



Linear ball bearings Linear ball bearing and housing units

Light range

SCHAFFLER GROUP
INDUSTRIAL

Contents

	Page	
Product overview	Linear ball bearings	4
Features	Open or closed design	5
	Compensation of misalignment	5
	Sealing/lubrication	5
	Operating temperature	5
	Linear ball bearing and housing units	5
	Complete linear solutions	5
Dimension tables	Linear ball bearings Series KN..B-PP, KNO..B-PP	6
 Linear ball bearing and housing units		
Product overview	Linear ball bearing and housing units	8
Features	Housing designs	10
	Linear ball bearings	10
	Sealing/lubrication	10
	Operating temperature	10
	Complete linear solutions	10
Dimension tables	Linear ball bearing and housing units Series KGN..C-PP-AS, KGNS..C-PP-AS, KTN..C-PP-AS, KTNS..C-PP-AS	12
	Linear ball bearing and housing units Series KGNO..C-PP-AS, KGNOS..C-PP-AS, KTNO..C-PP-AS, KTNOS..C-PP-AS	14
	Linear ball bearing and housing units Series KGNC..C-PP-AS, KGNCS..C-PP-AS	16
	Linear ball bearing and housing units Series KTFN..C-PP-AS	18

Product overview – Linear ball bearings

Linear ball bearings

Closed design

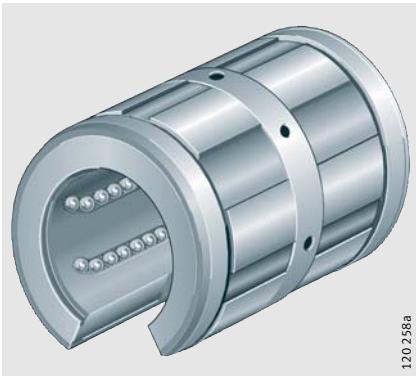
KN..B-PP



120 439

Open design

KNO..B-PP



120 258a

Linear ball bearings

Features

Linear ball bearings KN and KNO comprise a high strength plastic cage with steel load plates, balls, shields and seals. The cage guides the balls. An external steel retaining ring supports the load plates.

The bearings can support high loads while having a relatively low mass and allow the construction of linear guidance systems with unlimited travel.

Open or closed design

Linear ball bearings are available in open and closed variants, see page 4.

The open design KNO has a segment cut out and is intended for supported shafts.

Compensation of misalignment

Misalignment can be caused by tolerance defects, inaccuracies or mounting defects in the adjacent construction. INA linear ball bearings compensate static misalignments up to $\pm 30'$ without impairing the load carrying capacity and operating life of the bearings, Figure 1.

Due to the self-alignment function, the balls run without difficulty into the load zone. At the same time, the load distribution over the whole ball row is more uniform. This leads to smoother running, allows higher accelerations and prevents overloading of the individual balls.

Overall, this means that the bearings can achieve higher loads and a longer operating life; if necessary, the adjacent construction can be designed to be smaller and more economical.

Caution!

In order to fully utilise the basic load ratings given in the dimension table, the shaft raceway must be hardened (670 HV + 170 HV) and ground.

When designing the bearing arrangement, the data in INA Catalogue "801" must be taken into consideration.

Sealing/lubrication

Highly effective double lip polyester elastomer sealing rings on both sides prevent the ingress of contamination into the bearing and retain the grease in the ball bearing.

In order to achieve all-round sealing, the open bearings are available by agreement with additional sealing strips.

Due to the initial greasing with a high quality grease and the integral lubricant reservoir, the linear ball bearings are maintenance-free for many applications; if necessary, however, they can be relubricated.

Caution!

In order to distribute the grease uniformly, the bearing must be moved during relubrication.

Operating temperature

The bearings can be used at operating temperatures up to +80 °C.

Linear ball bearing and housing units

Linear ball bearings are also available in conjunction with INA housings as complete bearing units. Linear ball bearing and housing units: see page 10.

Complete linear solutions

If linear ball bearings are combined not only with INA housings but also with INA shafts, this gives optimally matched, ready-to-fit, cost-effective complete solutions with a long operating life.

