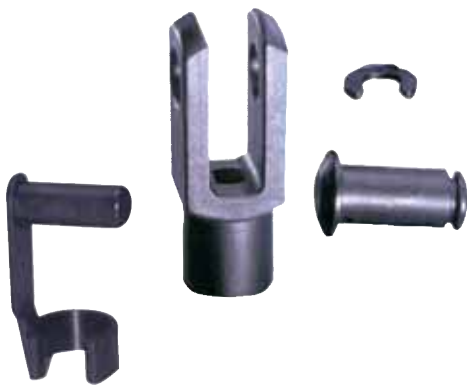


igubal® Clevis Joints



High tensile strength

Vibration dampening

Noise dampening

Can be used in combination with series E rod ends

Light weight

igubal® Clevis Joints

Phone +49 - 22 03 - 96 49-145
 Fax +49 - 22 03 - 96 49-334





The most significant properties

- Light weight
- Universal corrosion resistance
- High tensile strength
- Can be used in combination with series E rod ends
- Vibration dampening
- Noise dampening
- Available with left and right hand threads



igubal® clevis joints are all made of igumid G to DIN 71752, which can be used in combination with series E rod end bearings. Available components are clevis joint, clevis pin and clip or as an alternative, spring-loaded pin.

Part Selections

All of the components listed below are also available individually.

igubal® Clevis Joints

Phone +49 - 22 03 - 96 49-145
Fax +49 - 22 03 - 96 49-334

igus® GmbH
51147 Cologne

Internet www.igus.de
E-mail info@igus.de



Clevis joint with spring-loaded pin
GE...MF-
▶ Page 52.7



Clevis joint with clevis pin and circlip
GE...MK-
▶ Page 52.6



Clevis joint with clevis pin and circlip and rod end bearing
GE...MKE-
▶ Page 52.8

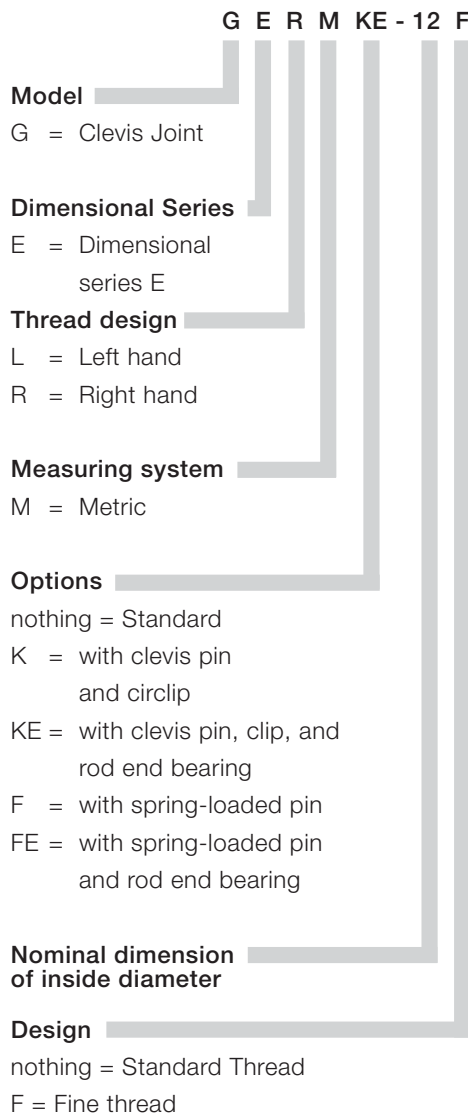


Clevis joint with spring-loaded pin and rod end bearing
GE...MFE-
▶ Page 52.7



Structure for Part Numbers for igubal® Clevis Joints

The part numbers of igubal® clevis joints are designed according to the following system:

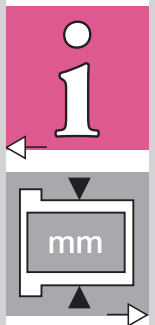


The example shows a complete clevis joint assembly with a series E female rod end. The inside diameter of the spherical ball and clevis bore is 12mm. The assembly has a female fine (M12 x 1.25mm) thread.



