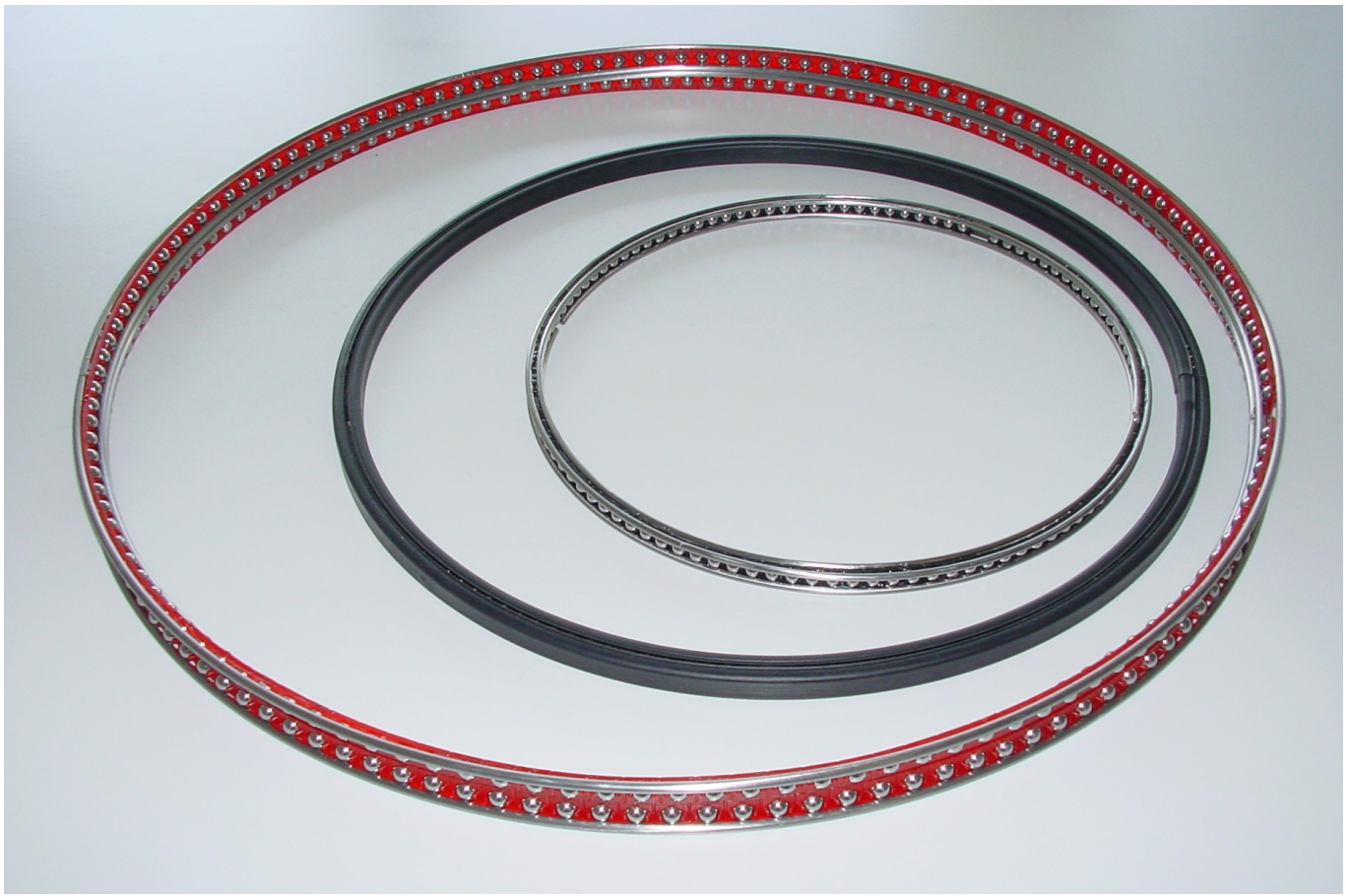
Wire ball bearing



Type Series KVE
Type Series MVE
Type Series ZVE
Type Series KER
Type Series KED
Type Series KEDD
Type Series DFX
Type Series DSE

Publication DKL 100 E
04/2005

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Wire ball bearing

Component parts

2 pieces **outer running wires**
hardened (drawn), neatly turned and ground track corresponds to the ball diameter

2 pieces **inner running wires**
hardened (drawn), neatly turned and ground track corresponds to the ball diameter

1 piece **ball cage strip**
guided and contained balls

Wire ball bearing

Type series KVE with grinded raceways

General

The KMF KVE wire ball bearing units are used everywhere where there is insufficient space for a complete bearing. Because of the possibility of designing the machine while hardly taking the necessary roller bearing into consideration, this type of bearing has been increasingly used in recent years.

A neatly turned groove with easily achieved tolerances in the customer´s design is sufficient to accommodate the running wires. This type of construction makes it possible to dispense with the conventional support rings (as provided for a complete bearing). Thus the customer obtains not only a space-saving bearing, but one at an extremely reasonable price.

KMF wire ball bearing units can be easily designed according to the customer´s design requirements, as various combinations of running wires/balls are possible for the same circle diameter.

The ball diameters of 5 / 6 / 6.35 / 8 / 9 / 9.525 / 10 / 12 / 16 and 20 mm and the circle diameter ranges of 70 to 2000 mm permit the use of many possible variations.

By using hardened running wires, high surface hardness with a ground track corresponding to the ball diameter, one achieves a long service life.
The bearing pressure angle of 90° makes it possible to support loads due to radial and axial forces and torques from any directions.

Features

- Free choice of structural material
  eg: aluminium, bronze, stainless steel etc.
  Due to the slotted running rings, no difficulties from differential expansion
- Small fitted space
- High static and dynamic strength
- Great precision
- Low weight of bearing
- Economical
  due to optimum price / performance ratio
- Short delivery period

Example of order:

Wire ball bearing unit Type: KVE 10 0350

Description : KVE 10 0350 Quantity : 50 off

- 0350 — running circle diam. (350 mm)
- 10 — ball size (10 mm)
- KVE — type series

Wire ball bearing

Type series KVE with grinded raceways

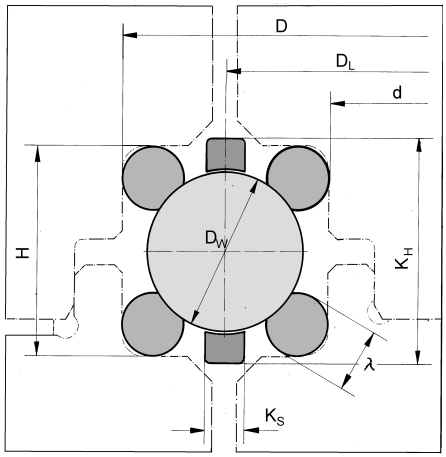


Table of dimensions [Dimensions in mm]

KMF-type 1)	Ball D_W		Wire Ø λ	Range of use Running circle Ø		Bearing dimensions			Cage dimensions		
		(inch)		D_L min.	D_L max.	d	D	H	K_H	K_S	K_T
KVE 5	5		1,5	70	160	D_L – 5,90	D_L + 5,90	5,90	8,0	1,5	6,8
KVE 6	6		2	70	220	D_L – 7,40	D_L + 7,40	7,40	9,0	1,6	7,8
KVE 6,35	6,35	1/4	3	100	400	D_L – 9,20	D_L + 9,20	9,20	9,0	1,6	7,8
KVE 9	9		3	150	400	D_L – 10,60	D_L + 10,60	10,60	11,6	2,0	11,5
KVE 8	8		4	150	2000	D_L – 11,78	D_L + 11,78	11,78	12,0	2,0	12,0
KVE 8	8		4	150	2000	D_L – 12,00	D_L + 12,00	12,00	12,0	2,0	12,0
KVE 9,525	9,525	3/8	4	150	2000	D_L – 12,95	D_L + 12,95	12,95	12,6	2,5	12,0
KVE 9,525	9,525	3/8	4	150	2000	D_L – 12,86	D_L + 12,86	12,86	12,6	2,5	12,0
KVE 10	10		4	150	2000	D_L – 13,19	D_L + 13,19	13,19	13,2	2,5	12,5
KVE 12	12		4	200	2000	D_L – 14,10	D_L + 14,10	14,10	15,0	2,5	15,0
KVE 12	12		4	200	2000	D_L – 14,61	D_L + 14,61	14,61	15,0	2,5	15,0
KVE 16	16		5	250	2000	D_L – 18,40	D_L + 18,40	18,40	20,0	3,5	20,0
KVE 16	16		5	250	2000	D_L – 19,00	D_L + 19,00	19,00	20,0	3,5	20,0
KVE 20	20		6	300	2000	D_L – 22,60	D_L + 22,60	22,60	24,2	3,5	25,0

1) Other dimensions on request

K_T= ball division

Description of construction:

The KMF wire ball bearing unit consists of four hardened ball running rings with polished tracks and one ball cage strip with guided and contained balls.

Material:

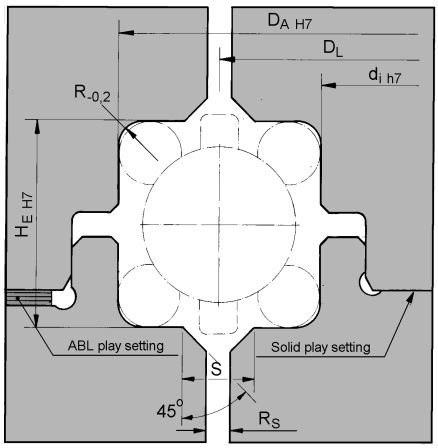
Ball running rings	hardened	Fd. St.
Ball cage strip	polyamide	PA 12
Balls	hardened ball bearing steel acc. to DIN 5401, Grade 28 (Class III)	100 Cr 6

Note: KVE can also be supplied in a corrosion-resistant version. In the example of an order, this will have the additional symbol SS.

Example of order: **KVE 10 0350 SS**

Wire ball bearing

Type series KVE with grinded raceways



Fitted dimensions

Table of dimensions [Dimensions in mm]

KMF-type	Load capacity 1)		Fitted dimensions						Cage type 2)
	dyn. C [kN]	stat. C_o [kN]	d_i	D_A	H_E	R	S	R_S	
KVE 5	0,450 • √ D_L	0,071• D_L	D_L – 5,90	D_L + 5,90	5,90	0,6	---	2,5	**KKLK 050**
KVE 6	0,735 • √ D_L	0,125 • D_L	D_L – 7,40	D_L + 7,40	7,40	0,9	---	2,6	**KKLK 060**
KVE 6,35	1,180 • √ D_L	0,280 • D_L	D_L – 9,20	D_L + 9,20	9,20	1,4	3,0	---	**KKLK 063**
KVE 9	1,370 • √ D_L	0,340 • D_L	D_L – 10,60	D_L + 10,60	10,60	1,4	4,5	---	**KKLK 09C**
KVE 8	1,240 • √ D_L	0,350 • D_L	D_L – 11,78	D_L + 11,78	11,78	1,9	4,5	---	**KKLK 080**
KVE 8	1,200 • √ D_L	0,340 • D_L	D_L – 12,00	D_L + 12,00	12,00	1,9	4,5	---	**KKLK 080**
KVE 9,525	1,450 • √ D_L	0,310 • D_L	D_L – 12,95	D_L + 12,95	12,95	1,9	4,5	---	**KKLK 095**
KVE 9,525	1,450 • √ D_L	0,310 • D_L	D_L – 12,86	D_L + 12,86	12,86	1,9	4,5	---	**KKLK 095**
KVE 10	1,500 • √ D_L	0,330 • D_L	D_L – 13,19	D_L + 13,19	13,19	1,9	4,5	---	**KKLK 100**
KVE 12	2,220 • √ D_L	0,440 • D_L	D_L – 14,10	D_L + 14,10	14,10	1,9	5,5	---	**KKLK 12C**
KVE 12	2,150 • √ D_L	0,400 • D_L	D_L – 14,61	D_L + 14,61	14,61	1,9	5,5	---	**KKLK 12C**
KVE 16	3,020 • √ D_L	0,580 • D_L	D_L – 18,40	D_L + 18,40	18,40	2,4	7,5	---	**KKLK 160**
KVE 16	2,930 • √ D_L	0,530 • D_L	D_L – 19,00	D_L + 19,00	19,00	2,4	7,5	---	**KKLK 160**
KVE 20	3,550 • √ D_L	0,640 • D_L	D_L – 22,60	D_L + 22,60	22,60	2,9	8,0	---	**KKLK 20C**

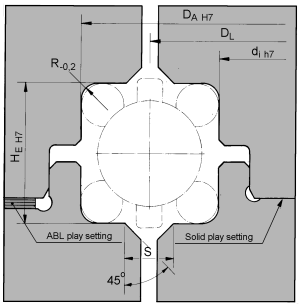
1) Calculated hardness 510 HV
2) See document WLK 100

Temperature : The temperature limits of standard version bearings in continuous operation are between -40° and +100°C, for short periods of operation up to +120°C.

Play in bearing: The play in bearings can be set later via the surface – solid settings, or can be set without later work by matching with spacers. Spacers made of corrosion-resistant steel of different sizes and thicknesses can be supplied on request.
(see document page 28).

