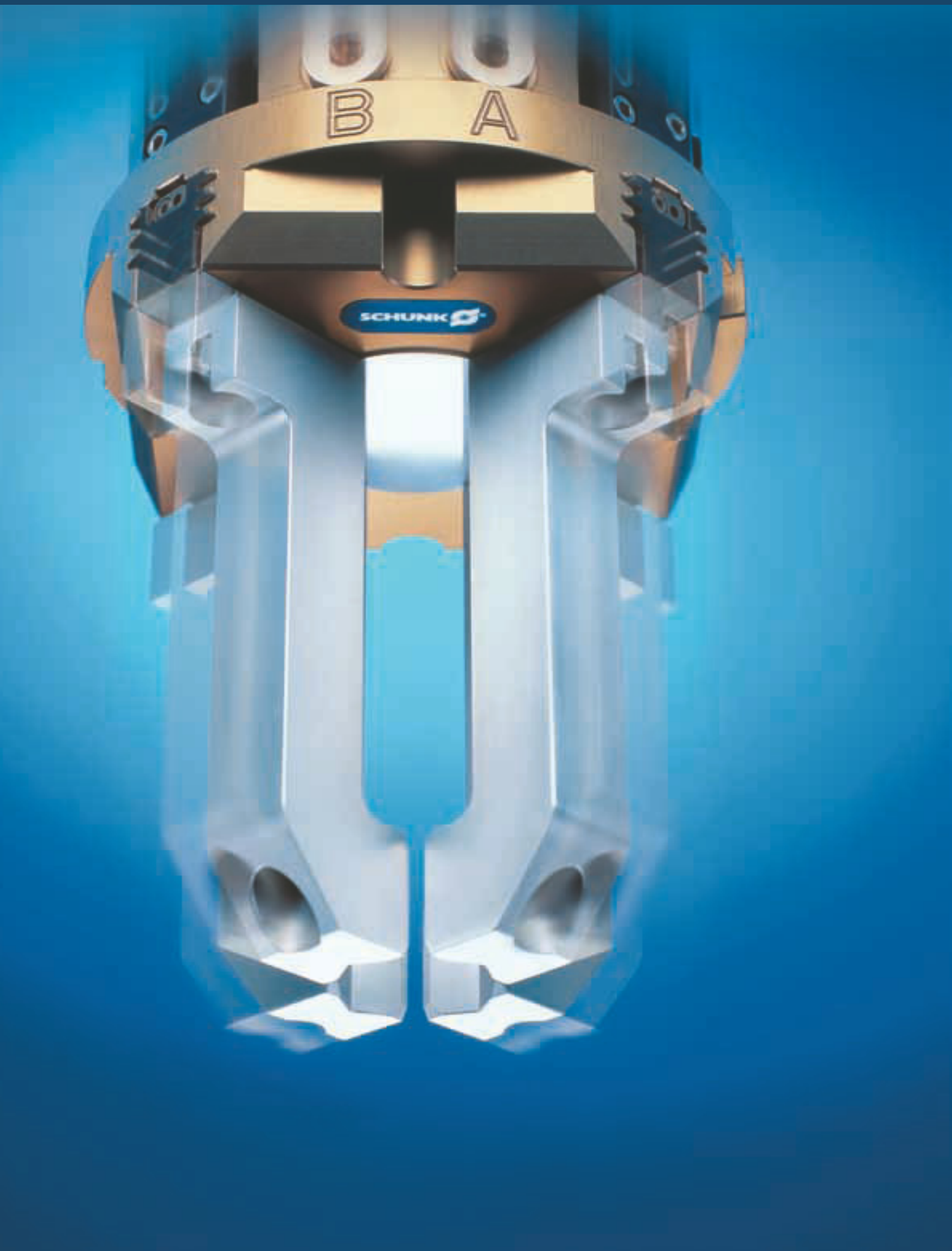
Pneumatic Gripping Modules

Pneumatic • Multi-Finger Concentric Gripper



MULTI-FINGER CONCENTRIC GRIPPER

PZV

Sizes
64 ... 200

Weight
0.5 kg ... 10 kg

Gripping force
570 N ... 6900 N

Stroke per finger
4 mm ... 16 mm

Workpiece weight
2.8 kg ... 34.5 kg

Application example

Centering and rotating unit for the precise picking up, orientation and subsequent joining of square materials

1. Multi-Finger Gripper PZV
2. OPS collision and overload protection device
3. Rotary Actuator SRU-plus

4-Finger Concentric Gripper

The multi-finger gripper for applications in which two or three fingers are insufficient.

Field of application

4-finger concentric grippers have advantages over the usual concentric grippers, for example when cylindrical workpieces are being magazined in tablets. The PZV handles the workpieces in a controlled, process reliable manner despite the interfering contours.

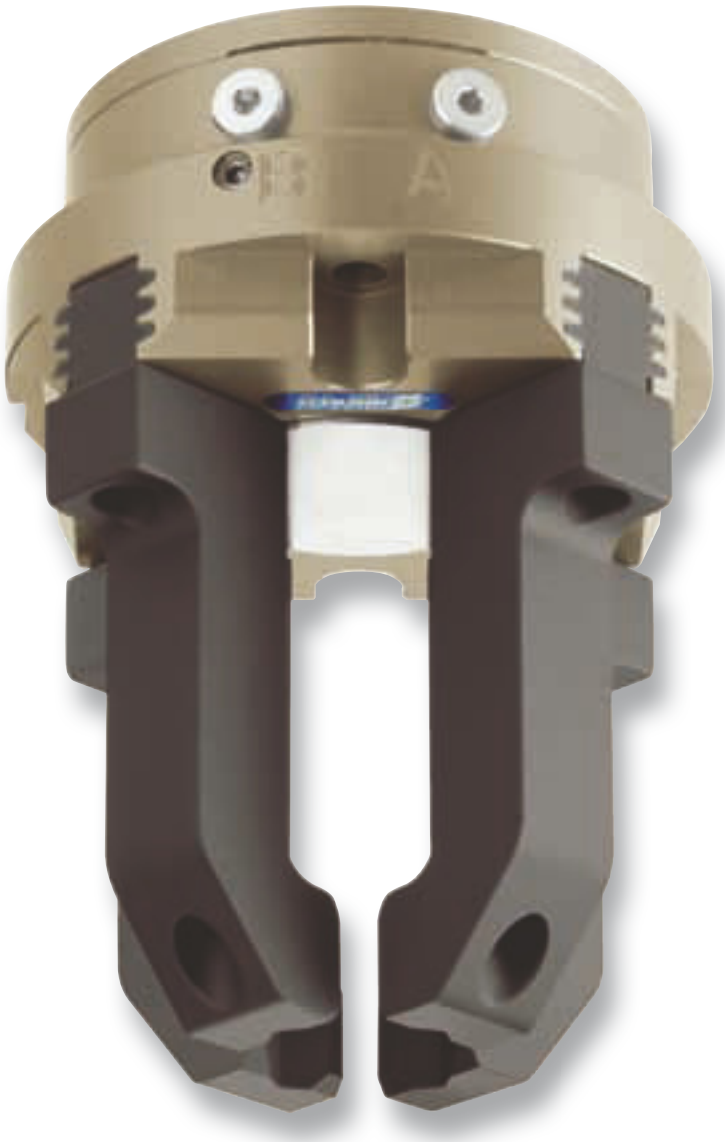
Your advantages and benefits

Robust multi-tooth guidance
for precise handling

Wedge-hook design
for high power transmission and synchronized gripping

Air supply via hose-free direct connection or screw connections
for the flexible supply of compressed air in all automation systems

Comprehensive sensor accessory program
for versatile interrogation possibilities and control of stroke position



General note to the series

Principle of function
Wedge-hook kinematics

Housing material
Aluminum alloy, hard-anodized

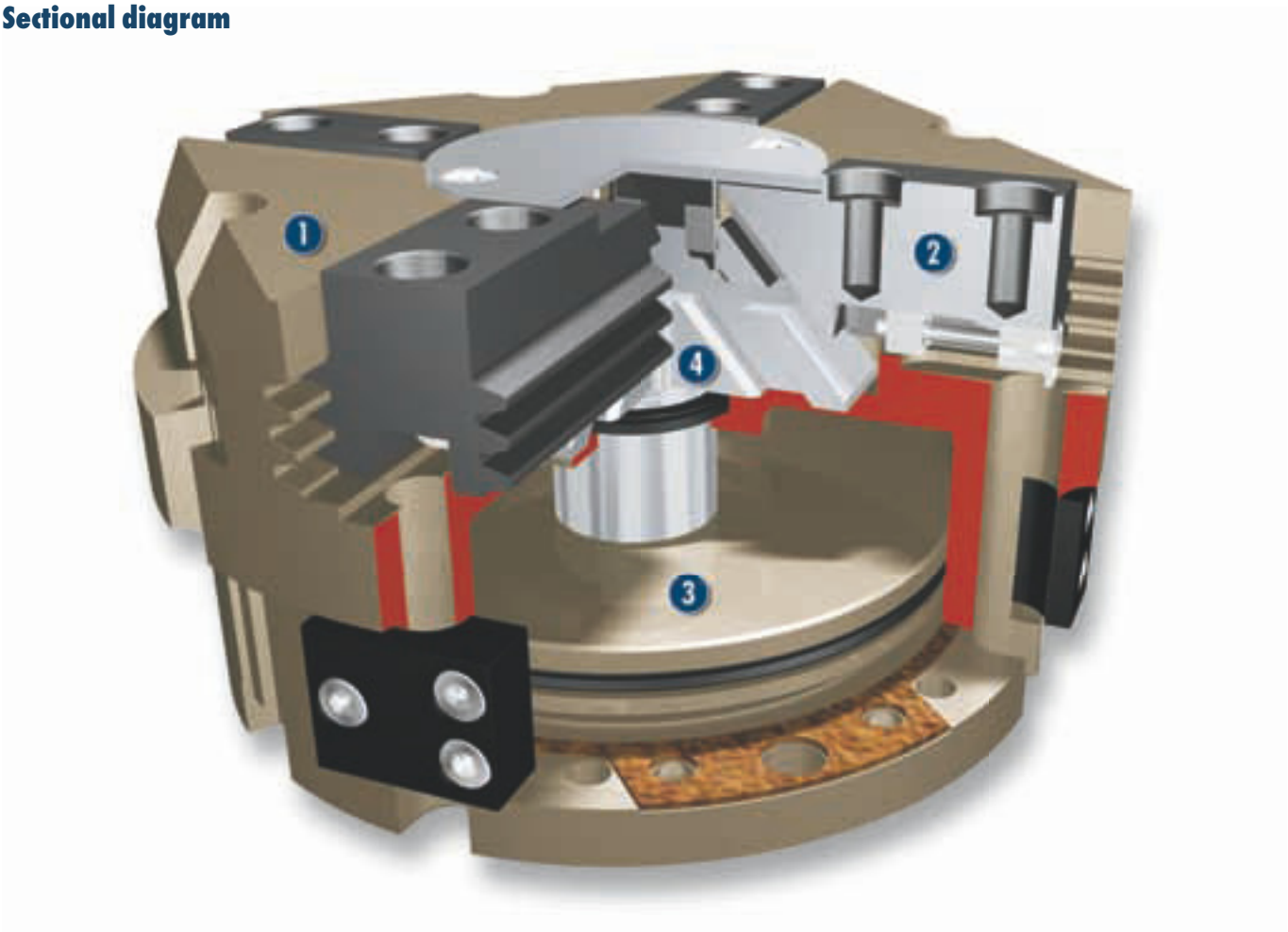
Base jaw material
Steel

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

Scope of delivery
Brackets for proximity switches, centering sleeves, O-rings for direct connection, assembly and operating manual with manufacturer's declaration

Sectional diagram



1 **Housing**
weight-optimized through application of hard-anodized, high-strength aluminum alloy

2 **Multiple-tooth guidance**
for mounting high loads onto the base jaw

3 **Drive**
through pneumatic double piston system

4 **Wedge-hook design**
for high power transmission and centric gripping

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

Intermediate sizes are available on request. Please note that the four-finger grip is an umbrella term, and may constitute a two or three-finger grip in certain cases.

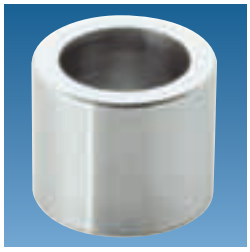
Pressure reduction by using two fingers

If the PZV is used as a double 2-finger parallel gripper (gripping with only 2 of the 4 fingers), in sizes PZV 160 and PZV 200 the pressure must be reduced to max. 5 bar.

Accessories

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

Centering sleeves



Fittings

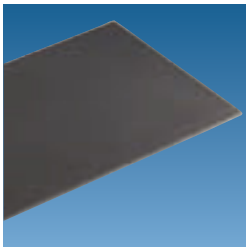
Magnetic Switches

Inductive proximity switches

Quick-change Jaw System

Sensor cables

Gripper pads



Sensor Distributor

Pressure maintenance valve

Finger blanks

Force measuring jaws

Flexible Position Sensor

ⓘ 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.

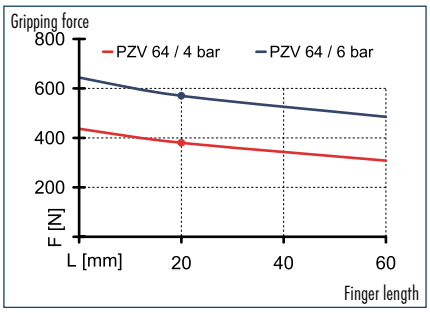
Repeat accuracy
is defined as the spread of the limit position after 100 consecutive strokes.

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.

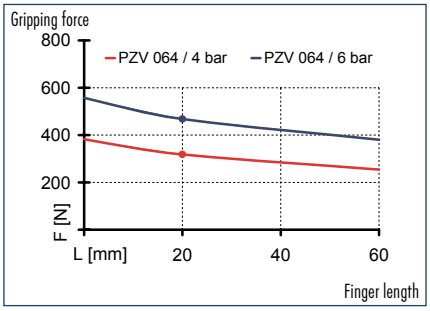
Closing and opening times
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.

PZV 64

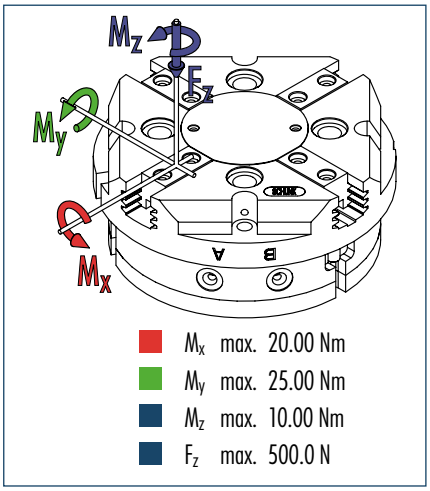
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

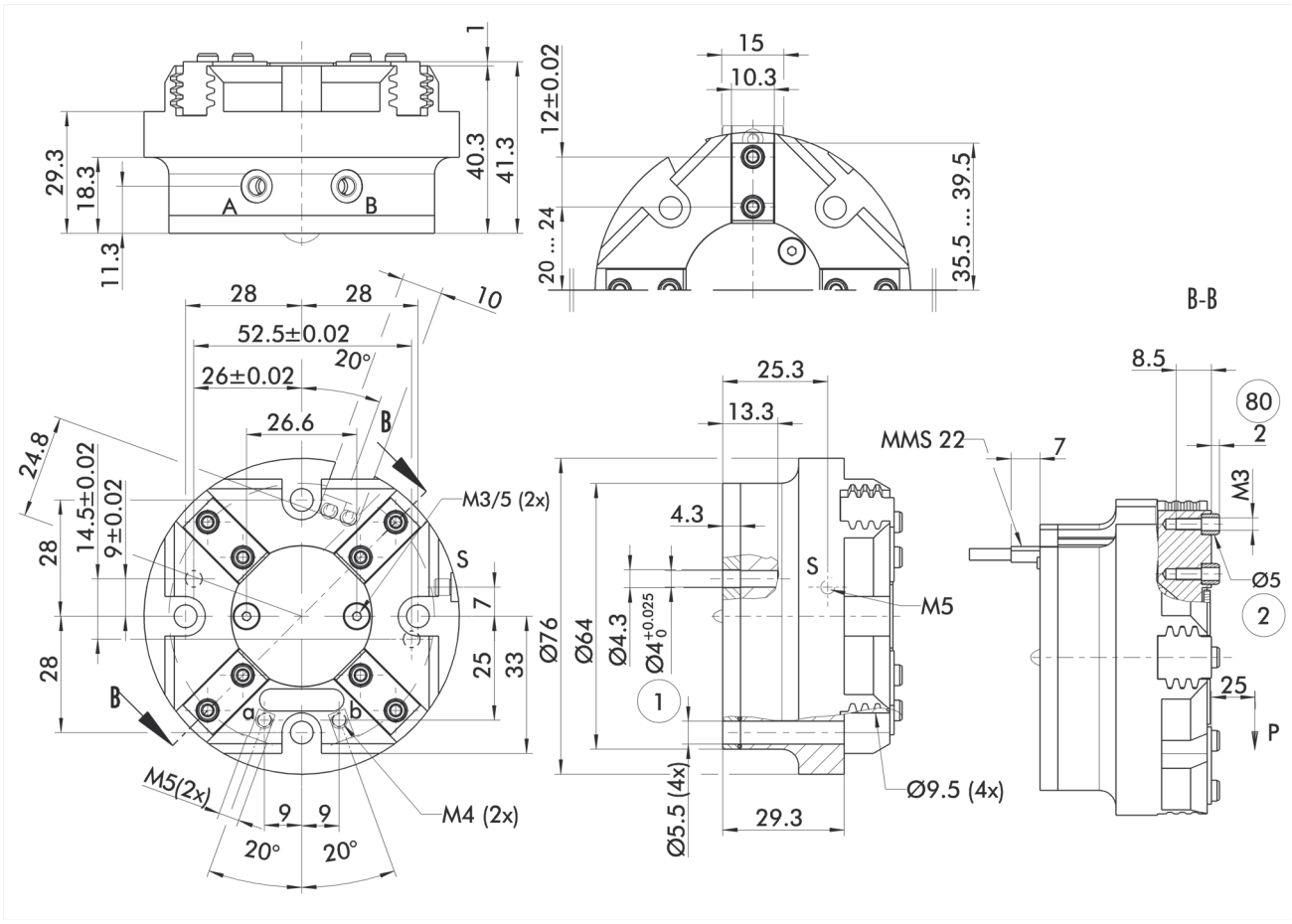


ⓘ The indicated moments and forces are static values, apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement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

Technical data

Description		PZV 64
ID		**0304000**
Stroke per finger	[mm]	4
Closing force	[N]	570
Opening force	[N]	630
Weight	[kg]	0.5
Recommended workpiece weight	[kg]	2.8
Air consumption per double stroke	[cm³]	25
Min./max. operating pressure	[bar]	2/8
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.02/0.02
Max. permitted finger length	[mm]	64
Max. permitted weight per finger	[kg]	0.18
IP class		40
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.01

Main view

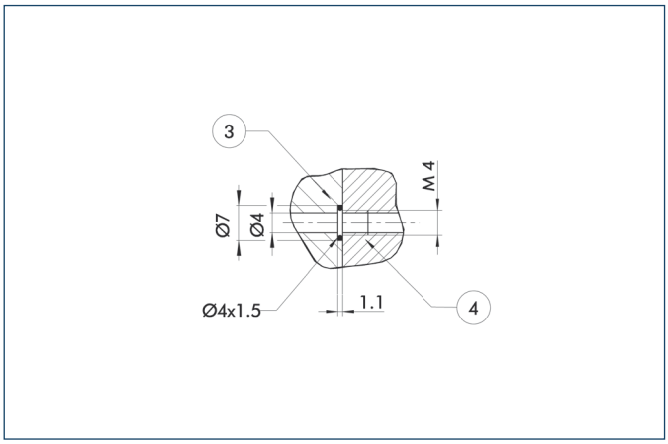


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing
S Air purge connection
① Gripper connection
② Finger connection
(80) Depth of the centering sleeve hole in the matching part

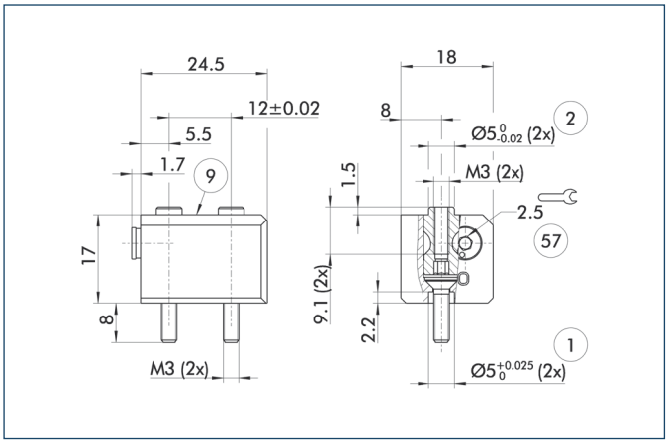
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Quick-change Jaw System

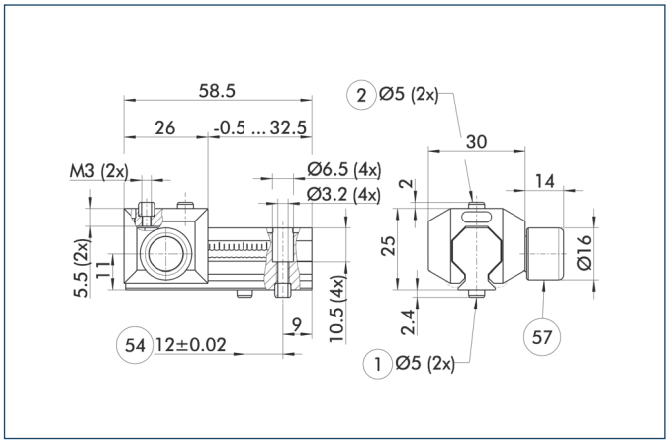


① Gripper connection
② Finger connection
⑨ For mounting screw connection diagram, see basic version
⑤⑦ Locking

The BSWS quick-change jaw system enables top jaws to be changed on the gripper manually and rapidly. An adapter (BSWS-A) and a base (BSWS-B) are required for each gripper jaw.
For a reverse assembly without height set-up, one adapter (BSWS-A) and a kit (BSWS-U) per gripper jaw are required. Another effect of the BSWS-U is, that there are no disturbing fastening bores in the finger contour.

Description	ID
Quick-change Jaw System adapter	
BSWS-A 50	**0303020**
Quick-change Jaw System base	
BSWS-B 50	**0303021**
Quick-change Jaw System reversed	
BSWS-U 50	**0303040**

Universal intermediate jaw



① Gripper connection
② Finger connection
⑤④ Optional right or left connection
⑤⑦ Locking

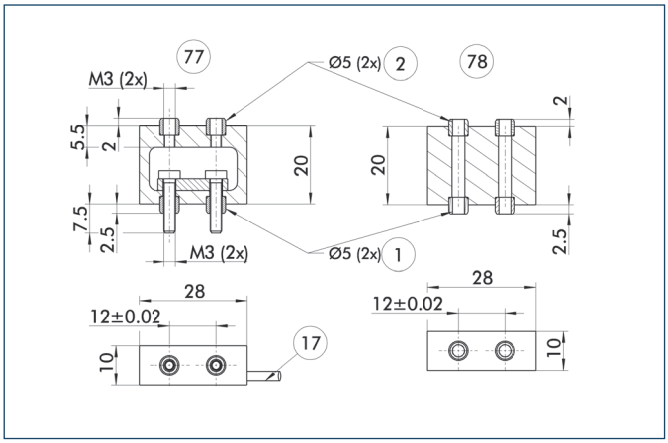
The universal intermediate jaw allows fast tool-free and reliable plugging and shifting of top jaws at the gripper.

Description	ID	Grid dimension
Universal intermediate jaw		
UZB 50	**0300041**	1.5 mm

ⓘ The slide UZB-S can be removed completely and has to be ordered separately. Moreover, it allows a fast jaw change.

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

Force measuring jaws

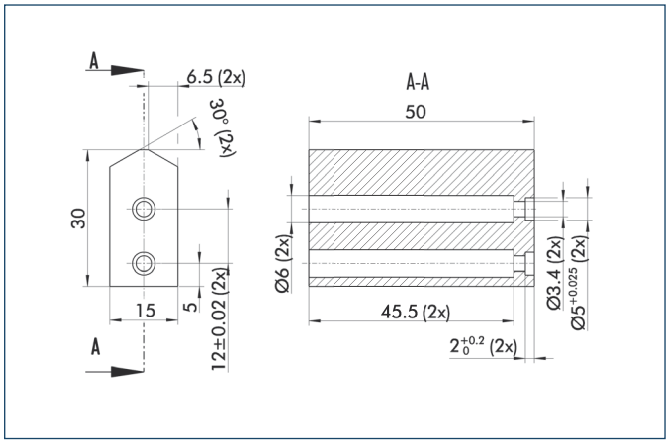


① Gripper connection
② Finger connection
⑰ Cable outlet
⑦⑦ Active intermediate jaws
⑦⑧ Passive intermediate jaws

Force measuring jaws measure gripping forces, but can also determine workpiece weights or dimensional deviations. There are active and passive intermediate jaws (FMS-ZBA or FMS-ZBP). At least one active force measuring jaw is required per gripper, the rest can be passive. For each active jaw, a FMS-A1 control unit and a FMS-A connection cable are required.

Description	ID
Active intermediate jaws	
FMS-ZBA 50	**0301830**
Passive intermediate jaws	
FMS-ZBP 50	**0301831**
Electronic Processor	
FMS-A1	**0301810**
Connection cables	
FMS-AK0200	**0301820**
FMS-AK0500	**0301821**
FMS-AK1000	**0301822**
FMS-AK2000	**0301823**

Finger blanks

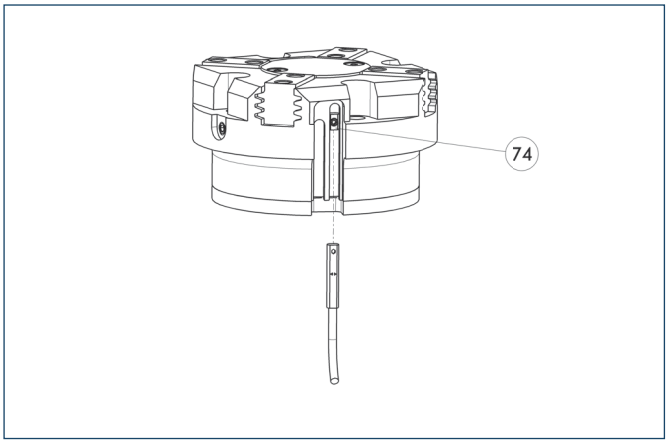


Finger blanks for customized subsequent machining

Description	ID	Material	Scope of delivery
Finger blanks			
ABR-plus 50	**0300009**	Aluminum	1
SBR-plus 50	**0300019**	16 MnCr 5	1

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

Programmable magnetic switch



74 Stop for MMS-P

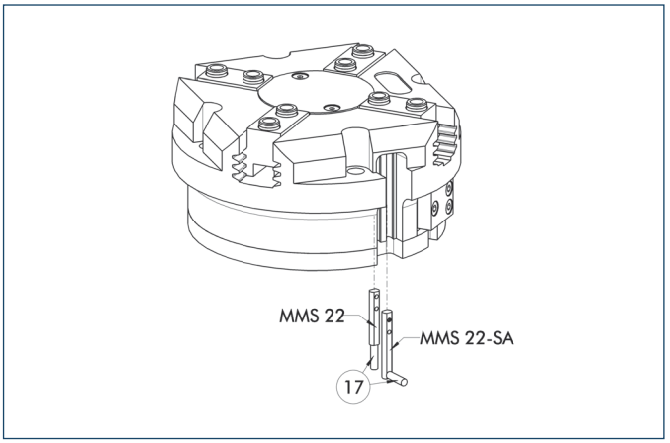
Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

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**	

ⓘ 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.

Electronic magnetic switches



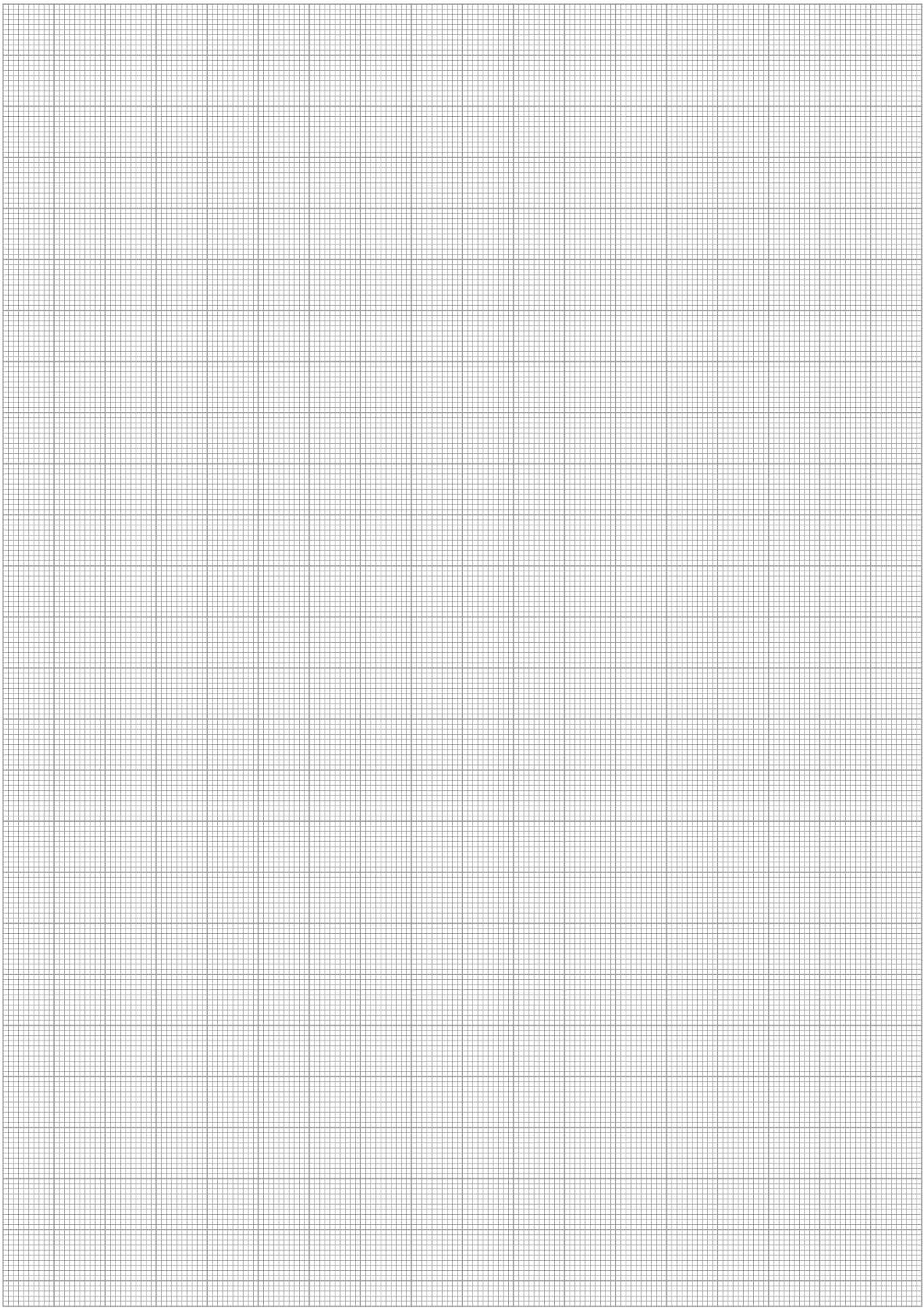
End position monitoring for mounting in the C-slot

Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	**0301438**	
MMS 22-S-M5-NPN	**0301439**	
MMS 22-S-M8-PNP	**0301432**	•
MMS 22-S-M8-NPN	**0301433**	
MMSK 22-S-PNP	**0301434**	
MMSK 22-S-NPN	**0301435**	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	**0301448**	
MMS 22-S-M5-NPN-SA	**0301449**	
MMS 22-S-M8-PNP-SA	**0301442**	•
MMS 22-S-M8-NPN-SA	**0301443**	
MMSK 22-S-PNP-SA	**0301444**	
MMSK 22-S-NPN-SA	**0301445**	
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-NPN	**0301602**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-NPN	**9641116**	
KA BW08-L 3P-0500-PNP	**0301502**	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

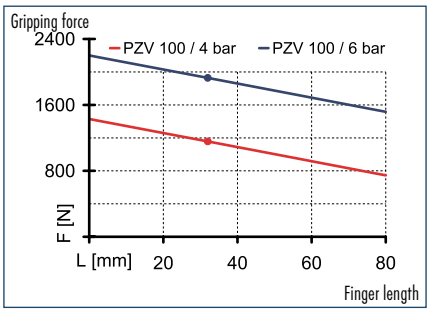
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

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

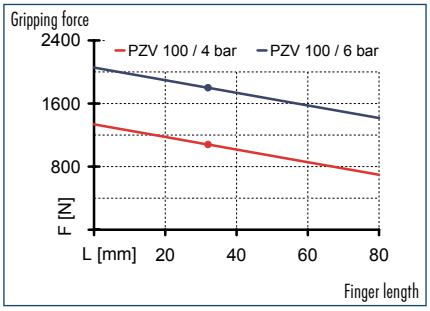


PZV 100

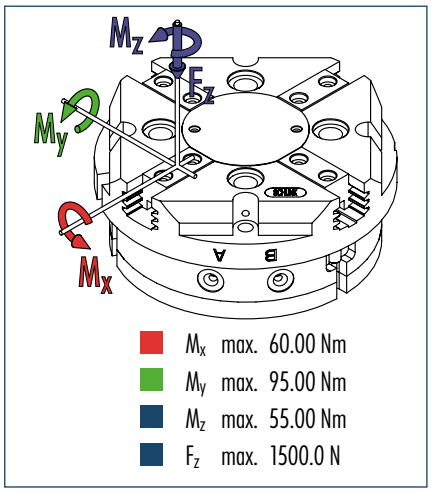
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



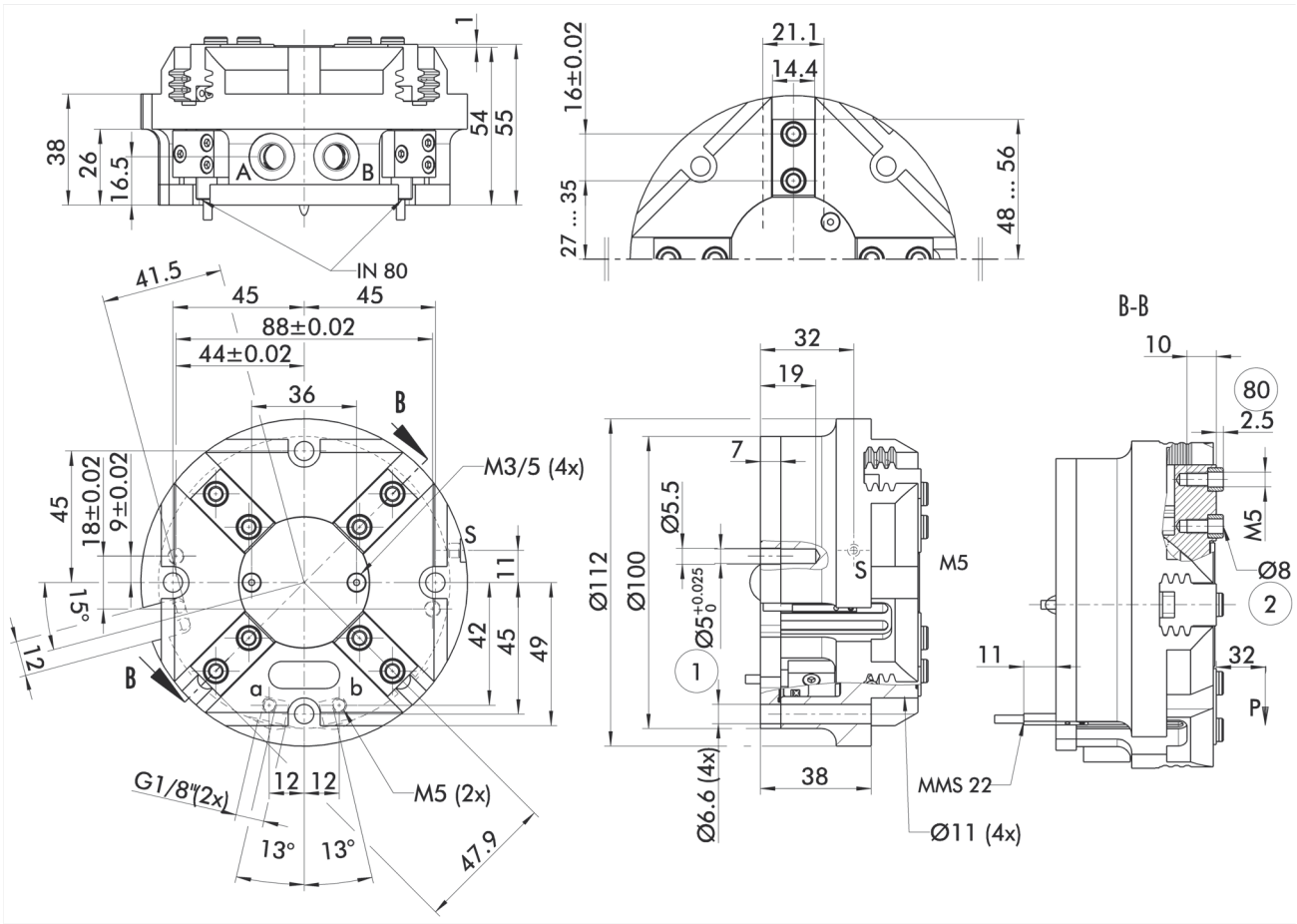
M_x	max. 60.00 Nm
M_y	max. 95.00 Nm
M_z	max. 55.00 Nm
F_z	max. 1500.0 N

ⓘ 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		PZV 100
ID		**0304002**
Stroke per finger	[mm]	8
Closing force	[N]	1800
Opening force	[N]	1900
Weight	[kg]	1.6
Recommended workpiece weight	[kg]	9
Air consumption per double stroke	[cm³]	120
Min./max. operating pressure	[bar]	2/8
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.04/0.04
Max. permitted finger length	[mm]	80
Max. permitted weight per finger	[kg]	0.6
IP class		40
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.01

Main view

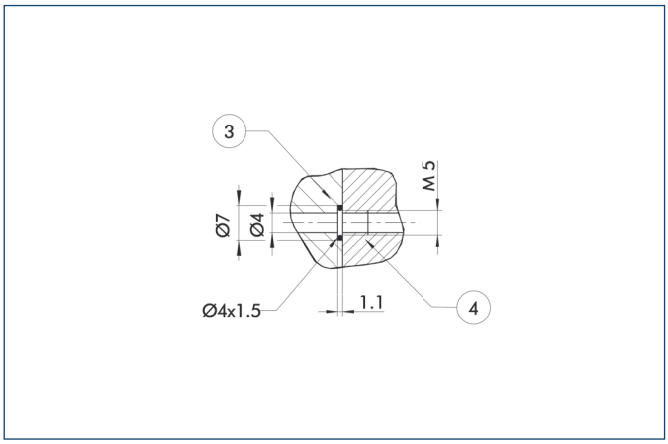


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing
S Air purge connection
① Gripper connection
② Finger connection
(80) Depth of the centering sleeve hole in the matching part

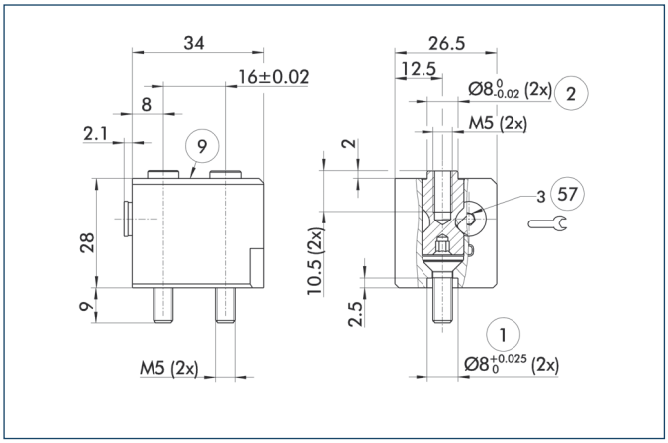
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Quick-change Jaw System

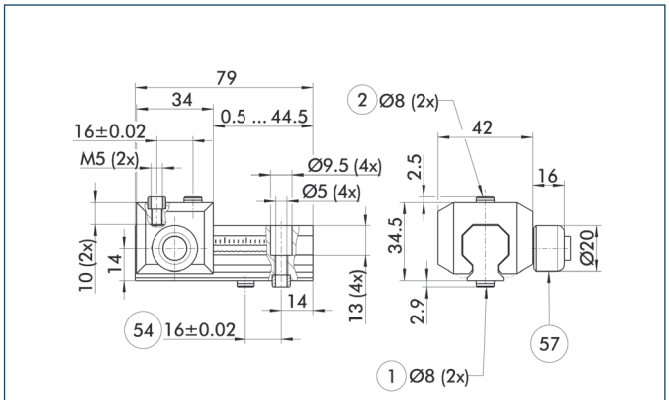


① Gripper connection
② Finger connection
⑨ For mounting screw connection diagram, see basic version
㊼ Locking

The BSWS quick-change jaw system enables top jaws to be changed on the gripper manually and rapidly. An adapter (BSWS-A) and a base (BSWS-B) are required for each gripper jaw.
For a reverse assembly without height set-up, one adapter (BSWS-A) and a kit (BSWS-U) per gripper jaw are required. Another effect of the BSWS-U is, that there are no disturbing fastening bores in the finger contour.

Description	ID
Quick-change Jaw System adapter	
BSWS-A 80	**0303024**
Quick-change Jaw System base	
BSWS-B 80	**0303025**
Quick-change Jaw System reversed	
BSWS-U 80	**0303042**

Universal intermediate jaw



① Gripper connection
② Finger connection
㊹ Optional right or left connection
㊼ Locking

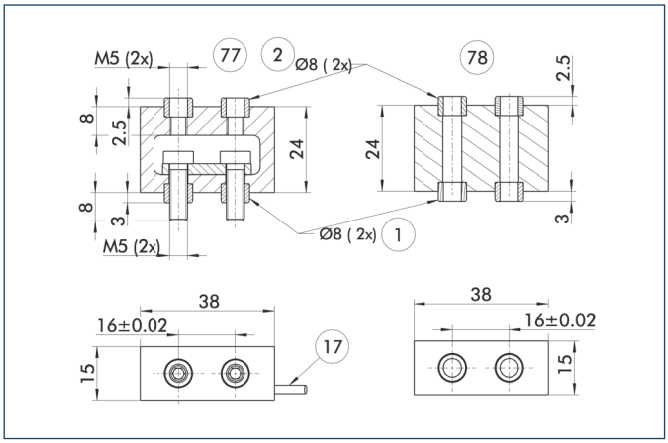
The universal intermediate jaw allows fast tool-free and reliable plugging and shifting of top jaws at the gripper.

Description	ID	Grid dimension
Universal intermediate jaw		
UZB 80	**0300043**	2 mm
UZB-S 80	**5518271**	2 mm

ⓘ The slide UZB-S can be removed completely and has to be ordered separately. Moreover, it allows a fast jaw change.

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

Force measuring jaws

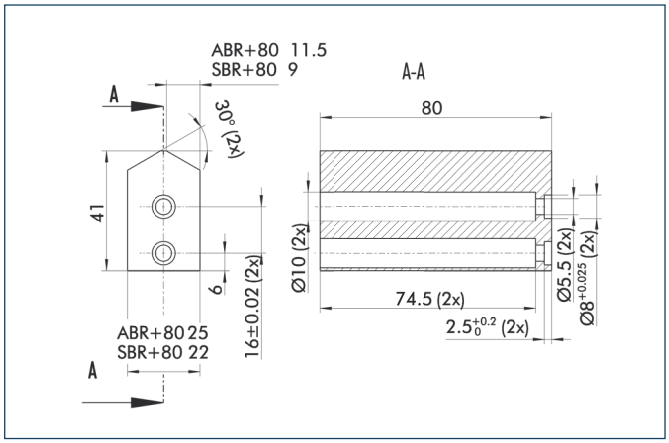


① Gripper connection
② Finger connection
⑰ Cable outlet
⑦⑦ Active intermediate jaws
⑦⑧ Passive intermediate jaws

Force measuring jaws measure gripping forces, but can also determine workpiece weights or dimensional deviations. There are active and passive intermediate jaws (FMS-ZBA or FMS-ZBP). At least one active force measuring jaw is required per gripper, the rest can be passive. For each active jaw, a FMS-A1 control unit and a FMS-A connection cable are required.

Description	ID
Active intermediate jaws	
FMS-ZBA 80	**0301834**
Passive intermediate jaws	
FMS-ZBP 80	**0301835**
Electronic Processor	
FMS-A1	**0301810**
Connection cables	
FMS-AK0200	**0301820**
FMS-AK0500	**0301821**
FMS-AK1000	**0301822**
FMS-AK2000	**0301823**

Finger blanks

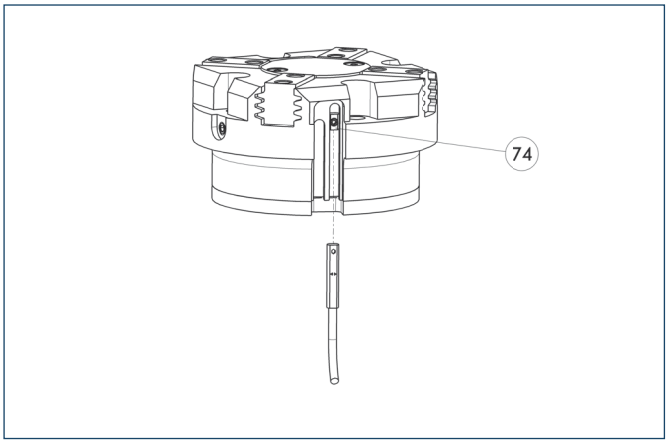


Finger blanks for customized subsequent machining

Description	ID	Material	Scope of delivery
Finger blanks			
ABR-plus 80	**0300011**	Aluminum	1
SBR-plus 80	**0300021**	16 MnCr 5	1

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

Programmable magnetic switch



74 Stop for MMS-P

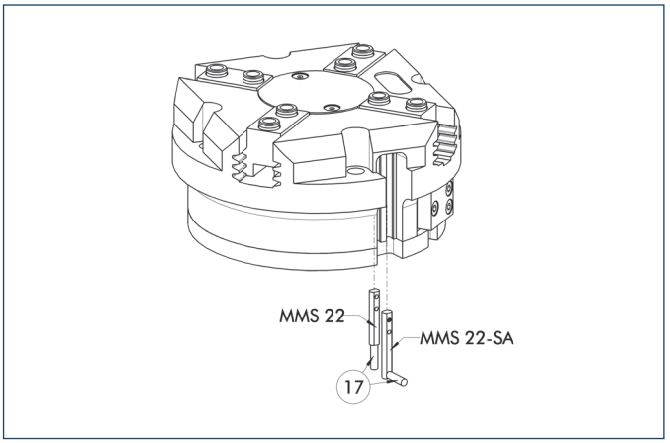
Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

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**	

ⓘ 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.

Electronic magnetic switches



End position monitoring for mounting in the C-slot

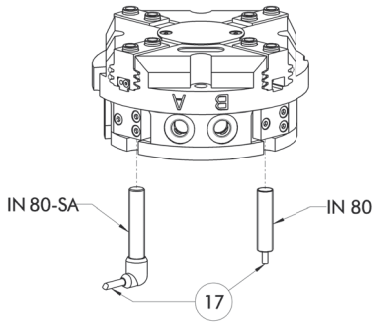
Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	**0301438**	
MMS 22-S-M5-NPN	**0301439**	
MMS 22-S-M8-PNP	**0301432**	•
MMS 22-S-M8-NPN	**0301433**	
MMSK 22-S-PNP	**0301434**	
MMSK 22-S-NPN	**0301435**	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	**0301448**	
MMS 22-S-M5-NPN-SA	**0301449**	
MMS 22-S-M8-PNP-SA	**0301442**	•
MMS 22-S-M8-NPN-SA	**0301443**	
MMSK 22-S-PNP-SA	**0301444**	
MMSK 22-S-NPN-SA	**0301445**	
Reed Switches		
RMS 22-S-M8	**0377720**	•
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-NPN	**0301602**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-NPN	**9641116**	
KA BW08-L 3P-0500-PNP	**0301502**	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.

Inductive proximity switches



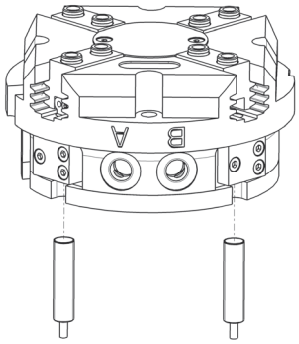
⑰ Cable outlet

End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
IN-C 80-S-M8	**0301475**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	
Connection cables		
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

Cylindrical Reed Switches



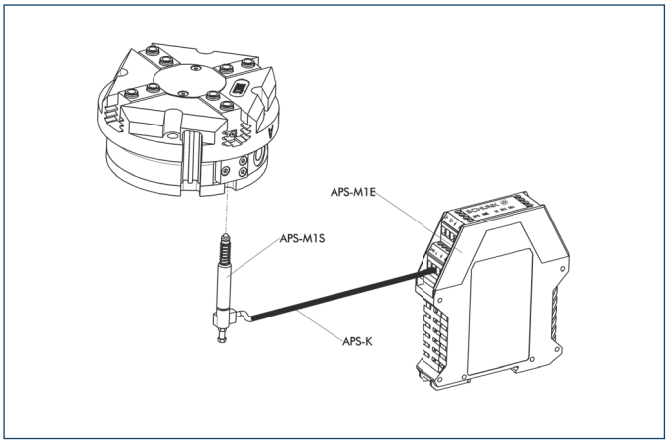
End position monitoring mounted with mounting kit

Description	ID
Mounting kit for proximity switch	
AS-RMS 80 PGN/PZN-plus 64/80	**0377725**
Reed Switches	
RMS 80-S-M8	**0377721**

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ This mounting kit needs to be ordered optionally as an accessory.
ⓘ 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.

Analog position sensor



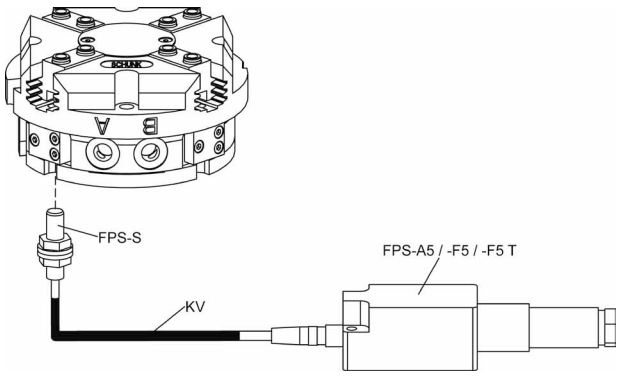
Analog multi position monitoring for any desired positions

Description	ID
Mounting kit	
AS-APS-M1-80/1	**0302077**
Connection cables	
APS-K0200	**0302066**
APS-K0700	**0302068**
Electronic Processor	
APS-M1E	**0302064**
Sensor	
APS-M1S	**0302062**

ⓘ When using an APS system, for each gripper a mounting kit (AS-APS), an APS sensor (APS-M 1S, incl. 3 m cable) as well as an electronics (APS-M1e) are required.

ⓘ An extension cable (APS-K) can be connected between the sensor and the electronics as an option. The max. cable length between the sensor and the electronics is 10 m, between the electronics and their control unit (PLC) it is max. 1 m.

Flexible Position Sensor

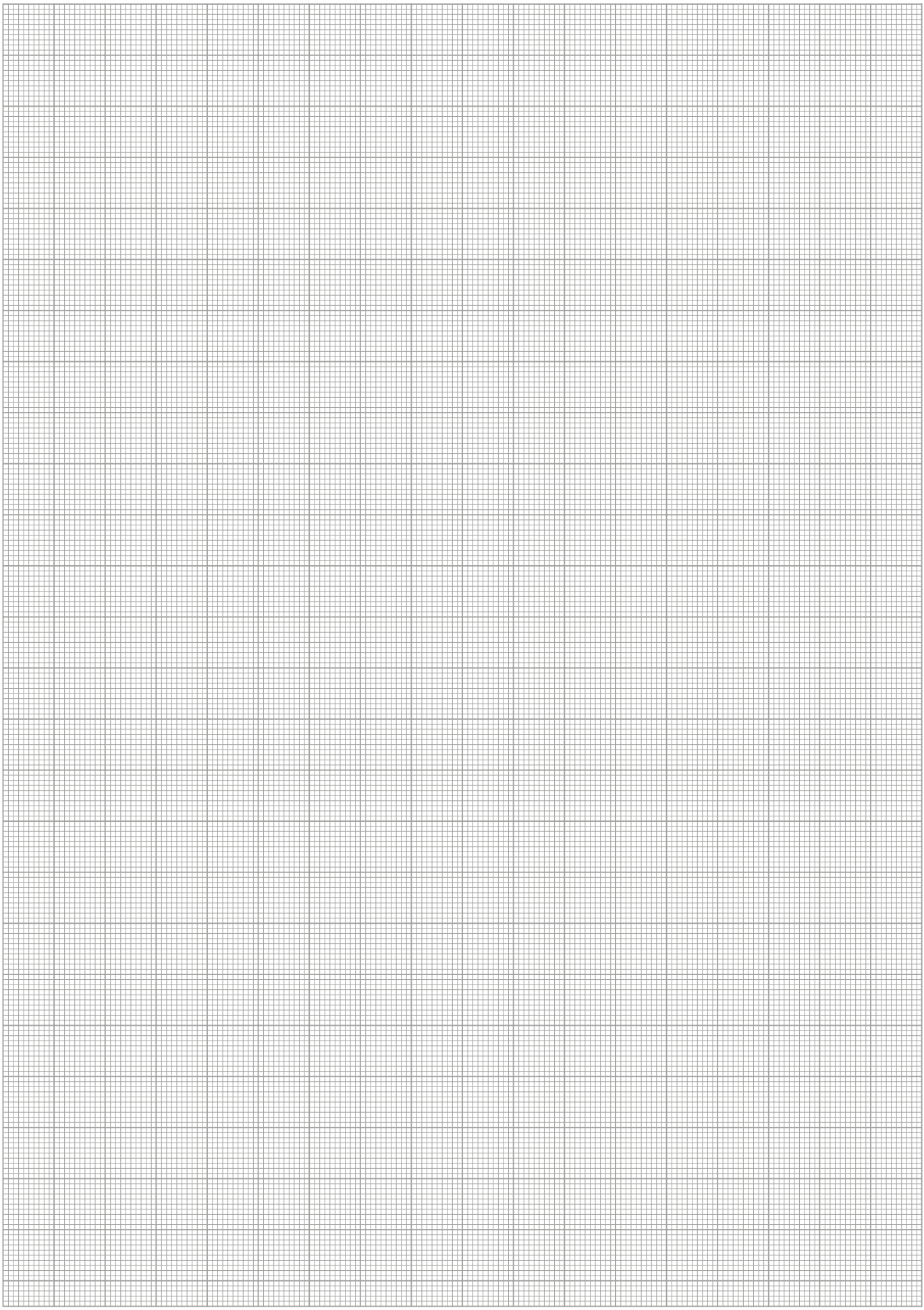


Flexible position monitoring of up to five positions

Description	ID
Mounting kit for FPS	
AS-PGN-plus/PZN-plus 80/1, PZB 80/100	**0301632**
Electronic Processor	
FPS-F5	**0301805**
FPS-F5 T	**0301807**
Sensor	
FPS-S M8	**0301704**

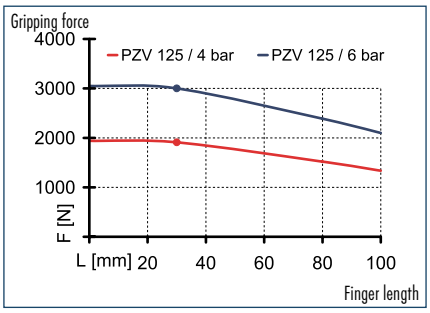
ⓘ When using a FPS system, a FPS sensor (FPS-S) and a control unit (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the “Accessories” catalog section.

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

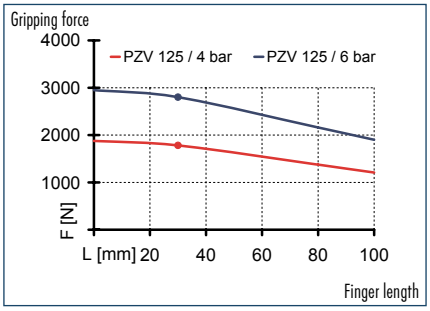


PZV 125

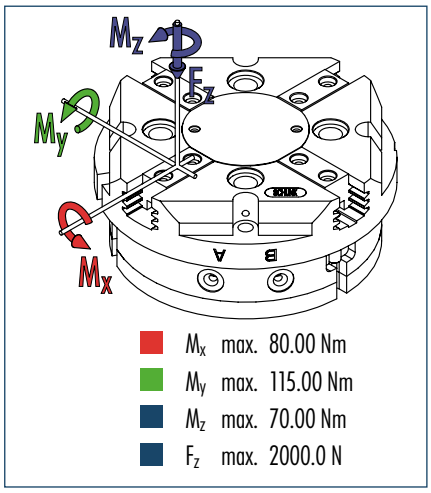
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

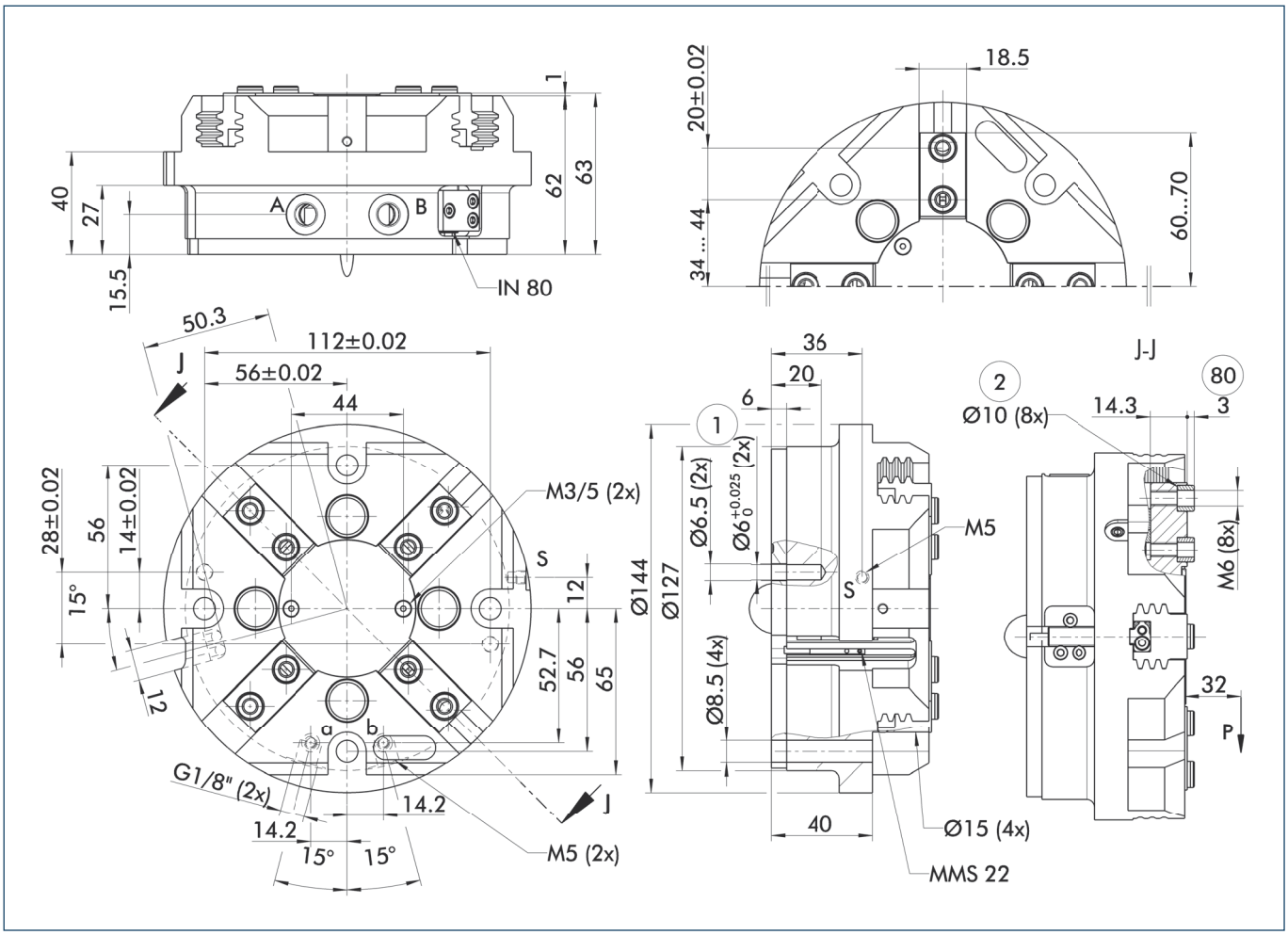


ⓘ The indicated moments and forces are static values, apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement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

Technical data

Description		PZV 125
ID		**0304003**
Stroke per finger	[mm]	10
Closing force	[N]	3000
Opening force	[N]	3230
Weight	[kg]	2.3
Recommended workpiece weight	[kg]	15
Air consumption per double stroke	[cm³]	230
Min./max. operating pressure	[bar]	2/8
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.1/0.1
Max. permitted finger length	[mm]	100
Max. permitted weight per finger	[kg]	1.1
IP class		40
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.01

Main view

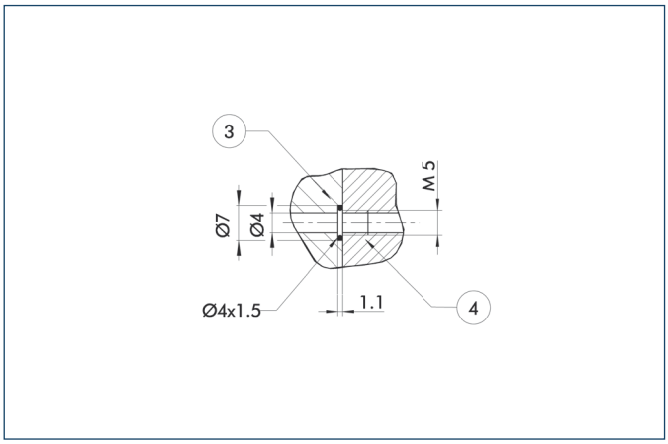


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a 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

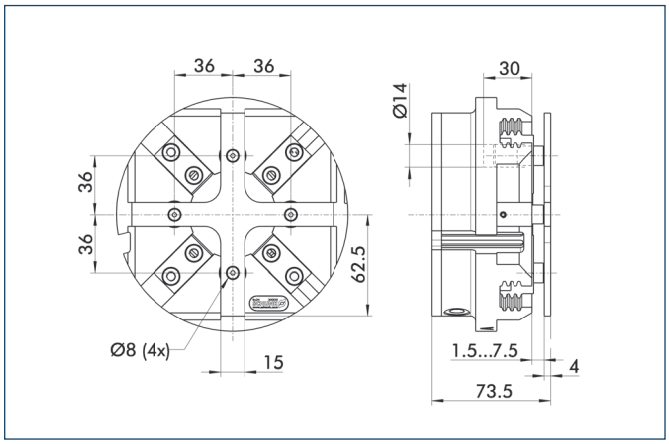
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Spring-loaded pressure piece

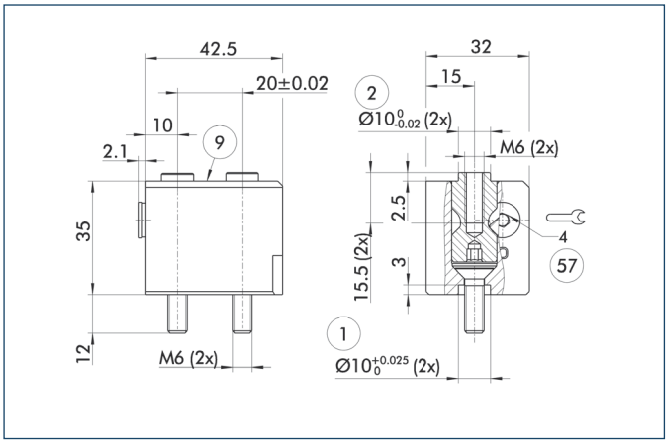


For spring-supported positioning of the workpiece against a stop after the gripper has opened. Especially developed for loading machines.

Description	ID	Stroke	Min. force
Spring-loaded pressure piece			
A-PZV 125	**0304013**	6 mm	173 N

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

Quick-change Jaw System

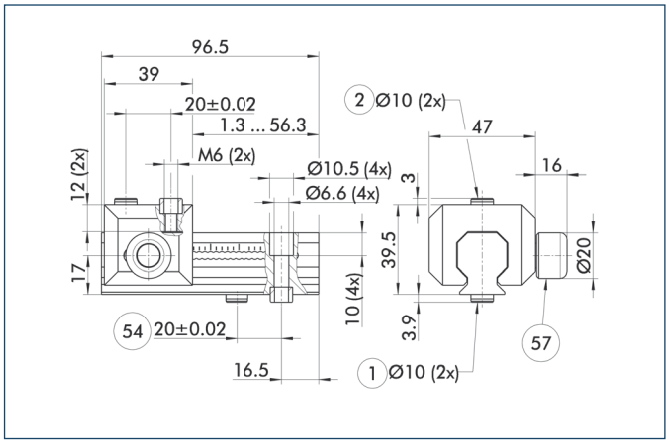


① Gripper connection
② Finger connection
⑨ For mounting screw connection diagram, see basic version
㊼ Locking

The BSWS quick-change jaw system enables top jaws to be changed on the gripper manually and rapidly. An adapter (BSWS-A) and a base (BSWS-B) are required for each gripper jaw.
For a reverse assembly without height set-up, one adapter (BSWS-A) and a kit (BSWS-U) per gripper jaw are required. Another effect of the BSWS-U is, that there are no disturbing fastening bores in the finger contour.

Description	ID
Quick-change Jaw System adapter	
BSWS-A 100	**0303026**
Quick-change Jaw System base	
BSWS-B 100	**0303027**
Quick-change Jaw System reversed	
BSWS-U 100	**0303043**

Universal intermediate jaw



① Gripper connection
② Finger connection
㊹ Optional right or left connection
㊼ Locking

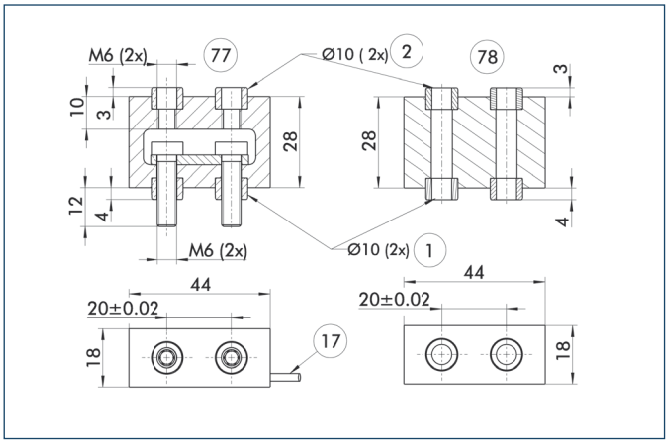
The universal intermediate jaw allows fast tool-free and reliable plugging and shifting of top jaws at the gripper.

