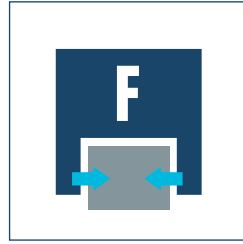




**Sizes**  
16 ... 50



**Weight**  
0.1 kg ... 0.99 kg



**Gripping force**  
120 N ... 1470 N

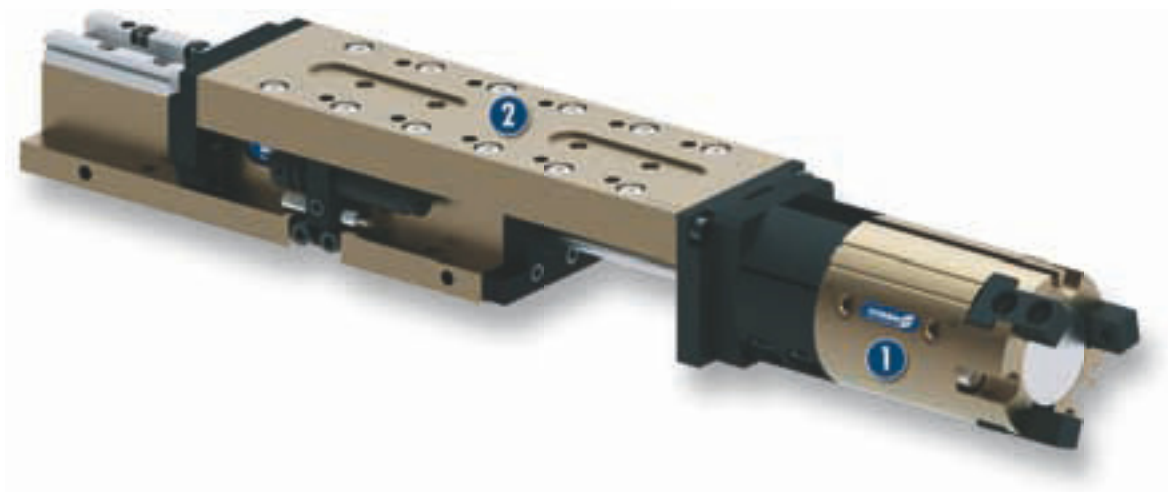


**Stroke per finger**  
3 mm ... 7 mm



**Workpiece weight**  
0.6 kg ... 5.7 kg

## Application example



Pneumatic transfer unit for round components

- 1 3-Finger Centric Gripper LGZ
- 2 Linear module CLM

## Universal Gripper

universal 3-Finger Centric Gripper with T-slot slideway and excellent cost-performance ratio

## Field of application

for universal use in clean and slightly dirty environments

## Your advantages and benefits

### Function optimized gripper type

for maximum cost effectiveness

### Stable, ground T-groove slideway

for highest precision in handling

### Matching SCHUNK C-slot switch

for process reliable position interrogation

### Hard-anodized or hardened functional components

for long lifetime

### Centering sleeves

for a repeat accurate exchange of grippers and fingers

### Compact dimensions

for minimized interfering contours



## General note to the series

### Principle of function

Wedge-hook kinematics

### Housing material

Aluminum alloy, hard-anodized

### Base jaw material

Steel

### Actuation

pneumatic, with filtered compressed air (10 microns): dry, lubricated or non-lubricated

Pressure medium: Required quality class of compressed air according to

DIN ISO 8573-1: 6 4 4

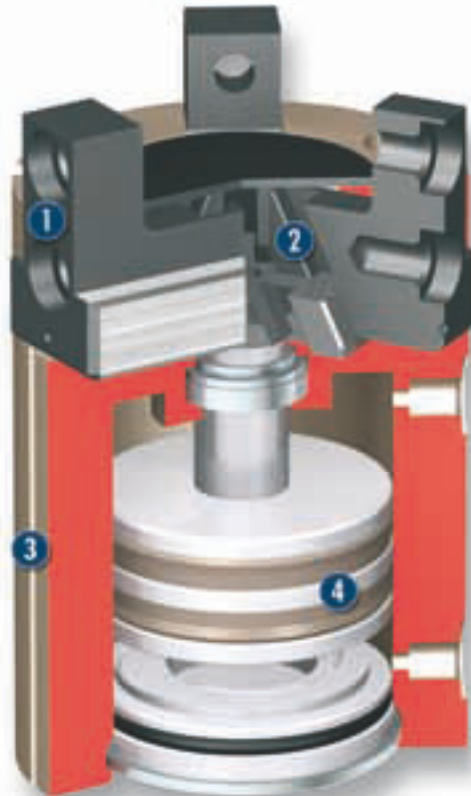
### Warranty

24 months (details, general terms and conditions and operation manuals can be downloaded under [www.schunk.com](http://www.schunk.com))

