

2-Jaw Parallel Grippers

Highlights



Drive

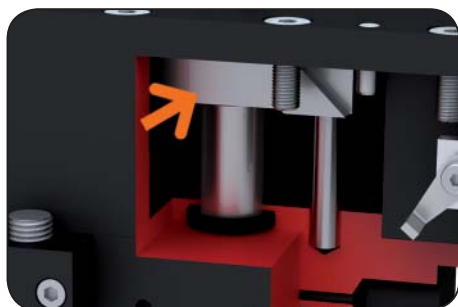
Double acting pneumatic cylinder with integrated mechanical gripping force safety device

- optimum transmission of power and gripping force secured by spring
- maximum power in both opening and closing
- gripping force up to 4500 N



Guidance

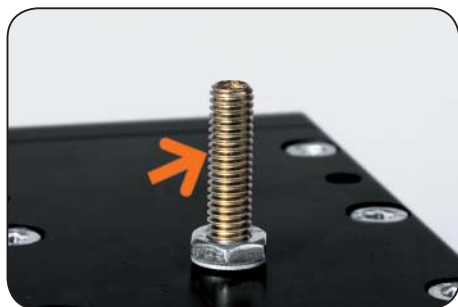
- overlapping flat guides for stability
- protected from dirt, dust and liquids through wipers at the gripper jaw
- high precision, due to low play guide



Power transfer

Wedge hook mechanism with different ratio

- optimum transmission of power to gripping force
- self-centering
- synchronized
- high repeat accuracy



Stroke adjustment

Adjustable opening-stroke

- infinite

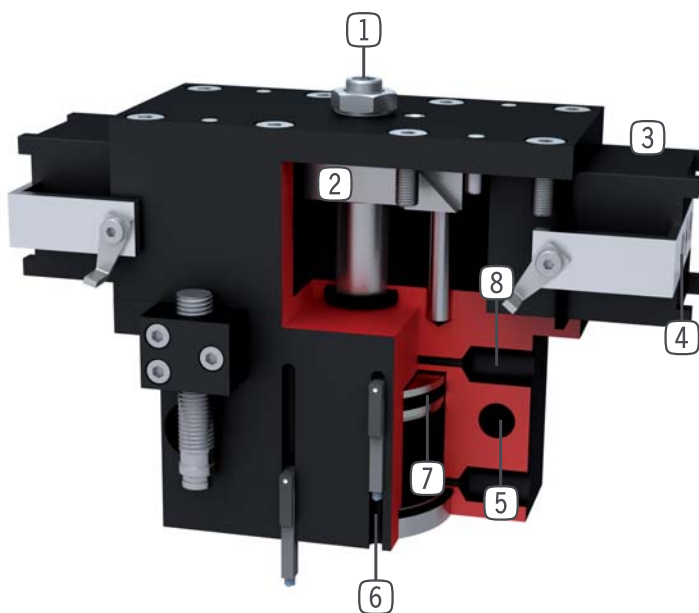


Terms

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:	maintenance free to 10 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

- | | |
|--|--|
| <p>① Stroke setting</p> <ul style="list-style-type: none"> - infinitely adjustable in "open" movement - adjusting screw in delivery <p>② Wedge hook mechanism</p> <ul style="list-style-type: none"> - synchronized gripper jaw movement - high force transfer | <p>⑤ Mounting and positioning</p> <ul style="list-style-type: none"> - mounting possible from several sides for versatile positioning <p>⑥ Integrated slot</p> <ul style="list-style-type: none"> - mounting and positioning of magnetic field sensors |
|--|--|



- | | |
|--|--|
| <p>③ Square guide</p> <ul style="list-style-type: none"> - high forces and moments capacity <p>④ Gripper jaw</p> <ul style="list-style-type: none"> - for individual gripper finger mounting | <p>⑦ Drive</p> <ul style="list-style-type: none"> - double acting pneumatic cylinder <p>⑧ Energy supply</p> <ul style="list-style-type: none"> - air connection available on several sides |
|--|--|