Description	ID	Grid dimension
Universal intermediate jaw		
UZB 100	**0300044**	2.5 mm
UZB-S 100	**5518272**	2.5 mm

ⓘ The slide UZB-S can be removed completely and has to be ordered separately. Moreover, it allows a fast jaw change.

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

Force measuring jaws

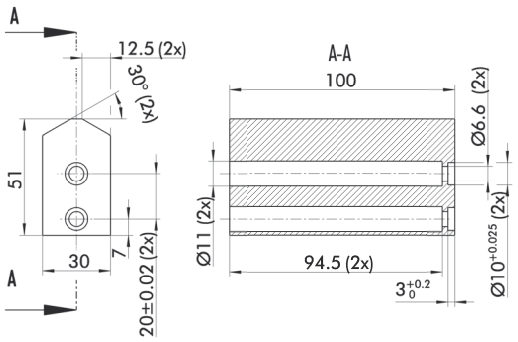


① Gripper connection
② Finger connection
⑰ Cable outlet
⑦⑦ Active intermediate jaws
⑦⑧ Passive intermediate jaws

Force measuring jaws measure gripping forces, but can also determine workpiece weights or dimensional deviations. There are active and passive intermediate jaws (FMS-ZBA or FMS-ZBP). At least one active force measuring jaw is required per gripper, the rest can be passive. For each active jaw, a FMS-A1 control unit and a FMS-A connection cable are required.

Description	ID
Active intermediate jaws	
FMS-ZBA 100	**0301836**
Passive intermediate jaws	
FMS-ZBP 100	**0301837**
Electronic Processor	
FMS-A1	**0301810**
Connection cables	
FMS-AK0200	**0301820**
FMS-AK0500	**0301821**
FMS-AK1000	**0301822**
FMS-AK2000	**0301823**

Finger blanks

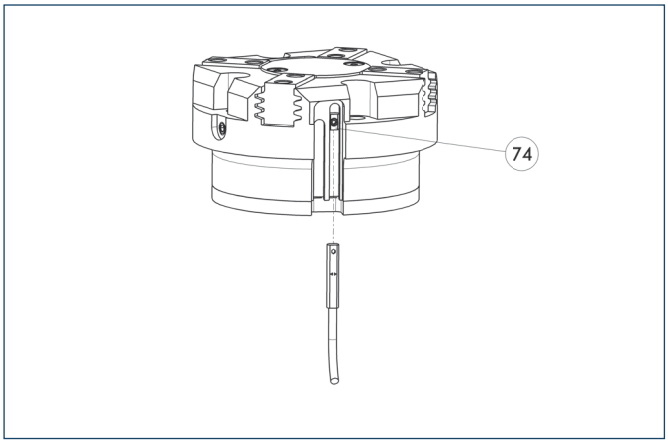


Finger blanks for customized subsequent machining

Description	ID	Material	Scope of delivery
Finger blanks			
ABR-plus 100	**0300012**	Aluminum	1
SBR-plus 100	**0300022**	16 MnCr 5	1

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

Programmable magnetic switch



74 Stop for MMS-P

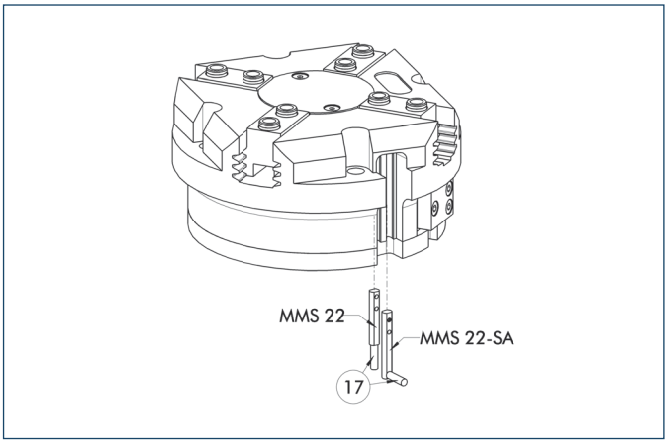
Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

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**	

ⓘ 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.

Electronic magnetic switches



End position monitoring for mounting in the C-slot

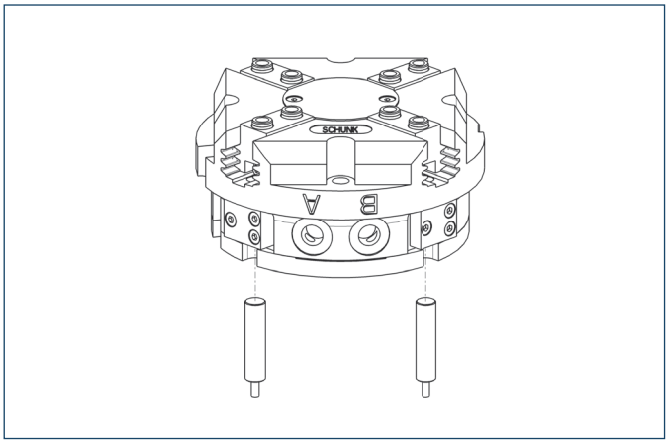
Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	**0301438**	
MMS 22-S-M5-NPN	**0301439**	
MMS 22-S-M8-PNP	**0301432**	•
MMS 22-S-M8-NPN	**0301433**	
MMSK 22-S-PNP	**0301434**	
MMSK 22-S-NPN	**0301435**	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	**0301448**	
MMS 22-S-M5-NPN-SA	**0301449**	
MMS 22-S-M8-PNP-SA	**0301442**	•
MMS 22-S-M8-NPN-SA	**0301443**	
MMSK 22-S-PNP-SA	**0301444**	
MMSK 22-S-NPN-SA	**0301445**	
Reed Switches		
RMS 22-S-M8	**0377720**	•
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-NPN	**0301602**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-NPN	**9641116**	
KA BW08-L 3P-0500-PNP	**0301502**	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.

Inductive proximity switches



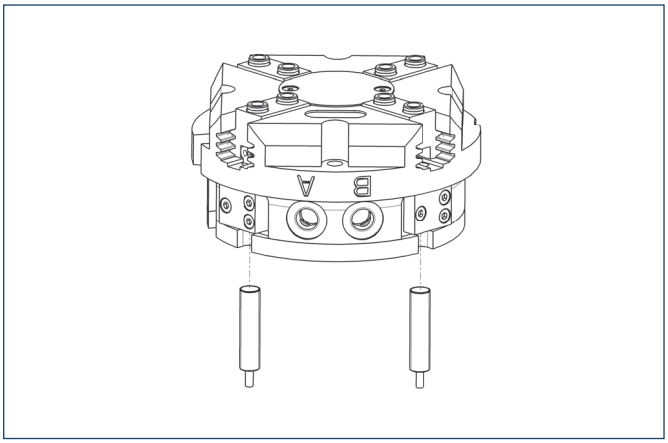
End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
IN-C 80-S-M8	**0301475**	
Connection cables		
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Cylindrical Reed Switches



End position monitoring mounted with mounting kit

Description	ID
Mounting kit for proximity switch	
AS-RMS 80 PGN/PZN-plus 100/125	**0377726**
Reed Switches	
RMS 80-S-M8	**0377721**

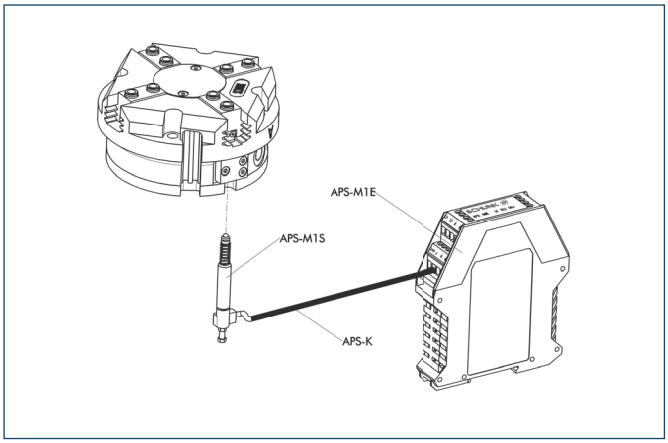
ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ This mounting kit needs to be ordered optionally as an accessory.

ⓘ 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.

Analog position sensor



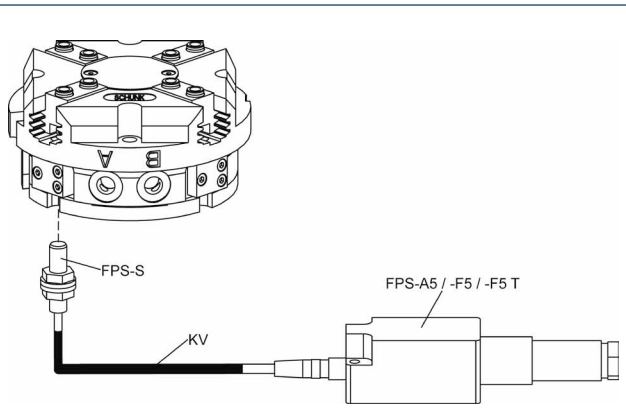
Analog multi position monitoring for any desired positions

Description	ID
Mounting kit	
AS-APS-M1-100/1	**0302079**
Connection cables	
APS-K0200	**0302066**
APS-K0700	**0302068**
Electronic Processor	
APS-M1E	**0302064**
Sensor	
APS-M1S	**0302062**

ⓘ When using an APS system, for each gripper a mounting kit (AS-APS), an APS sensor (APS-M 1S, incl. 3 m cable) as well as an electronics (APS-M1e) are required.

ⓘ An extension cable (APS-K) can be connected between the sensor and the electronics as an option. The max. cable length between the sensor and the electronics is 10 m, between the electronics and their control unit (PLC) it is max. 1 m.

Flexible Position Sensor

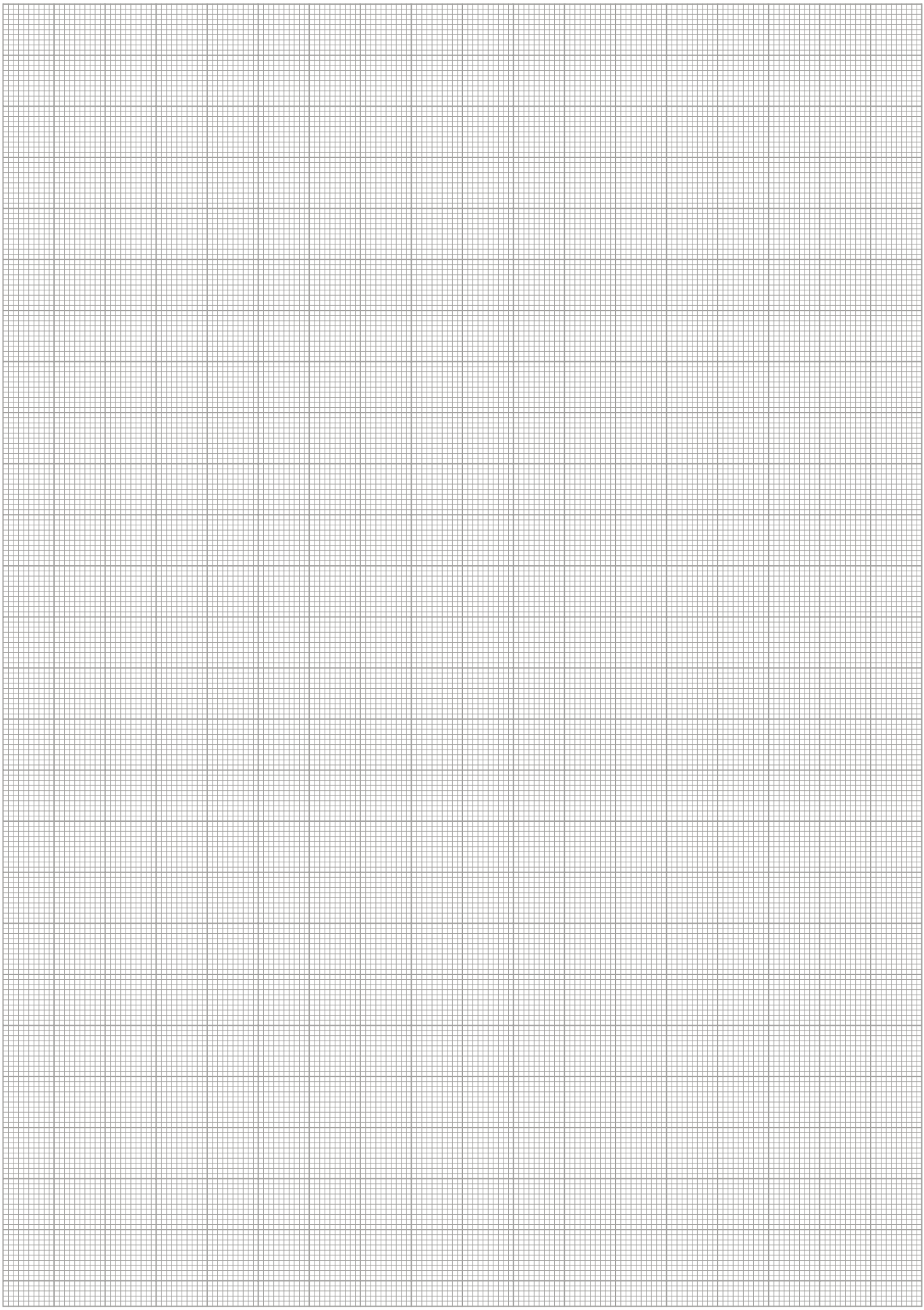


Flexible position monitoring of up to five positions

Description	ID
Mounting kit for FPS	
AS-PGN/PZN-plus 100/1	**0301634**
Electronic Processor	
FPS-F5	**0301805**
FPS-F5 T	**0301807**
Sensor	
FPS-S M8	**0301704**

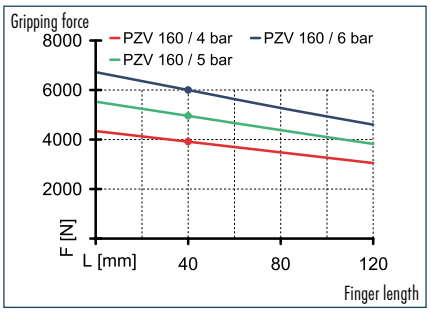
ⓘ When using a FPS system, a FPS sensor (FPS-S) and a control unit (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the “Accessories” catalog section.

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

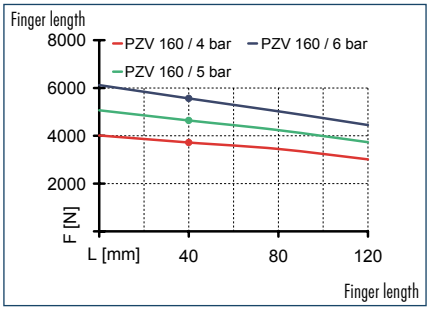


PZV 160

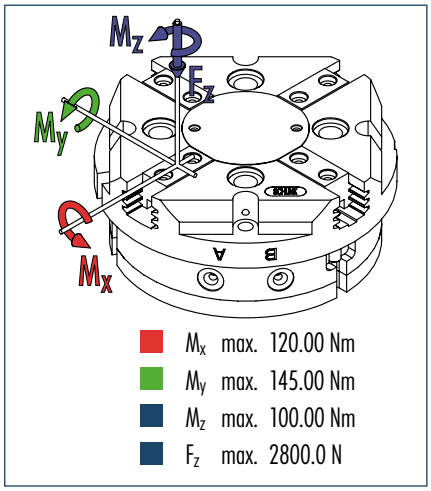
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



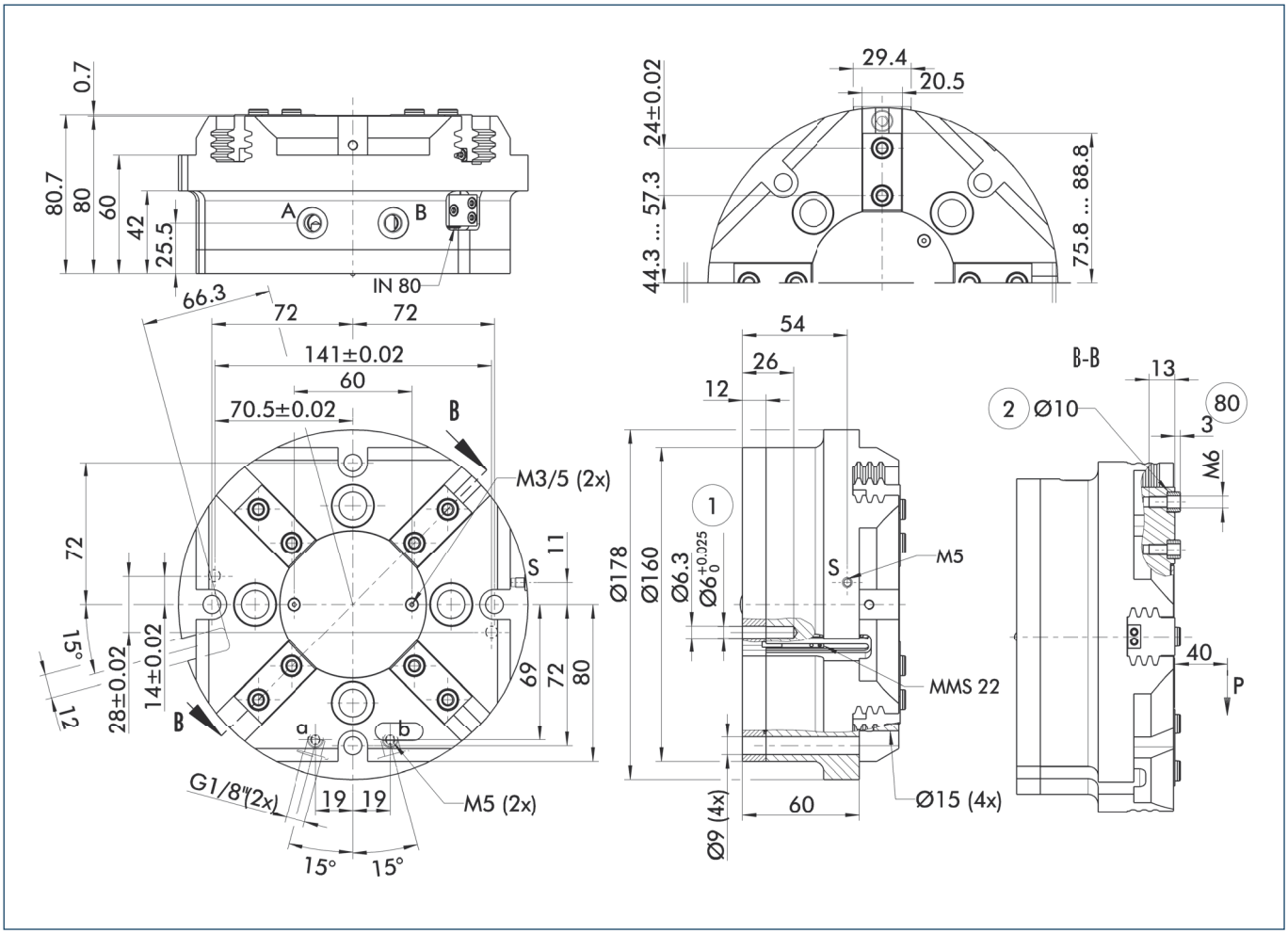
M_x max. 120.00 Nm
M_y max. 145.00 Nm
M_z max. 100.00 Nm
F_z max. 2800.0 N

ⓘ 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		PZV 160
ID		**0304004**
Stroke per finger	[mm]	13
Closing force	[N]	5200
Opening force	[N]	5600
Weight	[kg]	5.5
Recommended workpiece weight	[kg]	26
Air consumption per double stroke	[cm³]	520
Min./max. operating pressure	[bar]	2/6
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.1/0.1
Max. permitted finger length	[mm]	120
Max. permitted weight per finger	[kg]	2.1
IP class		40
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.01

Main view

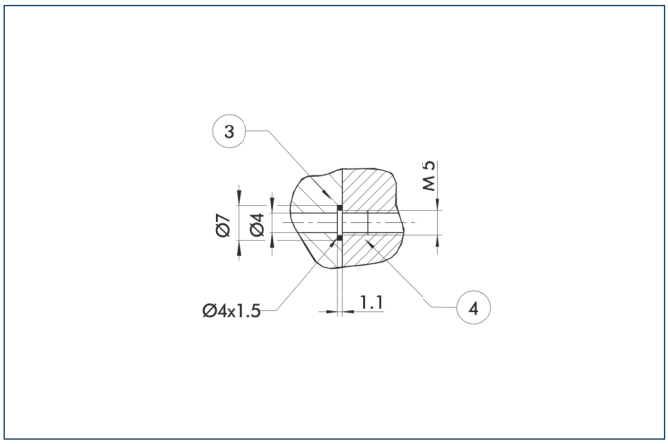


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing
S Air purge connection
① Gripper connection
② Finger connection
(80) Depth of the centering sleeve hole in the matching part

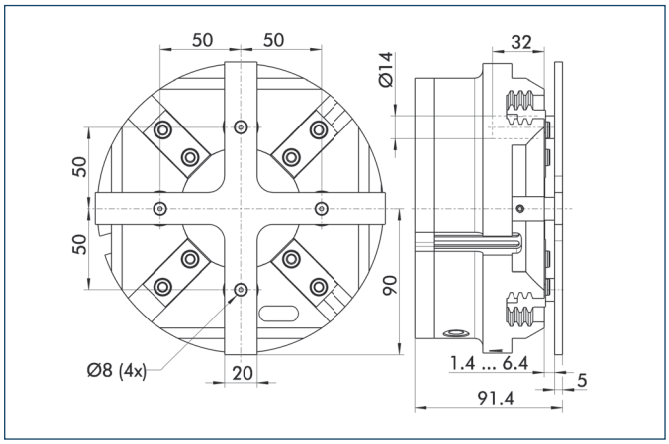
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Spring-loaded pressure piece

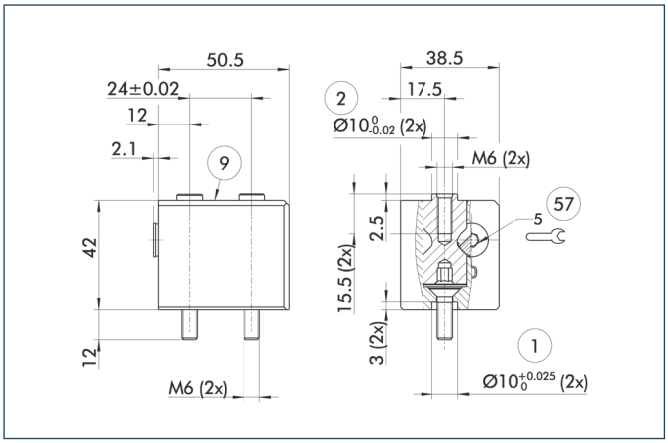


For spring-supported positioning of the workpiece against a stop after the gripper has opened. Especially developed for loading machines.

Description	ID	Stroke	Min. force
Spring-loaded pressure piece			
A-PZV 160	**0304014**	5 mm	272 N

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

Quick-change Jaw System

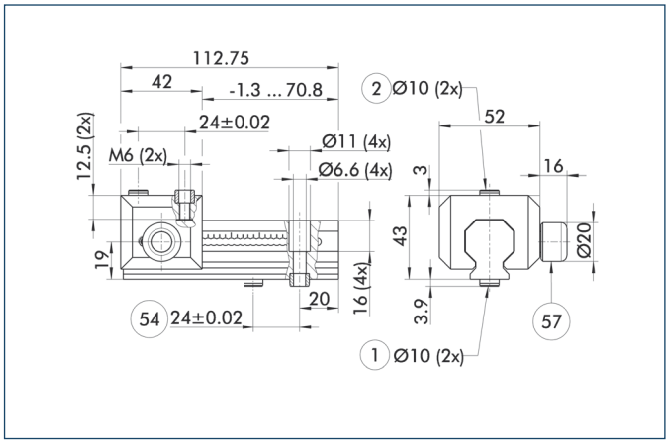


① Gripper connection
② Finger connection
⑨ For mounting screw connection diagram, see basic version
㊼ Locking

The BSWS quick-change jaw system enables top jaws to be changed on the gripper manually and rapidly. An adapter (BSWS-A) and a base (BSWS-B) are required for each gripper jaw.
For a reverse assembly without height set-up, one adapter (BSWS-A) and a kit (BSWS-U) per gripper jaw are required. Another effect of the BSWS-U is, that there are no disturbing fastening bores in the finger contour.

Description	ID
Quick-change Jaw System adapter	
BSWS-A 125	**0303028**
Quick-change Jaw System base	
BSWS-B 125	**0303029**
Quick-change Jaw System reversed	
BSWS-U 125	**0303044**

Universal intermediate jaw



① Gripper connection
② Finger connection
㊹ Optional right or left connection
㊼ Locking

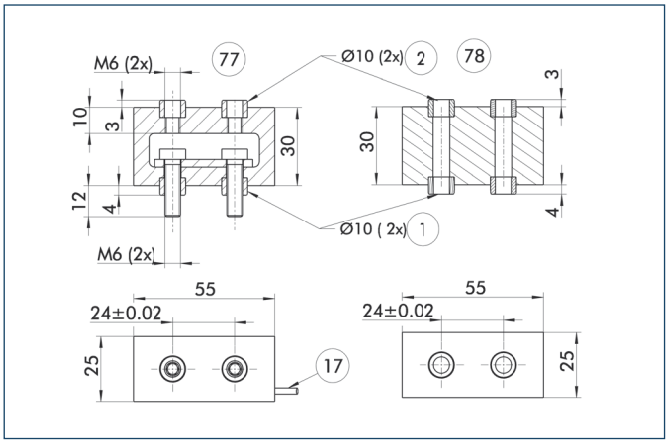
The universal intermediate jaw allows fast tool-free and reliable plugging and shifting of top jaws at the gripper.

Description	ID	Grid dimension
Universal intermediate jaw		
UZB 125	**0300045**	3 mm
UZB-S 125	**5518273**	3 mm

ⓘ The slide UZB-S can be removed completely and has to be ordered separately. Moreover, it allows a fast jaw change.

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

Force measuring jaws

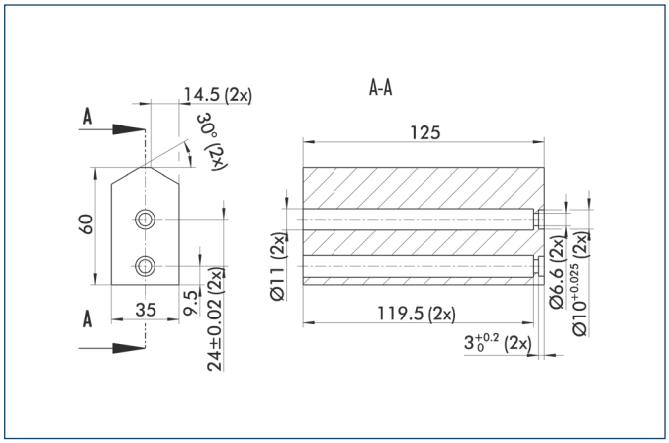


① Gripper connection
② Finger connection
⑰ Cable outlet
⑦⑦ Active intermediate jaws
⑦⑧ Passive intermediate jaws

Force measuring jaws measure gripping forces, but can also determine workpiece weights or dimensional deviations. There are active and passive intermediate jaws (FMS-ZBA or FMS-ZBP). At least one active force measuring jaw is required per gripper, the rest can be passive. For each active jaw, a FMS-A1 control unit and a FMS-A connection cable are required.

Description	ID
Active intermediate jaws	
FMS-ZBA 125	**0301838**
Passive intermediate jaws	
FMS-ZBP 125	**0301839**
Electronic Processor	
FMS-A1	**0301810**
Connection cables	
FMS-AK0200	**0301820**
FMS-AK0500	**0301821**
FMS-AK1000	**0301822**
FMS-AK2000	**0301823**

Finger blanks

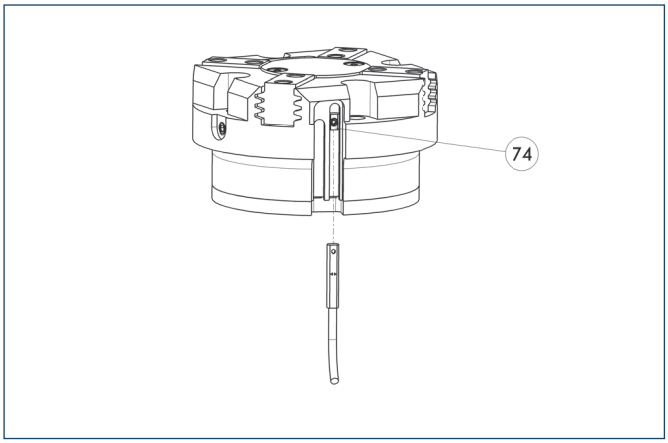


Finger blanks for customized subsequent machining

Description	ID	Material	Scope of delivery
Finger blanks			
ABR-plus 125	**0300013**	Aluminum	1
SBR-plus 125	**0300023**	16 MnCr 5	1

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

Programmable magnetic switch



74 Stop for MMS-P

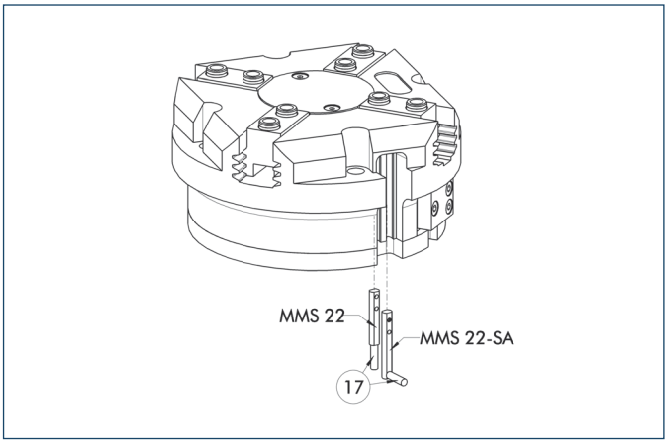
Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

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**	

ⓘ 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.

Electronic magnetic switches



End position monitoring for mounting in the C-slot

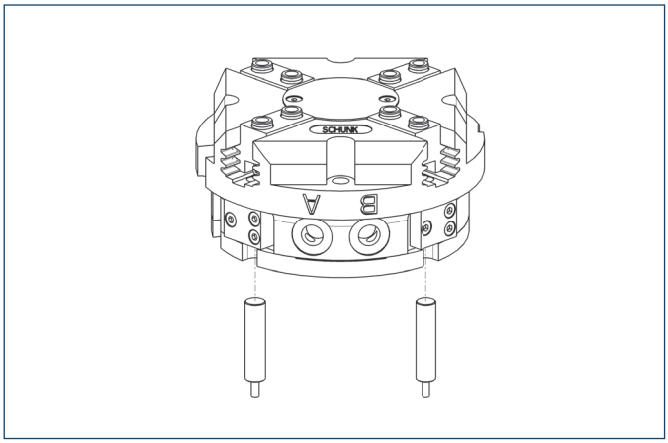
Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	**0301438**	
MMS 22-S-M5-NPN	**0301439**	
MMS 22-S-M8-PNP	**0301432**	•
MMS 22-S-M8-NPN	**0301433**	
MMSK 22-S-PNP	**0301434**	
MMSK 22-S-NPN	**0301435**	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	**0301448**	
MMS 22-S-M5-NPN-SA	**0301449**	
MMS 22-S-M8-PNP-SA	**0301442**	•
MMS 22-S-M8-NPN-SA	**0301443**	
MMSK 22-S-PNP-SA	**0301444**	
MMSK 22-S-NPN-SA	**0301445**	
Reed Switches		
RMS 22-S-M8	**0377720**	•
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-NPN	**0301602**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-NPN	**9641116**	
KA BW08-L 3P-0500-PNP	**0301502**	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.

Inductive proximity switches



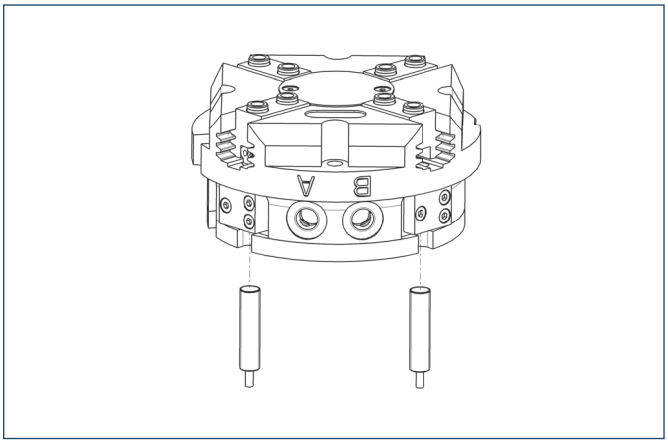
End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
IN-C 80-S-M8	**0301475**	
Connection cables		
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Cylindrical Reed Switches



End position monitoring mounted with mounting kit

Description	ID
Mounting kit for proximity switch	
AS-RMS 80 PGN/PZN-plus 100/125	**0377726**
Reed Switches	
RMS 80-S-M8	**0377721**

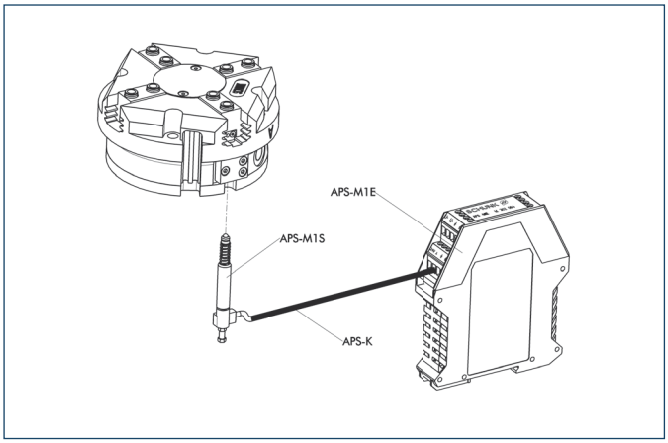
ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ This mounting kit needs to be ordered optionally as an accessory.

ⓘ 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.

Analog position sensor



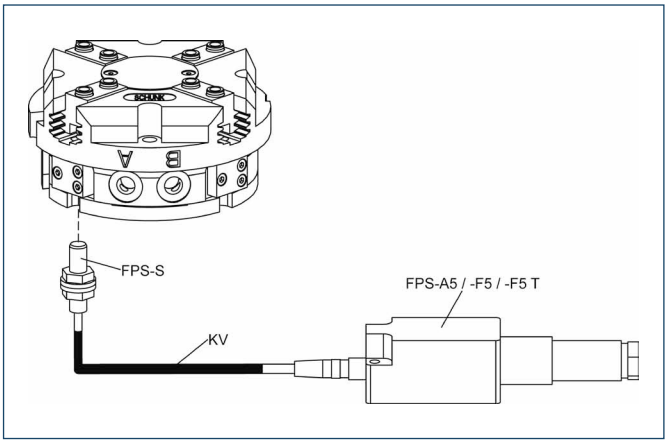
Analog multi position monitoring for any desired positions

Description	ID
Mounting kit	
AS-APS-M1-125/1	**0302081**
Connection cables	
APS-K0200	**0302066**
APS-K0700	**0302068**
Electronic Processor	
APS-M1E	**0302064**
Sensor	
APS-M1S	**0302062**

ⓘ When using an APS system, for each gripper a mounting kit (AS-APS), an APS sensor (APS-M 1S, incl. 3 m cable) as well as an electronics (APS-M1e) are required.

ⓘ An extension cable (APS-K) can be connected between the sensor and the electronics as an option. The max. cable length between the sensor and the electronics is 10 m, between the electronics and their control unit (PLC) it is max. 1 m.

Flexible Position Sensor



Flexible position monitoring of up to five positions

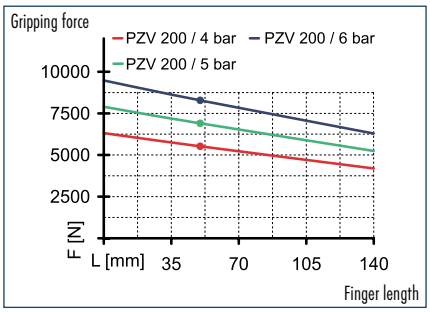
Description	ID
Mounting kit for FPS	
AS-PGN/PZN-plus 125/1, PZB 160	**0301636**
Electronic Processor	
FPS-F5	**0301805**
FPS-F5 T	**0301807**
Sensor	
FPS-S M8	**0301704**

ⓘ When using a FPS system, a FPS sensor (FPS-S) and a control unit (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the “Accessories” catalog section.

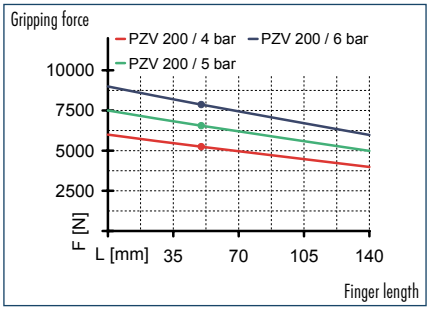
You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.

PZV 200

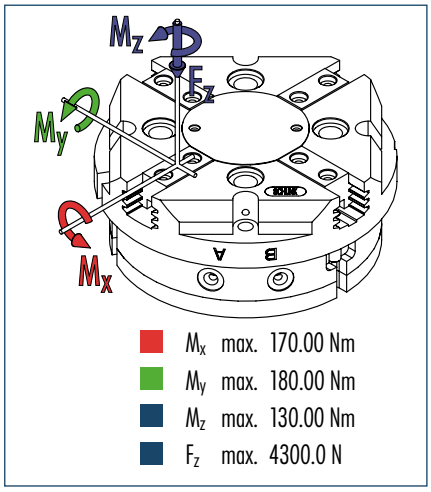
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



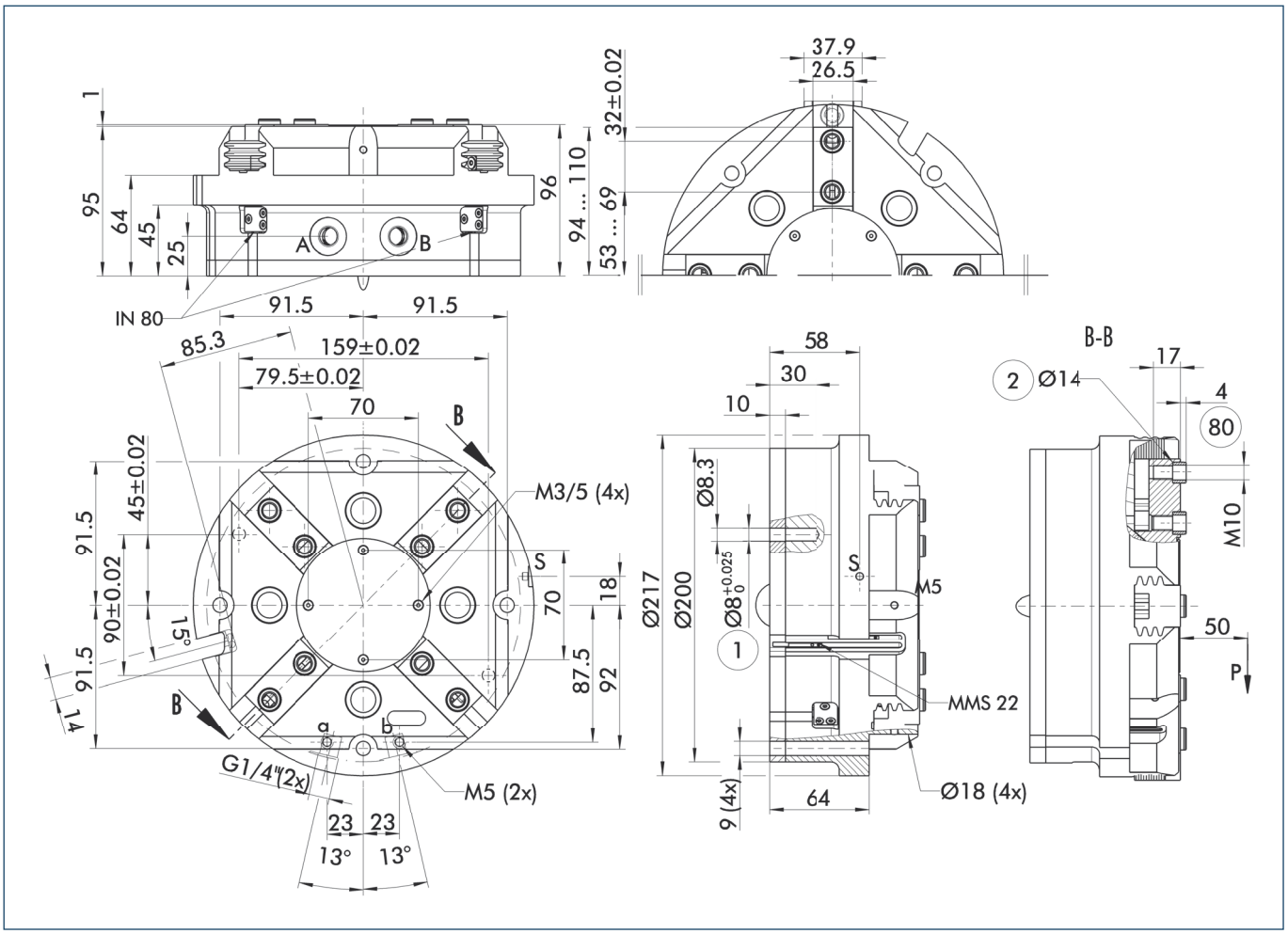
- M_x max. 170.00 Nm
- M_y max. 180.00 Nm
- M_z max. 130.00 Nm
- F_z max. 4300.0 N

ⓘ 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		PZV 200
ID		**0304005**
Stroke per finger	[mm]	16
Closing force	[N]	6900
Opening force	[N]	7300
Weight	[kg]	10
Recommended workpiece weight	[kg]	34.5
Air consumption per double stroke	[cm³]	1040
Min./max. operating pressure	[bar]	2/6
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.15/0.15
Max. permitted finger length	[mm]	140
Max. permitted weight per finger	[kg]	3.5
IP class		40
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.02

Main view

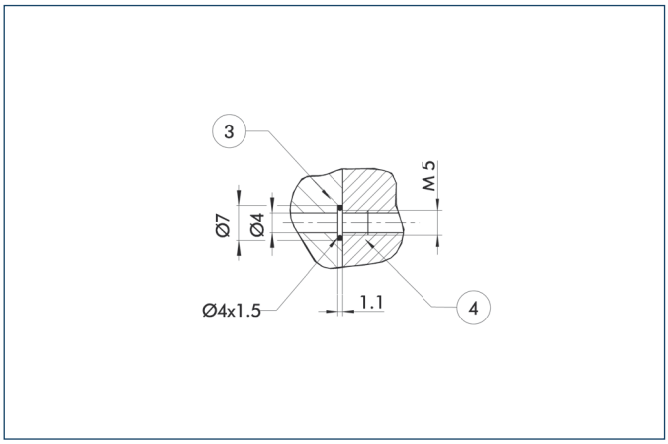


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing
S Air purge connection
① Gripper connection
② Finger connection
⑧⓪ Depth of the centering sleeve hole in the matching part

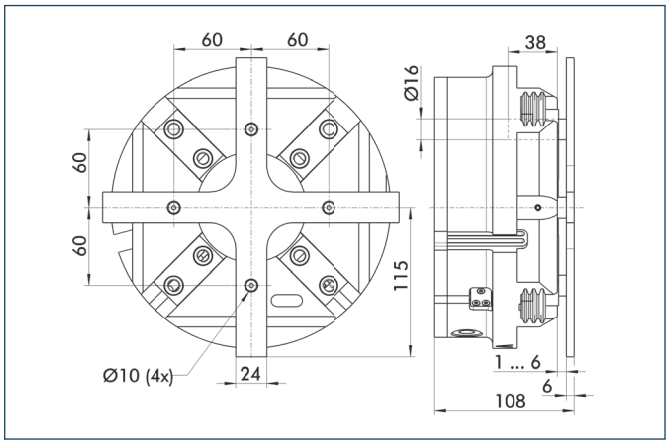
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Spring-loaded pressure piece

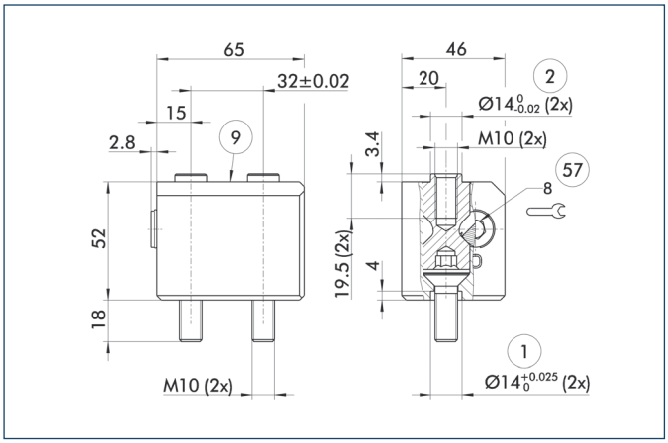


For spring-supported positioning of the workpiece against a stop after the gripper has opened. Especially developed for loading machines.

Description	ID	Stroke	Min. force
Spring-loaded pressure piece			
A-PZV 200	**0304015**	5 mm	328 N

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

Quick-change Jaw System

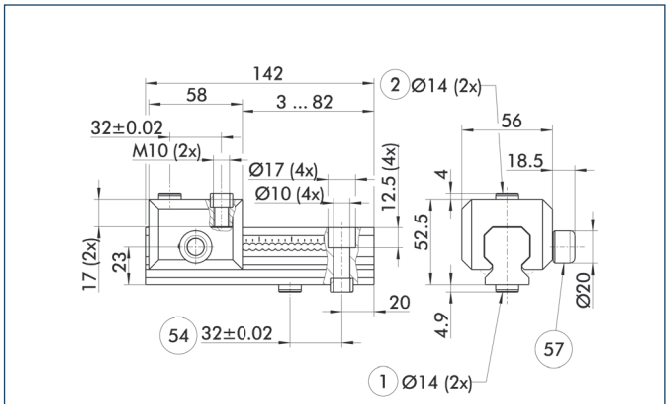


① Gripper connection
② Finger connection
⑨ For mounting screw connection diagram, see basic version
㊼ Locking

The BSWS quick-change jaw system enables top jaws to be changed on the gripper manually and rapidly. An adapter (BSWS-A) and a base (BSWS-B) are required for each gripper jaw.
For a reverse assembly without height set-up, one adapter (BSWS-A) and a kit (BSWS-U) per gripper jaw are required. Another effect of the BSWS-U is, that there are no disturbing fastening bores in the finger contour.

Description	ID
Quick-change Jaw System adapter	
BSWS-A 160	**0303030**
Quick-change Jaw System base	
BSWS-B 160	**0303031**
Quick-change Jaw System reversed	
BSWS-U 160	**0303045**

Universal intermediate jaw



① Gripper connection
② Finger connection
㊹ Optional right or left connection
㊼ Locking

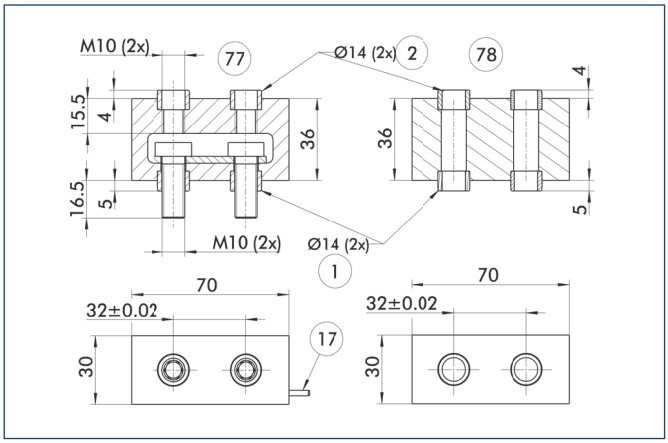
The universal intermediate jaw allows fast tool-free and reliable plugging and shifting of top jaws at the gripper.

Description	ID	Grid dimension
Universal intermediate jaw		
UZB 160	**0300046**	4 mm
UZB-S 160	**5518274**	4 mm

ⓘ The slide UZB-S can be removed completely and has to be ordered separately. Moreover, it allows a fast jaw change.

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

Force measuring jaws

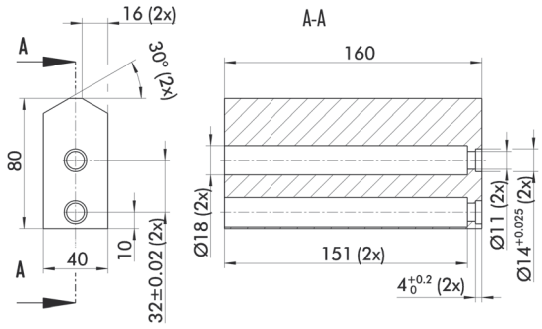


① Gripper connection
② Finger connection
⑰ Cable outlet
⑦⑦ Active intermediate jaws
⑦⑧ Passive intermediate jaws

Force measuring jaws measure gripping forces, but can also determine workpiece weights or dimensional deviations. There are active and passive intermediate jaws (FMS-ZBA or FMS-ZBP). At least one active force measuring jaw is required per gripper, the rest can be passive. For each active jaw, a FMS-A1 control unit and a FMS-A connection cable are required.

Description	ID
Active intermediate jaws	
FMS-ZBA 160	**0301840**
Passive intermediate jaws	
FMS-ZBP 160	**0301841**
Electronic Processor	
FMS-A2	**0301811**
Connection cables	
FMS-AK0200	**0301820**
FMS-AK0500	**0301821**
FMS-AK1000	**0301822**
FMS-AK2000	**0301823**

Finger blanks

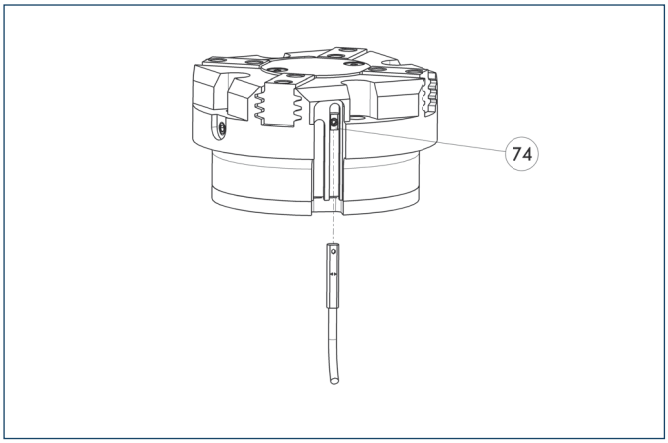


Finger blanks for customized subsequent machining

Description	ID	Material	Scope of delivery
Finger blanks			
ABR-plus 160	**0300014**	Aluminum	1
SBR-plus 160	**0300024**	16 MnCr 5	1

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

Programmable magnetic switch



74 Stop for MMS-P

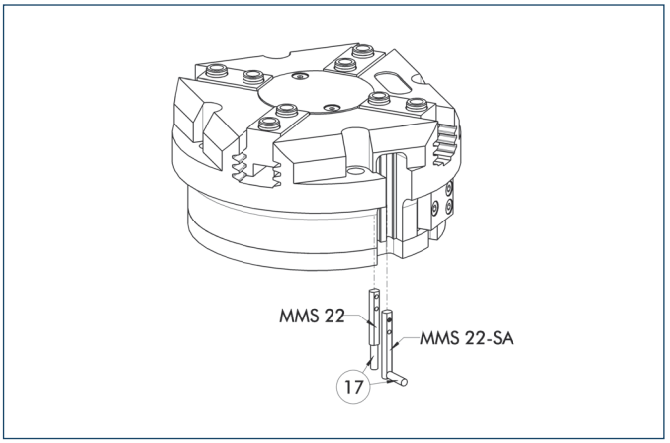
Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

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**	

ⓘ 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.

Electronic magnetic switches



End position monitoring for mounting in the C-slot

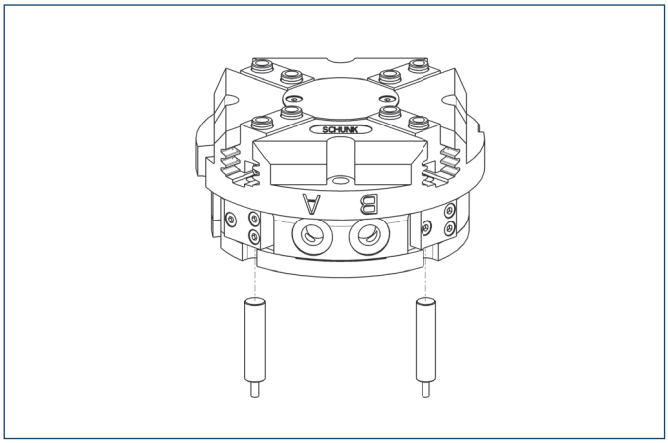
Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	**0301438**	
MMS 22-S-M5-NPN	**0301439**	
MMS 22-S-M8-PNP	**0301432**	•
MMS 22-S-M8-NPN	**0301433**	
MMSK 22-S-PNP	**0301434**	
MMSK 22-S-NPN	**0301435**	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	**0301448**	
MMS 22-S-M5-NPN-SA	**0301449**	
MMS 22-S-M8-PNP-SA	**0301442**	•
MMS 22-S-M8-NPN-SA	**0301443**	
MMSK 22-S-PNP-SA	**0301444**	
MMSK 22-S-NPN-SA	**0301445**	
Reed Switches		
RMS 22-S-M8	**0377720**	•
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-NPN	**0301602**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-NPN	**9641116**	
KA BW08-L 3P-0500-PNP	**0301502**	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.

Inductive proximity switches



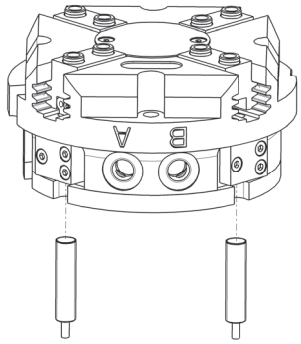
End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
IN-C 80-S-M8	**0301475**	
Connection cables		
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Cylindrical Reed Switches



End position monitoring mounted with mounting kit

Description	ID
Mounting kit for proximity switch	
AS-RMS 80 PGN/PZN-plus 160-380	**0377727**
Reed Switches	
RMS 80-S-M8	**0377721**

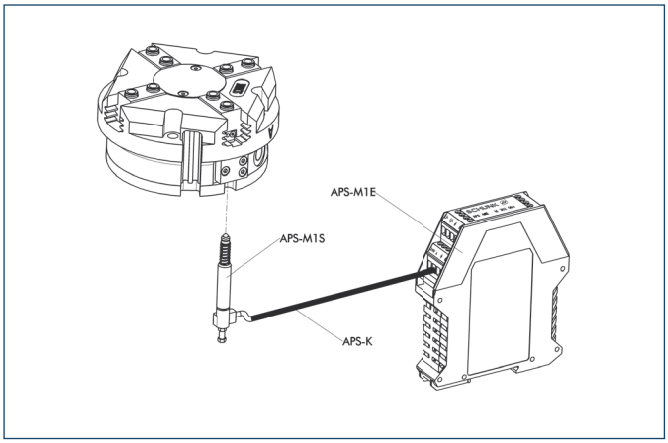
ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ This mounting kit needs to be ordered optionally as an accessory.

ⓘ 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.

Analog position sensor



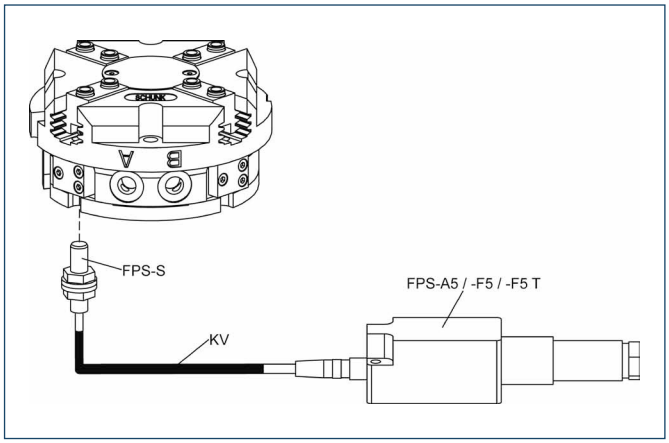
Analog multi position monitoring for any desired positions

Description	ID
Mounting kit	
AS-APS-M1-160/1 and 240/2	**0302083**
Connection cables	
APS-K0200	**0302066**
APS-K0700	**0302068**
Electronic Processor	
APS-M1E	**0302064**
Sensor	
APS-M1S	**0302062**

ⓘ When using an APS system, for each gripper a mounting kit (AS-APS), an APS sensor (APS-M 1S, incl. 3 m cable) as well as an electronics (APS-M1e) are required.

ⓘ An extension cable (APS-K) can be connected between the sensor and the electronics as an option. The max. cable length between the sensor and the electronics is 10 m, between the electronics and their control unit (PLC) it is max. 1 m.

Flexible Position Sensor

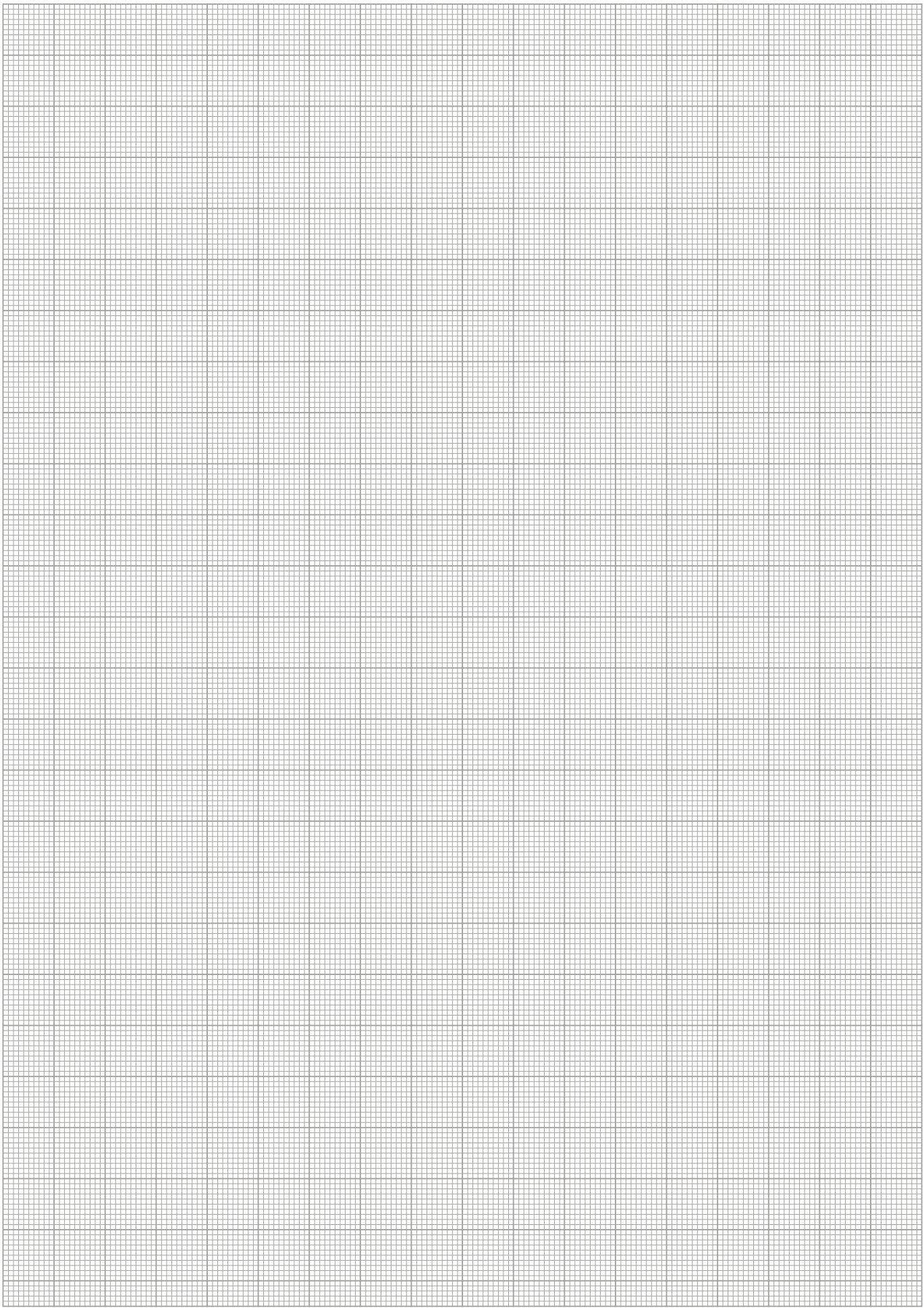


Flexible position monitoring of up to five positions

Description	ID
Mounting kit for FPS	
AS-PGN/PZN-plus 160/1	**0301638**
Electronic Processor	
FPS-F5	**0301805**
FPS-F5 T	**0301807**
Sensor	
FPS-S M8	**0301704**

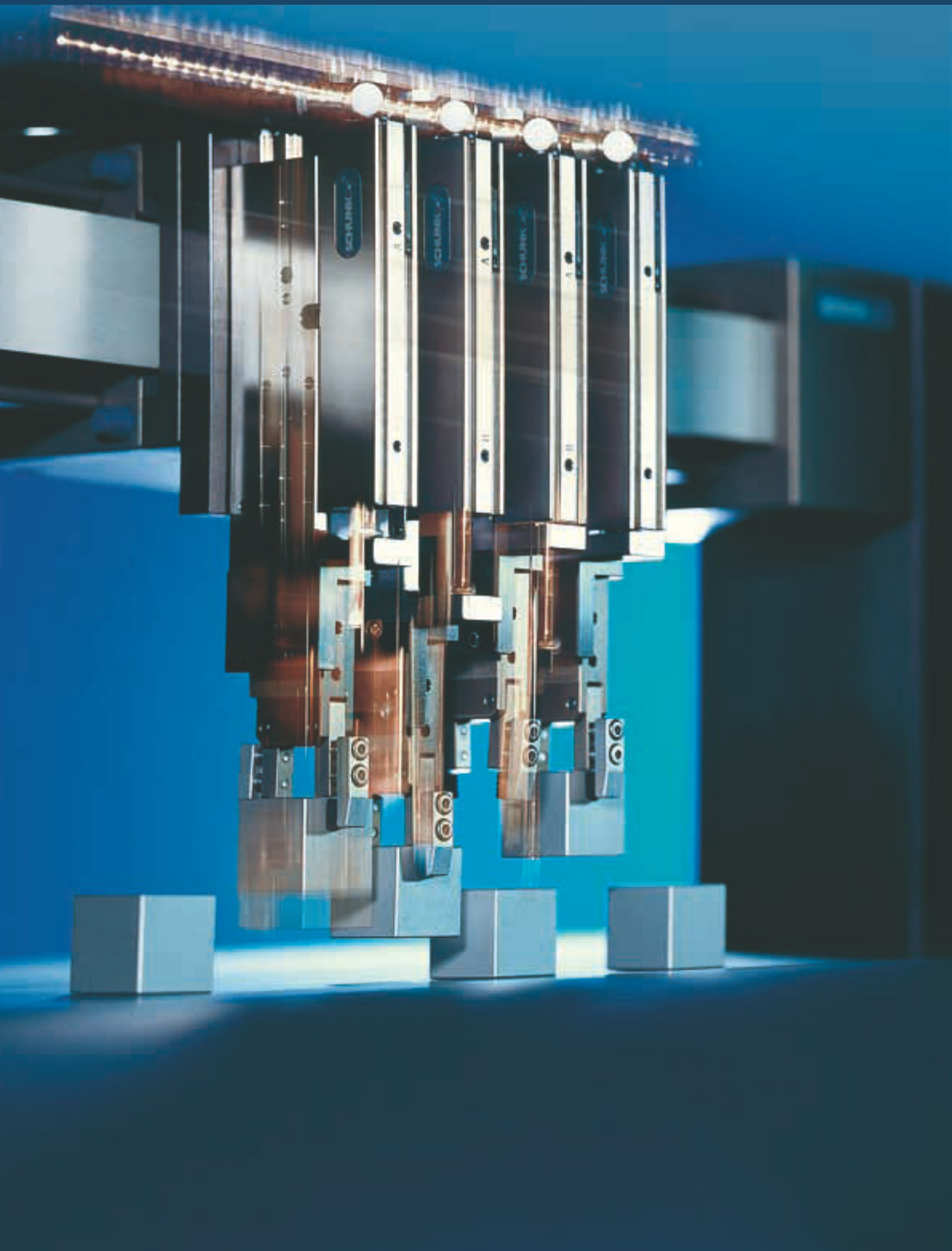
ⓘ When using a FPS system, a FPS sensor (FPS-S) and a control unit (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the “Accessories” catalog section.

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



Pneumatic Gripping Modules

Pneumatic • 2-Finger Angular Gripper



2-FINGER ANGULAR GRIPPER

Sizes
32 ... 50

Weight
0.04 kg ... 0.06 kg

Gripping moment
0.9 Nm ... 4.95 Nm

Angle per jaw
8°

Workpiece weight
0.2 kg ... 0.8 kg

Application example

Rotary unit for simultaneous rotation of two small components by 90°

1 2-Finger Angular Gripper SGB

2 SRU-mini Miniature Rotary Unit

Angular Gripper for small components

small, plastic angular gripper with spring return and single-acting piston

Field of application

for universal use in clean and slightly dirty environments, with special requirements for the corrosion resistance and antistatic properties of the gripper unit

Your advantages and benefits

Housing of carbon-fiber-reinforced plastic
making the gripper extremely light and free from corrosion

Single-acting double piston drive with lever gear drive
for high power transmission and synchronized gripping

Basic version generally equipped with a pressure piece
for the spring-assisted pressing of workpieces

favorable in price
especially suitable for low-budget applications

General note to the series

Principle of function
single-acting cylinder piston with lever gear drive and spring reset

Housing material
carbon-fiber-reinforced plastic with metal functional parts

Base jaw material
carbon-fiber-reinforced plastic

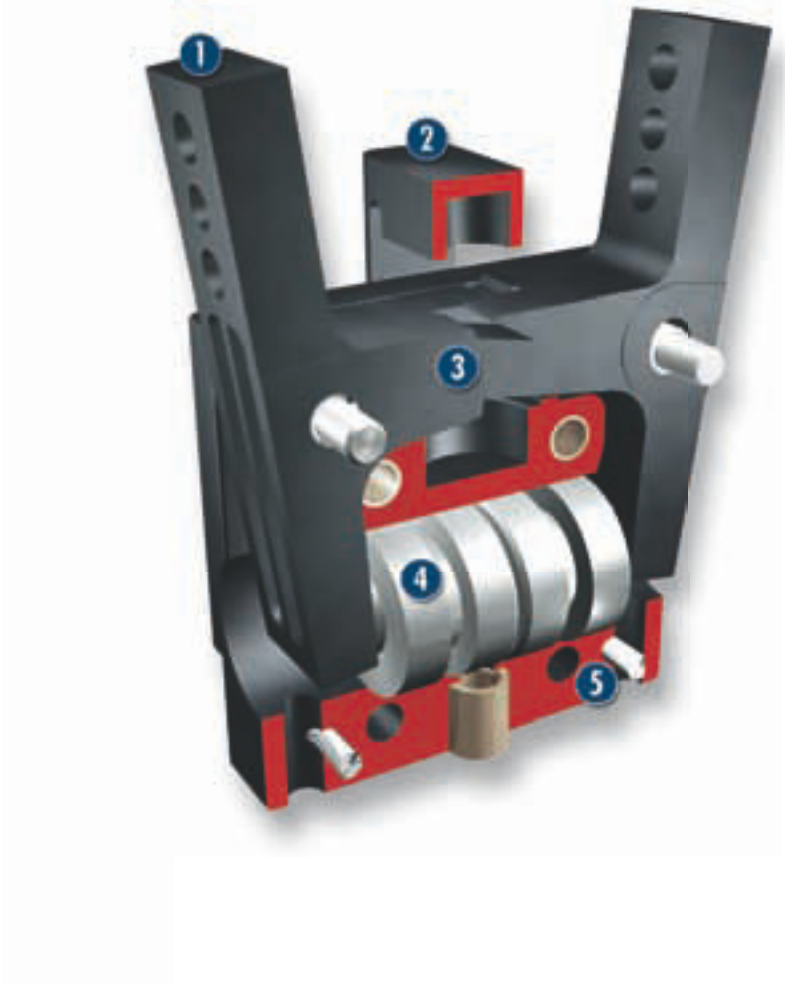
Actuation
pneumatic, with filtered compressed air (10 microns): dry, lubricated or non-lubricated
Pressure medium: Required quality class of compressed air according to DIN ISO 8573-1: 6 4 4

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

Scope of delivery
integrated, spring-loaded locating plate, assembly and operating manual with manufacturer's declaration

Gripping force maintenance device
possible with SDV-P pressure maintenance valve

Sectional diagram



1 **Base jaw**
for the connection of workpiece-specific gripper fingers

2 **Pressure piece**
spring-loaded, for pressing workpieces into place

3 **Lever mechanism**
for precise and synchronized gripping

4 **Drive**
single-acting double piston system with spring return

5 **Housing**
weight-reduced due to the use of plastics

Functional description

The two horizontally arranged pistons are pressed away from each other by compressed air.
The base jaws are opened at an angle and in a synchronized fashion by the bearing-mounted lever mechanism.
Reset is done by compression spring.

