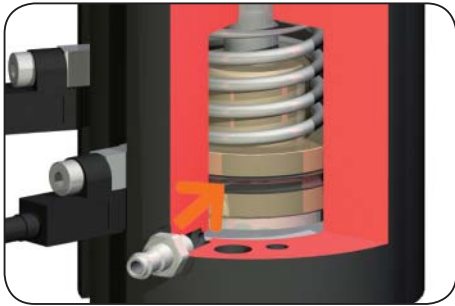


3-Jaw Concentric Gripper

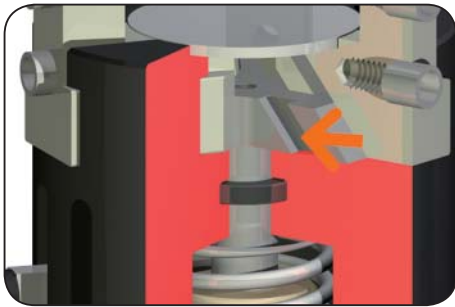
Highlights



Drive unit

Double-action pneumatic cylinder

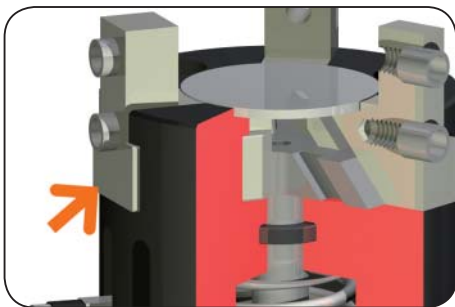
- Maximum drive force when opening and closing
- NC version also has integrated mechanical gripping force failsafe



Power transmission

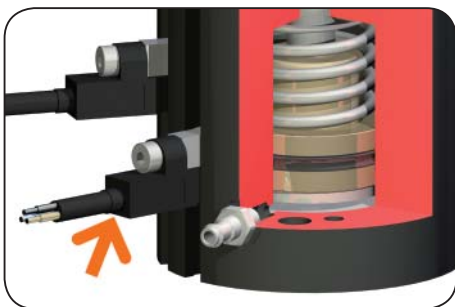
Positively driven wedge-hook transmission

- High grip force through optimum conversion of driving into gripping force
- Central grip action achieved with synchronized positive drive



Guide

- Robust T-groove guide for absorbing high levels of force and torque
- Gripper jaws made of ground and hardened steel assure precision and long service life



Position sensing

Direct position sensing of piston position using magnetic field sensor system

- High-precision process achieved by controlled gripper jaw movement
- Integrated position sensing ensures compact shape and minimum interference contour

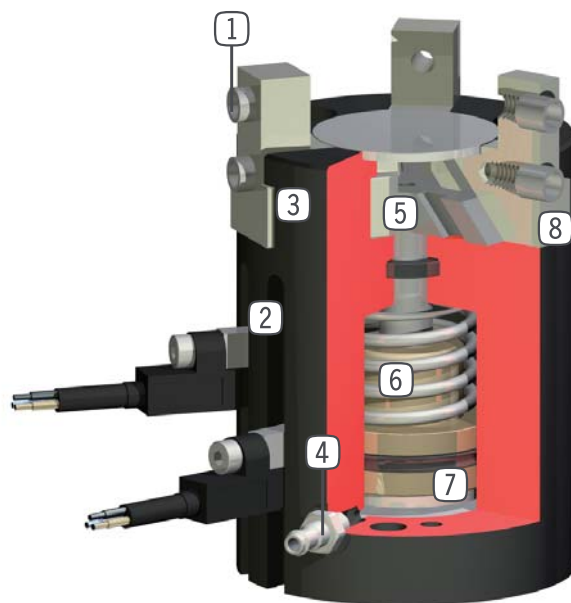


Terms

Gripping force:	arithmetic sum of the individual forces occurring at the jaws
Closing/opening time:	required time for the gripper jaws to cover the maximum stroke distance
Repeatability:	dispersion at end stop positions during 50/100 consecutive cycles
Cycle:	one complete movement of the piston forward and back
Maintenance:	<p>maintenance free to 10 mil. cycles</p> <p>(please see the owner's manual for details, download at www.sommer-automatic.com)</p> <ul style="list-style-type: none"> - long maintenance intervals keep costs down - long durability

Design

- | | |
|--|---|
| <p>1 Removable centering sleeve</p> <ul style="list-style-type: none"> - fast and cost-effective gripper finger positioning | <p>5 Positively driven wedge hook mechanism</p> <ul style="list-style-type: none"> - synchronized movement of gripper jaws |
| <p>2 Integrated groove</p> <ul style="list-style-type: none"> - mounting and positioning of magnetic field sensors (from size 803 upwards) | <p>6 Integrated gripping force security device</p> <ul style="list-style-type: none"> - spring integrated into cylinder as energy storage (from size 803 upwards) |



- | | |
|---|---|
| <p>3 Robust, lightweight housing</p> <ul style="list-style-type: none"> - hard-coated aluminium alloy | <p>7 Position sensing</p> <ul style="list-style-type: none"> - permanent magnet for direct sensing of piston movement (from size 803) |
| <p>4 Power supply</p> <ul style="list-style-type: none"> - possible from several sides | <p>8 Precise T-slot guide</p> <ul style="list-style-type: none"> - high forces and moments capacity |

3-Jaw Concentric Gripper



Picture shows MGD801N

Included with purchase



Centring sleeve
Order no.: **BDST80200**

Recommended accessories



Pneumatic fittings
Order no.: **GVM3**



Pneumatic fittings
Order no.: **WVM3**



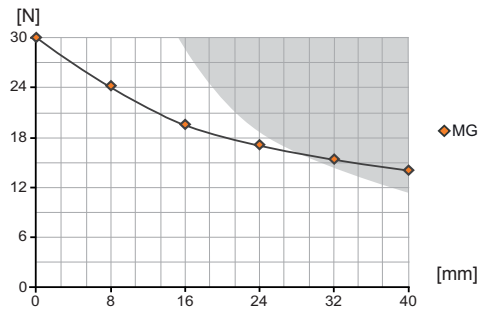
Quick Exhaust Valve
Order no.: **DEV04**



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

Gripping force diagram

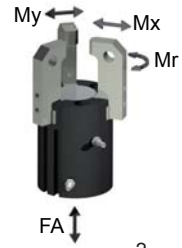
Gripping force as a function of jaw length.



Colored area: increased wear and tear to be expected

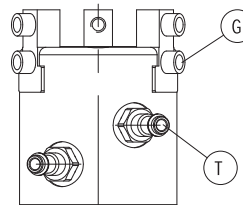
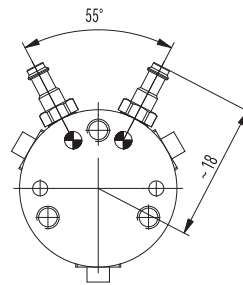
Forces and Moments

Max. allowable forces and moments on jaws.



