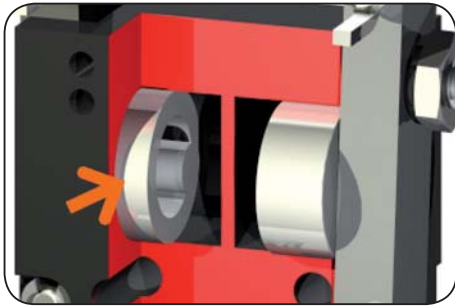


# 2-Jaw Angular Grippers

## Highlights



### Drive

#### E Models

- single acting pneumatic cylinder, return with spring
- low control effort

#### D and G Models

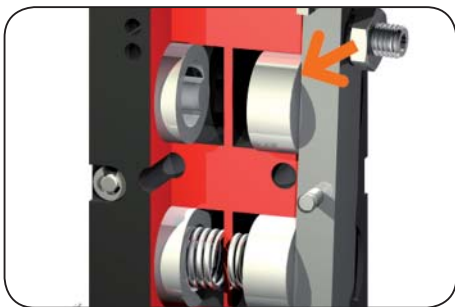
- double acting pneumatic cylinder
- for quick cycle times



### Stroke adjustment

#### Alignment or fixing of a jaw

- application-specific
- infinitely adjustable opening stroke



### Power transfer

#### Via plunger pistons

- direct
- maximum force transmission



### Gripping force safety device

#### Design D and G

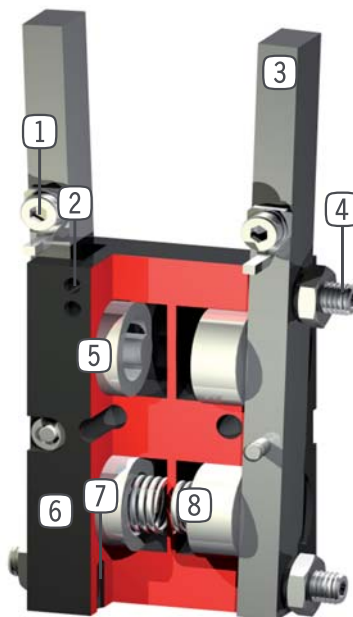
- spring integrated into cylinder as energy reserve
- permanent maintenance of gripping force
- optimum coordination of gripping force and force secured by spring
- compact design

## Terms

Gripping force:	arithmetic sum of the individual forces occurring at the jaws
Closing-/opening time:	time required by the needles to travel the entire stroke distance
Repeatability:	at end stops after 50/100 consecutive cycles
Cycle:	one complete movement of the piston forward and back
Maintenance:	recommended at 2 mil. cycles (please see the owner's manual for conditions, download from <a href="http://www.sommer-automatic.com">www.sommer-automatic.com</a> ) - long maintenance intervals keep costs down - long lifespan

## Design

- |  |  |
|--|--|
| <p><b>1 Adjustable switch cam</b></p> <ul style="list-style-type: none"> <li>- direct sensing of gripper jaw movement</li> </ul> | <p><b>5 Drive</b></p> <ul style="list-style-type: none"> <li>- direct drive via plunger pistons</li> </ul>                           |
| <p><b>2 Fixing for mounting block</b></p> <ul style="list-style-type: none"> <li>- for inductive proximity switch</li> </ul>     | <p><b>6 Robust, lightweight housing</b></p> <ul style="list-style-type: none"> <li>- hard coated anodized aluminium alloy</li> </ul> |



- |   |   |
|---|---|
| <p><b>3 Steel (C45K) gripper jaw</b></p> <ul style="list-style-type: none"> <li>- can be machined to suit individual applications and hardened</li> </ul>                                       | <p><b>7 Mounting and positioning</b></p> <ul style="list-style-type: none"> <li>- mounting possible from several sides for versatile positioning</li> </ul>                                 |
| <p><b>4 Adjusting screw</b></p> <ul style="list-style-type: none"> <li>- infinitely adjustable opening angle</li> <li>- setting of gripper jaw for exact adjustment of the workpiece</li> </ul> | <p><b>8 Integrated gripping force safety device</b></p> <ul style="list-style-type: none"> <li>- integrated into piston chamber as energy storage (from GZ18-23D up to GZ55-65D)</li> </ul> |

# 2-Jaw Angular Grippers

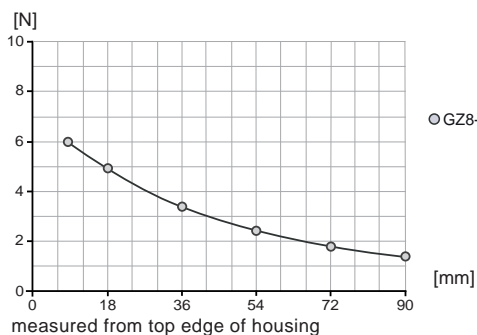


Picture shows GZ8-16E

Included with purchase

## Gripping force diagram

Gripping force as a function of jaw length.



## Forces and Moments

Max allowable forces and moments on jaw.

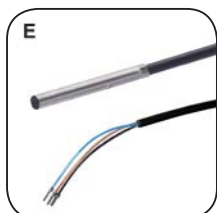


Mr [Nm]:	0,3
My [Nm]:	0,5
Fa [N]:	30

## Recommended accessories



Mounting block  
Order no.: **KB3M**



Proximity switch  
Order no.: **NJ3-E2**



Pneumatic fittings  
Order no.: **WVM5**



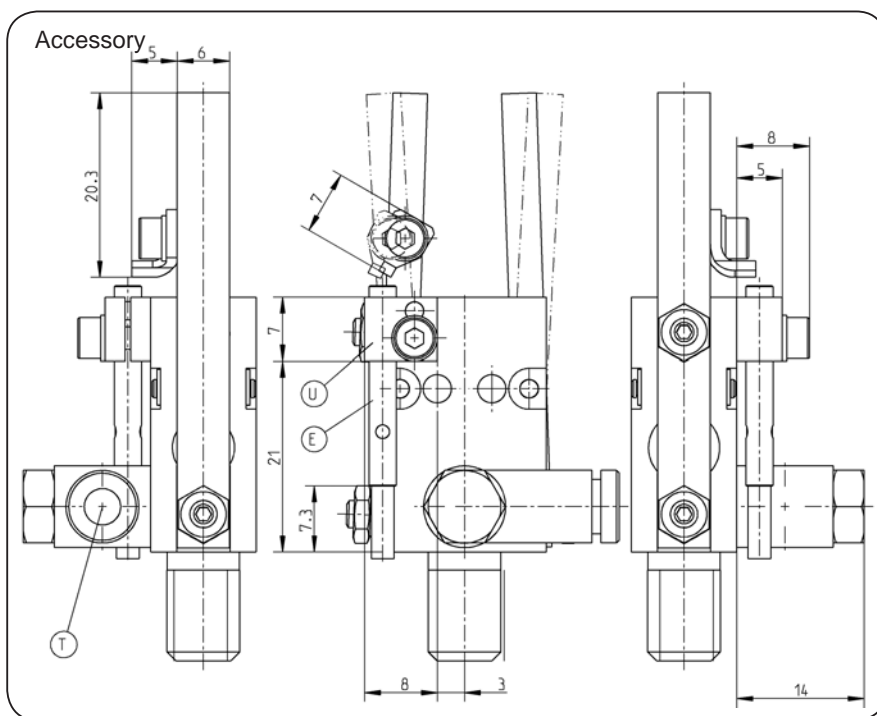
Pneumatic fittings  
Order no.: **GVM5**



