Application of Bearings

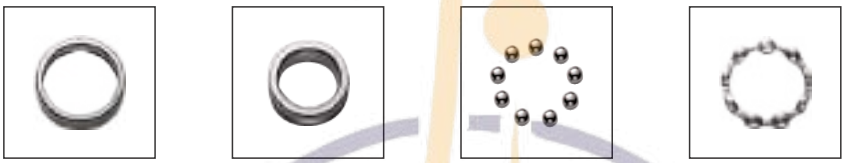
Bearings are components that fix and reduce the coefficient of friction of the load during mechanical transmission. It's the mechanism for lowering the friction coefficient during power transmission and maintaining the intermediate position of the shaft is fixed when other parts move relative to each other on the shaft.Bearings are an insignificant component in today's machinery and equipment. Its main function is to support the mechanical rotating body to reduce the mechanical load friction coefficient of the equipment during the transmission process.Bearings can be divided into two types: rolling bearings and plain bearings.

Product overview

Deep groove ball bearings | Angular contact ball bearings | Thrust ball bearings | Cylindrical roller bearings | Tapered roller bearings | Spherical roller bearings | Thrust needle roller bearings

Design and Classification

Rolling bearings generally consist of the following four parts:



Outer Ring | Inner Ring | Rolling Elements | Cage

Features Of Rolling Bearings

Features \ Bearing Types		Deep groove ball bearings	Thrust ball bearings		Thrust needle roller bearings	Angular contact ball bearings			Spherical roller bearings
			With Flat Seat	With Aligning Seat		Single	Matched bearings	Double-Row	
Load Capacity	Radial Loads	○	X	X	X	○	◎	◎	○
	Axial Loads	○ ←→	○ ←	○ ←	◎←	◎←	◎←→	◎←→	△←→
	Combined Loads	○	X	X	X	○	◎	◎	△
	Impact resistance	△	△	△	○	△	△	△	△
High Speeds		◎	△	△	△	◎	◎	○	△
High Accuracy		◎	○			◎	◎		
Low Noise and Torque		◎							
Rigidity					◎		○		
Angular Misalignment		○	X	◎	X	△	X	X	◎
Ring Separability		X	■	■	■	X	X	X	X
Bearing Arrangements	Fixed-End	■ ←→				■ ←	■ ←→	■ ←→	■ ←→
	Free-End	□					□	□	□

Notes: ◎: Excellent ○: Good △: Fair x: Impossible □: Applicable ■: Applicable, but it is necessary to allow shaft contraction/elongation at fitting surfaces of bearings.
←: One direction only ←→: Two directions

Mounting

The correct installation of the bearing directly affects the accuracy, life and performance of the bearing. Therefore, it should be carried out in accordance with the operating standards. The operation standard items are usually as follows:

●Cleaning the bearings and related parts; ●Checking the dimensions and finish of related parts;
●Mounting procedures; ●Inspection after mounting; ●Supply of lubricants.

Bearings should not be unpacked until immediately before mounting. When using ordinary grease ubrication, the grease should be packed in the bearings without first cleaning them. Even in the case of ordinary oil lubrication, cleaning the bearings is not required. However, bearings for instruments or for high speed operation must first be cleaned with clean filtered oil in order to remove the anti-corrosion agent.After the bearings are cleaned with filtered oil, they should be protected to prevent corrosion. Prelubricated bearings must be used without cleaning. Bearing mounting
methods depend on the bearing type and type of fit. As bearings are usually used on rotating shafts, the inner rings require a tight fit. Bearings with cylindrical bores are usually mounted by pressing them on the shafts (press fit) or heating them to expand their diameter (shrink fit). Bearings with tapered bores can be mounted directly on tapered shafts or cylindrical shafts using tapered sleeves. Bearings are usually mounted in housings with a loose fit. However, in cases where the outer ring has an interference fit, a press may be used. Bearings can be interference-fitted by cooling them
before mounting using dry ice. In this case, a rust preventive treatment must be applied to the bearing because moisture in the air condenses on its surface.

(1)Mounting of Bearings with Cylindrical Bores

Fitting with a press is widely used for small bearings. A mounting tool is placed on the inner ring as shown in Fig. 1 and the bearing is slowly pressed on the shaft with a press until the side of the inner ring rests against the shoulder of the shaft. The mounting tool must not be placed on the outer ring for press mounting, since the bearing may be damaged. Before mounting, applying oil to the fitted shaft surface is recommended for smooth insertion. The mounting method using a hammer should only be used for small ball bearings with minimally tight fits and when a press is not available. In the case of tight interference fits or for medium and large bearings, this method should not be used. Any time a hammer is used, a mounting tool must be placed on the inner ring. When both the inner and outer rings of non-separable bearings, such as deep groove ball bearings, require tight-fit, a mounting tool is placed on both rings as shown in Fig. 2, and both rings are fitted at the same time using a screw or hydraulic press.
In the case of separable bearings, such as cylindrical roller bearings and tapered roller bearings, the inner and outer rings may be mounted separately. Assembly of the inner and outer rings, which were previously mounted separately, should be done carefully to align the inner and outer rings correctly. Careless or forced assembly may cause scratches on the rolling contact surfaces.

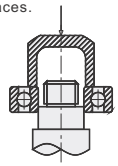


Fig. 1 Press Fitting Inner Ring

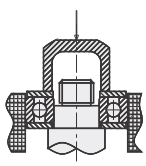


Fig. 2 Simultaneous Press Fitting of Inner and Outer Rings

(2)Mounting of Bearings with Tapered Bores

Bearings with tapered bores are mounted on tapered shafts directly or on cylindrical shafts with adapters or withdrawal sleeves . Large spherical roller bearings are often mounted using hydraulic pressure. Fig. 6 shows a bearing mounting utilizing a sleeve and hydraulic nut. Holes are drilled in the sleeve which are used to feed oil under pressure to the bearing seat. As the bearing expands radially, the sleeve is inserted axially with adjusting bolts. Spherical roller bearings should be mounted while checking their radial-clearance reduction and referring to the push-in amounts. The radial clearance must be measured using clearance gauges. In this measurement, the clearance for both rows of rollers must be measured simultaneously, and these two values should be kept roughly the same by adjusting the relative position of the outer and inner rings.When a large bearing is mounted on a shaft, the clearance should be measured.

Dismounting

A bearing may be removed for periodic inspection or for other reasons. If the removed bearing is to be used again or it is removed only for inspection, it should be dismounted as carefully as when it was mounted. If the bearing has a tight fit, its removal may be difficult. The means for removal should be considered in the original design of the adjacent parts of the machine. When dismounting, the procedure and sequence of removal should first be studied using the machine drawing and considering the type of mounting fit in order to perform the operation properly.

(1)Dismounting of Outer Rings

A bearing may be removed for periodic inspection or for other reasons. If the removed bearing is to be used again or it is removed only for inspection, it should be dismounted as carefully as
when it was mounted. If the bearing has a tight fit, its removal may be difficult. The means for removal should be considered in the original design of the adjacent parts of the machine. When
dismounting, the procedure and sequence of removal should first be studied using the machine drawing and considering the type of mounting fit in order to perform the operation properly.

(2)Dismounting of Bearings with Cylindrical Bores

If the mounting design allows space to press out the inner ring, this is an easy and fast method. In this case, the withdrawal force should be imposed only on the inner ring (Fig. 3). Withdrawal tools
like those shown in Figs. 4 and 5 are often used.In both cases, the claws of the tools must substantially engage the face of the inner ring; therefore, it is advisable to consider the size of the shaft
shoulder or to cut grooves in the shoulder to accommodate the withdrawal tools (Fig. 5).
The oil injection method is usually used for the withdrawal of large bearings. The withdrawal is achieved easily by mean of oil pressure applied through holes in the shaft. In the case of extra wide
bearings, the oil injection method is used together with a withdrawal tool.

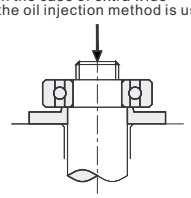


Fig. 3 Removal of Inner Ring Using a Press

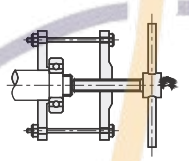


Fig. 4 Removal of Inner Ring Using Withdrawal Tool (1)

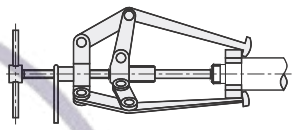


Fig. 5 Removal of Inner Ring Using Withdrawal Tool (2)

(3)Dismounting of Bearings with Tapered Bores

When dismounting relatively small bearings with adapters, the inner ring is held by a stop fastened to the shaft and the nut is loosened several turns. This is followed by hammering on the sleeve using a suitable tool as shown in Fig. 8. Fig. 9 shows one procedure for dismounting a withdrawal sleeve by tightening the removal nut. If this procedure is difficult, it may be possible to drill and tap bolt holes in the nut and withdraw the sleeve by tightening the bolts.Large bearings may be withdrawn easily using oil pressure. Fig. 10 illustrates the removal of a bearing by forcing oil under pressure through a hole and groove in a tapered shaft to expand the inner ring. The bearing may suddenly move axially when the interference is relieved during this procedure so a stop nut is recommended for protection. Fig. 11shows a withdrawal using a hydraulic nut.Induction heating is used to remove the inner rings. The inner rings are expanded by brief local heating, and then withdrawn (Fig. 12). Induction heating is also used to mount several bearings of these types on a shaft.

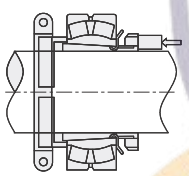


Fig. 8 Removal of Adapter with Stop and Axial Pressure

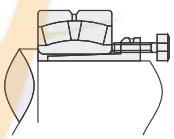


Fig. 9 Removal of Withdrawal Sleeve Using Withdrawal Nut

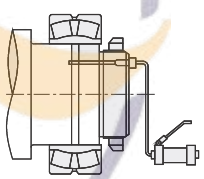


Fig. 10 Removal Using Oil Injection Hydraulic Pump

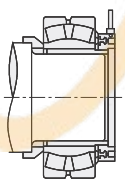


Fig. 11 Removal Using Hydraulic Nut

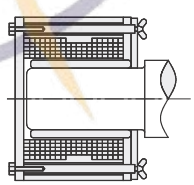


Fig. 12 Removal of Inner Ring Using Induction Heater

Precautions for Proper Handling of Bearings

Since rolling bearings are high precision machine parts, they must be handled accordingly. Even if high quality bearings are used, their expected performance cannot be achieved if they are not handled properly.The main precautions to be observed are as follows:

(1)Keep Bearings and Surrounding Area Clean

Dust and dirt, even if invisible to the naked eye, have harmful effects on bearings. It is necessary to prevent the entry of dust and dirt by keeping the bearings and their environment as clean as possible.

(2)Careful Handling。

Heavy shocks during handling may cause bearings to be scratched or otherwise damaged possibly resulting in their failure. Excessively strong impacts may cause brinelling, breaking, or cracking.

(3)Use Proper Tools

Always use the proper equipment when handling bearings and avoid general purpose tools.

(4)Prevent Corrosion

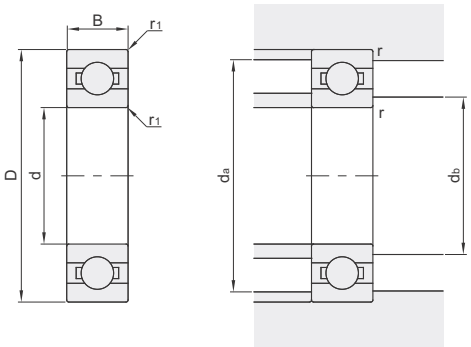
Since perspiration on the hands and various other contaminants may cause corrosion, keep the hands clean when handling bearings. Wear gloves if possible.Pay attention to rust of bearing caused by corrosive gasses.

Economical Small Deep Groove Ball Bearings

Open Type

Code	Type	Bearing Type Code	Bearing Accuracy	Bearing Material	
				GB	Equiv.
BAC...-E	Economical	6	GB/T 307.1 Class 0	GCr15	SUJ2

Installation Diagram



- Shipped with no grease applied. Please apply grease before using.
- The economical type is suitable for low to medium speed and low load.
- No commitment to brand.

The First Perspective

Part Number		d	D	B	r1 (min)	Basic Load Rating		Allowable Rotational Speed rpm (Reference)	Relative Dimensions			Mass (g) (Reference)
Code	Bearing Part Number					Cr (Dynamic) N	Cor (Static) N		db (min)	da (max)	r (max)	
BAC...-E	683		7	2	0.1	311	112	63000	3.85	6.35	0.1	0.32
	603	3	9	3	0.15	571	189	56000	4.35	7.9	0.15	0.84
	623		10	4		631	219	50000		7.98		1.45
	634	4	16		0.3	1340	523	36000	6.7	13	0.3	5.24
	605	5	14	5	0.2	1329	507	40000	6.9	12.2	0.2	3.46
	625		16			1729	675	36000	7.5	13.8		4.95
	606	6	17	6		2263	846	38000	8.2	14.8		5.94
	626		19		0.3	2336	896	32000	8.5	16.5	0.3	8.12
	608	8	22	7		3293	1379	34000	10.5	19.03		11.8
	628		24	8		3333	1423	28000	11.9	19.9		17.1

1Kgf=9.81N

Part Number		d	D	B	r1 (min)	Basic Load Rating		Allowable Rotational Speed rpm (Reference)	Relative Dimensions			Mass (g) (Reference)
Code	Bearing Part Number					Cr (Dynamic) N	Cor (Static) N		db (min)	da (max)	r (max)	
BAC...-E	63	3	6		0.1	209	74	71000	3.7	4.9		0.2
	74	4	7	2		311	115	60000	4.75	6.25	0.1	0.23
	84		8		0.15	395	141	56000	5	6.8		0.39
	104		10	3	0.2	711	272	48000	6.15	8.35	0.15	0.96
	85	5	8	2	0.1	308	120	53000	5.75	7.25	0.1	0.25
	95		9	2.5		431	169	50000	6	7.8	0.15	0.54
	105		10	3	0.15					0.78	0.15	0.91
	106	6		2.5		496	218	45000	7.04	8.9	0.1	0.55
	126		12	3	0.2	714	295	43000	7.73	10.19	0.15	1.25
	128	8		2.5	0.15	543	274	40000	9.05	10.9	0.1	0.7
	148		14	3.5	0.2	817	386	38000	9.86	12.19	0.15	1.9

1Kgf=9.81N

Please order as shown

Part Number		d	D	B
Code	Bearing Part Number			
BAC...-E	683	3	7	2
	603		9	3

BAC683-E

Discount price

Per	1~9	10~
Price	100%	Additional quotation

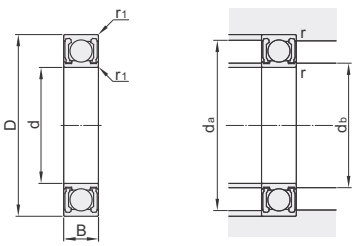
Delivery 8

Economical Small Deep Groove Ball Bearings

Code	Type	Bearing Type Code	Bearing Accuracy	Bearing Suffix		Bearing Material GB	Bearing Material Equiv.	Seal Ring Material
BAG...-E	Economical	6	GB/T 307.1 Class 0	Rubber Seal Type	2RZ(Non-Contact) 2RS(Contact Sealed)	GCr15	SUJ2	NitrileRubber

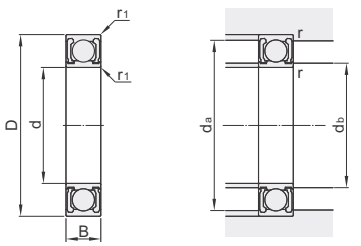
Non-Contact Sealed

Installation Diagram



Contact Sealed

Installation Diagram



Economical type is suitable for low to medium speed and low load.
No commitment to brand.

The First Perspective

Part Number Code	Bearing Part Number Non-Contact Sealed	Bearing Part Number Contact Sealed	d	D	B	r1 (min)	Basic Load Rating Cr (Dynamic) N	Basic Load Rating Cor (Static) N	Allowable Rotational Speed rpm (Reference)	Relative Dimensions db (min)	Relative Dimensions da (max)	Relative Dimensions r (max)	Mass (g) (Reference)
BAG...-E		693-2RS	3	8	4	0.15	560	179	30000	4.2	6.8	0.15	0.83
	—	623-2RS		10			630	210	25000		8.8		1.66
		694-2RS		11			960	345	24000	5.2	9.8		1.75
		604-2RS	4	12			957			5.6	10.4		2.29
	624-2RZ	624-2RS		13	5	0.2	1300	485	20000		11.4	0.2	3.04
	—	695-2RS			4		1080	430	40000	6.6			2.5
		605-2RS	5	14			1330	505	38000		12.4		3.48
	625-2RZ	625-2RS		16	5	0.3	1730	670	32000	7	14	0.3	4.86
	696-2RZ	696-2RS		15		0.2	1350	530	36000	7.6	13.4	0.2	3.72
	—	606-2RS	6	17			2260	835	34000	8	15	0.3	6.08
	626-2RZ	626-2RS		19	6		2340	885	30000		17		7.94
	698-2RZ	698-2RS				0.3	1990	865					7.18
	608-2RZ	608-2RS	8	22	7		3530	1400	17000	10	20	0.3	12
	628-2RZ	628-2RS		24	8		4000	1590	14000		22		17

1Kgf=9.81N

Please order as shown

Part Number Code	Bearing Part Number Non-Contact Sealed	Bearing Part Number Contact Sealed	d
BAG...-E	—	623-2RS	3

BAG693-2RS-E

Discount price

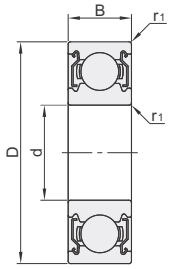
Per	1~9	10~
Price	100%	Additional quotation

Delivery 8

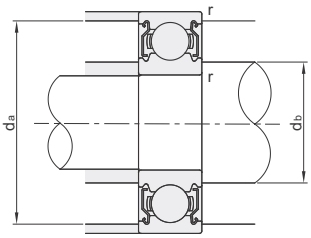
Economical Small Deep Groove Ball Bearings ◀ Double Shielded

Code	Type	Bearing Type Code	Bearing Accuracy	Bearing Suffix	Bearing Material	
					GB	Equiv.
BAF...-E	Economical	6	GB/T 307.1 Class 0	ZZ (Double Shielded)	GCr15	SUJ2
BAF...-E-SUS					2Gr13	SUS420

Inventory



Installation Diagram



Economical type is suitable for low to medium speed and low load.
No commitment to brand.

The First Perspective

Part Number		d	D	B	r1 (min)	Basic Load Rating		Allowable Rotational Speed rpm (Reference)	Relative Dimensions			Mass (g) (Reference)
Code	Bearing Part Number					Cr (Dynamic)N	Cor (Static)N		db (min)	da (max)	r (max)	
BAF...-E BAF...-E-SUS	682ZZ		5	2.3	0.08	143	40	85000	2.7	3.9	0.08	0.17
	692ZZ	2	6	3	0.15	281	79	75000	3	4.8	0.15	0.38
	602ZZ		7	3.5		328	102	60000	3.2	5.8		0.58
	682AZZ	2.5	6	2.6	0.08	178	59	71000	3.7	4.9	0.08	0.29
	692AZZ		7	3.5	0.15	328	102	63000	3.85	5.65	0.15	0.55
	673ZZ		6	2.5	0.08	242	94	71000	3.6	5.4	0.08	0.2
	683ZZ		7	3	0.1	390	130	63000	3.9	5.8	0.1	0.45
	693ZZ	3	8	4	0.15	560	180	60000	4.2	6.8	0.15	0.61
	603ZZ		9	5		571	189	56000		7.8		1.13
	623ZZ		10	4		640	224	50000		8.8		1.6
	633ZZ		13	5	0.2	1301	488	40000	4.6	11.4	0.2	3.43
	674ZZ		7	2.5	0.08	222	88	60000		6.4	0.08	0.28
	684ZZ		9	4	0.15	640	224	53000	5	7.8	0.1	1.01
	694ZZ	4	11	4		715	276	48000	5.2	9.8	0.15	1.8
	604ZZ		12	4	0.2	957	350		5.6	10.4	0.2	2.34
	624ZZ		13	5		1310	490	40000		11.4		3.2
	634ZZ		16	5	0.3	1340	523	36000	6	14	0.3	5.44
	675ZZ		8	2.5	0.1	218	131	53000	5.8	7.4	0.1	0.34
	685ZZ		11	5	0.15	715	282	45000	6.2	9.8		1.96
	695ZZ	5	13	4	0.2	1080	430	43000	6.6	11.4	0.2	2.4
	605ZZ		14	5		1330	505	40000		12.4		3.5
	625ZZ		16	5	0.3	1760	680	36000	7	14	0.3	4.8
	635ZZ		19	6		2336	896	32000		17		8.89
	676ZZ		10	3	0.1	496	218	45000	7.04	9.3	0.1	0.7
	686ZZ		13	5	0.16	1080	440	40000	7	11.8	0.2	2.69
	696ZZ	6	15	5	0.2	1350	530		7.6	13.4		3.8
	606ZZ		17	6	0.3	2190	865	38000	8	15	0.3	6
	626ZZ		19	6		2340	885	32000		17		8.1
	636ZZ		22	7		3333	1423	30000		20		14.5
	687ZZ		14	5	0.15	1170	505	40000	8.2	12.8	0.15	2.97
	697ZZ	7	17	5	0.3	1610	710	36000	9	15	0.3	5.12
	607ZZ		19	6		2340	885			17		7.51
	627ZZ		22	7		3300	1370	30000		20		12.9
	678ZZ		12	3.5	0.1	543	274	40000	8	11.33	0.1	0.99
	688ZZ		16	5	0.2	1610	715	36000	9.6	14.4	0.2	4.02
	698ZZ	8	19	6	0.3	1990	865		10	17	0.3	7.3
	608ZZ		22	7		3350	1400	34000		20		12
	628ZZ		24	8		4000	1590	28000		22		17
	638ZZ		28	9		4560	1983			26		30.3
	689ZZ		17	5	0.2	1720	820	33000	10.6	15.4	0.2	3.2
	699ZZ	9	20	6	0.3	2480	1090	32000	11	18	0.3	8.2
	609ZZ		24	7		3400	1450	31000		22		14
	629ZZ		26	8	0.6	4550	1960	30000	13			20

1Kgf=9.81N

Please order as shown

Part Number		d	D	B
Code	Bearing Part Number			
BAF...-E	682ZZ	2	5	2.3
BAF...-E-SUS	692ZZ		6	3

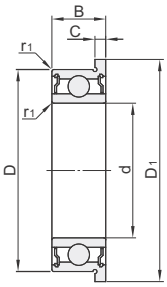
BAF682ZZ-E

Discount price

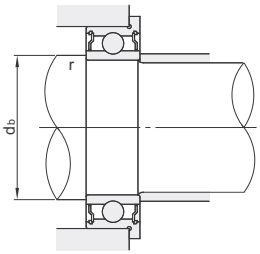
Per	1~9	10~
Price	100%	Additional quotation

Delivery 8

Code	Type	Bearing Type Code	Bearing Accuracy	Bearing Suffix	Bearing Material	
					GB	Equiv.
BAL...-E	Economical	6	GB/T 307.1 Class 0	ZZ (Double Shielded)	GCr15	SUJ2
BAL...-E-SUS					2Gr13	SUS420



Installation Diagram



Economical type is suitable for low to medium speed and low load.
No commitment to brand.

The First Perspective

Part Number		d	D	B	D1	C	r1 (min)	Basic Load Rating		Allowable Rotational Speed rpm (Reference)	Relative Dimensions		Mass (g) (Reference)
Code	Bearing Part Number							Cr (Dynamic)N	Cor (Static)N		db (min)	r (max)	
BAL...-E BAL...-E-SUS	682ZZ	2	5	2.3	6.1	0.6	0.08	169	50	85000	2.7	0.08	0.24
	692ZZ		6	3	7.5	0.8	0.15	330	99	75000	3.0	0.15	0.45
	682AZZ	2.5		2.6	7.1		0.08	209	74	71000	3.7	0.08	0.42
	692AZZ		7	3.5	8.5	0.9	0.15	386	129	63000	3.85	0.15	0.68
	673ZZ		6	2.5	7.2	0.6	0.08	242	94	71000	3.6	0.08	0.26
	683ZZ		7	3	8.1	0.8	0.1	390	130	63000	3.9	0.1	0.53
	693ZZ	3	8	4	9.5	0.9		560	180	60000			0.72
	603ZZ		9	5	10.5	1	0.15	571	189	56000	4.2	0.15	1.61
	623ZZ		10	4	11.5			640	224	50000			1.8
	674ZZ		7	2.5	8.2	0.6	0.08	222	88	60000	4.6	0.08	0.35
	684ZZ		9		10.3		0.15	640	224	53000	5.0	0.1	1.14
	694ZZ	4	11	4	12.5	1		715	276	48000	5.2	0.15	2
	604ZZ		12		13.5		0.2	957	350			0.2	2.57
	624ZZ		13	5	15			1310	490	40000	5.6		3.5
	675ZZ		8	2.5	9.2	0.6	0.08	217	91	53000		0.08	0.4
	685ZZ		11	5	12.5		0.15	715	282	45000	6.2	0.15	2.18
	695ZZ	5	13	4	15	1	0.2	1080	430	43000	6.6	0.2	2.7
	605ZZ		14	5	16			1330	505	40000			3.9
	625ZZ		16		18		0.3	1729	675	36000	7.7	0.3	5.52
	676ZZ		10	3	11.2	0.6	0.1	465	196	45000	6.6	0.1	0.74
	686ZZ		13	5	15	1.1	0.15	1080	440	40000	7.0	0.15	3.04
	696ZZ	6	15		17	1.2	0.2	1350	530		7.6	0.2	4.3
	606ZZ		17	6	19		0.3	2190	865	38000	8	0.3	6.5
	626ZZ		19		22	1.5		2336	896	32000			9.78
	678ZZ		12	3.5	13.6	0.8	0.1	515	252	40000	8.8	0.1	0.86
	688ZZ	8	16	5	18	1.1	0.2	1610	715	36000	9.6	0.2	4.47
	698ZZ		19	6	22	1.5	0.3	1990	865		10	0.3	8.4
	608ZZ		22	7	25			3350	1400	34000			13
	6700ZZ		15	4	16.5	0.8	0.15	855	435	15000	10.3	0.15	2.1
	6800ZZ	10	19	5	21	1	0.3	1716	840	37000	12	0.3	6.1
	6900ZZ		22	6	25	1.5		2695	1273	34000	13.2		11.1
	6701ZZ		18	4	19.5	0.8	0.2	926	530	13000	12.4	0.2	3.4
	6801ZZ	12	21	5	23	1.1	0.3	1915	1041	33000	14	0.3	7.1
	6901ZZ		24	6	26.5	1.5		2886	1466	31000			13.2
	6702ZZ		21	4	22.5	0.8	0.2	937	582	11000	15.4	0.2	3.9
	6802ZZ	15	24	5	26	1.1	0.3	2073	1253	28000	17	0.3	8.3
	6902ZZ		28	7	30.5	1.5		4321	2259	26000			19.9
	6703ZZ		23	4	24.5	0.8	0.2	1000	658	9500	17.4	0.2	4.4
	6803ZZ	17	26	5	28	1.1	0.3	2233	1456	26000	19	0.3	8.9
	6903ZZ		30	7	32.5	1.5		4588	2565	23000			21.4
	6704ZZ		27	4	28.5	0.8	0.2	1041	729	8500	20.4	0.2	6.3
	6804ZZ	20	32	7	35	1.5		4015	2462	21000	22		19.8
	6904ZZ		37	9	40	2	0.3	6381	3682	19000		0.3	42.8
	6805ZZ	25		7		1.5		4303	2932	18000	27		26.1
	6905ZZ		42	9	45	2		7001	4540	16000			50.2

The bearing part number 6704ZZ/6904ZZ/6905ZZ/6703ZZ only applies to BAL...-E (SUJ2 material).