Mr [Nm]:	2
Mx [Nm]:	2
My [Nm]:	4
Fa [N]:	58

Accessory

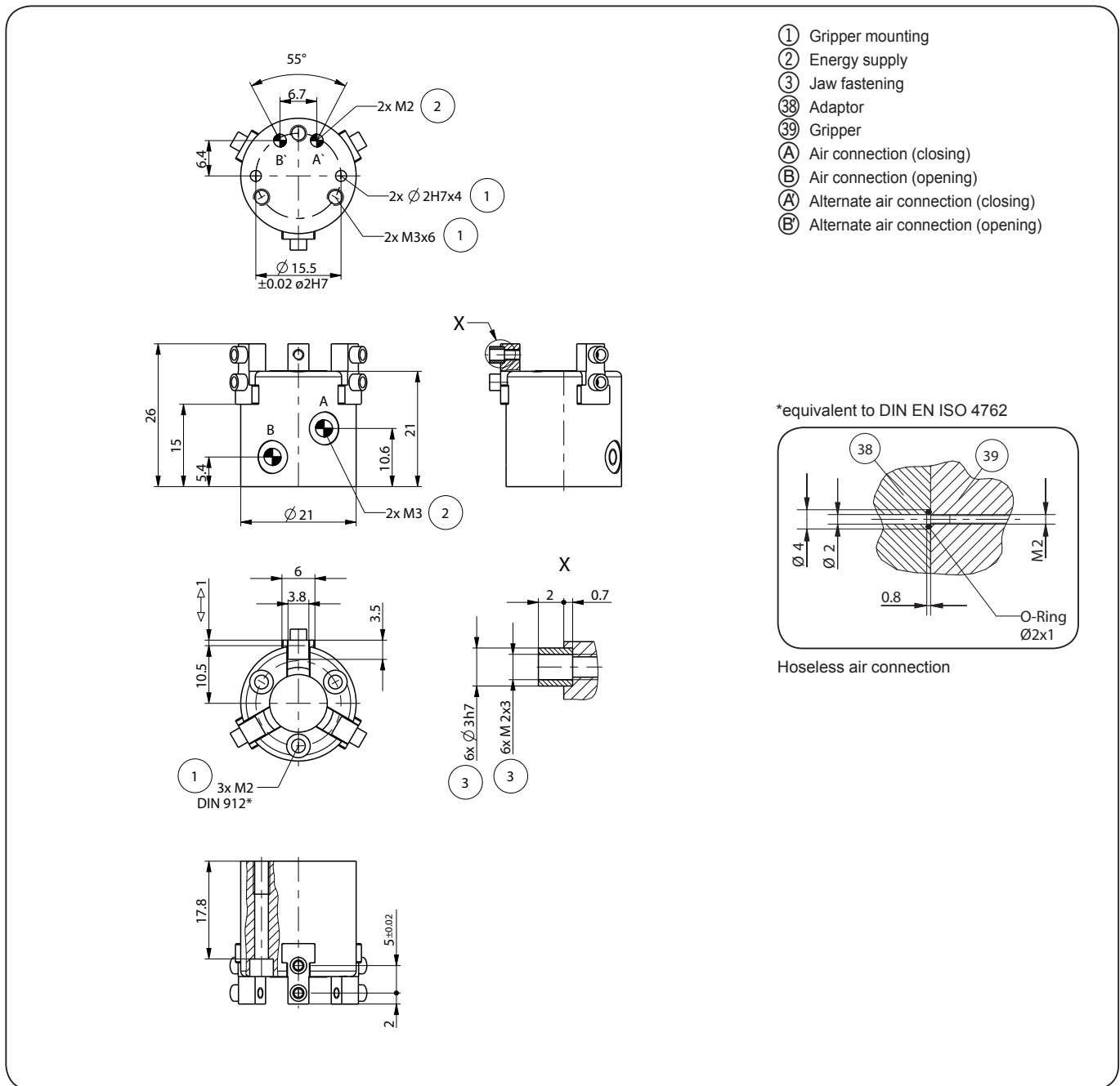


Subject to change without prior notice

Order no.:	MGD801N
Stroke per jaw [mm]:	1
Gripping force in closing [N]:	30
Gripping force in opening [N]:	34
Gripping force secured by spring min. [N]:	-
Closing time / opening time [s]:	0.01 / 0.01
Repeatability +/- [mm]:	0.02
Operating pressure min. [bar]:	3
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	0.2
Weight [g]:	25

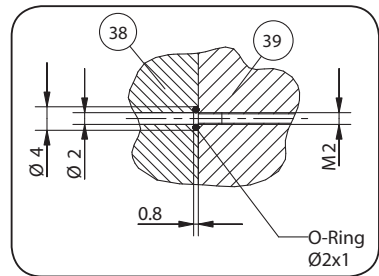
All data measured at 6 bar

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



- ① Gripper mounting
- ② Energy supply
- ③ Jaw fastening
- ③⑧ Adaptor
- ③⑨ Gripper
- Ⓐ 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

3-Jaw Concentric Gripper



Picture shows MGD802N

Included with purchase



Centring sleeve
Order no.: **BDST80200**

Recommended accessories



Pneumatic fittings
Order no.: **GVM3**



Pneumatic fittings
Order no.: **WVM3**



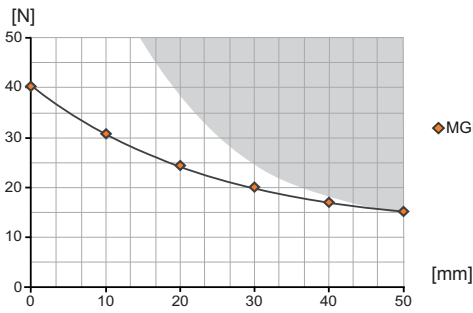
Quick Exhaust Valve
Order no.: **DEV04**



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

Gripping force diagram

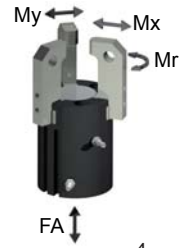
Gripping force as a function of jaw length.



Colored area: increased wear and tear to be expected

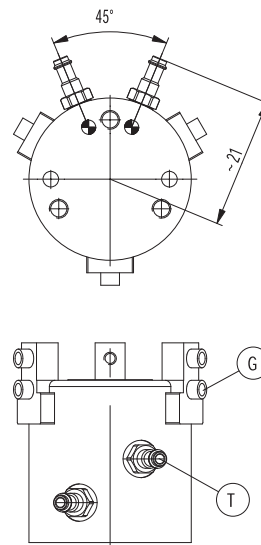
Forces and Moments

Max. allowable forces and moments on jaws.