### Scope of delivery

Centering elements, assembly and operating instruction with manufacturer's declaration

## Sectional diagram



- |                                                                                                                                                                              |                                                                                                                                                                                  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>1 Base jaw</b><br/>for the connection of workpiece-specific gripper fingers</p> <p><b>2 Wedge-hook design</b><br/>for high power transmission and centric gripping</p> | <p><b>3 Housing</b><br/>weight-optimized through application of hard-anodized, high-strength aluminum alloy</p> <p><b>4 Drive</b><br/>pneumatic, powerful and easy to handle</p> |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

## Functional description

The piston is moved up and down by compressed air. Through its angled active surfaces, the wedge hook transforms this movement into the lateral, synchronous gripping movement of both base jaws.

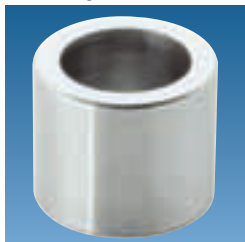
## Options and special information

Monitoring with a SCHUNK MMS 22 or RMS 22 sensor is not possible. The use of the recommended sensors MZN and RZN is not compulsory.

## Accessories

Accessories from SCHUNK — the suitable supplement for maximum functionality, reliability and performance of all automation modules.

**Centering sleeves**



**Fittings**



**Magnetic Switches**



**Sensor cables**



**Pressure maintenance valve**



**Sensor Distributor**



① For the exact size of the required accessories, availability of this size and the designation and ID, please refer to the additional views at the end of the size in question. You will find more detailed information on our accessory range in the "Accessories" catalog section.

## General note to the series

### Gripping force

is the arithmetic total of the gripping force applied to each finger at distance P (see illustration) measured from the upper edge of the gripper.

### Finger length

The finger length is measured from the upper edge of the gripper housing in the direction of the main axis.

### Repeat accuracy

is defined as the spread of the limit position after 100 consecutive strokes.

### Workpiece weight

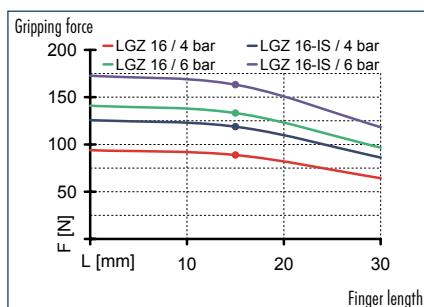
The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit gripping.

### Closing and opening times

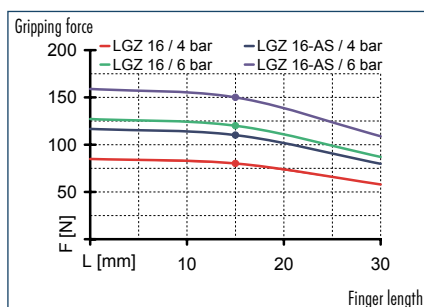
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.



