

igubal[®] Rod End Bearings

- Maintenance-free, self-lubricating
- High strength under impact loads
- High tensile strength
- Compensation for alignment errors
- Compensation for edge loads
- Lightweight





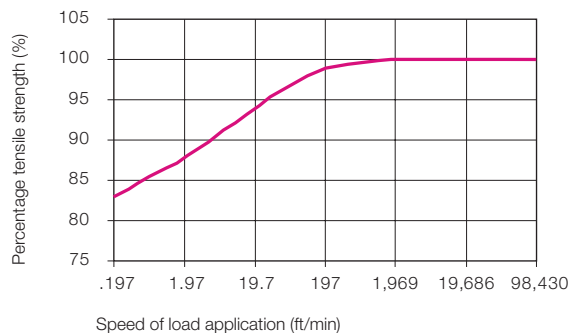
Special properties of igubal[®] Rod End Bearings:

- maintenance-free
- high strength under impact loads
- very high tensile strength for varying loads
- compensation for alignment errors
- compensation for edge loads
- resistant to dirt, dust and lint
- resistant to corrosion and chemicals
- high vibration dampening capacity
- suitable for rotating, oscillating and linear movements
- lightweight
- dimensional series K and E, dimensions according to standard DIN ISO 12240



Loads

igus[®] rod end bearings handle high loads at normal room temperatures, have excellent dampening properties and weigh only a fifth of traditional metallic rod end bearings. In applications with high continuous loads and high temperatures, the loading capacity of igubal[®] rod end bearings should be tested in an experiment that duplicates the application.



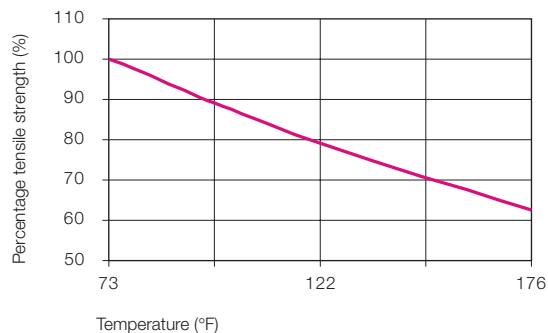
Effect of the speed of load application on the maximum tensile strength of igubal[®] rod end bearings

Coefficients of Friction and Speed

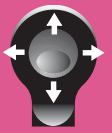
One important advantage of igubal[®] spherical bearings is that rapid, rotary movements of a mounted shaft take place directly in the spherical portion. In metallic rod ends, rotary motion takes place between the race and the spherical bearing. High speeds can be achieved with igubal[®] bearings.

igus[®] bearings are used in such a way that the angular movements of the spherical bearings take place at the spherical outer diameter. In contrast, rotations of the shaft are supported directly in the inner diameter of the spherical portion. The advantage, therefore, lies in the plastic vs. steel relationship. Plastic produces lower friction and permits high speeds, even when running dry.

The maintenance-free igubal[®] bearing system is also suited for linear and oscillating shaft movements.



Effect of the temperature on the maximum tensile strength of igubal[®] rod end bearings



Product Range

igubal® rod end bearings are available in the dimensional series K and E for shaft diameters of .1875" to 1.00" (2 to 30 mm).

- Type A - with outer threads
- Type B - with inner threads

The dimensional series K is available in inch dimensions, as well as a special version containing a stainless steel sleeve in the inner race. This allows a significantly higher torque than for the standard plastic race.

Please ask us about quantities, availability and pricing.



igubal® rod end bearings in the spring loaded rear axle rocker of a bicycle

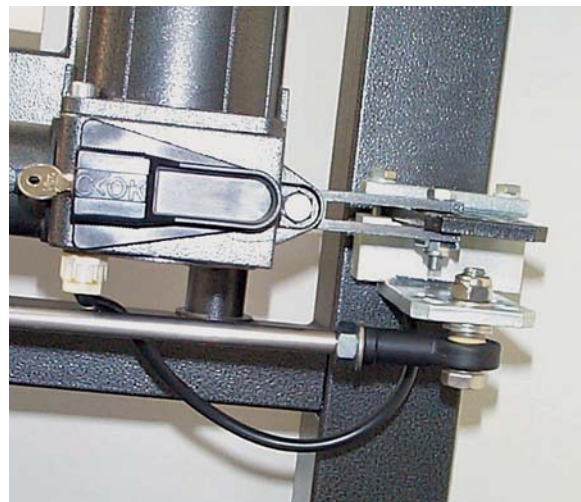
Tolerances

igubal® rod end bearings can be used at different tolerances depending on the individual application. As a standard program, they are designed with a large amount of bearing clearance, which permits secure operation even at high rotational speeds. The bore of the inner race is produced within a standard tolerance range. Shafts should also meet recommended tolerances. Please contact us with any questions regarding tolerances.

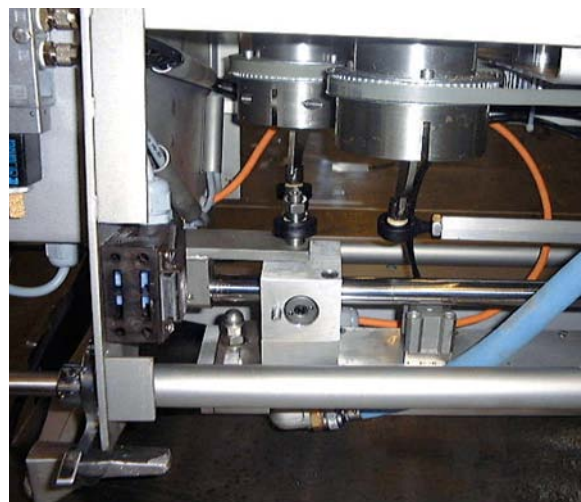
► Tolerance Table, Page 1.14

Thread Name	Pitch (mm)
M 2	0.40
M 3	0.50
M 4	0.70
M 5	0.80
M 6	1.00
M 8	1.25
M 10	1.50
M 10 F	1.25
M 12	1.75
M 12 F	1.25
M 14	2.00
M 16	2.00
M 16 F	1.50
M 18	1.50
M 20	2.50
M 20 M 20	1.50
M 22	1.50
M 24	2.00
M 27	2.00
M 30	2.00

Thread pitches of the igubal® rod end bearings

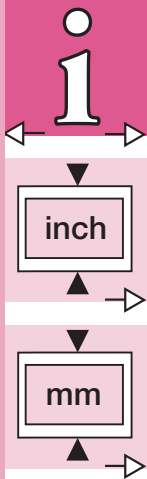


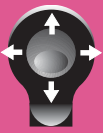
igubal® rod end bearings in the closing mechanism of an outdoor security gate



igubal® rod end bearings in a candy decorating machine

PDF: www.igus.com/pdf/igubal.asp
 Specs/CAD/RFQ: www.igus.com/igubal.asp
 RoHS info: www.igus.com/RoHS.asp





Inch Dimensions - Outer Thread



KARI
KALI
Series K
Standard design with inch dimensions
Page 28.6

Inch Dimensions - Inner Thread



KBRI
KBLI
Series K
Standard design with inch dimensions
Page 28.7



EBRI
EBLI
Series E
Standard design with inch dimensions
Page 28.8

Metric Dimensions - Outer Thread



KARM
KALM
Series K
Standard design
Page 28.10



KARM
KALM
Series K
Standard design with metal sleeve (MH)
Page 28.10



KARM CL
Series K
2nd generation
Page 28.14



EARM
EALM
Series E
Page 28.16



EARM HT
EALM HT
Series E
High Temperature
Page 28.20

Metric Dimensions - Inner Thread



KBRM
KBLM
Series K
Standard design
Page 28.12



KBRM
KBLM
Series K
Standard design with metal sleeve (MH)
Page 28.12



KBRM CL
Series K
2nd generation
Page 28.15



EBRM
EBLM
Series E
Page 28.18



EBRM HT
EBLM HT
Series E
High Temperature
Page 28.21

igubal[®] Accessories for Rod End Bearings



PKRM
PKLM
Adapter bolt
Page 28.22



WGRM
Ball and Socket Joint (ellbow)
Page 28.23



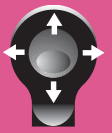
AGRM
Ball and Socket Joint (axial)
Page 28.23



