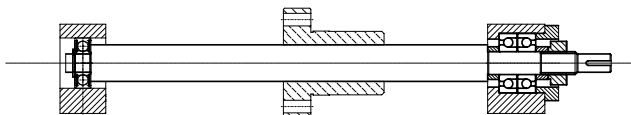
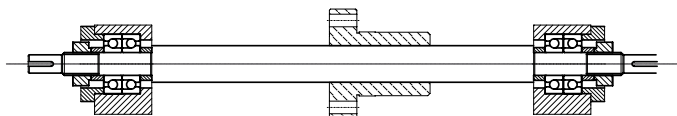


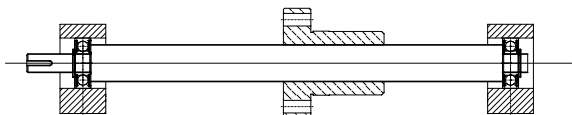
## Mounting arrangements

Supported  
BSB

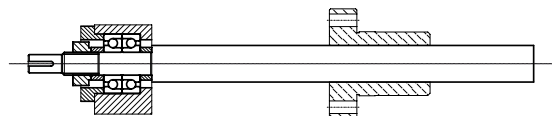
Speed	Load	Rigidity
***	***	****

Encased  
RPBEncased  
RPB

Speed	Load	Rigidity
****	*****	*****

Encased  
RPBSupported  
BSB

Speed	Load	Rigidity
**	**	**

Supported  
BSBEncased  
RPB

Speed	Load	Rigidity
*	*	*

Unsupported

### Description

The output efficiency of a ballscrew is due to the balls that maintain the contact between the nut and the thread. Similar to a roller bearing, the nut "slides" on the screw. The balls are circulated inside the nut after one or more turns by a recycling pin (single-thread screw), or by two deflectors and a tubular conduit, found in the shell of the nut (multi-threaded screw).

Vulkolan seals are incorporated to prevent the lubricant from leaking.

The tolerance of the thread is T7, which means that for a pitch of 5mm, the axial backlash is 0.05mm, 0.10mm for a pitch of 10mm, and 0.20mm for multiple-threaded screws.

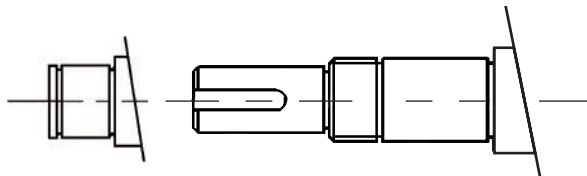
The backlash can be reduced by applying a pre-load, this is applied by placing two nuts one against the other and then turning them in opposite directions. This type of assembly is suitable for machines requiring a high rigidity and accurate positioning.

### Guidelines

Ballscrews are only designed to bear axial loads. They should not be used for guidance. Such use will greatly reduce the working life of the ballscrews. A suitable form of linear guide must be integrated into the system to carry radial loads. During assembly, ensure that all the parts are accurately aligned. Any offset between the screws and the guiding parts may cause a malfunction, or even a blockage, which will reduce the working life and the accuracy of the system.

### Ends

Ballscrews are supplied by the metre, unfinished and with plain ends. The customer should cut to the length required and carry out any other machining operations before the nut is fitted to the screw.



### Lubrication

Flanged ball nuts are provided with grease nipples. The use of a lubricant avoids metallic contact between the moving parts, protects against corrosion and reduces wear. Its role is therefore very important and is similar to that of a ball bearing. A Lithium based grease is perfect for most uses. Use of oil is preferable for higher speeds.

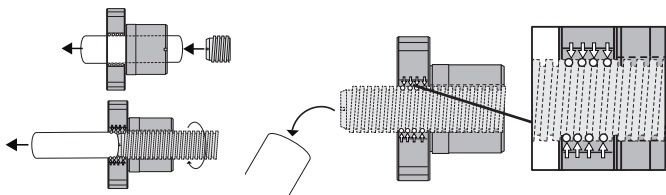
When refilling with lubricant, make sure the same type of lubricant is used as on the previous occasion.

