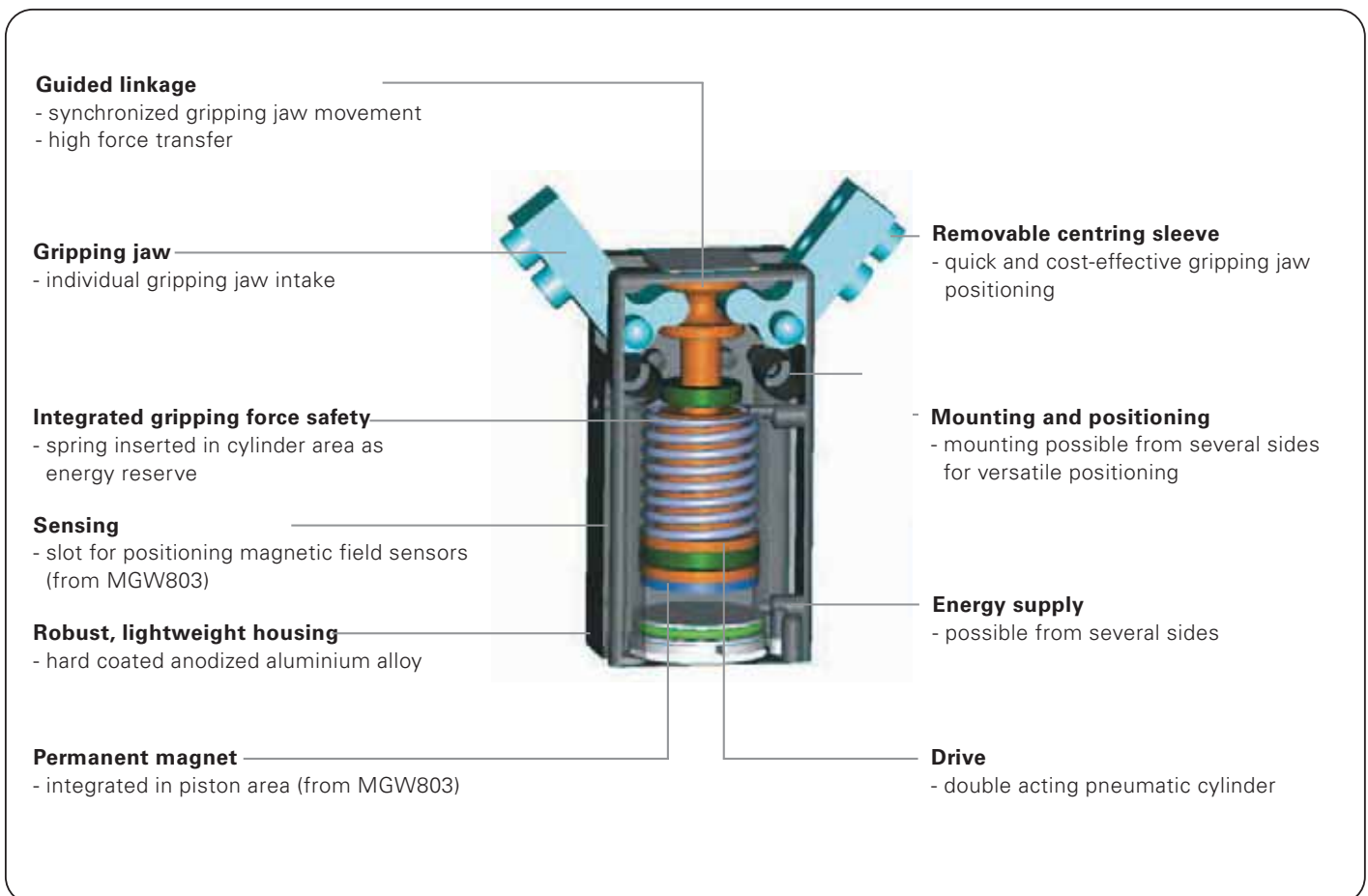


Mini-Angular Gripper *MGW Series*

Features

- Minimized design, five sizes, max.outside dimensions 30x23x46.5 mm, stroke 37,5° per jaw
- Sensing of the piston position through magnetic field sensor (from MGW803 and up)
- Available with mechanical gripping force safety device

Functional diagram



Terms

- Gripping force:** arithmetic sum of the individual forces occurring at the jaws
- Closing/opening time:** time required by the gripping jaws to turn through the entire angle
- Repeatability:** at end stops after 50/100 consecutive cycles
- Cycle:** one complete movement of the piston forward and back
- Maintenance:** recommended at 10 mil. cycles
(please see the owner’s manual for conditions)
 - long maintenance intervals keep costs down
 - long lifespan

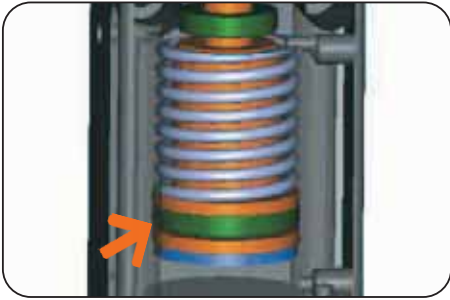
Model guide

- N:** Standard design (long stroke - standard force)
- C:** For external gripping, self-locking, spring closing

Order no.	Stroke per jaw	Gripping torque in opening	Gripping torque in closing	Self-locking via
MGW801N	37,5°	0,03 Nm	0,025 Nm	DSV*
MGW802N	37,5°	0,05 Nm	0,045 Nm	DSV*
MGW803N	37,5°	0,23 Nm	0,21 Nm	DSV*
MGW803NC	37,5°	-	0,31 Nm	Spring
MGW804N	37,5°	0,41 Nm	0,35 Nm	DSV*
MGW804NC	37,5°	-	0,52 Nm	Spring
MGW806N	37,5°	1,02 Nm	0,85 Nm	DSV*
MGW806NC	37,5°	-	1,10 Nm	Spring

*DSV= Pressure safety valves (Order no. DSV1/8)