Clevis joint
with clevis pin and circlip
Page 29.3

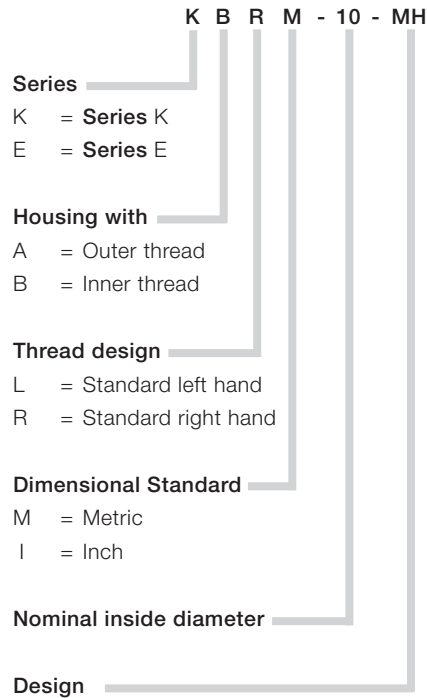


Clevis joint
with spring-loaded pins
Page 29.5



Structure for Part Numbers for igubal® Rod End Bearings

The part numbers of igubal® rod end bearings are designed according to the following system:

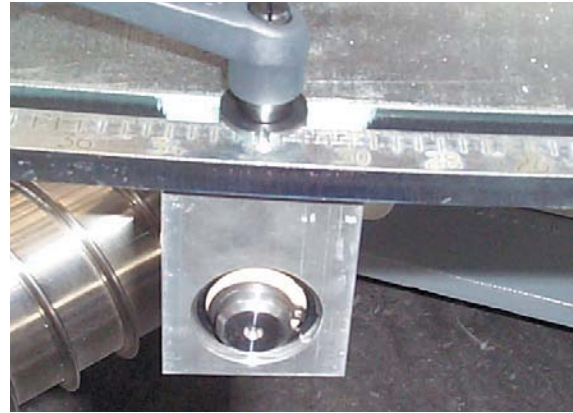


- CL = 2nd generation - only K series offering ability to change spherical ball material
- F = fine thread pitch
- HT = high temperature
- MH = with metal sleeve
- J = with spherical ball made from iglide® J
- J4 = with spherical ball made from iglide® J4
- R = with spherical ball made from iglide® R
- X = with spherical bearing made from iglide® T500

The example given is the number for a rod end bearing of the dimensional series K with metric inner-right threading. The inner diameter of the spherical ball is 10 mm. It is a special design with a metal sleeve.

For the most part, the thread diameter of the bolt corresponds to the inner diameter — here it is M10. However, please pay attention to the following tables.

*The E series bearing is slightly thinner and costs less than its K series counterpart.



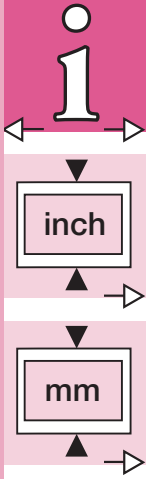
igubal® series E spherical bearings prevent failure as the result of contamination with textile fibers owing to the freedom from maintenance and the fact that lubrication is designed out. One further benefit is the price advantage over metallic products. Part numbers: igubal® spherical bearing EGLM-20

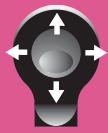


igubal® spherical bearings as an insulating component in current collectors on subways. Pivoting and linear movements in this application are applied to the maintenance-free and corrosion-free high-performance polymers.

Part numbers: igubal® spherical bearing KGLM-22 and rod end bearing KAR(L)M-12

PDF: www.igus.com/pdf/igubal.asp
 Specs/CAD/RFQ: www.igus.com/igubal.asp
 RoHS info: www.igus.com/RoHS.asp





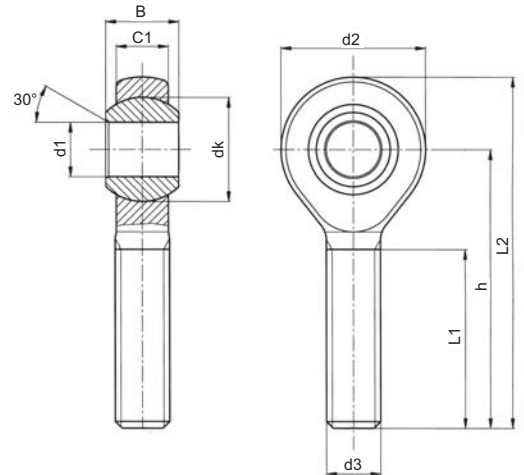
igubal® Rod End Bearings - inch - KARI / KALI

KARI / KALI

igubal® Rod End Bearings



- maintenance-free, self-lubricating
- high strength under impact loads
- very high tensile strength for varying loads
- compensation for alignment errors
- compensation for edge loads
- resistant to dirt, dust and lint
- resistant to corrosion and chemicals
- high vibration dampening capacity
- suitable for rotating, oscillating, and linear movements
- lightweight
- dimensional series K according to standard DIN ISO 12240



Load Data

Right Thread	Left-Thread	Maximum static Tensile Strength		Maximum Radial Load		Minimum Thread Depth (inch)	Maximum Torque Strength through ball ft lbs	Maximum Thread Strength ft lbs
		Short-term lbs	Long-term lbs	Short-term lbs	Long-term lbs			
KARI-03	KALI-03	87	45	15	7	.525	.37	2.21
KARI-04	KALI-04	202	101	22	11	.700	.74	2.95
KARI-05	KALI-05	247	123	33	16	.875	1.48	7.38
KARI-06	KALI-06	337	168	78	39	.875	2.21	11.06
KARI-07	KALI-07	449	224	89	45	.962	4.43	18.44
KARI-08	KALI-08	562	281	101	50	1.050	6.64	25.82
KARI-10	KALI-10	786	393	134	67	1.137	8.85	36.88
KARI-12	KALI-12	876	438	224	112	1.226	18.44	51.63

Dimensions (inch)

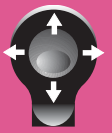
Right-Thread	Left Thread	d1 E10	d2	d3	C1	B	h	L1	L2
KARI-03	KALI-03	.1900	.625	10-32	.234	.312	1.250	.750	1.563
KARI-04	KALI-04	.2500	.750	1/4-28	.250	.365	1.562	1.000	1.937
KARI-05	KALI-05	.3125	.875	5/16-24	.312	.437	1.875	1.250	2.313
KARI-06	KALI-06	.3750	1.000	3/8-24	.359	.500	1.938	1.250	2.438
KARI-07	KALI-07	.4375	1.125	7/16-20	.406	.562	2.125	1.375	2.688
KARI-08	KALI-08	.5000	1.312	1/2-20	.453	.625	2.428	1.500	3.094
KARI-10	KALI-10	.6250	1.500	5/8-18	.484	.750	2.625	1.625	3.375
KARI-12	KALI-12	.7500	1.750	3/4-16	.593	.875	2.875	1.750	3.750

Right-Thread	Left Thread	Shaft		Maximum Angle of Pivot	dk
		Min.	Max.		
KARI-03	KALI-03	.1888	.1900	25°	.438
KARI-04	KALI-04	.2485	.2500	25°	.516
KARI-05	KALI-05	.3110	.3125	25°	.625
KARI-06	KALI-06	.3735	.3750	22°	.718
KARI-07	KALI-07	.4358	.4375	22°	.828
KARI-08	KALI-08	.4983	.5000	22°	.938
KARI-10	KALI-10	.6233	.6250	22°	1.125
KARI-12	KALI-12	.7479	.7500	22°	1.312

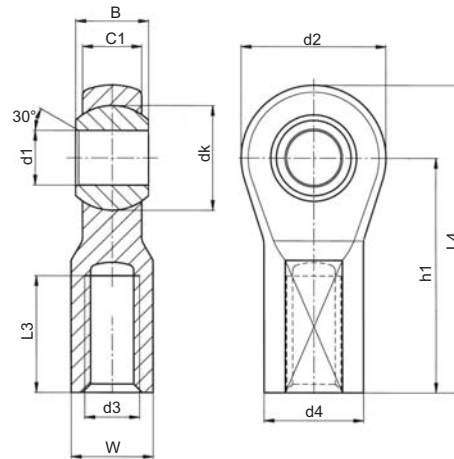
Available for delivery

Telephone 1-888-803-1895
Fax 1-401-438-7680

Internet: <http://www.igus.com>
E-Mail: sales@igus.com
QuickSpec: www.igus.com/qs/igubal.asp



- maintenance-free, self-lubricating
- high strength under impact loads
- very high tensile strength for varying loads
- compensation for alignment errors
- compensation for edge loads
- resistant to dirt, dust and lint
- resistant to corrosion and chemicals
- high vibration dampening capacity
- suitable for rotating, oscillating and linear movements
- very low weight
- dimensional series K according to standard DIN ISO 12240



