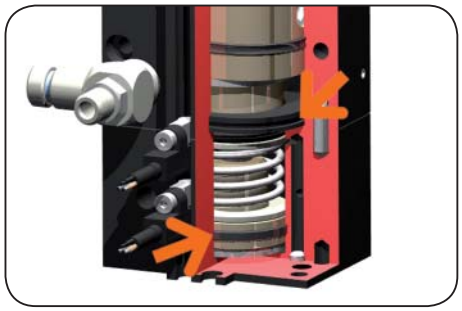
Highlights



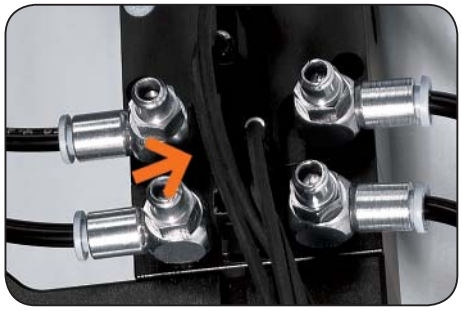
Drive

Gripping

- double acting pneumatic cylinder for maximum power in opening and closing

Rotation

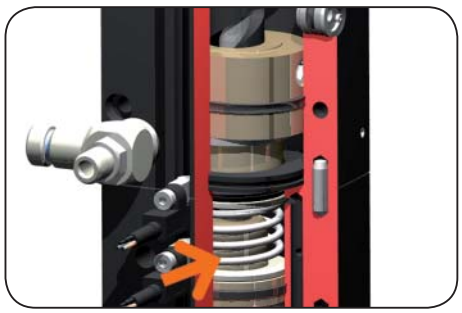
- Double acting pneumatic cylinder with oval piston for maximum torque during rotation



Position sensing

Built-in mount for magnetic field sensors

- sensing of the piston position
- compact - all sensors and cables are outside the swivel area
- stable, separate sensing of the gripping and rotating positions
- for magnetic field sensors with bracket for C-Nut



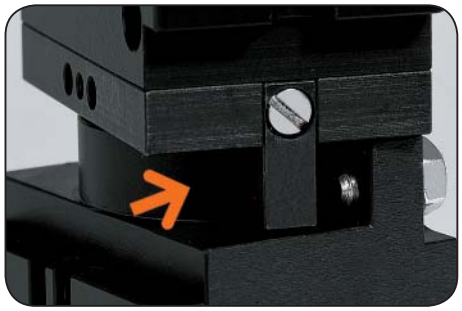
Gripping force safety device

Energy retention through spring mounted in cylinder

- reliable mechanical grip force retention
- compact design

N and S external pressure retention safety valve

- gripping force retention through the use of optional pressure retention safety valve (Part Nr. DSV1/8).



Rotation angle

90° or 180° individually adjustable

- simple relocation of endstop
- both stops included in delivery
- easily adaptable from one application to the next

Gripping force:	arithmetic sum of the individual forces occuring 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:	maintenance free to 1.5 mil. cycles (please see the owner´s manual for details, download at www.sommer-automatic.com) - long maintenance intervals keep costs down - long durability

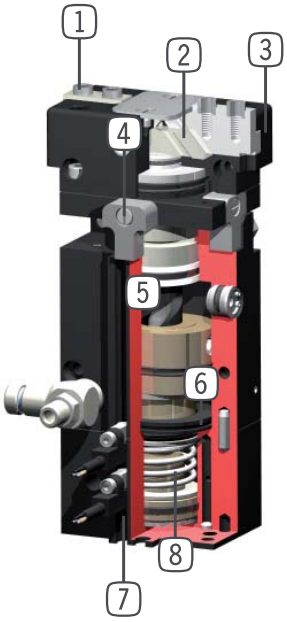
Design

1 **Removable centering sleeves**
- fast and accurate positioning of the gripper fingers

2 **Wedge and piston design**
- synchronized parallel movement of the gripper jaws

5 **Rotating-drive mechanism**
- robust, wear-resistant

6 **Drive**
- two double acting pneumatic cylinders



3 **Precise T-Slot guides**
- high force and moment absorption

4 **Endposition 0/90/180° adjustment**
- endstops for 0°/90°/180° included with purchase

7 **Slot for magnetic field sensor**
- sensing of the rotational position and gripper jaw position

