

2-Jaw Parallel Grippers

Highlights



Drive

Electrical transmission motor 24VDC

- In conjunction with curve disc for rapid stroke and force stroke
- High drive force when opening (O) or closing (C)
- Gripping force up to 350N
- Rapid cycle times



Force transfer

Positively driven curve disc

- Rapid stroke and force stroke on version with 6 mm stroke per jaw
- Optimum force steering of drive force in gripping force
- Self-centering
- Synchronisation
- High repeat accuracy



Gripping force safety

C and O design

- Curve disc with narrowing radius for mechanical self limitation at stroke end
- Maintenance of gripping force even under drop in voltage



Machine connection

Energy feed, fixing and positioning possibilities on several sides

- Optimum integration into the workroom through individual mounting situation
- Standardised interface



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:	at end stops after 50/100 consecutive cycles
Gripping force safety:	the gripping force is guaranteed by the shape of curve disc. It is only available if the curve disc travels to its stroke end during gripping. Only on versions with 6 mm stroke per jaw
Cycle:	angle of rotation covered by the drive motor in an open and close movement
Maintenance:	recommended at 5 mil. cycles (please see the owner's manual for conditions, download from www.sommer-automatic.com)
	- long maintenance intervals keep costs down
	- long lifespan

Design

- 1 Removable centering sleeve**
- quick and cost effective positioning of the gripper finger

- 2 Gripper jaw**
- hardened steel
 - individual gripper finger mounting

- 5 Guide**
- sealed round guide for adverse environmental influences (series 1500)
 - precise T-Slot guide for high forces and moments capacity (series 1300)

- 6 Position sensing**
- measured at the end of stroke via power increase on the motor



- 3 Positively driven curve disc**
- synchronized gripper jaw movement
 - high force transfer
 - rapid stroke and force stroke (version with 6 mm stroke per jaw)

- 4 Drive**
- electric drive by 24 VDC step motor

- 7 Energy feed**
- standardized interface M8 round plug signal control line (use only cable without diode)

- 8 Robust, lightweight housing**
- hard coated aluminium alloy

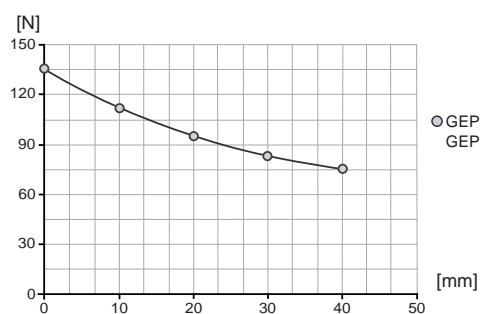
2-Jaw Parallel Grippers



Picture shows GEP1402

Gripping force diagram

Gripping force as a function of jaw length.



Forces and Moments

Max allowable forces and moments on jaw.