Load Data

Right Thread	Left Thread	Maximum static Tensile Strength		Maximum Radial Load		Minimum Thread Depth (inch)	Maximum Torque Thread Strength ft lbs • force
		Short-term	Long-term	Short-term	Long-term		
		lbs	lbs	lbs	lbs		
KBRI-03	KBLI-03	203	102	67	34	.350	1.47
KBRI-04	KBLI-04	248	124	90	45	.480	3.68
KBRI-05	KBLI-05	383	192	112	56	.480	4.42
KBRI-06	KBLI-06	450	225	225	112	.568	5.16
KBRI-07	KBLI-07	518	259	270	135	.655	13.27
KBRI-08	KBLI-08	585	293	337	169	.743	16.96
KBRI-10	KBLI-10	1103	551	382	191	.962	22.12
KBRI-12	KBLI-12	1260	630	517	259	1.093	29.50
KBRI-16	KBLI-16	1349	674	584	293	1.488	33.92

Dimensions (inch)

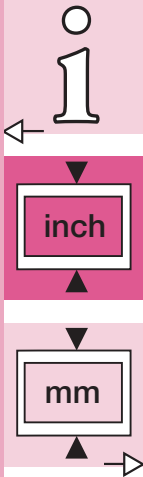
Right-Thread	Left Thread	d1 E10	d2	d3	d4	C1	B	h1	L3	L4	W
KBRI-03	KBLI-03	.1900	.625	10-32	.406	.246	.312	1.062	.500	1.374	.312
KBRI-04	KBLI-04	.2500	.750	1/4-28	.469	.272	.365	1.312	.687	1.687	.375
KBRI-05	KBLI-05	.3125	.875	5/16-24	.500	.340	.437	1.375	.687	1.813	.437
KBRI-06	KBLI-06	.3750	1.000	3/8-24	.687	.394	.500	1.625	.812	2.125	.562
KBRI-07	KBLI-07	.4375	1.125	7/16-20	.750	.456	.562	1.812	.937	2.374	.625
KBRI-08	KBLI-08	.5000	1.312	1/2-20	.875	.487	.625	2.125	1.062	2.781	.750
KBRI-10	KBLI-10	.6250	1.500	5/8-18	1.000	.545	.750	2.500	1.375	3.250	.875
KBRI-12	KBLI-12	.7500	1.750	3/4-16	1.125	.676	.875	2.875	1.562	3.750	1.000
KBRI-16	KBLI-16	1.0000	2.750	1-12	1.625	1.000	1.375	4.125	2.125	5.500	1.500

Right-Thread	Left Thread	Shaft		Maximum Angle of Pivot	dk
		Min.	Max.		
KBRI-03	KBLI-03	.1888	.1900	25°	.438
KBRI-04	KBLI-04	.2485	.2500	25°	.516
KBRI-05	KBLI-05	.3110	.3125	25°	.625
KBRI-06	KBLI-06	.3735	.3750	22°	.718
KBRI-07	KBLI-07	.4358	.4375	22°	.828
KBRI-08	KBLI-08	.4983	.5000	22°	.938
KBRI-10	KBLI-10	.6235	.6250	22°	1.125
KBRI-12	KBLI-12	.7479	.7500	22°	1.312
KBRI-16	KBLI-16	.9980	1.000	20°	1.875

Available from stock

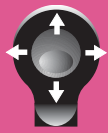
igubal® Rod End Bearings
KBRI / KBLI

PDF: www.igus.com/pdf/igubal.asp
Specs/CAD/RFQ: www.igus.com/igubal.asp
RoHS info: www.igus.com/RoHS.asp



inch

mm



igubal® Rod End Bearings -inch - EBRI / EBLI

EBRI / EBLI

igubal® Rod End Bearings



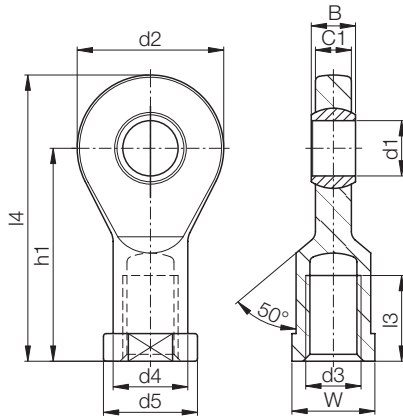
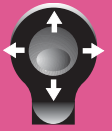
- standard ball made from iglide® L280, other options are available
- maintenance-free, self-lubricating
- high strength under impact loads
- very high tensile strength for varying loads
- compensation for alignment errors
- compensation for edge loads
- resistant to dirt, dust and lint
- resistant to corrosion and chemicals
- high vibration dampening capacity
- suitable for rotating, oscillating, and linear movements
- lightweight
- dimensional series E according to standard DIN ISO 12240

Telephone 1-888-803-1895
Fax 1-401-438-7680

Load Data

Right-Thread	Left-Thread	Max. static Tensile Strength		Max. Cross Force		Min. Thread Depth (mm)	Max. Torque Strength Outer Threading (ft lbs)	Max. Torque Strength Through Ball (ft lbs)
		Short-term	Long-term	Short-term	Long-term			
		lbs	lbs	lbs	lbs			
EBRI-03	EBLI-03	292	146	34	17	8	.4	1.5
EBRI-04	EBLI-04	337	168	45	22	8	1.1	1.8
EBRI-05	EBLI-05	449	224	101	51	11	3.7	5.2
EBRI-06	EBLI-06	517	258	112	56	13	11.1	10.3
EBRI-07	EBLI-07	741	370	124	62	14	14.8	18.4
EBRI-08	EBLI-08	741	370	124	62	14	14.8	18.4
EBRI-10	EBLI-10	1079	539	180	90	18	18.4	22.1
EBRI-12	EBLI-12	1618	809	405	202	22	44.3	29.5

Internet: <http://www.igus.com>
E-Mail: sales@igus.com
QuickSpec: www.igus.com/qs/igubal.asp

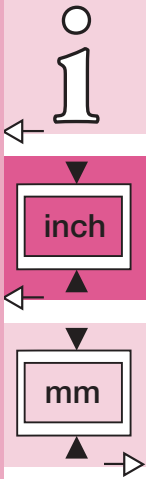


Dimensions (inch)

Right-Thread	Left Thread	d1 E10	d2	d3	d4	d5	C1	B	h1	l3	l4	W	Max. Angle of Pivot
EBRI-03	EBLI-03	0.1875	0.748	10/32	0.3543	0.4331	0.1732	0.1900	1.1811	0.4724	1.5551	0.35	30°
EBRI-04	EBLI-04	0.2500	0.827	1/4	0.4331	0.5118	0.1732	0.2500	1.1811	0.4724	1.5945	0.43	25°
EBRI-05	EBLI-05	0.3125	0.945	5/16	0.5118	0.6299	0.2362	0.3125	1.4173	0.6299	1.8898	0.55	22°
EBRI-06	EBLI-06	0.3750	1.142	3/8	0.5906	0.7480	0.2756	0.3750	1.6929	0.7087	2.2638	0.67	22°
EBRI-07	EBLI-07	0.4375	1.339	7/16	0.7087	0.8661	0.3150	0.4063	1.9685	0.7874	2.6378	0.75	18°
EBRI-08	EBLI-08	0.5000	1.339	1/2	0.7087	0.8661	0.3150	0.4063	1.9685	0.7874	2.6378	0.75	18°
EBRI-10	EBLI-10	0.6250	1.693	5/8	.827	1.023	0.4134	0.5000	2.5394	1.0433	3.3858	0.87	16°
EBRI-12	EBLI-12	0.7500	2.087	3/4	1.0630	1.3386	0.5118	0.6250	3.0315	1.2205	4.0748	1.18	14°

Available for delivery

► Tolerance Table, Page 1.14



Spherical ball material options ► Page 35.2



RKM:
Low Cost/Low Moisture
Available from stock



XKM: High
temperatures



JKM: Low
moisture absorption



standard spherical ball
with metal sleeve



igubal® Rod End Bearings - mm - KARM / KALM

KARM / KALM

igubal® Rod End Bearings



Standard Design



Design with Metal Sleeve (MH)

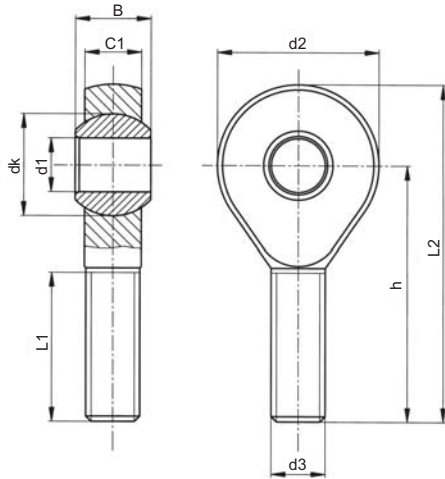
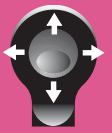
- maintenance-free self-lubricating
- high strength under impact loads
- very high tensile strength for varying loads
- compensation for alignment errors
- compensation for edge loads
- resistant to dirt, dust and lint
- resistant to corrosion and chemicals
- high vibration dampening capacity
- suitable for rotating, oscillating and linear movements
- lightweight
- dimensional series K according to standard DIN ISO 12240
- design with a metal sleeve in the inner race for increased thread strength

