



Sizes
10 ... 40



Weight
0.042 kg ... 0.845 kg



Gripping moment
0.22 Nm ... 11.2 Nm



Angle per jaw
20°



Workpiece weight
0.06 kg ... 1 kg

Application example



Handling module for discharging inspection components from the assembly belt

1 2-Finger Angular Gripper LGW

2 Linear module LM

3 Linear module LM

Universal Gripper

universal angular gripper for small to medium-sized workpieces with excellent cost-performance ratio

Field of application

clean surrounding, for example an assembly area

Your advantages and benefits

Function optimized gripper type

for maximum cost effectiveness

Stable cinematics

for high power transmission and synchronized gripping

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

double-acting, guided kinematics

Housing material

Aluminum alloy, hard-anodized

Base jaw material

Aluminum alloy, hard-anodized

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

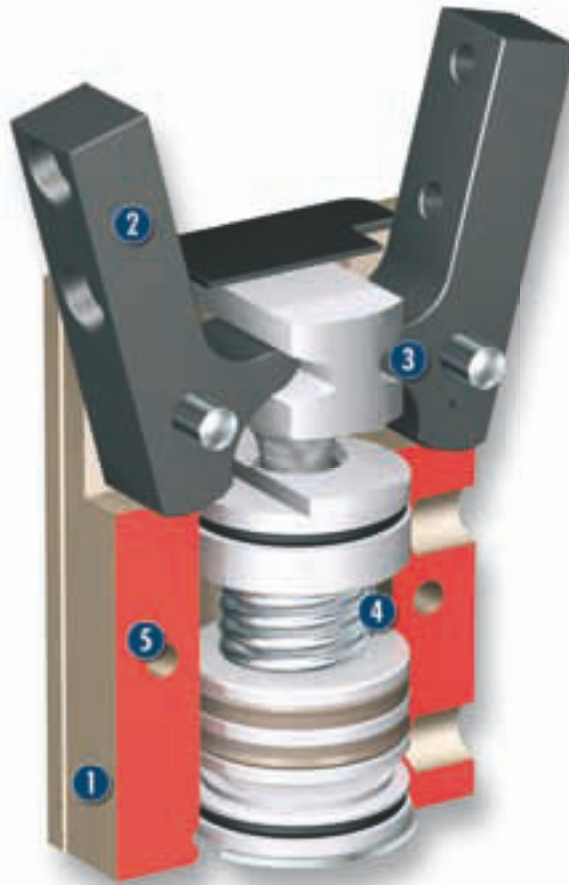
Warranty

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

Scope of delivery

Swivel fittings, centering sleeves, assembly and operation manual with manufacturer's declaration

Sectional diagram



- 1 Housing**
weight-optimized through application of hard-anodized, high-strength aluminum alloy
- 2 Base jaw**
for the connection of workpiece-specific gripper fingers
- 3 Kinematics**
precise gear for centric gripping
- 4 Gripping force maintenance device**
mechanic gripping force maintenance for O.D. gripping
- 5 Centering and mounting possibilities**
for assembly of the gripper to a base area and at the long side

Functional description

The piston is moved up and down by compressed air.
The kinematics transforms this vertical motion into a synchronous and rotatory gripping motion of the base jaws.

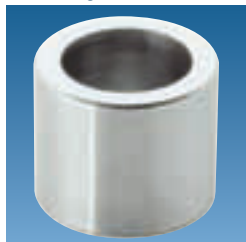
Options and special information

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 moment

Gripping moment is the arithmetic total of gripping moments for each claw jaw.

Finger length

The finger length is measured from the upper edge of the gripper housing in direction to the main axis. If the max. admissible finger length is exceeded, the speed of jaw motions have to be reduced and/or the opening angle has to be diminished, as it is done with heavy fingers. The service life of the gripper can shorten.