Mr [Nm]:	4
Mx [Nm]:	4
My [Nm]:	6
Fa [N]:	100

Accessory

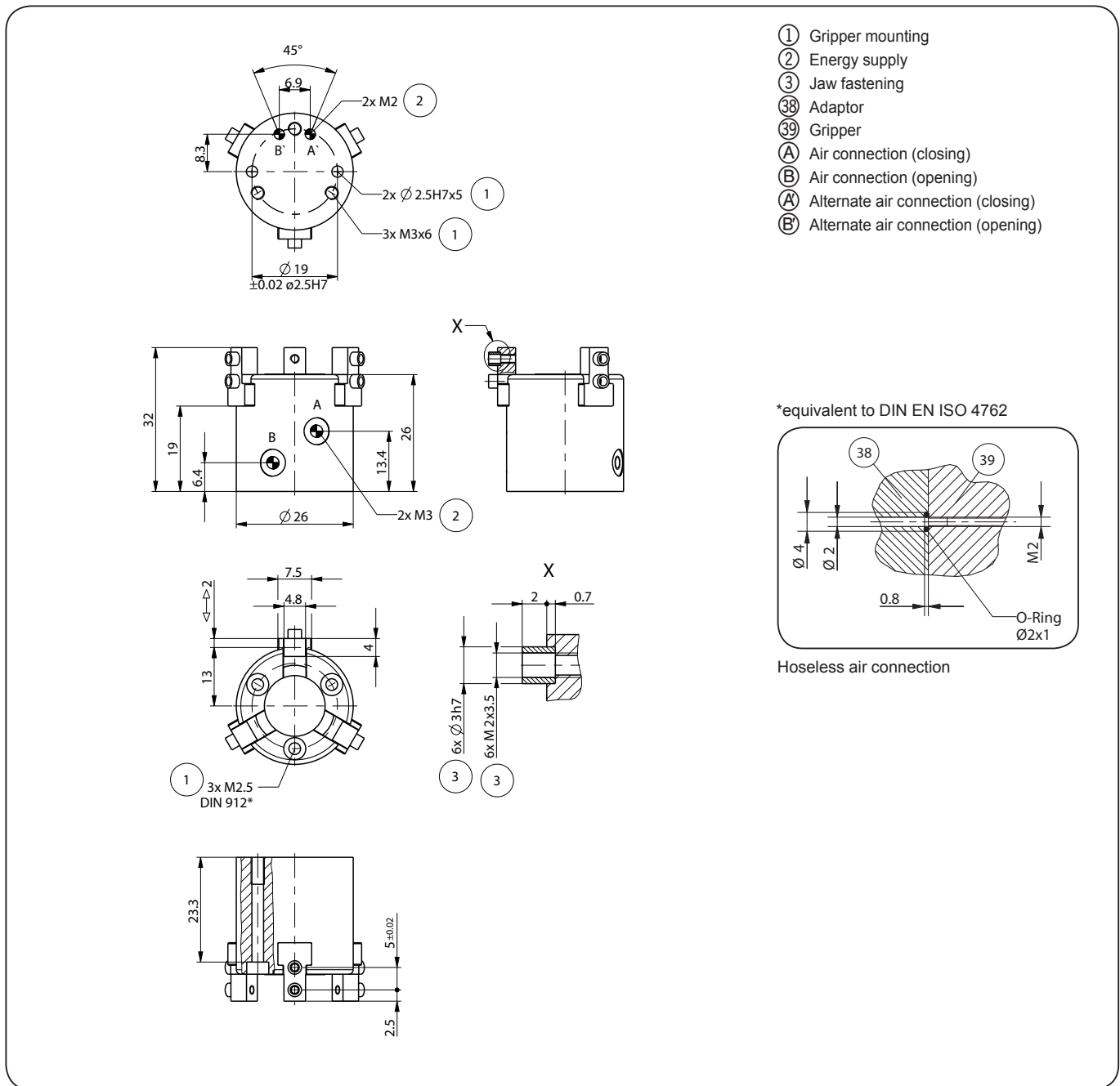


Subject to change without prior notice

Order no.:	MGD802N
Stroke per jaw [mm]:	2
Gripping force in closing [N]:	40
Gripping force in opening [N]:	45
Gripping force secured by spring min. [N]:	-
Closing time / opening time [s]:	0.02 / 0.02
Repeatability +/- [mm]:	0.02
Operating pressure min. [bar]:	3
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	0.3
Weight [g]:	50

All data measured at 6 bar

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



Subject to change without prior notice

3-Jaw Concentric Gripper



Picture shows MGD803NC

Included with purchase



Centring sleeve
Order no.: **BDST80320**

Recommended accessories



Pneumatic fittings
Order no.: **GVM3**



Pneumatic fittings
Order no.: **WVM3**



Magnetic field sensor
Order no.: **MFS103KHC**



Magnetic field sensor
Order no.: **MFS204KHC**



Cable straight plug
Order no.: **KAG500**



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



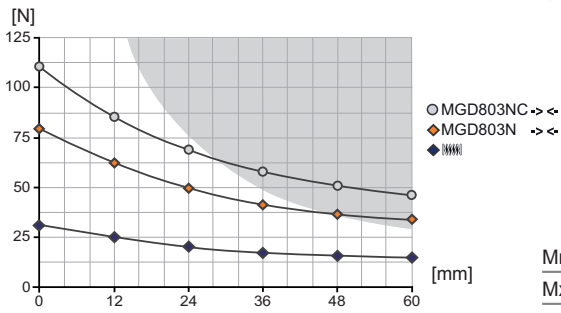
Quick Exhaust Valve
Order no.: **DEV04**



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

Gripping force diagram

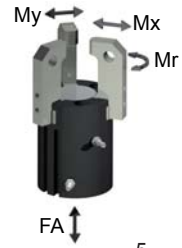
Gripping force as a function of jaw length.



Colored area: increased wear and tear to be expected

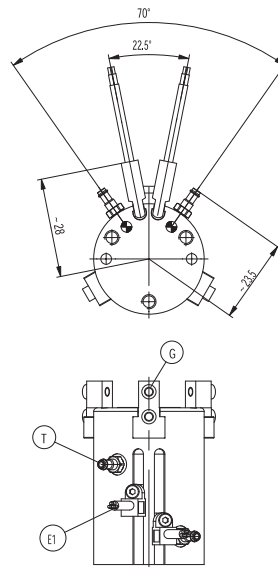
Forces and Moments

Max. allowable forces and moments on jaws.



