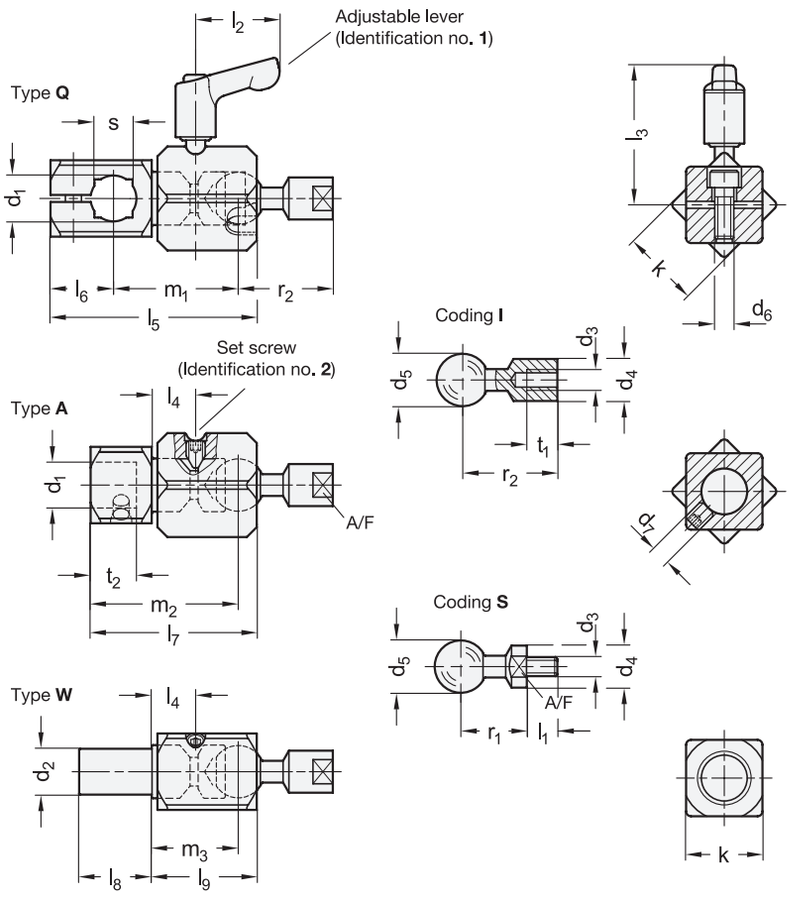

Metric

2 Type

Q With cross hole
A With axial bore
W With bolt

4 Coding

I Ball element with internal thread
S Ball element with external thread

5 Identification no.

1 Clamping with adjustable lever
2 Clamping with set screw

Specification

- Body / clamping element
  Aluminum
  - Anodized finish, natural color — **EL**
  - Anodized finish, black — **ES**
- Ball element
  Aluminum, plain finish
- Adjustable lever (Identification no. 1)
  - Zinc die-cast
    Powder coated
    Silver RAL 9006, textured finish
  - Threaded stud / retaining screw
    Stainless steel AISI 303
- Set screw (Identification no. 2)
  Stainless steel AISI 304
- Socket cap screw DIN 912 (Type Q)
  Stainless steel AISI 304
- Set screw DIN 913 (Type A)
  Stainless steel AISI 304
- *Stainless Steel Characteristics → page QVX*
- RoHS

On request

- Ball elements with other thread sizes and inch thread (as for swivel ball joints GN 784)

Information

Swivel ball joint mounting clamps GN 487 allow precise and stepless adjustment of the ball pivot within the swivel range. This makes it easy to position and adjust components such as scanners, cameras and lighting.

Thanks to the efficient clamping mechanism, even small amounts of tightening torque result in comparatively strong clamping forces on the ball. To readjust the joint, the clamping must be completely released. The adjustable lever (identification no. 1) can be used to easily operate the clamping mechanism without tools.

For a permanent high stop torque, the contact surfaces of the balls must be kept free of grease. Exceeding the recommended tightening torques increases the stop torque but may result in increased wear of the clamping mechanism.

see also...