Options and special information

The use of carbon-fiber-reinforced plastics endows this gripper with a very low weight and a disproportionately high gripping force.

Accessories

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

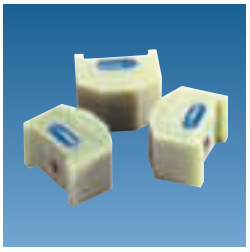
Pressure maintenance valve

Fittings

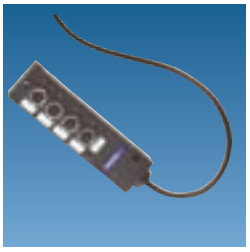
Inductive proximity switches

Sensor cables

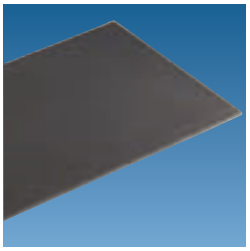
Plastic inserts



Sensor Distributor



Gripper pads



ⓘ 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

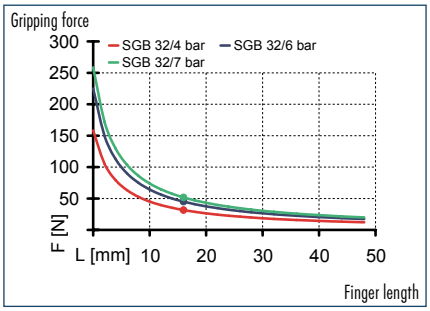
The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit gripping.

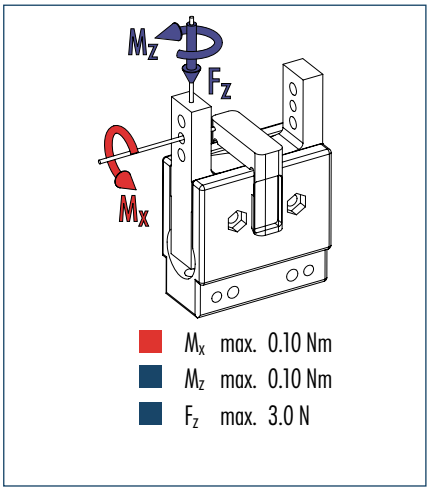
Closing and opening times

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.

SGB 32

Gripping force, O.D. gripping



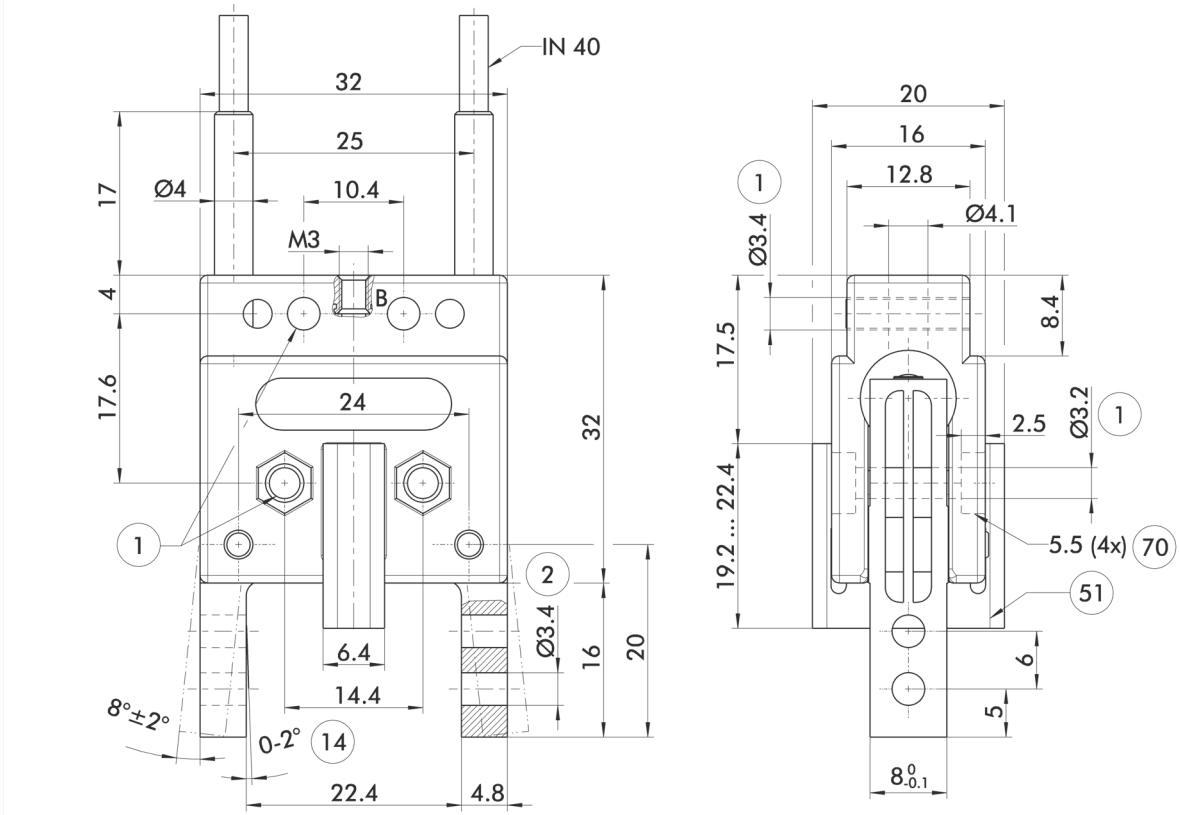


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		SGB 32
ID		0305199
Opening angle per jaw	[°]	8
Closed angle per jaw up to	[°]	2
Closing moment	[Nm]	0.9
Weight	[kg]	0.04
Recommended workpiece weight	[kg]	0.2
Air consumption per double stroke	[cm³]	0.5
Min./max. operating pressure	[bar]	4/7
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.06/0.04
Max. permitted finger length	[mm]	32
Max. permitted weight per finger	[kg]	0.03
IP class		20
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.1
Min. pressure force	[N]	2
Pressure stroke	[mm]	3.2

Main view

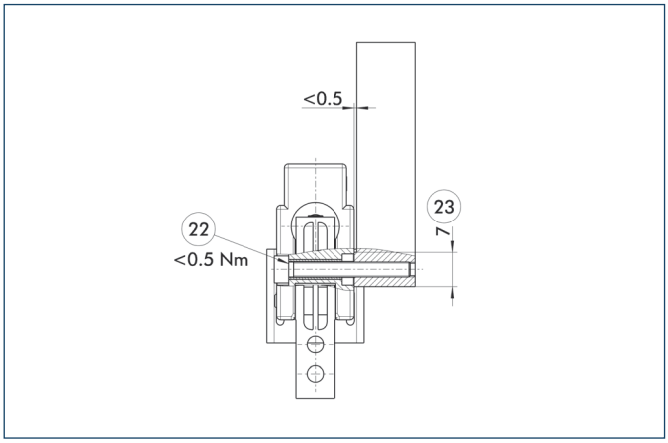


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

① Gripper connection
② Finger connection
⑭ Clamping reserve per finger
㊿ Pressure piece
㉚ Wrench size

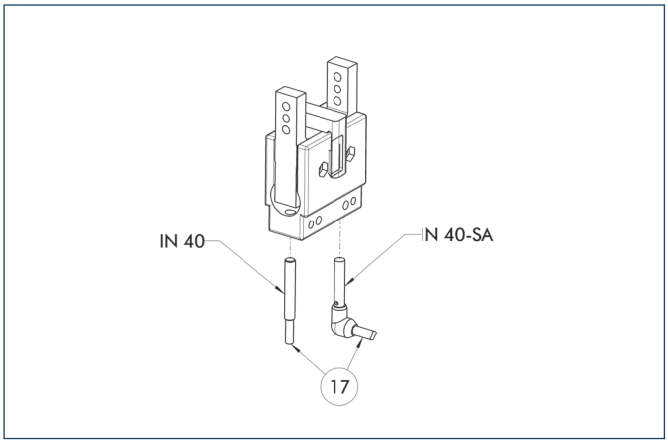
Mounting



㉒ Tightening torque
㉓ Width of path

Recommended for achieving distortion-free gripper mounting

Inductive proximity switches



⑰ Cable outlet

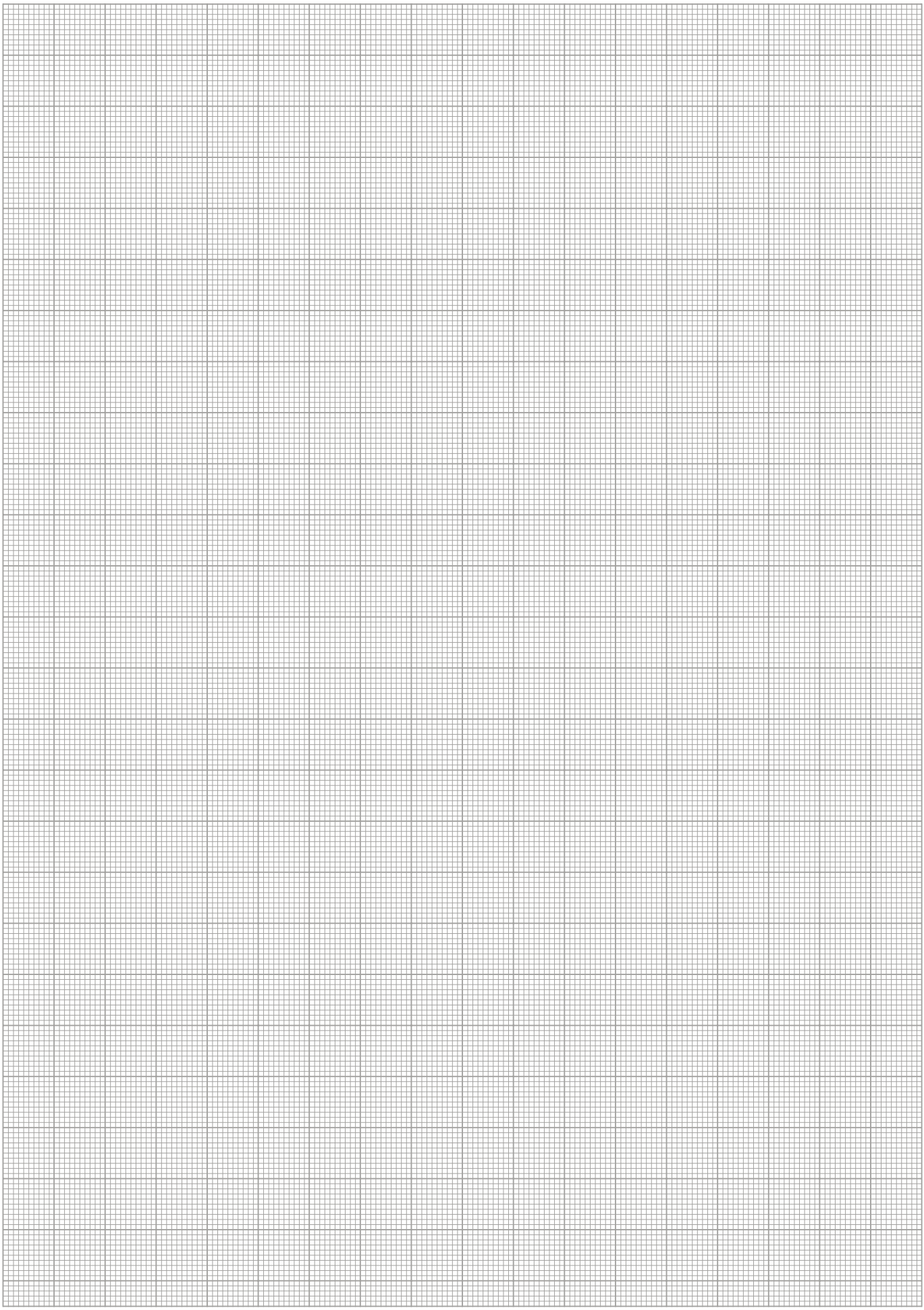
End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 40-S-M8	0301474	•
IN 40-S-M12	0301574	
INK 40-S	0301555	
IN 40-O-M8	0301484	•
IN 40-O-M12	0301584	
INK 40-O	0301556	
Inductive proximity switch with lateral outlet		
IN 40-S-M12-SA	0301577	
IN 40-S-M8-SA	0301473	•
INK 40-S-SA	0301565	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

ⓘ Two sensors, one NO and one NC contact, are required for each gripper, plus extension cables as an option.

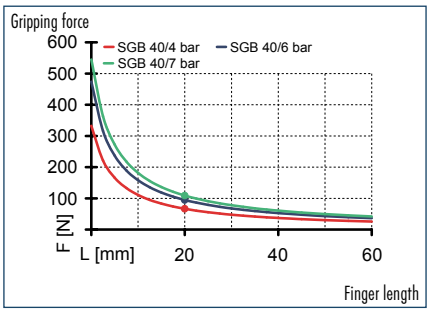
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

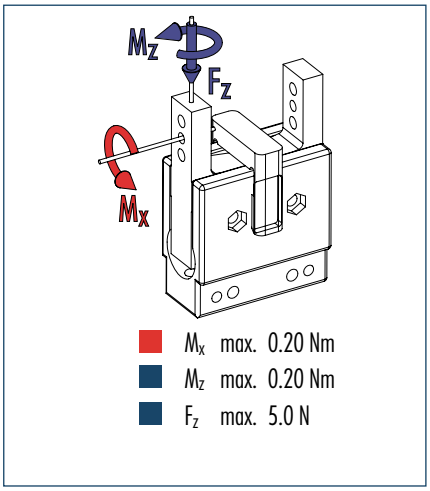
You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.



SGB 40

Gripping force, O.D. gripping



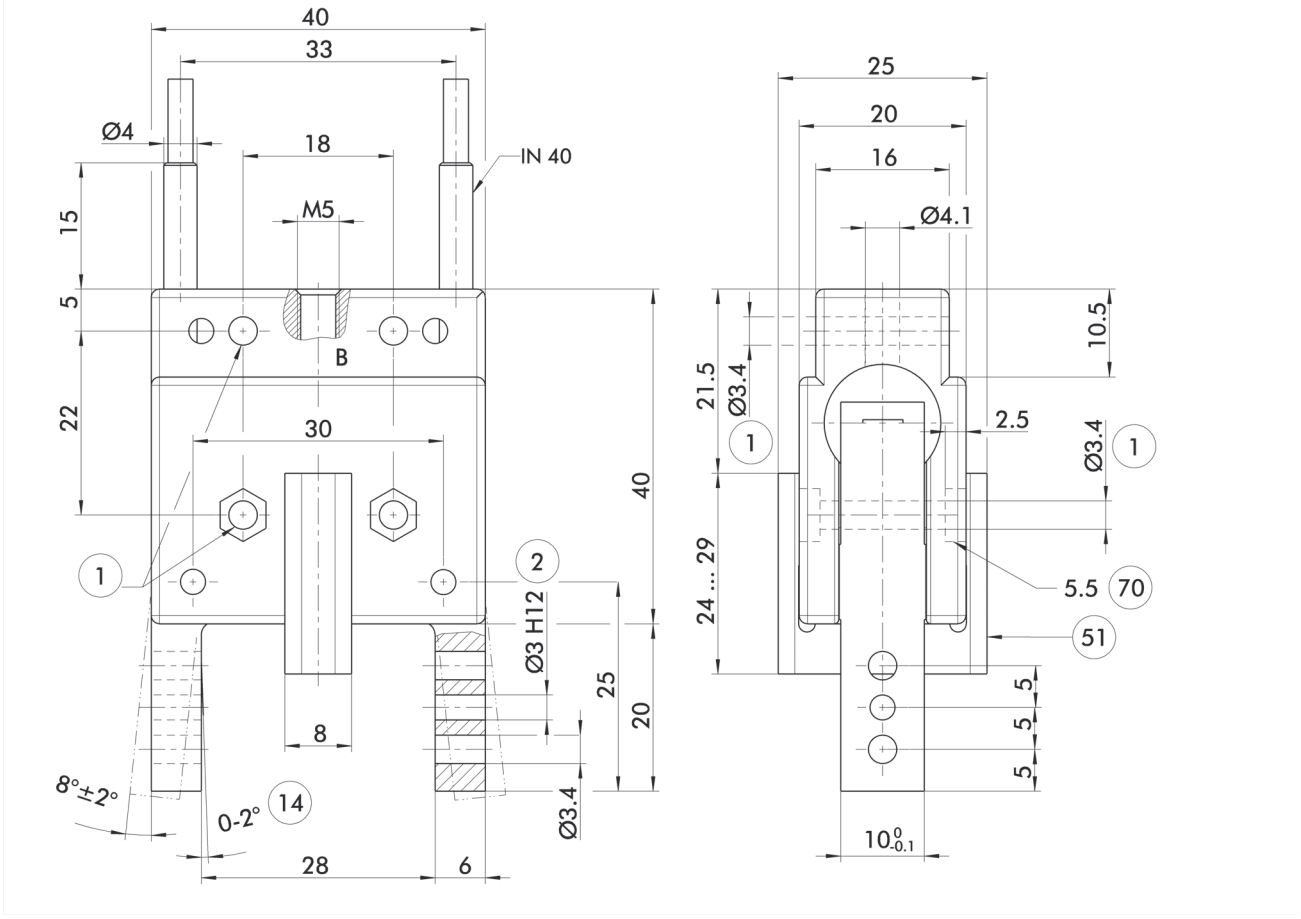


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		SGB 40
ID		**0305200**
Opening angle per jaw	[°]	8
Closed angle per jaw up to	[°]	2
Closing moment	[Nm]	2.37
Weight	[kg]	0.05
Recommended workpiece weight	[kg]	0.4
Air consumption per double stroke	[cm³]	1
Min./max. operating pressure	[bar]	4/7
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.08/0.05
Max. permitted finger length	[mm]	40
Max. permitted weight per finger	[kg]	0.05
IP class		20
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.1
Min. pressure force	[N]	4
Pressure stroke	[mm]	4

Main view

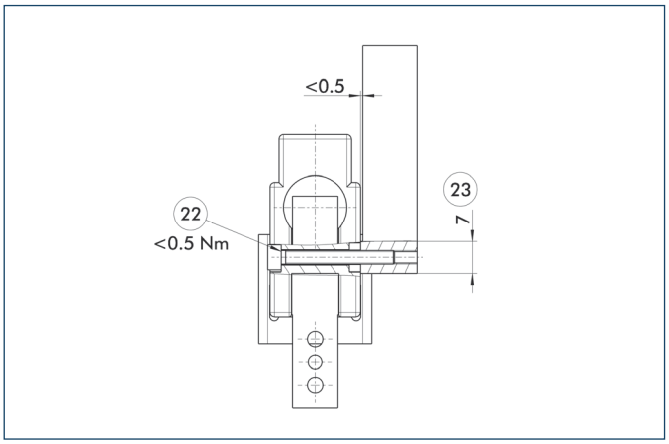


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

① Gripper connection
② Finger connection
⑭ Clamping reserve per finger
㊿ Pressure piece
㉚ Wrench size

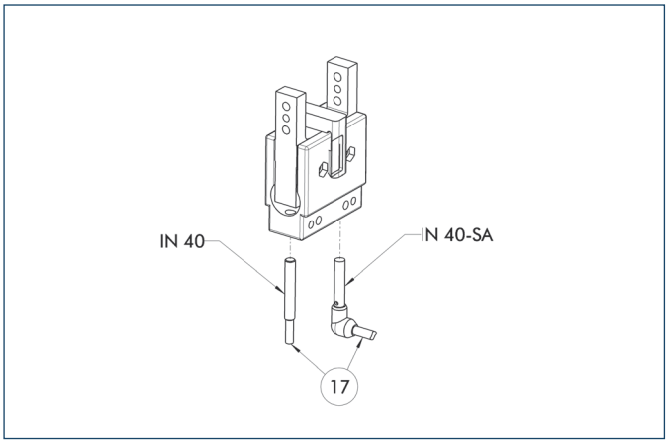
Mounting



㉒ Tightening torque
㉓ Width of path

Recommended for achieving distortion-free gripper mounting

Inductive proximity switches



⑰ Cable outlet

End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 40-S-M8	0301474	•
IN 40-S-M12	0301574	
INK 40-S	0301555	
IN 40-O-M8	0301484	•
IN 40-O-M12	0301584	
INK 40-O	0301556	
Inductive proximity switch with lateral outlet		
IN 40-S-M12-SA	0301577	
IN 40-S-M8-SA	0301473	•
INK 40-S-SA	0301565	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

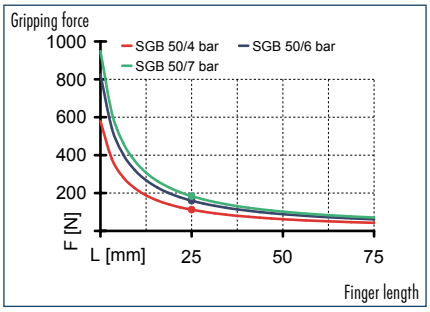
ⓘ Two sensors, one NO and one NC contact, are required for each gripper, plus extension cables as an option.

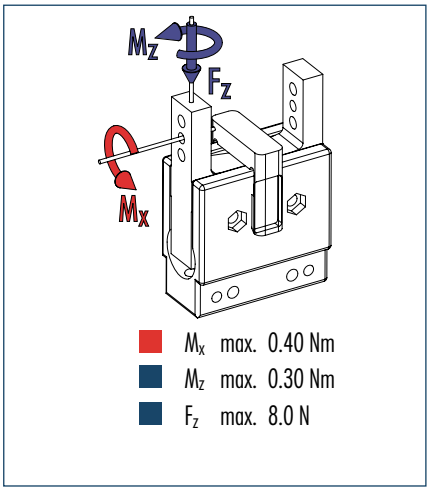
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

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

SGB 50

Gripping force, O.D. gripping



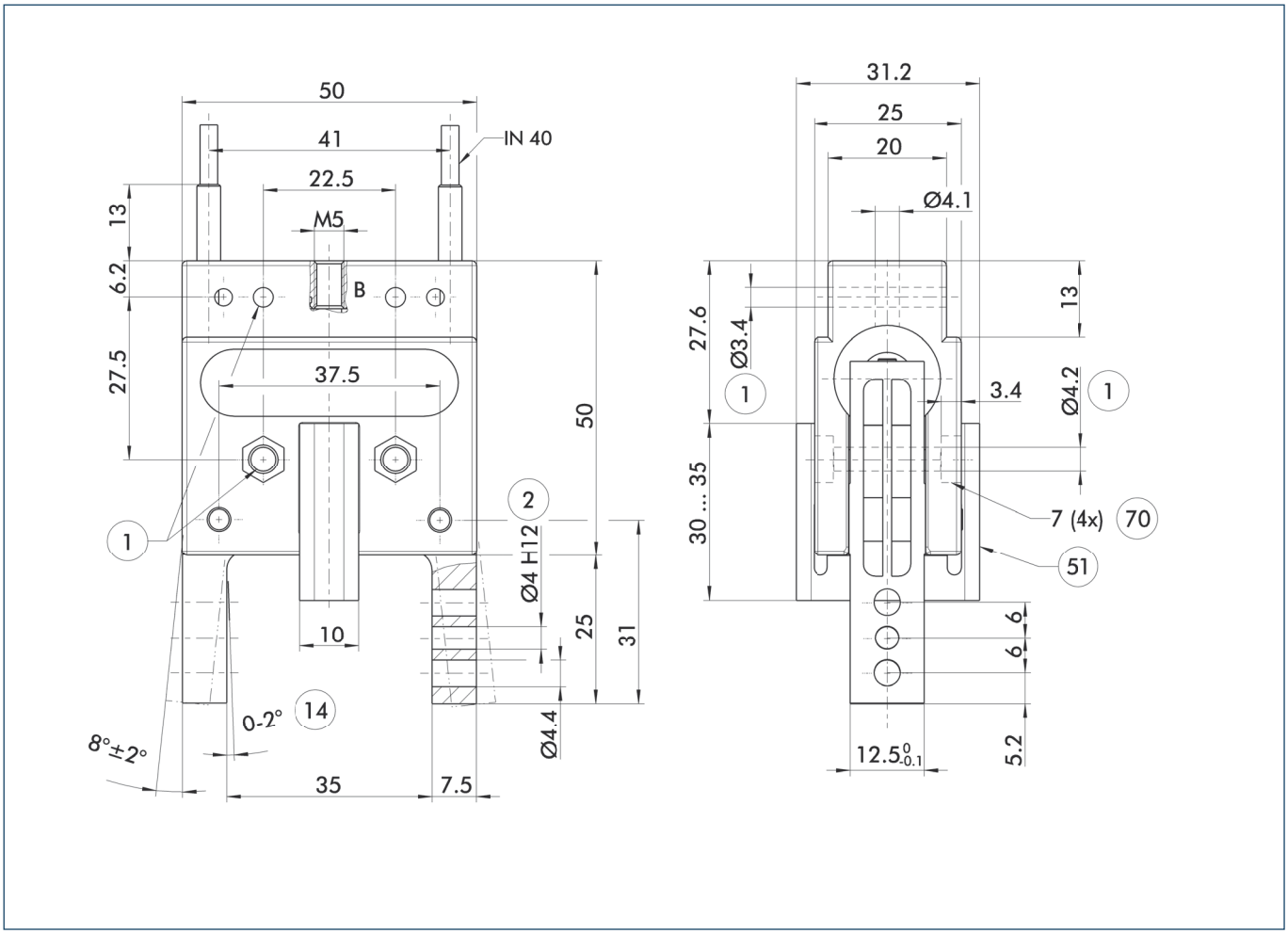


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		SGB 50
ID		0305201
Opening angle per jaw	[°]	8
Closed angle per jaw up to	[°]	2
Closing moment	[Nm]	4.95
Weight	[kg]	0.06
Recommended workpiece weight	[kg]	0.8
Air consumption per double stroke	[cm³]	1.8
Min./max. operating pressure	[bar]	4/7
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.08/0.05
Max. permitted finger length	[mm]	50
Max. permitted weight per finger	[kg]	0.07
IP class		20
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.1
Min. pressure force	[N]	4
Pressure stroke	[mm]	5

Main view

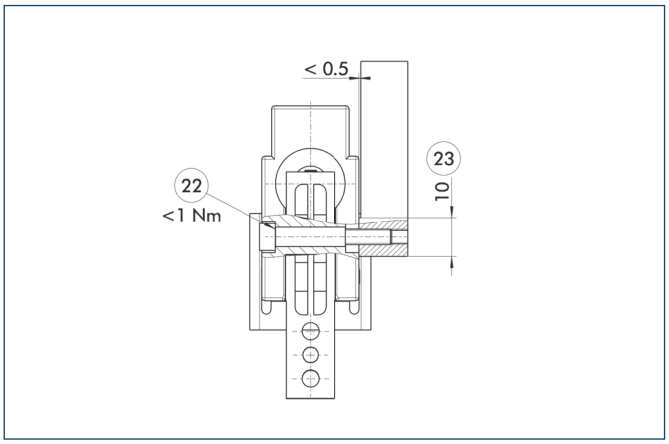


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

① Gripper connection
② Finger connection
⑭ Clamping reserve per finger
㊿ Pressure piece
㉚ Wrench size

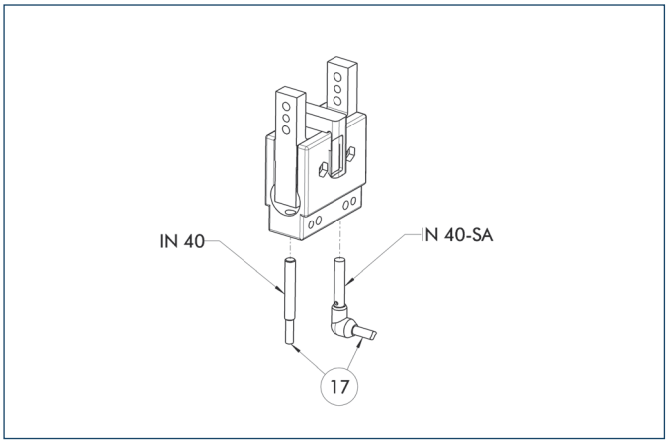
Mounting



㉒ Tightening torque
㉓ Width of path

Recommended for achieving distortion-free gripper mounting

Inductive proximity switches



⑰ Cable outlet

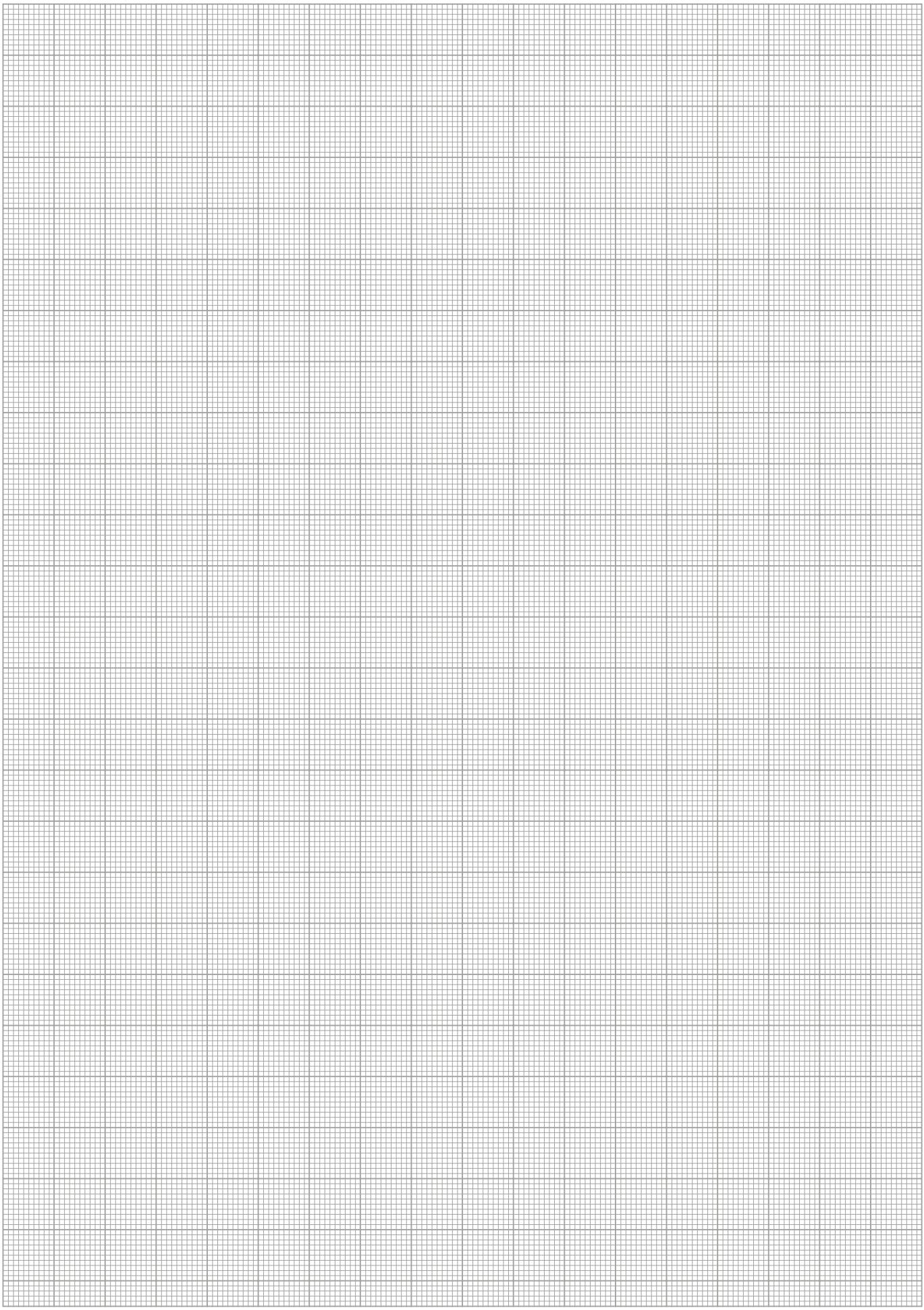
End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 40-S-M8	**0301474**	•
IN 40-S-M12	**0301574**	
INK 40-S	**0301555**	
IN 40-O-M8	**0301484**	•
IN 40-O-M12	**0301584**	
INK 40-O	**0301556**	
Inductive proximity switch with lateral outlet		
IN 40-S-M12-SA	**0301577**	
IN 40-S-M8-SA	**0301473**	•
INK 40-S-SA	**0301565**	
Connection cables		
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors, one NO and one NC contact, are required for each gripper, plus extension cables as an option.

ⓘ 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.



SWG

Sizes
10 ... 50

Weight
0.0025 kg ... 0.213 kg

Gripping moment
0.01 Nm ... 2.8 Nm

Angle per jaw
15°

Workpiece weight
0.007 kg ... 0.46 kg

Application example

Triple transfer unit for packaging with small boxboards

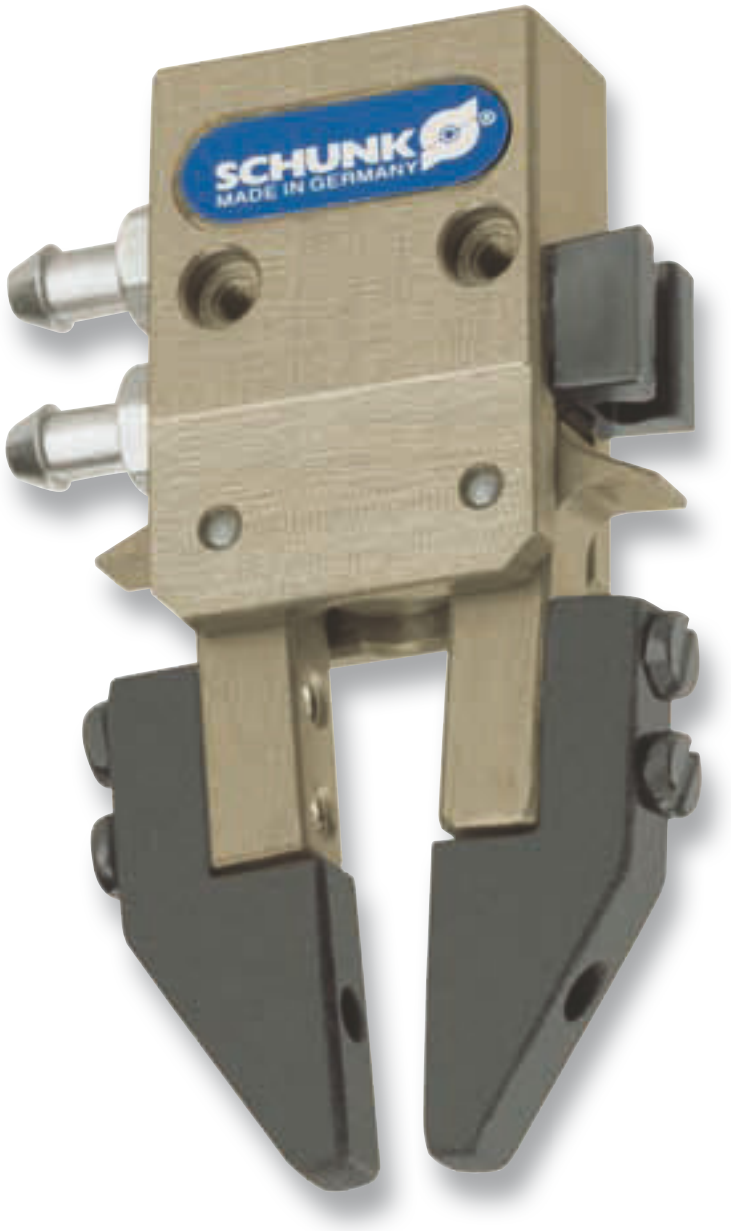
1. 2-Finger Angular Gripper SWG
2. OPR collision and overload protection device

Gripper for small components

narrow double-acting 2-finger angular gripper

Field of application

For universal use in clean and slightly dirty environments. Suitable for applications requiring stacked, space-saving gripper assemblies.



Your advantages and benefits

Slim design
allowing the grippers to be stacked

Spring-assisted gripping force maintenance
holds the workpiece even in case of a loss of pressure

Wedge-hook design
for high power transmission and synchronized gripping

Light, compact design
for space-saving handling without interfering contours

Monitoring via electronic magnetic switches
a space-saving feature in a slot in the housing

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

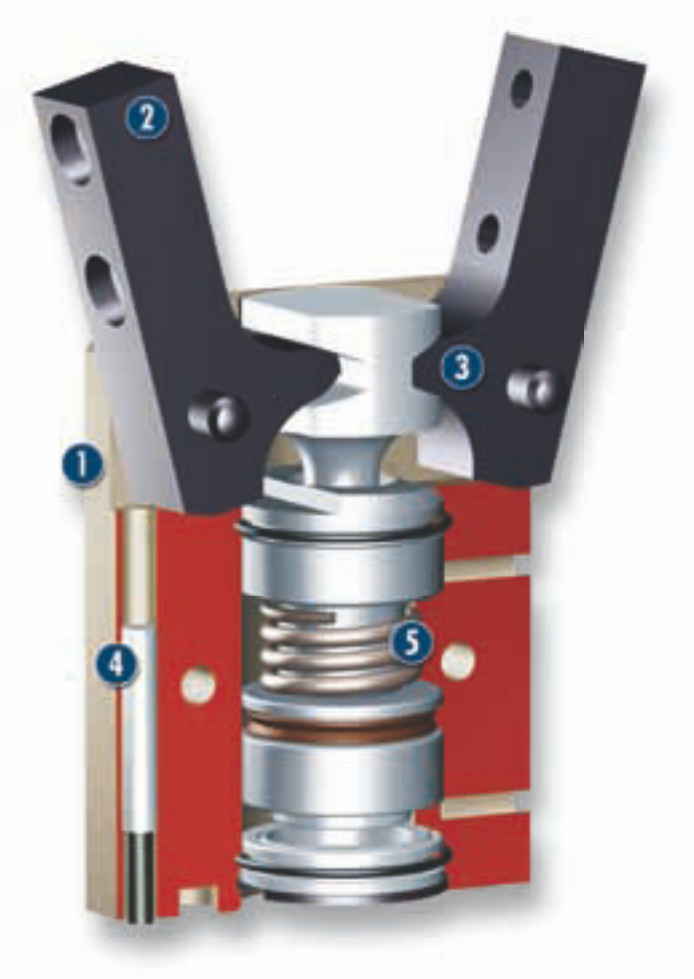
Actuation
pneumatic, with filtered compressed air (10 microns): dry, lubricated or non-lubricated
Pressure medium: Required quality class of compressed air according to DIN ISO 8573-1: 6 4 4

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

Gripping force maintenance device
always integrated, also possible via SDV-P pressure maintenance valve

Sectional diagram



1 **Housing**
weight-optimized through application of hard-anodized, high-strength aluminum alloy

2 **Base jaws**
for the connection of workpiece-specific gripper fingers

3 **Kinematics**
precise gear for centric gripping

4 **Sensor system**
electronic magnetic switch, located space-saving in the groove of the housing

5 **Gripping force maintenance device**
mechanic gripping force maintenance for O.D. gripping

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.

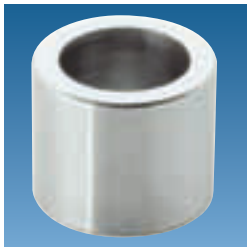
Options and special information

The SWG angular gripper can be stacked directly to reduce interfering contours.

Accessories

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

Centering sleeves

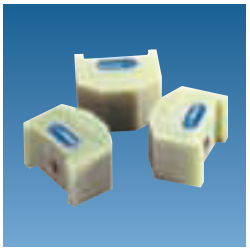


Fittings

Pressure maintenance valve

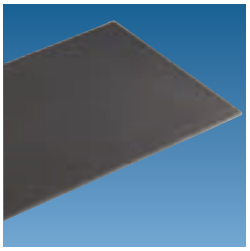
Magnetic Switches

Plastic inserts



Sensor cables

Gripper pads



Sensor Distributor

ⓘ 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.

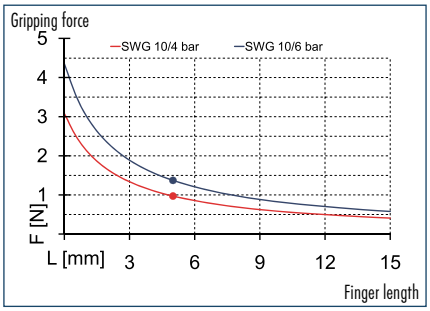
Closing and opening times

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.

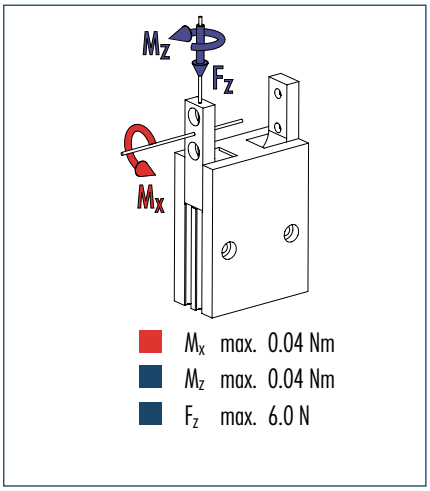
SWG 10

Pneumatic • 2-Finger Angular Gripper • Gripper for small components

Gripping force, O.D. gripping



Finger load

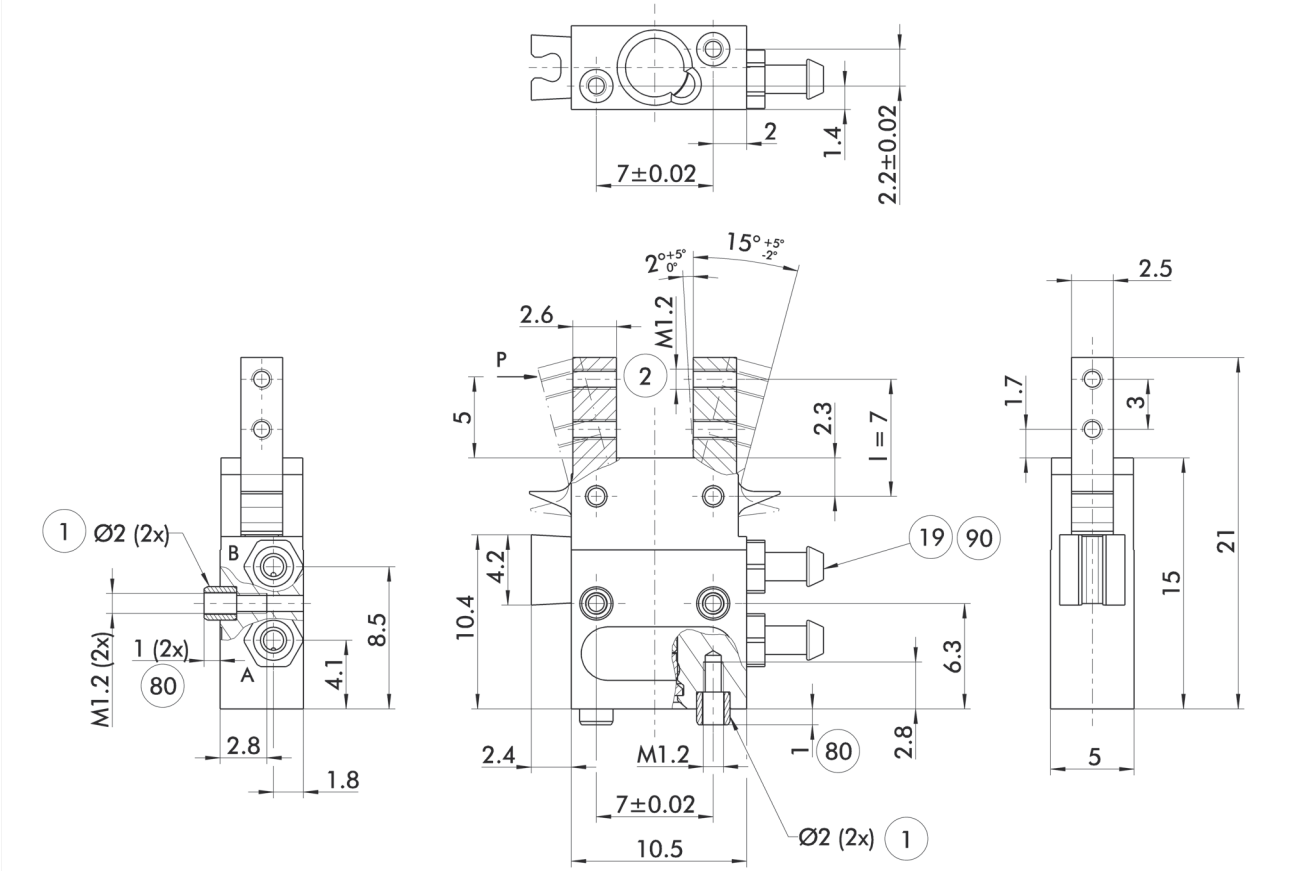


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		SWG 10
ID		0305116
Opening angle per jaw	[°]	15
Closed angle per jaw up to	[°]	7
Closing moment	[Nm]	0.01
Spring-actuated closing moment	[Nm]	0.0027
Weight	[kg]	0.0025
Recommended workpiece weight	[kg]	0.007
Air consumption per double stroke	[cm³]	0.055
Min./max. operating pressure	[bar]	4/6.5
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.015/0.02
Max. permitted finger length	[mm]	10
Max. permitted weight per finger	[kg]	0.003
IP class		30
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.05

Main view

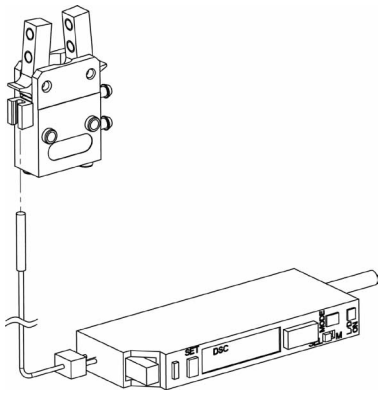


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a 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
⑲ Air connection
㊽ Depth of the centering sleeve hole in the matching part
㊿ Polyurethane hoses with an I.D. of 1.6 mm. Source: AC Aircontrols GmbH, Kempen, Germany

Optical Proximity Switch



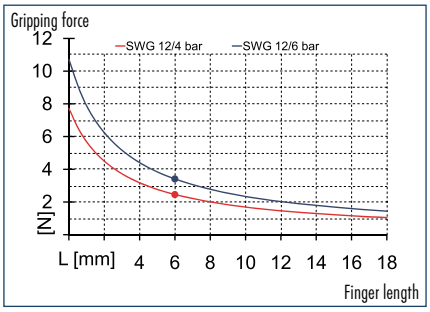
Description	ID
Optical Proximity Switch	
ONS 01	**0301390**
Optical wave guide	
ONS 01-LWL	**0301391**

ⓘ Per each gripper a sensor (ONS 01) as well as an optical wave guide (ONS 01-LWL) are required. Assembly of the optical sensors at the gripper is done with the supplied plastic clip.

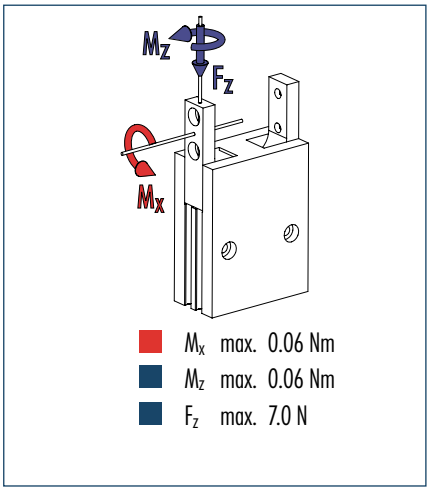
SWG 12

Pneumatic • 2-Finger Angular Gripper • Gripper for small components

Gripping force, O.D. gripping



Finger load

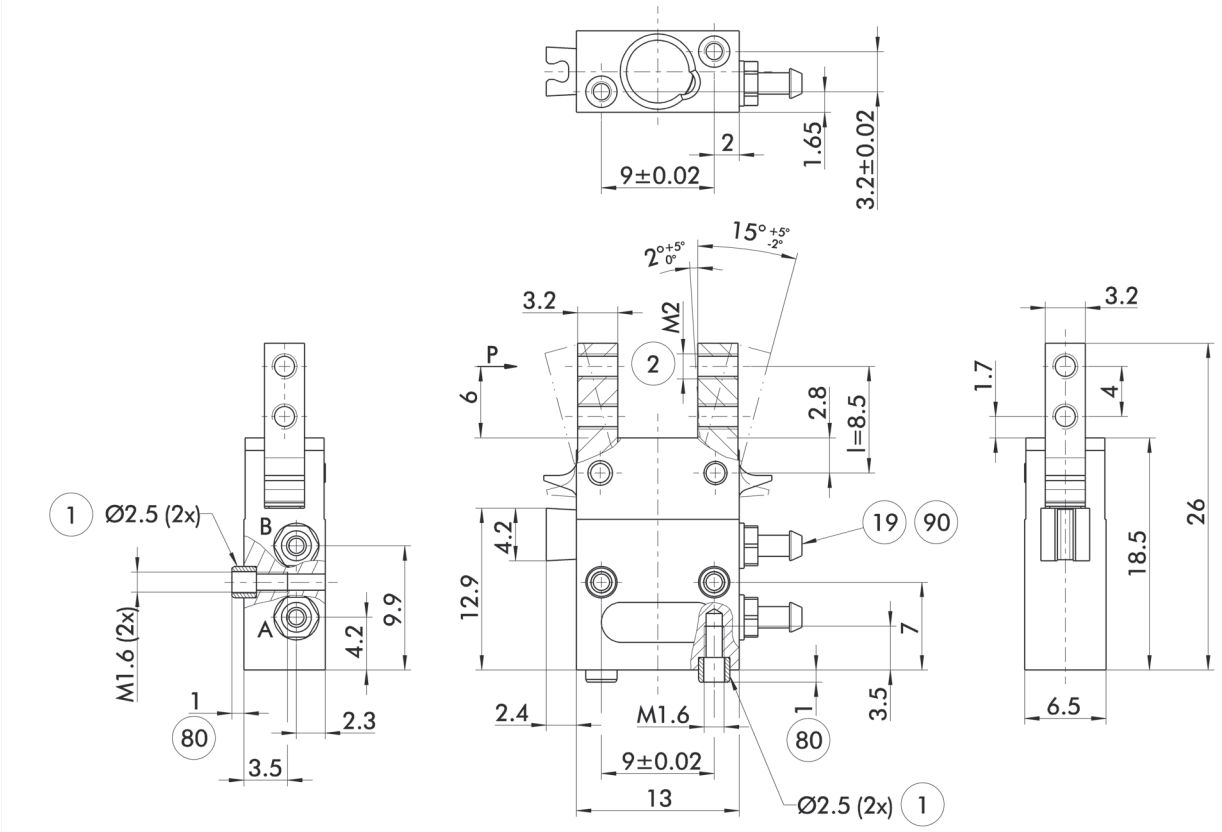


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		SWG 12
ID		**0305115**
Opening angle per jaw	[°]	15
Closed angle per jaw up to	[°]	7
Closing moment	[Nm]	0.03
Spring-actuated closing moment	[Nm]	0.009
Weight	[kg]	0.0048
Recommended workpiece weight	[kg]	0.017
Air consumption per double stroke	[cm³]	0.07
Min./max. operating pressure	[bar]	4/6.5
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.015/0.02
Max. permitted finger length	[mm]	12
Max. permitted weight per finger	[kg]	0.006
IP class		30
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.05

Main view

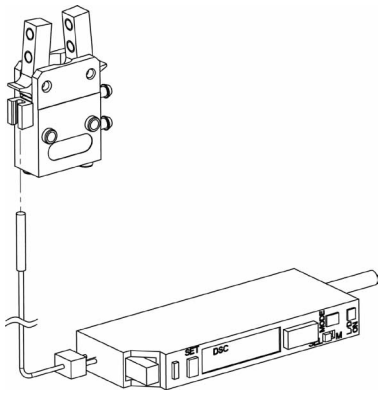


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a 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
⑲ Air connection
㉚ Depth of the centering sleeve hole in the matching part
㉚ Polyurethane hoses with an I.D. of 1.6 mm. Source: AC Aircontrols GmbH, Kempen, Germany

Optical Proximity Switch

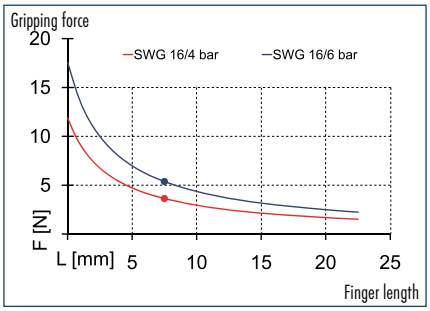


Description	ID
Optical Proximity Switch	
ONS 01	**0301390**
Optical wave guide	
ONS 01-LWL	**0301391**

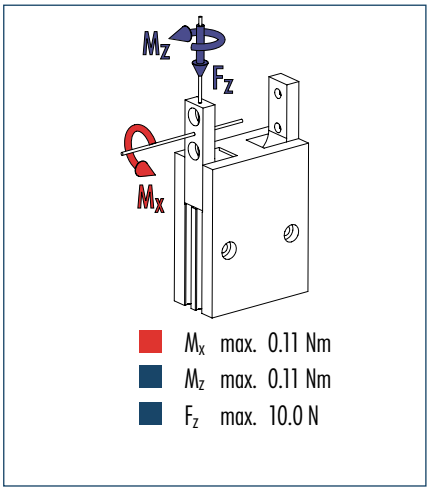
ⓘ Per each gripper a sensor (ONS 01) as well as an optical wave guide (ONS 01-LWL) are required. Assembly of the optical sensors at the gripper is done with the supplied plastic clip.

SWG 16

Gripping force, O.D. gripping



Finger load

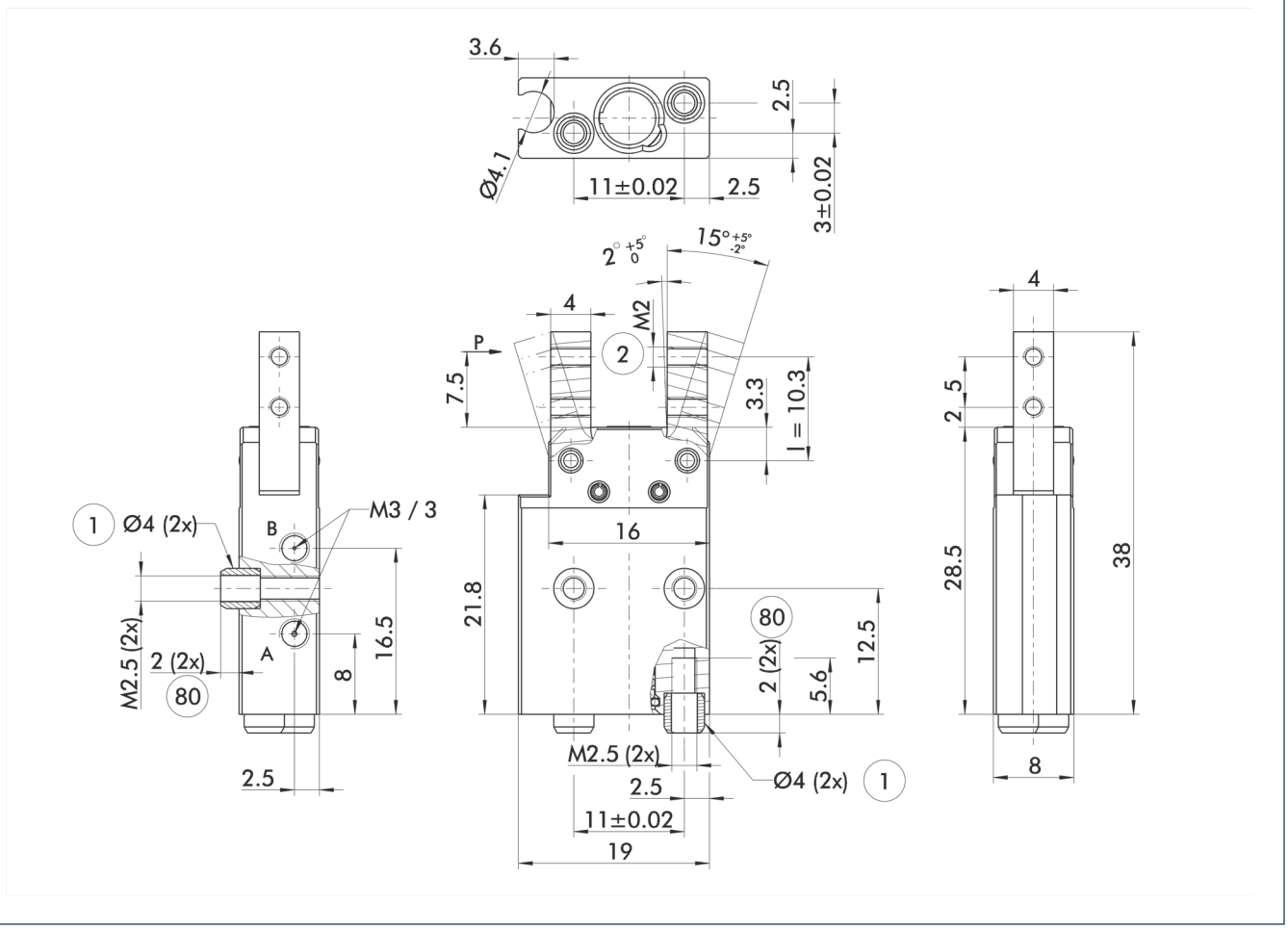


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		SWG 16
ID		0305104
Opening angle per jaw	[°]	15
Closed angle per jaw up to	[°]	7
Closing moment	[Nm]	0.058
Spring-actuated closing moment	[Nm]	0.017
Weight	[kg]	0.011
Recommended workpiece weight	[kg]	0.027
Air consumption per double stroke	[cm³]	0.12
Min./max. operating pressure	[bar]	4/6.5
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.015/0.02
Max. permitted finger length	[mm]	15
Max. permitted weight per finger	[kg]	0.012
IP class		30
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.05

Main view

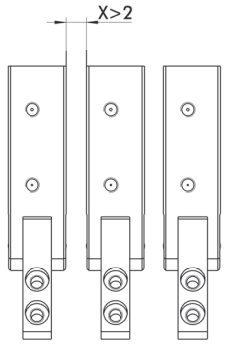


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

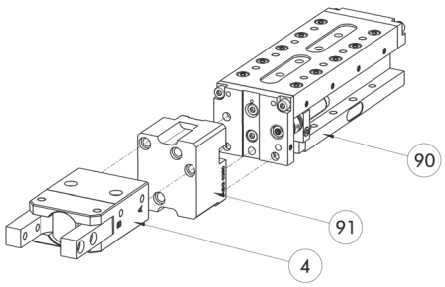
A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing
① Gripper connection
② Finger connection
⑧⓪ Depth of the centering sleeve hole in the matching part

Stacked arrangement



CAUTION: Monitoring is carried out by magnetic switches, and in case of side-by-side assembly of several units, a minimum distance of X mm between the units must be maintained.

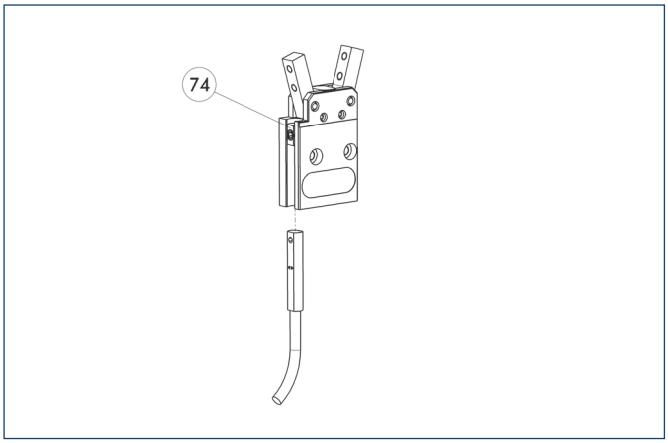
Modular Assembly Automation



④ Gripper
⑨⓪ CLM
⑨① ASG

This gripper can be combined with the standard linear modules LM, KLM, CLM and ELM of the GEMOTEC modular system. For more information see our main catalog "Modular Assembly Automation".

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**	

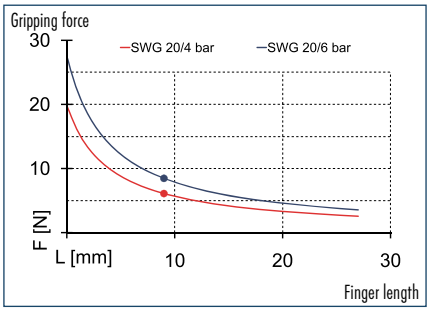
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

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

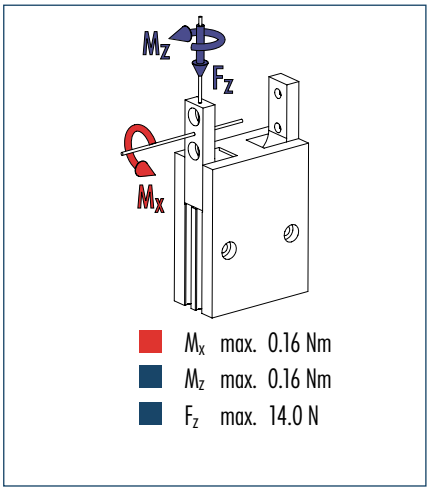
You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.

SWG 20

Gripping force, O.D. gripping



Finger load

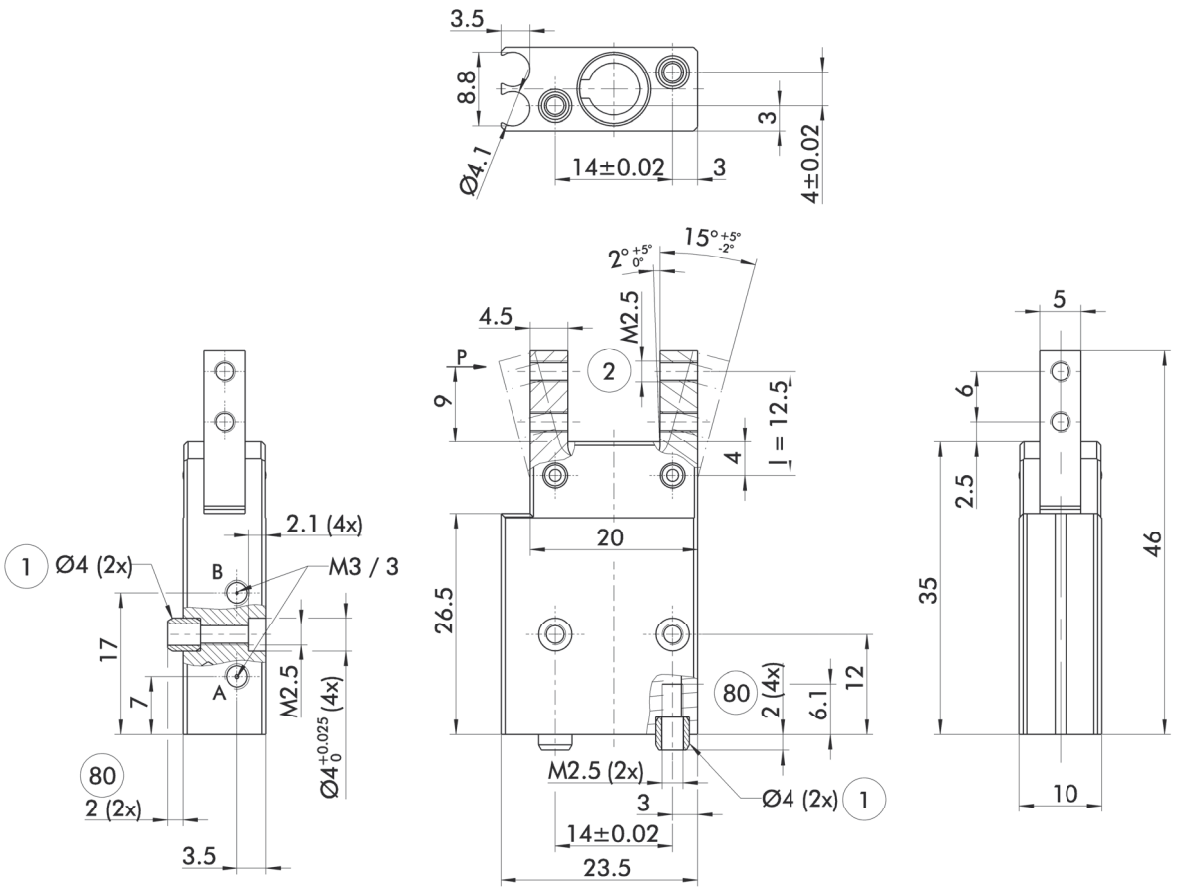


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		SWG 20
ID		0305105
Opening angle per jaw	[°]	15
Closed angle per jaw up to	[°]	7
Closing moment	[Nm]	0.11
Spring-actuated closing moment	[Nm]	0.033
Weight	[kg]	0.019
Recommended workpiece weight	[kg]	0.043
Air consumption per double stroke	[cm³]	0.25
Min./max. operating pressure	[bar]	4/6.5
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.015/0.02
Max. permitted finger length	[mm]	18
Max. permitted weight per finger	[kg]	0.02
IP class		30
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.05

Main view

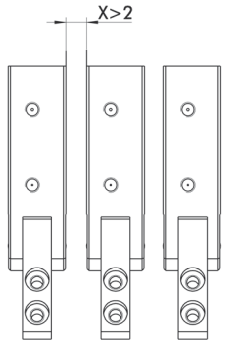


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

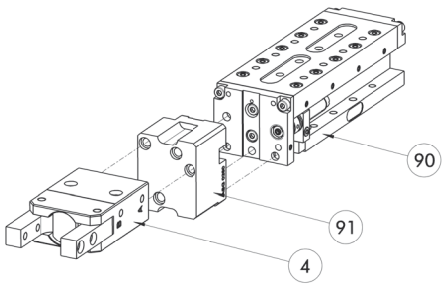
A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing
① Gripper connection
② Finger connection
80 Depth of the centering sleeve hole in the matching part

Stacked arrangement



CAUTION: Monitoring is carried out by magnetic switches, and in case of side-by-side assembly of several units, a minimum distance of X mm between the units must be maintained.