### Mounting and removing the nut

- 1) Position the assembly sleeve against the thread of the shaft. If a flange or another type of machined surface is in the way, use an adhesive strip to ensure the sleeve is in place up to the thread.
- 2) Screw on the nut without forcing it.
- 3) Move the nut over the entire length of the thread to ensure that the screw is functioning correctly.



**The nut must never be taken off the threaded shaft without the use of an assembly sleeve to keep the balls in place.**



Should the balls fall out, do not put them back in the nut. Correctly reassembling the balls in the nut requires extreme conditions of cleanliness and detailed knowledge if the ballscrew is to function correctly. Should this situation arise, please arrange to return the whole set of parts to us so that the ballscrew can be reconditioned in the factory.

### Storage

Handle the ballscrews with care. Avoid shocks, and do not damage the threads. The ball screws should remain in their original packaging for as long as possible. It is important that they are clean for them to function correctly. Take care not to apply radial loads that may cause the screw to be bent and become irreparable.

# Miniature ballscrew

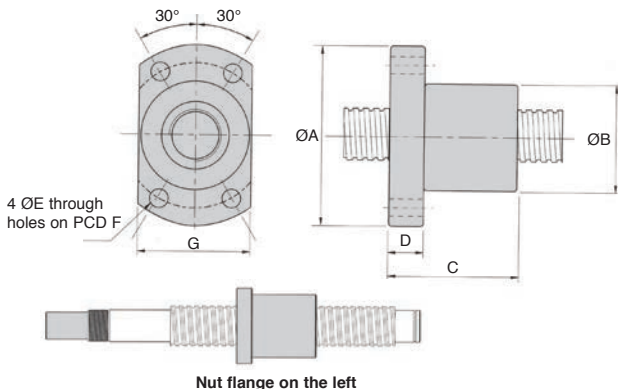
## BSPM

## Nut-dimensions

- Basic nut, precision class 7
- Nut has no lubrication point

### Info

- Not available separately
- Do not disassemble
- Delivered non lubricated, user should apply lubricant before use.



Part number	ØScrew	Pitch	A	B	C	D	E	F	G	Load	
										Dyn Ca (kN)	Stat Coa (kN)
BSPM0601R-150	6	1	24	12	15	3,5	3,4	18	16	0,73	1,21
BSPM0801R-200	8	1	27	14	16	4	3,4	21	18	0,93	1,73
BSPM1002R-300	10	2	35	18	28	5	4,5	27	22	1,85	3,05
BSPM1202R-600	12	2	37	20	28	5	4,5	29	24	1,73	3,17
BSPM1402R-700	14	2	40	21	23	6	5,5	31	26	2,87	6,33

Dimensions in mm

Not available separately

Rolled ballscrew, diameters from 6 to 14mm **BSPM**

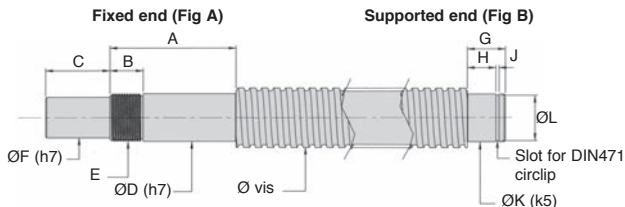
- Rolled leadscrew, precision class 7
- Max axial backlash : 0.05mm
- Supplied with the nut flange to the left
- Machined to be compatible with BEK bearings (Fig A) and BEF bearings (Fig B). No keyway.
- Screw manufactured from steel

**Options**

- Shorter lengths available on request
- Nut with flange on right

**Info**

-The Part N° comprises 1 leadscrew and 1 nut

**DISCOUNTS**

Qty	1+	2+	5+
Disc.	List	-5%	On request

Part number	A	B	C	D	E	F	G	H	J	K	L
BSPM0601R-150	This size not machined										
BSPM0801R-200	29	9	8	6	M6x0,75	4	9	6	0,8	6	5,7
BSPM1002R-300	34	11	10	8	M8x1	6	9	6	0,8	6	5,7
BSPM1202R-600	38	13	15	10	M10x1	8	10	7	0,9	8	7,6
BSPM1402R-700	38	13	15	12	M12x1	10	10	7	0,9	8	7,6

