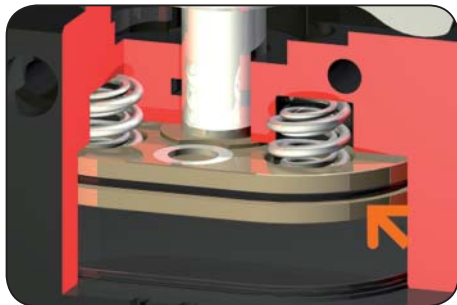


# 2-Jaw Angle Grippers

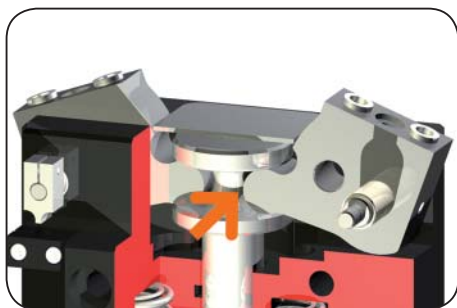
## Highlights



### Drive

#### Double acting pneumatic cylinder with oval pistons

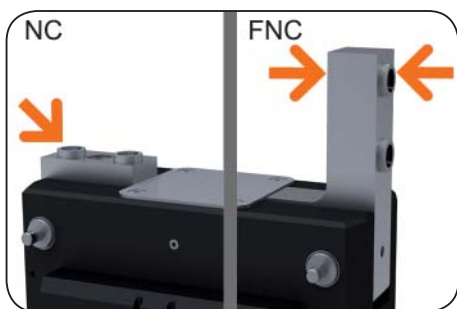
- maximum drive moment due to approx. 30% greater piston surface than similar round pistons
- optimum coordination of drive force and gripping moment secured by spring



### Power transfer

#### Positively driven lever gearing

- optimum transmission of drive force in gripping force
- lever gearing allows synchronized and central gripping
- functional parts made of hardened steel ensure high repeat accuracy



### Gripper finger mounting

#### Individual gripper finger positioning via centering sleeves

- precise positioning of the gripper fingers
- quick and cost-effective gripper finger exchange
- sideways mounting of the gripper fingers at FNC-version
- space-saving fixing



### Shaft support

#### Individual mounting of accessories via centering sleeves

- connection of a shaft support without additional design effort

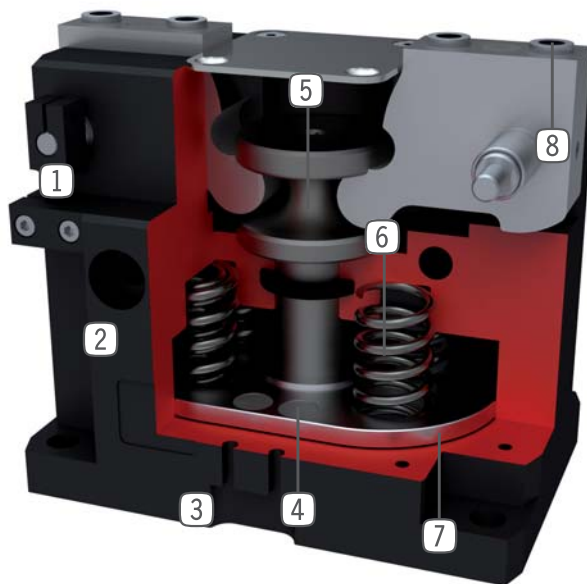


## Terms

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 million cycles</p> <p>(please see the owner's manual for details, download at <a href="http://www.sommer-automatic.com">www.sommer-automatic.com</a>)</p> <ul style="list-style-type: none"> <li>- long maintenance intervals keep costs down</li> <li>- long durability</li> </ul>

## Design

- |   |  |
|---|--|
| <p>① <b>Cam-switch and mounting block</b></p> <ul style="list-style-type: none"> <li>- mounting for inductive proximity switch</li> </ul> | <p>⑤ <b>Guided toggle lever gear mechanism</b></p> <ul style="list-style-type: none"> <li>- synchronized gripping jaw movement</li> <li>- mechanically self-locking</li> </ul> |
| <p>② <b>Robust, lightweight housing</b></p> <ul style="list-style-type: none"> <li>- hard coated anodized aluminium alloy</li> </ul>      | <p>⑥ <b>Integrated gripping force safety locking device</b></p> <ul style="list-style-type: none"> <li>- spring integrated into cylinder as energy storage</li> </ul>          |



- |  |  |
|--|--|
| <p>③ <b>Integrated slot</b></p> <ul style="list-style-type: none"> <li>- mounting and positioning of magnetic field sensors</li> </ul>                 | <p>⑦ <b>Drive</b></p> <ul style="list-style-type: none"> <li>- double acting pneumatic cylinder</li> </ul>                                       |
| <p>④ <b>Permanent magnet</b></p> <ul style="list-style-type: none"> <li>- sensing of the piston setting position via magnetic field sensors</li> </ul> | <p>⑧ <b>Removable centering sleeve</b></p> <ul style="list-style-type: none"> <li>- quick and cost-effective gripping jaw positioning</li> </ul> |

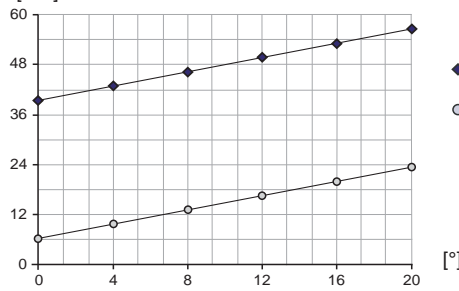
# 2-Jaw Angle Grippers



Picture shows GG1065NC

## Gripping moment diagram

Shows the gripping moment as a function of the opening angle [Nm]



## Forces and moments

Max allowable forces and moments on jaw.