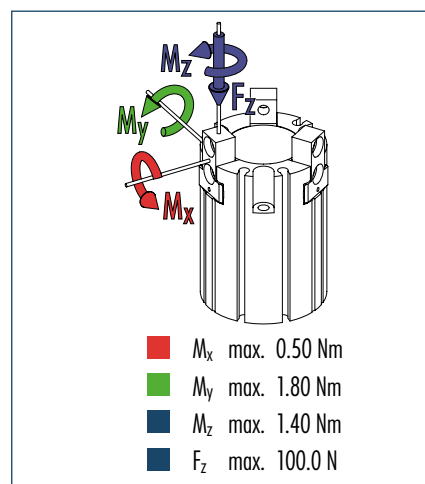
### Gripping force, I.D. gripping



### Gripping force, O.D. gripping



### Finger load

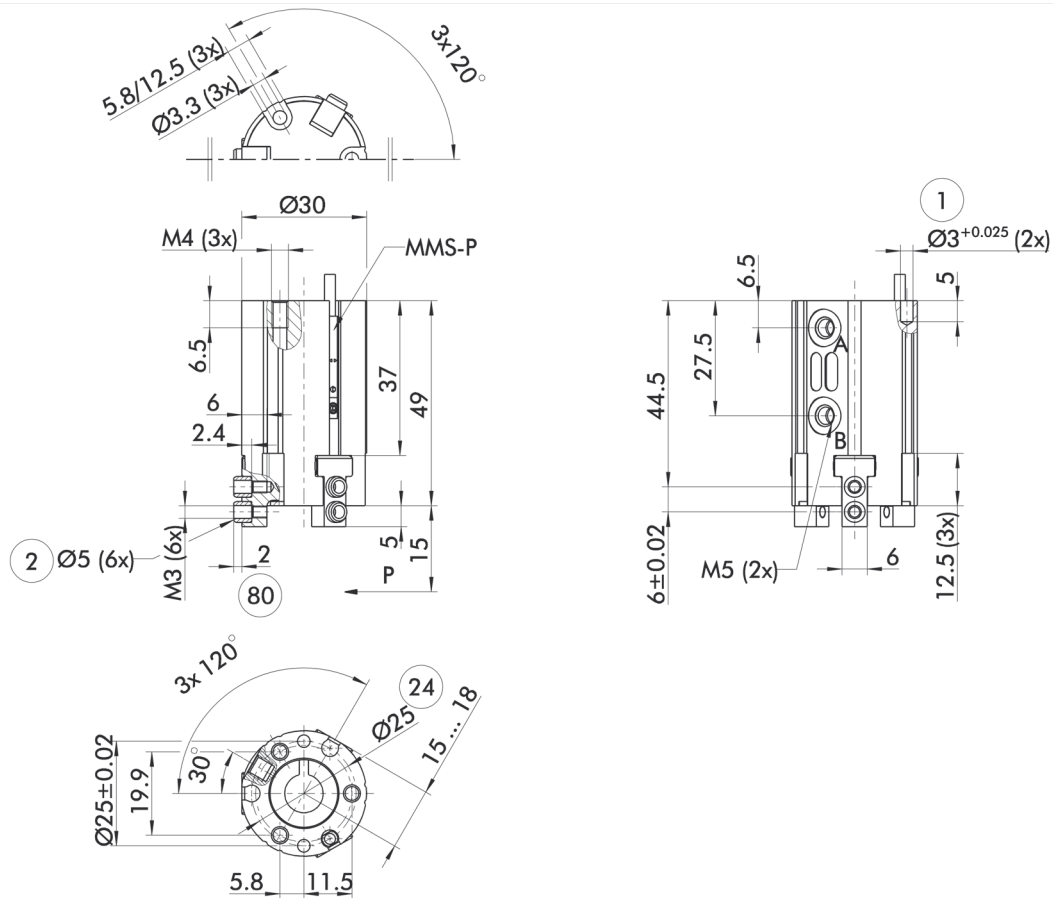


① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously.  $M_y$  may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

## Technical data

| Description                       |                    | LGZ 16    | LGZ 16-AS | LGZ 16-IS |
|-----------------------------------|--------------------|-----------|-----------|-----------|
| ID                                |                    | 0312930   | 0312931   | 0312932   |
| Stroke per finger                 | [mm]               | 3         | 3         | 3         |
| Closing force                     | [N]                | 120       | 150       |           |
| Opening force                     | [N]                | 144       |           | 174       |
| Min. spring force                 | [N]                |           | 30        | 30        |
| Weight                            | [kg]               | 0.1       | 0.1       | 0.1       |
| Recommended workpiece weight      | [kg]               | 0.6       | 0.6       | 0.6       |
| Air consumption per double stroke | [cm <sup>3</sup> ] | 4         | 4         | 4         |
| Min./max. operating pressure      | [bar]              | 2/8       | 4/6.5     | 4/6.5     |
| Nominal operating pressure        | [bar]              | 6         | 6         | 6         |
| Closing/opening time              | [s]                | 0.02/0.02 | 0.01/0.04 | 0.04/0.01 |
| Max. permitted finger length      | [mm]               | 30        | 30        | 30        |
| Max. permitted weight per finger  | [kg]               | 0.03      | 0.03      | 0.03      |
| IP class                          |                    | 40        | 40        | 40        |
| Min./max. ambient temperature     | [°C]               | -10/90    | -10/90    | -10/90    |
| Repeat accuracy                   | [mm]               | 0.02      | 0.02      | 0.02      |

