

Pillow block bearings with cost-effective metallic housing: PP-JEM-SP

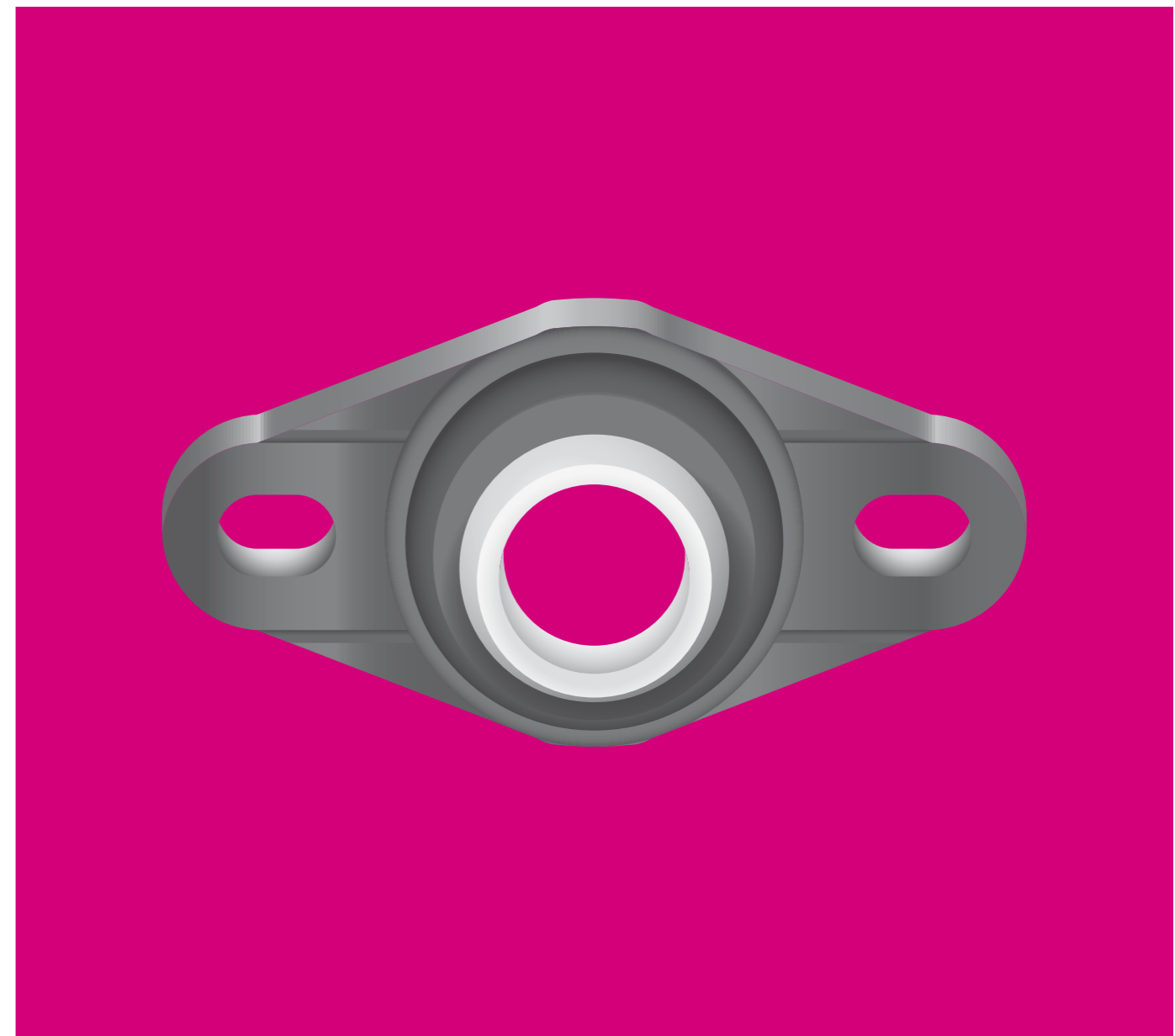
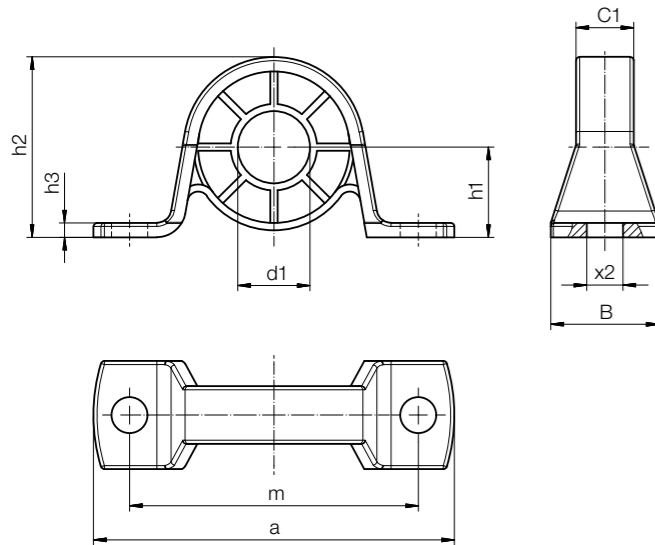


- Lubrication and maintenance-free
- Cost-effective
- Resistant to dirt
- Cost-effective spherical ball material iglidur® J4 available (order example: PP204-J4EM-20-14-SP)

Order key

Type	Size [mm]	Version
<b>PP204- J E M- 20 - 14 - SP</b>		
Pillow block bearing	Spherical ball material	Dimensional series
	Metric	Spherical ball inner Ø
		Spherical ball width
		Injection moulding

**Material:**  
**Housing:** Galvanised steel  
 (stainless steel upon request)  
**Spherical ball:** iglidur® J  
 (alternative iglidur® J4)