Mr [Nm]:	20
My [Nm]:	20
Fa [N]:	330

## Included with purchase



Centring sleeve NC  
Order no.: **BDST40800**



Centring sleeve FNC  
Order no.: **BDST41000**

## Accessory list



Mounting block  
Order no.: **KB8-43**



Proximity switch  
Order no.: **NJ8-E2S-05**



Pneumatic fittings  
Order no.: **WVM5**



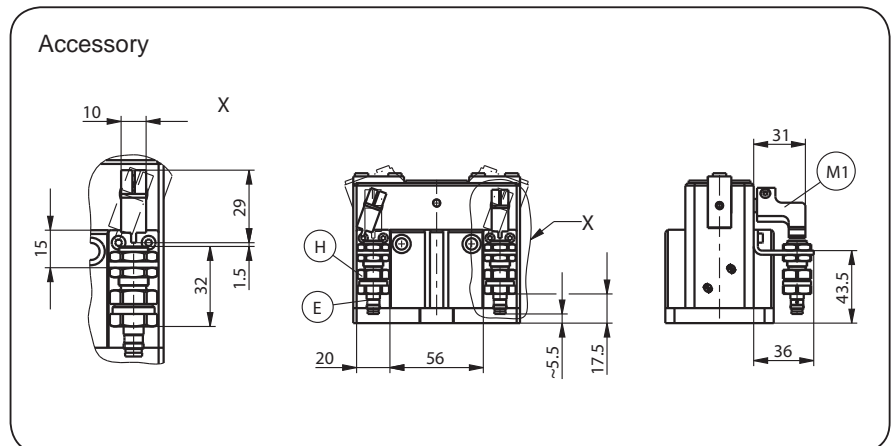
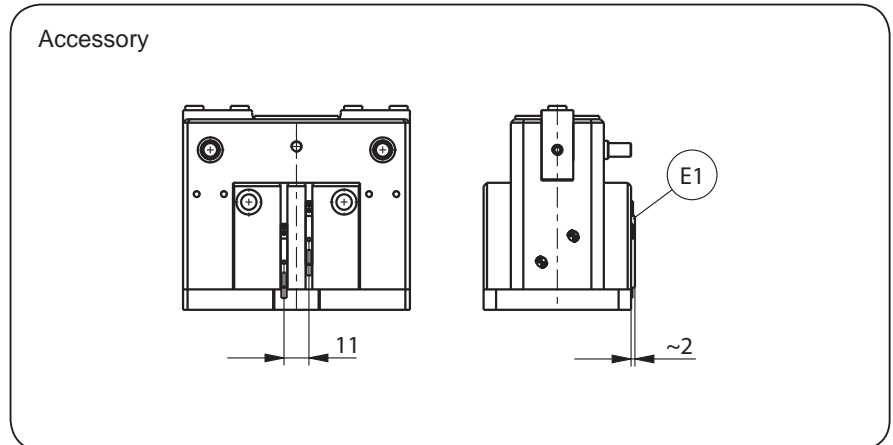
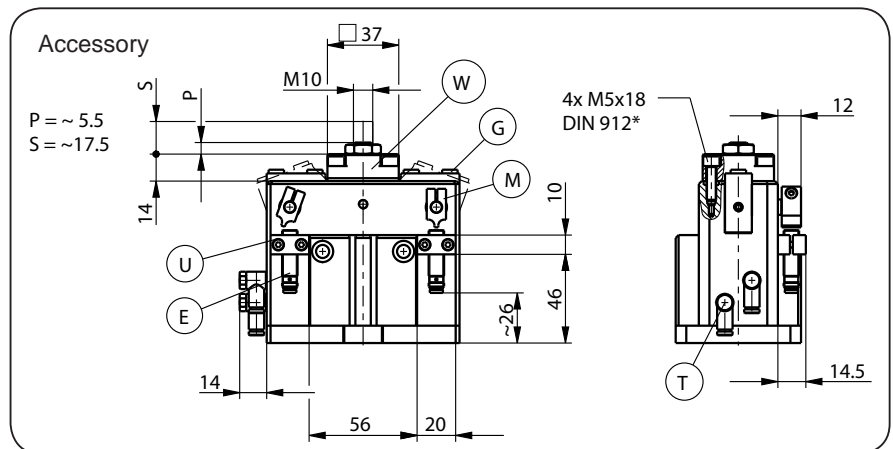
Alternate proximity bracket  
Order no.: **KHA1065-8**