2-Jaw Parallel Grippers



Picture shows GP224-B

Included with purchase



Mounting block
Order no.: **KB8K**

Recommended accessories



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



Proximity switch
Order no.: **NJ8-E2S**



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



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



Cable angled plug
Order no.: **KAW500**



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



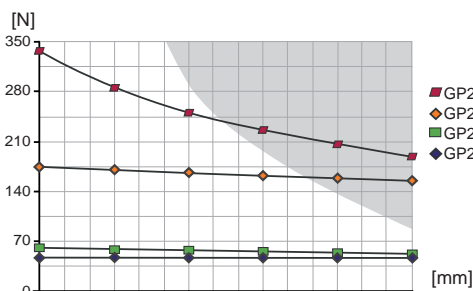
Centering Disc
Order no.: **ZE15H7x4**



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

Gripping force diagram

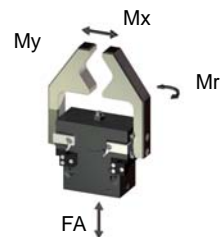
Gripping force as a function of jaw length.



Colored area: increased wear and tear to be expected

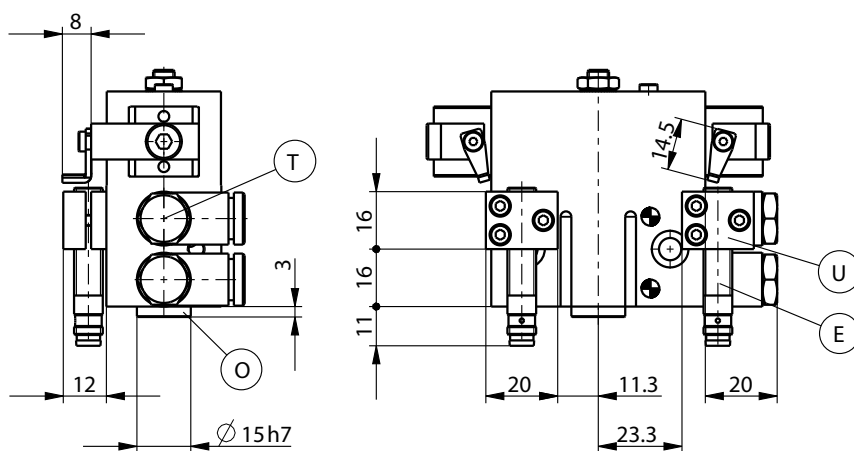
Forces and Moments

Max allowable forces and moments on jaw.



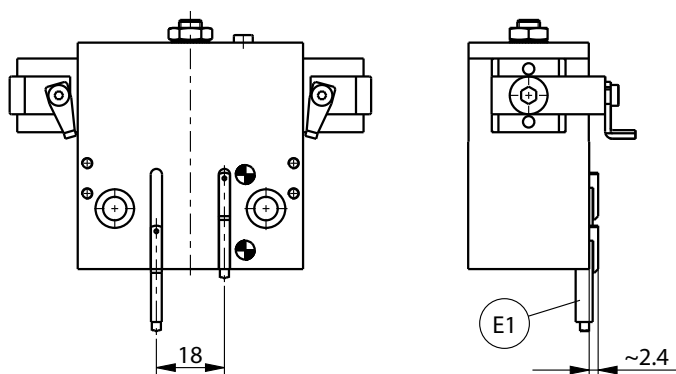
Mr [Nm]:	8
Mx [Nm]:	15
My [Nm]:	8
Fa [N]:	250