Wire ball bearing

Type series KVE (metric preferred series) with grinded raceways



Fitted dimensions

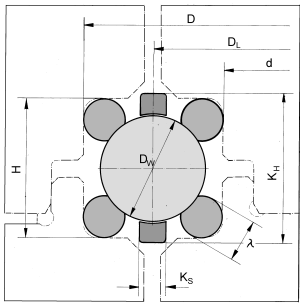


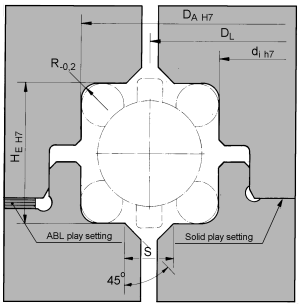
Table of dimensions [Dimensions in mm]

KMF-type 1)	Bearing dimensions d	D	D_L	H	Load capacity dyn. C [kN]	stat. C_o [kN]	Weight kg	KMF-type 1)	Bearing dimensions d	D	D_L	H	Load capacity dyn. C [kN]	Stat. C_o [kN]	Weight kg
KVE 08 0100	88	112	100	12	12,0	34,0	0,18	**KVE 08 0900**	888	912	900	12	36,0	306,0	1,62
KVE 08 0125	113	137	125	12	13,4	42,5	0,23	**KVE 08 0925**	913	937	925	12	36,5	314,5	1,67
KVE 08 0150	138	162	150	12	14,7	51,0	0,27	**KVE 08 0950**	938	962	950	12	37,0	323,0	1,71
KVE 08 0175	163	187	175	12	15,9	59,5	0,32	**KVE 08 0975**	963	987	975	12	37,5	331,5	1,76
KVE 08 0200	188	212	200	12	17,0	68,0	0,36	**KVE 08 1000**	988	1012	1000	12	37,9	340,0	1,80
KVE 08 0225	213	237	225	12	18,0	76,5	0,41	**KVE 08 1025**	1013	1037	1025	12	38,4	348,5	1,85
KVE 08 0250	238	262	250	12	19,0	85,0	0,45	**KVE 08 1050**	1038	1062	1050	12	38,9	357,0	1,89
KVE 08 0275	263	287	275	12	19,9	93,5	0,50	**KVE 08 1075**	1063	1087	1075	12	39,3	365,5	1,94
KVE 08 0300	288	312	300	12	20,8	102,0	0,54	**KVE 08 1100**	1088	1112	1100	12	39,8	374,0	1,98
KVE 08 0325	313	337	325	12	21,6	110,5	0,59	**KVE 08 1125**	1113	1137	1125	12	40,2	382,5	2,03
KVE 08 0350	338	362	350	12	22,4	119,0	0,63	**KVE 08 1150**	1138	1162	1150	12	40,7	391,0	2,07
KVE 08 0375	363	387	375	12	23,2	127,5	0,68	**KVE 08 1175**	1163	1187	1175	12	41,1	399,5	2,12
KVE 08 0400	388	412	400	12	24,0	136,0	0,72	**KVE 08 1200**	1188	1212	1200	12	41,6	408,0	2,16
KVE 08 0425	413	437	425	12	24,7	144,5	0,77	**KVE 08 1225**	1213	1237	1225	12	42,0	416,5	2,21
KVE 08 0450	438	462	450	12	25,5	153,0	0,81	**KVE 08 1250**	1238	1262	1250	12	42,4	425,0	2,25
KVE 08 0475	463	487	475	12	26,2	161,5	0,86	**KVE 08 1275**	1263	1287	1275	12	42,8	433,5	2,30
KVE 08 0500	488	512	500	12	26,8	170,0	0,90	**KVE 08 1300**	1288	1312	1300	12	43,3	442,0	2,34
KVE 08 0525	513	537	525	12	27,5	178,5	0,95	**KVE 08 1325**	1313	1337	1325	12	43,7	450,5	2,39
KVE 08 0550	538	562	550	12	28,1	187,0	0,99	**KVE 08 1350**	1338	1362	1350	12	44,1	459,0	2,43
KVE 08 0575	563	587	575	12	28,8	195,5	1,04	**KVE 08 1375**	1363	1387	1375	12	44,5	467,5	2,48
KVE 08 0600	588	612	600	12	29,4	204,0	1,08	**KVE 08 1400**	1388	1412	1400	12	44,9	476,0	2,52
KVE 08 0625	613	637	625	12	30,0	212,5	1,13	**KVE 08 1425**	1413	1437	1425	12	45,3	484,5	2,57
KVE 08 0650	638	662	650	12	30,6	221,0	1,17	**KVE 08 1450**	1438	1462	1450	12	45,7	493,0	2,61
KVE 08 0675	663	687	675	12	31,2	229,5	1,22	**KVE 08 1475**	1463	1487	1475	12	46,1	501,5	2,66
KVE 08 0700	688	712	700	12	31,7	238,0	1,26	**KVE 08 1500**	1488	1512	1500	12	46,5	510,0	2,70
KVE 08 0725	713	737	725	12	32,3	246,5	1,31	**KVE 08 1525**	1513	1537	1525	12	46,9	518,5	2,75
KVE 08 0750	738	762	750	12	32,9	255,0	1,35	**KVE 08 1550**	1538	1562	1550	12	47,2	527,0	2,79
KVE 08 0775	763	787	775	12	33,4	263,5	1,40	**KVE 08 1575**	1563	1587	1575	12	47,6	535,5	2,84
KVE 08 0800	788	812	800	12	33,9	272,0	1,44	**KVE 08 1600**	1588	1612	1600	12	48,0	544,0	2,90
KVE 08 0825	813	837	825	12	34,5	280,5	1,49	**KVE 08 1625**	1613	1637	1625	12	48,4	552,5	2,93
KVE 08 0850	838	862	850	12	35,0	289,0	1,53	**KVE 08 1650**	1638	1662	1650	12	48,7	561,0	2,97
KVE 08 0875	863	887	875	12	35,5	297,5	1,58	**KVE 08 1675**	1663	1687	1675	12	49,1	569,5	3,02

1) Other dimensions on request

Wire ball bearing

Type series KVE (english preferred series) with grinded raceways



Fitted dimensions

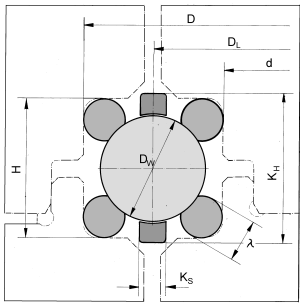


Table of dimensions [Dimensions in mm]

KMF-Type 1)	Bearing dimensions d	D	H [inch]	H	Load capacity Dyn. C [kN]	Stat. C_0 [kN]	Weight kg	KMF-Type 1)	Bearing dimensions d	D	H [inch]	H	Load capacity Dyn. C [kN]	Stat. C_0 [kN]	Weight kg
KVE 9,525 0100	87,05	112,95	0,51	12,95	14,5	31,0	0,21	**KVE 9,525 0900**	887,05	912,95	0,51	12,95	43,5	279,0	1,89
KVE 9,525 0125	112,05	137,95	0,51	12,95	16,2	38,8	0,26	**KVE 9,525 0925**	912,05	937,95	0,51	12,95	44,1	286,8	1,94
KVE 9,525 0150	137,05	162,95	0,51	12,95	17,8	46,5	0,32	**KVE 9,525 0950**	937,05	962,95	0,51	12,95	44,7	294,5	2,00
KVE 9,525 0175	162,05	187,95	0,51	12,95	19,2	54,3	0,37	**KVE 9,525 0975**	962,05	987,95	0,51	12,95	45,3	302,3	2,05
KVE 9,525 0200	187,05	212,95	0,51	12,95	20,5	62,0	0,42	**KVE 9,525 1000**	987,05	1012,95	0,51	12,95	45,9	310,0	2,10
KVE 9,525 0225	212,05	237,95	0,51	12,95	21,8	69,8	0,47	**KVE 9,525 1025**	1012,05	1037,95	0,51	12,95	46,4	317,8	2,15
KVE 9,525 0250	237,05	262,95	0,51	12,95	22,9	77,5	0,53	**KVE 9,525 1050**	1037,05	1062,95	0,51	12,95	47,0	325,5	2,21
KVE 9,525 0275	262,05	287,95	0,51	12,95	24,0	85,3	0,58	**KVE 9,525 1075**	1062,05	1087,95	0,51	12,95	47,5	333,3	2,26
KVE 9,525 0300	287,05	312,95	0,51	12,95	25,1	93,0	0,63	**KVE 9,525 1100**	1087,05	1112,95	0,51	12,95	48,1	341,0	2,31
KVE 9,525 0325	312,05	337,95	0,51	12,95	26,1	100,8	0,68	**KVE 9,525 1125**	1112,05	1137,95	0,51	12,95	48,6	348,8	2,36
KVE 9,525 0350	337,05	362,95	0,51	12,95	27,1	108,5	0,74	**KVE 9,525 1150**	1137,05	1162,95	0,51	12,95	49,2	356,5	2,42
KVE 9,525 0375	362,05	387,95	0,51	12,95	28,1	116,3	0,79	**KVE 9,525 1175**	1162,05	1187,95	0,51	12,95	49,7	364,3	2,47
KVE 9,525 0400	387,05	412,95	0,51	12,95	29,0	124,0	0,84	**KVE 9,525 1200**	1187,05	1212,95	0,51	12,95	50,2	372,0	2,52
KVE 9,525 0425	412,05	437,95	0,51	12,95	29,9	131,8	0,89	**KVE 9,525 1225**	1212,05	1237,95	0,51	12,95	50,8	379,8	2,57
KVE 9,525 0450	437,05	462,95	0,51	12,95	30,8	139,5	0,95	**KVE 9,525 1250**	1237,05	1262,95	0,51	12,95	51,3	387,5	2,63
KVE 9,525 0475	462,05	487,95	0,51	12,95	31,6	147,3	1,00	**KVE 9,525 1275**	1262,05	1287,95	0,51	12,95	51,8	395,3	2,68
KVE 9,525 0500	487,05	512,95	0,51	12,95	32,4	155,0	1,05	**KVE 9,525 1300**	1287,05	1312,95	0,51	12,95	52,3	403,0	2,73
KVE 9,525 0525	512,05	537,95	0,51	12,95	33,2	162,8	1,10	**KVE 9,525 1325**	1312,05	1337,95	0,51	12,95	52,8	410,8	2,78
KVE 9,525 0550	537,05	562,95	0,51	12,95	34,0	170,5	1,16	**KVE 9,525 1350**	1337,05	1362,95	0,51	12,95	53,3	418,5	2,84
KVE 9,525 0575	562,05	587,95	0,51	12,95	34,8	178,3	1,21	**KVE 9,525 1375**	1362,05	1387,95	0,51	12,95	53,8	426,3	2,89
KVE 9,525 0600	587,05	612,95	0,51	12,95	35,5	186,0	1,26	**KVE 9,525 1400**	1387,05	1412,95	0,51	12,95	54,3	434,0	2,94
KVE 9,525 0625	612,05	637,95	0,51	12,95	36,3	193,8	1,31	**KVE 9,525 1425**	1412,05	1437,95	0,51	12,95	54,7	441,8	2,99
KVE 9,525 0650	637,05	662,95	0,51	12,95	37,0	201,5	1,37	**KVE 9,525 1450**	1437,05	1462,95	0,51	12,95	55,2	449,5	3,05
KVE 9,525 0675	662,05	687,95	0,51	12,95	37,7	209,3	1,42	**KVE 9,525 1475**	1462,05	1487,95	0,51	12,95	55,7	457,3	3,10
KVE 9,525 0700	687,05	712,95	0,51	12,95	38,4	217,0	1,47	**KVE 9,525 1500**	1487,05	1512,95	0,51	12,95	56,2	465,0	3,15
KVE 9,525 0725	712,05	737,95	0,51	12,95	39,0	224,8	1,52	**KVE 9,525 1525**	1512,05	1537,95	0,51	12,95	56,6	472,8	3,20
KVE 9,525 0750	737,05	762,95	0,51	12,95	39,7	232,5	1,58	**KVE 9,525 1550**	1537,05	1562,95	0,51	12,95	57,1	480,5	3,26
KVE 9,525 0775	762,05	787,95	0,51	12,95	40,4	240,3	1,63	**KVE 9,525 1575**	1562,05	1587,95	0,51	12,95	57,5	488,3	3,31
KVE 9,525 0800	787,05	812,95	0,51	12,95	41,0	248,0	1,68	**KVE 9,525 1600**	1587,05	1612,95	0,51	12,95	58,0	496,0	3,36
KVE 9,525 0825	812,05	837,95	0,51	12,95	41,6	255,8	1,73	**KVE 9,525 1625**	1612,05	1637,95	0,51	12,95	58,5	503,8	3,41
KVE 9,525 0850	837,05	862,95	0,51	12,95	42,3	263,5	1,79	**KVE 9,525 1650**	1637,05	1662,95	0,51	12,95	58,9	511,5	3,47
KVE 9,525 0875	862,05	887,95	0,51	12,95	42,9	271,3	1,84	**KVE 9,525 1675**	1662,05	1687,95	0,51	12,95	59,3	519,3	3,52

1) Other dimensions on request

Wire ball bearing

Type series MVE (metric series) with grinded raceways

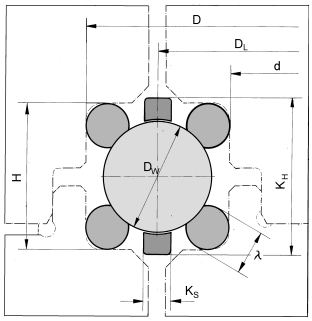


Table of dimensions [Dimensions in mm]

KMF-type 1)	Ball D_W		Wire Ø λ	Range of use Running circle Ø		Bearing dimensions			Cage dimensions		
		(inch)		D_L min.	D_L max.	d	D	H	K_H	K_S	K_T
MVE 10	8		3	150	1500	D_L – 10	D_L + 10	10	10,6	2,0	12,0
MVE 15	11		5	250	1500	D_L – 15	D_L + 15	15	13,7	2,5	14,0
MVE 20	16		6	300	1500	D_L – 20	D_L + 20	20	20,0	3,5	20,0
MVE 25	20		7	350	1500	D_L – 25	D_L + 25	25	24,2	3,5	25,0

1) Other dimensions on request

K_T = ball division

Wire ball bearing

Type series ZVE (english series) with grinded raceways

Table of dimensions [Dimensions in mm]

KMF-type 1)	Ball D_W		Wire Ø λ	Range of use Running circle Ø		Bearing dimensions			Cage dimensions		
		(inch)		D_L min.	D_L max.	d	D	H	K_H	K_S	K_T
ZVEC	8		3	150	1500	D_L – 9,525	D_L + 9,525	9,525	10,6	2,0	12,0
ZVED	9,525	3/8	4	150	1500	D_L – 12,700	D_L + 12,700	12,700	12,6	2,5	12,0
ZVEF	16		5	250	1500	D_L – 19,050	D_L + 19,050	19,050	20,0	3,5	20,0
ZVEG	20		7	350	1500	D_L – 25,400	D_L + 25,400	25,400	24,2	3,5	25,0

1) Other dimensions on request

K_T = ball division

Description of shape, material, temperature and play in bearing see page 4 and 5.

