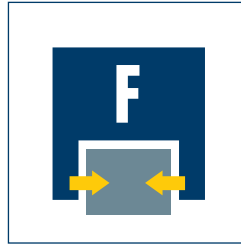




Sizes
16 .. 50



Weight
0.095 kg .. 0.95 kg



Gripping force
120 N .. 1140 N



Stroke per finger
3 mm .. 7 mm



Workpiece weight
0.6 kg .. 5.7 kg

Application example



Pneumatic transfer unit for round workpieces

① 3-Finger Centric Gripper LGZ 32

② FST-S 10-63 Mini-slide

Universal Gripper

Universal 3-Finger-Centric Gripper with T-slot slideway and excellent cost/performance ratio.

Area of application

universal application 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 a process reliable position interrogation

Hard-anodized or hardened functional components

for long lifetime

Centering sleeves

for an repeat accurate exchange of grippers and fingers

Compact dimensions

for a minimized disturbing contour



General information on the series

Housing material

Aluminum alloy, hard-anodized

Base jaw material

Steel

Working principle

Wedge-hook kinematics

Actuation

Pneumatic, with filtered compressed air (10 µm): Dry, lubricated or non-lubricated

Pressure medium: Requirements on quality of the compressed air according to

DIN ISO 8573-1: 6 4 4.

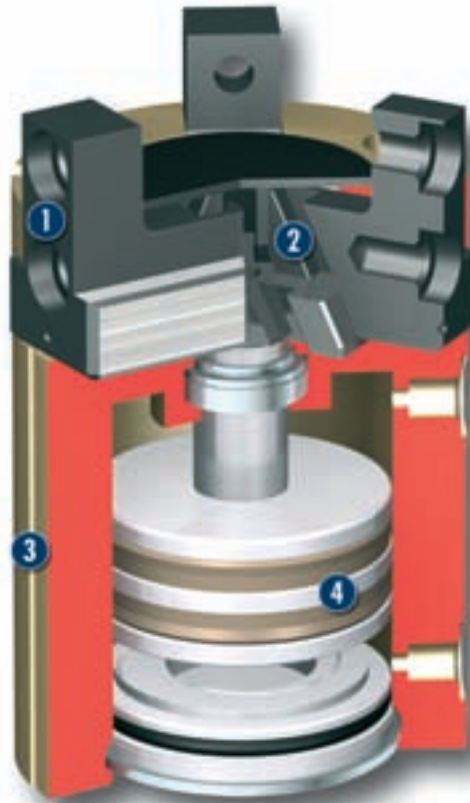
Scope of delivery

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

Warranty

24 months

Sectional diagram



- 1 Base jaws**
for the connection of workpiece-specific gripper fingers
- 2 Kinematics**
Wedge-hook principle for a high power transmission and synchronised gripping
- 3 Housing**
weight-optimised through application of hard-anodized, high-strength aluminum alloy
- 4 Drive**
pneumatic and efficient, but easy to handle

Function description

The piston is pressed upwards or downwards by compressed air. The wedge hook deviates this movement via the angular active surface into a lateral, synchronous movement of the three base fingers.

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



MZN/RZN magnetic switches



KV/KA sensor cables



SDV-P pressure maintenance valves



V sensor distributors



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 information on the series

Gripping force

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

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

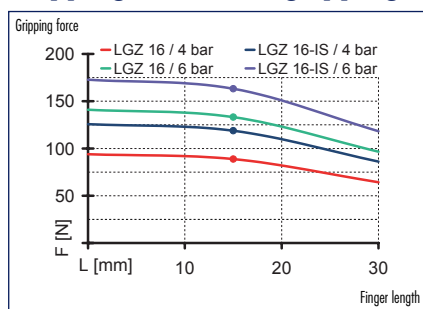
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.