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



Stroke adjustment screw  
Order no.: **HES0009**

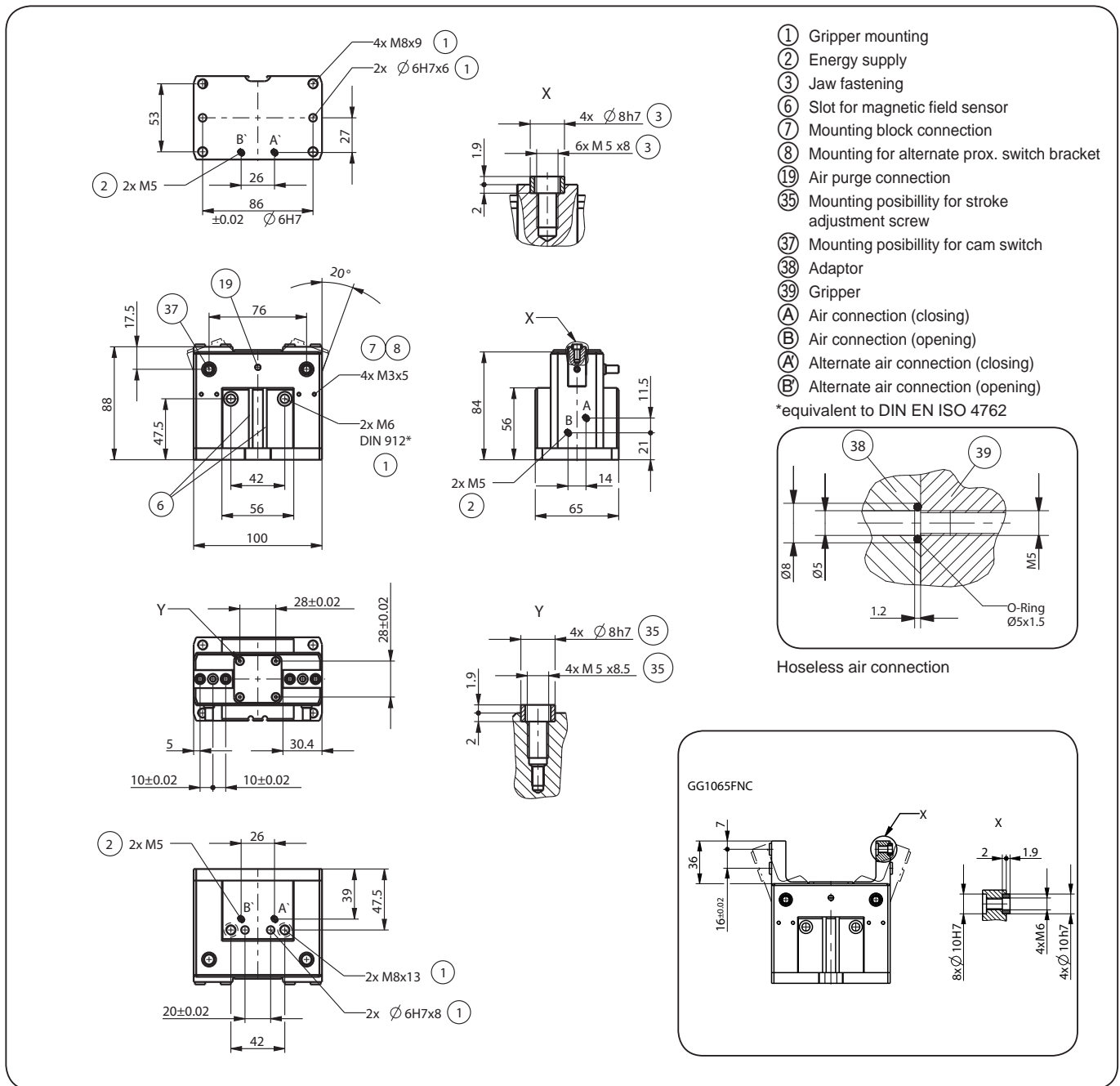


Subject to change without prior notice

Order no.:	GG1065NC	GG1065FNC
Stroke per jaw [°]:	20	20
Gripping moment in closing [Nm]:	39	39
Gripping moment secured by spring min. [Nm]:	6.5	6.5
Closing time / opening time [s]:	0.04 / 0.07	0.04 / 0.07
Repeatability +/- [mm]:	0.05	0.05
Operating pressure min. [bar]:	4	4
Operating pressure max. [bar]:	8	8
Operating temperature [°C]*:	5-80	5-80
Air volume per cycle [cm³]:	68	68
Weight [kg]:	1.3	1.4

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
  - ⑥ Slot for magnetic field sensor
  - ⑦ Mounting block connection
  - ⑧ Mounting for alternate prox. switch bracket
  - ⑬ Air purge connection
  - ⑮ Mounting possibility for stroke adjustment screw
  - ⑰ Mounting possibility for cam switch
  - ⑱ Adaptor
  - ⑲ Gripper
  - Ⓐ Air connection (closing)
  - Ⓑ Air connection (opening)
  - Ⓐ Alternate air connection (closing)
  - Ⓑ Alternate air connection (opening)
- \*equivalent to DIN EN ISO 4762

Subject to change without prior notice

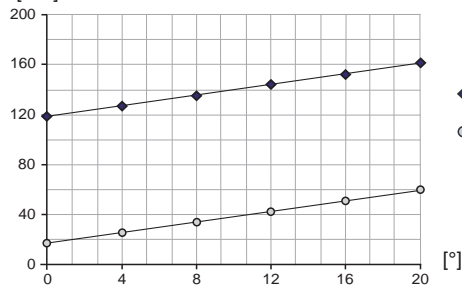
# 2-Jaw Angle Grippers



Picture shows GG1085NC

## Gripping moment diagram

Shows the gripping moment as a function of the opening angle [Nm]



## Forces and moments

Max allowable forces and moments on jaw.