Example of order

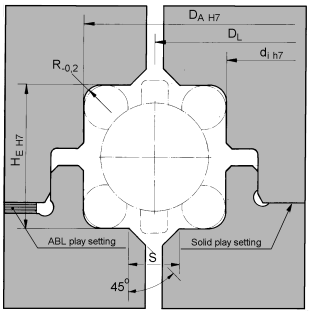
Wire ball bearing – units type MVE 10 0300

Description : MVE 10 0300 Quantity: 20 off

- 0300 — size of the bearing (300 mm)
- 10 — cross cut (10 x 10 mm)
- MVE — type series

Wire ball bearing

Type series MVE (metric series) with grinded raceways



Fitted dimensions

Table of dimensions [Dimensions in mm]

KMF-type	Load capacity 1)		Fitted dimensions					Cage-type 2)
	dyn. C [kN]	stat. C_o [kN]	d_i	D_A	H_E	R	S	
MVE 10	1,24 • √ D_L	0,31 • D_L	D_L – 10,0	D_L + 10,0	10	1,4	4,5	**KKLK 08C**
MVE 15	1,70 • √ D_L	0,56 • D_L	D_L – 15,0	D_L + 15,0	15	2,4	4,5	**KKLK 111**
MVE 20	3,08 • √ D_L	0,73 • D_L	D_L – 20,0	D_L + 20,0	20	2,9	7,5	**KKLK 160**
MVE 25	4,21 • √ D_L	0,86 • D_L	D_L – 25,0	D_L + 25,0	25	3,4	7,5	**KKLK 20C**

1) Calculated hardness 510 HV
2) See document WLK 100

Wire ball bearing

Type series ZVE (english series) with grinded raceways

Table of dimensions [Dimensions in mm]

KMF-type	Load capacity 1)		Fitted dimensions					Cage-type 2)
	dyn. C [kN]	stat. C_o [kN]	d_i	D_A	H_E	R	S	
ZVEC	1,24 • √ D_L	0,35 • D_L	D_L – 9,525	D_L + 9,525	9,525	1,4	4,5	**KKLK 08C**
ZVED	1,47 • √ D_L	0,36 • D_L	D_L – 12,700	D_L + 12,700	12,700	1,9	4,5	**KKLK 095**
ZVEF	2,93 • √ D_L	0,53 • D_L	D_L – 19,050	D_L + 19,050	19,050	2,4	7,5	**KKLK 160**
ZVEG	3,98 • √ D_L	0,69 • D_L	D_L – 25,400	D_L + 25,400	25,400	3,4	7,5	**KKLK 20C**

1) Calculated hardness 510 HV
2) See document WLK 100

Example of order

Wire ball bearing type ZVEC 130

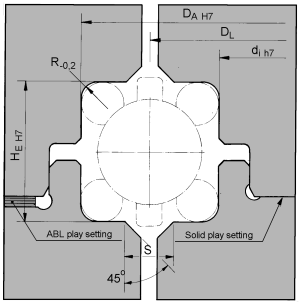
Description : ZVEC 130 Quantity : 30 off

size of the bearing (d in inch x 10)

type ZVE with „C cross cut“ 9,525 x 9,525 mm

Wire ball bearing

Type series MVE (metric preferred series) with grinded raceways



Fitted dimensions

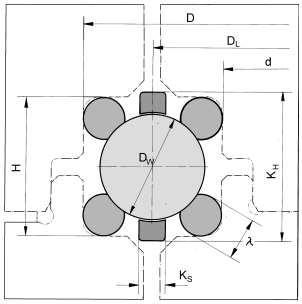


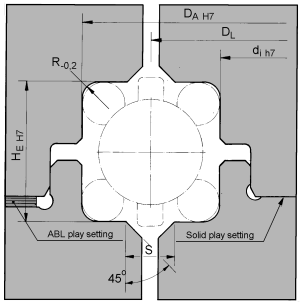
Table of dimensions [Dimensions in mm]

KMF-type 1)	Bearing dimensions d	D	D_L	H	Load capacity dyn. C [kN]	Load capacity stat. C_o [kN]	Weight kg	KMF-type 1)	Bearing dimensions d	D	D_L	H	Load capacity dyn. C [kN]	Load capacity Stat. C_o [kN]	Weight kg
MVE 10 0150	140	160	150	10	15,2	46,5	0,19	**MVE 20 0300**	280	320	300	20	53,3	219,0	0,10
MVE 10 0200	190	210	200	10	17,5	62,0	0,25	**MVE 20 0350**	330	370	350	20	57,6	255,5	0,12
MVE 10 0250	240	260	250	10	19,6	77,5	0,32	**MVE 20 0400**	380	420	400	20	61,6	292,0	0,14
MVE 10 0300	290	310	300	10	21,5	93,0	0,38	**MVE 20 0450**	430	470	450	20	65,3	328,5	0,16
MVE 10 0350	340	360	350	10	23,2	108,5	0,44	**MVE 20 0500**	480	520	500	20	68,9	365,0	0,17
MVE 10 0400	390	410	400	10	24,8	124,0	0,51	**MVE 20 0550**	530	570	550	20	72,2	401,5	0,19
MVE 10 0450	440	460	450	10	26,3	139,5	0,57	**MVE 20 0600**	580	620	600	20	75,4	438,0	0,21
MVE 10 0500	490	510	500	10	27,7	155,0	0,63	**MVE 20 0650**	630	670	650	20	78,5	474,5	0,23
MVE 10 0550	540	560	550	10	29,1	170,5	0,70	**MVE 20 0700**	680	720	700	20	81,5	511,0	0,24
MVE 10 0600	590	610	600	10	30,4	186,0	0,76	**MVE 20 0750**	730	770	750	20	84,3	547,5	0,26
MVE 10 0650	640	660	650	10	31,6	201,5	0,82	**MVE 20 0800**	780	820	800	20	87,1	584,0	0,28
MVE 10 0700	690	710	700	10	32,8	217,0	0,89	**MVE 20 0850**	830	870	850	20	89,8	620,5	0,29
MVE 10 0750	740	760	750	10	34,0	232,5	0,95	**MVE 20 0900**	880	920	900	20	92,4	657,0	0,31
MVE 10 0800	790	810	800	10	35,1	248,0	1,01	**MVE 20 0950**	930	970	950	20	94,9	693,5	0,33
MVE 10 0850	840	860	850	10	36,2	263,5	1,08	**MVE 20 1000**	980	1020	1000	20	97,4	730,0	0,35
MVE 10 0900	890	910	900	10	37,2	279,0	1,14	**MVE 20 1050**	1030	1070	1050	20	99,8	766,5	0,37
MVE 15 0250	235	265	250	15	26,9	90,0	0,58	**MVE 25 0350**	325	375	350	25	78,8	301,0	2,82
MVE 15 0300	285	315	300	15	29,4	108,0	0,70	**MVE 25 0400**	375	425	400	25	84,2	344,0	3,22
MVE 15 0350	335	365	350	15	31,8	126,0	0,81	**MVE 25 0450**	425	475	450	25	89,3	387,0	3,63
MVE 15 0400	385	415	400	15	34,0	144,0	0,93	**MVE 25 0500**	475	525	500	25	94,1	430,0	4,03
MVE 15 0450	435	465	450	15	36,1	162,0	1,04	**MVE 25 0550**	525	575	550	25	98,7	473,0	4,43
MVE 15 0500	485	515	500	15	38,0	180,0	1,16	**MVE 25 0600**	575	625	600	25	103,1	516,0	4,83
MVE 15 0550	535	565	550	15	39,9	198,0	1,28	**MVE 25 0650**	625	675	650	25	107,3	559,0	5,24
MVE 15 0600	585	615	600	15	41,6	216,0	1,40	**MVE 25 0700**	675	725	700	25	111,4	602,0	5,64
MVE 15 0650	635	665	650	15	43,3	234,0	1,51	**MVE 25 0750**	725	775	750	25	115,3	645,0	6,04
MVE 15 0700	685	715	700	15	45,0	252,0	1,63	**MVE 25 0800**	775	825	800	25	119,1	688,0	6,45
MVE 15 0750	735	765	750	15	46,6	270,0	1,74	**MVE 25 0850**	825	875	850	25	122,7	731,0	6,85
MVE 15 0800	785	815	800	15	48,1	288,0	1,86	**MVE 25 0900**	875	925	900	25	126,3	774,0	7,25
MVE 15 0850	835	865	850	15	49,6	306,0	1,98	**MVE 25 0950**	925	975	950	25	129,8	817,0	7,65
MVE 15 0900	885	915	900	15	51,0	324,0	2,09	**MVE 25 1000**	975	1025	1000	25	133,1	860,0	8,06
MVE 15 0950	935	965	950	15	52,3	342,0	2,21	**MVE 25 1050**	1025	1075	1050	25	136,4	903,0	8,46
MVE 15 1000	985	1015	1000	15	53,8	360,0	2,33	**MVE 25 1100**	1075	1125	1100	25	139,6	946,0	8,86

1) Other dimensions on request

Wire ball bearing

Type series ZVE (english preferred series) with grinded raceways



Fitted dimensions

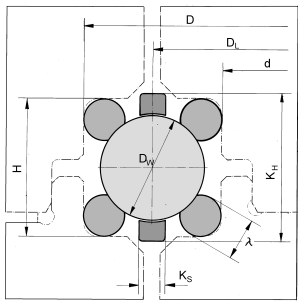


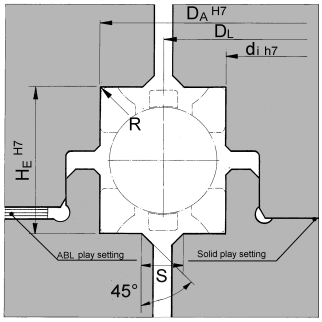
Table of dimensions [Dimensions in mm]

KMF-type 1)	Bearing dimensions d	[inch]	D	H	Load capacity dyn. C [kN]	stat. C_o [kN]	Weight kg	KMF-type 1)	Bearing dimensions d	[inch]	D	H	Load capacity dyn. C [kN]	stat. C_o [kN]	Weight kg
ZVEC 055	139,7	5 ½	158,75	9,525	15,1	52,2	0,18	**ZVEF 090**	228,6	9	266,7	19,05	46,1	131,4	1,02
ZVEC 075	190,5	7 ½	209,55	9,525	17,5	70,0	0,25	**ZVEF 110**	279,4	11	317,5	19,05	50,6	158,2	1,25
ZVEC 095	241,3	9 ½	260,35	9,525	19,6	87,8	0,31	**ZVEF 130**	330,2	13	368,3	19,05	54,8	185,1	1,48
ZVEC 115	292,1	11 ½	311,15	9,525	21,5	105,6	0,38	**ZVEF 150**	381,0	15	419,1	19,05	58,6	212,1	1,70
ZVEC 130	330,2	13	349,25	9,525	22,9	118,9	0,43	**ZVEF 170**	431,8	17	469,9	19,05	62,2	239,0	1,93
ZVEC 150	381,0	15	400,05	9,525	24,5	136,7	0,49	**ZVEF 190**	482,6	19	520,7	19,05	65,6	265,9	2,16
ZVEC 170	431,8	17	450,85	9,525	26,0	154,5	0,56	**ZVEF 210**	533,4	21	571,5	19,05	68,9	292,8	2,38
ZVEC 190	482,6	19	501,65	9,525	27,5	172,2	0,62	**ZVEF 230**	584,2	23	622,3	19,05	72,0	319,7	2,61
ZVEC 210	533,4	21	552,45	9,525	28,9	190,0	0,69	**ZVEF 250**	635,0	25	673,1	19,05	74,9	346,7	2,84
ZVEC 230	584,2	23	603,25	9,525	30,2	207,8	0,75	**ZVEF 270**	685,8	27	723,9	19,05	77,8	373,6	3,06
ZVEC 250	635,0	25	654,05	9,525	31,5	225,6	0,82	**ZVEF 290**	736,6	29	774,7	19,05	80,5	400,5	3,29
ZVEC 270	685,8	27	704,85	9,525	32,7	243,4	0,88	**ZVEF 310**	787,4	31	825,5	19,05	83,2	427,4	3,52
ZVEC 290	736,6	29	755,65	9,525	33,9	261,1	0,95	**ZVEF 330**	838,2	33	876,3	19,05	85,8	454,4	3,75
ZVEC 310	787,4	31	806,45	9,525	35,0	278,9	1,02	**ZVEF 350**	889,0	35	927,1	19,05	88,3	481,3	3,97
ZVEC 330	838,2	33	857,25	9,525	36,1	296,7	1,08	**ZVEF 370**	939,8	37	977,9	19,05	90,7	508,2	4,20
ZVEC 350	889,0	35	908,05	9,525	37,2	314,5	1,15	**ZVEF 390**	990,6	39	1028,7	19,05	93,1	535,1	4,43
ZVED 055	139,7	5 ½	165,1	12,70	18,1	54,9	0,28	**ZVEG 140**	355,6	14	406,4	25,4	77,7	262,9	2,86
ZVED 075	190,5	7 ½	215,9	12,70	21,0	73,2	0,38	**ZVEG 160**	406,4	16	457,2	25,4	82,7	297,9	3,27
ZVED 095	241,3	9 ½	266,7	12,70	23,4	91,4	0,48	**ZVEG 180**	457,2	18	508,0	25,4	87,4	333,0	3,68
ZVED 115	292,1	11 ½	317,5	12,70	25,7	109,7	0,59	**ZVEG 200**	508,0	20	558,8	25,4	91,9	368,0	4,09
ZVED 130	330,2	13	355,6	12,70	27,2	123,4	0,66	**ZVEG 220**	558,8	22	609,6	25,4	96,2	403,1	4,49
ZVED 150	381,0	15	406,4	12,70	29,2	141,7	0,76	**ZVEG 240**	609,6	24	660,4	25,4	100,3	438,2	4,90
ZVED 170	431,8	17	457,2	12,70	31,0	160,0	0,87	**ZVEG 260**	660,4	26	711,2	25,4	104,2	473,2	5,31
ZVED 190	482,6	19	508,0	12,70	32,7	178,3	0,98	**ZVEG 280**	711,2	28	762,0	25,4	108,0	508,3	5,72
ZVED 210	533,4	21	558,8	12,70	34,4	196,6	1,07	**ZVEG 300**	762,0	30	812,8	25,4	111,7	543,3	6,13
ZVED 230	584,2	23	609,6	12,70	35,9	214,9	1,17	**ZVEG 320**	812,8	32	863,6	25,4	115,2	578,4	6,54
ZVED 250	635,0	25	660,4	12,70	37,4	233,2	1,27	**ZVEG 340**	863,6	34	914,4	25,4	118,7	613,4	6,95
ZVED 270	685,8	27	711,2	12,70	38,0	240,7	1,38	**ZVEG 360**	914,4	36	965,2	25,4	122,0	648,5	7,35
ZVED 290	736,6	29	762,0	12,70	40,2	269,7	1,48	**ZVEG 380**	965,2	38	1016,0	25,4	125,3	683,5	7,76
ZVED 310	787,4	31	812,8	12,70	41,6	288,0	1,58	**ZVEG 400**	1016,0	40	1066,8	25,4	128,4	718,6	8,17
ZVED 330	838,2	33	863,6	12,70	42,9	306,3	1,68	**ZVEG 420**	1066,8	42	1117,6	25,4	131,5	753,6	8,58
ZVED 350	889,0	35	914,4	12,70	44,1	324,6	1,78	**ZVEG 440**	1117,6	44	1168,4	25,4	134,6	788,7	9,00