**Technical data**

Part No.	max. static radial tensile strain		Max. static axial compressive force		Weight [g]
	Short-term	Long-term	Short-term	Long-term	
	[N]	[N]	[N]	[N]	
PP204-JEM-20-14-SP <b>New</b>	3,000	1,500	1,000	500	121.0
PP205-JEM-25-15-SP <b>New</b>	5,000	2,500	1,800	900	154.0
PP206-JEM-30-16-SP <b>New</b>	6,000	3,000	1,800	900	206.0

**Dimensions [mm]**

Part No.	d1	h1	h2	h3	a	m	C1	B	x2
PP204-JEM-20-14-SP <b>New</b>	E10	25.4	50.5	3	98	76	22.0	32	9.5
PP205-JEM-25-15-SP <b>New</b>	25	28.6	56.6	4	108	86	24.0	32	11.5
PP206-JEM-30-16-SP <b>New</b>	30	33.3	66.3	4	117	95	26.5	38	11.5

Can be combined with SRM fixing collars, page 858

**igubal® fixed flange bearings**

Maintenance-free dry operation

Robust

Durable

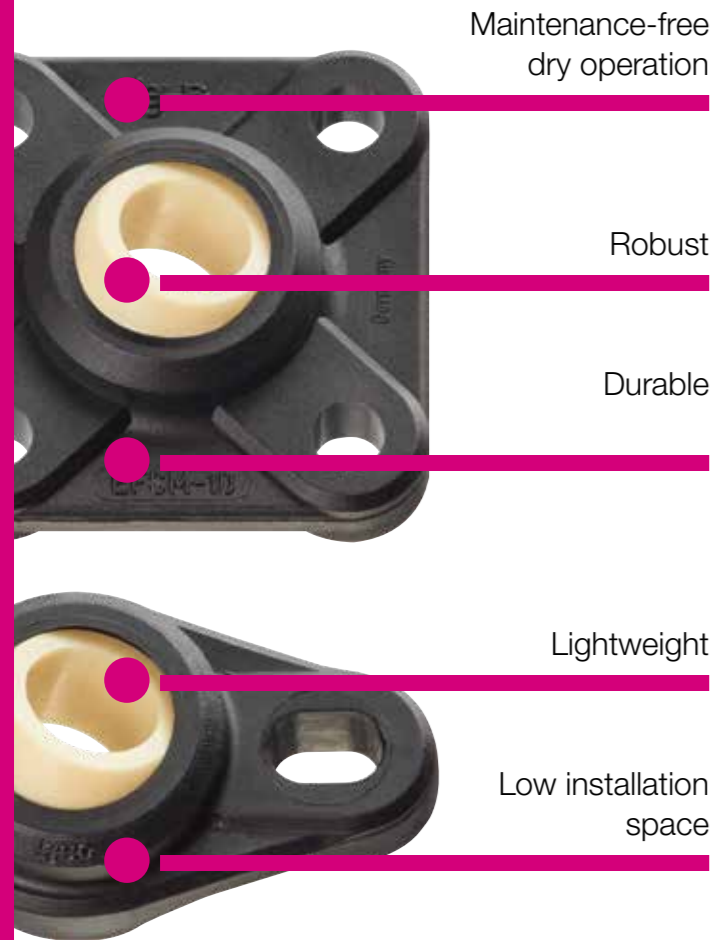
Compensation of misalignment errors

Resistant to edge loads

Lightweight



igubal® fixed flange bearings have been developed for supporting the centre or ends of shafts. Like all standard igubal® products, these bearings consist of an igumid G housing and an iglidur® W300 spherical ball. For temperatures up to +200°C please select the HT version (High Temperature). igubal® fixed flange bearings are made to the dimensional E series and are offered with two or four mounting holes.



### When to use it?

- If chemical resistance is required
- If a cost-effective option is requested
- If you need dirt-resistant bearings
- To adjust misalignment
- If you need split components
- If temperatures higher than +200°C are required



### When not to use it?

- When temperatures are higher than +200°C  
▶ HT version, page 814-813
- When an integrated fixing collar is required
- When dimensions above 50mm are required
- When rotation speeds higher than 0.5m/s are required



### Available from stock

Detailed information about delivery time online.



### Price breaks online

No minimum order value. No minimum order quantity



### Max. + 200°C

Min. -40°C

(depending on material: standard from -30°C to +80°C; HT from -40°C to +200°C)



### 5 types

Ø 4-50mm



### Online product finder

▶ [www.igus.eu/igubal-finder](http://www.igus.eu/igubal-finder)

### Typical sectors of industry and application areas

- Plant design ● Automation
- Agricultural machines
- Machine building ● Food industry etc.



Improve technology and reduce costs – 110 exciting examples online

▶ [www.igus.eu/igubal-applications](http://www.igus.eu/igubal-applications)



Material handling



▶ [www.igus.eu/agriculture](http://www.igus.eu/agriculture)



▶ [www.igus.eu/rotary-sorter](http://www.igus.eu/rotary-sorter)



▶ [www.igus.eu/food](http://www.igus.eu/food)

### Application areas

Since igubal® fixed flange bearings are made for maintenance-free dry operation, they are especially suitable for applications in which access to the bearing is limited, in wet environments or cleanroom environments. igubal® fixed flange bearings are also found in electric brushes, awnings, conveyor technology, and bakery machines.

