



Tube clamp connectors



Tube clamp connectors

Linear actuators

Clamp mountings

GN 131
Two-way connector clamps
Aluminium



page 1812

GN 131-NI
Two-way connector clamps
Stainless Steel



page 1812



GN 132.5
Stainless Steel-Two-way connector clamps



page 1813




GN 132
Two-way connector clamps
Aluminium



page 1814

GN 135
Two-way connector clamps
Aluminium / multi part assembly / unequal bore dimensions d1 / s1 and d2 / s2



page 1815

GN 133
Two-way connector clamps
Aluminium, different bore diameter d1 / d2



page 1816

GN 134
Two-way connector clamps
Aluminium / multi part assembly, same bore dimensions d1/d2 and s1/s2



page 1818

GN 141
Flanged two-way connector clamps
Aluminium / multi part assembly



page 1820

GN 145
Flanged connector clamps
Aluminium, with 2 mounting holes



page 1821


GN 145-NI
Flanged connector clamps
Stainless Steel / with 2 mounting holes



page 1821



GN 146
Flanged connector clamps
Aluminium / with 4 retaining bores



page 1822

GN 146.3
Flanged connector clamps
Aluminium / with 2 retaining bores



page 1823

GN 146.5
Stainless Steel-Flanged connector clamps
with 4 holes



page 1824



GN 146.6
Stainless Steel-Flanged connector clamps
with 2 holes



page 1825



GN 147
Flanged connector clamps
Aluminium / split assembly, with 4 mounting holes



page 1826

GN 162
Base plate connector clamps
Aluminium / with 4 mounting holes



page 1827



GN 162-NI
Base plate connector clamps
Stainless Steel / with 4 mounting holes



page 1827



GN 162.3
Base plate connector clamps
Aluminium / with 2 mounting holes



page 1828



GN 162.3-NI
Base plate connector clamps
Aluminium / with 2 mounting holes



page 1828



GN 163
Base plate connector clamps
Aluminium



page 1829

GN 163.5
Stainless Steel-Base plate connector clamps



page 1830



GN 165
Base plate connector clamps
Aluminium / split assembly



page 1831

GN 166
Off-set base plate connector clamps
Aluminium / split assembly



page 1832

GN 167
Wide base plate connector clamps
Aluminium / split assembly



page 1833

GN 191
T-Angle connector clamps
Aluminium



page 1834

GN 191-NI
T-Angle connector clamps
Stainless Steel



page 1834




GN 195
T-Angle connector clamps
Aluminium / multi part assembly



page 1835

GN 192
T-Angle connector clamps
Aluminium



page 1836

GN 192.5
Stainless Steel-T-Angle connector clamps



page 1837



GN 193
T-Angle connector clamps
Aluminium / split assembly




page 1838

GN 194
T-Angle connector clamps
Aluminium / multi part assembly



page 1840

GN 196
Angle connector clamps
Aluminium



page 1842

GN 241
Tube connector joints
Aluminium / split assembly




page 1843

GN 231
Tube supports
Aluminium / split assembly



page 1844

GN 242
Tube connector joints
Aluminium



page 1846

GN 271
Swivel clamp connector bases
Aluminium



page 1847

GN 272
Swivel clamp connector bases
Aluminium



page 1848

GN 273
Swivel clamp connectors
Aluminium



page 1849

GN 274
Swivel clamp connectors
Aluminium



page 1850

GN 276
Swivel clamp connectors
Aluminium



page 1852

GN 275
Swivel clamp connectors
Aluminium



page 1854

GN 277
Swivel clamp connectors
Aluminium




page 1855

GN 278
Swivel clamp connectors
Aluminium




page 1856

GN 279
Swivel clamp connectors
Aluminium / split assembly



page 1858

GN 281
Swivel clamp connector joints
Aluminium



page 1859

GN 282
Swivel clamp connector joints
Aluminium



page 1860

GN 283
Swivel clamp connector joints
Aluminium



page 1861

GN 285
Swivel clamp connector joints
Aluminium



page 1862

GN 287
Swivel clamp connector joints
Aluminium



page 1863

GN 284
Swivel clamp connector joints
Aluminium



page 1864

GN 286
Swivel clamp connector joints
Aluminium



page 1866

GN 288
Swivel clamp connector joints
Aluminium



page 1868

GN 289
Swivel clamp connector joints
Aluminium / with two-part clamp pieces



page 1870

GN 271.4
Sensor holders
Aluminium



page 1872

GN 272.4
Sensor holders
Aluminium



page 1872

GN 273.4
Sensor holders
Aluminium




page 1873


GN 911
Clamping lever kits adjustable, for connector clamps



page 1874

GN 911.3
Stainless Steel-Clamping lever kits adjustable, for connector clamps




 page 1875

GN 473
Base plate clamp mountings
Aluminium



page 1878

GN 477
Clamp mountings
Aluminium



page 1879

GN 474
Two-way clamp mountings
Aluminium



page 1880

GN 474.1
Two-way clamp mountings
Aluminium



page 1881

GN 475
Twistable two-way clamp mountings
Aluminium



page 1882

GN 476
T-Clamp mountings
Aluminium




page 1883

GN 478
Clamp mountings
Aluminium



page 1884

GN 480
Flanged bolts for clamp mountings



page 1885

GN 490
Twistable two-way clamp mountings
Aluminium




page 1886

GN 485
Swivel clamp connector bases
Aluminium



page 1887

GN 480.7
Stainless Steel-Hose adapters
Barbed fitting / Thread



 page 1888

GN 480.8
Stainless Steel-Thread adapters
Thread / Thread



 page 1889

GN 482
Swivel clamp mountings
Aluminium



page 1890

GN 483
T-swivel clamp mountings
Aluminium




page 1891

GN 484
Attachment clamp mountings
Aluminium



page 1892

GN 511
Clamping lever kits adjustable, for clamp mountings



page 1893

GN 511.1
Clamping kits for swivel clamp mountings



page 1894

GN 479
Sensor holders for clamp mountings with threaded holes
GN 478 / GN 484




page 1895

GN 479.1
Retaining plates for clamp mountings with threaded holes
GN 478 / GN 484



page 1896

GN 960
Angled pieces for profile systems 30 / 40 / 45 for slot widths 8 / 10, assembly with T-Nuts / T-Slot bolts



page 1897

GN 961
Angled pieces for profile systems 30 / 40 for slot widths 6 / 8, assembly with T-nuts with guide step GN 506



page 1898

SQT.
Angles for profile structures
Technopolymer



page 1899

GN 963
Cover caps for angle pieces for profile systems




page 1900

GN 991
Tube end plugs for construction tubes
GN 990



page 1901

GN 990
Construction tubes
Steel



page 1902

GN 990-AL
Construction tubes
Aluminium



page 1902

GN 990-NI
Construction tubes
Stainless Steel



 page 1902

GN 480.1
Retaining rods /
Retaining tubes
Aluminium



page 1904

GN 480.1-NI
Retaining rods /
Retaining tubes
Stainless Steel



 page 1904

MSX-B
Connecting clamps
Base
Technopolymer



page 1906

MSX-C
Connecting clamps
Two-way clamp
Technopolymer



page 1906

MSX-TA-TB-TC-TD-TE-TF
Connecting clamps
Device clamp
Technopolymer



page 1906

MSR.60-B
Connecting clamps
Base
Technopolymer and
aluminium



page 1908

MSR.60-C
Connecting clamps
Two-way clamp
Technopolymer and
aluminium




page 1908

MSR.60-TA-TB-TC-TD-TE-TF
Connecting clamps
Device clamps
Technopolymer and
aluminium



page 1908

MSR.60-T13
Connecting clamps
Connecting tubes
Technopolymer and
aluminium



page 1908

GN 291
Linear actuators
Steel / Stainless Steel,
with right or left hand
thread



 page 1912

GN 292
Linear actuators
Steel / Stainless Steel,
with right and left hand
thread



 page 1914

GN 293
Linear actuators
Steel / Stainless Steel,
with 2 separate
threaded spindles



 page 1915

GN 299
Longitudinal scales
for standard stroke
lengths l₁ of the linear
actuators GN 291



page 1916

GN 131.1
Linear actuator
connectors
Aluminium
for linear actuators Ø18,
for single axis system




page 1918

GN 131.1-NI
Linear actuator
connectors
Stainless Steel
for linear actuators Ø18,
for single axis system



 page 1918

GN 131.2
Linear actuator
connectors
Aluminium
for linear actuators Ø18,
for two-way axis system



page 1919

GN 131.2-NI
Linear actuator
connectors
Stainless Steel
for linear actuators Ø18,
for two-way axis system



 page 1919

GN 132.1
Linear actuator
connectors
for linear actuators Ø30,
Ø40, Ø50 and Ø60,
single axis system



page 1920

GN 132.2
Linear actuator
connectors
for linear actuators Ø30,
Ø40, Ø50 and Ø60,
two-way axis system



page 1921


GN 145.1
Flanged linear
actuator connectors
Aluminium, for linear actua-
tors Ø18



 page 1922

GN 145.1-NI
Flanged linear
actuator connectors
Stainless Steel, for linear
actuators Ø18



 page 1922

GN 146.1
Flanged linear
actuator connectors
Aluminium, for linear
actuators Ø30, Ø40,
Ø50, Ø60



page 1923

GN 162.1
Base plate linear
actuator connectors
Aluminium, for linear
actuators Ø18



 page 1924

GN 162.1-NI
Base plate linear
actuator connectors
Stainless Steel, for linear
actuators Ø18



 page 1924

GN 163.1
Base plate linear
actuator connectors
for linear actuators Ø30,
Ø40, Ø50, Ø60



page 1925

GN 191.1
T-Angle linear
actuator connectors
Aluminium, for linear
actuators Ø18



page 1926

GN 191.1-NI
T-Angle linear
actuator connectors
Stainless Steel, for linear
actuators Ø18



 page 1926

GN 192.1
T-Angle linear
actuator connectors
for linear actuators Ø30,
Ø40, Ø50, Ø60



page 1927

GN 273.1
Swivel clamp linear
actuator connectors
for linear actuators Ø18



page 1928

GN 274.1
Swivel clamp linear
actuator connectors
for linear actuators Ø30,
Ø40, Ø50



page 1929

GN 291.1
Square linear
actuators
with right or left hand
thread




page 1930

GN 134.1
Linear actuator
connectors
Aluminium, same bore
dimensions d₁ / s₁ and
d₂ / s₂



page 1931

GN 135.1
Linear actuator
connectors
Aluminium / multi part
assembly / unequal
bore dimensions, d₁ / s₁
and d₂ / s₂



page 1932

GN 147.1
Linear actuators
connectors
Aluminium, for square
linear actuators



page 1933

GN 165.1
Linear actuator
connectors
Aluminium, for square
linear actuators



page 1934

GN 923.18
Disc handwheel Ø 80
for linear actuators Ø 18



page 1935

GN 923.30
Disc handwheel Ø 100
for linear actuators Ø 30




page 1935

GN 923.40
Disc handwheel Ø 100
for linear actuators Ø 40




page 1936

GN 924.40
Spoked handwheel
Ø 125
for linear actuators Ø 40




page 1936

GN 924.50
Spoked handwheel
Ø 140
for linear actuators Ø 50



page 1937

GN 924.60
Spoked handwheel
Ø 160
for linear actuators Ø 60



page 1937

GN 295
Installation kits
 for position indicators
 used on linear actuators
 GN 291, GN 292,
 GN 293, GN 391



page 1938

GN 296
Installation kits
 for position indicators
 used on square linear
 actuators GN 291.1




page 1939

GN 391-SCR
Drive / Transfer units
 Steel




page 1940

GN 391-NI
Drive / Transfer units
 Stainless Steel



page 1940

GN 297
Bevel gear wheels
 with spiral bevel for
 linear actuators /
 transfer units with
 angular gear



page 1941

GN 298
Housings
 for angular gears /
 T-gears




page 1942

GN 491
**Double tube linear
 actuators**
 with right or left hand
 thread, single slider



page 1948

GN 492
**Double tube linear
 actuators**
 with right or left hand
 thread, double slider



page 1952

GN 491.1
Installation kits
 for position indicators
 used on linear actuators
 GN 491 / GN 492



page 1955



Tube clamp connectors are clamping components made of **aluminum** or **Stainless Steel** which offer the facility for simply and rapidly constructing jigs, fixtures and operating systems using standard round and square section tubings.

The vast range of clamp connectors in split monoblock or multi-part form offer almost unlimited possibilities.

Split monoblock clamp connectors give very robust and sturdy tubular constructions. For this purpose only precision tubings DIN 2391, with an outside diameter which lies within relatively tight tolerances, should be used. (Construction tubes GN 990 see page 1902).

Multi-part clamp connectors (consisting of two or more separate parts) are not tied to tight tolerances as they can be used with square tubes (Construction tubes GN 990 see page 1902) thus allowing incorporation into already existing systems.

As clamping screws there is a choice of either cap head screws to DIN 912 or adjustable clamping kits GN 911 if repeated removal and re-installation is required. As for nuts, hexagon nuts DIN 985 (ISO 10511) which are self-locking with polyamide ring are recommended.

The clamping points are provided on **both sides** with sockets, cast in the component, which give a free choice for positioning hexagon nuts and clamping connectors.

Within the tube clamp connectors range there are numerous clamping components available...

The tube clamp connector program offers a wide range of components that can be used in connection with **linear actuators** (tubes with adjustable spindle) see page 1910 and following pages.

Two-way connector clamps
(see page 1812)

Flanged two-way connector clamps
(see page 1820)

Flanged connector clamps
(see page 1821)

Base plate connector clamps
(see page 1827)

Flanged base plate connector clamps
(see page 1832)

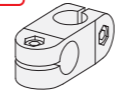
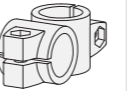
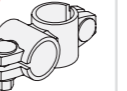
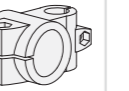
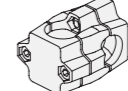

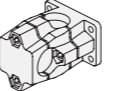
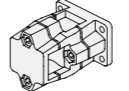
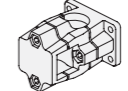
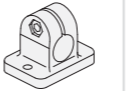
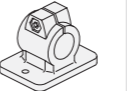
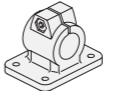
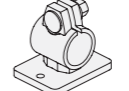
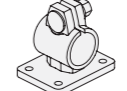
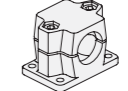
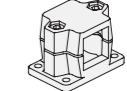
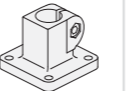
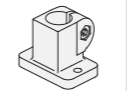
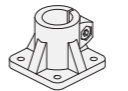
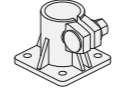
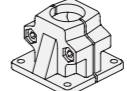
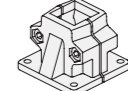
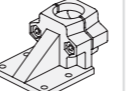
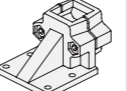
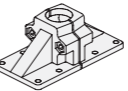
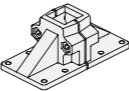
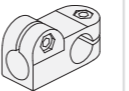
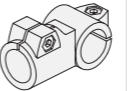
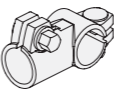
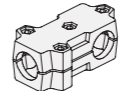
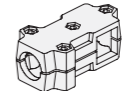
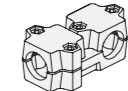
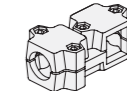
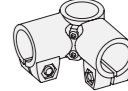
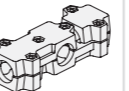
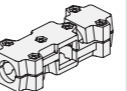
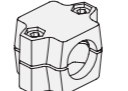
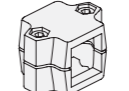
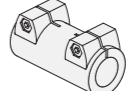

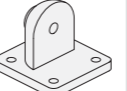
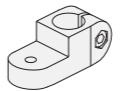
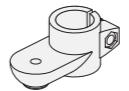
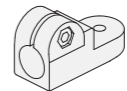
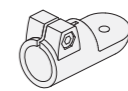
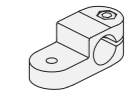
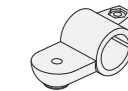
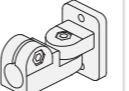
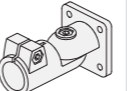
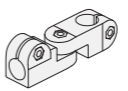
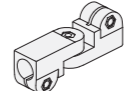
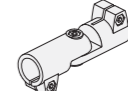
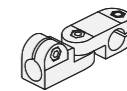
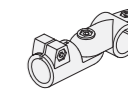
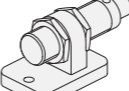
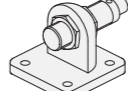
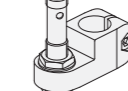
T-Angle connector clamps
(see page 1834)

Tube connectors
(see page 1843)

Swivel clamp connectors
(see page 1847)

Swivel clamp connector joints
(see page 1859)

Sensor holders
(see page 1872)

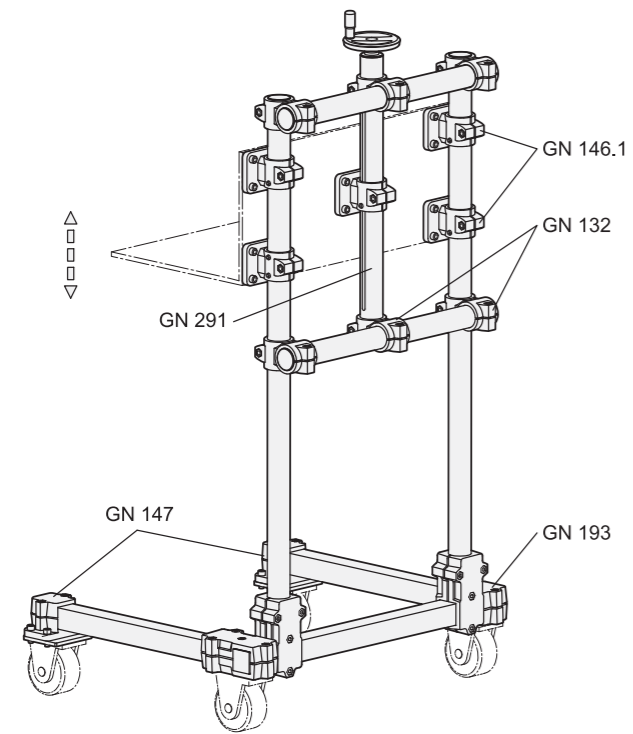
| | | | | | | | |
|---|---|---|---|---|---|---|---|
|  GN 131 |  GN 132 |  GN 132.5 |  GN 133 |  GN 134 |  GN 135 | | |
|  GN 141 | |  GN 141 | |  GN 141 | | | |
|  GN 145 |  GN 146.3 |  GN 146 |  GN 146.6 |  GN 146.5 |  GN 147 |  GN 147 | |
|  GN 162 |  GN 162.3 |  GN 163 |  GN 163.5 |  GN 165 |  GN 165 | | |
|  GN 166 |  GN 166 |  GN 167 |  GN 167 | | | | |
|  GN 191 |  GN 192 |  GN 192.5 |  GN 193 |  GN 193 |  GN 194 |  GN 194 |  GN 196 |
|  GN 195 |  GN 195 |  GN 241 |  GN 241 |  GN 242 | | | |
|  GN 271 |  GN 272 |  GN 273 |  GN 274 |  GN 275 |  GN 276 |  GN 277 |  GN 278 |
|  GN 281 |  GN 282 |  GN 283 |  GN 284 |  GN 285 |  GN 286 |  GN 287 |  GN 288 |
|  GN 271.4 |  GN 272.4 |  GN 273.4 | | | | | |

Tube clamp connectors

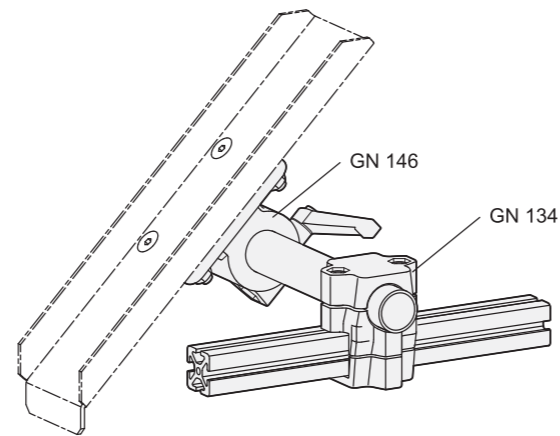
Installation examples

Tube clamp connectors

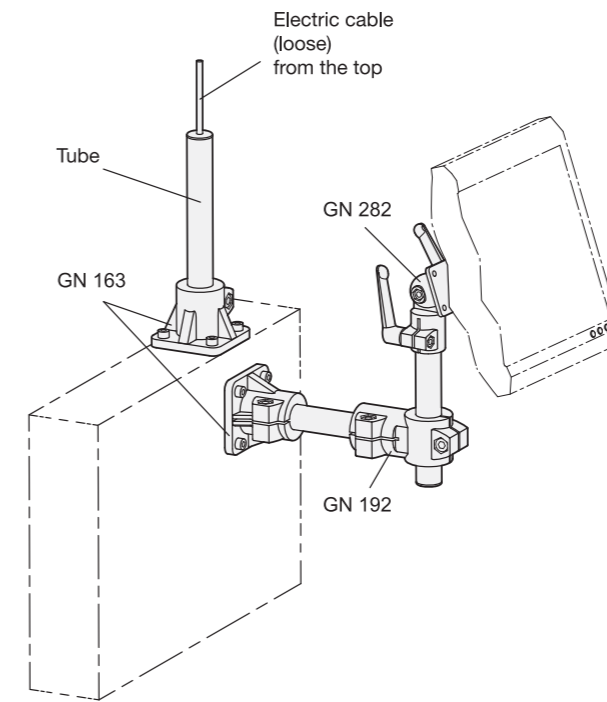
Installation examples



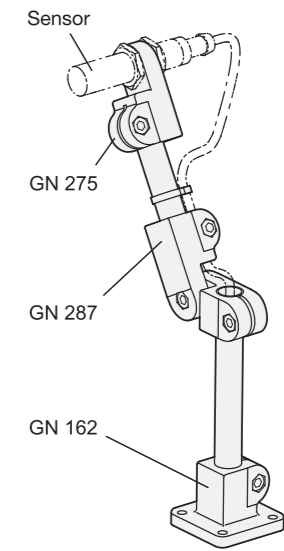
Mobile lifting table



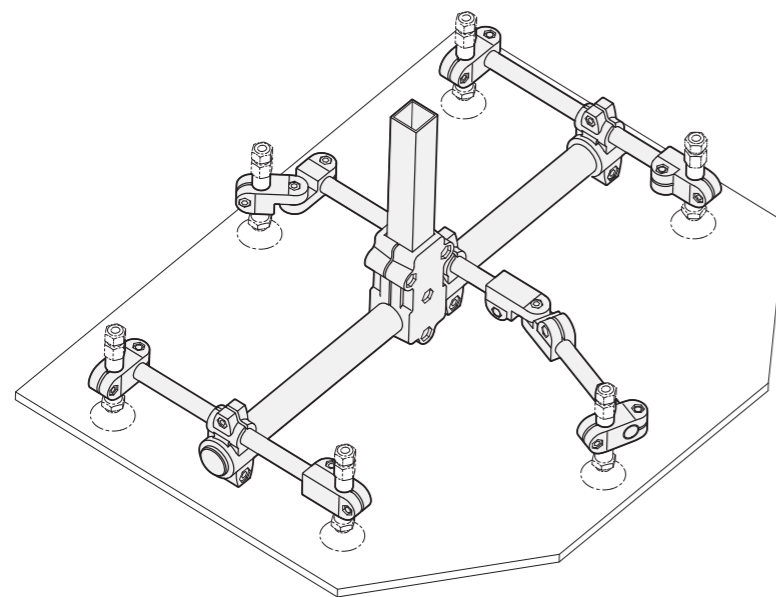
Workpiece chute
Transfer to aluminum profile system



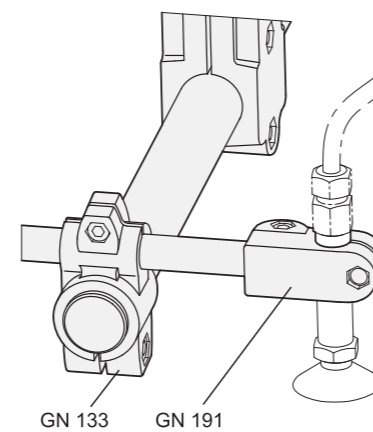
Screen holder



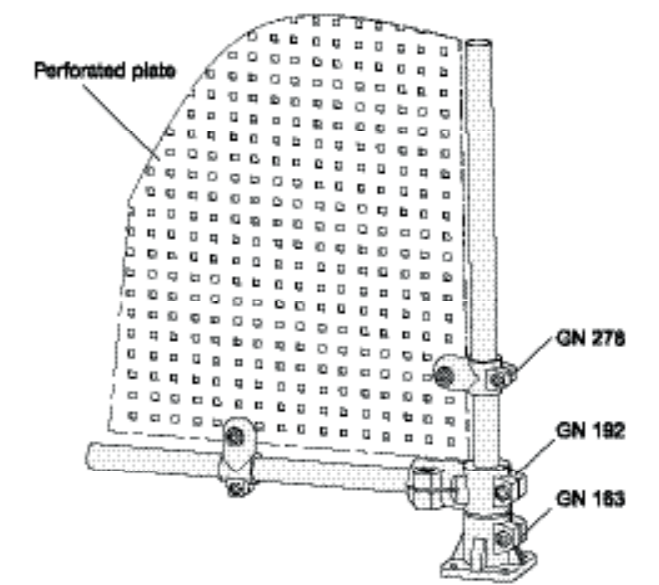
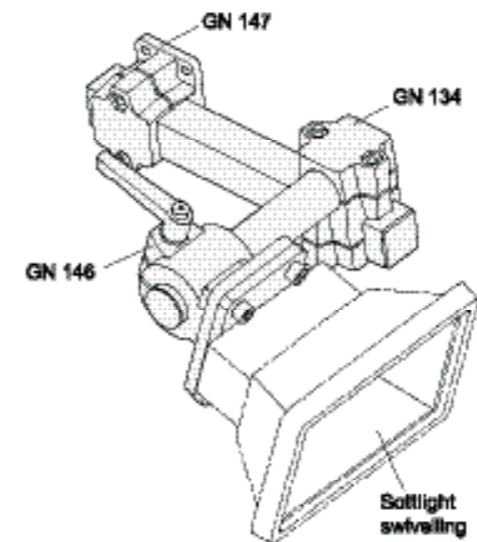
Sensor holder



Vacuum gripper



Holder for spotlight



Safety fence

Two-way connector clamps

Aluminium / Stainless Steel

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Version in Aluminium

plastic coated
black, RAL 9005, textured finish **SW**
blank **BL**
matt shot-blasted

Version in Stainless Steel NI

AISI CF-8
matt shot-blasted
Clamping bores mechanically machined
Socket cap screw DIN 912
Stainless Steel AISI 304
Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

The clamping bores of GN 131 two-way connector clamps are mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by clamping kits GN 911 (see page 1874) / GN 911.3 (see page 1875) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874) / GN 911.3 (see page 1875)

ON REQUEST

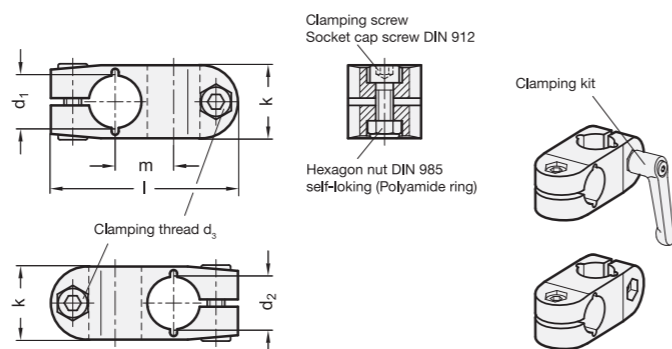
- d₁ / d₂ with different bores

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

* Complete with colour index of the Two-way connector clamps (SW or BL)

SW RAL9005
BL blank



GN 131

| Description | d1 | d2 | d3 | k | l | m | Clamping kits for d3 | ⚖️ |
|--------------------|------|------|-----|----|----|----|----------------------|-----|
| GN 131-B10-B10-2-* | B 10 | B 10 | M 6 | 25 | 64 | 20 | GN 911-M6-22 | 180 |
| GN 131-B12-B12-2-* | B 12 | B 12 | M 6 | 25 | 64 | 20 | GN 911-M6-22 | 203 |
| GN 131-B14-B14-2-* | B 14 | B 14 | M 6 | 25 | 64 | 20 | GN 911-M6-22 | 190 |
| GN 131-B15-B15-2-* | B 15 | B 15 | M 6 | 25 | 64 | 20 | GN 911-M6-22 | 190 |
| GN 131-B16-B16-2-* | B 16 | B 16 | M 6 | 25 | 64 | 20 | GN 911-M6-22 | 170 |
| GN 131-B18-B18-2-* | B 18 | B 18 | M 6 | 25 | 64 | 20 | GN 911-M6-22 | 148 |

Weight BL

GN 131-NI

STAINLESS STEEL

| Description | d1 | d2 | d3 | k | l | m | Clamping kits for d3 | ⚖️ |
|---------------------|------|------|-----|----|----|----|----------------------|-----|
| GN 131-B12-B12-2-NI | B 12 | B 12 | M 6 | 25 | 64 | 20 | GN 911.3-M6-22 | 203 |
| GN 131-B14-B14-2-NI | B 14 | B 14 | M 6 | 25 | 64 | 20 | GN 911.3-M6-22 | 190 |
| GN 131-B15-B15-2-NI | B 15 | B 15 | M 6 | 25 | 64 | 20 | GN 911.3-M6-22 | 190 |
| GN 131-B16-B16-2-NI | B 16 | B 16 | M 6 | 25 | 64 | 20 | GN 911.3-M6-22 | 170 |
| GN 131-B18-B18-2-NI | B 18 | B 18 | M 6 | 25 | 64 | 20 | GN 911.3-M6-22 | 148 |
| GN 131-B20-B20-2-NI | B 20 | B 20 | M 6 | 25 | 64 | 20 | GN 911.3-M6-22 | 140 |

Stainless Steel- Two-way connector clamps

SPECIFICATION

Types

- Type **A**: without sealing
- Type **B**: with sealing

Stainless Steel

- AISI CF-8
- matt shot-blasted

Clamping bores
mechanically machined

Carriage bolt DIN 603
Stainless Steel A2

Cap nuts DIN 917
Stainless Steel A2

Sealings

Washers
Plastic (Polyacetal POM)

Edge ring
Silicon, 40 ... 60 Shore A

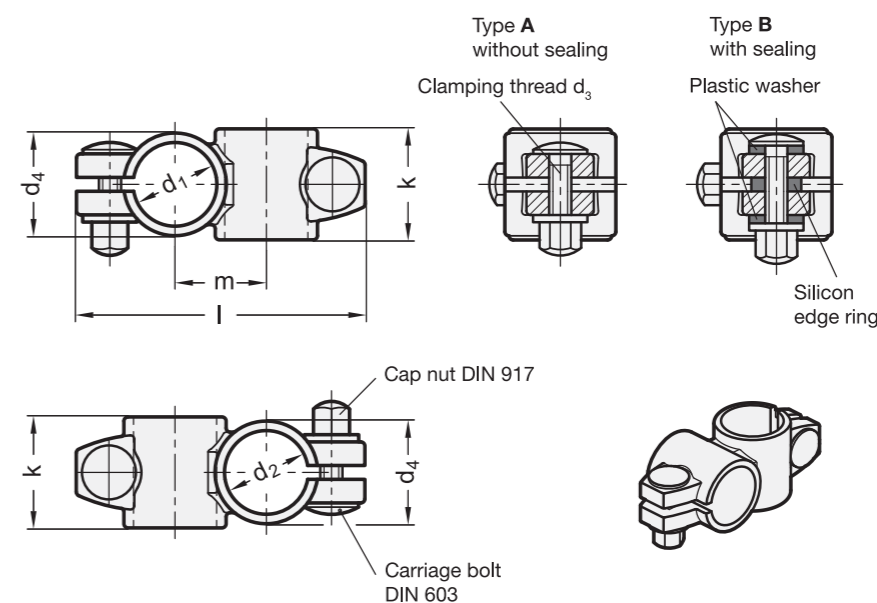
INFORMATION

The clamping bores of GN 132.5 Stainless Steel-Two-way connector clamps are mechanically machined and designed for construction tubings GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The shape of the clamping screws / nuts prevents the formation of wetness due to dammed-up water. The designs with sealing (Type B) also seals bore holes and threads.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 132.5

STAINLESS STEEL

| Description | d1 | d2 | k | d3 | d4 | l | m | ⚖️ |
|-----------------------|------|------|----|------|----|-----|----|-----|
| GN 132.5-B30-B30-40-A | B 30 | B 30 | 40 | M 8 | 37 | 104 | 33 | 296 |
| GN 132.5-B30-B30-40-B | B 30 | B 30 | 40 | M 8 | 37 | 104 | 33 | 296 |
| GN 132.5-B50-B50-65-A | B 50 | B 50 | 65 | M 10 | 60 | 150 | 53 | 312 |
| GN 132.5-B50-B50-65-B | B 50 | B 50 | 65 | M 10 | 60 | 150 | 53 | 312 |

Two-way connector clamps

Aluminium

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

blank

matt shot-blasted **BL**

Clamping bores mechanically machined

Socket cap screw DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304



INFORMATION

The clamping bores of GN 132 two-way connector clamps are mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by clamping kits GN 911 (see page 1874) (article code see table of dimensions).

TECHNICAL INFORMATION

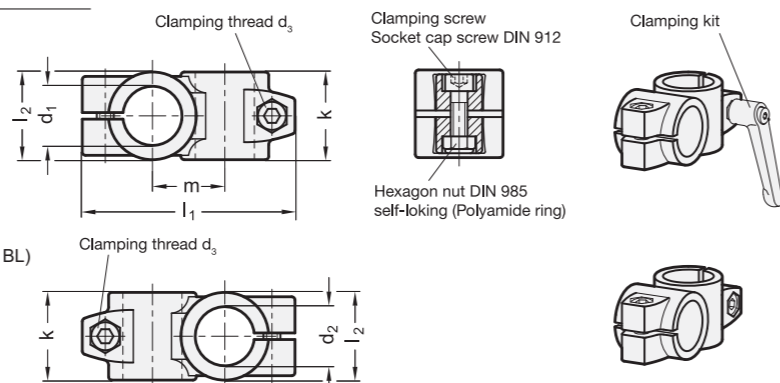
- Stainless Steel characteristics (see page A26)

ACCESSORY

- Clamping kits GN 911 (see page 1874)

ON REQUEST

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Two-way connector clamps (SW or BL)

SW **BL**
RAL9005 blank

GN 132

| Description | d1 | d2 | k | d3 | l1 | l2 | m | Clamping kits for d3 | ⚖ |
|-----------------------|------|------|----|------|-----|----|----|----------------------|------|
| GN 132-B20-B20-40-2-* | B 20 | B 20 | 40 | M 8 | 97 | 40 | 33 | GN 911-M8-32 | 245 |
| GN 132-B25-B25-40-2-* | B 25 | B 25 | 40 | M 8 | 97 | 40 | 33 | GN 911-M8-32 | 220 |
| GN 132-B30-B30-40-2-* | B 30 | B 30 | 40 | M 8 | 97 | 40 | 33 | GN 911-M8-32 | 150 |
| GN 132-B30-B30-56-2-* | B 30 | B 30 | 56 | M 10 | 125 | 56 | 45 | GN 911-M10-40 | 600 |
| GN 132-B32-B32-56-2-* | B 32 | B 32 | 56 | M 10 | 125 | 56 | 45 | GN 911-M10-40 | 620 |
| GN 132-B35-B35-56-2-* | B 35 | B 35 | 56 | M 10 | 125 | 56 | 45 | GN 911-M10-40 | 580 |
| GN 132-B40-B40-56-2-* | B 40 | B 40 | 56 | M 10 | 125 | 56 | 45 | GN 911-M10-40 | 500 |
| GN 132-B40-B40-65-2-* | B 40 | B 40 | 65 | M 10 | 143 | 65 | 53 | GN 911-M10-55 | 890 |
| GN 132-B42-B42-65-2-* | B 42 | B 42 | 65 | M 10 | 143 | 65 | 53 | GN 911-M10-55 | 780 |
| GN 132-B45-B45-65-2-* | B 45 | B 45 | 65 | M 10 | 143 | 65 | 53 | GN 911-M10-55 | 720 |
| GN 132-B48-B48-65-2-* | B 48 | B 48 | 65 | M 10 | 143 | 65 | 53 | GN 911-M10-55 | 700 |
| GN 132-B50-B50-65-2-* | B 50 | B 50 | 65 | M 10 | 143 | 65 | 53 | GN 911-M10-55 | 610 |
| GN 132-B50-B50-80-2-* | B 50 | B 50 | 80 | M 10 | 169 | 80 | 65 | GN 911-M10-55 | 1460 |
| GN 132-B55-B55-80-2-* | B 55 | B 55 | 80 | M 10 | 169 | 80 | 65 | GN 911-M10-55 | 1260 |
| GN 132-B60-B60-80-2-* | B 60 | B 60 | 80 | M 10 | 169 | 80 | 65 | GN 911-M10-55 | 1060 |

Weight BL

Two-way connector clamps

Aluminium / multi part assembly / unequal bore dimensions d1 / s1 and d2 / s2

SPECIFICATION

Identification No.

No. **2**: with 4 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

blank

matt shot-blasted **BL**

Clamping bores not machined

Cap screws DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304



INFORMATION

The clamping bores of GN 135 two-way connector clamps are not machined and specially designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The square designs are also suitable for use in **profile systems**.

The bore holes and squares must be put together such that an adaptation between different tube cross-sections is possible.

The standard clamping screws are socket cap screws DIN 912. They can be replaced by adjustable clamping kits GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

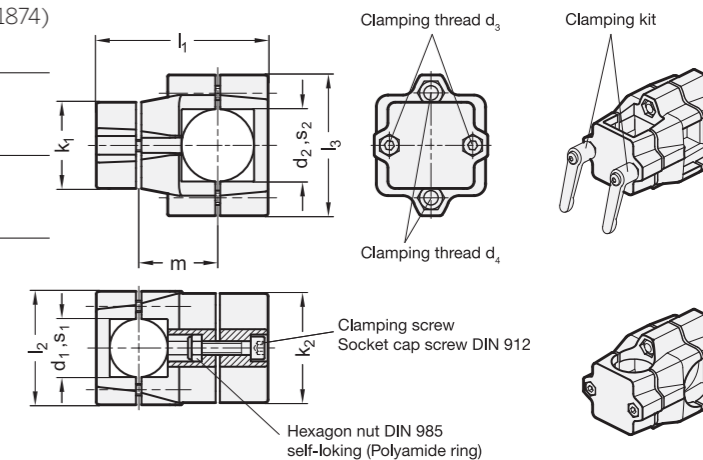
- Clamping kits GN 911 (see page 1874)

ON REQUEST

- other bores and square combinations d1 / s1 and d2 / s2

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Two-way connector clamps (SW or BL)

SW **BL**
RAL9005 blank

GN 135

| Description | d1 | s1 | d2 | s2 | k1 | k2 | d3 | d4 | l1 | l2 | l3 | m | Clamping kits for d3 | Clamping kits for d4 | ⚖ |
|-----------------------|------|------|------|------|----|----|-----|------|-----|----|----|----|----------------------|----------------------|-----|
| GN 135-B30-B40-60-2-* | B 30 | - | B 40 | - | 60 | 76 | M 8 | M 10 | 120 | 79 | 98 | 55 | GN 911-M8-55 | GN 911-M10-55 | 500 |
| GN 135-B30-B48-60-2-* | B 30 | - | B 48 | - | 60 | 76 | M 8 | M 10 | 120 | 79 | 98 | 55 | GN 911-M8-55 | GN 911-M10-55 | 486 |
| GN 135-B30-B50-60-2-* | B 30 | - | B 50 | - | 60 | 76 | M 8 | M 10 | 120 | 79 | 98 | 55 | GN 911-M8-55 | GN 911-M10-55 | 479 |
| GN 135-B40-B48-60-2-* | B 40 | - | B 48 | - | 60 | 76 | M 8 | M 10 | 120 | 79 | 98 | 55 | GN 911-M8-55 | GN 911-M10-55 | 461 |
| GN 135-B40-B50-60-2-* | B 40 | - | B 50 | - | 60 | 76 | M 8 | M 10 | 120 | 79 | 98 | 55 | GN 911-M8-55 | GN 911-M10-55 | 454 |
| GN 135-B30-V40-60-2-* | B 30 | - | - | V 40 | 60 | 76 | M 8 | M 10 | 120 | 79 | 98 | 55 | GN 911-M8-55 | GN 911-M10-55 | 900 |
| GN 135-B30-V50-60-2-* | B 30 | - | - | V 50 | 60 | 76 | M 8 | M 10 | 120 | 79 | 98 | 55 | GN 911-M8-55 | GN 911-M10-55 | 599 |
| GN 135-B40-V50-60-2-* | B 40 | - | - | V 50 | 60 | 76 | M 8 | M 10 | 120 | 79 | 98 | 55 | GN 911-M8-55 | GN 911-M10-55 | 800 |
| GN 135-V30-V40-60-2-* | - | V 30 | - | V 40 | 60 | 76 | M 8 | M 10 | 120 | 79 | 98 | 55 | GN 911-M8-55 | GN 911-M10-55 | 900 |
| GN 135-V30-V50-60-2-* | - | V 30 | - | V 50 | 60 | 76 | M 8 | M 10 | 120 | 79 | 98 | 55 | GN 911-M8-55 | GN 911-M10-55 | 750 |
| GN 135-V40-V50-60-2-* | - | V 40 | - | V 50 | 60 | 76 | M 8 | M 10 | 120 | 79 | 98 | 55 | GN 911-M8-55 | GN 911-M10-55 | 750 |
| GN 135-V30-B40-60-2-* | - | V 30 | B 40 | - | 60 | 76 | M 8 | M 10 | 120 | 79 | 98 | 55 | GN 911-M8-55 | GN 911-M10-55 | 600 |
| GN 135-V30-B48-60-2-* | - | V 30 | B 48 | - | 60 | 76 | M 8 | M 10 | 120 | 79 | 98 | 55 | GN 911-M8-55 | GN 911-M10-55 | 479 |
| GN 135-V30-B50-60-2-* | - | V 30 | B 50 | - | 60 | 76 | M 8 | M 10 | 120 | 79 | 98 | 55 | GN 911-M8-55 | GN 911-M10-55 | 450 |
| GN 135-V40-B48-60-2-* | - | V 40 | B 48 | - | 60 | 76 | M 8 | M 10 | 120 | 79 | 98 | 55 | GN 911-M8-55 | GN 911-M10-55 | 447 |
| GN 135-V40-B50-60-2-* | - | V 40 | B 50 | - | 60 | 76 | M 8 | M 10 | 120 | 79 | 98 | 55 | GN 911-M8-55 | GN 911-M10-55 | 830 |

Weight BL

Two-way connector clamps

Aluminium, different bore diameter d1 / d2

SPECIFICATION

Identification No.

No. 2: with 2 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

blank

matt shot-blasted **BL**

Clamping bores mechanically machined

Socket cap screw DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304



INFORMATION

The clamping bores of GN 133 two-way connector clamps are mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by clamping kits GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

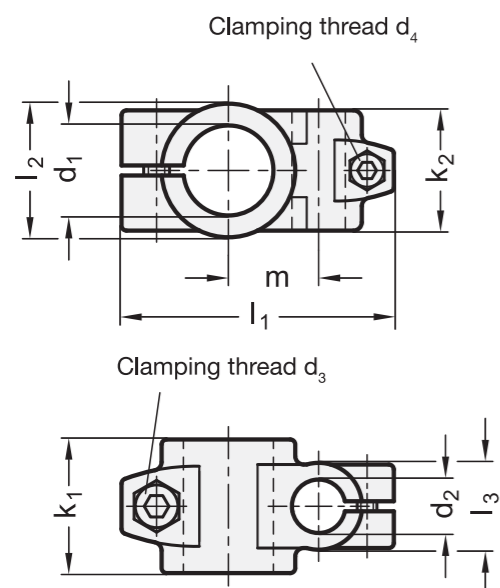
* Complete with colour index of the Two-way connector clamps (SW or BL)

SW BL
RAL9005 blank

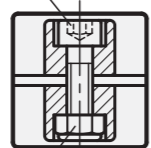
GN 133

| Description | d1 | d2 | d3 | d4 | k1 | k2 | l1 | l2 | l3 | m | Clamping kits for d3 | Clamping kits for d4 | ⚖ |
|--------------------|------|------|------|-----|----|----|------|----|----|----|----------------------|----------------------|-----|
| GN 133-B20-B12-2-* | B 20 | B 12 | M 8 | M 6 | 40 | 36 | 81.5 | 40 | 26 | 27 | GN 911-M8-32 | GN 911-M6-25 | 175 |
| GN 133-B20-B14-2-* | B 20 | B 14 | M 8 | M 6 | 40 | 36 | 81.5 | 40 | 26 | 27 | GN 911-M8-32 | GN 911-M6-25 | 174 |
| GN 133-B20-B16-2-* | B 20 | B 16 | M 8 | M 6 | 40 | 36 | 81.5 | 40 | 26 | 27 | GN 911-M8-32 | GN 911-M6-25 | 170 |
| GN 133-B20-B18-2-* | B 20 | B 18 | M 8 | M 6 | 40 | 36 | 81.5 | 40 | 26 | 27 | GN 911-M8-32 | GN 911-M6-25 | 170 |
| GN 133-B25-B12-2-* | B 25 | B 12 | M 8 | M 6 | 40 | 36 | 81.5 | 40 | 26 | 27 | GN 911-M8-32 | GN 911-M6-25 | 160 |
| GN 133-B25-B14-2-* | B 25 | B 14 | M 8 | M 6 | 40 | 36 | 81.5 | 40 | 26 | 27 | GN 911-M8-32 | GN 911-M6-25 | 155 |
| GN 133-B25-B16-2-* | B 25 | B 16 | M 8 | M 6 | 40 | 36 | 81.5 | 40 | 26 | 27 | GN 911-M8-32 | GN 911-M6-25 | 150 |
| GN 133-B25-B18-2-* | B 25 | B 18 | M 8 | M 6 | 40 | 36 | 81.5 | 40 | 26 | 27 | GN 911-M8-32 | GN 911-M6-25 | 145 |
| GN 133-B30-B12-2-* | B 30 | B 12 | M 8 | M 6 | 40 | 36 | 81.5 | 40 | 26 | 27 | GN 911-M8-32 | GN 911-M6-25 | 135 |
| GN 133-B30-B14-2-* | B 30 | B 14 | M 8 | M 6 | 40 | 36 | 81.5 | 40 | 26 | 27 | GN 911-M8-32 | GN 911-M6-25 | 128 |
| GN 133-B30-B16-2-* | B 30 | B 16 | M 8 | M 6 | 40 | 36 | 81.5 | 40 | 26 | 27 | GN 911-M8-32 | GN 911-M6-25 | 128 |
| GN 133-B30-B18-2-* | B 30 | B 18 | M 8 | M 6 | 40 | 36 | 81.5 | 40 | 26 | 27 | GN 911-M8-32 | GN 911-M6-25 | 124 |
| GN 133-B40-B20-2-* | B 40 | B 20 | M 10 | M 8 | 65 | 59 | 122 | 65 | 40 | 45 | GN 911-M10-55 | GN 911-M8-32 | 600 |
| GN 133-B40-B25-2-* | B 40 | B 25 | M 10 | M 8 | 65 | 59 | 122 | 65 | 40 | 45 | GN 911-M10-55 | GN 911-M8-32 | 600 |
| GN 133-B40-B30-2-* | B 40 | B 30 | M 10 | M 8 | 65 | 59 | 122 | 65 | 40 | 45 | GN 911-M10-55 | GN 911-M8-32 | 570 |
| GN 133-B42-B20-2-* | B 42 | B 20 | M 10 | M 8 | 65 | 59 | 122 | 65 | 40 | 45 | GN 911-M10-55 | GN 911-M8-32 | 550 |
| GN 133-B42-B25-2-* | B 42 | B 25 | M 10 | M 8 | 65 | 59 | 122 | 65 | 40 | 45 | GN 911-M10-55 | GN 911-M8-32 | 600 |
| GN 133-B42-B30-2-* | B 42 | B 30 | M 10 | M 8 | 65 | 59 | 122 | 65 | 40 | 45 | GN 911-M10-55 | GN 911-M8-32 | 600 |
| GN 133-B45-B20-2-* | B 45 | B 20 | M 10 | M 8 | 65 | 59 | 122 | 65 | 40 | 45 | GN 911-M10-55 | GN 911-M8-32 | 510 |
| GN 133-B45-B25-2-* | B 45 | B 25 | M 10 | M 8 | 65 | 59 | 122 | 65 | 40 | 45 | GN 911-M10-55 | GN 911-M8-32 | 510 |
| GN 133-B45-B30-2-* | B 45 | B 30 | M 10 | M 8 | 65 | 59 | 122 | 65 | 40 | 45 | GN 911-M10-55 | GN 911-M8-32 | 510 |
| GN 133-B48-B20-2-* | B 48 | B 20 | M 10 | M 8 | 65 | 59 | 122 | 65 | 40 | 45 | GN 911-M10-55 | GN 911-M8-32 | 475 |
| GN 133-B48-B25-2-* | B 48 | B 25 | M 10 | M 8 | 65 | 59 | 122 | 65 | 40 | 45 | GN 911-M10-55 | GN 911-M8-32 | 475 |
| GN 133-B48-B30-2-* | B 48 | B 30 | M 10 | M 8 | 65 | 59 | 122 | 65 | 40 | 45 | GN 911-M10-55 | GN 911-M8-32 | 475 |
| GN 133-B50-B20-2-* | B 50 | B 20 | M 10 | M 8 | 65 | 59 | 122 | 65 | 40 | 45 | GN 911-M10-55 | GN 911-M8-32 | 505 |
| GN 133-B50-B25-2-* | B 50 | B 25 | M 10 | M 8 | 65 | 59 | 122 | 65 | 40 | 45 | GN 911-M10-55 | GN 911-M8-32 | 480 |
| GN 133-B50-B30-2-* | B 50 | B 30 | M 10 | M 8 | 65 | 59 | 122 | 65 | 40 | 45 | GN 911-M10-55 | GN 911-M8-32 | 450 |

Weight BL

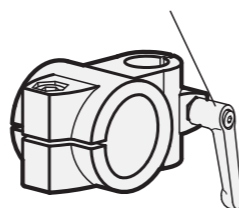


Clamping screw
Socket cap screw DIN 912



Hexagon nut DIN 985
self-locking (Polyamide ring)

Clamping kit



Two-way connector clamps

Aluminium / multi part assembly, same bore dimensions d_1/d_2 and s_1/s_2

SPECIFICATION

Identification No.

No. **2**: with 4 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

blank
matt shot-blasted **BL**

Clamping bores not machined

Socket cap screw DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304



INFORMATION

The clamping bores of the flanged two-way connector clamps GN 134 are not machined and specially designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The square designs are also suitable for use in **profile systems**.

Bores and square bores of the same nominal size can be assembled in any combination. For instance, nominal size 20 has the following combination options: B20-B20, B20-V20, V20-B20 and V20-V20.

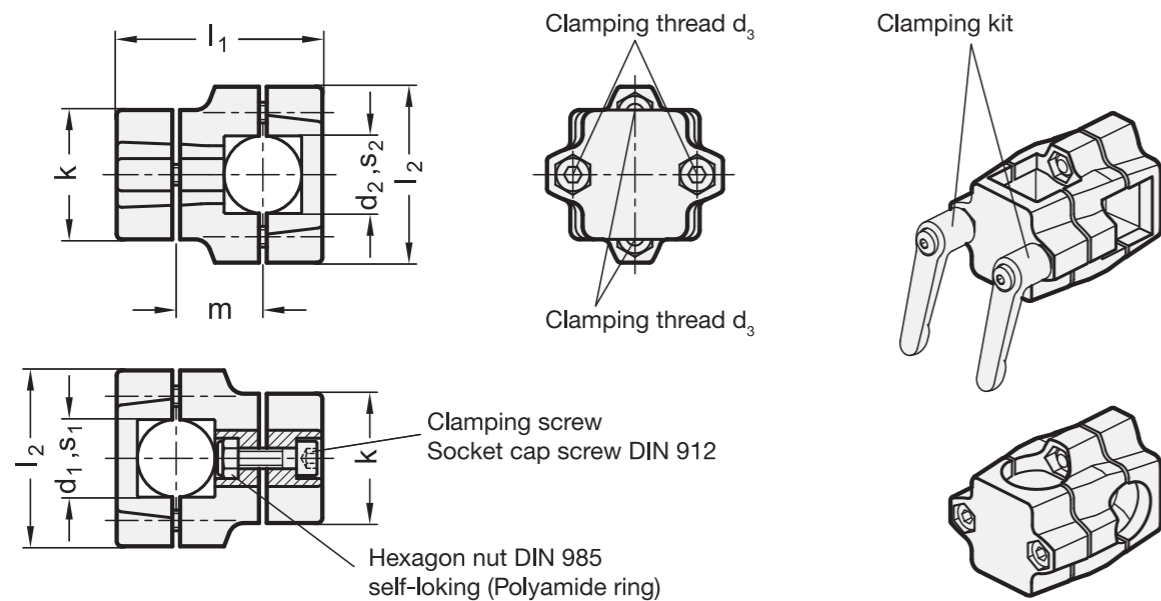
The standard clamping screws are socket cap screws DIN 912. They can be replaced by adjustable clamping kits GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Two-way connector clamps (SW or BL)

SW **BL**
RAL9005 blank

GN 134

| Description | d1 | s1 | d2 | s2 | k | d3 | l1 | l2 | m | Clamping kits for d3 | ⚖ |
|-----------------------|------|------|------|------|----|------|------|----|------|----------------------|-----|
| GN 134-B20-B20-50-2-* | B 20 | - | B 20 | - | 50 | M 8 | 79.5 | 68 | 33.5 | GN 911-M8-35 | 352 |
| GN 134-B25-B25-50-2-* | B 25 | - | B 25 | - | 50 | M 8 | 79.5 | 68 | 33.5 | GN 911-M8-35 | 330 |
| GN 134-B30-B30-50-2-* | B 30 | - | B 30 | - | 50 | M 8 | 79.5 | 68 | 33.5 | GN 911-M8-35 | 310 |
| GN 134-B30-B30-60-2-* | B 30 | - | B 30 | - | 60 | M 8 | 109 | 79 | 50 | GN 911-M8-55 | 700 |
| GN 134-B32-B32-60-2-* | B 32 | - | B 32 | - | 60 | M 8 | 109 | 79 | 50 | GN 911-M8-55 | 690 |
| GN 134-B35-B35-60-2-* | B 35 | - | B 35 | - | 60 | M 8 | 109 | 79 | 50 | GN 911-M8-55 | 680 |
| GN 134-B40-B40-60-2-* | B 40 | - | B 40 | - | 60 | M 8 | 109 | 79 | 50 | GN 911-M8-55 | 620 |
| GN 134-B40-B40-76-2-* | B 40 | - | B 40 | - | 76 | M 10 | 125 | 98 | 55 | GN 911-M10-63 | 890 |
| GN 134-B42-B42-76-2-* | B 42 | - | B 42 | - | 76 | M 10 | 125 | 98 | 55 | GN 911-M10-63 | 945 |
| GN 134-B45-B45-76-2-* | B 45 | - | B 45 | - | 76 | M 10 | 125 | 98 | 55 | GN 911-M10-63 | 915 |
| GN 134-B48-B48-76-2-* | B 48 | - | B 48 | - | 76 | M 10 | 125 | 98 | 55 | GN 911-M10-63 | 915 |
| GN 134-B50-B50-76-2-* | B 50 | - | B 50 | - | 76 | M 10 | 125 | 98 | 55 | GN 911-M10-63 | 885 |
| GN 134-B20-V20-50-2-* | B 20 | - | - | V 20 | 50 | M 8 | 79.5 | 68 | 33.5 | GN 911-M8-35 | 350 |
| GN 134-B25-V25-50-2-* | B 25 | - | - | V 25 | 50 | M 8 | 79.5 | 68 | 33.5 | GN 911-M8-35 | 310 |
| GN 134-B30-V30-50-2-* | B 30 | - | - | V 30 | 50 | M 8 | 79.5 | 68 | 33.5 | GN 911-M8-35 | 310 |
| GN 134-B30-V30-60-2-* | B 30 | - | - | V 30 | 60 | M 8 | 109 | 79 | 50 | GN 911-M8-55 | 680 |
| GN 134-B35-V35-60-2-* | B 35 | - | - | V 35 | 60 | M 8 | 109 | 79 | 50 | GN 911-M8-55 | 640 |
| GN 134-B40-V40-60-2-* | B 40 | - | - | V 40 | 60 | M 8 | 109 | 79 | 50 | GN 911-M8-55 | 580 |
| GN 134-B40-V40-76-2-* | B 40 | - | - | V 40 | 76 | M 10 | 125 | 98 | 55 | GN 911-M8-55 | 950 |
| GN 134-B45-V45-76-2-* | B 45 | - | - | V 45 | 76 | M 10 | 125 | 98 | 55 | GN 911-M10-63 | 835 |
| GN 134-B50-V50-76-2-* | B 50 | - | - | V 50 | 76 | M 10 | 125 | 98 | 55 | GN 911-M10-63 | 773 |
| GN 134-V20-V20-50-2-* | - | V 20 | - | V 20 | 50 | M 8 | 79.5 | 68 | 33.5 | GN 911-M8-35 | 350 |
| GN 134-V25-V25-50-2-* | - | V 25 | - | V 25 | 50 | M 8 | 79.5 | 68 | 33.5 | GN 911-M8-35 | 325 |
| GN 134-V30-V30-50-2-* | - | V 30 | - | V 30 | 50 | M 8 | 79.5 | 68 | 33.5 | GN 911-M8-35 | 300 |
| GN 134-V30-V30-60-2-* | - | V 30 | - | V 30 | 60 | M 8 | 109 | 79 | 50 | GN 911-M8-55 | 660 |
| GN 134-V35-V35-60-2-* | - | V 35 | - | V 35 | 60 | M 8 | 109 | 79 | 50 | GN 911-M8-55 | 620 |
| GN 134-V40-V40-60-2-* | - | V 40 | - | V 40 | 60 | M 8 | 109 | 79 | 50 | GN 911-M8-55 | 560 |
| GN 134-V40-V40-76-2-* | - | V 40 | - | V 40 | 76 | M 10 | 125 | 98 | 55 | GN 911-M10-63 | 945 |
| GN 134-V45-V45-76-2-* | - | V 45 | - | V 45 | 76 | M 10 | 125 | 98 | 55 | GN 911-M10-63 | 825 |
| GN 134-V50-V50-76-2-* | - | V 50 | - | V 50 | 76 | M 10 | 125 | 98 | 55 | GN 911-M10-63 | 825 |
| GN 134-V20-B20-50-2-* | - | V 20 | B 20 | - | 50 | M 8 | 79.5 | 68 | 33.5 | GN 911-M8-35 | 350 |
| GN 134-V25-B25-50-2-* | - | V 25 | B 25 | - | 50 | M 8 | 79.5 | 68 | 33.5 | GN 911-M8-35 | 330 |
| GN 134-V30-B30-50-2-* | - | V 30 | B 30 | - | 50 | M 8 | 79.5 | 68 | 33.5 | GN 911-M8-35 | 314 |
| GN 134-V30-B30-60-2-* | - | V 30 | B 30 | - | 60 | M 8 | 109 | 79 | 50 | GN 911-M8-55 | 680 |
| GN 134-V35-B35-60-2-* | - | V 35 | B 35 | - | 60 | M 8 | 109 | 79 | 50 | GN 911-M8-55 | 640 |
| GN 134-V40-B40-60-2-* | - | V 40 | B 40 | - | 60 | M 8 | 109 | 79 | 50 | GN 911-M8-55 | 580 |
| GN 134-V40-B40-76-2-* | - | V 40 | B 40 | - | 76 | M 10 | 125 | 98 | 55 | GN 911-M10-63 | 890 |
| GN 134-V45-B45-76-2-* | - | V 45 | B 45 | - | 76 | M 10 | 125 | 98 | 55 | GN 911-M10-63 | 835 |
| GN 134-V50-B50-76-2-* | - | V 50 | B 50 | - | 76 | M 10 | 125 | 98 | 55 | GN 911-M10-63 | 830 |

Weight BL

Flanged two-way connector clamps

Aluminium / multi part assembly

SPECIFICATION

Identification No.

No. 2: with Stainless Steel-Clamping screw DIN 912

Aluminium
plastic coated
black, RAL 9005, textured finish **SW**
blank
matt shot-blasted **BL**

Clamping bores not machined
Socket cap screw DIN 912
Stainless Steel AISI 304
Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

The clamping bores of GN 141 flanged two-way connector clamps are not machined and specially designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively. The square designs are also suitable for use in **profile systems**. Bores and square bores of the same nominal size can be assembled in any combination. For instance, nominal size 20 has the following combination options: B20-B20, B20-V20, V20-B20 and V20-V20. The standard clamping screws are socket cap screws DIN 912. They can be replaced by adjustable clamping kits GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

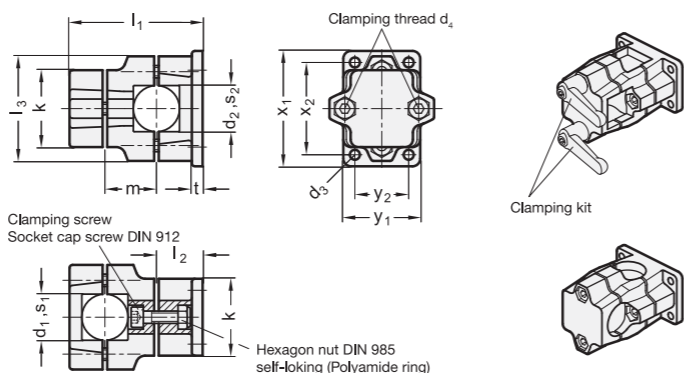
*Complete with colour index of the Flanged two-way connector clamps (SW or BL)

SW RAL9005
BL blank

GN 141

| Description | d1 | s1 | d2 | s2 | d3 | d4 | k | l1 | l2 | l3 | m | t | x1 | x2 | y1 | y2 | Clamping kits for d4 | ⚖️ | |
|-------------------------|----|------|------|------|------|------|-----|-----|----|----|----|-----|-----|----|----|----|----------------------|---------------|------|
| GN 141-B20-V20-2-* B 20 | - | - | V 20 | 6.5 | M 8 | 50 | 86 | 30 | 68 | 36 | 7 | 75 | 60 | 50 | 35 | | GN 911-M8-35 | 395 | |
| GN 141-B25-V25-2-* B 25 | - | - | V 25 | 6.5 | M 8 | 50 | 86 | 30 | 68 | 36 | 7 | 75 | 60 | 50 | 35 | | GN 911-M8-35 | 375 | |
| GN 141-B30-V30-2-* B 30 | - | - | V 30 | 6.5 | M 8 | 50 | 86 | 30 | 68 | 36 | 7 | 75 | 60 | 50 | 35 | | GN 911-M8-35 | 355 | |
| GN 141-B40-V40-2-* B 40 | - | - | V 40 | 11 | M 10 | 76 | 136 | 46 | 98 | 55 | 14 | 115 | 90 | 76 | 50 | | GN 911-M10-63 | 1000 | |
| GN 141-B45-V45-2-* B 45 | - | - | V 45 | 11 | M 10 | 76 | 136 | 46 | 98 | 55 | 14 | 115 | 90 | 76 | 50 | | GN 911-M10-63 | 945 | |
| GN 141-B50-V50-2-* B 50 | - | - | V 50 | 11 | M 10 | 76 | 136 | 46 | 98 | 55 | 14 | 115 | 90 | 76 | 50 | | GN 911-M10-63 | 920 | |
| GN 141-V20-V20-2-* | - | V 20 | - | V 20 | 6.5 | M 8 | 50 | 86 | 30 | 68 | 36 | 7 | 75 | 60 | 50 | 35 | | GN 911-M8-35 | 390 |
| GN 141-V25-V25-2-* | - | V 25 | - | V 25 | 6.5 | M 8 | 50 | 86 | 30 | 68 | 36 | 7 | 75 | 60 | 50 | 35 | | GN 911-M8-35 | 365 |
| GN 141-V30-V30-2-* | - | V 30 | - | V 30 | 6.5 | M 8 | 50 | 86 | 30 | 68 | 36 | 7 | 75 | 60 | 50 | 35 | | GN 911-M8-35 | 340 |
| GN 141-V40-V40-2-* | - | V 40 | - | V 40 | 11 | M 10 | 76 | 136 | 46 | 98 | 55 | 14 | 115 | 90 | 76 | 50 | | GN 911-M10-63 | 1090 |
| GN 141-V45-V45-2-* | - | V 45 | - | V 45 | 11 | M 10 | 76 | 136 | 46 | 98 | 55 | 14 | 115 | 90 | 76 | 50 | | GN 911-M10-63 | 1040 |
| GN 141-V50-V50-2-* | - | V 50 | - | V 50 | 11 | M 10 | 76 | 136 | 46 | 98 | 55 | 14 | 115 | 90 | 76 | 50 | | GN 911-M10-63 | 975 |
| GN 141-V20-B20-2-* | - | V 20 | B 20 | - | 6.5 | M 8 | 50 | 86 | 30 | 68 | 36 | 7 | 75 | 60 | 50 | 35 | | GN 911-M8-35 | 395 |
| GN 141-V25-B25-2-* | - | V 25 | B 25 | - | 6.5 | M 8 | 50 | 86 | 30 | 68 | 36 | 7 | 75 | 60 | 50 | 35 | | GN 911-M8-35 | 375 |
| GN 141-V30-B30-2-* | - | V 30 | B 30 | - | 6.5 | M 8 | 50 | 86 | 30 | 68 | 36 | 7 | 75 | 60 | 50 | 35 | | GN 911-M8-35 | 355 |
| GN 141-V40-B40-2-* | - | V 40 | B 40 | - | 11 | M 10 | 76 | 136 | 46 | 98 | 55 | 14 | 115 | 90 | 76 | 50 | | GN 911-M10-63 | 1030 |
| GN 141-V45-B45-2-* | - | V 45 | B 45 | - | 11 | M 10 | 76 | 136 | 46 | 98 | 55 | 14 | 115 | 90 | 76 | 50 | | GN 911-M10-63 | 980 |
| GN 141-V50-B50-2-* | - | V 50 | B 50 | - | 11 | M 10 | 76 | 136 | 46 | 98 | 55 | 14 | 115 | 90 | 76 | 50 | | GN 911-M10-63 | 950 |

Weight BL



Flanged connector clamps

Aluminium / Stainless Steel, with 2 mounting holes

SPECIFICATION

Identification No.

No. 2: with Stainless Steel-Clamping screw DIN 912

Version in Aluminium

plastic coated
black, RAL 9005, textured finish **SW**
blank
matt shot-blasted **BL**

Version in Stainless Steel NI

AISI CF-8
matt shot-blasted
Clamping bores mechanically machined
Socket cap screw DIN 912
Stainless Steel AISI 304
Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

The clamping bores of GN 145 flanged connector clamps are mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively. GN 145 flanged connector clamps are also suitable for mounting on **profile systems**.

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kits GN 911 (see page 1874) / GN 911.3 (see page 1875) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874) / GN 911.3 (see page 1875) (article code see table of dimensions).