1) Other dimensions on request

Wire ball bearing DUO-PROFILE

Type series KER with drawn raceways



Fitted dimensions

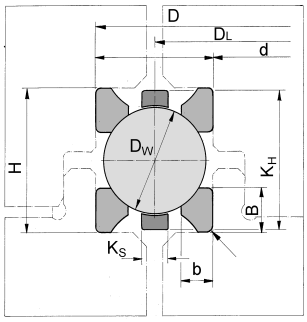


Table of dimensions [Dimensions in mm]

KMF-type 1)	Ball D_W		Wire-dimensions		Range of use Running circle Ø		Bearing dimensions			Cage dimensions		
		(inch)	b	B	D_L min.	D_L max.	d	D	H	K_H	K_S	K_T
KER 9	9		3	4	80	2000	D_L – 10,63	D_L + 10,63	12,63	11,6	2,0	11,5
KER 9,525	9,525	3/8	3	4	80	2000	D_L – 11,00	D_L + 11,00	13,00	12,6	2,5	12,0
KER 10	10		3	4	80	2000	D_L – 11,34	D_L + 11,34	13,34	13,2	2,5	12,5

1) Other dimensions on request. K_T= Ball division

Table of dimensions [Dimensions in mm]

KMF-type	Load capacity 1)		Fitted dimensions					Cage-type 2)
	dyn. C [kN]	stat. C_o [kN]	d_i	D_A	H_E	R max.	S	
KER 9	1,48 • $\sqrt{D_L}$	0,31 • D_L	D_L – 10,63	D_L + 10,63	12,63	0,30	3,5	**KKLK 09C**
KER 9,525	1,50 • $\sqrt{D_L}$	0,32 • D_L	D_L – 11,00	D_L + 11,00	13,00	0,30	3,5	**KKLK 095**
KER 10	1,52 • $\sqrt{D_L}$	0,33 • D_L	D_L – 11,34	D_L + 11,34	13,34	0,30	3,5	**KKLK 100**

1) Calculated hardness 510 HV
2) See publication WLK 100

Description of construction:

The KMF wire ball bearing units KER and KED consists of four hardened ball running rings with drawn tracks and one ball cage strip with guided and contained balls.

The surface roughness of the drawn raceways is $R_a \leqq 0{,}8$ µm.

Material : Ball running rings — hardened ball bearing steel — 100 Cr 6

Ball cage strip — polyamide — PA12

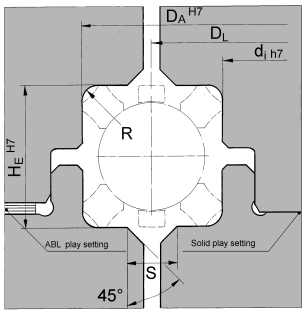
Balls — hardened ball bearing steel DIN 5401 Grade 28 (cl. III) — 100 Cr 6

Temperature : The temperature limits of standard version bearings in continuous operation are between -40° and +100°C, for short periods of operation up to +120°C.

Play in bearing : The play in bearings can be set later via the surface – solid settings, or can be set without later work by matching with spacers. Spacers made of corrosion-resistant steel of different sizes and thicknesses can be supplied on request.

Wire ball bearing DUPLEX-PROFILE

Type series KED with drawn raceways



Fitted dimensions

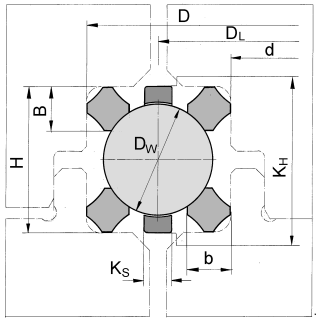


Table of dimensions [Dimensions in mm]

KMF-type 1)	Ball D_W		Wire-dimensions		Range of use Running circle Ø		Bearing dimensions			Cage dimensions		
		(inch)	b	B	D_L min.	D_L max.	d	D	H	K_H	K_S	K_T
KED 9	9		4	4	80	2000	D_L – 12,58	D_L + 12,58	12,58	11,6	2,0	11,5
KED 9,525	9,525	3/8	4	4	80	2000	D_L – 12,95	D_L + 12,95	12,95	12,6	2,5	12,0
KED 10	10		4	4	80	2000	D_L – 13,29	D_L + 13,29	13,29	13,2	2,5	12,5

1) Other dimensions on request. K_T= Ball division

Table of dimensions [Dimensions in mm]

KMF-type	Load capacity 1)		Fitted dimensions					Cage-type 2)
	dyn. C [kN]	stat. C_o [kN]	d_i	D_A	H_E	R max.	S	
KED 9	1,48 • $\sqrt{}$ D_L	0,31 • D_L	D_L – 12,58	D_L + 12,58	12,58	1,2	4,5	**KKLK 09C**
KED 9,525	1,50 • $\sqrt{}$ D_L	0,32 • D_L	D_L – 12,95	D_L + 12,95	12,95	1,2	4,5	**KKLK 095**
KED 10	1,52 • $\sqrt{}$ D_L	0,33 • D_L	D_L – 13,29	D_L + 13,29	13,29	1,2	4,5	**KKLK 100**

1) Calculated hardness 510 HV
2) See publication WLK 100

Example of order:

Wire ball bearing type: KED 9,525 0300

Description : KED 9,525 0300 Quantity : 50 off

- Running circle-Ø (300 mm)
- Ball size (9,525 mm)
- Type series

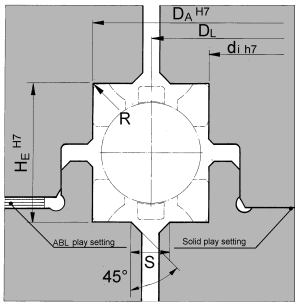
Wire ball bearing insert elements type series KER and KED are available in a corrosion resistant version (material: X 46 Cr 13, material no. 1.4034).

Please add the symbol SS for stainless steel to the description.

Example of order : **KED 9,525 0300 SS**

Wire ball bearing DUO-PROFILE

Type series KER (preferred series) with drawn raceways



Fitted dimensions

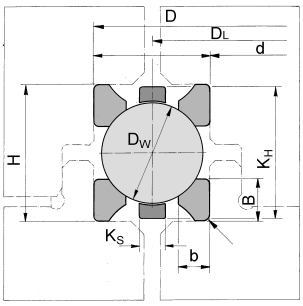


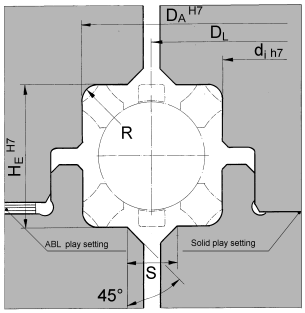
Table of dimensions [Dimensions in mm]

KMF-type 1)	Bearing dimensions d	D	D_L	H	Load capacity dyn. C [kN]	stat. C_0 [kN]	Weight kg	KMF-type 1)	Bearing dimensions d	D	D_L	H	Load capacity dyn. C [kN]	stat. C_0 [kN]	Weight kg
KER 9,525 0100	89	111	100	13	15,0	32,0	0,19	**KER 9,525 0260**	249	271	260	13	24,2	83,2	0,48
KER 9,525 0105	94	116	105	13	15,4	33,6	0,20	**KER 9,525 0265**	254	276	265	13	24,4	84,8	0,49
KER 9,525 0110	99	121	110	13	15,7	35,2	0,21	**KER 9,525 0270**	259	281	270	13	24,7	86,4	0,50
KER 9,525 0115	104	126	115	13	16,1	36,8	0,21	**KER 9,525 0275**	264	286	275	13	24,9	88,0	0,51
KER 9,525 0120	109	131	120	13	16,4	38,4	0,22	**KER 9,525 0280**	269	291	280	13	25,1	89,6	0,52
KER 9,525 0125	114	136	125	13	16,8	40,0	0,23	**KER 9,525 0285**	274	296	285	13	25,3	91,2	0,53
KER 9,525 0130	119	141	130	13	17,1	41,6	0,24	**KER 9,525 0290**	279	301	290	13	25,6	92,8	0,54
KER 9,525 0135	124	146	135	13	17,4	43,2	0,25	**KER 9,525 0295**	284	306	295	13	25,8	94,4	0,55
KER 9,525 0140	129	151	140	13	17,7	44,8	0,26	**KER 9,525 0300**	289	311	300	13	26,0	96,0	0,56
KER 9,525 0145	134	156	145	13	18,1	46,4	0,27	**KER 9,525 0310**	299	321	310	13	26,4	99,2	0,58
KER 9,525 0150	139	161	150	13	18,4	48,0	0,28	**KER 9,525 0320**	309	331	320	13	26,8	102,4	0,60
KER 9,525 0155	144	166	155	13	18,7	49,6	0,29	**KER 9,525 0330**	319	341	330	13	27,2	105,6	0,61
KER 9,525 0160	149	171	160	13	19,0	51,2	0,30	**KER 9,525 0340**	329	351	340	13	27,7	108,8	0,63
KER 9,525 0165	154	176	165	13	19,3	52,8	0,31	**KER 9,525 0350**	339	361	350	13	28,1	112,0	0,65
KER 9,525 0170	159	181	170	13	19,6	54,4	0,32	**KER 9,525 0360**	349	371	360	13	28,5	115,2	0,67
KER 9,525 0175	164	186	175	13	19,9	56,0	0,33	**KER 9,525 0370**	359	381	370	13	28,9	118,4	0,69
KER 9,525 0180	169	191	180	13	20,1	57,6	0,34	**KER 9,525 0380**	369	391	380	13	29,2	121,6	0,71
KER 9,525 0185	174	196	185	13	20,4	59,2	0,34	**KER 9,525 0390**	379	401	390	13	29,6	124,8	0,73
KER 9,525 0190	179	201	190	13	20,7	60,8	0,35	**KER 9,525 0400**	389	411	400	13	30,0	128,0	0,74
KER 9,525 0195	184	206	195	13	21,0	62,4	0,36	**KER 9,525 0410**	399	421	410	13	30,4	131,2	0,76
KER 9,525 0200	189	211	200	13	21,2	64,0	0,37	**KER 9,525 0420**	409	431	420	13	30,8	134,4	0,78
KER 9,525 0205	194	216	205	13	21,5	65,6	0,38	**KER 9,525 0430**	419	441	430	13	31,1	137,6	0,80
KER 9,525 0210	199	221	210	13	21,7	67,2	0,39	**KER 9,525 0440**	429	451	440	13	31,5	140,8	0,82
KER 9,525 0215	204	226	215	13	22,0	68,8	0,40	**KER 9,525 0450**	439	461	450	13	31,8	144,0	0,84
KER 9,525 0220	209	231	220	13	22,3	70,4	0,41	**KER 9,525 0460**	449	471	460	13	32,2	147,2	0,86
KER 9,525 0225	214	236	225	13	22,5	72,0	0,42	**KER 9,525 0470**	459	481	470	13	32,5	150,4	0,87
KER 9,525 0230	219	241	230	13	22,8	73,6	0,43	**KER 9,525 0480**	469	491	480	13	32,9	153,6	0,89
KER 9,525 0235	224	246	235	13	23,0	75,2	0,44	**KER 9,525 0490**	479	501	490	13	33,2	156,8	0,91
KER 9,525 0240	229	251	240	13	23,2	76,8	0,45	**KER 9,525 0500**	489	511	500	13	33,5	160,0	0,93
KER 9,525 0245	234	256	245	13	23,5	78,4	0,46	**KER 9,525 0510**	499	521	510	13	33,9	163,2	0,95
KER 9,525 0250	239	261	250	13	23,7	80,0	0,47	**KER 9,525 0520**	509	531	520	13	34,2	166,4	0,97
KER 9,525 0255	244	266	255	13	24,0	81,6	0,47	**KER 9,525 0530**	519	541	530	13	34,5	169,6	0,99

1) Other dimensions on request.