1Kgf=9.81N

Please order as shown

Part Number		d	D
Code	Bearing Part Number		
~~BAL...-E~~	~~682ZZ~~	2	5
BAL...-E-SUS	692ZZ		6

BAL682ZZ-E

Discount price

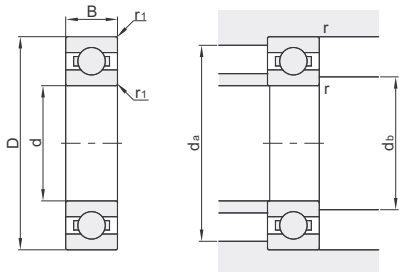
Per	1~9	10~
Price	100%	Additional quotation

Delivery 13

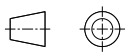
Economical Deep Groove Ball Bearings ◀ Open Type

Code	Type	Bearing Type Code	Bearing Accuracy	Bearing Material	
				GB	Equiv.
BAR...-E	Economical	6	GB/T 307.1 Class 0	GCr15	SUJ2

Installation Diagram



- Shipped with no grease applied. Please apply grease before using.
- Economical type is suitable for low to medium speed and low load.
- No commitment to brand.



The First Perspective

Part Number		d	D	B	r1 (min)	Basic Load Rating		Allowable Rotational Speed rpm (Reference)	Relative Dimensions				Mass (g) (Reference)
Code	Bearing Part Number					Cr (Dynamic)KN	Cor (Static)KN		db (min)	db (max)	da (max)	r (max)	
BAR...-E	6700	10	15	3	0.2	0.85	0.43	15000	10.4	11.21	14.2	0.2	5
	6800		19	5	0.3	1.83	0.925	34000	12	12.5	17	0.3	
	6900		22	6		2.7	1.27	32000		13	20		9
	6000		26	8		4.55	1.96	30000		13.5	24		19
	6200		30	9	0.6	5.1	2.39	24000	14	16	26	0.6	32
	6701	12	18	4	0.2	0.92	0.53	13000	12.4	13.86	16.7	0.2	3
	6801		21	5	0.3	1.92	1.04	32000	14	14.5	19	0.3	6
	6901		24	6		2.89	1.46	30000		15	22		11
	6001		28	8		5.1	2.39	28000		16	26		21
	6201		32	10	0.6	6.1	2.75	22000	16	17	28	0.6	37
	6702	15	21	4	0.2	0.93	0.58	11000	15.4	16.86	19.7	0.2	4
	6802		24	5	0.3	2.08	1.26	28000	17	17.5	22	0.3	7
	6902		28	7		3.65	2	26000			26		16
	6002		32	9		5.6	2.83	24000		19	30		30
	6202		35	11	0.6	7.75	3.6	20000		20	31	0.6	45
	6803	17	26	5	0.3	2.23	1.46	26000	19	19.5	24	0.3	8
	6903		30	7		4.65	2.58	24000		20	28		18
	6003		35	10		6.8	3.35	22000		21	33		39
	6203		40	12	0.6	9.6	4.6	17000	21	23	36	0.6	66
	6704	20	27	4	0.2	1.4	0.72	8500	20.4	22.36	25.5	0.2	6
	6804		32	7	0.3	4	2.47	22000	22	22.5	30	0.3	19
	6904		37	9		6.4	3.7	19000		24	35		36
	6004		42	12	0.6	9.4	5.05	18000		26	38	0.6	69
	6204		47	14	1	12.8	6.65	15000	25	28	42	1	106
	6805	25	37	7	0.3	4.3	2.95	18000	27		35	0.3	22
	6905		42	9		7.05	4.55	16000		29	40		42
	6005		47	12	0.6	10.1	5.85	15000	29	30.5	43	0.6	80
	6205		52	15	1	14	7.85	13000	30	32	47	1	128
	6806	30	42	7	0.3	4.7	3.65	15000	32	33	40	0.3	26
	6906		47	9		7.25	5	14000		34	45		48
	6006		55	13	1	13.2	8.3	13000	35	37	50	1	116
	6206		62	16		19.5	11.3	11000		39	57		199
	6807	35	47	7	0.3	4.9	4.05	14000	37	38	45	0.3	29
	6907		55	10	0.6	9.55	6.85	12000	39	40	51	0.6	74
	6007		62	14	1	16	10.3	11000	40	42	57	1	155
	6207		72	17	1.1	25.7	15.3	9500	41.5	45	65.5		288
	6808	40	52	7	0.3	5.1	4.4	12000	42	43	50	0.3	33
	6908		62	12	0.6	12.2	8.9	11000	44	45	58	0.6	110
	6008		68	15	1	16.8	11.5	10000	45	47	63		190
	6208	50	80	18	1.1	29.1	17.8	8500	46.5	51	73.5	1	366
	6010			16	1	21.8	16.6		55	57.5	75		261
	6210		90	20	1.1	35	23.2	7100	56.5	60	83.5		454

1Kgf=9.81N

Please order as shown

Part Number		d	D
Code	Bearing Part Number		
BAR...-E	6700	10	15
	6800		19

BAR6700-E

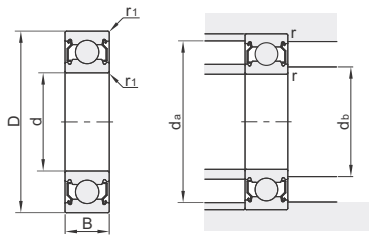
Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 13

Code	Type	Bearing Type Code	Bearing Accuracy	Bearing Suffix	Bearing Material	
					GB	Equiv.
BAY...-E	Economical	6	GB/T 307.1 Class 0	ZZ (Double Shielded)	GCr15	SUJ2
BAY...-E-SUS					2Gr13	SUS420

Installation Diagram



! No commitment to brand.

! Economical type is suitable for low to medium speed and low load.

The First Perspective

Part Number		d	D	B	r1 (min)	Basic Load Rating		Allowable Rotational Speed rpm (Reference)	Relative Dimensions				Mass (g) (Reference)
Code	Bearing Part Number					Cr (Dynamic) KN	Cor (Static) KN		db (min)	db (max)	da (max)	r (max)	
BAY...-E BAY...-E-SUS	6700ZZ	10	15	4	0.2	0.85	0.43	15000	10.4	11.21	14.2	0.2	2
	6800ZZ		19	5		1.83	0.925	34000		12.5	17		5
	6900ZZ		22	6	0.3	2.7	1.27	32000	12	13	20	0.3	9
	6000ZZ		26	8		4.55	1.96	30000		13.5	24		19
	6200ZZ		30	9	0.6	5.1	2.39	24000	14	16	26	0.6	32
	6300ZZ		35	11		8.1	3.45	21000		16.5	31		52
	6701ZZ	12	18	4	0.2	0.92	0.53	13000	12.4	13.86	16.7	0.2	3
	6801ZZ		21	5		1.92	1.04	32000		14.5	19		6
	6901ZZ		24	6	0.3	2.89	1.46	30000	14	15	22	0.3	11
	6001ZZ		28	8		5.1	2.39	27000		16	26		21
	6201ZZ		32	10	0.6	6.1	2.75	22000	16	17	28	0.6	37
	6301ZZ		37	12	1.0	9.7	4.2	19000	17	18	32	1.0	60
	6702ZZ	15	21	4	0.2	0.93	0.58	10000	15.4	16.86	19.7	0.2	4
	6802ZZ		24	5	0.3	2.08	1.26	27000	17	17.5	22	0.3	7
	6902ZZ		28	7		3.65	2	26000			26		16
	6002ZZ		32	9		5.6	2.83	23000		19	30		30
	6202ZZ		35	11	0.6	7.75	3.6	19000	19	20	31	0.6	45
	6302ZZ		42	13	1.0	11.4	5.45	17000	20	22.5	37	1.0	83
	6703ZZ	17	23	4	0.2	1	0.65	9500	17.4	18.86	21.1	0.2	4
	6803ZZ		26	5	0.3	2.23	1.46	25000	19	19.5	24	0.3	8
	6903ZZ		30	7		4.65	2.58	23000		20	28		18
	6003ZZ		35	10		6.8	3.35	20000		21	33		39
	6203ZZ		40	12	0.6	9.6	4.6	17000	21	23	36	0.6	66
	6303ZZ		47	14	1.0	13.6	6.65	15000	22	25.5	42	1.0	113
	6704ZZ	20	27	4	0.2	1.4	0.72	8500	20.4	22.36	25.5	0.2	6
	6804ZZ		32	7	0.3	4	2.47	20000	22	22.5	30	0.3	19
	6904ZZ		37	9		6.4	3.7	19000		24	35		36
	6004ZZ		42	12	0.6	9.4	5.05	17000	24	26	38	0.6	69
	6204ZZ		47	14	1.0	12.8	6.65	14000	25	28	42	1.0	106
	6304ZZ		52	15	1.1	15.9	7.9	13000	26.5	28	45.5		145
	6805ZZ	25	37	7	0.3	4.3	2.95	18000	27	28	35	0.3	22
	6905ZZ		42	9		7.05	4.55	16000		29	40		42
	6005ZZ		47	12	0.6	10.1	5.85	15000	29	30.5	43	0.6	80
	6205ZZ		52	15	1.0	14	7.85	12000	30	32	47	1.0	128
	6305ZZ		62	17	1.1	20.6	11.2	11000	31.5	36	55.5		235
	6806ZZ	30	42	7	0.3	4.7	3.65	15000	32	33	40	0.3	26
	6906ZZ		47	9		7.25	5	14000		34	45		48
	6006ZZ		55	13	1.0	13.2	8.3	12000	35	37	50	1.0	116
	6206ZZ		62	16		19.5	11.3	10000		39	57		199
	6306ZZ		72	19	1.1	26.7	15	9200	36.5	42.5	65.5		345
	6807ZZ	35	47	7	0.3	4.9	4.05	13000	37	38	45	0.3	29
	6907ZZ		55	10	0.6	9.55	6.85	12000	39	40	51	0.6	74
	6007ZZ		62	14	1.0	16	10.3	11000	40	42	57	1.0	155
	6207ZZ		72	17	1.1	25.7	15.3	9000	41.5	45	65.5		288
	6307ZZ		80	21	1.5	33.5	19.2	8400	43	47	72	1.5	469
	6808ZZ	40	52	7	0.3	5.1	4.4	12000	42	43	50	0.3	33
	6908ZZ		62	12	0.6	12.2	8.9	11000	44	45	58	0.6	110
	6008ZZ		68	15	1.0	16.8	11.5	9500	45	47	63	1.0	190
	6208ZZ		80	18	1.1	29.1	17.8	8200	46.5	51	73.5		366
	6308ZZ		90	23	1.5	40.5	24	7500	48	53	82	1.5	636
	6809ZZ	45	58	7	0.3	6.18	5.38	11000	47	47.5	56	0.3	38
	6909ZZ		68	12	0.6	14.1	10.8	9500	49	50	64	0.6	126
	6009ZZ		75	16	1.0	20.9	15.2	8800	50	53.5	70	1.0	241
	6209ZZ		85	19	1.1	31.5	20.4	7500	51.5	55.5	78.5		420
	6309ZZ		100	25	1.5	53	32	6700	53	61.5	92	1.5	829
	6810ZZ	50	65	7	0.3	6.6	6.09	9500	52	52.5	63	0.3	50
	6910ZZ		72	12	0.6	14.5	11.7	9000	54	55	68	0.6	135
	6010ZZ		80	16	1.0	21.8	16.6	8300	55.0	57.5	75	1.0	261
	6210ZZ		90	20	1.1	35	23.2	7000	56.5	60	83.5		454
	6310ZZ		110	27	2.0	62	38	6000	59	68	101	2.0	1006

! 1Kgf=9.81N

Please order as shown

Part Number		d	D	B
Code	Bearing Part Number			
BAY...-E	6700ZZ	10	15	4
BAY...-E-SUS	6800ZZ		19	5

BAY6700ZZ-E

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 13

Economical Deep Groove Ball Bearings

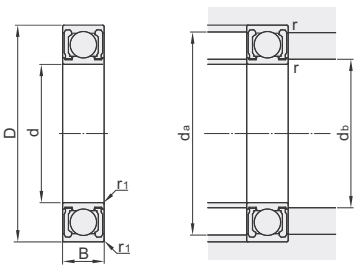
- Non-Contact Rubber Sealed
- Contact Rubber Sealed

with Grease

Code	Type	Bearing Type Code	Bearing Accuracy	Bearing Suffix	Bearing Material		Seal Ring Material
					GB	Equiv.	
BBJ...-E	Economical	6	GB/T 307.1 Class 0	2RZ(Non-Contact Rubber Sealed) 2RS(Contact Rubber Sealed)	GCr15	SUJ2	Nitrile Rubber

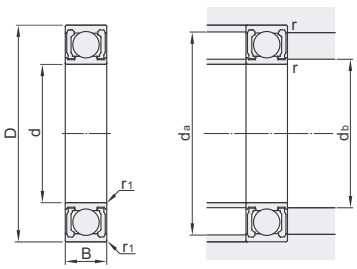
Non-Contact Rubber Sealed

Installation Diagram



Contact Rubber Sealed

Installation Diagram



- Economical type is suitable for low to medium speed and low load.
- No commitment to brand.

The First Perspective

Code	Part Number		d	D	B	r1 (min)	Basic Load Rating		Allowable Rotational Speed rpm (Reference)	Relative Dimensions				Mass (g) (Reference)
	Non-Contact Rubber Sealed	Contact Rubber Sealed					Cr (Dynamic) KN	Cor (Static) KN		db (min)	db (max)	da (max)	r (max)	
BBJ...-E	6800-2RZ	6800-2RS	10	19	5	0.3	1.72	0.84	24000	12	12	17	0.3	5
	6900-2RZ	6900-2RS		22	6		2.7	1.27	22000		12.5	20		9
	6000-2RZ	6000-2RS		26	8		4.55	1.96				24		18
	6200-2RZ	6200-2RS	10	30	9	0.6	5.1	2.39	18000	14	16	26	0.6	32
	6300-2RZ	6300-2RS		35	11		8.1	3.45	17000		16.5	31		52
	6801-2RZ	6801-2RS	12	21	5	0.3	1.92	1.04	20000		14	19	0.3	10
	6901-2RZ	6901-2RS		24	6		2.89	1.46			14.5	22		10
	6001-2RZ	6001-2RS		28	8		5.1	2.37	18000		15.5	26		22
	6201-2RZ	6201-2RS		32	10	0.6	6.1	2.75	17000	16	17	28	0.6	37
	6301-2RZ	6301-2RS		37	12	1	9.7	4.2	16000		18	32	1	60
	6802-2RZ	6802-2RS	15	24	5	0.3	2.07	1.26	17000	17	17	22	0.3	15
	6902-2RZ	6902-2RS		28	7		3.65	2				26		15
	6002-2RZ	6002-2RS		32	9		5.6	2.83	15000		19	30		31
	6202-2RZ	6202-2RS		35	11	0.6	7.65	3.6	14000	19	20.5	31	0.6	45
	6302-2RZ	6302-2RS		42	13	1	11.4	5.45	13000	20	22.5	37	1	83
	6803-2RZ	6803-2RS	17	26	5	0.3	2.63	1.57	15000	19	19	24	0.3	19
	6903-2RZ	6903-2RS		30	7		4.6	2.55			19.5	28		19
	6003-2RZ	6003-2RS		35	10		6	3.25	13000		21.5	33		41
	6203-2RZ	6203-2RS		40	12	0.6	9.55	4.6	12000	21	23.5	36	0.6	67
	6303-2RZ	6303-2RS		47	14	1	13.6	6.65	11000		25.5	42	1	113
	6804-2RZ	6804-2RS	20	32	7	0.3	4	2.47	13000	22	22	30	0.3	17
	6904-2RZ	6904-2RS		37	9		6.4	3.7	12000		24	35		37
	6004-2RZ	6004-2RS		42	12	0.6	9.4	5		24	25.5	38	0.6	68
	6204-2RZ	6204-2RS		47	14	1	12.8	6.6	11000	25	26.5	42	1	107
	6304-2RZ	6304-2RS		52	15	1.1	15.9	7.9		26.5	28	45.5		145
	6805-2RZ	6805-2RS	25	37	7	0.3	4.5	3.15	10000	27	27	35	0.3	21
	6905-2RZ	6905-2RS		42	9		7.05	4.55			28.5	40		42
	6005-2RZ	6005-2RS		47	12	0.6	10.1	5.85	9500	29	30	43	0.6	79
	6205-2RZ	6205-2RS		52	15	1	14	7.85	9000	30	32	47	1	129
	6305-2RZ	6305-2RS		62	17	1.1	20.6	11.2	8000	31.5	36	55.5		235
	6806-2RZ	6806-2RS	30	42	7	0.3	4.7	3.65	9000	32	32	40	0.3	24
	6906-2RZ	6906-2RS		47	9		7.25	5	8500		34	45		52
	6006-2RZ	6006-2RS		55	13	1	13.2	8.3	8000	35	36.5	50	1	116
	6206-2RZ	6206-2RS		62	16		19.5	11.3	7500		38.5	57		199
	6907-2RZ	6907-2RS	35	55	10	0.6	10.6	7.25		39	39	51	0.6	75
	6007-2RZ	6007-2RS		62	14	1	16	10.3	6700	40	41.5	57	1	151
	6207-2RZ	6207-2RS		72	17	1.1	25.7	15.3	6300	41.5	44.5	65.5		284
	6307-2RZ	6307-2RS		80	21	1.5	33.5	19.2	6000	43	47	72	1.5	464
	6908-2RZ	6908-2RS	40	62	12	0.6	13.7	10	6300	44	46	58	0.6	112
	6008-2RZ	6008-2RS		68	15	1	16.8	11.5	6000	45	47.5	63	1	190
	6208-2RZ	6208-2RS		80	18	1.1	29.1	17.9	5600	46.5	50.5	73.5		366
	6909-2RZ	6909-2RS	45	68	12	0.6	14.1	10.9		49	50	64	0.6	126
	6009-2RZ	6009-2RS		75	16	1	20.9	15.2	5300	50	53.5	70	1	241
	6209-2RZ	6209-2RS		85	19	1.1	31.5	20.4		51.5	55.5	78.5		420
	6910-2RZ	6910-2RS	50	72	12	0.6	14.5	11.7	5300	54	55	68	0.6	135
	6010-2RZ	6010-2RS		80	16	1	21.8	16.6	4800	55	58.5	75	1	261
	6210-2RZ	6210-2RS		90	20	1.1	35	23.2		56.5	60	83.5		459

1Kgf=9.81N

Please order as shown

Code	Part Number		d
	Non-Contact Rubber Sealed	Contact Rubber Sealed	
BBJ...-E	6800-2RZ	6800-2RS	10
	6900-2RZ	6900-2RS	

BBJ6800-2RZ-E

Discount price

Per	1~9	10~
Price	100%	Additional quotation

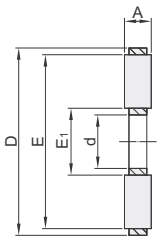
Delivery 13

Thrust Needle Roller Bearings / Thrust Ball Bearings

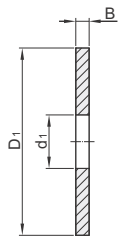
Thrust Needle Roller Bearings

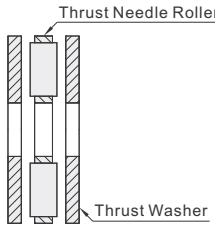
Code	Bearing Type Code	Bearing Accuracy	Bearing Material	
			GB	Equiv.
BBL	—	GB/T 307.1 Class 6	GCr15	SUJ2

Thrust Needle Roller with Retainer



Thrust Washer





Inventory

Thrust washer may have a slight distortion when delivered, but it becomes flat when axial load of at least 200N is applied.

The First Perspective

Part Number	Thrust Needle Roller with Retainer							Thrust Washer × 2						Allowable Rotational Speed rpm (Reference)	Basic Dynamic Load Rating Ca kN	Basic Static Load Rating Coa kN	Mass g (Reference)
	d		D		A		E	E1	d1		D1		B				
BBL0414	4	+0.140 +0.020	14	-0.095 -0.365			13	5	4	+0.200 +0.020	14	-0.032 -0.302			5200	4.4	8	2.7
BBL0515	5		15				14	6	5		15				5200	4.75	9.2	2.8
BBL0619	6		19	-0.11 -0.44			18	7	6		19				4700	6.8	15.5	5
BBL0821	8	+0.175 +0.025	21				20	9	8	+0.245 +0.025	21				4500	7.8	19.4	6
BBL1024	10		24				23	12	10		24	-0.040 -0.370			4200	9.2	25.5	9
BBL1226	12		26	-0.11 -0.44	2	0 -0.01	25	14	12		26		1	±0.05	3700	9.9	29	
BBL1528	15	+0.212 +0.032	28				27	17	15	+0.302 +0.032	28				3200	11.3	36	10
BBL1730	17		30				29	19	17		30				3000	11.9	39.5	12
BBL2035	20		35	-0.12 -0.51			34	22	20		35				2500	13.1	46.5	15
BBL2542	25	+0.250 +0.004	42	-0.13 -0.52			41	29	25	+0.370 +0.040	42	-0.050 -0.440			2100	14.7	58	21
BBL3047	30		47				46	34	30		47				1800	16.3	70	24

1Kgf=9.81N

Please order as shown

Part Number	d
BBL0414	4
BBL0515	5

BBL0414

Discount price

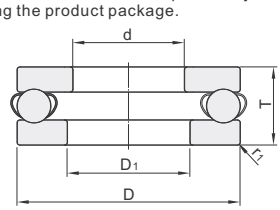
Per	1~9	10~
Price	100%	Additional quotation

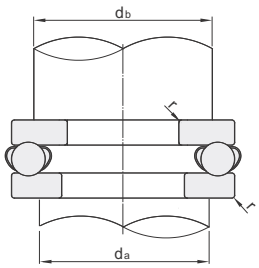
Delivery 13

Thrust Ball Bearings

Code	Bearing Type Code	Bearing Accuracy	Bearing Material	
			GB	Equiv.
BBM	5	GB/T 307.1 Class 6	GCr15	SUJ2

The raceway plates and the retainer comes apart easily. Take care when opening the product package.