LGZ 16

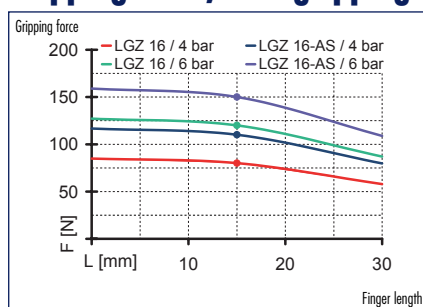
Pneumatic · 3-Finger Centric Gripper · Universal Gripper



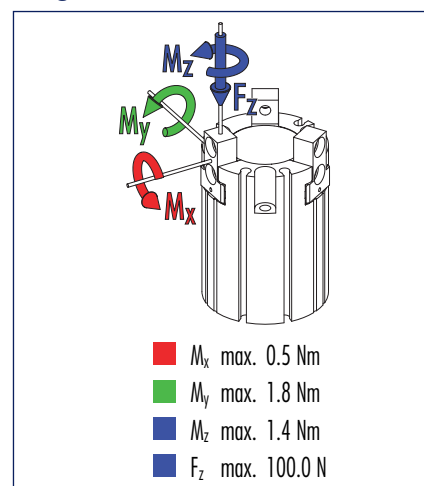
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

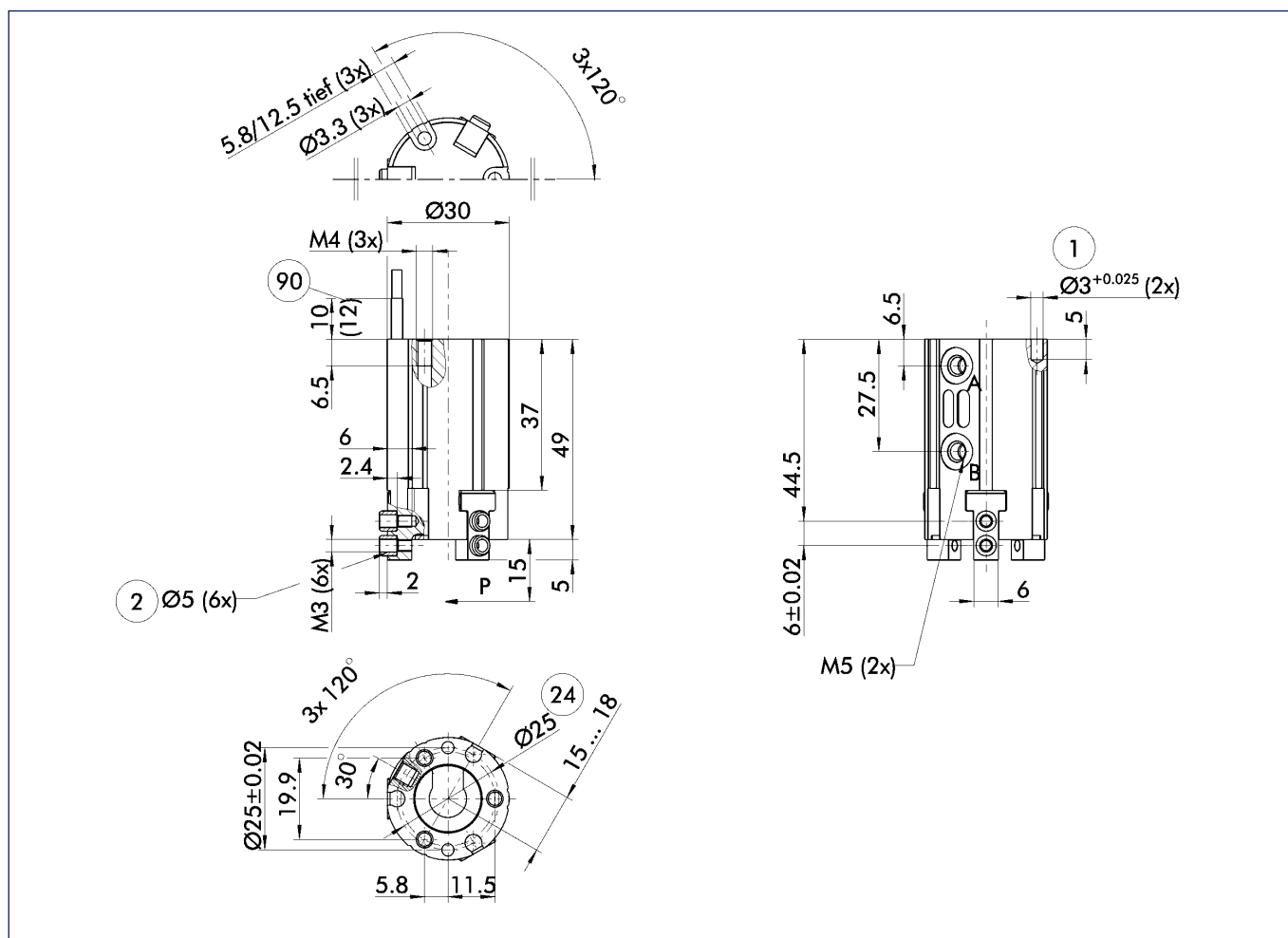


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing.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

Technical data

Description	ID	LGZ 16	LGZ 16-AS	LGZ 16-IS
		0312930	0312931	0312932
Stroke per finger	[mm]	3.0	3.0	3.0
Closing force	[N]	120.0	150.0	
Opening force	[N]	144.0		174.0
Min. gripping force through spring	[N]		30.0	30.0
Weight	[kg]	0.095	0.098	0.098
Recommended workpiece weight	[kg]	0.6	0.6	0.6
Air consumption per double stroke	[cm ³]	4.0	4.0	4.0
Nominal pressure	[bar]	6.0	6.0	6.0
Minimum pressure	[bar]	2.0	4.0	4.0
Maximum pressure	[bar]	8.0	6.5	6.5
Closing time	[s]	0.02	0.01	0.04
Opening time	[s]	0.02	0.04	0.01
Closing/opening time with spring only	[s]	0.08	0.08	
Max. permitted finger length	[mm]	30.0	30.0	30.0
