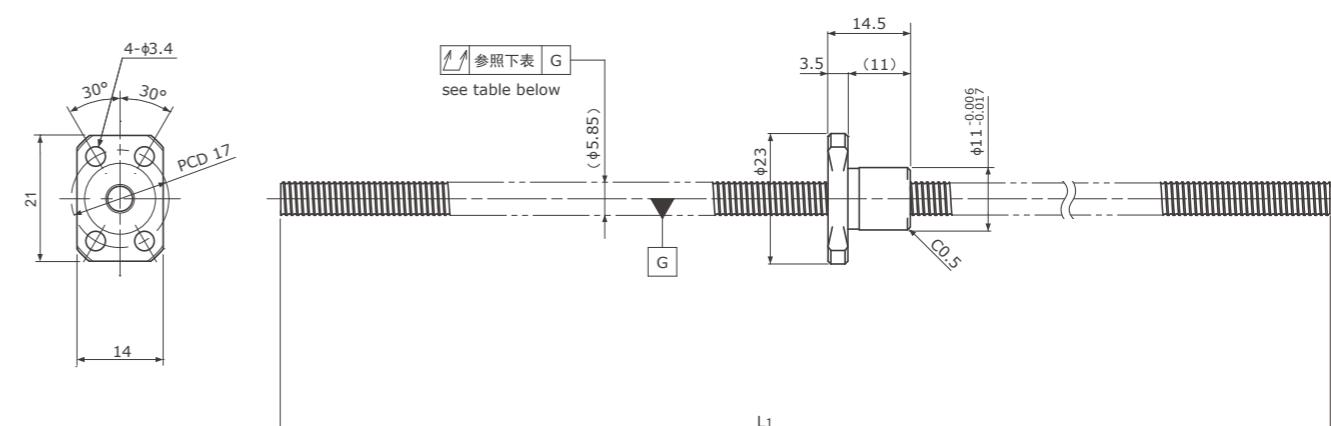
GSR0601 | Shaft dia.(轴径) ϕ 6 Lead(导程) 1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 5.3		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0601K | Shaft dia.(轴径) ϕ 6 Lead(导程) 1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 5.3		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

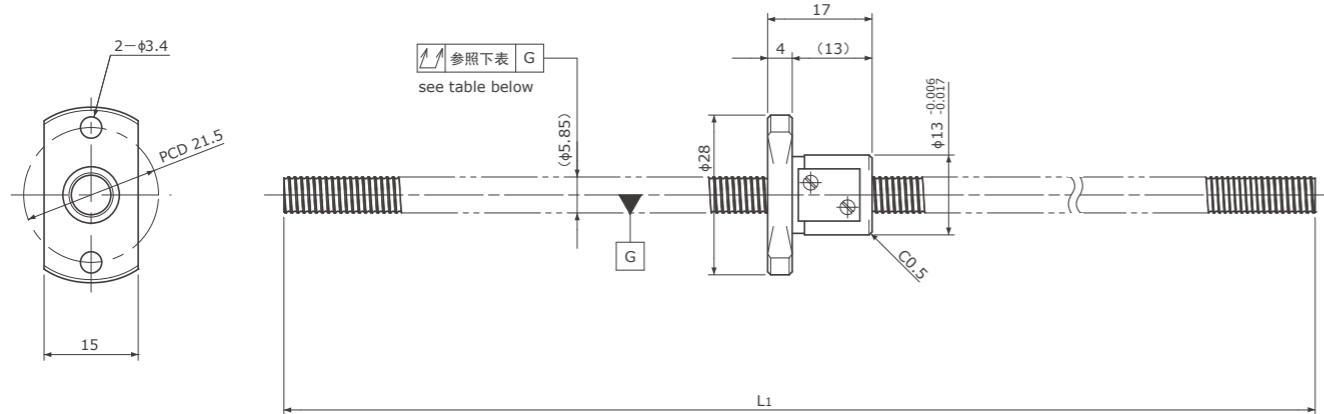
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0601-600R600C5	580	C5	600	± 0.030	0.018	0.090	~ 0.005	-	680	1200
GSR0601-600R600C7	580	Ct7	600	± 0.104	0.050	0.320	~ 0.020			
GSR0601-600R600C10	580	Ct10	600	± 0.420	0.210	0.640	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0601K-600R600C5	580	C5	600	± 0.030	0.018	0.090	~ 0.005	-	560	950
GSR0601K-600R600C7	580	Ct7	600	± 0.104	0.050	0.320	~ 0.020			
GSR0601K-600R600C10	580	Ct10	600	± 0.420	0.210	0.640	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

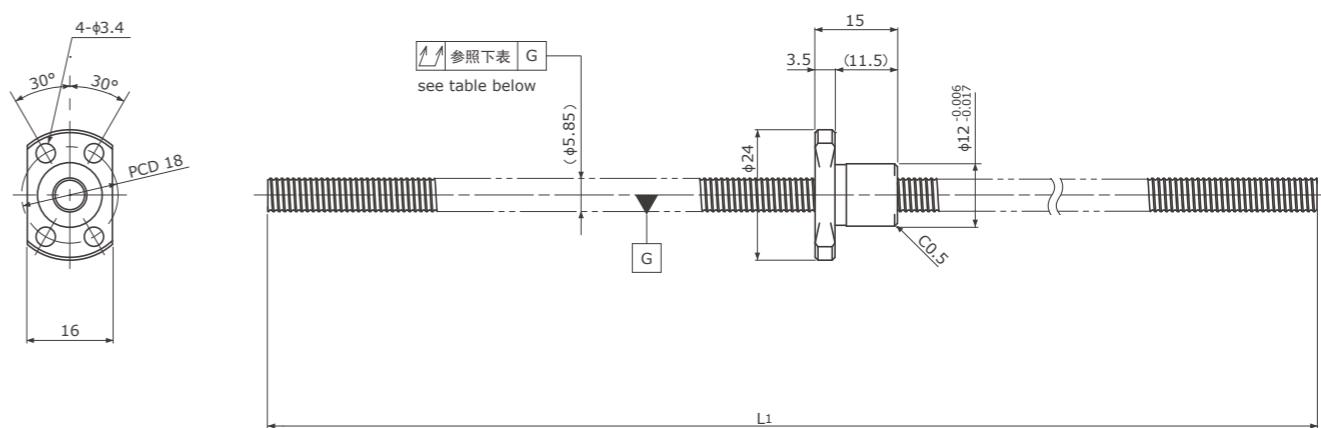
GSR0601G | Shaft dia.(轴径) φ 6 Lead(导程)1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ5.3		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0601T | Shaft dia.(轴径) φ 6 Lead(导程)1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ5.3		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

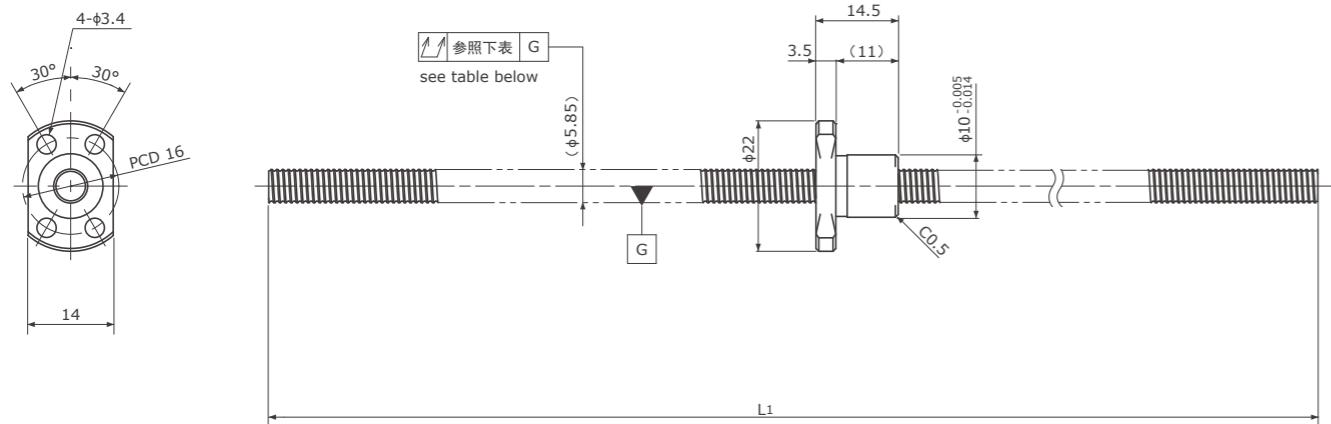
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N			
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa		
GSR0601G-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	680	1200		
GSR0601G-600R600C7	580	Ct7	600	±0.104	0.050	0.320	~0.020					
GSR0601G-600R600C10	580	Ct10	600	±0.420	0.210	0.640	~0.050					

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0601T-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	560	950
GSR0601T-600R600C7	580	Ct7	600	±0.104	0.050	0.320	~0.020			
GSR0601T-600R600C10	580	Ct10	600	±0.420	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

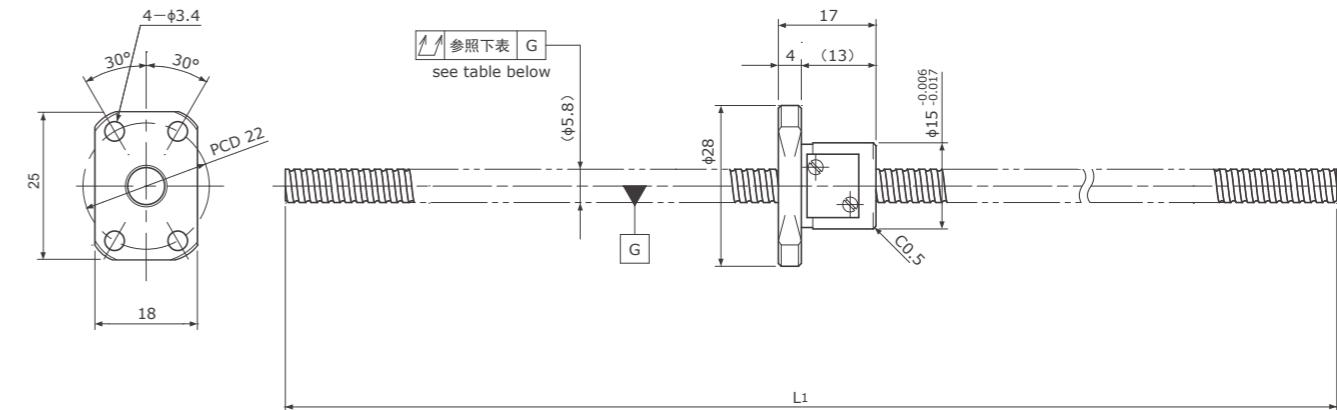
GSR0601D | Shaft dia.(轴径) φ 6 Lead(导程)1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ5.3		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0602 | Shaft dia.(轴径) φ 6 Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ5.1		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

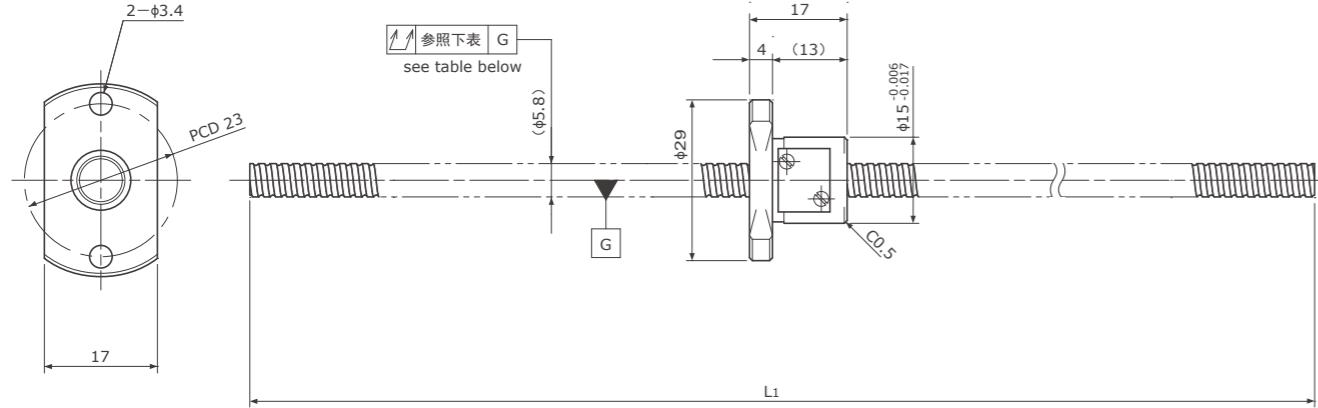
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0601D-600R600C5	585	C5	600	±0.030	0.018	0.090	~0.005	-	560	950
GSR0601D-600R600C7	585	Ct7	600	±0.104	0.050	0.320	~0.020			
GSR0601D-600R600C10	585	Ct10	600	±0.420	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0602-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	750	1200
GSR0602-600R600C7	580	Ct7	600	±0.104	0.050	0.320	~0.020			
GSR0602-600R600C10	580	Ct10	600	±0.420	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

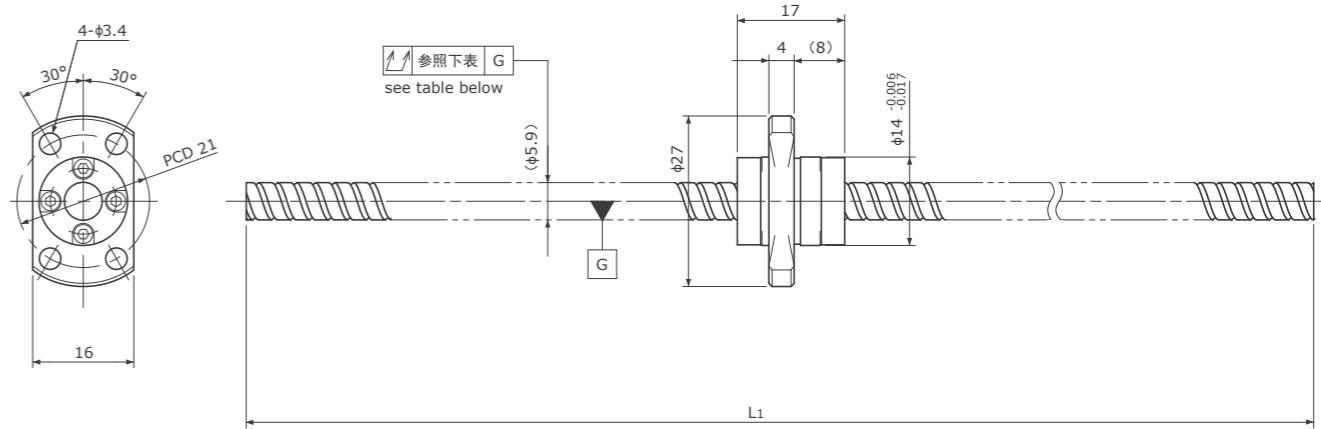
GSR0602G | Shaft dia.(轴径) φ 6 Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ5.1		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0606 | Shaft dia.(轴径) φ 6 Lead(导程)6mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.0		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ5.2		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

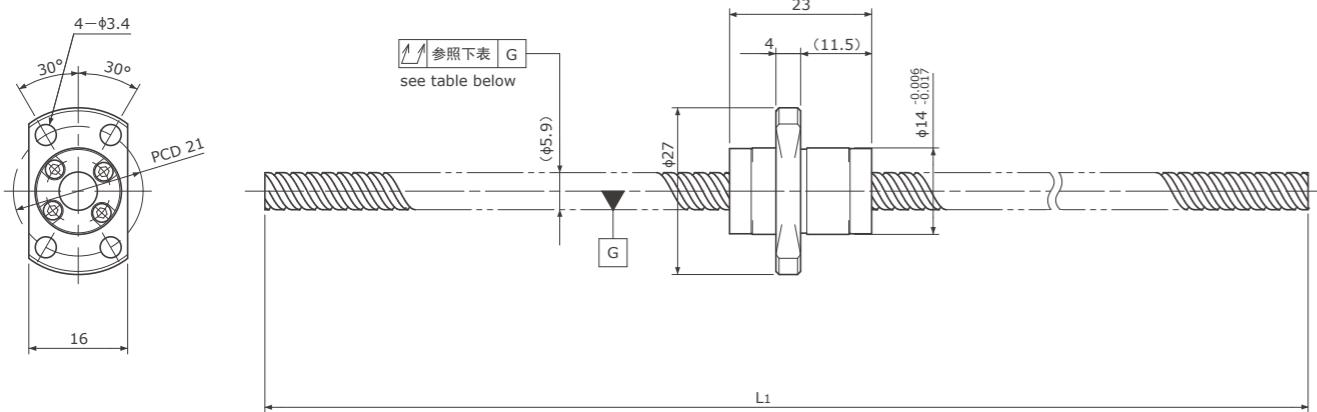
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0602G-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	750	1200
GSR0602G-600R600C7	580	Ct7	600	±0.104	0.050	0.320	~0.020			
GSR0602G-600R600C10	580	Ct10	600	±0.420	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0606-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	870	1450
GSR0606-600R600C7	580	Ct7	600	±0.104	0.050	0.320	~0.020			
GSR0606-600R600C10	580	Ct10	600	±0.420	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

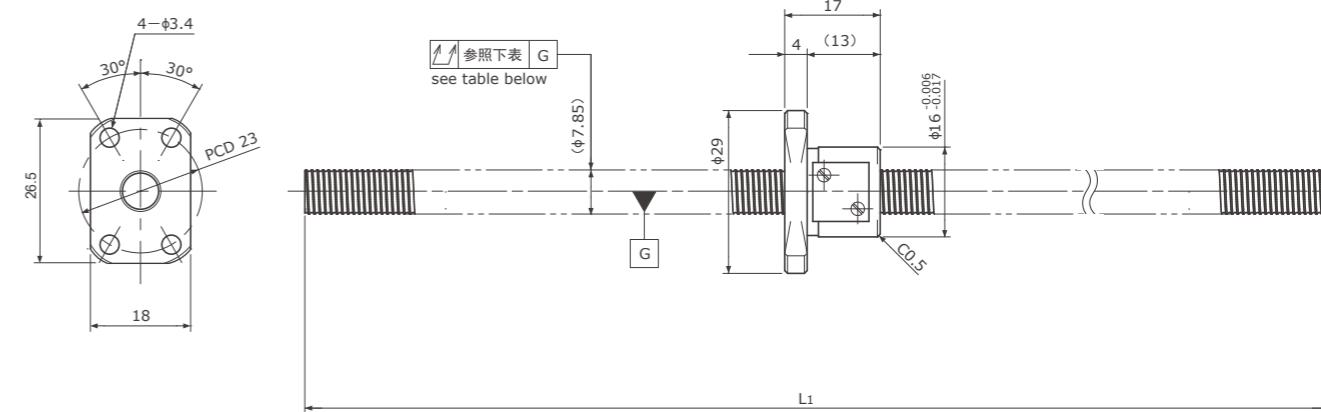
GSR0610 | Shaft dia.(轴径) ϕ 6 Lead(导程)10mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ5.0		
Number of circuit 循环数	1.2×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0801 | Shaft dia.(轴径) ϕ 8 Lead(导程)1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.3		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0610-600R600C5	575	C5	600	±0.030	0.018	0.090	~0.005	-	950	1600
GSR0610-600R600C7	575	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR0610-600R600C10	575	Ct10	600	±0.420	0.210	0.350	~0.050			

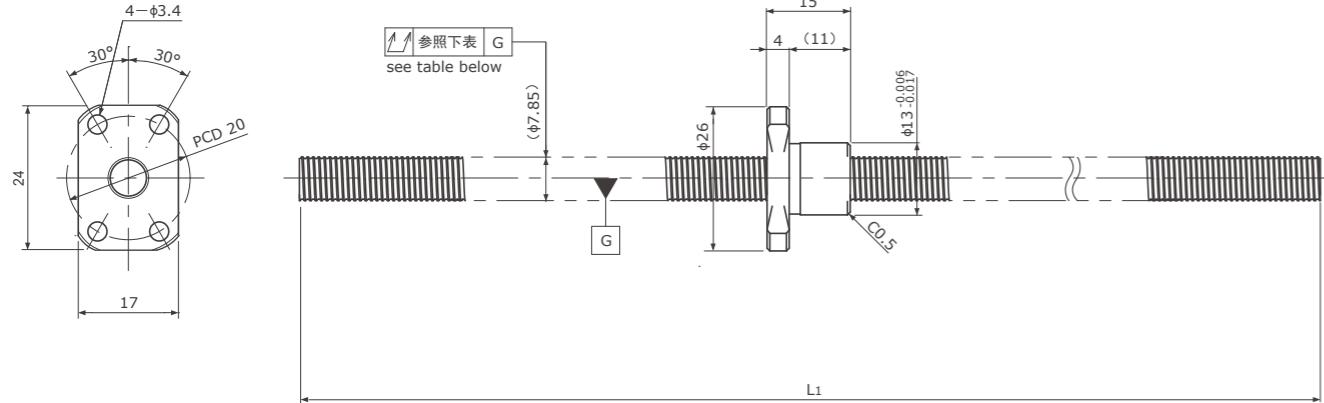
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0801-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	780	1650
GSR0801-600R600C7	580	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR0801-600R600C10	580	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

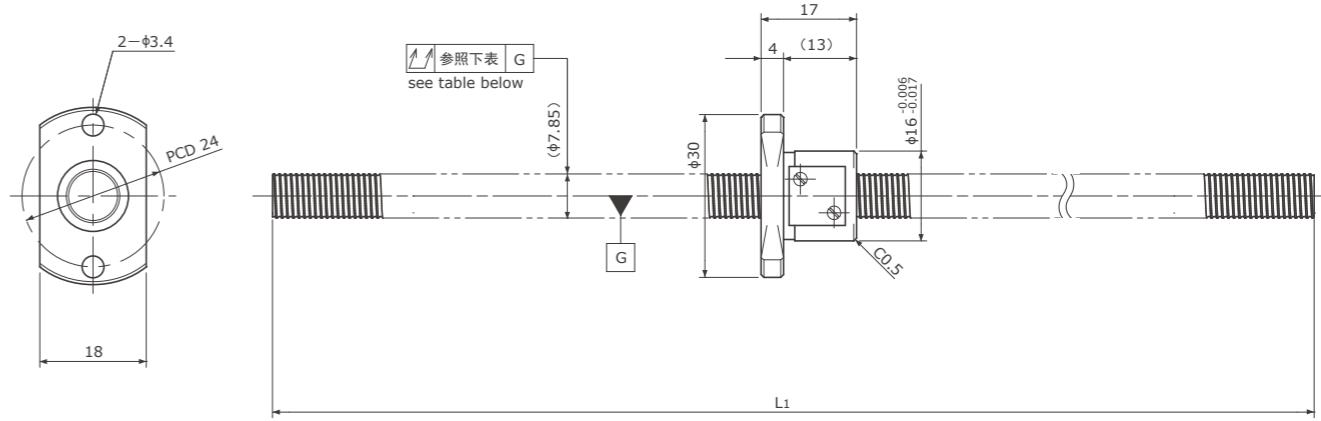
GSR0801K | Shaft dia.(轴径) ϕ 8 Lead(导程) 1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.3		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0801G | Shaft dia.(轴径) ϕ 8 Lead(导程) 1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.3		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

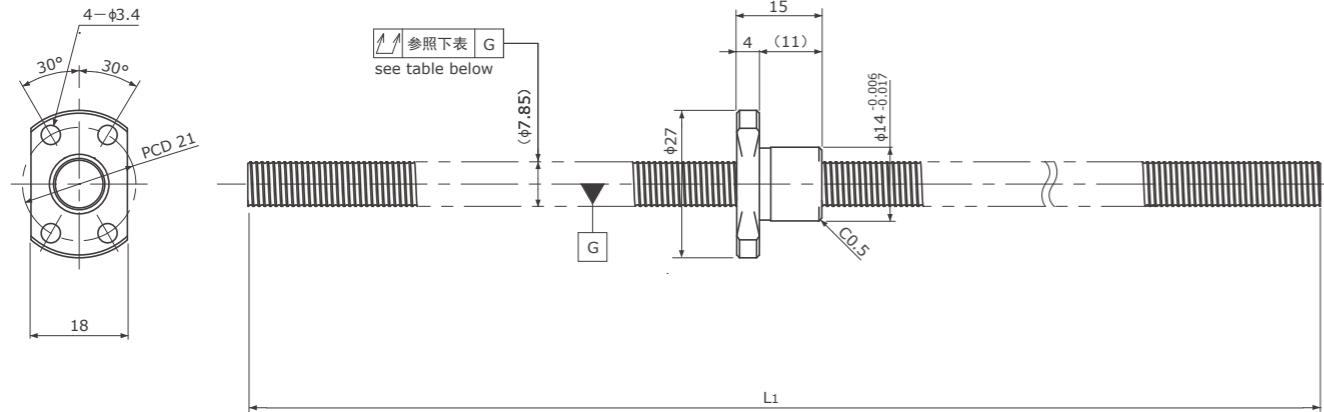
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0801K-600R600C5	585	C5	600	±0.030	0.018	0.090	~0.005			
GSR0801K-600R600C7	585	Ct7	600	±0.104	0.050	0.150	~0.020	-	650	1300
GSR0801K-600R600C10	585	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0801G-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	780	1650
GSR0801G-600R600C7	580	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR0801G-600R600C10	580	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

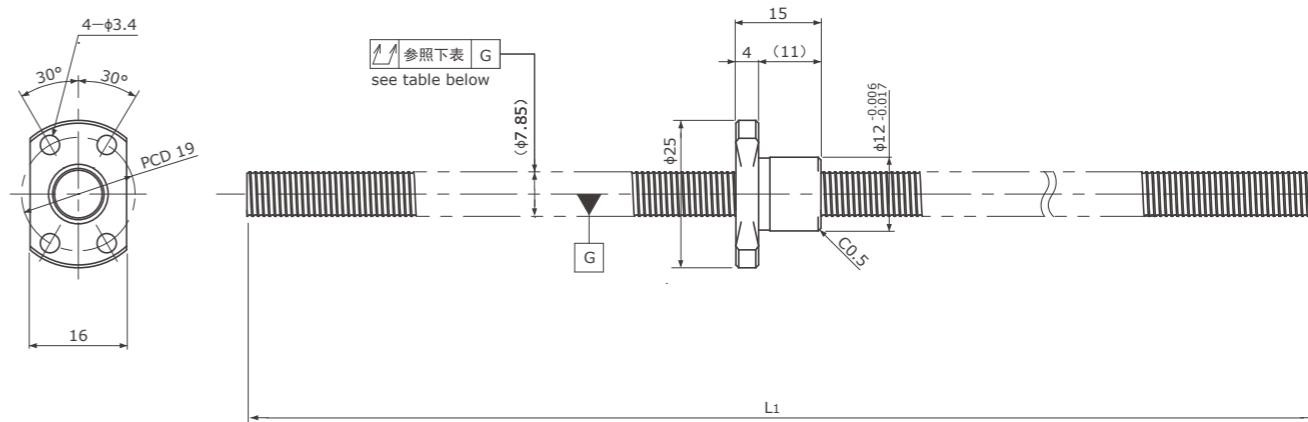
GSR0801T | Shaft dia.(轴径) ϕ 8 Lead(导程) 1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.3		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0801D | Shaft dia.(轴径) ϕ 8 Lead(导程) 1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.3		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

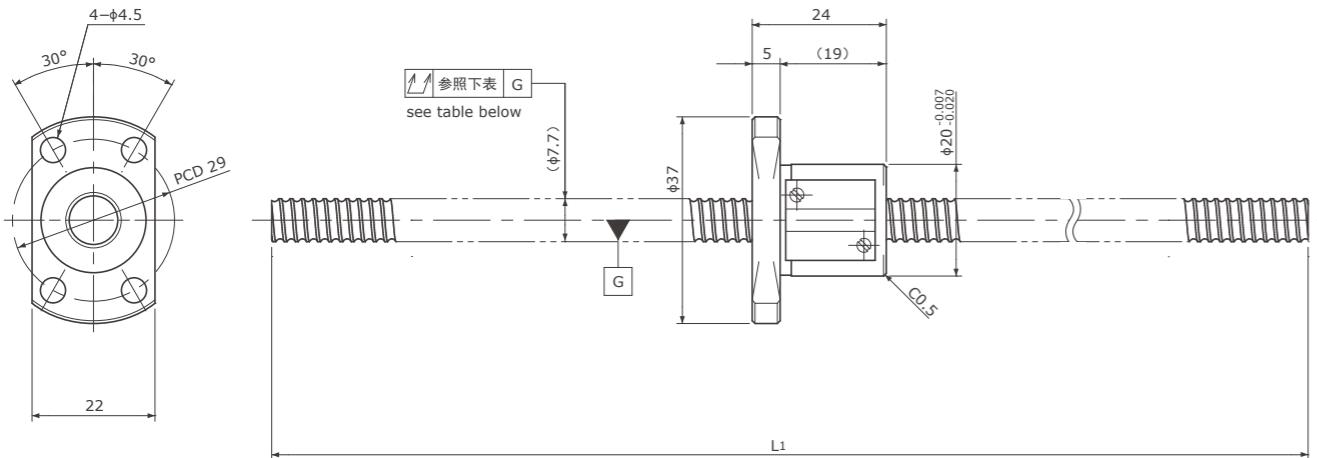
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
	GSR0801T-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	650
GSR0801T-600R600C7	580	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR0801T-600R600C10	580	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0801D-600R600C5	585	C5	600	±0.030	0.018	0.090	~0.005	-	650	1300
GSR0801D-600R600C7	585	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR0801D-600R600C10	585	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

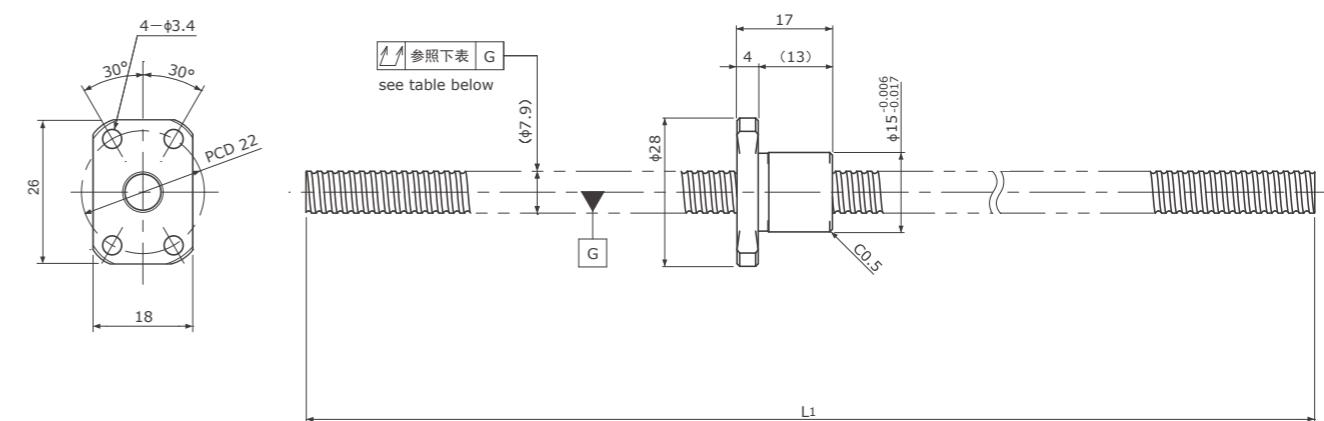
GSR0802 | Shaft dia.(轴径) ϕ 8 Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0802K | Shaft dia.(轴径) ϕ 8 Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.0		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

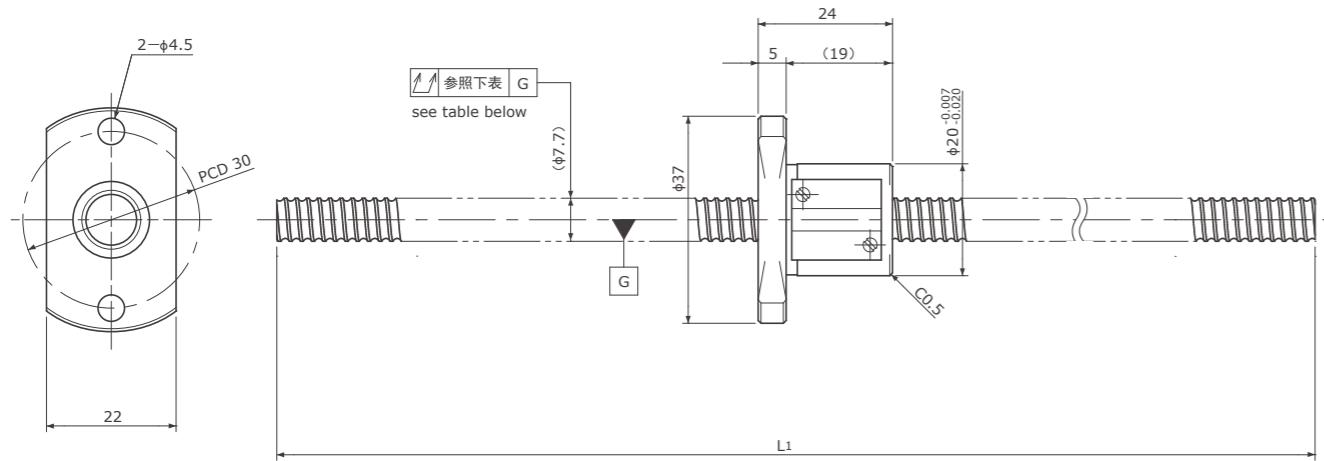
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L ₁	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
				±0.030	0.018	0.090	~0.005			
GSR0802-600R600C5	575	C5	600	±0.030	0.018	0.090	~0.005	-	2400	4100
GSR0802-600R600C7	575	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR0802-600R600C10	575	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L ₁	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0802K-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	1300	2300
GSR0802K-600R600C7	580	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR0802K-600R600C10	580	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GSR0802G | Shaft dia.(轴径) ϕ 8 Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 6.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 7.0		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

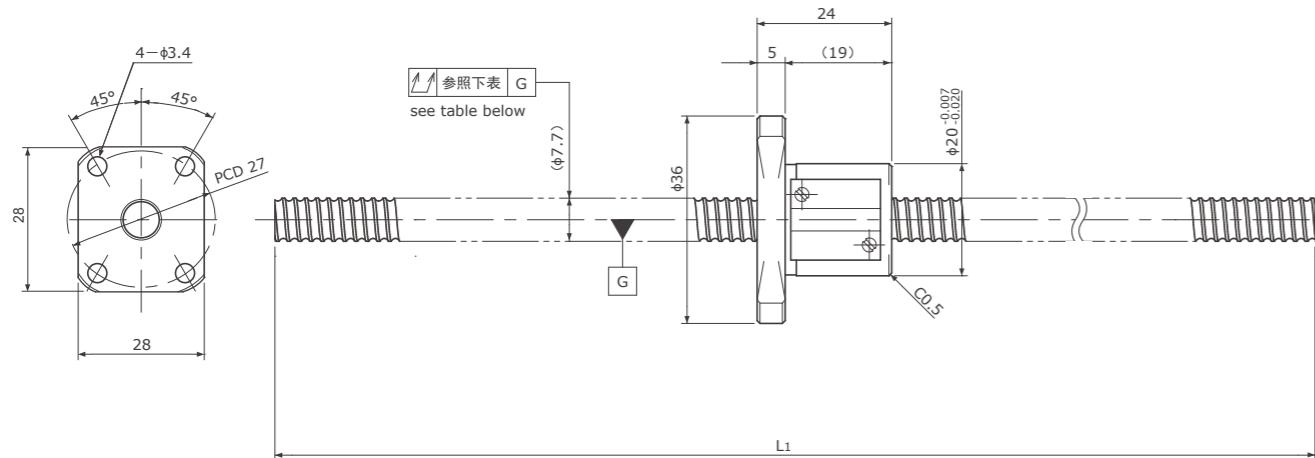
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0802G-600R600C5	575	C5	600	± 0.030	0.018	0.090	~ 0.005	-	2400	4100
GSR0802G-600R600C7	575	Ct7	600	± 0.104	0.050	0.150	~ 0.020			
GSR0802G-600R600C10	575	Ct10	600	± 0.420	0.210	0.350	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0802T-600R600C5	580	C5	600	± 0.030	0.018	0.090	~ 0.005	-	1300	2300
GSR0802T-600R600C7	580	Ct7	600	± 0.104	0.050	0.150	~ 0.020			
GSR0802T-600R600C10	580	Ct10	600	± 0.420	0.210	0.350	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

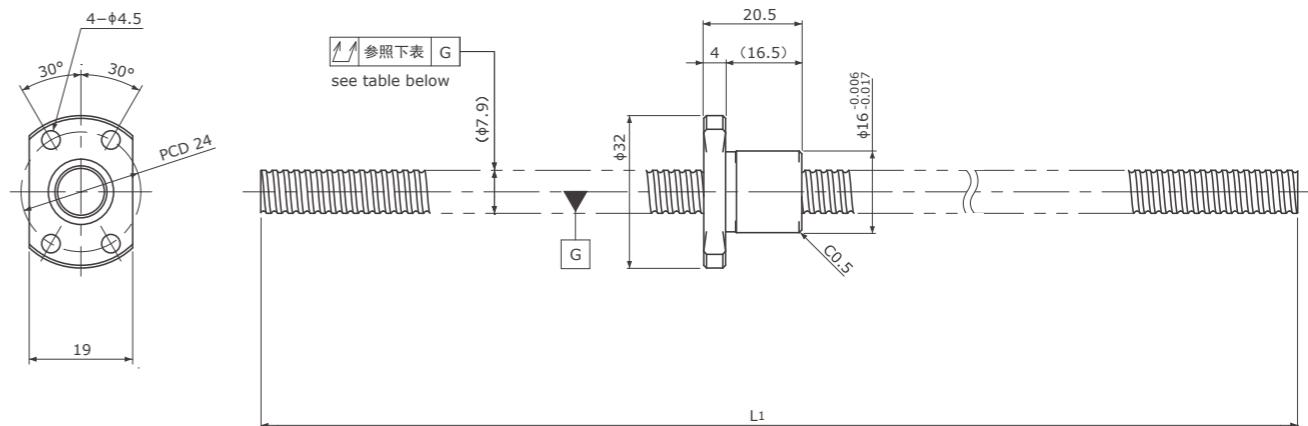
GSR0802A | Shaft dia.(轴径) ϕ 8 Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.6		
Number of circuit 循环数	3.7×1		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0802B | Shaft dia.(轴径) ϕ 8 Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.0		
Number of circuit 循环数	1×4		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

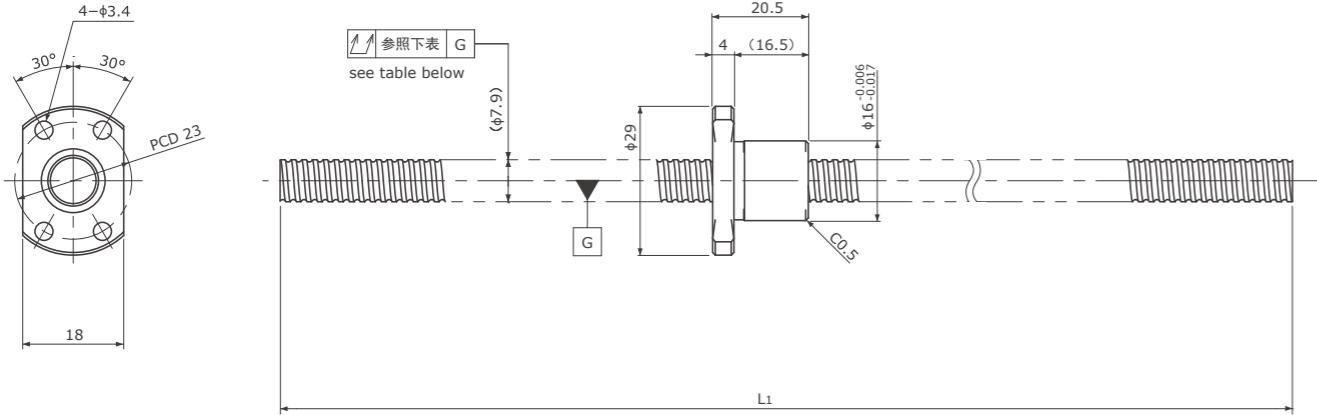
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0802A-600R600C5	575	C5	600	±0.030	0.018	0.090	~0.005			
GSR0802A-600R600C7	575	Ct7	600	±0.104	0.050	0.150	~0.020	-	2400	4100
GSR0802A-600R600C10	575	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0802B-600R600C5	575	C5	600	±0.030	0.018	0.090	~0.005	-	1730	3060
GSR0802B-600R600C7	575	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR0802B-600R600C10	575	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

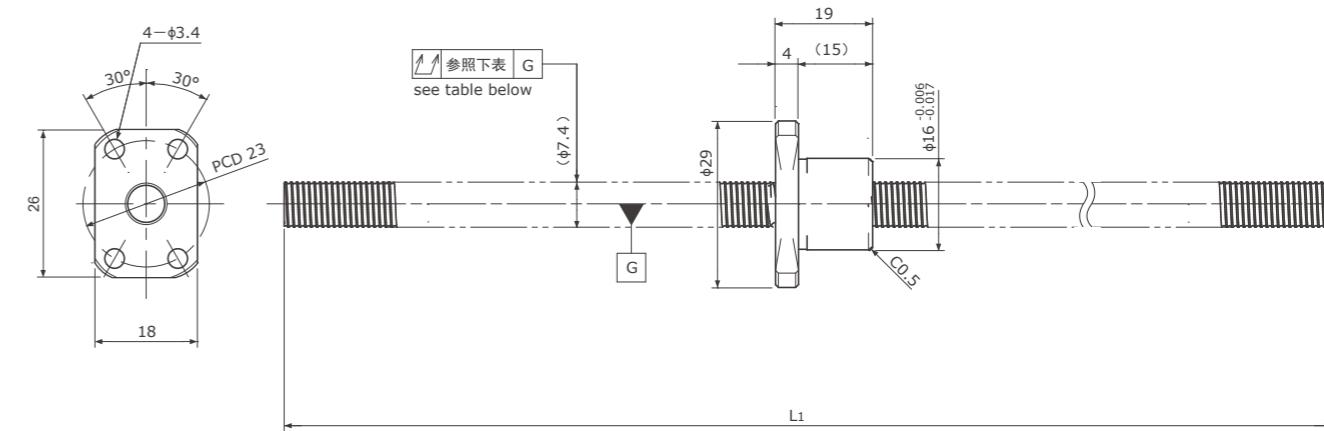
GSR0802M|Shaft dia.(轴径) ϕ 8 Lead(导程)2mm|C5&Ct7&Ct10|



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.0		
Number of circuit 循环数	1×4		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0802.5|Shaft dia.(轴径) ϕ 8 Lead(导程)2.5mm|C5&Ct7&Ct10|



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.3		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

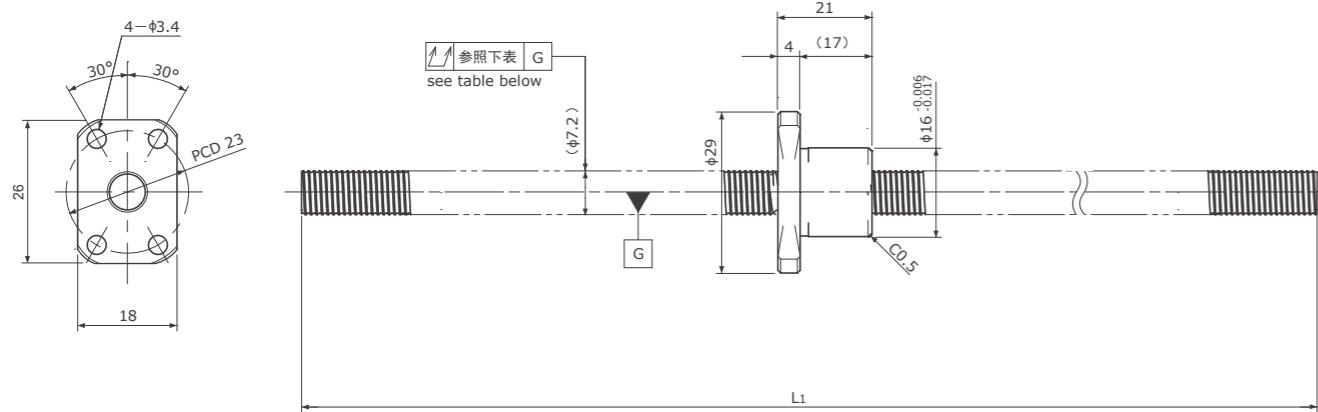
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0802M-600R600C5	575	C5	600	±0.030	0.018	0.090	~0.005	-	1730	3060
GSR0802M-600R600C7	575	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR0802M-600R600C10	575	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0802.5-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	1850	3000
GSR0802.5-600R600C7	580	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR0802.5-600R600C10	580	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

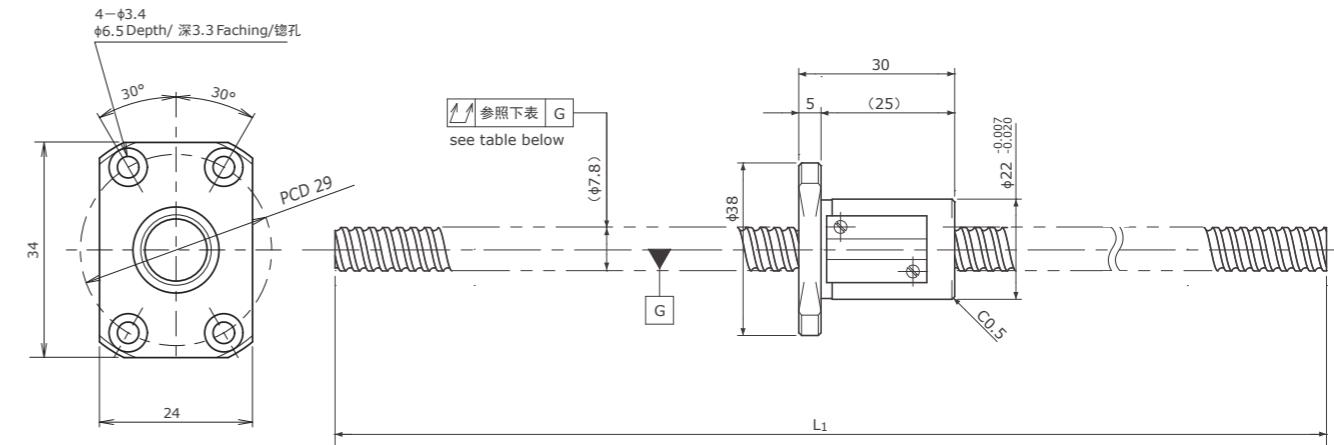
GSR0803 | Shaft dia.(轴径) ϕ 8 Lead(导程)3mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 6.0		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0804 | Shaft dia.(轴径) ϕ 8 Lead(导程)4mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 6.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

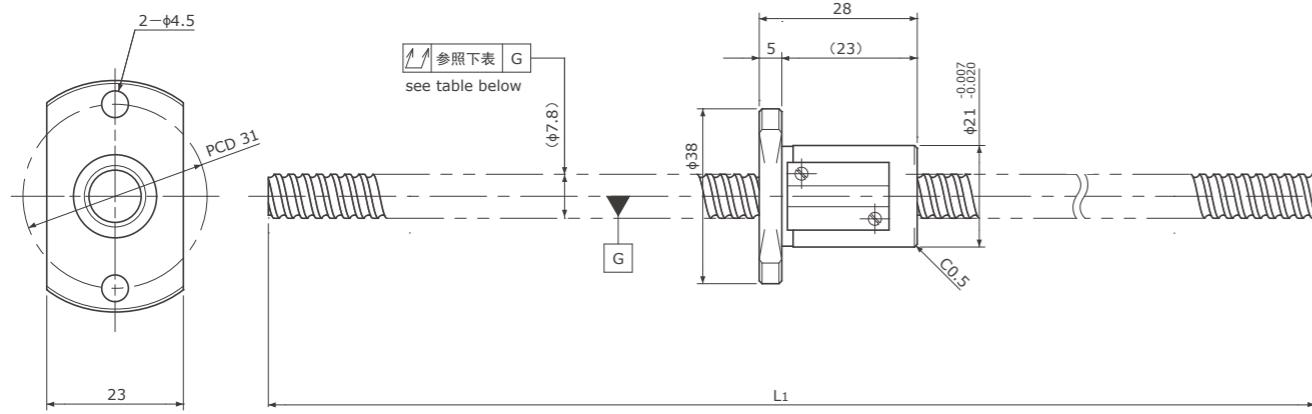
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动 ↑	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0803-600R600C5	575	C5	600	± 0.030	0.018	0.090	~ 0.005	-	2600	4500
GSR0803-600R600C7	575	Ct7	600	± 0.104	0.050	0.150	~ 0.020			
GSR0803-600R600C10	575	Ct10	600	± 0.420	0.210	0.350	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动 ↑	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0804-600R600C5	570	C5	600	± 0.030	0.018	0.090	~ 0.005	-	2600	4200
GSR0804-600R600C7	570	Ct7	600	± 0.104	0.050	0.150	~ 0.020			
GSR0804-600R600C10	570	Ct10	600	± 0.420	0.210	0.350	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

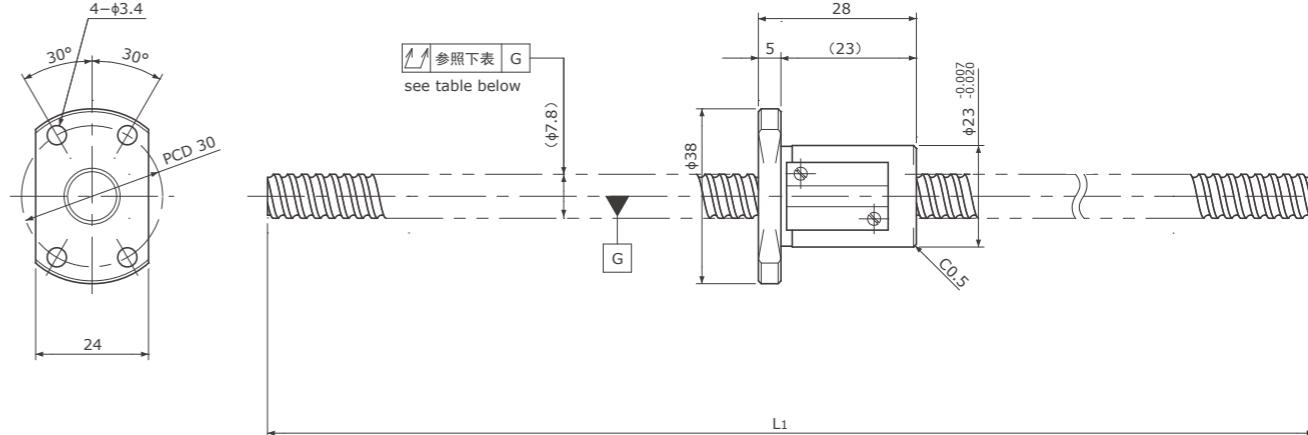
GSR0804G | Shaft dia.(轴径) φ 8 Lead(导程)4mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0804D | Shaft dia.(轴径) φ 8 Lead(导程)4mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

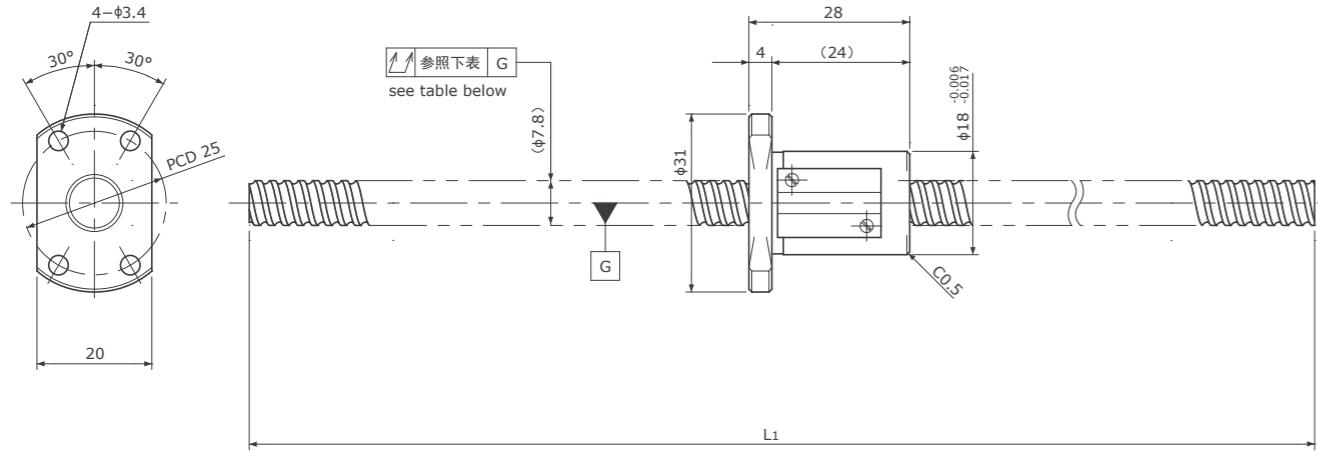
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0804G-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005	-	2600	4200
GSR0804G-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR0804G-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0804D-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005	-	2600	4200
GSR0804D-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR0804D-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

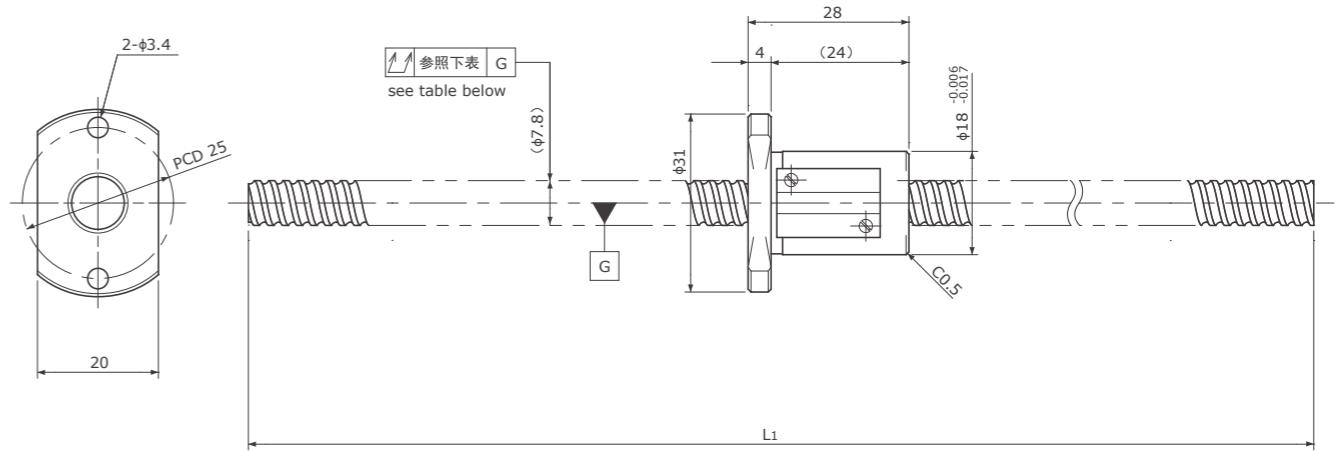
GSR0805 | Shaft dia.(轴径) φ 8 Lead(导程)5mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.6		
Number of circuit 循环数	2.7×1		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0805G | Shaft dia.(轴径) φ 8 Lead(导程)5mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.6		
Number of circuit 循环数	2.7×1		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

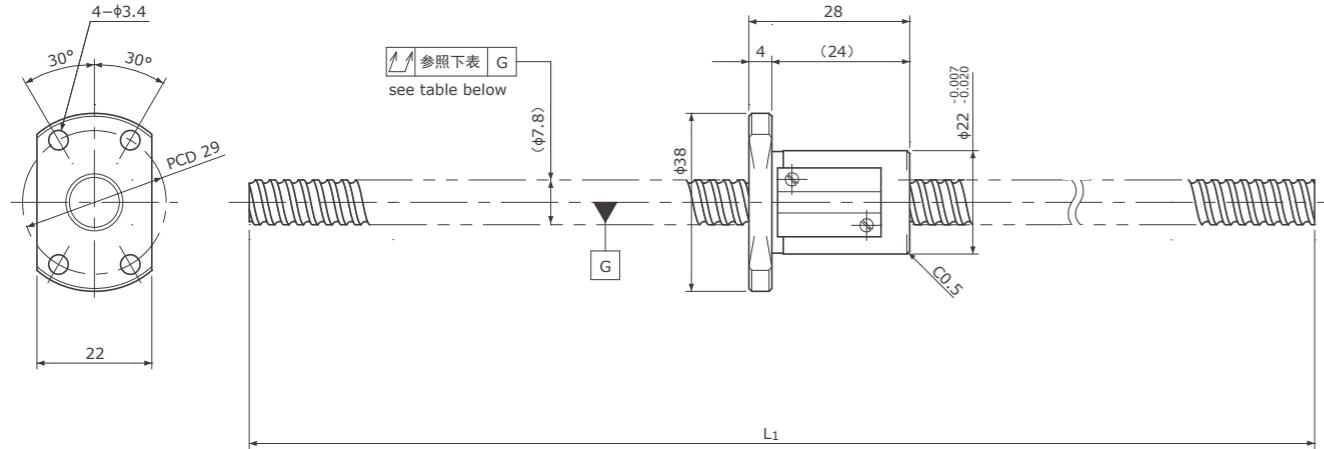
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0805-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005	-	1850	3000
GSR0805-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR0805-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0805G-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005	-	1850	3000
GSR0805G-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR0805G-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

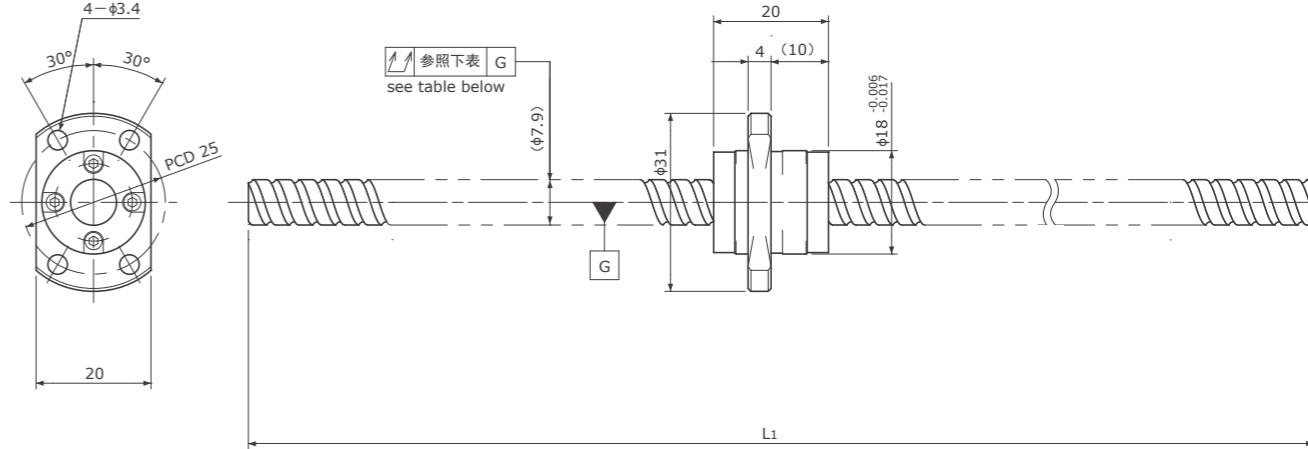
GSR0805D | Shaft dia.(轴径) φ 8 Lead(导程)5mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.6		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0808 | Shaft dia.(轴径) φ 8 Lead(导程)8mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.7		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

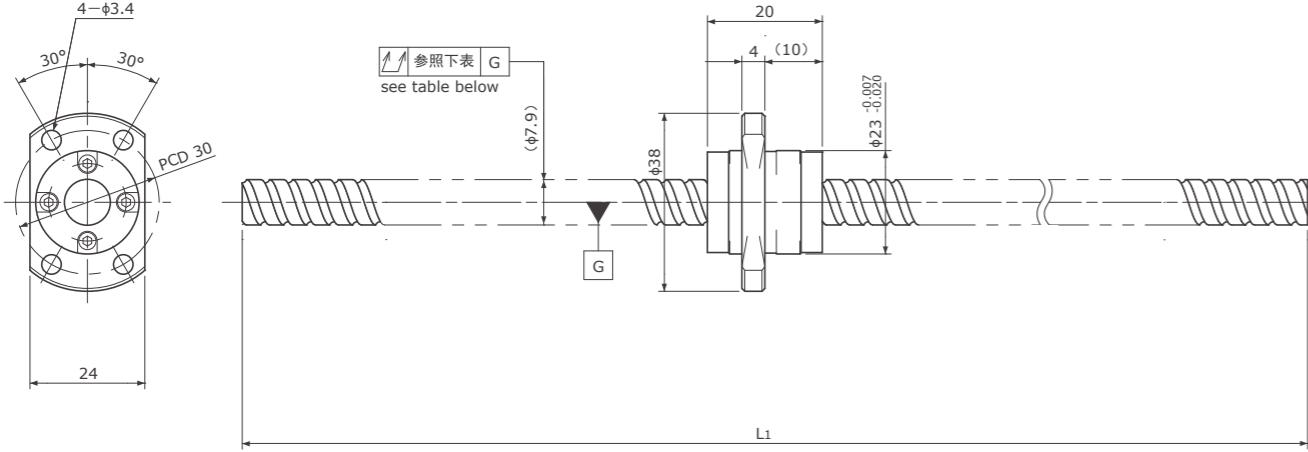
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L ₁	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0805D-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005			
GSR0805D-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020	-	1850	3000
GSR0805D-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L ₁	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0808-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	2200	3800
GSR0808-600R600C7	580	Ct7	600	±0.104	0.050	0.150	~0.020	-	2200	3800
GSR0808-600R600C10	580	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

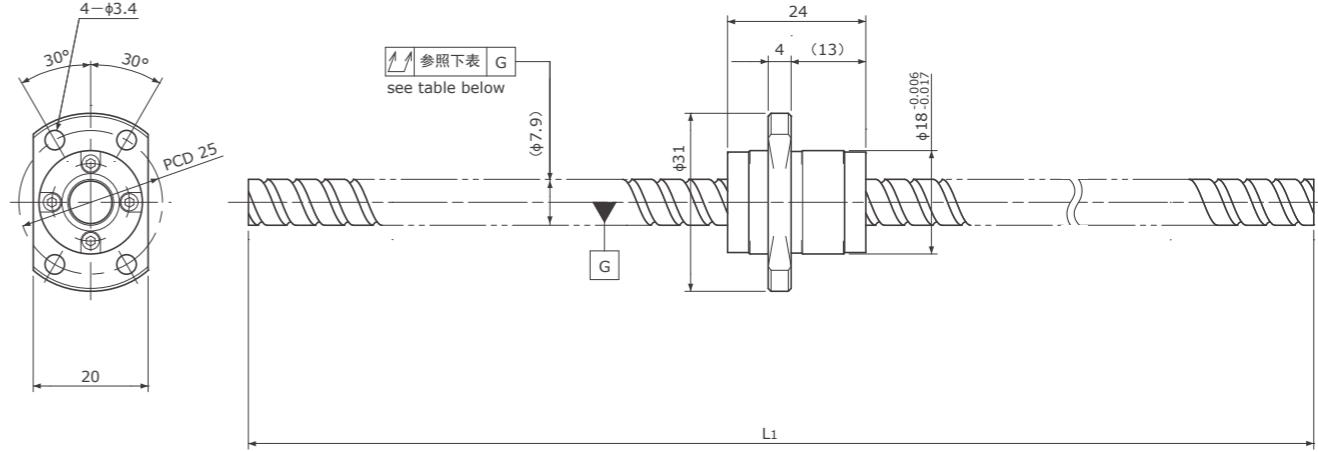
GSR0808D | Shaft dia.(轴径) φ 8 Lead(导程)8mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.7		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR0810 | Shaft dia.(轴径) φ 8 Lead(导程)10mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.7		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

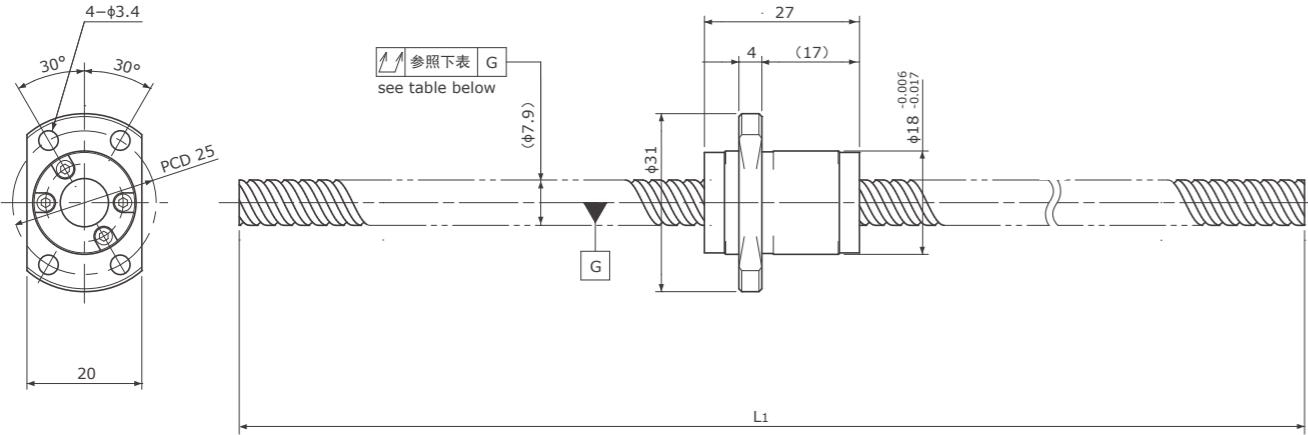
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0808D-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	2200	3800
GSR0808D-600R600C7	580	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR0808D-600R600C10	580	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0810-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005	-	2200	3800
GSR0810-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR0810-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

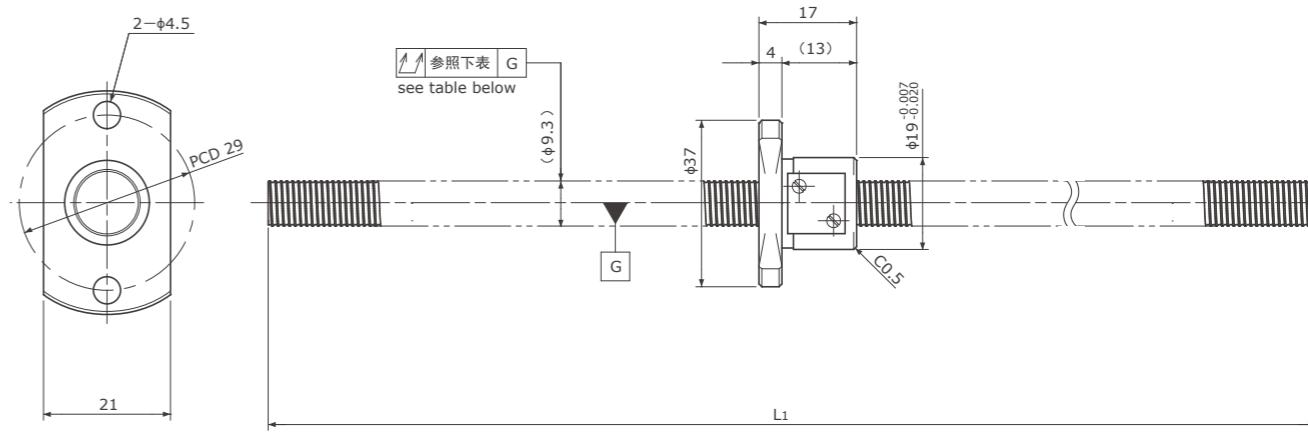
GSR0812 | Shaft dia.(轴径) ϕ 8 Lead(导程)12mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 1.5875		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 6.7		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1001 | Shaft dia.(轴径) ϕ 10 Lead(导程)1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 9.3		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

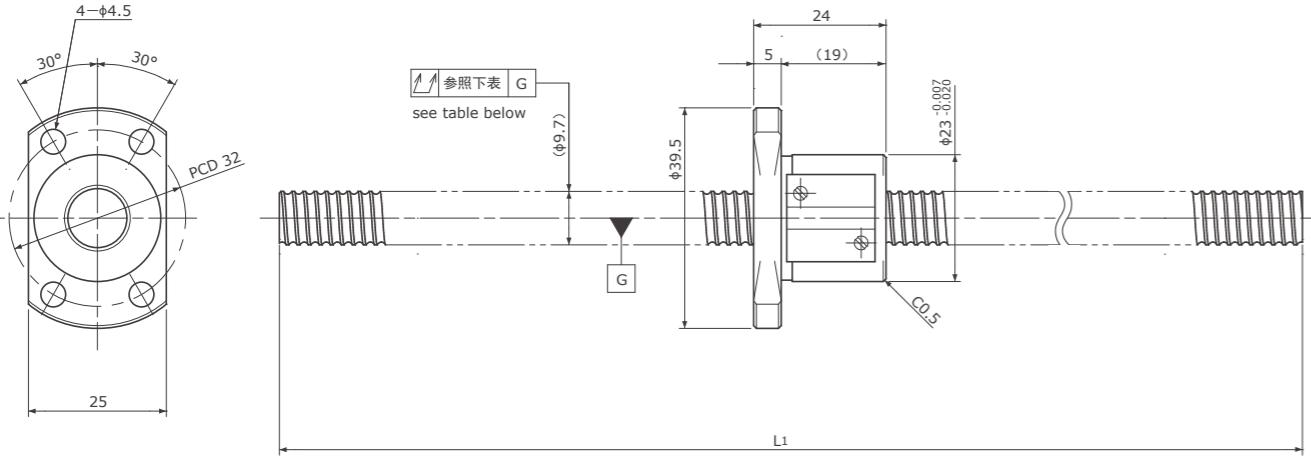
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR0812-600R600C5	570	C5	600	± 0.030	0.018	0.090	~ 0.005			
GSR0812-600R600C7	570	Ct7	600	± 0.104	0.050	0.150	~ 0.020	-	2200	3800
GSR0812-600R600C10	570	Ct10	600	± 0.420	0.210	0.350	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1001-600R600C5	580	C5	600	± 0.030	0.018	0.090	~ 0.005	-	840	2000
GSR1001-600R600C7	580	Ct7	600	± 0.104	0.050	0.150	~ 0.020			
GSR1001-600R600C10	580	Ct10	600	± 0.420	0.210	0.350	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

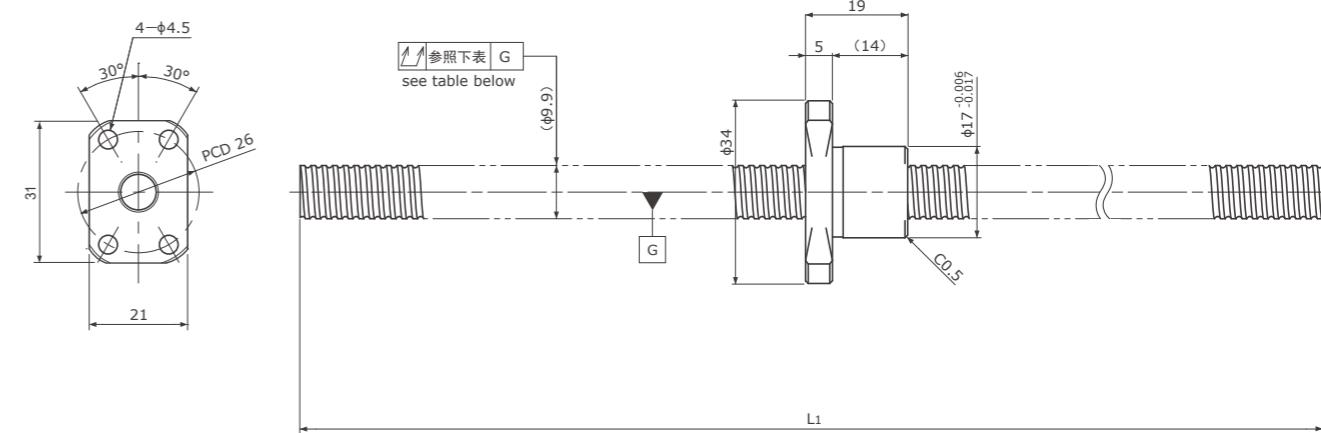
GSR1002 | Shaft dia.(轴径) ϕ 10 Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1002K | Shaft dia.(轴径) ϕ 10 Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ9.0		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

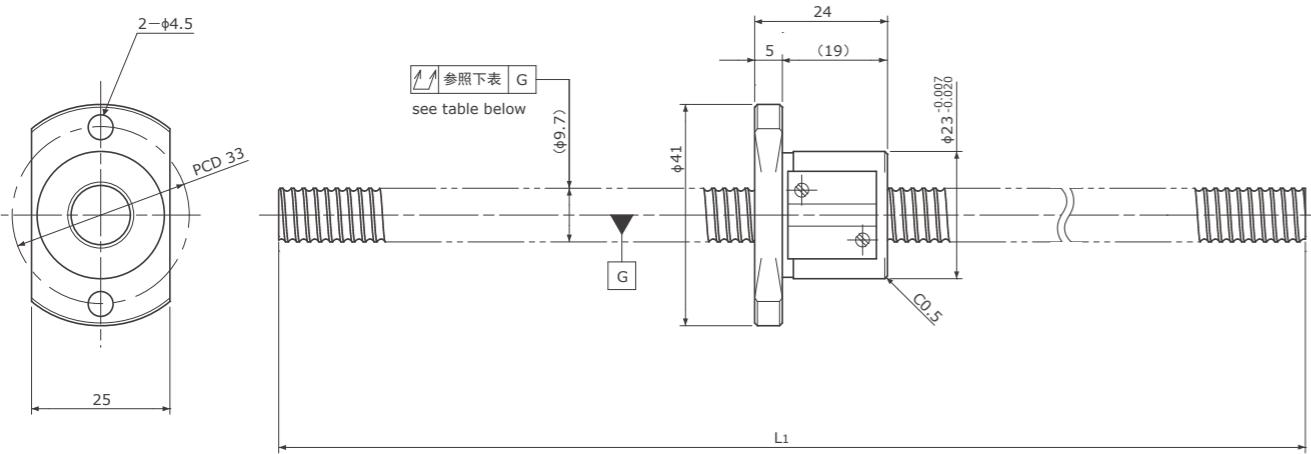
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动 ↑↓	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1002-600R600C5	575	C5	600	±0.030	0.018	0.090	~0.005	-	2700	5300
GSR1002-600R600C7	575	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR1002-600R600C10	575	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动 ↑↓	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1002K-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	1450	3700
GSR1002K-600R600C7	580	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR1002K-600R600C10	580	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

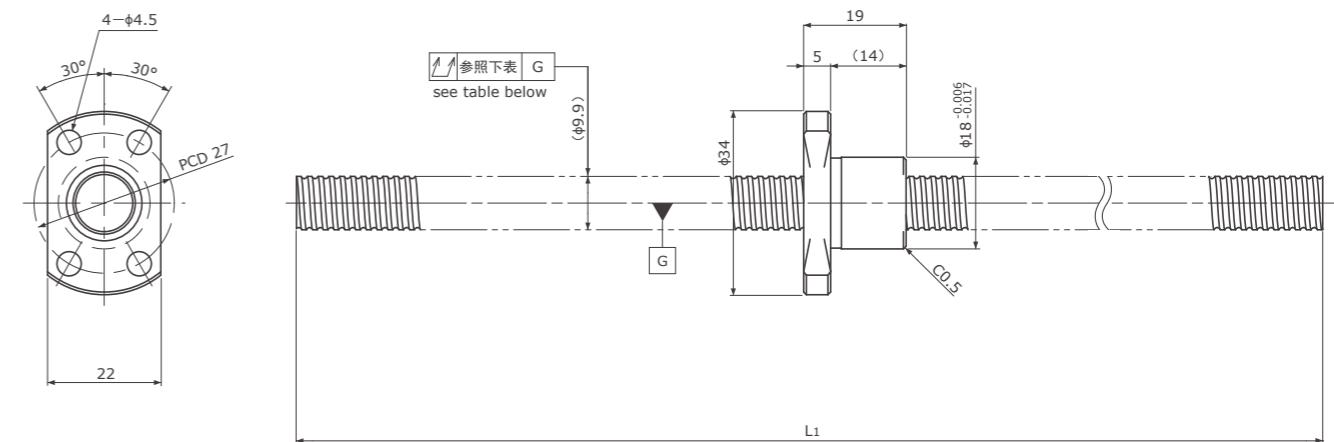
GSR1002G | Shaft dia.(轴径) ϕ 10 Lead(导程)2mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 8.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1002T | Shaft dia.(轴径) ϕ 10 Lead(导程)2mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 9.0		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

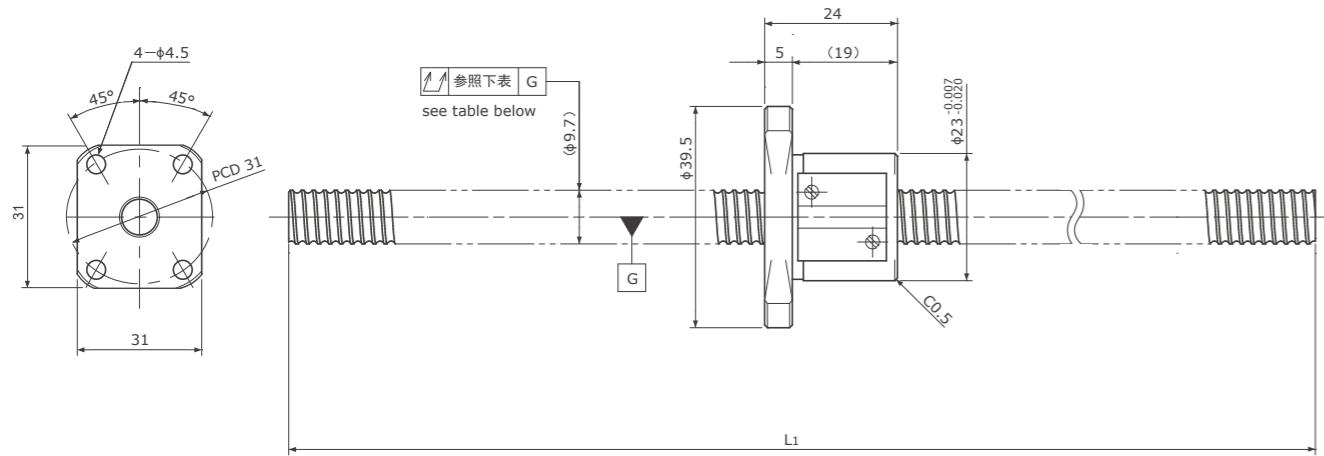
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1002G-600R600C5	575	C5	600	± 0.030	0.018	0.090	~ 0.005			
GSR1002G-600R600C7	575	Ct7	600	± 0.104	0.050	0.150	~ 0.020	-	2700	5300
GSR1002G-600R600C10	575	Ct10	600	± 0.420	0.210	0.350	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1002T-600R600C5	580	C5	600	± 0.030	0.018	0.090	~ 0.005	-	1450	3700
GSR1002T-600R600C7	580	Ct7	600	± 0.104	0.050	0.150	~ 0.020			
GSR1002T-600R600C10	580	Ct10	600	± 0.420	0.210	0.350	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

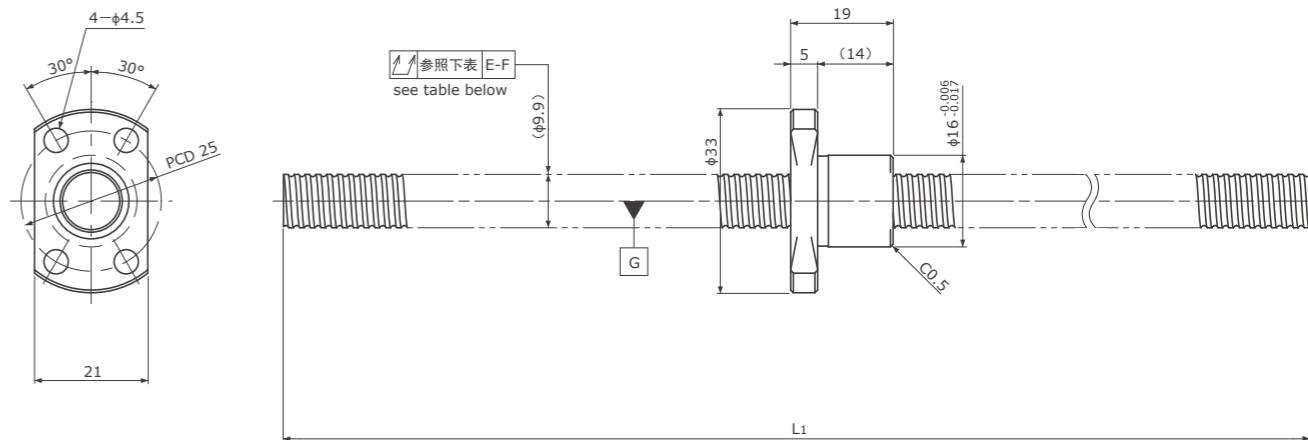
GSR1002A | Shaft dia.(轴径) ϕ 10 Lead(导程)2mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 8.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1002D | Shaft dia.(轴径) ϕ 10 Lead(导程)2mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 9.0		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

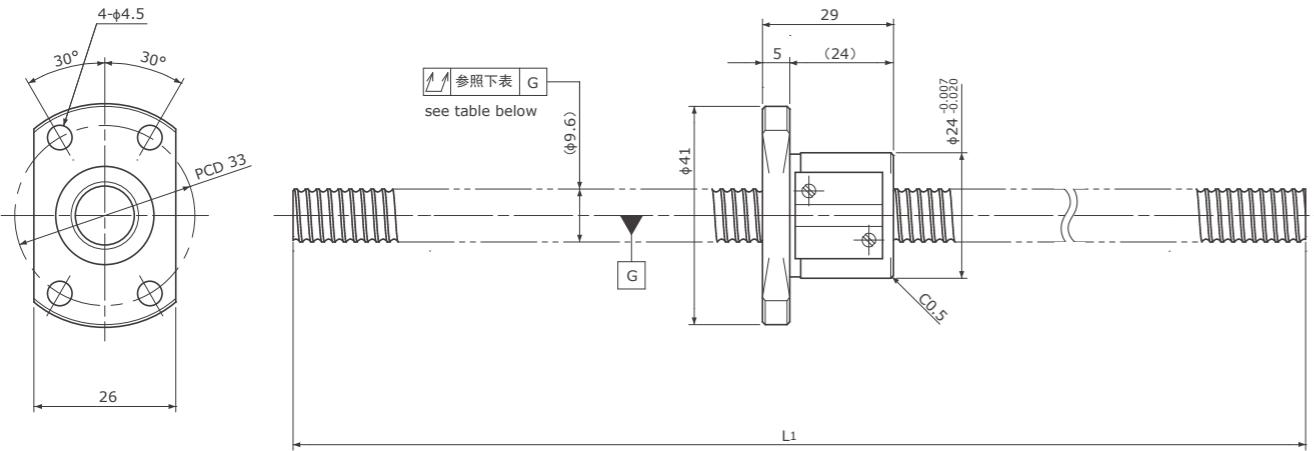
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1002A-600R600C5	575	C5	600	± 0.030	0.018	0.090	~ 0.005	-	2700	5300
GSR1002A-600R600C7	575	Ct7	600	± 0.104	0.050	0.150	~ 0.020			
GSR1002A-600R600C10	575	Ct10	600	± 0.420	0.210	0.350	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1002D-600R600C5	580	C5	600	± 0.030	0.018	0.090	~ 0.005	-	1450	3700
GSR1002D-600R600C7	580	Ct7	600	± 0.104	0.050	0.150	~ 0.020			
GSR1002D-600R600C10	580	Ct10	600	± 0.420	0.210	0.350	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

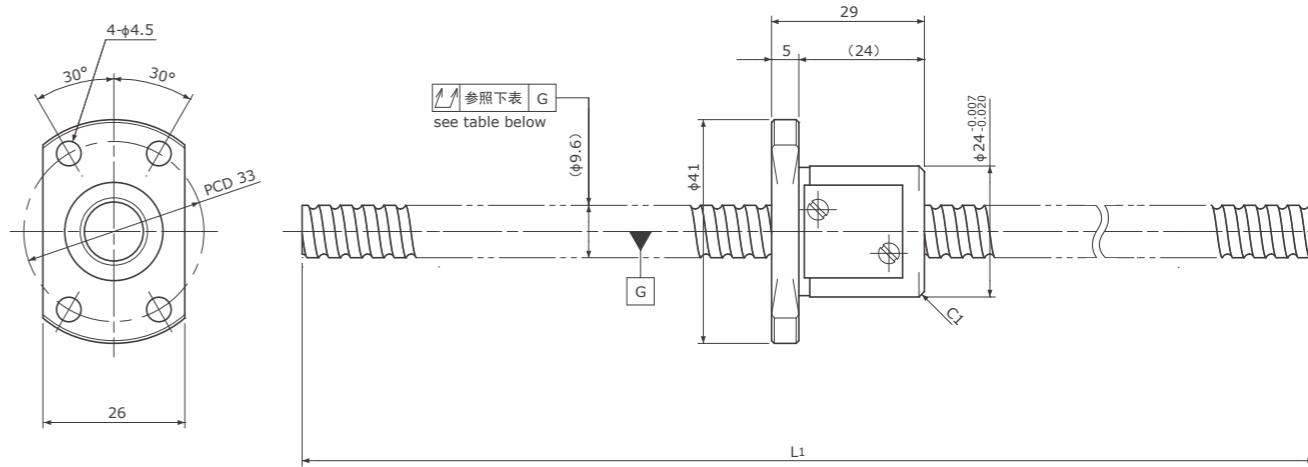
GSR1003 | Shaft dia.(轴径) $\phi 10$ Lead(导程)3mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1004 | Shaft dia.(轴径) $\phi 10$ Lead(导程)4mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

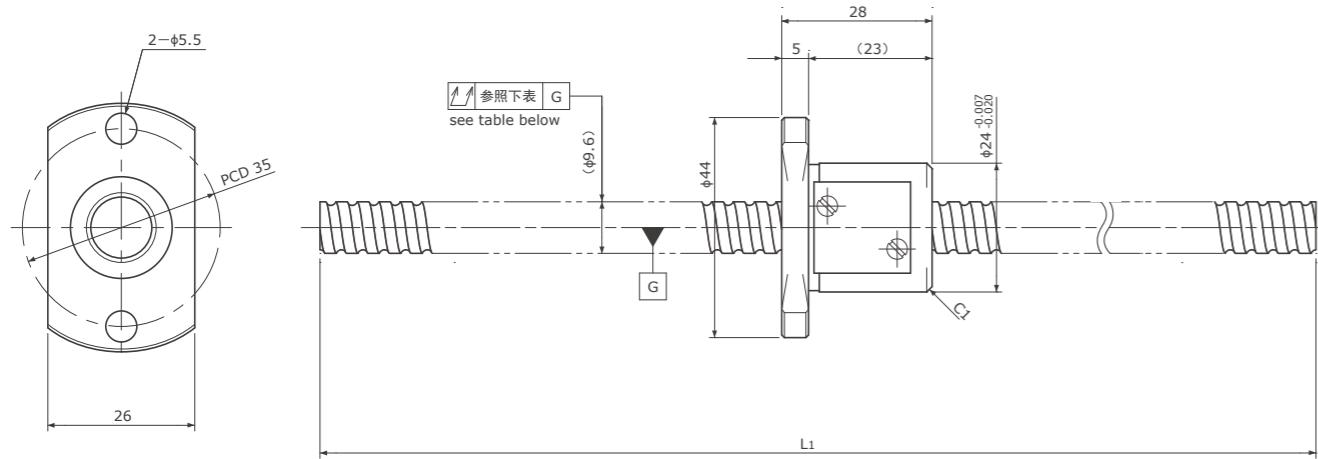
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N			
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa		
GSR1003-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005	-	3900	7200		
GSR1003-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020					
GSR1003-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050					

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N			
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa		
GSR1004-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005	-	3000	5200		
GSR1004-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020					
GSR1004-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050					

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

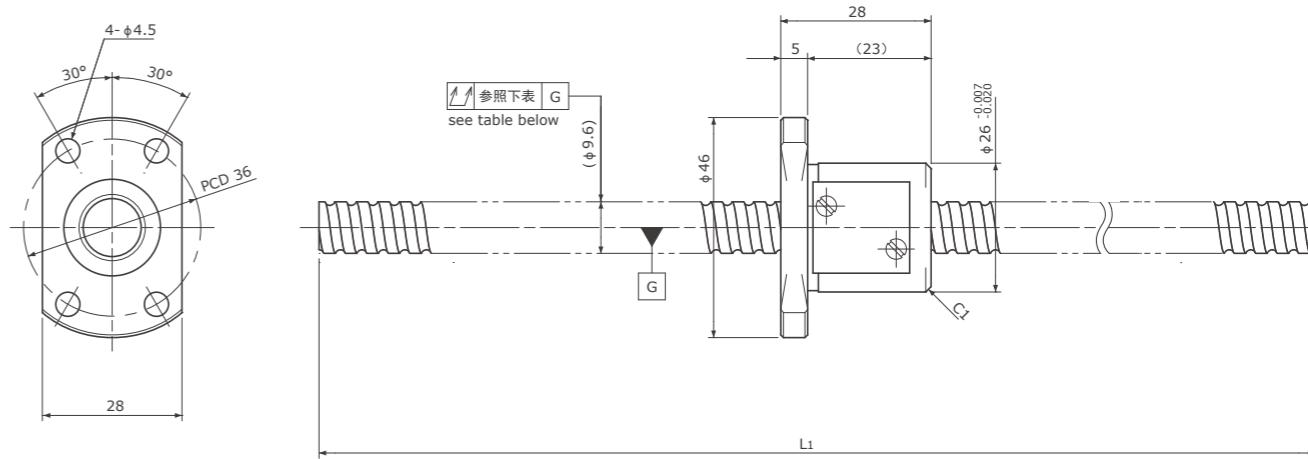
GSR1004G | Shaft dia.(轴径) ϕ 10 Lead(导程)4mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1004T | Shaft dia.(轴径) ϕ 10 Lead(导程)4mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

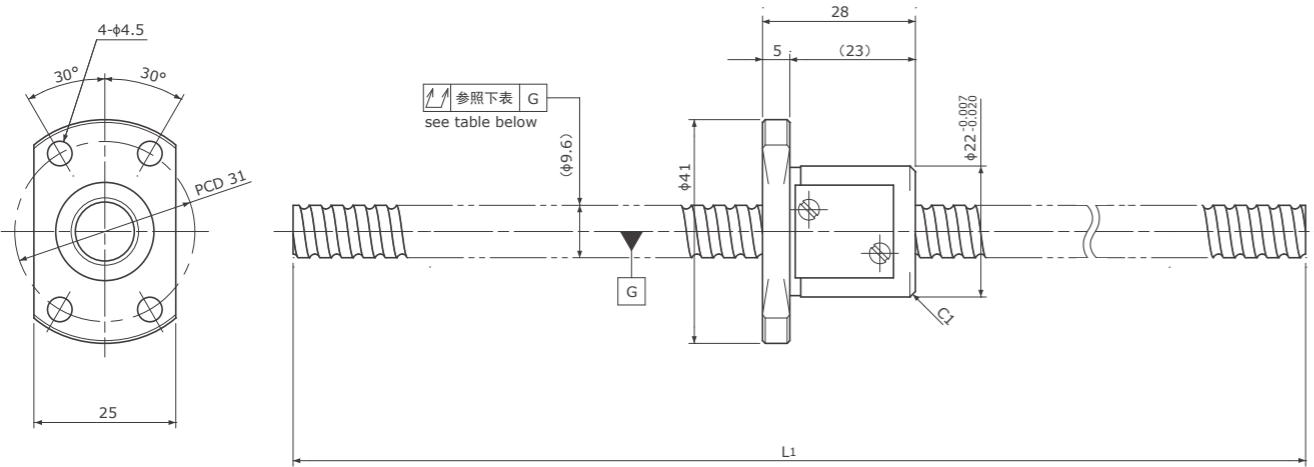
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动 ↑	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1004G-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005			
GSR1004G-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020	-	3000	5200
GSR1004G-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动 ↑	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1004T-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005	-	3000	5200
GSR1004T-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR1004T-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

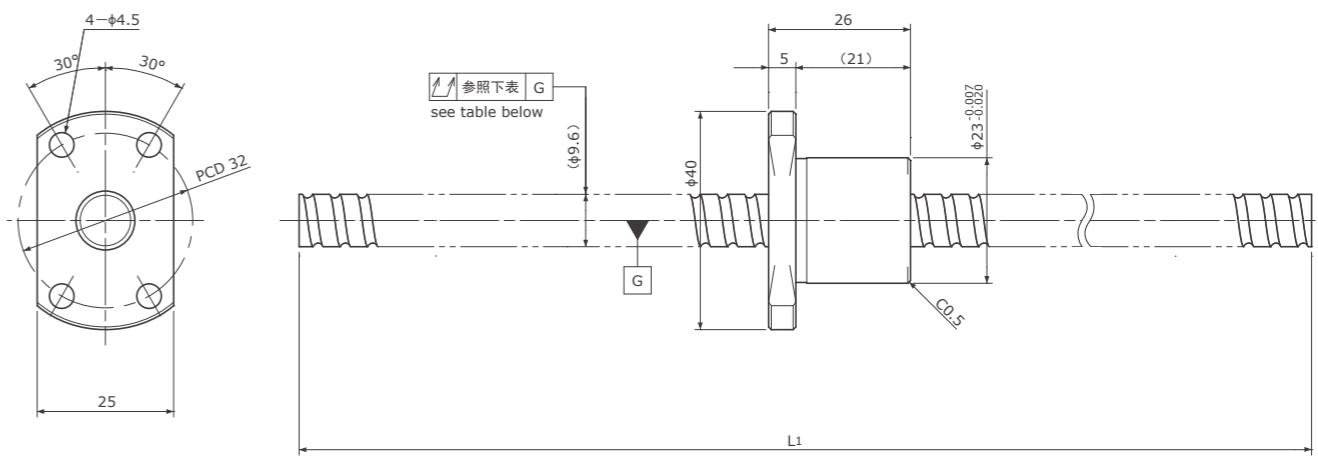
GSR1004A | Shaft dia.(轴径) ϕ 10 Lead(导程) 4mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1005 | Shaft dia.(轴径) ϕ 10 Lead(导程) 5mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

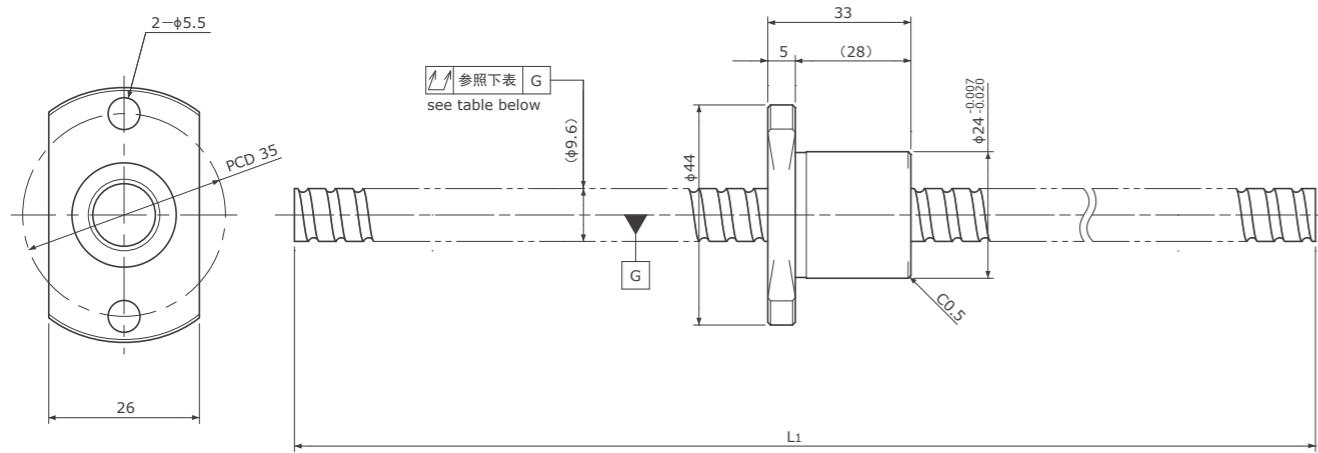
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L ₁	Lead accuracy 导程精度		Total Run-out 全跳动 ↑↓	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
	GSR1004A-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005	-	3000
GSR1004A-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020		5200	
GSR1004A-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L ₁	Lead accuracy 导程精度		Total Run-out 全跳动 ↑↓	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1005-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005	-	3000	5200
GSR1005-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020	-	3000	5200
GSR1005-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050	-	3000	5200

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

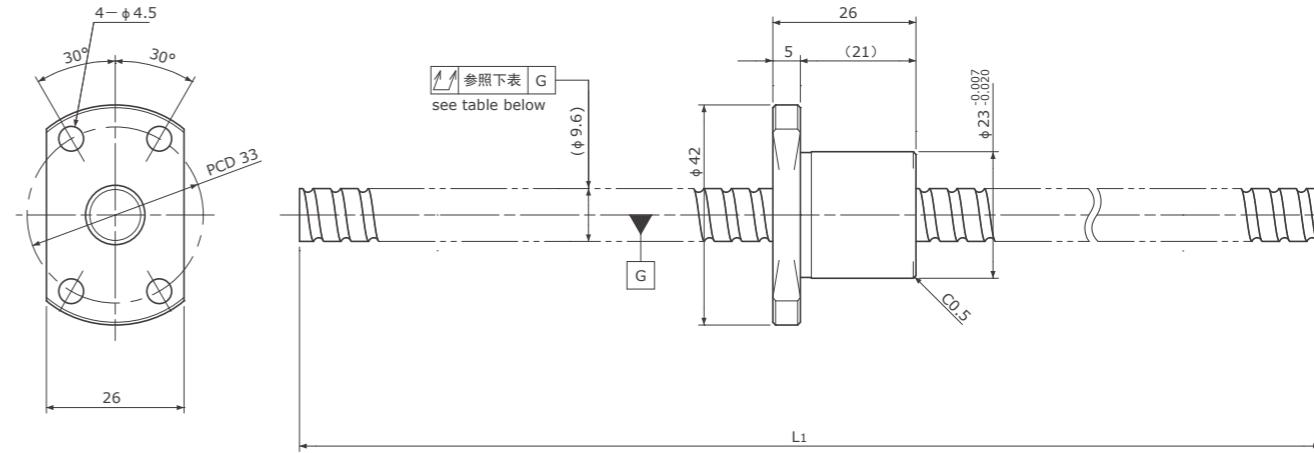
GSR1005G | Shaft dia.(轴径) ϕ 10 Lead(导程)5mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 8.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1005T | Shaft dia.(轴径) ϕ 10 Lead(导程)5mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 8.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

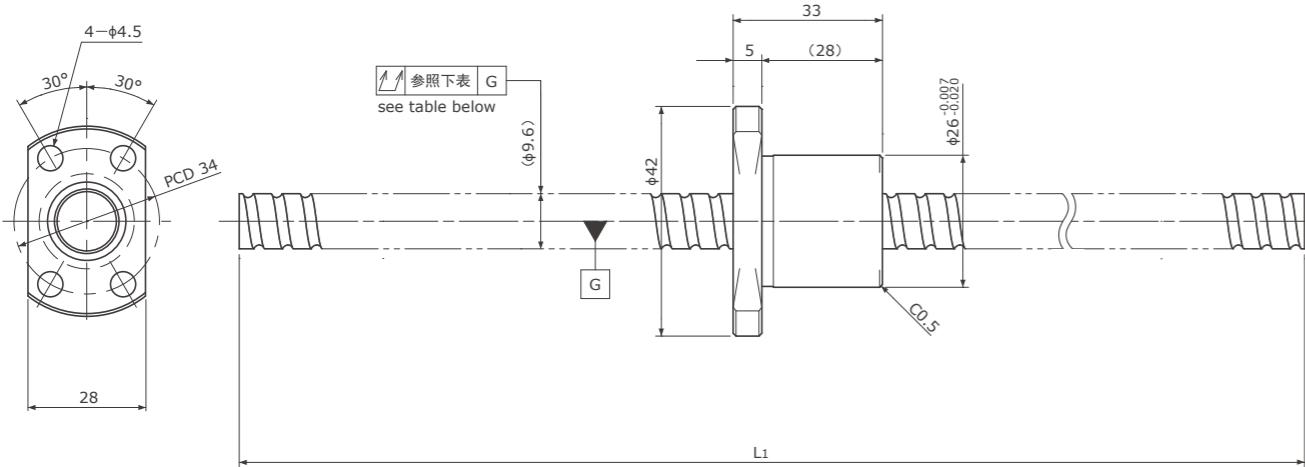
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N			
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa		
GSR1005G-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005	-	3000	5200		
GSR1005G-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020					
GSR1005G-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050					

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N			
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa		
GSR1005T-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005	-	3000	5200		
GSR1005T-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020					
GSR1005T-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050					

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

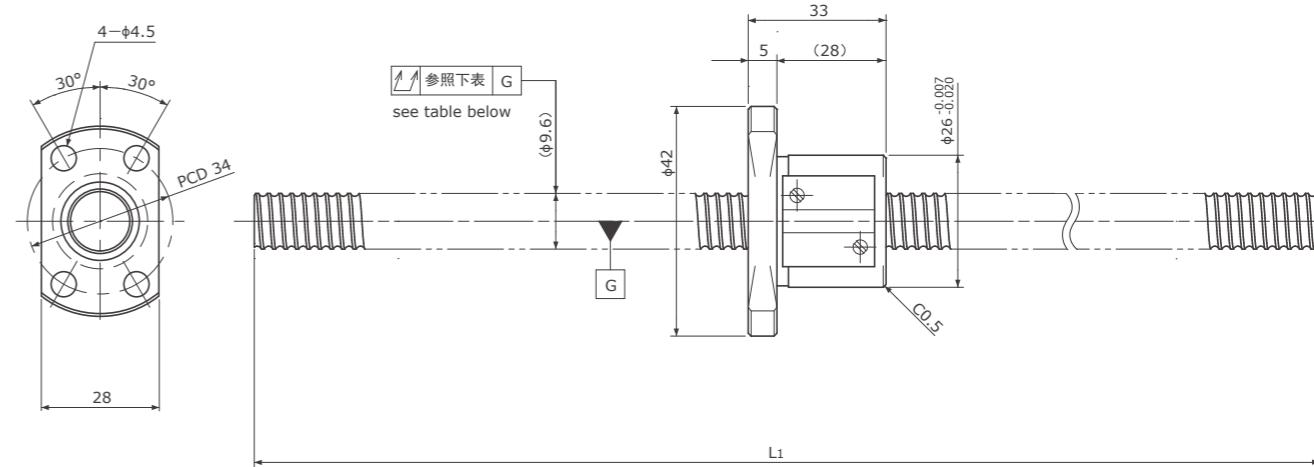
GSR1005A | Shaft dia.(轴径) ϕ 10 Lead(导程)5mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1006 | Shaft dia.(轴径) ϕ 10 Lead(导程)6mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

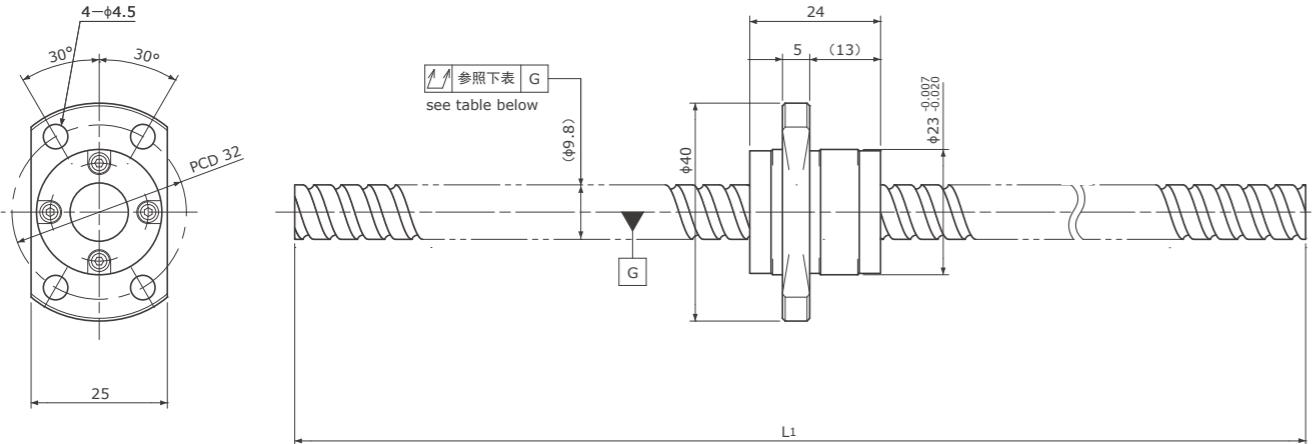
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N			
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa		
GSR1005A-600R600C5	565	C5	600	±0.030	0.018	0.090	~0.005	-	3000	5200		
GSR1005A-600R600C7	565	Ct7	600	±0.104	0.050	0.150	~0.020					
GSR1005A-600R600C10	565	Ct10	600	±0.420	0.210	0.350	~0.050					

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N			
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa		
GSR1006-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005	-	3000	5000		
GSR1006-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020					
GSR1006-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050					

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

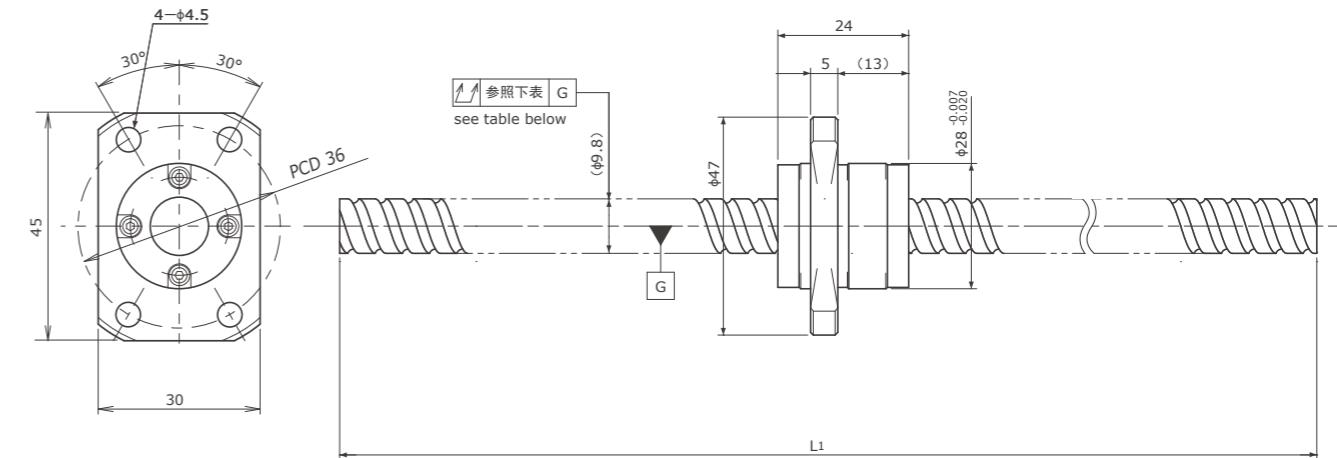
GSR1010 | Shaft dia.(轴径) ϕ 10 Lead(导程)10mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.4		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1010T | Shaft dia.(轴径) ϕ 10 Lead(导程)10mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.4		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

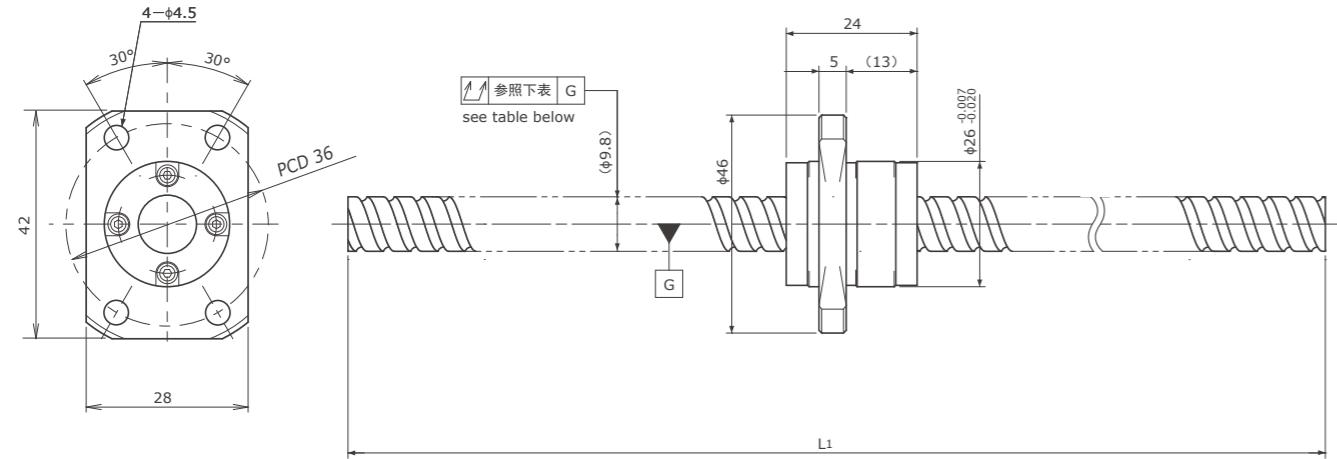
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N			
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa		
GSR1010-600R600C5	575	C5	600	±0.030	0.018	0.090	~0.005	-	3300	5900		
GSR1010-600R600C7	575	Ct7	600	±0.104	0.050	0.150	~0.020					
GSR1010-600R600C10	575	Ct10	600	±0.420	0.210	0.350	~0.050					

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N			
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa		
GSR1010T-600R600C5	575	C5	600	±0.030	0.018	0.090	~0.005	-	3300	5900		
GSR1010T-600R600C7	575	Ct7	600	±0.104	0.050	0.150	~0.020					
GSR1010T-600R600C10	575	Ct10	600	±0.420	0.210	0.350	~0.050					

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

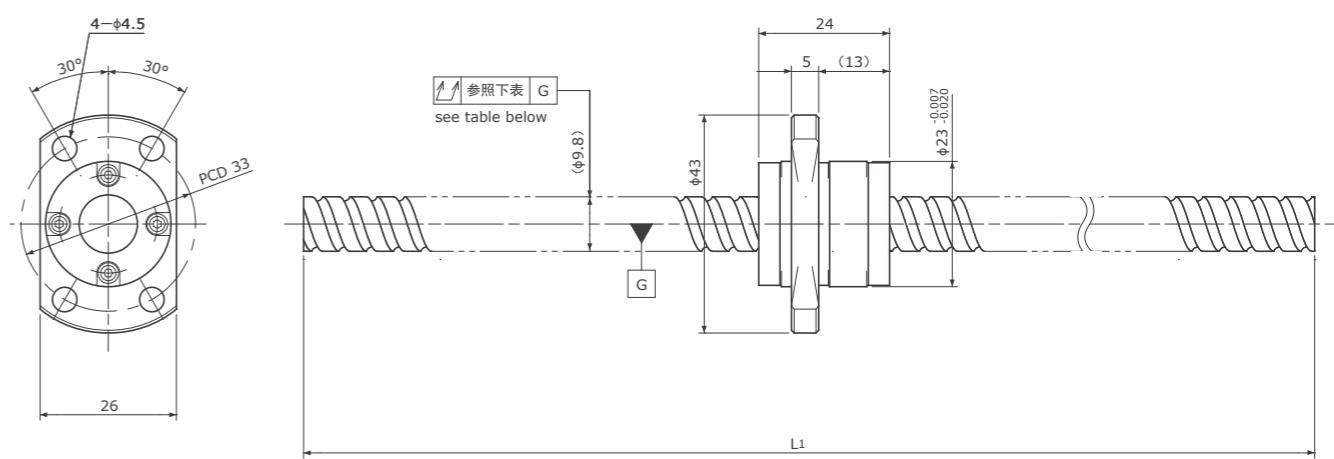
GSR1010A|Shaft dia.(轴径) ϕ 10 Lead(导程)10mm|C5&Ct7&Ct10|



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.4		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1010P|Shaft dia.(轴径) ϕ 10 Lead(导程)10mm|C5&Ct7&Ct10|



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.4		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

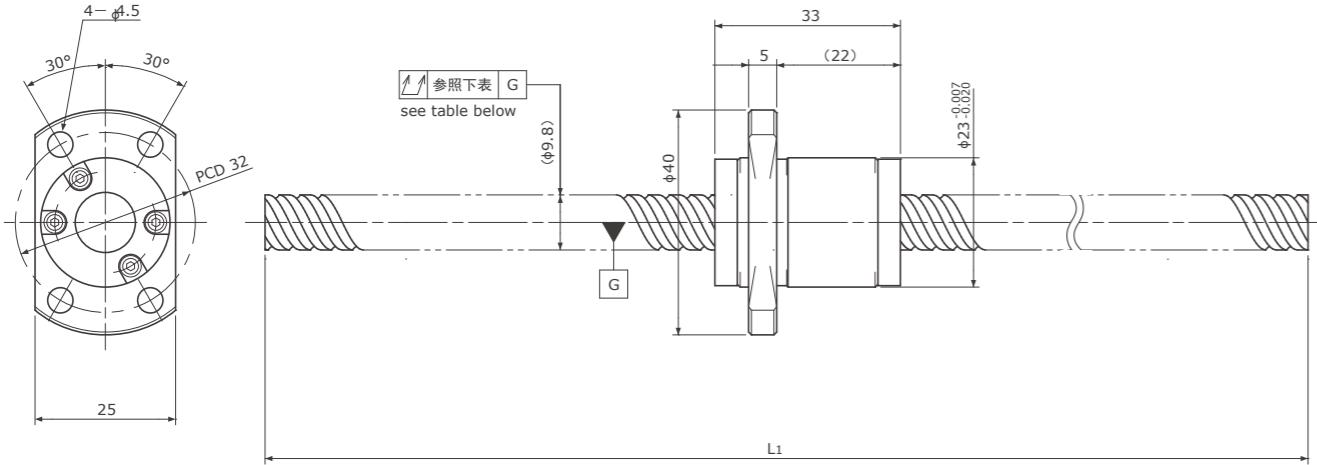
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N			
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa		
GSR1010A-600R600C5	575	C5	600	±0.030	0.018	0.090	~0.005	-	3300	5900		
GSR1010A-600R600C7	575	Ct7	600	±0.104	0.050	0.150	~0.020					
GSR1010A-600R600C10	575	Ct10	600	±0.420	0.210	0.350	~0.050					

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N			
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa		
GSR1010P-600R600C5	575	C5	600	±0.030	0.018	0.090	~0.005	-	3300	5900		
GSR1010P-600R600C7	575	Ct7	600	±0.104	0.050	0.150	~0.020					
GSR1010P-600R600C10	575	Ct10	600	±0.420	0.210	0.350	~0.050					

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

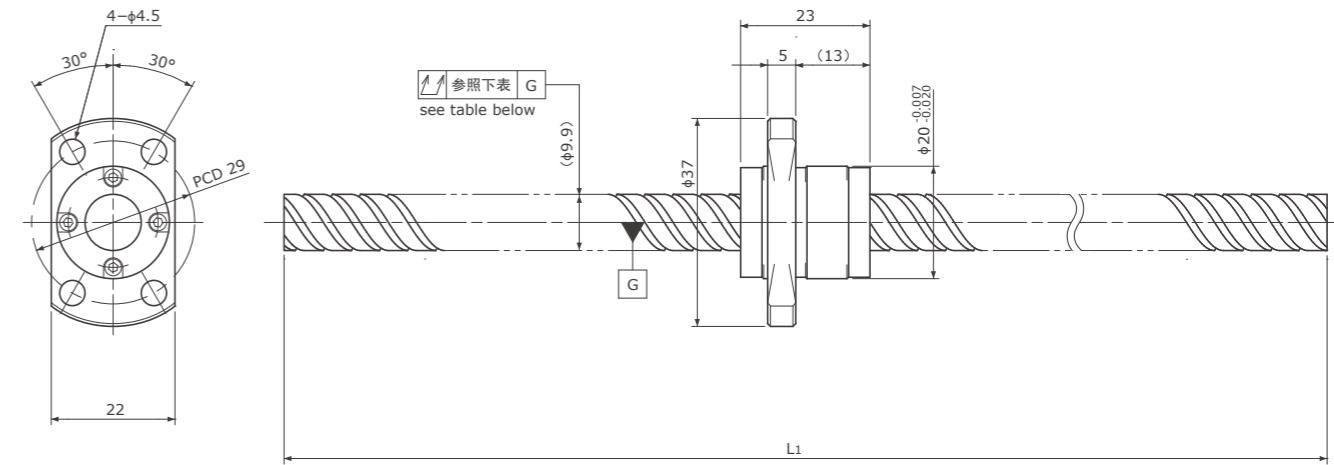
GSR1015 | Shaft dia.(轴径) ϕ 10 Lead(导程)15mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.4		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1020 | Shaft dia.(轴径) ϕ 10 Lead(导程)20mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	4		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.7		
Number of circuit 循环数	0.7×4		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

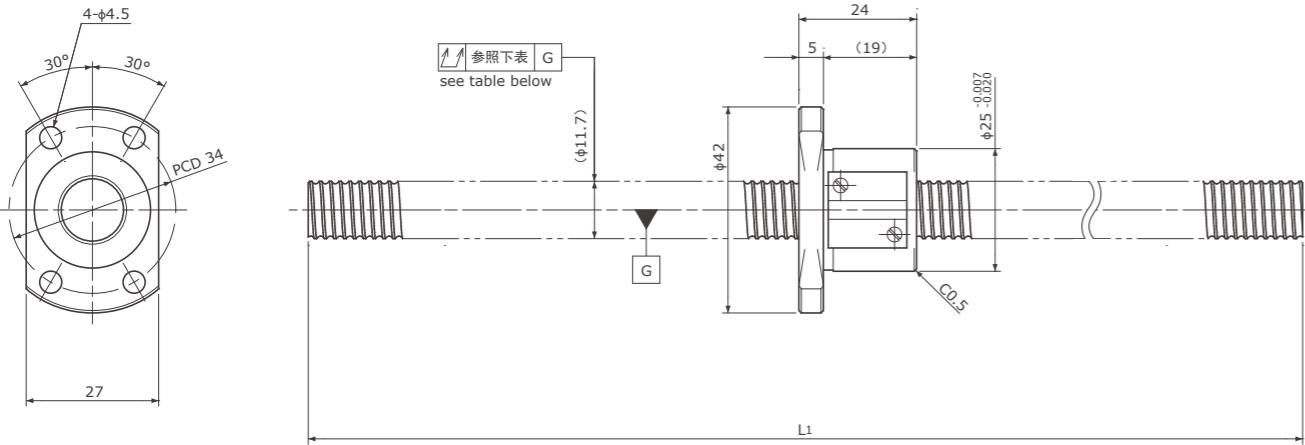
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N			
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa		
GSR1015-600R600C5	565	C5	600	±0.030	0.018	0.090	~0.005	-	3300	6400		
GSR1015-600R600C7	565	Ct7	600	±0.104	0.050	0.150	~0.020					
GSR1015-600R600C10	565	Ct10	600	±0.420	0.210	0.350	~0.050					

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N			
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa		
GSR1020-600R600C5	575	C5	600	±0.030	0.018	0.090	~0.005	-	2100	4000		
GSR1020-600R600C7	575	Ct7	600	±0.104	0.050	0.150	~0.020					
GSR1020-600R600C10	575	Ct10	600	±0.420	0.210	0.350	~0.050					

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

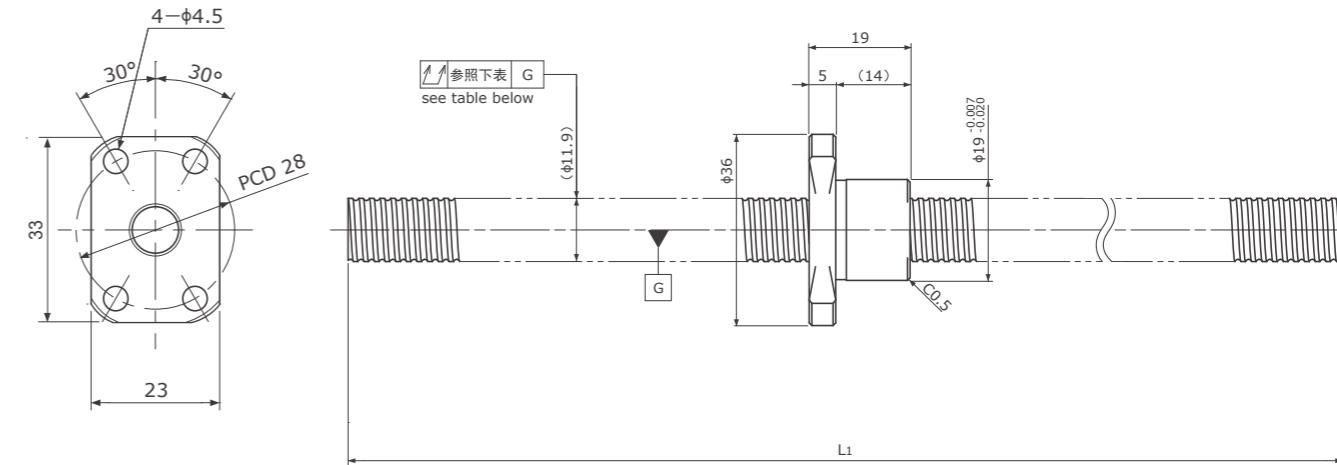
GSR1202 | Shaft dia.(轴径) $\phi 12$ Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ10.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1202K | Shaft dia.(轴径) $\phi 12$ Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ11.0		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

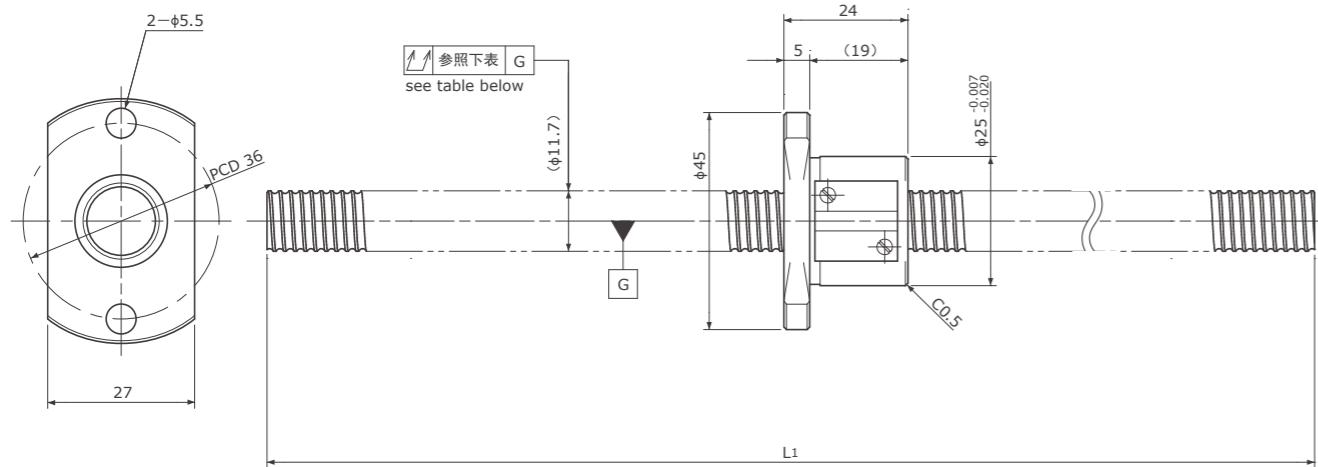
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1202-600R600C5	575	C5	600	±0.030	0.018	0.090	~0.005			
GSR1202-600R600C7	575	Ct7	600	±0.104	0.050	0.150	~0.020	-	3000	6400
GSR1202-600R600C10	575	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1202K-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	1600	3700
GSR1202K-600R600C7	580	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR1202K-600R600C10	580	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

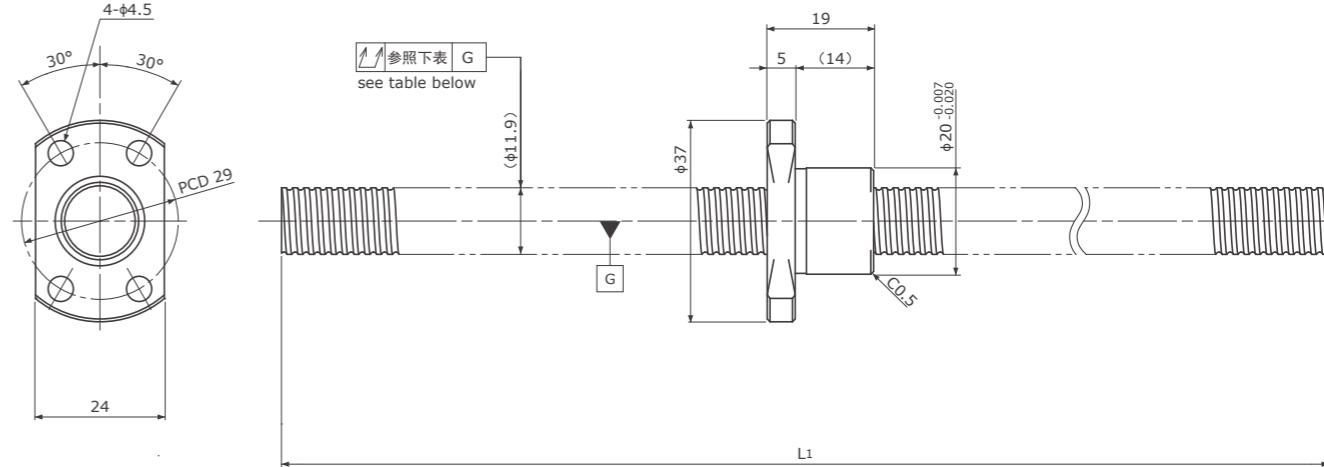
GSR1202G | Shaft dia.(轴径) ϕ 12 Lead(导程)2mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 10.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1202T | Shaft dia.(轴径) ϕ 12 Lead(导程)2mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 11.0		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

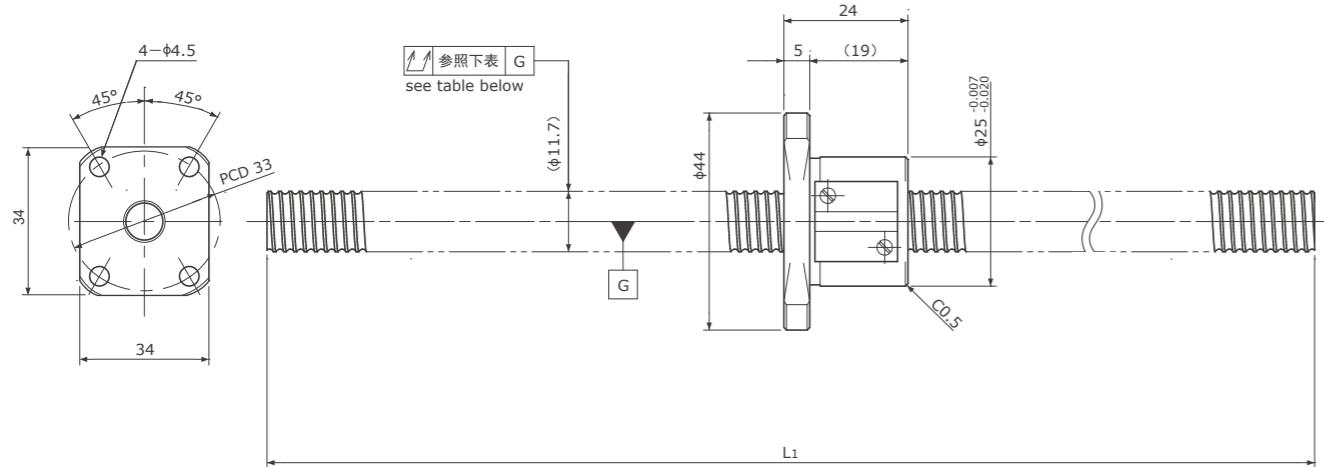
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1202G-600R600C5	575	C5	600	± 0.030	0.018	0.090	~ 0.005	-	3000	6400
GSR1202G-600R600C7	575	Ct7	600	± 0.104	0.050	0.150	~ 0.020			
GSR1202G-600R600C10	575	Ct10	600	± 0.420	0.210	0.350	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1202T-600R600C5	580	C5	600	± 0.030	0.018	0.090	~ 0.005	-	1600	3700
GSR1202T-600R600C7	580	Ct7	600	± 0.104	0.050	0.150	~ 0.020			
GSR1202T-600R600C10	580	Ct10	600	± 0.420	0.210	0.350	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

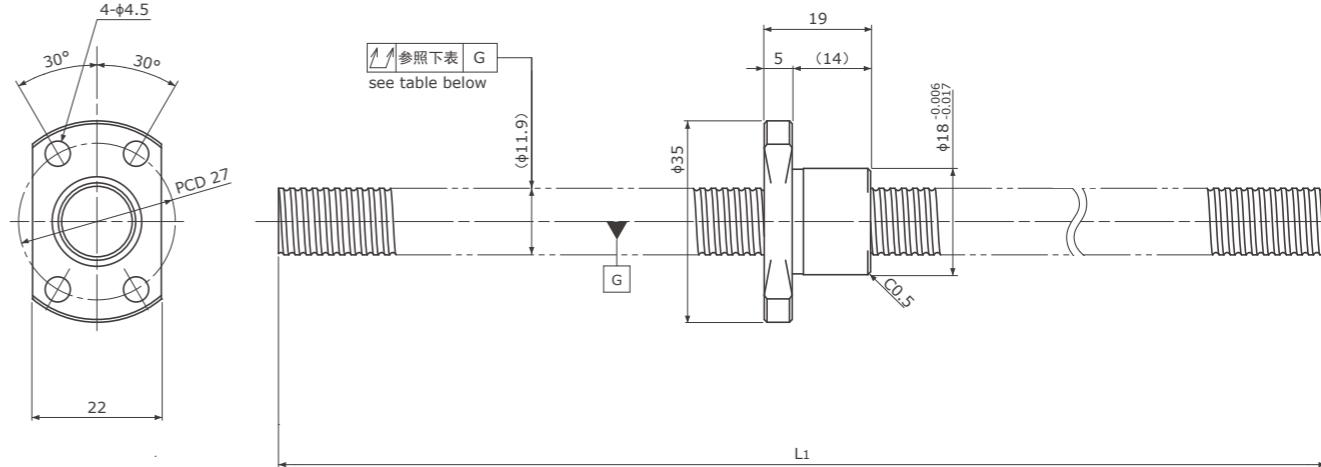
GSR1202A | Shaft dia.(轴径) ϕ 12 Lead(导程)2mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 10.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1202D | Shaft dia.(轴径) ϕ 12 Lead(导程)2mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 11.0		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

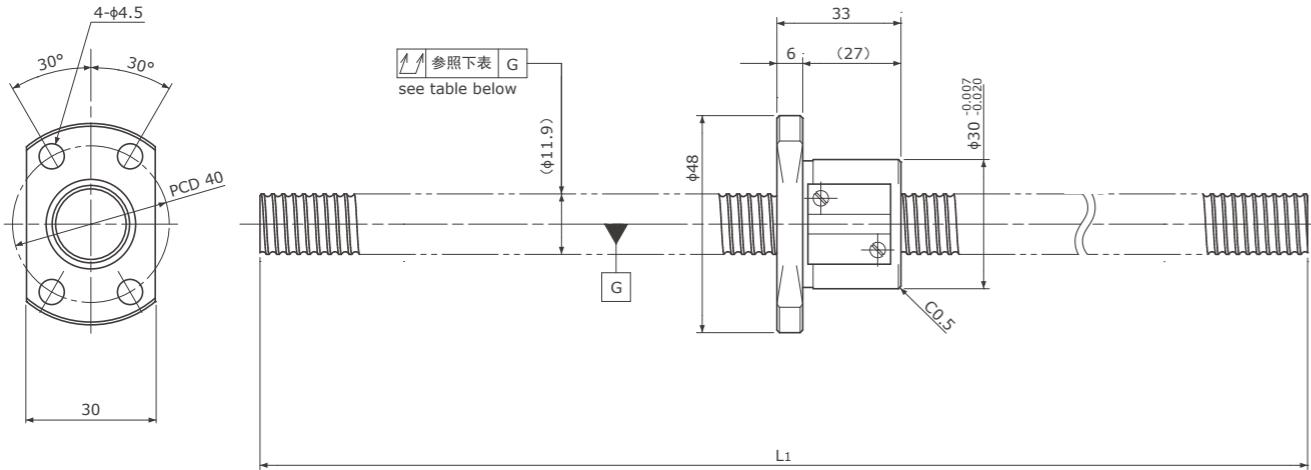
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1202A-600R600C5	575	C5	600	± 0.030	0.018	0.090	~ 0.005	-	3000	6400
GSR1202A-600R600C7	575	Ct7	600	± 0.104	0.050	0.150	~ 0.020			
GSR1202A-600R600C10	575	Ct10	600	± 0.420	0.210	0.350	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1202D-600R600C5	580	C5	600	± 0.030	0.018	0.090	~ 0.005	-	1600	3700
GSR1202D-600R600C7	580	Ct7	600	± 0.104	0.050	0.150	~ 0.020			
GSR1202D-600R600C10	580	Ct10	600	± 0.420	0.210	0.350	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

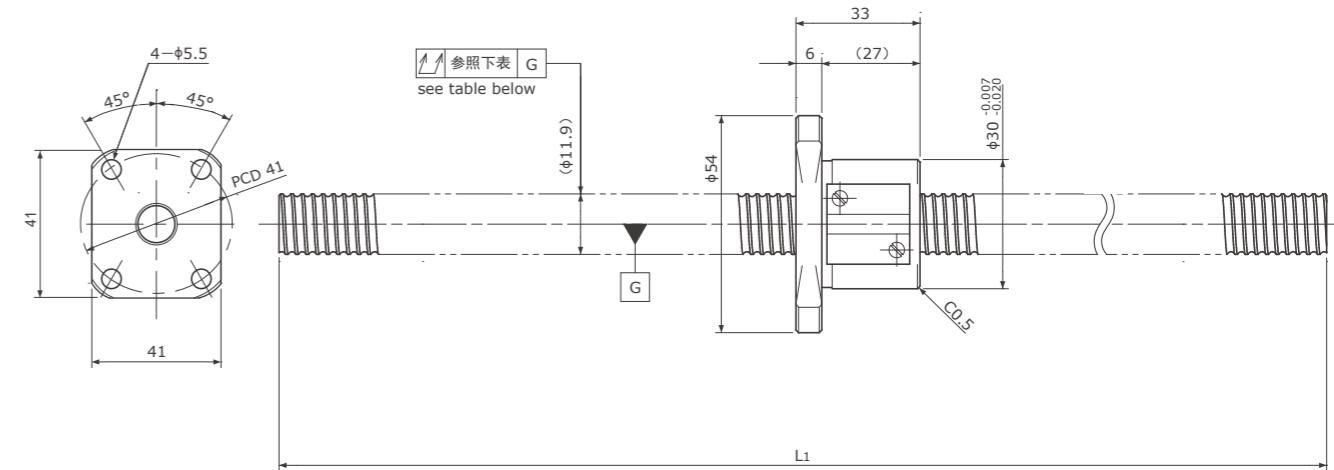
GSR1204 | Shaft dia.(轴径) ϕ 12 Lead(导程)4mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.381		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ10.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1204G | Shaft dia.(轴径) ϕ 12 Lead(导程)4mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.381		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ10.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

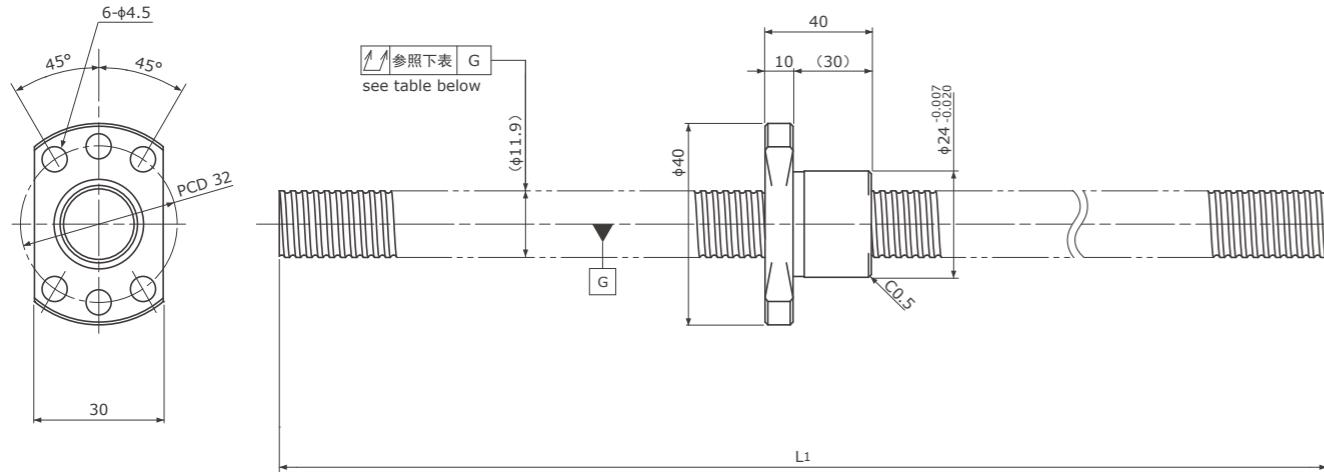
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1204-600R600C5	565	C5	600	±0.030	0.018	0.090	~0.005			
GSR1204-600R600C7	565	Ct7	600	±0.104	0.050	0.150	~0.020	-	5700	11600
GSR1204-600R600C10	565	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1204G-600R600C5	565	C5	600	±0.030	0.018	0.090	~0.005	-	5700	11600
GSR1204G-600R600C7	565	Ct7	600	±0.104	0.050	0.150	~0.020	-	5700	11600
GSR1204G-600R600C10	565	Ct10	600	±0.420	0.210	0.350	~0.050	-	5700	11600

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

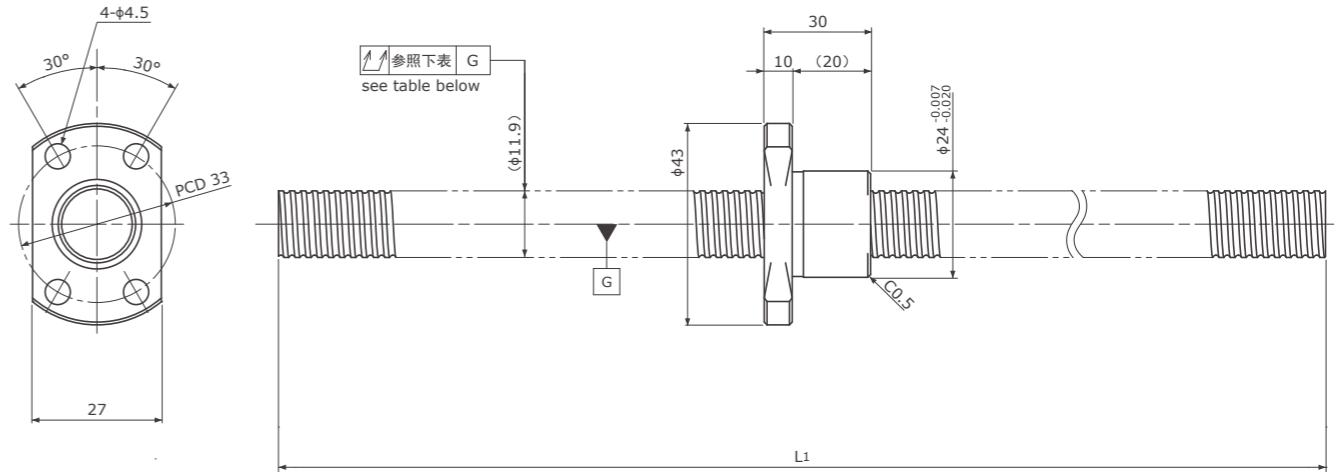
GSR1204T | Shaft dia.(轴径) ϕ 12 Lead(导程)4mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.5		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ10.2		
Number of circuit 循环数	1×4		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1204A | Shaft dia.(轴径) ϕ 12 Lead(导程)4mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.381		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ10.6		
Number of circuit 循环数	1×4		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

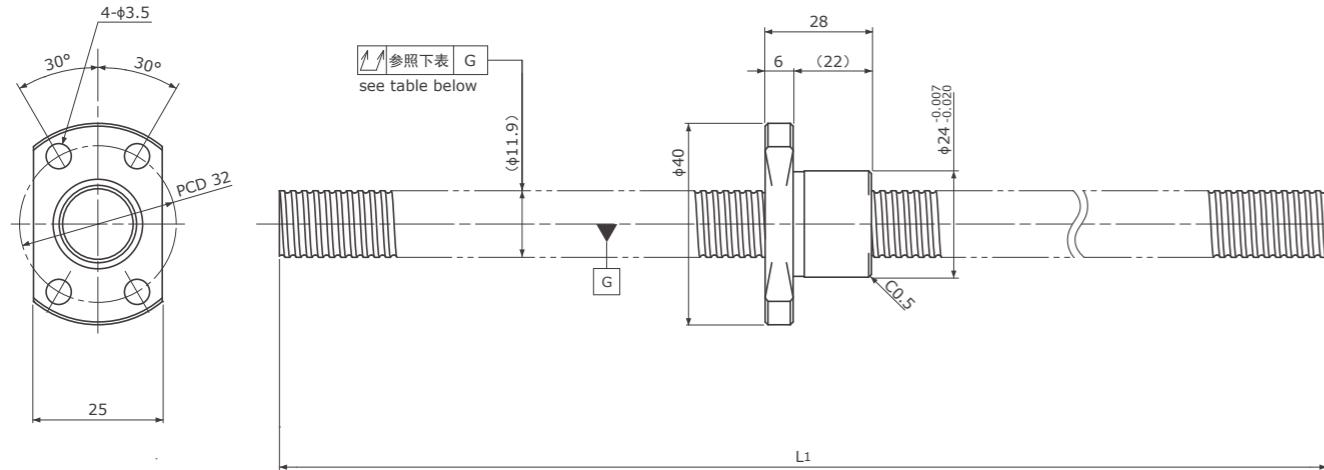
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动 ↑	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1204T-600R600C5	560	C5	600	±0.030	0.018	0.090	~0.005			
GSR1204T-600R600C7	560	Ct7	600	±0.104	0.050	0.150	~0.020	-	5900	12000
GSR1204T-600R600C10	560	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动 ↑	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1204A-600R600C5	560	C5	600	±0.030	0.018	0.090	~0.005	-	5900	12000
GSR1204A-600R600C7	560	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR1204A-600R600C10	560	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

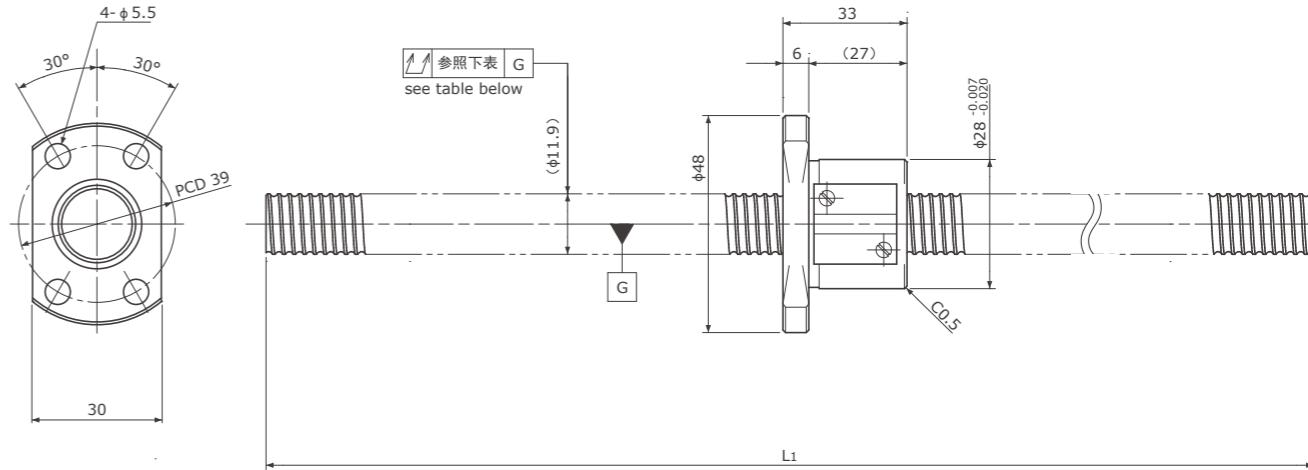
GSR1204D | Shaft dia.(轴径) φ 12 Lead(导程)4mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.5		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ10.2		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1205 | Shaft dia.(轴径) φ 12 Lead(导程)5mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ3.175		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ9.6		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

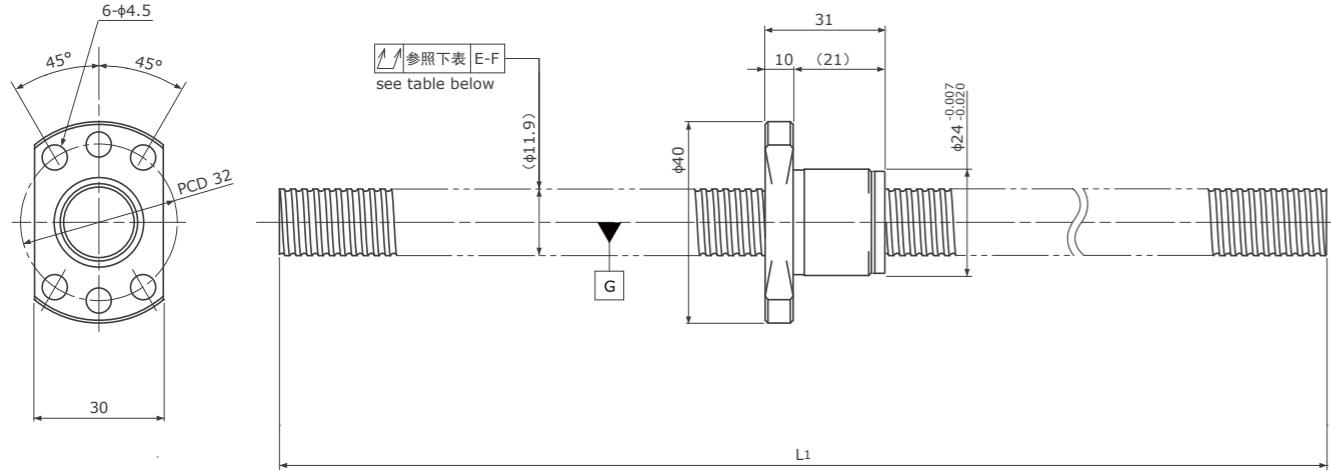
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L ₁	Lead accuracy 导程精度		Total Run-out 全跳动 ↑	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1204D-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005			
GSR1204D-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020	-	4400	9000
GSR1204D-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L ₁	Lead accuracy 导程精度		Total Run-out 全跳动 ↑	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1205A-600R600C5	565	C5	600	±0.030	0.018	0.090	~0.005	-	6500	10600
GSR1205A-600R600C7	565	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR1205A-600R600C10	565	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