Inventory

The First Perspective

Part Number	d		D		D1 min	T		r1 min	Basic Load Rating		Allowable Rotational Speed rpm (Reference)	Relative Dimensions			Mass(g) (Reference)
									Ca (Dynamic)KN	Coa (Static)KN		db min	da max	r max	
BBM51100	10	0 -0.008	24	0 -0.013	11	9	0 -0.075	0.3	10.1	14	6700	18	16	0.3	19
BBM51200			26		12	11		0.6	12.8	17.1	6000	20		0.6	28
BBM51101	12				13	9		0.3	10.4	15.4	6700		18	0.3	21
BBM51201			28		14	11		0.6	13.3	19	5600	22		0.6	31
BBM51102	15				16	9		0.3	10.6	16.8	6300	23	20	0.3	23
BBM51202			32		17	12		0.6	16.7	24.8	5000	25	22	0.6	43
BBM51103	17		30		18	9		0.3	11.4	19.5	6000			0.3	25
BBM51203			35		19	12		0.6	17.3	27.3	4800	28	24	0.6	50
BBM51104	20			0 -0.016	21	10		0.3	15.1	26.6	5300	29	26	0.3	37
BBM51204			40		22	14			22.5	37.5	4300	32	28		77
BBM51105	25	0 -0.010	42		26	11			19.7	37	4800	35	32		56
BBM51205			47		27	15		0.6	28	50.5	3800	38	34	0.6	111
BBM51106	30				32	11			20.6	42	4300	40	37		64
BBM51206			52	0 -0.019	32	16			29.5	58	3400	43	39		137

1Kgf=9.81N

Please order as shown

Part Number	d
BBM51100	10
BBM51200	
BBM51101	12

BBM51100

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 13

Economical Angular Contact Ball Bearings

Code	Type	Bearing Type Code	Bearing Accuracy	Bearing Material		Contact Angle (°)
				GB	Equiv.	
BBP...-E	Single Row	7	GB/T 307.1 Class 0	GCr15	SUJ2	25
BBQ...-E	Combination types		GB/T 307.1 Class 5			

Shipped with no grease applied.Please apply grease before using.。

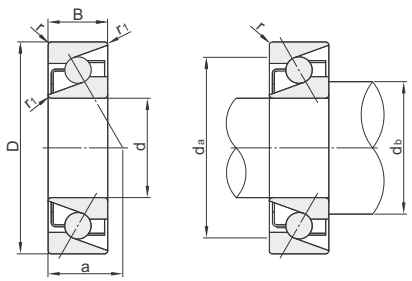
Inventory

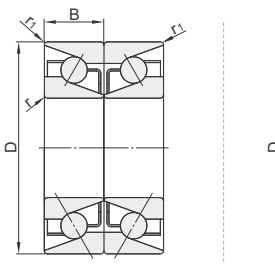
Single Row
BBP...-E

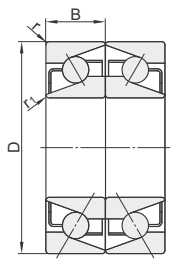
Combination types
BBQ...-E

-DB(Back Side)

-DF(Front Side)







The First Perspective

Single Row

Part Number Code	Bearing Part Number	d	D	B	r min	r1 min	Basic Load Rating Cr(Dynamic)KN	Basic Load Rating Cor(Static)KN	Allowable Rotational Speed rmp(Reference)	Pressure Cone Apex(a)	Relative Dimensions db min	Relative Dimensions da max	Relative Dimensions r1 max	Mass(g) (Reference)
BBP...-E	7000	10	26	8	0.3	0.15	5.35	2.6	23200	9.2	12.5	23.5	0.3	23
	7200		30	9	0.6	0.3	5.4	2.71	22400	10.3	15	25	0.6	29
	7001	12	28	8	0.3	0.15	5.8	2.98	20800	9.8	14.5	25.5	0.3	25
	7201		32	10	0.6	0.3	8	4.05	20000	11.4	17	27	0.6	35
	7002	15		9	0.3	0.15	6.1	3.45	18400	11.3	17.5	29.5	0.3	
	7202		35	11	0.6	0.3	8.65	4.65	17600	12.7	20	30	0.6	46
	7003	17		10	0.3	0.15	6.4	3.8	16800	12.5	19.5	32.5	0.3	
	7203		40	12	0.6	0.3	10.8	6	15200	14.2	22	35	0.6	64
	7004	20	42					6.6	14400	14.9	25	37		80
	7204		47	14	1	0.6	14.5	8.3	13600	16.7	26	41	1	100
	7005	25		12	0.6	0.3	11.3	7.4	12800	16.4	30	42	0.6	93
	7205		52	15			16.2	10.3	11200	18.6	31	46		125
	7006	30	55	13	1		14.5	10.1	10400	18.8	36	49		135
	7206		62	16			22.5	14.8	9600	21.3		56		193
	7207	35	72	17	1.1	0.6	29.7	20.1	8000	23.9	42	65	1	287
	7208	40	80	18			35.5	25.1	7600	26.3	47	73		375
	7209	45	85	19			39.5	28.7	6800	28.3	52	78		411
	7210	50	90	20			41.5	31.5	6320	30.2	57	83		466

1Kgf=9.81N

Combination types

Part Number Code	Bearing Part Number	Combination types	d	D	B	r min	r1 min	Basic Load Rating Cr (Dynamic) KN	Basic Load Rating Cor (Static) KN	Allowable Rotational Speed rmp(Reference)	Pressure Cone Apex(a) DB	Pressure Cone Apex(a) DF	Relative Dimensions DB db min	Relative Dimensions DB da max	Relative Dimensions DB r1 max	Relative Dimensions DF db min	Relative Dimensions DF da max	Relative Dimensions DF r1 max	Mass (g) (Reference)
BBQ...-E	7000		10	26	8	0.3	0.15	8.75	5.2	18400	18.4	2.4	12.5	24.8	0.3	11.2	23.5	0.15	46
	7200			30	9	0.6	0.3	8.8	5.4	17600	20.5	2.5	15	27.5	0.6	12.5	25	0.3	58
	7001		12	28	8	0.3	0.15	9.4	5.95	16800	19.5	3.5	14.5	26.8	0.3	13.2	25.5	0.15	50
	7201			32	10	0.6	0.3	13	8.05	16000	22.7	2.7	17	29.5	0.6	14.5	27	0.3	70
	7002		15		9	0.3	0.15	9.95	6.85	14400	22.6	4.6	17.5	30.8	0.3	16.2	29.5	0.15	70
	7202	DB Back		35	11	0.6	0.3	14	9.3	13600	25.4	3.4	20	32.5	0.6	17.5	30	0.3	92
	7003		17		10	0.3	0.15	10.4	7.65	13600	25	5	19.5	33.8	0.3	18.2	32.5	0.15	92
	7203	DF Front		40	12	0.6	0.3	17.6	12	12000	28.5	4.5	22	37.5	0.6	19.5	35	0.3	128
	7004		20	42					13.2	12000	29.9	5.9	25	39.5		22.5	37		160
	7204			47	14	1	0.6	23.5	16.6	10400	33.3	5.3	26	42	1	25	41	0.6	200
	7005		25		12	0.6	0.3	18.3	14.8	9600	32.8	8.8	30	44.5	0.6	27.5	42	0.3	186
	7205			52	15			26.3	20.5	8800	37.2	7.2	31	47		30	46		250
	7006		30	55	13	1		23.6	20.2	8800	37.5	11.5	6	50		35	49	0.6	270
	7206			62	16			36.5	29.5	7840	42.6	10.6	36	57			56		386
	7207			35	72	17		0.6	48.5	40	6800	47.9		42	67	1				574
	7208	DB Back		40	80	18	1.1		57.5	50.5	6000	52.6	—	47	75		—	—	—	750
	7209			45	85	19			64.5	57.5	5520	56.5		52	80					822
	7210			50	90	20			67	63	5040	60.4		57	85					932

1Kgf=9.81N

Please order as shown

Single Row

Part Number	
Code	Bearing Part Number
BBP...-E	7000
	7200
	7001

BBP7000-E

Combination types

Part Number		Combination types
Code	Bearing Part Number	
BBQ...-E	7000	DB DF
	7200	
	7001	

BBQ7000DB-E

Discount price

Per	1~9	10~
Price	100%	Additional quotation

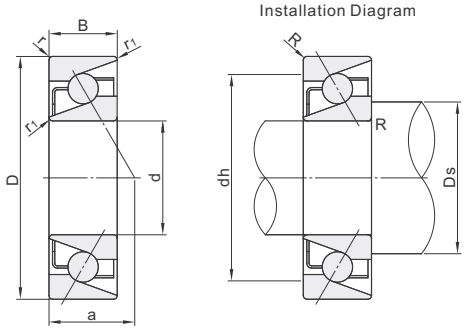
Delivery 10

Code	Type	Bearing Type Code	Bearing Accuracy	Bearing Suffix	Bearing Material		Contact Angle (°)
					GB	Equiv.	
BBR...-E	Universal Combination	7	GB/T 307.1 Class 5	SU	GCr15	SUJ2	15

Shipped with no grease applied.Please apply grease before using.

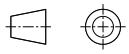
Inventory

Installation Diagram



Cautions:
- Contact Angle 15°.
- Shipped with no grease applied. Please apply grease before using.

Features:
- The width differences of front and back side are controlled so that designated preload can be obtained no matter how the same model bearings are combined. Outer ring is marked with a V mark to help obtain correct combination.
- When using multi-row combination, it is recommended to match inner and outer diameter.



The First Perspective

Part Number		d	D	B	r min	r1 min	Basic Load Rating		Allowable Rotational Speed rmp (Reference)	Pressure Cone Apex(a)	Relative Dimensions			Mass (g) (Reference)
Code	Bearing Part Number						Cr (Dynamic) KN	Cor(Static) KN			Ds min	dh max	R max	
BBR...-E	7000SU	10	26	8	0.3	0.15	5.3	2.49	63900	6.4	12.5	23.5	0.3	19
	7001SU	12	28				5.8	2.9	57500	6.7	14.5	25.5		21
	7002SU	15	32	9			6.25	3.4	49000	7.6	17.5	29.5		30
	7003SU	17	35	10			6.6	3.8	44300	8.5	19.5	32.5		39
	7004SU	20	42	12	0.6	0.3	11.1	6.55	37100	10.1	25	37	0.6	67
	7005SU	25	47				11.7	7.4	32000	10.8	30	42		78
	7006SU	30	55	13	1	0.6	15.1	10.3	27100	12.2	36	49	1	114
	7007SU	35	62	14			19.1	13.7	23800	13.5	41	56		151
	7008SU	40	68	15			20.6	15.9	21300	14.7	46	62		189
	7009SU	45	75	16			24.4	19.3	19200	16.0	51	69		238
	7010SU	50	80				26	21.9	17700	16.7	56	74		259

1Kgf=9.81N

Please order as shown

Part Number		d	D	B
Code	Bearing Part Number			
BBR...-E	7000SU	10	26	8
	7001SU	12	28	

BBR7000SU-E

Discount price

Per	1~9	10~
Price	100%	Additional quotation

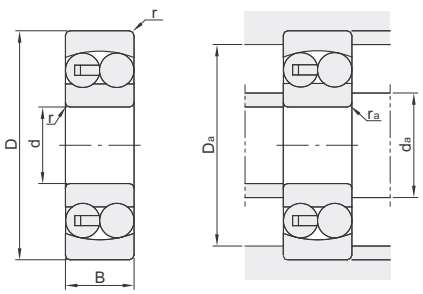
Delivery 10

Code	Type	Bearing Type Code	Bearing Accuracy	Bearing Suffix	Bearing Material	
					GB	Equiv.
BBT	Cylindrical Bore	1	GB/T 307.1 Class 6	A (Outer Ring Guided) TN (Engineering Plastic Mold Retainer)	GCr15	SUJ2
		2				
	Tapered Bore	1		A (Outer Ring Guided) TN (Engineering Plastic Mold Retainer) K Tapered Bores (Taper 1 : 12)		
		2				


Inventory

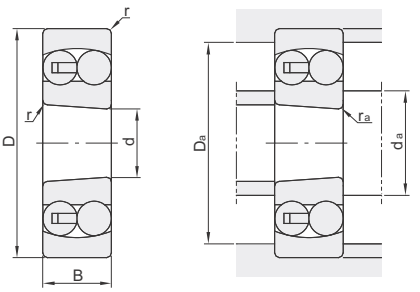
Cylindrical Bore

(Installation Diagram)



Tapered Bore

(Installation Diagram)



The First Perspective

Part Number		d	D	B	r (min)	Basic Load Rating		Limiting Speed (r / min)		Relative Dimensions			Mass (kg) (Reference)
Cylindrical Bore	Tapered Bore					Cr (Dynamic) KN	Cor(Static) KN	Grease lubrication	Oil lubrication	da (min.)	Da (max.)	ra (max.)	
BBT1200ATN		10	30	9		5.06	1.18	24000	30000	14.0	26.0		0.0336
BBT1201ATN		12	32	10	0.6	5.58	1.48	22000	28000	16.0	28.0	0.6	0.0411
BBT1202ATN	—	15	35	11		7.47	2.01	19000	24000	19.0	31.0		0.0497
BBT1302ATN			42	13	1.0	9.52	2.63	17000	20000	20.0	37.0		0.0966
BBT1303ATN		17	47	14	0.6	11.80	3.33	14000	17000	22.0	42.0		0.1310
BBT1204ATN	BBT1204AKTN	20				12.70	3.40	15000	18000	25.0			0.1160
BBT1205ATN	BBT1205AKTN	25	52	15	1.0	14.30	4.00	13000	16000	30.0	47.0		0.1390
BBT2205ATN	—			18		16.00	4.47	11000	14000				0.1580
BBT1305ATN			62	17	1.1	18.10	6.00	9500	12000	31.5	55.5	1.0	0.2500
BBT1206ATN	BBT1206AKTN	30		16	1.0	15.60	4.65	10000	13000	35.0	57.0		0.2190
BBT2206ATN	—			20		23.80	6.58	9500	12000				0.2501
BBT1207ATN	BBT1207AKTN	35	72	17		18.00	6.23	9000	11000	41.5	65.5		0.3050
BBT2207ATN				23	1.1	30.50	8.72	8500	10000				0.3850
BBT1208ATN	—	40	80	18		18.50	6.95	8500	10000	46.5	73.5		0.3930
BBT2208ATN				23		31.80	10.10	7500	9000				0.4880
BBT1308ATN	BBT1308AKTN		90	23	1.5	33.80	11.40	6700	8000	48.0	82.0	1.5	0.6730
—	BBT2308AKTN			33		54.20	15.90	6300	7500				0.8970
BBT1209ATN	BBT1209AKTN	45	85	19	1.1	21.70	9.56	7500	9000	51.5	78.5	1.0	0.4730
BBT2209ATN	—			23		32.00	10.60	7000	8500	55.5			0.5260
BBT1309ATN	BBT1309AKTN		100	25	1.5	38.00	13.40	6300	7500	53.0	92.0	1.5	0.9320
BBT1210ATN		50	90	20	1.1	26.50	9.15	7000	8500	56.5	83.5	1.0	0.5250
BBT2210ATN	—			23		33.60	11.30	6300	7500				0.5590
BBT1310ATN			110	27	2.0	43.30	14.00	5600	6700	59.0	101.0	2.0	1.1700
BBT2310ATN				40		63.70	20.00	5300	6300				1.6500

Please order as shown

Part Number	d	D	B
BBT1200ATN	10	30	9
BBT1201ATN	12	32	10
BBT1202ATN	15	35	11

BBT1200ATN

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 8

Cylindrical Roller Bearings

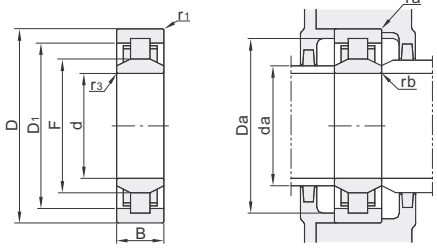
- Inner Ring no Double Ribs
- Single Rib on Inner Ring
- Outer Ring no Double Ribs

Code	Type	Bearing Accuracy	Bearing Suffix	Bearing Material	
				GB	Equiv.
NU	Inner Ring no Double Ribs	GB/T 307.1 Class 0	E(Increased capacity design) M(Copper Retainer)	GCr15	SUJ2
NJ	Single Rib on Inner Ring				
N	Outer Ring no Double Ribs				

Inventory

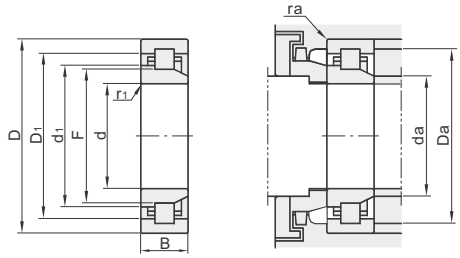
Inner Ring no Double Ribs
NU

(Installation Diagram)



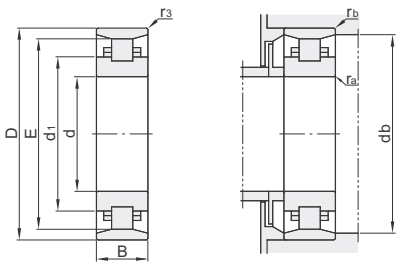
Single Rib on Inner Ring
NJ

(Installation Diagram)



Outer Ring no Double Ribs
N

(Installation Diagram)



The First Perspective

Inner Ring no Double Ribs

Part Number	d	D	D1	B	r1 (min)	r3 (min)	F	Load Rating		Limiting Speed(r/min)		Relative Dimensions				Mass (kg) (Reference)
								Cr (Dynamic) KN	Cor(Static) KN	Grease lubrication	Oil lubrication	da (min.)	Da (max.)	ra (max.)	rb (max.)	
NU306EM	30	72	58.5	19	1.1	1.1	40.5	51.6	48.4	9000	11000	36.5	65.5	1.0	1.0	0.360
NU207EM	35		60.7	17		0.6	44.0	48.7	48.2	8500	10000	39.0	65.5		0.6	0.296
NU307EM		80	66.3	21	1.5	1.1	46.2	65.0	53.3	8000	9500	41.5	72.0	1.5	1.0	0.472
NU308EM	40	90	75.4	23		1.5	52.0	80.4	78.0	6700	8000	48.0	82.0		1.5	0.636
NU209EM	45	85	72.1	19	1.1	1.1	54.5	61.3	64.1			51.5	78.5	1.0	1.0	0.424
NU309EM		100	83.6	25	1.5	1.5	58.5	97.6	98.3	6300	7500	53.0	92.0	1.5	1.5	0.873
NU210EM	50	90	77.1	20	1.1	1.1	59.5	64.1	69.3			56.5	83.5	1.0	1.0	0.482
NU310EM		110	91.7	27	2.0	2.0	65.0	110.0	113.0	5000	6000	59.0	101.0	2.0	2.0	1.120

Single Rib on Inner Ring

Part Number	d	D	D1	d1	B	r1 (min)	F	Load Rating		Limiting Speed(r/min)		Relative Dimensions			Mass (kg) (Reference)
								Cr (Dynamic) KN	Cor(Static) KN	Grease lubrication	Oil lubrication	da (min.)	Da (max.)	ra (max.)	
NJ205EM	25	52	43.5	34.7	15	1.0	31.5	28.7	27.0	11000	14000	29.0	47.0		0.130
NJ207EM	35	72	60.7	48.3	17		44.0	48.7	48.2	8500	10000	39.0	65.5	1.0	0.296
NJ209EM	45	85	72.1	59.2	19	1.1	54.5	61.3	64.1	6700	8000	51.5	78.5		0.424
NJ210EM	50	90	77.1	64.2	20		59.5	64.1	69.3	6300	7500	56.5	83.5		0.482

Outer Ring no Double Ribs

Part Number	d	D	d1	B	r3 (min)	E	Load Rating		Limiting Speed(r/min)		Relative Dimensions			Mass (kg) (Reference)
							Cr (Dynamic) KN	Cor(Static) KN	Grease lubrication	Oil lubrication	db (min.)	rb (max.)	ra (max.)	
N207EM	35	72	48.3	17	0.6	64.0	48.7	48.20	8500	10000	66.0	1.0	0.6	0.296
N309EM	45	100	64.7	25	1.5	88.5	97.6	98.30	6300	7500	91.0	1.5	1.5	0.873
N310EM	50	110	71.2	27	2.0	97.0	110.0	113.00	5000	6000	99.0	2.0	2.0	1.120

kgf=N×0.101972

Please order as shown

Single Rib on Inner Ring

Part Number	d	D	D1
NJ205EM	25	52	43. 5
NJ207EM	35	72	60. 7
NJ209EM	45	85	72. 1

NJ205EM

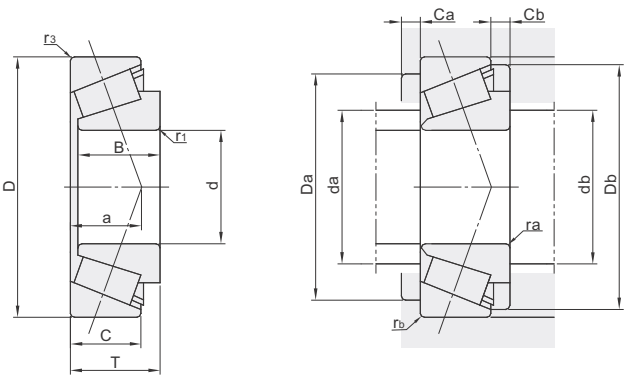
Discount price

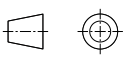
Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

Code	Bearing Type Code	Bearing Suffix	Bearing Accuracy	Bearing Material	
				GB	Equiv.
BBW	3	X(Overall dimensions conform to national standards)	GB/T 307.1 Class 0	GCr15	SUJ2

Installation Diagram




The First Perspective

Part Number	d	D	T	B	C	r1 (min)	r3 (min)	Load Rating Cr (Dynamic) KN	Load Rating Cor (Static) KN	Limiting Speed(r/min) Grease lubrication	Limiting Speed(r/min) Oil lubrication	Pressure Cone Apex a(mm)	Relative Dimensions da (max.)	db (max.)	Da (max.)	Da (min.)	Db (min.)	Ca (min.)	Cb (min.)	ra (max.)	rb (max.)	Mass (g) (Reference)
BBW30203	17	40	13.25	12.0	11.0	1.0	1.0	20.9	22.2	9000	13000	10	23.0	23	34	34	37.0	2	2.0	1.0	1.0	0.0795
BBW30303		47	15.25	14.0	12.0			27.5	25.7	8500	12000		25.0	23	41	40	42.0		3.0			0.1310
BBW30304	20	52	16.25	15.0	13.0	1.5	1.5	32.8	32.2	8000	11000	11	28.0	27	45	44	47.0					0.1690
BBW32005X		47	15.00		11.5	0.6	0.6	26.0	39.5			12	30.0	30	42	40	44.0	3	3.5	0.6	0.6	0.1220
BBW32205	25	52	19.25	18.0	16.0	1.0	1.0	41.6	45.2	7300	9800		31.0	31	46	43	49.0	2	4.0			0.1840
BBW30305		62	18.25	17.0	15.0	1.5	1.5	49.1	46.4	6700	9000	13	34.0	32	55	54	57.0		3.0			0.2650
BBW32006X		55	17.00		13.0			32.9	50.8				35.0		49	48	52.0	3	4.0			0.1810
BBW30206	30	62	17.25	16.0	14.0	1.0	1.0	42.6	48.2	6300	8500	14	38.0	36	56	53	57.0	2	3.0			0.2410
BBW32206		62	21.25	20.0	17.0			51.0	61.8				37.0			52	58.0	3	4.0	1.0	1.0	0.2910
BBW30306		72	20.75	19.0	16.0	1.5	1.5	61.7	61.1	5600	7500	15	41.0	37	65	62	66.0		4.5			0.3940
BBW32007X		62	18.00	18.0	14.0	1.0	1.0	39.2	57.6	6000	8000			41	56	54	59.0	4	4.0			0.2330
BBW30207	35	72	18.25	17.0	15.0	1.5	1.5	53.5	60.8	5300	7000	17	44.0	42	65	62	67.0	3	3.0			0.3400
BBW32207			24.25	23.0	19.0			67.6	84.3			18	43.0			61			5.0			0.4510
BBW32307		80	32.75	31.0	25.0	2.0		104.0	116.0	4800	6300	20	44.0	44	71	66	74.0	4	7.5	1.5	1.5	0.7530
BBW32008X		68	19.00	19.0	14.5	1.0	1.0	49.0	69.1	5300	7000	15	46.0	46	62	60	65.0		4.5			0.2770
BBW30208	40	80	19.75	18.0	16.0	1.5	1.5	62.0	60.8	4800	6300	17	49.0	47	73	69	74.0	3	3.5	1.0	1.0	0.4310
BBW32208			24.75	23.0	19.0			76.8	94.7			19				68	75.0		5.5			0.5410
BBW30308		90	25.25	23.0	20.0	2.0	1.0	95.1	105.0	4500	6000	20	48.0	50	75	70	80.0	5	5.0	1.5	1.5	0.7610
BBW32009X		75	20.00	20.0	15.5	1.0		56.0	75.0	4800	6300	16	52.0	51	69	67	72.0	4	4.5			0.3500
BBW30209	45	85	20.75	19.0	16.0	1.5	1.5	71.0	80.1	4500	6000	18	54.0	52	78	74	80.0	3		1.0	1.0	0.4770
BBW32209			24.75	23.0	19.0			82.5	131.0			20				73			5.5			0.5940
BBW30309		100	27.25	25.0	22.0	2.0		109.0	129.0	4000	5300	21	59.0	54	91	86	92.0		5.0	1.5	1.5	1.0100
BBW31309			27.25	25.0	18.0			96.3	108.0	3400	4500	32	57.0			79	95.0	4	9.0			0.9450
BBW32010X		80	20.00	20.0	15.5	1.0	1.0	59.5	82.3	4500	6300	18		56	74	72	77.0		4.5			0.3800
BBW30210	50	90	21.75	20.0	17.0	1.5	1.5	79.1	102.0	4300	5600	20	58.0	57	83	79	85.0	3		1.0	1.0	0.5590
BBW32210			24.75	23.0	19.0			88.0	117.0			21				78			5.5			0.6380
BBW30310		110	29.25	27.0	23.0	2.5	2.0	134.0	150.0	3600	4800	23	65.0	60	100	95	102.0	4	6.0	2.0	2.0	1.3000
BBW32310			42.25	40.0	33.0			161.0	127.0	3200	4300	28			90	100		5	9.0			1.8700

Please order as shown

Part Number	d	D	T
BBW30203	17	40	13.25
BBW30303	17	47	15.25
	20	52	16.25

BBW30203

Discount price

Per	1~9	10~
Price	100%	Additional quotation

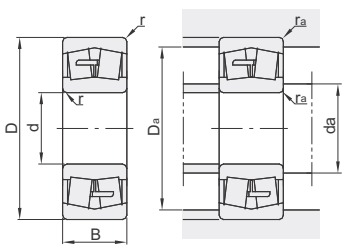
Delivery 13

Self-Aligning Roller Bearings

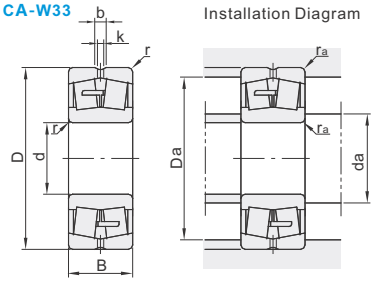
Code	Type	Bearing Type Code	Bearing Accuracy	Bearing Suffix	Bearing Material GB	Bearing Material Equiv.
BBZ	Cylindrical Bore / Tapered Bore	2	GB/T 307.1 Class 0	CA(One-piece machined brass cage, double-pronged, retaining flanges on the inner ring and guide ring centred on the inner ring) W33(An annular groove and three lubrication holes in the outer ring) CA(One-piece machined brass cage, double-pronged, retaining flanges on the inner ring and guide ring centred on the inner ring) K(Tapered Bore, taper is 1: 12)	GCr15	SUJ2


Inventory

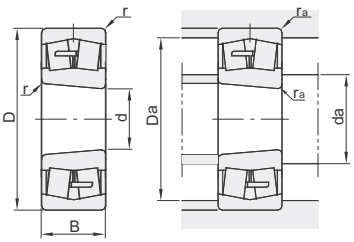
Cylindrical Bore
CA
Installation Diagram



Cylindrical Bore
CA-W33
Installation Diagram



Tapered Bore
CAK
Installation Diagram



Part Number Cylindrical Bore	Part Number Tapered Bore	d	D	B	b	k	r (min)	Load Rating Cr (Dynamic) KN	Load Rating Cor(Static) KN	Limiting Speed(r/min) Grease lubrication	Limiting Speed(r/min) Oil lubrication	Relative Dimensions da (min.)	Relative Dimensions Da (max.)	Relative Dimensions ra (max.)	Mass kg (Reference) (Cylindrical Bore)
BBZ22209CA/W33		45	85	23. 0	7	4	1. 1	77. 1	88. 0	5300	6700	52	78	1. 0	0. 629
BBZ22309CA	—		100	36. 0	—	—	1. 5	138. 0	160. 0	3800	4800	54	91	1. 5	1. 52
BBZ22210CA		50	90	23. 0	7	4	1. 1	84. 5	100. 0	5000	6300	57	83	1. 0	0. 63
BBZ22210CA/W33															
—	BBZ22310CAK		110	40. 0	—	—	2. 0	176. 0	200. 0	3400	4300	60	100	2. 0	2. 17

kgf=Nx0.101972

Please order as shown

Part Number	d	D	B
BBZ22209CA/W33	45	85	23.0
BBZ22309CA		100	36.0
BBZ22210CA	50	90	23.0

BBZ22209CA/W33

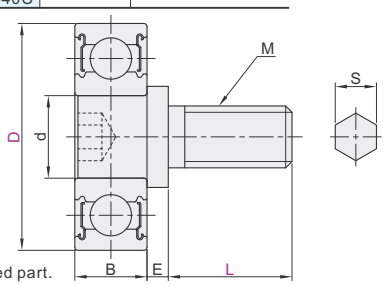
Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 10

Threaded Bearings

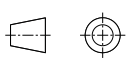
Code	Type		Bearing Material GB	Bearing Material Equiv.	Shaft Material	Shaft Surface Treatment
BJL01	Threaded	Standard	GCr15	SUJ2	SUS303	—
BJL02			9Cr18Mo	SUS440C		
BJL11		Long	GCr15	SUJ2		
BJL12			9Cr18Mo	SUS440C		



There is no undercut machining on the threaded part.