Wire ball bearing DUPLEX-PROFILE

Type series KED (preferred series) with drawn raceways



Fitted dimensions

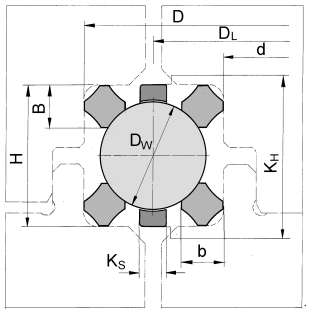


Table of dimensions [Dimensions in mm]

KMF-type 1)	Bearing dimensions d	D	D_L	H	Load capacity dyn. C [kN]	stat. C_0 [kN]	Weight kg	KMF-type 1)	Bearing dimensions d	D	D_L	H	Load capacity dyn. C [kN]	stat. C_0 [kN]	Weight kg
KED 9,525 0100	87,05	112,95	100	12,95	15,0	32,0	0,20	**KED 9,525 0260**	247,05	272,95	260	12,95	24,2	83,2	0,51
KED 9,525 0105	92,05	117,95	105	12,95	15,4	33,6	0,21	**KED 9,525 0265**	252,05	277,95	265	12,95	24,4	84,8	0,52
KED 9,525 0110	97,05	122,95	110	12,95	15,7	35,2	0,22	**KED 9,525 0270**	257,05	282,95	270	12,95	24,7	86,4	0,53
KED 9,525 0115	102,05	127,95	115	12,95	16,1	36,8	0,23	**KED 9,525 0275**	262,05	287,95	275	12,95	24,9	88,0	0,54
KED 9,525 0120	107,05	132,95	120	12,95	16,4	38,4	0,24	**KED 9,525 0280**	267,05	292,95	280	12,95	25,1	89,6	0,55
KED 9,525 0125	112,05	137,95	125	12,95	16,8	40,0	0,25	**KED 9,525 0285**	272,05	297,95	285	12,95	25,3	91,2	0,56
KED 9,525 0130	117,05	142,95	130	12,95	17,1	41,6	0,26	**KED 9,525 0290**	277,05	302,95	290	12,95	25,6	92,8	0,57
KED 9,525 0135	122,05	147,95	135	12,95	17,4	43,2	0,27	**KED 9,525 0295**	282,05	307,95	295	12,95	25,8	94,4	0,58
KED 9,525 0140	127,05	152,95	140	12,95	17,7	44,8	0,27	**KED 9,525 0300**	287,05	312,95	300	12,95	26,0	96,0	0,59
KED 9,525 0145	132,05	157,95	145	12,95	18,1	46,4	0,28	**KED 9,525 0310**	297,05	322,95	310	12,95	26,4	99,2	0,61
KED 9,525 0150	137,05	162,95	150	12,95	18,4	48,0	0,29	**KED 9,525 0320**	307,05	332,95	320	12,95	26,8	102,4	0,63
KED 9,525 0155	142,05	167,95	155	12,95	18,7	49,6	0,30	**KED 9,525 0330**	317,05	342,95	330	12,95	27,2	105,6	0,65
KED 9,525 0160	147,05	172,95	160	12,95	19,0	51,2	0,31	**KED 9,525 0340**	327,05	352,95	340	12,95	27,7	108,8	0,67
KED 9,525 0165	152,05	177,95	165	12,95	19,3	52,8	0,32	**KED 9,525 0350**	337,05	362,95	350	12,95	28,1	112,0	0,69
KED 9,525 0170	157,05	182,95	170	12,95	19,6	54,4	0,33	**KED 9,525 0360**	347,05	372,95	360	12,95	28,5	115,2	0,71
KED 9,525 0175	162,05	187,95	175	12,95	19,9	56,0	0,34	**KED 9,525 0370**	357,05	382,95	370	12,95	28,9	118,4	0,73
KED 9,525 0180	167,05	192,95	180	12,95	20,1	57,6	0,35	**KED 9,525 0380**	367,05	392,95	380	12,95	29,2	121,6	0,75
KED 9,525 0185	172,05	197,95	185	12,95	20,4	59,2	0,36	**KED 9,525 0390**	377,05	402,95	390	12,95	29,6	124,8	0,76
KED 9,525 0190	177,05	202,95	190	12,95	20,7	60,8	0,37	**KED 9,525 0400**	387,05	412,95	400	12,95	30,0	128,0	0,78
KED 9,525 0195	182,05	207,95	195	12,95	21,0	62,4	0,38	**KED 9,525 0410**	397,05	422,95	410	12,95	30,4	131,2	0,80
KED 9,525 0200	187,05	212,95	200	12,95	21,2	64,0	0,39	**KED 9,525 0420**	407,05	432,95	420	12,95	30,8	134,4	0,82
KED 9,525 0205	192,05	217,95	205	12,95	21,5	65,6	0,40	**KED 9,525 0430**	417,05	442,95	430	12,95	31,1	137,6	0,84
KED 9,525 0210	197,05	222,95	210	12,95	21,7	67,2	0,41	**KED 9,525 0440**	427,05	452,95	440	12,95	31,5	140,8	0,86
KED 9,525 0215	202,05	227,95	215	12,95	22,0	68,8	0,42	**KED 9,525 0450**	437,05	462,95	450	12,95	31,8	144,0	0,88
KED 9,525 0220	207,05	232,95	220	12,95	22,3	70,4	0,43	**KED 9,525 0460**	447,05	472,95	460	12,95	32,2	147,2	0,90
KED 9,525 0225	212,05	237,95	225	12,95	22,5	72,0	0,44	**KED 9,525 0470**	457,05	482,95	470	12,95	32,5	150,4	0,92
KED 9,525 0230	217,05	242,95	230	12,95	22,8	73,6	0,45	**KED 9,525 0480**	467,05	492,95	480	12,95	32,9	153,6	0,94
KED 9,525 0235	222,05	247,95	235	12,95	23,0	75,2	0,46	**KED 9,525 0490**	477,05	502,95	490	12,95	33,2	156,8	0,96
KED 9,525 0240	227,05	252,95	240	12,95	23,2	76,8	0,47	**KED 9,525 0500**	487,05	512,95	500	12,95	33,5	160,0	0,98
KED 9,525 0245	232,05	257,95	245	12,95	23,5	78,4	0,48	**KED 9,525 0510**	497,05	522,95	510	12,95	33,9	163,2	1,00
KED 9,525 0250	237,05	262,95	250	12,95	23,7	80,0	0,49	**KED 9,525 0520**	507,05	532,95	520	12,95	34,2	166,4	1,02
KED 9,525 0255	242,05	267,95	255	12,95	24,0	81,6	0,50	**KED 9,525 0530**	517,05	542,95	530	12,95	34,5	169,6	1,04

1) Other dimensions on request.

Wire ball bearing DUPLEX-PROFILE

Type series KEDD with drawn raceways

KEDD is ■■■■

- **Compatible to slim bearings**
- **Reduced in weight**
- **Corrosion resistant**
- **Suitable for combined loads**
- **Adjustable in play**
- **Long-lived**
- **Economical**
- **Robust and**
- **Fast available**

Description of construction:

The KMF wire ball bearing KEDD consists of 4 hardened ball running rings with drawn tracks and 1 ball cage strip with guided and contained balls.

The surface roughness of the drawn raceways is $R_a \leqq 0{,}8$ µm.

Material	: Ball running rings	hardened ball bearing steel	100 Cr 6
	Ball cage strip	polyamide	PA12
	Balls	hardened ball bearing steel DIN 5401 Grade 28 (cl. III)	100 Cr 6

Temperature : The temperature limits of standard version bearings in continuous operation are between –40°C and +100°C, for short periods of operation up to +120°C.

Play in bearing : The play in bearings can be set later via the surface – solid settings, or can be set without later work by matching with spacers. Spacers made of corrosion-resistant steel of different sizes and thicknesses can be supplied on request.

Wire ball bearing DUPLEX-PROFILE

Type series KEDD with drawn raceways

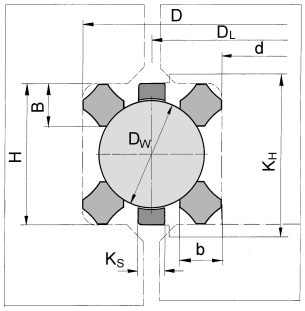


Table of dimensions [Dimensions in mm]

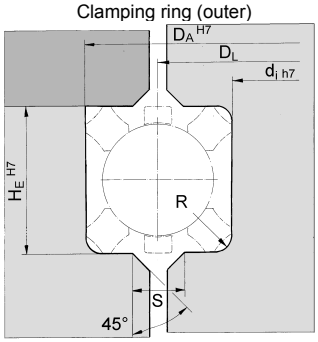
KMF-type 1)	Ball D_W		Wire-dimensions		Range of use Running circle Ø		Bearing dimensions			Cage dimensions		
		(inch)	b	B	D_L min.	D_L max.	d	D	H	K_H	K_S	K_T
KEDD	9,20	---	4	4	80	2000	D_L – 12,70	D_L + 12,70	12,70	12,6	2,5	12,0

1) Other dimensions on request.

K_T = Ball division

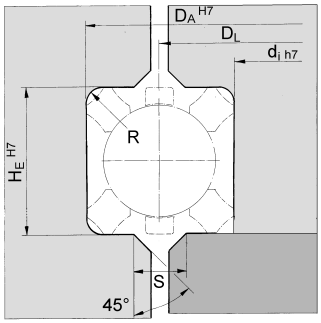
(inner)

Clamping ring (outer)



Fitted dimensions

Fitted dimensions



Clamping ring

Table of dimensions [Dimensions in mm]

KMF-type	Load capacity 1)		Fitted dimensions					Cage-type
	dyn. C [kN]	stat. C_o [kN]	d_i	D_A	H_E	R max.	S	
KEDD	1,50 • $\sqrt{\ }$ D_L	0,32 • D_L	D_L – 12,70	D_L + 12,70	12,70	1,2	4,5	**KKLK 092**

1) Calculated hardness 510 HV

Example of order:

Wire ball bearing type: KEDD 110

Description : **KEDD 110** **Quantity** **50 off**

bearing size (d in inch x 10)

type KEDD with „D cross cut“ 12,7 x 12,7 mm

Wire ball bearing insert elements type series KEDD are available in a corrosion resistant version (material: X 46 Cr 13 material no. 1.4034).

Please add the symbol SS for stainless steel to the description.

Example of order : **KEDD 110 SS**

Wire ball bearing DUPLEX-PROFILE

Type series KEDD (preferred series) with drawn raceways

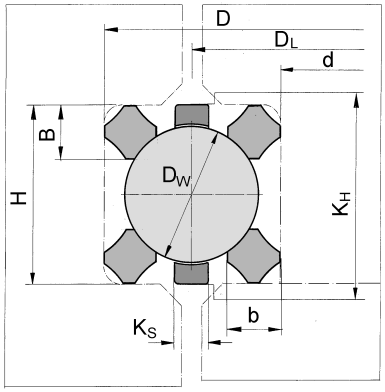


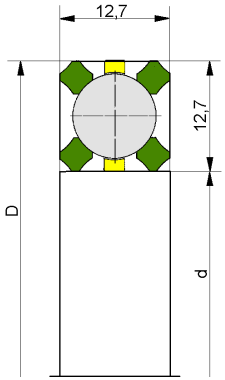
Table of dimensions [Dimensions in mm / inch]

KMF-type 1)	Bearing dimensions								Load capacity		Weight
	d		D		D_L		H		dyn. C	stat. C_0	
	mm	inch	mm	inch	mm	inch	mm	inch	kN	kN	kg
KEDD 040	101,60	4,00	127,00	5,00	114,30	4,50	12,70	0,50	16,00	36,60	0,23
KEDD 042	107,95	4,25	133,35	5,25	120,65	4,75	12,70	0,50	16,50	38,60	0,24
KEDD 045	114,30	4,50	139,70	5,50	127,00	5,00	12,70	0,50	16,90	40,60	0,25
KEDD 047	120,65	4,75	146,05	5,75	133,35	5,25	12,70	0,50	17,30	42,70	0,27
KEDD 050	127,00	5,00	152,40	6,00	139,70	5,50	12,70	0,50	17,70	44,70	0,28
KEDD 055	139,70	5,50	165,10	6,50	152,40	6,00	12,70	0,50	18,50	48,80	0,31
KEDD 060	152,40	6,00	177,80	7,00	165,10	6,50	12,70	0,50	19,30	52,80	0,33
KEDD 065	165,10	6,50	190,50	7,50	177,80	7,00	12,70	0,50	20,00	56,90	0,36
KEDD 070	177,80	7,00	203,20	8,00	190,50	7,50	12,70	0,50	20,70	61,00	0,38
KEDD 075	190,50	7,50	215,90	8,50	203,20	8,00	12,70	0,50	21,40	65,00	0,41
KEDD 080	203,20	8,00	228,60	9,00	215,90	8,50	12,70	0,50	22,00	69,10	0,43
KEDD 090	228,60	9,00	254,00	10,00	241,30	9,50	12,70	0,50	23,30	77,20	0,48
KEDD 100	254,00	10,00	279,40	11,00	266,70	10,50	12,70	0,50	24,50	85,30	0,53
KEDD 110	279,40	11,00	304,80	12,00	292,10	11,50	12,70	0,50	25,60	93,50	0,58
KEDD 120	304,80	12,00	330,20	13,00	317,50	12,50	12,70	0,50	26,70	101,60	0,64
KEDD 140	355,60	14,00	381,00	15,00	368,30	14,50	12,70	0,50	28,80	117,90	0,74
KEDD 160	406,40	16,00	431,80	17,00	419,10	16,50	12,70	0,50	30,70	134,10	0,84
KEDD 180	457,20	18,00	482,60	19,00	469,90	18,50	12,70	0,50	32,50	150,40	0,94
KEDD 200	508,00	20,00	533,40	21,00	520,70	20,50	12,70	0,50	34,20	166,60	1,04
KEDD 210	533,40	21,00	558,80	22,00	546,10	21,50	12,70	0,50	35,10	174,80	1,09
KEDD 250	635,00	25,00	660,40	26,00	647,70	25,50	12,70	0,50	38,20	207,30	1,30
KEDD 300	762,00	30,00	787,40	31,00	774,70	30,50	12,70	0,50	41,80	247,90	1,55

1) Other dimensions on request.

