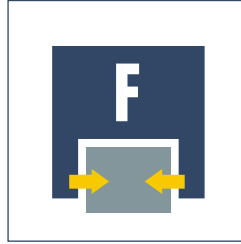




Sizes
29 .. 140



Weight
0.025 kg .. 2.55 kg



Gripping force
30 N .. 1180 N



Stroke per finger
2 mm .. 15 mm



Workpiece weight
0.15 kg .. 5.9 kg

Application example



Reversing unit for the economical reorientation of cylindrical bar material

1 PGM 50 2-Finger Parallel Gripper with workpiece-specific gripper fingers

2 MRU 14.1-E-0 Miniature Rotary Actuator

Universal Gripper

Universal, economical 2-finger parallel gripper

Area of application

for universal use in clean environments

Your advantages and benefits

Economical gripper series

for material handling

Rod guide for base jaws

for excellent guidance characteristics

Cylinder rod guidance

for versatility and a long tool life

Compact design

for minimal interfering contours in the application



General information on the series

Working principle

Internal wedge-hook kinematics

Housing material

Aluminum alloy, hard-anodized

Guide

Steel guide, ground and hardened

Actuation

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

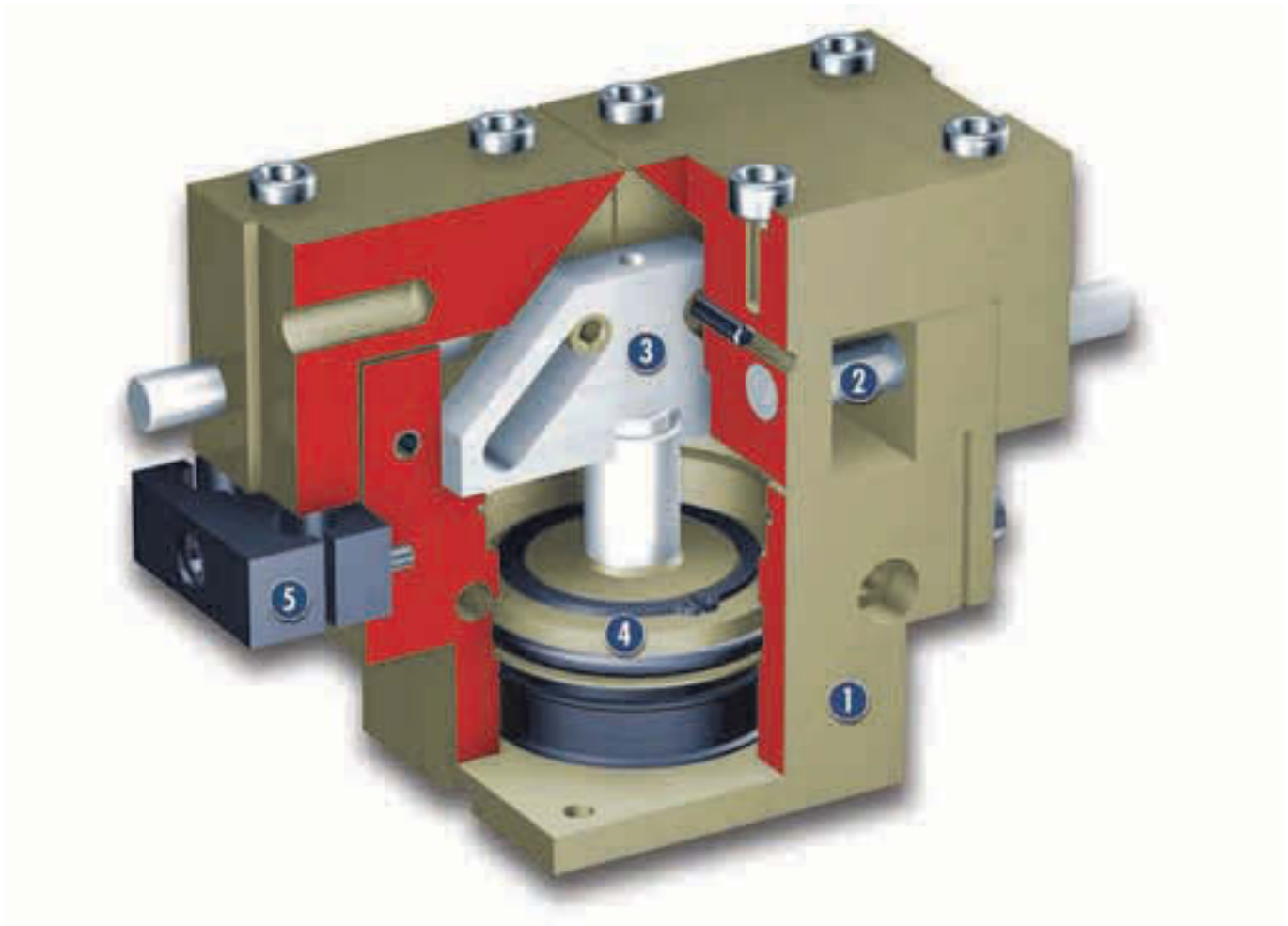
Warranty

24 months

Scope of delivery

Brackets for proximity switches, centering sleeves, assembly and operating manual with manufacturer's declaration

Sectional diagram



- 1 Housing**
weight-reduced through the use of a hard-anodized, high-strength aluminum alloy
- 2 Rod guide**
simple yet resilient
- 3 Kinematics**
internal, power transmission via line contact
- 4 Drive**
using tried and tested pneumatic piston drive
- 5 Sensor system**
mounting brackets for inductive proximity switches

Function description

The piston is moved up and down by compressed air. The wedge hook, together with the transverse rods of the base jaws, transforms the piston motion into synchronized opening and closing.

Options and special information

The PGM series is a product line with an important cost/benefit ratio.

Accessories

SCHUNK accessories – the suitable complement for the highest level of functionality, reliability and controlled production of all automation modules.

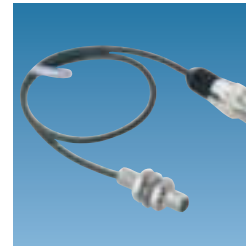
Centering sleeves



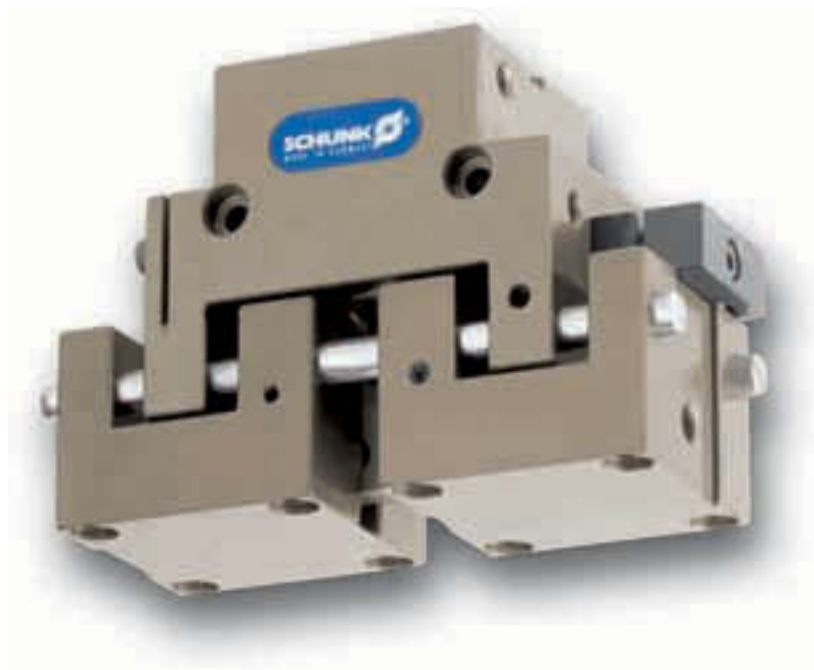
Fittings



IN inductive proximity switches



W/WK/KV/GK sensor cables



V sensor distributors



SDV-P pressure maintenance valves



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 can 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

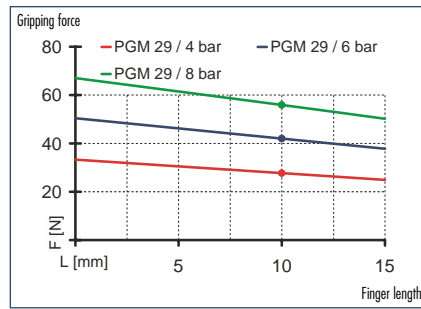
The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit clamping.

Closing and opening times

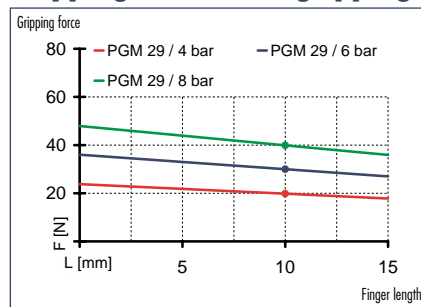
Closing and opening times are purely the times that the base jaws or base fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.



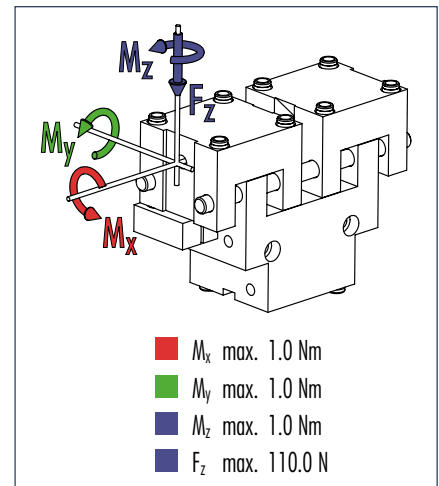
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

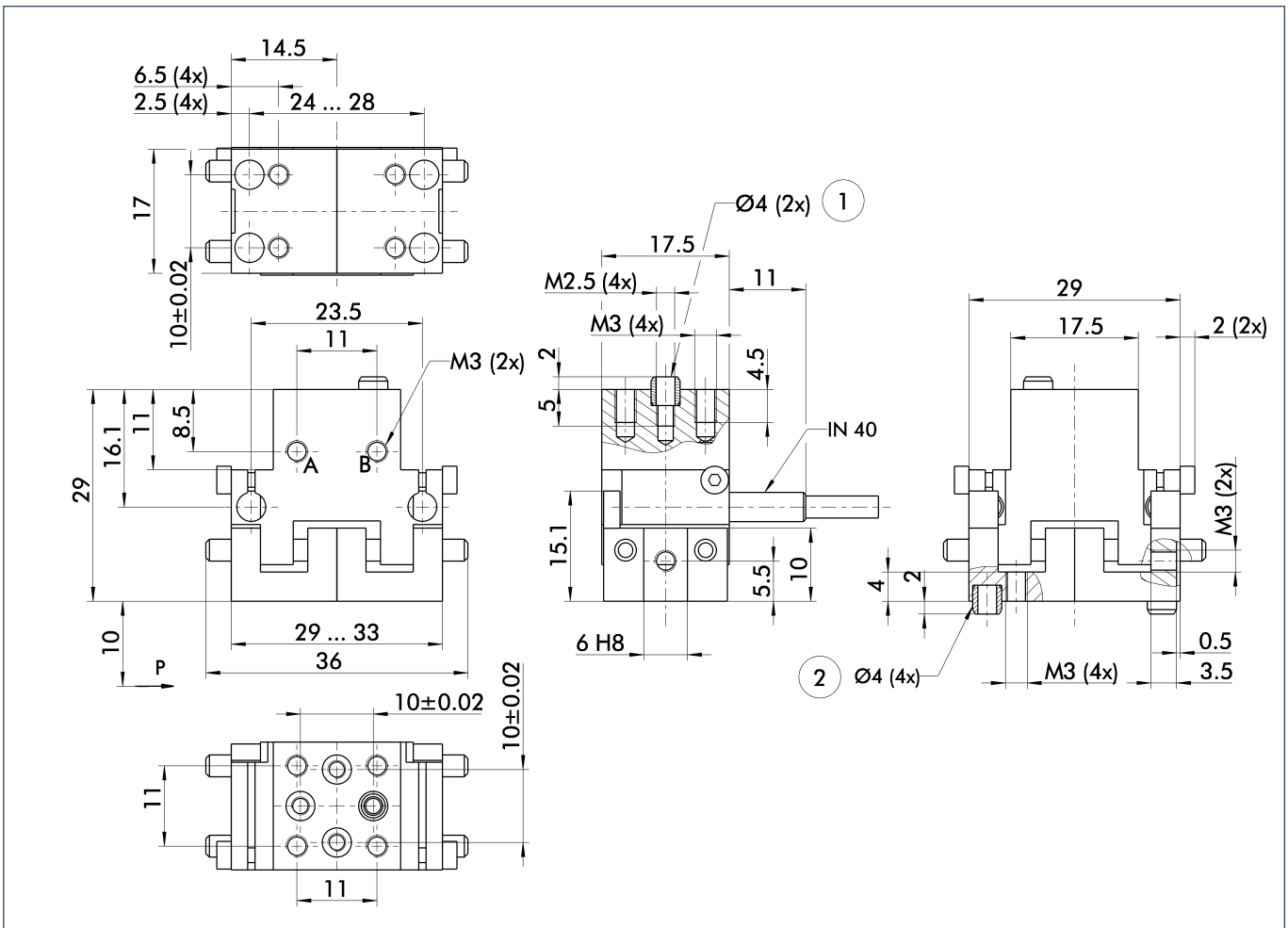


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing.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