Inventory

Bearing Accuracy: GB/T 307.1 Class 6
Equiv.: JIS B 1514 Class 6


The First Perspective

Part Number Code	Part Number D	L Standard	L Long	d	B	M	E	S	Bearing Used
Standard BJL01 BJL02	6	4	6	3	2.5				BAF673ZZ
	7				3	3			BAF683ZZ
	8			5	2.5			1.5	BAF675ZZ
	9	5	8	4	4		1		BAF684ZZ
	13					4			BAF624ZZ
	16			5	5			2.5	BAF625ZZ
	19			6	6				BAF626ZZ
	22	8	12	8	7	6		4	BAF608ZZ
Long BJL11 BJL12	26			10	8		2.5		BAY6000ZZ
	30				9		2	5	BAY6200ZZ
	32			15	9		2.5		BAY6002ZZ
	35				11		3		BAY6202ZZ
	37	12	20	20	9	10	2.5	8	BAY6904ZZ
	47				14		3		BAY6204ZZ
	52			25	15			10	BAY6205ZZ

Please order as shown

Standard

Part Number Code	D	L Standard	L Long	d
BJL01	6	4	6	3
BJL02	7			

BJL01— D6 — L4

Long

Part Number Code	D	L Standard	L Long	d
BJL11	6	4	6	3
BJL12	7			

BJL11 — D6 — L6

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

Silicon Rubber, Urethane Molded Bearings

Code		Bearing Material		Lining		
Cylindrical Type	Crowned Type	GB	Equiv.	Material	Hardness	Color
BBX01	BBX31	GCr15	SUJ2	Urethane	Shore A90	Black
BBX02	BBX32					White
BBX03	—				Shore A70	Black
BBX04	—					White
BBX07	—				Shore A50	Black
BBX08	—					White
BBX05	BBX33			Silicon Rubber	Shore A70	Light Gray
BBX06	BBX34			Antistatic Urethane		Gray
BBX11	BBX41	9Cr18Mo	SUS440C	Urethane	Shore A90	Black
BBX12	BBX42					White
BBX13	—				Shore A70	Black
BBX14	—					White
BBX15	BBX43			Silicon Rubber		Light Gray

Urethane (white) may turn yellow with age. Please refer to the actual product color.

Bearing Accuracy : GB/T 307.1 Class 6
Equiv. : JIS B 1514 Class 6

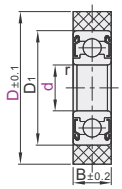
Properties of Antistatic Urethane

Item	Increment	Parameter
Specific Volume Resistivity	Ω.cm	2.1×10^{8}
Surface Resistivity	Ω	4.0×10^{9}

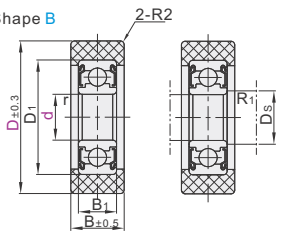
Listed values are not guaranteed values but an exampleof measured values.

Cylindrical Type

Shape A

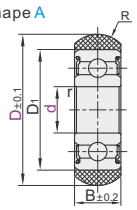


Shape B

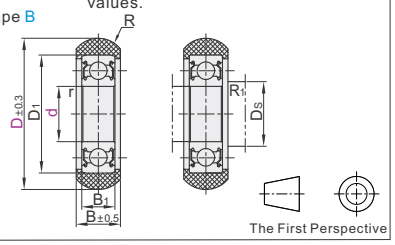


Crowned Type

Shape A



Shape B



The First Perspective

Part Number			D	Allowable Load(N)				B	D1	B1	r (min.)	Relative Dimensions			Bearing Used
Code	Shape	d		Urethane			Silicon Rubber					Ds		R1	
				Shore A90	Shore A70	Shore A50	Shore A70					(min.)	(max.)	(max.)	
		3	10	25	8	4	7	3	7		0.1	3.9	4.1	0.1	BAF683ZZ
			12	34	10	6	9.8								BAF683ZZ
		4	13	44	13	7	13	4	9		0.15	5	5.2		BAF684ZZ
(SUJ2)			16	59	16	6	18	5	13		0.2	5.6	6.2	0.2	BAF624ZZ
BBX01		5	16									6.6	6.9		BAF695ZZ
BBX02			20	78	20	9	24		16		0.3	7	7.6	0.3	BAF625ZZ
BBX03		6	20		23	15			15		0.2	7.6	7.8	0.2	BAF696ZZ
BBX04	Shape		28	157	44	39	47	6	19			8	9.5		BAF626ZZ
BBX05	A	8	28		42	35		7	22	—	0.3	10	12.2	0.3	BAF608ZZ
BBX06			30	176	81	65	53								BAF608ZZ
BBX07		10	30		94	51		8	26			12	13.5		BAY6000ZZ
BBX08			40	274	136	93	82	9	30		0.6	14	16	0.6	BAY6200ZZ
		15	40		122	96			32		0.3	17	19	0.3	BAY6002ZZ
(SUS440C)			45	343	109	102	103	11	35		0.6	19	20	0.6	BAY6202ZZ
BBX11		20	45		130	98		9	37		0.3	22	24	0.3	BAY6904ZZ
BBX12		25	55	490	225	176	145	14	47		1	25	28	1	BAY6204ZZ
BBX13			65	750	333	250	220	15	52			30	32		BAY6205ZZ
BBX14		8	30	176	81	65	53		22	7	0.3	10	12.2	0.3	BAF608ZZ
BBX15		10	30		94	51		11	26	8		12	13.5		BAY6000ZZ
			40	274	136	93	82		30	9	0.6	14	16	0.6	BAY6200ZZ
	Shape	15	40		122	96		12	32		0.3	17	19	0.3	BAY6002ZZ
	B		45	343	109	102	103	15	35	11	0.6	19	20	0.6	BAY6202ZZ
		20	45		130	98		12	37	9	0.3	22	24	0.3	BAY6904ZZ
			55	485	220	170	145	18	47	14	1	25	28	1	BAY6204ZZ
		25	65	745	330	245	220	19	52	15		30	32		BAY6205ZZ

The allowable load is a reference value. kgf=N×0.101972

Crowned Type

Part Number			D	Allowable Load(N)		B	D1	B1	r (min.)	R	Relative Dimensions			Bearing Used
Code	Shape	d		Urethane	Silicon Rubber						Ds		R1	
				Shore A90	Shore A70						(min.)	(max.)	(max.)	
		3	10	25	7	3	7		0.1		3.9	4.1	0.1	BAF683ZZ
			12	34	9.8									BAF683ZZ
		4	13	44	13	4	9		0.15		5	5.2		BAF684ZZ
			16	59	18	5	13		0.2	5	5.6	6.2	0.2	BAF624ZZ
		5	16								6.6	6.9		BAF695ZZ
(SUJ2)			20	78	24		16		0.3		7	7.6	0.3	BAF625ZZ
BBX31		6	20				15		0.2		7.6	7.8	0.2	BAF696ZZ
BBX32			28	157	47	6	19				8	9.5		BAF626ZZ
BBX33	A型	8	28			7	22	—	0.3		10	12.2	0.3	BAF608ZZ
BBX34			30	176	53									BAF608ZZ
		10	30			8	26				12	13.5		BAY6000ZZ
			40	274	82	9	30		0.6		14	16	0.6	BAY6200ZZ
		15	40				32		0.3	15	17	19	0.3	BAY6002ZZ
(SUS440C)			45	343	103	11	35		0.6		19	20	0.6	BAY6202ZZ
BBX41		20	45			9	37		0.3		22	24	0.3	BAY6904ZZ
BBX42			55	490	145	14	47		1	20	25	28	1	BAY6204ZZ
BBX43		25	65	750	220	15	52				30	32		BAY6205ZZ
		8	30	176	53	11	22	7	0.3		10	12.2	0.3	BAF608ZZ
		10	30				26	8			12	13.5		BAY6000ZZ
			40	274	82		30	9	0.6	15	14	16	0.6	BAY6200ZZ
	B型	15	40			12	32		0.3		17	19	0.3	BAY6002ZZ
			45	343	103	15	35	11	0.6		19	20	0.6	BAY6202ZZ
		20	45			12	37	9	0.3		22	24	0.3	BAY6904ZZ
			55	485	145	18	47	14	1	20	25	28	1	BAY6204ZZ
		25	65	745	220	19	52	15			30	32		BAY6205ZZ

The allowable load is a reference value. kgf=N×0.101972

Please order as shown

Cylindrical Type

Part Number			D
Code	Shape	d	
BBX01	Shape (A)	3	12
BBX02		4	13

BBX01—A—d3—D12

Crowned Type

Part Number			D
Code	Shape	d	
BBX31	Shape (A)	3	12
BBX32		4	13

BBX31—A—d3—D12

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

Code	Type		Bearing Material GB	Bearing Material Equiv.	Lining Material	Lining Hardness	Lining Color	Shaft Material
BAN01	Cylindrical Type	Standard	GCr15	SUJ2	Urethane	Shore A90	Black	SUS303
BAN02							White	
BAN03						Shore A70	Black	
BAN04							White	
BAN05					Silicon Rubber		Light Gray	
BAN06					Antistatic Urethane		Gray	
BAN11			9Gr18Mo	SUS440C	Urethane	Shore A90	Black	
BAN12							White	
BAN13						Shore A70	Black	
BAN14							White	
BAN15					Silicon Rubber		Light Gray	
BAN21		Long	GCr15	SUJ2	Urethane	Shore A90	Black	
BAN22							White	
BAN23						Shore A70	Black	
BAN24							White	
BAN25					Silicon Rubber		Light Gray	
BAN26					Antistatic Urethane		Gray	
BAN31			9Gr18Mo	SUS440C	Urethane	Shore A90	Black	
BAN32							White	
BAN33						Shore A70	Black	
BAN34							White	
BAN35					Silicon Rubber		Light Gray	

Urethane (white) may turn yellow with age. Please refer to the actual product color.

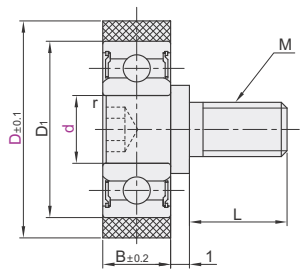
Bearing Accuracy : GB/T 307.1 Class 6
Equiv. : JIS B 1514 Class 6

Properties of Antistatic Urethane

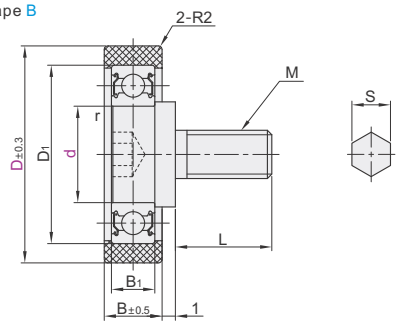
Item	Increment	Parameter
Specific Volume Resistivity	Ω.cm	2.1×10^{8}
Surface Resistivity	Ω	4.0×10^{9}

Listed values are not guaranteed values but an exampleof measured values.

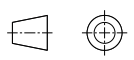
Shape A



Shape B



There is no undercut machining on the threaded part.



The First Perspective

Part Number Code	Shape	d	D	M	L Standard	L Long	Allowable Load(N) Urethane Shore A90	Urethane Shore A90	Silicon Rubber Shore A70	B	D_1	B_1	r (min.)	S	Bearing Used
		3	10	M3	4	6	25	8	7	3	7		0.1	1.5	BAF683ZZ
			12				34	10	9.8						BAF683ZZ
		4	13	M4	5	8	44	13	13	4	9		0.15		BAF684ZZ
			16				59	16	18	5	13		0.2		BAF624ZZ
		5	16											2.5	BAF695ZZ
			20				78	20	24		16		0.3		BAF625ZZ
Standard	Long	6	20					23			15		0.2		BAF696ZZ
BAN01	BAN21		28				157	44	47	6	19				BAF626ZZ
BAN02	BAN22	8	28	M6	8	12		42		7	22	—	0.3	4	BAF608ZZ
BAN03	BAN23		30				176	81	53						BAF608ZZ
BAN04	BAN24	10	30					94		8	26				BAY6000ZZ
BAN06	BAN26		40				274	136	82	9	30		0.6	5	BAY6200ZZ
BAN11	BAN31	15	40					122			32		0.3		BAY6002ZZ
BAN12	BAN32		45				343	109	103	11	35		0.6		BAY6202ZZ
BAN13	BAN33	20	45	M10	12	20		130		9	37		0.3	8	BAY6904ZZ
BAN14	BAN34		55				490	225	145	14	47		1		BAY6204ZZ
BAN15	BAN35	25	65				750	333	220	15	52			10	BAY6205ZZ
		8	30				176	81	53		22	7	0.3	4	BAF608ZZ
		10	30	M6	8	12		94		11	26	8			BAY6000ZZ
			40				274	136	82		30	9	0.6	5	BAY6200ZZ
	Shape B	15	40					122		12	32		0.3		BAY6002ZZ
			45				343	109	103	15	35	11	0.6		BAY6202ZZ
		20	45	M10	12	20		130		12	37	9	0.3	8	BAY6904ZZ
			55				485	220	145	18	47	14	1		BAY6204ZZ
		25	65				745	330	220	19	52	15		10	BAY6205ZZ

The allowable load is a reference value.

kgf=N×0.101972

Please order as shown

Part Number Code	Shape	d	D
BAN01	Shape A	3	12
BAN02		4	13

BAN01—A—d3—D12

Discount price

Per	1~19	20~
Price	100%	Additional quotation

Urethane(Shore A70)

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Others

Delivery 15

Silicon Rubber, Urethane Molded Bearings with Threaded Shaft

Code	Type		Bearing Material		Lining			Shaft
			GB	Equiv.	Material	Hardness	Color	Material
BAP01	Crowned Type	Standard	GCr15	SUJ2	Urethane	Shore A90	Black	SUS303
BAP02							White	
BAP03					Silicon Rubber	Shore A70	Light Gray	
BAP04					Antistatic Urethane	Shore A90	Gray	
BAP11			9Gr18Mo	SUS440C	Urethane		Black	
BAP12							White	
BAP13					Silicon Rubber	Shore A70	Light Gray	
BAP21		Long	GCr15	SUJ2	Urethane	Shore A90	Black	
BAP22							White	
BAP23					Silicon Rubber	Shore A70	Light Gray	
BAP24					Antistatic Urethane	Shore A90	Gray	
BAP31			9Gr18Mo	SUS440C	Urethane		Black	
BAP32							White	
BAP33					Silicon Rubber	Shore A70	Light Gray	

Urethane (white) may turn yellow with age. Please refer to the actual product color.

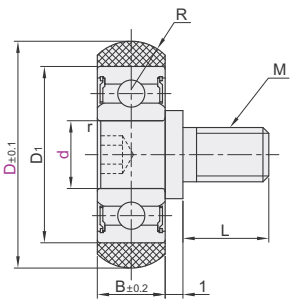
Bearing Accuracy GB/T 307.1 Class 6
Equiv. JIS B 1514 Class 6

Properties of Antistatic Urethane

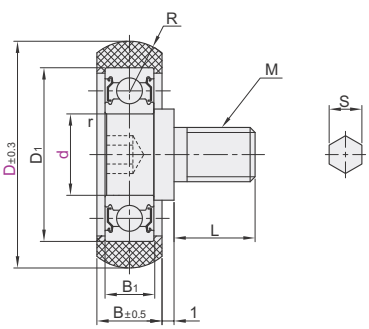
Item	Increment	Parameter
Specific Volume Resistivity	Ω.cm	2.1×10^{8}
Surface Resistivity	Ω	4.0×10^{9}

Listed values are not guaranteed values but an exampleof measured values.

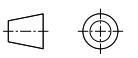
Shape A



Shape B



There is no undercut machining on the threaded part.


The First Perspective

Part Number Code	Shape	d	D	M	L Standard	L Long	Allowable Load(N) Urethane Shore A90	Allowable Load(N) Silicon Rubber Shore A70	B	D1	B1	r (min.)	S	R	Bearing Used
Standard BAP01 BAP02 BAP03 BAP04 BAP11 BAP12 BAP13 / Long BAP21 BAP22 BAP23 BAP24 BAP31 BAP32 BAP33	Shape A	3	10	M3	4	6	25	7	3	7		0.1	1.5		BAF683ZZ
			12				34	9.8							BAF683ZZ
		4	13	M4	5	8	44	13	4	9		0.15			BAF684ZZ
			16				59	18	5	13		0.2			BAF624ZZ
		5	16											5	BAF695ZZ
			20				78	24		16		0.3	2.5		BAF625ZZ
		6	20							15		0.2			BAF696ZZ
			28				157	47	6	19	—				BAF626ZZ
		8	28	M6	8	12			7	22		0.3	4		BAF608ZZ
			30				176	53							BAF608ZZ
		10	30						8	26					BAY6000ZZ
			40				274	82	9	30		0.6	5	15	BAY6200ZZ
		15	40							32		0.3			BAY6002ZZ
			45				343	103	11	35		0.6			BAY6202ZZ
		20	45	M10	12	20			9	37		0.3	8		BAY6904ZZ
			55				490	145	14	47		1		20	BAY6204ZZ
		25	65				750	220	15	52			10		BAY6205ZZ
	Shape B	8	30	M6	8	12	176	53	11	22	7	0.3	4		BAF608ZZ
		10	30							26	8		5		BAY6000ZZ
			40				274	82		30	9	0.6		15	BAY6200ZZ
		15	40						12	32		0.3			BAY6002ZZ
			45				343	103	15	35	11	0.6			BAY6202ZZ
		20	45	M10	12	20			12	37	9	0.3	8		BAY6904ZZ
			55				485	145	18	47	14	1		20	BAY6204ZZ
		25	65				745	220	19	52	15		10		BAY6205ZZ

Please order as shown

Part Number Code	Shape	d	D
BAP01	Shape	3	12
BAP02	A	4	13

BAP01—A—d3—D12

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

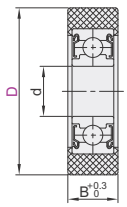
Cylindrical Type

Code	Type		Bearing Material GB	Bearing Material Equiv.	Lining Material	Shaft Material	Shaft Surface Treatment
BKR01	Cylindrical Type	Straight Bore	9Gr18Mo	SUS440C	Polyacetal	—	—
BKR02			GCr15	SUJ2			
BKR11		Threaded Stud	9Gr18Mo	SUS440C		SUS304	
BKR12			GCr15	SUJ2		SWCH	Trivalent Chromate
BKR13			9Gr18Mo	SUS440C	Antistatic Polyacetal	SUS304	—
BKR21		Threaded Stud Hex Socket	GCr15	SUJ2	Polyacetal	SWCH	Trivalent Chromate
BKR22							
BKR32		Long Threaded Stud					

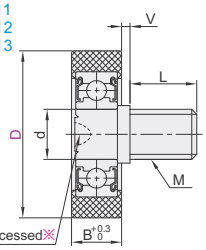
Bearing Accuracy: JIS B 1514 Class 6

Features: The outer circumference of the bearing is covered with heavy-duty resin. The surface contact method is adopted for guiding and conveying.

Straight Bore
BKR01
BKR02

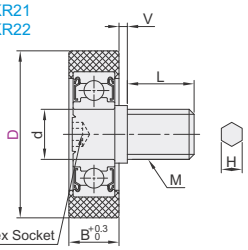


Threaded Stud
BKR11
BKR12
BKR13

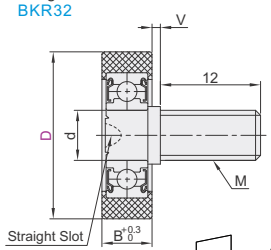


※Only Stainless Steel Type has a flat head screwdriver slot and an undercut at the base of the neck.

Threaded Stud Hex Socket
BKR21
BKR22



Long Threaded Stud
BKR32



The First Perspective

Part Number Code	D	d	B	M	L	V	Hex Socket H	Bearing Used	Allowable Load (N)
BKR01	13	4	5	4	5	1	1.5	L-1040ZZ	29
	14								
	16	5						BAF695ZZ	
BKR02	18								
BKR11	19	6	6	6	8		2.5	BAF696ZZ	78
	20								
BKR12	22								
BKR13	24								
BKR21	26	8	8	8	12	2	5	BAF608ZZ	175
BKR22	30		9						
	35								
BKR32	40	10	12				6	BAY6200ZZ	245
	45								
	50								

Please order as shown

Part Number Code	D	d
BKR01	13	4
BKR02	14	

BKR01—D13

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

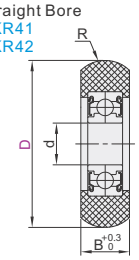
Crowned Type

Code	Type		Bearing Material GB	Bearing Material Equiv.	Lining Material	Shaft Material	Shaft Surface Treatment
BKR41	Crowned Type	Straight Bore	9Gr18Mo	SUS440C	Polyacetal	—	—
BKR42			GCr15	SUJ2			
BKR51		Threaded Stud	9Gr18Mo	SUS440C		SUS304	
BKR52							
BKR62		Threaded Stud Hex Socket	GCr15	SUJ2		SWCH	Trivalent Chromate
BKR72		Long Threaded Stud					

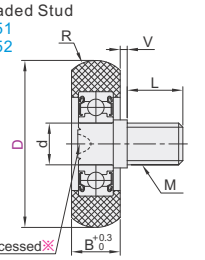
Bearing Accuracy: JIS B 1514 Class 6

Features: The outer circumference of the bearing is covered with heavy-duty resin. The surface contact method is adopted for guiding and conveying.

Straight Bore
BKR41
BKR42

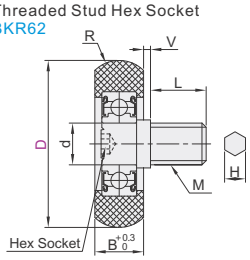


Threaded Stud
BKR51
BKR52

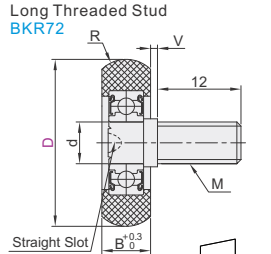


※Only Stainless Steel Type has a flat head screwdriver slot and an undercut at the base of the neck.