### Main view



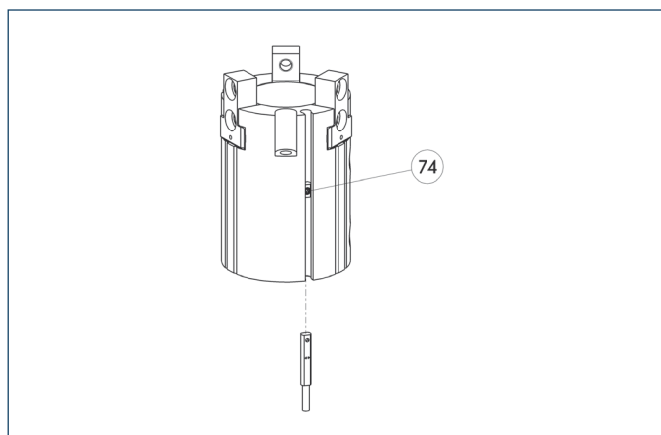
The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

- ① The SDV-P pressure maintenance valve can also be used for I.D. or O.D. gripping alternatively or in addition to the spring-loaded, mechanical gripping force maintenance device (see "Accessories" catalog section).

- A, a Main/direct connection, gripper opening
- B, b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

- ②4 Bolt circle
- ⑧0 Depth of the centering sleeve hole in the matching part

### Programmable magnetic switch



74 Stop for MMS-P

Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

| Description                  | ID      | Recommended product |
|------------------------------|---------|---------------------|
| Programmable magnetic switch |         |                     |
| MMS-P 22-S-M8-PNP            | 0301370 | •                   |
| MMSK-P 22-S-PNP              | 0301371 |                     |
| Connection cables            |         |                     |
| KA BG08-L 4P-0500            | 0307767 |                     |
| KA BG08-L 4P-1000            | 0307768 |                     |
| KA BW08-L 4P-0500            | 0307765 |                     |
| KA BW08-L 4P-1000            | 0307766 |                     |
| Sensor Distributor           |         |                     |
| V2-M8-4P-2XM8-3P             | 0301380 |                     |

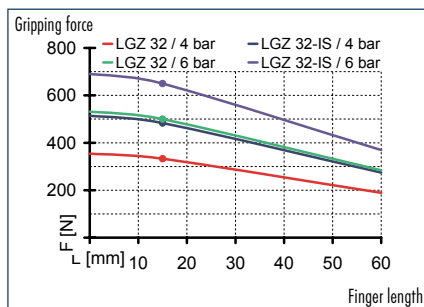
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.
- ① Per gripper one sensor (closer/NO) is required, optionally a cable extension.



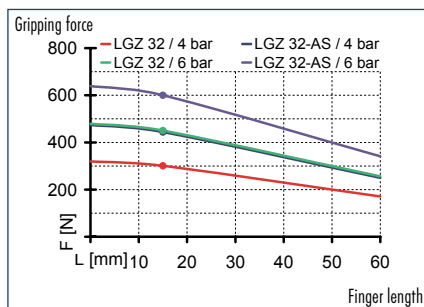
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.