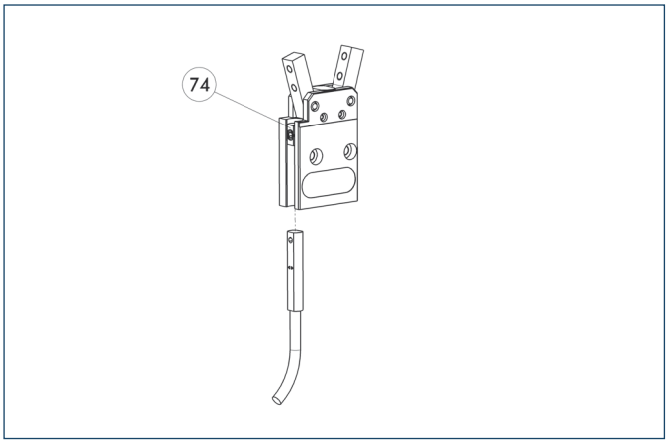
Modular Assembly Automation



④ Gripper
⑨⓪ CLM
⑨① ASG

This gripper can be combined with the standard linear modules LM, KLM, CLM and ELM of the GEMOTEC modular system. For more information see our main catalog "Modular Assembly Automation".

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**	

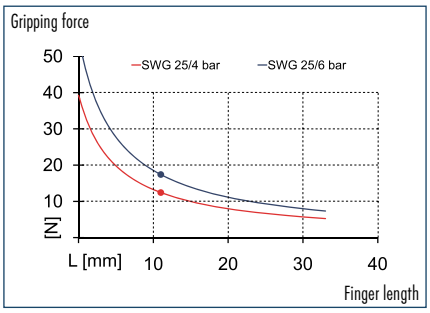
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

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

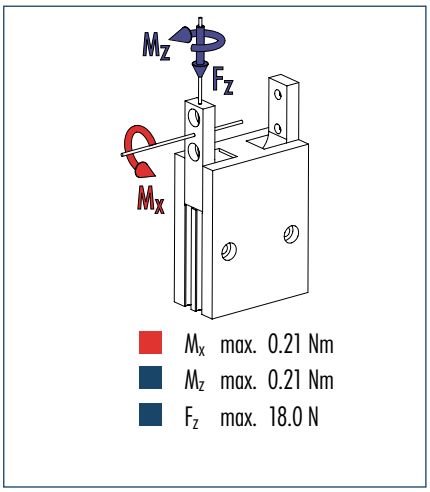
You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.

SWG 25

Gripping force, O.D. gripping



Finger load

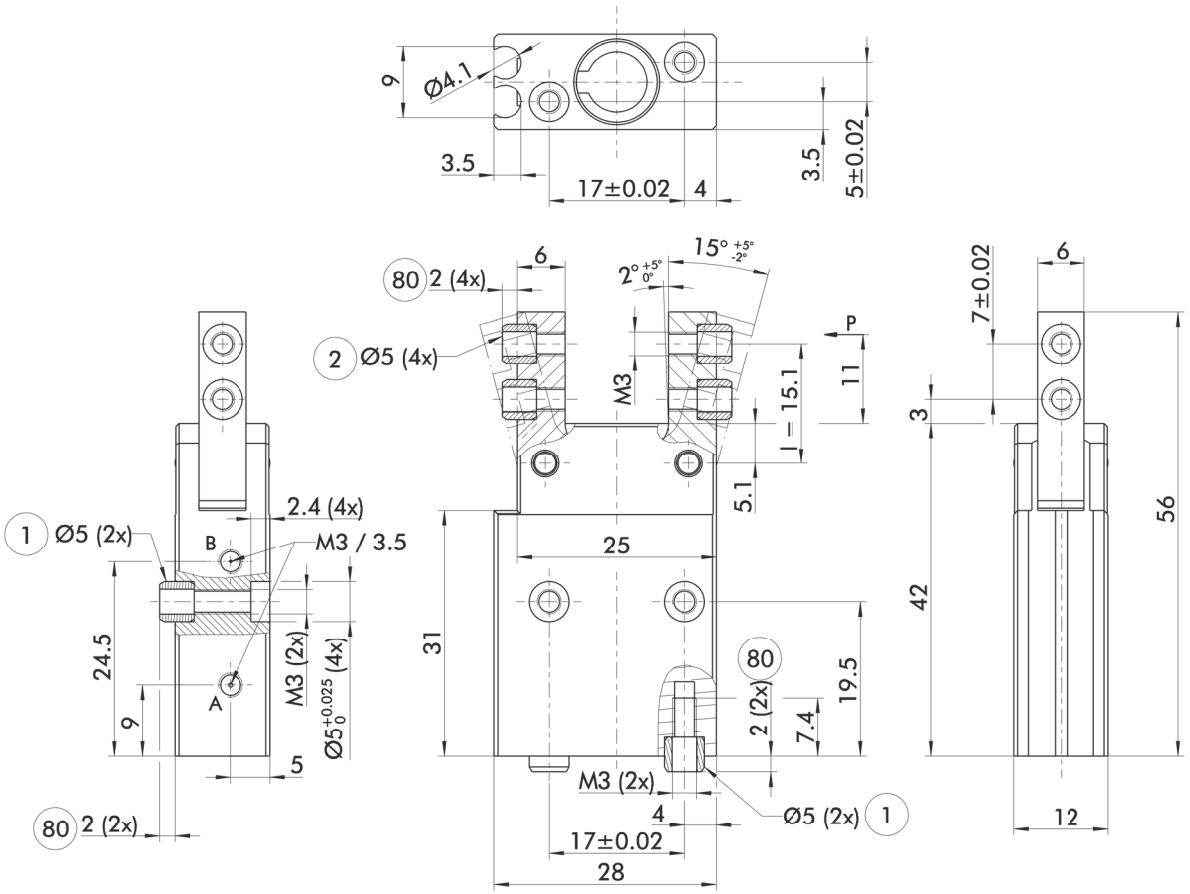


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		SWG 25
ID		0305106
Opening angle per jaw	[°]	15
Closed angle per jaw up to	[°]	7
Closing moment	[Nm]	0.28
Spring-actuated closing moment	[Nm]	0.08
Weight	[kg]	0.035
Recommended workpiece weight	[kg]	0.09
Air consumption per double stroke	[cm³]	0.4
Min./max. operating pressure	[bar]	4/6.5
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.015/0.02
Max. permitted finger length	[mm]	22
Max. permitted weight per finger	[kg]	0.028
IP class		30
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.05

Main view

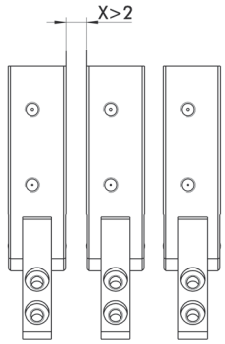


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

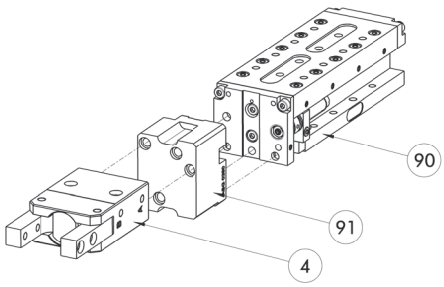
A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing
① Gripper connection
② Finger connection
⑧⓪ Depth of the centering sleeve hole in the matching part

Stacked arrangement



CAUTION: Monitoring is carried out by magnetic switches, and in case of side-by-side assembly of several units, a minimum distance of X mm between the units must be maintained.

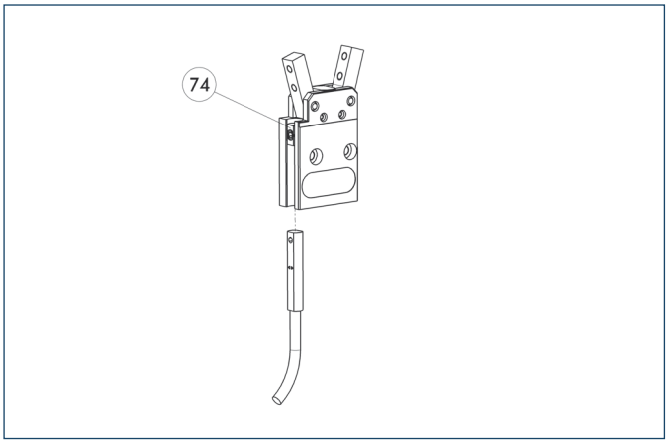
Modular Assembly Automation



④ Gripper
⑨⓪ CLM
⑨① ASG

This gripper can be combined with the standard linear modules LM, KLM, CLM and ELM of the GEMOTEC modular system. For more information see our main catalog "Modular Assembly Automation".

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**	

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

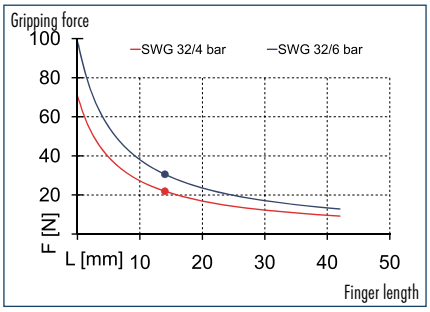
ⓘ Per gripper one sensor (closer/NO) is required, optionally a cable extension.

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

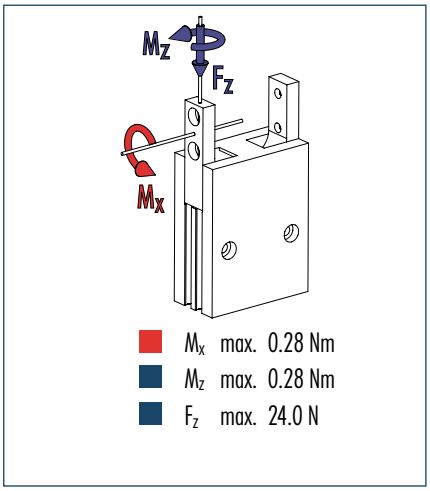
SWG 32

Pneumatic • 2-Finger Angular Gripper • Gripper for small components

Gripping force, O.D. gripping



Finger load

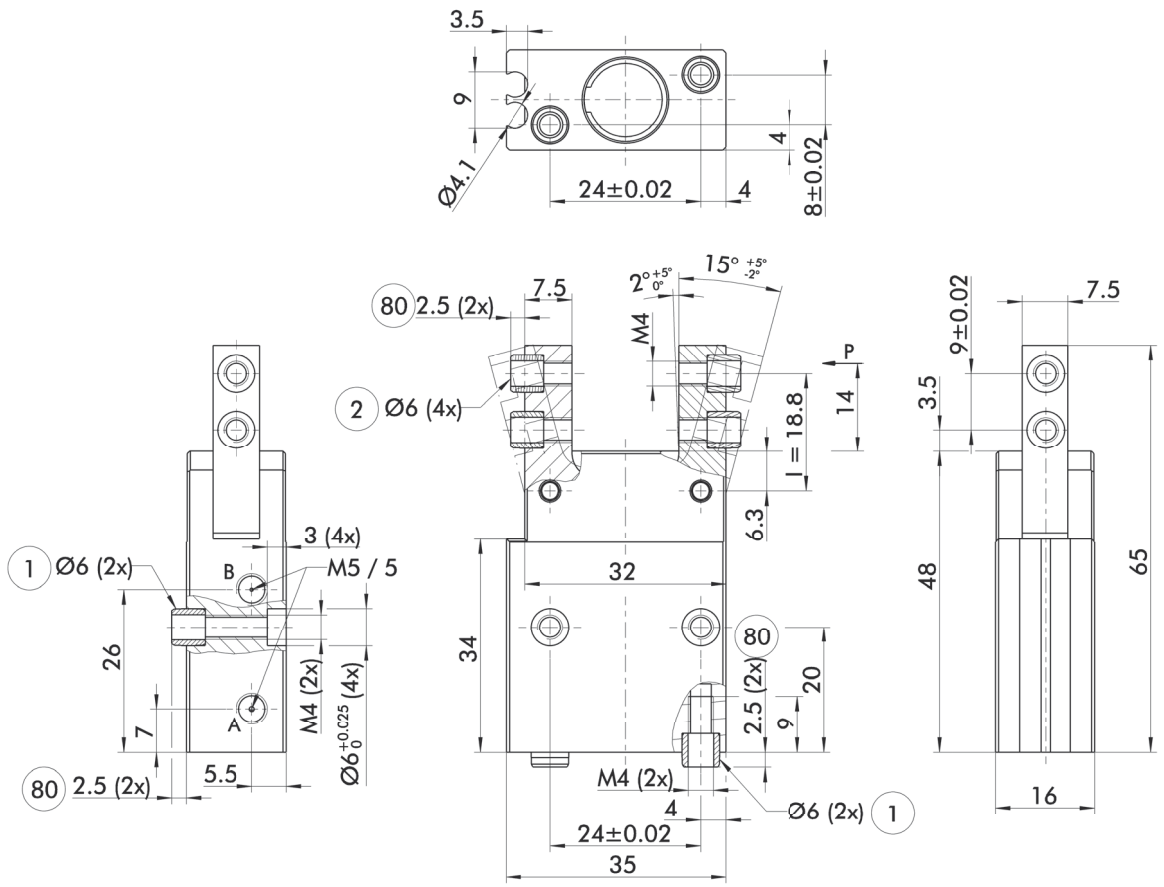


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		SWG 32
ID		0305107
Opening angle per jaw	[°]	15
Closed angle per jaw up to	[°]	7
Closing moment	[Nm]	0.62
Spring-actuated closing moment	[Nm]	0.18
Weight	[kg]	0.069
Recommended workpiece weight	[kg]	0.156
Air consumption per double stroke	[cm³]	0.85
Min./max. operating pressure	[bar]	4/6.5
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.02/0.025
Max. permitted finger length	[mm]	28
Max. permitted weight per finger	[kg]	0.036
IP class		30
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.05

Main view

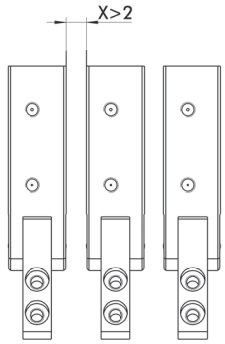


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

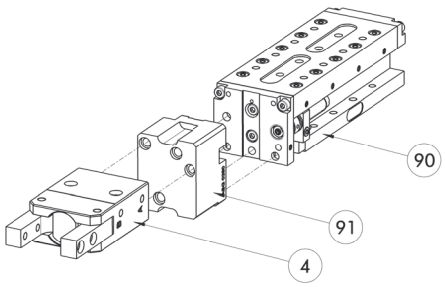
A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing
(1) Gripper connection
(2) Finger connection
(80) Depth of the centering sleeve hole in the matching part

Stacked arrangement



CAUTION: Monitoring is carried out by magnetic switches, and in case of side-by-side assembly of several units, a minimum distance of X mm between the units must be maintained.

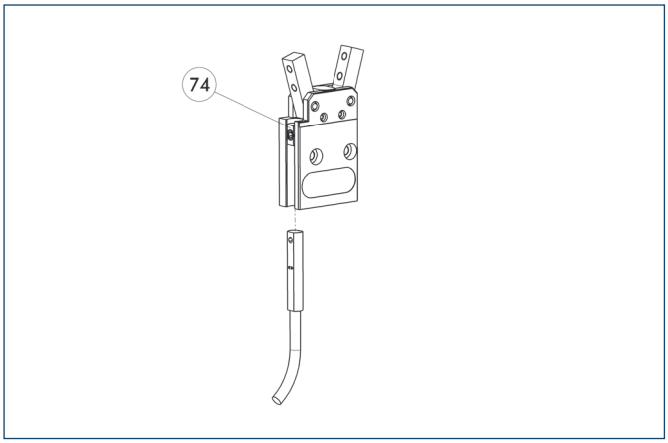
Modular Assembly Automation



(4) Gripper
(90) CLM
(91) ASG

This gripper can be combined with the standard linear modules LM, KLM, CLM and ELM of the GEMOTEC modular system. For more information see our main catalog "Modular Assembly Automation".

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**	

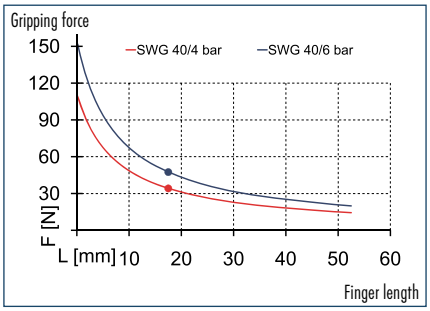
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

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

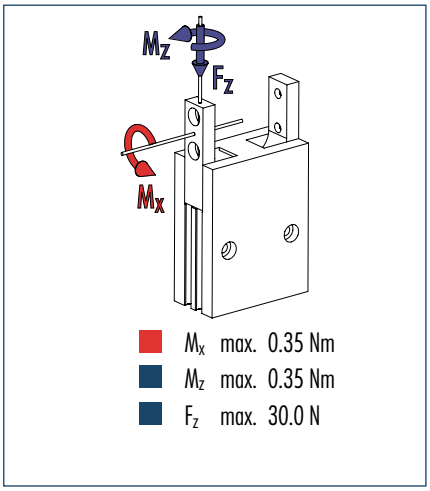
You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.

SWG 40

Gripping force, O.D. gripping



Finger load

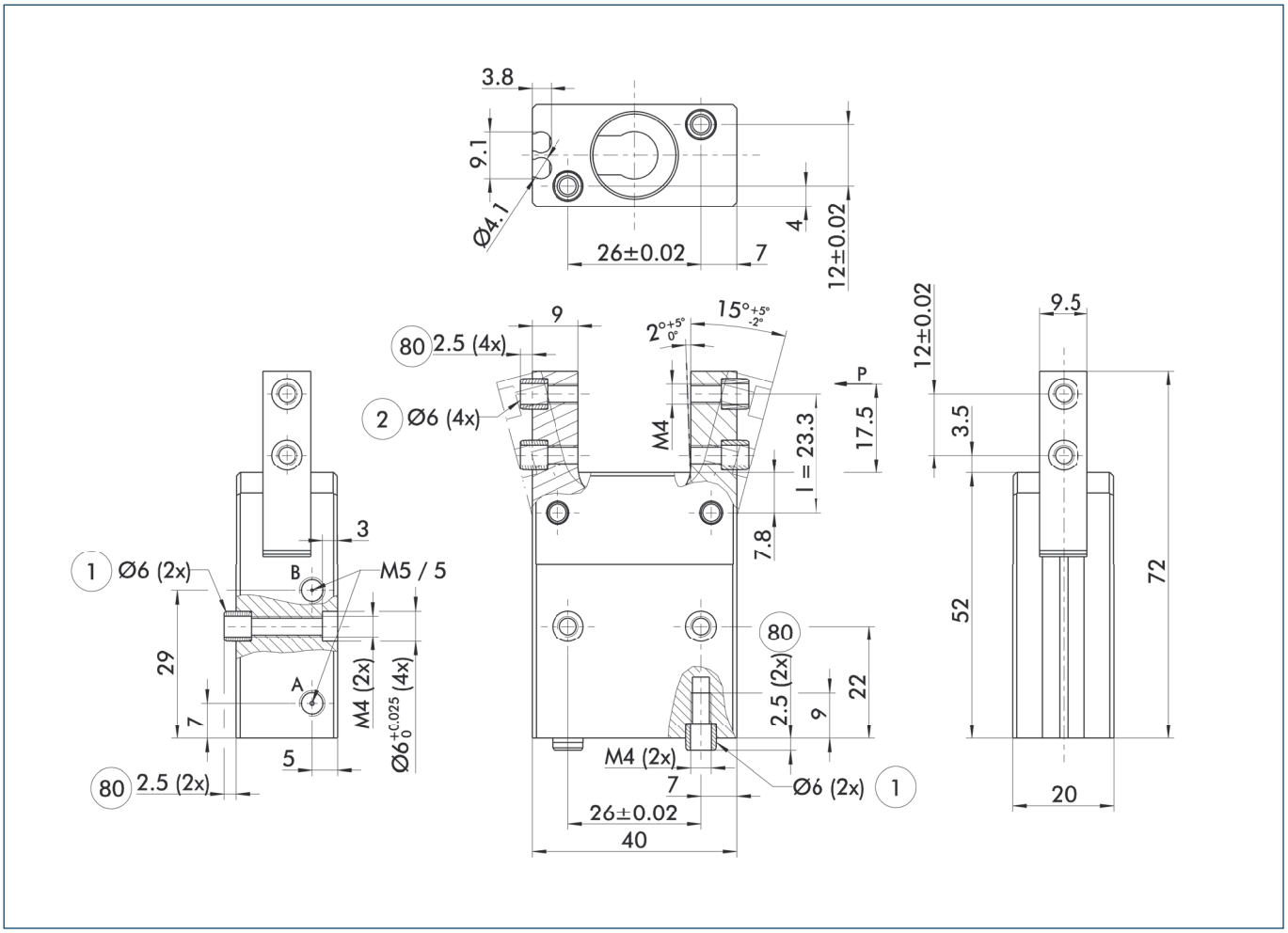


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		SWG 40
ID		0305108
Opening angle per jaw	[°]	15
Closed angle per jaw up to	[°]	7
Closing moment	[Nm]	1.2
Spring-actuated closing moment	[Nm]	0.36
Weight	[kg]	0.106
Recommended workpiece weight	[kg]	0.24
Air consumption per double stroke	[cm³]	1.6
Min./max. operating pressure	[bar]	4/6.5
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.025/0.03
Max. permitted finger length	[mm]	35
Max. permitted weight per finger	[kg]	0.05
IP class		30
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.05

Main view

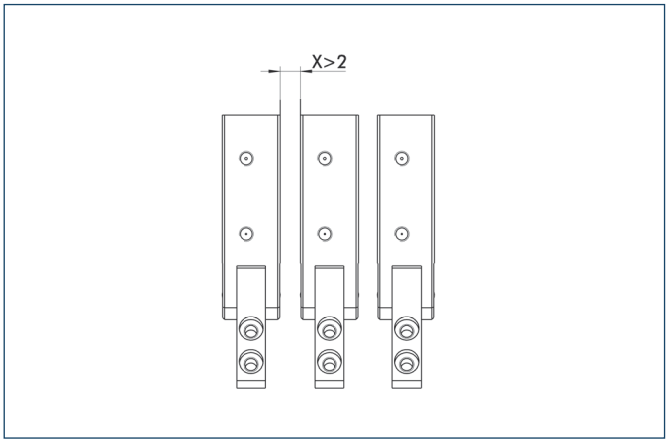


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

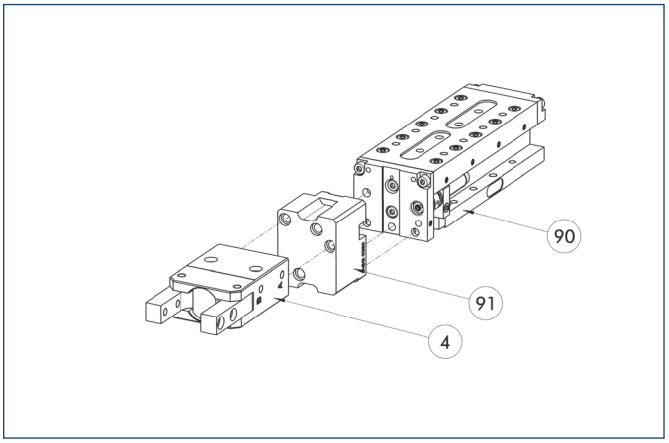
A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing
① Gripper connection
② Finger connection
⑧⓪ Depth of the centering sleeve hole in the matching part

Stacked arrangement



CAUTION: Monitoring is carried out by magnetic switches, and in case of side-by-side assembly of several units, a minimum distance of X mm between the units must be maintained.

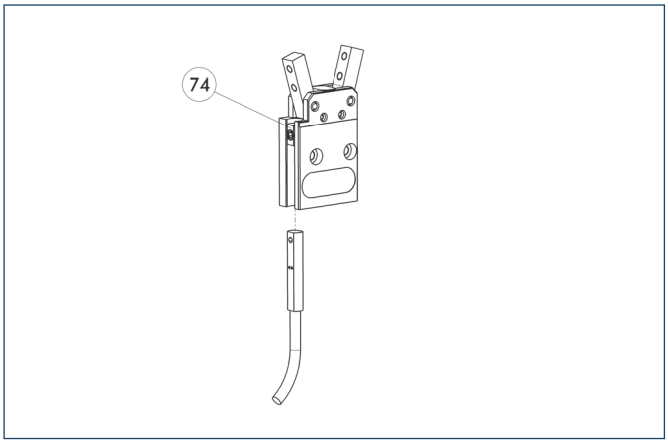
Modular Assembly Automation



④ Gripper
⑨⓪ CLM
⑨① ASG

This gripper can be combined with the standard linear modules LM, KLM, CLM and ELM of the GEMOTEC modular system. For more information see our main catalog "Modular Assembly Automation".

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**	

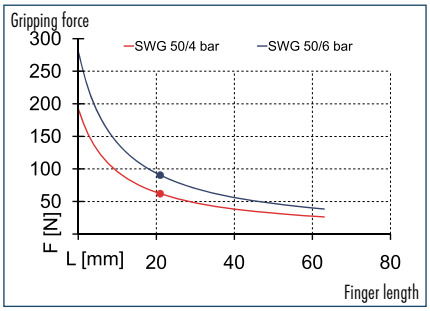
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

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

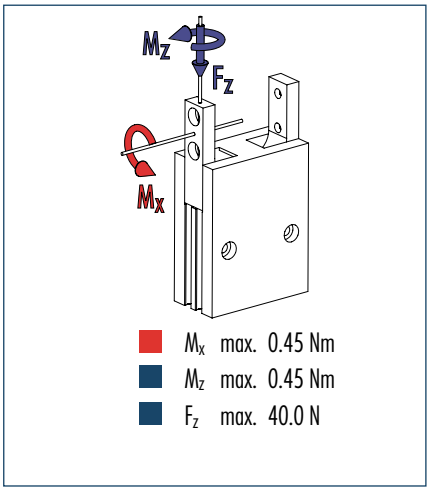
You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.

SWG 50

Gripping force, O.D. gripping



Finger load

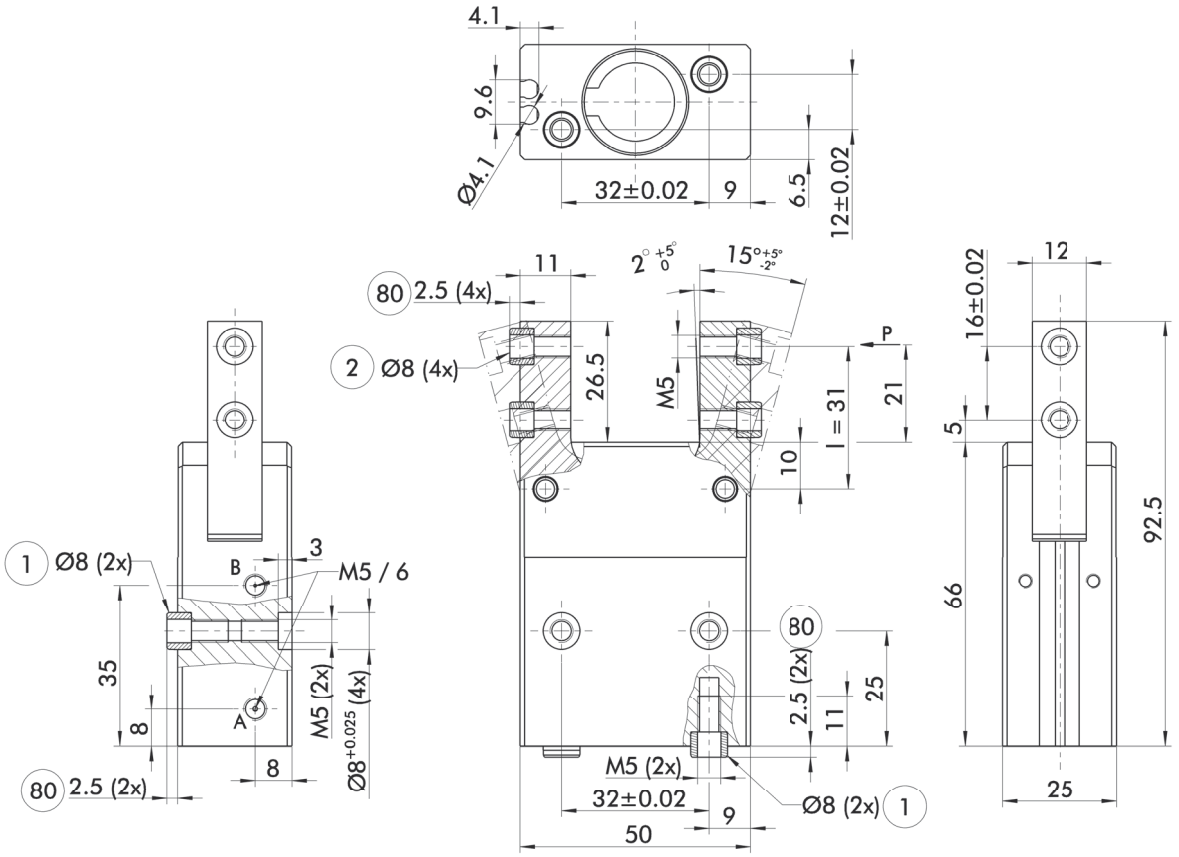


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		SWG 50
ID		0305109
Opening angle per jaw	[°]	15
Closed angle per jaw up to	[°]	7
Closing moment	[Nm]	2.8
Spring-actuated closing moment	[Nm]	0.6
Weight	[kg]	0.213
Recommended workpiece weight	[kg]	0.46
Air consumption per double stroke	[cm³]	3.8
Min./max. operating pressure	[bar]	4/6.5
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.03/0.06
Max. permitted finger length	[mm]	42
Max. permitted weight per finger	[kg]	0.08
IP class		30
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.05

Main view

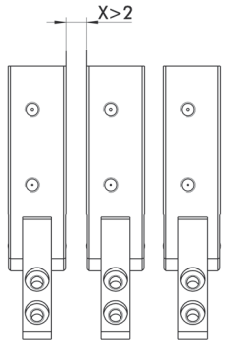


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

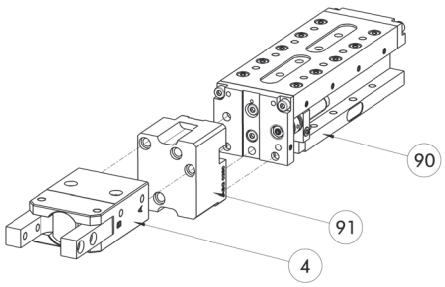
A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing
(1) Gripper connection
(2) Finger connection
(80) Depth of the centering sleeve hole in the matching part

Stacked arrangement



CAUTION: Monitoring is carried out by magnetic switches, and in case of side-by-side assembly of several units, a minimum distance of X mm between the units must be maintained.

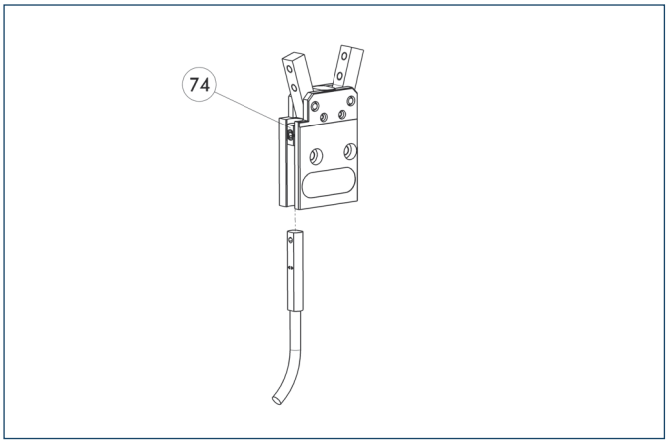
Modular Assembly Automation



(4) Gripper
(90) CLM
(91) ASG

This gripper can be combined with the standard linear modules LM, KLM, CLM and ELM of the GEMOTEC modular system. For more information see our main catalog "Modular Assembly Automation".

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**	

ⓘ 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.

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

LGW

Pneumatic • 2-Finger Angular Gripper • Universal Gripper

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

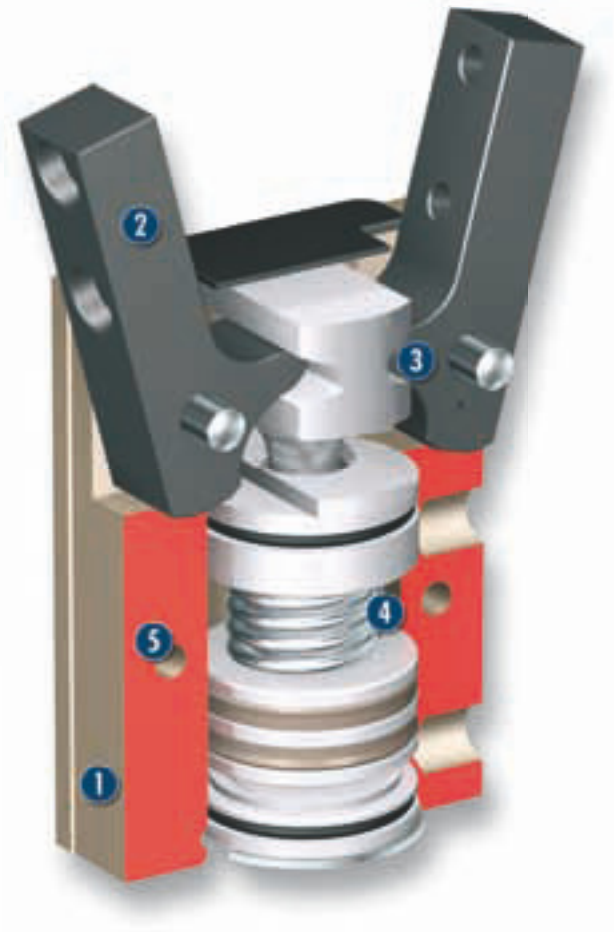
Base jaw material
Aluminum alloy, hard-anodized

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.

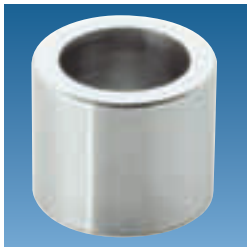
Options and special information

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



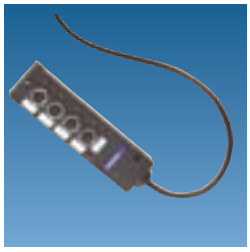
Fittings

Magnetic Switches

Sensor cables

Pressure maintenance valve

Sensor Distributor



ⓘ 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.

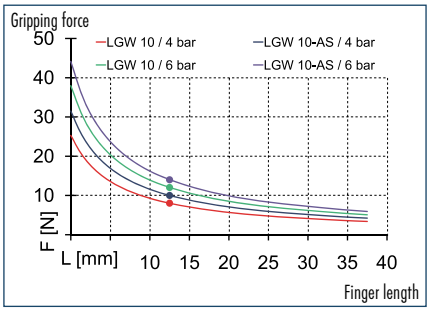
Repeat accuracy
is defined as the spread of the limit position after 100 consecutive strokes.

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.

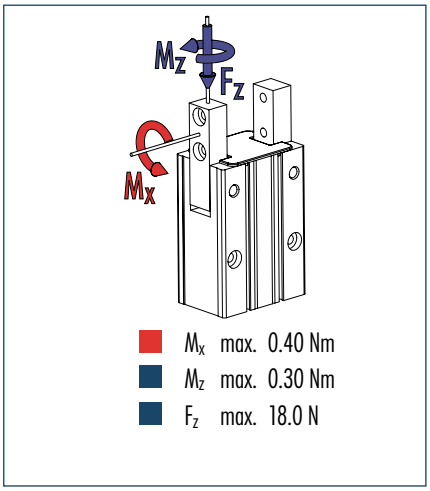
Closing and opening times
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.

LGW 10

Gripping force, O.D. gripping



Finger load

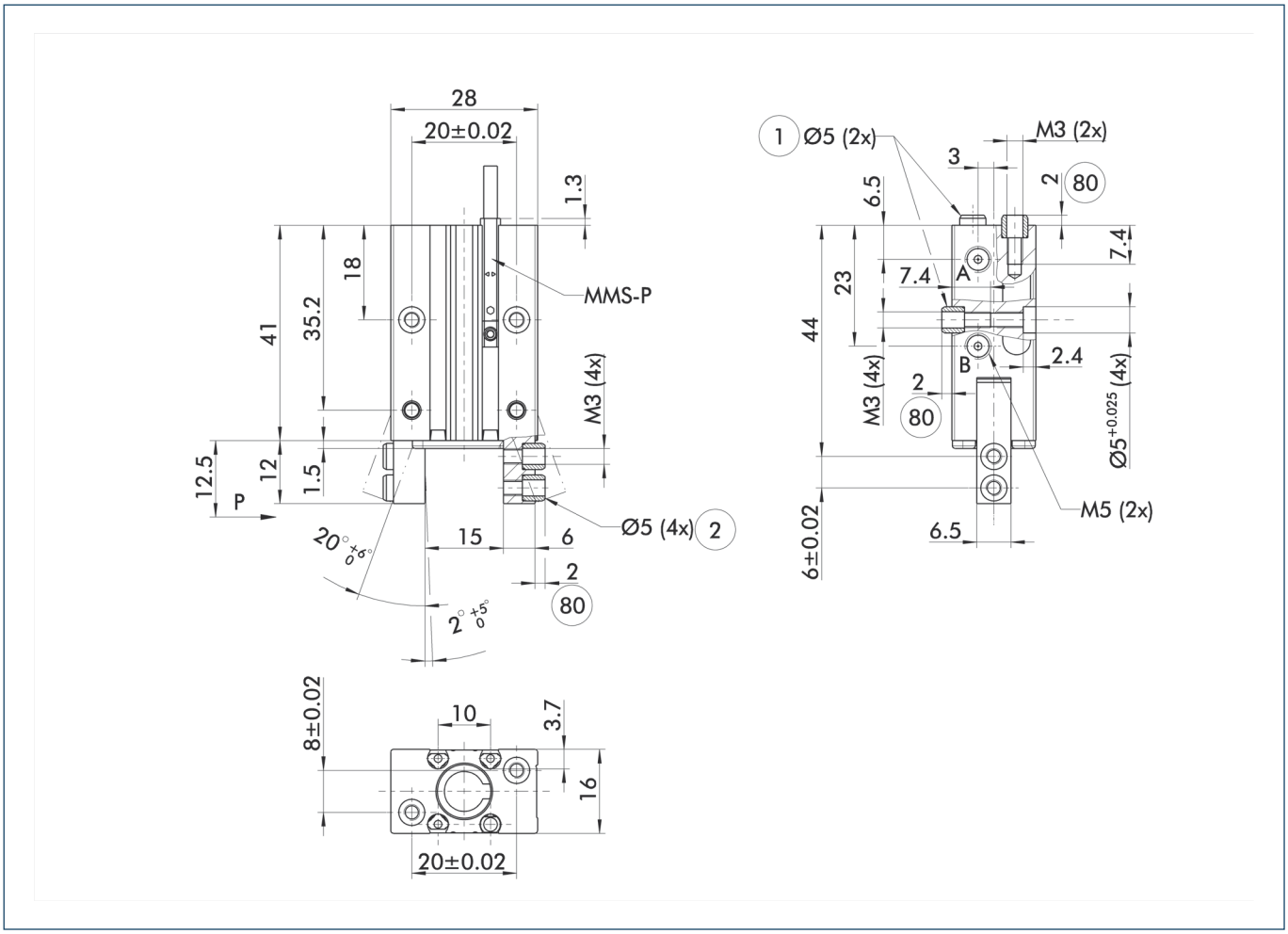


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

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

Main view

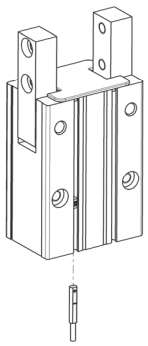


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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.

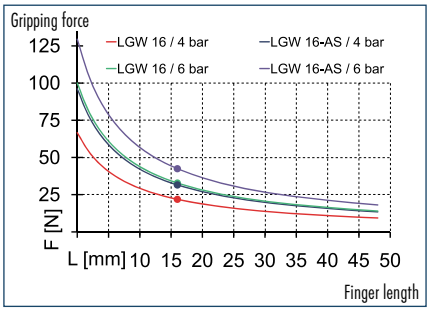
Description	ID	Recommended product
Programmable magnetic switch		
MMS-P 22-S-M8-PNP	**0301370**	•
MMSK-P 22-S-PNP	**0301371**	
Connection cables		
KA BG08-L 4P-0500	**0307767**	
KA BG08-L 4P-1000	**0307768**	
KA BW08-L 4P-0500	**0307765**	
KA BW08-L 4P-1000	**0307766**	
Sensor Distributor		
V2-M8-4P-2XM8-3P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

ⓘ 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.

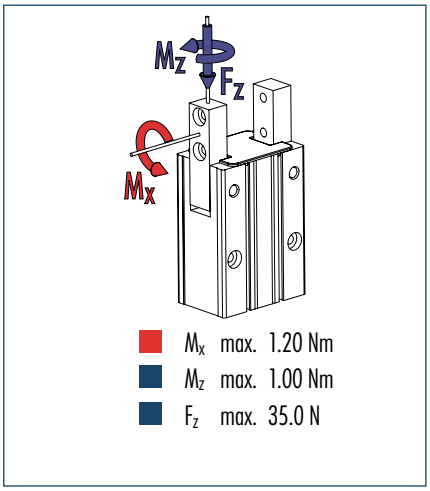
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

LGW 16

Gripping force, O.D. gripping



Finger load

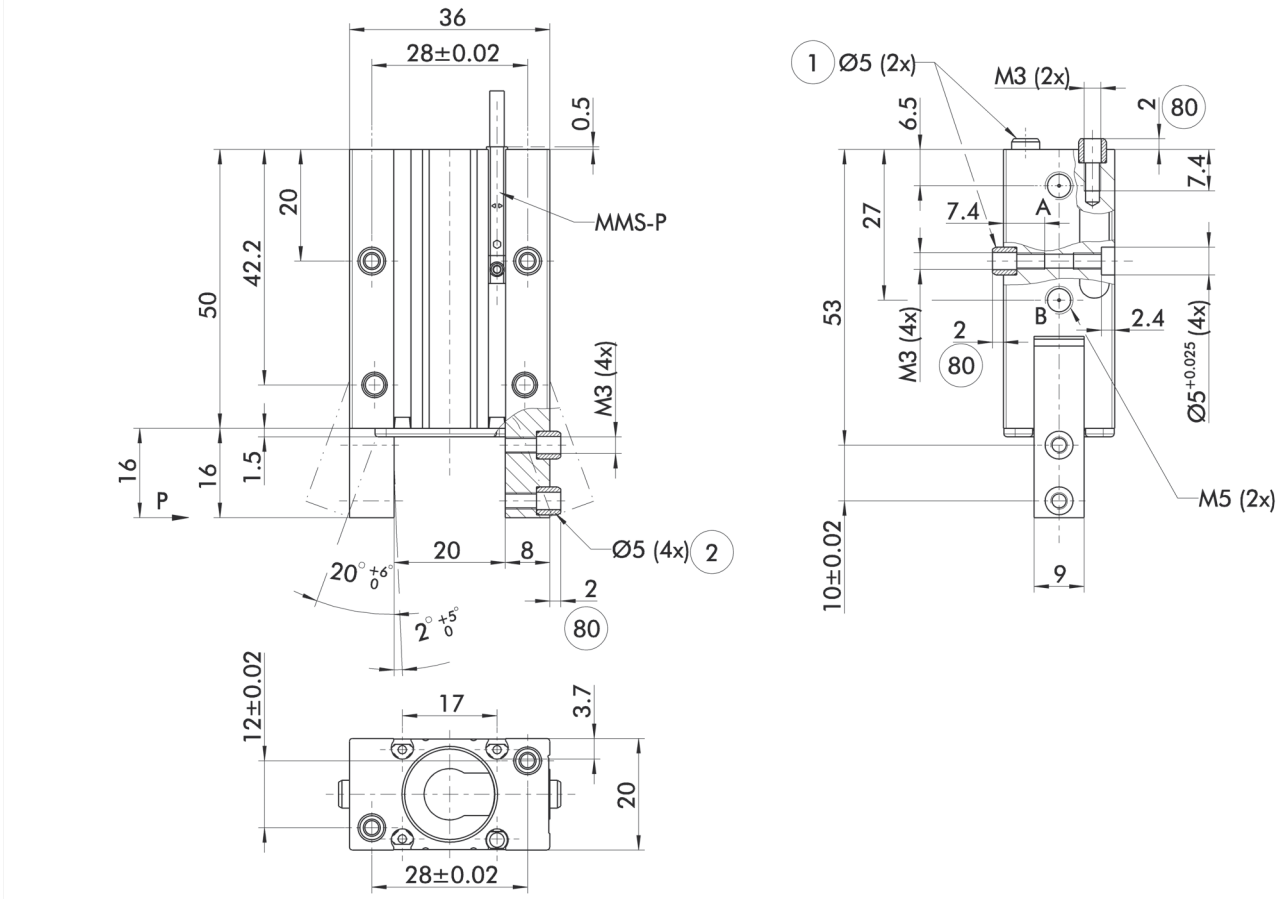


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

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

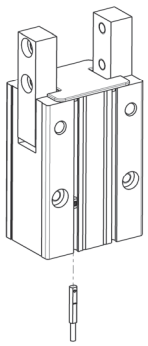


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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.

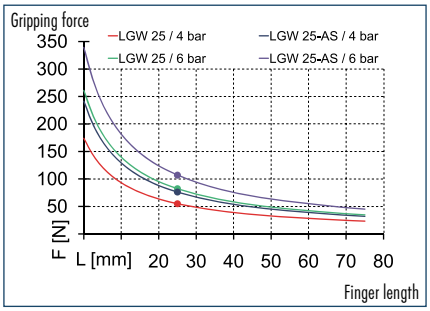
Description	ID	Recommended product
Programmable magnetic switch		
MMS-P 22-S-M8-PNP	**0301370**	•
MMSK-P 22-S-PNP	**0301371**	
Connection cables		
KA BG08-L 4P-0500	**0307767**	
KA BG08-L 4P-1000	**0307768**	
KA BW08-L 4P-0500	**0307765**	
KA BW08-L 4P-1000	**0307766**	
Sensor Distributor		
V2-M8-4P-2XM8-3P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

ⓘ 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.

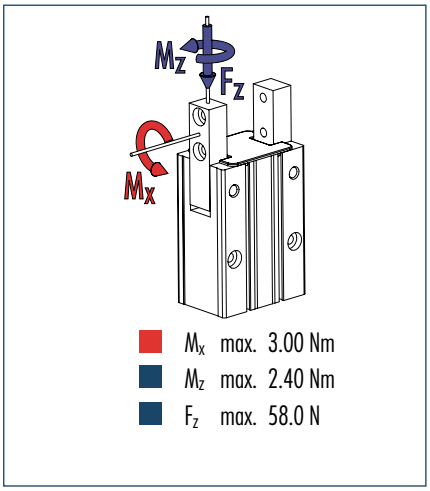
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

LGW 25

Gripping force, O.D. gripping



Finger load

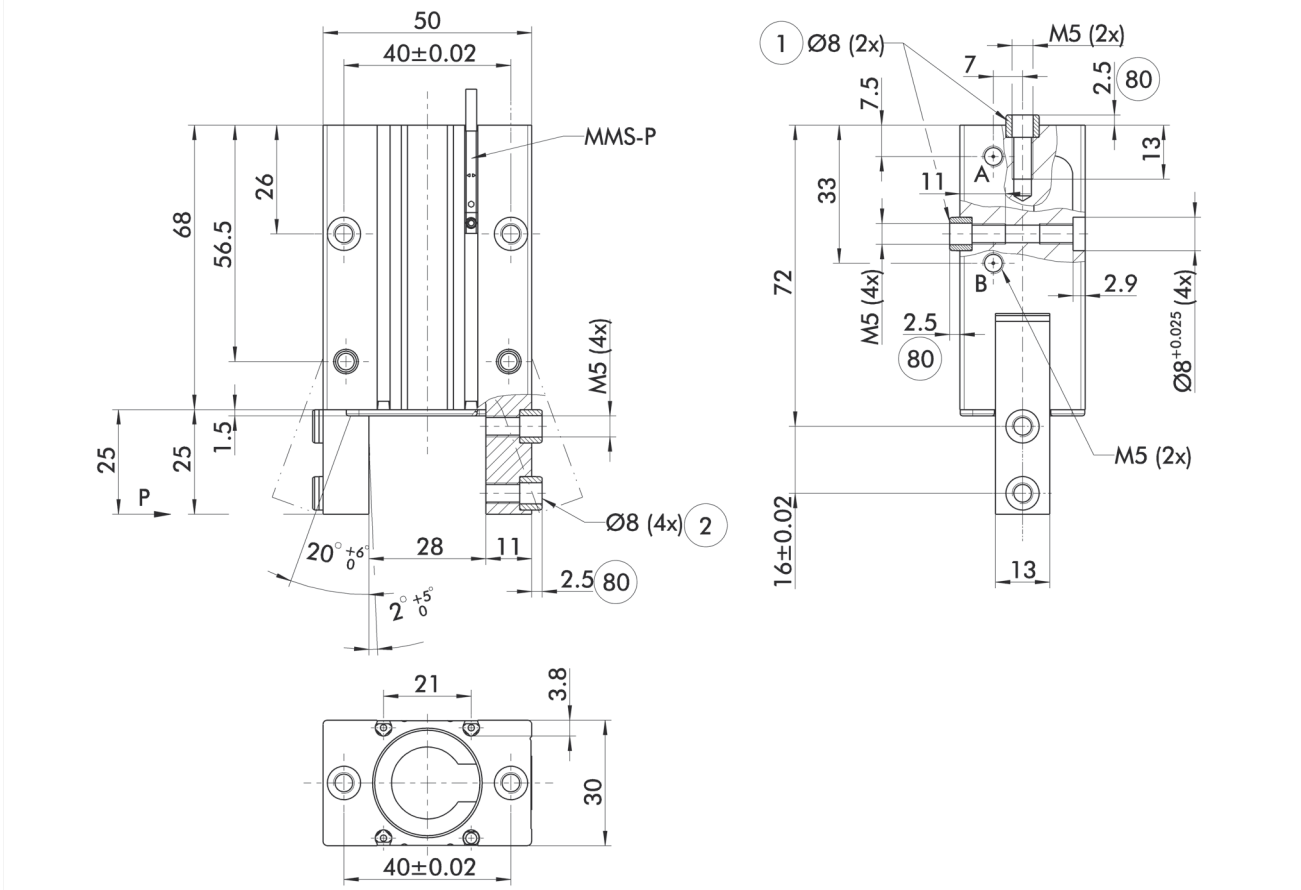


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

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

Main view

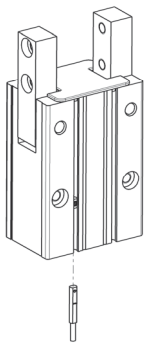


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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.

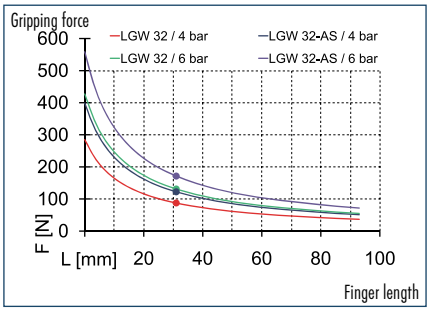
Description	ID	Recommended product
Programmable magnetic switch		
MMS-P 22-S-M8-PNP	**0301370**	•
MMSK-P 22-S-PNP	**0301371**	
Connection cables		
KA BG08-L 4P-0500	**0307767**	
KA BG08-L 4P-1000	**0307768**	
KA BW08-L 4P-0500	**0307765**	
KA BW08-L 4P-1000	**0307766**	
Sensor Distributor		
V2-M8-4P-2XM8-3P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

ⓘ 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.

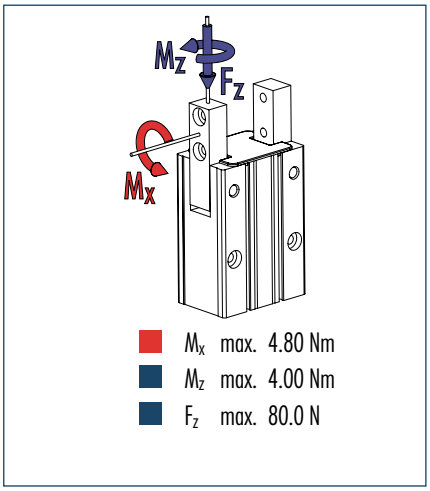
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

LGW 32

Gripping force, O.D. gripping



Finger load

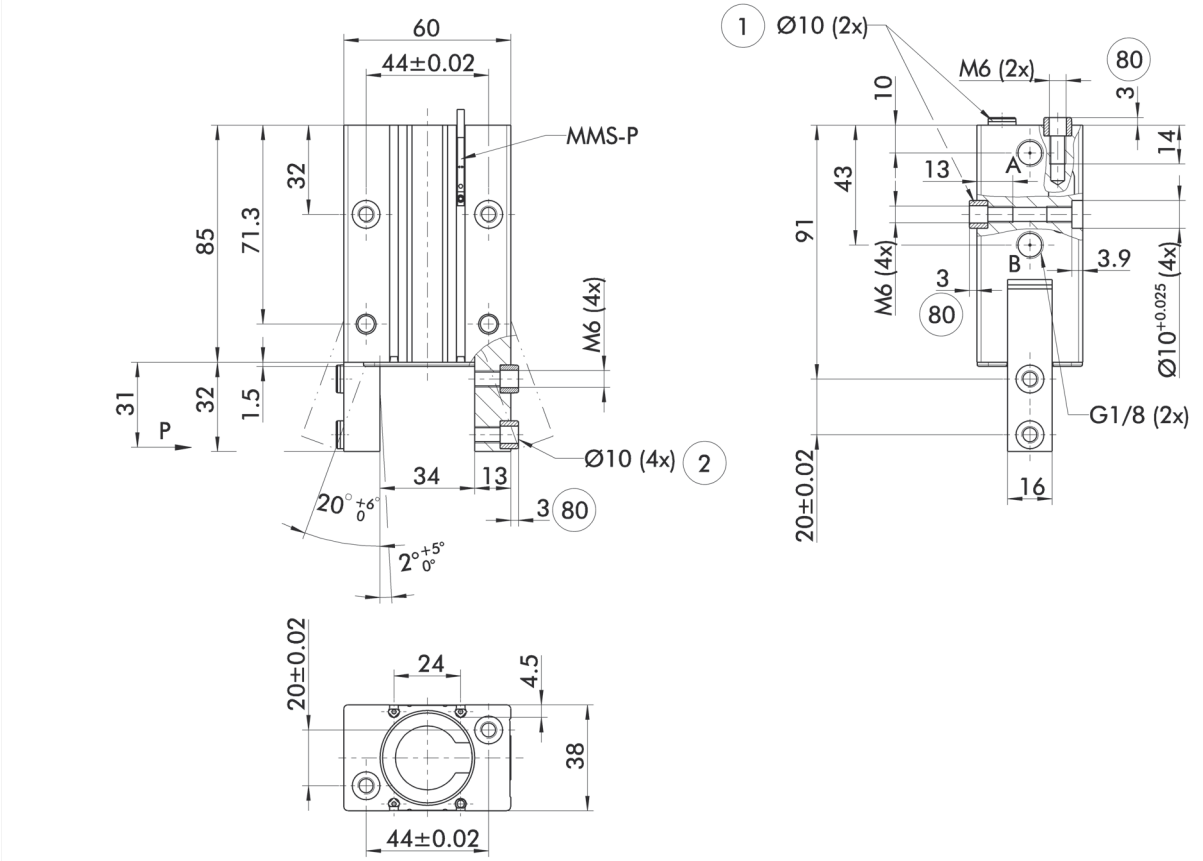


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

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

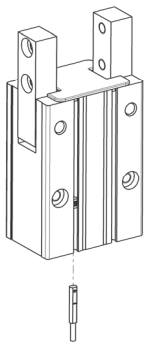


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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.

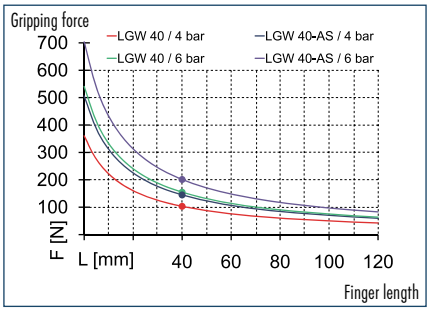
Description	ID	Recommended product
Programmable magnetic switch		
MMS-P 22-S-M8-PNP	**0301370**	•
MMSK-P 22-S-PNP	**0301371**	
Connection cables		
KA BG08-L 4P-0500	**0307767**	
KA BG08-L 4P-1000	**0307768**	
KA BW08-L 4P-0500	**0307765**	
KA BW08-L 4P-1000	**0307766**	
Sensor Distributor		
V2-M8-4P-2XM8-3P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

ⓘ 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.

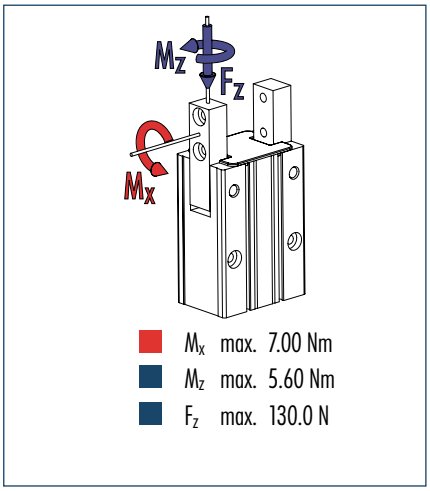
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

LGW 40

Gripping force, O.D. gripping



Finger load

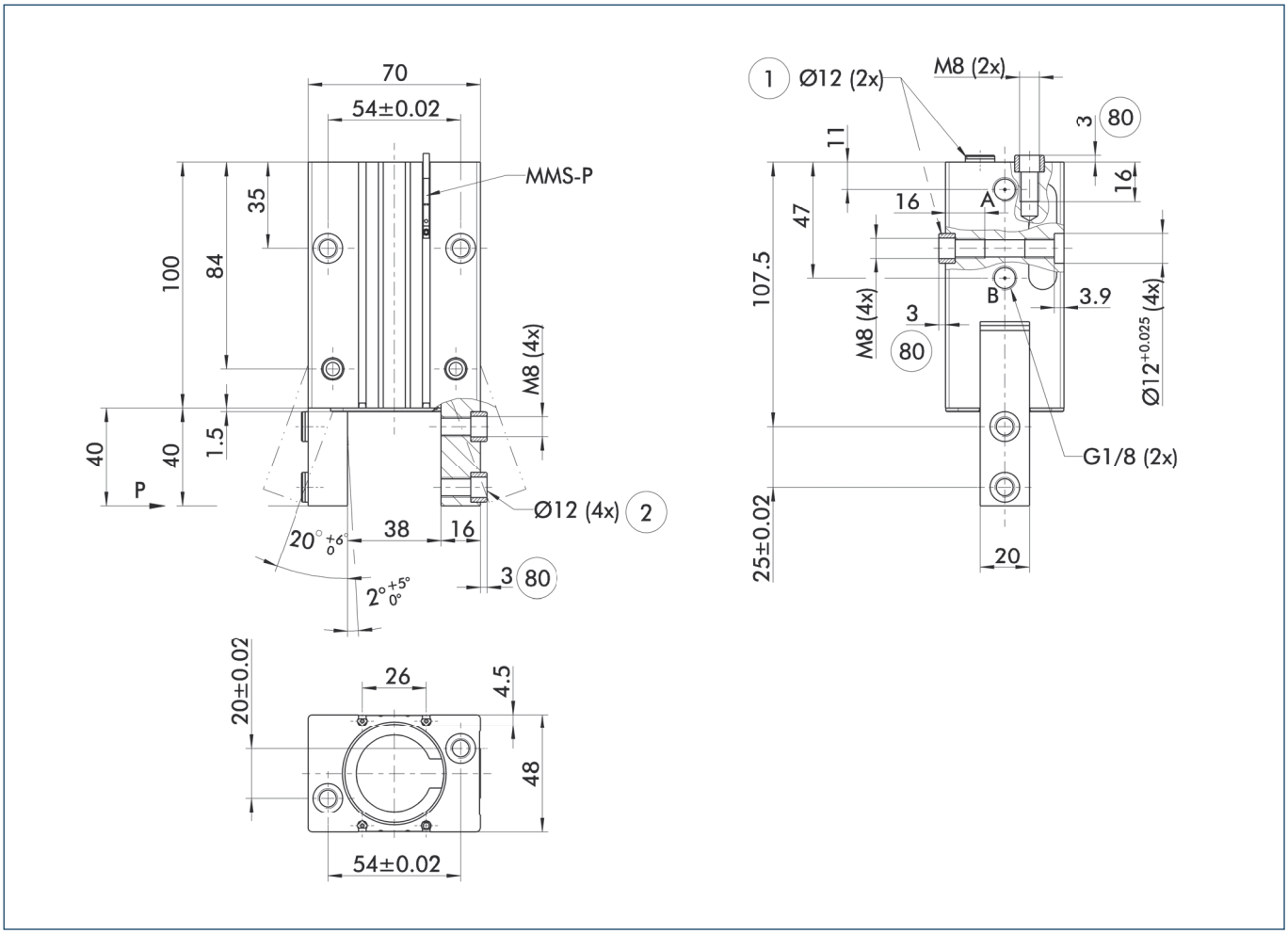


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

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

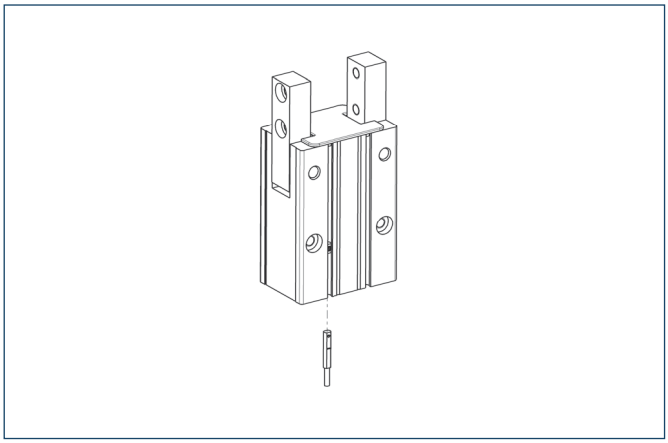


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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**	

ⓘ 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.

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

PWG-S

Sizes
40 ... 80

Weight
0.21 kg ... 1.2 kg

Gripping moment
5.98 Nm ... 50.82 Nm

Angle per jaw
20°

Workpiece weight
1.1 kg ... 4.8 kg

Application example

Rotating/gripping combination for flexible handling of sheet metal components

1. 2-Finger Angular Gripper PWG-S
2. Rotary Actuator SRU-plus

Universal Gripper

robust 2-finger angular gripper with spring-supported gripping force maintenance device

Field of application

for universal use in clean and slightly dirty environments

Your advantages and benefits

Spring-supported gripping force maintenance for O.D. gripping
holds the workpiece in case of pressure drop, always integrated

Proximity switch mounted directly without additional brackets
Eliminating unnecessary interfering contours

Minimum gripper dimensions at a maximum gripping force
thus achieves an excellent power density

Robust gripper design
for a versatile field of applications

Kinematics
for high power transmission and synchronized gripping

General note to the series

Principle of function
Toggle drive system

Housing material
Aluminum alloy, hard-anodized

Base jaw material
Steel

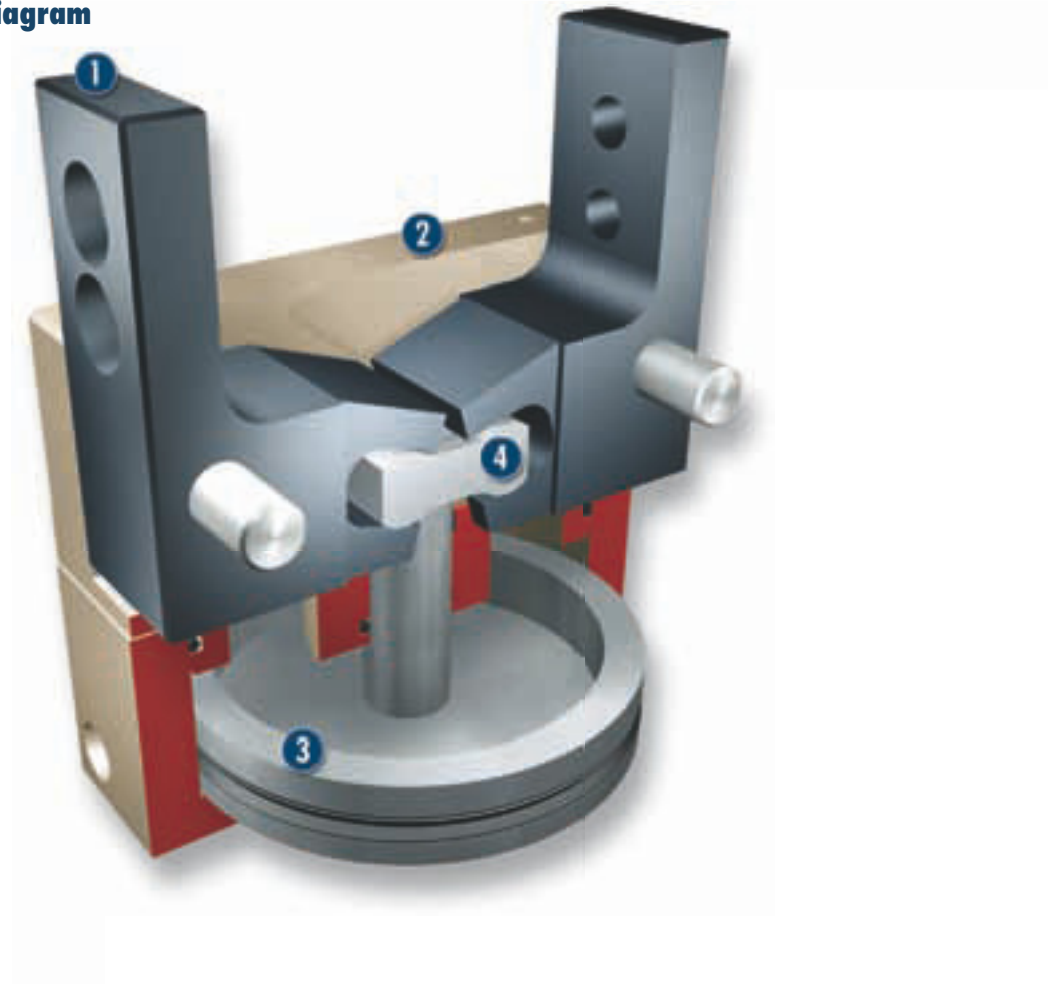
Actuation
pneumatic, with filtered compressed air (10 microns): dry, lubricated or non-lubricated
Pressure medium: Required quality class of compressed air according to DIN ISO 8573-1: 6 4 4

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

Scope of delivery
O-rings for direct connection, assembly and operating manual with manufacturer's declaration

Gripping force maintenance device
always equipped with a mechanic gripping force maintenance device for O.D. gripping

Sectional diagram



1 Base jaw
for the connection of workpiece-specific gripper fingers

2 Housing
weight-optimized through application of hard-anodized, high-strength aluminum alloy

3 Drive
pneumatic, powerful and easy to handle

4 Lever mechanism
for precise and synchronized gripping

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.