- *Swivel Ball Joint GN 784 → page QVX*
- *Twistable Two-Way Mounting Clamps GN 475 → page QVX*
- *T-Mounting Clamps GN 476 → page QVX*

How to order (Type Q / Type A)

1 2 3 4 5 6
GN 487-B20-Q-M8-I-1-ES

1	Bore d_1
2	Type
3	Thread d_3
4	Coding
5	Identification no.
6	Finish

How to order (Type W)

1 2 3 4 5 6
GN 487-12-W-M5-S-2-EL

1	Shaft d_2
2	Type
3	Thread d_3
4	Coding
5	Identification no.
6	Finish

Metric table

Dimensions in: millimeters - *inches*

d_1 Type A Type Q	d_2 Type W	d_3 Thread	d_4	d_5	d_6 Thread	d_7 Thread	k	l_1	l_2	l_3	l_4	l_5	l_6	l_7	l_8	l_9
B 10	10 *0.39*	M 5	11 *0.43*	14 *0.55*	M 5	M 5	20 *0.79*	8 *0.31*	22 *0.87*	37 *1.46*	11.5 *0.45*	53 *2.09*	15.5 *0.61*	42.5 *1.67*	17 *0.67*	27.5 *1.08*
B 12	12 *0.47*	M 5	11 *0.43*	14 *0.55*	M 5	M 5	20 *0.79*	8 *0.31*	22 *0.87*	37 *1.46*	11.5 *0.45*	54 *2.13*	16.5 *0.65*	43.5 *1.71*	19 *0.75*	27.5 *1.08*
B 15	15 *0.59*	M 6	14 *0.55*	18 *0.71*	M 6	M 6	25 *0.98*	10 *0.39*	22 *0.87*	41 *1.61*	14.5 *0.57*	67.6 *2.66*	20 *0.79*	55.1 *2.17*	21 *0.83*	35.1 *1.38*
B 16	16 *0.63*	M 6	14 *0.55*	18 *0.71*	M 6	M 6	25 *0.98*	10 *0.39*	22 *0.87*	41 *1.61*	14.5 *0.57*	67.6 *2.66*	20 *0.79*	55.6 *2.19*	24 *0.94*	35.1 *1.38*
B 20	20 *0.79*	M 8	15 *0.59*	24 *0.94*	M 6	M 6	30 *1.18*	12 *0.47*	30 *1.18*	50 *1.97*	18.6 *0.73*	81 *3.19*	22 *0.87*	67 *2.64*	26 *1.02*	44 *1.73*

d_1 Type A Type Q	d_2 Type W	m_1	m_2	m_3	r_1	r_2	s	A/F	t_1 min.	t_2	Recommended tightening torque of the clamping (identification no.) in Nm ≈	Resulting stop torque on the ball in Nm ≈
B 10	10 *0.39*	32.7 *1.29*	37.7 *1.48*	22.7 *0.89*	17.3 *0.68*	24.8 *0.98*	8 *0.31*	9 *0.35*	8 *0.31*	10 *0.39*	1.5	4.5
B 12	12 *0.47*	32.7 *1.29*	38.7 *1.52*	22.7 *0.89*	17.3 *0.68*	24.8 *0.98*	10 *0.39*	9 *0.35*	8 *0.31*	12 *0.47*	1.5	4.5
B 15	15 *0.59*	41.8 *1.65*	49.3 *1.94*	29.3 *1.15*	21.5 *0.85*	32.5 *1.28*	12 *0.47*	12 *0.47*	10 *0.39*	15 *0.59*	2.5	6.5
B 16	16 *0.63*	41.8 *1.65*	49.8 *1.96*	29.3 *1.15*	21.5 *0.85*	32.5 *1.28*	-	12 *0.47*	10 *0.39*	16 *0.63*	2.5	6.5
B 20	20 *0.79*	51.3 *2.02*	59.3 *2.33*	36.3 *1.43*	30.8 *1.21*	36.5 *1.44*	16 *0.63*	13 *0.51*	12 *0.47*	16 *0.63*	2.5	10