

Angled ball and socket joints: WGRM and WGLM



- Connection for rotating and pivoting movements
 - Lightweight
 - Easy and quick assembly
 - Vibration-dampening
 - Resistance to dust and dirt
 - Ball studs made of plastic, galvanised steel and stainless steel¹⁹⁾
- Accessories, **page 857**

Order key

Type	Size [mm]
WG □ M - 05 MS	
Angled ball and socket joint	
Thread (housing)	
Metric	
Thread size M...	

Options:

Thread (housing)

- L = Left-hand thread
- R = Right-hand thread

Ball stud¹⁹⁾

- Blank = Made of plastic
- MS = Made of galvanised steel
- ES = Made of stainless steel²⁸⁾

Material:

Housing: igumid G ► **Page 1654**
Spherical cap: iglidur® W300 ► **Page 171**

Service life calculation online
► www.igus.eu/igubal-expert

Technical data

Part No.	Max. static tensile force		Max. static compressive strength		Max. axial tensile force		Max. axial tensile force steel stud		Weight [g]
	(Ball stud axis)		(Ball stud axis)		(Housing axis)		(Housing axis)		
	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term	
	[N]	[N]	[N]	[N]	[N]	[N]	[N]	[N]	
WG□M-05	30	15	200	100	100	50	600	300	2.6
WG□M-06	35	17.5	300	150	140	70	800	400	3.8
WG□M-08	250	125	500	250	200	100	1,500	750	8.0
WG□M-10	250	125	900	450	400	200	1,900	950	13.7

Dimensions [mm]

Part No.	d1	d2	d4	l1	l2	l5	l6	h1	h2	h3	a	b	e	S1	S2	Max. pivot angle
	±0.1		±0.5	±0.2	±0.3		Min.	±0.4	±0.5	±0.5	±0.3	±0.5	±1.0			
WG□M-05	8	M5	12.8	9	10.2	14	8.2	10.8	0.65	25.6	22	28.4	11	SW8	SW7	25°
WG□M-06	10	M6	14.8	11	12.5	16	10.5	12.3	0.70	30.9	25	32.4	13	SW9	SW8	25°
WG□M-08	13	M8	19.3	13	16.5	18	13.5	16.2	1.15	38.8	30	39.7	16	SW12	SW11	25°
WG□M-10	16	M10	24.0	16	20.0	20	16.0	20.0	1.15	47.0	35	47.0	18	SW14	SW13	25°

¹⁹⁾ Ball stud with right-hand thread; left-hand thread upon request

²⁸⁾ Stainless steel ball stud upon request

Angled ball and socket joint (low-cost): WGRM LC and WGLM LC



Order key

Type	Size [mm]	Version
WG □ M - 05 LC MS		
Angled ball and socket joint		
Thread (housing)		
Metric		
Thread size M...		
Low-cost		

Options:

Thread (housing)

- L = Left-hand thread
- R = Right-hand thread

Ball stud¹⁹⁾

- Blank = Made of plastic
- MS = Made of galvanised steel
- ES = Made of stainless steel²⁸⁾

Material:

Housing: igumid G ► **Page 1654**

Service life calculation online
► www.igus.eu/igubal-expert

Technical data

Part No.	Max. static tensile force		Max. static compressive strength		Max. axial tensile force		Max. axial tensile force steel stud		Weight [g]
	(Ball stud axis)		(Ball stud axis)		(Housing axis)		(Housing axis)		
	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term	
	[N]	[N]	[N]	[N]	[N]	[N]	[N]	[N]	
WG□M-04 LC-MS ²⁰⁾	100	50	150	75	–	–	500	250	2.4
WG□M-05 LC	30	15	200	100	100	50	600	300	2.6
WG□M-06 LC	35	17.5	300	150	140	70	800	400	4.0
WG□M-08 LC	250	125	500	250	200	100	1,500	750	8.2
WG□M-10 LC	250	125	900	450	400	200	1,900	950	13.8