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



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



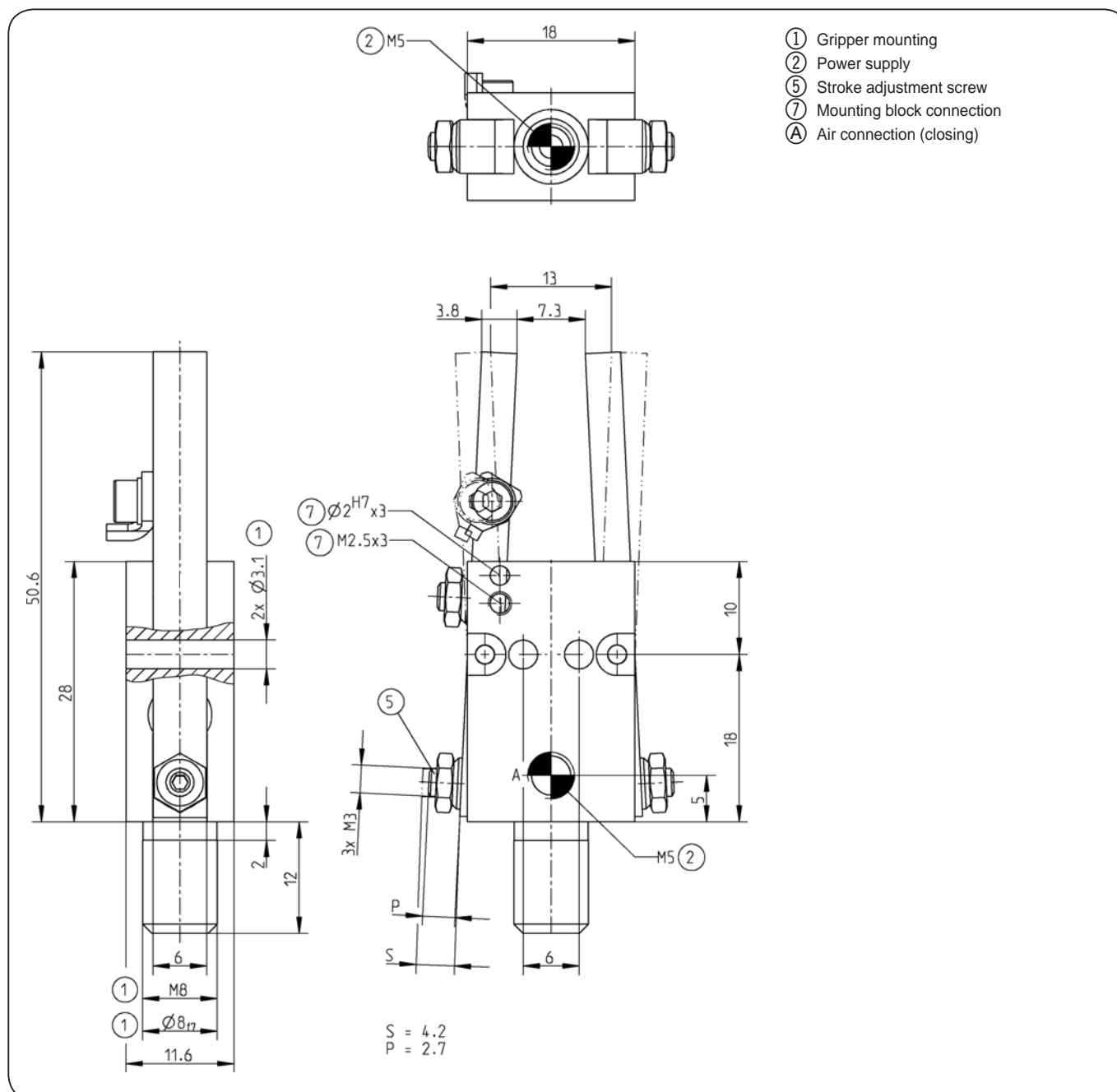
Subject to change without prior notice



<b>Order no.:</b>	<b>GZ8-16E</b>
Stroke per jaw [°]:	5
Gripping moment in opening [Nm]:	-
Gripping moment in closing [Nm]:	0,12
Gripping force in opening [N]:	-
Gripping force in closing [N]:	6
Gripping force secured by spring min. [N]:	-
Closing time / opening time [s]:	0,02
Repeatability +/- [mm]:	0,1
Operating pressure min. [bar]:	5
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	0,23
Weight [g]:	30

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 Angular Grippers

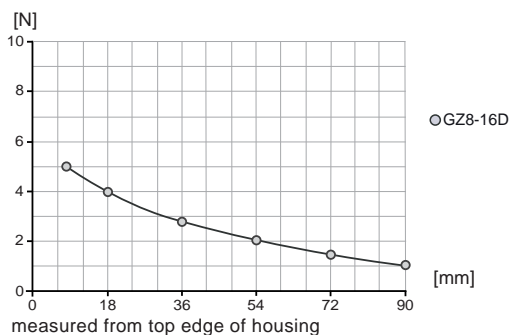


Picture shows GZ8-16D

Included with purchase

## Gripping force diagram

Gripping force as a function of jaw length.



## Forces and Moments

Max allowable forces and moments on jaw.

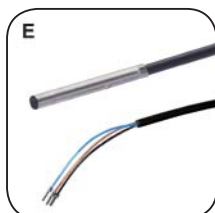


Mr [Nm]:	0,3
My [Nm]:	0,5
Fa [N]:	30

## Recommended accessories



Mounting block  
Order no.: **KB3M**



Proximity switch  
Order no.: **NJ3-E2**



Pneumatic fittings  
Order no.: **WVM5**



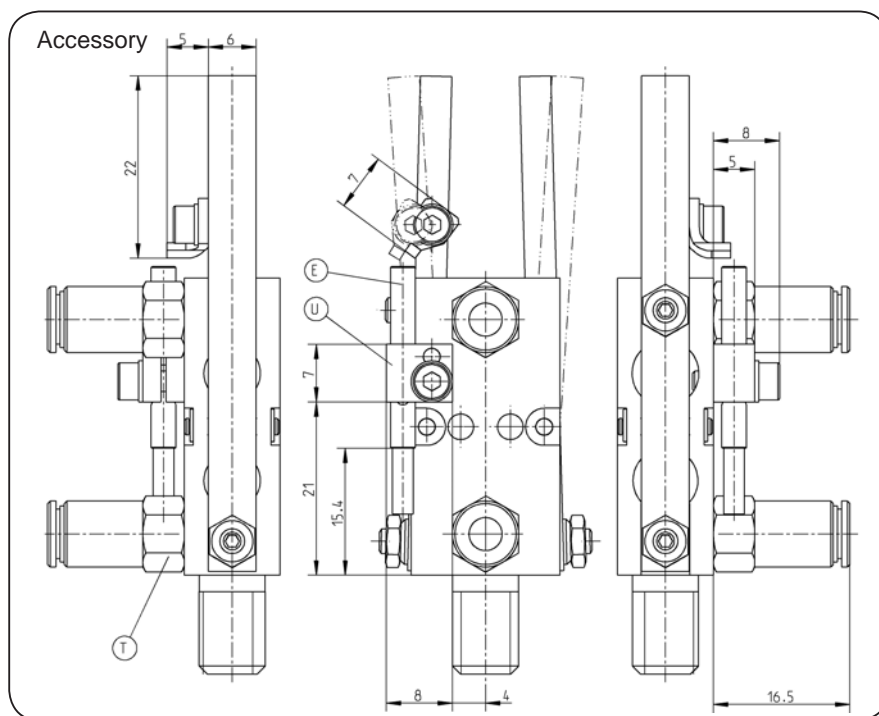
Pneumatic fittings  
Order no.: **GVM5**