The spherical igubal® coupling between motor and camera dolly permits speeds up to 3 m/s in curves. Further advantages are the noise minimization and the electrical insulation.

Product: igubal® clevis joint combination GERKE-08





GERM/GELM

mm

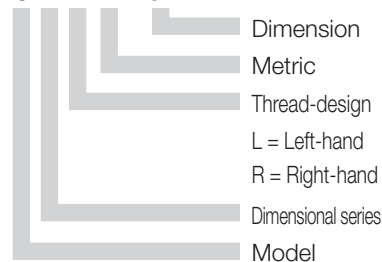
igubal® Clevis Joints



Data in mm

Structure – part no.

GE ... M - 04



Phone +49 - 22 03 - 96 49-145
Fax +49 - 22 03 - 96 49-334

igus® GmbH
51147 Cologne

Internet www.igus.de
E-mail info@igus.de

Special Properties

- Light weight
- Universal corrosion resistance
- High tensile strength
- Can be used in combination with series E rod ends
- Vibration dampening
- Noise dampening
- Available in left and right hand thread



Material

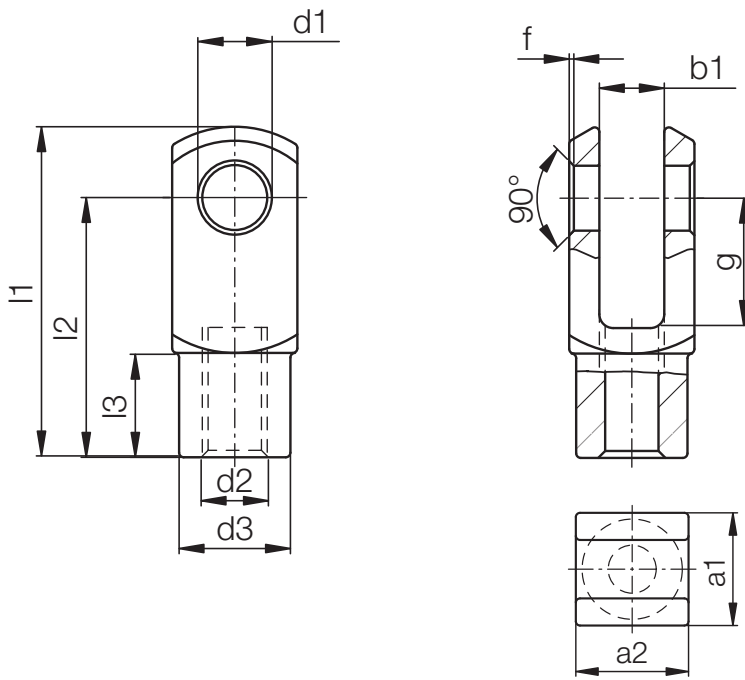
igumid G

▶ Page 70.6

Load Data

igubal® – Clevis Joints

Part Number		Max. Static Axial Tensile Strength GER(L)M		Max. Radial Load		Max. Torque Strength
Right-hand-thread	Left-hand-thread	Short term [N]	Long term [N]	Short term [Nm]	Long term [N]	[N]
GERM-04 M3.5	GELM-04 M3.5	650	325	250	125	0,4
GERM-04	GELM-04	650	325	250	125	0,4
GERM-05 DIN M4	GELM-05 DIN M4	1000	500	250	125	0,4
GERM-05 DIN M5	GELM-05 DIN M5	1000	500	250	125	0,5
GERM-05	GELM-05	1200	600	250	125	0,5
GERM-05 DIN M5 LS	GELM-05 DIN M5 LS	1000	500	130	65	0,5
GERM-06	GELM-06	1400	700	300	150	1,5
GERM-06 LS	GELM-06 LS	1400	700	130	65	1,5
GERM-08	GELM-08	2700	1350	650	325	5
GERM-10	GELM-10	4700	2350	800	400	15
GERM-10 F	GELM-10 F	4700	2350	800	400	6
GERM-12	GELM-12	5700	2850	900	450	20
GERM-12 F	GELM-12 F	5700	2850	900	450	15
GERM-14	GELM-14	6600	3300	1000	500	25
GERM-15	GELM-15	3200	1600	1000	500	25
GERM-16	GELM-16	7500	3750	1200	600	30
GERM-16 F	GELM-16 F	7500	3750	1200	600	27,5
GERM-17	GELM-17	3600	1800	1200	600	30
GERM-17 F	GELM-17 F	3600	1800	1200	600	27,5
GERM-20	GELM-20	9500	4750	3000	1500	60
GERM-20 M20	GELM-20 M20	9500	4750	3000	1500	80