Load Data

Right-Thread	Left-Thread	Max. static Tensile Strength		Max. Radial Load		Min. Thread Depth (mm)	Max. Torque Strength Inner Threading (ft lbs)	Max. Torque Strength	
		Short-term lbs	Long-term lbs	Short-term lbs	Long-term lbs			Without Metal Sleeve	With Metal Sleeve
								ft lbs	ft lbs
KARM-05	KALM-05	180	90	18	9	13	.3	3.7	8.8
KARM-06	KALM-06	225	112	22	11	15	.4	7.4	11.1
KARM-08	KALM-08	382	191	45	22	18	1.5	8.9	29.5
KARM-10	KALM-10	562	281	67	33	20	3.7	14.8	36.9
KARM-10 F	KALM-10 F	562	281	67	33	20	2.2	14.8	36.9
KARM-12	KALM-12	607	303	89	45	22	4.4	22.1	51.6
KARM-12 F	KALM-12 F	607	303	89	45	22	4.4	22.1	51.6
KARM-14	KALM-14	764	382	157	78	25	8.9	25.8	55.3
KARM-16	KALM-16	876	438	179	89	26	12.5	29.5	81.1
KARM-16 F	KALM-16 F	876	438	179	89	26	12.5	29.5	81.1
KARM-18	KALM-18	944	472	224	112	29	14.8	33.2	110.6
KARM-20	KALM-20	1348	674	292	146	32	18.4	40.6	147.5
KARM-20 M20	KALM-20 M20	1348	674	292	146	32	18.4	40.6	147.5
KARM-22	KALM-22	1618	809	337	168	34	18.4	44.3	166.0
KARM-25	KALM-25	1686	843	427	213	39	33.2	47.9	191.8
KARM-30	KALM-30	1978	989	517	258	46	62.7	51.6	221.3

Telephone 1-888-803-1895
Fax 1-401-438-7680

Internet: <http://www.igus.com>
E-Mail: sales@igus.com
QuickSpec: www.igus.com/qs/igubal.asp



Dimensions (mm)

Right-Thread	Left-Thread	d1 E10	d2	d3	C1	B	h	L1	L2
KARM-05	KALM-05	5	18	M05	6.0	8.0	33	19	42
KARM-06	KALM-06	6	20	M06	7.0	9.0	36	21	46
KARM-08	KALM-08	8	24	M08	9.0	12.0	42	25	55
KARM-10	KALM-10	10	30	M10	10.5	14.0	48	28	63
KARM-10 F	KALM-10 F	10	30	M10 x 1.25	10.5	14.0	48	28	63
KARM-12	KALM-12	12	34	M12	12.0	16.0	54	32	71
KARM-12 F	KALM-12 F	12	34	M12 x 1.25	12.0	16.0	54	32	71
KARM-14	KALM-14	14	38	M14	13.5	19.0	61	36	79
KARM-16	KALM-16	16	42	M16	15.0	21.0	66	37	88
KARM-16 F	KALM-16 F	16	42	M16 x 1.5	15.0	21.0	66	37	88
KARM-18	KALM-18	18	46	M18 x 1.5	16.5	23.0	72	41	96
KARM-20	KALM-20	20	50	M20 x 2.5	18.0	25.0	78	45	104
KARM-20 M20	KALM-20 M20	20	50	M20 x 1.5	18.0	25.0	78	45	104
KARM-22	KALM-22	22	56	M22 x 1.5	20.0	28.0	84	48	112
KARM-25	KALM-25	25	60	M24 x 2.0	22.0	31.0	94	55	125
KARM-30	KALM-30	30	70	M30 x 2.0	25.0	37.0	110	66	147

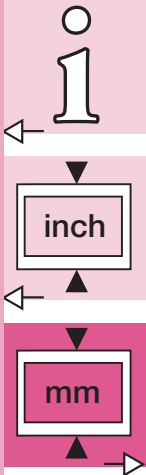
Right-Thread	Left-Thread	Shaft		Maximum Angle of Pivot	dk
		Min.	Max.		
KARM-05	KALM-05	4.970	5.000	30°	11.10
KARM-06	KALM-06	5.970	6.000	29°	12.70
KARM-08	KALM-08	7.964	8.000	25°	15.80
KARM-10	KALM-10	9.964	10.000	25°	19.00
KARM-10 F	KALM-10 F	9.964	10.000	25°	19.00
KARM-12	KALM-12	11.957	12.000	25°	22.20
KARM-12 F	KALM-12 F	11.957	12.000	25°	22.20
KARM-14	KALM-14	13.957	14.000	25°	25.40
KARM-16	KALM-16	15.957	16.000	23°	28.50
KARM-16 F	KALM-16 F	15.957	16.000	23°	28.50
KARM-18	KALM-18	17.957	18.000	23°	31.70
KARM-20	KALM-20	19.948	20.000	23°	34.90
KARM-20 M20	KALM-20 M20	19.948	20.000	23°	34.90
KARM-22	KALM-22	21.948	22.000	22°	38.10
KARM-25	KALM-25	24.948	25.000	22°	42.80
KARM-30	KALM-30	29.948	30.000	22°	50.80

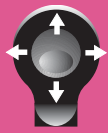
Rod end bearings can be ordered in metric dimensions with metal sleeve with the addition of MH after the part numbers listed here, i.e. for example: KARM-10 MH Available for delivery

► Tolerance Table, Page 1.14

igubal® Rod End Bearings
KARM / KALM

PDF: www.igus.com/pdf/igubal.asp
Specs/CAD/RFQ: www.igus.com/igubal.asp
RoHS info: www.igus.com/RoHS.asp





igubal® Rod End Bearings - mm - KBRM / KBLM

KBRM / KBLM

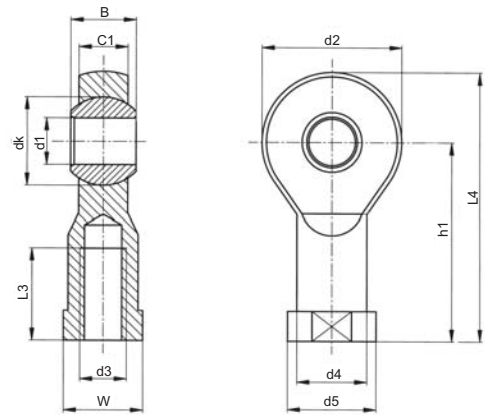
igubal® Rod End Bearings



Standard Design



Design with Metal Sleeve (MH)



Special properties

- Maintenance-free dry running
- high strength under impact loads
- very high tensile strength for varying loads
- compensation for alignment errors
- compensation for edge loads
- resistant to dirt, dust and lint
- resistant to corrosion and chemicals
- high vibration dampening capacity
- suitable for rotating, oscillating and linear movements
- lightweight
- dimensional series K to standard DIN ISO 12240
- design with a metal sleeve in the inner race for increased torque strength

Load Data

Right-Thread	Left-Thread	Max. static Tensile Strength		Max. Radial Load		Min. Thread Depth (mm)	Max. Torque Strength Inner Threading (ft lbs)	Max. Torque Strength	
		Short-term (lbs)	Long-term (lbs)	Short-term (lbs)	Long-term (lbs)			Without Metal Sleeve (ft lbs)	With Metal Sleeve (ft lbs)
KBRM-02	KBLM-02	134	67	13	6	4	.22	.74	1.5
KBRM-03	KBLM-03	179	89	22	11	5	.37	1.5	3.0
KBRM-05 M4	KBLM-05 M4	224	112	56	28	7	.55	3.7	8.9
KBRM-05	KBLM-05	224	112	56	28	7	.74	3.7	8.9
KBRM-06	KBLM-06	314	157	89	44	8	1.10	7.4	11.1
KBRM-08	KBLM-08	472	236	157	78	11	7.4	8.9	29.5
KBRM-10	KBLM-10	696	348	179	89	13	11.1	14.8	36.9
KBRM-10 F	KBLM-10 F	696	348	179	89	13	4.4	14.8	36.9
KBRM-12	KBLM-12	809	404	202	101	15	14.8	22.1	51.6
KBRM-12 F	KBLM-12 F	809	404	202	101	15	11.1	22.1	51.6
KBRM-14	KBLM-14	899	449	224	112	17	18.4	25.8	55.3
KBRM-16	KBLM-16	944	472	292	146	19	22.1	29.5	81.1
KBRM-16 F	KBLM-16 F	944	472	292	146	19	20.3	29.5	81.1
KBRM-18	KBLM-18	1034	517	359	179	21	33.2	33.2	110.6
KBRM-20	KBLM-20	1213	606	472	236	22	59.0	40.6	147.5
KBRM-20 M20	KBLM-20 M20	1213	606	472	236	22	44.3	40.6	147.5
KBRM-22	KBLM-22	1573	786	494	247	25	55.3	44.3	166.0
KBRM-25	KBLM-25	1910	955	517	258	28	88.5	44.3	191.8
KBRM-30	KBLM-30	2360	1180	562	281	34	99.5	44.3	221.3