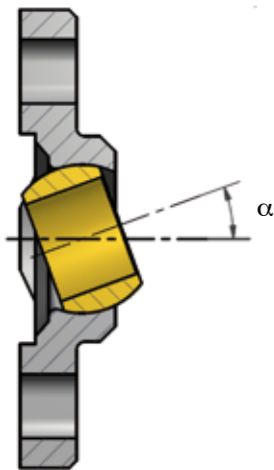
### Tolerances

Maintenance-free igubal® fixed flange bearings are designed with an E10 tolerance of the inner diameter. The shaft tolerance should be included between h6 and h9. These recommended tolerances allow for changes in the bearing due to temperature. All values and tolerances according to ISO 2768-m. Please contact us in case you require lower or other bearing tolerances.

### Assembly

igubal® fixed flange bearings are designed for mounting with two or four bolts, depending on the design. The 2-hole types are provided with elongated holes, which allow easy and flexible installation. An exact positioning of the bearing housing is not necessary, since the fixed flange bearing compensates for alignment errors. Special adjusting rings can be used to fix the shaft.

### Pivot angle



### igubal® fixed flange bearings – for temperatures up to +80°C



Easy to fit

E series

► From page 806



For higher radial load

E series

► From page 808



Universal and quick assembly

Female thread

► Page 810



Universal and quick assembly

male thread

► Page 811



High static load, split housing

K series

► Page 812

### igubal® fixed flange bearings – for temperatures up to +200°C



For higher radial load

E series

► Page 813



Easy to fit

E series

► Page 814



Dimensional E series

► Page 814



Easy replacement of the spherical ball

► Page 814

### igubal® combination with xiros® ball bearings



Low coefficient of friction, pivoting version

E series

► Page 936



Low coefficient of friction, pivoting version


E series

► Page 937

## Fixed flange bearings with 2 mounting holes: EFOM



- iglidur® W300 extremely wear-resistant spherical ball
- Easy to fit
- Compensation of misalignment errors
- Absolute corrosion resistance
- Lightweight
- Maintenance-free dry operation

 **Service life calculation online**  
▶ [www.igus.eu/igubal-expert](http://www.igus.eu/igubal-expert)

### Technical data

Part No.	Max. permissible axial load		Max. permissible radial load		Max. tightening torque Holes [Nm]	Weight [g]
	Short-term	Long-term	Short-term	Long-term		
	[N]	[N]	[N]	[N]		
EFOM-04	400	200	750	375	0.6	1.9
EFOM-05	400	200	750	375	0.6	2.3
EFOM-06	500	250	800	400	0.6	1.8
EFOM-08	700	350	1,100	550	1.3	4.1
EFOM-10	850	425	2,000	1,000	2.5	6.8
EFOM-12	1,100	550	2,200	1,100	2.5	8.9
EFOM-15	1,300	650	2,400	1,200	4.5	15.0
EFOM-16	1,400	700	2,800	1,400	4.5	17.7
EFOM-17	1,800	900	3,200	1,600	4.5	24.9
EFOM-20	1,800	900	5,500	2,750	10.5	32.8
EFOM-25	3,000	1,500	6,000	3,000	10.5	58.5
EFOM-30	3,500	1,750	6,500	3,250	21.5	78.9

### Alternative spherical ball materials ▶ Page 841



J4VEM:  
Clearance-free,  
pre-loaded



JEM:  
low moisture  
absorption




REM:  
Low-cost

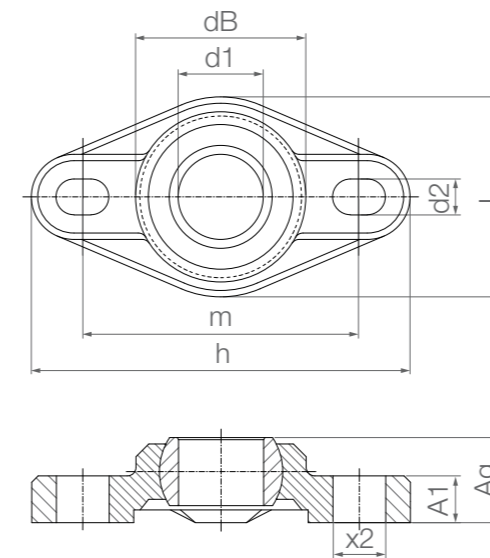


J4EM:  
Low-cost and low  
moisture absorption

### Order key

Type	Size [mm]
<b>E F O M -04</b>	
E series	
Fixed flange bearing	
2 holes	
Metric	
Inner Ø	

 **Material:**  
Housing: **igumid G** ▶ Page 1654  
Spherical ball: **igidur® W300** ▶ Page 171  
Combination with **xiros®** ball bearings ▶ Page 937



### Dimensions [mm]

Part No.	d1	dB	h	L	m	A1	Ag	d2	x2	Max. pivot angle
	E10									
EFOM-04	4	14.0	33.8	16.0	24.0	4.5	8.0	3.2	5.0	28°
EFOM-05	5	14.0	33.8	16.0	24.0	4.5	8.5	3.2	5.0	29°
EFOM-06	6	14.0	33.8	16.0	24.0	4.5	8.5	3.2	5.0	25°
EFOM-08	8	18.0	44.2	22.0	31.0	5.5	10.5	4.3	6.5	25°
EFOM-10	10	22.2	52.0	26.0	36.0	6.5	12.0	5.3	8.0	25°
EFOM-12	12	25.0	56.7	31.0	41.0	7.0	13.0	5.3	8.0	21°
EFOM-15	15	29.8	68.6	36.0	50.0	8.5	15.5	6.4	10.0	20°
EFOM-16	16	32.0	72.6	38.0	53.0	10.0	17.5	6.4	10.1	27°
EFOM-17	17	34.8	74.6	41.0	55.0	10.0	18.0	6.4	10.2	21°
EFOM-20	20	40.0	89.0	47.0	65.0	11.0	20.0	8.4	12.5	19°
EFOM-25	25	48.5	101.0	58.5	75.0	14.0	25.0	8.4	12.6	15°
EFOM-30	30	55.0	118.0	65.0	87.5	15.0	26.0	10.5	16.0	14°