Mr [Nm]:	40
My [Nm]:	50
Fa [N]:	600

### Included with purchase



Centring sleeve NC  
Order no.: **BDST41000**



Centring sleeve FNC  
Order no.: **BDST41600**

### Accessory list



Mounting block  
Order no.: **KB8-43**



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



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



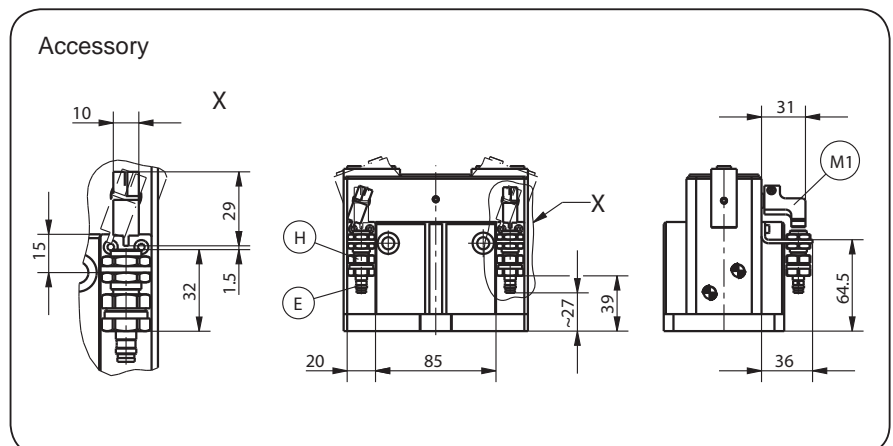
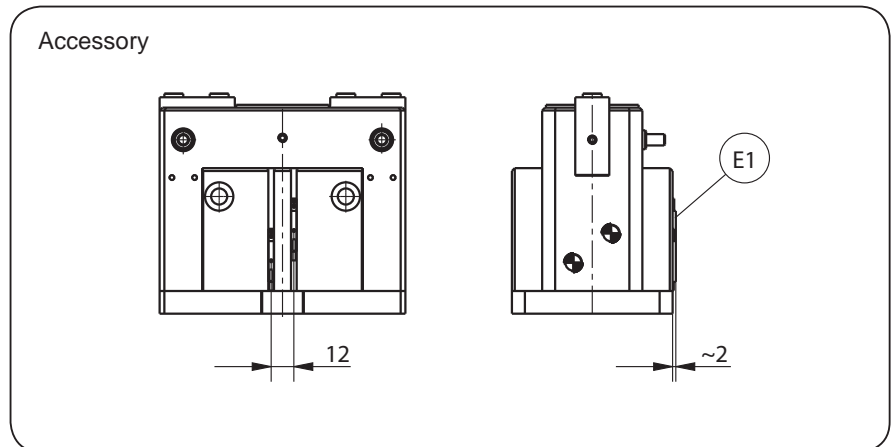
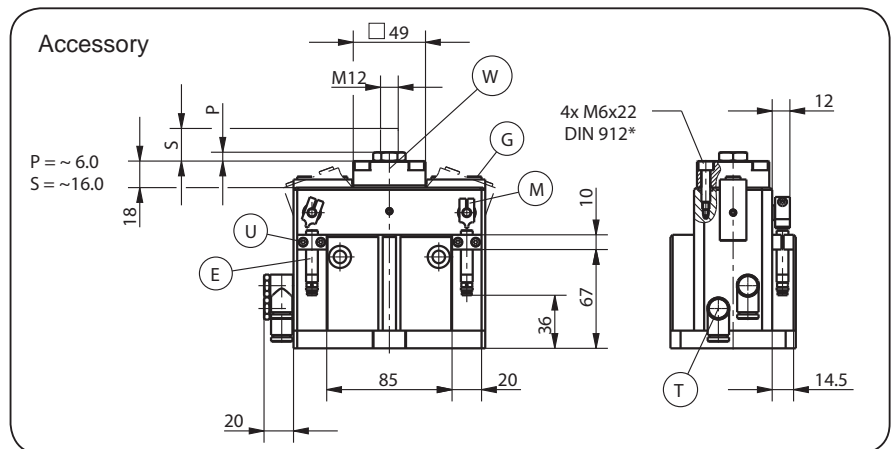
Alternate proximity bracket  
Order no.: **KHA1085-8**