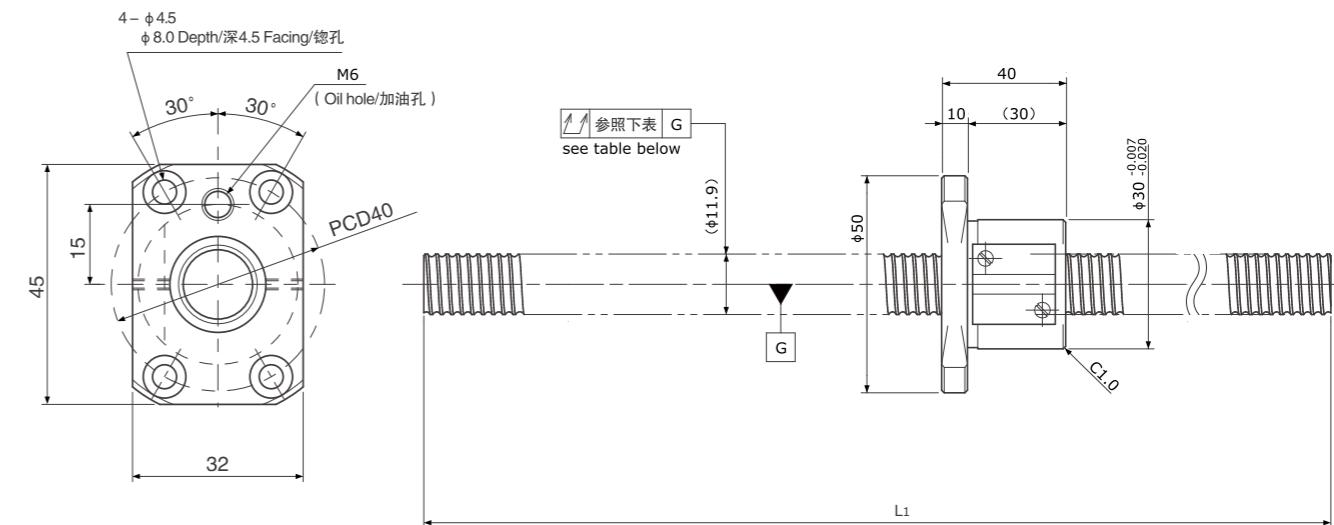
GSR1205T | Shaft dia.(轴径) ϕ 12 Lead(导程)5mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.5		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ10.2		
Number of circuit 循环数	2.8×1		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1205A | Shaft dia.(轴径) ϕ 12 Lead(导程)5mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ3.175		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ9.6		
Number of circuit 循环数	2.7×1		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

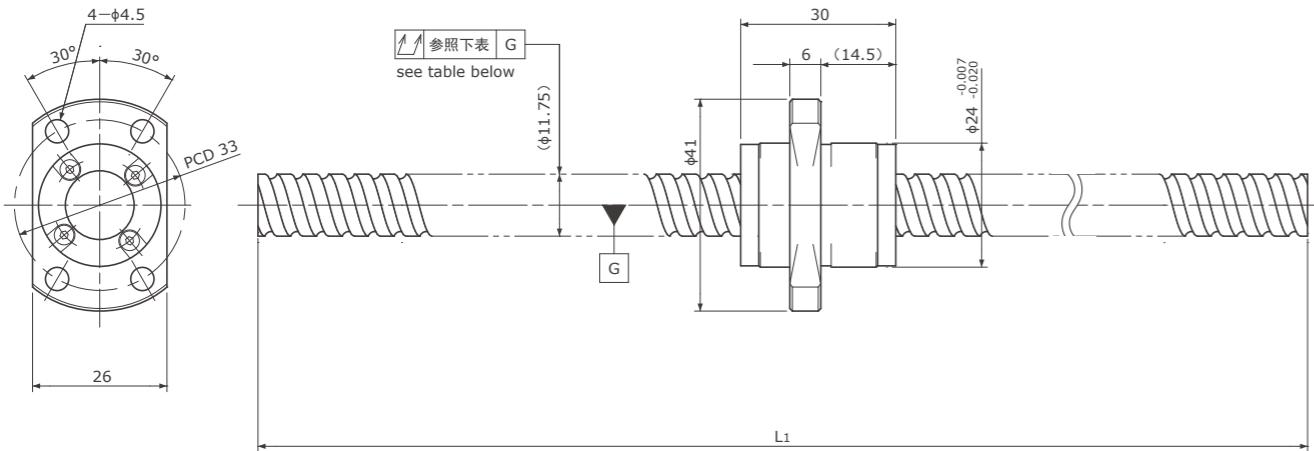
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1205-600R600C5	565	C5	600	±0.030	0.018	0.090	~0.005	-	3300	6700
GSR1205-600R600C7	565	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR1205-600R600C10	565	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1205A-600R600C5	560	C5	600	±0.030	0.018	0.090	~0.005	-	6500	10600
GSR1205A-600R600C7	560	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR1205A-600R600C10	560	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

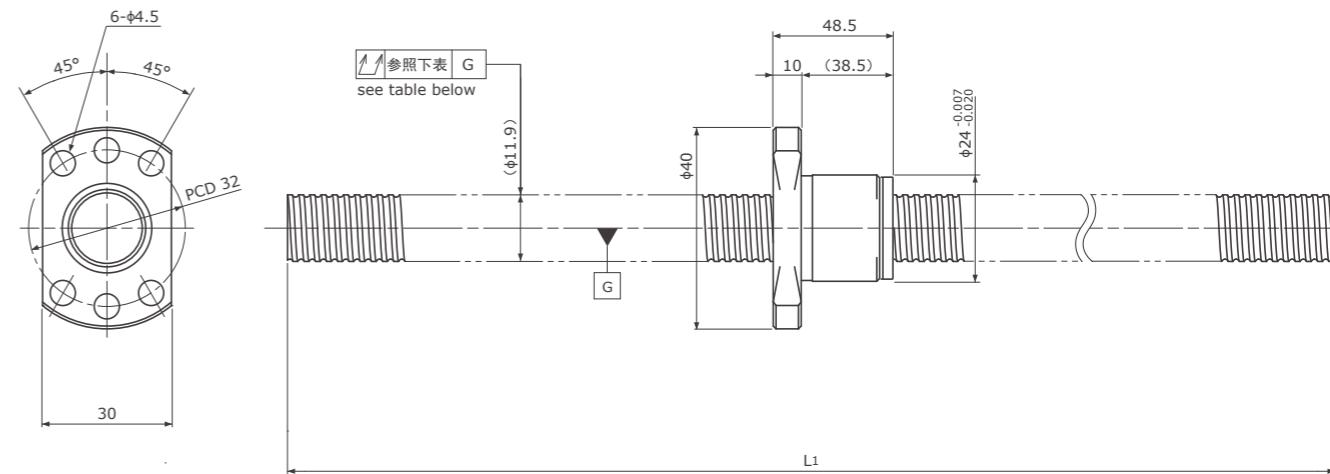
GSR1210 | Shaft dia.(轴径) ϕ 12 Lead(导程)10mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.381		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ10.2		
Number of circuit 循环数	1.7×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1210T | Shaft dia.(轴径) ϕ 12 Lead(导程)10mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.5		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ10.2		
Number of circuit 循环数	2.8×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

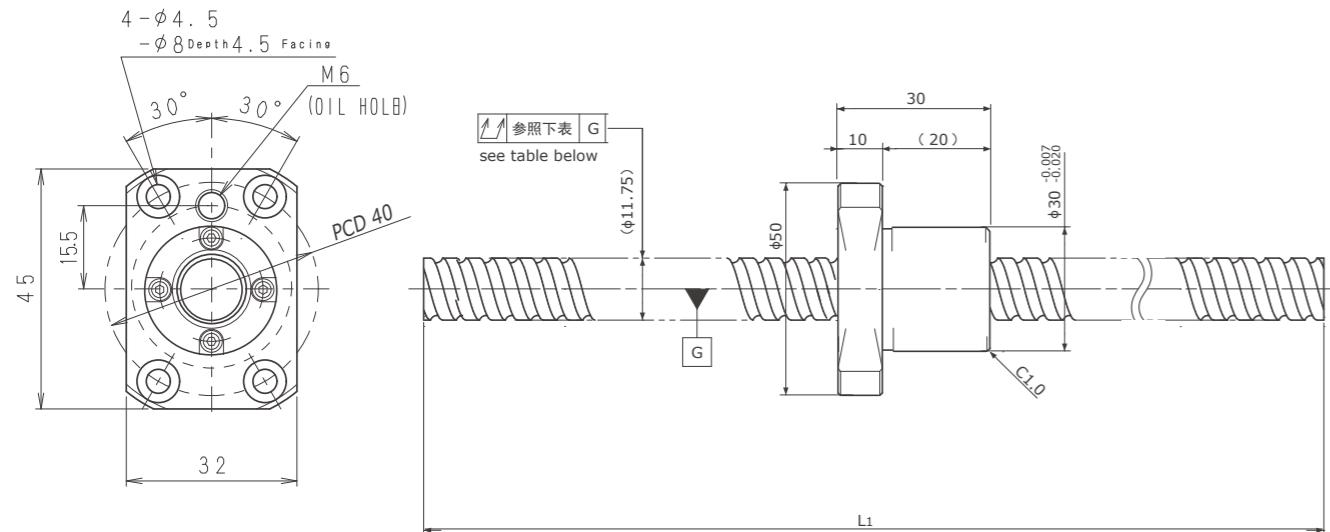
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1210-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005			
GSR1210-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020	-	5100	9800
GSR1210-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1210T-600R600C5	550	C5	600	±0.030	0.018	0.090	~0.005	-	3300	6700
GSR1210T-600R600C7	550	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR1210T-600R600C10	550	Ct10	600	±0.420	0.210	0.350	~0.050			

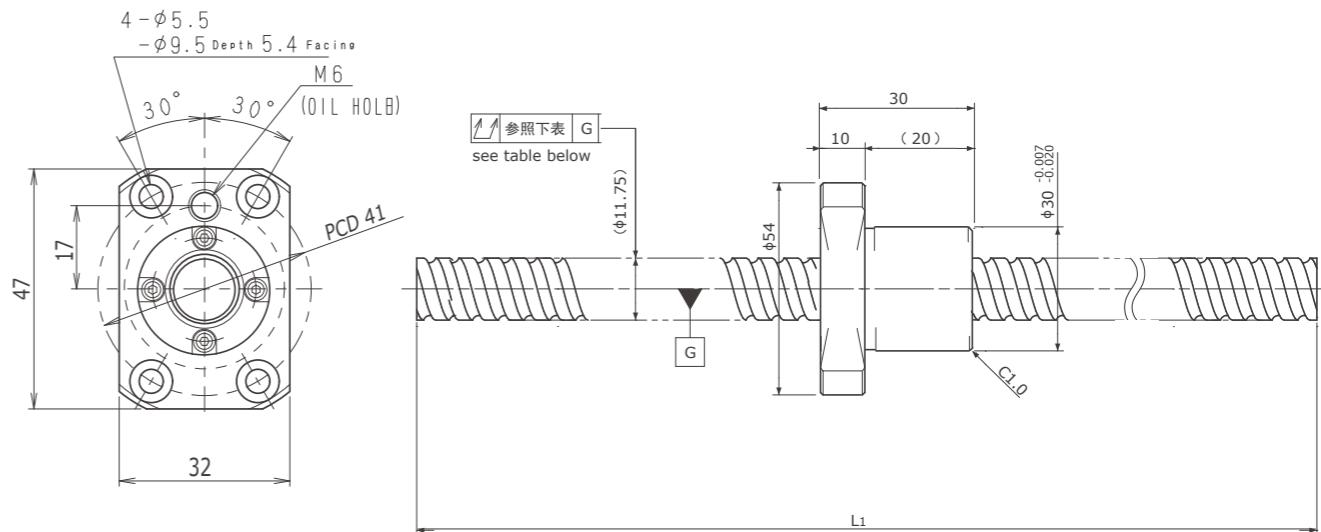
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GSR1210A|Shaft dia.(轴径) φ 12 Lead(导程)10mm|C5&Ct7&Ct10|



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.381		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ10.2		
Number of circuit 循环数	2.8×1		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.381		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ10.2		
Number of circuit 循环数	1.7×2		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

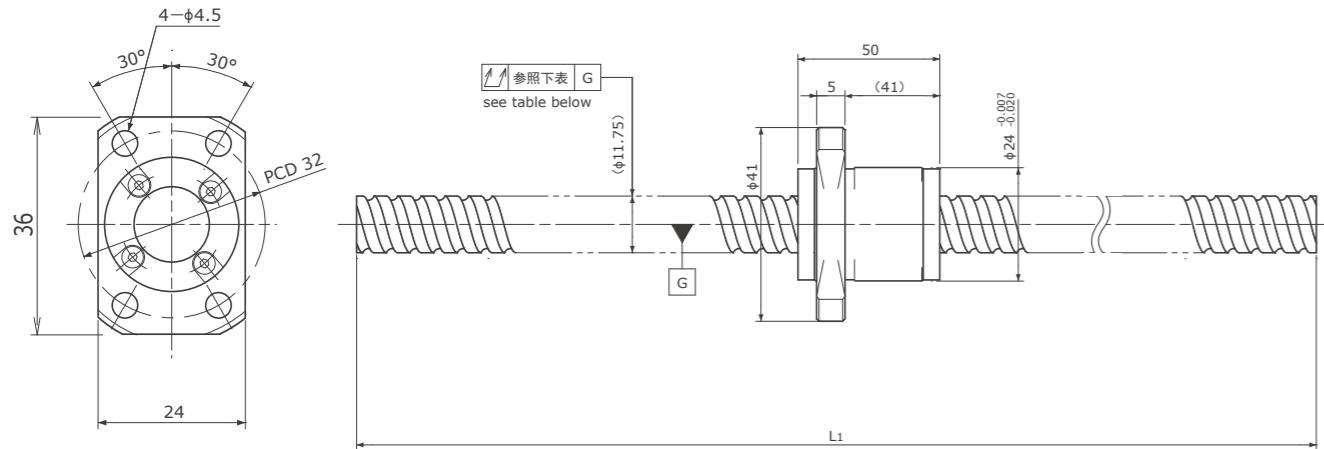
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N			
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa		
GSR1210A-600R600C5	550	C5	600	±0.030	0.018	0.090	~0.005	-	3300	6700		
GSR1210A-600R600C7	550	Ct7	600	±0.104	0.050	0.150	~0.020					
GSR1210A-600R600C10	550	Ct10	600	±0.420	0.210	0.350	~0.050					

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1210D-600R600C5	570	C5	600	±0.030	0.018	0.090	~0.005	-	5100	9800
GSR1210D-600R600C7	570	Ct7	600	±0.104	0.050	0.150	~0.020			
GSR1210D-600R600C10	570	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

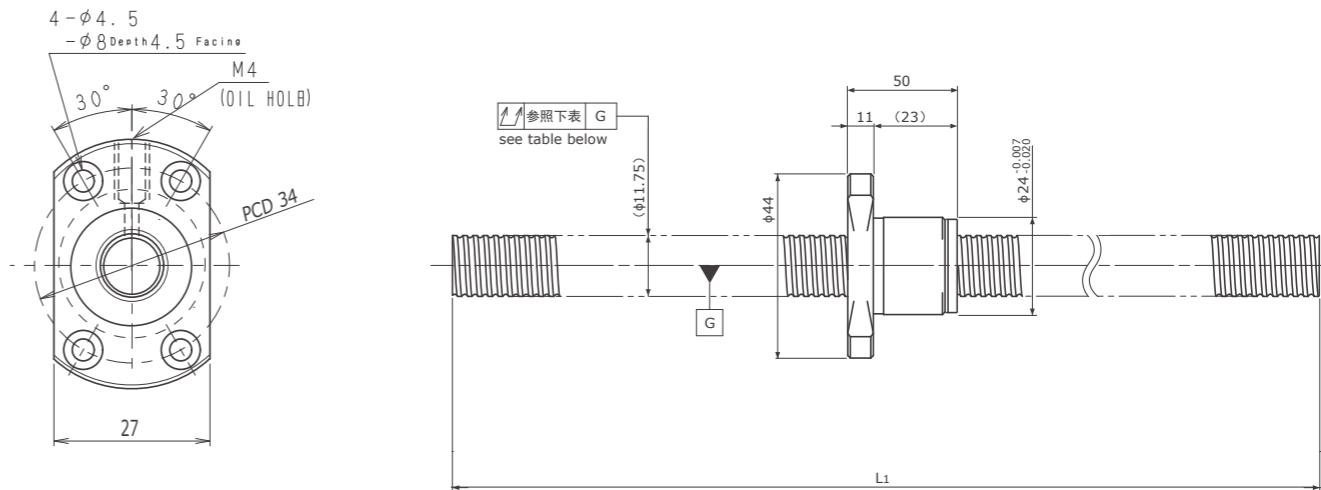
GSR1220T|Shaft dia.(轴径) φ 12 Lead(导程)20mm|C5&Ct7&Ct10|



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.381		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ10.2		
Number of circuit 循环数	1.7×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1220D|Shaft dia.(轴径) φ 12 Lead(导程)20mm|C5&Ct7&Ct10|



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.381		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ10.2		
Number of circuit 循环数	1.7×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

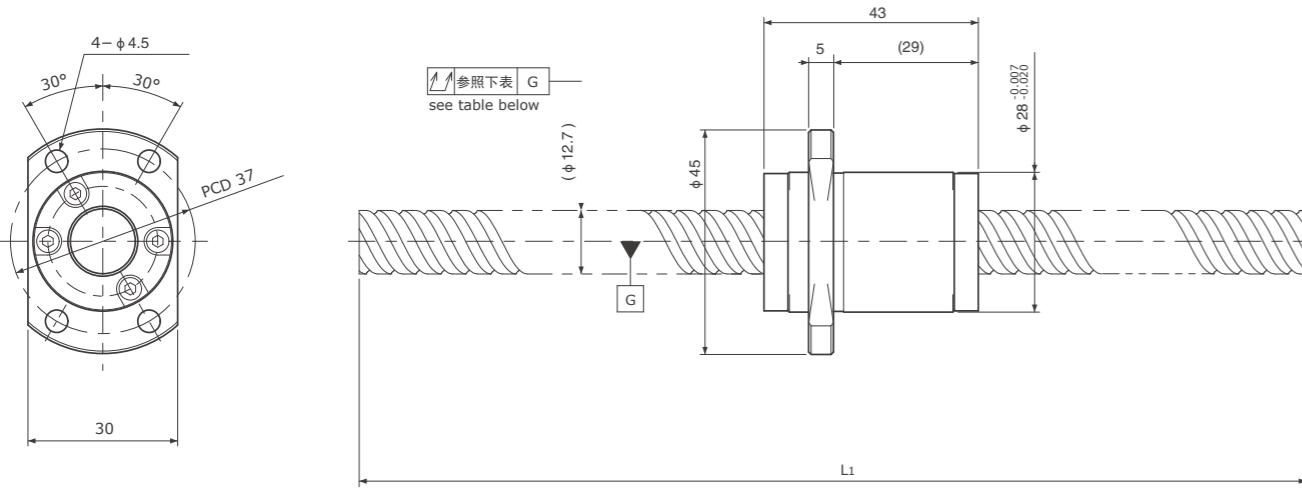
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L ₁	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1220T-600R600C5	550	C5	600	±0.030	0.018	0.090	~0.005			
GSR1220T-600R600C7	550	Ct7	600	±0.104	0.050	0.150	~0.020	-	5100	9800
GSR1220T-600R600C10	550	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L ₁	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1220D-600R600C5	550	C5	600	±0.030	0.018	0.090	~0.005	-	5100	9800
GSR1220D-600R600C7	550	Ct7	600	±0.104	0.050	0.150	~0.020	-	5100	9800
GSR1220D-600R600C10	550	Ct10	600	±0.420	0.210	0.350	~0.050	-	5100	9800

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

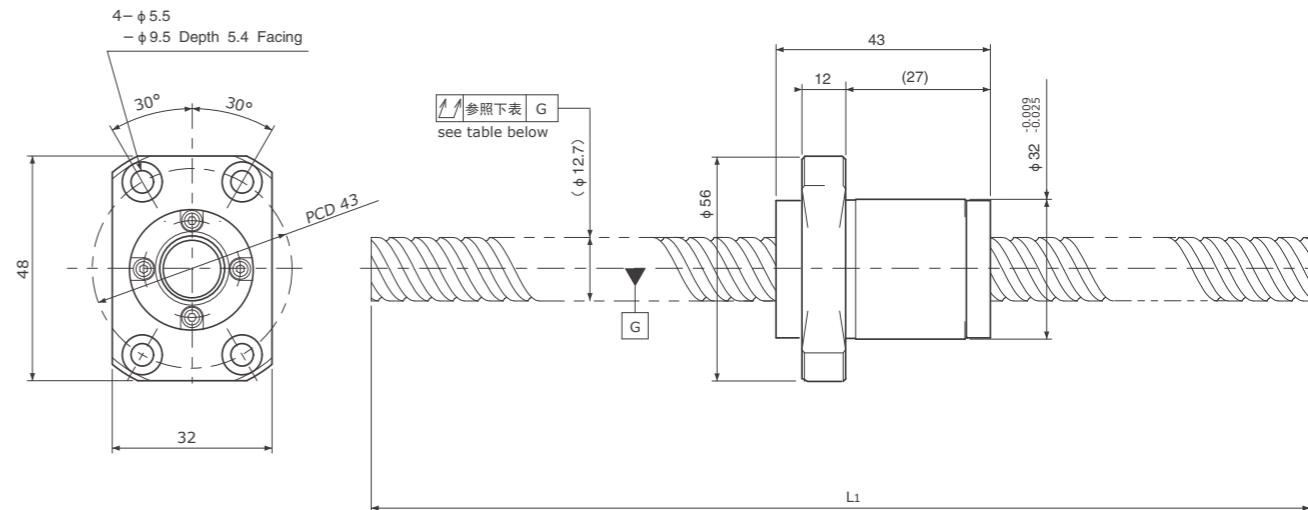
GSR1320 | Shaft dia.(轴径) ϕ 13 Lead(导程)20mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 2.381		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 10.2		
Number of circuit 循环数	1.65×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1320A | Shaft dia.(轴径) ϕ 13 Lead(导程)20mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 2.381		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 10.2		
Number of circuit 循环数	1.65×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

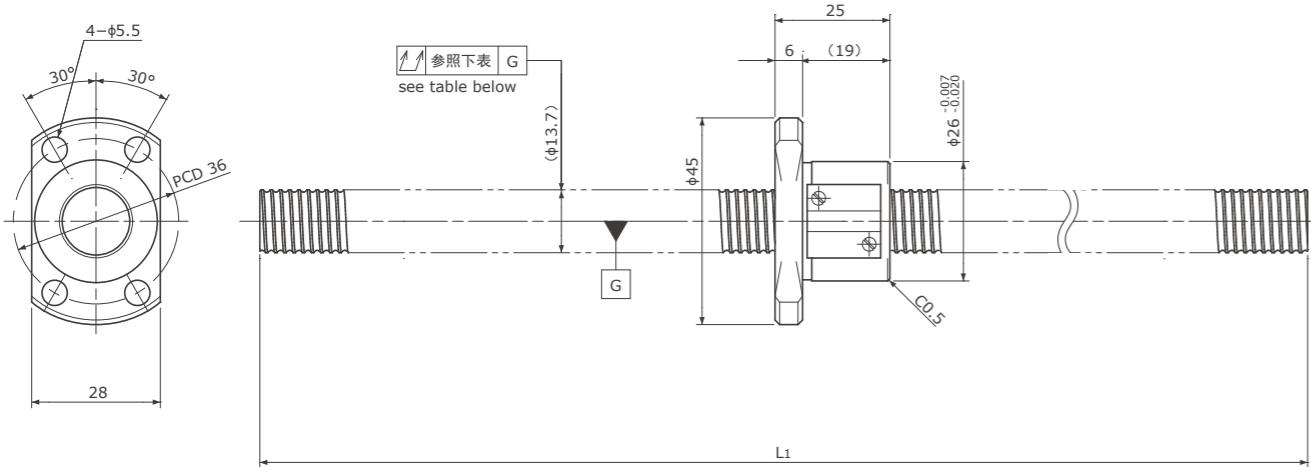
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
				± 0.046	0.018	0.150	~ 0.005	-	5000	10700
GSR1320-1200R1200C5	1155	C5	1200	± 0.046	0.018	0.150	~ 0.005			
GSR1320-1200R1200C7	1155	Ct7	1200	± 0.208	0.050	0.320	~ 0.020			
GSR1320-1200R1200C10	1155	Ct10	1200	± 0.840	0.210	0.640	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
				± 0.046	0.018	0.150	~ 0.005	-	5000	10700
GSR1320A-1200R1200C5	1155	C5	1200	± 0.046	0.018	0.150	~ 0.005			
GSR1320A-1200R1200C7	1155	Ct7	1200	± 0.208	0.050	0.320	~ 0.020			
GSR1320A-1200R1200C10	1155	Ct10	1200	± 0.840	0.210	0.640	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

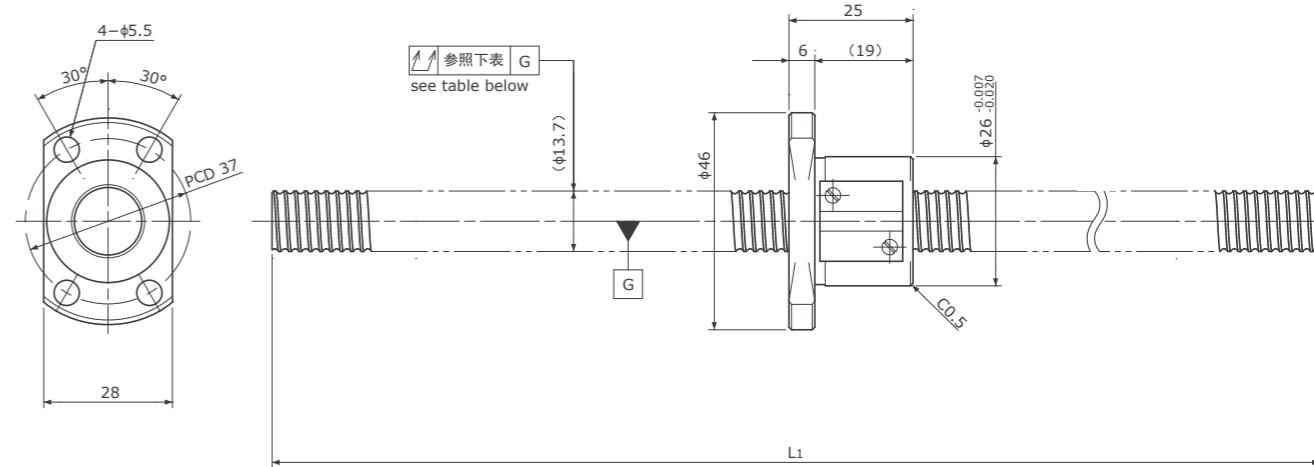
GSR1402 | Shaft dia.(轴径) ϕ 14 Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ12.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1402G | Shaft dia.(轴径) ϕ 14 Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ12.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

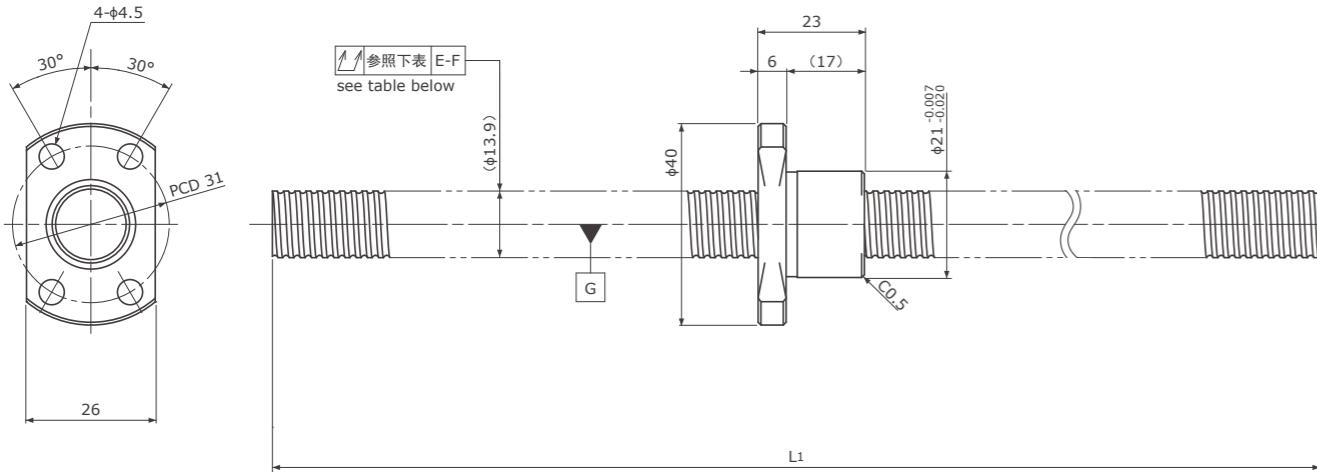
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动 ↑↓	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1402-1200R1200C5	1175	C5	1200	±0.046	0.018	0.150	~0.005	-	3200	5000
GSR1402-1200R1200C7	1175	Ct7	1200	±0.208	0.050	0.320	~0.020			
GSR1402-1200R1200C10	1175	Ct10	1200	±0.840	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动 ↑↓	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1402G-1200R1200C5	1175	C5	1200	±0.046	0.018	0.150	~0.005	-	3200	7500
GSR1402G-1200R1200C7	1175	Ct7	1200	±0.208	0.050	0.320	~0.020			
GSR1402G-1200R1200C10	1175	Ct10	1200	±0.840	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GSR1402T | Shaft dia.(轴径) ϕ 14 Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

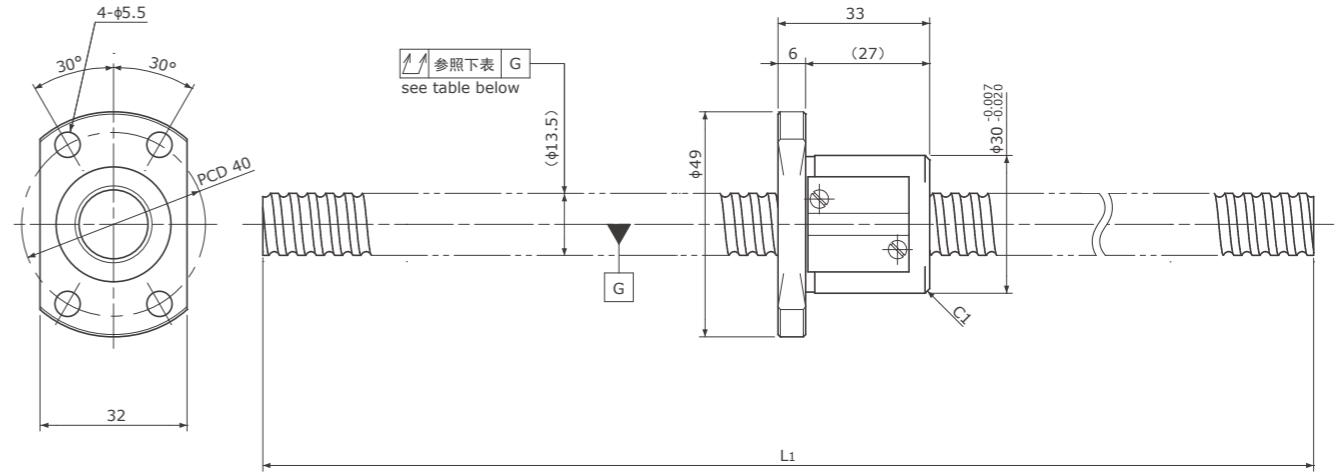
Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ13.0		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1402T-1200R1200C5	1175	C5	1200	±0.046	0.018	0.150	~0.005	-	1800	4300
GSR1402T-1200R1200C7	1175	Ct7	1200	±0.208	0.050	0.320	~0.020			
GSR1402T-1200R1200C10	1175	Ct10	1200	±0.840	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GSR1404 | Shaft dia.(轴径) ϕ 14 Lead(导程)4mm | C5&Ct7&Ct10 |



Unit(单位): mm

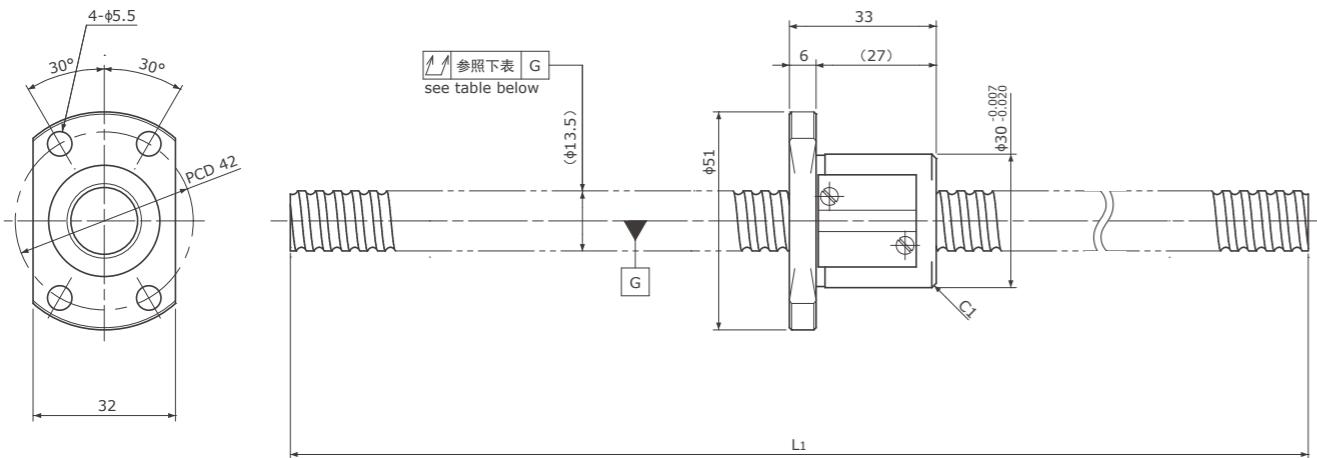
Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.381		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ11.8		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				L ₁	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1404-1200R1200C5	1165	C5	1200	±0.046	0.018	0.150	~0.005	-	5700	11600
GSR1404-1200R1200C7	1165	Ct7	1200	±0.208	0.050	0.320	~0.020			
GSR1404-1200R1200C10	1165	Ct10	1200	±0.840	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

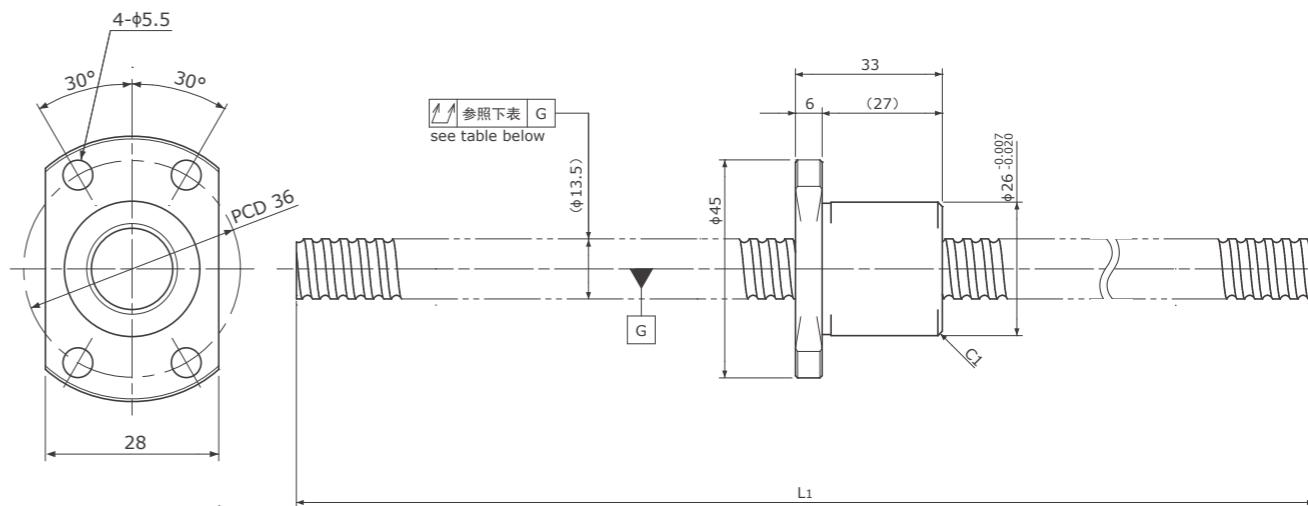
GSR1404G | Shaft dia.(轴径) φ 14 Lead(导程)4mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.381		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ11.8		
Number of circuit 循环数	3.7×1		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1404T | Shaft dia.(轴径) φ 14 Lead(导程)4mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.381		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ12.2		
Number of circuit 循环数	3×1		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

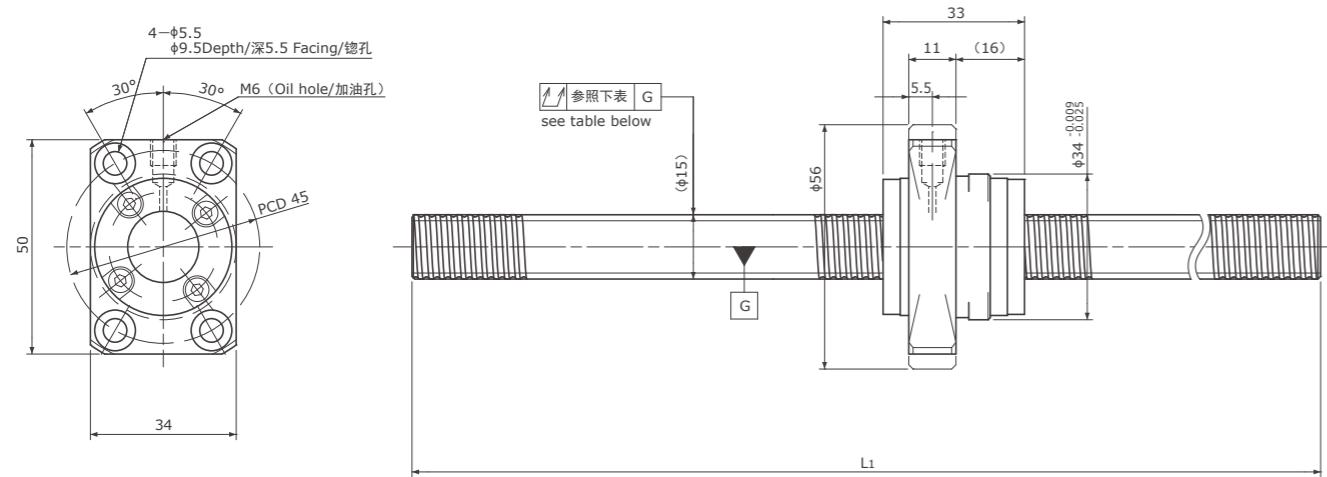
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L ₁	Lead accuracy 导程精度		Total Run-out 全跳动 ↑	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1404G-1200R1200C5	1165	C5	1200	±0.046	0.018	0.150	~0.005	-	5700	11600
GSR1404G-1200R1200C7	1165	Ct7	1200	±0.208	0.050	0.320	~0.020			
GSR1404G-1200R1200C10	1165	Ct10	1200	±0.840	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L ₁	Lead accuracy 导程精度		Total Run-out 全跳动 ↑	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1404T-1200R1200C5	1165	C5	1200	±0.046	0.018	0.150	~0.005	-	4600	8600
GSR1404T-1200R1200C7	1165	Ct7	1200	±0.208	0.050	0.320	~0.020			
GSR1404T-1200R1200C10	1165	Ct10	1200	±0.840	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

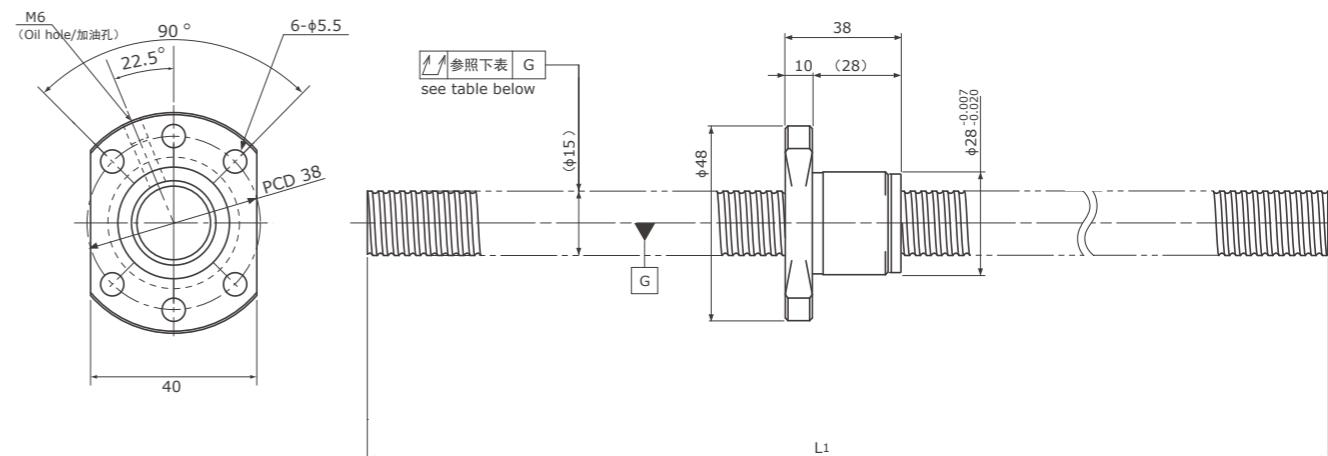
GSR1505 | Shaft dia.(轴径) ϕ 15 Lead(导程)5mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ3.175		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ12.2		
Number of circuit 循环数	3.7×1		
Material 质材	Shaft 轴	S55C	
	Nut 螺母	SCM415	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1505T | Shaft dia.(轴径) ϕ 15 Lead(导程)5mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.778		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ12.9		
Number of circuit 循环数	3.8×1		
Material 质材	Shaft 轴	S55C	
	Nut 螺母	SCM415	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

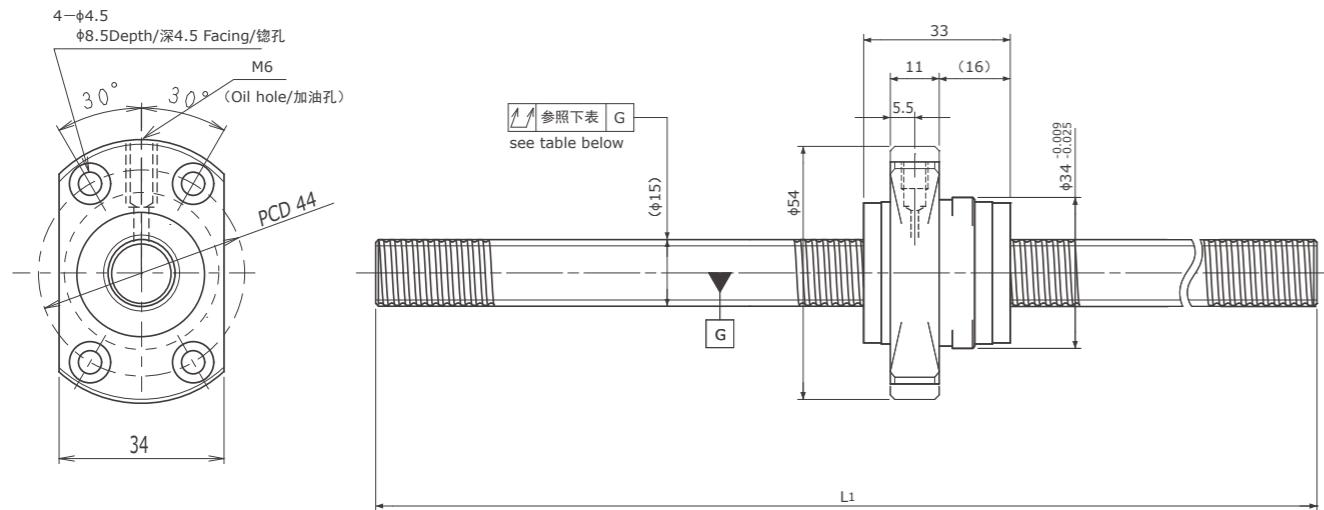
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1505-1200R1200C5	1165	C5	1200	±0.046	0.018	0.150	~0.005	-	8900	17000
GSR1505-1200R1200C7	1165	Ct7	1200	±0.208	0.050	0.320	~0.020			
GSR1505-1200R1200C10	1165	Ct10	1200	±0.840	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1505T-1200R1200C5	1165	C5	1200	±0.046	0.018	0.150	~0.005	-	5500	10200
GSR1505T-1200R1200C7	1165	Ct7	1200	±0.208	0.050	0.320	~0.020			
GSR1505T-1200R1200C10	1165	Ct10	1200	±0.840	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

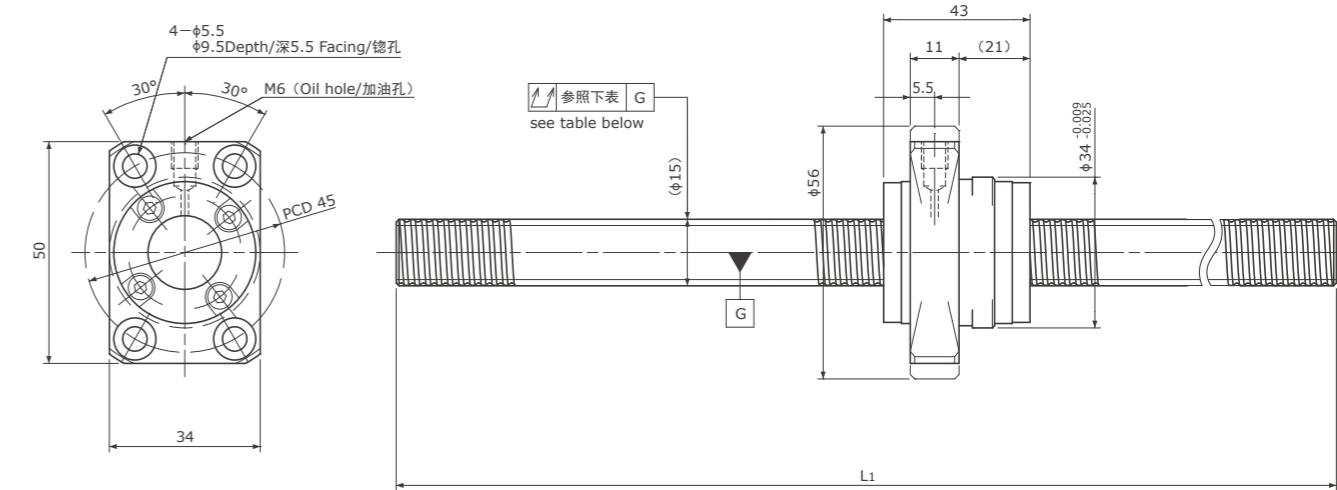
GSR1505D | Shaft dia.(轴径) φ 15 Lead(导程)5mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ3.175	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ12.2	
Number of circuit 循环数	3.7×1	
Material 材质	Shaft 轴	S55C
	Nut 螺母	SCM415
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

GSR1510 | Shaft dia.(轴径) φ 15 Lead(导程)10mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ3.175	
Number of thread 螺纹条数	2	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ12.2	
Number of circuit 循环数	2.7×2	
Material 材质	Shaft 轴	S55C
	Nut 螺母	SCM415
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

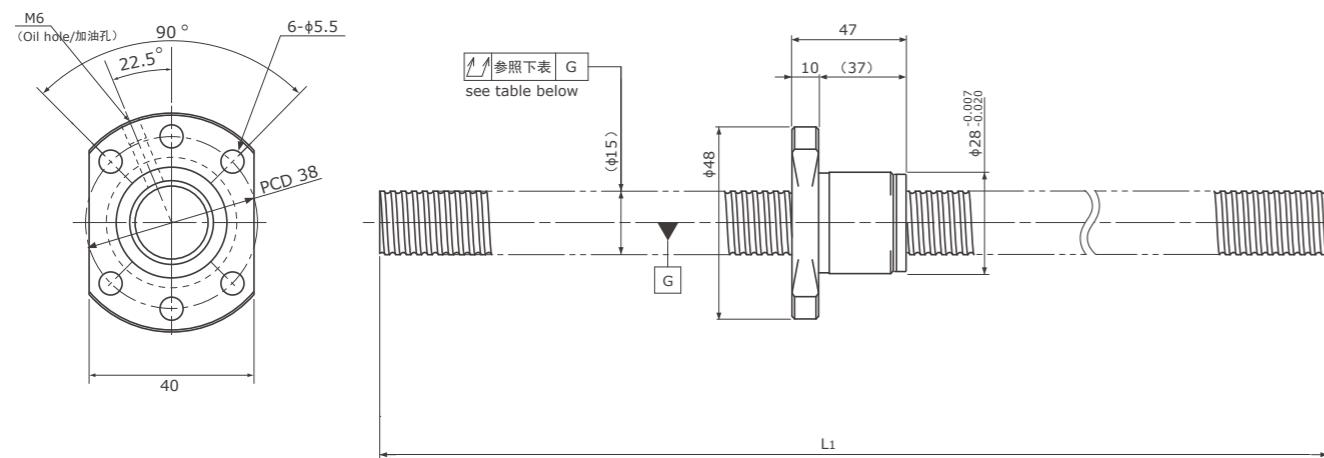
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1505D-1200R1200C5	1165	C5	1200	±0.046	0.018	0.150	~0.005	-	8900	17000
GSR1505D-1200R1200C7	1165	Ct7	1200	±0.208	0.050	0.320	~0.020			
GSR1505D-1200R1200C10	1165	Ct10	1200	±0.840	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1510-1200R1200C5	1155	C5	1200	±0.046	0.018	0.150	~0.005	-	12000	25000
GSR1510-1200R1200C7	1155	Ct7	1200	±0.208	0.050	0.320	~0.020			
GSR1510-1200R1200C10	1155	Ct10	1200	±0.840	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

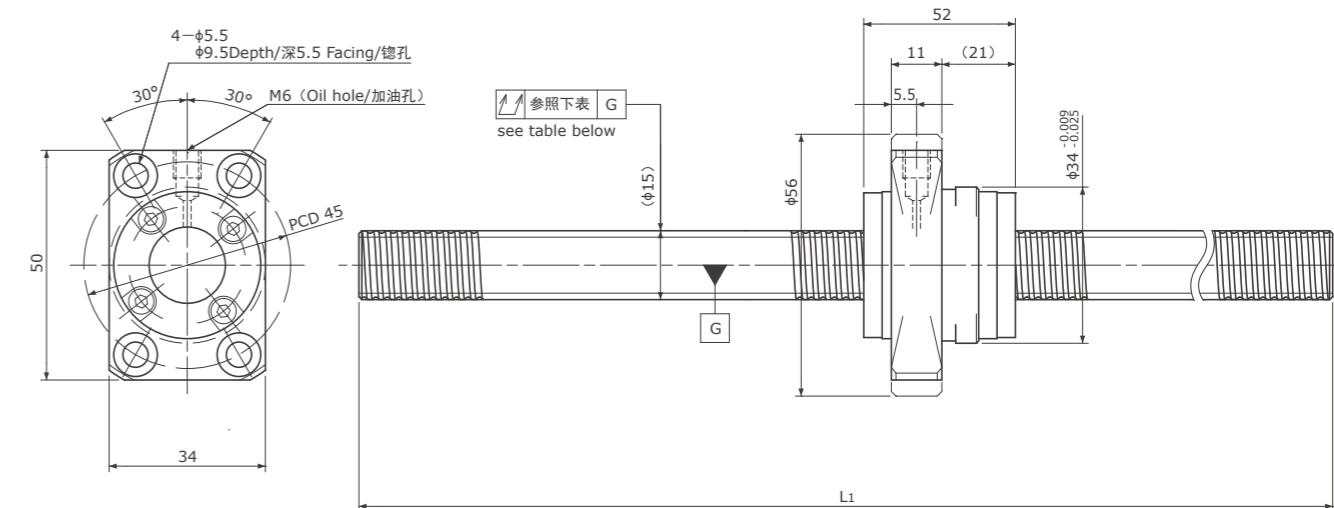
GSR1510T | Shaft dia.(轴径) ϕ 15 Lead(导程)10mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 2.778		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 13.0		
Number of circuit 循环数	2.8×1		
Material 轴	S55C		
Nut 螺母	SCM415		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR1520 | Shaft dia.(轴径) ϕ 15 Lead(导程)20mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 3.175		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 12.7		
Number of circuit 循环数	1.7×2		
Material 轴	S55C		
Nut 螺母	SCM415		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

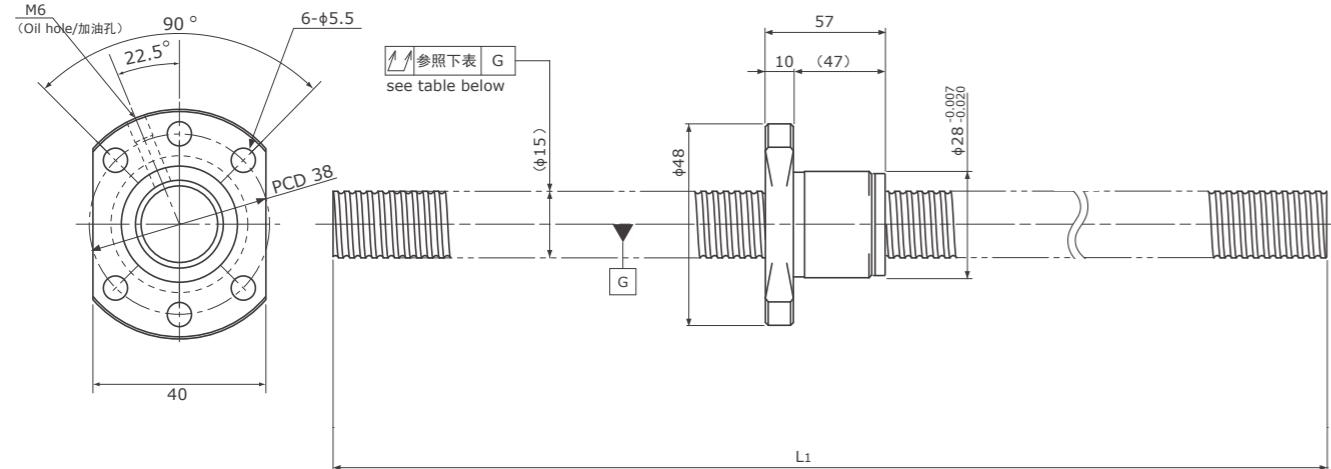
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1510T-1200R1200C5	1150	C5	1200	± 0.046	0.018	0.150	~ 0.005	-	4500	8200
GSR1510T-1200R1200C7	1150	Ct7	1200	± 0.208	0.050	0.320	~ 0.020			
GSR1510T-1200R1200C10	1150	Ct10	1200	± 0.840	0.210	0.640	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1520-1200R1200C5	1145	C5	1200	± 0.046	0.018	0.150	~ 0.005	-	8000	16000
GSR1520-1200R1200C7	1145	Ct7	1200	± 0.208	0.050	0.320	~ 0.020			
GSR1520-1200R1200C10	1145	Ct10	1200	± 0.840	0.210	0.640	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

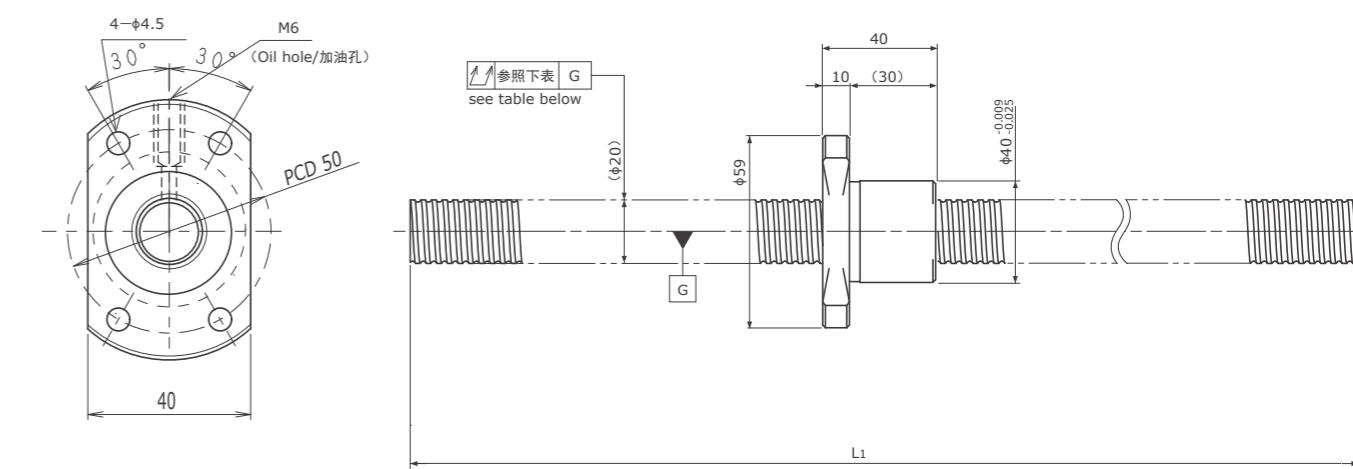
GSR1520T | Shaft dia.(轴径) ϕ 15 Lead(导程)20mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.778		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ13.0		
Number of circuit 循环数	1.8×1		
Material 轴	S55C		
Nut 螺母	SCM415		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR2005 | Shaft dia.(轴径) ϕ 20 Lead(导程)5mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ3.175		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ17.9		
Number of circuit 循环数	3.8×1		
Material 轴	S55C		
Nut 螺母	SCM415		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

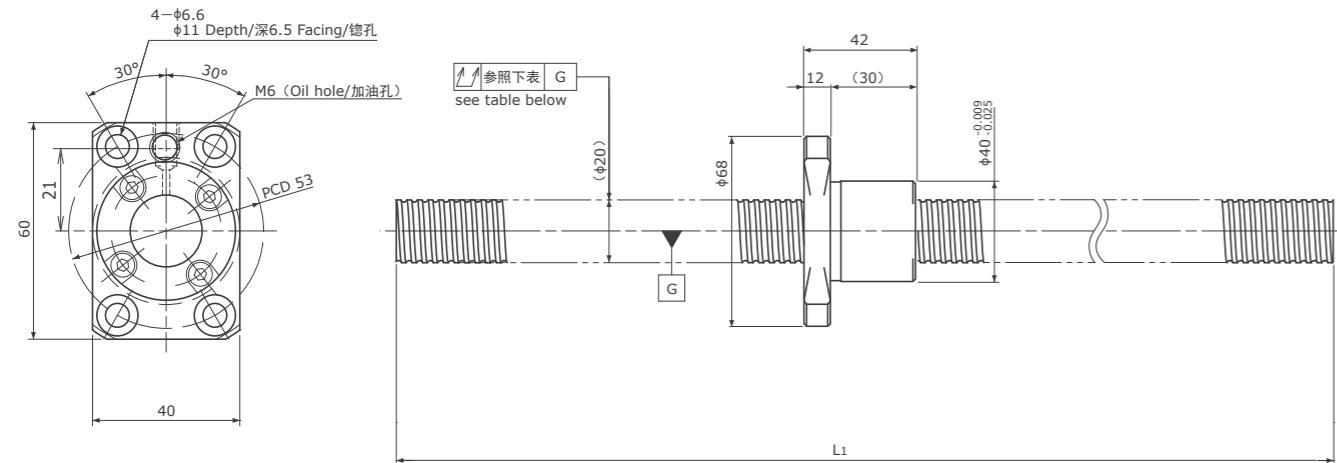
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR1520T-1200R1200C5	1140	C5	1200	± 0.046	0.018	0.150	~ 0.005	-	3600	6600
GSR1520T-1200R1200C7	1140	Ct7	1200	± 0.208	0.050	0.320	~ 0.020			
GSR1520T-1200R1200C10	1140	Ct10	1200	± 0.840	0.210	0.640	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR2005-1200R1200C5	1160	C5	1200	± 0.046	0.018	0.150	~ 0.005	-	9500	22500
GSR2005-1200R1200C7	1160	Ct7	1200	± 0.208	0.050	0.320	~ 0.020			
GSR2005-1200R1200C10	1160	Ct10	1200	± 0.840	0.210	0.640	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

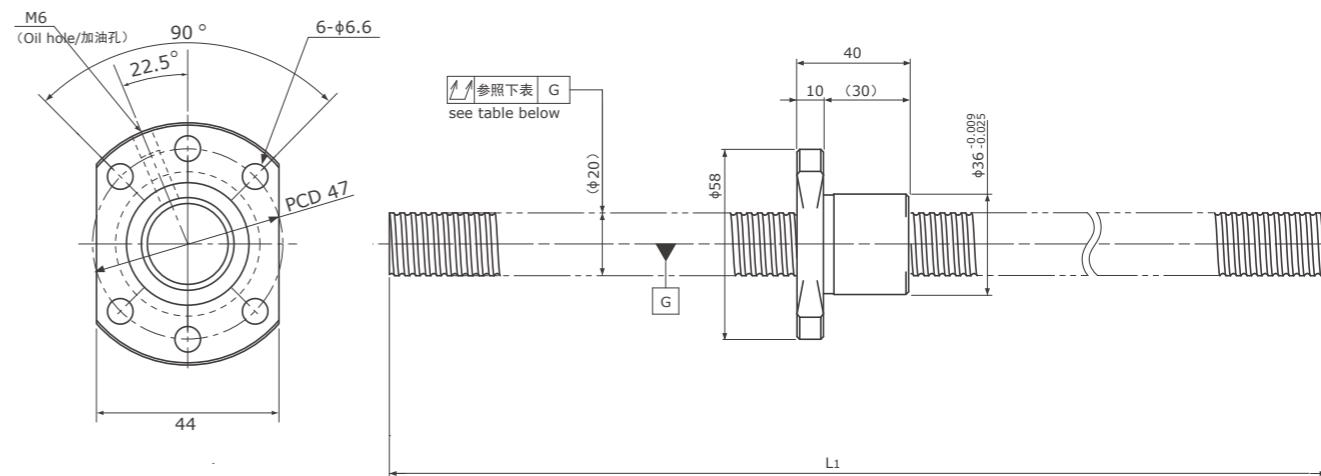
GSR2005G | Shaft dia.(轴径) ϕ 20 Lead(导程)5mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 3.175		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 17.9		
Number of circuit 循环数	3.8×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR2005T | Shaft dia.(轴径) ϕ 20 Lead(导程)5mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 3.175		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 17.9		
Number of circuit 循环数	3.8×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR2005G-1200R1200C5	1155	C5	1200	± 0.046	0.018	0.150	~ 0.005	-	9500	22500
GSR2005G-1200R1200C7	1155	Ct7	1200	± 0.208	0.050	0.320	~ 0.020			
GSR2005G-1200R1200C10	1155	Ct10	1200	± 0.840	0.210	0.640	~ 0.050			

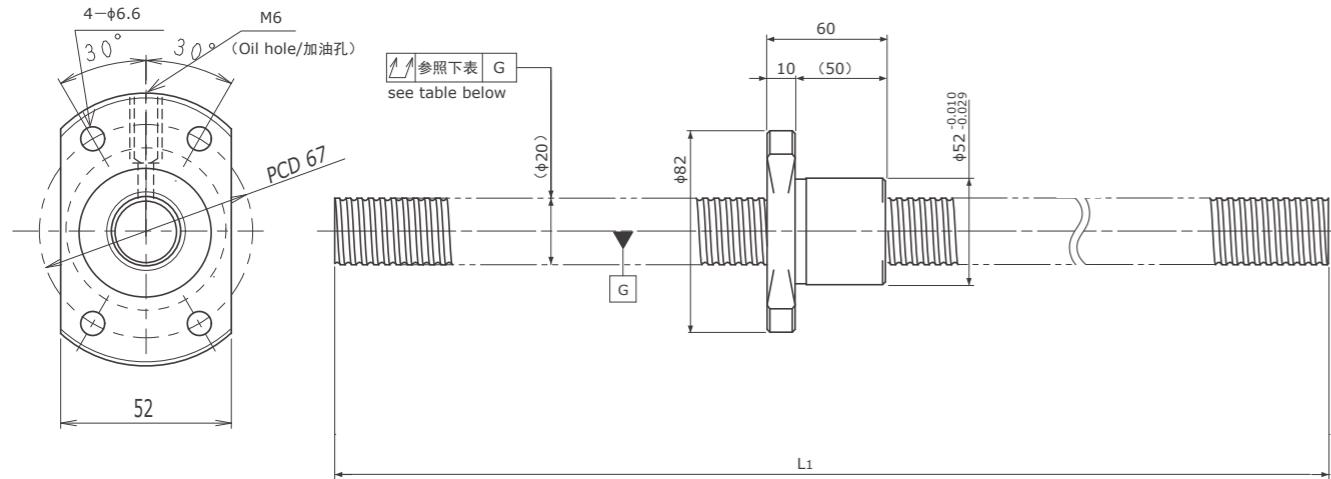
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR2005T-1200R1200C5	1160	C5	1200	± 0.046	0.018	0.150	~ 0.005	-	9500	22500
GSR2005T-1200R1200C7	1160	Ct7	1200	± 0.208	0.050	0.320	~ 0.020			
GSR2005T-1200R1200C10	1160	Ct10	1200	± 0.840	0.210	0.640	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

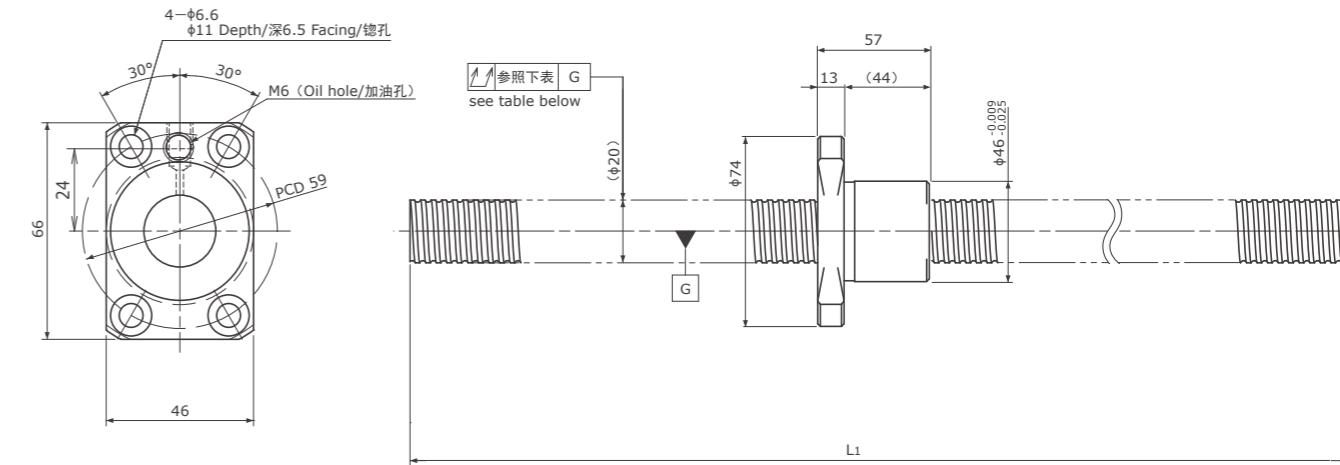
GSR2010 | Shaft dia.(轴径) ϕ 20 Lead(导程)10mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 3.175		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 17.6		
Number of circuit 循环数	3.8×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR2010G | Shaft dia.(轴径) ϕ 20 Lead(导程)10mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 3.175		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 17.6		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

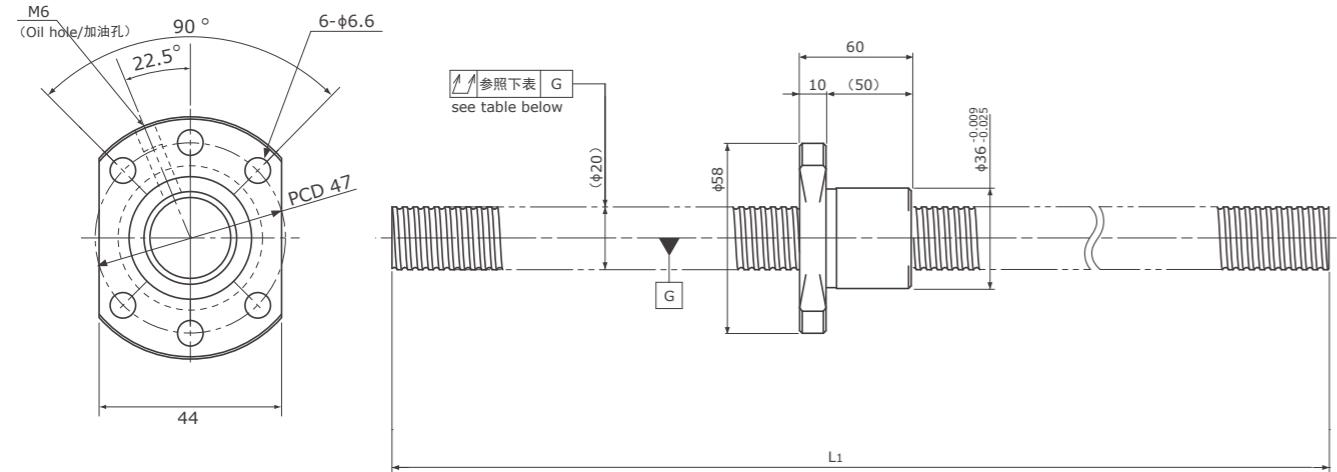
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动 ↑↓	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
				± 0.046	0.018	0.150	~ 0.005			
GSR2010-1200R1200C5	1140	C5	1200	± 0.046	0.018	0.150	~ 0.005	-	9500	22500
GSR2010-1200R1200C7	1140	Ct7	1200	± 0.208	0.050	0.320	~ 0.020			
GSR2010-1200R1200C10	1140	Ct10	1200	± 0.840	0.210	0.640	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动 ↑↓	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR2010G-1200R1200C5	1155	C5	1200	± 0.046	0.018	0.150	~ 0.005	-	7000	16500
GSR2010G-1200R1200C7	1155	Ct7	1200	± 0.208	0.050	0.320	~ 0.020			
GSR2010G-1200R1200C10	1155	Ct10	1200	± 0.840	0.210	0.640	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

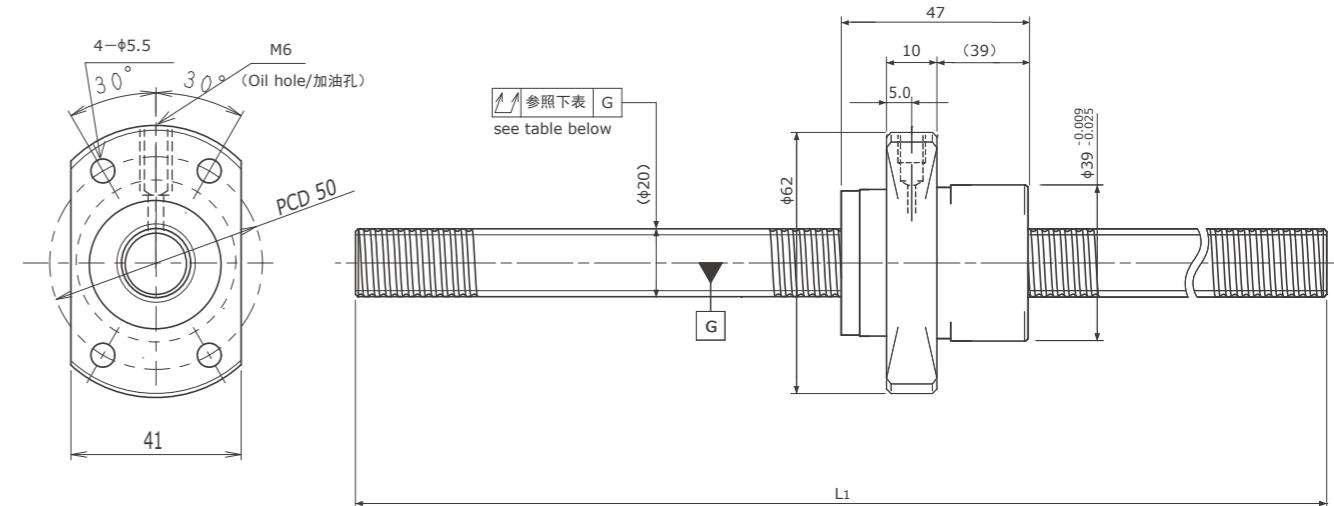
GSR2010T | Shaft dia.(轴径) ϕ 20 Lead(导程)10mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ3.175		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ17.6		
Number of circuit 循环数	3.8×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR2020 | Shaft dia.(轴径) ϕ 20 Lead(导程)20mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ3.175		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ17.6		
Number of circuit 循环数	1.8×2		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR2010T-1200R1200C5	1160	C5	1200	±0.046	0.018	0.150	~0.005	-	9000	22500
GSR2010T-1200R1200C7	1160	Ct7	1200	±0.208	0.050	0.320	~0.020			
GSR2010T-1200R1200C10	1160	Ct10	1200	±0.840	0.210	0.640	~0.050			

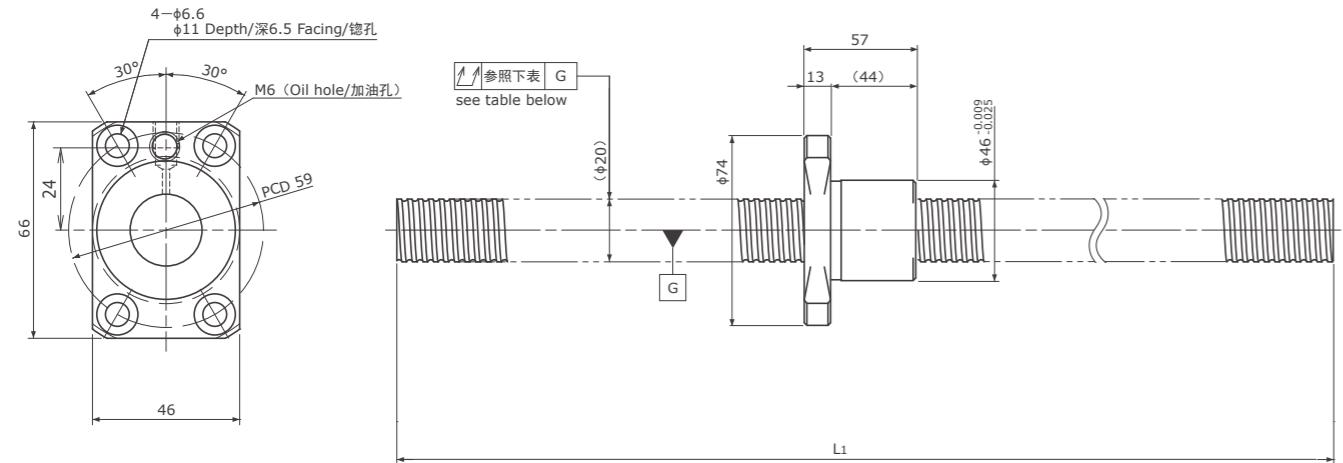
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR2020-1200R1200C5	1145	C5	1200	±0.046	0.018	0.150	~0.005	-	9300	21300
GSR2020-1200R1200C7	1145	Ct7	1200	±0.208	0.050	0.320	~0.020			
GSR2020-1200R1200C10	1145	Ct10	1200	±0.840	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

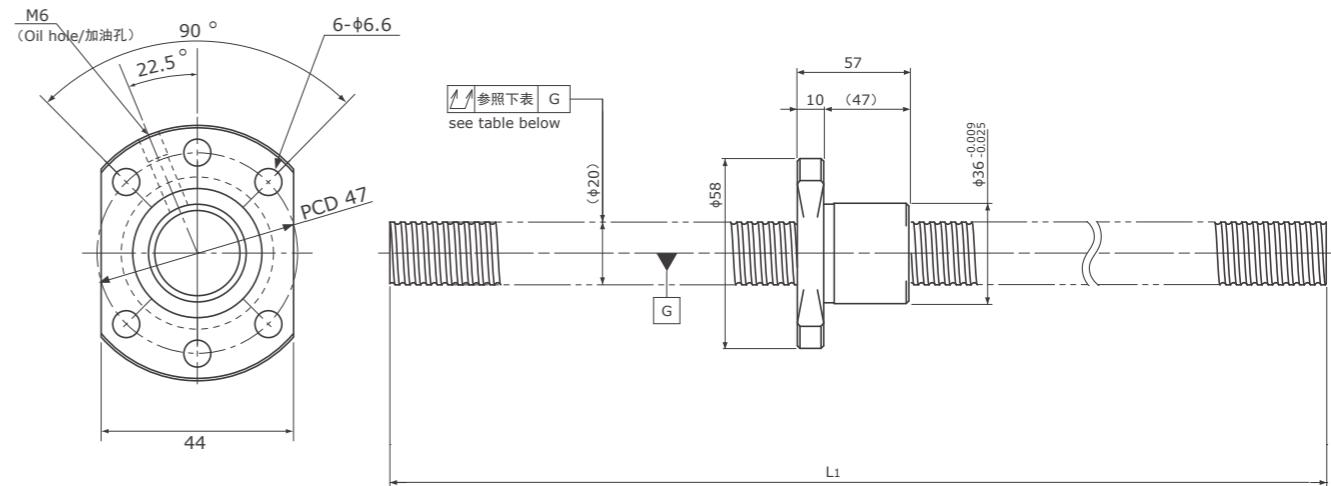
GSR2020G|Shaft dia.(轴径) φ 20 Lead(导程)20mm|C5&Ct7&Ct10|



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ3.175		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ17.6		
Number of circuit 循环数	1.8×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR2020T|Shaft dia.(轴径) φ 20 Lead(导程)20mm|C5&Ct7&Ct10|



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ3.175		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ17.6		
Number of circuit 循环数	1.8×1		
Material 材质	Shaft 轴	S55C	
	Nut 螺母	SCM415	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR2020G-1200R1200C5	1140	C5	1200	±0.046	0.018	0.150	~0.005	-	5900	11700
GSR2020G-1200R1200C7	1140	Ct7	1200	±0.208	0.050	0.320	~0.020			
GSR2020G-1200R1200C10	1140	Ct10	1200	±0.840	0.210	0.640	~0.050			

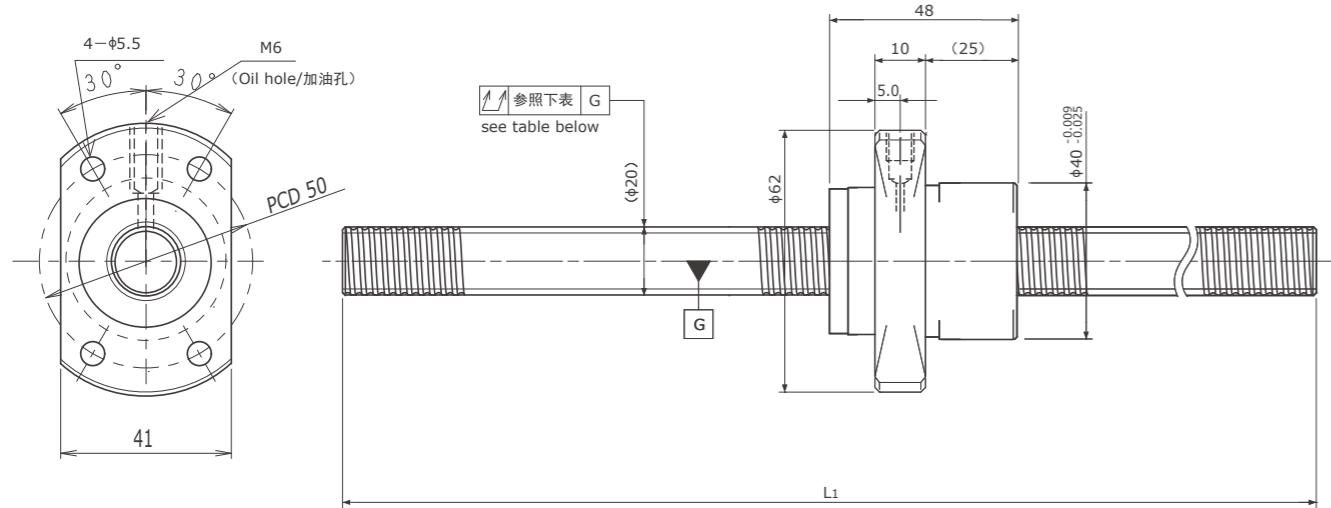
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR2020T-1200R1200C5	1140	C5	1200	±0.046	0.018	0.150	~0.005	-	5900	11700
GSR2020T-1200R1200C7	1140	Ct7	1200	±0.208	0.050	0.320	~0.020			
GSR2020T-1200R1200C10	1140	Ct10	1200	±0.840	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

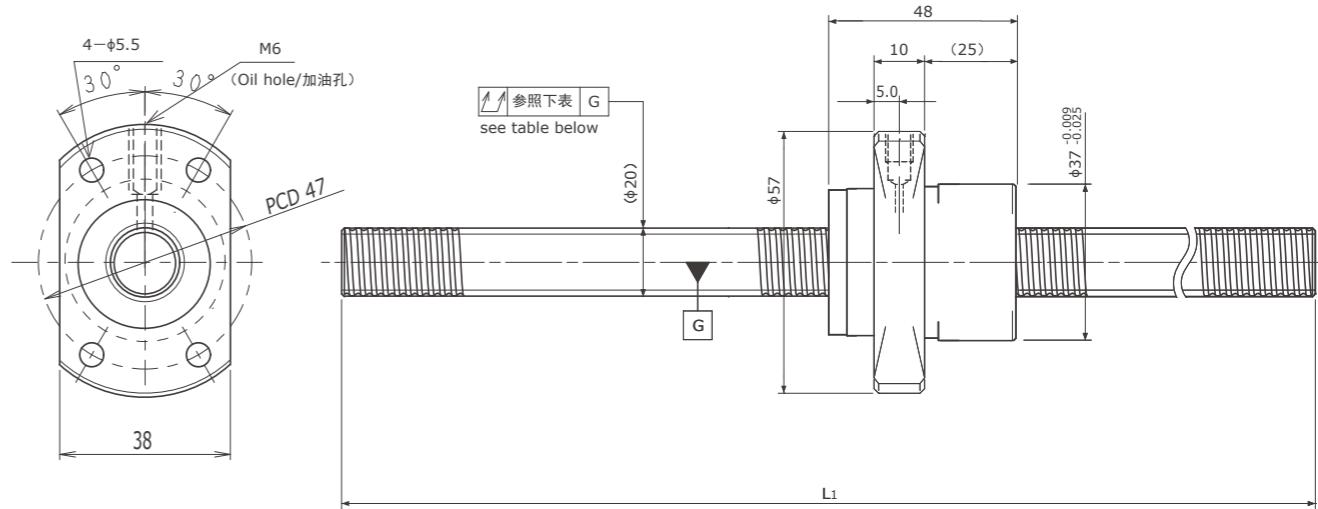
GSR2040 | Shaft dia.(轴径) ϕ 20 Lead(导程)40mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 3.175		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 17.6		
Number of circuit 循环数	0.8×2		
Material 轴	S55C		
Nut 螺母	SCM415		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GSR2040G | Shaft dia.(轴径) ϕ 20 Lead(导程)40mm | C5&Ct7&Ct10



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	ϕ 3.175		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	ϕ 17.6		
Number of circuit 循环数	0.8×2		
Material 轴	S55C		
Nut 螺母	SCM415		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

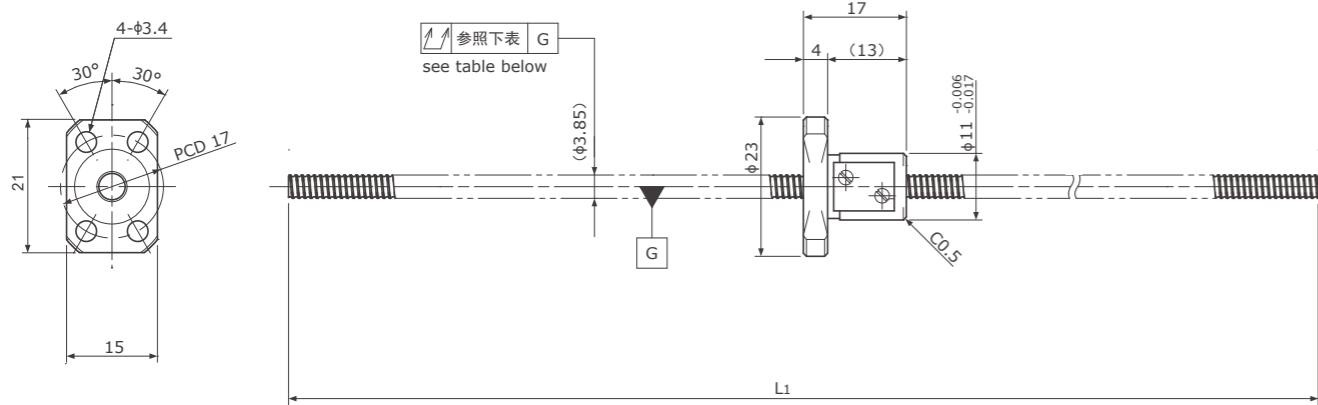
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR2040-1200R1200C5	1150	C5	1200	± 0.046	0.018	0.150	~ 0.005	-	5900	11700
GSR2040-1200R1200C7	1150	Ct7	1200	± 0.208	0.050	0.320	~ 0.020			
GSR2040-1200R1200C10	1150	Ct10	1200	± 0.840	0.210	0.640	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GSR2040-1200R1200C5	1150	C5	1200	± 0.046	0.018	0.150	~ 0.005	-	5900	11700
GSR2040-1200R1200C7	1150	Ct7	1200	± 0.208	0.050	0.320	~ 0.020			
GSR2040-1200R1200C10	1150	Ct10	1200	± 0.840	0.210	0.640	~ 0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

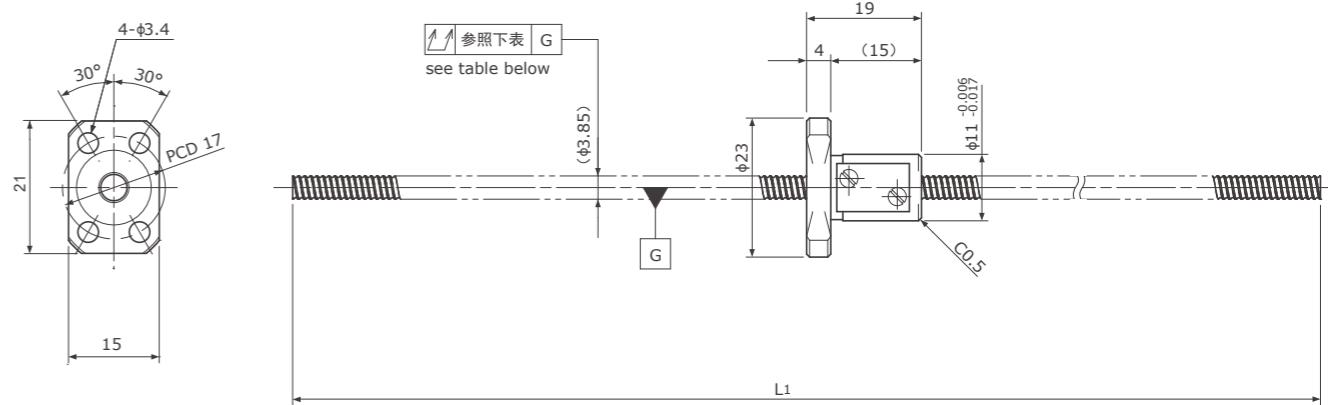
BBS0401 | Shaft dia.(轴径) $\phi 4$ Lead(导程)1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ3.3		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	SUS440C	
	Nut 螺母	SUS440C	
Surface hardness 螺纹部表面硬度	HRC55~(Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BBS0402 | Shaft dia.(轴径) $\phi 4$ Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ3.3		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	SUS440C	
	Nut 螺母	SUS440C	
Surface hardness 螺纹部表面硬度	HRC55~(Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BBS0401-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	450	600
BBS0401-600R600C7	580	Ct7	600	±0.104	0.050	0.320	~0.020			
BBS0401-600R600C10	580	Ct10	600	±0.420	0.210	0.640	~0.050			

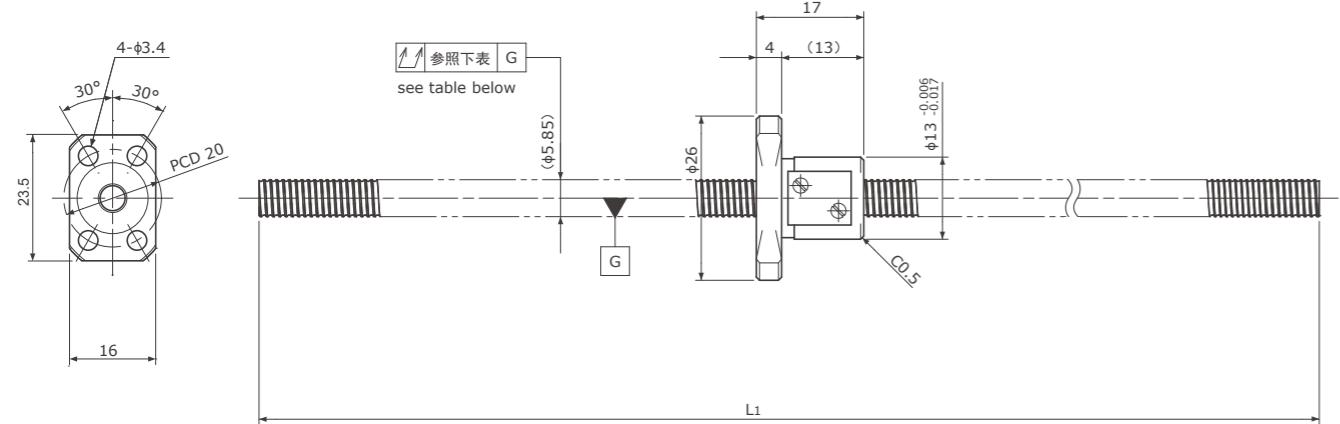
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BBS0402-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	350	450
BBS0402-600R600C7	580	Ct7	600	±0.104	0.050	0.320	~0.020			
BBS0402-600R600C10	580	Ct10	600	±0.420	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

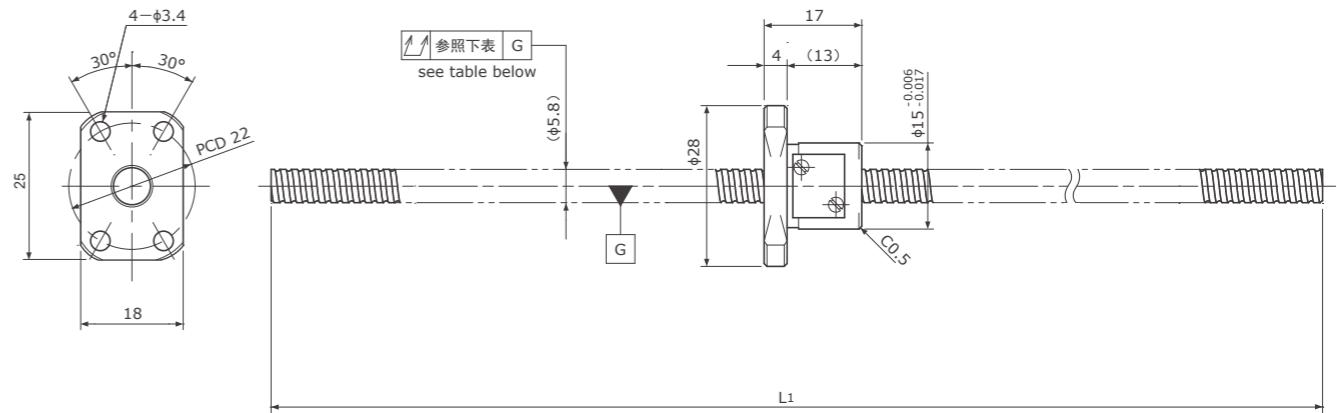
BBS0601 | Shaft dia.(轴径) ϕ 6 Lead(导程)1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ5.3		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	SUS440C	
	Nut 螺母	SUS440C	
Surface hardness 螺纹部表面硬度	HRC55~ (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BBS0602 | Shaft dia.(轴径) ϕ 6 Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ5.1		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	SUS440C	
	Nut 螺母	SUS440C	
Surface hardness 螺纹部表面硬度	HRC55~ (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BBS0601-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	560	900
BBS0601-600R600C7	580	Ct7	600	±0.104	0.050	0.320	~0.020			
BBS0601-600R600C10	580	Ct10	600	±0.420	0.210	0.640	~0.050			

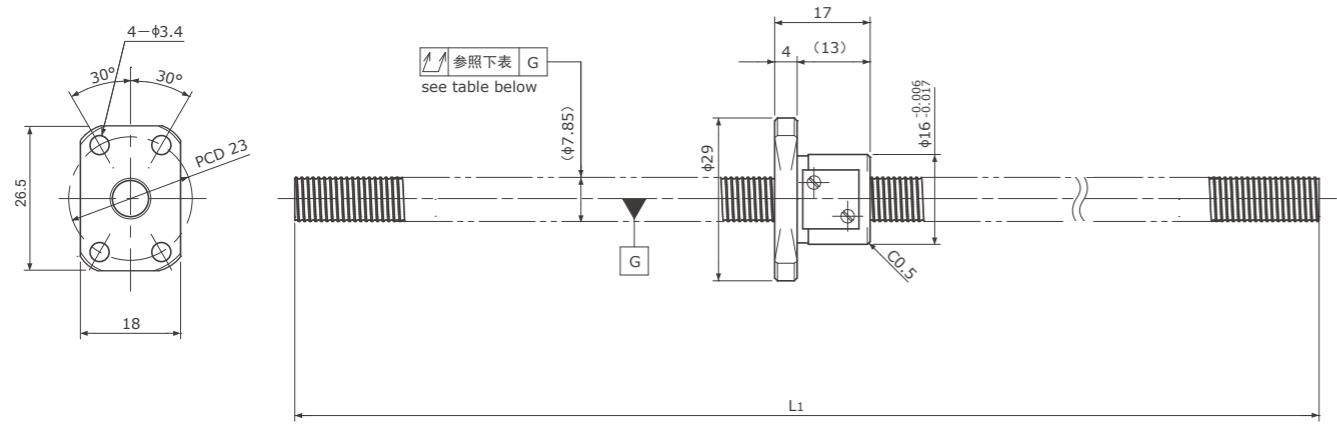
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BBS0602-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	600	960
BBS0602-600R600C7	580	Ct7	600	±0.104	0.050	0.320	~0.020			
BBS0602-600R600C10	580	Ct10	600	±0.420	0.210	0.640	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

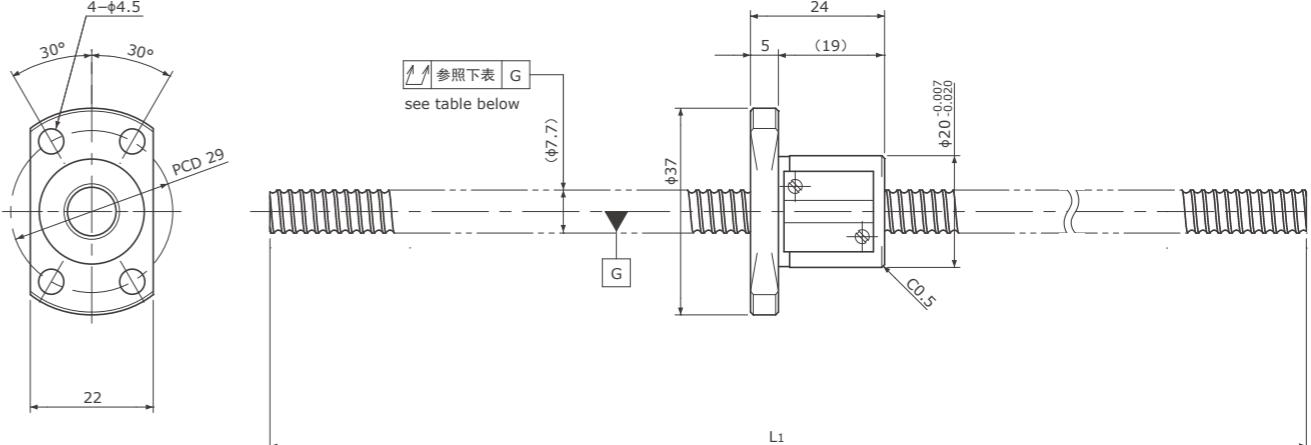
BBS0801 | Shaft dia.(轴径) ϕ 8 Lead(导程)1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.3		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	SUS440C	
	Nut 螺母	SUS440C	
Surface hardness 螺纹部表面硬度	HRC55~ (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BBS0802 | Shaft dia.(轴径) ϕ 8 Lead(导程)2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	SUS440C	
	Nut 螺母	SUS440C	
Surface hardness 螺纹部表面硬度	HRC55~ (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

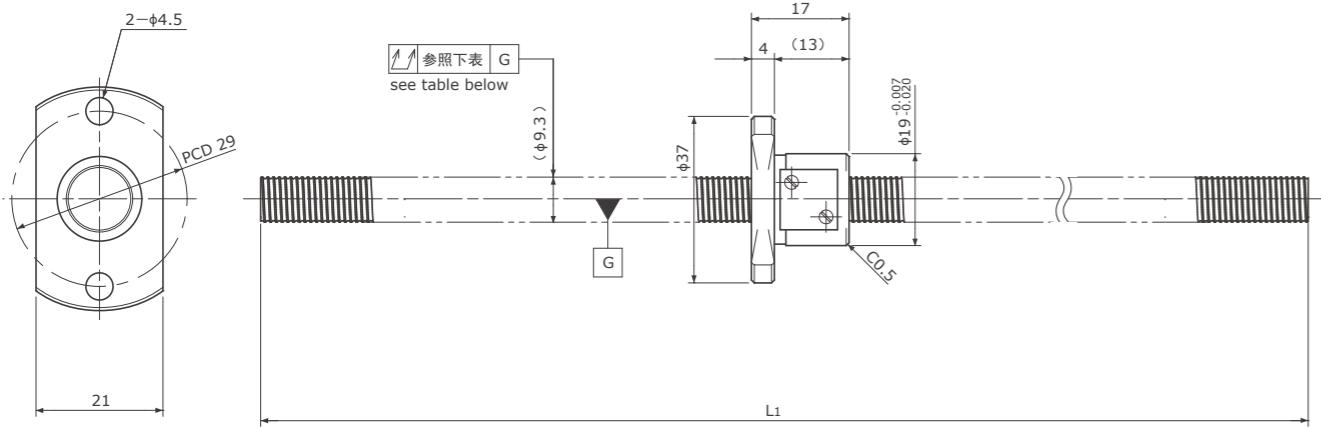
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动 ↑	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BBS0801-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	630	1250
BBS0801-600R600C7	580	Ct7	600	±0.104	0.050	0.150	~0.020			
BBS0801-600R600C10	580	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动 ↑	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BBS0802-600R600C5	575	C5	600	±0.030	0.018	0.090	~0.005	-	1950	3100
BBS0802-600R600C7	575	Ct7	600	±0.104	0.050	0.150	~0.020			
BBS0802-600R600C10	575	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

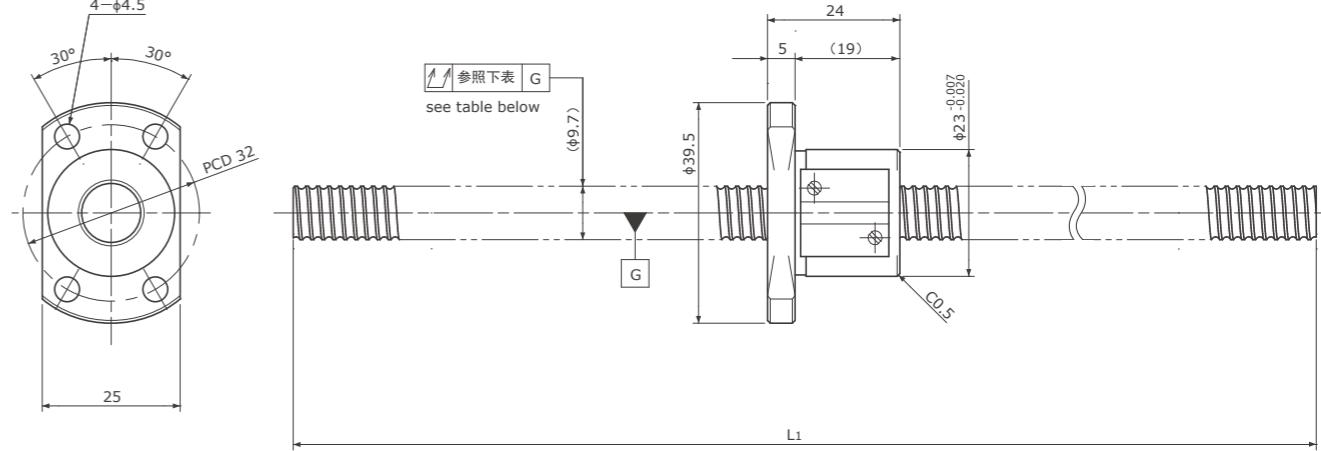
BBS1001 | Shaft dia.(轴径) ϕ 10 Lead(导程) 1mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ9.3		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	SUS440C	
	Nut 螺母	SUS440C	
Surface hardness 螺纹部表面硬度	HRC55~(Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BBS1002 | Shaft dia.(轴径) ϕ 10 Lead(导程) 2mm | C5&Ct7&Ct10 |



Unit(单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	SUS440C	
	Nut 螺母	SUS440C	
Surface hardness 螺纹部表面硬度	HRC55~(Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动 ↑↓	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
				±0.030	0.018	0.090	~0.005			
BBS1001-600R600C5	580	C5	600	±0.030	0.018	0.090	~0.005	-	680	1500
BBS1001-600R600C7	580	Ct7	600	±0.104	0.050	0.150	~0.020			
BBS1001-600R600C10	580	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度 L_1	Lead accuracy 导程精度		Total Run-out 全跳动 ↑↓	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
				Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
				±0.030	0.018	0.090	~0.005			
BBS1002-600R600C5	575	C5	600	±0.030	0.018	0.090	~0.005	-	2200	4000
BBS1002-600R600C7	575	Ct7	600	±0.104	0.050	0.150	~0.020			
BBS1002-600R600C10	575	Ct10	600	±0.420	0.210	0.350	~0.050			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

标准滚珠丝杆

Standard ball screw

台阶型冷轧滚珠丝杆BSD系列 (C5/Ct7)

BSD series of step type cold rolling ball screw (C5 / Ct7)

标准滚珠丝杆标准库存品

● 公称型号的构成 Model number notation

BSD 06 01 K — 200 R 200 Ct7
1 2 3 4 5 6 7 8

1 系列符号

BSD: 台阶型冷轧滚珠丝杆BSD系列

2 丝杆轴公称外径 (mm)

3 导程 (mm)

4 螺母类型

5 螺纹部长度 (mm)

6 螺纹旋向 (R=右旋)

7 丝杠轴总长 (mm)

8 精度等级 (C5/Ct7)

1 Series of symbols:

BSD: step type cold rolling ball screw

2 Nominal outer diameter of screw shaft (mm)

3 Lead (mm)

4 Nut type

5 Thread length (mm)

6 Thread direction (r = right)

7 Total length of screw shaft (mm)

8 Accuracy class (C5/Ct7)

● 精度等级和轴向间隙

BSD系列 (台阶型冷轧滚珠丝杆、精密滚珠丝杆标准库存品) 的精度等级有JISC5/Ct7两种。轴向间隙根据精度等级不同备有0.005mm/0.02mm。

● Accuracy Class & Axial Clearance

BSD series (step cold rolling ball screw, precision ball screw standard stock) has two precision grades jisc5 / Ct7. The axial clearance is provided according to the accuracy level 0.005mm/0.02mm.

● 材质和表面硬度

BSD系列 (台阶型冷轧滚珠丝杆、精密滚珠是按标准库存品) 的螺杆轴丝杆材料SCM415 (高频淬火) 、螺母材料SCM415 (渗碳淬火) , 滚珠丝杆部分的表面硬度为HRC58以上。

● Material & Surface Hardness

SCM415 (high frequency quenching) and SCM415 (carburizing quenching) are the screw shaft screw materials of BSD series (step cold rolling ball screw and precision ball are standard stock). The surface hardness of the ball screw is above hrc58.

● 润滑

为防止生锈, 未对轴端进行加工的BSD系列 (台阶型冷轧滚珠丝杆、精密滚珠是按标准库存品) 产品均涂抹有防锈油。由于防锈油不具备润滑性, 因此在使用前请另行涂抹润滑剂。

● Lubrication

In order to prevent rust, BSD series (step cold rolling ball screw and precision ball are standard stock) products that are not processed on the shaft end are coated with anti rust oil. Since anti show oil does not have lubricity, please apply lubricant separately before use.

● 轴端形状

BSD系列 (台阶型冷轧滚珠丝杆、精密滚珠是按标准库存品) 的轴端形状为进行标准化。

● Shaft End Shape

BSD series (step cold rolling ball screw and precision ball are standard stock) shaft end shape.

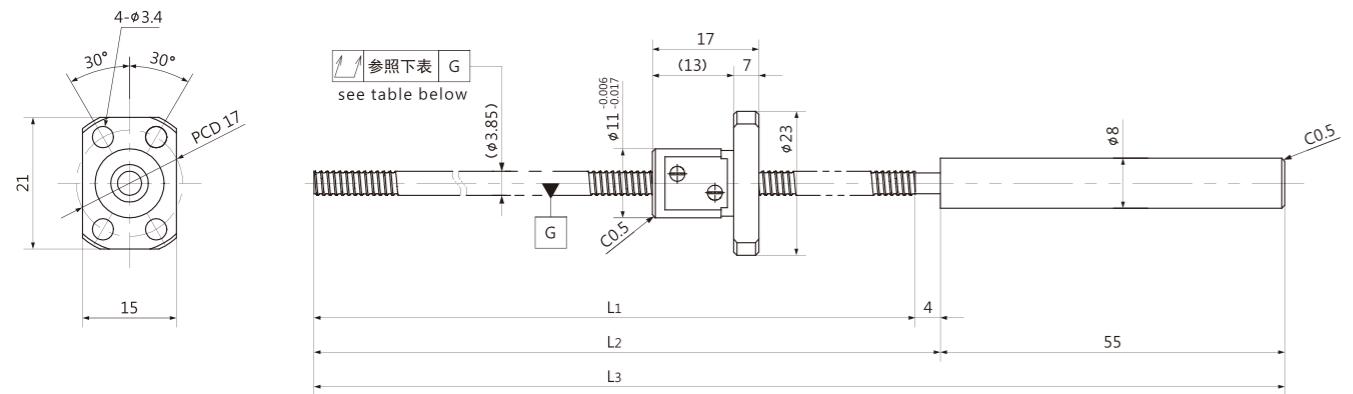
● 交货期快

轴端没有加工完成的BSD系列已经标准化, 常年备有库存、交货及时。丝杆和螺母, 可以单独订货。

● Fast Delivery Time

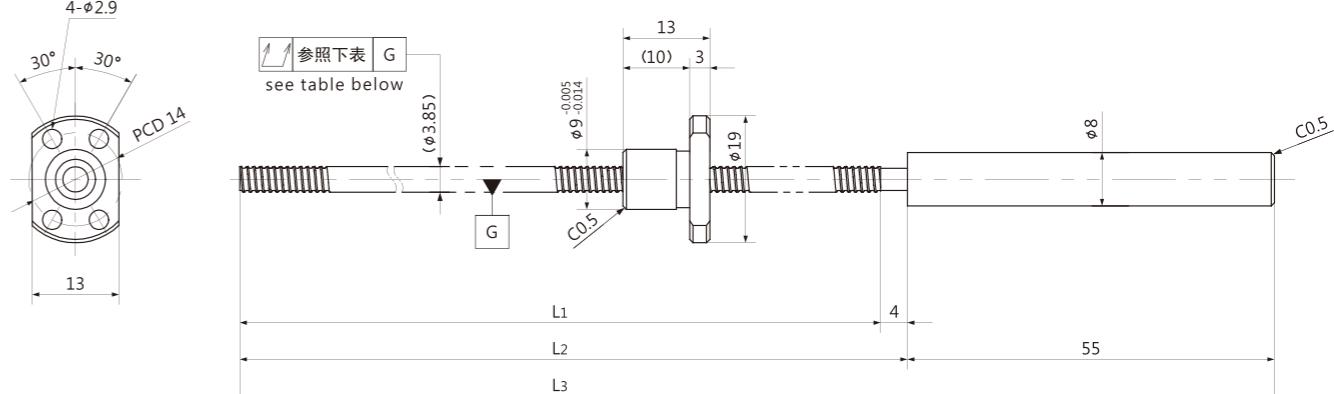
BSD series which are not processed at the shaft end have been standardized, and they are in stock and delivered in time all the year round. Screw rod and nut can be ordered separately.

BSD0401 | Shaft dia.(轴径) φ 4 Lead(导程)1mm | C5&Ct7 |



Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ0.8	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ3.3	
Number of circuit 循环数	3.7×1	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

BSD0401K | Shaft dia.(轴径) φ 4 Lead(导程)1mm | C5&Ct7 |



Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ0.8	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ3.3	
Number of circuit 循环数	1×3	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

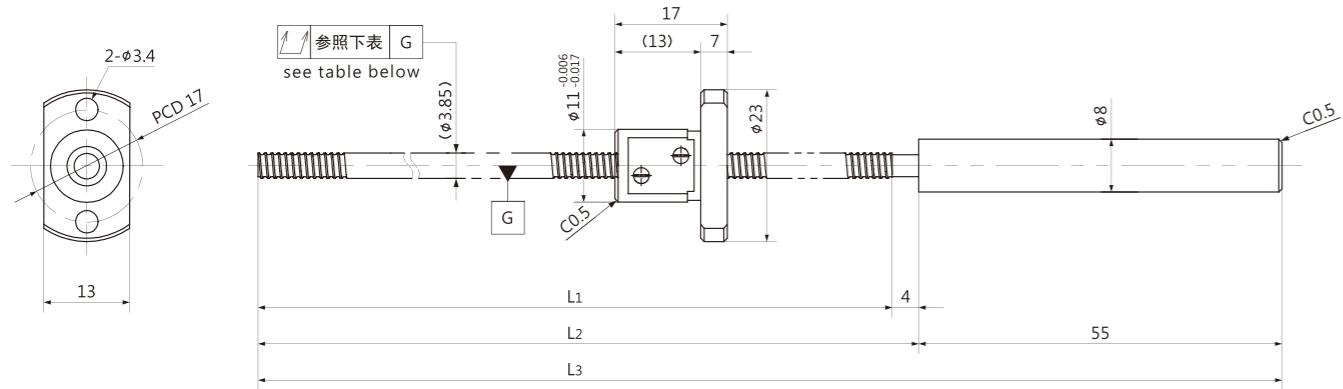
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度		Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N		
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀		Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
BSD0401-96R155	75	C5	96	100	155	±0.018	0.018	0.050	~0.005	560	790
		Ct7				±0.050	0.052	0.075	~0.020		
BSD0401-216R275	195	C5	216	220	275	±0.023	0.018	0.065	~0.005	560	790
		Ct7				±0.037	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0401K-96R135	75	C5	96	100	155	±0.018	0.018	0.050	~0.005	420	570
		Ct7				±0.050	0.052	0.075	~0.020		
BSD0401K-216R275	195	C5	216	220	275	±0.023	0.018	0.065	~0.005	420	570
		Ct7				±0.037	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

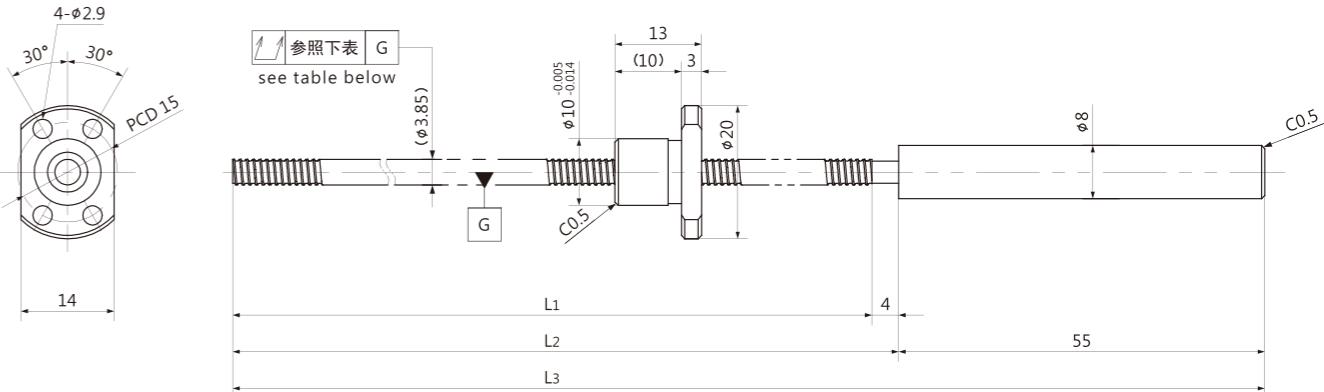
BSD0401G | Shaft dia.(轴径) $\phi 4$ Lead(导程) 1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ3.3		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD0401T | Shaft dia.(轴径) $\phi 4$ Lead(导程) 1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ3.3		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0401G-96R155	75	C5	96	100	155	±0.018	0.018	0.050	~0.005	560	790
		Ct7				±0.050	0.052	0.075	~0.020		
BSD0401G-216R275	195	C5	216	220	275	±0.023	0.018	0.065	~0.005	560	790
		Ct7				±0.037	0.052	0.100	~0.020		

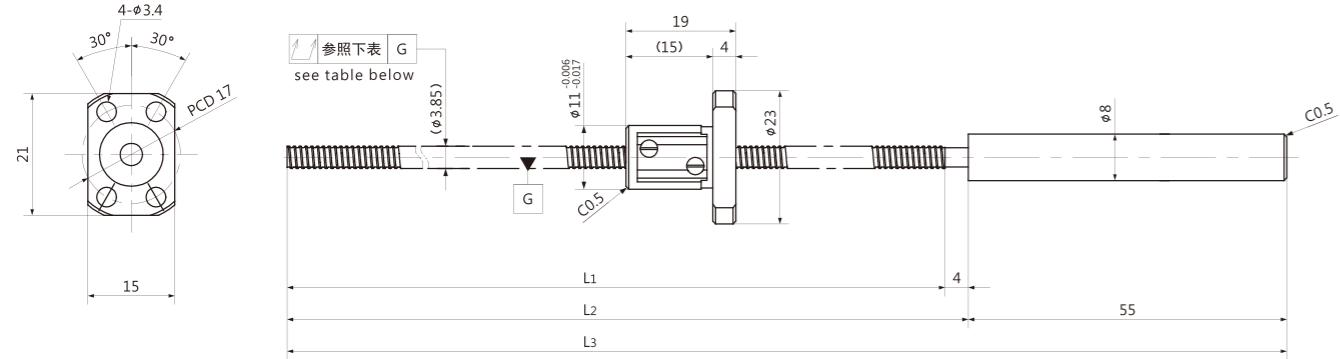
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0401T-96R155	75	C5	96	100	155	±0.018	0.018	0.050	~0.005	420	570
		Ct7				±0.050	0.052	0.075	~0.020		
BSD0401T-216R275	195	C5	216	220	275	±0.023	0.018	0.065	~0.005	420	570
		Ct7				±0.037	0.052	0.100	~0.020		

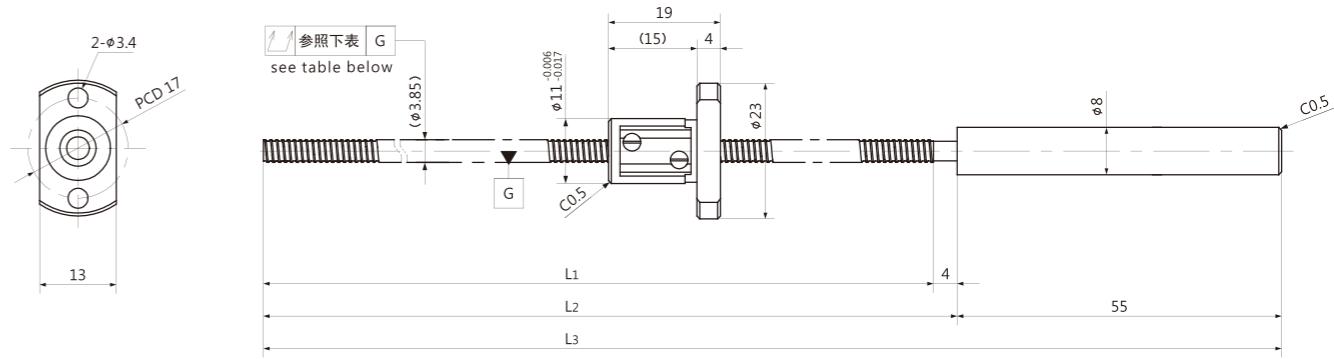
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

BSD0402 | Shaft dia.(轴径) $\phi 4$ Lead(导程) 2mm | C5&Ct7 |



Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ0.8	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ3.3	
Number of circuit 循环数	2.7×1	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

BSD0402G | Shaft dia.(轴径) $\phi 4$ Lead(导程) 2mm | C5&Ct7 |



Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ0.8	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ3.3	
Number of circuit 循环数	2.7×1	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

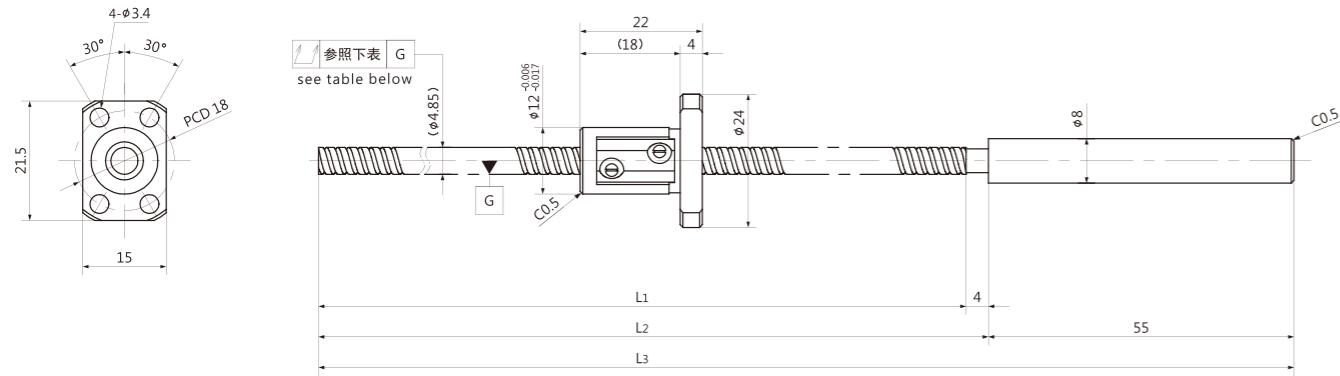
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度		Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N		
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀		Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
BSD0402-96R155	75	C5	96	100	155	±0.018	0.018	0.050	~0.005	420	570
		Ct7				±0.050	0.052	0.075	~0.020		
BSD0402-216R275	195	C5	216	220	275	±0.023	0.018	0.065	~0.005	420	570
		Ct7				±0.037	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0402G-96R155	75	C5	96	100	155	±0.018	0.018	0.050	~0.005	420	570
		Ct7				±0.050	0.052	0.075	~0.020		
BSD0402G-216R275	195	C5	216	220	275	±0.023	0.018	0.065	~0.005	420	570
		Ct7				±0.037	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

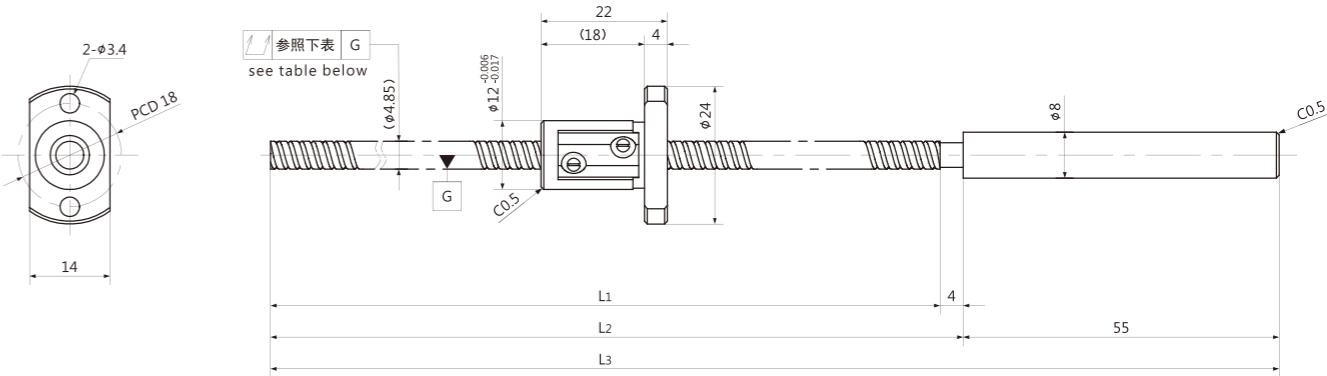
BSD0504 | Shaft dia.(轴径) ϕ 5 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ0.8	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ4.3	
Number of circuit 循环数	2.7×1	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

BSD0504G | Shaft dia.(轴径) ϕ 5 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ0.8	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ4.3	
Number of circuit 循环数	2.7×1	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

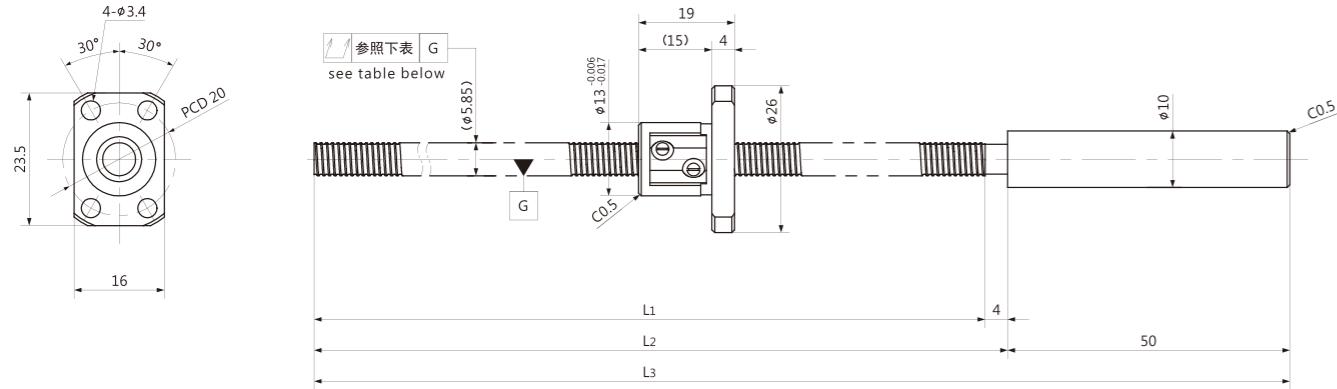
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度		Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N		
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀		Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
BSD0504-96R155	70	C5	96	100	155	±0.018	0.018	0.050	~0.005	470	720
		Ct7				±0.050	0.052	0.075	~0.020		
BSD0504-216R275	190	C5	216	220	275	±0.023	0.018	0.065	~0.005	470	720
		Ct7				±0.037	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0504G-96R155	70	C5	96	100	155	±0.018	0.018	0.050	~0.005	470	720
		Ct7				±0.050	0.052	0.075	~0.020		
BSD0504G-216R275	190	C5	216	220	275	±0.023	0.018	0.065	~0.005	470	720
		Ct7				±0.037	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

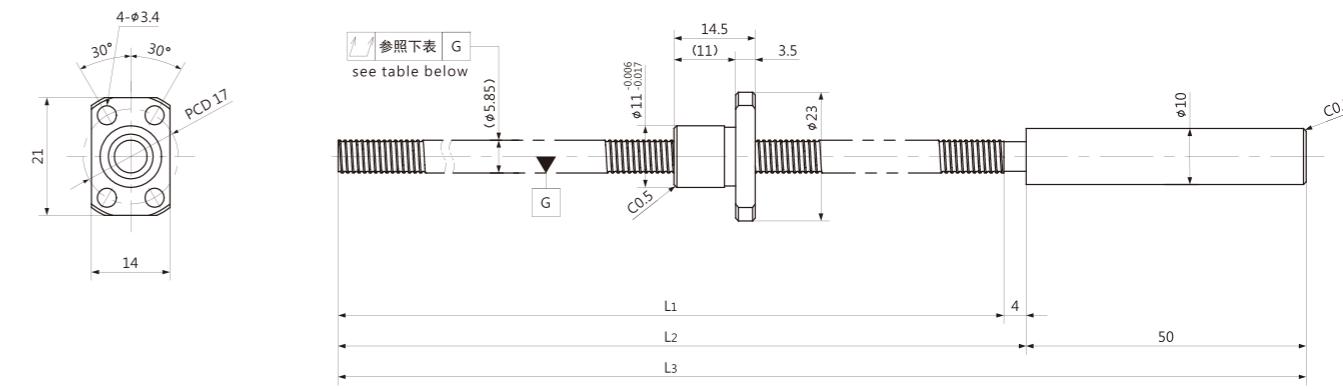
BSD0601 | Shaft dia.(轴径) $\phi 6$ Lead(导程) 1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ0.8	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ5.3	
Number of circuit 循环数	3.7×1	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

BSD0601K | Shaft dia.(轴径) $\phi 6$ Lead(导程) 1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ0.8	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ5.3	
Number of circuit 循环数	1×3	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度		Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀		Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0601-146R200	125	C5	146	150	200	±0.020	0.018	0.050	~0.005	680
		Ct7				±0.025	0.052	0.075	~0.020	
BSD0601-261R315	240	C5	261	265	315	±0.023	0.018	0.065	~0.005	680
		Ct7				±0.045	0.052	0.100	~0.020	

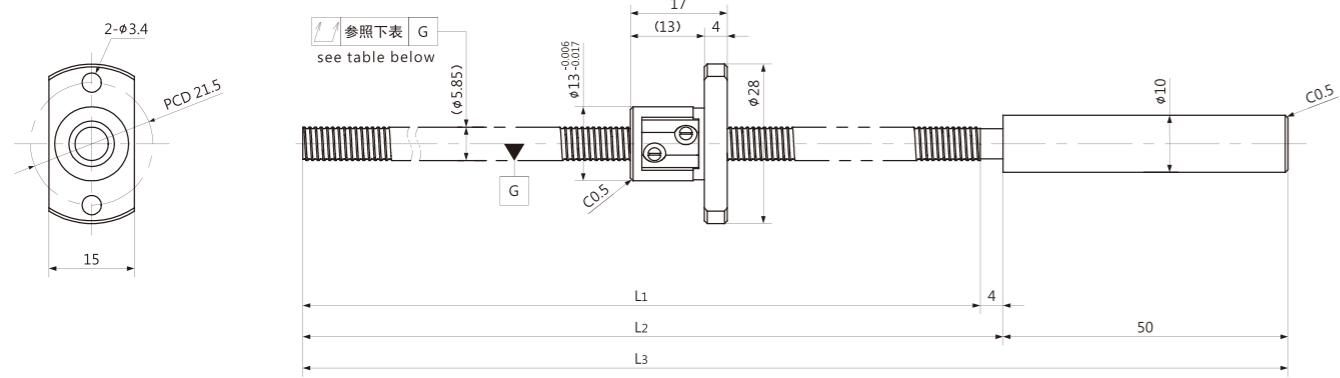
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0601K-146R200	125	C5	146	150	200	±0.020	0.018	0.050	~0.005	680	1200
		Ct7				±0.025	0.052	0.075	~0.020		
BSD0601K-261R315	240	C5	261	265	315	±0.023	0.018	0.065	~0.005	680	1200
		Ct7				±0.045	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

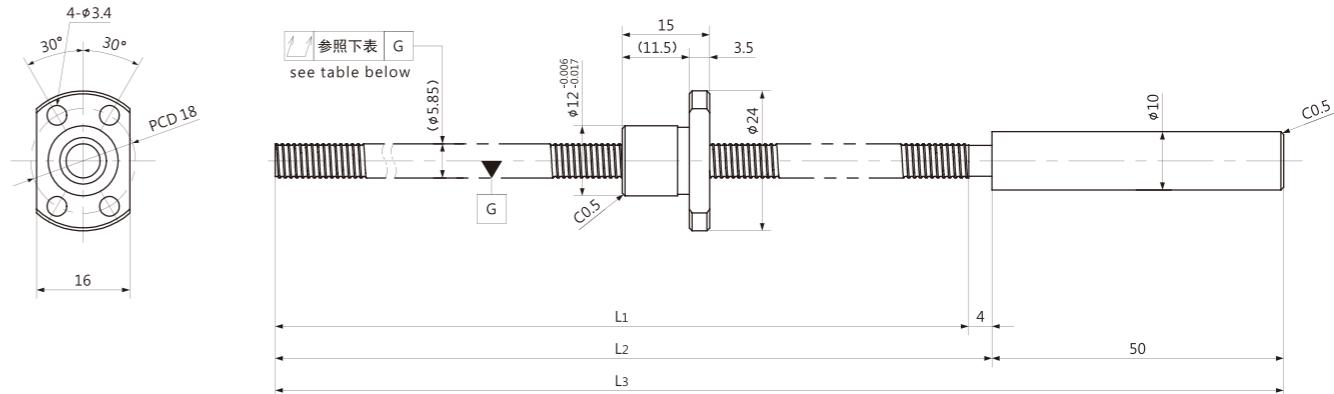
BSD0601G | Shaft dia.(轴径) φ 6 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ5.3		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD0601T | Shaft dia.(轴径) φ 6 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ5.3		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0601G-146R200	125	C5	146	150	200	±0.020	0.018	0.050	~0.005	680	1200
		Ct7				±0.025	0.052	0.075	~0.020		
BSD0601G-261R315	240	C5	261	265	315	±0.023	0.018	0.065	~0.005	680	1200
		Ct7				±0.045	0.052	0.100	~0.020		

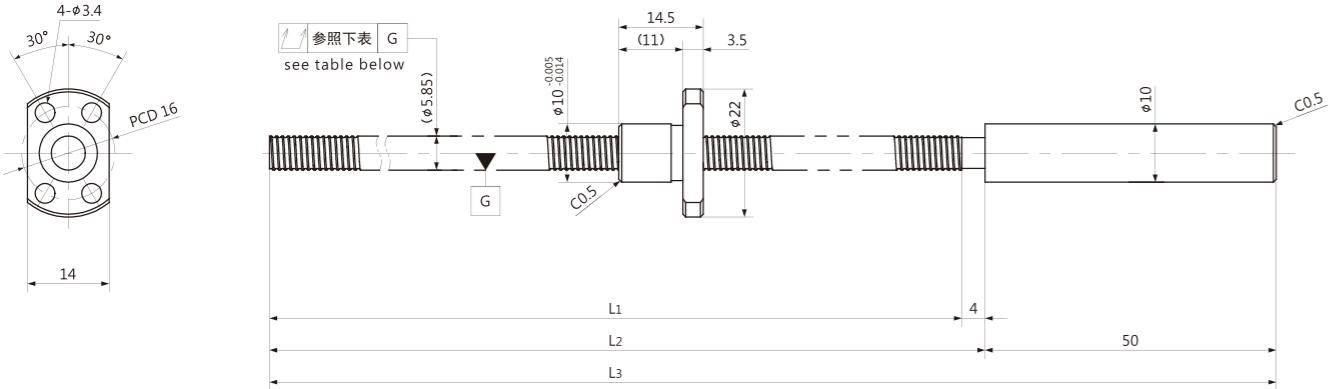
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0601T-146R200	125	C5	146	150	200	±0.020	0.018	0.050	~0.005	560	950
		Ct7				±0.025	0.052	0.075	~0.020		
BSD0601T-261R315	240	C5	261	265	315	±0.023	0.018	0.065	~0.005	560	950
		Ct7				±0.045	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

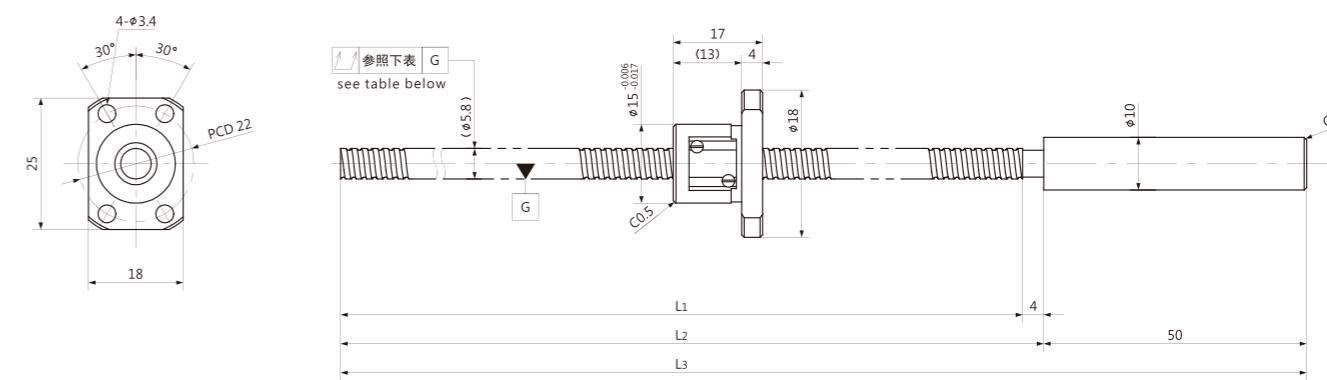
BSD0601D | Shaft dia.(轴径) φ 6 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ5.3		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD0602 | Shaft dia.(轴径) φ 6 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ5.1		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

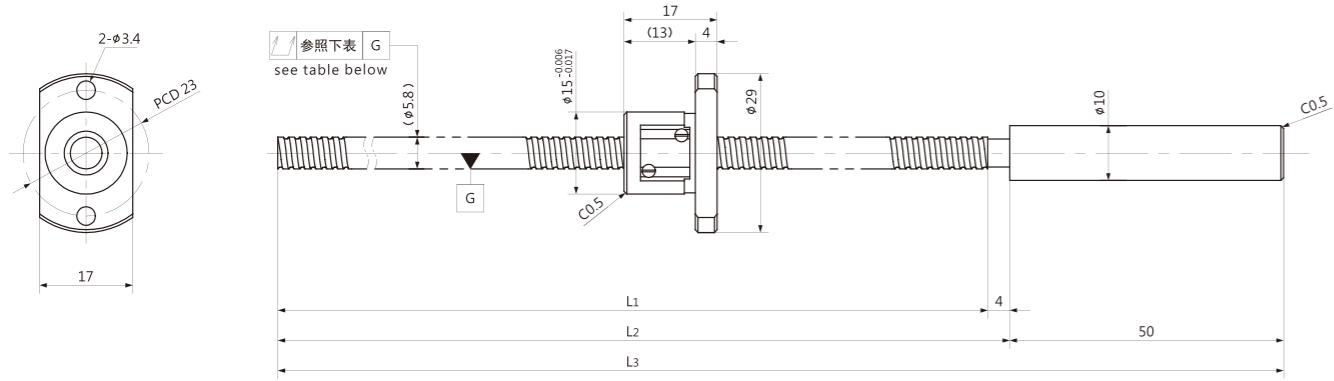
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0601D-146R200	125	C5	146	150	200	±0.020	0.018	0.050	~0.005	560	950
		Ct7				±0.025	0.052	0.075	~0.020		
BSD0601D-261R315	240	C5	261	265	315	±0.023	0.018	0.065	~0.005	560	950
		Ct7				±0.045	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0602-146R200	125	C5	146	150	200	±0.020	0.018	0.050	~0.005	750	1200
		Ct7				±0.025	0.052	0.075	~0.020		
BSD0602-261R315	240	C5	261	265	315	±0.023	0.018	0.065	~0.005	750	1200
		Ct7				±0.045	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

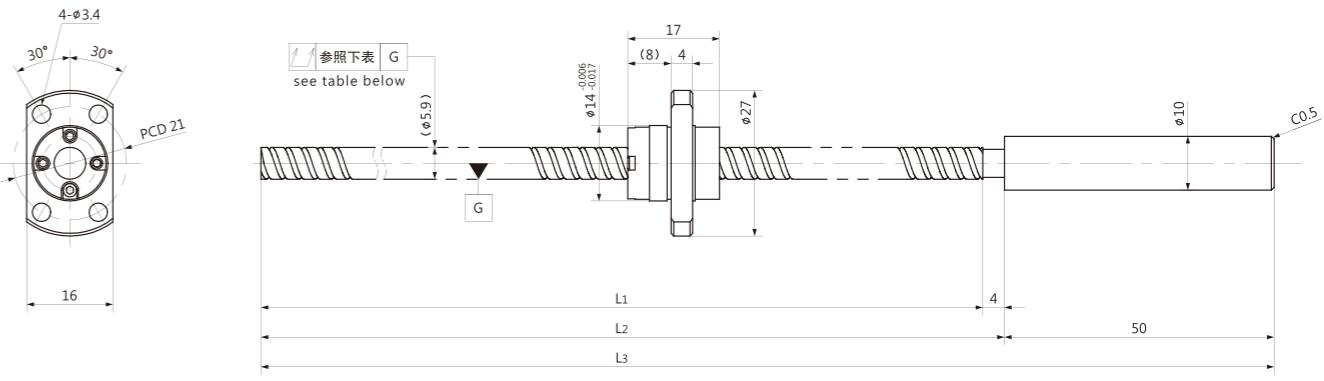
BSD0602G | Shaft dia.(轴径) φ 6 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ5.1		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD0606 | Shaft dia.(轴径) φ 6 Lead(导程)6mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.0		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ5.2		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0602G-146R200	125	C5	146	150	200	±0.020	0.018	0.050	~0.005	750	1200
		Ct7				±0.025	0.052	0.075	~0.020		
BSD0602G-261R315	240	C5	261	265	315	±0.023	0.018	0.065	~0.005	750	1200
		Ct7				±0.045	0.052	0.100	~0.020		

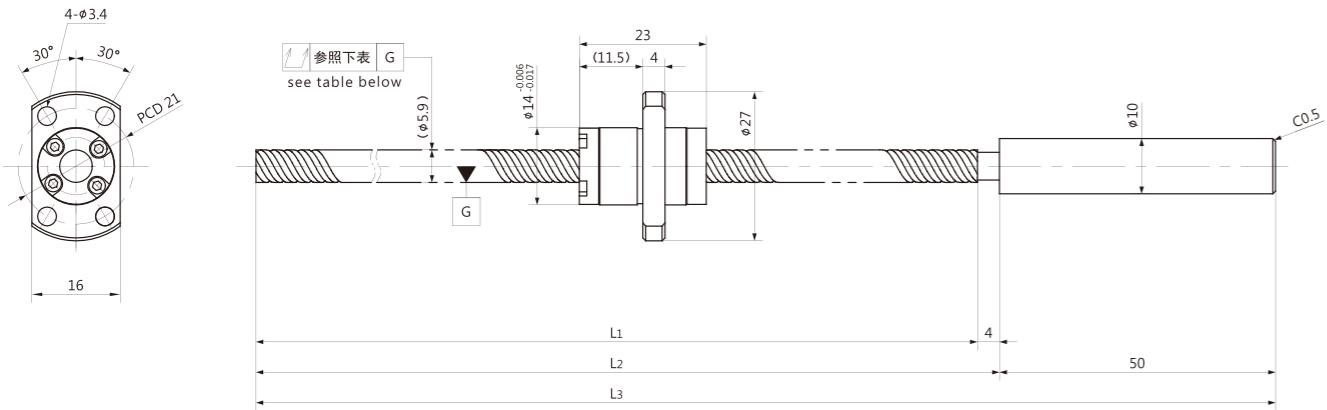
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0606-146R200	125	C5	146	150	200	±0.020	0.018	0.050	~0.005	870	1450
		Ct7				±0.025	0.052	0.075	~0.020		
BSD0606-261R315	240	C5	261	265	315	±0.023	0.018	0.065	~0.005	870	1450
		Ct7				±0.045	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

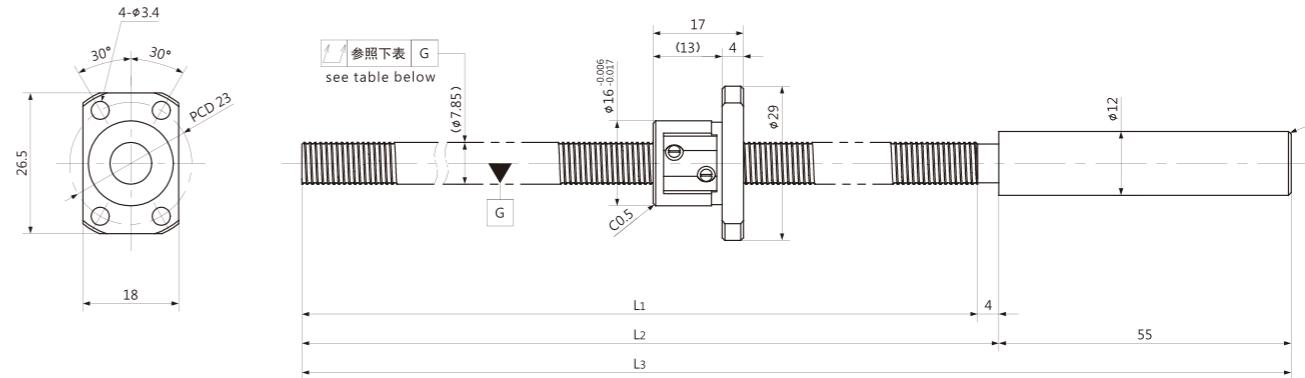
BSD0610 | Shaft dia.(轴径) ϕ 6 Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ5.0		
Number of circuit 循环数	1.2×2		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD0801 | Shaft dia.(轴径) ϕ 8 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.3		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度		Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀		Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0610-146R200	120	C5	146	150	200	±0.020	0.018	0.050	~0.005	950
		Ct7				±0.025	0.052	0.075	~0.020	
BSD0610-261R315	235	C5	261	265	315	±0.023	0.018	0.065	~0.005	950
		Ct7				±0.045	0.052	0.100	~0.020	

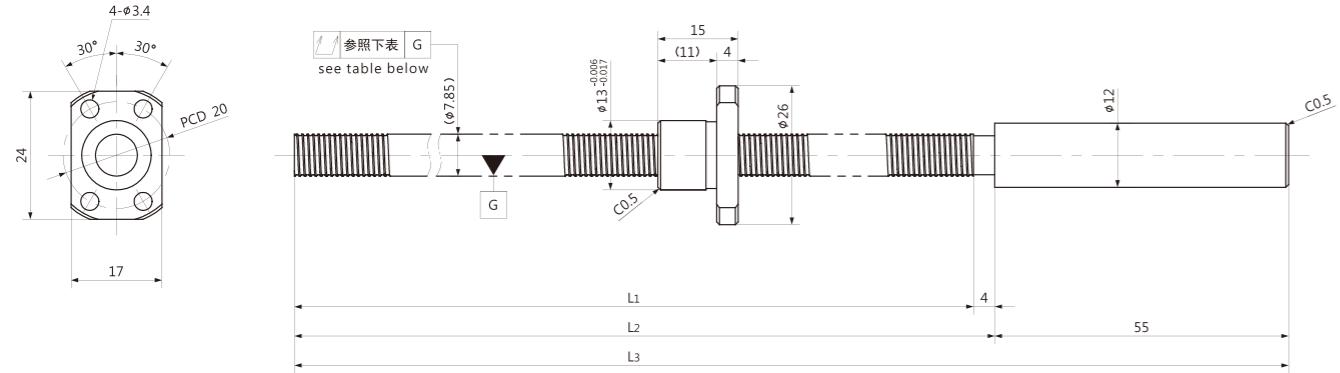
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0801-196R255	175	C5	196	200	255	±0.020	0.018	0.065	~0.005	780	1650
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0801-356R415	335	C5	356	360	415	±0.025	0.018	0.075	~0.005	780	1650
		Ct7				±0.062	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

BSD0801K | Shaft dia.(轴径) φ 8 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.3		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

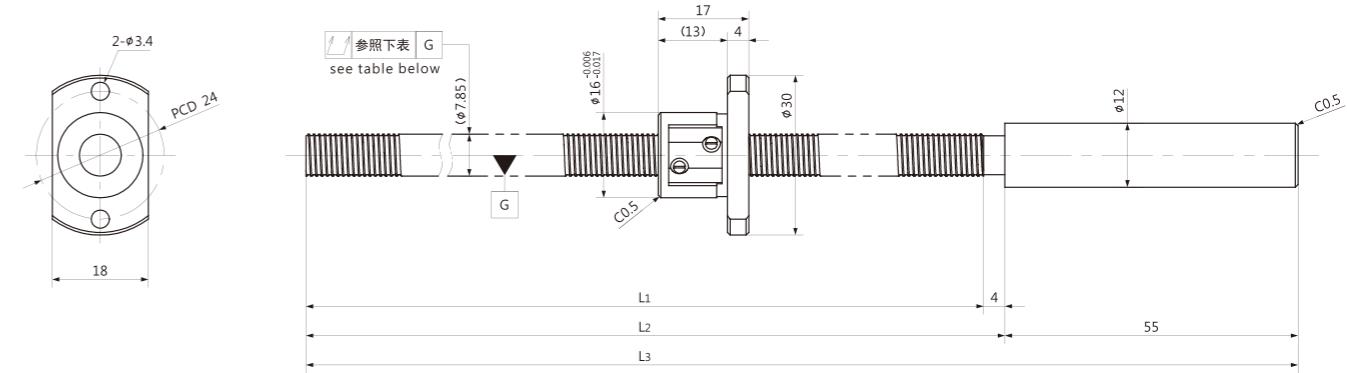
Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.3		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0801K-196R255	175	C5	196	200	255	±0.020	0.018	0.065	~0.005	650	1300
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0801K-356R415	335	C5	356	360	415	±0.025	0.018	0.075	~0.005	650	1300
		Ct7				±0.062	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

BSD0801G | Shaft dia.(轴径) φ 8 Lead(导程)1mm | C5&Ct7 |

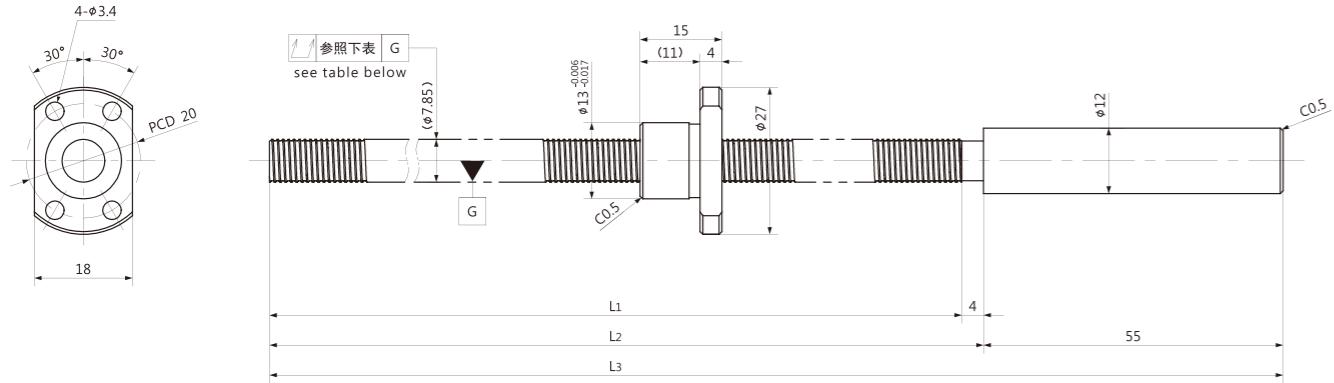


Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0801G-196R255	175	C5	196	200	255	±0.020	0.018	0.065	~0.005	780	1650
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0801G-356R415	335	C5	356	360	415	±0.025	0.018	0.075	~0.005	780	1650
		Ct7				±0.062	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

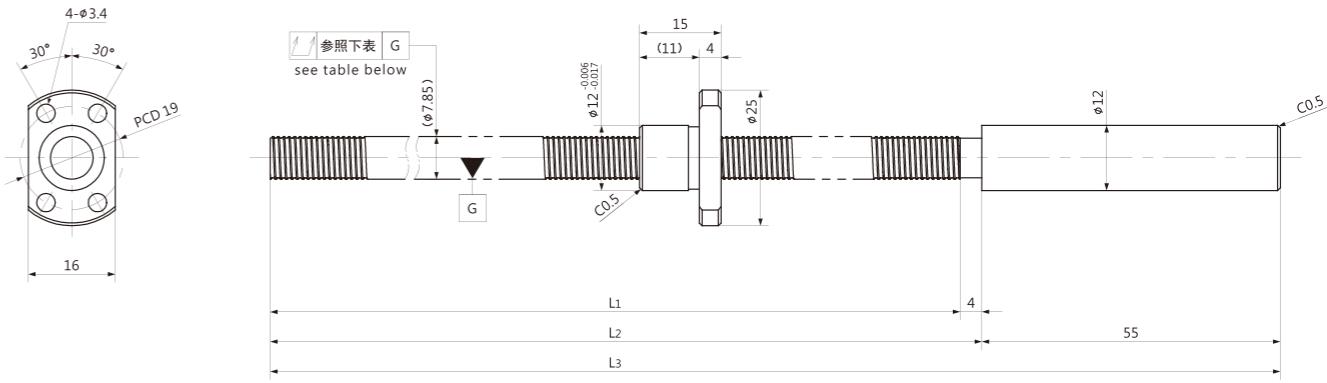
BSD0801T | Shaft dia.(轴径) φ 8 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.3		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD0801D | Shaft dia.(轴径) φ 8 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.3		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0801T-196R255	175	C5	196	200	255	±0.020	0.018	0.065	~0.005	650	1300
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0801T-356R415	335	C5	356	360	415	±0.025	0.018	0.075	~0.005	650	1300
		Ct7				±0.062	0.052	0.100	~0.020		