Repeat accuracy

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

Workpiece weight

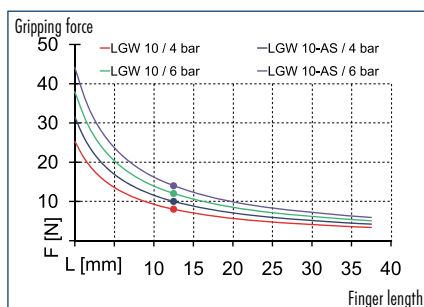
The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g . Considerably heavier workpiece weights are permitted with form-fit gripping.

Closing and opening times

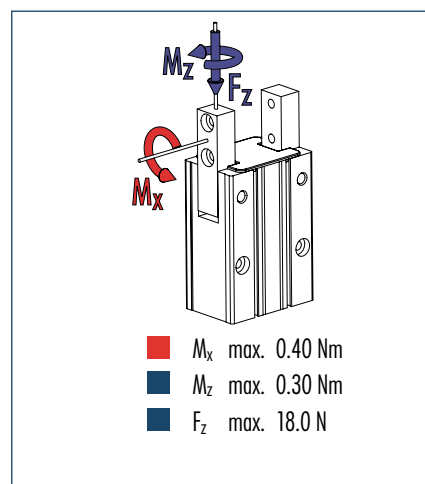
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.



Gripping force, O.D. gripping



Finger load



① The indicated moments and forces are static values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description	LGW 10	LGW 10-AS
ID	0312950	0312951
Opening angle per jaw [°]	20	20
Closed angle per jaw up to [°]	7	7
Closing moment [Nm]	0.22	0.28
Spring-actuated closing moment [Nm]		0.06
Weight [kg]	0.042	0.043
Recommended workpiece weight [kg]	0.06	0.07
Air consumption per double stroke [cm³]	0.7	0.7
Min./max. operating pressure [bar]	2/8	4/6.5
Nominal operating pressure [bar]	6	6
Closing/opening time [s]	0.02/0.02	0.02/0.03
Max. permitted finger length [mm]	25	25
Max. permitted weight per finger [kg]	0.04	0.04
IP class	40	40
Min./max. ambient temperature [°C]	-10/90	-10/90
Repeat accuracy [mm]	0.02	0.02

i 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).

⑧⑩ Depth of the centering sleeve hole in the matching part

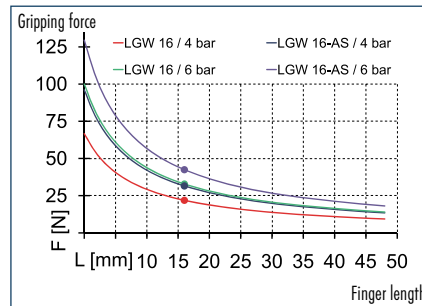
A technical line drawing showing a bracket with two vertical slots. A cable tie is shown being inserted into the right slot. The cable tie has a rectangular head with a central slot and a long, thin tail. The bracket has two vertical plates, each with a circular hole near the top and a rectangular slot near the bottom. A small arrow points to the cable tie's head, indicating its insertion point.

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	

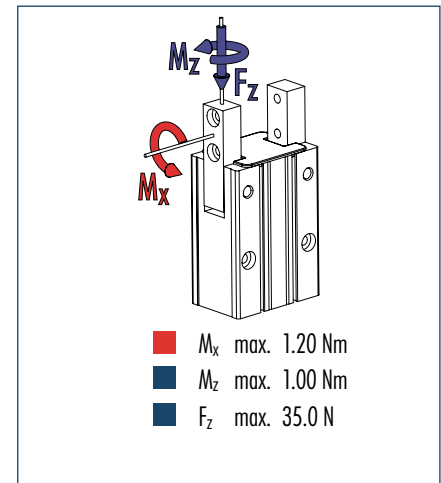
① Per gripper one sensor (closer/NO) is required, optionally a cable extension.