igubal® Clevis Joints

GERM/GELM

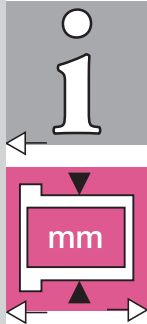
mm

Phone +49 - 22 03 - 96 49-145
 Fax +49 - 22 03 - 96 49-334

Dimensions [mm]

igubal® – Clevis Joints Dimensional Series E – Clevis Joints only (GERM / GELM), without clevis pin and circlip

Part Number		d1	g	a1	a2	b1	d2	d3	f	l1	l2	l3
		H9	h11		+0,3 -0,16	B13	Thread- tolerance 6H	+0,3 -0,3	+0,3 -0,3	+0,5 -0,5	+0,3 -0,3	+0,2 -0,2
GERM-04 M3.5	GELM-04 M3.5	4	8	8	8	4	M3.5	8,0	0,5	21,0	16,0	6,0
GERM-04	GELM-04	4	8	8	8	4	M04	8,0	0,5	21,0	16,0	6,0
GERM-05 DIN M4	GELM-05 DIN M4	5	10	10	10	5	M04	9,0	0,5	25,0	20,0	7,5
GERM-05 DIN M5	GELM-05 DIN M5	5	10	10	10	5	M05	9,0	0,5	25,0	20,0	7,5
GERM-05	GELM-05	5	12	12	12	6	M05	10,0	0,5	31,0	24,0	9,0
GERM-05 DIN M5 LS	GELM-05 DIN M5 LS	5	20	10	10	5	M05	9,0	0,5	36,0	30,0	7,5
GERM-06	GELM-06	6	12	12	12	6	M06	10,0	0,5	31,0	24,0	9,0
GERM-06 LS	GELM-06 LS	6	24	12	12	6	M06	10,0	0,5	43,0	36,0	9,0
GERM-08	GELM-08	8	16	16	16	8	M08	14,0	0,5	42,0	32,0	12,0
GERM-10	GELM-10	10	20	20	20	10	M10	18,0	0,5	52,0	40,0	15,0
GERM-10 F	GELM-10 F	10	20	20	20	10	M10x1,25	18,0	0,5	52,0	40,0	15,0
GERM-12	GELM-12	12	24	24	24	12	M12	20,0	0,5	62,0	48,0	18,0
GERM-12 F	GELM-12 F	12	24	24	24	12	M12x1,25	20,0	0,5	62,0	48,0	18,0
GERM-14	GELM-14	14	28	27	27	14	M14	24,0	0,5	72,0	56,0	22,5
GERM-15	GELM-15	15	28	27	27	14	M14	24,0	0,5	72,0	56,0	22,5
GERM-16	GELM-16	16	32	32	32	16	M16	26,0	1,0	83,0	64,0	24,0
GERM-16 F	GELM-16 F	16	32	32	32	16	M16x1,5	26,0	1,0	83,0	64,0	24,0
GERM-17	GELM-17	17	32	32	32	16	M16	26,0	1,0	83,0	64,0	24,0
GERM-17 F	GELM-17 F	17	32	32	32	16	M16x1,5	26,0	1,0	83,0	64,0	24,0
GERM-20	GELM-20	20	40	40	40	20	M20x1,5	34,0	1,0	105,0	80,0	30,0
GERM-20 M20	GELM-20 M20	20	40	40	40	20	M20x2,5	34,0	1,0	105,0	80,0	30,0