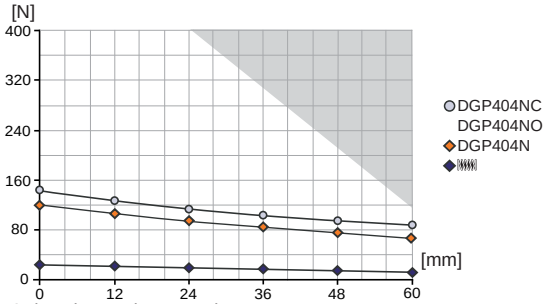
8 **Integrated grip force safety device**
- optional via integrated spring (C or O models)

2-Jaw Parallel Rotary Grippers

Picture shows DGP404N

Gripping force diagram

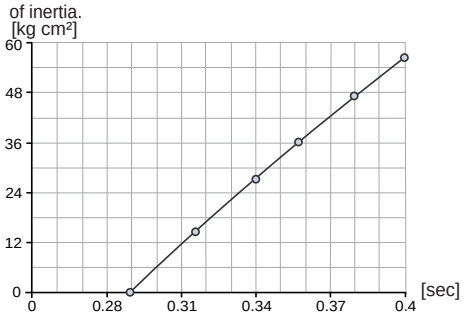
Gripping force as a function of jaw length.



Colored area: increased wear or tear to be expected.

Rotation time diagram

Rotation time as a function of mass moment of inertia.



Forces and moments

Max allowable static forces and moments on jaws.

Mr [Nm]:	8
Mx [Nm]:	15
My [Nm]:	10
Fa [N]:	300

Includaed with purchase

Pneumatic fittings
Order no.: **DRVM5X4**

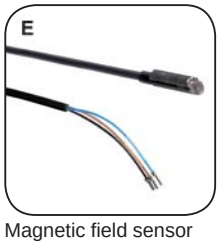
Endstop 90° + 180°
Order no.: **ANS0065**

Centring sleeve
Order no.: **BDST40400**

Recommended accessories

Pneumatic fittings
Order no.: **WVM5**

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



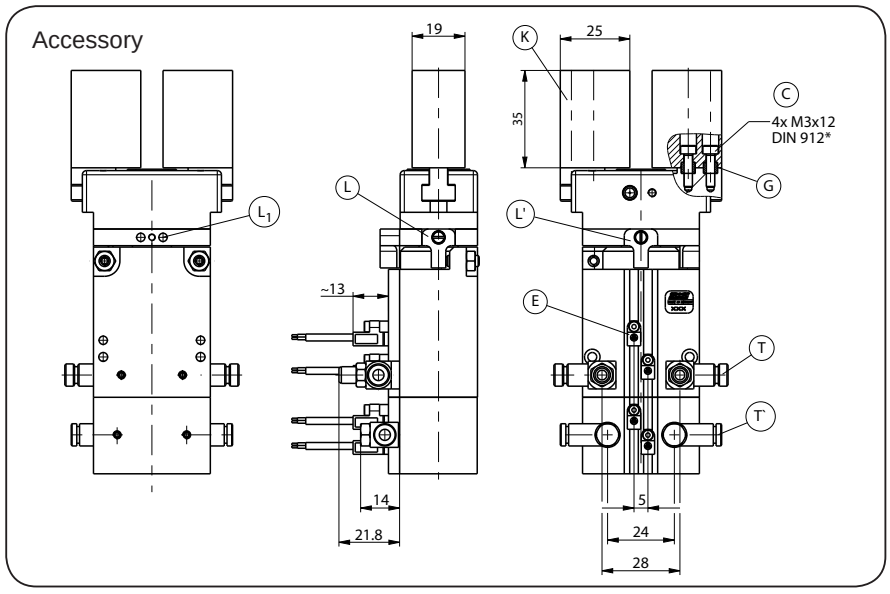
Magnetic field sensor
Order no.: **MFS204KHC**