Gripping force, O.D. gripping



Finger load

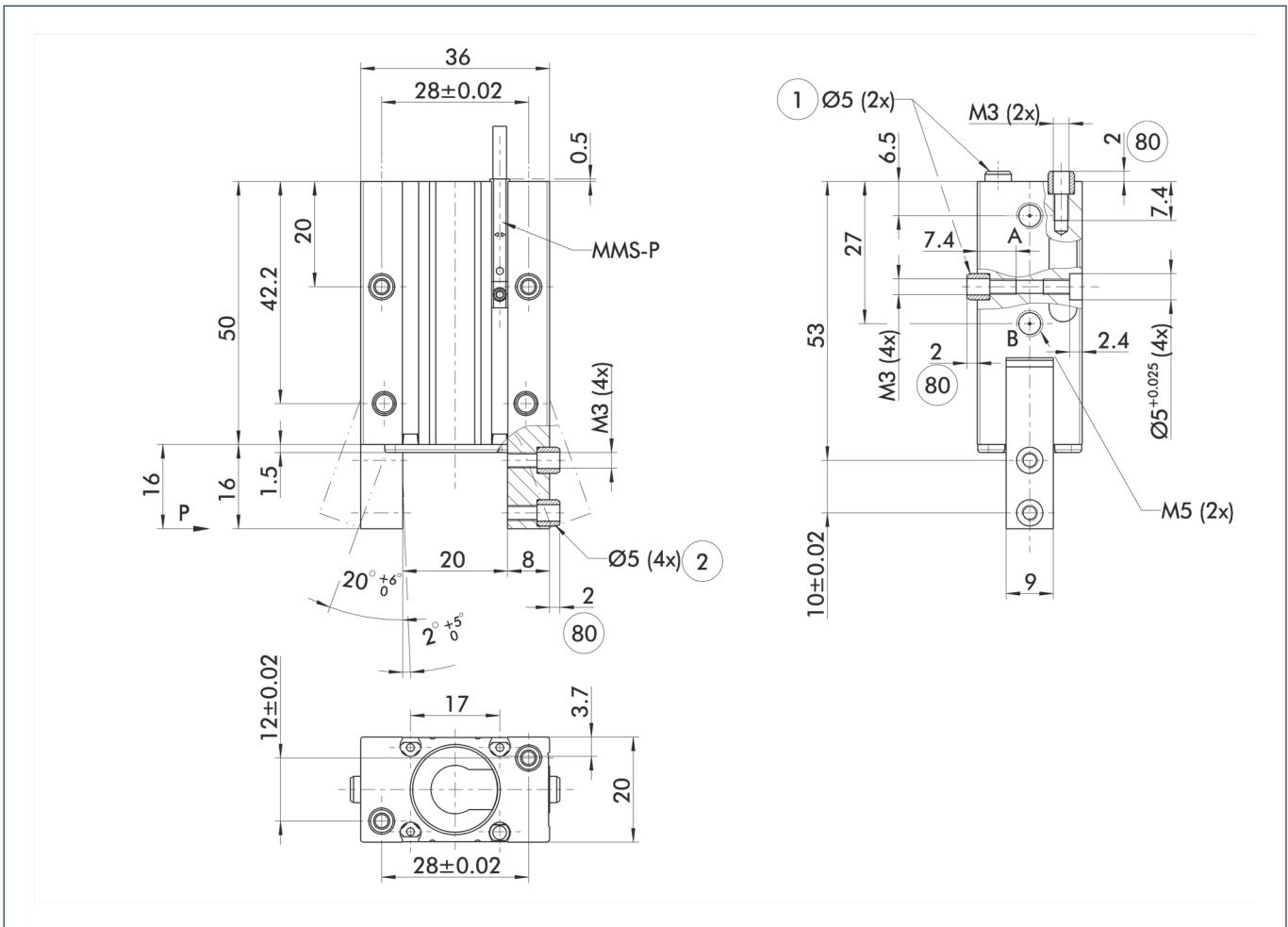


① The indicated moments and forces are static values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description	LGW 16	LGW 16-AS
ID	0312952	0312953
Opening angle per jaw [°]	20	20
Closed angle per jaw up to [°]	7	7
Closing moment [Nm]	0.78	1
Spring-actuated closing moment [Nm]		0.22
Weight [kg]	0.088	0.091
Recommended workpiece weight [kg]	0.17	0.21
Air consumption per double stroke [cm³]	2.3	2.3
Min./max. operating pressure [bar]	2/8	4/6.5
Nominal operating pressure [bar]	6	6
Closing/opening time [s]	0.03/0.02	0.025/0.03
Max. permitted finger length [mm]	32	32
Max. permitted weight per finger [kg]	0.05	0.05
IP class	40	40
Min./max. ambient temperature [°C]	-10/90	-10/90
Repeat accuracy [mm]	0.02	0.02

