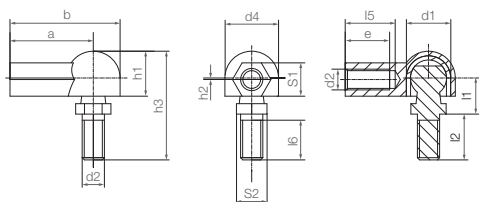


Angled ball and socket joints:  
WGRM and WGLM



- Connection for rotating and pivoting movements
- Lightweight
- Easy and quick assembly
- Vibration-dampening
- Insensitive to dirt and dust
- Ball studs made of plastic, galvanised steel and stainless steel<sup>19)</sup>

▶ Accessories, page 1011



Order key

Type	Size
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WG □ M- 05 - MS

Angled ball and socket joint	Thread (housing)	Metric	Thread size M ... [mm]
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Options:

Thread (housing)

- L : Left-hand thread
- R : Right-hand thread

Ball stud<sup>19)</sup>

- Blank : Made of plastic
- MS : Made of galvanised steel
- ES : Made of stainless steel<sup>20)</sup>

Material:

Housing: igumid® G ▶ Page 1914  
Spherical cap: iglidur® W300 ▶ Page 175

Online service life calculation  
▶ [www.igus.eu/igubal-expert](http://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
	(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-MS	30	15	200	100	100	50	600	300	2.6
WG □ M-06-MS	35	17.5	300	150	140	70	800	400	3.8
WG □ M-08-MS	250	125	500	250	200	100	1,500	750	8.0
WG □ M-10-MS	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-MS	8	M5	12.8	9	10.2	14	6.2	10.8	0.65	24.9	22	28.4	11	SW8	SW7	25°
WG □ M-06-MS	10	M6	14.8	11	12.5	16	9.0	12.3	0.70	30.9	25	32.4	13	SW9	SW8	25°
WG □ M-08-MS	13	M8	19.3	13	16.5	18	11.2	16.2	1.15	39.15	30	39.7	16	SW12	SW11	25°
WG □ M-10-MS	16	M10	24.0	16	20.0	20	12.7	20.0	1.15	48.0	35	47.0	18	SW14	SW13	25°

<sup>19)</sup> Ball stud with right-hand thread; left-hand thread upon request

<sup>20)</sup> Stainless steel ball stud upon request

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



Order key

Type	Size	Version
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WG □ M- 05 - LC - MS

Angled ball and socket joint	Thread (housing)	Metric	Thread size M ... [mm]	Low-cost
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Options:

Thread (housing)

- L : Left-hand thread
- R : Right-hand thread

Ball stud<sup>19)</sup>

- Blank : Made of plastic
- MS : Made of galvanised steel
- ES : Made of stainless steel<sup>20)</sup>

Material:

Housing: igumid® G ▶ Page 1914

Online service life calculation  
▶ [www.igus.eu/igubal-expert](http://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
	(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 <sup>20)</sup>	100	50	150	75	–	–	500	250	2.4
WG □ M-05-LC-MS	150	75	200	100	100	50	600	300	2.6
WG □ M-06-LC-MS	200	100	300	150	140	70	800	400	4.0
WG □ M-08-LC-MS	250	125	500	250	200	100	1,500	750	8.2
WG □ M-10-LC-MS	250	125	900	450	400	200	1,900	950	13.8

Dimensions [mm] - technical drawing ▶ Page 898

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 <sup>20)</sup>	6	M4	10.6	8.5	8.0	11.9	6.8	9.0	0.20	21.8	18	23.3	10.5	SW7	SW5	20°
WG □ M-05-LC-MS	8	M5	12.8	9.0	10.2	14.0	6.2	10.8	0.65	24.9	22	28.4	11.0	SW8	SW7	25°
WG □ M-06-LC-MS	10	M6	14.8	11.0	12.5	16.0	9.0	12.3	0.70	30.9	25	32.4	13.0	SW9	SW8	25°
WG □ M-08-LC-MS	13	M8	19.3	13.0	16.5	18.0	11.2	16.2	1.15	39.15	30	39.7	16.0	SW12	SW11	25°
WG □ M-10-LC-MS	16	M10	24.0	16.0	20.0	20.0	12.7	20.0	1.15	48.0	35	47.0	18.0	SW14	SW13	25°

<sup>19)</sup> Ball stud with right-hand thread; left-hand thread upon request

<sup>20)</sup> Only available with galvanised steel stud

<sup>20)</sup> Stainless steel ball stud upon request

Ball joints, 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 steel<sup>19)</sup> ▶ Accessories, **page 1011**

**i** Material:  
Housing: igumid® G ▶ **Page 1914**

**🔑** Order key

Type	Size	Version
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WG □ M- 05 -DE- MS