Telephone 1-888-803-1895

Fax 1-401-438-7680

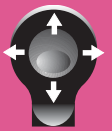
Telephone

Fax

Internet: <http://www.igus.com>

E-Mail: sales@igus.com

QuickSpec: www.igus.com/qs/igubal.asp



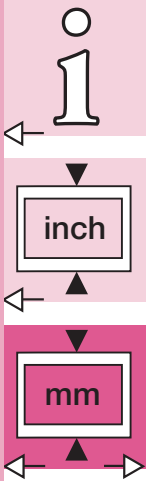
Dimensions (mm)

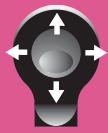
Right-Thread	Left-thread	d1 E10	d2	d3	d4	d5	C1	B	h1	I3	I4	W
KBRM-02	KBLM-02	2	9	M02	4.0	4.6	3.0	4	12.5	6	17	SW04
KBRM-03	KBLM-03	3	13	M03	6.5	8.0	4.5	6	18.5	8	25	SW06
KBRM-05 M4	KBLM-05 M4	5	18	M04	9.0	12.0	6.0	8	27	10	36	SW09
KBRM-05	KBLM-05	5	18	M05	9.0	12.0	6.0	8	27	10	36	SW09
KBRM-06	KBLM-06	6	20	M06	10.0	13.0	7.0	9	30	12	40	SW11
KBRM-08	KBLM-08	8	24	M08	13.0	16.0	9.0	12	36	16	48	SW14
KBRM-10	KBLM-10	10	30	M10	15.0	19.0	10.5	14	43	20	58	SW17
KBRM-10 F	KBLM-10 F	10	30	M10x1.25	15.0	19.0	10.5	14	43	20	58	SW17
KBRM-12	KBLM-12	12	34	M12	18.0	22.0	12.0	16	50	22	67	SW19
KBRM-12 F	KBLM-12 F	12	34	M12x1.25	18.0	22.0	12.0	16	50	22	67	SW19
KBRM-14	KBLM-14	14	38	M14	20.0	25.0	13.5	19	57	25	76	SW22
KBRM-16	KBLM-16	16	42	M16	22.0	27.0	15.0	21	64	28	85	SW22
KBRM-16 F	KBLM-16 F	16	42	M16x1.5	22.0	27.0	15.0	21	64	28	85	SW22
KBRM-18	KBLM-18	18	46	M18x1.5	25.0	31.0	16.5	23	71	32	94	SW27
KBRM-20	KBLM-20	20	50	M20x2.5	28.0	34.0	18.0	25	77	33	102	SW30
KBRM-20 M20	KBLM-20 M20	20	50	M20x1.5	28.0	34.0	18.0	25	77	33	102	SW30
KBRM-22	KBLM-22	22	56	M22x1.5	30.0	37.0	20.0	28	84	37	112	SW32
KBRM-25	KBLM-25	25	60	M24x2.0	32.0	41.0	22.0	31	94	42	124	SW36
KBRM-30	KBLM-30	30	70	M30x2.0	37.0	50.0	25.0	37	110	51	145	SW41

Right-Thread	Left-Thread	Shaft		Maximum Angle of Pivot	dk
		Min.	Max.		
KBRM-02	KBLM-02	1.975	2.000	30°	5.20
KBRM-03	KBLM-03	2.975	3.000	30°	7.90
KBRM-05 M4	KBLM-05 M4	4.970	5.000	30°	11.10
KBRM-05	KBLM-05	4.970	5.000	30°	11.10
KBRM-06	KBLM-06	5.970	6.000	29°	12.70
KBRM-08	KBLM-08	7.964	8.000	25°	15.80
KBRM-10	KBLM-10	9.964	10.000	25°	19.00
KBRM-10 F	KBLM-10 F	9.964	10.000	25°	19.00
KBRM-12	KBLM-12	11.957	12.000	25°	22.20
KBRM-12 F	KBLM-12 F	11.957	12.000	25°	22.20
KBRM-14	KBLM-14	13.957	14.000	23°	25.40
KBRM-16	KBLM-16	15.957	16.000	23°	28.50
KBRM-16 F	KBLM-16 F	15.957	16.000	23°	28.50
KBRM-18	KBLM-18	17.957	18.000	23°	31.70
KBRM-20	KBLM-20	19.948	20.000	23°	34.90
KBRM-20 M20	KBLM-20 M20	19.948	20.000	23°	34.90
KBRM-22	KBLM-22	21.948	22.000	22°	38.10
KBRM-25	KBLM-25	24.948	25.000	22°	42.80
KBRM-30	KBLM-30	29.948	30.000	22°	50.80

Rod end bearings can be ordered in metric dimensions with metal sleeve with the addition of MH after the part numbers listed here, i.e. for example: KBRM-10 MH
Available for delivery

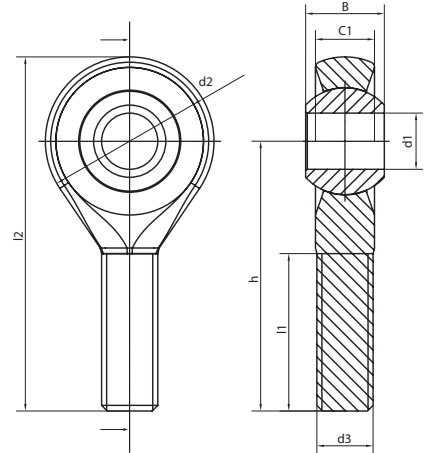
► Tolerance Table, Page 1.14





igubal® Rod End Bearings - KARM CL

The new igubal®-rod end bearings have spherical balls made from iglide® L280 as standard. Other materials are optional



Special properties

- Smooth design has no dirt traps
- Compensation for alignment errors
- Light weight
- Excellent corrosion resistance
- Design with metal isleeve for higher torque strength available
- Left-hand thread version KALM in preparation

Load Data

Part Number	Maximum static tensile strength		Maximum radial load		Minimum thread depth (mm)	Max. torque strength outside thread (lbs · ft)	Max. torque though Ball	
	short-term (lbs)	long-term (lbs)	short-term (lbs)	long-term (lbs)			standard (lbs · ft)	MH (lbs · ft)
KARM-06 CL	225	113	22	11	15	.369	7.376	11.060
KARM-08 CL	382	191	45	22	18	1.475	8.851	29.500
KARM-10 CL	562	281	68	34	20	3.688	14.750	36.880
KARM-12 CL	607	304	90	45	22	4.425	22.130	51.630

Dimensions (mm)

Part Number	d1 E10	d2	d3	C1	B	h	l1	l2	Max. pivot angle
KARM-06 CL	6	20	M06	7.0	9.0	36	21	46	40°
KARM-08 CL	8	24	M08	9.0	12.0	42	25	55	35°
KARM-10 CL	10	30	M10	10.5	14.0	48	28	63	35°
KARM-12 CL	12	34	M12	12.0	16.0	54	32	71	35°

For rod end bearings with metal insert please add **MH** to the part number, e.g. KARM-10 CL **MH**.

For another spherical bearing material please add **J**, **R** or **X** to the part number, e.g. KARM-10 CL **J**.

Spherical ball material options ▶ Page 35.2



RKM:
Low Cost/Low Moisture



XKM: High
temperatures



JKM: Low
moisture absorption



standard spherical ball
with metal sleeve

KARM CL

igubal® Rod End
Bearings

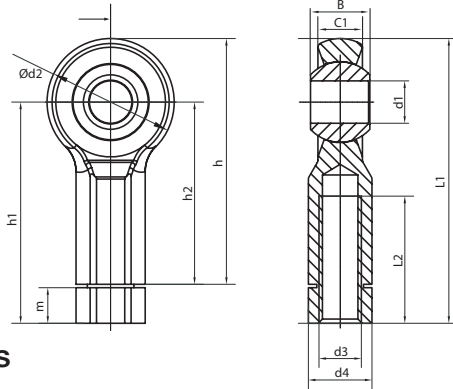
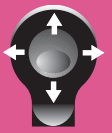
Telephone 1-888-803-1895
Fax 1-401-438-7680

Telephone 1-888-803-1895
Fax 1-401-438-7680

Internet: <http://www.igus.com>
E-Mail: sales@igus.com
QuickSpec: www.igus.com/qs/igubal.asp

igubal® Rod End Bearings - KBRM CL

The new igubal®-rod end bearings have spherical balls made from iglide® L280 as standard



Simple assembly due to the hexagonal body and the integrated lock nut.