Mr [Nm]:	5
Mx [Nm]:	5
My [Nm]:	8
Fa [N]:	155

Accessory

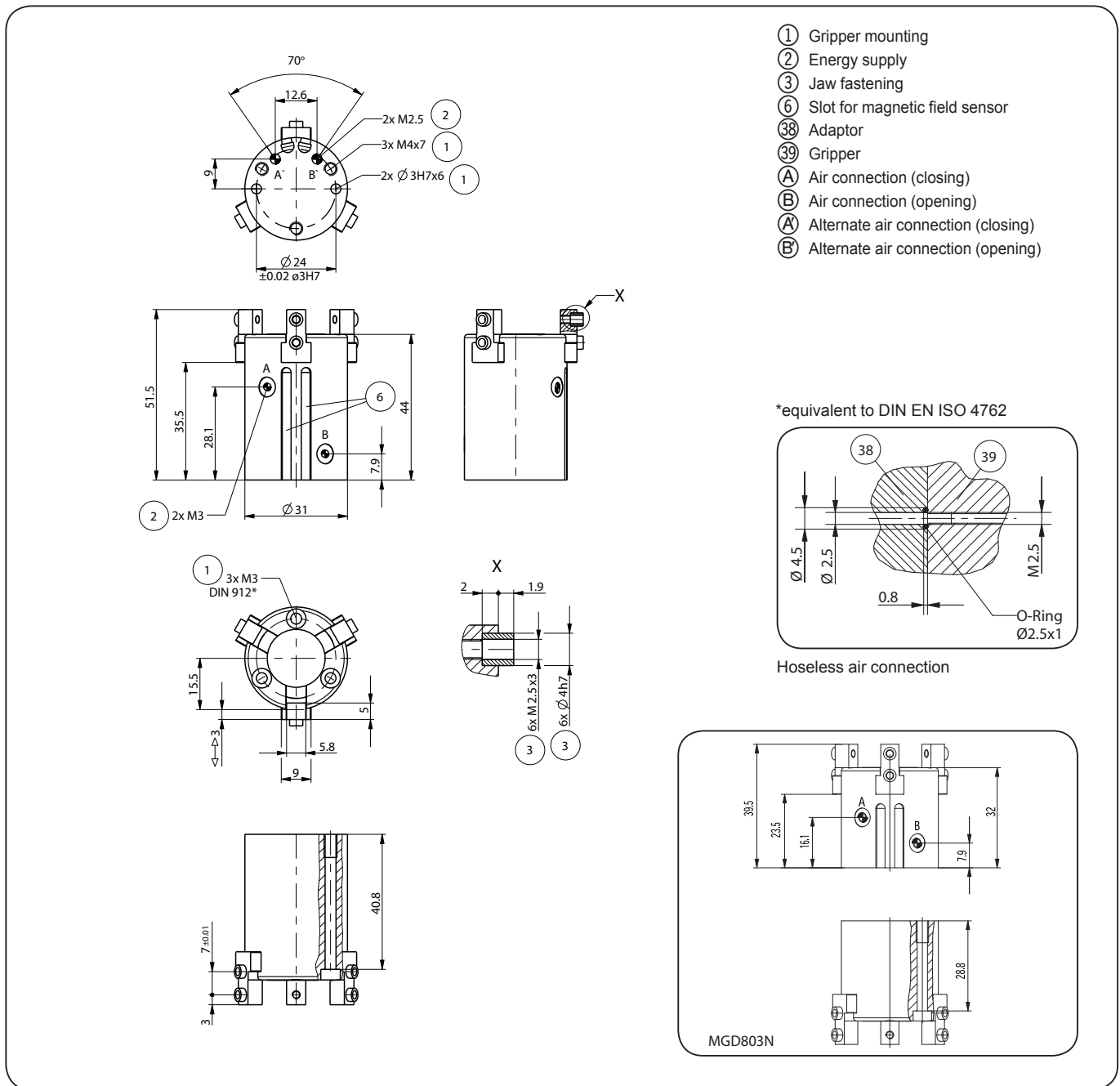


Subject to change without prior notice

Order no.:	MGD803N	MGD803NC
Stroke per jaw [mm]:	3	3
Gripping force in closing [N]:	78	110
Gripping force in opening [N]:	87	-
Gripping force secured by spring min. [N]:	-	32
Closing time / opening time [s]:	0.02 / 0.02	0.02 / 0.03
Repeatability +/- [mm]:	0.02	0.02
Operating pressure min. [bar]:	3	4
Operating pressure max. [bar]:	8	8
Operating temperature [°C]*:	5-80	5-80
Air volume per cycle [cm³]:	1.5	2.4
Weight [g]:	80	115

All data measured at 6 bar

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



Subject to change without prior notice

3-Jaw Concentric Gripper



Picture shows MGD804NC

Included with purchase



Centring sleeve
Order no.: **BDST06510**

Recommended accessories



Pneumatic fittings
Order no.: **GVM3**



Pneumatic fittings
Order no.: **WVM3**



Magnetic field sensor
Order no.: **MFS103KHC**



Magnetic field sensor
Order no.: **MFS204KHC**



Cable straight plug
Order no.: **KAG500**



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



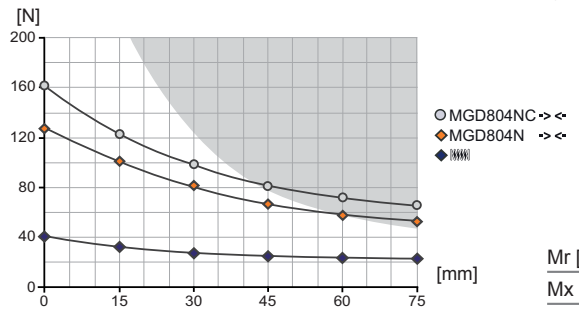
Quick Exhaust Valve
Order no.: **DEV04**



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

Gripping force diagram

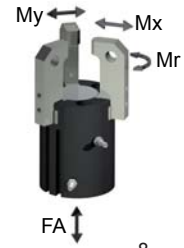
Gripping force as a function of jaw length.



Colored area: increased wear and tear to be expected

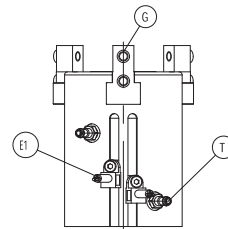
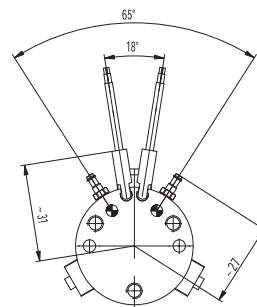
Forces and Moments

Max. allowable forces and moments on jaws.