Main view

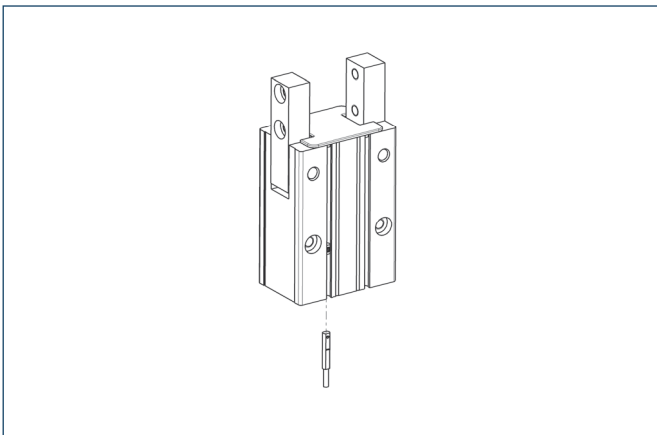


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

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

Programmable magnetic switch



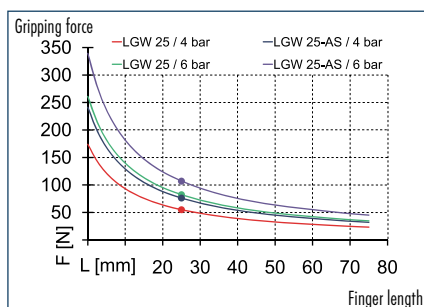
Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

Description	ID	Recommended product
Programmable magnetic switch		
MMSP-22-S-M8-PNP	0301370	•
MMSP-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	

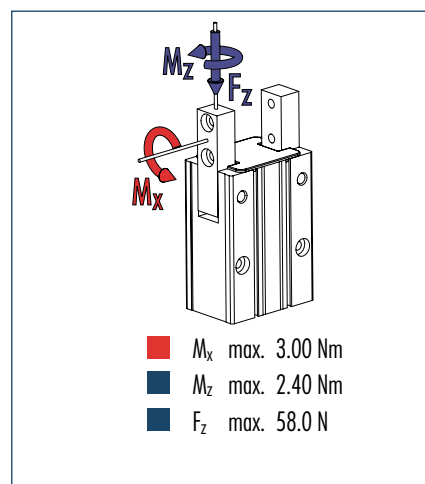
- ❗ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.
- ❗ Per gripper one sensor (closer/NO) is required, optionally a cable extension.



Gripping force, O.D. gripping



Finger load



① The indicated moments and forces are static values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description	LGW 25	LGW 25-AS
ID	0312954	0312955
Opening angle per jaw [°]	20	20
Closed angle per jaw up to [°]	7	7
Closing moment [Nm]	3.2	4.1
Spring-actuated closing moment [Nm]		0.9
Weight [kg]	0.25	0.255
Recommended workpiece weight [kg]	0.45	0.55
Air consumption per double stroke [cm³]	9	9
Min./max. operating pressure [bar]	2/8	4/6.5
Nominal operating pressure [bar]	6	6
Closing/opening time [s]	0.045/0.04	0.06/0.07
Max. permitted finger length [mm]	50	50
Max. permitted weight per finger [kg]	0.1	0.1
IP class	40	40
Min./max. ambient temperature [°C]	-10/90	-10/90
Repeat accuracy [mm]	0.02	0.02

Technical drawing of a mechanical part, showing three views: Front View, Top View, and Side View.