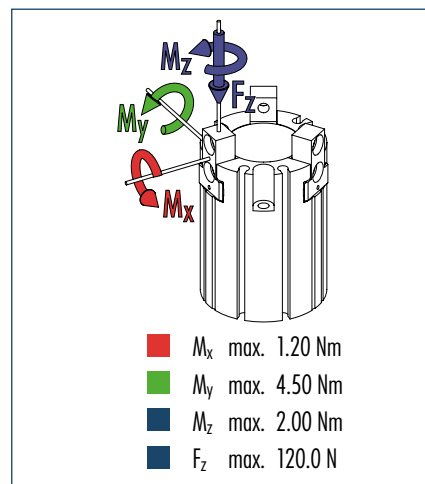
## Gripping force, I.D. gripping



## Gripping force, O.D. gripping



## Finger load

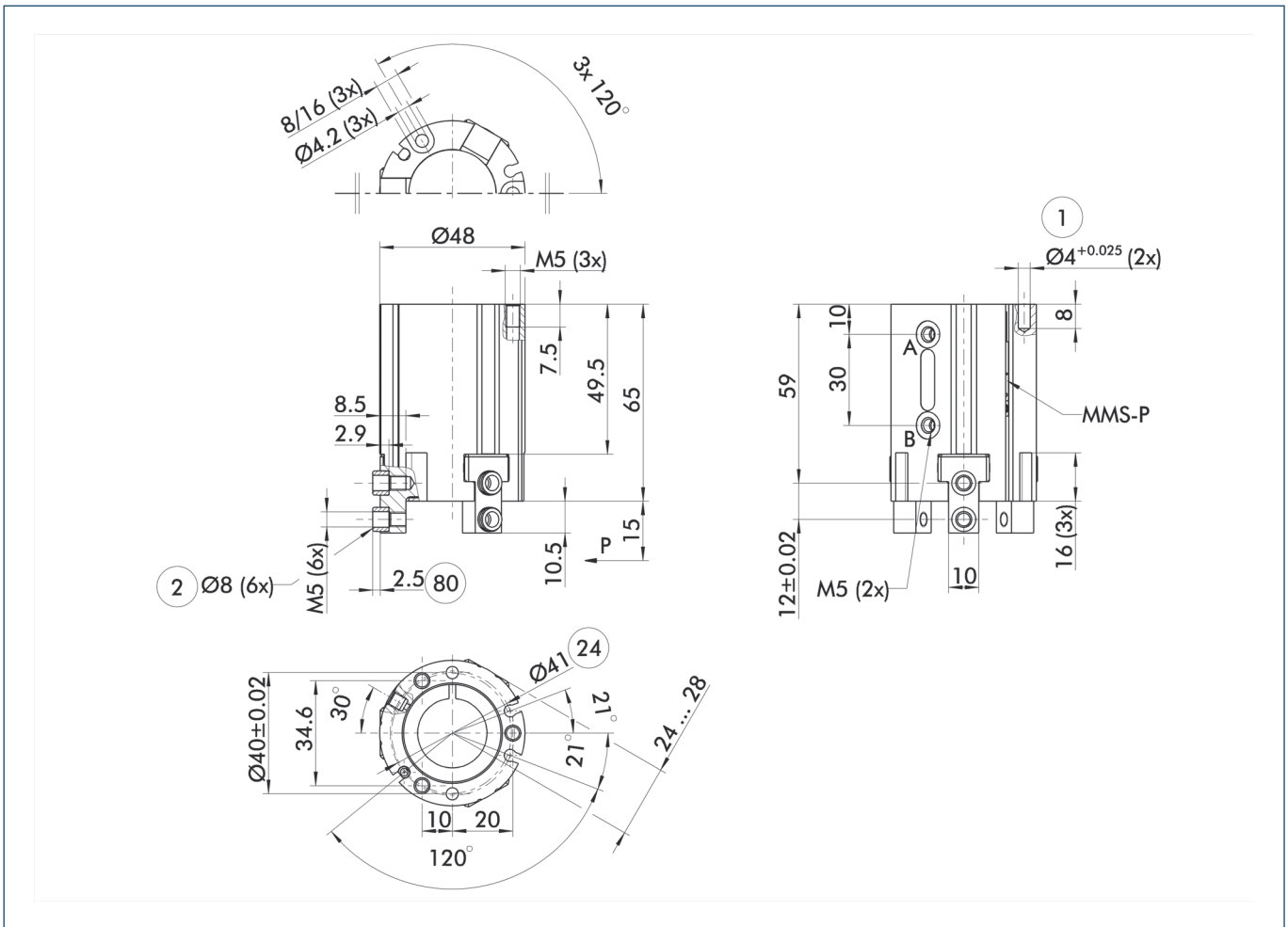


① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously.  $M_y$  may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