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

*Complete with colour index of the Flanged connector clamps (SW or BL)

SW RAL9005
BL blank

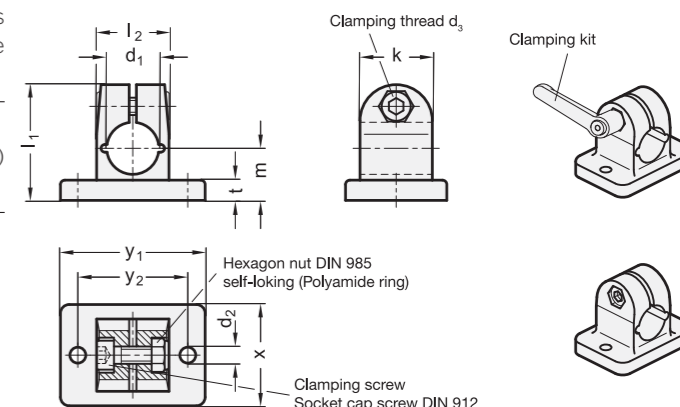
GN 145

| Description | d1 | d2 | d3 | k | l1 | l2 | m | t | x | y1 | y2 | Clamping kits for d3 | ⚖️ |
|----------------|------|-----|-----|----|----|----|----|---|----|----|----|----------------------|-----|
| GN 145-B10-2-* | B 10 | 5.5 | M 6 | 25 | 40 | 25 | 18 | 7 | 35 | 50 | 38 | GN 911-M6-22 | 180 |
| GN 145-B12-2-* | B 12 | 5.5 | M 6 | 25 | 40 | 25 | 18 | 7 | 35 | 50 | 38 | GN 911-M6-22 | 170 |
| GN 145-B14-2-* | B 14 | 5.5 | M 6 | 25 | 40 | 25 | 18 | 7 | 35 | 50 | 38 | GN 911-M6-22 | 170 |
| GN 145-B15-2-* | B 15 | 5.5 | M 6 | 25 | 40 | 25 | 18 | 7 | 35 | 50 | 38 | GN 911-M6-22 | 164 |
| GN 145-B16-2-* | B 16 | 5.5 | M 6 | 25 | 40 | 25 | 18 | 7 | 35 | 50 | 38 | GN 911-M6-22 | 159 |
| GN 145-B18-2-* | B 18 | 5.5 | M 6 | 25 | 40 | 25 | 18 | 7 | 35 | 50 | 38 | GN 911-M6-22 | 153 |

Weight BL

GN 145-NI

| Description | d1 | d2 | d3 | k | l1 | l2 | m | t | x | y1 | y2 | Clamping kits for d3 | ⚖️ |
|-----------------|------|-----|-----|----|----|----|----|---|----|----|----|----------------------|-----|
| GN 145-B12-2-NI | B 12 | 5.5 | M 6 | 25 | 40 | 25 | 18 | 7 | 35 | 50 | 38 | GN 911.3-M6-22 | 180 |
| GN 145-B14-2-NI | B 14 | 5.5 | M 6 | 25 | 40 | 25 | 18 | 7 | 35 | 50 | 38 | GN 911.3-M6-22 | 170 |
| GN 145-B15-2-NI | B 15 | 5.5 | M 6 | 25 | 40 | 25 | 18 | 7 | 35 | 50 | 38 | GN 911.3-M6-22 | 170 |
| GN 145-B16-2-NI | B 16 | 5.5 | M 6 | 25 | 40 | 25 | 18 | 7 | 35 | 50 | 38 | GN 911.3-M6-22 | 164 |
| GN 145-B18-2-NI | B 18 | 5.5 | M 6 | 25 | 40 | 25 | 18 | 7 | 35 | 50 | 38 | GN 911.3-M6-22 | 159 |
| GN 145-B20-2-NI | B 20 | 5.5 | M 6 | 25 | 40 | 25 | 18 | 7 | 35 | 50 | 38 | GN 911.3-M6-22 | 153 |



Flanged connector clamps

Aluminium / with 4 retaining bores

SPECIFICATION

Identification No.

No. **2**: with Stainless Steel-Clamping screw DIN 912

Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

blank
matt shot-blasted **BL**

Clamping bores mechanically machined

Socket cap screw DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

The clamping bores of GN 146 flanged connector clamps are mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

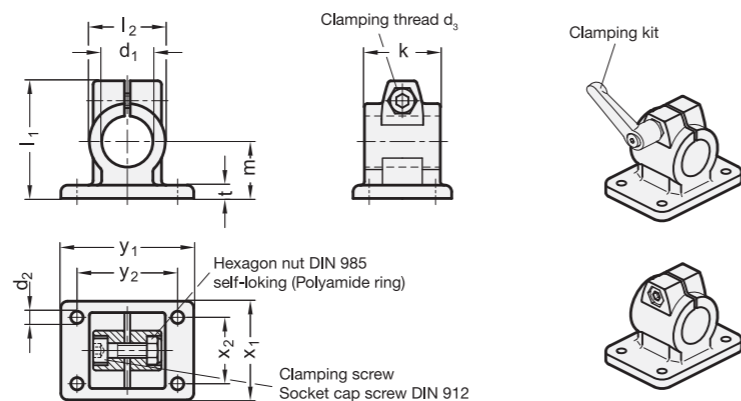
The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

- Clamping kit GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Flanged connector clamps (SW or BL)

SW **BL**
RAL9005 blank

GN 146

| Description | d1 | k | d2 | d3 | l1 | l2 | m | t | x1 | x2 | y1 | y2 | Clamping kits for d3 | ⚖ |
|-------------------|------|----|-----|------|-----|----|----|----|-----|----|-----|-----|----------------------|------|
| GN 146-B20-40-2-* | B 20 | 40 | 6.5 | M 8 | 62 | 40 | 30 | 7 | 52 | 35 | 70 | 53 | GN 911-M8-32 | 194 |
| GN 146-B25-40-2-* | B 25 | 40 | 6.5 | M 8 | 62 | 40 | 30 | 7 | 52 | 35 | 70 | 53 | GN 911-M8-32 | 179 |
| GN 146-B30-40-2-* | B 30 | 40 | 6.5 | M 8 | 62 | 40 | 30 | 7 | 52 | 35 | 70 | 53 | GN 911-M8-32 | 160 |
| GN 146-B30-56-2-* | B 30 | 56 | 8.5 | M 10 | 83 | 56 | 42 | 10 | 78 | 52 | 108 | 82 | GN 911-M10-40 | 510 |
| GN 146-B32-56-2-* | B 32 | 56 | 8.5 | M 10 | 83 | 56 | 42 | 10 | 78 | 52 | 108 | 82 | GN 911-M10-40 | 476 |
| GN 146-B35-56-2-* | B 35 | 56 | 8.5 | M 10 | 83 | 56 | 42 | 10 | 78 | 52 | 108 | 82 | GN 911-M10-40 | 480 |
| GN 146-B40-56-2-* | B 40 | 56 | 8.5 | M 10 | 83 | 56 | 42 | 10 | 78 | 52 | 108 | 82 | GN 911-M10-40 | 435 |
| GN 146-B40-65-2-* | B 40 | 65 | 11 | M 10 | 95 | 65 | 50 | 14 | 92 | 62 | 128 | 98 | GN 911-M10-55 | 790 |
| GN 146-B42-65-2-* | B 42 | 65 | 11 | M 10 | 95 | 65 | 50 | 14 | 92 | 62 | 128 | 98 | GN 911-M10-55 | 760 |
| GN 146-B45-65-2-* | B 45 | 65 | 11 | M 10 | 95 | 65 | 50 | 14 | 92 | 62 | 128 | 98 | GN 911-M10-55 | 736 |
| GN 146-B48-65-2-* | B 48 | 65 | 11 | M 10 | 95 | 65 | 50 | 14 | 92 | 62 | 128 | 98 | GN 911-M10-55 | 694 |
| GN 146-B50-65-2-* | B 50 | 65 | 11 | M 10 | 95 | 65 | 50 | 14 | 92 | 62 | 128 | 98 | GN 911-M10-55 | 680 |
| GN 146-B50-80-2-* | B 50 | 80 | 11 | M 10 | 112 | 80 | 60 | 14 | 110 | 74 | 154 | 118 | GN 911-M10-55 | 1300 |
| GN 146-B55-80-2-* | B 55 | 80 | 11 | M 10 | 112 | 80 | 60 | 14 | 110 | 74 | 154 | 118 | GN 911-M10-55 | 1220 |
| GN 146-B60-80-2-* | B 60 | 80 | 11 | M 10 | 112 | 80 | 60 | 14 | 110 | 74 | 154 | 118 | GN 911-M10-55 | 1120 |

Weight BL

Flanged connector clamps

Aluminium / with 2 retaining bores

SPECIFICATION

Identification No.

No. **2**: with Stainless Steel-Clamping screw DIN 912

Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

blank
matt shot-blasted **BL**

Clamping bores mechanically machined

Socket cap screw DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

The clamping bores of GN 146.3 flanged connector clamps are mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

GN 146.3 flanged connector clamps are also suitable for mounting on **profile systems**.

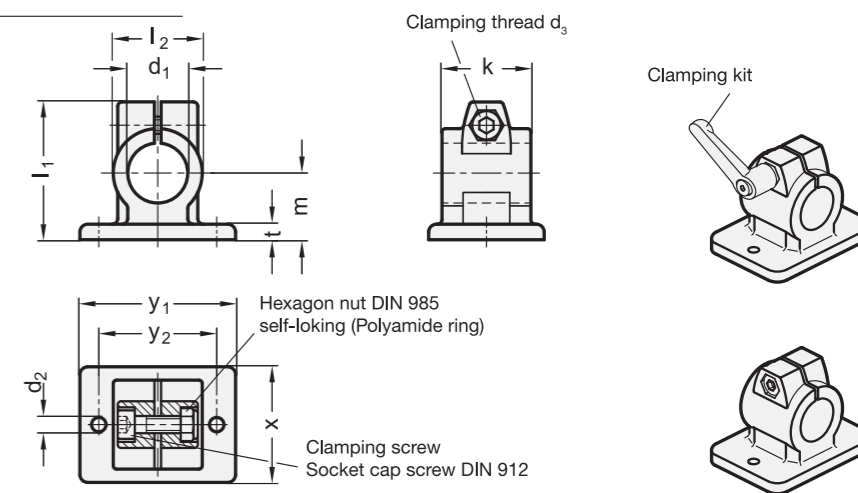
The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Flanged connector clamps (SW or BL)

SW **BL**
RAL9005 blank

GN 146.3

| Description | d1 | k | d2 | d3 | l1 | l2 | m | t | x | y1 | y2 | Clamping kits for d3 | ⚖ |
|---------------------|------|----|-----|------|----|----|----|----|----|-----|----|----------------------|-----|
| GN 146.3-B20-40-2-* | B 20 | 40 | 6.5 | M 8 | 62 | 40 | 30 | 7 | 52 | 70 | 53 | GN 911-M8-32 | 180 |
| GN 146.3-B25-40-2-* | B 25 | 40 | 6.5 | M 8 | 62 | 40 | 30 | 7 | 52 | 70 | 53 | GN 911-M8-32 | 180 |
| GN 146.3-B30-40-2-* | B 30 | 40 | 6.5 | M 8 | 62 | 40 | 30 | 7 | 52 | 70 | 53 | GN 911-M8-32 | 160 |
| GN 146.3-B30-56-2-* | B 30 | 56 | 8.5 | M 10 | 83 | 56 | 42 | 10 | 78 | 108 | 82 | GN 911-M10-40 | 450 |
| GN 146.3-B32-56-2-* | B 32 | 56 | 8.5 | M 10 | 83 | 56 | 42 | 10 | 78 | 108 | 82 | GN 911-M10-40 | 480 |
| GN 146.3-B35-56-2-* | B 35 | 56 | 8.5 | M 10 | 83 | 56 | 42 | 10 | 78 | 108 | 82 | GN 911-M10-40 | 480 |
| GN 146.3-B40-56-2-* | B 40 | 56 | 8.5 | M 10 | 83 | 56 | 42 | 10 | 78 | 108 | 82 | GN 911-M10-40 | 420 |

Weight BL

Stainless Steel-Flanged connector clamps with 4 holes

SPECIFICATION

Types

- Type **A**: without sealing
- Type **B**: with sealing

Stainless Steel

- AISI CF-8
- matt shot-blasted

Clamping bores mechanically machined

Carriage bolt DIN 603
Stainless Steel A2

Cap nuts DIN 917
Stainless Steel A2

Sealings
Washers
Plastic (Polyacetal POM)

Edge ring
Silicon, 40 ... 60 Shore A

INFORMATION

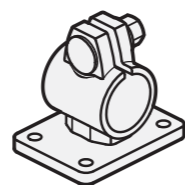
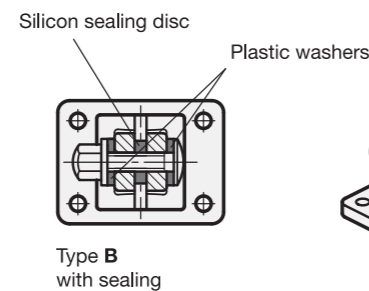
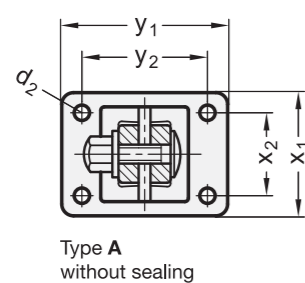
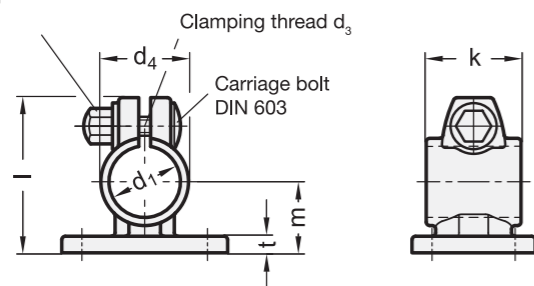
The clamping bores of GN 146.5 Stainless Steel-Flanged connector clamps are mechanically machined and designed for construction tubings GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The shape of the clamping screws / nuts prevents the formation of wetness due to dammed-up water. The designs with sealing (Type B) also seals bore holes and threads.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

Cap nut DIN 917



GN 146.5

STAINLESS STEEL

| Description | d1 | k | d2 | d3 | d4 | l | m | t | x1 | x2 | y1 | y2 | Δ |
|-------------------|------|----|------|------|----|------|----|---|----|----|-----|----|------|
| GN 146.5-B30-40-A | B 30 | 40 | 6.5 | M 8 | 37 | 65 | 30 | 7 | 52 | 35 | 71 | 53 | 270 |
| GN 146.5-B30-40-B | B 30 | 40 | 6.5 | M 8 | 37 | 65 | 30 | 7 | 52 | 35 | 71 | 53 | 270 |
| GN 146.5-B50-65-A | B 50 | 65 | 10.7 | M 10 | 60 | 98.5 | 50 | 9 | 92 | 62 | 128 | 98 | 1081 |
| GN 146.5-B50-65-B | B 50 | 65 | 10.7 | M 10 | 60 | 98.5 | 50 | 9 | 92 | 62 | 128 | 98 | 1081 |

Stainless Steel-Flanged connector clamps with 2 holes

SPECIFICATION

Types

- Type **A**: without sealing
- Type **B**: with sealing

Stainless Steel

- AISI CF-8
- matt shot-blasted

Clamping bores mechanically machined

Carriage bolt DIN 603
Stainless Steel A2

Cap nuts DIN 917
Stainless Steel A2

Sealings
Washers
Plastic (Polyacetal POM)

Edge ring
Silicon, 40 ... 60 Shore A

INFORMATION

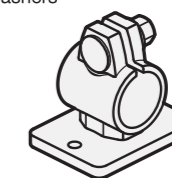
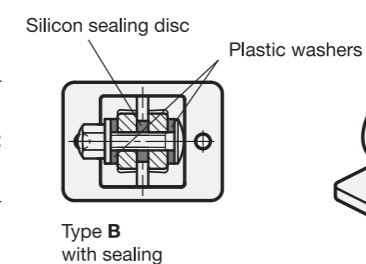
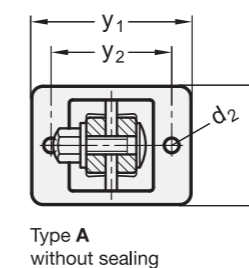
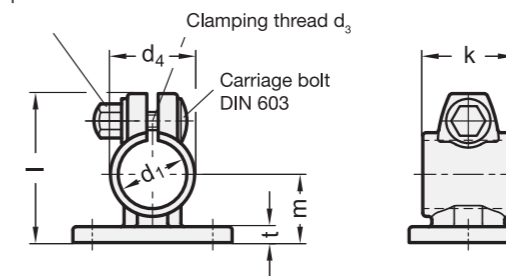
The clamping bores of GN 146.6 Stainless Steel-Flanged connector clamps are mechanically machined and designed for construction tubings GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The shape of the clamping screws / nuts prevents the formation of wetness due to dammed-up water. The designs with sealing (Type B) also seals bore holes and threads.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

Cap nut DIN 917



GN 146.6

STAINLESS STEEL

| Description | d1 | k | d2 | d3 | d4 | l | m | t | x1 | x2 | y1 | y2 | Δ |
|-------------------|------|----|-----|-----|----|----|----|---|----|----|----|----|-----|
| GN 146.6-B30-40-A | B 30 | 40 | 6.5 | M 8 | 37 | 65 | 30 | 7 | 52 | 32 | 71 | 53 | 300 |
| GN 146.6-B30-40-B | B 30 | 40 | 6.5 | M 8 | 37 | 65 | 30 | 7 | 52 | 32 | 71 | 53 | 270 |



Flanged connector clamps

Aluminum / split assembly, with 4 mounting holes

SPECIFICATION

Identification No.

No. 2: with 2 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

blank

matt shot-blasted **BL**

Clamping bores not machined

Socket cap screws DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304

INFORMATION

The clamping bores of GN 147 flanged connector clamps are not machined and specially designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively. The square designs are also suitable for use in **profile systems**.

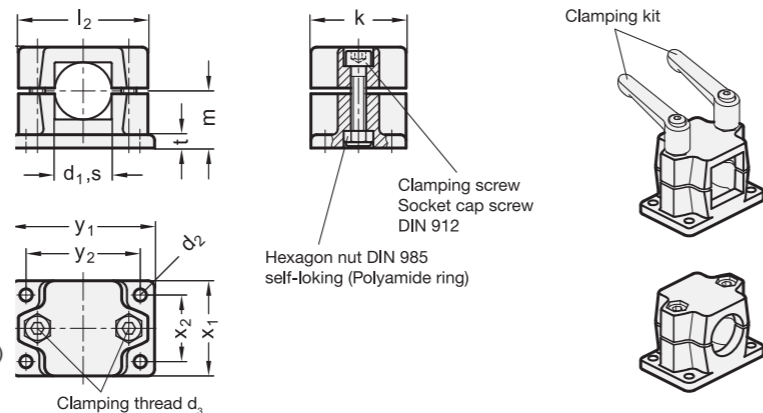
The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Flanged connector clamps (SW or BL)

SW RAL9005 **BL** blank

GN 147

| Description | d1 | s | d2 | d3 | k | l1 | l2 | m | t | x1 | x2 | y1 | y2 | Clamping kits for d3 | ⚖️ |
|----------------|------|------|-----|------|----|------|----|------|----|----|----|-----|----|----------------------|-----|
| GN 147-B20-2-* | B 20 | - | 6.5 | M 8 | 50 | 53 | 68 | 30 | 7 | 50 | 35 | 75 | 60 | GN 911-M8-45 | 245 |
| GN 147-B25-2-* | B 25 | - | 6.5 | M 8 | 50 | 53 | 68 | 30 | 7 | 50 | 35 | 75 | 60 | GN 911-M8-45 | 240 |
| GN 147-B30-2-* | B 30 | - | 6.5 | M 8 | 50 | 53 | 68 | 30 | 7 | 50 | 35 | 75 | 60 | GN 911-M8-45 | 190 |
| GN 147-B40-2-* | B 40 | - | 11 | M 10 | 76 | 81.5 | 98 | 46.5 | 14 | 76 | 50 | 115 | 90 | GN 911-M10-70 | 665 |
| GN 147-B42-2-* | B 42 | - | 11 | M 10 | 76 | 81.5 | 98 | 46.5 | 14 | 76 | 50 | 115 | 90 | GN 911-M10-70 | 650 |
| GN 147-B45-2-* | B 45 | - | 11 | M 10 | 76 | 81.5 | 98 | 46.5 | 14 | 76 | 50 | 115 | 90 | GN 911-M10-70 | 640 |
| GN 147-B48-2-* | B 48 | - | 11 | M 10 | 76 | 81.5 | 98 | 46.5 | 14 | 76 | 50 | 115 | 90 | GN 911-M10-70 | 631 |
| GN 147-B50-2-* | B 50 | - | 11 | M 10 | 76 | 81.5 | 98 | 46.5 | 14 | 76 | 50 | 115 | 90 | GN 911-M10-70 | 620 |
| GN 147-V20-2-* | - | V 20 | 6.5 | M 8 | 50 | 53 | 68 | 30 | 7 | 50 | 35 | 75 | 60 | GN 911-M8-45 | 240 |
| GN 147-V25-2-* | - | V 25 | 6.5 | M 8 | 50 | 53 | 68 | 30 | 7 | 50 | 35 | 75 | 60 | GN 911-M8-45 | 230 |
| GN 147-V30-2-* | - | V 30 | 6.5 | M 8 | 50 | 53 | 68 | 30 | 7 | 50 | 35 | 75 | 60 | GN 911-M8-45 | 220 |
| GN 147-V40-2-* | - | V 40 | 11 | M 10 | 76 | 81.5 | 98 | 46.5 | 14 | 76 | 50 | 115 | 90 | GN 911-M10-70 | 700 |
| GN 147-V45-2-* | - | V 45 | 11 | M 10 | 76 | 81.5 | 98 | 46.5 | 14 | 76 | 50 | 115 | 90 | GN 911-M10-70 | 625 |
| GN 147-V50-2-* | - | V 50 | 11 | M 10 | 76 | 81.5 | 98 | 46.5 | 14 | 76 | 50 | 115 | 90 | GN 911-M10-70 | 595 |

Weight BL



Base plate connector clamps

Aluminium / Stainless Steel, with 4 mounting holes

SPECIFICATION

Identification No.

No. 2: with Stainless Steel-Clamping screw DIN 912

Version in Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

blank

matt shot-blasted **BL**

Version in Stainless Steel NI

AISI CF-8

matt shot-blasted

Clamping bores mechanically machined

Socket cap screws DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304

INFORMATION

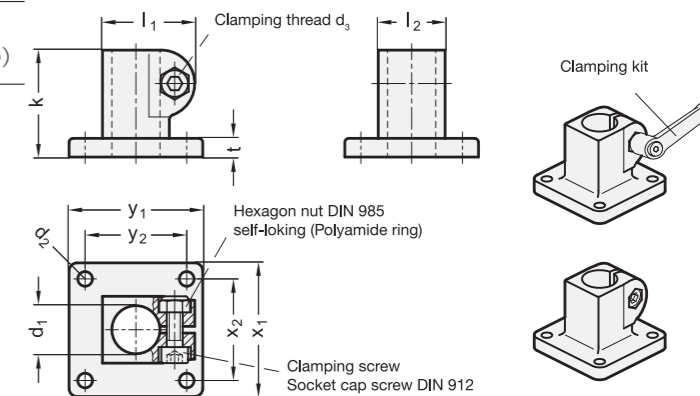
Clamping bores of the base plate clamps GN 162 are mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively. The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kits GN 911 (see page 1874) / GN 911.3 (see page 1875) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874) / GN 911.3 (see page 1875)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Base plate connector clamps (SW or BL)

SW RAL9005 **BL** blank

GN 162

| Description | d1 | d2 | d3 | k | l1 | l2 | t | x1 | x2 | y1 | y2 | Clamping kits for d3 | ⚖️ |
|----------------|------|-----|-----|----|------|----|---|----|----|----|----|----------------------|-----|
| GN 162-B10-2-* | B 10 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 50 | 38 | GN 911-M6-22 | 238 |
| GN 162-B12-2-* | B 12 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 50 | 38 | GN 911-M6-22 | 227 |
| GN 162-B14-2-* | B 14 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 50 | 38 | GN 911-M6-22 | 213 |
| GN 162-B15-2-* | B 15 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 50 | 38 | GN 911-M6-22 | 207 |
| GN 162-B16-2-* | B 16 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 50 | 38 | GN 911-M6-22 | 200 |
| GN 162-B18-2-* | B 18 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 50 | 38 | GN 911-M6-22 | 180 |

Weight BL

GN 162-NI

STAINLESS STEEL

| Description | d1 | d2 | d3 | k | l1 | l2 | t | x1 | x2 | y1 | y2 | Clamping kits for d3 | ⚖️ |
|-----------------|------|-----|-----|----|------|----|---|----|----|----|----|----------------------|-----|
| GN 162-B12-2-NI | B 12 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 50 | 38 | GN 911.3-M6-22 | 238 |
| GN 162-B14-2-NI | B 14 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 50 | 38 | GN 911.3-M6-22 | 227 |
| GN 162-B15-2-NI | B 15 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 50 | 38 | GN 911.3-M6-22 | 213 |
| GN 162-B16-2-NI | B 16 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 50 | 38 | GN 911.3-M6-22 | 207 |
| GN 162-B18-2-NI | B 18 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 50 | 38 | GN 911.3-M6-22 | 200 |
| GN 162-B20-2-NI | B 20 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 50 | 38 | GN 911.3-M6-22 | 180 |

Base plate connector clamps

Aluminium / Stainless Steel, with 2 mounting holes

SPECIFICATION

Identification No.

No. 2: with Stainless Steel-Clamping screw DIN 912

Version in Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

blank
matt shot-blasted **BL**

Version in Stainless Steel NI

AISI CF-8
matt shot-blasted
Clamping bores mechanically machined

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

The clamping bore of the base plate connector clamps GN 162.3 is mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

GN 162.3 base plate connector clamps are also suitable for mounting on **profile systems**.

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kits GN 911 (see page 1874) / GN 911.3 (see page 1875) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874) / GN 911.3 (see page 1875)

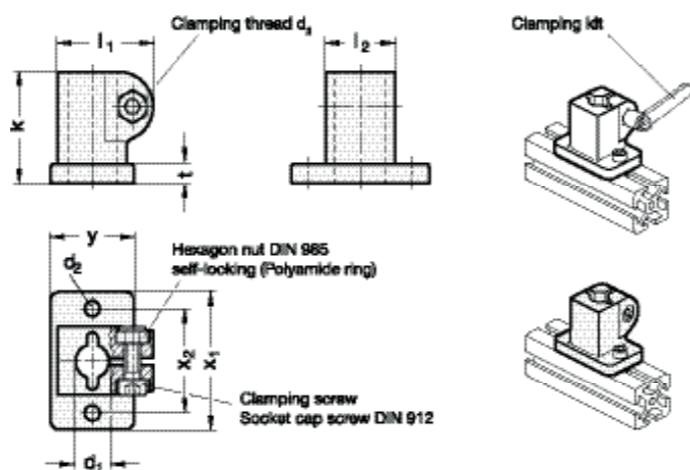
TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

* Complete with colour index of the Base plate connector clamps (SW or BL)

SW
RAL9005

BL
blank



GN 162.3

| Description | d1 | d2 | d3 | k | l1 | l2 | t | x1 | x2 | y | Clamping kits for d3 | ⚖️ |
|------------------|------|-----|-----|----|------|----|---|----|----|----|----------------------|-----|
| GN 162.3-B10-2-* | B 10 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 30 | GN 911-M6-22 | 120 |
| GN 162.3-B12-2-* | B 12 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 30 | GN 911-M6-22 | 110 |
| GN 162.3-B14-2-* | B 14 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 30 | GN 911-M6-22 | 90 |
| GN 162.3-B15-2-* | B 15 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 30 | GN 911-M6-22 | 80 |
| GN 162.3-B16-2-* | B 16 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 30 | GN 911-M6-22 | 73 |
| GN 162.3-B18-2-* | B 18 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 30 | GN 911-M6-22 | 60 |

Weight BL

GN 162.3-NI

STAINLESS STEEL

| Description | d1 | d2 | d3 | k | l1 | l2 | t | x1 | x2 | y | Clamping kits for d3 | ⚖️ |
|-------------------|------|-----|-----|----|------|----|---|----|----|----|----------------------|-----|
| GN 162.3-B12-2-NI | B 12 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 30 | GN 911.3-M6-22 | 194 |
| GN 162.3-B14-2-NI | B 14 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 30 | GN 911.3-M6-22 | 185 |
| GN 162.3-B15-2-NI | B 15 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 30 | GN 911.3-M6-22 | 186 |
| GN 162.3-B16-2-NI | B 16 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 30 | GN 911.3-M6-22 | 174 |
| GN 162.3-B18-2-NI | B 18 | 5.5 | M 6 | 40 | 34.5 | 25 | 7 | 50 | 38 | 30 | GN 911.3-M6-22 | 162 |

Base plate connector clamps

Aluminium

SPECIFICATION

Identification No.

No. 2: with Stainless Steel-Clamping screw DIN 912

Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

blank
matt shot-blasted **BL**

Clamping bores mechanically machined

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

The clamping bores of GN 163 base plate connector clamps are mechanically machined and specially designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

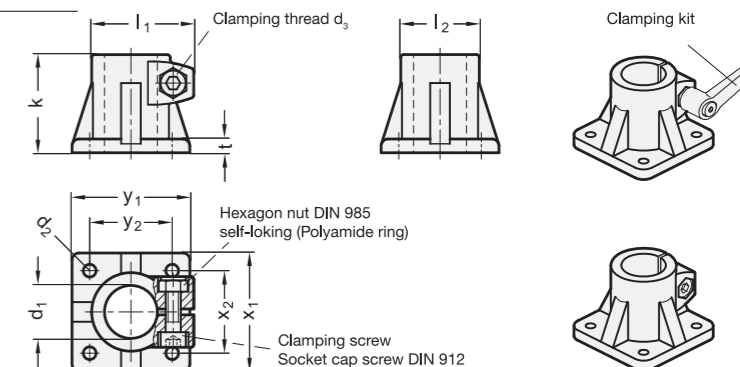
The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

- Clamping kit GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Base plate connector clamps (SW or BL)

SW
RAL9005

BL
blank

GN 163

| Description | d1 | k | d2 | d3 | l1 | l2 | t | x1 | x2 | y1 | y2 | Clamping kits for d3 | ⚖️ |
|--------------------|------|-----|-----|------|------|----|----|-----|----|-----|----|----------------------|------|
| GN 163-B20-50-2-* | B 20 | 50 | 6.5 | M 8 | 52 | 40 | 7 | 60 | 42 | 60 | 42 | GN 911-M8-32 | 199 |
| GN 163-B25-50-2-* | B 25 | 50 | 6.5 | M 8 | 52 | 40 | 7 | 60 | 42 | 60 | 42 | GN 911-M8-32 | 176 |
| GN 163-B30-50-2-* | B 30 | 50 | 6.5 | M 8 | 52 | 40 | 7 | 60 | 42 | 60 | 42 | GN 911-M8-32 | 149 |
| GN 163-B30-70-2-* | B 30 | 70 | 8.5 | M 10 | 68 | 56 | 10 | 90 | 64 | 90 | 64 | GN 911-M10-40 | 510 |
| GN 163-B32-70-2-* | B 32 | 70 | 8.5 | M 10 | 68 | 56 | 10 | 90 | 64 | 90 | 64 | GN 911-M10-40 | 505 |
| GN 163-B35-70-2-* | B 35 | 70 | 8.5 | M 10 | 68 | 56 | 10 | 90 | 64 | 90 | 64 | GN 911-M10-40 | 485 |
| GN 163-B40-70-2-* | B 40 | 70 | 8.5 | M 10 | 68 | 56 | 10 | 90 | 64 | 90 | 64 | GN 911-M10-40 | 437 |
| GN 163-B40-85-2-* | B 40 | 85 | 11 | M 10 | 77.5 | 65 | 14 | 105 | 74 | 105 | 74 | GN 911-M10-55 | 850 |
| GN 163-B42-85-2-* | B 42 | 85 | 11 | M 10 | 77.5 | 65 | 14 | 105 | 74 | 105 | 74 | GN 911-M10-55 | 829 |
| GN 163-B45-85-2-* | B 45 | 85 | 11 | M 10 | 77.5 | 65 | 14 | 105 | 74 | 105 | 74 | GN 911-M10-55 | 775 |
| GN 163-B48-85-2-* | B 48 | 85 | 11 | M 10 | 77.5 | 65 | 14 | 105 | 74 | 105 | 74 | GN 911-M10-55 | 740 |
| GN 163-B50-85-2-* | B 50 | 85 | 11 | M 10 | 77.5 | 65 | 14 | 105 | 74 | 105 | 74 | GN 911-M10-55 | 710 |
| GN 163-B55-100-2-* | B 55 | 100 | 11 | M 10 | 92 | 80 | 14 | 125 | 89 | 125 | 89 | GN 911-M10-55 | 1020 |
| GN 163-B60-100-2-* | B 60 | 100 | 11 | M 10 | 92 | 80 | 14 | 125 | 89 | 125 | 89 | GN 911-M10-55 | 910 |

Weight BL

Stainless Steel-Base plate connector clamps

SPECIFICATION

Types

- Type **A**: without sealing
- Type **B**: with sealing

Stainless Steel

- AISI CF-8
- matt shot-blasted

Clamping bores mechanically machined

Carriage bolt DIN 603
Stainless Steel A2

Cap nuts DIN 917
Stainless Steel A2

Sealings

Washers
Plastic (Polyacetal POM)

Edge ring
Silicon, 40 ... 60 Shore A

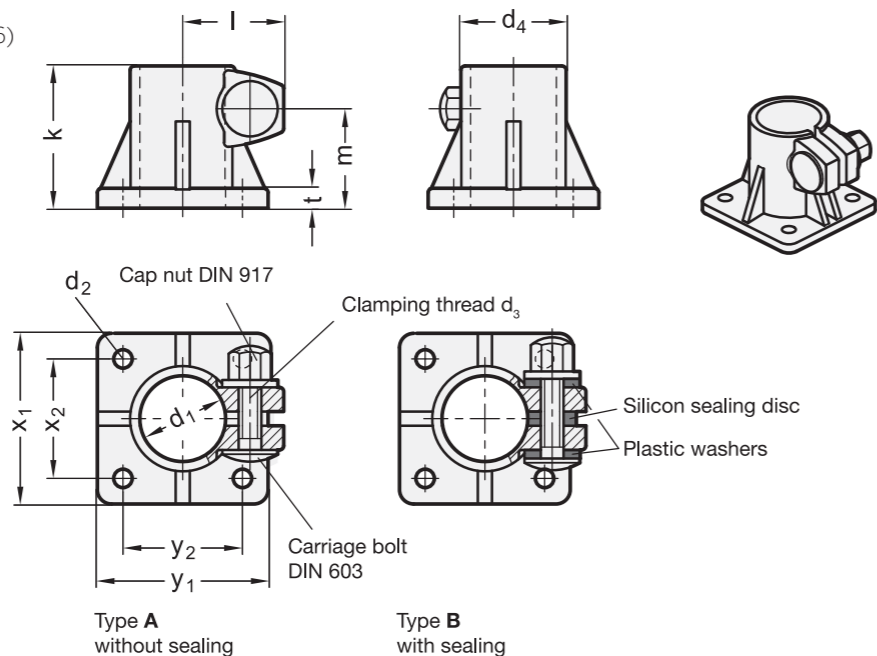
INFORMATION

The clamping bores of the Stainless Steel-Base plate connector clamps GN 163.5 are mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The shape of the clamping screws / nuts prevents the formation of wetness due to dammed-up water. The designs with sealing (Type B) also seals bore holes and threads.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 163.5

STAINLESS STEEL

| Description | d1 | k | d2 | d3 | d4 | l | m | t | x1 | x2 | y1 | y2 | ⚖ |
|-------------------|------|----|------|------|----|------|----|-----|-----|----|-----|----|-----|
| GN 163.5-B30-50-A | B 30 | 50 | 6.5 | M 8 | 37 | 36 | 35 | 6.5 | 60 | 42 | 60 | 42 | 265 |
| GN 163.5-B30-50-B | B 30 | 50 | 6.5 | M 8 | 37 | 36 | 35 | 6.5 | 60 | 42 | 60 | 42 | 265 |
| GN 163.5-B50-85-A | B 50 | 85 | 10.7 | M 10 | 60 | 48.5 | 60 | 9 | 105 | 74 | 105 | 74 | 305 |
| GN 163.5-B50-85-B | B 50 | 85 | 10.7 | M 10 | 60 | 48.5 | 60 | 9 | 105 | 74 | 105 | 74 | 305 |

Base plate connector clamps

Aluminum / split assembly

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

blank

matt shot-blasted **BL**

Clamping bores not machined

Socket cap screws DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304

INFORMATION

The clamping bores of the base plate connector clamps GN 165 are not machined and specially designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The square versions are also suitable for **profile systems**.

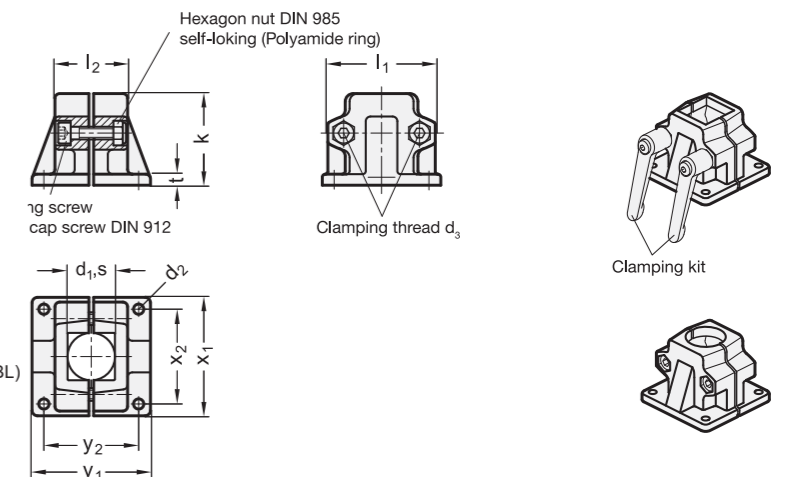
The standard clamping screws are socket cap screws DIN 912. They can be replaced by adjustable clamping kit GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

- Clamping kit GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Base plate connector clamps (SW or BL)

SW
RAL9005

BL
blank

GN 165

| Description | d1 | s | d2 | d3 | k | l1 | l2 | t | x1 | x2 | y1 | y2 | Clamping kits for d3 | ⚖ |
|----------------|------|------|----|------|----|----|----|----|-----|----|-----|----|----------------------|-----|
| GN 165-B20-2-* | B 20 | - | 7 | M 8 | 58 | 69 | 46 | 7 | 75 | 60 | 75 | 60 | GN 911-M8-40 | 300 |
| GN 165-B25-2-* | B 25 | - | 7 | M 8 | 58 | 69 | 46 | 7 | 75 | 60 | 75 | 60 | GN 911-M8-40 | 295 |
| GN 165-B30-2-* | B 30 | - | 7 | M 8 | 58 | 69 | 46 | 7 | 75 | 60 | 75 | 60 | GN 911-M8-40 | 290 |
| GN 165-B40-2-* | B 40 | - | 11 | M 10 | 91 | 98 | 70 | 14 | 115 | 90 | 119 | 90 | GN 911-M10-63 | 945 |
| GN 165-B42-2-* | B 42 | - | 11 | M 10 | 91 | 98 | 70 | 14 | 115 | 90 | 119 | 90 | GN 911-M10-63 | 905 |
| GN 165-B45-2-* | B 45 | - | 11 | M 10 | 91 | 98 | 70 | 14 | 115 | 90 | 119 | 90 | GN 911-M10-63 | 878 |
| GN 165-B48-2-* | B 48 | - | 11 | M 10 | 91 | 98 | 70 | 14 | 115 | 90 | 119 | 90 | GN 911-M10-63 | 840 |
| GN 165-B50-2-* | B 50 | - | 11 | M 10 | 91 | 98 | 70 | 14 | 115 | 90 | 119 | 90 | GN 911-M10-63 | 810 |
| GN 165-V20-2-* | - | V 20 | 7 | M 8 | 58 | 69 | 46 | 7 | 75 | 60 | 75 | 60 | GN 911-M8-40 | 300 |
| GN 165-V25-2-* | - | V 25 | 7 | M 8 | 58 | 69 | 46 | 7 | 75 | 60 | 75 | 60 | GN 911-M8-40 | 285 |
| GN 165-V30-2-* | - | V 30 | 7 | M 8 | 58 | 69 | 46 | 7 | 75 | 60 | 75 | 60 | GN 911-M8-40 | 270 |
| GN 165-V40-2-* | - | V 40 | 11 | M 10 | 91 | 98 | 70 | 14 | 115 | 90 | 119 | 90 | GN 911-M10-63 | 920 |
| GN 165-V45-2-* | - | V 45 | 11 | M 10 | 91 | 98 | 70 | 14 | 115 | 90 | 119 | 90 | GN 911-M10-63 | 885 |
| GN 165-V50-2-* | - | V 50 | 11 | M 10 | 91 | 98 | 70 | 14 | 115 | 90 | 119 | 90 | GN 911-M10-63 | 880 |

Weight BL

Off-set base plate connector clamps

Aluminium / split assembly

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

blank
matt shot-blasted **BL**

Clamping bores not machined

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

The clamping bores of GN 166 off-set base plate connector clamps are not machined and specially designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The square designs are also suitable for use in **profile systems**.

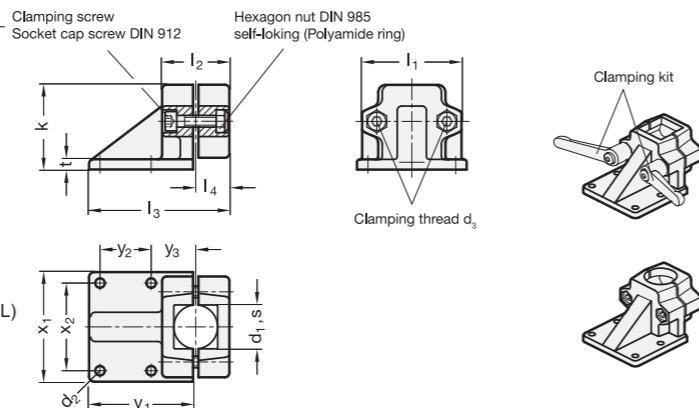
The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by clamping kits GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Off-set base plate connector clamps (SW or BL)

SW RAL9005
BL blank

GN 166

| Description | d1 | s | d2 | d3 | k | l1 | l2 | l3 | l4 | t | x1 | x2 | y1 | y2 | y3 | Clamping kits for d3 | ⚖️ |
|----------------|------|------|----|------|----|----|----|-----|----|----|-----|----|-----|----|----|----------------------|-----|
| GN 166-B20-2-* | B 20 | - | 7 | M 8 | 58 | 69 | 46 | 96 | 23 | 7 | 75 | 60 | 72 | 35 | 30 | GN 911-M8-40 | 297 |
| GN 166-B25-2-* | B 25 | - | 7 | M 8 | 58 | 69 | 46 | 96 | 23 | 7 | 75 | 60 | 72 | 35 | 30 | GN 911-M8-40 | 291 |
| GN 166-B30-2-* | B 30 | - | 7 | M 8 | 58 | 69 | 46 | 96 | 23 | 7 | 75 | 60 | 72 | 35 | 30 | GN 911-M8-40 | 286 |
| GN 166-B40-2-* | B 40 | - | 11 | M 10 | 91 | 98 | 70 | 145 | 35 | 14 | 115 | 90 | 108 | 50 | 45 | GN 911-M10-63 | 870 |
| GN 166-B42-2-* | B 42 | - | 11 | M 10 | 91 | 98 | 70 | 145 | 35 | 14 | 115 | 90 | 108 | 50 | 45 | GN 911-M10-63 | 850 |
| GN 166-B45-2-* | B 45 | - | 11 | M 10 | 91 | 98 | 70 | 145 | 35 | 14 | 115 | 90 | 108 | 50 | 45 | GN 911-M10-63 | 840 |
| GN 166-B48-2-* | B 48 | - | 11 | M 10 | 91 | 98 | 70 | 145 | 35 | 14 | 115 | 90 | 108 | 50 | 45 | GN 911-M10-63 | 830 |
| GN 166-B50-2-* | B 50 | - | 11 | M 10 | 91 | 98 | 70 | 145 | 35 | 14 | 115 | 90 | 108 | 50 | 45 | GN 911-M10-63 | 815 |
| GN 166-V20-2-* | - | V 20 | 7 | M 8 | 58 | 69 | 46 | 96 | 23 | 7 | 75 | 60 | 72 | 35 | 30 | GN 911-M8-40 | 290 |
| GN 166-V25-2-* | - | V 25 | 7 | M 8 | 58 | 69 | 46 | 96 | 23 | 7 | 75 | 60 | 72 | 35 | 30 | GN 911-M8-40 | 280 |
| GN 166-V30-2-* | - | V 30 | 7 | M 8 | 58 | 69 | 46 | 96 | 23 | 7 | 75 | 60 | 72 | 35 | 30 | GN 911-M8-40 | 270 |
| GN 166-V40-2-* | - | V 40 | 11 | M 10 | 91 | 98 | 70 | 145 | 35 | 14 | 115 | 90 | 108 | 50 | 45 | GN 911-M10-63 | 840 |
| GN 166-V45-2-* | - | V 45 | 11 | M 10 | 91 | 98 | 70 | 145 | 35 | 14 | 115 | 90 | 108 | 50 | 45 | GN 911-M10-63 | 815 |
| GN 166-V50-2-* | - | V 50 | 11 | M 10 | 91 | 98 | 70 | 145 | 35 | 14 | 115 | 90 | 108 | 50 | 45 | GN 911-M10-63 | 775 |

Weight BL

Wide base plate connector clamps

Aluminium / split assembly

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

blank
matt shot-blasted **BL**

Clamping bores not machined

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

The clamping bores of GN 167 wide base plate connector clamps are not machined and specially designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The square designs are also suitable for use in **profile systems**.

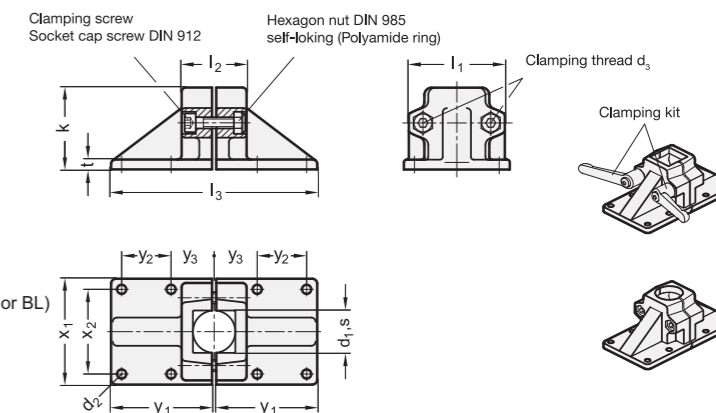
The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by clamping kits GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Wide base plate connector clamps (SW or BL)

SW RAL9005
BL blank

GN 167

| Description | d1 | s | d2 | d3 | k | l1 | l2 | l3 | t | x1 | x2 | y1 | y2 | y3 | Clamping kits for d3 | ⚖️ |
|----------------|------|------|----|------|----|----|----|-----|----|-----|----|-----|----|----|----------------------|------|
| GN 167-B20-2-* | B 20 | - | 7 | M 8 | 58 | 69 | 46 | 146 | 7 | 75 | 60 | 72 | 35 | 30 | GN 911-M8-40 | 394 |
| GN 167-B25-2-* | B 25 | - | 7 | M 8 | 58 | 69 | 46 | 146 | 7 | 75 | 60 | 72 | 35 | 30 | GN 911-M8-40 | 388 |
| GN 167-B30-2-* | B 30 | - | 7 | M 8 | 58 | 69 | 46 | 146 | 7 | 75 | 60 | 72 | 35 | 30 | GN 911-M8-40 | 384 |
| GN 167-B40-2-* | B 40 | - | 11 | M 10 | 91 | 98 | 70 | 218 | 14 | 75 | 60 | 72 | 35 | 30 | GN 911-M8-40 | 222 |
| GN 167-B42-2-* | B 42 | - | 11 | M 10 | 91 | 98 | 70 | 218 | 14 | 115 | 90 | 108 | 50 | 45 | GN 911-M10-63 | 1194 |
| GN 167-B45-2-* | B 45 | - | 11 | M 10 | 91 | 98 | 70 | 218 | 14 | 115 | 90 | 108 | 50 | 45 | GN 911-M10-63 | 1182 |
| GN 167-B48-2-* | B 48 | - | 11 | M 10 | 91 | 98 | 70 | 218 | 14 | 115 | 90 | 108 | 50 | 45 | GN 911-M10-63 | 1172 |
| GN 167-B50-2-* | B 50 | - | 11 | M 10 | 91 | 98 | 70 | 218 | 14 | 115 | 90 | 108 | 50 | 45 | GN 911-M10-63 | 1154 |
| GN 167-V20-2-* | - | V 20 | 7 | M 8 | 58 | 69 | 46 | 146 | 7 | 75 | 60 | 72 | 35 | 30 | GN 911-M8-40 | 398 |
| GN 167-V25-2-* | - | V 25 | 7 | M 8 | 58 | 69 | 46 | 146 | 7 | 75 | 60 | 72 | 35 | 30 | GN 911-M8-40 | 374 |
| GN 167-V30-2-* | - | V 30 | 7 | M 8 | 58 | 69 | 46 | 146 | 7 | 75 | 60 | 72 | 35 | 30 | GN 911-M8-40 | 368 |
| GN 167-V40-2-* | - | V 40 | 11 | M 10 | 91 | 98 | 70 | 218 | 14 | 115 | 90 | 108 | 50 | 45 | GN 911-M10-63 | 1176 |
| GN 167-V45-2-* | - | V 45 | 11 | M 10 | 91 | 98 | 70 | 218 | 14 | 115 | 90 | 108 | 50 | 45 | GN 911-M10-63 | 1148 |
| GN 167-V50-2-* | - | V 50 | 11 | M 10 | 91 | 98 | 70 | 218 | 14 | 115 | 90 | 108 | 50 | 45 | GN 911-M10-63 | 1094 |

Weight BL

T-Angle connector clamps

Aluminium / Stainless Steel

SPECIFICATION

Identification No.

No. **2**: with two Stainless Steel-Clamping screws DIN 912

Version in Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

blank
matt shot-blasted **BL**

Version in Stainless Steel NI

AISI CF-8
matt shot-blasted

Clamping bores mechanically machined

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

The clamping bores of the T-Angle connector clamps GN 191 are mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kits GN 911 (see page 1874) / GN 911.3 (see page 1875) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874) / GN 911.3 (see page 1875)

ON REQUEST

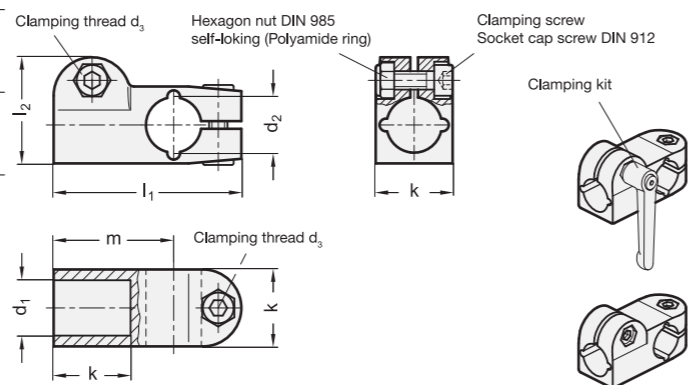
- d₁ / d₂ with different bores

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

* Complete with colour index of the T-angle connector clamps (SW or BL)

SW RAL9005
BL blank



GN 191

| Description | d1 | d2 | d3 | k | l1 | l2 | m | Clamping kits for d3 | ⚖️ |
|--------------------|------|------|-----|----|----|------|----|----------------------|----|
| GN 191-B10-B10-2-* | B 10 | B 10 | M 6 | 25 | 61 | 34.5 | 39 | GN 911-M6-22 | 97 |
| GN 191-B12-B12-2-* | B 12 | B 12 | M 6 | 25 | 61 | 34.5 | 39 | GN 911-M6-22 | 93 |
| GN 191-B14-B14-2-* | B 14 | B 14 | M 6 | 25 | 61 | 34.5 | 39 | GN 911-M6-22 | 86 |
| GN 191-B15-B15-2-* | B 15 | B 15 | M 6 | 25 | 61 | 34.5 | 39 | GN 911-M6-22 | 86 |
| GN 191-B16-B16-2-* | B 16 | B 16 | M 6 | 25 | 61 | 34.5 | 39 | GN 911-M6-22 | 84 |
| GN 191-B18-B18-2-* | B 18 | B 18 | M 6 | 25 | 61 | 34.5 | 39 | GN 911-M6-22 | 84 |

Weight BL

GN 191-NI

STAINLESS STEEL

| Description | d1 | d2 | d3 | k | l1 | l2 | m | Clamping kits for d3 | ⚖️ |
|---------------------|------|------|-----|----|----|------|----|----------------------|-----|
| GN 191-B12-B12-2-NI | B 12 | B 12 | M 6 | 25 | 61 | 34.5 | 39 | GN 911.3-M6-22 | 240 |
| GN 191-B14-B14-2-NI | B 14 | B 14 | M 6 | 25 | 61 | 34.5 | 39 | GN 911.3-M6-22 | 220 |
| GN 191-B15-B15-2-NI | B 15 | B 15 | M 6 | 25 | 61 | 34.5 | 39 | GN 911.3-M6-22 | 210 |
| GN 191-B16-B16-2-NI | B 16 | B 16 | M 6 | 25 | 61 | 34.5 | 39 | GN 911.3-M6-22 | 200 |
| GN 191-B18-B18-2-NI | B 18 | B 18 | M 6 | 25 | 61 | 34.5 | 39 | GN 911.3-M6-22 | 175 |
| GN 191-B20-B20-2-NI | B 20 | B 20 | M 6 | 25 | 61 | 34.5 | 39 | GN 911.3-M6-22 | 171 |

T-Angle connector clamps

Aluminium / multi part assembly

SPECIFICATION

Identification No.

No. **2**: with 6 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

blank **BL**
matt shot-blasted

Clamping bores not machined

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

The clamping bores of the T-Angle connector clamps GN 195 are not machined and specially designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively. The square designs are also suitable for use in **profile systems**.

The standard clamping screws are socket cap screws DIN 912. They can be replaced by adjustable clamping kits GN 911 (see page 1874) (article code see table of dimensions).

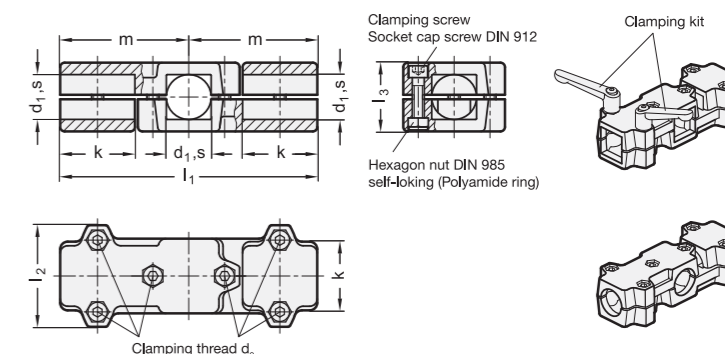


ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the T-angle connector clamps (SW or BL)

SW RAL9005
BL blank

GN 195

| Description | d1 | s | k | d2 | l1 | l2 | l3 | m | Clamping kits for d2 | ⚖️ |
|-------------------|------|------|----|------|-----|----|----|-------|----------------------|------|
| GN 195-B20-50-2-* | B 20 | - | 50 | M 8 | 172 | 68 | 46 | 86 | GN 911-M8-40 | 600 |
| GN 195-B25-50-2-* | B 25 | - | 50 | M 8 | 172 | 68 | 46 | 86 | GN 911-M8-40 | 585 |
| GN 195-B30-50-2-* | B 30 | - | 50 | M 8 | 172 | 68 | 46 | 86 | GN 911-M8-40 | 565 |
| GN 195-B30-60-2-* | B 30 | - | 60 | M 8 | 203 | 79 | 59 | 101.5 | GN 911-M8-55 | 1160 |
| GN 195-B32-60-2-* | B 32 | - | 60 | M 8 | 203 | 79 | 59 | 101.5 | GN 911-M8-55 | 1159 |
| GN 195-B35-60-2-* | B 35 | - | 60 | M 8 | 203 | 79 | 59 | 101.5 | GN 911-M8-55 | 1109 |
| GN 195-B40-60-2-* | B 40 | - | 60 | M 8 | 203 | 79 | 59 | 101.5 | GN 911-M8-55 | 1076 |
| GN 195-B40-76-2-* | B 40 | - | 76 | M 10 | 254 | 98 | 70 | 127 | GN 911-M10-63 | 1590 |
| GN 195-B42-76-2-* | B 42 | - | 76 | M 10 | 254 | 98 | 70 | 127 | GN 911-M10-63 | 1586 |
| GN 195-B45-76-2-* | B 45 | - | 76 | M 10 | 254 | 98 | 70 | 127 | GN 911-M10-63 | 1550 |
| GN 195-B48-76-2-* | B 48 | - | 76 | M 10 | 254 | 98 | 70 | 127 | GN 911-M10-63 | 1510 |
| GN 195-B50-76-2-* | B 50 | - | 76 | M 10 | 254 | 98 | 70 | 127 | GN 911-M10-63 | 1470 |
| GN 195-V20-50-2-* | - | V 20 | 50 | M 8 | 172 | 68 | 46 | 86 | GN 911-M8-40 | 600 |
| GN 195-V25-50-2-* | - | V 25 | 50 | M 8 | 172 | 68 | 46 | 86 | GN 911-M8-40 | 565 |
| GN 195-V30-50-2-* | - | V 30 | 50 | M 8 | 172 | 68 | 46 | 86 | GN 911-M8-40 | 530 |
| GN 195-V30-60-2-* | - | V 30 | 60 | M 8 | 203 | 79 | 59 | 101.5 | GN 911-M8-55 | 787 |
| GN 195-V35-60-2-* | - | V 35 | 60 | M 8 | 203 | 79 | 59 | 101.5 | GN 911-M8-55 | 761 |
| GN 195-V40-60-2-* | - | V 40 | 60 | M 8 | 203 | 79 | 59 | 101.5 | GN 911-M8-55 | 723 |
| GN 195-V40-76-2-* | - | V 40 | 76 | M 10 | 254 | 98 | 70 | 127 | GN 911-M10-63 | 1550 |
| GN 195-V45-76-2-* | - | V 45 | 76 | M 10 | 254 | 98 | 70 | 127 | GN 911-M10-63 | 1480 |
| GN 195-V50-76-2-* | - | V 50 | 76 | M 10 | 254 | 98 | 70 | 127 | GN 911-M10-63 | 1390 |

T-Angle connector clamps

Aluminium

SPECIFICATION

Identification No.

No. **2**: with two Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

blank

matt shot-blasted **BL**

Clamping bores mechanically machined

Socket cap screws DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304

INFORMATION

The clamping bores of GN 192 T-Angle connector clamps are mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kits GN 911 (see page 1874) (article code see table of dimensions).



ACCESSORY

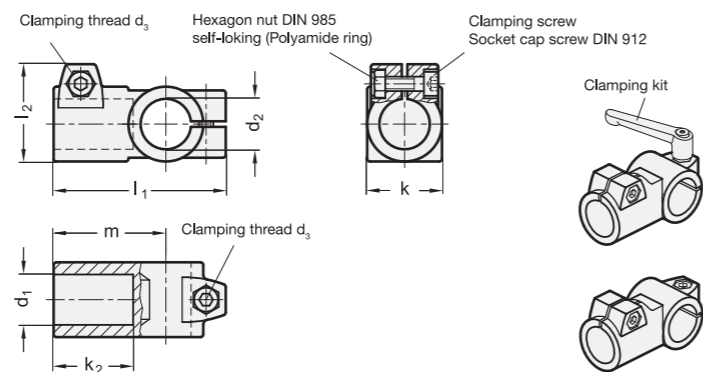
- Clamping kits GN 911 (see page 1874)

ON REQUEST

- d₁ / d₂ with different bores

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the T-angle connector clamps (SW or BL)

SW RAL9005
BL blank

GN 192

| Description | d1 | d2 | k1 | d3 | k2 | l1 | l2 | m | Clamping kits for d3 | ⚖ |
|-----------------------|------|------|----|------|------|-----|------|-----|----------------------|------|
| GN 192-B20-B20-40-2-* | B 20 | B 20 | 40 | M 8 | 42.5 | 92 | 52 | 60 | GN 911-M8-32 | 250 |
| GN 192-B25-B25-40-2-* | B 25 | B 25 | 40 | M 8 | 42.5 | 92 | 52 | 60 | GN 911-M8-32 | 231 |
| GN 192-B30-B30-40-2-* | B 30 | B 30 | 40 | M 8 | 42.5 | 92 | 52 | 60 | GN 911-M8-32 | 186 |
| GN 192-B30-B30-56-2-* | B 30 | B 30 | 56 | M 10 | 62 | 129 | 69 | 88 | GN 911-M8-32 | 661 |
| GN 192-B32-B32-56-2-* | B 32 | B 32 | 56 | M 10 | 62 | 129 | 69 | 88 | GN 911-M10-40 | 619 |
| GN 192-B35-B35-56-2-* | B 35 | B 35 | 56 | M 10 | 62 | 129 | 69 | 88 | GN 911-M10-40 | 570 |
| GN 192-B40-B40-56-2-* | B 40 | B 40 | 56 | M 10 | 62 | 129 | 69 | 88 | GN 911-M10-40 | 481 |
| GN 192-B40-B40-65-2-* | B 40 | B 40 | 65 | M 10 | 75 | 148 | 77.5 | 103 | GN 911-M10-40 | 922 |
| GN 192-B42-B42-65-2-* | B 42 | B 42 | 65 | M 10 | 75 | 148 | 77.5 | 103 | GN 911-M10-55 | 889 |
| GN 192-B45-B45-65-2-* | B 45 | B 45 | 65 | M 10 | 75 | 148 | 77.5 | 103 | GN 911-M10-55 | 732 |
| GN 192-B48-B48-65-2-* | B 48 | B 48 | 65 | M 10 | 75 | 148 | 77.5 | 103 | GN 911-M10-55 | 676 |
| GN 192-B50-B50-65-2-* | B 50 | B 50 | 65 | M 10 | 75 | 148 | 77.5 | 103 | GN 911-M10-55 | 660 |
| GN 192-B50-B50-80-2-* | B 50 | B 50 | 80 | M 10 | 80 | 177 | 92 | 125 | GN 911-M10-55 | 1460 |
| GN 192-B55-B55-80-2-* | B 55 | B 55 | 80 | M 10 | 80 | 177 | 92 | 125 | GN 911-M10-55 | 1260 |
| GN 192-B60-B60-80-2-* | B 60 | B 60 | 80 | M 10 | 80 | 177 | 92 | 125 | GN 911-M10-55 | 1000 |

Weight BL

Stainless Steel-T-Angle connector clamps

SPECIFICATION

Types

- Type **A**: without sealing
- Type **B**: with sealing

Stainless Steel

- AISI CF-8

- matt shot-blasted

Clamping bores mechanically machined

Carriage bolt DIN 603

Stainless Steel A2

Cap nuts DIN 917

Stainless Steel A2

Sealings

Washers

Plastic (Polyacetal POM)

Edge ring

Silicon, 40 ... 60 Shore A



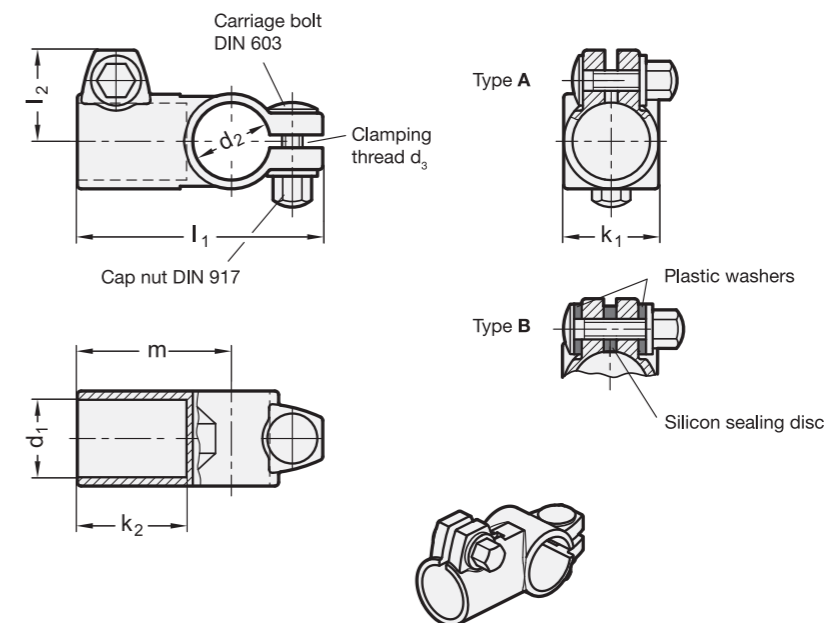
INFORMATION

The clamping bores of the Stainless Steel-T-Angle connector clamps GN 192.5 are mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The shape of the clamping screws / nuts prevents the formation of wetness due to dammed-up water. The designs with sealing (Type B) also seals bore holes and threads.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 192.5

| Description | d1 | d2 | k1 | d3 | k2 | l1 | l2 | m | ⚖ |
|-----------------------|------|------|----|------|----|-------|------|-----|-----|
| GN 192.5-B30-B30-37-A | B 30 | B 30 | 37 | M 8 | 42 | 96 | 35 | 60 | 320 |
| GN 192.5-B30-B30-37-B | B 30 | B 30 | 37 | M 8 | 42 | 96 | 35 | 60 | 320 |
| GN 192.5-B50-B50-65-A | B 50 | B 50 | 65 | M 10 | 75 | 151.5 | 48.5 | 103 | 350 |
| GN 192.5-B50-B50-65-B | B 50 | B 50 | 65 | M 10 | 75 | 151.5 | 48.5 | 103 | 350 |

STAINLESS STEEL

T-Angle connector clamps

Aluminium / split assembly

SPECIFICATION

Identification No.

No. 2: with 4 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

blank

matt shot-blasted **BL**

Clamping bores not machined

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304



INFORMATION

The clamping bores of the T-Angle connector clamps GN 193 are not machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively. The versions with square bores are also suitable for **profile systems**. Bores and square bores of the same nominal size can be assembled in any combination. For instance, nominal size 20 has the following combination options: B20-B20, B20-V20, V20-B20 and V20-V20.