Part number	Screw Ø	Pitch	Max length	length	Axial rigidity (N/µm)	Price each. 1 screw + 1 nut
BSPM0601R-150	6	1	150	150	55	838,82 €
BSPM0801R-200	8	1	200	200	72	859,08 €
BSPM1002R-300	10	2	300	300	90	977,85 €
BSPM1202R-600	12	2	600	600	110	1 174,32 €
BSPM1402R-700	14	2	700	700	120	1 176,29 €

Dimensions in mm

# Bearing housing for miniature ballscrew

## BEF

## Supported end

- Bearing designed to receive the free end of a miniature ballscrew (refer to BSPM Fig B)
- Fitted with a deep groove ball bearing
- Material :  
Blackened steel

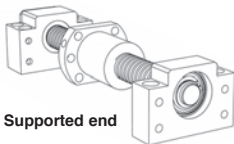
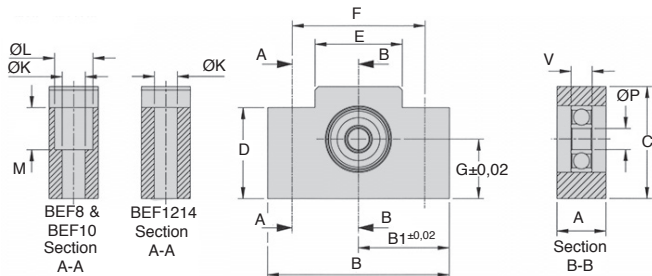


### Assembly

- Use the circlip supplied to block the axial position of the ballscrew

### Info

- There is no product available for 6mm ballscrew



Supported end

### DISCOUNTS

Qty	1+	2+	5+
Disc.	List	-5%	On request

Part number	Screw Ø	A	B	B1	C	D	E	F	G
BEF8	8	14	42	21	25	20	18	30	13
BEF10	10	14	52	26	32	24	25	38	17
BEF1214	12 et 14	20	70	35	43	24	36	52	25

Part number	ØK	ØL	M	ØP	V	Bearing	Price each
BEF8	5,5	9,5	11	6	6	606ZZ	205.86 €
BEF10	6,6	11	12	6	6	606ZZ	205.86 €
BEF1214	9	-	-	8	7	608ZZ	205.86 €

Dimensions in mm

# Bearing housing for miniature ballscrew

Fixed end

BEK

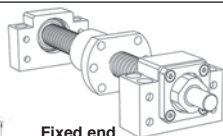
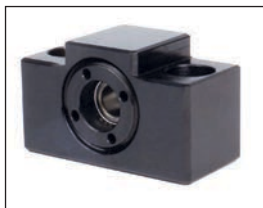
- Bearing designed to receive the fixed end of a miniature ballscrew (refer to BSPM Fig A)
- Fitted with 2 angular contact bearings
- Accurate radial and axial positioning of the ballscrew
- Material :  
Blackened steel

## Assembly

- Locking nut should be fully tightened and secured with the grub screw

## Info

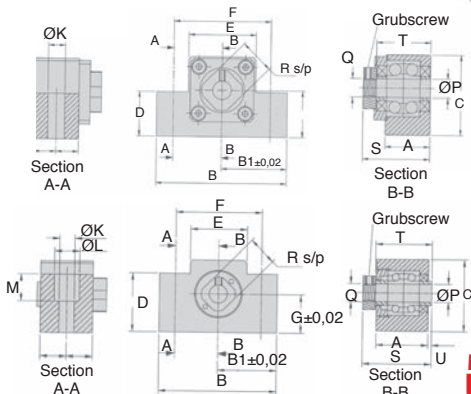
- There is no product available for 6mm ballscrew