Mr [Nm]:	8
Mx [Nm]:	8
My [Nm]:	12
Fa [N]:	250

Accessory

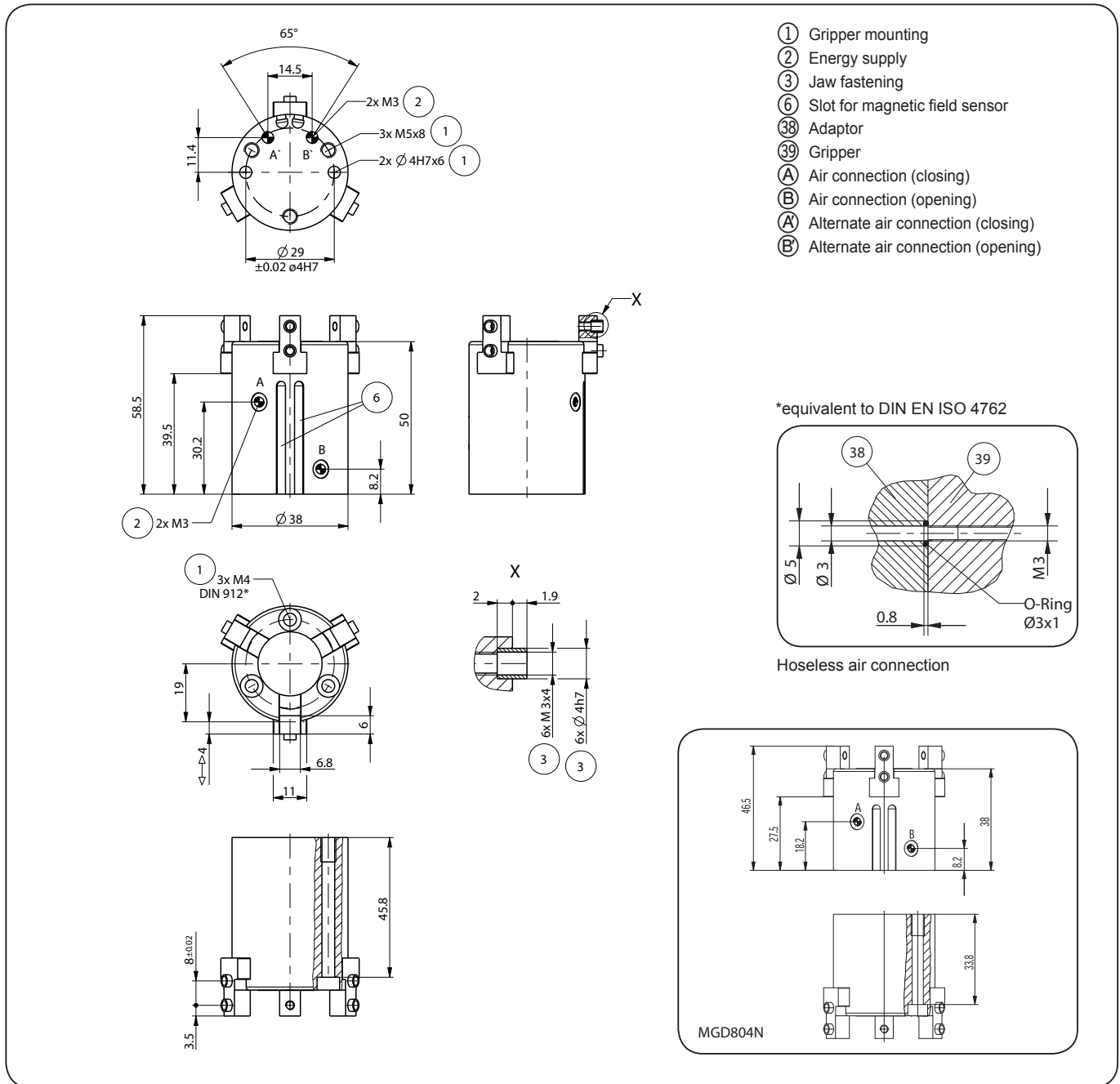


Subject to change without prior notice

Order no.:	MGD804N	MGD804NC
Stroke per jaw [mm]:	4	4
Gripping force in closing [N]:	125	160
Gripping force in opening [N]:	140	-
Gripping force secured by spring min. [N]:	-	35
Closing time / opening time [s]:	0.02 / 0.02	0.02 / 0.03
Repeatability +/- [mm]:	0.02	0.02
Operating pressure min. [bar]:	3	4
Operating pressure max. [bar]:	8	8
Operating temperature [°C]*:	5-80	5-80
Air volume per cycle [cm³]:	2.9	4.5
Weight [g]:	140	180

All data measured at 6 bar

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



Subject to change without prior notice

3-Jaw Concentric Gripper



Picture shows MGD806NC

Included with purchase



Centring sleeve
Order no.: **BDST40400**

Recommended accessories



Pneumatic fittings
Order no.: **GVM5**



Pneumatic fittings
Order no.: **WVM5**



Magnetic field sensor
Order no.: **MFS103KHC**



Magnetic field sensor
Order no.: **MFS204KHC**



Cable straight plug
Order no.: **KAG500**



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



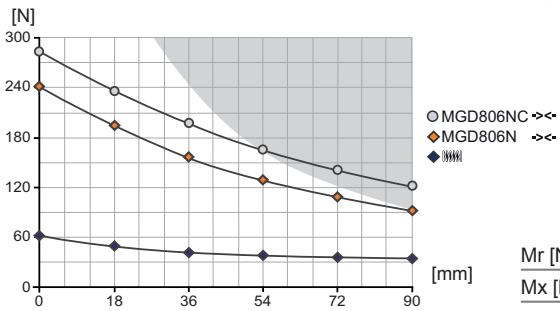
Quick Exhaust Valve
Order no.: **DEV04**



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

Gripping force diagram

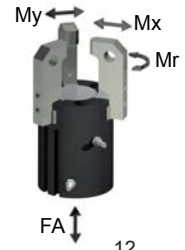
Gripping force as a function of jaw length.



Colored area: increased wear and tear to be expected

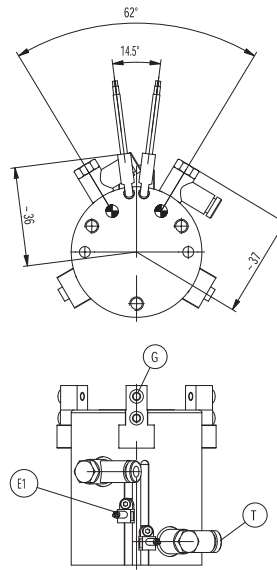
Forces and Moments

Max. allowable forces and moments on jaws.