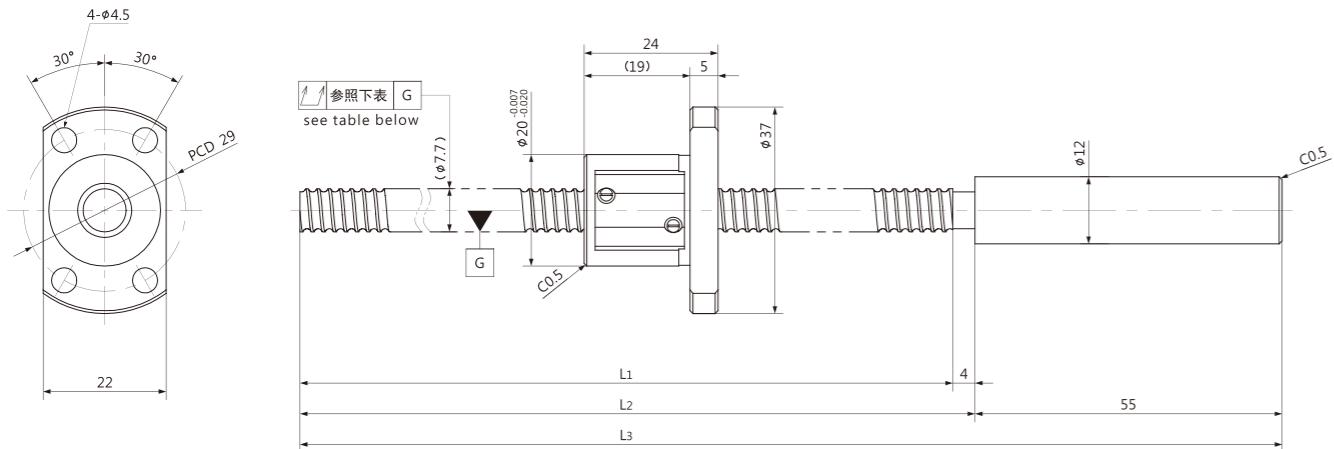
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0801D-196R255	175	C5	196	200	255	±0.020	0.018	0.065	~0.005	650	1300
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0801D-356R415	335	C5	356	360	415	±0.025	0.018	0.075	~0.005	650	1300
		Ct7				±0.062	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

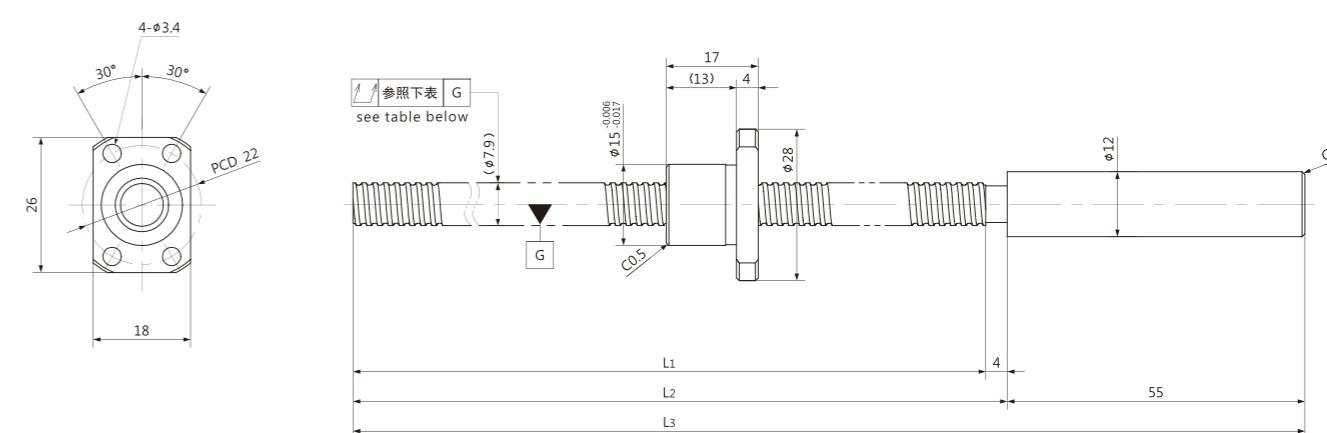
BSD0802 | Shaft dia.(轴径) ϕ 8 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ1.5875	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ6.6	
Number of circuit 循环数	3.7×1	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

BSD0802K | Shaft dia.(轴径) ϕ 8 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ1.2	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ7.0	
Number of circuit 循环数	1×3	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0802-196R255	170	C5	196	200	255	±0.020	0.018	0.065	~0.005	2400	4100
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0802-356R415	330	C5	356	360	415	±0.025	0.018	0.075	~0.005	2400	4100
		Ct7				±0.062	0.052	0.100	~0.020		

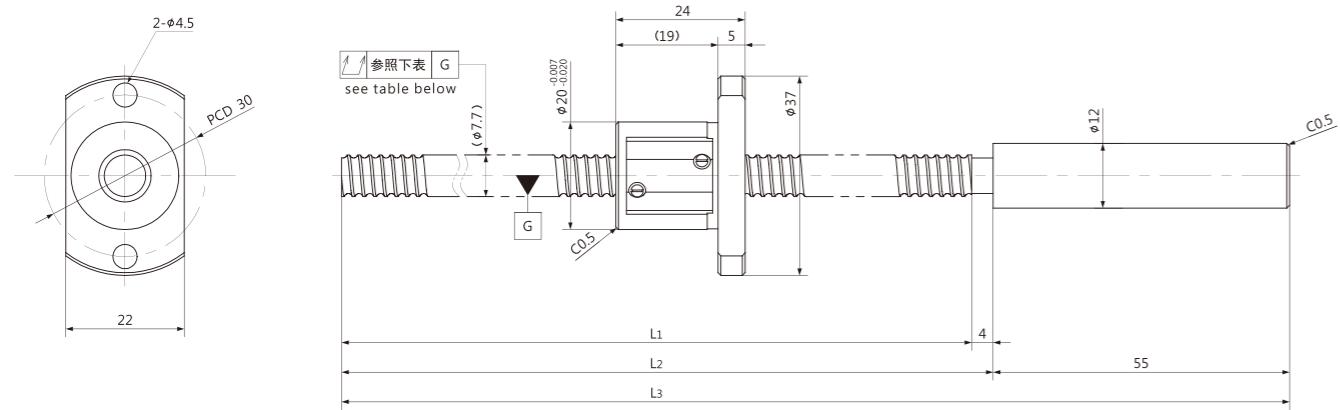
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0802K-196R255	175	C5	196	200	255	±0.020	0.018	0.065	~0.005	2400	4100
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0802K-356R415	335	C5	356	360	415	±0.025	0.018	0.075	~0.005	2400	4100
		Ct7				±0.062	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

BSD0802G | Shaft dia.(轴径) ϕ 8 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

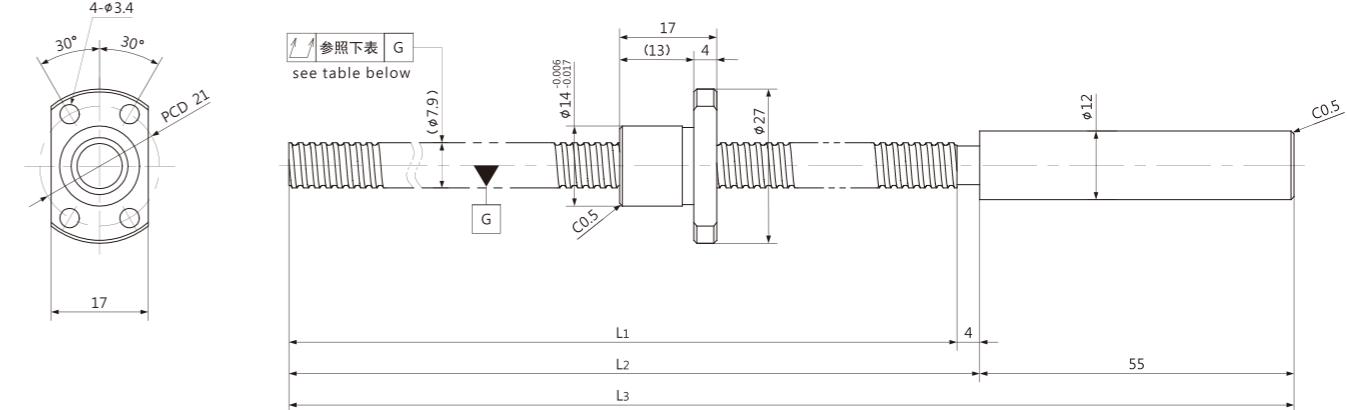
Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.0		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0802G-196R255	170	C5	196	200	255	±0.020	0.018	0.065	~0.005	2400	4100
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0802G-356R415	330	C5	356	360	415	±0.025	0.018	0.075	~0.005	2400	4100
		Ct7				±0.062	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

BSD0802T | Shaft dia.(轴径) ϕ 8 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

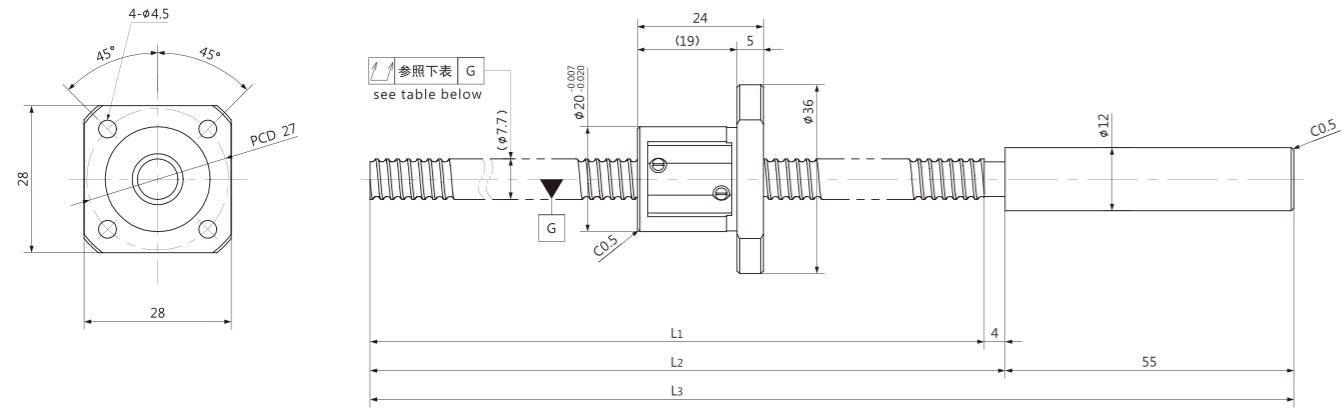
Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.0		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0802T-196R255	175	C5	196	200	255	±0.020	0.018	0.065	~0.005	2400	4100
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0802T-356R415	335	C5	356	360	415	±0.025	0.018	0.075	~0.005	2400	4100
		Ct7				±0.062	0.052	0.100	~0.020		

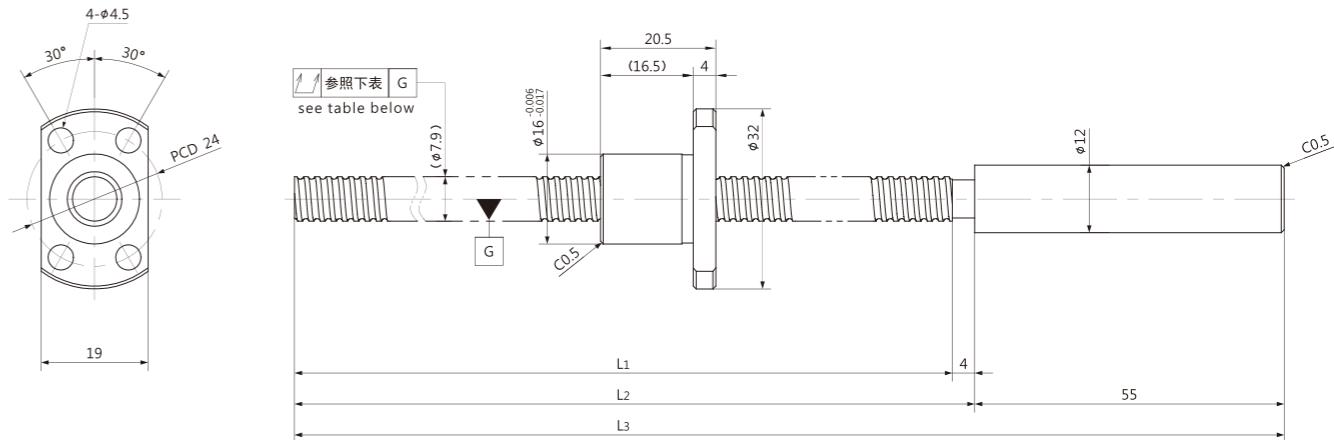
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

BSD0802A | Shaft dia.(轴径) φ 8 Lead(导程)2mm | C5&Ct7 |



Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD0802B | Shaft dia.(轴径) φ 8 Lead(导程)2mm | C5&Ct7 |



Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.0		
Number of circuit 循环数	1×4		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

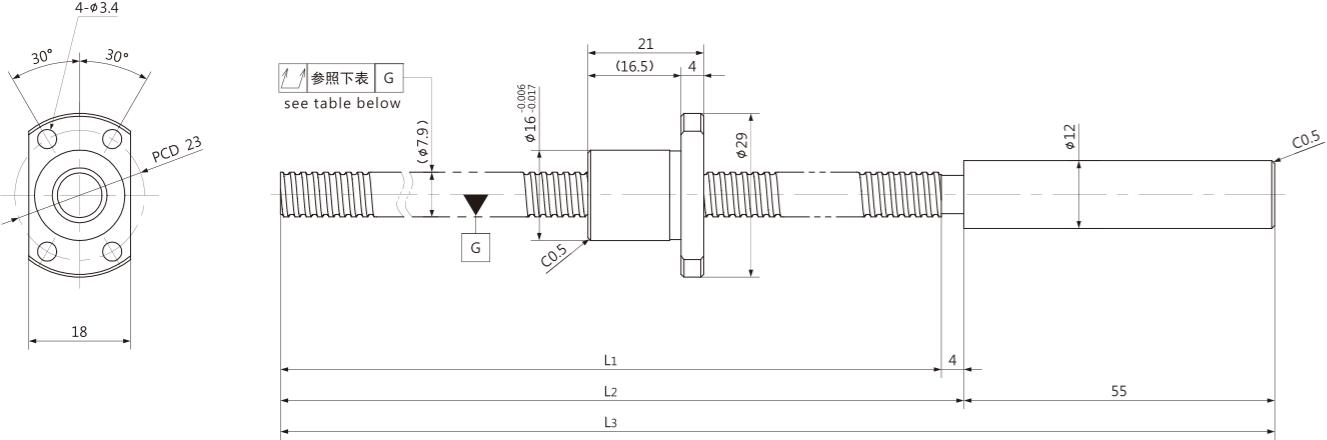
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度		Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N		
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀		Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
BSD0802A-196R255	170	C5	196	200	255	±0.020	0.018	0.065	~0.005	2400	4100
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0802A-356R415	330	C5	356	360	415	±0.025	0.018	0.075	~0.005	2400	4100
		Ct7				±0.062	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0802B-196R255	170	C5	196	200	255	±0.020	0.018	0.065	~0.005	2400	4100
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0802B-356R415	330	C5	356	360	415	±0.025	0.018	0.075	~0.005	2400	4100
		Ct7				±0.062	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

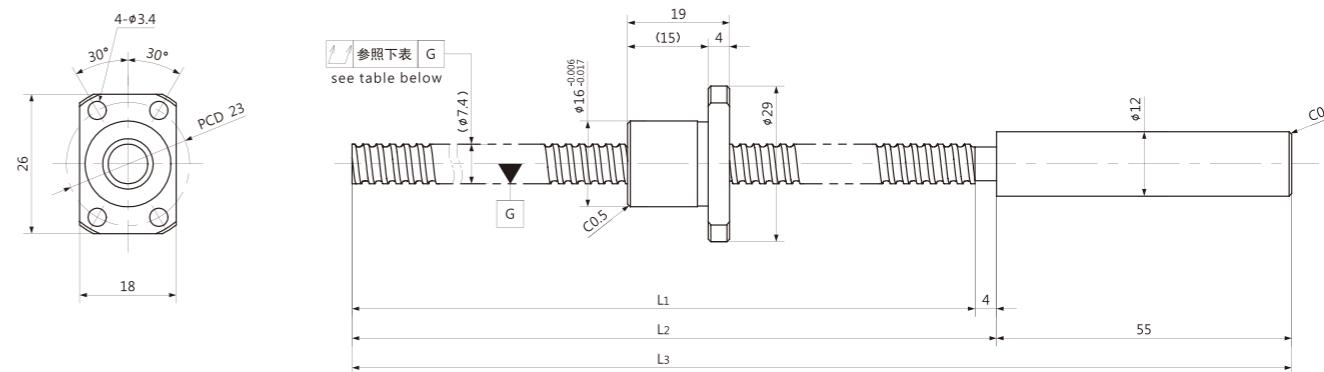
BSD0802M | Shaft dia.(轴径) φ 8 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ7.0		
Number of circuit 循环数	1×4		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD0802.5 | Shaft dia.(轴径) φ 8 Lead(导程)2.5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.3		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

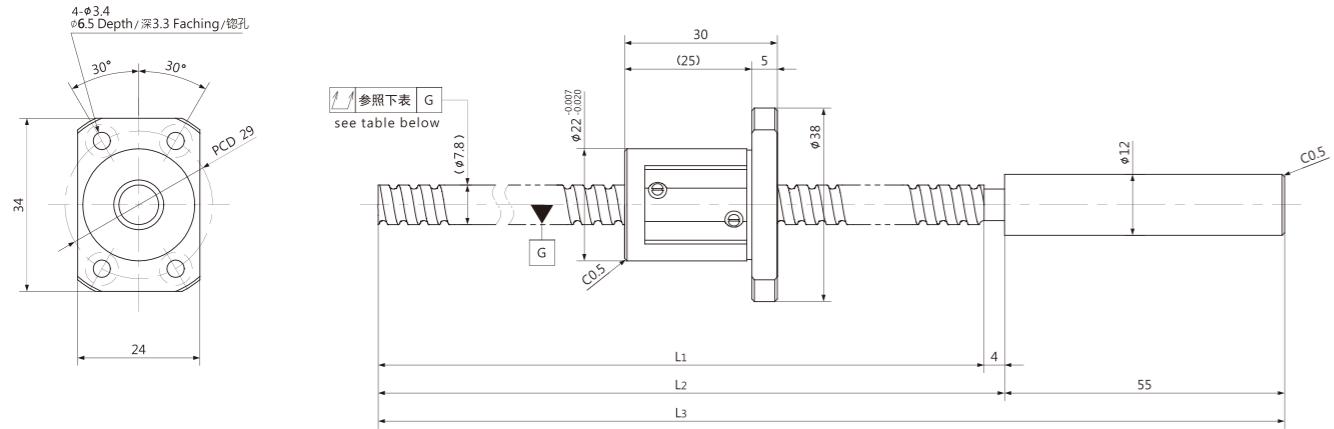
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0802M-196R255	170	C5	196	200	255	±0.020	0.018	0.065	~0.005	1730	3060
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0802M-356R415	330	C5	356	360	415	±0.025	0.018	0.075	~0.005	1730	3060
		Ct7				±0.062	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0802.5-196R255	175	C5	196	200	255	±0.020	0.018	0.065	~0.005	1850	3000
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0802.5-356R415	335	C5	356	360	415	±0.025	0.018	0.075	~0.005	1850	3000
		Ct7				±0.062	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

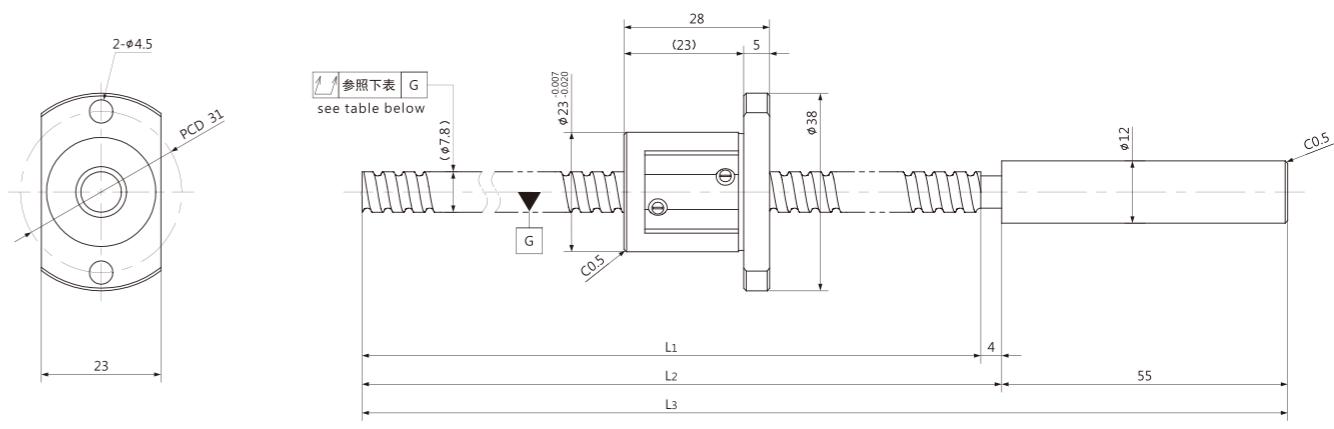
BSD0804 | Shaft dia.(轴径) $\phi 8$ Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD0804G | Shaft dia.(轴径) $\phi 8$ Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0804-196R255	160	C5	196	200	255	±0.020	0.018	0.065	~0.005	2600	4200
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0804-356R415	320	C5	356	360	415	±0.025	0.018	0.075	~0.005	2600	4200
		Ct7				±0.062	0.052	0.100	~0.020		

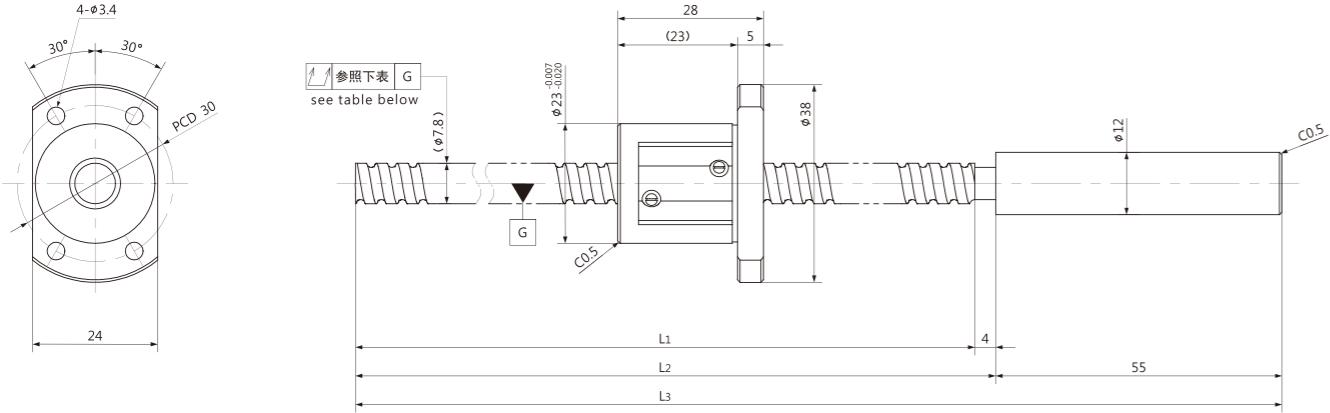
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0804G-196R255	165	C5	196	200	255	±0.020	0.018	0.065	~0.005	2600	4200
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0804G-356R415	325	C5	356	360	415	±0.025	0.018	0.075	~0.005	2600	4200
		Ct7				±0.062	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

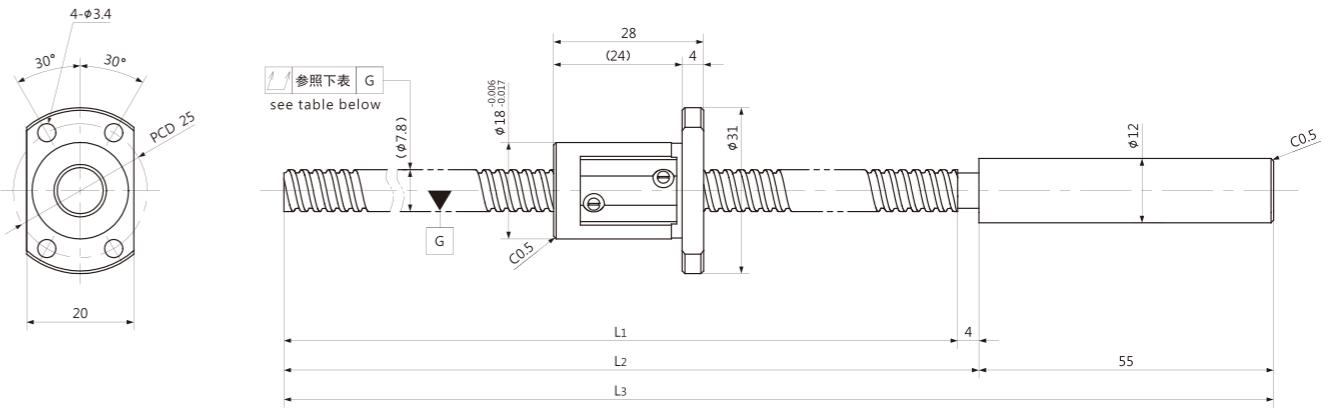
BSD0804D | Shaft dia.(轴径) φ 8 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD0805 | Shaft dia.(轴径) φ 8 Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.6		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0804D-196R255	165	C5	196	200	255	±0.020	0.018	0.065	~0.005	2600	4200
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0804D-356R415	325	C5	356	360	415	±0.025	0.018	0.075	~0.005	2600	4200
		Ct7				±0.062	0.052	0.100	~0.020		

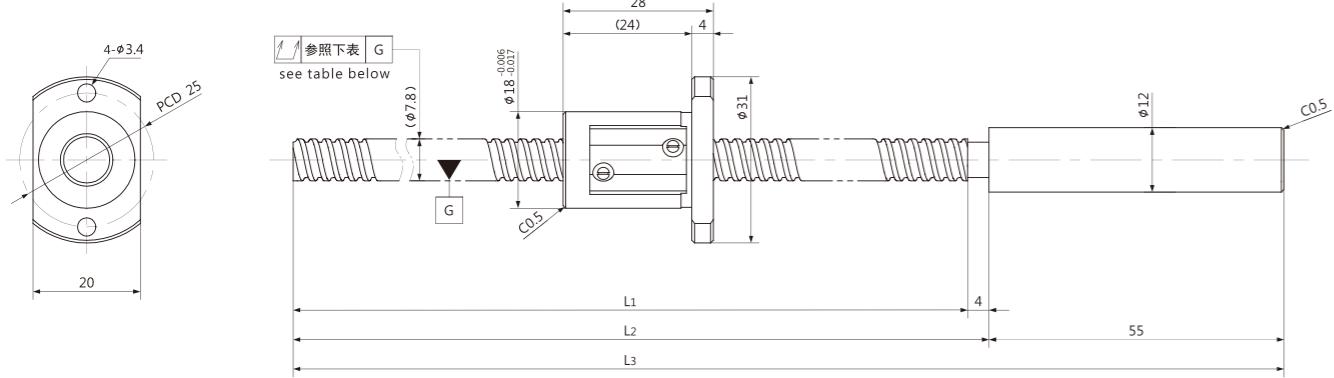
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0805-196R255	165	C5	196	200	255	±0.020	0.018	0.065	~0.005	1850	3000
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0805-356R415	325	C5	356	360	415	±0.025	0.018	0.075	~0.005	1850	3000
		Ct7				±0.062	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

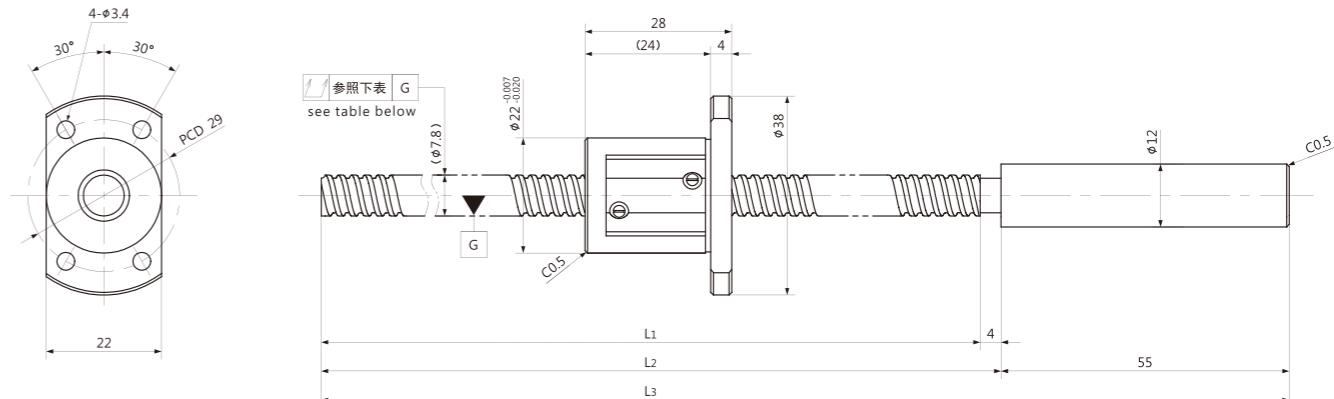
BSD0805G | Shaft dia.(轴径) φ 8 Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.6		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD0805D | Shaft dia.(轴径) φ 8 Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.6		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0805G-196R255	165	C5	196	200	255	±0.020	0.018	0.065	~0.005	1850	3000
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0805G-356R415	325	C5	356	360	415	±0.025	0.018	0.075	~0.005	1850	3000
		Ct7				±0.062	0.052	0.100	~0.020		

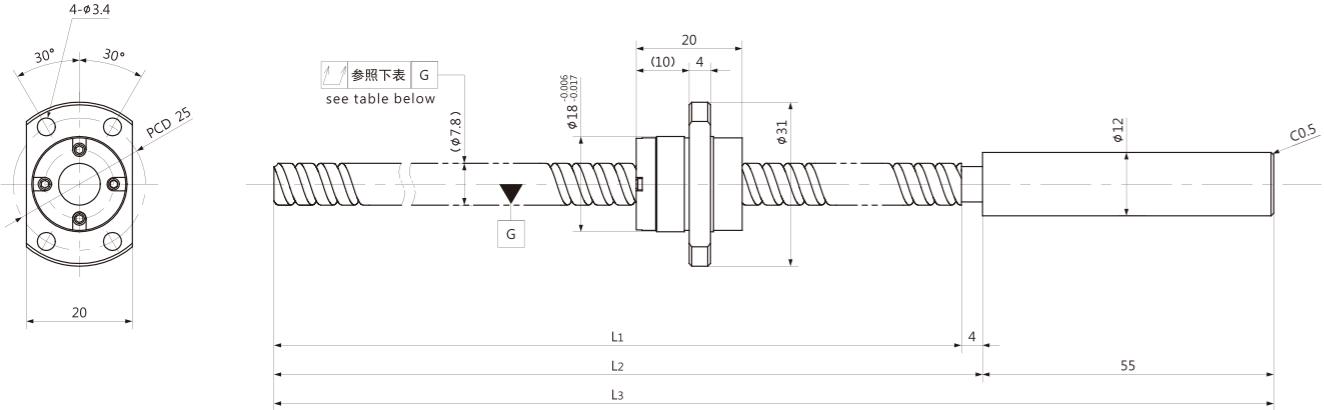
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0805D-196R255	165	C5	196	200	255	±0.020	0.018	0.065	~0.005	1850	3000
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0805D-356R415	325	C5	356	360	415	±0.025	0.018	0.075	~0.005	1850	3000
		Ct7				±0.062	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

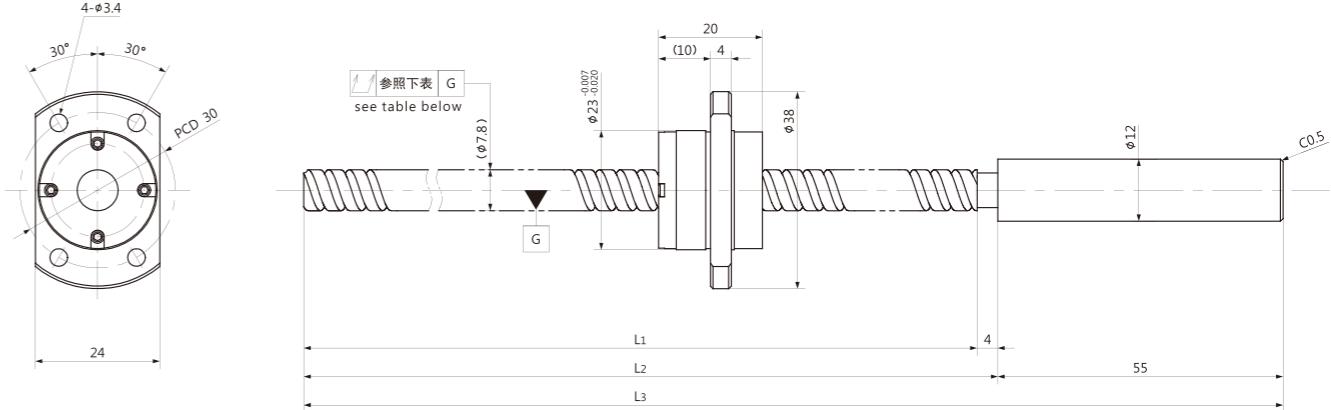
BSD0808 | Shaft dia.(轴径) φ 8 Lead(导程)8mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.7		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD0808D | Shaft dia.(轴径) φ 8 Lead(导程)8mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.7		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度		Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N		
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀		Dynamic 额定动负载 Ca	Static 额定静负载 Coa	
BSD0808-196R255	170	C5	196	200	255	±0.020	0.018	0.065	~0.005	2200	3800
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0808-356R415	330	C5	356	360	415	±0.025	0.018	0.075	~0.005	2200	3800
		Ct7				±0.062	0.052	0.100	~0.020		

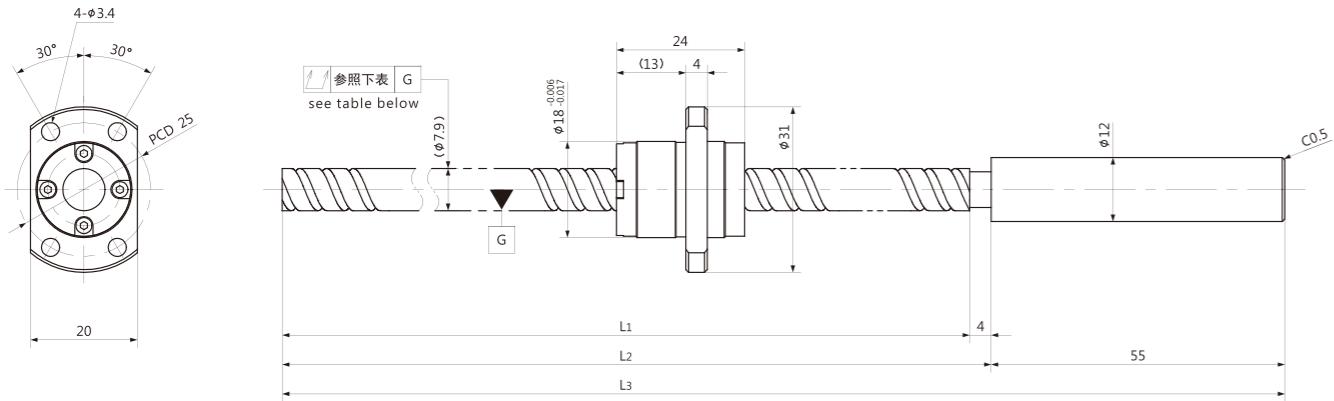
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0808D-196R255	170	C5	196	200	255	±0.020	0.018	0.065	~0.005	2200	3800
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0808D-356R415	330	C5	356	360	415	±0.025	0.018	0.075	~0.005	2200	3800
		Ct7				±0.062	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

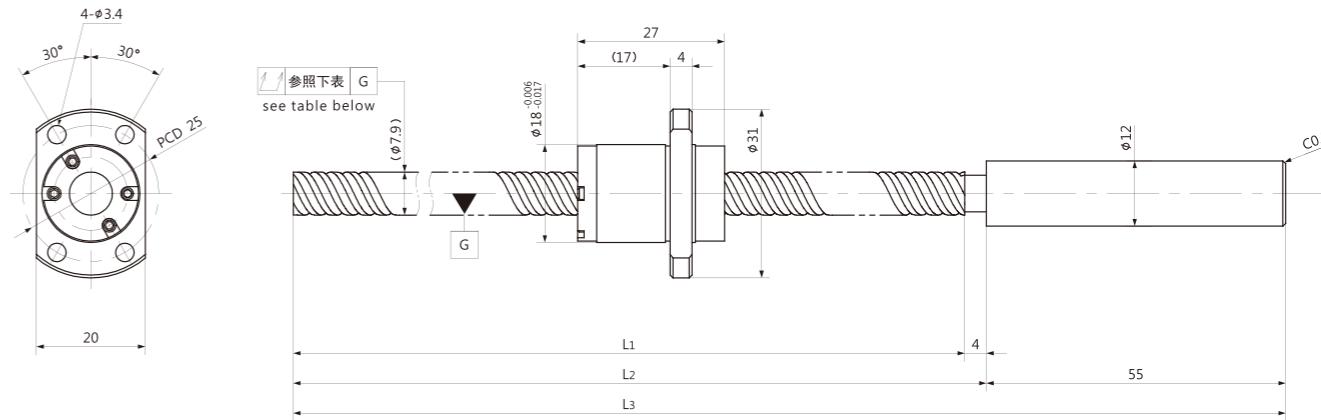
BSD0810 | Shaft dia.(轴径) ϕ 8 Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.7		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD0812 | Shaft dia.(轴径) ϕ 8 Lead(导程)12mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ6.7		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0810-196R255	170	C5	196	200	255	±0.020	0.018	0.065	~0.005	2200	3800
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0810-356R415	330	C5	356	360	415	±0.025	0.018	0.075	~0.005	2200	3800
		Ct7				±0.062	0.052	0.100	~0.020		

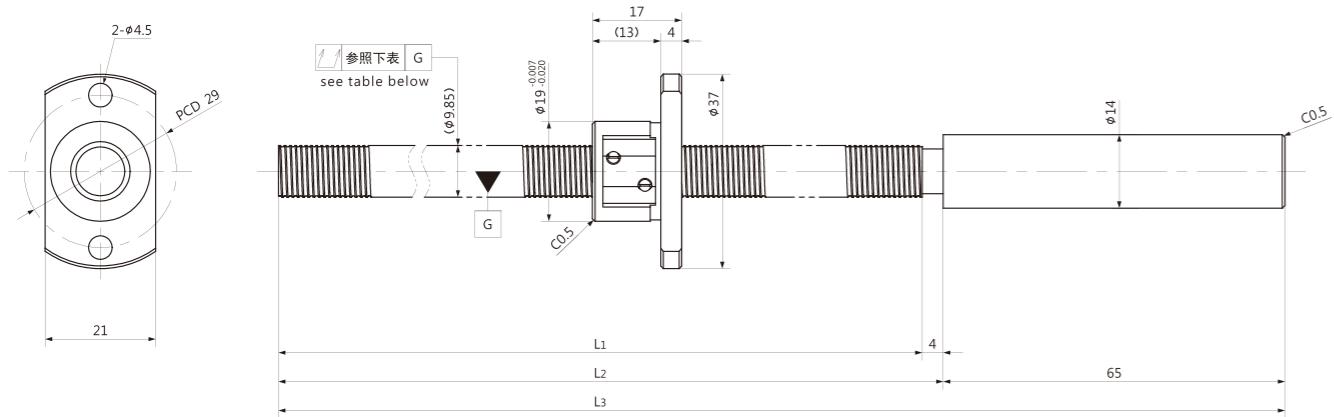
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD0812-196R255	165	C5	196	200	255	±0.020	0.018	0.065	~0.005	2200	3800
		Ct7				±0.034	0.052	0.100	~0.020		
BSD0812-356R415	325	C5	356	360	415	±0.025	0.018	0.075	~0.005	2200	3800
		Ct7				±0.062	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

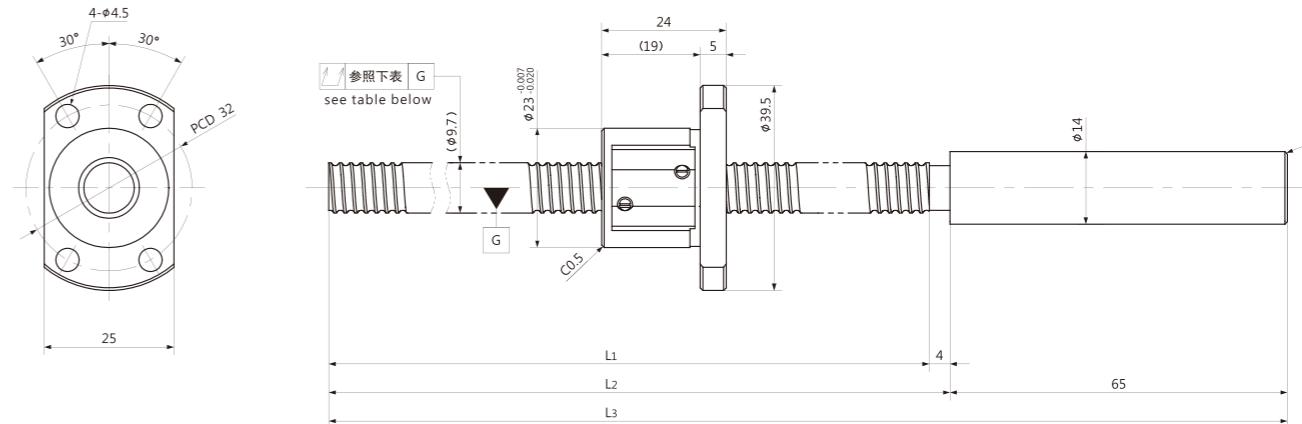
BSD1001 | Shaft dia.(轴径) $\phi 10$ Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ9.3		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD1002 | Shaft dia.(轴径) $\phi 10$ Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

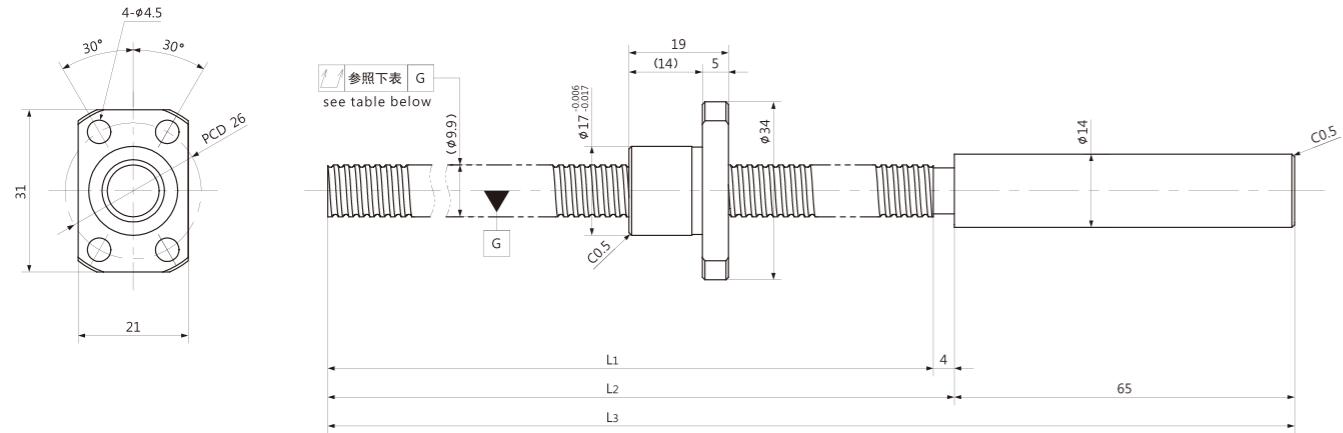
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1001-196R265	175	C5	196	200	265	±0.020	0.018	0.055	~0.005	840	2000
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1001-356R425	335	C5	356	360	425	±0.025	0.018	0.080	~0.005	840	2000
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1001-600R670	579	C5	600	604	670	±0.027	0.018	0.090	~0.005	840	2000
		Ct7				±0.104	0.052	0.150	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1002-196R265	170	C5	196	200	265	±0.020	0.018	0.055	~0.005	2700	5300
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1002-356R425	330	C5	356	360	425	±0.025	0.018	0.080	~0.005	2700	5300
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1002-600R669	570	C5	600	604	669	±0.027	0.018	0.090	~0.005	2700	5300
		Ct7				±0.104	0.052	0.150	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

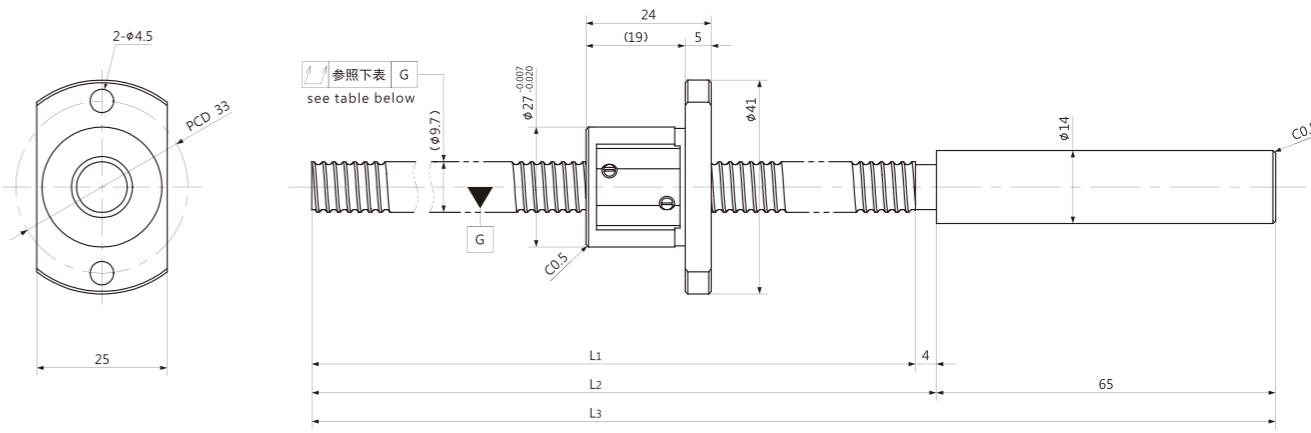
BSD1002K | Shaft dia.(轴径) $\phi 10$ Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ9.0		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD1002G | Shaft dia.(轴径) $\phi 10$ Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位):mm

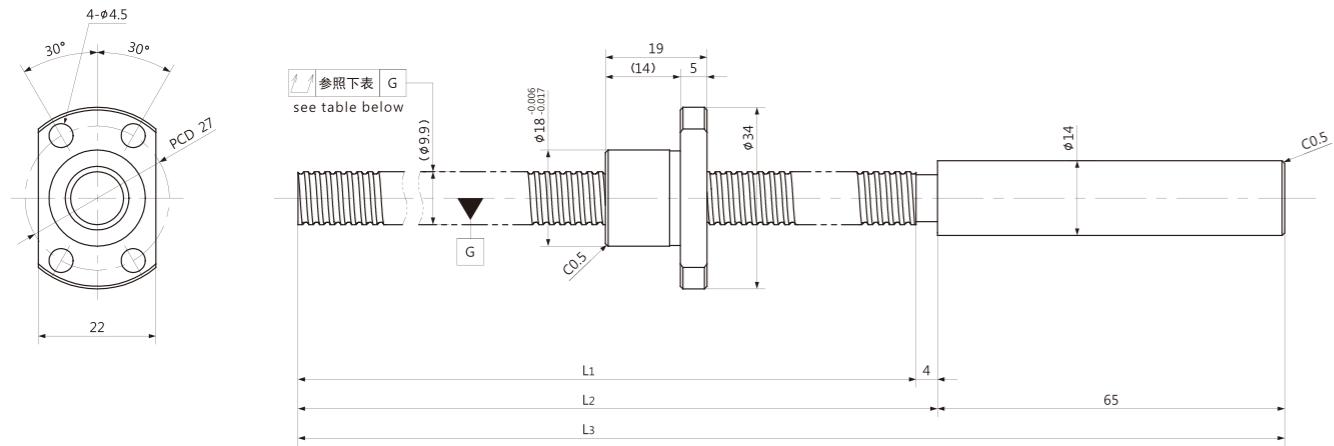
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1002K-196R265	175	C5	196	200	265	±0.020	0.018	0.055	~0.005	1450	3700
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1002K-356R425	335	C5	356	360	425	±0.025	0.018	0.080	~0.005	1450	3700
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1002K-600R669	575	C5	600	604	669	±0.027	0.018	0.090	~0.005	1450	3700
		Ct7				±0.104	0.052	0.150	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1002G-196R265	170	C5	196	200	265	±0.020	0.018	0.055	~0.005	2700	5300
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1002G-356R425	330	C5	356	360	425	±0.025	0.018	0.080	~0.005	2700	5300
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1002G-600R669	570	C5	600	604	669	±0.027	0.018	0.090	~0.005	2700	5300
		Ct7				±0.104	0.052	0.150	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

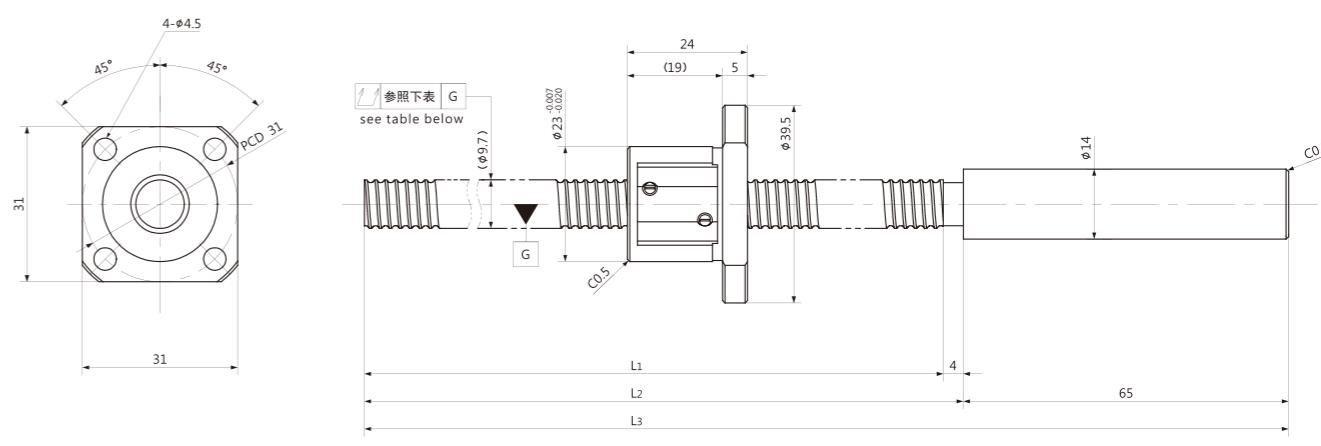
BSD1002T | Shaft dia.(轴径) $\phi 10$ Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ9.0		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD1002A | Shaft dia.(轴径) $\phi 10$ Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

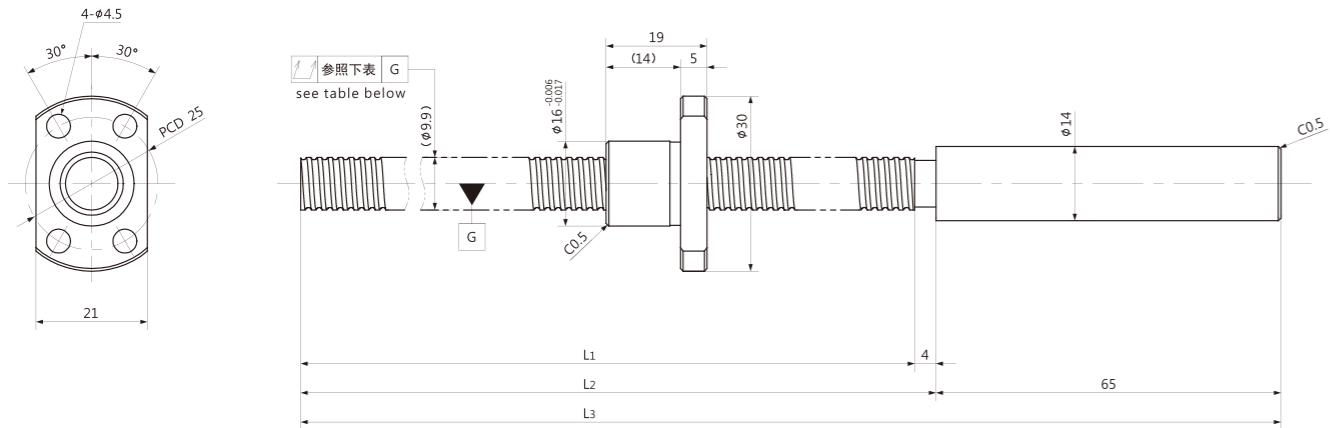
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1002T-196R265	175	C5	196	200	265	±0.020	0.018	0.055	~0.005	1450	3700
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1002T-356R425	335	C5	356	360	425	±0.025	0.018	0.080	~0.005	1450	3700
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1002T-600R669	575	C5	600	604	669	±0.027	0.018	0.090	~0.005	1450	3700
		Ct7				±0.104	0.052	0.150	~0.020		

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1002A-196R265	170	C5	196	200	265	±0.020	0.018	0.055	~0.005	2700	5300
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1002A-356R425	330	C5	356	360	425	±0.025	0.018	0.080	~0.005	2700	5300
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1002A-600R669	570	C5	600	604	669	±0.027	0.018	0.090	~0.005	2700	5300
		Ct7				±0.104	0.052	0.150	~0.020		

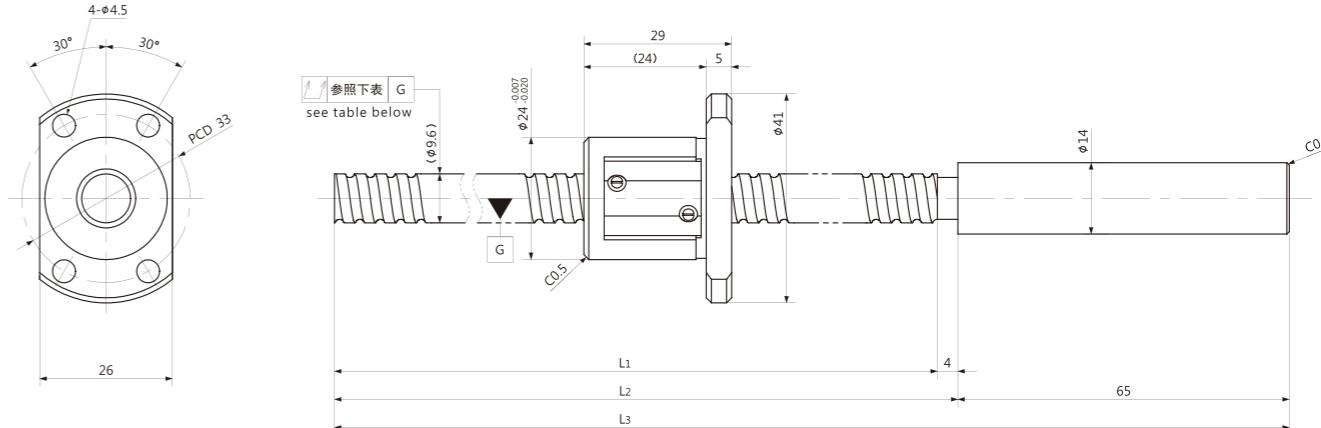
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

BSD1002D | Shaft dia.(轴径) $\phi 10$ Lead(导程) 2mm | C5&Ct7 |

Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	$\phi 1.2$		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	$\phi 9.0$		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD1004 | Shaft dia.(轴径) $\phi 10$ Lead(导程) 4mm | C5&Ct7 |

Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	$\phi 2.0$		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	$\phi 8.2$		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位):mm

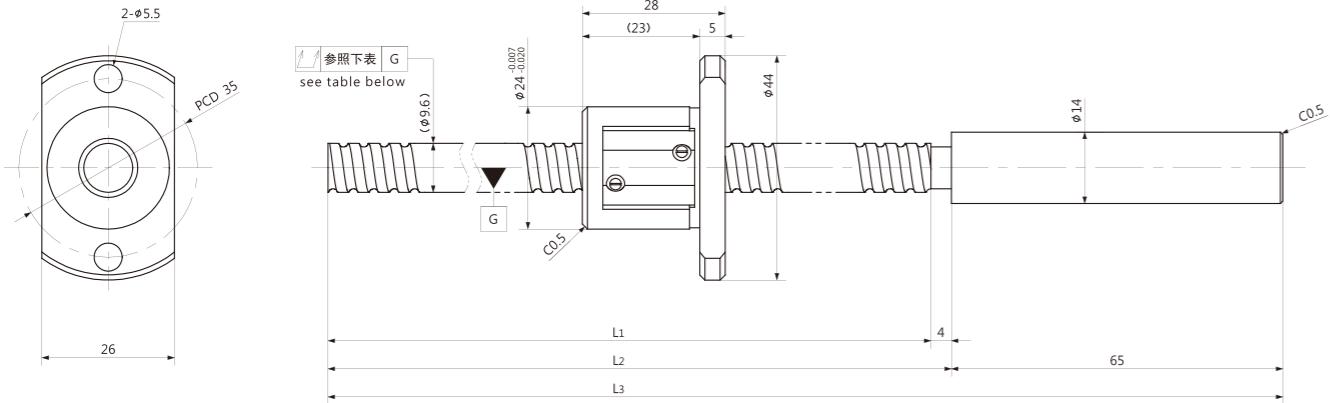
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1002D-196R265	175	C5	196	200	265	± 0.020	0.018	0.055	~ 0.005	1450	3700
		Ct7				± 0.034	0.052	0.080	~ 0.020		
BSD1002D-356R425	335	C5	356	360	425	± 0.025	0.018	0.080	~ 0.005	1450	3700
		Ct7				± 0.062	0.052	0.120	~ 0.020		
BSD1002D-600R669	575	C5	600	604	669	± 0.027	0.018	0.090	~ 0.005	1450	3700
		Ct7				± 0.104	0.052	0.150	~ 0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1004-196R265	165	C5	196	200	265	± 0.020	0.018	0.055	~ 0.005	3000	5200
		Ct7				± 0.034	0.052	0.080	~ 0.020		
BSD1004-356R425	325	C5	356	360	425	± 0.025	0.018	0.080	~ 0.005	3000	5200
		Ct7				± 0.062	0.052	0.120	~ 0.020		
BSD1004-600R669	565	C5	600	604	669	± 0.027	0.018	0.090	~ 0.005	3000	5200
		Ct7				± 0.104	0.052	0.150	~ 0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

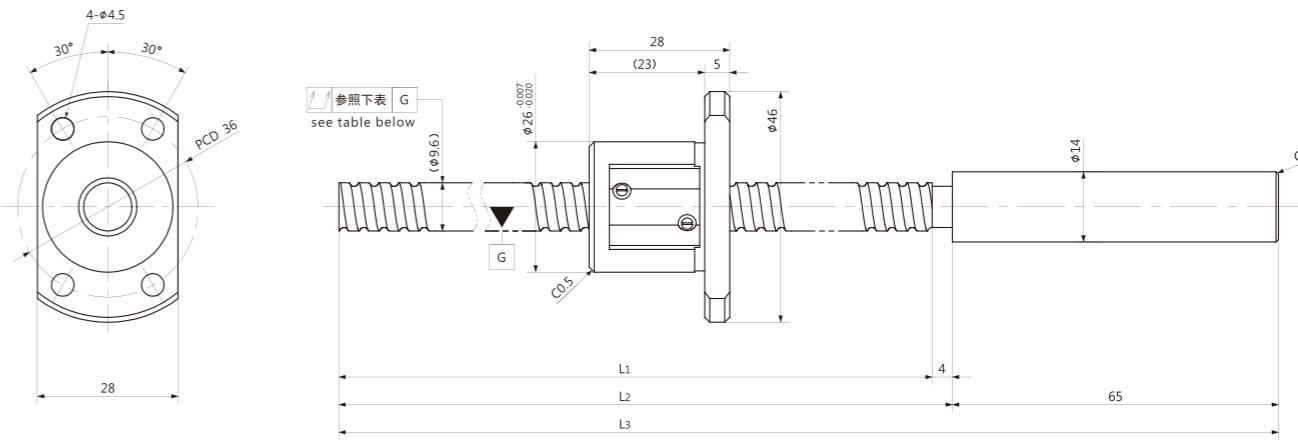
BSD1004G | Shaft dia.(轴径) $\phi 10$ Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD1004T | Shaft dia.(轴径) $\phi 10$ Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

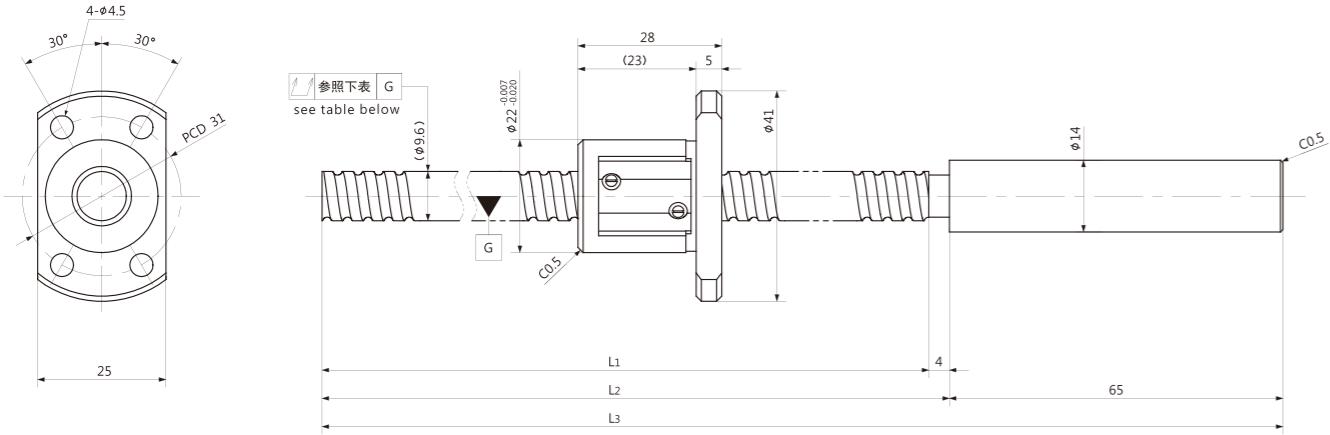
Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1004G-196R265	165	C5	196	200	265	±0.020	0.018	0.055	~0.005	3000	5200
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1004G-356R425	325	C5	356	360	425	±0.025	0.018	0.080	~0.005	3000	5200
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1004G-600R669	565	C5	600	604	669	±0.027	0.018	0.090	~0.005	3000	5200
		Ct7				±0.104	0.052	0.150	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

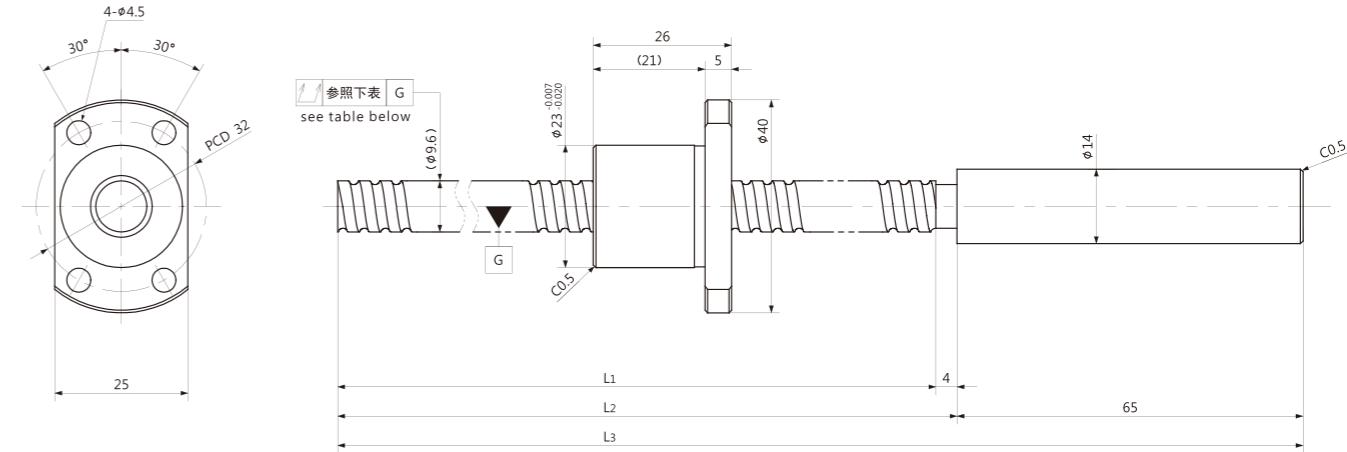
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1004T-196R265	165	C5	196	200	265	±0.020	0.018	0.055	~0.005	3000	5200
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1004T-356R425	325	C5	356	360	425	±0.025	0.018	0.080	~0.005	3000	5200
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1004T-600R669	565	C5	600	604	669	±0.027	0.018	0.090	~0.005	3000	5200
		Ct7				±0.104	0.052	0.150	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

BSD1004A | Shaft dia.(轴径) $\phi 10$ Lead(导程) 4mm | C5&Ct7 |

Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD1005 | Shaft dia.(轴径) $\phi 10$ Lead(导程) 5mm | C5&Ct7 |

Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1004A-196R265	165	C5	196	200	265	±0.020	0.018	0.055	~0.005	3000	5200
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1004A-356R425	325	C5	356	360	425	±0.025	0.018	0.080	~0.005	3000	5200
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1004A-600R669	565	C5	600	604	669	±0.027	0.018	0.090	~0.005	3000	5200
		Ct7				±0.104	0.052	0.150	~0.020		

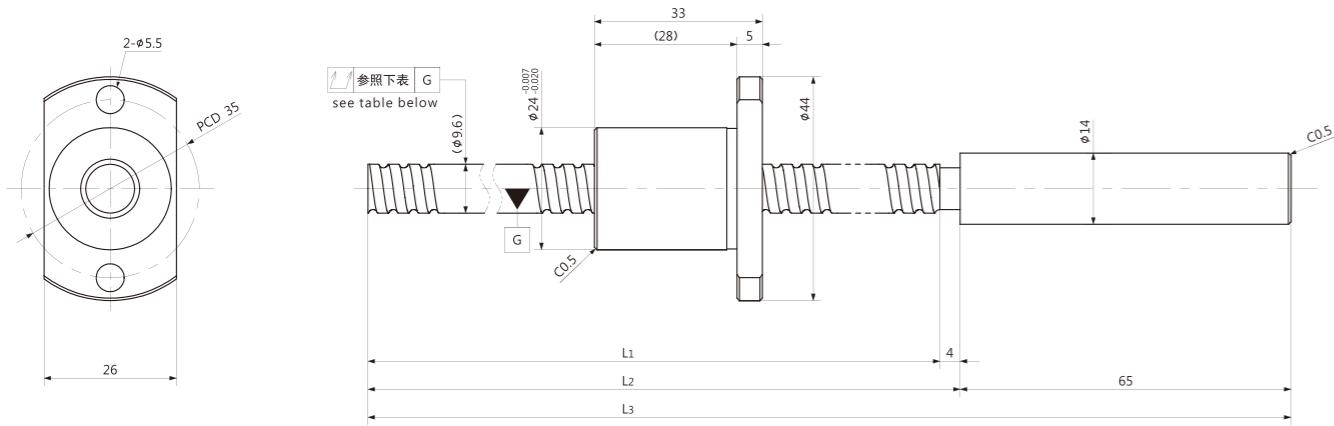
Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1005-196R265	165	C5	196	200	265	±0.020	0.018	0.055	~0.005	3000	5200
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1005-356R425	325	C5	356	360	425	±0.025	0.018	0.080	~0.005	3000	5200
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1005-600R669	565	C5	600	604	669	±0.027	0.018	0.090	~0.005	3000	5200
		Ct7				±0.104	0.052	0.150	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

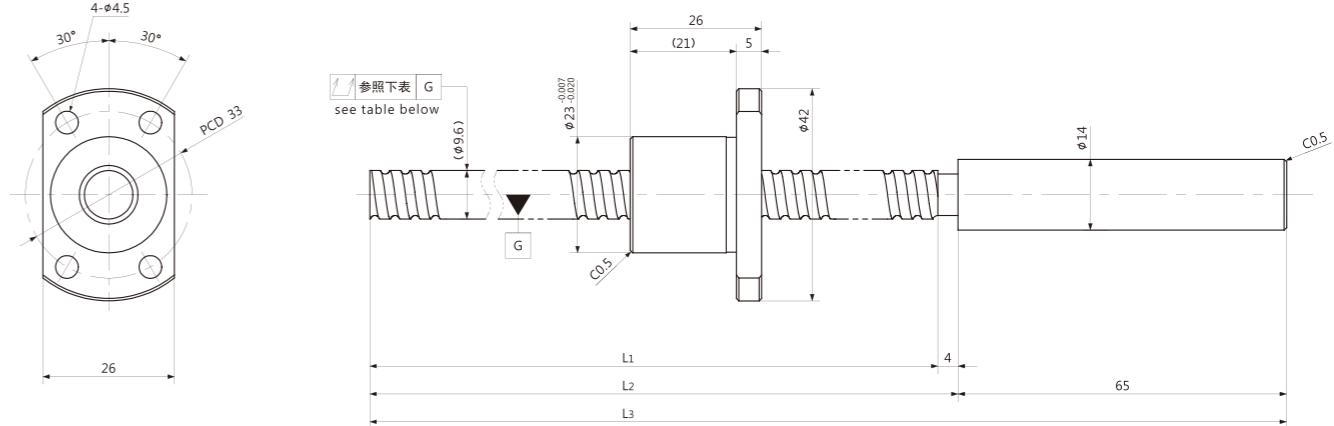
BSD1005G | Shaft dia.(轴径) $\phi 10$ Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1		
Material 轴	S55C+SUS304		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD1005T | Shaft dia.(轴径) $\phi 10$ Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1		
Material 轴	S55C+SUS304		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

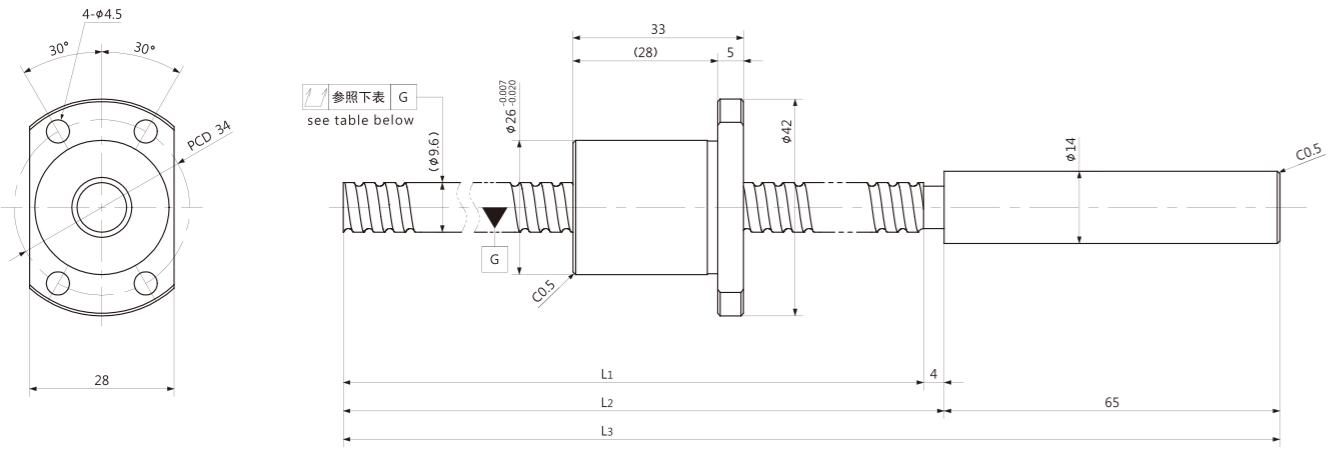
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1005G-196R265	160	C5	196	200	265	±0.020	0.018	0.055	~0.005	3000	5200
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1005G-356R425	320	C5	356	360	425	±0.025	0.018	0.080	~0.005	3000	5200
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1005G-600R669	560	C5	600	604	669	±0.027	0.018	0.090	~0.005	3000	5200
		Ct7				±0.104	0.052	0.150	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1005T-196R265	165	C5	196	200	265	±0.020	0.018	0.055	~0.005	3000	5200
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1005T-356R425	325	C5	356	360	425	±0.025	0.018	0.080	~0.005	3000	5200
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1005T-600R669	565	C5	600	604	669	±0.027	0.018	0.090	~0.005	3000	5200
		Ct7				±0.104	0.052	0.150	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

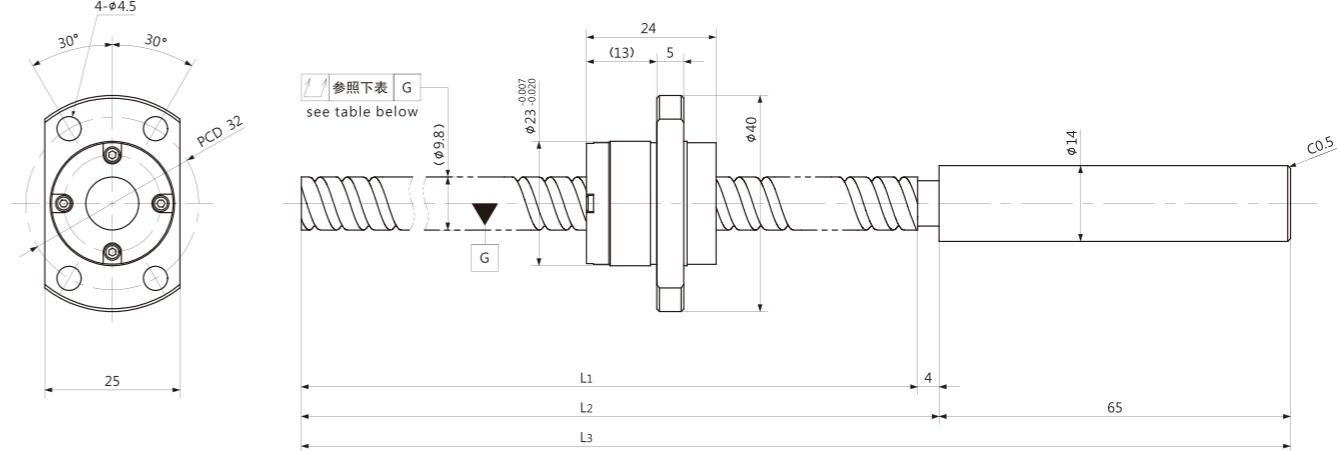
BSD1005A | Shaft dia.(轴径) $\phi 10$ Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1		
Material 轴	S55C+SUS304		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD1010 | Shaft dia.(轴径) $\phi 10$ Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.4		
Number of circuit 循环数	1.6×2		
Material 轴	S55C+SUS304		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

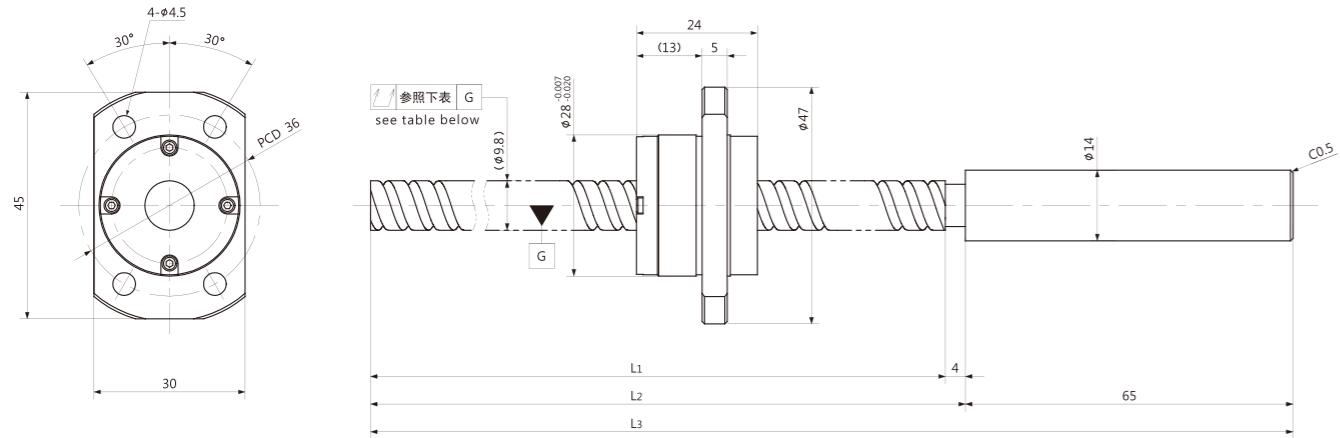
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1005A-196R265	160	C5	196	200	265	±0.020	0.018	0.055	~0.005	3000	5200
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1005A-356R425	320	C5	356	360	425	±0.025	0.018	0.080	~0.005	3000	5200
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1005A-600R669	560	C5	600	604	669	±0.027	0.018	0.090	~0.005	3000	5200
		Ct7				±0.104	0.052	0.150	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1010-196R265	170	C5	196	200	265	±0.020	0.018	0.055	~0.005	3300	5900
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1010-356R425	330	C5	356	360	425	±0.025	0.018	0.080	~0.005	3300	5900
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1010-600R669	570	C5	600	604	669	±0.027	0.018	0.090	~0.005	3300	5900
		Ct7				±0.104	0.052	0.150	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

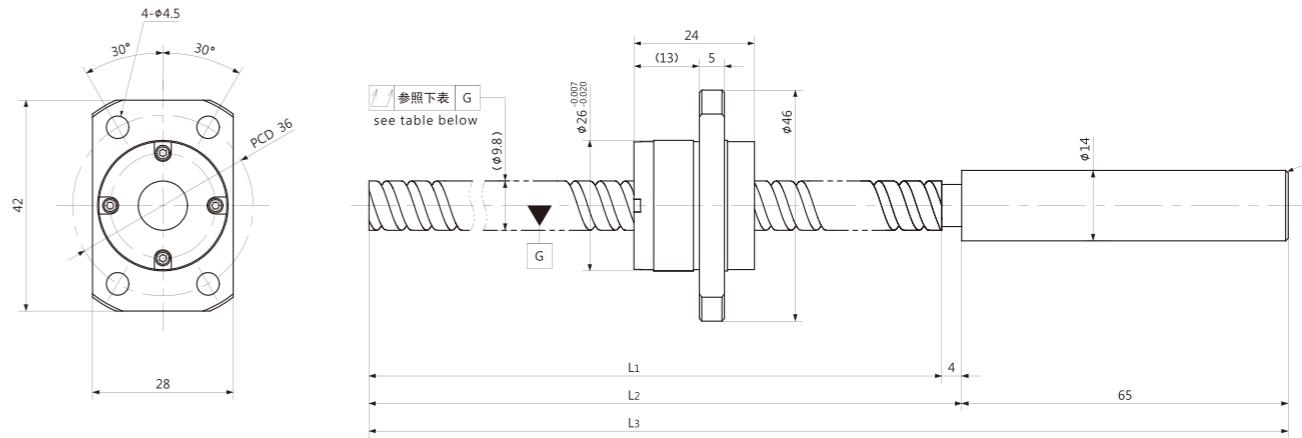
BSD1010T | Shaft dia.(轴径) $\phi 10$ Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.4		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD1010A | Shaft dia.(轴径) $\phi 10$ Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.4		
Number of circuit 循环数	1.6×2		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位):mm

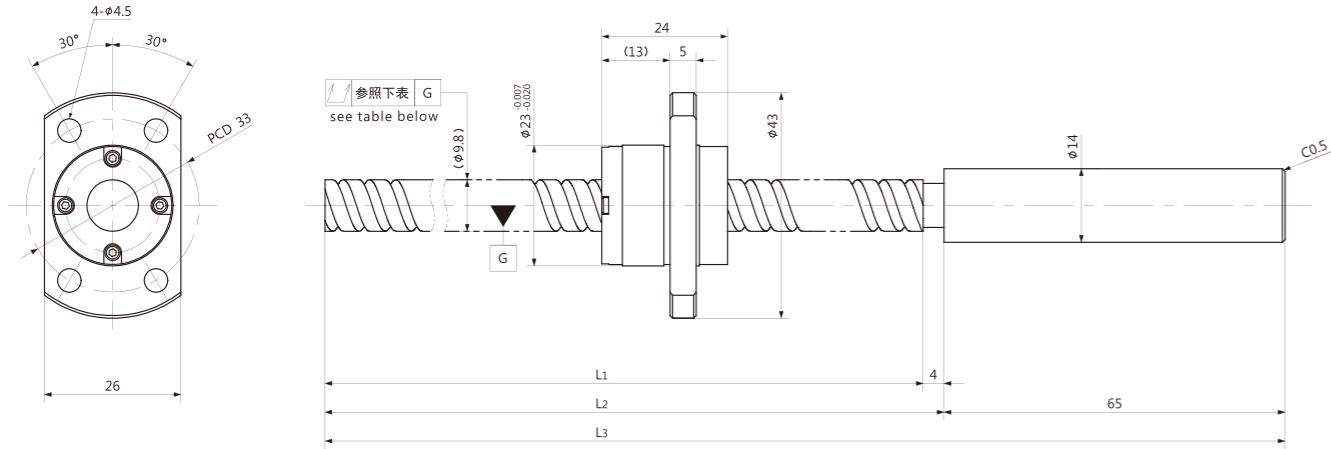
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1010T-196R265	170	C5	196	200	265	±0.020	0.018	0.055	~0.005	3300	5900
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1010T-356R425	330	C5	356	360	425	±0.025	0.018	0.080	~0.005	3300	5900
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1010T-600R669	570	C5	600	604	669	±0.027	0.018	0.090	~0.005	3300	5900
		Ct7				±0.104	0.052	0.150	~0.020		

Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1010A-196R265	170	C5	196	200	265	±0.020	0.018	0.055	~0.005	3300	5900
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1010A-356R425	330	C5	356	360	425	±0.025	0.018	0.080	~0.005	3300	5900
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1010A-600R669	570	C5	600	604	669	±0.027	0.018	0.090	~0.005	3300	5900
		Ct7				±0.104	0.052	0.150	~0.020		

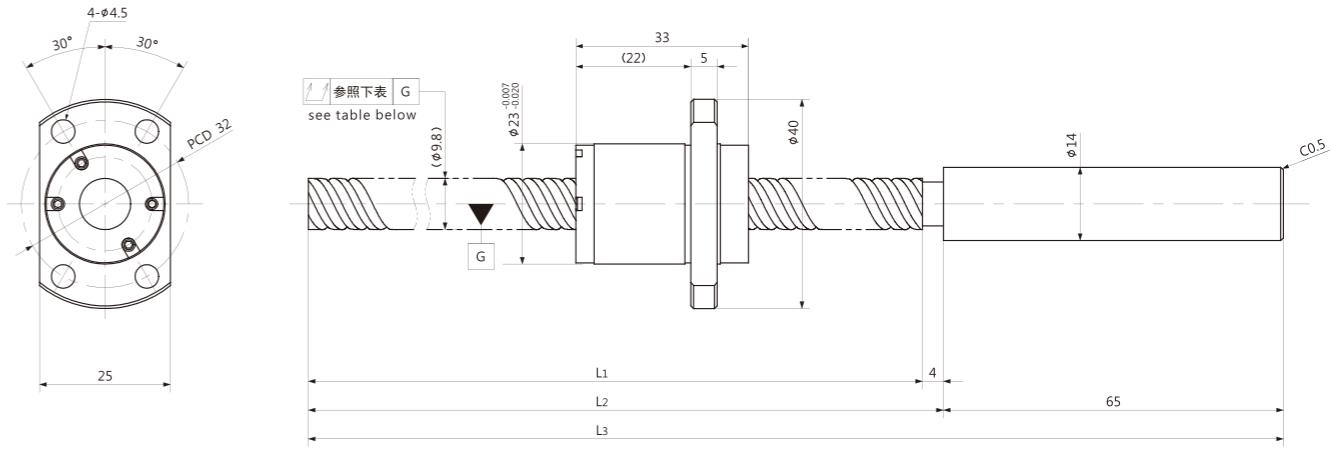
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

BSD1010P | Shaft dia.(轴径) $\phi 10$ Lead(导程) 10mm | C5&Ct7 |

Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.4		
Number of circuit 循环数	1.6×2		
Material 轴	S55C+SUS304		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD1015 | Shaft dia.(轴径) $\phi 10$ Lead(导程) 15mm | C5&Ct7 |

Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ8.4		
Number of circuit 循环数	1.6×2		
Material 轴	S55C+SUS304		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

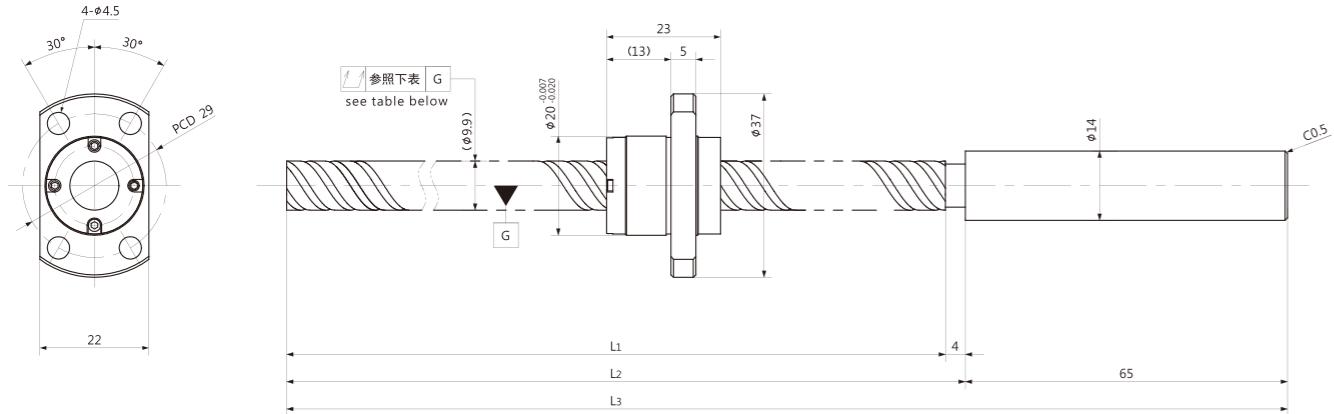
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1010P-196R265	170	C5	196	200	265	±0.020	0.018	0.055	~0.005	3300	5900
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1010P-356R425	330	C5	356	360	425	±0.025	0.018	0.080	~0.005	3300	5900
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1010P-600R669	570	C5	600	604	669	±0.027	0.018	0.090	~0.005	3300	5900
		Ct7				±0.104	0.052	0.150	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1015-196R265	160	C5	196	200	265	±0.020	0.018	0.055	~0.005	3300	6400
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1015-356R425	320	C5	356	360	425	±0.025	0.018	0.080	~0.005	3300	6400
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1015-600R669	560	C5	600	604	669	±0.027	0.018	0.090	~0.005	3300	6400
		Ct7				±0.104	0.052	0.150	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

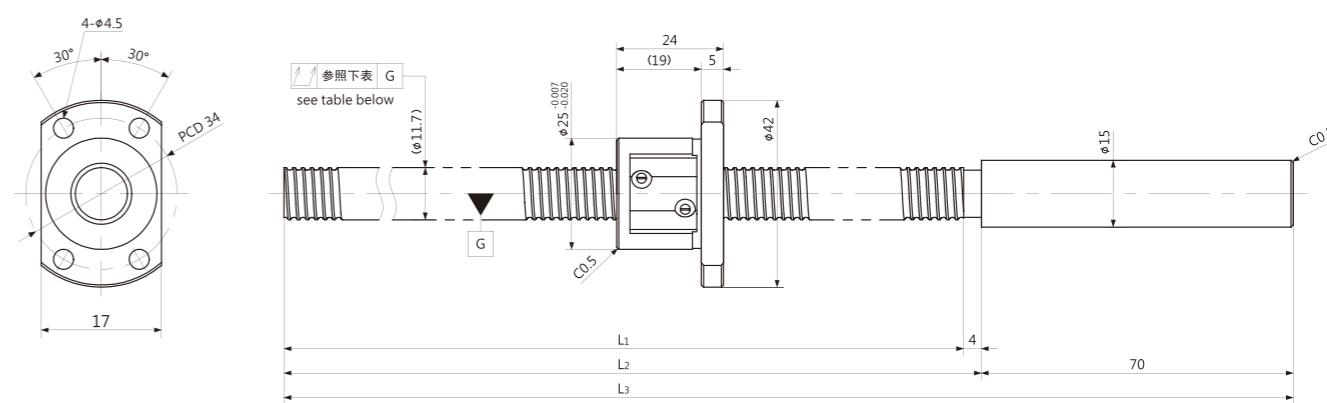
BSD1020 | Shaft dia.(轴径) $\phi 10$ Lead(导程)20mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ1.5875	
Number of thread 螺纹条数	4	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ8.7	
Number of circuit 循环数	0.7×4	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

BSD1202 | Shaft dia.(轴径) $\phi 12$ Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ1.5875	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ10.6	
Number of circuit 循环数	3.7×1	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

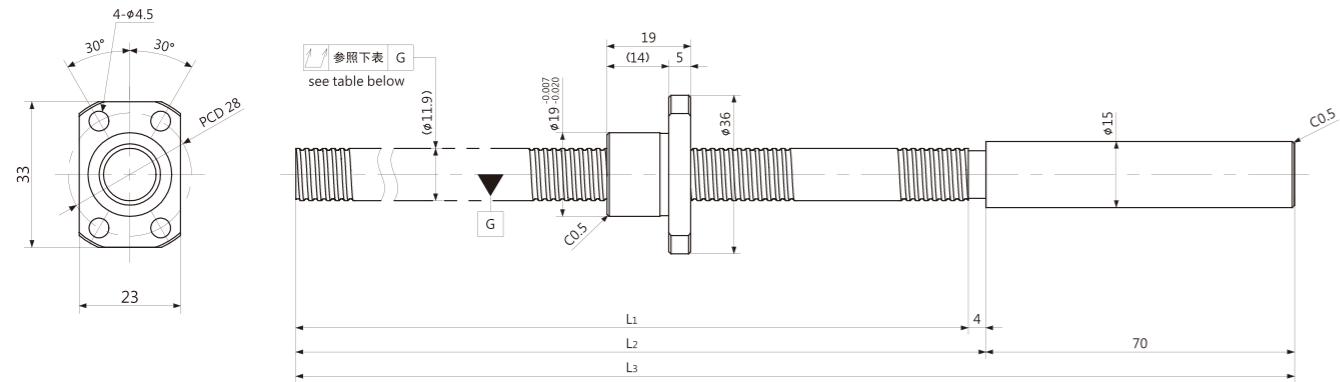
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差	Variation 波动			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
						±0.020	0.018			2100	4000
BSD1020-196R265	170	C5	196	200	265	±0.020	0.018	0.055	~0.005	2100	4000
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1020-356R425	330	C5	356	360	425	±0.025	0.018	0.080	~0.005	2100	4000
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1020-600R670	570	C5	600	604	670	±0.027	0.018	0.090	~0.005	2100	4000
		Ct7				±0.104	0.052	0.150	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差	Variation 波动			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
						±0.020	0.018			2100	4000
BSD1202-196R270	170	C5	196	200	270	±0.020	0.018	0.055	~0.005	3000	6400
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1202-356R410	330	C5	356	360	410	±0.025	0.018	0.080	~0.005	3000	6400
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1202-800R874	770	C5	800	804	874	±0.035	0.018	0.090	~0.020	3000	6400
		Ct7				±0.139	0.052	0.150	~0.005		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

BSD1202K | Shaft dia.(轴径) $\phi 12$ Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ11.0		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

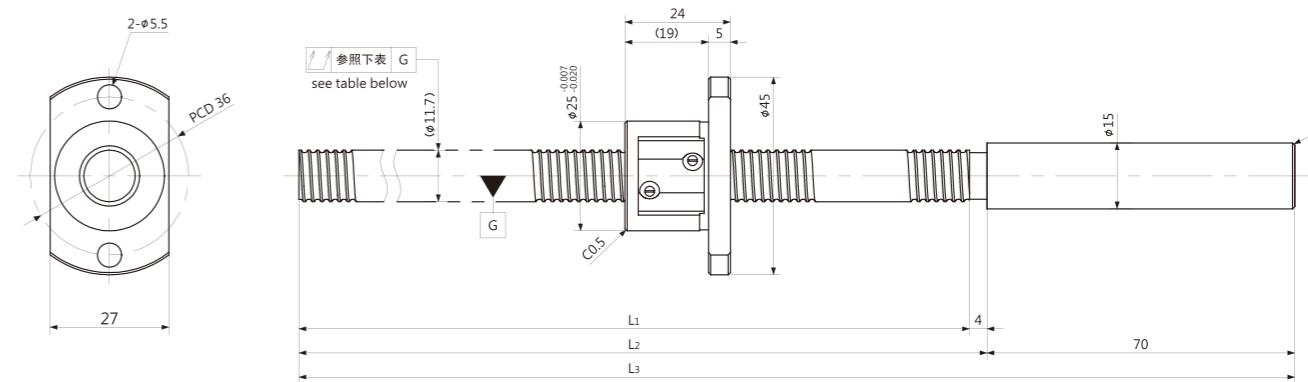
Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ10.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1202K-196R270	175	C5	196	200	270	±0.020	0.018	0.055	~0.005	1600	3700
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1202K-356R410	335	C5	356	360	410	±0.025	0.018	0.080	~0.005	1600	3700
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1202K-800R874	775	C5	800	804	874	±0.035	0.018	0.090	~0.020	1600	3700
		Ct7				±0.139	0.052	0.150	~0.005		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

BSD1202G | Shaft dia.(轴径) $\phi 12$ Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

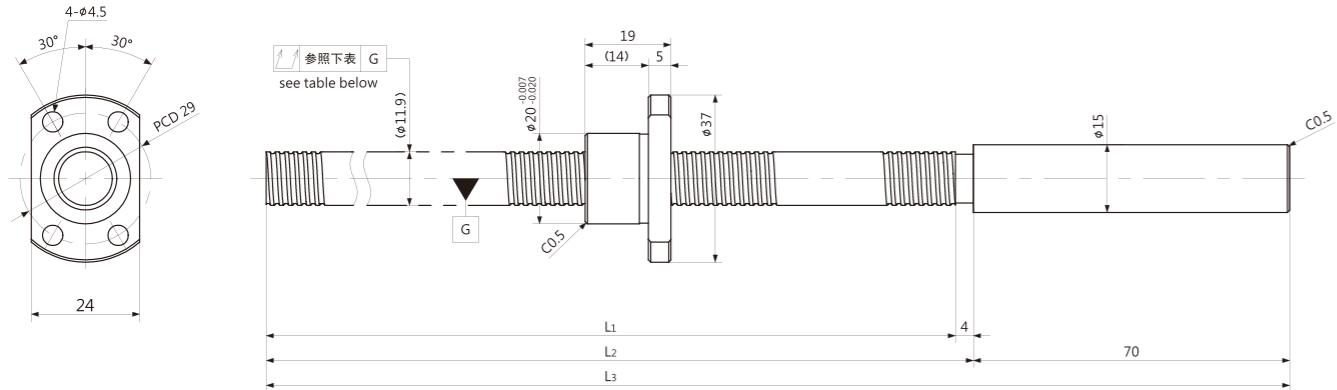
Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ10.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1202G-196R270	170	C5	196	200	270	±0.020	0.018	0.055	~0.005	1600	3700
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1202G-356R410	330	C5	356	360	410	±0.025	0.018	0.080	~0.005	1600	3700
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1202G-800R874	770	C5	800	804	874	±0.035	0.018	0.090	~0.020	1600	3700
		Ct7				±0.139	0.052	0.150	~0.005		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

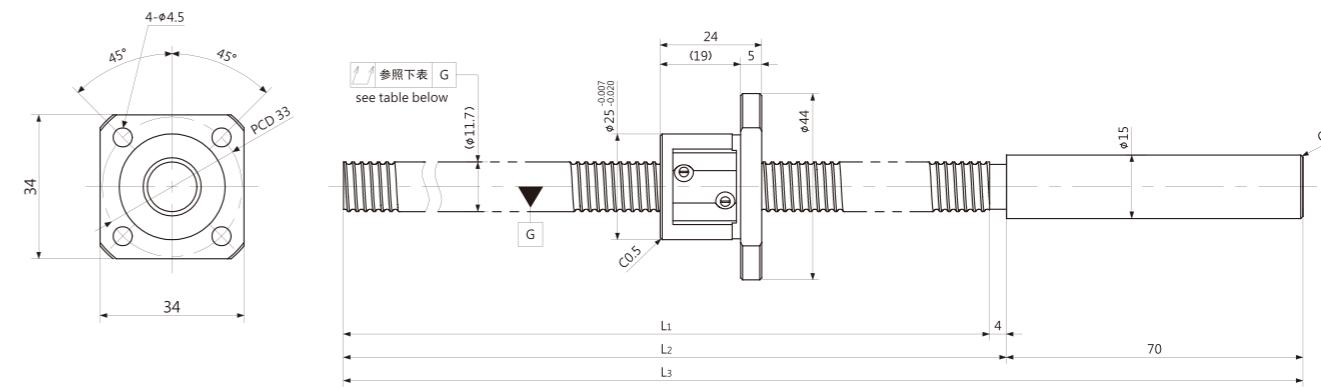
BSD1202T | Shaft dia.(轴径) $\phi 12$ Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ11.0		
Number of circuit 循环数	1×3		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD1202A | Shaft dia.(轴径) $\phi 12$ Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ10.6		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

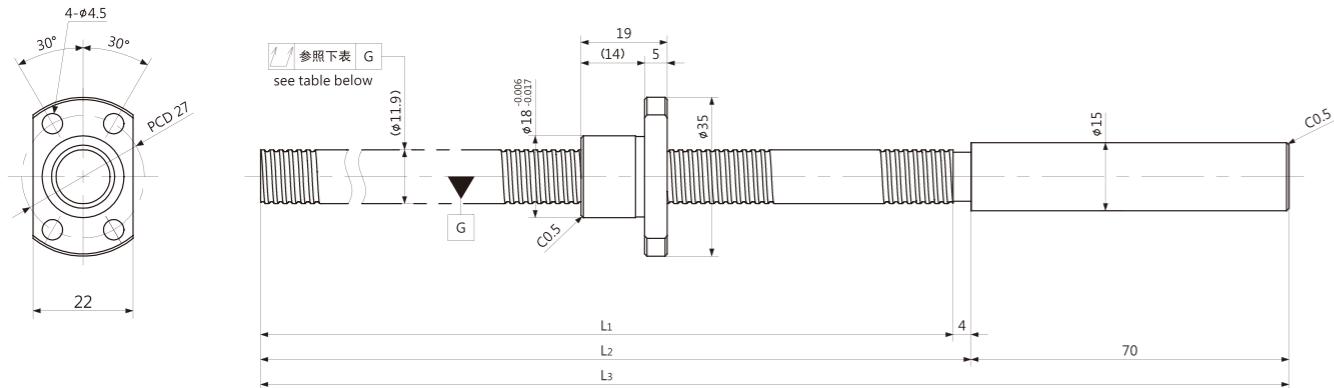
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N		
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀	Dynamic		Static		
										额定动负载 Ca	额定静负载 Coa	
BSD1202T-196R270	175	C5	196	200	270	±0.020	0.018	0.055	~0.005	1600	3700	
		Ct7				±0.034	0.052	0.080	~0.020			
BSD1202T-356R410	335	C5	356	360	410	±0.025	0.018	0.080	~0.005	1600	3700	
		Ct7				±0.062	0.052	0.120	~0.020			
BSD1202T-800R874	775	C5	800	804	874	±0.035	0.018	0.090	~0.020	1600	3700	
		Ct7				±0.139	0.052	0.150	~0.005			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N		
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀	Dynamic		Static		
										额定动负载 Ca	额定静负载 Coa	
BSD1202A-196R270	170	C5	196	200	270	±0.020	0.018	0.055	~0.005	3000	6400	
		Ct7				±0.034	0.052	0.080	~0.020			
BSD1202A-356R410	330	C5	356	360	410	±0.025	0.018	0.080	~0.005	3000	6400	
		Ct7				±0.062	0.052	0.120	~0.020			
BSD1202A-800R874	770	C5	800	804	874	±0.035	0.018	0.090	~0.020	3000	6400	
		Ct7				±0.139	0.052	0.150	~0.005			

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

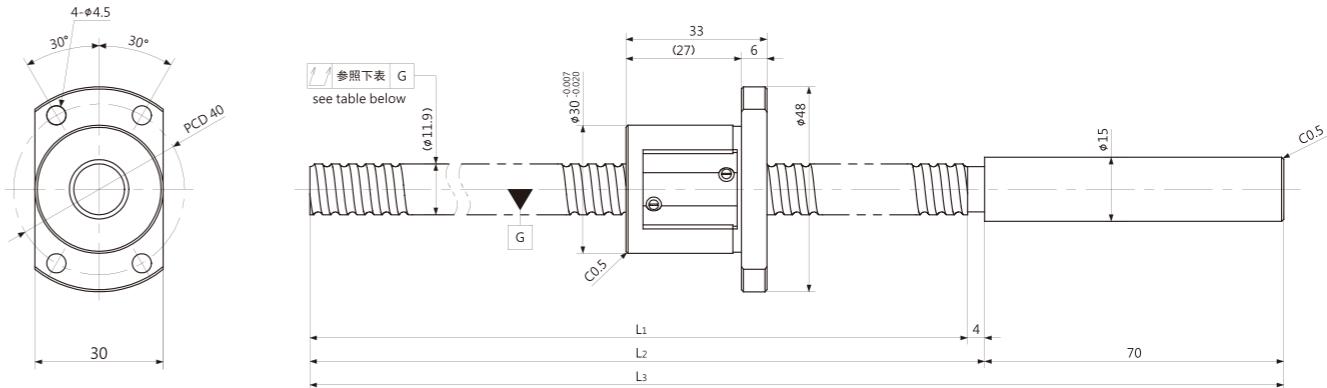
BSD1202D | Shaft dia.(轴径) $\phi 12$ Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size	钢珠直径	$\phi 1.2$	
Number of thread	螺纹条数	1	
Thread direction	螺纹旋向	Right 右旋	
Shaft root dia	丝杠轴底径	$\phi 11.0$	
Number of circuit	循环数	1×3	
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理		Anti-rust oil 防锈油	

BSD1204 | Shaft dia.(轴径) $\phi 12$ Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size	钢珠直径	$\phi 2.381$	
Number of thread	螺纹条数	1	
Thread direction	螺纹旋向	Right 右旋	
Shaft root dia	丝杠轴底径	$\phi 10.6$	
Number of circuit	循环数	3.7×1	
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理		Anti-rust oil 防锈油	

Unit(单位): mm

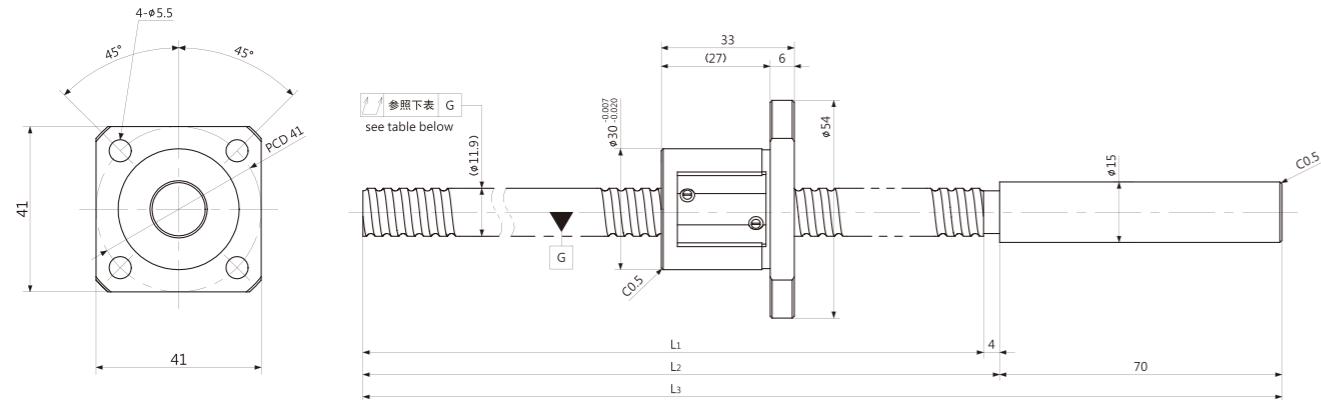
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1202D-196R270	175	C5	196	200	270	± 0.020	0.018	0.055	~ 0.005	1600	3700
		Ct7				± 0.034	0.052	0.080	~ 0.020		
BSD1202D-356R410	335	C5	356	360	410	± 0.025	0.018	0.080	~ 0.005	1600	3700
		Ct7				± 0.062	0.052	0.120	~ 0.020		
BSD1202D-800R874	775	C5	800	804	874	± 0.035	0.018	0.090	~ 0.020	1600	3700
		Ct7				± 0.139	0.052	0.150	~ 0.005		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1204-196R270	160	C5	196	200	270	± 0.020	0.018	0.055	~ 0.005	5700	11600
		Ct7				± 0.034	0.052	0.080	~ 0.020		
BSD1204-356R410	320	C5	356	360	410	± 0.025	0.018	0.080	~ 0.005	5700	11600
		Ct7				± 0.062	0.052	0.120	~ 0.020		
BSD1204-800R874	760	C5	800	804	874	± 0.035	0.018	0.090	~ 0.020	5700	11600
		Ct7				± 0.139	0.052	0.150	~ 0.005		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

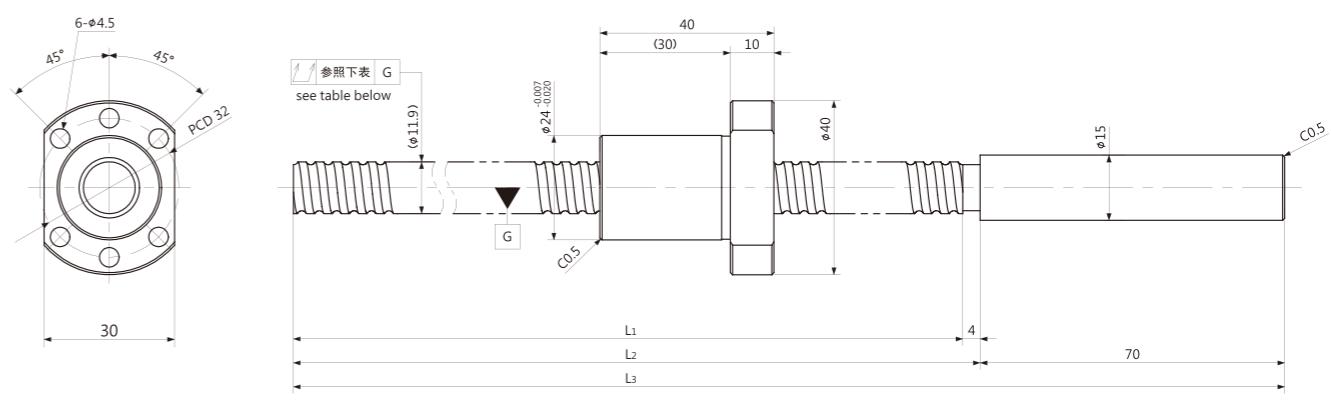
BSD1204G | Shaft dia.(轴径) $\phi 12$ Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ2.381	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ10.6	
Number of circuit 循环数	3.7×1	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

BSD1204T | Shaft dia.(轴径) $\phi 12$ Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ2.5	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ10.2	
Number of circuit 循环数	1×4	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit(单位):mm

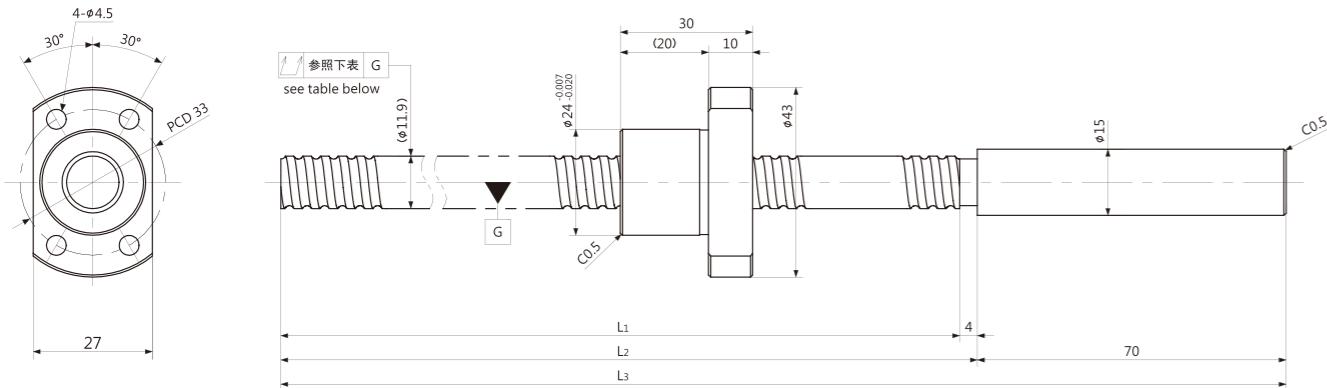
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1204G-196R270	160	C5	196	200	270	±0.020	0.018	0.055	~0.005	5700	11600
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1204G-356R410	320	C5	356	360	410	±0.025	0.018	0.080	~0.005	5700	11600
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1204G-800R874	760	C5	800	804	874	±0.035	0.018	0.090	~0.020	5700	11600
		Ct7				±0.139	0.052	0.150	~0.005		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1204T-196R270	150	C5	196	200	270	±0.020	0.018	0.055	~0.005	5900	12000
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1204T-356R410	310	C5	356	360	410	±0.025	0.018	0.080	~0.005	5900	12000
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1204T-800R874	755	C5	800	804	874	±0.035	0.018	0.090	~0.020	5900	12000
		Ct7				±0.139	0.052	0.150	~0.005		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

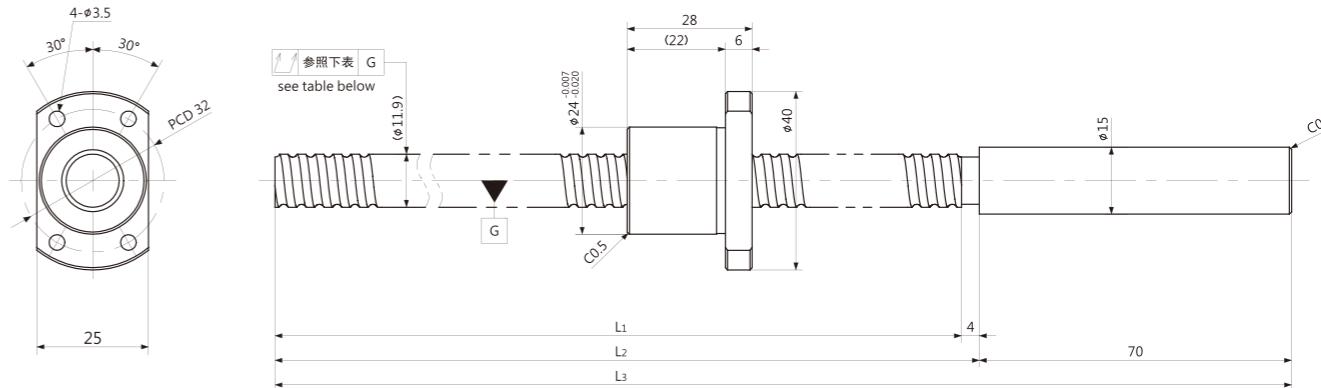
BSD1204A | Shaft dia.(轴径) φ 12 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ2.381	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ10.6	
Number of circuit 循环数	1×4	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

BSD1204D | Shaft dia.(轴径) φ 12 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ2.5	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ10.2	
Number of circuit 循环数	1×3	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit(单位):mm

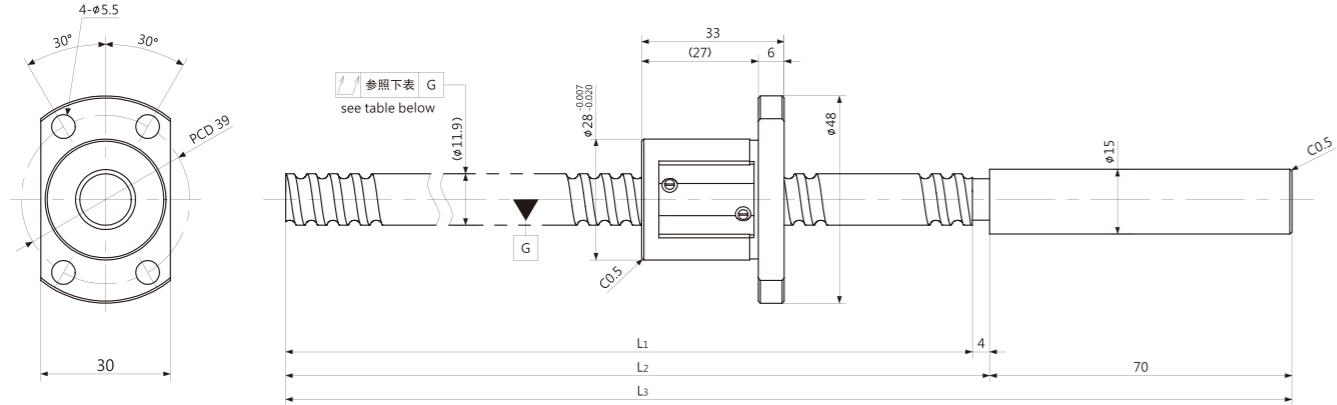
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1204A-196R270	160	C5	196	200	270	±0.020	0.018	0.055	~0.005	5900	11600
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1204A-356R410	320	C5	356	360	410	±0.025	0.018	0.080	~0.005	5900	11600
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1204A-800R874	765	C5	800	804	874	±0.035	0.018	0.090	~0.020	5900	11600
		Ct7				±0.139	0.052	0.150	~0.005		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1204D-196R270	165	C5	196	200	270	±0.020	0.018	0.055	~0.005	4600	9500
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1204D-356R410	325	C5	356	360	410	±0.025	0.018	0.080	~0.005	4600	9500
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1204D-800R874	770	C5	800	804	874	±0.035	0.018	0.090	~0.020	4600	9500
		Ct7				±0.139	0.052	0.150	~0.005		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

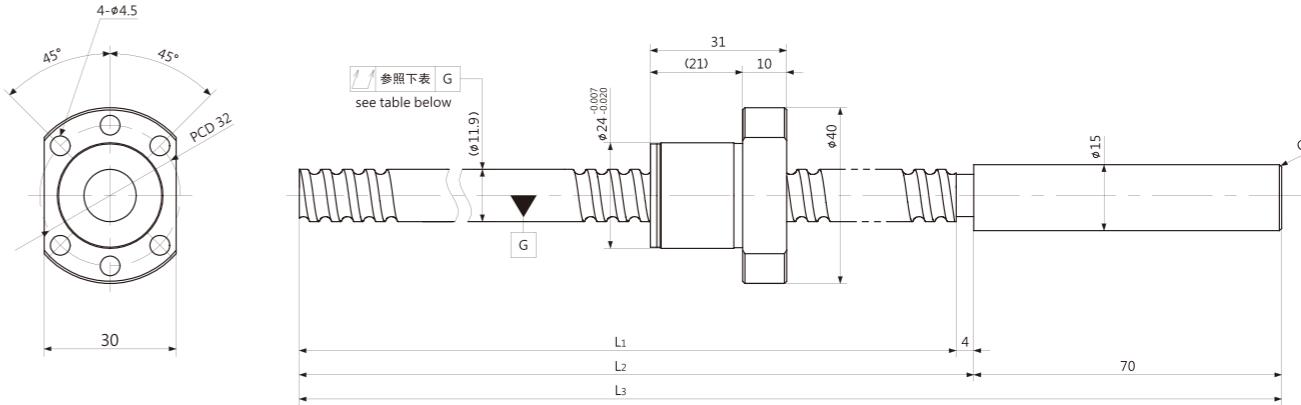
BSD1205 | Shaft dia.(轴径) $\phi 12$ Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	$\phi 3.175$		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	$\phi 9.6$		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD1205T | Shaft dia.(轴径) $\phi 12$ Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	$\phi 2.5$		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	$\phi 10.2$		
Number of circuit 循环数	2.8×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位):mm

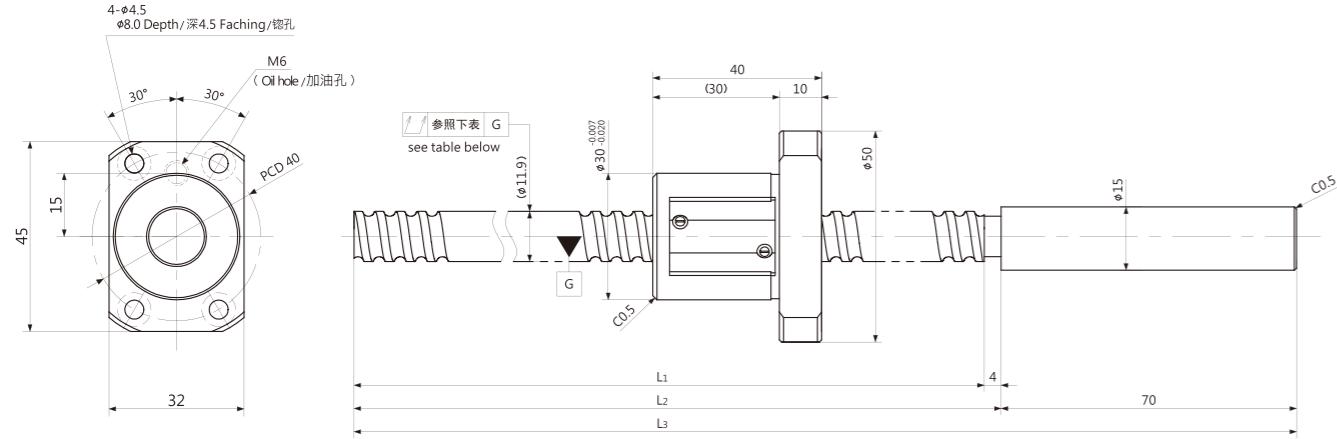
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1205-196R270	160	C5	196	200	270	±0.020	0.018	0.055	~0.005	6500	10600
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1205-356R410	320	C5	356	360	410	±0.025	0.018	0.080	~0.005	6500	10600
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1205-800R874	760	C5	800	804	874	±0.035	0.018	0.090	~0.020	6500	10600
		Ct7				±0.139	0.052	0.150	~0.005		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1205T-196R270	160	C5	196	200	270	±0.020	0.018	0.055	~0.005	3300	6700
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1205T-356R410	320	C5	356	360	410	±0.025	0.018	0.080	~0.005	3300	6700
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1205T-800R874	765	C5	800	804	874	±0.035	0.018	0.090	~0.020	3300	6700
		Ct7				±0.139	0.052	0.150	~0.005		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

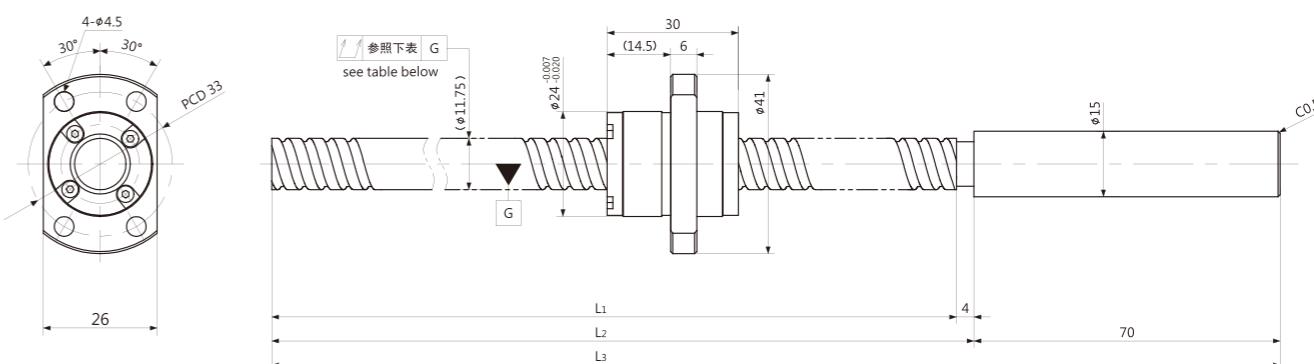
BSD1205A | Shaft dia.(轴径) $\phi 12$ Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	$\phi 3.175$		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	$\phi 9.6$		
Number of circuit 循环数	2.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD1210 | Shaft dia.(轴径) $\phi 12$ Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	$\phi 2.381$		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	$\phi 10.2$		
Number of circuit 循环数	1.7×2		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

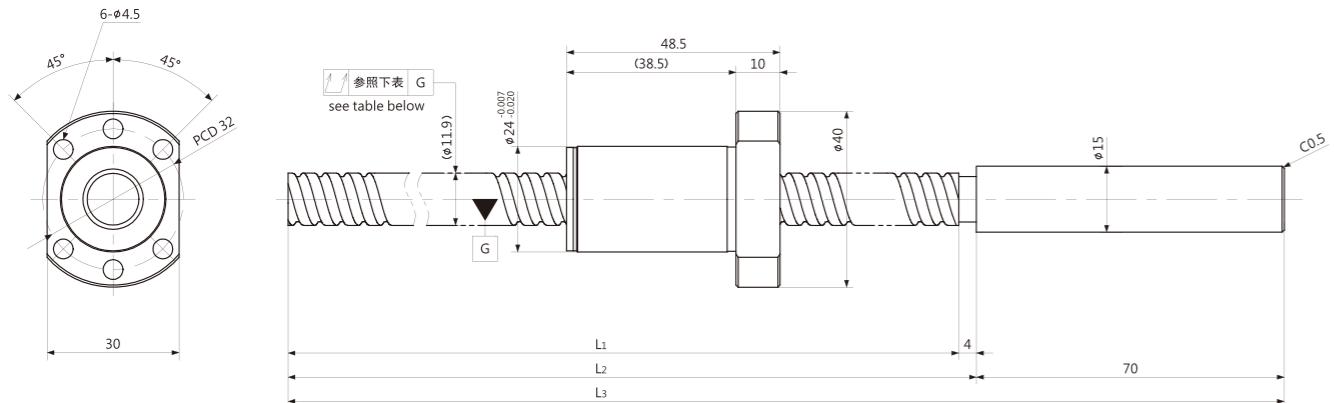
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1205A-196R270	150	C5	196	200	270	±0.020	0.018	0.055	~0.005	6500	10600
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1205A-356R410	310	C5	356	360	410	±0.025	0.018	0.080	~0.005	6500	10600
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1205A-800R874	755	C5	800	804	874	±0.035	0.018	0.090	~0.020	6500	10600
		Ct7				±0.139	0.052	0.150	~0.005		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1210-196R270	160	C5	196	200	270	±0.020	0.018	0.055	~0.005	5100	9800
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1210-356R410	320	C5	356	360	410	±0.025	0.018	0.080	~0.005	5100	9800
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1210-800R874	765	C5	800	804	874	±0.035	0.018	0.090	~0.020	5100	9800
		Ct7				±0.139	0.052	0.150	~0.005		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

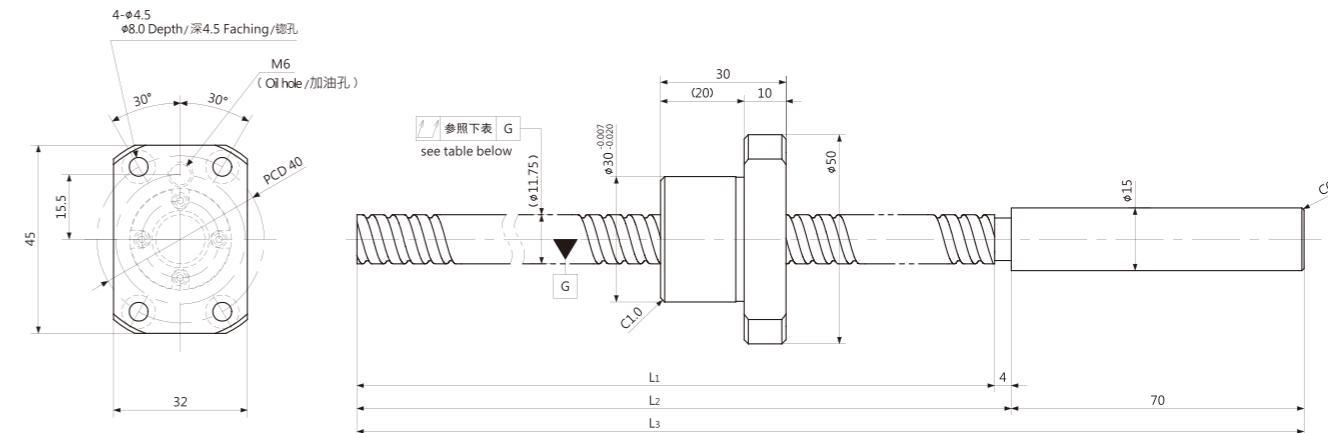
BSD1210T | Shaft dia.(轴径) φ 12 Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ2.5	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ10.2	
Number of circuit 循环数	2.8×1	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

BSD1210A | Shaft dia.(轴径) φ 12 Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ2.381	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ10.2	
Number of circuit 循环数	2.8×1	
Material 材质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

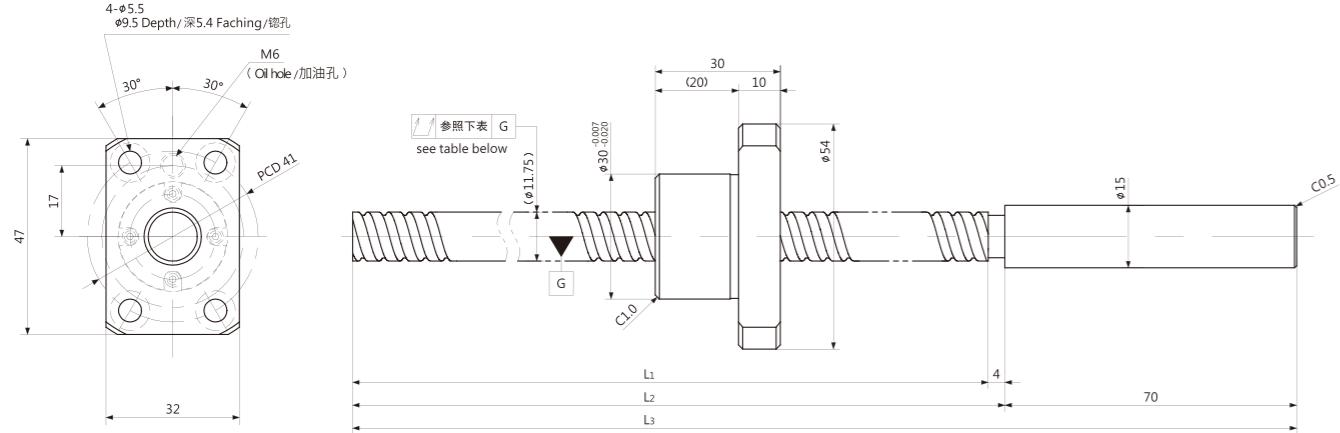
Unit(单位):mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1210T-196R270	145	C5	196	200	270	±0.020	0.018	0.055	~0.005	3300	6700
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1210T-356R410	305	C5	356	360	410	±0.025	0.018	0.080	~0.005	3300	6700
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1210T-800R874	750	C5	800	804	874	±0.035	0.018	0.090	~0.020	3300	6700
		Ct7				±0.139	0.052	0.150	~0.005		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

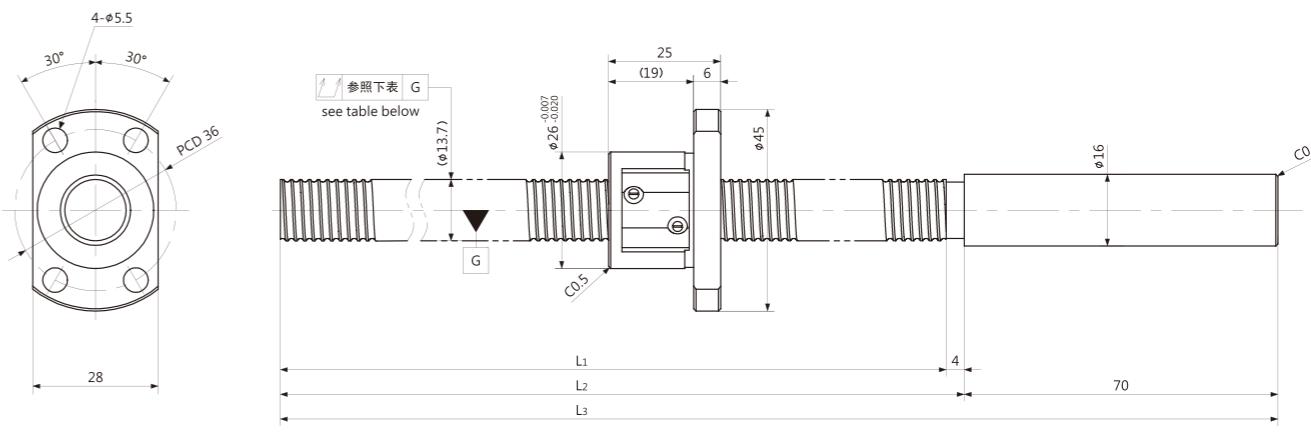
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1210A-196R270	160	C5	196	200	270	±0.020	0.018	0.055	~0.005	3300	6700
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1210A-356R410	320	C5	356	360	410	±0.025	0.018	0.080	~0.005	3300	6700
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1210A-800R874	765	C5	800	804	874	±0.035	0.018	0.090	~0.020	3300	6700
		Ct7				±0.139	0.052	0.150	~0.005		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

BSD1210D | Shaft dia.(轴径) $\phi 12$ Lead(导程) 10mm | C5&Ct7 |

Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	$\phi 2.381$		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	$\phi 10.2$		
Number of circuit 循环数	1.7×2		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD1402 | Shaft dia.(轴径) $\phi 14$ Lead(导程) 2mm | C5&Ct7 |

Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	$\phi 1.5875$		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	$\phi 12.6$		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

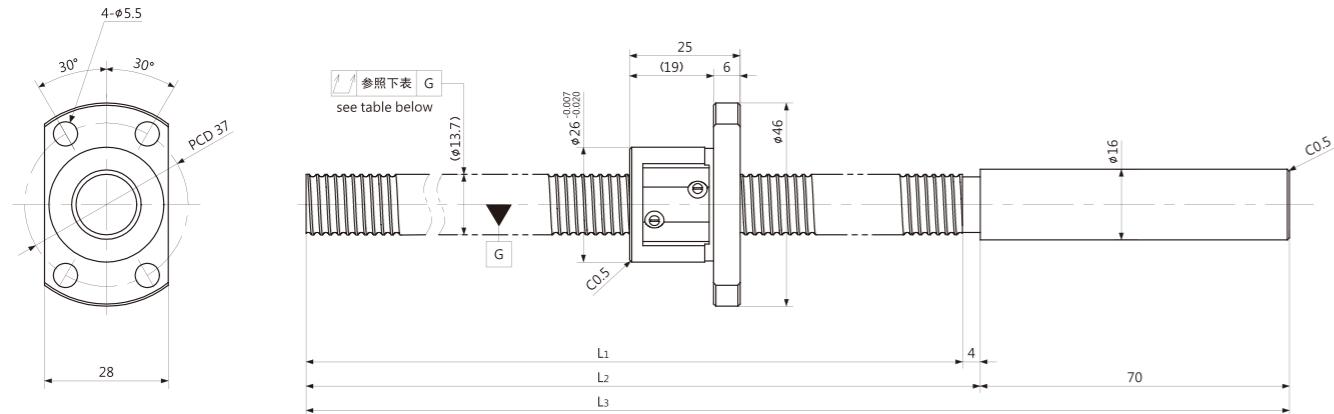
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1210D-196R270	160	C5	196	200	270	± 0.020	0.018	0.055	~ 0.005	5100	9800
		Ct7				± 0.034	0.052	0.080	~ 0.020		
BSD1210D-356R410	320	C5	356	360	410	± 0.025	0.018	0.080	~ 0.005	5100	9800
		Ct7				± 0.062	0.052	0.120	~ 0.020		
BSD1210D-800R874	765	C5	800	804	874	± 0.035	0.018	0.090	~ 0.020	5100	9800
		Ct7				± 0.139	0.052	0.150	~ 0.005		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1402-196R270	165	C5	196	200	270	± 0.020	0.018	0.055	~ 0.005	3200	5000
		Ct7				± 0.034	0.052	0.080	~ 0.020		
BSD1402-356R410	325	C5	356	360	410	± 0.025	0.018	0.080	~ 0.005	3200	5000
		Ct7				± 0.062	0.052	0.120	~ 0.020		
BSD1402-1200R1274	1170	C5	1200	1204	1274	± 0.040	0.018	0.120	~ 0.005	3200	5000
		Ct7				± 0.208	0.052	0.170	~ 0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

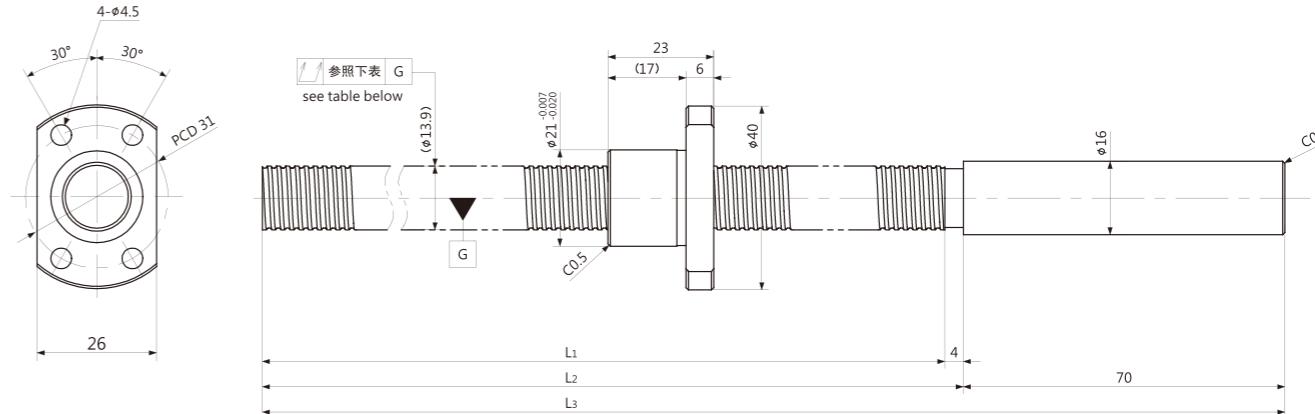
BSD1402G | Shaft dia.(轴径) ϕ 14 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ12.6		
Number of circuit 循环数	3.7×1		
Material 质材	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD1402T | Shaft dia.(轴径) ϕ 14 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ13.0		
Number of circuit 循环数	1×3		
Material 质材	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

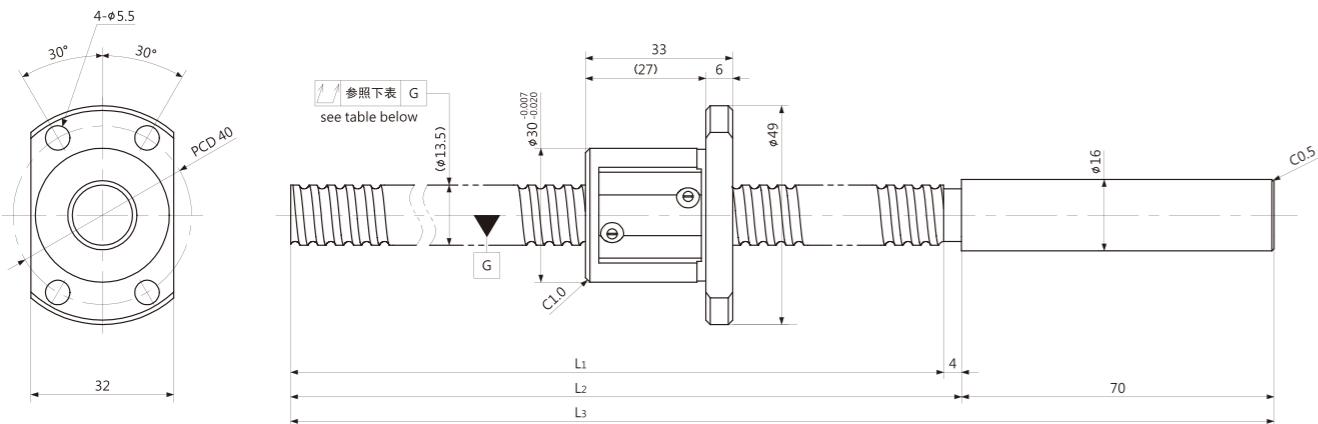
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1402G-196R270	165	C5	196	200	270	±0.020	0.018	0.055	~0.005	3200	7500
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1402G-356R410	325	C5	356	360	410	±0.025	0.018	0.080	~0.005	3200	7500
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1402G-1200R1274	1170	C5	1200	1204	1274	±0.040	0.018	0.120	~0.005	3200	7500
		Ct7				±0.208	0.052	0.170	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1402T-196R270	170	C5	196	200	270	±0.020	0.018	0.055	~0.005	1800	4300
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1402T-356R410	330	C5	356	360	410	±0.025	0.018	0.080	~0.005	1800	4300
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1402T-1200R1274	1170	C5	1200	1204	1274	±0.040	0.018	0.120	~0.005	1800	4300
		Ct7				±0.208	0.052	0.170	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

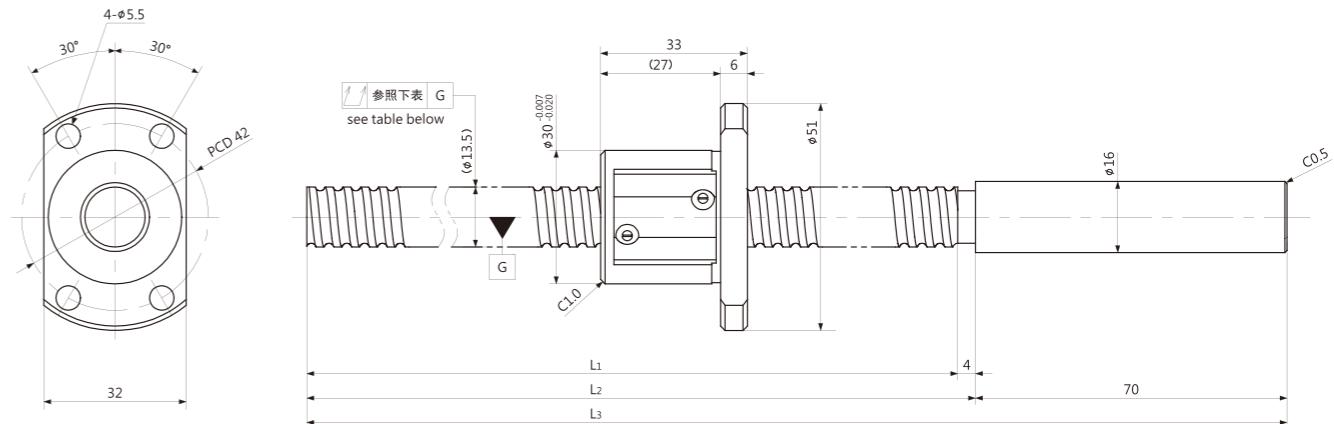
BSD1404 | Shaft dia.(轴径) ϕ 14 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.381		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ11.8		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

BSD1404G | Shaft dia.(轴径) ϕ 14 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.381		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		
Shaft root dia 丝杠轴底径	φ11.8		
Number of circuit 循环数	3.7×1		
Material 材质	Shaft 轴	S55C+SUS304	
	Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

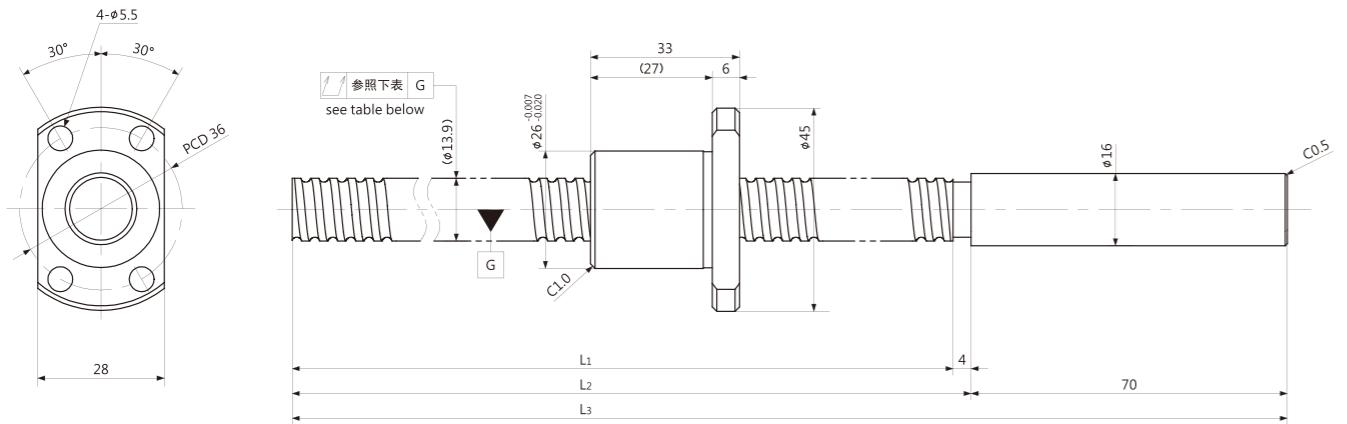
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1404-196R270	160	C5	196	200	270	±0.020	0.018	0.055	~0.005	5700	11600
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1404-356R410	320	C5	356	360	410	±0.025	0.018	0.080	~0.005	5700	11600
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1404-1200R1274	1160	C5	1200	1204	1274	±0.040	0.018	0.120	~0.005	5700	11600
		Ct7				±0.208	0.052	0.170	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
BSD1404G-196R270	160	C5	196	200	270	±0.020	0.018	0.055	~0.005	5700	11600
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1404G-356R410	320	C5	356	360	410	±0.025	0.018	0.080	~0.005	5700	11600
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1404G-1200R1274	1160	C5	1200	1204	1274	±0.040	0.018	0.120	~0.005	5700	11600
		Ct7				±0.208	0.052	0.170	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

BSD1404T | Shaft dia.(轴径) $\phi 14$ Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ2.381	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋	
Shaft root dia 丝杠轴底径	φ12.2	
Number of circuit 循环数	3×1	
Material 轴质	Shaft 轴	S55C+SUS304
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度			Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic Ca	Static Coa
BSD1404T-196R270	160	C5	196	200	270	±0.020	0.018	0.055	~0.005	4600	8600
		Ct7				±0.034	0.052	0.080	~0.020		
BSD1404T-356R410	320	C5	356	360	410	±0.025	0.018	0.080	~0.005	4600	8600
		Ct7				±0.062	0.052	0.120	~0.020		
BSD1404T-1200R1274	1160	C5	1200	1204	1274	±0.040	0.018	0.120	~0.005	4600	8600
		Ct7				±0.208	0.052	0.170	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

MEMO

标准滚珠丝杆

Standard ball screw

台阶型精密冷轧滚珠丝杆GT系列 (C5/Ct7)
GT series of Step type precision cold rolling ball screw(C5/Ct7)

标准滚珠丝杆标准库存品

● 公称型号的构成 Model number notation

GT 06 01 K — 200 R 200 Ct7
1 2 3 4 5 6 7 8

1 系列符号

GT: 台阶型精密冷轧滚珠丝杆GT系列

2 丝杆轴公称外径 (mm)

3 导程 (mm)

4 螺母类型

5 螺纹部长度 (mm)

6 螺纹旋向 (R=右旋)

7 丝杠轴总长 (mm)

8 精度等级 (C5/Ct7)

1 Series of symbols:

GT series of Step type precision
cold rolling ball screw

2 Nominal outer diameter of screw shaft (mm)

3 Lead (mm)

4 Nut type

5 Thread length (mm)

6 Thread direction (r = right)

7 Total length of screw shaft (mm)

8 Accuracy class (C5/Ct7)

● 精度等级和轴向间隙

GT系列 (精密冷轧滚珠丝杆标准库存品) 的精度等级有 JIS C5 / Ct7 两种。轴向间隙根据精度等级不同备有 0.005mm/0.02mm。

● Accuracy Class & Axial Clearance

GT series (standard stock of precision cold rolling ball screw) has two precision grades of jisc5/Ct7. The axial clearance is provided according to the accuracy level 0.005mm/0 .02mm.

● 材质和表面硬度

GT系列 (精密冷轧滚珠丝杆标准库存品) 的螺杆轴丝杆材料S55C (高频淬火) 、螺母材料SCM415H (渗碳淬火) , 滚珠丝杆部分的表面硬度为HRC58以上。

● Material & Surface Hardness

GT series (standard stock of precision cold rolling ball screw) screw shaft screw material S55C (high frequency quenching), nut material scm415h (carburizing quenching), the surface hardness of the ball screw part is above hrc58.

● 润滑

精密冷轧滚珠丝杠全螺纹加工型库存用防锈油做好了防锈处理。防锈油无润滑作用，使用时请另行涂布润滑脂。

● Lubrication

Precision cold rolling ball screw full thread processing type inventory with antirust oil to do a good job in antirust treatment. Antirust oil has no lubricating effect. Please apply lubricating grease separately when using.

● 轴端形状

GT系列 (精密冷轧滚珠丝杆标准库存品) 的轴端形状为进行标准化。

● Shaft End Shape

The shaft end shape of GT series (standard stock of precision cold rolling ball screw) is standardized.

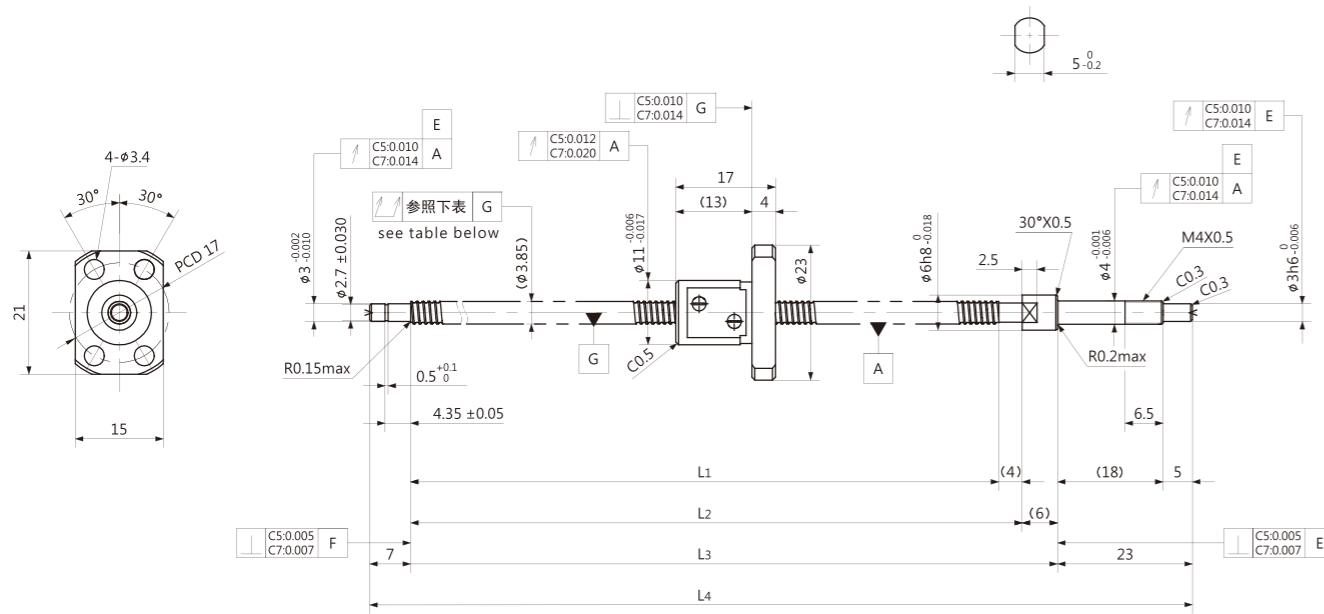
● 交货期快

轴端加工完成的GT系列已经标准化，常年备有库存、交货及时。丝杆和螺母，可以单独订货。

● Fast Delivery Time

The GT series processed at the shaft end has been standardized, and has been kept in stock and delivered in time all the year round. Screw rod and nut can be ordered separately.