Universal jaw set
Order no.: **UB404**

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

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

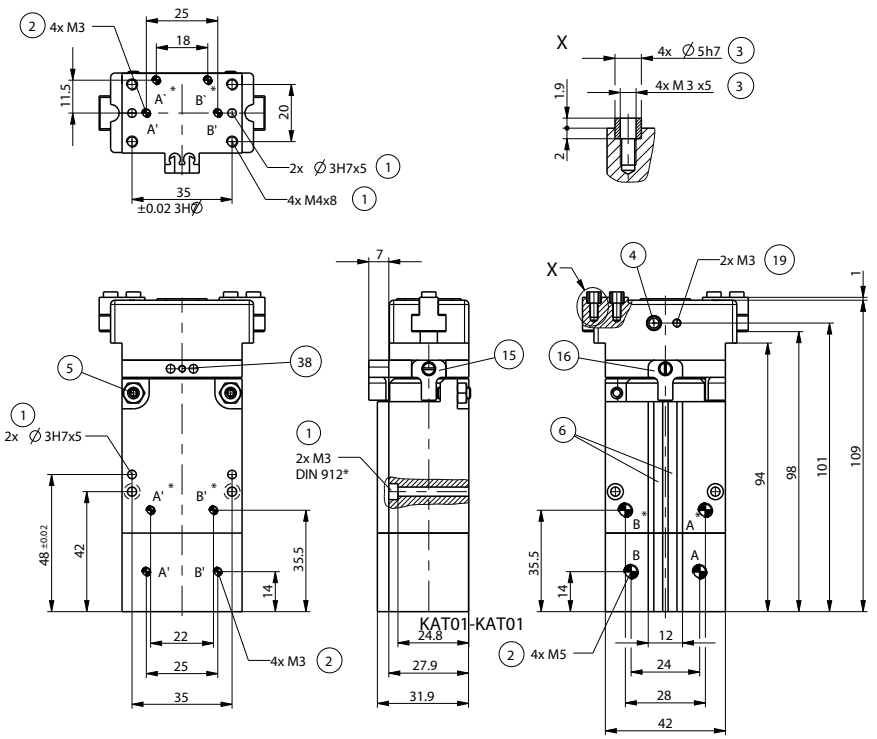
Accessory



Subject to change witout prior notice

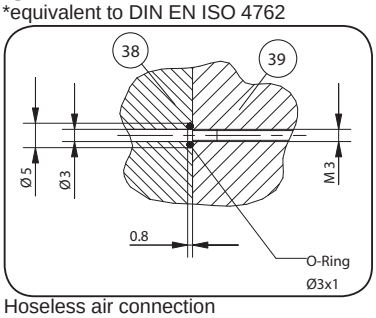
Order no.:	DGP404N	DGP404NC	DGP404NO
Stroke per jaw [mm]:	4	4	4
Gripping force in opening [N]:	115	-	155
Gripping force in closing [N]:	115	155	-
Gripping force secured by spring min. [N]:	-	40	40
Closing time / opening time [s]:	0,01	0,015	0,015
Repeatability +/- [mm]:	0,05	0,05	0,05
Air volume per cycle [cm³]:	3	5	5
Torque [Nm]:	0,5	0,5	0,5
Repeatability +/- [°]:	0,05	0,05	0,05
Axial bearing load [N]:	960	960	960
Radial bearing load [Nm]:	10	10	10
Air volume per cycle 90° [cm³]:	4,5	4,5	4,5
Air volume per cycle 180° [cm³]:	9	9	9
Operating pressure min. [bar]:	3	5	5
Operating pressure max. [bar]:	8	8	8
Operating temperature [°C]*:	5-80	5-80	5-80
Weight [kg]:	0,440	0,480	0,480

All data measured at 6 bar

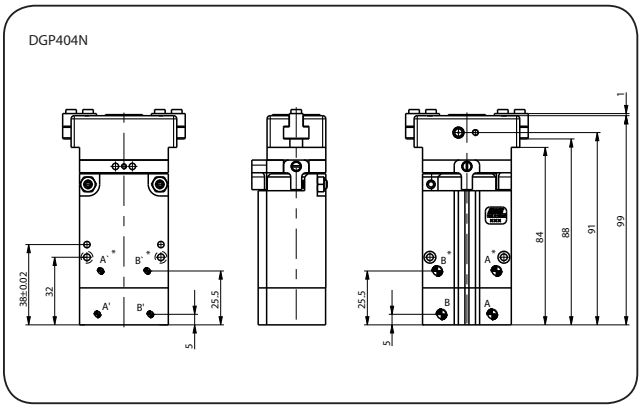


① Gripper mounting
② Energy supply
③ gripper finger mounting
④ Lubrication nipple
⑤ Stroke adjustment screw
⑥ Slot for magnetic field sensor
⑮ Endstop 180°
⑯ Endstop 90°
⑰ Direction of rotation
⑲ Air purge connection
㊳ Adaptor
㊴ Gripper
Ⓐ Air connection (closing)
Ⓑ Air connection (opening)
Ⓐ' Alternate air connection (closing)
Ⓑ' Alternate air connection (opening)
Ⓐ* Air connection - Rotation (90°/180°)
Ⓑ* Air connection - Rotation (0°)
Ⓐ'* Alternate air connection - Rotation (90°/180°)
Ⓑ'* Alternate air connection - Rotation (0°)

*equivalent to DIN EN ISO 4762



Hoseless air connection



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