### Standard tolerances:

from 0.5 to 6mm: ±0.1mm  
from 6 to 30mm: ±0.2mm  
from 30 to 120mm: ±0.3mm

Fixed flange bearings with 4 mounting holes: EFSM



- iglidur® W300 extremely wear-resistant spherical ball
- Easy to fit
- Compensation of misalignment errors
- Absolute corrosion resistance
- Lightweight
- Maintenance-free dry operation

 Service life calculation online  
▶ [www.igus.eu/igubal-expert](http://www.igus.eu/igubal-expert)

Technical data

Part No.	Max. permissible axial load		Max. permissible radial load		Max. tightening torque Holes [Nm]	Weight [g]
	Short-term	Long-term	Short-term	Long-term		
	[N]	[N]	[N]	[N]		
EFSM-04	200	100	1,000	500	0.6	2.6
EFSM-05	300	150	1,000	500	0.6	2.7
EFSM-06	300	150	1,000	500	0.6	2.8
EFSM-08	450	225	1,400	700	1.3	5.9
EFSM-10	700	350	2,000	1,000	2.5	9.1
EFSM-12	850	425	2,500	1,250	2.5	11.0
EFSM-15	1,100	550	3,000	1,500	4.5	20.2
EFSM-16	1,350	675	3,200	1,600	4.5	23.3
EFSM-17	1,600	800	3,400	1,700	4.5	27.9
EFSM-20	2,000	1,000	4,000	2,000	10.5	45.0
EFSM-25	2,400	1,200	5,600	2,800	10.5	76.0
EFSM-30	2,800	1,400	6,000	3,000	21.5	100.7

Alternative spherical ball materials ▶ Page 841



J4VEM:  
Clearance-free,  
pre-loaded




JEM:  
low moisture  
absorption




REM:  
Low-cost

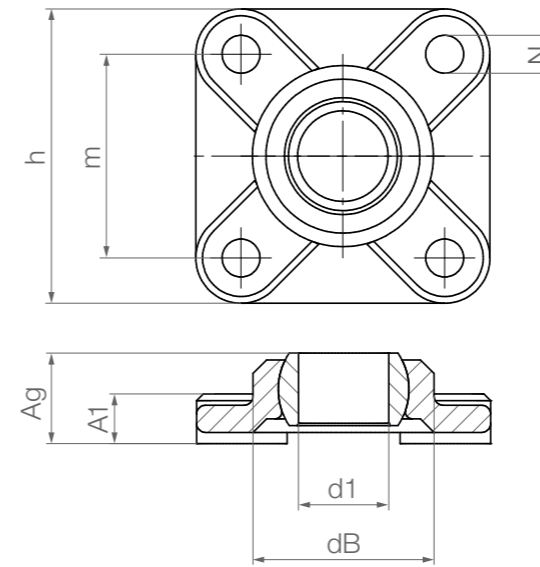


J4EM:  
Low-cost and low  
moisture absorption

 Order key

Type	Size [mm]
<b>E F S M-04</b>	
<b>E series</b>	
<b>Fixed flange bearing</b>	
<b>4 holes</b>	
<b>Metric</b>	
<b>Inner Ø</b>	

 **Material:**  
Housing: **igumid G** ▶ Page 1654  
Spherical ball: **igidur® W300** ▶ Page 171  
Combination with **xiros®** ball bearings ▶ Page 936



Dimensions [mm]

Part No.	d1 E10	dB	h Width	m Hole pitch	A1 Height of plate	Ag Total height	N Hole Ø	Max. pivot angle		
									±0.1	
									EFSM-04	4
EFSM-05	5	14.0	25	17	4.5	8.5	3.2	29°		
EFSM-06	6	14.0	25	17	4.5	8.5	3.2	25°		
EFSM-08	8	18.0	33	22	5.5	10.5	4.3	25°		
EFSM-10	10	21.9	38	26	6.5	12.0	5.3	25°		
EFSM-12	12	25.0	40	28	7.0	13.0	5.3	21°		
EFSM-15	15	30.0	49	34	8.5	15.5	6.4	20°		
EFSM-16	16	32.0	52	36	9.0	16.5	6.4	27°		
EFSM-17	17	35.0	54	38	10.0	18.0	6.4	21°		
EFSM-20	20	40.0	65	45	11.0	20.0	8.4	19°		
EFSM-25	25	48.5	74	52	14.0	25.0	8.4	15°		
EFSM-30	30	54.5	85	60	15.0	26.0	10.5	14°		

Standard tolerances:

from 0.5 to 6mm: ±0.1mm  
from 6 to 30mm: ±0.2mm  
from 30 to 120mm: ±0.3mm

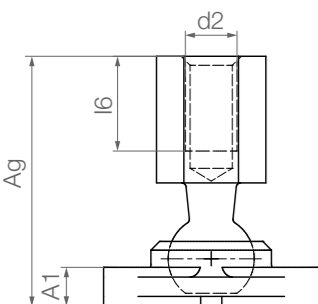
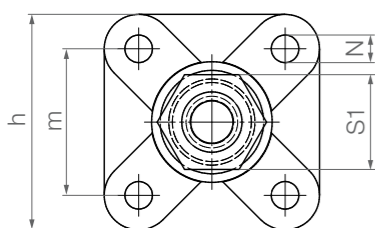
Complete housing with ball stud,  
female thread: GF S M-...-IG

Order key

Type	Size [mm]	Version
GF S M- 06 - IG ES		
Flange mounted	4 holes	Metric
	Inner Ø	Female thread



- Maintenance and corrosion-free
- Easy connection – easy assembly
- Compensation of misalignment errors



Options:

Ball stud

Blank = Made of galvanised steel

ES = Made of stainless steel<sup>2B)</sup>

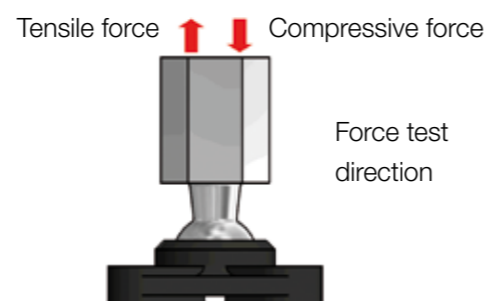


Material:

Housing: **igumid G** ▶ Page 1654

Ball stud: galvanised and stainless steel<sup>2B)</sup>

▶ Accessories, page 859



## Technical data

Part No.	Max. static tensile strain		Max. static compressive force		Weight [g]
	Short-term [N]	Long-term [N]	Short-term [N]	Long-term [N]	
GF S M-06-IG	150	75	350	175	16.4
GF S M-08-IG	250	125	750	375	34.0
GF S M-10-IG	140	70	1,200	600	61.1

## Dimensions [mm]

Part No.	d2	m	h	Ag	A1	l6	N	S1	Max. pivot angle
GF S M-06-IG	M6	17	25	29.0	4.5	11	3.2	SW11	32°
GF S M-08-IG	M8	22	33	36.0	5.5	12	4.3	SW14	40°
GF S M-10-IG	M10	26	38	43.5	6.5	16	5.3	SW17	34°

<sup>2B)</sup> Stainless steel ball stud upon request

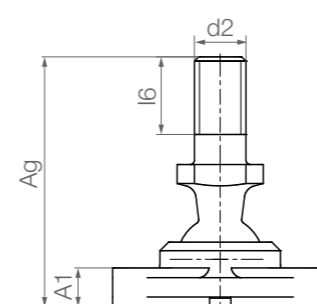
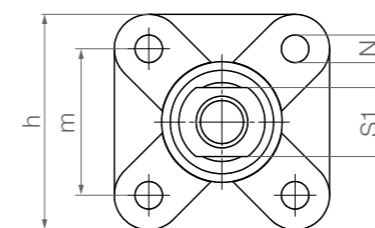
Complete housing with ball stud,  
male thread: GF S M-...-AG

Order key

Type	Size [mm]	Version
GF S M- 06 - AG ES		
Flange mounted	4 holes	Metric
	Inner Ø	male thread



- Maintenance and corrosion-free
- Easy connection – easy assembly
- Compensation of misalignment errors



Options:

Ball stud<sup>19)</sup>

Blank = Made of galvanised steel

PZ = Made of plastic

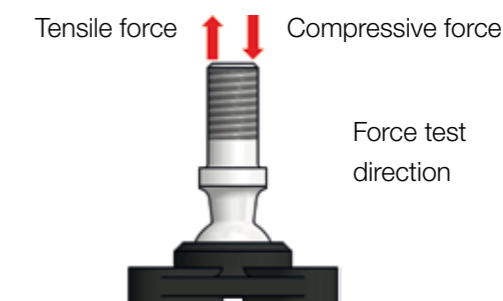
ES = Made of stainless steel<sup>2B)</sup>



Material:

Housing: **igumid G** ▶ Page 1654

Ball studs: plastic, galvanised steel and stainless steel<sup>2B)</sup> ▶ Accessories, page 860



## Technical data

Part No.	Max. static tensile strain		Max. static compressive force		Weight [g]
	Short-term [N]	Long-term [N]	Short-term [N]	Long-term [N]	
GF S M-06-AG	150	75	350	175	10.6
GF S M-08-AG	250	125	750	375	23.1
GF S M-10-AG	140	70	1,200	600	41.2

## Dimensions [mm]

Part No.	d2	m	h	Ag	A1	l6	N	S1	Max. pivot angle
GF S M-06-AG	M6	17	25	29.0	4.5	10.5	3.2	SW8	32°
GF S M-08-AG	M8	22	33	36.0	5.5	13.5	4.3	SW11	34°
GF S M-10-AG	M10	26	38	43.5	6.5	16.0	5.3	SW13	34°

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

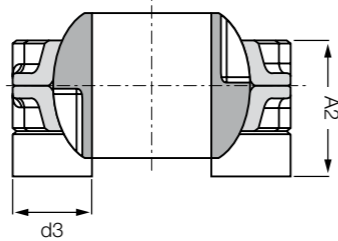
<sup>2B)</sup> Stainless steel ball stud upon request

Fixed flange bearings with 4 mounting holes and split housing: KFSM GT

Order key

Type	Size [mm]	Options
<b>K F S M-GT</b>	<b>35</b>	<b>- A</b>
<b>K series</b>	<b>Fixed flange bearing</b>	<b>4 holes</b>
	<b>Metric</b>	<b>Split housing</b>
	<b>Inner Ø</b>	<b>With push-in feet</b>

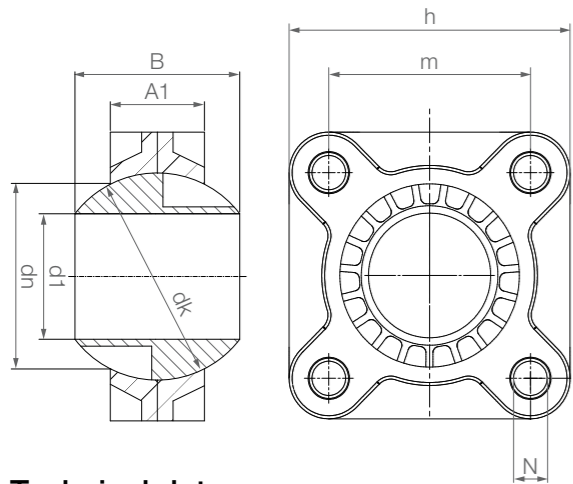
**Material:**  
Housing: **RN33** ▶ Page 1657  
Spherical ball: **iglidur® J** ▶ Page 159