## Technical data

| Description                       |                    | LGZ 32    | LGZ 32-AS | LGZ 32-IS |
|-----------------------------------|--------------------|-----------|-----------|-----------|
| ID                                |                    | 0312933   | 0312934   | 0312935   |
| Stroke per finger                 | [mm]               | 4         | 4         | 4         |
| Closing force                     | [N]                | 450       | 600       |           |
| Opening force                     | [N]                | 540       |           | 590       |
| Min. spring force                 | [N]                |           | 150       | 150       |
| Weight                            | [kg]               | 0.32      | 0.35      | 0.35      |
| Recommended workpiece weight      | [kg]               | 2.25      | 2.25      | 2.25      |
| Air consumption per double stroke | [cm <sup>3</sup> ] | 21        | 21        | 21        |
| Min./max. operating pressure      | [bar]              | 2/8       | 4/6.5     | 4/6.5     |
| Nominal operating pressure        | [bar]              | 6         | 6         | 6         |
| Closing/opening time              | [s]                | 0.02/0.02 | 0.01/0.03 | 0.03/0.01 |
| Max. permitted finger length      | [mm]               | 60        | 60        | 60        |
| Max. permitted weight per finger  | [kg]               | 0.08      | 0.08      | 0.08      |
| IP class                          |                    | 40        | 40        | 40        |
| Min./max. ambient temperature     | [°C]               | -10/90    | -10/90    | -10/90    |
| Repeat accuracy                   | [mm]               | 0.02      | 0.02      | 0.02      |

### Main view



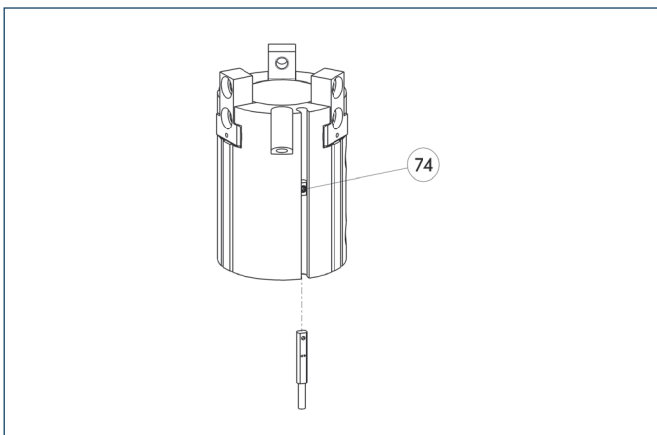
The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can also be used for I.D. or O.D. gripping alternatively or in addition to the spring-loaded, mechanical gripping force maintenance device (see "Accessories" catalog section).

A, a Main/direct connection, gripper opening  
B, b Main/direct connection, gripper closing  
① Gripper connection  
② Finger connection

②④ Bolt circle  
⑧⑩ Depth of the centering sleeve hole in the matching part

### Programmable magnetic switch



74 Stop for MMS-P

Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

| Description                         | ID      | Recommended product |
|-------------------------------------|---------|---------------------|
| <b>Programmable magnetic switch</b> |         |                     |
| MMS-P 22-S-M8-PNP                   | 0301370 | •                   |
| MMSK-P 22-S-PNP                     | 0301371 |                     |
| <b>Connection cables</b>            |         |                     |
| KA BG08-L 4P-0500                   | 0307767 |                     |
| KA BG08-L 4P-1000                   | 0307768 |                     |
| KA BW08-L 4P-0500                   | 0307765 |                     |
| KA BW08-L 4P-1000                   | 0307766 |                     |
| <b>Sensor Distributor</b>           |         |                     |
| V2-M8-4P-2XM8-3P                    | 0301380 |                     |

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

① Per gripper one sensor (closer/NO) is required, optionally a cable extension.