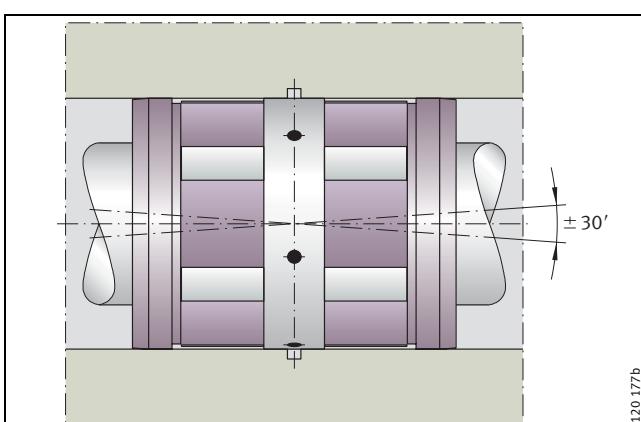


Figure 1 · Compensation of misalignment

Linear ball bearings

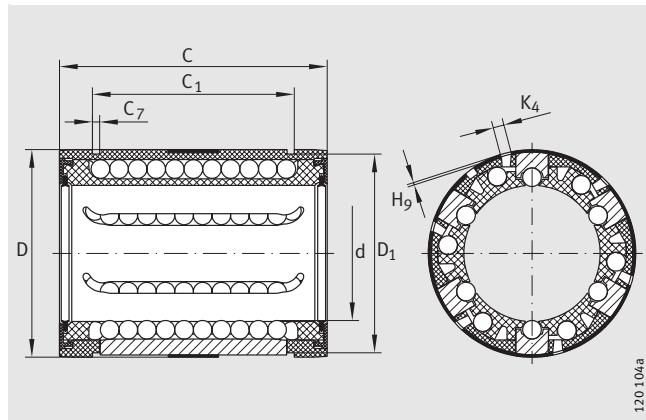
Light range

Series KN..B-PP

Closed design

Series KNO..B-PP

Open design



KN..B-PP

Dimension table · Dimensions in mm

Shaft diameter d	Designation		Mass ≈kg	Dimensions			Mounting dimensions			
	Closed design	Open design		d	D	C	A ₆ ¹⁾	C ₁	C ₇	D ₁
12	KN 12 B-PP	—	0,02	12	22	32	—	22,6	1,3	21
	—	KNO 12 B-PP	0,02	12	22	32	6,5	—	—	—
16	KN 16 B-PP	—	0,03	16	26	36	—	24,6	1,3	25
	—	KNO 16 B-PP	0,02	16	26	36	9	—	—	—
20	KN 20 B-PP	—	0,06	20	32	45	—	31,2	1,6	30,7
	—	KNO 20 B-PP	0,05	20	32	45	9	—	—	—
25	KN 25 B-PP	—	0,13	25	40	58	—	43,7	1,85	38,5
	—	KNO 25 B-PP	0,11	25	40	58	11,5	—	—	—
30	KN 30 B-PP	—	0,19	30	47	68	—	51,7	1,85	44,7
	—	KNO 30 B-PP	0,16	30	47	68	14	—	—	—
40	KN 40 B-PP	—	0,35	40	62	80	—	60,3	2,15	59,4
	—	KNO 40 B-PP	0,3	40	62	80	19	—	—	—
50	KN 50 B-PP	—	0,67	50	75	100	—	77,3	2,65	71,4
	—	KNO 50 B-PP	0,57	50	75	100	22,5	—	—	—

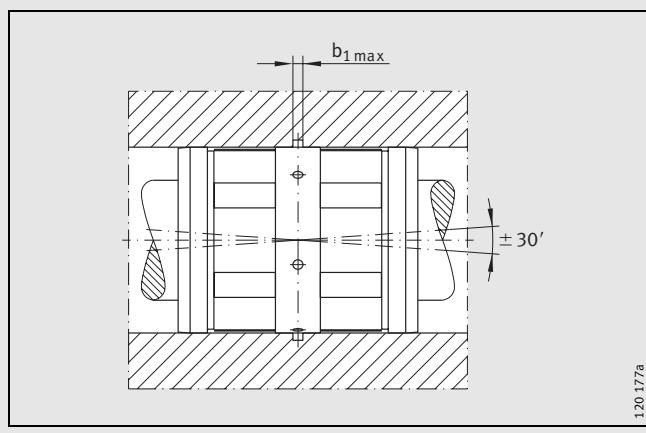
1) Dimension A₆ on diameter d.

2) Hole position symmetrical with bearing width C.

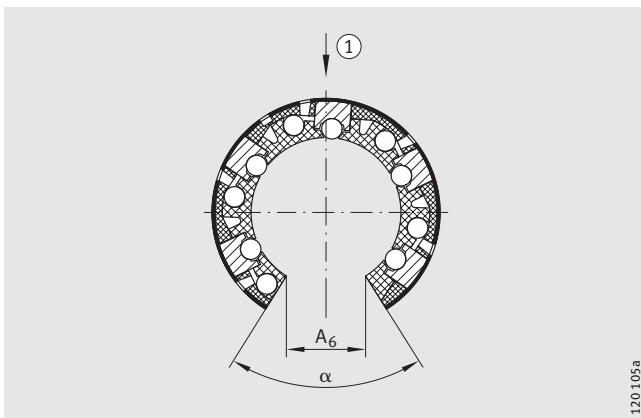
3) The basic load ratings are valid only for hardened (670 HV + 170 HV) and ground shaft raceways.

4) Basic load rating in main load direction.

5) Not included in the delivery. Supplied via trade distributors.

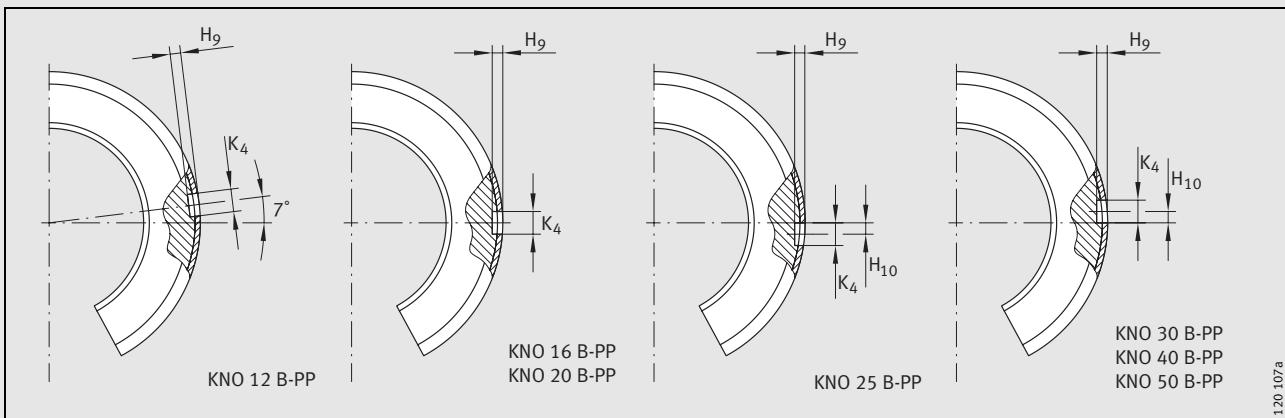


Compensation of misalignments ±30°



KNO..B-PP
① Main load direction

H ₉	H ₁₀	K ₄ ²⁾	α Degrees	b ₁ max	Ball rows Number	Basic load ratings ³⁾				Suitable retaining ring to DIN 471 ⁵⁾	Shaft diameter d
						dyn. C _{min} N	stat. C _{0 min} N	dyn. C _{max} N	stat. C _{0 max} N		
0,7	–	3	–	1,5	5	730	510	870	740	22×1,2	12
0,7	–	3	66	1,5	4	–	–	840 ⁴⁾	640 ⁴⁾	–	
0,7	–	3	–	1,5	5	870	620	1 040	910	26×1,2	16
0,7	–	3	68	1,5	4	–	–	1 000 ⁴⁾	750 ⁴⁾	–	16
0,9	–	3	–	2,5	6	1 730	1 230	1 830	1 570	32×1,5	20
0,9	–	3	55	2,5	5	–	–	1 740 ⁴⁾	1 240 ⁴⁾	–	20
1,4	–	3	–	2,5	6	3 100	2 220	3 250	2 850	42×1,75	25
1,4	1,5	3	57	2,5	5	–	–	3 100 ⁴⁾	2 260 ⁴⁾	–	25
2,2	–	3	–	2,5	6	3 750	2 850	3 950	3 650	48×1,75	30
2,2	2	3	57	2,5	5	–	–	3 750 ⁴⁾	2 850 ⁴⁾	–	30
2,2	–	3	–	3	6	6 300	4 350	6 700	5 600	63×2	40
2,2	1,5	3	56	3	5	–	–	6 300 ⁴⁾	4 350 ⁴⁾	–	40
2,3	–	5	–	3	6	9 300	6 500	9 800	8 300	75×2,5	50
2,3	2,5	5	54	3	5	–	–	9 300 ⁴⁾	6 500 ⁴⁾	–	50