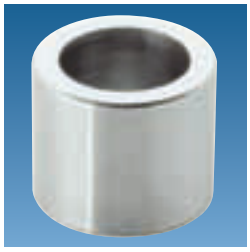
Options and special information

Reduced opening angle available on request.

Accessories

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

Centering sleeves

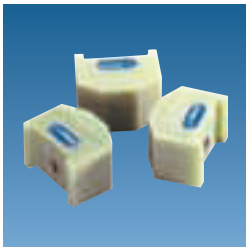


Fittings

Pressure maintenance valve

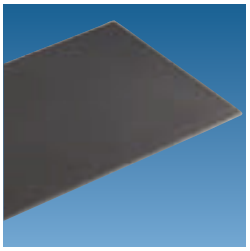
Inductive proximity switches

Plastic inserts

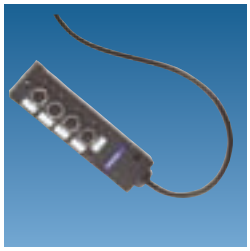


Sensor cables

Gripper pads



Sensor Distributor



ⓘ 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

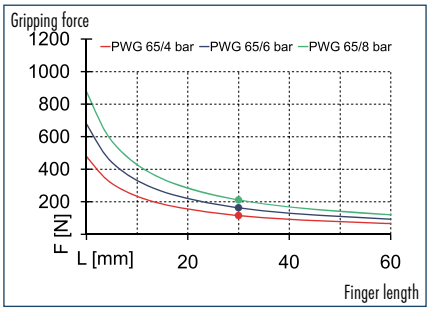
The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit gripping.

Closing and opening times

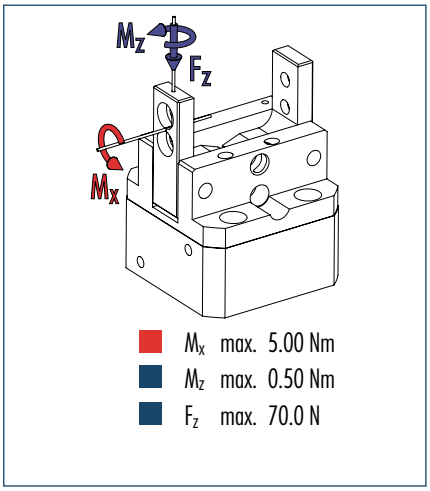
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.

PWG-S 40

Gripping force, O.D. gripping



Finger load

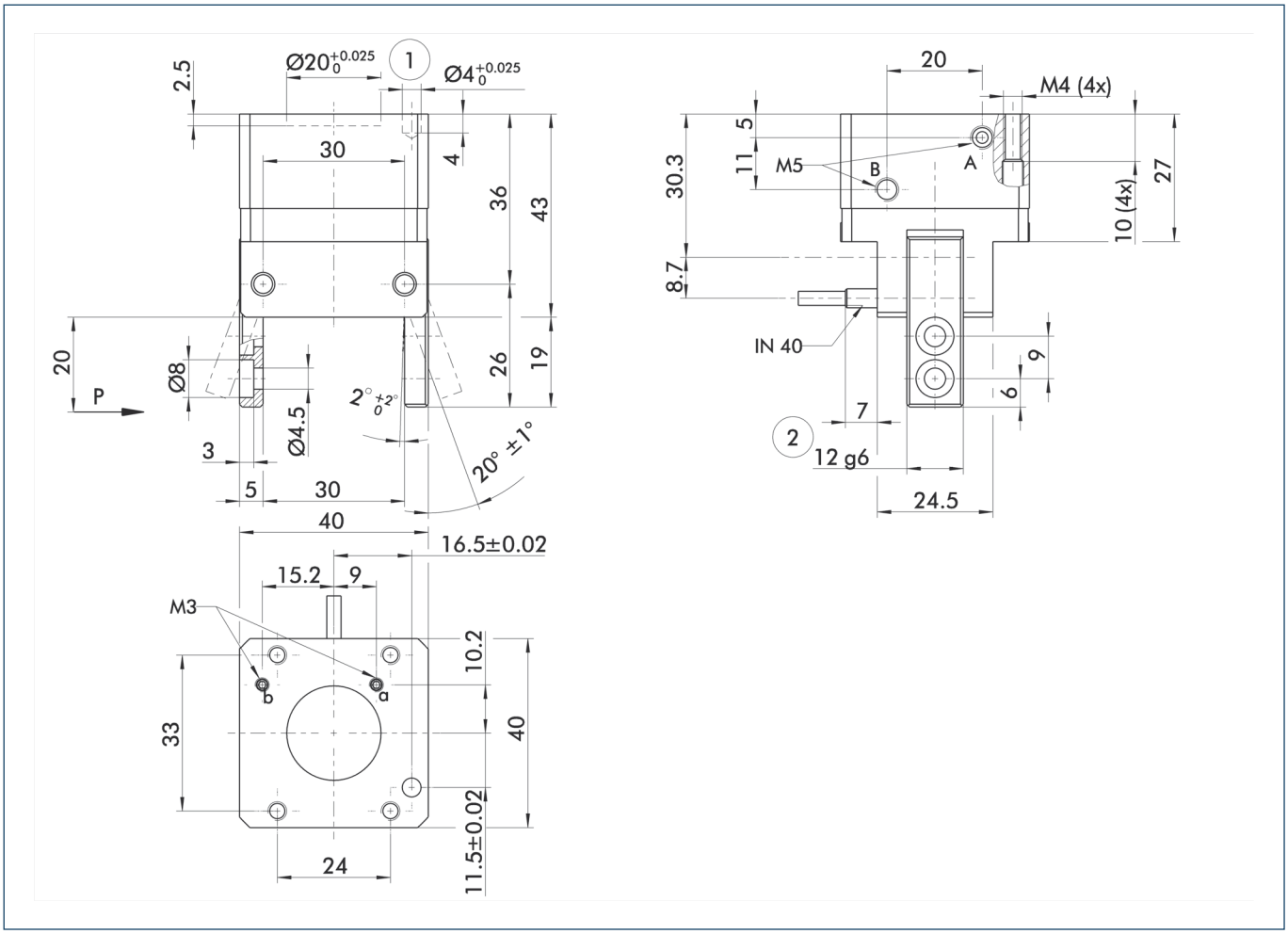


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		PWG-S 40
ID		0302611
Opening angle per jaw	[°]	20
Closed angle per jaw up to	[°]	4
Closing moment	[Nm]	5.98
Spring-actuated closing moment	[Nm]	0.9
Weight	[kg]	0.21
Recommended workpiece weight	[kg]	1.1
Air consumption per double stroke	[cm³]	7.5
Min./max. operating pressure	[bar]	4/8
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.01/0.01
Max. permitted finger length	[mm]	40
Max. permitted weight per finger	[kg]	0.15
IP class		20
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.05

Main view



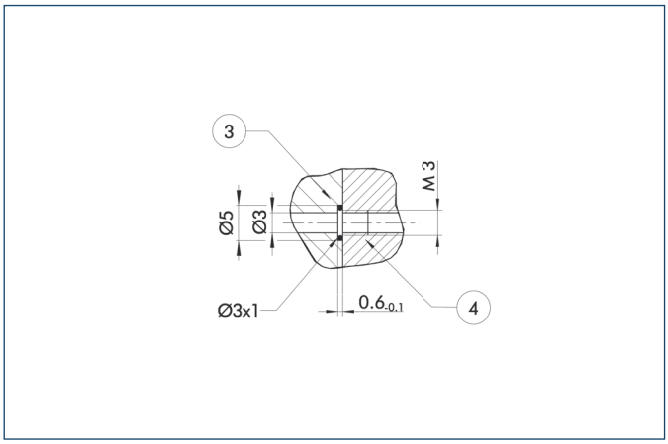
The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used to hold the position in case of pressure drop (see "Accessories" catalog section).

A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing

① Gripper connection
② Finger connection

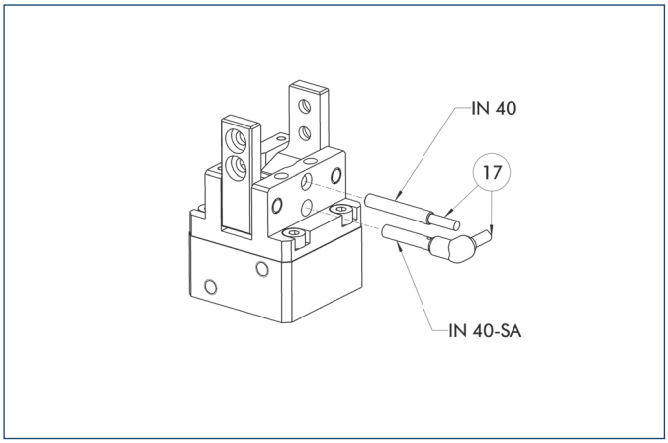
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Inductive proximity switches



⑰ Cable outlet

End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 40-S-M8	**0301474**	•
IN 40-S-M12	**0301574**	
INK 40-S	**0301555**	
IN 40-S-M5-PNP	**0301491**	
IN 40-S-M5-NPN	**0301492**	
Inductive proximity switch with lateral outlet		
IN 40-S-M12-SA	**0301577**	
IN 40-S-M8-SA	**0301473**	•
INK 40-S-SA	**0301565**	
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

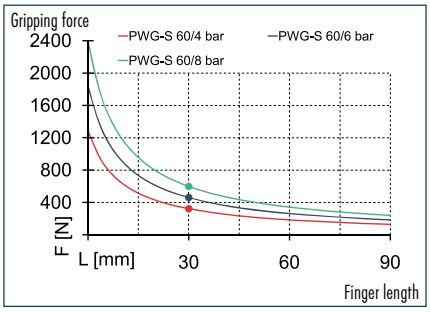
ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

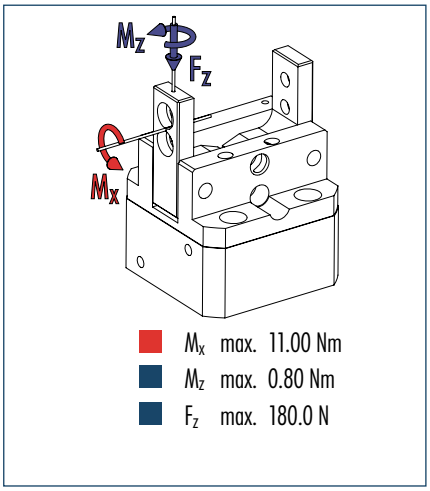
You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.

PWG-S 60

Gripping force, O.D. gripping



Finger load

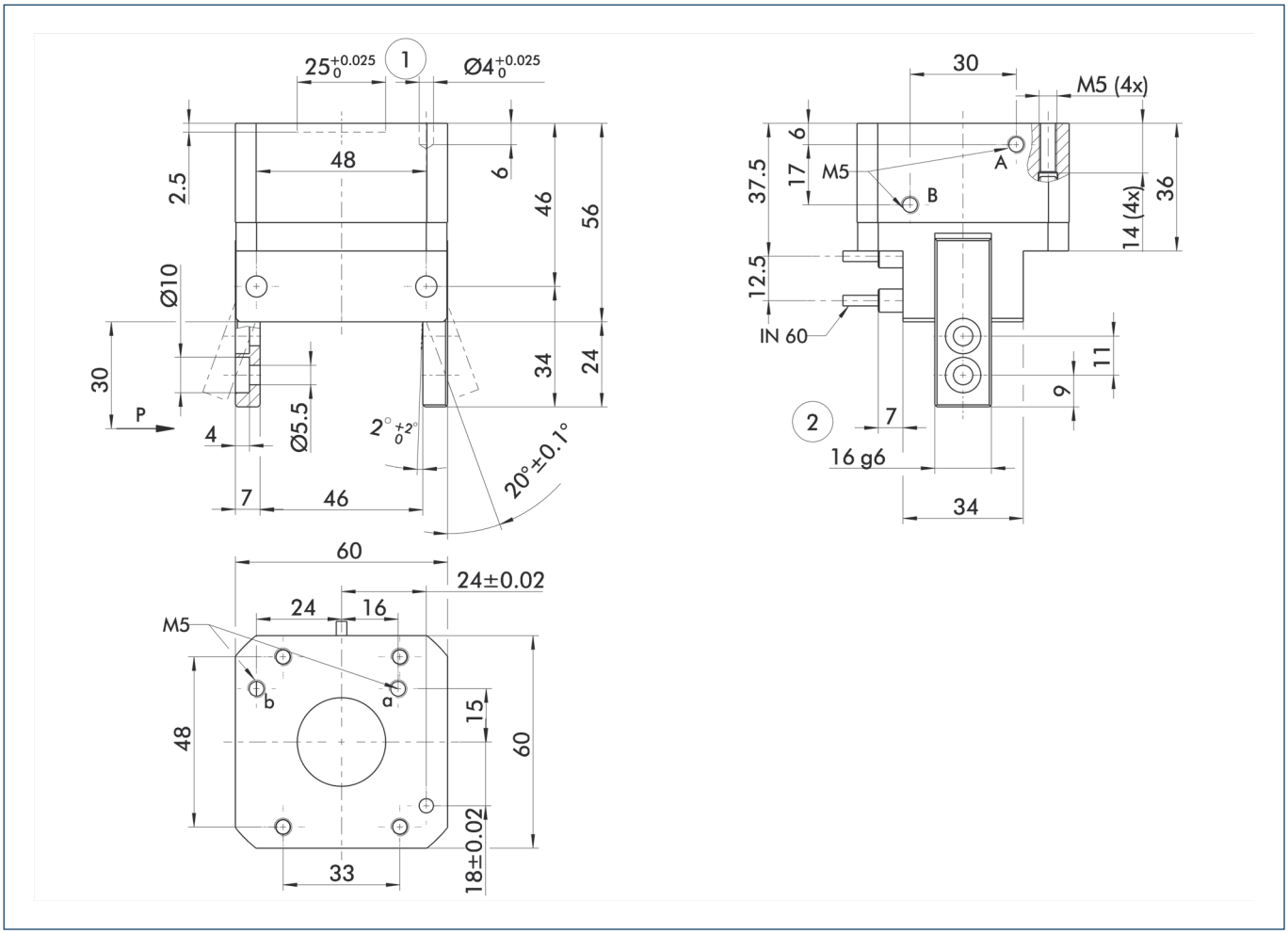


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		PWG-S 60
ID		0302612
Opening angle per jaw	[°]	20
Closed angle per jaw up to	[°]	4
Closing moment	[Nm]	18.36
Spring-actuated closing moment	[Nm]	2.4
Weight	[kg]	0.62
Recommended workpiece weight	[kg]	2.3
Air consumption per double stroke	[cm³]	29
Min./max. operating pressure	[bar]	4/8
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.03/0.03
Max. permitted finger length	[mm]	60
Max. permitted weight per finger	[kg]	0.4
IP class		20
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.05

Main view



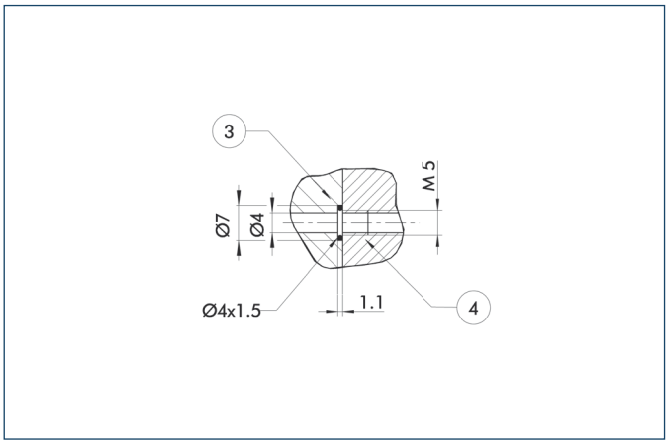
The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing

① Gripper connection
② Finger connection

ⓘ The SDV-P pressure maintenance valve can be used to hold the position in case of pressure drop (see "Accessories" catalog section).

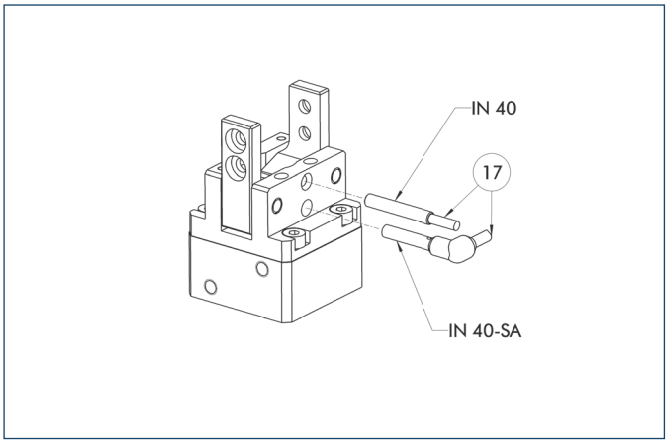
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Inductive proximity switches



⑰ Cable outlet

End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 60-S-M8	**0301485**	•
IN 60-S-M12	**0301585**	
INK 60-S	**0301553**	
Connection cables		
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

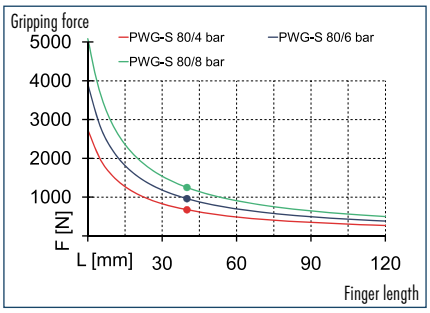
ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

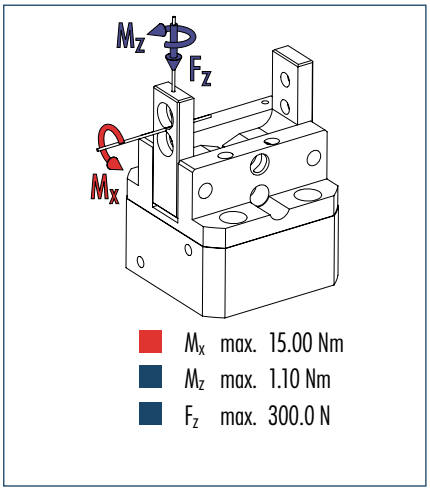
You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.

PWG-S 80

Gripping force, O.D. gripping



Finger load

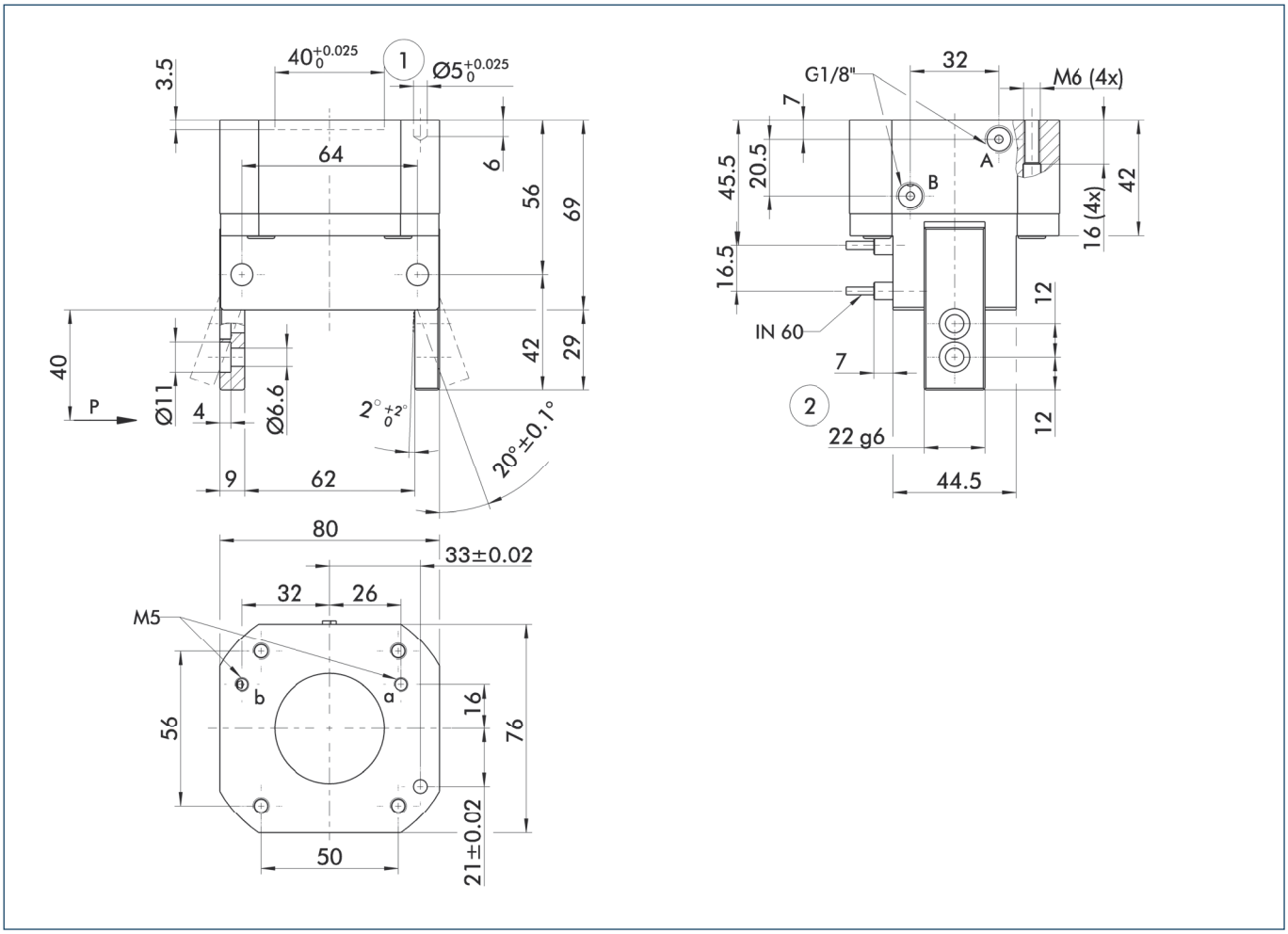


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		PWG-S 80
ID		0302613
Opening angle per jaw	[°]	20
Closed angle per jaw up to	[°]	4
Closing moment	[Nm]	50.82
Spring-actuated closing moment	[Nm]	10.1
Weight	[kg]	1.2
Recommended workpiece weight	[kg]	4.8
Air consumption per double stroke	[cm³]	60
Min./max. operating pressure	[bar]	4/8
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.05/0.05
Max. permitted finger length	[mm]	80
Max. permitted weight per finger	[kg]	0.8
IP class		20
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.05

Main view



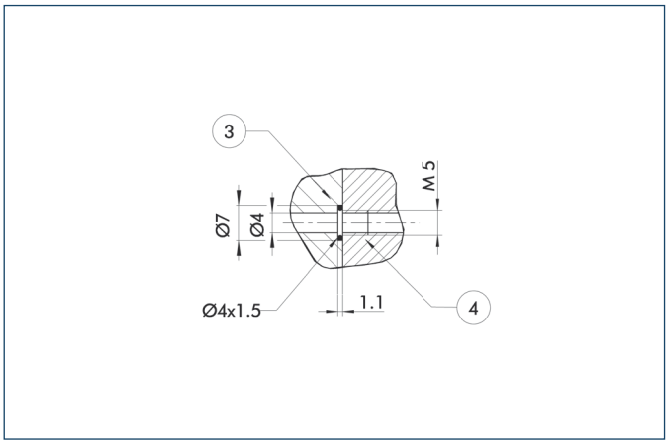
The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing

① Gripper connection
② Finger connection

ⓘ The SDV-P pressure maintenance valve can be used to hold the position in case of pressure drop (see "Accessories" catalog section).

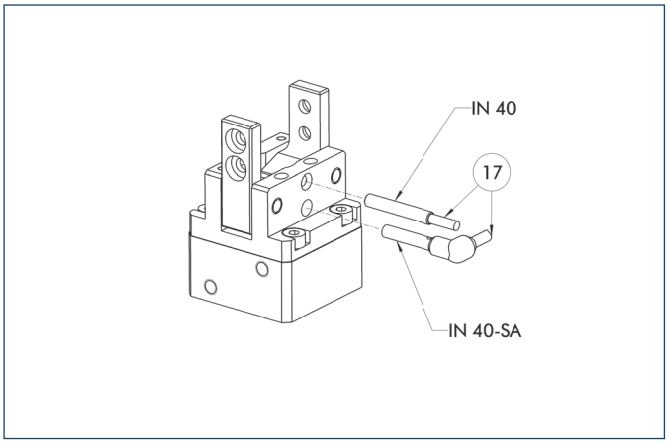
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Inductive proximity switches



⑰ Cable outlet

End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 60-S-M8	**0301485**	•
IN 60-S-M12	**0301585**	
INK 60-S	**0301553**	
Connection cables		
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.

PWG

Sizes
65 ... 230

Weight
0.33 kg ... 16.3 kg

Gripping moment
6.44 Nm ... 934.2 Nm

Angle per jaw
20°

Workpiece weight
0.8 kg ... 35.8 kg

Application example

Rotary feed unit for shafts

1. 2-Finger Angular Gripper PWG
2. Rotary Actuator SRU-plus
3. Linear axis with toothed-belt drive HSB Beta

Universal Gripper

robust 2-finger angular gripper with spring-supported gripping force maintenance device

Field of application

for universal use in clean and slightly dirty environments

Your advantages and benefits

Variable top jaw design
as gripper is available both as a jaw version (-B) and a finger version (-F)

FPS measuring system
monitoring of jaw position or of 5 ranges by means of the add-on FPS sensor

Gripping force maintenance device
always with an integrated gripping force maintenance device for a high process reliability

Can be used in tough environments
thanks to the gripper's sturdy construction

General note to the series

Principle of function
Toggle drive system

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)

Scope of delivery
Brackets for proximity switches, control cams, centering sleeves, O-rings for direct connection, assembly and operating manual with declaration of incorporation

Sectional diagram

1 Base jaw
for the connection of workpiece-specific gripper fingers

2 Lever mechanism
for precise and synchronized gripping

3 Gripping force maintenance device
mechanic gripping force maintenance for O.D. gripping

4 Housing
weight-optimized through application of hard-anodized, high-strength aluminum alloy

5 Drive
pneumatic oval piston for maximum driving force

Functional description

180° angular grippers (radial grippers) are advantageous in order to avoid additional stroke motions. Since each jaw rotates away by 90°, they are mostly removed from the work area; a stroke motion to retract the entire gripper can be omitted.
The kinematics transforms this vertical motion into a synchronous and rotatory gripping motion of the base jaws.

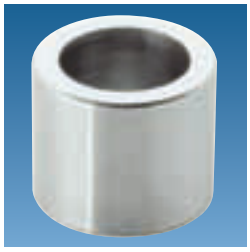
Options and special information

This series is especially suitable for handling crankshafts and camshafts.

Accessories

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

Centering sleeves

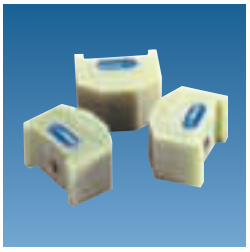


Fittings

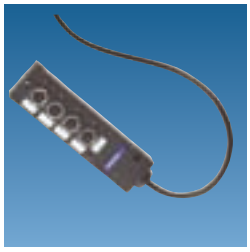
Inductive proximity switches

Sensor cables

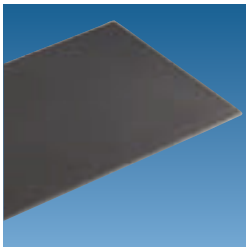
Plastic inserts



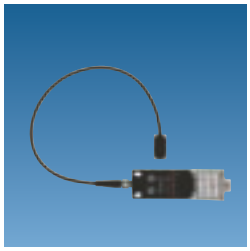
Sensor Distributor



Gripper pads



Flexible Position Sensor



Pressure maintenance valve

ⓘ 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

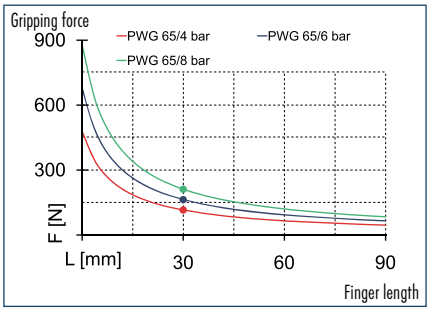
The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit gripping.

Closing and opening times

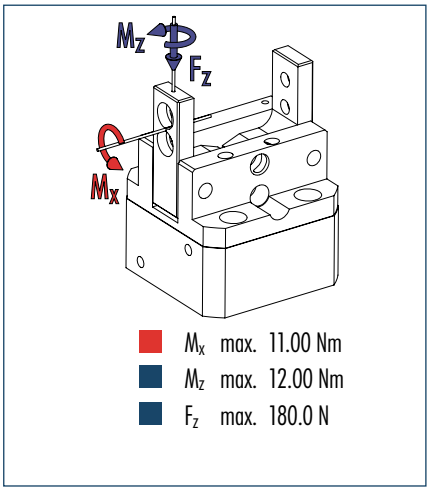
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.

PWG 65

Gripping force, O.D. gripping



Finger load

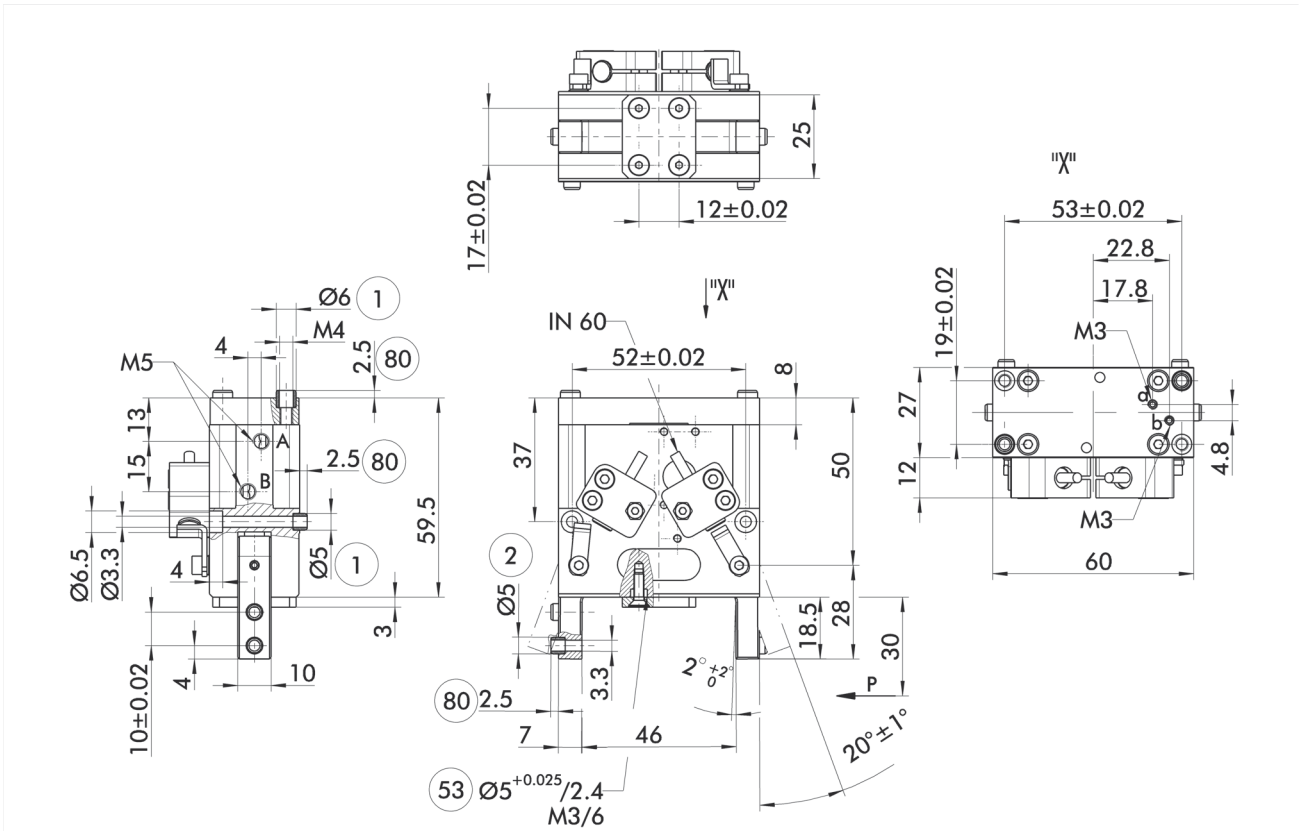


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		PWG 65-F	PWG 65-B
ID		0302630	0302631
Opening angle per jaw	[°]	20	20
Closed angle per jaw up to	[°]	4	4
Closing moment	[Nm]	6.44	6.44
Spring-actuated closing moment	[Nm]	1.7	1.7
Weight	[kg]	0.33	0.33
Recommended workpiece weight	[kg]	0.8	0.8
Air consumption per double stroke	[cm³]	8	8
Min./max. operating pressure	[bar]	4/8	4/8
Nominal operating pressure	[bar]	6	6
Closing/opening time	[s]	0.01/0.02	0.01/0.02
Max. permitted finger length	[mm]	60	60
Max. permitted weight per finger	[kg]	0.15	0.15
IP class		20	20
Min./max. ambient temperature	[°C]	-10/90	-10/90
Repeat accuracy	[mm]	0.05	0.05

Main view

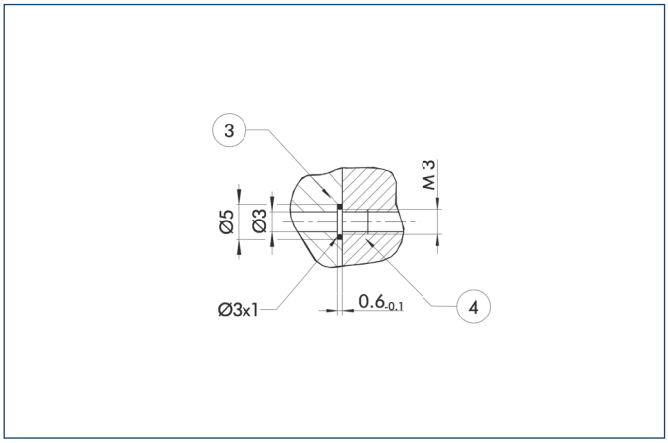


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used to hold the position in case of pressure drop (see "Accessories" catalog section).

A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing
① Gripper connection
② Finger connection
⑤③ Connection for shaft support
⑧⓪ Depth of the centering sleeve hole in the matching part

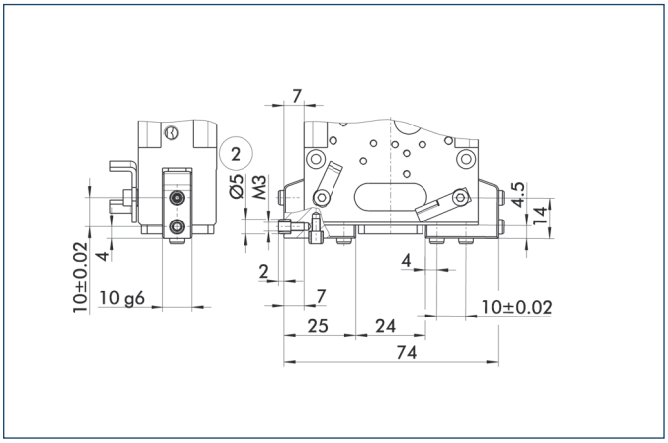
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

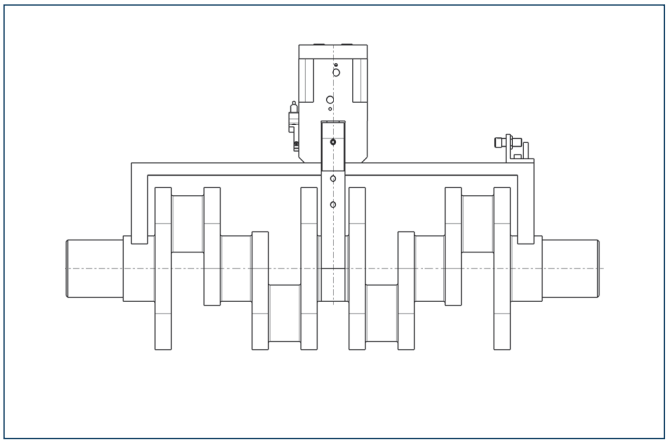
Jaw version



② Finger connection

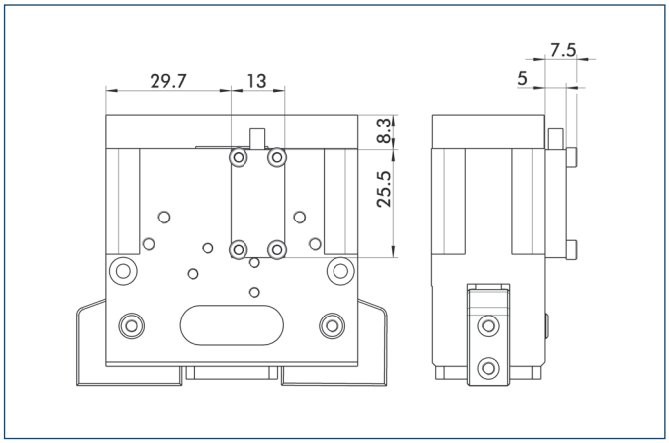
Divergent dimensions of version "B" (jaw version)

Shaft support



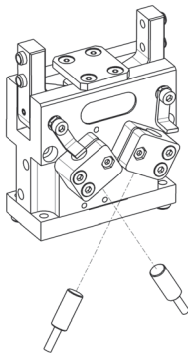
The complete assembly group for handling of cranks and cam shafts can be supplied on request.

FPS Flexible Position Sensor



Up to three intermediate positions of the PWG can be monitored via the FPS flexible position sensor.

Inductive proximity switches



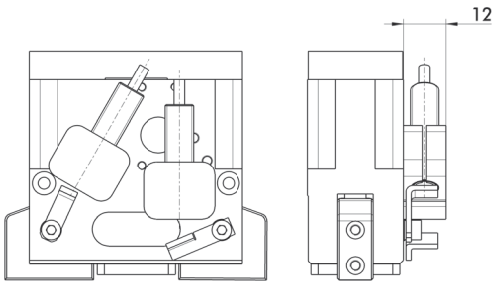
End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 60-S-M8	**0301485**	•
IN 60-S-M12	**0301585**	
INK 60-S	**0301553**	
Connection cables		
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Mounting kit for proximity switch

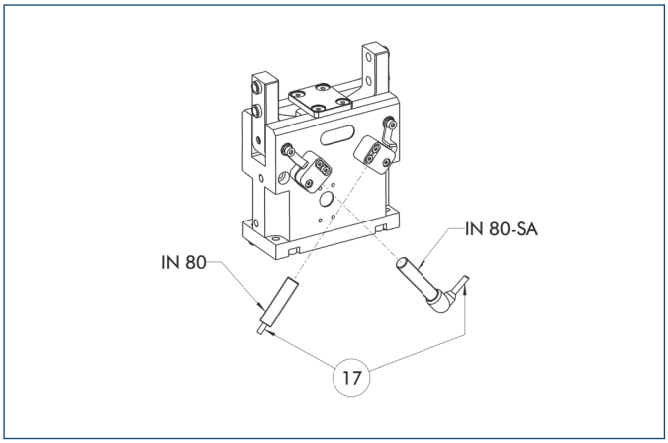


Description	ID
Mounting kit for proximity switch	
HG-PWG 65	**0300764**

ⓘ This mounting kit needs to be ordered optionally as an accessory.

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

Inductive proximity switches



⑰ Cable outlet

End position monitoring mounted with mounting kit

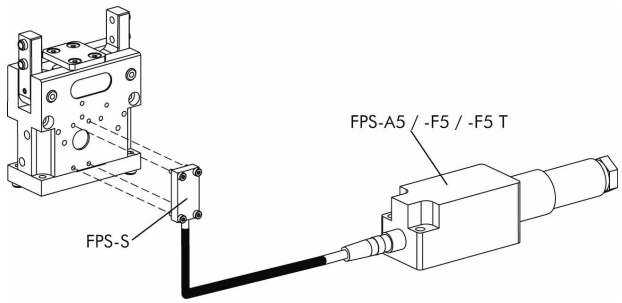
Description	ID	Recommended product
Mounting kit for proximity switch		
HG-PWG 65	**0300764**	
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
IN-C 80-S-M8	**0301475**	
INK 80-SL	**0301579**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ This mounting kit needs to be ordered optionally as an accessory.

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

Flexible Position Sensor



Flexible position monitoring of up to five positions

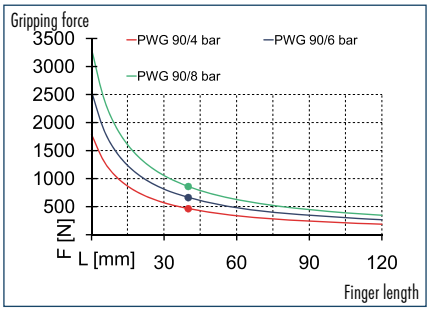
Description	ID
Sensor	
FPS-S 13	**0301705**
Electronic Processor	
FPS-F5	**0301805**
FPS-F5 T	**0301807**

ⓘ When using a FPS system, a FPS sensor (FPS-S) and a control unit (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

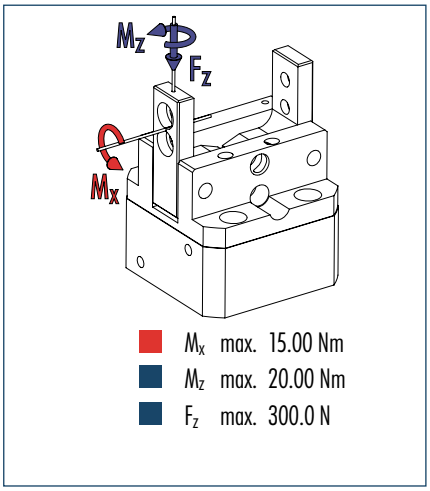
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

PWG 90

Gripping force, O.D. gripping



Finger load

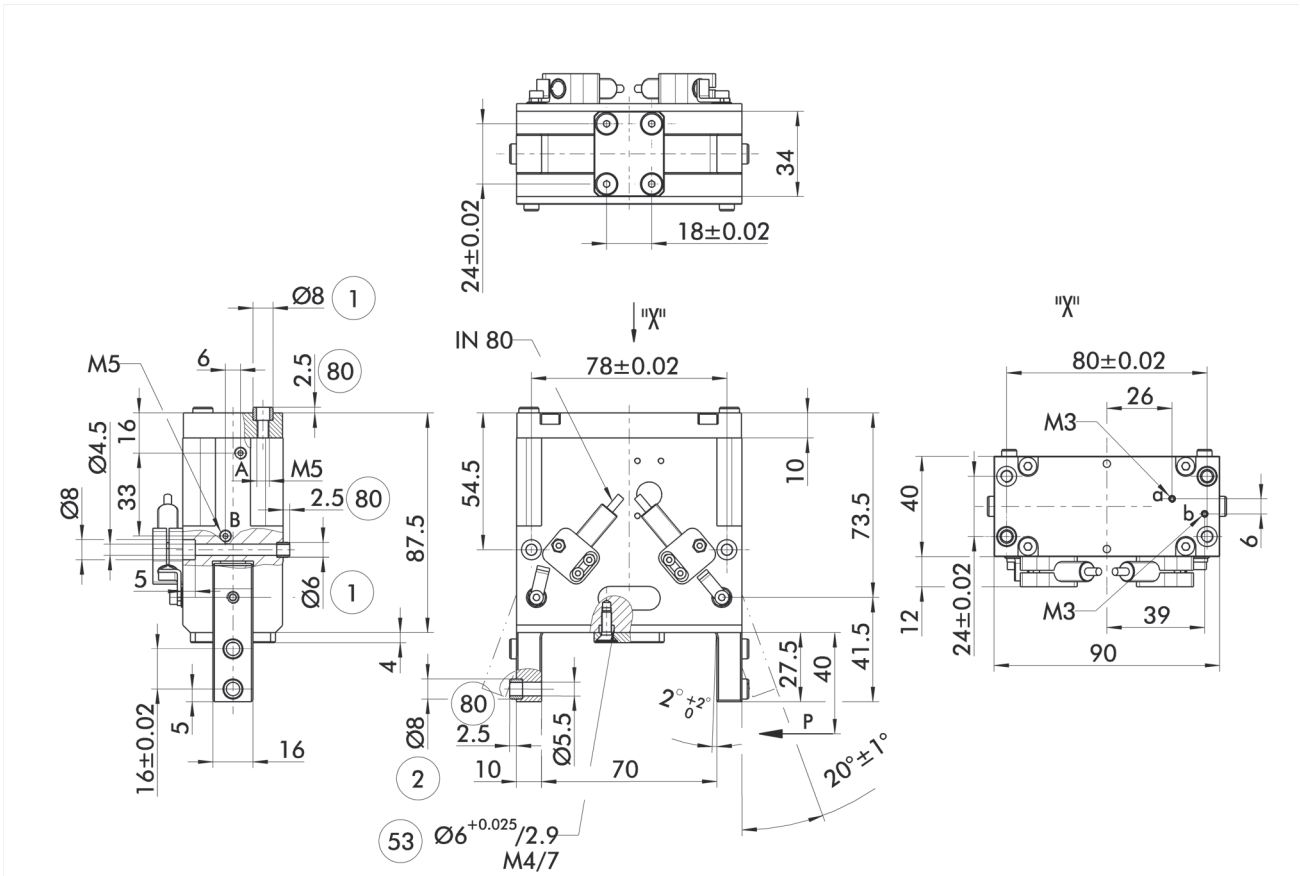


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		PWG 90-F	PWG 90-B
ID		0302632	0302633
Opening angle per jaw	[°]	20	20
Closed angle per jaw up to	[°]	4	4
Closing moment	[Nm]	35.69	35.69
Spring-actuated closing moment	[Nm]	9	9
Weight	[kg]	0.99	1.06
Recommended workpiece weight	[kg]	3.3	3.3
Air consumption per double stroke	[cm³]	35	35
Min./max. operating pressure	[bar]	4/8	4/8
Nominal operating pressure	[bar]	6	6
Closing/opening time	[s]	0.03/0.06	0.03/0.06
Max. permitted finger length	[mm]	80	80
Max. permitted weight per finger	[kg]	0.5	0.5
IP class		20	20
Min./max. ambient temperature	[°C]	-10/90	-10/90
Repeat accuracy	[mm]	0.05	0.05

Main view

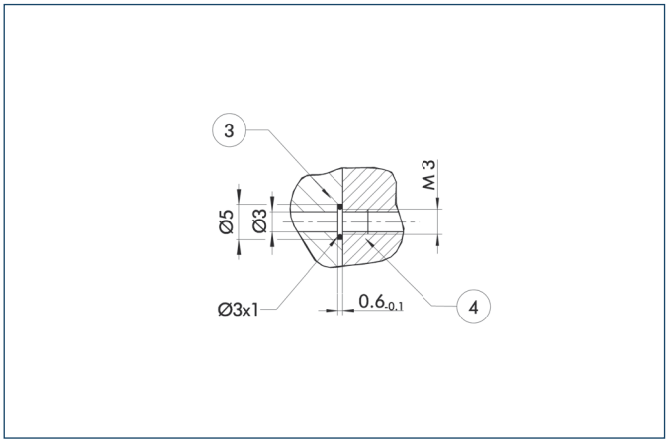


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used to hold the position in case of pressure drop (see "Accessories" catalog section).

A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing
① Gripper connection
② Finger connection
53 Connection for shaft support
80 Depth of the centering sleeve hole in the matching part

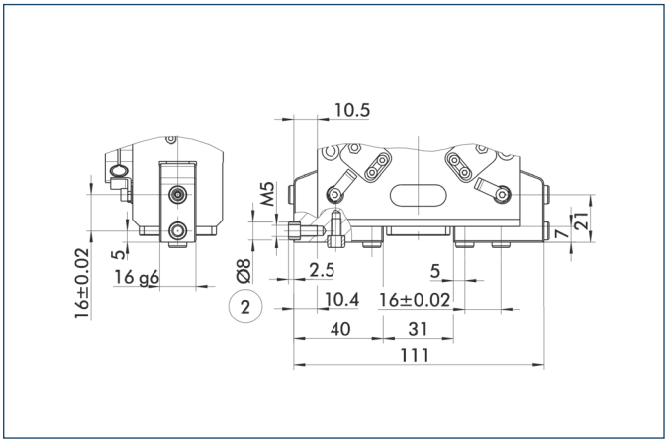
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

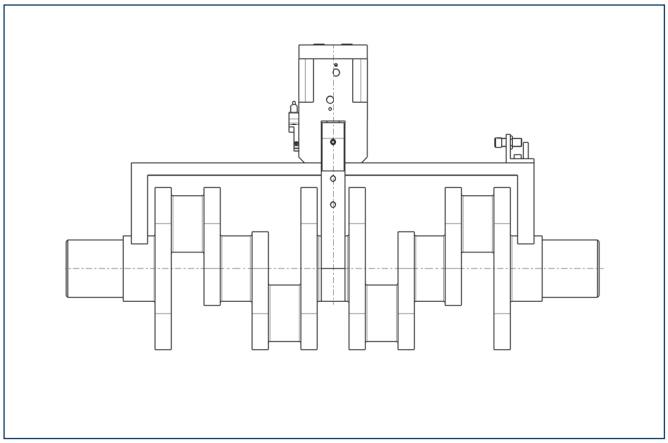
Jaw version



② Finger connection

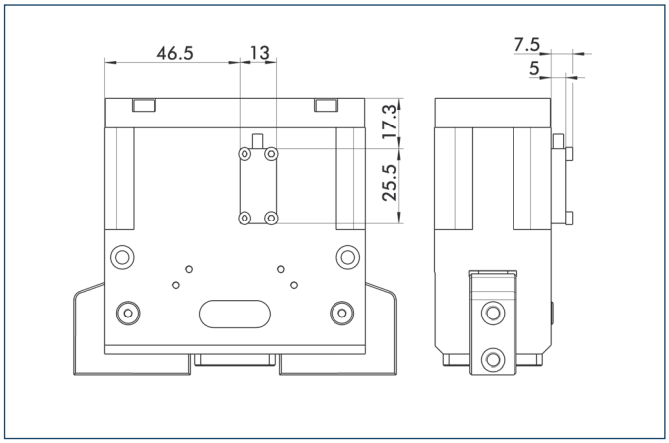
Divergent dimensions of version "B" (jaw version)

Shaft support



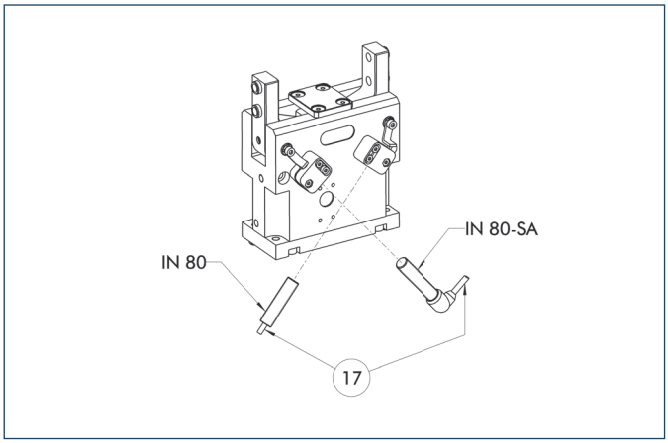
The complete assembly group for handling of cranks and cam shafts can be supplied on request.

Flexible Position Sensor



Up to three intermediate positions of the PWG can be monitored via the FPS flexible position sensor.

Inductive proximity switches



⑰ Cable outlet

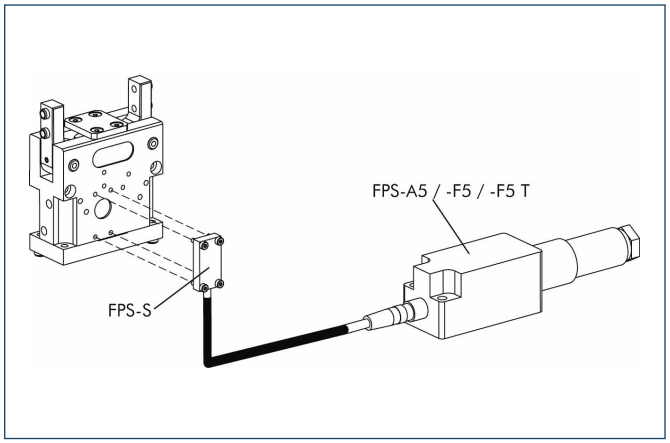
End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
IN-C 80-S-M8	**0301475**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	
Connection cables		
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Flexible Position Sensor



Flexible position monitoring of up to five positions

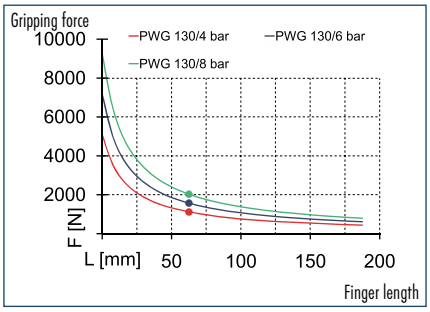
Description	ID
Sensor	
FPS-S 13	**0301705**
Electronic Processor	
FPS-F5	**0301805**
FPS-F5 T	**0301807**

ⓘ When using a FPS system, a FPS sensor (FPS-S) and a control unit (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

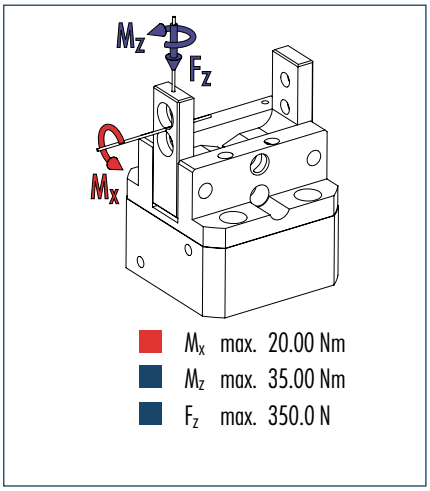
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

PWG 130

Gripping force, O.D. gripping



Finger load

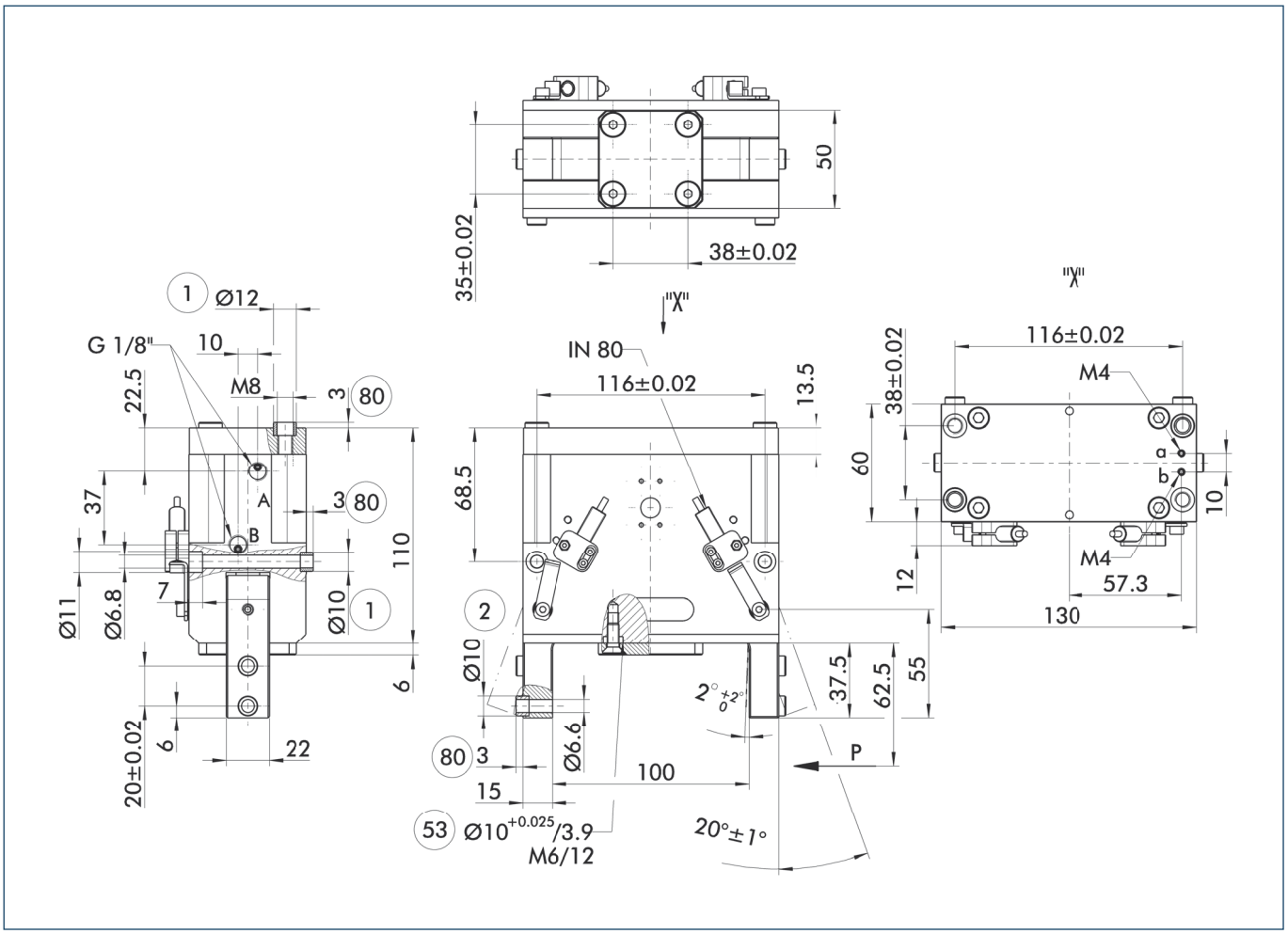


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		PWG 130-F	PWG 130-B
ID		0302634	0302635
Opening angle per jaw	[°]	20	20
Closed angle per jaw up to	[°]	4	4
Closing moment	[Nm]	125.4	125.4
Spring-actuated closing moment	[Nm]	34.2	34.2
Weight	[kg]	2.6	2.8
Recommended workpiece weight	[kg]	8	8
Air consumption per double stroke	[cm³]	120	120
Min./max. operating pressure	[bar]	4/8	4/8
Nominal operating pressure	[bar]	6	6
Closing/opening time	[s]	0.1/0.19	0.1/0.19
Max. permitted finger length	[mm]	125	125
Max. permitted weight per finger	[kg]	1	1
IP class		20	20
Min./max. ambient temperature	[°C]	-10/90	-10/90
Repeat accuracy	[mm]	0.05	0.05

Main view

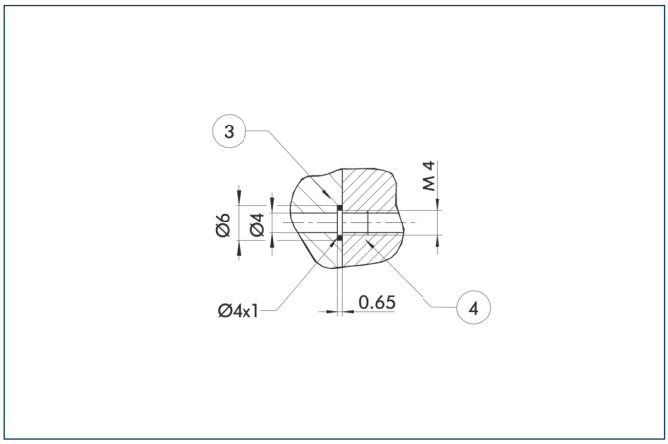


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used to hold the position in case of pressure drop (see "Accessories" catalog section).

A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing
① Gripper connection
② Finger connection
53 Connection for shaft support
80 Depth of the centering sleeve hole in the matching part

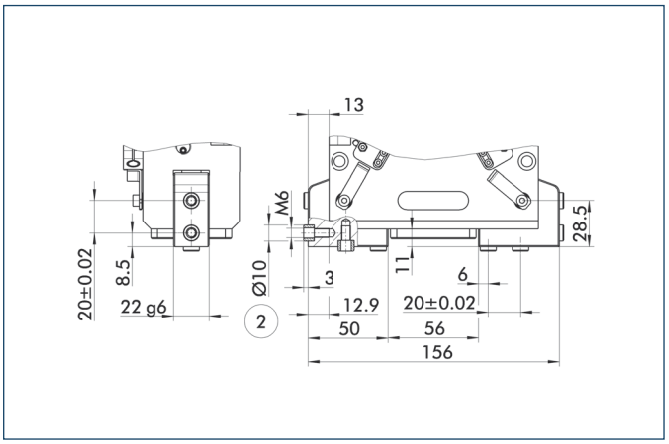
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

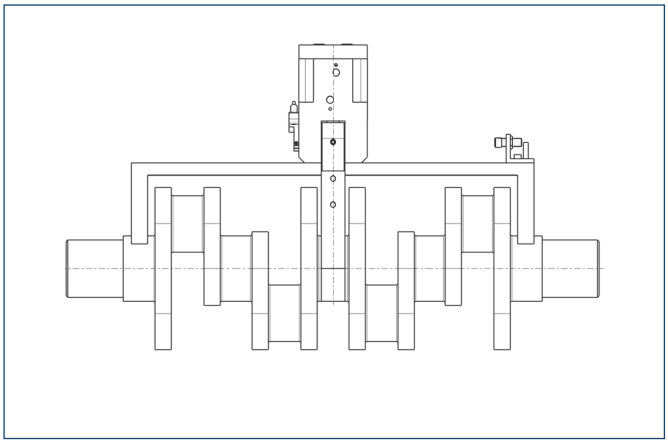
Jaw version



② Finger connection

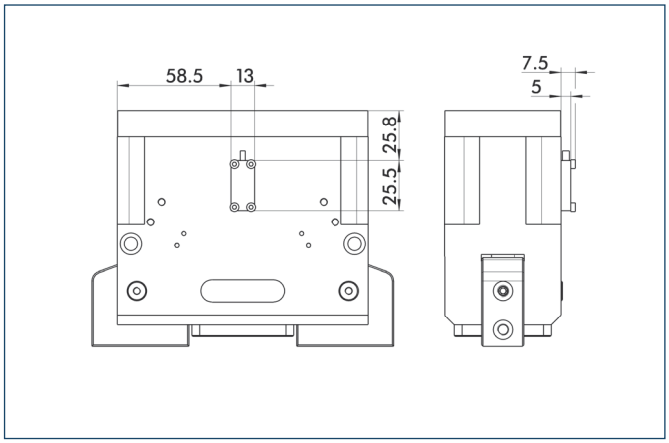
Divergent dimensions of version "B" (jaw version)

Shaft support



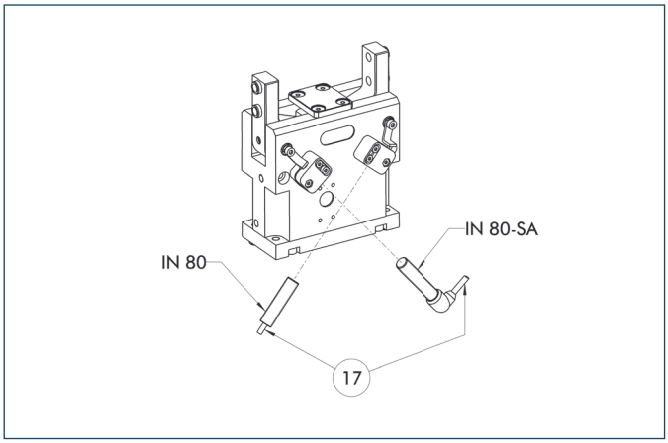
The complete assembly group for handling of cranks and cam shafts can be supplied on request.

Flexible Position Sensor



Up to three intermediate positions of the PWG can be monitored via the FPS flexible position sensor.

Inductive proximity switches



⑰ Cable outlet

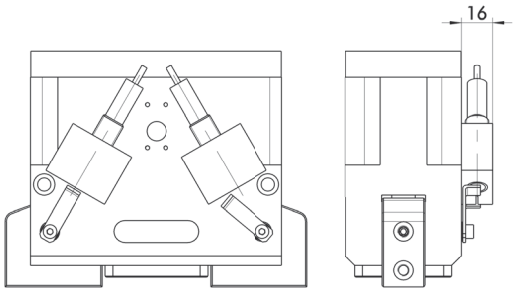
End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
IN-C 80-S-M8	**0301475**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	
Connection cables		
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Mounting kit for proximity switch



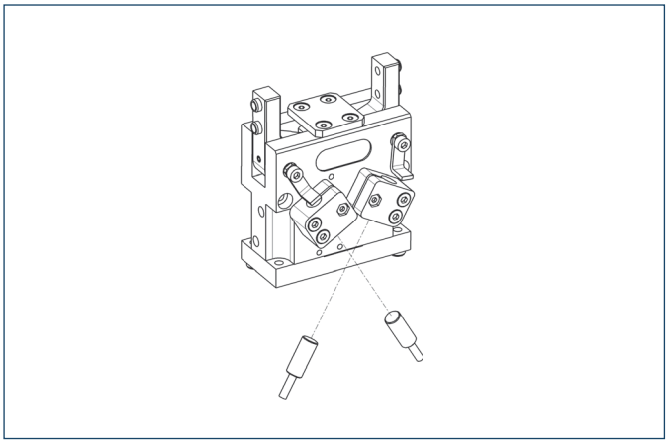
Description	ID
Mounting kit for proximity switch	
HG-PWG 130-230	**0300763**

ⓘ This mounting kit needs to be ordered optionally as an accessory.

ⓘ The proximity switches must be ordered separately.