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



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

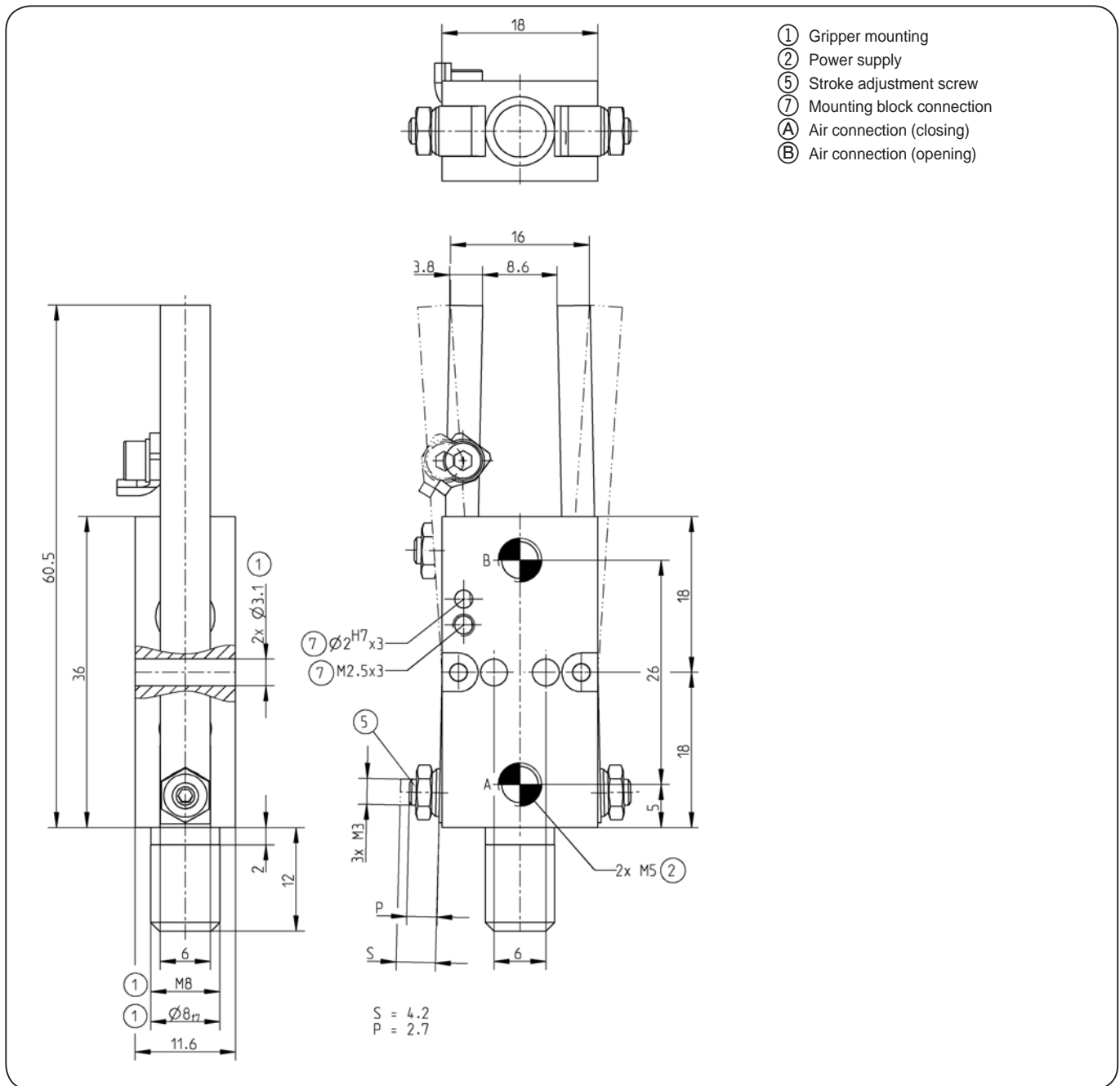


Subject to change without prior notice

<b>Order no.:</b>	<b>GZ8-16D</b>
Stroke per jaw [°]:	5
Gripping moment in opening [Nm]:	0,15
Gripping moment in closing [Nm]:	0,15
Gripping force in opening [N]:	5,4
Gripping force in closing [N]:	5,4
Gripping force secured by spring min. [N]:	-
Closing time / opening time [s]:	0,02
Repeatability +/- [mm]:	0,1
Operating pressure min. [bar]:	5
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	0,5
Weight [g]:	36

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 Angular Grippers

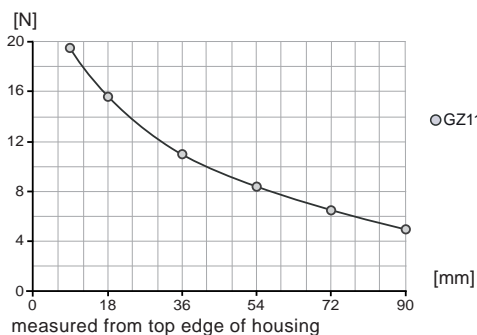


Picture shows GZ11-18E

Included with purchase

## Gripping force diagram

Gripping force as a function of jaw length.



OGZ11-18E ><

## Forces and Moments

Max allowable forces and moments on jaw.



Mr [Nm]:	0,3
My [Nm]:	0,5
Fa [N]:	30

## Recommended accessories



Mounting block  
Order no.: **KB3M**



Proximity switch  
Order no.: **NJ3-E2**



Pneumatic fittings  
Order no.: **WVM5**



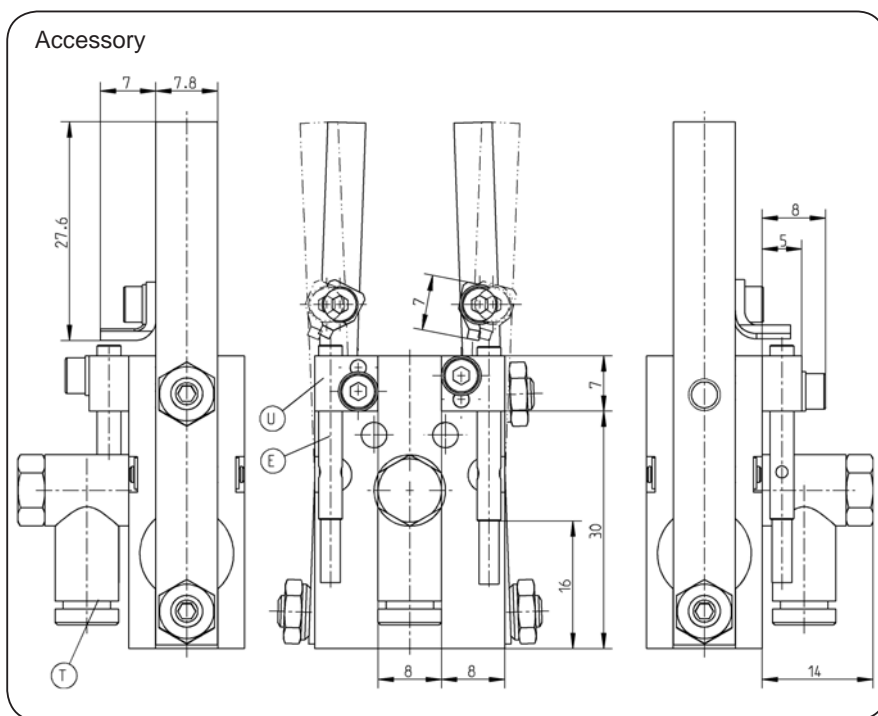
Pneumatic fittings  
Order no.: **GVM5**