Fixing holes

Product overview – Linear ball bearing and housing units

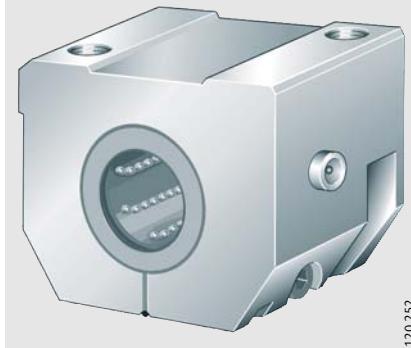
Closed units

Housing with or without slot

KGN..C-PP-AS



KGNS..C-PP-AS



Bearings mounted in tandem arrangement

Housing with or without slot

KTN..C-PP-AS



KTNS..C-PP-AS



Open units

Housing with or without slot

KGNC..C-PP-AS



KGNCS..C-PP-AS

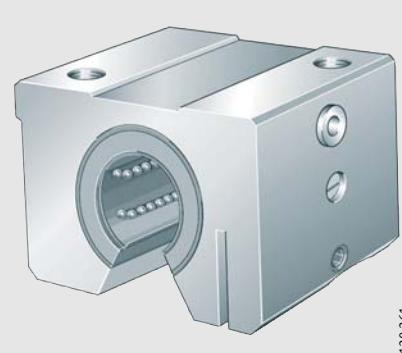


Housing with or without slot

KGNO..C-PP-AS



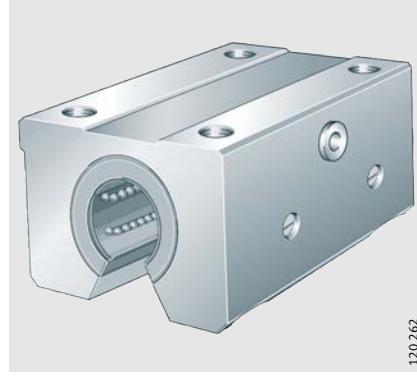
KGNOS..C-PP-AS



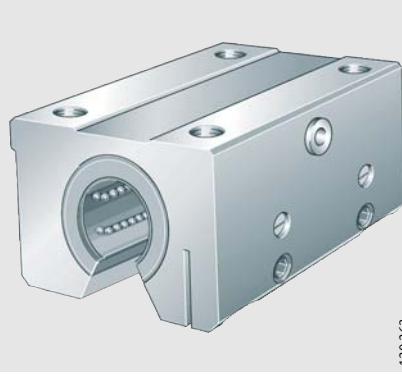
Bearings mounted in tandem arrangement

Housing with or without slot

KTNO..C-PP-AS

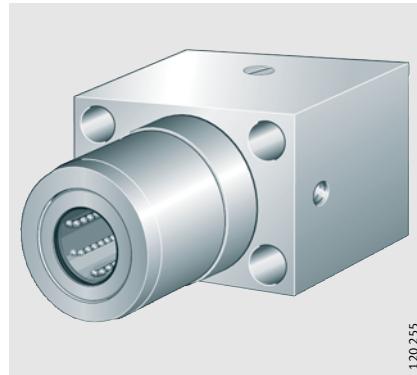


KTNOS..C-PP-AS



Closed unit with centring collar

KTFN..C-PP-AS



Linear ball bearing and housing units

Features

Linear ball bearings KN and KNO are also available in conjunction with INA housings as complete bearing units. The linear bearings are located in the housing by means of a radial fixing screw to prevent axial displacement.

The housings are made from a high rigidity, high strength aluminium alloy that allows the full load carrying capacity of the bearings fitted to be utilised. Due to the comparatively low total mass, the units are particularly suitable for reduced mass designs with high loads and where higher accelerations and travel speeds are required.

Threaded and counterbored holes in the housing allow straightforward screw mounting on the adjacent construction, if necessary from below. For rapid alignment, the housings have a locating edge. This also prevents distortion of the linear bearings when the housings are being mounted. Centring holes allow rapid additional location by dowels on the adjacent construction.

Housing designs

The housings are available as closed, open and slotted designs and as a tandem series fitted with two linear ball bearings, see page 8 and page 9.

Closed design

In this variant, the bearing and housing are closed. High precision standard guidance systems with a fixed enveloping circle can thus be easily achieved.

Open design

Open designs are used where, in the case of long guidance systems, the shaft must be supported and the bearing arrangement must be highly rigid.

Slotted design

Open and closed designs are also available with a slot. Slotted variants are suitable for clearance-free or preloaded guidance systems. The radial internal clearance is set by means of an adjusting screw.

Tandem design

Tandem ball bearing and housing units are available in open and closed designs. Both variants are also available in the named design with a slot.

For special applications, there is also a tandem version with a centring collar for locating bores to H7.

Linear ball bearings

The linear ball bearings KN and KNO fitted can support high loads and compensate static misalignments of the bearing centre axis up to $\pm 30'$ without impairing the load carrying capacity and operating life of the bearings.

Comprehensive description of the linear ball bearings: see page 5.

Caution!

In order to fully utilise the basic load ratings of the bearings given in the dimension tables, the shaft raceway must be hardened (670 HV + 170 HV) and ground.

When designing the bearing arrangement, the data in INA Catalogue "801" must be taken into consideration.

Sealing/lubrication

Double lip polyester elastomer sealing rings on both sides prevent the ingress of contamination into the bearing and retain the grease in the ball bearing.

Due to the initial greasing, the units are maintenance-free for many applications; if necessary, however, they can be relubricated.