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



Stroke adjustment screw  
Order no.: **HES0006**

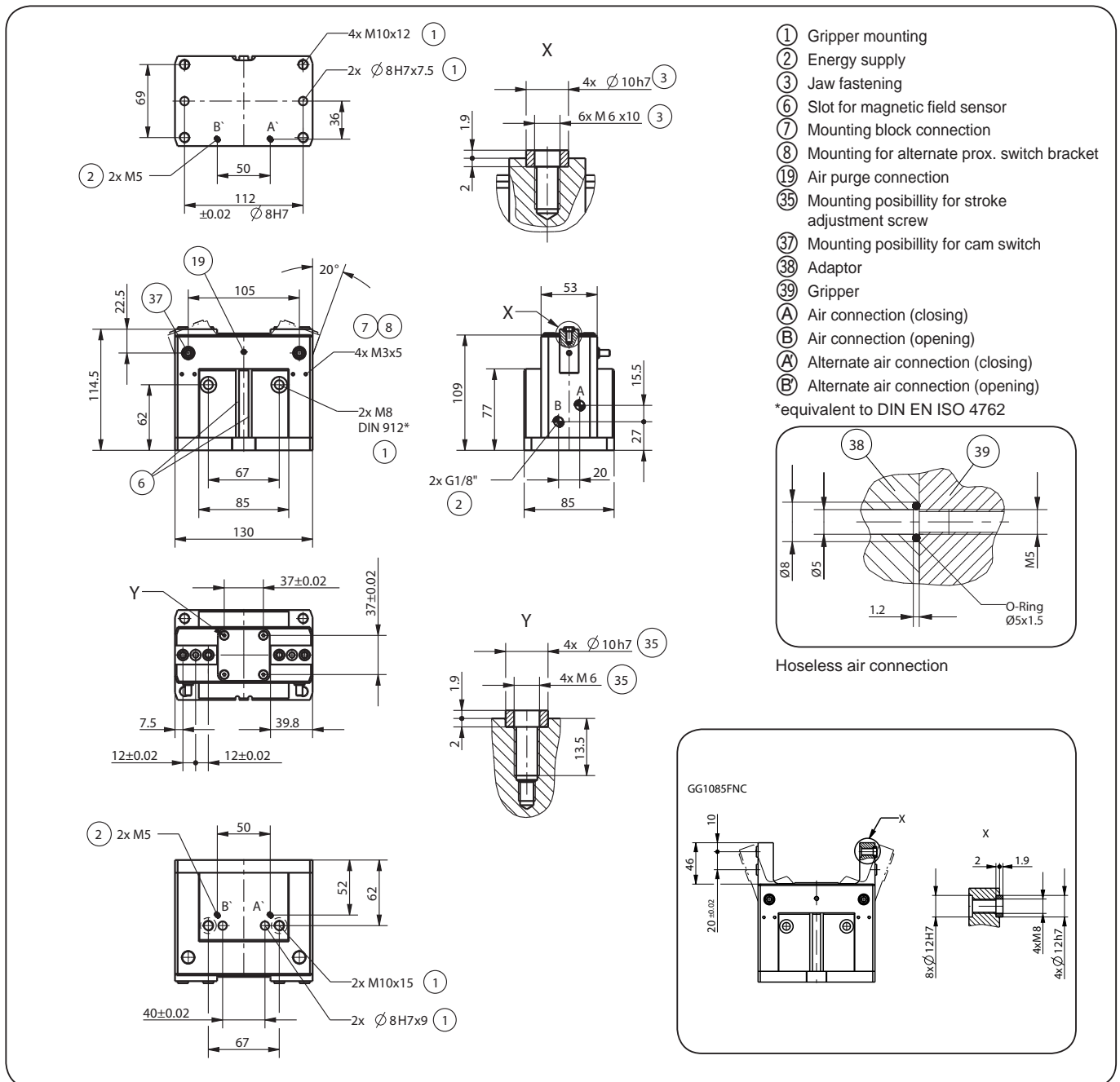


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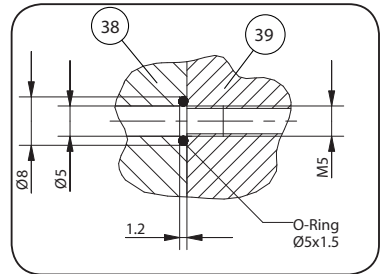
Order no.:	GG1085NC	GG1085FNC
Stroke per jaw [°]:	20	20
Gripping moment in closing [Nm]:	120	120
Gripping moment secured by spring min. [Nm]:	17	17
Closing time / opening time [s]:	0.05 / 0.1	0.05 / 0.1
Repeatability +/- [mm]:	0.05	0.05
Operating pressure min. [bar]:	4	4
Operating pressure max. [bar]:	8	8
Operating temperature [°C]*:	5-80	5-80
Air volume per cycle [cm³]:	145	145
Weight [kg]:	2.8	3.2

All data measured at 6 bar

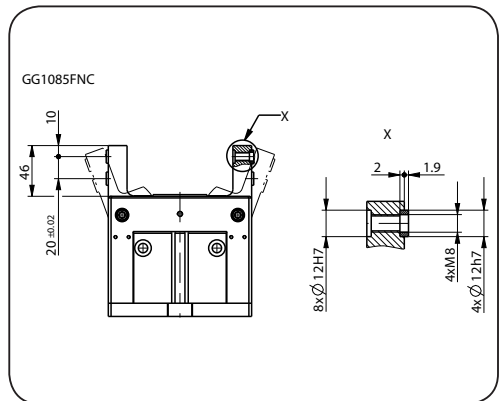
\* High-temperature-resistant model (up to 150°C) add T to part number



- ① Gripper mounting
  - ② Energy supply
  - ③ Jaw fastening
  - ⑥ Slot for magnetic field sensor
  - ⑦ Mounting block connection
  - ⑧ Mounting for alternate prox. switch bracket
  - ⑱ Air purge connection
  - ⑳ Mounting possibility for stroke adjustment screw
  - ㉟ Mounting possibility for cam switch
  - ㉠ Adaptor
  - ㉡ 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

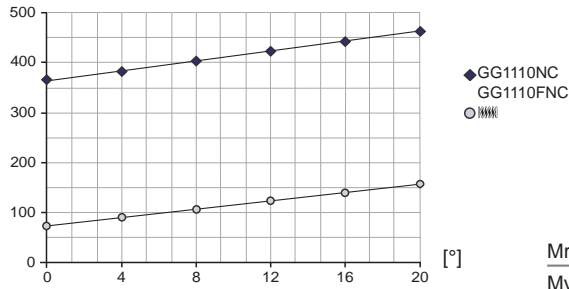
# 2-Jaw Angle Grippers



Picture shows GG1110NC

## Gripping moment diagram

Shows the gripping moment as a function of the opening angle [Nm]



## Forces and moments

Max allowable forces and moments on jaw.