Front View Dimensions:

- Total width: 40 ± 0.02
- Total height: 68
- Top flange height: 25
- Main body height: 56.5
- Bottom flange height: 1.5
- Distance from bottom edge to centerline: 25
- Distance from left edge to centerline: 25
- Distance from right edge to centerline: 25
- Distance from top edge to centerline: 26
- Distance from bottom edge to centerline: 28
- Distance from left edge to centerline: 21
- Distance from right edge to centerline: 21
- Angle: 20° +6° / -0°
- Angle: 2° +5° / -0°
- Mounting holes: M5 (4x), Ø8 (4x) (2)
- Material: MMS-P

Top View Dimensions:

- Width: 40 ± 0.02
- Height: 30
- Radius: R3.8
- Mounting holes: M5 (4x), Ø8 (4x) (2)

Side View Dimensions:

- Total length: 72
- Distance from left edge to centerline: 33
- Distance from right edge to centerline: 39
- Distance from top edge to centerline: 7.5
- Distance from bottom edge to centerline: 16 ± 0.02
- Distance from left edge to centerline: 11
- Distance from right edge to centerline: 11
- Distance from top edge to centerline: 7
- Distance from bottom edge to centerline: 13
- Distance from left edge to centerline: 2.5
- Distance from right edge to centerline: 2.5
- Distance from top edge to centerline: 2.9
- Distance from bottom edge to centerline: 2.9
- Mounting holes: M5 (2x), Ø8 (2x) (1), Ø8 (+0.025 / -0) (4x)
- Material: M5 (2x)

i 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).

① Gripper connection
② Finger connection

⑧⑩ Depth of the centering sleeve hole in the matching part

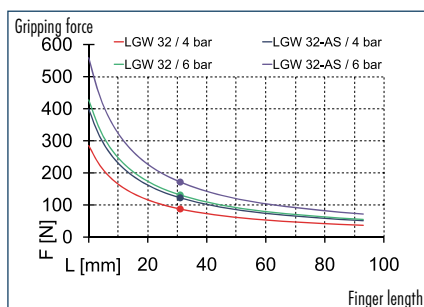
A line drawing showing a cable tie being inserted into a bracket. The bracket has two vertical slots. The cable tie is shown at the bottom, with a dashed line indicating its path into the bracket.

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	

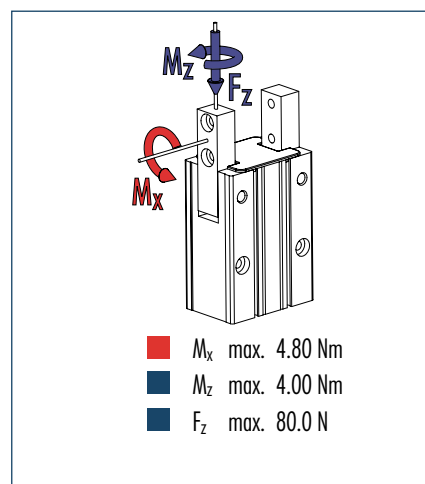
① Per gripper one sensor (closer/NO) is required, optionally a cable extension.