Max. permitted weight per finger	[kg]	0.03	0.03	
IP class		40	40	40
Min. ambient temperature	[°C]	-10.0	-10.0	-10.0
Max. ambient temperature	[°C]	90.0	90.0	90.0
Repeat accuracy	[mm]	0.02	0.02	0.02

Main views

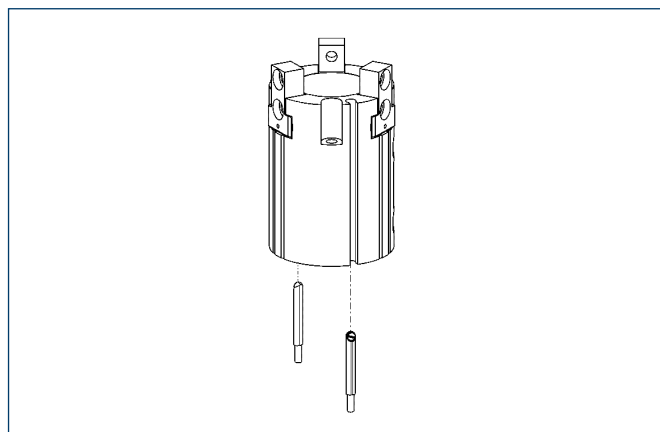


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

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

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection
- 24 Bolt circle
- 90 In case of outside locking device

Sensor System



Electronic magnetic switches / Reed Switches, for direct mounting

Description	ID
MZN 1-06VPS-KRD	0312990
RZN 1-05ZRS-KRD	0312991

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

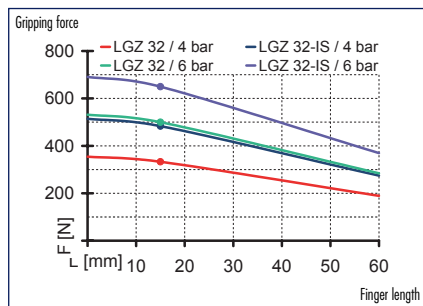
Extension cables for proximity switches/magnetic switches

Description	ID
KA BG08-L 3P-0300-PNP	0301622
KA BW08-L 3P-0300-PNP	0301594
KA BW08-L 3P-0500-PNP	0301502
KV BW08-SG08 3P-0030-PNP	0301495
KV BW08-SG08 3P-0100-PNP	0301496
KV BW08-SG08 3P-0200-PNP	0301497