GERMK/GELMK

mm

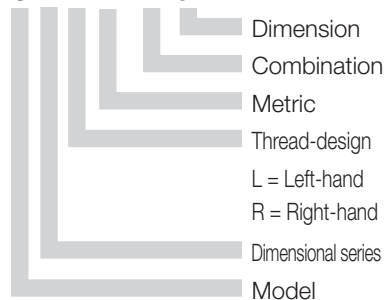
igubal® Clevis Joints



Data in mm

Structure – part no.

G E ... M K-04



Phone +49 - 22 03 - 96 49-145
Fax +49 - 22 03 - 96 49-334

igus® GmbH
51147 Cologne

Internet www.igus.de
E-mail info@igus.de

Special Properties

- Light weight
- Universal corrosion resistance
- High tensile strength
- Can be used in combination with series E rod ends



Material

igumid G

▶ Page 70.6

Load Data

igubal® – Clevis Joints with clevis pin and circlip

Part Number		Max. Static Axial Tensile Strength		Max. Radial Load	
Right-hand-thread	Left-hand-thread	Short Term	Long Term	Short Term	Long Term
		[N]	[N]	[N]	[N]
GERMK-04	GELMK-04	500	250	250	125
GERMK-04 M3.5	GELMK-04 M3.5	500	250	250	125
GERMK-05 DIN M4	GELMK-05 DIN M4	800	400	250	125
GERMK-05 DIN M5	GELMK-05 DIN M5	800	400	250	125
GERMK-05	GELMK-05	900	450	250	125
GERMK-05 DIN M5 LS	GELMK-05 DIN M5 LS	800	400	130	65
GERMK-06	GELMK-06	1300	650	300	150
GERMK-06 LS	GELMK-06 LS	1300	650	130	65
GERMK-08	GELMK-08	2100	1050	650	325
GERMK-10	GELMK-10	3000	1500	800	400
GERMK-10 F	GELMK-10 F	3000	1500	800	400
GERMK-12	GELMK-12	3500	1750	900	450
GERMK-12 F	GELMK-12 F	3500	1750	900	450
GERMK-14	GELMK-14	6100	3050	1000	500
GERMK-15	GELMK-15	2800	1400	1000	500
GERMK-16	GELMK-16	7000	3500	1200	600
GERMK-16 F	GELMK-16 F	7000	3500	1200	600
GERMK-17	GELMK-17	3600	1800	1200	600
GERMK-17 F	GELMK-17 F	3600	1800	1200	600
GERMK-20	GELMK-20	9000	4500	3000	1500
GERMK-20 M20	GELMK-20 M20	9000	4500	3000	1500



Single components:

clevis pin GBM and

circlip GSR

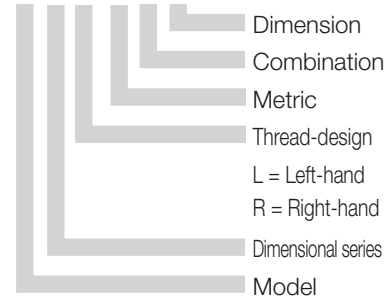
▶ Page 52.9



Data in mm

Structure – part no.

