Swivel Ball Joint Mounting Clamps

Aluminum

SPECIFICATION

Types

- Type **Q**: With cross hole
- Type **A**: With axial bore
- Type **W**: With bolt

Coding

- **I**: Ball element with internal thread
- **S**: Ball element with external thread

Identification no.

- No. **1**: Clamping with adjustable hand lever
- No. **2**: Clamping with grub screw

Body, clamping element
Aluminum

- Anodized, natural color **EL**
- Anodized, black **ES**

Ball element
Aluminum, plain finish

Adjustable hand lever (identification no. 1)

- Zinc die casting
  Powder coated
  Silver RAL 9006, textured finish
- Threaded insert and retaining screw
  Stainless steel AISI 303

Grub screw (identification no. 2)
Stainless steel AISI 304

Socket cap screw DIN 912 (type Q)
Stainless steel AISI 304

Grub screw DIN 913 (type A)
Stainless steel AISI 304

INFORMATION

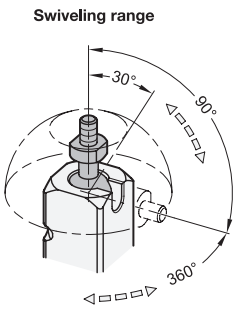
Swivel ball joint mounting clamps GN 487 allow precise and stepless adjustment of the ball pivot within the swivel range. This makes it easy to position and adjust components such as scanners, cameras and lighting.
Thanks to the efficient clamping mechanism, even small amounts of tightening torque result in comparatively strong clamping forces on the ball. To readjust the joint, the clamping must be completely released. The hand 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.

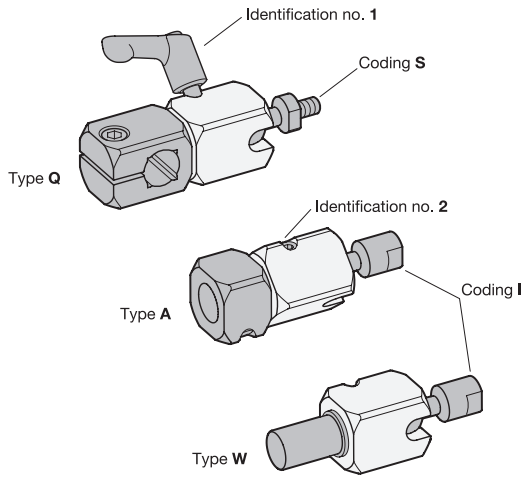
ON REQUEST

- Ball elements with other thread sizes and inch thread (as for swivel ball joints GN 784 (see page 1160))

TECHNICAL INFORMATION

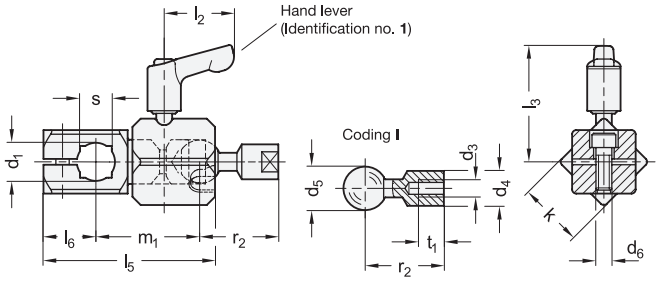
- Stainless Steel Characteristics (see page A26)