Mr [Nm]:	12
Mx [Nm]:	12
My [Nm]:	18
Fa [N]:	420

Accessory

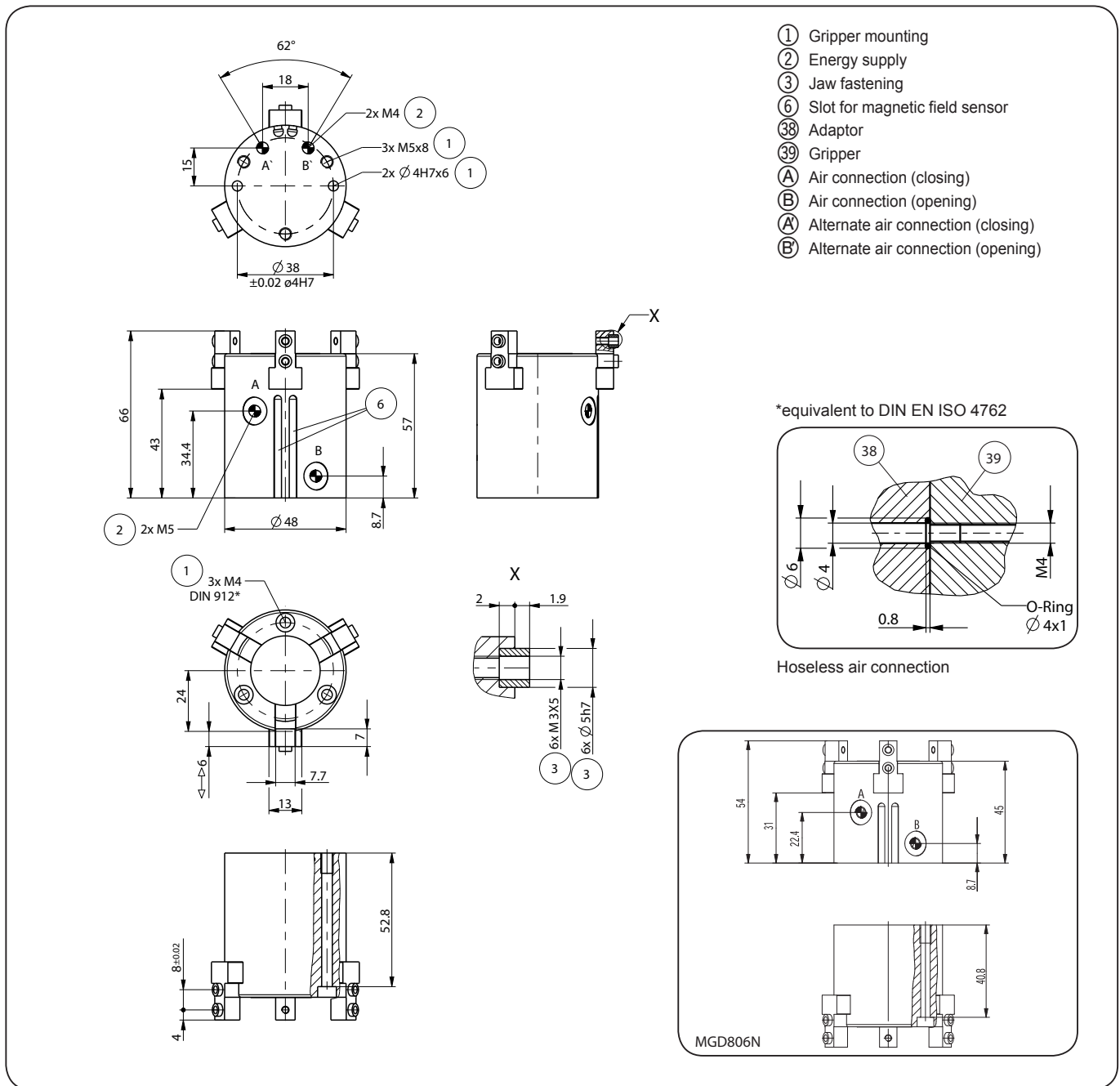


Subject to change without prior notice

Order no.:	MGD806N	MGD806NC
Stroke per jaw [mm]:	6	6
Gripping force in closing [N]:	240	295
Gripping force in opening [N]:	265	-
Gripping force secured by spring min. [N]:	-	55
Closing time / opening time [s]:	0.04 / 0.04	0.04 / 0.06
Repeatability +/- [mm]:	0.02	0.02
Operating pressure min. [bar]:	3	4
Operating pressure max. [bar]:	8	8
Operating temperature [°C]*:	5-80	5-80
Air volume per cycle [cm³]:	8	11
Weight [g]:	260	350

All data measured at 6 bar

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



Subject to change without prior notice

3-Jaw Concentric Gripper



Picture shows MGD808NC

Included with purchase



Centring sleeve
Order no.: **BDST40600**

Recommended accessories



Pneumatic fittings
Order no.: **GVM5**



Pneumatic fittings
Order no.: **WVM5**



Magnetic field sensor
Order no.: **MFS103KHC**



Magnetic field sensor
Order no.: **MFS204KHC**



Cable straight plug
Order no.: **KAG500**



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



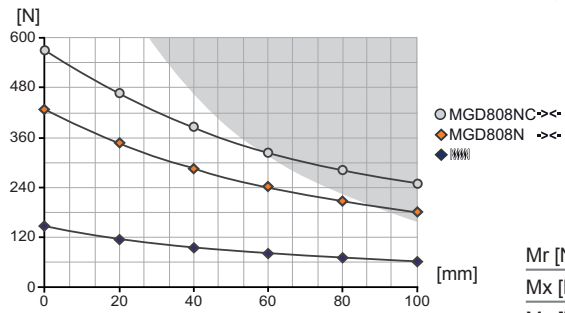
Quick Exhaust Valve
Order no.: **DEV04**



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

Gripping force diagram

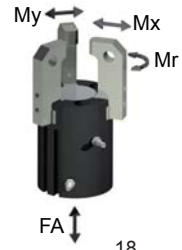
Gripping force as a function of jaw length.



Colored area: increased wear and tear to be expected

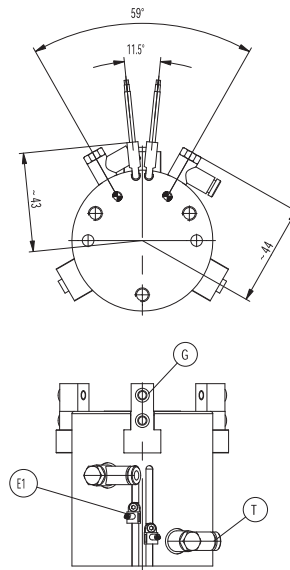
Forces and Moments

Max. allowable forces and moments on jaws.



Mr [Nm]:	18
Mx [Nm]:	19
My [Nm]:	29
Fa [N]:	660

Accessory

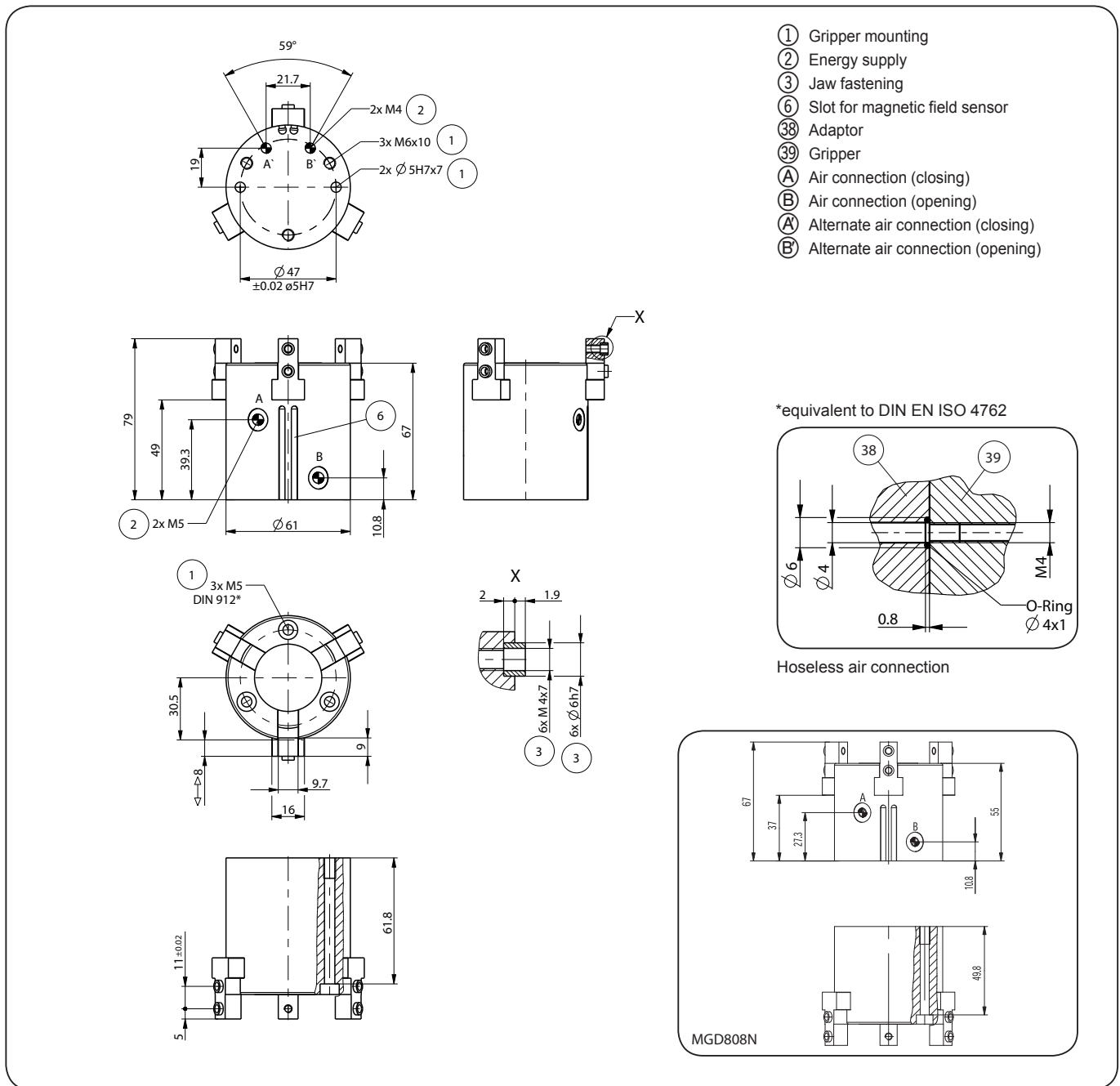


Subject to change without prior notice

Order no.:	MGD808N	MGD808NC
Stroke per jaw [mm]:	8	8
Gripping force in closing [N]:	415	560
Gripping force in opening [N]:	450	-
Gripping force secured by spring min. [N]:	-	145
Closing time / opening time [s]:	0.09 / 0.09	0.08 / 0.13
Repeatability +/- [mm]:	0.02	0.02
Operating pressure min. [bar]:	3	4
Operating pressure max. [bar]:	8	8
Operating temperature [°C]*:	5-80	5-80
Air volume per cycle [cm³]:	18	26
Weight [g]:	470	650

