# Angled Ball Joints



Extract

**DIN 71802** 

## with Threaded Ball Shanks and Rivet Ball Shanks

A/F		Safety catch			4	socke			<u></u>					0
		- Ball shank DIN 71803 - Hexagon nut ISO 4032			DIN	7180				с	With With With With With With With With	n thread safety	catch ded ba ety ca oall sha catch oall sha	III shank, tch ank, ank,
<b>1</b> <b>d</b> <sub>1</sub> H9/h9	2 d <sub>2</sub>	Left hand thread	3   <sub>2</sub>		d <sub>3</sub>	<b>d</b> 4 h11	$d_5$	d <sub>6</sub>	I <sub>1</sub>	I <sub>3</sub>	I <sub>4</sub>	<b>t</b> Min.	A/F	Min. pull-off force in N
8	M 5	M 5L	4	7,5	M 5	5	8	12,8	10	8,5	22	10,5	7	30
10	M 6	M 6L	4,5	8	M 6	6	10	14,8	12,5	10,5	25	11,5	8	40
13	M 8	M 8L	5	10	M 8	8	13	19,3	16,5	12	30	14	11	60
16	M 10	M 10L	6	13	M 10	10	16	24	20	15	35	15,5	13	80
16	M 12	M 12L	6	13	M 12	10	16	24	20	15	35	15,5	13	80
19	M 14F (≙M 14 x 1,5)	M 14FL (≙M 14 x 1,5L)	12	18	M 14F (≙M 14 x 1,5)	14	22	30	28	19,5	45	21,5	16	100

#### Specification

#### Steel

- Property class 5
- Zinc plated, colorless passivated
- Ball
  - Steel
  - Hardened
  - Ball seat lubricated
- ISO Fundamental Tolerances → Page 2151
- RoHS

#### Accessory

• Dust Caps GN 710 → Page 1671

#### On request

- Smooth specification (Ball seat with play)
- Ball studs DIN 71803
- Ball sockets DIN 71805
- Axial joints
  (ball socket and ball shank
  in one axis)

#### Information

Angled ball joints DIN 71802 consist of a ball socket DIN 71805 and a ball shank DIN 71803.

The angle of rotation for the type with safety catch (Type CS, BS) is  $15^{\circ}$ , without safety catch (Type C, B) is  $18^{\circ}$ .

For assembly the ball ist pushed through the circlip which acts as a retainer. Should the retaining force (see pull-off force in the table above) between ball and socket not be sufficient, this can be increased by adding a safety catch, which can easily be fitted.

To protect the angled ball point, a dust cap GN 710 can be added.

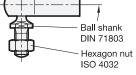
The hexagon nut is part of the angled ball joints with threaded stud.

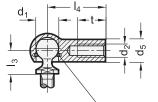
How to order (With threaded ball shank)	1	d <sub>1</sub>
DIN 71802-19-M14FL-CS	4	d <sub>2</sub> Type
How to order (With rivet ball shank)	1	d <sub>1</sub>
	2	d <sub>2</sub>
1234	3	2

with Threaded Ball Shank

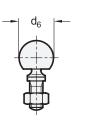


Ball socket DIN 71805 ຄໍ A/F Safety catch ŝ





Snap ring





Rost		lnox Stainless Steel
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CSN	Wi	th threade

ed ball shank. with safety catch With threaded ball shank, CN without safety catch

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#### Min. d<sub>1</sub> $d_2$ $d_3$ $d_5$ I<sub>1</sub> I3 **I**<sub>4</sub> $d_6$ ŧ. A/F pull-off H9/h9 Min. Left hand thread force in N 8 М 5 Μ 5L М 5 8 10 8.5 22 12.8 10.5 7 30 10 25 10 Μ 6 Μ 6L Μ 6 12.5 10,5 14.8 11.5 8 40 13 Μ 8 Μ 8L Μ 8 13 16,5 12 30 19.3 14 11 60 80 16 M 10 M 10L M 10 16 20 15 35 24 15.5 13 16 M 12 M 12L M 12 16 20 15 35 24 15,5 13 80 19 M 14F M 14FL M 14F 22 28 45 30 21,5 100 19,5 16 (≙M 14 x 1,5) (≙M 14 x 1,5L) (≙M 14 x 1,5)

### Specification

- Stainless steel AISI 303
- Ball

1

2

- Stainless steel
- Not hardened
- Ball seat greased
- ISO Fundamental Tolerances → Page 2151
- Stainless Steel Characteristics → Page 2166
- RoHS

# Accessory

Dust Caps GN 710 → Page 1671

# On request

- · Smooth specification (Ball seat with play)
- · Ball studs DIN 71803
- · Ball sockets DIN 71805
- Axial joints (ball socket and ball shank in one axis)

### Information

Stainless steel angled ball joints DIN 71802 consist of a ball socket DIN 71805 and a ball shank DIN 71803.

The angle of rotation for the type with safety catch (Type CSN) is 15°, without safety catch (Type CN) is 18°.

For assembly the ball ist pushed through the circlip which acts as a retainer. Should the retaining force (see pull-off force in the table above) between ball and socket not be sufficient, this can be increased by adding a safety catch, which can easily be fitted.

To protect the angled ball point, a dust cap GN 710 can be added.

The hexagon nut is part of the angled ball joints.

How to order DIN 71802-10-M6L-CN

3.6 Moving, Transferring, Connecting with Shafts and Joints | Page 1669