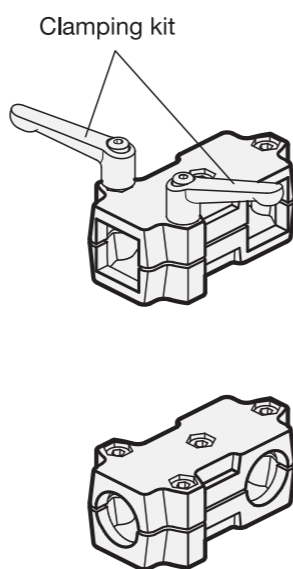
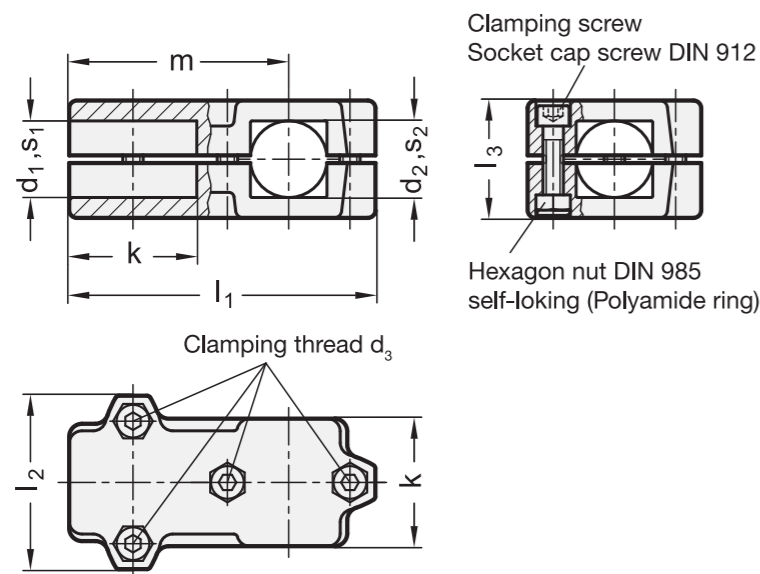
The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

- Clamping kit GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the T-angle connector clamps (SW or BL)

SW RAL9005
BL blank

GN 193

| Description | d1 | s1 | d2 | s2 | k | d3 | l1 | l2 | l3 | m | Clamping kits for d3 | Weight |
|-----------------------|------|------|------|------|----|------|-----|----|----|-------|----------------------|--------|
| GN 193-B20-B20-50-2-* | B 20 | - | B 20 | - | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 446 |
| GN 193-B25-B25-50-2-* | B 25 | - | B 25 | - | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 436 |
| GN 193-B30-B30-50-2-* | B 30 | - | B 30 | - | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 422 |
| GN 193-B30-B30-60-2-* | B 30 | - | B 30 | - | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 800 |
| GN 193-B32-B32-60-2-* | B 32 | - | B 32 | - | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 773 |
| GN 193-B35-B35-60-2-* | B 35 | - | B 35 | - | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 750 |
| GN 193-B40-B40-60-2-* | B 40 | - | B 40 | - | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 720 |
| GN 193-B40-B40-76-2-* | B 40 | - | B 40 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1198 |
| GN 193-B42-B42-76-2-* | B 42 | - | B 42 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1188 |
| GN 193-B45-B45-76-2-* | B 45 | - | B 45 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1164 |
| GN 193-B48-B48-76-2-* | B 48 | - | B 48 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1134 |
| GN 193-B50-B50-76-2-* | B 50 | - | B 50 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1104 |
| GN 193-B20-V20-50-2-* | B 20 | - | - | V 20 | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 476 |
| GN 193-B25-V25-50-2-* | B 25 | - | - | V 25 | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 452 |
| GN 193-B30-V30-50-2-* | B 30 | - | - | V 30 | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 428 |
| GN 193-B30-V30-60-2-* | B 30 | - | - | V 30 | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 443 |
| GN 193-B35-V35-60-2-* | B 35 | - | - | V 35 | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 443 |
| GN 193-B40-V40-60-2-* | B 40 | - | - | V 40 | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 443 |
| GN 193-B40-V40-76-2-* | B 40 | - | - | V 40 | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1133 |
| GN 193-B45-V45-76-2-* | B 45 | - | - | V 45 | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1118 |
| GN 193-B50-V50-76-2-* | B 50 | - | - | V 50 | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1086 |
| GN 193-V20-V20-50-2-* | - | V 20 | - | V 20 | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 430 |
| GN 193-V25-V25-50-2-* | - | V 25 | - | V 25 | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 420 |
| GN 193-V30-V30-50-2-* | - | V 30 | - | V 30 | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 410 |
| GN 193-V30-V30-60-2-* | - | V 30 | - | V 30 | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 750 |
| GN 193-V35-V35-60-2-* | - | V 35 | - | V 35 | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 660 |
| GN 193-V40-V40-60-2-* | - | V 40 | - | V 40 | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 660 |
| GN 193-V40-V40-76-2-* | - | V 40 | - | V 40 | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1158 |
| GN 193-V45-V45-76-2-* | - | V 45 | - | V 45 | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1104 |
| GN 193-V50-V50-76-2-* | - | V 50 | - | V 50 | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1054 |
| GN 193-V20-B20-50-2-* | - | V 20 | B 20 | - | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 450 |
| GN 193-V25-B25-50-2-* | - | V 25 | B 25 | - | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 430 |
| GN 193-V30-B30-50-2-* | - | V 30 | B 30 | - | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 410 |
| GN 193-V30-B30-60-2-* | - | V 30 | B 30 | - | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 480 |
| GN 193-V35-B35-60-2-* | - | V 35 | B 35 | - | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 395 |
| GN 193-V40-B40-60-2-* | - | V 40 | B 40 | - | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 395 |
| GN 193-V40-B40-76-2-* | - | V 40 | B 40 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1150 |
| GN 193-V45-B45-76-2-* | - | V 45 | B 45 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1110 |
| GN 193-V50-B50-76-2-* | - | V 50 | B 50 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1070 |

Weight BL

T-Angle connector clamps

Aluminium / multi part assembly

SPECIFICATION

Identification No.

No. **2**: with 4 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

blank **BL**

matt shot-blasted

Clamping bores not machined

Socket cap screw DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304



INFORMATION

The clamping bores of the T-Angle connector clamps GN 194 are not machined and designed for construction tubings GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively. The versions with square bores are also suitable for **profile systems**. Bores and square bores of the same nominal size can be assembled in any combination. For instance, nominal size 20 has the following combination options: B20-B20, B20-V20, V20-B20 and V20-V20.

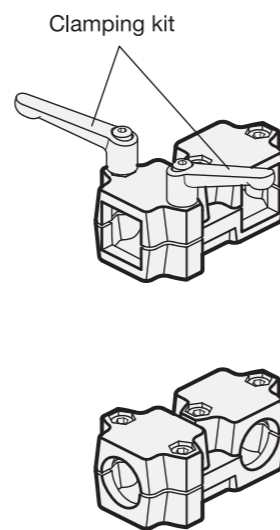
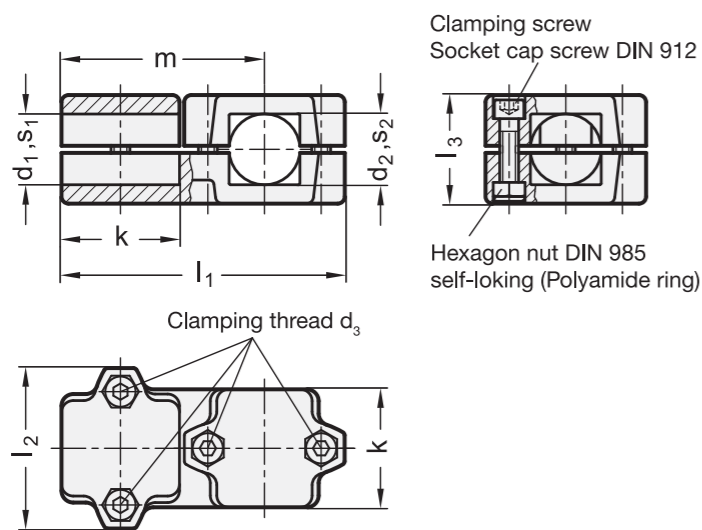
The standard clamping screws are socket cap screws DIN 912. They can be replaced by adjustable clamping kits GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the T-angle connector clamps (SW or BL)

SW RAL9005
BL blank

GN 194

| Description | d1 | s1 | d2 | s2 | k | d3 | l1 | l2 | l3 | m | Clamping kits for d3 | ⚖ |
|-----------------------|------|------|------|------|----|------|-----|----|----|-------|----------------------|------|
| GN 194-B20-B20-50-2-* | B 20 | - | B 20 | - | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 423 |
| GN 194-B25-B25-50-2-* | B 25 | - | B 25 | - | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 412 |
| GN 194-B30-B30-50-2-* | B 30 | - | B 30 | - | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 399 |
| GN 194-B30-B30-60-2-* | B 30 | - | B 30 | - | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 448 |
| GN 194-B32-B32-60-2-* | B 32 | - | B 32 | - | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 773 |
| GN 194-B35-B35-60-2-* | B 35 | - | B 35 | - | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 742 |
| GN 194-B40-B40-60-2-* | B 40 | - | B 40 | - | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 700 |
| GN 194-B40-B40-76-2-* | B 40 | - | B 40 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 752 |
| GN 194-B42-B42-76-2-* | B 42 | - | B 42 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 752 |
| GN 194-B45-B45-76-2-* | B 45 | - | B 45 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1080 |
| GN 194-B48-B48-76-2-* | B 48 | - | B 48 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1055 |
| GN 194-B50-B50-76-2-* | B 50 | - | B 50 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1028 |
| GN 194-B50-B50-76-2-* | B 50 | - | B 50 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1028 |
| GN 194-B20-V20-50-2-* | B 20 | - | - | V 20 | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 395 |
| GN 194-B25-V25-50-2-* | B 25 | - | - | V 25 | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 395 |
| GN 194-B30-V30-50-2-* | B 30 | - | - | V 30 | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-55 | 342 |
| GN 194-B30-V30-60-2-* | B 30 | - | - | V 30 | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 760 |
| GN 194-B35-V35-60-2-* | B 35 | - | - | V 35 | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 583 |
| GN 194-B40-V40-60-2-* | B 40 | - | - | V 40 | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M10-63 | 680 |
| GN 194-B40-V40-76-2-* | B 40 | - | - | V 40 | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1110 |
| GN 194-B45-V45-76-2-* | B 45 | - | - | V 45 | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1065 |
| GN 194-B50-V50-76-2-* | B 50 | - | - | V 50 | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1015 |
| GN 194-V20-V20-50-2-* | - | V 20 | - | V 20 | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 419 |
| GN 194-V25-V25-50-2-* | - | V 25 | - | V 25 | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 398 |
| GN 194-V30-V30-50-2-* | - | V 30 | - | V 30 | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-55 | 376 |
| GN 194-V30-V30-60-2-* | - | V 30 | - | V 30 | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 581 |
| GN 194-V35-V35-60-2-* | - | V 35 | - | V 35 | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 555 |
| GN 194-V40-V40-60-2-* | - | V 40 | - | V 40 | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M10-63 | 650 |
| GN 194-V40-V40-76-2-* | - | V 40 | - | V 40 | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 650 |
| GN 194-V45-V45-76-2-* | - | V 45 | - | V 45 | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1036 |
| GN 194-V50-V50-76-2-* | - | V 50 | - | V 50 | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 975 |
| GN 194-V20-B20-50-2-* | - | V 20 | B 20 | - | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M10-63 | 436 |
| GN 194-V25-B25-50-2-* | - | V 25 | B 25 | - | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-40 | 417 |
| GN 194-V30-B30-50-2-* | - | V 30 | B 30 | - | 50 | M 8 | 120 | 68 | 46 | 85 | GN 911-M8-55 | 397 |
| GN 194-V30-B30-60-2-* | - | V 30 | B 30 | - | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 580 |
| GN 194-V35-B35-60-2-* | - | V 35 | B 35 | - | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M8-55 | 559 |
| GN 194-V40-B40-60-2-* | - | V 40 | B 40 | - | 60 | M 8 | 141 | 79 | 59 | 101.5 | GN 911-M10-63 | 540 |
| GN 194-V40-B40-76-2-* | - | V 40 | B 40 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1100 |
| GN 194-V45-B45-76-2-* | - | V 45 | B 45 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1060 |
| GN 194-V50-B50-76-2-* | - | V 50 | B 50 | - | 76 | M 10 | 176 | 98 | 70 | 126 | GN 911-M10-63 | 1005 |

Weight BL

Angle connector clamps

Aluminium

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

blank

matt shot-blasted **BL**

Socket cap screws DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304

Grub screws DIN 913

Stainless Steel AISI 304



INFORMATION

The clamping bores of the Angle connector clamps GN 196 are specially designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The standard clamping screws are socket cap screws DIN 912. They can be replaced by adjustable clamping kits GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

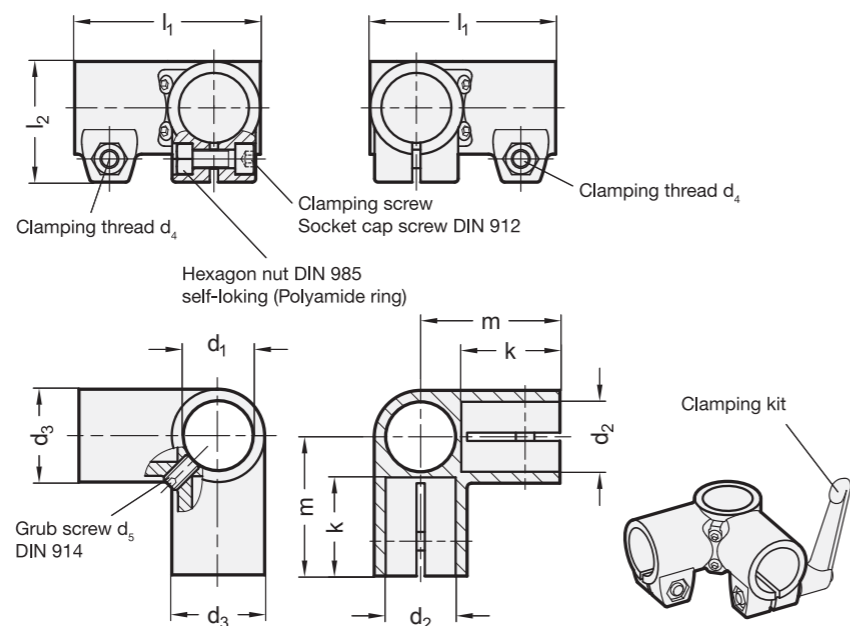
- Clamping kits GN 911 (see page 1874)

ON REQUEST

- d_1 / d_2 with different bores

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 196

| Description | d1 | d2 | k | Clamping length | d3 | d4 | d5 | m | l1 | l2 | Clamping kits for d4 | ⚖ |
|---------------------|------|------|----|-----------------|-----|-----|----|----|----|----|----------------------|-----|
| GN 196-B20-B20-2-BL | B 20 | B 20 | 40 | 40 | M 8 | M 8 | 60 | 80 | 52 | | GN 911-M8-32 | 345 |
| GN 196-B20-B20-2-SW | B 20 | B 20 | 40 | 40 | M 8 | M 8 | 60 | 80 | 52 | | GN 911-M8-32 | 345 |
| GN 196-B25-B25-2-BL | B 25 | B 25 | 40 | 40 | M 8 | M 8 | 60 | 80 | 52 | | GN 911-M8-32 | 287 |
| GN 196-B25-B25-2-SW | B 25 | B 25 | 40 | 40 | M 8 | M 8 | 60 | 80 | 52 | | GN 911-M8-32 | 287 |
| GN 196-B30-B30-2-BL | B 30 | B 30 | 40 | 40 | M 8 | M 8 | 60 | 80 | 52 | | GN 911-M8-32 | 216 |
| GN 196-B30-B30-2-SW | B 30 | B 30 | 40 | 40 | M 8 | M 8 | 60 | 80 | 52 | | GN 911-M8-32 | 216 |

Tube connector joints

Aluminium / split assembly

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

blank

matt shot-blasted **BL**

Clamping bores not machined

Socket cap screws DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304



INFORMATION

The clamping bores of GN 241 tube connector joints are not machined and specially designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively. GN 231 tube supports are also suitable for mounting on **profile systems**.

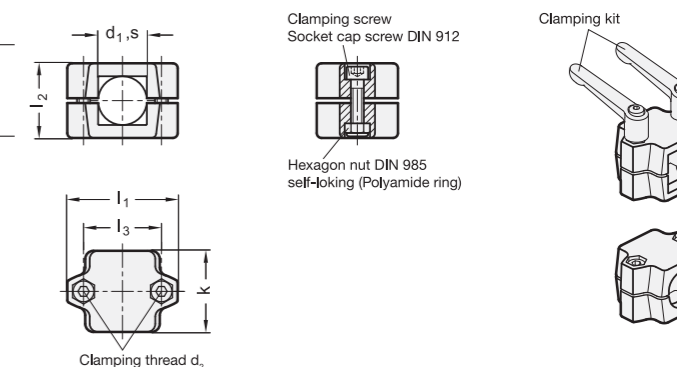
The standard clamping screws are socket cap screws DIN 912. They can be replaced by adjustable clamping kits GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Tube connector joints (SW or BL)

SW RAL9005 **BL** blank

GN 241

| Description | d1 | s | k | d2 | l1 | l2 | l3 | Clamping kits for d2 | ⚖ |
|-------------------|------|------|----|------|----|----|----|----------------------|-----|
| GN 241-B20-50-2-* | B 20 | - | 50 | M 8 | 68 | 46 | 48 | GN 911-M8-40 | 195 |
| GN 241-B25-50-2-* | B 25 | - | 50 | M 8 | 68 | 46 | 48 | GN 911-M8-40 | 190 |
| GN 241-B30-50-2-* | B 30 | - | 50 | M 8 | 68 | 46 | 48 | GN 911-M8-40 | 190 |
| GN 241-B30-60-2-* | B 30 | - | 60 | M 8 | 79 | 59 | 58 | GN 911-M8-55 | 390 |
| GN 241-B32-60-2-* | B 32 | - | 60 | M 8 | 79 | 59 | 58 | GN 911-M8-55 | 380 |
| GN 241-B35-60-2-* | B 35 | - | 60 | M 8 | 79 | 59 | 58 | GN 911-M8-55 | 360 |
| GN 241-B40-60-2-* | B 40 | - | 60 | M 8 | 79 | 59 | 58 | GN 911-M8-55 | 350 |
| GN 241-B40-76-2-* | B 40 | - | 76 | M 10 | 98 | 70 | 73 | GN 911-M10-63 | 505 |
| GN 241-B42-76-2-* | B 42 | - | 76 | M 10 | 98 | 70 | 73 | GN 911-M10-63 | 505 |
| GN 241-B45-76-2-* | B 45 | - | 76 | M 10 | 98 | 70 | 73 | GN 911-M10-63 | 505 |
| GN 241-B48-76-2-* | B 48 | - | 76 | M 10 | 98 | 70 | 73 | GN 911-M10-63 | 505 |
| GN 241-B50-76-2-* | B 50 | - | 76 | M 10 | 98 | 70 | 73 | GN 911-M10-63 | 505 |
| GN 241-V20-50-2-* | - | V 20 | 50 | M 8 | 68 | 46 | 48 | GN 911-M8-40 | 180 |
| GN 241-V25-50-2-* | - | V 25 | 50 | M 8 | 68 | 46 | 48 | GN 911-M8-40 | 180 |
| GN 241-V30-50-2-* | - | V 30 | 50 | M 8 | 68 | 46 | 48 | GN 911-M8-40 | 180 |
| GN 241-V30-60-2-* | - | V 30 | 60 | M 8 | 79 | 59 | 58 | GN 911-M8-55 | 360 |
| GN 241-V35-60-2-* | - | V 35 | 60 | M 8 | 79 | 59 | 58 | GN 911-M8-55 | 350 |
| GN 241-V40-60-2-* | - | V 40 | 60 | M 8 | 79 | 59 | 58 | GN 911-M8-55 | 300 |
| GN 241-V40-76-2-* | - | V 40 | 76 | M 10 | 98 | 70 | 73 | GN 911-M10-63 | 450 |
| GN 241-V45-76-2-* | - | V 45 | 76 | M 10 | 98 | 70 | 73 | GN 911-M10-63 | 450 |
| GN 241-V50-76-2-* | - | V 50 | 76 | M 10 | 98 | 70 | 73 | GN 911-M10-63 | 450 |

Weight BL

Tube supports

Aluminium / split assembly

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

blank

matt shot-blasted **BL**

Clamping bores not machined

Socket cap screws DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304

INFORMATION

The clamping bores of GN 231 tube supports are not machined and specially designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

GN 231 tube supports are also suitable for mounting on **profile systems**.

The standard clamping screws are socket cap screws DIN 912. They can be replaced by adjustable clamping kits GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Tube supports (SW or BL)

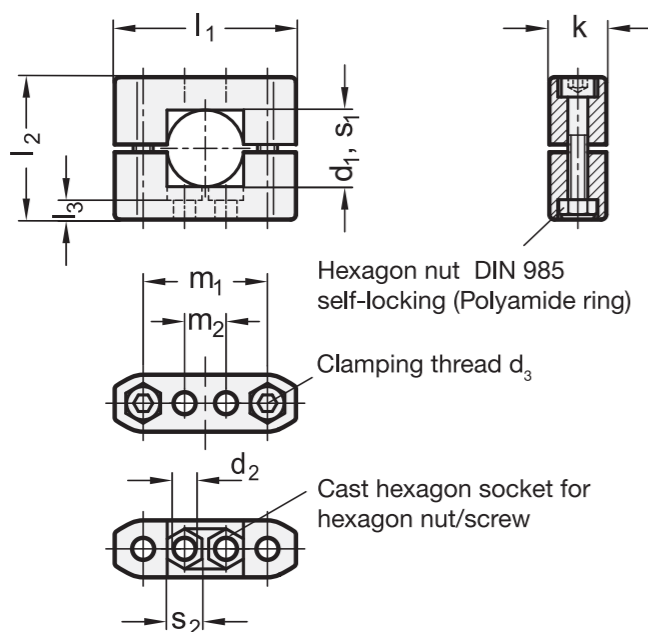
SW
RAL9005

BL
blank

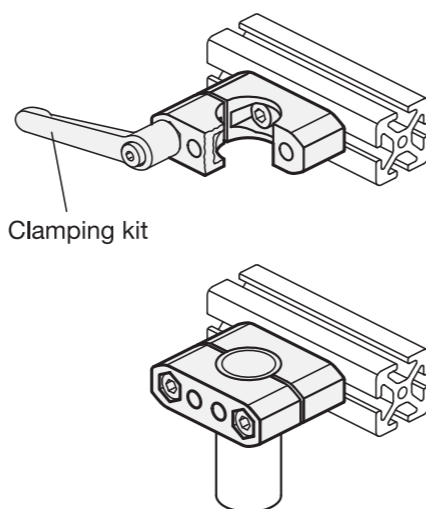
GN 231

| Description | d1 | s1 | d2 | d3 | k | l1 | l2 | l3 | m1 | m2 | s2 | Clamping kits for d3 | △ |
|----------------|------|------|-----|------|----|-----|----|-----|----|------|----|----------------------|-----|
| GN 231-B8-2-* | B 8 | - | 6.2 | M 6 | 17 | 52 | 38 | 3.5 | 36 | 10.5 | 10 | GN 911-M6-32 | 140 |
| GN 231-B10-2-* | B 10 | - | 6.2 | M 6 | 17 | 52 | 38 | 3.5 | 36 | 10.5 | 10 | GN 911-M6-32 | 106 |
| GN 231-B12-2-* | B 12 | - | 6.2 | M 6 | 17 | 52 | 38 | 3.5 | 36 | 10.5 | 10 | GN 911-M6-32 | 100 |
| GN 231-B14-2-* | B 14 | - | 6.2 | M 6 | 17 | 52 | 38 | 3.5 | 36 | 10.5 | 10 | GN 911-M6-32 | 90 |
| GN 231-B15-2-* | B 15 | - | 6.2 | M 6 | 17 | 52 | 38 | 3.5 | 36 | 10.5 | 10 | GN 911-M6-32 | 80 |
| GN 231-B16-2-* | B 16 | - | 6.2 | M 6 | 17 | 52 | 38 | 3.5 | 36 | 10.5 | 10 | GN 911-M6-32 | 70 |
| GN 231-B18-2-* | B 18 | - | 6.2 | M 6 | 17 | 52 | 38 | 3.5 | 36 | 10.5 | 10 | GN 911-M6-32 | 60 |
| GN 231-B20-2-* | B 20 | - | 8.5 | M 8 | 22 | 70 | 55 | 4 | 48 | 16 | 13 | GN 911-M8-50 | 160 |
| GN 231-B25-2-* | B 25 | - | 8.5 | M 8 | 22 | 70 | 55 | 4 | 48 | 16 | 13 | GN 911-M8-50 | 160 |
| GN 231-B30-2-* | B 30 | - | 8.5 | M 8 | 22 | 70 | 55 | 4 | 48 | 16 | 13 | GN 911-M8-50 | 160 |
| GN 231-B40-2-* | B 40 | - | 11 | M 10 | 27 | 100 | 80 | 5 | 73 | 30 | 17 | GN 911-M10-70 | 420 |
| GN 231-B42-2-* | B 42 | - | 11 | M 10 | 27 | 100 | 80 | 5 | 73 | 30 | 17 | GN 911-M10-70 | 400 |
| GN 231-B45-2-* | B 45 | - | 11 | M 10 | 27 | 100 | 80 | 5 | 73 | 30 | 17 | GN 911-M10-70 | 385 |
| GN 231-B48-2-* | B 48 | - | 11 | M 10 | 27 | 100 | 80 | 5 | 73 | 30 | 17 | GN 911-M10-70 | 375 |
| GN 231-B50-2-* | B 50 | - | 11 | M 10 | 27 | 100 | 80 | 5 | 73 | 30 | 17 | GN 911-M10-80 | 359 |
| GN 231-B55-2-* | B 55 | - | 11 | M 10 | 27 | 100 | 90 | 5 | 78 | 30 | 17 | GN 911-M10-80 | 350 |
| GN 231-B60-2-* | B 60 | - | 11 | M 10 | 27 | 100 | 90 | 5 | 78 | 30 | 17 | GN 911-M10-80 | 270 |
| GN 231-V8-2-* | - | V 8 | 6.2 | M 6 | 17 | 52 | 38 | 3.5 | 36 | 10.5 | 10 | GN 911-M6-32 | 110 |
| GN 231-V10-2-* | - | V 10 | 6.2 | M 6 | 17 | 52 | 38 | 3.5 | 36 | 10.5 | 10 | GN 911-M6-32 | 106 |
| GN 231-V12-2-* | - | V 12 | 6.2 | M 6 | 17 | 52 | 38 | 3.5 | 36 | 10.5 | 10 | GN 911-M6-32 | 100 |
| GN 231-V14-2-* | - | V 14 | 6.2 | M 6 | 17 | 52 | 38 | 3.5 | 36 | 10.5 | 10 | GN 911-M6-32 | 90 |
| GN 231-V15-2-* | - | V 15 | 6.2 | M 6 | 17 | 52 | 38 | 3.5 | 36 | 10.5 | 10 | GN 911-M6-32 | 80 |
| GN 231-V16-2-* | - | V 16 | 6.2 | M 6 | 17 | 52 | 38 | 3.5 | 36 | 10.5 | 10 | GN 911-M6-32 | 70 |
| GN 231-V18-2-* | - | V 18 | 6.2 | M 6 | 17 | 52 | 38 | 3.5 | 36 | 10.5 | 10 | GN 911-M6-32 | 60 |
| GN 231-V20-2-* | - | V 20 | 8.5 | M 8 | 22 | 70 | 55 | 4 | 48 | 16 | 13 | GN 911-M8-50 | 170 |
| GN 231-V25-2-* | - | V 25 | 8.5 | M 8 | 22 | 70 | 55 | 4 | 48 | 16 | 13 | GN 911-M8-50 | 170 |
| GN 231-V30-2-* | - | V 30 | 8.5 | M 8 | 22 | 70 | 55 | 4 | 48 | 16 | 13 | GN 911-M8-50 | 155 |
| GN 231-V40-2-* | - | V 40 | 11 | M 10 | 27 | 100 | 80 | 5 | 73 | 30 | 17 | GN 911-M10-70 | 380 |
| GN 231-V45-2-* | - | V 45 | 11 | M 10 | 27 | 100 | 80 | 5 | 73 | 30 | 17 | GN 911-M10-70 | 360 |
| GN 231-V50-2-* | - | V 50 | 11 | M 10 | 27 | 100 | 80 | 5 | 73 | 30 | 17 | GN 911-M10-70 | 340 |
| GN 231-V55-2-* | - | V 55 | 11 | M 10 | 27 | 100 | 90 | 5 | 78 | 30 | 17 | GN 911-M10-80 | 320 |
| GN 231-V60-2-* | - | V 60 | 11 | M 10 | 27 | 100 | 90 | 5 | 78 | 30 | 17 | GN 911-M10-80 | 300 |

Weight BL



Application example:
Tube support mounted
on aluminum profile



Tube connector joints

Aluminum

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

blank

matt shot-blasted **BL**

Clamping bores mechanically machined

Socket cap screw DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304



INFORMATION

The clamping bores of GN 242 tube connector joints are mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by clamping kits GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

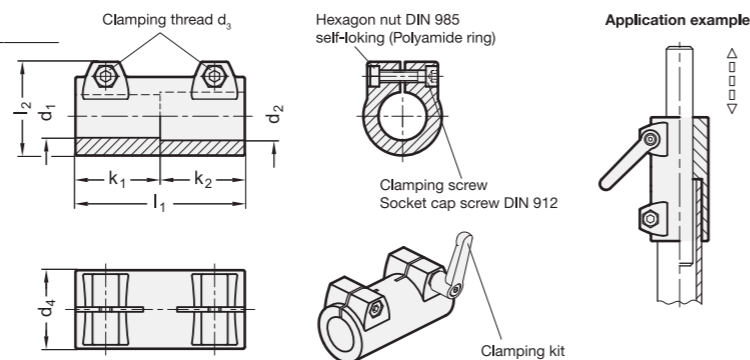
- Clamping kits GN 911 (see page 1874)

ON REQUEST

- d_1 / d_2 with different bores

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Tube connector joints (SW or BL)

SW RAL9005
BL blank

GN 242

| Description | d1 | d2 | d3 | d4 | k1 | k2 | l1 | l2 | Clamping kits for d3 | ⚖️ |
|--------------------|------|------|------|----|----|----|-----|------|----------------------|-----|
| GN 242-B20-B20-2-* | B 20 | B 20 | M 8 | 40 | 45 | 45 | 90 | 52 | GN 911-M8-32 | 290 |
| GN 242-B20-B25-2-* | B 20 | B 25 | M 8 | 40 | 45 | 45 | 90 | 52 | GN 911-M8-32 | 290 |
| GN 242-B20-B30-2-* | B 20 | B 30 | M 8 | 40 | 45 | 45 | 90 | 52 | GN 911-M8-32 | 260 |
| GN 242-B25-B25-2-* | B 25 | B 25 | M 8 | 40 | 45 | 45 | 90 | 52 | GN 911-M8-32 | 242 |
| GN 242-B25-B30-2-* | B 25 | B 30 | M 8 | 40 | 45 | 45 | 90 | 52 | GN 911-M8-32 | 214 |
| GN 242-B30-B30-2-* | B 30 | B 30 | M 8 | 40 | 45 | 45 | 90 | 52 | GN 911-M8-32 | 202 |
| GN 242-B40-B40-2-* | B 40 | B 40 | M 10 | 65 | 70 | 70 | 140 | 77.5 | GN 911-M10-55 | 960 |
| GN 242-B40-B45-2-* | B 40 | B 45 | M 10 | 65 | 70 | 70 | 140 | 77.5 | GN 911-M10-55 | 869 |
| GN 242-B40-B48-2-* | B 40 | B 48 | M 10 | 65 | 70 | 70 | 140 | 77.5 | GN 911-M10-55 | 865 |
| GN 242-B40-B50-2-* | B 40 | B 50 | M 10 | 65 | 70 | 70 | 140 | 77.5 | GN 911-M10-55 | 834 |
| GN 242-B42-B42-2-* | B 42 | B 42 | M 10 | 65 | 70 | 70 | 140 | 77.5 | GN 911-M10-55 | 802 |
| GN 242-B42-B48-2-* | B 42 | B 48 | M 10 | 65 | 70 | 70 | 140 | 77.5 | GN 911-M10-55 | 800 |
| GN 242-B42-B50-2-* | B 42 | B 50 | M 10 | 65 | 70 | 70 | 140 | 77.5 | GN 911-M10-55 | 772 |
| GN 242-B45-B45-2-* | B 45 | B 45 | M 10 | 65 | 70 | 70 | 140 | 77.5 | GN 911-M10-55 | 760 |
| GN 242-B45-B50-2-* | B 45 | B 50 | M 10 | 65 | 70 | 70 | 140 | 77.5 | GN 911-M10-55 | 737 |
| GN 242-B48-B48-2-* | B 48 | B 48 | M 10 | 65 | 70 | 70 | 140 | 77.5 | GN 911-M10-55 | 700 |
| GN 242-B50-B50-2-* | B 50 | B 50 | M 10 | 65 | 70 | 70 | 140 | 77.5 | GN 911-M10-55 | 680 |

Weight BL

Swivel clamp connector bases

Aluminum

SPECIFICATION

Aluminium

plastic coated

black, RAL 9005, textured finish **SW**

blank **BL**

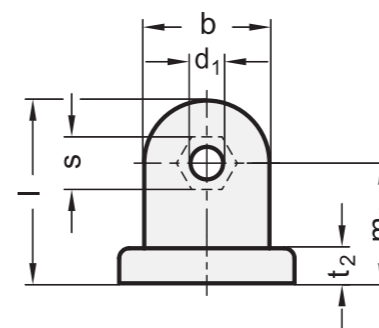
matt shot-blasted



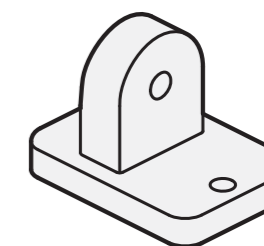
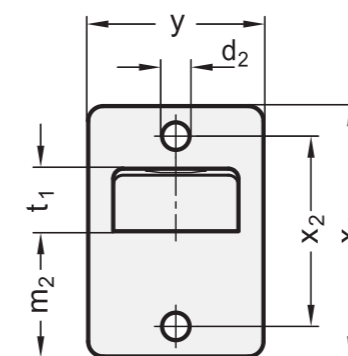
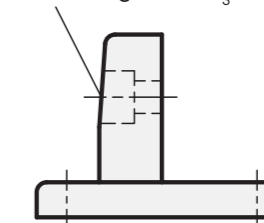
INFORMATION

Swivel clamp connector bases GN 271 can be assembled with the swivel clamp connectors GN 273 (see page 1849), GN 275 (see page 1854) or GN 277 (see page 1855) to create swivel clamp connector joints.

GN 271 swivel clamp connector bases are also suitable for mountings on **profile systems**.



Cast hexagonal socket for hexagon nut d_3



GN 271

| Description | b | d1 | d2 | d3 | l | m1 | m2 | t1 | t2 | s | x1 | x2 | y | ⚖️ |
|--------------|----|-----|-----|-----|------|----|----|------|----|----|----|----|----|----|
| GN 271-25-BL | 25 | 6.5 | 5.5 | M 6 | 36.5 | 24 | 25 | 12.5 | 7 | 10 | 50 | 38 | 35 | 44 |
| GN 271-25-SW | 25 | 6.5 | 5.5 | M 6 | 36.5 | 24 | 25 | 12.5 | 7 | 10 | 50 | 38 | 35 | 44 |

Swivel clamp connector bases

Aluminium

SPECIFICATION

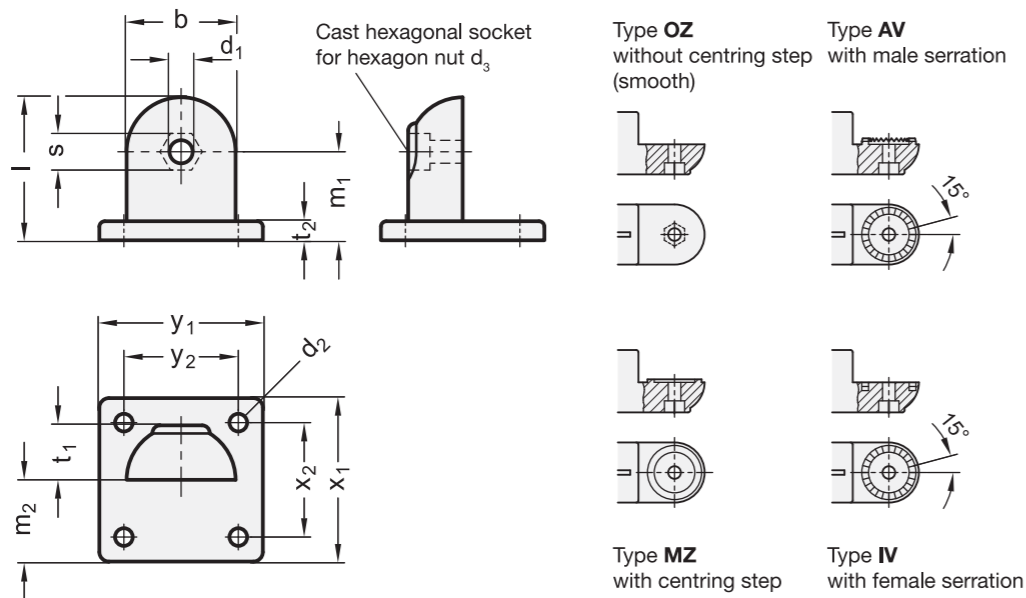
Types

- Type **OZ**: without centring step (smooth)
- Type **MZ**: with centring step
- Type **AV**: with male serration
- Type **IV**: with female serration

Aluminium
plastic coated
black RAL 9005, textured finish **SW**
blank **BL**
matt shot-blasted

INFORMATION

GN 272 swivel clamp connector bases can be assembled with swivel clamp connectors GN 274 (see page 1850), GN 276 (see page 1852) or GN 278 (see page 1856) to create swivel clamp connector joints.



GN 272

| Description | b | d1 | d2 | d3 | l | m1 | m2 | t1 | t2 | s | x1 | x2 | y1 | y2 | △ |
|-----------------|----|------|-----|------|------|------|------|------|----|----|-----|----|-----|----|-----|
| GN 272-40-AV-BL | 40 | 8.5 | 6.5 | M 8 | 52.5 | 32.5 | 30 | 20 | 7 | 13 | 60 | 42 | 60 | 42 | 120 |
| GN 272-40-AV-SW | 40 | 8.5 | 6.5 | M 8 | 52.5 | 32.5 | 30 | 20 | 7 | 13 | 60 | 42 | 60 | 42 | 120 |
| GN 272-65-AV-BL | 65 | 10.2 | 11 | M 10 | 84.5 | 52 | 52.5 | 32.5 | 14 | 17 | 105 | 74 | 105 | 74 | 555 |
| GN 272-65-AV-SW | 65 | 10.2 | 11 | M 10 | 84.5 | 52 | 52.5 | 32.5 | 14 | 17 | 105 | 74 | 105 | 74 | 555 |
| GN 272-40-MZ-BL | 40 | 8.5 | 6.5 | M 8 | 52.5 | 32.5 | 30 | 20 | 7 | 13 | 60 | 42 | 60 | 42 | 120 |
| GN 272-40-MZ-SW | 40 | 8.5 | 6.5 | M 8 | 52.5 | 32.5 | 30 | 20 | 7 | 13 | 60 | 42 | 60 | 42 | 120 |
| GN 272-65-MZ-BL | 65 | 10.2 | 11 | M 10 | 84.5 | 52 | 52.5 | 32.5 | 14 | 17 | 105 | 74 | 105 | 74 | 555 |
| GN 272-65-MZ-SW | 65 | 10.2 | 11 | M 10 | 84.5 | 52 | 52.5 | 32.5 | 14 | 17 | 105 | 74 | 105 | 74 | 555 |
| GN 272-40-IV-BL | 40 | 8.5 | 6.5 | M 8 | 52.5 | 32.5 | 30 | 20 | 7 | 13 | 60 | 42 | 60 | 42 | 110 |
| GN 272-40-IV-SW | 40 | 8.5 | 6.5 | M 8 | 52.5 | 32.5 | 30 | 20 | 7 | 13 | 60 | 42 | 60 | 42 | 110 |
| GN 272-65-IV-BL | 65 | 10.2 | 11 | M 10 | 84.5 | 52 | 52.5 | 32.5 | 14 | 17 | 105 | 74 | 105 | 74 | 535 |
| GN 272-65-IV-SW | 65 | 10.2 | 11 | M 10 | 84.5 | 52 | 52.5 | 32.5 | 14 | 17 | 105 | 74 | 105 | 74 | 535 |
| GN 272-40-OZ-BL | 40 | 8.5 | 6.5 | M 8 | 52.5 | 32.5 | 30 | 20 | 7 | 13 | 60 | 42 | 60 | 42 | 120 |
| GN 272-40-OZ-SW | 40 | 8.5 | 6.5 | M 8 | 52.5 | 32.5 | 30 | 20 | 7 | 13 | 60 | 42 | 60 | 42 | 120 |
| GN 272-65-OZ-BL | 65 | 10.2 | 11 | M 10 | 84.5 | 52 | 52.5 | 32.5 | 14 | 17 | 105 | 74 | 105 | 74 | 555 |
| GN 272-65-OZ-SW | 65 | 10.2 | 11 | M 10 | 84.5 | 52 | 52.5 | 32.5 | 14 | 17 | 105 | 74 | 105 | 74 | 555 |

Swivel clamp connectors

Aluminium

SPECIFICATION

Identification No.

No. **2**: with Stainless Steel-Clamping screw DIN 912

Aluminium
plastic coated
black RAL 9005, textured finish **SW**

blank **BL**
matt shot-blasted
Clamping bore mechanically machined

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

The clamping bore of GN 273 swivel clamp connectors is mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

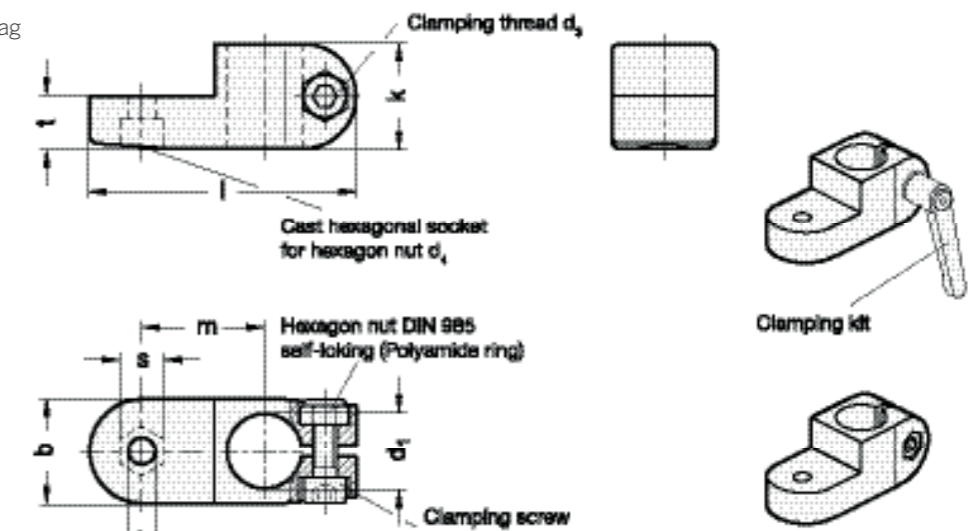
GN 273 swivel clamp connectors can be assembled with swivel clamp connectors GN 271 (see page 1847), GN 275 (see page 1854) or GN 277 (see page 1855) to create swivel clamp connector joints.

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see pag



GN 273

| Description | d1 | b | d2 | d3 | d4 | k | l | m | s | t | Clamping kits for d3 | △ |
|-----------------|------|----|-----|-----|-----|----|----|------|----|------|----------------------|----|
| GN 273-B12-2-SW | B 12 | 25 | 6.5 | M 6 | M 6 | 25 | 64 | 29.5 | 10 | 12.5 | GN 911-M6-22 | 65 |
| GN 273-B12-2-BL | B 12 | 25 | 6.5 | M 6 | M 6 | 25 | 64 | 29.5 | 10 | 12.5 | GN 911-M6-22 | 65 |
| GN 273-B14-2-SW | B 14 | 25 | 6.5 | M 6 | M 6 | 25 | 64 | 29.5 | 10 | 12.5 | GN 911-M6-22 | 62 |
| GN 273-B14-2-BL | B 14 | 25 | 6.5 | M 6 | M 6 | 25 | 64 | 29.5 | 10 | 12.5 | GN 911-M6-22 | 62 |
| GN 273-B16-2-SW | B 16 | 25 | 6.5 | M 6 | M 6 | 25 | 64 | 29.5 | 10 | 12.5 | GN 911-M6-22 | 60 |
| GN 273-B16-2-BL | B 16 | 25 | 6.5 | M 6 | M 6 | 25 | 64 | 29.5 | 10 | 12.5 | GN 911-M6-22 | 60 |
| GN 273-B18-2-SW | B 18 | 25 | 6.5 | M 6 | M 6 | 25 | 64 | 29.5 | 10 | 12.5 | GN 911-M6-22 | 55 |
| GN 273-B18-2-BL | B 18 | 25 | 6.5 | M 6 | M 6 | 25 | 64 | 29.5 | 10 | 12.5 | GN 911-M6-22 | 55 |

Swivel clamp connectors

Aluminium

SPECIFICATION

Identification No.

No. **2**: with Stainless Steel-clamping screw DIN 912

Types

- Type **OZ**: without centring step (smooth)
- Type **MZ**: with centring step
- Type **AV**: with male serration
- Type **IV**: with female serration

Aluminium

plastic coated
black RAL 9005, textured finish **SW**

blank **BL**

matt shot-blasted

Clamping bore mechanically machined

Socket cap screws DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304



INFORMATION

The clamping bore of the swivel clamp connectors GN 274 is mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

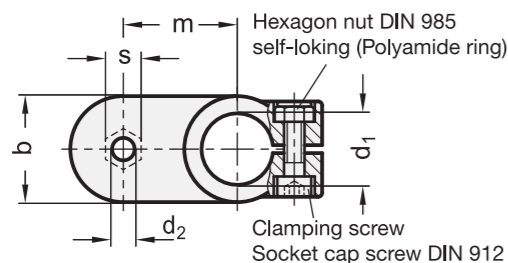
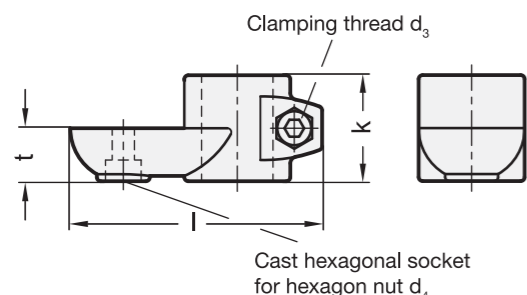
GN 274 swivel clamp connectors can be assembled with swivel clamp connectors GN 272 (see page 1848), GN 276 (see page 1852) or GN 278 (see page 1856) to create swivel clamp connector joints.

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

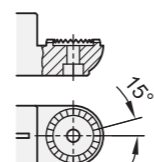
- Stainless Steel characteristics (see page A26)



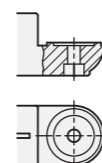
Type **OZ**
without centring step
(smooth)



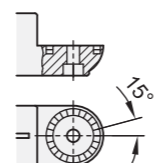
Type **AV**
with male serration



Type **MZ**
with centring step



Type **IV**
with female serration



* Complete with colour index of the Swivel clamp connectors (SW or BL)

SW RAL9005
BL blank

GN 274

| Description | d1 | b | d2 | d3 | d4 | k | l | m | s | t | Clamping kits for d3 | ⚖ |
|-------------------|------|----|------|------|------|----|-----|----|----|------|----------------------|-----|
| GN 274-B20-OZ-2-* | B 20 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 43 | 13 | 20 | GN 911-M8-32 | 190 |
| GN 274-B25-OZ-2-* | B 25 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 43 | 13 | 20 | GN 911-M8-32 | 164 |
| GN 274-B30-OZ-2-* | B 30 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 43 | 13 | 20 | GN 911-M8-32 | 150 |
| GN 274-B40-OZ-2-* | B 40 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 710 |
| GN 274-B42-OZ-2-* | B 42 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 685 |
| GN 274-B45-OZ-2-* | B 45 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 650 |
| GN 274-B48-OZ-2-* | B 48 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 610 |
| GN 274-B50-OZ-2-* | B 50 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 585 |
| GN 274-B20-MZ-2-* | B 20 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 43 | 13 | 20 | GN 911-M8-32 | 190 |
| GN 274-B25-MZ-2-* | B 25 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 43 | 13 | 20 | GN 911-M8-32 | 170 |
| GN 274-B30-MZ-2-* | B 30 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 43 | 13 | 20 | GN 911-M8-32 | 150 |
| GN 274-B40-MZ-2-* | B 40 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 700 |
| GN 274-B42-MZ-2-* | B 42 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 690 |
| GN 274-B45-MZ-2-* | B 45 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 655 |
| GN 274-B48-MZ-2-* | B 48 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 615 |
| GN 274-B50-MZ-2-* | B 50 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 585 |
| GN 274-B20-AV-2-* | B 20 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 43 | 13 | 20 | GN 911-M8-32 | 185 |
| GN 274-B25-AV-2-* | B 25 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 43 | 13 | 20 | GN 911-M8-32 | 170 |
| GN 274-B30-AV-2-* | B 30 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 43 | 13 | 20 | GN 911-M8-32 | 150 |
| GN 274-B40-AV-2-* | B 40 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 710 |
| GN 274-B42-AV-2-* | B 42 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 690 |
| GN 274-B45-AV-2-* | B 45 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 655 |
| GN 274-B48-AV-2-* | B 48 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 620 |
| GN 274-B50-AV-2-* | B 50 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 585 |
| GN 274-B20-IV-2-* | B 20 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 43 | 13 | 20 | GN 911-M8-32 | 180 |
| GN 274-B25-IV-2-* | B 25 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 43 | 13 | 20 | GN 911-M8-32 | 160 |
| GN 274-B30-IV-2-* | B 30 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 43 | 13 | 20 | GN 911-M8-32 | 160 |
| GN 274-B40-IV-2-* | B 40 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 690 |
| GN 274-B42-IV-2-* | B 42 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 665 |
| GN 274-B45-IV-2-* | B 45 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 635 |
| GN 274-B48-IV-2-* | B 48 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 600 |
| GN 274-B50-IV-2-* | B 50 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 70 | 17 | 32.5 | GN 911-M10-55 | 570 |

Weight BL

Swivel clamp connectors

Aluminium

SPECIFICATION

Identification No.

No. **2**: with Stainless Steel-Clamping screw DIN 912

Types

- Type **OZ**: without centring step (smooth)
- Type **MZ**: with centring step
- Type **AV**: with male serration
- Type **IV**: with female serration

Aluminium

plastic coated
black RAL 9005, textured finish **SW**

blank **BL**

matt shot-blasted

Clamping bore mechanically machined

Socket cap screws DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304



INFORMATION

The clamping bore of GN 276 swivel clamp connectors is mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

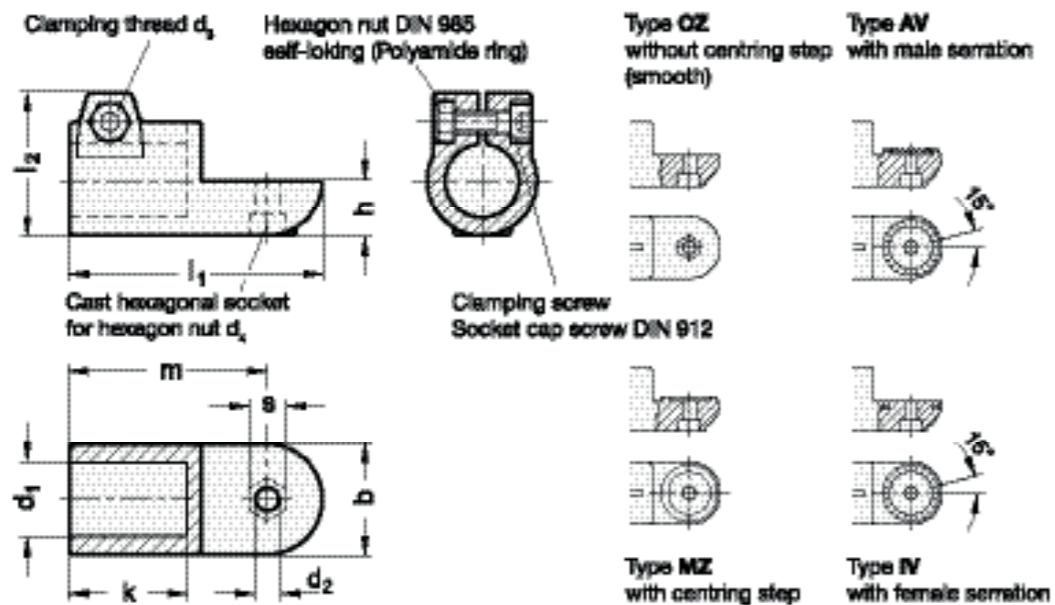
GN 276 swivel clamp connectors can be assembled with swivel clamp connectors GN 272 (see page 1848), GN 274 (see page 1850) or GN 278 (see page 1856) to create swivel clamp connector joints.

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Swivel clamp connectors (SW or BL)

SW RAL9005
BL blank

GN 276

| Description | d1 | b | d2 | d3 | d4 | h | k | l1 | l2 | m | s | Clamping kits for d3 | ⚖ |
|-------------------|------|----|------|------|------|------|------|-----|------|-----|----|----------------------|-----|
| GN 276-B20-OZ-2-* | B 20 | 40 | 8.5 | M 8 | M 8 | 20 | 42.5 | 92 | 52 | 72 | 13 | GN 911-M8-32 | 210 |
| GN 276-B25-OZ-2-* | B 25 | 40 | 8.5 | M 8 | M 8 | 20 | 42.5 | 92 | 52 | 72 | 13 | GN 911-M8-32 | 185 |
| GN 276-B30-OZ-2-* | B 30 | 40 | 8.5 | M 8 | M 8 | 20 | 42.5 | 92 | 52 | 72 | 13 | GN 911-M8-32 | 160 |
| GN 276-B40-OZ-2-* | B 40 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 775 |
| GN 276-B42-OZ-2-* | B 42 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 750 |
| GN 276-B45-OZ-2-* | B 45 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 725 |
| GN 276-B48-OZ-2-* | B 48 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 675 |
| GN 276-B50-OZ-2-* | B 50 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 650 |
| GN 276-B20-MZ-2-* | B 20 | 40 | 8.5 | M 8 | M 8 | 20 | 42.5 | 92 | 52 | 72 | 13 | GN 911-M8-32 | 210 |
| GN 276-B25-MZ-2-* | B 25 | 40 | 8.5 | M 8 | M 8 | 20 | 42.5 | 92 | 52 | 72 | 13 | GN 911-M8-32 | 190 |
| GN 276-B30-MZ-2-* | B 30 | 40 | 8.5 | M 8 | M 8 | 20 | 42.5 | 92 | 52 | 72 | 13 | GN 911-M8-32 | 160 |
| GN 276-B40-MZ-2-* | B 40 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 765 |
| GN 276-B42-MZ-2-* | B 42 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 755 |
| GN 276-B45-MZ-2-* | B 45 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 705 |
| GN 276-B48-MZ-2-* | B 48 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 665 |
| GN 276-B50-MZ-2-* | B 50 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 630 |
| GN 276-B20-AV-2-* | B 20 | 40 | 8.5 | M 8 | M 8 | 20 | 42.5 | 92 | 52 | 72 | 13 | GN 911-M8-32 | 210 |
| GN 276-B25-AV-2-* | B 25 | 40 | 8.5 | M 8 | M 8 | 20 | 42.5 | 92 | 52 | 72 | 13 | GN 911-M8-32 | 190 |
| GN 276-B30-AV-2-* | B 30 | 40 | 8.5 | M 8 | M 8 | 20 | 42.5 | 92 | 52 | 72 | 13 | GN 911-M8-32 | 165 |
| GN 276-B40-AV-2-* | B 40 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 770 |
| GN 276-B42-AV-2-* | B 42 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 755 |
| GN 276-B45-AV-2-* | B 45 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 715 |
| GN 276-B48-AV-2-* | B 48 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 665 |
| GN 276-B50-AV-2-* | B 50 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 660 |
| GN 276-B20-IV-2-* | B 20 | 40 | 8.5 | M 8 | M 8 | 20 | 42.5 | 92 | 52 | 72 | 13 | GN 911-M8-32 | 200 |
| GN 276-B25-IV-2-* | B 25 | 40 | 8.5 | M 8 | M 8 | 20 | 42.5 | 92 | 52 | 72 | 13 | GN 911-M8-32 | 180 |
| GN 276-B30-IV-2-* | B 30 | 40 | 8.5 | M 8 | M 8 | 20 | 42.5 | 92 | 52 | 72 | 13 | GN 911-M8-32 | 180 |
| GN 276-B40-IV-2-* | B 40 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 760 |
| GN 276-B42-IV-2-* | B 42 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 740 |
| GN 276-B45-IV-2-* | B 45 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 700 |
| GN 276-B48-IV-2-* | B 48 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 655 |
| GN 276-B50-IV-2-* | B 50 | 65 | 10.5 | M 10 | M 10 | 32.5 | 74 | 148 | 77.5 | 115 | 17 | GN 911-M10-55 | 650 |

Weight BL

Swivel clamp connectors

Aluminium

SPECIFICATION

Identification No.

No. **2**: with Stainless Steel-Clamping screw DIN 912

Aluminium

plastic coated
black RAL 9005, textured finish **SW**

blank **BL**

matt shot-blasted

Clamping bore mechanically machined

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304



INFORMATION

The clamping bore of GN 275 swivel clamp connectors is mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

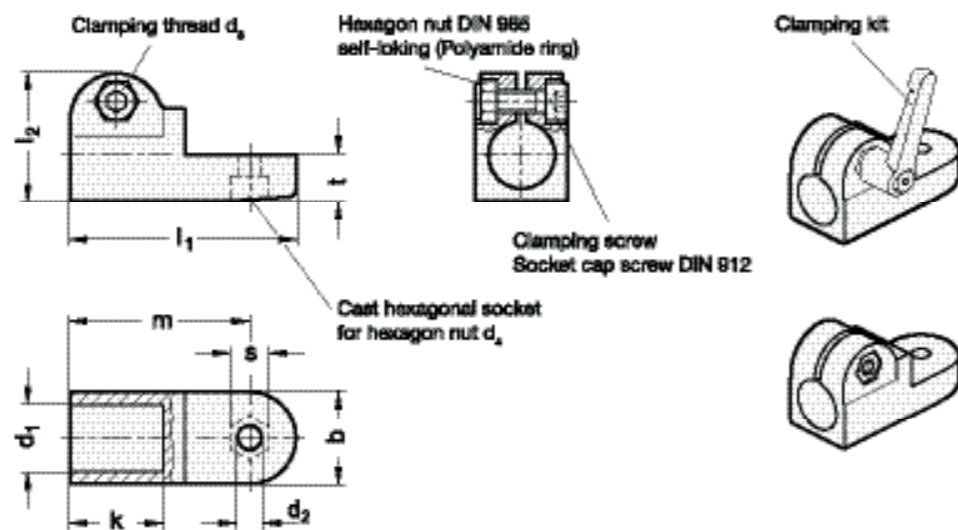
GN 275 swivel clamp connectors can be assembled with swivel clamp connectors GN 271 (see page 1847), GN 273 (see page 1849) or GN 277 (see page 1855) to create swivel clamp connector joints.

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 275

| Description | d1 | b | d2 | d3 | d4 | k | l1 | l2 | m | s | t | Clamping kits for d3 | ⚖ |
|-----------------|------|----|-----|-----|-----|----|----|------|------|----|------|----------------------|----|
| GN 275-B12-2-BL | B 12 | 25 | 6.5 | M 6 | M 6 | 25 | 61 | 34.5 | 48.5 | 10 | 12.5 | GN 911-M6-22 | 74 |
| GN 275-B12-2-SW | B 12 | 25 | 6.5 | M 6 | M 6 | 25 | 61 | 34.5 | 48.5 | 10 | 12.5 | GN 911-M6-22 | 74 |
| GN 275-B14-2-BL | B 14 | 25 | 6.5 | M 6 | M 6 | 25 | 61 | 34.5 | 48.5 | 10 | 12.5 | GN 911-M6-22 | 70 |
| GN 275-B14-2-SW | B 14 | 25 | 6.5 | M 6 | M 6 | 25 | 61 | 34.5 | 48.5 | 10 | 12.5 | GN 911-M6-22 | 70 |
| GN 275-B16-2-BL | B 16 | 25 | 6.5 | M 6 | M 6 | 25 | 61 | 34.5 | 48.5 | 10 | 12.5 | GN 911-M6-22 | 68 |
| GN 275-B16-2-SW | B 16 | 25 | 6.5 | M 6 | M 6 | 25 | 61 | 34.5 | 48.5 | 10 | 12.5 | GN 911-M6-22 | 68 |
| GN 275-B18-2-BL | B 18 | 25 | 6.5 | M 6 | M 6 | 25 | 61 | 34.5 | 48.5 | 10 | 12.5 | GN 911-M6-22 | 64 |
| GN 275-B18-2-SW | B 18 | 25 | 6.5 | M 6 | M 6 | 25 | 61 | 34.5 | 48.5 | 10 | 12.5 | GN 911-M6-22 | 65 |

Swivel clamp connectors

Aluminium

SPECIFICATION

Identification No.

No. **2**: with Stainless Steel-Clamping screw DIN 912

Aluminium

plastic coated
black RAL 9005, textured finish **SW**

blank **BL**

matt shot-blasted

Clamping bore mechanically machined

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304



INFORMATION

The clamping bore of GN 277 swivel clamp connectors is mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

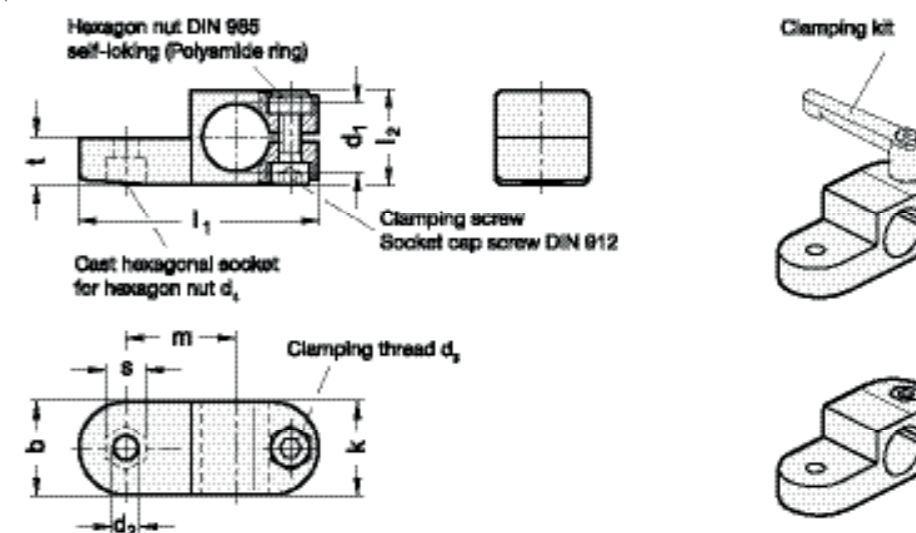
GN 277 swivel clamp connectors can be assembled with swivel clamp connectors GN 271 (see page 1847), GN 273 (see page 1849) or GN 275 (see page 1854) to create swivel clamp connector joints.

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 277

| Description | d1 | b | d2 | d3 | d4 | k | l1 | l2 | m | s | t | Clamping kits for d3 | ⚖ |
|-----------------|------|----|-----|-----|-----|----|----|----|------|----|------|----------------------|----|
| GN 277-B12-2-BL | B 12 | 25 | 6.5 | M 6 | M 6 | 25 | 64 | 25 | 29.5 | 10 | 12.5 | GN 911-M6-22 | 63 |
| GN 277-B12-2-SW | B 12 | 25 | 6.5 | M 6 | M 6 | 25 | 64 | 25 | 29.5 | 10 | 12.5 | GN 911-M6-23 | 63 |
| GN 277-B14-2-BL | B 14 | 25 | 6.5 | M 6 | M 6 | 25 | 64 | 25 | 29.5 | 10 | 12.5 | GN 911-M6-24 | 60 |
| GN 277-B14-2-SW | B 14 | 25 | 6.5 | M 6 | M 6 | 25 | 64 | 25 | 29.5 | 10 | 12.5 | GN 911-M6-25 | 60 |
| GN 277-B16-2-BL | B 16 | 25 | 6.5 | M 6 | M 6 | 25 | 64 | 25 | 29.5 | 10 | 12.5 | GN 911-M6-26 | 59 |
| GN 277-B16-2-SW | B 16 | 25 | 6.5 | M 6 | M 6 | 25 | 64 | 25 | 29.5 | 10 | 12.5 | GN 911-M6-27 | 59 |
| GN 277-B18-2-BL | B 18 | 25 | 6.5 | M 6 | M 6 | 25 | 64 | 25 | 29.5 | 10 | 12.5 | GN 911-M6-28 | 56 |
| GN 277-B18-2-SW | B 18 | 25 | 6.5 | M 6 | M 6 | 25 | 64 | 25 | 29.5 | 10 | 12.5 | GN 911-M6-29 | 56 |

Swivel clamp connectors

Aluminium

SPECIFICATION

Identification No.

No. **2**: with Stainless Steel-Clamping screw DIN 912

Types

- Type **OZ**: without centring step (smooth)
- Type **MZ**: with centring step
- Type **AV**: with male serration
- Type **IV**: with female serration

Aluminium

plastic coated
black RAL 9005, textured finish **SW**

blank **BL**

matt shot-blasted

Clamping bore mechanically machined

Socket cap screws DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304



INFORMATION

The clamping bore of GN 278 swivel clamp connectors is mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

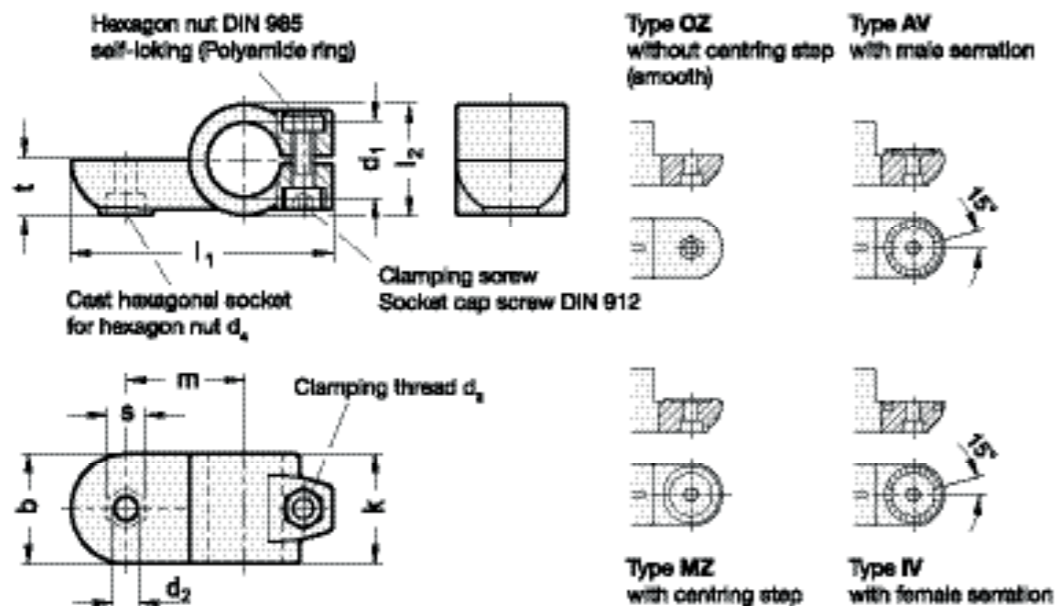
GN 278 swivel clamp connectors can be assembled with swivel clamp connectors GN 272 (see page 1848), GN 274 (see page 1850) or GN 278 (see page 1856) to create swivel clamp connector joints.