Lubrication is carried out via a separate lubrication nipple in the housing; location of the bearing in the housing and the relubrication devices are separate from each other.

Caution!

In order to distribute the grease uniformly, the bearing must be moved during relubrication.

Operating temperature

The units can be used at operating temperatures up to +80 °C.

Complete linear solutions

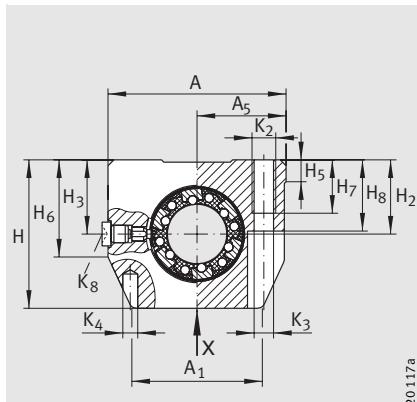
If linear ball bearings are combined with INA housings and INA shafts, this gives optimally matched, ready-to-fit, cost-effective complete solutions with a long operating life.

Linear ball bearing and housing units

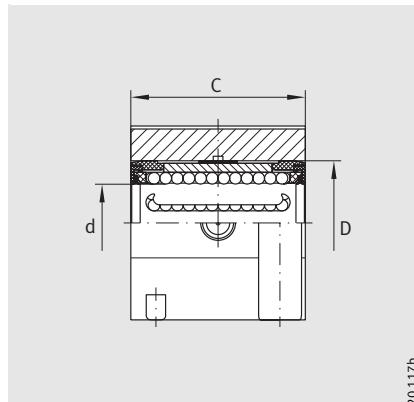
Closed design
With or without slot

Series KGN..C-PP-AS
KGNS..C-PP-AS

Series KTN..C-PP-AS
KTNS..C-PP-AS
Tandem arrangement



KGN(S)..C-PP-AS
KTN(S)..C-PP-AS



KGN..C-PP-AS

120117b

Dimension table · Dimensions in mm

Shaft diameter d	Designation		Mass ≈kg	Dimensions				Mounting dimensions				
	Single arrangement	Tandem arrangement		d	A	C	H	A ₁	A ₅	C ₂ ¹⁾	C ₃ ¹⁾	
12	KGN 12 C-PP-AS	–	0,1	12	43	32	35	32±0,15	21,5	23±0,15	–	22
	KGNS 12 C-PP-AS	–	0,1	12	43	32	35	32±0,15	21,5	23±0,15	–	22
	–	KTN 12 C-PP-AS	0,21	12	43	70	35	32±0,15	21,5	56±0,15	24	22
	–	KTNS 12 C-PP-AS	0,21	12	43	70	35	32±0,15	21,5	56±0,15	24	22
16	KGN 16 C-PP-AS	–	0,17	16	53	37	42	40±0,15	26,5	26±0,15	–	26
	KGNS 16 C-PP-AS	–	0,17	16	53	37	42	40±0,15	26,5	26±0,15	–	26
	–	KTN 16 C-PP-AS	0,35	16	53	78	42	40±0,15	26,5	64±0,15	26	26
	–	KTNS 16 C-PP-AS	0,35	16	53	78	42	40±0,15	26,5	64±0,15	26	26
20	KGN 20 C-PP-AS	–	0,27	20	60	45	50	45±0,15	30	32±0,15	–	32
	KGNS 20 C-PP-AS	–	0,27	20	60	45	50	45±0,15	30	32±0,15	–	32
	–	KTN 20 C-PP-AS	0,56	20	60	96	50	45±0,15	30	76±0,15	33	32
	–	KTNS 20 C-PP-AS	0,56	20	60	96	50	45±0,15	30	76±0,15	33	32
25	KGN 25 C-PP-AS	–	0,56	25	78	58	60	60±0,15	39	40±0,15	–	40
	KGNS 25 C-PP-AS	–	0,56	25	78	58	60	60±0,15	39	40±0,15	–	40
	–	KTN 25 C-PP-AS	1,15	25	78	122	60	60±0,15	39	94±0,2	44	40
	–	KTNS 25 C-PP-AS	1,15	25	78	122	60	60±0,15	39	94±0,2	44	40
30	KGN 30 C-PP-AS	–	0,83	30	87	68	70	68±0,15	43,5	45±0,15	–	47
	KGNS 30 C-PP-AS	–	0,83	30	87	68	70	68±0,15	43,5	45±0,15	–	47
	–	KTN 30 C-PP-AS	1,7	30	87	142	70	68±0,15	43,5	106±0,2	54	47
	–	KTNS 30 C-PP-AS	1,7	30	87	142	70	68±0,15	43,5	106±0,2	54	47
40	KGN 40 C-PP-AS	–	1,55	40	108	80	90	86±0,15	54	58±0,15	–	62
	KGNS 40 C-PP-AS	–	1,55	40	108	80	90	86±0,15	54	58±0,15	–	62
50	KGN 50 C-PP-AS	–	2,7	50	132	100	105	108±0,2	66	50±0,2	–	75
	KGNS 50 C-PP-AS	–	2,7	50	132	100	105	108±0,2	66	50±0,2	–	75

¹⁾ Dimensions C₂, C₃ and lubrication hole symmetrical to bearing width C.

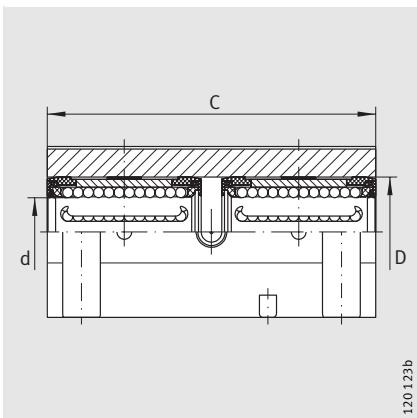
²⁾ For fixing screws to EN ISO 4 762-8.8.

Screws should be secured, especially if a loss of preload may occur.

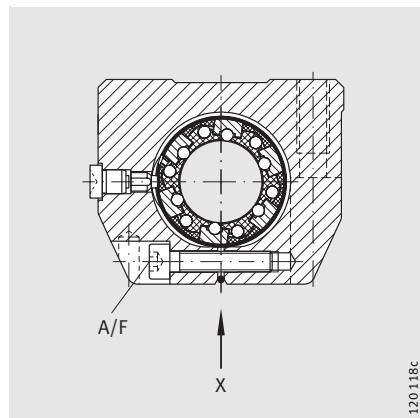
³⁾ Centring for dowel hole.