Mr [Nm]:	60
My [Nm]:	65
Fa [N]:	1000

### Included with purchase



Centring sleeve NC  
Order no.: **BDST41600**

Centring sleeve FNC  
Order no.: **BDST42000**

### Accessory list



Mounting block  
Order no.: **KB8-43**



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



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



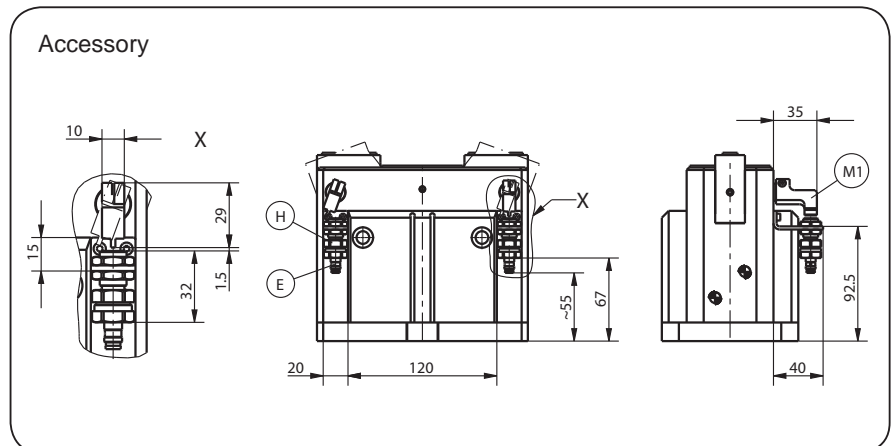
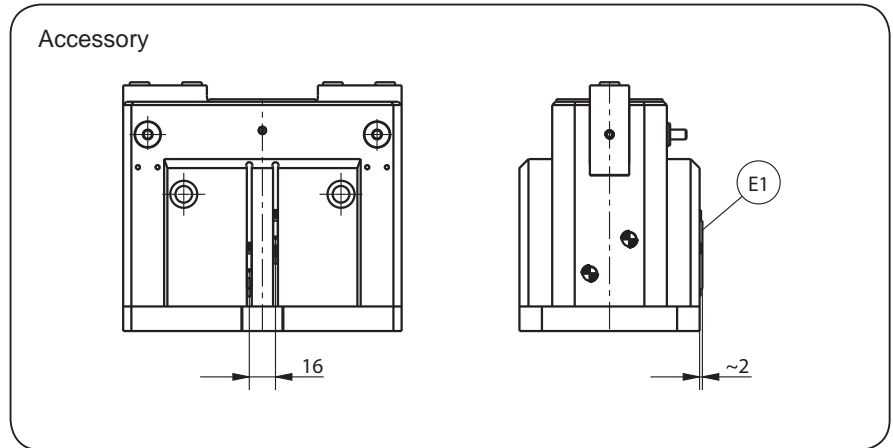
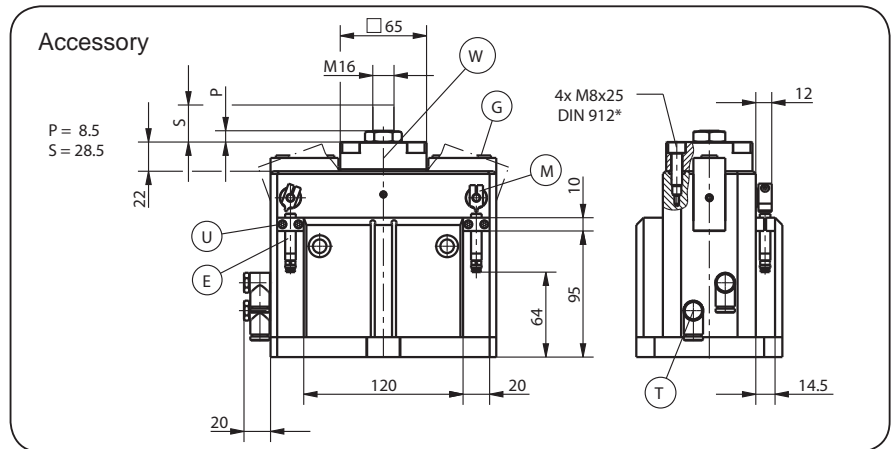
Alternate proximity bracket  
Order no.: **KHA1110-8**