Fixed end

BEK12 & BEK14

BEK8 & BEK10



## DISCOUNTS

Qty	1+	2+	5+
Disc.	List	-5%	On request

Part number	Ø Screw	A	B	B1	C	D	E	F	G
BEK8	8	20	42	21	25	20	18	30	13
BEK10	10	23	52	26	32	24	25	38	17
BEK12	12	24	70	35	43	24	36	52	25
BEK14	14	24	70	35	43	24	36	52	25

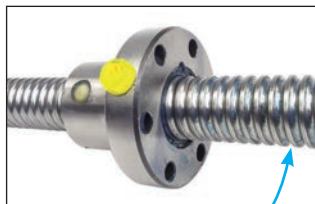
Part number	Ø Screw	ØL	M	ØP	Q	R	S	T	U	Price each
BEK8	5,5	9,5	11	6	M6x0,75	12	27	22	1,5	341,59 €
BEK10	6,6	11	12	8	M8x1	14	31,3	25	1,3	322,12 €
BEK12	9	-	-	10	M10x1	16	35,4	27	-	312,54 €
BEK14	9	-	-	12	M12x1	19	35,3	27	-	322,12 €

Dimensions in mm

## KGS

## Rolled ball screw, class 7

- **Rolled ballscrew**
- **Material:**  
Polished steel, Cf53 or Cf60 induction hardened.
- **Hardness:** 60±2 HRC



### Options

- Ends can be machined to customer requirements
- Cut to length
- Other diameters available (up to 80mm)

### Accessories

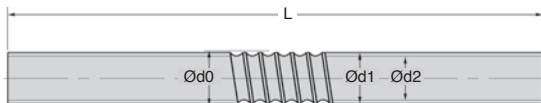
- See **GBS-F, GBS-Z, GBM-F, GBM-Z** nuts



GBS nut

KGS screw

Extended range,  
new sizes available



### DISCOUNTS

Qty	1+	2+	6+	11+
Disc.	List	-7%	-13%	On request

Part number	For Movement		Unmachined screw		L (mm)	L max (mm)	Weight/m (kg)	Stock*	Price each
	Ød0 (mm)	screw per turn	Ød1	Ød2					
KGS1605-1000TR7	16	5	15,5	12,9	1000	3000	1,26	✓	85,76 €
KGS2005-1000TR7	20	5	19,5	16,9	1000	6000	1,26	✓	115,05 €
KGS2020-1000TR7	20	20	19,5	16,9	1000	6000	3,04	-	124,98 €
KGS2050-1000TR7	20	50	19,1	16,5	1000	6000	2,07	-	133,18 €
KGS2505-1000TR7	25	5	24,5	21,9	1000	6000	3,33	✓	154,46 €
KGS3205-1000TR7	32	5	31,5	28,9	1000	6000	5,61	✓	216,36 €
KGS3210-1000TR7	32	10	31,5	28,9	1000	6000	5,61	-	217,26 €
KGS3220-1000TR7	32	20	31,4	28,7	1000	6000	5,61	-	224,73 €
KGS3240-1000TR7	32	40	32,6	28,9	1000	6000	5,61	-	229,04 €
KGS4005-1000TR7	40	5	39,5	36,9	1000	6000	9,03	✓	305,37 €
KGS4010-1000TR7	40	10	39,5	34,1	1000	6000	8,33	-	286,99 €
KGS5010-1000TR7	50	10	49,2	44	1000	6000	13,48	-	387,31 €
KGS5020-1000TR7	50	20	49,4	44	1000	6000	13,48	-	431,55 €
KGS6310-1000TR7	63	10	62,2	57	1000	6000	22,04	-	612,27 €

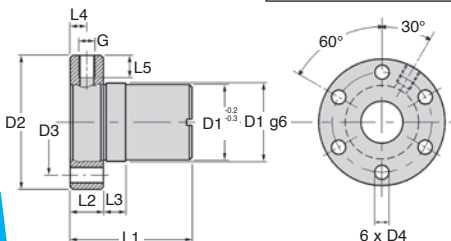
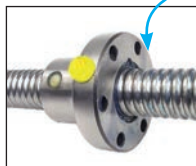
\*Depending on availability - Dimensions in mm