Technical data

Description	PGM 29	
ID	0302680	
Stroke per finger	[mm]	2.0
Closing force	[N]	30.0
Opening force	[N]	40.0
Weight	[kg]	0.025
Recommended workpiece weight	[kg]	0.15
Air consumption per double stroke	[cm ³]	0.16
Nominal pressure	[bar]	6.0
Minimum pressure	[bar]	2.0
Maximum pressure	[bar]	8.0
Closing time	[s]	0.03
Opening time	[s]	0.03
Max. permitted finger length	[mm]	15.0
Max. permitted weight per finger	[kg]	0.01
IP rating		30
Min. ambient temperature	[°C]	-10.0
Max. ambient temperature	[°C]	90.0
Repeat accuracy	[mm]	0.02

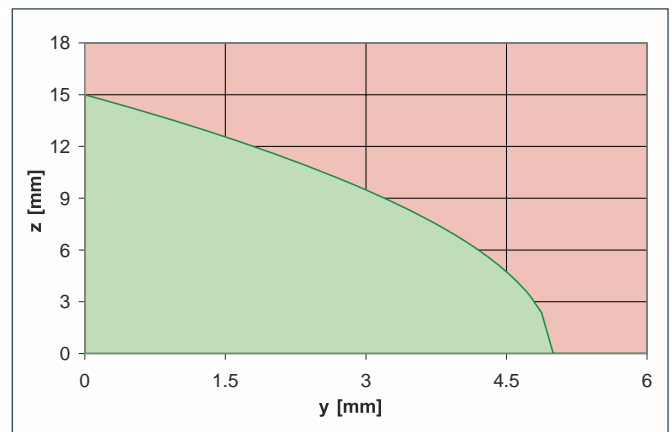
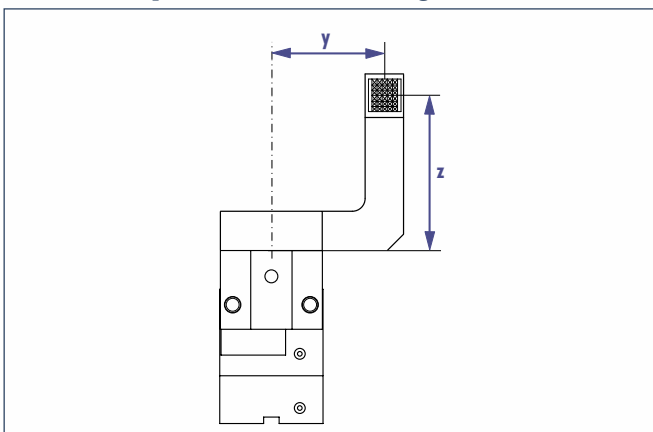
Main views



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

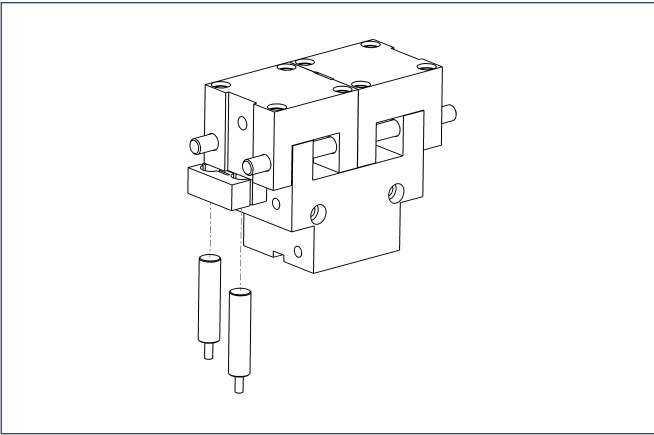
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Maximum permitted overhang



- Permitted range
- Non-permissible range

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
INK 40/S	0301555	

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

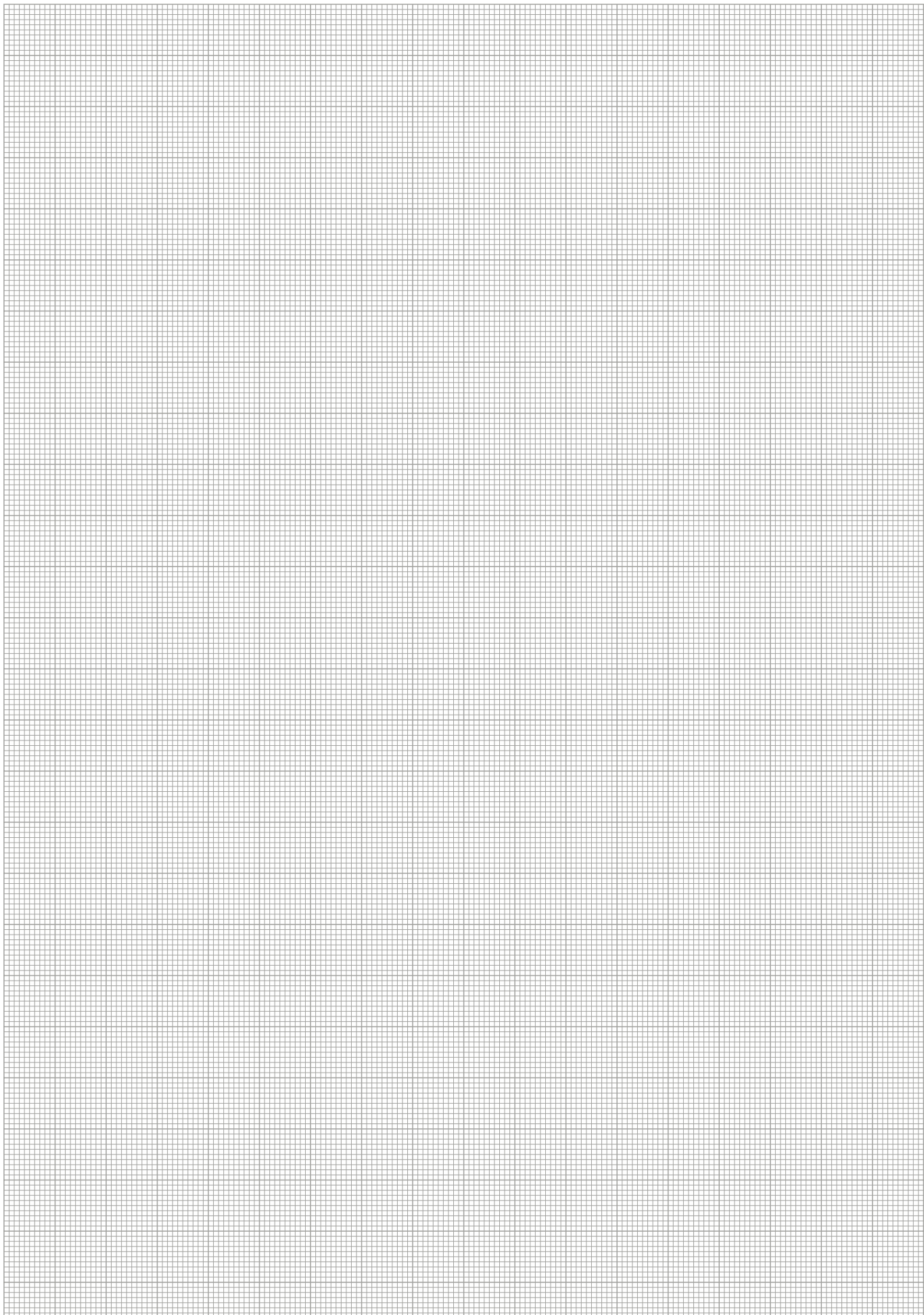
Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

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

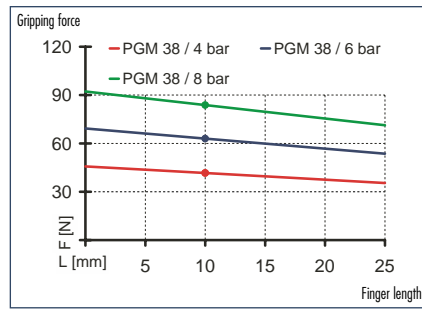


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

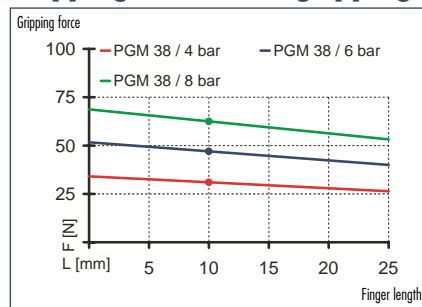




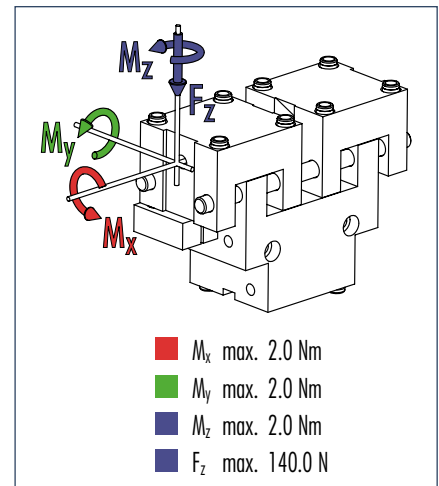
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

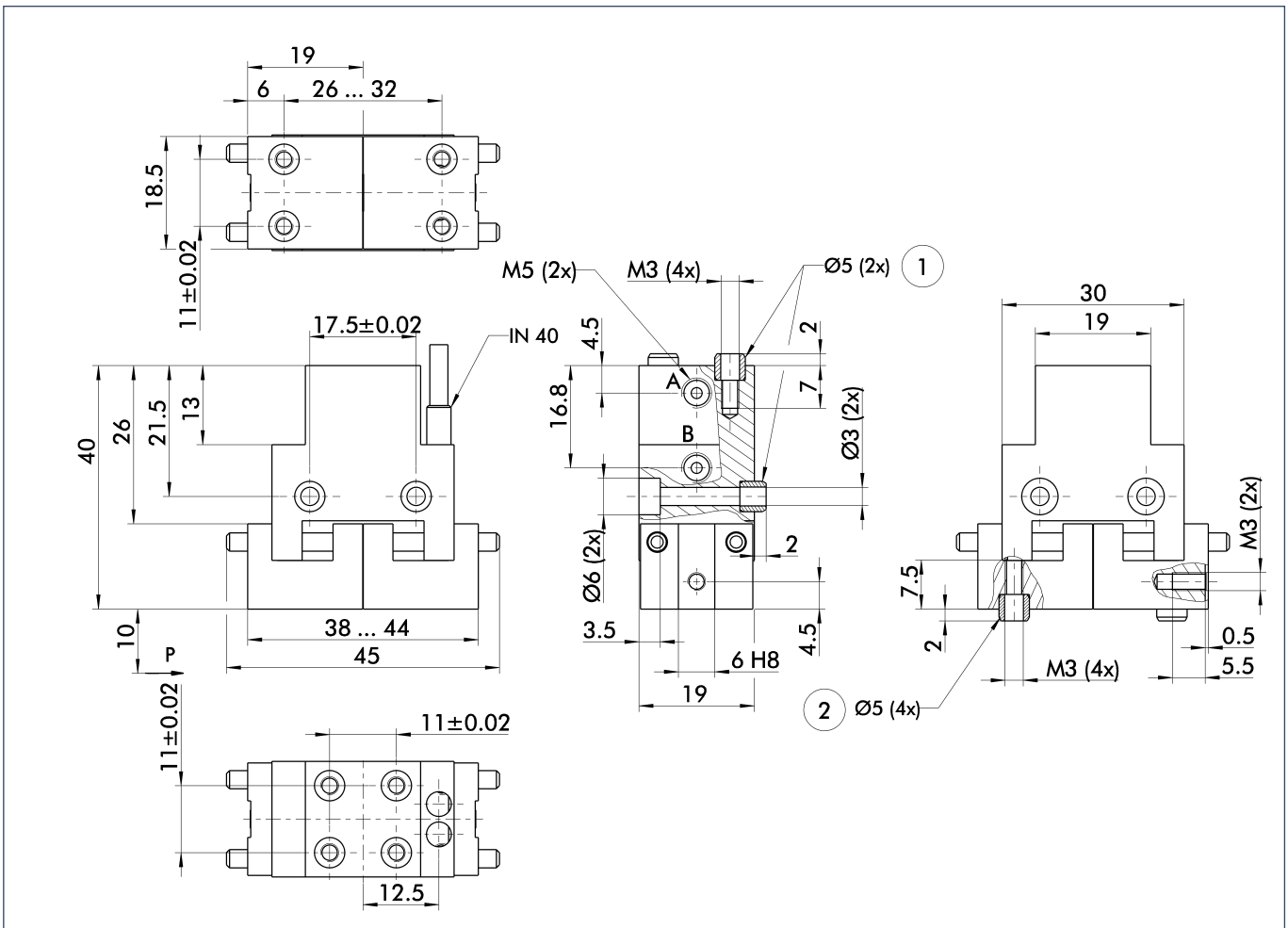


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing.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