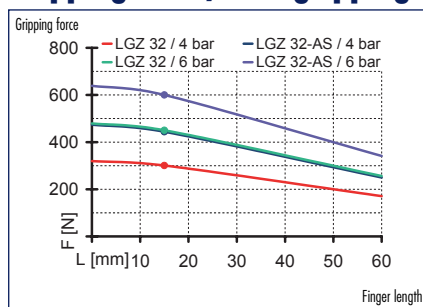
① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



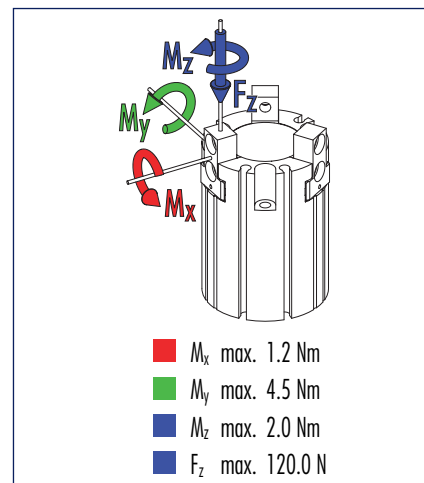
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

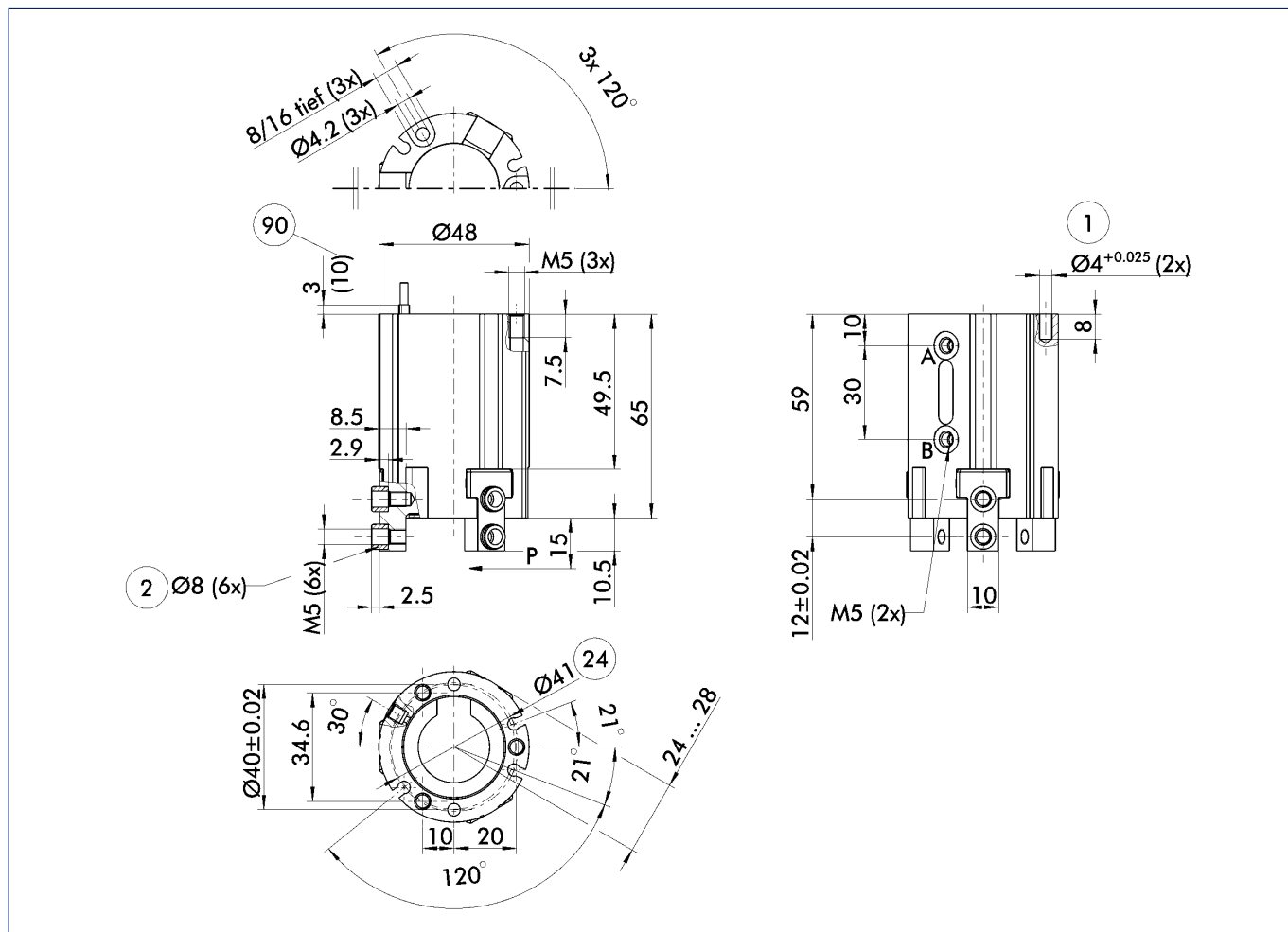


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may reduce.

Technical data

Description		LGZ 32	LGZ 32-AS	LGZ 32-IS
ID		0312933	0312934	0312935
Stroke per finger	[mm]	4.0	4.0	4.0
Closing force	[N]	450.0	600.0	
Opening force	[N]	540.0		590.0
Min. gripping force through spring	[N]		150.0	150.0
Weight	[kg]	0.32	0.35	0.35
Recommended workpiece weight	[kg]	2.25	2.25	2.25
Air consumption per double stroke	[cm ³]	21.0	21.0	21.0
Nominal pressure	[bar]	6.0	6.0	6.0
Minimum pressure	[bar]	2.0	4.0	4.0
Maximum pressure	[bar]	8.0	6.5	6.5
Closing time	[s]	0.02	0.01	0.03
Opening time	[s]	0.02	0.03	0.01