All data measured at 6 bar

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



Subject to change without prior notice

3-Jaw Concentric Gripper



ø 75 mm

Picture shows MGD810NC

Included with purchase



Centring sleeve
Order no.: **BDST07540**

Recommended accessories



Pneumatic fittings
Order no.: **GVM5**



Pneumatic fittings
Order no.: **WVM5**



Magnetic field sensor
Order no.: **MFS103KHC**



Magnetic field sensor
Order no.: **MFS204KHC**



Cable straight plug
Order no.: **KAG500**



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



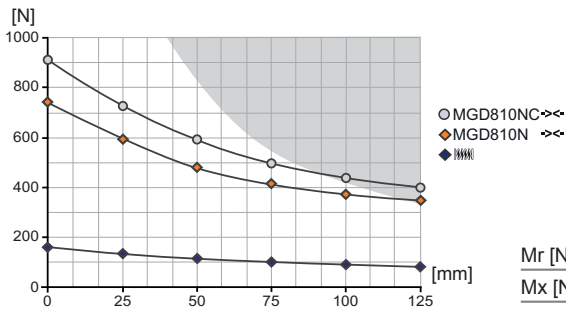
Quick Exhaust Valve
Order no.: **DEV04**



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

Gripping force diagram

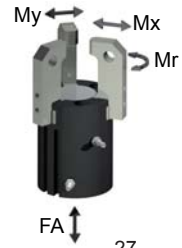
Gripping force as a function of jaw length.



Colored area: increased wear and tear to be expected

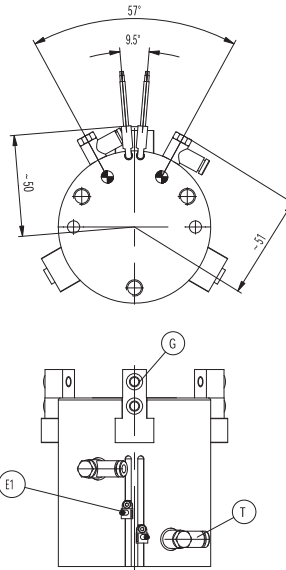
Forces and Moments

Max. allowable forces and moments on jaws.



Mr [Nm]:	27
Mx [Nm]:	29
My [Nm]:	43
Fa [N]:	960

Accessory

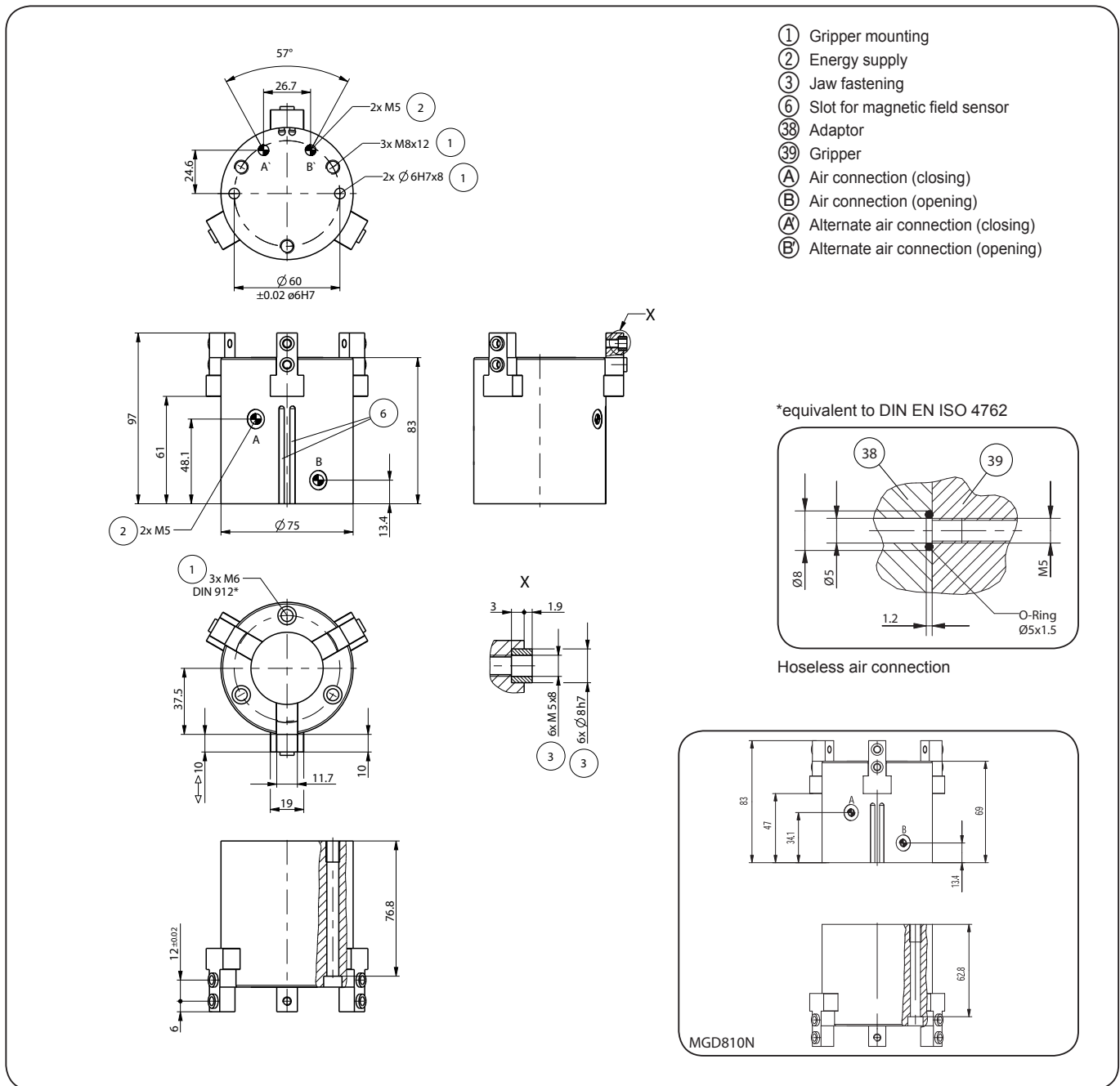


Subject to change without prior notice

Order no.:	MGD810N	MGD810NC
Stroke per jaw [mm]:	10	10
Gripping force in closing [N]:	740	920
Gripping force in opening [N]:	790	-
Gripping force secured by spring min. [N]:	-	180
Closing time / opening time [s]:	0.10 / 0.10	0.10 / 0.15
Repeatability +/- [mm]:	0.02	0.02
Operating pressure min. [bar]:	3	4
Operating pressure max. [bar]:	8	8
Operating temperature [°C]*:	5-80	5-80
Air volume per cycle [cm³]:	37	50
Weight [g]:	980	1160