Dimensions [mm] – technical drawing ► **Page 764**

Part No.	d1	d2	d4	l1	l2	l5	l6	h1	h2	h3	a	b	e	S1	S2	Max. pivot angle
	±0.1		±0.5	±0.2	±0.3		Min.	±0.4	±0.5	±0.5	±0.3	±0.5	±1.0			
WG□M-04 LC-MS ²⁰⁾	6	M4	10.6	8.5	8.0	12.5	6.8	9.0	0.20	21.8	18	23.3	10.5	SW7	SW7	20°
WG□M-05 LC	8	M5	12.8	9.0	10.2	14.0	8.2	10.8	0.65	25.6	22	28.4	11.0	SW8	SW7	25°
WG□M-06 LC	10	M6	14.8	11.0	12.5	16.0	10.5	12.3	0.70	30.9	25	32.4	13.0	SW9	SW8	25°
WG□M-08 LC	13	M8	19.3	13.0	16.5	18.0	13.5	16.2	1.15	38.8	30	39.7	16.0	SW12	SW11	25°
WG□M-10 LC	16	M10	24.0	16.0	20.0	20.0	16.0	20.0	1.15	47.0	35	47.0	18.0	SW14	SW13	25°

¹⁹⁾ Ball stud with right-hand thread; left-hand thread upon request

²⁰⁾ Only available with galvanised steel stud

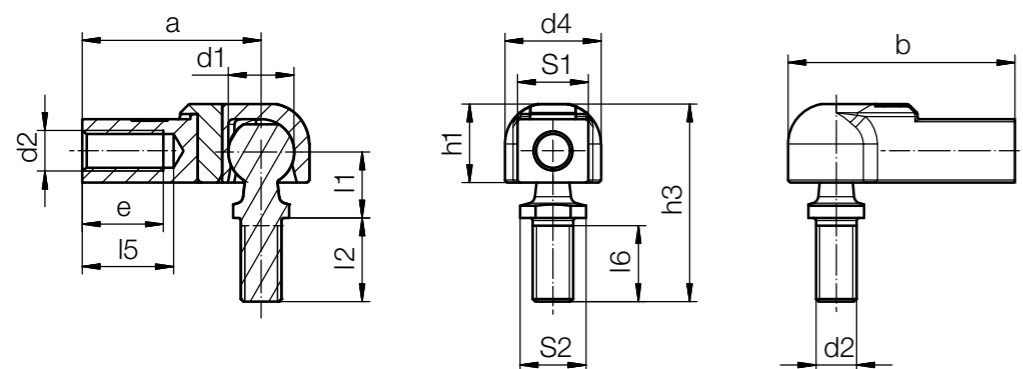
²⁸⁾ Stainless steel ball stud upon request

Ball joint, removable:
WGRM-DE and WGLM-DE



- Cost-effective ball joint
- Lightweight
- Absolute corrosion resistance
- Easy assembly and disassembly
- High holding strength when assembled (260N)
- Ball studs made of plastic, galvanised steel and stainless steel¹⁹⁾ ► Accessories, **page 857**

i Material:
Housing: **igumid G** ► **Page 1654**



Technical data and dimensions [mm]

Part No.	Assembly force [N]		Disassembly force [N]	d1 ±0.1	d2	d4 ±0.5	l1 ±0.2	l2 ±0.5	l5 Min.	Weight [g]
	35	50								
WG□M-05-DE	35	50	200	8.0	M5	12.8	9	10.2	13.0	3.4
WG□M-06-DE	50		275	10.0	M6	16.0	11	12.5	14.5	5.5

Dimensions [mm]

Part No.	l6 Min.	h1 ±0.4	h3 ±0.5	S1	S2	a ±0.3	b ±0.5	e ±1.0	Pivot angle	
									Recom.	Max.
WG□M-05-DE	8.2	10.8	25.6	SW9	SW7	25.0	31.4	11	18°	25°
WG□M-06-DE	10.5	13.0	32.0	SW11	SW8	30.0	38.0	12	18°	25°

¹⁹⁾ Ball stud with right-hand thread; left-hand thread upon request

²⁸⁾ Stainless steel ball stud upon request

🔑 Order key

Type	Size [mm]	Version
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WG □ M - 05 DE MS

Angled ball and socket joint	Thread (housing)	Metric	Thread size M...	Disassembly
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Options:

Thread (housing)

- L = Left-hand thread
- R = Right-hand thread

Ball stud¹⁹⁾

- Blank = Made of plastic
- MS = Made of galvanised steel
- ES = Made of stainless steel²⁸⁾

In-line ball and socket joints:
AGRM and AGLM



🔑 Order key

Type	Size [mm]
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AG □ M - 08 MS