- Nut for ballscrew
- Axial backlash:  
0.05mm for a 5mm pitch  
0.1mm for a 10mm pitch
- Material: Steel MnCr5 or 100Cr6

### Accessories

- See KGS screw



Extended range,  
new sizes available

### DISCOUNTS

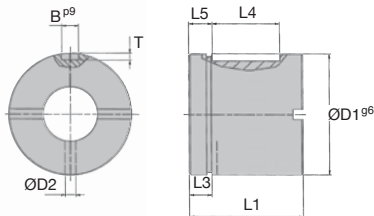
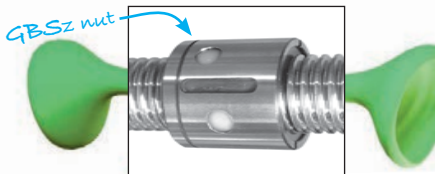
Qty	1+	2+	6+	11+
Disc.	List	-7%	-13%	On request

Part number	D1 g6	D2 h13	D3	D4	L1	L2	L3	L4	L5	G
GBS-F-1605-RH	28	48	38	5,5	44	12	8	6	8	M6
GBS-F-2005-RH	32	55	45	7,0	44	12	8	6	8	M6
GBS-F-2505-RH	38	62	50	7,0	46	14	8	7	8	M6
GBS-F-3205-RH	45	70	58	7,0	59	16	10	8	8	M6
GBS-F-3210-RH	53	80	68	7,0	73	16	10	8	8	M8 x 1
GBS-F-4005-RH	53	80	68	7,0	59	16	10	8	8	M6
GBS-F-4010-RH	63	95	78	9,0	73	16	10	8	8	M8 x 1

Part number	For screw Ø	Movement per turn (mm)	dynamic C (kN)	Load static Co (kN)	Weight (kg)	Stock*	Price each
GBS-F-1605-RH	16	5	7,0	12,7	0,20	✓	203,75 €
GBS-F-2005-RH	20	5	7,0	17,0	0,25	✓	207,78 €
GBS-F-2505-RH	25	5	9,5	22,4	0,35	✓	253,43 €
GBS-F-3205-RH	32	5	17,0	49,0	0,55	✓	334,00 €
GBS-F-3210-RH	32	10	25,7	56,0	0,90	✓	348,06 €
GBS-F-4005-RH	40	5	19,0	63,5	0,80	✓	337,41 €
GBS-F-4010-RH	40	10	30,0	70,0	1,20	-	399,02 €

\*Depending on availability - Dimensions in mm

- Nut for use with a Ballscrew
- Axial backlash: 0.05 mm for screws with 5mm pitch 0.1 mm for screws with 5mm pitch
- Material:  
16 MnCr5 or 100 Cr6



### Accessories

- Please see the **KGS** ball screw  
The pitch and diameter must be the same as that of the nut)

### DISCOUNTS

Qty	1+	2+	6+	11+
Disc.	List	-7%	-13%	On request

Part number	ØD1 <sup>g6</sup>	ØD2	L1	L3	L4	L5	BxT
GBS-Z-2005-RH	32	3	34	6,75	20	7	5x2
GBS-Z-2505-RH	38	3	34	6,75	20	7	5x2
GBS-Z-3205-RH	45	3	45	7,25	30	7,5	6x2,5
GBS-Z-3210-RH	53	3	60	10	30	15	6x2,5
GBS-Z-4005-RH	53	3	45	7,25	30	7,5	6x2,5
GBS-Z-5010-RH	72	4	82	11	36	23	6x2,5
GBS-Z-6310-RH	85	4	82	11	36	23	6x2,5