Closing/opening time with spring only	[s]	0.15	0.15	
Max. permitted finger length	[mm]	60.0	60.0	60.0
Max. permitted weight per finger	[kg]	0.08	0.08	
IP class		40	40	40
Min. ambient temperature	[°C]	-10.0	-10.0	-10.0
Max. ambient temperature	[°C]	90.0	90.0	90.0
Repeat accuracy	[mm]	0.02	0.02	0.02

Main views

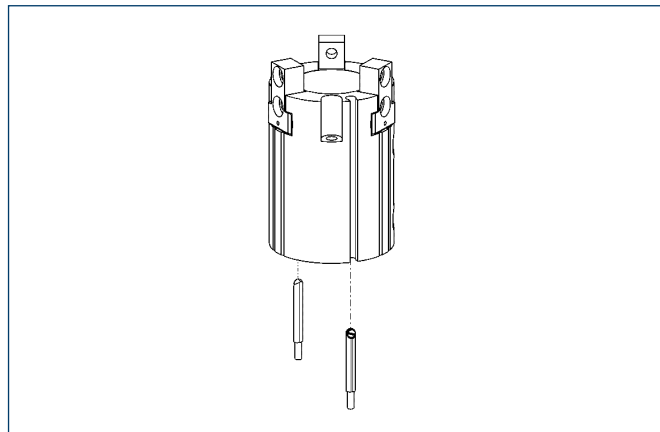


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

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

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection
- 24 Bolt circle
- 90 In case of outside locking device

Sensor System



Electronic magnetic switches / Reed Switches, for direct mounting

Description	ID
MZN 1-06VPS-KRD	0312990
RZN 1-05ZRS-KRD	0312991

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

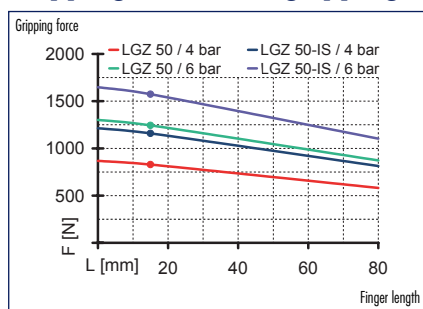
Extension cables for proximity switches/magnetic switches