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Swivel clamp connectors (SW or BL)

SW RAL9005
BL blank

GN 278

| Description | d1 | b | d2 | d3 | d4 | k | l1 | l2 | m | s | t | Clamping kits for d3 | ⚖ |
|-------------------|------|----|------|------|------|----|-----|----|----|----|------|----------------------|-----|
| GN 278-B20-OZ-2-* | B 20 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 40 | 43 | 13 | 20 | GN 911-M8-32 | 185 |
| GN 278-B25-OZ-2-* | B 25 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 40 | 43 | 13 | 20 | GN 911-M8-32 | 170 |
| GN 278-B30-OZ-2-* | B 30 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 40 | 43 | 13 | 20 | GN 911-M8-32 | 145 |
| GN 278-B40-OZ-2-* | B 40 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 705 |
| GN 278-B42-OZ-2-* | B 42 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 675 |
| GN 278-B45-OZ-2-* | B 45 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 645 |
| GN 278-B48-OZ-2-* | B 48 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 610 |
| GN 278-B50-OZ-2-* | B 50 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 585 |
| GN 278-B20-MZ-2-* | B 20 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 40 | 43 | 13 | 20 | GN 911-M8-32 | 185 |
| GN 278-B25-MZ-2-* | B 25 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 40 | 43 | 13 | 20 | GN 911-M8-32 | 170 |
| GN 278-B30-MZ-2-* | B 30 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 40 | 43 | 13 | 20 | GN 911-M8-32 | 145 |
| GN 278-B40-MZ-2-* | B 40 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 695 |
| GN 278-B42-MZ-2-* | B 42 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 675 |
| GN 278-B45-MZ-2-* | B 45 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 645 |
| GN 278-B48-MZ-2-* | B 48 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 605 |
| GN 278-B50-MZ-2-* | B 50 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 575 |
| GN 278-B20-AV-2-* | B 20 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 40 | 43 | 13 | 20 | GN 911-M8-32 | 190 |
| GN 278-B25-AV-2-* | B 25 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 40 | 43 | 13 | 20 | GN 911-M8-32 | 170 |
| GN 278-B30-AV-2-* | B 30 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 40 | 43 | 13 | 20 | GN 911-M8-32 | 150 |
| GN 278-B40-AV-2-* | B 40 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 690 |
| GN 278-B42-AV-2-* | B 42 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 675 |
| GN 278-B45-AV-2-* | B 45 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 640 |
| GN 278-B48-AV-2-* | B 48 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 600 |
| GN 278-B50-AV-2-* | B 50 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 580 |
| GN 278-B20-IV-2-* | B 20 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 40 | 43 | 13 | 20 | GN 911-M8-32 | 180 |
| GN 278-B25-IV-2-* | B 25 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 40 | 43 | 13 | 20 | GN 911-M8-32 | 160 |
| GN 278-B30-IV-2-* | B 30 | 40 | 8.5 | M 8 | M 8 | 40 | 95 | 40 | 43 | 13 | 20 | GN 911-M8-32 | 140 |
| GN 278-B40-IV-2-* | B 40 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 685 |
| GN 278-B42-IV-2-* | B 42 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 665 |
| GN 278-B45-IV-2-* | B 45 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 620 |
| GN 278-B48-IV-2-* | B 48 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 585 |
| GN 278-B50-IV-2-* | B 50 | 65 | 10.5 | M 10 | M 10 | 65 | 148 | 65 | 70 | 17 | 32.5 | GN 911-M10-55 | 565 |

Weight BL

Swivel clamp connectors

Aluminium / split assembly

SPECIFICATION

Identification No.

No. **2**: with Stainless Steel-clamping screw DIN 912

Type

- Type **OZ**: without centring step

Aluminium

plastic coated

black RAL 9005, textured finish **SW**

blank **BL**

matt shot-blasted

Clamping bore not machined

Socket cap screws DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304



INFORMATION

The clamping bore of GN 279 swivel clamp connectors is not machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The square designs are also suitable for use in **profile systems**.

The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by clamping kits GN 911 (see page 1874) (article code see table of dimensions).

Two GN 279 swivel clamp connectors can be combined to GN 289 (see page 1870) swivel clamp connector joints.

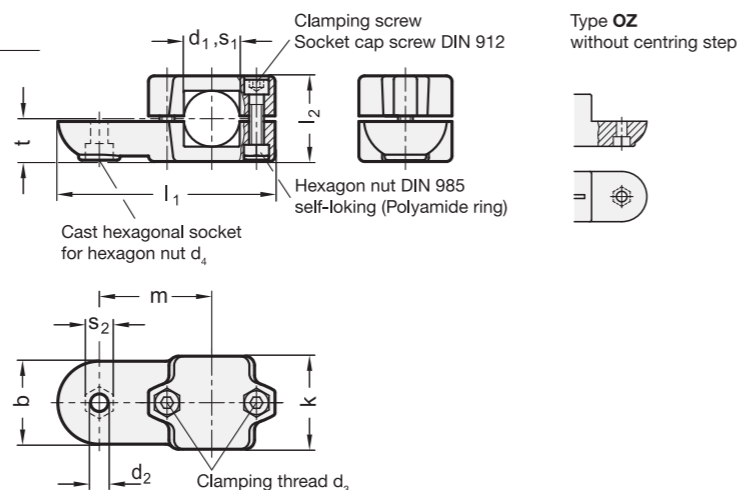
GN 279 swivel clamp connectors can be assembled with swivel clamp connectors GN 272 (see page 1848), GN 274 (see page 1850) or GN 276 (see page 1852) to create swivel clamp connector joints.

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Swivel clamp connectors (SW or BL)

SW RAL9005
BL blank

GN 279

| Description | d1 | s1 | b | d2 | d3 | k | l1 | l2 | m | s2 | t | Clamping kits for d3 | ⚖ |
|-------------------|------|------|----|------|-----|----|-------|----|----|----|----|----------------------|-----|
| GN 279-B40-OZ-2-* | B 40 | - | 65 | 10.5 | M10 | 76 | 166.5 | 70 | 85 | 17 | 35 | GN 911-M10-63 | 861 |
| GN 279-B42-OZ-2-* | B 42 | - | 65 | 10.5 | M10 | 76 | 166.5 | 70 | 85 | 17 | 35 | GN 911-M10-63 | 840 |
| GN 279-B45-OZ-2-* | B 45 | - | 65 | 10.5 | M10 | 76 | 166.5 | 70 | 85 | 17 | 35 | GN 911-M10-63 | 829 |
| GN 279-B48-OZ-2-* | B 48 | - | 65 | 10.5 | M10 | 76 | 166.5 | 70 | 85 | 17 | 35 | GN 911-M10-63 | 808 |
| GN 279-B50-OZ-2-* | B 50 | - | 65 | 10.5 | M10 | 76 | 166.5 | 70 | 85 | 17 | 35 | GN 911-M10-63 | 800 |
| GN 279-V40-OZ-2-* | - | V 40 | 65 | 10.5 | M10 | 76 | 166.5 | 70 | 85 | 17 | 35 | GN 911-M10-63 | 952 |
| GN 279-V45-OZ-2-* | - | V 45 | 65 | 10.5 | M10 | 76 | 166.5 | 70 | 85 | 17 | 35 | GN 911-M10-63 | 908 |
| GN 279-V50-OZ-2-* | - | V 50 | 65 | 10.5 | M10 | 76 | 166.5 | 70 | 85 | 17 | 35 | GN 911-M10-63 | 868 |

Weight BL

Swivel clamp connector joints

Aluminium

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated

black RAL 9005, textured finish **SW**

blank **BL**

matt shot-blasted

Clamping bore mechanically machined

Socket cap screws DIN 912

Stainless Steel AISI 304

Hexagon nuts DIN 985

Stainless Steel AISI 304



INFORMATION

GN 281 swivel clamp connector joints are an assembly of the swivel clamp connectors GN 271 (see page 1847) and GN 275 (see page 1854).

The clamping bore is mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

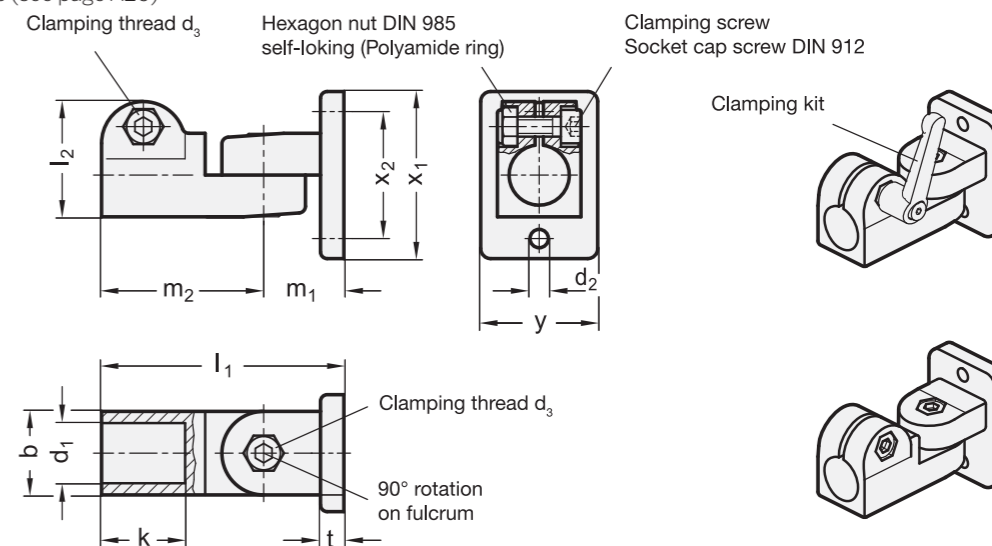
The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by adjustable clamping levers GN 911 (see page 1874) (see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 281

| Description | d1 | b | d2 | d3 | k | l1 | l2 | m1 | m2 | t | x1 | x2 | y | Clamping kits for d3 | ⚖ |
|-----------------|------|----|-----|-----|----|------|------|----|------|---|----|----|----|----------------------|-----|
| GN 281-B12-2-BL | B 12 | 25 | 5.5 | M 6 | 25 | 72.5 | 34.5 | 24 | 48.5 | 7 | 50 | 38 | 35 | GN 911-M6-22 | 126 |
| GN 281-B12-2-SW | B 12 | 25 | 5.5 | M 6 | 25 | 72.5 | 34.5 | 24 | 48.5 | 7 | 50 | 38 | 35 | GN 911-M6-22 | 126 |
| GN 281-B14-2-BL | B 14 | 25 | 5.5 | M 6 | 25 | 72.5 | 34.5 | 24 | 48.5 | 7 | 50 | 38 | 35 | GN 911-M6-22 | 122 |
| GN 281-B14-2-SW | B 14 | 25 | 5.5 | M 6 | 25 | 72.5 | 34.5 | 24 | 48.5 | 7 | 50 | 38 | 35 | GN 911-M6-22 | 122 |
| GN 281-B16-2-BL | B 16 | 25 | 5.5 | M 6 | 25 | 72.5 | 34.5 | 24 | 48.5 | 7 | 50 | 38 | 35 | GN 911-M6-22 | 120 |
| GN 281-B16-2-SW | B 16 | 25 | 5.5 | M 6 | 25 | 72.5 | 34.5 | 24 | 48.5 | 7 | 50 | 38 | 35 | GN 911-M6-22 | 120 |
| GN 281-B18-2-BL | B 18 | 25 | 5.5 | M 6 | 25 | 72.5 | 34.5 | 24 | 48.5 | 7 | 50 | 38 | 35 | GN 911-M6-22 | 116 |
| GN 281-B18-2-SW | B 18 | 25 | 5.5 | M 6 | 25 | 72.5 | 34.5 | 24 | 48.5 | 7 | 50 | 38 | 35 | GN 911-M6-22 | 116 |

Swivel clamp connector joints

Aluminium

SPECIFICATION

Identification No.

No. **2**: with 3 Stainless Steel-Clamping screws DIN 912

Aluminium

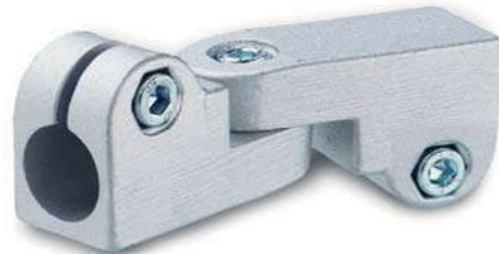
plastic coated
black RAL 9005, textured finish **SW**

blank **BL**
matt shot-blasted

Clamping bores mechanically machined

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304



INFORMATION

GN 285 swivel clamp connector joints are an assembly of two GN 275 (see page 1854) swivel clamp connectors.

Since the swivel clamp connectors have an identical swivel width "b", all bores „d1/ d2“ can be combined as required.

The clamping bore is mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

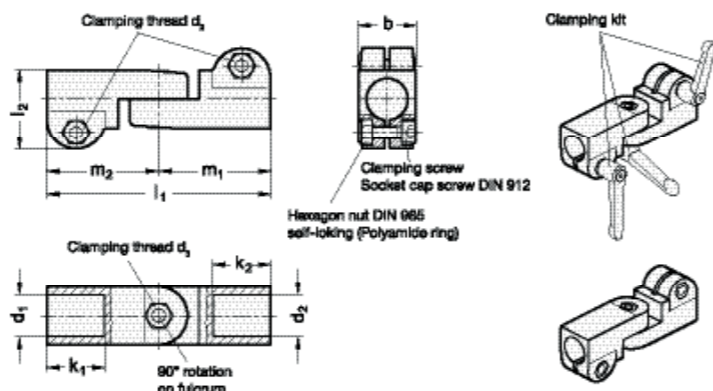
The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by adjustable clamping levers GN 911 (see page 1874) (see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with colour index of the Swivel clamp connector joints (SW or BL)

SW RAL9005
BL blank

GN 285

| Description | d1 | d2 | b | d3 | k1 | k2 | l1 | l2 | m1 | m2 | Clamping kits for d3 | ⚖️ |
|--------------------|------|------|----|-----|----|----|----|------|------|------|----------------------|-----|
| GN 285-B12-B12-2-* | B 12 | B 12 | 25 | M 6 | 25 | 25 | 97 | 34.5 | 48.5 | 48.5 | GN 911-M6-22 | 156 |
| GN 285-B12-B14-2-* | B 12 | B 14 | 25 | M 6 | 25 | 25 | 97 | 34.5 | 48.5 | 48.5 | GN 911-M6-22 | 146 |
| GN 285-B12-B16-2-* | B 12 | B 16 | 25 | M 6 | 25 | 25 | 97 | 34.5 | 48.5 | 48.5 | GN 911-M6-22 | 146 |
| GN 285-B12-B18-2-* | B 12 | B 18 | 25 | M 6 | 25 | 25 | 97 | 34.5 | 48.5 | 48.5 | GN 911-M6-22 | 146 |
| GN 285-B14-B12-2-* | B 14 | B 12 | 25 | M 6 | 25 | 25 | 97 | 34.5 | 48.5 | 48.5 | GN 911-M6-22 | 146 |
| GN 285-B14-B14-2-* | B 14 | B 14 | 25 | M 6 | 25 | 25 | 97 | 34.5 | 48.5 | 48.5 | GN 911-M6-22 | 146 |
| GN 285-B14-B16-2-* | B 14 | B 16 | 25 | M 6 | 25 | 25 | 97 | 34.5 | 48.5 | 48.5 | GN 911-M6-22 | 146 |
| GN 285-B14-B18-2-* | B 14 | B 18 | 25 | M 6 | 25 | 25 | 97 | 34.5 | 48.5 | 48.5 | GN 911-M6-22 | 146 |
| GN 285-B16-B12-2-* | B 16 | B 12 | 25 | M 6 | 25 | 25 | 97 | 34.5 | 48.5 | 48.5 | GN 911-M6-22 | 146 |
| GN 285-B16-B14-2-* | B 16 | B 14 | 25 | M 6 | 25 | 25 | 97 | 34.5 | 48.5 | 48.5 | GN 911-M6-22 | 146 |
| GN 285-B16-B16-2-* | B 16 | B 16 | 25 | M 6 | 25 | 25 | 97 | 34.5 | 48.5 | 48.5 | GN 911-M6-22 | 144 |
| GN 285-B16-B18-2-* | B 16 | B 18 | 25 | M 6 | 25 | 25 | 97 | 34.5 | 48.5 | 48.5 | GN 911-M6-22 | 144 |
| GN 285-B18-B12-2-* | B 18 | B 12 | 25 | M 6 | 25 | 25 | 97 | 34.5 | 48.5 | 48.5 | GN 911-M6-22 | 146 |
| GN 285-B18-B14-2-* | B 18 | B 14 | 25 | M 6 | 25 | 25 | 97 | 34.5 | 48.5 | 48.5 | GN 911-M6-22 | 146 |
| GN 285-B18-B16-2-* | B 18 | B 16 | 25 | M 6 | 25 | 25 | 97 | 34.5 | 48.5 | 48.5 | GN 911-M6-22 | 146 |
| GN 285-B18-B18-2-* | B 18 | B 18 | 25 | M 6 | 25 | 25 | 97 | 34.5 | 48.5 | 48.5 | GN 911-M6-22 | 136 |

Weight BL

Swivel clamp connector joints

Aluminium

SPECIFICATION

Identification No.

No. **2**: with 3 Stainless Steel-Clamping screws DIN 912

Aluminium

plastic coated
black RAL 9005, textured finish **SW**

blank **BL**
matt shot-blasted

Clamping bores mechanically machined

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304



INFORMATION

GN 287 swivel clamp connector joints are an assembly of swivel clamp connectors GN 275 (see page 1854), and GN 277 (see page 1855).

Since the swivel clamp connectors have an identical swivel width "b", all bores "d1/d2" can be combined as required.

The clamping bore is mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by adjustable clamping levers GN 911 (see page 1874) (see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

* Complete with colour index of the Swivel clamp connector joints (SW or BL)

SW RAL9005
BL blank

GN 287

| Description | d1 | d2 | b | d3 | k1 | k2 | l1 | l2 | l3 | m1 | m2 | Clamping kits for d3 | ⚖️ |
|--------------------|------|------|----|-----|----|----|-----|------|----|------|------|----------------------|-----|
| GN 287-B12-B12-2-* | B 12 | B 12 | 25 | M 6 | 25 | 25 | 100 | 34.5 | 25 | 29.5 | 48.5 | GN 911-M6-22 | 145 |
| GN 287-B12-B14-2-* | B 12 | B 14 | 25 | M 6 | 25 | 25 | 100 | 34.5 | 25 | 29.5 | 48.5 | GN 911-M6-22 | 145 |
| GN 287-B12-B16-2-* | B 12 | B 16 | 25 | M 6 | 25 | 25 | 100 | 34.5 | 25 | 29.5 | 48.5 | GN 911-M6-22 | 145 |
| GN 287-B12-B18-2-* | B 12 | B 18 | 25 | M 6 | 25 | 25 | 100 | 34.5 | 25 | 29.5 | 48.5 | GN 911-M6-22 | 145 |
| GN 287-B14-B12-2-* | B 14 | B 12 | 25 | M 6 | 25 | 25 | 100 | 34.5 | 25 | 29.5 | 48.5 | GN 911-M6-22 | 140 |
| GN 287-B14-B14-2-* | B 14 | B 14 | 25 | M 6 | 25 | 25 | 100 | 34.5 | 25 | 29.5 | 48.5 | GN 911-M6-22 | 140 |
| GN 287-B14-B16-2-* | B 14 | B 16 | 25 | M 6 | 25 | 25 | 100 | 34.5 | 25 | 29.5 | 48.5 | GN 911-M6-22 | 135 |
| GN 287-B14-B18-2-* | B 14 | B 18 | 25 | M 6 | 25 | 25 | 100 | 34.5 | 25 | 29.5 | 48.5 | GN 911-M6-22 | 130 |
| GN 287-B16-B12-2-* | B 16 | B 12 | 25 | M 6 | 25 | 25 | 100 | 34.5 | 25 | 29.5 | 48.5 | GN 911-M6-22 | 145 |
| GN 287-B16-B14-2-* | B 16 | B 14 | 25 | M 6 | 25 | 25 | 100 | 34.5 | 25 | 29.5 | 48.5 | GN 911-M6-22 | 140 |
| GN 287-B16-B16-2-* | B 16 | B 16 | 25 | M 6 | 25 | 25 | 100 | 34.5 | 25 | 29.5 | 48.5 | GN 911-M6-22 | 135 |
| GN 287-B16-B18-2-* | B 16 | B 18 | 25 | M 6 | 25 | 25 | 100 | 34.5 | 25 | 29.5 | 48.5 | GN 911-M6-22 | 130 |
| GN 287-B18-B12-2-* | B 18 | B 12 | 25 | M 6 | 25 | 25 | 100 | 34.5 | 25 | 29.5 | 48.5 | GN 911-M6-22 | 145 |
| GN 287-B18-B14-2-* | B 18 | B 14 | 25 | M 6 | 25 | 25 | 100 | 34.5 | 25 | 29.5 | 48.5 | GN 911-M6-22 | 140 |
| GN 287-B18-B16-2-* | B 18 | B 16 | 25 | M 6 | 25 | 25 | 100 | 34.5 | 25 | 29.5 | 48.5 | GN 911-M6-22 | 135 |
| GN 287-B18-B18-2-* | B 18 | B 18 | 25 | M 6 | 25 | 25 | 100 | 34.5 | 25 | 29.5 | 48.5 | GN 911-M6-22 | 130 |

Weight BL



Sensor holders

Aluminium

SPECIFICATION

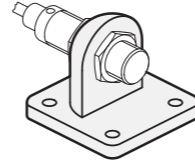
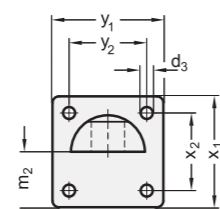
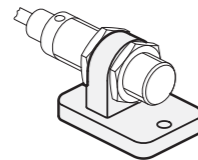
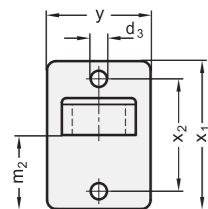
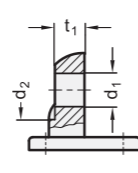
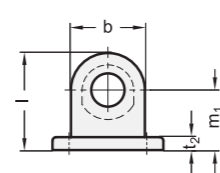
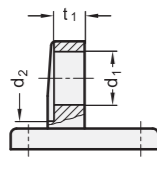
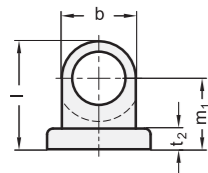
Aluminium
plastic coated
black, RAL 9005, textured finish **SW**

Sensor holders

Aluminium

SPECIFICATION

Aluminium
plastic coated
black, RAL 9005, textured finish **SW**



GN 271.4

| Description | d1 | b | d2 | d3 | l | m1 | m2 | t1 | t2 | x1 | x2 | y | ⚖ |
|--------------------|------|----|----|-----|------|----|----|------|----|----|----|----|----|
| GN 271.4-B12-25-SW | B 12 | 25 | 30 | 5.5 | 36.5 | 24 | 25 | 11.5 | 7 | 50 | 38 | 35 | 40 |
| GN 271.4-B18-25-SW | B 18 | 25 | 30 | 5.5 | 36.5 | 24 | 25 | 11.5 | 7 | 50 | 38 | 35 | 38 |

GN 272.4

| Description | d1 | b | d2 | d3 | l | m1 | m2 | t1 | t2 | x1 | x2 | y1 | y2 | ⚖ |
|--------------------|------|----|----|-----|------|------|----|----|----|----|----|----|----|-----|
| GN 272.4-B18-40-SW | B 18 | 40 | 50 | 6.5 | 52.5 | 32.5 | 30 | 10 | 7 | 60 | 42 | 60 | 42 | 110 |
| GN 272.4-B30-40-SW | B 30 | 40 | 50 | 6.5 | 52.5 | 32.5 | 30 | 10 | 7 | 60 | 42 | 60 | 42 | 100 |

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Sensor holders

Aluminium

SPECIFICATION

Identification No.

No. **2**: with Stainless Steel-Clamping screw DIN 912

Aluminium
plastic coated
black, RAL 9005, textured finish **SW**

Clamping bore mechanically machined

Socket cap screw DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

The clamping bore of the sensor holders GN 273.4 is mechanically machined and designed for construction tubes GN 990 (see page 1902) or DIN 2391, DIN 2395 and DIN 2462 respectively.

The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by adjustable clamping levers GN 911 (see page 1874) (see table of dimensions).

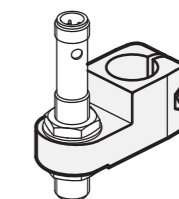
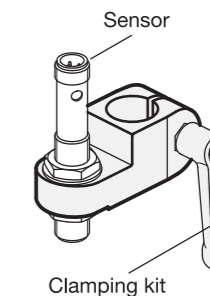
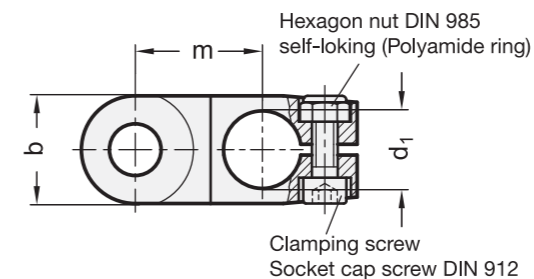
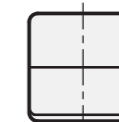
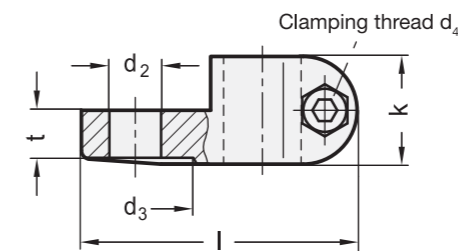
The Aluminium design guarantees a highly safe and secure clamping action and safe positioning.

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 273.4

| Description | d1 | d2 | b | d3 | d4 | k | l | m | t -0.5 | Clamping kits for d4 | ⚖ |
|-----------------------|------|------|----|----|-----|----|----|------|--------|----------------------|----|
| GN 273.4-B12-B12-2-SW | B 12 | B 12 | 25 | 27 | M 6 | 25 | 64 | 29.5 | 11 | GN 911-M6-22 | 77 |
| GN 273.4-B12-B18-2-SW | B 12 | B 18 | 25 | 27 | M 6 | 25 | 64 | 29.5 | 11 | GN 911-M6-22 | 77 |
| GN 273.4-B14-B12-2-SW | B 14 | B 12 | 25 | 27 | M 6 | 25 | 64 | 29.5 | 11 | GN 911-M6-22 | 60 |
| GN 273.4-B14-B18-2-SW | B 14 | B 18 | 25 | 27 | M 6 | 25 | 64 | 29.5 | 11 | GN 911-M6-22 | 60 |
| GN 273.4-B16-B12-2-SW | B 16 | B 12 | 25 | 27 | M 6 | 25 | 64 | 29.5 | 11 | GN 911-M6-22 | 62 |
| GN 273.4-B16-B18-2-SW | B 16 | B 18 | 25 | 27 | M 6 | 25 | 64 | 29.5 | 11 | GN 911-M6-22 | 60 |
| GN 273.4-B18-B12-2-SW | B 18 | B 12 | 25 | 27 | M 6 | 25 | 64 | 29.5 | 11 | GN 911-M6-22 | 60 |
| GN 273.4-B18-B18-2-SW | B 18 | B 18 | 25 | 27 | M 6 | 25 | 64 | 29.5 | 11 | GN 911-M6-22 | 60 |

Clamping lever kits

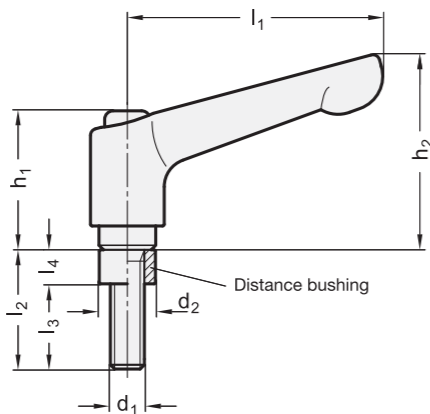
adjustable, for connector clamps

SPECIFICATION

Handle
Zinc die casting
plastic coated
silver, RAL 9006, textured finish
Threaded stud / Distance bushing
Stainless Steel AISI 303

INFORMATION

The clamping kits GN 911 replace the hexagon socket screws DIN 912 of the connector clamps.
The table of dimensions of the connector clamps shows the corresponding clamping kits for each clamping thread.
The distance bushing is included part of the order.



GN 911

| Description | d1 | l2 | d2 | l1 | l3 | l4 | h1 | h2 | Δ |
|---------------|------|----|------|----|------|-----|------|----|-----|
| GN 911-M6-22 | M 6 | 22 | 9.9 | 45 | 19 | 3 | 24.5 | 35 | 51 |
| GN 911-M6-25 | M 6 | 25 | 9.9 | 45 | 22 | 3 | 24.5 | 35 | 53 |
| GN 911-M6-32 | M 6 | 32 | 9.9 | 45 | 29 | 3 | 24.5 | 35 | 55 |
| GN 911-M8-32 | M 8 | 32 | 12.9 | 63 | 27.5 | 4.5 | 31 | 45 | 103 |
| GN 911-M8-35 | M 8 | 35 | 12.9 | 63 | 30.5 | 4.5 | 31 | 45 | 105 |
| GN 911-M8-40 | M 8 | 40 | 12.9 | 63 | 35.5 | 4.5 | 31 | 45 | 107 |
| GN 911-M8-45 | M 8 | 45 | 12.9 | 63 | 40.5 | 4.5 | 31 | 45 | 109 |
| GN 911-M8-50 | M 8 | 50 | 12.9 | 63 | 45.5 | 4.5 | 31 | 45 | 111 |
| GN 911-M8-55 | M 8 | 55 | 12.9 | 63 | 50.5 | 4.5 | 31 | 45 | 115 |
| GN 911-M10-40 | M 10 | 40 | 16.9 | 78 | 34.5 | 5.5 | 36 | 55 | 174 |
| GN 911-M10-50 | M 10 | 50 | 16.9 | 78 | 44.5 | 5.5 | 36 | 55 | 179 |
| GN 911-M10-55 | M 10 | 55 | 16.9 | 78 | 49.5 | 5.5 | 36 | 55 | 180 |
| GN 911-M10-63 | M 10 | 63 | 16.9 | 78 | 57.5 | 5.5 | 36 | 55 | 183 |
| GN 911-M10-70 | M 10 | 70 | 16.9 | 78 | 64.5 | 5.5 | 36 | 55 | 188 |
| GN 911-M10-80 | M 10 | 80 | 16.9 | 78 | 74.5 | 5.5 | 36 | 55 | 197 |

Stainless Steel- Clamping lever kits

adjustable, for connector clamps

SPECIFICATION

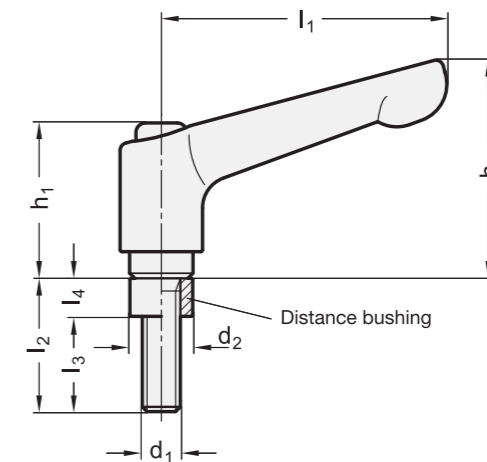
Handle
Stainless Steel precision casting
- AISI CF-8
- matt shot-blasted
Threaded stud / Distance bushing
Stainless Steel AISI 303

INFORMATION

The clamping kits GN 911.3 replace the hexagon socket screws DIN 912 of the connector clamps.
The table of dimensions of the connector clamps shows the corresponding clamping kits for each clamping thread.
The distance bushing is included part of the order.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 911.3

STAINLESS STEEL

| Description | d1 | l2 | d2 | l1 | l3 | l4 | h1 | h2 | Δ |
|----------------|-----|----|-----|----|----|----|------|----|----|
| GN 911.3-M6-22 | M 6 | 22 | 9.9 | 45 | 19 | 3 | 24.5 | 35 | 50 |

Clamp mountings

Range

With clamp mountings, tubes and rods can be fixed with better clamping pressure with minimum space requirement. Standardized hole spacings and thread dimensions make the replacement of mounting clamps very simple and efficient during assembly. In particular, swivel clamp mountings can be combined to jointed clamp mountings.

The aluminum-alloy used for the clamp mountings has excellent strength and good chemical resistance. The version with a black anodized surface is additionally protected against corrosion. Technopolymer bases and clamps are lightweight and resistant to solvents, oils, greases and other chemical agents. The special knurling on the tube of MSR. prevents the risk of free rotation of the tube itself. Together with fastening and clamping screws made from corrosion resistant A2 stainless steel the use under unfavorable ambient conditions is possible.

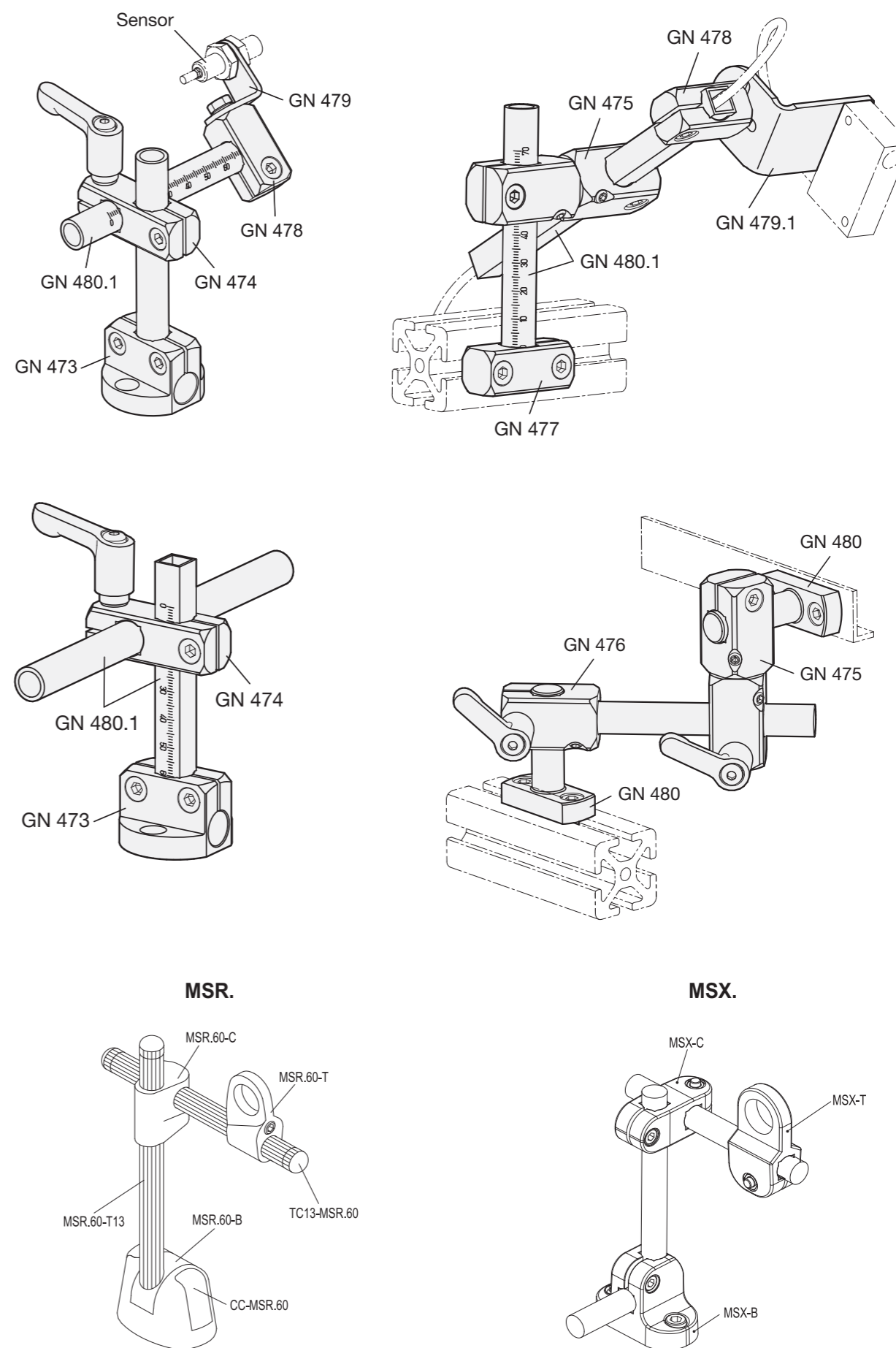
Accessories such as sensor plates, retaining rods and tubes as well as clamping kits complete the range. If required, a suitable retaining magnet (GN 51.6 see page 2032) is available to facilitate rapid repositioning.

Positioning of sensors, scanners, reflectors, cameras, coolant pipes and air nozzles is a typical practical application.

| | | | |
|--|--|---|--|
| Base plate clamp mountings GN 473 (see page 1878) Aluminium | | Clamp mountings GN 477 (see page 1879) Aluminium | |
| Two-way clamp mountings GN 474 (see page 1880) Aluminium | | Twistable two-way clamp mountings GN 475 (see page 1882) Aluminium | |
| T-Clamp mountings GN 476 (see page 1883) Aluminium | | Attachment clamp mountings GN 478 (see page 1884) Aluminium | |
| Flanged bolts GN 480 (see page 1185) Steel zinc plated | | Twistable two-way clamp mountings GN 490 (see page 1886) Aluminium | |
| Swivel clamp connector bases GN 485 (see page 1887) Aluminium | | Swivel clamp mountings GN 482 (see page 1890) Aluminium | |
| T-Swivel clamp mountings GN 483 (see page 1891) Aluminium | | Attachment clamp mountings GN 484 (see page 1892) Aluminium | |
| Sensor holders GN 479 (see page 1895) Retaining plates GN 479.1 (see page 1896) | | Retaining rods Retaining tubes GN 480.1 (see page 1994) | |
| Connecting clamps MSX. (see page 1906) Technopolymer | | Connecting clamps MSR. (see page 1908) Technopolymer | |

Clamp mountings

Application example



Base plate clamp mountings

Aluminium

SPECIFICATION

Aluminium

- matt, slide ground **MT**
- anodized, black **ELS**

Socket cap screws DIN 912
Stainless Steel AISI 304

INFORMATION

The base plate clamp mountings GN 473 have a horizontal and a vertical clamping bore. The vertical clamping bore is additionally fitted with a square.

The bore distance m of the base plate mountings GN 473 is matched with the clamp mountings GN 477 (see page 1879) and the flanged bolts GN 480 (see page 1885) as well as retaining magnets GN 51.6 (see page 2032).

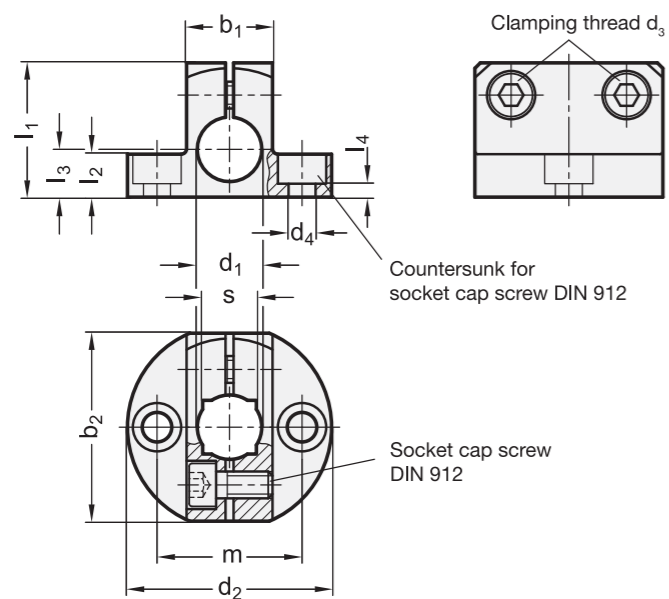
The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by an adjustable clamping kits GN 511 (see page 1893) (see table of dimensions).

TECHNICAL INFORMATION

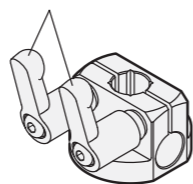
- Stainless Steel characteristics (see page A26)

ACCESSORY

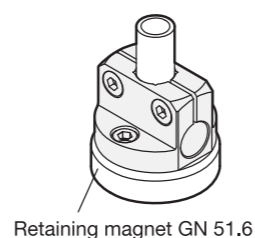
- Clamping kits GN 511 (see page 1893)



Clamping kit GN 511



Application example



* Complete with Finish of the Base plate clamp mountings (MT or ELS)

MT matt, slide ground
ELS anodized, black

GN 473

| Description | d1 For shaft tolerance h11 | b1 | b2 | d2 | d3 | d4 | l1 | l2 | l3 | l4 | m | s | Clamping kits for d3 | ⚖ |
|--------------|----------------------------|----|----|------|-----|-----|----|------|------|-----|----|----|----------------------|----|
| GN 473-B8-* | B 8 | 14 | 29 | 31.5 | M 4 | M 4 | 20 | 7 | 7 | 3 | 22 | - | GN 511-M4-14 | 23 |
| GN 473-B10-* | B 10 | 16 | 35 | 38 | M 5 | M 5 | 24 | 8 | 8 | 2.5 | 27 | 8 | GN 511-M5-16 | 33 |
| GN 473-B12-* | B 12 | 16 | 35 | 38 | M 5 | M 5 | 25 | 8 | 8 | 2.5 | 27 | 10 | GN 511-M5-16 | 36 |
| GN 473-B15-* | B 15 | 20 | 41 | 45 | M 6 | M 6 | 30 | 10 | 10 | 4 | 32 | 12 | GN 511-M6-20 | 57 |
| GN 473-B16-* | B 16 | 20 | 41 | 45 | M 6 | M 6 | 31 | 10 | 10 | 4 | 32 | - | GN 511-M6-20 | 57 |
| GN 473-B20-* | B 20 | 25 | 44 | 50 | M 6 | M 6 | 35 | 12.5 | 12.5 | 6.5 | 36 | 16 | GN 511-M6-25 | 76 |

Weight ELS

Clamp mountings

Aluminium

SPECIFICATION

Aluminium

- matt, slide ground **MT**
- anodized, black **ELS**

Clamping kits GN 511 (see page 1893)

Zinc die casting

Inserts / Distance bushings
Stainless Steel AISI 303

INFORMATION

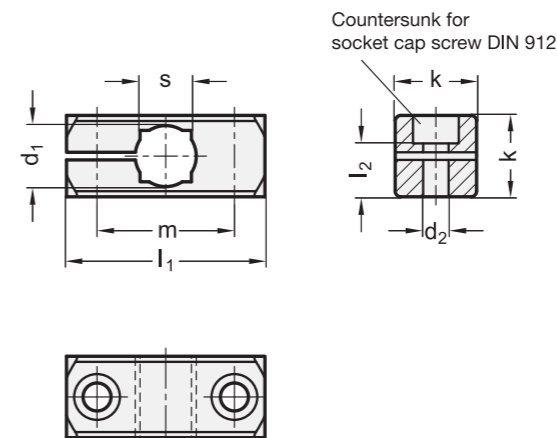
The clamp mountings GN 477 have no thread. Fixing or clamping is made via two threads on the attachment side. The bore distance m of the clamp mountings GN 477 is matched with the foot clamp mountings GN 473 (see page 1878) and the flanged bolts GN 480 (see page 1885) as well as retaining magnets GN 51.6 (see page 2032).

TECHNICAL INFORMATION

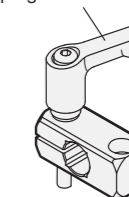
- Stainless Steel characteristics (see page A26)

ACCESSORY

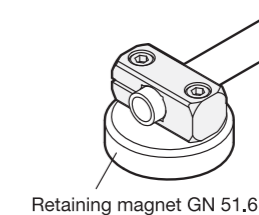
- Clamping kits GN 511 (see page 1893)



Clamping kit



Application example



GN 477

| Description | d1 For shaft tolerance h11 | k | d2 | l1 | l2 | m | s | Clamping kits for d2 | ⚖ |
|----------------|----------------------------|----|-----|------|------|----|----|----------------------|----|
| GN 477-B8-ELS | B 8 | 14 | M 4 | 31.5 | 10 | 22 | - | GN 511-M4-20 | 11 |
| GN 477-B8-MT | B 8 | 14 | M 4 | 31.5 | 10 | 22 | - | GN 511-M4-20 | 11 |
| GN 477-B10-ELS | B 10 | 16 | M 5 | 38 | 10.5 | 27 | 8 | GN 511-M5-25 | 18 |
| GN 477-B10-MT | B 10 | 16 | M 5 | 38 | 10.5 | 27 | 8 | GN 511-M5-25 | 17 |
| GN 477-B12-ELS | B 12 | 16 | M 5 | 38 | 10.5 | 27 | 10 | GN 511-M5-25 | 16 |
| GN 477-B12-MT | B 12 | 16 | M 5 | 38 | 10.5 | 27 | 10 | GN 511-M5-25 | 16 |
| GN 477-B15-ELS | B 15 | 20 | M 6 | 45 | 14 | 32 | 12 | GN 511-M6-25 | 31 |
| GN 477-B15-MT | B 15 | 20 | M 6 | 45 | 14 | 32 | 12 | GN 511-M6-25 | 30 |
| GN 477-B16-ELS | B 16 | 20 | M 6 | 45 | 14 | 32 | - | GN 511-M6-25 | 29 |
| GN 477-B16-MT | B 16 | 20 | M 6 | 45 | 14 | 32 | - | GN 511-M6-25 | 29 |
| GN 477-B20-ELS | B 20 | 25 | M 6 | 50 | 19 | 36 | 16 | GN 511-M6-32 | 52 |
| GN 477-B20-MT | B 20 | 25 | M 6 | 50 | 19 | 36 | 16 | GN 511-M6-32 | 52 |

Two-way clamp mountings

Aluminium

SPECIFICATION

Aluminium

- matt, slide ground **MT**
- anodized, black **ELS**

Socket cap screws DIN 912
Stainless Steel AISI 304

INFORMATION

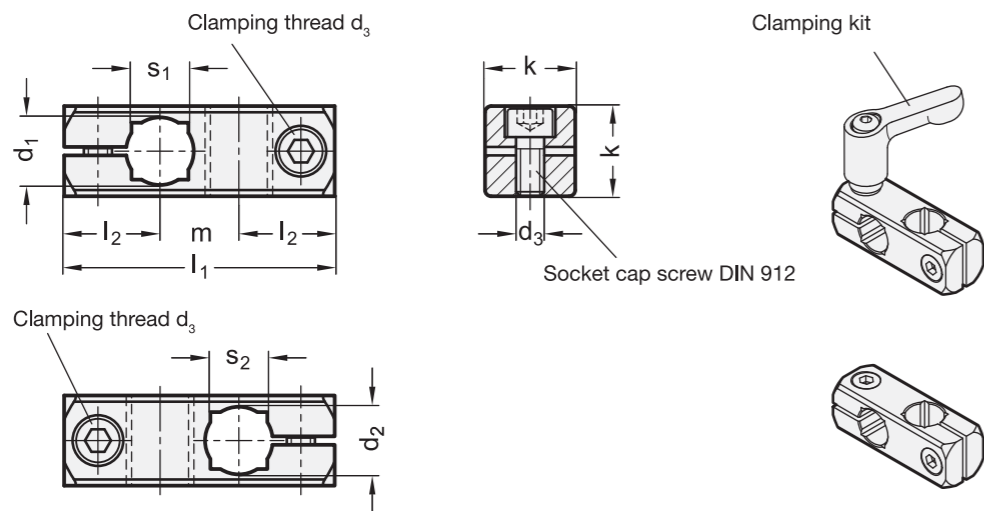
The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by an adjustable clamping kit GN 511 (see page 1893) (see table of dimensions).

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

ACCESSORY

- Clamping kits GN 511 (see page 1893)



* Complete with Finish of the Two-way clamp mountings (MT or ELS)

MT matt, slide ground
ELS anodized, black

GN 474

| Description | d1 For shaft tolerance h11 | d2 For shaft tolerance h11 | k | d3 | l1 | l2 | m | s1 | s2 | Clamping kits for d3 | Weight |
|------------------|----------------------------|----------------------------|----|-----|----|------|----|----|----|----------------------|--------|
| GN 474-B8-B8-* | B 8 | B 8 | 14 | M 4 | 37 | 13.5 | 10 | - | - | GN 511-M4-14 | 16 |
| GN 474-B10-B10-* | B 10 | B 10 | 16 | M 5 | 46 | 17 | 12 | 8 | 8 | GN 511-M5-16 | 25 |
| GN 474-B10-B8-* | B 10 | B 8 | 16 | M 5 | 46 | 17 | 12 | 8 | - | GN 511-M5-16 | 27 |
| GN 474-B12-B12-* | B 12 | B 12 | 16 | M 5 | 48 | 17 | 14 | 10 | 10 | GN 511-M5-16 | 25 |
| GN 474-B12-B8-* | B 12 | B 8 | 16 | M 5 | 48 | 17 | 14 | 10 | - | GN 511-M5-16 | 27 |
| GN 474-B15-B10-* | B 15 | B 10 | 20 | M 6 | 58 | 20.5 | 17 | 12 | 8 | GN 511-M6-20 | 51 |
| GN 474-B15-B12-* | B 15 | B 12 | 20 | M 6 | 58 | 20.5 | 17 | 12 | 10 | GN 511-M6-20 | 49 |
| GN 474-B15-B15-* | B 15 | B 15 | 20 | M 6 | 58 | 20.5 | 17 | 12 | 12 | GN 511-M6-20 | 44 |
| GN 474-B16-B12-* | B 16 | B 12 | 20 | M 6 | 59 | 20.5 | 18 | - | 10 | GN 511-M6-20 | 49 |
| GN 474-B16-B16-* | B 16 | B 16 | 20 | M 6 | 59 | 20.5 | 18 | - | - | GN 511-M6-20 | 44 |
| GN 474-B20-B15-* | B 20 | B 15 | 25 | M 6 | 65 | 21.5 | 22 | 16 | 12 | GN 511-M6-25 | 80 |
| GN 474-B20-B16-* | B 20 | B 16 | 25 | M 6 | 65 | 21.5 | 22 | 16 | - | GN 511-M6-25 | 77 |
| GN 474-B20-B20-* | B 20 | B 20 | 25 | M 6 | 65 | 21.5 | 22 | 16 | 16 | GN 511-M6-25 | 67 |

Weight ELS

Two-way clamp mountings

Aluminium

SPECIFICATION

Aluminium

- matt, tumbled finish **MT**
- anodized black **ELS**

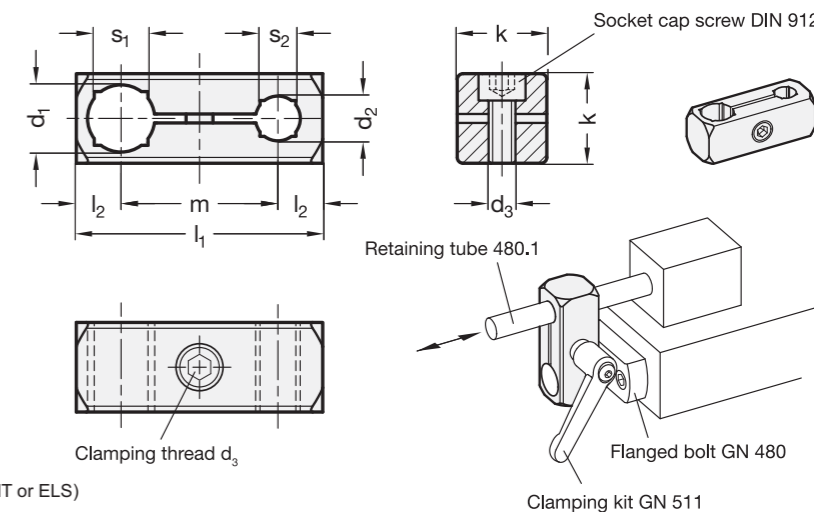
Socket cap screws DIN 912
Stainless Steel AISI 304

INFORMATION

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 511 (see page 1893).

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with Finish of the Two-way clamp mountings (MT or ELS)

MT matt, tumbled ground
ELS anodized, black

GN 474.1

| Description | d1 For shaft tolerance h11 | d2 For shaft tolerance h11 | k | d3 | l1 | l2 | m | s1 | s2 | Clamping kits for d3 | Weight |
|--------------------|----------------------------|----------------------------|----|-----|----|------|----|----|----|----------------------|--------|
| GN 474.1-B8-B8-* | B 8 | B 8 | 14 | M 4 | 38 | 7 | 24 | - | - | GN 511-M4-14 | 16 |
| GN 474.1-B10-B8-* | B 10 | B 10 | 16 | M 5 | 44 | 8 | 28 | 8 | - | GN 511-M5-16 | 24 |
| GN 474.1-B10-B10-* | B 10 | B 10 | 16 | M 5 | 44 | 8 | 28 | 8 | 8 | GN 511-M5-16 | 23 |
| GN 474.1-B12-B8-* | B 12 | B 8 | 16 | M 5 | 45 | 8 | 29 | 10 | - | GN 511-M5-16 | 23 |
| GN 474.1-B12-B10-* | B 12 | B 10 | 16 | M 5 | 45 | 8 | 29 | 10 | 8 | GN 511-M5-16 | 21 |
| GN 474.1-B12-B12-* | B 12 | B 12 | 16 | M 5 | 45 | 8 | 29 | 10 | 10 | GN 511-M5-16 | 21 |
| GN 474.1-B15-B10-* | B 15 | B 10 | 20 | M 6 | 55 | 10 | 35 | 12 | 8 | GN 511-M6-20 | 45 |
| GN 474.1-B15-B12-* | B 15 | B 12 | 20 | M 6 | 55 | 10 | 35 | 12 | 10 | GN 511-M6-20 | 43 |
| GN 474.1-B15-B15-* | B 15 | B 15 | 20 | M 6 | 55 | 10 | 35 | 12 | 12 | GN 511-M6-20 | 40 |
| GN 474.1-B16-B10-* | B 16 | B 10 | 20 | M 6 | 55 | 10 | 35 | - | 8 | GN 511-M6-20 | 42 |
| GN 474.1-B16-B12-* | B 16 | B 12 | 20 | M 6 | 55 | 10 | 35 | - | 10 | GN 511-M6-20 | 42 |
| GN 474.1-B16-B15-* | B 16 | B 15 | 20 | M 6 | 55 | 10 | 35 | - | 12 | GN 511-M6-20 | 38 |
| GN 474.1-B16-B16-* | B 16 | B 16 | 20 | M 6 | 55 | 10 | 35 | - | - | GN 511-M6-20 | 38 |
| GN 474.1-B20-B12-* | B 20 | B 12 | 25 | M 6 | 66 | 12.5 | 41 | 16 | 10 | GN 511-M6-25 | 75 |
| GN 474.1-B20-B15-* | B 20 | B 15 | 25 | M 6 | 66 | 12.5 | 41 | 16 | 12 | GN 511-M6-25 | 75 |
| GN 474.1-B20-B16-* | B 20 | B 16 | 25 | M 6 | 66 | 12.5 | 41 | 16 | - | GN 511-M6-25 | 74 |
| GN 474.1-B20-B20-* | B 20 | B 20 | 25 | M 6 | 66 | 12.5 | 41 | 16 | 16 | GN 511-M6-25 | 66 |

Weight ELS

Twistable two-way clamp mountings

Aluminium

SPECIFICATION

- Aluminium
- matt, slide ground **MT**
- anodized, black **ELS**
- Socket cap screws DIN 912
- Stainless Steel AISI 304
- Grub screw DIN 915
- Stainless Steel AISI 304
- Clamping kits GN 511 (see page 1893)

INFORMATION

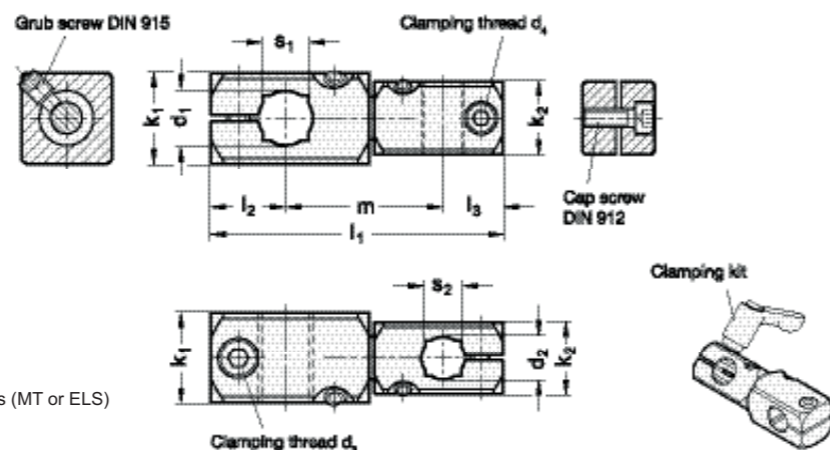
Twistable two-way clamp mountings GN 475 connect rods and tubes within the clamp mounting system under any adjustable angle. With the angle adjustment released, the clamp mounting halves stay connected with formlocking effect. The standard version of the clamping screws at the clamping threads d3 and d4 are socket cap screws with hexagonal socket DIN 912. They can be replaced by an adjustable clamping lever GN 511 (see page 1893).

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

ACCESSORY

- Clamping kits GN 511 (see page 1893)



* Complete with Finish of the Twistable two-way clamp mountings (MT or ELS)
MT matt, slide ground **ELS** anodized, black

GN 475

| Description | d1 For shaft tolerance h11 | d2 For shaft tolerance h11 | k1 | k2 | d3 | d4 | l1 | l2 | l3 | m | s1 | s2 | Clamping kits for d3 | Clamping kits for d4 | Weight |
|------------------|----------------------------|----------------------------|----|----|-----|-----|-------|------|------|------|----|----|----------------------|----------------------|--------|
| GN 475-B8-B8-* | B 8 | B 8 | 16 | 16 | M 4 | M 4 | 52.5 | 13 | 13 | 26.5 | - | - | GN 511-M4-16 | GN 511-M4-16 | 34 |
| GN 475-B10-B8-* | B 10 | B 8 | 20 | 16 | M 5 | M 4 | 58 | 15.5 | 13 | 29.5 | 8 | - | GN 511-M5-20 | GN 511-M4-16 | 50 |
| GN 475-B10-B10-* | B 10 | B 10 | 20 | 20 | M 5 | M 5 | 63.5 | 15.5 | 15.5 | 32.5 | 8 | 8 | GN 511-M5-20 | GN 511-M5-20 | 65 |
| GN 475-B12-B8-* | B 12 | B 8 | 20 | 16 | M 5 | M 4 | 62 | 16.5 | 13 | 32.5 | 10 | - | GN 511-M5-20 | GN 511-M4-16 | 54 |
| GN 475-B12-B12-* | B 12 | B 12 | 20 | 20 | M 5 | M 5 | 71.5 | 16.5 | 16.5 | 38.5 | 10 | 10 | GN 511-M5-20 | GN 511-M5-20 | 73 |
| GN 475-B15-B10-* | B 15 | B 10 | 25 | 20 | M 6 | M 5 | 75.5 | 20 | 15.5 | 40 | 12 | 8 | GN 511-M6-25 | GN 511-M5-20 | 105 |
| GN 475-B15-B12-* | B 15 | B 12 | 25 | 20 | M 6 | M 5 | 79.5 | 20 | 16.5 | 43 | 12 | 10 | GN 511-M6-25 | GN 511-M5-20 | 108 |
| GN 475-B15-B15-* | B 15 | B 15 | 25 | 25 | M 6 | M 6 | 87.5 | 20 | 20 | 47.5 | 12 | 12 | GN 511-M6-25 | GN 511-M6-25 | 143 |
| GN 475-B16-B12-* | B 16 | B 12 | 25 | 20 | M 6 | M 5 | 81 | 20 | 16.5 | 44.5 | - | 10 | GN 511-M6-25 | GN 511-M5-20 | 112 |
| GN 475-B16-B16-* | B 16 | B 16 | 25 | 25 | M 6 | M 6 | 90.5 | 20 | 20 | 50.5 | - | - | GN 511-M6-25 | GN 511-M6-25 | 139 |
| GN 475-B20-B15-* | B 20 | B 15 | 30 | 25 | M 6 | M 6 | 95 | 22 | 20 | 53 | 16 | 12 | GN 511-M6-30 | GN 511-M6-25 | 193 |
| GN 475-B20-B16-* | B 20 | B 16 | 30 | 25 | M 6 | M 6 | 96.5 | 22 | 20 | 54.5 | 16 | - | GN 511-M6-30 | GN 511-M6-25 | 196 |
| GN 475-B20-B20-* | B 20 | B 20 | 30 | 30 | M 6 | M 6 | 102.5 | 22 | 22 | 58.5 | 16 | 16 | GN 511-M6-30 | GN 511-M6-30 | 242 |

Weight ELS

T-Clamp mountings

Aluminium

SPECIFICATION

Types

- Type **A**: with bore
- Type **W**: with bolt

Aluminium

- matt, slide ground **MT**
- anodized, black **ELS**

Bolt (Type W)
Stainless Steel AISI 303

Socket cap screw DIN 912
Stainless Steel AISI 304

Grub screw DIN 913 (Type A)
Stainless Steel AISI 304

Grub screw DIN 915 (Type W)
Stainless Steel AISI 304

Clamping kits GN 511 (see page 1893)

INFORMATION

The T-Clamp mountings GN 476 (Type W) are an alternative to twistable two-way clamp mountings GN 475 (see page 1882) if high angular forces are required.

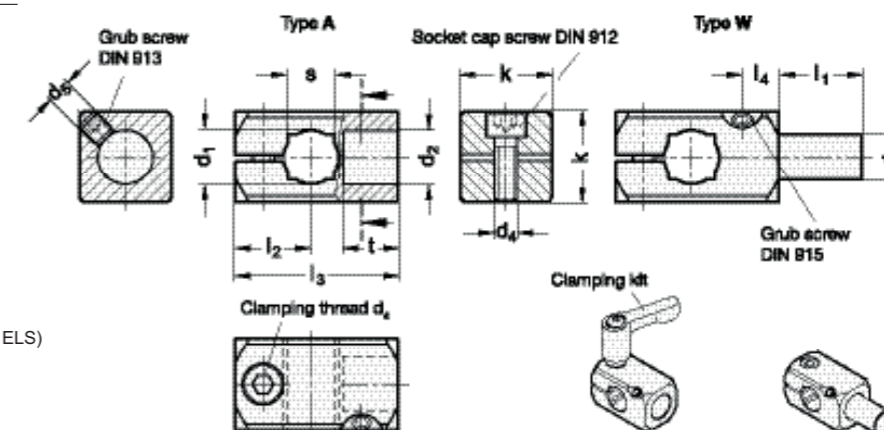
The standard version of the clamping screw at the clamping thread d4 is a socket cap screw with hexagonal socket DIN 912. It can be replaced by an adjustable clamping lever GN 511 (see page 1893) (description see table of dimensions).

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

ACCESSORY

- Clamping kits GN 511 (see page 1893)



* Complete with Finish of the T-Clamp mountings (MT or ELS)
MT matt, slide ground **ELS** anodized, black

GN 476

| Description | d1 For shaft tolerance h11 | d2 | d3 | k | d4 | d5 | l1 | l2 | l3 | l4 | t | s | Clamping kits for d4 | Weight |
|--------------------|----------------------------|------|----|----|-----|-----|----|------|------|-----|----|----|----------------------|--------|
| GN 476-B8-B8-A-* | B 8 | B 8 | - | 16 | M 4 | M 4 | 16 | 13 | 26 | 5.5 | 8 | - | GN 511-M4-16 | 20 |
| GN 476-B10-B10-A-* | B 10 | B 10 | - | 20 | M 5 | M 5 | 17 | 15.5 | 31.5 | 7 | 10 | 8 | GN 511-M5-20 | 28 |
| GN 476-B12-B12-A-* | B 12 | B 12 | - | 20 | M 5 | M 5 | 19 | 16.5 | 35.5 | 8 | 12 | 10 | GN 511-M5-20 | 28 |
| GN 476-B15-B15-A-* | B 15 | B 15 | - | 25 | M 6 | M 6 | 21 | 20 | 43.5 | 10 | 15 | 12 | GN 511-M6-25 | 54 |
| GN 476-B16-B16-A-* | B 16 | B 16 | - | 25 | M 6 | M 6 | 24 | 20 | 45 | 11 | 16 | - | GN 511-M6-25 | 54 |
| GN 476-B20-B20-A-* | B 20 | B 20 | - | 30 | M 6 | M 6 | 26 | 22 | 51 | 12 | 18 | 16 | GN 511-M6-30 | 80 |
| GN 476-B8-8-W-* | B 8 | - | 8 | 16 | M 4 | M 4 | 16 | 13 | 26 | 5.5 | 8 | - | GN 511-M4-16 | 25 |
| GN 476-B10-10-W-* | B 10 | - | 10 | 20 | M 5 | M 5 | 17 | 15.5 | 31.5 | 7 | 10 | 8 | GN 511-M5-20 | 45 |
| GN 476-B12-12-W-* | B 12 | - | 12 | 20 | M 5 | M 5 | 19 | 16.5 | 35.5 | 8 | 12 | 10 | GN 511-M5-20 | 57 |
| GN 476-B15-15-W-* | B 15 | - | 15 | 25 | M 6 | M 6 | 21 | 20 | 43.5 | 10 | 15 | 12 | GN 511-M6-25 | 103 |
| GN 476-B16-16-W-* | B 16 | - | 16 | 25 | M 6 | M 6 | 24 | 20 | 45 | 11 | 16 | - | GN 511-M6-25 | 120 |
| GN 476-B20-20-W-* | B 20 | - | 20 | 30 | M 6 | M 6 | 26 | 22 | 51 | 12 | 18 | 16 | GN 511-M6-30 | 191 |

Weight ELS

Clamp mountings

Aluminium

SPECIFICATION

Aluminium

- matt, slide ground **MT**
- anodized, black **ELS**

Socket cap screw DIN 912
Stainless Steel AISI 304

Clamping kits GN 511 (see page 1893)

- Zinc die casting
- Inserts / Distance bushings, Stainless Steel AISI 303

INFORMATION

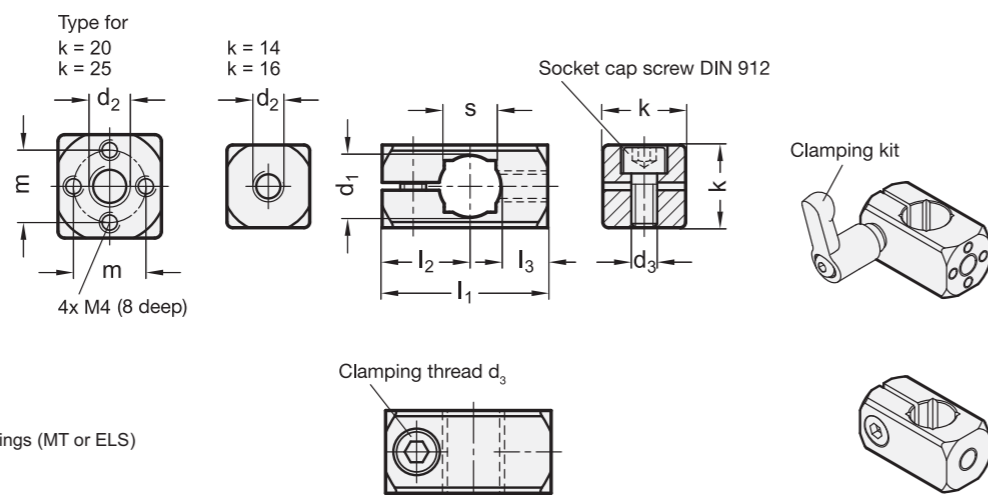
Attachment clamp mountings GN 478 are primarily designed for mounting sensor holders GN 479 (see page 1895) and retaining plates GN 479.1 (see page 1896). They are fitted with a central thread and with $d_1 = B15$ bore and higher, an additional bore template $4 \times M4$. The standard clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 511 (see page 1893) (see table of dimensions).