⁴⁾ Lubrication nipple.

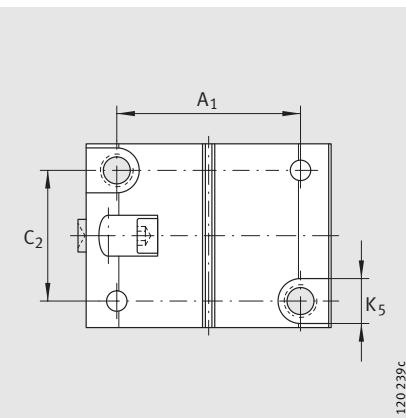
⁵⁾ The basic load ratings are valid only for hardened (670 HV + 170 HV) and ground shaft raceways.



KTN..C-PP-AS

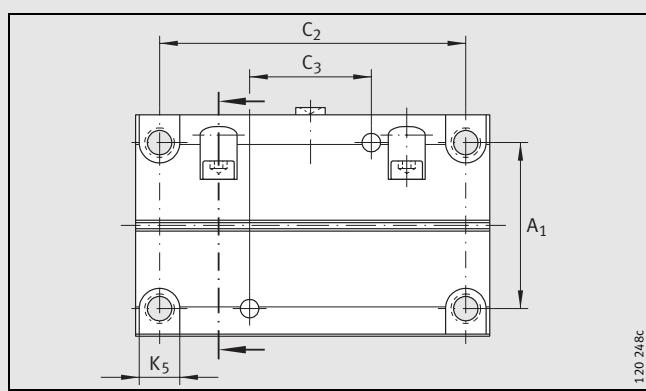


KGN(S)..C-PP-AS
KTN(S)..C-PP-AS



KGNS..C-PP-AS
View X (rotated 90°)

H ₂ +0,008 -0,016	H ₃	H ₅	H ₆	H ₇	H ₈	K ₂	K ₃ ²⁾	K ₄ ³⁾	K ₅ ²⁾	K ₈ ¹⁾⁴⁾	A/F	Ball rows	Basic load ratings ⁵⁾		Shaft diameter d
												Number	dyn. C N	stat. C ₀ N	
18	18	6	25,5	11	16,5	M5	4,3	4	8	NIP A1	—	5	780	560	12
18	18	6	25,5	11	16,5	M5	4,3	4	8	NIP A1	2,5	5	780	560	
18	18	6	25,5	11	16,5	M5	4,3	4	8	NIP A1	—	5	1 270	1 110	
18	18	6	25,5	11	16,5	M5	4,3	4	8	NIP A1	2,5	5	1 270	1 110	
22	22	7	28	13	21	M6	5,3	4	10	NIP A1	—	5	1 000	750	16
22	22	7	28	13	21	M6	5,3	4	10	NIP A1	3	5	1 000	750	
22	22	7	28	13	21	M6	5,3	4	10	NIP A1	—	5	1 620	1 500	
22	22	7	28	13	21	M6	5,3	4	10	NIP A1	3	5	1 620	1 500	
25	25	7,5	33	18	24	M8	6,6	5	11	NIP A1	—	6	1 740	1 240	20
25	25	7,5	33	18	24	M8	6,6	5	11	NIP A1	4	6	1 740	1 240	
25	25	7,5	33	18	24	M8	6,6	5	11	NIP A1	—	6	2 850	2 480	
25	25	7,5	33	18	24	M8	6,6	5	11	NIP A1	4	6	2 850	2 480	
30	30	8,5	40	22	29	M10	8,4	6	15	NIP A2	—	6	3 100	2 230	25
30	30	8,5	40	22	29	M10	8,4	6	15	NIP A2	5	6	3 100	2 230	
30	30	8,5	40	22	29	M10	8,4	6	15	NIP A2	—	6	5 000	4 450	
30	30	8,5	40	22	29	M10	8,4	6	15	NIP A2	5	6	5 000	4 450	
35	35	9,5	44,5	22	34	M10	8,4	6	15	NIP A2	—	6	3 800	2 900	30
35	35	9,5	44,5	22	34	M10	8,4	6	15	NIP A2	5	6	3 800	2 900	
35	35	9,5	44,5	22	34	M10	8,4	6	15	NIP A2	—	6	6 100	5 800	
35	35	9,5	44,5	22	34	M10	8,4	6	15	NIP A2	5	6	6 100	5 800	
45	45	11	56	26	44	M12	10,5	8	18	NIP A2	—	6	6 300	4 350	40
45	45	11	56	26	44	M12	10,5	8	18	NIP A2	6	6	6 300	4 350	
50	50	11	60	35	49	M16	13,5	10	20	NIP A2	—	6	9 300	6 500	50
50	50	11	60	35	49	M16	13,5	10	20	NIP A2	8	6	9 300	6 500	



KTNS..C-PP-AS - view X (rotated 90°)