Threaded Stud Hex Socket
BKR62



Long Threaded Stud
BKR72



The First Perspective

Part Number Code	D	d	R	B	M	L	V	Hex Socket H	Bearing Used	Allowable Load (N)
BKR41	19	6	5	6	6	8	1	2.5	BAF696ZZ	78
	20									
BKR42	22									
BKR51	24									
BKR52	30	8		9				5	BAF608ZZ	175
	35									
BKR62	40	10	6	12	8	12	2	6	BAY6200ZZ	245
BKR72	45									
	50									

Please order as shown

Part Number Code	D	d
BKR41	19	6
BKR42	20	

BKR41—D19

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

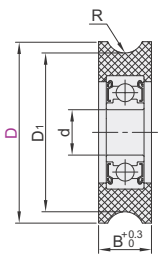
Code	Type		Bearing Material		Lining Material	Shaft	
			GB	Equiv.		Material	Surface Treatment
BKS01	U Groove Type	Straight Bore	9Gr18Mo	SUS440C	Polyacetal	SUS304	—
BKS02			GCr15	SUJ2		SWCH	Trivalent Chromate
BKS11		Threaded Stud Hex Socket	9Gr18Mo	SUS440C		SUS304	—
BKS12			GCr15	SUJ2		SWCH	Trivalent Chromate
BKS22	V Groove Type	Threaded Stud					
BKS32		Threaded Stud Hex Socket					
BKS42	One Side Flanged Type						

Features:Can be used as a product for pulleys and other purposes.

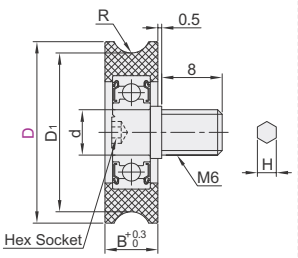
Bearing Accuracy: JIS B 1514 Class 6

U Groove Type

Straight Bore
BKS01
BKS02

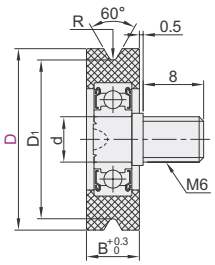


Threaded Stud Hex Socket
BKS11
BKS12

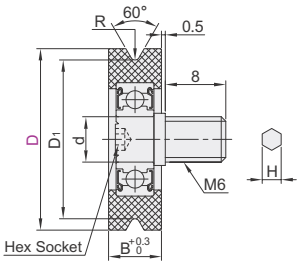


V Groove Type

Threaded Stud
BKS22

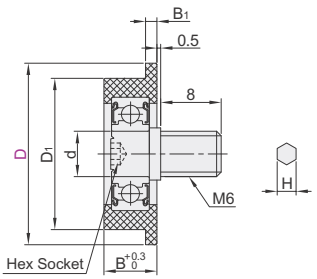


Threaded Stud Hex Socket
BKS32



One Side Flanged Type

Threaded Stud Hex Socket
BKS42



The First Perspective

U Groove Type & V Groove Type

Part Number Code	D	d	D1	B	R U Groove Type	R V Groove Type	Hex Socket H	Bearing Used	Allowable Load (N)
U Groove Type Straight Bore BKS01 BKS02 / Threaded Stud Hex Socket BKS11 BKS12 / V Groove Type Threaded Stud BKS22 / Threaded Stud Hex Socket BKS32	22	6	19	7	2.5	0.6	2.5	BAF696ZZ	78
	24		21						
	30	8	27	9			5	BAF608ZZ	175
	35		31						

One Side Flanged Type

Part Number Code	D	d	D1	B	B1	Hex Socket H	Bearing Used	Allowable Load (N)
BKS42	24	6	20	7	1.5	2.5	BAF696ZZ	78
	35	8	30	9	2	5	BAF608ZZ	175

Please order as shown

U Groove Type & V Groove Type

Part Number Code	D	d
BKS01	22	6
BKS02	24	6

BKS01—D22

One Side Flanged Type

Part Number Code	D	d
BKS42	24	6
	35	8

BKS42—D24

Discount price

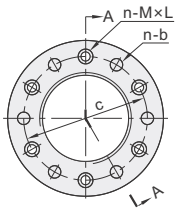
Per	1~9	10~
Price	100%	Additional quotation

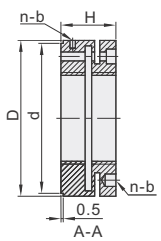
Delivery 15

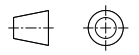
Code	Type	Material		Hardness	Surface Treatment
		GB	Equiv.		
BKC01	Shrink Locking Type	45	S45C	28~32 HRC	Black Oxide

Features:
Through the elastic deformation of the nut itself to make the thread surface closely adhere to the external thread to achieve strong axial fastening. It has excellent locking ability and is suitable for easy loosening, high torque and harsh working conditions.

Screw Accuracy : ISO Class 4H
Perpendicularity of End Face: 0.005







The First Perspective

Part Number Code	Part Number Nominal of Thread	Pitch	D	H	d	c	n-b	n-M×L	Tightening Torque (KN)
BKC01	M10	0.75	24	14	22	17	3-2.5	3-M3×10	2
				15					
	M12	1.0	26	14	25	19	3-3		
	M15		33		31	23.5		3-M4×10	3
	M17		37		32	26			
	M18	1.5	38	18	34	28	4-4		
	M20	1.0	40		36	30		4-M4×12	
	M22		42		38	32			
	M24		44			34			
	M25		45		41	35			
	M26								
	M27		46	20	43	37		4-M4×14	
	M28								
	M30		48		45	39			
	M32		50		47	41			
	M33	1.5					4-5		3.5
	M35		53		50	44			
	M36								
	M38		56	22	53	47		4-M4×16	
	M39								
	M40		58		55	49			
	M42		60		57	51			
	M45		68		63	57		6-M4×16	
	M48		69		65	58			
	M50		70		66				
		2.0		25		60		6-M4×18	
	M52		72		68	62			
	M55	1.5	75		71	65			
		2.0							
	M56	1.5	82	26	77	70	6-6	6-M5×18	
		2.0							
	M58	1.5							
	M60		84		79	72			
		2.0							
	M62	1.5	86		82	75			
	M64								
		2.0							
	M65	1.5	88		84	77			4.5
		2.0							
	M68	1.5	93	28	89	80		6-M5×20	
		2.0							
	M70	1.5	95			82	6-7		
		2.0							
	M72	1.5	97		91	84			
		2.0							
	M75	1.5	100		94	87			
	M80		110		103	95			
	M85		115		108	100			
	M90		120		113	105			
	M95		125	32	118	110		6-M6×22	
	M100	2.0	130		123	115			
	M105		135		128	120	6-8		
	M110		140		133	125			
	M115		145	34	138	130			8
	M120		155		146	136			
	M125		160	36	150	140		6-M6×25	
	M130	3.0	165		156	148			
	M140	2.0	180		168	160			
		3.0		38					
	M150	2.0	190		178	170		8-M6×25	
	M160		205		193	182			
	M170	3.0	215		204	193			
	M180		230		216	205		8-M8×30	
	M190		240	40	226	215			
	M200		245		234	223	8-10		18
	M210	4.0			253			8-M8×25	
	M220	3.0	265		255	243		8-M8×30	
		4.0			253				
	M230		275		265	251			
	M235		285		270	257			
	M240	3.0			275	261			
	M250		295	42	285	271		8-M10×30	
	M260		305		295	283	8-12		35
	M280		325		315	303			
	M300	4.0	345		335	323			

Please order as shown

Part Number Code	Part Number Nominal of Thread	Pitch	D
BKC01	M10	0.75	24
		1.0	

BKC01—M10—0.75

Discount price

Per	1~9	10~
Price	100%	Additional quotation

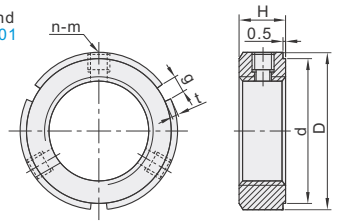
Delivery 16

Code	Type	Shape	Material		Hardness	Surface Treatment
			GB	Equiv.		
BKE01	Radial Locking Type	Round	45	S45C	28~32 HRC	Black Oxide
BKE51		Square				

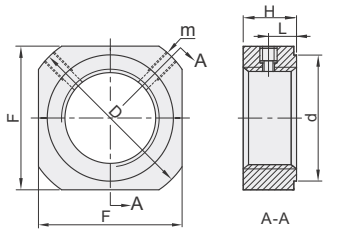

Inventory

- Round Feature:
  The locking direction of the lock nut is a three-point radial locking, which is suitable for situations where the design or assembly is limited and other products cannot be used.
- Square Feature:
  The locking direction of the lock nut is radial locking, which is suitable for low-load bearing seats with simple installation and loosening requirements.

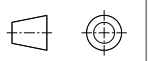
Round
BKE01



Square
BKE51



Screw Accuracy : ISO Class 4H
Perpendicularity of End Face: 0.005


The First Perspective

Round

Part Number Code	Part Number Nominal of Thread	Pitch	D	H	g	t	d	n-m	Tightening Torque (N•m)
BKE01	M6	0.5	16	8	3	1.6	13	2-M4	3.5
	M8	0.75					15		
	M10		18						
	M10	1.0					15		
	M12		20				17		
	M12	1.25							
	M14	1.5	25			2.0	21		
	M15	1.0				1.8	21.5		
	M16	1.5	28	10	4		24	2-M5	4.5
	M17	1.0							
	M18	1.5	30				26		
	M20	1.0	32				28	3-M5	
	M20								
	M22		35				31		
	M24	1.5	38			2.0	34		
	M25								
	M27		42				38		
	M30	1.0	45	12	5		41		
	M30								
	M33		52				48		
	M35								
	M36		55	14	6	2.5	50	3-M6	8
	M38		56				51		
	M39		58				53		
	M40	1.5							
	M42		62				57		
	M45		65				60		
	M48		68				63		
	M50		70				65		
	M52		73				67		
	M55		75	16	7	3	69	3-M8	18
	M56		77				71		
	M60		80				74		
	M64	2.0	85				79		
	M65								
	M68		92	18	8	3.5	85		
	M70								
	M72		95				88		

Round

Part Number Code	Part Number Nominal of Thread	Pitch	D	H	g	t	d	n-m	Tightening Torque (N•m)
BKE01	M75	2.0	98	18	8	3.5	91	3-M8	18
	M76		100				93		
	M80		105				98		
	M85		110				103		
	M90		120	20	10	4	112		
	M95		125				117		
	M100		130				122		
	M105		140	22	12	5	130		
	M110		145				135		
	M115		150				140		
	M120		155				145		
	M125		160	24			150		
	M130		165				155		
	M135		175	26	14	6	163	3-M10	35
	M140		180				168		
	M145		190				178		
	M150		195				183		
	M155	3.0	200	28	16	7	186		
	M160		210				196		
	M165								
	M170		220				206		
	M180		230	30			214		
	M190		240				224		60
	M200		250	32			234		
	M210	4.0	270	34	18	8	245	3-M12	85
	M220	3.0							
	M220	4.0					254		
	M230	3.0	290				264		
	M240						265		
	M240	4.0					274		
	M245	3.0	295				279		
	M260		310				285		
	M260						294		
	M275		325	36			309		
	M280	4.0	330				314		
	M300		350				334		
	M440		520	46	20	10	500	6-M20	
	M460		540				520		

Square

Part Number Code	Part Number Nominal of Thread	Pitch	m	D	d	H	L	F
BKE51	M5	0.5	M2.6	13.5	9	5	2.7	11
	M6	0.75	M3×0.5					12
	M8			16	12	6.5	3.5	14
	M10	1.0	M4×0.7	19	14	8	5	16
	M12			22	17			19
	M15			25	20		5.75	22
	M17		M5×0.8	29	22	11	7	24
	M20			35	28	13		30
	M25		M6×1.0	43	33	15	10	35
	M30	1.5	M8×1.25	48	38	20	12	40
	M35			60	48	21	13	50
	M40			62	48	25	18	

Round

Part Number Code	Part Number Nominal of Thread	Pitch	D
BKE01	M6	0.5	16
	M8	0.75	

Please order as shown

BKE01— M6 — 0.5

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

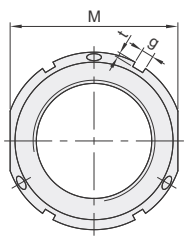
Lock Nuts

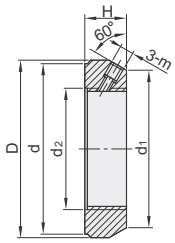
Round Type, Abdominal Locking Type
U Type, Standard Type

Round Type

Code	Type		Material GB	Material Equiv.	Hardness	Surface Treatment
BKF01	Round	Abdominal Locking Type	45	S45C	28~32 HRC	Phosphating

Features:
Three locking pins of equally pitch can accurately position the nut, and it also can make the adjustment of bearings and precision components that require precise tolerances easy to operate.





The First Perspective

Screw Accuracy : ISO Class 4H
Perpendicularity of End Face: 0.002~0.005

Part Number Code	Nominal of Thread	Pitch	d_1	D	d	d_2	H	g	t	M	m	Tightening Torque (N•m)
BKF01	M10	0.75	21	28	23	11	14	4	2.5	26	M5	4.5
	M12	1.0	23	30	25	13				27		
	M15		26	33	28	16	16			30		
	M17		29	37	33	18	18	5		34	M6	8.0
	M20		32	40	35	21				36		
	M25	1.5	36	44	39	26	20			41		
	M30		41	49	44	32				46		
	M35		46	54	49	38	22	6	3	50		
	M40		56	65	59	42				60		
	M45		61	70	64	48				65		
	M50		65	75	68	52	25	7	3.5	70		
	M55	2.0	74	85	78	58				80	M8	18.0
	M60		78	90	82	62	26	8	4	85		
	M65		83	95	87	68				90		
	M70		88	100	92	72	28			95		
	M75		93	105	97	77				100		
	M80		98	110	100	83			3.5			
	M85		107	120	110	88	32	10	4	110	M10	35.0
	M90		112	125	115	93				115		
	M95		117	130	120	98				120		
	M100		122	135	125	103				130		
	M110		132	145	134	112				140		
	M120		142	155	144	122				150		
	M130		152	165	154	132		12	5	160		
	M140		162	175	164	142				170		
	M150		172	185	174	152		14	6	180		
	M160		182	195	184	162				190		
	M170		192	205	194	172				200		
	M180		202	215	204	182		16	7	210		
	M190		212	225	214	192				220		
	M200		222	235	224	202		18	8	230		

Please order as shown

Part Number Code	Nominal of Thread	Pitch
BKF01	M10	0.75
	M12	1.0

BKF01— M10 — 0.75

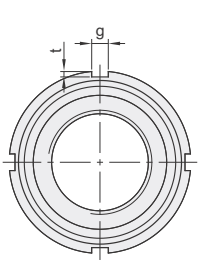
Discount price

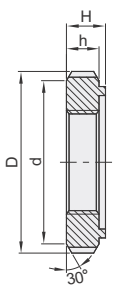
Per	1~9	10~
Price	100%	Additional quotation

Delivery 14

U Type

Code	Type		Material GB	Material Equiv.	Surface Treatment
BKJ01	U Type	Standard	0Cr18Ni9	SUS304	—
BKJ02			Q235	SS400	





The First Perspective

Screw Accuracy : ISO Class 6H
Perpendicularity of End Face: 0.005

Part Number Code	Nominal of Thread	Pitch	D	d	h	H	g	t
(SUS304) BKJ01 (SS400) BKJ02	M10	0.75	18	13	4	5.2	3	2
	M12	1.0	22	17		5.4		
	M15		25	21	5	6.5	4	
	M17		28	24		6.4		
	M20		32	26	6	7.7		
	M25	1.5	38	32	7	9.1	5	
	M30		45	38				
	M35		52	44	8	10.2	6	2.5
	M40		58	50	9	11.2		
	M45		65	56	10	12.5		
	M50		70	61	11	13.5		

Part Number Code	Nominal of Thread	Pitch	D	d	h	H	g	t
(SUS304) BKJ01 (SS400) BKJ02	M55	2.0	75	67	11	13.5	7	3.0
	M60		80	73				
	M65		85	79	12	15		
	M70		92	85				
	M75		98	90	13	15.8	8	3.5
	M80		105	95	15	18.6		
	M85		110	102	16	19.2		
	M90		120	108		20.3		
	M95		125	113	17	21.3	10	4.0
	M100		130	120	18	22.3		

Please order as shown

Part Number Code	Nominal of Thread	Pitch	D
BKJ01	M10	0.75	18
BKJ02	M12	1.0	22

BKJ01— M10 — 0.75

Discount price

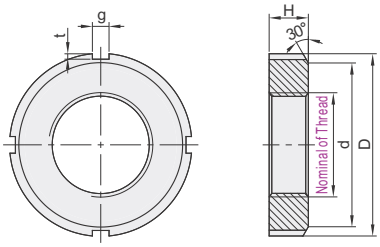
Per	1~9	10~
Price	100%	Additional quotation

Delivery 14

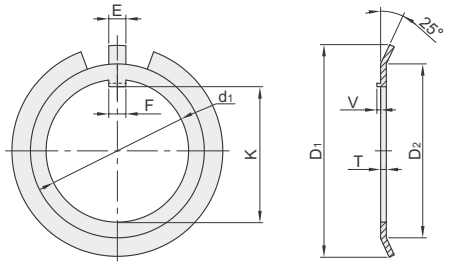
Code	Type		Sales Unit	Lock Nuts		Toothed Lock Washers	
				Material	Surface Treatment	Material	Surface Treatment
BKJ51	Round	Lock Nuts	Single Item	SS400	Black Oxide	—	—
BKJ61				SUS304	—		
BKJ52		Lock Nuts + Toothed Lock Washers	Set	SS400	Black Oxide	SPCC	Chromating
BKJ62				SUS304	—	SUS304	—

Inventory

Lock Nuts



Toothed Lock Washers



The first perspective

Part Number		Pitch	Lock Nuts					Toothed Lock Washers								
Code	Nominal of Thread		D	d	H	g	t	d_1	K	E	F	T	V	D_1	D_2	No. of Teeth
Single Item BKJ51 BKJ61 Set BKJ52 BKJ62	M10	0.75	18	13	4	3		10	8.5	3	3		2	21	13	9
	M12		22	17				12	10.5					25	17	
	M15	1.0	25	21	5			15	13.5			1		28	21	
	M17		28	24		4	2	17	15.5	4	4			32	24	
	M20		32	26	6			20	18.5					36	26	13
	M25		38	32	7			25	23		5			42	32	
	M30		45	38		5		30	27.5	5			2.5	49	38	
	M35	1.5	52	44	8			35	32.5					57	44	15
	M40		58	50	9	6	2.5	40	37.5		6	1.2		62	50	
	M45		65	56	10			45	42.5	6				69	56	
	M50		70	61				50	47.5					74	61	17
	M55		75	67	11			55	52.5					81	67	
	M60		80	73		7	3	60	57.5	7				86	73	
	M65		85	79	12			65	62.5		8	1.5		92	79	
	M70		92	85		8	3.5	70	66.5					98	85	
	M75		98	90	13			75	71.5	8			4	104	90	
	M80		105	95	15			80	76.5					112	95	
	M85		110	102	16			85	81.5		10			119	102	
	M90		120	108		10	4	90	86.5			1.8		126	108	
	M95	2.0	125	113	17			95	91.5	10				133	113	
	M100		130	120	18			100	96.5					142	120	
	M105*		140	126				105	100.5		12			145	126	
	M110		145	133	19			110	105.5					154	133	
	M115*		150	137		12	5	115	110.5	12			6	159	137	19
	M120		155	138	20			120	115					164	138	
	M125*		160	148	21			125	120		14			170	148	
	M130*		165	149				130	125			2		175	149	
	M140*		180	160	22	14	6	140	135	14	16			192	160	
	M150*		195	171	24			150	145					205	171	
	M160*		210	182	25	16	7	160	154	16	18		8	217	182	
	M170*		220	193	26			170	164					232	193	
	M180*	3.0	230	203	27			180	174			2.5		242	203	
	M190*		240	214	28	18	8	190	184	18	20			252	214	
	M200*		250	226	29			200	194					262	226	

The lock nut matches the specifications of the corresponding toothed lock washers.
With "*" size not applicable BKJ61/BKJ62.

Please order as shown

Part Number		Pitch	D
Code	Nominal of Thread		
BKJ51	M10	0.75	18
BKJ61	M12	1.0	22

BKJ51— M10 — 0.75

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 8
BKJ51/52

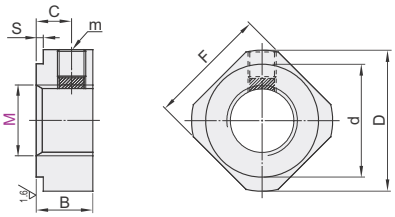
Delivery 15
BKJ61/62

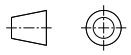
Bearing Lock Nuts

◀ Square
◀ Hexagon

Square

Code	Type	Thread	Material GB	Material Equiv.	Hardness	Surface Treatment	Accessories
BKN01	Square	Coarse Thread	Q235	SS400	—	Black Oxide	Set Screw(SCM435)
BKN06			45	S45C	22~28 HRC		
BKN11			0Cr18Ni9	SUS304	—	—	Set Screw(SUS304)
BKN21		Fine Thread	Q235	SS400		Black Oxide	Set Screw(SCM435)
BKN26			45	S45C	22~28 HRC		
BKN31			0Cr18Ni9	SUS304	—	—	Set Screw(SUS304)





The first perspective

Part Number Code	M	M×Pitch Coarse Thread	D	d	F	B	C	S	m
Coarse Thread BKN01 BKN06 BKN11	3	M3×0.5	11.5	4	10	5.5	3	0.5	M3 with Set Screw
	4	M4×0.7		5					
	5	M5×0.8	13.5	9	11				
	6	M6×1.0	14.5	10	12				
	8	M8×1.25	17	13	14	6.5	4		
	10	M10×1.5	20	16	17	8	5	1	M4 with Set Screw
	12	M12×1.75	22	17	19				
	16	M16×2.0	25	21	22	10	6		
	20	M20×2.5	35	26	30	13	8	2	M5 with Set Screw
	24	M24×3.0	43	33	35	15	10		
	30	M30×3.5	48	39	40	20	14		

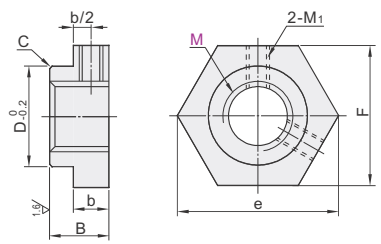
Part Number Code	M	M×Pitch Fine Thread	D	d	F	B	C	S	m
Fine Thread BKN21 BKN26	3	M3×0.35	11.5	4	10	5.5	3	0.5	M3 with Set Screw
	4	M4×0.5		5					
	5	M5×0.5	13.5	9	11				
	6	M6×0.75	14	9	12	8	5	1	M4 with Set Screw
	8	M8×1.0	16	12	14	6.5	3.5		
	10	M10×1.0	19	14	16		5		
	12	M12×1.0	22	17	19				
	15	M15×1.0	25	20	22		5.75		
	17	M17×1.0	29	22	24	13	9		M5 with Set Screw
	20	M20×1.0	35	28	30		7		
	25	M25×1.5	43	33	35	15	10		M6 with set screw
	30	M30×1.5	48	38	40	20	12	2	M8 with Set Screw
	35	M35×1.5	60	48	50	21	13		
	40	M40×1.5	62	48	50	25	18		
	50	M50×1.5	66	61	63		16		

Part Number Code	M	M×Pitch Fine Thread	D	d	F	B	C	S	m
Fine Thread BKN31	3	M3×0.35	11.5	4	10	5.5	3	0.5	M3 with Set Screw
	4	M4×0.5		5					
	5	M5×0.5	13.5	9	11				
	6	M6×0.75	14.5	10	12				
	8	M8×1.0	17	13	14	6.5	4		
	10	M10×1.0	20	16	17	8	5	1	M4 with Set Screw
	12	M12×1.0	22	17	19				
	15	M15×1.0	25	21	22	10	6		
	17	M17×1.0							
	20	M20×1.0	35	26	30	13	8	2	M6 with Set Screw
	25	M25×1.5	43	33	35	15	10		
	30	M30×1.5	48	39	40	20	14		
	35	M35×1.5		43	45				
	40	M40×1.5	53	48	49	25	16		
	50	M50×1.5	66	61	63				

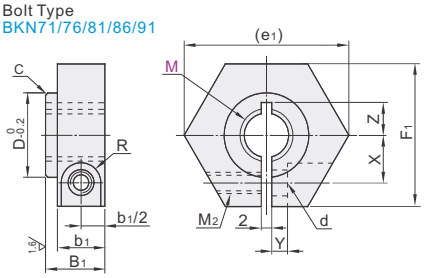
Hexagon

Code	Type		Thread	Material GB	Material Equiv.	Hardness	Surface Treatment	Accessories
BKN41	Hexagon	Screw Type	Coarse Thread	Q235	SS400	—	Black Oxide	Set Screw(SCM435)
BKN46				0Cr18Ni9	SUS304		—	Set Screw(SUS304)
BKN51			Fine Thread	Q235	SS400		Black Oxide	Set Screw(SCM435)
BKN56				45	S45C	22~24 HRC		
BKN61				0Cr18Ni9	SUS304		—	Set Screw(SUS304)
BKN71		Bolt Type	Coarse Thread	Q235	SS400	—	Black Oxide	Socket Head Bolt(SCM435)
BKN76				0Cr18Ni9	SUS304		—	Socket Head Bolt(SUS304)
BKN81			Fine Thread	Q235	SS400		Black Oxide	Socket Head Bolt(SCM435)
BKN86				45	S45C	22~24 HRC		
BKN91				0Cr18Ni9	SUS304	—	—	Socket Head Bolt(SUS304)

Screw Type
BKN41/46/51/56/61



Bolt Type
BKN71/76/81/86/91



The first perspective

Part Number Code	M	M × Pitch Coarse Thread	M × Pitch Fine Thread	D	C	Screw Type (e)	Screw Type F	Screw Type B	Screw Type b	Screw Type M1	Bolt Type (e1)	Bolt Type F1	Bolt Type B1	Bolt Type b1	Bolt Type M2	Bolt Type X	Bolt Type Y	Bolt Type Z	Bolt Type d	Bolt Type R
Screw Type BKN41 BKN46 BKN51 BKN56 BKN61 Bolt Type BKN71 BKN76 BKN81 BKN86 BKN91	5	M5×0.8	M5×0.5	9	0.2	19.6	17	9	5	M3	—	—	—	—	—	—	—	—	—	—
	6	M6×1.0	M6×0.75	10																
	8	M8×1.25	M8×1.0	13		21.9	19				27.7	24	13	9	M4	7	4	7(8.5)	4.5	3.75
	10	M10×1.5	M10×1.0	16		25.4	22	10			31.2	27				9		7(10)		
	12	M12×1.75	M12×1.0	17		27.7	24				34.6	30	16	12	M5	9.5	4.5	9(11)	5.5	4.5
	15	—	M15×1.0	21		31.2	27	11	6	M4	41.6	36	19	14	M6	12.5	5	9.5(11)	7	5.5
	16	M16×2.0	—															9.5(12)		
	20	M20×2.5	M20×1.0	26		37.0	32				47.3	41				15	6.5	12(15)		
	24	M24×3.0	—	33		47.3	41	13	8	M5	53.1	46				17	7.5	15		
	25	—	M25×1.5																	
	30	M30×3.5	M30×1.5	39	0.5	57.7	50	16	10	M6	57.7	50	20			19.5	8.5	18		

※ M5 and M6 are not applicable for screw type.