Mr [Nm]:	5
Mx [Nm]:	5
My [Nm]:	4
Fa [N]:	70



Centring sleeve
Order no.: **BDST02900**



Control
Order no.: **ELEGR01**

Recommended accessories

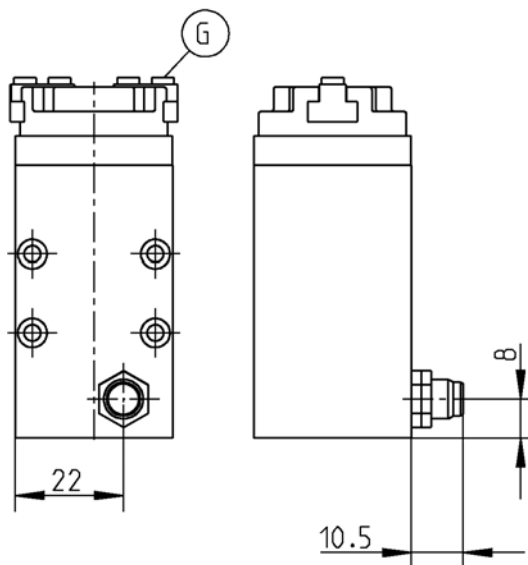


Cable straight plug
Order no.: **KAG500**



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

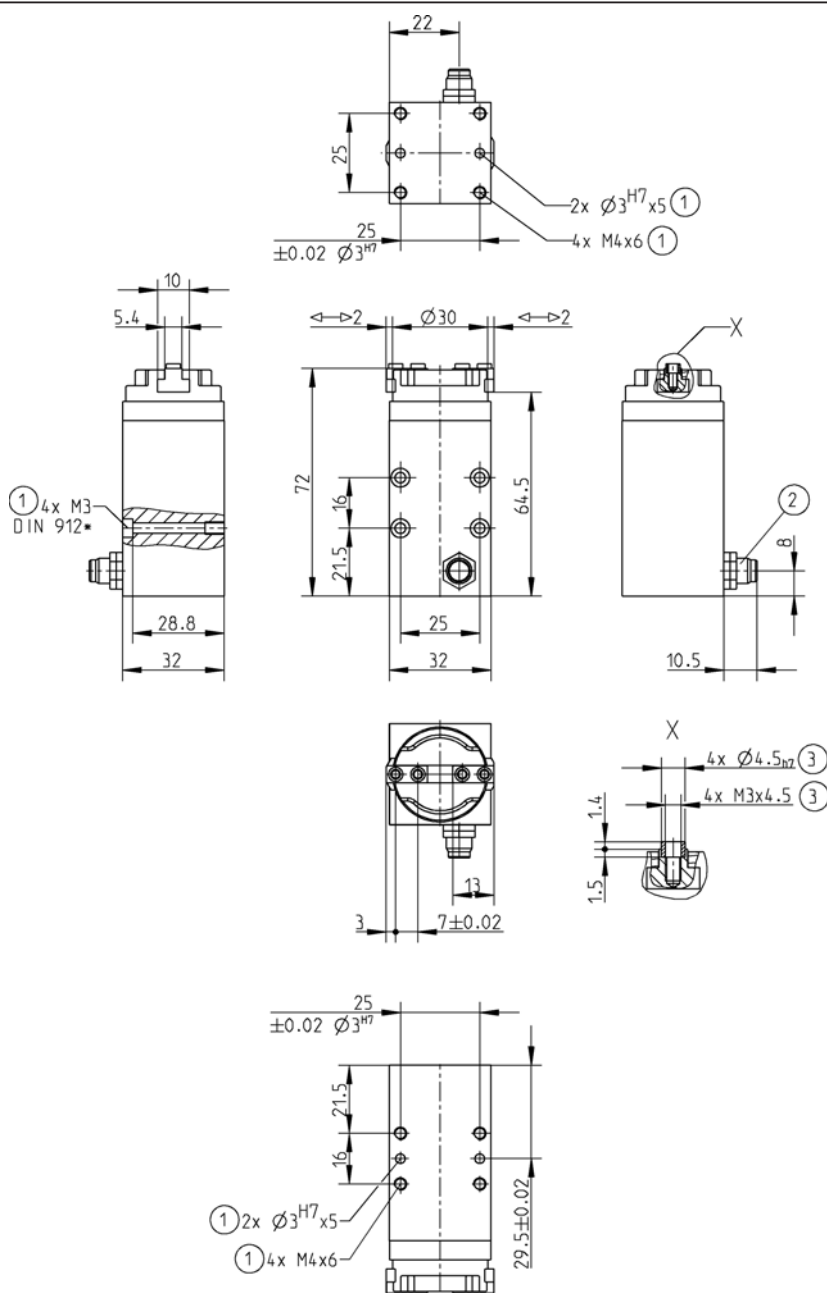
Accessory



Subject to change without prior notice

Order no.:	GEP1402
Stroke per jaw [mm]:	2
Gripping force in closing (adjustable) [N]:	140
Gripping force in opening (adjustable) [N]:	140
Closing time/opening time [s]:	0,2
Repeatability +/- [mm]:	0,02
Voltage [V]*:	24
Max. current regulable by potentiometer [mA]:	140
Min./max. operating temperature [°C]:	5-80
Protection class:	IP52
Weight [kg]:	0,300

* 12 Voltage on request



- ① Gripper mounting
- ② Power supply
- ③ Fixing gripper jaw

*equivalent to DIN EN ISO 4762

Subject to change without prior notice

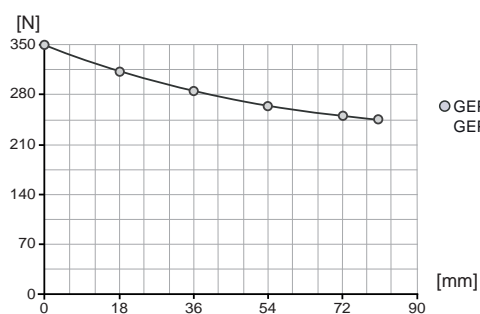
2-Jaw Parallel Grippers



Picture shows GEP1406C

Gripping force diagram

Gripping force as a function of jaw length.



○ GEP1406C →<<
GEP1406O <<→

Forces and Moments

Max allowable forces and moments on jaw.