Slim bearing – comparative list

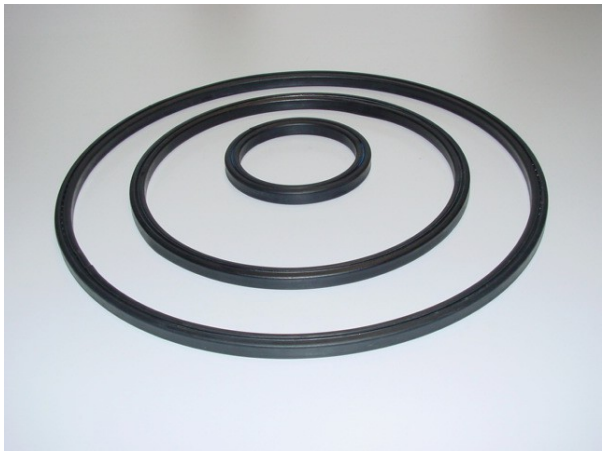
KMF-type	Bearing dimensions d	[inch]	D	KAYDON-type	FAG-type	SKF-type	INA-type	Franke-type
KEDD 040	101,60	4,00	127,00	KD 040 XPO	L 18 TA 400 T	FPXD 400	CSXD 040	------
KEDD 042	107,95	4,25	133,35	KD 042 XPO	L 18 TA 404 T	FPXD 404	CSXD 042	------
KEDD 045	114,30	4,50	139,70	KD 045 XPO	L 18 TA 408 T	FPXD 408	CSXD 045	------
KEDD 047	120,65	4,75	146,05	KD 047 XPO	L 18 TA 412 T	FPXD 412	CSXD 047	------
KEDD 050	127,00	5,00	152,40	KD 050 XPO	L 18 TA 500 T	FPXD 500	CSXD 050	------
KEDD 055	139,70	5,50	165,10	KD 055 XPO	L 18 TA 508 T	FPXD 508	CSXD 055	------
KEDD 060	152,40	6,00	177,80	KD 060 XPO	L 18 TA 600 T	FPXD 600	CSXD 060	LFD 6,0
KEDD 065	165,10	6,50	190,50	KD 065 XPO	L 18 TA 608 T	FPXD 608	CSXD 065	LFD 6,5
KEDD 070	177,80	7,00	203,20	KD 070 XPO	L 18 TA 700 T	FPXD 700	CSXD 070	LFD 7,0
KEDD 075	190,50	7,50	215,90	KD 075 XPO	L 18 TA 708 YH	FPXD 708	CSXD 075	LFD 7,5
KEDD 080	203,20	8,00	228,60	KD 080 XPO	L 18 TA 800 YH	FPXD 800	CSXD 080	LFD 8,0
KEDD 090	228,60	9,00	254,00	KD 090 XPO	L 18 TA 900 YH	FPXD 900	CSXD 090	LFD 9,0
KEDD 100	254,00	10,00	279,40	KD 100 XPO	L 18 TA 1000 YH	FPXD 1000	CSXD 100	LFD 10,0
KEDD 110	279,40	11,00	304,80	KD 110 XPO	L 18 TA 1100 YH	FPXD 1100	CSXD 110	LFD 11,0
KEDD 120	304,80	12,00	330,20	KD 120 XPO	L 18 TA 1200 YH	FPXD 1200	CSXD 120	LFD 12,0
KEDD 140	355,60	14,00	381,00	KD 140 XPO	L 18 TA 1400 YH	FPXD 1400	CSXD 140	LFD 14,0
KEDD 160	406,40	16,00	431,80	KD 160 XPO	L 18 TA 1600 YH	FPXD 1600	CSXD 160	LFD 16,0
KEDD 180	457,20	18,00	482,60	KD 180 XPO	L 18 TA 1800 YH	FPXD 1800	CSXD 180	LFD 18,0
KEDD 200	508,00	20,00	533,40	KD 200 XPO	------	FPXD 2000	------	LFD 20,0
KEDD 210	533,40	21,00	558,80	KD 210 XPO	------	------	------	------
KEDD 250	635,00	25,00	660,40	KD 250 XPO	------	FPXD 2500	------	LFD 25,0
KEDD 300	762,00	30,00	787,40	KD 300 XPO	------	FPXD 3000	------	------



More comparisons are not possible due to absent types.

Whisper wire ball bearing

Type series DFX



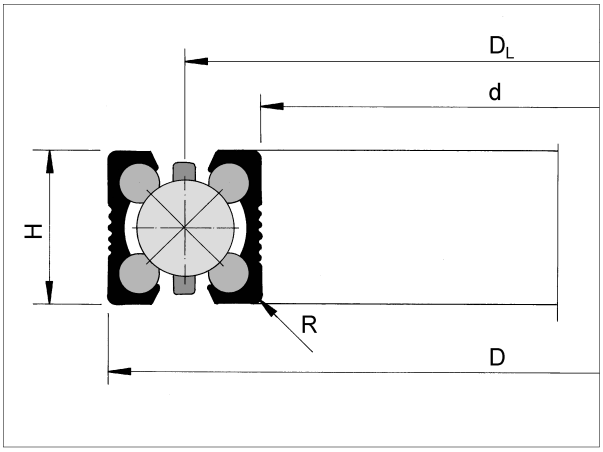


Table of dimensions [Dimensions in mm]

KMF-type 1)	Ball D_W		Wire Ø	Range of use Running circle Ø		Bearing dimensions			Cage dimensions		
		(inch)	λ	D_L min.	D_L max.	d	D	H	K_H	K_S	K_T
DFXD	8	---	3,0	150	1500	D_L – 12,70	D_L + 12,70	12,70	12,0	2,0	12,0
DFXF	12	---	5,0	250	1500	D_L – 19,05	D_L + 19,05	19,05	16,5	3,0	16,5
DFXG	16	---	7,0	350	1500	D_L – 25,40	D_L + 25,40	25,40	21,6	3,5	21,5

1) Other dimensions on request

K_T= ball division

Description of construction

The KMF whisper wire ball bearing consists of a wire ball bearing of type series KVE, which is provided on the outer and the inner wires with an elastomer sheath with 70 Shore hardness.

Temperature

The temperature limits of the bearing in continuous operation are –40°C and +80°C.

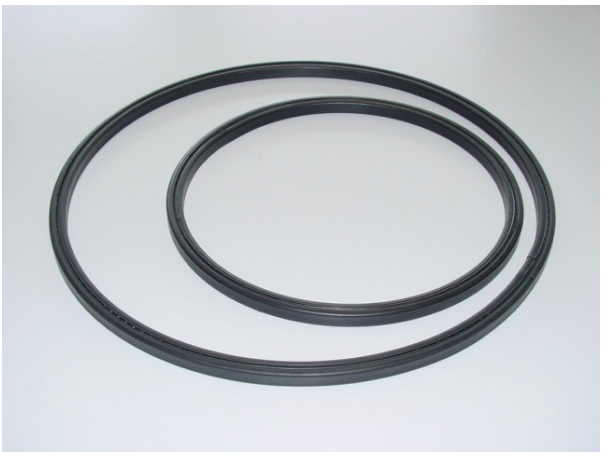
Apart from the advantages of the wire ball bearing KVE, this whisper bearing has further special features.

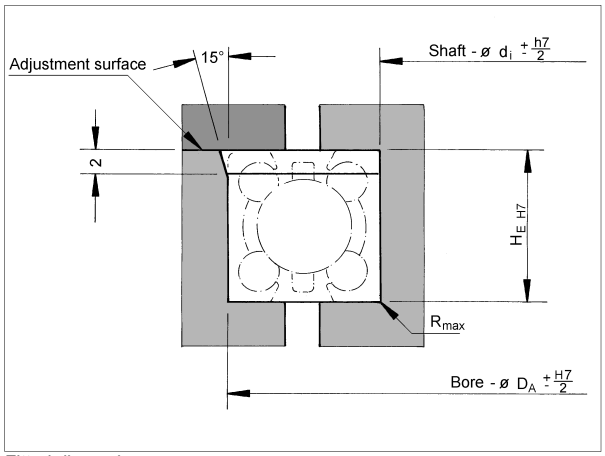
Features

- Particularly quiet running
- Low body noise
- Insensitive to shock
- Bearing play is easily adjustable due to splitted bearing rings and elastic sheath
- Large installation tolerances and adjoining parts

Whisper wire ball bearing

Type series DFX





Fitted dimensions

Table of dimensions [Dimensions in mm]

KMF-type	Load capacity 1)		Fitted dimensions				Cage-type
	dyn. C [kN]	stat. C_o [kN]	d_i	D_A	H_E	R max.	
DFXD	0,61 • $\sqrt{\ }$ D_L	0,175 • D_L	D_L – 12,70	D_L + 12,70	12,70	0,6	**KKLK 080**
DFXF	1,64 • $\sqrt{\ }$ D_L	0,385 • D_L	D_L – 19,05	D_L + 19,05	19,05	0,6	**KKLK 12F**
DFXG	1,71 • $\sqrt{\ }$ D_L	0,395 • D_L	D_L – 25,40	D_L + 25,40	25,40	0,6	**KKLK 16F**

1) Calculated hardness 510 HV

Material:

Ball running rings	hardened	Fd. St.
Ball cage strip	polyamid	PA 12
Balls	hardened ball bearing steel acc. to DIN 5401, Grade 28 (Class III)	100 Cr 6
Sheath	perbunan	70 Shore A

Play in bearing: The play in bearings can be set later via the surface – solit settings, or can be set without later work by matching with spacers. Spacers made of corrosion-resistant steel of different sizes and thicknesses can be supplied on request (see document page 28).

Example of order

Whisper wire ball bearing type DFXG 800 M

Description: DFXG 800 M Quantity: 80 off

- DFXG: series
- 800: size of the bearing (D_L in mm)
- M: metric series

Whisper wire ball bearings type DFXG 300 Z

Description: DFXG 300 Z Quantity: 60 off

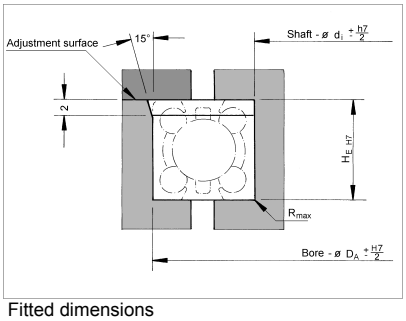
- DFXG: series
- 300: size of the bearing (d in inch x
- Z: english

10)

———————— type series ———————— type series

Whisper wire ball bearing

Type series DFX (metric preferred series)



Fitted dimensions

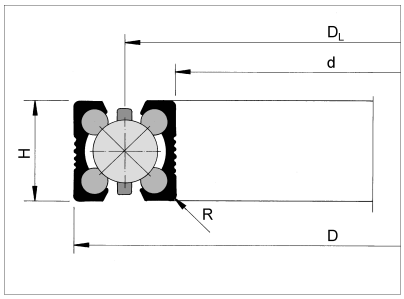


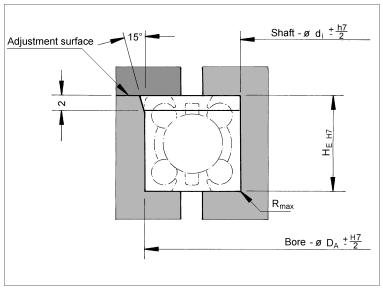
Table of dimensions [Dimensions in mm]