Z dimensions in ( ) are for Stainless Steel Type

Please order as shown

Part Number Code	M	M × Pitch Coarse Thread	M × Pitch Fine Thread
BKN41	12	M12×1.75	M12×1.0
BKN46	15	—	M15×1.0

BKN41 — M12

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 16

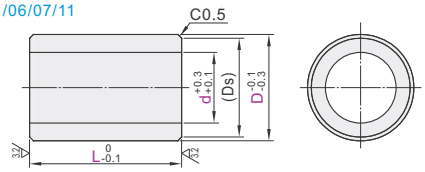
Code		L Dimensional Tolerance	Material		Surface Treatment
Inner Ring	Outer Ring		GB	Equiv.	
BKP01	BKP51	0 -0.1	LF2	A5052	—
BKP06	BKP56		Q235	SS400	Black Oxide
BKP07	BKP57				Electroless Nickel Plating
BKP11	BKP61		0Cr18Ni9	SUS304	—
BKP21	BKP71	+0.1 0	LF2	A5052	—
BKP26	BKP76		Q235	SS400	Black Oxide
BKP27	BKP77				Electroless Nickel Plating
BKP31	BKP81		0Cr18Ni9	SUS304	—

Processing according to drawings

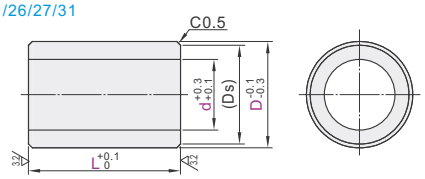
Inventory self made

Inner Ring

Negative Tolerance
BKP01/06/07/11

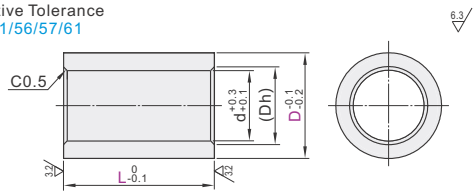


Positive Tolerance
BKP21/26/27/31

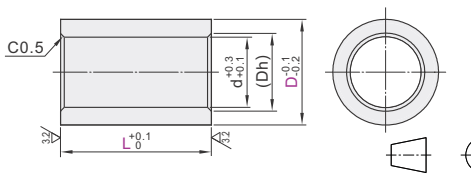


Outer Ring

Negative Tolerance
BKP51/56/57/61



Positive Tolerance
BKP71/76/77/81



The First Perspective

Inner Ring

Part Number Code	d	D	L 1 mm Inc.	Ds	Applicable Bearing
Negative Tolerance BKP01 BKP06 BKP07 BKP11	3	5	1.0~50.0	4	673ZZ/693ZZ/623ZZ
	4	7		6	674ZZ※/694ZZ/624ZZ
	5	8		7	675ZZ※/695ZZ/605ZZ/625ZZ
	6	9		8	676ZZ/696ZZ/606ZZ/626ZZ
	8	10		9	678ZZ
		11		10	678ZZ/698ZZ/608ZZ/628ZZ
	10	12	1.0~100.0	11	6700ZZ
		13		12	6800ZZ
		14		13	6900ZZ/6000ZZ
		17	2.0~100.0	16	6200ZZ/6300ZZ
	12	15	1.0~100.0	14	6701ZZ/6801ZZ
		16		15	6901ZZ/6001ZZ
		18		17	6201ZZ/6301ZZ
	15	18		17	6702ZZ/6802ZZ
		19		18	6902ZZ/6002ZZ
		21		20	6202ZZ
		23		22	6302ZZ
	17	20		19	6803ZZ
		22		21	6903ZZ/6003ZZ
		24		23	6203ZZ
		26		25	6303ZZ
Positive Tolerance BKP21 BKP26 BKP27 BKP31	20	23	2.0~100.0	22	6804ZZ
		25		24	6904ZZ
		27		26	6004ZZ/6204ZZ
		29		28	6304ZZ
	25	28		27	6805ZZ
		29		28	6905ZZ
		31		30	6005ZZ
		33		32	6205ZZ
		36		35	6305ZZ
	30	33		32	6806ZZ
		35		34	6906ZZ
		38		37	6006ZZ
		40		39	6206ZZ
		43		42	6306ZZ
	35	38		37	6807ZZ
		42		41	6907ZZ
		44		43	6007ZZ/6207ZZ
		46		45	6207ZZ
		48		47	6307ZZ
	40	43		42	6808ZZ
		46		45	6908ZZ
		49	3.0~100.0	48	6008ZZ/6208ZZ
		52		51	6208ZZ
		54		53	6308ZZ
	45	53		52	6009ZZ
		55		54	6209ZZ
	50	56		57	6010ZZ
		60		59	6210ZZ

Outer Ring

Part Number Code	D	L 0.1 mm Inc.	d	Dh	Applicable Bearing
Negative Tolerance BKP51 BKP56 BKP57 BKP61	6	1.0~50.0	4	5	673ZZ
	7		5	6	674ZZ
	8				693ZZ
	10		7	8	623ZZ
	11				694ZZ
	13		9	10	624ZZ/695ZZ
	14		10	11	605ZZ
	15				696ZZ
	16		11	12	625ZZ
	17	3.0~50.0	12	13	606ZZ
	19		14	15	626ZZ/698ZZ
	19A		16	17	6800ZZ
	21		18	19	6801ZZ
	22		17	18	608ZZ/6900ZZ
	24		19	20	628ZZ/6901ZZ
	24A		21	22	6802ZZ
	26		20	21	6000ZZ
Positive Tolerance BKP71 BKP76 BKP77 BKP81	26A		23	24	6803ZZ
	28		22	23	6001ZZ/6902ZZ
	30		24	25	6200ZZ
	32		25	26	6201ZZ/6002ZZ
	32A		29	30	6804ZZ
	35	3.0~100.0	29	30	6202ZZ
	37		31	32	6904ZZ
	37A		34	35	6805ZZ
	42		34	35	6004ZZ/6905ZZ
	42A		39	40	6806ZZ
	47		39	40	6204ZZ/6005ZZ/6906ZZ
	47A		44	45	6807ZZ
	52		45	46	6205ZZ
	52A		49	50	6808ZZ
	55		46	47	6006ZZ
	62		55	56	6206ZZ/6007ZZ/6908ZZ
	70		63	64	6207ZZ

Please order as shown

Inner Ring

Part Number Code	d	D	L
BKP01	10	14	1.0~100.0
BKP06		17	2.0~100.0

BKP01 — d10 — D17 — L33.5

Outer Ring

Part Number Code	D	L
BKP51	6	1.0~50.0
BKP56	7	

BKP51 — D6 — L20

Optional Processing

Part Number Code	D	L	Optional Processing Code
BKP51	6	1.0~50.0	LC NC
BKP56	7		

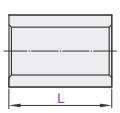
BKP51 — D6 — L20 — LC

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

Optional Processing

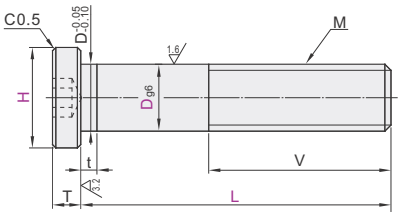
Code	Spec.	
LC Negative Tolerance	Change L Dimension Tolerance 	Ordering Code LC $L^{0}_{-0.1}$ Overall Length Tolerance Change to $L^{0}_{-0.02}$
NC Positive Tolerance		Ordering Code NC $L^{+0.1}_{0}$ Overall Length Tolerance Change to $L^{+0.02}_{0}$

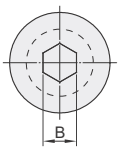
! When L< 3, ※ marked Bearings cannot be used.

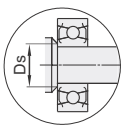
Bearing Shaft Screws ◀ L Selectable

Code	Type	Material		Surface Treatment
		GB	Equiv.	
BKT01	L Selectable	45	S45C	Black Oxide
BKT02				Electroless Nickel Plating
BKT06		0Cr18Ni9	SUS304	—

Processing according to drawings







The First Perspective

Part Number Code	D	H Select	L Select	T	B	M	V	t	Ds	Applicable Bearing
BKT01 BKT02 BKT06	4	7	15 20 25 30	2	2	M4	6	0.7	6	674 694 624
	5	8	15 20 25 30		2.5	M5			7	695 605 625 675
	6	9	20 25 30 40		3	M6	8		8	696 606 626 676
	8	11	20 25 30 40		4	M8			10	698 608 628 678
		13	20 25 30 40						12	6800
	10	14	20 25 30 40		5	M10	12		13	6900 6000
		17	25 30 40	3					16	6200
		15	20 25 30 40 50						14	6801
	12	16	25 30 40 50						15	6901 6001
		18	30 40 50 60		6	M12	16		17	6201
		18	30 40 50 60						17	6802
	15	19	30 40 50 60						18	6902 6002
		21	30 40 50 60						20	6202
		20	30 40 50 60					1.0	19	6803
	17	22	30 40 50 60		8	M16			21	6903 6003
		24	30 40 50 60	4					23	6203
		23	30 40 50 60						22	6804
	20	25	30 40 50 60		10	M20			24	6904 6004
		27	30 40 50 60						26	6204
		28	30 40 50 60				20		27	6805
	25	29	30 40 50 60		12	M24			28	6905
		31	30 40 50 60						30	6005
		33	30 40 50 60	5					32	6205
		33	30 40 50 60						32	6806
	30	35	40 50 60		14	M30			34	6906
		38	40 50 60						37	6006 6206

Please order as shown

Part Number Code	D	H	L
BKT01	10	14	20 25 30
BKT02		17	25 30 40

BKT01 — D10 — H14 — L30

Discount price

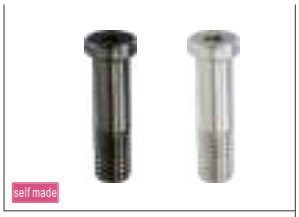
Per	1~9	10~
Price	100%	Additional quotation

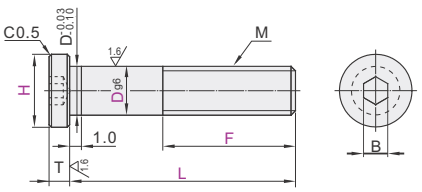
Delivery 15

Bolt Type

Code	Type		Material GB	Material Equiv.	Surface Treatment
BKT21	L Configurable	Bolt Type	45	S45C	Black Oxide
BKT22					Electroless Nickel Plating
BKT26			0Cr18Ni9	SUS304	—

Processing according to drawings





The First Perspective

Part Number Code	D	H Select	0.5 mm Inc. L	F	M	T	B
BKT21 BKT22 BKT26	4	7	15~30	F=4~(L-3)	M4		2
	5	8		F=5~(L-3)	M5	2	2.5
	6	9		F=6~(L-4)	M6		3
	8	11	20~40	F=8~(L-5)	M8		4
		13		F=10~(L-5)			
	10	14		F=10~(L-5)	M10		5
		17	25~50	F=10~(L-5)		3	
		15	20~40	F=12~(L-5)			
	12	16	25~50	F=12~(L-5)	M12		6
		18	30~60	F=12~(L-5)			

Please order as shown

Part Number Code	D	H	L	F
BKT21	12	15	20~40	F=12~(L-5)
BKT22		16	25~50	F=12~(L-5)

BKT21—D12—H15—L25—F15

Discount price

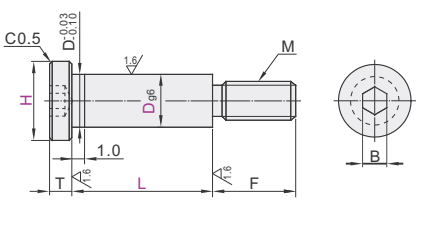
Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

Shoulder Type

Code	Type		Material GB	Material Equiv.	Surface Treatment
BKT31	L Configurable	Shoulder Type	45	S45C	Black Oxide
BKT32					Electroless Nickel Plating
BKT36			0Cr18Ni9	SUS304	—

Processing according to drawings



The First Perspective

Part Number Code	D	H Select	0.1 mm Inc. L	M	F	Ds	T	B
BKT31 BKT32 BKT36	4	7	3.0~30.00	M2.5	5	6		2
	5	8		M3	6	7	2	2.5
	6	9	4.0~30.00	M4	7	8		3
	8	11		M6	9	10		4
		13	5.0~30.00			12		
	10	14		M8		13		5
		17			12	16	3	
		15				14		
	12	16	6.0~30.00	M8		15		6
		18				17		

Please order as shown

Part Number Code	D	H	L
BKT31	12	15	6.0~30.0
BKT32		16	

BKT31—D12—H15—L20

Discount price

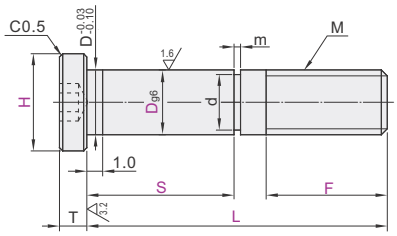
Per	1~9	10~
Price	100%	Additional quotation

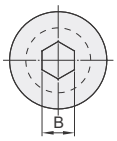
Delivery 15

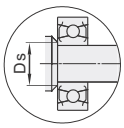
Bearing Shaft Screws ◀ with Retaining Ring Groove

Bolt Type

Code	Type	Material		Surface Treatment	Accessories
		GB	Equiv.		
BKT51	Bolt Type	45	S45C	Black Oxide	1 Retaining Ring (SUS304)
BKT52				Electroless Nickel Plating	
BKT56		0Cr18Ni9	SUS304	—	







Processing according to drawings

6.3

The First Perspective

Part Number Code	D	H Select	L 0.5 mm Inc.	S Select	F 0.5 mm Inc.	T	B	M	m		d		Ds	Applicable Bearing	Included Retaining Ring Shape	JIS Nominalsize
BKT51 BKT52 BKT56	4	7	15~30	5 10 15 20	F≤L-S-2	2	2	M4	0.7	+0.1 0	3	+0.06 0	6	674 694 624	E Type	TBP12-3
	5	8	15~30	5 10 15 20			2.5	M5			4	+0.075 0	7	695 605 625 675		TBP12-4
	6	9	20~35	10 15 20 25			3	M6			5		8	696 606 626 676		TBP12-5
	8	11	20~35	10 15 20 25			4	M8	0.9		7	+0.09 0	10	698 608 628 678		TBP12-7
	10	13	20~35	10 15 20 25									12	6800		
		14	20~35	10 15 20 25	F≤L-S-3	3	5	M10	1.15	+0.14 0	9.6	0 -0.09	13	6900 6000		TBP02-10
		17	25~45	15 20 25									16	6200	C Type	
	12	15	20~35	10 15 20 25			6	M12			11.5	0 -0.11	14	6801		TBP02-12
		16	25~45	10 15 20 25									15	6901 6001		
		18	30~55	15 20 25									17	6201		

Please order as shown

Part Number Code	D	H Select	L 0.5 mm Inc.	S Select	F 0.5 mm Inc.	T
BKT51	4	7	15~30	5 10 15	F≤L-S-2	2
BKT52	5	8	15~30	5 10 15		

BKT51 — D5 — H8 — L25 — S10 — F6

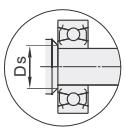
Discount price

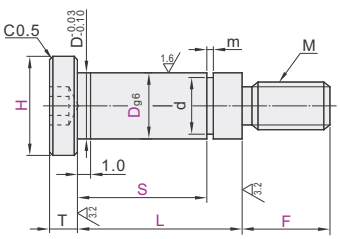
Per	1~9	10~
Price	100%	Additional quotation

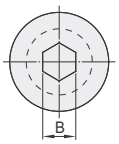
Delivery 15

Shoulder Type

Code	Type	Material		Surface Treatment	Accessories
		GB	Equiv.		
BKT71	Shoulder Type	45	S45C	Black Oxide	1 Retaining Ring (SUS304)
BKT72				Electroless Nickel Plating	
BKT76		0Cr18Ni9	SUS304	—	







Processing according to drawings

6.3

The First Perspective

Part Number Code	D	H Select	L 0.1 mm Inc.	S 1 mm Inc.	F	T	B	M	m		d		Ds	Applicable Bearing	Included Retaining Ring Shape	JIS Nominalsize
BKT71 BKT72 BKT76	4	7	15~30	5~20	5		2	M2.5	0.7		3	+0.06 0	6	674 694 624	E Type	TBP12-3
	5	8	15~30	5~20	6	2	2.5	M3			4	+0.075 0	7	695 605 625 675		TBP12-4
	6	9	20~35	10~25	7		3	M4		+0.1 0	5		8	696 606 626 676		TBP12-5
	8	11	20~35	10~25					0.9		7	+0.09 0	10	698 608 628 678		TBP12-7
		13	20~35	10~25	9		4	M6					12	6800		
	10	14	20~35	10~25								0 -0.09	13	6900 6000	C Type	TBP02-10
		17	25~45	15~30		3	5	M8	1.15	+0.14 0	9.6		16	6200		
		15	20~35	10~25	12								14	6801		
	12	16	25~45	10~25			6				11.5	0 -0.11	15	6901 6001		TBP02-12
		18	30~55	15~30									17	6201		

Please order as shown

Part Number Code	D	H Select	L 0.1 mm Inc.	S 1 mm Inc.	F
BKT71	4	7	15~30	5~20	5
BKT72	5	8	15~30	5~20	6

BKT72 — D5 — H8 — L25 — S10

Discount price

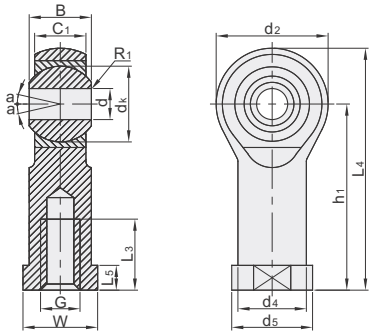
Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

Tapped

Code	Type			Holder		Bushing(Liner)	Spherical Inner Ring	
				Material	Surface Treatment	Material	Material	Heat Treatment
BNC01	Normal Series	Tapped Type	Maintenance-free	Carbon Steel	Enviromental Galvanized Plating(White)	Copper	Carbon Steel	Hardened

SI...T/K




Inventory

Please order as shown

Part Number		Screw Turn Direction	d
Code	No.		
BNC01	SI5T/K	R(Right Hand)	5
	SI6T/K	L(Left Hand)	6

BNC01 — SI5T/K — L

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

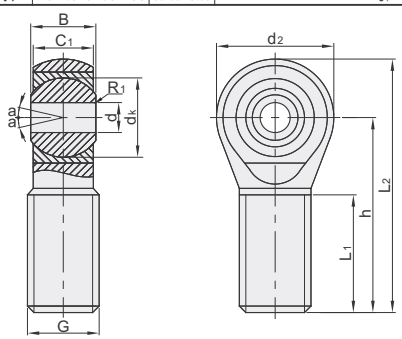
The First Perspective

Part Number		Screw Turn Direction	d	B	dk	C1 (max)	d2 (max)	G (6H)	h1	L3 (min)	L4 (max)	L5	W	d4	d5	R1 (min)	a°≈	Rated Load (KN)		Weight (kg)
Code	No.																	Dynamic Load	Static Load	
BNC01	SI5T/K	R (Right Hand) L (Left Hand)	5	8	11.11	6	18	M5×0.8	27	10	36	4	9	8.5	11	0.3	13	4.6	4.8	0.016
	SI6T/K		6	9	12.7	6.75	20	M6×1.0	30	12	40	5	11	10	13			6.1	6.5	0.022
	SI8T/K		8	12	15.875	9	24	M8×1.25	36	16	48		14	12.5	16		14	8.5	9.5	0.047
	SI10T/K		10	14	19.05	10.5	28	M10×1.5	43	20	57	6.5	17	15	19		13	9.7	12	0.077
	SI10T/K-1							M10×1.25												
	SI12T/K		12	16	22.225	12	32	M12×1.75	50	22	66		19	17.5	22			10.6	15	0.100
	SI12T/K-1							M12×1.25												
	SI14T/K		14	19	25.4	13.5	36	M14×2.0	57	25	75	8	22	20	25		16	17	22	0.160
	SI14T/K-1							M14×1.5												
	SI16T/K		16	21	28.575	15	42	M16×2.0	64	28	85			22	27	0.6	15	19.7	27	0.220
	SI16T/K-1							M16×1.5												
	SI18T/K		18	23	31.75	16.5	44	M18×1.5	71	32	93	10	27	25	31			31.3	35	0.320
	SI20T/K		20	25	34.925	18	50	M20×1.5	77	33	102		30	27.5	34		14	29.8	40	0.420
	SI22T/K		22	28	38.1	20	54	M22×1.5	84	37	111	12	32	30	38			40.2	48	0.488
	SI25T/K		25	31	42.86	22	60	M24×2.0	94	42	124		36	33.5	42		15	44	55	0.540
	SI28T/K		28	35	47.63	24	66	M27×2.0	103		136	14		37	46			52.2	65	0.720
	SI30T/K		30	37	50.8	25	70	M30×2.0	110	51	145	15	41	40	50		17	60.2	78	0.820
	SI30T/K-1							M27×2.0												1.100
	SI35T/K		35	43	57.15	28	81	M36×2.0	125	56	165.5	17	50	46	58		16			1.600
	SI40T/K		40	49	66.67	33	91	M42×2.0	142	60	187.5	19	55	53	65	1.0	17	—	—	2.400
	SI50T/K		50	60	82.5	45	117	M48×2.0	160	65	218.5	23	65	65	75		12			5.000

Threaded

Code	Type			Holder		Bushing(Liner)	Spherical Inner Ring	
				Material	Surface Treatment	Material	Material	Heat Treatment
BNC51	Normal Series	Threaded Type	Maintenance-free	Carbon Steel	Enviromental Galvanized Plating(White)	Copper	Carbon Steel	Hardened

SA...T/K




Inventory

Please order as shown

Part Number		Screw Turn Direction	d
Code	No.		
BNC51	SA5T/K	R(Right Hand)	5
	SA6T/K	L(Left Hand)	6

BNC51 — SA5T/K — R

Discount price

Per	1~9	10~
Price	100%	Additional quotation

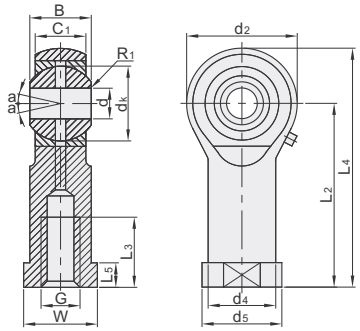
Delivery 15

The First Perspective

Part Number		Screw Turn Direction	d	B	dk	C1 (max)	d2 (max)	G(6H)	h	L1 (min)	L2 (max)	R1 (min)	a°≈	Rated Load (KN)		Weight (kg)
Code	No.													Dynamic Load	Static Load	
BNC51	SA5T/K	R (Right Hand) L (Left Hand)	5	8	11.11	6	18	M5×0.8	33	19	42	0.3	13	4.4	4.6	0.013
	SA6T/K		6	9	12.7	6.75	20	M6×1.0	36	21	46			4.5	4.8	0.015
	SA8T/K		8	12	15.875	9	24	M8×1.25	42	25	54		14	5.8	6.5	0.034
	SA10T/K		10	14	19.05	10.5	28	M10×1.5	48	28	62		13	9.7	12	0.071
	SA12T/K		12	16	22.225	12	32	M12×1.75	54	32	70			10.6	15	0.11
	SA14T/K		14	19	25.4	13.5	36	M14×2.0	60	36	78		16	17	22	0.13
	SA16T/K		16	21	28.575	15	42	M16×2.0	66	37	87		15	19.7	27	0.22
	SA16T/K-1		16	21		15	42	M16×1.5	66	37	87		15	19.7	27	0.22
	SA18T/K		18	23	31.75	16.5	44	M18×1.5	72	41	94		15	31.3	35	0.29
	SA20T/K		20	25	34.925	18	50	M20×1.5	78	45	103	0.6	14	29.8	40	0.36
	SA22T/K		22	28	38.1	20	54	M22×1.5	84	48	111			40.2	48	0.49
	SA25T/K		25	31	42.86	22	60	M24×2.0	94	55	124		15	44	55	0.65
	SA28T/K		28	35	47.63	24	66	M27×2.0	103	62	136			52.2	65	0.87
	SA30T/K		30	37	50.8	25	70	M30×2.0	107	66	145		17	60.2	78	1.1
	SA35T/K		35	43	57.1	28	81	M36×2.0	125	85	180.5		16			1.64
	SA40T/K		40	49	66.6	33	91	M42×2.0	142	90	195.5	1.0	17	—	—	2.4
	SA50T/K		50	60	82.5	45	117	M48×2.0	160	105	243.5		12			4.8

Tapped

Code	Type			Holder(Forging)		Bushing(Liner)	Spherical Inner Ring	
				Material	Surface Treatment	Material	Material	Heat Treatment
BND01	Normal Series	Tapped Type	Requiring Maintenance	Carbon Steel	Zinc Plating	Carbon Steel	Carbon Steel	Hardened



Please order as shown

Part Number		Screw Turn Direction	d
Code	No.		
BND01	SI5E	R (Right Hand)	5
	SI6E		6

BND01 — SI5E —R

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

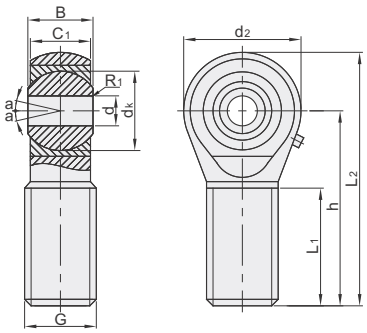
The First Perspective

Inner diameter d≤12, without oil hole and oil cup.