Special properties

- Smooth design has no dirt traps
- Compensation for alignment errors
- Light weight
- Excellent corrosion resistance
- Design with metal sleeve for higher torque strength available
- Left-hand thread version KBLM in preparation

Load Data

Part Number	Maximum static tensile strength		Maximum radial load		Minimum thread depth (mm)	Max. torque strength outside thread (lbs · ft)	Max. torque though Ball	
	short-term (lbs)	long-term (lbs)	short-term (lbs)	long-term (lbs)			standard (lbs · ft)	MH (lbs · ft)
KBRM-06 CL	315	158	90	45	8	1.106	7.376	11.060
KBRM-08 CL	473	236	158	79	11	7.376	8.851	29.500
KBRM-10 CL	698	349	180	90	13	11.060	14.750	36.880

Dimensions (mm)

Part Number	d1 E10	d2	d3	d4	B	C1	h	h1	h2	L2	L1	Max. pivot angle
KBRM-06 CL	6	20	M06	SW10	9	7	40	5,7	30	20	46,5	40°
KBRM-08 CL	8	24	M08	SW13	12	9	48	7,5	36	25	56,3	35°
KBRM-10 CL	10	30	M10	SW15	14	10,5	58	52,2	43	30	67,2	35°

For rod end bearings with metal insert please add **MH** to the part number, e.g. KBRM-10 CL **MH**.

For another spherical bearing material please add **J**, **R** or **X** to the part number, e.g. KBRM-10 CL **J**.

Spherical ball material options ▶ Page 35.2



RKM:
Low Cost/Low Moisture



XKM: High
temperatures



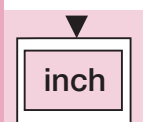
JKM: Low
moisture absorption

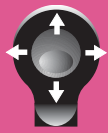


standard spherical ball
with metal sleeve

igubal® Rod
End Bearings
KBRM CL

PDF: www.igus.com/pdf/igubal.asp
Specs/CAD/RFQ: www.igus.com/igubal.asp
RoHS info: www.igus.com/RoHS.asp





EARM / EALM

igubal® Rod End Bearings

Telephone 1-888-803-1895
Fax 1-401-438-7680

Internet: <http://www.igus.com>
E-Mail: sales@igus.com
QuickSpec: www.igus.com/qs/igubal.asp



Special properties

- maintenance-free, self-lubricating
- high strength under impact loads
- very high tensile strength for varying loads
- compensation for alignment errors
- compensation for edge loads
- resistant to corrosion and chemicals
- high vibration dampening capacity
- suitable for rotating, oscillating, and linear movements
- lightweight
- dimensional series E according DIN ISO 12240

Load Data

Right-Thread	Left-Thread	Max. static Tensile Strength		Max. Radial Load		Min. Thread Depth (mm)	Max. Torque Strength Outer Threading (ft lbs)	Max. Torque Strength Through Ball (ft lbs)
		Short-term	Long-term	Short-term	Long-term			
		lbs	lbs	lbs	lbs			
EARM-05	EALM-05	123	61	11	5	14	.3	1.5
EARM-06	EALM-06	191	95	18	9	14	.4	1.8
EARM-08	EALM-08	359	179	33	16	17	1.5	5.2
EARM-10	EALM-10	584	292	56	28	19	3.7	10.3
EARM-10 F	EALM-10 F	584	292	56	28	19	2.2	10.3
EARM-12	EALM-12	674	337	67	33	20	4.4	18.4
EARM-12 F	EALM-12 F	674	337	67	33	20	4.4	18.4
EARM-15	EALM-15	1011	505	89	45	24	9.2	22.1
EARM-17	EALM-17	1124	562	112	56	26	12.9	25.8
EARM-17 F	EALM-17 F	1124	562	112	56	26	15.5	25.8
EARM-20	EALM-20	1461	730	134	67	30	22.1	29.5
EARM-20 M20	EALM-20 M20	1461	730	134	67	30	18.4	29.5
EARM-25	EALM-25	1910	955	179	89	37	33.2	40.6
EARM-30	EALM-30	2248	1124	224	112	46	62.7	51.6

Spherical ball material options ▶ Page 35.2



RKM:
Low Cost/Low Moisture



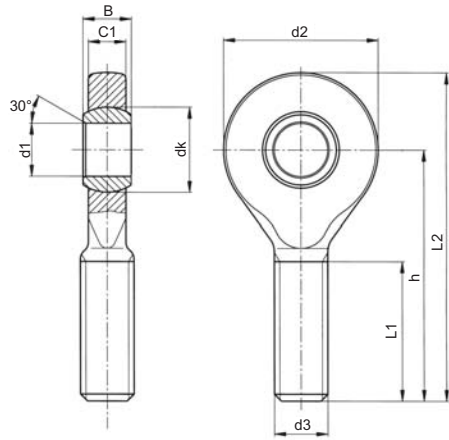
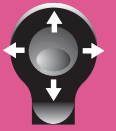
XKM: High temperatures



JKM: Low moisture absorption



standard spherical ball with metal sleeve



Dimensions (mm)

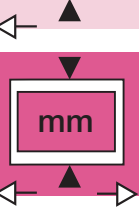
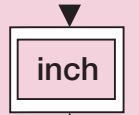
Right-Thread	Left-Thread	d1 E10	d2	d3	C1	B	h	l1	l2	Max. Angle of Pivot
EARM-05	EALM-05	5	19	M05	4.4	6	36	20	45.5	33°
EARM-06	EALM-06	6	21	M06	4.4	6	36	20	46.5	27°
EARM-08	EALM-08	8	24	M08	6.0	8	41	24	53.0	24°
EARM-10	EALM-10	10	29	M10	7.0	9	47.5	27	62.0	24°
EARM-10 F	EALM-10 F	10	29	M10 x 1.25	7.0	9	47.5	27	62.0	24°
EARM-12	EALM-12	12	34	M12	8.0	10	54	29	71.0	21°
EARM-12 F	EALM-12 F	12	34	M12 x 1.25	8.0	10	54	29	71.0	21°
EARM-15	EALM-15	15	40	M14	10.0	12	63	34	83.0	21°
EARM-17	EALM-17	17	46	M16	11.0	14	69	37	92.0	21°
EARM-17 F	EALM-17 F	17	46	M16 x 1.5	11.0	14	69	37	92.0	18°
EARM-20	EALM-20	20	53	M20 x 1.5	13.0	16	80	43	106.5	16°
EARM-20 M20	EALM-20 M20	20	53	M20 x 2.5	13.0	16	80	43	106.5	16°
EARM-25	EALM-25	25	64	M24 x 2.0	17.0	20	97	53	129.0	16°
EARM-30	EALM-30	30	73	M30 x 2.0	19.0	22	113	65	149.5	13°

Available for delivery

► Tolerance Table, Page 1.14

igubal® Rod End Bearings
EARM / EALM

PDF: www.igus.com/pdf/igubal.asp
Specs/CAD/RFQ: www.igus.com/igubal.asp
RoHS info: www.igus.com/RoHS.asp





EBRM / EBLM

igubal® Rod End Bearings

Telephone 1-888-803-1895
Fax 1-401-438-7680

Internet: <http://www.igus.com>
E-Mail: sales@igus.com
QuickSpec: www.igus.com/qs/igubal.asp



Special properties

- maintenance-free, self-lubricating
- high strength under impact loads
- very high tensile strength for varying loads
- compensation for alignment errors
- compensation for edge loads
- resistant to dirt, dust and lint
- resistant to corrosion and chemicals
- high vibration dampening capacity
- suitable for rotating, oscillating, and linear movements
- lightweight
- dimensional series E according to standard DIN ISO 12240

Load Data

Right-Thread	Left-Thread	Max. static Tensile Strength		Max. Radial Load		Min. Thread Depth (mm)	Max. Torque Strength Outer Threading (ft lbs)	Max. Torque Strength Through Ball (ft lbs)
		Short-term	Long-term	Short-term	Long-term			
		lbs	lbs	lbs	lbs			
EBRM-04	EBLM-04	180	90	22	11	7	.3	1.5
EBRM-05	EBLM-05	292	146	34	17	8	.4	1.5
EBRM-06	EBLM-06	337	168	45	22	8	1.1	1.8
EBRM-08	EBLM-08	449	224	101	51	11	3.7	5.2
EBRM-10	EBLM-10	517	258	112	56	13	11.1	10.3
EBRM-10 F	EBLM-10 F	517	258	112	56	13	4.4	10.3
EBRM-12	EBLM-12	741	370	124	62	14	14.8	18.4
EBRM-12 F	EBLM-12 F	741	370	124	62	14	11.1	18.4
EBRM-15	EBLM-15	1079	539	180	90	18	18.4	22.1
EBRM-17	EBLM-17	1191	595	247	124	19	22.1	25.8
EBRM-17 F	EBLM-17 F	1191	595	247	124	19	20.3	25.8
EBRM-20	EBLM-20	1618	809	405	202	22	44.3	29.5
EBRM-20 M20	EBLM-20 M20	1618	809	405	202	22	59.0	29.5
EBRM-25	EBLM-25	2248	1124	584	292	27	84.8	40.6
EBRM-30	EBLM-30	2360	1180	674	337	33	95.9	51.6