Example: KFSM-GT-40-A



- Pre-assembled
- Option with push-in feet
- Resistant to dirt
- Lightweight
- Low installation space
- For high static loads
- High stiffness and durability
- Predictable service life
- Maintenance-free dry operation
- Mounting: with push-in feet M10, without push-in feet M12



Technical data

Part No.	Max. static radial load		Max. static axial load		Weight [g]
	Short-term	Long-term	Short-term	Long-term	
	[N]	[N]	[N]	[N]	
KFSM-GT35-A <sup>23)</sup>	5,000	2,500	4,500	2,250	183.5
KFSM-GT40-A	5,000	2,500	4,500	2,250	161.6
KFSM-GT45-A <sup>23)</sup>	6,000	3,000	5,000	2,500	294.6
KFSM-GT50-A	6,000	3,000	5,000	2,500	260.1

Max. tightening torque for fixing: 30Nm

Dimensions [mm]

Part No.	d1	dn	d3	dk	A1	A2	B	m	h	N	Max. pivot angle
KFSM-GT35-A <sup>23)</sup>	E10										
KFSM-GT40-A	40.0	59.0	26.0	66.0	30.0	45.0	48.5	66.0	92.0	13.5	24°
KFSM-GT45-A <sup>23)</sup>	45.0	72.0	26.0	82.0	40.0	60.0	60.0	78.0	104.0	13.5	24°
KFSM-GT50-A	50.0	72.0	26.0	82.0	40.0	60.0	60.0	78.0	104.0	13.5	24°

For KFSM with distance pieces, please add an "A" to the Part No. Example: KFSM-GT-50-A

<sup>23)</sup> Diameter given by iglidur® J bore reducer

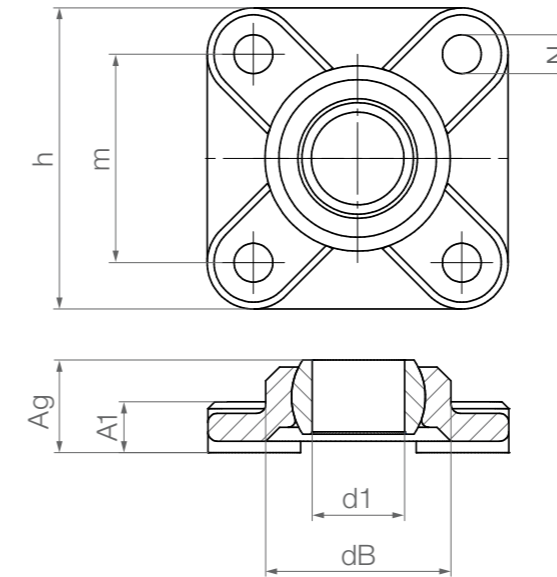
High-temperature fixed flange bearings with 4 mounting holes: EFSM-HT

Order key

Type	Size [mm]	Version
<b>E F S M-</b>	<b>05</b>	<b>- HT</b>
<b>E series</b>	<b>Fixed flange bearing</b>	<b>4 holes</b>
	<b>Metric</b>	<b>Inner Ø</b>
		<b>High temperature</b>

**Material:**  
Housing: **iguton G** ▶ Page 1655  
Spherical ball: **iglidur® X** ▶ Page 279

- Applicable up to +200°C
- Easy to fit
- Compensation of misalignment errors
- Absolute corrosion resistance
- Lightweight
- Chemical-resistant (chemical table ▶ Page 1636)
- For underwater applications



Technical data


Part No.	Max. permissible axial load		Max. permissible radial load		Max. tightening torque Holes [Nm]	Weight [g]
	Short-term	Long-term	Short-term	Long-term		
	[N]	[N]	[N]	[N]		
EFSM-05-HT	275	138	440	220	0.6	3.5
EFSM-06-HT	339	170	523	262	0.6	3.3
EFSM-08-HT	412	206	713	356	1.3	7.1
EFSM-10-HT	864	432	1,202	601	2.5	11.2
EFSM-12-HT	1,024	512	1,347	674	2.5	13.3

Dimensions [mm]


Part No.	d1	dB	h	m	A1	Ag	N	Max. pivot angle
EFSM-05-HT	E10		Width	Hole pitch ±0.1	Height of plate	Total height	Hole d	
EFSM-05-HT	5	14	25	17	4.5	8.5	3.2	29°
EFSM-06-HT	6	14	25	17	4.5	8.5	3.2	25°
EFSM-08-HT	8	18	33	22	5.5	10.5	4.3	25°
EFSM-10-HT	10	22	38	26	6.5	12.0	5.3	25°
EFSM-12-HT	12	25	40	28	7.0	13.0	5.3	21°

Other dimensions available upon request

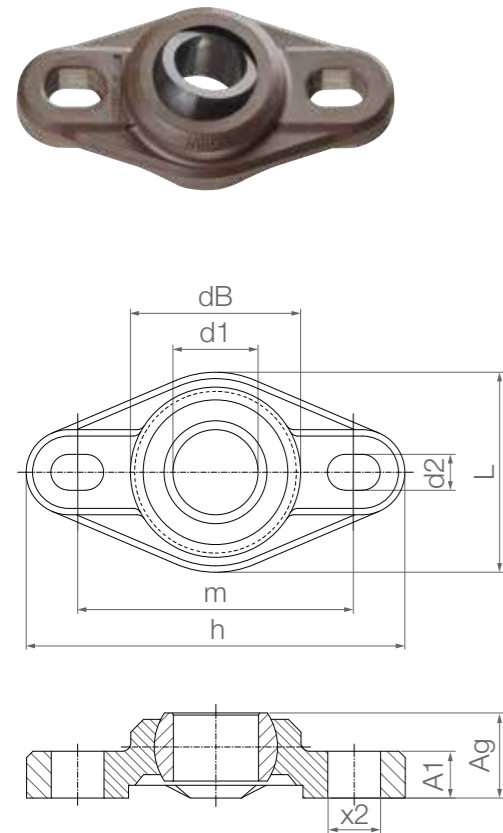
High-temperature fixed flange bearings with 2 mounting holes: EFOM-HT