Mini-Angular Gripper *MGW Series*



Drive

N Models:

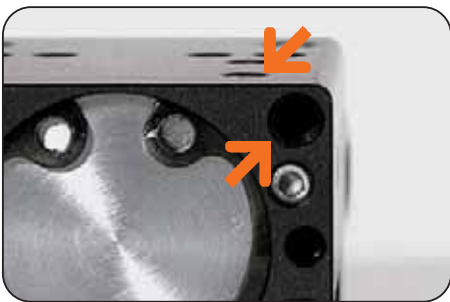
Double acting pneumatic cylinder

- maximum torque in opening and closing
- gripping torque up to 1,1 Nm

NC Models:

Double acting pneumatic cylinder with integrated mechanical gripping force safety device

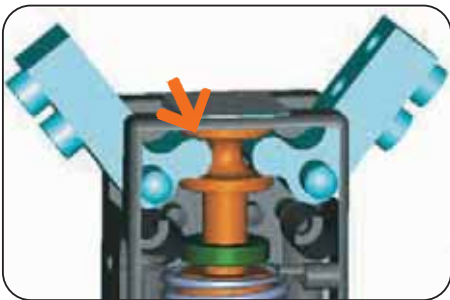
- optimum coordination of drive force and gripping moment secured by spring



Connections

Fixing and positioning options

- installation location as desired
- optimal utilization to the application parameters



Power transfer

Positively driven lever gearing

- optimum transmission of drive force in gripping force
- self-centering
- synchronization
- high repeatability



Gripping jaw positioning

individual gripping jaw positioning via centring sleeve

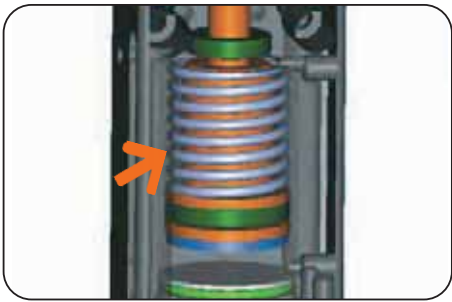
- precise positioning of individual gripping jaws
- quick, cost-effective and therefore economical jaw changing
- space-saving fixing



Position sensing

**indirect piston position sensing via magnetic field sensors
(from MGW803)**

- process safe
- compact
- for magnetic field sensors with c-nut bracket



Gripping force safety device

NC Model (from MGW803)

spring integrated into cylinder as energy reserve

- permanent maintenance of gripping force
- compact design

N Model:

External pressure safety valve

- gripping force safety possible by addition of a pressure safety valve (order no. DSV1/8). The inevitable leakage in the pneumatic circuit restricts the time of this type of gripping force safety.



Energy supply

Flexibility possible on several sides

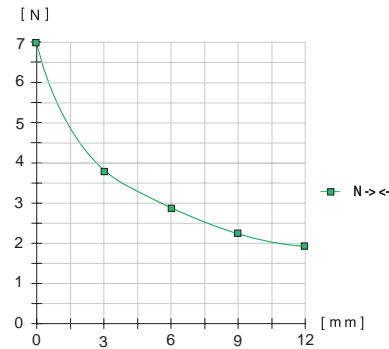
- optimum integration into the workroom through individual connection option
- tubless direct connection possibility, no additional interference contours (ab MGW802)

Mini-Angular Gripper *MGW Series*



Gripping force diagram

Gripping force as a function of jaw length.



measured from top edge of housing ◆

Forces and Moments

Max allowable forces and moments on jaws.