KMF-type 1)	Bearing dimensions d	D	D_L	H	Load capacity dyn. C [kN]	stat. C_o [kN]	Weight kg	KMF-type 1)	Bearing dimensions d	D	D_L	H	Load capacity dyn. C [kN]	stat. C_o [kN]	Weight kg
DFXD 150 M	137,30	162,70	150	12,70	7,5	26,3	0,26	**DFXG 350 M**	324,6	375,4	350	25,4	32,0	138,3	2,43
DFXD 200 M	187,30	212,70	200	12,70	8,6	35,0	0,35	**DFXG 400 M**	374,6	425,4	400	25,4	34,2	158,0	2,78
DFXD 250 M	237,30	262,70	250	12,70	9,7	43,8	0,43	**DFXG 450 M**	424,6	475,4	450	25,4	36,3	177,8	3,13
DFXD 300 M	287,30	312,70	300	12,70	10,6	52,5	0,52	**DFXG 500 M**	474,6	525,4	500	25,4	38,2	197,5	3,48
DFXD 350 M	337,30	362,70	350	12,70	11,4	61,3	0,61	**DFXG 550 M**	524,6	575,4	550	25,4	40,1	217,3	3,82
DFXD 400 M	387,30	412,70	400	12,70	12,2	70,0	0,70	**DFXG 600 M**	574,6	625,4	600	25,4	41,9	237,0	4,17
DFXD 450 M	437,30	462,70	450	12,70	13,0	78,8	0,78	**DFXG 650 M**	624,6	675,4	650	25,4	43,6	256,8	4,52
DFXD 500 M	487,30	512,70	500	12,70	13,6	87,5	0,87	**DFXG 700 M**	674,6	725,4	700	25,4	45,2	276,5	4,87
DFXD 550 M	537,30	562,70	550	12,70	14,3	96,3	0,96	**DFXG 750 M**	724,6	775,4	750	25,4	46,8	296,3	5,21
DFXD 600 M	587,30	612,70	600	12,70	14,9	105,0	1,04	**DFXG 800 M**	774,6	825,4	800	25,4	48,4	316,0	5,56
DFXD 650 M	637,30	662,70	650	12,70	15,6	113,8	1,13	**DFXG 850 M**	824,6	875,4	850	25,4	49,9	335,8	5,91
DFXD 700 M	687,30	712,70	700	12,70	16,1	122,5	1,22	**DFXG 900 M**	874,6	925,4	900	25,4	51,3	355,5	6,26
DFXD 750 M	737,30	762,70	750	12,70	16,7	131,3	1,30	**DFXG 950 M**	924,6	975,4	950	25,4	52,7	375,3	6,60
DFXD 800 M	787,30	812,70	800	12,70	17,3	140,0	1,39	**DFXG 1000 M**	974,6	1025,4	1000	25,4	54,0	395,0	6,95
DFXD 850 M	837,30	862,70	850	12,70	17,8	148,8	1,48	**DFXG 1050 M**	1024,6	1075,4	1050	25,4	55,4	414,9	7,30
DFXF 250 M	230,95	269,05	250	19,05	25,9	96,3	0,95								
DFXF 300 M	280,95	319,05	300	19,05	28,4	115,5	1,14								
DFXF 350 M	330,95	369,05	350	19,05	30,7	134,8	1,33								
DFXF 400 M	380,95	419,05	400	19,05	32,8	154,0	1,52								
DFXF 450 M	430,95	469,05	450	19,05	34,5	173,3	1,71								
DFXF 500 M	480,95	519,05	500	19,05	36,7	192,5	1,90								
DFXF 550 M	530,95	569,05	550	19,05	38,5	211,8	2,08								
DFXF 600 M	580,95	619,05	600	19,05	40,2	231,0	2,27								
DFXF 650 M	630,95	669,05	650	19,05	41,8	250,3	2,46								
DFXF 700 M	680,95	719,05	700	19,05	43,4	269,5	2,65								
DFXF 750 M	730,95	769,05	750	19,05	44,9	288,8	2,84								
DFXF 800 M	780,95	819,05	800	19,05	46,4	308,0	3,03								
DFXF 850 M	830,95	869,05	850	19,05	47,8	327,3	3,22								
DFXF 900 M	880,95	919,05	900	19,05	49,2	346,5	3,41								
DFXF 950 M	930,95	969,05	950	19,05	50,5	365,8	3,60								
DFXF 1000 M	980,95	1019,05	1000	19,05	51,9	385,0	3,79								
DFXF 1050 M	1030,95	1069,05	1050	19,05	53,1	404,3	3,98								

1) Other dimensions on request

Whisper wire ball bearing

Type series DFX (english preferred series)



Fitted dimensions

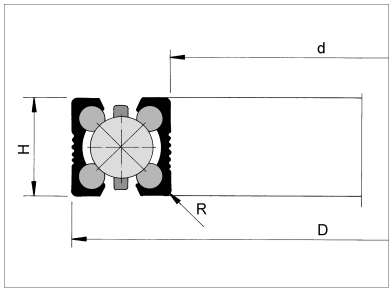


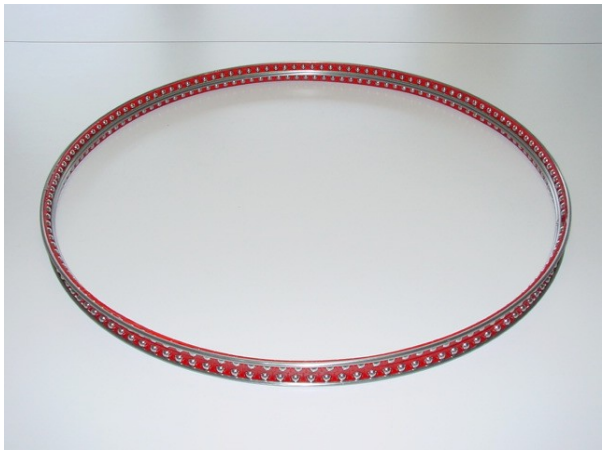
Table of dimensions [Dimensions in mm]

KMF-type 1)	Bearing dimensions d	[inch]	D	H	Load capacity dyn. C [kN]	stat. C_o [kN]	Weight kg	KMF-type 1)	Bearing dimensions d	[inch]	D	H	Load capacity dyn. C [kN]	stat. C_o [kN]	Weight kg
DFXD 055 Z	139,7	5 ½	165,1	12,70	7,5	26,7	0,26	**DFXG 140 Z**	355,6	14	406,4	25,4	33,4	150,5	2,66
DFXD 075 Z	190,5	7 ½	215,9	12,70	8,7	35,6	0,36	**DFXG 160 Z**	406,4	16	457,2	25,4	35,5	170,6	3,04
DFXD 095 Z	241,3	9 ½	266,7	12,70	9,7	44,5	0,46	**DFXG 180 Z**	457,2	18	508,0	25,4	37,6	190,7	3,42
DFXD 115 Z	292,1	11 ½	317,5	12,70	10,6	53,3	0,55	**DFXG 200 Z**	508,0	20	558,8	25,4	39,5	210,7	3,80
DFXD 130 Z	330,2	13	355,6	12,70	11,3	60,0	0,63	**DFXG 220 Z**	558,8	22	609,6	25,4	41,3	230,8	4,18
DFXD 150 Z	381,0	15	406,4	12,70	12,1	68,9	0,72	**DFXG 240 Z**	609,6	24	660,4	25,4	43,1	250,9	4,56
DFXD 170 Z	431,8	17	457,2	12,70	12,9	77,8	0,82	**DFXG 260 Z**	660,4	26	711,2	25,4	44,8	270,9	4,94
DFXD 190 Z	482,6	19	508,0	12,70	13,6	86,7	0,92	**DFXG 280 Z**	711,2	28	762,0	25,4	46,4	291,0	5,32
DFXD 210 Z	533,4	21	558,8	12,70	14,3	95,6	1,01	**DFXG 300 Z**	762,0	30	812,8	25,4	48,0	311,0	5,70
DFXD 230 Z	584,2	23	609,6	12,70	14,9	104,4	1,11	**DFXG 320 Z**	812,8	32	863,6	25,4	49,5	331,1	6,08
DFXD 250 Z	635,0	25	660,4	12,70	15,5	113,3	1,20	**DFXG 340 Z**	863,6	34	914,4	25,4	51,0	351,2	6,47
DFXD 270 Z	685,8	27	711,2	12,70	16,1	122,2	1,30	**DFXG 360 Z**	914,4	36	965,2	25,4	52,4	371,2	6,85
DFXD 290 Z	736,6	29	762,0	12,70	16,7	131,1	1,40	**DFXG 380 Z**	965,2	38	1016,0	25,4	53,8	391,3	7,23
DFXD 310 Z	787,4	31	812,8	12,70	17,3	140,0	1,49	**DFXG 400 Z**	1016,0	40	1066,8	25,4	55,2	411,4	7,61
DFXD 330 Z	838,2	33	863,6	12,70	17,8	148,9	1,59	**DFXG 420 Z**	1066,8	42	1117,6	25,4	56,5	431,4	7,99
DFXF 090 Z	228,6	9	266,7	19,05	25,8	95,3	0,94								
DFXF 110 Z	279,4	11	317,5	19,05	28,3	114,9	1,15								
DFXF 130 Z	330,2	13	368,3	19,05	30,6	134,5	1,36								
DFXF 150 Z	381,0	15	419,1	19,05	32,8	154,0	1,57								
DFXF 170 Z	431,8	17	469,9	19,05	34,8	173,6	1,78								
DFXF 190 Z	482,6	19	520,7	19,05	36,7	193,1	1,98								
DFXF 210 Z	533,4	21	571,5	19,05	38,5	212,7	2,19								
DFXF 230 Z	584,2	23	622,3	19,05	40,3	232,3	2,40								
DFXF 250 Z	635,0	25	673,1	19,05	41,9	251,8	2,61								
DFXF 270 Z	685,8	27	723,9	19,05	43,5	271,4	2,82								
DFXF 290 Z	736,6	29	774,7	19,05	45,1	290,9	3,03								
DFXF 310 Z	787,4	31	825,5	19,05	46,6	310,5	3,24								
DFXF 330 Z	838,2	33	876,3	19,05	48,0	330,0	3,45								
DFXF 350 Z	889,0	35	927,1	19,05	49,4	349,6	3,66								
DFXF 370 Z	939,8	37	977,9	19,05	50,8	369,2	3,86								
DFXF 390 Z	990,6	39	1028,7	19,05	52,1	388,7	4,07								
DFXF 410 Z	1041,4	41	1079,5	19,05	53,4	408,3	4,28								

1) Other dimensions on request.

Angular contact wire ball bearing (two row)

Type series DSE... ZW



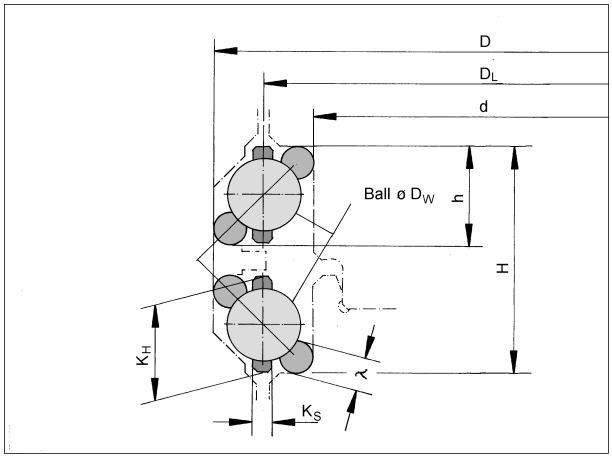


Table of dimensions [Dimensions in mm]

KMF-type 1)	Ball D_W		Wire Ø λ	Range of use Running circle Ø		Bearing dimensions				Cage dimensions		
		[inch]		D_L min.	D_L max.	d	D	H	h	K_H	K_S	K_T
DSED 08... ZW	8	---	4,0	150	1500	D_L – 11,40	D_L + 11,40	25,4	11,40	12,0	2,0	12,0
DSEF 12... ZW	12	---	6,0	250	1500	D_L – 16,40	D_L + 16,40	38,1	16,40	16,5	3,0	16,5
DSEG 16... ZW	16	---	7,0	350	1500	D_L – 22,20	D_L + 22,20	50,8	22,20	21,6	3,5	21,5

1) Other dimensions on request.

K_T= ball division

Description of construction

The KMF angular contact wire ball bearing DSE consists of 2 separate ball rows that are running on 4 hardended running wires with polished and conformed running tracks. The pressure angle is 45°. A cage strip with guided and contained balls is used for every row.

Features

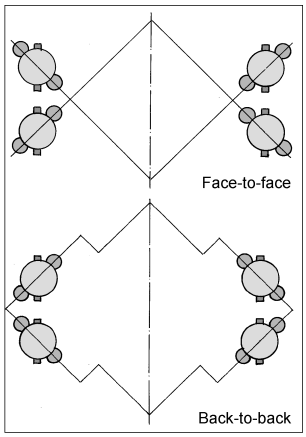
- Small fitted space
- High strength
- High stiffness (tilting regidity)
- lower bearing frictional torque
- Particularly quiet running
- Great precision

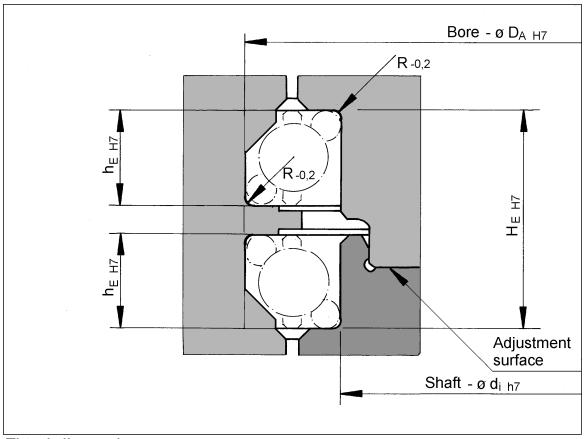
Temperature

The temperature limits of standard version bearings in continuous operation are between –40° and +100°C, for short periods of operation upt o +120°C.

Angular contact wire ball bearing (two row)

Type series DSE... ZW





Fitted dimensions

Tables of dimensions [Dimensions in mm]

KMF-type	Load capacity 1)		Fitted dimensions					Cage-type
	dyn. C [kN]	stat. C_o [kN]	d_i	D_A	H_E	h_E	R	
DSED 08... ZW	2,02 • √ D_L	0,70 • D_L	D_L – 11,40	D_L + 11,40	25,4	11,40	1,9	**KKLK 080**
DSEF 12... ZW	3,61 • √ D_L	0,88 • D_L	D_L – 16,40	D_L + 16,40	38,1	16,40	2,9	**KKLK 12F**
DSEG 16... ZW	4,91 • √ D_L	1,16 • D_L	D_L – 22,20	D_L + 22,20	50,8	22,20	3,4	**KKLK 16F**

1) Calculated hardness 510 HV

Material	:	Ball running rings	hardened	Fd. St.
		Ball cage strip	polyamide	PA 12
		Balls	hardened ball bearing steel acc. to DIN 5401, Grade 28 (Class III)	100 Cr 6

Play in bearing: The play in bearings can be set later via the surface – solid settings, or can be set without later work by matching with spacers. Spacers made of corrosion-resistant steel of different sizes and thicknesses can be supplied on request.
(See document page 28).

