


Super linear bushings 

Super linear bushing with misalignment compensation

Super linear bushings, R0670 Closed

Super linear bushings, R0671 Open

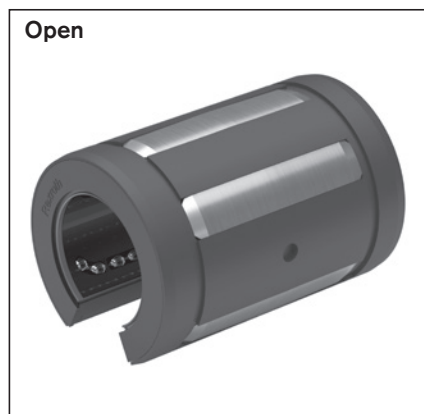
Design

- Ball retainer and outer sleeve made of PA or POM
- Hardened steel bearing plates with machined ball guide grooves
- Balls made of rolling bearing steel
- Compensate for misalignments of up to 30 ft
- No wiper seal
- Integrated wiper seals
- No initial lubrication



Shaft Ø d (mm)	Material number		Weight (kg)
	No wiper seal KBA- ...	With two integrated wiper seals KBA- ... -DD	
10	R0670 010 00	R0670 210 40	0.017
12	R0670 012 00	R0670 212 40	0.023
16	R0670 016 00	R0670 216 40	0.028
20	R0670 020 00	R0670 220 40	0.061
25	R0670 025 00	R0670 225 40	0.122
30	R0670 030 00	R0670 230 40	0.185
40	R0670 040 00	R0670 240 40	0.360
50	R0670 050 00	R0670 250 40	0.580

With an integrated wiper seal: R0670 1 ... 40.



Shaft Ø d (mm)	Material number			Weight (kg)
	No wiper seal KBA-O- ...	with two integrated wiper seals KBA-O- ... -DD	with two integrated wiper seals and linear seal KBA-O- ... -VD	
12	R0671 012 00	R0671 212 40	R0671 212 45	0.018
16	R0671 016 00	R0671 216 40	R0671 216 45	0.022
20	R0671 020 00	R0671 220 40	R0671 220 45	0.051
25	R0671 025 00	R0671 225 40	R0671 225 45	0.102
30	R0671 030 00	R0671 230 40	R0671 230 45	0.155
40	R0671 040 00	R0671 240 40	R0671 240 45	0.300
50	R0671 050 00	R0671 250 40	R0671 250 45	0.480

With an integrated wiper seal: R0671 1 ... 40.

See Section "Customer-built housing" for separate wiper seals.

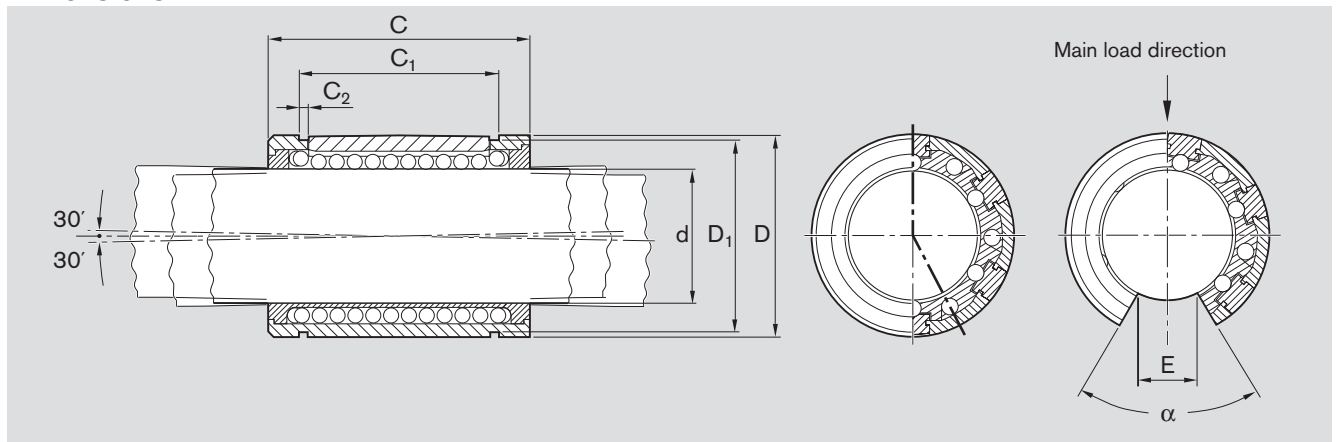
The dynamic load ratings are based on a total travel of 100,000 m.
When based on 50,000 m, the C values in the table are multiplied by 1.26.