Technical data

Description	PGM 38	
ID	0302681	
Stroke per finger	[mm]	3.0
Closing force	[N]	47.0
Opening force	[N]	63.0
Weight	[kg]	0.05
Recommended workpiece weight	[kg]	0.235
Air consumption per double stroke	[cm ³]	0.34
Nominal pressure	[bar]	6.0
Minimum pressure	[bar]	2.0
Maximum pressure	[bar]	8.0
Closing time	[s]	0.03
Opening time	[s]	0.03
Max. permitted finger length	[mm]	25.0
Max. permitted weight per finger	[kg]	0.017
IP rating		30
Min. ambient temperature	[°C]	-10.0
Max. ambient temperature	[°C]	90.0
Repeat accuracy	[mm]	0.02

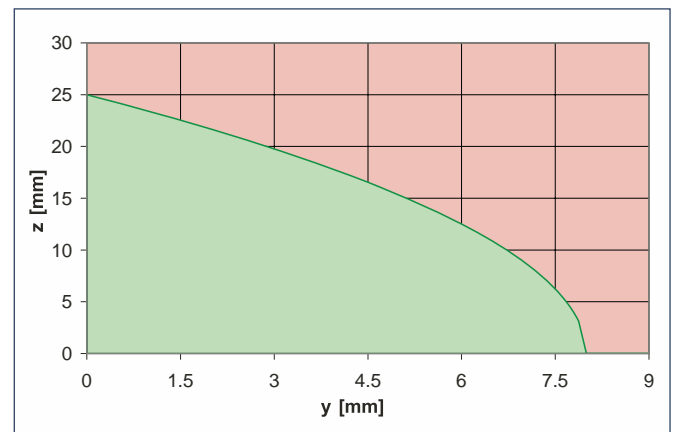
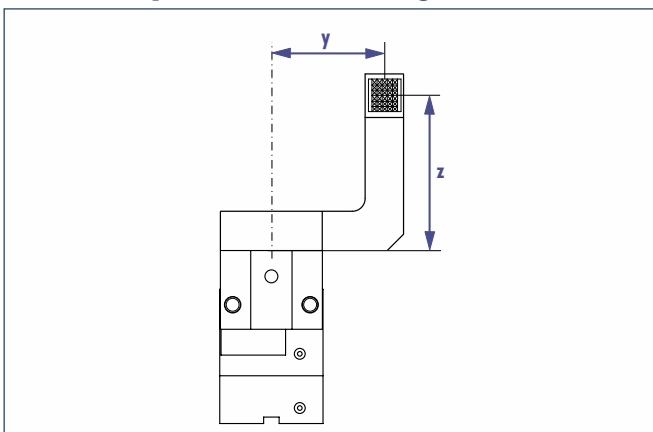
Main views



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

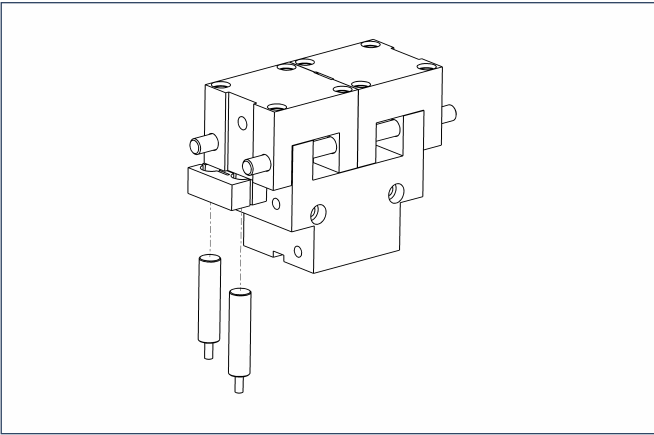
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Maximum permitted overhang



- Permitted range
- Non-permissible range

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
INK 40/S	0301555	

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

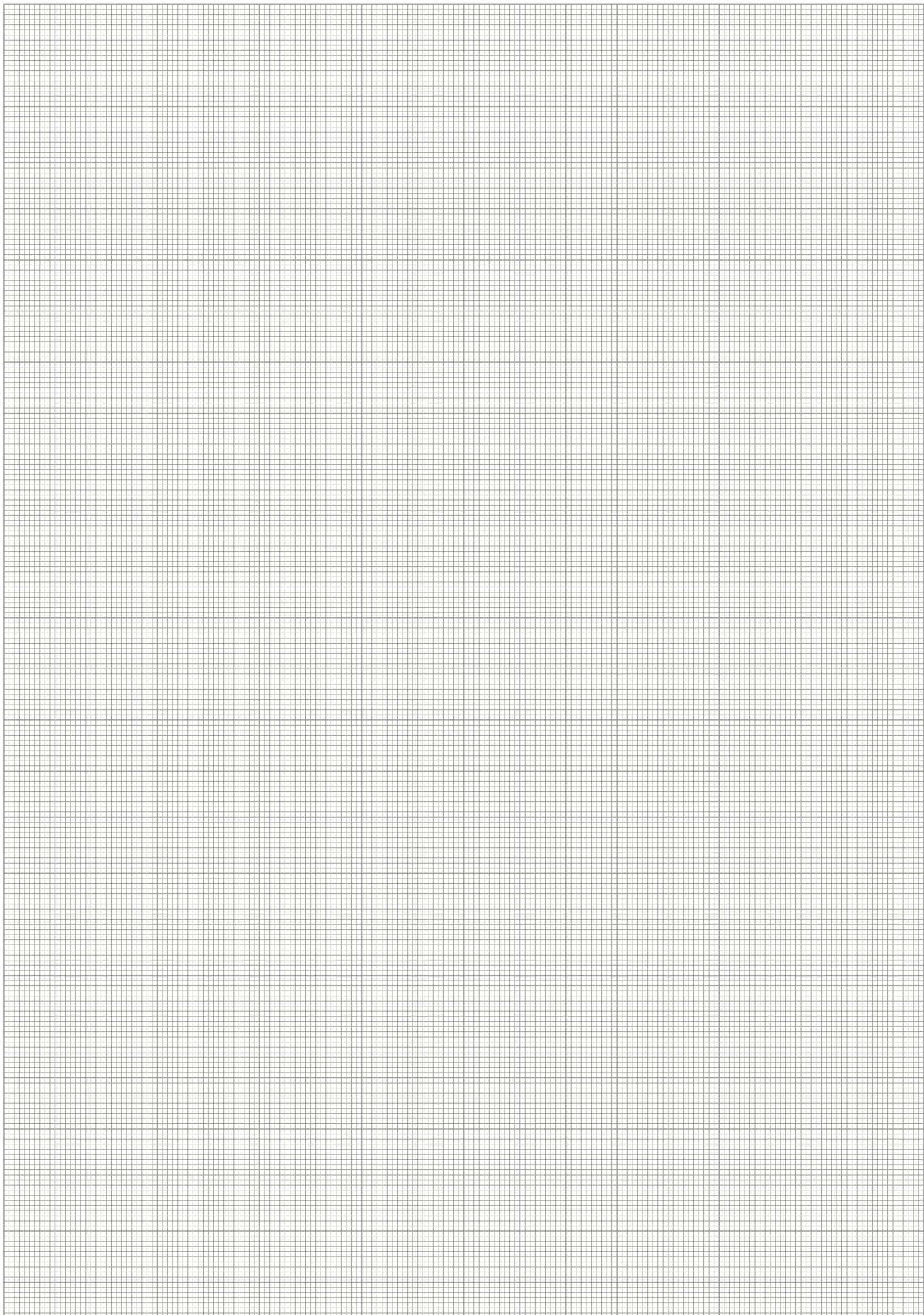
Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

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

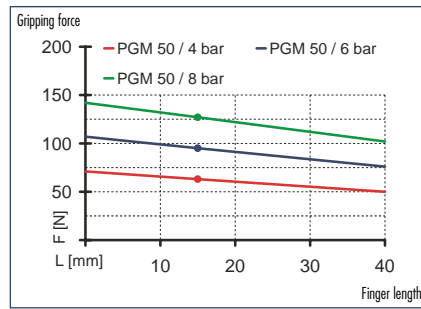


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

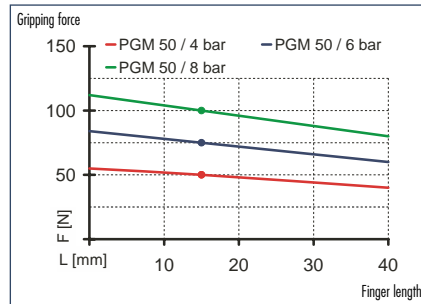




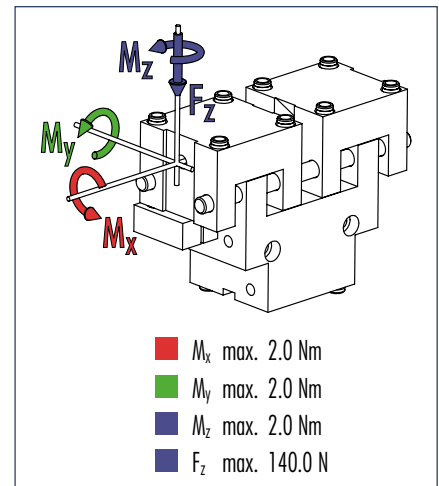
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

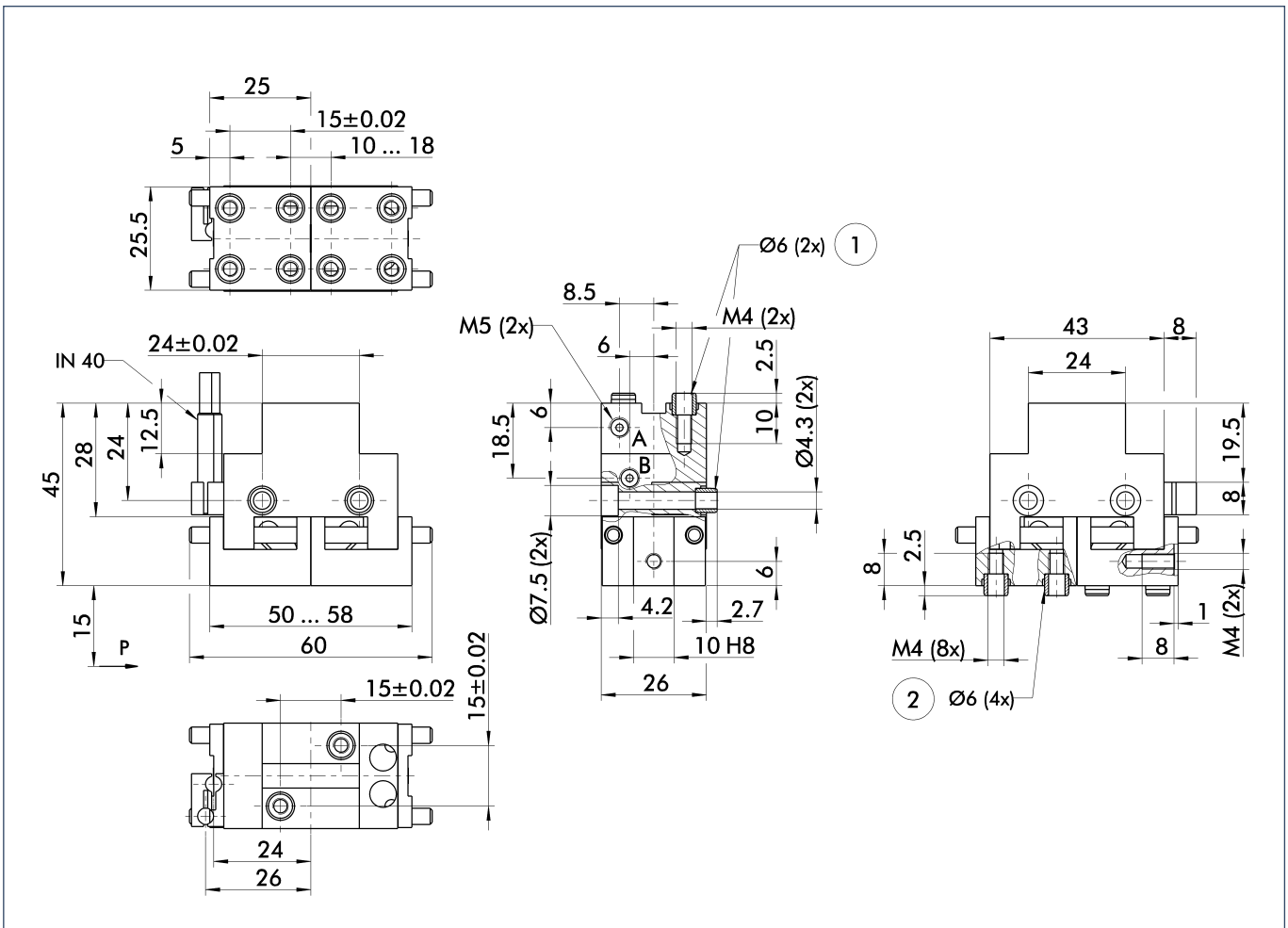


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing.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