Accessory



*equivalent to DIN EN ISO 4762

Accessory

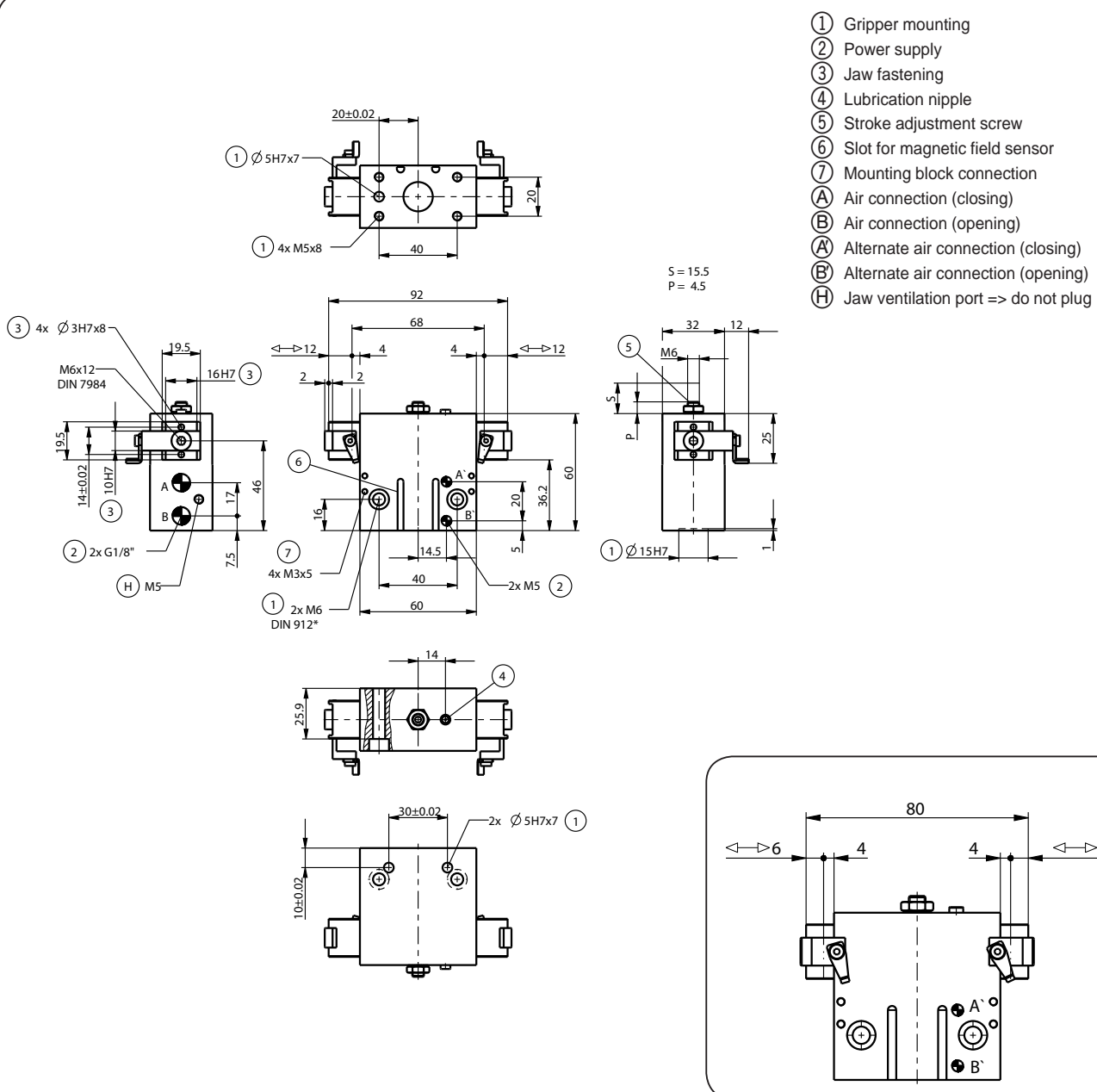


Subject to change without prior notice

Order no.:	GP224-B	GP224-B-99	GP224S-B	GP224S-B-99
Stroke per jaw [mm]:	12	12	6	6
Gripping force in closing [N]:	170	160	335	335
Gripping force in opening [N]:	-	160	-	335
Closing time / opening time [s]:	0,06	0,04	0,06	0,04
Repeatability +/- [mm]:	0,05	0,05	0,05	0,05
Operating pressure min. [bar]:	5	3	5	3
Operating pressure max. [bar]:	8	8	8	8
Operating temperature [°C]*:	5-80	5-80	5-80	5-80
Air volume per cycle [cm³]:	12	12	12	12
Weight [kg]:	0,330	0,325	0,330	0,325