In-line ball and socket joint	Thread (housing)	Metric	Thread size M...
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Options:

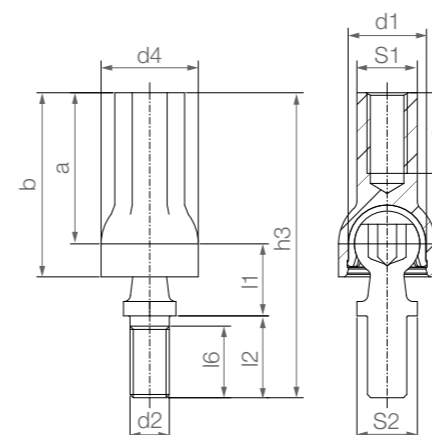
Thread (housing)

- L = Left-hand thread
- R = Right-hand thread

Ball stud¹⁹⁾

- Blank = Made of plastic
- MS = Made of galvanised steel
- ES = Made of stainless steel²⁸⁾

i Material:
Housing: **igumid G** ► **Page 1654**
Spherical cap: **iglidur® W300** ► **Page 171**



Technical data

Part No.	Max. static axial tensile force		Max. static axial compressive strength		Max. assembly force [N]	Weight [g]
	Short-term	Long-term	Short-term	Long-term		
	[N]	[N]	[N]	[N]		
AG□M-08	250	125	1,000	500	110	7.8


Dimensions [mm]

Part No.	d1 ±0.1	d2	d4 ±0.5	l1 ±0.2	l2 ±0.3	l6 Min.	h3 ±0.5	S1	S2	a ±0.3	b ±0.5	Pivot angle		
												Min.	Recom.	Max.
AG□M-08	13.0	M8	19.3	13	16.5	13.5	59	SW12	SW11	29.5	36.5	16	18°	25°

¹⁹⁾ Ball stud with right-hand thread; left-hand thread upon request

²⁸⁾ Stainless steel ball stud upon request

In-line ball and socket joints (low-cost):
AGRM LC and AGLM LC

 Order key

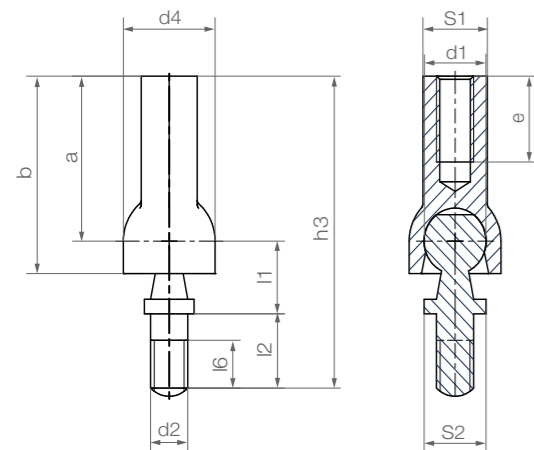
Type	Size [mm]	Version
AG □ M - 06 LC MS		
In-line ball and socket joint	Thread (housing)	Metric
	Inner Ø	Low-cost

Options:

Thread (housing)	Ball stud¹⁹⁾
L = Left-hand thread	Blank = Made of plastic
R = Right-hand thread	MS = Made of galvanised steel
	ES = Made of stainless steel ²⁸⁾

 **Material:**
Housing: igumid G ► Page 1654

- Housing with ball stud
- Lightweight
- Maintenance-free
- Ball studs made of plastic, galvanised steel and stainless steel¹⁹⁾ ► Accessories, page 857