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

ACCESSORY

- Clamping kits GN 511 (see page 1893)



*Complete with Finish of the Clamp mountings (MT or ELS)

MT matt, slide ground
ELS anodized, black

GN 478

| Description | d1 For shaft tolerance h11 | d2 | d3 | k | m | l1 | l2 | l3 | s | Clamping kits for d3 | ⚖ |
|------------------|----------------------------|------|-----|----|----|----|------|------|----|----------------------|----|
| GN 478-B8-M5-* | B 8 | M 5 | M 4 | 14 | - | 25 | 13.5 | 7.5 | - | GN 511-M4-14 | 11 |
| GN 478-B10-M5-* | B 10 | M 5 | M 5 | 16 | - | 30 | 17 | 8 | 8 | GN 511-M5-16 | 16 |
| GN 478-B10-M6-* | B 10 | M 6 | M 5 | 16 | - | 30 | 17 | 8 | 8 | GN 511-M5-16 | 16 |
| GN 478-B10-M8-* | B 10 | M 8 | M 5 | 16 | - | 30 | 17 | 8 | 8 | GN 511-M5-16 | 16 |
| GN 478-B12-M5-* | B 12 | M 5 | M 5 | 16 | - | 32 | 17 | 9 | 10 | GN 511-M5-16 | 16 |
| GN 478-B12-M6-* | B 12 | M 6 | M 5 | 16 | - | 32 | 17 | 9 | 10 | GN 511-M5-16 | 17 |
| GN 478-B12-M8-* | B 12 | M 8 | M 5 | 16 | - | 32 | 17 | 9 | 10 | GN 511-M5-16 | 17 |
| GN 478-B15-M6-* | B 15 | M 6 | M 6 | 20 | 14 | 40 | 20.5 | 12 | 12 | GN 511-M6-20 | 32 |
| GN 478-B15-M8-* | B 15 | M 8 | M 6 | 20 | 14 | 40 | 20.5 | 12 | 12 | GN 511-M6-20 | 31 |
| GN 478-B16-M6-* | B 16 | M 6 | M 6 | 20 | 14 | 40 | 20.5 | 11.5 | - | GN 511-M6-20 | 31 |
| GN 478-B16-M8-* | B 16 | M 8 | M 6 | 20 | 14 | 40 | 20.5 | 11.5 | - | GN 511-M6-20 | 30 |
| GN 478-B20-M8-* | B 20 | M 8 | M 6 | 25 | 17 | 45 | 21.5 | 12 | 16 | GN 511-M6-25 | 51 |
| GN 478-B20-M10-* | B 20 | M 10 | M 6 | 25 | 17 | 45 | 21.5 | 12 | 16 | GN 511-M6-25 | 50 |

Weight ELS

Flanged bolts

for clamp mountings

SPECIFICATION

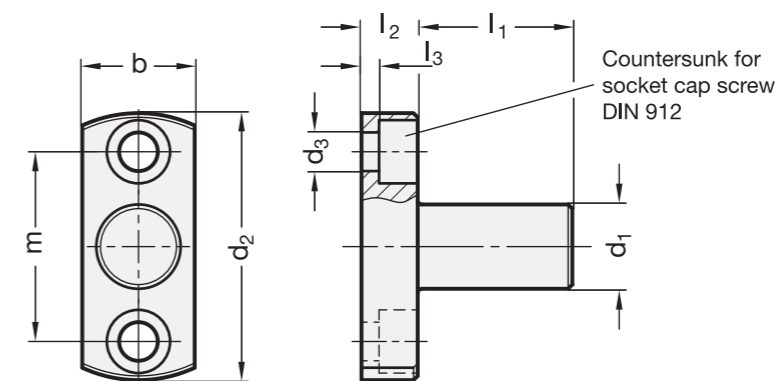
Steel zinc plated, blue passivated

INFORMATION

GN 480 Flanged bolts are used in connection with clamp mountings, as foot or as connecting element, e.g. for adjustments in width or height.

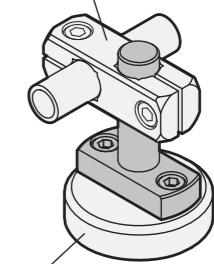
With their low flange height, they provide an alternative for the foot clamp mounting GN 473 (see page 1878) in applications where clamping is required at low height above the clamping surface.

The bore distance m of the flanged bolts GN 480 is matched with the clamp mountings GN 473 (see page 1878) and GN 477 (see page 1879) as well as with retaining magnets GN 51.6 (see page 2032).



Application example

Clamp mounting GN 474



Retaining magnet GN 51.6

GN 480

| Description | d1 h9 | l1 | b | d2 | d3 | l2 | l3 | m | ⚖ |
|----------------|-------|------|----|------|-----|----|-----|----|-----|
| GN 480-8-18 | 8 | 18 | 14 | 31.5 | M 4 | 6 | 2 | 22 | 23 |
| GN 480-8-32 | 8 | 32 | 14 | 31.5 | M 4 | 6 | 2 | 22 | 40 |
| GN 480-10-21 | 10 | 21 | 16 | 38 | M 5 | 8 | 2.5 | 27 | 43 |
| GN 480-10-37 | 10 | 37 | 16 | 38 | M 5 | 8 | 2.5 | 27 | 52 |
| GN 480-12-22 | 12 | 22 | 16 | 38 | M 5 | 8 | 2.5 | 27 | 49 |
| GN 480-12-39 | 12 | 39 | 16 | 38 | M 5 | 8 | 2.5 | 27 | 64 |
| GN 480-15-27.5 | 15 | 27.5 | 20 | 45 | M 6 | 10 | 4 | 32 | 94 |
| GN 480-15-47.5 | 15 | 47.5 | 20 | 45 | M 6 | 10 | 4 | 32 | 122 |
| GN 480-16-28 | 16 | 28 | 20 | 45 | M 6 | 10 | 4 | 32 | 100 |
| GN 480-16-49 | 16 | 49 | 20 | 45 | M 6 | 10 | 4 | 32 | 133 |
| GN 480-20-35 | 20 | 35 | 25 | 50 | M 6 | 10 | 4 | 36 | 166 |
| GN 480-20-60 | 20 | 60 | 25 | 50 | M 6 | 10 | 4 | 36 | 240 |

Twistable two-way clamp mountings

Aluminium

SPECIFICATION

Types

- Type **A**: with cylinder head screw DIN 912
- Type **B**: with adjustable clamping lever GN 300.1 (see page 324)

Aluminium

plain, matte tumbled finish **MT**
plastic coated

black, RAL 9005, textured finish **SW**

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

Adjustable clamping lever GN 300.1 (see page 324)

Zinc die casting
plastic coated
silver, RAL 9006, textured finish

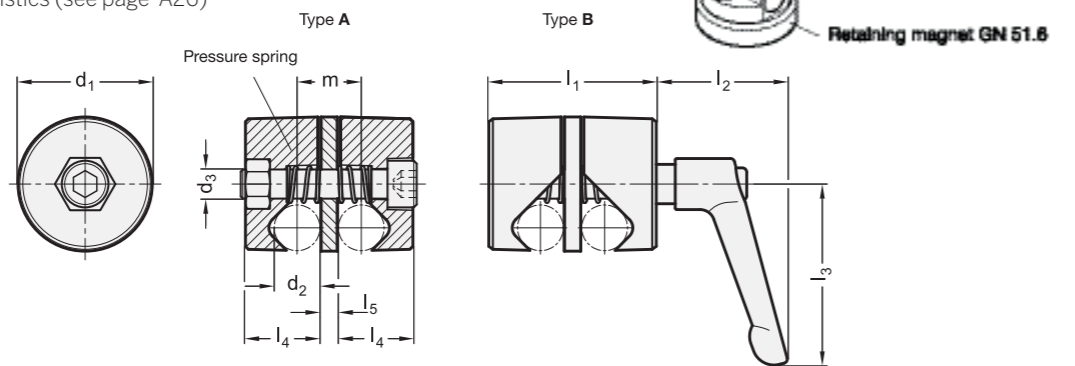
Inserts / Distance bushing
Stainless Steel AISI 303

INFORMATION

Twistable two-way clamp mountings GN 490 clamp the rods or tubes via a prism, allowing a greater \varnothing tolerance to be bridged. The pressure spring makes clamping and releasing easier.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 490

| Description | d1 | d2 | d3 | l1 | l2 | l3 | l4 | l5 | m | Δ |
|-------------------|----|----|------|----|----|----|------|----|----|----------|
| GN 490-28-8-A-MT | 28 | 8 | M 6 | 33 | - | - | 14 | 5 | 13 | 52 |
| GN 490-28-8-A-SW | 28 | 8 | M 6 | 33 | - | - | 14 | 5 | 13 | 52 |
| GN 490-32-10-A-MT | 32 | 10 | M 8 | 45 | - | - | 20 | 5 | 15 | 95 |
| GN 490-32-10-A-SW | 32 | 10 | M 8 | 45 | - | - | 20 | 5 | 15 | 96 |
| GN 490-36-12-A-MT | 36 | 12 | M 8 | 47 | - | - | 21 | 5 | 17 | 118 |
| GN 490-36-12-A-SW | 36 | 12 | M 8 | 47 | - | - | 21 | 5 | 17 | 118 |
| GN 490-46-16-A-MT | 46 | 16 | M 10 | 57 | - | - | 25.5 | 6 | 22 | 221 |
| GN 490-46-16-A-SW | 46 | 16 | M 10 | 57 | - | - | 25.5 | 6 | 22 | 225 |
| GN 490-28-8-B-MT | 28 | 8 | M 6 | 33 | 35 | 45 | 14 | 5 | 13 | 89 |
| GN 490-28-8-B-SW | 28 | 8 | M 6 | 33 | 35 | 45 | 14 | 5 | 13 | 85 |
| GN 490-32-10-B-MT | 32 | 10 | M 8 | 45 | 45 | 63 | 20 | 5 | 15 | 172 |
| GN 490-32-10-B-SW | 32 | 10 | M 8 | 45 | 45 | 63 | 20 | 5 | 15 | 173 |
| GN 490-36-12-B-MT | 36 | 12 | M 8 | 47 | 45 | 63 | 21 | 5 | 17 | 193 |
| GN 490-36-12-B-SW | 36 | 12 | M 8 | 47 | 45 | 63 | 21 | 5 | 17 | 195 |
| GN 490-46-16-B-MT | 46 | 16 | M 10 | 57 | 55 | 78 | 25.5 | 6 | 22 | 354 |
| GN 490-46-16-B-SW | 46 | 16 | M 10 | 57 | 55 | 78 | 25.5 | 6 | 22 | 354 |

Swivel clamp connector bases

Aluminium

SPECIFICATION

Aluminium

- matt, tumbled finish **MT**
- anodized, black **ELS**

INFORMATION

Swivel clamp connector bases GN 485 can be combined with swivel clamp mountings GN 482 (see page 1890), T-swivel clamp mountings GN 483 (see page 1891) and attachment clamp mountings GN 484 (see page 1892) with the same k dimensions into swivel clamp mounting joints. Clamping kits GN 511.1 (see page 1894) with screw (type S) and adjustable hand lever (type K) are available to connect the joints and bases (code no. for ordering is shown in the dimensional table).

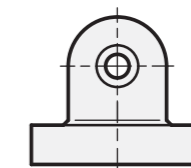
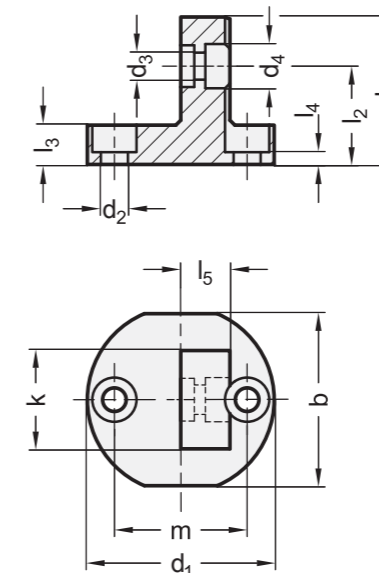
The center to center mounting hole distance m of the swivel clamp connector bases GN 485 matches the base plate clamp mountings GN 473 (see page 1878), clamp mountings GN 477 (see page 1879), flanged bolts GN 480 (see page 1885) as well as retaining magnets GN 51.6 (see page 2032).

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

ACCESSORY

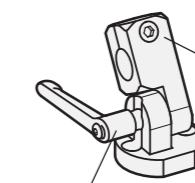
- Clamping kits GN 511.1 (see page 1893)



Clamping kit
GN 511.1, Type S



Swivel clamp mounting joint
with swivel clamp mounting
GN 482



Clamping kit
GN 511.1, Type K

GN 485

| Description | k | b | d1 | d2 | d3 | d4 | l1 | l2 | l3 | l4 | l5 | m | Clamping kits for d3 Type K | Clamping kits for d3 Type S | Δ |
|---------------|----|----|------|-----|-----|------|------|------|------|-----|------|----|--------------------------------|--------------------------------|----------|
| GN 485-16-MT | 16 | 29 | 31.5 | M 4 | 4.5 | 7.5 | 25 | 17 | 7 | 3 | 8 | 22 | GN 511.1-M4-16-K | GN 511.1-M4-16-S | 18 |
| GN 485-20-MT | 20 | 35 | 38 | M 5 | 5.5 | 9 | 30 | 20 | 8 | 2.5 | 10 | 27 | GN 511.1-M5-20-K | GN 511.1-M5-20-S | 31 |
| GN 485-25-MT | 25 | 41 | 45 | M 6 | 6.5 | 10.5 | 37 | 24.5 | 10 | 4 | 12.5 | 32 | GN 511.1-M6-25-K | GN 511.1-M6-25-S | 55 |
| GN 485-30-MT | 30 | 44 | 50 | M 6 | 6.5 | 10.5 | 44.5 | 29.5 | 12.5 | 6.5 | 15 | 36 | GN 511.1-M6-30-K | GN 511.1-M6-30-S | 90 |
| GN 485-16-ELS | 16 | 29 | 31.5 | M 4 | 4.5 | 7.5 | 25 | 17 | 7 | 3 | 8 | 22 | GN 511.1-M4-16-K | GN 511.1-M4-16-S | 20 |
| GN 485-20-ELS | 20 | 35 | 38 | M 5 | 5.5 | 9 | 30 | 20 | 8 | 2.5 | 10 | 27 | GN 511.1-M5-20-K | GN 511.1-M5-20-S | 33 |
| GN 485-25-ELS | 25 | 41 | 45 | M 6 | 6.5 | 10.5 | 37 | 24.5 | 10 | 4 | 12.5 | 32 | GN 511.1-M6-25-K | GN 511.1-M6-25-S | 57 |
| GN 485-30-ELS | 30 | 44 | 50 | M 6 | 6.5 | 10.5 | 44.5 | 29.5 | 12.5 | 6.5 | 15 | 36 | GN 511.1-M6-30-K | GN 511.1-M6-30-S | 92 |

Stainless Steel-Hose adapters

Barbed fitting / Thread

SPECIFICATION

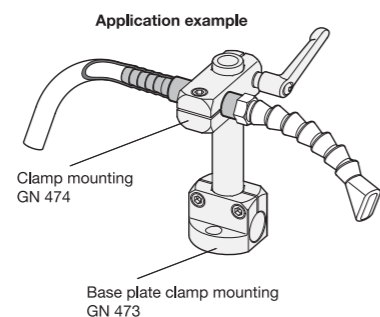
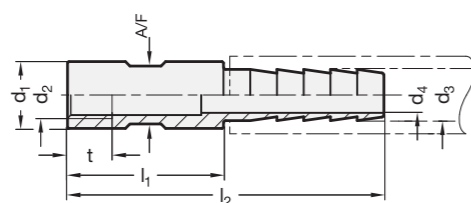
Stainless Steel
- AISI 304
- blank, unfinished

INFORMATION

GN 480.7 hose adapters can attach e.g. air nozzles or coolant nozzles and their feed pipes with clamp mountings and hold them in position. The d_2 / d_3 thread and barbed fitting diameters are compatible with the most common bolt and internal hose diameters. Hose lines are attached to the barbed fitting with suitable hose clamps, securing them against slipping off.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 480.7

STAINLESS STEEL

| Description | d1 h9 | d2 - t | d3 | d4 | l1 | l2 | A/F | ⚖ |
|-------------------------|-------|---------------|----|-----|----|----|-----|----|
| GN 480.7-D10-M5-4 | D 10 | M 5 - 8.5 | 4 | 2.5 | 30 | 48 | 8 | 16 |
| GN 480.7-D10-M6-4 | D 10 | M 6 - 10.5 | 4 | 2.5 | 30 | 48 | 8 | 15 |
| GN 480.7-D10-M5-6 | D 10 | M 5 - 8.5 | 6 | 4.5 | 30 | 57 | 8 | 19 |
| GN 480.7-D10-M6-6 | D 10 | M 6 - 10.5 | 6 | 4.5 | 30 | 57 | 8 | 17 |
| GN 480.7-D12-M7-6 | D 12 | M 7 - 11.5 | 6 | 4.5 | 30 | 57 | 10 | 23 |
| GN 480.7-D12-M8x1-6 | D 12 | M 8x1 - 10 | 6 | 4.5 | 30 | 57 | 10 | 21 |
| GN 480.7-D12-M7-9 | D 12 | M 7 - 11.5 | 9 | 7 | 30 | 63 | 10 | 28 |
| GN 480.7-D12-M8x1-9 | D 12 | M 8x1 - 10 | 9 | 7 | 30 | 63 | 10 | 25 |
| GN 480.7-D15-M10x1-9 | D 15 | M 10x1 - 10 | 9 | 7 | 35 | 68 | 13 | 40 |
| GN 480.7-D15-G1/8-9 | D 15 | G 1/8 - 8 | 9 | 7 | 35 | 68 | 13 | 41 |
| GN 480.7-D15-M10x1-10 | D 15 | M 10x1 - 10 | 10 | 8 | 35 | 71 | 13 | 41 |
| GN 480.7-D15-G1/8-10 | D 15 | G 1/8 - 8 | 10 | 8 | 35 | 71 | 13 | 42 |
| GN 480.7-D16-M12x1,5-10 | D 16 | M 12x1,5 - 14 | 10 | 8 | 35 | 71 | 14 | 42 |
| GN 480.7-D16-G1/8-10 | D 16 | G 1/8 - 8 | 10 | 8 | 35 | 71 | 14 | 49 |
| GN 480.7-D16-M12x1,5-12 | D 16 | M 12x1,5 - 14 | 12 | 9 | 35 | 71 | 14 | 47 |
| GN 480.7-D16-G1/8-12 | D 16 | G 1/8 - 8 | 12 | 8 | 35 | 71 | 14 | 59 |
| GN 480.7-D20-M16x1,5-12 | D 20 | M 16x1,5 - 15 | 12 | 9 | 40 | 76 | 18 | 64 |
| GN 480.7-D20-G3/8-12 | D 20 | G 3/8 - 12 | 12 | 9 | 40 | 76 | 18 | 60 |
| GN 480.7-D20-G1/4-12 | D 20 | G 1/4 - 12 | 12 | 9 | 40 | 76 | 18 | 83 |
| GN 480.7-D20-M16x1,5-16 | D 20 | M 16x1,5 - 15 | 16 | 12 | 40 | 76 | 18 | 68 |
| GN 480.7-D20-G3/8-16 | D 20 | G 3/8 - 12 | 16 | 12 | 40 | 76 | 18 | 69 |
| GN 480.7-D20-G1/4-16 | D 20 | G 1/4 - 12 | 16 | 12 | 40 | 76 | 18 | 69 |

Stainless Steel-Thread adapters

Thread / Thread

SPECIFICATION

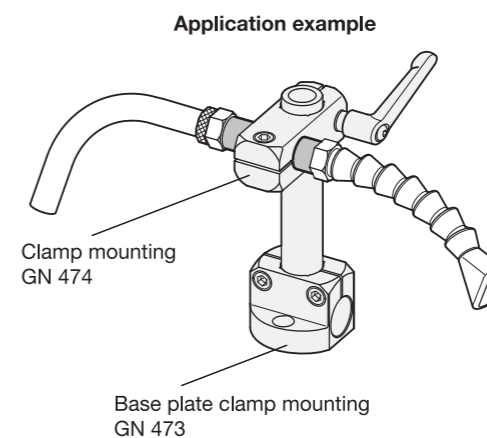
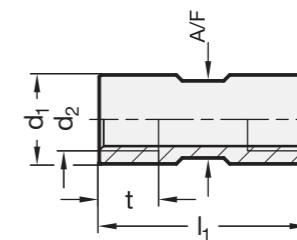
Stainless Steel
- AISI 304
- blank, unfinished

INFORMATION

GN 480.8 thread adapters can attach e.g. air nozzles or coolant nozzles and their feed pipes with clamp mountings and hold them in position. The d_2 thread diameters are compatible with the most common bolt diameters.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 480.8

STAINLESS STEEL

| Description | d1 h9 | d2 - t | l1 | A/F | ⚖ |
|----------------------|-------|---------------|----|-----|----|
| GN 480.8-D10-M5 | D 10 | M 5 - 8.5 | 30 | 8 | 14 |
| GN 480.8-D10-M6 | D 10 | M 6 - 10.5 | 30 | 8 | 13 |
| GN 480.8-D12-M7 | D 12 | M 7 - 11.5 | 30 | 10 | 18 |
| GN 480.8-D12-M8x1 | D 12 | M 8x1 - 10 | 30 | 10 | 16 |
| GN 480.8-D15-M10x1 | D 15 | M 10x1 - 10 | 35 | 13 | 29 |
| GN 480.8-D15-G1/8 | D 15 | G 1/8 - 8 | 35 | 13 | 30 |
| GN 480.8-D16-M12x1,5 | D 16 | M 12x1,5 - 14 | 35 | 14 | 37 |
| GN 480.8-D16-G1/8 | D 16 | G 1/8 - 8 | 35 | 14 | 37 |
| GN 480.8-D20-M16x1,5 | D 20 | M 16x1,5 - 15 | 40 | 18 | 40 |
| GN 480.8-D20-G3/8 | D 20 | G 3/8 - 12 | 40 | 18 | 36 |
| GN 480.8-D20-G1/4 | D 20 | G 1/4 - 12 | 40 | 18 | 40 |

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17
18
Tube Clamp Connectors 16

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16
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18
Tube Clamp Connectors 16

Swivel clamp mountings

Aluminium

SPECIFICATION

Types

- Type **Q**: Clamping bore transverse to the swivel axis
- Type **P**: Clamping bore parallel to the swivel axis

Aluminium

- matt, slide ground **MT**
- anodized black **ELS**

Cylinder head screws DIN 912
Stainless Steel AISI 304

INFORMATION

Swivel clamp mountings GN 482 can be combined with T-Swivel clamp mountings GN 483 (see page 1891) and attachment clamp mountings GN 484 (see page 1892) with the same k dimensions into swivel clamp mounting joints. Clamping kits GN 511.1 (see page 1894) with screw (type S) and adjustable hand lever (type K) are available for this combination.

Also, the clamping screw d₄ which is a cylinder head screw with DIN 912 hexagonal recess in the standard design - can be replaced by a clamping kit GN 511 (see page 1893).

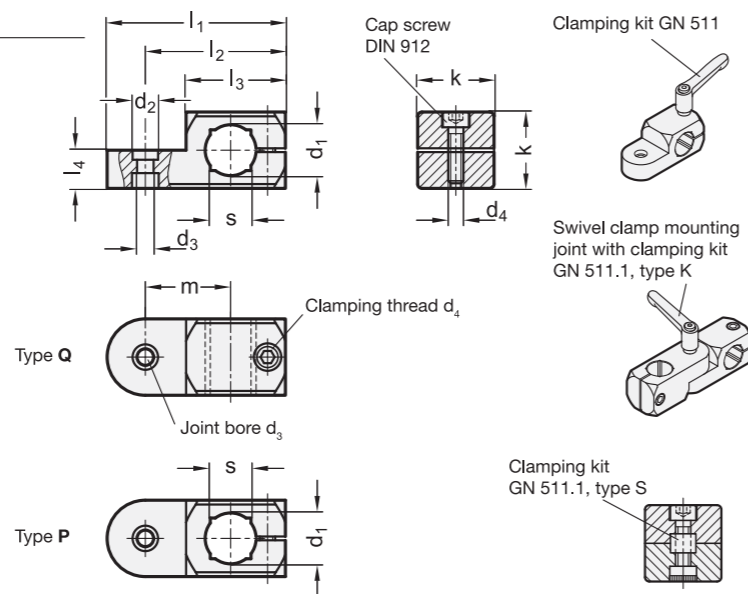
The description for ordering is shown in the dimensional table.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)

ACCESSORY

- Clamping kits GN 511 (see page 1893)
- Clamping kits GN 511.1 (see page 1894)



* Complete with Finish of the Swivel clamp mountings (MT or ELS)

| | |
|--------------------|-----------------|
| MT | ELS |
| matt, slide ground | anodized, black |

GN 482

| Description | d1 For shaft tolerance h11 | k | d2 | d3 | d4 | l1 | l2 | l3 | m | l4 | s | Clamping kits for d3 Type S/K | Clamping kits for d4 | ⚖ |
|-------------------|----------------------------|----|-----|-----|-----|----|------|----|------|------|----|-------------------------------|----------------------|----|
| GN 482-B8-16-P-* | B 8 | 16 | 7 | 4.5 | M 4 | 40 | 32 | 23 | 18.5 | 8 | - | GN 511.1-M4-16-S/K | GN 511-M4-16 | 19 |
| GN 482-B10-20-P-* | B 10 | 20 | 8.5 | 5.5 | M 5 | 50 | 40 | 29 | 23 | 10 | 8 | GN 511.1-M5-20-S/K | GN 511-M5-20 | 36 |
| GN 482-B12-20-P-* | B 12 | 20 | 8.5 | 5.5 | M 5 | 50 | 40 | 29 | 23 | 10 | 10 | GN 511.1-M5-20-S/K | GN 511-M5-20 | 34 |
| GN 482-B15-25-P-* | B 15 | 25 | 10 | 6.5 | M 6 | 62 | 49.5 | 36 | 29 | 12.5 | 12 | GN 511.1-M6-25-S/K | GN 511-M6-25 | 67 |
| GN 482-B16-25-P-* | B 16 | 25 | 10 | 6.5 | M 6 | 62 | 49.5 | 36 | 29 | 12.5 | - | GN 511.1-M6-25-S/K | GN 511-M5-25 | 66 |
| GN 482-B20-30-P-* | B 20 | 30 | 10 | 6.5 | M 6 | 70 | 55 | 39 | 33.5 | 15 | 16 | GN 511.1-M6-30-S/K | GN 511-M6-32 | 99 |
| GN 482-B8-16-Q-* | B 8 | 16 | 7 | 4.5 | M 4 | 40 | 32 | 23 | 18.5 | 8 | - | GN 511.1-M4-16-S/K | GN 511-M4-16 | 19 |
| GN 482-B10-20-Q-* | B 10 | 20 | 8.5 | 5.5 | M 5 | 50 | 40 | 29 | 23 | 10 | 8 | GN 511.1-M5-20-S/K | GN 511-M5-20 | 36 |
| GN 482-B12-20-Q-* | B 12 | 20 | 8.5 | 5.5 | M 5 | 50 | 40 | 29 | 23 | 10 | 10 | GN 511.1-M5-20-S/K | GN 511-M5-20 | 35 |
| GN 482-B15-25-Q-* | B 15 | 25 | 10 | 6.5 | M 6 | 62 | 49.5 | 36 | 29 | 12.5 | 12 | GN 511.1-M6-25-S/K | GN 511-M6-25 | 60 |
| GN 482-B16-25-Q-* | B 16 | 25 | 10 | 6.5 | M 6 | 62 | 49.5 | 36 | 29 | 12.5 | - | GN 511.1-M6-25-S/K | GN 511-M5-25 | 65 |
| GN 482-B20-30-Q-* | B 20 | 30 | 10 | 6.5 | M 6 | 70 | 55 | 39 | 33.5 | 15 | 16 | GN 511.1-M6-30-S/K | GN 511-M6-32 | 99 |

Weight ELS

T-swivel clamp mountings

Aluminium

SPECIFICATION

Types

- Type **A**: with bore
- Type **W**: with bolt

Aluminium

- matt, slide ground **MT**
- anodized black **ELS**

Bolt (Type W)
Steel zinc-plated, blue passivated

Grub screw DIN 913 (Type A)
Stainless Steel AISI 304

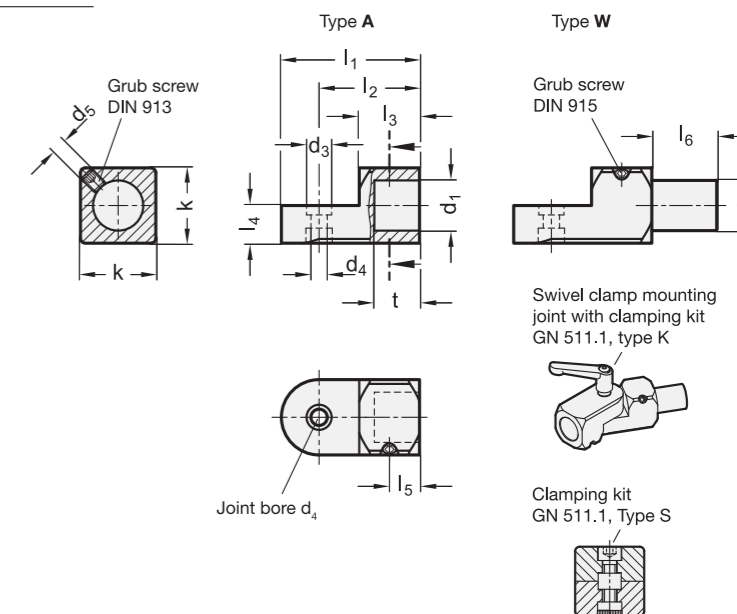
Grub screw DIN 915 (Type W)
Stainless Steel AISI 304

INFORMATION

T-Swivel clamp mountings GN 483 can be combined with swivel clamp mountings GN 482 (see page 1890) and attachment clamp mountings GN 484 (see page 1892) with the same k dimensions into articulated swivel clamp mounting joints. Clamping kits GN 511.1 (see page 1894) with screw, type S and adjustable hand lever, type K are available for this purpose (description see table of dimensions).

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



* Complete with Finish of the T-Swivel clamp mountings (MT or ELS)

| | |
|--------------------|-----------------|
| MT | ELS |
| matt, slide ground | anodized, black |

GN 483

| Description | d1 | d2 | k | d3 | d4 | d5 | l1 | l2 | l3 | l4 | l5 | l6 | t | Clamping kits for d4 Type S | Clamping kits for d3 Type K | ⚖ |
|-------------------|------|----|----|-----|-----|-----|----|------|----|------|-----|----|----|-----------------------------|-----------------------------|-----|
| GN 483-B8-16-A-* | B 8 | - | 16 | 7 | 4.5 | M 4 | 30 | 22 | 13 | 8 | 5.5 | 16 | 8 | GN 511.1-M4-16-S | GN 511.1-M4-16-K | 12 |
| GN 483-B10-20-A-* | B 10 | - | 20 | 8.5 | 5.5 | M 5 | 38 | 28 | 17 | 10 | 7 | 17 | 10 | GN 511.1-M5-20-S | GN 511.1-M5-20-K | 20 |
| GN 483-B12-20-A-* | B 12 | - | 20 | 8.5 | 5.5 | M 5 | 38 | 28 | 17 | 10 | 8 | 19 | 12 | GN 511.1-M5-20-S | GN 511.1-M5-20-K | 20 |
| GN 483-B15-25-A-* | B 15 | - | 25 | 10 | 6.5 | M 6 | 46 | 33.5 | 20 | 12.5 | 10 | 21 | 15 | GN 511.1-M6-25-S | GN 511.1-M6-25-K | 40 |
| GN 483-B16-25-A-* | B 16 | - | 25 | 10 | 6.5 | M 6 | 46 | 33.5 | 20 | 12.5 | 11 | 24 | 16 | GN 511.1-M6-25-S | GN 511.1-M6-25-K | 40 |
| GN 483-B20-30-A-* | B 20 | - | 30 | 10 | 6.5 | M 6 | 55 | 40 | 24 | 15 | 12 | 26 | 18 | GN 511.1-M6-30-S | GN 511.1-M6-30-K | 80 |
| GN 483-8-16-W-* | - | 8 | 16 | 7 | 4.5 | M 4 | 30 | 22 | 13 | 8 | 5.5 | 16 | 8 | GN 511.1-M4-16-S | GN 511.1-M4-16-K | 20 |
| GN 483-10-20-W-* | - | 10 | 20 | 8.5 | 5.5 | M 5 | 38 | 28 | 17 | 10 | 7 | 17 | 10 | GN 511.1-M5-20-S | GN 511.1-M5-20-K | 42 |
| GN 483-12-20-W-* | - | 12 | 20 | 8.5 | 5.5 | M 5 | 38 | 28 | 17 | 10 | 8 | 19 | 12 | GN 511.1-M5-20-S | GN 511.1-M5-20-K | 51 |
| GN 483-15-25-W-* | - | 15 | 25 | 10 | 6.5 | M 6 | 46 | 33.5 | 20 | 12.5 | 10 | 21 | 15 | GN 511.1-M6-25-S | GN 511.1-M6-25-K | 94 |
| GN 483-16-25-W-* | - | 16 | 25 | 10 | 6.5 | M 6 | 46 | 33.5 | 20 | 12.5 | 11 | 24 | 16 | GN 511.1-M6-25-S | GN 511.1-M6-25-K | 106 |
| GN 483-20-30-W-* | - | 20 | 30 | 10 | 6.5 | M 6 | 55 | 40 | 24 | 15 | 12 | 26 | 18 | GN 511.1-M6-30-S | GN 511.1-M6-30-K | 180 |

Weight ELS

Attachment clamp mountings

Aluminium

SPECIFICATION

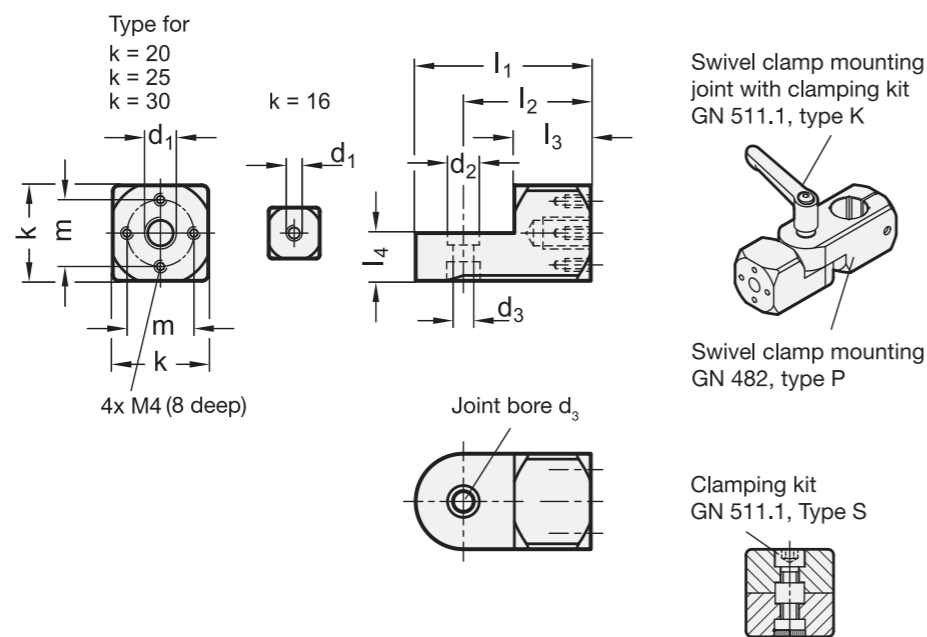
Aluminium

- matt, slide ground **MT**
- anodized black **ELS**

INFORMATION

Attachment clamp mountings GN 484 are primarily designed for mounting sensor holders GN 479 (see page 1895) and retaining plate GN 479.1 (see page 1896). They are fitted with a central thread and for the size with $k = 20$ and higher, an additional bore template $4 \times M4$.

Using swivel clamp mountings GN 482 (see page 1890) and T-Swivel clamp mountings GN 483 (see page 1891) with the same k dimensions, attachment clamp mountings GN 484 are easily combined into articulated swivel clamp mounting joints. Clamping kits GN 511.1 (see page 1894) with screw, type S and adjustable hand lever, type K are available for this purpose (description see table of dimensions).



* Complete with Finish of the Attachment clamp mountings (MT or ELS)

MT matt, slide ground
ELS anodized, black

GN 484

| Description | d1 | k | d2 | d3 | l1 | l2 | l3 | l4 | m | Clamping kits for d3 Type S | Clamping kits for d3 Type K | ⚖ |
|-----------------|------|----|-----|-----|----|------|----|------|----|-----------------------------|-----------------------------|----|
| GN 484-M5-16-* | M 5 | 16 | 7 | 4.5 | 30 | 22 | 13 | 8 | - | GN 511.1-M4-16-S | GN 511.1-M4-16-K | 12 |
| GN 484-M6-16-* | M 6 | 16 | 7 | 4.5 | 30 | 22 | 13 | 8 | - | GN 511.1-M4-16-S | GN 511.1-M4-16-K | 12 |
| GN 484-M8-16-* | M 8 | 16 | 7 | 4.5 | 30 | 22 | 13 | 8 | - | GN 511.1-M4-16-S | GN 511.1-M4-16-K | 11 |
| GN 484-M6-20-* | M 6 | 20 | 8.5 | 5.5 | 38 | 28 | 17 | 10 | 14 | GN 511.1-M5-20-S | GN 511.1-M5-20-K | 24 |
| GN 484-M8-20-* | M 8 | 20 | 8.5 | 5.5 | 38 | 28 | 17 | 10 | 14 | GN 511.1-M5-20-S | GN 511.1-M5-20-K | 23 |
| GN 484-M8-25-* | M 8 | 25 | 10 | 6.5 | 46 | 33.5 | 20 | 12.5 | 17 | GN 511.1-M6-25-S | GN 511.1-M6-25-K | 46 |
| GN 484-M10-25-* | M 10 | 25 | 10 | 6.5 | 46 | 33.5 | 20 | 12.5 | 17 | GN 511.1-M6-25-S | GN 511.1-M6-25-K | 45 |
| GN 484-M8-30-* | M 8 | 30 | 10 | 6.5 | 55 | 40 | 24 | 15 | 20 | GN 511.1-M6-30-S | GN 511.1-M6-30-K | 84 |
| GN 484-M10-30-* | M 10 | 30 | 10 | 6.5 | 55 | 40 | 24 | 15 | 20 | GN 511.1-M6-30-S | GN 511.1-M6-30-K | 82 |
| GN 484-M12-30-* | M 12 | 30 | 10 | 6.5 | 55 | 40 | 24 | 15 | 20 | GN 511.1-M6-30-S | GN 511.1-M6-30-K | 80 |

Weight ELS

Clamping lever kits

adjustable, for clamp mountings

SPECIFICATION

Handle

Zinc die casting
plastic coated
silver, RAL 9006, textured finish

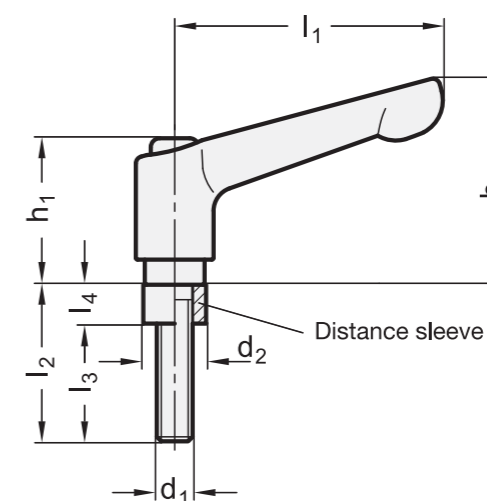
Insert / Distance bushing
Stainless Steel AISI 303

INFORMATION

For clamp mountings, the clamping kits GN 511 replace the hexagon socket screw DIN 912. It is used on all clamping points where repeated clamping actions are required, e.g. for adjusting a stop mechanism. The matching clamping kits for each clamping thread are listed in the dimensional tables of the clamp mountings.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 511

| Description | d1 | l2 | d2 | l1 | l3 | l4 | h1 | h2 | ⚖ |
|--------------|-----|----|------|----|------|-----|------|------|----|
| GN 511-M4-14 | M 4 | 14 | 7.5 | 30 | 9.5 | 4.5 | 24.5 | 30.5 | 39 |
| GN 511-M4-16 | M 4 | 16 | 7.5 | 30 | 11.5 | 4.5 | 24.5 | 30.5 | 39 |
| GN 511-M4-20 | M 4 | 20 | 7.5 | 30 | 15.5 | 4.5 | 24.5 | 30.5 | 41 |
| GN 511-M5-16 | M 5 | 16 | 9 | 30 | 10 | 6 | 24.5 | 30.5 | 41 |
| GN 511-M5-20 | M 5 | 20 | 9 | 30 | 14 | 6 | 24.5 | 30.5 | 41 |
| GN 511-M5-25 | M 5 | 25 | 9 | 30 | 19 | 6 | 24.5 | 30.5 | 41 |
| GN 511-M6-20 | M 6 | 20 | 10.5 | 45 | 13.5 | 6.5 | 24.5 | 35 | 41 |
| GN 511-M6-25 | M 6 | 25 | 10.5 | 45 | 18.5 | 6.5 | 24.5 | 35 | 51 |
| GN 511-M6-30 | M 6 | 30 | 10.5 | 45 | 23.5 | 6.5 | 24.5 | 35 | 52 |
| GN 511-M6-32 | M 6 | 32 | 10.5 | 45 | 25.5 | 6.5 | 24.5 | 35 | 52 |

Clamping kits for swivel clamp mountings

SPECIFICATION

Types

- Type **S**: with cylinder head screw DIN 912
- Type **K**: with adjustable hand levers

Handle

Zinc die casting
plastic coated
silver, RAL 9006, textured finish

Threaded insert, distance sleeve,
centering bushing, threaded bushing
Stainless Steel AISI 303

Cylinder head screw DIN 912
Stainless Steel AISI 304

INFORMATION

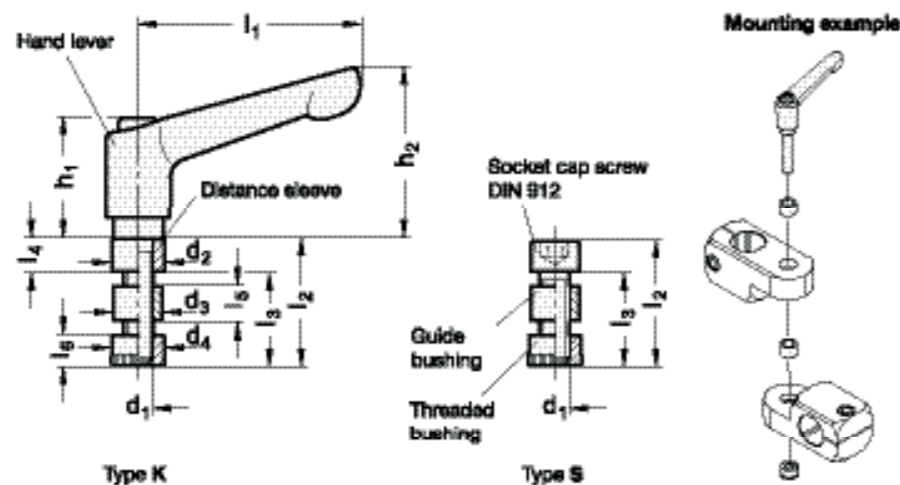
With clamping kits GN 511.1 swivel clamp mountings GN 482 (see page 1890) can be combined with T-Swivel clamp mountings GN 483 (see page 1891) and attachment clamp mountings GN 484 (see page 1892) with the same k-dimensions into swivel clamp mounting joints.

The centering bush positions the swivel clamp mountings in relation to each other. During assembly, the knurled threaded bushing is inserted by the clamping screw itself and by pressing into one of the two swivel clamp mountings and so serves to clamp the articulated joint.

The matching clamping kits are shown in the dimensional tables of the appropriate swivel clamp mountings.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 511.1

| Description | d1 | l2 | d2 | d3 | d4 | l1 | l3 | l4 | l5 | l6 | h1 | h2 | Swivel clamp mounting k dimension | ⚖ |
|------------------|-----|----|------|-----|------|----|------|-----|----|----|------|------|-----------------------------------|-----|
| GN 511.1-M4-16-K | M 4 | 16 | 7.5 | 6.9 | 7.5 | 30 | 11.5 | 4.5 | 4 | 4 | 24.5 | 30.5 | 16 | 30 |
| GN 511.1-M4-16-S | M 4 | 16 | 7.5 | 6.9 | 7.5 | - | 11.5 | - | 4 | 4 | - | - | 16 | 34 |
| GN 511.1-M5-20-K | M 5 | 20 | 9 | 8.4 | 9 | 30 | 14 | 6 | 5 | 5 | 24.5 | 30.5 | 20 | 12 |
| GN 511.1-M5-20-S | M 5 | 20 | 9 | 8.4 | 9 | - | 14 | - | 5 | 5 | - | - | 20 | 15 |
| GN 511.1-M6-25-K | M 6 | 25 | 10.5 | 9.9 | 10.5 | 45 | 18.5 | 6.5 | 7 | 6 | 24.5 | 35 | 25 | 120 |
| GN 511.1-M6-25-S | M 6 | 25 | 10.5 | 9.9 | 10.5 | - | 18.5 | - | 7 | 6 | - | - | 25 | 150 |
| GN 511.1-M6-30-K | M 6 | 30 | 10.5 | 9.9 | 10.5 | 45 | 23.5 | 6.5 | 7 | 6 | 24.5 | 35 | 30 | 150 |
| GN 511.1-M6-30-S | M 6 | 30 | 10.5 | 9.9 | 10.5 | - | 23.5 | - | 7 | 6 | - | - | 30 | 200 |

Sensor holders

for clamp mountings with threaded holes GN 478 / GN 484

SPECIFICATION

Stainless Steel AISI 303
matt-shot blasted

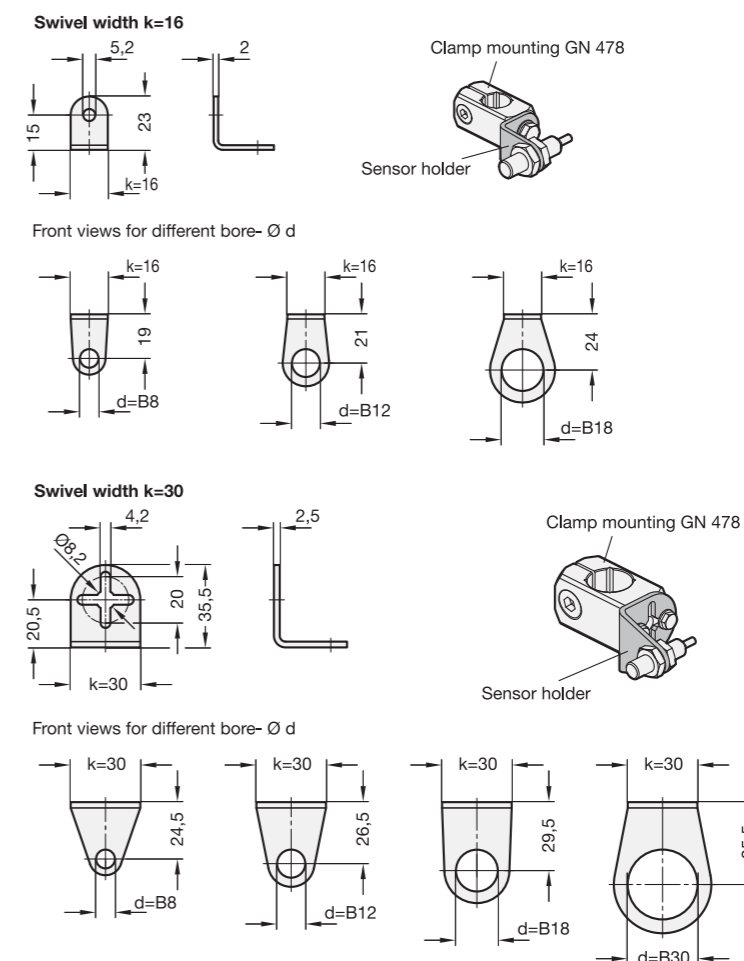
INFORMATION

The sensor holders GN 479 are designed for holding sensors attached with two lock nuts.

The attachment bore matches the central thread of clamp mountings GN 478 (see page 1884) and attachment clamp mountings GN 484 (see page 1892). For k=30, the cross-shaped slotted holes provide extra adjustability and allow the use of two fixing screws. Fixing screws have to be ordered separately.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 479

| Description | d | k | ⚖ |
|---------------|------|----|----|
| GN 479-B8-16 | B 8 | 16 | 9 |
| GN 479-B8-30 | B 8 | 30 | 24 |
| GN 479-B12-16 | B 12 | 16 | 10 |
| GN 479-B12-30 | B 12 | 30 | 26 |
| GN 479-B18-16 | B 18 | 16 | 13 |
| GN 479-B18-30 | B 18 | 30 | 30 |
| GN 479-B30-30 | B 30 | 30 | 36 |

Retaining plates

for clamp mountings with threaded holes
GN 478 / GN 484

SPECIFICATION

Stainless Steel AISI 303
matt-shot blasted

INFORMATION

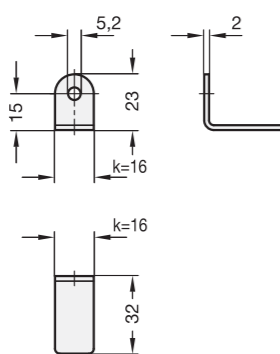
Retaining plates GN 479.1 are designed as universal mounting elements, e.g. for integrating specific hole patterns. The attachment bore matches the central thread of clamp mountings GN 478 (see page 1884) and attachment clamp mountings GN 484 (see page 1892). For k=30, the cross-shaped slotted holes provide extra adjustability and allow the use of two fixing screws. Fixing screws have to be ordered separately.

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



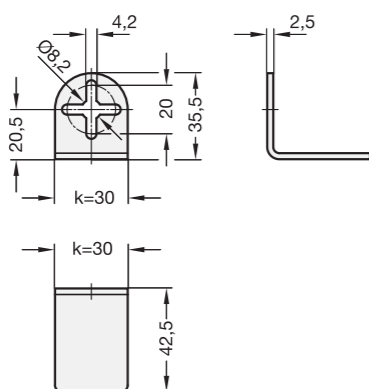
Swivel width k=16



Clamp mounting GN 478

Retaining plate

Swivel width k=30



Clamp mounting GN 478

Retaining plate

GN 479.1

STAINLESS STEEL

| Description | k | ⚖ |
|-------------|----|----|
| GN 479.1-16 | 16 | 10 |
| GN 479.1-30 | 30 | 37 |

Angled pieces for profile systems 30 / 40 / 45

for slot widths 8 / 10, assembly with T-Nuts / T-Slot bolts

SPECIFICATION

Types

- Type **A**: without assembly set, without cover
- Type **B**: with assembly set, with cover
- Type **C**: with assembly set, without cover

Aluminium
Die casting

matt shot-blasted **MT**

plastic coated
black, RAL 9005, textured finish **SW**
silver, RAL 9006, textured finish **SR**

T-Slot bolt GN 505.4 (see page 980)
with Hexagon flange nut DIN 6923
Steel

zinc plated, blue passivated

T-Nuts GN 505 (see page 979)
with Socket head cap screw DIN 7984
Steel

zinc plated, blue passivated

Cover

Plastic (Polyamide PA)
black, matt

INFORMATION

To fix the angle pieces GN 960 in place, insert the assembly sets into the profile slot through the opening. When tightened, the nut or screw will be cross-positioned and so anchored in the slot.

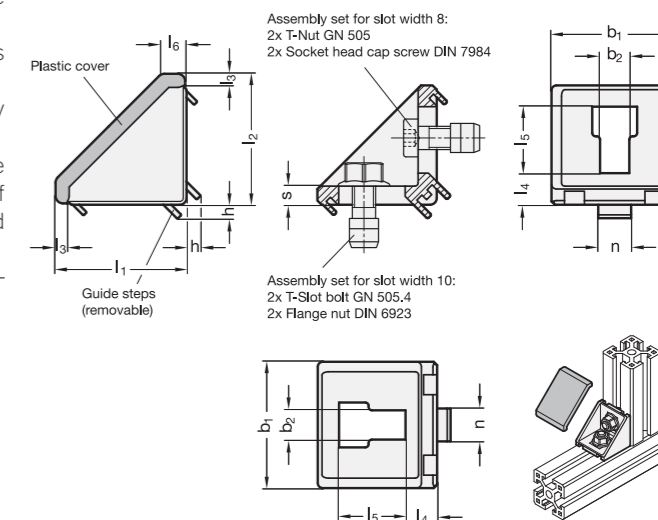
For crossing profiles or when using the angle piece with elements without slot, the superfluous guide steps can be simply broken out. After assembly, the cover caps are snapped into place via four lugs. They lend the angle piece an attractive appearance and protect against dirt. Even after repeated use, the cover caps will remain firmly in place inside the angle pieces thanks to the elastic snap-type lugs. If required, these are also available individually under standard GN 963 (see page 1900).

TECHNICAL INFORMATION

- Plastic characteristics (see page A2)

* Complete with Finish of the Angle pieces for profile systems

| MT | SW | SR |
|------|---------|---------|
| matt | RAL9005 | RAL9006 |



GN 960

| Description | b Nominal size | b Actual size | n | l1 | l2 | b2 | h | l3 | l4 | l5 | l6 | s | ⚖ |
|------------------------|----------------|---------------|----|----|----|-----|-----|----|------|------|------|-----|-----|
| GN 960-30-8-30-30-A-* | 30 | 28 | 8 | 30 | 30 | 6.3 | 2.1 | - | 9.7 | 10.4 | 6.8 | 5.9 | 23 |
| GN 960-40-10-40-40-A-* | 40 | 38 | 10 | 40 | 40 | 8.5 | 4.1 | - | 9.5 | 20 | 7.2 | 5.6 | 37 |
| GN 960-45-10-45-45-A-* | 45 | 43 | 10 | 45 | 45 | 8.5 | 4.1 | - | 15.7 | 18.7 | 11.5 | 9.7 | 63 |
| GN 960-30-8-30-30-B-* | 30 | 28 | 8 | 30 | 30 | 6.3 | 2.1 | 3 | 9.7 | 10.4 | 6.8 | 5.9 | 40 |
| GN 960-40-10-40-40-B-* | 40 | 38 | 10 | 40 | 40 | 8.5 | 4.1 | 4 | 9.5 | 20 | 7.2 | 5.6 | 80 |
| GN 960-45-10-45-45-B-* | 45 | 43 | 10 | 45 | 45 | 8.5 | 4.1 | 4 | 15.7 | 18.7 | 11.5 | 9.7 | 110 |
| GN 960-30-8-30-30-C-* | 30 | 28 | 8 | 30 | 30 | 6.3 | 2.1 | - | 9.7 | 10.4 | 6.8 | 5.9 | 40 |
| GN 960-40-10-40-40-C-* | 40 | 38 | 10 | 40 | 40 | 8.5 | 4.1 | - | 9.5 | 20 | 7.2 | 5.6 | 80 |
| GN 960-45-10-45-45-C-* | 45 | 43 | 10 | 45 | 45 | 8.5 | 4.1 | - | 15.7 | 18.7 | 11.5 | 9.7 | 110 |

Weight SW

Angled pieces for profile systems 30 / 40

for slot widths 6 / 8, assembly with T-nuts with guide step GN 506

SPECIFICATION

Types

- Type **A**: without assembly set, without cover
- Type **B**: with assembly set, with cover
- Type **C**: with assembly set, without cover

Aluminium
Die casting
matt shot-blasted **MT**

plastic coated
black, RAL 9005, textured finish **SW**
silver, RAL 9006, textured finish **SR**

T-Nuts with guide step GN 506 (see page 982)

Steel
zinc plated, blue passivated
Slotted fillister head screw ISO 7380

Steel
zinc plated, blue passivated

Cover
Plastic (Polyamide PA)
black, matt

INFORMATION

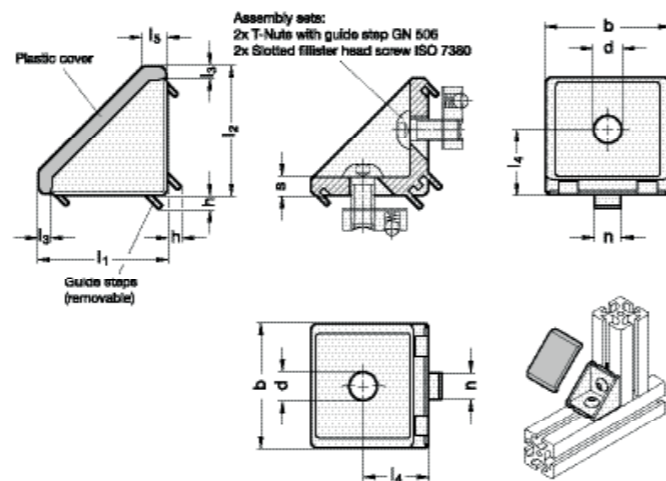
To fix the angle pieces GN 961 in place, first insert the nuts of the assembly set into the profile slot and fix the angle piece with the slotted fillister head screw. The guide step of the nut will then position these in parallel and centered to the slot; the spring element counteracts inadvertent sideways slip.

For crossing profiles or when using the angle piece with elements without slot, the superfluous guide steps can be simply broken out.

After assembly, the cover caps are snapped into place via four lugs. They lend the angle piece an attractive appearance and protect against dirt. Even after repeated use, the cover caps will remain firmly in place inside the angle pieces thanks to the elastic snap-type lugs. If required, these are also available individually under standard GN 963 (see page 1900).

TECHNICAL INFORMATION

- Plastic characteristics (see page A2)



* Complete with Finish of the Angle pieces for profile systems

MT matt
SW RAL9005
SR RAL9006

GN 961

| Description | b Nominal size | b Actual size | n | l1 | l2 | d | h | l3 | l4 | l5 | s | ⚖ |
|-----------------------|----------------|---------------|---|----|----|-----|-----|----|----|-----|-----|----|
| GN 961-30-6-30-30-A-* | 30 | 28 | 6 | 30 | 30 | 6.3 | 2.6 | 3 | 15 | 6.8 | 5.9 | 24 |
| GN 961-40-8-40-40-A-* | 40 | 38 | 8 | 40 | 40 | 8.5 | 4.1 | 4 | 20 | 7.2 | 5.6 | 40 |
| GN 961-30-6-30-30-B-* | 30 | 28 | 6 | 30 | 30 | 6.3 | 2.6 | 3 | 15 | 6.8 | 5.9 | 46 |
| GN 961-40-8-40-40-B-* | 40 | 38 | 8 | 40 | 40 | 8.5 | 4.1 | 4 | 20 | 7.2 | 5.6 | 80 |
| GN 961-30-6-30-30-C-* | 30 | 28 | 6 | 30 | 30 | 6.3 | 2.6 | 3 | 15 | 6.8 | 5.9 | 40 |
| GN 961-40-8-40-40-C-* | 40 | 38 | 8 | 40 | 40 | 8.5 | 4.1 | 4 | 20 | 7.2 | 5.6 | 80 |

Weight SW

Angles for profile structures

Technopolymer

MATERIAL

Glass-fibre reinforced polyamide based (PA) technopolymer, grey colour similar to RAL 7046, matte finish.

STANDARD EXECUTIONS

- **SQT-A**: with two slots for M8 screws.
- **SQT-F**: with two holes for M8 screws and centering slides.
- **SQT-AF**: with slot and hole for M8 screws and centering slides. In case of assembly with the screws in the slots, we suggest you use screws type UNI 9327.

In case of assembly with the screws in the slots, we suggest you use screws type UNI 9327.

FEATURES AND APPLICATIONS

SQT. connecting angles are particularly suitable for the assembly, in a very easy way, of structures made out of aluminium profiles for safety protections of machines and equipment.

The shape, the sections and the material used guarantee high mechanical characteristics of rigidity, dimensional stability and high resistance to temperature.

TECHNICAL DATA

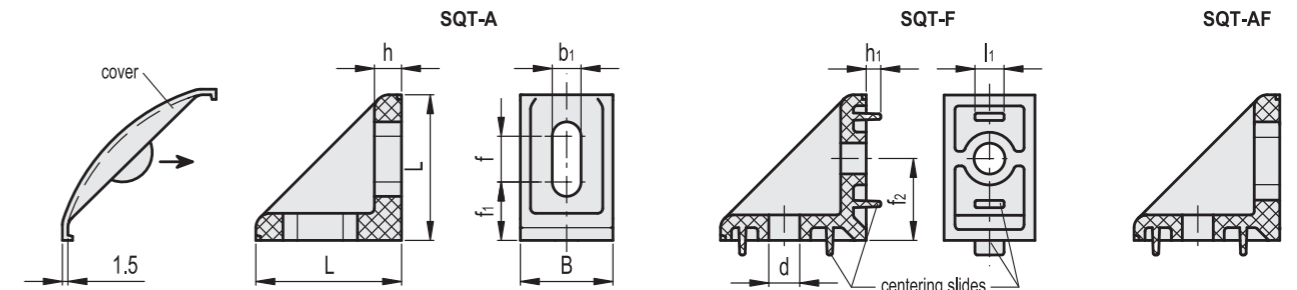
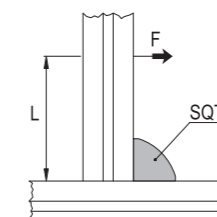
For the correct use, the stresses applied to the angles must satisfy the conditions indicated hereunder.

| Code | Description | Covers for |
|--------|--------------|------------|
| 156101 | CO.SQT.40-18 | SQT.40-18 |
| 156103 | CO.SQT.40-25 | SQT.40-25 |
| 156105 | CO.SQT.43-43 | SQT.43-43 |

ACCESSORIES ON REQUEST

Polyester based (PBT) technopolymer covers series CO.SQT, grey colour similar to RAL 7046, semi-glossy finish, in order to avoid any deposit of dirt and dust inside the angles.

| Description | F [N] | F•L [Nm] |
|-------------|-------|----------|
| SQT.40-18 | < 600 | < 25 |
| SQT.40-25 | < 700 | < 30 |
| SQT.43-43 | < 750 | < 35 |



| Code | Description | L | B | h | h1 | l1 | b1 | f | f1 | f2 | d | C# [Nm] | ⚖ |
|--------|----------------|----|------|---|----|----|-----|----|------|------|-----|---------|----|
| 156111 | SQT.40-18-A-8 | 40 | 18.5 | 7 | - | - | 8.5 | 13 | 14.5 | - | - | 5 | 12 |
| 156113 | SQT.40-18-F-8 | 40 | 18.5 | 7 | 4 | 8 | - | - | - | 22.5 | 8.5 | 5 | 14 |
| 156115 | SQT.40-18-AF-8 | 40 | 18.5 | 7 | 4 | 8 | 8.5 | 13 | 14.5 | 22.5 | 8.5 | 5 | 13 |
| 156121 | SQT.40-25-A-8 | 40 | 25 | 7 | - | - | 8.5 | 13 | 14.5 | - | - | 5 | 18 |
| 156123 | SQT.40-25-F-8 | 40 | 25 | 7 | 4 | 8 | - | - | - | 22.5 | 8.5 | 5 | 20 |
| 156125 | SQT.40-25-AF-8 | 40 | 25 | 7 | 4 | 8 | 8.5 | 13 | 14.5 | 22.5 | 8.5 | 5 | 19 |
| 156131 | SQT.43-43-A-8 | 43 | 43 | 8 | - | - | 8.5 | 13 | 17 | - | - | 5 | 32 |

Suggested tightening torque for assembly screws.

Cover caps

for angle pieces for profile systems

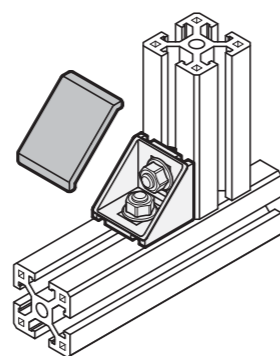
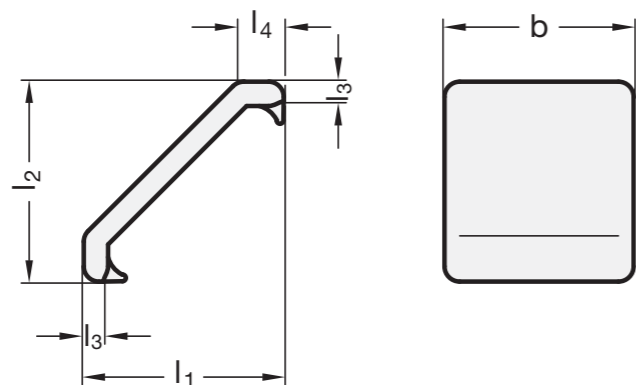
SPECIFICATION

Plastic (Polyamide PA)
black, RAL 9005, textured finish **SW**

INFORMATION

The cover caps GN 963 are suitable for use with angle pieces for profile systems GN 960 (see page 1897) and GN 961 (see page 1898). After assembly the angle pieces, the cover caps are snapped into place via four lugs. They lend the angle piece an attractive appearance and protect against dirt.

Even after repeated use, the cover caps will remain firmly in place inside the angle pieces thanks to the elastic snap-type lugs.



GN 963

| Description | b Nominal size | b Actual size | l1 | l2 | l3 | l4 | △ |
|--------------------|----------------|---------------|----|----|----|------|---|
| GN 963-30-30-30-SW | 30 | 28 | 30 | 30 | 3 | 6.8 | 3 |
| GN 963-40-40-40-SW | 40 | 38 | 40 | 40 | 4 | 7.2 | 6 |
| GN 963-45-45-45-SW | 45 | 43 | 45 | 45 | 4 | 11.5 | 9 |

Tube end plugs

for construction tubes GN 990

SPECIFICATION

Plastic (Polyethylen PE)
black

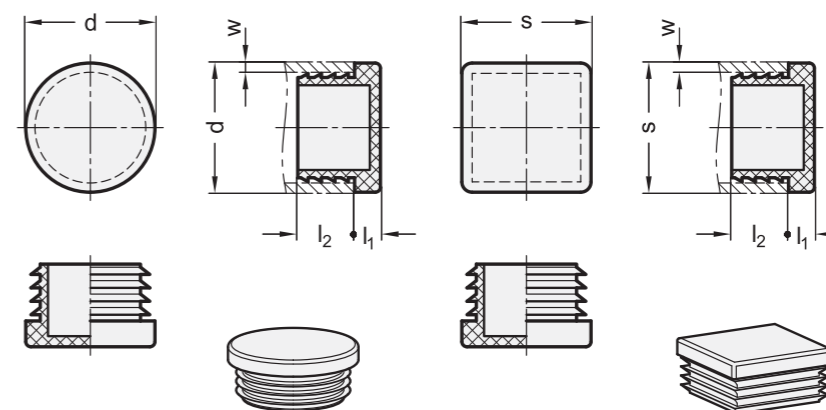
INFORMATION

Tube end plugs GN 991 have been designed for sealing tube ends for safety or optical reasons.