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



Stroke adjustment screw  
Order no.: **HES0007**

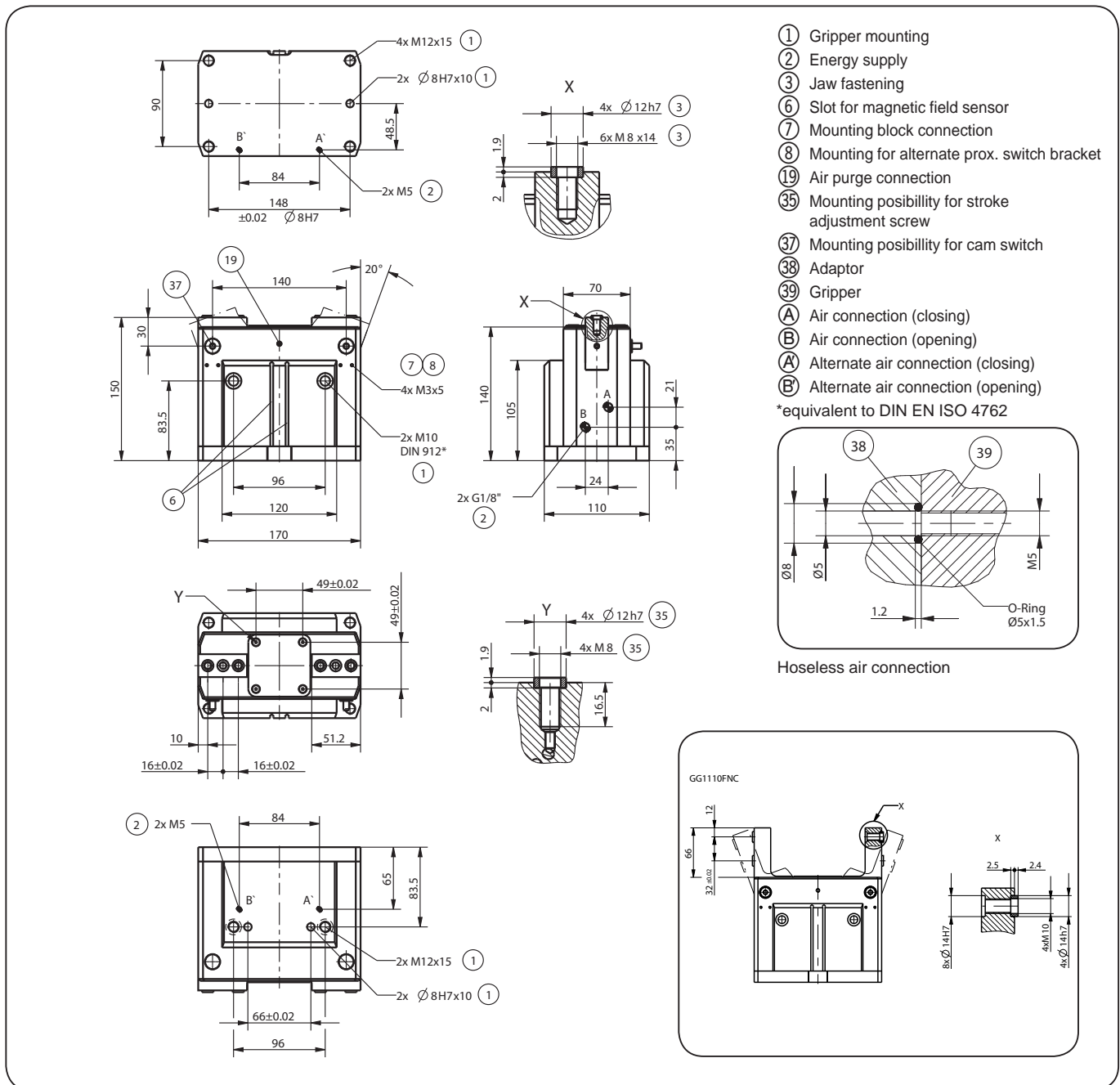


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Order no.:	GG1110NC	GG1110FNC
Stroke per jaw [°]:	20	20
Gripping moment in closing [Nm]:	370	370
Gripping moment secured by spring min. [Nm]:	75	75
Closing time / opening time [s]:	0.16 / 0.27	0.16 / 0.27
Repeatability +/- [mm]:	0.05	0.05
Operating pressure min. [bar]:	4	4
Operating pressure max. [bar]:	8	8
Operating temperature [°C]*:	5-80	5-80
Air volume per cycle [cm³]:	455	455
Weight [kg]:	6.3	6.7

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



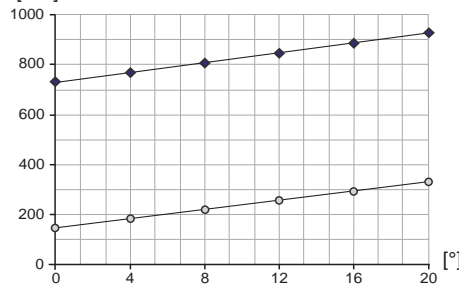
# 2-Jaw Angle Grippers



Picture shows GG1140NC

## Gripping moment diagram

Shows the gripping moment as a function of the opening angle [Nm]



## Forces and moments

Max allowable forces and moments on jaw.



Mr [Nm]:	110
My [Nm]:	120
Fa [N]:	1500

### Included with purchase



Centring sleeve NC  
Order no.: **BDST42000**

Centring sleeve FNC  
Order no.: **BDST43000**

### Accessory list



Mounting block  
Order no.: **KB8-43**



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



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



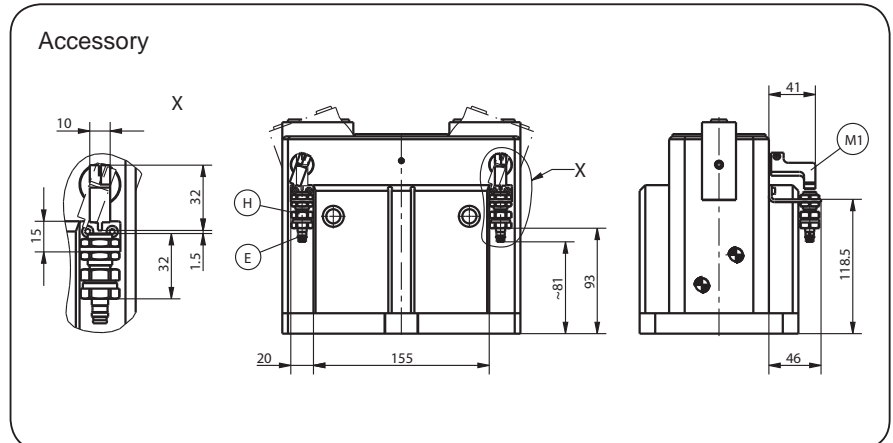
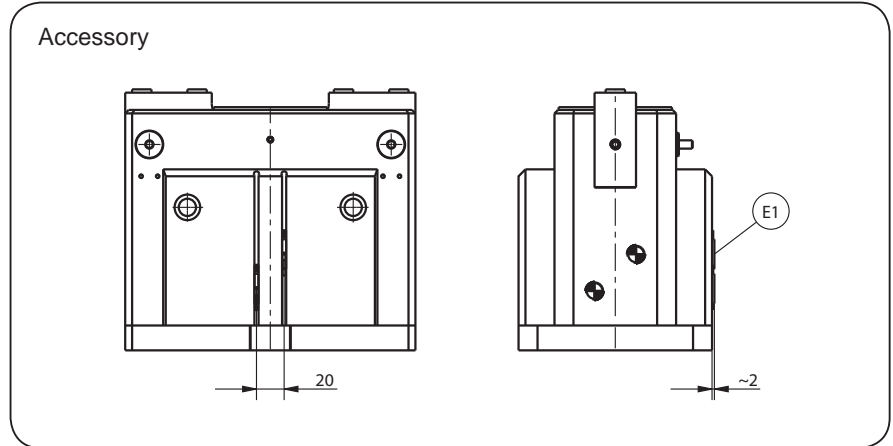
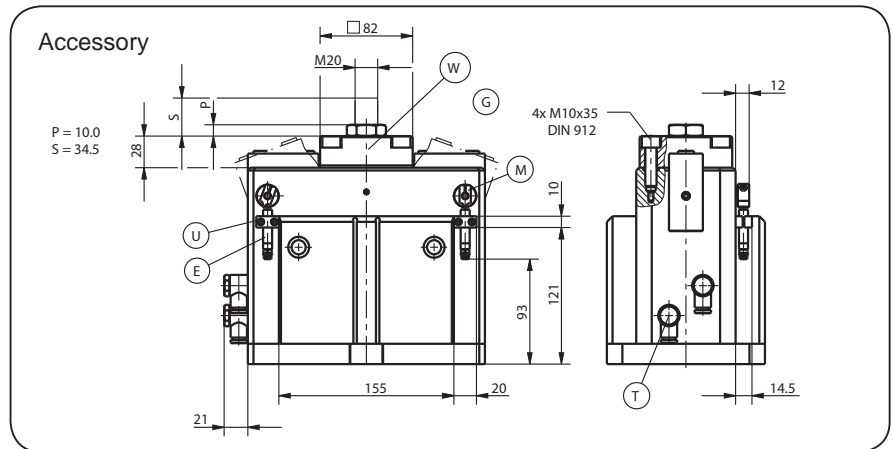
Alternate proximity bracket  
Order no.: **KHA1140-8**