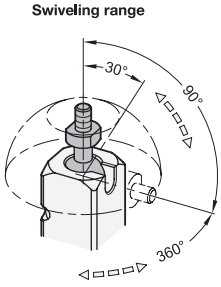


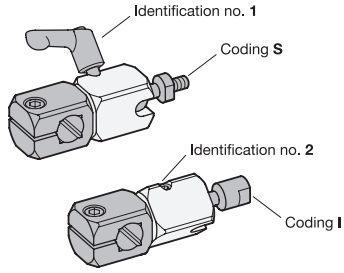


GN 487

Swivel Ball Joint Mounting Clamps







*Complete with

EL
Anodized, natural color

ES
Anodized, black

GN 487-Q-I

Description	d1	d3	d4	d5	d6	k	l2	l3	l4	l5	l6	m1	m2	r2	s	A/F	t1 min.	Recommended tightening torque of the clamping (identification no.) in Nm≈	Resulting stop torque on the ball in Nm≈	⚖
GN 487-B10-Q-M5-I-1-*	B 10	M 5	11	14	M 5	20	22	37	11.5	53	15.5	32.7	37.7	24.8	8	9	8	1.5	4.5	67
GN 487-B10-Q-M5-I-2-*	B 10	M 5	11	14	M 5	20	-	-	11.5	53	15.5	32.7	37.7	24.8	8	9	8	1.5	4.5	53
GN 487-B12-Q-M5-I-1-*	B 12	M 5	11	14	M 5	20	22	37	11.5	54	16.5	32.7	38.7	24.8	10	9	8	1.5	4.5	66
GN 487-B12-Q-M5-I-2-*	B 12	M 5	11	14	M 5	20	-	-	11.5	54	16.5	32.7	38.7	24.8	10	9	8	1.5	4.5	52
GN 487-B15-Q-M6-I-1-*	B 15	M 6	14	18	M 6	25	22	41	14.5	67.6	20	41.8	49.3	32.5	12	12	10	2.5	6.5	118
GN 487-B15-Q-M6-I-2-*	B 15	M 6	14	18	M 6	25	-	-	14.5	67.6	20	41.8	49.3	32.5	12	12	10	2.5	6.5	111
GN 487-B16-Q-M6-I-1-*	B 16	M 6	14	18	M 6	25	22	41	14.5	67.6	20	41.8	49.8	32.5	-	12	10	2.5	6.5	117
GN 487-B16-Q-M6-I-2-*	B 16	M 6	14	18	M 6	25	-	-	14.5	67.6	20	41.8	49.8	32.5	-	12	10	2.5	6.5	110
GN 487-B20-Q-M8-I-1-*	B 20	M 8	15	24	M 6	30	30	50	18.6	81	22	51.3	59.3	36.5	16	13	12	2.5	10	215
GN 487-B20-Q-M8-I-2-*	B 20	M 8	15	24	M 6	30	-	-	18.6	81	22	51.3	59.3	36.5	16	13	12	2.5	10	196