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

Inductive proximity switches

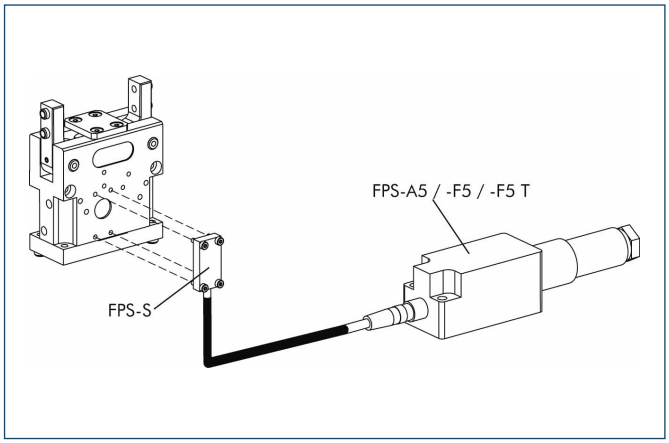


End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
HG-PWG 130-230	**0300763**	
Inductive proximity switches		
IN 120-S-M12	**0301592**	•
INK 120-S	**0301562**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ This mounting kit needs to be ordered optionally as an accessory.
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

Flexible Position Sensor



Flexible position monitoring of up to five positions

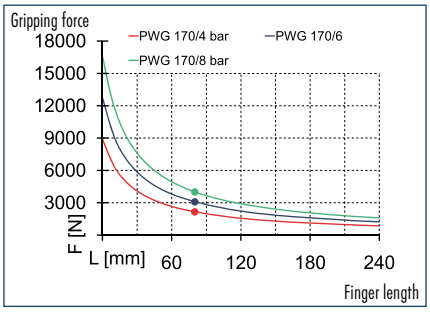
Description	ID
Sensor	
FPS-S 13	**0301705**
Electronic Processor	
FPS-F5	**0301805**
FPS-F5 T	**0301807**

ⓘ When using a FPS system, a FPS sensor (FPS-S) and a control unit (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

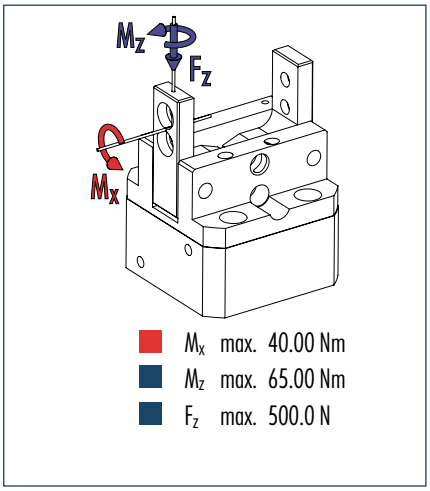
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

PWG 170

Gripping force, O.D. gripping



Finger load

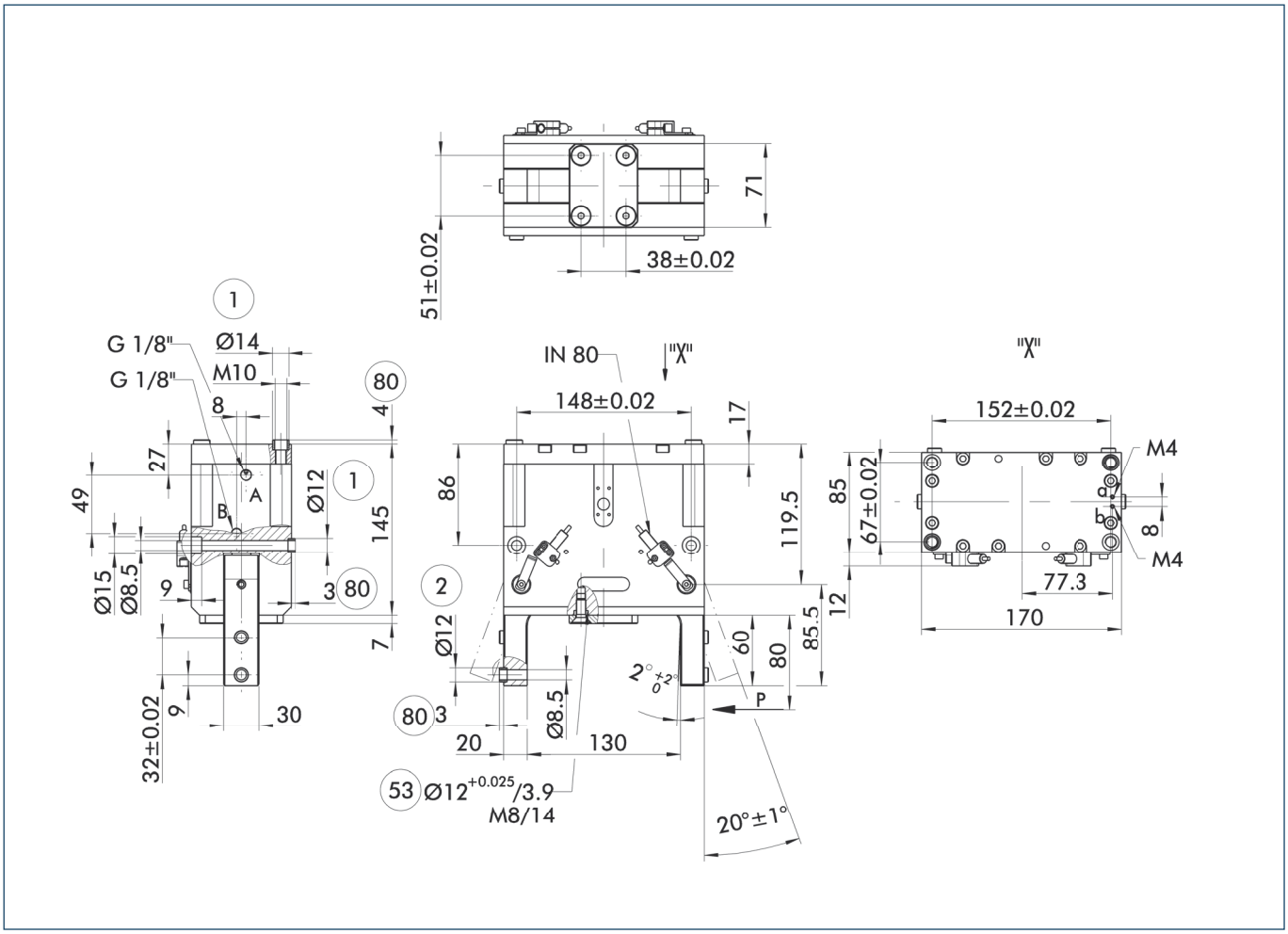


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		PWG 170-F	PWG 170-B
ID		**0302636**	**0302637**
Opening angle per jaw	[°]	20	20
Closed angle per jaw up to	[°]	4	4
Closing moment	[Nm]	324.9	324.9
Spring-actuated closing moment	[Nm]	80.4	80.4
Weight	[kg]	6.6	7
Recommended workpiece weight	[kg]	15.7	15.7
Air consumption per double stroke	[cm³]	320	320
Min./max. operating pressure	[bar]	4/8	4/8
Nominal operating pressure	[bar]	6	6
Closing/opening time	[s]	0.27/0.3	0.27/0.3
Max. permitted finger length	[mm]	160	160
Max. permitted weight per finger	[kg]	2.5	2.5
IP class		20	20
Min./max. ambient temperature	[°C]	-10/90	-10/90
Repeat accuracy	[mm]	0.05	0.05

Main view

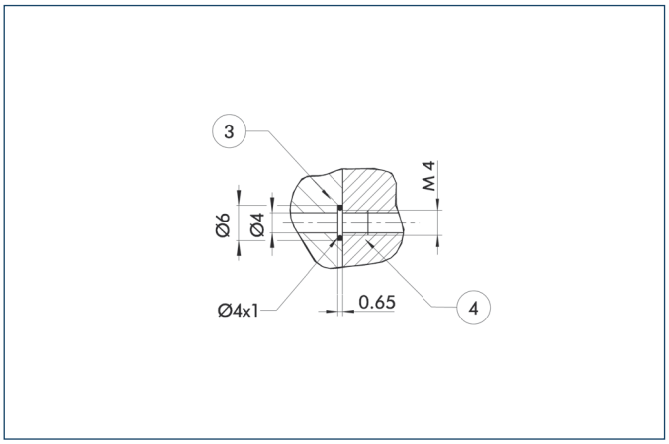


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used to hold the position in case of pressure drop (see "Accessories" catalog section).

A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing
① Gripper connection
② Finger connection
53 Connection for shaft support
80 Depth of the centering sleeve hole in the matching part

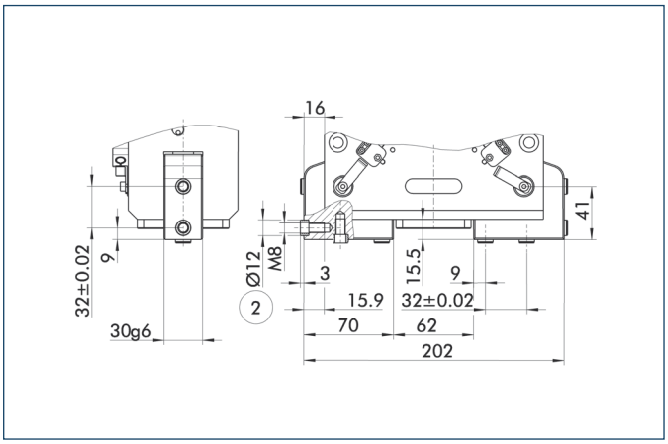
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

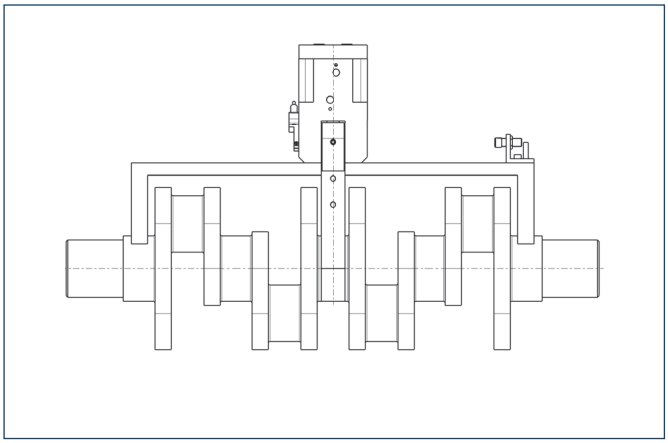
Jaw version



② Finger connection

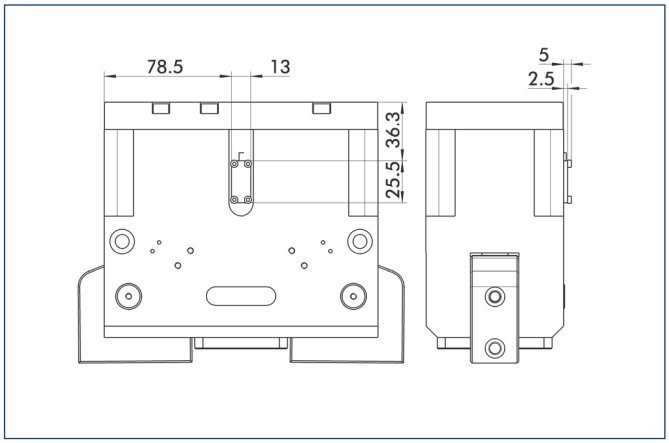
Divergent dimensions of version "B" (jaw version)

Shaft support



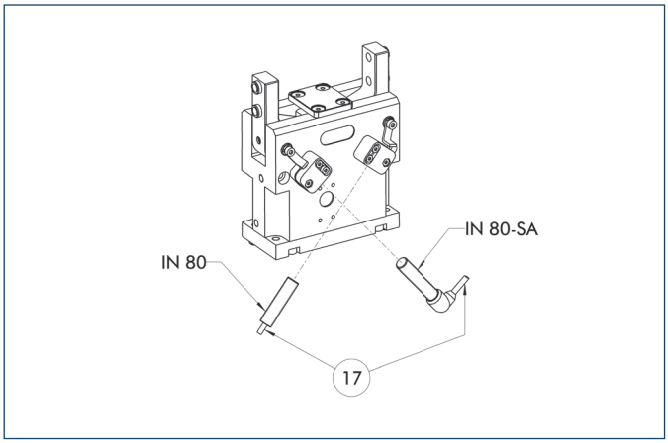
The complete assembly group for handling of cranks and cam shafts can be supplied on request.

Flexible Position Sensor



Up to three intermediate positions of the PWG can be monitored via the FPS flexible position sensor.

Inductive proximity switches



⑰ Cable outlet

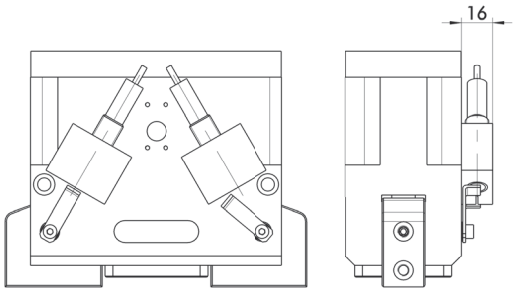
End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
IN-C 80-S-M8	**0301475**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	
Connection cables		
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Mounting kit for proximity switch



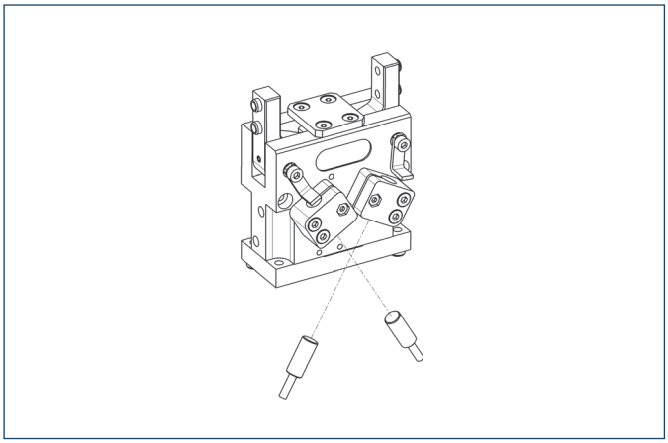
Description	ID
Mounting kit for proximity switch	
HG-PWG 130-230	**0300763**

ⓘ This mounting kit needs to be ordered optionally as an accessory.

ⓘ The proximity switches must be ordered separately.

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

Inductive proximity switches

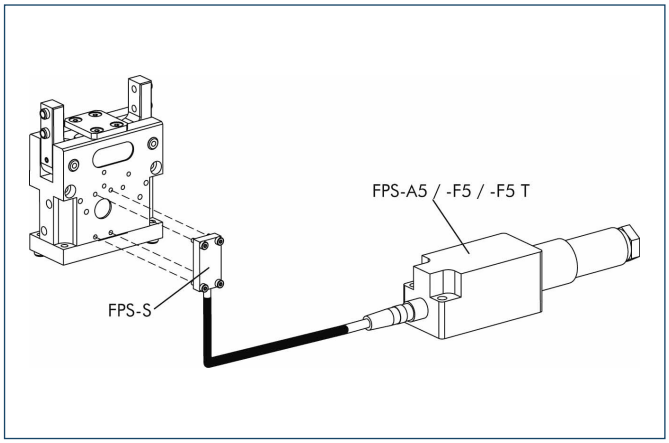


End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
HG-PWG 130-230	**0300763**	
Inductive proximity switches		
IN 120-S-M12	**0301592**	•
INK 120-S	**0301562**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ This mounting kit needs to be ordered optionally as an accessory.
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

Flexible Position Sensor



Flexible position monitoring of up to five positions

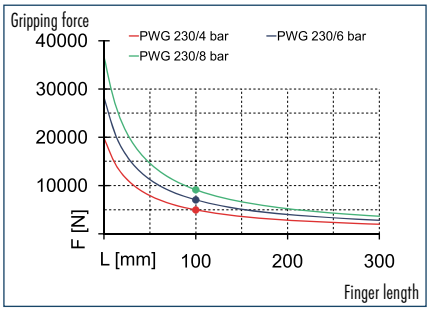
Description	ID
Sensor	
FPS-S 13	**0301705**
Electronic Processor	
FPS-F5	**0301805**
FPS-F5 T	**0301807**

ⓘ When using a FPS system, a FPS sensor (FPS-S) and a control unit (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

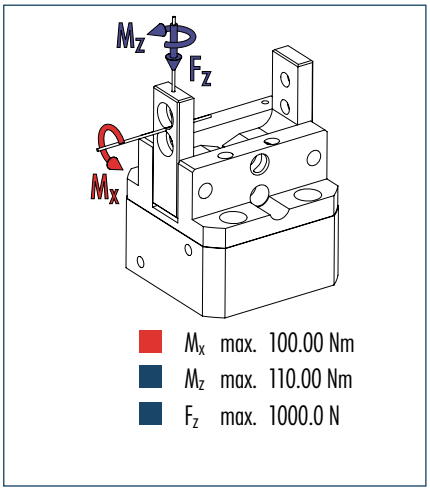
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

PWG 230

Gripping force, O.D. gripping



Finger load

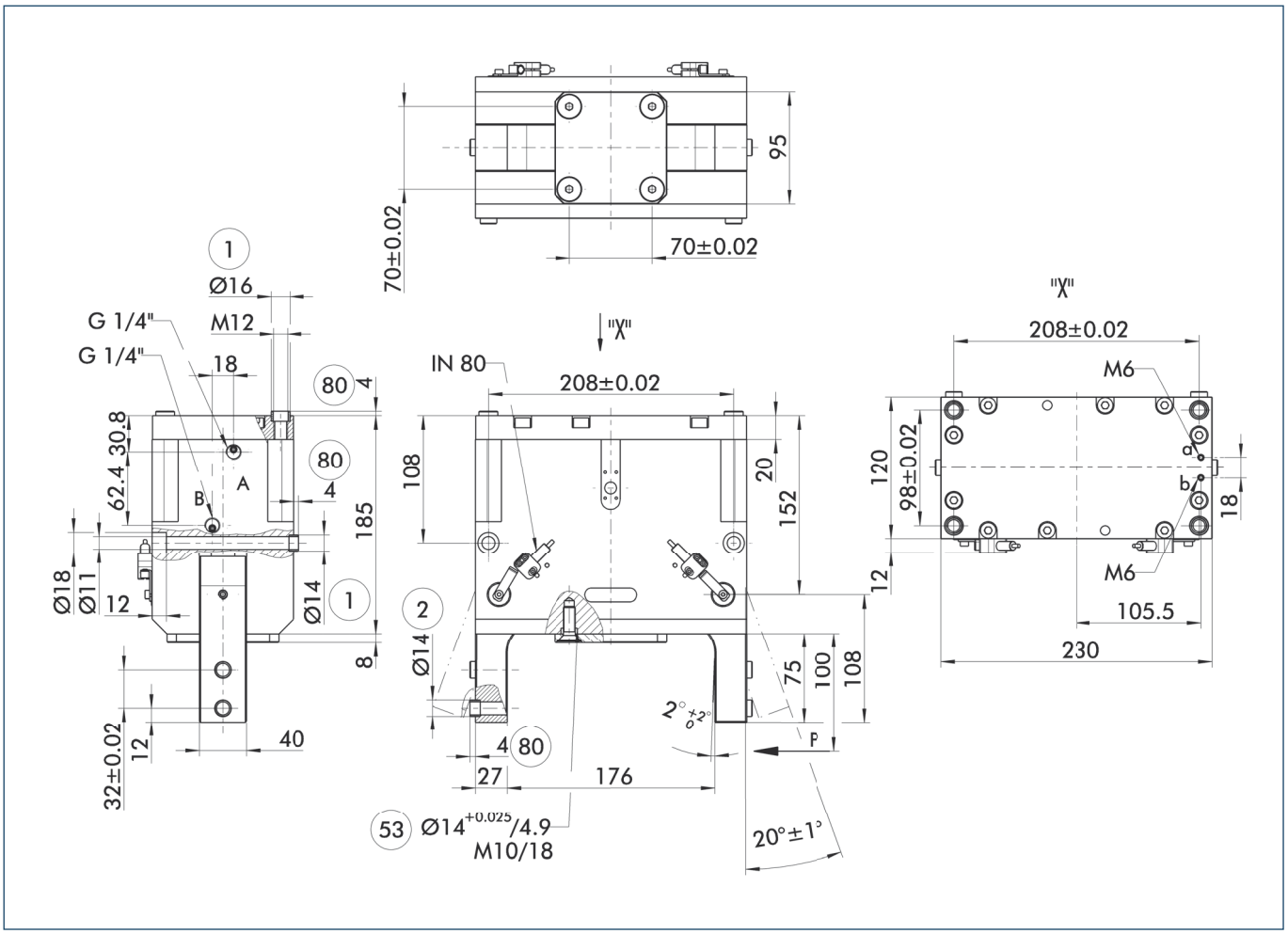


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		PWG 230-F	PWG 230-B
ID		0302638	0302639
Opening angle per jaw	[°]	20	20
Closed angle per jaw up to	[°]	4	4
Closing moment	[Nm]	934.2	934.2
Spring-actuated closing moment	[Nm]	237.6	237.6
Weight	[kg]	15.8	16.3
Recommended workpiece weight	[kg]	35.8	35.8
Air consumption per double stroke	[cm³]	860	860
Min./max. operating pressure	[bar]	4/8	4/8
Nominal operating pressure	[bar]	6	6
Closing/opening time	[s]	0.35/0.45	0.35/0.45
Max. permitted finger length	[mm]	200	200
Max. permitted weight per finger	[kg]	4	4
IP class		20	20
Min./max. ambient temperature	[°C]	-10/90	-10/90
Repeat accuracy	[mm]	0.05	0.05

Main view

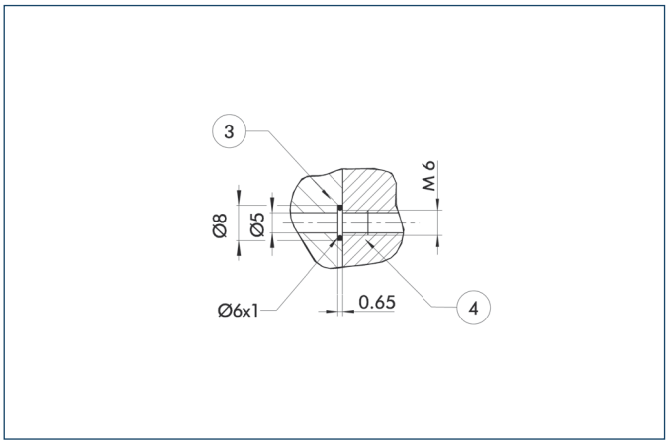


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used to hold the position in case of pressure drop (see "Accessories" catalog section).

A, a Main/direct connection, gripper opening
B, b Main/direct connection, gripper closing
① Gripper connection
② Finger connection
53 Connection for shaft support
80 Depth of the centering sleeve hole in the matching part

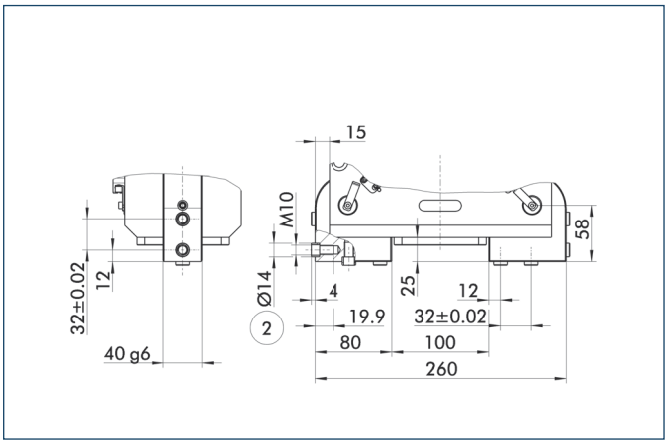
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

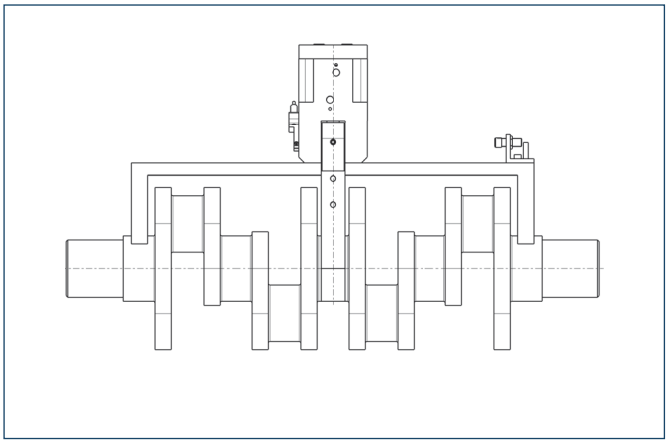
Jaw version



② Finger connection

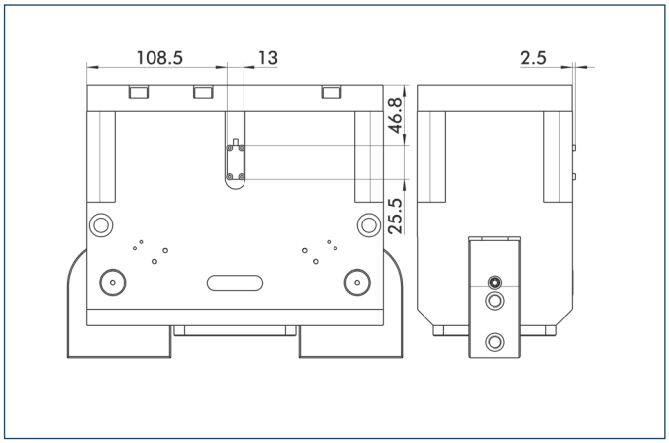
Divergent dimensions of version "B" (jaw version)

Shaft support



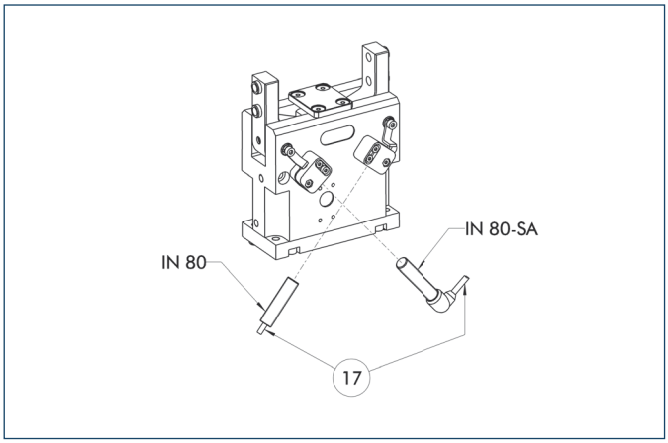
The complete assembly group for handling of cranks and cam shafts can be supplied on request.

Flexible Position Sensor



Up to three intermediate positions of the PWG can be monitored via the FPS flexible position sensor.

Inductive proximity switches



⑰ Cable outlet

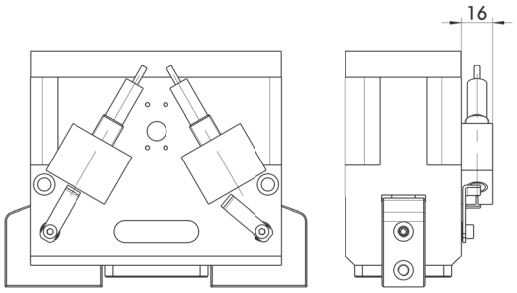
End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
IN-C 80-S-M8	**0301475**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	
Connection cables		
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Mounting kit for proximity switch



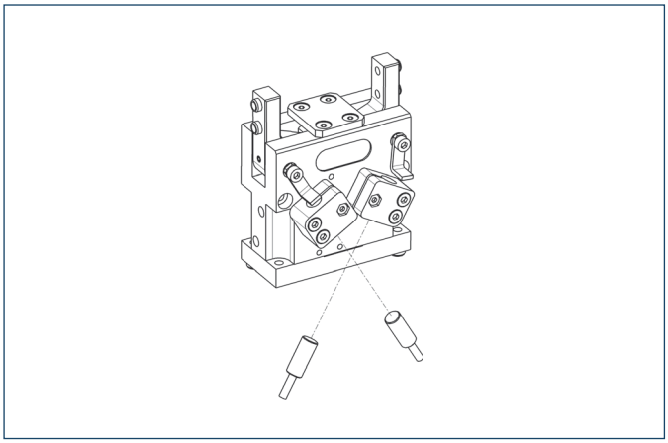
Description	ID
Mounting kit for proximity switch	
HG-PWG 130-230	**0300763**

ⓘ This mounting kit needs to be ordered optionally as an accessory.

ⓘ The proximity switches must be ordered separately.

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

Inductive proximity switches

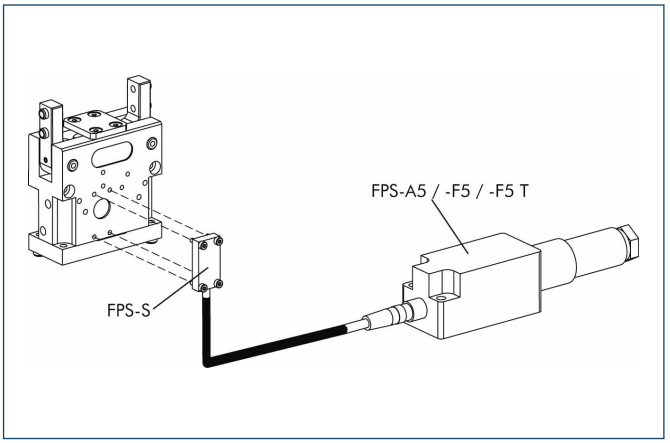


End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
HG-PWG 130-230	**0300763**	
Inductive proximity switches		
IN 120-S-M12	**0301592**	•
INK 120-S	**0301562**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ This mounting kit needs to be ordered optionally as an accessory.
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

Flexible Position Sensor



Flexible position monitoring of up to five positions

Description	ID
Sensor	
FPS-S 13	**0301705**
Electronic Processor	
FPS-F5	**0301805**
FPS-F5 T	**0301807**

ⓘ When using a FPS system, a FPS sensor (FPS-S) and a control unit (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

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

Pneumatic Gripping Modules

Pneumatic • 3-Finger Angular Gripper

3-FINGER ANGULAR GRIPPER

SGW

Pneumatic • 3-Finger Concentric Gripper • Angular Gripper for small components

Sizes
40 ... 64

Weight
0.05 kg ... 0.17 kg

Gripping moment
1.35 Nm ... 7.45 Nm

Angle per jaw
8°

Workpiece weight
0.3 kg ... 1.3 kg

Application example

Linear unit with 6-fold gripper for simultaneous handling of six smaller packages

1. 3-Finger Centric Gripper SGW
2. Linear axis with toothed-belt drive HSB Beta

Angular Gripper for small components

small, plastic angular gripper with spring return and single-acting piston

Field of application

for universal use in clean and slightly dirty environments, with special requirements for the corrosion resistance and antistatic properties of the gripper unit

Your advantages and benefits

Housing of carbon-fiber-reinforced plastic
making the gripper extremely light and free from corrosion

One-way acting 3-fold piston with lever gear
for high power transmission and synchronized gripping

Spring-loaded pressure piece
for optional pressing and separating of workpieces

favorable in price
especially suitable for low-budget applications

General note to the series

Principle of function
one-way acting 3-fold piston with lever gear and spring reset

Housing material
carbon-fiber-reinforced plastic with metal functional parts

Base jaw material
carbon-fiber-reinforced plastic

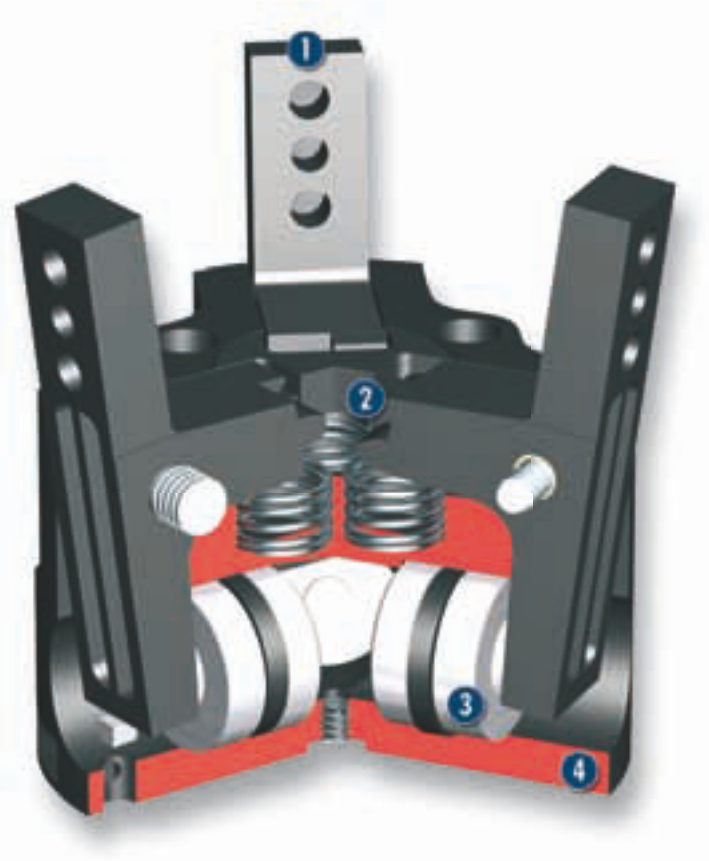
Actuation
pneumatic, with filtered compressed air (10 microns): dry, lubricated or non-lubricated
Pressure medium: Required quality class of compressed air according to DIN ISO 8573-1: 6 4 4

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

Scope of delivery
Centering pins, O-rings for direct connection, assembly and operating manual with manufacturer's declaration

Gripping force maintenance device
possible with SDV-P pressure maintenance valve

Sectional diagram



1 **Base jaw**
for the connection of workpiece-specific gripper fingers

2 **Lever mechanism**
for precise and synchronized gripping

3 **Drive**
single-acting double piston system with spring return

4 **Housing**
weight-reduced due to the use of plastics

Functional description

The two horizontally arranged pistons are pressed away from each other by compressed air.
The base jaws are opened at an angle and in a synchronized fashion by the bearing-mounted lever mechanism.
Reset is done by compression spring.

Options and special information

The use of carbon-fiber-reinforced plastics endows this gripper with a very low weight and a disproportionately high gripping force.

Accessories

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

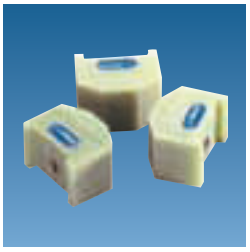
Pressure maintenance valve

Fittings

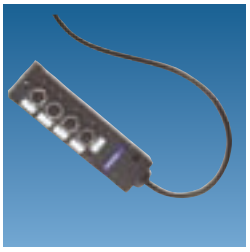
Inductive proximity switches

Sensor cables

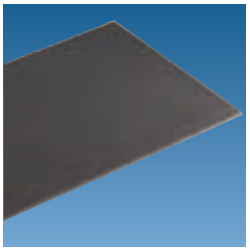
Plastic inserts



Sensor Distributor



Gripper pads



ⓘ 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.

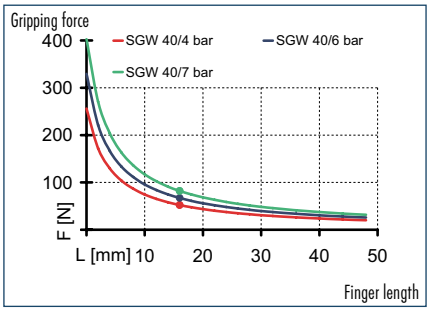
Closing and opening times

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.

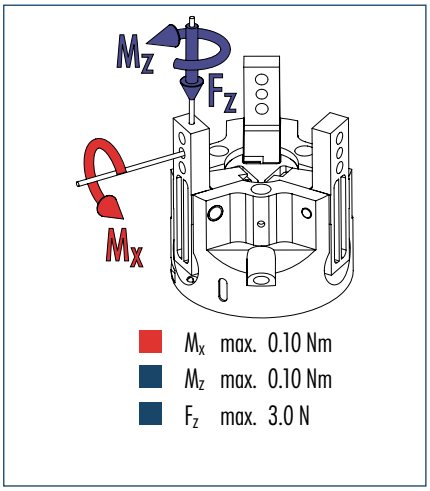
SGW 40

Pneumatic • 3-Finger Concentric Gripper • Angular Gripper for small components

Gripping force, O.D. gripping



Finger load

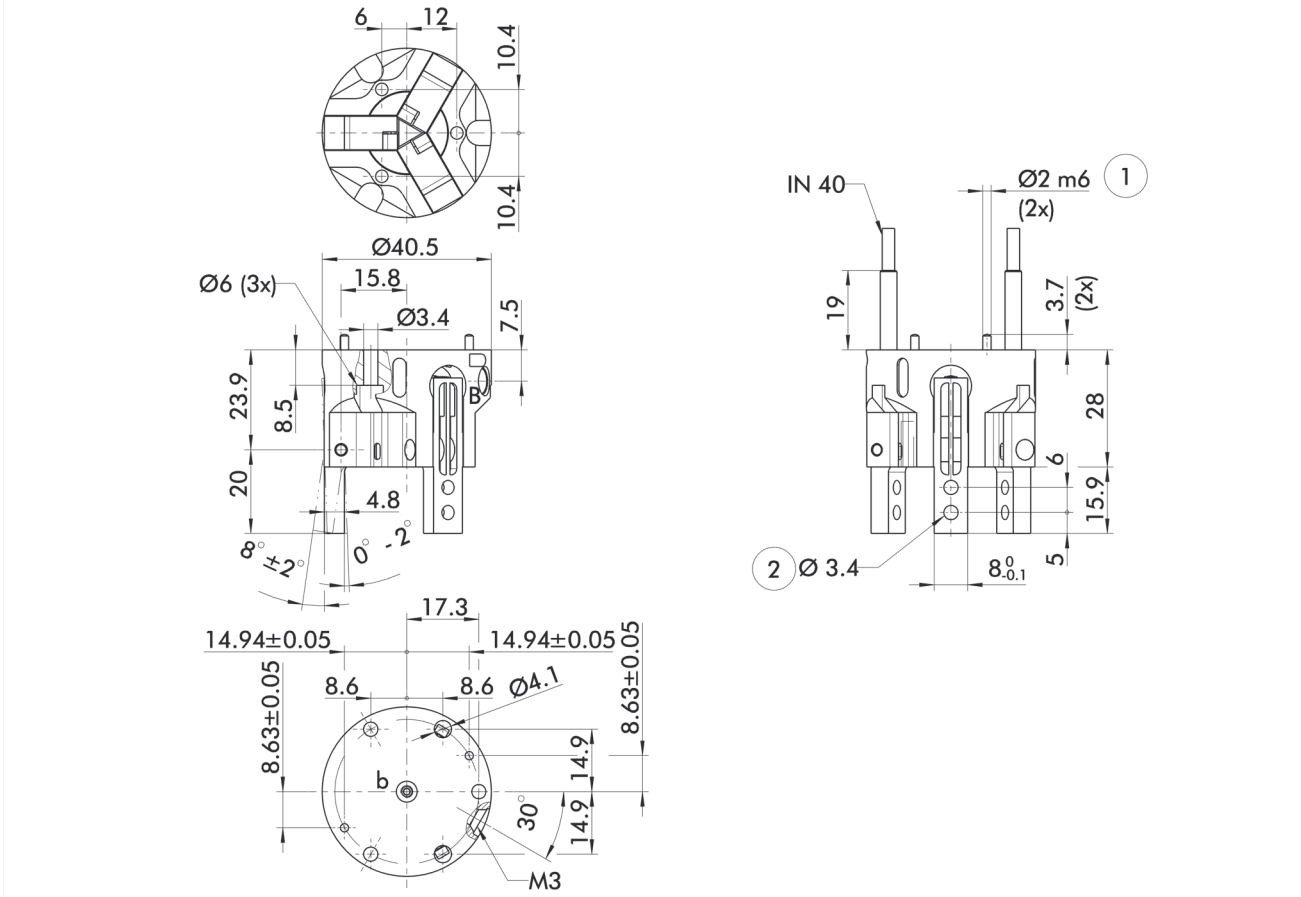


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		SGW 40
ID		0305204
Opening angle per jaw	[°]	8
Closed angle per jaw up to	[°]	2
Closing moment	[Nm]	1.35
Weight	[kg]	0.05
Recommended workpiece weight	[kg]	0.3
Air consumption per double stroke	[cm³]	0.5
Min./max. operating pressure	[bar]	4/7
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.02/0.03
Max. permitted finger length	[mm]	32
Max. permitted weight per finger	[kg]	0.03
IP class		20
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.1

Main view

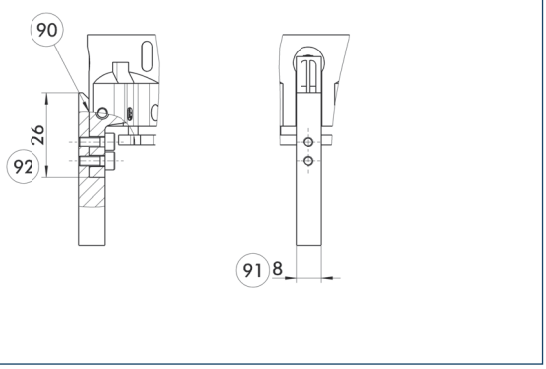


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

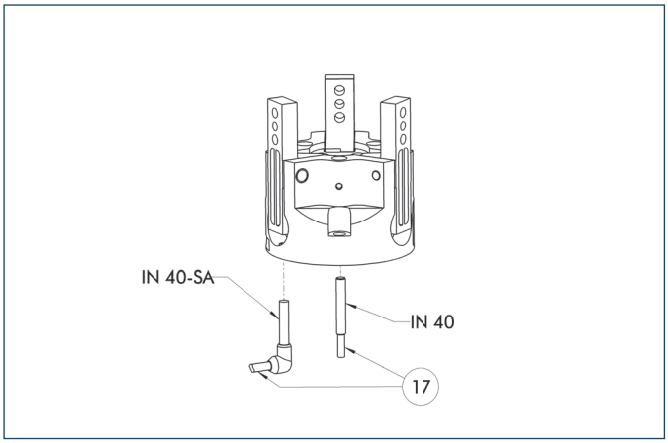
B, b Main/direct connection, gripper closing
① Gripper connection
② Finger connection

Jaw design O.D. gripping



⑨⓪ Support top jaws at the base jaw
⑨① Maximum finger width
⑨② Maximum supporting length

Inductive proximity switches



⑰ Cable outlet

End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 40-S-M8	**0301474**	•
IN 40-S-M12	**0301574**	
INK 40-S	**0301555**	
Inductive proximity switch with lateral outlet		
IN 40-S-M12-SA	**0301577**	
IN 40-S-M8-SA	**0301473**	•
INK 40-S-SA	**0301565**	
Connection cables		
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

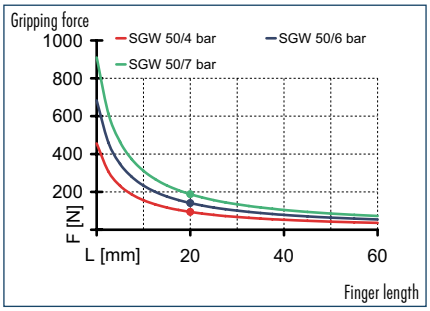
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

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

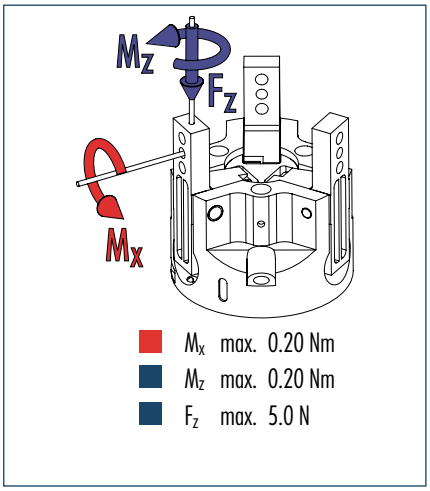
SGW 50

Pneumatic • 3-Finger Concentric Gripper • Angular Gripper for small components

Gripping force, O.D. gripping



Finger load

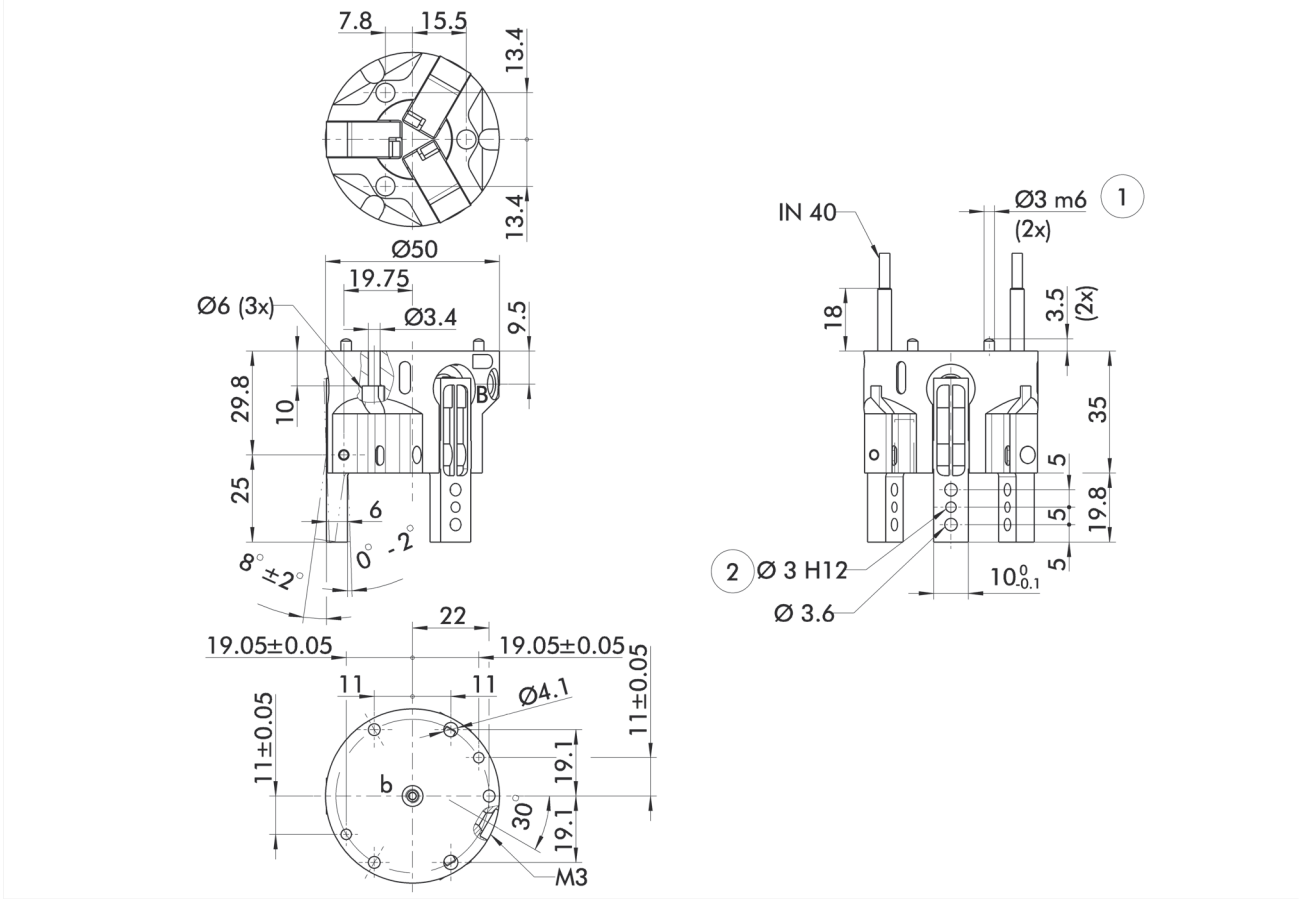


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		SGW 50
ID		0305205
Opening angle per jaw	[°]	8
Closed angle per jaw up to	[°]	2
Closing moment	[Nm]	3.55
Weight	[kg]	0.09
Recommended workpiece weight	[kg]	0.6
Air consumption per double stroke	[cm³]	1
Min./max. operating pressure	[bar]	4/7
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.02/0.03
Max. permitted finger length	[mm]	40
Max. permitted weight per finger	[kg]	0.05
IP class		20
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.1

Main view

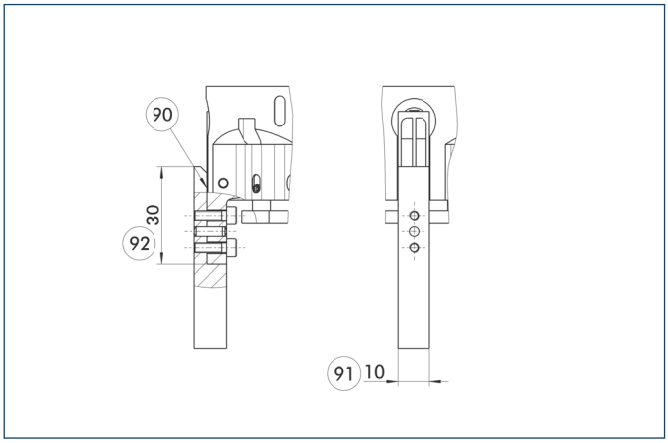


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

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

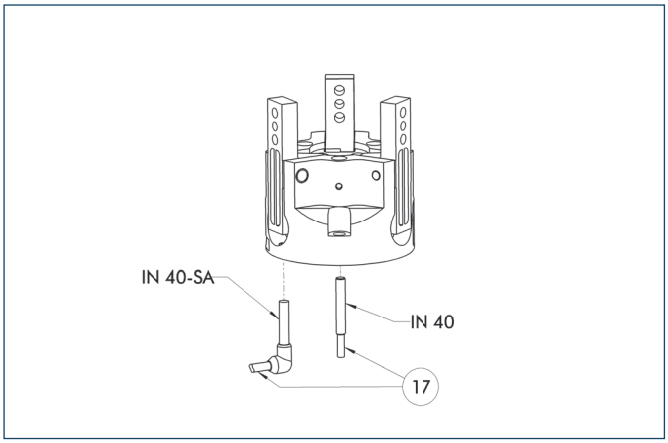
ⓘ The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

Jaw design O.D. gripping



90 Support top jaws at the base jaw
91 Maximum finger width
92 Maximum supporting length

Inductive proximity switches



⑰ Cable outlet

End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 40-S-M8	**0301474**	•
IN 40-S-M12	**0301574**	
INK 40-S	**0301555**	
Inductive proximity switch with lateral outlet		
IN 40-S-M12-SA	**0301577**	
IN 40-S-M8-SA	**0301473**	•
INK 40-S-SA	**0301565**	
Connection cables		
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

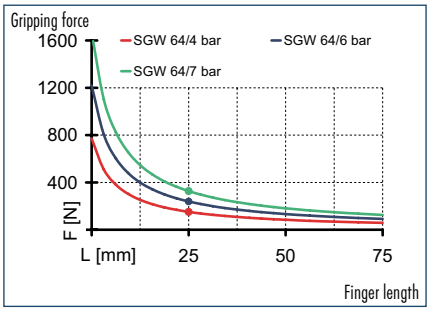
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

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

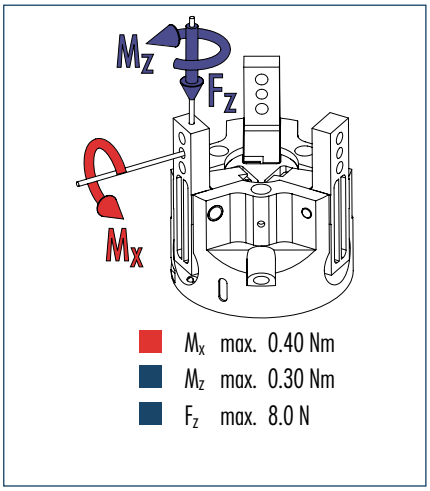
SGW 64

Pneumatic • 3-Finger Concentric Gripper • Angular Gripper for small components

Gripping force, O.D. gripping



Finger load

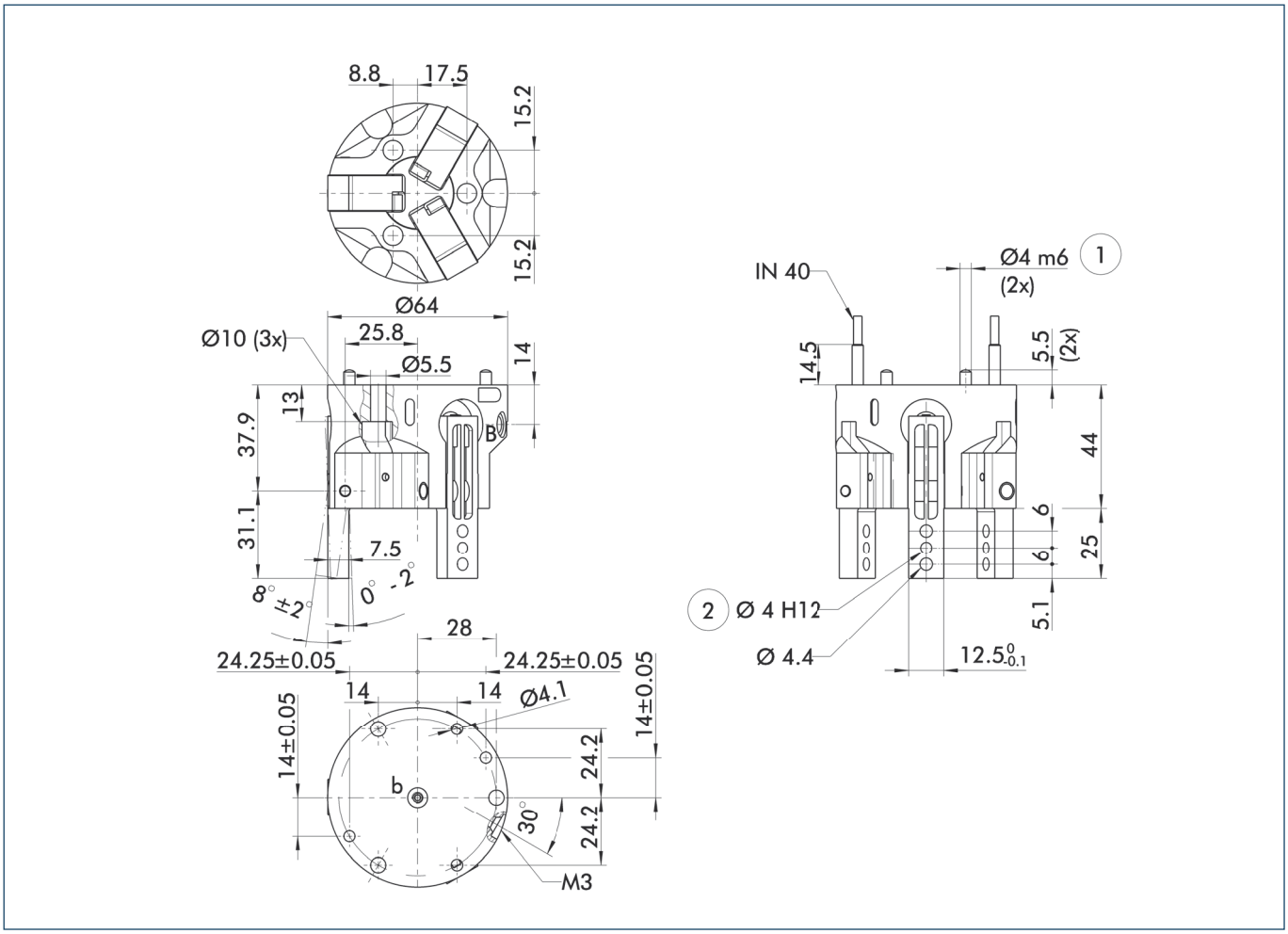


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		SGW 64
ID		0305206
Opening angle per jaw	[°]	8
Closed angle per jaw up to	[°]	2
Closing moment	[Nm]	7.45
Weight	[kg]	0.17
Recommended workpiece weight	[kg]	1.3
Air consumption per double stroke	[cm³]	1.8
Min./max. operating pressure	[bar]	4/7
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.02/0.03
Max. permitted finger length	[mm]	50
Max. permitted weight per finger	[kg]	0.07
IP class		20
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.1

Main view

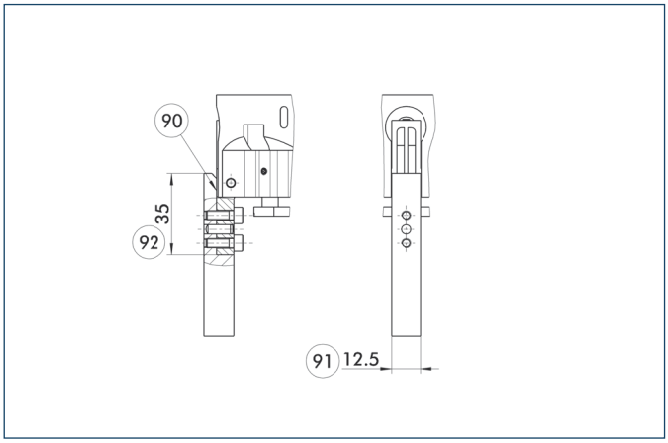


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

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

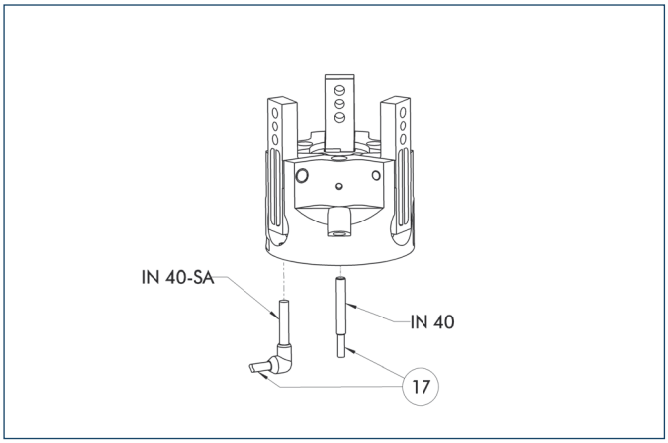
ⓘ The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

Jaw design O.D. gripping



⑨⓪ Support top jaws at the base jaw
⑨① Maximum finger width
⑨② Maximum supporting length

Inductive proximity switches



⑰ Cable outlet

End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 40-S-M8	**0301474**	•
IN 40-S-M12	**0301574**	
INK 40-S	**0301555**	
Inductive proximity switch with lateral outlet		
IN 40-S-M12-SA	**0301577**	
IN 40-S-M8-SA	**0301473**	•
INK 40-S-SA	**0301565**	
Connection cables		
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.

Pneumatic Gripping Modules

Pneumatic • 2-Finger Radial Gripper

2-FINGER RADIAL GRIPPER

LGR

Sizes
10 ... 40

Weight
0.07 kg ... 1.27 kg

Gripping moment
0.3 Nm ... 15 Nm

Angle per jaw
90°

Workpiece weight
0.07 kg ... 1066 kg

Application example

Rotational adjustment for reorientation of workpieces

1 2-Finger Radial Gripper LGR

2 Rotary Actuator SRU-plus

Universal Gripper
universal 180°-angular gripper with 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

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

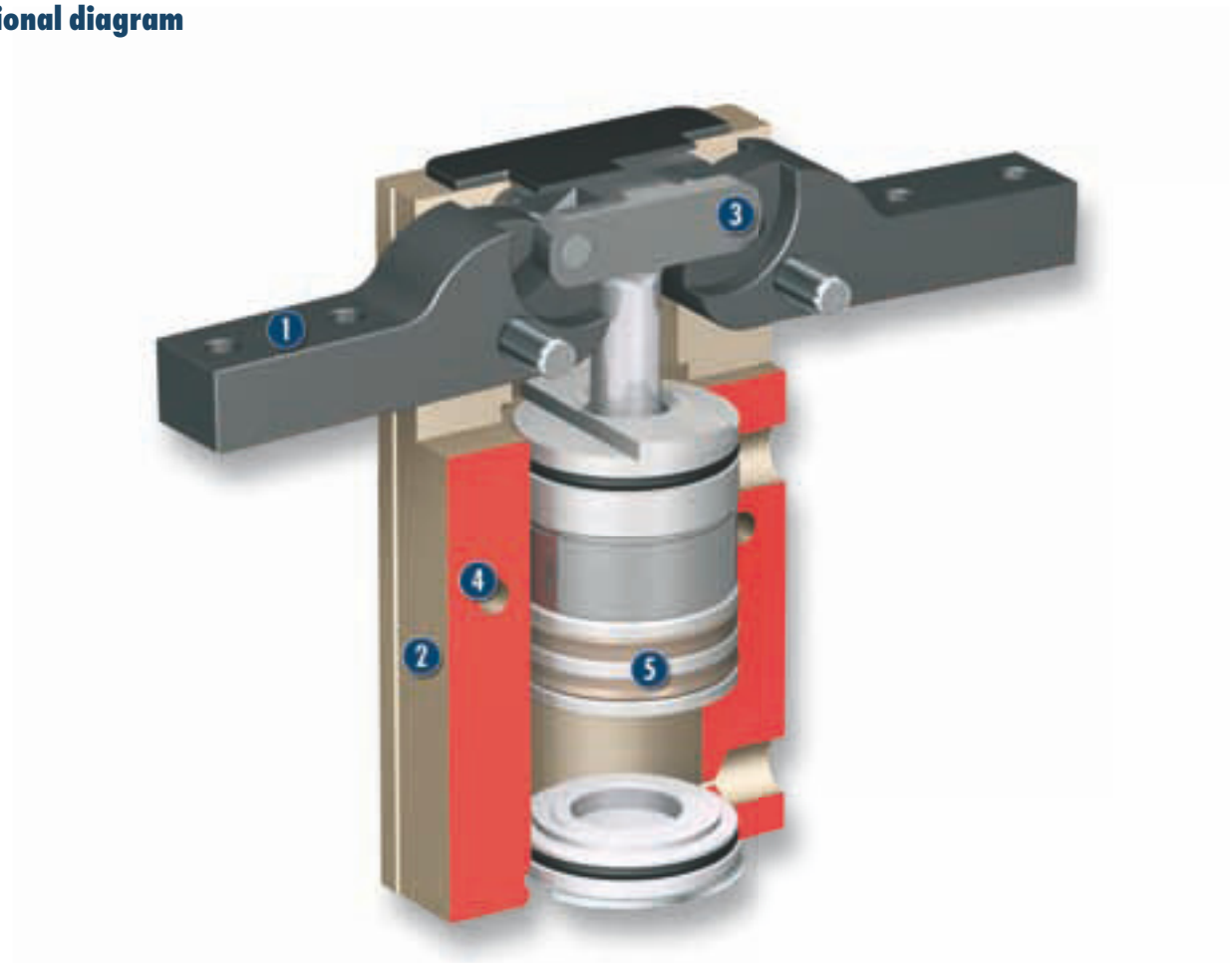
Base jaw material
Steel

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)

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

Sectional diagram



1 Base jaw
for the connection of workpiece-specific gripper fingers

2 Housing
weight-optimized through application of hard-anodized, high-strength aluminum alloy

3 Crank mechanism
for centric gripping

4 Centering and mounting possibilities
for universal assembly of the gripper

5 Drive
pneumatic piston drive

Functional description

180° angular grippers (radial grippers) are advantageous in order to avoid additional stroke motions. Since each jaw rotates away by 90°, they are mostly removed from the work area; a stroke motion to retract the entire gripper can be omitted.

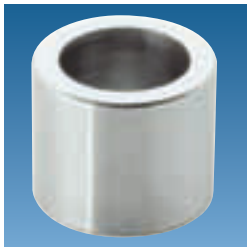
Options and special information

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

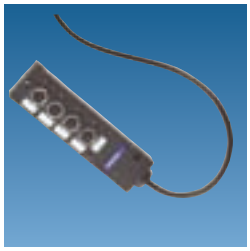
Inductive proximity switches

Programmable magnetic switch

Pressure maintenance valve

Sensor cables

Sensor Distributor



ⓘ 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.

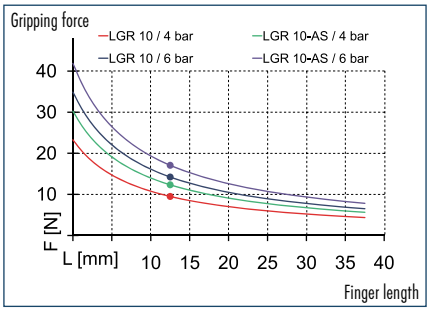
Finger length
The finger length is measured from the upper edge of the gripper housing in direction to the main axis. If the max. admissible finger length is exceeded, the speed of jaw motions have to be reduced and/or the opening angle has to be diminished, as it is done with heavy fingers. The service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

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

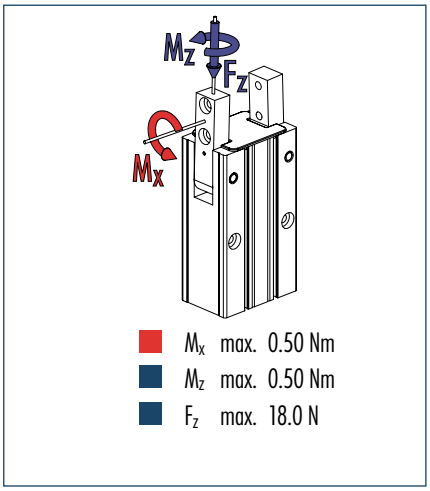
Workpiece weight
The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit gripping.

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

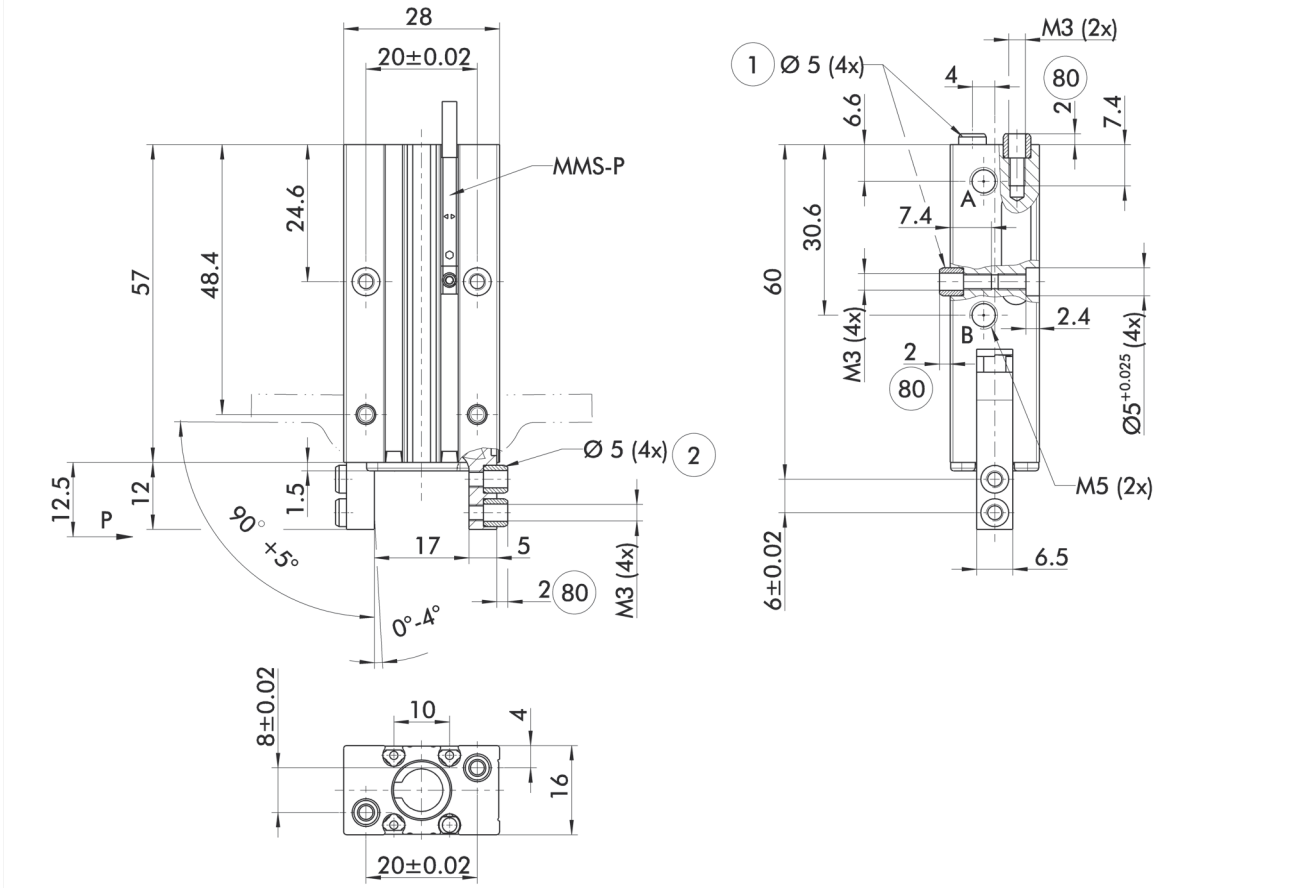


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		LGR 10	LGR 10-AS
ID		**0312970**	**0312971**
Opening angle per jaw	[°]	90	90
Closed angle per jaw up to	[°]	4	4
Closing moment	[Nm]	0.3	0.36
Spring-actuated closing moment	[Nm]		0.06
Weight	[kg]	0.07	0.07
Recommended workpiece weight	[kg]	0.07	0.9
Air consumption per double stroke	[cm³]	1.2	1.45
Min./max. operating pressure	[bar]	2/8	4/6.5
Nominal operating pressure	[bar]	6	6
Closing/opening time	[s]	0.07/0.08	0.08/0.09
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

Main view

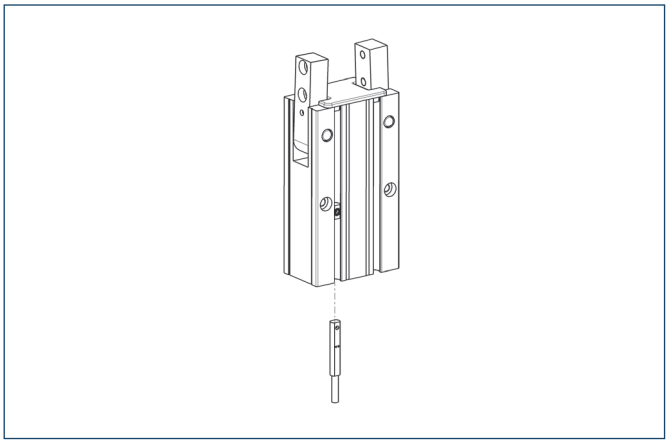


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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**	

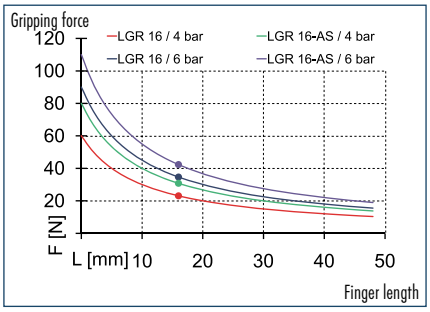
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.
ⓘ Per gripper one sensor (closer/NO) is required, optionally a cable extension.