Technical data

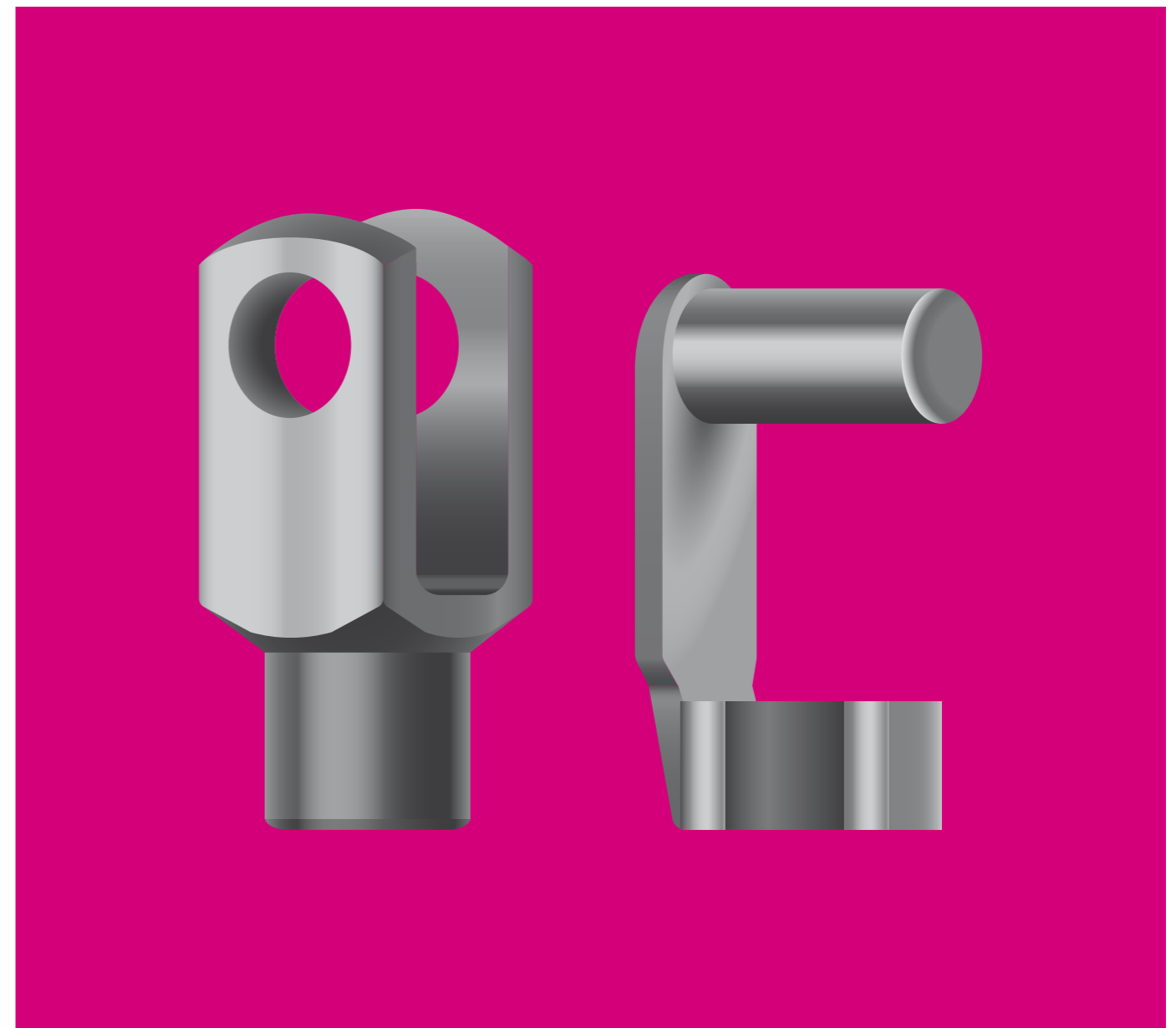
Part No.	max. static tensile strain		Max. static compressive force (with steel stud)		Max. static compressive force (with plastic stud)		Max. assembly force [N]	Weight [g]
	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term		
	[N]	[N]	[N]	[N]	[N]	[N]		
AG□M-06-LC	100	50	2,000	1,000	800	400	320	10.8
AG□M-08-LC New	150	75	2,800	1,400	1,400	700	430	23.1

Dimensions [mm]

Part No.	d1	d2	d4	l1	l2	l6	h3	S1	S2	a	b	e	Max. pivot angle Recom. Max.
	±0.1		±0.5	±0.2	±0.3	Min.	±0.5			±0.3	±0.5	Min.	
AG□M-06-LC	10	M6	14.8	11	11.25	7.25	47.25	SW9	SW10	25	29.9	13	18° 25°
AG□M-08-LC New	13	M8	19.3	13	16.5	13.5	57.5	SW12	SW11	29.5	35.0	16	18° 25°

¹⁹⁾ Ball stud with right-hand thread; left-hand thread upon request

²⁸⁾ Stainless steel ball stud upon request



igubal® clevis joints

High tensile force

Vibration-dampening

Noise-dampening

Can be combined with E series rod end

Lightweight