All data measured at 6 bar

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



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2-Jaw Parallel Grippers



Picture shows GP240-B

Included with purchase



Mounting block
Order no.: **KB8K**

Recommended accessories



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



Proximity switch
Order no.: **NJ8-E2S**



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



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



Cable angled plug
Order no.: **KAW500**



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



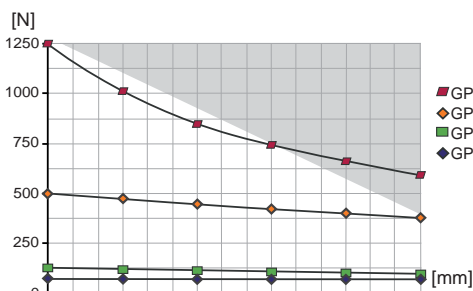
Centering Disc
Order no.: **ZE30H7x4**



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

Gripping force diagram

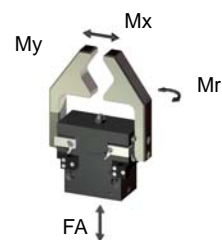
Gripping force as a function of jaw length.



Colored area: increased wear and tear to be expected

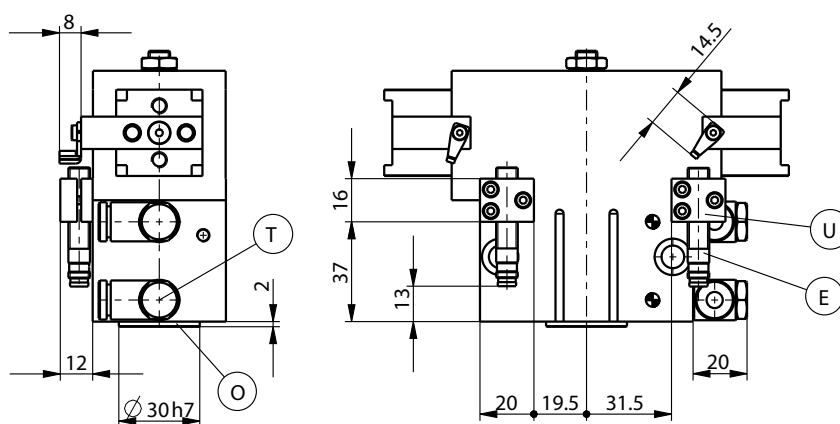
Forces and Moments

Max allowable forces and moments on jaw.



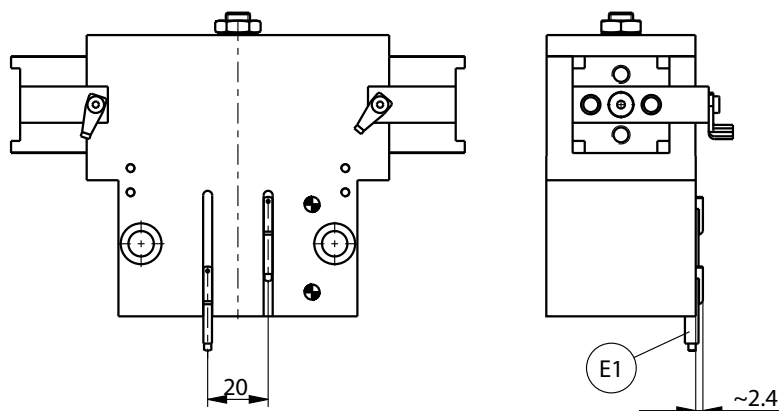
Mr [Nm]:	15
Mx [Nm]:	30
My [Nm]:	15
Fa [N]:	400