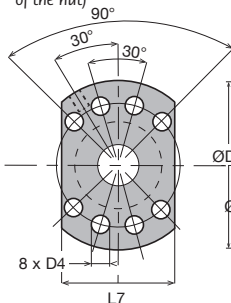
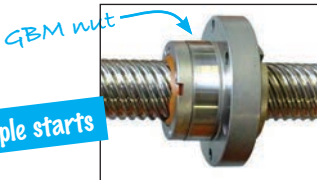
Part number	For screw		Load		Weight (kg)	Price each
	Ø	Travel per revolution (mm)	dynamic C (kN)	static Co (kN)		
GBS-Z-2005-RH	20	5	8,00	17,00	0,15	170,24 €
GBS-Z-2505-RH	25	5	9,50	22,40	0,20	194,14 €
GBS-Z-3205-RH	32	5	17,00	49,00	0,30	275,75 €
GBS-Z-3210-RH	32	10	25,70	56,00	0,60	324,98 €
GBS-Z-4005-RH	40	5	19,00	63,50	0,50	347,76 €
GBS-Z-5010-RH	50	10	55,00	153,00	1,10	453,87 €
GBS-Z-6310-RH	63	10	60,00	200,00	1,50	766,00 €

Dimensions in mm

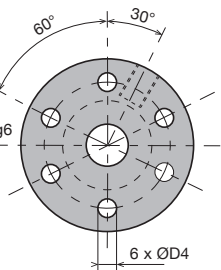
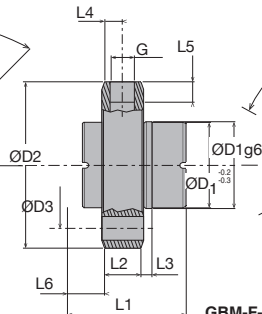
- Nut for ballscrew
- Multiple starts
- Axial backlash: 0.2mm
- Material:  
16 MnCr5 or 100Cr6

### Accessories

- See **KGS** ballscrew (the pitch and the diameter must be identical to those of the nut)



GBM-F-5020-RH



GBM-F-2020-RH to GBM-F-3240-RH

### DISCOUNTS

Qty	1+	2+	6+	11+
Disc.	List	-7%	-13%	On request

Part number	ØD1g6	ØD2h13	ØD3	ØD4	L1	L2	L3	L4	L5	L6	L7	G
GBM-F-2020-RH	35	62	50	7	30	10	4	5	8	8	-	M6
GBM-F-2050-RH	35	62	50	7	56	10	30	5	8	8	-	M6
GBM-F-3220-RH	53	80	68	7	55	16	19	8	10	10	-	M6
GBM-F-3240-RH	53	80	68	7	50	16	14	8	10	10	-	M6
GBM-F-5020-RH	85	125	103	11	80	18	38,75	9	10	5	95	M8x1

Part number	For Movement		Load		Weight (kg)	Price each
	lead screw Ø	per rev (mm)	dynamic C (kN)	static Co (kN)		
GBM-F-2020-RH	20	20	9,00	19,10	0,25	538,30 €
GBM-F-2050-RH	20	50	7,90	19,00	0,40	643,48 €
GBM-F-3220-RH	32	20	19,50	65,00	0,50	680,84 €
GBM-F-3240-RH	32	40	11,50	33,50	0,50	689,85 €
GBM-F-5020-RH	50	20	61,70	178,40	2,00	1 128,95 €

\* Subject to available stock - Dimensions in mm

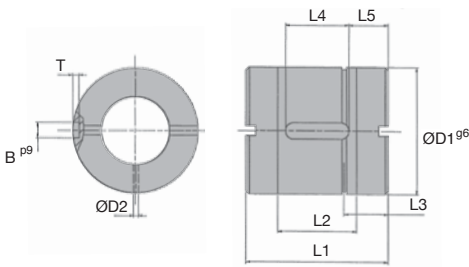
- Nut for ballscrew
- Multiple starts
- Axial backlash: 0.2mm
- Material:  
16 MnCr5 or 100Cr6

### Accessory

- See KGS ballscrew (the pitch and the diameter must be identical to those of the nut)