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

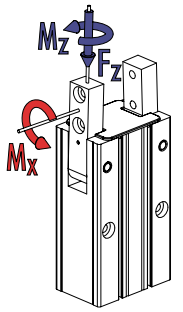
LGR 16

Pneumatic • 2-Finger Radial Gripper • Universal Gripper

Gripping force, O.D. gripping



Finger load



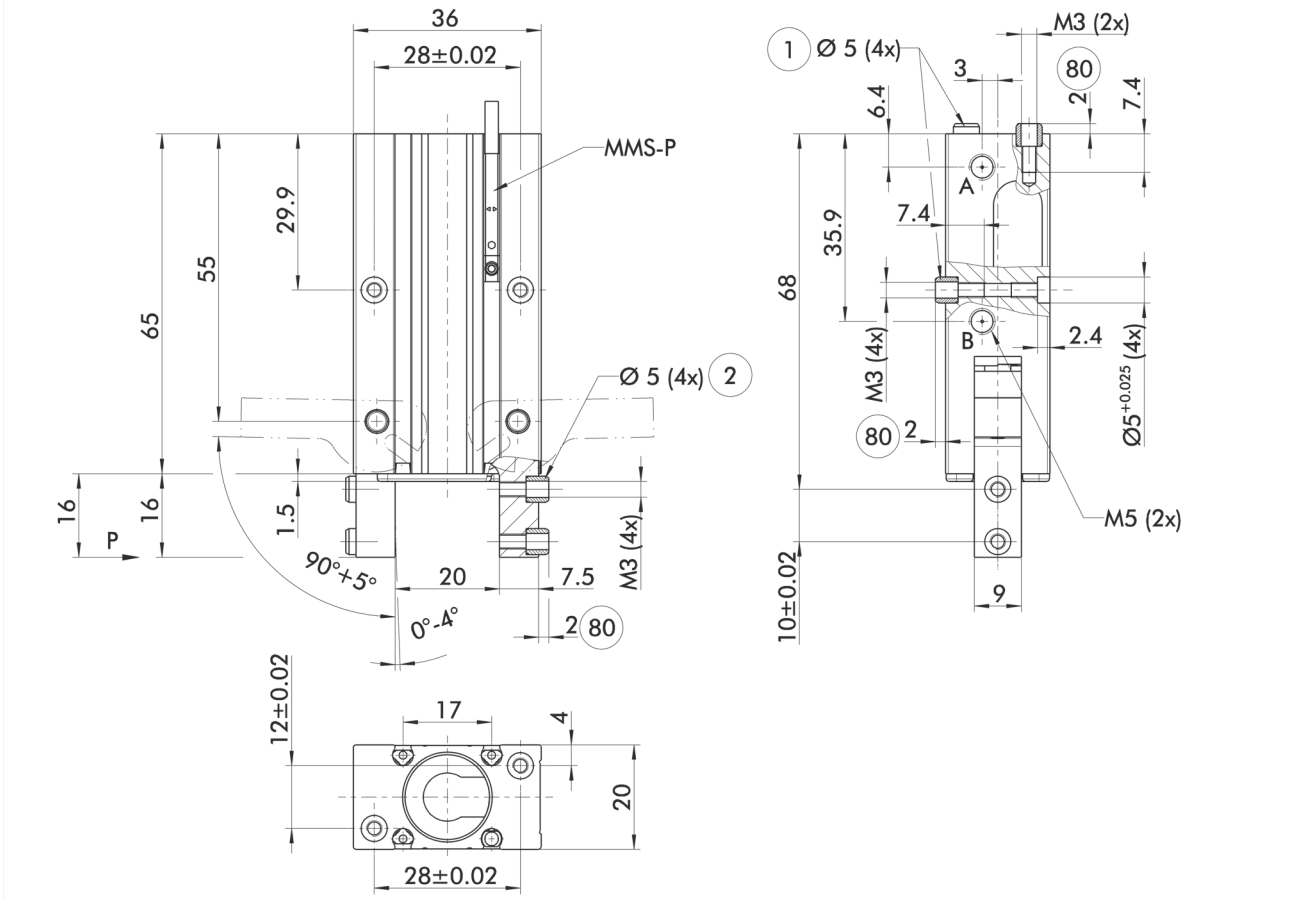
M_x max. 1.50 Nm
M_z max. 1.10 Nm
F_z max. 35.0 N

ⓘ The indicated moments and forces are statical 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		LGR 16	LGR 16-AS
ID		0312972	0312973
Opening angle per jaw	[°]	90	90
Closed angle per jaw up to	[°]	4	4
Closing moment	[Nm]	0.9	1.1
Spring-actuated closing moment	[Nm]		0.2
Weight	[kg]	0.14	0.14
Recommended workpiece weight	[kg]	0.17	0.21
Air consumption per double stroke	[cm³]	3.8	3.82
Min./max. operating pressure	[bar]	2/8	4/6.5
Nominal operating pressure	[bar]	6	6
Closing/opening time	[s]	0.08/0.09	0.1/0.15
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

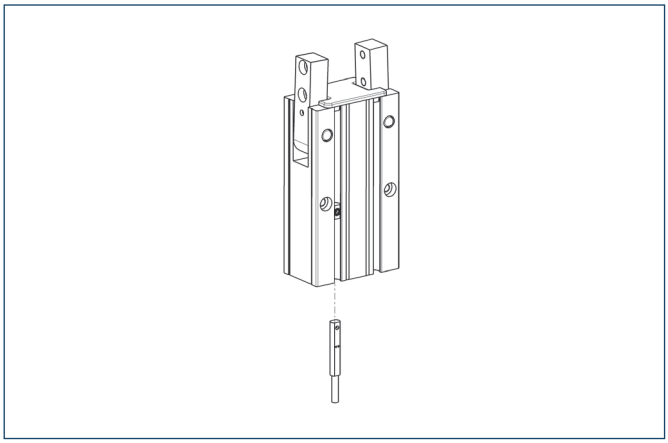


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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.

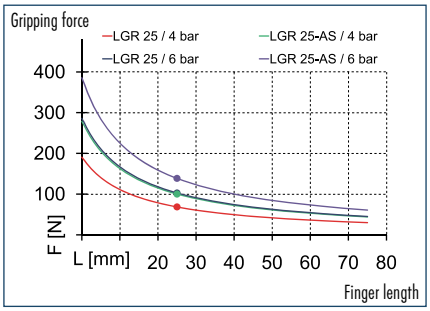
Description	ID	Recommended product
Programmable magnetic switch		
MMS-P 22-S-M8-PNP	**0301370**	•
MMSK-P 22-S-PNP	**0301371**	
Connection cables		
KA BG08-L 4P-0500	**0307767**	
KA BG08-L 4P-1000	**0307768**	
KA BW08-L 4P-0500	**0307765**	
KA BW08-L 4P-1000	**0307766**	
Sensor Distributor		
V2-M8-4P-2XM8-3P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

ⓘ 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.

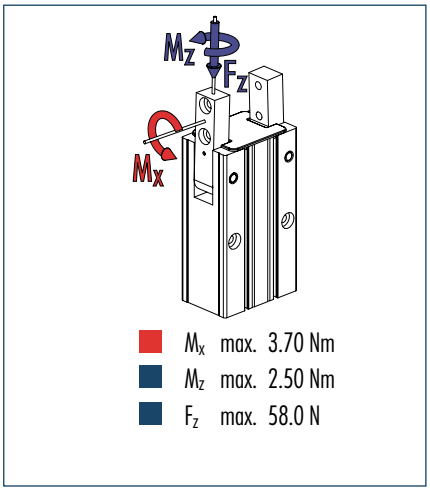
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

LGR 25

Gripping force, O.D. gripping



Finger load

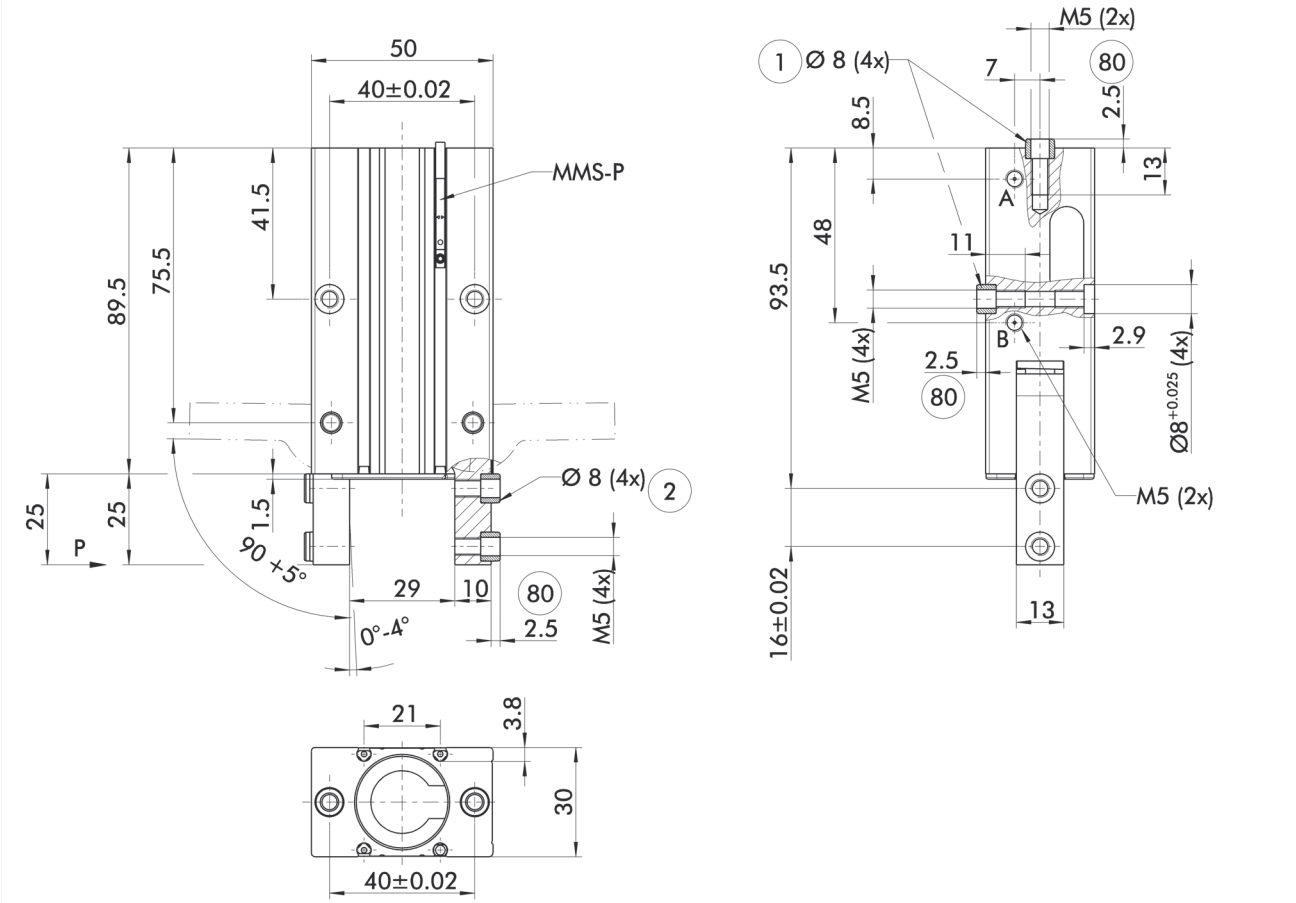


ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		LGR 25	LGR 25-AS
ID		0312974	0312975
Opening angle per jaw	[°]	90	90
Closed angle per jaw up to	[°]	4	4
Closing moment	[Nm]	4	5.4
Spring-actuated closing moment	[Nm]		1.4
Weight	[kg]	0.4	0.41
Recommended workpiece weight	[kg]	0.52	0.7
Air consumption per double stroke	[cm³]	13	9.31
Min./max. operating pressure	[bar]	2/8	4/6.5
Nominal operating pressure	[bar]	6	6
Closing/opening time	[s]	0.1/0.12	0.11/0.16
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

Main view

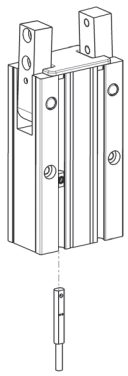


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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.

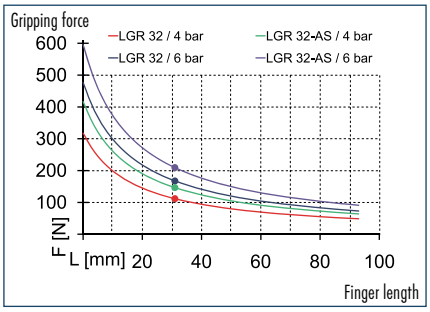
Description	ID	Recommended product
Programmable magnetic switch		
MMS-P 22-S-M8-PNP	**0301370**	•
MMSK-P 22-S-PNP	**0301371**	
Connection cables		
KA BG08-L 4P-0500	**0307767**	
KA BG08-L 4P-1000	**0307768**	
KA BW08-L 4P-0500	**0307765**	
KA BW08-L 4P-1000	**0307766**	
Sensor Distributor		
V2-M8-4P-2XM8-3P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

ⓘ 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.

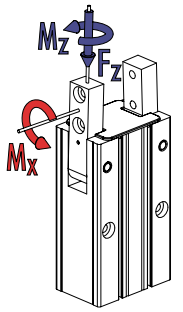
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

LGR 32

Gripping force, O.D. gripping



Finger load



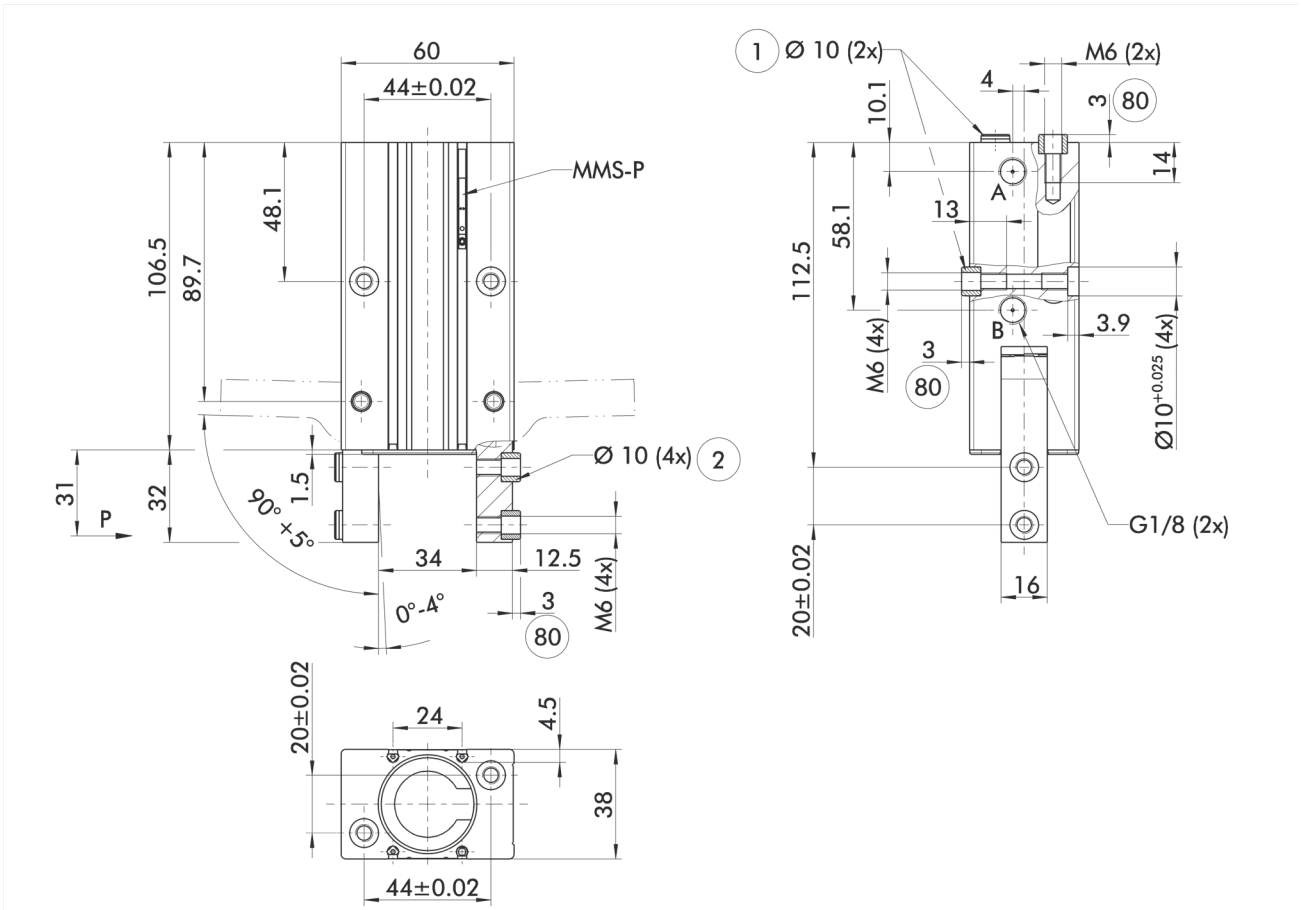
M_x max. 5.50 Nm
M_z max. 3.90 Nm
F_z max. 80.0 N

ⓘ The indicated moments and forces are statical 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		LGR 32	LGR 32-AS
ID		0312976	0312977
Opening angle per jaw	[°]	90	90
Closed angle per jaw up to	[°]	4	4
Closing moment	[Nm]	8	10
Spring-actuated closing moment	[Nm]		2
Weight	[kg]	0.74	0.75
Recommended workpiece weight	[kg]	0.85	1066
Air consumption per double stroke	[cm³]	25	15.3
Min./max. operating pressure	[bar]	2/8	4/6.5
Nominal operating pressure	[bar]	6	6
Closing/opening time	[s]	0.13/0.17	0.14/0.2
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

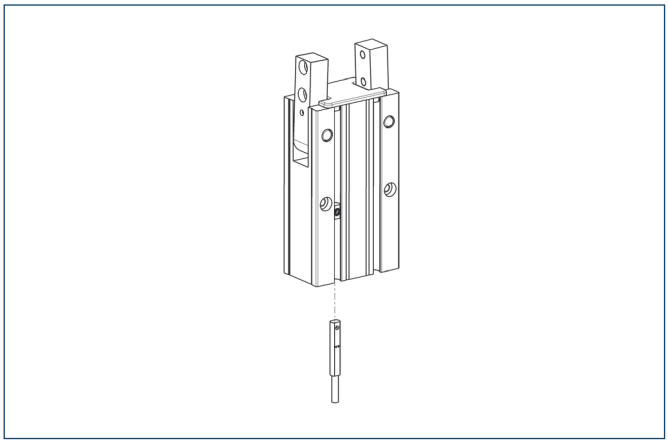


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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**	

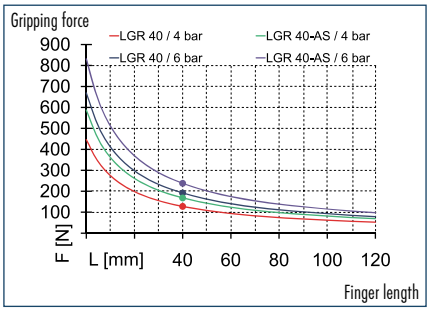
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.
ⓘ Per gripper one sensor (closer/NO) is required, optionally a cable extension.

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

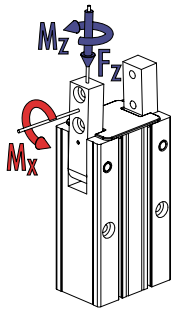
LGR 40

Pneumatic • 2-Finger Radial Gripper • Universal Gripper

Gripping force, O.D. gripping



Finger load



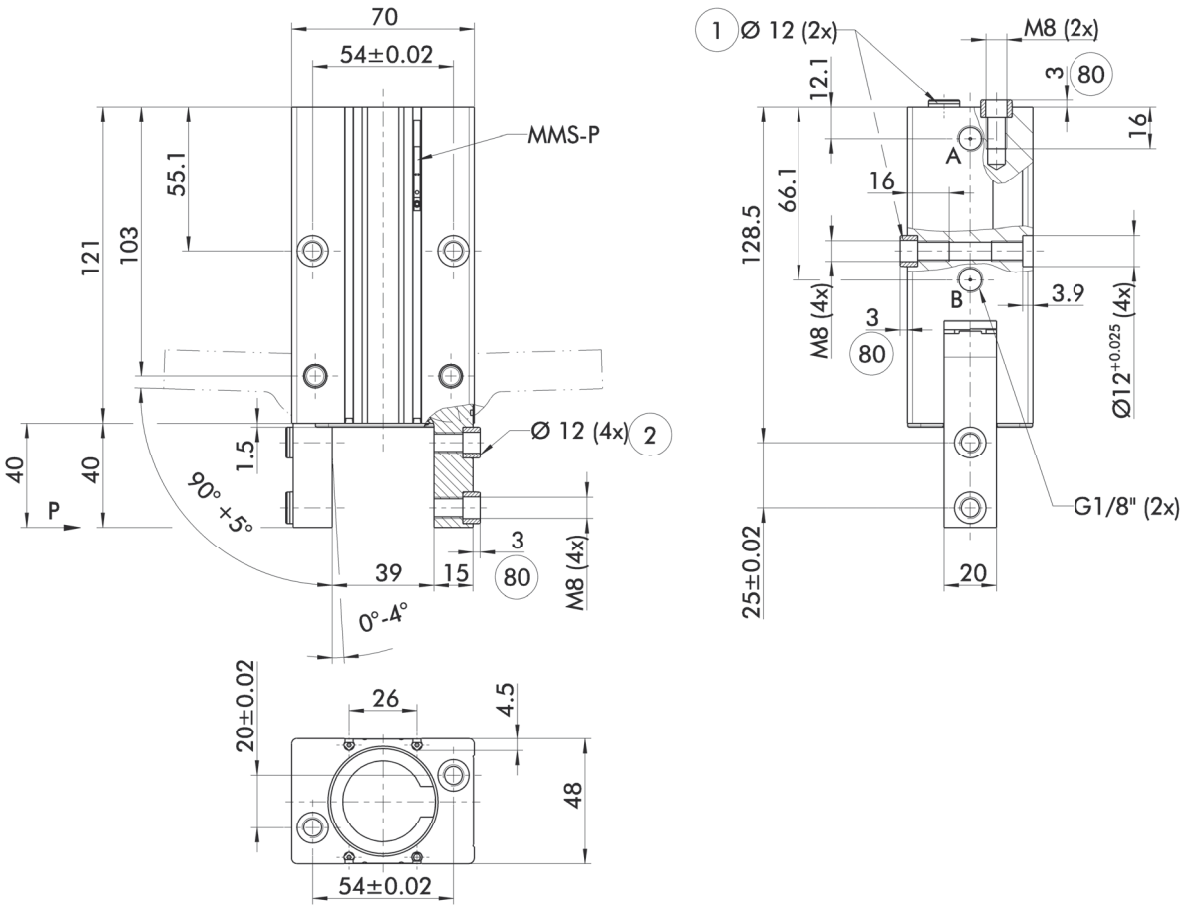
M_x max. 8.00 Nm
M_z max. 6.00 Nm
F_z max. 130.0 N

ⓘ The indicated moments and forces are statical 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		LGR 40	LGR 40-AS
ID		0312978	0312979
Opening angle per jaw	[°]	90	90
Closed angle per jaw up to	[°]	4	4
Closing moment	[Nm]	12	15
Spring-actuated closing moment	[Nm]		3
Weight	[kg]	1.25	1.27
Recommended workpiece weight	[kg]	1.055	1.3
Air consumption per double stroke	[cm³]	42	24
Min./max. operating pressure	[bar]	2/8	4/6.5
Nominal operating pressure	[bar]	6	6
Closing/opening time	[s]	0.18/0.24	0.21/0.31
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

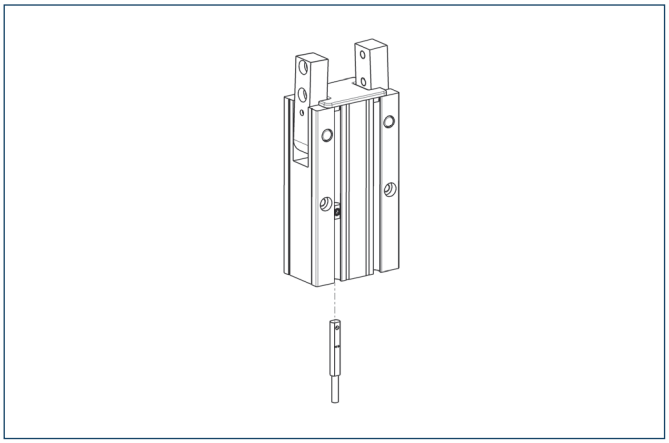


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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**	

ⓘ 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.

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

PRG

Pneumatic • 2-Finger Radial Gripper • Universal Gripper

Sizes
26 ... 125

Weight
0.13 kg ... 6.72 kg

Gripping moment
2 Nm ... 295 Nm

Angle per jaw
30° ... 90°

Workpiece weight
0.3 kg ... 9.12 kg

Application example

Gripper-swivel combination for handling of small pins. The 180° opening angle of the gripper replaces a stroke unit which is normally necessary.

1. 2-Finger Radial Gripper PRG
2. Rotary Actuator SRU-plus

Universal Gripper

180°-Radial Gripper with powerful 1-shift slotted link gear and oval piston

Field of application

for areas of application which, in addition to a large gripping force, require the shortest possible motion sequences through the radial design of the jaw stroke

Your advantages and benefits

Kinematics
The 1-shift slotted link gear assures a consistant closing moment from -5° to +7°.

Optimized cycle time due to innovative dampening
directly integrated drive chain

Maximum power density
for higher closing moments, longer and stable gripper fingers

Many options assure a higher degree of flexibility
Adjusted to the individual application, the PRG is also available with a mechanic gripping force maintenance device, as a high-temperature version, and with three opening angle versions 30°/ 60°/ 90°.

Air supply via hose-free direct connection or screw connections
for the flexible supply of compressed air in all automation systems

General note to the series

Principle of function
Crank drive

Housing material
Aluminum alloy, hard-anodized

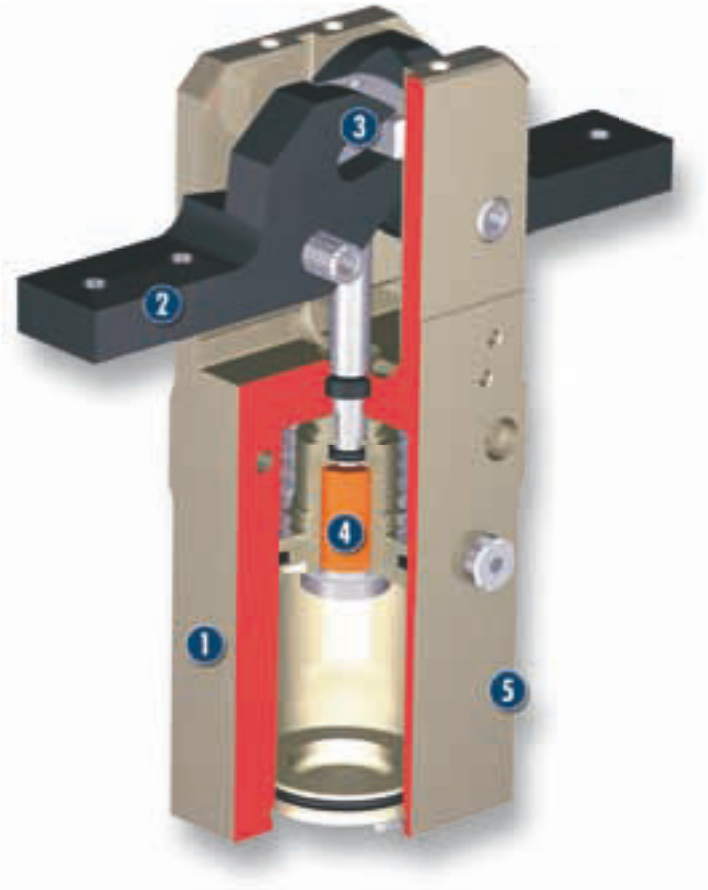
Base jaw material
Steel

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)

Scope of delivery
Centering sleeves, O-rings for direct connection, assembly and operating 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**
Slotted link gear for very high gripping forces when the workpiece is contacted

4 **Damping**
decoupled, for shorter cycle times

5 **Monitoring**
integrated end position monitoring with magnetic switches

Functional description

The patented 1-shift slotted gear shift transfers this motion into a powerful closing moment. The closing moment is additionally reinforced by the curved shape of the guidance.
The crank system assures a force-extended jaw stroke behavior, but also a constant closing moment via a large range of closing angle.

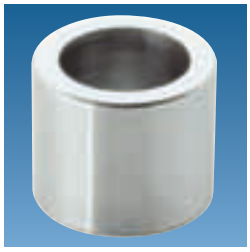
Options and special information

180° radial grippers are advantageous since further stroke motions are no more necessary. Since every jaw swivels away by 90°, the gripper is outside of the working area, and a stroke motion back of the whole gripper is no more necessary.

Accessories

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

Centering sleeves

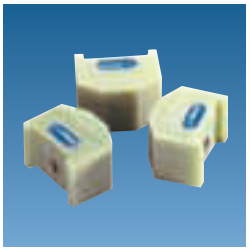


Fittings

Magnetic Switches

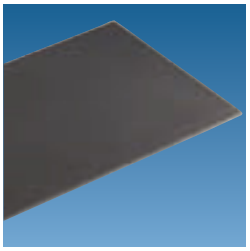
Inductive proximity switches

Plastic inserts



Sensor cables

Gripper pads



Sensor Distributor

Pressure maintenance valve

ⓘ 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.

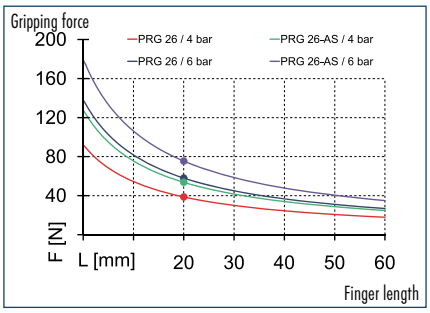
Closing and opening times

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.

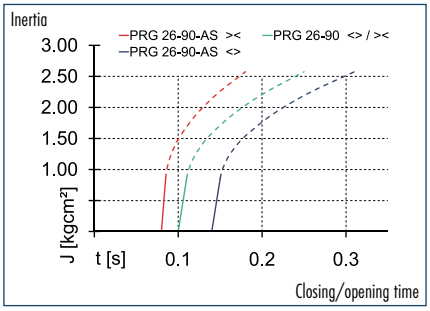
PRG 26

Pneumatic • 2-Finger Radial Gripper • Universal Gripper

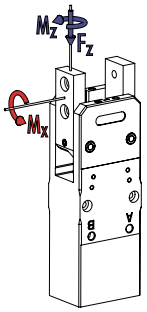
Gripping force, O.D. gripping



Maximum admissible inertia J



Finger load



- M_x max. 3.00 Nm
- M_z max. 1.00 Nm
- F_z max. 140.0 N

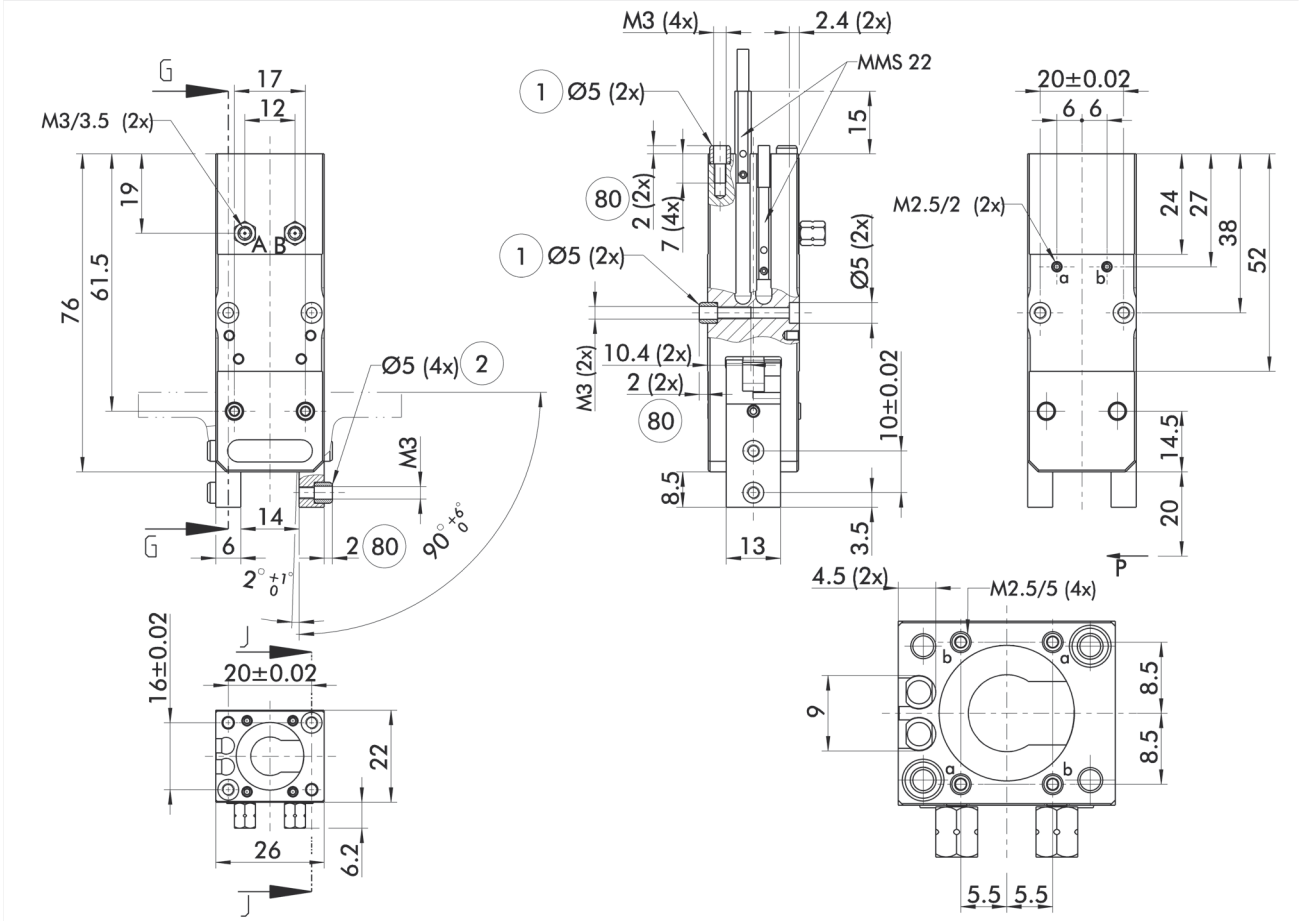
ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		PRG 26-30	PRG 26-30-AS	PRG 26-60	PRG 26-60-AS	PRG 26-90	PRG 26-90-AS
ID		**0303651**	**0303661**	**0303691**	**0303701**	**0303671**	**0303681**
Opening angle per jaw	[°]	30	30	60	60	90	90
Closed angle per jaw up to	[°]	4	4	4	4	4	4
Closing moment	[Nm]	2	2.6	2	2.6	2	2.6
Spring-actuated closing moment	[Nm]		0.6		0.6		0.6
Weight	[kg]	0.13	0.135	0.13	0.135	0.13	0.135
Recommended workpiece weight	[kg]	0.3	0.38	0.3	0.38	0.3	0.38
Air consumption per double stroke	[cm³]	6.5	6.5	7.5	7.5	9	9
Min./max. operating pressure	[bar]	2/8	4/6.5	2/8	4/6.5	2/8	4/6.5
Nominal operating pressure	[bar]	6	6	6	6	6	6
Closing time	[s]	0.03	0.03	0.07	0.05	0.1	0.08
Opening time	[s]	0.03	0.05	0.07	0.09	0.1	0.14
Max. permitted finger length	[mm]	40	40	40	40	40	40
Max. mass moment of inertia per jaw	[kgcm²]	0.86	0.86	0.86	0.86	0.86	0.86
IP class		20	20	20	20	20	20
Min./max. ambient temperature	[°C]	-10/90	-10/90	-10/90	-10/90	-10/90	-10/90
Repeat accuracy	[mm]	0.05	0.05	0.05	0.05	0.05	0.05
OPTIONS and their characteristics							
High-temperature version		**39303651**	**39303661**	**39303691**	**39303701**	**39303671**	**39303681**
Min./max. ambient temperature	[°C]	-10/130	-10/130	-10/130	-10/130	-10/130	-10/130

ⓘ The unit can be actuated without an external customer-specific throttling at the given value of max. mass moment of inertia per jaw. In case of higher mass moments of inertia, an additional throttling is possible (see diagram). The curve applies for 90° versions. For other versions the curve must be parallely off-set according to the opening and closing times.

Main view

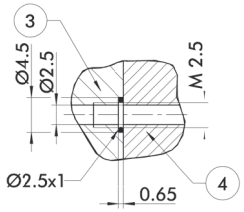


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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

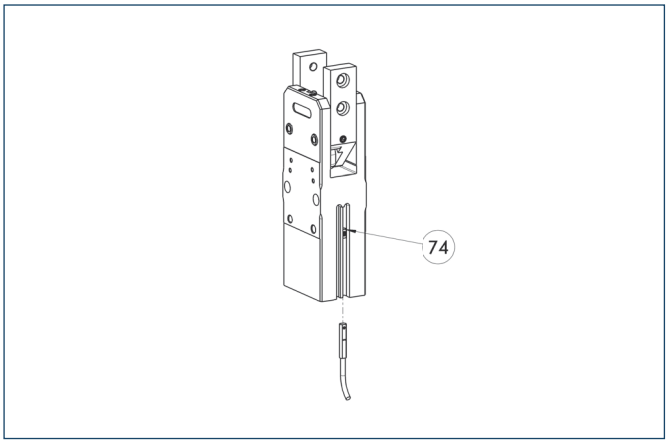
Hose-free direct connection



3 Adapter
4 Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Programmable magnetic switch



74 Stop for MMS-P

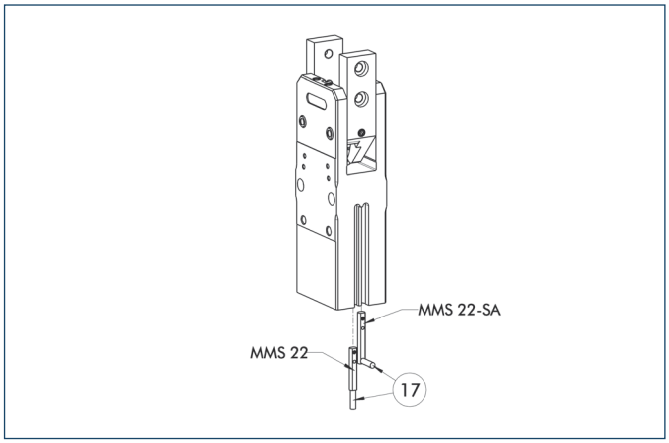
Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

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**	

ⓘ 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.

Electronic magnetic switches



17 Cable outlet

End position monitoring for mounting in the C-slot

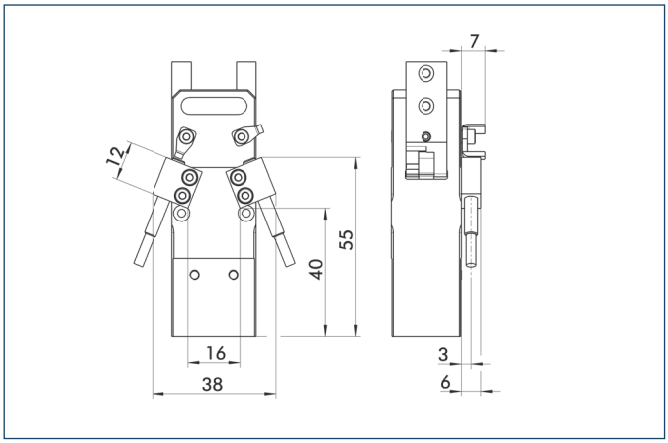
Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	**0301438**	
MMS 22-S-M5-NPN	**0301439**	
MMS 22-S-M8-PNP	**0301432**	•
MMS 22-S-M8-NPN	**0301433**	
MMSK 22-S-PNP	**0301434**	
MMSK 22-S-NPN	**0301435**	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	**0301448**	
MMS 22-S-M5-NPN-SA	**0301449**	
MMS 22-S-M8-PNP-SA	**0301442**	•
MMS 22-S-M8-NPN-SA	**0301443**	
MMSK 22-S-PNP-SA	**0301444**	
MMSK 22-S-NPN-SA	**0301445**	
Reed Switches		
RMS 22-S-M8	**0377720**	•
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-NPN	**0301602**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-NPN	**9641116**	
KA BW08-L 3P-0500-PNP	**0301502**	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.

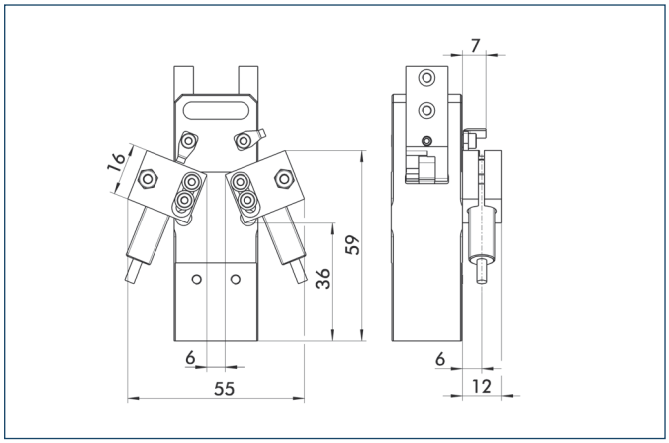
Mounting kit for proximity switch



The mounting kit consists of brackets, control cams and appropriate fastening materials. Proximity switches have to be ordered separately.

Description	ID
Mounting kit for proximity switch	
AS-PRG 26-IN40	**0303621**

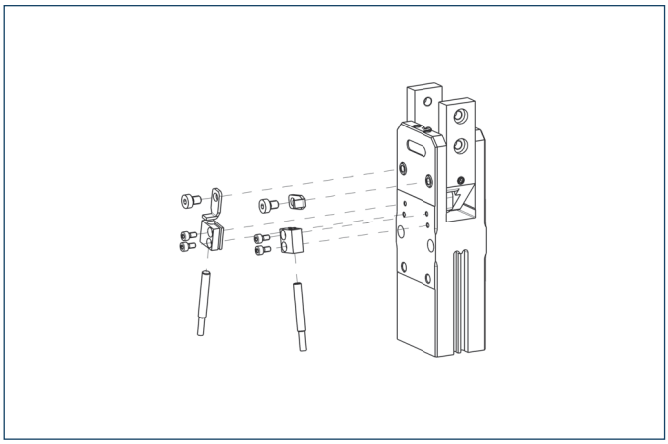
Mounting kit for proximity switch



The mounting kit consists of brackets, control cams and appropriate fastening materials. Proximity switches have to be ordered separately.

Description	ID
Mounting kit for proximity switch	
AS-PRG 26-IN80	**0304132**

Inductive proximity switches

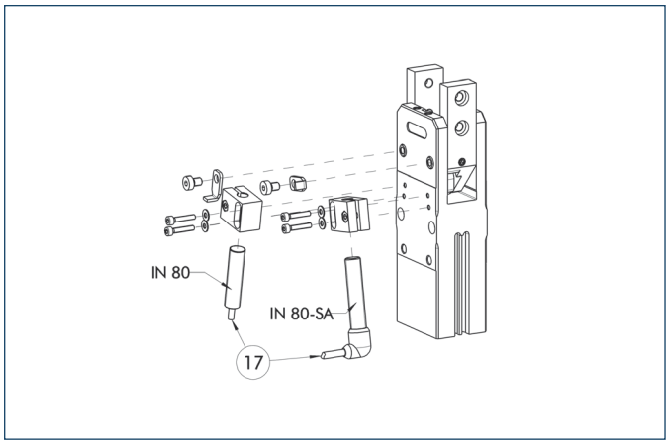


End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-PRG 26-IN40	**0303621**	
Inductive proximity switches		
IN 40-S-M8	**0301474**	•
IN 40-S-M12	**0301574**	
INK 40-S	**0301555**	
IN 40-S-M5-PNP	**0301491**	
IN 40-S-M5-NPN	**0301492**	
Inductive proximity switch with lateral outlet		
IN 40-S-M12-SA	**0301577**	
IN 40-S-M8-SA	**0301473**	•
INK 40-S-SA	**0301565**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

Inductive proximity switches



⑰ Cable outlet

End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-PRG 26-IN80	**0304132**	
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	

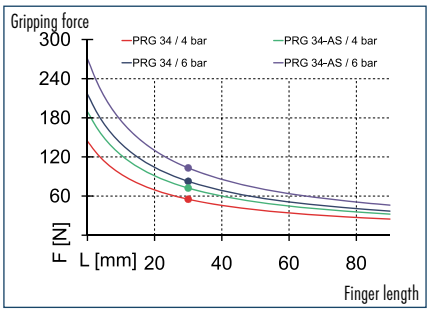
ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

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

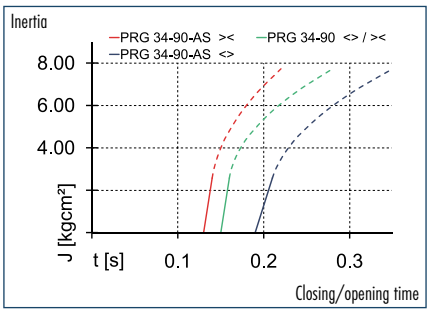
PRG 34

Pneumatic • 2-Finger Radial Gripper • Universal Gripper

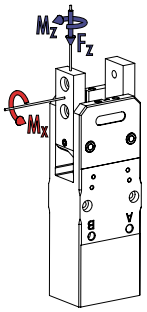
Gripping force, O.D. gripping



Maximum admissible inertia J



Finger load



- M_x max. 4.00 Nm
- M_z max. 1.50 Nm
- F_z max. 220.0 N

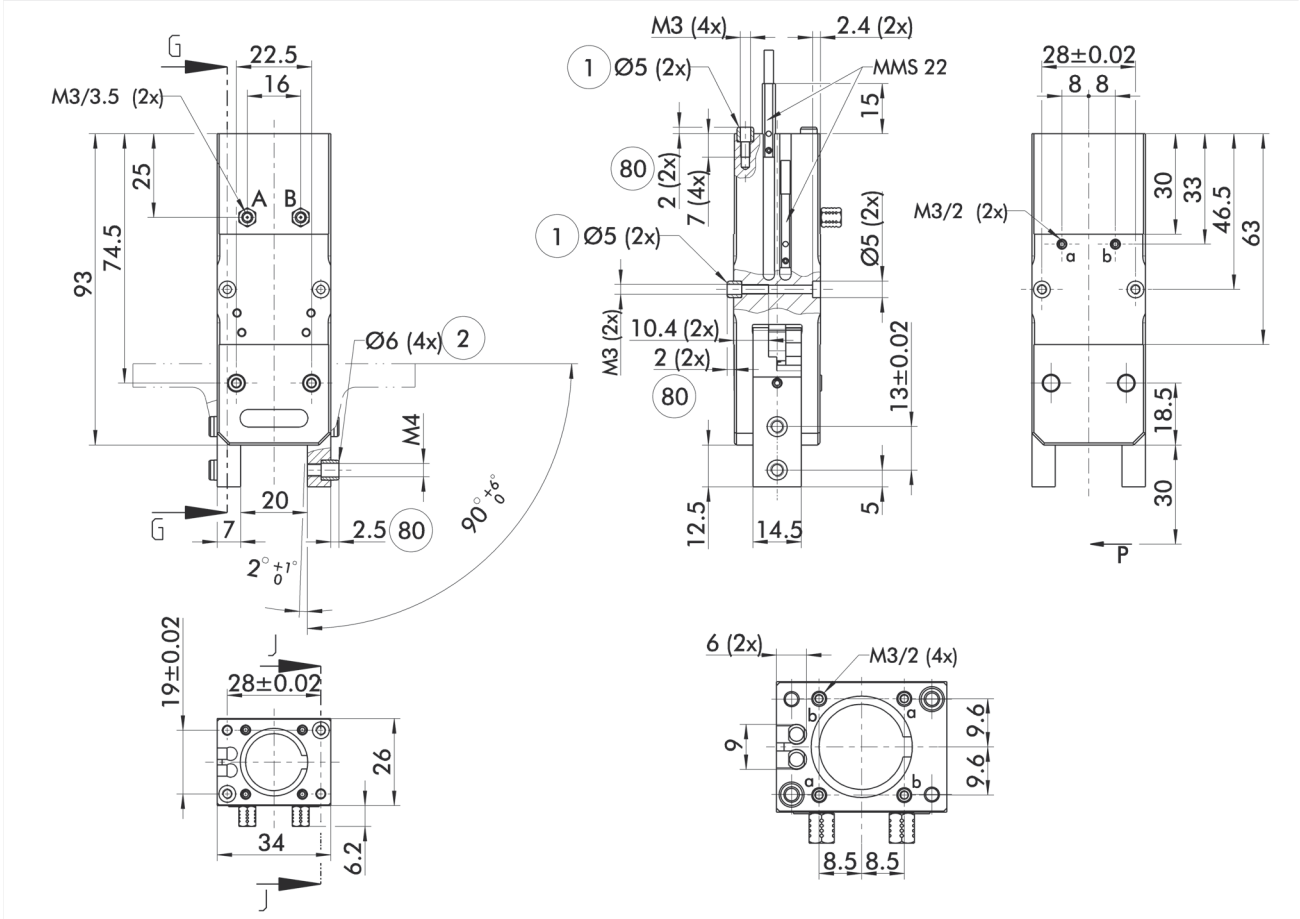
ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		PRG 34-30	PRG 34-30-AS	PRG 34-60	PRG 34-60-AS	PRG 34-90	PRG 34-90-AS
ID		**0303652**	**0303662**	**0303692**	**0303702**	**0303672**	**0303682**
Opening angle per jaw	[°]	30	30	60	60	90	90
Closed angle per jaw up to	[°]	4	4	4	4	4	4
Closing moment	[Nm]	4	5	4	5	4	5
Spring-actuated closing moment	[Nm]		1		1		1
Weight	[kg]	0.24	0.25	0.24	0.25	0.24	0.25
Recommended workpiece weight	[kg]	0.42	0.53	0.42	0.53	0.42	0.53
Air consumption per double stroke	[cm³]	12	12	14.5	14.5	17.5	17.5
Min./max. operating pressure	[bar]	2/8	4/6.5	2/8	4/6.5	2/8	4/6.5
Nominal operating pressure	[bar]	6	6	6	6	6	6
Closing time	[s]	0.05	0.04	0.1	0.09	0.15	0.13
Opening time	[s]	0.05	0.06	0.1	0.13	0.15	0.19
Max. permitted finger length	[mm]	60	60	60	60	60	60
Max. mass moment of inertia per jaw	[kgcm²]	2.58	2.58	2.58	2.58	2.58	2.58
IP class		20	20	20	20	20	20
Min./max. ambient temperature	[°C]	-10/90	-10/90	-10/90	-10/90	-10/90	-10/90
Repeat accuracy	[mm]	0.05	0.05	0.05	0.05	0.05	0.05
OPTIONS and their characteristics							
High-temperature version		**39303652**	**39303662**	**39303692**	**39303702**	**39303672**	**39303682**
Min./max. ambient temperature	[°C]	-10/130	-10/130	-10/130	-10/130	-10/130	-10/130

ⓘ The unit can be actuated without an external customer-specific throttling at the given value of max. mass moment of inertia per jaw. In case of higher mass moments of inertia, an additional throttling is possible (see diagram). The curve applies for 90° versions. For other versions the curve must be parallely off-set according to the opening and closing times.

Main view

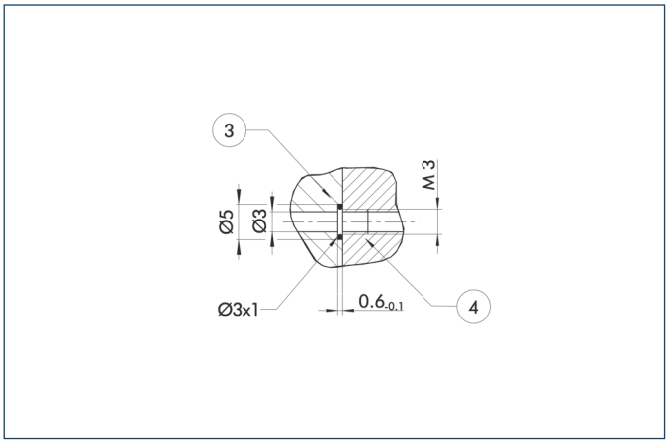


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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

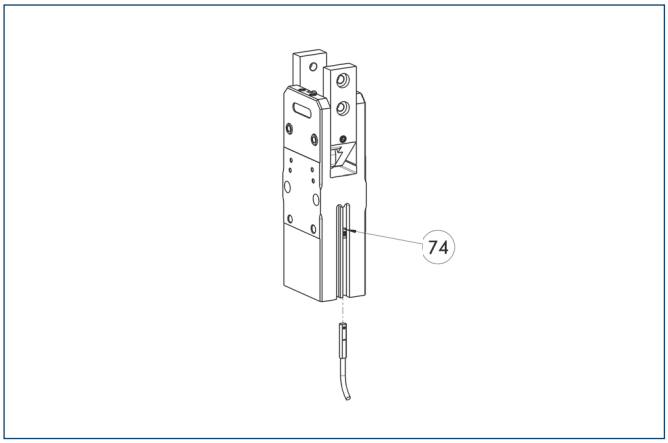
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Programmable magnetic switch



74 Stop for MMS-P

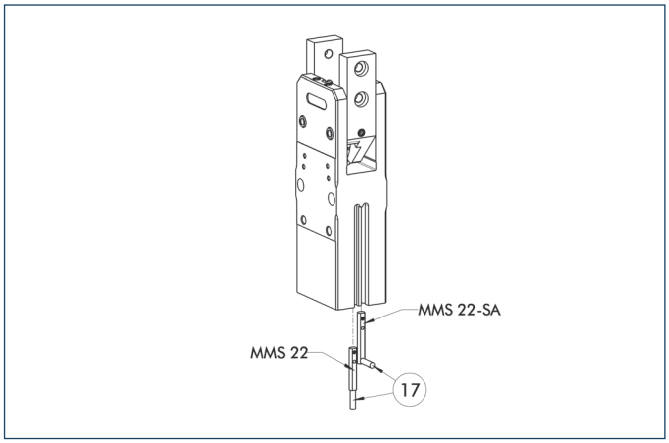
Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

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**	

ⓘ 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.

Electronic magnetic switches



17 Cable outlet

End position monitoring for mounting in the C-slot

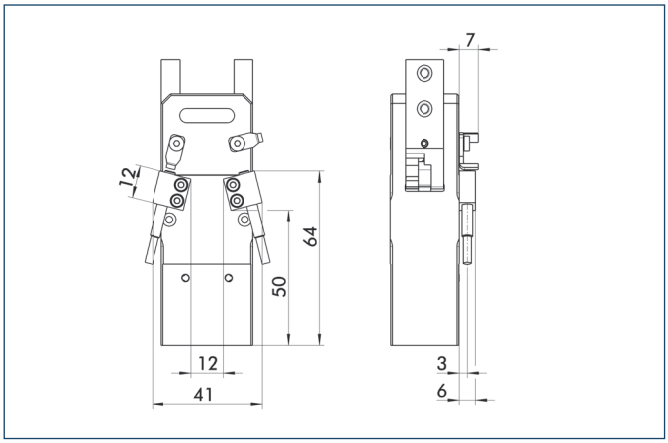
Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	**0301438**	
MMS 22-S-M5-NPN	**0301439**	
MMS 22-S-M8-PNP	**0301432**	•
MMS 22-S-M8-NPN	**0301433**	
MMSK 22-S-PNP	**0301434**	
MMSK 22-S-NPN	**0301435**	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	**0301448**	
MMS 22-S-M5-NPN-SA	**0301449**	
MMS 22-S-M8-PNP-SA	**0301442**	•
MMS 22-S-M8-NPN-SA	**0301443**	
MMSK 22-S-PNP-SA	**0301444**	
MMSK 22-S-NPN-SA	**0301445**	
Reed Switches		
RMS 22-S-M8	**0377720**	•
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-NPN	**0301602**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-NPN	**9641116**	
KA BW08-L 3P-0500-PNP	**0301502**	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.

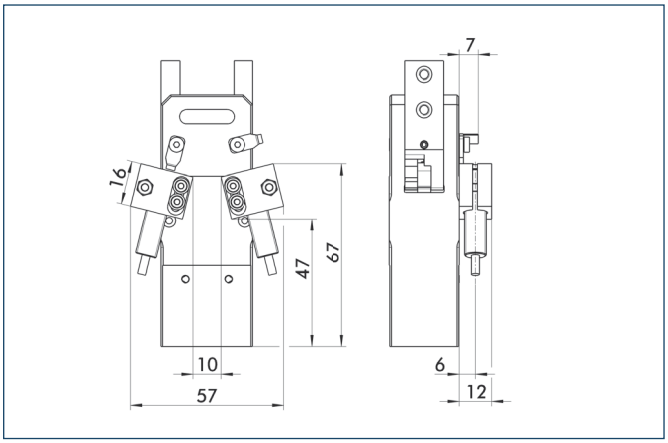
Mounting kit for proximity switch



The mounting kit consists of brackets, control cams and appropriate fastening materials. Proximity switches have to be ordered separately.

Description	ID
Mounting kit for proximity switch	
AS-PRG 34-IN40	**0303622**

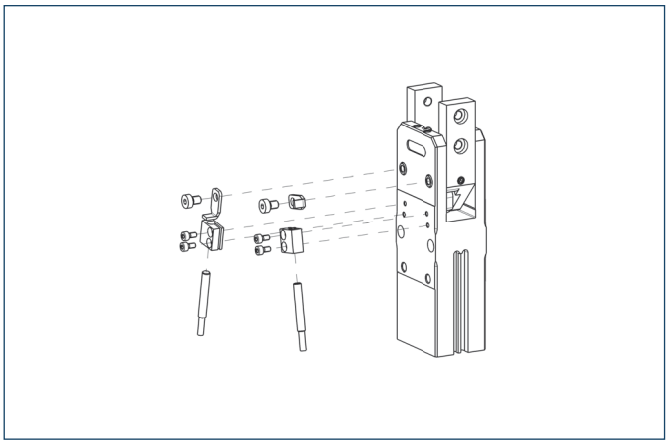
Mounting kit for proximity switch



The mounting kit consists of brackets, control cams and appropriate fastening materials. Proximity switches have to be ordered separately.

Description	ID
Mounting kit for proximity switch	
AS-PRG 34-IN80	**0304133**

Inductive proximity switches

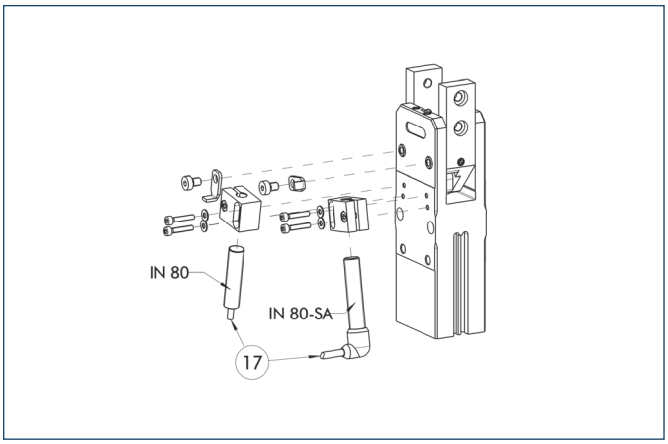


End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-PRG 34-IN40	**0303622**	
Inductive proximity switches		
IN 40-S-M8	**0301474**	•
IN 40-S-M12	**0301574**	
INK 40-S	**0301555**	
IN 40-S-M5-PNP	**0301491**	
IN 40-S-M5-NPN	**0301492**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

Inductive proximity switches



⑰ Cable outlet

End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-PRG 34-IN80	**0304133**	
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	

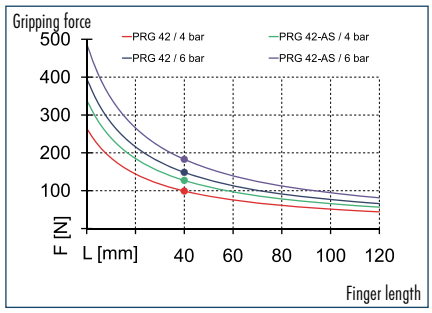
ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

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

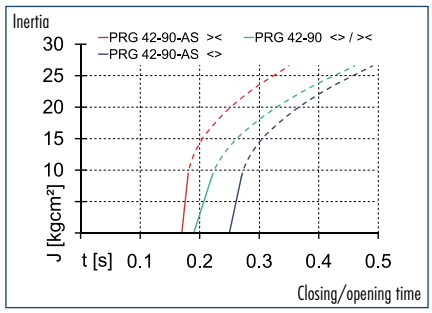
PRG 42

Pneumatic • 2-Finger Radial Gripper • Universal Gripper

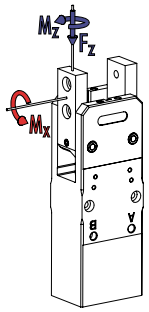
Gripping force, O.D. gripping



Maximum admissible inertia J



Finger load



M_x max. 7.50 Nm
M_z max. 2.00 Nm
F_z max. 300.0 N

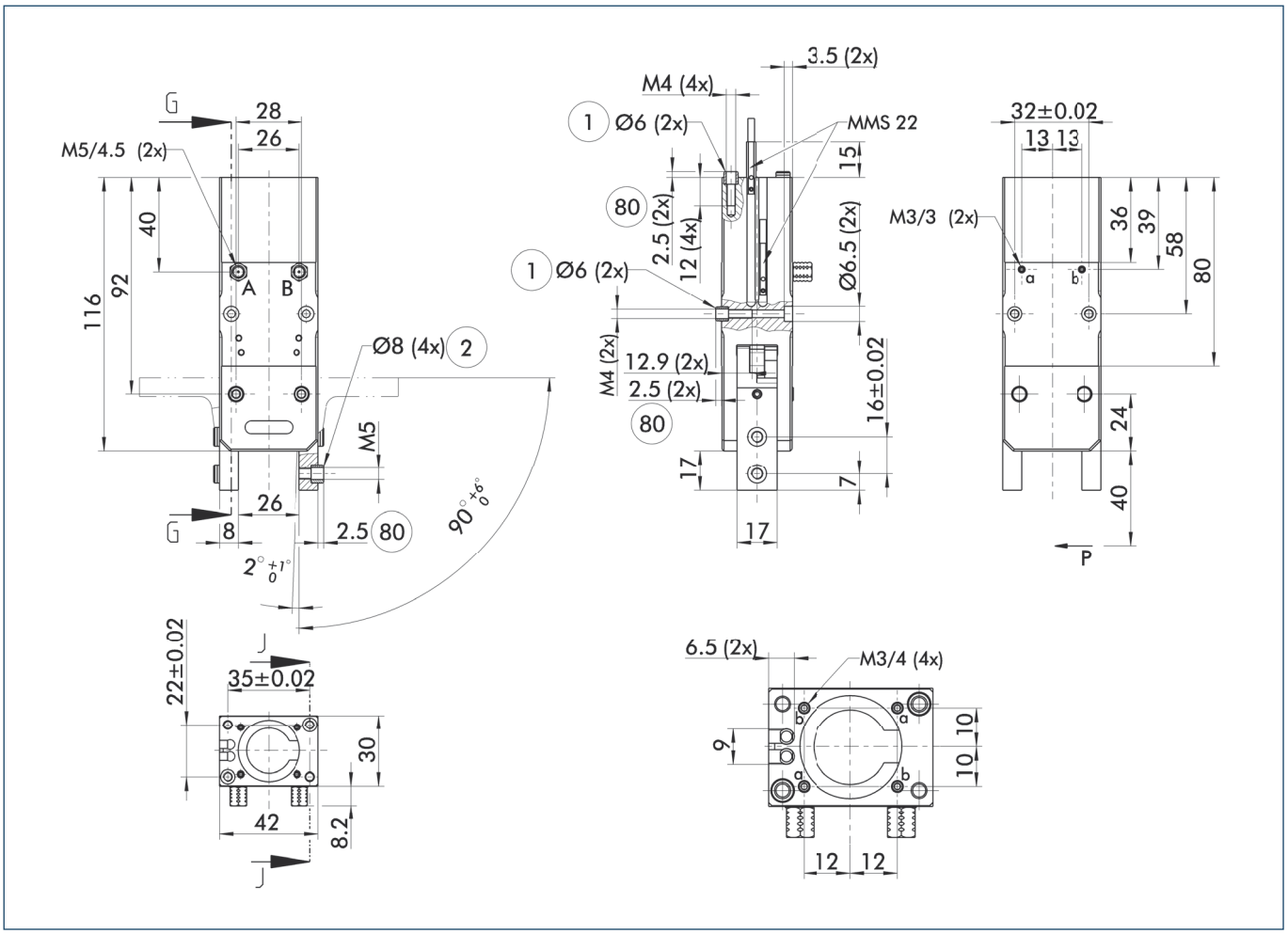
ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		PRG 42-30	PRG 42-30-AS	PRG 42-60	PRG 42-60-AS	PRG 42-90	PRG 42-90-AS
ID		**0303653**	**0303663**	**0303693**	**0303703**	**0303673**	**0303683**
Opening angle per jaw	[°]	30	30	60	60	90	90
Closed angle per jaw up to	[°]	4	4	4	4	4	4
Closing moment	[Nm]	9.5	11.7	9.5	11.7	9.5	11.7
Spring-actuated closing moment	[Nm]		2.2		2.2		2.2
Weight	[kg]	0.41	0.43	0.41	0.43	0.41	0.43
Recommended workpiece weight	[kg]	0.76	0.93	0.76	0.93	0.76	0.93
Air consumption per double stroke	[cm³]	29	29	34	34	39	39
Min./max. operating pressure	[bar]	2/8	4/6.5	2/8	4/6.5	2/8	4/6.5
Nominal operating pressure	[bar]	6	6	6	6	6	6
Closing time	[s]	0.06	0.06	0.13	0.11	0.19	0.17
Opening time	[s]	0.06	0.08	0.13	0.17	0.19	0.25
Max. permitted finger length	[mm]	80	80	80	80	80	80
Max. mass moment of inertia per jaw	[kgcm²]	8.85	8.85	8.85	8.85	8.85	8.85
IP class		20	20	20	20	20	20
Min./max. ambient temperature	[°C]	-10/90	-10/90	-10/90	-10/90	-10/90	-10/90
Repeat accuracy	[mm]	0.05	0.05	0.05	0.05	0.05	0.05
OPTIONS and their characteristics							
High-temperature version		**39303653**	**39303663**	**39303693**	**39303703**	**39303673**	**39303683**
Min./max. ambient temperature	[°C]	-10/130	-10/130	-10/130	-10/130	-10/130	-10/130

ⓘ The unit can be actuated without an external customer-specific throttling at the given value of max. mass moment of inertia per jaw. In case of higher mass moments of inertia, an additional throttling is possible (see diagram). The curve applies for 90° versions. For other versions the curve must be parallely off-set according to the opening and closing times.