Mr [Nm]:	30
Mx [Nm]:	30
My [Nm]:	20
Fa [N]:	500

Included with purchase



Centring sleeve
Order no.: **BDST40800**



Control
Order no.: **ELEGR04**

Recommended accessories

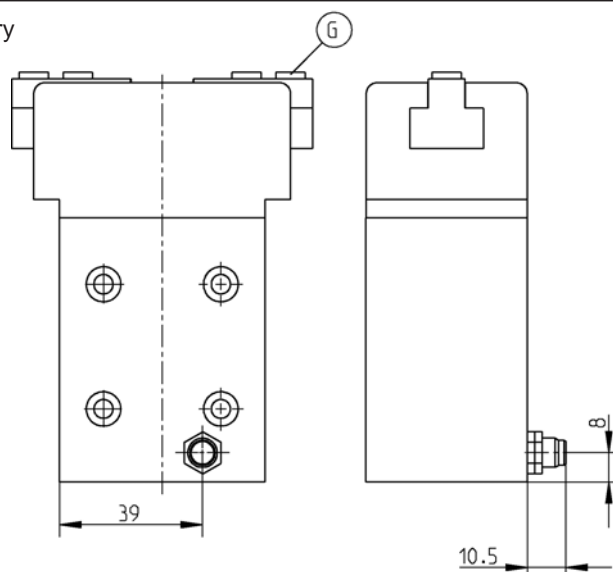


Cable straight plug
Order no.: **KAG500**



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

Accessory

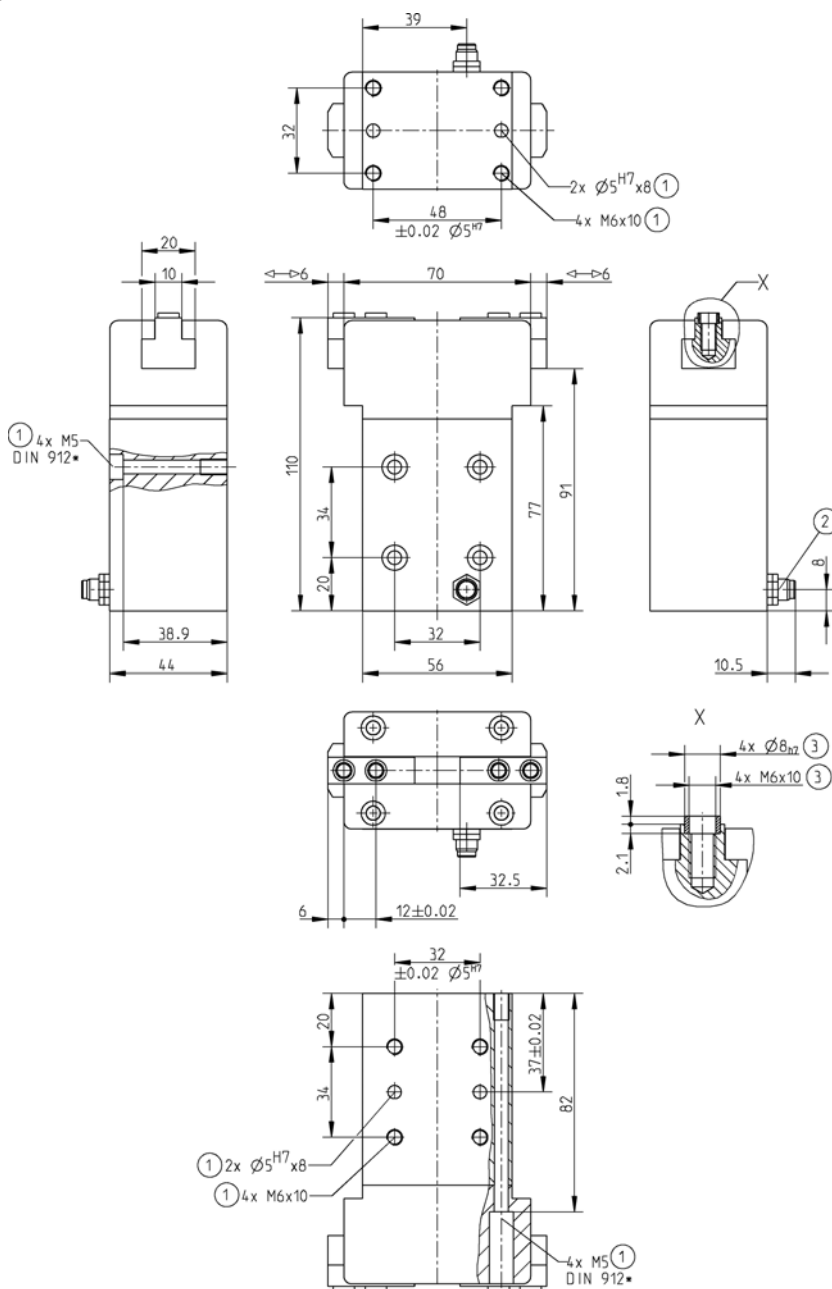


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Order no.:	GEP1406C	GEP1406O
Stroke per jaw [mm]:	6	6
Gripping force in closing (adjustable) [N]:	350	-
Gripping force in opening (adjustable) [N]:	-	350
Closing time/opening time [s]:	0,4	0,4
Repeatability +/- [mm]:	0,02	0,02
Voltage [V]*:	24	24
Max. current regulable by potentiometer [mA]:	210	210
Min./max. operating temperature [°C]:	5-80	5-80
Protection class:	IP52	IP52
Weight [kg]:	1,000	1,000

* 12 Voltage on request



- ① Gripper mounting
- ② Power supply
- ③ Fixing gripper jaw

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