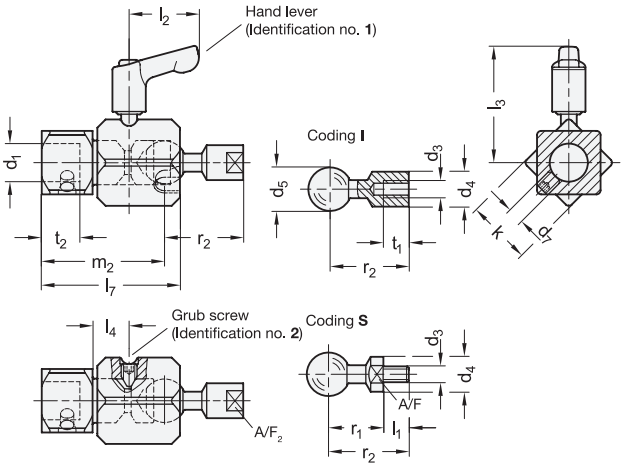
Weight EL

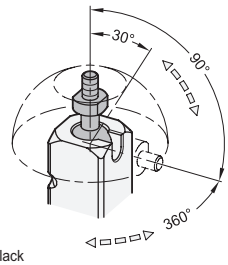
GN 487-Q-S

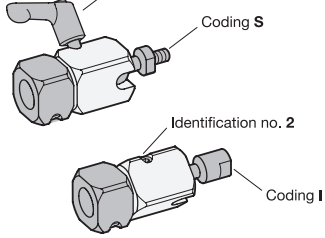
Description	d1	d3	d4	d5	d6	k	l1	l2	l3	l4	l5	l6	m1	m2	r1	r2	s	A/F	Recommended tightening torque of the clamping (identification no.) in Nm≈	Resulting stop torque on the ball in Nm≈	⚖
GN 487-B10-Q-M5-S-1-*	B 10	M 5	11	14	M 5	20	8	22	37	11.5	53	15.5	32.7	37.7	17.3	24.8	8	9	1.5	4.5	65
GN 487-B10-Q-M5-S-2-*	B 10	M 5	11	14	M 5	20	8	-	-	11.5	53	15.5	32.7	37.7	17.3	24.8	8	9	1.5	4.5	52
GN 487-B12-Q-M5-S-1-*	B 12	M 5	11	14	M 5	20	8	22	37	11.5	54	16.5	32.7	38.7	17.3	24.8	10	9	1.5	4.5	64
GN 487-B12-Q-M5-S-2-*	B 12	M 5	11	14	M 5	20	8	-	-	11.5	54	16.5	32.7	38.7	17.3	24.8	10	9	1.5	4.5	51
GN 487-B15-Q-M6-S-1-*	B 15	M 6	14	18	M 6	25	10	22	41	14.5	67.6	20	41.8	49.3	21.5	32.5	12	12	2.5	6.5	115
GN 487-B15-Q-M6-S-2-*	B 15	M 6	14	18	M 6	25	10	-	-	14.5	67.6	20	41.8	49.3	21.5	32.5	12	12	2.5	6.5	108
GN 487-B16-Q-M6-S-1-*	B 16	M 6	14	18	M 6	25	10	22	41	14.5	67.6	20	41.8	49.8	21.5	32.5	-	12	2.5	6.5	114
GN 487-B16-Q-M6-S-2-*	B 16	M 6	14	18	M 6	25	10	-	-	14.5	67.6	20	41.8	49.8	21.5	32.5	-	12	2.5	6.5	107
GN 487-B20-Q-M8-S-1-*	B 20	M 8	15	24	M 6	30	12	30	50	18.6	81	22	51.3	59.3	30.8	36.5	16	13	2.5	10	211
GN 487-B20-Q-M8-S-2-*	B 20	M 8	15	24	M 6	30	12	-	-	18.6	81	22	51.3	59.3	30.8	36.5	16	13	2.5	10	192

Weight EL

GN 487 | Swivel Ball Joint Mounting Clamps







*Complete with

EL
Anodized, natural color

ES
Anodized, black

GN 487-A-I

Description	d1	d3	d4	d5	d7	k	l2	l3	l4	l7	r2	A/F	t1 min.	t2	Recommended tightening torque of the clamping (identification no.) in Nm≈	Resulting stop torque on the ball in Nm≈	⚖
GN 487-B10-A-M5-I-1-*	B 10	M 5	11	14	M 5	20	22	37	11.5	42.5	24.8	9	8	10	1.5	4.5	57
GN 487-B10-A-M5-I-2-*	B 10	M 5	11	14	M 5	20	-	-	11.5	42.5	24.8	9	8	10	1.5	4.5	44
GN 487-B12-A-M5-I-1-*	B 12	M 5	11	14	M 5	20	22	37	11.5	43.5	24.8	9	8	12	1.5	4.5	56
GN 487-B12-A-M5-I-2-*	B 12	M 5	11	14	M 5	20	-	-	11.5	43.5	24.8	9	8	12	1.5	4.5	43
GN 487-B15-A-M6-I-1-*	B 15	M 6	14	18	M 6	25	22	41	14.5	55.1	32.5	12	10	15	2.5	6.5	100
GN 487-B15-A-M6-I-2-*	B 15	M 6	14	18	M 6	25	-	-	14.5	55.1	32.5	12	10	15	2.5	6.5	93
GN 487-B16-A-M6-I-1-*	B 16	M 6	14	18	M 6	25	22	41	14.5	55.6	32.5	12	10	16	2.5	6.5	99
GN 487-B16-A-M6-I-2-*	B 16	M 6	14	18	M 6	25	-	-	14.5	55.6	32.5	12	10	16	2.5	6.5	92
GN 487-B20-A-M8-I-1-*	B 20	M 8	15	24	M 6	30	30	50	18.6	67	36.5	13	12	16	2.5	10	172
GN 487-B20-A-M8-I-2-*	B 20	M 8	15	24	M 6	30	-	-	18.6	67	36.5	13	12	16	2.5	10	153