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



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



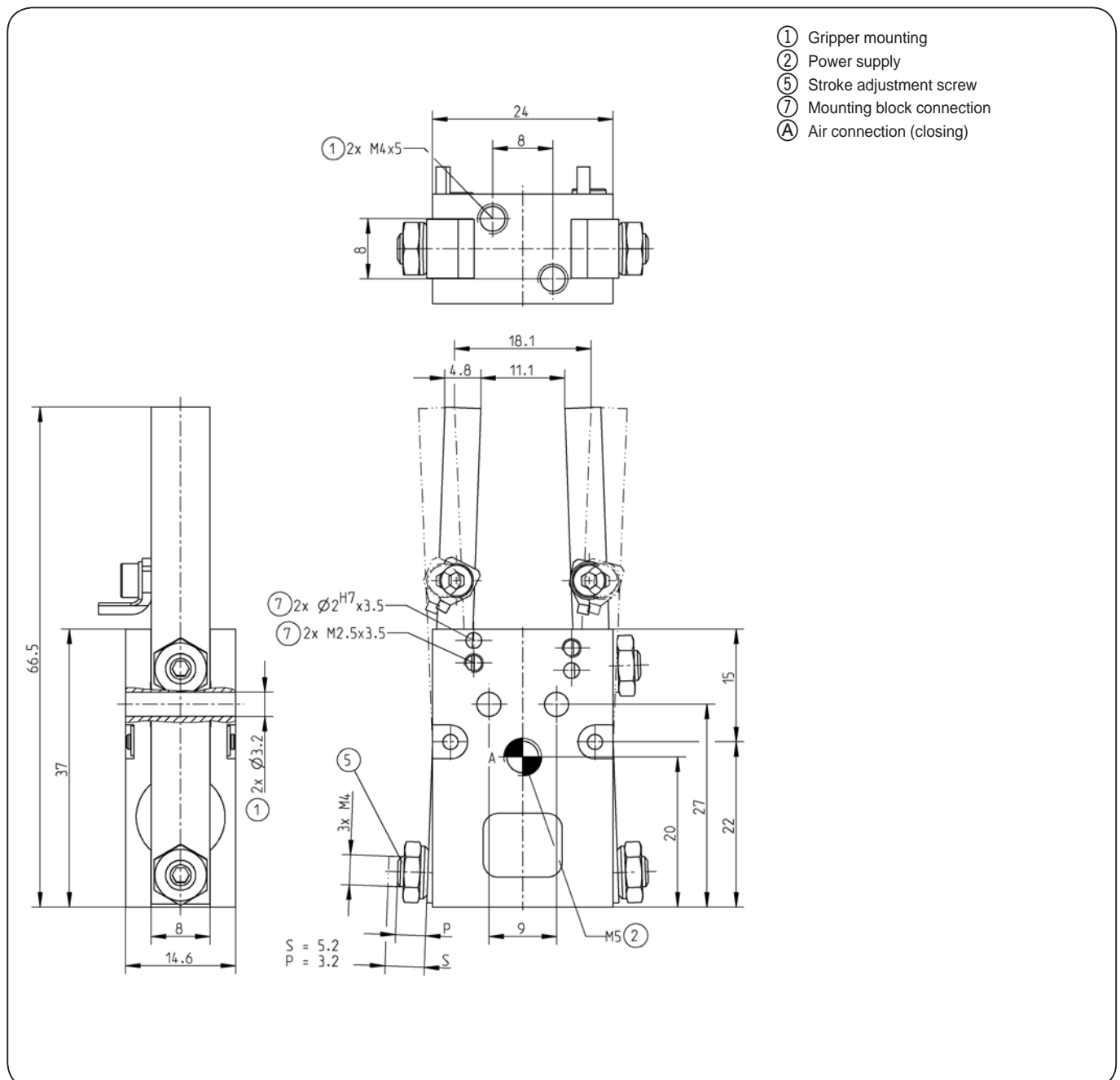
Subject to change without prior notice



<b>Order no.:</b>	<b>GZ11-18E</b>
Stroke per jaw [°]:	4,5
Gripping moment in opening [Nm]:	-
Gripping moment in closing [Nm]:	0,48
Gripping force in opening [N]:	-
Gripping force in closing [N]:	19,2
Gripping force secured by spring min. [N]:	-
Closing time / opening time [s]:	0,2
Repeatability +/- [mm]:	0,1
Operating pressure min. [bar]:	5
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	1
Weight [g]:	63

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 Angular Grippers

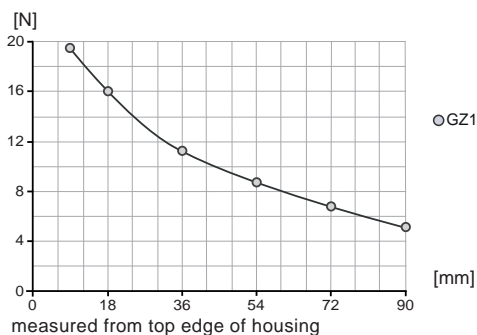


Picture shows GZ18-23D

Included with purchase

## Gripping force diagram

Gripping force as a function of jaw length.



measured from top edge of housing

## Forces and Moments

Max allowable forces and moments on jaw.

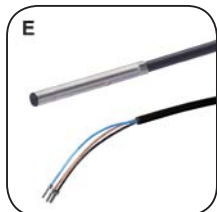


Mr [Nm]:	0,3
My [Nm]:	0,5
Fa [N]:	30

## Recommended accessories



Mounting block  
Order no.: **KB3M**



Proximity switch  
Order no.: **NJ3-E2**



Pneumatic fittings  
Order no.: **WVM5**



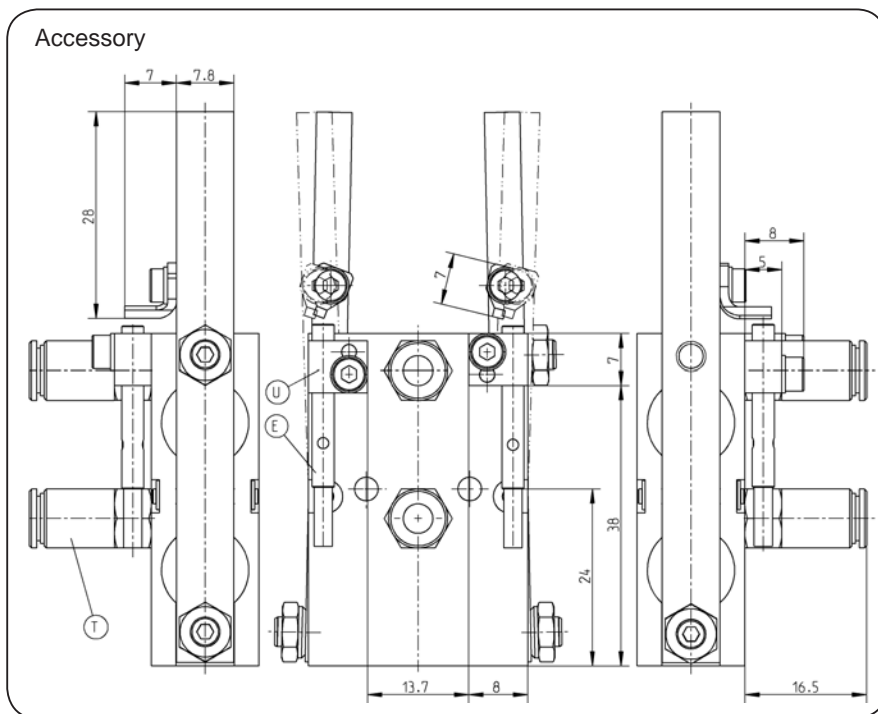
Pneumatic fittings  
Order no.: **GVM5**