Description	ID
KA BG08-L 3P-0300-PNP	0301622
KA BW08-L 3P-0300-PNP	0301594
KA BW08-L 3P-0500-PNP	0301502
KV BW08-SG08 3P-0030-PNP	0301495
KV BW08-SG08 3P-0100-PNP	0301496
KV BW08-SG08 3P-0200-PNP	0301497

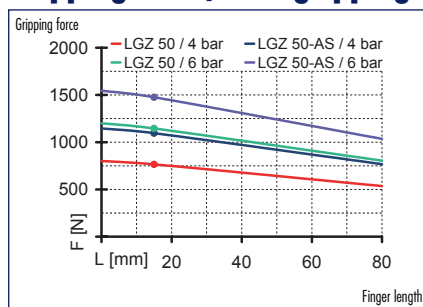
① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



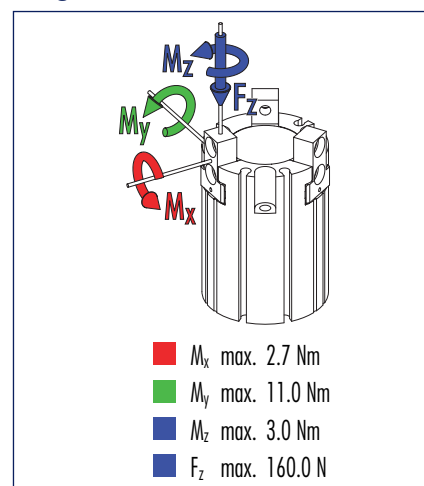
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