 Order key

Type	Size [mm]	Version
<b>E F O M - 06 - HT</b>		
<b>E series</b>	<b>Fixed flange bearing</b>	<b>2 holes</b>
	<b>Metric</b>	<b>Inner Ø [mm]</b>
		<b>High temperature</b>

 **Material:**  
Housing: **iguton G** ▶ Page 1655  
Spherical ball: **iglidur® X** ▶ Page 279

- Applicable up to +200°C
- Easy to fit
- Compensation of misalignment errors
- Absolute corrosion resistance
- Lightweight
- Chemical-resistant (chemical table ▶ Page 1636)
- For underwater applications



Technical data

Part No.	Max. permissible axial load		Max. permissible radial load		Max. tightening torque Holes [Nm]	Weight [g]
	Short-term	Long-term	Short-term	Long-term		
	[N]	[N]	[N]	[N]		
EFOM-05-HT	275	138	460	230	0.6	2.5
EFOM-06-HT	300	150	611	305	0.6	2.3
EFOM-08-HT	644	322	934	467	1.3	5.0
EFOM-10-HT	764	382	1,000	500	2.5	8.3
EFOM-12-HT	874	437	1,290	645	2.5	10.7

Dimensions [mm]

Part No.	d1	dB	h	L	m	A1	Ag	d2	x2	Max. pivot angle
	E10		Length	Width	Hole pitch ±0.1	Height of plate	Total height	Elongated hole		
EFOM-05-HT	5	14	33.8	16	24	4.5	8.5	3.2	5.0	29°
EFOM-06-HT	6	14	33.8	16	24	4.5	8.5	3.2	5.5	27°
EFOM-08-HT	8	18	44.2	22	31	5.5	10.5	4.3	6.5	24°
EFOM-10-HT	10	22	52.0	26	36	6.5	12.0	5.3	8.0	24°
EFOM-12-HT	12	25	56.7	31	41	7.0	13.0	5.3	8.0	21°

Other dimensions available upon request

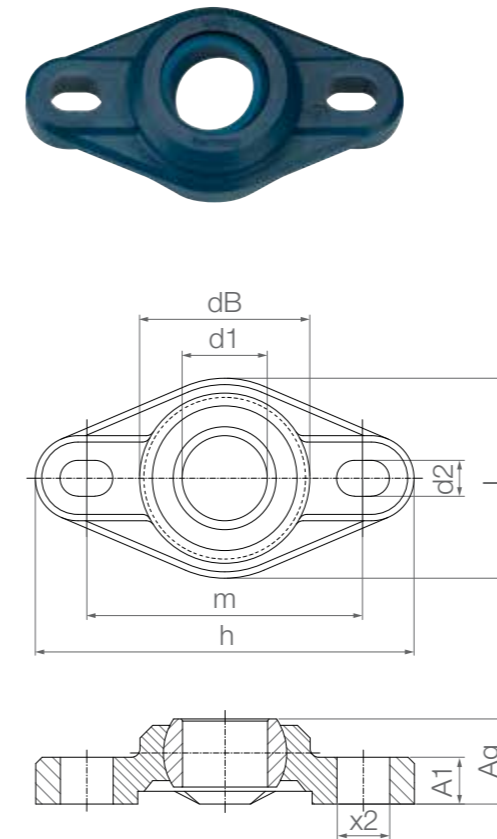
Fixed flange bearings for contact with food: EFOM-FC

 Order key

Type	Size [mm]	Version
<b>E F O M - 20 - FC</b>		
<b>E series</b>	<b>Fixed flange bearings</b>	<b>2 holes</b>
	<b>Metric</b>	<b>Inner Ø [mm]</b>
		<b>Suitable for food contact</b>

 **Material:**  
Housing: **igumid FC** ▶ Page 1655  
Spherical ball: **iglidur® FC180** ▶ Page 1652

- Made from FDA and EU10/2011-compliant materials
- Lubrication and maintenance-free
- Optically and magnetically detectable
- In industry standard blue
- Corrosion and media-resistant
- Vibration-dampening
- Cost-effective



Technical data

Part No.	Max. permissible axial load		Max. permissible radial load	Max. tightening torque Holes [Nm]	Weight [g]
	Short-term	Long-term			
	[N]	[N]	[N]		
EFOM-20-FC <b>New</b>	1,500	750	5,500	10.0	35.5

Dimensions [mm]

Part No.	d1	dB	h	L	m	A1	Ag	d2	x2	Max. pivot angle
	E10		Length	Width	Hole pitch ±0.1	Height of plate	Total height	Elongated hole		
EFOM-20-FC <b>New</b>	20	40	89	47	65	11	20	8.4	12.5	19°

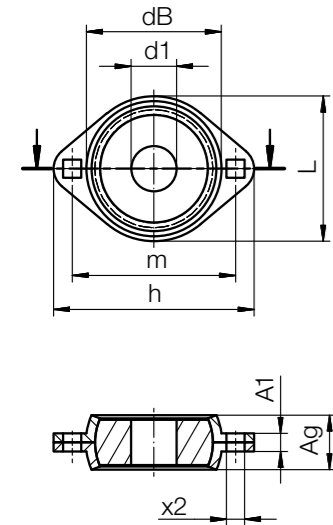
Other dimensions available upon request



Fixed flange bearings with cost-effective metallic housing: PFL-JEM-SP



- Cost-effective spherical ball material iglidur® J4 available (order example: PFL204-J4EM-20-14-SP)
- Lubrication and maintenance-free
- Cost-effective
- Resistant to dirt