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



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

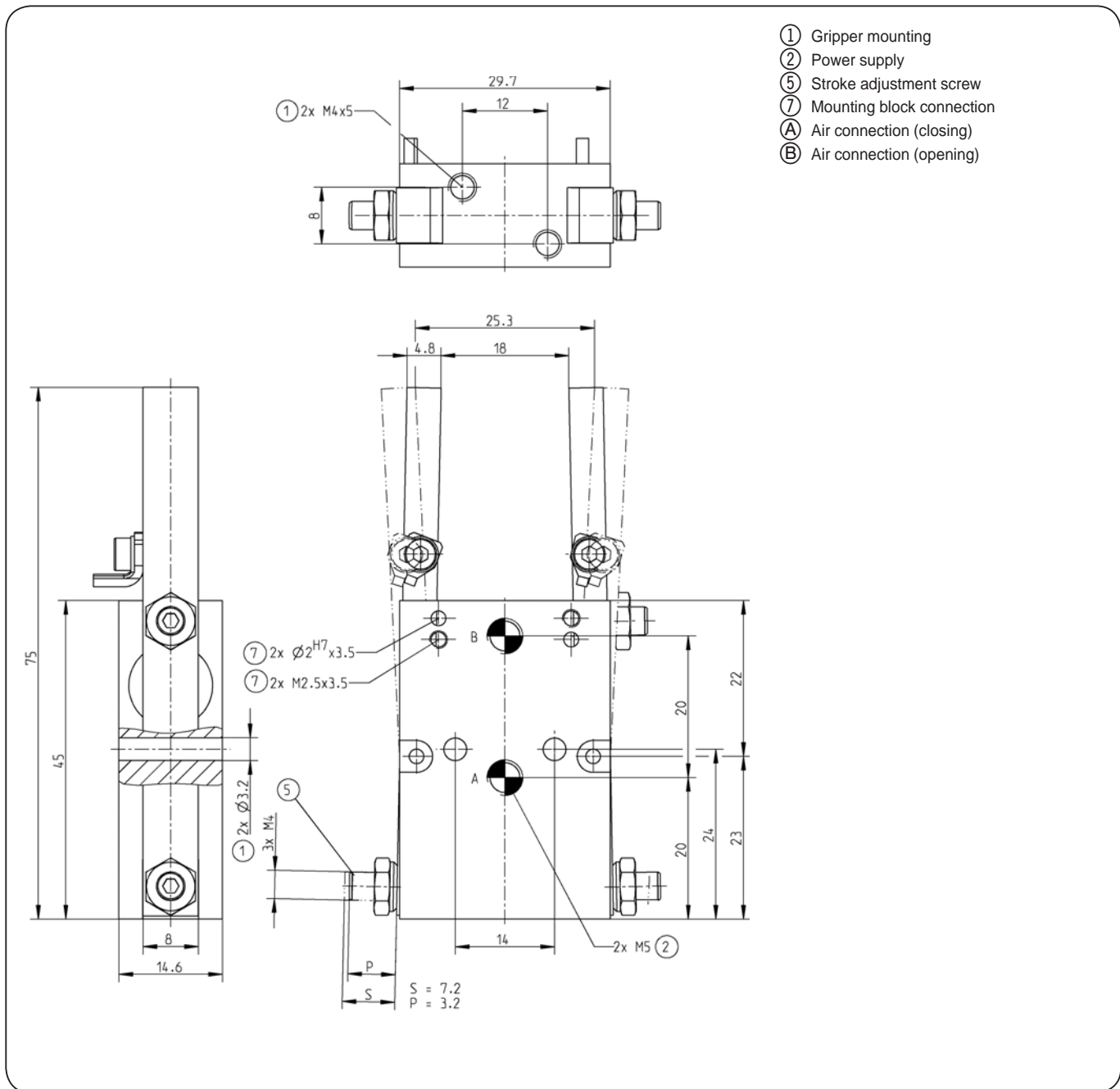


Subject to change without prior notice

<b>Order no.:</b>	<b>GZ18-23D</b>
Stroke per jaw [°]:	4
Gripping moment in opening [Nm]:	0,56
Gripping moment in closing [Nm]:	1,1
Gripping force in opening [N]:	17,5
Gripping force in closing [N]:	34,4
Gripping force secured by spring min. [N]:	17
Closing time / opening time [s]:	0,02
Repeatability +/- [mm]:	0,2
Operating pressure min. [bar]:	5
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	0,5
Weight [g]:	79

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 Angular Grippers

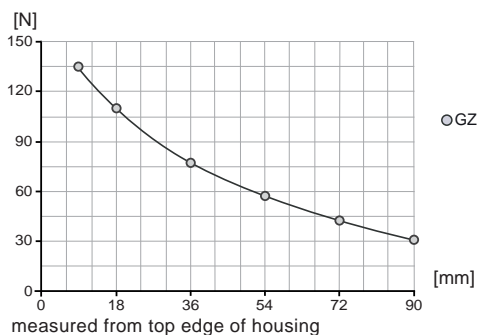


Picture shows GZ25-35E

Included with purchase

## Gripping force diagram

Gripping force as a function of jaw length.



## Forces and Moments

Max allowable forces and moments on jaw.



Mr [Nm]:	0,5
My [Nm]:	0,8
Fa [N]:	50

## Recommended accessories



Mounting block  
Order no.: **KB3M**



Proximity switch  
Order no.: **NJ3-E2**



Pneumatic fittings  
Order no.: **WVM5**



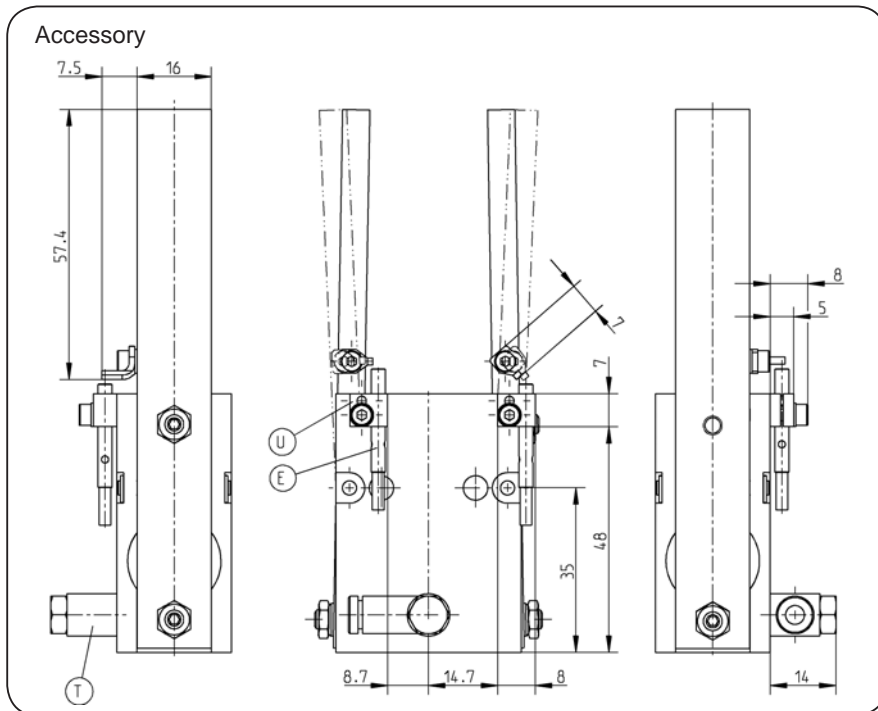
Pneumatic fittings  
Order no.: **GVM5**



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



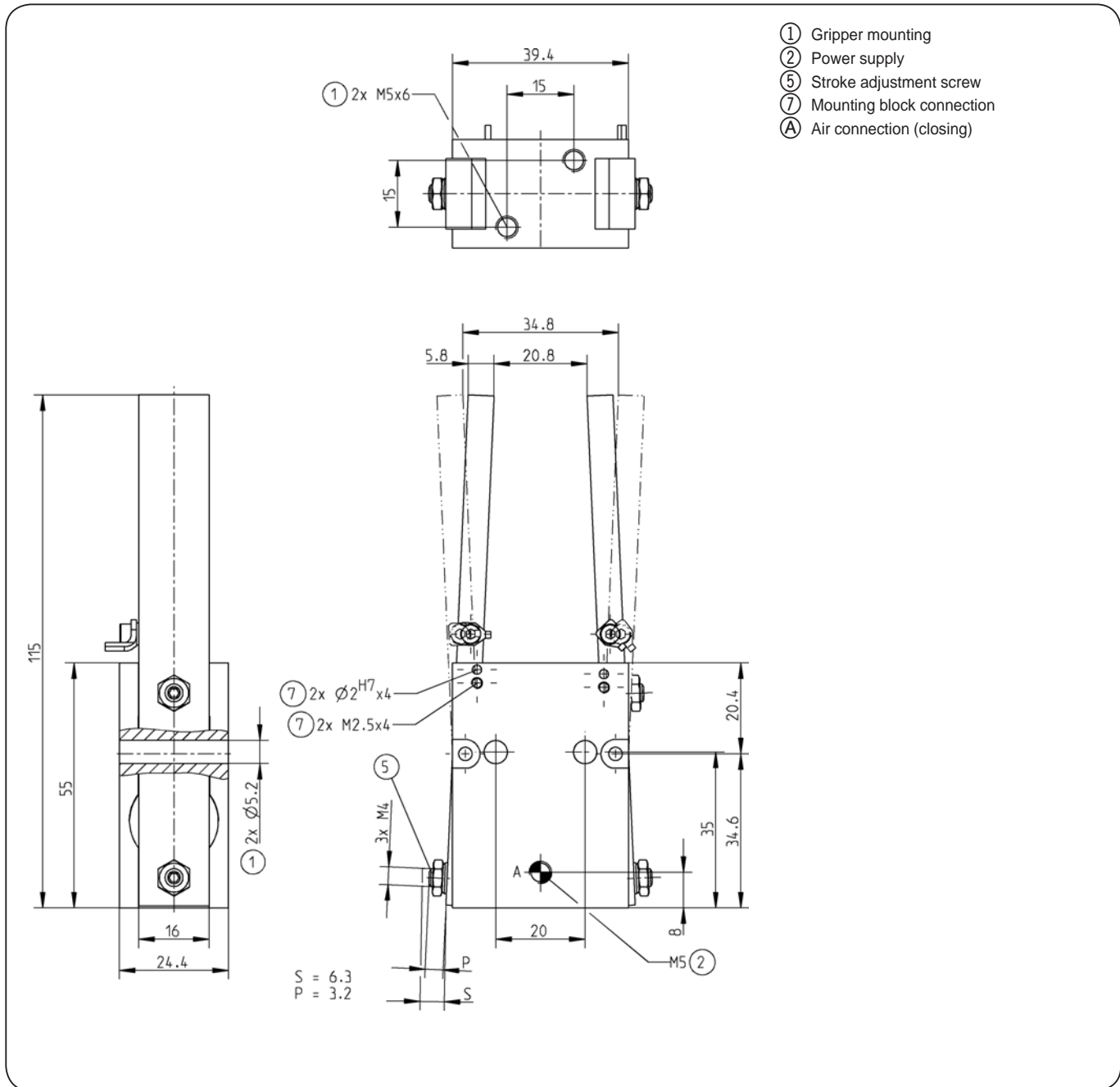
Pressure safety valve  
Order no.: **DSV1/8**