Weight EL

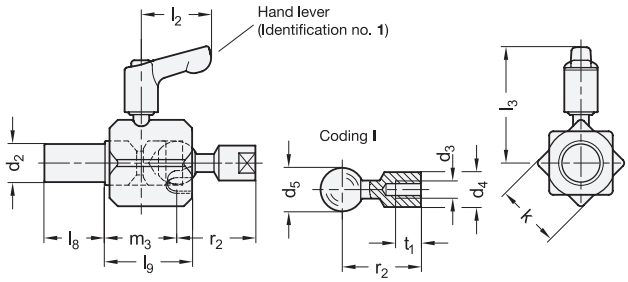
GN 487-A-S

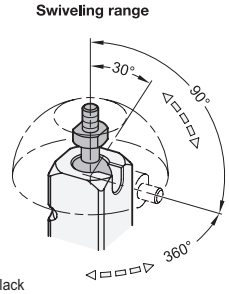
Description	d1	d3	d4	d5	d7	k	l1	l2	l3	l4	l7	r1	r2	A/F	t2	Recommended tightening torque of the clamping (identification no.) in Nm≈	Resulting stop torque on the ball in Nm≈	⚖
GN 487-B10-A-M5-S-1-*	B 10	M 5	11	14	M 5	20	8	22	37	11.5	42.5	17.3	24.8	9	10	1.5	4.5	56
GN 487-B10-A-M5-S-2-*	B 10	M 5	11	14	M 5	20	8	-	-	11.5	42.5	17.3	24.8	9	10	1.5	4.5	43
GN 487-B12-A-M5-S-1-*	B 12	M 5	11	14	M 5	20	8	22	37	11.5	43.5	17.3	24.8	9	12	1.5	4.5	55
GN 487-B12-A-M5-S-2-*	B 12	M 5	11	14	M 5	20	8	-	-	11.5	43.5	17.3	24.8	9	12	1.5	4.5	42
GN 487-B15-A-M6-S-1-*	B 15	M 6	14	18	M 6	25	10	22	41	14.5	55.1	21.5	32.5	12	15	2.5	6.5	97
GN 487-B15-A-M6-S-2-*	B 15	M 6	14	18	M 6	25	10	-	-	14.5	55.1	21.5	32.5	12	15	2.5	6.5	90
GN 487-B16-A-M6-S-1-*	B 16	M 6	14	18	M 6	25	10	22	41	14.5	55.6	21.5	32.5	12	16	2.5	6.5	96
GN 487-B16-A-M6-S-2-*	B 16	M 6	14	18	M 6	25	10	-	-	14.5	55.6	21.5	32.5	12	16	2.5	6.5	89
GN 487-B20-A-M8-S-1-*	B 20	M 8	15	24	M 6	30	12	30	50	18.6	67	30.8	36.5	13	16	2.5	10	168
GN 487-B20-A-M8-S-2-*	B 20	M 8	15	24	M 6	30	12	-	-	18.6	67	30.8	36.5	13	16	2.5	10	149