Included with purchase



Centring sleeve
Order no. **BDST80100**

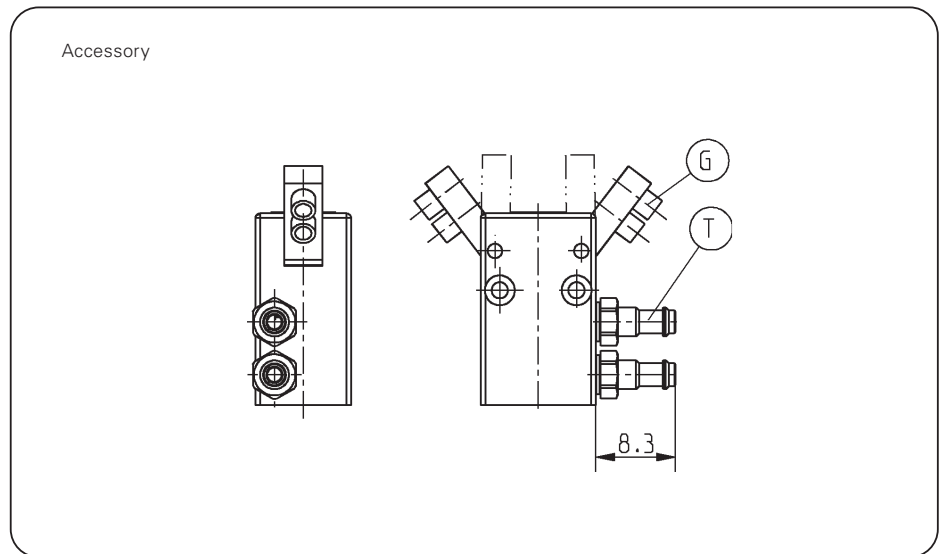
Accessory list



Pneumatic fittings
Order no. **GVM3**



Pressure safety valve
Order no. **DSV1/8**



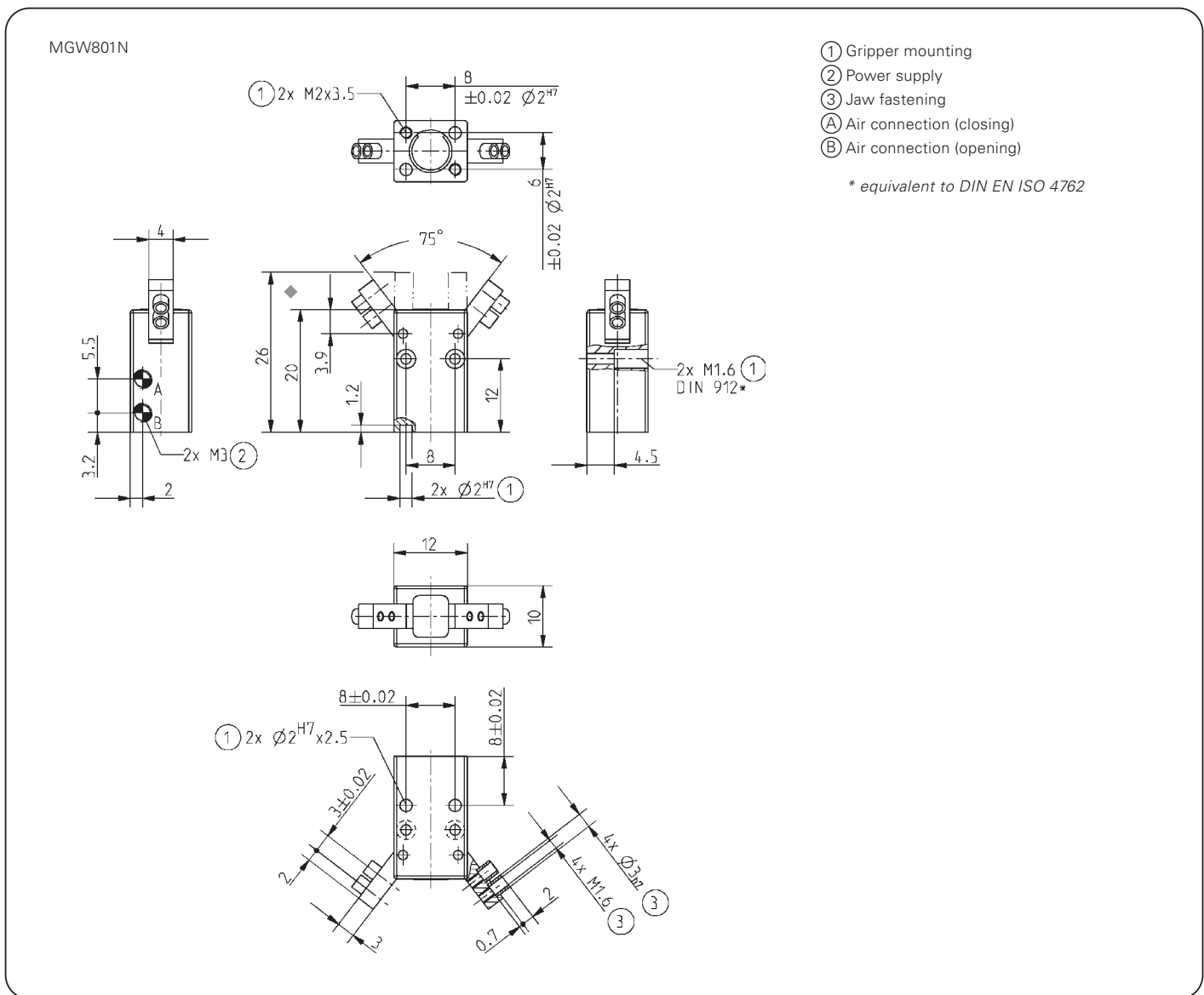
Subject to change without prior notice

Order no.:	MGW801N
Stroke per jaw [°]:	37,5
Gripping torque in closing [Nm]:	0,025
Gripping torque in opening [Nm]:	0,03
Recommended workpiece weight [g]*:	9
Gripping force secured by spring min. [N]:	-
Closing time/opening time [s]:	0,01
Repeatability +/- [mm]:	0,025
Min./max. operating pressure [bar]:	3/8
Min./max. operating temperature [°C]**:	5/80
Air volume per cycle [cm³]:	0,14
Weight [g]:	8

All data measured at 6 bar

* Value determined with friction coefficient $\mu = 0.1$ and safety factor $v = 2$, distance from top edge of housing $\blacklozenge = 10$ mm

** High-temperature-resistant model (up to 150 °C) add T to part number



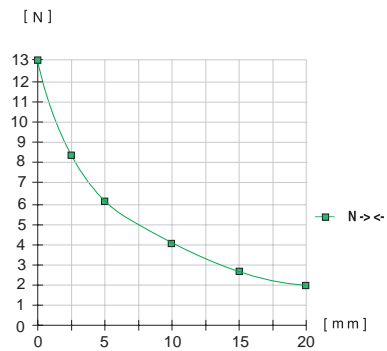
Subject to change without prior notice

Mini-Angular Gripper *MGW Series*



Gripping force diagram

Gripping force as a function of jaw length.



measured from top edge of housing ◆

Forces and Moments

Max allowable forces and moments on jaws.