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



Stroke adjustment screw  
Order no.: **HES0008**

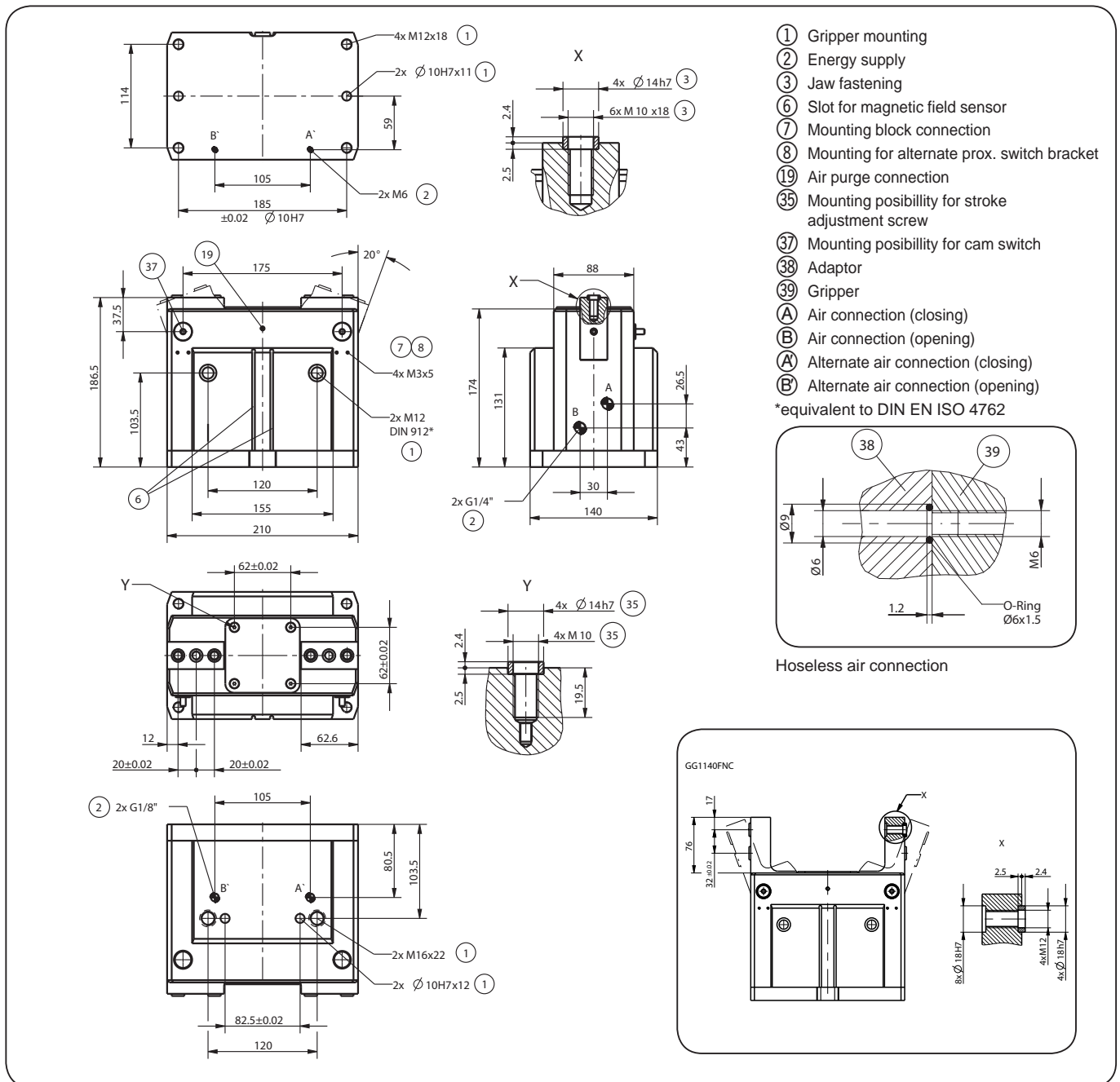


Subject to change without prior notice

Order no.:	GG1140NC	GG1140FNC
Stroke per jaw [°]:	20	20
Gripping moment in closing [Nm]:	725	725
Gripping moment secured by spring min. [Nm]:	143	143
Closing time / opening time [s]:	0.25 / 0.5	0.25 / 0.5
Repeatability +/- [mm]:	0.05	0.05
Operating pressure min. [bar]:	4	4
Operating pressure max. [bar]:	8	8
Operating temperature [°C]*:	5-80	5-80
Air volume per cycle [cm³]:	760	760
Weight [kg]:	12.4	13

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