Accessory



*equivalent to DIN EN ISO 4762

Accessory



Subject to change without prior notice

23

2-Jaw Parallel Grippers



Picture shows GP260

Included with purchase



Mounting block
Order no.: **KB8K**

Recommended accessories



Pneumatic fittings
Order no.: **WV1/4X8**



Proximity switch
Order no.: **NJ8-E2S**



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



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



Cable angled plug
Order no.: **KAW500**



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



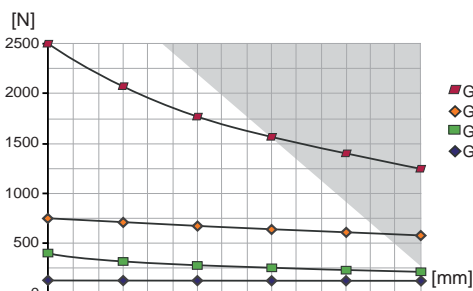
Centering Disc
Order no.: **ZE40H7x6**



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

Gripping force diagram

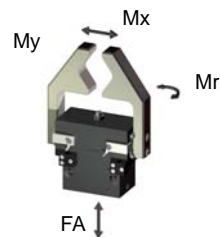
Gripping force as a function of jaw length.



Colored area: increased wear and tear to be expected

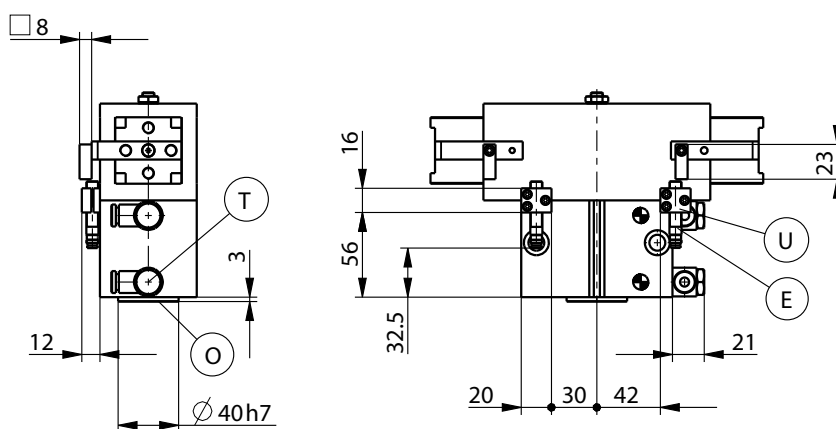
Forces and Moments

Max allowable forces and moments on jaw.



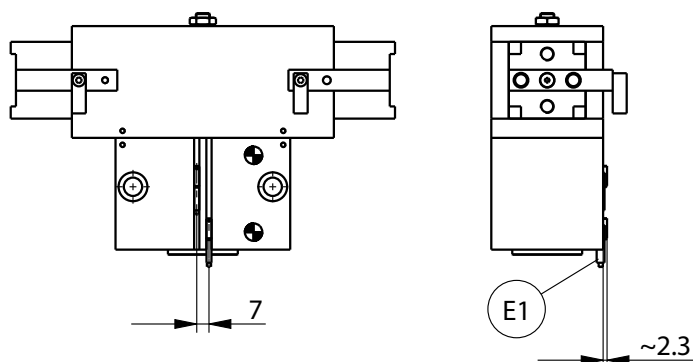
Mr [Nm]:	25
Mx [Nm]:	45
My [Nm]:	25
Fa [N]:	600