G E ... M F-04



Special Properties

- Single piece design
- Easy to assemble
- Maintenance-free
- Can be used in combination with series E rod ends
- High stability



Material

igumid G

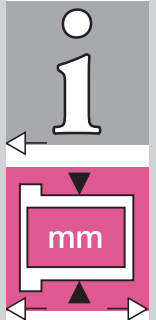
► Page 70.6

Load Data

igubal® – Clevis Joints with Spring-Loaded-Pins

Part Number		Max. Static Axial Tensile Strength		Max. Radial Load	
Right-hand-thread	Left-hand-thread	Short Term	Long Term	Short Term	Long Term
		[N]	[N]	[N]	[N]
GERMF-04	GELMF-04	500	250	250	125
GERMF-04 M3.5	GELMF-04 M3.5	500	250	250	125
GERMF-05 DIN M4	GELMF-05 DIN M4	800	400	250	125
GERMF-05 DIN M5	GELMF-05 DIN M5	800	400	250	125
GERMF-05 DIN M5 LS	GELMF-05 DIN M5 LS	800	400	250	125
GERMF-05	GELMF-05	900	450	250	125
GERMF-05 LS	GELMF-05 LS	800	400	130	65
GERMF-06	GELMF-06	1300	650	300	150
GERMF-06 LS	GELMF-06 LS	1300	650	130	65
GERMF-08	GELMF-08	2100	1050	650	325
GERMF-10	GELMF-10	3000	1500	800	400
GERMF-10 F	GELMF-10 F	3000	1500	800	400
GERMF-12	GELMF-12	3500	1750	900	450
GERMF-12 F	GELMF-12 F	3500	1750	900	450
GERMF-16	GELMF-16	7000	3500	1200	600
GERMF-16 F	GELMF-16 F	7000	3500	1200	600

Phone +49 - 22 03 - 96 49-145
Fax +49 - 22 03 - 96 49-334



Single components:
Spring-Loaded Pin GEFM
► Page 52.9



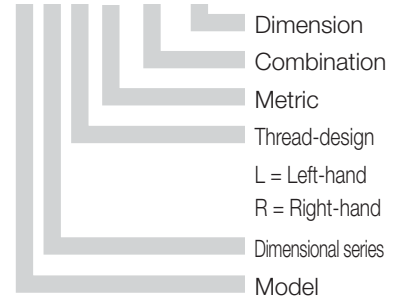
mm GE...MKE/GE...MFE
igubal® Clevis Joints



Data in mm

Structure – part no.

G E ... M KE-04



Special Properties

- Light weight
- Universal corrosion resistance
- High tensile strength
- Can be used in combination with series E rod ends



Material

igumid G

▶ Page 70.6

Phone +49 - 22 03 - 96 49-145
Fax +49 - 22 03 - 96 49-334

igus® GmbH
51147 Cologne

Load Data

igubal® – Clevis Joints with clevis pin and circlips, used in combination with series E rod end bearings

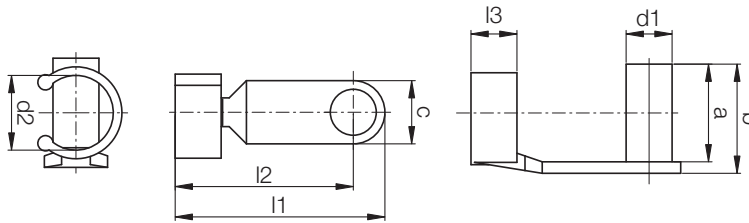
Part Number		Max. Static Axial Tensile Strength		Max. Radial Load	
Right-hand-thread	Left-hand-thread	Short Term	Long Term	Short Term	Long Term
		[N]	[N]	[N]	[N]
GERMKE-05	GELMKE-05	900	450	150	75
GERMKE-06	GELMKE-06	1300	650	200	100
GERMKE-08	GELMKE-08	2000	1000	450	225
GERMKE-10	GELMKE-10	2300	1150	500	250
GERMKE-10 F	GELMKE-10 F	2300	1150	500	250
GERMKE-12	GELMKE-12	3300	1650	550	275
GERMKE-12 F	GELMKE-12 F	3300	1650	550	275
GERMKE-15	GELMKE-15	2800	1400	800	400
GERMKE-16	GELMKE-16	5000	2500	850	425
GERMKE-16 F	GELMKE-16 F	5000	2500	850	425
GERMKE-17	GELMKE-17	3600	1800	1100	550
GERMKE-17 F	GELMKE-17 F	3600	1800	1100	550