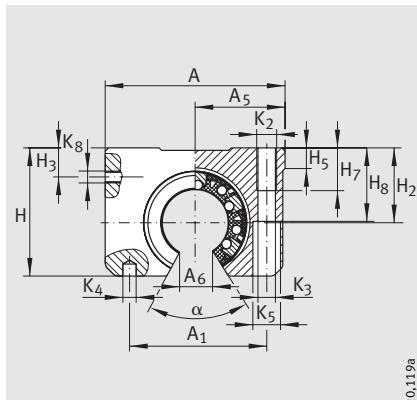
Linear ball bearing and housing units

Open design

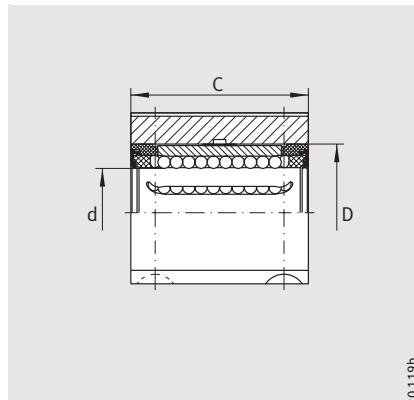
With or without slot

Series KGNO..C-PP-AS
KGNOS..C-PP-AS

Series KTN0..C-PP-AS
KTNOS..C-PP-AS
Tandem arrangement



KGNO(S)..C-PP-AS
KTN0(S)..C-PP-AS



KGNO..C-PP-AS

120.119b

Dimension table · Dimensions in mm

Shaft diameter d	Designation		Mass ≈kg	Dimensions				Mounting dimensions					
	Single arrangement	Tandem arrangement		d	A	C	H	A ₁	A ₅	A ₆ ¹⁾	C ₂ ²⁾	C ₃ ²⁾	D
12	KGNO 12 C-PP-AS	-	0,09	12	43	32	28	32±0,15	21,5	6,5	23±0,15	-	22
	KGNOS 12 C-PP-AS	-	0,09	12	43	32	28	32±0,15	21,5	6,5	23±0,15	-	22
	-	KTNO 12 C-PP-AS	0,19	12	43	70	28	32±0,15	21,5	6,5	56±0,15	24	22
	-	KTNOS 12 C-PP-AS	0,19	12	43	70	28	32±0,15	21,5	6,5	56±0,15	24	22
16	KGNO 16 C-PP-AS	-	0,15	16	53	37	35	40±0,15	26,5	9	26±0,15	-	26
	KGNOS 16 C-PP-AS	-	0,15	16	53	37	35	40±0,15	26,5	9	26±0,15	-	26
	-	KTNO 16 C-PP-AS	0,31	16	53	78	35	40±0,15	26,5	9	64±0,15	26	26
	-	KTNOS 16 C-PP-AS	0,31	16	53	78	35	40±0,15	26,5	9	64±0,15	26	26
20	KGNO 20 C-PP-AS	-	0,25	20	60	45	42	45±0,15	30	9	32±0,15	-	32
	KGNOS 20 C-PP-AS	-	0,25	20	60	45	42	45±0,15	30	9	32±0,15	-	32
	-	KTNO 20 C-PP-AS	0,52	20	60	96	42	45±0,15	30	9	76±0,15	33	32
	-	KTNOS 20 C-PP-AS	0,52	20	60	96	42	45±0,15	30	9	76±0,15	33	32
25	KGNO 25 C-PP-AS	-	0,52	25	78	58	51	60±0,15	39	11,5	40±0,15	-	40
	KGNOS 25 C-PP-AS	-	0,52	25	78	58	51	60±0,15	39	11,5	40±0,15	-	40
	-	KTNO 25 C-PP-AS	1,06	25	78	122	51	60±0,15	39	11,5	94±0,2	44	40
	-	KTNOS 25 C-PP-AS	1,06	25	78	122	51	60±0,15	39	11,5	94±0,2	44	40
30	KGNO 30 C-PP-AS	-	0,76	30	87	68	60	68±0,15	43,5	14	45±0,15	-	47
	KGNOS 30 C-PP-AS	-	0,76	30	87	68	60	68±0,15	43,5	14	45±0,15	-	47
	-	KTNO 30 C-PP-AS	1,23	30	87	142	60	68±0,15	43,5	14	106±0,2	54	47
	-	KTNOS 30 C-PP-AS	1,23	30	87	142	60	68±0,15	43,5	14	106±0,2	54	47
40	KGNO 40 C-PP-AS	-	1,4	40	108	80	77	86±0,15	54	19	58±0,15	-	62
	KGNOS 40 C-PP-AS	-	1,4	40	108	80	77	86±0,15	54	19	58±0,15	-	62
50	KGNO 50 C-PP-AS	-	2,4	50	132	100	88	108±0,2	66	22,5	50±0,2	-	75
	KGNOS 50 C-PP-AS	-	2,4	50	132	100	88	108±0,2	66	22,5	50±0,2	-	75

¹⁾ Dimension A₆ on diameter d.

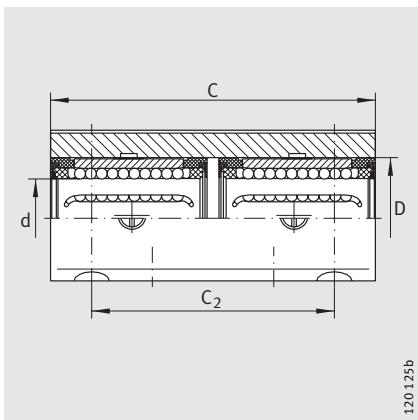
²⁾ Dimensions C₂, C₃ and lubrication hole symmetrical to bearing width C.

³⁾ For fixing screws to EN ISO 4 762-8.8.

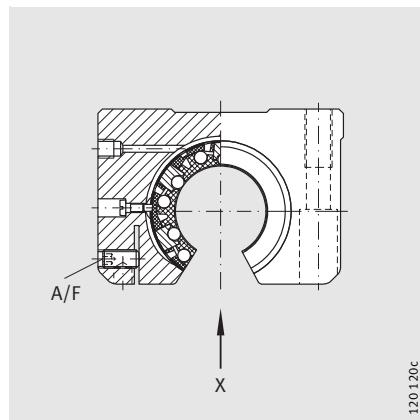
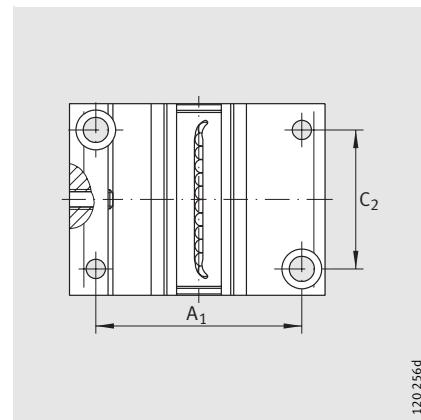
Screws should be secured, especially if a loss of preload may occur.

⁴⁾ Centring for dowel hole.

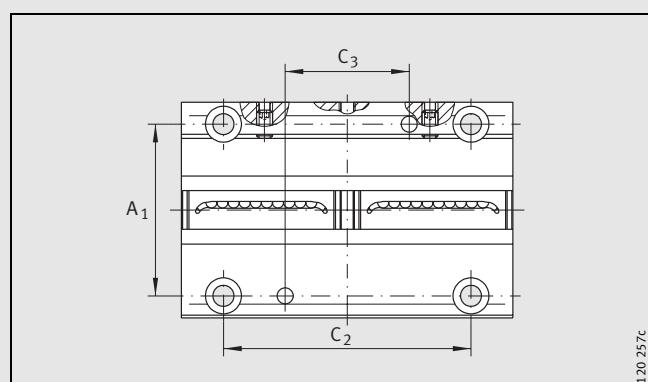
⁵⁾ The basic load ratings are valid only for hardened (670 HV + 170 HV) and ground shaft raceways.