Gripping force, O.D. gripping



Finger load

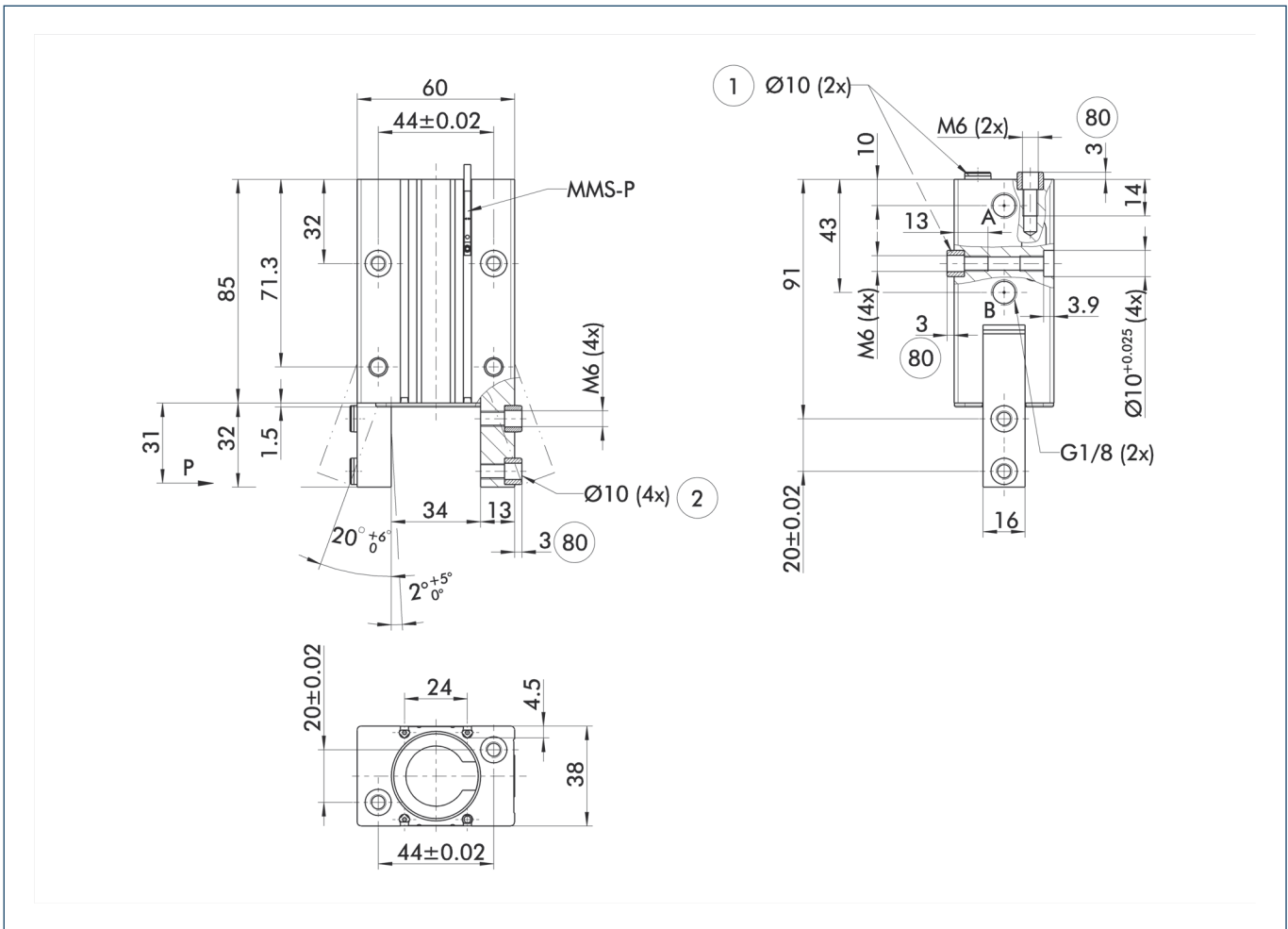


① The indicated moments and forces are static values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description	LGW 32	LGW 32-AS
ID	0312956	0312957
Opening angle per jaw [°]	20	20
Closed angle per jaw up to [°]	7	7
Closing moment [Nm]	5.6	7.4
Spring-actuated closing moment [Nm]		1.8
Weight [kg]	0.46	0.466
Recommended workpiece weight [kg]	0.64	0.84
Air consumption per double stroke [cm³]	16.1	16.1
Min./max. operating pressure [bar]	2/8	4/6.5
Nominal operating pressure [bar]	6	6
Closing/opening time [s]	0.05/0.055	0.06/0.07
Max. permitted finger length [mm]	62	62
Max. permitted weight per finger [kg]	0.13	0.13
IP class	40	40
Min./max. ambient temperature [°C]	-10/90	-10/90
Repeat accuracy [mm]	0.02	0.02