Explanation of sample short product name

KB	A	O	20	DD
Linear bushing	Super 	Open	Ø 20	Two seals

See page 38 for more information on short product names.

Dimensions



Closed

Dimensions (mm)						Rows of balls	Radial clearance (µm)			Load ratings (N)			
Ø d	D	C h13	C ₁ H13	C ₂	D ₁		Shaft/bore			min.	dyn. C max.	min.	stat. C ₀ max.
10	19	29	21.6	1.3	18.0	5	h6/H7 +9 +36	h6/K7 +21 -6	h6/M7 +15 -12	600	820	330	480
12	22	32	22.6	1.3	21.0	5	+38 +10	+23 -5	+17 -11	830	1,140	420	620
16	26	36	24.6	1.3	24.9	5	+38 +10	+23 -5	+17 -11	1,020	1,400	530	780
20	32	45	31.2	1.6	30.5	6	+43 +11	+25 -7	+18 -14	2,020	2,470	1,050	1,340
25	40	58	43.7	1.85	38.5	6	+43 +11	+25 -7	+18 -14	3,950	4,820	2,180	2,790
30	47	68	51.7	1.85	44.5	6	+43 +11	+25 -7	+18 -14	4,800	5,860	2,790	3,570
40	62	80	60.3	2.15	58.5	6	+50 +12	+29 -9	+20 -18	8,240	10,070	4,350	5,570
50	75	100	77.3	2.65	71.5	6	+50 +12	+29 -9	+20 -18	12,060	14,730	6,470	8,280

Open

Dimensions (mm)						Angle α (°)	Rows of balls	Radial clearance (µm)			Load ratings ²⁾ (N)	
Ø d	D	C h13	C ₁ H13	C ₂	E ¹⁾			Shaft/bore			dyn. C	stat. C ₀
12	22	32	22.6	1.3	6.5	66	4	h6/H7 +38 +10	h6/K7 +23 -5	h6/M7 +17 -11	1,060	510
16	26	36	24.6	1.3	9.0	68	4	+38 +10	+23 -5	+17 -11	1,500	830
20	32	45	31.2	1.6	9.0	55	5	+43 +11	+25 -7	+18 -14	2,570	1,180
25	40	58	43.7	1.85	11.5	57	5	+43 +11	+25 -7	+18 -14	5,040	2,470
30	47	68	51.7	1.85	14.0	57	5	+43 +11	+25 -7	+18 -14	5,020	2,880
40	62	80	60.3	2.15	19.5	56	5	+50 +12	+29 -9	+20 -18	8,620	4,480
50	75	100	77.3	2.65	22.5	54	5	+50 +12	+29 -9	+20 -18	12,500	6,620

⚠ Refer to the diagrams on page 41 for load in the direction of opening.

- 1) Minimum size in relation to Ø d
- 2) The load ratings apply for the main load direction.

Segmental linear bushings

Segmental linear bushings,
R0668

Normal

Design

- Balls made of rolling bearing steel
- Hardened segmental steel plates
- Ball retainer and retaining rings made of PA 11

Stainless

Design

- Balls made of 1.3541 steel
- Segmental steel plates made of 1.4300 steel
- Ball retainer and retaining rings made of PA 11

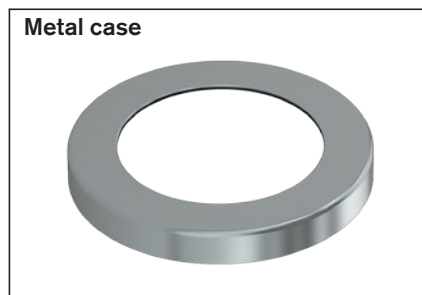


Shaft Ø d (mm)	Material number		Weight (kg)
	Normal KBSE- ...	Stainless KBSE- ... -NR	
12	R0668 012 00	R0668 012 30	0.013
16	R0668 016 00	R0668 016 30	0.020
20	R0668 020 00	R0668 020 30	0.031
25	R0668 025 00	R0668 025 30	0.057
30	R0668 030 00	R0668 030 30	0.096
40	R0668 040 00	R0668 040 30	0.170