Spherical ball material options ▶ Page 35.2



RKM:
Low Cost/Low Moisture



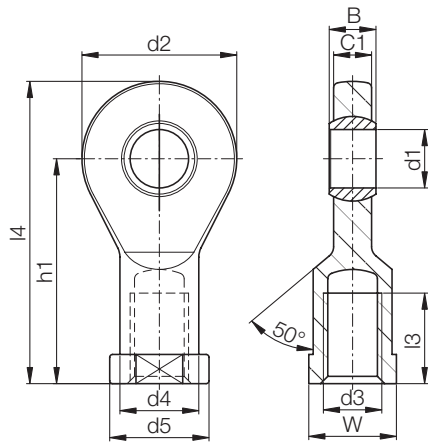
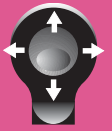
XKM: High temperatures



JKM: Low moisture absorption



standard spherical ball with metal sleeve



Dimensions (mm)

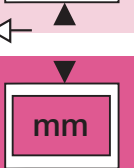
Right-Thread	Left Thread	d1 E10	d2	d3	d4	d5	C1	B	h1	h3	h4	W	Max. Angle of Pivot
EBRM-04	EBLM-04	4	15	M04	8.0	9.2	3.5	5	22.5	9.5	30.0	SW08	33°
EBRM-05	EBLM-05	5	19	M05	9.0	11	4.4	6	30	12	39.5	SW09	33°
EBRM-06	EBLM-06	6	21	M06	11.0	13	4.4	6	30	12	40.5	SW11	27°
EBRM-08	EBLM-08	8	24	M08	13.0	16	6.0	8	36	16	48.0	SW14	24°
EBRM-10	EBLM-10	10	29	M10	15.0	19	7.0	9	43	18	57.5	SW17	24°
EBRM-10 F	EBLM-10 F	10	29	M10x1.25	15.0	19	7.0	9	43	18	57.5	SW17	24°
EBRM-12	EBLM-12	12	34	M12	18.0	22	8.0	10	50	20	67.0	SW19	21°
EBRM-12 F	EBLM-12 F	12	34	M12x1.25	18.0	22	8.0	10	50	20	67.0	SW19	21°
EBRM-15	EBLM-15	15	40	M14	21.0	26	10.0	12	61	26	81.0	SW22	21°
EBRM-17	EBLM-17	17	46	M16	24.0	30	11.0	14	67	27	90.0	SW27	21°
EBRM-17 F	EBLM-17 F	17	46	M16x1.5	24.0	30	11.0	14	67	27	90.0	SW27	18°
EBRM-20	EBLM-20	20	53	M20x1.5	27.0	34	13.0	16	77	31	103.5	SW30	16°
EBRM-20 M20	EBLM-20 M20	20	53	M20x2.5	27.0	34	13.0	16	77	31	103.5	SW30	16°
EBRM-25	EBLM-25	25	64	M24x2.0	34.0	41	17.0	20	94	38	126.5	SW36	16°
EBRM-30	EBLM-30	30	73	M30x2.0	41.0	48	19.0	22	110	47	146.5	SW41	13°

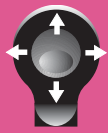
Available for delivery

► Tolerance Table, Page 1.14

igubal® Rod End Bearings
EBRM / EBLM

PDF: www.igus.com/pdf/igubal.asp
Specs/CAD/RFQ: www.igus.com/igubal.asp
RoHS info: www.igus.com/RoHS.asp



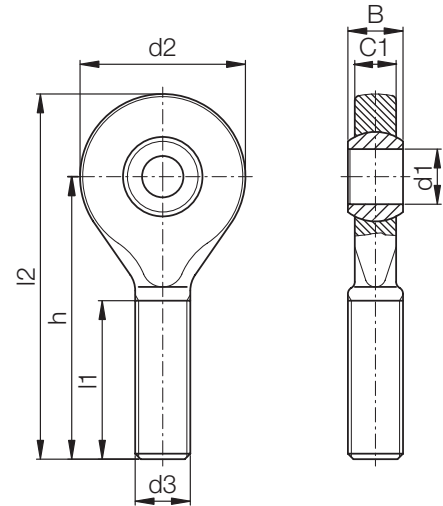


igubal® Rod End Bearing - mm - EARM HT / EALM HT

The EARMHT / EALM HT version is for those applications with higher temperature requirements

EARM HT / EALM HT

igubal® Rod End Bearings



Special properties

- For temperatures up to 392 °F
- Maintenance-free, self-lubricating
- High strength under impact loads
- Very high tensile strength for varying loads
- Compensation for alignment errors
- Compensation for edge loads
- Resistant to dirt, dust and lint
- Resistant to chemicals
- Underwater use
- High vibration dampening capacity
- Suitable for rotating, oscillating and linear movements
- Lightweight
- Dimensional series K according to standard DIN ISO 12240

Telephone 1-888-803-1895
Fax 1-401-438-7680

Dimensions (mm)

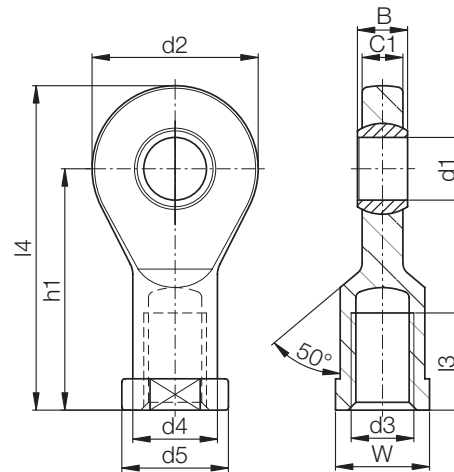
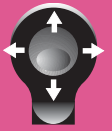
Part Number		d1 E10	d2	d3	C1	B	h1	l1	l2	Max. pivot angle
R.-hand thread	L.-hand thread									
EARM-06 HT	EALM-06 HT	6	21	M06	4.4	6	36	20	46.5	27°
EARM-08 HT	EALM-08 HT	8	24	M08	6.0	8	41	24	53.0	24°
EARM-10 HT	EALM-10 HT	10	29	M10	7.0	9	47.5	27	62.0	24°
EARM-12 HT	EALM-12 HT	12	34	M12	8.0	10	54	29	71.0	21°

Available from stock

Internet: <http://www.igus.com>
E-Mail: sales@igus.com
QuickSpec: www.igus.com/qs/igubal.asp

igubal® Rod End Bearing - mm - EBRM HT / EBLM HT

The EBRMHT / EBLM HT version is for those applications with higher temperature requirements



Special properties

- For temperatures up to 392 °F
- Maintenance-free, self-lubricating
- High strength under impact loads
- Very high tensile strength for varying loads
- Compensation for alignment errors
- Compensation for edge loads
- Resistant to dirt, dust and lint
- Resistant to chemicals
- Underwater use
- High vibration dampening capacity
- Suitable for rotating, oscillating and linear movements
- Lightweight
- Dimensional series K according to standard DIN ISO 12240

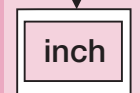
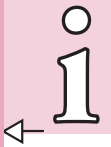
Dimensions (mm)

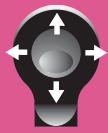
Part Number		d1 E10	d2	d3	d4	d5	C1	B	h1	l3	l4	W	Max. pivot angle
R.-hand thread	L.-hand thread												
EBRM-06 HT	EBLM-06 HT	6	21	M06	11.0	13	4.4	6	30	12	40.5	SW11	27°
EBRM-08 HT	EBLM-08 HT	8	24	M08	13.0	16	6.0	8	36	16	48.0	SW14	24°
EBRM-10 HT	EBLM-10 HT	10	29	M10	15.0	19	7.0	9	43	18	57.5	SW17	24°
EBRM-12 HT	EBLM-12 HT	12	34	M12	18.0	22	8.0	10	50	20	67.0	SW19	21°

Available from stock

igubal® Rod End Bearings
EARM HT /EALM HT

PDF: www.igus.com/pdf/igubal.asp
Specs/CAD/RFG: www.igus.com/igubal.asp
RoHS info: www.igus.com/RoHS.asp





igubal® Adjusting Bolt - mm - PKRM / PKLM

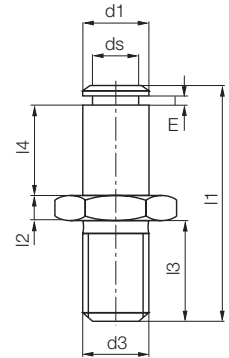
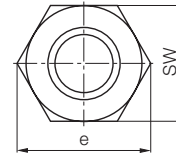
PKRM / PKLM

igubal® Adjusting Bolt



The most significant properties:

- lightweight
- universal resistance to corrosion
- combined with rod end bearings of the dimensional series K
- high strength under impact loads
- vibration dampening
- easy to install
- available in left and right threads



Solid plastic hex bolts with pin serve as an accessory to the rod end bearings of the dimensional series K.