GT0401 | Shaft dia.(轴径) $\phi 4$ Lead(导程) 1mm | C5&Ct7 |



Unit (单位): mm

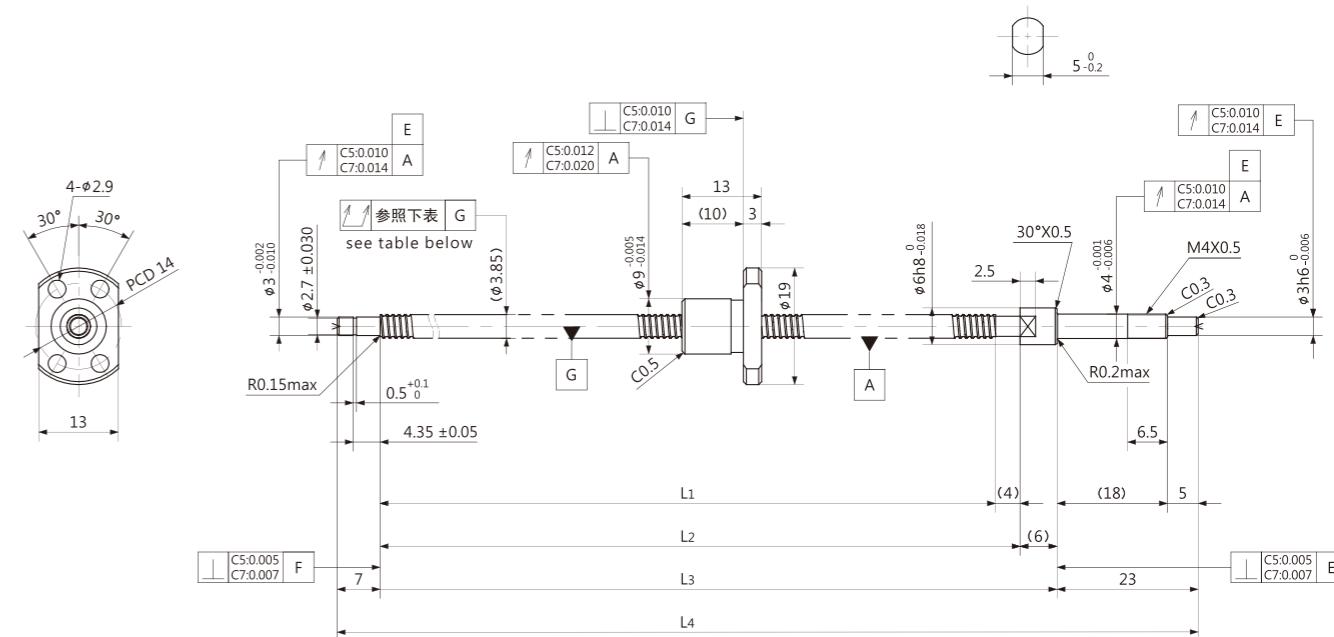
Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ0.8	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ3.3		
Number of circuit 循环数	3.7×1	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0401-44R84	20	C5	44	48	54	84	±0.018	0.018	0.035	~0.005	560	790
		Ct7					±0.050	0.052	0.060	~0.020		
GT0401-64R104	40	C5	64	68	74	104	±0.018	0.018	0.035	~0.005	560	790
		Ct7					±0.050	0.052	0.060	~0.020		
GT0401-94R134	70	C5	94	98	104	134	±0.018	0.018	0.050	~0.005	560	790
		Ct7					±0.050	0.052	0.075	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GT0401K | Shaft dia.(轴径) $\phi 4$ Lead(导程) 1mm | C5&Ct7 |



Unit (单位): mm

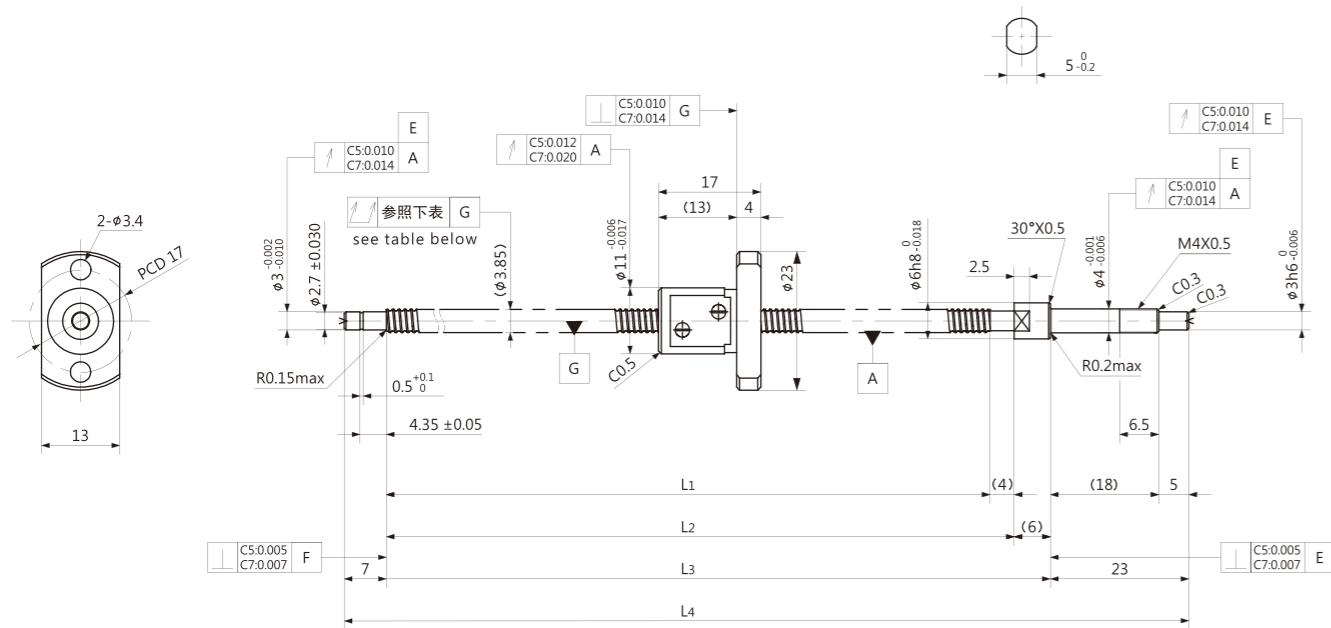
Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ0.8	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ3.3		
Number of circuit 循环数	3.7×1	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0401K-44R84	20	C5	44	48	54	84	±0.018	0.018	0.035	~0.005	560	790
		Ct7					±0.050	0.052	0.060	~0.020		
GT0401K-64R104	40	C5	64	68	74	104	±0.018	0.018	0.035	~0.005	560	790
		Ct7					±0.050	0.052	0.060	~0.020		
GT0401K-94R134	70	C5	94	98	104	134	±0.018	0.018	0.050	~0.005	560	790
		Ct7					±0.050	0.052	0.075	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

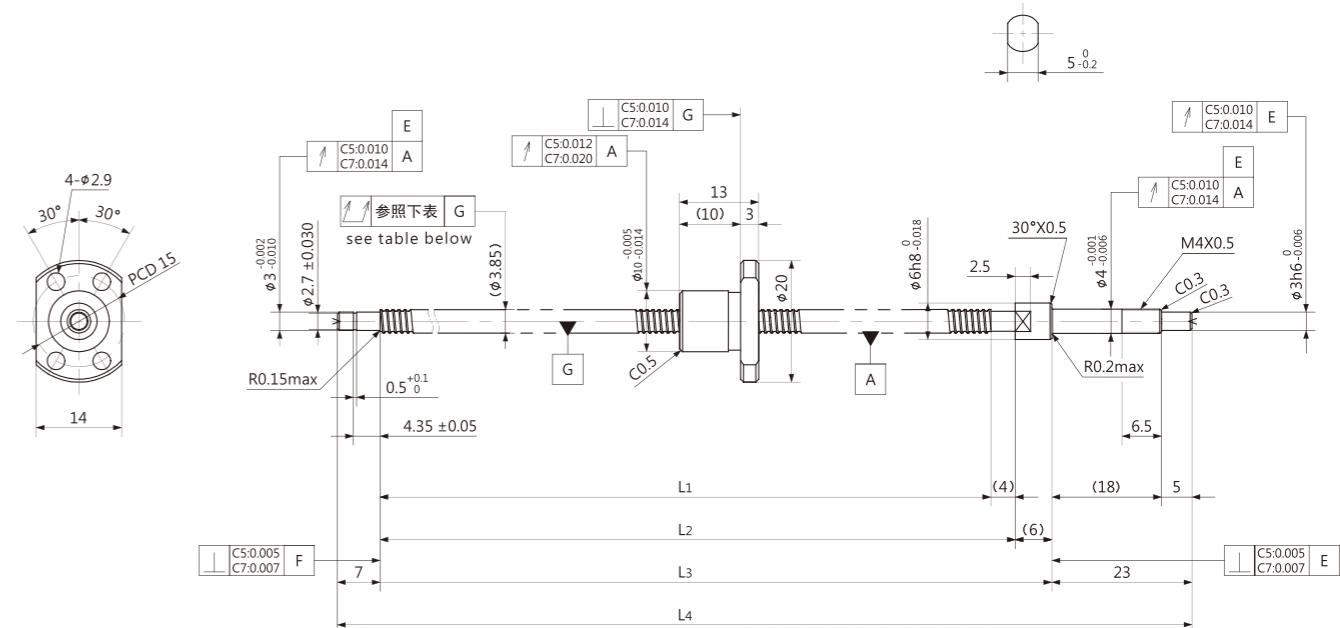
GT0401G | Shaft dia.(轴径) φ 4 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ0.8	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ3.3		
Number of circuit 循环数	3.7×1	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT0401T | Shaft dia.(轴径) φ 4 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ0.8	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ3.3		
Number of circuit 循环数	1×3	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

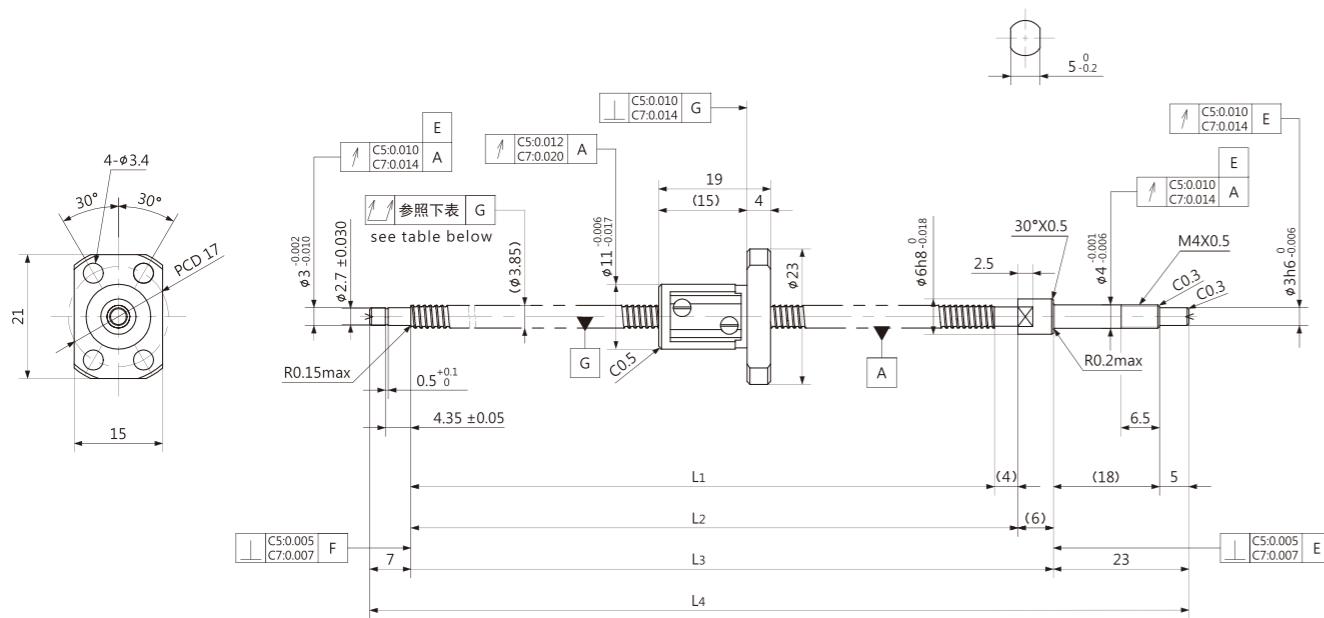
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
							e _p	V ₃₀₀				
GT0401G-44R84	20	C5	44	48	54	84	±0.018	0.018	0.035	~0.005	560	790
		Ct7					±0.050	0.052	0.060	~0.020		
GT0401G-64R104	40	C5	64	68	74	104	±0.018	0.018	0.035	~0.005	560	790
		Ct7					±0.050	0.052	0.060	~0.020		
GT0401G-94R134	70	C5	94	98	104	134	±0.018	0.018	0.050	~0.005	560	790
		Ct7					±0.050	0.052	0.075	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
							e _p	V ₃₀₀				
GT0401T-44R84	20	C5	44	48	54	84	±0.018	0.018	0.035	~0.005	420	570
		Ct7					±0.050	0.052	0.060	~0.020		
GT0401T-64R104	40	C5	64	68	74	104	±0.018	0.018	0.035	~0.005	420	570
		Ct7					±0.050	0.052	0.060	~0.020		
GT0401T-94R134	70	C5	94	98	104	134	±0.018	0.018	0.050	~0.005	420	570
		Ct7					±0.050	0.052	0.075	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

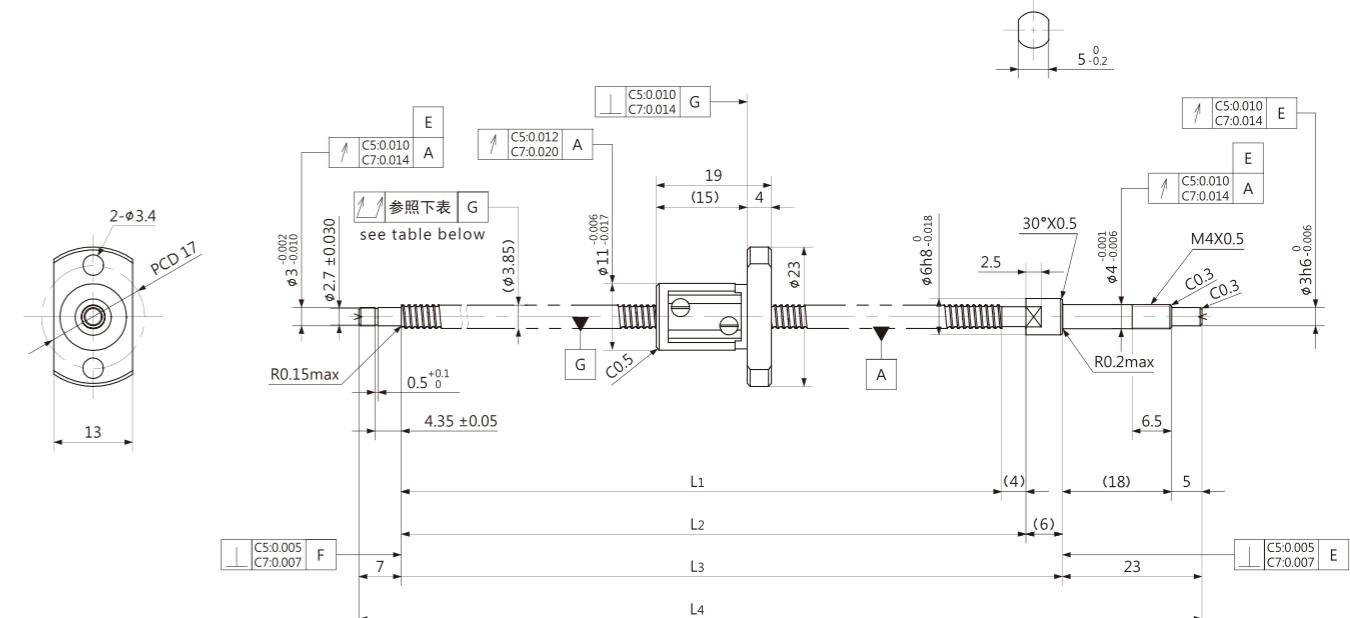
GT0402 | Shaft dia.(轴径) ϕ 4 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ0.8	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ3.3		
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT0402G | Shaft dia.(轴径) ϕ 4 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ0.8	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ3.3		
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

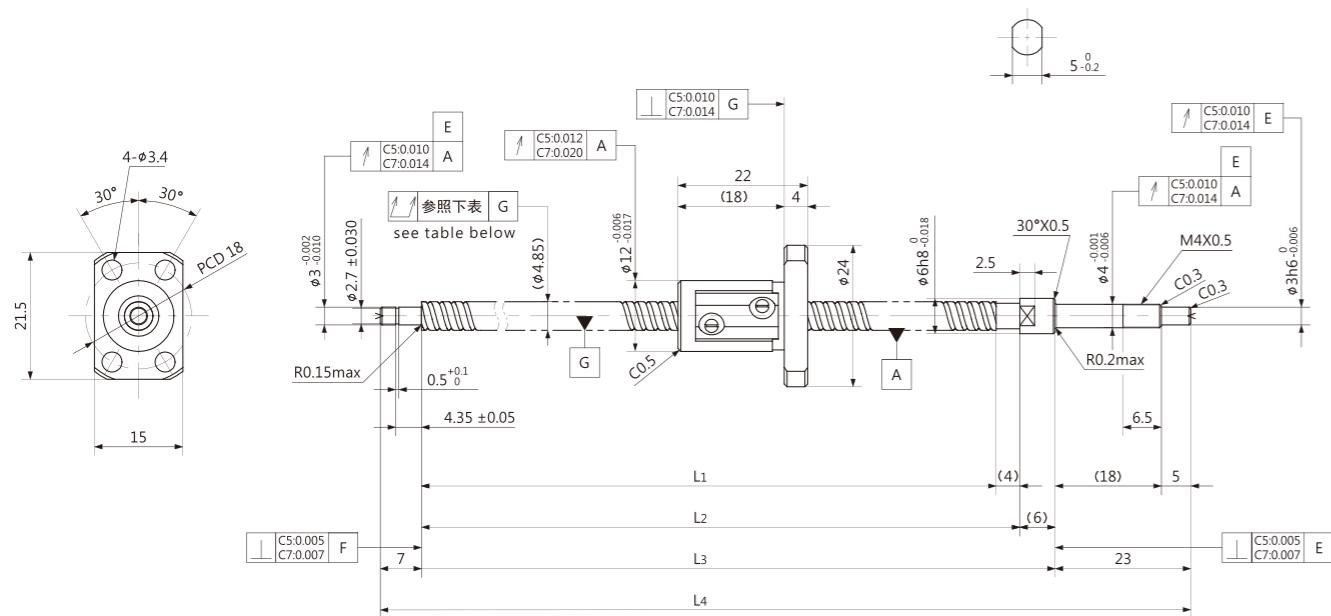
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
							e _p	V ₃₀₀				
GT0402-44R84	20	C5	44	48	54	84	±0.018	0.018	0.035	~0.005	420	570
		Ct7					±0.050	0.052	0.060	~0.020		
GT0402-64R104	40	C5	64	68	74	104	±0.018	0.018	0.035	~0.005	420	570
		Ct7					±0.050	0.052	0.060	~0.020		
GT0402-94R134	70	C5	94	98	104	134	±0.018	0.018	0.050	~0.005	420	570
		Ct7					±0.050	0.052	0.075	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
							e _p	V ₃₀₀				
GT0402G-44R84	20	C5	44	48	54	84	±0.018	0.018	0.035	~0.005	420	570
		Ct7					±0.050	0.052	0.060	~0.020		
GT0402G-64R104	40	C5	64	68	74	104	±0.018	0.018	0.035	~0.005	420	570
		Ct7					±0.050	0.052	0.060	~0.020		
GT0402G-94R134	70	C5	94	98	104	134	±0.018	0.018	0.050	~0.005	420	570
		Ct7					±0.050	0.052	0.075	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

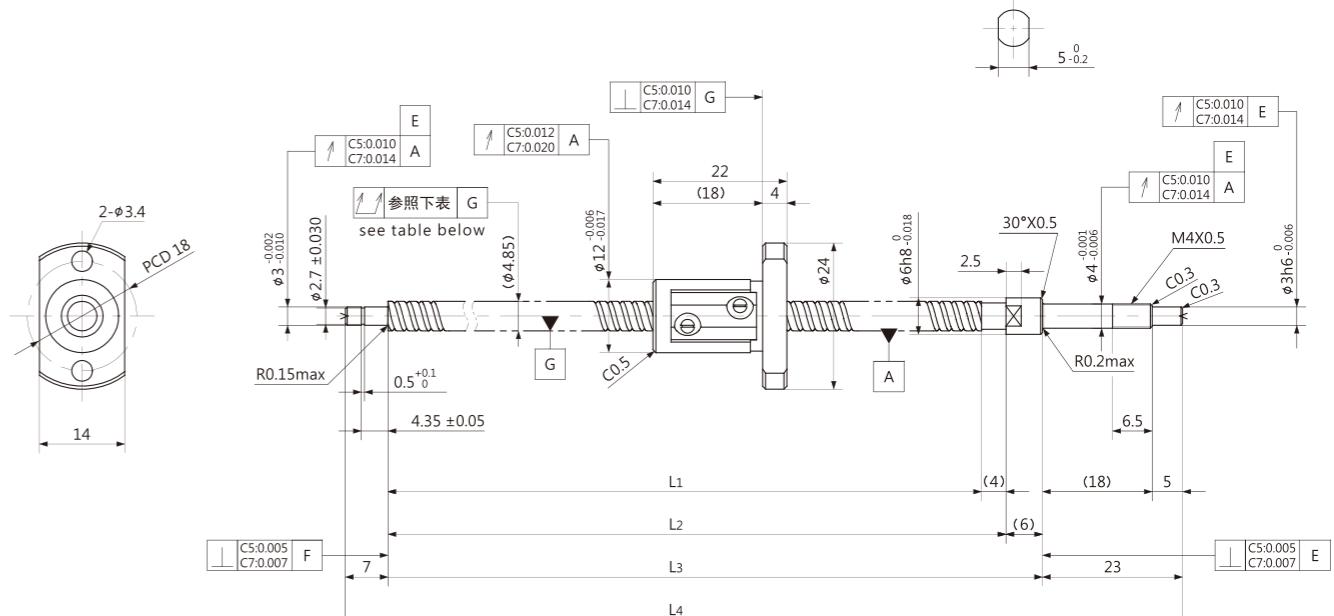
GT0504 | Shaft dia.(轴径) ϕ 5 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ0.8	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ4.3		
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT0504G | Shaft dia.(轴径) ϕ 5 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ0.8	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ4.3		
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

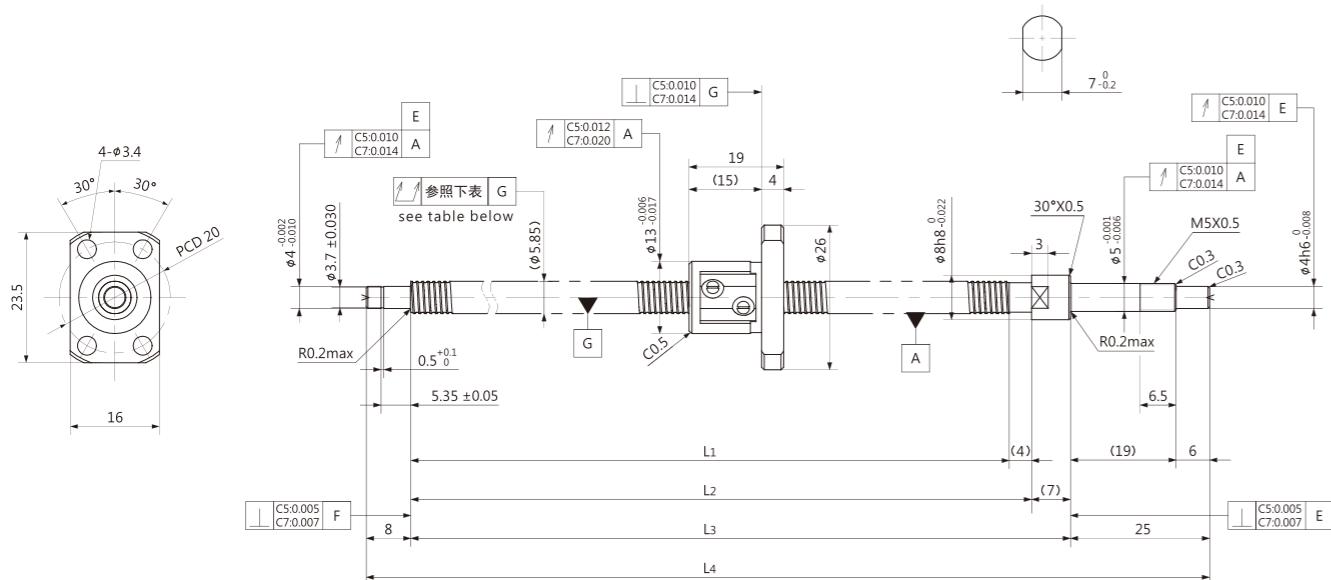
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0504-44R84	20	C5	44	48	54	84	±0.018	0.018	0.035	~0.005	470	720
		Ct7					±0.050	0.052	0.060	~0.020		
GT0504-64R104	40	C5	64	68	74	104	±0.018	0.018	0.035	~0.005	470	720
		Ct7					±0.050	0.052	0.060	~0.020		
GT0504-94R134	70	C5	94	98	104	134	±0.018	0.018	0.050	~0.005	470	720
		Ct7					±0.050	0.052	0.075	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0504G-44R84	20	C5	44	48	54	84	±0.018	0.018	0.035	~0.005	470	720
		Ct7					±0.050	0.052	0.060	~0.020		
GT0504G-64R104	40	C5	64	68	74	104	±0.018	0.018	0.035	~0.005	470	720
		Ct7					±0.050	0.052	0.060	~0.020		
GT0504G-94R134	70	C5	94	98	104	134	±0.018	0.018	0.050	~0.005	470	720
		Ct7					±0.050	0.052	0.075	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

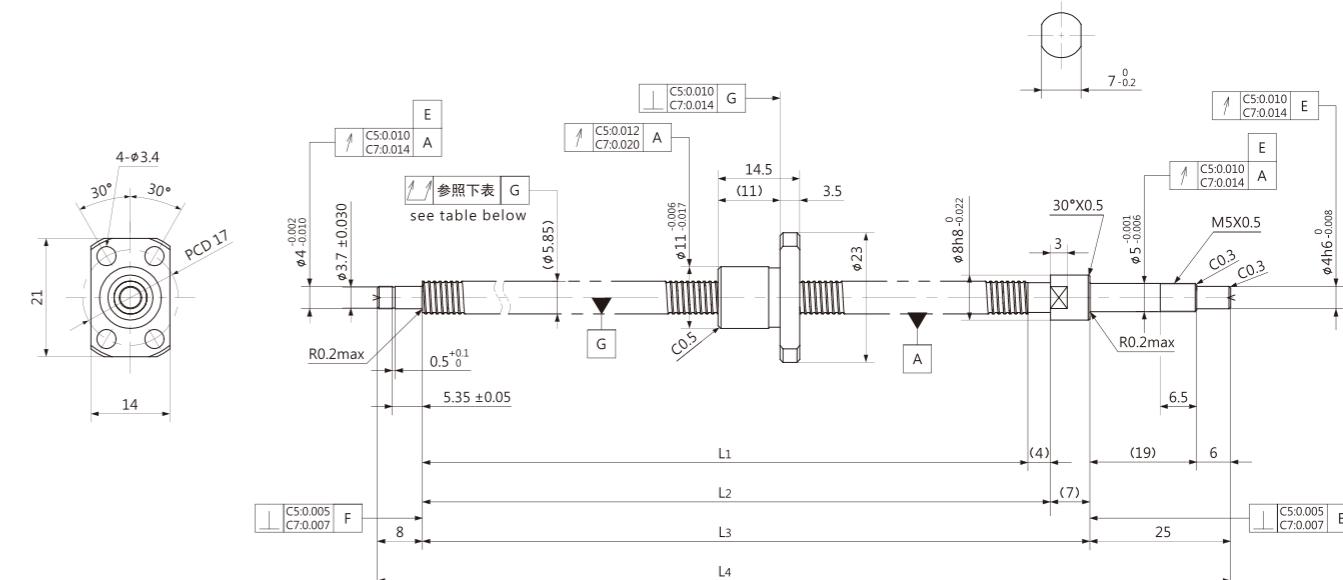
GT0601 | Shaft dia.(轴径) φ 6 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ0.8	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ5.3		
Number of circuit 循环数	3.7×1	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT0601K | Shaft dia.(轴径) φ 6 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ0.8	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ5.3		
Number of circuit 循环数	1×3	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

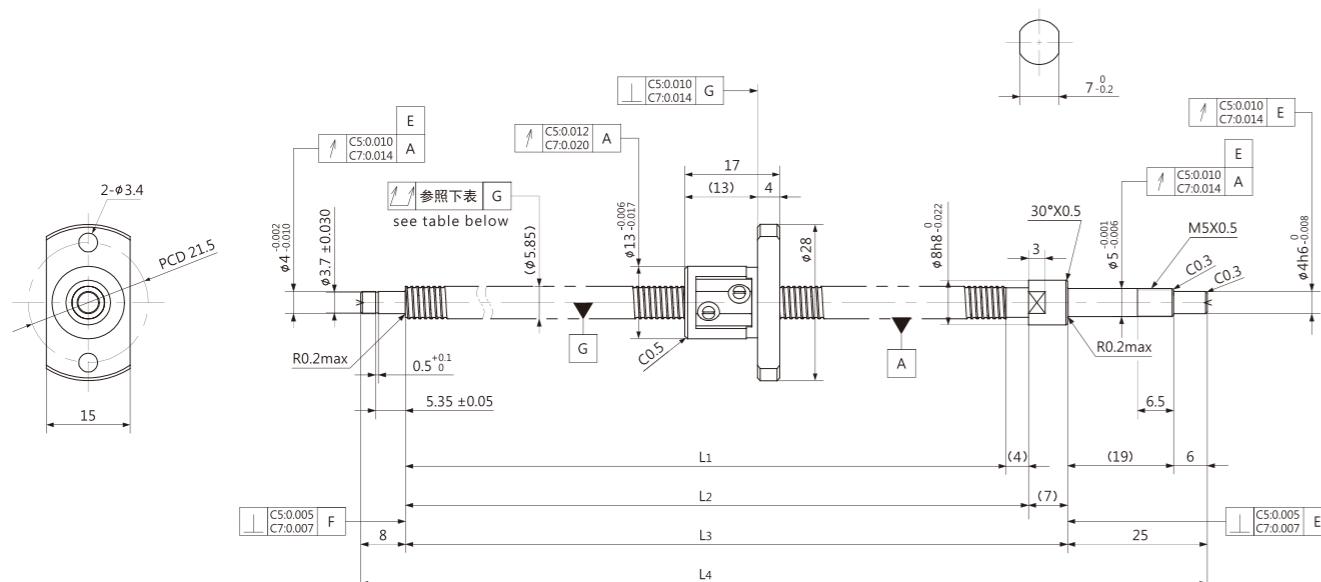
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
							e _p	V ₃₀₀				
GT0601-64R108	40	C5	64	68	75	108	±0.018	0.018	0.035	~0.005	680	1200
		Ct7					±0.050	0.052	0.060	~0.020		
GT0601-94R138	70	C5	94	98	105	138	±0.018	0.018	0.050	~0.005	680	1200
		Ct7					±0.050	0.052	0.075	~0.020		
GT0601-124R168	100	C5	124	128	135	168	±0.020	0.018	0.050	~0.005	680	1200
		Ct7					±0.022	0.052	0.075	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
							e _p	V ₃₀₀				
GT0601K-64R108	40	C5	64	68	75	108	±0.018	0.018	0.035	~0.005	560	950
		Ct7					±0.050	0.052	0.060	~0.020		
GT0601K-94R138	70	C5	94	98	105	138	±0.018	0.018	0.050	~0.005	560	950
		Ct7					±0.050	0.052	0.075	~0.020		
GT0601K-124R168	100	C5	124	128	135	168	±0.020	0.018	0.050	~0.005	560	950
		Ct7					±0.022	0.052	0.075	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

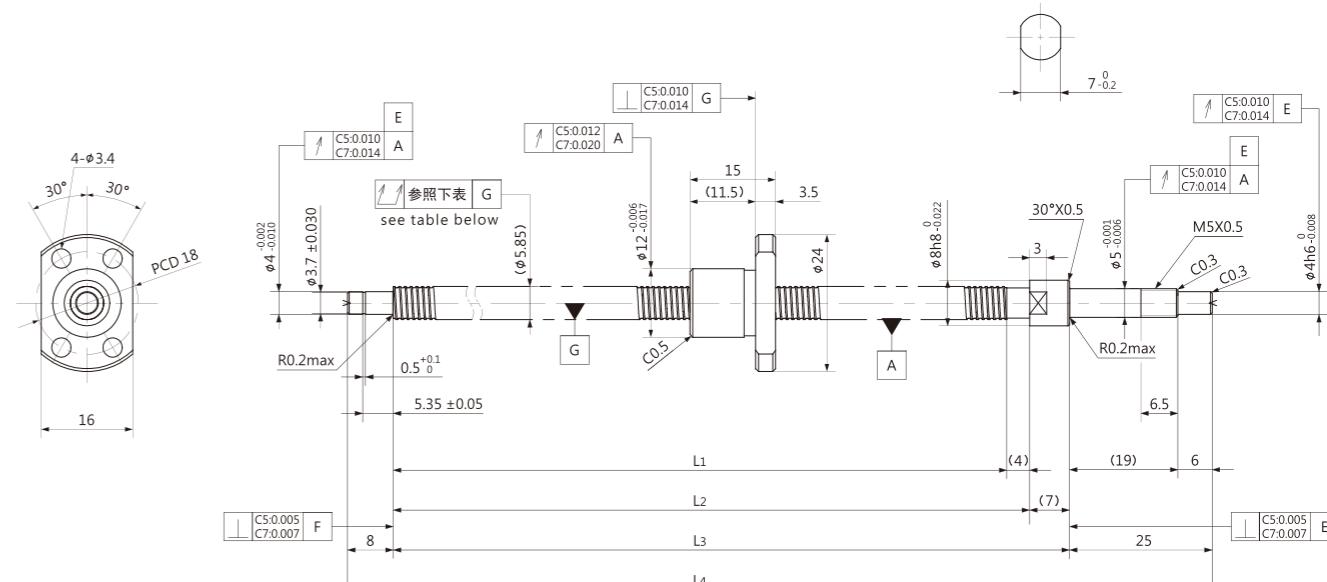
GT0601G | Shaft dia.(轴径) φ 6 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ0.8	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ5.3		
Number of circuit 循环数	3.7×1	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT0601T | Shaft dia.(轴径) φ 6 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ0.8	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ5.3		
Number of circuit 循环数	1×3	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

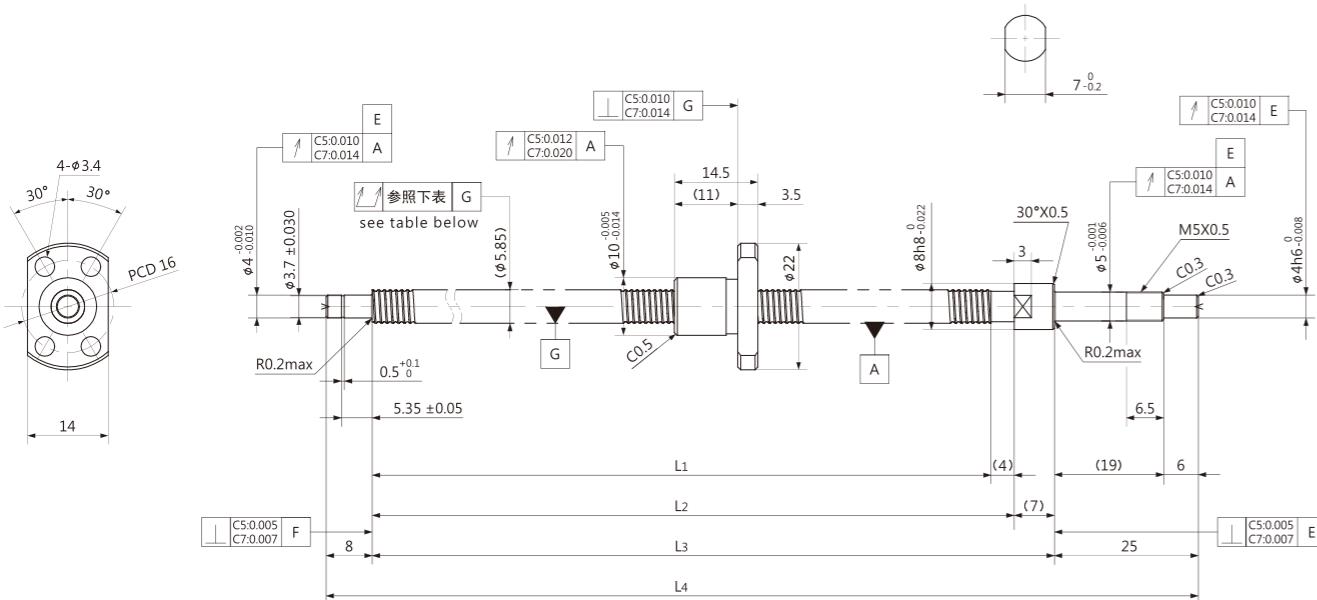
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0601G-64R108	40	C5	64	68	75	108	±0.018	0.018	0.035	~0.005	680	1200
		Ct7					±0.050	0.052	0.060	~0.020		
GT0601G-94R138	70	C5	94	98	105	138	±0.018	0.018	0.050	~0.005	680	1200
		Ct7					±0.050	0.052	0.075	~0.020		
GT0601G-124R168	100	C5	124	128	135	168	±0.020	0.018	0.050	~0.005	680	1200
		Ct7					±0.022	0.052	0.075	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0601T-64R108	40	C5	64	68	75	108	±0.018	0.018	0.035	~0.005	560	950
		Ct7					±0.050	0.052	0.060	~0.020		
GT0601T-94R138	70	C5	94	98	105	138	±0.018	0.018	0.050	~0.005	560	950
		Ct7					±0.050	0.052	0.075	~0.020		
GT0601T-124R168	100	C5	124	128	135	168	±0.020	0.018	0.050	~0.005	560	950
		Ct7					±0.022	0.052	0.075	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

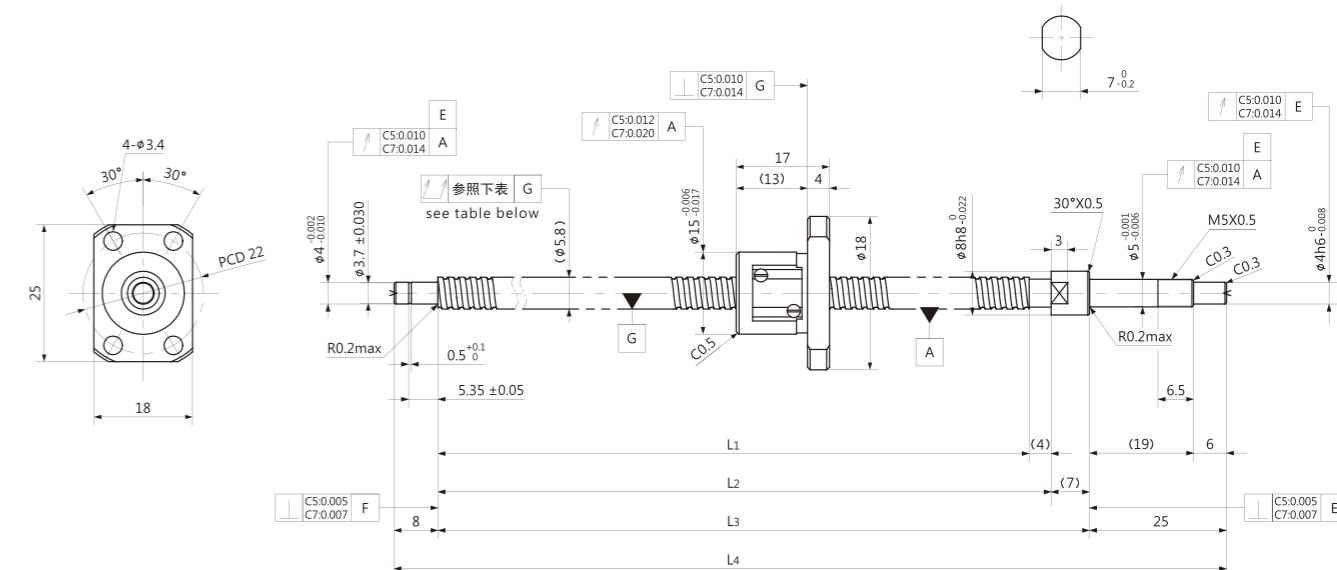
GT0601D | Shaft dia.(轴径) φ 6 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ0.8	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ5.3		
Number of circuit 循环数	1×3	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT0602 | Shaft dia.(轴径) φ 6 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ1.0	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ5.1		
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

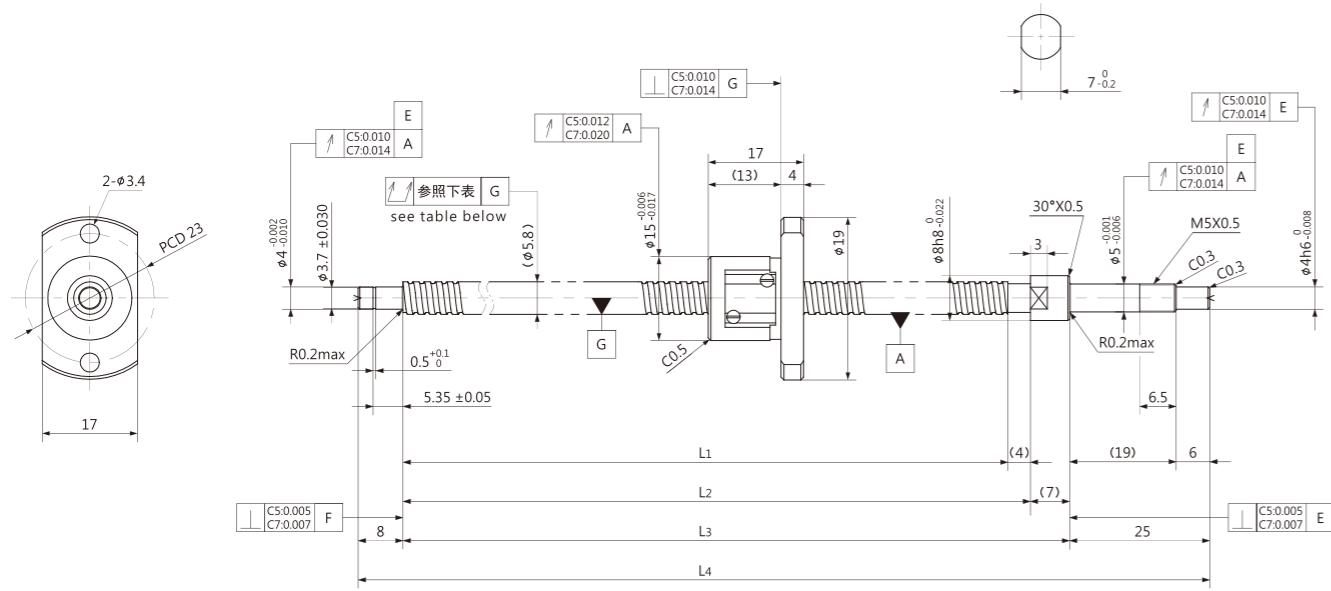
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
							±0.018	0.018			560	950
GT0601D-64R108	40	C5	64	68	75	108	±0.050	0.052	0.060	~0.020	560	950
		Ct7					±0.018	0.018	0.050	~0.005		
GT0601D-94R138	70	C5	94	98	105	138	±0.050	0.052	0.075	~0.020	560	950
		Ct7					±0.020	0.018	0.050	~0.005		
GT0601D-124R168	100	C5	124	128	135	168	±0.022	0.052	0.075	~0.020	560	950
		Ct7										

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
							±0.050	0.052			750	1200
GT0602-64R108	40	C5	64	68	75	108	±0.018	0.018	0.035	~0.005	750	1200
		Ct7					±0.050	0.052	0.060	~0.020		
GT0602-94R138	70	C5	94	98	105	138	±0.018	0.018	0.050	~0.005	750	1200
		Ct7					±0.050	0.052	0.075	~0.020		
GT0602-124R168	100	C5	124	128	135	168	±0.020	0.018	0.050	~0.005	750	1200
		Ct7					±0.022	0.052	0.075	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

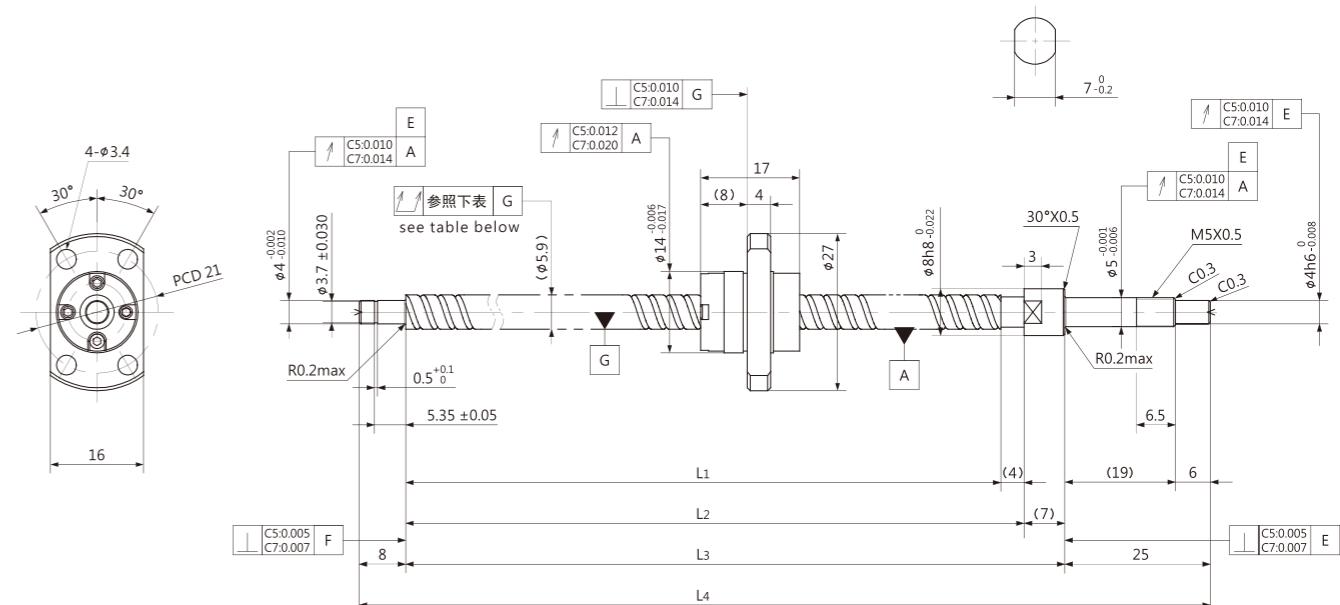
GT0602G | Shaft dia.(轴径) φ 6 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ1.0	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ5.1		
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT0606 | Shaft dia.(轴径) φ 6 Lead(导程)6mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ1.0	Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ5.2		
Number of circuit 循环数	1.6×2	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

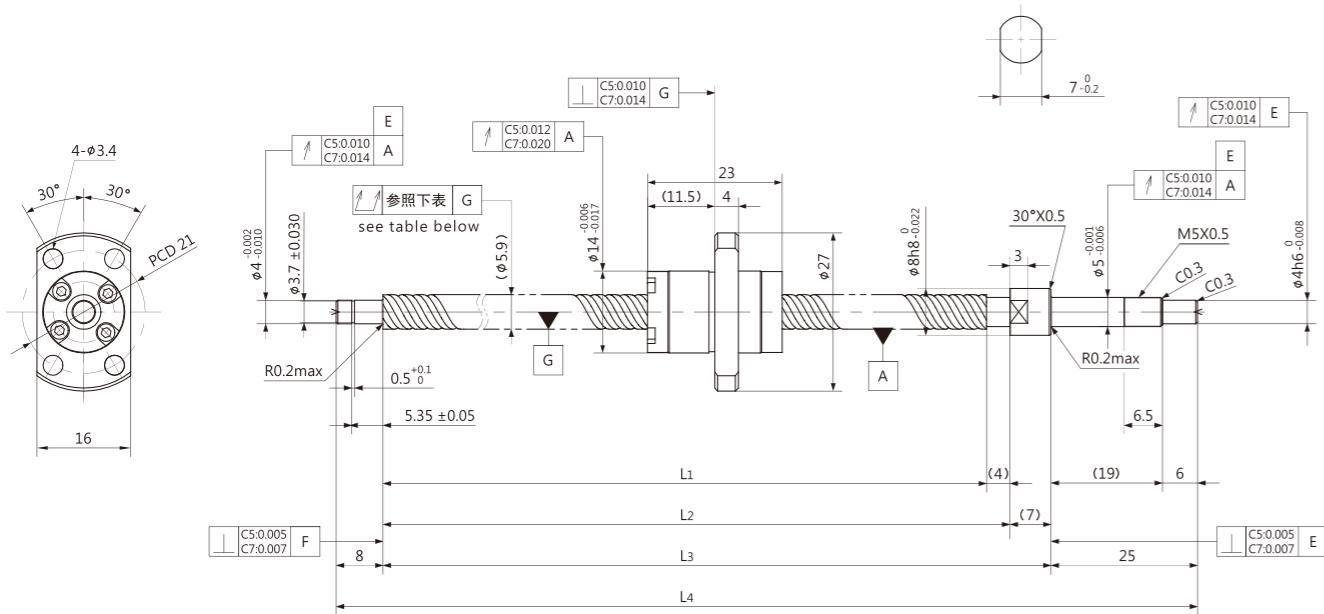
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差	Variation 波动			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
							e _p	V ₃₀₀				
GT0602G-64R108	40	C5	64	68	75	108	±0.018	0.018	0.035	~0.005	750	1200
		Ct7					±0.050	0.052	0.060	~0.020		
GT0602G-94R138	70	C5	94	98	105	138	±0.018	0.018	0.050	~0.005	750	1200
		Ct7					±0.050	0.052	0.075	~0.020		
GT0602G-124R168	100	C5	124	128	135	168	±0.020	0.018	0.050	~0.005	750	1200
		Ct7					±0.022	0.052	0.075	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差	Variation 波动			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
							e _p	V ₃₀₀				
GT0606-64R108	40	C5	64	68	75	108	±0.018	0.018	0.035	~0.005	870	1450
		Ct7					±0.050	0.052	0.060	~0.020		
GT0606-94R138	70	C5	94	98	105	138	±0.018	0.018	0.050	~0.005	870	1450
		Ct7					±0.050	0.052	0.075	~0.020		
GT0606-124R168	100	C5	124	128	135	168	±0.020	0.018	0.050	~0.005	870	1450
		Ct7					±0.022	0.052	0.075	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GT0610 | Shaft dia.(轴径) φ 6 Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

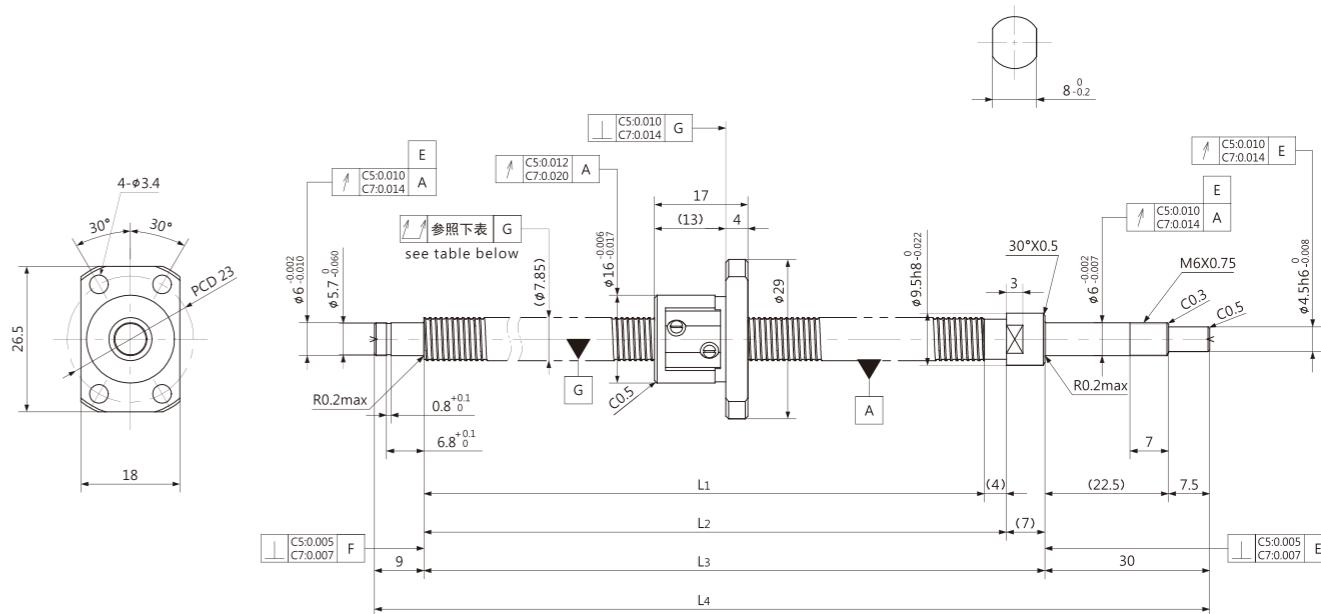
Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ1.2	Number of thread 螺纹条数		2
Thread direction 螺纹旋向		Right 右旋	Shaft root dia 丝杠轴底径		φ5.0
Number of circuit 循环数	1.2×2	Material 材质	Shaft 轴	S55C+SUS304	
Surface hardness	螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment	防锈处理	Anti-rust oil 防锈油

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0610-64R108	40	C5	64	68	75	108	±0.018	0.018	0.035	~0.005	950	1600
		Ct7					±0.050	0.052	0.060	~0.020		
GT0610-94R138	70	C5	94	98	105	138	±0.018	0.018	0.050	~0.005	950	1600
		Ct7					±0.050	0.052	0.075	~0.020		
GT0610-124R168	100	C5	124	128	135	168	±0.020	0.018	0.050	~0.005	950	1600
		Ct7					±0.022	0.052	0.075	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GT0801 | Shaft dia.(轴径) φ 8 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

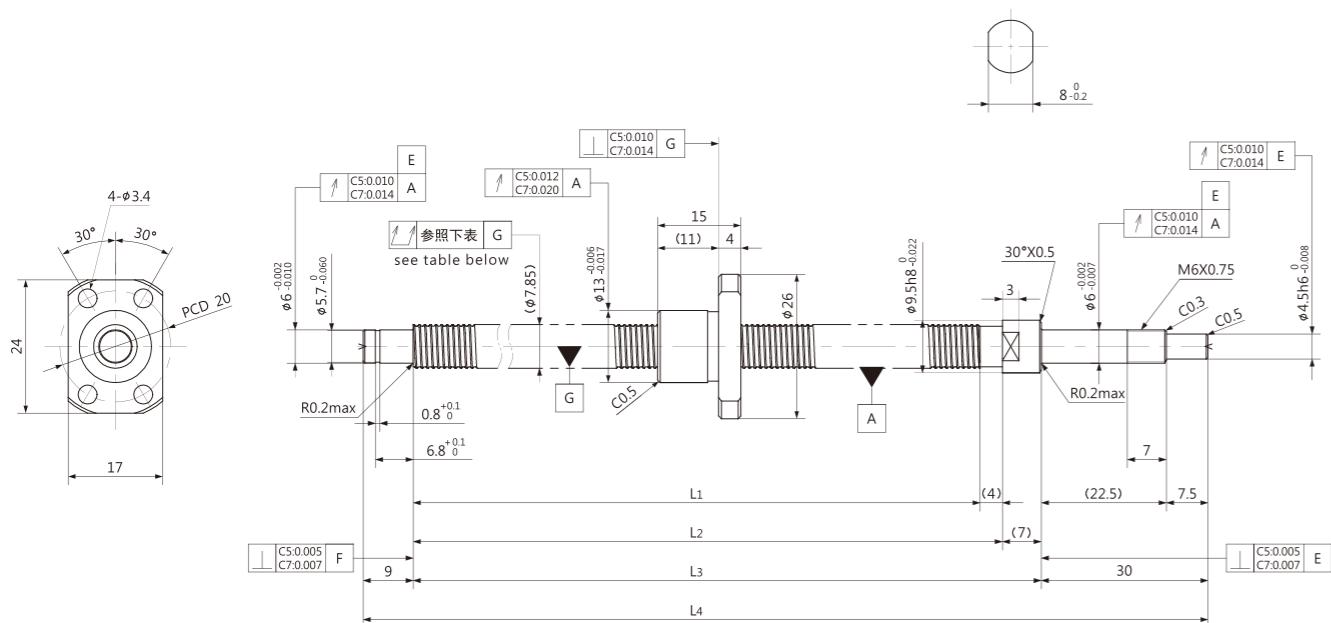
Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径			φ0.8		
Thread direction 螺纹旋向			Right 右旋		
Number of circuit 循环数			3.7×1		
Surface hardness 螺纹部表面硬度			HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理			Anti-rust treatment 防锈处理		
Anti-rust oil 防锈油			Anti-rust oil 防锈油		

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0801-65R115	40	C5	65	69	76	115	±0.018	0.018	0.035	~0.005	780	1650
		Ct7					±0.050	0.052	0.060	~0.020		
GT0801-95R145	70	C5	95	99	106	145	±0.018	0.018	0.050	~0.005	780	1650
		Ct7					±0.050	0.052	0.075	~0.020		
GT0801-125R175	100	C5	125	129	136	175	±0.020	0.018	0.050	~0.005	780	1650
		Ct7					±0.022	0.052	0.075	~0.020		
GT0801-175R225	150	C5	175	179	186	225	±0.020	0.018	0.065	~0.005	780	1650
		Ct7					±0.031	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GT0801K | Shaft dia.(轴径) φ 8 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

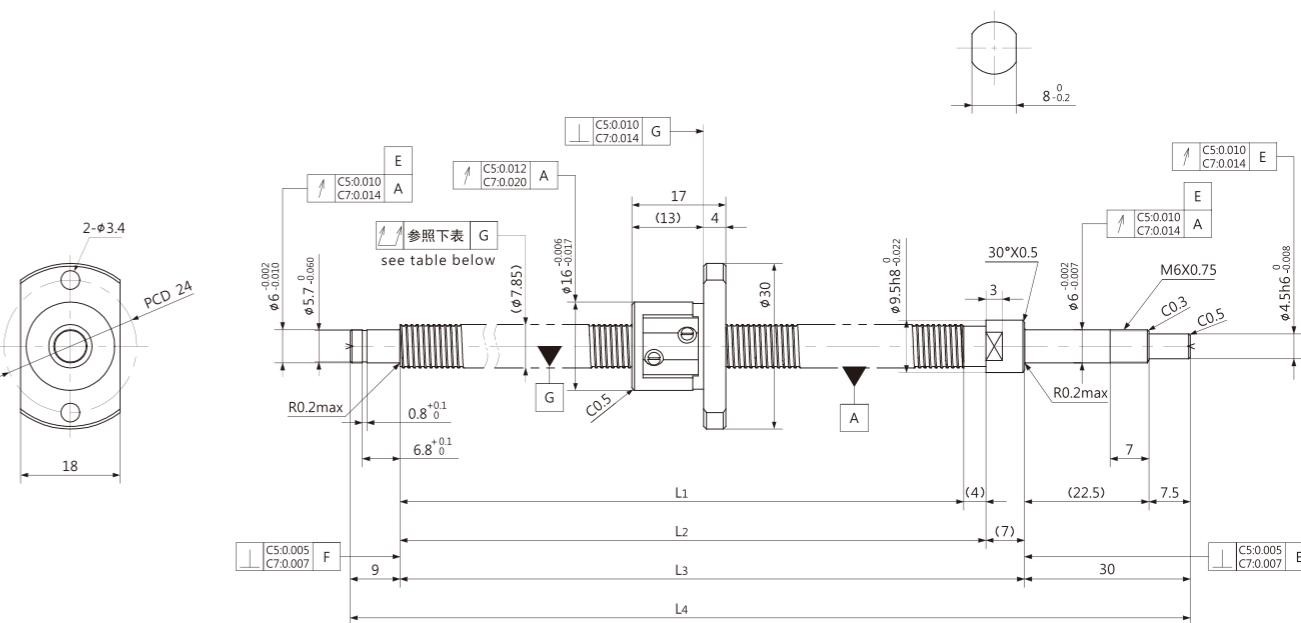
Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ0.8	Number of thread 螺纹条数		1
Thread direction 螺纹旋向		Right 右旋	Shaft root dia 丝杠轴底径		φ7.3
Number of circuit 循环数		1×3	Material 材质	Shaft 轴	S55C+SUS304
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0801K-65R115	40	C5	65	69	76	115	±0.018	0.018	0.035	~0.005	650	1300
		Ct7					±0.050	0.052	0.060	~0.020		
GT0801K-95R145	70	C5	95	99	106	145	±0.018	0.018	0.050	~0.005	650	1300
		Ct7					±0.050	0.052	0.075	~0.020		
GT0801K-125R175	100	C5	125	129	136	175	±0.020	0.018	0.050	~0.005	650	1300
		Ct7					±0.022	0.052	0.075	~0.020		
GT0801K-175R225	150	C5	175	179	186	225	±0.020	0.018	0.065	~0.005	650	1300
		Ct7					±0.031	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GT0801G | Shaft dia.(轴径) φ 8 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

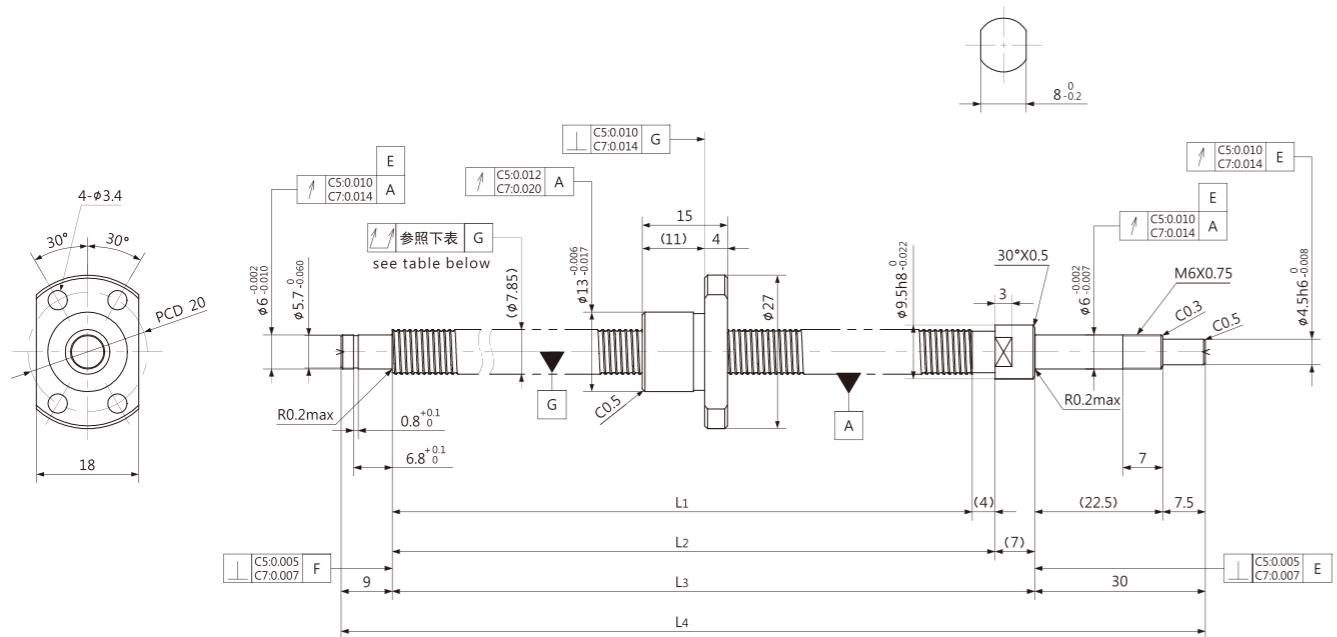
Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ0.8	Number of thread 螺纹条数		1
Thread direction 螺纹旋向		Right 右旋	Shaft root dia 丝杠轴底径		φ7.3
Number of circuit 循环数		3.7×1	Material 材质	Shaft 轴	S55C+SUS304
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0801G-65R115	40	C5	65	69	76	115	±0.018	0.018	0.035	~0.005	650	1300
		Ct7					±0.050	0.052	0.060	~0.020		
GT0801G-95R145	70	C5	95	99	106	145	±0.018	0.018	0.050	~0.005	650	1300
		Ct7					±0.050	0.052	0.075	~0.020		
GT0801G-125R175	100	C5	125	129	136	175	±0.020	0.018	0.050	~0.005	650	1300
		Ct7					±0.022	0.052	0.075	~0.020		
GT0801G-175R225	150	C5	175	179	186	225	±0.020	0.018	0.065	~0.005	650	1300
		Ct7					±0.031	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

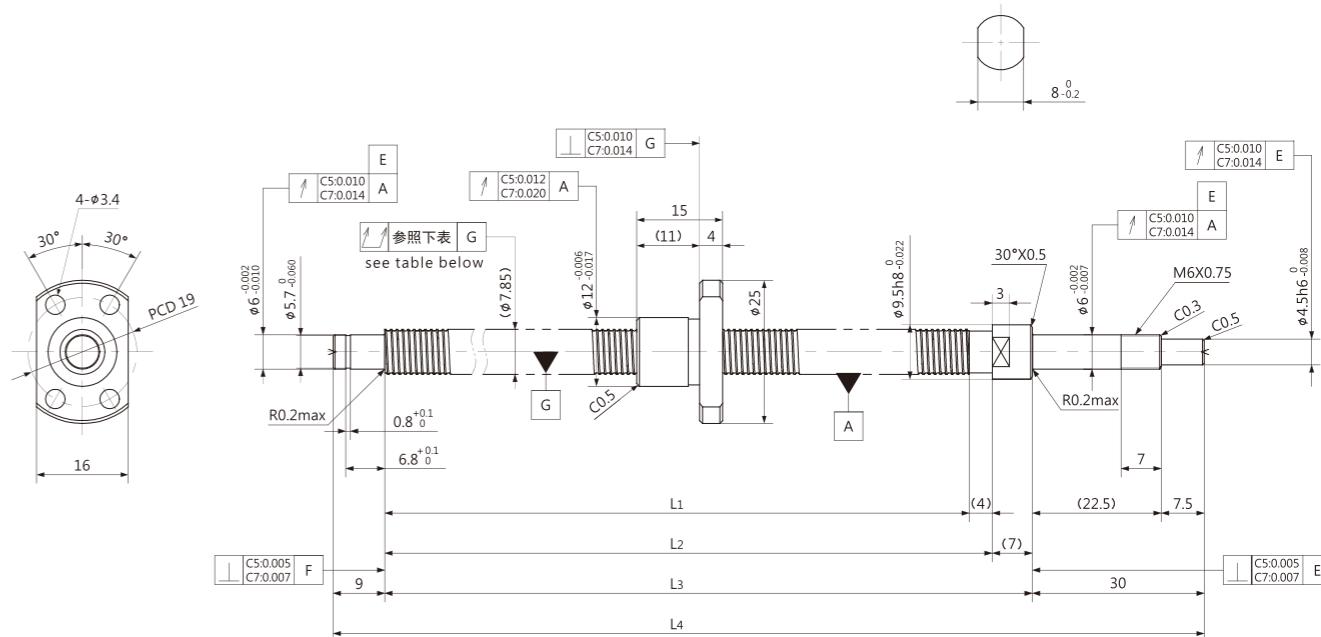
GT0801T | Shaft dia.(轴径) φ 8 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ0.8		Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋		Shaft root dia 丝杠轴底径	φ7.3	
Number of circuit 循环数	1×3		Material 材质	S55C+SUS304	
			Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

GT0801D | Shaft dia.(轴径) φ 8 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ0.8		Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Right 右旋		Shaft root dia 丝杠轴底径	φ7.3	
Number of circuit 循环数	1×3		Material 材质	S55C+SUS304	
			Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit (单位): mm

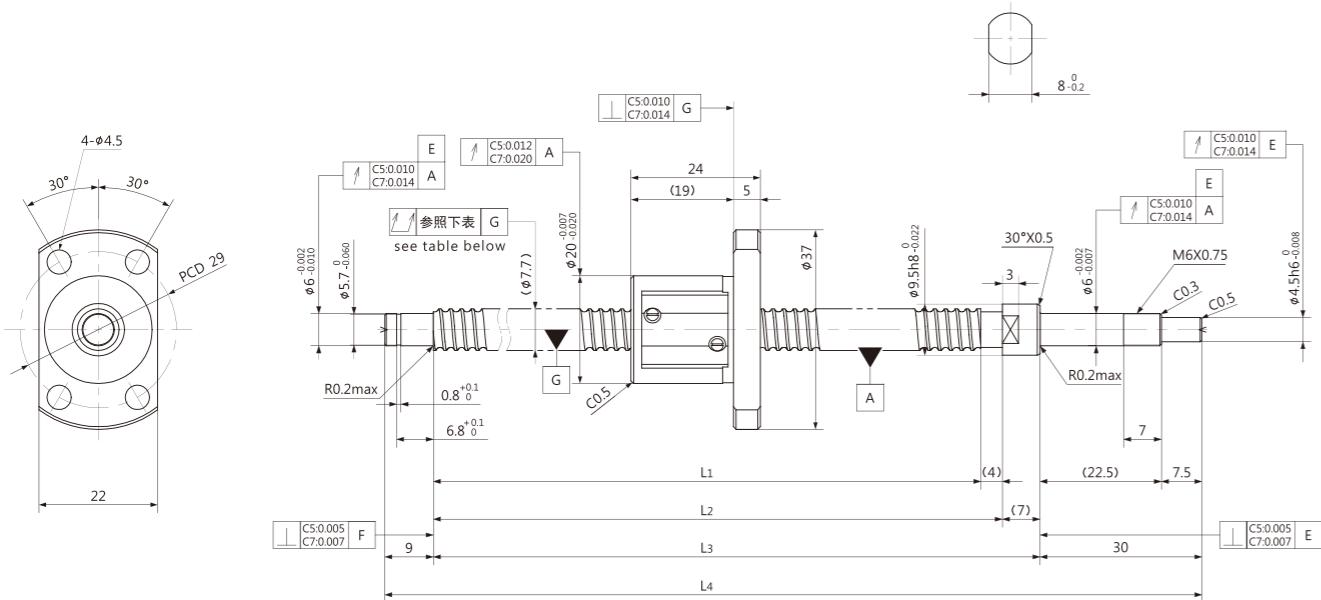
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0801T-65R115	40	C5	65	69	76	115	±0.018	0.018	0.035	~0.005	650	1300
		Ct7					±0.050	0.052	0.060	~0.020		
GT0801T-95R145	70	C5	95	99	106	145	±0.018	0.018	0.050	~0.005	650	1300
		Ct7					±0.050	0.052	0.075	~0.020		
GT0801T-125R175	100	C5	125	129	136	175	±0.020	0.018	0.050	~0.005	650	1300
		Ct7					±0.022	0.052	0.075	~0.020		
GT0801T-175R225	150	C5	175	179	186	225	±0.020	0.018	0.065	~0.005	650	1300
		Ct7					±0.031	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0801D-65R115	40	C5	65	69	76	115	±0.018	0.018	0.035	~0.005	650	1300
		Ct7					±0.050	0.052	0.060	~0.020		
GT0801D-95R145	70	C5	95	99	106	145	±0.018	0.018	0.050	~0.005	650	1300
		Ct7					±0.050	0.052	0.075	~0.020		
GT0801D-125R175	100	C5	125	129	136	175	±0.020	0.018	0.050	~0.005	650	1300
		Ct7					±0.022	0.052	0.075	~0.020		
GT0801D-175R225	150	C5	175	179	186	225	±0.020	0.018	0.065	~0.005	650	1300
		Ct7					±0.031	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

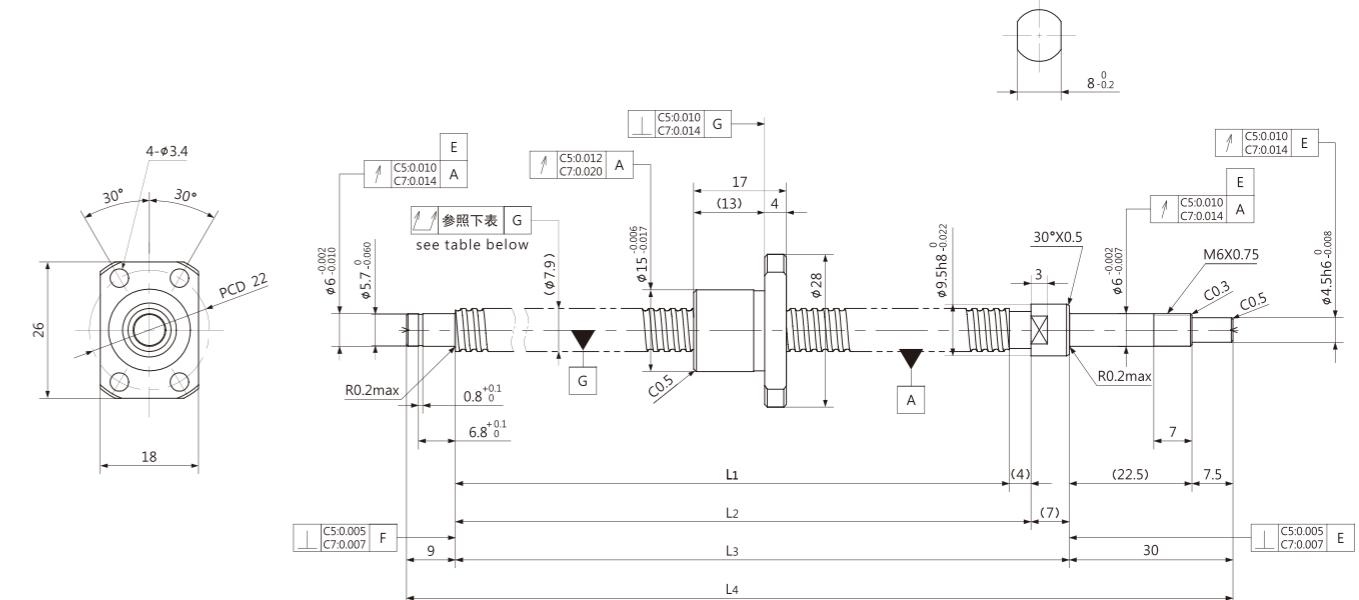
GT0802 | Shaft dia.(轴径) φ 8 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ1.5875	Number of thread 螺纹条数		1
Thread direction 螺纹旋向		Right 右旋	Shaft root dia 丝杠轴底径		φ6.6
Number of circuit 循环数		3.7×1	Material 材质	Shaft 轴	S55C+SUS304
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

GT0802K | Shaft dia.(轴径) φ 8 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ1.2	Number of thread 螺纹条数		1
Thread direction 螺纹旋向		Right 右旋	Shaft root dia 丝杠轴底径		φ7.0
Number of circuit 循环数		1×3	Material 材质	Shaft 轴	S55C+SUS304
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit (单位): mm

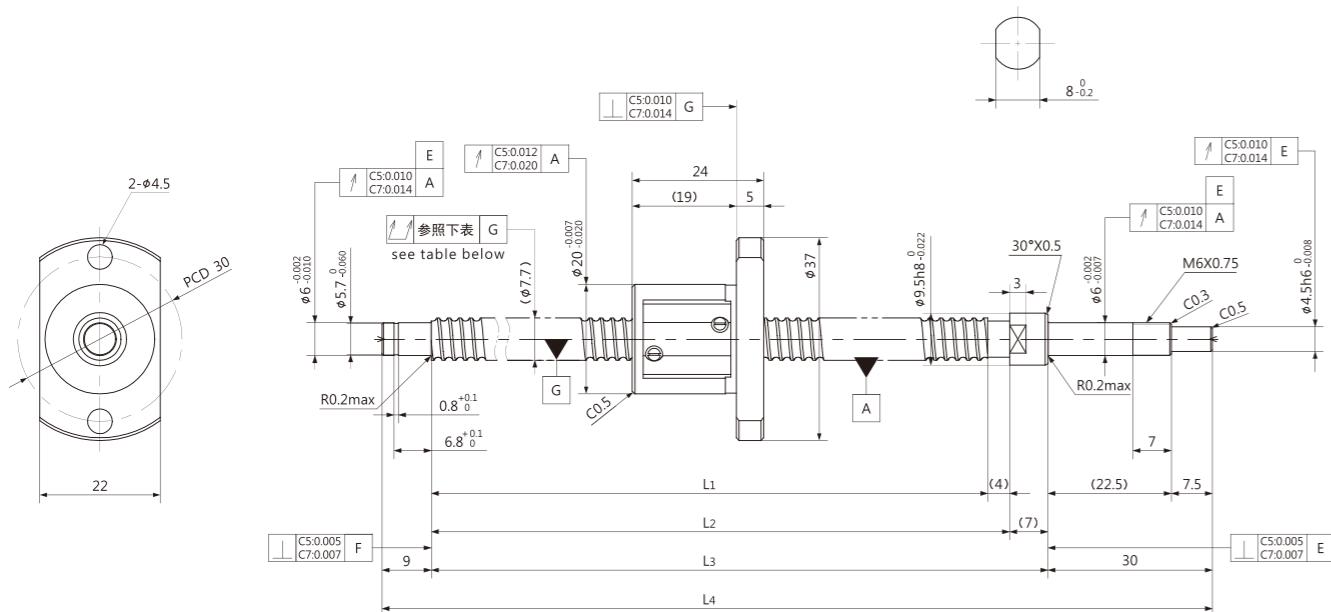
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0802-74R124	40	C5	74	78	85	124	±0.018	0.018	0.035	~0.005	2400	4100
		Ct7					±0.050	0.052	0.060	~0.020		
GT0802-104R154	70	C5	104	108	115	154	±0.020	0.018	0.050	~0.005	2400	4100
		Ct7					±0.050	0.052	0.075	~0.020		
GT0802-134R184	100	C5	134	138	145	184	±0.020	0.018	0.050	~0.005	2400	4100
		Ct7					±0.023	0.052	0.075	~0.020		
GT0802-184R234	150	C5	184	188	195	234	±0.020	0.018	0.065	~0.005	2400	4100
		Ct7					±0.032	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0802K-74R124	40	C5	74	78	85	124	±0.018	0.018	0.035	~0.005	1300	2300
		Ct7					±0.050	0.052	0.060	~0.020		
GT0802K-104R154	70	C5	104	108	115	154	±0.020	0.018	0.050	~0.005	1300	2300
		Ct7					±0.050	0.052	0.075	~0.020		
GT0802K-134R184	100	C5	134	138	145	184	±0.020	0.018	0.050	~0.005	1300	2300
		Ct7					±0.023	0.052	0.075	~0.020		
GT0802K-184R234	150	C5	184	188	195	234	±0.020	0.018	0.065	~0.005	1300	2300
		Ct7					±0.032	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

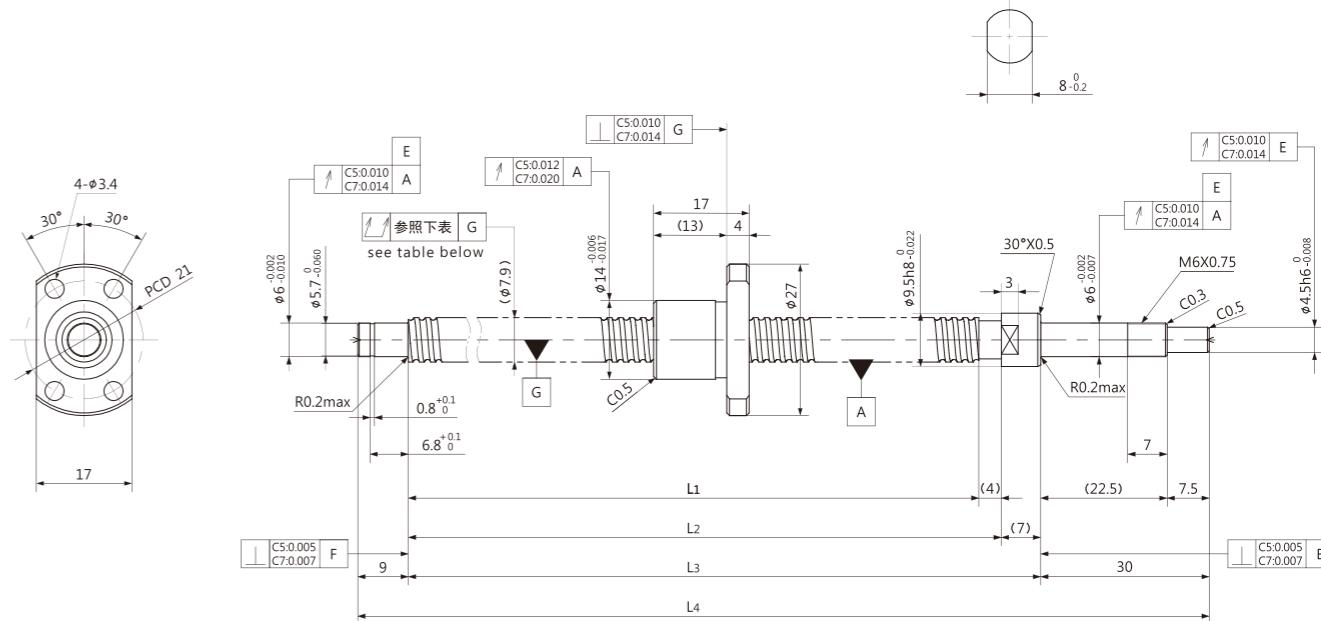
GT0802G | Shaft dia.(轴径) φ 8 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ1.5875	Number of thread 螺纹条数		1
Thread direction 螺纹旋向		Right 右旋	Shaft root dia 丝杠轴底径		φ6.6
Number of circuit 循环数		3.7×1	Material 材质	Shaft 轴	S55C+SUS304
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

GT0802T | Shaft dia.(轴径) φ 8 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ1.2	Number of thread 螺纹条数		1
Thread direction 螺纹旋向		Right 右旋	Shaft root dia 丝杠轴底径		φ7.0
Number of circuit 循环数		1×3	Material 材质	Shaft 轴	S55C+SUS304
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit (单位): mm

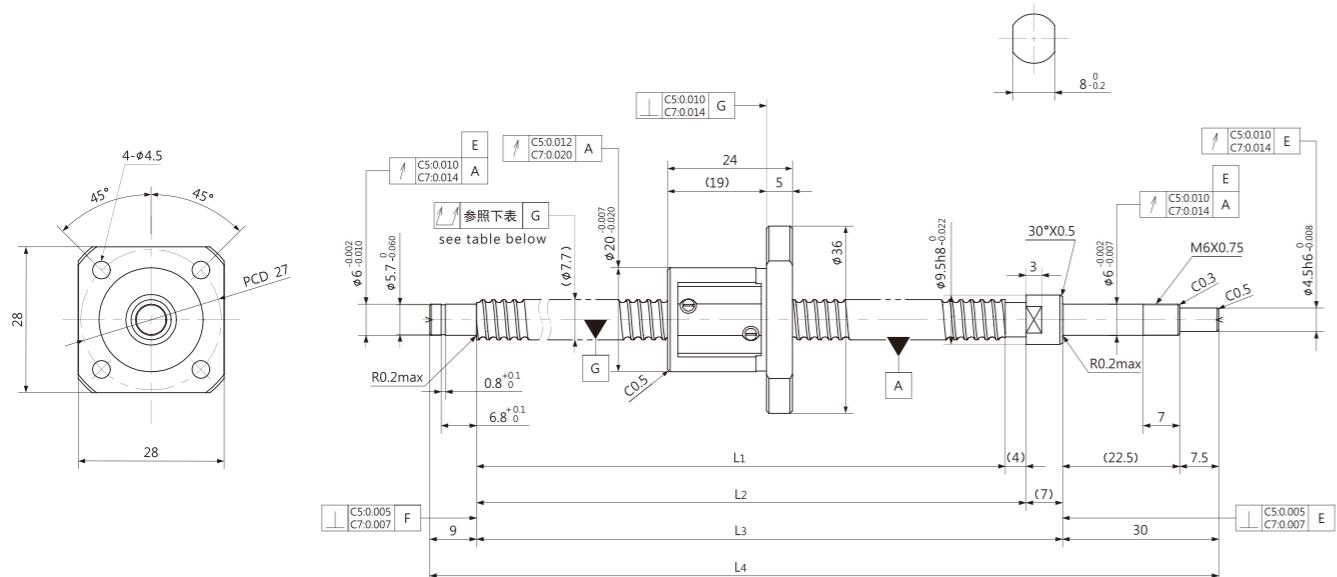
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0802G-74R124	40	C5	74	78	85	124	±0.018	0.018	0.035	~0.005	2400	4100
		Ct7					±0.050	0.052	0.060	~0.020		
GT0802G-104R154	70	C5	104	108	115	154	±0.020	0.018	0.050	~0.005	2400	4100
		Ct7					±0.050	0.052	0.075	~0.020		
GT0802G-134R184	100	C5	134	138	145	184	±0.020	0.018	0.050	~0.005	2400	4100
		Ct7					±0.023	0.052	0.075	~0.020		
GT0802G-184R234	150	C5	184	188	195	234	±0.020	0.018	0.065	~0.005	2400	4100
		Ct7					±0.032	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0802T-74R124	40	C5	74	78	85	124	±0.018	0.018	0.035	~0.005	2400	4100
		Ct7					±0.050	0.052	0.060	~0.020		
GT0802T-104R154	70	C5	104	108	115	154	±0.020	0.018	0.050	~0.005	2400	4100
		Ct7					±0.050	0.052	0.075	~0.020		
GT0802T-134R184	100	C5	134	138	145	184	±0.020	0.018	0.050	~0.005	2400	4100
		Ct7					±0.023	0.052	0.075	~0.020		
GT0802T-184R234	150	C5	184	188	195	234	±0.020	0.018	0.065	~0.005	2400	4100
		Ct7					±0.032	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

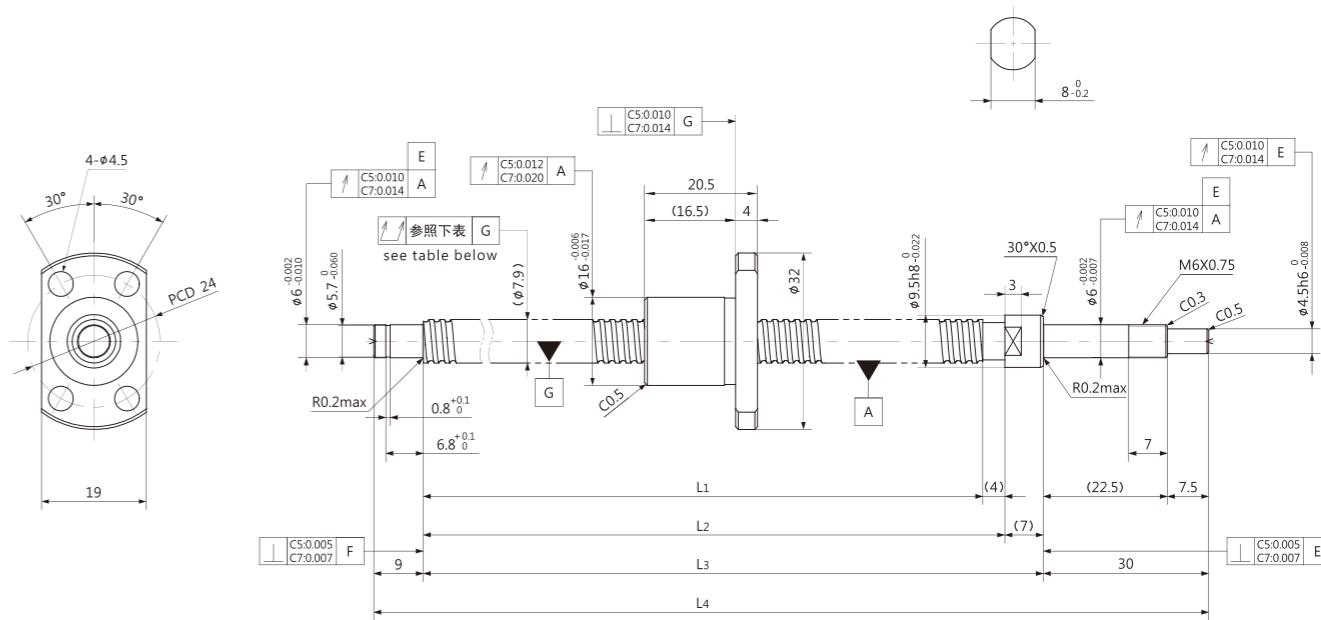
GT0802A | Shaft dia.(轴径) φ 8 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径			φ1.5875		
Thread direction 螺纹旋向			Right 右旋		
Number of thread 螺纹条数			Shaft root dia 丝杠轴底径		
Number of circuit 循环数			φ6.6		
Material 材质		Shaft 轴	S55C+SUS304		
Nut 螺母		SCM415H			
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	Anti-rust treatment 防锈处理		Anti-rust oil 防锈油

GT0802B | Shaft dia.(轴径) φ 8 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径			φ1.2		
Thread direction 螺纹旋向			Right 右旋		
Number of thread 螺纹条数			Shaft root dia 丝杠轴底径		
Number of circuit 循环数			φ7.0		
Material 材质		Shaft 轴	S55C+SUS304		
Nut 螺母		SCM415H			
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	Anti-rust treatment 防锈处理		Anti-rust oil 防锈油

Unit (单位): mm

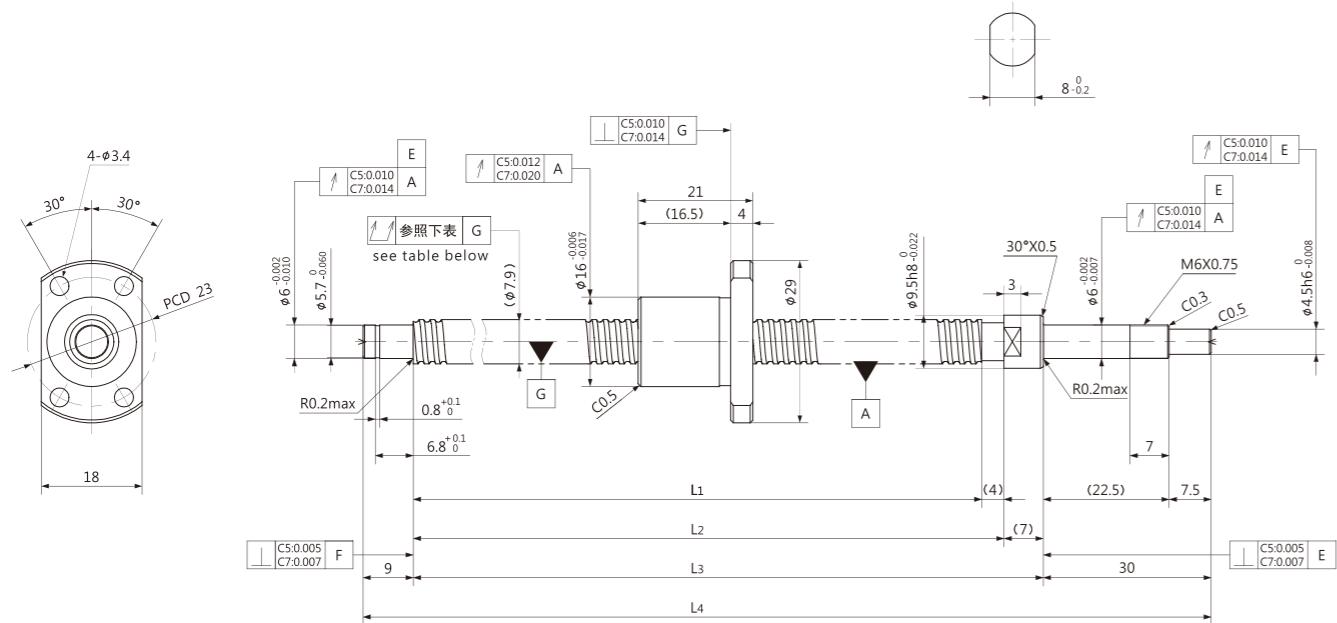
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0802A-74R124	40	C5	74	78	85	124	±0.018	0.018	0.035	~0.005	2400	4100
		Ct7					±0.050	0.052	0.060	~0.020		
GT0802A-104R154	70	C5	104	108	115	154	±0.020	0.018	0.050	~0.005	2400	4100
		Ct7					±0.050	0.052	0.075	~0.020		
GT0802A-134R184	100	C5	134	138	145	184	±0.020	0.018	0.050	~0.005	2400	4100
		Ct7					±0.023	0.052	0.075	~0.020		
GT0802A-184R234	150	C5	184	188	195	234	±0.020	0.018	0.065	~0.005	2400	4100
		Ct7					±0.032	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0802B-74R124	40	C5	74	78	85	124	±0.018	0.018	0.035	~0.005	1730	3060
		Ct7					±0.050	0.052	0.060	~0.020		
GT0802B-104R154	70	C5	104	108	115	154	±0.020	0.018	0.050	~0.005	1730	3060
		Ct7					±0.050	0.052	0.075	~0.020		
GT0802B-134R184	100	C5	134	138	145	184	±0.020	0.018	0.050	~0.005	1730	3060
		Ct7					±0.023	0.052	0.075	~0.020		
GT0802B-184R234	150	C5	184	188	195	234	±0.020	0.018	0.065	~0.005	1730	3060
		Ct7					±0.032	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

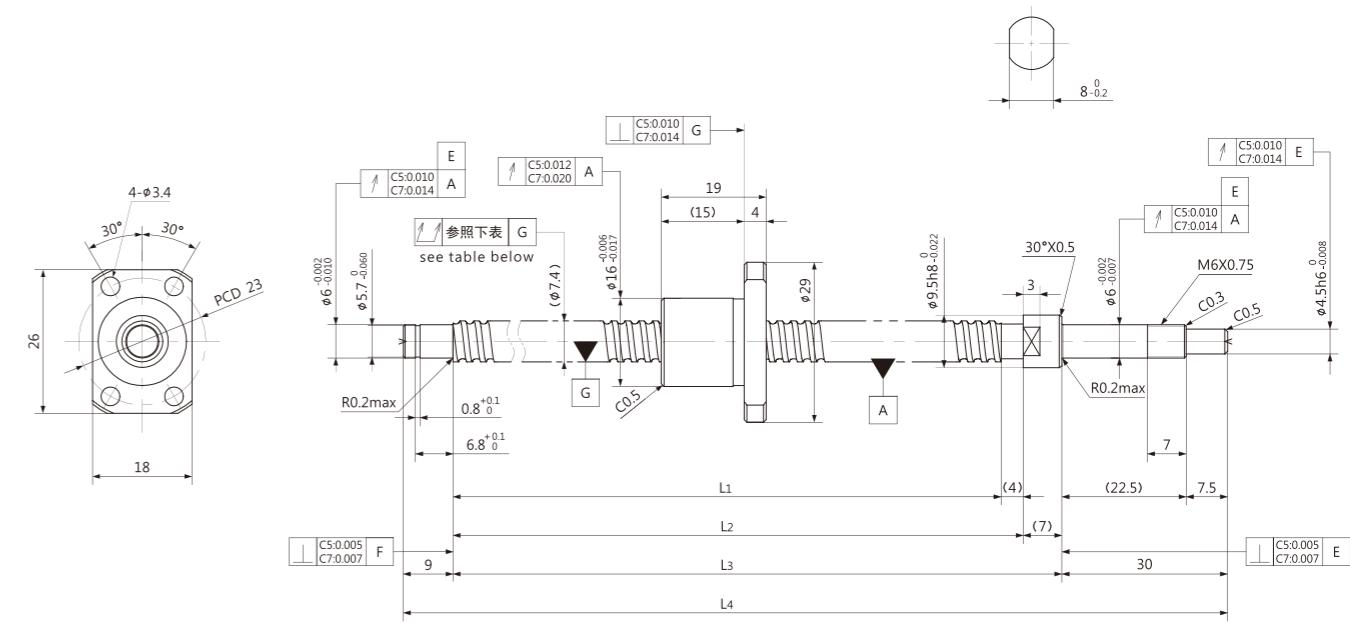
GT0802M | Shaft dia.(轴径) φ 8 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ1.2	Number of thread 螺纹条数		1
Thread direction 螺纹旋向		Right 右旋	Shaft root dia 丝杠轴底径		φ7.0
Number of circuit 循环数		1×4	Material 材质	Shaft 轴	S55C+SUS304
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

GT0802.5 | Shaft dia.(轴径) φ 8 Lead(导程)2.5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ1.5875	Number of thread 螺纹条数		1
Thread direction 螺纹旋向		Right 右旋	Shaft root dia 丝杠轴底径		φ6.3
Number of circuit 循环数		1×3	Material 材质	Shaft 轴	S55C+SUS304
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit(单位): mm

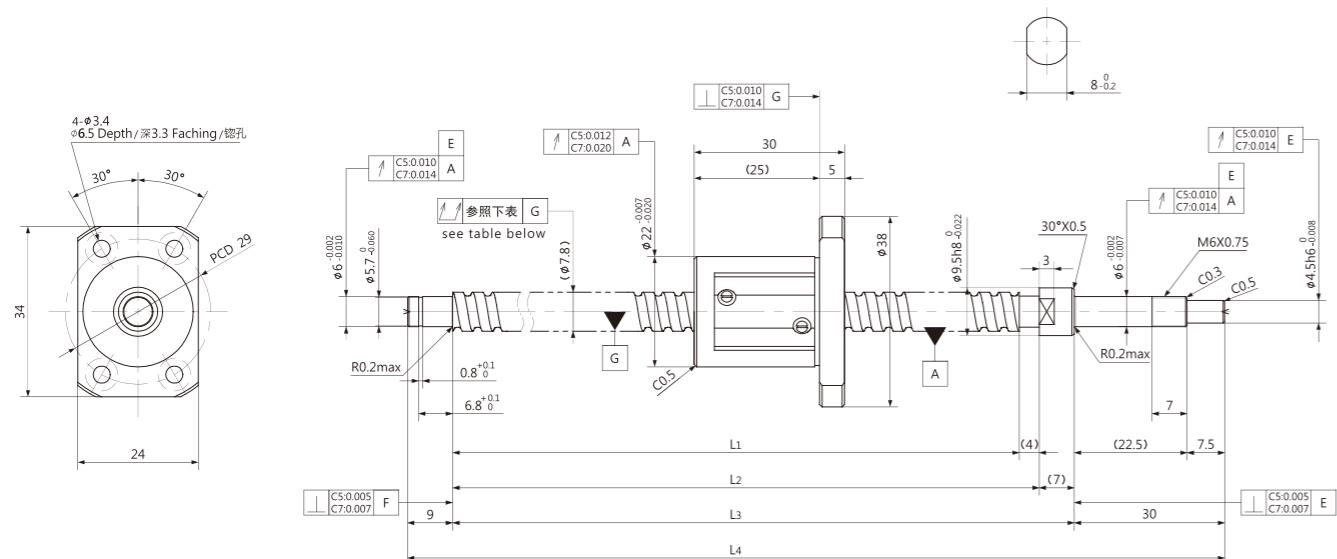
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0802M-74R124	40	C5	74	78	85	124	±0.018	0.018	0.035	~0.005	1730	3060
		Ct7					±0.050	0.052	0.060	~0.020		
GT0802M-104R154	70	C5	104	108	115	154	±0.020	0.018	0.050	~0.005	1730	3060
		Ct7					±0.050	0.052	0.075	~0.020		
GT0802M-134R184	100	C5	134	138	145	184	±0.020	0.018	0.050	~0.005	1730	3060
		Ct7					±0.023	0.052	0.075	~0.020		
GT0802M-184R234	150	C5	184	188	195	234	±0.020	0.018	0.065	~0.005	1730	3060
		Ct7					±0.032	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0802.5-74R124	40	C5	74	78	85	124	±0.018	0.018	0.035	~0.005	1850	3000
		Ct7					±0.050	0.052	0.060	~0.020		
GT0802.5-104R154	70	C5	104	108	115	154	±0.020	0.018	0.050	~0.005	1850	3000
		Ct7					±0.050	0.052	0.075	~0.020		
GT0802.5-134R184	100	C5	134	138	145	184	±0.020	0.018	0.050	~0.005	1850	3000
		Ct7					±0.023	0.052	0.075	~0.020		
GT0802.5-184R234	150	C5	184	188	195	234	±0.020	0.018	0.065	~0.005	1850	3000
		Ct7					±0.032	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

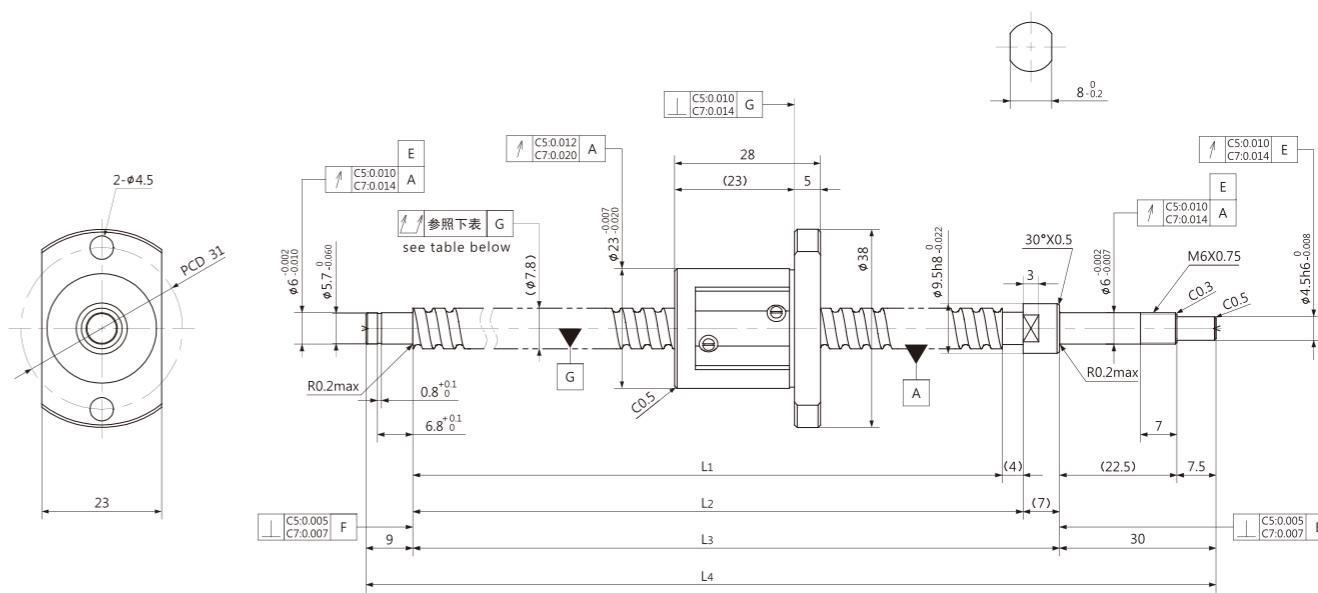
GT0804 | Shaft dia.(轴径) φ 8 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ2.0	Number of thread 螺纹条数		1
Thread direction 螺纹旋向			Shaft root dia 丝杠轴底径		
Right 右旋			φ6.2		
Number of circuit 循环数		2.7×1	Material 材质	Shaft 轴	S55C+SUS304
			Nut 螺母		SCM415H
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

GT0804G | Shaft dia.(轴径) φ 8 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ2.0	Number of thread 螺纹条数		1
Thread direction 螺纹旋向			Shaft root dia 丝杠轴底径		
Right 右旋			φ6.2		
Number of circuit 循环数		2.7×1	Material 材质	Shaft 轴	S55C+SUS304
			Nut 螺母		SCM415H
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit (单位): mm

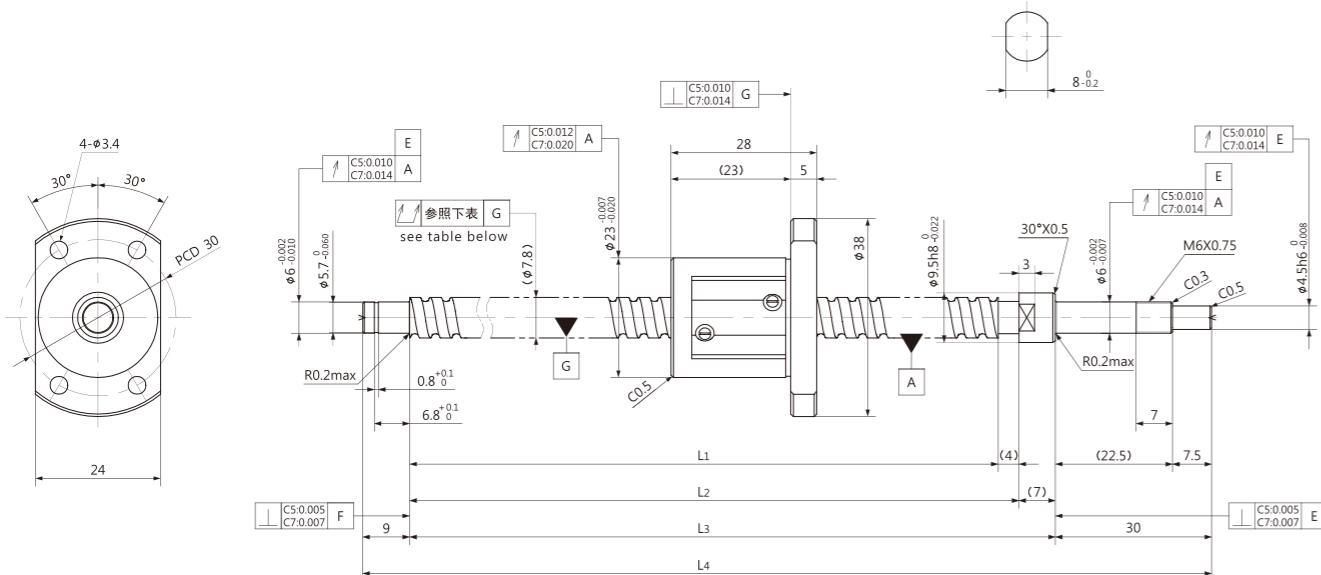
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0804-74R124	40	C5	74	78	85	124	±0.018	0.018	0.035	~0.005	2600	4200
		Ct7					±0.050	0.052	0.060	~0.020		
GT0804-104R154	70	C5	104	108	115	154	±0.020	0.018	0.050	~0.005	2600	4200
		Ct7					±0.050	0.052	0.075	~0.020		
GT0804-134R184	100	C5	134	138	145	184	±0.023	0.018	0.050	~0.005	2600	4200
		Ct7					±0.022	0.052	0.075	~0.020		
GT0804-184R234	150	C5	184	188	195	234	±0.020	0.018	0.065	~0.005	2600	4200
		Ct7					±0.032	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0804G-74R124	40	C5	74	78	85	124	±0.018	0.018	0.035	~0.005	2600	4200
		Ct7					±0.050	0.052	0.060	~0.020		
GT0804G-104R154	70	C5	104	108	115	154	±0.020	0.018	0.050	~0.005	2600	4200
		Ct7					±0.050	0.052	0.075	~0.020		
GT0804G-134R184	100	C5	134	138	145	184	±0.023	0.018	0.050	~0.005	2600	4200
		Ct7					±0.022	0.052	0.075	~0.020		
GT0804G-184R234	150	C5	184	188	195	234	±0.020	0.018	0.065	~0.005	2600	4200
		Ct7					±0.032	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GT0804D | Shaft dia.(轴径) φ 8 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

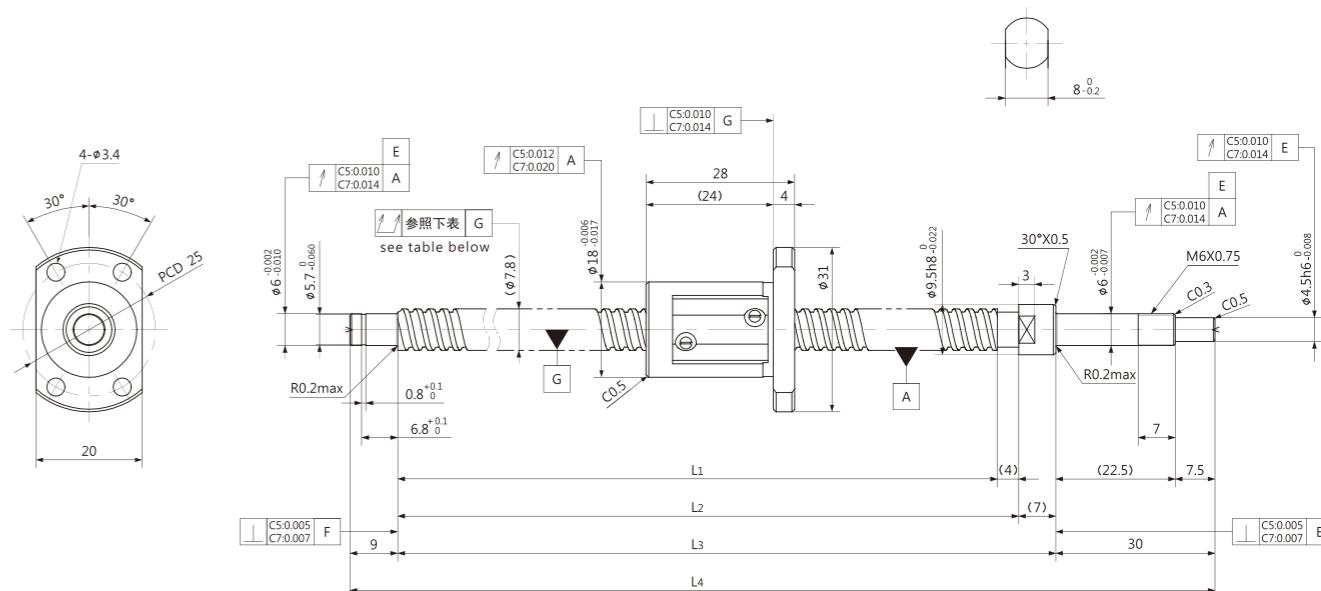
Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0	Number of thread 螺纹条数	1
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ6.2
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0804D-74R124	40	C5	74	78	85	124	±0.018	0.018	0.035	~0.005	2600	4200
		Ct7					±0.050	0.052	0.060	~0.020		
GT0804D-104R154	70	C5	104	108	115	154	±0.020	0.018	0.050	~0.005	2600	4200
		Ct7					±0.050	0.052	0.075	~0.020		
GT0804D-134R184	100	C5	134	138	145	184	±0.023	0.018	0.050	~0.005	2600	4200
		Ct7					±0.022	0.052	0.075	~0.020		
GT0804D-184R234	150	C5	184	188	195	234	±0.020	0.018	0.065	~0.005	2600	4200
		Ct7					±0.032	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GT0805 | Shaft dia.(轴径) φ 8 Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

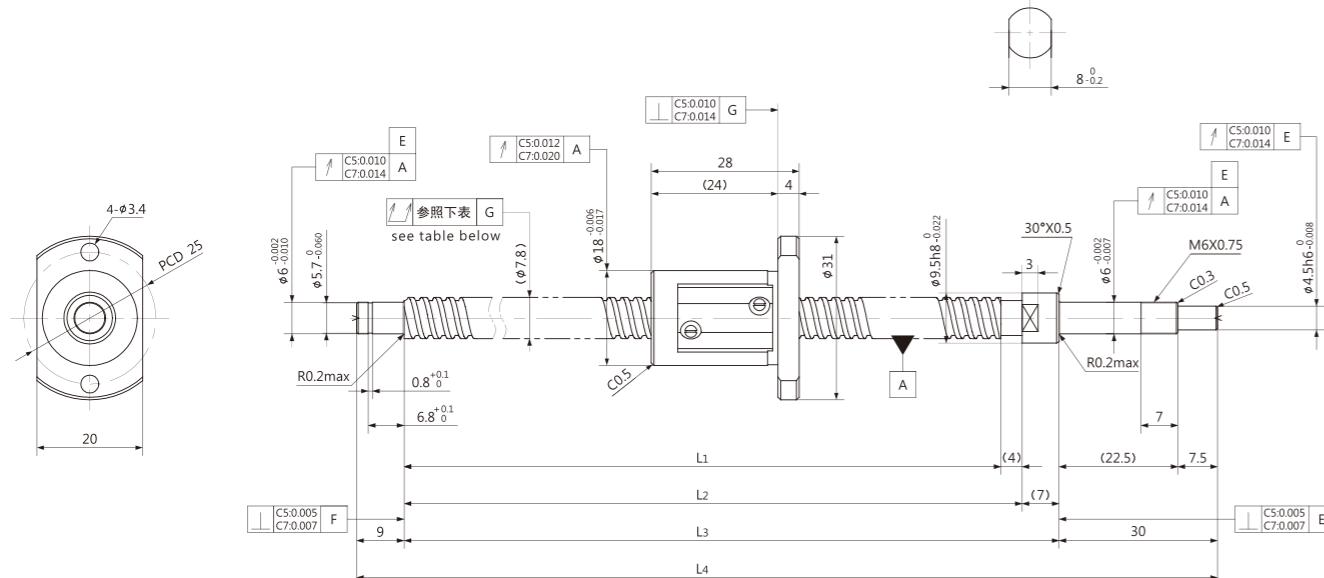
Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875	Number of thread 螺纹条数	1
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ6.6
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0805-154R204	100	C5	154	158	165	204	±0.020	0.018	0.065	~0.005	1850	3000
		Ct7					±0.027	0.052	0.080	~0.020		
GT0805-204R254	150	C5	204	208	215	254	±0.023	0.018	0.065	~0.005	1850	3000
		Ct7					±0.035	0.052	0.100	~0.020		
GT0805-254R304	200	C5	254	258	265	304	±0.023	0.018	0.065	~0.005	1850	3000
		Ct7					±0.044	0.052	0.100	~0.020		
GT0805-304R354	250	C5	304	308	315	354	±0.023	0.018	0.075	~0.005	1850	3000
		Ct7					±0.053	0.052	0.100	~0.020		
GT0805-354R404	300	C5	354	358	365	404	±0.025	0.018	0.075	~0.005	1850	3000
		Ct7					±0.061	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

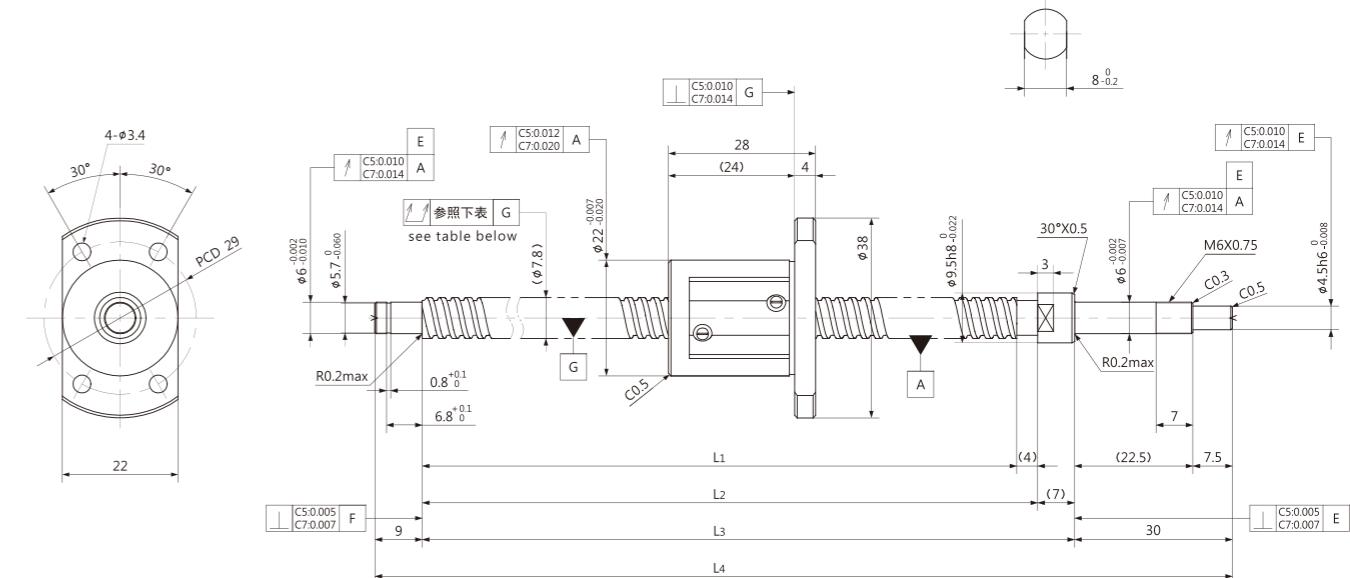
GT0805G | Shaft dia.(轴径) φ 8 Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ1.5875	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ6.6		
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT0805D | Shaft dia.(轴径) φ 8 Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ1.5875	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ6.6		
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

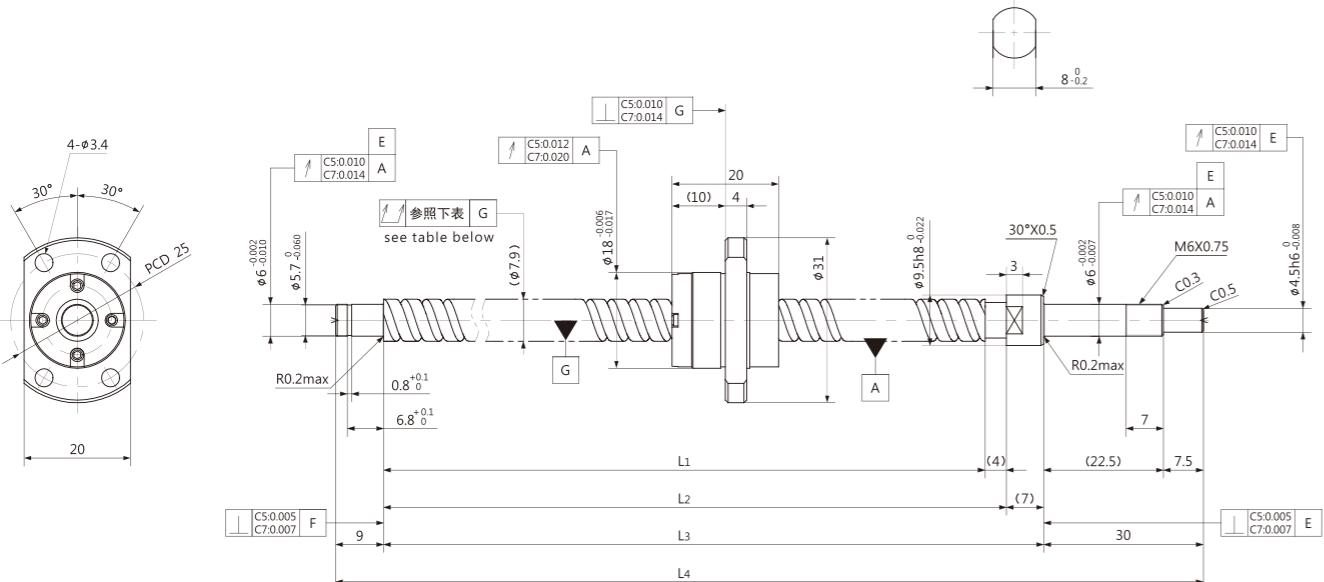
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0805G-154R204	100	C5	154	158	165	204	±0.020	0.018	0.065	~0.005	1850	3000
		Ct7					±0.027	0.052	0.080	~0.020		
GT0805G-204R254	150	C5	204	208	215	254	±0.023	0.018	0.065	~0.005	1850	3000
		Ct7					±0.035	0.052	0.100	~0.020		
GT0805G-254R304	200	C5	254	258	265	304	±0.023	0.018	0.065	~0.005	1850	3000
		Ct7					±0.044	0.052	0.100	~0.020		
GT0805G-304R354	250	C5	304	308	315	354	±0.023	0.018	0.075	~0.005	1850	3000
		Ct7					±0.053	0.052	0.100	~0.020		
GT0805G-354R404	300	C5	354	358	365	404	±0.025	0.018	0.075	~0.005	1850	3000
		Ct7					±0.061	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0805D-154R204	100	C5	154	158	165	204	±0.020	0.018	0.065	~0.005	1850	3000
		Ct7					±0.027	0.052	0.080	~0.020		
GT0805D-204R254	150	C5	204	208	215	254	±0.023	0.018	0.065	~0.005	1850	3000
		Ct7					±0.035	0.052	0.100	~0.020		
GT0805D-254R304	200	C5	254	258	265	304	±0.023	0.018	0.065	~0.005	1850	3000
		Ct7					±0.044	0.052	0.100	~0.020		
GT0805D-304R354	250	C5	304	308	315	354	±0.023	0.018	0.075	~0.005	1850	3000
		Ct7					±0.053	0.052	0.100	~0.020		
GT0805D-354R404	300	C5	354	358	365	404	±0.025	0.018	0.075	~0.005	1850	3000
		Ct7					±0.061	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

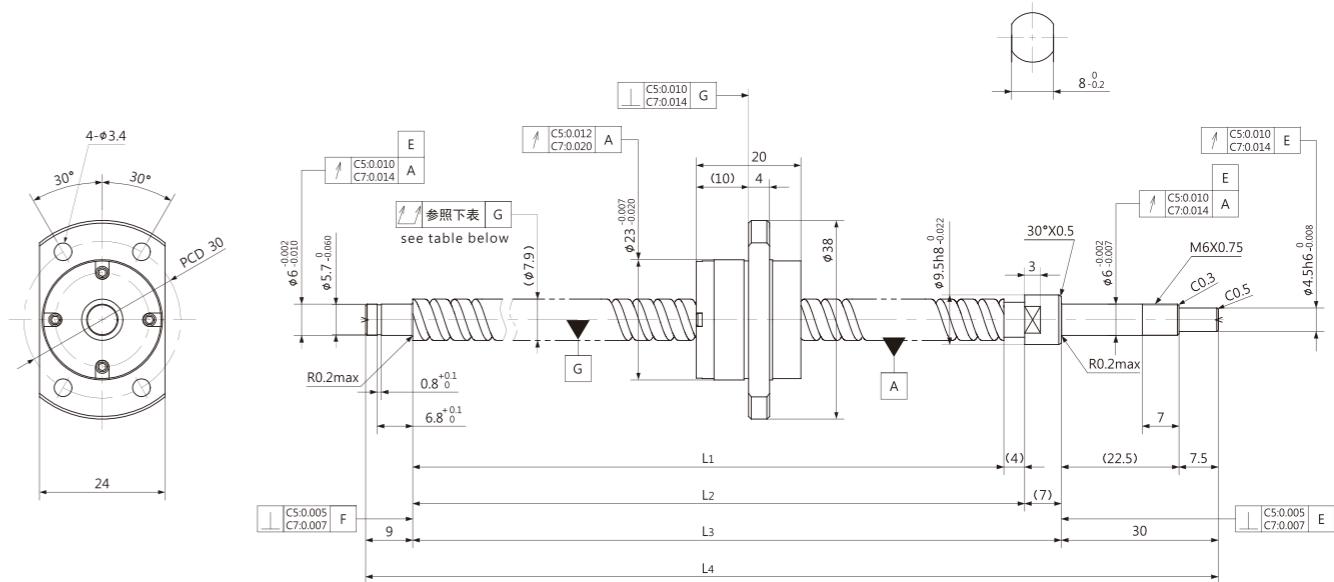
GT0808 | Shaft dia.(轴径) φ 8 Lead(导程)8mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径			Number of thread 螺纹条数		
Thread direction 螺纹旋向			Shaft root dia 丝杠轴底径		
Number of circuit 循环数	1.6×2		Material 材质	Shaft 轴	S55C+SUS304
				Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

GT0808D | Shaft dia.(轴径) φ 8 Lead(导程)8mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径			Number of thread 螺纹条数		
Thread direction 螺纹旋向			Shaft root dia 丝杠轴底径		
Number of circuit 循环数	1.6×2		Material 材质	Shaft 轴	S55C+SUS304
				Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit (单位): mm

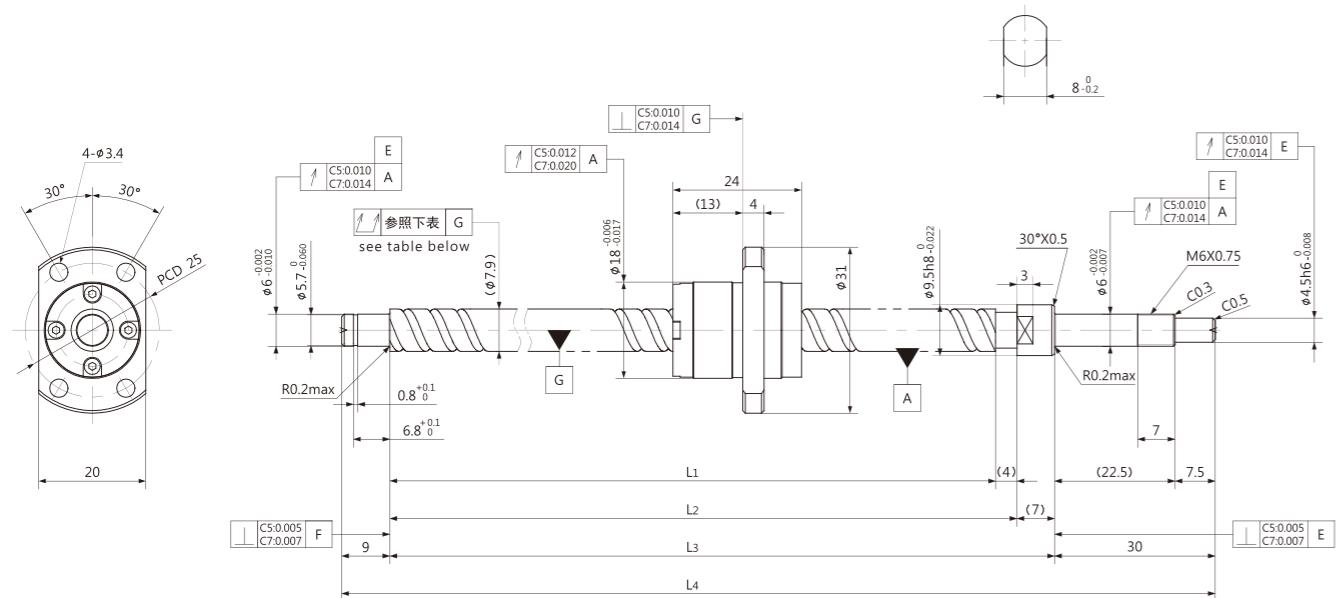
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0808-154R204	100	C5	154	158	165	204	±0.020	0.018	0.065	-0.005	2200	3800
		Ct7					±0.027	0.052	0.080	-0.020		
GT0808-204R254	150	C5	204	208	215	254	±0.023	0.018	0.065	-0.005	2200	3800
		Ct7					±0.035	0.052	0.100	-0.020		
GT0808-254R304	200	C5	254	258	265	304	±0.023	0.018	0.065	-0.005	2200	3800
		Ct7					±0.044	0.052	0.100	-0.020		
GT0808-304R354	250	C5	304	308	315	354	±0.023	0.018	0.075	-0.005	2200	3800
		Ct7					±0.053	0.052	0.100	-0.020		
GT0808-354R404	300	C5	354	358	365	404	±0.025	0.018	0.075	-0.005	2200	3800
		Ct7					±0.061	0.052	0.100	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0808D-154R204	100	C5	154	158	165	204	±0.020	0.018	0.065	-0.005	2200	3800
		Ct7					±0.027	0.052	0.080	-0.020		
GT0808D-204R254	150	C5	204	208	215	254	±0.023	0.018	0.065	-0.005	2200	3800
		Ct7					±0.035	0.052	0.100	-0.020		
GT0808D-254R304	200	C5	254	258	265	304	±0.023	0.018	0.065	-0.005	2200	3800
		Ct7					±0.044	0.052	0.100	-0.020		
GT0808D-304R354	250	C5	304	308	315	354	±0.023	0.018	0.075	-0.005	2200	3800
		Ct7					±0.053	0.052	0.100	-0.020		
GT0808D-354R404	300	C5	354	358	365	404	±0.025	0.018	0.075	-0.005	2200	3800
		Ct7					±0.061	0.052	0.100	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

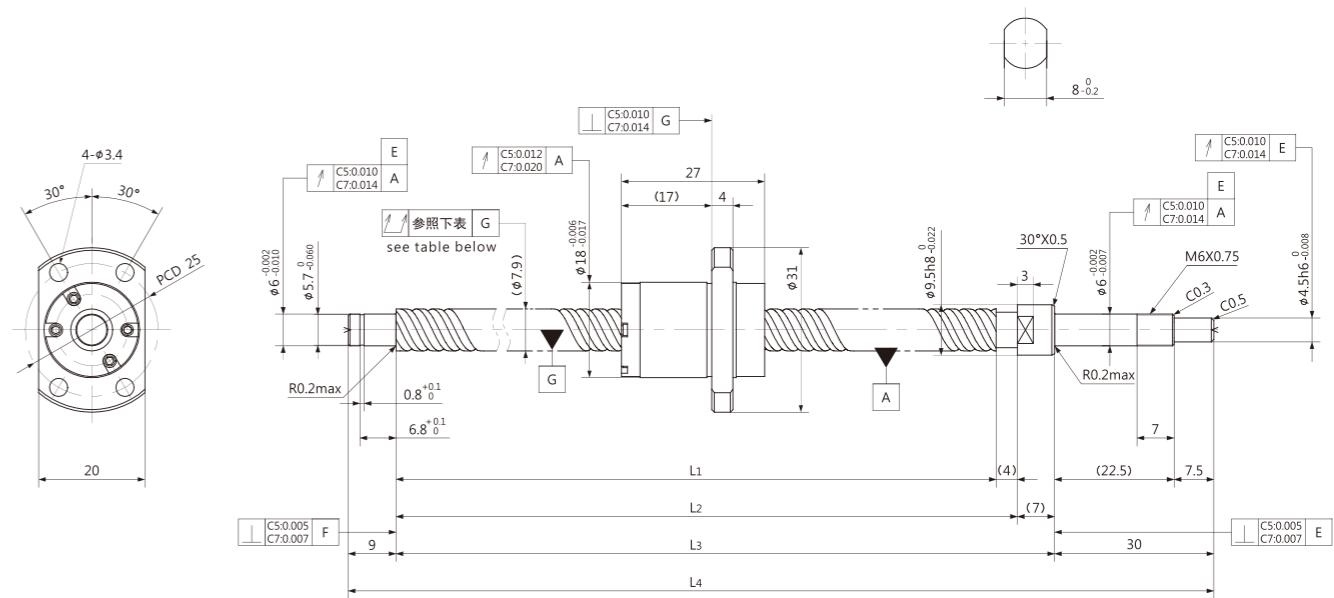
GT0810 | Shaft dia.(轴径) ϕ 8 Lead(导程) 10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ1.5875			Number of thread 螺纹条数
Thread direction 螺纹旋向			Right 右旋		
Shaft root dia 丝杠轴底径		φ6.7			
Number of circuit 循环数		1.6×2			Material 材质
		S55C+SUS304			Shaft 轴
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)			Nut 螺母
		Anti-rust treatment 防锈处理			Anti-rust oil 防锈油

GT0812 | Shaft dia.(轴径) ϕ 8 Lead(导程) 12mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ1.5875			Number of thread 螺纹条数
Thread direction 螺纹旋向			Right 右旋		
Shaft root dia 丝杠轴底径		φ6.7			
Number of circuit 循环数		1.6×2			Material 材质
		S55C+SUS304			Shaft 轴
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)			Nut 螺母
		Anti-rust treatment 防锈处理			Anti-rust oil 防锈油

Unit (单位): mm

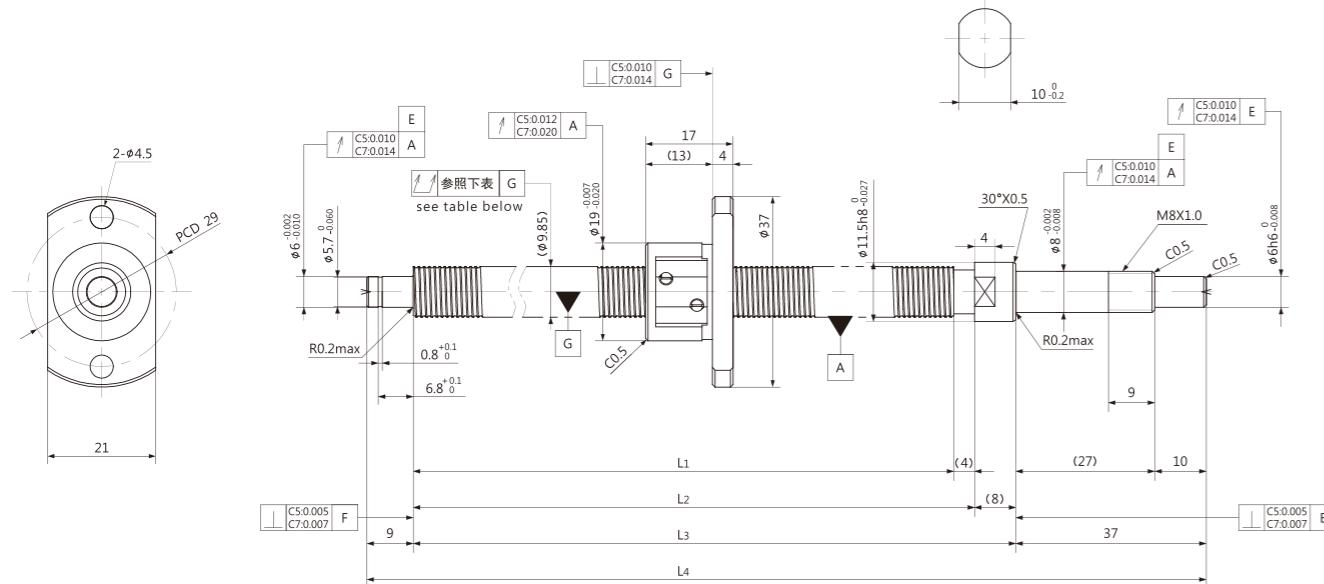
Ball Screw Model	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0810-154R204	100	C5	154	158	165	204	±0.020	0.018	0.065	~0.005	2200	3800
		Ct7					±0.027	0.052	0.080	~0.020		
GT0810-204R254	150	C5	204	208	215	254	±0.023	0.018	0.065	~0.005	2200	3800
		Ct7					±0.035	0.052	0.100	~0.020		
GT0810-254R304	200	C5	254	258	265	304	±0.023	0.018	0.065	~0.005	2200	3800
		Ct7					±0.044	0.052	0.100	~0.020		
GT0810-304R354	250	C5	304	308	315	354	±0.023	0.018	0.075	~0.005	2200	3800
		Ct7					±0.053	0.052	0.100	~0.020		
GT0810-354R404	300	C5	354	358	365	404	±0.025	0.018	0.075	~0.005	2200	3800
		Ct7					±0.061	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT0812-154R204	100	C5	154	158	165	204	±0.020	0.018	0.065	~0.005	2200	3800
		Ct7					±0.027	0.052	0.080	~0.020		
GT0812-204R254	150	C5	204	208	215	254	±0.023	0.018	0.065	~0.005	2200	3800
		Ct7					±0.035	0.052	0.100	~0.020		
GT0812-254R304	200	C5	254	258	265	304	±0.023	0.018	0.065	~0.005	2200	3800
		Ct7					±0.044	0.052	0.100	~0.020		
GT0812-304R354	250	C5	304	308	315	354	±0.023	0.018	0.075	~0.005	2200	3800
		Ct7					±0.053	0.052	0.100	~0.020		
GT0812-354R404	300	C5	354	358	365	404	±0.025	0.018	0.075	~0.005	2200	3800
		Ct7					±0.061	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

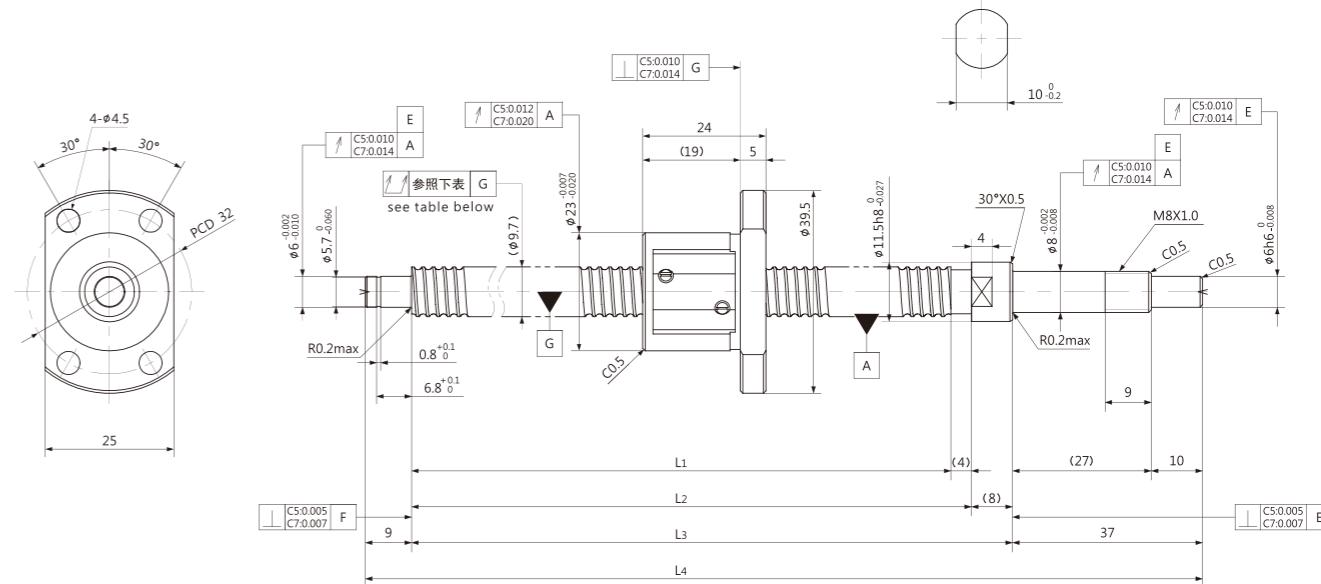
GT1001 | Shaft dia.(轴径) φ 10 Lead(导程)1mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ0.8	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ9.3		
Number of circuit 循环数	3.7×1	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT1002 | Shaft dia.(轴径) φ 10 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ1.5875	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ8.6		
Number of circuit 循环数	3.7×1	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

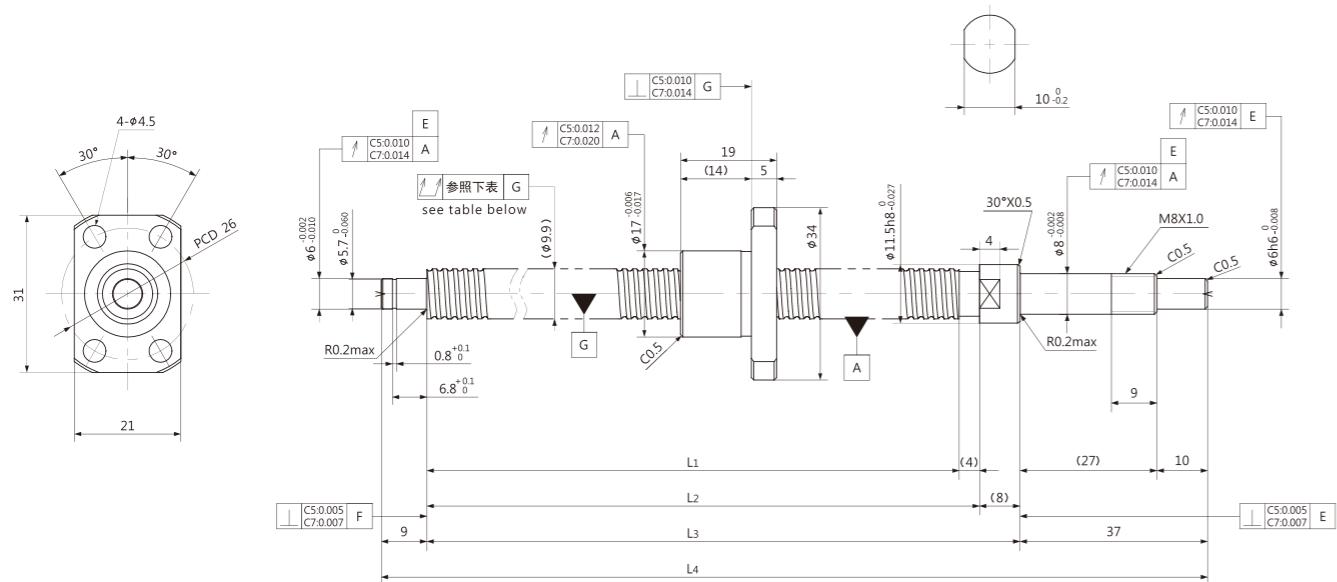
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1001-85R143	50	C5	85	89	97	143	±0.018	0.018	0.040	~0.005	840	2000
		Ct7					±0.050	0.052	0.065	~0.020		
GT1001-135R193	100	C5	135	139	147	193	±0.020	0.018	0.040	~0.005	840	2000
		Ct7					±0.023	0.052	0.065	~0.020		
GT1001-185R243	150	C5	185	189	197	243	±0.020	0.018	0.055	~0.005	840	2000
		Ct7					±0.032	0.052	0.080	~0.020		
GT1001-235R293	200	C5	235	239	247	293	±0.023	0.018	0.055	~0.005	840	2000
		Ct7					±0.041	0.052	0.080	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1002-85R143	50	C5	85	89	97	143	±0.018	0.018	0.040	~0.005	2700	5300
		Ct7					±0.050	0.052	0.065	~0.020		
GT1002-135R193	100	C5	135	139	147	193	±0.020	0.018	0.040	~0.005	2700	5300
		Ct7					±0.023	0.052	0.065	~0.020		
GT1002-185R243	150	C5	185	189	197	243	±0.020	0.018	0.055	~0.005	2700	5300
		Ct7					±0.032	0.052	0.080	~0.020		
GT1002-235R293	200	C5	235	239	247	293	±0.023	0.018	0.055	~0.005	2700	5300
		Ct7					±0.041	0.052	0.080	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

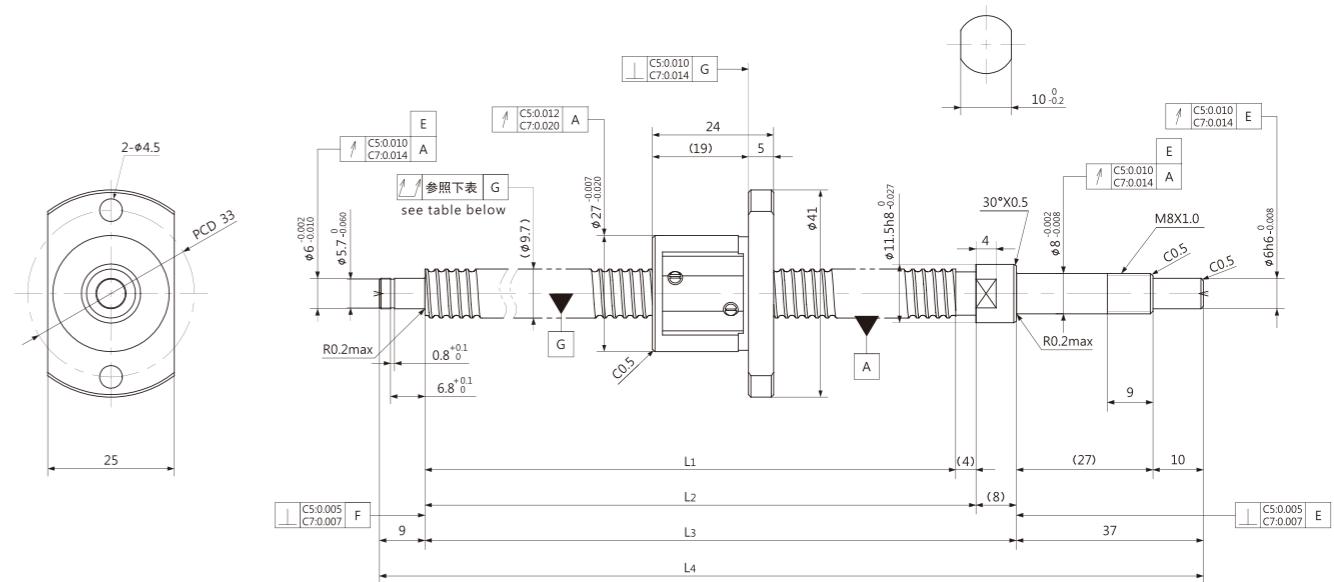
GT1002K | Shaft dia.(轴径) $\phi 10$ Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ1.2	Number of thread 螺纹条数		1
Thread direction 螺纹旋向		Right 右旋	Shaft root dia 丝杠轴底径		φ9.0
Number of circuit 循环数		1×3	Material 材质	Shaft 轴	S55C+SUS304
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

GT1002G | Shaft dia.(轴径) $\phi 10$ Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ1.5875	Number of thread 螺纹条数		1
Thread direction 螺纹旋向		Right 右旋	Shaft root dia 丝杠轴底径		φ8.6
Number of circuit 循环数		3.7×1	Material 材质	Shaft 轴	S55C+SUS304
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit (单位): mm

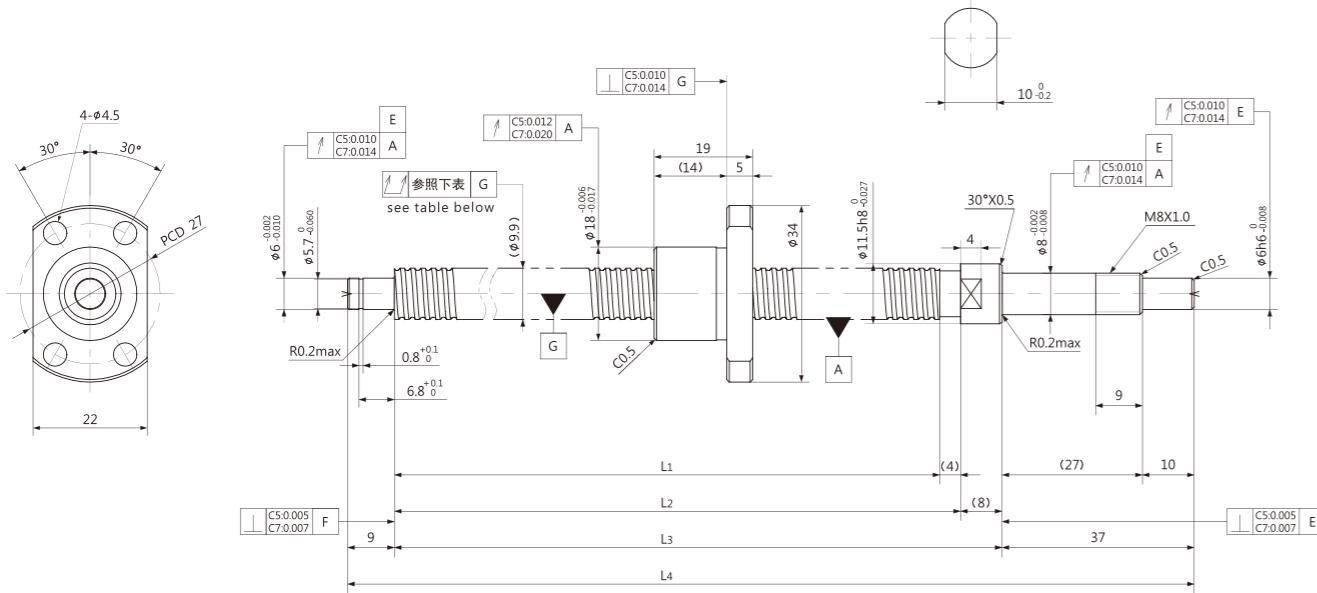
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1002K-85R143	50	C5	85	89	97	143	±0.018	0.018	0.040	~0.005	1450	3700
		Ct7					±0.050	0.052	0.065	~0.020		
GT1002K-135R193	100	C5	135	139	147	193	±0.020	0.018	0.040	~0.005	1450	3700
		Ct7					±0.023	0.052	0.065	~0.020		
GT1002K-185R243	150	C5	185	189	197	243	±0.020	0.018	0.055	~0.005	1450	3700
		Ct7					±0.032	0.052	0.080	~0.020		
GT1002K-235R293	200	C5	235	239	247	293	±0.023	0.018	0.055	~0.005	1450	3700
		Ct7					±0.041	0.052	0.080	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1002G-85R143	50	C5	85	89	97	143	±0.018	0.018	0.040	~0.005	2700	5300
		Ct7					±0.050	0.052	0.065	~0.020		
GT1002G-135R193	100	C5	135	139	147	193	±0.020	0.018	0.040	~0.005	2700	5300
		Ct7					±0.023	0.052	0.065	~0.020		
GT1002G-185R243	150	C5	185	189	197	243	±0.020	0.018	0.055	~0.005	2700	5300
		Ct7					±0.032	0.052	0.080	~0.020		
GT1002G-235R293	200	C5	235	239	247	293	±0.023	0.018	0.055	~0.005	2700	5300
		Ct7					±0.041	0.052	0.080	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