Accessory



*equivalent to DIN EN ISO 4762

Accessory

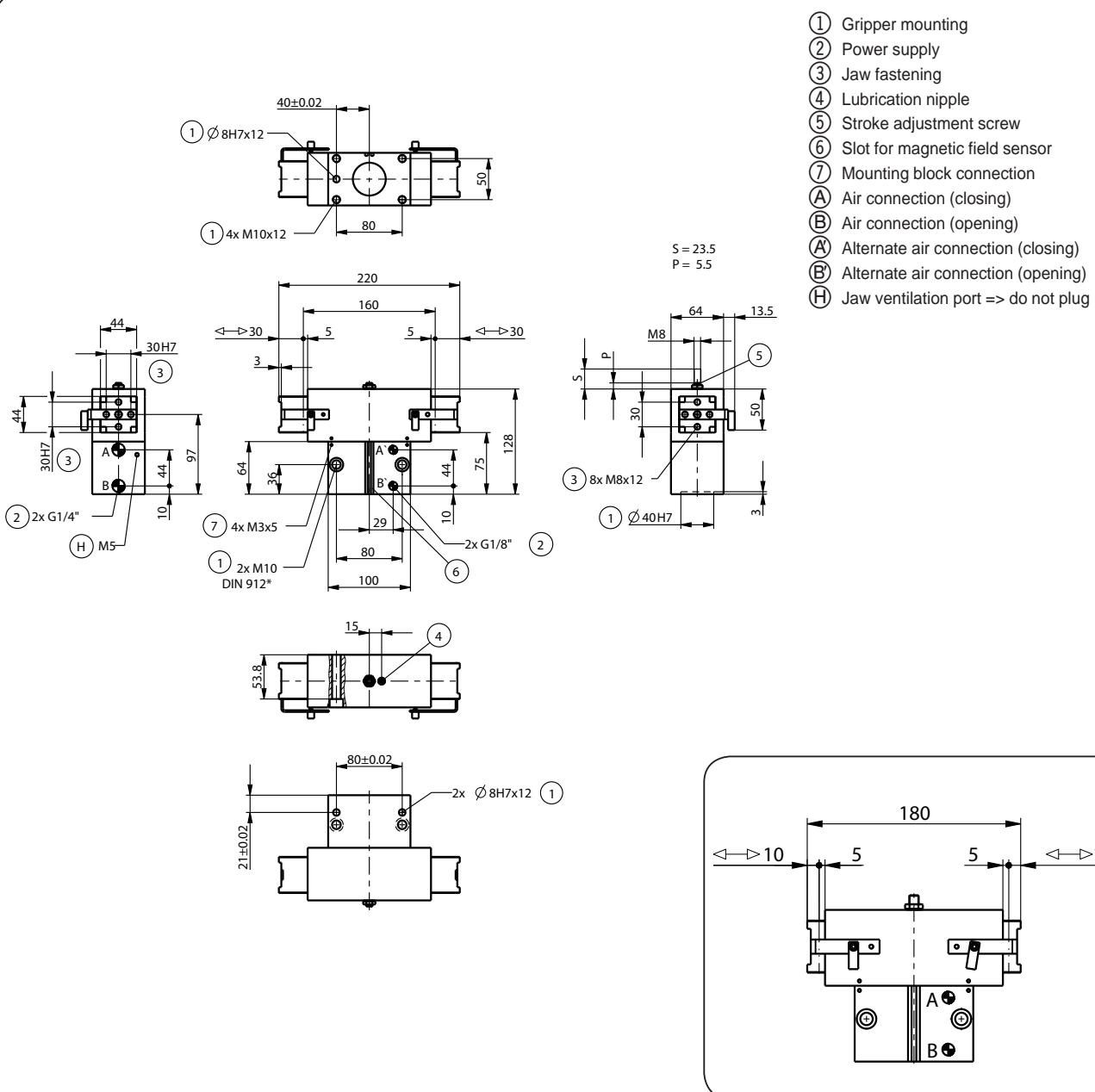


Subject to change without prior notice

Order no.:	GP260	GP260-99	GP260S	GP260S-99
Stroke per jaw [mm]:	30	30	10	10
Gripping force in closing [N]:	800	665	2.480	2.120
Gripping force in opening [N]:	-	665	-	2.120
Closing time / opening time [s]:	0,15	0,1	0,15	0,1
Repeatability +/- [mm]:	0,05	0,05	0,05	0,05
Operating pressure min. [bar]:	5	3	5	3
Operating pressure max. [bar]:	8	8	8	8
Operating temperature [°C]*:	5-80	5-80	5-80	5-80
Air volume per cycle [cm³]:	115	115	115	115
Weight [kg]:	2,900	2,900	2,900	2,900