KTNO..C-PP-AS

KGNO(S)..C-PP-AS
KTNO(S)..C-PP-ASKGNOS..C-PP-AS
View X (rotated 90°)

H_2 $+0,008$ $-0,016$	H_3	H_5	H_7	H_8	K_2	$K_3^{3)}$	$K_4^{4)}$	$K_5^{2)}$	$K_8^{2)}$	A/F	α	Degrees	Number	Ball rows	Basic load ratings ⁵⁾		Shaft diameter d
														dyn. C N	stat. C_0 N		
18	8	6	11	16,5	M5	4,3	4	8	M6	–	66	4	840	640	12		
18	8	6	11	16,5	M5	4,3	4	8	M6	2,5	66	4	840	640			
18	8	6	11	16,5	M5	4,3	4	8	M6	–	66	4	1 370	1 270			
18	8	6	11	16,5	M5	4,3	4	8	M6	2,5	66	4	1 370	1 270			
22	10	7,5	13	21	M6	5,3	4	10	M6	–	68	4	1 000	750	16		
22	10	7,5	13	21	M6	5,3	4	10	M6	2,5	68	4	1 000	750			
22	10	7,5	13	21	M6	5,3	4	10	M6	–	68	4	1 620	1 500			
22	10	7,5	13	21	M6	5,3	4	10	M6	2,5	68	4	1 620	1 500			
25	11	8	18	24	M8	6,6	5	11	M6	–	55	5	1 740	1 240	20		
25	11	8	18	24	M8	6,6	5	11	M6	2,5	55	5	1 740	1 240			
25	11	8	18	24	M8	6,6	5	11	M6	–	55	5	2 850	2 480			
25	11	8	18	24	M8	6,6	5	11	M6	2,5	55	5	2 850	2 480			
30	12,5	9	22	29	M10	8,4	6	15	M8×1	–	57	5	3 100	2 260	25		
30	12,5	9	22	29	M10	8,4	6	15	M8×1	3	57	5	3 100	2 260			
30	12,5	9	22	29	M10	8,4	6	15	M8×1	–	57	5	5 100	4 560			
30	12,5	9	22	29	M10	8,4	6	15	M8×1	3	57	5	5 100	4 560			
35	14	9,5	22	34	M10	8,4	6	15	M8×1	–	57	5	3 750	2 850	30		
35	14	9,5	22	34	M10	8,4	6	15	M8×1	3	57	5	3 750	2 850			
35	14	9,5	22	34	M10	8,4	6	15	M8×1	–	57	5	6 100	5 700			
35	14	9,5	22	34	M10	8,4	6	15	M8×1	3	57	5	6 100	5 700			
45	17,5	12	26	44	M12	10,5	8	18	M8×1	–	56	5	6 300	4 350	40		
45	17,5	12	26	44	M12	10,5	8	18	M8×1	4	56	5	6 300	4 350			
50	17,5	12	35	49	M16	13,5	10	20	M8×1	–	54	5	9 300	6 500	50		
50	17,5	12	35	49	M16	13,5	10	20	M8×1	5	54	5	9 300	6 500			

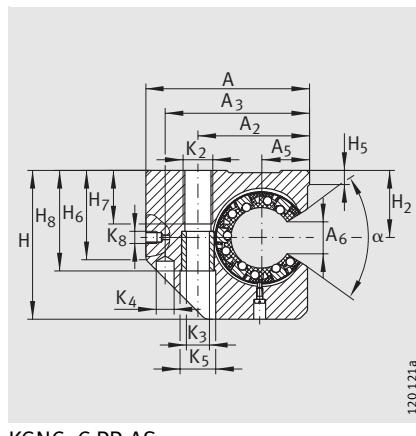


KTNOS..C-PP-AS – view X (rotated 90°)

Linear ball bearing and housing units

Open design
With or without slot

Series KGNC..C-PP-AS
KGNC..C-PP-AS



KGNC..C-PP-AS

Dimension table · Dimensions in mm

Shaft diameter d	Designation	Mass ≈kg	Dimensions				Mounting dimensions							
			d	A	C	H	A ₂	A ₃	A ₅	A ₆ ¹⁾	C ₂ ²⁾	C ₃ ²⁾	D	H ₂
20	KGNC 20 C-PP-AS	0,35	20	60	47	60	39	51	17	9	30	36	32	30
	KGNCS 20 C-PP-AS	0,35	20	60	47	60	39	51	17	9	30	36	32	30
25	KGNC 25 C-PP-AS	0,68	25	75	58	72	49	64	21	11,5	36	45	40	35
	KGNCS 25 C-PP-AS	0,68	25	75	58	72	49	64	21	11,5	36	45	40	35
30	KGNC 30 C-PP-AS	1	30	86	68	82	59	76	25	14	42	52	47	40
	KGNCS 30 C-PP-AS	1	30	86	68	82	59	76	25	14	42	52	47	40
40	KGNC 40 C-PP-AS	1,8	40	110	80	100	75	97	32	19	48	60	62	45
	KGNCS 40 C-PP-AS	1,8	40	110	80	100	75	97	32	19	48	60	62	45
50	KGNC 50 C-PP-AS	2,9	50	127	100	115	88	109	38	22,5	62	80	75	50
	KGNCS 50 C-PP-AS	2,9	50	127	100	115	88	109	38	22,5	62	80	75	50

1) Dimension A₆ on diameter d.

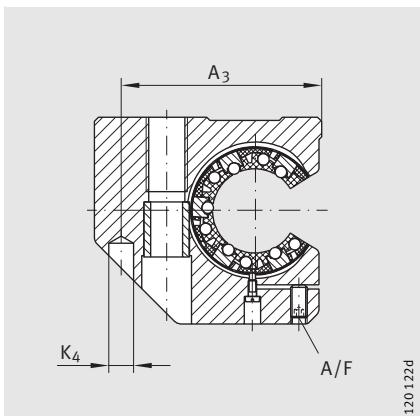
2) Dimensions C₂, C₃ and lubrication hole symmetrical to bearing width C.