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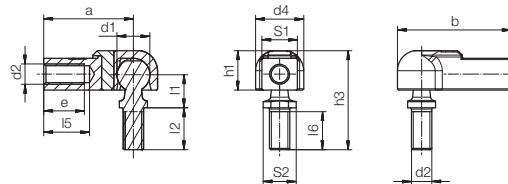
Options:

Thread (housing)

- L : Left-hand thread
- R : Right-hand thread

Ball stud<sup>19)</sup>

- Blank : Made of plastic
- MS : Made of galvanised steel
- ES : Made of stainless steel<sup>28)</sup>



Technical data and dimensions [mm]

Part No.	Assembly force and disassembly force <sup>17)</sup>		Max. static tensile force <sup>180)</sup>		Max. static compressive force <sup>180)</sup>		Max. axial tensile force <sup>180)</sup>		Max. pivot angle	Weight [g]
	[N]	[N]	Short-term	Long-term	Short-term	Long-term	Short-term	Long-term		
WG □ M-05-DE-MS	40	120	60	360	180	1,200	600	23°	3.4	
WG □ M-06-DE-MS	55	160	80	460	230	1,400	700	25°	5.5	
WG □ M-08-DE-MS <b>New</b>	45	400	200	1,000	500	2,200	1,100	25°	8.4	
WG □ M-10-DE-MS <b>New</b>	85	400	200	1,400	700	3,800	1,900	25°	16.0	

Dimensions [mm]

Part No.	d1	d2	d4	l1	l2	l5	l6	h1	h3	S1	S2	a	b	e
WG □ M-05-DE-MS	±0.1		±0.5	±0.2	±0.5	min.	min.	±0.4	±0.5			±0.3	±0.5	±1.0
WG □ M-05-DE-MS	8.0	M5	12.8	9	10.2	13.0	6.2	10.8	25.6	SW9	SW7	25.0	31.4	11
WG □ M-06-DE-MS	10.0	M6	16.0	11	12.5	15.0	9.0	13.0	32.0	SW11	SW8	30.0	38.0	13.5
WG □ M-08-DE-MS <b>New</b>	13.0	M8	19.0	13	16.5	18.0	15.0	15.75	39.0	SW14	SW11	35.3	44.8	16
WG □ M-10-DE-MS <b>New</b>	16.0	M10	23.0	16	20.0	20.0	16.0	19.0	47.25	SW17	SW13	42.0	53.5	18

<sup>19)</sup> Ball stud with right-hand thread; left-hand thread upon request

<sup>28)</sup> Stainless steel ball stud upon request

<sup>175)</sup> Measured values for variant with steel pin (-MS) with open pin

<sup>180)</sup> Measured values for variant with steel pin (-MS) with closed pin

In-line ball and socket joints:  
AGRM and AGLM



- For all mechanical combinations
- Easy to assemble
- Maintenance-free, predictable service life
- Resistant to corrosion and chemicals
- Vibration-dampening
- Ball studs made of plastic, galvanised steel and stainless steel<sup>19)</sup> ▶ Accessories, **page 1011**

**i** Material:  
Housing: igumid® G ▶ **Page 1914**  
Spherical cap: iglidur® W300 ▶ **Page 175**

**🔑** Order key

Type	Size
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AG □ M- 08 - MS

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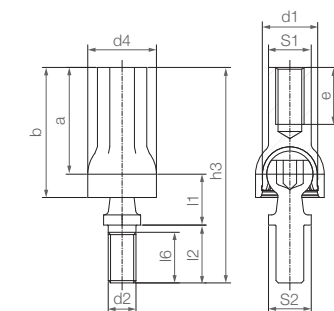
Options:

Thread (housing)

- L : Left-hand thread
- R : Right-hand thread

Ball stud<sup>19)</sup>

- Blank : Made of plastic
- MS : Made of galvanised steel
- ES : Made of stainless steel<sup>28)</sup>



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		
AG □ M-08-MS	250	125	1,000	500	110	7.8

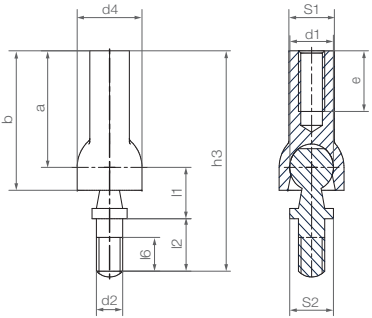
Dimensions [mm]

Part No.	d1	d2	d4	l1	l2	l6	h3	S1	S2	a	b	e	pivot angle	
	±0.1		±0.5	±0.2	±0.3	min.	±0.5			±0.3	±0.5	min.	Recom.	max.
AG □ M-08-MS	13.0	M8	19.3	13	16.5	11.2	59.5	SW12	SW11	30	36.5	16	18°	25°

<sup>19)</sup> Ball stud with right-hand thread; left-hand thread upon request

<sup>28)</sup> Stainless steel ball stud upon request

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



Order key

Type Size Version

AG □ M- 06 -LC -MS

In-line ball and socket joint  
Thread (housing)  
Metric  
Inner Ø [mm]  
Low-cost