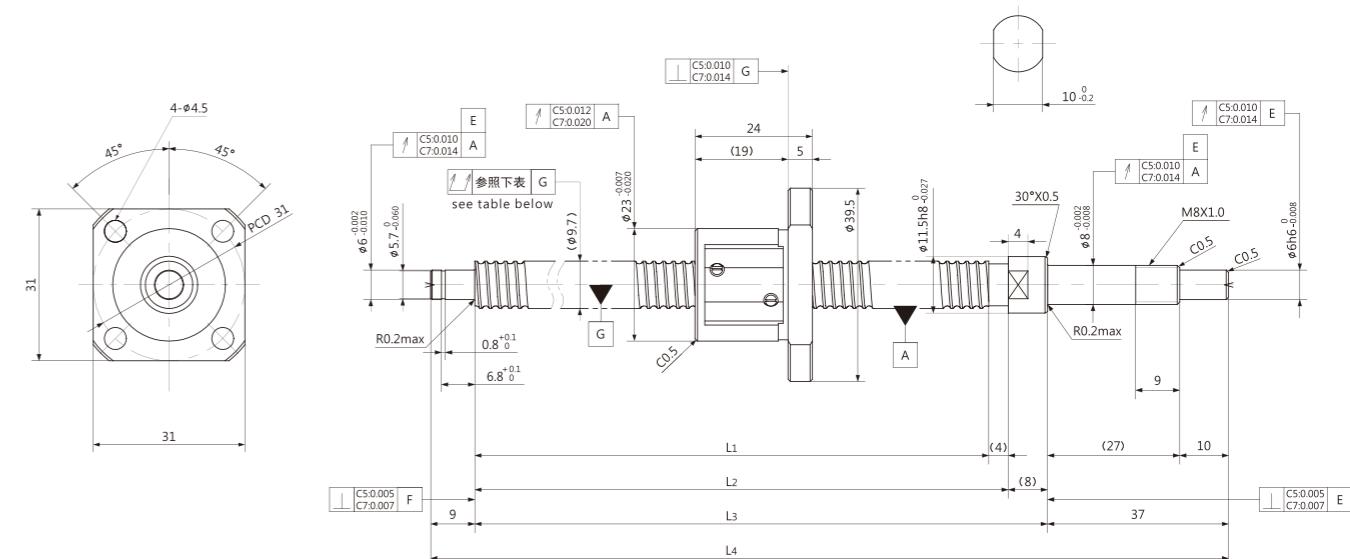
GT1002T | Shaft dia.(轴径) $\phi 10$ Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ1.2	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ9.0		
Number of circuit 循环数	1×3	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT1002A | Shaft dia.(轴径) $\phi 10$ Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ1.5875	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ8.6		
Number of circuit 循环数	3.7×1	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

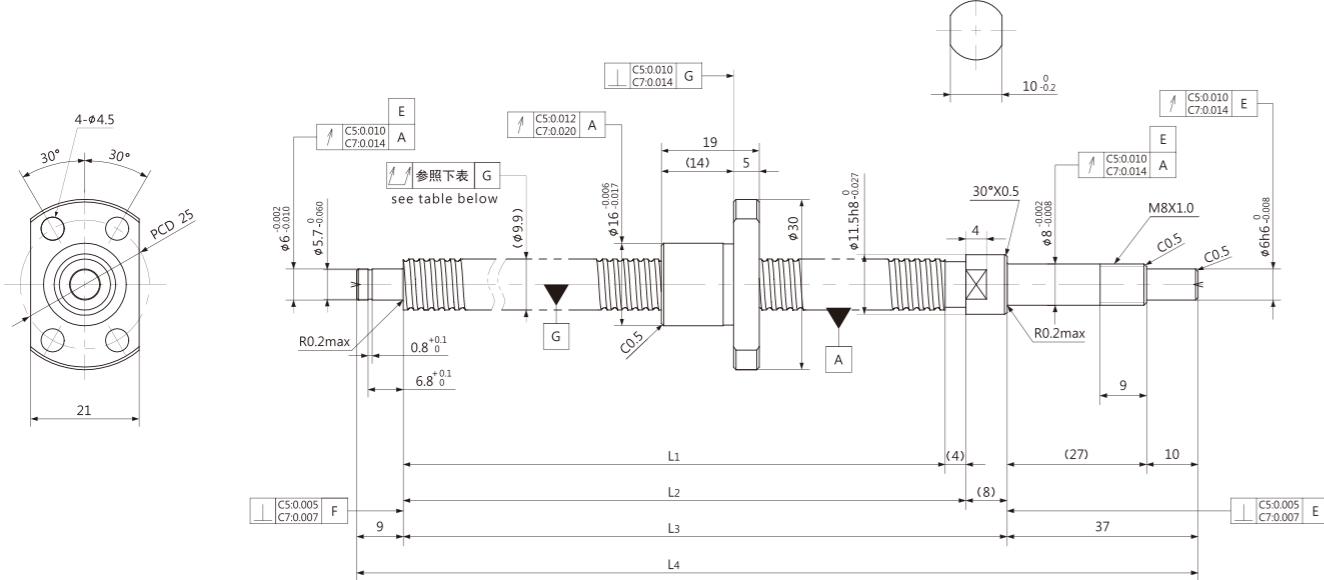
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1002T-85R143	50	C5	85	89	97	143	±0.018	0.018	0.040	~0.005	1450	3700
		Ct7					±0.050	0.052	0.065	~0.020		
GT1002T-135R193	100	C5	135	139	147	193	±0.020	0.018	0.040	~0.005	1450	3700
		Ct7					±0.023	0.052	0.065	~0.020		
GT1002T-185R243	150	C5	185	189	197	243	±0.020	0.018	0.055	~0.005	1450	3700
		Ct7					±0.032	0.052	0.080	~0.020		
GT1002T-235R293	200	C5	235	239	247	293	±0.023	0.018	0.055	~0.005	1450	3700
		Ct7					±0.041	0.052	0.080	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1002A-85R143	50	C5	85	89	97	143	±0.018	0.018	0.040	~0.005	2700	5300
		Ct7					±0.050	0.052	0.065	~0.020		
GT1002A-135R193	100	C5	135	139	147	193	±0.020	0.018	0.040	~0.005	2700	5300
		Ct7					±0.023	0.052	0.065	~0.020		
GT1002A-185R243	150	C5	185	189	197	243	±0.020	0.018	0.055	~0.005	2700	5300
		Ct7					±0.032	0.052	0.080	~0.020		
GT1002A-235R293	200	C5	235	239	247	293	±0.023	0.018	0.055	~0.005	2700	5300
		Ct7					±0.041	0.052	0.080	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GT1002D | Shaft dia.(轴径) φ 10 Lead(导程)2mm | C5&Ct7 |

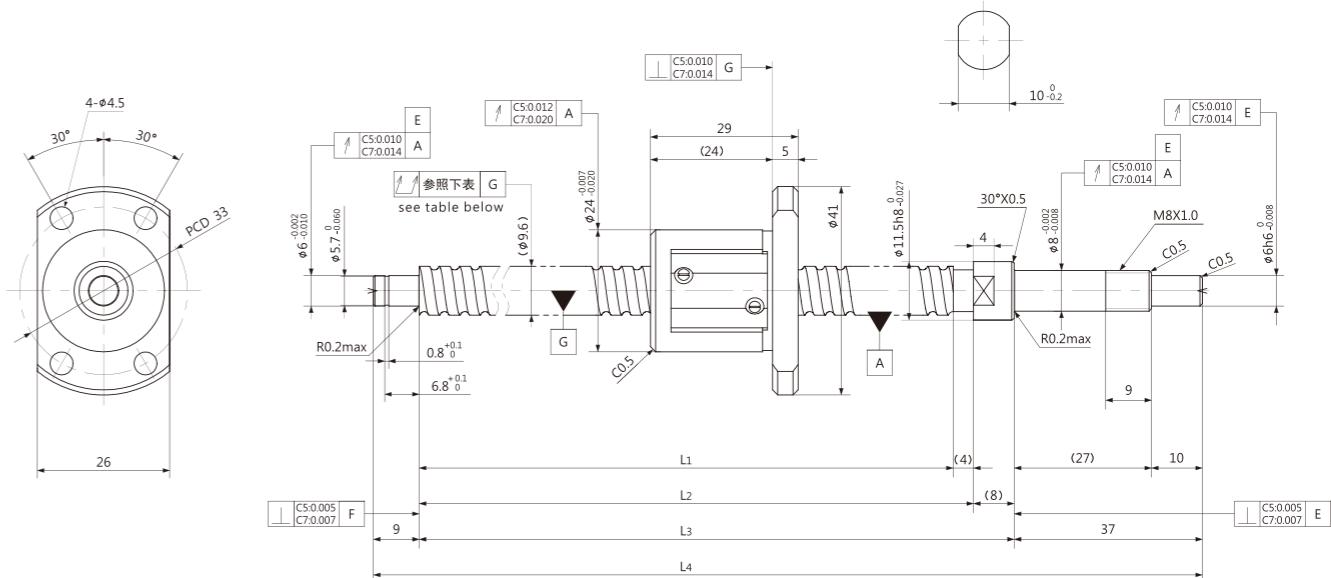


Ball Screw Specifications 主要技术参数			
Ball size 钢珠直径	φ1.2	Number of thread 螺纹条数	1
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ9.0
Number of circuit 循环数	1×3	Material 材质	S55C+SUS304
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1002D-85R143	50	C5	85	89	97	143	±0.018	0.018	0.040	~0.005	1450	3700
		Ct7					±0.050	0.052	0.065	~0.020		
GT1002D-135R193	100	C5	135	139	147	193	±0.020	0.018	0.040	~0.005	1450	3700
		Ct7					±0.023	0.052	0.065	~0.020		
GT1002D-185R243	150	C5	185	189	197	243	±0.020	0.018	0.055	~0.005	1450	3700
		Ct7					±0.032	0.052	0.080	~0.020		
GT1002D-235R293	200	C5	235	239	247	293	±0.023	0.018	0.055	~0.005	1450	3700
		Ct7					±0.041	0.052	0.080	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GT1004 | Shaft dia.(轴径) φ 10 Lead(导程)4mm | C5&Ct7 |

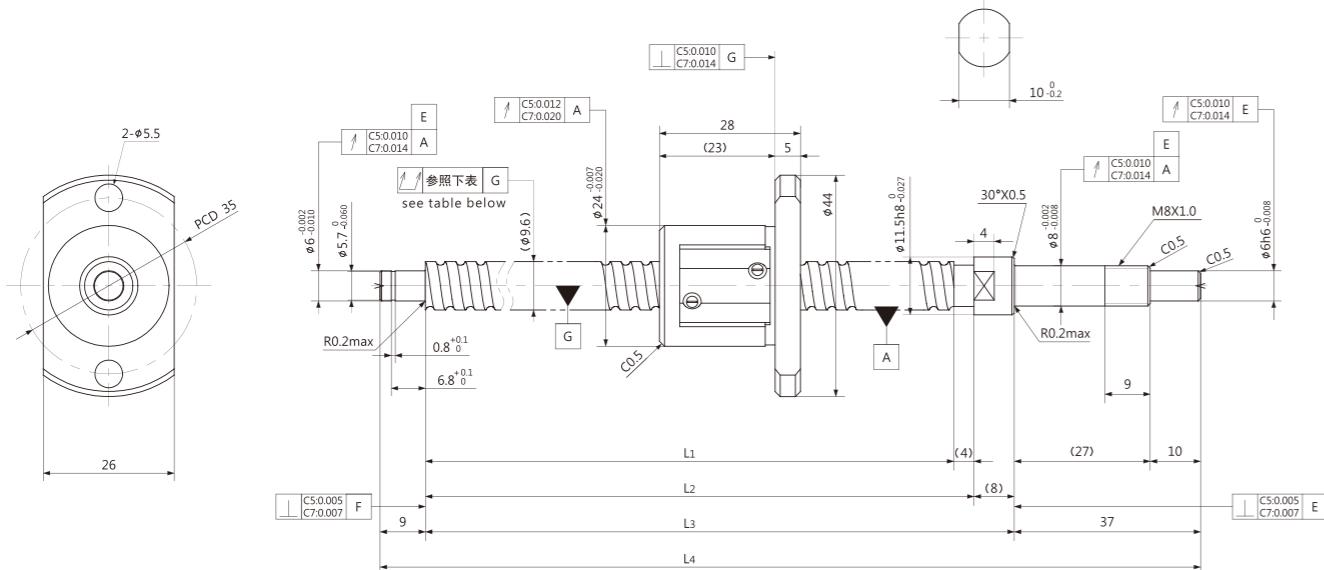


Ball Screw Specifications 主要技术参数			
Ball size 钢珠直径	φ2.0	Number of thread 螺纹条数	1
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ8.2
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1004-110R168	50	C5	110	114	122	168	±0.020	0.018	0.040	~0.005	3000	5200
		Ct7					±0.050	0.052	0.065	~0.020		
GT1004-160R218	100	C5	160	164	172	218	±0.020	0.018	0.055	~0.005	3000	5200
		Ct7					±0.028	0.052	0.080	~0.020		
GT1004-210R268	150	C5	210	214	222	268	±0.023	0.018	0.055	~0.005	3000	5200
		Ct7					±0.036	0.052	0.080	~0.020		
GT1004-260R318	200	C5	260	264	272	318	±0.023	0.018	0.065	~0.005	3000	5200
		Ct7					±0.045	0.052	0.100	~0.020		
GT1004-310R368	250	C5	310	314	322	368	±0.023	0.018	0.065	~0.005	3000	5200
		Ct7					±0.054	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

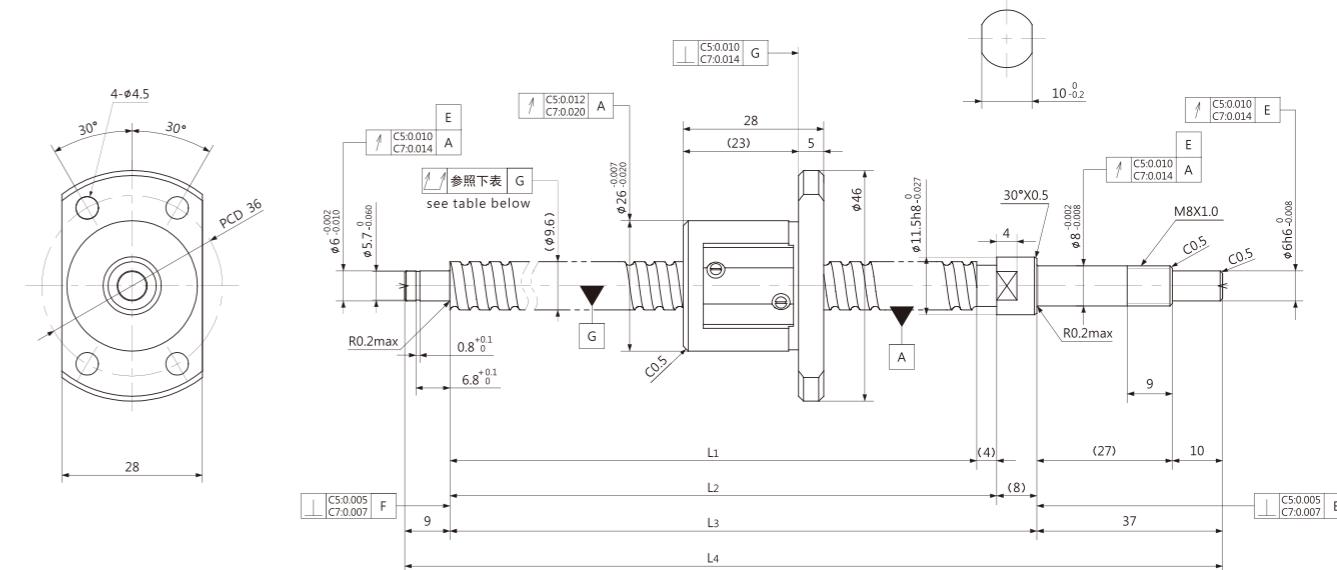
GT1004G | Shaft dia.(轴径) $\phi 10$ Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.0	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT1004T | Shaft dia.(轴径) $\phi 10$ Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.0	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

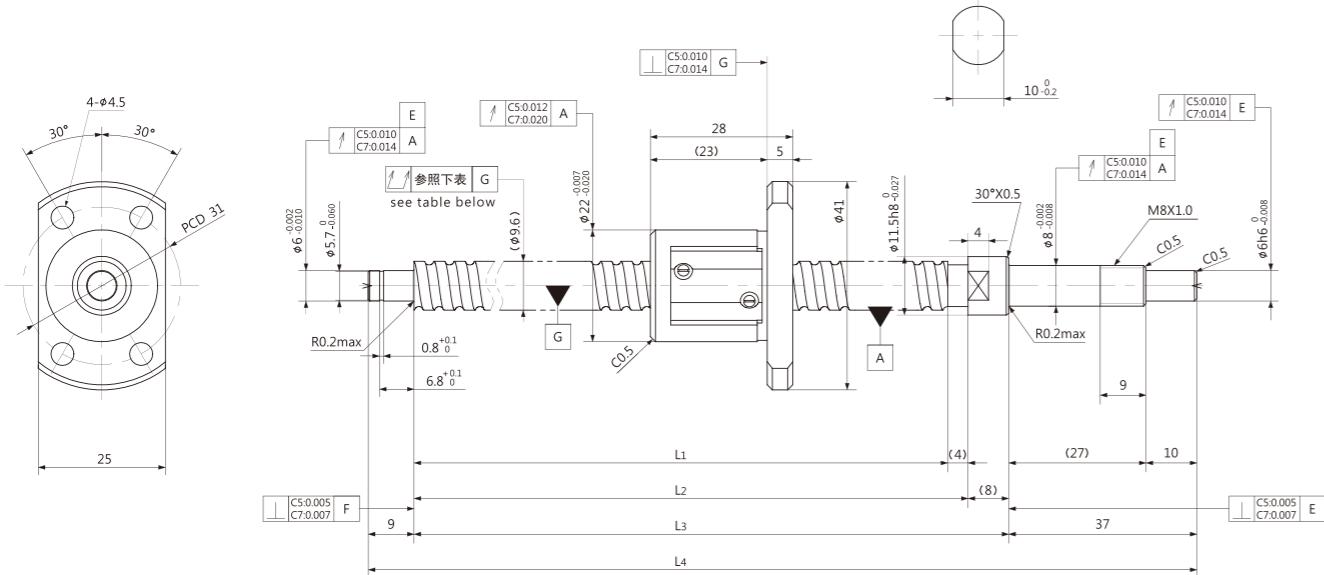
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1004G-110R168	50	C5	110	114	122	168	±0.020	0.018	0.040	~0.005	3000	5200
		Ct7					±0.050	0.052	0.065	~0.020		
GT1004G-160R218	100	C5	160	164	172	218	±0.020	0.018	0.055	~0.005	3000	5200
		Ct7					±0.028	0.052	0.080	~0.020		
GT1004G-210R268	150	C5	210	214	222	268	±0.023	0.018	0.055	~0.005	3000	5200
		Ct7					±0.036	0.052	0.080	~0.020		
GT1004G-260R318	200	C5	260	264	272	318	±0.023	0.018	0.065	~0.005	3000	5200
		Ct7					±0.045	0.052	0.100	~0.020		
GT1004G-310R368	250	C5	310	314	322	368	±0.023	0.018	0.065	~0.005	3000	5200
		Ct7					±0.054	0.052	0.100	~0.020		

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1004T-110R168	50	C5	110	114	122	168	±0.020	0.018	0.040	~0.005	3000	5200
		Ct7					±0.050	0.052	0.065	~0.020		
GT1004T-160R218	100	C5	160	164	172	218	±0.020	0.018	0.055	~0.005	3000	5200
		Ct7					±0.028	0.052	0.080	~0.020		
GT1004T-210R268	150	C5	210	214	222	268	±0.023	0.018	0.055	~0.005	3000	5200
		Ct7					±0.036	0.052	0.080	~0.020		
GT1004T-260R318	200	C5	260	264	272	318	±0.023	0.018	0.065	~0.005	3000	5200
		Ct7					±0.045	0.052	0.100	~0.020		
GT1004T-310R368	250	C5	310	314	322	368	±0.023	0.018	0.065	~0.005	3000	5200
		Ct7					±0.054	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

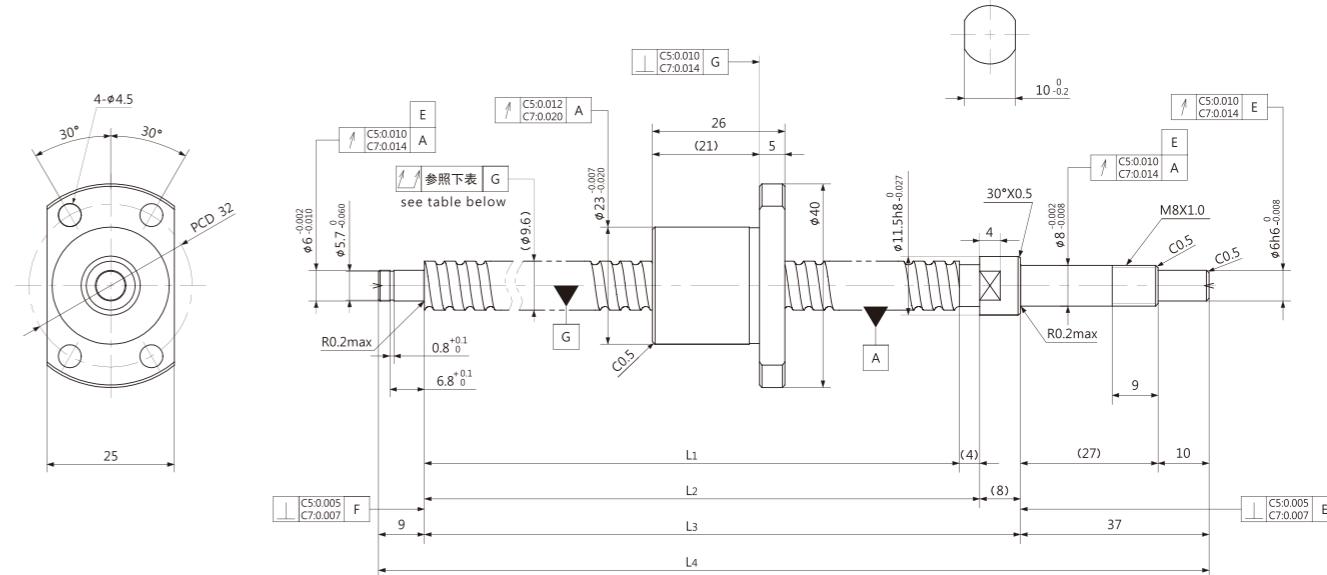
GT1004A | Shaft dia.(轴径) φ 10 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.0	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT1005 | Shaft dia.(轴径) φ 10 Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.0	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

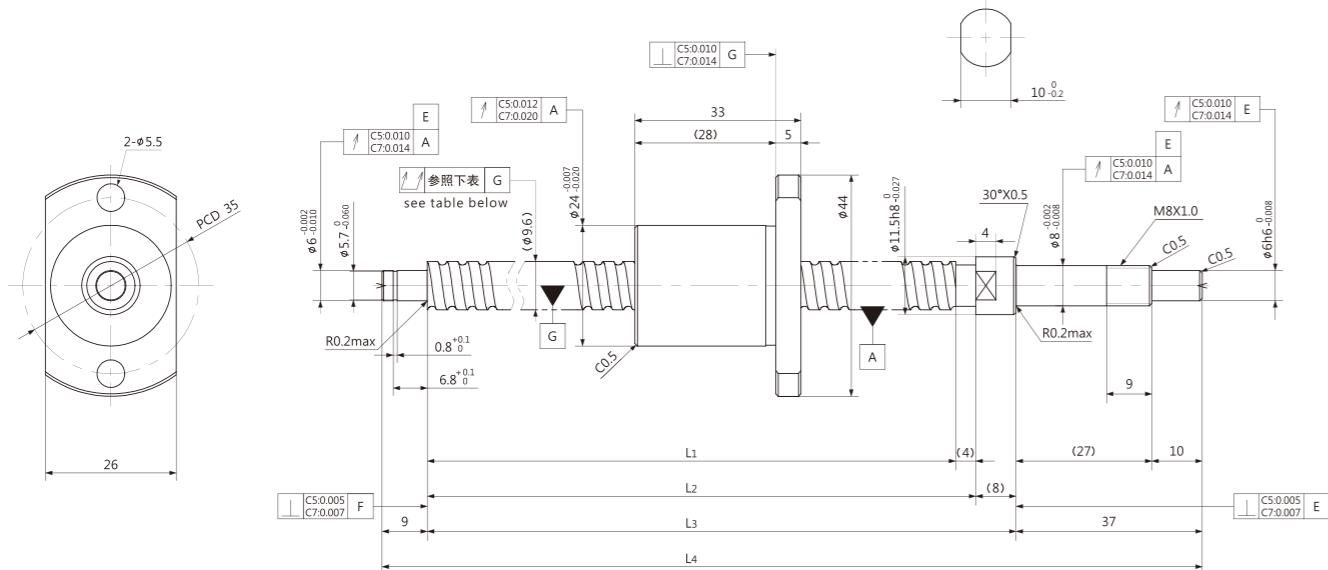
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1004A-110R168	50	C5	110	114	122	168	±0.020	0.018	0.040	~0.005	3000	5200
		Ct7					±0.050	0.052	0.065	~0.020		
GT1004A-160R218	100	C5	160	164	172	218	±0.020	0.018	0.055	~0.005	3000	5200
		Ct7					±0.028	0.052	0.080	~0.020		
GT1004A-210R268	150	C5	210	214	222	268	±0.023	0.018	0.055	~0.005	3000	5200
		Ct7					±0.036	0.052	0.080	~0.020		
GT1004A-260R318	200	C5	260	264	272	318	±0.023	0.018	0.065	~0.005	3000	5200
		Ct7					±0.045	0.052	0.100	~0.020		
GT1004A-310R368	250	C5	310	314	322	368	±0.023	0.018	0.065	~0.005	3000	5200
		Ct7					±0.054	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1005-167R225	100	C5	167	171	179	225	±0.020	0.018	0.040	~0.005	3000	5200
		Ct7					±0.029	0.052	0.080	~0.020		
GT1005-217R275	150	C5	217	221	229	275	±0.023	0.018	0.055	~0.005	3000	5200
		Ct7					±0.038	0.052	0.080	~0.020		
GT1005-267R325	200	C5	267	271	279	325	±0.023	0.018	0.065	~0.005	3000	5200
		Ct7					±0.046	0.052	0.100	~0.020		
GT1005-317R375	250	C5	317	321	329	375	±0.025	0.018	0.065	~0.005	3000	5200
		Ct7					±0.055	0.052	0.100	~0.020		
GT1005-367R425	300	C5	367	371	379	425	±0.025	0.018	0.080	~0.005	3000	5200
		Ct7					±0.064	0.052	0.120	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

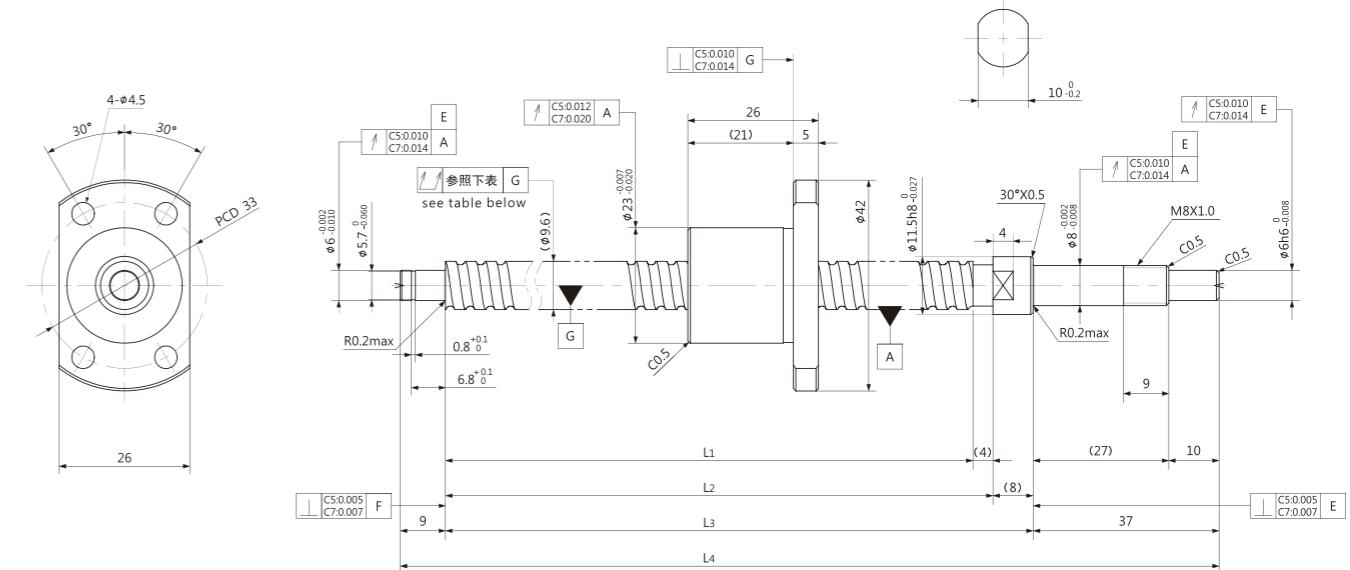
GT1005G | Shaft dia.(轴径) $\phi 10$ Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.0	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT1005T | Shaft dia.(轴径) $\phi 10$ Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.0	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

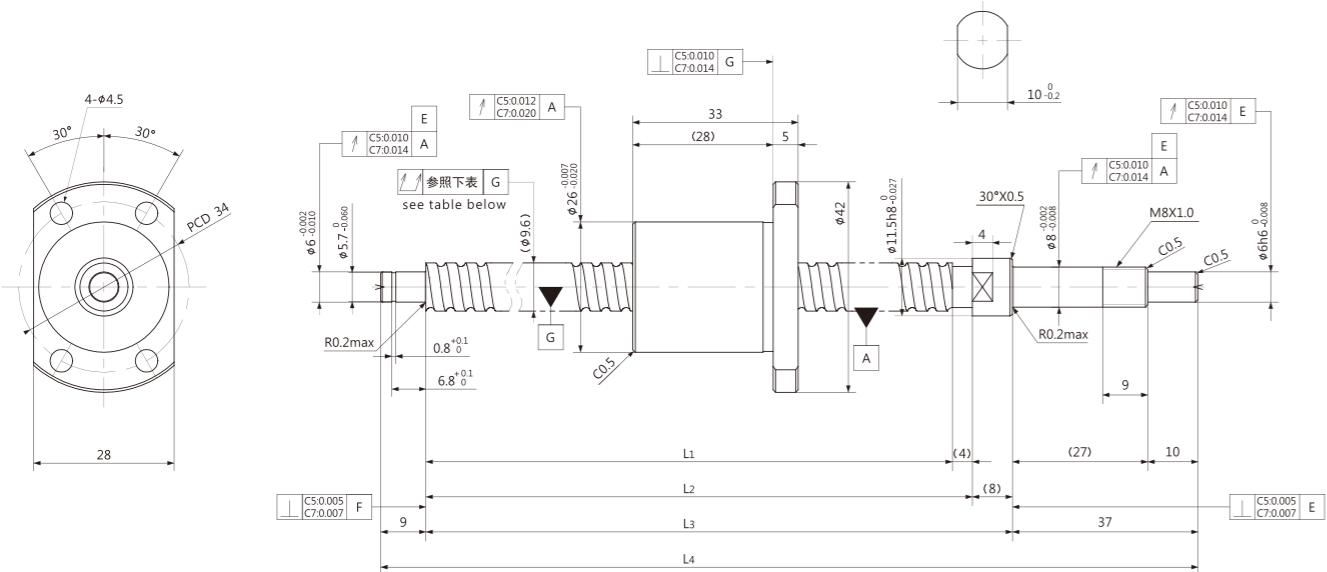
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1005G-167R225	100	C5	167	171	179	225	±0.020	0.018	0.040	-0.005	3000	5200
		Ct7					±0.029	0.052	0.080	-0.020		
GT1005G-217R275	150	C5	217	221	229	275	±0.023	0.018	0.055	-0.005	3000	5200
		Ct7					±0.038	0.052	0.080	-0.020		
GT1005G-267R325	200	C5	267	271	279	325	±0.023	0.018	0.065	-0.005	3000	5200
		Ct7					±0.046	0.052	0.100	-0.020		
GT1005G-317R375	250	C5	317	321	329	375	±0.025	0.018	0.065	-0.005	3000	5200
		Ct7					±0.055	0.052	0.100	-0.020		
GT1005G-367R425	300	C5	367	371	379	425	±0.025	0.018	0.080	-0.005	3000	5200
		Ct7					±0.064	0.052	0.120	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1005T-167R225	100	C5	167	171	179	225	±0.020	0.018	0.040	-0.005	3000	5200
		Ct7					±0.029	0.052	0.080	-0.020		
GT1005T-217R275	150	C5	217	221	229	275	±0.023	0.018	0.055	-0.005	3000	5200
		Ct7					±0.038	0.052	0.080	-0.020		
GT1005T-267R325	200	C5	267	271	279	325	±0.023	0.018	0.065	-0.005	3000	5200
		Ct7					±0.046	0.052	0.100	-0.020		
GT1005T-317R375	250	C5	317	321	329	375	±0.025	0.018	0.065	-0.005	3000	5200
		Ct7					±0.055	0.052	0.100	-0.020		
GT1005T-367R425	300	C5	367	371	379	425	±0.025	0.018	0.080	-0.005	3000	5200
		Ct7					±0.064	0.052	0.120	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

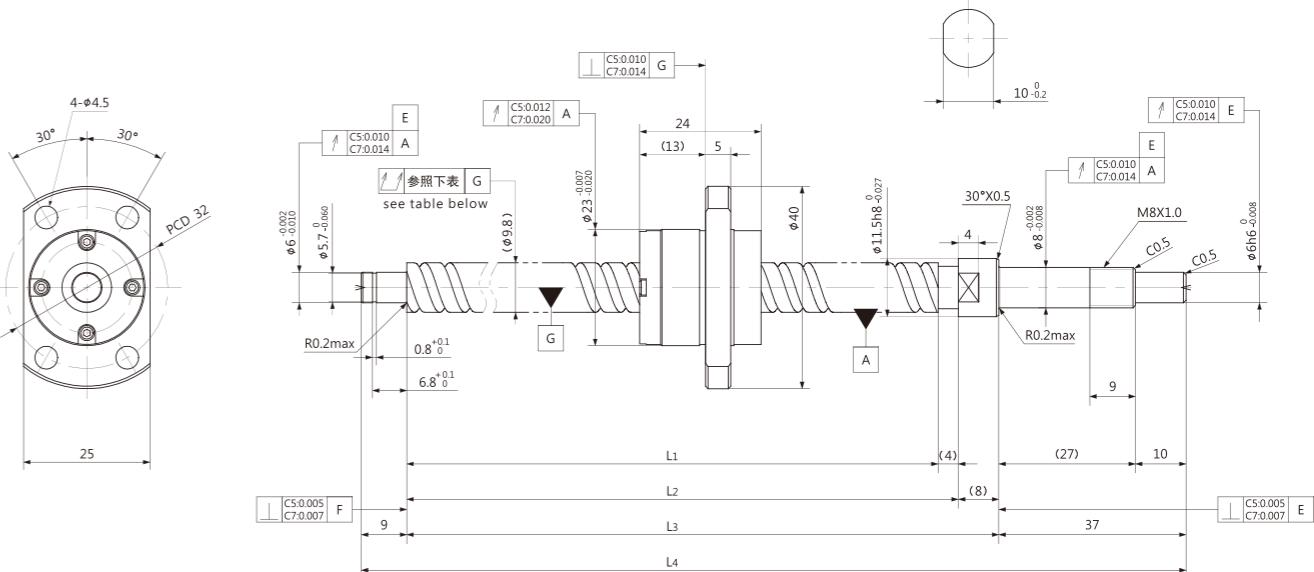
GT1005A | Shaft dia.(轴径) ϕ 10 Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.0	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT1010 | Shaft dia.(轴径) ϕ 10 Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.0	Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ8.4		
Number of circuit 循环数	1.6×2	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

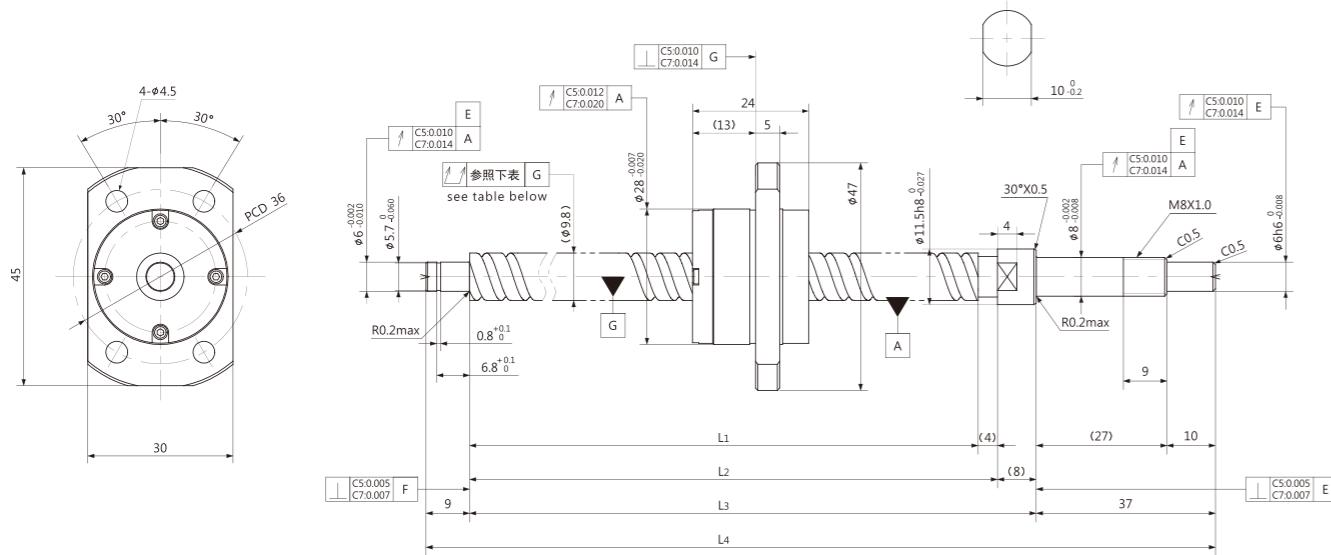
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1005A-167R225	100	C5	167	171	179	225	±0.020	0.018	0.040	-0.005	3000	5200
		Ct7					±0.029	0.052	0.080	-0.020		
GT1005A-217R275	150	C5	217	221	229	275	±0.023	0.018	0.055	-0.005	3000	5200
		Ct7					±0.038	0.052	0.080	-0.020		
GT1005A-267R325	200	C5	267	271	279	325	±0.023	0.018	0.065	-0.005	3000	5200
		Ct7					±0.046	0.052	0.100	-0.020		
GT1005A-317R375	250	C5	317	321	329	375	±0.025	0.018	0.065	-0.005	3000	5200
		Ct7					±0.055	0.052	0.100	-0.020		
GT1005A-367R425	300	C5	367	371	379	425	±0.025	0.018	0.080	-0.005	3000	5200
		Ct7					±0.064	0.052	0.120	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1010-167R225	100	C5	167	171	179	225	±0.020	0.018	0.040	-0.005	3300	5900
		Ct7					±0.029	0.052	0.080	-0.020		
GT1010-217R275	150	C5	217	221	229	275	±0.023	0.018	0.055	-0.005	3300	5900
		Ct7					±0.038	0.052	0.080	-0.020		
GT1010-267R325	200	C5	267	271	279	325	±0.023	0.018	0.065	-0.005	3300	5900
		Ct7					±0.046	0.052	0.100	-0.020		
GT1010-317R375	250	C5	317	321	329	375	±0.025	0.018	0.065	-0.005	3300	5900
		Ct7					±0.055	0.052	0.100	-0.020		
GT1010-367R425	300	C5	367	371	379	425	±0.025	0.018	0.080	-0.005	3300	5900
		Ct7					±0.064	0.052	0.120	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

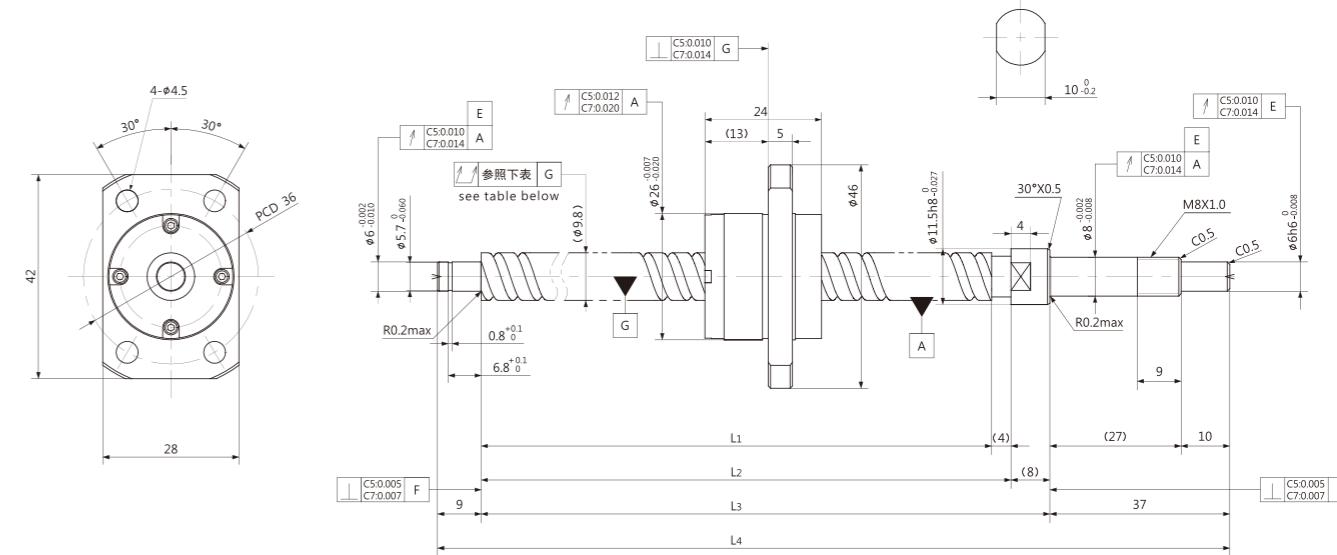
GT1010T | Shaft dia.(轴径) ϕ 10 Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	ϕ 2.0		Number of thread 螺纹条数	2	
Thread direction 螺纹旋向	Right 右旋		Shaft root dia 丝杠轴底径	ϕ 8.4	
Number of circuit 循环数	1.6×2		Material 材质	S55C+SUS304	
			Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

GT1010A | Shaft dia.(轴径) ϕ 10 Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	ϕ 2.0		Number of thread 螺纹条数	2	
Thread direction 螺纹旋向	Right 右旋		Shaft root dia 丝杠轴底径	ϕ 8.4	
Number of circuit 循环数	1.6×2		Material 材质	S55C+SUS304	
			Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit (单位): mm

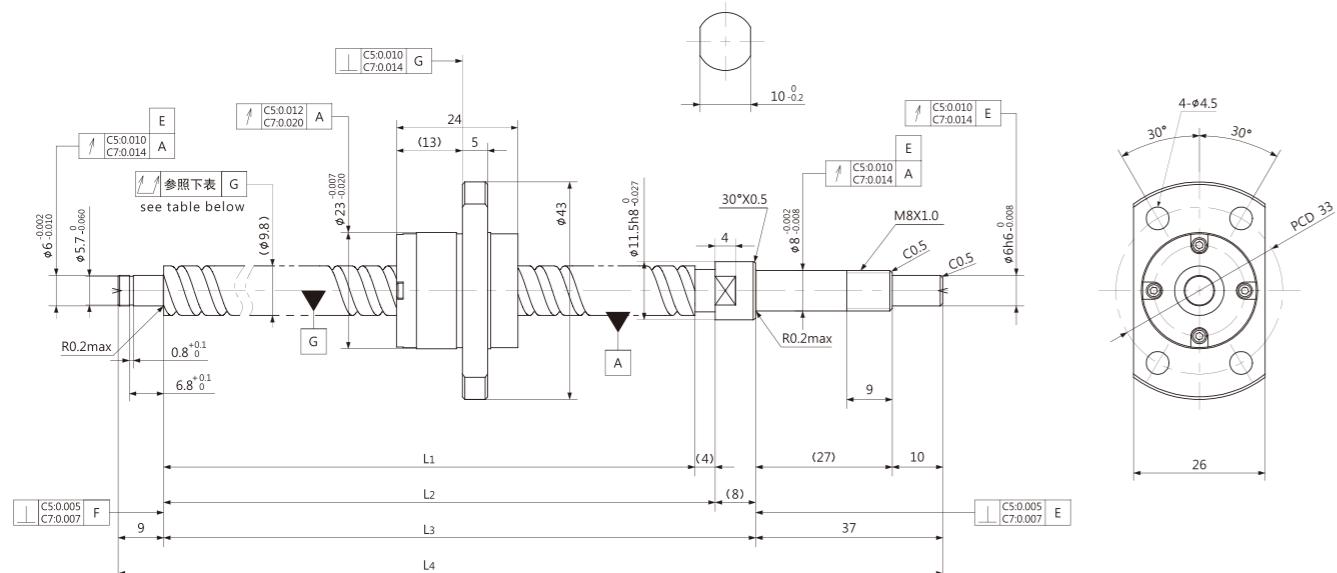
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1010T-167R225	100	C5	167	171	179	225	± 0.020	0.018	0.040	~ 0.005	3300	5900
		Ct7					± 0.029	0.052	0.080	~ 0.020		
GT1010T-217R275	150	C5	217	221	229	275	± 0.023	0.018	0.055	~ 0.005	3300	5900
		Ct7					± 0.038	0.052	0.080	~ 0.020		
GT1010T-267R325	200	C5	267	271	279	325	± 0.023	0.018	0.065	~ 0.005	3300	5900
		Ct7					± 0.046	0.052	0.100	~ 0.020		
GT1010T-317R375	250	C5	317	321	329	375	± 0.025	0.018	0.065	~ 0.005	3300	5900
		Ct7					± 0.055	0.052	0.100	~ 0.020		
GT1010T-367R425	300	C5	367	371	379	425	± 0.025	0.018	0.080	~ 0.005	3300	5900
		Ct7					± 0.064	0.052	0.120	~ 0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1010A-167R225	100	C5	167	171	179	225	± 0.020	0.018	0.040	~ 0.005	3300	5900
		Ct7					± 0.029	0.052	0.080	~ 0.020		
GT1010A-217R275	150	C5	217	221	229	275	± 0.023	0.018	0.055	~ 0.005	3300	5900
		Ct7					± 0.038	0.052	0.080	~ 0.020		
GT1010A-267R325	200	C5	267	271	279	325	± 0.023	0.018	0.065	~ 0.005	3300	5900
		Ct7					± 0.046	0.052	0.100	~ 0.020		
GT1010A-317R375	250	C5	317	321	329	375	± 0.025	0.018	0.065	~ 0.005	3300	5900
		Ct7					± 0.055	0.052	0.100	~ 0.020		
GT1010A-367R425	300	C5	367	371	379	425	± 0.025	0.018	0.080	~ 0.005	3300	5900
		Ct7					± 0.064	0.052	0.120	~ 0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

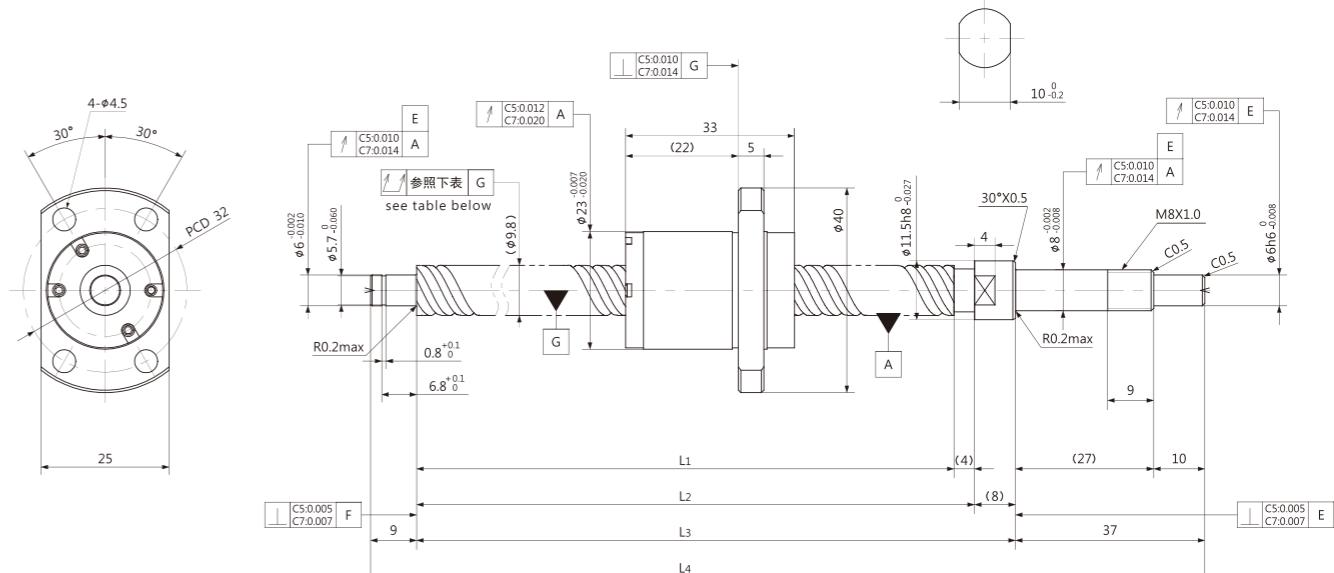
GT1010P | Shaft dia.(轴径) φ 10 Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.0	Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ8.4		
Number of circuit 循环数	1.6×2	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT1015 | Shaft dia.(轴径) φ 10 Lead(导程)15mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.0	Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ8.4		
Number of circuit 循环数	1.6×2	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

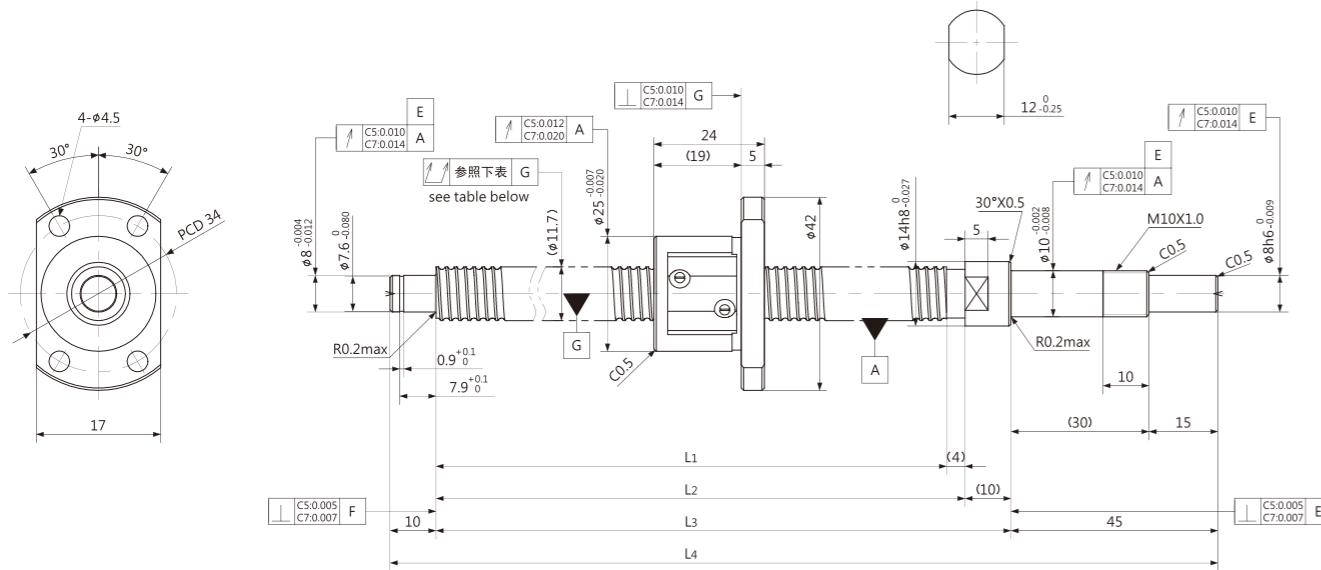
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1010P-167R225	100	C5	167	171	179	225	±0.020	0.018	0.040	-0.005	3300	5900
		Ct7					±0.029	0.052	0.080	-0.020		
GT1010P-217R275	150	C5	217	221	229	275	±0.023	0.018	0.055	-0.005	3300	5900
		Ct7					±0.038	0.052	0.080	-0.020		
GT1010P-267R325	200	C5	267	271	279	325	±0.023	0.018	0.065	-0.005	3300	5900
		Ct7					±0.046	0.052	0.100	-0.020		
GT1010P-317R375	250	C5	317	321	329	375	±0.025	0.018	0.065	-0.005	3300	5900
		Ct7					±0.055	0.052	0.100	-0.020		
GT1010P-367R425	300	C5	367	371	379	425	±0.025	0.018	0.080	-0.005	3300	5900
		Ct7					±0.064	0.052	0.120	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1015-167R225	100	C5	167	171	179	225	±0.020	0.018	0.040	-0.005	3300	6400
		Ct7					±0.029	0.052	0.080	-0.020		
GT1015-217R275	150	C5	217	221	229	275	±0.023	0.018	0.055	-0.005	3300	6400
		Ct7					±0.038	0.052	0.080	-0.020		
GT1015-267R325	200	C5	267	271	279	325	±0.023	0.018	0.065	-0.005	3300	6400
		Ct7					±0.046	0.052	0.100	-0.020		
GT1015-317R375	250	C5	317	321	329	375	±0.025	0.018	0.065	-0.005	3300	6400
		Ct7					±0.055	0.052	0.100	-0.020		
GT1015-367R425	300	C5	367	371	379	425	±0.025	0.018	0.080	-0.005	3300	6400
		Ct7					±0.064	0.052	0.120	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

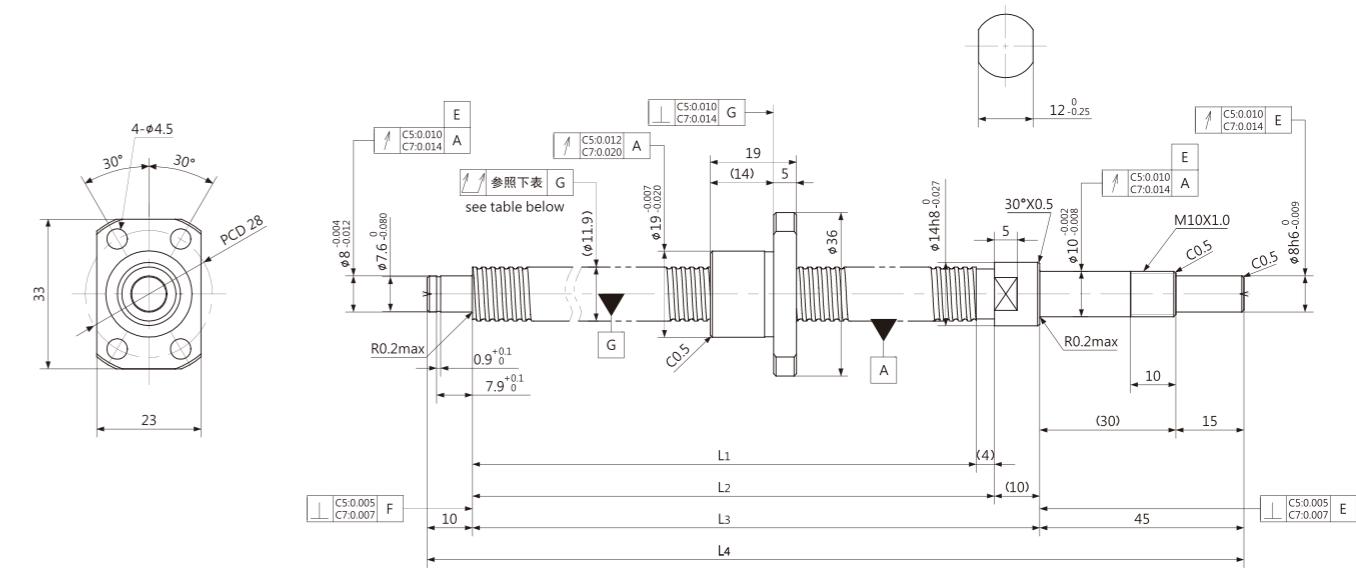
GT1202 | Shaft dia.(轴径) φ 12 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ1.5875	Number of thread 螺纹条数		1
Thread direction 螺纹旋向		Right 右旋	Shaft root dia 丝杠轴底径		φ10.6
Number of circuit 循环数	3.7×1		Material 材质	Shaft 轴	S55C+SUS304
				Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		Anti-rust treatment 防锈处理		Anti-rust oil 防锈油

GT1202K | Shaft dia.(轴径) φ 12 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ1.2	Number of thread 螺纹条数		1
Thread direction 螺纹旋向		Right 右旋	Shaft root dia 丝杠轴底径		φ11.0
Number of circuit 循环数	1×3		Material 材质	Shaft 轴	S55C+SUS304
				Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		Anti-rust treatment 防锈处理		Anti-rust oil 防锈油

Unit (单位): mm

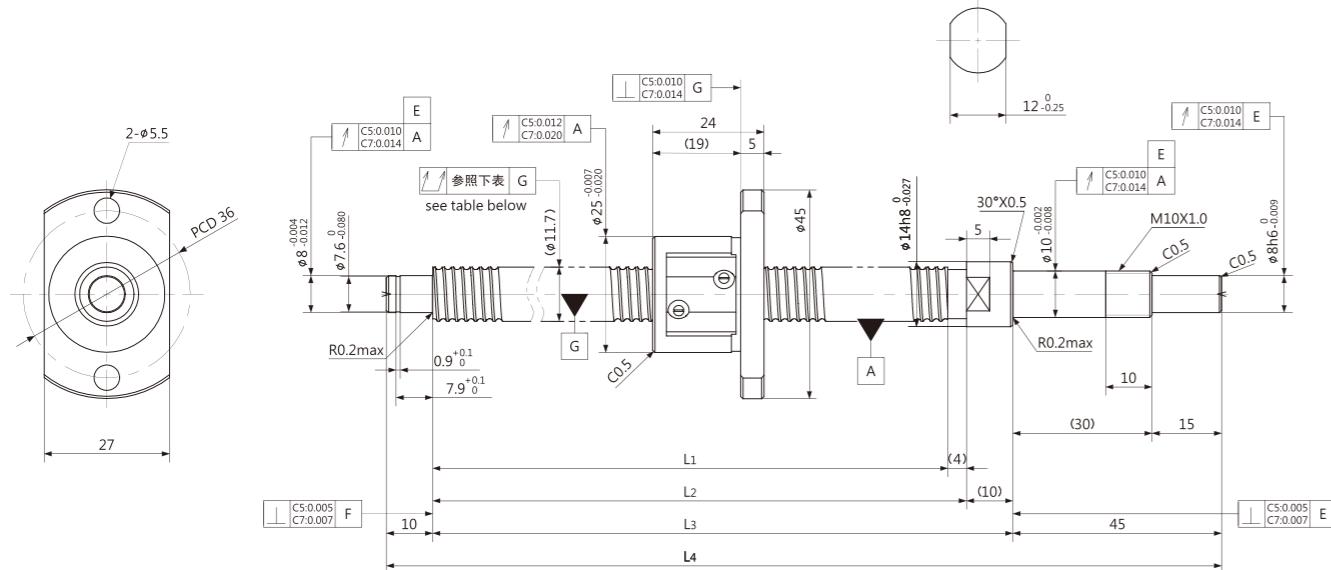
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1202-85R154	50	C5	85	89	99	154	±0.018	0.018	0.040	-0.005	3000	6400
		Ct7					±0.050	0.052	0.065	-0.020		
GT1202-135R204	100	C5	135	139	149	204	±0.020	0.018	0.055	-0.005	3000	6400
		Ct7					±0.023	0.052	0.080	-0.020		
GT1202-185R254	150	C5	185	189	199	254	±0.020	0.018	0.055	-0.005	3000	6400
		Ct7					±0.032	0.052	0.080	-0.020		
GT1202-235R304	200	C5	235	239	249	304	±0.023	0.018	0.055	-0.005	3000	6400
		Ct7					±0.041	0.052	0.080	-0.020		
GT1202-285R354	250	C5	285	289	299	354	±0.023	0.018	0.065	-0.005	3000	6400
		Ct7					±0.049	0.052	0.100	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1202K-85R154	50	C5	85	89	99	154	±0.018	0.018	0.040	-0.005	1600	3700
		Ct7					±0.050	0.052	0.065	-0.020		
GT1202K-135R204	100	C5	135	139	149	204	±0.020	0.018	0.055	-0.005	1600	3700
		Ct7					±0.023	0.052	0.080	-0.020		
GT1202K-185R254	150	C5	185	189	199	254	±0.020	0.018	0.055	-0.005	1600	3700
		Ct7					±0.032	0.052	0.080	-0.020		
GT1202K-235R304	200	C5	235	239	249	304	±0.023	0.018	0.055	-0.005	1600	3700
		Ct7					±0.041	0.052	0.080	-0.020		
GT1202K-285R354	250	C5	285	289	299	354	±0.023	0.018	0.065	-0.005	1600	3700
		Ct7					±0.049	0.052	0.100	-0.020		

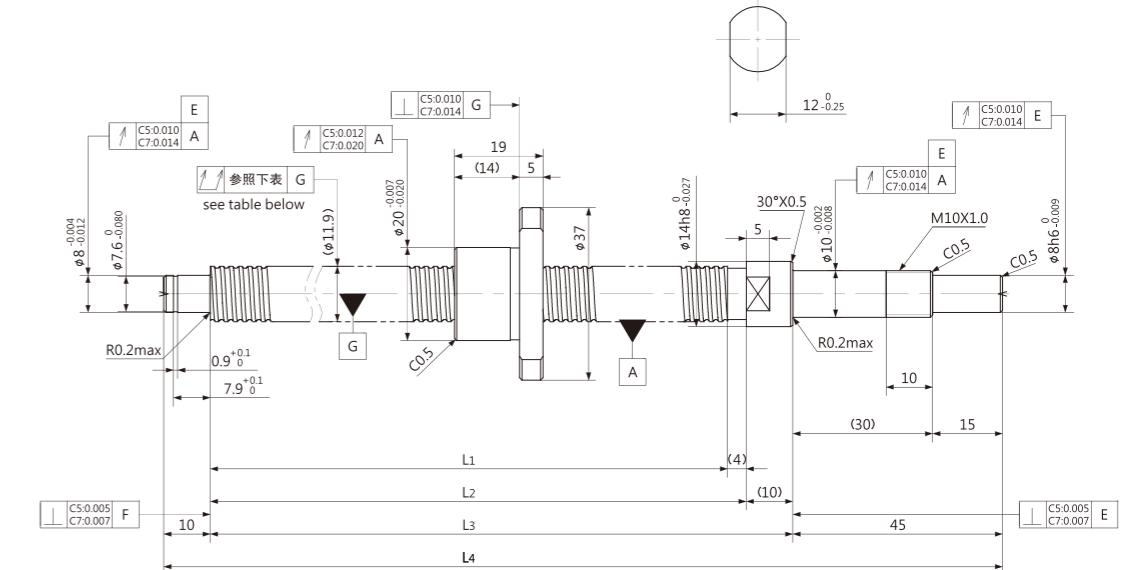
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GT1202G | Shaft dia.(轴径) ϕ 12 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ1.5875	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ10.6		
Number of circuit 循环数	3.7×1	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ1.2	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ11.0		
Number of circuit 循环数	1×3	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

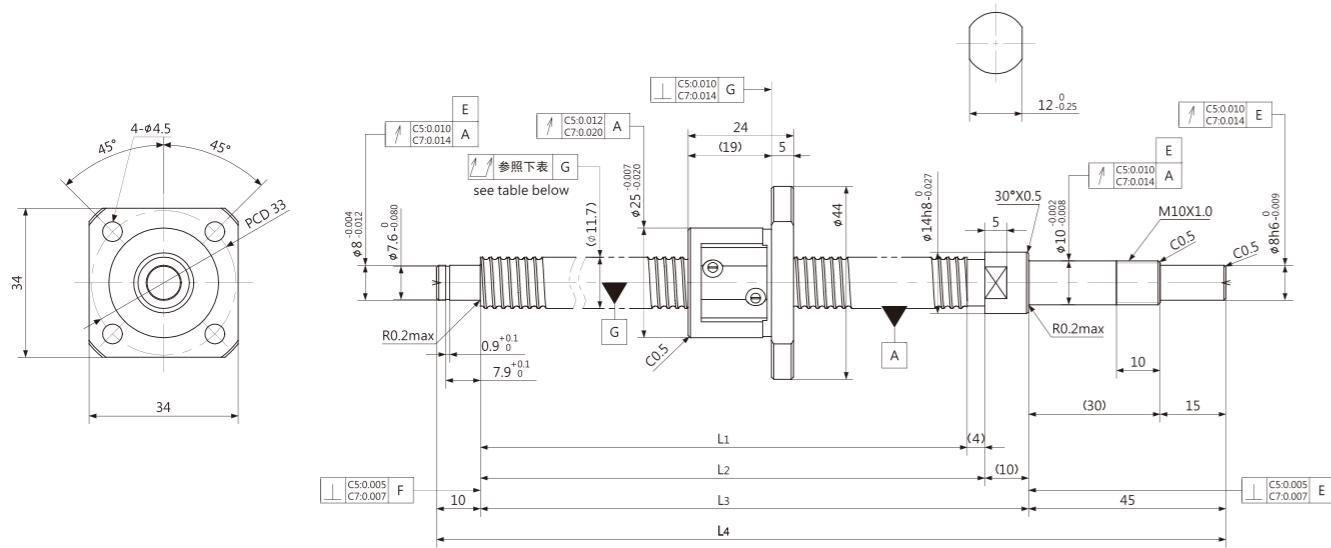
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1202G-85R154	50	C5	85	89	99	154	±0.018	0.018	0.040	~0.005	3000	6400
		Ct7					±0.050	0.052	0.065	~0.020		
GT1202G-135R204	100	C5	135	139	149	204	±0.020	0.018	0.055	~0.005	3000	6400
		Ct7					±0.023	0.052	0.080	~0.020		
GT1202G-185R254	150	C5	185	189	199	254	±0.020	0.018	0.055	~0.005	3000	6400
		Ct7					±0.032	0.052	0.080	~0.020		
GT1202G-235R304	200	C5	235	239	249	304	±0.023	0.018	0.055	~0.005	3000	6400
		Ct7					±0.041	0.052	0.080	~0.020		
GT1202G-285R354	250	C5	285	289	299	354	±0.023	0.018	0.065	~0.005	3000	6400
		Ct7					±0.049	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1202T-85R154	50	C5	85	89	99	154	±0.018	0.018	0.040	~0.005	1600	3700
		Ct7					±0.050	0.052	0.065	~0.020		
GT1202T-135R204	100	C5	135	139	149	204	±0.020	0.018	0.055	~0.005	1600	3700
		Ct7					±0.023	0.052	0.080	~0.020		
GT1202T-185R254	150	C5	185	189	199	254	±0.020	0.018	0.055	~0.005	1600	3700
		Ct7					±0.032	0.052	0.080	~0.020		
GT1202T-235R304	200	C5	235	239	249	304	±0.023	0.018	0.055	~0.005	1600	3700
		Ct7					±0.041	0.052	0.080	~0.020		
GT1202T-285R354	250	C5	285	289	299	354	±0.023	0.018	0.065	~0.005	1600	3700
		Ct7					±0.049	0.052	0.100	~0.020		

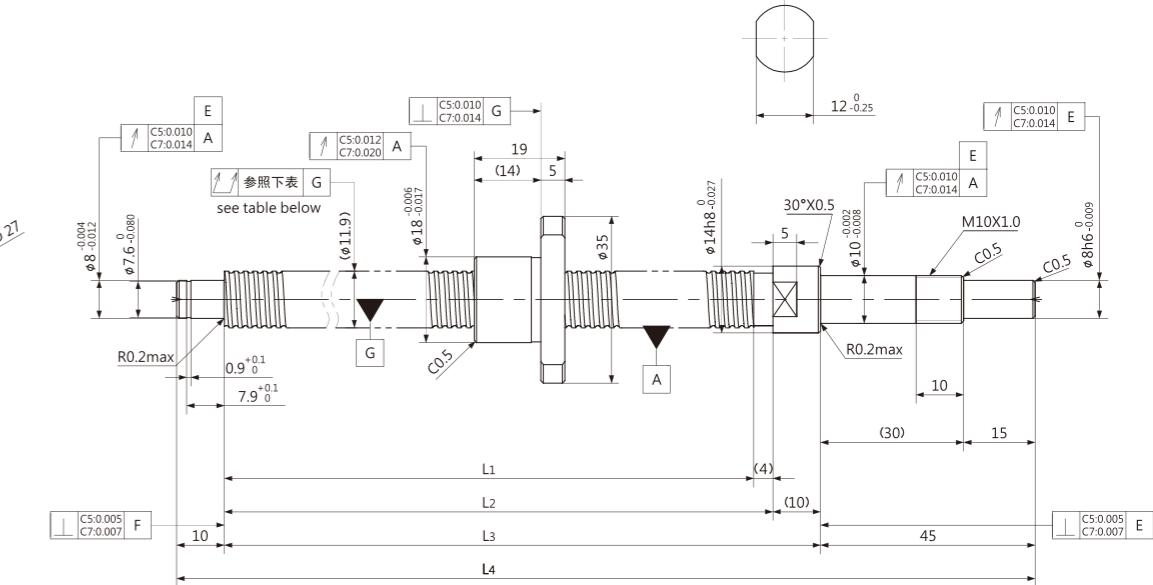
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GT1202A | Shaft dia.(轴径) ϕ 12 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball size 钢珠直径	ϕ 1.5875	Number of thread 螺纹条数	1
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	ϕ 10.6
Number of circuit 循环数	3.7×1	Material 材质	S55C+SUS304
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油



Unit (单位): mm

Ball Screw Specifications 主要技术参数			
Ball size 钢珠直径	ϕ 1.2	Number of thread 螺纹条数	1
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	ϕ 11.0
Number of circuit 循环数	1×3	Material 材质	S55C+SUS304
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油

Unit (单位): mm

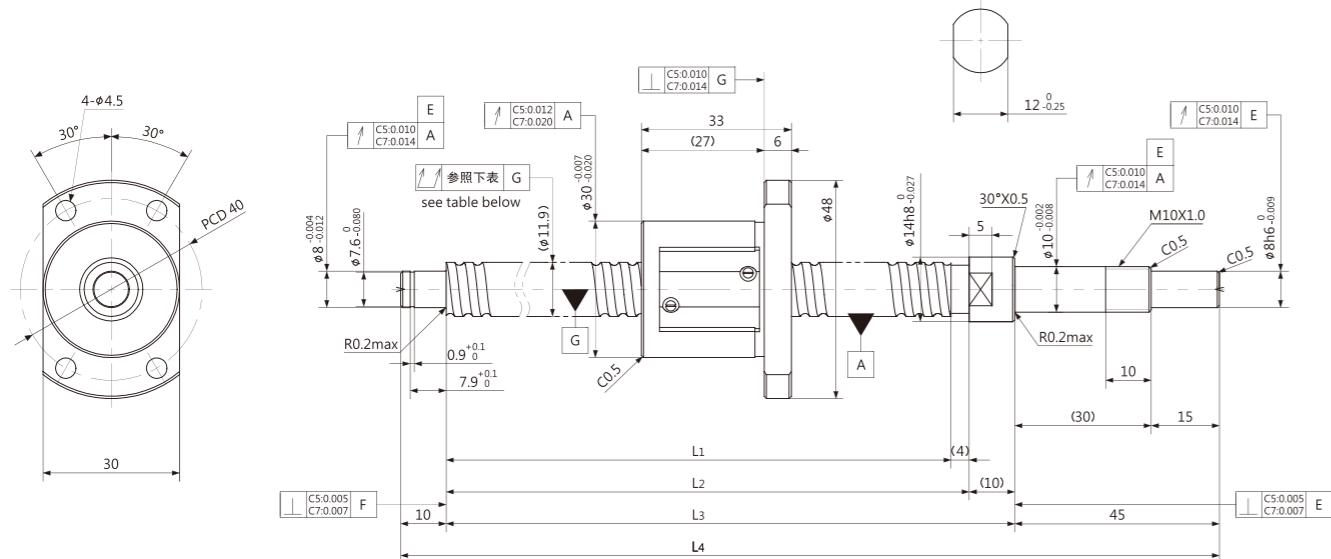
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1202A-85R154	50	C5	85	89	99	154	± 0.018	0.018	0.040	~ 0.005	3000	6400
		Ct7					± 0.050	0.052	0.065	~ 0.020		
GT1202A-135R204	100	C5	135	139	149	204	± 0.020	0.018	0.055	~ 0.005	3000	6400
		Ct7					± 0.023	0.052	0.080	~ 0.020		
GT1202A-185R254	150	C5	185	189	199	254	± 0.020	0.018	0.055	~ 0.005	3000	6400
		Ct7					± 0.032	0.052	0.080	~ 0.020		
GT1202A-235R304	200	C5	235	239	249	304	± 0.023	0.018	0.055	~ 0.005	3000	6400
		Ct7					± 0.041	0.052	0.080	~ 0.020		
GT1202A-285R354	250	C5	285	289	299	354	± 0.023	0.018	0.065	~ 0.005	3000	6400
		Ct7					± 0.049	0.052	0.100	~ 0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1202D-85R154	50	C5	85	89	99	154	± 0.018	0.018	0.040	~ 0.005	1600	3700
		Ct7					± 0.050	0.052	0.065	~ 0.020		
GT1202D-135R204	100	C5	135	139	149	204	± 0.020	0.018	0.055	~ 0.005	1600	3700
		Ct7					± 0.023	0.052	0.080	~ 0.020		
GT1202D-185R254	150	C5	185	189	199	254	± 0.020	0.018	0.055	~ 0.005	1600	3700
		Ct7					± 0.032	0.052	0.080	~ 0.020		
GT1202D-235R304	200	C5	235	239	249	304	± 0.023	0.018	0.055	~ 0.005	1600	3700
		Ct7					± 0.041	0.052	0.080	~ 0.020		
GT1202D-285R354	250	C5	285	289	299	354	± 0.023	0.018	0.065	~ 0.005	1600	3700
		Ct7					± 0.049	0.052	0.100	~ 0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

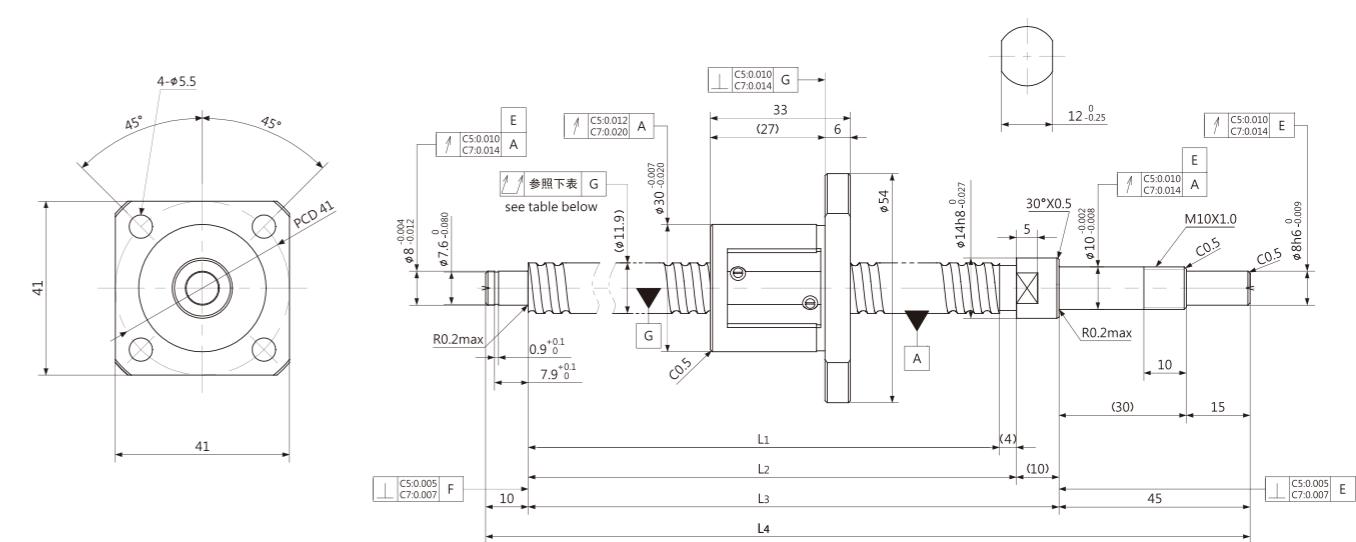
GT1204 | Shaft dia.(轴径) ϕ 12 | Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.5	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		Shaft root dia 丝杠轴底径		
Number of circuit 循环数	1×3		Material 材质	Shaft 轴	S55C+SUS304
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	Anti-rust oil 防锈油

GT1204G | Shaft dia.(轴径) ϕ 12 | Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.381	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		Shaft root dia 丝杠轴底径		
Number of circuit 循环数	3.7×1		Material 材质	Shaft 轴	S55C+SUS304
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	Anti-rust oil 防锈油

Unit (单位): mm

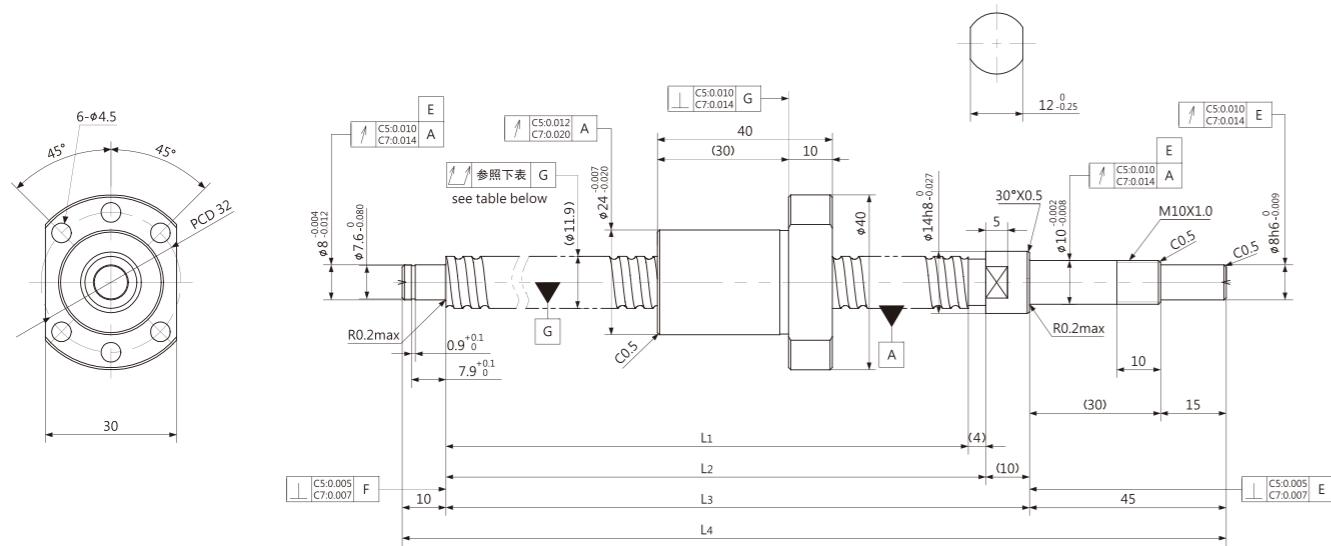
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1204-85R154	50	C5	85	89	99	154	±0.018	0.018	0.040	~0.005	5700	11600
		Ct7					±0.050	0.052	0.065	~0.020		
GT1204-135R204	100	C5	135	139	149	204	±0.020	0.018	0.055	~0.005	5700	11600
		Ct7					±0.023	0.052	0.080	~0.020		
GT1204-185R254	150	C5	185	189	199	254	±0.020	0.018	0.055	~0.005	5700	11600
		Ct7					±0.032	0.052	0.080	~0.020		
GT1204-235R304	200	C5	235	239	249	304	±0.023	0.018	0.055	~0.005	5700	11600
		Ct7					±0.041	0.052	0.080	~0.020		
GT1204-285R354	250	C5	285	289	299	354	±0.023	0.018	0.065	~0.005	5700	11600
		Ct7					±0.049	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1204G-85R154	50	C5	85	89	99	154	±0.018	0.018	0.040	~0.005	5700	11600
		Ct7					±0.050	0.052	0.065	~0.020		
GT1204G-135R204	100	C5	135	139	149	204	±0.020	0.018	0.055	~0.005	5700	11600
		Ct7					±0.023	0.052	0.080	~0.020		
GT1204G-185R254	150	C5	185	189	199	254	±0.020	0.018	0.055	~0.005	5700	11600
		Ct7					±0.032	0.052	0.080	~0.020		
GT1204G-235R304	200	C5	235	239	249	304	±0.023	0.018	0.055	~0.005	5700	11600
		Ct7					±0.041	0.052	0.080	~0.020		
GT1204G-285R354	250	C5	285	289	299	354	±0.023	0.018	0.065	~0.005	5700	11600
		Ct7					±0.049	0.052	0.100	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

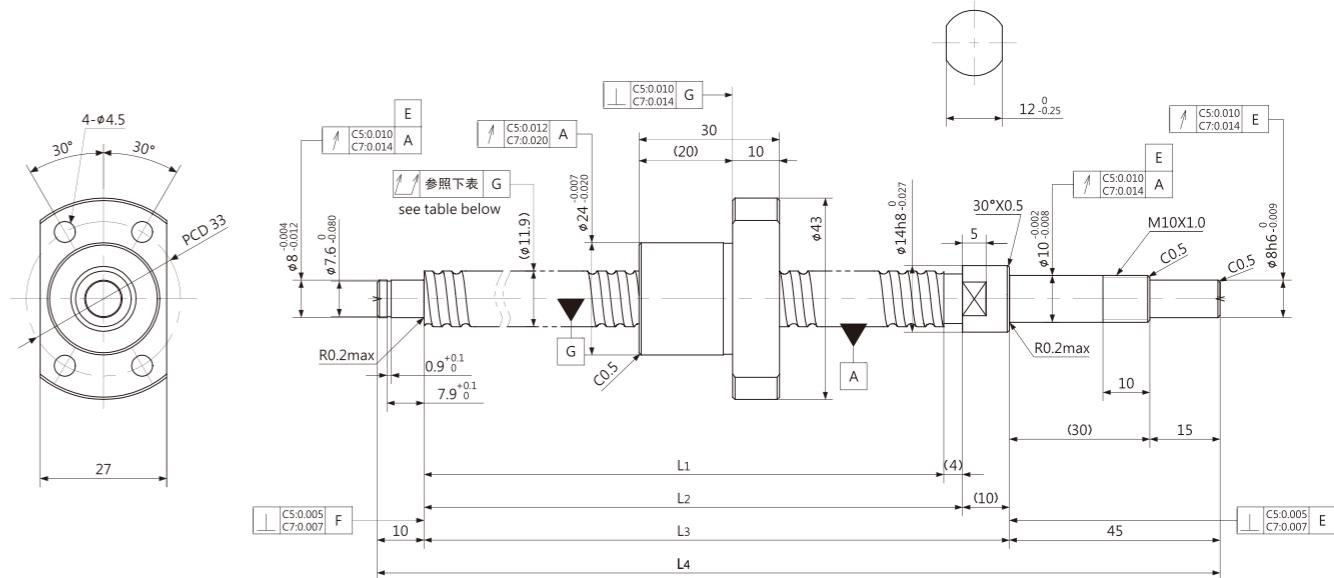
GT1204T | Shaft dia.(轴径) φ 12 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.5	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ10.2		
Number of circuit 循环数	1×4	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT1204A | Shaft dia.(轴径) φ 12 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.381	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ10.6		
Number of circuit 循环数	1×4	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

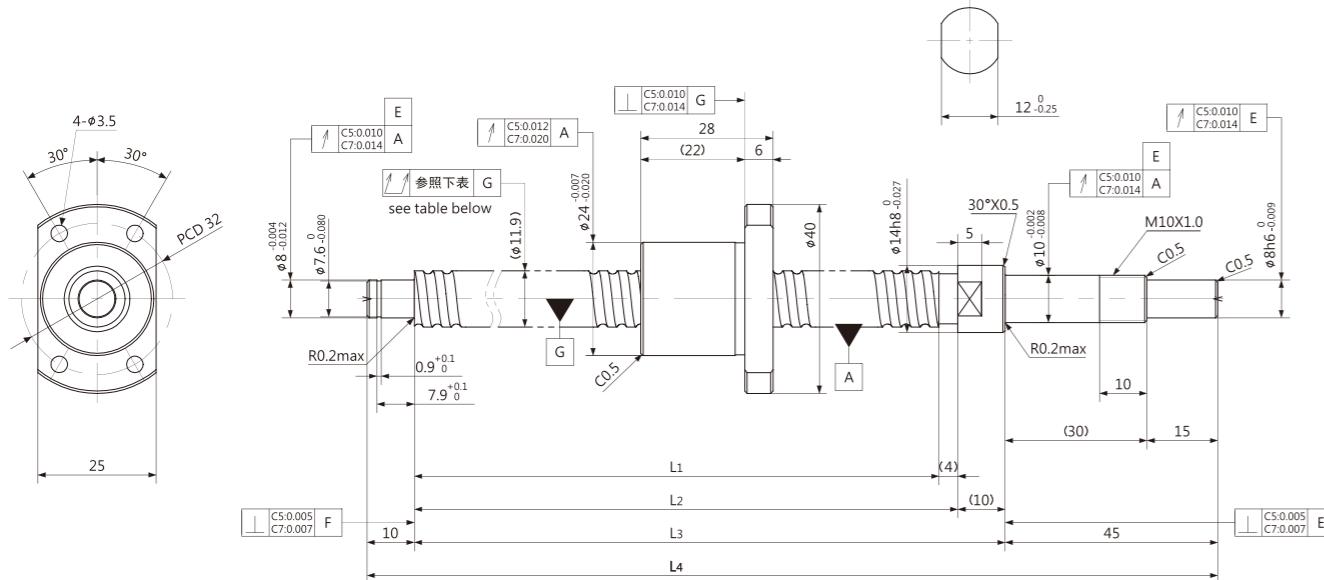
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1204T-85R154	50	C5	85	89	99	154	±0.018	0.018	0.040	-0.005	5900	12000
		Ct7					±0.050	0.052	0.065	-0.020		
GT1204T-135R204	100	C5	135	139	149	204	±0.020	0.018	0.055	-0.005	5900	12000
		Ct7					±0.023	0.052	0.080	-0.020		
GT1204T-185R254	150	C5	185	189	199	254	±0.020	0.018	0.055	-0.005	5900	12000
		Ct7					±0.032	0.052	0.080	-0.020		
GT1204T-235R304	200	C5	235	239	249	304	±0.023	0.018	0.055	-0.005	5900	12000
		Ct7					±0.041	0.052	0.080	-0.020		
GT1204T-285R354	250	C5	285	289	299	354	±0.023	0.018	0.065	-0.005	5900	12000
		Ct7					±0.049	0.052	0.100	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1204A-85R154	50	C5	85	89	99	154	±0.018	0.018	0.040	-0.005	5900	12000
		Ct7					±0.050	0.052	0.065	-0.020		
GT1204A-135R204	100	C5	135	139	149	204	±0.020	0.018	0.055	-0.005	5900	12000
		Ct7					±0.023	0.052	0.080	-0.020		
GT1204A-185R254	150	C5	185	189	199	254	±0.020	0.018	0.055	-0.005	5900	12000
		Ct7					±0.032	0.052	0.080	-0.020		
GT1204A-235R304	200	C5	235	239	249	304	±0.023	0.018	0.055	-0.005	5900	12000
		Ct7					±0.041	0.052	0.080	-0.020		
GT1204A-285R354	250	C5	285	289	299	354	±0.023	0.018	0.065	-0.005	5900	12000
		Ct7					±0.049	0.052	0.100	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GT1204D | Shaft dia.(轴径) ϕ 12 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

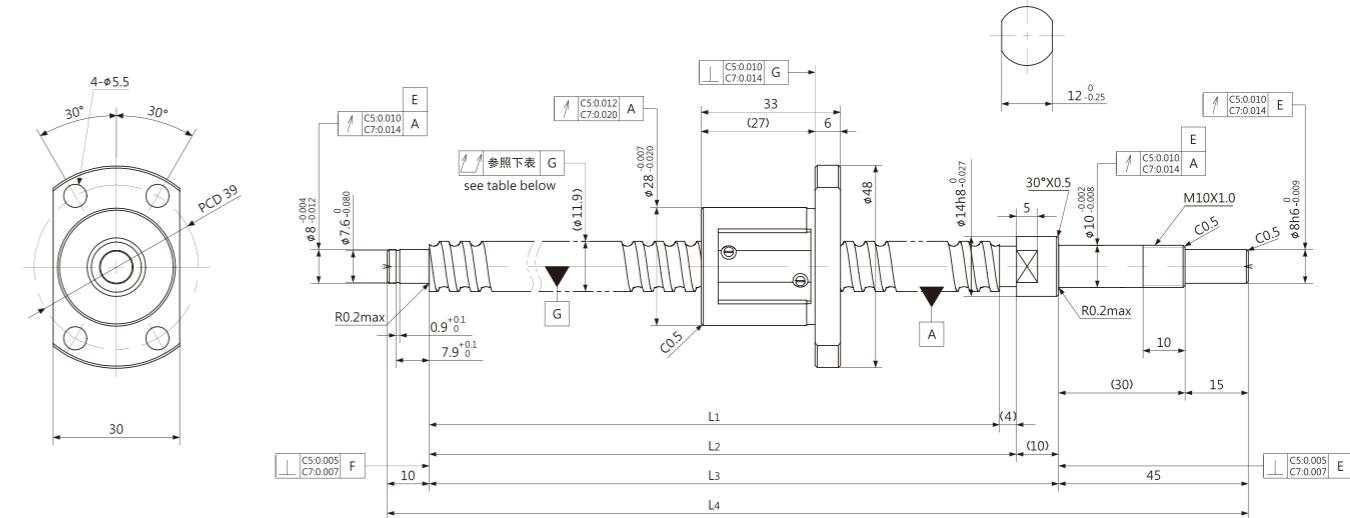
Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.381	Number of thread 螺纹条数	1
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ10.6
Number of circuit 循环数	3.7×1	Material 材质	S55C+SUS304
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1204D-85R154	50	C5	85	89	99	154	±0.018	0.018	0.040	-0.005	4600	9500
		Ct7					±0.050	0.052	0.065	-0.020		
GT1204D-135R204	100	C5	135	139	149	204	±0.020	0.018	0.055	-0.005	4600	9500
		Ct7					±0.023	0.052	0.080	-0.020		
GT1204D-185R254	150	C5	185	189	199	254	±0.020	0.018	0.055	-0.005	4600	9500
		Ct7					±0.032	0.052	0.080	-0.020		
GT1204D-235R304	200	C5	235	239	249	304	±0.023	0.018	0.055	-0.005	4600	9500
		Ct7					±0.041	0.052	0.080	-0.020		
GT1204D-285R354	250	C5	285	289	299	354	±0.023	0.018	0.065	-0.005	4600	9500
		Ct7					±0.049	0.052	0.100	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

GT1205 | Shaft dia.(轴径) ϕ 12 Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

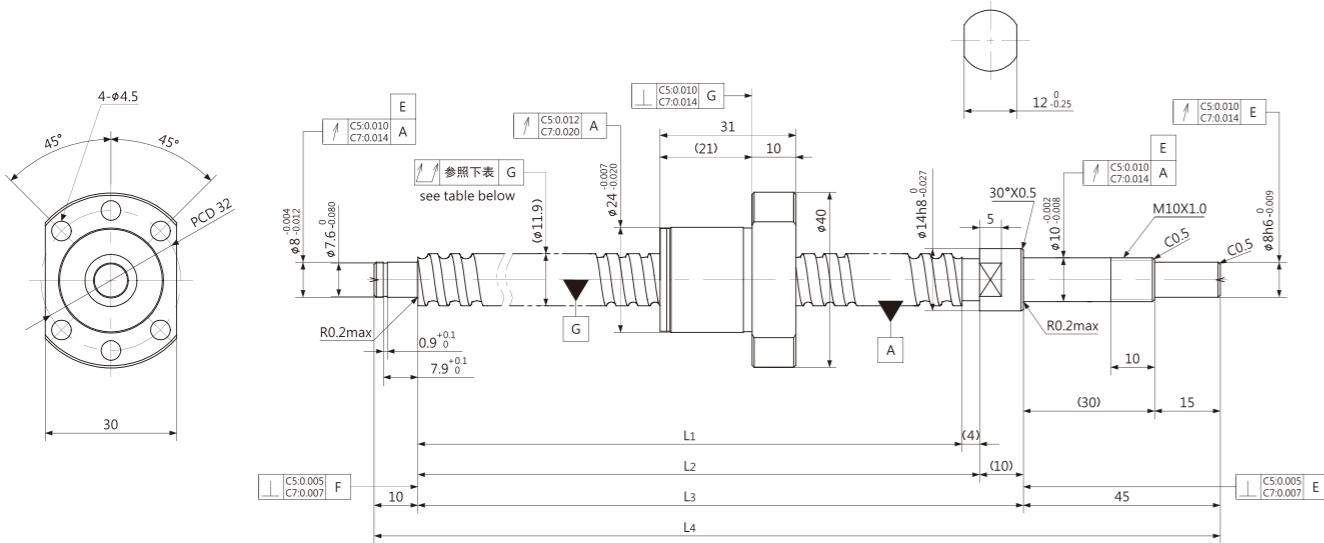
Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ3.175	Number of thread 螺纹条数	1
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ9.6
Number of circuit 循环数	2.7×1	Material 材质	S55C+SUS304
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油

Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1205-110R179	50	C5	110	114	124	179	±0.020	0.018	0.055	~0.005	6500	10600
		Ct7					±0.050	0.052	0.065	~0.020		
GT1205-160R229	100	C5	160	164	174	229	±0.020	0.018	0.055	~0.005	6500	10600
		Ct7					±0.028	0.052	0.080	~0.020		
GT1205-210R279	150	C5	210	214	224	279	±0.023	0.018	0.055	~0.005	6500	10600
		Ct7					±0.036	0.052	0.080	~0.020		
GT1205-260R329	200	C5	260	264	274	329	±0.023	0.018	0.065	~0.005	6500	10600
		Ct7					±0.045	0.052	0.100	~0.020		
GT1205-310R379	250	C5	310	314	324	379	±0.023	0.018	0.080	~0.005	6500	10600
		Ct7					±0.054	0.052	0.100	~0.020		
GT1205-335R404	300	C5	335	339	349	404	±0.025	0.018	0.080	~0.005	6500	10600
		Ct7					±0.058	0.052	0.120	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

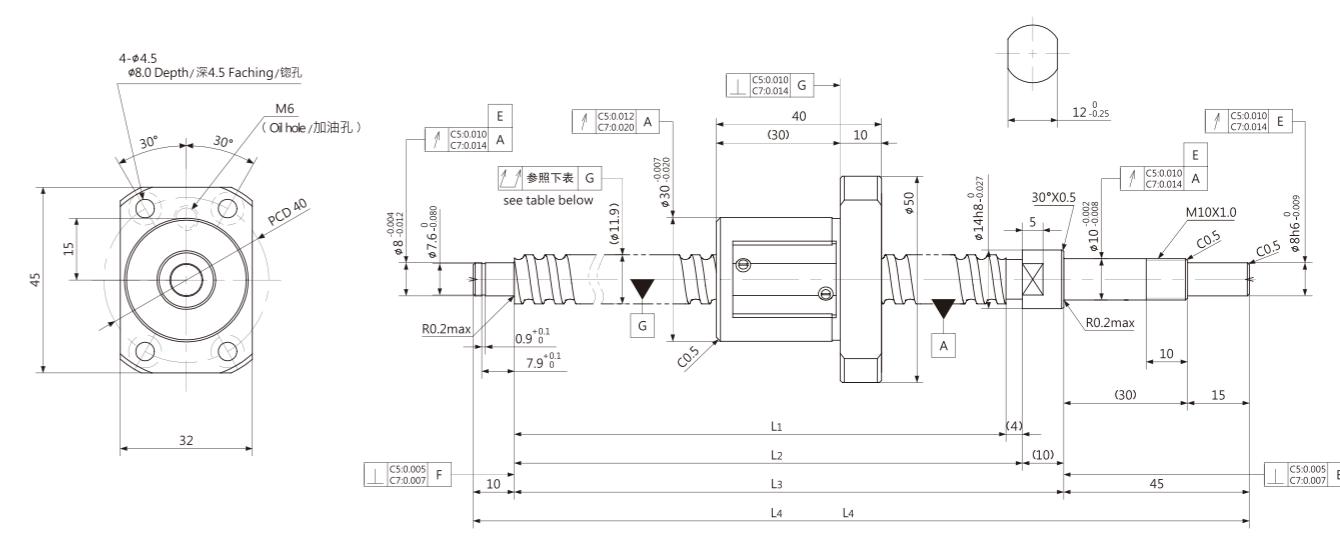
GT1205T | Shaft dia.(轴径) ϕ 12 Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		ϕ 2.5		Number of thread 螺纹条数	
Thread direction 螺纹旋向		Right 右旋		Shaft root dia 丝杠轴底径	
Number of circuit 循环数		2.8×1		Material 材质	Shaft 轴
Surface hardness		HRC58~62 (Thread area)		Anti-rust treatment	防锈处理
				Anti-rust oil 防锈油	

GT1205A | Shaft dia.(轴径) ϕ 12 Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		ϕ 3.175		Number of thread 螺纹条数	
Thread direction 螺纹旋向		Right 右旋		Shaft root dia 丝杠轴底径	
Number of circuit 循环数		2.7×1		Material 材质	Shaft 轴
Surface hardness		HRC58~62 (Thread area)		Anti-rust treatment	防锈处理
				Anti-rust oil 防锈油	

Unit (单位): mm

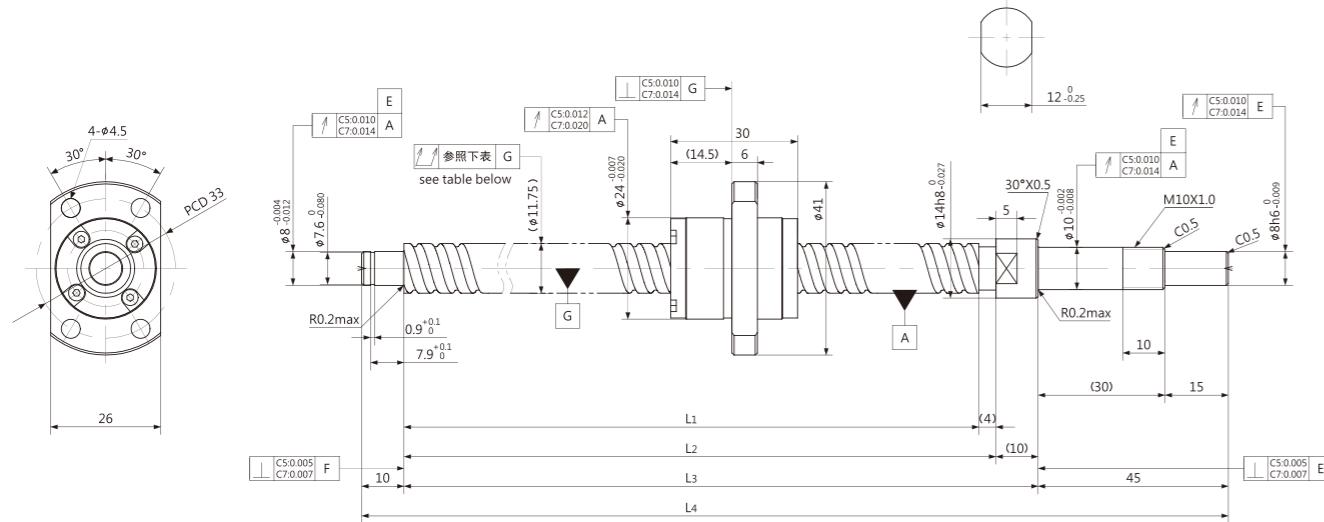
Ball Screw Model	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1205T-110R179	50	C5	110	114	124	179	±0.020	0.018	0.055	-0.005	3300	6700
		Ct7					±0.050	0.052	0.065	-0.020		
GT1205T-160R229	100	C5	160	164	174	229	±0.020	0.018	0.055	-0.005	3300	6700
		Ct7					±0.028	0.052	0.080	-0.020		
GT1205T-210R279	150	C5	210	214	224	279	±0.023	0.018	0.055	-0.005	3300	6700
		Ct7					±0.036	0.052	0.080	-0.020		
GT1205T-260R329	200	C5	260	264	274	329	±0.023	0.018	0.065	-0.005	3300	6700
		Ct7					±0.045	0.052	0.100	-0.020		
GT1205T-310R379	250	C5	310	314	324	379	±0.023	0.018	0.080	-0.005	3300	6700
		Ct7					±0.054	0.052	0.100	-0.020		
GT1205T-335R404	300	C5	335	339	349	404	±0.025	0.018	0.080	-0.005	3300	6700
		Ct7					±0.058	0.052	0.120	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1205A-110R179	50	C5	110	114	124	179	±0.020	0.018	0.055	-0.005	6500	10600
		Ct7					±0.050	0.052	0.065	-0.020		
GT1205A-160R229	100	C5	160	164	174	229	±0.020	0.018	0.055	-0.005	6500	10600
		Ct7					±0.028	0.052	0.080	-0.020		
GT1205A-210R279	150	C5	210	214	224	279	±0.023	0.018	0.055	-0.005	6500	10600
		Ct7					±0.036	0.052	0.080	-0.020		
GT1205A-260R329	200	C5	260	264	274	329	±0.023	0.018	0.065	-0.005	6500	10600
		Ct7					±0.045	0.052	0.100	-0.020		
GT1205A-310R379	250	C5	310	314	324	379	±0.023	0.018	0.080	-0.005	6500	10600
		Ct7					±0.054	0.052	0.100	-0.020		
GT1205A-335R404	300	C5	335	339	349	404	±0.025	0.018	0.080	-0.005	6500	10600
		Ct7					±0.058	0.052	0.120	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

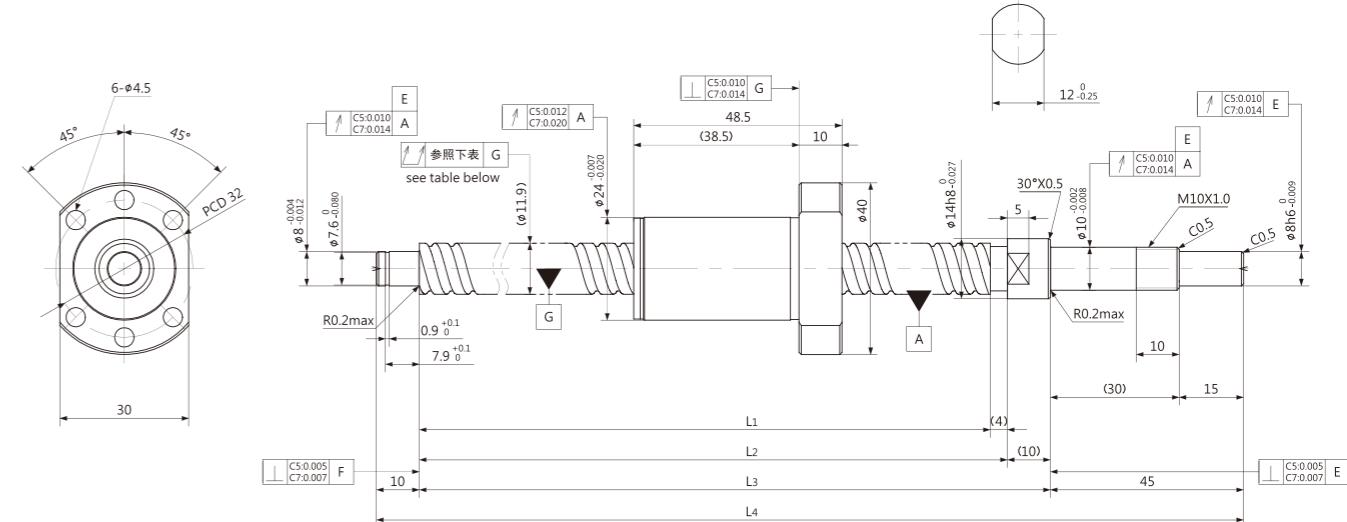
GT1210 | Shaft dia.(轴径) ϕ 12 Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数				
Ball size 钢珠直径		φ2.381		Number of thread 螺纹条数			
Thread direction 螺纹旋向			Right 右旋				
Shaft root dia 丝杠轴底径			φ10.2				
Number of circuit 循环数	1.7×2		Material 材质	Shaft 轴	S55C+SUS304		
				Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		Anti-rust treatment 防锈处理	Anti-rust oil 防锈油			

GT1210T | Shaft dia.(轴径) ϕ 12 Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径			φ2.5		
Thread direction 螺纹旋向			Right 右旋		
Shaft root dia 丝杠轴底径			φ10.2		
Number of circuit 循环数	2.8×1		Material 材质	Shaft 轴	S55C+SUS304
				Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit (单位): mm

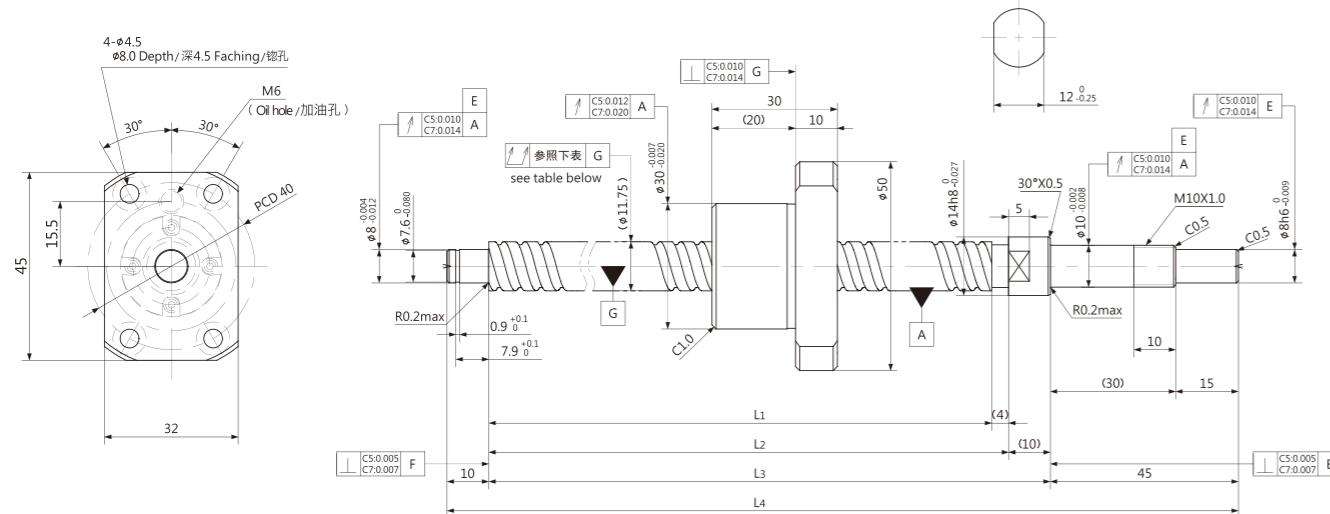
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1210-110R179	50	C5	110	114	124	179	±0.020	0.018	0.055	~0.005	5100	9800
		Ct7					±0.050	0.052	0.065	~0.020		
GT1210-160R229	100	C5	160	164	174	229	±0.020	0.018	0.055	~0.005	5100	9800
		Ct7					±0.028	0.052	0.080	~0.020		
GT1210-210R279	150	C5	210	214	224	279	±0.023	0.018	0.055	~0.005	5100	9800
		Ct7					±0.036	0.052	0.080	~0.020		
GT1210-260R329	200	C5	260	264	274	329	±0.023	0.018	0.065	~0.005	5100	9800
		Ct7					±0.045	0.052	0.100	~0.020		
GT1210-310R379	250	C5	310	314	324	379	±0.023	0.018	0.080	~0.005	5100	9800
		Ct7					±0.054	0.052	0.100	~0.020		
GT1210-335R404	300	C5	335	339	349	404	±0.025	0.018	0.080	~0.005	5100	9800
		Ct7					±0.058	0.052	0.120	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1210T-110R179	50	C5	110	114	124	179	±0.020	0.018	0.055	~0.005	3300	6700
		Ct7					±0.050	0.052	0.065	~0.020		
GT1210T-160R229	100	C5	160	164	174	229	±0.020	0.018	0.055	~0.005	3300	6700
		Ct7					±0.028	0.052	0.080	~0.020		
GT1210T-210R279	150	C5	210	214	224	279	±0.023	0.018	0.055	~0.005	3300	6700
		Ct7					±0.036	0.052	0.080	~0.020		
GT1210T-260R329	200	C5	260	264	274	329	±0.023	0.018	0.065	~0.005	3300	6700
		Ct7					±0.045	0.052	0.100	~0.020		
GT1210T-310R379	250	C5	310	314	324	379	±0.023	0.018	0.080	~0.005	3300	6700
		Ct7					±0.054	0.052	0.100	~0.020		
GT1210T-335R404	300	C5	335	339	349	404	±0.025	0.018	0.080	~0.005	3300	6700
		Ct7					±0.058	0.052	0.120	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

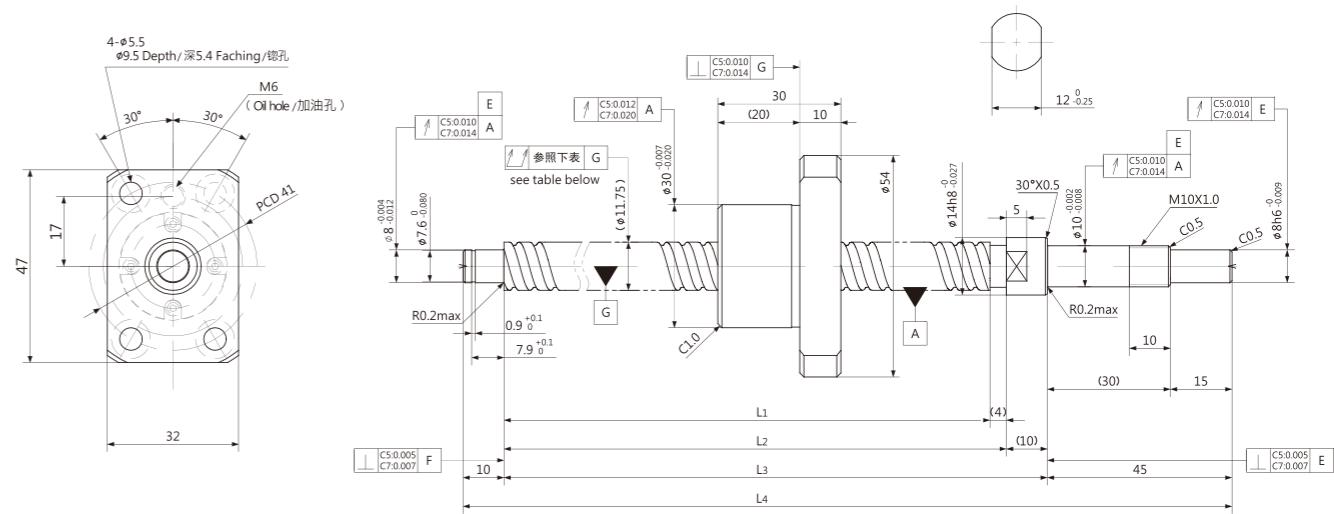
GT1210A | Shaft dia.(轴径) φ 12 Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ2.381	Number of thread 螺纹条数		1
Thread direction 螺纹旋向		Right 右旋	Shaft root dia 丝杠轴底径		φ10.2
Number of circuit 循环数		2.8×1	Material 材质	Shaft 轴	S55C+SUS304
				Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	Anti-rust treatment 防锈处理		Anti-rust oil 防锈油

GT1210D | Shaft dia.(轴径) φ 12 Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径		φ2.381	Number of thread 螺纹条数		2
Thread direction 螺纹旋向		Right 右旋	Shaft root dia 丝杠轴底径		φ10.2
Number of circuit 循环数		1.7×2	Material 材质	Shaft 轴	S55C+SUS304
				Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)	Anti-rust treatment 防锈处理		Anti-rust oil 防锈油

Unit (单位): mm

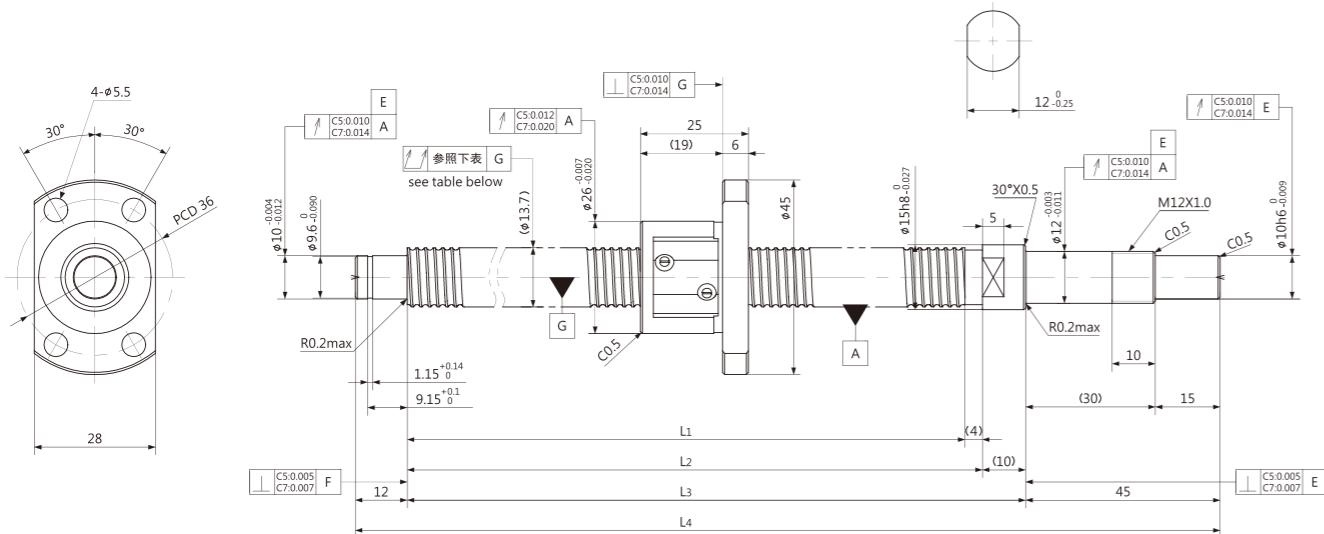
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1210A-110R179	50	C5	110	114	124	179	±0.020	0.018	0.055	~0.005	3300	6700
		Ct7					±0.050	0.052	0.065	~0.020		
GT1210A-160R229	100	C5	160	164	174	229	±0.020	0.018	0.055	~0.005	3300	6700
		Ct7					±0.028	0.052	0.080	~0.020		
GT1210A-210R279	150	C5	210	214	224	279	±0.023	0.018	0.055	~0.005	3300	6700
		Ct7					±0.036	0.052	0.080	~0.020		
GT1210A-260R329	200	C5	260	264	274	329	±0.023	0.018	0.065	~0.005	3300	6700
		Ct7					±0.045	0.052	0.100	~0.020		
GT1210A-310R379	250	C5	310	314	324	379	±0.023	0.018	0.080	~0.005	3300	6700
		Ct7					±0.054	0.052	0.100	~0.020		
GT1210A-335R404	300	C5	335	339	349	404	±0.025	0.018	0.080	~0.005	3300	6700
		Ct7					±0.058	0.052	0.120	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1210D-110R179	50	C5	110	114	124	179	±0.020	0.018	0.055	~0.005	5100	9800
		Ct7					±0.050	0.052	0.065	~0.020		
GT1210D-160R229	100	C5	160	164	174	229	±0.020	0.018	0.055	~0.005	5100	9800
		Ct7					±0.028	0.052	0.080	~0.020		
GT1210D-210R279	150	C5	210	214	224	279	±0.023	0.018	0.055	~0.005	5100	9800
		Ct7					±0.036	0.052	0.080	~0.020		
GT1210D-260R329	200	C5	260	264	274	329	±0.023	0.018	0.065	~0.005	5100	9800
		Ct7					±0.045	0.052	0.100	~0.020		
GT1210D-310R379	250	C5	310	314	324	379	±0.023	0.018	0.080	~0.005	5100	9800
		Ct7					±0.054	0.052	0.100	~0.020		
GT1210D-335R404	300	C5	335	339	349	404	±0.025	0.018	0.080	~0.005	5100	9800
		Ct7					±0.058	0.052	0.120	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

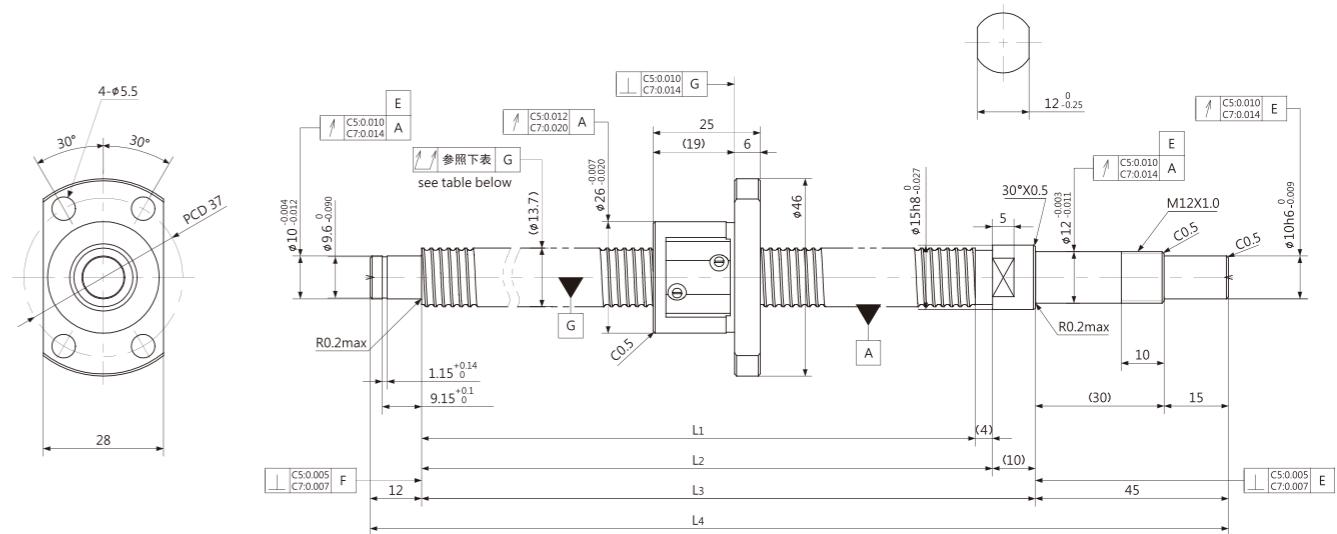
GT1402 | Shaft dia.(轴径) φ 14 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ1.5875	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		Shaft root dia 丝杠轴底径		
Number of circuit 循环数	3.7×1		Material 材质	Shaft 轴	S55C+SUS304
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

GT1402G | Shaft dia.(轴径) φ 14 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ1.5875	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋		Shaft root dia 丝杠轴底径		
Number of circuit 循环数	3.7×1		Material 材质	Shaft 轴	S55C+SUS304
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Unit (单位): mm

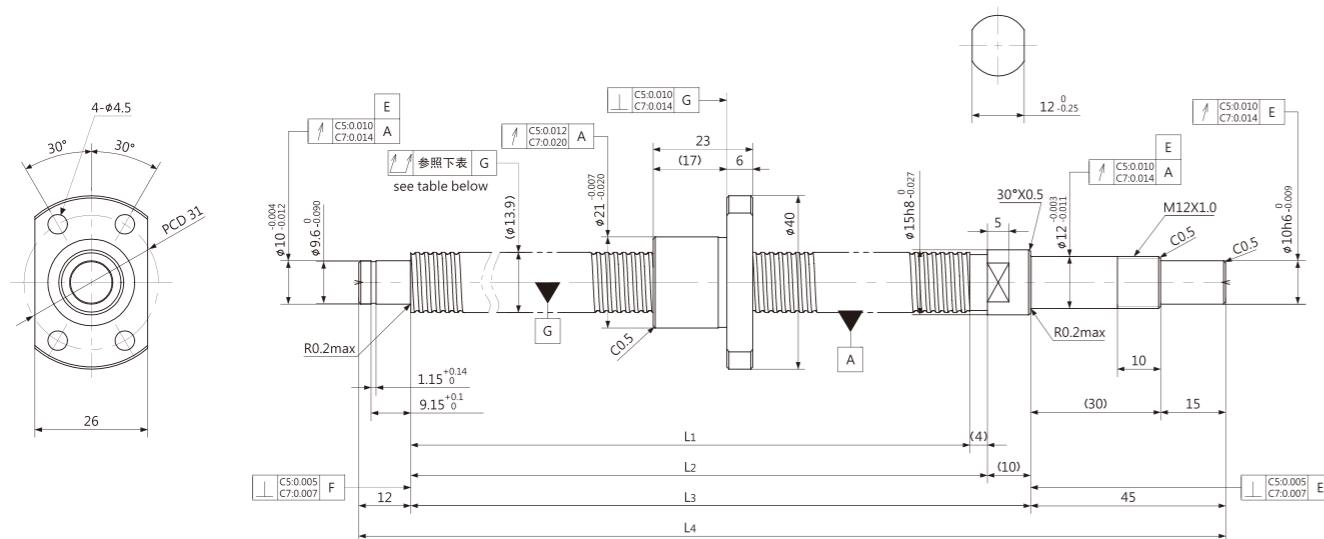
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1402-85R156	50	C5	85	89	99	156	±0.018	0.018	0.040	-0.005	3200	5000
		Ct7					±0.050	0.052	0.060	-0.020		
GT1402-135R206	100	C5	135	139	149	206	±0.020	0.018	0.045	-0.005	3200	5000
		Ct7					±0.023	0.052	0.070	-0.020		
GT1402-185R256	150	C5	185	189	199	256	±0.020	0.018	0.045	-0.005	3200	5000
		Ct7					±0.032	0.052	0.070	-0.020		
GT1402-235R306	200	C5	235	239	249	306	±0.023	0.018	0.045	-0.005	3200	5000
		Ct7					±0.041	0.052	0.070	-0.020		
GT1402-335R406	300	C5	335	339	349	406	±0.025	0.018	0.060	-0.005	3200	5000
		Ct7					±0.058	0.052	0.095	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1402G-85R156	50	C5	85	89	99	156	±0.018	0.018	0.040	-0.005	3200	7500
		Ct7					±0.050	0.052	0.060	-0.020		
GT1402G-135R206	100	C5	135	139	149	206	±0.020	0.018	0.045	-0.005	3200	7500
		Ct7					±0.023	0.052	0.070	-0.020		
GT1402G-185R256	150	C5	185	189	199	256	±0.020	0.018	0.045	-0.005	3200	7500
		Ct7					±0.032	0.052	0.070	-0.020		
GT1402G-235R306	200	C5	235	239	249	306	±0.023	0.018	0.045	-0.005	3200	7500
		Ct7					±0.041	0.052	0.070	-0.020		
GT1402G-335R406	300	C5	335	339	349	406	±0.025	0.018	0.060	-0.005	3200	7500
		Ct7					±0.058	0.052	0.095	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

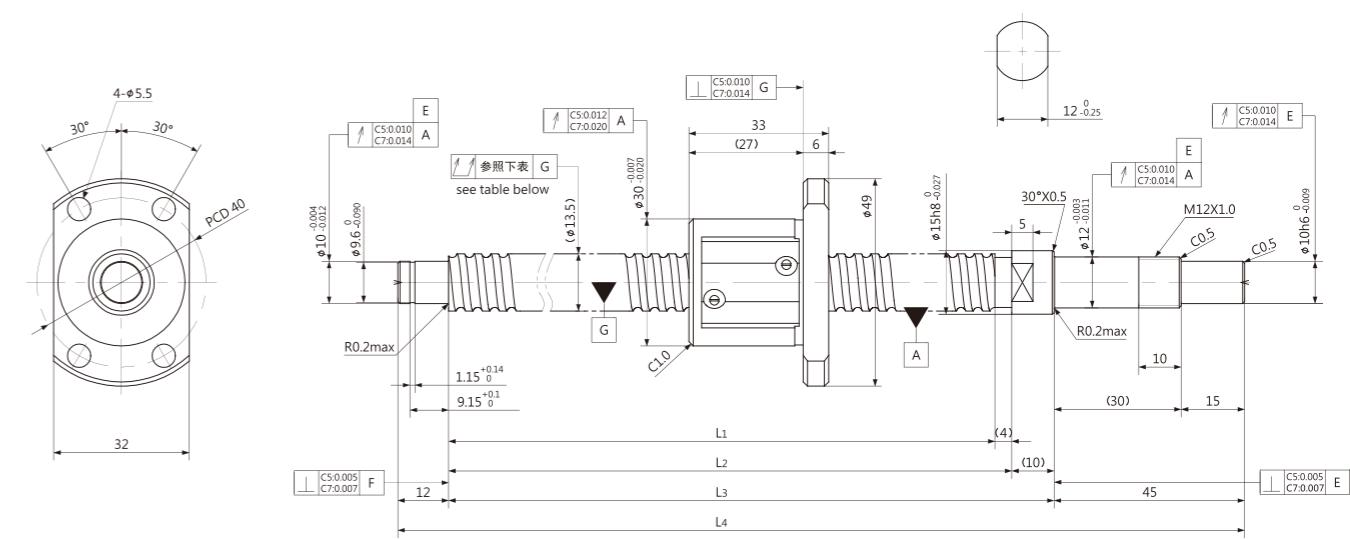
GT1402T | Shaft dia.(轴径) φ 14 Lead(导程)2mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ1.2	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ13.0		
Number of circuit 循环数	1×3	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT1404 | Shaft dia.(轴径) φ 14 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.381	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ11.8		
Number of circuit 循环数	3.7×1	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

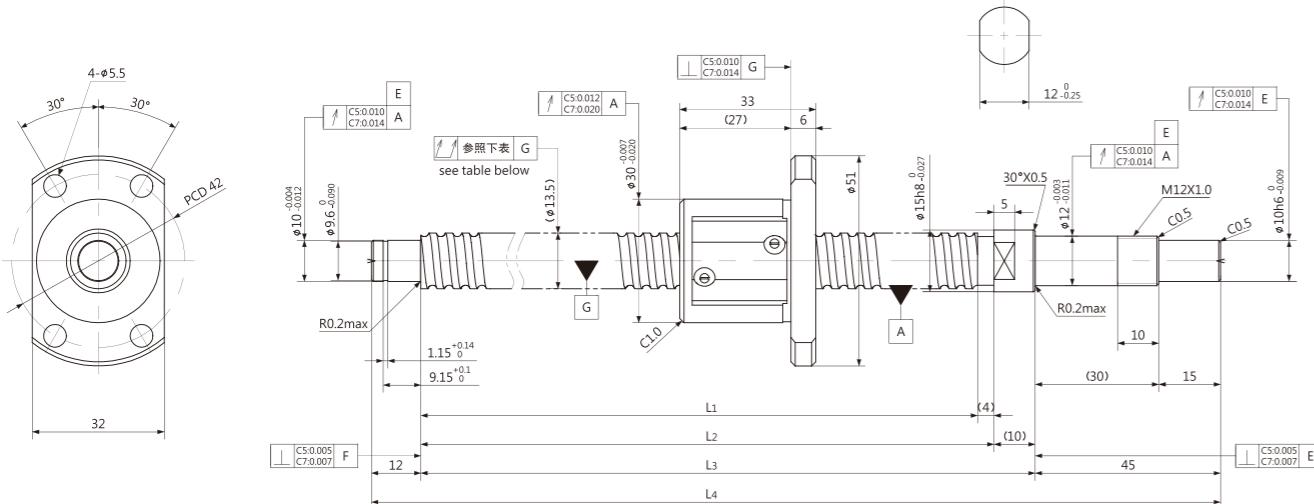
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1402T-85R156	50	C5	85	89	99	156	±0.018	0.018	0.040	~0.005	1800	4300
		Ct7					±0.050	0.052	0.060	~0.020		
GT1402T-135R206	100	C5	135	139	149	206	±0.020	0.018	0.045	~0.005	1800	4300
		Ct7					±0.023	0.052	0.070	~0.020		
GT1402T-185R256	150	C5	185	189	199	256	±0.020	0.018	0.045	~0.005	1800	4300
		Ct7					±0.032	0.052	0.070	~0.020		
GT1402T-235R306	200	C5	235	239	249	306	±0.023	0.018	0.045	~0.005	1800	4300
		Ct7					±0.041	0.052	0.070	~0.020		
GT1402T-335R406	300	C5	335	339	349	406	±0.025	0.018	0.060	~0.005	1800	4300
		Ct7					±0.058	0.052	0.095	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1404-148R219	100	C5	148	152	162	219	±0.020	0.018	0.045	~0.005	5700	11600
		Ct7					±0.026	0.052	0.070	~0.020		
GT1404-198R269	150	C5	198	202	212	269	±0.020	0.018	0.045	~0.005	5700	11600
		Ct7					±0.034	0.052	0.070	~0.020		
GT1404-248R319	200	C5	248	252	262	319	±0.023	0.018	0.055	~0.005	5700	11600
		Ct7					±0.043	0.052	0.080	~0.020		
GT1404-348R419	300	C5	348	352	362	419	±0.025	0.018	0.060	~0.005	5700	11600
		Ct7					±0.060	0.052	0.095	~0.020		
GT1404-448R519	400	C5	448	452	462	519	±0.027	0.018	0.075	~0.005	5700	11600
		Ct7					±0.078	0.052	0.110	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

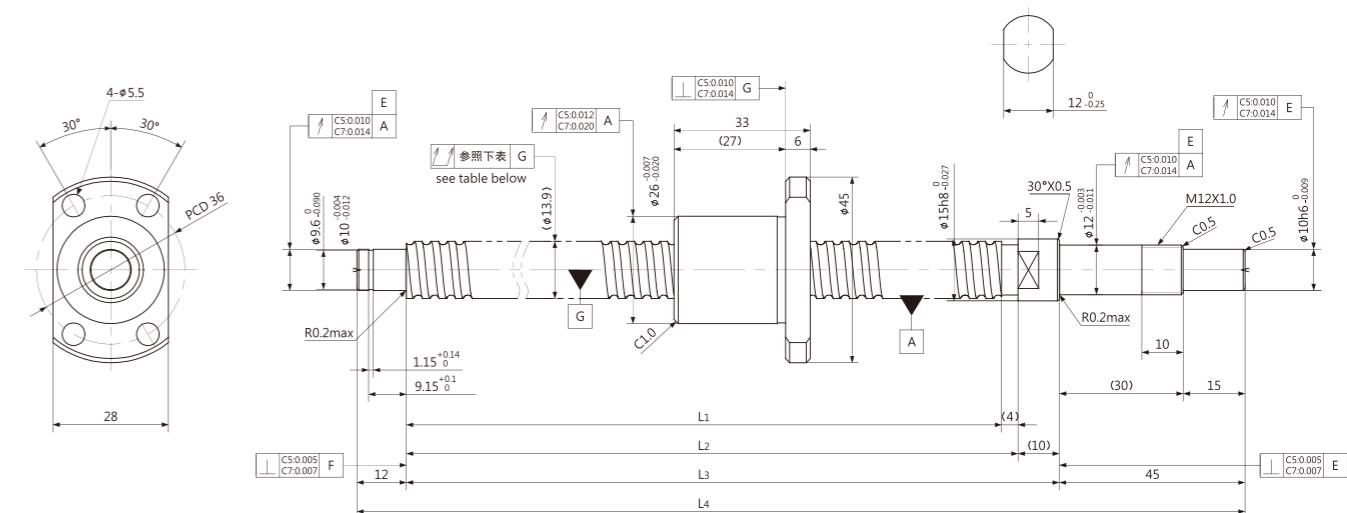
GT1404G | Shaft dia.(轴径) ϕ 14 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.381	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ11.8		
Number of circuit 循环数	3.7×1	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

GT1404T | Shaft dia.(轴径) ϕ 14 Lead(导程)4mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.381	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ12.2		
Number of circuit 循环数	3×1	Material 材质	S55C+SUS304		
		Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit (单位): mm

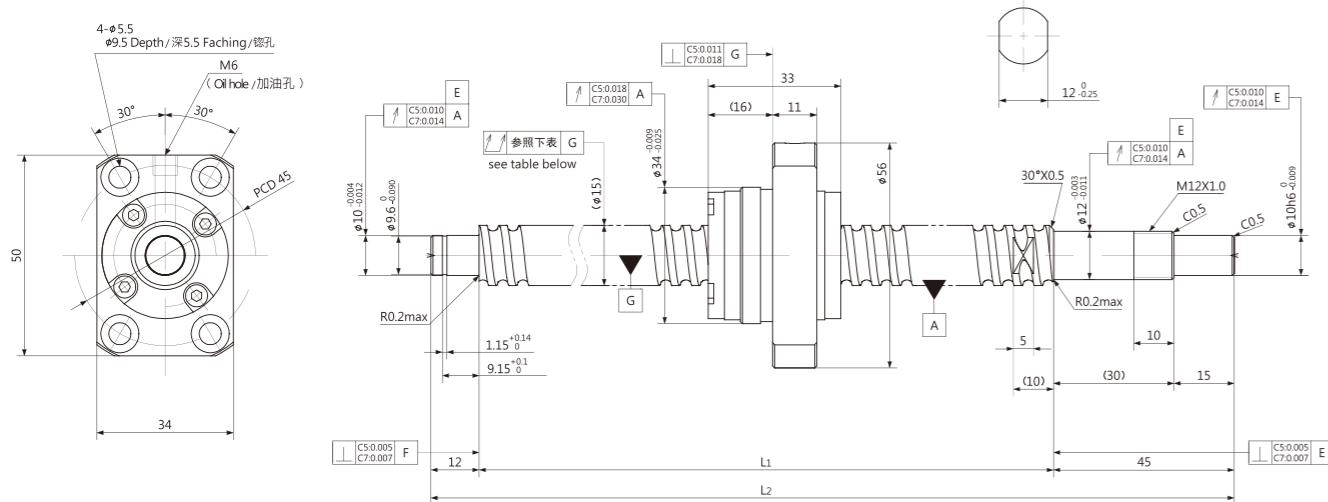
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1404G-148R219	100	C5	148	152	162	219	±0.020	0.018	0.045	-0.005	5700	11600
		Ct7					±0.026	0.052	0.070	-0.020		
GT1404G-198R269	150	C5	198	202	212	269	±0.020	0.018	0.045	-0.005	5700	11600
		Ct7					±0.034	0.052	0.070	-0.020		
GT1404G-248R319	200	C5	248	252	262	319	±0.023	0.018	0.055	-0.005	5700	11600
		Ct7					±0.043	0.052	0.080	-0.020		
GT1404G-348R419	300	C5	348	352	362	419	±0.025	0.018	0.060	-0.005	5700	11600
		Ct7					±0.060	0.052	0.095	-0.020		
GT1404G-448R519	400	C5	448	452	462	519	±0.027	0.018	0.075	-0.005	5700	11600
		Ct7					±0.078	0.052	0.110	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度				Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	L ₃	L ₄	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1404T-148R219	100	C5	148	152	162	219	±0.020	0.018	0.045	-0.005	4600	8600
		Ct7					±0.026	0.052	0.070	-0.020		
GT1404T-198R269	150	C5	198	202	212	269	±0.020	0.018	0.045	-0.005	4600	8600
		Ct7					±0.034	0.052	0.070	-0.020		
GT1404T-248R319	200	C5	248	252	262	319	±0.023	0.018	0.055	-0.005	4600	8600
		Ct7					±0.043	0.052	0.080	-0.020		
GT1404T-348R419	300	C5	348	352	362	419	±0.025	0.018	0.060	-0.005	4600	8600
		Ct7					±0.060	0.052	0.095	-0.020		
GT1404T-448R519	400	C5	448	452	462	519	±0.027	0.018	0.075	-0.005	4600	8600
		Ct7					±0.078	0.052	0.110	-0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

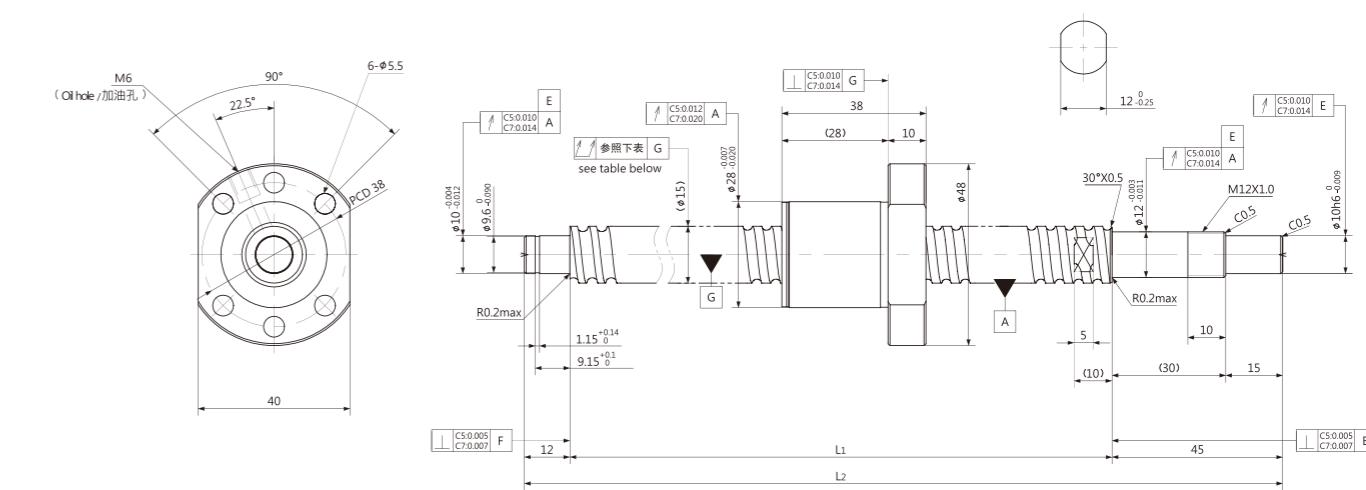
GT1505 | Shaft dia.(轴径) φ 15 Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ3.175	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ12.2		
Number of circuit 循环数	3.7×1	Material 材质	Shaft 轴	S55C	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		Anti-rust oil 防锈油

GT1505T | Shaft dia.(轴径) φ 15 Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

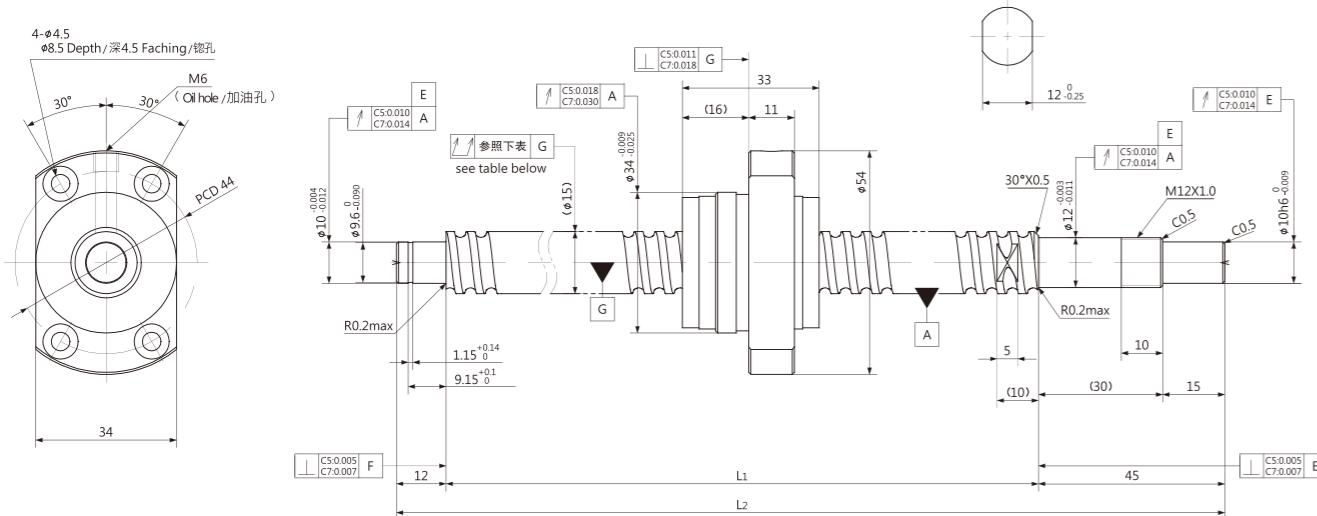
Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.778	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ12.9		
Number of circuit 循环数	3.8×1	Material 材质	Shaft 轴	S55C	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		Anti-rust oil 防锈油

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度		Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1505-239R296	150	C5	239	296	±0.023	0.018	0.045	~0.005	8900	17000
		Ct7			±0.041	0.052	0.070	~0.020		
GT1505-339R396	250	C5	339	396	±0.025	0.018	0.055	~0.005	8900	17000
		Ct7			±0.059	0.052	0.080	~0.020		
GT1505-439R496	350	C5	439	496	±0.027	0.018	0.060	~0.005	8900	17000
		Ct7			±0.076	0.052	0.095	~0.020		
GT1505-539R596	450	C5	539	596	±0.030	0.018	0.075	~0.005	8900	17000
		Ct7			±0.093	0.052	0.110	~0.020		
GT1505-639R696	550	C5	639	696	±0.035	0.018	0.090	~0.005	8900	17000
		Ct7			±0.111	0.052	0.140	~0.020		
GT1505-689R746	600	C5	689	746	±0.035	0.018	0.090	~0.005	8900	17000
		Ct7			±0.119	0.052	0.140	~0.020		
GT1505-789R846	700	C5	789	846	±0.035	0.018	0.120	~0.005	8900	17000
		Ct7			±0.137	0.052	0.170	~0.020		
GT1505-889R946	800	C5	889	946	±0.040	0.018	0.120	~0.005	8900	17000
		Ct7			±0.154	0.052	0.170	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度		Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1505T-239R296	150	C5	239	296	±0.023	0.018	0.045	~0.005	5500	10200
		Ct7			±0.041	0.052	0.070	~0.020		
GT1505T-339R396	250	C5	339	396	±0.025	0.018	0.055	~0.005	5500	10200
		Ct7			±0.059	0.052	0.080	~0.020		
GT1505T-439R496	350	C5	439	496	±0.027	0.018	0.060	~0.005	5500	10200
		Ct7			±0.076	0.052	0.095	~0.020		
GT1505T-539R596	450	C5	539	596	±0.030	0.018	0.075	~0.005	5500	10200
		Ct7			±0.093	0.052	0.110	~0.020		
GT1505T-639R696	550	C5	639	696	±0.035	0.018	0.090	~0.005	5500	10200
		Ct7			±0.111	0.052	0.140	~0.020		
GT1505T-689R746	600	C5	689	746	±0.035	0.018	0.090	~0.005	5500	10200
		Ct7			±0.119	0.052	0.140	~0.020		
GT1505T-789R846	700	C5	789	846	±0.035	0.018	0.120	~0.005	5500	10200
		Ct7			±0.137	0.052	0.170	~0.020		
GT1505T-889R946	800	C5	889	946	±0.040	0.018	0.120	~0.005	5500	10200
		Ct7								

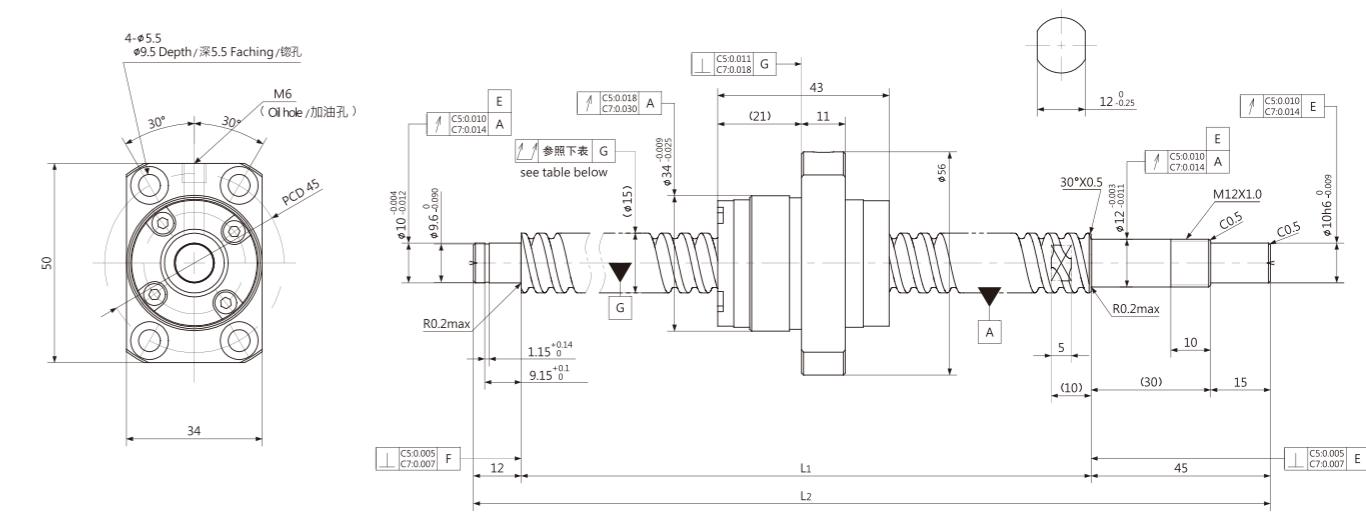
GT1505D | Shaft dia.(轴径) $\phi 15$ Lead(导程)5mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ3.175	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ12.2		
Number of circuit 循环数	3.7×1	Material 材质	Shaft 轴	S55C	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		Anti-rust oil 防锈油

GT1510 | Shaft dia.(轴径) $\phi 15$ Lead(导程)10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ3.175	Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ12.2		
Number of circuit 循环数	2.7×2	Material 材质	Shaft 轴	S55C	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		Anti-rust oil 防锈油

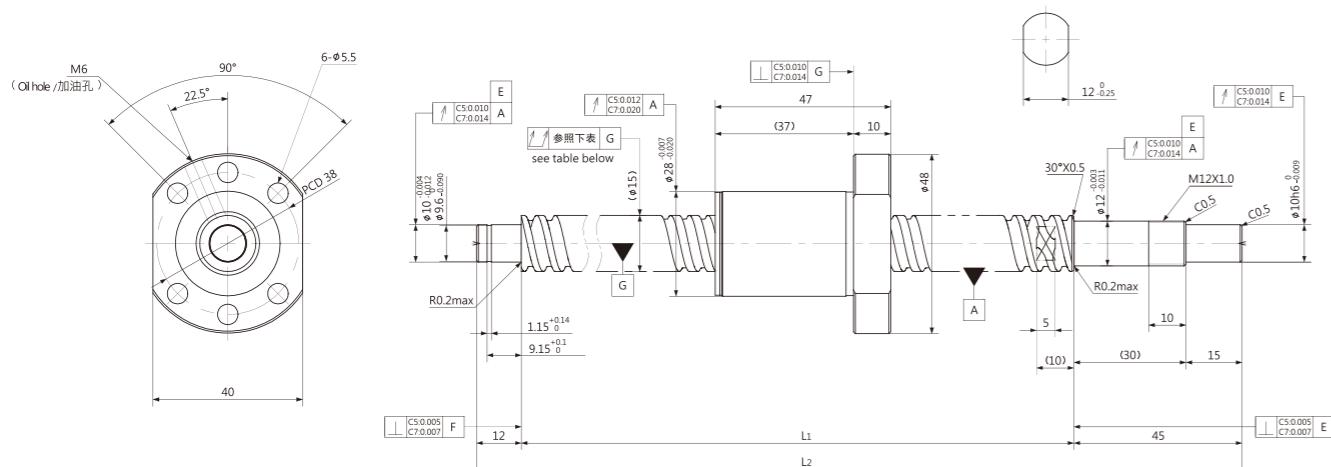
Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度		Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1505D-239R296	150	C5	239	296	±0.023	0.018	0.045	~0.005	8900	17000
		Ct7			±0.041	0.052	0.070	~0.020		
GT1505D-339R396	250	C5	339	396	±0.025	0.018	0.055	~0.005	8900	17000
		Ct7			±0.059	0.052	0.080	~0.020		
GT1505D-439R496	350	C5	439	496	±0.027	0.018	0.060	~0.005	8900	17000
		Ct7			±0.076	0.052	0.095	~0.020		
GT1505D-539R596	450	C5	539	596	±0.030	0.018	0.075	~0.005	8900	17000
		Ct7			±0.093	0.052	0.110	~0.020		
GT1505D-639R696	550	C5	639	696	±0.035	0.018	0.090	~0.005	8900	17000
		Ct7			±0.111	0.052	0.140	~0.020		
GT1505D-689R746	600	C5	689	746	±0.035	0.018	0.090	~0.005	8900	17000
		Ct7			±0.119	0.052	0.140	~0.020		
GT1505D-789R846	700	C5	789	846	±0.035	0.018	0.120	~0.005	8900	17000
		Ct7			±0.137	0.052	0.170	~0.020		
GT1505D-889R946	800	C5	889	946	±0.040	0.018	0.120	~0.005	8900	17000
		Ct7			±0.154	0.052	0.170	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度		Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1510-239R296	150	C5	239	296	±0.023	0.018	0.045	~0.005	12000	25000
		Ct7			±0.041	0.052	0.070	~0.020		
GT1510-339R396	250	C5	339	396	±0.025	0.018	0.055	~0.005	12000	25000
		Ct7			±0.059	0.052	0.080	~0.020		
GT1510-439R496	350	C5	439	496	±0.027	0.018	0.060	~0.005	12000	25000
		Ct7			±0.076	0.052	0.095	~0.020		
GT1510-539R596	450	C5	539	596	±0.030	0.018	0.075	~0.005	12000	25000
		Ct7			±0.093	0.052	0.110	~0.020		
GT1510-639R696	550	C5	639	696	±0.035	0.018	0.090	~0.005	12000	25000
		Ct7			±0.111	0.052	0.140	~0.020		
GT1510-689R746	600	C5	689	746	±0.035	0.018	0.090	~0.005	12000	25000
		Ct7			±0.119	0.052	0.140	~0.020		
GT1510-789R846	700	C5	789	846	±0.035	0.018	0.120	~0.005	12000	25000
		Ct7			±0.137	0.052	0.170	~0.020		
GT1510-889R946	800	C5	889	946	±0.040	0.018	0.120	~0.005	12000	25000
		Ct7			±					

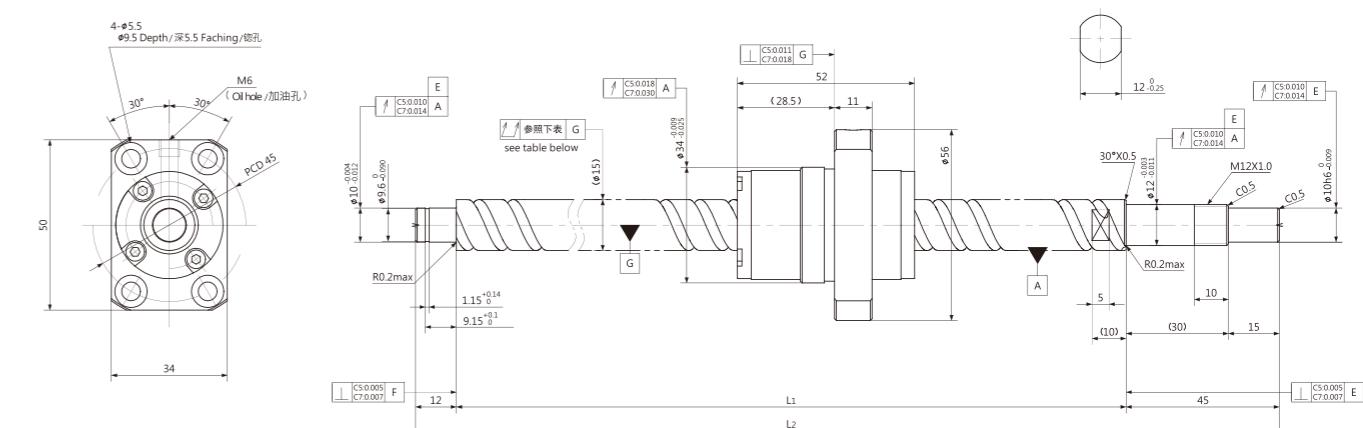
GT1510T | Shaft dia.(轴径) ϕ 15 Lead(导程) 10mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ2.778	Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ13.0		
Number of circuit 循环数	2.8×1	Material 材质	Shaft 轴	S55C	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		Anti-rust oil 防锈油

GT1520 | Shaft dia.(轴径) ϕ 15 Lead(导程) 20mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications			主要技术参数		
Ball size 钢珠直径	φ3.175	Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Right 右旋	Shaft root dia 丝杠轴底径	φ12.7		
Number of circuit 循环数	1.7×2	Material 材质	Shaft 轴	S55C	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		Anti-rust oil 防锈油

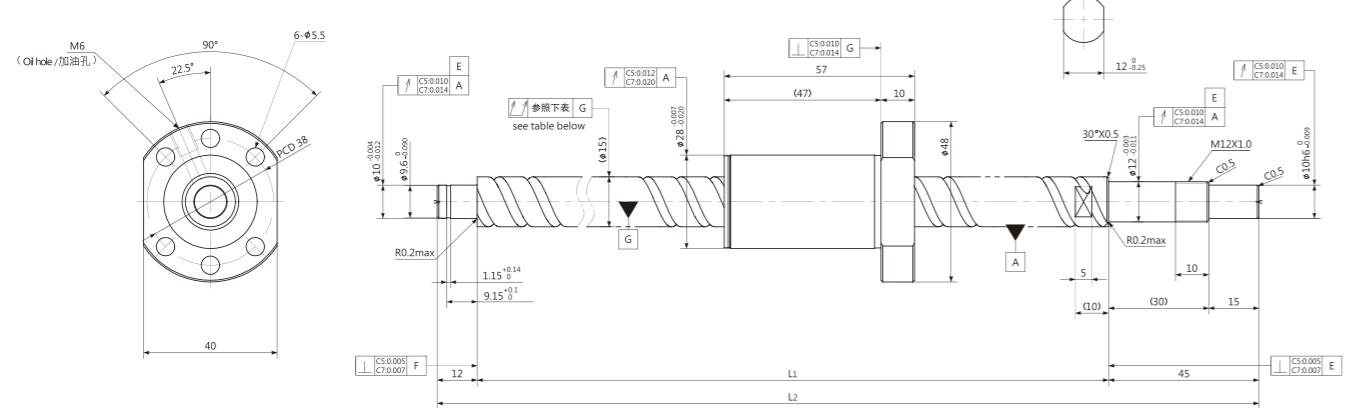
Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度		Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1510T-239R296	150	C5	239	296	±0.023	0.018	0.045	~0.005	4500	8200
		Ct7			±0.041	0.052	0.070	~0.020		
GT1510T-339R396	250	C5	339	396	±0.025	0.018	0.055	~0.005	4500	8200
		Ct7			±0.059	0.052	0.080	~0.020		
GT1510T-439R496	350	C5	439	496	±0.027	0.018	0.060	~0.005	4500	8200
		Ct7			±0.076	0.052	0.095	~0.020		
GT1510T-539R596	450	C5	539	596	±0.030	0.018	0.075	~0.005	4500	8200
		Ct7			±0.093	0.052	0.110	~0.020		
GT1510T-639R696	550	C5	639	696	±0.035	0.018	0.090	~0.005	4500	8200
		Ct7			±0.111	0.052	0.140	~0.020		
GT1510T-689R746	600	C5	689	746	±0.035	0.018	0.090	~0.005	4500	8200
		Ct7			±0.119	0.052	0.140	~0.020		
GT1510T-789R846	700	C5	789	846	±0.035	0.018	0.120	~0.005	4500	8200
		Ct7			±0.137	0.052	0.170	~0.020		
GT1510T-889R946	800	C5	889	946	±0.040	0.018	0.120	~0.005	4500	8200
		Ct7			±0.154	0.052	0.170	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度		Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1520-236R293	150	C5	236	293	±0.023	0.018	0.045	~0.005	8000	16000
		Ct7			±0.041	0.052	0.070	~0.020		
GT1520-333R393	250	C5	336	393	±0.025	0.018	0.055	~0.005	8000	16000
		Ct7			±0.059	0.052	0.080	~0.020		
GT1520-436R493	350	C5	436	493	±0.027	0.018	0.060	~0.005	8000	16000
		Ct7			±0.076	0.052	0.095	~0.020		
GT1520-536R593	450	C5	536	593	±0.030	0.018	0.075	~0.005	8000	16000
		Ct7			±0.093	0.052	0.110	~0.020		
GT1520-636R693	550	C5	636	693	±0.035	0.018	0.090	~0.005	8000	16000
		Ct7			±0.111	0.052	0.140	~0.020		
GT1520-686R743	600	C5	686	743	±0.035	0.018	0.090	~0.005	8000	16000
		Ct7			±0.119	0.052	0.140	~0.020		
GT1520-786R843	700	C5	786	843	±0.035	0.018	0.120	~0.005	8000	16000
		Ct7			±0.137	0.052	0.170	~0.020		
GT1520-886R943	800	C5	886	943	±0.040	0.018	0.120	~0.005	8000	16000
		Ct7			±0.154	0				

GT1520T | Shaft dia.(轴径) ϕ 15 Lead(导程) 20mm | C5&Ct7 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数			
Ball size 钢珠直径		φ2.778		Number of thread 螺纹条数	
Thread direction 螺纹旋向		Right 右旋		φ13.0	
Number of circuit 循环数	1.8×1	Material 材质	Shaft 轴	S55C	
			Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度		HRC58~62 (Thread area)		Anti-rust treatment 防锈处理	
				Anti-rust oil 防锈油	

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Shaft length 丝杠轴长度		Lead accuracy 导程精度		Total Run-out 全跳动 	Axial play 轴向间隙	Basic Load Rating 基本额定负载 N	
			L ₁	L ₂	Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀			Dynamic 额定动负载 Ca	Static 额定静负载 Coa
GT1520T-236R293	150	C5	236	293	±0.023	0.018	0.045	~0.005	3600	6600
		Ct7			±0.041	0.052	0.070	~0.020		
GT1520T-333R393	250	C5	336	393	±0.025	0.018	0.055	~0.005	3600	6600
		Ct7			±0.059	0.052	0.080	~0.020		
GT1520T-436R493	350	C5	436	493	±0.027	0.018	0.060	~0.005	3600	6600
		Ct7			±0.076	0.052	0.095	~0.020		
GT1520T-536R593	450	C5	536	593	±0.030	0.018	0.075	~0.005	3600	6600
		Ct7			±0.093	0.052	0.110	~0.020		
GT1520T-636R693	550	C5	636	693	±0.035	0.018	0.090	~0.005	3600	6600
		Ct7			±0.111	0.052	0.140	~0.020		
GT1520T-686R743	600	C5	686	743	±0.035	0.018	0.090	~0.005	3600	6600
		Ct7			±0.119	0.052	0.140	~0.020		
GT1520T-786R843	700	C5	786	843	±0.035	0.018	0.120	~0.005	3600	6600
		Ct7			±0.137	0.052	0.170	~0.020		
GT1520T-886R943	800	C5	886	943	±0.040	0.018	0.120	~0.005	3600	6600
		Ct7			±0.154	0.052	0.170	~0.020		

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

MEMO

滚珠丝杆的特点

FEATURE OF BALL SCREWS

◆ 高精度

拥有多年精密加工生产经验，上井滚珠丝杆均在温度经过严格控制的厂房内进行研磨、组装和检查，确保了上井滚珠丝杆的高精度和高可靠性。

◆ 传动效率高

滚珠丝杆有的传动效率高达90%以上。它所需要的力量仅为普通滚珠丝杆的1/3甚至更小。这使得很容易将直线运动转化为旋转运动。(见图1、图2)

◆ 耐久性

材料的精挑细选、正确的热处理，以及先进的研磨加工工艺保证了上井滚珠丝杆的长久寿命。

◆ 轴向间隙

上井的滚珠丝杆螺纹槽是歌德弧槽，轴向间隙非常小，可以使螺母平稳地运动。此外，预压可减少轴向间隙，同时增加滚珠丝杆的刚度。

◆ 精密微进给

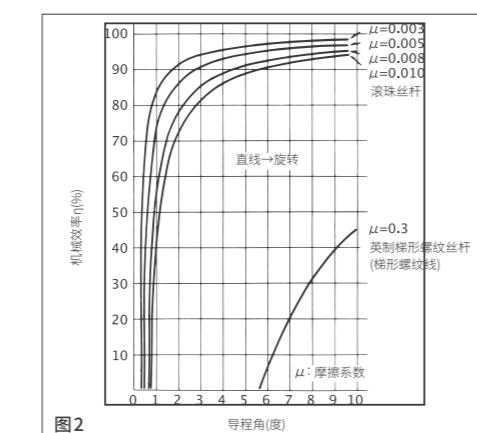
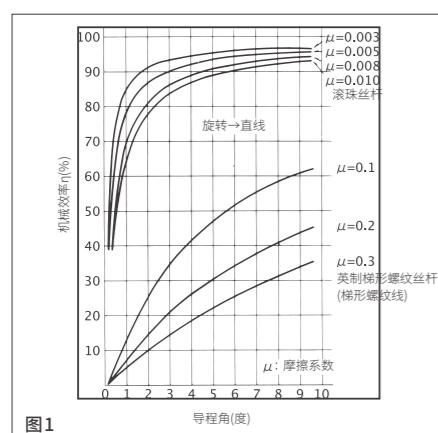
上井滚珠丝杆是滚动接触，所以其启动力矩特很小。所以，不像英制梯形螺纹丝杆，滚珠丝杆甚至可以在低速下点动，做精确的微进给操作。

◆ 高速转动

上井滚珠丝杆拥有较高传动效率，在高速转动的情况下温升很小。

◆ 易于维护

滚珠丝杆是滚动接触，在正常运行条件下，只需要定期地加润滑油脂即可。



◆ High precision

With many years of experience in precision machining and production, the ball screw on the well is in The temperature is grinded, assembled and inspected in the strictly controlled workshop to ensure the high precision and reliability of the ball screw on the well.