Part Number		Screw Turn Direction	d	B	dk	C1	d2 (max)	G	L2	L3	L4	L5	W	d4	d5	R1 (min)	a°≈	Rated Load (KN)		Weight (kg)
Code	No.																	Dynamic Load	Static Load	
BND01	SI5E	R (Right Hand) L (Left Hand)	5	6	10	4.5	21	M5×0.8	30	11	42	5	10	10	13	0.3	13	3.4	8.1	0.016
	SI6E		6					M6×1.0					11	11						0.017
	SI8E		8	8	13	6.5	24	M8×1.25	36	15	49	6.5	13	13	16		15	5.5	12.9	0.035
	SI10E		10	9	16	7.5	29	M10×1.5	43		58		16	16	19		12	8.1	17.6	0.061
	SI12E		12	10	18	8.5	34	M12×1.75	50	18	67	7	18	19	22		10	10.8	24.5	0.096
	SI15ES		15	12	22	10.5	40	M14×2.0	61	21	81	8	21	21	26		8	17	36	0.162
	SI17ES		17	14	25	11.5	46	M16×2.0	67	24	90	10	27	25	29		10	21	45	0.233
	SI20ES		20	16	29	13.5	53	M20×1.5	77	30	104		30	28	34		9	30	60	0.324
	SI25ES		25	20	35.5	18	64	M24×2.0	94	36	126	12	36	35	42		7	48	83	0.625
	SI30ES		30	22	40.7	20	73	M30×2.0	110	45	147	15	46	42	50		6	62	110	0.976
	SI35ES		35	25	47	22	82	M36×3.0	125	60	167		55	48	58	0.6		80	146	1.52
	SI40ES		40	28	53	24	92	M39×3.0	142	65	190	18	60	52	65		7	100	180	2.06
	SI45ES		45	32	60	28	102	M42×3.0	145		199	20	65	58	70			127	240	2.72
	SI50ES		50	35	66	31	112	M45×3.0	160	68	221		70	62	75			156	290	2.57
	SI60ES		60	44	80	39	135	M52×3.0	175	70	247		80	70	88		6	245	450	5.63
	SI70ES		70	49	92	43	160	M56×4.0	200	80	283		85	80	98	1		315	610	8.33
	SI80ES		80	55	105	48	180	M64×4.0	230	85	325	25	95	95	110			400	750	13.04

Threaded

Code	Type			Holder(Forging)		Bushing(Liner)	Spherical Inner Ring	
				Material	Surface Treatment	Material	Material	Heat Treatment
BND51	Normal Series	Threaded Type	Requiring Maintenance	Carbon Steel	Zinc Plating	Carbon Steel	Carbon Steel	Hardened



Please order as shown

Part Number		Screw Turn Direction	d
Code	No.		
BND51	SA5E	R (Right Hand)	5
	SA6E		6

BND51 — SA5E — R

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

The First Perspective

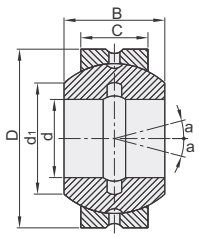
Inner diameter d≤12, without oil hole and oil cup.

Part Number		Screw Turn Direction	d	B	dK	C1 (max)	d2 (max)	G	h	L1 (min)	L2 (max)	R1 (min)	a°≈	Rated Load (KN)		Weight (kg)
Code	No.													Dynamic Load	Static Load	
BND51	SA5E	R (Right Hand) L (Left Hand)	5	6	10	4.5	21	M5×0.8	36	16	48	0.3	13	3.4	3.9	0.011
	SA6E		6					M6×1.0							5.5	0.013
	SA8E		8	8	13	6.5	24	M8×1.25	42	21	55		15	5.5	10	0.026
	SA10E		10	9	16	7.5	29	M10×1.5	48	26	63		12	8.1	16	0.044
	SA12E		12	10	18	8.5	34	M12×1.75	54	28	71		10	10.8	23	0.066
	SA15ES		15	12	22	10.5	40	M14×2.0	63	34	83		8	17	32	0.121
	SA17ES		17	14	25	11.5	46	M16×2.0	69	36	92		10	21	44	0.172
	SA20ES		20	16	29	13.5	53	M20×1.5	78	43	105		9	30	60	0.283
	SA25ES		25	20	35.5	18	64	M24×2.0	94	53	126		7	48	83	0.504
	SA30ES		30	22	40.7	20	73	M30×2.0	110	65	147		6	62	110	0.835
	SA35ES		35	25	47	22	82	M36×3.0	140	82	182	0.6		80	146	1.41
	SA40ES		40	28	53	24	92	M39×3.0	150	86	198		7	100	180	1.86
	SA45ES		45	32	60	28	102	M42×3.0	163	92	217			127	240	2.57
	SA50ES		50	35	66	31	112	M45×3.0	185	104	246			156	290	3.58
	SA60ES		60	44	80	39	135	M52×3.0	210	115	282		6	245	450	5.73
	SA70ES		70	49	92	43	160	M56×4.0	235	125	318	1		315	610	7.94
	SA80ES		80	55	105	48	180	M64×4.0	270	140	365			400	750	12.06

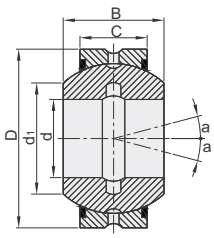
Code	Type		Holder		Spherical Inner Ring	
			Material	Heat Treatment	Material	Heat Treatment
BNK01	Normal Series	Single-slot Outer Ring	Bearing Steel	Hardened	Bearing Steel	Hardened

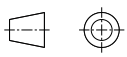
Bearing Bore hole (d) diameter below 15 doesn't include oil injection holes and oil grooves.

GE...ES



GE...ES-2RS
(Sealing ring at both ends)





The first perspective

Part Number			d	D	B	C	d_1 (min)	a°≈	Rated Load (KN)		Weight (kg)
Code	Bearing Specifications								Dynamic Load	Static Load	
BNK01	GE5E	—	5	14	6	4	7	13	3.4	17	0.0038
	GE6E	—	6				8				0.0042
	GE8E	—	8	16	8	5	10	15	5.5	27	0.0075
	GE10ES	—	10	19	9	6	13	12	8.1	40	0.011
	GE12ES	—	12	22	10	7	15	10	10	54	0.015
	GE15ES	GE15ES-2RS	15	26	12	9	18	8	17	85	0.027
	GE17E	GE17ES-2RS	17	30	14	10	20	10	21	106	0.041
	GE20E	GE20ES-2RS	20	35	16	12	24	9	30	146	0.066
	GE25E	GE25ES-2RS	25	42	20	16	29	7	48	240	0.119
	GE30E	GE30ES-2RS	30	47	22	18	34	6	62	310	0.153
	GE35E	GE35ES-2RS	35	55	25	20	39		80	400	0.233
	GE40E	GE40ES-2RS	40	62	28	22	45	7	100	500	0.306
	GE45E	GE45ES-2RS	45	68	32	25	50		127	640	0.427
	GE50E	GE50ES-2RS	50	75	35	28	55		156	780	0.546
	GE60E	GE60ES-2RS	60	90	44	36	66	6	245	1220	1.04
	GE70E	GE70ES-2RS	70	105	49	40	77		315	1560	1.55
	GE80E	GE80ES-2RS	80	120	55	45	88		400	2000	2.31
	GE90E	GE90ES-2RS	90	130	60	50	98	5	490	2450	2.75
	GE100E	GE100ES-2RS	100	150	70	55	109	7	610	3050	4.45
	GE110E	GE110ES-2RS	110	160			120	6	655	3250	4.82
	GE120E	GE120ES-2RS	120	180	85	70	130		950	4750	8.05
	GE140E	GE140ES-2RS	140	210	90		150	7	1080	5400	11.02
	GE160E	GE160ES-2RS	160	230	105	80	170	8	1370	6800	14.01
	GE180E	GE180ES-2RS	180	260			192	6	1530	7650	18.65
	GE200E	GE200ES-2RS	200	290	130		212	7	2120	10600	28.00
	GE220E	GE220ES-2RS	220	320	135	100	238	8	2320	11600	35.51
	GE240E	GE240ES-2RS	240	340	140		265		2550	12700	39.91
	GE260E	GE260ES-2RS	260	370	150	110	285	7	3050	15300	51.54

Please order as shown

Part Number			d
Code	Bearing specifications		
BNK01	GE15ES	GE15ES-2RS	15
	GE17E	GE17ES-2RS	17

BNK01— GE15ES

Discount price

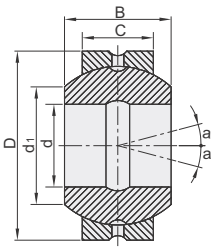
Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

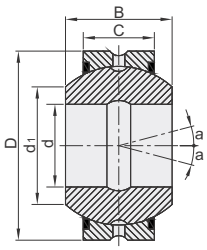
Code	Type	Holder		Spherical Inner Ring	
		Material	Heat Treatment	Material	Heat Treatment
BNK51	Medium Series	Bearing Steel	Hardened	Bearing Steel	Hardened

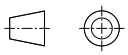
Bearing Bore hole (d) diameter below 15 doesn't include oil injection holes and oil grooves.

Bearing Specifications:
GEG...ES



Bearing Specifications:
GEG...ES-2RS
(Sealing ring at both ends)




The First Perspective

Part Number			d	D	B	C	d_1 (min)	a°≈	Rated Load (KN)		Weight (kg)
Code	Bearing Specifications								Dynamic Load	Static Load	
BNK51	GEG5E	—	5	16	9	5	8	21	5.5	27	0.0066
	GEG6E	—	6				9				0.0081
	GEG8E	—	8	19	11	6	11		8.1	40	0.0014
	GEG10E	—	10	22	12	7	13	18	10	54	0.021
	GEG12E	—	12	26	15	9	16	18	17	85	0.021
	GEG15E	GEG15ES-2RS	15	30	16	10	19	16	21	106	0.046
	GEG17E	GEG17ES-2RS	17	35	20	12	21	19	30	146	0.078
	GEG20E	GEG20ES-2RS	20	42	25	16	24	17	48	240	0.150
	GEG25E	GEG25ES-2RS	25	47	28	18	29		62	310	0.190
	GEG30E	GEG30ES-2RS	30	55	32	20	34		80	400	0.290
	GEG35E	GEG35ES-2RS	35	62	35	22	39	16	100	500	0.390
	GEG40E	GEG40ES-2RS	40	68	40	25	44	17	127	640	0.520
	GEG45E	GEG45ES-2RS	45	75	43	28	50	15	156	780	0.680
	GEG50E	GEG50ES-2RS	50	90	56	36	57	17	245	1220	1.40
	GEG60E	GEG60ES-2RS	60	105	63	40	67		315	1560	2.00
	GEG70E	GEG70ES-2RS	70	120	70	45	77	16	400	2000	2.90
	GEG80E	GEG80ES-2RS	80	130	75	50	87	14	490	2450	3.50
	GEG90E	GEG90ES-2RS	90	150	85	55	98	15	610	3050	5.40
	GEG100E	GEG100ES-2RS	100	160			110	14	655	3250	5.90
	GEG110E	GEG110ES-2RS	110	180	100	70	122	12	950	4750	11.00
	GEG120E	GEG120ES-2RS	120	210	115		132		1080	5400	15.00
	GEG140E	GEG140ES-2RS	140	230	130	80	151	16	1370	6800	19.01
	GEG160E	GEG160ES-2RS	160	260	135		176		1530	7650	25.02
	GEG180E	GEG180ES-2RS	180	290	155		196	14	2120	10600	32.21
	GEG200E	GEG200ES-2RS	200	320	165	100	220	15	2320	11600	45.28
	GEG220E	GEG220ES-2RS	220	340	175		243	16	2550	12700	51.12
	GEG240E	GEG240ES-2RS	240	370	190		263	15	3050	15300	65.12
	GEG260E	GEG260ES-2RS	260	400	205	120	285		3550	18000	82.44

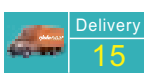

Please order as shown

Part Number			d
Code	Bearing Specifications		
BNK51	GEG15E	GEG15ES-2RS	15
	GEG17E	GEG17ES-2RS	17

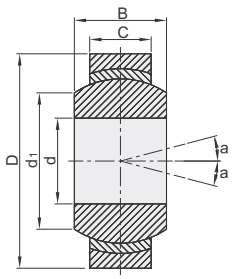
BNK51— GEG15E

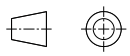
Discount price

Per	1~9	10~
Price	100%	Additional quotation



Code	Type		Holder (Extruded Machined)		Spherical Inner Ring	
			Material	Surface Treatment	Material	Heat Treatment
BNN01	Normal Series	Maintenance-free	Carbon Steel	—	Bearing Steel	Hardened





The First Perspective

Part Number		d	D	B	C	d_1 (min)	a° ≈	Rated Load (KN)		Weight (kg)
Code	Bearing Specifications							Dynamic Load	Static Load	
BNN01	GE5C	5	14	6	4	7	13	3.6	9.1	0.0038
	GE6C	6				8				0.0042
	GE8C	8	16	8	5	10	15	5.8	14	0.0075
	GE10C	10	19	9	6	13	12	8.6	21	0.0011
	GE12C	12	22	10	7	15	10	11	28	0.015
	GE15C	15	26	12	9	18	8	18	45	0.027
	GE17C	17	30	14	10	20	10	22	56	0.041
	GE20C	20	35	16	12	24	9	31	78	0.066
	GE25C	25	42	20	16	29	7	51	127	0.119
	GE30C	30	47	22	18	34	6	65	166	0.163


Please order as shown

Part Number		d	D
Code	Bearing specifications		
BNN01	GE5C	5	14
	GE6C	6	14

BNN01 — GE5C

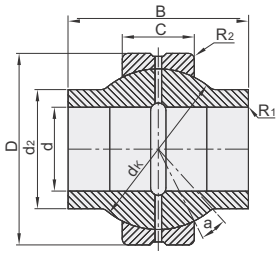
Discount price

Per	1~9	10~
Price	100%	Additional quotation


Delivery 15

Code	Type			Holder (Extruded Machined)		Spherical Inner Ring	
				Material	Surface Treatment	Material	Heat Treatment
BNP01	Normal Series	Requiring Maintenance	Lubrication Free	Bearing Steel	Phosphating	Bearing Steel	Hardened

Bearing Bore hole (d) diameter below 15 doesn't include oil injection holes and oil grooves.



The First Perspective

Part Number		d	d2 (dmp)	D	B	C	dk	R1 (min)	R2 (min)	a°≈	Rated Load (KN)		Weight (kg)
Code	Bearing Specifications										Dynamic Load	Static Load	
BNP01	GE12LO	12	15.5	22	12	7	18	0.3	0.3	4	10.0	53	0.022
	GE16LO	16	20	28	16	9	23				17.0	85	0.035
	GE20LO	20	25	35	20	12	29				30.0	146	0.070
	GE25LO	25	30	42	25	16	35.5	0.6	0.6		48.0	240	0.12
	GE30LO	30	34	47	30	18	40.7				62.0	310	0.168
	GE32LO	32	38	52	32	18	44	0.6			67.0	335	0.20
	GE35LO	35	40	55	35	20	47				79.0	399	0.253
	GE40LO	40	46	62	40	22	53				100	500	0.34
	GE50LO	50	57	75	50	28	66				156	780	0.56
	GE60LO	60	68	90	60	36	80	1.0	1.0		245	1220	1.15
	GE63LO	63	71.5	95	63	36	83				255	1270	1.2
	GE70LO	70	79	105	70	40	92				315	1560	1.7
	GE80LO	80	91	120	80	45	105	1.0			400	2000	2.4
	GE90LO	90	99	130	90	50	115				488	2440	3.2
	GE100LO	100	113	150	100	55	130				607	3030	4.8
	GE110LO	110	124	160	110	55	140				654	3270	5.78
	GE125LO	125	138	180	125	70	160				950	4750	8.49

Please order as shown

Part Number		d
Code	Bearing Specifications	
BNP01	GE12LO	12
	GE16LO	16

BNP01 — GE12LO

Discount price

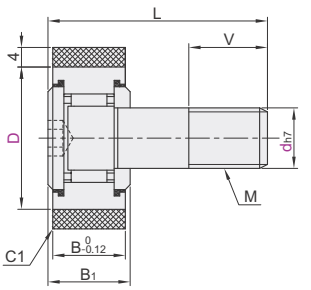
Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

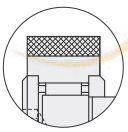
Resin Cam Followers

Code	Type	Material		Lining Hardness	Operating Temperature	Accessories
		Lining	Cam Followers			
BPY21	Cylindrical Type	Urethane	SUJ2	Shore A90	80℃	Hex Nut
BPY22				Shore A50		
BPY23			SUS440C	Shore A90		
BPY31	Crowned Type		SUJ2	Shore A90		
BPY32			SUS440C			

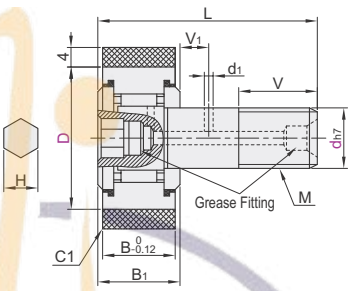
Cylindrical Type
BPY21/22/23
Hex Socket on Head(d5~10)
(With Seal)



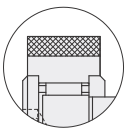
(No Seal)



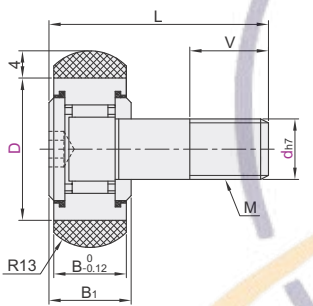
Hex Socket on Head and Shank(d12~16)
(With Seal)



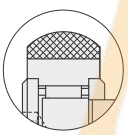
(No Seal)



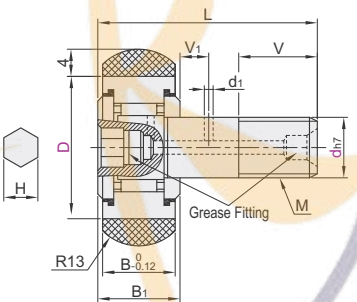
Crowned Type
BPY31/32
Hex Socket on Head(d5~10)
(With Seal)



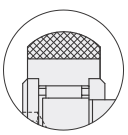
(No Seal)

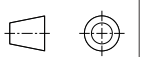


Hex Socket on Head and Shank(d12~16)
(With Seal)



(No Seal)





The First Perspective

There is no grease replenishing hole for specifications below d10.

Part Number Code	dh7		D	Seal	M	B	B1	L	d1	V	V1	H	Allowable Load (N)	Allowable Speed(rpm) Shore A90	Shore A50
Cylindrical Type BPY21 / Crowned Type BPY31 BPY32	5	0 -0.012	13	PP With Seal	M5×0.8	9	10	23	—	7.5	—	3	68	1500	250
	6		16		M6×1	11	12	28		9		4	90	1300	220
	8	0 -0.015	19		M8×1.25			32		11			95	1180	190
	10		22		M10×1.25	12	13	36		13		5	110	1060	170
			26	—									120	930	150
	12	0 -0.018	30	No Seal	M12×1.5	14	15	40	3	14	6	6	140	830	140
			32										150	800	130
	16		35		M16×1.5	18	19.5	52		18	8		200	740	120
Cylindrical Type BPY22 BPY23	5	0 -0.012	13	PP With Seal	M5×0.8	9	10	23	—	7.5	—	3	68	1500	250
	6		16		M6×1	11	12	28		9		4	90	1300	220
	8	0 -0.015	19		M8×1.25			32		11			95	1180	190
	10		22		M10×1.25	12	13	36		13		5	110	1060	170
			26										120	930	150
	12	0 -0.018	30		M12×1.5	14	15	40	3	14	6	6	140	830	140
			32										150	800	130
	16		35		M16×1.5	18	19.5	52		18	8		200	740	120

Please Order As Shown

Part Number Code	d	D	Seal
BPY31	5	13	PP (with Seal)
BPY32	6	16	— (No Seal)

BPY31 — d5 — D13 — PP

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

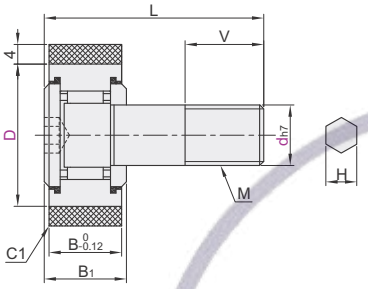
Resin Cam Followers

Code	Type		Seal	Material			Accessories
				Lining	Cam Followers		
					GB	Equiv.	
BPY41	Cylindrical Type	Hex Socket on Head	Provided	MC Nylon	GCr15	SUJ2	Hex Nut(S45C)
BPY43					9Cr18Mo	SUS440C	Hex Nut(SUS304)
BPY51		Hex Socket on Head and Shank			GCr15	SUJ2	Hex Nut(S45C)
BPY53					9Cr18Mo	SUS440C	Hex Nut(SUS304)
BPY61	Crowned Type	Hex Socket on Head			GCr15	SUJ2	Hex Nut(S45C)
BPY63					9Cr18Mo	SUS440C	Hex Nut(SUS304)
BPY71		Hex Socket on Head and Shank			GCr15	SUJ2	Hex Nut(S45C)
BPY73					9Cr18Mo	SUS440C	Hex Nut(SUS304)

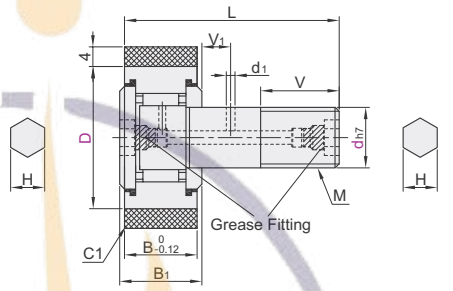
- Features: Resin is pressed onto the outer ring of the cam follower.
- For press fit type, resin expands and may come off easily in high temperature. Avoid storing in high temperature.

Cylindrical Type

Hex Socket on Head(d5~10)
BPY41
BPY43

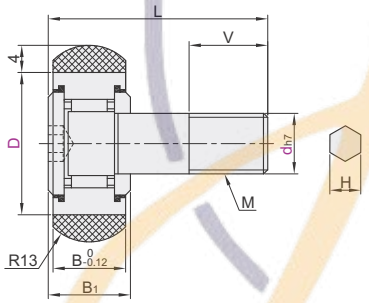


Hex Socket on Head and Shank(d12~16)
BPY51
BPY53

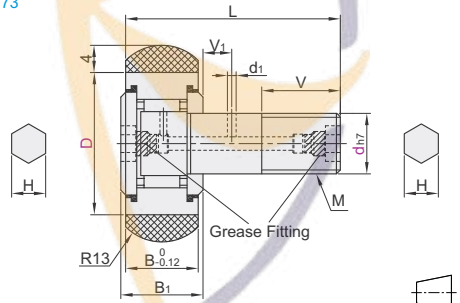


Crowned Type

Hex Socket on Head(d5~10)
BPY61
BPY63



Hex Socket on Head and Shank(d12~16)
BPY71
BPY73



The First Perspective

Part Number Code	dh7		D	M	B	B1	L	d1	V	V1	(H)	Allowable load (N)	Allowable Speed(rpm)	Weight (g)
Hex Socket on Head Cylindrical Type BPY41 BPY43 Crowned Type BPY61 BPY63	5	0 -0.012	13	M5×0.8	9	10	23	—	7.5	—	3	80	2500	15
	6		16	M6×1.0	11	12	28		9			110	2200	20
	8		19	M8×1.25			32		11		4	120	1900	34
	10	0 -0.015	22	M10×1.25	12	13	36		13		5	115	1700	52
			26									130	1500	64
Hex Socket on Head and Shank Cylindrical Type BPY51 BPY53 Crowned Type BPY71 BPY73	12	0 -0.018	30	M12×1.5	14	15	40	3	14	6	6	150	1350	93
			32									145	1300	112
	16		35	M16×1.5	18	19.5	52		18	8		190	1200	180

- For Hex Socket on Head, no grease replenishing hole is provided.
- (H) Dimensions are for reference only.
- Values of allowable load are values when speed =10km/h.