Included with purchase



Centring sleeve
Order no. BDST80200

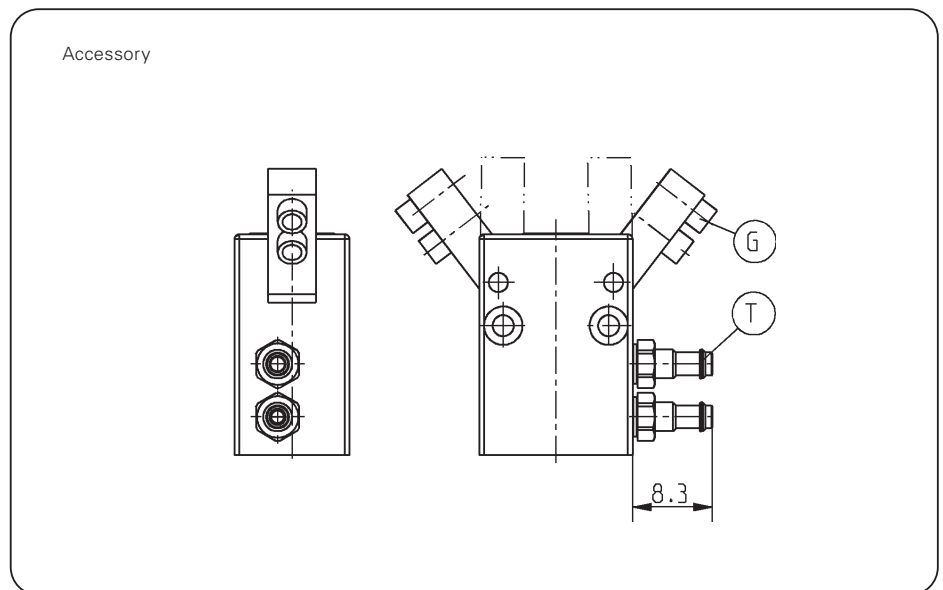
Accessory list



Pneumatic fittings
Order no. GVM3



Pressure safety valve
Order no. DSV1/8



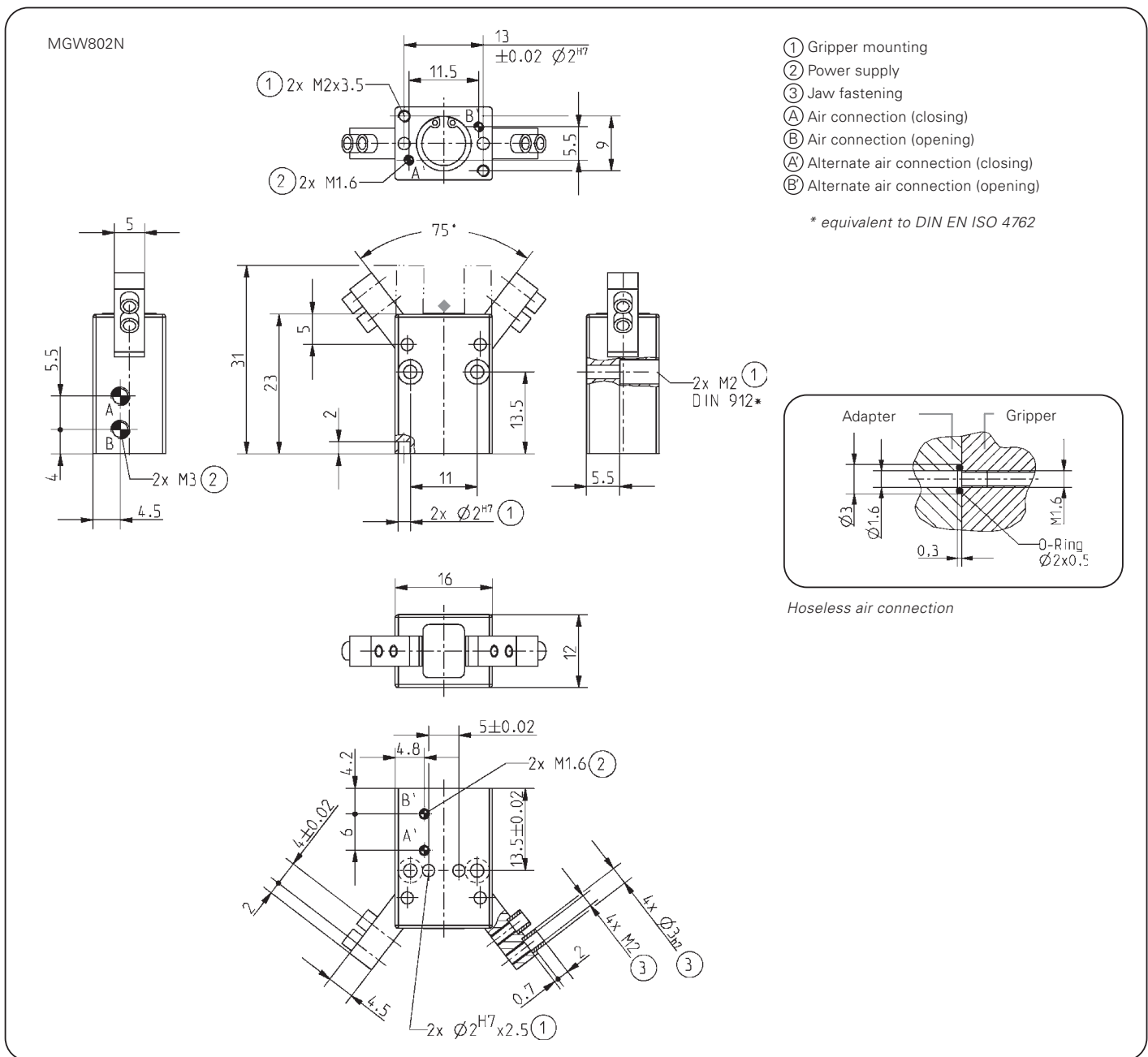
Subject to change without prior notice

Order no.:	MGW802N
Stroke per jaw [°]:	37,5
Gripping torque in closing [Nm]:	0,045
Gripping torque in opening [Nm]:	0,05
Recommended workpiece weight [g]*:	11
Gripping force secured by spring min. [N]:	-
Closing time/opening time [s]:	0,01
Repeatability +/- [mm]:	0,025
Min./max. operating pressure [bar]:	3/8
Min./max. operating temperature [°C]**:	5/80
Air volume per cycle [cm³]:	0,22
Weight [g]:	14

All data measured at 6 bar

* Value determined with friction coefficient $\mu = 0.1$ and safety factor $v = 2$, distance from top edge of housing $\blacklozenge = 15$ mm

** High-temperature-resistant model (up to 150 °C) add T to part number



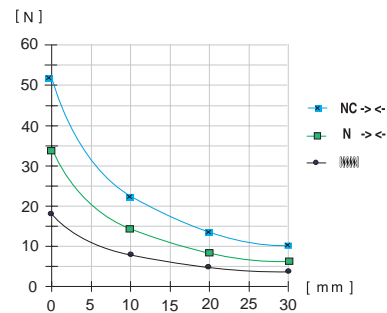
Subject to change without prior notice

Mini-Angular Gripper *MGW Series*



Gripping force diagram

Gripping force as a function of jaw length.



measured from top edge of housing ◆

Forces and Moments

Max allowable forces and moments on jaws.