Technical data

Description	PGM 50
ID	0302682
Stroke per finger	[mm] 4.0
Closing force	[N] 75.0
Opening force	[N] 95.0
Weight	[kg] 0.105
Recommended workpiece weight	[kg] 0.375
Air consumption per double stroke	[cm ³] 0.8
Nominal pressure	[bar] 6.0
Minimum pressure	[bar] 2.0
Maximum pressure	[bar] 8.0
Closing time	[s] 0.04
Opening time	[s] 0.04
Max. permitted finger length	[mm] 40.0
Max. permitted weight per finger	[kg] 0.035
IP rating	30
Min. ambient temperature	[°C] -10.0
Max. ambient temperature	[°C] 90.0
Repeat accuracy	[mm] 0.02

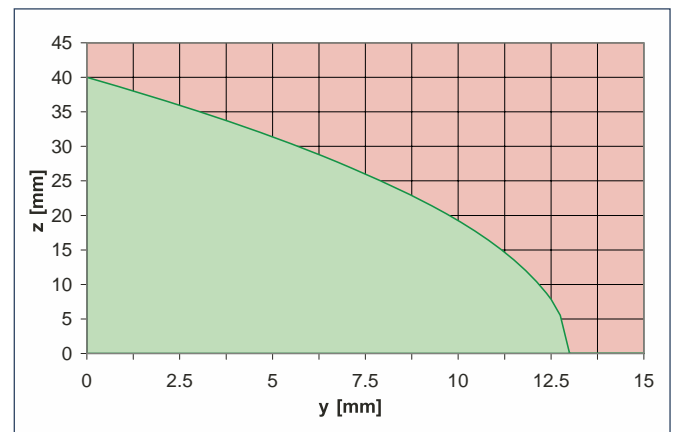
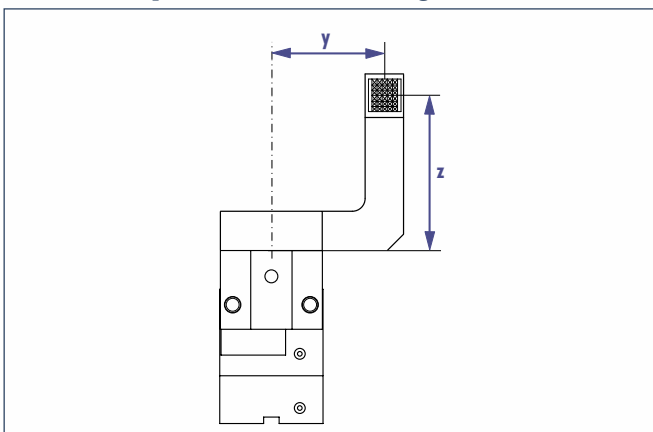
Main views



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

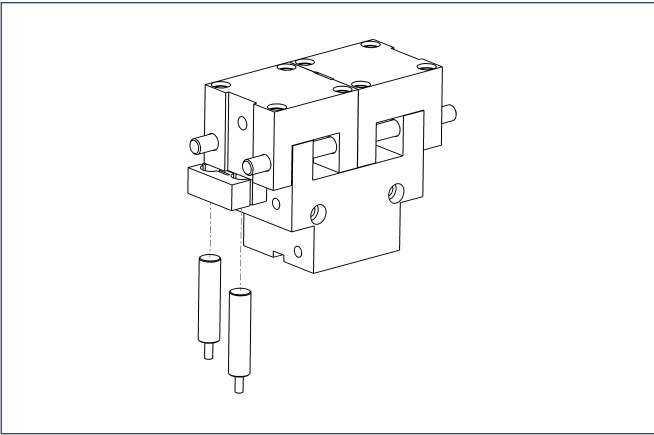
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- 1 Gripper connection
- 2 Finger connection

Maximum permitted overhang



- Green: Permitted range
- Red: Non-permissible range

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
INK 40/S	0301555	

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

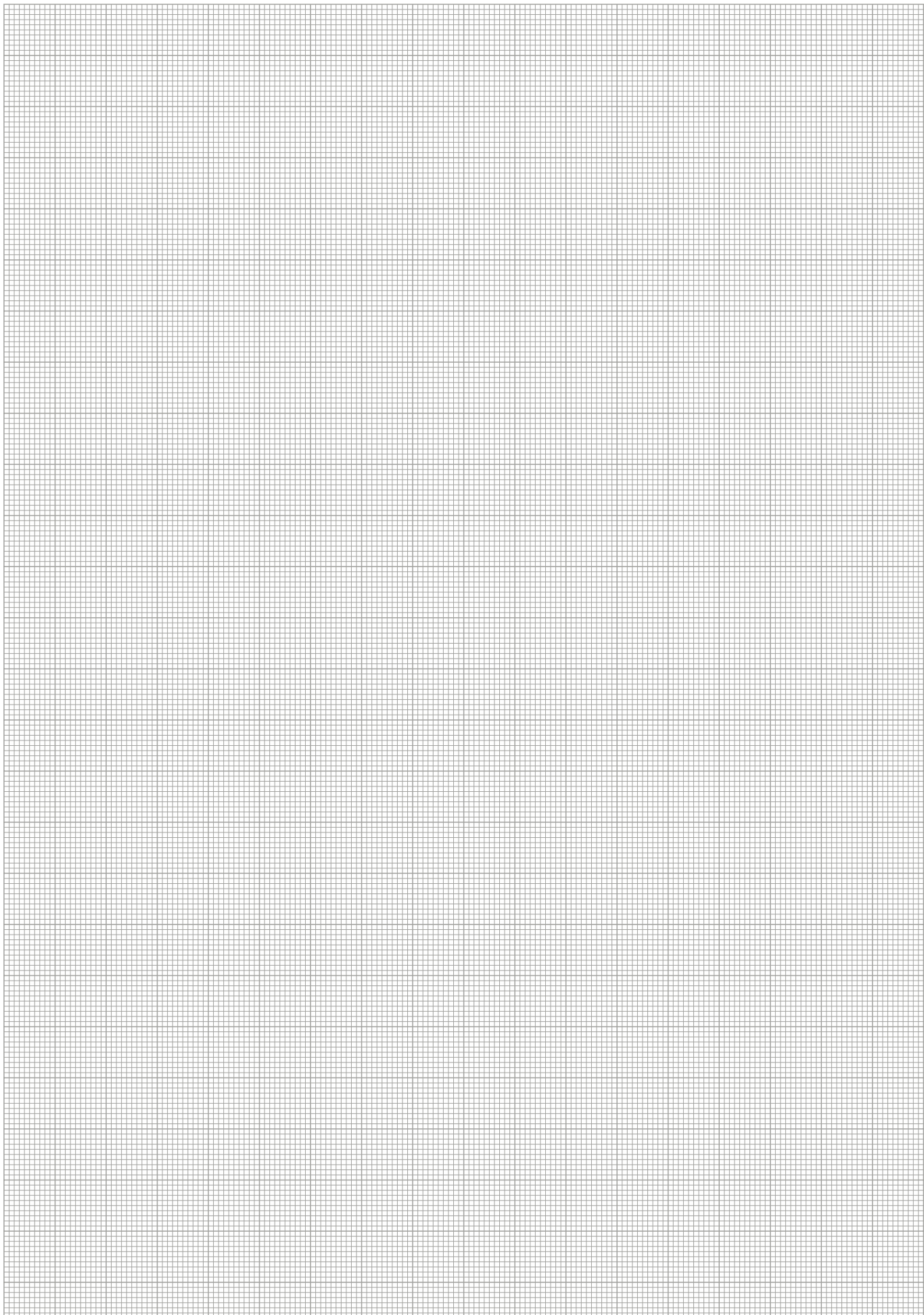
Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

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

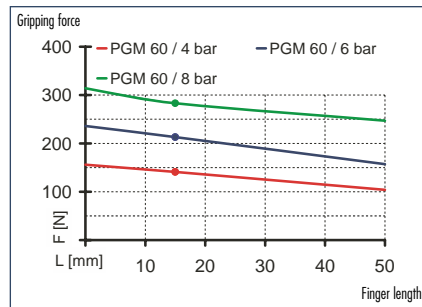


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

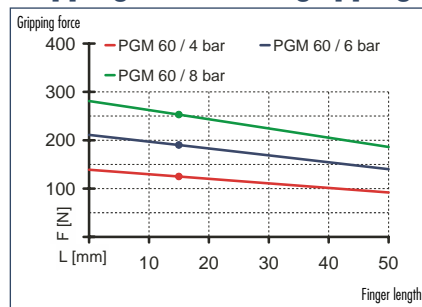




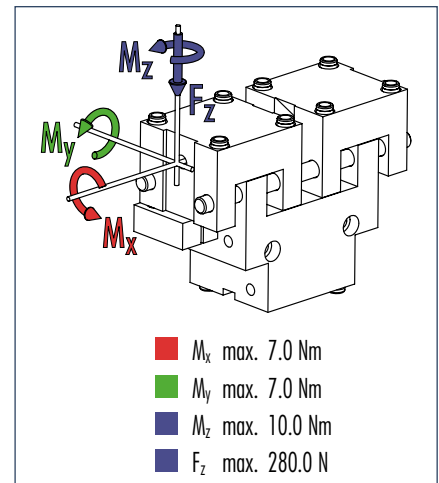
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

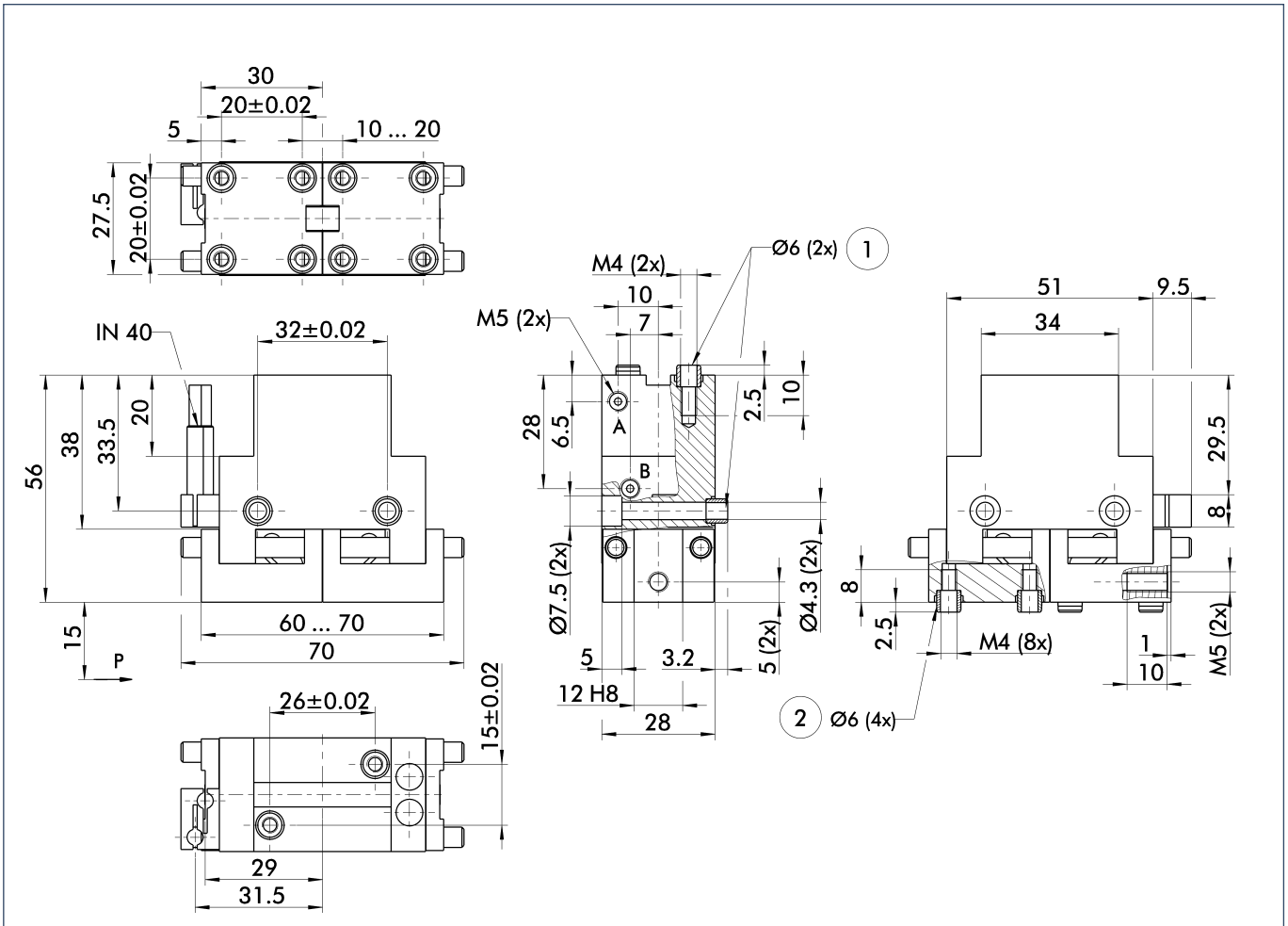


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing.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