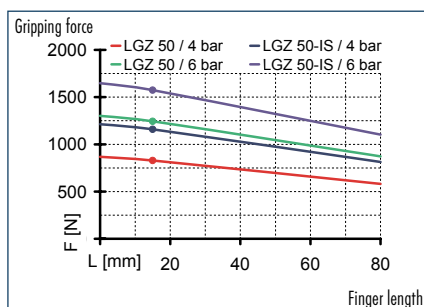


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

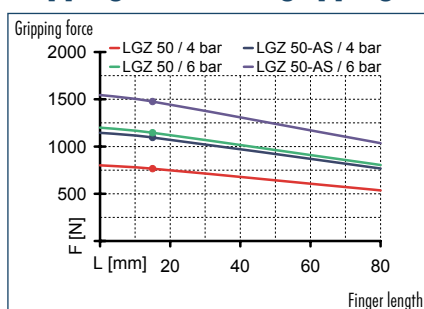




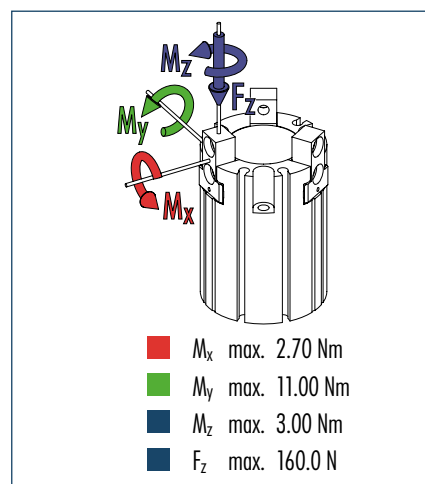
### Gripping force, I.D. gripping



### Gripping force, O.D. gripping



### Finger load

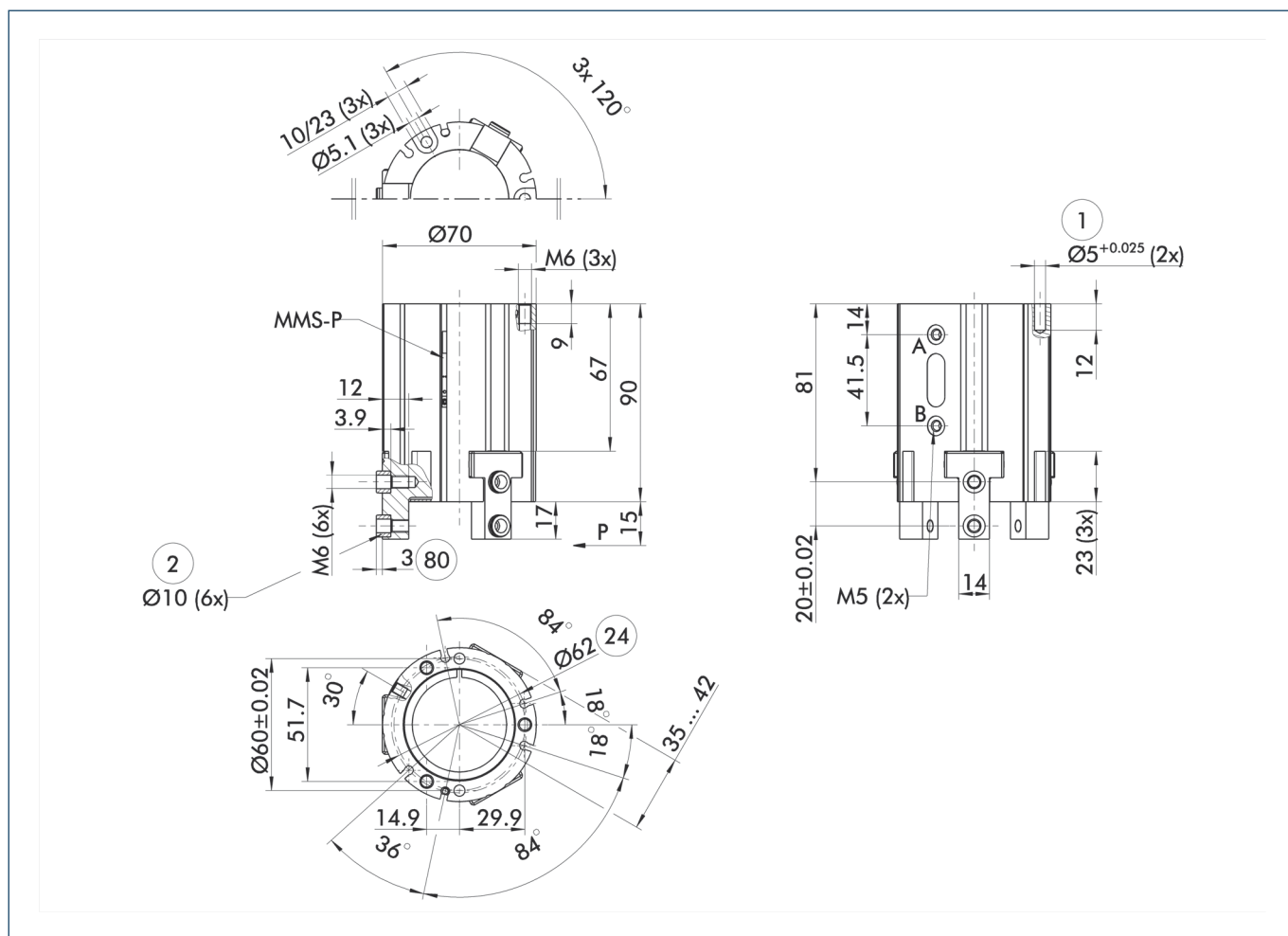


① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously.  $M_y$  may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may be reduced.