◆ High transmission efficiency

Some transmission efficiency of ball screw is over 90%. The moment it needs It is only 1 / 3 or smaller than the ordinary ball screw. This makes it easy to convert linear motion into rotational motion. (see Figure 1 and Figure 2)

◆ Durability

Fine selection of materials, correct heat treatment and advanced grinding The technology ensures the long life of the ball screw

◆ Axial clearance

The thread groove of the ball screw on the well is Goethe arc groove with axial clearance Very small to allow the nut to move smoothly. In addition, preloading can reduce the axial clearance and increase the rigidity of the ball screw.

◆ Precision micro feed

The ball screw is in rolling contact, so its starting torque is very small. place Therefore, unlike the British trapezoidal screw rod, the ball screw rod can even be inched at low speed for precise micro feed operation.

◆ High speed rotation

The upper well ball screw has high transmission efficiency and can rotate at high speed In this case, the temperature rise is very small.

◆ Easy to maintain

The ball screw is in rolling contact. Under normal operation conditions, only regular Add grease to the ground.

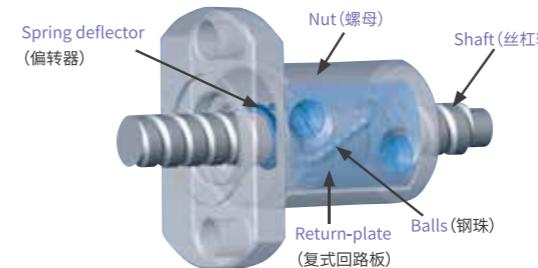
滚珠丝杆的构造

CONSTRUCTION OF BALL SCREWS

◆ 复式回路板循环方式 RETURN-PLATE SYSTEM

复式回路板循环方式，是通过安装在螺母内部的螺旋型偏转器将钢球抛出，使其沿着复式回路板的槽进行循环运动的方式。与回路管循环方式相比，具有可以缩小螺母外径的优点。在设备上安装时，如果将复式回路板部分安装在上方，则可使回转动作更加顺畅。

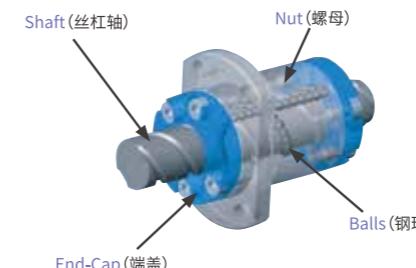
The Return-plate system uses coil-type deflectors incorporated inside the Nut to pick up the steel Balls and circulate them via the Return-plate channel. This system has the advantage of allowing the use of a Nut that is smaller in diameter than those employed in Return-tube systems. In addition, the upward-angle installation of the Return-plate ensures even smoother rotation.



◆ 端盖式循环方式 END-CAP SYSTEM

端盖式循环方式，是指钢珠沿着丝杠轴与螺母之间的槽滚动前行，从安装在螺母两端的循环部件（端盖）上的通路穿过螺母上的通孔，返回原位的循环方式。

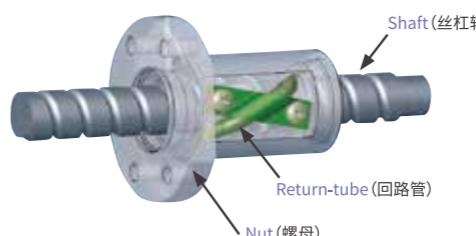
The End-cap system is a recirculating system in which the Balls advance by rolling through the screw groove between the Nut and the Screw Shaft. The Balls are then returned via the holes in the Nut and the channels in the recirculating sections of the End-caps on either end of the Nut.



◆ 回路管循环方式 RETURN-TUBE SYSTEM

回路管循环方式，是指通过插入螺母中的回路管的前端，将正沿着丝杠轴与螺母之间的槽滚动的钢珠取出，使其穿过回路管后，再次返回螺纹槽的循环方式。

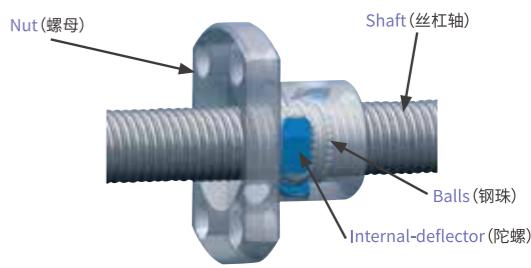
In the Return-tube system, Balls rolling between the Nut and the Shaft are picked up from the screw groove by the end of the Return-tube built into the Nut. Then, they flow back through the Return-tube to the screw groove.



◆ 陀螺式循环方式 INTERNAL-DEFLECTOR SYSTEM

陀螺式循环方式最大限度地缩小了螺母的外径及长度，使微型滚珠丝杠的结构更紧凑、更轻量。钢珠在承受轴向负载的同时，在丝杠轴及螺母的钢珠滚动槽中滚动时，沿着螺母内部的陀螺槽进入相邻的滚动槽，然后再次返回负载区，进行无限滚动循环。

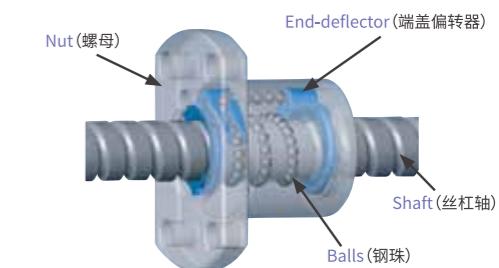
The Internal-deflector system employs a lightweight Miniature Ball Screw, which enables the Nut diameter and length to be reduced to the smallest possible size. The Balls bear the load while rolling along the screw groove between the Shaft and the Nut. The Balls are continuously circulated, transferred to the adjacent groove in the screw via the Internal-deflector channel and then back to the loaded groove area.



◆ 偏转器式循环方式 END-DEFLECTOR SYSTEM

偏转器式循环方式，是指钢珠从设置于螺母内部或外部的端盖偏转器，穿过螺母通孔，在原来的滚动槽内循环的方式。与复式回路板循环方式相比，可缩小螺母的外径，是一种最适用于中导程的循环方式。

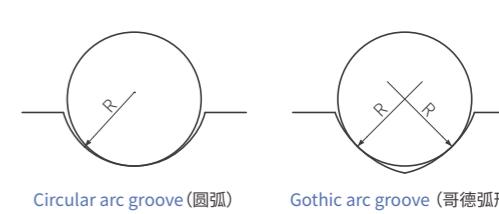
The Balls are circulated from End-deflector incorporated inside the Nut or outside the Nut through the hole in the Nut and the channels in the recirculating sections. Ball Nut diameter can be smaller than Return-plate system. This is suitable for the middle lead Ball Screws.



◆ 螺纹槽形状 THREAD GROOVE PROFILE

滚珠丝杠分为由1个弧形形成的圆弧和由2个弧形形成的拱弧两种类型。上井滚珠丝杆采用哥德弧形。

Ball screws may have either a circular arc profile, formed of a single arc, or a gothic arc profile, formed from two arcs. SJ Ball Screws feature a gothic arc profile.



滚珠丝杆的生产范围

THE RANGE OF MANUFACTURING FOR BALL SCREWS

按丝杠轴公称外径划分，上井滚珠丝杠的生产范围为 $\phi 4.0\sim\phi 20mm$ 。以下介绍了不同精度等级的丝杠轴的参考极限长度。具体长度会因轴端形状、材质及丝杠轴系列而异，详情请垂询本公司。

The range of manufacturing for SJ Ball Screws is from $\phi 4.0$ to $\phi 20mm$ as Shaft nominal diameter. Maximum limit of overall lengths are shown below. Maximum limit of overall lengths will vary depending on the Shaft end configuration, materials and SJ series. Please inquire SJ for details.

◆ 精密滚珠丝杆的生产极限长度(全长) Maximum limit of overall lengths for Precision Ball Screws

Shaft nominal diameter 丝杠轴公称外径	Accuracy grade 精度等级	Unit (单位) : mm			
		C0	C1	C3	C5
4		90	120	160	600
6		140	180	240	600
8		200	250	330	600
10		260	320	420	600
12		320	390	510	1200
13-14		380	460	600	1200
15-16		450	540	700	1200
20		800	900	1400	2000

注1) 超出生产极限长度时, 请垂询本公司。 Note 1) If required length exceeds the number in table above, please ask SJ representative.

◆ 冷轧滚珠丝杆(Ct7&Ct10)的生产极限长度 Maximum limit of overall lengths for Rolled Ball Screws (Ct7 & Ct10)

Shaft nominal diameter 丝杠轴公称外径	Maximum length 极限长度
4	600
5	600
6	600
8	600
10	600
12	1200
13	1200
14	1200
15	1200
20	2400

注1) 超出生产极限长度时, 请垂询本公司。 注2) 冷轧滚珠丝杆的极限长度值中包括丝杠两端各25mm的不完全螺纹部分。

Note 1) If required length exceeds the number in table above, please ask SJ representative.

Note 2) Maximum limit of overall length for Rolled Ball Screws includes 25mm of incomplete thread area at both end.

滚珠丝杠的导程精度

LEAD ACCURACY OF BALL SCREWS

JIS B1192中规定, 滚珠丝杠的导程精度是指, 相对于螺母有效移动量或丝杠轴螺纹部有效长度的代表移动量误差及波动, 以及相对于螺纹部有效长度中任意300mm及1圈(2π rad)的波动。

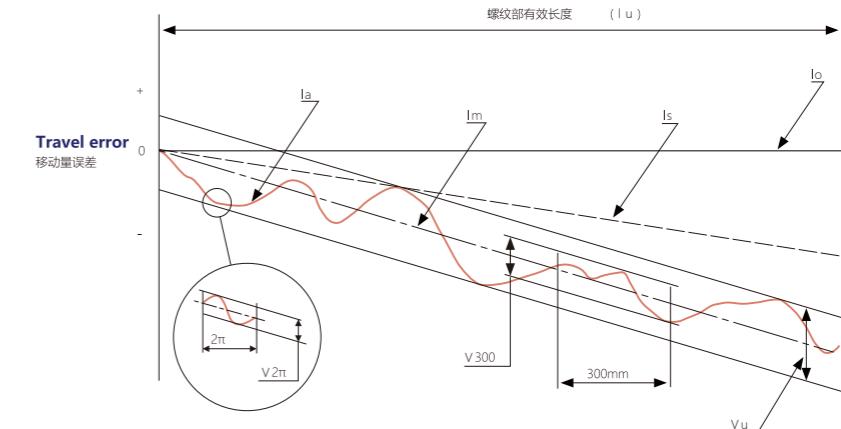
表C-02、03、04中列出了不同精度等级的各种特性的公差。

Ball Screw lead accuracy conforming to JIS B1192 is specified by the tolerance of actual mean travel error over the Nut effective travel amount, or Screw Shaft effective length, travel variation and travel variation within arbitrary 300mm, travel variation within arbitrary 1 revolution (2π rad) over the Screw Shaft effective length.

Tolerance of each accuracy grades are shown in the Table C-02,03,04.

图C-01：移动量误差线图

Fig. C-01 : Travel deviation diagram



公称移动量 (lo) : 按照公称导程旋转任意圈数时的轴向移动量。

标准导程 (Phs) : 预测因温度上升及负载而引起的变形量, 对公称导程进行了若干补偿的导程。

代表移动量的目标值 (c) : 预先将标准移动量设定为正或负时的目标值。

标准移动量 (ls) : 按照标准导程旋转任意圈数时的移动量。

实际移动量 (la) : 相对于任意丝杠轴旋转角的螺母实际轴向移动量。

代表移动量 (lm) : 代表实际移动量倾向的直线。根据表示相对于滚珠丝杆有效移动量或螺纹部有效长度的实际移动量曲线, 通过最小二乘法

代表移动量 (lm) : 或类似的近似法求出。

代表移动量误差 (ep) : 与螺母的有效移动量或丝杠轴的螺纹部有效长度相应的代表移动量与标准移动量之差。

波动 (Vu) : 平行于代表移动量的两条线间的实际移动量最大幅度。

波动 (V300) : 相对于螺纹部有效长度中任意300mm的实际移动量最大幅度。

波动 (V2π) : 相对于螺纹部有效长度中任意1圈(2π rad)的实际移动量最大幅度。

Nominal travel (lo) : Travel in axial direction when rotated arbitrary number of revolution according to the Nominal lead

Specified Lead (Phs) : Lead given some amount of correction to the Nominal lead in order to compensate the deformation generated due to the temperature rise or the load.

Travel compensation (c) : Difference between the Specified travel and the Nominal travel within the valid travel.

Specified travel (ls) : Travel in axial direction when rotated arbitrary number of revolution according to the Specified lead.

Actual travel (la) : Actual travel of Ball Nut in axial direction in respect to an arbitrary angle of rotation of Ball Screw Shaft.

Actual mean travel (lm) : Straight line which represents the tendency of Actual travel. It is obtained by the least square method or a simple and appropriate approximation method from the curve indicating the Valid travel of Ball Nut.

Tolerance on specified travel (ep) : Difference between the Actual mean travel and the Specified travel corresponding to the Valid travel of Ball Nut or the Useful travel of Ball Screw Shaft.

Travel variation (Vu) : Maximum width of the Actual travel curve between the two straight lines put in parallel to the Actual mean travel line, that corresponds to Valid travel of Ball Nut or Useful travel of Ball Screw Shaft.

Travel variation (V300) : Maximum width of the Actual travel curve between the two straight lines put in parallel to the Actual mean travel line, that corresponds to arbitrary 300mm taken within Useful travel of Ball Screw Shaft.

Travel variation (V2π) : Maximum width of the Actual travel curve between the two straight lines put in parallel to the Actual mean travel line, that corresponds to arbitrary one revolution (2π rad) within Useful travel of Ball Screw Shaft.

表C-02：精密滚珠丝杆(定位用:C系列)的代表移动量误差(±EP)和波动(VU)许用值

Table C-02 : Tolerance on actual mean travel deviation ($\pm ep$) and permissible variation of precision Ball Screws (for positioning : C series)

Accuracy Grade 精度等级			C0		C1		C3		C5		Unit (单位) :mm
Effective screw length (mm) 螺纹部有效长度(mm)	Over 超过	Up to 以下	$\pm ep$	Vu	$\pm ep$	Vu	$\pm ep$	Vu	$\pm ep$	Vu	
	-	100	3	3	3.5	5	8	8	18	18	
	100	200	3.5	3	4.5	5	10	8	20	18	
	200	315	4	3.5	6	5	12	8	23	18	
	315	400	5	3.5	7	5	13	10	25	20	
	400	500	6	4	8	5	15	10	27	20	
	500	630	6	4	9	6	16	12	30	23	
	630	800	7	5	10	7	18	13	35	25	
	800	1000	8	6	11	8	21	15	40	27	

表 C-03：精密滚珠丝杆(定位用: C系列) 每300mm及1圈的波动(V₃₀₀)、(V_{2π}) 许用值

Table Y-03 : Permissible travel variation V₃₀₀, V_{2π} (for positioning : C series)

Unit (单位) :mm							
Accuracy grade 精度等级	C0		C1		C3		C5
Item 项目	V ₃₀₀	V _{2π}	V ₃₀₀	V _{2π}	V ₃₀₀	V _{2π}	V ₃₀₀
Permissible value 许用值	3.5	3	5	4	8	6	18

表 C-04：相对于300mm的Ct系列(7、10级)的波动(V₃₀₀)

Table Y-04 : Permissible travel variation V₃₀₀ for Ct serie (s 7,10 grade)

Unit (单位) :mm		
Accuracy grade 精度等级	Ct7	Ct10
V ₃₀₀	52	210

Ct系列(7级、10级)的代表移动量误差由下式求出。
Tolerance on actual mean travel deviation (ep) is calculated as follows.

$$ep = \pm \frac{lu}{300} \times V_{300}$$
 lu: 螺纹部有效长度 (mm)
 Useful travel (mm)

滚珠丝杠的安装部精度

BALL SCREW RUN-OUT AND LOCATION TOLERANCES

JIS B1192中规定，滚珠丝杠的导程精度是指，相对于螺母有效移动量或丝杠轴螺纹部有效长度的代表移动量误差及波动，以及相对于螺纹部有效长度中任意300mm及1圈(2π rad)的波动。

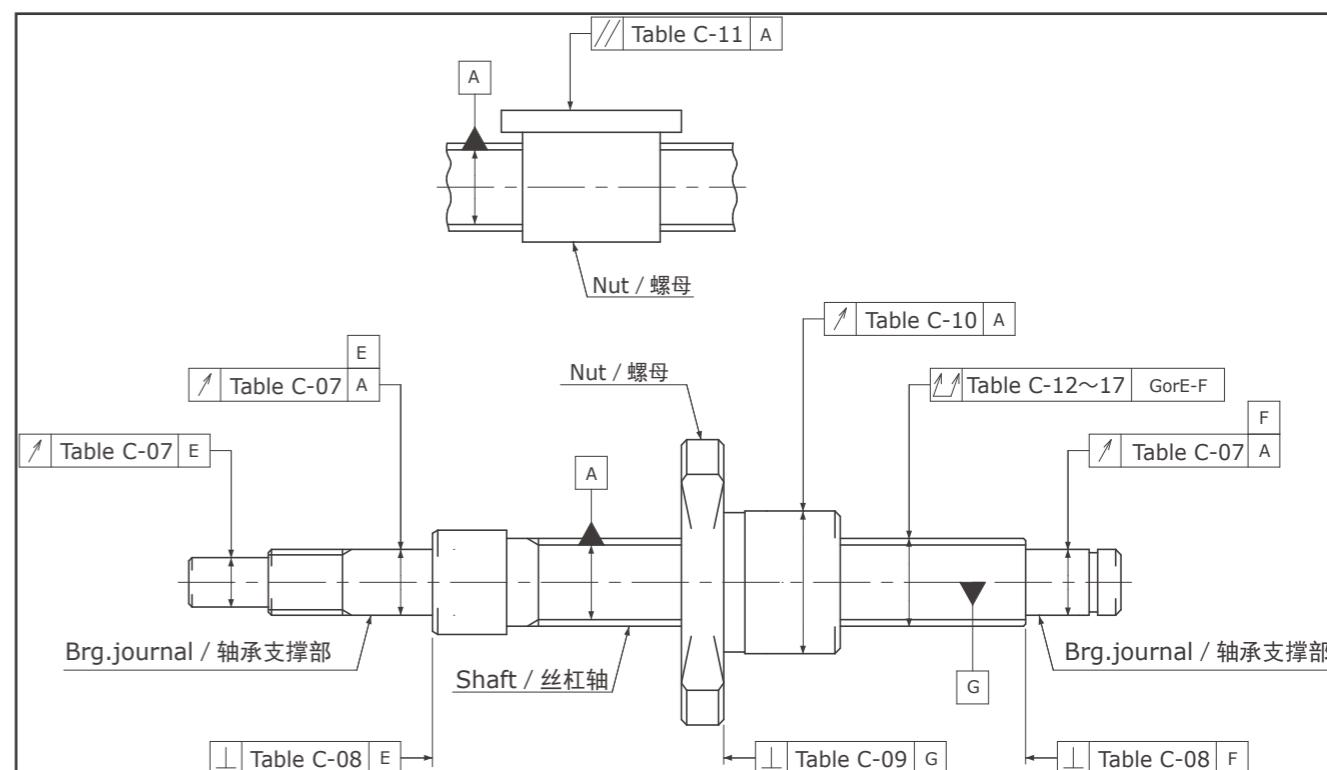
表C-02、03、04中列出了不同精度等级的各种特性的公差。

Ball Screw lead accuracy conforming to JIS B1192 is specified by the tolerance of actual mean travel amount, or Screw Shaft effective length, travel variation and travel variation within arbitrary 300mm, travel variation within arbitrary 1 revolution (2π rad) over the Screw Shaft effective length.

Tolerance of each accuracy grades are shown in the Table C-02, 03, 04.

图C-05：安装部精度的填写示例

Fig. C-05 : Description of Run-out and location tolerances for Ball Screws



图C-06：圆跳动的补正

Fig. C-06 : Compensation of Radial Run-out

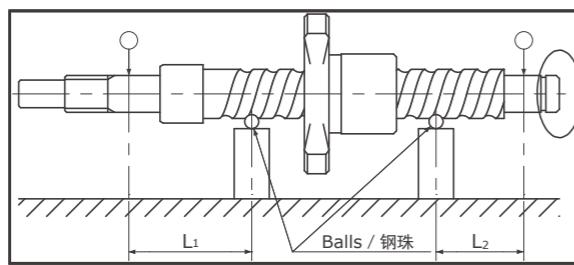


表 C-07：相对于丝杆轴螺纹槽面的支撑部外径的半径方向圆跳动以及相对于丝杆轴支撑部轴线的零件安装部的半径方向圆跳动

Table C-07 : Radial Run-out of Bearing seat related to the centerline of screw groove and Radial Run-out of journal diameter related to the Bearing seat

Shaft nominal diameter (mm) 丝杆轴公称外径(mm)		Permissible deviation of Radial Run-out 跳动公差(最大)					
Over 超过	Up to 以下	C0	C1	C3	C5	C7	C10
-	8	3	5	8	10	14	40
8	12	4	5	8	11	14	40
12	20	4	6	9	12	14	40

在测量该项目时，由于受丝杆轴轴线全跳动的影响，因此需要进行补偿。补偿方法为，根据丝杆轴总长与支点到测量点的距离（L₁,L₂）的比值（参照图C-06），利用第C-28~30页的表C-12~17的丝杆轴轴线的全跳动公差，求出补偿值（参照下式），然后加上表C-07中的公差。

This measurement item is affected by Total Run-out of the Screw Shaft, and so it must be corrected as follows. Find the corrected value from the Total Run-out tolerances given in Tables C-28~30 on page C-12~17 using the ratio of the total Shaft length to the distance between the supporting point and the measuring point (t L₁,L₂) (see Fig. C-06), and add the values obtained to the tolerance given in Table C-07.

$$\text{圆跳动的补正} = \frac{\text{全跳动公差 (表C-12~17)}}{\text{总长}} \times \text{测量间距 (L}_1\text{或L}_2\text{)}$$

$$\text{Compensation Value of Run-out} = \frac{\text{Tolerance of total Run-out (Table C-12~17)}}{\text{Total shaft length}} \times (\text{L}_1 \text{ or } \text{L}_2)$$

L₁、L₂：支点到测量点的距离 (mm)
Distance btw supporting pt & measuring pt (mm)

表 C-08：相对于丝杆轴支撑部轴线的支撑部端面的垂直度

Table C-08 : Axial Run-out (Perpendicularity) of Shaf(t Bearing) face related to the centerline of the Bearing seat

Shaft nominal diameter (mm) 丝杆轴公称外径(mm)		Permissible deviations of Axial Run-out (Perpendicularity) 垂直接度 公差(最大)					
Over 超过	Up to 以下	C0	C1	C3	C5	C7	C10
-	8	2	3	4	5	7	10
8	12	2	3	4	5	7	10
12	20	2	3	4	5	7	10

表 C-09：相对于丝杆轴轴线的螺母基准端面或法兰安装面的垂直度

Table C-09 : Axial Run-out (Perpendicularity) of Ball Nut location face related to the centerline of Screw Shaft

Nut outside diameter (mm) 螺母外径		Permissible deviations of Axial Run-out (Perpendicularity) 垂直接度公差(最大)					
Over 超过	Up to 以下	C0	C1	C3	C5	C7	C10
-	20	5	6	8	10	14	20
20	32	5	6	8	10	14	20
32	50	6	7	8	11	18	30

表 C-10：相对于丝杆轴轴线的螺母外周面(圆柱形时)的半径方向圆跳动

Table C-10 : Radial Run-out of Ball Nut location diameter related to the centerline of Screw Shaft

Nut outside diameter (mm) 螺母外径		Permissible deviations of Radial Run-out 跳动公差(最大)					
Over 超过	Up to 以下	C0	C1	C3	C5	C7	C10
-	20	5	6	9	12	20	40
20	32	6	7	10	12	20	40
32	50	7	8	12	15	30	60

表 C-11：相对于丝杆轴轴线的螺母外周面(平面安装时)的平行度

Table C-11 : Parallelism of rectangular Ball Nut related to the centerline of Screw Shaft

Mounting length (mm) 标准安装长度(mm)		Permissible deviations of Parallelism 平行度公差(最大)					
Over 超过	Up to 以下	C0	C1	C3	C5	C7	C10
-	50	5	6	8	10	17	30
50	100	7	8	10	13	17	30

表 C-12 : 丝杆轴轴线的半径方向全跳动 (C0)

Table C-12 : Total Run-out in radial direction of Screw Shaft related to the centerline of Screw Shaft (C0)

		Shaft nominal diameter 丝杆轴公称外径			Unit (单位) :mm
Shaft total length 丝杆轴总长	Over/超过	-	8	12	
	Up to/以下	8	12	20	
Over 超过	Up to 以下	Permissible deviations of total Run-out in radial direction 跳动公差(最大)			
-	125	0.015	0.015	0.015	
125	200	0.025	0.020	0.020	
200	315	0.035	0.025	0.020	
315	400	-	0.035	0.025	
400	500	-	0.045	0.035	
500	630	-	0.050	0.040	
630	800	-	-	0.050	
800	1000	-	-	0.065	

表 C-14 : 丝杆轴轴线的半径方向全跳动 (C3)

Table C-14 : Total Run-out in radial direction of Screw Shaft related to the centerline of Screw Shaft (C3)

		Shaft nominal diameter 丝杆轴公称外径			Unit (单位) :mm
Shaft total length 丝杆轴总长	Over/超过	-	8	12	
	Up to/以下	8	12	20	
Over 超过	Up to 以下	Permissible deviations of total Run-out in radial direction 跳动公差(最大)			
-	125	0.025	0.025	0.020	
125	200	0.035	0.035	0.025	
200	315	0.050	0.040	0.030	
315	400	0.060	0.050	0.040	
400	500	-	0.065	0.050	
500	630	-	0.070	0.055	
630	800	-	-	0.070	
800	1000	-	-	0.095	

表 C-13 : 丝杆轴轴线的半径方向全跳动 (C1)

Table C-13 : Total Run-out in radial direction of Screw Shaft related to the centerline of Screw Shaft (C1)

		Shaft nominal diameter 丝杆轴公称外径			Unit (单位) :mm
Shaft total length 丝杆轴总长	Over/超过	-	8	12	
	Up to/以下	8	12	20	
Over 超过	Up to 以下	Permissible deviations of total Run-out in radial direction 跳动公差(最大)			
-	125	0.020	0.020	0.015	
125	200	0.030	0.025	0.020	
200	315	0.040	0.030	0.025	
315	400	0.045	0.040	0.030	
400	500	-	0.050	0.040	
500	630	-	0.060	0.045	
630	800	-	-	0.060	
800	1000	-	-	0.075	

表 C-15 : 丝杆轴轴线的半径方向全跳动 (C5)

Table C-15 : Total Run-out in radial direction of Screw Shaft related to the centerline of Screw Shaft (C5)

		Shaft nominal diameter 丝杆轴公称外径			Unit (单位) :mm
Shaft total length 丝杆轴总长	Over/超过	-	8	12	
	Up to/以下	8	12	20	
Over 超过	Up to 以下	Permissible deviations of total Run-out in radial direction 跳动公差(最大)			
-	125	0.035	0.035	0.035	
125	200	0.050	0.040	0.040	
200	315	0.065	0.055	0.045	
315	400	0.075	0.040	0.055	
400	500	-	0.080	0.060	
500	630	-	0.090	0.075	
630	800	-	-	0.090	
800	1000	-	-	0.120	

表 C-16 : 丝杆轴轴线的半径方向全跳动 (C7)

Table C-16 : Total Run-out in radial direction of Screw Shaft related to the centerline of Screw Shaft (C7)

Shaft total length 丝杆轴总长		Shaft nominal diameter 丝杆轴公称外径		
	Over/超过	-	8	12
	Up to/以下	8	12	20
Over 超过	Up to 以下	Permissible deviations of total Run-out in radial direction 跳动公差(最大)		
-	125	0.060	0.055	0.055
125	200	0.075	0.065	0.060
200	315	0.100	0.080	0.070
315	400	-	0.100	0.080
400	500	-	0.120	0.095
500	630	-	0.150	0.110
630	800	-	-	0.140
800	1000	-	-	0.170

表 C-17 : 丝杆轴轴线的半径方向全跳动 (C10)

Table C-17 : Total Run-out in radial direction of Screw Shaft related to the centerline of Screw Shaft (C10)

Shaft total length 丝杆轴总长		Shaft nominal diameter 丝杆轴公称外径		
	Over/超过	-	8	12
	Up to/以下	8	12	20
Over 超过	Up to 以下	Permissible deviations of total Run-out in radial direction 跳动公差(最大)		
-	125	0.100	0.095	0.090
125	200	0.140	0.120	0.110
200	315	0.210	0.160	0.130
315	400	-	0.210	0.160
400	500	-	0.270	0.200
500	630	-	0.350	0.250
630	800	-	0.460	0.320
800	1000	-	-	0.420

注) Ct7、Ct10规格时,有时会根据JIS B1192-2013标准,采用基于细长比的全跳动规格(下表)。

Note) In case of Ct7, Ct10 grade, SJ may use the standard of Total Run-out based on slenderness ratio, which conforms to JIS B1192-2013.

Slenderness ratio 细长比		Total Run-out 全跳动	
Over/超过	Up to/以下	Ct7	Ct10
-	40	0.080	0.160
40	60	0.120	0.240
60	80	0.200	0.400
80	100	0.320	0.640

细长比 / Slenderness ratio = lu/do

lu : 螺纹部有效长度 / Useful travel (mm)

do: 丝杆轴公称外径 / Nominal diameter of Ball Screw (mm)

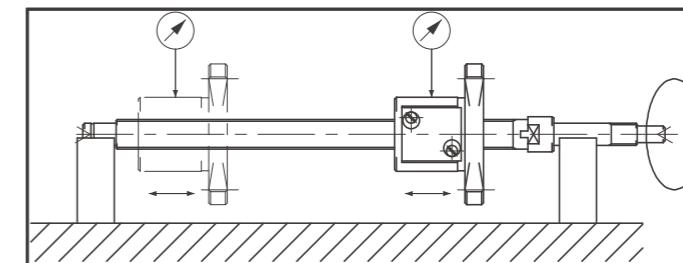
滚珠丝杆安装部精度的测量方法

MEASURING METHOD OF BALL SCREW RUN-OUT AND LOCATION TOLERANCES

◆ 相对于丝杆轴螺纹槽面的支撑部外径的半径方向圆跳动 (表 C-07) Radial Run-out of Bearing seat related to the centerline of screw groove (Table C-07)

用V形块支撑丝杆轴两端,一边使丝杆轴旋转,一边读取测量头接触螺母外周面的千分表刻度。测量作业在支撑部附近的2处进行。此外,直接用千分表测量支撑部外径时,用两个中心孔支撑丝杠轴进行测量。

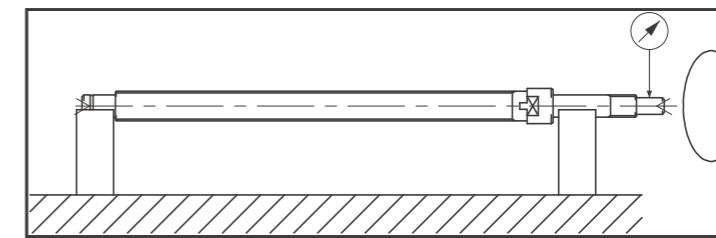
Place the Ball Screw in identical V-blocks at both Bearing seat. Place the dial gauge perpendicular to the Nut cylindrical surface. Rotate Screw Shaft slowly and record the dial gauge readings. Measurement should be done at near both ends of threaded part. Some cases, this measurement will be done by both centerhole support, and directly measured on Bearing seat.



◆ 相对于丝杆轴支撑部轴线的零件安装部的半径方向圆跳动 (表C-07) Radial Run-out of journal dia meter related to the Bearing seat (Table C-07)

用V形块支撑丝杆轴两端,一边使丝杆轴旋转,一边读取测量头接触零件安装部的千分表刻度。

Place the Ball Screw in identical V-blocks at both Bearing seats. Place the dial gauge perpendicular to the journal cylindrical surface. Rotate the Screw Shaft slowly and record the dial gauge readings.



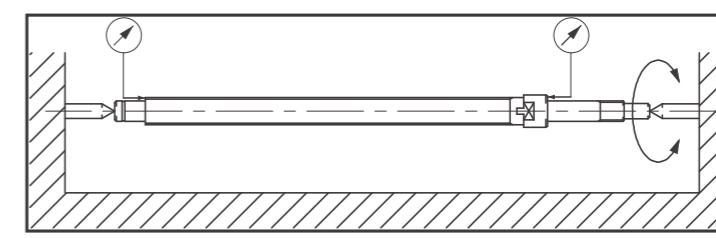
◆ 相对于丝杆轴支撑部轴线的支撑部端面的垂直度 (表 C-08) Axial Run-out (Perpendicularity) of shaft (Bearing) face related to the centerline of the Bearing seat (Table C-08)

用两个中心孔支撑丝杆轴两端,一边使丝杆轴旋转,一边读取测量头接触支撑部端面的千分表刻度。

Support a Screw Shaft at both centers. Place the dial gauge perpendicular to the end face of the journal. Rotate the Screw Shaft slowly and record the dial gauge readings.

**图纸中的标示以支撑部外周面为基准,但由于支撑部外周面以中心孔为基准进行了加工,因此与用V形块支撑支撑部外周面时相同。

**This method is equivalent to the one, which is supported at both Bearing seats, because Bearing seats are ground related to both centers.

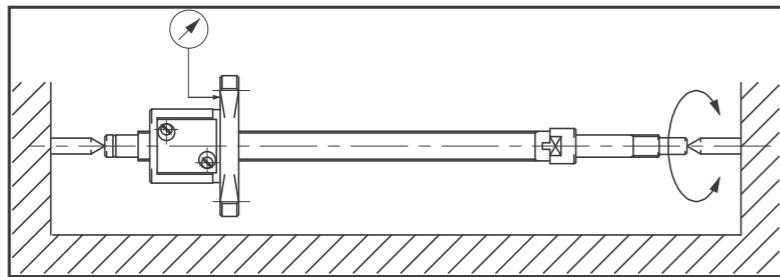


◆ 相对于丝杆轴轴线的螺母基准端面或法兰安装面的垂直度(表 C-09)

Axial Run-out (Perpendicularity) of Ball Nut location face related to the centerline of Screw Shaft (Table C-09)

用两个中心孔支撑丝杆轴两端，一边使轴与螺母一起旋转，一边读取测量头接触螺母法兰端面的千分表刻度。

Support the Ball Screw at both centers. Place the dial gauge perpendicular to the flange face. Rotate the Screw Shaft with Ball Nut slowly and record the dial gauge readings. Secure the Ball Nut against rotation on the Screw Shaft.

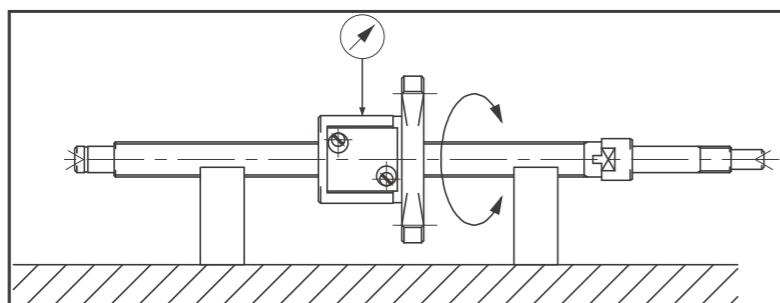


◆ 相对于丝杆轴轴线的螺母外周面的半径方向圆跳动(表 C-10)

Radial Run-out of Ball Nut location diameter related to the centerline of Screw Shaft (Table C-10)

用V形块支撑丝杆轴螺母附近的外周面，一边使螺母旋转，一边读取测量头接触螺母外周面的千分表刻度。

Place the Ball Screw on V-blocks at adjacent sides of the Ball Nut. Place the dial gauge perpendicular to the cylindrical surface of Ball Nut. Secure the Screw Shaft against rotation of Ball Nut. Rotate Ball Nut slowly and record the dial gauge readings.

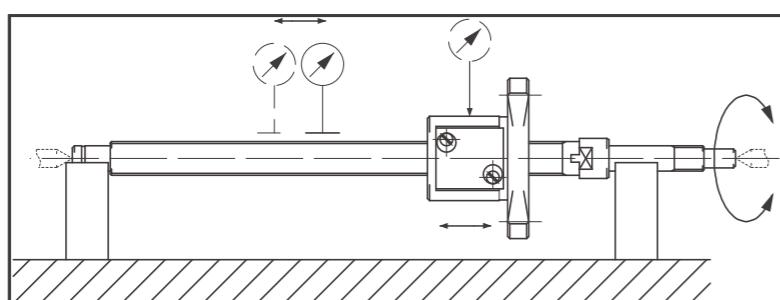


◆ 丝杆轴轴线的半径方向全跳动(表 C-12~17)

Total Run-out in radial direction of Screw Shaft related to the centerline of Screw Shaft (Table C-12~17)

用两个中心孔或V形块支撑丝杆轴两端，一边使丝杆轴旋转，一边读取测量头接触丝杆轴外周面或螺母外周面的千分表刻度。测量作业含整个范围，选多处进行。

Place the Ball Screw in identical V-blocks at both Bearing seats, or support the Ball Screw at both centers. Place the dial gauge with measuring shoe at the several points over the full thread length. Rotate the Screw Shaft slowly and record the dial gauge readings. Maximum value of measurement should be the Total Run-out.



材质和热处理、硬度

MATERIAL AND HEAT TREATMENT, SURFACE HARDNESS

上井滚珠丝杆的标准材质、热处理和硬度如表C-18、19所示。

表中数值可能会因系列及型号不同而略有差异，请参照本公司出示的规格图。

Standard material of SJ Ball Screws, Heat treatment and Surface hardness are shown in table C-18, 19. However, they vary depending on series or model number. Please refer to SJ drawings.

表 C-18 : 一般产品的材质和热处理、硬度

Table C-18 : Material, Heat treatment & Surface hardness for regular items

	Material 材质	Heat treatment 热处理	Surface hardness 表面硬度
Screw Shaft 丝杆轴	S55C	Induction quenching 高频淬火	HRC 58-62
Nut 螺母	SCM415	Carburizing and quenching 渗碳淬火	HRC 58-62

注)表中所示硬度为滚珠丝杆部的表面硬度。

Note) Hardness on table shows surface hardness of thread part.

表 C-19 : 不锈钢产品的材质和热处理、硬度

Table C-19 : Material, Heat treatment & Surface hardness for stainless steel items

	Material 材质	Heat treatment 热处理	Surface hardness 表面硬度
Screw Shaft 丝杆轴	SUS440C	Quenching and tempering 淬火、回火	HRC min.55 HRC 55以上
Nut 螺母	SUS440C	Quenching and tempering 淬火、回火	HRC min.55 HRC 55以上

注)表中所示硬度为滚珠丝杆部的表面硬度。

Note) Hardness on table shows surface hardness of thread part.

许用轴向负载

PERMISSIBLE AXIAL LOAD

建议尽量在有拉伸负载作用于丝杆轴的条件下使用。但根据使用条件，可能会有压缩负载作用，此时应避免丝杆轴发生压曲。

尤其在安装间距较小时，无论采用何种安装方法，都会受到许用拉伸应力或压缩负载及基本额定静负载Coa的限制。

压曲负载、许用拉伸和许用压缩负载可用下式求出。

It is recommended that Ball Screw Shafts be used almost exclusively under tension load conditions. However, in some applications, compression loads may exist, and under such conditions it must be determined that Shaft buckling will not occur.

Also, when the mounting span distance is short, there is a restriction on the permissible tension or compression load and the Basic Static Load Rating Coa unrelated to mounting.

Buckling load, permissible tension and permissible compression load can be calculated below.

◆ 相对于压曲的许用压缩负载的计算公式

Permissible compression load calculation for buckling

$$P = \alpha \times \frac{n\pi^2 E \cdot I}{L^2} \text{ N/kgf} \quad (\text{Euler formula})$$

a: 安全系数 (Safety Factor) 0.5

E: 杨氏模量 (Young's modulus) $2.08 \times 10^5 \text{ N/mm}^2$ (MPa) {21,200kgf/mm²}

I: 丝杆轴截面的最小惯性矩 (Screw Shaft minimum moment of inertia of area)

$$I = \frac{\pi}{64} d^4 \text{ mm}^4$$

d: 丝杆轴底径 (Screw Shaft Root diameter)

mm

L: 安装间距 (Mounting span distance)

mm

n: 取决于滚珠丝杠安装方法的系数 (Factor for Ball Screw mounting method)

支撑-支撑 (Supported-Supported)	$n=1$
固定-支撑 (Fixed-Supported)	$n=2$
固定-固定 (Fixed-Fixed)	$n=4$
固定-自由 (Fixed-Free)	$n=1/4$

◆ 相对于丝杠轴屈服应力的许用拉伸、压缩负载的计算公式

Permissible tension, compression load calculation for Screw Shaft yield stress

$$P = \sigma \times A \text{ N/kgf}$$

σ : 许用应力 (Permissible stress)

A: 丝杆轴的最小截面积 (Screw Shaft minimum section area)

98 N/mm^2 (MPa) {10kgf/mm²}

$$A = \frac{\pi}{4} d^2 \text{ mm}^2$$

d: 丝杆轴底径 (Screw Shaft Root diameter)

mm

许用转速

PERMISSIBLE SPEED

丝杆轴的安装方法决定了旋转丝杆轴的极限转速。转速接近极限值时会引起共振，导致丝杆轴无法运行。

此外，无论采用何种安装方法，滚珠丝杆都存在会导致循环部损坏的极限转速。

For Screw Shaft rotation, the mounting method determines the established rotation limits. When this value is approached, resonance phenomenon can occur, and operation becomes impossible. There is also rotation limit which causes damages to recirculating parts. This limit is unrelated to mounting methods.

◆ 相对于临界速度的许用转速的计算公式

Permissible speed calculation for critical speed

$$N = \beta \times \frac{60 \cdot \lambda^2}{2\pi} \times \sqrt{\frac{E \cdot I \cdot g}{\gamma \cdot A \cdot L^4}} \text{ min}^{-1} \{ \text{rpm} \}$$

β : 安全系数 (Safety Factor) 0.8

E: 杨氏模量 (Young's modulus)

$2.08 \times 10^5 \text{ N/mm}^2$ (MPa) {21,200kgf/mm²}

I: 丝杆轴截面的最小惯性矩 (Screw Shaft minimum moment of inertia of area)

$$I = \frac{\pi}{64} d^4 \text{ mm}^4$$

d: 丝杆轴底径 (Screw Shaft Root diameter)

mm

g: 重力加速度 (Gravity acceleration)

$9.8 \times 10^3 \text{ mm/sec}^2$

γ : 材料的比重 (Material specific gravity)

$7.7 \times 10^{-5} \text{ N/mm}^3$ { $7.85 \times 10^{-6} \text{ kgf/mm}^3$ }

L: 安装间距 (Mounting span distance)

mm

A: 丝杆轴的最小截面积 (Screw Shaft minimum section area)

$$A = \frac{\pi}{4} d^2 \text{ mm}^2$$

λ : 取决于滚珠丝杠安装方法的系数 (Factor for Ball Screw mounting method)

支撑-支撑 (Supported-Supported)	$\lambda = \pi$
固定-支撑 (Fixed-Supported)	$\lambda = 3.927$
固定-固定 (Fixed-Fixed)	$\lambda = 4.730$
固定-自由 (Fixed-Free)	$\lambda = 1.875$

◆ 相对于循环部损坏的极限转速

Rotation limits for damage on recirculating parts

关于相对于循环部损坏的极限转速，一般多根据滚珠丝杠的钢珠速度dn值（丝杠轴公称外径×转速）来设定上限值，但对于像上井滚珠丝杠这样的微型滚珠丝杠，dn值则不适用。上井滚珠丝杠的循环部损坏极限转速为3,500~4,000rpm左右。该数值会因使用条件及环境而异，详情请垂询本公司。

Generally, regarding critical speed for damage on recirculating parts, limitation is established by dn value, which is multiplied Shaft nominal diameter of revolution, but dn value cannot be applied to Miniature Ball Screws. For SJ Ball Screws, please consider rotation limits by damage on recirculating parts as 3,500 to 4,000rpm. This value varies depending on operating conditions and environment. Please inquire SJ for details.

滚珠丝杆的安装方法

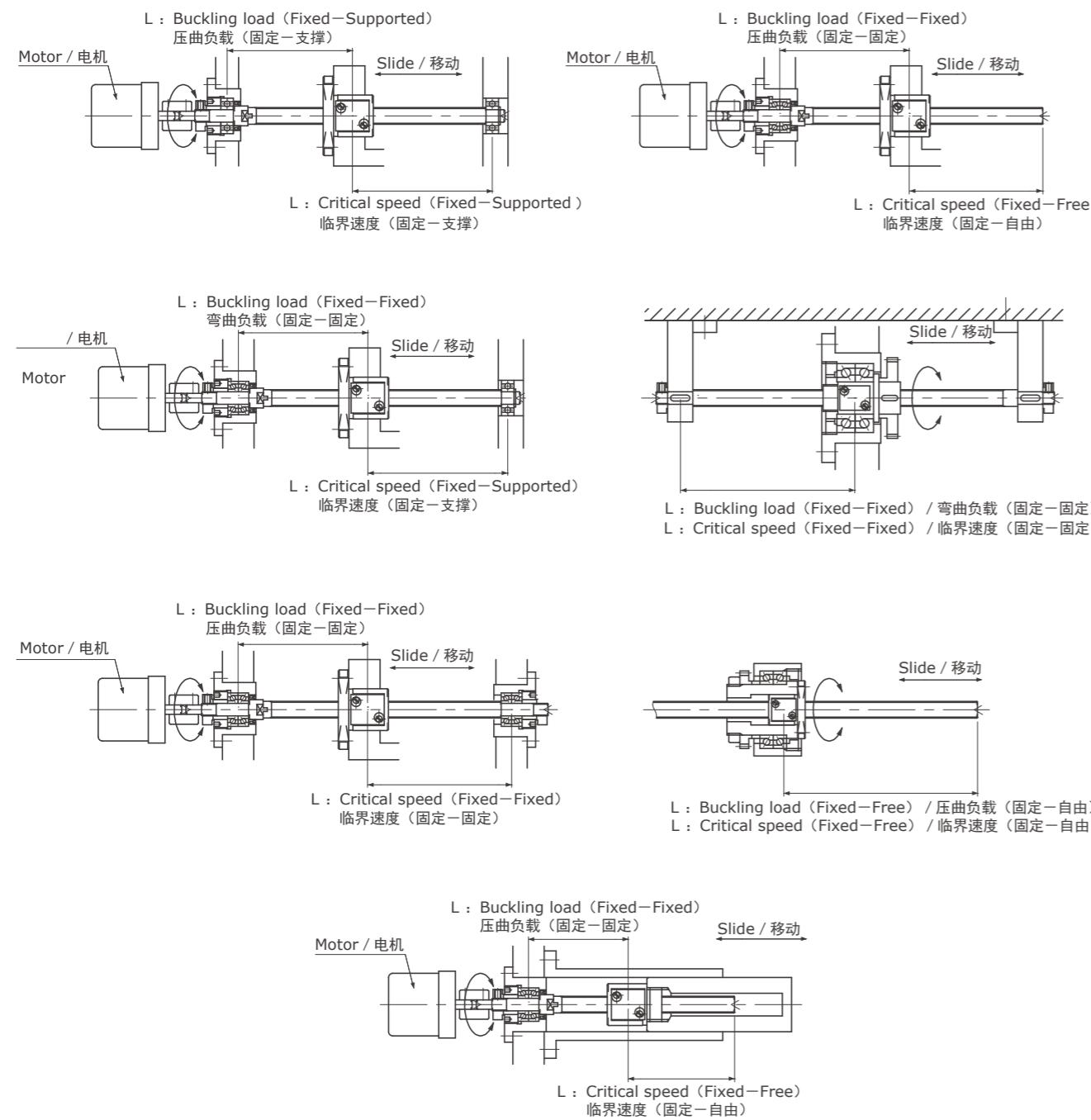
BALL SCREW MOUNTING METHODS

滚珠丝杆的典型安装方法如图C-20所示。由于安装方法会影响相对于压曲的许用轴向负载、以及相对于临界速度的许用转速，因此请在设计强度和转速时予以考虑。

Typical Ball Screw's mounting methods are shown in Fig. C-20. Mounting configuration affects permissible Axial load in relation to buckling, as well as permissible speed in relation to critical speed. Please refer to below when studying strength and speed.

图C-20：滚珠丝杆的安装方法

Fig. C-20 : Ball Screw mounting methods



轴向间隙和预压

AXIAL PLAY AND PRELOAD

通常，普通的单螺母滚珠丝杆的丝杆轴和螺母之间存在微小的轴向间隙。因此，当单螺母滚珠丝杆上有轴向负载作用时，上述轴向间隙和轴向负载所产生的弹性位移量的和就会导致间隙变大，形成齿隙。为消除这样的齿隙，应使滚珠丝杆的轴向间隙为负，即采用预先向丝杆轴和螺母间施加弹性变形，也就是“预压”的方法。

For standard Single Nut Ball Screws under normal conditions, a slight Axial play exists between the Screw Shaft and Nut. Consequently, when Axial loads act on Single Nut Ball Screws, total amount of Axial play and Elastic displacement due to Axial load becomes backlash. In order to prevent this backlash in Ball Screws, the Axial play can be reduced to a negative value. That is what we call "Preload", which is the method of causing Elastic deformation to the Balls between the Screw Shaft and Nut in advance.

◆ 轴向间隙 Axial play

上井滚珠丝杆的间隙符号和轴向间隙的许用值如表C-21所示。
滚珠丝杆的精度等级和间隙符号的组合如表C-22所示。

Symbol and permissible value for Axial play are shown in Table C-21.
Combination of accuracy grade and symbol are shown in Table C-22.

表 C-21：间隙符号和轴向间隙的许用值

Table C-21 : Symbol and permissible value for Axial play

Symbol 间隙符号	0	02	05	20	50
Axial play 轴向间隙	0 (Preloading) 0 (预压)	0.002 max. 0.002以下	0.005 max. 0.005以下	0.02 max. 0.02以下	0.05 max. 0.05以下

表 C-22：精度等级和间隙符号的组合

Table C-22 : Combination of accuracy grade and Axial play

Symbol 间隙符号	0	02	05	20	50
Accuracy grade 精度等级	C0	C0-0	-	-	-
C1	C1-0	C1-02	-	-	-
C3	C3-0	C3-02	C3-05	C3-20	C3-50
C5	-	-	C5-05	C5-20	C5-50
C7	-	-	-	C7-20	C7-50
C10	-	-	-	C10-20	C10-50

注)希望采用上述以外的组合时,请垂询本公司。
Note) When combinations other than the above are requested, please inquire SJ.

◆ 预压的效果 Preload effect

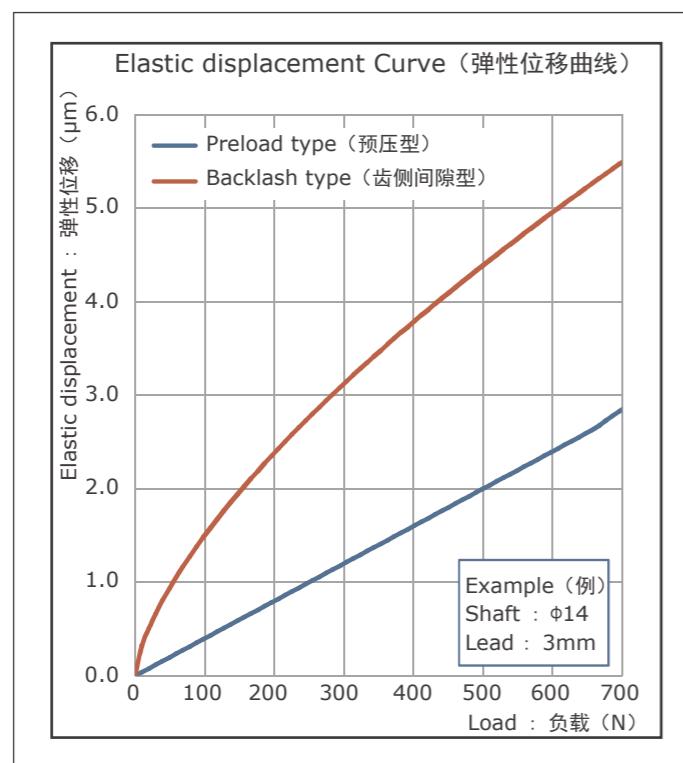
使用预压，不仅可以消除滚珠丝杆的轴向间隙，还可减少由轴向负载引起的轴向位移量，提高刚性。

图C-23表示间隙规格滚珠丝杆和预压（无间隙）规格滚珠丝杆的轴向负载引起的弹性位移量的不同（理论值）。可以看出，通过预压，可减少（刚性提高）弹性位移量。

Preload is not only used for removing Axial play, it also has the effect of reducing the amount of Axial displacement due to Axial load, and improving the Rigidity in Ball Screws. Fig. C-23 shows the difference of the amount of Elastic displacement (theoretical value) regarding Ball Screw with Axial play and Ball Screw with Preload under the Axial load.

图C-23：间隙规格和预压规格的弹性位移曲线

Fig. C-23 : Elastic displacement curve comparison between Backlash type and Preload type



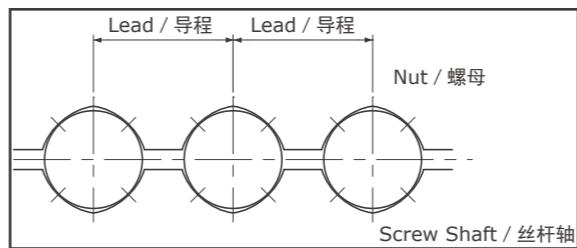
◆ 预压的方法 Preload methods

滚珠丝杆一般采用在2个螺母之间插入隔片（填隙片）的预压方法，即双螺母预压法。上井滚珠丝杆充分发挥微型滚珠丝杆的特点，采用插入略微大于丝杆轴和螺母间隙的钢珠的预压方法、即“大号钢珠预压”法。利用该方法，只需1个螺母即可完全消除间隙，可保持紧凑结构。另外，通过每隔一处使用间隔钢珠（略小于施加预压的大号钢珠），避免了动作性能下降。

Generally, a method of Double Nut Preload by inserting a spacer between two Nuts is adopted. SJ Ball Screw adopts 「Oversized Ball Preload」 by inserting Balls slightly bigger than space between Screw Shaft and Nut. As a result, it can eliminate Axial play even with a Single Nut and it is possible to maintain compact. Moreover, operating performance will never be deteriorated by using spacer Balls (Balls with slightly smaller diameter than those of the oversize Balls) alternatively with oversize Balls.

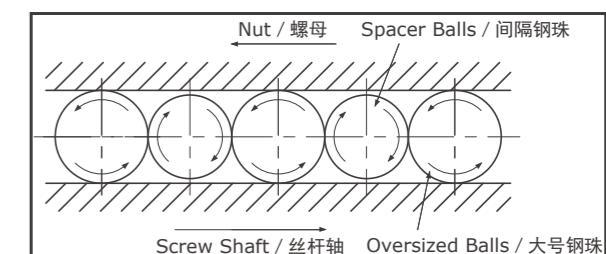
图C-24：使用大号钢珠的预压状态

Fig. C-24 : Preload by oversized Balls



图C-25：间隔钢珠

Fig. C-25 : Spacer Balls



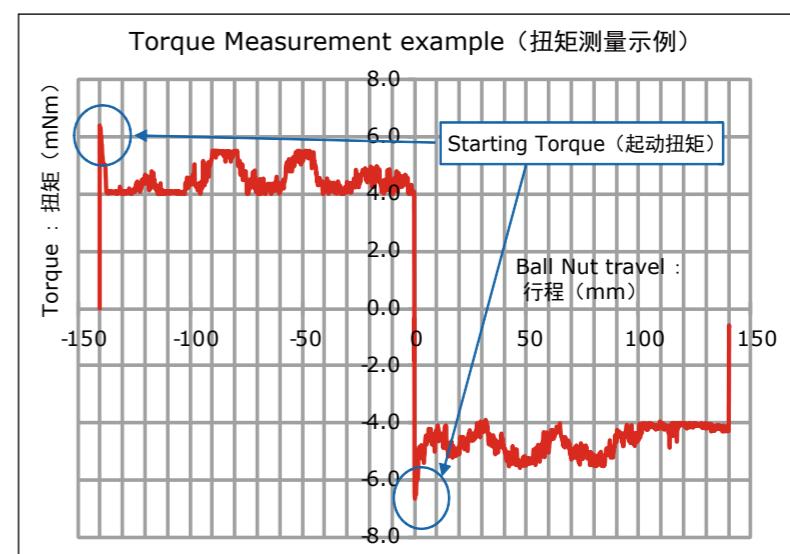
◆ 预压的管理方法 Preload control

直接测量并管理滚珠丝杆的预压量相当困难。因此，通常将滚珠丝杆的预压换算成预压动扭矩，通过测量该动扭矩来管理预压。预压动扭矩的值标示在规格图中，与客户协商决定。为了管理预压量（轴向间隙必须为0），预压动矩始终在一定的条件下进行测量。因此，润滑条件及使用条件不同的机械会导致动扭矩产生差异，敬请注意。此外，起动扭矩（驱动滚珠丝杆时的扭矩）会略大于动扭矩，敬请注意。

It is difficult to control Preload amount by measuring. Therefore, Preload of Ball Screw is controlled by measuring Preload Dynamic Drag Torque, which is converted from Preload amount. Amount of Preload Dynamic Drag Torque is decided with customers by specification drawing. Preload Dynamic Drag Torque is measured under specific condition to verify the amount of Axial play is 0. Dynamic Drag Torque installed actual machine will vary depending on lubricating condition, load condition and so on. Starting torque (Torque for starting Ball Screw) is slightly bigger than Dynamic Drag Torque.

图C-26：动扭矩测量示例

Fig. C-26 : Dynamic Drag Torque measurement



◆ 适当的预压量 Proper amount of Preload

预压量应该由所需刚性或许用齿侧间隙决定，但施加预压后，可能会产生以下影响：

- 1) 动扭矩增大
- 2) 因发热、温度上升而导致定位精度降低
- 3) 缩短使用寿命

因此，应尽可能设定较低的预压量。

Although the amount of Preload should be determined by the required Rigidity and the permissible amount of backlash, when setting Preload, there are some concerning issues as follows.

- 1) Increased Dynamic Drag Torque.
- 2) Heat generation lowering of positioning accuracy due to the temperature rise.
- 3) Shortened life.

Therefore, it is advisable to establish the amount of Preload at the lowest possible limits.

*为便于说明，图中所示的扭矩波动比实际有所夸大。
*Torque wave in this diagram is exaggerated for explanation.

进给丝杆轴系统的刚性

RIGIDITY IN FEED SCREW SYSTEM

在精密机械中，为了提高进给丝杆的定位精度、增强抗负载刚性，必须对进给丝杆轴系统整体的刚性进行探讨。
进给丝杆轴系统的刚性如下所示。

In precision machinery, to improve positioning accuracy of the feed screws or to increase Rigidity for load, the Rigidity of the entire feed screw system must be examined.
Feed screw system Rigidity is as follows.

$$\frac{1}{K} = \frac{1}{K_1} + \frac{1}{K_2} + \frac{1}{K_3} + \frac{1}{K_4} \quad \text{N/mm[kgf/mm]}$$

K: 进给丝杆轴系统整体的刚性 (Total Rigidity of feed screw system)	N/mm
K1: 丝杆轴的刚性 (Screw Shaft Rigidity)	N/mm
K2: 螺母的刚性 (Nut Rigidity)	N/mm
K3: 支撑轴承的刚性 (Support Bearing Rigidity)	N/mm
K4: 螺母和轴承安装部的刚性 (Nut, Bearing fitting part Rigidity)	N/mm

$$K_1 = \frac{A \cdot E}{r} \times 10^{-3} \quad \text{N/μm}$$

(1) 普通安装时 (轴向为固定—自由时) (图C-27)
In case of general mounting (Fixed-Free in axial direction) (Fig. C-27)

$$K_1 = \frac{A \cdot E \cdot L}{r(L-r)} \times 10^{-3} \quad \text{N/μm}$$

(2) 两端固定时 (图C-28)
In case of Fixed-Fixed mounting in axial direction (Fig. C-28)

$$K_1 = \frac{4 \cdot A \cdot E}{L} \times 10^{-3} \quad \text{N/μm}$$

r=L/2时将产生最大轴向位移，刚性如下所示。
The max. axial displacement occurs when r = L/2. The formula is as follows.

A : 丝杆轴的最小截面积 (Screw Shaft minimum section area)

$$K = \frac{F_a}{\delta} \quad \text{N/μm}$$

F_a : 进给丝杆轴系统承受的轴向负载
(Axial load applied to feed screw system)

δ : 进给丝杆轴系统的弹性位移量
(Elastic displacement of feed screw system)

N

mm

$$A = \frac{\pi}{4} d^2 \quad \text{mm}^2$$

d: 丝杆轴底径 (Screw Shaft Root diameter)

mm
2.08 × 10⁵ N/mm² (MPa){21,200 kgf/mm²}

E: 杨氏模量 (Young's modulus)

mm

l: 轴向固定点和螺母中央的距离 (Axial distance between fixed point & Nut center)

mm

L: 安装间距 (Mounting span distance)

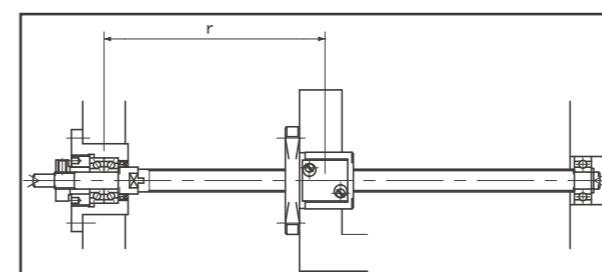
mm

因此，因轴向负载F_a引起的丝杆轴弹性位移量δ可由下式求出。

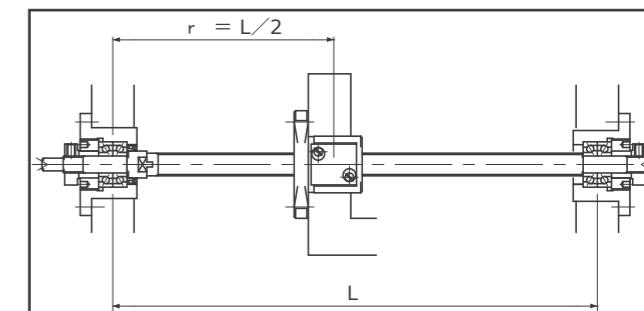
Accordingly, the amount of Screw Shaft Elastic displacement δ due to Axial load F_a is as follows.

$$\delta = \frac{F_a}{K_1} \quad \mu\text{m}$$

图C-27：轴向为固定-自由时
Fig. C-27 : Fixed-Free in axial direction



图C-28：两端固定时
Fig. C-28 : Fixed-Fixed in axial direction



◆ 螺母的刚性 K₂ Nut Rigidity K₂

2018年制定的JIS B1192第4部规定了轴向静刚性的计算公式。SJI依据JIS规定的计算公式计算理论静刚性。

Calculation formula of static Rigidity is defined by JIS B1192-4 established in 2018. SJI will use the formula which is defined by JIS to identify the static Rigidity.

(1) 单螺母间隙规格的刚性

单螺母间隙规格的螺母理论静刚性K₂用下式计算。

(1) Rigidity of Single Nut with backlash

Theoretical static Rigidity (K₂) of the Single Nut with backlash is calculated by the formula as follows.

$$K_2 = f_{ar} \times (3/2) \times F_a / \delta \quad (\text{N}/\mu\text{m})$$

K₂ : 螺母的理论静刚性 (Theoretical Nut Rigidity)

F_a : 轴向负载 (Axial Load)

δ : 轴向负载F_a时的弹性位移量 (Amount of Elastic displacement at Axial Load F_a)

f_{ar} : 补偿系数 (Correction factor) = 0.67

N/μm

N

μm

$$\delta = \times F_a^{2/3} \quad (\mu\text{m})$$

$$k = \frac{C}{Z^{2/3} \times D_w^{1/3} \times (\sin\alpha \times \cos\beta)^{5/3}}$$

K : 刚性特性系数 (Rigidity characterization factor)

Z : 承受负载的滚珠数量 (Quantity of loaded Ball)

D_w : 钢珠直径 (Diameter of Ball)

α : 螺纹槽接触角 (Contact angle to the thread groove)

β : 导程角 (Lead angle)

C : 由材料、形状、尺寸决定的辅助系数

(Coefficient depending on the material, shape and dimension)

个(qty.)

mm

度(deg.)

度(deg.)

0.52~0.58

(0.52~0.58)

基本额定动负载Ca的30%的轴向负载作用时,螺母的理论静刚性值K₂ 请见“尺寸表”。轴向负载非基本额定动负载Ca的30%时,可用下式简单计算。

The theoretical static Rigidity K₂ of the Nut under an Axial load equivalent to 30% of the Basic Dynamic Load Rating Ca is described in dimension table. For Axial loads which are not 30% of the Basic Dynamic Load Rating Ca, it can be easily calculated by following formula.

$$K'_{2} = K_2 \times \left(\frac{F_a}{0.3Ca} \right)^{1/3} \quad \text{N}/\mu\text{m}$$

K₂ : 尺寸表中标的螺母刚性值 (Nut Rigidity in dimension table)

F_a : 轴向负载 (Axial load)

Ca : 基本额定动负载 (Basic Dynamic Load Rating)

N/μm

N

N

(2) 预压规格(零间隙规格)的刚性单螺母预压规格的螺母理论静刚性K₂在轴向负载F_a为预压量F_{pr}的 $2\sqrt{2}$ 两倍以下时为固定值,不受轴向负载F_a的影响,用下式计算。

(2) Rigidity of preloaded Ball Nut

Theoretical static Rigidity (K₂) of the preloaded single Ball Nut will become a fixed value if axial load (F_a) is less than $2\sqrt{2}$ times of the preload amount (F_{pr}) regardless of the value of the axial load (F_a), and this will be calculated as follows.

$$K_2 = 2^{3/2} \times \frac{1}{K} \times F_{pr}^{1/3} \quad \text{N}/\mu\text{m}$$

K : 刚性特性系数 (Rigidity Characterization factor)

参照上述内容 (See formula stated above)

F_{pr} : 预压负载 (Preload amount)

预压品(轴向间隙为0)的刚性值也会随预压动扭矩值的偏差而发生变化。

因此,详情请垂询本公司。

此外,轴向负载F_a超过预压量F_{pr}的两倍时,计算公式与单螺母的理论静刚性值相同。

In case of Preload type Ball Screws, Rigidity varies depending on the dispersion of Preload Dynamic Drag Torque. Therefore, please inquire SJ for details.

If the axial load (F_a) will be more than times of the preload amount (F_{pr}), the calculation formula will be the same as the formula for single Nut Theoretical static Rigidity.

施加相当于基本额定动负载Ca的5%的预压负载时的螺母理论静刚性值K₂请见“尺寸表”。预压负载与上述不同时,可用下式计算。

The theoretical static Rigidity K₂ under a Preload equivalent to 5% (10% for Double Nut) of the Basic Dynamic Load Rating Ca is described in dimension table. For Preload amounts other than the above,please use the following formula.

$$K'_{2} = K_2 \times \left(\frac{F_{pr}}{0.05Ca} \right)^{1/3} \quad \text{N}/\text{mm}$$

K₂ : 尺寸表中标出的螺母刚性值 (NutRigidity in dimension table)

F_{pr} : 预压负载 (Preload amount)

Ca : 基本额定动负载 (Basic Dynamic Load Rating)

N/μm

N

N

◆ 支撑轴承的刚性 K₃ Support Bearing Rigidity K₃

支撑轴承的刚性因所用轴承及其预压量而异, 详情请洽询轴承制造商。

Support Bearing Rigidity varies depending on the type of Bearing and amount of Preload. Please inquire Bearing manufacturers.

◆ 螺母和轴承安装部的刚性 K₄ Nut, Bearing fitting part Rigidity K₄

螺母安装部及轴承安装部等的刚性因装置的结构和设计而异, 本公司未作具体规定, 请尽量采用高刚性设计。

Rigidity of Nut mounting part and Bearing mounting part vary depending on machine structure and design. SJ cannot mention the details but a design of high Rigidity must be considered.

◆ 丝杆轴的扭曲刚性 Screw Shaft torsion Rigidity

与轴向位移相比, 扭曲造成的定位误差值很小, 需要考虑时, 可由下式求出。

For positioning error due to torsion, this error is a relatively small compared to axial displacement. However, if investigation is required, the following formula may be used for calculation.

$$\theta = \frac{32T L}{\pi G d^4} \times \frac{180}{\pi} \times 10 \quad \text{deg}$$

θ: 扭矩引起的扭曲角 (Torsion angle due to torsion moment)

deg

T: 扭矩 (Torsion moment)

N·cm

L: 螺母与轴端支撑部的距离 (Distance between Nut & Shaft end support)

mm

G: 切变模量 (Modulus of Rigidity)

$8.3 \times 10^4 \text{ N/mm}^2 (\text{MPa})$

d: 丝杆轴底径 (Screw Shaft Root diameter)

mm

因扭曲角而引起的轴向位移量δa如下所示。

Amount of axial displacement δa due to torsion angle is as follows.

$$\delta a = r \times \frac{\theta}{360} \times 10^3 \quad \text{mm}$$

r: 导程 (Lead) mm

基本额定负载和基本额定寿命

BASIC LOAD RATING AND BASIC RATING LIFE

◆ 基本额定动负载Ca与基本额定寿命

Basic Dynamic Load Rating Ca and Basic Rating Life

滚珠丝杆的额定寿命是指一组相同的滚珠丝杆在相同的条件下运行时，其中90%的滚珠丝杆的滚珠槽及滚珠表面没有因滚动接触而导致疲劳剥落的状态下的总转数。基本额定动负载Ca是指额定寿命为100万转的轴向负载，该值以Ca标记在尺寸表中。滚珠丝杆的额定寿命L10可利用该基本额定动负载Ca的值，通过下式推算。

The Basic Rating Life of Ball Screws means the total number of revolutions which 90% of the Ball Screws can endure. Failure is indicated by flaking caused by rolling fatigue on the surface of grooves or Balls. These figures are valid when a group of the same type Ball Screws are operated individually under the same conditions. The Basic Dynamic Load Rating Ca is the Axial load for which the Basic Rating Life is 1,000,000 revolutions. These values are listed under Ca in the dimension tables. Ball Screw's Basic Rating Life L10 can be estimated using Basic Dynamic Load Rating Ca in the following formula.

$$L_{10} = \left(\frac{C_a}{f \cdot F_a} \right)^3 \times 10^6 \text{ rev.}$$

不用总转数而用时间L_{10h}或行走距离L_{10d}来表示额定寿命时，可通过以下公式计算。

Also, in place of the total number of revolutions, the Basic Rating Life can be expressed in hours:L_{10h} or traveled distance:L_{10d}, and these can be calculated through the following formulas.

$$L_{10h} = \left(\frac{1}{60 \cdot N} \right) \times L_{10} \text{ 时间 (hours)}$$

Ca: 基本额定动负载 (Basic Dynamic Load Rating)

N

Fa: 轴向负载 (Axial load)

N

N : 转速 (Revolution)

min⁻¹

r : 导程 (Lead)

mm

f : 负载系数 (Load factor)

$$L_{10d} = \left(\frac{r}{10^6} \right) \times L_{10} \text{ km}$$

f=1.0~1.2 几乎无振动、无冲击时
(for almost no vibration, no shock condition)

f=1.2~1.5 稍有振动、冲击时
(for slight vibration, shock condition)

f=1.5~3.0 有强烈振动、冲击时
(for severe vibration, shock condition)

一般情况下，作用于设备的轴向负载并不固定，其运行方式可分为几种。此时，可通过下式求出平均轴向负载F_{am}、平均转速N_m，然后算出额定寿命。

Generally, Axial load on the most machine is not constant and it can be divided into several operating pattern. In this case, Basic Rating Life can be calculated to figure up average Axial load F_{am}, average Revolution N_m in the following formula.

Axial load 轴向负载 N {kgf}	Revolution 转速 min ⁻¹ {rpm}	Working time 使用时间 %
F _{a1}	N ₁	t ₁
F _{a2}	N ₂	t ₂
F _{a3}	N ₃	t ₃

$$F_{am} = \left(\frac{F_{a1}^3 \cdot N_1 \cdot t_1 + F_{a2}^3 \cdot N_2 \cdot t_2 + F_{a3}^3 \cdot N_3 \cdot t_3}{N_1 \cdot t_1 + N_2 \cdot t_2 + N_3 \cdot t_3} \right)^{1/3} \text{ N}$$

$$N_m = \frac{N_1 \cdot t_1 + N_2 \cdot t_2 + N_3 \cdot t_3}{t_1 + t_2 + t_3} \text{ min}^{-1}$$

此外，轴向负载呈直线变化时的平均轴向负载F_{am}也可通过下式近似求出。

Also, for Axial loads which vary linearly, the average Axial load F_{am} can be calculated approximately using the following formula.

$$F_{am} = \frac{F_{a \min} + 2 \cdot F_{a \max}}{3} \text{ N}$$

F_{a min} : 最小轴向负载 (Minimum Axial load)

N

F_{a max} : 最大轴向负载 (Maximum Axial load)

N

注)滚珠丝杆寿命的计算公式以润滑状态良好、无异物混入为前提，且是在无力矩负载以及径向负载作用的纯轴向负载下的计算公式。
Note) As the Basic Rating Life varies due to lubricating conditions, and contaminations, Moment load or Radial load, etc., this should be considered a rough estimate only.

2018年制定的JIS B1192第5部规定了在计算基本额定寿命时应考虑负载方向和预压负载。因此，小型滚珠丝杠的额定寿命计算也适用以此为基准的计算公式。

Load direction and Preload will be taken into consideration when calculate the Basic Rating Life by JIS B1192-5, which was established in 2018. Therefore, SJ uses a calculation formula of Basic Rating Life for Miniature Ball Screws that is conformed to JIS B1192-5.

◆ 考虑负载方向的寿命计算

Life calculation considered the Load direction

因为负载方向会导致滚珠的接触点位置发生改变（参照图C-29），所以要计算出各个滚珠接触点的额定寿命，将某一接触点发生剥落(Flaking)的时间点视为寿命。计算公式如下。

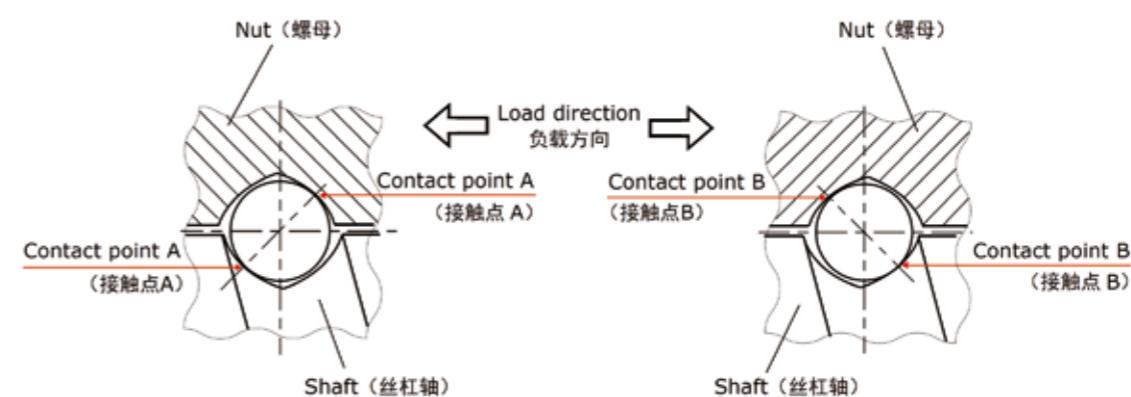
Contact point of the Steel Balls changes based on Load direction (see Fig. C-29), therefore it is considered the lifetime when flaking occurred at any contact points, with calculating the Rating Life at each contact point of the Steel Balls.
The calculating formula is as follows.

$$L'_{10} = (L_{10(A)})^{-1/9} + (L_{10(B)})^{-1/9} \text{ rev.}$$

L'10 : 接触点A侧与B侧的合成寿命 (Merged Basic Rating Life of contact point A and B)

L10(A) : 滚珠接触点A侧的额定寿命 (Basic Rating Life on contact point A)

L10(B) : 滚珠接触点B侧的额定寿命 (Basic Rating Life on contact point B)



图C-29：各负载方向的钢珠接触状态

Fig. C-29 : Ball contact condition by load direction

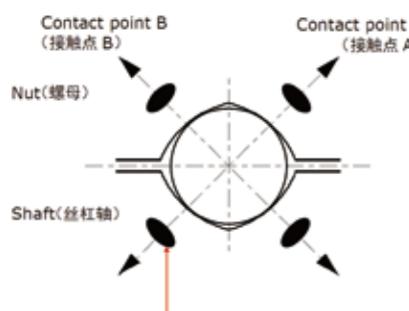
◆考虑预压负载的寿命计算

Life calculation considered the Preload

负载预压的滚珠丝杠装有大号钢珠，在无负载状态下，钢珠为4点接触。因此要计算出各个滚珠接触点的额定寿命，将某一接触点发生剥落(Flaking)的时间点视为寿命。

Preloaded Ball Screw is filled with oversized Balls, therefore each Steel Ball is contacted at four (4) points between Screw Shaft and Ball Nut. It is considered the lifetime when flaking occurred at any contact points, with calculating the Rating Life at each contact point.

大号钢珠施加预压时，钢珠接触状态如图C-30所示。弹性位移的大小大致可用椭圆(接触椭圆)表示。在没有外部负载的状态下，接触点A、B的接触状态相同。The contact point of the Steel Balls is described in Fig. C-30, when Preload is effective by oversized Balls. The amount of Elastic displacement is described schematically by ova (l contact ellipse). Both contact point A and B are evenly contacted under no load from outside.



图C-30：预压作用状态下的钢珠接触状态

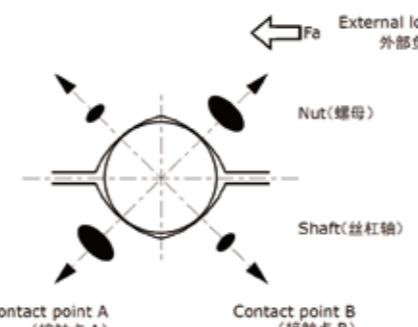
Fig. C-30 : Ball Contact condition under Preload

外部负载Fa作用于此处后，接触点A侧的弹性位移增大，接触点B侧的弹性位移缩小(图C-31)。此时，作用于接触点A、B的负载根据赫兹的弹性位移理论，可用下式计算。

将其代入基本额定寿命的基本公式，即可计算出各个接触点的额定寿命。

When external load (Fa) is applied, Elastic displacement increases at contact point A, and decreases at contact point B (see Fig. C-31). In this case, the load at contact point A and B can be calculated as below based on the Hertz theory of Elastic displacement.

By substituted each values into the formula of Basic Rating Life, Rating Life of each contact point can be calculated.



图C-31：外部负载作用状态下的钢珠接触状态

Fig. C-31 : Ball contact condition under preload & external load

$F_a \leq 2\sqrt{2}F_{pr}$ 时

In case of $F_a \leq 2\sqrt{2}F_{pr}$

$$F_{a(A)} = F_{pr} \times \left(1 + \frac{F_a}{2^{3/2} \times F_{pr}}\right)^{3/2}$$

$$F_{a(B)} = F_{a(A)} - F_a$$

F_a : 外部轴向负载 (Amount of external load)

$F_{a(A)}$: 作用于接触点A侧的轴向负载 (Axial load applying on contact point A)

$F_{a(B)}$: 作用于接触点B侧的轴向负载 (Axial load applying on contact point B)

F_{pr} : 预压负载 (Preload)

$F_a > 2\sqrt{2}F_{pr}$ 时

In case of $F_a > 2\sqrt{2}F_{pr}$

$$F_{a(A)} = F_a$$

$$F_{a(B)} = 0$$

注) A和B的负载方向相反。

Note) Load direction of A and B is opposite.

使用通过上式计算出的轴向负载值，计算接触点A、B的额定寿命($L_{10(A)}$ 、 $L_{10(B)}$)，计算由二者合成的组合寿命。

Using the value calculated by the above formula, calculate the Rating Life at each contact point A and B ($L_{10(A)}$, $L_{10(B)}$), then merge both value to calculate the merged Basic Rating Life.

$$L_{10(A)} = \left(\frac{C_a}{f \cdot F_{a(B)}}\right)^3 \times 10^6 \text{ rev.}$$

$$L_{10(B)} = \left(\frac{C_a}{f \cdot F_{a(B)}}\right)^3 \times 10^6 \text{ rev.}$$

$$L'_{10} = (L_{10(A)}^{-1/9} + L_{10(B)}^{-1/9})^{-1/9} \text{ rev.}$$

注) 粗略计算时，有时也会简单地将外部负载与预压负载之和作为轴向负载计算寿命。
Note) As a rough estimation of Basic Rating Life, we consider the Axial load as external load added by preload amount F_{pr} for some cases.

◆ 基本额定静负载Coa Basic Static Load Rating Coa

基本额定静负载Coa是指在承受最大应力的接触部，使钢珠的滚动面和钢珠的永久变形量的和为钢珠直径的1/10000的轴向静止负载。该值以Coa标记于尺寸表中。该基本额定静负载Coa的值用于探讨静止状态或转速非常低(10min⁻¹以下)时的负载条件。上述的永久变形量在多数情况下不影响使用。此时，螺纹槽部的最大许用负载 $F_{a max}$ 可由下式求出。

The Basic Static Load Rating Coa is the Axial Static load at which the amount of permanent deformation (Ball + Raceway) occurring at the maximum stress contact point between the Ball and Raceway surfaces is 1/10,000 times the Ball diameter. These values are listed under Coa in the dimension tables. The Basic Static Load Rating Coa values apply to investigation of stationary state or extremely low Revolution load conditions (less than 10 rpm). However, in most cases the amount of permanent deformation causes absolutely no problems under the general conditions. The maximum permissible load $F_{a max}$ for the screw groove can be found by using the following formula.

$$F_{a max} = \frac{Coa}{fs} N$$

fs: 静态安全系数 (Static safety factor)

fs=1~2 正常运行时 (for normal operation)

fs=2~3 有振动、冲击时 (for vibration, shock)

◆ 硬度系数 Hardness coefficient

表面硬度小于HRC58 (654 Hv10) 时，需要对基本额定动负载Ca和基本额定静负载Coa进行补偿。通过下式进行补偿。

For Surface hardness of less than HRC58 (654 Hv10), the Basic Dynamic Load Rating Ca and the Basic Static Load Rating Coa must be adjusted. Adjustment is made by the following formula.

$$Ca' = f_h \cdot Ca \quad (N)$$

$$Coa' = f_{ho} \cdot Coa \quad (N)$$

$$f_h = \left(\frac{H_a}{654}\right)^3 \leq 1$$

$$f_{ho} = \left(\frac{H_a}{654}\right)^3 \leq 1$$

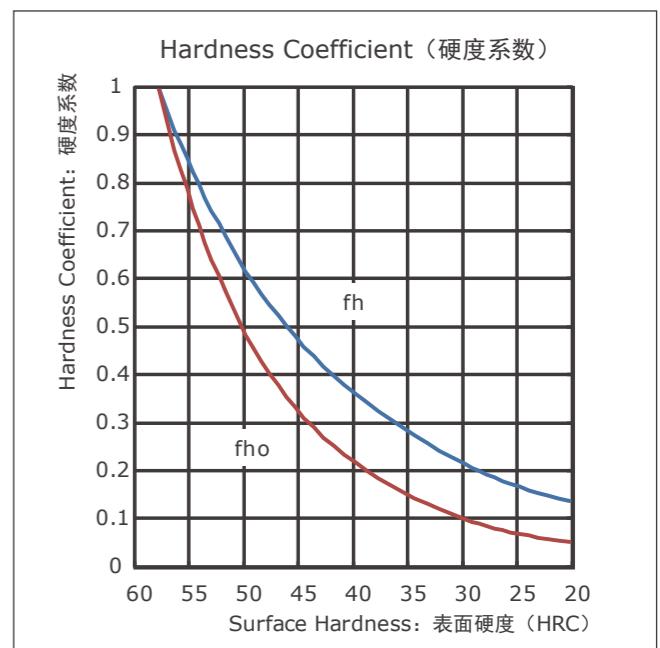
f_h, f_{ho} : 硬度系数 (右图)

Hardness coefficient

(See formula above and graph right)

Ha : 维氏硬度

(Vickers hardness) Hv10



驱动扭矩

DRIVING TORQUE

进给丝杆系统的驱动扭矩T由下式求出。

The feed screw system Driving Torque T is expressed according to the following formula.

$$T = T_1 + T_2 + T_3 + T_4 \quad \text{N} \cdot \text{m}$$

T1: 加速产生的扭矩 (Acceleration Torque)	N·m
T2: 负载扭矩 (Load Torque)	N·m
T3: 预压动扭矩 (Preload Dynamic Drag Torque)	N·m
T4: 其他扭矩 (Additional Torque)	N·m

选择电机时需考虑进给丝杆系统产生的扭矩。

T1~T3可由下式求出。

When Motor selection, the feed screw system Driving Torque is needed.

T1 ~ T3 can be calculated by the following formula

◆ 加速产生的扭矩 Acceleration Torque T₁

$$T_1 = \alpha \cdot I \quad \text{N} \cdot \text{m}$$

$$\alpha = \frac{2\pi N}{60 \cdot t} \quad \text{rad/sec}^2$$

$$I = I_w + I_s + I_a + I_b \quad \text{kg} \cdot \text{m}^2$$

$$I_w = m_w \times \left(\frac{r}{2\pi} \right)^2 \quad \text{kg} \cdot \text{m}^2$$

$$I_s = m_s \times \left(\frac{d^2}{8} \right) \quad \text{kg} \cdot \text{m}^2$$

$$m_s = \pi \left(\frac{d}{2} \right)^2 \times L \times \gamma \quad \text{kg}$$

α : 角加速度 (Angular acceleration)

I : 惯性矩 (Inertia moment)

I_w : 移动物的电机轴换算的惯性矩 (Inertia moment of moving object by Motor axial conversion)

I_s : 丝杆轴的惯性矩 (Inertia moment of Screw Shaft)

I_a : 丝杆轴侧的齿轮等的惯性矩 (Inertia moment of gears on screw side)

I_b : 电机侧的齿轮等的惯性矩 (Inertia moment of gears on motor side)

m_w : 移动物质量 (Mass of moving object)

m_s : 丝杆轴质量 (Mass of Screw Shaft)

r : 导程 (Lead)

d : 丝杆轴外径 (Screw Shaft diameter)

L : 丝杆轴长度 (Ball Screw length)

γ : 比重 (Specific gravity)

A : 减速比 (Reduction ratio)

N : 电机转速 (Motor speed)

t : 加速时间 (Acceleration time)

rad/sec²

kg · m²

kg · m²

kg · m²

kg · m²

kg

kg

m

m

m

7,850kg/m³

min⁻¹

sec

◆ 负载扭矩 Load Torque T₂

$$T_2 = \frac{P \cdot r \cdot A}{2\pi\eta} \times 10^{-3} = \frac{(F+mW)}{2\pi\eta} \cdot r \cdot A \times 10^{-3} \quad \text{N} \cdot \text{m}$$

P : 轴向负载 (Axial load)

N

F : 负载 (Load)

N

m : 移动物重量 (Weight of moving object)

kg

g : 重力加速度 (Gravity acceleration) = 9.8 × 10³ mm/sec²

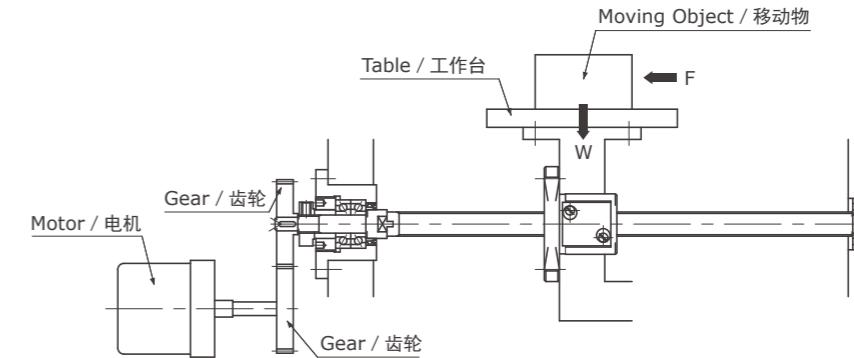
mm

r : 导程 (Lead)

μ : 滑动面摩擦系数 (Sliding surface friction coefficient)

η : 效率 (Efficiency) 0.9

A : 减速比 (Reduction ratio)



◆ 预压动扭矩 Preload Dynamic Drag Torque T₃

$$T_3 = 0.05 \times (\tan \beta)^{-0.5} = \frac{Fa \cdot r}{2\pi} \times 10^{-3} \quad \text{N} \cdot \text{m}$$

β : 导程角 (Lead angle)

deg

Fa: 预压负载 (Preload)

N

r : 导程 (Lead)

mm

◆ 其他扭矩 Additional Torque T₄

指上述以外时产生的扭矩。例如支撑轴承的摩擦扭矩及油封滑动阻力产生的扭矩等。

Described as Torque which occurs in addition to those listed above. For example, support Bearing friction Torque, oil seal resistance Torque, etc.

防锈与润滑

RUST PREVENTION AND LUBRICATION

◆ 防锈处理 Rust prevention

上井滚珠丝杆以长期存放为前提，涂抹有防锈油。使用前请用清洁的精制煤油将其洗净，并涂抹润滑油或油脂。根据客户的需求，也可在出厂前涂抹油脂，但长期存放时可能会导致丝杆生锈，敬请注意。

注) 上井涂抹的防锈油侧重于防锈性能，并不具备润滑性能。因此，如果在涂有防锈油的状态下直接使用，可能会缩短丝杆寿命、导致扭矩变大、异常发热等问题。

SJ Ball Screws are applied anti-rust oil when shipping in case of no specific instruction. This oil should be removed before use. Wash Ball Screws with cleaned Kerosine and apply lubricant (Grease or Oil) on Ball Screws. As customer's request, specified Grease or Oil can be applied, but it should be noted that they are not suitable for long term storage purpose and rust might occur.

Note) Anti-rust oil is focused on anti-rust performance and it does not have lubricating function. Therefore, when using Ball Screws with anti-rust oil coating, the problems such as shortened Life, increase of Torque and abnormal heat generation occurs.

◆ 润滑 Lubrication

使用滚珠丝杆时，必须涂抹润滑剂。否则会造成扭矩变大或缩短丝杆使用寿命等问题。涂抹润滑剂可以抑制因摩擦而导致的升温、机械效率下降，以及因磨损而导致的精度下降。滚珠丝杆的润滑方式分为油脂润滑和油润滑。使用油脂润滑时，一般建议使用锂皂基油脂；使用油润滑时，建议使用ISO VG32~68（透平油）。此外，根据用途选择润滑剂也非常重要。特别是微型滚珠丝杆，油脂的搅拌阻力可能会引起扭矩变大等不良情况。本公司备有可在维持滚珠丝杆动作特性的。

同时，发挥优异润滑性能的上井原装油脂。用于注重动作特性的低速定位时，备有MSG No.1（稠度1号）油脂；用于高速、一般用途时，备有GHY No.2（稠度2号）油脂。详情请参照目录第C101页的“微型滚珠丝杆专用油脂”。

In Ball Screw use, lubricant should be required. If lubricant is not applied with, the problem such as increase of Torque and shortened Life occurs. Applying lubricant can minimize temperature increases, decline of mechanical efficiency due to friction, and deterioration of accuracy caused by wear. Ball Screw lubrication is divided into Greasing and Oiling. A regular lithium-soap-based Grease and ISO VG32-68 Oil (turbine Oil #1 to #3) are recommended. It is highly important to choose lubricant depending on customer's usage. Especially in case of Miniature Ball Screws, malfunction such as increase of Torque are caused by the stir resistance.

SJ original Greases which maintains Ball Screw's smooth movement and have high lubricating performance are prepared. MSG No.1 is appropriate for high smooth requirement and high positioning usage (consistency 1). GHY No.2 is suitable for high speed and general usage (consistency 2). Please refer to catalogue page C101「Original Grease for Miniature Ball Screws」.

一般使用条件下的润滑剂示例

Recommended lubricants for normal operating conditions

Lubricant 润滑剂	Type 种类	Product name 产品名称
Grease 油脂	Lithium-based Grease 锂基油脂	SJ original Grease GHY No.2 上井原装油脂 GHY No.2
Lubricating Oil 润滑油	Sliding surface Oil or turbine Oil 滑动面油或透平油	Super Multi 68 Super Multi68

◆ 检查和补充 Inspection and replenishment

使用油脂润滑时，大致检查时间为每2~3个月，使用油润滑时为每隔1周。检查时，请检查油量及有无脏污，并根据需要加油。在追加新油脂时，请尽量擦掉旧的并已变色的油脂。

Grease inspection should be performed once every two to three months, and Oil inspection should be performed approximately weekly. Check the Oil or Grease amount and contamination at each inspection and replenish if needed. When re-greasing, the old or discolored one should be wiped off as much as you can.

润滑剂的检查和补充时间间隔

Inspection and replenishment Interval of lubricant

Lubrication 润滑方法	Inspection frequency 检查时间间隔	Inspection Items 检点项目	Replenishment and replacement frequency 补充或更换时间间隔
Automatic intermittent lubrication 自动间歇加油	Weekly 每隔1周	Oil level, contamination 油量、脏污等	Replenish at each inspection, depending on tank capacity 根据油箱容量，在每次检查时适量补充
Grease 油脂	Every 2 to 3 months initially 运行初期2~3个月	Contamination, swarf contamination 脏物、切屑的混入等	Replenish annually or as necessary, depending on Inspection results 通常每1年补充一次，但应根据检查结果适量补充
Oil bath 油浴	Daily before operation 每天开工前	Oil surface check 油面管理	Set a rule for replenishment as necessary, depending on amount of wear. 根据消耗情况适当规定。

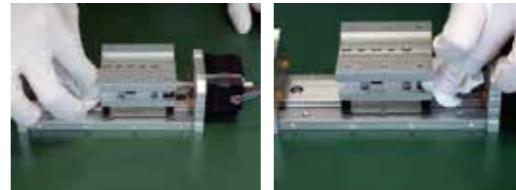
◆ 加注润滑脂的步骤(例) Grease-up Procedure (Example)

1) 加注润滑脂时，请佩戴橡胶手套，切勿直接用手触摸滚珠丝杠。

It is desirable to wear rubber gloves, not to handle Ball Screw by bare hand.

2) 使用专用巾（金伯利擦拭纸等）擦去丝杠轴上附着的变色的润滑脂。请移动螺母，尽可能擦去残留在螺母内的润滑脂。

Wipe off discolored Grease on the Screw Shaft by using cloth or paper exclusive for wiping Grease or oil (e.g.: Kim Wipes by Kimberly-Clark Corp.). Move the Ball Nut to wipe off remaining Grease inside the Ball Nut as much as possible.



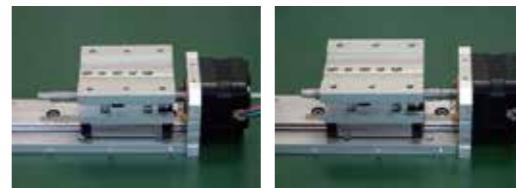
3) SJ滚珠丝杠未标准设置加油孔。因此，要将润滑脂涂遍整个丝杠轴。请使用专用刷具或佩戴橡胶手套，直接在丝杠轴上涂抹。螺母上若有加油孔，请使用加油孔封入新润滑脂。

There is no oil hole on the flange for SJ Ball Screws as standard design, apply Grease entirely throughout the Screw Shaft. Please use the brush exclusive for applying Grease, or apply directly to the Screw Shaft by hand with wearing rubber gloves. If the Ball Nut has an oil hole, utilize it to fill in the new Grease.



4) 在整根丝杠轴上移动螺母，在尚未涂抹到的部分也涂抹润滑脂。尽可能使螺母往复移动多次，进行简单的磨合。请擦去积存于轴端的多余润滑脂。

In order to apply Grease entirely on the Screw Shaft, move the Ball Nut over full travel manually, or install in the device and do running-in. Remove any remaining Grease on either end of the Screw Shaft.



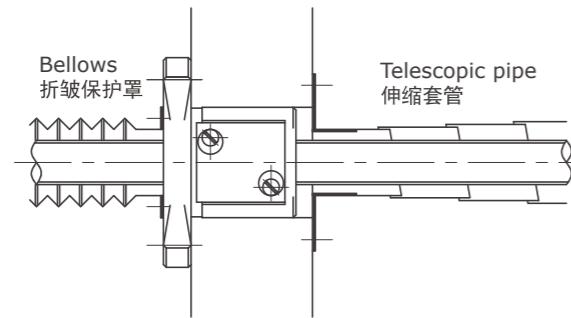
详情请垂询本公司。

Please consult SJ for details.

防尘 DUST PREVENTION

滚珠丝杆的螺母内如果混入脏物或异物，可能会导致过早磨损、螺纹槽损伤、钢珠破裂和循环部损坏等，从而使滚珠丝杆无法工作。如果可能有上述情形发生，建议采取折皱保护罩和伸缩套管等防尘措施，以避免丝杆部外露。

In Ball Screws, if dust or other contaminations intrude into the Ball Nut, wear is accelerated, the screw groove will be damaged, circulation will be obstructed due to Ball fracture, damage of recirculation parts and so on. Eventually, the Ball Screws will cease to function. Where the possibility of dust or other contaminant exists, the screw thread section cannot be left exposed, and dust prevention measure such as a bellows or Telescopic pipe must be taken.



图C-32：折皱保护罩和伸缩套管

Fig. C-32 : Bellows & Telescopic pipe

上井滚珠丝杆充分发挥微型滚珠丝杆的特点，重视小型化设计。因此，目录中介绍的型号均为不带密封的尺寸。需要密封时，请垂询本公司。螺母尺寸可能会因安装密封而发生变化，敬请注意。此外，某些型号不能安装密封，敬请谅解。

SJ Ball Screws are concentrated on compact design for a feature of Miniature Ball Screw. Therefore, all models in the catalogue are the dimension without seals. Please inquire SJ if seals are required. Please note that Nut dimension may change due to seal installation. Some models cannot install the seals.

表面处理 SURFACE TREATMENT

出于防锈目的，本公司可对滚珠丝杠实施表面处理。本公司的防锈表面处理以极低温黑铬处理为标准。需要其他表面处理时，请垂询本公司。

Surface treatment can be possible for the purpose of rust prevention. Very Low temp. Black Chrome treatment (BCr) is SJ standard surface treatment for the purpose of rust prevention. Please inquire SJ if other surface treatments are needed.

◆ 上井黑铬处理滚珠丝杆的特点 Feature of SJ Ball Screws with Black Chrome (BCr) coating

- 涂层薄（2~3um），可安装配合零件。
- 在严格的工序管理下，涂膜的厚度均一，不会影响滚珠丝杆的动作特性。
- 覆膜密接性良好，具有优异的防锈能力。
- 是MIL标准 (MIL-DTL-14538D) 公认的表面处理品。
- 需提高滑动特性时，可一并进行氟树脂涂层。
- Due to thin film thickness (2~3um), mating part can be applicable with BCr.
- Due to strict production management, film thickness can be treated equally and smoothness is kept.
- High anti-rust ability is possible.
- The surface treatment is officially authorized by MIL standard (MIL-DTL-14538D)
- To improve sliding characteristics, BCr+fluorine resin coating is also available.



照片C-33：极低温黑铬处理品
PhotoC-33 : Very Low temp. Black Chrome coating

◆ 防锈能力试验数据 Examination data of anti-rust ability

根据盐水喷雾试验，使用标准试样进行的防锈能力评估结果如下所示。

Based on the salt spray corrosion test (JIS Z2371), anti-rust ability has been evaluated, as follows.

- 标准试样 / Standard test piece : 70mm×150mm×1mm (SPCC材/ material=SPCC)
- 数据 / Data : 盐水喷雾试验24小时后的外观和评价数法的评估结果 (数值越小，腐蚀越严重)
Evaluated by appearance and rating number method
after 24 hours of salt spray corrosion test. (The less number, the more corrosion)

	Rating number (Average) 评价数(平均值)
Sample A (BCr coating) 试样A (BCr处理)	9.3
Sample B (R coating) 试样B (R处理)	9~8
Sample C (M coating) 试样C (M处理)	3~4



◆ ROHS指令的符合性 About RoHS compliance

上井黑铬处理后的滚珠丝杆的Cr⁺⁶量低于RoHS指令规定的阈值，完全符合RoHS指令。

The Cr⁺⁶ amount of SJ Black Chrome (BCr) coating is less value than the based on RoHS regulation.

可追溯性

TRACEABILITY

上井滚珠丝杆的生产采用严格精选的材料，使用先进的生产的设备，在严格的温度管理下进行，从各生产工序到产品检查、出厂，采用一条龙的生产管理体。

如照片C-34所示，出厂检查合格的滚珠丝杆会发放合格证。如有需要，也可提供检查结果表（照片C-35）。

本公司生产的滚珠丝杆在螺母上标有生产编号（照片C-36）。与生产编号相应的出厂检查记录及生产记录由本公司保管，通过查询生产编号，可找出所有出厂检查数据。

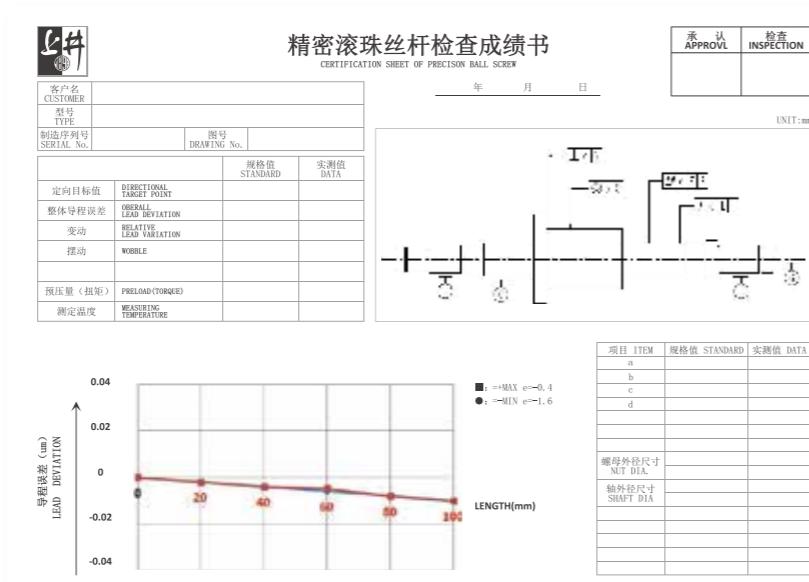
SJ Ball Screws are manufactured from rigidly selected materials in our temperature controlled factory. They are manufactured using the latest production equipment, with consistent quality control supervision ranging from the production process to inspection and shipping.

Certificate of inspection, Photo C-34, will be attached with the Ball Screws which pass shipping inspection. Inspection report can be handed in as customer's request shown in Photo C-35.

The Ball Screws produced by SJ have a serial number which is marked on the Nut (refer to the Photo C-36). Record of inspection and production trail which is in correspondence to a production number, are stored in SJ and inspection data can be retrieved by inquiry of a serial number.



照片 C-34



照片 C-35



照片 C-36

滚珠丝杆各种特性的计算示例

CALCULATION EXAMPLE OF CHARACTERISTIC FOR BALL SCREWS

2018年制定的JIS B1192第5部规定了在计算基本额定寿命时应考虑负载方向和预压负载。因此，小型滚珠丝杠的额定寿命计算也适用以此为基准的计算公式。

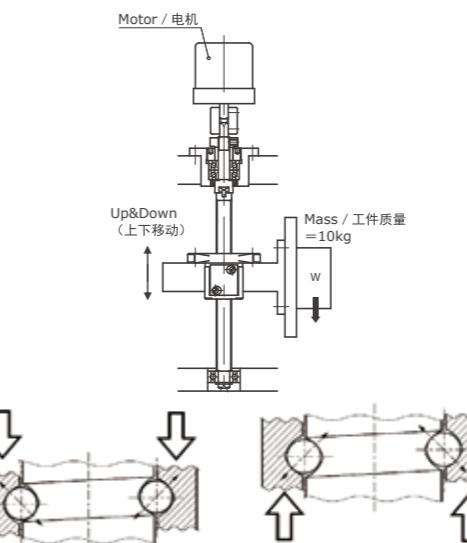
Calculation example of characteristic for Ball Screws are mentioned as follows. Each calculation example is modeled so that there is a case which is unrealistic.

例 1：竖轴规格 Pick&Place

Example 1: Vertical Pick&Place

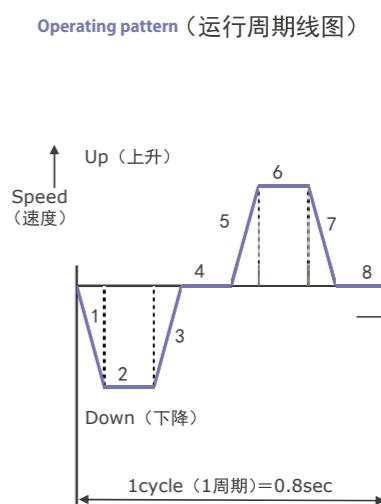
滚珠丝杆的型号和使用条件

Ball Screw model and operating condition



向下负载和钢珠接触状态
Downward load &
Ball contact condition

向上负载和钢珠接触状态
Upward load &
Ball contact condition



图C-37：负载方向和钢珠接触状态

Fig. C-37 : Load direction and Ball Contact condition

对于竖轴规格用途，计算寿命时考虑负载方向(滚珠接触点)。本事例以向下为正，向上为负。各负载方向的钢珠接触状态如图C-37所示。
Load direction(Ball contact point) should be considered in calculation of lifetime for Vertical axis application. Load direction is defined as plus for downward, and as minus for upward. The status of Ball contact point is indicated in Fig. C-37.

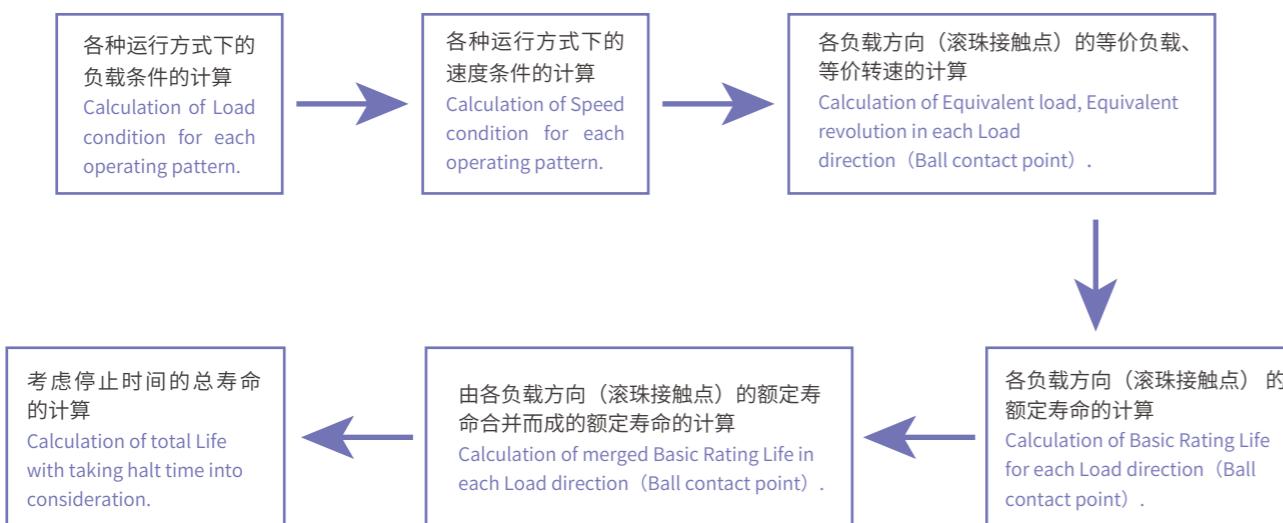
滚珠丝杆的主要技术参数	Ball Screw spec.
轴径=φ10mm	Shaft dia.=φ10mm
导程=10mm	Lead=10mm
基本额定动负载Ca=3,300N	Dynamic Capacity Ca=3,300N
滚珠丝杆总长=180mm	Total length=180mm
轴向间隙=20μm以下	Axial play=20μm or less

运行条件	Operating Pattern
最高速度=0.4m/sec	Max Speed=0.4m/sec
**导程10mm时2,400 min ⁻¹	** 2,400 min ⁻¹ because of Lead 10mm
加减速时间=0.05sec	Acceleration & Deceleration time=0.02sec
**图中1357	**①③⑤⑦ in diagram above
等速时间=0.1sec	Constant speed time=0.2sec
**图中26	**②⑥ in diagram above
停止时间=0.2sec	Halt time=0.1sec
**图中48	**④⑧ in diagram above
1周期=0.8sec	Cycle time=0.68sec

基本额定寿命的计算 Calculation of Basic Rating Life

基本额定寿命按以下步骤计算得出。

Basic Rating Life is calculated in the following procedure.



1) 根据周期线图（运行方式）计算负载条件
带编号的各种运行方式的负载条件
如下所示。

- ①下降加速
 $F_{a1} = mg - ma = 10 \times 9.807 - 10 \times 20 = -101.9 \text{ (N)}$
- ②下降等速
 $F_{a2} = mg = 10 \times 9.807 = 98.1 \text{ (N)}$
- ③下降减速
 $F_{a3} = mg + ma = 10 \times 9.807 + 10 \times 20 = 298.1 \text{ (N)}$
- ④停止
 $F_{a4} = 0$
- ⑤上升加速
 $F_{a5} = mg + ma = 10 \times 9.807 + 10 \times 20 = 298.1 \text{ (N)}$
- ⑥上升等速
 $F_{a6} = mg = 10 \times 9.807 = 98.1 \text{ (N)}$
- ⑦上升减速
 $F_{a7} = mg - ma = 10 \times 9.807 - 10 \times 20 = -101.9 \text{ (N)}$
- ⑧停止
 $F_{a8} = 0$

式中，
m : 移动物质量 = 10 kg
g : 重力加速度 = 9.807 m/sec²
α : 加速度
达到0.4m/sec前的加速度
 $\alpha = 0.4/0.02 = 20 \text{ m/sec}^2$

1) Calculation of Load condition from Operating pattern
Load condition of each operating pattern which is numbered is as follows.

- ①Down & Acceleration
 $F_{a1} = mg - ma = 10 \times 9.807 - 10 \times 20 = -101.9 \text{ (N)}$
- ②Down & Constant speed area
 $F_{a2} = mg = 10 \times 9.807 = 98.1 \text{ (N)}$
- ③Down & Deceleration
 $F_{a3} = mg + ma = 10 \times 9.807 + 10 \times 20 = 298.1 \text{ (N)}$
- ④Halt
 $F_{a4} = 0$
- ⑤Up & Acceleration
 $F_{a5} = mg + ma = 10 \times 9.807 + 10 \times 20 = 298.1 \text{ (N)}$
- ⑥Up & Constant speed area
 $F_{a6} = mg = 10 \times 9.807 = 98.1 \text{ (N)}$
- ⑦Up & Deceleration
 $F_{a7} = mg - ma = 10 \times 9.807 - 10 \times 20 = -101.9 \text{ (N)}$
- ⑧Halt
 $F_{a8} = 0$

Here,
m : Mass = 10 kg
g : Gravity Acceleration = 9.807 m/sec²
α : Acceleration
Acceleration up to 0.4m/sec
 $\alpha = 0.4/0.02 = 20 \text{ m/sec}^2$

2) 根据周期线图（运行方式）计算速度条件
带编号的各种运行方式的速度条件（转速条件）如下示。

等速 (②、⑥) :
 $0.4\text{m/sec} = 400 \times 60 \text{ mm/min} = 24,000\text{mm/min}$
 $= 2,400 \text{ min}^{-1}$ (导程10mm时)
加减速时 (①、③、⑤、⑦) :
上述的平均转速为 $2,400/2 = 1,200 \text{ min}^{-1}$

2) Calculation of Speed condition from Operating pattern
Speed condition (Revolution condition) of each operating pattern which is numbered is as follows.

Constant speed area (②、⑥) ;
 $0.4\text{m/sec} = 400 \times 60 \text{ mm/min} = 24,000\text{mm/min}$
 $= 2,400 \text{ min}^{-1}$ (Lead 10mm)
Acceleration and deceleration area (①、③、⑤、⑦) ;
as an average revolution above, $2,400/2 = 1,200 \text{ min}^{-1}$

各种运行方式下的负载条件和速度条件（转速条件）的计算结果如下表所示。

Calculation result of the load condition and speed condition (revolution) for each operating patterns are as below.

Condition 条件	Axial load 轴向负载 Fa(iN)	Revolution 转速 N(min ⁻¹)	Frequency of use 使用频率 ti(sec)
①Down & Acceleration / 下降加速	-101.9	1,200	0.02
②Down & Constant speed / 下降等速	98.1	2,400	0.2
③Down & Deceleration / 下降减速	298.1	1,200	0.02
④Halt / 停止	0	0	0.1
⑤Up & Acceleration / 上升加速	298.1	1,200	0.02
⑥Up & Constant speed / 上升等速	98.1	2,400	0.2
⑦Up & Deceleration / 上升减速	-101.9	1,200	0.02
⑧Halt / 停止	0	0	0.1

负载条件中，+（正）为向下负载，-（负）为向上负载。

plus (+) indicates downward load and minus (-) indicates upward load.

3) 分别计算各负载方向（滚珠接触点）的等价负载、等价转速

Calculation of Equivalent load, Equivalent revolution for in each Load direction (Ball contact point)

计算出各运行方式下作用的负载和方向后，下面分别计算各负载方向（滚珠接触点）的等价负载、等价转速。等价负载、等价转速的计算使用第C1-125页的计算公式。

As we could calculate the applying load and direction in each operating pattern, now we calculate the Equivalent load and Equivalent revolution for each Load direction. Calculation formula shown in page C1-125 will be used for calculating Equivalent load and Equivalent revolution.

$$F_{\text{eq}} = \left(\frac{F_{\text{a}1}^3 \cdot N_1 \cdot t_1 + F_{\text{a}2}^3 \cdot N_2 \cdot t_2 + F_{\text{a}3}^3 \cdot N_3 \cdot t_3 + \dots + F_{\text{ai}}^3 \cdot N_i \cdot t_i}{N_1 \cdot t_1 + N_2 \cdot t_2 + N_3 \cdot t_3 + \dots + N_i \cdot t_i} \right)^{1/3} \quad N$$

$$N_{\text{eq}} = \left(\frac{N_1 \cdot t_1 + N_2 \cdot t_2 + N_3 \cdot t_3 + \dots + N_i \cdot t_i}{t_1 + t_2 + t_3 + \dots + t_i} \right) \quad \text{min}^{-1}$$

4) 计算各负载方向(滚珠接触点)的额定寿命使用

Calculation of Basic Rating Life for each Load direction (Ball contact point)

使用各负载方向（滚珠接触点）的等价负载、等价转速，计算向下负载、向上负载的额定寿命。

Then calculate the Basic Rating Life for downward load, upward load by using the value of Equivalent load, Equivalent revolution in each load direction (Ball contact point).

【向下负载】 【Downward load】

将等价负载Fam (d) 和等价转速Nm (d) 代入第C1-125页的寿命计算公式中，可得出以下结果。

Substitute the Equivalent Load Fam (d) and Revolution Nm (d) in the following formula in page C1-125.

$$L_{10h}(d) = \left(\frac{Ca}{f \cdot F_{\text{eq}}(d)} \right)^3 \times \left(\frac{10^6}{60 \cdot N_{\text{eq}}(d)} \right)^3 = 69,991 \text{ 小时 (hours)}$$

其中，假设基本额定动载Ca = 3,300N、负载系数f = 1.2。

Here, Basic Dynamic Load Rating Ca = 3,300N, Load factor f = 1.2.

【向上负载】 【Upward load】

向上负载也可用同样的方式计算。

Calculate the upward load as same method as above.

$$L_{10h}(u) = \left(\frac{Ca}{f \cdot F_{\text{eq}}(d)} \right)^3 \times \left(\frac{10^6}{60 \cdot N_{\text{eq}}(d)} \right)^3 = 272,988 \text{ 小时 (hours)}$$

5) 计算由各负载方向（滚珠接触点）的额定寿命合并而成的额定寿命

Calculation of merged Basic Rating Life in each Load direction (Ball contact point)

使用第C1-126页的公式，计算由各负载方向（滚珠接触点）的额定寿命L10h (d) 、L10h (u) 合成的组合寿命。

Calculate the merged Basic Rating Life by combining the Basic Rating Life of each Load direction (L10h (d), L10h (u)), with the calculation formula of page C1-126.

$$L'10h = (L_{10h}(d)^{-10/9} + L_{10h}(u)^{-10/9})^{-10/9} = 58,504 \text{ 小时 (hours)}$$

各负载方向（滚珠接触点）的运行条件及其各自的等价负载、等价转速的计算结果如下表所示。

Now calculation table should be re-arranged as below by load direction, and Equivalent load and Equivalent evolution in each load direction are as follows.

Condition 条件	Downward load / 向下负载		Upward load / 向上负载		Frequency of use 使用频率 ti(sec)
	Axial load 轴向负载 Fa(iN)	Revolution 转速 N(min ⁻¹)	Axial load 轴向负载 Fa(iN)	Revolution 转速 N(min ⁻¹)	
①Down & Acceleration / 下降加速	—	—		1,200	0.02
②Down & Constant speed / 下降等速	98.1	2,400	—	—	0.2
③Down & Deceleration / 下降减速	298.1	1,200	—	—	0.02
④Halt / 停止	—	—	—	—	0.1
⑤Up & Acceleration / 上升加速	298.1	1,200	—	—	0.02
⑥Up & Constant speed / 上升等速	98.1	2,400	—	—	0.2
⑦Up & Deceleration / 上升减速	—	—	101.9	1,200	0.02
⑧Halt / 停止	—	—	—	—	0.1
Equivalence 等价	Fam (d) =129.3	Nm (d) =2,290.9	Fam (u) =101.9	Nm (u) =1,200	Working duration (运行) : 0.48sec Halt time (停止) : 0.2 sec 1 cycle (1周期) : 0.68 sec

6) 考虑停止时间的总寿命的计算

Calculation of total Life with taking halt time into consideration

上述计算只是运行时间的计算结果，计算总寿命还需要考虑1个周期中的停止时间。

Above calculation is only for the working duration, therefore calculate the total Life with taking halt time in each cycle into consideration.

$$L''10h = L'10h \times (\text{周期时间 cycle time}) / (\text{运行时间 working duration}) = 58,504 \times (0.68 / 0.48) = 82,881 \text{ 小时 (hours)}$$

进给丝杆系统的驱动扭矩的计算

Calculation of Driving Torque for feed screw system

根据第C1-129页计算进给丝杆系统的驱动扭矩。这在选择电机时非常重要。上述示例并非预压规格的滚珠丝杆，所以不产生预压动扭矩。因此只计算加速扭矩 T_1 、负载扭矩 T_2 。

Calculate Driving Torque for Linear Motion system according to page C1-129. It is important for motor selection. In the above case, due to backlash type Ball Screw, Preload Dynamic Drag Torque does not occur. Therefore, calculate acceleration Torque T_1 and Load Torque T_2 .

$$T = T_1 + T_2 + T_3 + T_4 \quad N \cdot m$$

T_1 : 加速产生的扭矩 (Acceleration Torque)	N · m
T_2 : 负载扭矩 (Load Torque)	N · m
T_3 : 预压动扭矩 (Preload Dynamic Drag Torque)	N · m
T_4 : 其他扭矩 (Additional Torque)	N · m

1) 加速扭矩 T_1 的计算 (Calculation of acceleration Torque T_1)

$$T_1 = \alpha \cdot I = \alpha (I_w + I_s) \quad N \cdot m$$

α : 角加速度 (Angular acceleration)

I : 惯性矩 (Inertia moment)

I_w : 移动物的电机轴换算的惯性矩 (Inertia moment of moving object by motor axial conversion)

I_s : 丝杆轴的惯性矩 (Inertia moment of Screw Shaft)

$$I_w = m_w \times (r/2\pi)^2 = 2.53 \times 10^{-5} \quad kg \cdot m^2$$

m_w : 移动物质量 (Mass of moving object) = 10kg

r : 滚珠丝杆导程 (Ball Screw Lead) = 0.01m

$$I_s = m_s \times (d/8) = (d/2)^2 \pi \gamma \times L \times (d/8) = 0.139 \times 10^{-5} \quad kg \cdot m^2$$

m_s : 丝杆轴质量 (Mass of Screw Shaft) kg

γ : 丝杆轴比重 (Specific gravity of Screw Shaft) = 7,850kg/m³

d : 丝杆轴外径 (Shaft dia.) = 0.01m

L : 丝杆轴长度 (Shaft length) = 0.18m

$$\alpha = (2\pi N)/60t = 12,566.4 \quad rad/sec^2$$

N : 最高速度 (Max speed) = 2,400min⁻¹

t : 加速时间 (Acceleration time) = 0.02sec

$$T_1 = 12,566.4 \times (2.53 + 0.139) \times 10^{-5} = 0.335 N \cdot m$$

2) 负载扭矩 T_2 的计算 (Calculation of Load Torque T_2)

$$T_2 = mgr / (2\pi\eta) = 0.173 N \cdot m$$

m : 移动物质量 (Mass of moving object) = 10kg

g : 重力加速度 (Gravity Acceleration) = 9.807m/sec²

r : 滚珠丝杆导程 (Ball Screw Lead) = 0.01m

η : 滚珠丝杆效率 (Ball Screw efficiency) = 0.9

3) 进给丝杆系统的驱动扭矩 T 的计算

根据以上计算，在不考虑支撑轴承等产生的扭矩时，滚珠丝杆轴系统的驱动扭矩如下所示。

Calculation of Driving Torque T for feed screw system

In case without consideration of Torque by support Bearings, Driving Torque of Ball Screw is as follows.

$$T = T_1 + T_2 = 0.134 N \cdot m + 0.173 N \cdot m = 0.307 N \cdot m$$

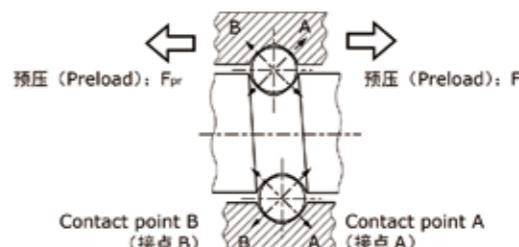
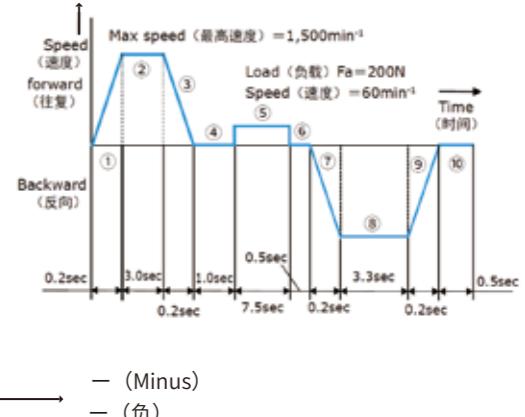
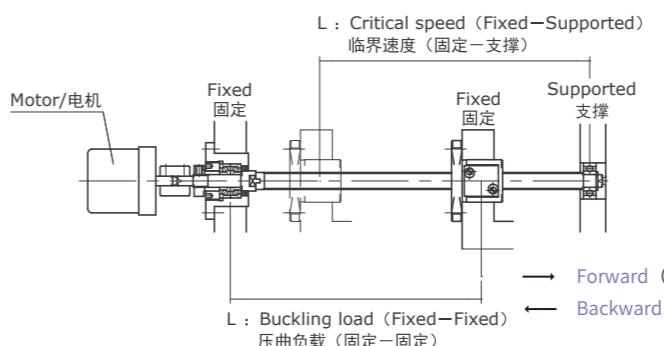
例2：横轴规格小型车床

Example2: Horizontal Small lathe

滚珠丝杆的型号和使用条件

Ball Screw model and operating condition

Operating pattern (运行周期线图)



主要技术参数

轴径=φ12mm	Ball Screw spec. Shaft dia. = φ12mm
导程=2mm	Lead = 2mm
丝杠轴底径 d=φ10.6mm	Shaft Root dia. d = φ10.6mm
基本额定动负载Ca=1,900N	Dynamic Capacity Ca = 1,900N
安装间距L=400mm	Mounting span L = 400mm
轴向间隙=0μm以下	Axial play = 0μm or less
移动物质量 m = 10kg	Mass of moving object m = 10kg
滑动面摩擦系数 μ=0.05	Sliding surface friction coefficient μ = 0.05
预压负载 F_pr = 95N (Ca×5%)	Preload Fpr = 95N (Ca × 5%)

运行条件

最高速度=50mm/sec	Operating Pattern Max Speed = 50mm/sec
**导程2mm时1,500 min⁻¹	** 1,500 min⁻¹ because of Lead 2mm
周期线图：参照上图	Operating pattern : see diagram above
①⑦加速 = 0.2sec	①⑦Acceleration = 0.2sec
②正向等速 = 3.0sec	②Constant speed (forward) = 3.0sec
③⑨减速 = 0.2sec	③⑨Deceleration = 0.2sec
④⑥⑩停止 = 2.0sec (合计)	④⑥⑩halt = 2.0sec (total)
⑤切削时间 = 7.5sec	⑤Turning time = 7.5sec
⑧反向等速 = 3.3sec	⑧Constant speed (backward) = 3.3sec
切削阻力F_a = 200N	Load F_a = 200N
切削时速度 = 2mm/sec	Cutting speed = 2mm/sec
**导程2mm时60min⁻¹	**60min⁻¹ due to 2 mm lead

许用轴向负载的计算 Calculation of permissible Axial load

1) 弯曲负载的探讨

根据第C1-115页的计算公式计算压曲负载。

Study of Buckling load

Calculate Buckling load according to the following formula in page C1-115.

$$P = \alpha \times \frac{n\pi^2 E \cdot I}{L^2} \text{ N}$$

$$I = \frac{\pi}{64} d^4 \text{ mm}^4$$

将安全系数 $\alpha=0.5$

杨氏模量 $E=2.08 \times 10^5 \text{ N/mm}^2$ (MPa)

底径 $d=10.6 \text{ mm}$

固定—固定的安装系数 $n=4$

安装间距 $L=400 \text{ mm}$ 代入上式

$$P = 15,900 \text{ N}$$

Substitute safety factor $\alpha=0.5$

Young's modulus $E=2.08 \times 10^5 \text{ N/mm}^2$ (MPa)

Root diameter $d=10.6 \text{ mm}$

Fixed—Fixed mounting factor $n=4$

mounting span distance $L=400 \text{ mm}$ in formula above

$$N = \beta \times \frac{60 \cdot \lambda^2}{2\pi} \times \sqrt{\frac{E \cdot I \cdot g}{\gamma \cdot A \cdot L^4}} \text{ min}^{-1}\{\text{rpm}\}$$

$$I = \frac{\pi}{64} d^4 \text{ mm}^4$$

$$A = \frac{\pi}{4} d^2 \text{ mm}^2$$

将安全系数 $\beta=0.8$

杨氏模量 $E=2.08 \times 10^5 \text{ N/mm}^2$ (MPa)

重力加速度 $g=9.8 \times 10^3 \text{ mm/sec}^2$

比重 $\gamma=7.7 \times 10^{-5} \text{ N/mm}^3$

底径 $d=10.6 \text{ mm}$

固定—支撑的安装系数 $\lambda=3.927$

安装间距 $L=400 \text{ mm}$ 代入上式。

Substitute safety factor $\beta=0.8$

Young's modulus $E=2.08 \times 10^5 \text{ N/mm}^2$ (MPa)

gravity acceleration $g=9.8 \times 10^3 \text{ mm/sec}^2$

material specific gravity $\gamma=7.7 \times 10^{-5} \text{ N/mm}^3$

Root diameter $d=10.6 \text{ mm}$

Fixed—Support mounting factor $\lambda=3.927$

mounting span distance $L=400 \text{ mm}$ in formula above

该值远大于使用负载，因此没有问题。

It is more than maximum Load so that there is no problem.

$$N = 10,000 \text{ min}^{-1}$$

2) 相对于屈服应力的许用负载的探讨

C1-115页的计算公式计算。

Study of permissible Load for yield stress

Calculate permissible Load for yield stress based on the formula in page C1-115.

$$P = \alpha \times A \text{ N}$$

$$A = \frac{\pi}{4} d^2 \text{ mm}^2$$

将许用应力 $\sigma=98 \text{ N/mm}^2$ (MPa)

底径 $d=10.6 \text{ mm}$ 代入上式。

$$P = 8,650 \text{ N}$$

Substitute permissible stress $\sigma=98 \text{ N/mm}^2$ (MPa)

Root diameter $d=10.6 \text{ mm}$ in the formula above

该值远大于使用负载，因此没有问题。

It is more than maximum Load so that there is no problem.

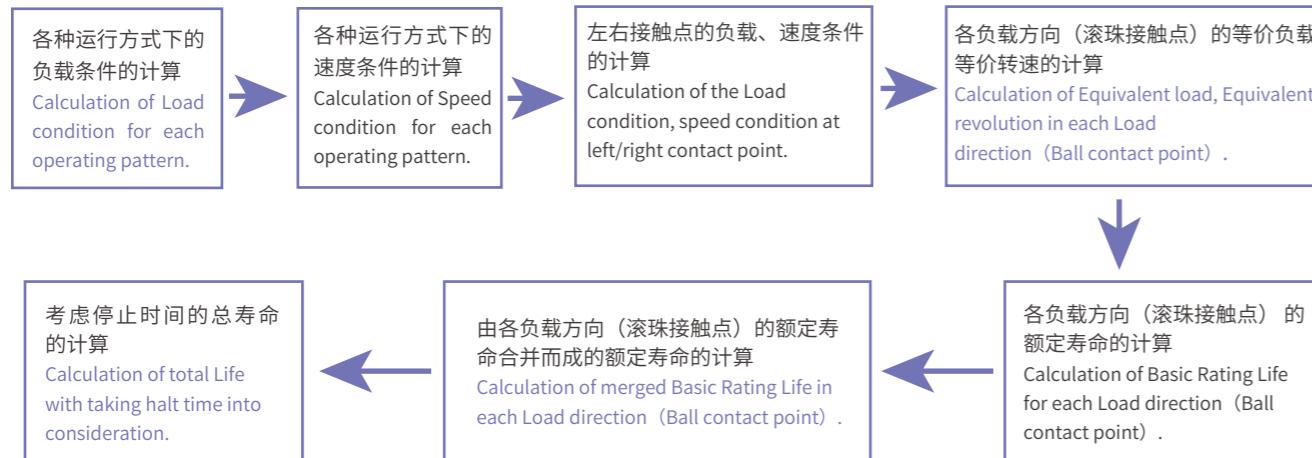
基本额定寿命的计算 Calculation of Basic Rating Life

2018年制定的JIS B1192第5部规定了在计算基本额定寿命时应考虑负载方向和预压负载。因此，小型滚珠丝杠的额定寿命计算也适用以此为基准的计算公式。

Load direction and Preload will be taken into consideration when calculate the Basic Rating Life by JIS B1192-5, which was established in 2018. Therefore, SJ uses a calculation formula of Basic Rating Life for Miniature Ball Screws that is conformed to JIS B 1192-5.

大号钢珠施加预压时，钢珠接触状态如图C-30所示，为4点接触。正如第C1-127页的解说，外部负载会使预压下的初期接触状态发生变化，考虑到这些因素，要先分别计算出作用于接触点A、B的负载、额定寿命后，再计算总寿命。

In case when preload is effective by oversized Ball, the contact condition of the Ball is 4 points as per Fig. C-30. As explained in page C1-127, total Life can be calculated after calculation of Rating Life at contact point A and B due to the change of initial contact condition under the preload caused by external load.



1) 根据周期线图(运行方式)计算负载条件
带编号的各种运行方式的负载条件
如下所示。

①正向加速

$$F_{a1} = \mu mg + ma = 0.05 \times 10 \times 9.807 + 10 \times 0.25 = 7.4 \text{ (N)}$$

②正向等速

$$F_{a2} = \mu mg = 0.05 \times 10 \times 9.807 = 4.9 \text{ (N)}$$

③正向减速

$$F_{a3} = \mu mg - ma = 0.05 \times 10 \times 9.807 - 10 \times 0.25 = 2.4 \text{ (N)}$$

④停止

$$F_{a4} = 0$$

⑤切削时

$$F_{a5} = \mu mg + Fa = 0.05 \times 10 \times 9.807 + 200 = 204.9 \text{ (N)}$$

⑥停止

$$F_{a6} = 0$$

⑦反向加速

$$F_{a7} = -(\mu mg + ma) = -(0.05 \times 10 \times 9.807 + 10 \times 0.25) = -7.4 \text{ (N)}$$

⑧反向等速

$$F_{a8} = -\mu mg = -0.05 \times 10 \times 9.807 = -4.9 \text{ (N)}$$

⑨反向减速

$$F_{a9} = -\mu mg + ma = -0.05 \times 10 \times 9.807 + 10 \times 0.25 = -2.4 \text{ (N)}$$

⑩停止

$$F_{a10} = 0$$

1) 1) Calculation of Load condition from Operating pattern
Load condition of each operating pattern which is numbered is as follows.