Subject to change without prior notice

<b>Order no.:</b>	<b>GZ25-35E</b>
Stroke per jaw [°]:	5
Gripping moment in opening [Nm]:	-
Gripping moment in closing [Nm]:	4
Gripping force in opening [N]:	-
Gripping force in closing [N]:	135
Gripping force secured by spring min. [N]:	-
Closing time / opening time [s]:	0,03
Repeatability +/- [mm]:	0,1
Operating pressure min. [bar]:	5
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	6
Weight [g]:	254

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 Angular Grippers

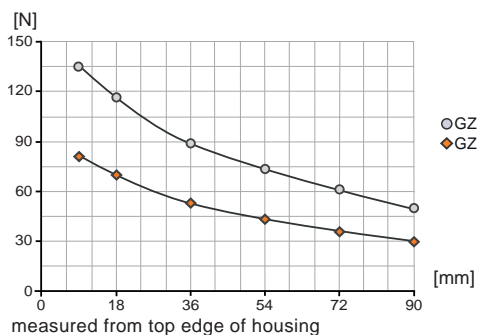


Picture shows GZ25-35G

Included with purchase

## Gripping force diagram

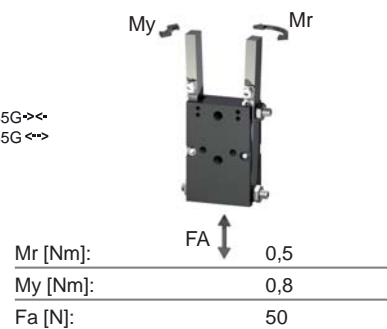
Gripping force as a function of jaw length.



measured from top edge of housing

## Forces and Moments

Max allowable forces and moments on jaw.



## Recommended accessories



Mounting block  
Order no.: **KB3M**



Proximity switch  
Order no.: **NJ3-E2**



Pneumatic fittings  
Order no.: **WVM5**



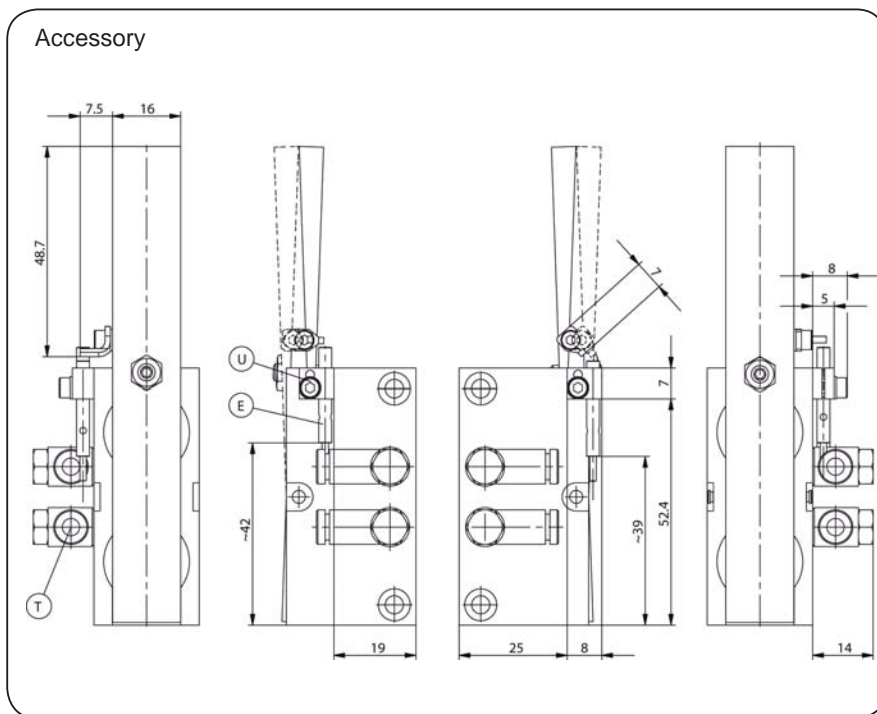
Pneumatic fittings  
Order no.: **GVM5**