## Technical data

| Description                       |                    | LGZ 50    | LGZ 50-AS | LGZ 50-IS |
|-----------------------------------|--------------------|-----------|-----------|-----------|
| ID                                |                    | 0312936   | 0312937   | 0312938   |
| Stroke per finger                 | [mm]               | 7         | 7         | 7         |
| Closing force                     | [N]                | 1140      | 1470      |           |
| Opening force                     | [N]                | 1320      |           | 1650      |
| Min. spring force                 | [N]                |           | 330       | 330       |
| Weight                            | [kg]               | 0.95      | 0.99      | 0.99      |
| Recommended workpiece weight      | [kg]               | 5.7       | 5.7       | 5.7       |
| Air consumption per double stroke | [cm <sup>3</sup> ] | 93        | 93        | 93        |
| Min./max. operating pressure      | [bar]              | 2/8       | 4/6.5     | 4/6.5     |
| Nominal operating pressure        | [bar]              | 6         | 6         | 6         |
| Closing/opening time              | [s]                | 0.05/0.05 | 0.04/0.07 | 0.07/0.04 |
| Max. permitted finger length      | [mm]               | 80        | 80        | 80        |
| Max. permitted weight per finger  | [kg]               | 0.25      | 0.25      | 0.25      |
| IP class                          |                    | 40        | 40        | 40        |
| Min./max. ambient temperature     | [°C]               | -10/90    | -10/90    | -10/90    |
| Repeat accuracy                   | [mm]               | 0.02      | 0.02      | 0.02      |

## Main view

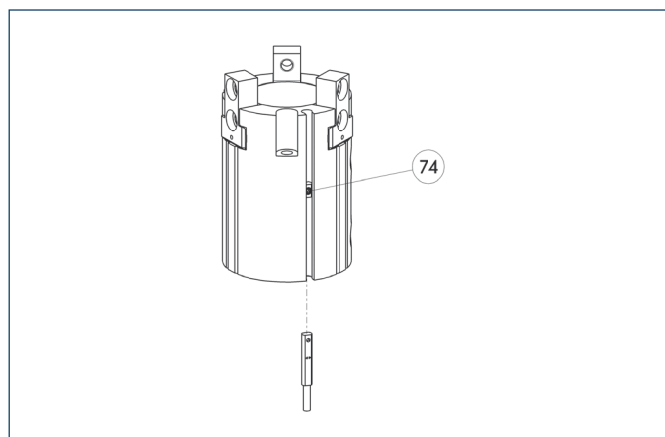


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

- ❶ The SDV-P pressure maintenance valve can also be used for I.D. or O.D. gripping alternatively or in addition to the spring-loaded, mechanical gripping force maintenance device (see “Accessories” catalog section).

- |      |                                         |    |                                                         |
|------|-----------------------------------------|----|---------------------------------------------------------|
| A, a | Main/direct connection, gripper opening | 24 | Bolt circle                                             |
| B, b | Main/direct connection, gripper closing | 80 | Depth of the centering sleeve hole in the matching part |
| ①    | Gripper connection                      |    |                                                         |
| ②    | Finger connection                       |    |                                                         |

## Programmable magnetic switch



⑦④ Stop for MMS-P

Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

| Description                  | ID      | Recommended product |
|------------------------------|---------|---------------------|
| Programmable magnetic switch |         |                     |
| MMS-P 22-S-M8-PNP            | 0301370 | •                   |
| MMSK-P 22-S-PNP              | 0301371 |                     |
| Connection cables            |         |                     |
| KA BG08-L 4P-0500            | 0307767 |                     |
| KA BG08-L 4P-1000            | 0307768 |                     |
| KA BW08-L 4P-0500            | 0307765 |                     |
| KA BW08-L 4P-1000            | 0307766 |                     |
| Sensor Distributor           |         |                     |
| V2-M8-4P-2XM8-3P             | 0301380 |                     |

- ❶ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.
- ❷ Per gripper one sensor (closer/NO) is required, optionally a cable extension.