①Forward Acceleration

$$Fa_1 = \mu mg + ma = 0.05 \times 10 \times 9.807 + 10 \times 0.25 = 7.4 \text{ (N)}$$

②Forward at constant speed area

$$Fa_2 = \mu mg = 0.05 \times 10 \times 9.807 = 4.9 \text{ (N)}$$

③Forward Deceleration

$$Fa_3 = \mu mg - ma = 0.05 \times 10 \times 9.807 - 10 \times 0.25 = 2.4 \text{ (N)}$$

④Halt

$$Fa_4 = 0$$

⑤at Turning

$$Fa_5 = \mu mg + Fa = 0.05 \times 10 \times 9.807 + 200 = 204.9 \text{ (N)}$$

⑥Halt

$$Fa_6 = 0$$

⑦Backward Acceleration

$$Fa_7 = -(\mu mg + ma) = -(0.05 \times 10 \times 9.807 + 10 \times 0.25) = -7.4 \text{ (N)}$$

⑧Backward at constant speed area

$$Fa_8 = -\mu mg = -0.05 \times 10 \times 9.807 = -4.9 \text{ (N)}$$

⑨Backward Deceleration

$$Fa_9 = -\mu mg + ma = -0.05 \times 10 \times 9.807 + 10 \times 0.25 = -2.4 \text{ (N)}$$

⑩Halt

$$Fa_{10} = 0$$

式中，

m : 移动物质量 = 10 kg

g : 重力加速度 = 9.807 m/sec²

α : 加速度

达到0.05m/sec前的加速度

$$\alpha = 0.05/0.02 = 0.25 \text{ m/sec}^2$$

Here,

m : Mass = 10 kg

g : Gravity Acceleration = 9.807 m/sec²

α : Acceleration

Acceleration up to 50mm/sec

$$\alpha = 0.05/0.02 = 0.25 \text{ m/sec}^2$$

2) 根据周期线图(运行方式)计算速度条件
带编号的各种运行方式的速度条件(转速条件)如C-39示。

等速时 (②、⑧) :

$$50 \text{ mm/sec} = 50 \times 60 \text{ mm/min} = 3,000 \text{ mm/min} \\ = 1,500 \text{ min}^{-1} \text{ (导程10mm时)}$$

加减速时 (①、③、⑦、⑨) :

上述的平均转速为 $1,500/2 = 700 \text{ min}^{-1}$

2) Calculate the speed condition according to the cycle diagram(operation mode)The speed conditions (rotation speed conditions) of various running modes with numbers are shown in Table C-39.

Constant speed area (②、⑧) ;

$$50 \text{ mm/sec} = 50 \times 60 \text{ mm/min} = 3,000 \text{ mm/min}$$

$$= 1,500 \text{ min}^{-1} \text{ (Lead 10mm)}$$

Acceleration and deceleration area (①、③、⑦、⑨) ;
as an average revolution above, $1,500/2 = 700 \text{ min}^{-1}$

各种运行方式下的负载条件和速度条件(转速条件)的计算结果如下表所示。

Calculation result of the load condition and speed condition (revolution) for each operating patterns are as below.

表C-39:各接触点的负载、转速条件

Table C-39: Load and speed conditions of each contact point

Condition 条件	Axial load 轴向负载 Fa(N)	Revolution 转速 N(min ⁻¹)	Frequency of use 使用频率 ti(sec)
①Forward Acceleration / 正向加速	7.4	750	0.2
②Forward at Constant speed / 正向等速	4.9	1,500	3.0
③Forward Deceleration / 正向减速	2.4	750	0.2
④Halt / 停止	0	0	1.0
⑤Turning / 切削	204.9	60	7.5
⑥Halt / 停止	0	0	0.5
⑦Backward Acceleration / 反向加速	-7.4	750	0.2
⑧Backward at constant speed / 反向等速	-4.9	1,500	3.3
⑨Backward Deceleration / 反向减速	-2.4	750	0.2
⑩Halt / 停止	0	0	0.5

3) 计算左右接触点各自的负载条件

Calculation of the Load condition at left/right contact point

在预压负载下，滚珠与螺纹槽4点接触，该状态会在外部负载的作用下，变化为第C1-127页（图C-31）的接触状态。根据发生了变化的弹性位移反推，用下式计算作用于接触点（A、B）的负载。

Ball contact condition in 4 point between Balls and thread grooves by preload may changes by external load as shown in page C1-127 (Fig. C-31). Based on the changed Elastic displacement, load applying on the contact point A and B will be calculated by formula below.

【外部负载方向为+（正）方向时】 【If the direction of the external load is plus (+)】

$$F_{ai(A)} = F_{pr} \times \left(1 + \frac{|F_{ai}|}{2^{3/2} \times F_{pr}}\right)^{3/2}$$

$$F_{ai(B)} = F_{ai(A)} - |F_{ai}|$$

【外部负载方向为+（正）方向时】 【If the direction of the external load is plus (+)】

$$F_{ai(A)} = F_{pr} \times \left(1 + \frac{|F_{ai}|}{2^{3/2} \times F_{pr}}\right)^{3/2}$$

$$F_{ai(B)} = F_{ai(A)} - |F_{ai}|$$

式中，

F_{pr} : 预压负载 = 95 N

F_{ai} : 各条件下的轴向负载 (N)

(A)、(B) : 表示滚珠接触点

Here,

F_{pr} : Preloaded load = 95 N

F_{ai} : Axial load in each condition (N)

(A), (B) : This means contact point

分别计算接触点（A、B）在上述各运行条件下的负载及转速条件，结果如表C-40所示。

The calculation result of each load condition and revolution condition as per contact point A and B is shown in table C-40.

4) 分别计算左右接触点的等价负载、等价转速

Calculation of Equivalent load, Equivalent revolution at left and right contact point

计算出各运行条件下作用于接触点A、B的负载后，下面分别计算各接触点的等价负载、等价转速。接触点A、B仅为负载条件不同，速度条件（转速条件）、使用频率相同。等价负载、等价转速的计算使用第C1-125页的计算公式。

Load applying on contact point A and B is calculated under each operating condition, then Equivalent load and Equivalent revolution at each contact point will be calculated. However, the speed and frequency of use stay the same, only the load condition will be different. Calculation formula shown in page C1-125 will be used for calculating Equivalent load and Equivalent revolution.

$$F_{am} = \left(\frac{F_{a1}^3 \cdot N_1 \cdot t_1 + F_{a2}^3 \cdot N_2 \cdot t_2 + F_{a3}^3 \cdot N_3 \cdot t_3 + \dots + F_{ai}^3 \cdot N_i \cdot t_i}{N_1 \cdot t_1 + N_2 \cdot t_2 + N_3 \cdot t_3 + \dots + N_i \cdot t_i} \right)^{1/3} N$$

$$N_m = \left(\frac{N_1 \cdot t_1 + N_2 \cdot t_2 + N_3 \cdot t_3 + \dots + N_i \cdot t_i}{t_1 + t_2 + t_3 + \dots + t_i} \right) \text{ min}^{-1}$$

各种运行方式下作用于接触点A、B的负载及其各自的等价负载、等价转速的计算结果如下表所示。

The axial load applying on contact point A and B for each condition, Equivalent load and Equivalent revolution are as follows.

表 C-40 : 各接触点的负载、转速条件

Table C-40 : Load & Revolution condition at each contact point

Condition 条件	Axial load 轴向负载 Fa(N)	Revolution 转速 N(min ⁻¹)	Axi: 轴向 Fa	Frequency of use 使用频率 ti(sec)
① Forward Acceleration / 反向加速	7.4	99.0	91.6	750
② Forward at Constant speed / 反向等速	4.9	97.6	92.7	1,500
③ Forward Deceleration / 反向减速	2.4	96.3	93.9	750
④ Halt / 停止	0	—	—	0
⑤ Turning / 切削	204.9	222.3	17.4	60
⑥ Halt / 停止	0	—	—	0
⑦ Backward Acceleration / 反向加速	-7.4	91.6	99.0	750
⑧ Backward at constant speed / 反向等速	-4.9	92.7	97.6	1,500
⑨ Backward Deceleration / 反向减速	-2.4	93.9	96.3	750
⑩ Halt / 停止	0	—	—	0
Equivalence 等价		F _{am(A)} =109.0	F _{am(B)} =94.0	N _m =719.2
				Working duration (运行) : 0.48sec Halt time (停止) : 0.2 sec 1 cycle (1周期) : 0.68 sec

注) 接触点A、B的负载计算结果均用绝对值表示。

Note) Results of applying load at contact point A and B are all absolute number.

5) 分别计算左右接触点的额定寿命

Calculation of Rating Life at each contact point

使用滚珠接触点A、B各自的等价负载、等价转速，计算接触点A、B的额定寿命。

Calculate the Basic Rating Life at contact point A and B by using the value of Equivalent load, Equivalent revolution in each contact point A, B.

【接触点A】 [Contact point A]

将等价负载Fam (A) 和等价转速Nm代入第C1-125页的寿命计算公式，可得出以下结果。

Substitute the Equivalent load Fam (A) and Equivalent revolution Nm in the following formula as shown in page C1-125.

$$L_{10h(A)} = \left(\frac{C_a}{f \cdot F_{eq}(A)} \right)^3 \times \left(\frac{10^6}{60 \cdot N_m} \right)^3 = 71,029 \text{ 小时 (hours)}$$

【接触点B】 [Contact point B]

将等价负载Fam (B) 和等价转速Nm代入第C1-125页的寿命计算公式，可得出以下结果。

Substitute the Equivalent load Fam (B) and Equivalent revolution Nm in the following formula as shown in page C1-125.

$$L_{10h(B)} = \left(\frac{C_a}{f \cdot F_{eq}(B)} \right)^3 \times \left(\frac{10^6}{60 \cdot N_m} \right)^3 = 110,747 \text{ 小时 (hours)}$$

其中，假设基本额定动负载Ca = 1,900N、负载系数f = 1.2。

Here, Basic Dynamic Load Rating Ca = 1,900N, Load factor f = 1.2.

6) 计算由左右接触点的额定寿命合并而成的额定寿命

Calculation of merged Basic Rating Life in each contact point

使用第C1-126页的公式，计算由接触点A、B的额定寿命（L10h (A)、L10h (B)）合成的组合寿命。

Calculate merged Basic Rating Life of contact point A,B (L10h (A), L10h (B)) by using formula in page C1-126.

$$L'10h = (L_{10h(A)}^{-10/9} + L_{10h(B)}^{-10/9})^{-1/9} = 46,257 \text{ 小时 (hours)}$$

7) 考虑停止时间的总寿命的计算

Calculation of total Life with taking halt time into consideration

上述计算只是运行时间的计算结果，计算总寿命还需要考虑1个周期中的停止时间。

Above calculation is only for the working duration, therefore calculate the total Life with taking halt time into consideration.

$$L''10h = L'10h \times (\text{周期时间 cycle time}) / (\text{运行时间 working duration}) = 46,257 \times (16.6 / 14.6) = 52,594 \text{ 小时 (hours)}$$

MEMO

存放、操作及使用注意事项

PRECAUTION OF STORAGE, HANDLING AND OPERATING

●滚珠丝杠操作注意事项

滚珠丝杠属于精密零件,请遵照下述事项谨慎操作。

存放

存放时,请保持本公司原装包装状态。请勿随意开包或弄破内部包装。

否则会有异物进入或生锈,从而导致产品性能下降。

操作

1.严禁拆分产品。否则会导致异物进入、精度下降或引发事故。

2.重新组装时,如果组装错误,可能会导致滚珠丝杠的功能丧失。因此,客户请勿自行重新组装。请将产品送回本公司,我们将有偿为您维修并重新组装。

3.滚珠丝杠的轴和螺母可能会因自重而掉落,请注意避免受伤。如果掉落,可能会因循环部件受损而导致性能下降,

因此请务必委托本公司进行检查。请务必把产品送回本公司。我们将有偿为您检查。

4.如果滚珠丝杠掉落,循环部件、轴的外径以及钢珠等可能会划伤、损坏。这可能会导致产品功能丧失,如回转不良等。

●滚珠丝杠使用注意事项

防尘

请在清洁环境下使用滚珠丝杠。请同时使用防尘罩等防止异物、切屑等进入滚珠丝杠中。如果因防尘不当而导致异物、切屑等进入滚珠丝杠,可能会降低滚珠丝杠的性能或损坏循环部件,从而导致产品锁死。

润滑

请在使用前确认润滑状况。如果润滑不良,可能会导致滚珠丝杠在短期内丧失功能。

此外,防锈油并非润滑剂,使用前请用精制煤油等清洗滚珠丝杠,去除防锈油后涂上润滑剂(油脂或润滑油)。在常规用途下使用时,请每2~3个月检查一次油脂。使用过程中油脂变脏时,请擦去旧的油脂后涂抹新油脂。

许用转速和许用轴向负载

根据尺寸、材质及安装方式等不同,滚珠丝杠会受到轴向负载和转速的限制。建议在产品的设计阶段就使用条件与本公司充分协商。关于使用条件,请充分利用卷末的技术数据表。

超程

滚珠丝杠螺母发生超程时,可能导致钢珠脱落、循环部件受损或钢珠槽产生压痕等,从而引起动作不良。如果在该状态下继续使用,还可能导致早期磨损或循环部件损坏。因此请务必避免超程。

发生超程时,请与本公司联系检查事宜。我们将有偿为您检查。

此外,为了防止螺纹端出现螺母超程或从螺纹部脱落,可能会安装O形圈。

使用时请拆下O形圈。

使用温度

使用温度的极限通常设计在80°C以下。超过该温度使用时,可能会产生如下现象:

- 钢珠循环性能下降;

- 循环部件损伤或损坏;

- 相对于热处理部位的硬度降低。

如需在超过80°C的条件下使用,请垂询本公司。

偏负载

滚珠丝杠是一种产生轴向推力的机械元件,其结构不能承受径向负载和力矩负载。请注意避免对螺母部施加径向负载和力矩负载。如果滚珠丝杠承受径向负载或力矩负载,将会导致滚珠负载不均,从而显著缩短产品的使用寿命。

另外,安装滚珠丝杠时,轴承部与螺母托架之间的偏心也会导致偏负载,敬请注意。

摇摆运动

让滚珠丝杠做摇摆运动(重复进行短行程+正反转)时,由于滚珠的相互挤压,动扭矩有逐渐增大的倾向。这个问题可通过定期使用假行程(全行程)来解决。

●Handling precaution for Ball Screws

Ball screws are precision components, and must be handled carefully in accordance with the instruction below. Storage
Ball Screws should be stored unopened in their original SJ packaging. Avoid opening the package or
breaking the inner package unnecessarily. This may result in contamination or rusting, and may degrade
operating performance.

Handling

1. Never disassemble Ball Screws. This will cause contamination, reduce accuracy, and lead to accidents.
2. Customers should not attempt to reassemble Ball Screws by themselves. Incorrect reassembly can easily result in malfunction. Ball Screws should be returned to SJ, where they will be repaired and reassembled for a fee.
3. Take care to avoid injuries due to falling Ball Screw Shafts or Nuts. If dropped, performance may be adversely affected by damage to the recirculating component. Ball Screws must therefore be inspected by SJ for a fee. Please make sure you return dropped Shafts or Nuts.
4. Dropping Ball Screws may cause scratching or impact damage to recirculating components, Shaft outside diameters, Balls, or screw grooves, which may cause malfunction, such as incorrect rotation.

●Precaution of Ball Screw for operating

Dust proof

Ball Screws must be used in a clean environment. They should be used with a dustproof cover to prevent contamination from dust or swarf. Dust or swarf contamination due to insufficient dust protection may reduce the Ball Screw performance, cause damage to recirculating components, which lead to locking.

Lubrication

Check lubrication before use. Insufficient lubrication will rapidly deteriorate the operating performance of the Ball Screw. Since anti-rust oil is not lubricant (Grease/Oil), Ball Screws should be washed off anti-rust oil with clean Kerosene and apply lubricant before using Ball Screws. Please check the lubricant condition every 2 to 3months. If Grease is contaminated, remove old Grease, and replace with new Grease.

Critical speed and Axial load

Ball Screws have the maximum limit of speed and Axial load depending on its size, material, mounting method etc. when design Ball Screws, SJ would recommend that you consult with SJ engineering about the operating condition and model selection. To release your operating condition, please use Technical Data Sheet at the end of this catalogue.

Over-run

Allowing Ball Screw Nuts to overrun may result in malfunctioning due to Balls escaping, damage to recirculation components, and indentation of the Ball grooves. Continued use in this state will lead to rapid wear and damage to recirculation components. Ball Screw Nuts must therefore never be allowed to overrun. If overrunning occurs, contact SJ for an inspection for a fee.

Some products may fit the O-ring on the end of the shaft for the purpose of preventing fall off or overrunning the Ball Nut. Please detach O-ring in such case in prior to use.

Temperature

Ball Screws are designed to be used at operating temperatures up to 80°C. Avoid use at higher temperatures. This may result in the following problems.

- Reduced performance of Ball recirculation, and smooth movement.

- Damage to recirculation components.

- Reduced hardness of heat treated components.

If it is necessary to work beyond the recommended temperatures, please consult with SJ first as we may be able to provide a solution.

Moment load or Radial load

Ball Screws primarily generate thrusts in the axial direction, and are not designed to withstand Radial loads and Moment loads. Care must be taken not to apply Radial loads and Moment loads to the Nut. If there loads act on the Ball Screws, Ball load uniformity is lost, and the life of Ball Screws is drastically reduced. When installing Ball Screws, misalignment between Ball Screw and Support Bearings or Nut Bracket causes the unbalanced load on Ball Screw, care must be taken.

Oscillation

Under the oscillation (short stroke + back & forth operation) of Ball Screws, Drag Torque tends to increase gradually due to the stuck of Balls inside Ball Nut. Dummy stroke (preferably full length stroke) would be effective to release this phenomenon.

微型滚珠丝杠专用油脂

ORIGINAL GREASE FOR MINIATURE BALL SCREWS



1 GHY No.2 (60g,380g) : 定位用 / Positioning usage

2 MSG No.2 (45g, 380g): 常规用途 / General usage

3 MCG No.1 (45g) : 无尘室专用 / Clean room usage

滚珠丝杠的动作特性一般会受到油脂特性的影响。

尤其是微型滚珠丝杠会受到很大的油脂稠度引起搅拌阻力的影响，在涂抹油脂后丝杠扭矩可能会增大。因此，油脂的选择极为重要。

作为微型滚珠丝杠的专业厂商，本公司发挥多年积淀的技术专长，研发出了无损微型滚珠丝杠动作特性、且润滑性能优异的油脂。同时还备有起尘量极少的无尘室专用油脂。

客户可根据用途选择最适用的专用油脂。

In general, it is known that the operation characteristic of the Ball Screws is influenced by properties of Grease.

Especially, the stir resistance of Grease influences Ball Screw torque after applying Grease. Selection of Grease is extremely important in the Miniature Ball Screws. SJ has developed Ball Screw excellent Grease, which has high lubrication performance without deteriorating Ball Screw operation.

SJ has also developed its exclusive Grease, which keeps smooth feeling and less contamination under clean room environment.

We think the best special Grease is prepared respectively according to customer's usage.

特点

摩擦系数小、粘附性良好、润滑性优异，是最适于微型滚珠丝杠的油脂。

根据用户的不同用途，本公司备有常规环境下使用的稠度1号、稠度2号以及在无尘室使用的稠度1号油脂。

用途

常规环境用

GHY No.2: 精密定位用途
最适于特别注重动作特性的
MSG No.2: 用途。
常规用途
较高转速下粘附性也很优
异。

无尘室专用

MCG No.1: 用于无尘室内的低速定位，
注重低起尘和动作特性。

Features

It is the best Grease for the Miniature Ball Screws, which has low coefficient of friction, good adhesion characteristic, excellent lubricity.

Application

General use

GHY No.2: High positioning usage appropriate for high smoothness requirement.
MSG No.2: General usage appropriate for high speed.

Clean room use

MCG No.1: High positioning usage in clean room focused on less contamination, high smoothness.

◆ 基本规格 Specifications

	GHY No.2	MSG No.2	MCG No.1
Application / 用途	General use / 一般规格	General use / 一般规格	Clean room use / 无尘室规格
Thickener / 增稠剂	Polyurea / 聚脲	Lithium / 锂皂	Lithium / 锂皂
Base-oil / 基油	Synthetic oil / 合成油	Synthetic oil / 合成油	Synthetic oil / 合成油
Exterior / 外观	brown / 棕色	Light brown / 浅褐色	Beige / 米色
Mixed consistency / 混合稠度	265~295	265~295	310~340
Operation Temperature Range / 使用温度范围	-40~160°C	-60~120°C	-30~120°C
Type&Contents / 型号	GHY-2-380, GHY-2-60	MSG-2-380, MSG-2-45	MCG-1-45

注1) 型号末尾的数字表示封入量。

(380: 380cc装、45: 45cc装)

注2) 在常温以外的环境下使用SJ原装油脂时，请垂询本公司。

Note 1) 380: 380cc contained, 45: 45cc contained

Note 2) In case of the usage of this grease under other than room temperature, please consult SJ.

操作注意事项

操作注意事项

- 如果油脂误入眼中，可能会引发炎症。
操作时请佩戴护目镜等防护用品，以免油脂误入眼中。
- 油脂如果触及皮肤，可能会引发皮肤炎。
操作时请佩戴保护手套等防护用品，以免油脂触及皮肤。
- 请勿饮用或食用。
(如果吞入腹中，可能会引起腹泻或呕吐。)
- 请将油脂放置于儿童用手够不到的场所。

HANDLING INSTRUCTION

Handling Precaution

- It might be inflammatory when entering eyes.
Wear glasses when you handle it.
- When it touches the skin, it might be inflammatory.
Wear gloves when you handle it.
- Do not eat or drink it.
It is likely to have loose bowels, and to vomit when drinking.
- Put the Grease on the place where child's hand does not reach.

First aid

- Wash for 15 minutes by clean water, and receive the doctor's diagnosis when it enters eyes.
- Wash enough with water and soap when it touches your skin.
- Receive the doctor's diagnosis without forcibly vomiting when drinking.

Disposal

- Dispose properly according to the law.
- Consult manufacturer about an uncertain point.

废油和废容器的处理

- 相关法令对油脂的处理方法作了明确规定。请依照法令正确处理。
- 不了解处理方法时，请咨询经销商后再处理。

存放方法

- 请用密封塞对油脂进行密封，以防脏物或水分等混入。
- 请避开直射阳光，存放于阴暗之处。

Storage

- Seal up to avoid mixing garbage and moisture.
- Avoid direct sunlight, and keep it in darkness.

标准滑动丝杆

Standard sliding screw

微型树脂滑动丝杆P-MSS系列

Miniature Resin Sliding Screw P-MSS Series

标准滑动丝杆标准库存品

● 公称型号的构成 Model number notation

P-MSS 04 01 — 200 R 200
1 2 3 4 5 6

1 系列符号

P-MSS: PPS材质
M-MSS: MC703HL材质
2 丝杆轴公称外径(mm)
3 导程(mm)
4 螺纹部长度(mm)
5 螺纹旋向(仅右旋)
6 丝杆轴总长(mm)

1 Series symbols

P-MSS: PPS material
M-MSS: MC703HL material
2 Nominal Outside Diameter of Screw Shaft (mm)
3 Lead(mm)
4 Thread length (mm)
5 Thread direction (Right-hand only)
6 Screw shaft total length(mm)

● 精度等级和轴向间隙

P-MSS系列树脂导程丝杆的精度等级以滚珠丝杆的Ct7为准。轴向间隙为0.02-0.07mm，也可以通过选择无齿侧间隙型，将轴向间隙设置为0。

● Accuracy Grade & Axial play

The precision grade of P-MSS series resin lead screw is subject to Ct7 of ball screw. The axial clearance is 0.02-0.07mm, and the axial clearance can also be set to 0 by selecting the toothless side clearance type.

● 材质

P-MSS系列树脂导程丝杆轴采SUS304/SUS303，螺母采用PPS/MC703HL材质。

● Material

P-MSS series resin lead screw shaft adopts SUS304/SUS303, and nut adopts PPS/MC703HL material.

● 润滑

P-MSS系列树脂导程丝杆涂抹润滑剂后，运行更顺畅。

● Lubrication

The P-MSS series resin lead screw runs more smoothly after being coated with lubricant.

● 轴端形状

P-MSS系列的轴端形状为进行标准，委托本司进行追加工时，请附上指示轴端形状的图纸。

● Shaft End Shape

The shape of the shaft end of the P-MSS series is standard. We are entrusted with additional working hours. Please attach the drawing indicating the shape of the shaft end.

● 交货期快

轴端没有加工完成的P-MSS系列已经标准化，常年备有库存，交货及时。丝杆和螺母，可以单独订货。

● Fast Delivery Time

The P-MSS series with unfinished shaft end has been standardized. It is kept in stock all the year round and delivered on time. Screw and nut can be ordered separately.

技术数据

TECHNICAL DATA

◆ 螺纹槽形状 Thread groove shape

螺纹槽采用拱弧形状。与本公司滚珠丝杠所使用的槽形状基本相同。

The thread groove adopts arch arc shape. The groove shape is basically the same as that used by our ball screw.

◆ 机械效率 Mechanical efficiency

树脂导程丝杠的机械效率 η (%) 可按下式计算。

根据实测值统计得出的机械效率期待值为20~50%。

一般情况下，导程越大，机械效率就越大。

The mechanical efficiency η (%) of the resin lead screw can be calculated according to the following formula.

The expected value of mechanical efficiency calculated according to the measured value is 20-50%.

In general, the larger the lead, the greater the mechanical efficiency.

$$\eta = \frac{F_a \times r}{T \times 2\pi} \times 100 \text{ (%)}$$

F_a : 轴向负载 / Axial load (N)

R : 丝杠导程 / Screw Lead (m)

T : 旋转扭矩 / Rotational torque (Nm)

◆ PPS工程塑料特性 Characteristics of PPS Engineering Plastics

耐热性: 热变形温度为260°C的耐热性能，可以在170~200°C的高温环境下连续使用。

Heat resistance: The heat resistance with a thermal deformation temperature of 260 deg c can be continuously used in a high temperature environment of 170-200 deg C.

耐药品性: 具有不被热浓硝酸等其他的酸·碱·有机溶剂解侵蚀的特征。

Drug resistance: It is characterized by not being eroded by other acids, bases and organic solvents such as hot concentrated nitric acid.

机械特性: 与其他塑料相比具有优异的强度、弹性、机械性能、抗疲劳特性、耐磨损特点。

Mechanical properties: Compared with other plastics, it has excellent strength, elasticity, mechanical properties, fatigue resistance and wear resistance.

精密成形性: 具有成形时的流动性好、尺寸安定的特点，适用于精密成形。

Precision formability: It has the characteristics of good fluidity and stable size during forming, and is suitable for precision forming.

复燃性: 因为没有添加阻燃剂，采用UL94 V-0标准的实验条件，很好地发挥了不易燃烧的特性。

Resurgence: Because no flame retardant was added, UL94 V-0 standard experimental conditions were adopted, which gave full play to the characteristics of non-combustibility.

电气特性: 有介电特性、绝缘破坏电压等方面也具有优异的特性。

Electrical characteristics: It has dielectric characteristics, insulation breakdown voltage and other aspects and also has excellent characteristics.



产品性能比较表 Product performance comparison

Product 产品名称	P-MSS	M-MSS
Classification 产品类别	Standard 标准库存品	Customized 接单生产
Operating Environment 使用环境	Standard Environment 常规环境	
Nut Appearance 螺母外观		
Material 材质	Engineering Plastic PPS 工程塑料 PPS	Nylon MC703HL 尼龙 MC703HL
Features 特点	Balanced Performance 平衡特性	
Other 其他	Good Gliding Properties 滑动特性良好	
Mechanical Strength 机械强度	◎	○
Heat Resistance 耐热性	◎	○
Wear Resistance 耐磨损性	◎	○
Chemical Resistance 耐药品性	◎	○
Machinability 机械加工性	◎	○

注: ◎ 优异 / superior ○ 可用 / usable

◆ 使用用途 Use purpose

医疗机器、测定机器、分析机器、半导体制造装置、食品加工机械、轻搬送装置等。

Medical equipment, measuring equipment, analysis equipment, semiconductor manufacturing equipment, food processing machinery, light transport equipment, etc.

◆ P-MSS系列产品优势 Advantages of P-MSS series products

丝杆采用日本制SUS304不锈钢材料、可广泛应用于各种环境。同时配高性能树脂PPS螺母，具有耐磨损性、耐高温性、耐药品性等优异性能。工厂备有标准整的库存，可为客户提供短交期、低价格的服务。

The screw adopts Japanese-made SUS304 stainless steel material, which can be widely used in various environments. At the same time, it is equipped with high-performance resin PPS nuts, which have excellent performances such as wear resistance, high temperature resistance, and chemical resistance. The factory has a standard stock, which can provide customers with short delivery and low price services.

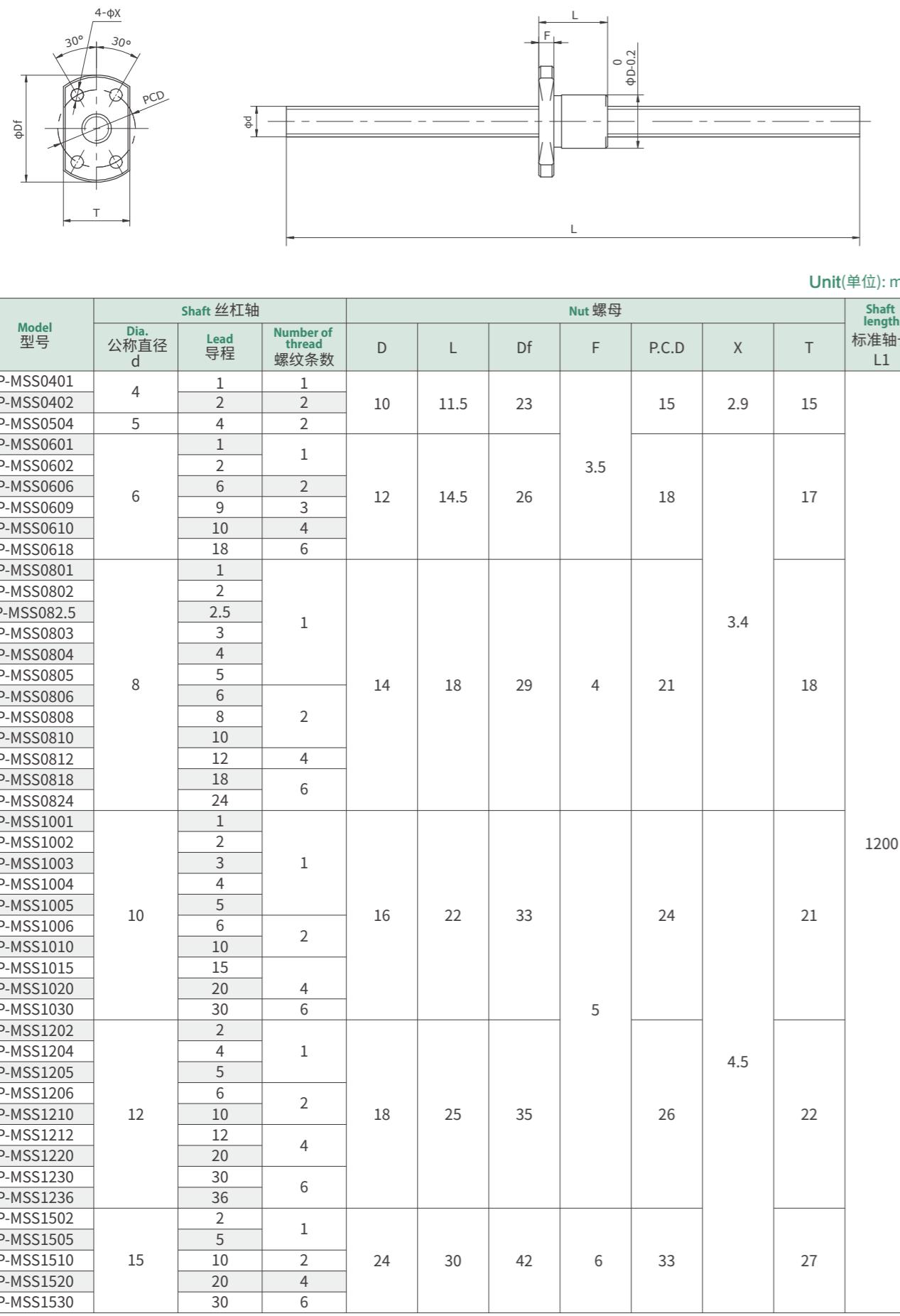
◆ 操作、使用注意事项 Precautions for operation and use

树脂导程丝杠是一种产生轴向推力的机械元件，其结构不能承受径向负载。如果承受径向负载，可能会导致早期磨损及损伤，因此请勿在树脂导程丝杠与其它直动设备连用时对其施加径向负载。

支撑丝杠轴的轴承部、安装螺母的支架的嵌合、偏心、螺母安装面的垂直度等各安装部位的精度如果不良，将对树脂导程丝杠造成不良影响。因此，请充分注意相关零件的尺寸精度、形状精度及组装精度。

The resin lead screw is a mechanical element that generates axial thrust, and its structure cannot bear radial load. If it is subjected to radial load, it may cause early wear and damage, so do not apply radial load to the resin lead screw when it is used in conjunction with other linear motion equipment.

If the accuracy of each mounting part such as the bearing part supporting the screw shaft, the fitting of the bracket for mounting the nut, the eccentricity, and the perpendicularity of the nut mounting surface is poor, it will adversely affect the resin lead screw. Therefore, please pay full attention to the dimensional accuracy, shape accuracy and assembly accuracy of the relevant parts.



注1) 标准丝杠轴的轴端未进行加工。本公司可提供轴端加工, 如有需要敬请指示。
Note 1) End-journal is not machined. Please inquire, if end-journal machining is required.

技术参数 Technical parameter

Model 型号	Shaft 丝杠轴		Permissible Axial Load 许用轴向负载 N	Permissible Revolution 许用转速 rpm	Tightening Torque (max) 紧固扭矩(最大) N·mm	Efficiency 丝杠效率 %
	Dia. 公称直径 d mm	Lead 导程 mm				
P-MSS0401	4	1	50	2500	180	45
P-MSS0402	4	2	60			70
P-MSS0504	5	4	60			85
P-MSS0601	6	1	110	2000	400	40
P-MSS0602	6	2	60			55
P-MSS0606	6	6	50			60
P-MSS0609	9	9	90			85
P-MSS0610	10	10	100			85
P-MSS0618	18	18	110			85
P-MSS0801	8	1	200	2000	400	30
P-MSS0802	8	2	280			45
P-MSS082.5	8	2.5	260			50
P-MSS0803	8	3	310			50
P-MSS0804	8	4	290			50
P-MSS0805	8	5	220			55
P-MSS0806	8	6	260			60
P-MSS0808	8	8	200			70
P-MSS0810	8	10	200			70
P-MSS0812	8	12	200			80
P-MSS0818	8	18	200			80
P-MSS0824	8	24	200			85
P-MSS1001	10	1	210	1500	500	30
P-MSS1002	10	2	460			40
P-MSS1003	10	3	460			40
P-MSS1004	10	4	370			50
P-MSS1005	10	5	370			55
P-MSS1006	10	6	250			55
P-MSS1010	10	10	250			60
P-MSS1015	15	15	410			80
P-MSS1020	20	20	410			80
P-MSS1030	30	30	410			85
P-MSS1202	12	2	660	1000	500	35
P-MSS1204	12	4	450			45
P-MSS1205	12	5	450			55
P-MSS1206	12	6	500			55
P-MSS1210	12	10	500			60
P-MSS1212	12	12	450			75
P-MSS1220	12	20	470			75
P-MSS1230	12	30	470			80
P-MSS1236	12	36	520			80
P-MSS1502	15	2	1000	800	500	35
P-MSS1505	15	5	1000			55
P-MSS1510	15	10	1200			60
P-MSS1520	15	20	1300			75
P-MSS1530	15	30	1300			75

容许判断标准：使用P-MSS0810，以轴向荷载100N、转速2000rpm的条件进行了200km距离的移动试验，未发现有异常磨损的现象。
其他依照计算。

Allowable judgment standard: using P-MSS0810, the movement test was carried out at a distance of 200km under the conditions of axial load of 100N and rotating speed of 2000rpm, and no abnormal wear was found.

① 丝杆效率是当让丝杆方向荷载并让树脂螺母旋转时，对丝杆的旋转扭矩进行测量，按下式算出的结果。

① Screw rod efficiency is the result calculated by measuring the rotating torque of the screw rod when the screw rod is loaded in the direction and the resin nut is rotated.

$$\eta = \frac{R \cdot Q \cdot \tan \beta}{M} \times 100 \text{ (%)}$$

$$\tan \beta = \frac{\text{Lead}}{2\pi R}$$

η : 丝杆效率

R: 丝杆有效半径

Q: 轴向荷载

β : 导程角

M: 旋转扭矩

η : lead screw efficiency

R: lead screw effective radius

Q: axial load

β : lead angle

M: rotational torque

② 容许轴向荷载及容许转速是按照下述实验条件测得的值。

② Allowable axial load and allowable rotation speed are measured according to the following experimental conditions.

1) 试验机械：P-MSS滑动丝杆耐久试验机

2) 条件：室温、无润滑材料、丝杆旋转率、行程100mm往复（200mm/循环）或者200mm往复（400mm/循环）

3) 容许值判断标准：以上述的容许轴向荷载和容许转速的组合条件，进行 10^3 循环或者 6×10^3 循环运动，来发现丝杆表面的变化及异常磨损。

1) Test Machinery: P-MSS Sliding Lead Screw Durability Testing Machine

2) Conditions: Room Temperature, No Lubricating Material, Lead Screw Rotation Rate, Allowable Value of 100mm Reciprocation (200mm/ cycle) or 200mm Reciprocation (400mm/cycle)

3) New Criteria: Conduct 10^3 cycles or 6×10^3 cycles with the above-mentioned combination conditions of allowable axial load and allowable rotation speed to find changes and abnormal corrosion damage on the lead screw surface.

③ 把树脂螺母固定在另一零部件上时的安装拧紧扭矩。

③ Installation and tightening torque when fixing resin nut on another component.

MEMO

电机丝杆直连型 (滚珠丝杆/滑动丝杆)

Direct connection type of motor screw rod
(Ball screw / Sliding screw)



标准滑动丝杆标准库存品

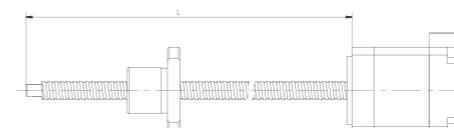
● 公称型号的构成 Model number notation

GSSD 20 - R 0601 K - 78 A - P M1 - D1 - E2000 - L5 - B - 001

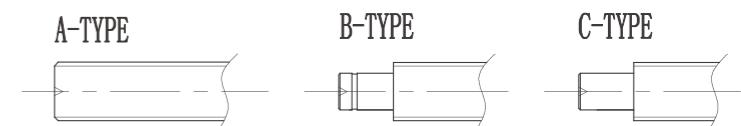
- 1 系列符号
GSSD: 电机丝杆直连型代号
- 2 电机规格尺寸 (mm)
可选20/28/35/42/57步进马达
- 3 丝杆类型
G: 精密滚珠丝杆 R: 冷轧滚珠丝杆
Re: 树脂滑动丝杆 GT: 精密冷轧滚珠丝杆
- 4 丝杆轴外径及导程
06: 丝杆轴外径 01: 丝杆导程
- 5 螺母类型
K: 螺母类型代号, 若无则省略
- 6 丝杆凸出长度
详见: 丝杆轴长度图
- 7 支撑端类型
可选A/B/C类型, 详见: 轴端形状图
- 8 马达出线方式
N: 直接出线 P: 接插件
- 9 马达类型
M1: 单叠 M2: 双叠
- 10 螺母方向
D1: 螺母法兰朝马达端
D2: 螺母法兰朝支撑端
- 11 编码器分辨率 (若无则省略)
- 12 编码器线长
L5: 标配5米线, 若无编码器则省略。
- 13 是否含刹车 (若无则省略)
- 14 图纸说明 - 客户特殊样式

- 1 series of symbols
GSSD: motor screw direct connection type code
- 2 specification and dimension of motor (mm)
optional 20 / 28 / 35 / 42 / 57 stepping motor
- 3 screw type
g: precision ball screw R: cold rolled ball screw
re: resin sliding screw GT: precision cold rolling ball screw
- 4 outer diameter and lead of screw shaft
06: outer diameter of screw shaft 01: screw lead
- 5 nut type
K: nut type code, if not omitted
- 6 protruding length of screw rod
for details, please refer to the drawing of screw shaft length
- 7 type of support end
optional A / B / C type, see shaft end shape drawing for details
- 8 motor outgoing mode
N: direct outlet P: connector
- 9 motor type
M1: single stack M2: double stack
- 10 nut direction
D1: the nut flange is facing the Mada end
D2: nut flange towards support end
- 11 encoder resolution (omitted if none)
- 12 encoder wire length
L5: Standard 5m wire, if there is no encoder, it will be omitted.
- 13 brake included (omitted if not)
- 14 drawing description - customer special style

● 丝杆轴长度 Screw shaft length



● 轴端形状 Shaft end shape



丝杆电机直连型特点

FEATURES OF SCREW MOTOR DIRECT CONNECTION

◆ 结构升级 传动简易 Transmission upgrade, simple structure

在滚珠丝杆的轴端直接安装2相步进电机，将滚珠丝杆轴心作为电机旋转轴心的理想结构。

A 2-phase stepping motor is directly installed on the shaft end of the ball screw, and the ball screw axis is used as the ideal structure of the motor rotation axis.

◆ 空间紧凑 小型轻量 Compact and compact

2相步进电机和轧制滚珠丝杆一体型产品，通过电机轴与滚珠丝杆轴的一体化，无需联轴器，节省了长边方向的尺寸。

Two-phase stepping motor and rolled ball screw integrated product, through the integration of the motor shaft and the ball screw shaft, no coupling is needed, saving the size of the long side direction.

◆ 高精度 高稳定性 优越的性价比 High precision, high stability, excellent cost performance

轧制滚珠丝杆与2相步进电机的组合，节省了联轴器，一体化结构减少组合精度误差，可使重复定位精度为±0.001mm。

The combination of rolling ball screw and 2-phase stepping motor saves the coupling, and the integrated structure reduces the combined accuracy error, and can make the repeated positioning accuracy ± 0.001mm.

◆ 轴端多样式 可非标定制 Multiple shaft ends can be customized

提供多种轴端形状、行程规格，可根据客户的要求定制非标产品。

Provide a variety of shaft end shapes and stroke specifications, and non-standard products can be customized according to customer requirements.

◆ 产品丰富 规格齐全 Rich products, complete specifications

电机规格有20、28、35、42、57步进马达，可搭配滚珠丝杆、树脂滑动丝杆。

The motor specifications are 20, 28, 35, 42, 57 stepping motors, which can be matched with ball screws and resin sliding screws.

马达规格 Motor specifications

Motor Frame Size 马达框架尺寸	Motor Model 马达型号	Rated Voltage 额定电压(V)	Rated Current 额定电流(A/相)	Winding Impedance 卷线阻抗(O)	coefficient of Mutual Induction 感应系数(mH)	Maximum Static Torque 最大静止扭矩(N.m)	Motor specifications 马达规格(mm)
20	8E2004	3.52	0.4	8.8	2.8	0.003	20
	8E2105	2.55	0.5	5.1	1.5	0.0036	27.2
28	11E2110	2.1	1.0	2.1	1.5	0.036	33.35
	11E2216	2.4	1.6	1.5	1.36	0.052	45
35	14E2110	3.5	1.0	3.5	3.6	0.06	33.6
	14E2215	4.05	1.5	2.7	3.2	0.1	45.6
42	17E2115	2.8	1.5	1.85	2.2	0.18	34.1
	17E2225	2.25	2.5	0.9	1.8	0.32	48.1
57	23E2110	6.4	1.0	6.4	1.65	0.7	45
	23E2225	5.0	2.5	2.0	5.2	1.5	65

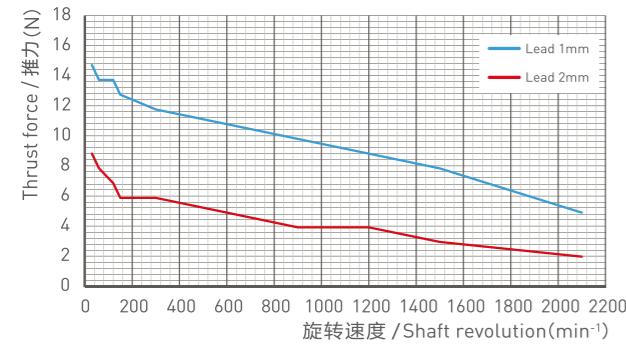
产品索引 Product index

Motor specifications 马达规格(mm)	Model 型号	Total Length of Motor 马达全长(mm)	Rated Current 额定电流(A/相)	Maximum Static Torque 最大静止扭矩(N.m)	Dia. 公称直径(mm)	Lead 导程(mm)	Reference Thrust 参考推力(N)
20	GSSD20-R0401-M1	20	0.4	0.003	04	01	10
	GSSD20-R0401-M2	27.2	0.5	0.0035	04	01	15
	GSSD20-R0401K-M1	20	0.4	0.003	04	01	10
	GSSD20-R0401K-M2	27.2	0.5	0.0035	04	01	15
	GSSD20-R0402-M1	20	0.4	0.003	04	02	5
	GSSD20-R0402-M2	27.2	0.5	0.0035	04	02	7
28	GSSD28-R0504-M1	33.35	1.0	0.036	05	04	20
	GSSD28-R0504-M2	45	1.6	0.052	05	04	40
	GSSD28-R0504G-M1	33.35	1.0	0.036	05	04	20
	GSSD28-R0504G-M2	45	1.6	0.052	05	04	40
	GSSD28-R0601-M1	33.35	1.0	0.036	06	01	110
	GSSD28-R0601-M2	45	1.6	0.052	06	01	150
	GSSD28-R0601K-M1	33.35	1.0	0.036	06	01	110
	GSSD28-R0601K-M2	45	1.6	0.052	06	01	150
	GSSD28-R0602-M1	33.35	1.0	0.036	06	02	50
	GSSD28-R0602-M2	45	1.6	0.052	06	02	12
	GSSD28-R0602G-M1	33.35	1.0	0.036	06	02	50
	GSSD28-R0602G-M2	45	1.6	0.052	06	02	150
	GSSD28-R0606-M1	33.35	1.0	0.036	06	06	18
	GSSD28-R0606-M2	45	1.6	0.052	06	06	35
35	GSSD35-R0610-M1	33.35	1.0	0.036	06	10	10
	GSSD35-R0610-M2	45	1.6	0.052	06	10	15
	GSSD35-R0801-M1	33.6	1.0	0.06	08	01	175
	GSSD35-R0801-M2	45.6	1.5	1.0	08	01	230
	GSSD35-R0801K-M1	33.6	1.0	0.06	08	01	175
	GSSD35-R0801K-M2	45.6	1.5	1.0	08	01	230
	GSSD35-R0802-M1	33.6	1.0	0.06	08	02	85
	GSSD35-R0802-M2	45.6	1.5	1.0	08	02	160
	GSSD35-R0805-M1	33.6	1.0	0.06	08	05	35
	GSSD35-R0805-M2	45.6	1.5	1.0	08	05	65
42	GSSD42-R1002-M1	34.1	1.5	0.18	10	02	184
	GSSD42-R1002-M2	48.1	2.5	0.32	10	02	306
	GSSD42-R1002K-M1	34.1	1.5	0.18	10	02	184
	GSSD42-R1002K-M2	48.1	2.5	0.32	10	02	306
	GSSD42-R1005-M1	34.1	1.5	0.18	10	05	75
	GSSD42-R1005-M2	48.1	2.5	0.32	10	05	15
	GSSD42-R1010-M1	34.1	1.5	0.18	10	10	40
	GSSD42-R1010-M2	48.1	2.5	0.32	10	10	83
	GSSD42-R1015-M1	34.1	1.5	0.18	10	15	27
	GSSD42-R1015-M2	48.1	2.5	0.32	10	15	50
	GSSD42-R1020-M1	34.1	1.5	0.18	10	20	22
	GSSD42-R1020-M2	48.1	2.5	0.32	10	20	41

◆ 推力-速度线图 Force-speed diagram

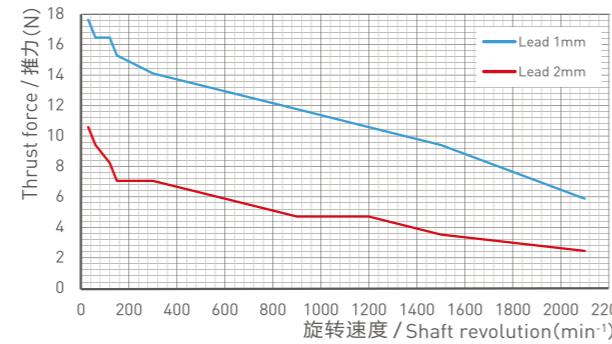
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Motor model: 08E2004 (□20)



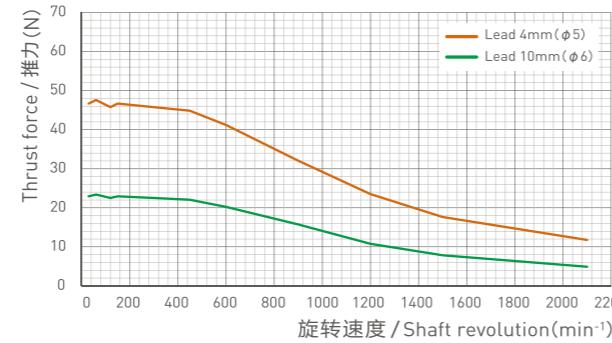
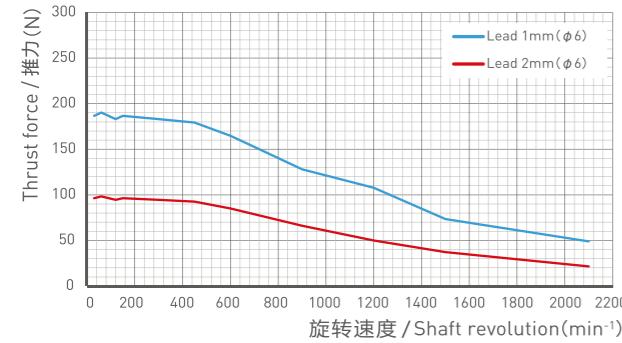
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Motor model: 08E2105 (□20)



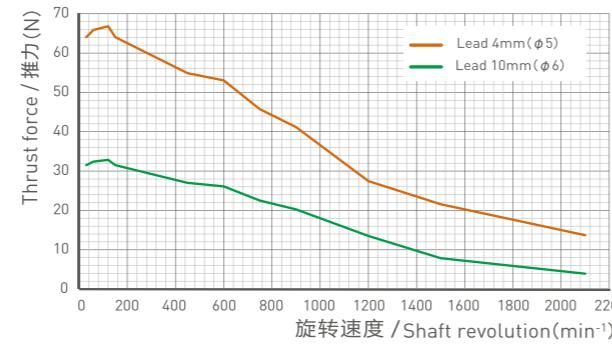
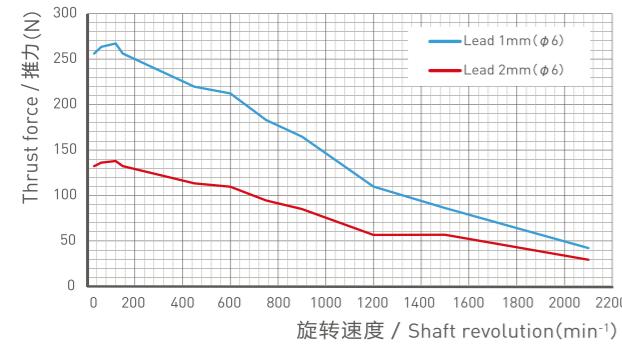
电机型号: 11E2110 (□28)

Motor model: 11E2110 (□28)



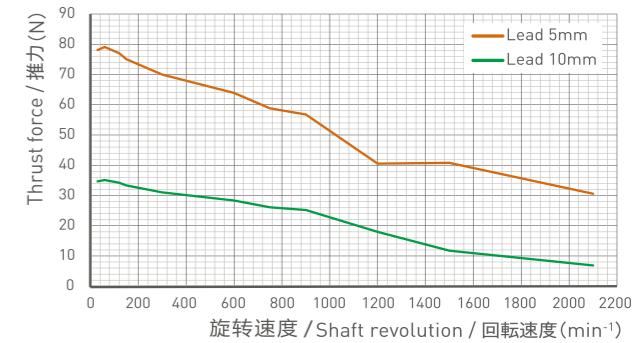
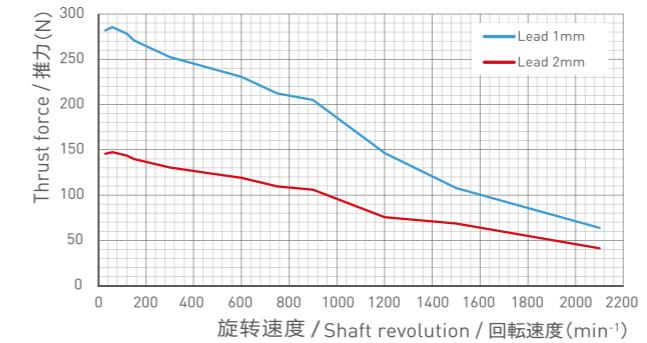
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Motor model: 11E2216 (□28)



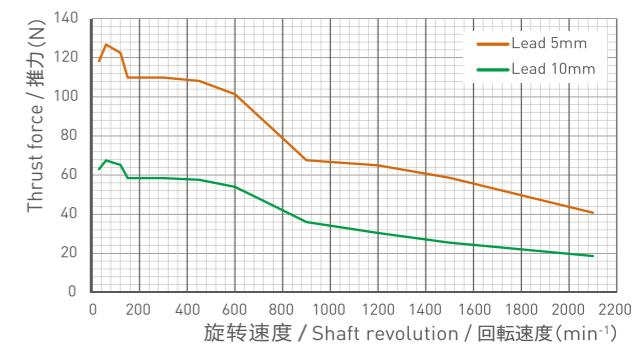
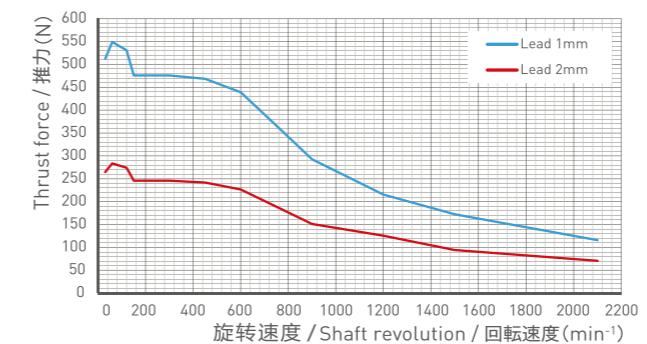
电机型号: 14E2110 (□35)

Motor model: 14E2110 (□35)



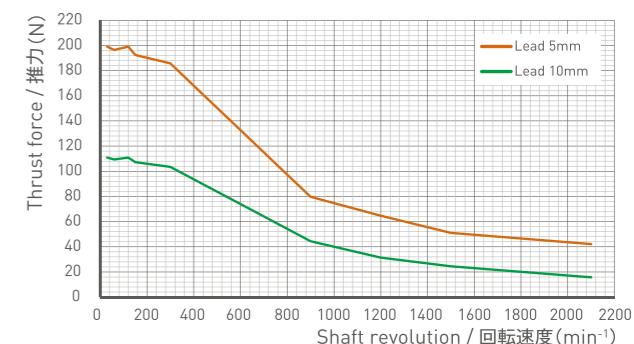
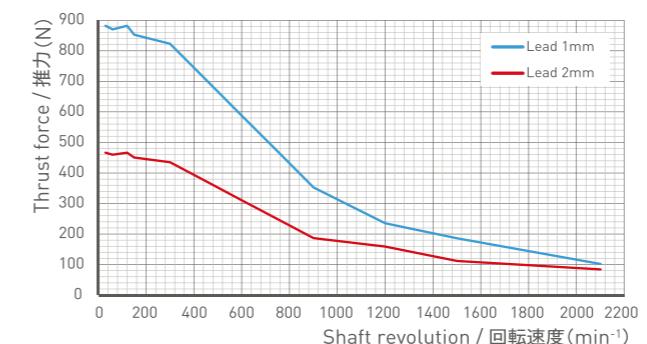
电机型号: 14E2215 (□35)

Motor model: 14E2215 (□35)



电机型号: 17E2115 (□42)

Motor model: 17E2115 (□42)

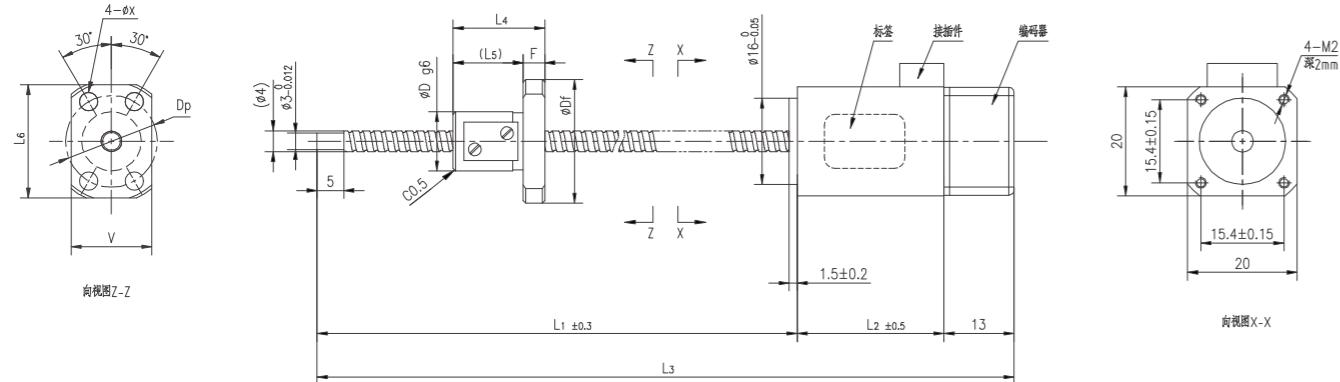


注: 推力-速度线圈是根据样品的实测值作成的。每个电机多少会有些变化, 仅作为参考。

Note) Force -speed diagrams above are measurement data of samples. It may vary depending on each motor's characteristic.

Please consider these diagrams as reference data.

GSSD20-R

Shaft dia.(轴径) $\phi 4$ 

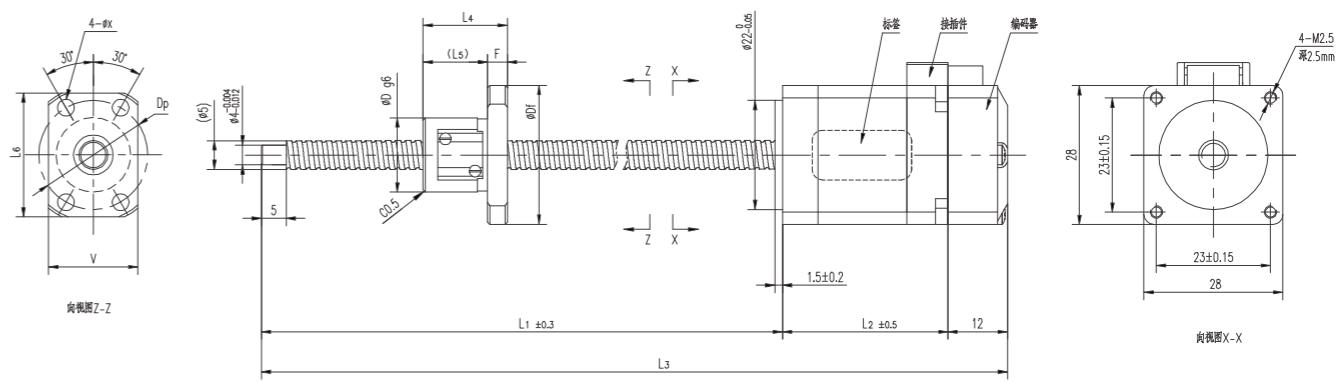
Housing: JST ZHR-6
Terminal: JST SZH-002T-P0.5S
Wire: AWG 28

Pin No.	Colour 颜色	Description 定义
1	Red 红	A+
3	Red/White 红白	A-
4	Green 绿	B+
6	Green/White 绿白	B-

Pin No.	1	2	3	4	5	6	7	8	9
Description 定义	+5V	GND	EA+	EA-	Z+	Z-	PE	EB+	EB-

Housing: JST SHR-09V-S
Terminal: JST SSH-003T-P0.2-H
Wire: AWG 28

GSSD28-R

Shaft dia.(轴径) $\phi 5$ 

Housing: JST ZHR-6
Terminal: JST SZH-002T-P0.5S
Wire: AWG 28

Pin No.	Colour 颜色	Description 定义
1	Red 红	A+
3	Red/White 红白	A-
4	Green 绿	B+
6	Green/White 绿白	B-

Pin No.	1	2	3	4	5	6	7	8	9
Description 定义	+5V	GND	EA+	EA-	Z+	Z-	PE	EB+	EB-

Model 样式	Lead 导程	L2	L3	L4	L5	L6	F	Df	D	X	Dp	V
GSSD20-R0401-PM1	01	20	L1+33	17	13	21	4	23	11	3.4	17	15
GSSD20-R0401-PM2	01	27.2	L1+40.2	17	13	21	4	23	11	3.4	17	15
GSSD20-R0401K-PM1	01	20	L1+33	13	10	-	3	19	11	2.9	14	13
GSSD20-R0401K-PM2	01	27.2	L1+40.2	13	10	-	4	19	11	2.9	14	13
GSSD20-R0402-PM2	02	20	L1+33	19	15	21	4	23	11	3.4	17	15
GSSD20-R0402-PM1	02	27.2	L1+40.2	19	15	21	4	23	11	3.4	17	15
L1以下尺寸为标准品												

Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.02mm
Surface hardness 螺纹部表面硬度	Thread area HRC58~62
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油
Repeatability 重复精度 (参考)	±0.02mm

Ball Screw Specifications 主要技术参数	
Holding torque 静止扭矩	0.003N.M 0.0036N.M
Rotor inertia 转子惯量	2.4g.cm ² 2.6g.cm ²
Motor weight 马达重量	60g 80g
Encoder resolution 编码器分辨率	2000CPR
Operating temperature 适用温度范围	-10°C~50°C

Model 样式	Lead 导程	L2	L3	L4	L5	L6	F	Df	D	X	Dp	V
GSSD20-R0504-PM1	04	33.35	L1+45.35	22	18	21.5	4	24	12	3.4	18	15
GSSD20-R0504-PM2	04	45	L1+57	22	18	21.5	4	24	12	3.4	18	15
GSSD20-R0504G-PM1	04	33.35	L1+45.35	22	18	-	4	24	12	3.4	18	14
GSSD20-R0504G-PM2	04	45	L1+57	22	18	-	4	24	12	3.4	18	14

L1以下尺寸为标准品 85 / 105 / 145 / 185 / 225 / 265

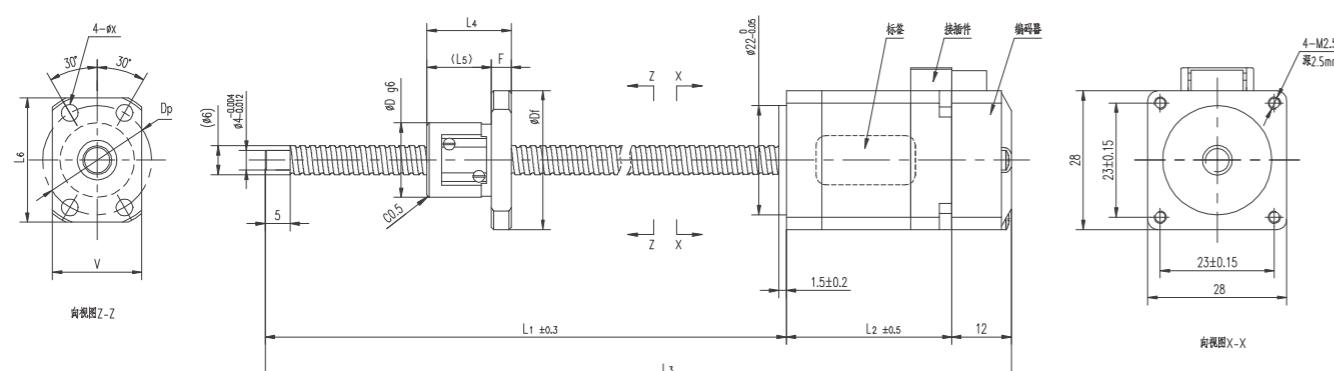
备注: G型螺母为2-φx

Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.02mm
Surface hardness 螺纹部表面硬度	Thread area HRC58~62
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油
Repeatability 重复精度 (参考)	±0.02mm

Ball Screw Specifications 主要技术参数	
Motor model 马达类型	11E2110 11E2216
Motor code 马达代号	PM1 PM2
Step angel 步距角	1.8°
Rated voltage 额定电压	2.1V 2.4V
Rated current 额定电流	1A 1.6A
Resistance/phase 相阻抗	2.1Ω 1.5Ω
Inductance/phase 相电感	1.5mH 1.36mH
Holding torque 静止扭矩	0.036N.M 0.052N.M
Rotor inertia 转子惯量	7.2g.cm ² 12g.cm ²
Motor weight 马达重量	180g 200g
Encoder resolution 编码器分辨率	2000CPR
Operating temperature 适用温度范围	-10°C~50°C

GSSD28-R

Shaft dia.(轴径) $\phi 6$



Housing: JST ZHR-6
Terminal: JST SZH-002T-P0.5S
Wire: AWG 28

Pin No.	Colour 颜色		Description 定义
1	Red 红		A+
3	Red/White 红白		A-
4	Green 绿		B+
6	Green/White 绿白		B-

Pin No.	1	2	3	4	5	6	7	8	9
Description 定义	+5V	GND	EA+	EA-	Z+	Z-	PE	EB+	EB-

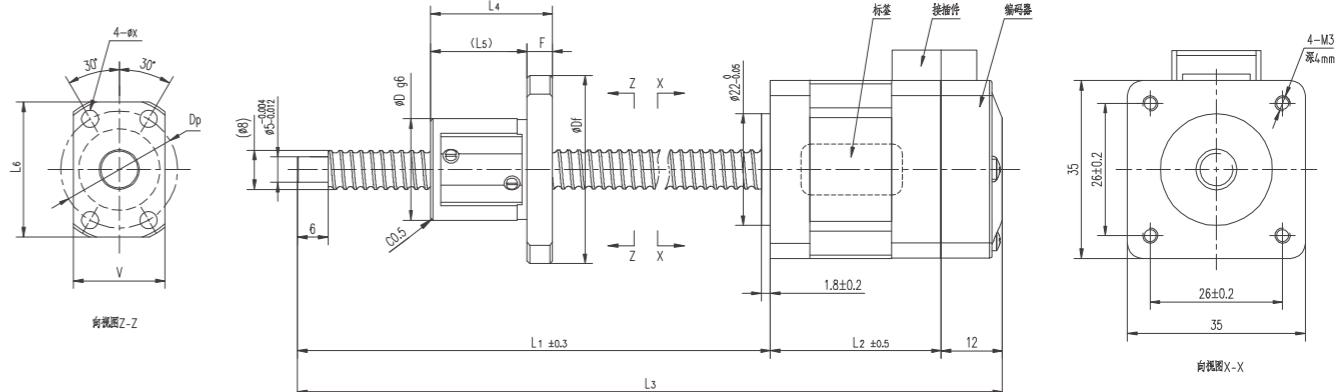
Model 样式	Lead 导程	L2	L3	L4	L5	L6	F	Df	D	X	Dp	V
GSSD-R0601-PM1	01	33.35	L1+45.35	17	13	23.5	4	26	13	3.4	20	16
GSSD-R0601-PM2	01	45	L1+57	17	13	23.5	4	26	13	3.4	20	16
GSSD-R0601K-PM1	01	33.35	L1+45.35	14.5	11	21	3.5	23	11	3.4	17	14
GSSD-R0601K-PM2	01	45	L1+57	14.5	11	21	3.5	23	11	3.4	17	14
GSSD-R0602-PM1	02	33.35	L1+45.35	17	13	25	4	28	15	3.4	22	18
GSSD-R0602-PM2	02	45	L1+57	17	13	25	4	28	15	3.4	22	18
GSSD-R0602G-PM1	02	33.35	L1+45.35	17	13	-	4	29	15	3.4	23	17
GSSD-R0602G-PM2	02	45	L1+57	17	13	-	4	29	15	3.4	23	17
GSSD-R0606-PM1	06	33.35	L1+45.35	17	8	-	4	27	14	3.4	21	16
GSSD-R0606-PM2	06	45	L1+57	17	8	-	4	27	14	3.4	21	16
GSSD-R0610-PM1	10	33.35	L1+45.35	23	11.5	-	4	27	14	3.4	21	16
GSSD-R0610-PM2	10	45	L1+57	23	11.5	-	4	27	14	3.4	21	16
L1以下尺寸为标准品												
85 / 105 / 145 / 185 / 225 / 265												

备注: G型螺母为2-φx

Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.02mm
Surface hardness 螺纹部表面硬度	Thread area HRC58~62
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油
Repeatability 重复精度 (参考)	±0.02mm

GSSD35-R

Shaft dia.(轴径) $\phi 8$



Housing: JST PHR-6
Terminal: JST SPH-002T-P0.5S
Wire: AWG 26

Pin No.	Colour 颜色		Description 定义
1	Black 黑		A+
3	Green 绿		A-
4	Red 红		B+
6	Blue 蓝		B-

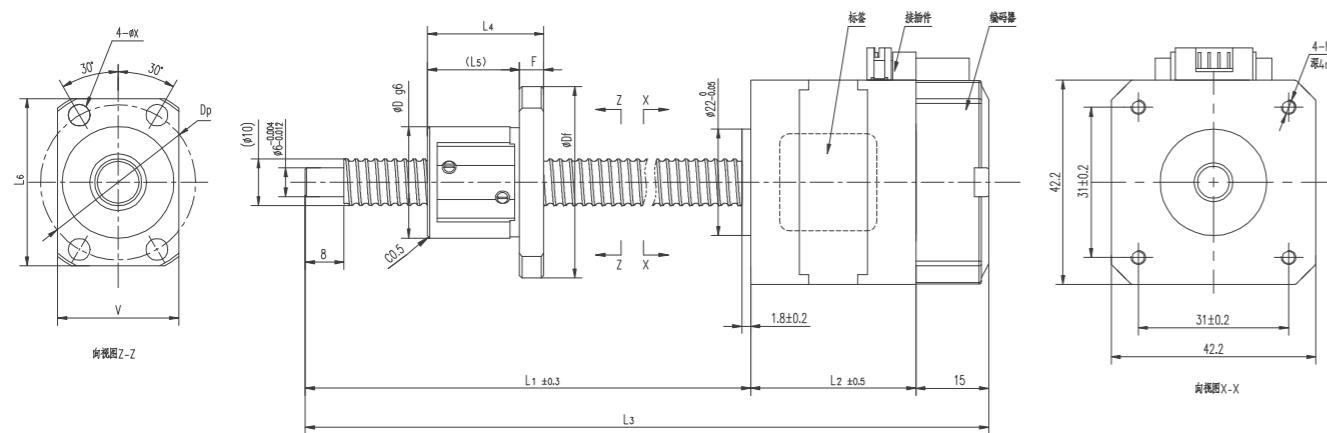
Pin No.	1	2	3	4	5	6	7	8	9
Description 定义	+5V	GND	EA+	EA-	Z+	Z-	PE	EB+	EB-

Model 样式	Lead 导程	L2	L3	L4	L5	L6	F	Df	D	X	Dp	V
GSSD35-R0801-PM1	01	33.6	L1+45.6	17	13	26.5	4	29	16	3.4	23	18
GSSD35-R0801-PM2	01	45.6	L1+57.6	17	13	26.5	4	29	16	3.4	23	18
GSSD35-R0801K-PM1	01	33.6	L1+45.6	15	11	24	4	26	13	3.4	20	17
GSSD35-R0801K-PM2	01	45.6	L1+57.6	15	11	24	4	26	13	3.4	20	17
GSSD35-R0802-PM1	02	33.6	L1+45.6	24	19	-	5	37	20	3.4	29	22
GSSD35-R0802-PM2	02	45.6	L1+57.6	24	19	-	5	37	20	3.4	29	22
GSSD35-R0805-PM1	05	33.6	L1+45.6	28	24	-	4	31	18	3.4	25	20
GSSD35-R0805-PM2	05	45.6	L1+57.6	28	24	-	4	31	18	3.4	25	20
GSSD35-R0808-PM1	08	33.6	L1+45.6	20	10	-	4	31	18	3.4	25	20
GSSD35-R0808-PM2	08	45.6	L1+57.6	20	10	-	4	31	18	3.4	25	20
GSSD35-R0810-PM1	10	33.6	L1+45.6	24	13	-	4	31	18	3.4	25	20
GSSD35-R0810-PM2	10	45.6	L1+57.6	24	13	-	4	31	18	3.4	25	20
L1以下尺寸为标准品												
98 / 123 / 148 / 173 / 198 / 223 / 248 / 273 / 323												

Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.02mm
Surface hardness 螺纹部表面硬度	Thread area HRC58~62
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油
Repeatability 重复精度 (参考)	±0.02mm

Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.02mm
Surface hardness 螺纹部表面硬度	Thread area HRC58~62
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油
Repeatability 重复精度 (参考)	±0.02mm

GSSD42-R

Shaft dia.(轴径) ϕ 10

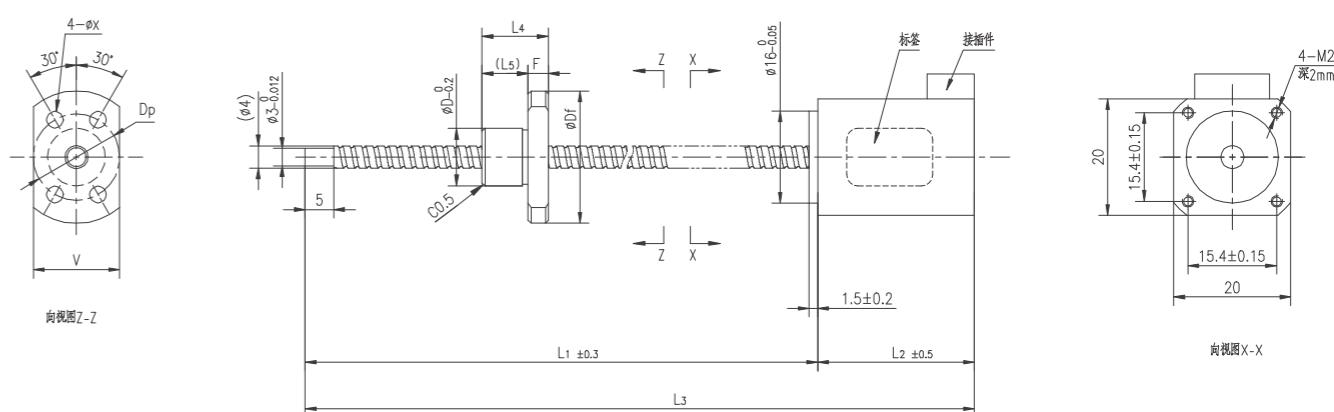
		Pin No.		Colour 颜色		Description 定义	
1		1		Black 黑		A+	
6		3		Green 绿		A-	
		4		Red 红		B+	
		6		Blue 蓝		B-	

Housing: JST PHR-6
Terminal: JST SHP-002T-P0.5S
Wire: AWG 26

Model 样式	Lead 导程	L2	L3	L4	L5	L6	F	Df	D	X	Dp	V
GSSD42-R1002-PM1	02	34.1	L1+49.1	24	19	-	5	39.5	23	4.5	32	25
GSSD42-R1002-PM2	02	48.1	L1+63.1	24	19	-	5	39.5	23	4.5	32	25
GSSD42-R1002K-PM1	02	34.1	L1+49.1	19	14	31	5	34	17	4.5	26	21
GSSD42-R1002K-PM2	02	48.1	L1+63.1	19	14	31	5	34	17	4.5	26	21
GSSD42-R1005-PM1	05	34.1	L1+49.1	26	21	-	5	40	23	4.5	32	25
GSSD42-R1005-PM2	05	48.1	L1+63.1	26	21	-	5	40	23	4.5	32	25
GSSD42-R1010-PM1	10	34.1	L1+49.1	24	13	-	5	40	23	4.5	32	25
GSSD42-R1010-PM2	10	48.1	L1+63.1	24	13	-	5	40	23	4.5	32	25
GSSD42-R1015-PM1	15	34.1	L1+49.1	33	22	-	5	40	23	4.5	32	25
GSSD42-R1015-PM2	15	48.1	L1+63.1	33	22	-	5	40	23	4.5	32	25
GSSD42-R1020-PM1	20	34.1	L1+49.1	23	13	-	5	37	20	4.5	29	22
GSSD42-R1020-PM2	20	48.1	L1+63.1	23	13	-	5	37	20	4.5	29	22
L1以下尺寸为标准品												
152 / 202 / 252 / 202 / 352												

Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.02mm
Surface hardness 螺纹部表面硬度	Thread area HRC58~62
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油
Repeatability 重复精度 (参考)	±0.02mm

GSSD20-Re

Shaft dia.(轴径) ϕ 4

		Pin No.		Colour 颜色		Description 定义	
1		1		Red 红		A+	
6		3		Red/White 红白		A-	
		4		Green 绿		B+	
		6		Green/White 绿白		B-	

Housing: JST ZHR-6
Terminal: JST SZH-002T-P0.5S
Wire: AWG 28

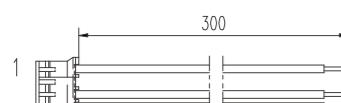
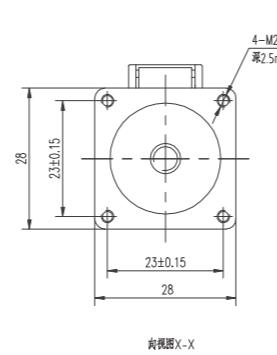
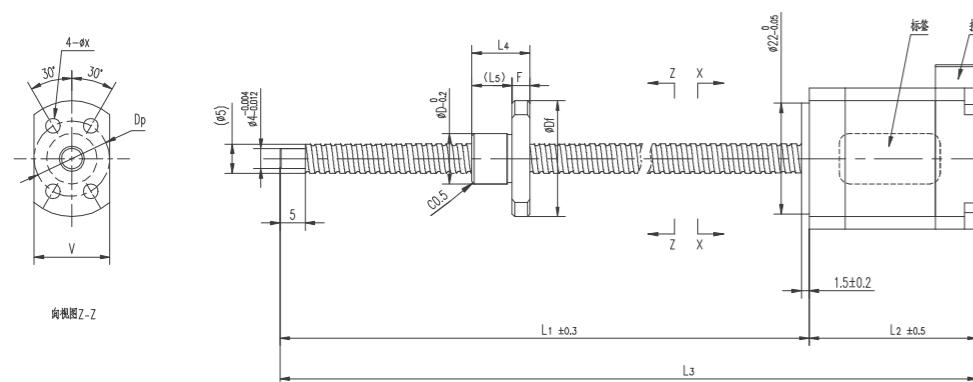
Model 样式	Lead 导程	L2	L3	L4	L5	F	Df	D	X	Dp	V
GSSD20-Re0401-PM1	01	20	L1+20	11.5	8	3.5	23	10	2.9	15	15
GSSD20-Re0401-PM2	01	27.2	L1+27.2	11.5	8	3.5	23	10	2.9	15	15
GSSD20-Re0402-PM1	02	20	L1+20	11.5	8	3.5	23	10	2.9	15	15
GSSD20-Re0402-PM2	02	27.2	L1+27.2	11.5	8	3.5	23	10	2.9	15	15
L1以下尺寸为标准品											
64 / 89 / 99 / 129 / 149 / 189											

Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.07mm
Operating temperature 适用温度范围	-10°C~50°C
Repeatability 重复精度 (参考)	±0.05mm

Sliding Specifications 主要技术参数	
Motor model 马达类型	08E2004 08E2105
Motor code 马达代号	PM1 PM2
Step angel 步距角	1.8°
Rated voltage 额定电压	3.52V 2.55V
Rated current 额定电流	0.4A 0.5A
Resistance/phase 相阻抗	2.8Ω 5.1Ω
Inductance/phase 相电感	2.8mH 1.5mH
Holding torque 静止扭矩	0.003N.M 0.0036N.M
Motor weight 马达重量	60g 80g
Operating temperature 适用温度范围	-10°C~50°C

GSSD28-Re

Shaft dia.(轴径) $\phi 5$



Housing: JST ZHR-6
Terminal: JST SZH-002T-P0.5S
Wire: AWG 28

Pin No.	Colour 颜色	Description 定义
1	Red 红	A+
3	Red/White 红白	A-
4	Green 绿	B+
6	Green/White 绿白	B-

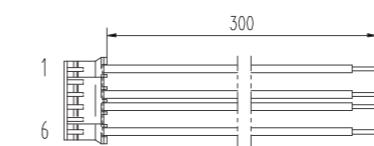
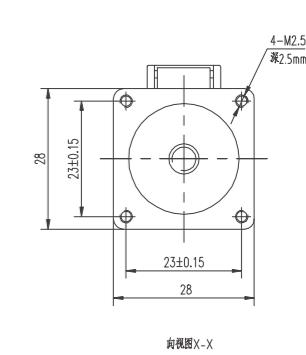
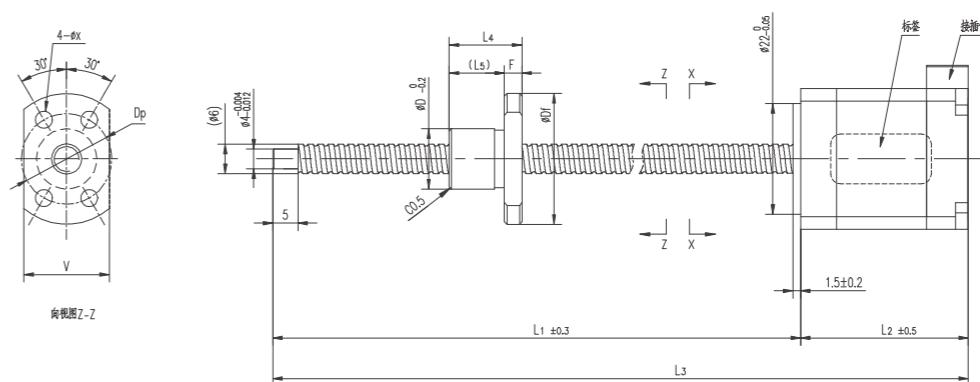
Model 样式	Lead 导程	L2	L3	L4	L5	F	Df	D	X	Dp	V
GSSD28-Re0504-PM1	04	33.35	L1+33.35	11.5	8	3.5	23	10	2.9	15	15
GSSD28-Re0504-PM2	04	45	L1+45	11.5	8	3.5	23	10	2.9	15	15
L1以下尺寸为标准品 85 / 105 / 145 / 185 / 225 / 265											

Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.07mm
Repeatability 重复精度 (参考)	±0.05mm

Sliding Specifications 主要技术参数	
Motor model 马达类型	11E2110 11E2216
Motor code 马达代号	PM1 PM2
Step angel 步距角	1.8°
Rated voltage 额定电压	2.1V 2.4V
Rated current 额定电流	1A 1.6A
Resistance/phase 相阻抗	2.1Ω 1.5Ω
Inductance/phase 相电感	1.5mH 1.36mH
Holding torque 静止扭矩	0.036N.M 0.052N.M
Rotor inertia 转子惯量	7.2g.cm² 12g.cm²
Motor weight 马达重量	180g 200g
Operating temperature 适用温度范围	-10°C~50°C

GSSD28-Re

Shaft dia.(轴径) $\phi 6$



Housing: JST ZHR-6
Terminal: JST SZH-002T-P0.5S
Wire: AWG 28

Pin No.	Colour 颜色	Description 定义
1	Red 红	A+
3	Red/White 红白	A-
4	Green 绿	B+
6	Green/White 绿白	B-

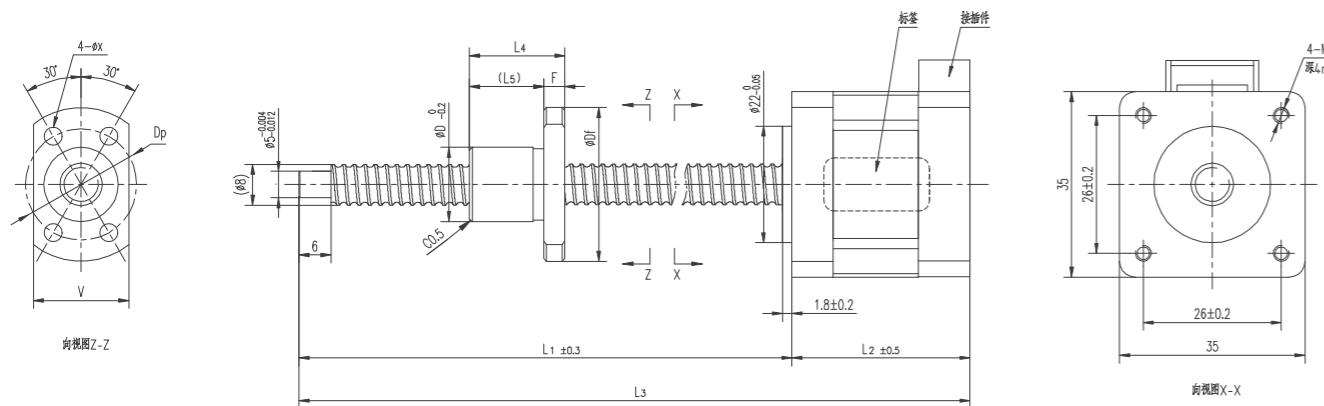
Model 样式	Lead 导程	L2	L3	L4	L5	F	Df	D	X	Dp	V
GSSD28-Re0601-PM1	01	33.35	L1+33.35	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0601-PM2	01	45	L1+45	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0602-PM1	02	33.35	L1+33.35	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0602-PM2	02	45	L1+45	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0606-PM1	06	33.35	L1+33.35	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0606-PM2	06	45	L1+45	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0610-PM1	10	33.35	L1+33.35	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0610-PM2	10	45	L1+45	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0618-PM1	18	33.35	L1+33.35	14.5	11	3.5	26	12	3.4	18	17
GSSD28-Re0618-PM2	18	45	L1+45	14.5	11	3.5	26	12	3.4	18	17
L1以下尺寸为标准品 85 / 105 / 145 / 185 / 225 / 265											

Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.07mm
Repeatability 重复精度 (参考)	±0.05mm

Sliding Specifications 主要技术参数	
Motor model 马达类型	11E2110 11E2216
Motor code 马达代号	PM1 PM2
Step angel 步距角	1.8°
Rated voltage 额定电压	2.1V 2.4V
Rated current 额定电流	1A 1.6A
Resistance/phase 相阻抗	2.1Ω 1.5Ω
Inductance/phase 相电感	1.5mH 1.36mH
Holding torque 静止扭矩	0.036N.M 0.052N.M
Rotor inertia 转子惯量	7.2g.cm² 12g.cm²
Motor weight 马达重量	180g 200g
Operating temperature 适用温度范围	-10°C~50°C

GSSD35-Re

Shaft dia.(轴径) $\phi 8$



Housing: JST PHR-6
Terminal: JST SPH-002T-P0.5S
Wire: AWG 26

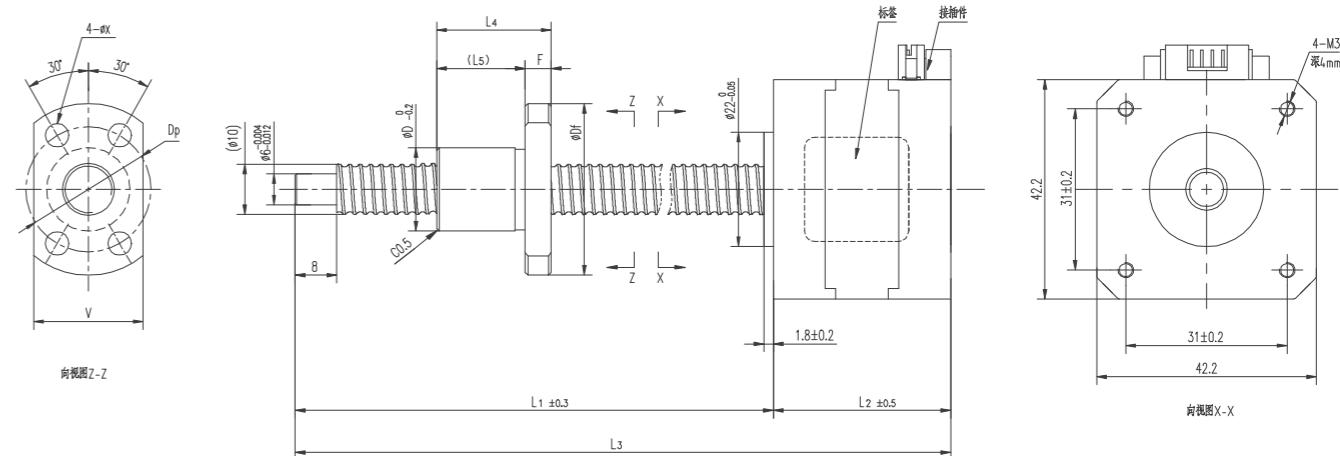
Pin No.	Colour 颜色	Description 定义
1	Black 黑	A+
3	Green 绿	A-
4	Red 红	B+
6	Blue 蓝	B-

Model 样式	Lead 导程	L2	L3	L4	L5	F	Df	D	X	Dp	V
GSSD35-Re0801-PM1	01	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0801-PM2	01	45.6	L1+45.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0802-PM1	02	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0802-PM2	02	45.6	L1+45.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0803-PM1	03	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0803-PM2	03	45.6	L1+45.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0805-PM1	05	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0805-PM2	05	45.6	L1+45.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0808-PM1	08	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0808-PM2	08	45.6	L1+45.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0810-PM1	10	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0810-PM2	10	45.6	L1+45.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0812-PM1	12	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0812-PM2	12	45.6	L1+45.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0818-PM1	18	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0818-PM2	18	45.6	L1+45.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0824-PM1	24	33.6	L1+33.6	18	14	4	29	14	3.4	21	18
GSSD35-Re0824-PM2	24	45.6	L1+45.6	18	14	4	29	14	3.4	21	18

L1以下尺寸为标准品 98 / 123 / 148 / 173 / 198 / 223 / 248 / 273 / 323 / 373

GSSD42-Re

Shaft dia.(轴径) $\phi 10$



Pin No.	Colour 颜色	Description 定义
1	Black 黑	A+
3	Green 绿	A-
4	Red 红	B+
6	Blue 蓝	B-

Ball Screw Specifications	主要技术参数
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.07mm
Repeatability 重复精度	±0.05mm

Ball Screw Specifications	主要技术参数
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.07mm
Repeatability 重复精度	±0.05mm

Sliding Specifications 主要技术参数		
Motor model 马达类型	14E2110	14E2215
Motor code 马达代号	PM1	PM2
Step angel 步距角	1.8°	
Rated voltage 额定电压	3.5V	4.05V
Rated current 额定电流	1A	1.5A
Resistance/phase 相阻抗	3.5Ω	2.7Ω
Inductance/phase 相电感	3.6mH	3.2mH
Holding torque 静止扭矩	0.06N.M	0.1N.M
Rotor inertia 转子惯量	21g.cm²	32g.cm²
Motor weight 马达重量	200g	250g
Operating temperature 适用温度范围	-10°C~50°C	

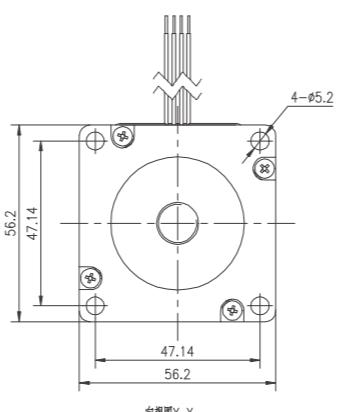
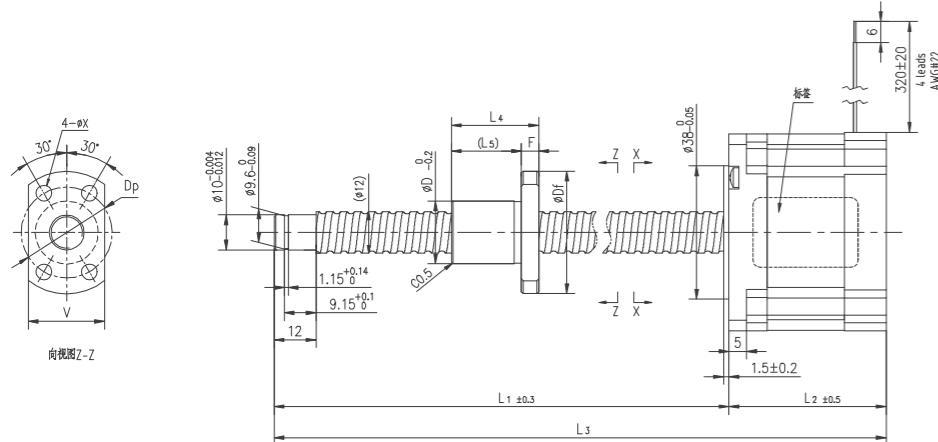
Model 样式	Lead 导程	L2	L3	L4	L5	F	Df	D	X	Dp	V
GSSD42-Re1001-PM1	01	34.1	L1+34.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1001-PM2	01	48.1	L1+48.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1002-PM1	02	34.1	L1+34.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1002-PM2	02	48.1	L1+48.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1004-PM1	04	34.1	L1+34.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1004-PM2	04	48.1	L1+48.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1005-PM1	05	34.1	L1+34.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1005-PM2	05	48.1	L1+48.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1010-PM1	10	34.1	L1+34.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1010-PM2	10	48.1	L1+48.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1015-PM1	15	34.1	L1+34.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1015-PM2	15	48.1	L1+48.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1020-PM1	20	34.1	L1+34.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1020-PM2	20	48.1	L1+48.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1030-PM1	30	34.1	L1+34.1	22	17	5	33	16	4.5	24	21
GSSD42-Re1030-PM2	30	48.1	L1+48.1	22	17	5	33	16	4.5	24	21

L1以下尺寸为标准品 152 / 202 / 252 / 202 / 352

Sliding Specifications 主要技术参数		
Motor model 马达类型	17E2115	17E3225
Motor code 马达代号	PM1	PM2
Step angel 步距角	1.8°	
Rated voltage 额定电压	2.8V	2.25V
Rated current 额定电流	1.5A	2.5A
Resistance/phase 相阻抗	1.85Ω	0.9Ω
Inductance/phase 相电感	2.2mH	1.8mH
Holding torque 静		

GSSD57-Re

Shaft dia.(轴径) $\phi 12$



Model 样式	Lead 导程	L2	L3	L4	L5	F	Df	D	X	Dp	V
GSSD57-Re1202-PM1	02	45	L1+45	25	20	5	35	18	4.5	26	22
GSSD57-Re1202-PM2	02	65	L1+65	25	20	5	35	18	4.5	26	22
GSSD57-Re1204-PM1	04	45	L1+45	25	20	5	35	18	4.5	26	22
GSSD57-Re1204-PM2	04	65	L1+65	25	20	5	35	18	4.5	26	22
GSSD57-Re1205-PM1	05	45	L1+45	25	20	5	35	18	4.5	26	22
GSSD57-Re1205-PM2	05	65	L1+65	25	20	5	35	18	4.5	26	22
GSSD57-Re1210-PM1	10	45	L1+45	25	20	5	35	18	4.5	26	22
GSSD57-Re1210-PM2	10	65	L1+65	25	20	5	35	18	4.5	26	22
GSSD57-Re1220-PM1	20	45	L1+45	25	20	5	35	18	4.5	26	22
GSSD57-Re1220-PM2	20	65	L1+65	25	20	5	35	18	4.5	26	22
GSSD57-Re1230-PM1	30	45	L1+45	25	20	5	35	18	4.5	26	22
GSSD57-Re1230-PM2	30	65	L1+65	25	20	5	35	18	4.5	26	22
GSSD57-Re1236-PM1	36	45	L1+45	25	20	5	35	18	4.5	26	22
GSSD57-Re1236-PM2	36	65	L1+65	25	20	5	35	18	4.5	26	22

Ball Screw Specifications 主要技术参数	
Accuracy grade 精度等级	Ct7
Thread direction 螺纹方向	Right 右旋
Axial play 轴向间隙	Max 0.07mm
Repeatability 重复精度 (参考)	±0.05mm

Pin No.	Colour 颜色	Description 定义
1	Red 红	A+
3	Red/White 红白	A-
4	Green 绿	B+
6	Green/White 绿白	B-

Sliding Specifications 主要技术参数	
Motor model 马达类型	23E2110 23E2225
Motor code 马达代号	PM1 PM2
Step angel 步距角	1.8°
Rated voltage 额定电压	6.4V 5.0V
Rated current 额定电流	1.0A 2.5A
Resistance/phase 相阻抗	6.4Ω 2.0Ω
Inductance/phase 相电感	1.65mH 5.2mH
Holding torque 静止扭矩	0.7N.M 1.5N.M
Rotor inertia 转子惯量	147g.cm² 281g.cm²
Motor weight 马达重量	585g 880g
Operating temperature 适用温度范围	-10°C~50°C

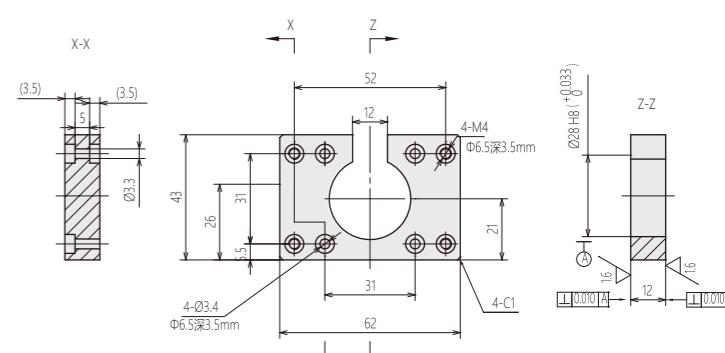
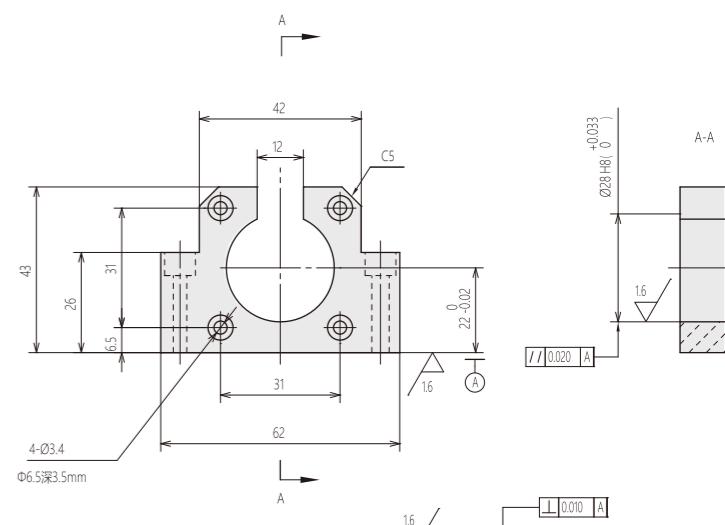
配件相关

ACCESSORIES RELATED

● 马达侧支架板 Motor side support plate

A-type:MP-42A

Material 材质	Aluminumalloy 铝
Surface coating 表面处理	Black anodizing 黑色耐酸铝



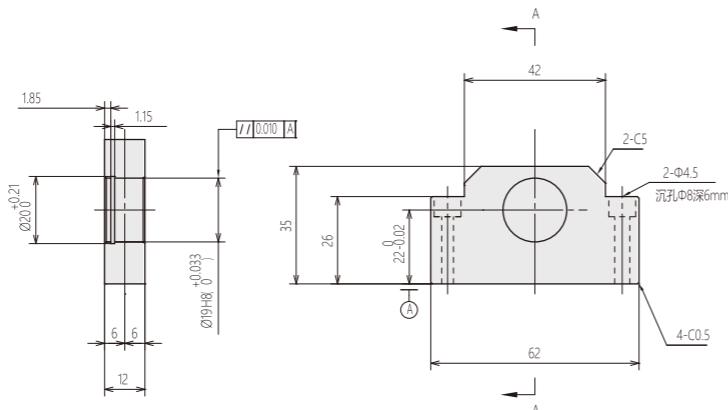
配线图

WIRING DIAGRAM

● 支撑侧专用托架 Special bracket on support side

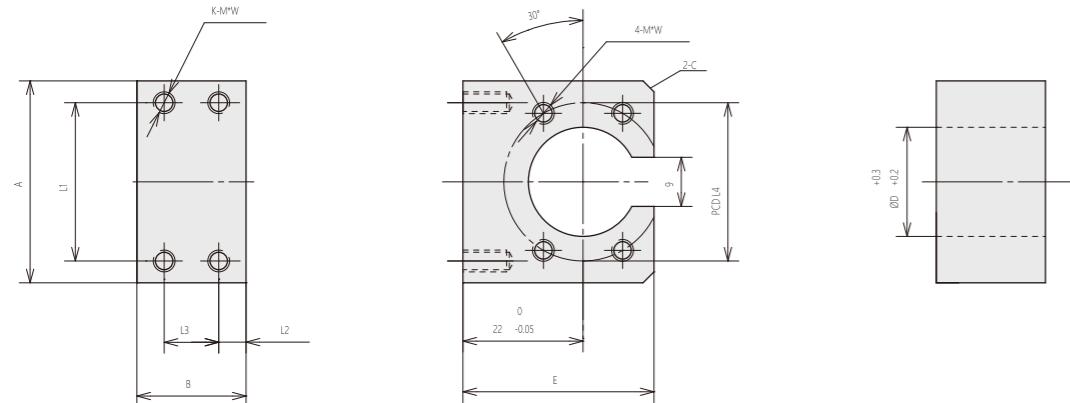
SP-42S (孔用止动环)

Material 材质	Aluminumalloy A5052 铝 A5052
Surface coating 表面处理	Black anodizing 黑色耐酸铝

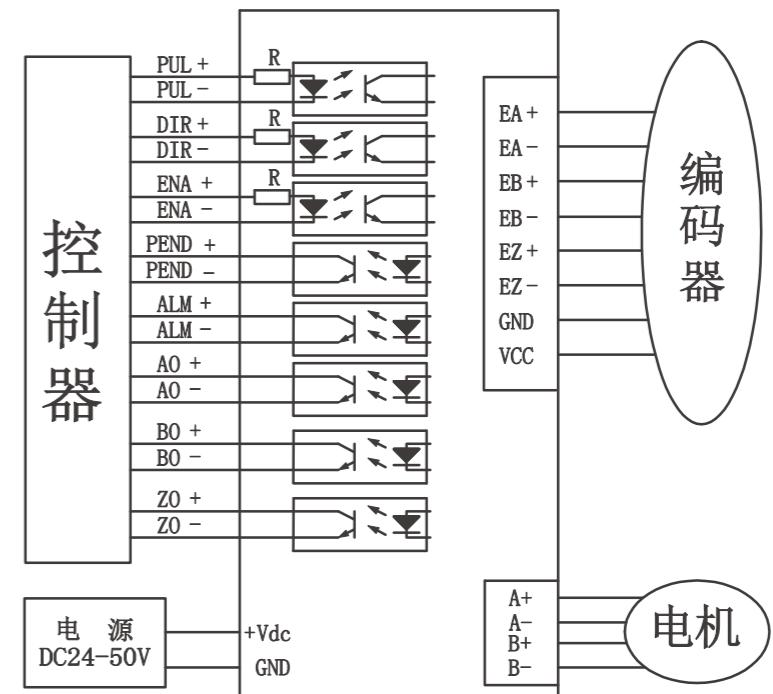


● 支撑侧专用托架有轴承 (626ZZ) 及孔用止动环附属。如果需要对轴承进行轴用止动环槽的追加加工时，本公司可以提供定制服务。

● 螺母块 Nut block

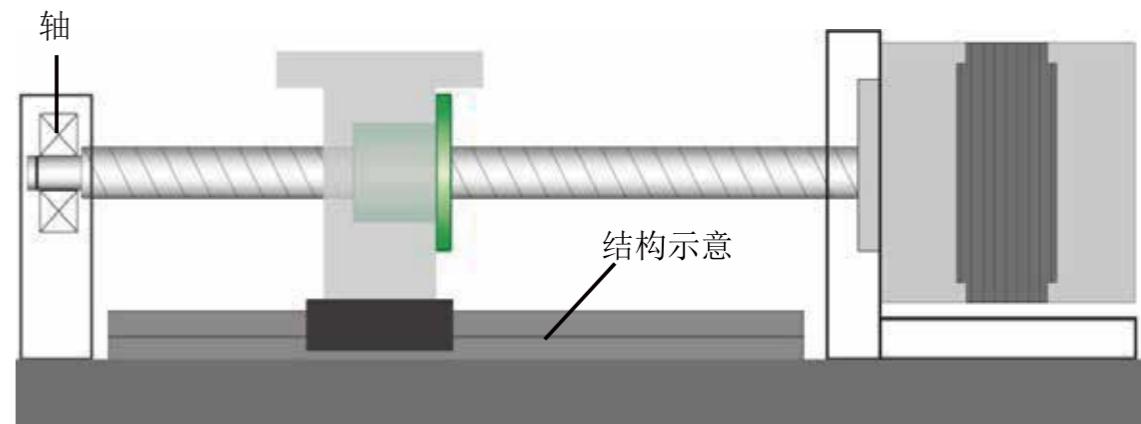


Model型式	A	B	E	D	L1	L2	L3	PCD	K	M*W	C
NB-0801R	29	14	33	16	23	7	-	23	2	M3*6	4
NB-0802R	37	20	35	20	29	5	10	29	4	M4*8	5
NB-0805R	31	25	34	18	25	4	17	25	4	M3*6	5
NB-0812R	31	18	34	18	25	4	10	25	4	M3*6	5



安装注意

INSTALLATION NOTES



● External执行器不是旋转停止结构。使用时需要设置外部旋转停止结构。（参照上图）轴端请务必用轴承支撑。

操作、使用注意事项

PRECAUTIONS FOR OPERATION AND USE

本产品是电机轴与丝杆轴一体型结构，因此无论是丝杆轴还是电机轴任意一方损坏，都不能维修。敬请了解。

This product is an integral structure of motor shaft and screw shaft, so no matter the screw shaft or motor shaft is damaged, it cannot be repaired.
Please understand.

使用上注意

- 使用时请仔细阅读使用说明书，充分理解说明书内容，并务必严格遵守安全注意事项。
- 敲击本产品、将产品掉落或对其施加超过规定值的轴向负载、径向负载，将会导致产品损坏，请谨慎操作。
- 开封后请检查产品是否有异常，是否与所订购的产品一致。
- 若分解各部位，可能会导致异物进入及各部位组装精度降低，因此请勿分解本产品。
- 若异物进入，将会导致滚珠循环部位损坏、缩短产品寿命或导致功能失效等，因此请确实防止垃圾、切削粉末等异物的进入。
- 使用滚珠丝杆时，请务必涂抹润滑剂。在常规使用时，请每2~3个月检查一次油脂，并补充油。
使用过程中油脂变脏时，请擦去旧的油脂后涂抹新的指定油脂。
- 请勿在超过本公司规定的负载、容许转速等规格值的条件下使用。
- 加减速速率，请以20ms/kHz以上为目标进行使用。
- 请勿拉扯电机导线。另外电机导线用于固定。请勿将其用于活动用途。
- 请勿靠近磁性存储媒体。
- 负载条件及使用驱动器不同，电机转矩速率的规格值也将不同。

Attention to Use

- Please read the operation manual carefully, fully understand the contents of the manual, and strictly observe the safety precautions.
- Knock the product, drop the product or apply axial load or radial load exceeding the specified value to it, which will cause damage to the product. Please operate carefully.
- After opening, please check whether the product is abnormal and consistent with the ordered product.
- If the parts are disassembled, foreign matters may enter and the assembly accuracy of each part may be reduced. Therefore, do not disassemble this product.
- If foreign matters enter, it will damage the ball circulation part, shorten the product life or cause the function failure, etc., so please do prevent the entry of garbage, cutting powder and other foreign matters.
- When using the ball screw, be sure to apply lubricant. In normal use, please check the grease every 2-3 months and add oil.
When the grease becomes dirty during use, please wipe off the old grease and apply new specified grease.
- Do not use under the condition that the load, allowable speed and other specifications specified by the company are exceeded.
- Acceleration and deceleration rate, please use the target of more than 20ms / kHz.
- Do not pull the motor lead. In addition, the motor wire is used for fixing. Do not use it for activities.
- Keep away from magnetic storage media.
- The specification value of motor torque rate will be different with different load conditions and different drivers.

安全注意事项

- 发生异味、异常声音、冒烟、异常发热、振动等时，请立即停止运行，切断电源。
- 使用电流不能超过额定电流。
- 电机可能因负载条件及使用的驱动器而异常发热。
使用时，请将电机表面温度控制在80°C以下。
- 请确认接线方式、驱动方式以及相序。
错误接线将会导致电机异常动作。
- 请务必进行接地。
- 请勿强行弯曲、拉扯、夹住电机导线。
- 动作中请勿触摸活动部位。
- 维护检查前，请切断驱动器的输入电源。

Safety Precautions

- In case of peculiar smell, abnormal sound, smoke, abnormal heat, vibration, etc., please stop the operation immediately and cut off the power supply.
- The current used shall not exceed the rated current.
- The motor may overheat abnormally due to the load conditions and the driver used.
When using, please control the motor surface temperature below 80 °C.
- Please confirm the wiring mode, driving mode and phase sequence. Wrong wiring will lead to abnormal operation of the motor.
- Be sure to ground.
- Do not bend, pull or clamp the motor wire by force.
- Do not touch the moving parts during the action.
- Before maintenance check, please cut off the input power of the drive.

使用环境

- 请勿在环境温度超过温度0~40、环境湿度超过20~80%RH、有结露、腐蚀性气体、易燃气体的场所使用。
- 请勿在产生强电场、强磁场的场所使用。
- 请勿在有铁粉等粉体、尘埃、油污、切削液、水分、盐分、有机溶剂发生或飞散的场所使用。
- 请勿在经常发生振动的场所以及有冲击、真空等特殊环境下使用。

Use Environment

- Do not use in places where the ambient temperature exceeds 0~40, the ambient humidity exceeds 20~80% RH, condensation, corrosive gas and flammable gas are present.
- Do not use in places where strong electric and magnetic fields are generated.
- Do not use it in places where iron powder, dust, oil, cutting fluid, moisture, salt and organic solvent occur or disperse.
- Do not use it in places where vibration often occurs or in special environments such as shock and vacuum.

MEMO

序言

OUTLINE

SJ推出了最适合微型滚珠丝杠轴端的支架组件系列产品。特别是MSU系列（紧凑型），在以往的支架组件的基础上大幅度减轻了重量，实现了小型化。所有产品均设计为可以安装到SJ滚珠丝杠的标准形状轴端上。请务必与滚珠丝杠配合使用。

SJ provides the customer with suitable Support Units for end journal of Miniature Ball Screws. Especially, MSU series, which is called Compact type, has feature of light weight & compact compared to existing series. All of our Support Units fit the standard end journal profile of SJ Ball Screws. Please try and use them as well as Ball Screws.

◆ 系列与分类 Series Classification

各系列均备有固定侧组件和支撑侧组件。

Each series can provide both of fixed-side and supported-side Support Units.



MSU系列 MSU Series

与以往产品相比，重量减轻50%以上
Light weight (more than 50% down)



与本公司产品相比 Comparison to our current model

紧凑型支架组件
Compact Support Units

以往产品 Current type

紧凑型支架 Compact Support Units

在以往支架组件的基础上最大限度地减小外形尺寸，实现了轻量小型化，最适合于微型滚珠丝杠。

This type of Support Unit has features of light-weight & compact profile compared to our conventional Support Units. SJ believes this type is suitable for Miniature Ball Screws.

◆ 特点

- 去除了以往产品中累赘的部分，最大限度缩小了安装孔距，重量更轻、外形更紧凑。
- 安装有进行了预压管理的微型角接触球轴承，确保了轴向的高刚性。
- 角接触球轴承采用双封闭型，防尘性能佳、零件数量少，大大降低了成本。
- 轴承采用不锈钢材质，封入有低起尘润滑脂，也可在无尘环境中使用。
- 系列中新增加超小尺寸（f3）产品，推出超小型滚珠丝杠的支架组件。
- 将枕型和法兰型两种（固定侧、支撑侧）产品标准化，扩大了用户的选择范围。

◆ Features

- By eliminating extra shape of Housing, and minimizing pitch of mounting holes, light-weight & compact design Support Units became reality.
- Pre-load controlled Angular Contact Bearings are installed, so Rigidity can be kept high.
- Reasonable price has been achieved with reducing number of components, because oil seals have been eliminated by using shielded type Angular Contact Bearings.
- Angular Contact Bearings are made from stainless steel and low contamination Grease is applied, so Support Units can be used in clean-environment.
- Ultra-compact size (f3) is standardized, it would be suitable for Ultra Miniature Ball Screws.
- Pillow & Flange type are standardized for both fixed & supported side, so wide variety of choices are available.

◆ 种类 Variation

紧凑型支架组件（MSU系列）备有枕型和法兰型两种类型，可满足用户不同的安装状态。两种类型的固定侧、支撑侧组件均已实现标准化。枕型产品与以往产品相比，重量大幅度减轻，外形更紧凑。以往产品（块型）也在继续销售。

Compact Support Units (MSU series) provide 2 choices of Housing type, which are Pillow type and Flange type. Fixed side and supported side Units are standardized for each type. In case of Pillow type, it became light-weight & more compact compared to our conventional type. Our conventional models, which are Block type Support Units, are still available.

枕型 Pillow type



法兰型 Flange type



◆ 规格 Specifications

紧凑型支架组件（MSU系列）中安装的角接触球轴承使用不锈钢材质，封入有低起尘润滑脂。其他零件也采用不锈钢材质、或经过了发黑处理，也可应用于无尘环境。还可提供轴承钢（SUJ2）材质+封入了耐微动磨损润滑脂的产品，详情请向SJ咨询。

Angular Contact Bearings built in Compact Support Units (MSU series) are made from stainless steel and low contamination Grease is applied. Other components of Support Units are also made from stainless steel or are coated by black finishing. These series can be used in clean-environment.

MSU系列使用的轴承 Ball Bearings for MSU Series

角接触球轴承 Angular Contact Ball Bearings



用于紧凑型支架组件（MSU系列）固定侧的角接触球轴承。

根据用户需求，以轴承单体（组装好的状态）的形式销售。（参照G1-115—G1-116页）

This series is the Angular Contact Ball Bearings built in fixed side of Compact Support Units (MSU series).
This can be provided as a set of DF or DB configuration only. (Refer to dimension table in page G1-115—G1-116)

深沟球轴承 Deep Groove Bearings



用于紧凑型支架组件（MSU系列）支撑侧的深沟球轴承。

根据用户需求，以轴承单体的形式销售。
(参照G1-117—G1-118页)

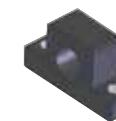
This series is the Deep Groove Ball Bearings built in supported side of Compact Support Units (MSU series).
This type can be provided as a Bearing itself.
(Refer to dimension table in page G1-117—G1-118)

EK、EF系列 EK, EF Series

固定侧
Fixed end



支撑侧
Supported end



◆ 特点

- 备有固定侧组件和支撑侧组件，固定侧组件中组装有角接触球轴承（已调整预压），通用性广；支撑侧组件中安装有深沟球轴承和止动环。
- 固定侧组件在两侧（单侧）内置有密封，因此在常规环境下无需采取特殊防尘措施。

◆ Features

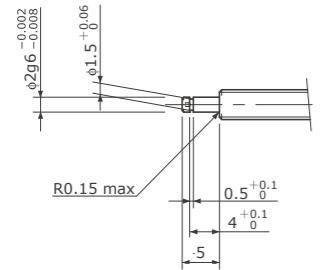
- Multi-use Angular Contact Ball Bearings (with pre-load) are built in Fixed side Support Units, and Deep Groove Bearing is attached in supported side Unit with stop ring.
- Fixed-side Support Unit has seals at both end (or one end), so special dust protection is not necessary under normal circumstance.

◆ 标准库存品 Standardized end-journal profile

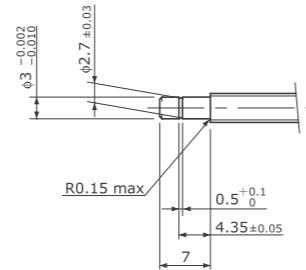
SJ支架组件均设计为可以安装到SJ微型滚珠丝杠的标准形状轴端上。SJ标准轴端形状及其对应的SJ支架组件的一览表如下所示。

SJ Support Units are designed to fit standard end-journal profile of SJ Miniature Ball Screws. Table below shows SJ Support Units list corresponding to standard end-journal profile.

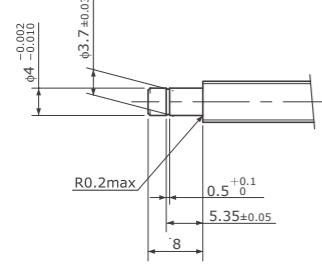
支撑侧 Supported side



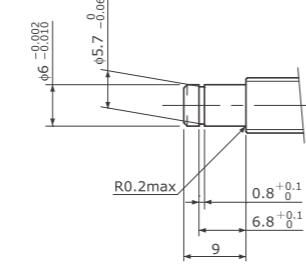
Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ2	MSU-3CS / MSU-3GS



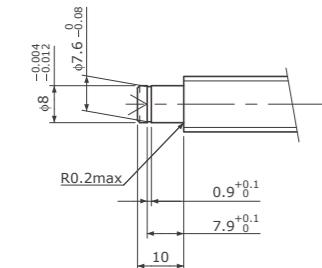
Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ3	MSU-4CS / MSU-4GS , SUP03-S



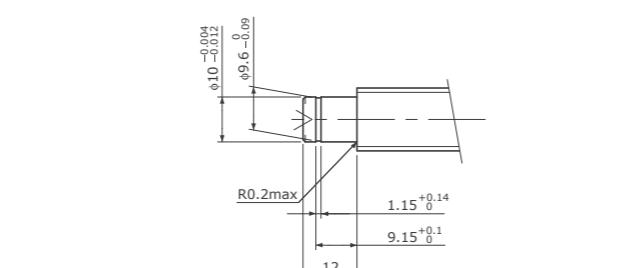
Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ4	MSU-5CS / MSU-5GS , SUP04-S



Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ6	MSU-6CS / MSU-6GS , EF6 MSU-8CS / MSU-8GS , EF8

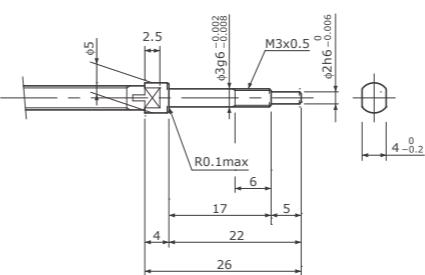


Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ8	EF10

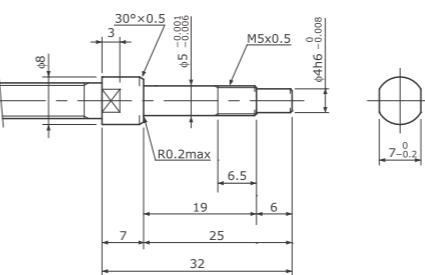


Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ10	EF12

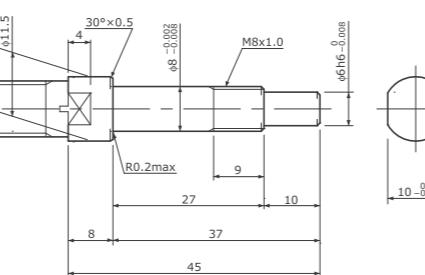
固定侧 Fixed side



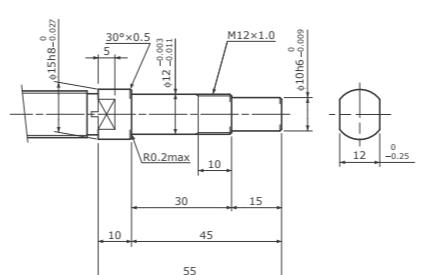
Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ3	MSU-3C / MSU-3G



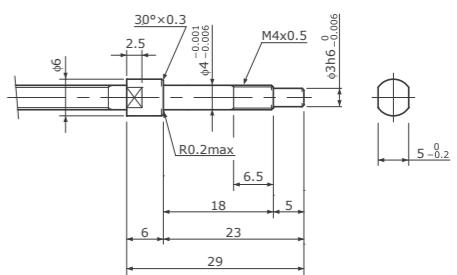
Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ5	MSU-5C / MSU-5G , EK5



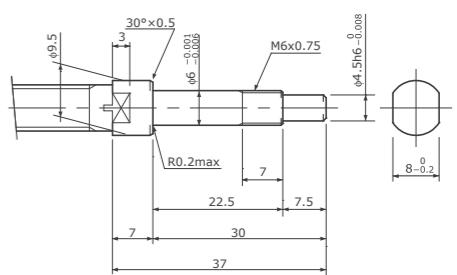
Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ8	MSU-8C / MSU-8G , EK8



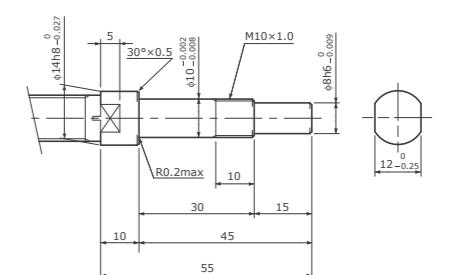
Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ12	EK12



Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ4	MSU-4C / MSU-4G , EK4



Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ6	MSU-6C / MSU-6G , EK6

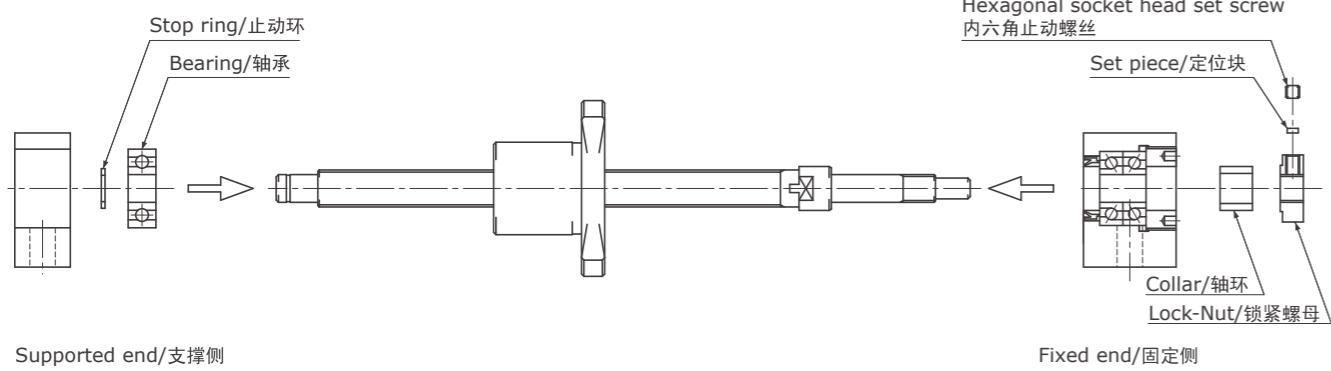


Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ10	EK10

◆ 安装步骤 Mounting procedure

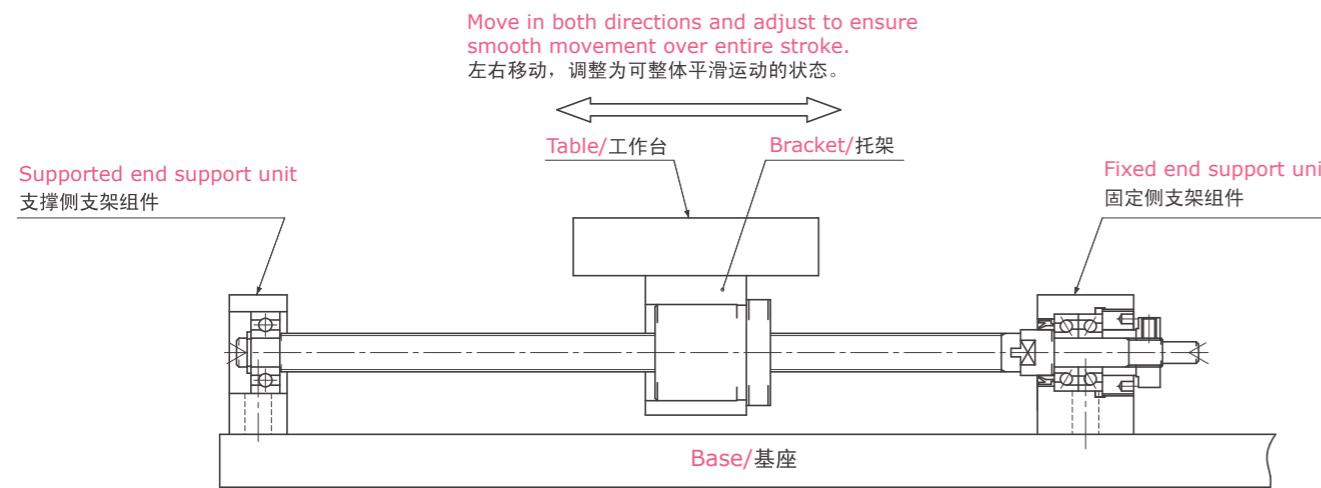
1.支架组件的组装

- 将固定侧支架组件组装在滚珠丝杠上。
 - 请勿拆分支架组件。
 - 将轴插入支架组件后，请用锁紧螺母进行紧固，避免定位块翘起。
- 插入固定侧支架组件后，用锁紧螺母进行紧固，并通过定位块、内六角止动螺丝进行固定。
- 组装支撑侧轴承，用止动环固定后装入外壳。



2.工作台和滚珠丝杠螺母的组装以及组件和基座的安装

- 将滚珠丝杠螺母插入工作台（使用托架时插入托架）后临时固定。
- 将固定侧支架组件临时固定到基座上。
 - 此时，请将工作台靠近支架组件侧进行定心，并将工作台调整到可平滑移动的状态。



1. Assembling Support Unit

- Mount the fixed end Support Unit onto the Ball Screw.
 - Do not disassemble the Support Unit.
 - Tighten the Lock-Nut after inserting the Shaft into the Support Unit, and make sure that the set piece is not allowed to curl.
- Tighten the Lock-Nut after inserting into the fixed end Support Unit, and secure using the set piece and hexagonal socket head set screw.
- Mount the supported end Bearing, secure with the stop ring, and fit into the Housing.

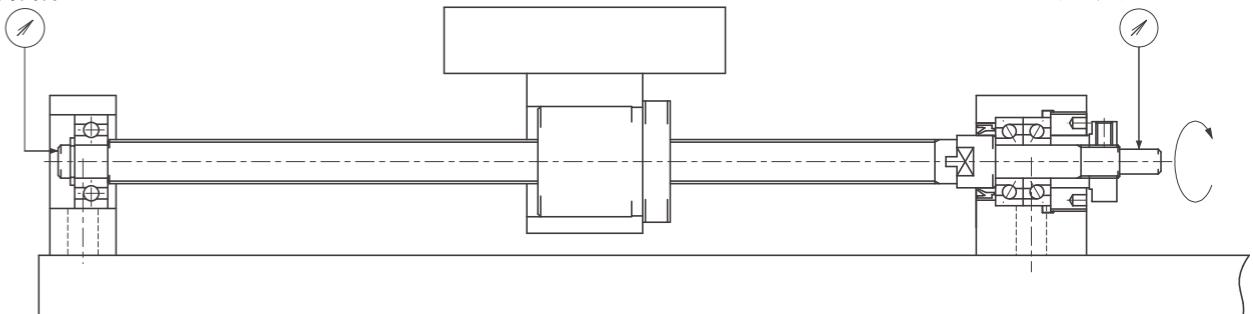
3.支撑侧外壳和基座的安装及精度确认

- 将工作台靠近支撑侧外壳并进行定心，然后使工作台往复运动，将其调整到整体可平滑运动的状态，然后临时固定到基座上。
- 通过千分表确认滚珠丝杠轴端的跳动、轴向间隙，同时切实紧固螺母、固定侧支架组件及支撑侧外壳。

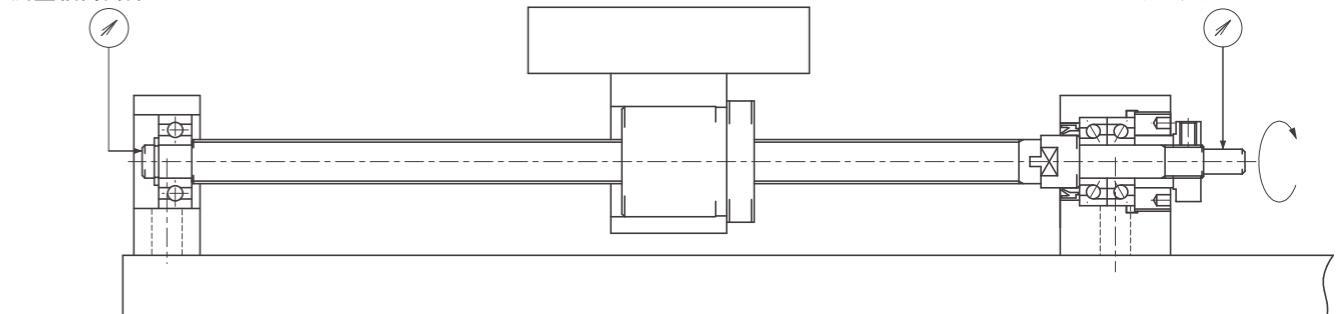
3. Installation and accuracy confirmation of support side shell and base

- Move the table toward the supported end Housing and center it. Move the table in both directions and adjust to ensure smooth movement over entire length. Secure loosely to the base.
- Check the Run-out and Axial gap at the Ball Screw Shaft end using a dial gauge, and fully tighten the Nut, fixed end Support Unit and supported end Housing.

Measure Axial gap 测量轴向间隙



Measure Run-out 测量跳动

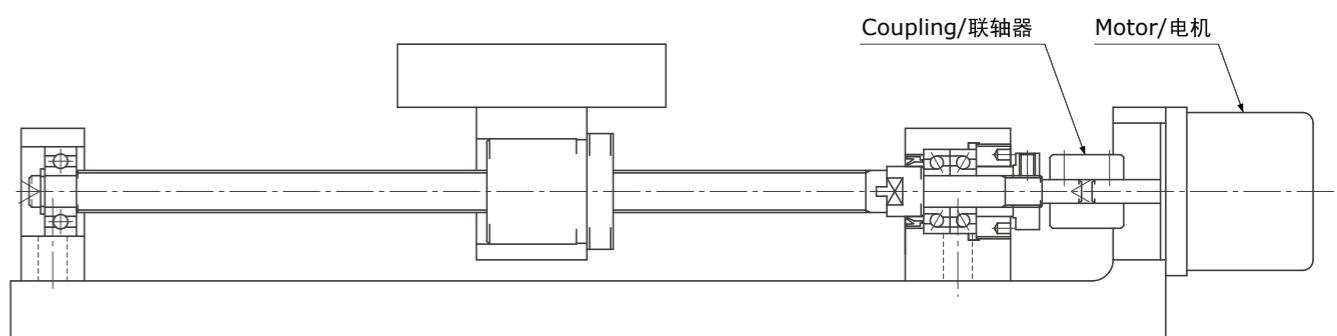


4.与电机的连接

- 将电机固定到主体上。
- 通过联轴器连接电机和滚珠丝杠。
- 请进行充分的磨合运行。

4. Connecting to the Motor

- Secure the Motor to the main Unit.
- Connect the Motor to the Ball Screw using the coupling.
- Run in thoroughly.

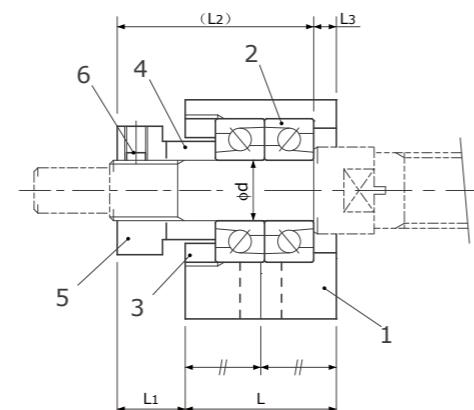
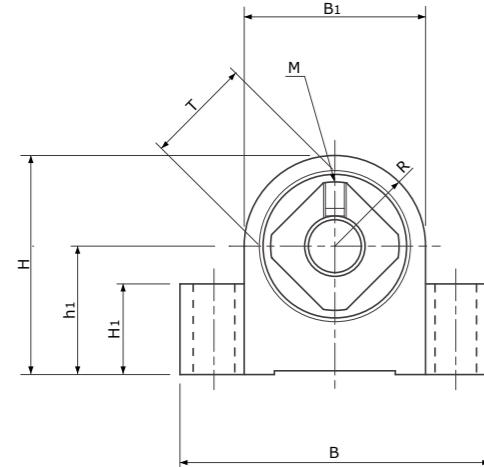
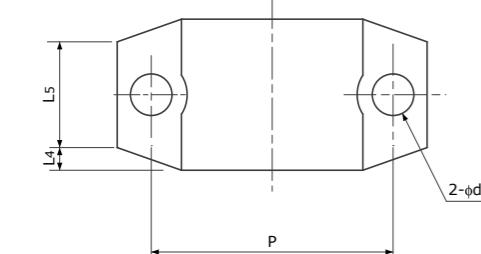


注) 上述内容为枕型、块型的安装步骤，法兰型也请按相同要领进行安装。

Note) Instruction above is for Pillow type and Block type Support Units, In case of Flange type Support Units, the same procedure can be applicable.

MSU系列

MSU SERIES



Type 型号	Brg. Inner dia. 轴承内径 d 0 -0.005	L	L ₁	L ₂	L ₃	L ₄	L ₅	B	H	h_1 0 -0.03	B ₁			H ₁	R	P	d ₁	M	T	Lock Nut 锁紧螺母	Tightening torque of Lock Nut 锁紧螺母的紧固扭矩 N·cm	Bearing 使用的轴承	Mass 重量 g	Type 型号
MSU-3C	3	12.5	5.5	16.5	1.5	2	8.5	24	14.5	9	11			5	5.5	18	3.5	M3	8	M3×0.5	80	MTA03-08HP5DF	16.5	MSU-3C
MSU-4C	4	14	5.5	17.5	2	2.5	9	27	17	10	14			6	7	21	3.5	M3	10	M4×0.5	100	MTA04-11HP5DF	27	MSU-4C
MSU-5C	5	15	5.5	18.5	2	2	11	30.5	19.5	11	17			6	8.5	23	4.5	M3	11	M5×0.5	140	MTA05-13HP5DF	35	MSU-5C
MSU-6C	6	17	7.5	22	2.5	2.5	12	35	22.5	13	19			8	9.5	26	5.5	M3	12	M6×0.75	190	MTA06-15HP5DF	50	MSU-6C
MSU-8C	8	20	9	26	3	3	14	41	29	17	24			12	12	32	5.5	M3	14	M8×1.0	200	MTA08-19HP5DF	96	MSU-8C

注1) 角接触球轴承 (ISC制) 采用不锈钢材质，并注入有低起尘润滑脂 (NSK LG2)，是无尘规格的轴承。

注2) 压紧螺母、轴环、锁紧螺母均经过了发黑处理。

注3) 支架组件已经过预压调整，请勿进行拆分。

Note 1) Angular Contact Ball Bearings (manufactured by ISC) are designed for clean room use, they are made of Stainless steel with low contamination grease (NSK LG2) packed.

Note 2) Pressure Nut, Collar and Lock Nut are coated with Black finishing.

Note 3) Do not disassemble Support Unit, as they are pre-loaded and pre-adjusted.

枕型 (固定侧)

PILLOW TYPE (FIXED SIDE)

● 公称型号的构成 Model number notation

MSU — 5 C S
 1 2 3 4

- 1 系列符号
MSU: SJ紧凑型支架组件系列
2 公称型号
3 形状符号
C: 枕型
G: 法兰型
4 轴端符号
无符号: 固定侧
S: 支撑侧

- 1 Series symbols
MSU : SJ Compact Support Unit Series
2 Nominal number
3 Housing type
C: Pillow type
G: Flange type
4 End-journal type
None: fixed side
S: supported side

注) 支撑侧支架组件的公称型号可能与轴承内径不一致, 敬请注意。

Note) In some cases, nominal number is not the same as Bearing Inner diameter.

零件表 Parts List

Part No. 零件号	Part name 零件名称	Qty 数量
1	Housing / 外壳 (Black Chrome coating / 黑铬处理)	1
2	Bearings / 轴承 (with Shields / 带护板)	1 set
3	Pressure Nut / 压紧螺母	1
4	Collar / 轴环	1
5	Lock Nut / 锁紧螺母	1
6	Hexagonal socket head set screw / 内六角止动螺丝 (with set piece / 带定位块)	1 set

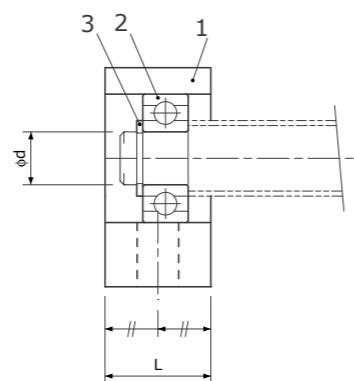
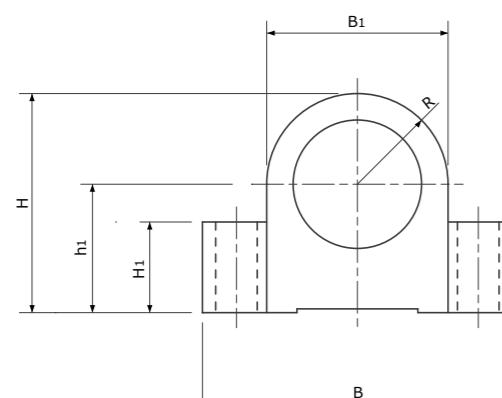
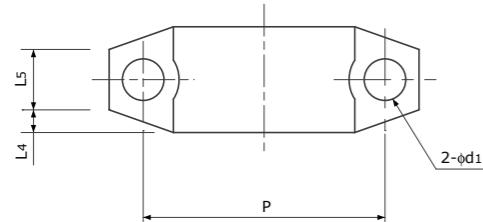
Unit (单位) :mm

MSU系列

MSU SERIES

枕型（支撑侧）

PILLOW TYPE (SUPPORTED SIDE)



● 公称型号的构成 Model number notation

MSU — 5 C S
1 2 3 4

- 1 系列符号
MSU: SJ紧凑型支架组件系列
2 公称型号
3 形状符号
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S: 支撑侧

- 1 Series symbols
MSU : SJ Compact Support Unit Series
2 Nominal number
3 Housing type
C: Pillow type
G: Flange type
4 End-journal type
None: fixed side
S: supported side

注) 支撑侧支架组件的公称型号可能与轴承内径不一致, 敬请注意。

Note) In some cases, nominal number is not the same as Bearing Inner diameter.

零件表 Parts List

Part No. 零件号	Part name 零件名称	Qty 数量
1	Housing / 外壳 (Black Chrome coating / 黑铬处理)	1
2	Bearing / 轴承 (with Shields / 带护板)	1
3	Stop ring / 止动环	1

Unit (单位) :mm

Type 型号	Brg. Inner dia. 轴承内径 d 0 -0.005	L	L ₄	L ₅	B	H	h ₁ 0 -0.03	B ₁	H ₁	R	P	d ₁	Bearing 使用的轴承	Stop ring 使用的止动环	Mass 重量 g	Type 型号	
MSU-3CS	2	8	2	4	24	14.5	9	11		5	5.5	18	3.5	602HZZ	ETW-1.5(OCHIAI / 落合)	8.5	MSU-3CS
MSU-4CS	3	10	2.5	5	27	17	10	14		6	7	21	3.5	623HZZ	G-3(IWATA / 磐田电工)	16	MSU-4CS
MSU-5CS	4	10	2	6	30.5	19.5	11	17		6	8.5	23	4.5	624HZZ	G-4(IWATA / 磐田电工)	21	MSU-5CS
MSU-6CS	6	12	2.5	7	35	22.5	13	19		8	9.5	26	5.5	B6-113HZZ1	STW-6(OCHIAI / 落合)	32	MSU-6CS
MSU-8CS	6	14	3	8	41	29	17	24		12	12	32	5.5	606HZZ1	STW-6(OCHIAI / 落合)	60	MSU-8CS

注1) 深沟球轴承 (ISC制) 采用不锈钢材质, 并注入有低起尘润滑脂 (NSK LG2), 是无尘规格的轴承。

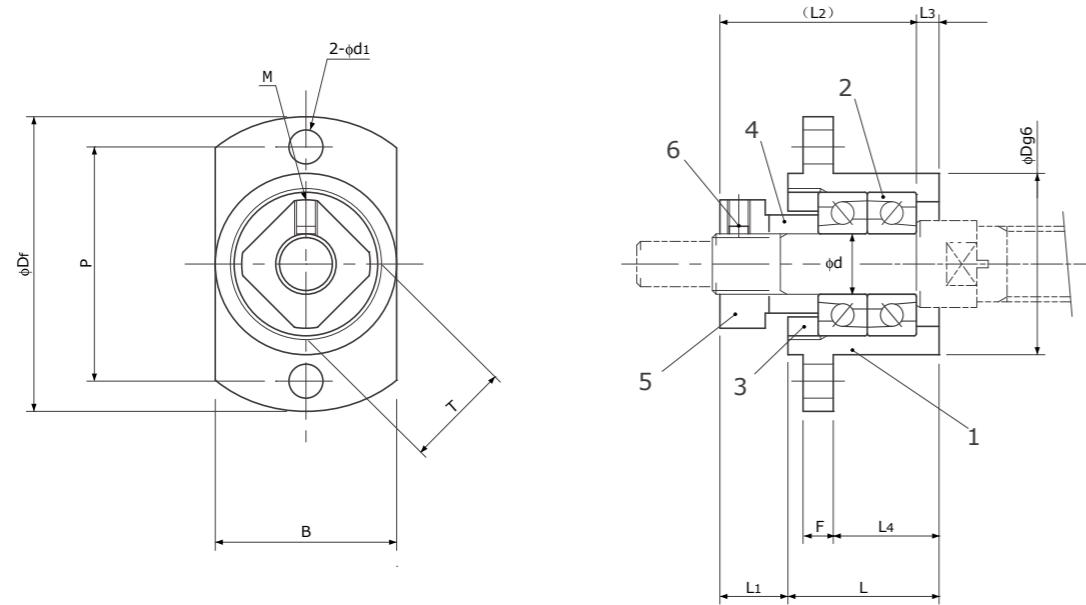
注2) 交货时使用的止动环可能会是同等规格的其他产品。

Note 1) Deep Groove Ball Bearing (manufactured by ISC) is designed for clean room use, it is made of Stainless steel with low contamination grease (NSK LG2) packed.

Note 2) Stop ring may be the equivalent one described in the table above.

MSU系列

MSU SERIES



● 公称型号的构成 Model number notation

MSU — 5 G S
— 1 —
— 2 3 4

- 1 系列符号
MSU: SJ紧凑型支架组件系列
2 公称型号
3 形状符号
C: 枕型
G: 法兰型
4 轴端符号
无符号: 固定侧
S: 支撑侧

- 1 Series symbols
MSU : SJ Compact Support Unit Series
2 Nominal number
3 Housing type
C: Pillow type
G: Flange type
4 End-journal type
None: fixed side
S: supported side

注) 支撑侧支架组件的公称型号可能与轴承内径不一致, 敬请注意。
Note) In some cases, nominal number is not the same as Bearing Inner diameter.

零件表 Parts List

Part No. 零件号	Part name 零件名称	Qty 数量
1	Housing / 外壳 (Black Chrome coating / 黑铬处理)	1
2	Bearings / 轴承 (with Shields / 带护板)	1 set
3	Pressure Nut / 压紧螺母	1
4	Collar / 轴环	1
5	Lock Nut / 锁紧螺母	1
6	Hexagonal socket head set screw / 内六角止动螺丝 (with set piece / 带定位块)	1 set

Unit (单位) :mm

Type 型号	Brg. Inner dia. 轴承内径 d 0 -0.005	L	L ₁	L ₂	L ₃	F	L ₄	B	Df	D	P	d ₁	M	T	Lock Nut 锁紧螺母	Tightening torque of Lock Nut 锁紧螺母的紧固扭矩 N·cm	Bearing 使用的轴承	Mass 重量 g	Type 型号
MSU-3G	3	12.5	5.5	16.5	1.5	3	7.5	11	23	11	17	3.5	M3	8	M3×0.5	80	MTA03-08HP5DF	12.5	MSU-3G
MSU-4G	4	13.5	5.5	17.5	1.5	3	8.5	14	26	14	20	3.5	M3	10	M4×0.5	100	MTA04-11HP5DF	20	MSU-4G
MSU-5G	5	15	5.5	18.5	2	3	10	17	29	17	23	3.5	M3	11	M5×0.5	140	MTA05-13HP5DF	30	MSU-5G
MSU-6G	6	17	7.5	22	2.5	4	12	19	34	19	26	5.5	M3	12	M6×0.75	190	MTA06-15HP5DF	42	MSU-6G
MSU-8G	8	20	9	26	3	4	16	24	39	24	31	5.5	M3	14	M8×1.0	200	MTA08-19HP5DF	70	MSU-8G

注1) 角接触球轴承 (ISC制) 采用不锈钢材质, 并注入有低起尘润滑脂 (NSK LG2), 是无尘规格的轴承。

注2) 压紧螺母、轴环、锁紧螺母均经过了发黑处理。

注3) 支架组件已经过预压调整, 请勿进行拆分。

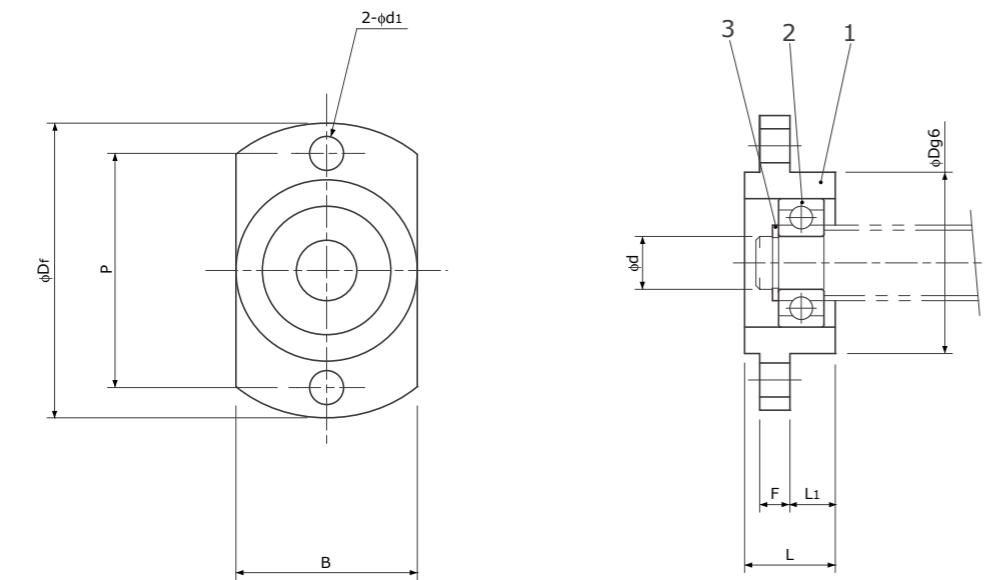
Note 1) Angular Contact Ball Bearings (manufactured by ISC) are designed for clean room use, they are made of Stainless steel with low contamination grease (NSK LG2) packed.

Note 2) Pressure Nut, Collar and Lock Nut are coated with Black finishing.

Note 3) Do not disassemble Support Unit, as they are pre-loaded and pre-adjusted.