They are pressed into the tube end either by hand or with a mallet.

TECHNICAL INFORMATION

- Plastic characteristics (see page A2)



GN 991

| Description | d | w | l1 | l2 | For tube GN 990 | △ |
|-------------|------|-------|-----|------|-----------------|----|
| GN 991-D10 | D 10 | 1...2 | 3.5 | 11 | D 10 | 1 |
| GN 991-D12 | D 12 | 1...2 | 3.5 | 11 | D 12 | 1 |
| GN 991-D14 | D 14 | 1...2 | 5 | 11.5 | D 14 | 1 |
| GN 991-D15 | D 15 | 1...2 | 3 | 11.5 | D 15 | 1 |
| GN 991-D16 | D 16 | 1...2 | 5 | 11 | D 16 | 1 |
| GN 991-D18 | D 18 | 1...2 | 5 | 11.5 | D 18 | 2 |
| GN 991-D20 | D 20 | 1...2 | 5 | 11.5 | D 20 | 2 |
| GN 991-D25 | D 25 | 1...2 | 5 | 11.5 | D 25 | 3 |
| GN 991-D30 | D 30 | 1...2 | 5 | 11.5 | D 30 | 3 |
| GN 991-D32 | D 32 | 1...2 | 5 | 12 | D 32 | 4 |
| GN 991-D35 | D 35 | 1...2 | 5 | 11.5 | D 35 | 5 |
| GN 991-D40 | D 40 | 1...2 | 5 | 11.5 | D 40 | 6 |
| GN 991-D42 | D 42 | 1...2 | 5 | 11.5 | D 42 | 6 |
| GN 991-D45 | D 45 | 1...2 | 5 | 11 | D 45 | 7 |
| GN 991-D48 | D 48 | 1...2 | 5 | 11.5 | D 48 | 8 |
| GN 991-D50 | D 50 | 1...2 | 5 | 11.5 | D 50 | 10 |
| GN 991-D55 | D 55 | 1...2 | 5 | 14.5 | D 55 | 11 |
| GN 991-D60 | D 60 | 1...2 | 5 | 17.5 | D 60 | 14 |

GN 991

| Description | s | w | l1 | l2 | For tube GN 990 | △ |
|-------------|------|-----------|----|-----|-----------------|----|
| GN 991-V10 | V 10 | 0.8...2.5 | 4 | 8 | V 10 | 1 |
| GN 991-V12 | V 12 | 1...2 | 4 | 8 | V 12 | 1 |
| GN 991-V16 | V 16 | 1...2.5 | 5 | 6.5 | V 16 | 3 |
| GN 991-V20 | V 20 | 1...3 | 5 | 6.5 | V 20 | 3 |
| GN 991-V25 | V 25 | 1...3 | 5 | 6.5 | V 25 | 4 |
| GN 991-V30 | V 30 | 1...3 | 5 | 6.5 | V 30 | 4 |
| GN 991-V35 | V 35 | 1...3 | 5 | 9.5 | V 35 | 7 |
| GN 991-V40 | V 40 | 1...3 | 5 | 9.5 | V 40 | 10 |
| GN 991-V45 | V 45 | 1...3 | 5 | 9.5 | V 45 | 10 |
| GN 991-V50 | V 50 | 2.6...4 | 5 | 9.5 | V 50 | 16 |

Connecting clamps

Technopolymer

STANDARD COMPONENTS

- **MSX-B base:** glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish. Fitting by means of a stainless steel M5 cylindrical-head screw with hexagon socket and nut.
- **MSX-C T-shaped clamp:** glass-fibre reinforced technopolymer, black colour, matte finish. Fitting by means of stainless steel M5 cylindrical-head screws with hexagon socket and nuts.
- **MSX-TA-TB-TC-TD-TE-TF device clamps:** glass-fibre reinforced technopolymer, black colour, matte finish. Fitting by means of a stainless steel M5 cylindrical-head screw with hexagon socket and nut.

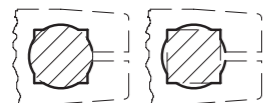
FEATURES AND APPLICATIONS

The geometry of the holes of MSX. series connecting clamps are designed to fit both tubes with round cross section and tubes with square cross section; the latter prevents the elements from rotating (see Fig. 1).

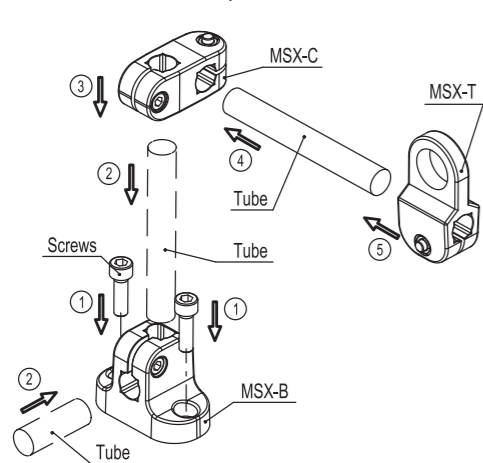
ASSEMBLY INSTRUCTIONS

1. Assemble the base by means of 2 M6 cylindrical head screws with hexagon socket (not supplied).
2. Fit the connecting tube into the hole of the base and clamp it by screwing the set screw. Suggested tightening torque 5Nm.
3. Insert the connecting tube in the shaped hole of the two-way clamp.
4. Fit the other connecting tube into the hole of the two-way clamp.
5. Fit on the connecting tube the proper device clamp, chosen within the six available. After the positioning of the components, clamp them by screwing the set screws. Suggested tightening torque 5Nm.

Fig.1



Assembly instructions



FMD design



MSX-B

| Code | Description | d | s | Pull out resistance# [N] | Rotation resistance# [Nm] | ⚖️ |
|--------|----------------|----|----|--------------------------|---------------------------|----|
| 440101 | MSX.56-B-8-10 | 10 | 8 | 900 | 4 | 32 |
| 440102 | MSX.56-B-10-12 | 12 | 10 | 1000 | 4.5 | 31 |
| 440103 | MSX.56-B-12-14 | 14 | 12 | 1100 | 5 | 28 |

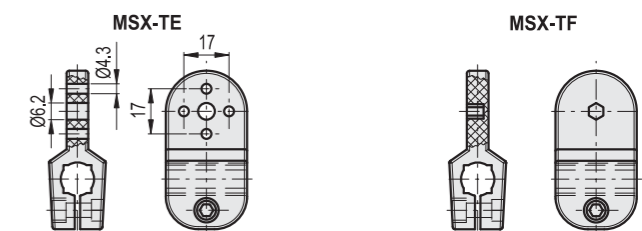
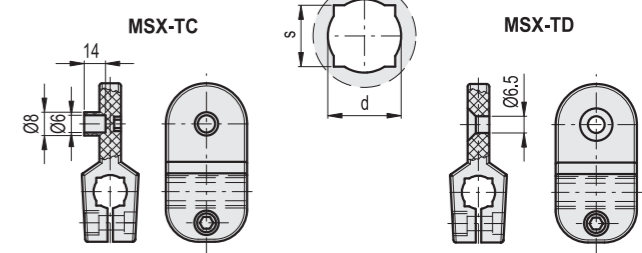
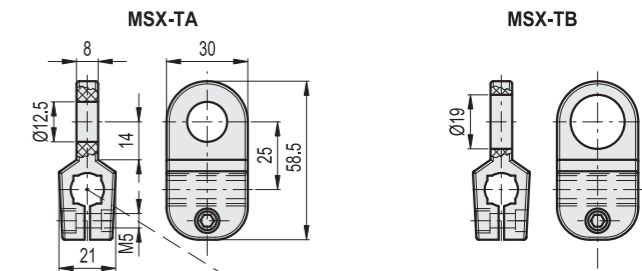
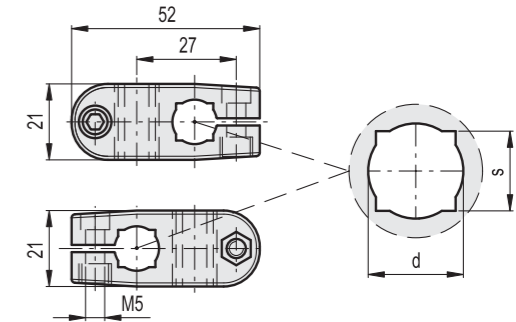
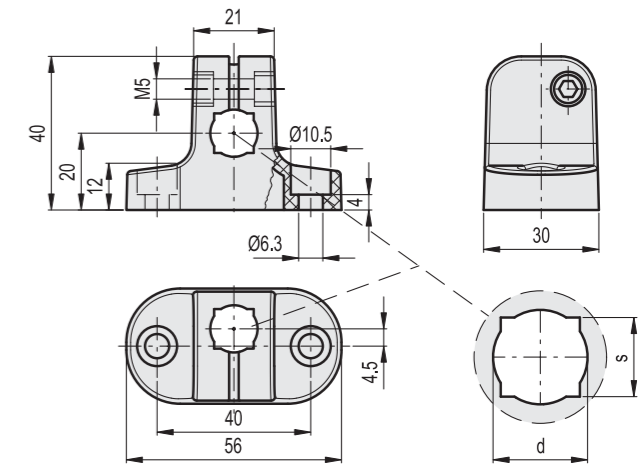
MSX-C

| Code | Description | d | s | Pull out resistance# [N] | Rotation resistance# [Nm] | ⚖️ |
|--------|----------------|----|----|--------------------------|---------------------------|----|
| 440121 | MSX.56-C-8-10 | 10 | 8 | 900 | 4.5 | 24 |
| 440122 | MSX.56-C-10-12 | 12 | 10 | 1000 | 5 | 23 |
| 440123 | MSX.56-C-12-14 | 14 | 12 | 1100 | 5.5 | 20 |

MSX-TA-TB-TC-TD-TE-TF

| Code | Description | d | s | Pull out resistance# [N] | Rotation resistance# [Nm] | ⚖️ |
|--------|-----------------|----|----|--------------------------|---------------------------|----|
| 440131 | MSX.56-TA-8-10 | 10 | 8 | 900 | 4 | 23 |
| 440132 | MSX.56-TA-10-12 | 12 | 10 | 1000 | 4.5 | 22 |
| 440133 | MSX.56-TA-12-14 | 14 | 12 | 1100 | 5 | 21 |
| 440135 | MSX.56-TB-8-10 | 10 | 8 | 900 | 4 | 21 |
| 440136 | MSX.56-TB-10-12 | 12 | 10 | 1000 | 4.5 | 20 |
| 440137 | MSX.56-TB-12-14 | 14 | 12 | 1100 | 5 | 19 |
| 440139 | MSX.56-TC-8-10 | 10 | 8 | 900 | 4 | 25 |
| 440140 | MSX.56-TC-10-12 | 12 | 10 | 1000 | 4.5 | 24 |
| 440141 | MSX.56-TC-12-14 | 14 | 12 | 1100 | 5 | 23 |
| 440143 | MSX.56-TD-8-10 | 10 | 8 | 900 | 4 | 24 |
| 440144 | MSX.56-TD-10-12 | 12 | 10 | 1000 | 4.5 | 23 |
| 440145 | MSX.56-TD-12-14 | 14 | 12 | 1100 | 5 | 22 |
| 440147 | MSX.56-TE-8-10 | 10 | 8 | 900 | 4 | 23 |
| 440148 | MSX.56-TE-10-12 | 12 | 10 | 1000 | 4.5 | 22 |
| 440149 | MSX.56-TE-12-14 | 14 | 12 | 1100 | 5 | 21 |
| 440151 | MSX.56-TF-8-10 | 10 | 8 | 900 | 4 | 24 |
| 440152 | MSX.56-TF-10-12 | 12 | 10 | 1000 | 4.5 | 23 |
| 440153 | MSX.56-TF-12-14 | 14 | 12 | 1100 | 5 | 22 |

Tests carried out with round tube.



Connecting clamps

Technopolymer and aluminium

STANDARD COMPONENTS

- **MSR.60-B base:** glass-fibre reinforced polyamide based (PA) technopolymer, black colour, matte finish.
- **CC-MSR.60 screw covers:** technopolymer in six colours, glossy finish. Supplied, push-fit assembly, removable by a screwdriver. Available also as accessories sold separately (see table CC-MSR).

| Code | Description | Boss cap for |
|----------|-------------|--------------|
| 440011-* | CC-MSR.60-* | MSR.60-B |

* Complete with colour index (C1, ..., C6).

- **MSR.60-C Two-way clamp:** glass-fibre reinforced technopolymer, black colour, matte finish.
- **MSR.60-TA-TB-TC-TD-TE-TF device clamps:** glass-fibre reinforced technopolymer, black colour, matte finish.
- **MSR.60-T13 connecting tubes:** aluminium profile available with standard lengths from 100 to 2000 mm. On request and for sufficient quantities other lengths are available.
- **Connecting tube closing caps:** glass-fibre reinforced technopolymer, black colour, matte finish. Supplied, push-fit assembly. To be ordered also separately (code 440016 description TC13-MSR.60).

FEATURES AND APPLICATIONS

MSR. connecting clamps, designed according to ELESA patent, allow an easy and efficient connection between the components, preventing the risk of rotating freely. The system allows the axial, perpendicular or angled positioning of the connecting tube to the base.

ADVANTAGES

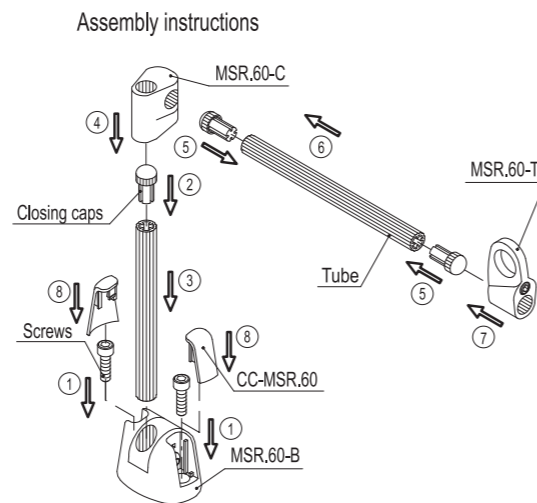
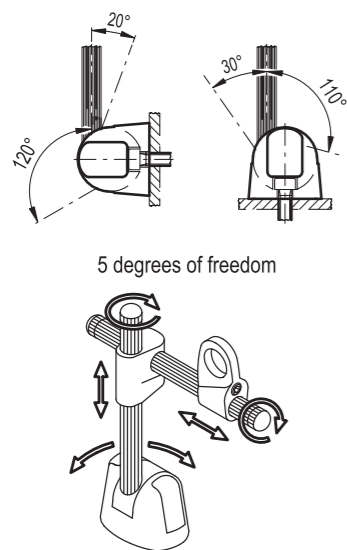
- The slot-shaped connecting tube preventing free rotation.
- Tube and components clamped by the aid of only one screw.
- Easy adjustments by five degrees of freedom of the clamped devices (see drawing).
- Lack of cavities to avoid the deposit of dirt and undesired substances.
- Easy identification of the clamped device using different coloured caps on the base.



FMdesign

ASSEMBLY INSTRUCTIONS

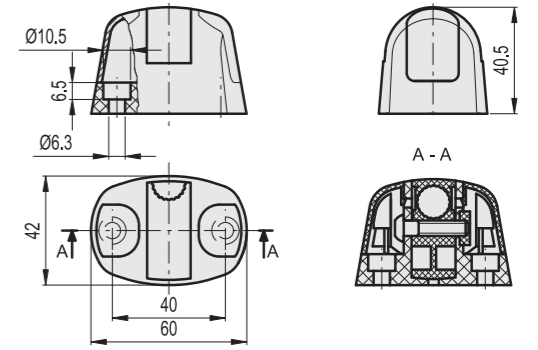
1. Assemble the base by means of 2 M6 cylindrical head screws with hexagon socket (not supplied).
2. Fit one of the closing caps to the end of the connecting tube by tapping gently with a plastic mallet until firmly in place. Be careful not to assemble the cap to the end fitted to the base.
3. Insert the connecting tube in the shaped hole of the base and clamp it by screwing the set screw. Suggested tightening torque 5 Nm.
4. Insert the connecting tube in the shaped hole of the two-way clamp.
5. Fit the closing caps to the connecting tube.
6. Insert the connecting tube in the shaped hole of the two-way clamp.
7. Fit on the connecting tube the proper device clamp, chosen within the six available. After the positioning of the components, clamp them by screwing the set screws. Suggested tightening torque 3 Nm. We recommend not to exceed this value.
8. Once the adjustment has been set, fit the screw covers on the base.



* Complete with colour index, example: 440001-C9 MSR.60-B-C9
 C9 C2 C3 C4 C5 C6
 RAL9005 RAL2004 RAL7035 RAL1021 RAL5024 RAL3000

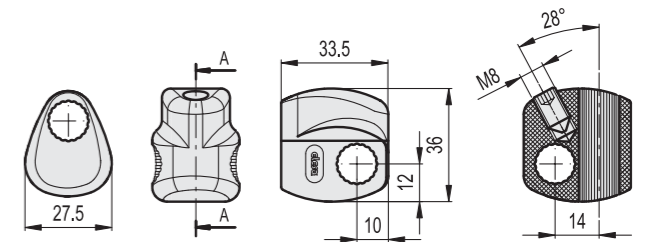
MSR.60-B

| Code | Description | Pull out resistance [N] | ⚖️ |
|----------|-------------|-------------------------|----|
| 440001-* | MSR.60-B-* | 300 | 50 |



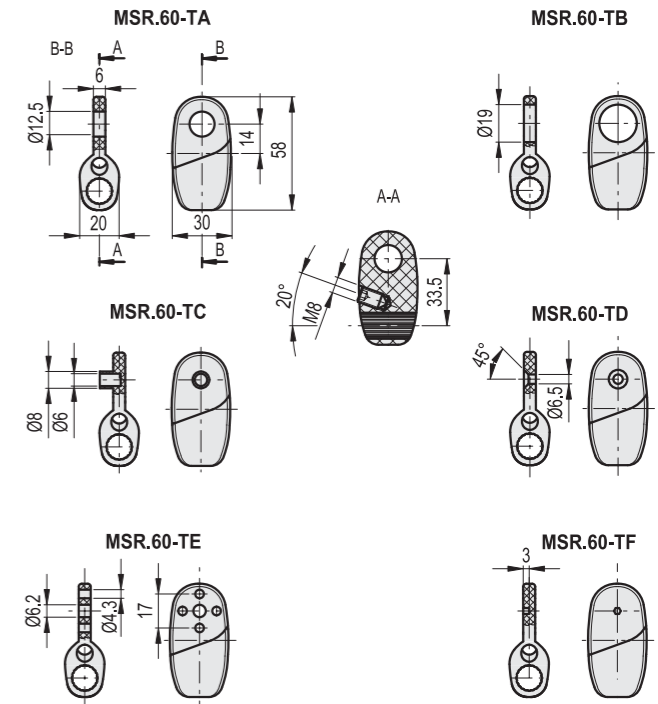
MSR.60-C

| Code | Description | Pull out resistance [N] | ⚖️ |
|--------|-------------|-------------------------|----|
| 440021 | MSR.60-C | 300 | 19 |



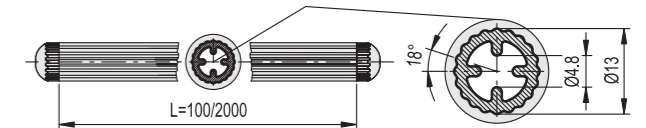
MSR.60-TA-TB-TC-TD-TE-TF

| Code | Description | Pull out resistance [N] | ⚖️ |
|--------|-------------|-------------------------|----|
| 440031 | MSR.60-TA | 300 | 18 |
| 440032 | MSR.60-TB | 300 | 17 |
| 440033 | MSR.60-TC | 300 | 19 |
| 440034 | MSR.60-TD | 300 | 18 |
| 440035 | MSR.60-TE | 300 | 18 |
| 440036 | MSR.60-TF | 300 | 20 |

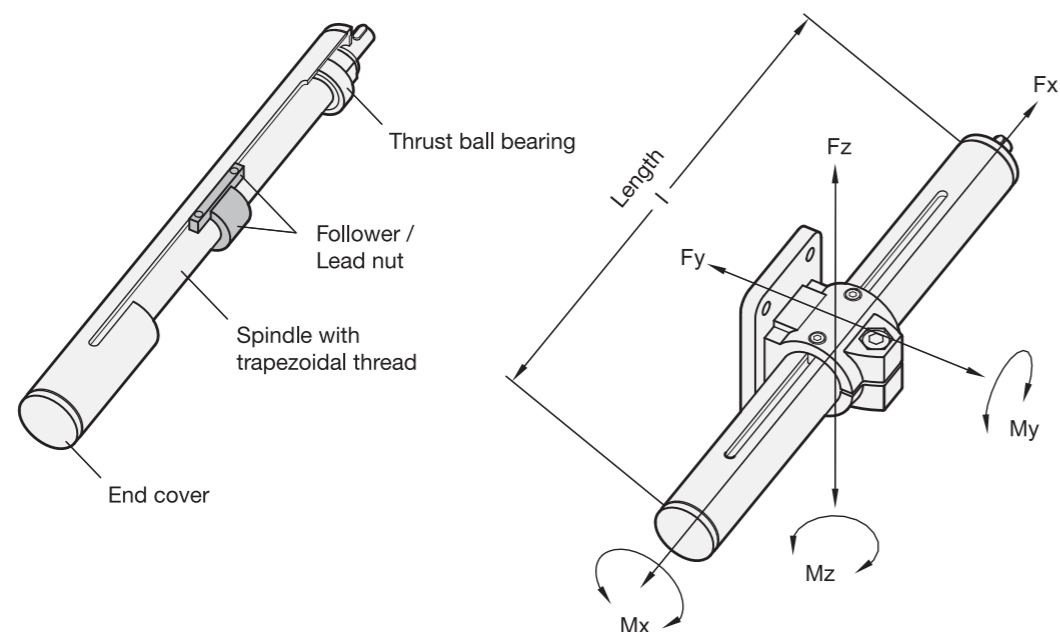


MSR.60-T13

| Code | Description | L | ⚖️ |
|--------|------------------|------|-----|
| 440050 | MSR.60-T13-100 | 100 | 20 |
| 440055 | MSR.60-T13-150 | 150 | 28 |
| 440060 | MSR.60-T13-200 | 200 | 36 |
| 440065 | MSR.60-T13-250 | 250 | 44 |
| 440070 | MSR.60-T13-300 | 300 | 52 |
| 440200 | MSR.60-T13-2000* | 2000 | 320 |



* Supplied without closing caps.



| Ø Linear actuator | Fx in N | Fy in N | | | Fz in N | | | Mx in Nm | My in Nm | Mz in Nm |
|-------------------|---------|---------|--------|--------|---------|--------|--------|----------|----------|----------|
| | | l=500 | l=1000 | l=1500 | l=500 | l=1000 | l=1500 | | | |
| 18 | 400 | 80 | - | - | 65 | - | - | 1.5 | 4.5 | 4.5 |
| 30 | 850 | 500 | 70 | 15 | 550 | 55 | 10 | 6.5 | 15 | 15 |
| 40 | 1100 | 2150 | 250 | 65 | 1900 | 150 | 50 | 15 | 42 | 42 |
| 50 | 1750 | 3100 | 650 | 150 | 3100 | 650 | 150 | 29 | 69 | 69 |
| 60 | 2600 | 4550 | 1500 | 400 | 4550 | 1400 | 350 | 45 | 125 | 125 |

The load data are applicable to linear actuators GN 291 (see page 1912), GN 292 (see page 1914), GN 293 (see page 1915) made of Steel (SCR) or Stainless Steel (NI).

The specified forces Fy and Fz cause a flexure of the guide tube of approx. 0.5 mm.

A lead nut moves in axial direction over the ball bearing trapezoidal thread spindle of the linear actuator. The follower ensures the anti-rotation and makes the link to the different linear actuator connectors. The linear actuators have been designed for manual operation (handwheel).

The positioning accuracy is 0.2 mm / 300 mm stroke, the maximum reverse play is 0.1 mm.

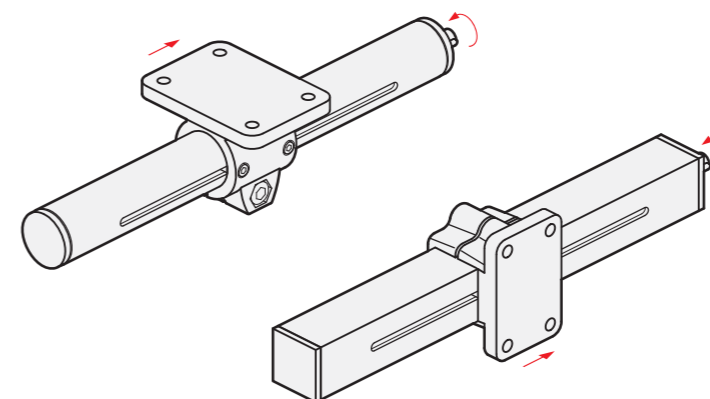
Guide tubes are available in chromed Steel (SCR) or Stainless Steel (NI) non-rusting. They are made with the tolerance range of precision steel tubes DIN 2391 or DIN 2462.

A wide variety of different components are available in the tube clamp connector program to fix the linear actuators in place and to upgrade these into linear actuator connectors.

Also, digital position indicators (DD52, see page 721 / DD51, see page 718 / DD52R-E, see page 726 / DD51-E, see page 724) may be attached to measure the displacement or the positioning.

In applications where high torsion forces Mx occur, linear actuators with square tubing or double tube linear actuators should be given preference.

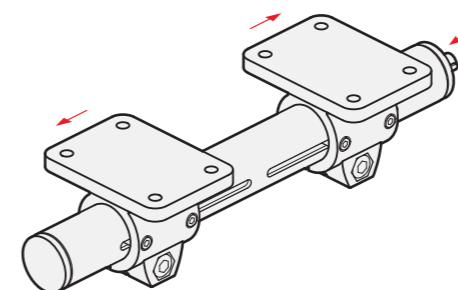
A wide variety of different components from the tube clamp connector program is also available for the square tubings. The linear actuator connectors are composed of two-part elements, with the effect that the precision of the square tubes involves no special requirements.



DESCRIPTION

Linear actuator **GN 291** (see page 1912) with right **or** left hand thread, with shaft journal at either one or both ends, with a linear actuator connector **GN 146.1** (see page 1923).

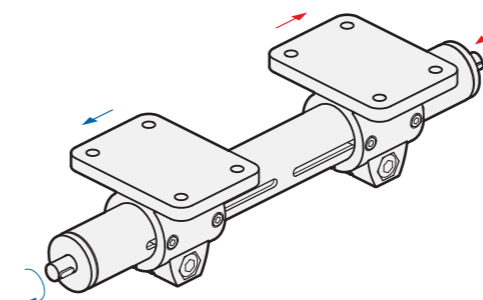
Square linear actuator GN 291.1 (see page 1930) with right **or** left hand thread, shaft journal at either one or both ends, with a linear actuator connector **GN 147.1** (see page 1933).



DESCRIPTION

Linear actuator **GN 292** (see page 1914) with left **and** right hand thread, shaft journal at either one or both ends, with two linear actuator connectors **GN 146.1** (see page 1923), the two connectors move symmetrically.

Square linear actuators **GN 292.1** on request.



DESCRIPTION

Linear actuator **GN 293** (see page 1915) with two separate threaded spindles, each with right **or** left hand thread with two linear actuator connectors **GN 146.1** (see page 1923), the two connectors move independently of one another.

Square linear actuators **GN 293.1** on request.

Linear actuators

Steel / Stainless Steel, with right or left hand thread

SPECIFICATION

Types

- Type **R1**: Right hand thread, shaft journal at one end
- Type **R2***: Right hand thread, shaft journal at both ends
- Type **L1**: Left hand thread, shaft journal at one end
- Type **L2***: Left hand thread, shaft journal at both ends

* usually not available from stock

Guide tube

Version in Steel

Tube DIN 2391
Steel, chrome-plated **SCR**

Version in Stainless Steel*

Tube DIN 2462
Stainless Steel AISI 304 **NI**

* usually not available from stock

Spindle with trapezoidal thread

- Steel respectively, Stainless Steel AISI 303
- ball bearing

Lead nut

Gunmetal

End cap

Plastic

INFORMATION

In addition to the standard stroke lengths specified in the above table for linear actuators GN 291 any stroke inside the maximum stroke length is available.

Besides the extensive range of tube clamp connectors there are a number of different components for fixing the linear actuators and to build linear actuator connectors.

In order to measure the displacement and positioning of the linear actuator connectors, digital as well as analogue position indicators can be installed and furthermore the guide tube can be provided with a longitudinal scale.



ACCESSORY

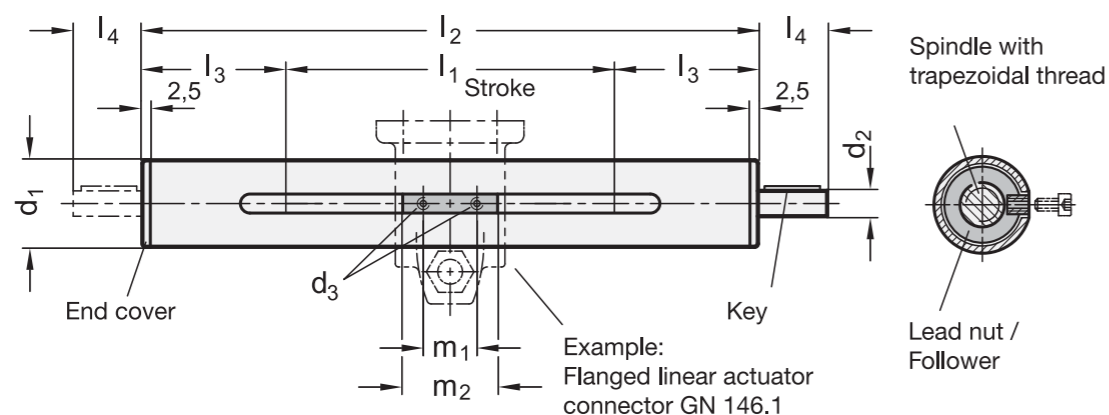
- Linear actuator connectors, tube clamp connectors have to be ordered separately.

ON REQUEST

- Tube DIN 2462 in Stainless Steel **NI**

TECHNICAL INFORMATION

- ISO-Fundamental Tolerances (see page A21)
- Stainless Steel characteristics (see page A26)
- Technical description of Linear actuators (see page 1910)



GN 291

| Description | d1 | l1 | Max. stroke | Threaded spindle | d2 f7 | d3 | l2 | l3 | l4 | m1 | m2 | For key DIN 6885 | ⚖ |
|----------------------|----|-----|-------------|------------------|-------|-----|--------|-------|----|----|----|------------------|-------|
| GN 291-18-65-R1-SCR | 18 | 65 | 350 | TR10x3 | 6 | M 3 | l1+140 | 70 | 16 | 17 | 24 | A2x2x12 | 230 |
| GN 291-18-165-R1-SCR | 18 | 165 | 350 | TR10x3 | 6 | M 3 | l1+140 | 70 | 16 | 17 | 24 | A2x2x12 | 330 |
| GN 291-18-265-R1-SCR | 18 | 265 | 350 | TR10x3 | 6 | M 3 | l1+140 | 70 | 16 | 17 | 24 | A2x2x12 | 430 |
| GN 291-30-100-R1-SCR | 30 | 100 | 1250 | TR14x4 | 8 | M 4 | l1+205 | 102.5 | 16 | 23 | 38 | A2x2x12 | 780 |
| GN 291-30-150-R1-SCR | 30 | 150 | 1250 | TR14x4 | 8 | M 4 | l1+205 | 102.5 | 16 | 23 | 38 | A2x2x12 | 890 |
| GN 291-30-200-R1-SCR | 30 | 200 | 1250 | TR14x4 | 8 | M 4 | l1+205 | 102.5 | 16 | 23 | 38 | A2x2x12 | 1000 |
| GN 291-30-300-R1-SCR | 30 | 300 | 1250 | TR14x4 | 8 | M 4 | l1+205 | 102.5 | 16 | 23 | 38 | A2x2x12 | 1210 |
| GN 291-40-70-R1-SCR | 40 | 70 | 1570 | TR20x4 | 12 | M 5 | l1+235 | 117.5 | 17 | 42 | 54 | A4x4x12 | 1640 |
| GN 291-40-170-R1-SCR | 40 | 170 | 1570 | TR20x4 | 12 | M 5 | l1+235 | 117.5 | 17 | 42 | 54 | A4x4x12 | 2080 |
| GN 291-40-220-R1-SCR | 40 | 220 | 1570 | TR20x4 | 12 | M 5 | l1+235 | 117.5 | 17 | 42 | 54 | A4x4x12 | 2310 |
| GN 291-40-270-R1-SCR | 40 | 270 | 1570 | TR20x4 | 12 | M 5 | l1+235 | 117.5 | 17 | 42 | 54 | A4x4x12 | 2530 |
| GN 291-40-320-R1-SCR | 40 | 320 | 1570 | TR20x4 | 12 | M 5 | l1+235 | 117.5 | 17 | 42 | 54 | A4x4x12 | 2750 |
| GN 291-50-65-R1-SCR | 50 | 65 | 1565 | TR20x4 | 12 | M 6 | l1+240 | 120 | 18 | 42 | 54 | A4x4x12 | 2410 |
| GN 291-50-115-R1-SCR | 50 | 115 | 1565 | TR20x4 | 12 | M 6 | l1+240 | 120 | 18 | 42 | 54 | A4x4x12 | 2720 |
| GN 291-50-215-R1-SCR | 50 | 215 | 1565 | TR20x4 | 12 | M 6 | l1+240 | 120 | 18 | 42 | 54 | A4x4x12 | 3000 |
| GN 291-50-265-R1-SCR | 50 | 265 | 1565 | TR20x4 | 12 | M 6 | l1+240 | 120 | 18 | 42 | 54 | A4x4x12 | 3670 |
| GN 291-50-315-R1-SCR | 50 | 315 | 1565 | TR20x4 | 12 | M 6 | l1+240 | 120 | 18 | 42 | 54 | A4x4x12 | 3990 |
| GN 291-60-220-R1-SCR | 60 | 220 | 1520 | TR24x5 | 14 | M 8 | l1+285 | 142.5 | 19 | 58 | 70 | A5x5x16 | 5300 |
| GN 291-60-720-R1-SCR | 60 | 720 | 1520 | TR24x5 | 14 | M 8 | l1+285 | 142.5 | 19 | 58 | 70 | A5x5x16 | 10000 |
| GN 291-18-65-L1-SCR | 18 | 65 | 350 | TR10x3 | 6 | M 3 | l1+140 | 70 | 16 | 17 | 24 | A2x2x12 | 230 |
| GN 291-18-165-L1-SCR | 18 | 165 | 350 | TR10x3 | 6 | M 3 | l1+140 | 70 | 16 | 17 | 24 | A2x2x12 | 330 |
| GN 291-18-265-L1-SCR | 18 | 265 | 350 | TR10x3 | 6 | M 3 | l1+140 | 70 | 16 | 17 | 24 | A2x2x12 | 430 |
| GN 291-30-100-L1-SCR | 30 | 100 | 1250 | TR14x4 | 8 | M 4 | l1+205 | 102.5 | 16 | 23 | 38 | A2x2x12 | 780 |
| GN 291-30-150-L1-SCR | 30 | 150 | 1250 | TR14x4 | 8 | M 4 | l1+205 | 102.5 | 16 | 23 | 38 | A2x2x12 | 890 |
| GN 291-30-200-L1-SCR | 30 | 200 | 1250 | TR14x4 | 8 | M 4 | l1+205 | 102.5 | 16 | 23 | 38 | A2x2x12 | 1000 |
| GN 291-30-300-L1-SCR | 30 | 300 | 1250 | TR14x4 | 8 | M 4 | l1+205 | 102.5 | 16 | 23 | 38 | A2x2x12 | 1210 |
| GN 291-40-70-L1-SCR | 40 | 70 | 1570 | TR20x4 | 12 | M 5 | l1+235 | 117.5 | 17 | 42 | 54 | A4x4x12 | 1640 |
| GN 291-40-170-L1-SCR | 40 | 170 | 1570 | TR20x4 | 12 | M 5 | l1+235 | 117.5 | 17 | 42 | 54 | A4x4x12 | 2080 |
| GN 291-40-220-L1-SCR | 40 | 220 | 1570 | TR20x4 | 12 | M 5 | l1+235 | 117.5 | 17 | 42 | 54 | A4x4x12 | 2310 |
| GN 291-40-270-L1-SCR | 40 | 270 | 1570 | TR20x4 | 12 | M 5 | l1+235 | 117.5 | 17 | 42 | 54 | A4x4x12 | 2530 |
| GN 291-40-320-L1-SCR | 40 | 320 | 1570 | TR20x4 | 12 | M 5 | l1+235 | 117.5 | 17 | 42 | 54 | A4x4x12 | 2750 |
| GN 291-50-65-L1-SCR | 50 | 65 | 1565 | TR20x4 | 12 | M 6 | l1+240 | 120 | 18 | 42 | 54 | A4x4x12 | 3000 |
| GN 291-50-115-L1-SCR | 50 | 115 | 1565 | TR20x4 | 12 | M 6 | l1+240 | 120 | 18 | 42 | 54 | A4x4x12 | 2720 |
| GN 291-50-215-L1-SCR | 50 | 215 | 1565 | TR20x4 | 12 | M 6 | l1+240 | 120 | 18 | 42 | 54 | A4x4x12 | 3360 |
| GN 291-50-265-L1-SCR | 50 | 265 | 1565 | TR20x4 | 12 | M 6 | l1+240 | 120 | 18 | 42 | 54 | A4x4x12 | 3670 |
| GN 291-50-315-L1-SCR | 50 | 315 | 1565 | TR20x4 | 12 | M 6 | l1+240 | 120 | 18 | 42 | 54 | A4x4x12 | 3990 |
| GN 291-60-220-L1-SCR | 60 | 220 | 1520 | TR24x5 | 14 | M 8 | l1+285 | 142.5 | 19 | 58 | 70 | A5x5x16 | 5300 |
| GN 291-60-720-L1-SCR | 60 | 720 | 1520 | TR24x5 | 14 | M 8 | l1+285 | 142.5 | 19 | 58 | 70 | A5x5x16 | 9800 |

Linear actuators

Steel / Stainless Steel, with right and left hand thread

SPECIFICATION

Types

- Type **RL1**: Shaft journal at one end
- Type **RL2**: Shaft journal at both ends

Guide tube

Version in Steel

Tube DIN 2391
Steel, chrome-plated **SCR**

Version in Stainless Steel*

Tube DIN 2462
Stainless Steel AISI 304 **NI**

* usually not available from stock

Spindle with trapezoidal thread

Steel respectively

Stainless Steel AISI 303

ball bearing

Lead nut

Gunmetal

End cap

Plastic

INFORMATION

In addition to the standard stroke lengths specified in the above table for linear actuators GN 292 any stroke inside the maximum stroke length is available. Besides the extensive range of tube clamp connectors there are a number of different components for fixing the linear actuators and to build linear actuator connectors.

In order to measure the displacement and positioning of the linear actuator connectors, digital as well as analogue position indicators can be installed and furthermore the guide tube can be provided with a longitudinal scale.



ACCESSORY

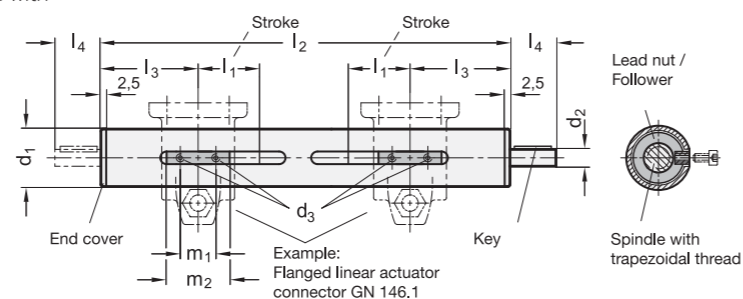
- Linear actuator connectors, tube clamp connectors and accessory have to be ordered separately.

ON REQUEST

- Special lengths

TECHNICAL INFORMATION

- ISO-Fundamental Tolerances (see page A21)
- Stainless Steel characteristics (see page A26)
- Technical description of Linear actuators (see page 1910)



GN 292

| Description | d1 | l1 | Max. stroke | Threaded spindle | d2 f7 | d3 | l2 | l3 | l4 | m1 | m2 | For key DIN 6885 | ⚖ |
|-----------------------|----|------|-------------|------------------|-------|-----|---------|-------|----|----|----|------------------|------|
| GN 292-18-120-RL1-SCR | 18 | 120* | every 167 | TR10x3 | 6 | M 3 | 2x1+171 | 70 | 16 | 17 | 24 | A2x2x12 | 440 |
| GN 292-30-130-RL1-SCR | 30 | 130* | every 601 | TR14x4 | 8 | M 4 | 2x1+253 | 102.5 | 16 | 23 | 38 | A2x2x12 | 1250 |
| GN 292-40-205-RL1-SCR | 40 | 205* | every 753 | TR20x4 | 12 | M 5 | 2x1+299 | 117.5 | 17 | 42 | 54 | A4x4x12 | 3130 |
| GN 292-40-255-RL1-SCR | 40 | 255* | every 753 | TR20x4 | 12 | M 5 | 2x1+299 | 117.5 | 17 | 42 | 54 | A4x4x12 | 3560 |
| GN 292-50-300-RL1-SCR | 50 | 300* | every 748 | TR20x4 | 12 | M 6 | 2x1+309 | 120 | 18 | 42 | 54 | A4x4x12 | 6400 |
| GN 292-50-350-RL1-SCR | 50 | 350* | every 748 | TR20x4 | 12 | M 6 | 2x1+309 | 120 | 18 | 42 | 54 | A4x4x12 | 6700 |
| GN 292-60-300-RL1-SCR | 60 | 300* | every 715 | TR24x5 | 14 | M 8 | 2x1+375 | 142.5 | 19 | 58 | 70 | A5x5x16 | 9900 |
| GN 292-18-120-RL2-SCR | 18 | 120* | every 167 | TR10x3 | 6 | M 3 | 2x1+171 | 70 | 16 | 17 | 24 | A2x2x12 | 458 |
| GN 292-30-130-RL2-SCR | 30 | 130* | every 601 | TR14x4 | 8 | M 4 | 2x1+253 | 102.5 | 16 | 23 | 38 | A2x2x12 | 1233 |
| GN 292-40-205-RL2-SCR | 40 | 205* | every 753 | TR20x4 | 12 | M 5 | 2x1+299 | 117.5 | 17 | 42 | 54 | A4x4x12 | 3057 |
| GN 292-40-255-RL2-SCR | 40 | 255* | every 753 | TR20x4 | 12 | M 5 | 2x1+299 | 117.5 | 17 | 42 | 54 | A4x4x12 | 3800 |
| GN 292-50-300-RL2-SCR | 50 | 300* | every 748 | TR20x4 | 12 | M 6 | 2x1+309 | 120 | 18 | 42 | 54 | A4x4x12 | 6520 |
| GN 292-50-350-RL2-SCR | 50 | 350* | every 748 | TR20x4 | 12 | M 6 | 2x1+309 | 120 | 18 | 42 | 54 | A4x4x12 | 6520 |
| GN 292-60-300-RL2-SCR | 60 | 300* | every 715 | TR24x5 | 14 | M 8 | 2x1+375 | 142.5 | 19 | 58 | 70 | A5x5x16 | 7960 |

* usually not available from stock

Linear actuators

Steel / Stainless Steel, with 2 separate threaded spindles

SPECIFICATION

Types

- Type **RL2**: one spindle right hand thread, one spindle left hand thread
- Type **RR2**: both spindles right hand thread
- Type **LL2**: both spindles left hand thread

Guide tube

Version in Steel

Tube DIN 2391
Steel, chrome-plated **SCR**

Version in Stainless Steel*

Tube DIN 2462
Stainless Steel AISI 304 **NI**

* usually not available from stock

Spindle with trapezoidal thread

Steel respectively

Stainless Steel AISI 303

ball bearing

Lead nut

Gunmetal

End cap

Plastic

INFORMATION

In addition to the standard stroke lengths specified in the above table for linear actuators GN 293 any stroke inside the maximum stroke length is available. Besides the extensive range of tube clamp connectors there are a number of different components for fixing the linear actuators and to build linear actuator connectors.

In order to measure the displacement and positioning of the linear actuator connectors, digital as well as analogue position indicators can be installed and furthermore the guide tube can be provided with a longitudinal scale.



ACCESSORY

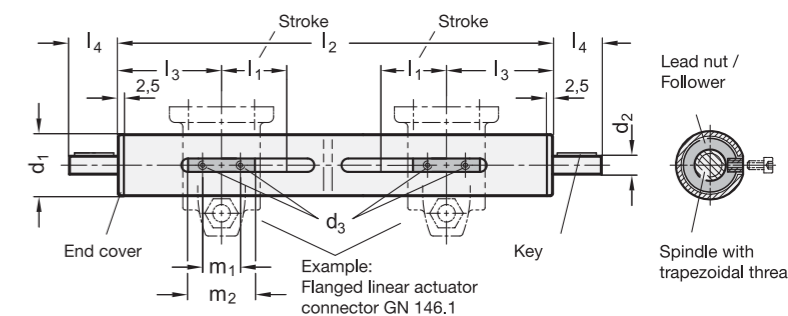
- Linear actuator connectors, tube clamp connectors and accessory have to be ordered separately.

ON REQUEST

- Special lengths

TECHNICAL INFORMATION

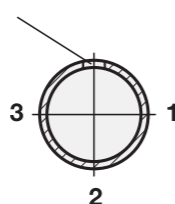
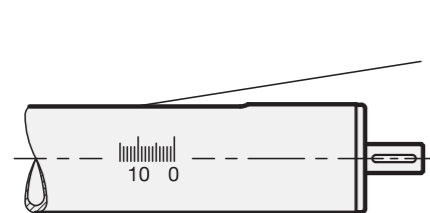
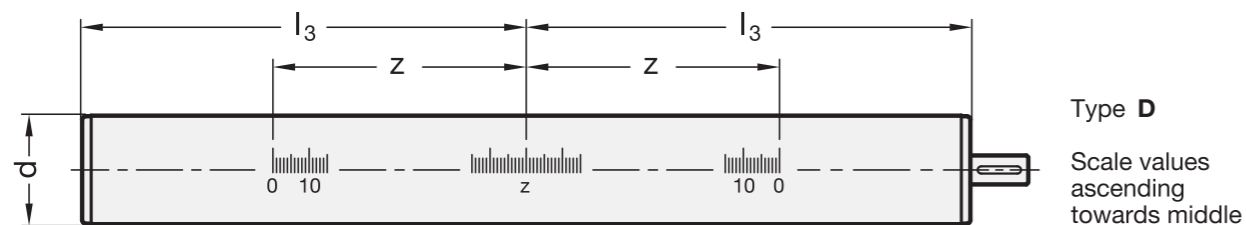
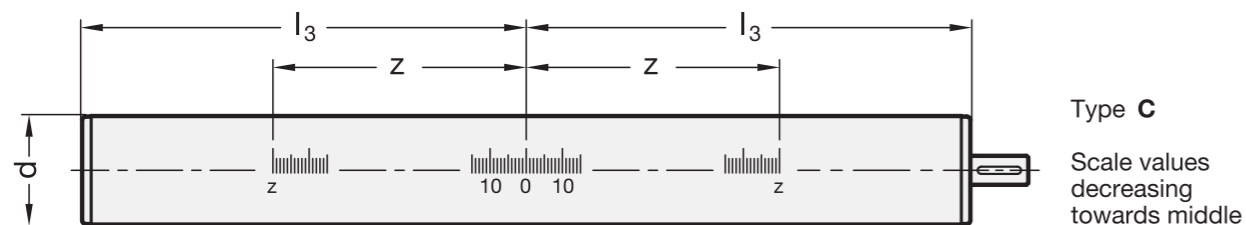
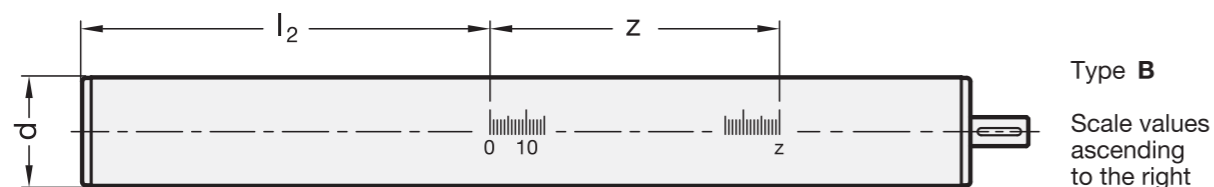
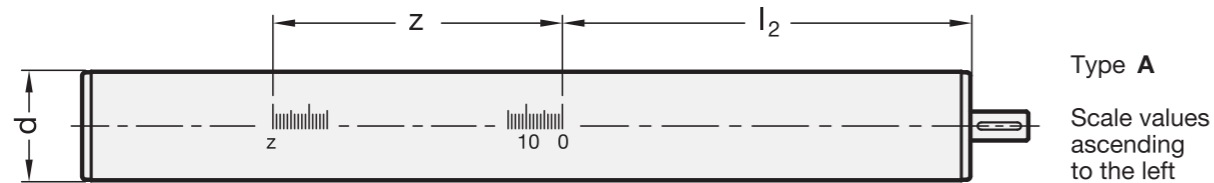
- ISO-Fundamental Tolerances (see page A21)
- Stainless Steel characteristics (see page A26)
- Technical description of Linear actuators (see page 1910)



GN 293

| Description | d1 | l1 | Max. stroke | Threaded spindle | d2 f7 | d3 | l2 | l3 | l4 | m1 | m2 | For key DIN 6885 | ⚖ |
|-----------------------|----|------|-------------|------------------|-------|-----|---------|-------|----|----|----|------------------|------|
| GN 293-30-100-RL2-SCR | 30 | 100* | every 601 | TR14x4 | 8 | M 4 | 2x1+253 | 102.5 | 16 | 23 | 38 | A2x2x12 | 1178 |
| GN 293-30-100-RR2-SCR | 30 | 100* | every 601 | TR14x4 | 8 | M 4 | 2x1+253 | 102.5 | 16 | 23 | 38 | A2x2x12 | 1110 |
| GN 293-30-100-LL2-SCR | 30 | 100* | every 601 | TR14x4 | 8 | M 4 | 2x1+253 | 102.5 | 16 | 23 | 38 | A2x2x12 | 1110 |
| GN 293-40-170-RL2-SCR | 40 | 170* | every 753 | TR20x4 | 12 | M 5 | 2x1+299 | 117.5 | 17 | 42 | 54 | A4x4x12 | 3300 |
| GN 293-40-170-RR2-SCR | 40 | 170* | every 753 | TR20x4 | 12 | M 5 | 2x1+299 | 117.5 | 17 | 42 | 54 | A4x4x12 | 3300 |
| GN 293-40-170-LL2-SCR | 40 | 170* | every 753 | TR20x4 | 12 | M 5 | 2x1+299 | 117.5 | 17 | 42 | 54 | A4x4x12 | 3300 |
| GN 293-50-200-RL2-SCR | 50 | 200* | every 748 | TR20x4 | 12 | M 6 | 2x1+309 | 120 | 18 | 42 | 54 | A4x4x12 | 4940 |
| GN 293-50-200-RR2-SCR | 50 | 200* | every 748 | TR20x4 | 12 | M 6 | 2x1+309 | 120 | 18 | 42 | 54 | A4x4x12 | 4940 |
| GN 293-50-200-LL2-SCR | 50 | 200* | every 748 | TR20x4 | 12 | M 6 | 2x1+309 | 120 | 18 | 42 | 54 | A4x4x12 | 4940 |
| GN 293-60-250-RL2-SCR | 60 | 250* | every 715 | TR24x5 | 14 | M 8 | 2x1+375 | 142.5 | 19 | 58 | 70 | A5x5x16 | 6580 |
| GN 293-60-250-RR2-SCR | 60 | 250* | every 715 | TR24x5 | 14 | M 8 | 2x1+375 | 142.5 | 19 | 58 | 70 | A5x5x16 | 6580 |
| GN 293-60-250-LL2-SCR | 60 | 250* | every 715 | TR24x5 | 14 | M 8 | 2x1+375 | 142.5 | 19 | 58 | 70 | A5x5x16 | 6580 |

* usually not available from stock



The identification numbers 1, 2 or 3 determine the positioning of the scale relative to the guide slot.

SPECIFICATION

Scale engraved with laser precision

INFORMATION

The longitudinal scales GN 299 of type A and B are normally used in connection with the linear actuators GN 291 (see page 1912) and GN 291.1 (see page 1930). The scales of type C and D are normally used for the linear actuators GN 292 (see page 1914) and GN 293 (see page 1915). Longitudinal scales can **only** be ordered together with linear actuators.

* Complete with Identification no. of the Longitudinal scales

1 2 3

GN 299

| Description | d Ø Linear actuator | l1 | l2 | l3 | z Scale length respectively highest figure |
|-------------------|---------------------|-----|-------|-------|--|
| GN 299-18-65-A-* | 18 | 65 | 82.5 | 147.5 | 90 |
| GN 299-18-65-B-* | 18 | 65 | 82.5 | 147.5 | 90 |
| GN 299-18-65-C-* | 18 | 65 | 82.5 | 147.5 | 90 |
| GN 299-18-65-D-* | 18 | 65 | 82.5 | 147.5 | 90 |
| GN 299-18-165-A-* | 18 | 165 | 82.5 | 247.5 | 190 |
| GN 299-18-165-B-* | 18 | 165 | 82.5 | 247.5 | 190 |
| GN 299-18-165-C-* | 18 | 165 | 82.5 | 247.5 | 190 |
| GN 299-18-165-D-* | 18 | 165 | 82.5 | 247.5 | 190 |
| GN 299-18-265-A-* | 18 | 265 | 82.5 | 347.5 | 290 |
| GN 299-18-265-B-* | 18 | 265 | 82.5 | 347.5 | 290 |
| GN 299-18-265-C-* | 18 | 265 | 82.5 | 347.5 | 290 |
| GN 299-18-265-D-* | 18 | 265 | 82.5 | 347.5 | 290 |
| GN 299-30-100-A-* | 30 | 100 | 122.5 | 222.5 | 120 |
| GN 299-30-100-B-* | 30 | 100 | 122.5 | 222.5 | 120 |
| GN 299-30-100-C-* | 30 | 100 | 122.5 | 222.5 | 120 |
| GN 299-30-100-D-* | 30 | 100 | 122.5 | 222.5 | 120 |
| GN 299-30-150-A-* | 30 | 150 | 122.5 | 272.5 | 170 |
| GN 299-30-150-B-* | 30 | 150 | 122.5 | 272.5 | 170 |
| GN 299-30-150-C-* | 30 | 150 | 122.5 | 272.5 | 170 |
| GN 299-30-150-D-* | 30 | 150 | 122.5 | 272.5 | 170 |
| GN 299-30-200-A-* | 30 | 200 | 122.5 | 322.5 | 220 |
| GN 299-30-200-B-* | 30 | 200 | 122.5 | 322.5 | 220 |
| GN 299-30-200-C-* | 30 | 200 | 122.5 | 322.5 | 220 |
| GN 299-30-200-D-* | 30 | 200 | 122.5 | 322.5 | 220 |
| GN 299-30-300-A-* | 30 | 300 | 122.5 | 422.5 | 320 |
| GN 299-30-300-B-* | 30 | 300 | 122.5 | 422.5 | 320 |
| GN 299-30-300-C-* | 30 | 300 | 122.5 | 422.5 | 320 |
| GN 299-30-300-D-* | 30 | 300 | 122.5 | 422.5 | 320 |
| GN 299-40-70-A-* | 40 | 70 | 142.5 | 217.5 | 90 |
| GN 299-40-70-B-* | 40 | 70 | 142.5 | 217.5 | 90 |
| GN 299-40-70-C-* | 40 | 70 | 142.5 | 217.5 | 90 |
| GN 299-40-70-D-* | 40 | 70 | 142.5 | 217.5 | 90 |
| GN 299-40-170-A-* | 40 | 170 | 142.5 | 317.5 | 190 |
| GN 299-40-170-B-* | 40 | 170 | 142.5 | 317.5 | 190 |
| GN 299-40-170-C-* | 40 | 170 | 142.5 | 317.5 | 190 |
| GN 299-40-170-D-* | 40 | 170 | 142.5 | 317.5 | 190 |
| GN 299-40-220-A-* | 40 | 220 | 142.5 | 367.5 | 240 |
| GN 299-40-220-B-* | 40 | 220 | 142.5 | 367.5 | 240 |
| GN 299-40-220-C-* | 40 | 220 | 142.5 | 367.5 | 240 |
| GN 299-40-220-D-* | 40 | 220 | 142.5 | 367.5 | 240 |

GN 299

| Description | d Ø Linear actuator | l1 | l2 | l3 | z Scale length respectively highest figure |
|-------------------|---------------------|-----|-------|-------|--|
| GN 299-40-270-A-* | 40 | 270 | 142.5 | 417.5 | 290 |
| GN 299-40-270-B-* | 40 | 270 | 142.5 | 417.5 | 290 |
| GN 299-40-270-C-* | 40 | 270 | 142.5 | 417.5 | 290 |
| GN 299-40-270-D-* | 40 | 270 | 142.5 | 417.5 | 290 |
| GN 299-40-320-A-* | 40 | 320 | 142.5 | 467.5 | 340 |
| GN 299-40-320-B-* | 40 | 320 | 142.5 | 467.5 | 340 |
| GN 299-40-320-C-* | 40 | 320 | 142.5 | 467.5 | 340 |
| GN 299-40-320-D-* | 40 | 320 | 142.5 | 467.5 | 340 |
| GN 299-50-65-A-* | 50 | 65 | 147.5 | 217.5 | 90 |
| GN 299-50-65-B-* | 50 | 65 | 147.5 | 217.5 | 90 |
| GN 299-50-65-C-* | 50 | 65 | 147.5 | 217.5 | 90 |
| GN 299-50-65-D-* | 50 | 65 | 147.5 | 217.5 | 90 |
| GN 299-50-115-A-* | 50 | 115 | 147.5 | 267.5 | 190 |
| GN 299-50-115-B-* | 50 | 115 | 147.5 | 267.5 | 190 |
| GN 299-50-115-C-* | 50 | 115 | 147.5 | 267.5 | 190 |
| GN 299-50-115-D-* | 50 | 115 | 147.5 | 267.5 | 190 |
| GN 299-50-215-A-* | 50 | 215 | 147.5 | 367.5 | 240 |
| GN 299-50-215-B-* | 50 | 215 | 147.5 | 367.5 | 240 |
| GN 299-50-215-C-* | 50 | 215 | 147.5 | 367.5 | 240 |
| GN 299-50-215-D-* | 50 | 215 | 147.5 | 367.5 | 240 |
| GN 299-50-265-A-* | 50 | 265 | 147.5 | 417.5 | 290 |
| GN 299-50-265-B-* | 50 | 265 | 147.5 | 417.5 | 290 |
| GN 299-50-265-C-* | 50 | 265 | 147.5 | 417.5 | 290 |
| GN 299-50-265-D-* | 50 | 265 | 147.5 | 417.5 | 290 |
| GN 299-50-315-A-* | 50 | 315 | 147.5 | 467.5 | 340 |
| GN 299-50-315-B-* | 50 | 315 | 147.5 | 467.5 | 340 |
| GN 299-50-315-C-* | 50 | 315 | 147.5 | 467.5 | 340 |
| GN 299-50-315-D-* | 50 | 315 | 147.5 | 467.5 | 340 |
| GN 299-60-220-A-* | 60 | 220 | 182.5 | 402.5 | 240 |
| GN 299-60-220-B-* | 60 | 220 | 182.5 | 402.5 | 240 |
| GN 299-60-220-C-* | 60 | 220 | 182.5 | 402.5 | 240 |
| GN 299-60-220-D-* | 60 | 220 | 182.5 | 402.5 | 240 |
| GN 299-60-720-A-* | 60 | 720 | 182.5 | 902.5 | 740 |
| GN 299-60-720-B-* | 60 | 720 | 182.5 | 902.5 | 740 |
| GN 299-60-720-C-* | 60 | 720 | 182.5 | 902.5 | 740 |
| GN 299-60-720-D-* | 60 | 720 | 182.5 | 902.5 | 740 |



Linear actuator connectors

for linear actuators Ø18, for single axis system

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Version in Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

Version in Stainless Steel AISI CF-8 NI

- matt shot-blasted
- Bore only with slide bushing (G18)

Clamping bores mechanically machined

Slide bushing
Polyamide

Socket cap screw DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

GN 131.1 linear actuator connectors are normally supplied **mounted** only in connection with a linear actuator and for function control.

By means of the clamping screws on the guide bores d_1 / d_2 the movement can either be set or the linear actuator connector can be clamped (after setting of final adjustment).

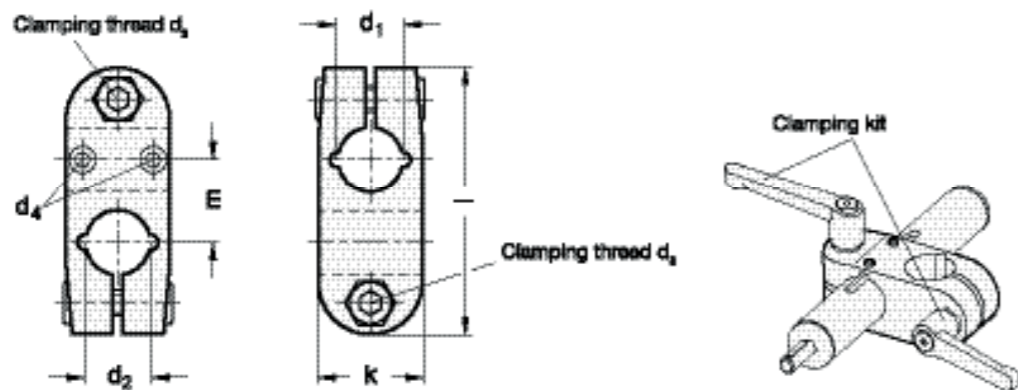
The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by adjustable clamping levers GN 911 (see page 1874) (see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874) / GN 911.3 (see page 1875)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 131.1

| Description | d1 Bore B without slide bushing | d1 Bore G with slide bushing | d2 | d3 | d4 | k | l | m | Clamping kits for d3 | ⚖ |
|-----------------------|---------------------------------|------------------------------|------|-----|-----|----|----|----|----------------------|----|
| GN 131.1-B18-B18-2-SW | B 18 | - | B 18 | M 6 | M 3 | 25 | 64 | 20 | GN 911-M6-22 | 66 |
| GN 131.1-G18-B18-2-SW | - | G 18 | B 18 | M 6 | M 3 | 25 | 64 | 20 | GN 911-M6-22 | 64 |

GN 131.1-NI

STAINLESS STEEL

| Description | d1 Bore G with slide bushing | d2 | d3 | d4 | k | l | m | Clamping kits for d3 | ⚖ |
|-----------------------|------------------------------|------|-----|-----|----|----|----|----------------------|-----|
| GN 131.1-G18-B18-2-NI | G 18 | B 18 | M 6 | M 3 | 25 | 64 | 20 | GN 911.3-M6-22 | 142 |

Linear actuator connectors

for linear actuators Ø18, for two-way axis system

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Version in Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

Version in Stainless Steel AISI CF-8 NI

- matt shot-blasted

Clamping bores mechanically machined

Slide bushing
Polyamide

Socket cap screw DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

GN 131.2 linear actuator connectors are normally supplied **mounted** only in connection with a linear actuator and for function control.

By means of the clamping screws on the guide bores d_1 / d_2 the movement can either be set or the linear actuator connector can be clamped (after setting of final adjustment).

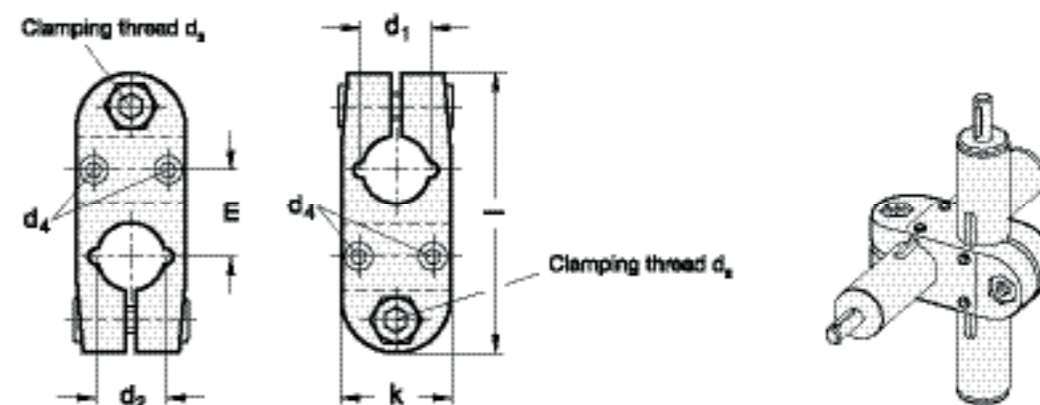
The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by adjustable clamping levers GN 911.3 (see page 1875) (see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874) / GN 911.3 (see page 1875)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 131.2

| Description | d1 Bore B without slide bushing | d1 Bore G with slide bushing | d2 | d3 | d4 | k | l | m | Clamping kits for d3 | ⚖ |
|-----------------------|---------------------------------|------------------------------|------|-----|-----|----|----|----|----------------------|----|
| GN 131.2-B18-B18-2-SW | B 18 | - | B 18 | M 6 | M 3 | 25 | 64 | 20 | GN 911-M6-22 | 62 |
| GN 131.2-G18-G18-2-SW | - | G 18 | G 18 | M 6 | M 3 | 25 | 64 | 20 | GN 911-M6-22 | 62 |

GN 131.2-NI

STAINLESS STEEL

| Description | d1 Bore G with slide bushing | d2 | d3 | d4 | k | l | m | Clamping kits for d3 | ⚖ |
|-----------------------|------------------------------|------|-----|-----|----|----|----|----------------------|-----|
| GN 131.2-G18-G18-2-NI | G 18 | G 18 | M 6 | M 3 | 25 | 64 | 20 | GN 911.3-M6-22 | 148 |

Linear actuator connectors

for linear actuators Ø30, Ø40, Ø50 and Ø60,
single axis system

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Aluminium
plastic coated
black, RAL 9005, textured finish **SW**

Clamping bores mechanically machined

Slide bushing
Polyamide

Socket cap screw DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304



INFORMATION

GN 132.1 linear actuator connectors are normally supplied **mounted** only in connection with a linear actuator and for function control. By means of the clamping screws on the guide bores d_1 / d_2 the movement can either be set or the linear actuator connector can be clamped (after setting of final adjustment).