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



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

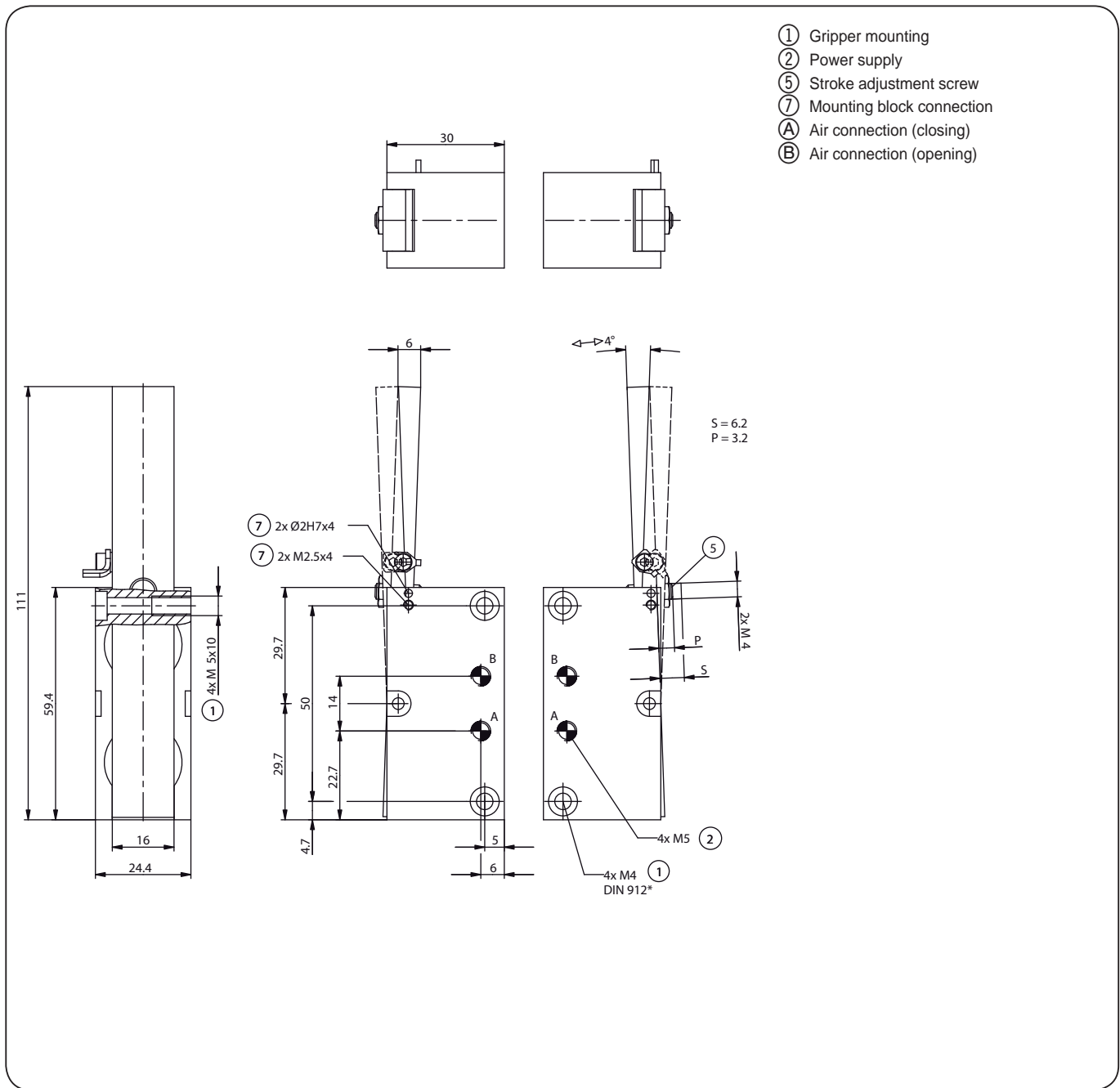


Subject to change without prior notice

<b>Order no.:</b>	<b>GZ25-35G</b>
Stroke per jaw [°]:	4
Gripping moment in opening [Nm]:	3,4
Gripping moment in closing [Nm]:	5,4
Gripping force in opening [N]:	85
Gripping force in closing [N]:	135
Gripping force secured by spring min. [N]:	12
Closing time / opening time [s]:	0,03
Repeatability +/- [mm]:	0,1
Operating pressure min. [bar]:	4
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	2
Weight [g]:	315

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 Angular Grippers

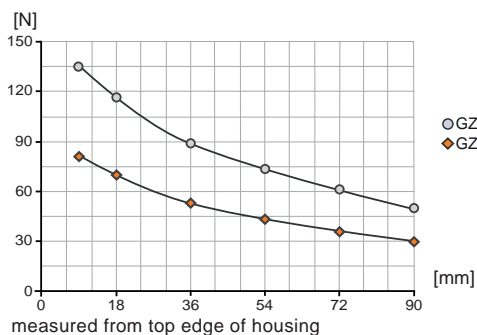


Picture shows GZ25-35D

Included with purchase

## Gripping force diagram

Gripping force as a function of jaw length.



## Forces and Moments

Max allowable forces and moments on jaw.



Mr [Nm]:	0,5
My [Nm]:	0,8
Fa [N]:	50

## Recommended accessories



Mounting block  
Order no.: **KB3M**



Proximity switch  
Order no.: **NJ3-E2-03**



Pneumatic fittings  
Order no.: **WVM5**



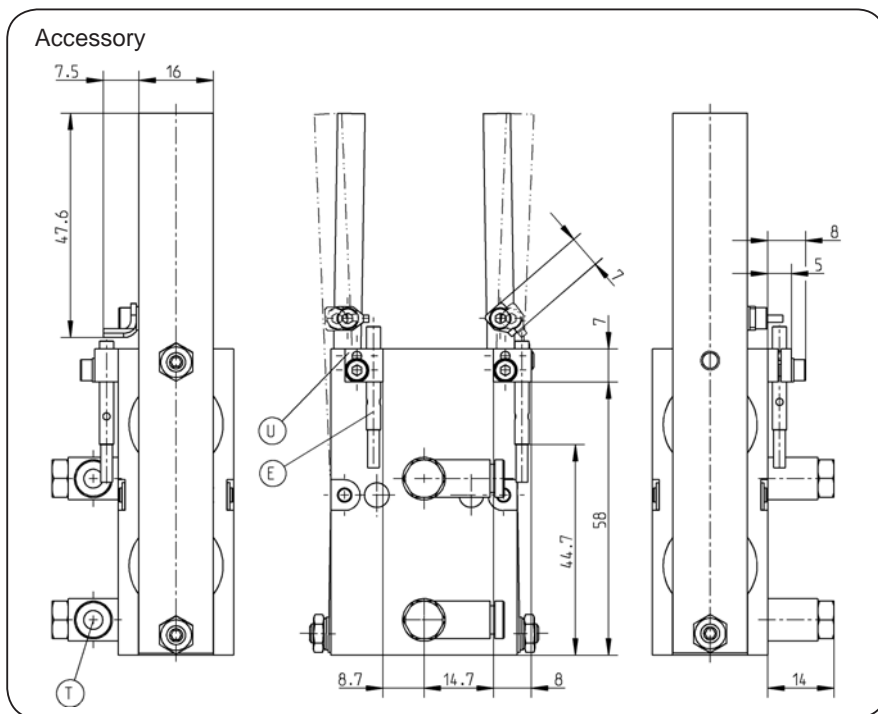
Pneumatic fittings  
Order no.: **GVM5**



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



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

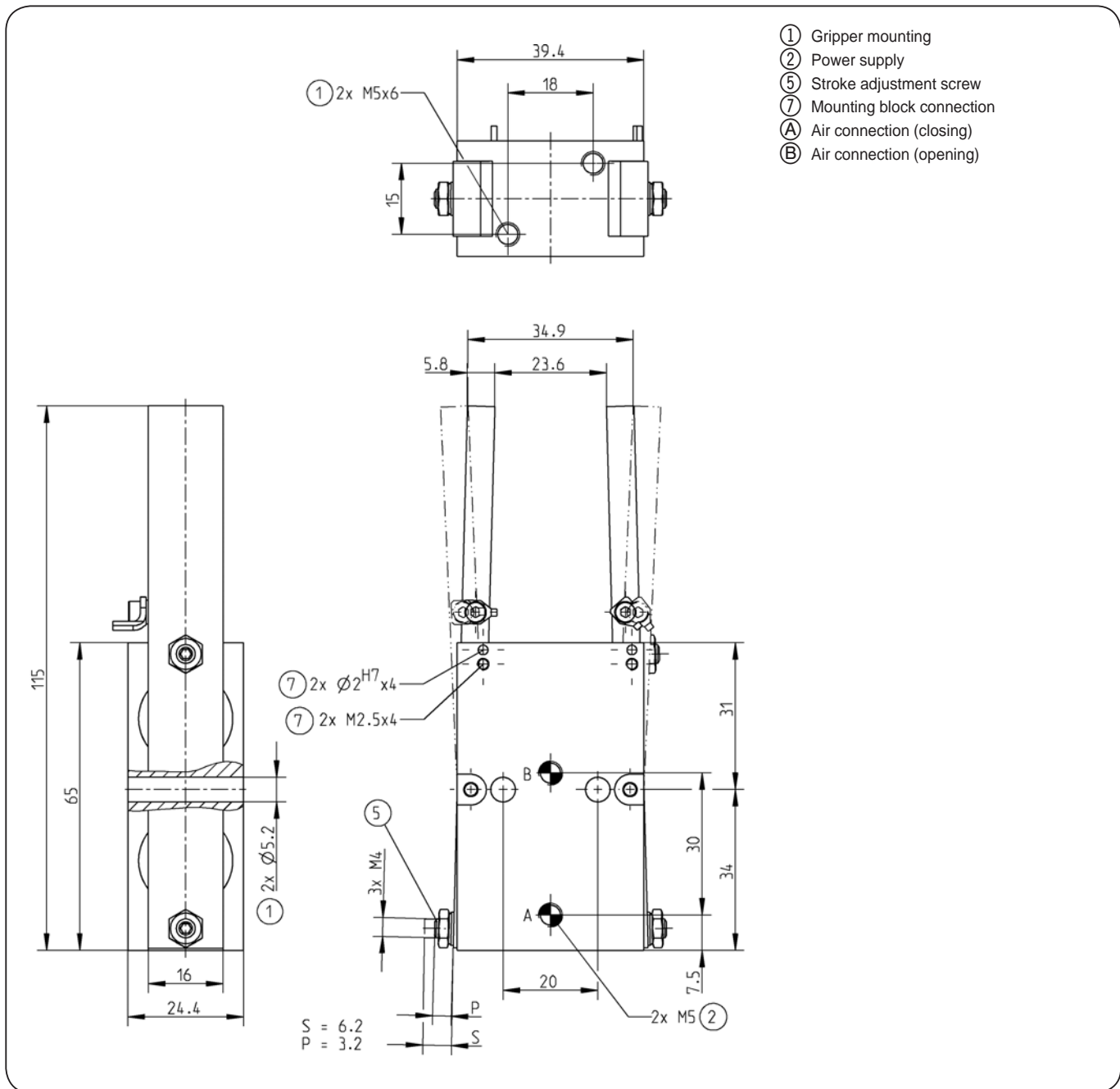


Subject to change without prior notice

<b>Order no.:</b>	<b>GZ25-35D</b>
Stroke per jaw [°]:	4
Gripping moment in opening [Nm]:	3,4
Gripping moment in closing [Nm]:	5,4
Gripping force in opening [N]:	85
Gripping force in closing [N]:	135
Gripping force secured by spring min. [N]:	12
Closing time / opening time [s]:	0,03
Repeatability +/- [mm]:	0,1
Operating pressure min. [bar]:	4
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	12
Weight [g]:	263