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

2-Jaw Parallel Grippers



Picture shows GP280

Included with purchase



Mounting block
Order no.: **KB8-23**

Recommended accessories



Pneumatic fittings
Order no.: **WV1/4X8**



Proximity switch
Order no.: **NJ8-E2S**



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



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



Cable angled plug
Order no.: **KAW500**



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



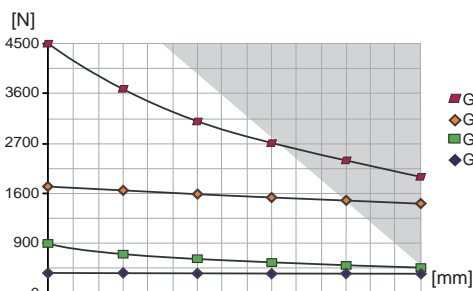
Centering Disc
Order no.: **ZE45H7x6**



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

Gripping force diagram

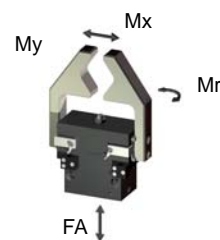
Gripping force as a function of jaw length.



Colored area: increased wear and tear to be expected

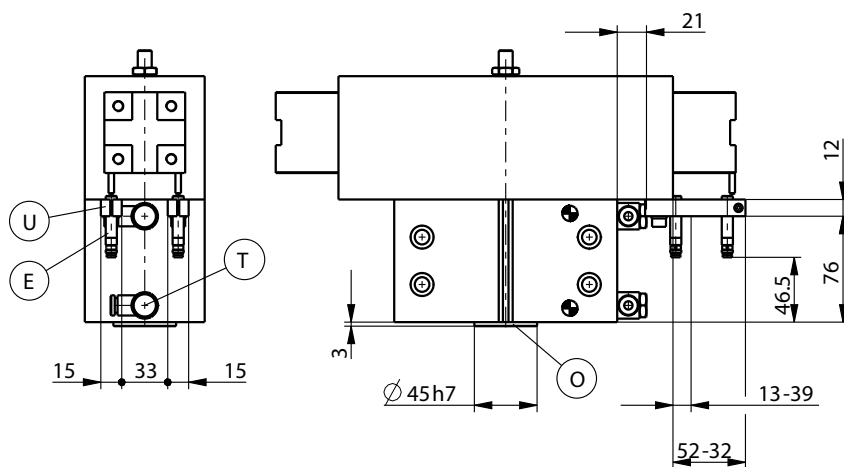
Forces and Moments

Max allowable forces and moments on jaw.



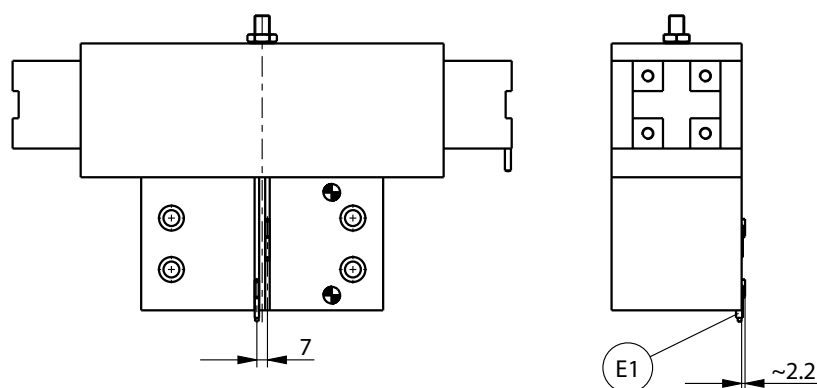
Mr [Nm]:	40
Mx [Nm]:	75
My [Nm]:	40
Fa [N]:	1.000