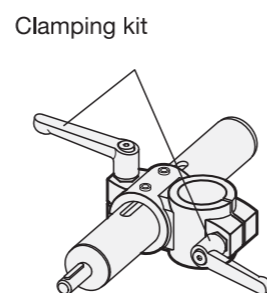
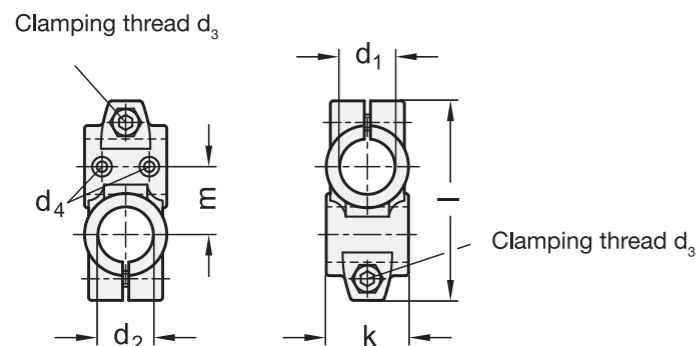
The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by adjustable clamping kits GN 911 (see page 1874) (see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 132.1

| Description | d1 Bore B without slide bushing | d1 Bore G with slide bushing | d2 | d3 | d4 | k | l | m | Clamping kits for d3 | ⚖ |
|-----------------------|---------------------------------|------------------------------|------|------|-----|----|-----|----|----------------------|------|
| GN 132.1-B30-B30-2-SW | B 30 | - | B 30 | M 8 | M 4 | 40 | 97 | 33 | GN 911-M8-32 | 155 |
| GN 132.1-B40-B40-2-SW | B 40 | - | B 40 | M 10 | M 5 | 56 | 125 | 45 | GN 911-M10-40 | 410 |
| GN 132.1-B50-B50-2-SW | B 50 | - | B 50 | M 10 | M 6 | 65 | 143 | 53 | GN 911-M10-55 | 600 |
| GN 132.1-B60-B60-2-SW | B 60 | - | B 60 | M 10 | M 8 | 80 | 169 | 65 | GN 911-M10-55 | 1000 |
| GN 132.1-G30-B30-2-SW | - | G 30 | B 30 | M 8 | M 4 | 40 | 97 | 33 | GN 911-M8-32 | 155 |
| GN 132.1-G40-B40-2-SW | - | G 40 | B 40 | M 10 | M 5 | 56 | 125 | 45 | GN 911-M10-40 | 410 |
| GN 132.1-G50-B50-2-SW | - | G 50 | B 50 | M 10 | M 6 | 65 | 143 | 53 | GN 911-M10-55 | 600 |
| GN 132.1-G60-B60-2-SW | - | G 60 | B 60 | M 10 | M 8 | 80 | 169 | 65 | GN 911-M10-55 | 1000 |

Linear actuator connectors

for linear actuators Ø30, Ø40, Ø50 and Ø60,
two-way axis system

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Aluminium
plastic coated
black, RAL 9005, textured finish **SW**

Clamping bores mechanically machined

Slide bushing
Polyamide

Socket cap screw DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304



INFORMATION

GN 132.2 linear actuator connectors are normally supplied **mounted** only in connection with a linear actuator and for function control. By means of the clamping screws on the guide bores d_1 / d_2 the movement can either be set or the linear actuator connector can be clamped (after setting of final adjustment).

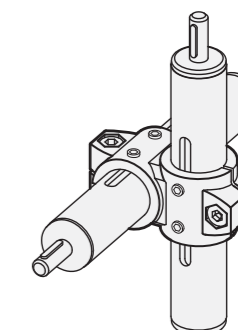
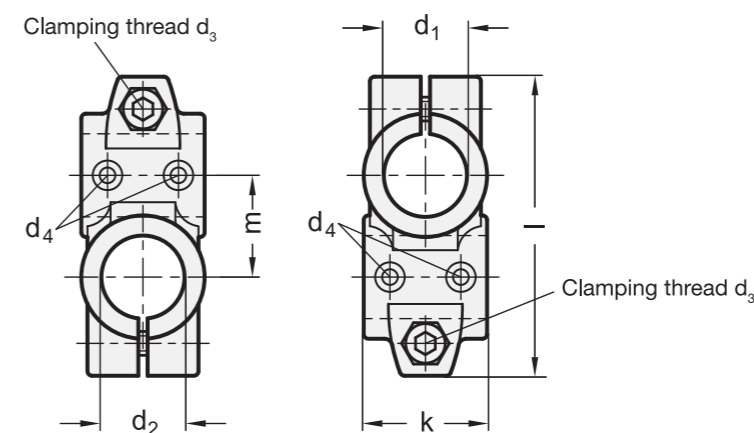
The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by adjustable clamping levers GN 911 (see page 1874) (see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 132.2

| Description | d1 Bore B without slide bushing | d1 Bore G with slide bushing | d2 Bore B without slide bushing | d2 Bore G with slide bushing | d3 | d4 | k | l | m | Clamping kits for d3 | ⚖ |
|-----------------------|---------------------------------|------------------------------|---------------------------------|------------------------------|------|-----|----|-----|----|----------------------|------|
| GN 132.2-B30-B30-2-SW | B 30 | - | B 30 | - | M 8 | M 4 | 40 | 97 | 33 | GN 911-M8-32 | 168 |
| GN 132.2-B40-B40-2-SW | B 40 | - | B 40 | - | M 10 | M 5 | 56 | 125 | 45 | GN 911-M10-40 | 500 |
| GN 132.2-B50-B50-2-SW | B 50 | - | B 50 | - | M 10 | M 6 | 65 | 143 | 53 | GN 911-M10-55 | 670 |
| GN 132.2-B60-B60-2-SW | B 60 | - | B 60 | - | M 10 | M 8 | 80 | 169 | 65 | GN 911-M10-55 | 1000 |
| GN 132.2-G30-G30-2-SW | - | G 30 | - | G 30 | M 8 | M 4 | 40 | 97 | 33 | GN 911-M8-32 | 168 |
| GN 132.2-G40-G40-2-SW | - | G 40 | - | G 40 | M 10 | M 5 | 56 | 125 | 45 | GN 911-M10-40 | 400 |
| GN 132.2-G50-G50-2-SW | - | G 50 | - | G 50 | M 10 | M 6 | 65 | 143 | 53 | GN 911-M10-55 | 560 |
| GN 132.2-G60-G60-2-SW | - | G 60 | - | G 60 | M 10 | M 8 | 80 | 169 | 65 | GN 911-M10-55 | 1000 |

Flanged linear actuator connectors

Aluminium / Stainless Steel, for linear actuators Ø18

SPECIFICATION

Identification No.

No. 2: with Stainless Steel-Clamping screw DIN 912

Version in Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

Version in Stainless Steel AISI CF-8 NI

- matt shot-blasted
- Bore only with slide bush (G18)

Guide bore mechanically machined

Slide bushing
Polyamide

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

GN 145.1 linear actuator connectors are normally supplied **mounted** only in connection with a linear actuator and for function control.

By means of the clamping screw on the guide bore d_1 the movement can either be set or the linear actuator connector can be clamped (after setting of final adjustment).

The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by adjustable clamping kits GN 911 (see page 1874) / GN 911.3 (see page 1875) (see table of dimensions).

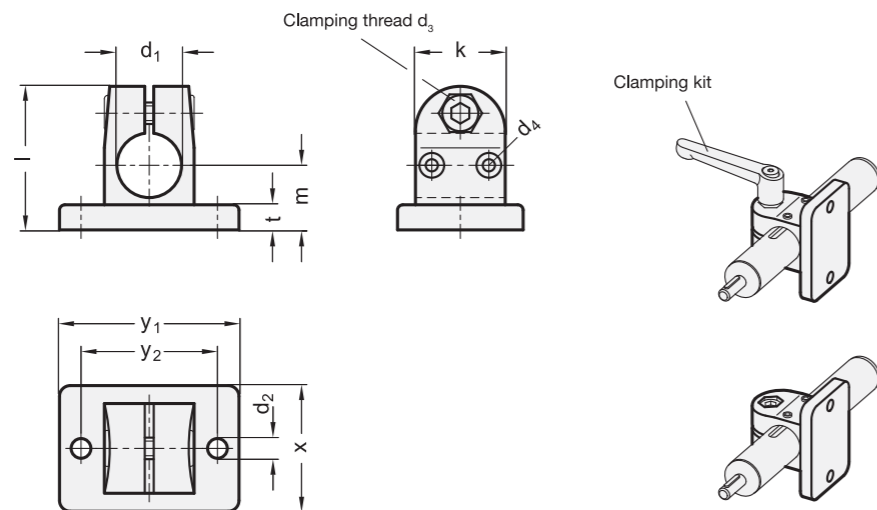


ACCESSORY

- Clamping kits GN 911 (see page 1874) / GN 911.3 (see page 1875)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 145.1

| Description | d1 Bore B without slide bushing | d1 Bore G with slide bushing | d2 | d3 | d4 | k | l | m | t | x | y1 | y2 | Clamping kits for d3 | ⚖️ |
|-------------------|---------------------------------|------------------------------|-----|-----|-----|----|----|----|---|----|----|----|----------------------|----|
| GN 145.1-B18-2-SW | B 18 | - | 5.5 | M 6 | M 3 | 25 | 40 | 18 | 7 | 35 | 50 | 38 | GN 911-M6-22 | 60 |
| GN 145.1-G18-2-SW | - | G 18 | 5.5 | M 6 | M 3 | 25 | 40 | 18 | 7 | 35 | 50 | 38 | GN 911-M6-22 | 60 |

GN 145.1-NI

STAINLESS STEEL

| Description | d1 Bore G with slide bushing | d2 | d3 | d4 | k | l | m | t | x | y1 | y2 | Clamping kits for d3 | ⚖️ |
|-------------------|------------------------------|-----|-----|-----|----|----|----|---|----|----|----|----------------------|-----|
| GN 145.1-G18-2-NI | G 18 | 5.5 | M 6 | M 3 | 25 | 40 | 18 | 7 | 35 | 50 | 38 | GN 911.3-M6-22 | 145 |

Flanged linear actuator connectors

Aluminium, for linear actuators Ø30, Ø40, Ø50, Ø60

SPECIFICATION

Identification No.

No. 2: with Stainless Steel-Clamping screw DIN 912

Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

Guide bore mechanically machined

Slide bushing
Polyamide

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

GN 146.1 linear actuator connectors are normally supplied **mounted** only in connection with a linear actuator and for function control.

By means of the clamping screw on the guide bore d_1 the movement can either be set or the linear actuator connector can be clamped (after setting of final adjustment).

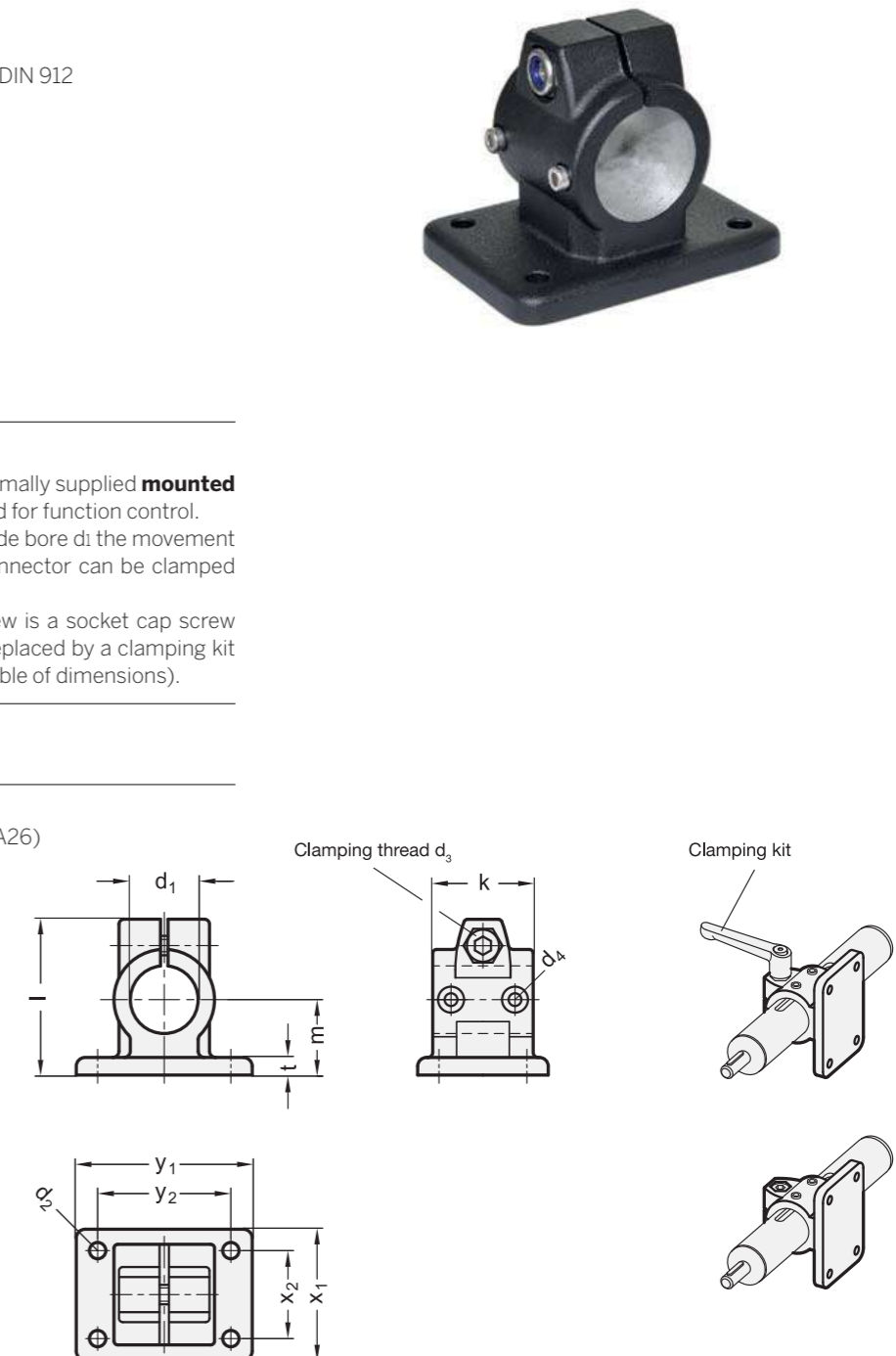
The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 146.1

| Description | d1 Bore B without slide bushing | d1 Bore G with slide bushing | d2 | d3 | d4 | k | l | m | t | x1 | x2 | y1 | y2 | Clamping kits for d3 | ⚖️ |
|-------------------|---------------------------------|------------------------------|-----|------|-----|----|-----|----|----|-----|----|-----|-----|----------------------|------|
| GN 146.1-B30-2-SW | B 30 | - | 6.5 | M 8 | M 4 | 40 | 62 | 30 | 7 | 52 | 35 | 70 | 53 | GN 911-M8-32 | 154 |
| GN 146.1-B40-2-SW | B 40 | - | 8.5 | M 10 | M 5 | 56 | 83 | 42 | 10 | 78 | 52 | 108 | 82 | GN 911-M10-40 | 430 |
| GN 146.1-B50-2-SW | B 50 | - | 11 | M 10 | M 6 | 65 | 95 | 50 | 14 | 92 | 62 | 128 | 98 | GN 911-M10-55 | 675 |
| GN 146.1-B60-2-SW | B 60 | - | 11 | M 10 | M 8 | 80 | 112 | 60 | 14 | 110 | 74 | 154 | 118 | GN 911-M10-55 | 1130 |
| GN 146.1-G30-2-SW | - | G 30 | 6.5 | M 8 | M 4 | 40 | 62 | 30 | 7 | 52 | 35 | 70 | 53 | GN 911-M8-32 | 140 |
| GN 146.1-G40-2-SW | - | G 40 | 8.5 | M 10 | M 5 | 56 | 83 | 42 | 10 | 78 | 52 | 108 | 82 | GN 911-M10-40 | 420 |
| GN 146.1-G50-2-SW | - | G 50 | 11 | M 10 | M 6 | 65 | 95 | 50 | 14 | 92 | 62 | 128 | 98 | GN 911-M10-55 | 720 |
| GN 146.1-G60-2-SW | - | G 60 | 11 | M 10 | M 8 | 80 | 112 | 60 | 14 | 110 | 74 | 154 | 118 | GN 911-M10-55 | 1130 |

Base plate linear actuator connectors

Aluminium / Stainless Steel, for linear actuators Ø 18

SPECIFICATION

Identification No.

No. **2**: with Stainless Steel-Clamping screw DIN 912

Version in Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

Version in Stainless Steel AISI CF-8 NI

- matt shot-blasted
- Bore only with slide bushing (G18)

Guide bore mechanically machined

Slide bushing
Polyamide

Socket cap screw DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

GN 162.1 base plate linear actuator connectors are normally supplied **mounted** only in connection with a linear actuator and for function control.

By means of the clamping screw on the guide bore d_1 the movement can either be set or the linear actuator connector can be clamped (after setting of final adjustment).

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

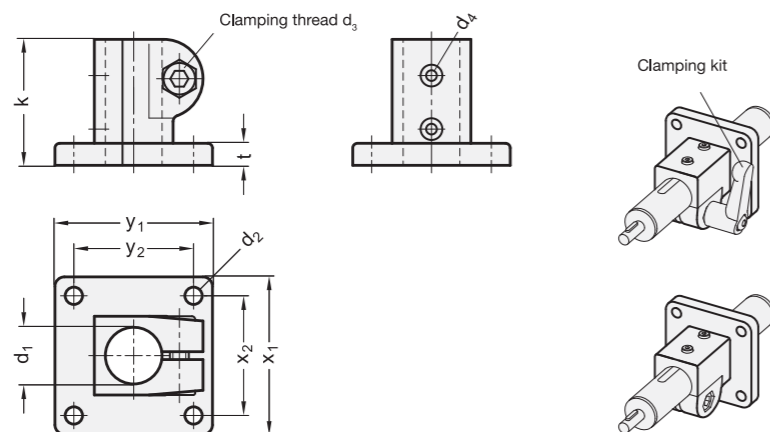


ACCESSORY

- Clamping kits GN 911 (see page 1874) / GN 911.3 (see page 1875)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 162.1

| Description | d1 Bore B without slide bushing | d1 Bore G with slide bushing | d2 | d3 | d4 | k | t | x1 | x2 | y1 | y2 | Clamping kits for d3 | ⚖ |
|-------------------|---------------------------------|------------------------------|-----|-----|-----|----|---|----|----|----|----|----------------------|----|
| GN 162.1-B18-2-SW | B 18 | - | 5.5 | M 6 | M 3 | 40 | 7 | 50 | 38 | 50 | 38 | GN 911-M6-22 | 75 |
| GN 162.1-G18-2-SW | - | G 18 | 5.5 | M 6 | M 3 | 40 | 7 | 50 | 38 | 50 | 38 | GN 911-M6-22 | 79 |

GN 162.1-NI

STAINLESS STEEL

| Description | d1 Bore G with slide bushing | d2 | d3 | d4 | k | t | x1 | x2 | y1 | y2 | Clamping kits for d3 | ⚖ |
|-------------------|------------------------------|-----|-----|-----|----|---|----|----|----|----|----------------------|-----|
| GN 162.1-G18-2-NI | G 18 | 5.5 | M 6 | M 3 | 40 | 7 | 50 | 38 | 50 | 38 | GN 911.3-M6-22 | 190 |

Base plate linear actuator connectors

for linear actuators Ø30, Ø40, Ø50, Ø60

SPECIFICATION

Identification No.

No. **2**: with Stainless Steel-Clamping screw DIN 912

Aluminium
plastic coated
black, RAL 9005, textured finish **SW**

Guide bore mechanically machined

Slide bushing
Polyamide

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

GN 163.1 base plate linear actuator connectors are normally supplied **mounted** only in connection with a linear actuator and for function control.

By means of the clamping screw on the guide bore d_1 the movement can either be set or the linear actuator connector can be clamped (after setting of final adjustment).

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

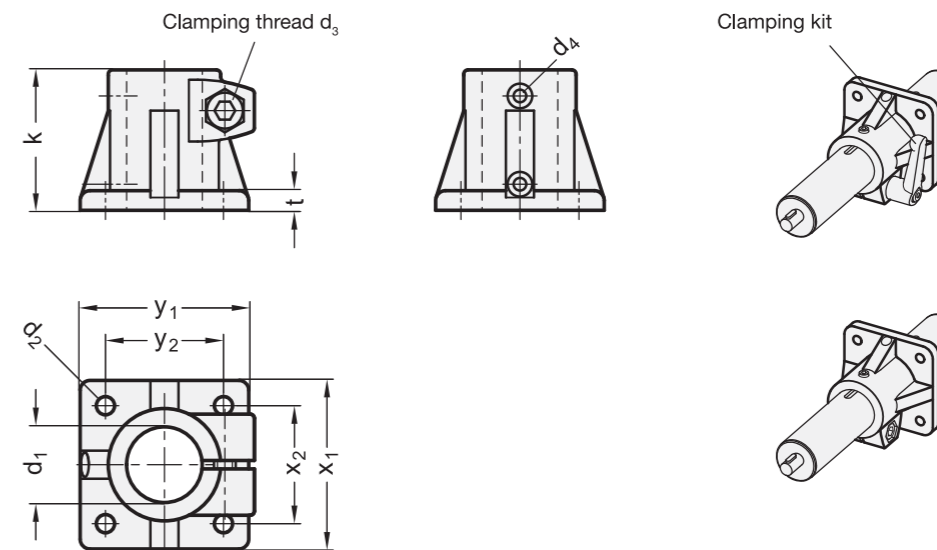


ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 163.1

| Description | d1 Bore B without slide bushing | d1 Bore G with slide bushing | d2 | d3 | d4 | k | t | x1 | x2 | y1 | y2 | Clamping kits for d3 | ⚖ |
|-------------------|---------------------------------|------------------------------|-----|------|-----|-----|----|-----|----|-----|----|----------------------|------|
| GN 163.1-B30-2-SW | B 30 | - | 6.5 | M 8 | M 4 | 50 | 7 | 60 | 42 | 60 | 42 | GN 911-M8-32 | 145 |
| GN 163.1-B40-2-SW | B 40 | - | 8.5 | M 10 | M 5 | 70 | 10 | 90 | 64 | 90 | 64 | GN 911-M10-40 | 430 |
| GN 163.1-B50-2-SW | B 50 | - | 11 | M 10 | M 6 | 85 | 14 | 105 | 74 | 105 | 74 | GN 911-M10-55 | 711 |
| GN 163.1-B60-2-SW | B 60 | - | 11 | M 10 | M 8 | 100 | 14 | 125 | 89 | 125 | 89 | GN 911-M10-55 | 1020 |
| GN 163.1-G30-2-SW | - | G 30 | 6.5 | M 8 | M 4 | 50 | 7 | 60 | 42 | 60 | 42 | GN 911-M8-32 | 130 |
| GN 163.1-G40-2-SW | - | G 40 | 8.5 | M 10 | M 5 | 70 | 10 | 90 | 64 | 90 | 64 | GN 911-M10-40 | 400 |
| GN 163.1-G50-2-SW | - | G 50 | 11 | M 10 | M 6 | 85 | 14 | 105 | 74 | 105 | 74 | GN 911-M10-55 | 650 |
| GN 163.1-G60-2-SW | - | G 60 | 11 | M 10 | M 8 | 100 | 14 | 125 | 89 | 125 | 89 | GN 911-M10-55 | 1020 |

T-Angle linear actuator connectors

Aluminium / Stainless Steel, for linear actuators Ø18

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Version in Aluminium

plastic coated
black, RAL 9005, textured finish **SW**

Version in Stainless Steel AISI CF-8 NI

- matt shot-blasted
- Bore only with slide bush (G18)

Guide bores / Clamping bores
mechanically machined

Slide bushing
Polyamide

Socket cap screw DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

GN 191.1 T-angle linear actuator connectors are normally supplied **mounted** only in connection with a linear actuator and for function control.

By means of the clamping screw on the guide bore d_1 the movement can either be set or the linear actuator connector can be clamped (after setting of final adjustment).

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

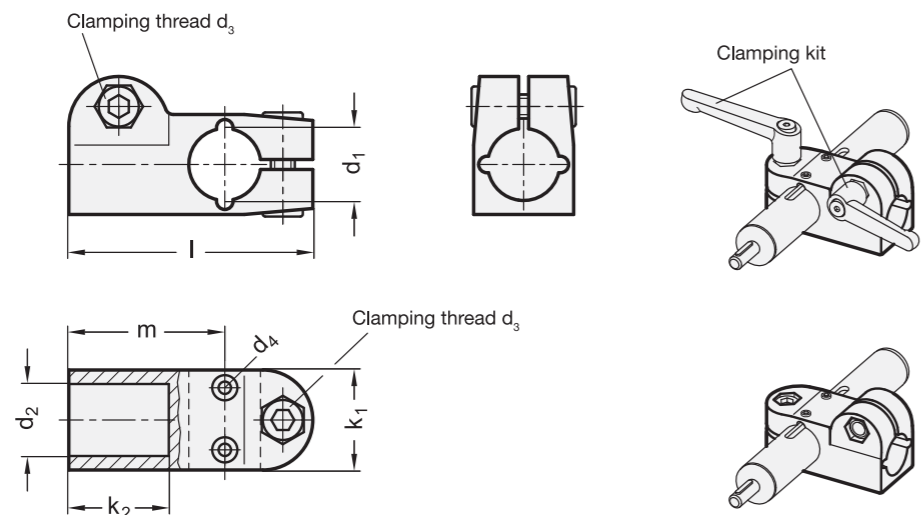


ACCESSORY

- Clamping kits GN 911 (see page 1874) / GN 911.3 (see page 1875)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 191.1

| Description | d1 Bore B without slide bushing | d1 Bore G with slide bushing | d2 | d3 | d4 | k1 | k2 | l | m | Clamping kits for d3 | ⚖ |
|-----------------------|---------------------------------|------------------------------|------|-----|-----|----|----|----|----|----------------------|----|
| GN 191.1-B18-B18-2-SW | B 18 | - | B 18 | M 6 | M 3 | 25 | 25 | 61 | 39 | GN 911-M6-22 | 77 |
| GN 191.1-G18-B18-2-SW | - | G 18 | B 18 | M 6 | M 3 | 25 | 25 | 61 | 39 | GN 911-M6-22 | 77 |

GN 191.1-NI

STAINLESS STEEL

| Description | d1 Bore G with slide bushing | d2 | d3 | d4 | k1 | k2 | l | m | Clamping kits for d3 | ⚖ |
|-----------------------|------------------------------|------|-----|-----|----|----|----|----|----------------------|----|
| GN 191.1-G18-B18-2-NI | G 18 | B 18 | M 6 | M 3 | 25 | 25 | 61 | 39 | GN 911.3-M6-22 | 78 |

T-Angle linear actuator connectors

for linear actuators Ø30, Ø40, Ø50, Ø60

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Aluminium
plastic coated
black, RAL 9005, textured finish **SW**

Guide bores / Clamping bores
mechanically machined

Slide bushing
Polyamide

Socket cap screw DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

GN 192.1 T-angle linear actuator connectors are normally supplied **mounted** only in connection with a linear actuator and for function control.

By means of the clamping screw on the guide bore d_1 the movement can either be set or the linear actuator connector can be clamped (after setting of final adjustment).

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

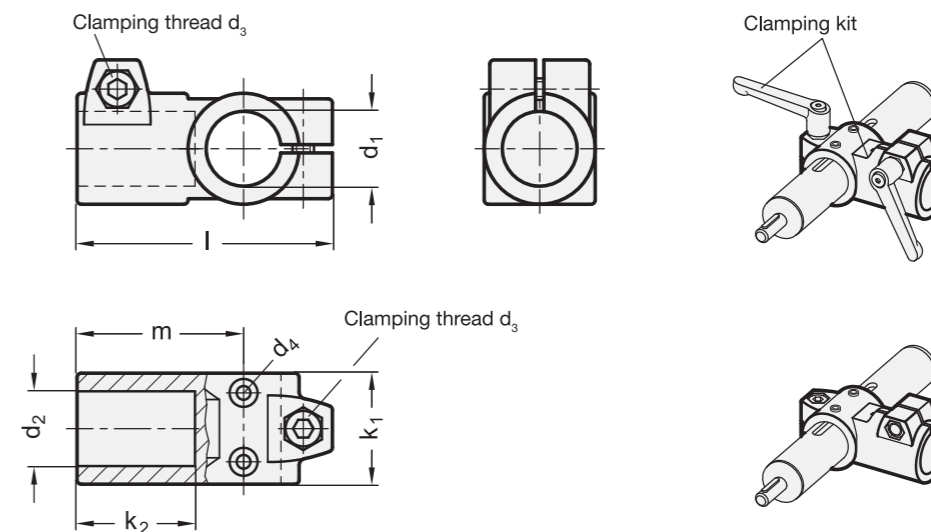


ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 192.1

| Description | d1 Bore B without slide bushing | d1 Bore G with slide bushing | d2 | d3 | d4 | k1 | k2 | l | m | Clamping kits for d3 | ⚖ |
|-----------------------|---------------------------------|------------------------------|------|------|-----|----|------|-----|-----|----------------------|------|
| GN 192.1-B30-B30-2-SW | B 30 | - | B 30 | M 8 | M 4 | 40 | 42.5 | 92 | 60 | GN 911-M8-32 | 185 |
| GN 192.1-B40-B40-2-SW | B 40 | - | B 40 | M 10 | M 5 | 56 | 62 | 129 | 88 | GN 911-M10-40 | 450 |
| GN 192.1-B50-B50-2-SW | B 50 | - | B 50 | M 10 | M 6 | 65 | 75 | 148 | 103 | GN 911-M10-55 | 620 |
| GN 192.1-B60-B60-2-SW | B 60 | - | B 60 | M 10 | M 8 | 80 | 80 | 177 | 125 | GN 911-M10-55 | 1260 |
| GN 192.1-G30-B30-2-SW | - | G 30 | B 30 | M 8 | M 4 | 40 | 42.5 | 92 | 60 | GN 911-M8-32 | 185 |
| GN 192.1-G40-B40-2-SW | - | G 40 | B 40 | M 10 | M 5 | 56 | 62 | 129 | 88 | GN 911-M10-40 | 450 |
| GN 192.1-G50-B50-2-SW | - | G 50 | B 50 | M 10 | M 6 | 65 | 75 | 148 | 103 | GN 911-M10-55 | 620 |
| GN 192.1-G60-B60-2-SW | - | G 60 | B 60 | M 10 | M 8 | 80 | 80 | 177 | 125 | GN 911-M10-55 | 1260 |

Swivel clamp linear actuator connectors

for linear actuators Ø18

SPECIFICATION

Identification No.

No. **2**: with Stainless Steel-Clamping screw DIN 912

Aluminium
plastic coated
black, RAL 9005, textured finish **SW**

Guide bore mechanically machined

Slide bushing
Polyamide

Socket cap screw DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

GN 273.1 swivel clamp linear actuator connectors are normally supplied **mounted** only in connection with a linear actuator and for function control.

By means of the clamping screw on the guide bore d_1 the movement can either be set or the linear actuator connector can be clamped (after setting of final adjustment).

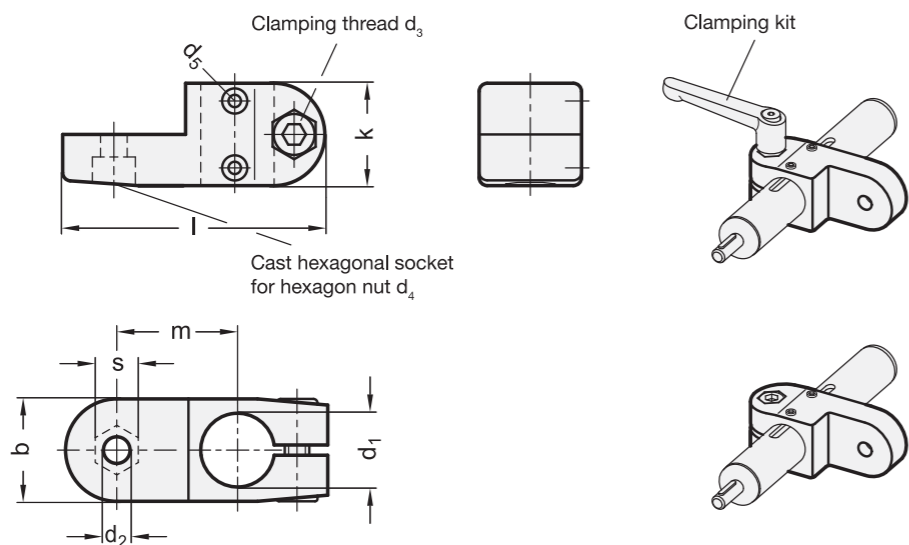
The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 273.1

| Description | d1 Bore B without slide bushing | d1 Bore G with slide bushing | b | d2 | d3 | d4 | d5 | k | l | m | s | Clamping kits for d3 | ⚖ |
|-------------------|---------------------------------|------------------------------|----|-----|-----|-----|-----|----|----|------|----|----------------------|----|
| GN 273.1-B18-2-SW | B 18 | - | 25 | 6.5 | M 6 | M 6 | M 3 | 25 | 64 | 29.5 | 10 | GN 911-M6-22 | 55 |
| GN 273.1-G18-2-SW | - | G 18 | 25 | 6.5 | M 6 | M 6 | M 3 | 25 | 64 | 29.5 | 10 | GN 911-M6-22 | 53 |

Swivel clamp linear actuator connectors

for linear actuators Ø30, Ø40, Ø50

SPECIFICATION

Identification No.

No. **2**: with Stainless Steel-Clamping screw DIN 912

Types

- Type **OZ**: without centring step (smooth)
- Type **MZ**: with centring step
- Type **AV**: with male serration
- Type **IV**: with female serration

Aluminium
plastic coated
black, RAL 9005, textured finish **SW**

Guide bore mechanically machined

Slide bush
Polyamide

Socket cap screw DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

GN 274.1 swivel clamp linear actuator connectors are normally supplied **mounted** only in connection with a linear actuator and for function control.

By means of the clamping screw on the guide bore d_1 the movement can either be set or the linear actuator connector can be clamped (after setting of final adjustment).

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

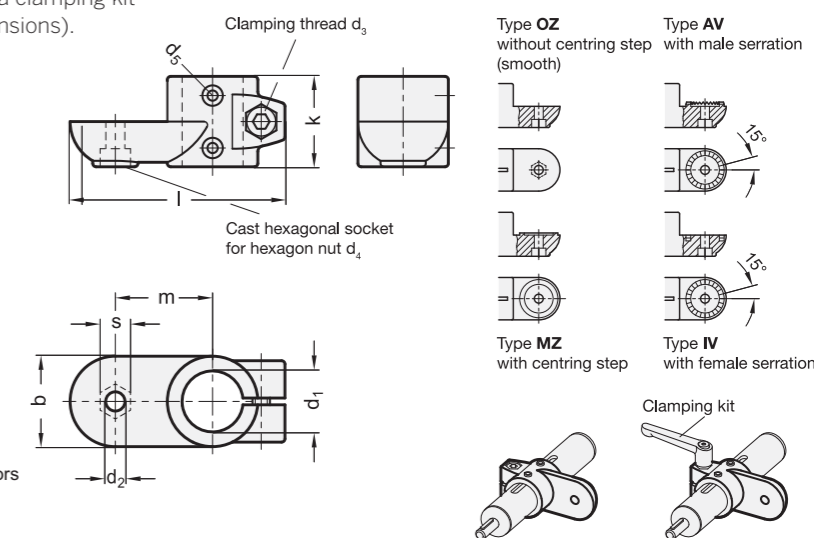


ACCESSORY

- Clamping kits GN 911 (see page 1874)

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



*Complete with Type of the Swivel clamp linear actuator connectors

OZ MZ AV IV

GN 274.1

| Description | d1 Bore B without slide bushing | d1 Bore G with slide bushing | b | d2 | d3 | d4 | d5 | k | l | m | s | Clamping kits for d3 | ⚖ |
|--------------------|---------------------------------|------------------------------|----|------|------|------|-----|----|-----|----|----|----------------------|-----|
| GN 274.1-B30-*2-SW | B 30 | - | 40 | 8.5 | M 8 | M 8 | M 4 | 40 | 95 | 43 | 13 | GN 911-M8-32 | 145 |
| GN 274.1-B40-*2-SW | B 40 | - | 65 | 10.5 | M 10 | M 10 | M 5 | 65 | 148 | 70 | 17 | GN 911-M10-55 | 630 |
| GN 274.1-B50-*2-SW | B 50 | - | 65 | 10.5 | M 10 | M 10 | M 6 | 65 | 148 | 70 | 17 | GN 911-M10-55 | 700 |
| GN 274.1-G30-*2-SW | - | G 30 | 40 | 8.5 | M 8 | M 8 | M 4 | 40 | 95 | 43 | 13 | GN 911-M8-32 | 130 |
| GN 274.1-G40-*2-SW | - | G 40 | 65 | 10.5 | M 10 | M 10 | M 5 | 65 | 148 | 70 | 17 | GN 911-M10-55 | 580 |
| GN 274.1-G50-*2-SW | - | G 50 | 65 | 10.5 | M 10 | M 10 | M 6 | 65 | 148 | 70 | 17 | GN 911-M10-55 | 670 |

Weight Type OZ



Square linear actuators

with right or left hand thread

SPECIFICATION

Types

- Type **R1**: Right hand thread, shaft journal at one end
- Type **R2***: Right hand thread, shaft journal at both ends
- Type **L1**: Left hand thread, shaft journal at one end
- Type **L2***: Left hand thread, shaft journal at both ends

* usually not available from stock

- Square tube
- Steel, chrome-plated **SCR**
- Spindle with trapezoidal thread
- Steel
- ball bearing
- Lead nut
- Gunmetal
- End cap
- Plastic



INFORMATION

GN 291.1 Square linear actuators are used if the linear actuator connectors are exposed to high torsion forces.

In addition to the standard stroke lengths specified in the above table for linear actuators any stroke inside the maximum stroke length is available. Besides the extensive range of two-part tube clamp connectors there are a number of different components for fixing the linear actuators and to build linear actuator connectors.

In order to measure the displacement and positioning of the linear actuator connectors, the square tube can be provided with a longitudinal scale.

ACCESSORY

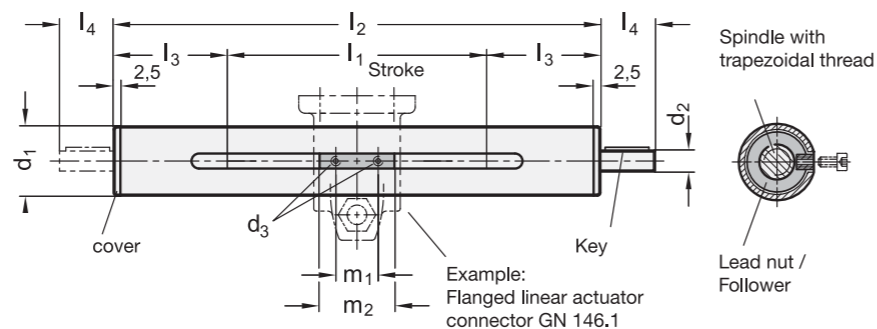
- Linear actuator connectors, tube clamp connectors and accessory have to be ordered separately.

ON REQUEST

- Square linear actuators GN 291.1 made of Stainless Steel.

TECHNICAL INFORMATION

- ISO-Fundamental tolerances (see page A21)



* Complete with Type of the Square linear actuators

R1 R2* L1 L2*

GN 291.1

| Description | s | l1 | Max. stroke | Threaded spindle | d1 f7 | d2 | l2 | l3 | l4 | m1 | m2 | For key DIN 6885 | ⚖ |
|-----------------------|----|-----|-------------|------------------|-------|-----|--------|-------|----|----|----|------------------|------|
| GN 291.1-30-100-*-SCR | 30 | 100 | 1250 | TR14x4 | 8 | M 4 | l1+210 | 105 | 16 | 23 | 38 | A2x2x12 | 825 |
| GN 291.1-30-150-*-SCR | 30 | 150 | 1250 | TR14x4 | 8 | M 4 | l1+210 | 105 | 16 | 23 | 38 | A2x2x12 | 948 |
| GN 291.1-30-200-*-SCR | 30 | 200 | 1250 | TR14x4 | 8 | M 4 | l1+210 | 105 | 16 | 23 | 38 | A2x2x12 | 1260 |
| GN 291.1-30-300-*-SCR | 30 | 300 | 1250 | TR14x4 | 8 | M 4 | l1+210 | 105 | 16 | 23 | 38 | A2x2x12 | 1300 |
| GN 291.1-40-70-*-SCR | 40 | 70 | 1570 | TR20x4 | 12 | M 5 | l1+240 | 120 | 17 | 42 | 54 | A4x4x12 | 1685 |
| GN 291.1-40-170-*-SCR | 40 | 170 | 1570 | TR20x4 | 12 | M 5 | l1+240 | 120 | 17 | 42 | 54 | A4x4x12 | 2229 |
| GN 291.1-40-220-*-SCR | 40 | 220 | 1570 | TR20x4 | 12 | M 5 | l1+240 | 120 | 17 | 42 | 54 | A4x4x12 | 2492 |
| GN 291.1-40-270-*-SCR | 40 | 270 | 1570 | TR20x4 | 12 | M 5 | l1+240 | 120 | 17 | 42 | 54 | A4x4x12 | 2709 |
| GN 291.1-40-320-*-SCR | 40 | 320 | 1570 | TR20x4 | 12 | M 5 | l1+240 | 120 | 17 | 42 | 54 | A4x4x12 | 3100 |
| GN 291.1-50-65-*-SCR | 50 | 65 | 1565 | TR20x4 | 12 | M 6 | l1+245 | 122.5 | 18 | 42 | 54 | A4x4x12 | 2639 |
| GN 291.1-50-115-*-SCR | 50 | 115 | 1565 | TR20x4 | 12 | M 6 | l1+245 | 122.5 | 18 | 42 | 54 | A4x4x12 | 2820 |
| GN 291.1-50-215-*-SCR | 50 | 215 | 1565 | TR20x4 | 12 | M 6 | l1+245 | 122.5 | 18 | 42 | 54 | A4x4x12 | 3500 |
| GN 291.1-50-265-*-SCR | 50 | 265 | 1565 | TR20x4 | 12 | M 6 | l1+245 | 122.5 | 18 | 42 | 54 | A4x4x12 | 3830 |
| GN 291.1-50-315-*-SCR | 50 | 315 | 1565 | TR20x4 | 12 | M 6 | l1+245 | 122.5 | 18 | 42 | 54 | A4x4x12 | 4190 |

Weight Type R1



Linear actuator connectors

Aluminium, same bore dimensions d1 / s1 and d2 / s2

SPECIFICATION

Identification No.

No. **2**: with 4 Stainless Steel-Clamping screws DIN 912

Aluminium
plastic coated
black, RAL 9005, textured finish **SW**

Clamping bores not machined

Fastening elements / Transfer elements

- Socket cap screws DIN 912
- Hexagon nuts DIN 985
- Centering bushings, follower

Stainless Steel AISI 304



INFORMATION

GN 134.1 linear actuator connectors are normally supplied **mounted** only in connection with a square linear actuator and for function control.

The fixing bores for the follower are always located in the lid of the bore d1 and/or the square s1. Centering bushings in the through-hole eliminate the axial clearance. The width of the s1 square is dimensionally aligned with the play of the square linear actuators.

The square s2 of the linear actuator connector is supplied not machined in the standard design.

The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by clamping kits GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

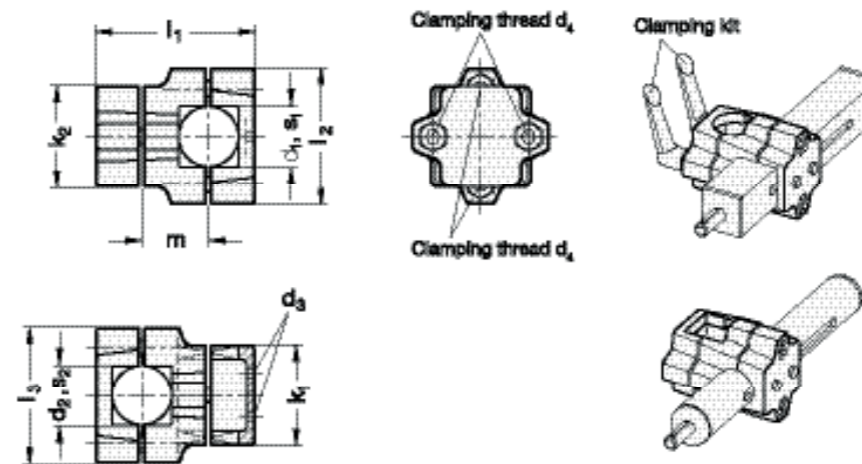
Clamping kits GN 911 (see page 1874)

ON REQUEST

- Linear actuator connectors with little play
- other bore and square combinations
- GN 134.2 linear actuator connectors for double systems

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 134.1

| Description | d1 | s1 | d2 | s2 | d3 | d4 | k1 | k2 | l1 | l2 | l3 | m | Clamping kits for d4 | ⚖ |
|-----------------------|------|------|------|------|-----|------|----|----|------|----|----|------|----------------------|-----|
| GN 134.1-B30-B30-2-SW | B 30 | - | B 30 | - | M 4 | M 8 | 50 | 50 | 79.5 | 68 | 68 | 33.5 | GN 911-M8-32 | 326 |
| GN 134.1-B40-B40-2-SW | B 40 | - | B 40 | - | M 5 | M 10 | 76 | 76 | 125 | 98 | 98 | 55 | GN 911-M10-55 | 885 |
| GN 134.1-B50-B50-2-SW | B 50 | - | B 50 | - | M 6 | M 10 | 76 | 76 | 125 | 98 | 98 | 55 | GN 911-M10-55 | 975 |
| GN 134.1-B30-V30-2-SW | B 30 | - | - | V 30 | M 4 | M 8 | 50 | 50 | 79.5 | 68 | 68 | 33.5 | GN 911-M8-32 | 314 |
| GN 134.1-B40-V40-2-SW | B 40 | - | - | V 40 | M 5 | M 10 | 76 | 76 | 125 | 98 | 98 | 55 | GN 911-M10-55 | 773 |
| GN 134.1-B50-V50-2-SW | B 50 | - | - | V 50 | M 6 | M 10 | 76 | 76 | 125 | 98 | 98 | 55 | GN 911-M10-55 | 891 |
| GN 134.1-V30-V30-2-SW | - | V 30 | - | V 30 | M 4 | M 8 | 50 | 50 | 79.5 | 68 | 68 | 33.5 | GN 911-M8-32 | 300 |
| GN 134.1-V40-V40-2-SW | - | V 40 | - | V 40 | M 5 | M 10 | 76 | 76 | 125 | 98 | 98 | 55 | GN 911-M10-55 | 920 |
| GN 134.1-V50-V50-2-SW | - | V 50 | - | V 50 | M 6 | M 10 | 76 | 76 | 125 | 98 | 98 | 55 | GN 911-M10-55 | 969 |
| GN 134.1-V30-B30-2-SW | - | V 30 | B 30 | - | M 4 | M 8 | 50 | 50 | 79.5 | 68 | 68 | 33.5 | GN 911-M8-32 | 300 |
| GN 134.1-V40-B40-2-SW | - | V 40 | B 40 | - | M 5 | M 10 | 76 | 76 | 125 | 98 | 98 | 55 | GN 911-M10-55 | 946 |
| GN 134.1-V50-B50-2-SW | - | V 50 | B 50 | - | M 6 | M 10 | 76 | 76 | 125 | 98 | 98 | 55 | GN 911-M10-55 | 980 |

Linear actuator connectors

Aluminium / multi part assembly / unequal bore dimensions, d1 / s1 and d2 / s2

SPECIFICATION

Identification No.

No. **2**: with 4 Stainless Steel-Clamping screws DIN 912

Aluminium
plastic coated
black, RAL 9005, textured finish **SW**

Clamping bores not machined

Fastening elements / Transfer elements

- Socket cap screws DIN 912
- Hexagon nuts DIN 985
- Centering bushings, follower

Stainless Steel AISI 304



INFORMATION

GN 135.1 Linear actuator connectors are normally supplied **mounted** only in connection with a square linear actuator and for function control.

The fixing bores for the follower are always located in the lid of the d1 bore and/or the s1 square. Centering bushings in the through-hole eliminate the axial clearance. The width of the s1 square is dimensionally aligned with the play of the square linear actuators.

The square s2 of the linear actuator connector is supplied not machined in the standard design.

The standard version of the clamping screws are socket cap screws with hexagonal socket DIN 912. They can be replaced by clamping kits GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

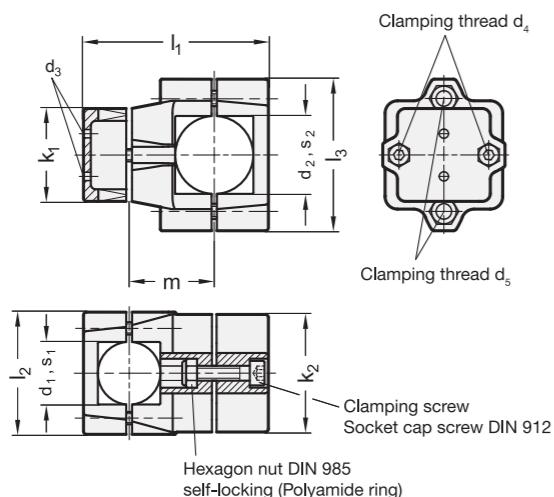
- Clamping kits GN 911 (see page 1874)

ON REQUEST

- Linear actuator connectors with little play
- other bore and square combinations

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 135.1

| Description | d1 | s1 | d2 | s2 | d3 | d4 | d5 | k1 | k2 | l1 | l2 | l3 | m | Clamping kits for d4 | Clamping kits for d5 | ⚖ |
|-----------------------|------|------|------|------|-----|------|------|----|-----|-----|----|----|-----------|----------------------|----------------------|-----|
| GN 135.1-B30-V40-2-SW | B 30 | - | V 40 | M 4 | M 8 | M 10 | 60 | 76 | 120 | 79 | 98 | 55 | 911-M8-55 | 911-M10-55 | 929 | |
| GN 135.1-V30-V40-2-SW | - | V 30 | - | V 40 | M 4 | M 8 | M 10 | 60 | 76 | 120 | 79 | 98 | 55 | 911-M8-55 | 911-M10-55 | 838 |
| GN 135.1-B30-B40-2-SW | B 30 | - | B 40 | - | M 4 | M 8 | M 10 | 60 | 76 | 120 | 79 | 98 | 55 | 911-M8-55 | 911-M10-55 | 869 |
| GN 135.1-V30-B40-2-SW | - | V 30 | B 40 | - | M 4 | M 8 | M 10 | 60 | 76 | 120 | 79 | 98 | 55 | 911-M8-55 | 911-M10-55 | 857 |
| GN 135.1-B30-V50-2-SW | B 30 | - | V 50 | M 5 | M 8 | M 10 | 60 | 76 | 120 | 79 | 98 | 55 | 911-M8-55 | 911-M10-55 | 802 | |
| GN 135.1-V30-V50-2-SW | - | V 30 | - | V 50 | M 5 | M 8 | M 10 | 60 | 76 | 120 | 79 | 98 | 55 | 911-M8-55 | 911-M10-55 | 789 |
| GN 135.1-B30-B50-2-SW | B 30 | - | B 50 | - | M 5 | M 8 | M 10 | 60 | 76 | 120 | 79 | 98 | 55 | 911-M8-55 | 911-M10-55 | 834 |
| GN 135.1-V30-B50-2-SW | - | V 30 | B 50 | - | M 5 | M 8 | M 10 | 60 | 76 | 120 | 79 | 98 | 55 | 911-M8-55 | 911-M10-55 | 825 |
| GN 135.1-B40-B50-2-SW | B 40 | - | B 50 | - | M 6 | M 8 | M 10 | 60 | 76 | 120 | 79 | 98 | 55 | 911-M8-55 | 911-M10-55 | 813 |
| GN 135.1-V40-B50-2-SW | - | V 40 | B 50 | - | M 6 | M 8 | M 10 | 60 | 76 | 120 | 79 | 98 | 55 | 911-M8-55 | 911-M10-55 | 767 |
| GN 135.1-B40-V50-2-SW | B 40 | - | - | V 50 | M 6 | M 8 | M 10 | 60 | 76 | 120 | 79 | 98 | 55 | 911-M8-55 | 911-M10-55 | 785 |
| GN 135.1-V40-V50-2-SW | - | V 40 | - | V 50 | M 6 | M 8 | M 10 | 60 | 76 | 120 | 79 | 98 | 55 | 911-M8-55 | 911-M10-55 | 737 |

Linear actuators connectors

Aluminum, for square linear actuators

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Aluminium
plastic coated
black, RAL 9005, textured finish **SW**

Clamping square not machined

Socket cap screws DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304



INFORMATION

GN 147.1 linear actuator connectors are normally supplied **mounted** only in connection with a square linear actuator and for function control.

The square of the linear actuator connector is supplied not machined in the standard design. Together with the tolerance of the tube, this may result in a relatively large play.

This can be adjusted in one direction using the clamping screws. In the other direction (90° to it), a defined minimum play can be achieved only by appropriate machining (special design) of the square linear actuator connector.

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

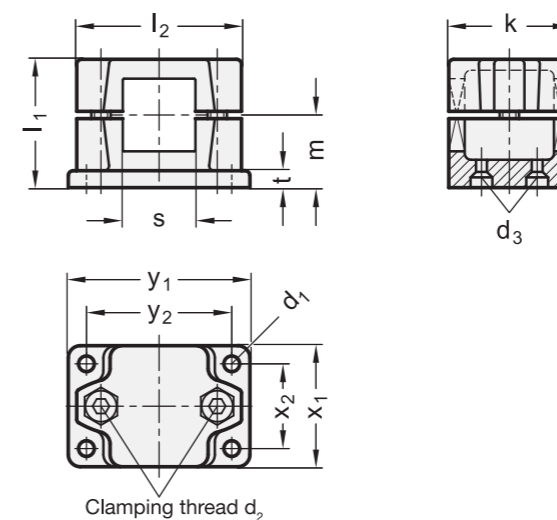
- Clamping kits GN 911 (see page 1874)

ON REQUEST

- Linear actuator connectors with little play

TECHNICAL INFORMATION

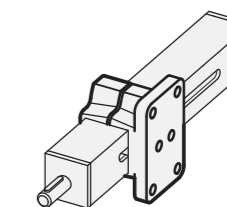
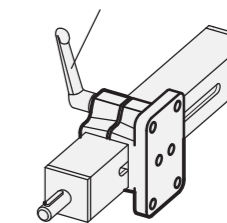
- Stainless Steel characteristics (see page A26)



GN 147.1

| Description | s | d1 | d2 | d3 | k | l1 | l2 | m | t | x1 | x2 | y1 | y2 | Clamping kits for d2 | ⚖ |
|-------------------|------|-----|------|-----|----|------|----|------|----|----|----|-----|----|----------------------|-----|
| GN 147.1-V30-2-SW | V 30 | 6.5 | M 8 | M 4 | 50 | 53 | 68 | 30 | 7 | 50 | 35 | 75 | 60 | GN 911-M8-45 | 221 |
| GN 147.1-V40-2-SW | V 40 | 11 | M 10 | M 5 | 76 | 81.5 | 98 | 46.5 | 14 | 76 | 50 | 115 | 90 | GN 911-M10-70 | 643 |
| GN 147.1-V50-2-SW | V 50 | 11 | M 10 | M 6 | 76 | 81.5 | 98 | 46.5 | 14 | 76 | 50 | 115 | 90 | GN 911-M10-70 | 700 |

Clamping kit



Linear actuator connectors

Aluminum, for square linear actuators

SPECIFICATION

Identification No.

No. **2**: with 2 Stainless Steel-Clamping screws DIN 912

Aluminium
plastic coated
black, RAL 9005, textured finish **SW**

Clamping square not machined

Socket cap screw DIN 912
Stainless Steel AISI 304

Hexagon nuts DIN 985
Stainless Steel AISI 304

INFORMATION

GN 165.1 linear actuator connectors are normally supplied **mounted** only in connection with a square linear actuator and for function control.

The square of the linear actuator connector is supplied not machined in the standard design. Together with the tolerance of the tube, this may result in a relatively large play.

This can be adjusted in one direction using the clamping screws. In the other direction (90° to it), a defined minimum play can be achieved only by appropriate machining (special design) of the square linear actuator connector.

The standard version of the clamping screw is a socket cap screw with hexagonal socket DIN 912. It can be replaced by a clamping kit GN 911 (see page 1874) (article code see table of dimensions).

ACCESSORY

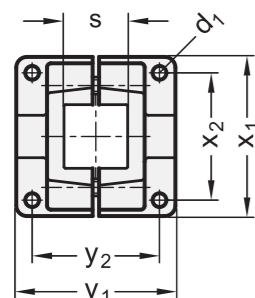
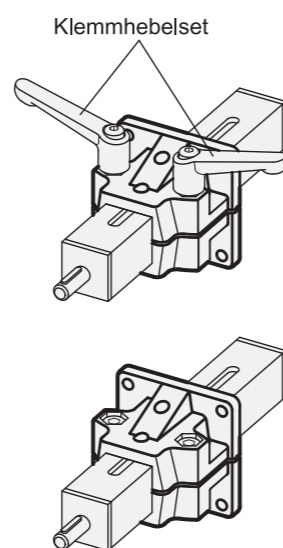
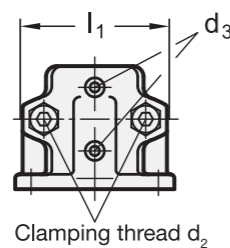
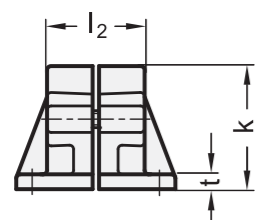
- Clamping kits GN 911 (see page 1874)

ON REQUEST

- Linear actuator connectors with little play

TECHNICAL INFORMATION

- Stainless Steel characteristics (see page A26)



GN 165.1

| Description | s | d1 | d2 | d3 | k | l1 | l2 | t | x1 | x2 | y1 | y2 | Clamping kits for d2 | ⚖ |
|-------------------|------|-----|------|-----|----|----|----|----|-----|----|-----|----|----------------------|-----|
| GN 165.1-V30-2-SW | V 30 | 6.5 | M 8 | M 4 | 58 | 69 | 46 | 7 | 75 | 60 | 75 | 60 | GN 911-M8-32 | 270 |
| GN 165.1-V40-2-SW | V 40 | 11 | M 10 | M 5 | 91 | 98 | 70 | 14 | 115 | 90 | 119 | 90 | GN 911-M10-55 | 920 |
| GN 165.1-V50-2-SW | V 50 | 11 | M 10 | M 6 | 91 | 98 | 70 | 14 | 115 | 90 | 119 | 90 | GN 911-M10-55 | 980 |

Disc handwheel Ø 80

for linear actuators Ø 18

SPECIFICATION

Type

- Type **R**: with revolving handle

Bore code

- Version **K**: with keyway

Aluminium die casting

Hub machined

Rim turned

plastic coated
black, RAL 9005, textured finish **SW**

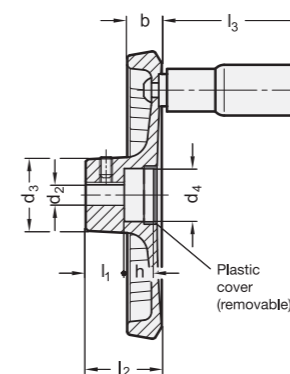
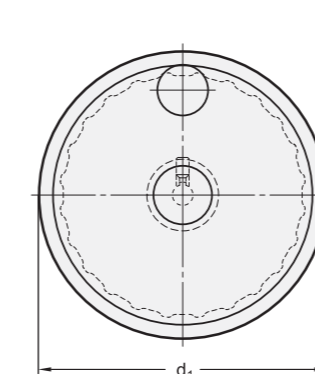
Concentric runout and axial runout deviation of the rim < 0.4

Revolving handles GN 798.2 (see page 578)

Plastic, Technopolymer
black, matt

INFORMATION

- Linear actuators GN 291 (see page 1912)



GN 923.18

| Description | d1 | d2 | d3 | d4 | b | h | l1 | l2 | l3 | Ø Handle GN 798 | ⚖ |
|-------------------|----|----|----|----|----|---|----|----|------|-----------------|-----|
| GN 923.18-80-K6-R | 80 | 6 | 26 | 17 | 13 | 7 | 16 | 26 | 43.5 | 16 | 150 |

Disc handwheel Ø 100

for linear actuators Ø 30

SPECIFICATION

Type

- Type **R**: with revolving handle

Bore code

- Version **K**: with keyway

Aluminium die casting

Hub machined

Rim turned

plastic coated
black, RAL 9005, textured finish **SW**

Concentric runout and axial runout deviation of the rim < 0.4

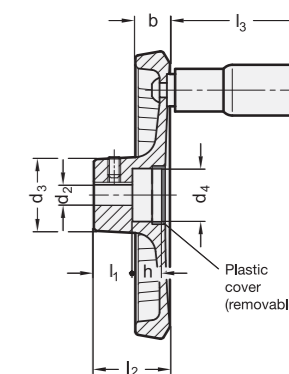
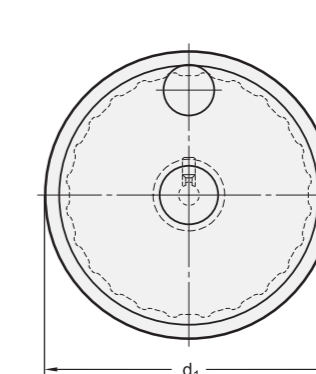
Revolving handles GN 798.2 (see page 578)

Plastic, Technopolymer
black, matt

INFORMATION

- Linear actuators GN 291 (see page 1912)

- Linear actuators GN 291.1 (see page 1930)



GN 923.30

| Description | d1 | d2 | d3 | d4 | b | h | l1 | l2 | l3 | Ø Handle GN 798 | ⚖ |
|--------------------|-----|----|----|----|----|-----|----|----|----|-----------------|-----|
| GN 923.30-100-K8-R | 100 | 8 | 28 | 22 | 14 | 9.5 | 17 | 30 | 58 | 18 | 200 |

GN 923.40



Disc handwheel Ø 100 for linear actuators Ø 40

SPECIFICATION

Type

- Type **R**: with revolving handle

Bore code

- Version **K**: with keyway

Aluminium die casting

Hub machined

Rim turned

plastic coated
black, RAL 9005, textured finish **SW**

Concentric runout and axial runout deviation
of the rim < 0.4

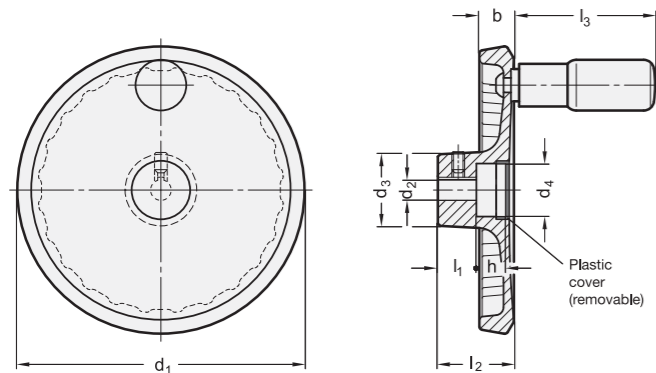
Revolving handles GN 798.2 (see page 578)

Plastic, Technopolymer
black, matt

INFORMATION

- Linear actuators GN 291 (see page 1912)

- Linear actuators GN 291.1 (see page 1930)



GN 923.40

| Description | d1 | d2 | d3 | d4 | b | h | l1 | l2 | l3 ≈ | Ø Handle GN 798 | ⚖ |
|---------------------|-----|----|----|----|----|-----|----|----|------|-----------------|-----|
| GN 923.40-100-K12-R | 100 | 12 | 28 | 22 | 14 | 9.5 | 17 | 30 | 61.5 | 18 | 180 |

GN 924.40



Spoked handwheel Ø 125 for linear actuators Ø 40

SPECIFICATION

Type

- Type **R**: with revolving handle

Bore code

- Version **K**: with keyway

Aluminium die casting

Hub machined

Rim turned

plastic coated
black, RAL 9005, textured finish **SW**

Concentric runout and axial runout deviation
of the rim < 0.4

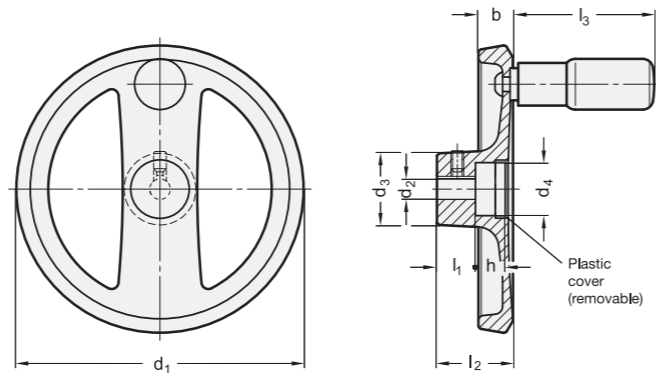
Revolving handles GN 798.2 (see page 578)

Plastic, Technopolymer
black, matt

INFORMATION

- Linear actuators GN 291 (see page 1912)

- Linear actuators GN 291.1 (see page 1930)



GN 924.40

| Description | d1 | d2 | d3 | d4 | b | h | l1 | l2 | l3 ≈ | Ø Handle GN 798 | ⚖ |
|---------------------|-----|----|----|----|----|----|----|------|------|-----------------|-----|
| GN 924.40-125-K12-R | 125 | 12 | 31 | 23 | 15 | 11 | 18 | 33.5 | 61.5 | 22 | 340 |

GN 924.50



Spoked handwheel Ø 140 for linear actuators Ø 50

SPECIFICATION

Type

- Type **R**: with revolving handle

Bore code

- Version **K**: with keyway

Aluminium die casting

Hub machined

Rim turned

plastic coated
black, RAL 9005, textured finish **SW**

Concentric runout and axial runout deviation
of the rim < 0.4

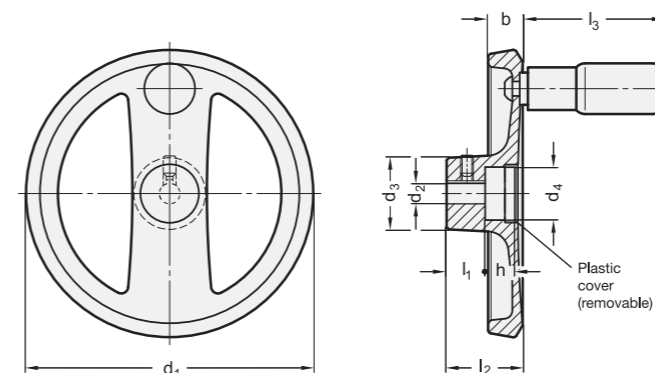
Revolving handles GN 798.2 (see page 578)

Plastic, Technopolymer
black, matt

INFORMATION

- Linear actuators GN 291 (see page 1912)

- Linear actuators GN 291.1 (see page 1930)



GN 924.50

| Description | d1 | d2 | d3 | d4 | b | h | l1 | l2 | l3 ≈ | Ø Handle GN 798 | ⚖ |
|---------------------|-----|----|----|----|------|----|----|------|------|-----------------|-----|
| GN 924.50-140-K12-R | 140 | 12 | 36 | 28 | 16.5 | 13 | 19 | 36.5 | 76.5 | 24 | 410 |

GN 924.60



Spoked handwheel Ø 160 for linear actuators Ø 60

SPECIFICATION

Type

- Type **R**: with revolving handle

Bore code

- Version **K**: with keyway

Aluminium die casting

Hub machined

Rim turned

plastic coated
black, RAL 9005, textured finish **SW**

Concentric runout and axial runout deviation
of the rim < 0.4

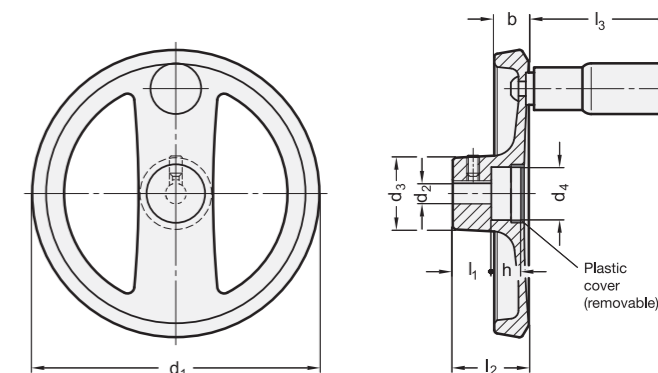
Revolving handles GN 798.2 (see page 578)

Plastic, Technopolymer
black, matt

INFORMATION

- Linear actuators GN 291 (see page 1912)

- Linear actuators GN 291.1 (see page 1930)



GN 924.60

| Description | d1 | d2 | d3 | d4 | b | h | l1 | l2 | l3 ≈ | Ø Handle GN 798 | ⚖ |
|---------------------|-----|----|----|----|----|------|----|------|------|-----------------|-----|
| GN 924.60-160-K14-R | 160 | 14 | 36 | 30 | 18 | 14.5 | 20 | 39.5 | 76.5 | 24 | 587 |

Installation kits

for position indicators used on linear actuators
GN 291, GN 292, GN 293, GN 391

SPECIFICATION

Identification no.