Like all "black" components of the igubal® bearing components, the igubal® adjusting hex bolts consist of the highly shock-resistant, long-fiber reinforced plastic igumid G.

Load Data and Dimensions (mm)

Right-Thread	Left Thread	Max. Static Radial Load Short-term (lbs)	Max. Static Axial Tensile-Strength Short-term (lbs)	d1 (mm) h11	d3 Connection-Thread	SW Width-Across Flats	l1 Total-Length (mm)	l4 Length Adjusting Bolt (mm)	l3 Thread-Length (mm)
PKRM-05	PKLM-05	45	22	5	M05	SW 8	25.0	8.5	11.3
PKRM-06	PKLM-06	56	33	6	M06	SW 10	28.0	9.5	12.8
PKRM-08	PKLM-08	90	56	8	M08	SW 13	32.0	12.5	12.5
PKRM-10	PKLM-10	135	112	10	M10	SW 16	37.5	14.5	14.5
PKRM-12	PKLM-12	202	157	12	M12	SW 18	42.0	16.5	15.5
PKRM-14	PKLM-14	247	179	14	M14	SW 21	47.0	19.5	15.5
PKRM-16	PKLM-16	314	202	16	M16	SW 24	52.0	22.0	16.5
PKRM-18	PKLM-18	382	179	18	M18 x 1.5	SW 27	59.0	24.0	20.5
PKRM-20	PKLM-20	494	112	20	M20 x 1.5	SW 30	67.0	26.0	25.0

Available for delivery

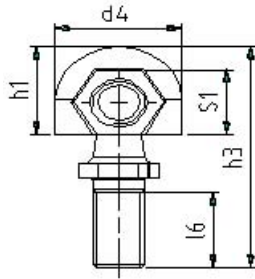
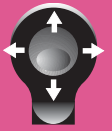
Imperial sizes available. Minimum quantities may be required.

► Tolerance Table, Page 1.14

Telephone 1-888-803-1895
Fax 1-401-438-7680

Internet: <http://www.igus.com>
E-Mail: sales@igus.com
QuickSpec: www.igus.com/qs/igubal.asp

igubal® WGRM



- Connection for rotating and oscillating movement
- Lightweight and robust
- Easy and fast mounting
- Vibration dampening
- Resistant to dirt and dust

Dimensions (mm)

Part number	d1	d2	d4	l1	l2	l5	l6	h3	a	b	e	max. pivot angle
	+0.1 -0.1		+0.5 -0.5	+0.2 -0.2	+0.3 -0.3		min.	+0.5 -0.5	+0.3 -0.3	+0.5 -0.5	+0.5 -0.5	
WGRM-05	8.0	M5	12.8	9.0	10.2	14.0	8.2	25.6	22.0	28.4	11.0	25°
WGRM-06	10.0	M6	14.8	11.0	12.5	16.0	10.5	30.9	25.0	32.4	13.0	25°
WGRM-08	13.0	M8	19.3	13.0	16.5	18.0	13.5	38.8	30.0	39.7	16.0	25°
WGRM-10	16.0	M10	24.0	16.0	20.0	20.0	16.0	47.0	35.0	47.0	18.0	25°

Load data

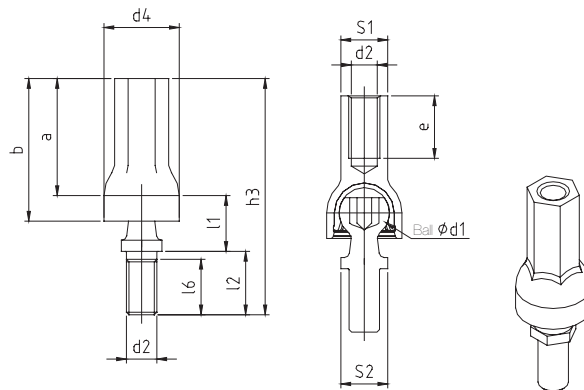
Part number	max. axial tensile force (lbs) (ball stud axis)	max. axial compressive force (lbs) (ball stud axis)	max. axial tensile force (lbs) (housing axis)	identical experiment (lbs) (metal ball stud)
WGRM-05	6.7	45.0	22.5	134.9
WGRM-06	7.9	67.4	31.5	179.8
WGRM-08	56.2	112.4	45.0	337.2
WGRM-10	112.4	202.3	89.9	427.1

*MS=metal ball stud

igubal® AGRM



- For all mechanical combinations
- Very easy assembling by hand
- Proportion from cohesion to assembling force ca. 10:1
- Maintenance free and predictable



Dimensions (mm)

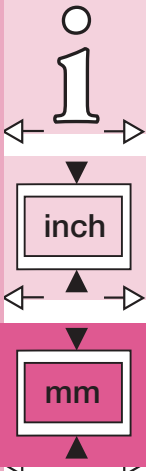
Part No.	d1	d2	d4	l1	l2	l6	h3	S1	S2	a	b	e	pivot angle	
	+0.1 -0.1		+0.5 -0.5	+0.2 -0.2	+0.3 -0.3	min.	+0.5 -0.5			+0.3 -0.3	+0.5 -0.5	min.	Recom.	max.
AGRM-08	13.0	M8	19.3	13.0	16.5	13.5	59.0	SW12	SW11	29.5	36.5	16.0	18°	25°

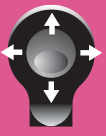
Load data

Part No.	max. static axial tensile strength		max. static axial compressive strength		max. assembling force (lbs)	measured min. cohesion (lbs)	factor	max. cyclic axial tensile/compr. force (lbs)	max. torque	
	short term (lbs)	long term (lbs)	short term (lbs)	long term (lbs)					housing (ft lbs)	ball stud (ft lbs)
AGRM-08	56.2	28.1	224.8	112.4	24.7	157.4	6.5	16.9	3.7	1.5

igubal® Rod End Bearings
WGRM/AGRM

PDF: www.igus.com/pdf/igubal.asp
Specs/CAD/RFQ: www.igus.com/igubal.asp
RoHS info: www.igus.com/RoHS.asp





igubal® Spherical Bearing Analysis

Please photocopy, fill out and fax to 401-438-7680

igubal® Rod End Bearings

Telephone 1-888-803-1895
Fax 1-401-438-7680

Internet: <http://www.igus.com>
E-Mail: sales@igus.com
QuickSpec: www.igus.com/qs/igubal.asp

Date:	Telephone: 1-888-803-1895
	Fax: 1-401-438-7680
From:	To:
Telephone:	igus®, inc.
Fax:	Technical Sales
	iglide® Plastic Bearings
	P.O. Box 14349
	East Providence, RI 02914

Please enter as much data as possible. If you prefer other measuring units, cross out the given unit and write your next to it. Most applications questions can be answered with just a partial amount of data.

Please call us if you have any questions (Tel: 1-888-803-1895)

- Rod End Bearing Type A (outer thread)
- Rod End Bearing Type B (Inner thread)
- Pillow Block
- Spherical Bearing
- Flange Bearing 2-Bolt
- 4-Bolt
- Clevis Joint with pin and clip
- spring loaded hasp pin

- Dimensional Series: E
- K

- Threading: Standard thread
- Fine thread

Speed (fpm; 1/min): _____

- Type of movements:
- rotating _____
- pivoting by _____
- _____degrees
- linear _____

- Lubrication: dry
- Oil/grease
- Water

Shaft diameter (mm/inch): _____

Bearing load (lbs): _____

Outside temperature (°F): _____

Shaft material (e.g. steel, VA, plastic): _____

Average roughness Ra: _____

Target service life (hrs.): _____

Present bearing type: _____

Surrounding media (e.g. acids, water, lyes...): _____

Which problem can iglide® solve for you?

- dry running
- corrosion
- vibration-dampening
- cost reduction
- chemicals
- dirt
- dust
- weight

Other load characteristics: _____

Drawing: _____