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 Angular Grippers

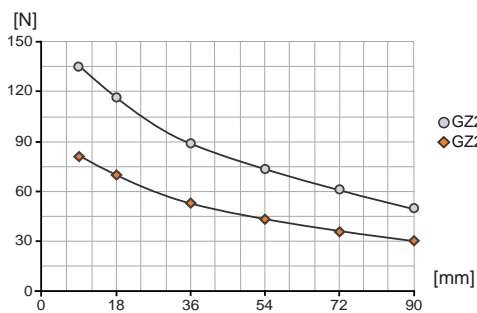


Picture shows GZ55-65D

Included with purchase

## Gripping force diagram

Gripping force as a function of jaw length.



measured from top edge of housing

## Forces and Moments

Max allowable forces and moments on jaw.



Mr [Nm]:	0,5
My [Nm]:	0,8
Fa [N]:	50

## Recommended accessories



Mounting block  
Order no.: **KB3M**



Proximity switch  
Order no.: **NJ3-E2-03**



Pneumatic fittings  
Order no.: **WVM5**



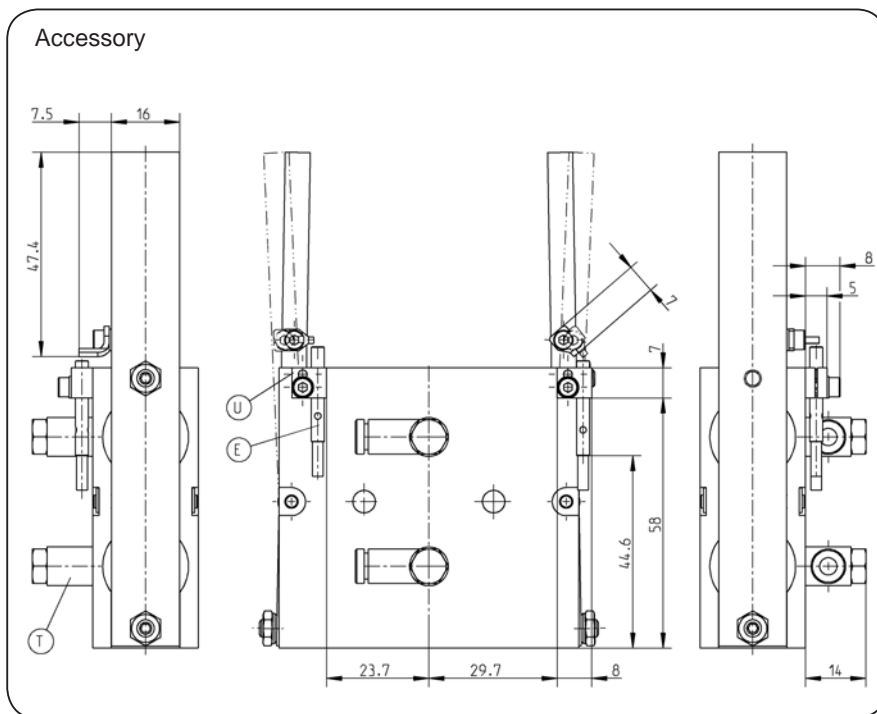
Pneumatic fittings  
Order no.: **GVM5**



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



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



Subject to change without prior notice

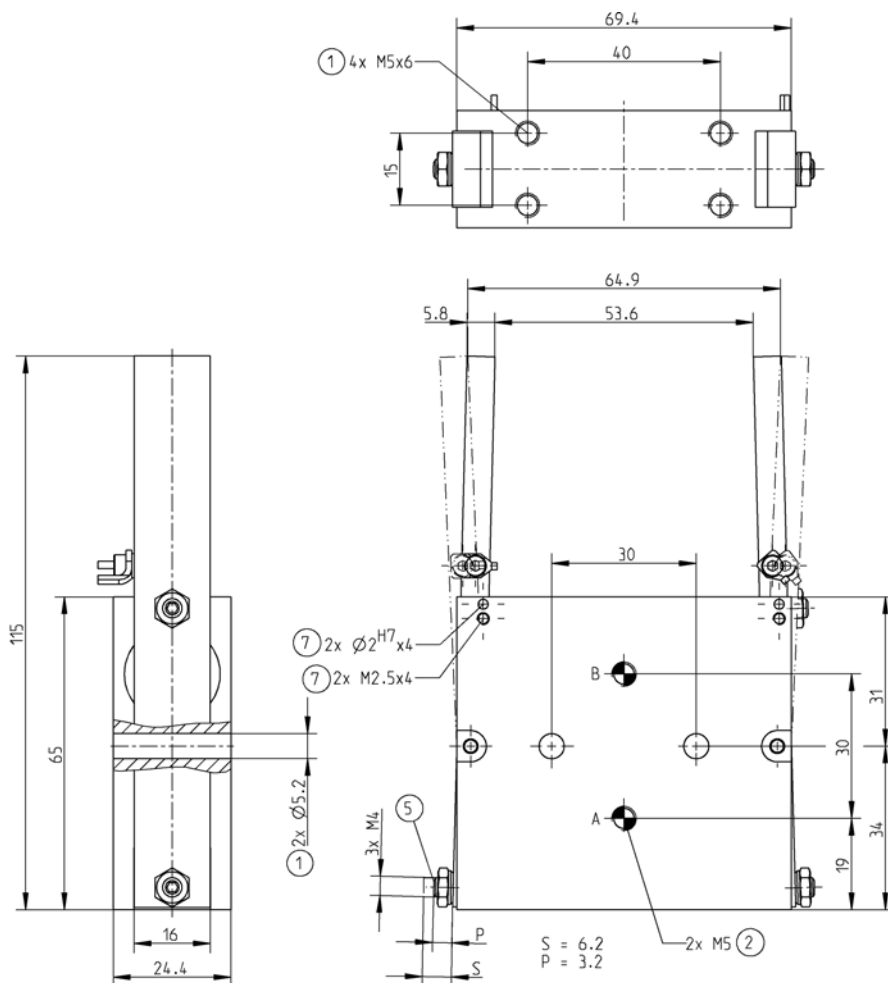


<b>Order no.:</b>	<b>GZ55-65D</b>
Stroke per jaw [°]:	4
Gripping moment in opening [Nm]:	3,4
Gripping moment in closing [Nm]:	5,4
Gripping force in opening [N]:	85
Gripping force in closing [N]:	135
Gripping force secured by spring min. [N]:	12
Closing time / opening time [s]:	0,03
Repeatability +/- [mm]:	0,1
Operating pressure min. [bar]:	4
Operating pressure max. [bar]:	8
Operating temperature [°C]*:	5-80
Air volume per cycle [cm³]:	13
Weight [g]:	378

All data measured at 6 bar

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

- ① Gripper mounting
- ② Power supply
- ⑤ Stroke adjustment screw
- ⑦ Mounting block connection
- Ⓐ Air connection (closing)
- Ⓑ Air connection (opening)



Subject to change without prior notice