Options:

Thread (housing) Ball stud<sup>19)</sup>  
L : Left-hand thread Blank : Made of plastic  
R : Right-hand thread MS : Made of galvanised steel  
ES : Made of stainless steel<sup>20)</sup>

Material:  
Housing: igumid® G ► Page 1914

- Housing with ball stud
- Lightweight
- Maintenance-free
- Ball studs made of plastic, galvanised steel and stainless steel<sup>19)</sup> ► Accessories, page 1011

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 [N]	Long-term [N]	Short-term [N]	Long-term [N]	Short-term [N]	Long-term [N]		
AG□M-04-LC-MS <sup>20)</sup> <b>New</b>	120	60	1,600	800	–	–	280	3.3
AG□M-06-LC-MS	100	50	2,000	1,000	800	400	320	10.8
AG□M-08-LC-MS	150	75	2,800	1,400	1,400	700	430	23.1

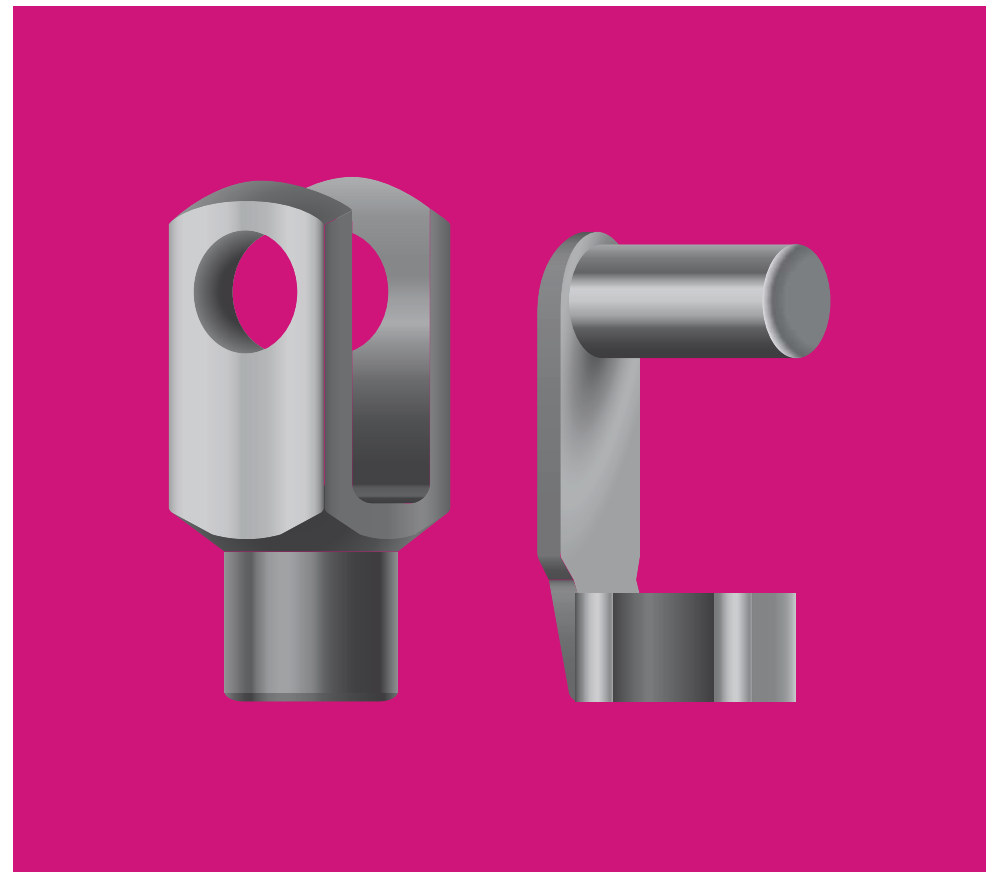
Dimensions [mm]

Part No.	d1	d2	d4	l1	l2	l6	h3	S1	S2	a	b	e	Max. pivot angle
	±0.1		±0.5	±0.2	±0.3	min.	±0.5			±0.3	±0.5	min.	
AG□M-04-LC-MS <sup>20)</sup> <b>New</b>	6	M4	10.6	8.5	8.0	6.8	36.5	SW7	SW5	20	23.0	10.25	18° 25°
AG□M-06-LC-MS	10	M6	14.8	11	12.5	9.0	48.5	SW9	SW8	25	29.9	13	18° 25°
AG□M-08-LC-MS	13	M8	19.3	13	16.5	11.2	59.5	SW12	SW11	30	35.0	16	18° 25°

<sup>19)</sup> Ball stud with right-hand thread; left-hand thread upon request

<sup>20)</sup> Only available with galvanised steel stud

<sup>28)</sup> Stainless steel ball stud upon request



igubal® clevis joints

High tensile force

Vibration-dampening

Noise-dampening

Can be combined with rod ends of the dimensional series E

Lightweight