Accessory



*equivalent to DIN EN ISO 4762

Accessory

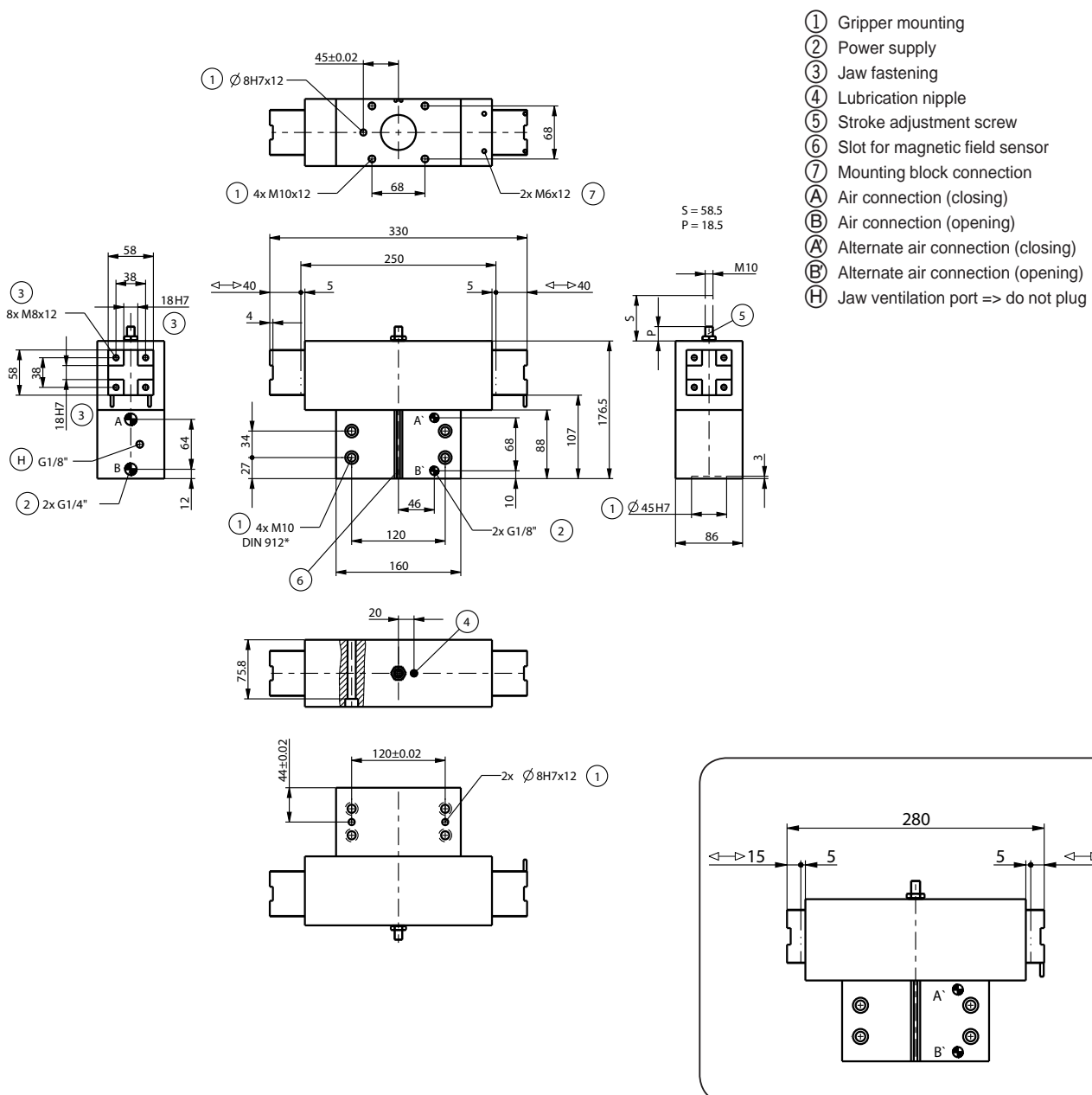


Subject to change without prior notice

Order no.:	GP280	GP280-99	GP280S	GP280S-99
Stroke per jaw [mm]:	40	40	15	15
Gripping force in closing [N]:	1.690	1.390	4.500	3.690
Gripping force in opening [N]:	-	1.390	-	3.690
Closing time / opening time [s]:	0,25	0,2	0,25	0,2
Repeatability +/- [mm]:	0,05	0,05	0,05	0,05
Operating pressure min. [bar]:	5	5	5	5
Operating pressure max. [bar]:	10	10	10	10
Operating temperature [°C]*:	5-80	5-80	5-80	5-150 °C
Air volume per cycle [cm³]:	300	300	300	300
Weight [kg]:	8,300	8,300	8,300	8,300

All data measured at 6 bar

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



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