GBM nut

Multiple starts



### DISCOUNTS

Qty	1+	2+	6+	11+
Disc.	List	-7%	-13%	On request

Part number	ØD1g6	ØD2	L1	L2	L3	L4	L5	BxT
GBM-Z-2020-RH	35	1,5	30	14	11,50	12	9	5x3
GBM-Z-2050-RH	35	1,5	56	40	14	20	18	5x2
GBM-Z-3220-RH	53	1,5	55	35	16	20	17,5	6x4
GBM-Z-3240-RH	53	1,5	50	30	16	25	12,5	6x4
GBM-Z-5020-RH	85	1,5	73,50	50	16,75	30	22	6x2,5

Part number	For screw Ø	Movement per rev (mm)	Load		Weight (kg)	Price each
			dynamic C (kN)	static Co (kN)		
GBM-Z-2020-RH	20	20	9,00	19,10	0,15	445,63 €
GBM-Z-2050-RH	20	50	7,90	19,00	0,30	487,14 €
GBM-Z-3220-RH	32	20	19,50	65,00	0,50	595,84 €
GBM-Z-3240-RH	32	40	11,50	33,50	0,45	598,93 €
GBM-Z-5020-RH	50	20	61,70	178,40	1,40	1060,26 €

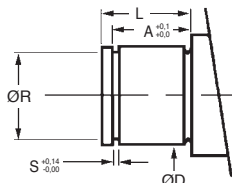
\*Subject to available stock - Dimensions in mm

# Housing block for ballscrew

## Possible machining options

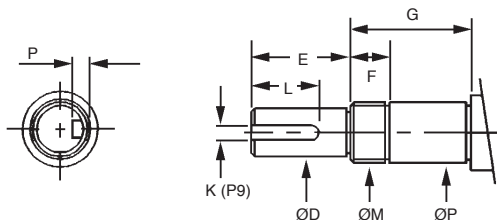
**BSB**  
**RPB**

The ballscrews will require machining (by you) before they can be used with the BSB and RPB housings



### Recommended dimensions for the ends of the ballscrew

For housing block Part number	ØD (g6)	A	ØR	S	L
BSB10	8	7,90	7,6	0,90	11
BSB12	10	9,15	9,6	1,15	12
BSB15	15	10,15	14,3	1,15	12
BSB17	17	13,15	16,2	1,15	16
BSB20	20	13,35	19,0	1,35	16
BSB25	25	16,35	23,9	1,35	20
BSB30	30	17,75	28,6	1,75	20
BSB40	40	19,75	38,0	1,75	25



For housing block Part number	ØP (g6)	ØM	ØD (h6)	K	P	E	F	G	L
RPB10	10	M10x1,0	8	2	1,25	15	16	39	11
RPB12	12	M12x1,0	10	3	1,85	15	16	39	30
RPB15	15	M15x1,0	12	4	2,55	20	16	41	21
RPB17	17	M17x1,0	15	5	3,05	27	17	53	21
RPB20	20	M20x1,0	17	5	3,05	27	17	53	30
RPB25	25	M25x1,5	20	6	3,55	36	18	65	34
RPB30	30	M30x1,5	25	8	4,10	42	18	72	40
RPB40	40	M40x1,5	35	10	5,10	70	35	98	49

Dimensions in mm

# Ballscrew bearing unit



## BSB

## For simple support

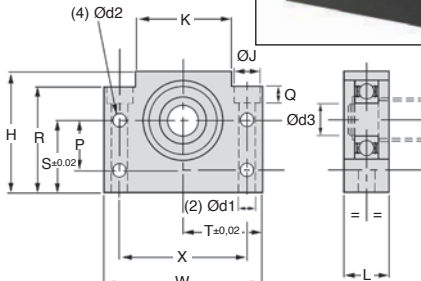
- Flexible (non-rigid) housing
- Supplied with a radial contact ball bearing
- Material: steel