Included with purchase

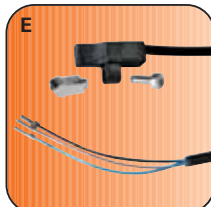


Centring sleeve
Order no. BDST80320

Accessory list



Pneumatic fittings
Order no. WVM3



Magnetic field sensor
Order no. MFS103KHC42



Magnetic field sensor
Order no. MFS103SKHC42



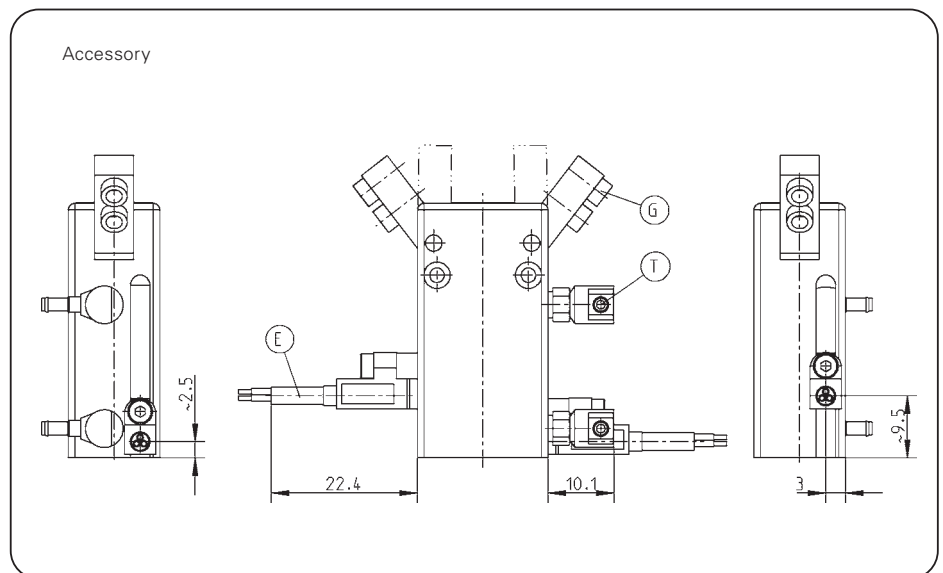
Cable angled plug
Order no. KAW500



Plug 3- pole
Order no. S12-G-3



Pressure safety valve
Order no. DSV1/8



Subject to change without prior notice

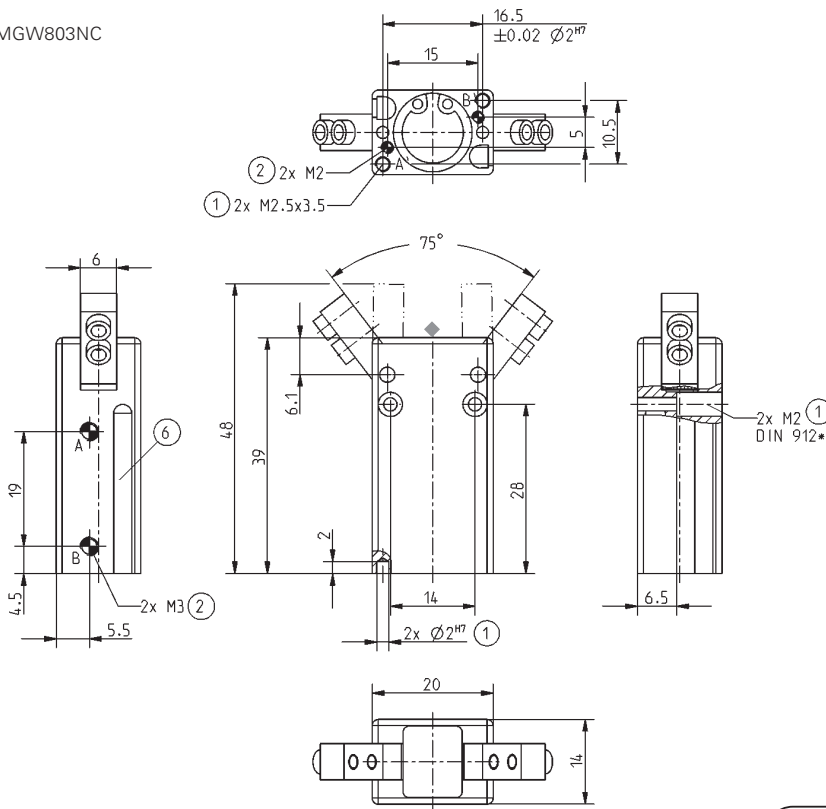
Order no.:	MGW803N	MGW803NC
Stroke per jaw [°]:	37,5	37,5
Gripping torque in closing [Nm]:	0,21	0,31
Gripping torque in opening [Nm]:	0,23	-
Recommended workpiece weight [g]*:	40	61
Gripping force secured by spring min. [N]:	-	17
Closing time/opening time [s]:	0,01	0,03
Repeatability +/- [mm]:	0,025	0,025
Min./max. operating pressure [bar]:	3/8	5/8
Min./max. operating temperature [°C]**:	5/80	5/80
Air volume per cycle [cm³]:	0,64	1
Weight [g]:	25	39

All data measured at 6 bar

* Value determined with friction coefficient $\mu = 0.1$ and safety factor $v = 2$, distance from top edge of housing $\blacklozenge = 20$ mm

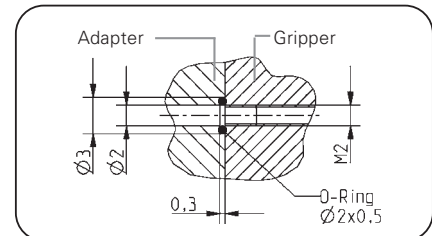
** High-temperature-resistant model (up to 150 °C) add T to part number