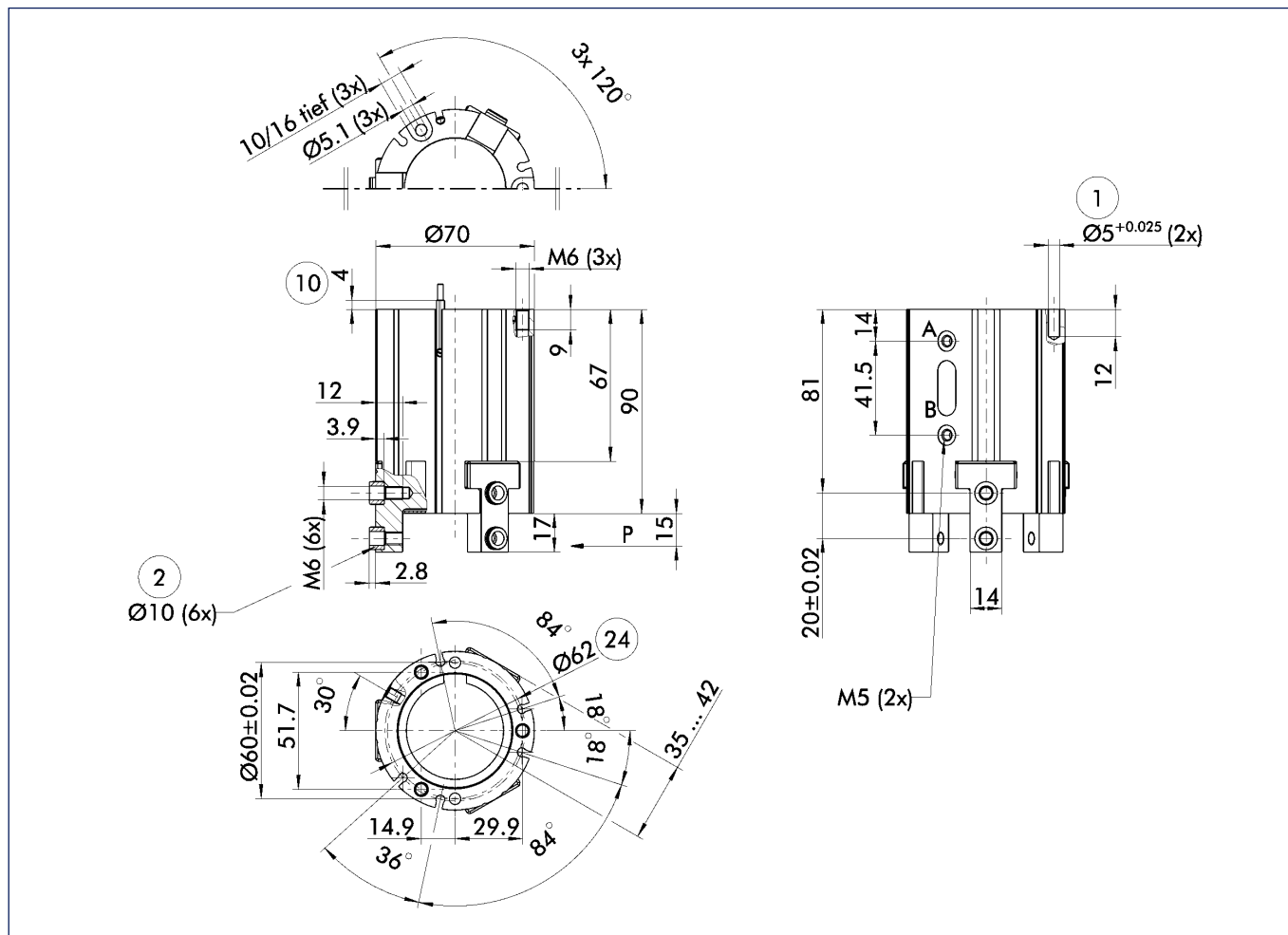


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing. Service life may reduce.

Technical data

Description		LGZ 50	LGZ 50-AS	LGZ 50-IS
ID		0312936	0312937	0312938
Stroke per finger	[mm]	7.0	7.0	7.0
Closing force	[N]	1140.0	1470.0	
Opening force	[N]	1320.0		1650.0
Min. gripping force through spring	[N]		330.0	330.0
Weight	[kg]	0.95	0.99	0.99
Recommended workpiece weight	[kg]	5.7	5.7	5.7
Air consumption per double stroke	[cm ³]	93.0	93.0	93.0
Nominal pressure	[bar]	6.0	6.0	6.0
Minimum pressure	[bar]	2.0	4.0	4.0
Maximum pressure	[bar]	8.0	6.5	6.5
Closing time	[s]	0.05	0.04	0.07
Opening time	[s]	0.05	0.07	0.04
Closing/opening time with spring only	[s]	0.25	0.25	
Max. permitted finger length	[mm]	80.0	80.0	80.0
Max. permitted weight per finger	[kg]	0.25	0.25	
IP class		40	40	40
Min. ambient temperature	[°C]	-10.0	-10.0	-10.0
Max. ambient temperature	[°C]	90.0	90.0	90.0
Repeat accuracy	[mm]	0.02	0.02	0.02

Main views

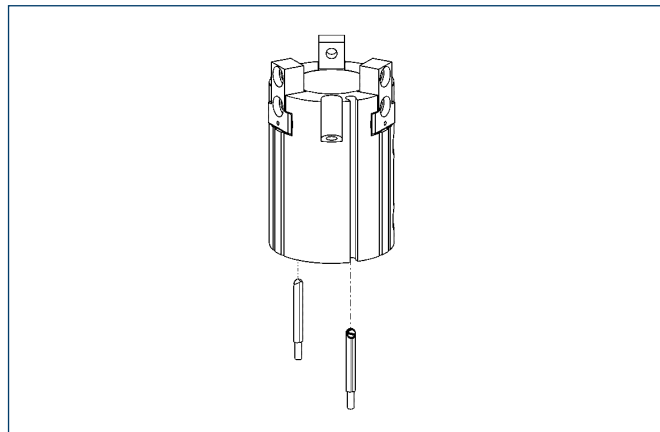


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

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

- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection
- ⑩ Projection only with AS version
- ⑳ Bolt circle

Sensor System



Electronic magnetic switches / Reed Switches, for direct mounting

Description	ID
MZN 1-06VPS-KRD	0312990
RZN 1-05ZRS-KRD	0312991

① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

Description	ID
KA BG08-L 3P-0300-PNP	0301622
KA BW08-L 3P-0300-PNP	0301594
KA BW08-L 3P-0500-PNP	0301502
KV BW08-SG08 3P-0030-PNP	0301495
KV BW08-SG08 3P-0100-PNP	0301496
KV BW08-SG08 3P-0200-PNP	0301497

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