### Assembly

- See end of section for recommended machining options

### Accessories

- KGS ballscrews
- Circlips CX
- Socket-head screw CHC



### DISCOUNTS

Qty	1+	5+	10+	15+	20+	25+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	Bearing For ball screw Ø	Shaft Ød3 (h7)	W	H	S	R	X	K
BSB10	16	8	60	39	22	32,5	46	34
BSB12	16 / 20	10	60	43	25	35,0	46	35
BSB15	20	15	70	48	28	38,0	54	40
BSB17	20 / 25	17	86	64	39	55,0	68	50
BSB20	25	20	88	60	34	50,0	70	52
BSB25	32	25	106	80	48	70,0	85	64
BSB30	40	30	128	89	51	78,0	102	76
BSB40	50	40	160	110	60	90,0	130	100

Part number	Ød1	ØJ	Q	Ød2	P	L	Stock*	Price each 1 to 4
BSB10	6,6	11,0	5,0	5,5	15	20	-	84,91 €
BSB12	6,6	11,0	6,5	5,5	18	20	✓	96,20 €
BSB15	6,6	11,0	6,5	5,5	18	20	✓	106,73 €
BSB17	9,0	14,0	8,5	6,6	28	23	✓	125,53 €
BSB20	9,0	14,0	8,5	6,6	22	26	✓	141,33 €
BSB25	11,0	17,5	11,0	9,0	33	30	-	179,49 €
BSB30	14,0	20,0	13,0	11,0	33	32	✓	211,47 €
BSB40	18,0	26,0	17,5	14,0	37	37	-	287,23 €

\*Depending on availability - Dimensions in mm

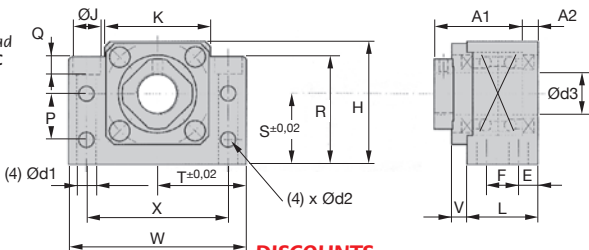
- Fixed bearing
- Fitted with an angular contact bearing
- Material: steel

### Assembly

- See end of section for recommended machining options

### Accessories

- KGS ballscrews
- Joint
- Nut FU-SS
- Socket-head screw CHC



### DISCOUNTS

Qty	1+	5+	10+	15+	20+	25+
Disc.	List	-10%	-15%	-20%	-25%	On request

Part number	Bearing	For ball screw Ø	Shaft Ød3 (h7)	W	H	S	R	T	X	K	L	E
RPB10	16	10	60	39	22	32,5	30	46	34	25	6	
RPB12	16 / 20	12	60	43	25	32,5	30	46	35	25	6	
RPB15	20	15	70	48	28	38,0	35	54	40	27	6	
RPB17	20 / 25	17	86	64	39	55,0	43	68	50	35	8	
RPB20	25	20	88	60	34	50,0	44	70	52	35	8	
RPB25	32	25	106	80	48	70,0	53	85	64	42	10	
RPB30	40	30	128	89	51	78,0	64	102	76	45	11	
RPB40	50	40	160	110	60	90,0	80	130	100	61	14	

Part number	F	V	A	N	Ød1	ØJ	Q	Ød2	P	ØM	Stock*	Price each 1 to 4
RPB10	13	5	29	5	6,6	11,0	5,0	5,5	15	M10 x 1,0	✓	274,84 €
RPB12	13	5	29	5	6,6	11,0	6,5	5,5	18	M12 x 1,0	✓	277,82 €
RPB15	15	6	32	6	6,6	11,0	6,5	5,5	18	M15 x 1,0	✓	314,70 €
RPB17	19	9	44	7	9,0	14,0	8,5	6,6	28	M17 x 1,0	✓	384,45 €
RPB20	19	8	43	8	9,0	14,0	8,5	6,6	22	M20 x 1,0	✓	420,00 €
RPB25	22	12	54	9	11,0	17,5	11,0	9,0	33	M25 x 1,5	-	547,85 €
RPB30	23	14	61	9	14,0	20,0	13,0	11,0	33	M30 x 1,5	✓	586,21 €
RPB40	33	18	76	15	18,0	26,0	17,5	14,0	37	M40 x 1,5	-	809,23 €

\*Depending on availability - Dimensions in mm