MGW803NC

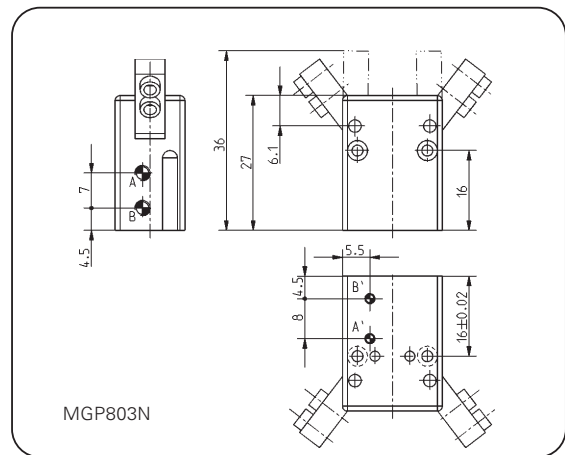


- ① Gripper mounting
- ② Power supply
- ③ Jaw fastening
- ⑥ Slot for magnetic field sensor
- A Air connection (closing)
- B Air connection (opening)
- A' Alternate air connection (closing)
- B' Alternate air connection (opening)

* equivalent to DIN EN ISO 4762



Hoseless air connection



MGP803N

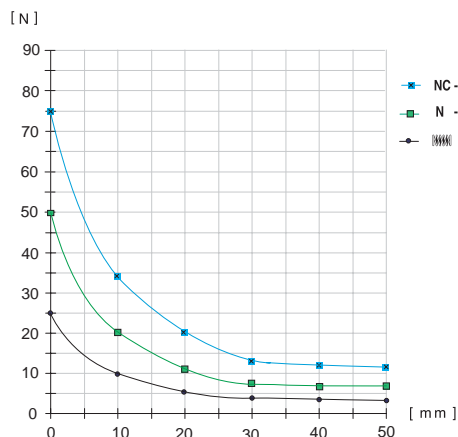
Subject to change without prior notice

Mini-Angular Gripper *MGW Series*



Gripping force diagram

Gripping force as a function of jaw length.



measured from top edge of housing ◆

Forces and Moments

Max allowable forces and moments on jaws.



Included with purchase

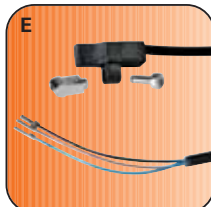


Centring sleeve
Order no. BDST40400

Accessory list



Pneumatic fittings
Order no. WVM3



Magnetic field sensor
Order no. MFS103KHC42



Magnetic field sensor
Order no. MFS103SKHC42



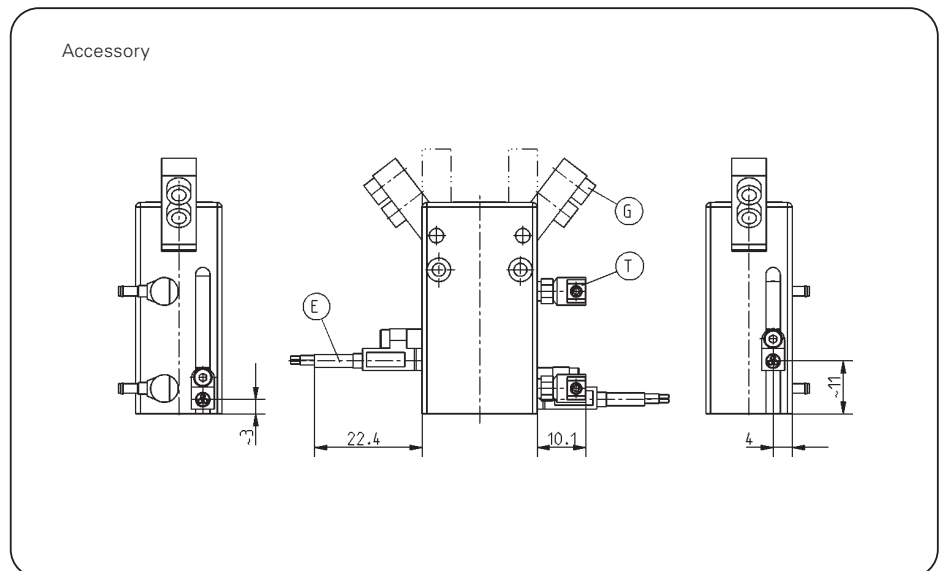
Cable angled plug
Order no. KAW500



Plug 3- pole
Order no. S12-G-3



Pressure safety valve
Order no. DSV1/8



Subject to change without prior notice

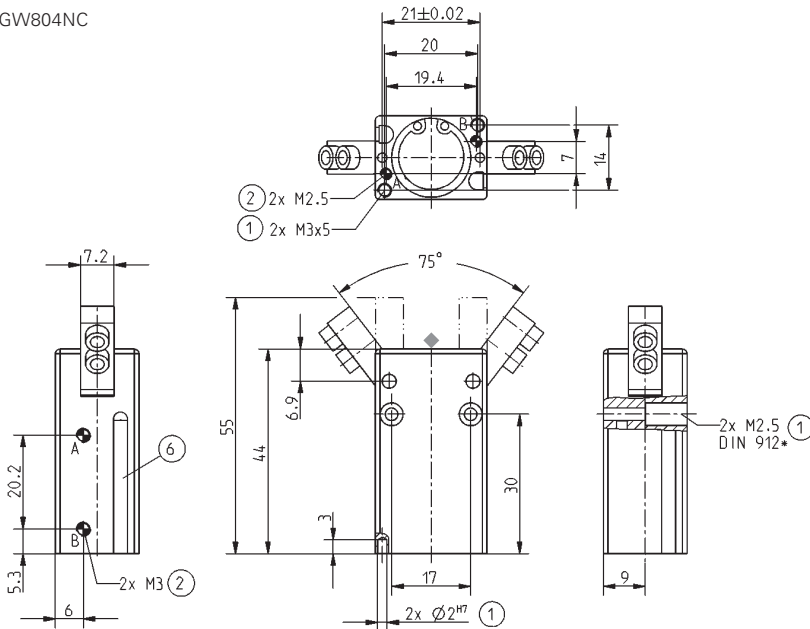
Order no.:	MGW804N	MGW804NC
Stroke per jaw [°]:	37,5	37,5
Gripping torque in closing [Nm]:	0,35	0,52
Gripping torque in opening [Nm]:	0,41	-
Recommended workpiece weight [g]*:	56	83
Gripping force secured by spring min. [N]:	-	25
Closing time/opening time [s]:	0,02	0,04
Repeatability +/- [mm]:	0,025	0,025
Min./max. operating pressure [bar]:	3/8	5/8
Min./max. operating temperature [°C]**:	5/80	5/80
Air volume per cycle [cm³]:	1,4	2
Weight [g]:	52	81