3) Centring for dowel hole.

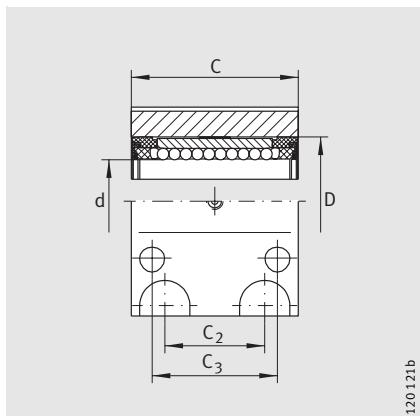
4) For fixing screws to EN ISO 4 762-8.8.

Screws should be secured, especially if a loss of preload may occur.

5) The basic load ratings are valid only for hardened (670 HV + 170 HV) and ground shaft raceways.



KGNCS..C-PP-AS



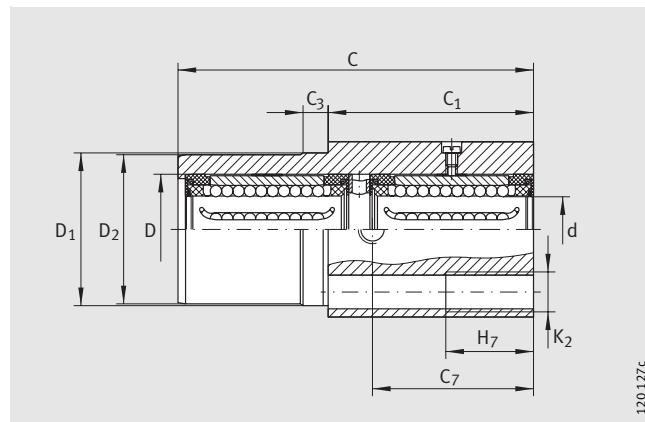
KGNC..C-PP-AS
KGNCS..C-PP-AS

H ₅	H ₆	H ₇	H ₈	K ₂	K ₃ ³⁾	K ₄ ⁴⁾	K ₅ ³⁾	K ₈ ²⁾	A/F	α	Degrees	Ball rows	Basic load ratings ⁵⁾		Shaft diameter d
													Number	dyn. C	stat. C ₀
8	37,5	18	42	M10	8,4	6	15	M6	—	55	5	1 740	1 240	20	
8	37,5	18	42	M10	8,4	6	15	M6	2,5	55	5	1 740	1 240		
8	45	22	50	M12	10,5	8	18	M8×1	—	57	5	3 100	2 260	25	
8	45	22	50	M12	10,5	8	18	M8×1	3	57	5	3 100	2 260		
9	52	29	55	M16	13,5	10	20	M8×1	—	57	5	3 750	2 850	30	
9	52	29	55	M16	13,5	10	20	M8×1	3	57	5	3 750	2 850		
9	60	36	67	M20	15,5	12	24	M8×1	—	56	5	6 300	4 350	40	
9	60	36	67	M20	15,5	12	24	M8×1	4	56	5	6 300	4 350		
9	70	36	78	M20	17,5	12	26	M8×1	—	54	5	9 300	6 500	50	
9	70	36	78	M20	17,5	12	26	M8×1	5	54	5	9 300	6 500		

Linear ball bearing and housing units

Closed design with centring collar

Series KTFN..C-PP-AS



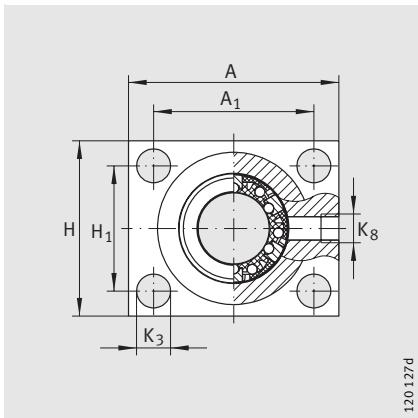
KTFN..C-PP-AS

Dimension table · Dimensions in mm

Shaft diameter d	Designation	Mass ≈kg	Dimensions				Mounting dimensions			
			d	A	C	H	A ₁	C ₁	C ₃	C ₇
12	KTFN 12 C-PP-AS	0,2	12	42	70	34	32	46	10	35
16	KTFN 16 C-PP-AS	0,3	16	50	78	40	38	50	10	39
20	KTFN 20 C-PP-AS	0,5	20	60	96	50	45	60	10	48
25	KTFN 25 C-PP-AS	1	25	74	122	60	56	73	10	61
30	KTFN 30 C-PP-AS	1,4	30	84	142	70	64	82	10	71

1) Recommended locating bore D₁ H7.

2) The basic load ratings are valid only for hardened (670 HV + 170 HV) and ground shaft raceways.



KTFN..C-PP-AS

D	D ₁ ¹⁾ g7	D ₂ -0,1 -0,3	H ₁ $\pm 0,15$	H ₇	K ₂	K ₃	K ₈	Ball rows Number	Basic load ratings ²⁾		Shaft diameter d
									dyn. C	stat. C ₀	
22	30	29,8	24	13	M6	5,3	M8×1	5	1 270	1 110	12
26	35	34,8	28	18	M8	6,6	M8×1	5	1 620	1 500	16
32	42	41,8	35	22	M10	8,4	M8×1	6	2 850	2 480	20
40	52	51,8	42	26	M12	10,5	M8×1	6	5 000	4 450	25
47	61	60,8	50	35	M16	13,5	M8×1	6	6 100	5 800	30

Schaeffler KG

Linear Technology Division
66424 Homburg/Saar (Germany)
Internet www.ina.com
E-Mail info.linear@de.ina.com

In Germany:
Phone 0180 5003872
Fax 0180 5003873

From Other Countries:
Phone +49 6841 701-0
Fax +49 6841 701-625

Every care has been taken to ensure the correctness of the information contained in this publication but no liability can be accepted for any errors or omissions. We reserve the right to make changes in the interest of technical progress.
© Schaeffler KG · 2006, January
This publication or parts thereof may not be reproduced without our permission.
TPI 122