Technical data

Description	PGM 60
ID	0302683
Stroke per finger	[mm] 5.0
Closing force	[N] 190.0
Opening force	[N] 210.0
Weight	[kg] 0.21
Recommended workpiece weight	[kg] 0.95
Air consumption per double stroke	[cm ³] 2.5
Nominal pressure	[bar] 6.0
Minimum pressure	[bar] 2.0
Maximum pressure	[bar] 8.0
Closing time	[s] 0.05
Opening time	[s] 0.05
Max. permitted finger length	[mm] 50.0
Max. permitted weight per finger	[kg] 0.07
IP rating	30
Min. ambient temperature	[°C] -10.0
Max. ambient temperature	[°C] 90.0
Repeat accuracy	[mm] 0.02

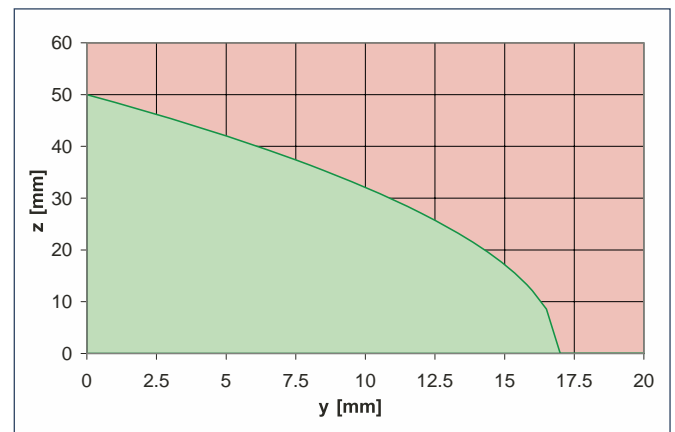
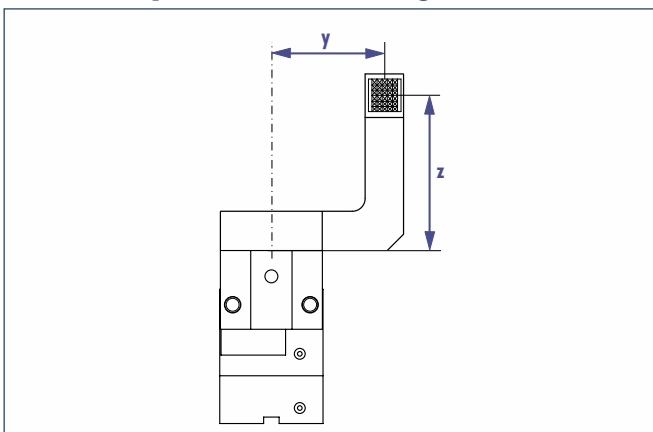
Main views



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

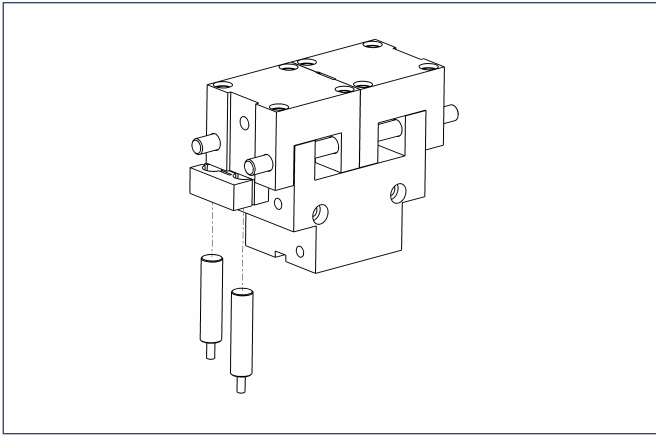
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Maximum permitted overhang



- Permitted range
- Non-permissible range

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40/S-M12	0301574	
IN 40/S-M8	0301474	•
INK 40/S	0301555	

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

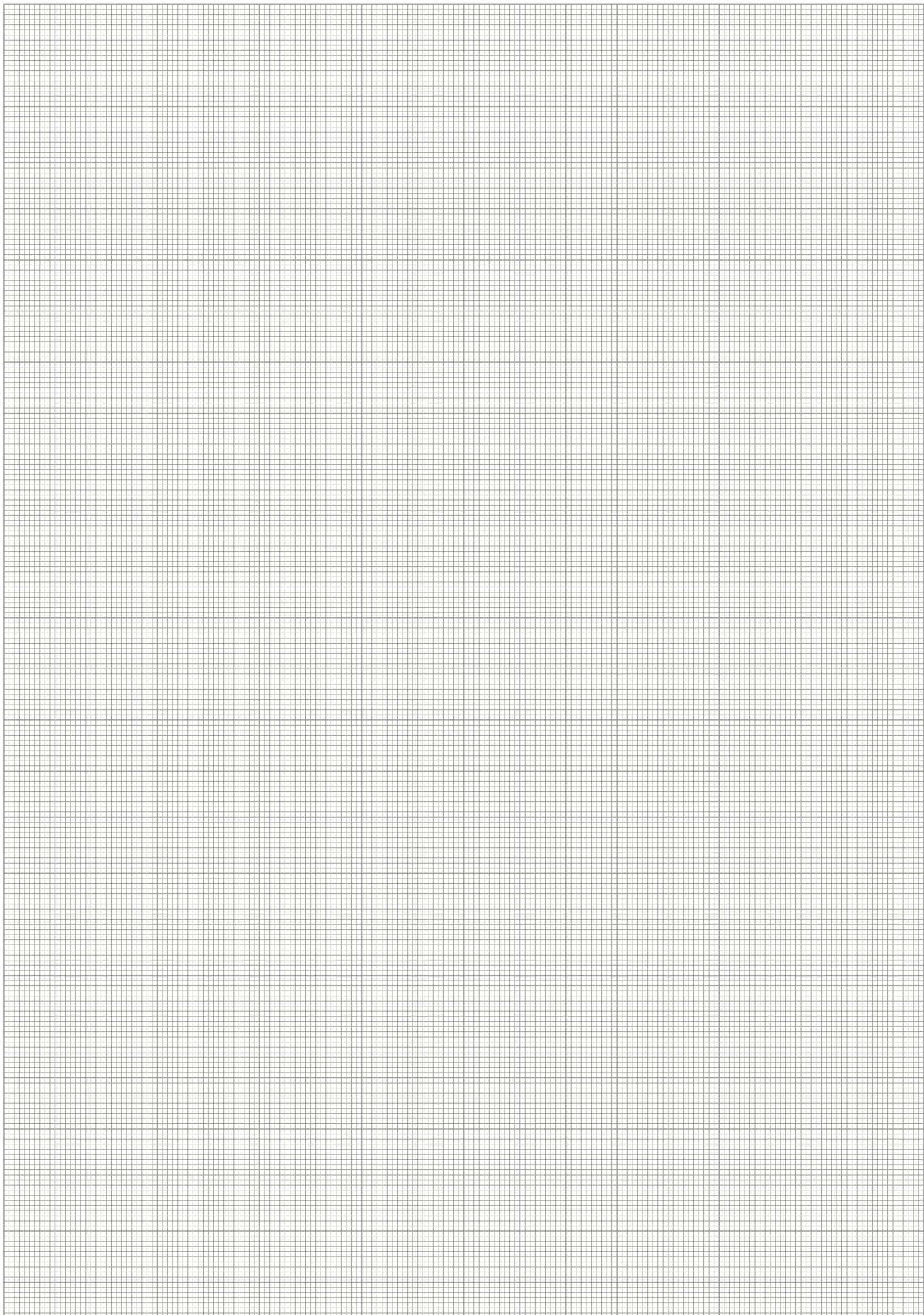
Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

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

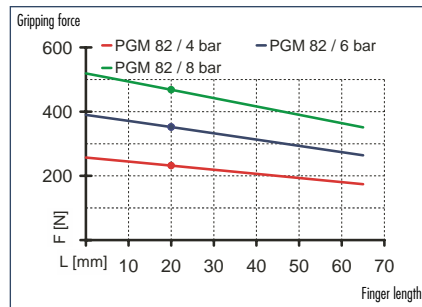


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

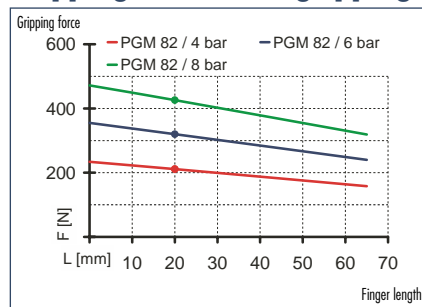




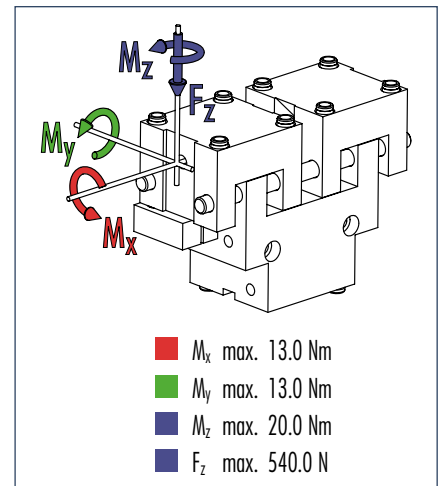
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

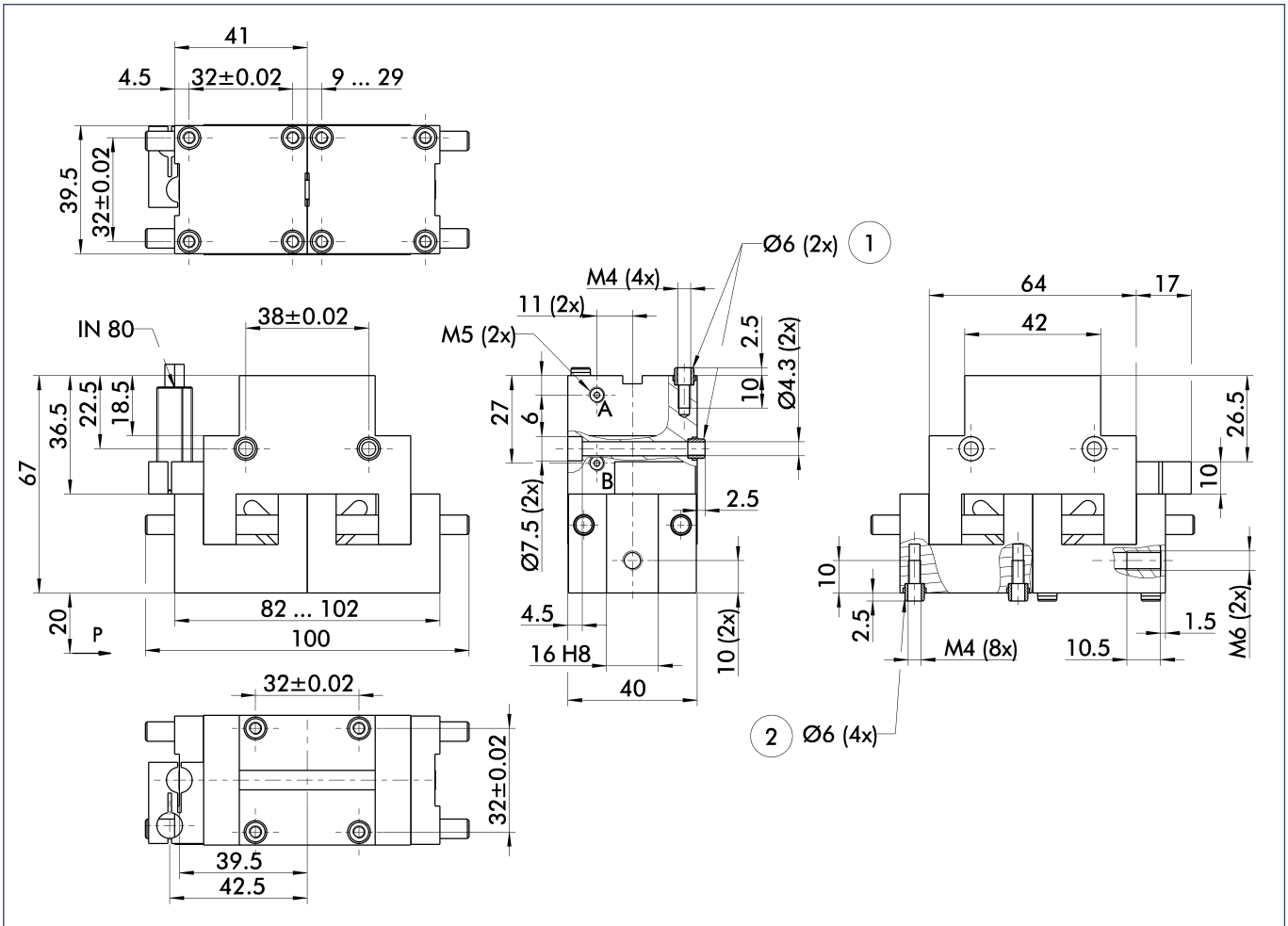


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing.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