Load Data

igubal® – Clevis Joints with Spring-Loaded-Pins, used in combination with series E rod end bearings

Part Number		Max. Static Axial Tensile Strength		Max. Radial Load	
Right-hand-thread	Left-hand-thread	Short Term	Long Term	Short Term	Long Term
		[N]	[N]	[N]	[N]
GERMF E-05	GELMF E-05	900	450	150	75
GERMF E-06	GELMF E-06	1300	650	200	100
GERMF E-08	GELMF E-08	2000	1000	450	225
GERMF E-10	GELMF E-10	2300	1150	500	250
GERMF E-10 F	GELMF E-10 F	2300	1150	500	250
GERMF E-12	GELMF E-12	3300	1650	550	275
GERMF E-12 F	GELMF E-12 F	3300	1650	550	275
GERMF E-16	GELMF E-16	5000	2500	850	425
GERMF E-16 F	GELMF E-16 F	5000	2500	850	425

Internet www.igus.de
E-mail info@igus.de



Dimensions [mm]

igubal® Spring-Loaded-Pins GEFM

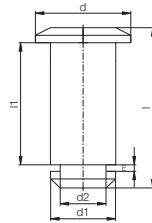
Part Number	d1 h11	d2	a	b	c	l1 ±0,5	l2	l3
GEFM-04	4	8	9,5	10,5	8	19	15	4,5
GEFM-05 DIN	5	9	12	13,5	8	23	19	5,5
GEFM-05	5	10	14	15,5	8	27	23	6,5
GEFM-06	6	10	14	15,5	8	27	23	6,5
GEFM-08	8	14	19	21,0	11	35,5	30	8,0
GEFM-10	10	18	23	25,5	14	45	38	10,0
GEFM-12	12	20	28	31,0	16	53	45	12,0
GEFM-16	16	26	36	40,0	22	73	62	16,0



Material

igumid G

▶ Seite 70.6



Dimensions [mm]

igubal® Clevis pin GBM

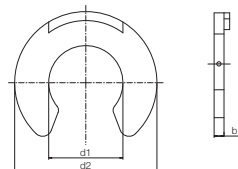
Part Number	d1	d2	d	l	l1	m	Clip
GBM-04	4,00	3,2	7,00	12,50	8,00	1,05	GSR-04
GBM-05	5,00	4,0	8,00	16,50	12,00	1,15	GSR-06
GBM-05 DIN	5,00	4,0	8,00	14,50	10,00	1,15	GSR-06
GBM-06	6,00	4,0	9,00	16,50	12,00	1,15	GSR-06
GBM-08	8,00	5,0	12,00	21,50	16,00	1,15	GSR-08
GBM-10	10,00	7,0	15,00	27,00	20,00	1,35	GSR-10
GBM-12	12,00	9,0	18,00	31,50	24,00	1,50	GSR-12
GBM-14	14,00	12,0	22,00	36,00	27,00	1,70	GSR-16
GBM-15	15,00	12,0	23,00	36,00	27,00	1,70	GSR-16
GBM-16	16,00	12,0	24,00	42,00	32,00	1,70	GSR-16
GBM-17	17,00	12,0	25,00	42,00	32,00	1,70	GSR-16
GBM-20	20,00	15,0	30,00	51,00	40,00	2,00	GSR-20



Material

igumid G

▶ Page 70.6



Dimensions [mm]

igubal® Circlip GSR

Part Number	d1	d2	b
GSR-04	3,20	7,0	1,00
GSR-06	4,00	9,0	1,10
GSR-08	5,00	11,0	1,10
GSR-10	7,00	14,0	1,30
GSR-12	9,00	18,5	1,40
GSR-16	12,00	23,0	1,60
GSR-20	15,00	28,0	1,90



Material

POM

▶ Page 70.8



igubal® Clevis Joints
mm GEFM/GBM/GSR

Phone +49 - 22 03 - 96 49-145
Fax +49 - 22 03 - 96 49-334