MSU系列

MSU SERIES



MSU — 5 G S
 1 2 3 4

1 系列符号
 MSU: SJ紧凑型支架组件系列
 2 公称型号
 3 形状符号
 C: 枕型
 G: 法兰型
 4 轴端符号
 无符号: 固定侧
 S: 支撑侧

1 Series symbols
 MSU : SJ Compact Support Unit Series
 2 Nominal number
 3 Housing type
 C: Pillow type
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 4 End-journal type
 None: fixed side
 S: supported side

注) 支撑侧支架组件的公称型号可能与轴承内径不一致, 敬请注意。
 Note) In some cases, nominal number is not the same as Bearing Inner diameter.

零件表 Parts List

Part No. 零件号	Part name 零件名称	Qty 数量
1	Housing / 外壳 (Black Chrome coating / 黑铬处理)	1
2	Bearing / 轴承 (with Shields / 带护板)	1
3	Stop ring / 止动环	1

Unit (单位) :mm

Type 型号	Brg. Inner dia. 轴承内径 d 0 -0.005	L	F	L_1	B	Df	D	P	d_1	Bearing 使用的轴承	Stop ring 使用的止动环	Mass 重量 g	Type 型号
MSU-3GS	2	8	3	3	11	23	11	17	3.5	602HZZ	ETW-1.5(OCHIAI / 落合)	7.5	MSU-3GS
MSU-4GS	3	10	3	5	14	26	14	20	3.5	623HZZ	G-3(IWATA / 磐田电工)	12	MSU-4GS
MSU-5GS	4	10	3	5	17	29	17	23	3.5	624HZZ	G-4(IWATA / 磐田电工)	16	MSU-5GS
MSU-6GS	6	10	4	5	19	34	19	26	4.5	B6-113HZZ1	STW-6(OCHIAI / 落合)	24	MSU-6GS
MSU-8GS	6	10	4	6	24	39	24	31	4.5	606HZZ1	STW-6(OCHIAI / 落合)	40	MSU-8GS

注1) 深沟球轴承 (ISC制) 采用不锈钢材质, 并注入有低起尘润滑脂 (NSK LG2), 是无尘规格的轴承。

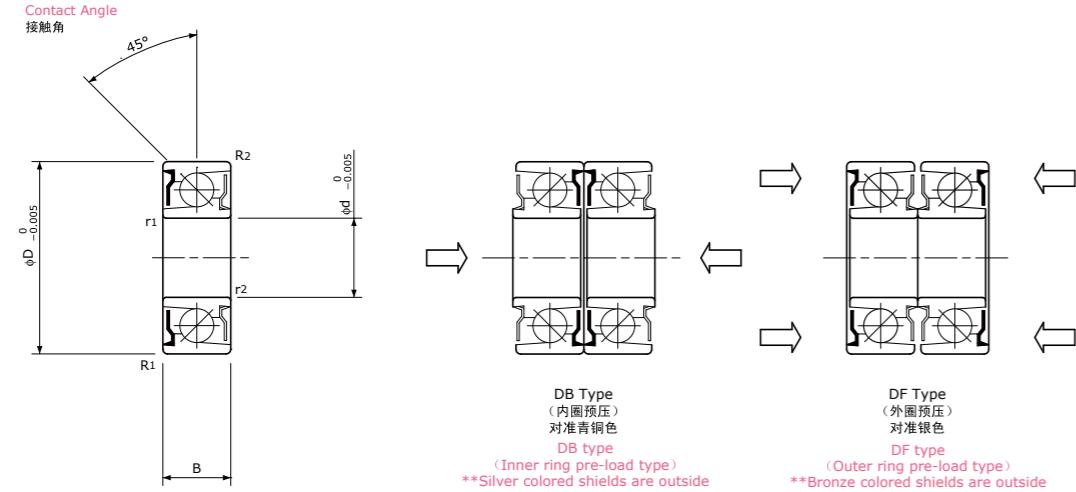
注2) 交货时使用的止动环可能会是同等规格的其他产品。

Note 1) Deep Groove Ball Bearing (manufactured by ISC) is designed for clean room use, it is made of Stainless steel with low contamination grease (NSK LG2) packed.

Note 2) Stop ring may be the equivalent one described in the table above.

MSU系列/固定侧轴承

FIXED SIDE BALL BEARINGS FOR MSU SERIES

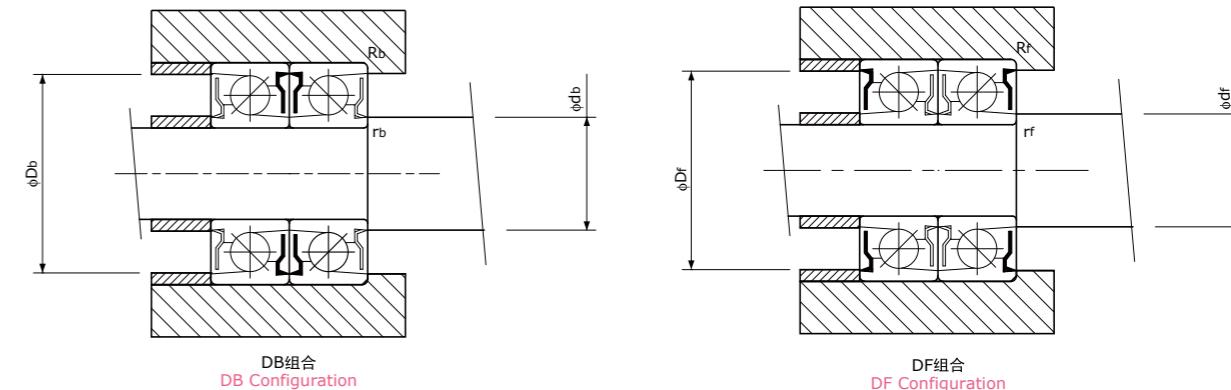


● 公称型号的构成 Model number notation

MTA 08 - 19 H P5 DF

1 系列符号
2 轴承内径(mm)
3 轴承外径(mm)
4 材料符号
H: 不锈钢
T: 轴承钢
5 精度等级 相当于P5
6 组合类型
DF: 正面组合
DB: 背面组合

1 Series No.
2 Inner diameter of Bearing (mm)
3 Outer diameter of Bearing (mm)
4 Material
H: Stainless Steel
T: Bearing Steel
5 Accuracy grade Equivalent to P5
6 Duplex type
DF: Face to Face duplex
DB: Back to Back duplex



推荐的紧固扭矩 Recommended tightening torque

Type 型号	DF type DF型	DB type DB型
MTA02-06HP5DF/DB	19.6 (2.0)	9.8 (1.0)
MTA03-08HP5DF/DB	19.6 (2.0)	14.7 (1.5)
MTA04-11HP5DF/DB	49 (5.0)	19.6 (2.0)
MTA05-13HP5DF/DB	49 (5.0)	24.5 (2.5)
MTA06-15HP5DF/DB	78.4 (8.0)	29.4 (3.0)
MTA08-19HP5DF/DB	78.4 (8.0)	39.2 (4.0)

Unit (单位): N·cm (kgf·cm)

Type 型号	主要尺寸 Dimension					Basic Load Rating 基本额定负载	Limit Speed 许用转速 min ⁻¹		推荐的安装尺寸 Abutment & Fillet								Mass 重量	Type 型号			
	I. D. 内径 fd	O. D. 外径 fd	Width 宽度 B	主要尺寸 Dimension					DF型 DF type				DB型 DB type								
				r1	r2	R1	R2	C _a (N)	C _o (N)	D _f max. 最大	d _f min. 最小	R _f max. 最大	r _f max. 最大	D _b max. 最大	d _b min. 最小	R _b max. 最大	r _b max. 最大				
MTA02-06HP5DF/DB	2	6	3	0.10	0.10	0.10	0.04	470	360	26,000		5.0	2.8	0.10	0.10	5.3	3.0	0.04	0.10	0.8	MTA02-06HP5DF/DB
MTA03-08HP5DF/DB	3	8	4	0.10	0.10	0.15	0.03	820	670	22,000		6.7	3.9	0.15	0.10	7.2	4.4	0.03	0.10	1.8	MTA03-08HP5DF/DB
MTA04-11HP5DF/DB	4	11	4.5	0.20	0.20	0.20	0.10	1250	1130	17,000		8.9	5.1	0.20	0.20	9.5	6.2	0.10	0.20	3.8	MTA04-11HP5DF/DB
MTA05-13HP5DF/DB	5	13	5	0.20	0.20	0.20	0.10	1780	1740	16,000		10.8	6.1	0.20	0.20	11.3	7.2	0.10	0.20	5.6	MTA05-13HP5DF/DB
MTA06-15HP5DF/DB	6	15	5.5	0.20	0.20	0.20	0.20	2350	2360	14,000		12.5	7.2	0.20	0.20	13.2	8.6	0.20	0.20	7.8	MTA06-15HP5DF/DB
MTA08-19HP5DF/DB	8	19	6.5	0.20	0.20	0.30	0.30	3400	3480	13,000		15.8	9.4	0.30	0.20	16.8	11.4	0.30	0.20	14.5	MTA08-19HP5DF/DB

注1) 角接触球轴承 (ISC制) 采用不锈钢材质，并注入有低起尘润滑脂 (NSK LG2)，是无尘规格的轴承。

Note 1) Angular Contact Ball Bearings (manufactured by ISC) are designed for clean room use, they are made of Stainless steel with low contamination grease (NSK LG2) packed. If necessary, Bearing steel type Angular Contact Ball Bearings with anti-fretting grease can be also provided.

Note 2) Bearing duplex can be distinguished by the color of shield plate for each duplex, please refer to figure above.

Note 3) Please designate duplex number (DF or DB), when you place order.

Note 4) This series can be provided as sets of DF or DB configuration only.

如有需要，也可提供普通材质 (SUJ2)、加注有耐微动磨损润滑脂的产品。

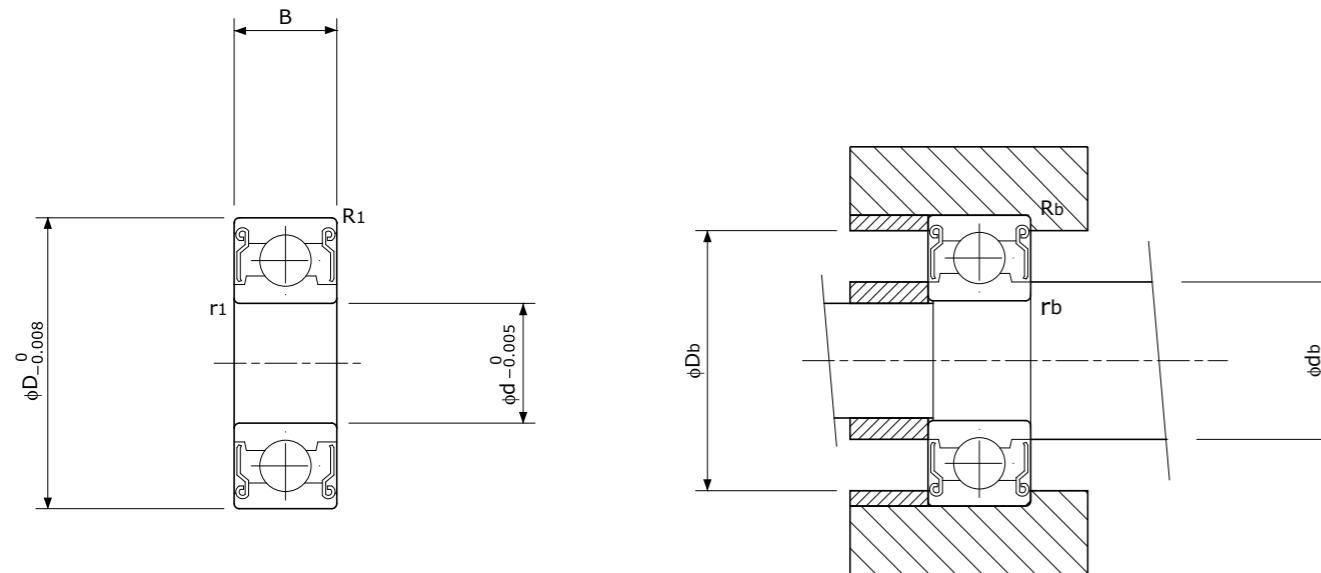
注2) 组合轴承时，请通过护板的颜色区分DF型或DB型（参照上图）。

注3) 订货时，请指定组合类型 (DF型或DB型)。

注4) 仅销售组合轴承，不销售单品，敬请谅解！

MSU系列/支撑侧轴承

SUPPORTED SIDE BALL BEARINGS FOR MSU SERIES



深沟球轴承（不锈钢规格）

DEEP GROOVE BEARINGS (STAINLESS TYPE)

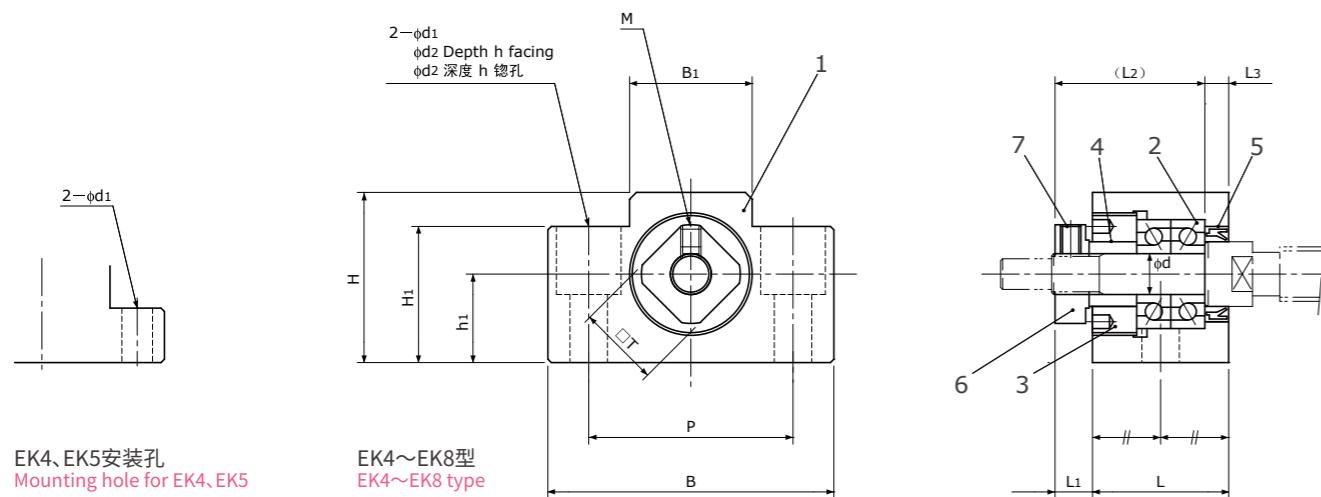
Type 型号	主要尺寸 Dimension				Basic Load Rating 基本额定负载			Limit Speed 许用转速 min ⁻¹	Abutment & Fillet 推荐的安装尺寸				Mass 重量	Type 型号	
	I. D. 内径 fd	O. D. 外径 fD	Width 宽度 B	主要尺寸 Dimension					r1	R1	Ca(N)	Coa(N)	Db max. 最大	db min. 最小	Rb max. 最大
	602HZZ	2	7	3.5	0.15	0.15		63,000	6.25	3.85	0.15	0.15	0.6	602HZZ	
623HZZ	3	10	4	0.15	0.15	535	175		50,000	7.98	4.35	0.15	0.15	1.7	623HZZ
624HZZ	4	13	5	0.20	0.20	1110	390		40,000	11.35	6.0	0.20	0.20	3.1	624HZZ
B6-113HZZ1	6	15	6	0.20	0.20	1470	535		40,000	13.3	7.9	0.20	0.20	4.3	B6-113HZZ1
606HZZ1	6	17	6	0.30	0.30	1920	670		38,000	14.8	8.2	0.30	0.30	6.1	606HZZ1

注1) 深沟球轴承 (ISC制) 采用不锈钢材质，并注入有低起尘润滑脂 (NSK LG2)，是无尘规格的轴承。

Note 1) Deep Groove Ball Bearings (manufactured by ISC) are designed for clean room use, they are made of Stainless steel with low contamination grease (NSK LG2) packed.

EK系列

EK SERIES



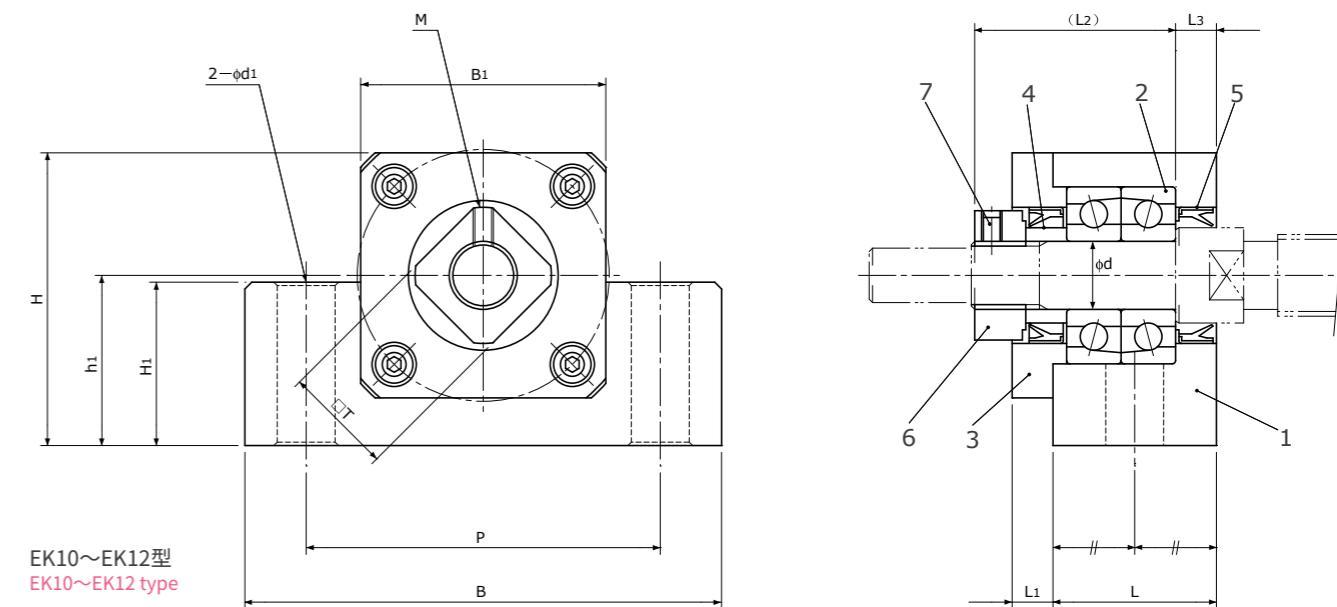
EK4~EK8 零件表 Parts List

Part No. 零件号	Part name 零件名称	Qty 数量
1	Housing / 外壳	1
2	Bearing / 轴承	1 set
3	Pressure Nut / 压紧螺母	1
4	Collar / 轴环	1
5	Seal / 密封	1
6	Lock-Nut / 锁紧螺母	1
7	Hexagonal socket head set screw 内六角止动螺丝 (with set piece / 带定位块)	1

● 公称型号的构成 Model number notation

EK
—
1 2

1 系列符号 Series No.
2 轴承内径 Inner diameter of Bearing (mm)

块型 (固定侧)
BLOCK TYPE (FIXED SIDE)

EK10~EK12 零件表 Parts List

Part No. 零件号	Part name 零件名称	Qty 数量
1	Housing / 外壳	1
2	Bearing / 轴承	1 set
3	Pressure cover / 压紧盖	1
4	Collar / 轴环	1
5	Seal / 密封	2
6	Lock-Nut / 锁紧螺母	1
7	Hexagonal socket head set screw / 内六角止动螺丝 (with set piece / 带定位块)	1

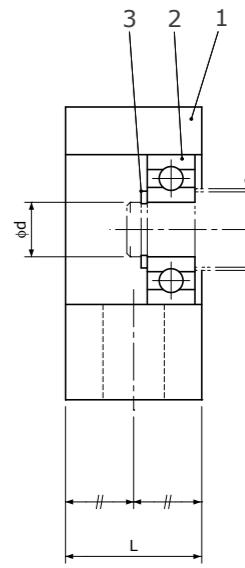
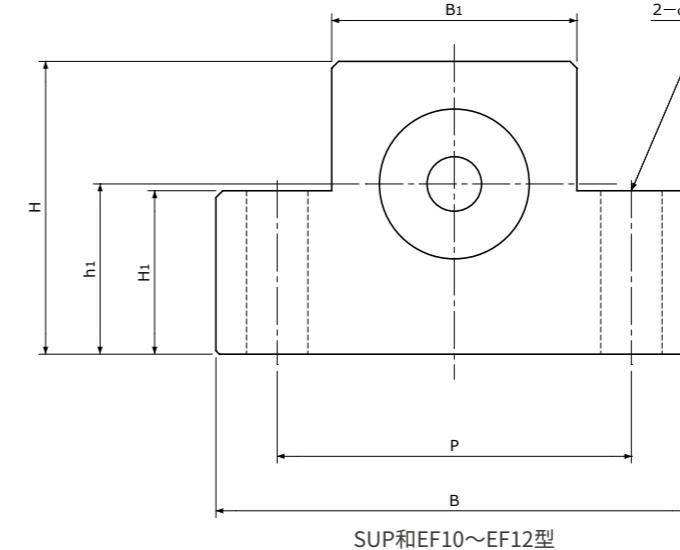
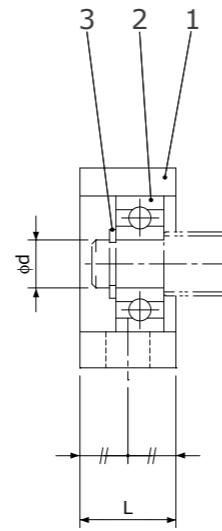
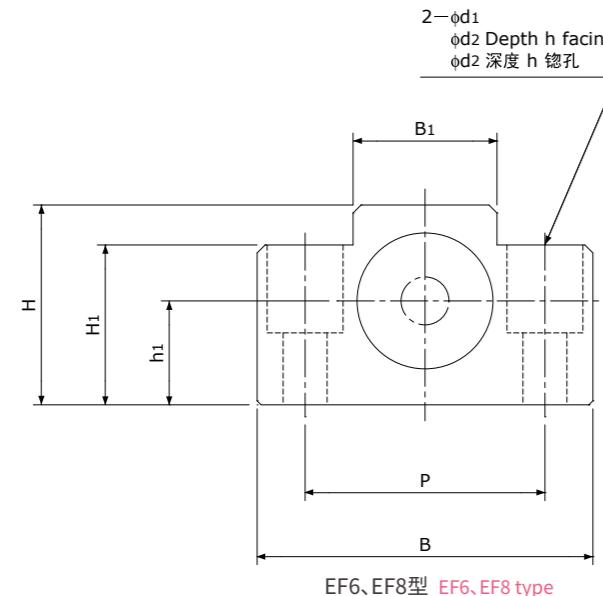
Type 型号	Brg. Inner dia. 轴承内径 d	L	L ₁	L ₂	L ₃	B	H	h ₁ ±0.02	B ₁	H ₁	P	d ₁	d ₂	H	M	T	Bearing 使用的轴承	Mass 重量 g	Type 型号	
EK 4	4	15	5.5	17.5	3	34	19	10	18		7	26	4.5	-	-	M2.6	10	AC4-12P5	60	EK 4
EK 5	5	16.5	5.5	18.5	3.5	36	21	11	20		8	28	4.5	-	-	M2.6	11	AC5-14P5	80	EK 5
EK 6	6	20	5.5	22	3.5	42	25	13	18		20	30	5.5	9.5	11	M3	12	AC6-16P5	140	EK 6
EK 8	8	23	7	26	4	52	32	17	25		26	38	6.6	11	12	M3	14	AC8-18P5	240	EK 8
EK 10	10	24	6	29.5	6	70	43	25	36		24	52	9	-	-	M3	16	7000DFGMP5	460	EK 10
EK 12	12	24	6	29.5	6	70	43	25	36		24	52	9	-	-	M3	19	7001DFGMP5	440	EK 12

注) 支架组件已经过预压调整, 请勿进行拆分。

Note) Do not disassemble Support Unit, as they are pre-loaded and pre-adjusted.

SUP和EF系列

SUP AND EF SERIES



块型（支撑侧）

BLOCK TYPE (SUPPORTED SIDE)

● 公称型号的构成 Model number notation

EK10~EK12 零件表 Parts List

Part No. 零件号	Part name 零件名称	Qty 数量
1	Housing / 外壳	1
2	Bearing / 轴承	1
3	Stop ring / 止动环	1

SUP 03 - S EF 8
1 2 3 1 2

1 系列符号 Series No.
2 公称型号 Nominal number
3 支撑侧符号 Supported side No.
注) EF型的公称型号可能与轴承内径不一致, 敬请注意。
Note) In EF Series nominal No. may not be the same as
Bearing Inner diameter.

Type 型号	Brg. Inner dia. 轴承内径 d	L	B	H	h_1 ± 0.02	B_1	B_1	P	d_1	d_2	H	Bearing 使用的轴承	Stop ring 使用的止动环	Mass 重量 g	Type 型号
SUP03-S	3	10	34	19	10	18	7	26	4.5	-	-	623ZZ	G-3	35	SUP03-S
SUP04-S	4	10	36	21	11	20	8	28	4.5	-	-	624ZZ	G-4	40	SUP04-S
EF 6	6	12	42	25	13	18	20	30	5.5	9.5	11	606ZZ	C6	70	EF 6
EF 8	6	14	52	32	17	25	26	38	6.6	11	12	606ZZ	C6	130	EF 8
EF 10	8	20	70	43	25	36	24	52	9	-	-	608ZZ	C8	330	EF 10
EF 12	10	20	70	43	25	36	24	52	9	-	-	6000ZZ	C10	320	EF 12

注) 支架组件已经过预压调整, 请勿进行拆分。

Note) Do not disassemble Support Unit, as they are pre-loaded and pre-adjusted.

公制单位换算表

SI UNIT CONVERSION TABLE

◆ 前缀 SI-Prefixes

	SI-Prefixes 前缀			SI-Prefixes 前缀			SI-Prefixes 前缀	
	Prefix 名称	Symbol 符号		Prefix 名称	Symbol 符号		Prefix 名称	Symbol 符号
10^{18}	exa (艾)	E	10^2	hecto (百)	h	10^{-9}	nano (毫微)	n
10^{15}	peta (贝脱)	P	10^1	deca (+)	da	10^{-12}	pico (皮)	p
10^{12}	tera (兆兆)	T	10^{-1}	deci (十分之一)	d	10^{-15}	femto (千万亿分之一)	f
10^9	giga (千兆)	G	10^{-2}	centi (厘)	c	10^{-18}	atto (微微微)	a
10^6	mega (兆)	M	10^{-3}	milli (毫)	m			
10^3	kilo (千)	k	10^{-6}	micro (微)	μ			

◆ 力、重量 Force, Weight

N (牛顿) kg · m/s ²	dy (达因) g · cm/s ²	kgf (重量: 千克力)	lbf (重量: 磅)
1	10^5	0.101972	0.224809
10^{-5}	1	1.01972×10^{-6}	0.224809×10^{-6}
9.80665	9.80665×10^5	1	2.20462
4.44822	44822×10^5	0.453592	1

注) 带底色的单元格为公制单位。 Note) Highlighted cells show SI unit.

◆ 质量 mass

kg (牛顿)	g (克)	lb (磅)	t (吨)	oz (盎司)
1	10^3	2.20462	10^{-3}	35.274
10^{-3}	1	2.20462×10^{-3}	10^{-6}	0.035274
0.453592	453.592	1	0.453592×10^{-3}	16
1000	10^6	2204.62	1	3.5274×10^4
0.0283495	28.3495	0.06250	2.83495×10^{-5}	1

注) 带底色的单元格为公制单位。 Note) Highlighted cells show SI unit.

◆ 应力 Stress

N (牛顿) kg · m/s ²	dy (达因) g · cm/s ²	kgf (重量: 千克力)	lbf (重量: 磅)
1	1×10^{-6}	1.01972×10^{-7}	1.01972×10^{-5}
1×10^6	1	1.01972×10^{-1}	1.01972×10
9.80665×10^6	9.80665	1	1×10^2
9.80665×10^4	9.80665×10^{-2}	1×10^{-2}	1

注) 带底色的单元格为公制单位。 Note) Highlighted cells show SI unit.

◆ 压力 Pressure

Pa (帕) N/m ²	MPa (兆帕) N/mm ²	bar	kgf/cm ²	atm	mmH ₂ O	mmHg Torr
1	1×10^{-6}	1×10^{-5}	1.01972×10^{-5}	9.86923×10^{-6}	1.01972×10^{-1}	7.50062×10^{-3}
1×10^3	1×10^{-3}	1×10^{-2}	1.01972×10^{-2}	9.86923×10^{-3}	1.01972×10^2	7.50062
1×10^6	1	1×10	1.01972×10	9.86923	1.01972×10^5	7.50062×10^3
1×10^5	1×10^{-1}	1	1.01972	9.86923×10^{-1}	1.01972×10^4	7.50062×10^2
9.80665×10^4	9.80665×10^{-2}	9.80665×10^{-1}	1	9.67841×10^{-1}	1×10^4	7.35559×10^2
1.01325×10^5	1.01325×10^{-1}	1.01325	1.03323	1	1.03323×10^4	7.60000×10^2
9.80665	9.80665×10^{-6}	9.80665×10^{-5}	1×10^{-4}	9.67841×10^{-5}	1	7.35559×10^{-2}
1.33322×10^2	1.33322×10^{-4}	1.33322×10^{-3}	1.35951×10^{-3}	1.31579×10^{-3}	1.35951×10	1

注) 带底色的单元格为公制单位。 Note) Highlighted cells show SI unit.

◆ 动粘度 Kinematic Viscosity

m ² /s	cSt mm ² /s	st cm ² /s
1	1×10^6	1×10^4
1×10^{-6}	1	1×10^{-2}
1×10^{-4}	1×10^2	1

注) 带底色的单元格为公制单位。 Note) Highlighted cells show SI unit.

硬度换算表

CONVERSION TABLE FOR HARDNESS

◆ 速度 Velocity

m/s	m/min	km/h	ft/s	ft/min	mile/h
1	60	3.6	3.28084	196.850	2.23693
0.0166667	1	0.06	0.0546807	3.2808	0.0372823
0.277778	16.667	1	0.911344	54.6807	0.621371
0.30480	18.288	1.09728	1	60	0.681818
5.0800×10^{-3}	0.30480	0.018288	0.0166667	1	0.0113636
0.447041	26.8224	1.60934	1.46667	88	1

◆ 速度 Velocity

m (米)	cm (厘米)	mm (毫米)	μm (微米)	nm (毫微米)	\AA (埃)	in (英寸)	ft (英尺)
1	100	1000	10^6	10^9	10^{10}	39.3701	3.28084
0.01	1	10	10^4	10^7	10^8	0.393701	0.0328084
0.001	0.1	1	10^3	10^6	10^7	0.0393701	3.28084×10^{-3}
10^{-6}	10^{-4}	10^{-3}	1	10^3	10^4	39.3701×10^{-6}	3.28084×10^{-6}
10^{-9}	10^{-7}	10^{-6}	10^{-3}	0	10	39.3701×10^{-9}	3.28084×10^{-9}
10^{-10}	10^{-8}	10^{-7}	10^{-4}	0.1	1	39.3701×10^{-10}	3.28084×10^{-10}
0.0254	2.54	25.4	25.4×10^3	25.4×10^6	25.4×10^7	1	0.0833333
0.3048	30.48	304.8	304.8×10^3	304.8×10^6	304.8×10^7	12	1

Rockwell hardness C-scale 洛氏硬度 标尺C	Vickers hardness 维氏硬度	Brinell hardness 布氏硬度		Rockwell hardness 洛氏硬度		Shore hardness 肖氏硬度
		Standard Ball 标准球	Tungsten Carbide Ball 碳化钨球	A-Scale Load: 600N barle Pressure Piece 标尺A 负载: 600N barle压头	B-Scale Load: 1000N 1/16-in dia.Ball 标尺B 负载: 1000N 1/16in球	
HRC	Hv	HB	HB	HRA	HRB	Hs
68	940	-	-	85.6	-	97
67	900	-	-	85.0	-	95
66	865	-	-	84.5	-	92
65	832	-	739	83.9	-	91
64	800	-	722	83.4	-	88
63	772	-	705	82.8	-	87
62	746	-	688	82.3	-	85
61	720	-	670	81.8	-	83
60	697	-	654	81.2	-	81
59	674	-	634	80.7	-	80
58	653	-	615	80.1	-	78
57	633	-	595	79.6	-	76
56	613	-	577	79.0	-	75
55	595	-	560	78.5	-	74
54	577	-	543	78.0	-	72
53	560	-	525	77.4	-	71
52	544	500	512	76.8	-	69
51	528	487	496	76.3	-	68
50	513	475	481	75.9	-	67
49	498	464	469	75.2	-	66
48	484	451	455	74.7	-	64
47	471	442	443	74.1	-	63
46	458	432	432	73.6	-	62
45	446	421	421	73.1	-	60
44	434	409	409	72.5	-	58
43	423	400	400	72.0	-	57
42	412	390	390	71.5	-	56
41	402	381	381	70.9	-	55
40	392	371	371	70.4	-	54
39	382	362	362	69.9	-	52
38	372	353	353	69.4	-	51
37	363	344	344	68.9	-	50
36	354	336	336	68.4	(109.0)	49
35	345	327	327	67.9	(108.5)	48
34	336	319	319	67.4	(108.0)	47
33	327	311	311	66.8	(107.5)	46
32	318	301	301	66.3	(107.0)	44
31	310	294	294	65.8	(106.0)	43
30	302	286	286	65.3	(105.5)	42
29	294	279	279	64.7	(104.5)	41
28	286	271	271	64.3	(104.0)	41
27	279	264	264	63.8	(103.0)	40
26	272	258	258	63.3	(102.5)	38
25	266	253	253	62.8	(101.5)	38
24	260	247	247	62.4	(101.0)	37
23	254	243	243	62.0	100.0	36
22	248	237	237	61.5	99.0	35
21	243	231	231	61.0	98.5	35
20	238	226	226	60.5	97.8	34
(18)	230	219	219	-	96.7	33
(16)	222	212	212	-	95.5	32
(14)	213	203	203	-	93.9	31
(12)	204	194	194	-	92.3	29
(10)	196	187	187	-	90.7	28
(8)	188	179	179	-	89.5	27
(6)	180	171	171	-	87.1	26
(4)	173	165	165	-	85.5	25
(2)	166	158	158	-	83.5	24
(0)	160	152	152	-	81.7	24

材料的化学成分

MATERIAL CHEMICAL COMPOSITION

Category 材料类别	Std. No. 标准号	Designation 符号	Chemical Composition (化学成分) %									
			C	Si	Mn	P	S	Ni	Cr	Mo	Al	others 其他
Carbon Steels for machine structural use 机械结构用 碳素钢	JIS G 4051	S40C	0.37~0.43	0.15~0.35	0.60~0.90	≤0.030	≤0.035	≤0.20	≤0.20			Cu≤0.30 Ni+Cr≤0.35
		S45C	0.42~0.48	0.15~0.35	0.60~0.90	≤0.030	≤0.035	≤0.20	≤0.20			Cu≤0.30 Ni+Cr≤0.35
		S50C	0.47~0.53	0.15~0.35	0.60~0.90	≤0.030	≤0.035	≤0.20	≤0.20			Cu≤0.30 Ni+Cr≤0.35
		S53C	0.50~0.56	0.15~0.35	0.60~0.90	≤0.030	≤0.035	≤0.20	≤0.20			Cu≤0.30 Ni+Cr≤0.35
		S55C	0.52~0.58	0.15~0.35	0.60~0.90	≤0.030	≤0.035	≤0.20	≤0.20			Cu≤0.30 Ni+Cr≤0.35
Structural Steels with specified hardenability bands 保证淬透性 结构钢	JIS G 4052	SCM415H	0.12~0.18	0.15~0.35	0.55~0.95	≤0.030	≤0.030	≤0.25	0.85~1.25	0.15~0.30		
		SCM420H	0.17~0.23	0.15~0.35	0.55~0.95	≤0.030	≤0.030	≤0.25	0.85~1.25	0.15~0.30		
		SCM435H	0.32~0.39	0.15~0.35	0.55~0.95	≤0.030	≤0.030	≤0.25	0.85~1.25	0.15~0.35		
		SCM440H	0.37~0.44	0.15~0.35	0.55~0.95	≤0.030	≤0.030	≤0.25	0.85~1.25	0.15~0.35		
		SCM445H	0.42~0.49	0.15~0.35	0.55~0.95	≤0.030	≤0.030	≤0.25	0.85~1.25	0.15~0.35		
Chrome- molybdenum Steel 铬钼钢	JIS G 4105	SCM415	0.13~0.18	0.15~0.35	0.60~0.85	≤0.030	≤0.030	≤0.25	0.90~1.20	0.15~0.30		Cu≤0.30
		SCM418	0.16~0.21	0.15~0.35	0.60~0.85	≤0.030	≤0.030	≤0.25	0.90~1.20	0.15~0.30		Cu≤0.30
		SCM420	0.18~0.23	0.15~0.35	0.60~0.85	≤0.030	≤0.030	≤0.25	0.90~1.20	0.15~0.30		Cu≤0.30
		SCM430	0.28~0.33	0.15~0.35	0.60~0.85	≤0.030	≤0.030	≤0.25	0.90~1.20	0.15~0.30		Cu≤0.30
		SCM435	0.35~0.38	0.15~0.35	0.60~0.85	≤0.030	≤0.030	≤0.25	0.90~1.20	0.15~0.30		Cu≤0.30
		SCM440	0.38~0.43	0.15~0.35	0.60~0.85	≤0.030	≤0.030	≤0.25	0.90~1.20	0.15~0.30		Cu≤0.30
		SCM445	0.43~0.48	0.15~0.35	0.60~0.85	≤0.030	≤0.030	≤0.25	0.90~1.20	0.15~0.30		Cu≤0.30

Category 材料类别	Std. No. 标准号	Designation 符号	Chemical Composition (化学成分) %							
			Cu	Pb	Fe	Sn	Zn	Mn	Ni	others 其他
Copper alloy 铜合金	JIS H 3270	C5191B				5.5~7.0				P; 0.03~0.35 Cu+Sn+P≥99.5
	JIS H 3260	C3604W	57.0~61.0	1.8~3.7	≤0.50		Remains 剩余部分			Fe+Sn≤1.2

Category 材料类别	Std. No. 标准号	Designation 符号	Chemical Composition (化学成分) %									
			C	Si	Mn	P	S	Ni	Cr	Mo	others 其他	
Stainless Steels 不锈钢	JIS G 4303 ~ JIS G 4305	SUS303	≤0.15	≤1.00	≤2.00	≤0.20	≥0.15	8.00~10.00	17.00~19.00	≤0.60		
		SUS304	≤0.08	≤1.00	≤2.00	≤0.045	≤0.030	8.00~10.50	18.00~20.00			
		SUS316	≤0.08	≤1.00	≤2.00	≤0.045	≤0.030	10.00~14.00	16.00~18.00	2.00~3.00		
		SUS317	≤0.08	≤1.00	≤2.00	≤0.045	≤0.030	11.00~15.00	18.00~20.00	3.00~4.00		
		SUS440A	0.60~0.75	≤1.00	≤1.00	≤0.040	≤0.040			16.00~18.00	≤0.75	
		SUS440B	0.75~0.95	≤1.00	≤1.00	≤0.040	≤0.030			16.00~18.00	≤0.75	
		SUS440C	0.95~1.20	≤1.00	≤1.00	≤0.040	≤0.030			16.00~18.00	≤0.75	
		SUS630	≤0.07	≤1.00	≤1.00	≤0.040	≤0.030	3.00~5.00	15.50~17.50			
		SUS631	≤0.09	≤1.00	≤1.00	≤0.040	≤0.030	6.5~7.75	16.00~18.00			

Category 材料类别	Std. No. 标准号	Designation 符号	Chemical Composition (化学成分) %									
			C	Si	Mn	P	S	Pb	Cr	Mo	W	others 其他
Alloy Tool Steels 合金 工具钢	JIS G 4404	SKS 2	1.00~1.10	≤0.35	≤0.80	≤0.030	≤0.030		0.50~1.00		1.00~1.50	
		SKS 3	0.90~1.00	≤0.35	0.90~1.20	≤0.030	≤0.030		0.50~1.00		0.50~1.00	
		SKS 4	0.45~0.55	≤0.35	≤0.50	≤0.030	≤0.030		0.50~1.00		0.50~1.00	
		SUJ 1	0.95~1.10	0.15~0.35	≤0.50	≤0.025	≤0.025		0.90~1.20	≤0.08		
High Carbon Chromium Bearing Steels 高碳铬 轴承钢	JIS G 4805	SUJ 2	0.95~1.10	0.15~0.35	≤0.50	≤0.025	≤0.025		1.30~1.60	≤0.08		
		SUJ 3	0.95~1.10	0.40~0.70	0.90~1.15	≤0.025	≤0.025		0.90~1.20	≤0.08		
		SUJ 4	0.95~1.10	0.15~0.35	≤0.50	≤0.025	≤0.025		1.30~1.60	0.10~0.25		

Category 材料类别	Std. No. 标准号	Designation 符号	Chemical Composition (化学成分) %									
Cu	Zn	Al	Mn	Ni	Pb	Sn	Fe	Si	others 其他			

<tbl_r cells="

与材料有关的JIS标准和相关国外标准

COMPARISON WITH OTHER COUNTRY'S STANDARD FOR MATERIAL

Japan Industrial Standard; JIS 日本工业标准			ISO (国际标准)	USA (美国)	UK (英国)	Germany (德国)	France (法国)		
Category 材料类别	Std. No. 标准号	Designation 符号							
Carbon Steels for Machine structural use 机械结构用 碳素钢	JIS G 4051	S40C	C40/C40E4/C40M2	AISI 1040	EN-C40, C40E, C40R				
		S45C	C45/C45E4/C45M2	AISI 1045	EN-C45, C45E, C45R				
		S50C	C50/C50E4/C50M2	AISI 1049	EN-C50, C50E, C50R				
		S53C	-	AISI 1053	-	-	-		
		S55C	C55/C55E4/C55M2	AISI 1055	EN-C55, C55E, C55R				
Structural Steels with specified hardenability bands 保证淬透性 结构钢	JIS G 4052	SCM415H	-	-	-	-	-		
		SCM420H	-	-	708H20	-	-		
		SCM435H	34CrMo4/34CrMoS4	AISI 4137H	-	-	-		
		SCM440H	42CrMo4/42CrMoS4	AISI 4140H	EN-42CrMo4/42CrMoS4				
		SCM445H	-	AISI 4147H	-	-	-		
Chrome- molybdenum Steel 铬钼钢	JIS G 4105	SCM415	-	-	-	-	-		
		SCM418	18CrMo4/18CrMoS4	-	-	-	-		
		SCM420	-	-	708M20	-	-		
		SCM430	-	AISI 4130	-	-	-		
		SCM435	34CrMo4/34CrMoS4	AISI 4137	-	-	-		
		SCM440	42CrMo4/42CrMoS4	AISI 4140	EN-42CrMo4/42CrMoS4				
		SCM445	-	AISI 4147	-	-	-		

Japan Industrial Standard; JIS 日本工业标准			ISO (国际标准)	USA (美国)	UK (英国)	Germany (德国)	France (法国)
Category 材料类别	Std. No. 标准号	Designation 符号					
Stainless Steels 不锈钢	JIS G 4303 ~ JIS G 4305	SUS303	TR15510 (1997) -13	ASTM-S 30300	303 S 31	X10CrNiS 189	Z8 CNF 18.09
		SUS304	TR15510 (1997) -6	ASTM-S 30400	304 S 31	X5CrNi 1810	Z7CN 18.09
		SUS316	TR15510 (1997) -26	ASTM-S 31600	316 S 31	X5CrNiMo17122	Z7CND 17.11-02
		SUS317	-	ASTM-S 31700	317 S 16	-	-
		SUS440A	-	ASTM-S 44002	EN-1.4109		
		SUS440B	-	ASTM-S 44003	-	-	-
		SUS440C	-	ASTM-S 44004	EN-1.4125		Z100CD17
		SUS630	TR15510 (1997) -58	ASTM-S 17400	-	-	Z7CNU 17.04
		SUS631	TR15510 (1997) -59	ASTM-S 17700	-	X7CrNiAl 177	Z9CNA 17.07
Alloy Tool Steels 合金工具钢	JIS G 4404	SKS 2	105WCr1	-	-	105WCr6	105WCr5
		SKS 3	-	-	-	-	-
		SKS 4	-	-	-	-	-
High Carbon Chromium Bearing Steels 高碳铬 轴承钢	JIS G 4805	SUJ 1	-	ASTM 51100	-	-	-
		SUJ 2	100Cr6	ASTM 52100	-	100Cr6	100Cr6
		SUJ 3	100CrMnSi4-4	ASTM A 485 Grade1	-	-	-
Copper alloy 铜合金	JIS H 3270	C5191B	CuSn6	-	PB103	CuSn6	-
	JIS H 3260	C3604W	CuZn 39 PB 3	-	-	CuZn 39 PB 3	-
	JIS H 5111	BC6	-	ASTM-C 83600	LG2	CuSn 5 ZnPb	-

常用配合尺寸公差

FITS TOLERANCES FOR FREQUENT USE JIS B 0401

◆ 孔用尺寸公差 Fit tolerances of normal holes

Dimensional division 基准尺寸的分类		Fit tolerance grade for holes 孔的公差带																	
over 超过	up to 以下	D8	D9	D10	E7	E8	E9	F6	F7	F8	G6	G7	H6	H7	H8	H9	H10		
-	3	+34 +20	+45 +20	+60 +20	+24 +14	+28 +14	+39 +14	+12 +6	+16 +6	+20 +2	+8 +2	+12 +0	+6 +0	+10 +0	+14 +0	+25 +0	+40 +0		
3	6	+48 +30	+60 +30	+78 +30	+32 +20	+38 +20	+50 +20	+18 +10	+22 +10	+28 +4	+12 +0	+16 +0	+8 +0	+12 +0	+18 +0	+30 +0	+48 +0		
6	10	+62 +40	+76 +40	+98 +40	+40 +25	+47 +25	+61 +25	+22 +13	+28 +13	+35 +13	+14 +5	+20 +5	+9 +0	+15 +0	+22 +0	+36 +0	+58 +0		
10	14	+77 +50	+93 +50	+120 +50	+50 +32	+59 +32	+75 +32	+27 +16	+34 +16	+43 +16	+17 +6	+24 +6	+11 +0	+18 +0	+27 +0	+43 +0	+70 +0		
14	18																		
18	24	+98 +65	+117 +65	+149 +65	+61 +40	+73 +40	+92 +40	+33 +20	+41 +20	+53 +20	+20 +7	+28 +7	+13 +0	+21 +0	+33 +0	+52 +0	+84 +0		
24	30																		
30	40	+119 +80	+142 +80	+180 +80	+75 +50	+89 +50	+112 +50	+41 +25	+50 +25	+64 +25	+25 +9	+34 +9	+16 +0	+25 +0	+39 +0	+62 +0	+100 +0		
40	50																		
50	65	+146 +100	+174 +100	+220 +100	+90 +60	+106 +60	+134 +60	+49 +30	+60 +30	+76 +30	+29 +10	+40 +10	+19 +0	+30 +0	+46 +0	+74 +0	+120 +0		
65	80																		
80	100	+174 +120	+207 +120	+260 +120	+107 +72	+126 +72	+159 +72	+58 +36	+71 +36	+90 +36	+34 +12	+47 +12	+22 +0	+35 +0	+54 +0	+87 +0	+140 +0		
100	120																		

Unit (单位) :μm

◆ 轴用尺寸公差 Fit tolerances of normal shafts

Dimensional division 基准尺寸的分类		Fit tolerance grade for shafts 轴的公差带																	
over 超过	up to 以下	d8	d9	e7	e8	e9	f6	f7	f8	g5	g6	g7	h5	h6	h7	h8	h9		
-	3	-20 -34	-20 -45	-14 -24	-14 -28	-14 -39	-6 -12	-6 -16	-6 -20	-2 -6	-2 -8	-2 -12	0 -4	0 -6	0 -10	0 -14	0 -25		
3	6	-30 -48	-30 -60	-20 -32	-20 -38	-20 -50	-10 -18	-10 -22	-10 -28	-4 -9	-4 -12	-4 -16	0 -5	0 -8	0 -12	0 -18	0 -30		
6	10	-40 -62	-40 -76	-25 -40	-25 -47	-25 -61	-13 -22	-13 -28	-13 -35	-5 -11	-5 -14	-5 -20	0 -6	0 -9	0 -15	0 -22	0 -36		
10	14	+50 +77	+50 +93	-32 -50	-32 -59	-32 -75	-16 -27	-16 -34	-16 -43	-6 -14	-6 -17	-6 -24	0 -8	0 -11	0 -18	0 -27	0 -43		
14	18																		
18	24	-65 -98	-65 -117	-40 -61	-40 -73	-40 -92	-20 -33	-20 -41	-20 -53	-7 -16	-7 -20	-7 -28	0 -9	0 -13	0 -21	0 -33	0 -52		
24	30																		
30	40	-80 -119	-80 -142	-50 -75	-50 -89	-50 -112	-25 -41	-25 -50	-25 -64	-9 -20	-9 -25	-9 -34	0 -11	0 -16	0 -25	0 -39	0 -62		
40	50																		
50	65	-100 -146	-100 -174	-60 -90	-60 -106	-60 -134	-30 -49	-30 -60	-30 -76	-10 -23	-10 -29	-10 -40	0 -13	0 -19	0 -30	0 -46	0 -74		
65	80																		
80	100	-120 -174	-120 -207	-72 -107	-72 -126	-72 -159	-36 -58	-36 -71	-36 -90	-12 -27	-12 -34	-12 -47	0 -15	0 -22	0 -35	0 -54	0 -87		
100	120																		

Unit (单位) :μm

Dimensional division 基准尺寸的分类		Fit tolerance grade for holes 孔的公差带																	
over 超过	up to 以下	JS6	JS7	K6	K7	M6	M7	N6	N7	N8	N9	P6	P7	P8	P9	R7	S7		
-	3	±3	±5	0 -6	0 -10	-2 -8	-2 -12	-4 -10	-4 -14	-4 -18	-4 -29	-6 -12	-6 -16	-6 -20	-6 -31	-10 -20	-14 -24		
3	6	±4	±6	+2 -6	+3 -9	-1 -9	-1 -12	-5 -13	-4 -16	-2 -20	-9 -30	-8 -17	-12 -20	-12 -30	-11 -42	-15 -23			
6	10	±4.5	±7.5	+2 -7	+5 -10	-3 -12	-3 -15	-7 -16	-3 -19	-3 -25	-12 -36	-9 -21	-9 -24	-15 -37	-15 -51	-13 -28	-17 -32		
10	14	±5.5	±9	+2 -9	+6 -12	-4 -15	0 -18	-5 -23	-3 -30	0 -43	-15 -26	-11 -29	-18 -45	-18 -61	-16 -34	-21 -39			
14	18																		
18	24	±6.5	±10.5	+2 -11	+6 -15	-4 -17	0 -21	-7 -24	-3 -36	0 -52	-18 -31	-14 -35	-22 -55	-22 -74	-20 -41	-27 -48			
24	30																		
30	40	±8	±12.5	+3 -															

加工尺寸的普通公差

GENERAL TOLERANCES

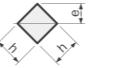
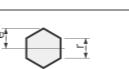
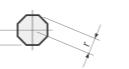
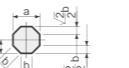
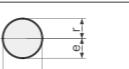
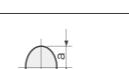
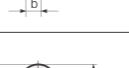
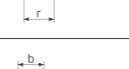
◆ 切削加工尺寸的普通公差 General tolerances for linear dimensions JIS B 0405							Unit (单位) :mm
Tolerance grade 公差等级		Dimensional division 基准尺寸的分类					
Symbol 符号	Remark 说明	0.5 or over up to 3 0.5以上 3以下	over 3 up to 6 超过3 6以下	over 6 up to 30 超过6 30以下	over 30 up to 120 超过30 120以下	over 120 up to 400 超过120 400以下	over 400 up to 1000 超过400 1000以下
f	Fine 精密级	±0.05	±0.05	±0.1	±0.15	±0.2	±0.3
m	Medium 中级	±0.1	±0.1	±0.2	±0.3	±0.5	±0.8
c	Coarse 普通级	±0.2	±0.3	±0.5	±0.8	±1.2	±2
v	Very coarse 极普通级	-	±0.5	±1	±1.5	±2.5	±4

◆ 倒角部长度尺寸的公差 General tolerances for chamfer dimensions JIS B 0405							Unit (单位) :mm
Tolerance grade 公差等级		Dimensional division 基准尺寸的分类					
Symbol 符号	Remark 说明	0.5 or over up to 3 0.5以上 3以下	over 3 up to 6 超过3 6以下	over 6 超过6			
f	Fine 精密级	±0.2	±0.5	±1			
m	Medium 中级	±0.2	±0.5	±1			
c	Coarse 普通级	±0.4	±1	±2			
v	Very coarse 极普通级	±0.4	±1	±2			

◆ 角度尺寸的公差 General tolerances for angular dimensions JIS B 0405							Unit (单位) :mm
Tolerance grade 公差等级		Dimensional division 基准尺寸的分类					
Symbol 符号	Remark 说明	up to 10 10以下	over 10 up to 20 超过10 50以下	over 50 up to 120 超过50 120以下	over 120 up to 400 超过120 400以下	over 400 超过400	
f	Fine 精密级	±1°	±30'	±20'	±10'	±5'	
m	Medium 中级	±1°	±30'	±20'	±10'	±5'	
c	Coarse 普通级	±1°30'	±1°	±30'	±15'	±10'	
v	Very coarse 极普通级	±3°	±2°	±1°	±30'	±20'	

面积、重心、截面惯性矩

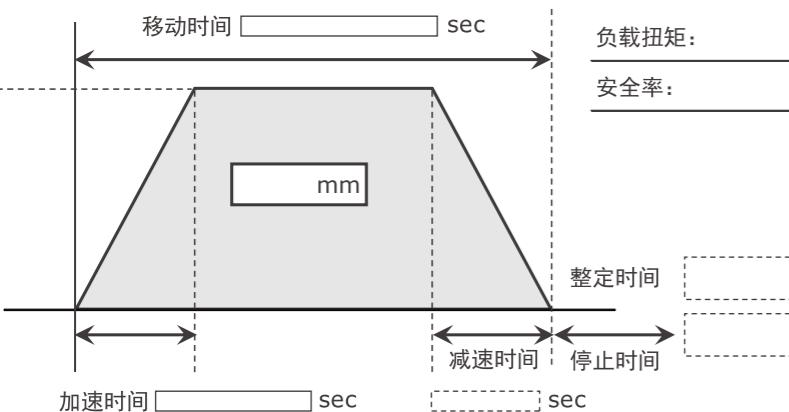
AREA · CENTER OF GRAVITY · MOMENT OF INERTIA OF AREA

Cross section 截面	Sectional area 截面积A	Distance to center of gravity 重心距离e	Moment of Inertia of area 截面惯性矩I	Section modulus 截面模量Z=I/e
	bh	$\frac{h}{2}$	$\frac{bh^3}{12}$	$\frac{bh^2}{6}$
	h^2	$\frac{h}{2}$	$\frac{h^4}{12}$	$\frac{h^3}{6}$
	h^2	$\frac{h}{2}\sqrt{2}$	$\frac{h^4}{12}$	$0.1179h^3 = \frac{\sqrt{2}}{12} h^3$
	$\frac{bh}{12}$	$\frac{2}{3}h$	$\frac{bh^3}{36}$	$\frac{bh^2}{24}$
	$\frac{3\sqrt{3}}{2} r^2$	$\sqrt{\frac{3}{4}} r$	$\frac{5\sqrt{3}}{16} r^4$	$\frac{5}{8} r^3$
		r		$\frac{5\sqrt{3}}{16} r^3$
	2.828r ²	0.924r ²	$\frac{1+2\sqrt{2}}{6} r^4$	0.6906r ³
	$0.8284a^2$	$b = \frac{a}{1+\sqrt{2}}$	0.0547a ²	0.1095a ³
	$\pi r^2 = \frac{\pi d^2}{4}$	$\frac{d}{2}$	$\frac{\pi d^4}{64} = \frac{\pi d^4}{4}$	$\frac{\pi d^3}{32} = \frac{\pi d^3}{4}$
	πab	a	$\frac{\pi}{4} ba^3$	$\frac{\pi}{4} ba^2$
	$\frac{\pi}{2} r^2$	$e_1 = 0.4244r$ $e_2 = 0.5756r$	$(\frac{\pi}{8} - \frac{8}{9\pi}) r^4$	$z_1 = 0.2587r^3$ $z_2 = 0.1908r^3$
	$\frac{\pi}{4} r^2$	$e_1 = 0.4244r$ $e_2 = 0.5756r$	0.055r ⁴	$z_1 = 0.1296r^3$ $z_2 = 0.0956r^3$
	b (H-h)	$\frac{H}{2}$	$\frac{b}{12} (H^3 - h^3)$	$\frac{b}{6H} (H^3 - h^3)$
	$A^2 - a^2$	$\frac{A}{2}$	$\frac{A^4 - a^4}{12}$	$\frac{1}{6} \frac{A^4 - a^4}{A}$
	$\frac{\pi}{4} (d_2^4 - d_1^4)$	$\frac{d_2}{2}$	$\frac{\pi}{64} (d_2^4 - d_1^4) = \frac{\pi}{4} (R^4 - r^4)$	$\frac{\pi}{32} \left(\frac{d_2^4 - d_1^4}{d_2} \right) = \frac{\pi}{4} \frac{R^4 - r^4}{R}$

技术数据表

本公司可根据客户的需求选择滚珠丝杠。选择滚珠丝杠时,请尽可能详细告知使用条件,以便我们更准确地选型。使用以下技术数据表,可方便您快速选型。

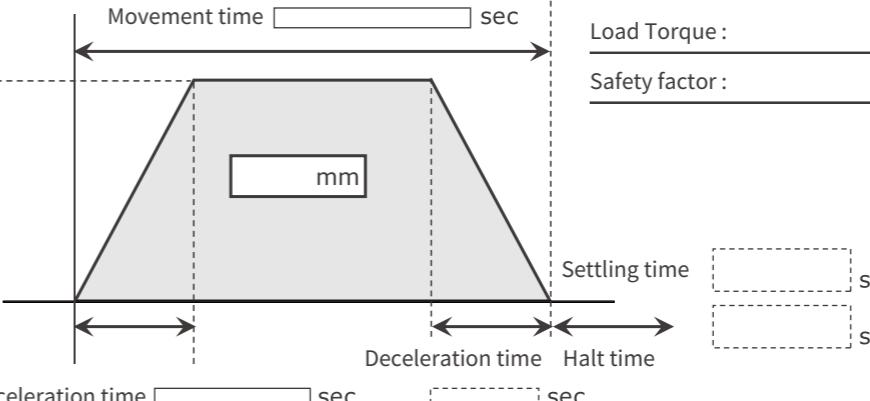
◆ 技术数据表

日期和时间	/ /	联系人姓名					
贵公司名称							
TEL	E-mail						
行业	<input type="checkbox"/> 半导体 <input type="checkbox"/> 液晶 <input type="checkbox"/> 测量仪器 <input type="checkbox"/> 滑台 <input type="checkbox"/> 光学仪器 <input type="checkbox"/> 食品机械 <input type="checkbox"/> 医疗器械 <input type="checkbox"/> 航空、宇宙相关 <input type="checkbox"/> 汽车 <input type="checkbox"/> 军事 <input type="checkbox"/> 其他 ()						
产品种类	<input type="checkbox"/> 滚珠丝杠 <input type="checkbox"/> 进给丝杠 <input type="checkbox"/> 树脂导程丝杠 <input type="checkbox"/> 带电机滚珠丝杠 <input type="checkbox"/> 执行器 <input type="checkbox"/> 其他 ()						
使用条件	装置名称		轴径 (mm)		导程 (mm)		
	使用位置		精度等级		间隙 (μm)		
	设置姿态	<input type="checkbox"/> 水平 <input type="checkbox"/> 垂直 <input type="checkbox"/> () 度	行程 (mm)		润滑		
	环境温度	<input type="checkbox"/> 常温 <input type="checkbox"/> 其他 () 度	负载 (最大·常用)		速度 (最高·常用)		
	特别事项						
精度要求	绝对定位 <input type="checkbox"/>	μm	重复定位 <input type="checkbox"/>	μm	空转 <input type="checkbox"/>	μm	
● 运行曲线 / 速度线图 ● <input type="checkbox"/> 必备项目 <input type="checkbox"/> 可选项 							
记录 <hr/> <hr/> <hr/> <hr/> <hr/>							
<input type="checkbox"/> 滚珠丝杠寿命计算委托 <input type="checkbox"/> 滚珠丝杠选型委托 <input type="checkbox"/> 电机选型委托 <input type="checkbox"/> 其他 ()							
计算寿命	(小时·日·年)	推荐的滚珠丝杠 / 电机					
受理号							

Technical Data Sheet

As customer's request, SJ selects Ball Screws. For selection of Ball Screws, please let us know detail of usage condition as much as possible and it enables precise selection. Prompt selection can be possible by using technical data sheet below.

◆ TECHNICAL DATA SHEET

Date	/ /	Person in charge					
Company Name							
Telephone No.				E-mail address			
Industry Field	<input type="checkbox"/> Semiconductor <input type="checkbox"/> LCD <input type="checkbox"/> Measuring Equipment <input type="checkbox"/> Stage <input type="checkbox"/> Optical <input type="checkbox"/> Food <input type="checkbox"/> Medical <input type="checkbox"/> Aero space <input type="checkbox"/> Automobile <input type="checkbox"/> Military affairs <input type="checkbox"/> Others ()						
Products	<input type="checkbox"/> Ball Screw <input type="checkbox"/> Lead Screw <input type="checkbox"/> Resin Lead Screw <input type="checkbox"/> Direct Motor Drive Ball Screw <input type="checkbox"/> Actuator <input type="checkbox"/> Others ()						
Operating Condition	Machine Name			Shaft dia. (mm)			
	Application			Accuracy Grade			
	Position	<input type="checkbox"/> Hor. <input type="checkbox"/> Vert. <input type="checkbox"/> () deg	Travel (mm)		Lubrication		
	Operating Temp	<input type="checkbox"/> Room Temp. <input type="checkbox"/> Others () deg	Load (max/mean)		Speed (max/mean)		
	Remarks						
Reqd. accuracy	Absolute Positioning <input type="checkbox"/>	μm	Repeatability <input type="checkbox"/>	μm	Lost motion <input type="checkbox"/>	μm	
● Operating Pattern ● <input type="checkbox"/> Crucial items <input type="checkbox"/> Optional Items 							
Memorandum <hr/> <hr/> <hr/> <hr/> <hr/>							
Request items	<input type="checkbox"/> Ball Screw life time	<input type="checkbox"/> Ball Screw Model selection	<input type="checkbox"/> Motor Model selection	<input type="checkbox"/> Others ()			
Calculated Ball Screw Life	(hours/days/years)		Recommended Ball Screw/Motor				
Registered No.							

HISAKA

Your Automation Solutions Provider

Precision ball screw

双向法兰螺母精密滚珠丝杆SXM系列 (C3/C5)

SXM series Bidirectional precision ball screw (C3/C5)

精密滚珠丝杆标准库存品

● 公称型号的构成 Model number notation

SXM	08	01	—	120	L	120	R	300	C3	—	1	A	X
1	2	3	4	5	6	7	8	9	10	11	12		

1 双向滚珠丝杠的系列符号

1 Series of symbols SXM:Bidirectional precision ball screw

2 丝杠轴公称外径(mm)

2 Nominal outer diameter of screw shaft (mm)

3 导程(mm)

3 Lead (mm)

4 左旋螺纹部长度(mm)

4 Left-side thread length(mm)

5 左旋符号

5 Left-hand

6 右旋螺纹部长度(mm)

6 Right-side thread length(mm)

7 右旋符号

7 Right-hand

8 丝杠轴总长(mm)

8 Total length of screw shaft (mm)

9 精度等级(C3或C5)

9 Accuracy grade (C3/C5)

10 涂抹的油脂

10 Grease type

0: 本公司推荐的润滑脂(GHY No.2)

0: Recommended grease (GHY No.2)

1: 防锈油

1: Anti-rust oil

2: 食品级润滑脂(FG2 No.2)

2: Grease for food processing(FG2 No.2)

3: 其他

3: Other

11 轴端加工型(参考图A-11)

11 Shaft supported end profile(refer to Figure A-11)

支撑侧 A: A-type B: B-type C: Ctype

Support side A: A-type B: B-type C: C-type

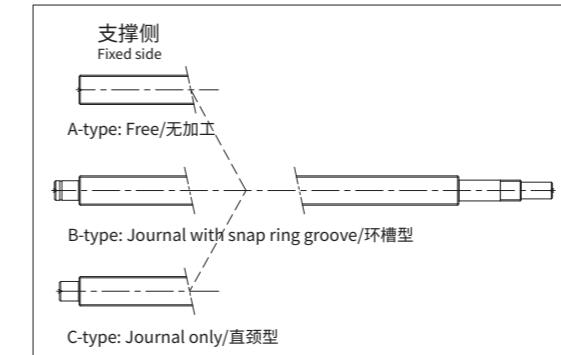
12 螺母法兰朝向(参考图A-12)

12 Nut Flange direction(refer to Figure A- 12)

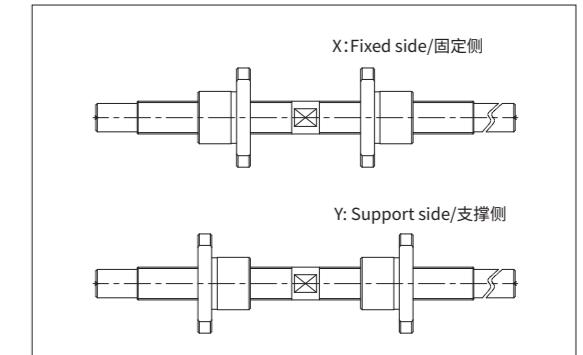
X: 固定侧 Y: 支撑侧

X: Fixed side Y: Support side

图A-11:轴端加工型 详见PA5-129
Fig.A-11:Shaft supported end profile See PA5-129 for details



图A-12:螺母法兰朝向
Fig.A-12:Nut Flange direction



● 精度等级和轴向间隙

SXM系列(双向法兰螺母精密滚珠丝杆标准库存品)的精度等级有JIS C3/C5两种。轴向间隙根据精度等级不同备有0mm(预压: C3)和0.005mm以下(C5)。

● Accuracy class and axial clearance

Accuracy grade of SXM series (standard stock of bidirectional precision ball screw) are based on C3 and C5 (JIS B 1192-3) . According to accuracy grade, Axial play 0 (Preload : C3) and 0.005mm or less (C5) are in stock.

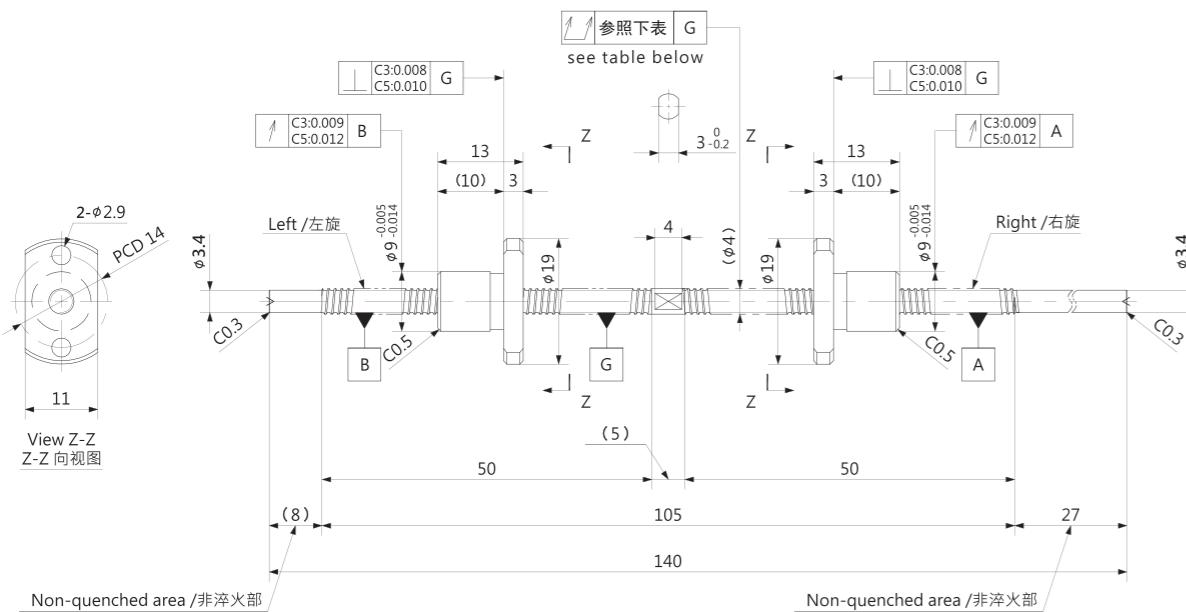
● 材质和表面硬度

SXM系列(双向法兰螺母精密滚珠丝杆标准库存品)的螺杆轴丝杆材料S55C(高频淬火)、螺母材料SCM415H(渗碳淬火)，滚珠丝杆部分的表面硬度为HRC58以上。

● Material & Surface Hardness

SXM series (Standard stock of Bidirectional precision ball screw) of screw shaft screw material S55C (induction hardening), nut material SCM415H (carburizing and hardening), the surface hardness of the ball screw part is HRC58 or higher.

SXM0401 | Shaft dia.(轴径) 4 Lead(导程)1mm | C3&C5 |



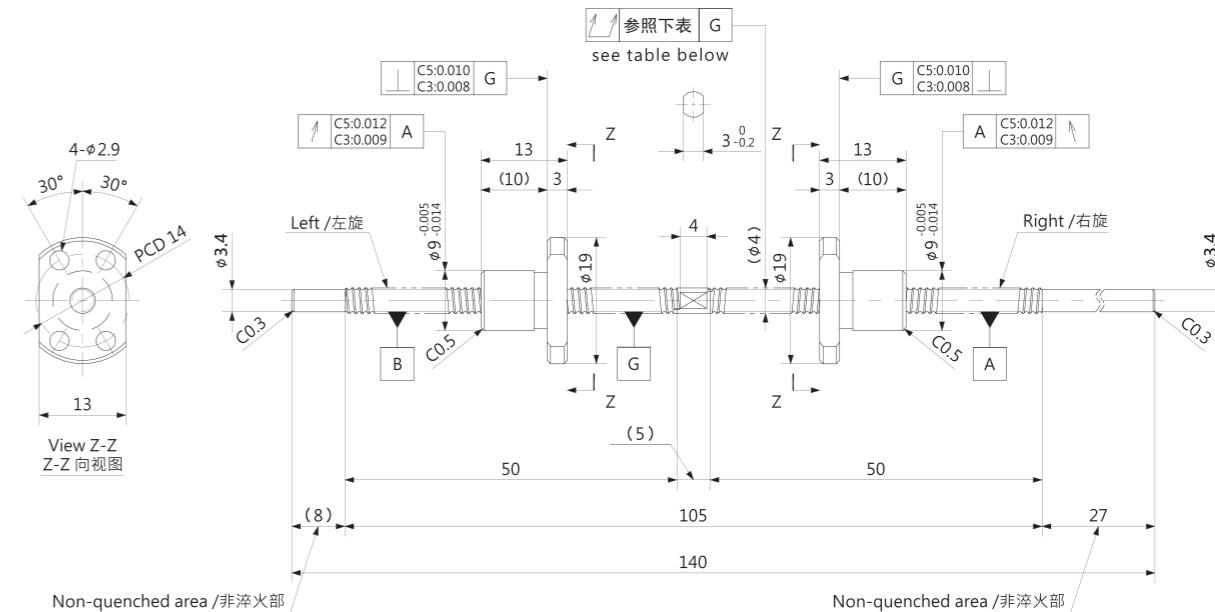
Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
BCD 钢珠中心直径	4.15		
Lead Angle 导程角	4°23'		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Left & Right 左右旋		
Shaft root dia 丝杠轴底径	φ3.3		
Number of circuit 循环数	1×3		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			e _p						
SXM0401-50L50R140C3	35	C3	±0.008	0.008	0.035	0	~0.010	420	570
SXM0401-50L50R140C5	35	C5	±0.018	0.018	0.050	~0.005	-	420	570

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

SXM0401K | Shaft dia.(轴径) 4 Lead(导程)1mm | C3&C5 |



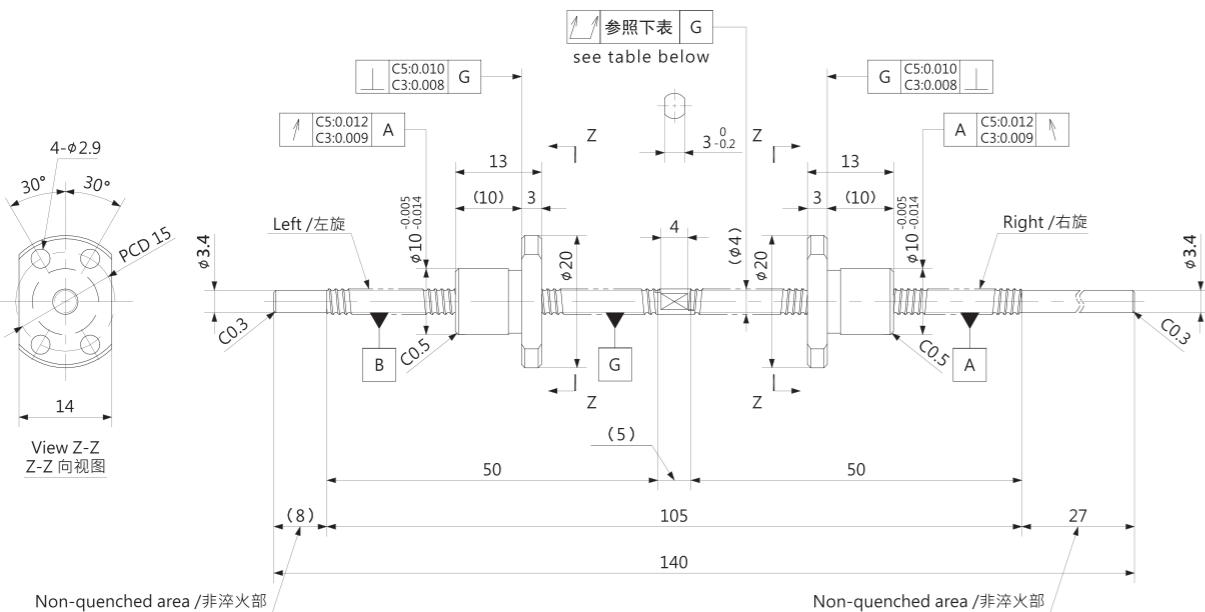
Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
BCD 钢珠中心直径	4.15		
Lead Angle 导程角	4°23'		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Left & Right 左右旋		
Shaft root dia 丝杠轴底径	φ3.3		
Number of circuit 循环数	1×3		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			e _p						
SXM0401K-50L50R140C3	35	C3	±0.008	0.008	0.035	0	~0.010	420	570
SXM0401K-50L50R140C5	35	C5	±0.018	0.018	0.050	~0.005	-	420	570

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

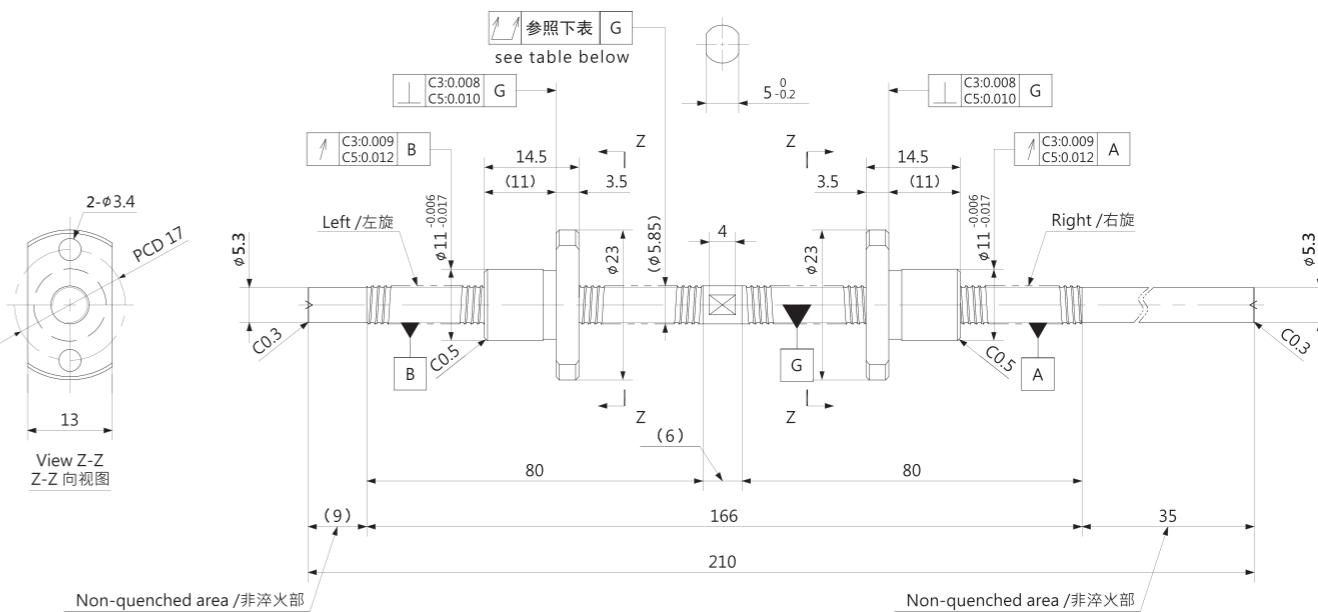
SXM0401T | Shaft dia.(轴径) 4 Lead(导程)1mm | C3&C5 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size	钢珠直径	φ0.8	
BCD	钢珠中心直径	4.15	
Lead Angle	导程角	4°23'	
Number of thread	螺纹条数	1	
Thread direction	螺纹旋向	Left & Right 左右旋	
Shaft root dia	丝杠轴底径	φ3.3	
Number of circuit	循环数	1×3	
Material	Shaft 轴	S55C	
材质	Nut 螺母	SCM415H	
Surface hardness	螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment	防锈处理	Anti-rust oil 防锈油	

SXM0601 | Shaft dia.(轴径) 6 Lead(导程)1mm | C3&C5 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size	钢珠直径	φ0.8	
BCD	钢珠中心直径	6.15	
Lead Angle	导程角	2°58'	
Number of thread	螺纹条数	1	
Thread direction	螺纹旋向	Left & Right 左右旋	
Shaft root dia	丝杠轴底径	φ5.3	
Number of circuit	循环数	1×3	
Material	Shaft 轴	S55C	
材质	Nut 螺母	SCM415H	
Surface hardness	螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment	防锈处理	Anti-rust oil 防锈油	

Unit(单位): mm

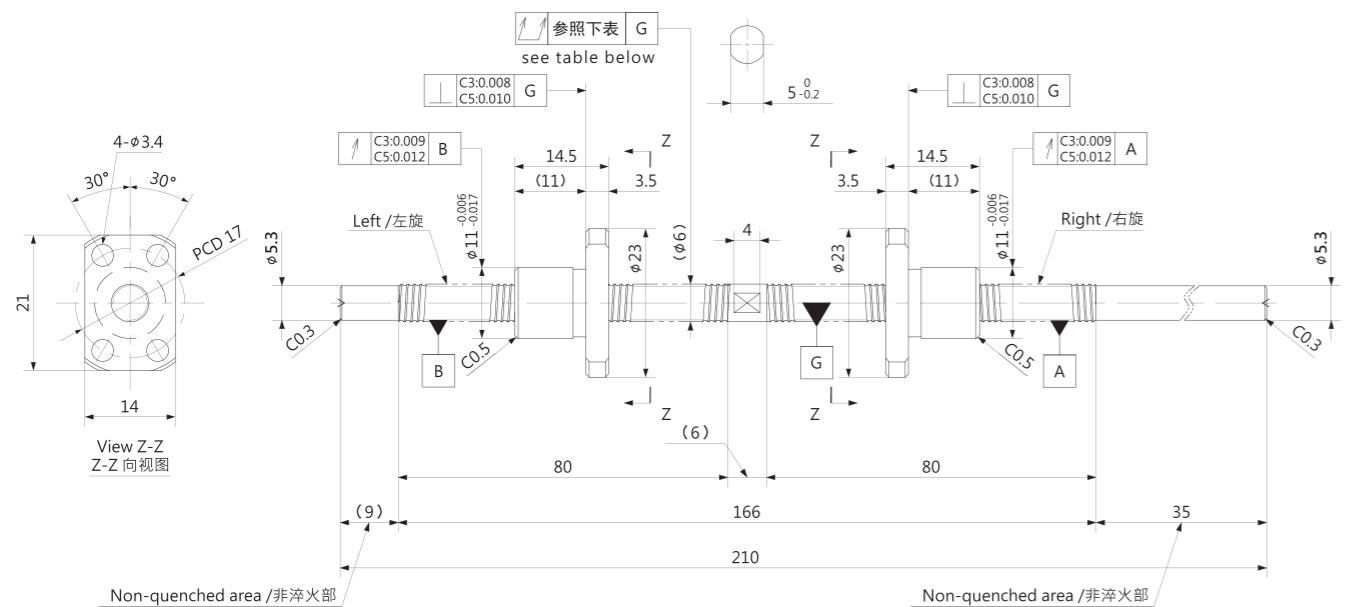
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			±0.008	0.008	0.035	0	~0.010	420	570
SXM0401T-50L50R140C3	35	C3	±0.008	0.008	0.035	0	~0.010	420	570
SXM0401T-50L50R140C5	35	C5	±0.018	0.018	0.050	~0.005	-	420	570

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
SXM0601-80L80R210C3	62	C3	±0.008	0.008	0.050	0	~0.013	560	950
SXM0601-80L80R210C5	62	C5	±0.018	0.018	0.065	~0.005	-	560	950

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

SXM0601K | Shaft dia.(轴径) 6 Lead(导程)1mm | C3&C5 |



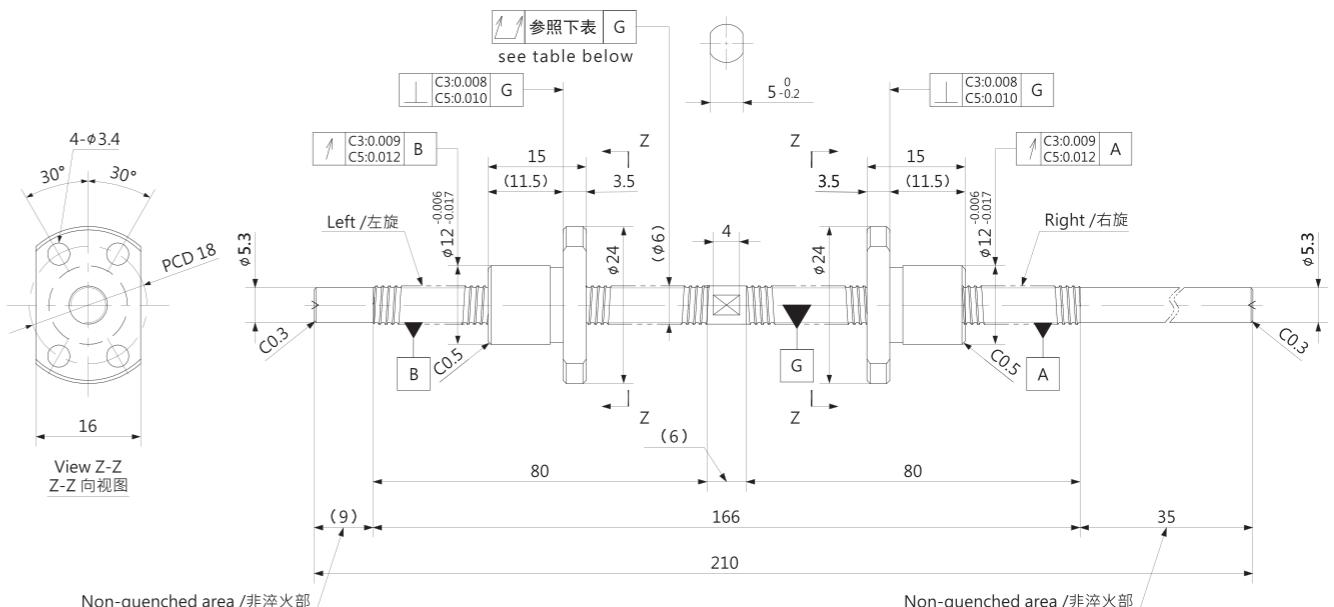
Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
BCD 钢珠中心直径	6.15		
Lead Angle 导程角	2°58'		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Left & Right 左右旋		
Shaft root dia 丝杠轴底径	φ5.3		
Number of circuit 循环数	1×3		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
SXM0601K-80L80R210C3	62	C3	±0.008	0.008	0.050	0	~0.013	560	950
SXM0601K-80L80R210C5	62	C5	±0.018	0.018	0.065	~0.005	-	560	950

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

SXM0601T | Shaft dia.(轴径) 6 Lead(导程)1mm | C3&C5 |



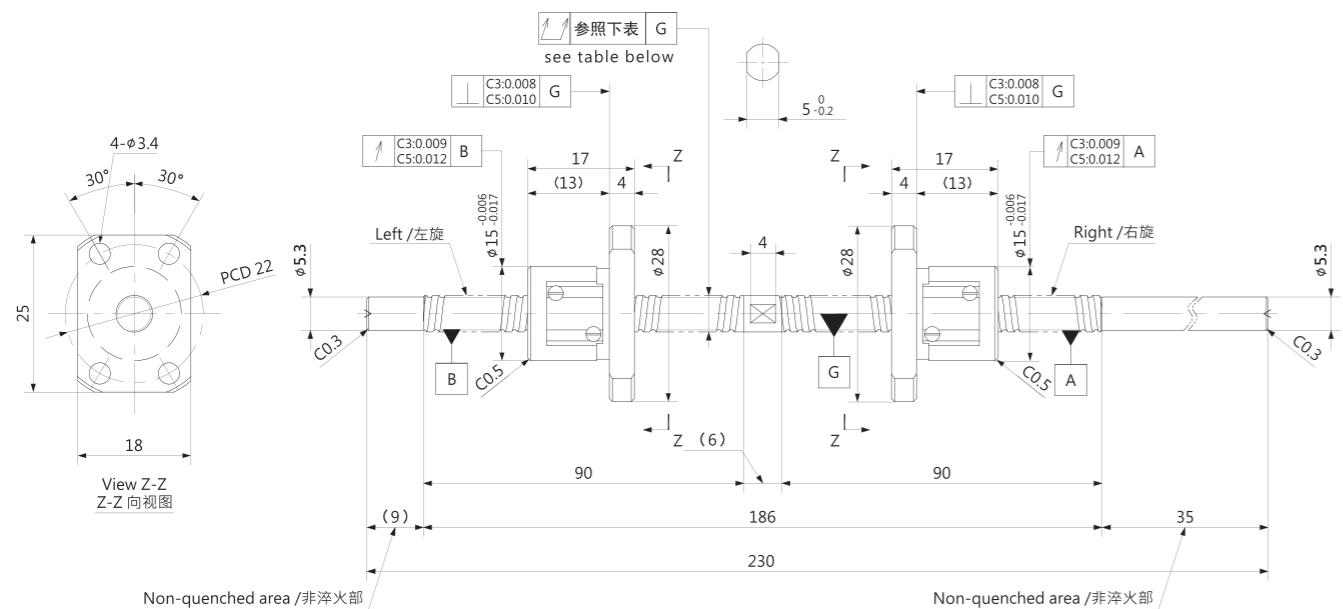
Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
BCD 钢珠中心直径	6.15		
Lead Angle 导程角	2°58'		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Left & Right 左右旋		
Shaft root dia 丝杠轴底径	φ5.3		
Number of circuit 循环数	1×3		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
SXM0601T-80L80R210C3	62	C3	±0.008	0.008	0.050	0	~0.013	560	950
SXM0601T-80L80R210C5	62	C5	±0.018	0.018	0.065	~0.005	-	560	950

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

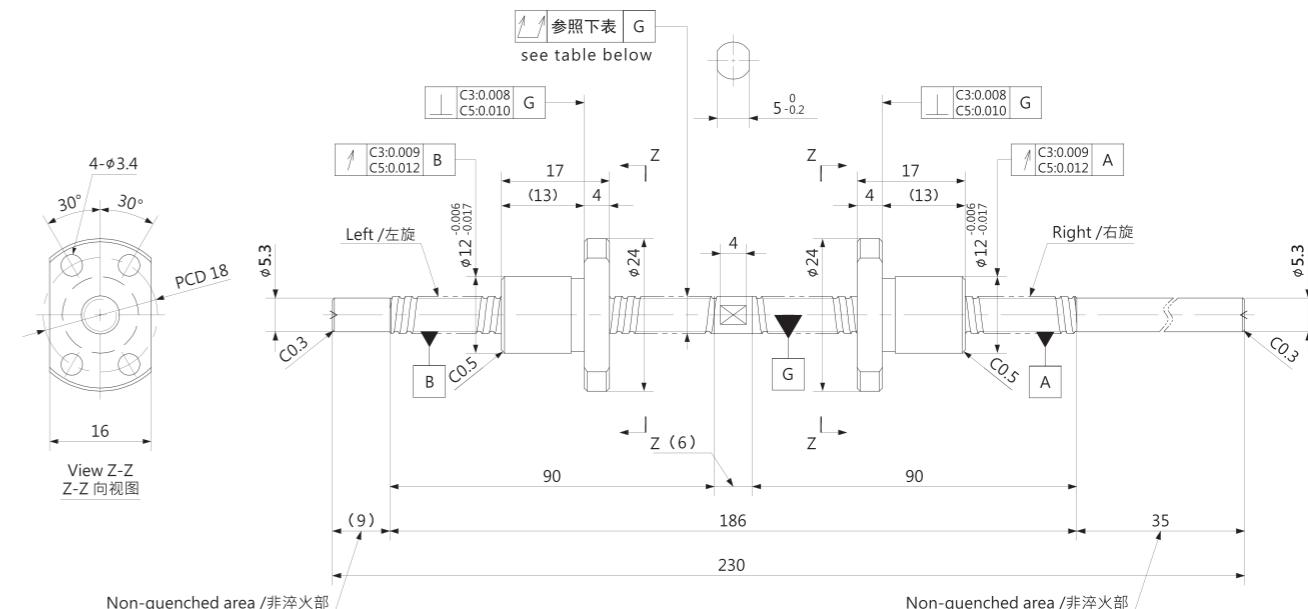
SXM0602 | Shaft dia.(轴径) 6 Lead(导程)2mm | C3&C5 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size	钢珠直径	φ1.0	
BCD	钢珠中心直径	6.20	
Lead Angle	导程角	5°52'	
Number of thread	螺纹条数	1	
Thread direction	螺纹旋向	Left & Right 左右旋	
Shaft root dia	丝杠轴底径	φ5.1	
Number of circuit	循环数	2.7×1	
Material	Shaft 轴	S55C	
材质	Nut 螺母	SCM415H	
Surface hardness	螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment	防锈处理	Anti-rust oil 防锈油	

SXM0602T | Shaft dia.(轴径) 6 Lead(导程)2mm | C3&C5 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size	钢珠直径	φ1.0	
BCD	钢珠中心直径	6.20	
Lead Angle	导程角	5°52'	
Number of thread	螺纹条数	1	
Thread direction	螺纹旋向	Left & Right 左右旋	
Shaft root dia	丝杠轴底径	φ5.1	
Number of circuit	循环数	1×3	
Material	Shaft 轴	S55C	
材质	Nut 螺母	SCM415H	
Surface hardness	螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment	防锈处理	Anti-rust oil 防锈油	

Unit(单位):mm

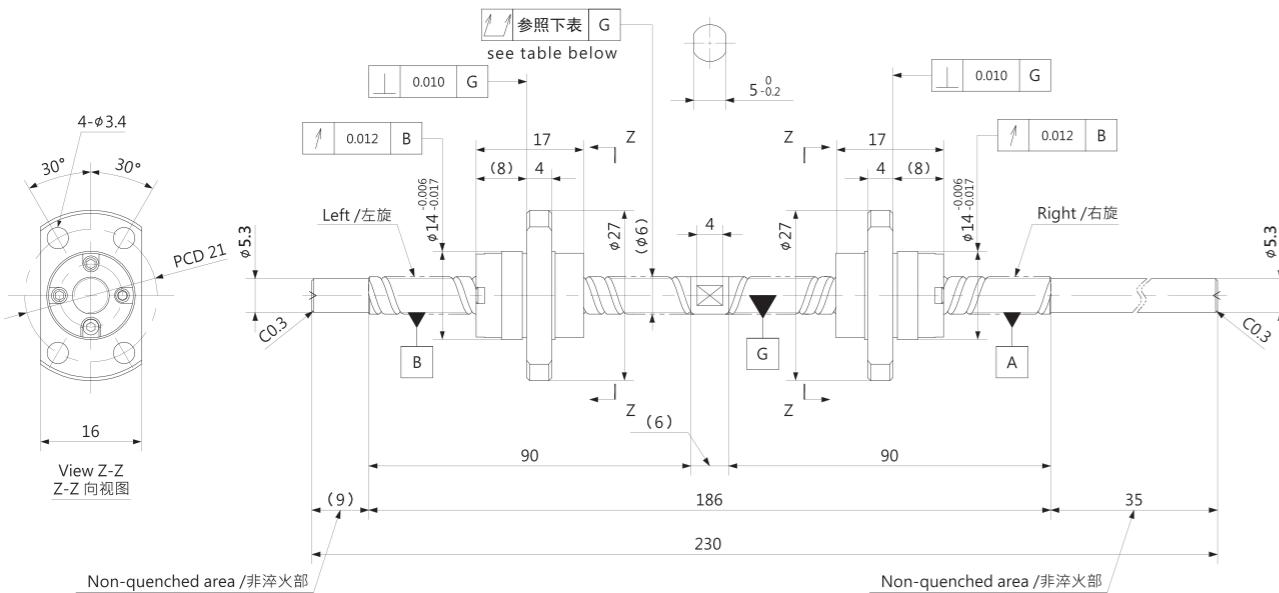
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			±0.008	0.008				750	1200
SXM0602-90L90R230C3	70	C3	±0.008	0.008	0.050	0	~0.013	750	1200
SXM0602-90L90R230C5	70	C5	±0.018	0.018	0.065	~0.005	-	750	1200

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			±0.008	0.008				750	1200
SXM0602T-90L90R230C3	70	C3	±0.008	0.008	0.050	0	~0.013	750	1200
SXM0602T-90L90R230C5	70	C5	±0.018	0.018	0.065	~0.005	-	750	1200

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

SXM0606 | Shaft dia.(轴径) 6 | Lead(导程)6mm | C5 |



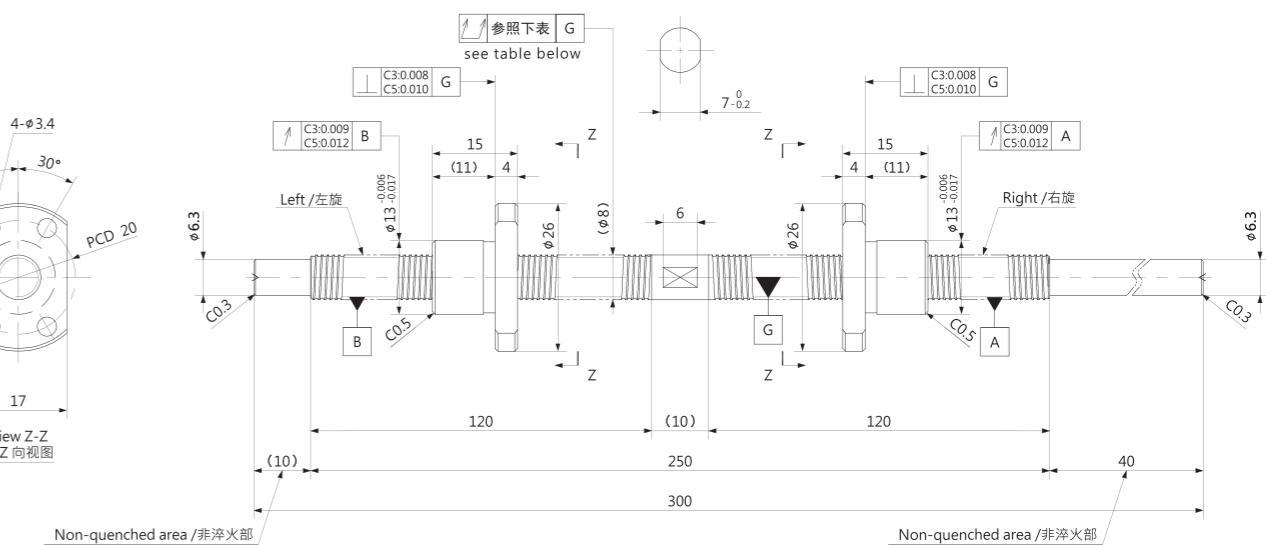
Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.0		
BCD 钢珠中心直径	6.30		
Lead Angle 导程角	16°50'		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Left & Right 左右旋		
Shaft root dia 丝杠轴底径	φ5.2		
Number of circuit 循环数	1.6×2		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			±0.018	0.018	0.065	~0.005	-	870	1450
SXM0606-90L90R230C5	70	C5							

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

SXM0801 | Shaft dia.(轴径) 8 | Lead(导程)1mm | C3&C5 |



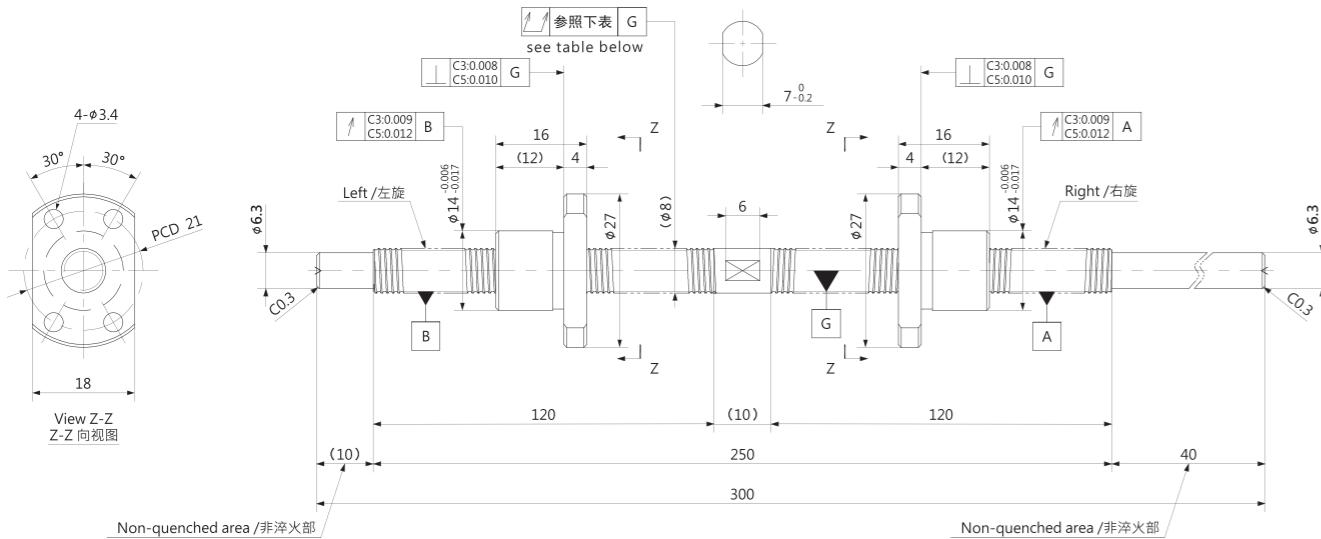
Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ0.8		
BCD 钢珠中心直径	8.20		
Lead Angle 导程角	2°13'		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Left & Right 左右旋		
Shaft root dia 丝杠轴底径	φ7.3		
Number of circuit 循环数	1×3		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
SXM0801-120L120R300C3	100	C3	±0.008	0.008	0.050	0	~0.018	650	1300
SXM0801-120L120R300C5	100	C5	±0.018	0.018	0.065	~0.005	-	650	1300

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

SXM0801T | Shaft dia.(轴径) 8 Lead(导程)1mm | C3&C5 |

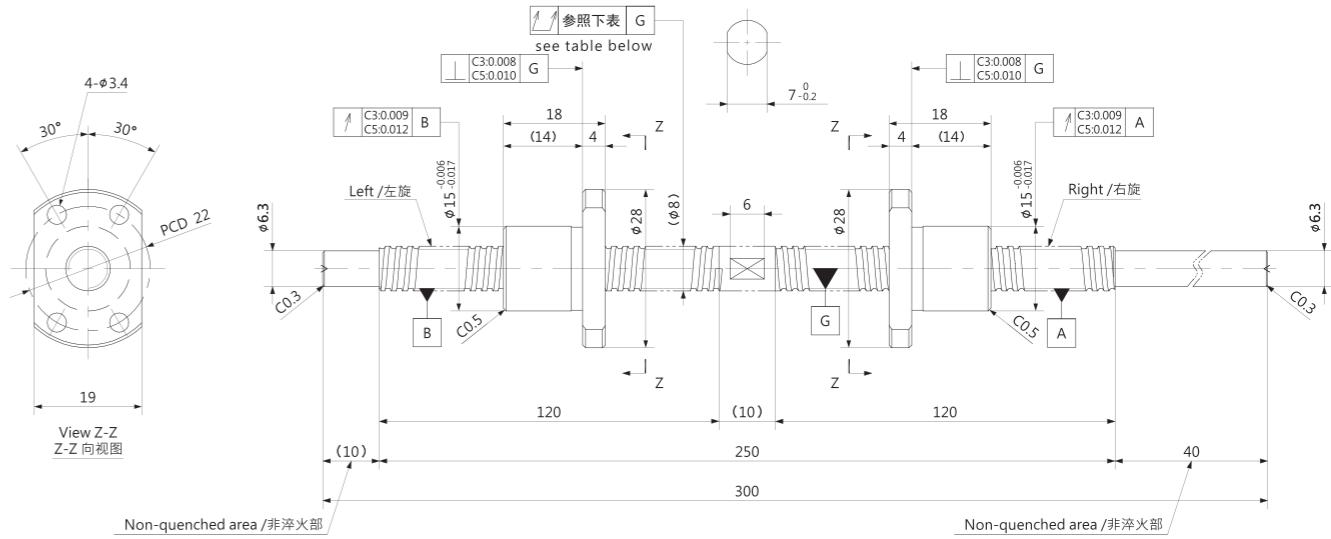


Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ0.8	
BCD 钢珠中心直径	8.20	
Lead Angle 导程角	2°13'	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Left & Right 左右旋	
Shaft root dia 丝杠轴底径	φ7.3	
Number of circuit 循环数	1×3	
Material 轴	S55C	
Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			e _p	V ₃₀₀					
SXM0801T-120L120R300C3	100	C3	±0.008	0.008	0.050	0	~0.018	650	1300
SXM0801T-120L120R300C5	100	C5	±0.018	0.018	0.065	~0.005	-	650	1300

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

SXM0802 | Shaft dia.(轴径) 8 Lead(导程)2mm | C3&C5 |

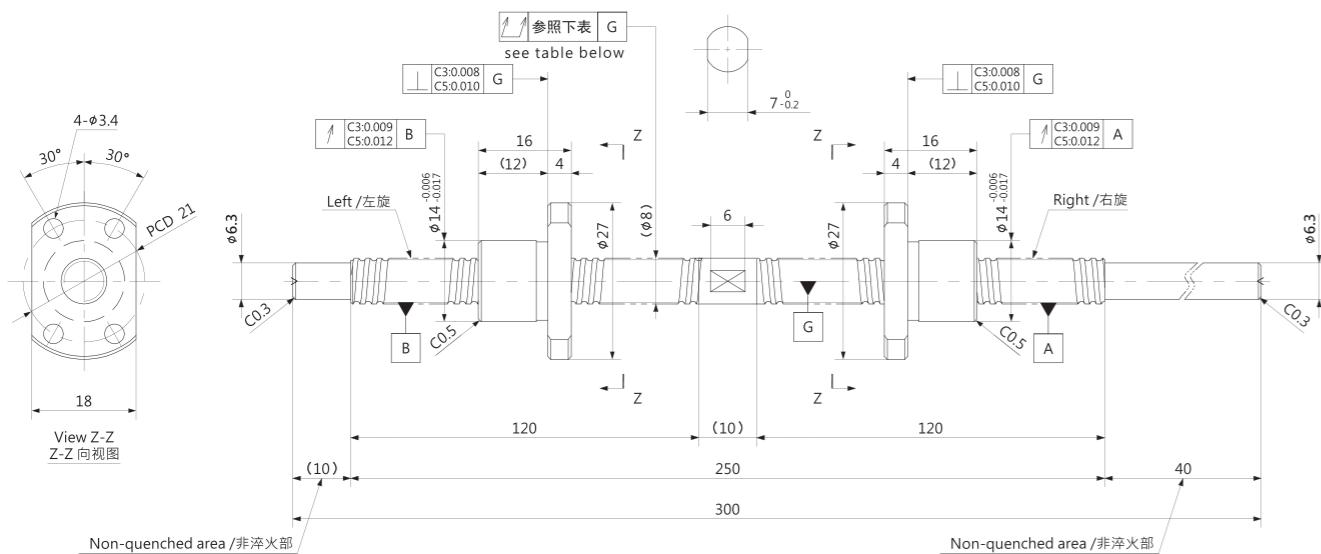


Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ1.2	
BCD 钢珠中心直径	8.30	
Lead Angle 导程角	4°23'	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Left & Right 左右旋	
Shaft root dia 丝杠轴底径	φ7.0	
Number of circuit 循环数	1×3	
Material 轴	S55C	
Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			e _p	V ₃₀₀					
SXM0802-120L120R300C3	100	C3	±0.008	0.008	0.050	0	~0.020	1300	2300
SXM0802-120L120R300C5	100	C5	±0.018	0.018	0.065	~0.005	-	1300	2300

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

SXM0802T | Shaft dia.(轴径) 8 Lead(导程)2mm | C3&C5 |

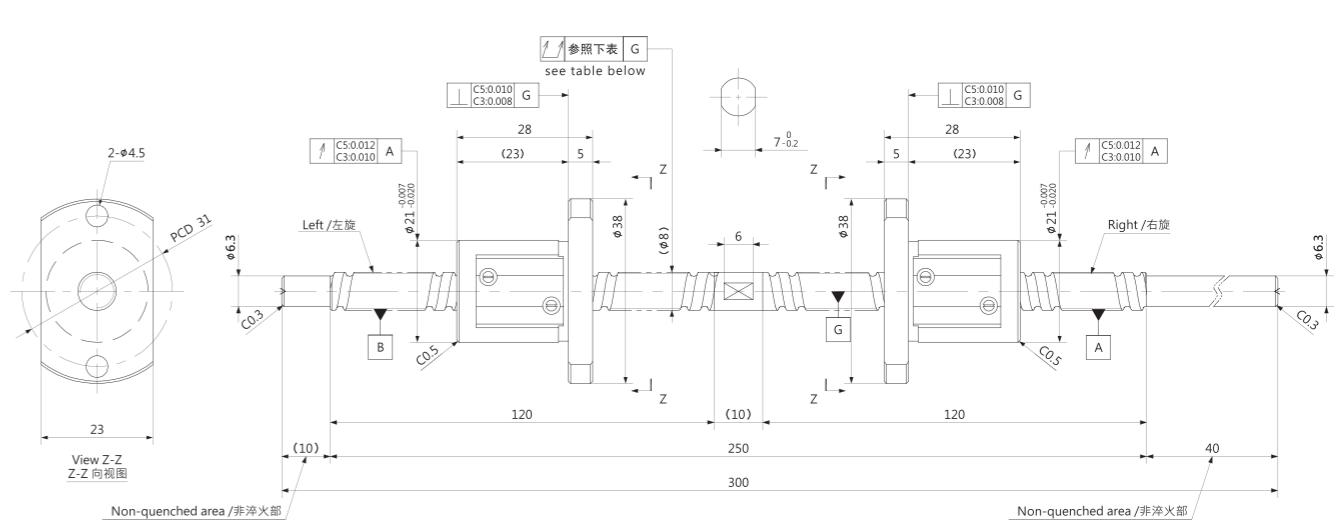


Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
BCD 钢珠中心直径	8.30		
Lead Angle 导程角	4°23'		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Left & Right 左右旋		
Shaft root dia 丝杠轴底径	φ7.0		
Number of circuit 循环数	1×3		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			e _p						
SXM0802T-120L120R300C3	100	C3	±0.008	0.008	0.050	0	~0.020	1300	2300
SXM0802T-120L120R300C5	100	C5	±0.018	0.018	0.065	~0.005	-	1300	2300

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

SXM0804G | Shaft dia.(轴径) 8 Lead(导程)4mm | C3&C5 |

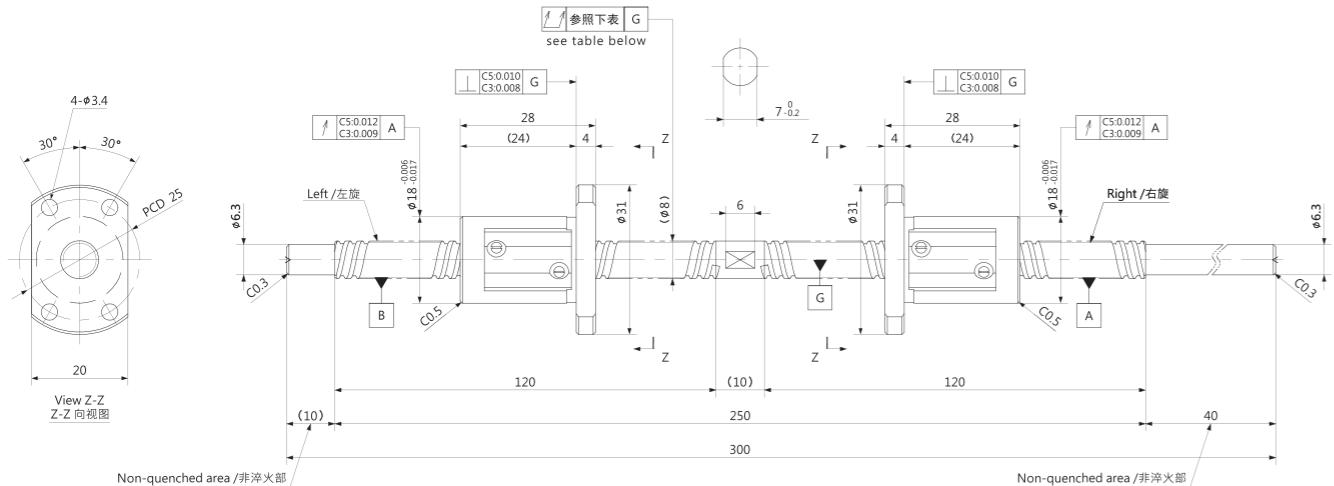


Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
BCD 钢珠中心直径	8.30		
Lead Angle 导程角	5°41'		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Left & Right 左右旋		
Shaft root dia 丝杠轴底径	φ6.20		
Number of circuit 循环数	2.7×1		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			e _p						
SXM0804G-120L120R300C3	88	C3	±0.008	0.008	0.050	0	~0.015	2600	4200
SXM0804G-120L120R300C5	88	C5	±0.018	0.018	0.065	~0.005	-	2600	4200

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

SXM0805 | Shaft dia.(轴径) 8 Lead(导程)5mm | C3&C5 |

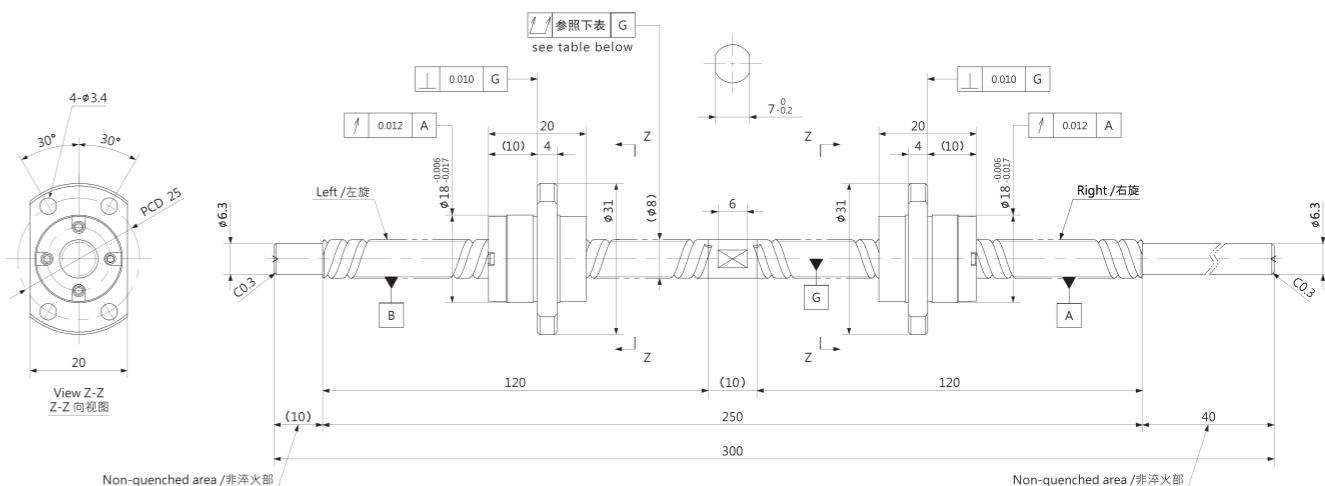


Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
BCD 钢珠中心直径	8.30		
Lead Angle 导程角	10°51'		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Left & Right 左右旋		
Shaft root dia 丝杠轴底径	φ6.6		
Number of circuit 循环数	2.7×1		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			±0.008	0.008	0.050	0	~0.015	1850	3000
SXM0805-120L120R300C3	88	C3	±0.008	0.008	0.050	0	~0.015	1850	3000
SXM0805-120L120R300C5	88	C5	±0.018	0.018	0.065	~0.005	-	1850	3000

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

SXM0808 | Shaft dia.(轴径) 8 Lead(导程)8mm | C5 |

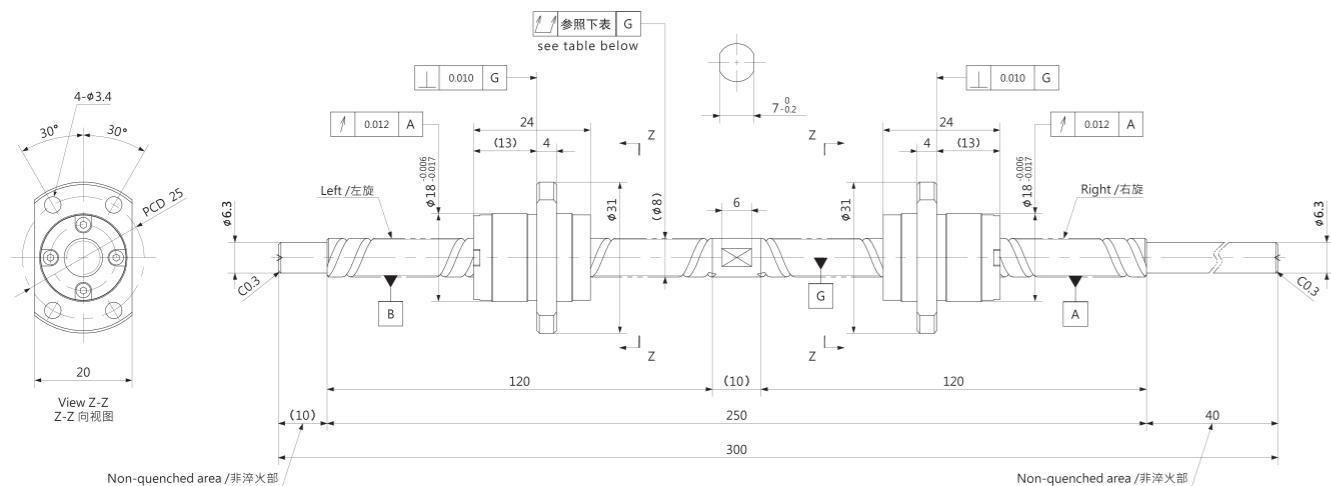


Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.5875		
BCD 钢珠中心直径	8.40		
Lead Angle 导程角	16°54'		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Left & Right 左右旋		
Shaft root dia 丝杠轴底径	φ6.7		
Number of circuit 循环数	1.6×2		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载	
			Travel deviation 代表移动量误差 e _p	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			±0.018	0.018	0.065	~0.005	-	1850	3000
SXM0808-120L120R300C5	96	C5	±0.018	0.018	0.065	~0.005	-	2200	3800

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

SXM0810 | Shaft dia.(轴径) 8 | Lead(导程)10mm | C5 |

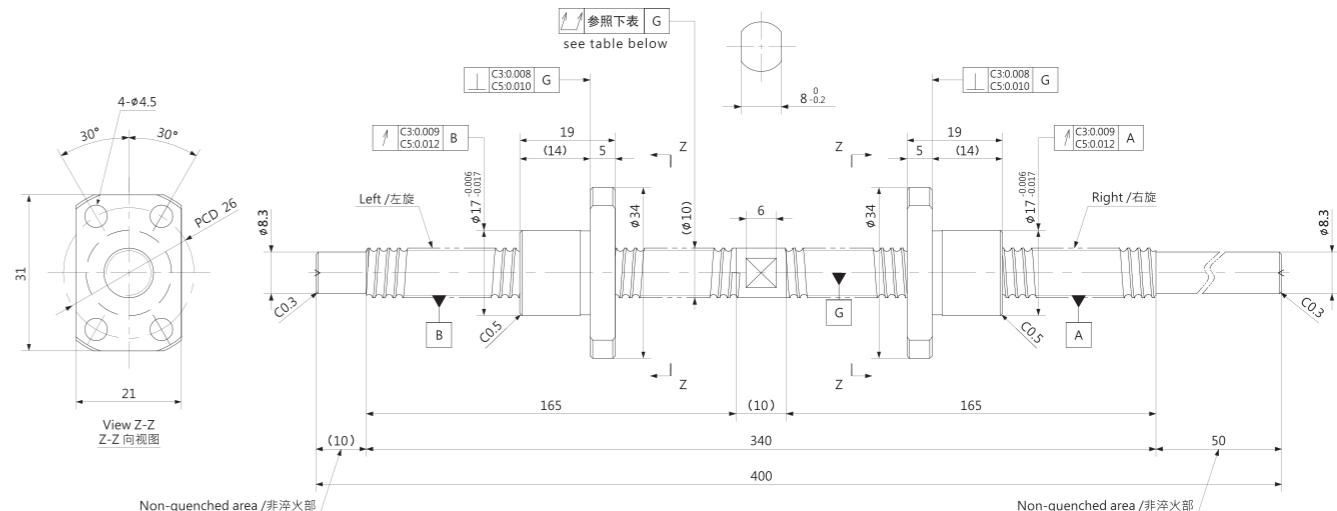


Unit (单位): mm	
Ball Screw Specifications 主要技术参数	
Ball size 钢珠直径 $\phi 1.5875$	
BCD 钢珠中心直径 8.40	
Lead Angle 导程角 $20^{\circ}45'$	
Number of thread 螺纹条数 2	
Thread direction 螺纹旋向 Left & Right 左右旋	
Shaft root dia 丝杠轴底径 $\phi 6.7$	
Number of circuit 循环数 1.6×2	
Material 材质	Shaft 轴 S55C
	Nut 螺母 SCM415H
Surface hardness 螺纹部表面硬度 HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理 Anti-rust oil 防锈油	

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			±0.018	0.018	0.065	~0.005	-	2200	3800
SXM0810-120L120R300C5	92	C5							

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

SXM1002K | Shaft dia.(轴径) 10 | Lead(导程)2mm | C3&C5 |

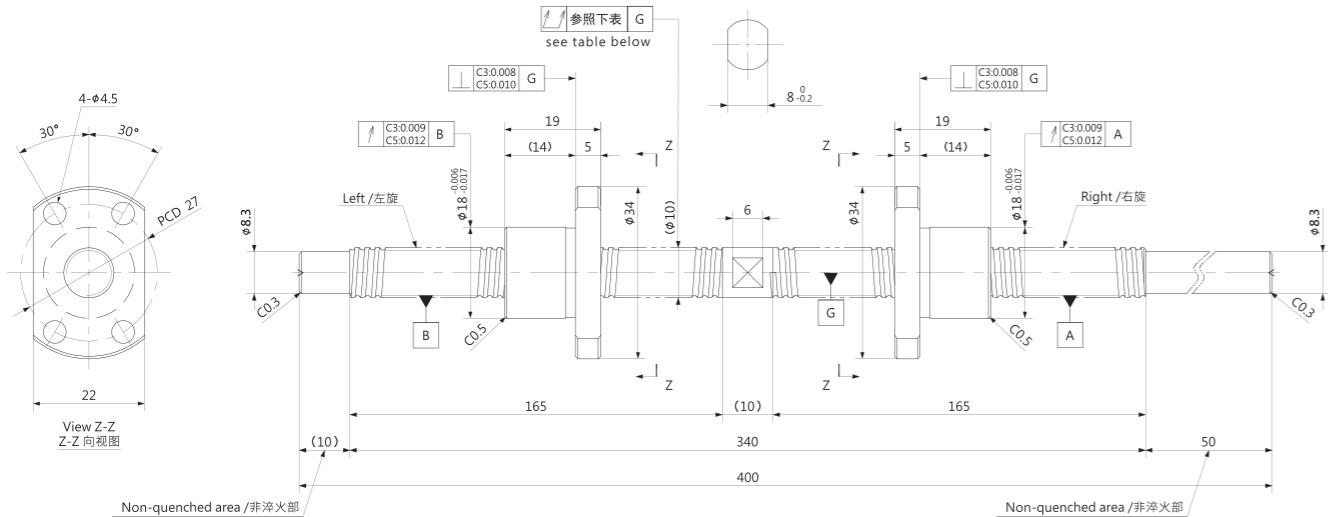


Unit (单位): mm	
Ball Screw Specifications 主要技术参数	
Ball size 钢珠直径 $\phi 1.2$	
BCD 钢珠中心直径 10.30	
Lead Angle 导程角 $3^{\circ}32'$	
Number of thread 螺纹条数 1	
Thread direction 螺纹旋向 Left & Right 左右旋	
Shaft root dia 丝杠轴底径 $\phi 9.0$	
Number of circuit 循环数 1×3	
Material 材质	Shaft 轴 S55C
	Nut 螺母 SCM415H
Surface hardness 螺纹部表面硬度 HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理 Anti-rust oil 防锈油	

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
SXM1002K-165L165R400C3	142	C3	±0.010	0.008	0.050	0	~0.025	1450	3000
SXM1002K-165L165R400C5	142	C5	±0.020	0.018	0.065	~0.005	-	1450	3000

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

SXM1002T | Shaft dia.(轴径) 10 Lead(导程)2mm | C3&C5 |

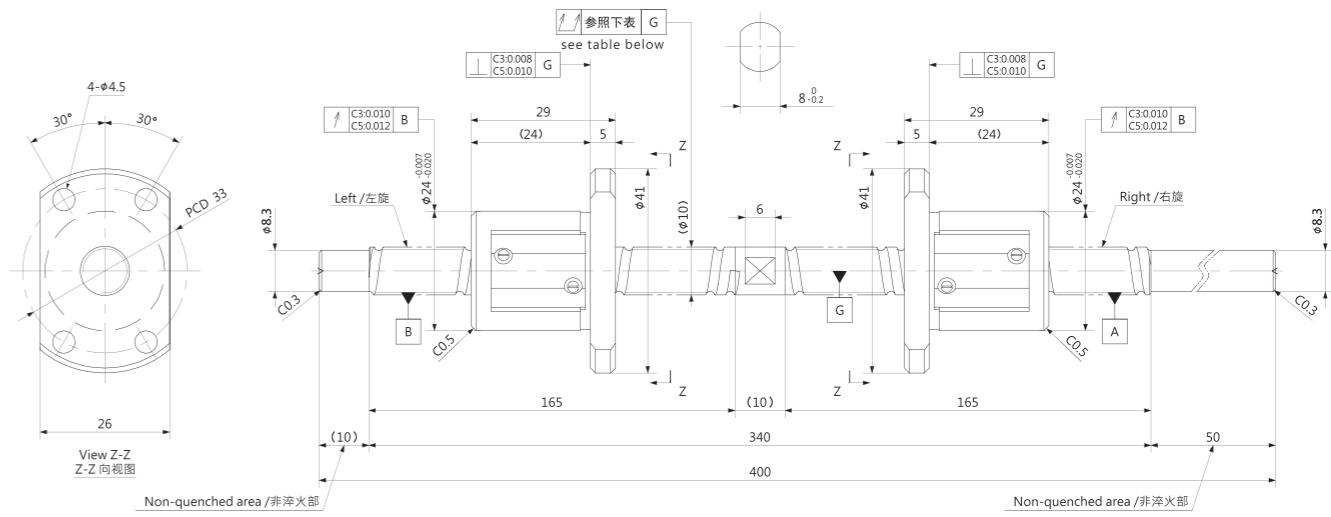


Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ1.2	
BCD 钢珠中心直径	10.30	
Lead Angle 导程角	3°32'	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Left & Right 左右旋	
Shaft root dia 丝杠轴底径	φ9.0	
Number of circuit 循环数	1×3	
Material 轴	S55C	
Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			e _p						
SXM1002T-165L165R400C3	142	C3	±0.010	0.008	0.050	0	~0.025	1450	3000
SXM1002T-165L165R400C5	142	C5	±0.020	0.018	0.065	~0.005	-	1450	3000

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

SXM1004 | Shaft dia.(轴径) 10 Lead(导程)4mm | C3&C5 |

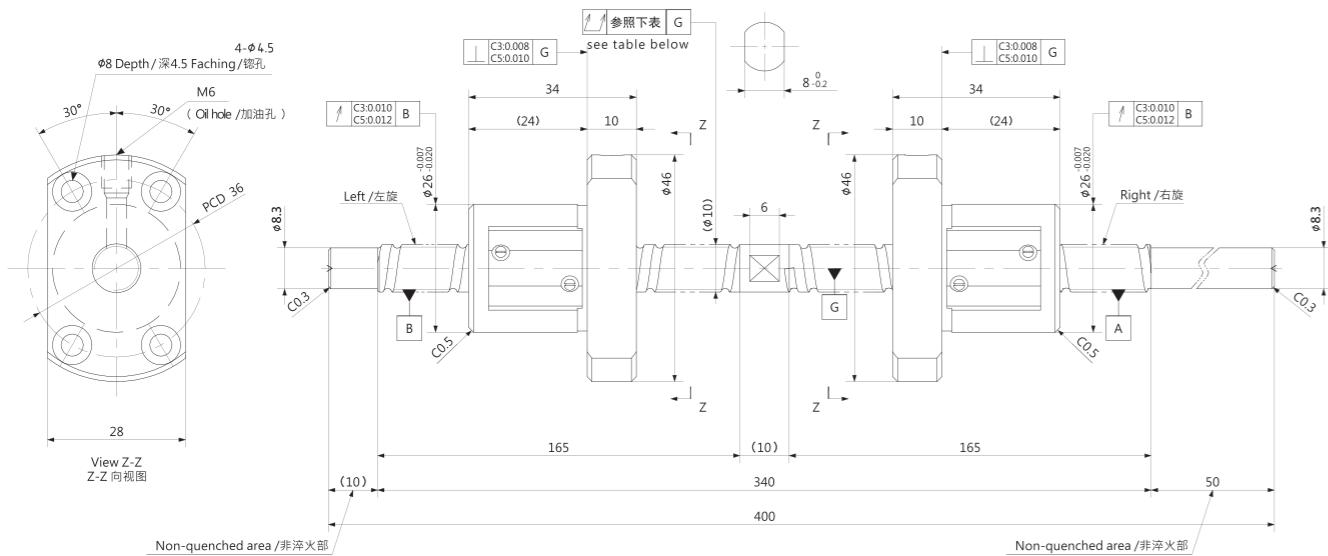


Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ2.0	
BCD 钢珠中心直径	10.30	
Lead Angle 导程角	7°03'	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Left & Right 左右旋	
Shaft root dia 丝杠轴底径	φ8.2	
Number of circuit 循环数	2.7×1	
Material 轴	S55C	
Nut 螺母	SCM415H	
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			e _p						
SXM1004-165L165R400C3	132	C3	±0.010	0.008	0.050	0	~0.025	1450	3000
SXM1004-165L165R400C5	132	C5	±0.020	0.018	0.065	~0.005	-	1450	3000

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

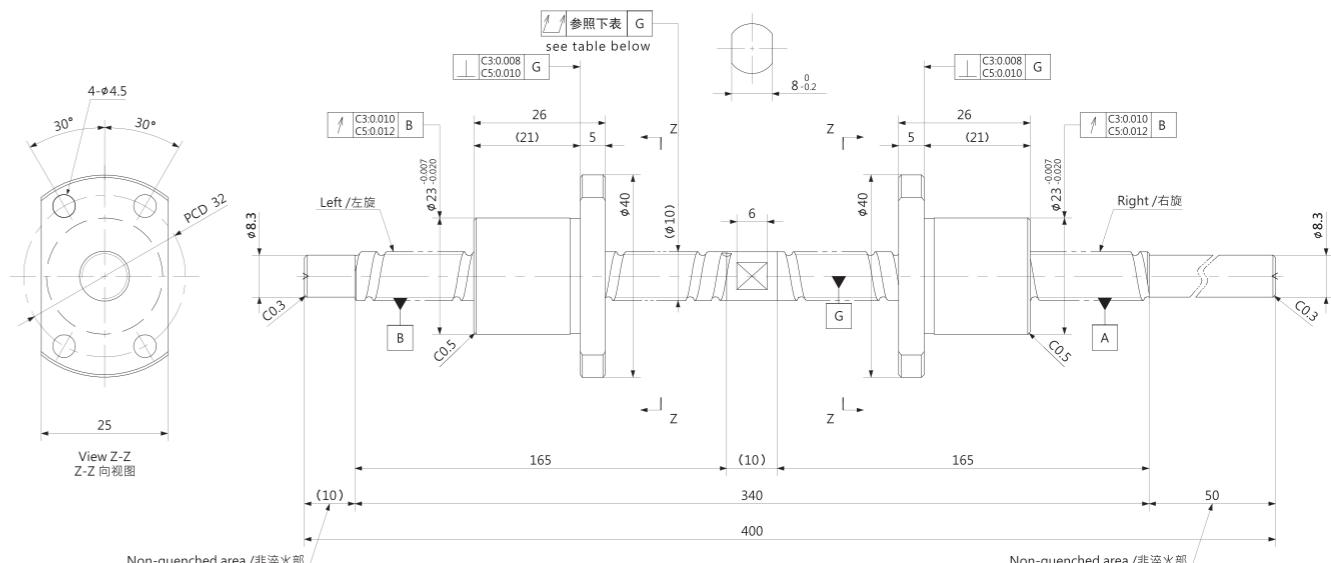
SXM1004T | Shaft dia.(轴径) 10 Lead(导程)4mm | C3&C5 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
BCD 钢珠中心直径	10.30		
Lead Angle 导程角	7°03'		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Left & Right 左右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

SXM1005 | Shaft dia.(轴径) 10 Lead(导程)5mm | C3&C5 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
BCD 钢珠中心直径	10.30		
Lead Angle 导程角	8°47'		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Left & Right 左右旋		
Shaft root dia 丝杠轴底径	φ8.2		
Number of circuit 循环数	2.7×1		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

Unit(单位):mm

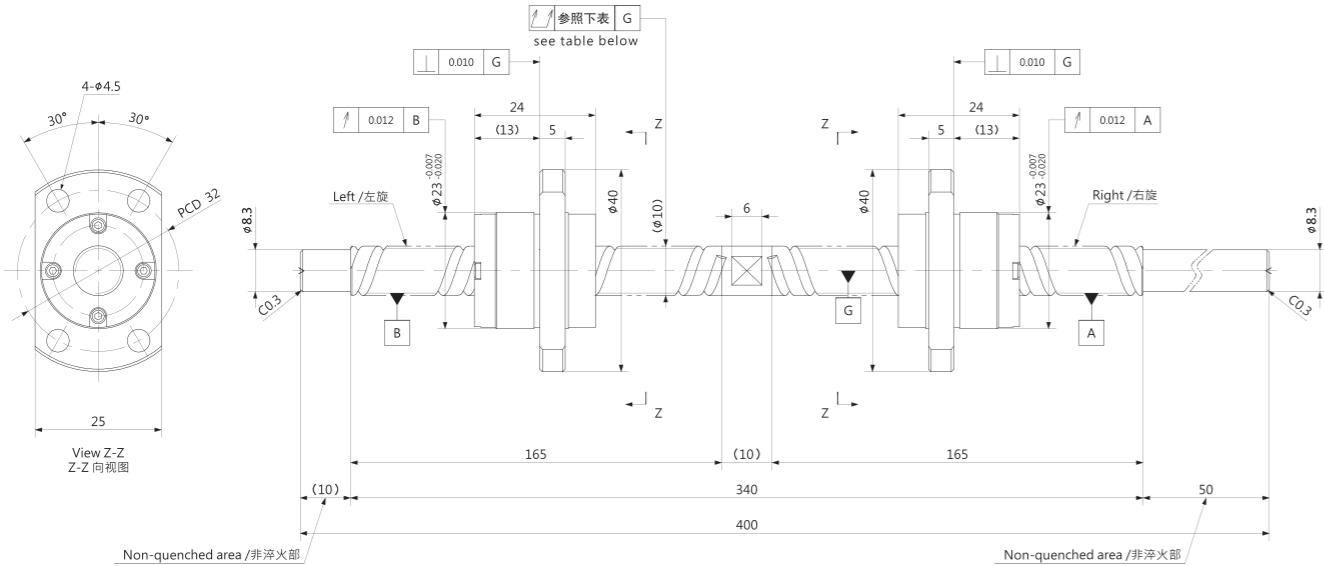
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			e _p	V ₃₀₀					
SXM1004T-165L165R400C3	126	C3	±0.010	0.008	0.050	0	0.005~0.040	3000	5200
SXM1004T-165L165R400C5	126	C5	±0.020	0.018	0.065	~0.005	-	3000	5200

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			e _p	V ₃₀₀					
SXM1005-165L165R400C3	135	C3	±0.010	0.008	0.050	0	~0.045	3000	5200
SXM1005-165L165R400C5	135	C5	±0.020	0.018	0.065	~0.005	-	3000	5200

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

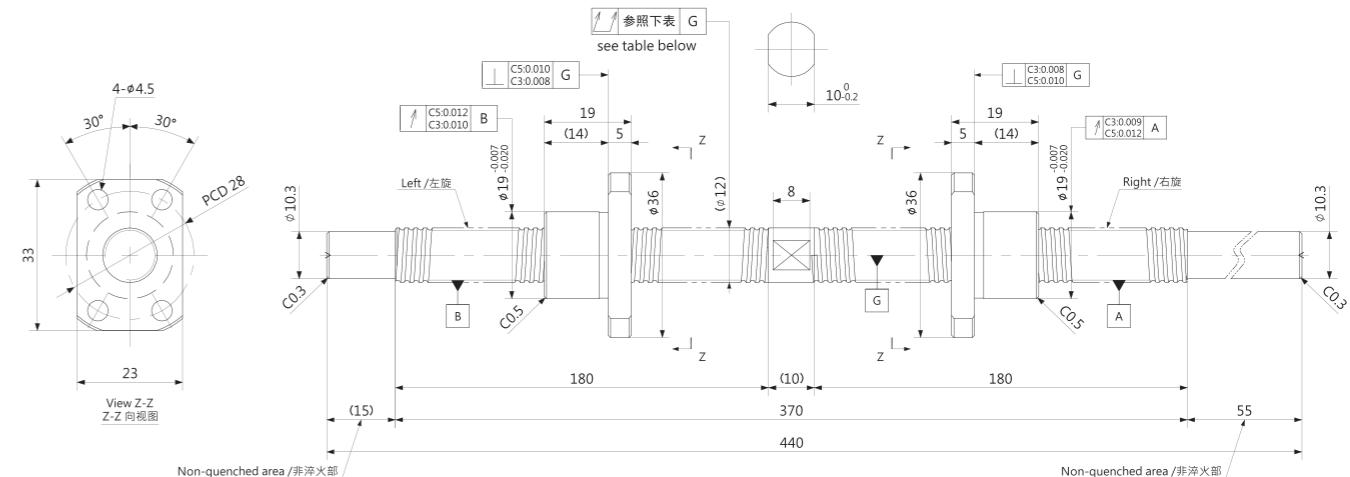
SXM1010 | Shaft dia.(轴径) 10 Lead(导程)10mm | C5 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ2.0		
BCD 钢珠中心直径	10.50		
Lead Angle 导程角	16°52'		
Number of thread 螺纹条数	2		
Thread direction 螺纹旋向	Left & Right 左右旋		
Shaft root dia 丝杠轴底径	φ8.40		
Number of circuit 循环数	1.6×2		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

SXM1202K | Shaft dia.(轴径) 12 Lead(导程)2mm | C3&C5 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数	
Ball size 钢珠直径	φ1.2		
BCD 钢珠中心直径	12.30		
Lead Angle 导程角	2°58'		
Number of thread 螺纹条数	1		
Thread direction 螺纹旋向	Left & Right 左右旋		
Shaft root dia 丝杠轴底径	φ11.0		
Number of circuit 循环数	1×3		
Material 轴	S55C		
Nut 螺母	SCM415H		
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)		
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油		

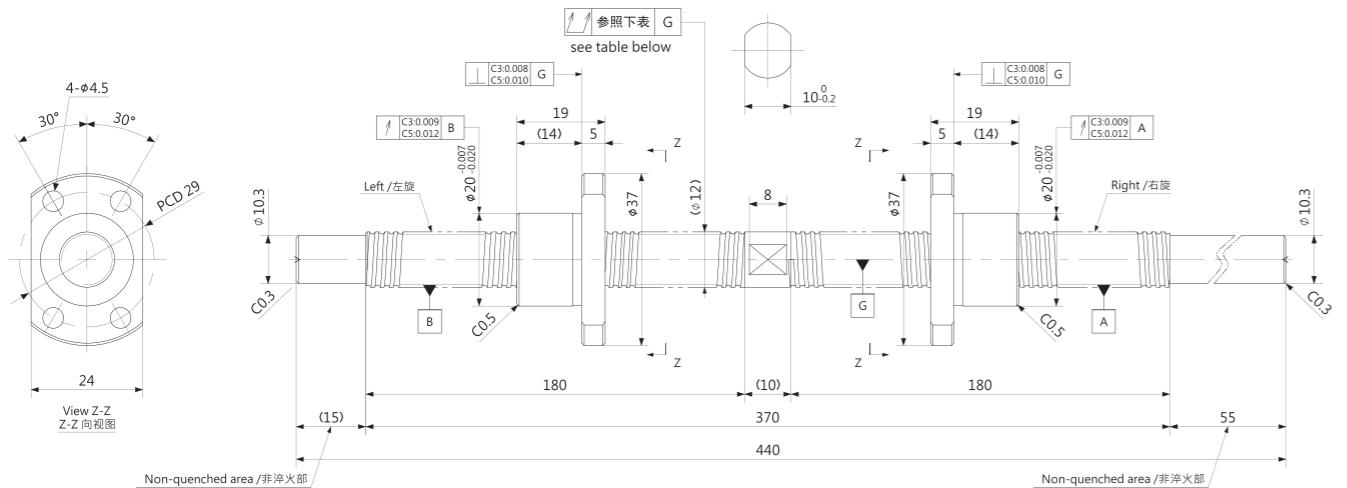
Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩	Basic Load Rating 基本额定负载 N		Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀				Dynamic 额定动负载	Static 额定静负载				Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
			±0.020	0.018	0.065	~0.005	-	3300	5900	SXM1202K-180L180R440C3	155	C3	±0.010	0.008	0.065	0	~0.035	1600	3700
SXM1010-165L165R400C5	136	C5	±0.020	0.018	0.065	~0.005	-	3300	5900	SXM1202K-180L180R440C5	155	C5	±0.020	0.018	0.080	~0.005	-	1600	3700

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差	Variation 波动 V ₃₀₀				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
SXM1202K-180L180R440C3	155	C3	±0.010	0.008	0.065	0	~0.035	1600	3700
SXM1202K-180L180R440C5	155	C5	±0.020	0.018	0.080	~0.005	-	1600	3700

Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

SXM1202T | Shaft dia.(轴径) 12 Lead(导程)2mm | C3&C5 |



Unit (单位): mm

Ball Screw Specifications		主要技术参数
Ball size 钢珠直径	φ1.2	
BCD 钢珠中心直径	12.30	
Lead Angle 导程角	2°58'	
Number of thread 螺纹条数	1	
Thread direction 螺纹旋向	Left & Right 左右旋	
Shaft root dia 丝杠轴底径	φ11.0	
Number of circuit 循环数	1×3	
Material 材质	Shaft 轴	S55C
	Nut 螺母	SCM415H
Surface hardness 螺纹部表面硬度	HRC58~62 (Thread area)	
Anti-rust treatment 防锈处理	Anti-rust oil 防锈油	

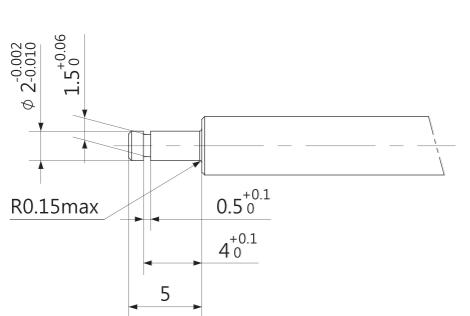
Unit (单位): mm

Ball Screw Model 滚珠丝杠型号	Travel 行程	Grade 精度	Lead accuracy 导程精度		Total Run-out 全跳动	Axial play 轴向间隙	Preload Torque 预压扭矩 Nm	Basic Load Rating 基本额定负载 N	
			Travel deviation 代表移动量误差 e_p	Variation 波动 V_{300}				Dynamic 额定动负载 Ca	Static 额定静负载 Coa
SXM1202T-180L180R440C3	155	C3	±0.010	0.008	0.065	0	~0.035	1600	3700
SXM1202T-180L180R440C3	155	C5	±0.020	0.018	0.080	~0.005	-	1600	3700

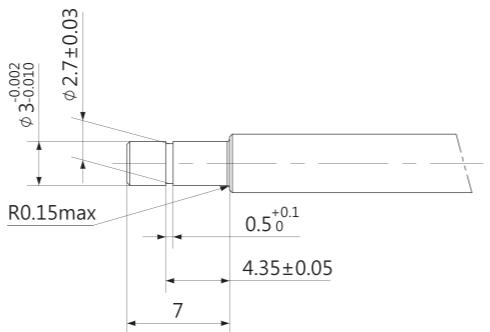
Note) Please designate end-journal profile with your sketch. 注) 轴端的追加加工请结合图纸进行指示。

MEMO

支撑侧 Supported side

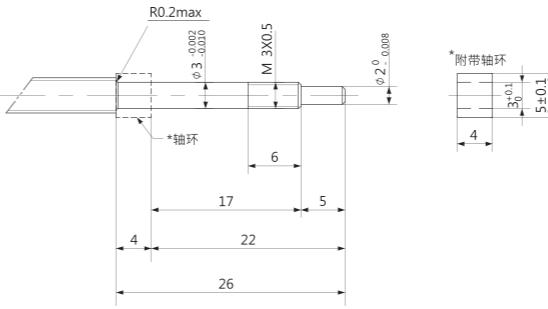


Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ2	MSU-3CS / MSU-3GS

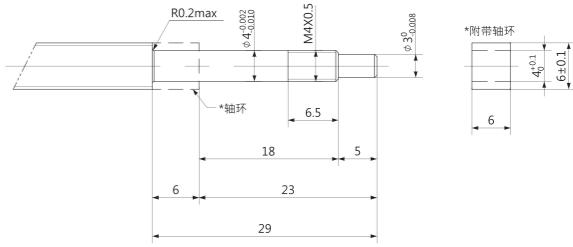


Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ3	MSU-4CS / MSU-4GS , SUP03-S

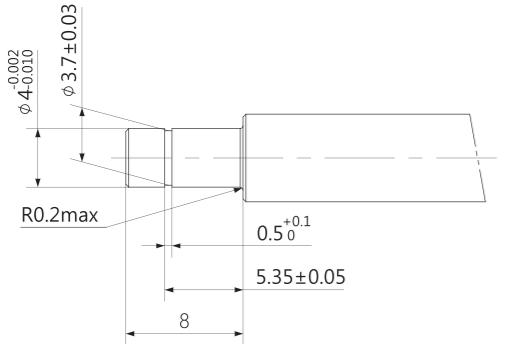
固定侧 Fixed side



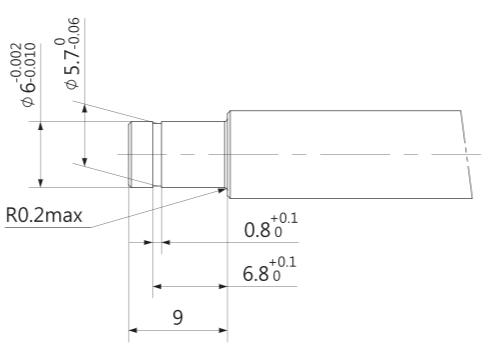
Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ3	MSU-3C / MSU-3G



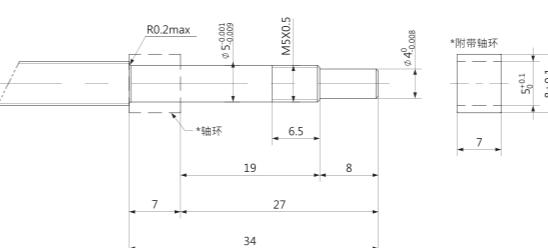
Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ4	MSU-4C / MSU-4G



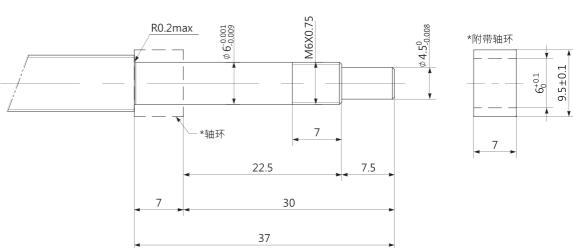
Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
Φ4	MSU-5CS / MSU-5GS , SUP04-S



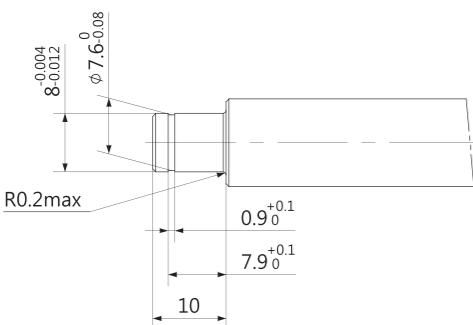
Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ6	MSU-6CS / MSU-6GS MSU-8CS / MSU-8GS



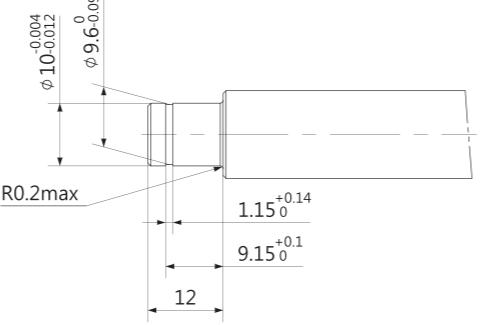
Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ5	MSU-5C / MSU-5G



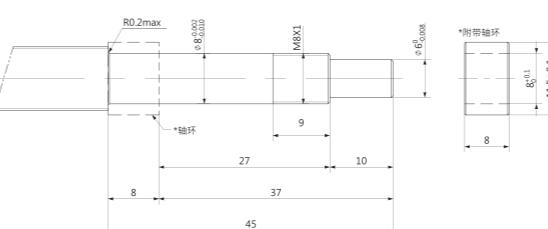
Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ6	MSU-6C / MSU-6G



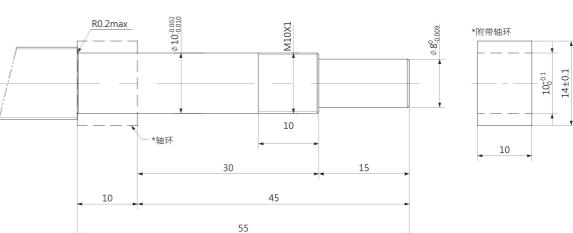
Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ8	EF08



Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
φ10	EF10



Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
Φ8	MSU-8C / MSU-8G



Brg. Inner Dia. 轴承内径	Support Unit Model 适用的支架组件
Φ10	EK10