Technical data

Description	PGM 82	
ID	0302684	
Stroke per finger	[mm]	10.0
Closing force	[N]	320.0
Opening force	[N]	350.0
Weight	[kg]	0.6
Recommended workpiece weight	[kg]	1.6
Air consumption per double stroke	[cm ³]	8.0
Nominal pressure	[bar]	6.0
Minimum pressure	[bar]	2.0
Maximum pressure	[bar]	8.0
Closing time	[s]	0.07
Opening time	[s]	0.07
Max. permitted finger length	[mm]	65.0
Max. permitted weight per finger	[kg]	0.17
IP rating		30
Min. ambient temperature	[°C]	-10.0
Max. ambient temperature	[°C]	90.0
Repeat accuracy	[mm]	0.03

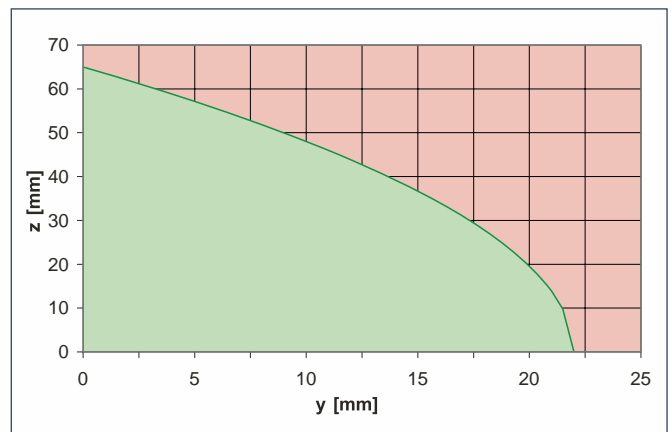
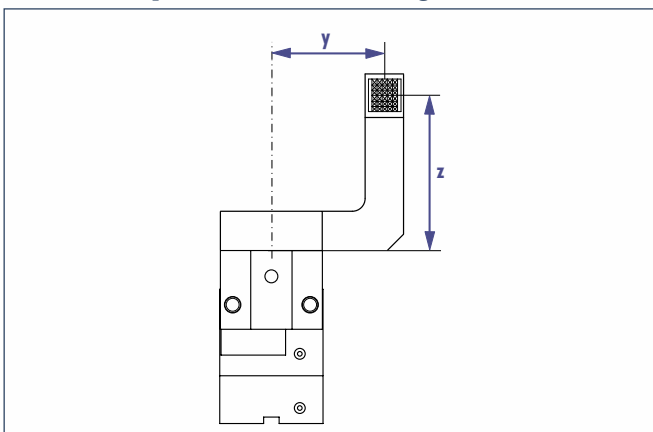
Main views



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

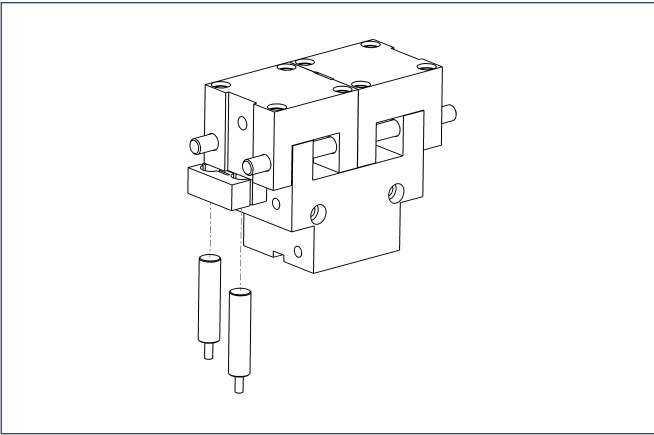
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Maximum permitted overhang



- Permitted range
- Non-permissible range

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

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

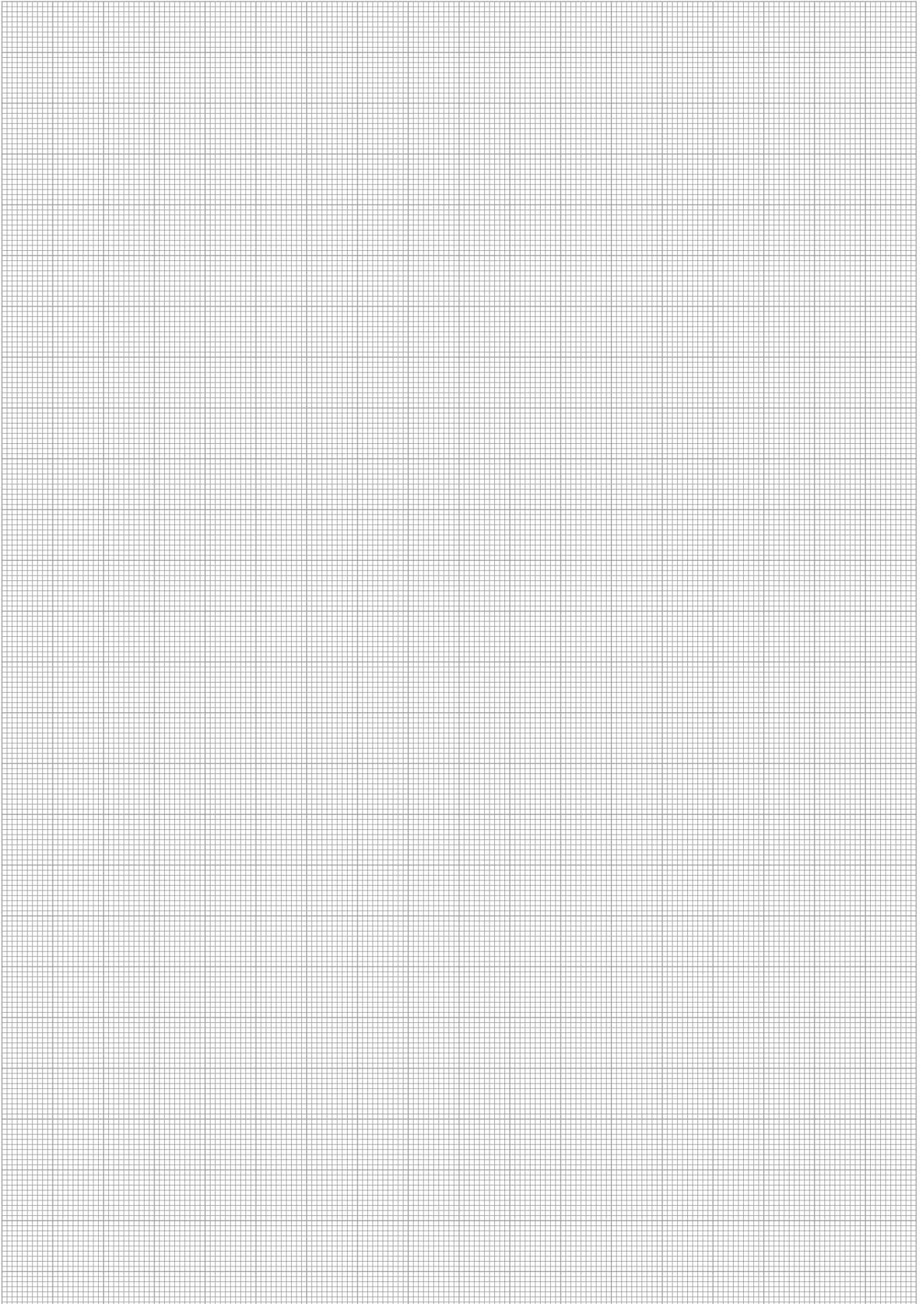
Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

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

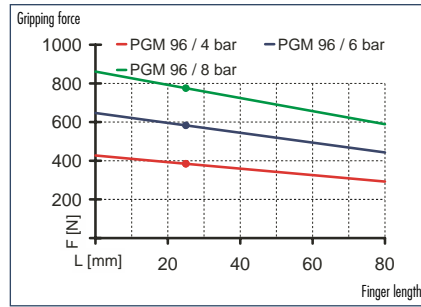


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

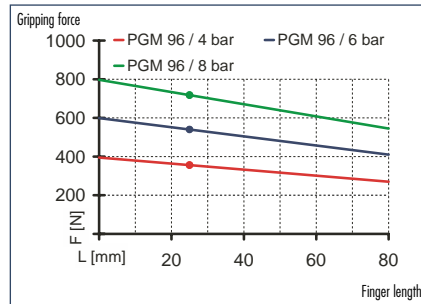




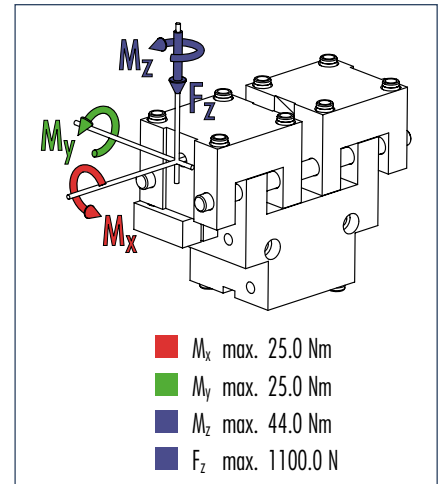
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

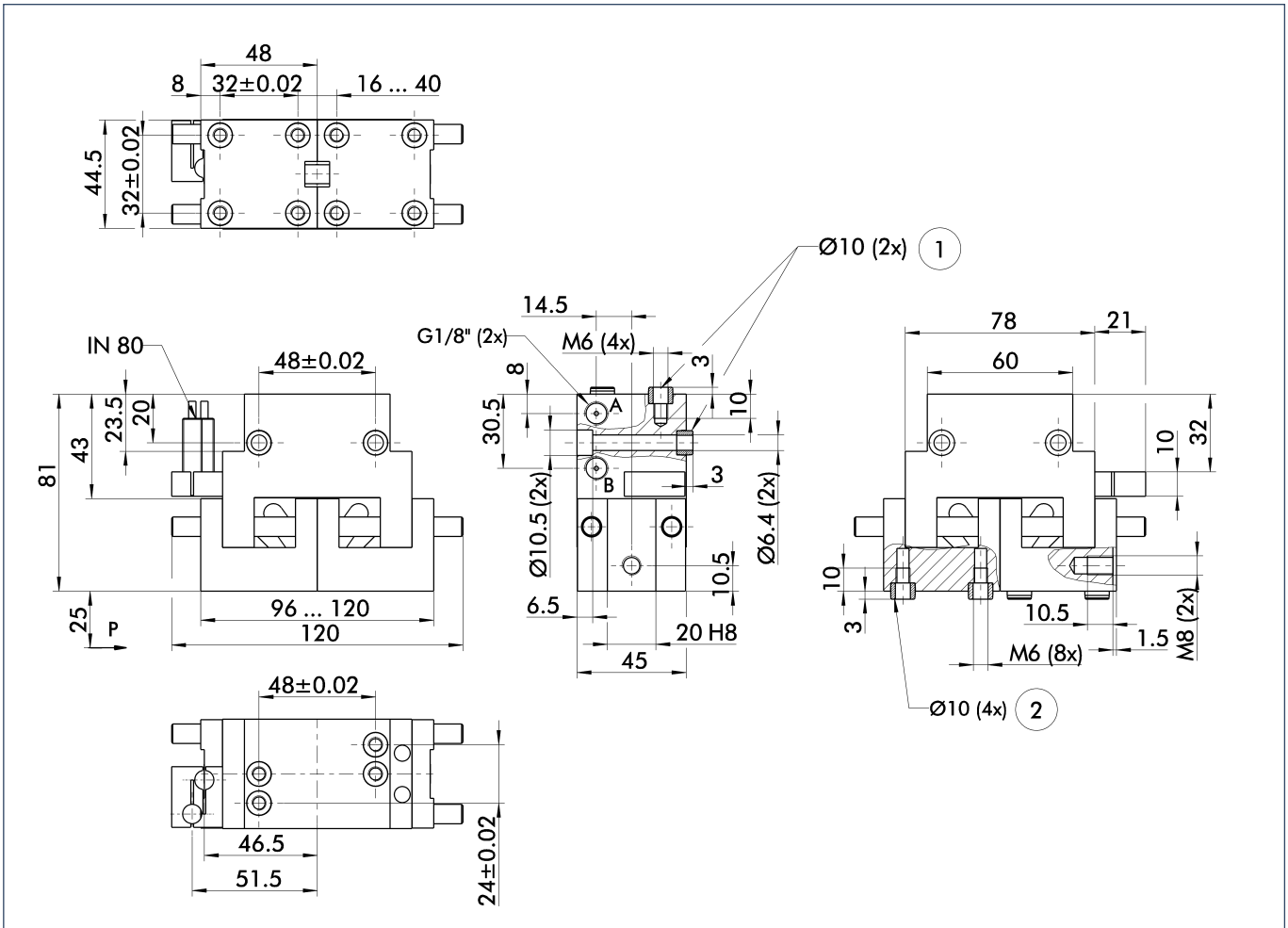


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing.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