Example of order

Angular contact wire ball bearing type DSEG 16 0900 ZW

Description: DSEG 16 0900 ZW Quantity: 80 off

- ZW – two row
- 0900 – running circle- Ø (900 mm)
- 16 – ball size (16 mm)
- DSEG – type series

Wire ball bearing

Example of calculations for combined loads

Static strength

Given:

KVE 10 0300

Static load capacity $C_o = 0{,}33 \times D_L$

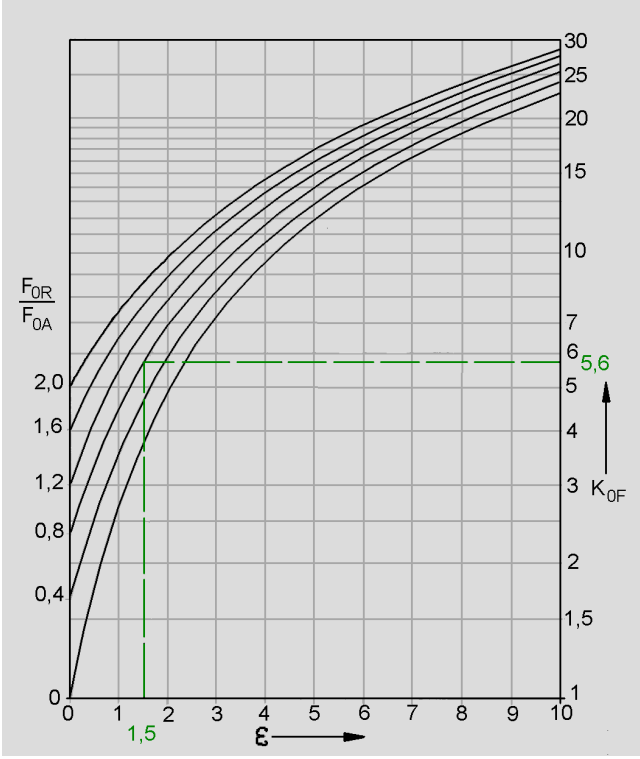
$C_o = 0{,}33 \times 300 = 99$ kN

Bearing loads:

Axial load $F_{OA} = 7{,}5$ kN

Radial load $F_{OR} = 6{,}0$ kN

Tilting torque $M_{OK} = 1{,}7$ kNm



Static load factor K_{OF} for four point wire ball bearing

Required:

Static load safety factor

$$\varepsilon = \frac{2 \times M_{OK}}{F_{OA} \times D_L} \times 10^3$$

ε = load eccentricity value

D_L = running circle diam. in mm

$$\varepsilon = \frac{2 \times 1{,}7}{7{,}5 \times 300} \times 10^3 = 1{,}5$$

$$\frac{F_{OR}}{F_{OA}} = \frac{6}{7{,}5} = 0{,}8 \qquad K_{OF} = 5{,}6$$

$P_O = F_{OA} \times K_{OF} = 7{,}5 \times 5{,}6 = 42$ kN

Static safety factor $S_0 = \frac{C_o}{P_0}$ $\qquad S_0 = \frac{99}{42} = 2{,}36$ times

Wire ball bearing

Example of calculations for combined loads

Calculation of service life

Given:

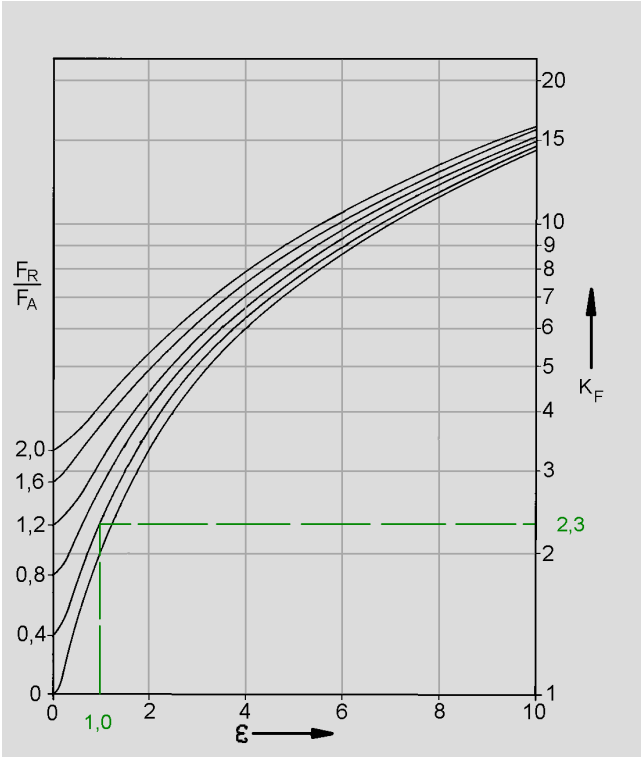
KVE 10 0300

Dynamic load capacity $C = 1{,}5 \times \sqrt{D_L}$

$C = 1{,}5 \times \sqrt{300} = 26$ kN

Bearing loads:

Axial load	$F_A = 2{,}50$ kN
Radial load	$F_R = 1{,}00$ kN
Tilting torque	$M_K = 0{,}38$ kNm
Speed of rotation	$n = 20$ rpm



Dynamic load factor K_F for four point wire ball bearing

Required:

Nominal service life

$$\varepsilon = \frac{2 \times M_K}{F_A \times D_L} \times 10^3$$

ε = load eccentricity value

D_L = running circle diam. in mm

$$\varepsilon = \frac{2 \times 0{,}38}{2{,}5 \times 300} \times 10^3 = 1{,}0$$

$$\frac{F_R}{F_A} = \frac{1{,}0}{2{,}5} = 0{,}4 \qquad K_F = 2{,}3$$

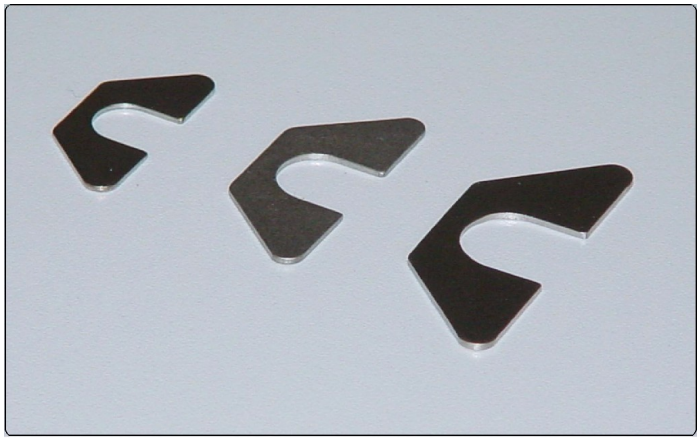
$P = F_A \times K_F = 2{,}5 \times 2{,}3 = 5{,}75$ kN

$$\text{Service life } L_h = \frac{16.666}{n} \times \left(\frac{C}{P}\right)^3$$

$$L_h = \frac{16.666}{20} \times \left(\frac{26}{5{,}75}\right)^3 = 77.000 \text{ hours}$$

Wire ball bearing

Accessories, spacers type series ABL



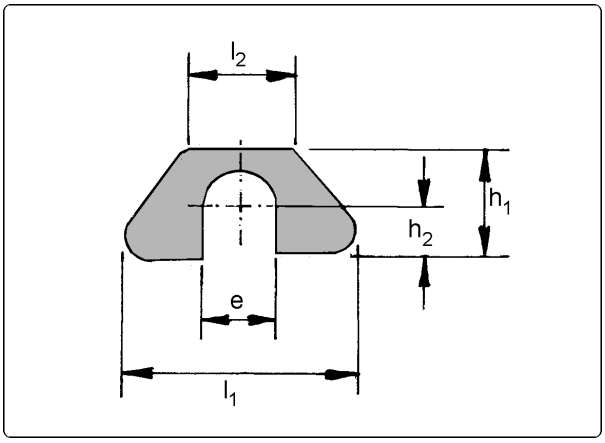


Table of dimensions [Dimensions in mm]

KMF-type 1)	For screw	e	h_1	h_2	l_1	l_2
ABL 6	M6	7	11,0	5	24,0	11,0
ABL 8	M8	9	13,5	6	34,0	14,7
ABL 10	M10	11	16,0	7	43,0	16,4
ABL 12	M12	13	18,0	8	45,0	20,3
ABL 16	M16	17	24,0	11	54,0	25,4

1) Material corrosion-resistant steel

1 set of spacers consists of:

No. off	Thickness
1	1,0 mm
1	0,5 mm
1	0,3 mm
1	0,25 mm
1	0,2 mm
1	0,15 mm
1	0,1 mm
1	0,025 mm

Spacers for setting the play can be supplied in the required thickness or as a set.
Packing unit 100 pcs. or 100 sets.

Example of order:

500 off spacers for M10 screws with
a thickness of 0.25 mm or complete set.

Description : ABL 10 - 0,25 **Quantity :** 500 off

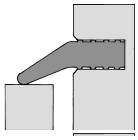
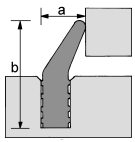
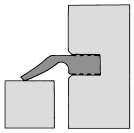
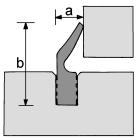
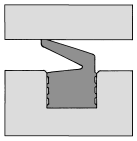
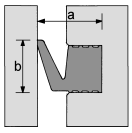
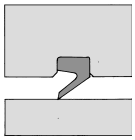
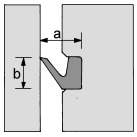
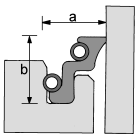
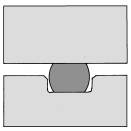
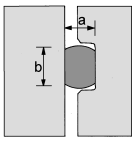
Description : ABL 10 **Quantity :** 500 sets

Sealing:

One can seal to the adjacent structure with KMF sealing profiles, depending on the requirements and the type of pollution.
We have developed some sealing profiles as **yardgoods** for this purpose, which meet different requirements. For infinite purposes, the interfaces must be flat and free of grease. A cyan acrylate glue can be used as the glue. One must take care that there is no displacement when join the interfaces.

The standard material of the sealing profile is NBR 70 (Shore hardness of 70), which has proved successful due to ist resistance to oil and grease and its good resistance to wear. The sealing profiles can be used at working temperatures of -40°C to +80°C.

Sealing profile (selection)

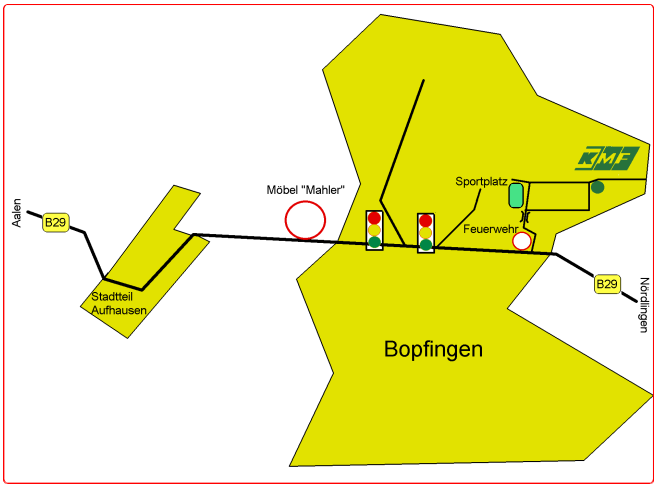
Profile crossection		Abbr.	Required space (guide)		Diameter range D		Characteristics
axial seal	radial seal		a	b	axial	radial	
		**S8**	7	17	≥ Ø 400	≥ Ø 400	Robust seal increased friction
		**S4**	5	13	≥ Ø 200	≥ Ø 200	Normal seal low friction
		**S5**	11	9	≥ Ø 400	≥ Ø 400	Protected bearing gap seal
		**S7**	7	5	≥ Ø 200	≥ Ø 200	Protected bearing gap seal low space requirement
		**S6**	9	10		≥ Ø 200	High pressure due to Spring-loaded sealing lip, preferred for oscillating operation
		**R2** **R3** **R4**	1,5 2,3 3,1	2,7 4,0 5,4	≥ Ø 200	≥ Ø 200	Static seal

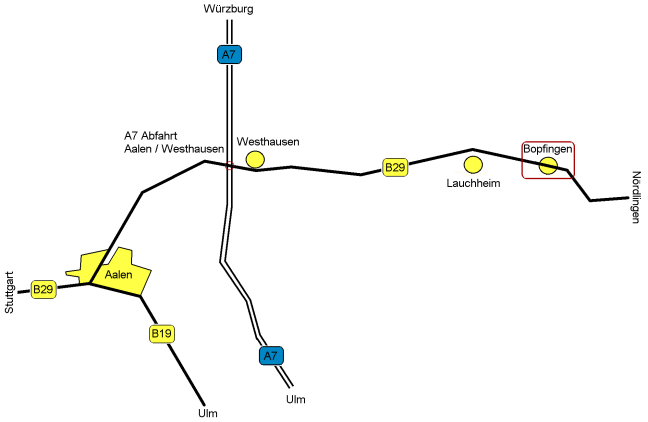
Installation drawings are available for the individual seal profiles. Please ask for them.

Directions to find firm ...

... Starting from the B29
in the Nördlingen direction

Shortly after entering the place, turn right at the Fire Station, then after 30 m, turn left again, follow the street, pass the Sports Stadium, turn right to the Postweg,
we are 200 m along on the right hand side.





... Starting from the A7 exit Aalen / Westhausen

take the B29 in the Nördlingen direction.
Shortly before the exit to the Fire Station, turn left, then after 30 m, turn left again, follow the street, pass the Sports Stadium, turn right to the Postweg,
we are 200 m along on the right hand side.

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