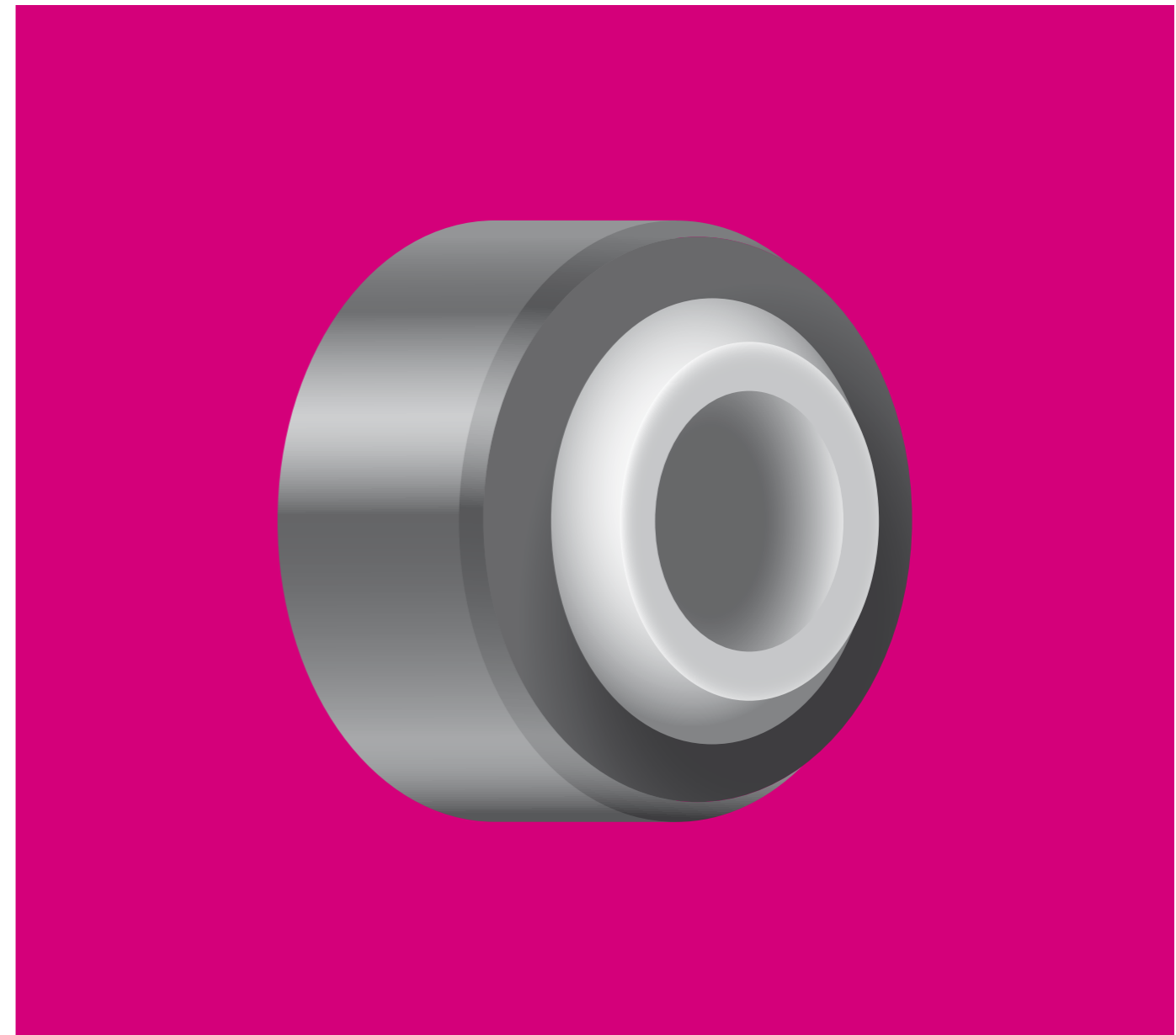
**Order key**

Type	Size [mm]	Version
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**PFL204- J E M- 20 - 14 - SP**

Fixed flange bearing	Spherical ball material	Series	Metric	Spherical ball inner Ø	Spherical ball width	Injection moulding
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- i** **Material:**  
**Housing:** Galvanised steel  
(stainless steel upon request)  
**Spherical ball:** iglidur® J  
(alternative iglidur® J4)



## igubal® spherical bearings

Easy to fit

Cost-effective

Resistance to chemicals

Lightweight

Robust



**Technical data**

Part No.	Max. permissible axial load		Max. permissible radial load		Weight [g]
	Short-term [N]	Long-term [N]	Short-term [N]	Long-term [N]	
PFL204-JEM-20-14-SP <b>New</b>	2,000	1,000	4,000	2,000	121.0
PFL205-JEM-25-15-SP <b>New</b>	2,000	1,000	5,000	2,500	144.0
PFL206-JEM-30-16-SP <b>New</b>	2,000	1,000	7,000	3,500	216.0

**Dimensions [mm]**

Part No.	d1 E10	h	L	m	a1 +0.1	Ag	x2
PFL204-JEM-20-14-SP <b>New</b>	20	90	67	71.5	M6	16	9
PFL205-JEM-25-15-SP <b>New</b>	25	95	71	76.0	M8	18	9
PFL206-JEM-30-16-SP <b>New</b>	30	113	82	90.5	M8	19	11

Can be combined with SRM fixing collars, page 858