Technical data

Description	PGM 96	
ID	0302685	
Stroke per finger	[mm]	12.0
Closing force	[N]	540.0
Opening force	[N]	580.0
Weight	[kg]	0.84
Recommended workpiece weight	[kg]	2.7
Air consumption per double stroke	[cm ³]	15.1
Nominal pressure	[bar]	6.0
Minimum pressure	[bar]	2.0
Maximum pressure	[bar]	8.0
Closing time	[s]	0.08
Opening time	[s]	0.08
Max. permitted finger length	[mm]	80.0
Max. permitted weight per finger	[kg]	0.28
IP rating		30
Min. ambient temperature	[°C]	-10.0
Max. ambient temperature	[°C]	90.0
Repeat accuracy	[mm]	0.03

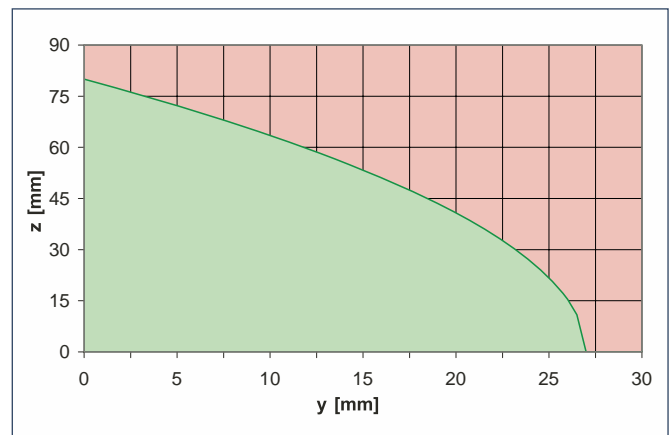
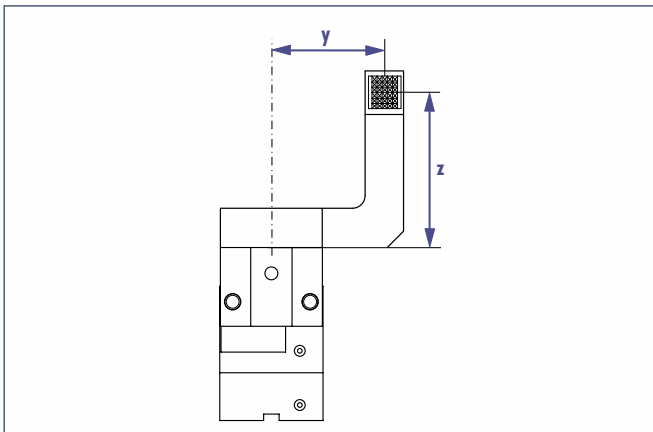
Main views



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

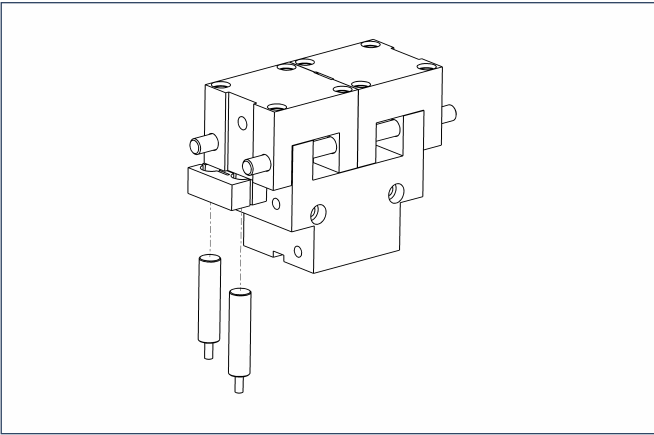
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Maximum permitted overhang



- Permitted range
- Non-permissible range

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

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

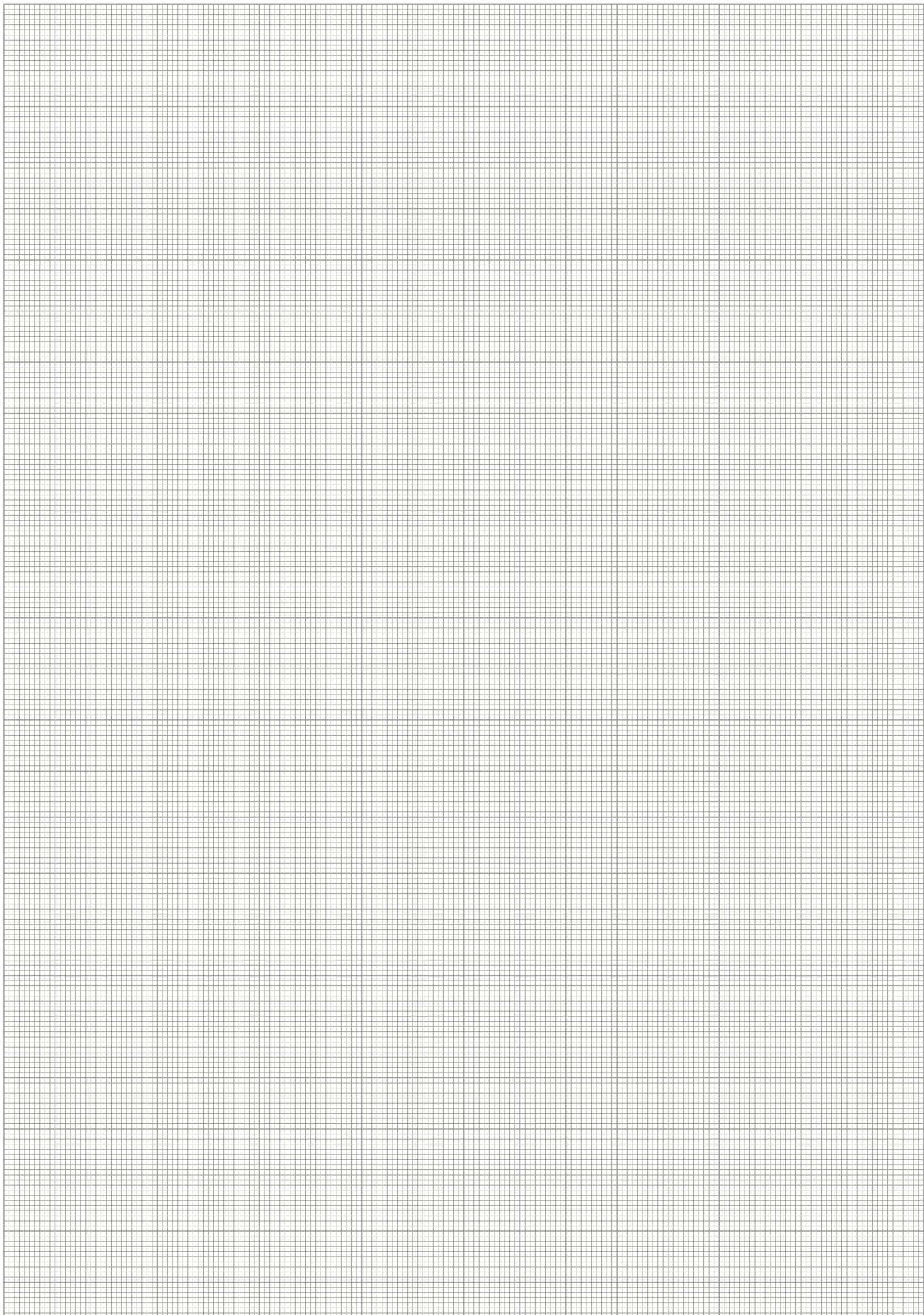
Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

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

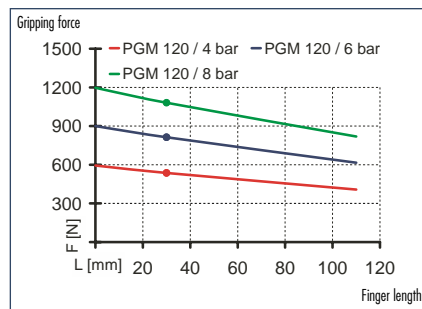


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

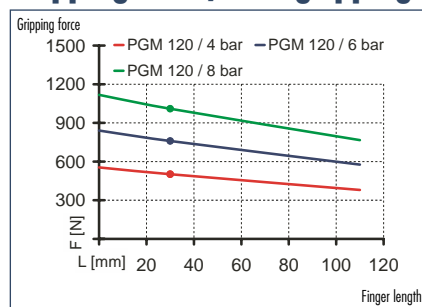




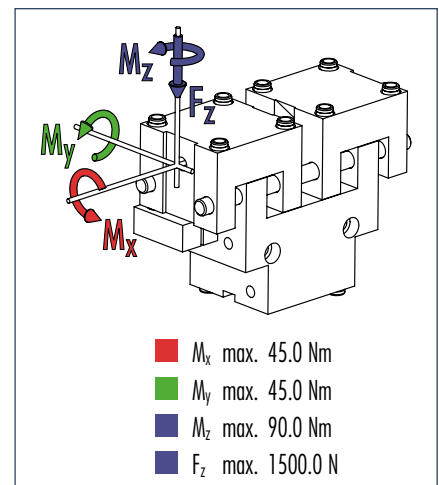
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

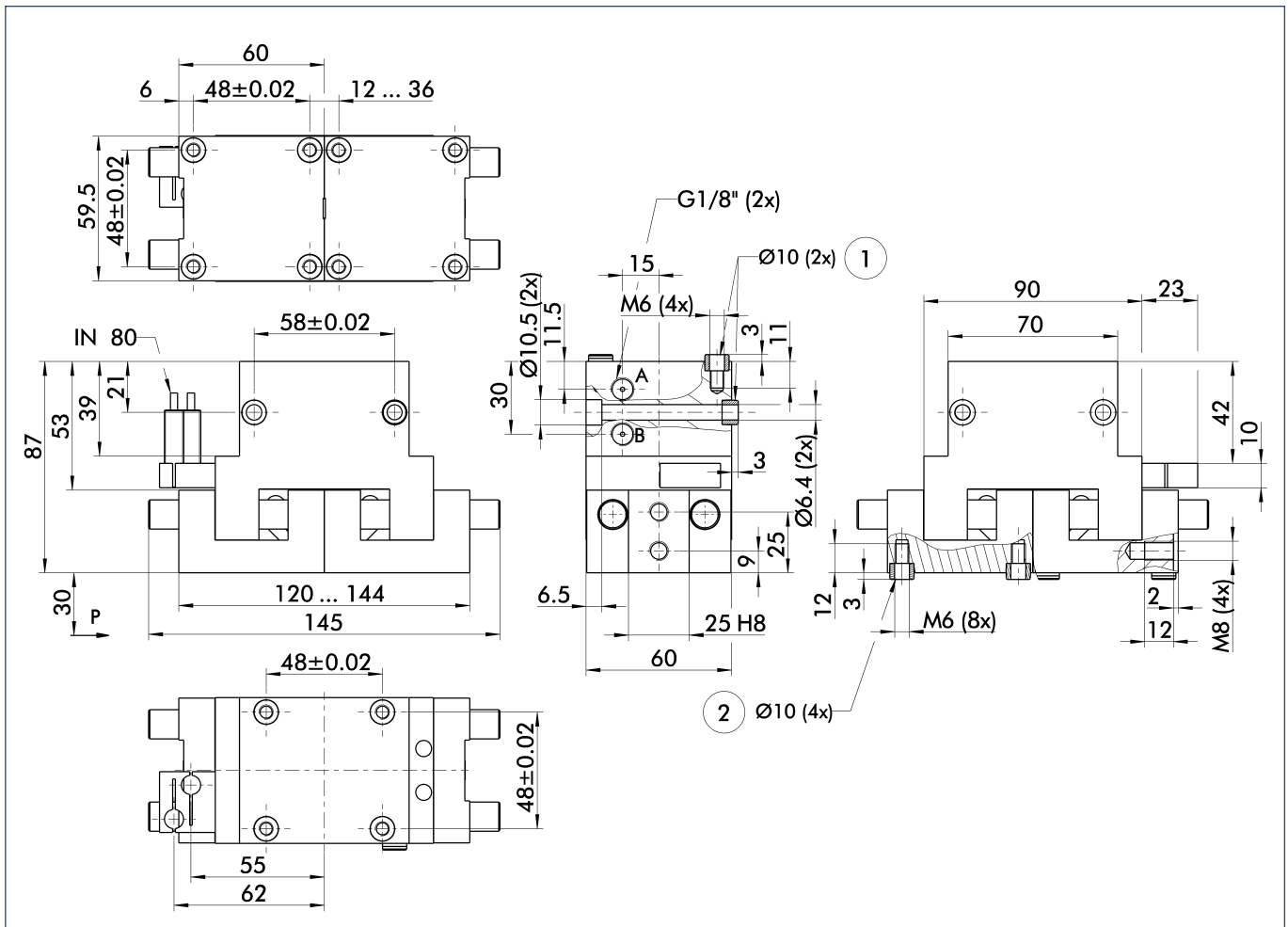


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing.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