Main view



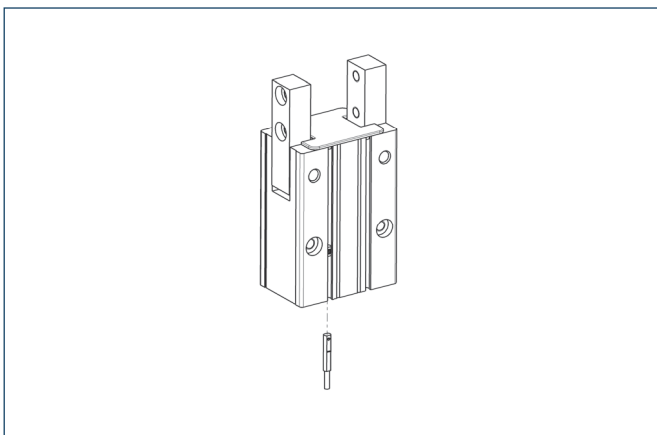
The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

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

80 Depth of the centering sleeve hole in the matching part

Programmable magnetic switch



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.

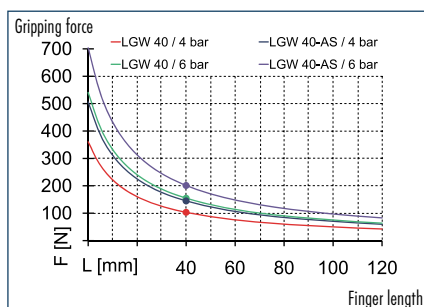
② Per gripper one sensor (closer/NO) is required, optionally a cable extension.



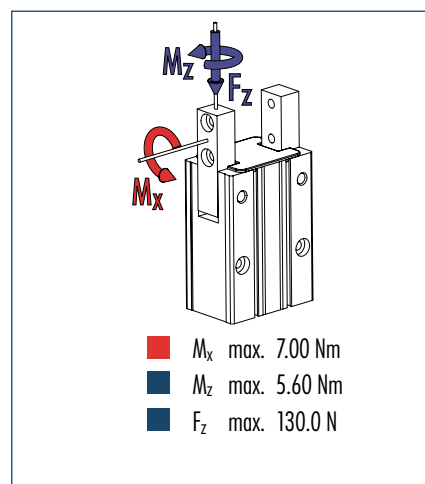
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.