All data measured at 6 bar

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



Subject to change without prior notice

3-Jaw Concentric Gripper



Picture shows MGD812NC

Included with purchase



Centring sleeve
Order no.: **BDST41000**

Recommended accessories



Pneumatic fittings
Order no.: **WV1/8X6**



Pneumatic fittings
Order no.: **GV1/8X6**



Magnetic field sensor
Order no.: **MFS103KHC**



Magnetic field sensor
Order no.: **MFS204KHC**



Cable straight plug
Order no.: **KAG500**



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



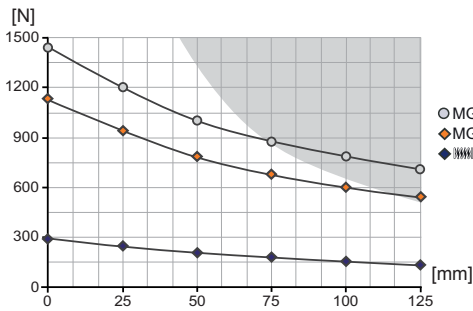
Quick Exhaust Valve
Order no.: **DEV06**



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

Gripping force diagram

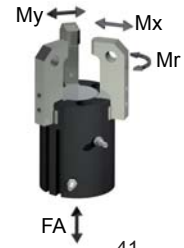
Gripping force as a function of jaw length.



Colored area: increased wear and tear to be expected

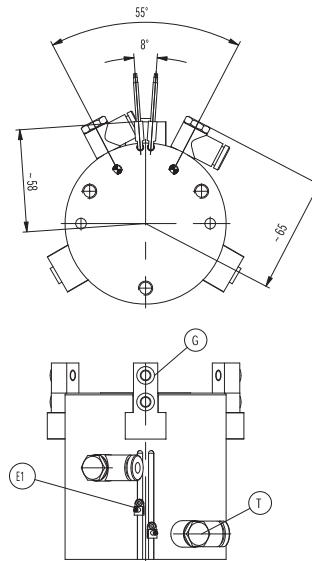
Forces and Moments

Max. allowable forces and moments on jaws.



Mr [Nm]:	41
Mx [Nm]:	45
My [Nm]:	65
Fa [N]:	1500

Accessory

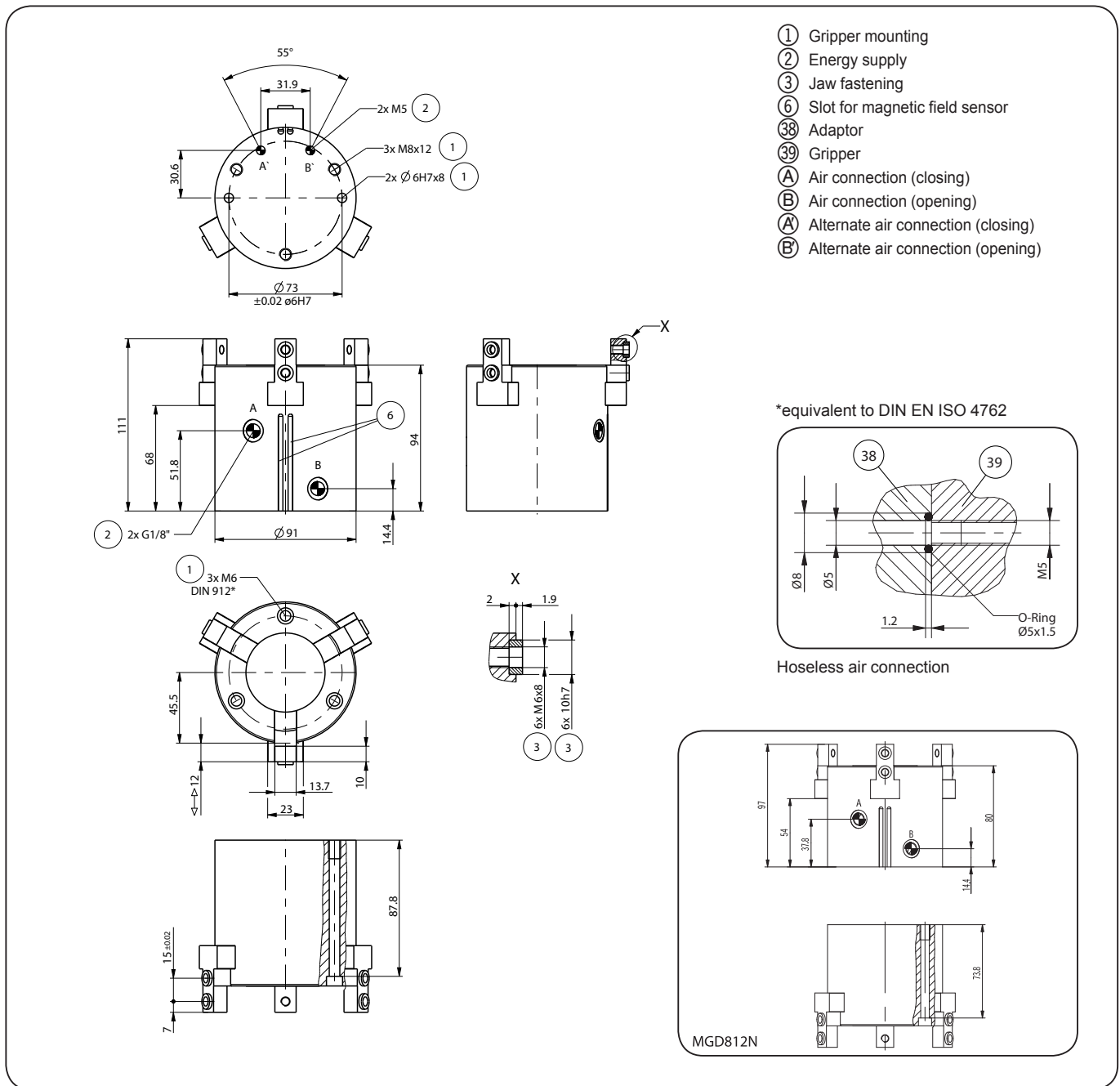


Subject to change without prior notice

Order no.:	MGD812N	MGD812NC
Stroke per jaw [mm]:	12	12
Gripping force in closing [N]:	1130	1420
Gripping force in opening [N]:	1200	-
Gripping force secured by spring min. [N]:	-	290
Closing time / opening time [s]:	0.12 / 0.12	0.12 / 0.17
Repeatability +/- [mm]:	0.02	0.02
Operating pressure min. [bar]:	3	4
Operating pressure max. [bar]:	8	8
Operating temperature [°C]*:	5-80	5-80
Air volume per cycle [cm³]:	69	97
Weight [g]:	1670	2000

All data measured at 6 bar

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



Subject to change without prior notice