Technical data

Description	PGM 120	
ID	0302686	
Stroke per finger	[mm]	12.0
Closing force	[N]	760.0
Opening force	[N]	810.0
Weight	[kg]	1.26
Recommended workpiece weight	[kg]	3.8
Air consumption per double stroke	[cm ³]	23.6
Nominal pressure	[bar]	6.0
Minimum pressure	[bar]	2.0
Maximum pressure	[bar]	8.0
Closing time	[s]	0.1
Opening time	[s]	0.1
Max. permitted finger length	[mm]	110.0
Max. permitted weight per finger	[kg]	0.58
IP rating		30
Min. ambient temperature	[°C]	-10.0
Max. ambient temperature	[°C]	90.0
Repeat accuracy	[mm]	0.03

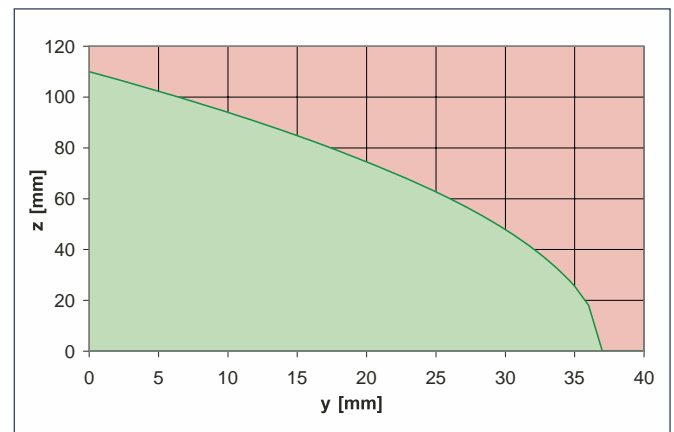
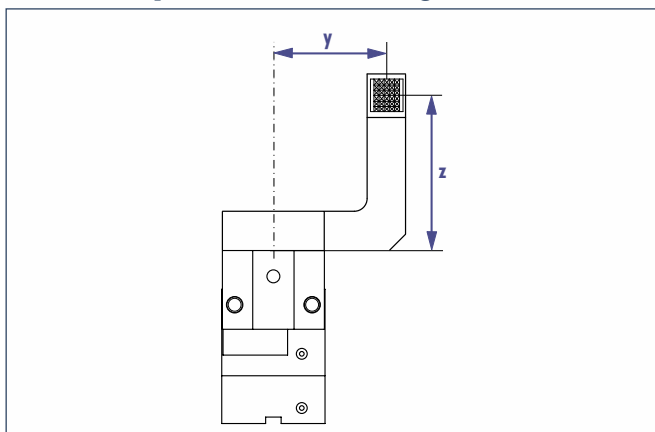
Main views



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

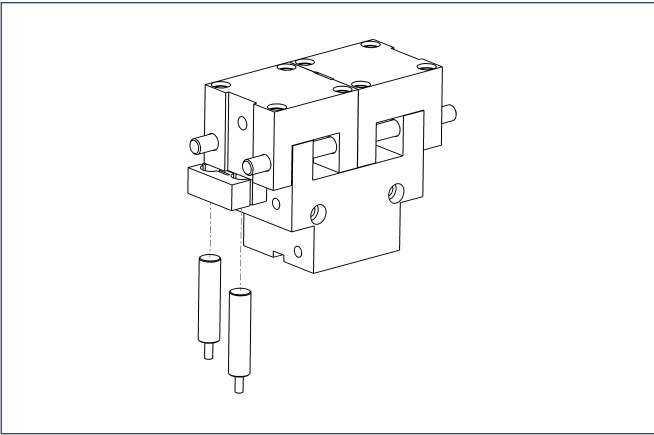
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

Maximum permitted overhang



- Permitted range
- Non-permissible range

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

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

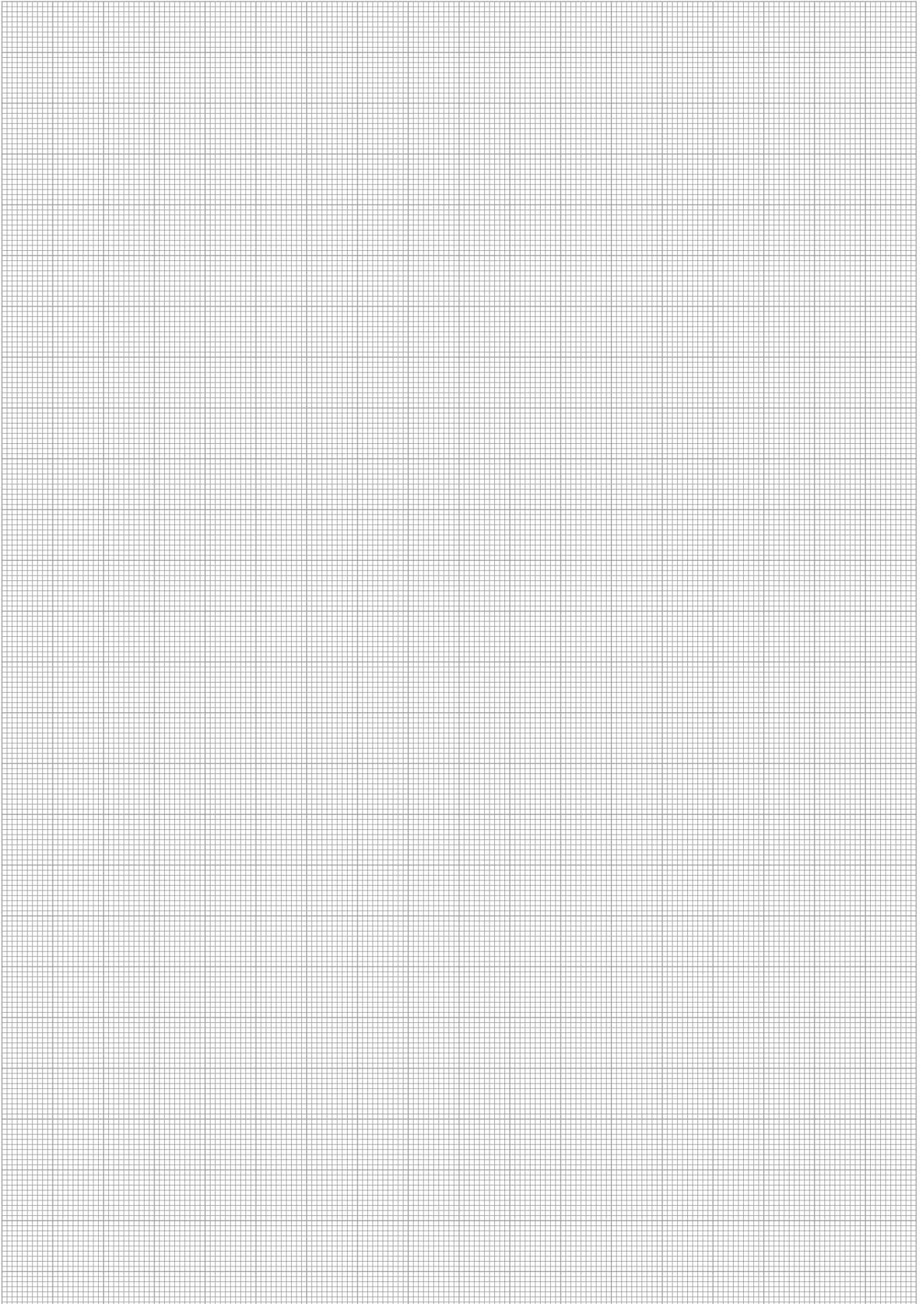
Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

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

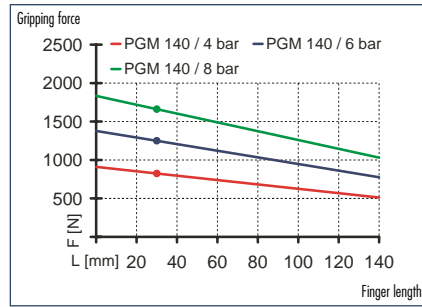


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

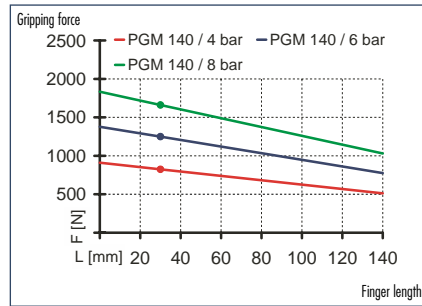




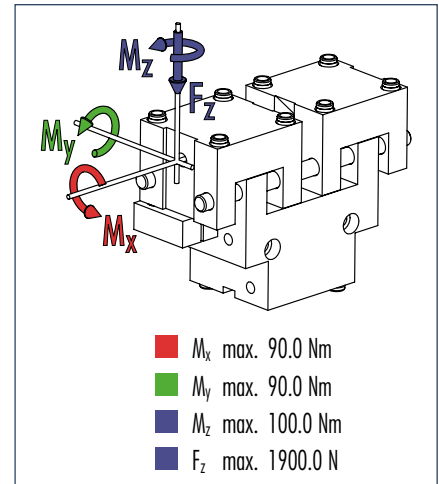
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

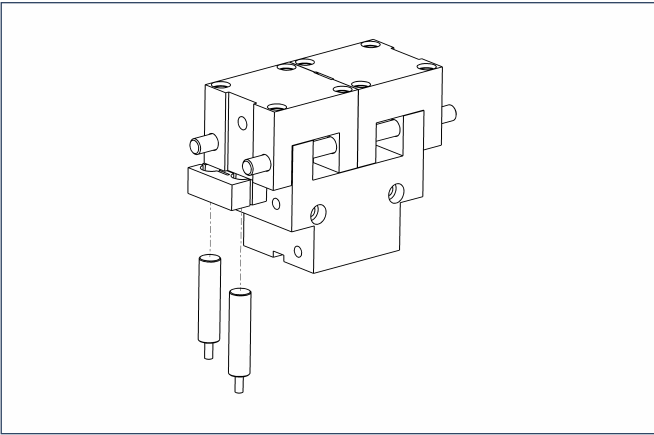


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing.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

Technical data

Description	PGM 140	
ID	0302687	
Stroke per finger	[mm]	15.0
Closing force	[N]	1180.0
Opening force	[N]	1250.0
Weight	[kg]	2.55
Recommended workpiece weight	[kg]	5.9
Air consumption per double stroke	[cm ³]	46.8
Nominal pressure	[bar]	6.0
Minimum pressure	[bar]	2.0
Maximum pressure	[bar]	8.0
Closing time	[s]	0.12
Opening time	[s]	0.12
Max. permitted finger length	[mm]	140.0
Max. permitted weight per finger	[kg]	1.0
IP rating		30
Min. ambient temperature	[°C]	-10.0
Max. ambient temperature	[°C]	90.0
Repeat accuracy	[mm]	0.03

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80/S-M12	0301578	
IN 80/S-M8	0301478	•
INK 80/S	0301550	

- 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
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

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



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