Wiper seal

Shaft Ø d (mm)	Material number		Weight (g)
	Wiper seal for normal version ¹⁾	Wiper seal for stainless steel version ¹⁾	
12	R1331 512 00	R1331 512 30	1.1
16	R1331 516 00	R1331 516 30	2.1
20	R1331 520 00	R1331 520 30	3.5
25	R1331 525 00	R1331 525 30	4.9
30	R1331 530 00	R1331 530 30	7.1
40	R1331 540 00	R1331 540 30	10.6



Metal case

Ø d (mm)	Material number		Weight (g)
	Metal case for normal version ¹⁾	Metal case for stainless steel version ¹⁾	
12	R0901 043 00	R0901 043 30	0.6
16	R0901 044 00	R0901 044 30	1.6
20	R0901 045 00	R0901 045 30	2.5
25	R0901 046 00	R0901 046 30	3.4
30	R0901 047 00	R0901 047 30	4.4
40	R0901 048 00	R0901 048 30	6.7

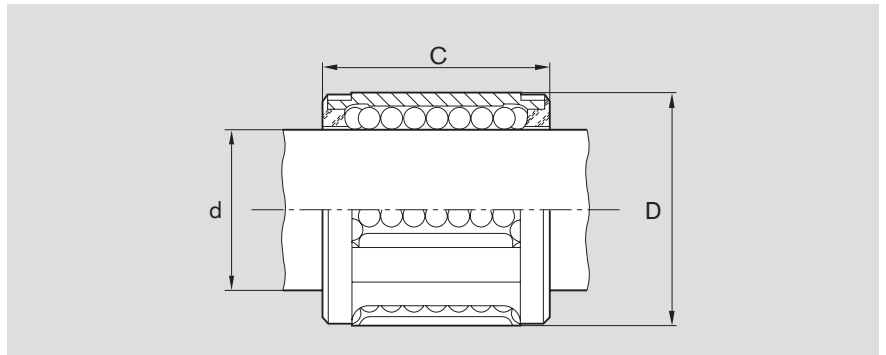
1) For axial securing.

Explanation of sample short product name

KB	SE		12	NR
Linear bushing	Segmental	Closed	Ø 12	Stainless steel

See page 130 for more information on short product names.

Dimensions



Dimensions (mm)			Rows of balls	Radial clearance (µm)		Load ratings (N)				Stainless			
Ø d	D	C		Shaft/bore		Normal		Stainless		Stainless		Stainless	
		js14		h6/H7	h6/K7	min.	dyn. C max.	min.	stat. C ₀ max.	min.	dyn. C max.	min.	stat. C ₀ max.
12	20	24	5	+32 0	+17 -15	480	570	420	620	240	290	330	490
16	25	28	5	+32 0	+17 -15	720	860	620	910	360	430	490	730
20	30	30	6	+33 -1	+18 -16	1,020	1,080	870	1,120	510	540	690	890
25	37	37	6	+36 0	+18 -18	1,630	1,730	1,360	1,750	820	870	1,090	1,400
30	44	44	6	+36 0	+18 -18	2,390	2,530	1,960	2,510	1,200	1,270	1,570	2,000
40	56	56	6	+42 -1	+21 -22	3,870	4,100	3,270	4,180	1,940	2,050	2,610	3,340

The dynamic load ratings are based on a total travel of 100,000 m.
When based on 50,000 m, the C values in the table are multiplied by 1.26.



Wiper seal

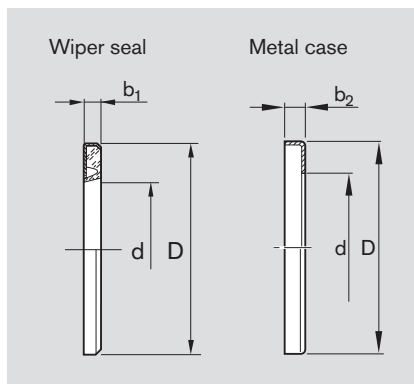
Design:

- Metal case
- Elastomer wiper seal

Metal case

Material:

- Normal (galvanized)
- or stainless steel (1.4301).



Dimensions (mm)			
Ø d	D ¹⁾	b ₁	b ₂
12	20	+0.3	+0.5
16	25	3	3
20	30	3	3
25	37	4	4
30	44	4	4
30	44	5	5
40	56	5	5

- 1) Outer diameter D is oversized by about 0.1 mm.
No additional securing is needed.