Gripping force, O.D. gripping



Finger load

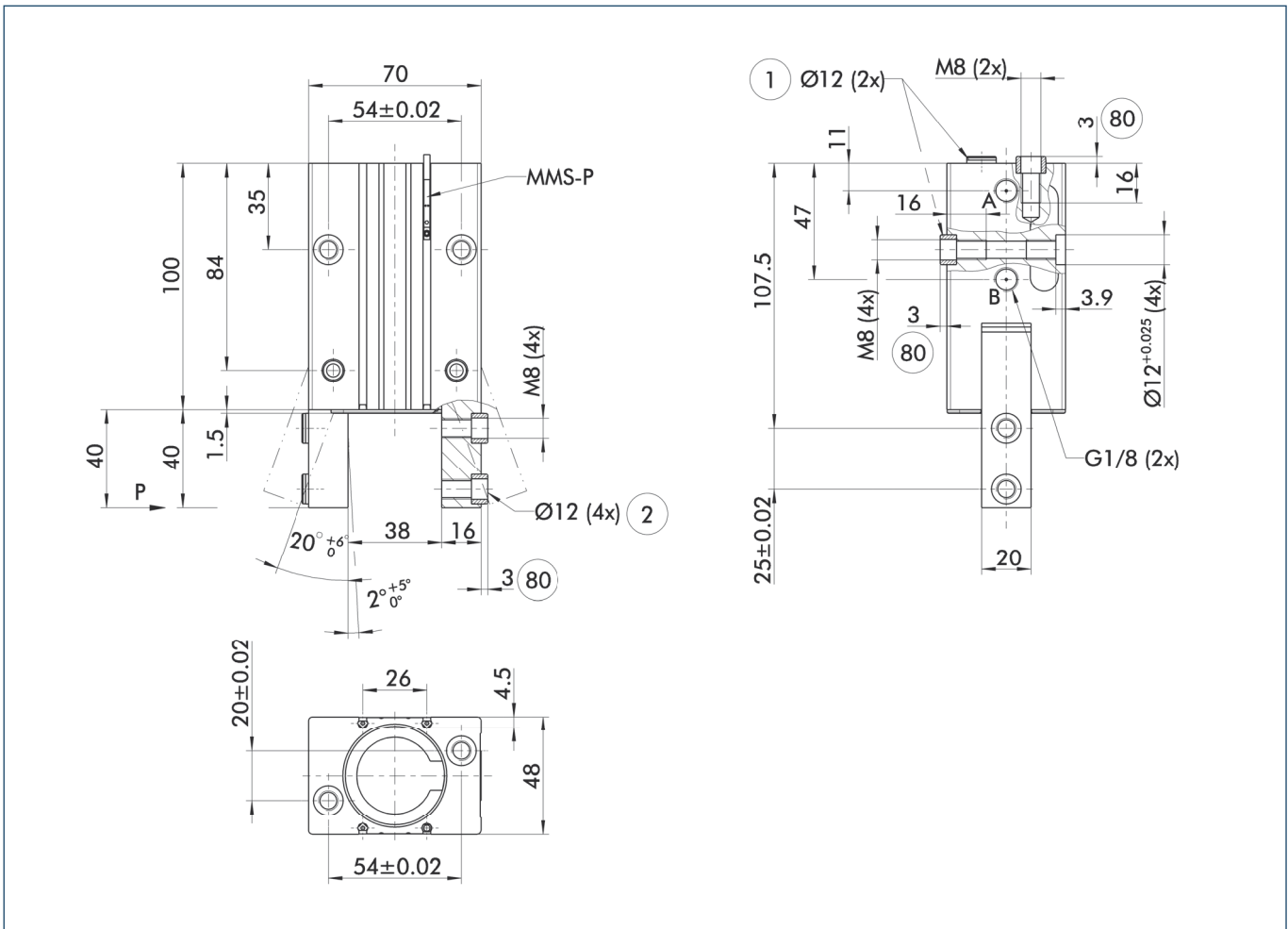


① The indicated moments and forces are static values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description	LGW 40	LGW 40-AS
ID	0312958	0312959
Opening angle per jaw [°]	20	20
Closed angle per jaw up to [°]	7	7
Closing moment [Nm]	8.6	11.2
Spring-actuated closing moment [Nm]		2.6
Weight [kg]	0.83	0.845
Recommended workpiece weight [kg]	0.78	1
Air consumption per double stroke [cm³]	31	31
Min./max. operating pressure [bar]	2/8	4/6.5
Nominal operating pressure [bar]	6	6
Closing/opening time [s]	0.055/0.055	0.06/0.09
Max. permitted finger length [mm]	80	80
Max. permitted weight per finger [kg]	0.22	0.22
IP class	40	40
Min./max. ambient temperature [°C]	-10/90	-10/90
Repeat accuracy [mm]	0.02	0.02

Main view



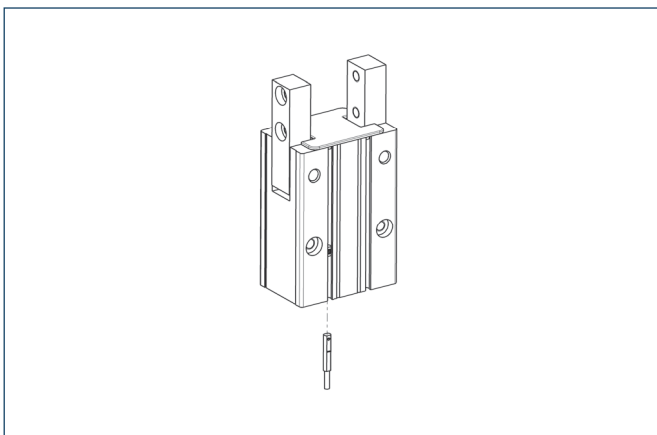
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- A, a Main/direct connection, gripper opening
- B, b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

- 80 Depth of the centering sleeve hole in the matching part

Programmable magnetic switch



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

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Programmable magnetic switch		
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MMSK-P 22-S-PNP	0301371	
Connection cables		
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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.
- ② Per gripper one sensor (closer/NO) is required, optionally a cable extension.



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