All data measured at 6 bar

* Value determined with friction coefficient $\mu = 0.1$ and safety factor $v = 2$, distance from top edge of housing $\blacklozenge = 25$ mm

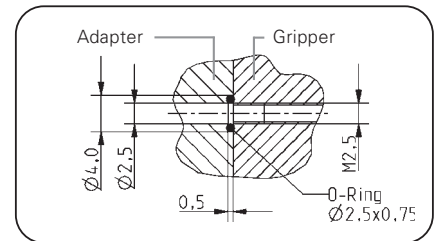
** High-temperature-resistant model (up to 150 °C) add T to part number

MGW804NC

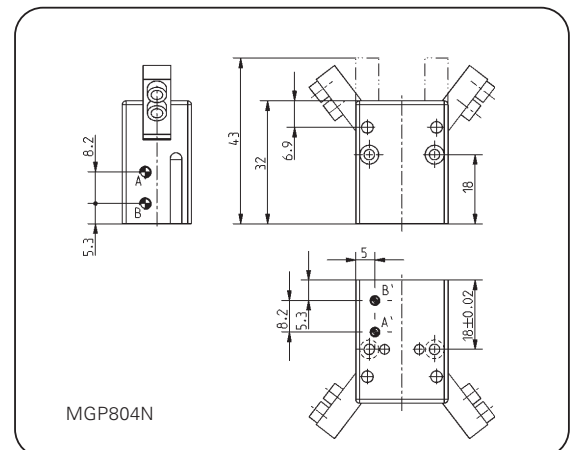
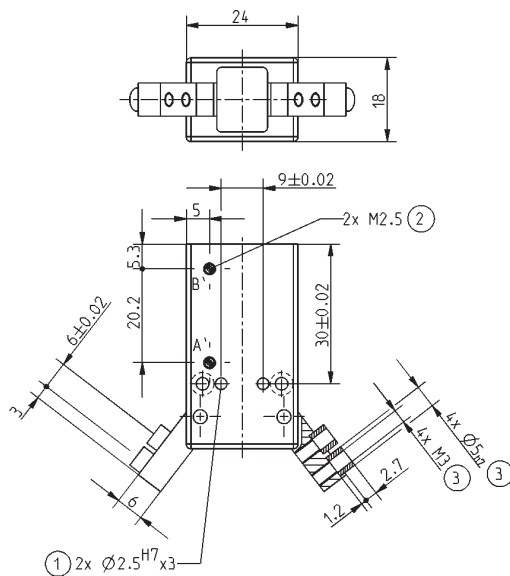


- ① Gripper mounting
- ② Power supply
- ③ Jaw fastening
- ⑥ Slot for magnetic field sensor
- A Air connection (closing)
- B Air connection (opening)
- A Alternate air connection (closing)
- B Alternate air connection (opening)

* equivalent to DIN EN ISO 4762



Hoseless air connection



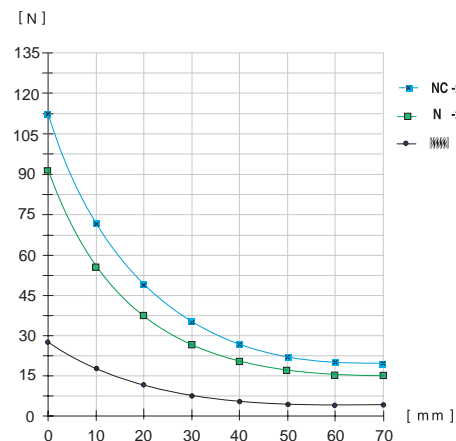
Subject to change without prior notice

Mini-Angular Gripper *MGW Series*



Gripping force diagram

Gripping force as a function of jaw length.



measured from top edge of housing ◆

Forces and Moments

Max allowable forces and moments on jaws.