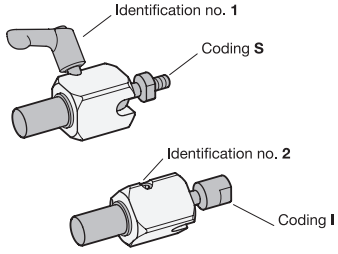
Weight EL

GN 487

Swivel Ball Joint Mounting Clamps







*Complete with

EL
Anodized, natural color

ES
Anodized, black

GN 487-W-I

Description	d2	d3	d4	d5	k	l2	l3	l4	l8	l9	m3	r2	A/F	t1 min.	Recommended tightening torque of the clamping (identification no.) in Nm≈	Resulting stop torque on the ball in Nm≈	⚖
GN 487-10-W-M5-I-1-*	10	M 5	11	14	20	22	37	11.5	17	27.5	22.7	24.8	9	8	1.5	4.5	48
GN 487-10-W-M5-I-2-*	10	M 5	11	14	20	-	-	11.5	17	27.5	22.7	24.8	9	8	1.5	4.5	34
GN 487-12-W-M5-I-1-*	12	M 5	11	14	20	22	37	11.5	19	27.5	22.7	24.8	9	8	1.5	4.5	50
GN 487-12-W-M5-I-2-*	12	M 5	11	14	20	-	-	11.5	19	27.5	22.7	24.8	9	8	1.5	4.5	36
GN 487-15-W-M6-I-1-*	15	M 6	14	18	25	22	41	14.5	21	35.1	29.3	32.5	12	10	2.5	6.5	84
GN 487-15-W-M6-I-2-*	15	M 6	14	18	25	-	-	14.5	21	35.1	29.3	32.5	12	10	2.5	6.5	77
GN 487-16-W-M6-I-1-*	16	M 6	14	18	25	22	41	14.5	24	35.1	29.3	32.5	12	10	2.5	6.5	87
GN 487-16-W-M6-I-2-*	16	M 6	14	18	25	-	-	14.5	24	35.1	29.3	32.5	12	10	2.5	6.5	80
GN 487-20-W-M8-I-1-*	20	M 8	15	24	30	30	50	18.6	26	44	36.3	36.5	13	12	2.5	10	154
GN 487-20-W-M8-I-2-*	20	M 8	15	24	30	-	-	18.6	26	44	36.3	36.5	13	12	2.5	10	135

Weight EL

GN 487-W-S

Description	d2	d3	d4	d5	k	l1	l2	l3	l4	l8	l9	m3	r1	r2	A/F	Recommended tightening torque of the clamping (identification no.) in Nm≈	Resulting stop torque on the ball in Nm≈	⚖
GN 487-10-W-M5-S-1-*	10	M 5	11	14	20	8	22	37	11.5	17	27.5	22.7	17.3	24.8	9	1.5	4.5	46
GN 487-10-W-M5-S-2-*	10	M 5	11	14	20	8	-	-	11.5	17	27.5	22.7	17.3	24.8	9	1.5	4.5	33
GN 487-12-W-M5-S-1-*	12	M 5	11	14	20	8	22	37	11.5	19	27.5	22.7	17.3	24.8	9	1.5	4.5	48
GN 487-12-W-M5-S-2-*	12	M 5	11	14	20	8	-	-	11.5	19	27.5	22.7	17.3	24.8	9	1.5	4.5	35
GN 487-15-W-M6-S-1-*	15	M 6	14	18	25	10	22	41	14.5	21	35.1	29.3	21.5	32.5	12	2.5	6.5	81
GN 487-15-W-M6-S-2-*	15	M 6	14	18	25	10	-	-	14.5	21	35.1	29.3	21.5	32.5	12	2.5	6.5	74
GN 487-16-W-M6-S-1-*	16	M 6	14	18	25	10	22	41	14.5	24	35.1	29.3	21.5	32.5	12	2.5	6.5	84
GN 487-16-W-M6-S-2-*	16	M 6	14	18	25	10	-	-	14.5	24	35.1	29.3	21.5	32.5	12	2.5	6.5	77
GN 487-20-W-M8-S-1-*	20	M 8	15	24	30	12	30	50	18.6	26	44	36.3	30.8	36.5	13	2.5	10	150
GN 487-20-W-M8-S-2-*	20	M 8	15	24	30	12	-	-	18.6	26	44	36.3	30.8	36.5	13	2.5	10	131

Weight EL