No. **1**: for mechanical position indicators DD52R (see page 721) / DD51 (see page 718)

No. **2**: for electronic position indicators DD52R-E (see page 726) / DD51-E (see page 724)

Adaptor shaft

Steel

blackened

Torque support

Aluminium

black anodized



INFORMATION

The GN 295 installation kits are needed for mounting a position indicator on linear units. The installation kits comprise an adapter shaft and a torque support including attachment screws.

Order mechanical position indicators DD52R (see page 721) / DD51 (see page 718) / DD50 (see page 716) with a counter pitch that corresponds to that of the trapezoidal threaded spindle.

For position indicators DD52R-E (see page 726) / DD51-E (see page 724), the position indicator pitch is programmed.

ON REQUEST

- Linear actuators with analogue position indicator GA11 / GA12 (see page 695)

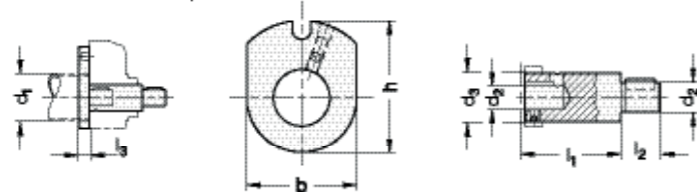
TECHNICAL INFORMATION

- ISO-Fundamental tolerances (see page A21)

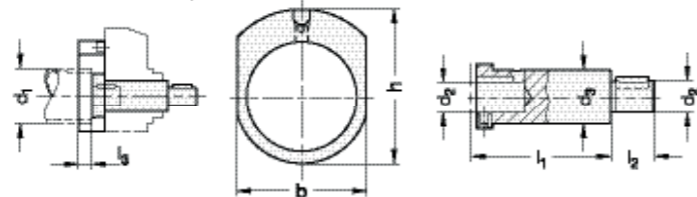
ACCESSORY

Position indicators and handwheels have to be ordered separately.

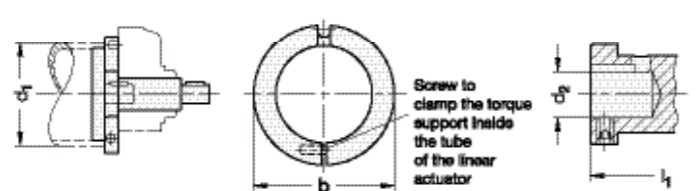
Identification no. 1 (Size $d_1 = 18 \dots 50$)



Identification no. 2 (Size $d_1 = 30 \dots 50$)



Identification no. 1 and 2 (Size $d_1 = 60$)



GN 295

| Description | d1 | d2 f7 | b | d3 | h | l1 | l2 | l3 | Position indicator | ⚖ |
|----------------|----|-------|----|----|------|----|----|----|--------------------|-----|
| GN 295-18-6-1 | 18 | 6 | 24 | 10 | 33 | 28 | 16 | 10 | DD50 | 80 |
| GN 295-30-8-1 | 30 | 8 | 35 | 14 | 42 | 35 | 15 | 10 | DD51 DD51-E | 70 |
| GN 295-30-8-2 | 30 | 8 | 35 | 14 | 42 | 36 | 15 | 10 | DD51 DD51-E | 82 |
| GN 295-40-12-1 | 40 | 12 | 47 | 20 | 56.5 | 39 | 16 | 10 | DD52R DD52R-E | 120 |
| GN 295-40-12-2 | 40 | 12 | 47 | 20 | 56.5 | 43 | 16 | 10 | DD52R DD52R-E | 168 |
| GN 295-50-12-1 | 50 | 12 | 58 | 20 | 61 | 39 | 17 | 10 | DD52R DD52R-E | 118 |
| GN 295-50-12-2 | 50 | 12 | 58 | 20 | 61 | 43 | 17 | 10 | DD52R DD52R-E | 162 |
| GN 295-60-14-1 | 60 | 14 | 64 | 20 | - | 39 | 18 | - | DD52R DD52R-E | 154 |
| GN 295-60-14-2 | 60 | 14 | 64 | 20 | - | 43 | 18 | - | DD52R DD52R-E | 155 |

Installation kits

for position indicators used on square linear actuators GN 291.1

SPECIFICATION

Coding

- Coding **1**: for mechanical position indicators DD51 (see page 718) / DD52R (see page 721)

- Coding **2**: for electronic position indicators DD52R-E (see page 726) / DD51-E (see page 724)

Adaptor shaft

Steel

blackened

Torque support

Aluminium

blank, ground



INFORMATION

The GN 296 installation kits are needed for mounting a position indicator on linear units. The installation kits comprise an adapter shaft and a torque support including attachment screws.

Order mechanical position indicators DD52R (see page 721) / DD51 (see page 718) / DD50 (see page 716) with a counter pitch that corresponds to that of the trapezoidal threaded spindle.

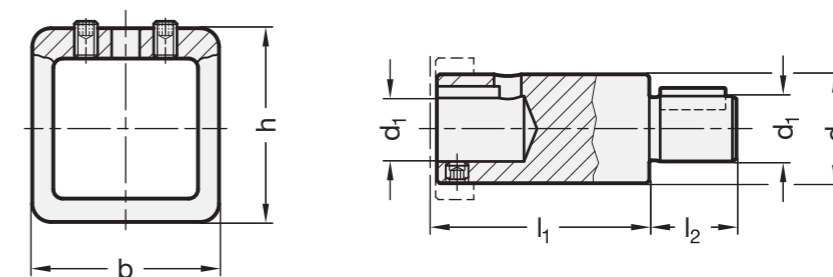
For position indicators DD52R-E (see page 726) / DD51-E (see page 724), the position indicator pitch is programmed.

ACCESSORY

- Position indicators and handwheels have to be ordered separately.

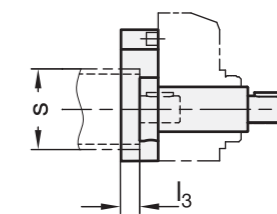
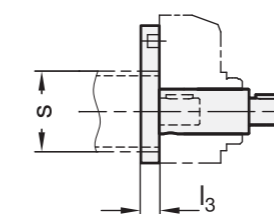
TECHNICAL INFORMATION

- ISO-Fundamental tolerances (see page A21)



Identification no. 1

Identification no. 2



GN 296

| Description | s | d1 f7 | d2 | b | h | l1 | l2 | l3 | For position indicator | ⚖ |
|----------------|----|-------|----|----|------|----|----|----|------------------------|-----|
| GN 296-30-8-1 | 30 | 8 | 14 | 40 | 43.5 | 35 | 15 | 12 | DD51 | 75 |
| GN 296-40-12-1 | 40 | 12 | 20 | 50 | 56.5 | 39 | 16 | 12 | DD52R | 130 |
| GN 296-50-12-1 | 50 | 12 | 20 | 60 | 61.5 | 39 | 17 | 12 | DD52R | 140 |
| GN 296-30-8-2 | 30 | 8 | 14 | 40 | 43.5 | 36 | 15 | 12 | DD51 | 58 |
| GN 296-40-12-2 | 40 | 12 | 20 | 50 | 56.5 | 43 | 16 | 12 | DD52R | 123 |
| GN 296-50-12-2 | 50 | 12 | 20 | 60 | 61.5 | 43 | 17 | 12 | DD52R | 133 |

Drive / Transfer units

SPECIFICATION

Version in Steel

Tube DIN 2391
Steel, chrome-plated **SCR**

Version in Stainless Steel NI

Tube DIN 2462
Stainless Steel AISI 304

Shaft

- Steel respectively Stainless Steel
- ball bearing

End cap
Plastic



INFORMATION

Transfer units GN 391 are normally used in connection with linear actuators (GN 291 see page 1912, GN 292 see page 1914, GN 293 see page 1915). They are designed to transfer the rotary movement for operating the linear actuators to another or a further position.

The transfer unit in the standard length l_1 is a special design: It is designed to turn the operating axis for the linear actuators (handwheel) by 90° together with an angular gear.

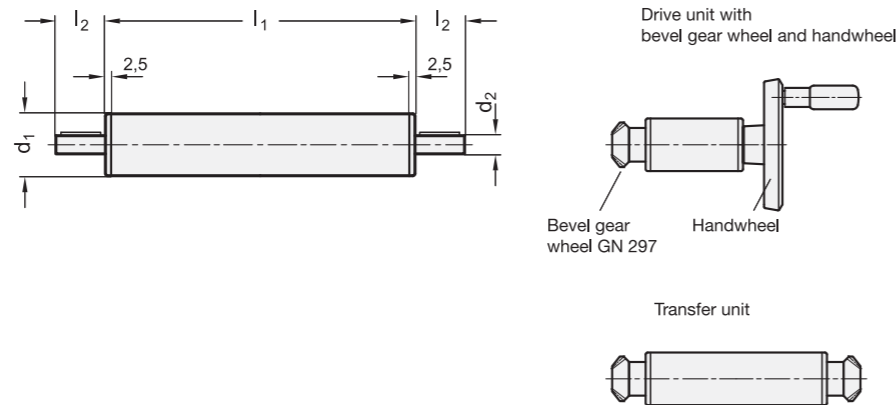
As in linear actuators, digital position indicators can be fitted.

ACCESSORY

- Bevel gear wheels, handwheels, tube clamp connectors and accessory have to be ordered separately.

TECHNICAL INFORMATION

- ISO-Fundamental Tolerances (see page A21)
- Stainless Steel characteristics (see page A26)
- Assembly and application examples of Transfer units (see page 1944)



GN 391-SCR

| Description | d1 | l1 | Transfer units | d2 | l2 | ⚖ |
|------------------|----|----|----------------|----|----|-----|
| GN 391-18-47-SCR | 18 | 47 | * | 6 | 16 | 63 |
| GN 391-30-60-SCR | 30 | 60 | * | 8 | 16 | 180 |
| GN 391-40-93-SCR | 40 | 93 | * | 12 | 17 | 506 |
| GN 391-50-93-SCR | 50 | 93 | * | 12 | 18 | 781 |

GN 391-NI

STAINLESS STEEL

| Description | d1 | l1 | Transfer units | d2 | l2 | ⚖ |
|-----------------|----|----|----------------|----|----|-----|
| GN 391-18-47-NI | 18 | 47 | * | 6 | 16 | 65 |
| GN 391-30-60-NI | 30 | 60 | * | 8 | 16 | 185 |
| GN 391-40-93-NI | 40 | 93 | * | 12 | 17 | 528 |
| GN 391-50-93-NI | 50 | 93 | * | 12 | 18 | 772 |

* according to customer's requirement

Bevel gear wheels

with spiral bevel for linear actuators / transfer units
with angular gear

SPECIFICATION

Types

- Type **R**: Bevel gear wheel, right-hand pitch
- Type **L**: Bevel gear wheel, left-hand pitch
- Type **W**: Set of bevel gears, 2 bevel gears, 1 x right-hand, 1 x left-hand pitch
- Type **T**: Set of bevel gears, 3 bevel gears, 1 x right-hand, 2 x left-hand pitch

Steel
hardened

Teeth milled



INFORMATION

Bevel gear wheels GN 297 are used for angular / T-gears in connection with linear actuators / transfer units and housings GN 298 (see page 1942).

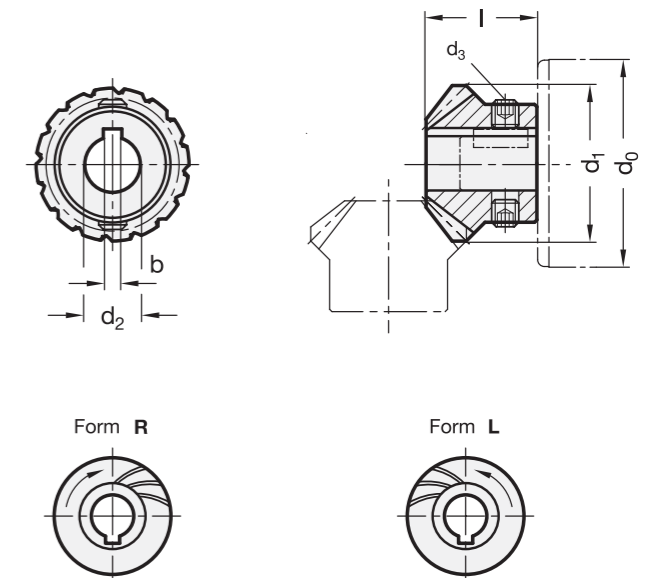
The spiral bevel facilitates both setting the desired clearance and locating the correct position of the bevel gears. Also, gears set up this way run with extremely low noise levels.

Two bevel gears are needed for an angular gear, three bevel gears are needed for a T-gear. These are available as set in Type W and Type T resp.

Please note that only bevel gears with different pitches can be paired. The transmission ratio is always 1:1, because the bevel gears always have the same number of teeth.

TECHNICAL INFORMATION

- ISO-Fundamental Tolerances (see page A21)
- Assembly and application examples of Transfer units (see page 1944)



GN 297

| Description | d0 | d1 | d2 H7 | b | d3 | l | ⚖ |
|------------------|---------|------|-------|---|-----|------|-----|
| GN 297-14,5-K6-L | 18 | 14.5 | K 6 | 2 | M 4 | 11 | 9 |
| GN 297-25-K8-L | 30 | 25 | K 8 | 2 | M 6 | 19 | 36 |
| GN 297-33-K12-L | 40 / 50 | 33 | K 12 | 4 | M 6 | 23.5 | 72 |
| GN 297-14,5-K6-R | 18 | 14.5 | K 6 | 2 | M 4 | 11 | 9 |
| GN 297-25-K8-R | 30 | 25 | K 8 | 2 | M 6 | 19 | 36 |
| GN 297-33-K12-R | 40 / 50 | 33 | K 12 | 4 | M 6 | 23.5 | 72 |
| GN 297-14,5-K6-T | 18 | 14.5 | K 6 | 2 | M 4 | 11 | 150 |
| GN 297-25-K8-T | 30 | 25 | K 8 | 2 | M 6 | 19 | 150 |
| GN 297-33-K12-T | 40 / 50 | 33 | K 12 | 4 | M 6 | 23.5 | 220 |
| GN 297-14,5-K6-W | 18 | 14.5 | K 6 | 2 | M 4 | 11 | 20 |
| GN 297-25-K8-W | 30 | 25 | K 8 | 2 | M 6 | 19 | 75 |
| GN 297-33-K12-W | 40 / 50 | 33 | K 12 | 4 | M 6 | 23.5 | 160 |



Housings

for angular gears / T-gears

SPECIFICATION

Types

- Type **W**: Housing for angular gears
- Type **T**: Housing for T-gears

Aluminium gravity die casting

plastic coated
black, RAL 9005, textured finish **SW**

Thrust screws
Stainless Steel

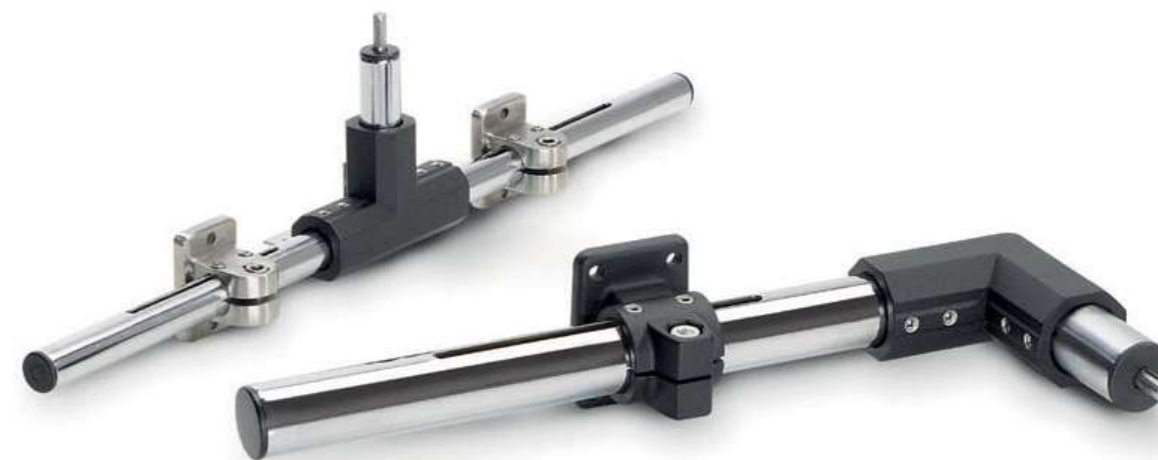
INFORMATION

Housings GN 298 for angular / T-gears are used in connection with bevel gear wheels GN 297 (see page 1942) and linear actuators / transfer units. The angular / T-gears are designed to deflect the rotary movement of a linear actuator / transfer unit by 90°.

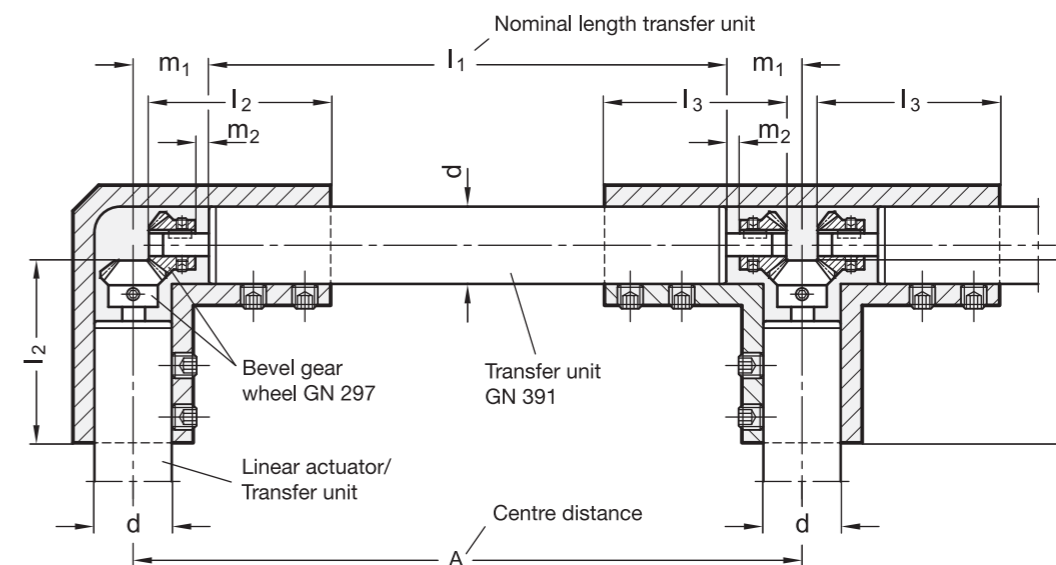
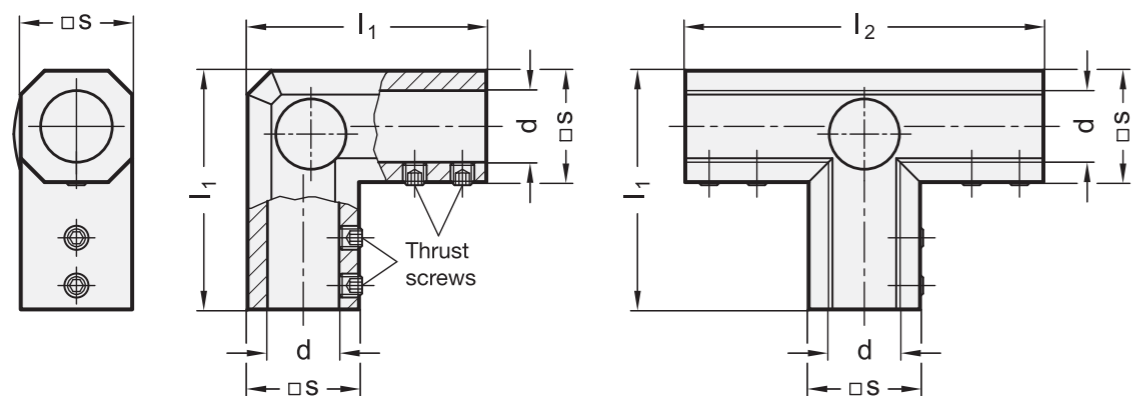
An operating instruction with more details and specifications is included with every delivery.

TECHNICAL INFORMATION

- Assembly and application examples of Transfer units (see page 1944)



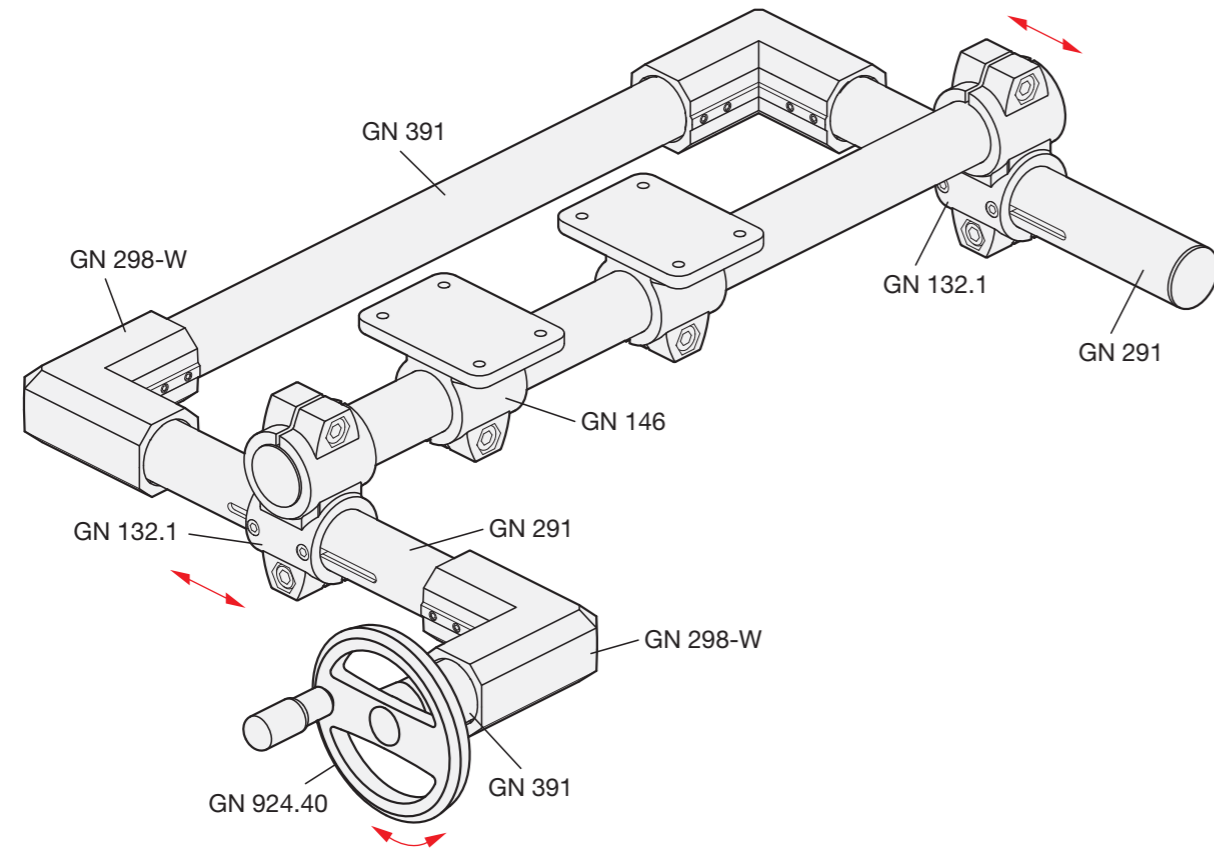
ASSEMBLY OF LINEAR ACTUATORS AND TRANSFER UNITS WITH BEVEL GEAR WHEELS IN HOUSINGS GN 298



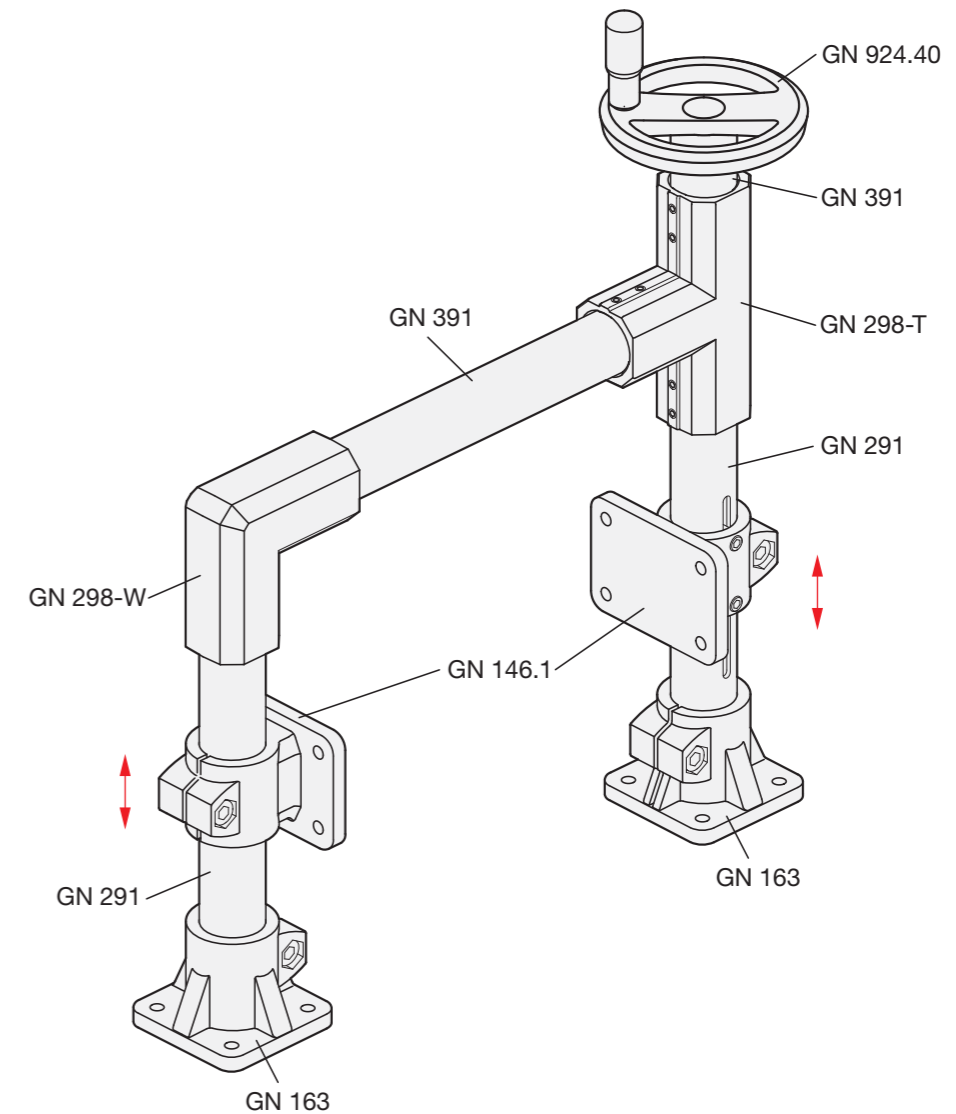
GN 298

| Description | s | d | l1 | l2 | ⊕ |
|--------------------|----|------|-----|-----|-----|
| GN 298-28-B18-W-SW | 28 | B 18 | 60 | 90 | 107 |
| GN 298-40-B30-W-SW | 40 | B 30 | 84 | 126 | 240 |
| GN 298-50-B40-W-SW | 50 | B 40 | 108 | 162 | 434 |
| GN 298-60-B50-W-SW | 60 | B 50 | 128 | 190 | 700 |
| GN 298-28-B18-T-SW | 28 | B 18 | 60 | 90 | 139 |
| GN 298-40-B30-T-SW | 40 | B 30 | 84 | 126 | 280 |
| GN 298-50-B40-T-SW | 50 | B 40 | 108 | 162 | 542 |
| GN 298-60-B50-T-SW | 60 | B 50 | 128 | 190 | 851 |

| d Ø Linear actuator / transfer unit | l2 | l3 | m1 | m2 | Bevel gear wheel | Housing | Length of the transfer unit GN 391: l1 = A - 2 x m1 |
|-------------------------------------|------|------|----|----|------------------|----------------------|--|
| 18 | 41 | 40 | 20 | 4 | GN 297-17,5-K6 | GN 298-28-B18-W/T-SW | |
| 30 | 58 | 57 | 26 | 1 | GN 297-26-K8 | GN 298-40-B30-W/T-SW | |
| 40 | 75.5 | 73.5 | 32 | 1 | GN 297-35-K12 | GN 298-50-B40-W/T-SW | |
| 50 | 90.5 | 87.5 | 32 | 1 | GN 297-35-K12 | GN 298-60-B50-W/T-SW | |



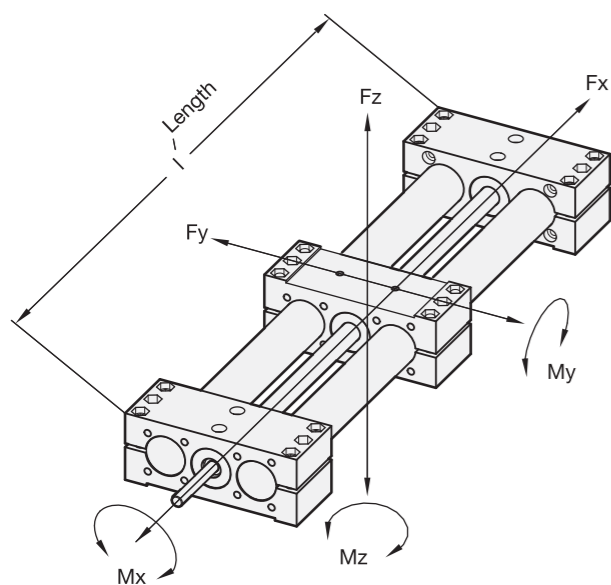
Two parallel sliding linear actuators GN 291 (see page 1912) are connected with a transfer unit GN 391 (see page 1940). The angular housings GN 298-W (see page 1942) including the bevel gear wheels GN 297 (see page 1941) and another transfer unit GN 391 connect the handwheel with the system. The handwheel is placed in a rectangular position to the moving axes.



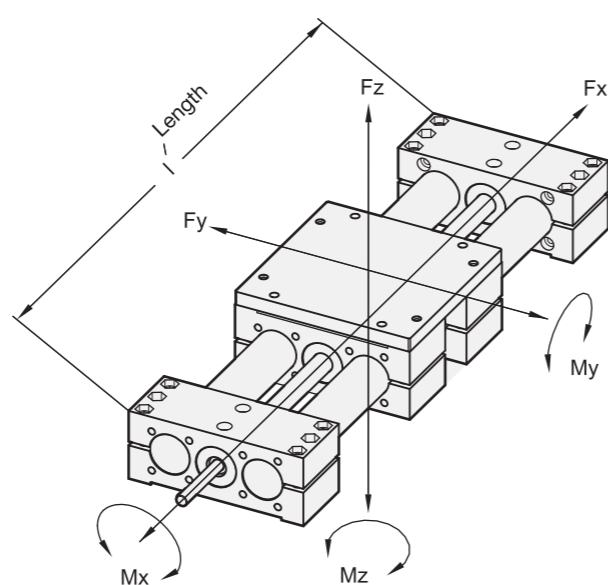
Two flanged linear actuator connectors GN 146.1 (see page 1923) are moved parallel. For this two linear actuators GN 291 (see page 1912) are connected with a transfer unit GN 391 (see page 1940).

The T- and angular gear GN 298-T/-W (see page 1942) including the bevel gear wheels GN 297 (see page 1941) and another transfer unit GN 391 (see page 1940) connect the handwheel with the system. The handwheel is placed in a parallel position to the moving axes.

GN 491



GN 492



| d | Fx | Fy in N for length l = | | | Fz in N for length l = | | | Mx | My | Mz |
|--------|------|------------------------|------|------|------------------------|------|------|-------|-------|-------|
| GN 491 | in N | 500 | 1000 | 1500 | 500 | 1000 | 1500 | in Nm | in Nm | in Nm |
| 18 | 425 | 215 | 110 | - | 105 | 80 | - | 22 | 35 | 40 |
| 30 | 850 | 1100 | 900 | 550 | 600 | 350 | 150 | 100 | 100 | 100 |
| 40 | 1100 | 3700 | 2800 | 1400 | 2100 | 600 | 130 | 150 | 140 | 170 |
| 50 | 1900 | 3850 | 2400 | 2100 | 3100 | 700 | 200 | 180 | 220 | 290 |
| 60 | 2700 | 6900 | 2700 | 5100 | 6300 | 2800 | 360 | 320 | 350 | 500 |

| d | Fx | Fy in N for length l = | | | Fz in N for length l = | | | Mx | My | Mz |
|--------|------|------------------------|------|------|------------------------|------|------|-------|-------|-------|
| GN 492 | in N | 500 | 1000 | 1500 | 500 | 1000 | 1500 | in Nm | in Nm | in Nm |
| 18 | 425 | 290 | 180 | - | 140 | 105 | - | 42 | 50 | 75 |
| 30 | 850 | 1550 | 1300 | 800 | 700 | 550 | 250 | 150 | 150 | 200 |
| 40 | 1100 | 6400 | 3400 | 1900 | 2400 | 750 | 230 | 180 | 210 | 260 |
| 50 | 1900 | 7500 | 5100 | 2700 | 3400 | 850 | 340 | 250 | 350 | 530 |
| 60 | 2700 | 11500 | 9500 | 8200 | 7500 | 3100 | 610 | 550 | 650 | 980 |

The specified forces Fy and Fz cause a flexure of the guide tube of approx. 0.5 mm.

DESCRIPTION

The slider is moved via a bearing-type trapezoidal thread spindle and a guide nut. The slider is guided through two parallel chrome-plated tubes, resulting in a high load capacity and allowing high bending moments to be compensated by the linear actuator.

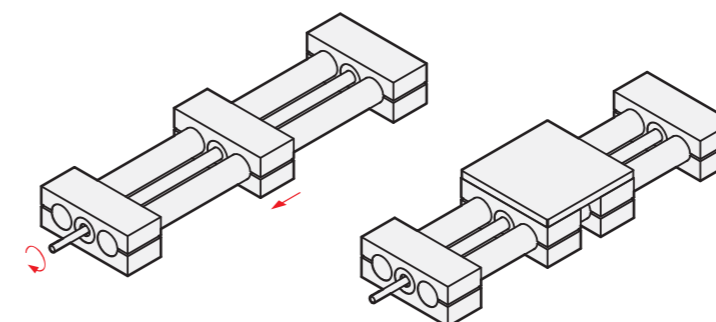
For type GN 492 (see page 1952), a second slider and an adapter plate extend the options for applications.

These double tube linear actuators have been designed for manual operation (handwheel). With the appropriate lubrication, they can also absorb rotary spindle speeds of as much as 250 rpm.

The positioning accuracy is 0.2 mm / 300 mm travel, the maximum reverse play is 0.1 mm.

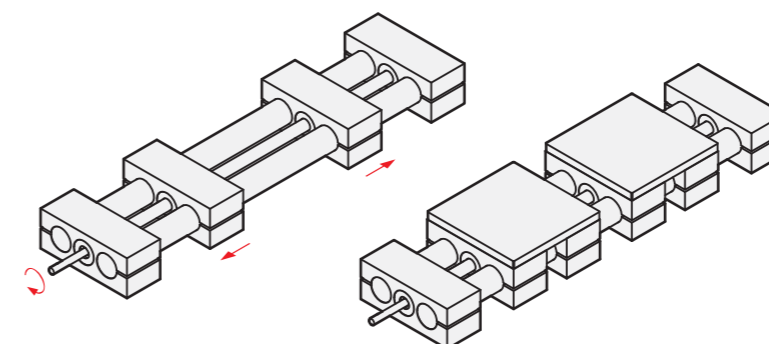
To measure the adjustment or the positioning, digital position indicators DD52R (see page 721) / DD51 (see page 718) / DD52R-E (see page 726) / DD51-E (see page 722) may be attached. The required extension of the shaft journal is enabled by installation kits GN 491.1 (see page 1955).

Further information see on the standard pages of GN 491 (see page 1948) / GN 492 (see page 1952).



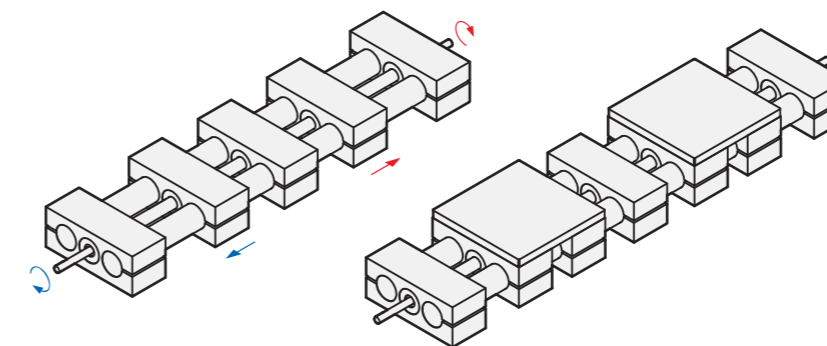
GN 491

GN 492



GN 493

GN 494



GN 495

GN 496

DESCRIPTION

Double tube linear actuators
GN 491 / GN 492
(see page 1948 / see page 1952)
with right or left hand thread,
single shaft end or two shaft ends.

DESCRIPTION

Double tube linear actuators
GN 493 / GN 494
with right and left hand thread,
single shaft end or two shaft ends,
both sliders move symmetrically.

On request:
Double tube linear actuators
GN 493 / GN 494

DESCRIPTION

Double tube linear actuators
GN 495 / GN 496
with two separate spindles,
each with right or left hand thread, both
sliders move independently of each
other.

On request:
Double tube linear actuators
GN 495 / GN 496.



Double tube linear actuators

with right or left hand thread, single slider

SPECIFICATION

Types

- Type **R1**: Right hand thread, shaft journal at one end
- Type **R2***: Right hand thread, shaft journal at both ends
- Type **L1***: Left hand thread, shaft journal at one end
- Type **L2***: Left hand thread, shaft journal at both ends

* normally not available from stock



Guide tube DIN 2391
Steel chrome-plated **SCR**

End pieces / Slider
Aluminium

plastic coated
black, RAL 9005, textured finish

Fixing surface / mounting surface
machined, blank

Spindle with trapezoidal thread

- Steel, blank
- with ball-bearing
- Positioning accuracy ± 0.2 mm/300 mm travel

Follower nut, gun metal

Cylinder head screw DIN 912 /
Hexagon nuts DIN 985
Steel, zinc plated

INFORMATION

In addition to the standard travel lengths specified in the above table for the double tube linear actuator GN 491 any length inside the maximum length is available.

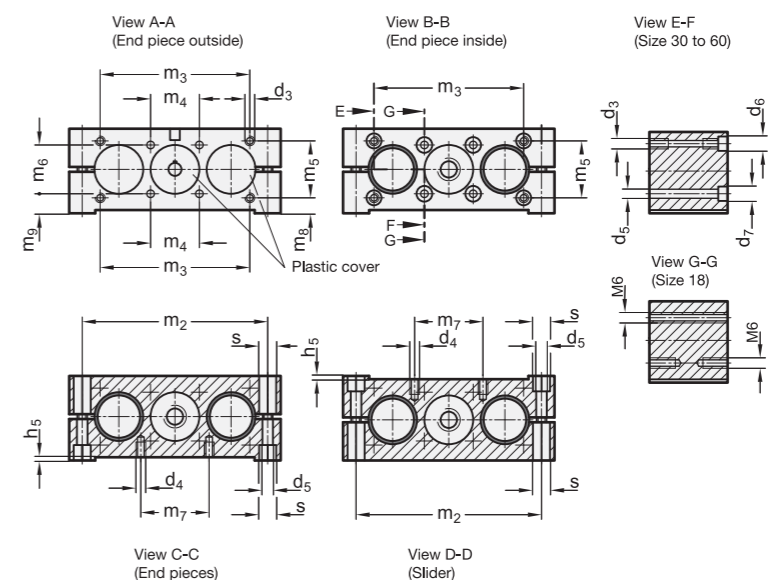
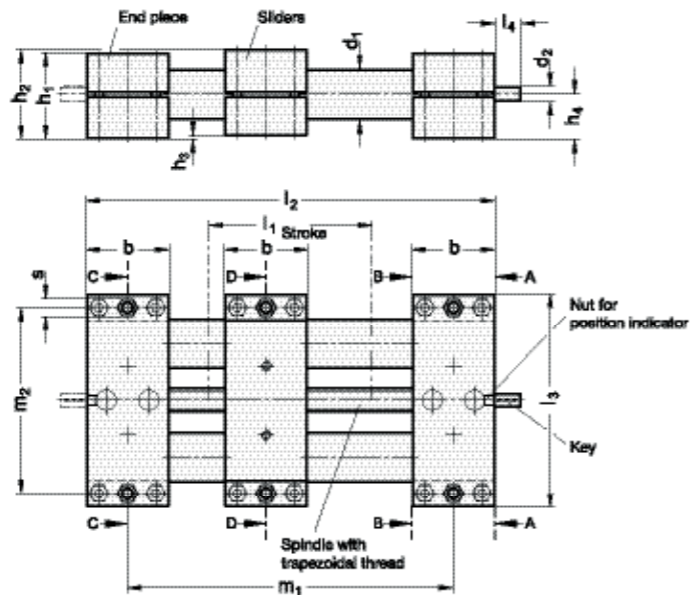
In order to measure the movement and positioning of the sliders, digital position indicators can be added.

ACCESSORY

- Installation kits GN 491.1 (see page 1955) for position indicators

TECHNICAL INFORMATION

- Mounting facilities of end pieces (see page 1950)
- Technical information / Load data of Double tube linear actuators (see page 1946)



GN 491

| Description | d1 | l1 | Max. travel | Shaft thread | b | d2 | d3 | d4 | d5 | d6 | For screw DIN 912 | d7 | For screw DIN 912 | d8 | h1 | h2 | h3 | h4 | h5 |
|----------------------|----|-----|-------------|--------------|----|----|-------|--------|------|------|-------------------|------|-------------------|-----|----|----|----|------|------|
| GN 491-18-100-R1-SCR | 18 | 100 | 420 | TR10x3 | 28 | 6 | - | M5*** | 5.3 | - | - | - | - | M5 | 28 | 29 | 1 | 14.5 | 0.75 |
| GN 491-18-150-R1-SCR | 18 | 150 | 420 | TR10x3 | 28 | 6 | - | M5*** | 5.3 | - | - | - | - | M5 | 28 | 29 | 1 | 14.5 | 0.75 |
| GN 491-18-200-R1-SCR | 18 | 200 | 420 | TR10x3 | 28 | 6 | - | M5*** | 5.3 | - | - | - | - | M5 | 28 | 29 | 1 | 14.5 | 0.75 |
| GN 491-18-250-R1-SCR | 18 | 250 | 420 | TR10x3 | 28 | 6 | - | M5*** | 5.3 | - | - | - | - | M5 | 28 | 29 | 1 | 14.5 | 0.75 |
| GN 491-30-100-R1-SCR | 30 | 100 | 1500 | TR14x4 | 50 | 8 | M6** | M6*** | 6.5 | 9 | M5 | 10.5 | M6 | M6 | 52 | 54 | 2 | 27 | 0.85 |
| GN 491-30-150-R1-SCR | 30 | 150 | 1500 | TR14x4 | 50 | 8 | M6** | M6*** | 6.5 | 9 | M5 | 10.5 | M6 | M6 | 52 | 54 | 2 | 27 | 0.85 |
| GN 491-30-200-R1-SCR | 30 | 200 | 1500 | TR14x4 | 50 | 8 | M6** | M6*** | 6.5 | 9 | M5 | 10.5 | M6 | M6 | 52 | 54 | 2 | 27 | 0.85 |
| GN 491-30-300-R1-SCR | 30 | 300 | 1500 | TR14x4 | 50 | 8 | M6** | M6*** | 6.5 | 9 | M5 | 10.5 | M6 | M6 | 52 | 54 | 2 | 27 | 0.85 |
| GN 491-40-100-R1-SCR | 40 | 100 | 2650 | TR20x4 | 60 | 12 | M8** | M8*** | 8.5 | 13.5 | M6 | 13.5 | M8 | M8 | 60 | 63 | 3 | 31.5 | 1.05 |
| GN 491-40-150-R1-SCR | 40 | 150 | 2650 | TR20x4 | 60 | 12 | M8** | M8*** | 8.5 | 13.5 | M6 | 13.5 | M8 | M8 | 60 | 63 | 3 | 31.5 | 1.05 |
| GN 491-40-200-R1-SCR | 40 | 200 | 2650 | TR20x4 | 60 | 12 | M8** | M8*** | 8.5 | 13.5 | M6 | 13.5 | M8 | M8 | 60 | 63 | 3 | 31.5 | 1.05 |
| GN 491-40-300-R1-SCR | 40 | 300 | 2650 | TR20x4 | 60 | 12 | M8** | M8*** | 8.5 | 13.5 | M6 | 13.5 | M8 | M8 | 60 | 63 | 3 | 31.5 | 1.05 |
| GN 491-50-100-R1-SCR | 50 | 100 | 2760 | TR20x4 | 72 | 12 | M10** | M8*** | 8.5 | 13.5 | M8 | 13.5 | M8 | M8 | 72 | 76 | 4 | 38 | 1.2 |
| GN 491-50-150-R1-SCR | 50 | 150 | 2760 | TR20x4 | 72 | 12 | M10** | M8*** | 8.5 | 13.5 | M8 | 13.5 | M8 | M8 | 72 | 76 | 4 | 38 | 1.2 |
| GN 491-50-200-R1-SCR | 50 | 200 | 2760 | TR20x4 | 72 | 12 | M10** | M8*** | 8.5 | 13.5 | M8 | 13.5 | M8 | M8 | 72 | 76 | 4 | 38 | 1.2 |
| GN 491-50-300-R1-SCR | 50 | 300 | 2760 | TR20x4 | 72 | 12 | M10** | M8*** | 8.5 | 13.5 | M8 | 13.5 | M8 | M8 | 72 | 76 | 4 | 38 | 1.2 |
| GN 491-60-300-R1-SCR | 60 | 300 | 2740 | TR25x5 | 80 | 14 | M10** | M10*** | 10.5 | 13.5 | M8 | 16.5 | M10 | M10 | 86 | 88 | 2 | 44 | 1.35 |
| GN 491-60-400-R1-SCR | 60 | 400 | 2740 | TR25x5 | 80 | 14 | M10** | M10*** | 10.5 | 13.5 | M8 | 16.5 | M10 | M10 | 86 | 88 | 2 | 44 | 1.35 |
| GN 491-60-500-R1-SCR | 60 | 500 | 2740 | TR25x5 | 80 | 14 | M10** | M10*** | 10.5 | 13.5 | M8 | 16.5 | M10 | M10 | 86 | 88 | 2 | 44 | 1.35 |

GN 491

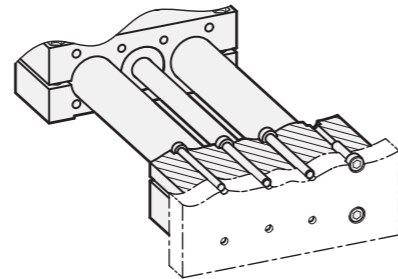
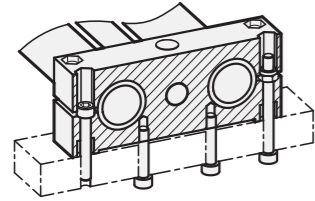
| Description | l2 | l3 | l4 | m1 | m2 | m3 | m4 | m5 | m6 | m7 | m8 | m9 | s | Shaft key spring DIN 6885 | Position indicator | Hand-wheel | |
|----------------------|-----------|-----|----|--------|-----|-----|----|----|----|----|------|------|----|---------------------------|--------------------|------------|-------|
| GN 491-18-100-R1-SCR | 3xb+I5+I1 | 81 | 16 | 2xb+I1 | 68 | - | 20 | - | 20 | 18 | - | 4.5 | 8 | A2x2x12 | DD50 | GN 923.18 | 1020 |
| GN 491-18-150-R1-SCR | 3xb+I5+I1 | 81 | 16 | 2xb+I1 | 68 | - | 20 | - | 20 | 18 | - | 4.5 | 8 | A2x2x12 | DD50 | GN 923.18 | 1120 |
| GN 491-18-200-R1-SCR | 3xb+I5+I1 | 81 | 16 | 2xb+I1 | 68 | - | 20 | - | 20 | 18 | - | 4.5 | 8 | A2x2x12 | DD50 | GN 923.18 | 1200 |
| GN 491-18-250-R1-SCR | 3xb+I5+I1 | 81 | 16 | 2xb+I1 | 68 | - | 20 | - | 20 | 18 | - | 4.5 | 8 | A2x2x12 | DD50 | GN 923.18 | 1360 |
| GN 491-30-100-R1-SCR | 3xb+I5+I1 | 130 | 16 | 2xb+I1 | 114 | 92 | 30 | 35 | 30 | 42 | 9.5 | 12 | 10 | A2x2x12 | DD51 DD51-E | GN 923.30 | 4000 |
| GN 491-30-150-R1-SCR | 3xb+I5+I1 | 130 | 16 | 2xb+I1 | 114 | 92 | 30 | 35 | 30 | 42 | 9.5 | 12 | 10 | A2x2x12 | DD51 DD51-E | GN 923.30 | 4340 |
| GN 491-30-200-R1-SCR | 3xb+I5+I1 | 130 | 16 | 2xb+I1 | 114 | 92 | 30 | 35 | 30 | 42 | 9.5 | 12 | 10 | A2x2x12 | DD51 DD51-E | GN 923.30 | 4500 |
| GN 491-30-300-R1-SCR | 3xb+I5+I1 | 130 | 16 | 2xb+I1 | 114 | 92 | 30 | 35 | 30 | 42 | 9.5 | 12 | 10 | A2x2x12 | DD51 DD51-E | GN 923.30 | 4900 |
| GN 491-40-100-R1-SCR | 3xb+I5+I1 | 180 | 17 | 2xb+I1 | 160 | 132 | 39 | 38 | 39 | 62 | 12.5 | 12 | 13 | A4x4x12 | DD52R DD52R-E | GN 924.40 | 8650 |
| GN 491-40-150-R1-SCR | 3xb+I5+I1 | 180 | 17 | 2xb+I1 | 160 | 132 | 39 | 38 | 39 | 62 | 12.5 | 12 | 13 | A4x4x12 | DD52R DD52R-E | GN 924.40 | 9000 |
| GN 491-40-200-R1-SCR | 3xb+I5+I1 | 180 | 17 | 2xb+I1 | 160 | 132 | 39 | 38 | 39 | 62 | 12.5 | 12 | 13 | A4x4x12 | DD52R DD52R-E | GN 924.40 | 9650 |
| GN 491-40-300-R1-SCR | 3xb+I5+I1 | 180 | 17 | 2xb+I1 | 160 | 132 | 39 | 38 | 39 | 62 | 12.5 | 12 | 13 | A4x4x12 | DD52R DD52R-E | GN 924.40 | 10150 |
| GN 491-50-100-R1-SCR | 3xb+I5+I1 | 206 | 18 | 2xb+I1 | 184 | 150 | 46 | 50 | 46 | 62 | 13 | 15 | 13 | A4x4x12 | DD52R DD52R-E | GN 924.50 | 14000 |
| GN 491-50-150-R1-SCR | 3xb+I5+I1 | 206 | 18 | 2xb+I1 | 184 | 150 | 46 | 50 | 46 | 62 | 13 | 15 | 13 | A4x4x12 | DD52R DD52R-E | GN 924.50 | 14440 |
| GN 491-50-200-R1-SCR | 3xb+I5+I1 | 206 | 18 | 2xb+I1 | 184 | 150 | 46 | 50 | 46 | 62 | 13 | 15 | 13 | A4x4x12 | DD52R DD52R-E | GN 924.50 | 14860 |
| GN 491-50-300-R1-SCR | 3xb+I5+I1 | 206 | 18 | 2xb+I1 | 184 | 150 | 46 | 50 | 46 | 62 | 13 | 15 | 13 | A4x4x12 | DD52R DD52R-E | GN 924.50 | 16020 |
| GN 491-60-300-R1-SCR | 3xb+I5+I1 | 240 | 19 | 2xb+I1 | 216 | 185 | 55 | 60 | 55 | 74 | 14 | 16.5 | 17 | A5x5x16 | DD52R DD52R-E | GN 924.60 | 26900 |
| GN 491-60-400-R1-SCR | 3xb+I5+I1 | 240 | 19 | 2xb+I1 | 216 | 185 | 55 | 60 | 55 | 74 | 14 | 16.5 | 17 | A5x5x16 | DD52R DD52R-E | GN 924.60 | 28550 |
| GN 491-60-500-R1-SCR | 3xb+I5+I1 | 240 | 19 | 2xb+I1 | 216 | 185 | 55 | 60 | 55 | 74 | 14 | 16.5 | 17 | A5x5x16 | DD52R DD52R-E | GN 924.60 | 30200 |

** useable depth of thread from both sides min. 2 x d3 | *** useable depth of thread min. 1.5 x d4

Mounting facilities of the end pieces

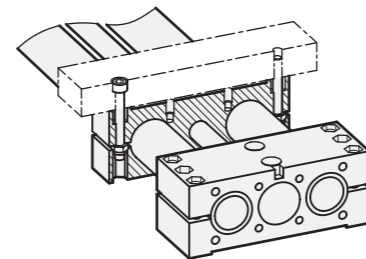
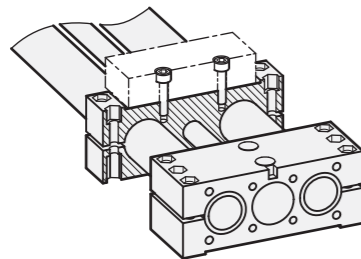
Horizontal
with screws for thread d4 or bore d5

Vertical
From outside, with screws for thread d3
From inside, with screws for bore d6
From inside, with screws for bore d5 / d7



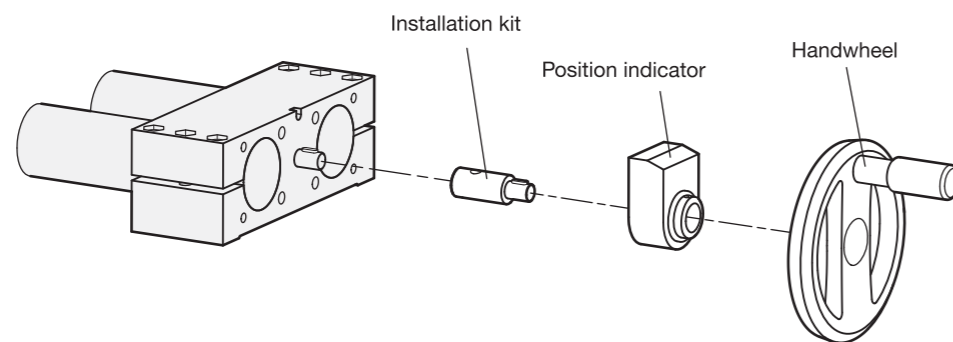
Mounting facilities at the slider

Mounting with screws for thread d4 or bore d5



Assembly of position indicator and handwheel

Useage of installation kit, position indicator and handwheel, see table





Double tube linear actuators

with right or left hand thread, double slider

SPECIFICATION

Types

- Type R1: Right hand thread, single shaft end
- Type R2*: Right hand thread, two shaft ends
- Type L1*: Left hand thread, single shaft end
- Type L2*: Left hand thread, two shaft ends

* normally not available from stock

Guide tube DIN 2391

Steel chrome-plated SCR

End pieces / Slider / Adapter plated Aluminium

plastic coated black, RAL 9005, textured finish

Fixing surface / mounting surface machined, blank

Spindle with trapezoidal thread

- Steel, blank
- with ball-bearing
- Positioning accuracy ±0.2 mm/300 mm travel

Follower nut, gun metal

Cylinder head screws DIN 912 / Hexagon nuts DIN 985

Steel, zinc plated

INFORMATION

In addition to the standard travel lengths specified in the above table for the double tube linear actuator GN 492 any length inside the maximum length is available.

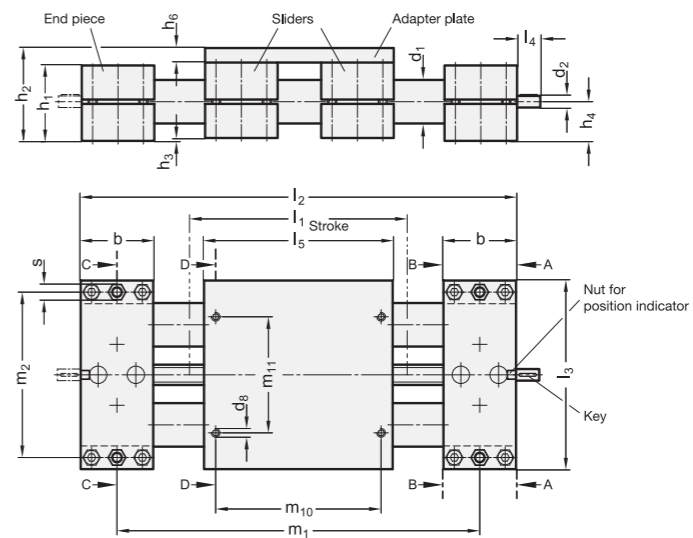
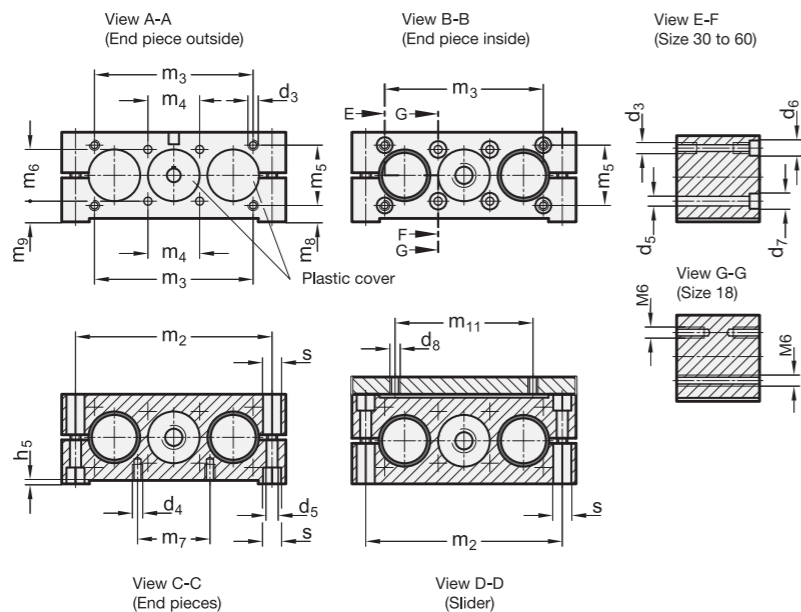
In order to measure the movement and positioning of the sliders, digital position indicators can be added.

ACCESSORY

- Installation kits GN 491.1 (see page 1955) for position indicators

TECHNICAL INFORMATION

- Mounting facilities of end pieces (see page 1950)
- Technical information / Load data of Double tube linear actuators (see page 1946)



GN 492

Table with columns: Description, d1, l1, Max. travel, Shaft thread, b, d2, d3, d4, d5, d6, For screw DIN 912, For screw DIN 912, d7, d8, h1, h2, h3, h4, h5, h6. Lists various actuator models and their specifications.

GN 492

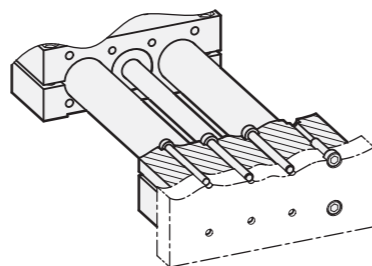
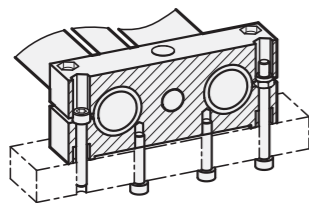
Table with columns: Description, l2, l3, l4, l5, m1, m2, m3, m4, m5, m6, m7, m8, m9, m10, m11, s, Shaft key spring DIN 6885, Position indicator, Handwheel. Lists actuator models and their specifications.

** useable depth of thread from both sides min. 2 x d3 | *** useable depth of thread min. 1.5 x d4

Mounting facilities of the end pieces

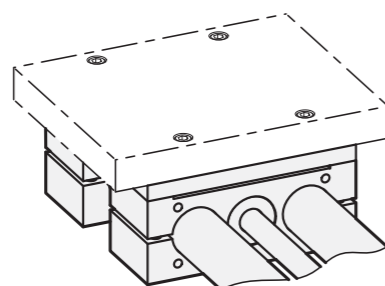
Horizontal
with screws for thread d4 or bore d5

Vertical
From outside, with screws for thread d3
From inside, with screws for bore d6
From inside, with screws for bore d5 / d7



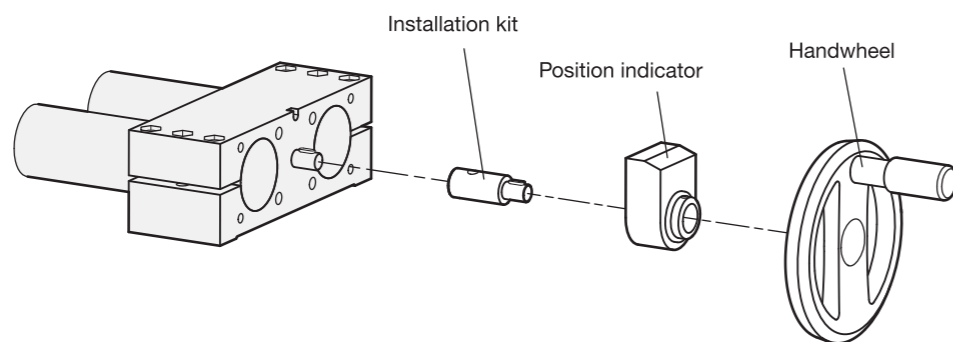
Mounting facilities at the slider

Mounting with screws for thread d8



Assembly of position indicator and handwheel

Useage of installation kit, position indicator and handwheel, see table.



Installation kits

for position indicators used on linear actuators
GN 491 / GN 492

SPECIFICATION

Identification no.

- No. 1: for mechanical position indicators DD52R / DD51 / DD50
- No. 2: for electrical position indicators DD52R-E / DD51-E

Adaptor shaft
Steel
blackened

Torque support
Aluminium
black anodized

INFORMATION

The installation kits GN 491.1 are required for the attachment of a position indicator to double tube linear actuators. They consist of an adapter shaft and, depending on the position indicator, a torque support including fixing screws.

Mechanical position indicators DD52R (see page 726) / DD51 (see page 718) / DD50 (see page 716) must be ordered so that the counter is aligned with the rising of the trapezoidal thread spindle.

For the position indicators DD52R-E (see page 726) / DD51-E (see page 722) the respective rising is set at the position indicator for every programming.

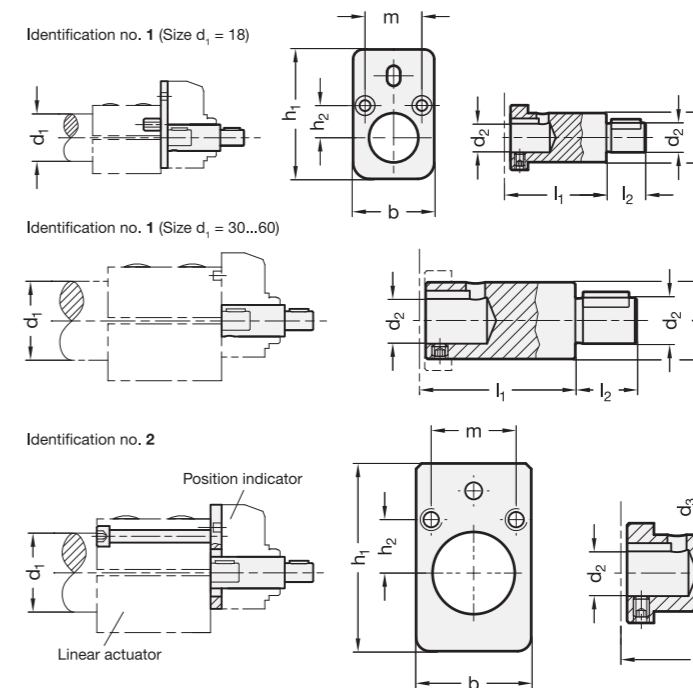


ACCESSORY

Position indicators and handwheels have to be ordered separately.

TECHNICAL INFORMATION

- ISO-Fundamental tolerances (see page A21)



GN 491.1

| Description | d1 Ø Linear actuator | d2 f7 | b | d3 | l1 | l2 | h1 | h2 | m | For position indicator | ⚖ |
|------------------|----------------------------|-------|----|----|----|----|------|------|----|---------------------------|-----|
| GN 491.1-18-6-1 | 18 | 6 | 27 | 10 | 30 | 16 | 38.5 | 10 | 20 | DD50 | 90 |
| GN 491.1-30-8-1 | 30 | 8 | 40 | 14 | 35 | 15 | 54.5 | 15 | 30 | DD51 DD51-E | 100 |
| GN 491.1-40-12-1 | 40 | 12 | 50 | 20 | 39 | 16 | 72.5 | 19.5 | 39 | DD52R DD52R-E | 159 |
| GN 491.1-50-12-1 | 50 | 12 | 60 | 20 | 39 | 17 | 72.5 | 23 | 46 | DD52R DD52R-E | 159 |
| GN 491.1-60-14-1 | 60 | 14 | 70 | 20 | 39 | 18 | 72.5 | 27.5 | 55 | DD52R DD52R-E | 92 |
| GN 491.1-30-8-2 | 30 | 8 | 40 | 14 | 44 | 15 | 54.5 | 15 | 30 | DD51 DD51-E | 150 |
| GN 491.1-40-12-2 | 40 | 12 | 50 | 20 | 51 | 16 | 72.5 | 19.5 | 39 | DD52R DD52R-E | 247 |
| GN 491.1-50-12-2 | 50 | 12 | 60 | 20 | 51 | 17 | 72.5 | 23 | 46 | DD52R DD52R-E | 271 |
| GN 491.1-60-14-2 | 60 | 14 | 70 | 20 | 51 | 18 | 72.5 | 27.5 | 55 | DD52R DD52R-E | 324 |

Tube Clamp Connectors 16

Tube Clamp Connectors 16