Included with purchase

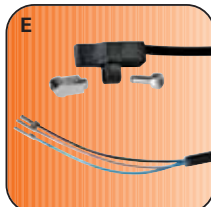


Centring sleeve
Order no. BDST40600

Accessory list



Pneumatic fittings
Order no. WVM3



Magnetic field sensor
Order no. MFS103KHC42



Magnetic field sensor
Order no. MFS103SKHC42



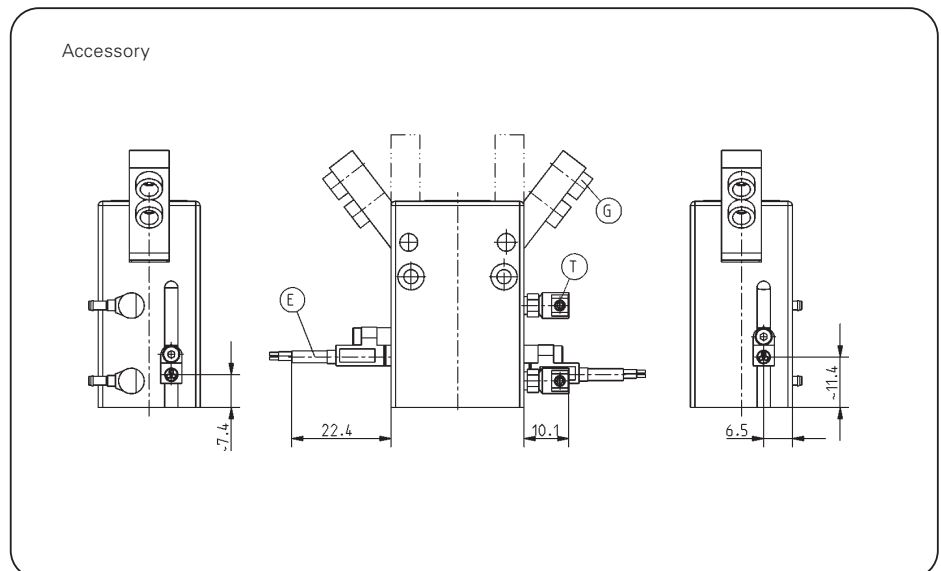
Cable angled plug
Order no. KAW500



Plug 3- pole
Order no. S12-G-3



Pressure safety valve
Order no. DSV1/8



Subject to change without prior notice

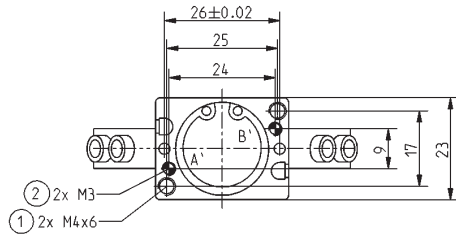
Order no.:	MGW806N	MGW806NC
Stroke per jaw [°]:	37,5	37,5
Gripping torque in closing [Nm]:	0,85	1,10
Gripping torque in opening [Nm]:	1,02	-
Recommended [g]*:	88	115
Gripping force secured by spring min. [N]:	-	27
Closing time/opening time [s]:	0,02	0,04
Repeatability +/- [mm]:	0,025	0,025
Min./max. operating pressure [bar]:	3/8	5/8
Min./max. operating temperature [°C]**:	5/80	5/80
Air volume per cycle [cm³]:	2,4	3,4
Weight [g]:	102	117

All data measured at 6 bar

* Value determined with friction coefficient $\mu = 0.1$ and safety factor $v = 2$, distance from top edge of housing $\blacklozenge = 40$ mm

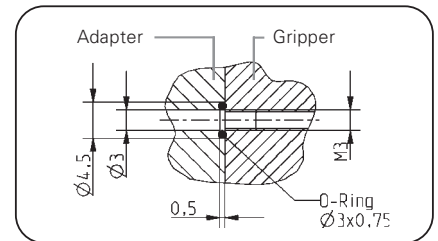
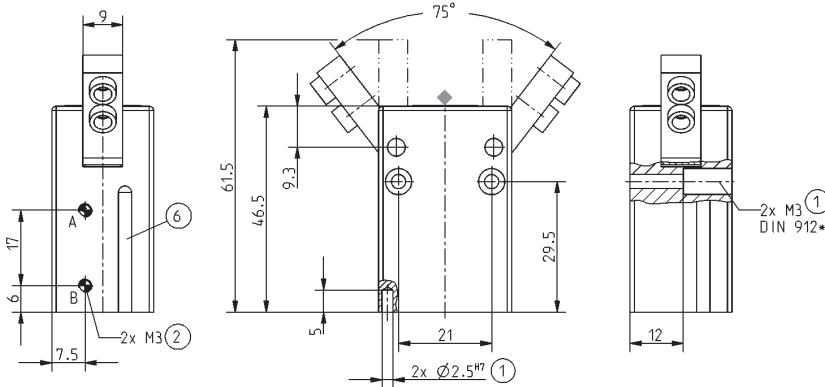
** High-temperature-resistant model (up to 150 °C) add T to part number

MGW806NC

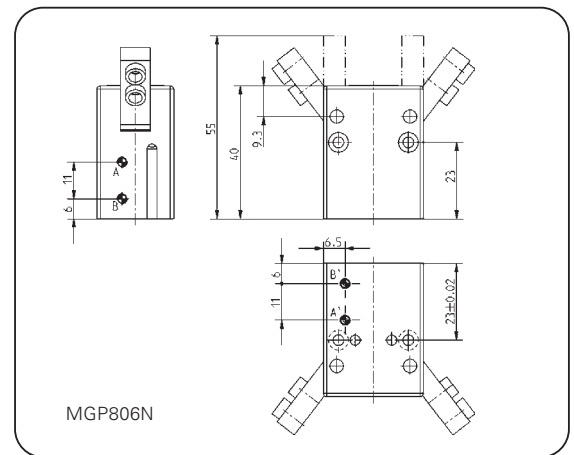
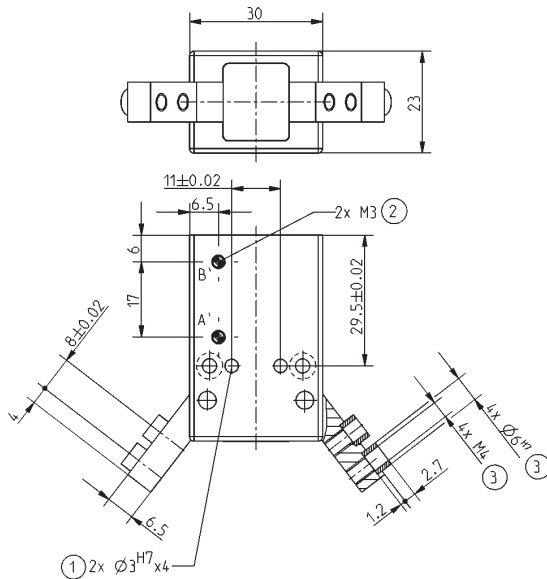


- ① Gripper mounting
- ② Power supply
- ③ Jaw fastening
- ⑥ Slot for magnetic field sensor
- Ⓐ Air connection (closing)
- Ⓑ Air connection (opening)
- Ⓐ Alternate air connection (closing)
- Ⓑ Alternate air connection (opening)

* equivalent to DIN EN ISO 4762



Hoseless air connection



Subject to change without prior notice