Please Order As Shown

Part Number Code	d	D
BPY41	5	13
BPY43	6	16

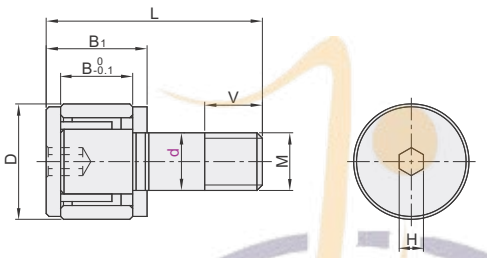
BPY41— d5 — D13

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

代码	Type			Material		Accessories
BPB05	Economy type	Sheer roller type	Cylindrical Type	GCr15	SUJ2	Hex Nut
BPB06				9Cr18Mo	SUS440C	



The First Perspective

Part Number Code	dh7	D	M	B	B1	L	V	H		Basic Load Rating Cr (Dynamic)kN		Cor (Static)kN		Max. Allowable Load(kN)		Track Load Capacity (kN)		Max. Rotational Speed (rpm)	Mass (g)	Tightening Torque (N·cm)(Max.)
								Steel	Stainless Steel	Steel	Stainless Steel	Steel	Stainless Steel	Steel	Stainless Steel	Steel	Stainless Steel			
BPB05 BPB06	2.5 0 -0.006	5	2.5	3	4.5	9.5	2.5	0.9	0.9	1	0.665	1.08	0.41	0.26	0.41	0.3	0.285	2000	1	16
	3	6	3	4	5.5	11.5	3	1.5	1.3	1.37	1.02	1.77	0.59	3.6	0.59	0.48	0.47	1680	2	28
	4	8	4	5	7	15	4	2	1.5	2.35	1.68	3.04	1.05	0.78	1.05	0.77	0.795	1260	4	64
	5 0 -0.008	10	5	6	8	18	5	2.5	2	3.14	2.5	4.71	1.64	1.42	1.64	1.18	1.21	1000	7	125
	6	12	6	7	9.5	21.5	6	3	2.5	4.61	3.4	6.27	2.36	2.11	2.36	1.54	1.7	840	13	226

The threaded part of the miniature cam bearing follower is a small diameter. To prevent damage, do not exceed the maximum tightening torque when using a tightening wrench for installation.

kgf = N×0.101972

The maximum tightening torque is about 1/4 of ordinary bolts.

Please Order As Shown

Part Number Code	dh7	D
BPB05	2.5	5
BPB06	3	6

BPB05—d2.5

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 10

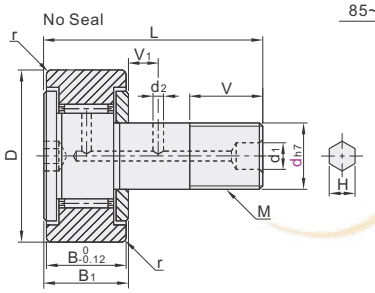
Code	Type		Material	
			GB	Equiv.
BPF05	with Hexagon Socket	Cylindrical Type	GCr15	SUJ2
BPF25		Crowned Type		

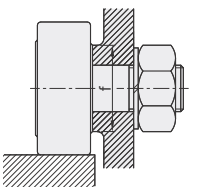
Cylindrical Type D Tol.

D	Tol.
10~16	$^{0}_{-0.008}$
19~30	$^{0}_{-0.009}$
32~47	$^{0}_{-0.011}$
52~80	$^{0}_{-0.013}$
85~90	$^{0}_{-0.015}$

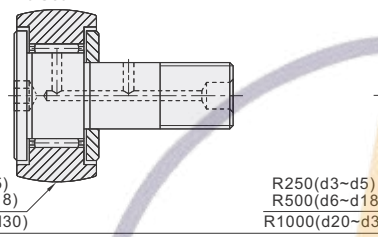
Crowned Type D $^{0}_{-0.05}$

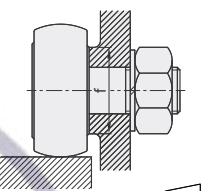
Cylindrical Type
BPF05





Crowned Type
BPF25





! Please use the model with seal in an environment below 80°C.

The First Perspective

Part Number Code	dh7	Seal	D	M×Pitch	B	B1	L	d1	d2	V	V1	H	r	f(min)
	3		10	M3×0.5	7	8	17			5		2	0.3	6.8
	4		12	M4×0.7	8	9	20			6		2.5		8.6
	5	$^{0}_{-0.012}$	13	M5×0.8	9	10	23			7.5		3	0.5	9.7
	6		16	M6×1.0	11	12	28			9				11
	8		19	M8×1.25			32	—	—	11	—	4		13
	10		22	M10×1.25										
Cylindrical Type BPF05	10C	$^{0}_{-0.015}$		M10×1.0	12	13	36			13		5	1	15
	10A		26	M10×1.25										
	10D	PP (With Seal)		M10×1.0										
	12		30	M12×1.5	14	15	40			14	6			20
Crowned Type BPF25	12A	$^{0}_{-0.018}$	32					6	3			6		
	16	— (No Seal)	35	M16×1.5	18	19.5	52			18	8		1.5	24
	18		40	M18×1.5	20	21.5	58			20				26
	20		52	M20×1.5	24	25.5	66			22	9			36
	20A		47											
	24		62	M24×1.5	29	30.5	80	8	4	25	11	8		40
	24A	$^{0}_{-0.021}$	72											
	30		80											
	30A		85	M30×1.5	35	37	100			32	15		2	46
	30B		90											

! d_1 lubrication hole is not processed in d5-d10, and lubrication cannot be supplemented.

Part Number		Basic Load Rating with Retainer		Basic Load Rating Full Rollers		Max. Allowable Load	Track Load Capacity Cylindrical Type	Track Load Capacity Crowned Type	Max. Rotational Speed with Retainer	Max. Rotational Speed Full Rollers	Mass with Retainer	Mass Full Rollers
Code	d	C(kN)	Co(kN)	C(kN)	Co(kN)	Fo(kN)	Outer Ring(kN)	Outer Ring(kN)	min^{-1}	min^{-1}	g	g
	3	1.47	1.18			0.36	1.37	0.37	47000		4.5	5
	4	2.06	2.05	—	—	0.78	1.76	0.47	37000	—	7.5	8
	5	3.14	2.77			1.42	2.25	0.53	29000		10.5	11
	6	3.59	3.58	6.94	8.5	2.11	3.43	1.08	25000	11000	18.5	19
	8	4.17	4.65	8.13	11.2	4.73	4.02	1.37	20000	8700	28.5	29
	10						4.7	1.67			45	46
Cylindrical Type BPF05	10C	5.33	6.78	9.42	14.3	5.81			17000	7200	45	46
	10A						5.49	2.06			60	61
	10D										60	61
	12	7.87	9.79	13.4	19.8	9.37	7.06	2.45	14000	5800	95	97
Crowned Type BPF25	12A						7.45	2.74			105	107
	16	12	18.3	20.6	37.6	17.3	11.2	3.14	10000	4500	170	173
	18	14.7	25.2	25.2	51.3	26.1	14.4	3.72	8500	3800	250	255
	20	20.7	34.8	33.2	64.8	32.1	23.2	8.23	7000	3400	460	465
	20A						21	7.15			385	390
	24	30.6	53.2	46.7	92.9	49.5	34.2	10.5	6500	2900	815	820
	24A						39.8	12.9			1140	1140
	30						52.6	14.9			1870	1870
	30A	45.4	87.6	67.6	145	73.7	56	16.1	5000	2300	2030	2030
	30B						59.3	17.3			2220	2220

! The limit speed values in the above table are applicable to the models without sealing ring and lubricated with grease. The allowable upper limit of oil lubricated model is 130% of the above value; The maximum allowable use limit of models with sealing ring is 70% of the above value.

Please Order As Shown

Part Number Code	d	Seal	D
BPF05	3	PP (With Seal)	10
BPF25	4	— (No Seal)	12

BPF05— d3 — PP

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

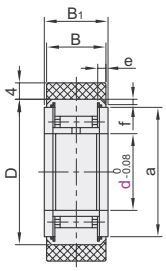
Economical Roller Followers (Urethane Type)

Separate/Solid

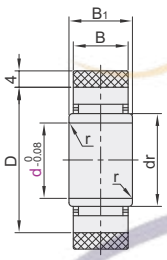
Code	Type		Seal	Material		Lining Hardness	Operating Temperature
				Lining	Cam Followers		
BBG01	Separate	Cylindrical Type	Have	Urethane	SUJ2	Shore A90	80℃
BBG02			Without				
BBG11		Crowned Type	Have				
BBG12			Without				
BBG21	Solid	Cylindrical Type	Have				
BBG22			Without				

Separate · Cylindrical Type

With Seal
BBG01

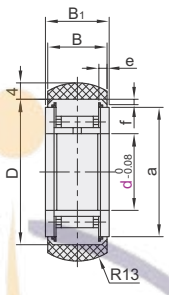


No Seal
BBG02

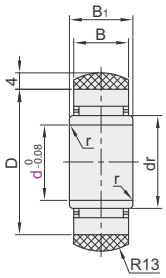


Separate · Crowned Type

With Seal
BBG11

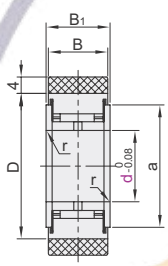


No Seal
BBG12

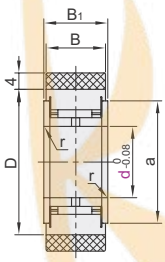


Solid · Cylindrical Type

With Seal
BBG21



No Seal
BBG22



The First Perspective

Separate(With Seal) · Cylindrical Type/Crowned Type

Part Number Code	d	D	a	B	B1	e	f	AllowableLoad (N)	Max. Rotational Speed(rpm)	Mass (g)
Cylindrical Type BBG01	6	19	14	13.8	14	2.5	0.8	95	1960	28
	8	24	17.5					114	1660	44
Crowned Type BBG11	10	30	23.5	15.8	16			146	1390	72.5
	12	32	25.5					150	1320	82.5

Separate(No Seal) · Cylindrical Type/Crowned Type

Part Number Code	d	D	dr	B	B1	r	Allowable Load (N)	Max. Rotational Speed(rpm)	Mass (g)
Cylindrical Type BBG02	6	19	10	9.8	10	0.5	98	4900	23.2
	8	24	12				113	4150	33
Crowned Type BBG12	10	30	14	11.8	12		145	3475	57
	12	32	16				150	3300	65

Solid · Cylindrical Type

Part Number Code	d	D	a	B	B1	r	AllowableLoad (N)	Max. Rotational Speed(rpm)	Mass (g)
Cylindrical Type BBG21 BBG22	5	16	12	11	12	0.5	102	6525	20.2
	6	19	14				127	5220	25.5
	8	24	17.5				145	5910	52
	10	30	23.5	14	15		192	4785	73
	12	32	25.5				195	5055	80

Please Order As Shown

Separate(With Seal)

Part Number Code	d	D
BBG01 BBG11	6	19
	8	24

BBG01— d6

Discount price

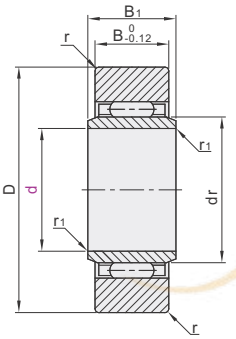
Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

Economical Roller Followers

With Inner Ring

Code	Type		Material	
			GB	Equiv.
BPS05	With Inner Ring	Cylindrical Type	GCr15	SUJ2



D Tol.

D	Tol.
19~30	0 -0.009
32~47	0 -0.011
52~80	0 -0.013
85~90	0 -0.015

The First Perspective

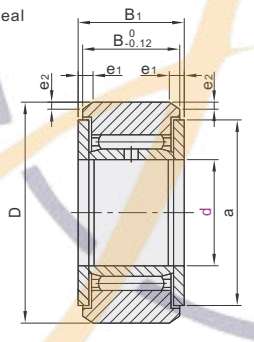
Part Number Code	d		Seal	dr	D	B_1	B	r	r_1	Basic Load Rating C(KN)	Basic Load Rating Co(KN)	Track Load Capacity KN	Max. Rotational Speed min^{-1}	Mass g
BPS05	6	0 -0.008	— (No Seal)	10	19	10	9.8	0.5	0.5	4.12	4.55	3.53	20000	17.8
	8			12	24			1		5.68	5.89	4.02	17000	28
	10			14	30					9.7	9.67	5.59	15000	50
	12			16	32	12	11.8			10.4	10.9	5.98	13000	58
	15			20	35					12.3	14.3	6.57	10000	62
	17			22	40			1.5		17.4	20.9	10.9	9500	110
	20	0 -0.010		25	47	16	15.8			19.2	24.5	12.7	8500	155
	25			30	52					20.7	28.4	14.1	7000	180
	30			38	62				1	30.3	45.4	22.1	5500	320
	35			42	72					32.2	50.6	25.7	5000	440
	40	0 -0.012		50	80	20	19.8			35.7	61.6	26.9	4000	530
	45			55	85			2	1.5	37.1	66.4	28.5		580
	50			60	90					38.7	71.8	30.2	3500	635

! The limiting speed values in the above table are applicable to grease lubricated models. The allowable upper limit of the oil-lubricated model is 130% of the above-mentioned value.

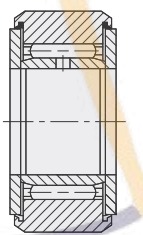
Inner Ring Type with Side Plate

Code	Type		Material	
			GB	Equiv.
BPS55	Inner Ring Type with Side Plate	Cylindrical Type	GCr15	SUJ2

No Seal



With Seal



D Tol.

D	Tol.
19~30	0 -0.009
32~47	0 -0.011
52~80	0 -0.013
85~90	0 -0.015

The First Perspective

! Please use the model with seal in an environment below 80°C.

Part Number Code	d		Seal	D	B_1	B	a	e_1	e_2	Basic Load Rating C(KN)	Basic Load Rating Co(KN)	Track Load Capacity KN	Max. Rotational Speed min^{-1}	Mass (g)
BPS55	6	0 -0.015	PP (With Seal) — (No Seal)	19	14	13.8	14			4.12	4.55	3.53	20000	24.5
	8			24			17.5			5.68	5.89	4.51	17000	39
	10			30			23.5	2.5	0.8	9.7	9.67	6.86	15000	65
	12	0 -0.018		32	16	15.8	25.5			10.4	10.9	7.35	13000	75
	15			35			29			12.3	14.3	8.04	10000	83
	17			40			32.5			17.4	20.9	11.8	9500	135
	20	0 -0.021		47	20	19.8	38	3	1	19.2	24.5	13.8	8500	195
	25			52			43			20.7	28.4	15.3	7000	225
	30			62	25	24.8	50.5			30.3	45.4	22.1	5500	400
	35			72			53.5			32.2	50.6	25.7	5000	550
	40	0 -0.025		80			61.5	4	1.2	35.7	61.1	30.3	4000	710
	45			85	26	25.8	66.5			37.1	66.4	31.1		760
	50			90			76			38.7	71.8	34	3500	830

! The limit speed values in the above table apply to models without seals and grease lubrication. The allowable upper limit for oil-lubricated models is 130% of the above values; the allowable upper limit for models with seals is 40% of the above values.

! When d≥35, only models without sealing ring is available.

Please Order As Shown

With Inner Ring

Part Number Code	d	Seal
BPS05	6	— (No Seal)
	8	

BPS05 — d6

Inner Ring Type with Side Plate

Part Number Code	d	Seal
BPS55	6	PP (With Seal)
	8	— (No Seal)

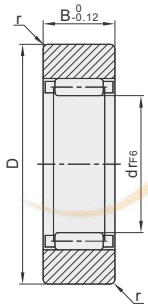
BPS55 — d6 — PP

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

Code	Type		Material	
			GB	Equiv.
BPT05	Without Inner Ring	Cylindrical Type	GCr15	SUJ2



D Tol.

D	Tol.
16	0 -0.008
19~30	0 -0.009
32~47	0 -0.011
52~80	0 -0.013
85~90	0 -0.015

The First Perspective

Part Number		Seal	dr F6		D	B	r	Basic Load Rating		Track Load Capacity	Max. Rotational Speed	Mass
Code	No.							C(KN)	Co(KN)	KN	min^{-1}	g
BPT05	5	— (No Seal)	7	+0.022 +0.013	16	7.8	0.5	2.74	2.39	2.35	30000	8.9
	6		10		19	9.8		4.12	4.55	3.53	20000	13.9
	8		12		24		1	5.68	5.89	4.02	17000	23.5
	10		14	+0.027 +0.016	30			9.7	9.67	5.59	15000	42.5
	12		16		32	11.8		10.4	10.9	5.98	13000	49.5
	15		20		35			12.3	14.3	6.57	10000	50
	17		22	+0.033 +0.020	40		1.5	17.4	20.9	10.9	9500	90
	20		25		47	15.8		19.2	24.5	12.7	8500	135
	25		30		52			20.7	28.4	14.1	7000	152
	30		38	+0.041 +0.025	62			30.3	45.4	22.1	5500	255
	35		42		72			32.2	50.6	25.7	5000	375
	40		50		80	19.8		35.7	61.6	26.9	4000	420
	45		55	+0.049 +0.030	85		2	37.1	66.4	28.5		460
	50		60		90			38.7	71.8	30.2	3500	500

The limit speed values in the above table are applicable to the models lubricated with grease. The allowable upper limit of oil lubricated models is 130% of the above value.

Please Order As Shown

Part Number		Seal	dr
Code	No.		
BPT05	5	— (No Seal)	7
	6		10

BPT05 — 5

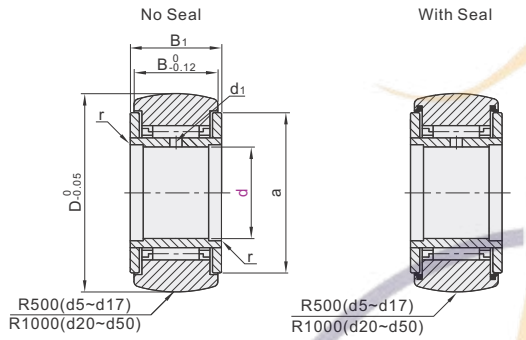
Discount price

Per	1~9	10~
Price	100%	Additional quotation

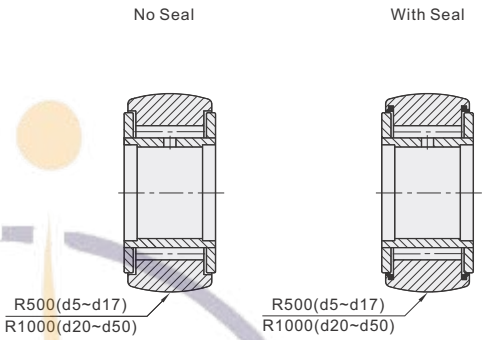
Delivery 15

Code	Type		Material	
			GB	Equiv.
BPW05	Inner Ring Type with Side Plate	Crowned Type	GCr15	SUJ2
BPW55		Full Rollers Type		

Crowned Type
BPW05



Full Rollers Type
BPW55



Please use the model with seal in an environment below 80°C.

The First Perspective

Part Number			Seal	D	B1		B	a	r	Oil Inlet d1	Basic Load Rating				Track Load Capacity	Max. Rotational Speed		Mass	
											with Retainer		Full Rollers			with Retainer	Full Rollers	with Retainer	Full Rollers
Code	d										C(kN)	Co(kN)	C(kN)	Co(kN)	kN	min^{-1}	min^{-1}	g	g
Crowned Type BPW05 / Full Rollers Type BPW55	5	0 -0.008	PP (With Seal) — (No Seal)	16	12	0 -0.18	11	12	0.52	1.5	2.84	2.65	6.46	7.81	1.08	25000	10500	14.5	15.1
	6			19				14			3.33	3.35	7.58	10.2	1.37	20000	8700	20.5	21.5
	8			24	15		14	17.5		2	5.68	5.89	11.7	15.6	1.86	17000	7000	41.5	42.5
	10			30				23.5			7.94	7.59	15.8	18.5	2.45	15000	5700	64.5	66.5
	12			32				25.5			8.53	8.44	17.0	21	2.74	13000	5200	71	73
	15			35	19		18	29			13.7	16.4	25.3	36.9	3.14	10000	4300	102	106
	17			40	21		20	32.5			17.4	19.3	32.0	46.6	3.72	9500	3900	149	155
	20	0 -0.010		47	25	0 -0.21	24	38		2.5	22.9	30.6	41.7	67.7	7.15	8000	3400	250	255
	25			52				43			24.6	33.3	45.4	79.5	8.23	7000	3000	285	295
	30			62	29		28	50.5			33.4	51.4	60.0	111	10.5	5500	2400	470	485
	35			72				53.5			35.5	57.3	63.2	123	12.9	5000	2200	640	655
	40	0 -0.012		80				61.5	1	3	44.6	81.4	76.4	166	14.9	4000	1900	845	865
	45			85	32	0 -0.25	30	66.5			46.6	88.6	80.5	183	16.1		1700	915	935
	50			90				76			48.3	95.7	84.4	200	17.3	3500	1600	980	1010

The limit speed values in the above table apply to models without seals and grease lubrication. The allowable upper limit for oil-lubricated models is 130% of the above values; the allowable upper limit for models with seals is 70% of the above values.

Please Order As Shown

Part Number		Seal	D
Code	d		
BPW05	5	PP (With Seal)	16
BPW55	6	— (No Seal)	19

BPW05 — d5 — PP

Discount price

Per	1~9	10~
Price	100%	Additional quotation

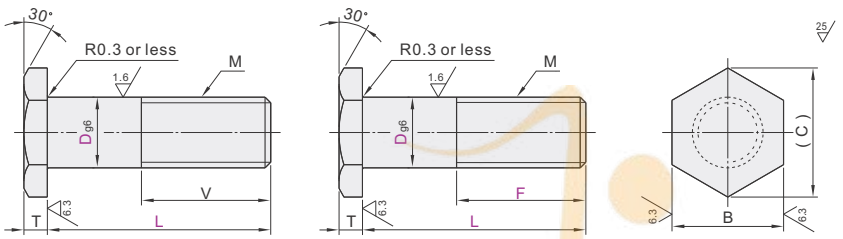
Delivery 15

Threaded Type

Code	Type		Material GB	Material Equiv.	Surface Treatment
BRM01	Threaded Type	L Selectable	45	S45C	Black Oxide
BRM31		L · F Configurable			
BRM41			0Cr18Ni9	SUS304	—

L Selectable
BRM01

L · F Configurable
BRM31/41



D	M	T	B	(C)
5	M5	2	8	9.2
6	M6		10	11.5
8	M8	3	13	15.0
10	M10		17	19.6
12	M12		19	21.9
15	M12	4	24	27.7
17	M16			
20	M20	5	27	31.2

The First Perspective

Part Number Code	Dg6		L Selection	V
BRM01	5	-0.004 -0.012	20 25 30	14
	6		30 32 34 36	
	8	-0.005 -0.014	30 32 34 36 38	16
	10		36 38 42	19
	12		38 42 46	22
	15	-0.006 -0.017	38 42 46 50	25
	17			28
	20	-0.007 -0.020	38 42 46 50 54	31

Part Number Code	Dg6		L 1 mm Increment	F 1 mm Increment
BRM31 BRM41	5	-0.004 -0.012	20~30	M≤F≤L-10
	6		20~36	
	8	-0.005 -0.014	20~38	
	10		20~42	
	12		25~46	
	15	-0.006 -0.017	25~50	
	17		25~50	
	20	-0.007 -0.020	25~54	

Please Order As Shown

Part Number Code	D	L Selection	V
BRM01	5	20 25 30	14
	6	30 32 34 36	

BRM01— D6—L30

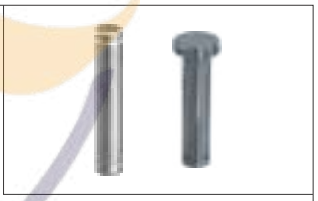
Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 15

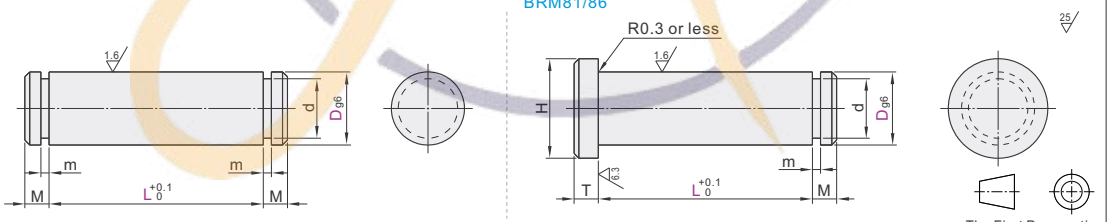
with Retaining Ring Grooves

Code	Part Number		Material GB	Material Equiv.	Surface Treatment
BRM61	with Retaining Ring Grooves	Both Ends Retaining Ring Grooves	45	S45C	Black Oxide
BRM66			0Cr18Ni9	SUS304	—
BRM81		Retaining Ring Groove with Shoulder	45	S45C	Black Oxide
BRM86			0Cr18Ni9	SUS304	—



Both Ends Retaining Ring Grooves
BRM61/66

Retaining Ring Groove with Shoulder
BRM81/86



The First Perspective

Part Number Code	Dg6		L 1 mm Increment	d		m		M	Retaining Ring Groove with Shoulder T	H
Both Ends Retaining Ring Grooves BRM61 BRM66 Retaining Ring Grooves with Shoulder BRM81 BRM86	5	-0.004 -0.012	20~44	4	+0.075 0	0.7	+0.1 0	2	2	10
	6		22~46	5						11
	8	-0.005 -0.014	22~47	7	+0.09 0	0.9		3	3	13
	10		25~48	9.6	0 -0.09	1.15	+0.14 0			15
	12			11.5					4	17
	15	-0.006 -0.017	25~52	14.3	0 -0.11			4	4	20
	17		25~58	16.2						23
	20	-0.007 -0.020	25~68	19	0 -0.21			5	5	27

Please Order As Shown

Part Number Code	D	L 1 mm Increment	d
BRM61	5	20~44	4
BRM66	6	22~46	5

BRM61—D5—L30

Discount price

Per	1~9	10~
Price	100%	Additional quotation

Delivery 15