Main view

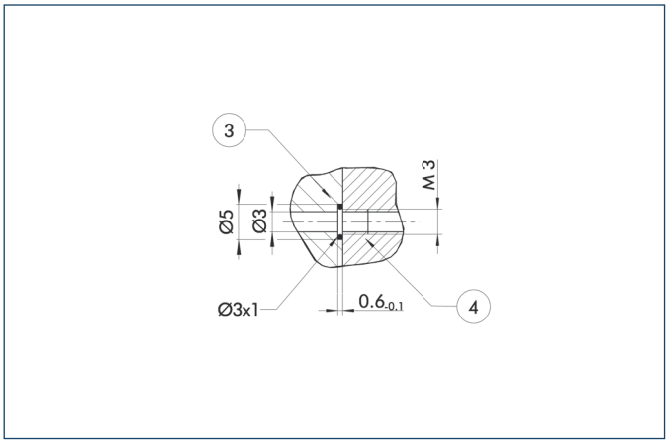


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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

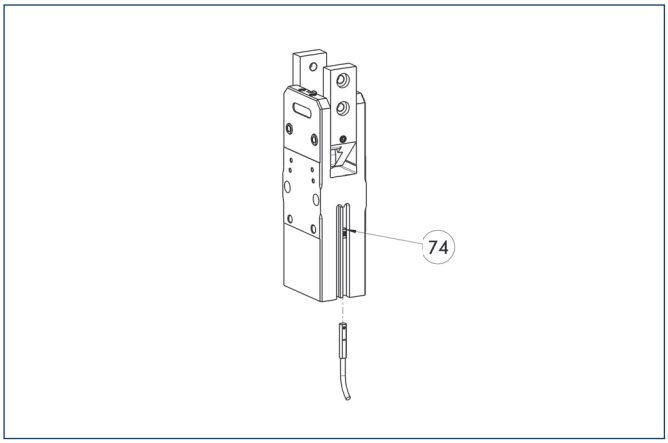
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Programmable magnetic switch



74 Stop for MMS-P

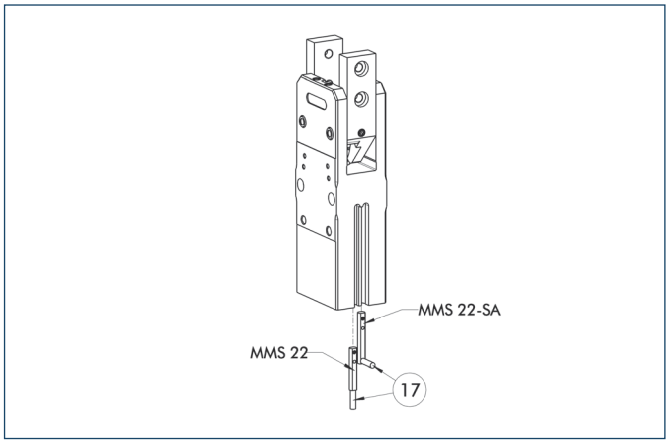
Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

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**	

ⓘ 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.

Electronic magnetic switches



17 Cable outlet

End position monitoring for mounting in the C-slot

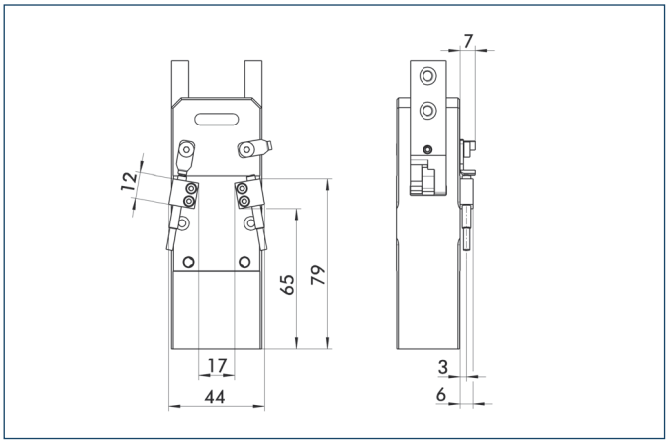
Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	**0301438**	
MMS 22-S-M5-NPN	**0301439**	
MMS 22-S-M8-PNP	**0301432**	•
MMS 22-S-M8-NPN	**0301433**	
MMSK 22-S-PNP	**0301434**	
MMSK 22-S-NPN	**0301435**	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	**0301448**	
MMS 22-S-M5-NPN-SA	**0301449**	
MMS 22-S-M8-PNP-SA	**0301442**	•
MMS 22-S-M8-NPN-SA	**0301443**	
MMSK 22-S-PNP-SA	**0301444**	
MMSK 22-S-NPN-SA	**0301445**	
Reed Switches		
RMS 22-S-M8	**0377720**	•
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-NPN	**0301602**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-NPN	**9641116**	
KA BW08-L 3P-0500-PNP	**0301502**	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.

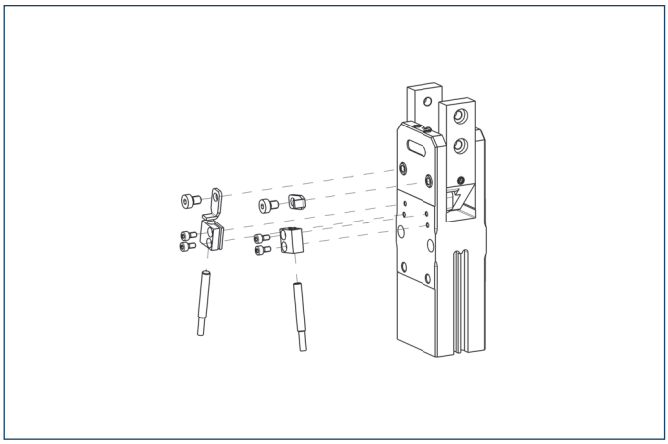
Mounting kit for proximity switch



The mounting kit consists of brackets, control cams and appropriate fastening materials. Proximity switches have to be ordered separately.

Description	ID
Mounting kit for proximity switch	
AS-PRG 42-IN40	**0303623**

Inductive proximity switches

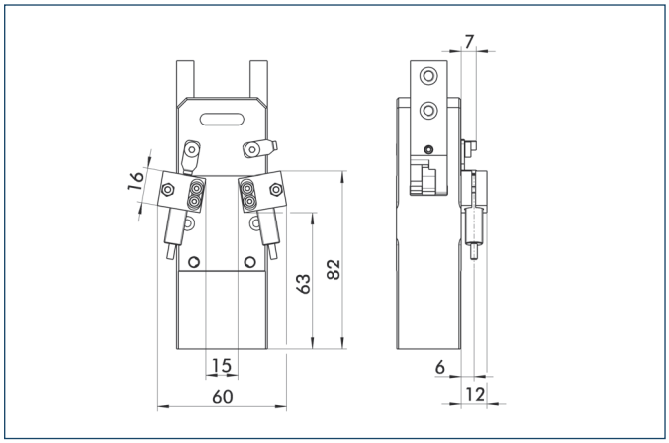


End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-PRG 42-IN40	**0303623**	
Inductive proximity switches		
IN 40-S-M8	**0301474**	•
IN 40-S-M12	**0301574**	
INK 40-S	**0301555**	
IN 40-S-M5-PNP	**0301491**	
IN 40-S-M5-NPN	**0301492**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

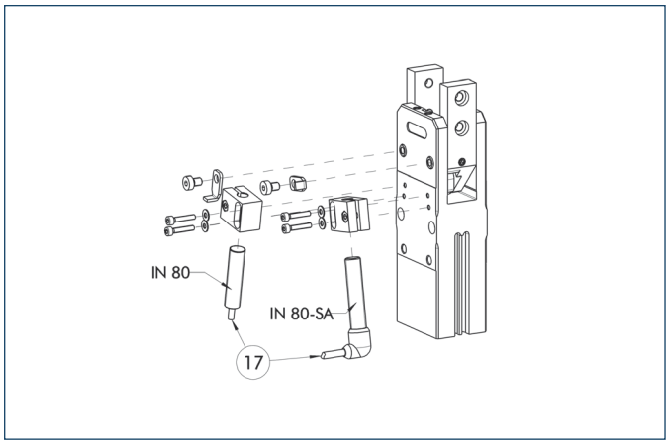
Mounting kit for proximity switch



The mounting kit consists of brackets, control cams and appropriate fastening materials. Proximity switches have to be ordered separately.

Description	ID
Mounting kit for proximity switch	
AS-PRG 42-IN80	**0304133**

Inductive proximity switches



⑰ Cable outlet

End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-PRG 42-IN80	**0304133**	
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

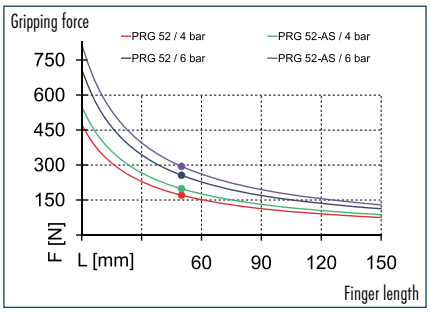
180°

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

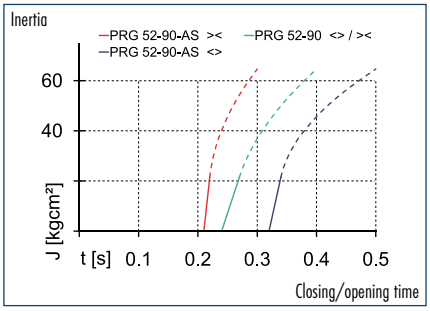
PRG 52

Pneumatic • 2-Finger Radial Gripper • Universal Gripper

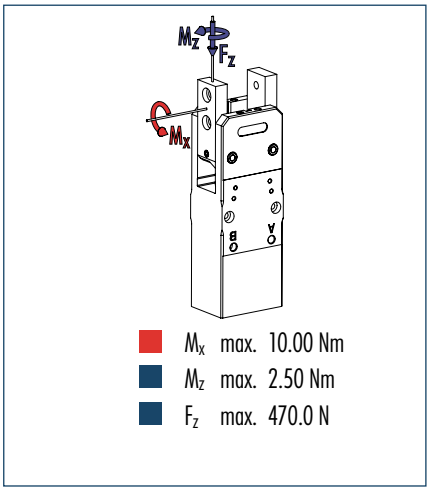
Gripping force, O.D. gripping



Maximum admissible inertia J



Finger load



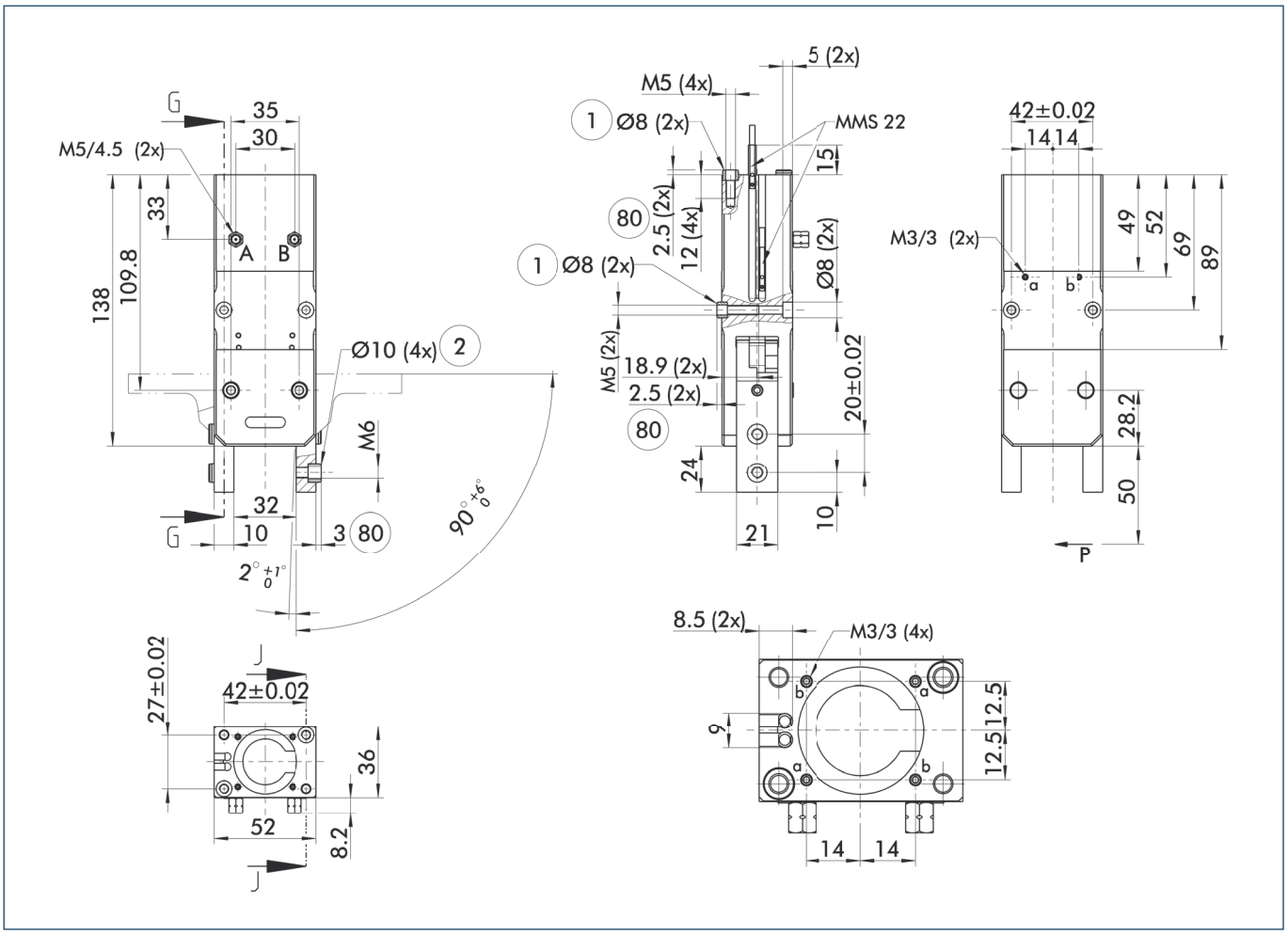
ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		PRG 52-30	PRG 52-30-AS	PRG 52-60	PRG 52-60-AS	PRG 52-90	PRG 52-90-AS
ID		**0303654**	**0303664**	**0303694**	**0303704**	**0303674**	**0303684**
Opening angle per jaw	[°]	30	30	60	60	90	90
Closed angle per jaw up to	[°]	4	4	4	4	4	4
Closing moment	[Nm]	20	23	20	23	20	23
Spring-actuated closing moment	[Nm]		3		3		3
Weight	[kg]	0.77	0.8	0.76	0.8	0.75	0.79
Recommended workpiece weight	[kg]	1.3	1.5	1.3	1.5	1.3	1.5
Air consumption per double stroke	[cm³]	52	52	61	61	72	72
Min./max. operating pressure	[bar]	2/8	4/6.5	2/8	4/6.5	2/8	4/6.5
Nominal operating pressure	[bar]	6	6	6	6	6	6
Closing time	[s]	0.08	0.07	0.16	0.14	0.24	0.21
Opening time	[s]	0.08	0.11	0.16	0.21	0.24	0.32
Max. permitted finger length	[mm]	100	100	100	100	100	100
Max. mass moment of inertia per jaw	[kgcm²]	21.55	21.55	21.55	21.55	21.55	21.55
IP class		20	20	20	20	20	20
Min./max. ambient temperature	[°C]	-10/90	-10/90	-10/90	-10/90	-10/90	-10/90
Repeat accuracy	[mm]	0.05	0.05	0.05	0.05	0.05	0.05
OPTIONS and their characteristics							
High-temperature version		**39303654**	**39303664**	**39303694**	**39303704**	**39303674**	**39303684**
Min./max. ambient temperature	[°C]	-10/130	-10/130	-10/130	-10/130	-10/130	-10/130

ⓘ The unit can be actuated without an external customer-specific throttling at the given value of max. mass moment of inertia per jaw. In case of higher mass moments of inertia, an additional throttling is possible (see diagram). The curve applies for 90° versions. For other versions the curve must be parallely off-set according to the opening and closing times.

Main view

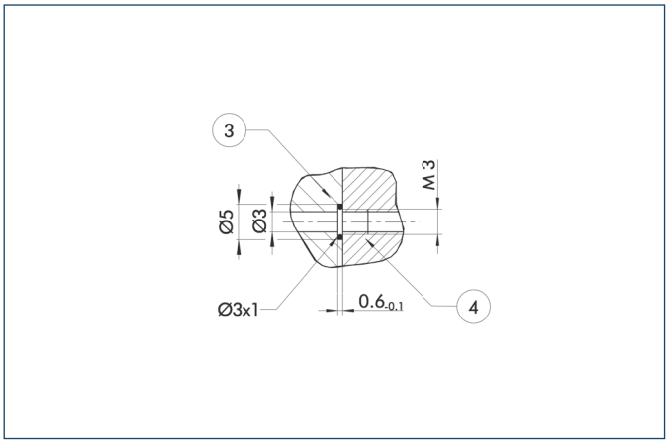


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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

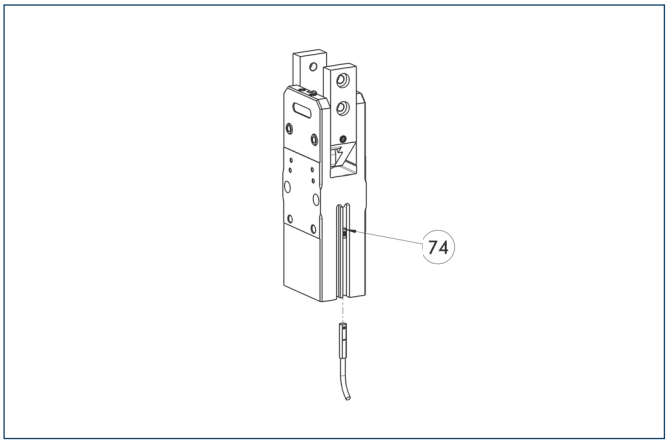
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Programmable magnetic switch



74 Stop for MMS-P

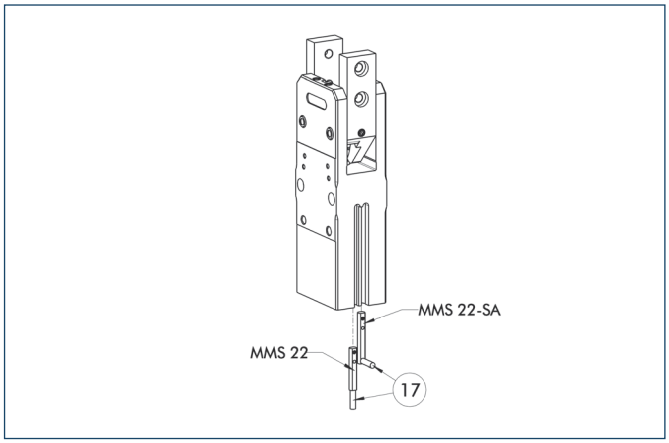
Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

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**	

ⓘ 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.

Electronic magnetic switches



17 Cable outlet

End position monitoring for mounting in the C-slot

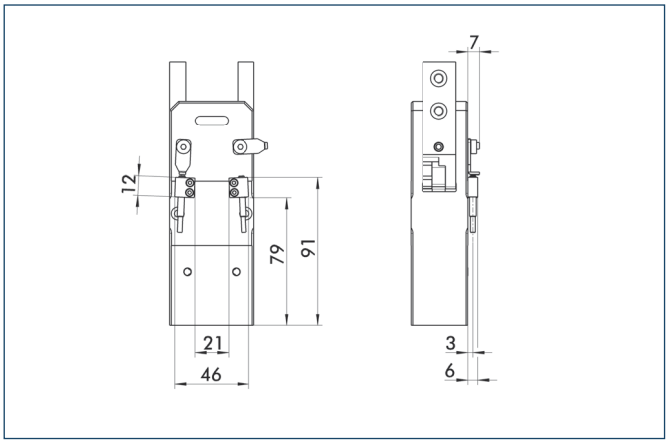
Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	**0301438**	
MMS 22-S-M5-NPN	**0301439**	
MMS 22-S-M8-PNP	**0301432**	•
MMS 22-S-M8-NPN	**0301433**	
MMSK 22-S-PNP	**0301434**	
MMSK 22-S-NPN	**0301435**	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	**0301448**	
MMS 22-S-M5-NPN-SA	**0301449**	
MMS 22-S-M8-PNP-SA	**0301442**	•
MMS 22-S-M8-NPN-SA	**0301443**	
MMSK 22-S-PNP-SA	**0301444**	
MMSK 22-S-NPN-SA	**0301445**	
Reed Switches		
RMS 22-S-M8	**0377720**	•
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-NPN	**0301602**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-NPN	**9641116**	
KA BW08-L 3P-0500-PNP	**0301502**	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.

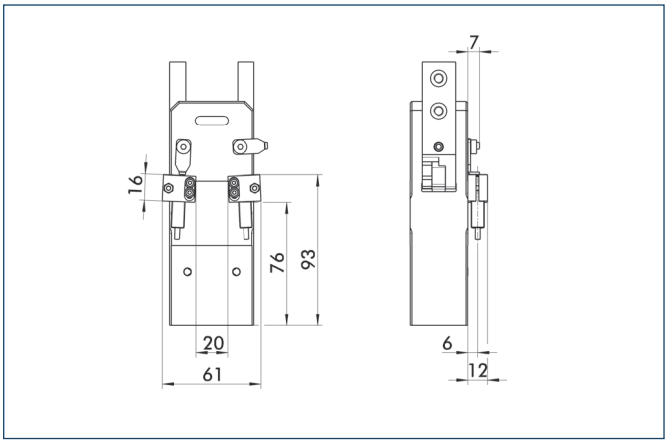
Mounting kit for proximity switch



The mounting kit consists of brackets, control cams and appropriate fastening materials. Proximity switches have to be ordered separately.

Description	ID
Mounting kit for proximity switch	
AS-PRG 52-IN40	**0303624**

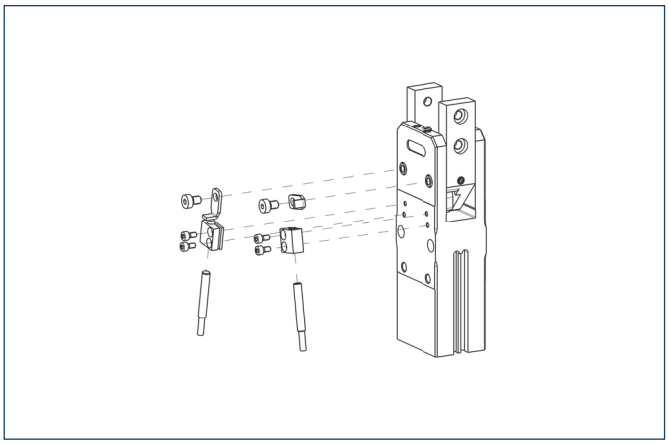
Mounting kit for proximity switch



The mounting kit consists of brackets, control cams and appropriate fastening materials. Proximity switches have to be ordered separately.

Description	ID
Mounting kit for proximity switch	
AS-PRG 52-IN80	**0304135**

Inductive proximity switches

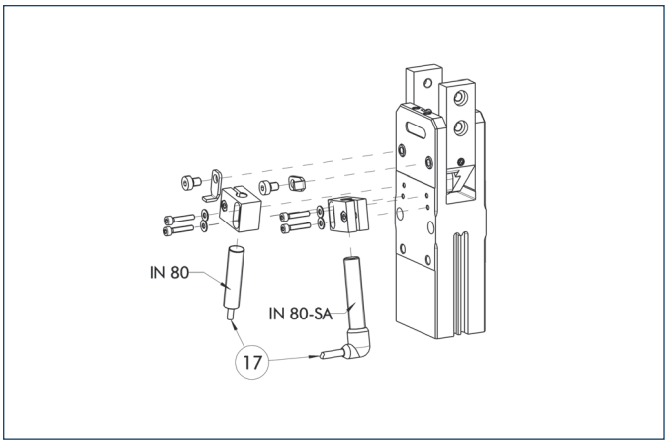


End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-PRG 52-IN40	**0303624**	
Inductive proximity switches		
IN 40-S-M8	**0301474**	•
IN 40-S-M12	**0301574**	
INK 40-S	**0301555**	
IN 40-S-M5-PNP	**0301491**	
IN 40-S-M5-NPN	**0301492**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

Inductive proximity switches



⑰ Cable outlet

End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-PRG 52-IN80	**0304135**	
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	

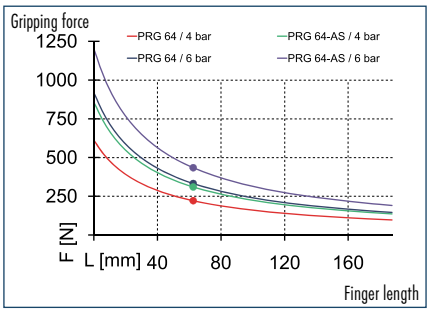
ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

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

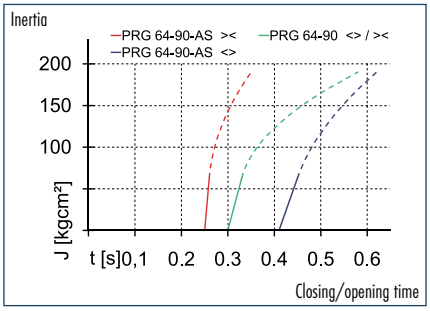
PRG 64

Pneumatic • 2-Finger Radial Gripper • Universal Gripper

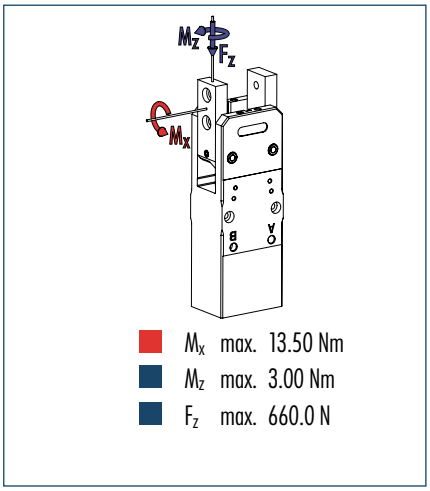
Gripping force, O.D. gripping



Maximum admissible inertia J



Finger load



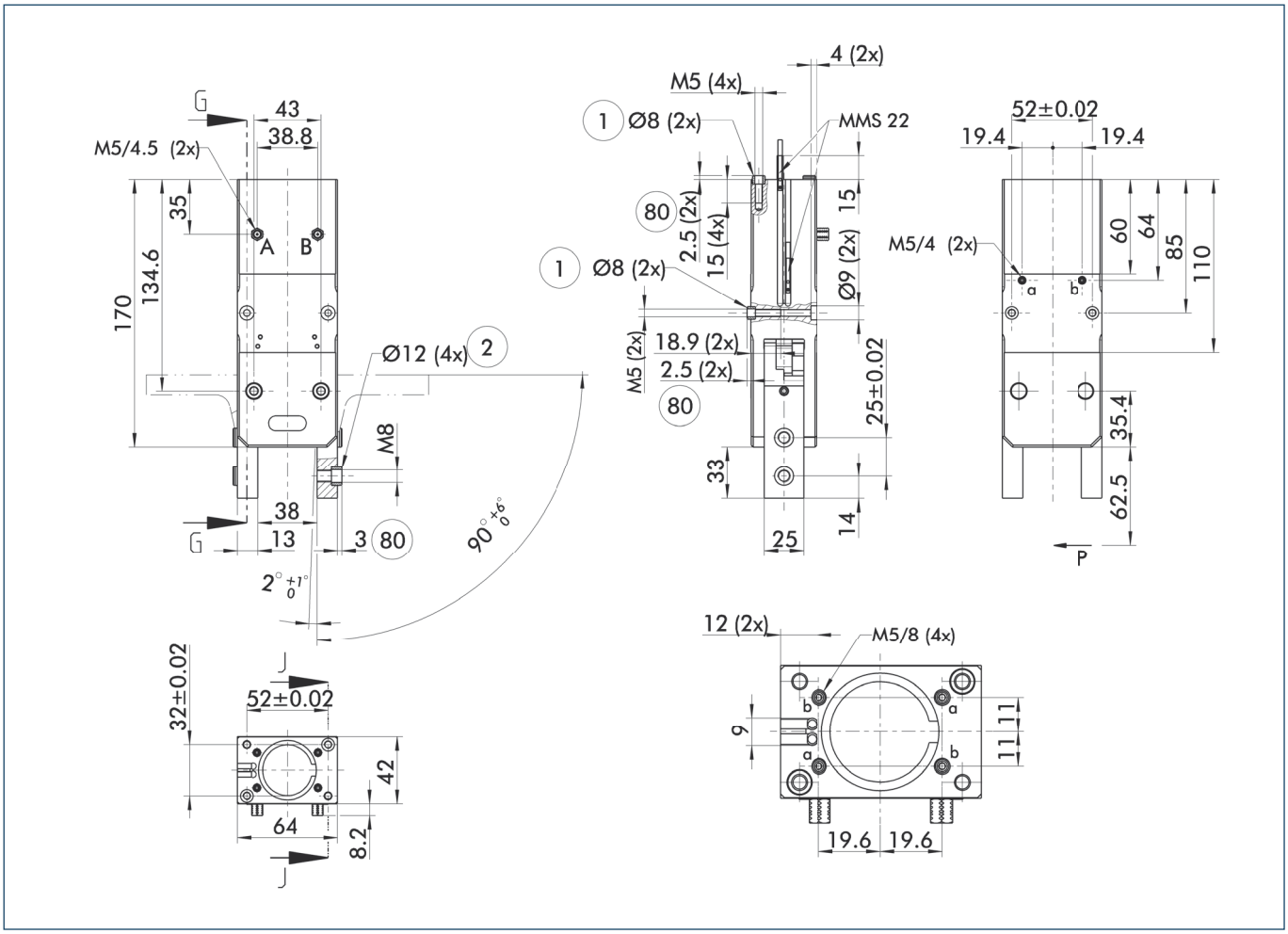
ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		PRG 64-30	PRG 64-30-AS	PRG 64-60	PRG 64-60-AS	PRG 64-90	PRG 64-90-AS
ID		**0303655**	**0303665**	**0303695**	**0303705**	**0303675**	**0303685**
Opening angle per jaw	[°]	30	30	60	60	90	90
Closed angle per jaw up to	[°]	4	4	4	4	4	4
Closing moment	[Nm]	32.5	42.5	32.5	42.5	32.5	42.5
Spring-actuated closing moment	[Nm]		10		10		10
Weight	[kg]	1.35	1.42	1.34	1.41	1.33	1.4
Recommended workpiece weight	[kg]	1.69	2.21	1.69	2.21	1.69	2.21
Air consumption per double stroke	[cm³]	88	88	102	102	120	120
Min./max. operating pressure	[bar]	2/8	4/6.5	2/8	4/6.5	2/8	4/6.5
Nominal operating pressure	[bar]	6	6	6	6	6	6
Closing time	[s]	0.1	0.08	0.2	0.17	0.3	0.25
Opening time	[s]	0.1	0.14	0.2	0.27	0.3	0.41
Max. permitted finger length	[mm]	125	125	125	125	125	125
Max. mass moment of inertia per jaw	[kgcm²]	63.37	63.37	63.37	63.37	63.37	63.37
IP class		20	20	20	20	20	20
Min./max. ambient temperature	[°C]	-10/90	-10/90	-10/90	-10/90	-10/90	-10/90
Repeat accuracy	[mm]	0.05	0.05	0.05	0.05	0.05	0.05
OPTIONS and their characteristics							
High-temperature version		**39303655**	**39303665**	**39303695**	**39303705**	**39303675**	**39303685**
Min./max. ambient temperature	[°C]	-10/130	-10/130	-10/130	-10/130	-10/130	-10/130

ⓘ The unit can be actuated without an external customer-specific throttling at the given value of max. mass moment of inertia per jaw. In case of higher mass moments of inertia, an additional throttling is possible (see diagram). The curve applies for 90° versions. For other versions the curve must be parallely off-set according to the opening and closing times.

Main view

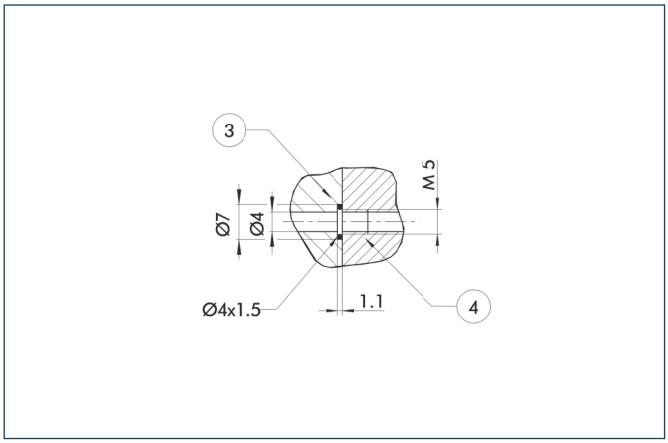


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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

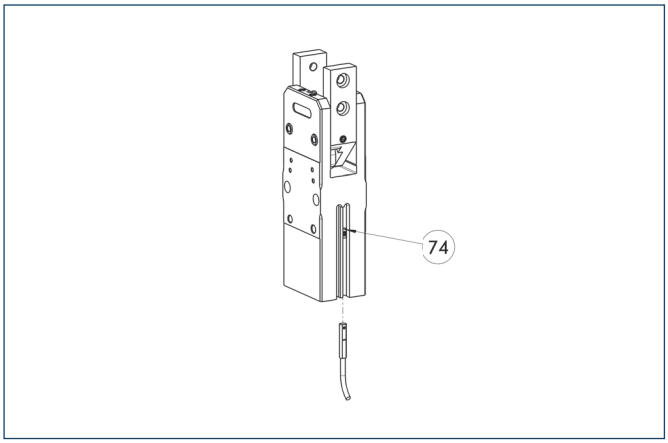
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Programmable magnetic switch



(74) Stop for MMS-P

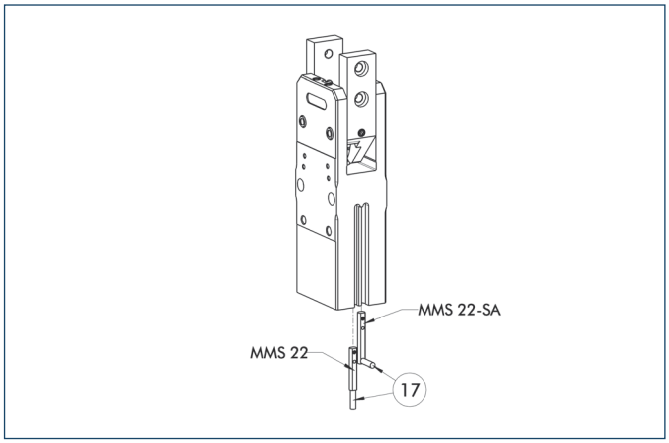
Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

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**	

ⓘ 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.

Electronic magnetic switches



(17) Cable outlet

End position monitoring for mounting in the C-slot

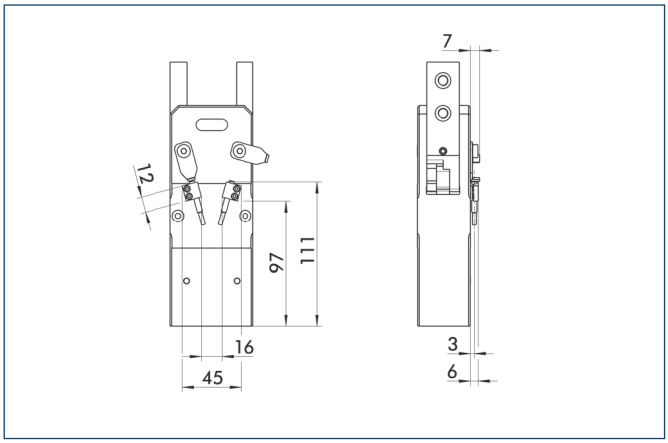
Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	**0301438**	
MMS 22-S-M5-NPN	**0301439**	
MMS 22-S-M8-PNP	**0301432**	•
MMS 22-S-M8-NPN	**0301433**	
MMSK 22-S-PNP	**0301434**	
MMSK 22-S-NPN	**0301435**	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	**0301448**	
MMS 22-S-M5-NPN-SA	**0301449**	
MMS 22-S-M8-PNP-SA	**0301442**	•
MMS 22-S-M8-NPN-SA	**0301443**	
MMSK 22-S-PNP-SA	**0301444**	
MMSK 22-S-NPN-SA	**0301445**	
Reed Switches		
RMS 22-S-M8	**0377720**	•
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-NPN	**0301602**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-NPN	**9641116**	
KA BW08-L 3P-0500-PNP	**0301502**	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.

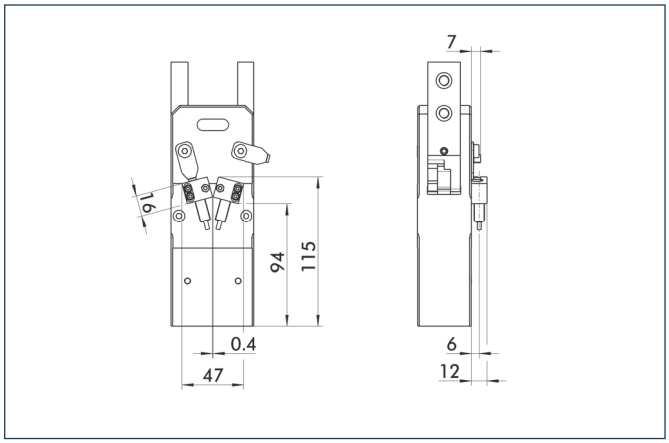
Mounting kit for proximity switch



The mounting kit consists of brackets, control cams and appropriate fastening materials. Proximity switches have to be ordered separately.

Description	ID
Mounting kit for proximity switch	
AS-PRG 64-IN40	**0303625**

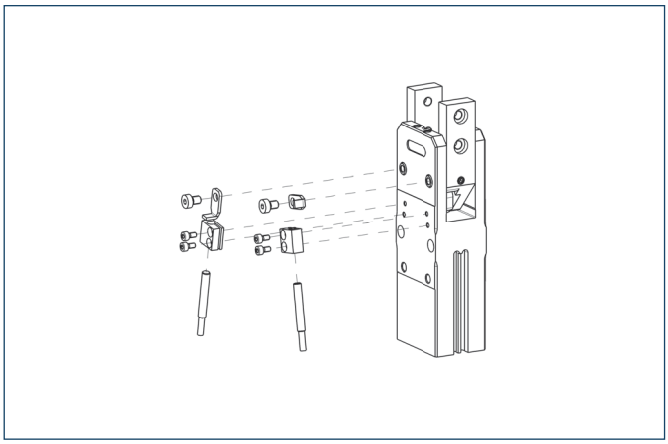
Mounting kit for proximity switch



The mounting kit consists of brackets, control cams and appropriate fastening materials. Proximity switches have to be ordered separately.

Description	ID
Mounting kit for proximity switch	
AS-PRG 64-IN80	**0304136**

Inductive proximity switches



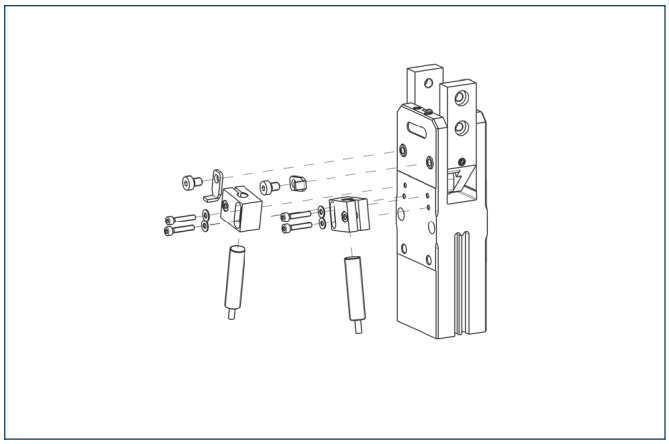
End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-PRG 64-IN40	**0303625**	
Inductive proximity switches		
IN 40-S-M8	**0301474**	•
IN 40-S-M12	**0301574**	
INK 40-S	**0301555**	
IN 40-S-M5-PNP	**0301491**	
IN 40-S-M5-NPN	**0301492**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Inductive proximity switches



End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-PRG 64-IN80	**0304136**	
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

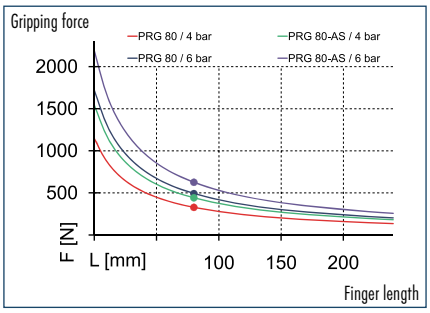
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

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

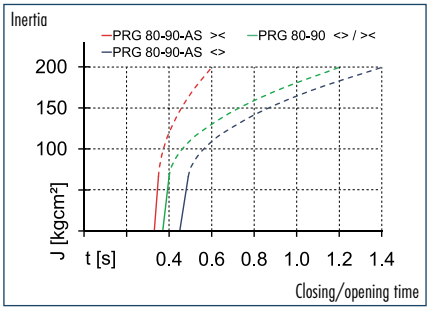
PRG 80

Pneumatic • 2-Finger Radial Gripper • Universal Gripper

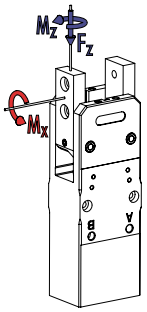
Gripping force, O.D. gripping



Maximum admissible inertia J



Finger load



- M_x max. 17.50 Nm
- M_z max. 8.00 Nm
- F_z max. 940.0 N

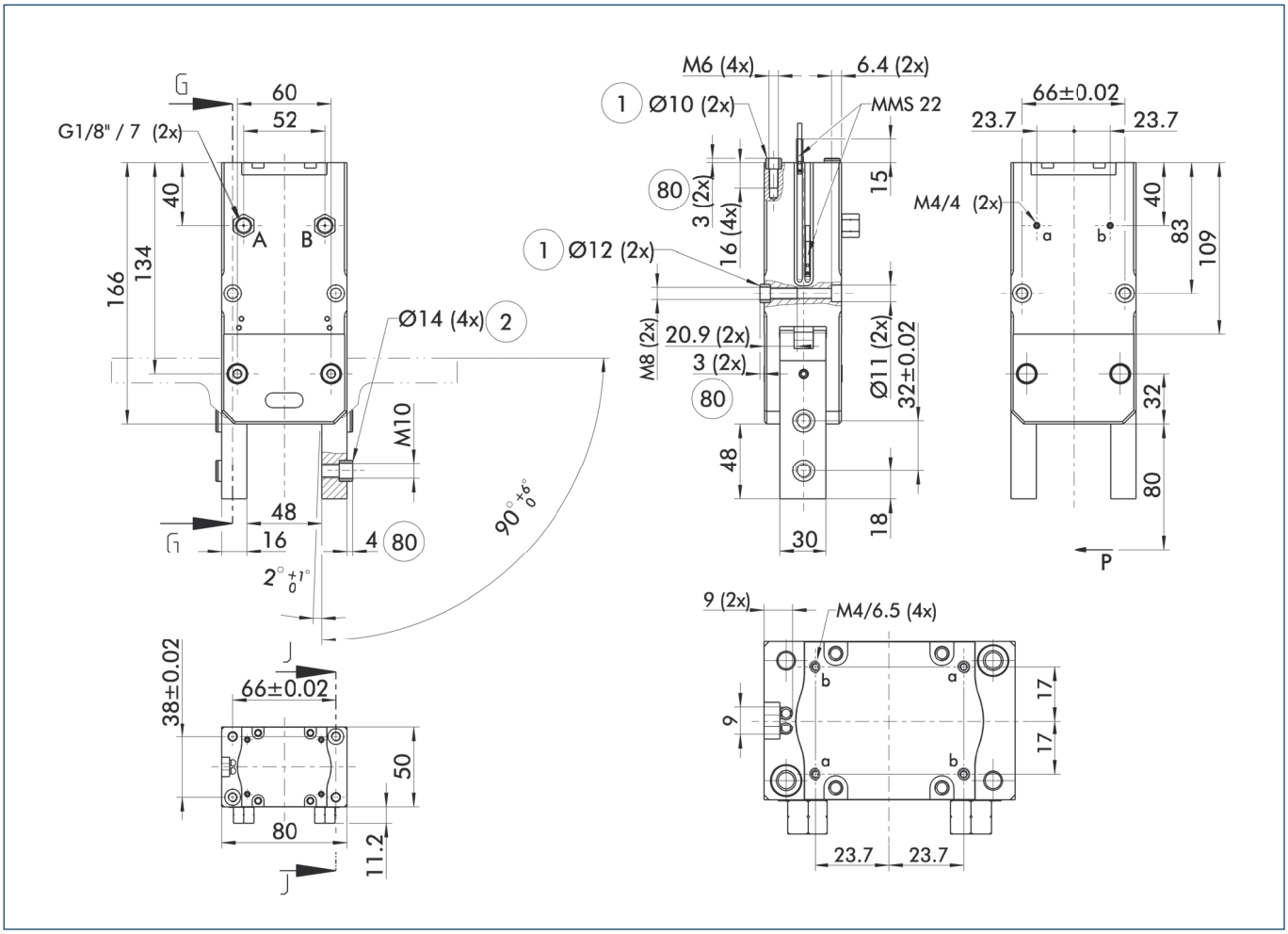
ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		PRG 80-30	PRG 80-30-AS	PRG 80-60	PRG 80-60-AS	PRG 80-90	PRG 80-90-AS
ID		**0303656**	**0303666**	**0303696**	**0303706**	**0303676**	**0303686**
Opening angle per jaw	[°]	30	30	60	60	90	90
Closed angle per jaw up to	[°]	4	4	4	4	4	4
Closing moment	[Nm]	55	70	55	70	55	70
Spring-actuated closing moment	[Nm]		15		15		15
Weight	[kg]	2.17	2.26	2.16	2.25	2.15	2.24
Recommended workpiece weight	[kg]	2.5	3.19	2.5	3.19	2.5	3.19
Air consumption per double stroke	[cm³]	128	128	143	143	160	160
Min./max. operating pressure	[bar]	2/8	4/6.5	2/8	4/6.5	2/8	4/6.5
Nominal operating pressure	[bar]	6	6	6	6	6	6
Closing time	[s]	0.12	0.11	0.25	0.22	0.37	0.33
Opening time	[s]	0.12	0.15	0.25	0.3	0.37	0.45
Max. permitted finger length	[mm]	160	160	160	160	160	160
Max. mass moment of inertia per jaw	[kgcm²]	66.44	66.44	66.44	66.44	66.44	66.44
IP class		20	20	20	20	20	20
Min./max. ambient temperature	[°C]	-10/90	-10/90	-10/90	-10/90	-10/90	-10/90
Repeat accuracy	[mm]	0.1	0.1	0.1	0.1	0.1	0.1
OPTIONS and their characteristics							
High-temperature version		**39303656**	**39303666**	**39303696**	**39303706**	**39303676**	**39303686**
Min./max. ambient temperature	[°C]	-10/130	-10/130	-10/130	-10/130	-10/130	-10/130

ⓘ The unit can be actuated without an external customer-specific throttling at the given value of max. mass moment of inertia per jaw. In case of higher mass moments of inertia, an additional throttling is possible (see diagram). The curve applies for 90° versions. For other versions the curve must be parallely off-set according to the opening and closing times.

Main view

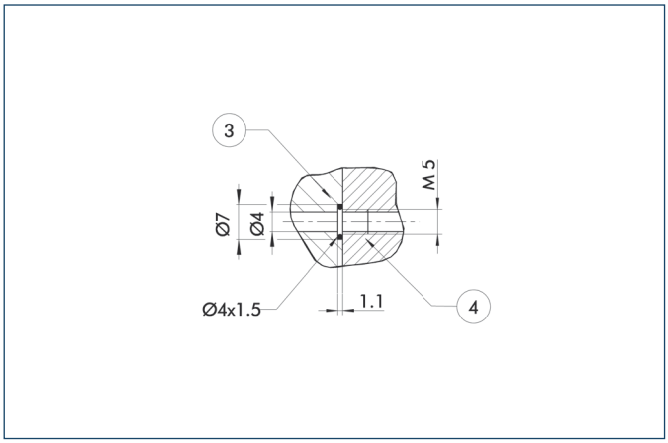


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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

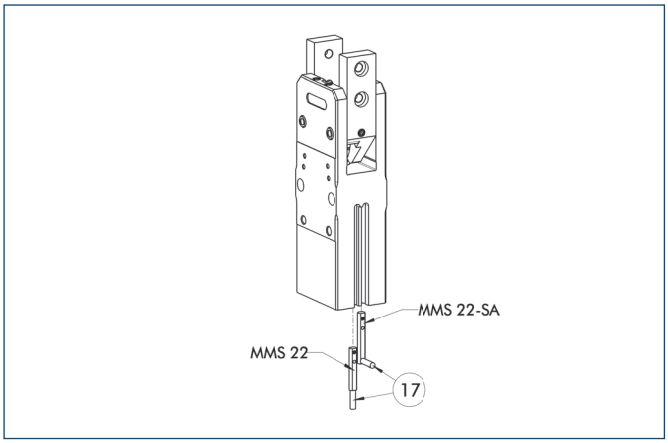
Hose-free direct connection



3 Adapter
4 Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Electronic magnetic switches



⑰ Cable outlet

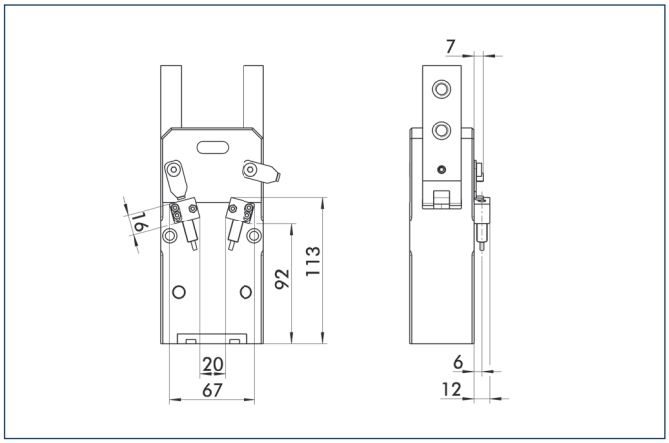
End position monitoring for mounting in the C-slot

Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	0301438	
MMS 22-S-M5-NPN	0301439	
MMS 22-S-M8-PNP	0301432	•
MMS 22-S-M8-NPN	0301433	
MMSK 22-S-PNP	0301434	
MMSK 22-S-NPN	0301435	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	0301448	
MMS 22-S-M5-NPN-SA	0301449	
MMS 22-S-M8-PNP-SA	0301442	•
MMS 22-S-M8-NPN-SA	0301443	
MMSK 22-S-PNP-SA	0301444	
MMSK 22-S-NPN-SA	0301445	
Connection cables		
KA BG05-L 3P-0300	0301652	
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BW05-L 3P-0300	0301650	
KA BW08-L 3P-0300-NPN	0301602	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-NPN	9641116	
KA BW08-L 3P-0500-PNP	0301502	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Mounting kit for proximity switch

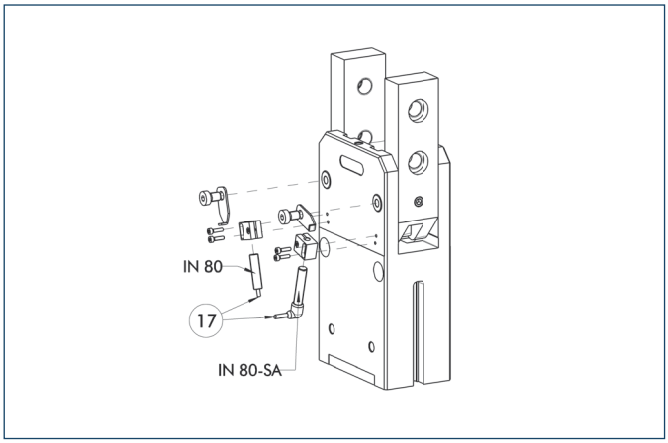


The mounting kit consists of brackets, control cams and appropriate fastening materials. Proximity switches have to be ordered separately.

Description	ID
Mounting kit for proximity switch	
AS-PRG 80-IN80	0303626

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

Inductive proximity switches



⑰ Cable outlet

End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-PRG 80-IN80	**0303626**	
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

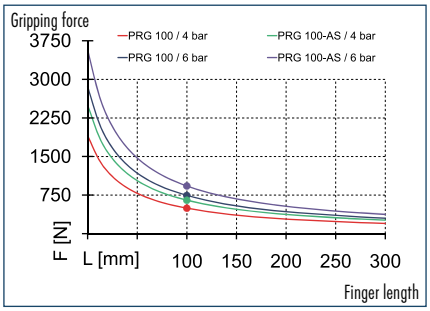
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

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

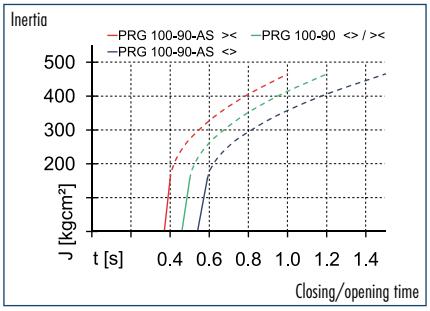
PRG 100

Pneumatic • 2-Finger Radial Gripper • Universal Gripper

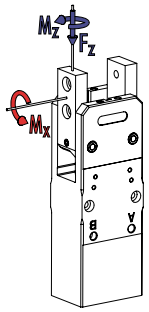
Gripping force, O.D. gripping



Maximum admissible inertia J



Finger load



M_x max. 35.00 Nm
M_z max. 10.00 Nm
F_z max. 1320.0 N

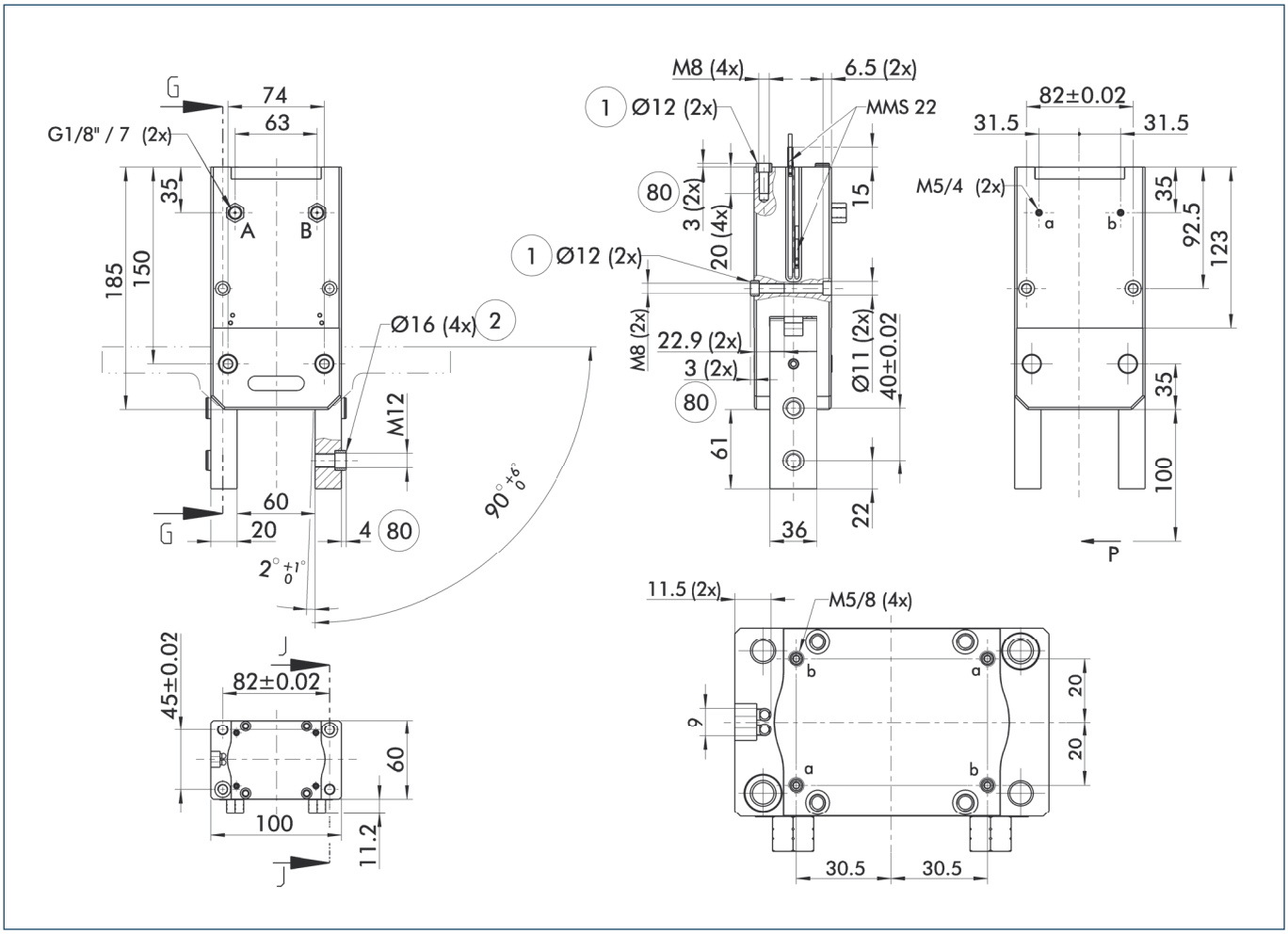
ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		PRG 100-30	PRG 100-30-AS	PRG 100-60	PRG 100-60-AS	PRG 100-90	PRG 100-90-AS
ID		**0303657**	**0303667**	**0303697**	**0303707**	**0303677**	**0303687**
Opening angle per jaw	[°]	30	30	60	60	90	90
Closed angle per jaw up to	[°]	4	4	4	4	4	4
Closing moment	[Nm]	100	125	100	125	100	125
Spring-actuated closing moment	[Nm]		25		25		25
Weight	[kg]	3.67	3.81	3.66	3.8	3.64	3.78
Recommended workpiece weight	[kg]	3.78	4.72	3.78	4.72	3.78	4.72
Air consumption per double stroke	[cm³]	230	230	260	260	290	290
Min./max. operating pressure	[bar]	2/8	4/6.5	2/8	4/6.5	2/8	4/6.5
Nominal operating pressure	[bar]	6	6	6	6	6	6
Closing time	[s]	0.15	0.12	0.31	0.25	0.46	0.37
Opening time	[s]	0.15	0.18	0.31	0.36	0.46	0.54
Max. permitted finger length	[mm]	200	200	200	200	200	200
Max. mass moment of inertia per jaw	[kgcm²]	155.2	155.2	155.2	155.2	155.2	155.2
IP class		20	20	20	20	20	20
Min./max. ambient temperature	[°C]	-10/90	-10/90	-10/90	-10/90	-10/90	-10/90
Repeat accuracy	[mm]	0.1	0.1	0.1	0.1	0.1	0.1
OPTIONS and their characteristics							
High-temperature version		**39303657**	**39303667**	**39303697**	**39303707**	**39303677**	**39303687**
Min./max. ambient temperature	[°C]	-10/130	-10/130	-10/130	-10/130	-10/130	-10/130

ⓘ The unit can be actuated without an external customer-specific throttling at the given value of max. mass moment of inertia per jaw. In case of higher mass moments of inertia, an additional throttling is possible (see diagram). The curve applies for 90° versions. For other versions the curve must be parallely off-set according to the opening and closing times.

Main view

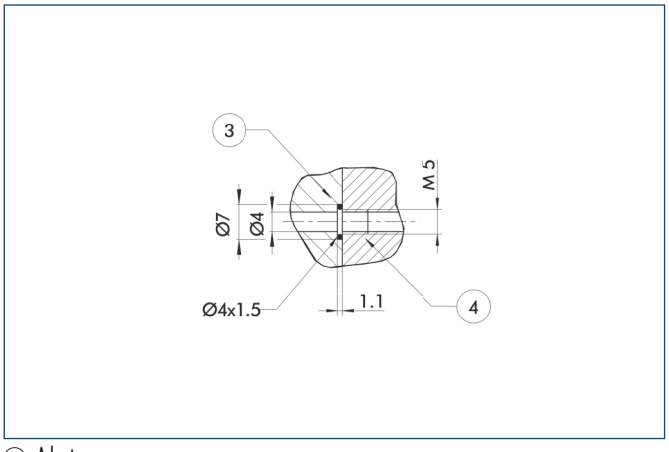


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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

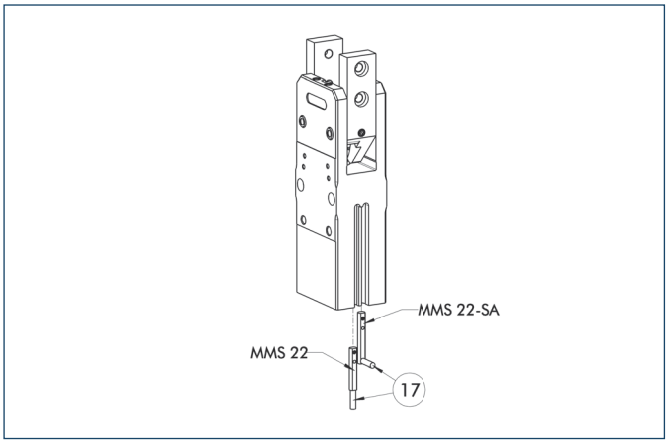
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Electronic magnetic switches



⑰ Cable outlet

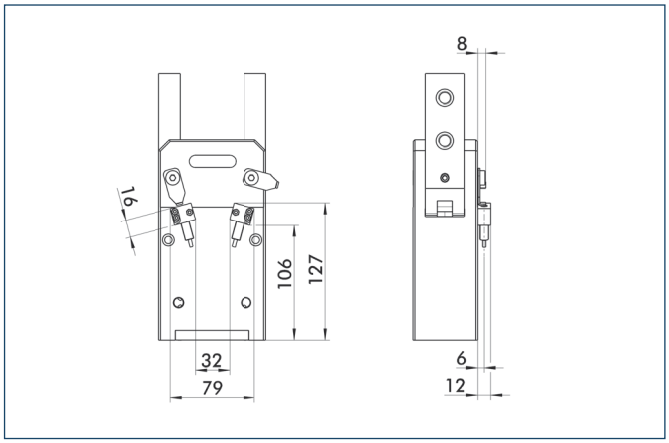
End position monitoring for mounting in the C-slot

Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	0301438	
MMS 22-S-M5-NPN	0301439	
MMS 22-S-M8-PNP	0301432	•
MMS 22-S-M8-NPN	0301433	
MMSK 22-S-PNP	0301434	
MMSK 22-S-NPN	0301435	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	0301448	
MMS 22-S-M5-NPN-SA	0301449	
MMS 22-S-M8-PNP-SA	0301442	•
MMS 22-S-M8-NPN-SA	0301443	
MMSK 22-S-PNP-SA	0301444	
MMSK 22-S-NPN-SA	0301445	
Connection cables		
KA BG05-L 3P-0300	0301652	
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BW05-L 3P-0300	0301650	
KA BW08-L 3P-0300-NPN	0301602	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-NPN	9641116	
KA BW08-L 3P-0500-PNP	0301502	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Mounting kit for proximity switch

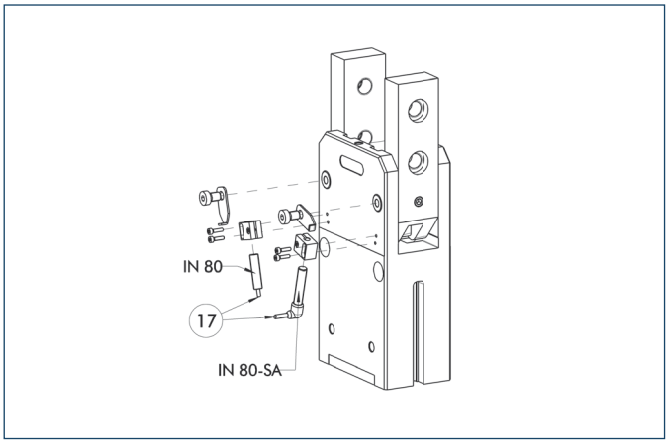


The mounting kit consists of brackets, control cams and appropriate fastening materials. Proximity switches have to be ordered separately.

Description	ID
Mounting kit for proximity switch	
AS-PRG 100-IN80	0303627

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

Inductive proximity switches



⑰ Cable outlet

End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-PRG 100-IN80	**0303627**	
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

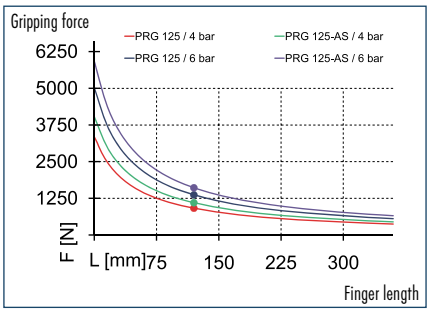
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

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

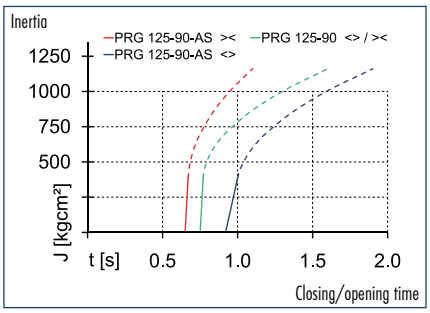
PRG 125

Pneumatic • 2-Finger Radial Gripper • Universal Gripper

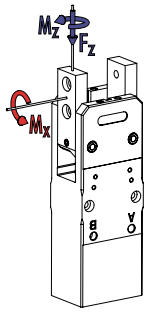
Gripping force, O.D. gripping



Maximum admissible inertia J



Finger load



- M_x max. 45.00 Nm
- M_z max. 15.00 Nm
- F_z max. 1770.0 N

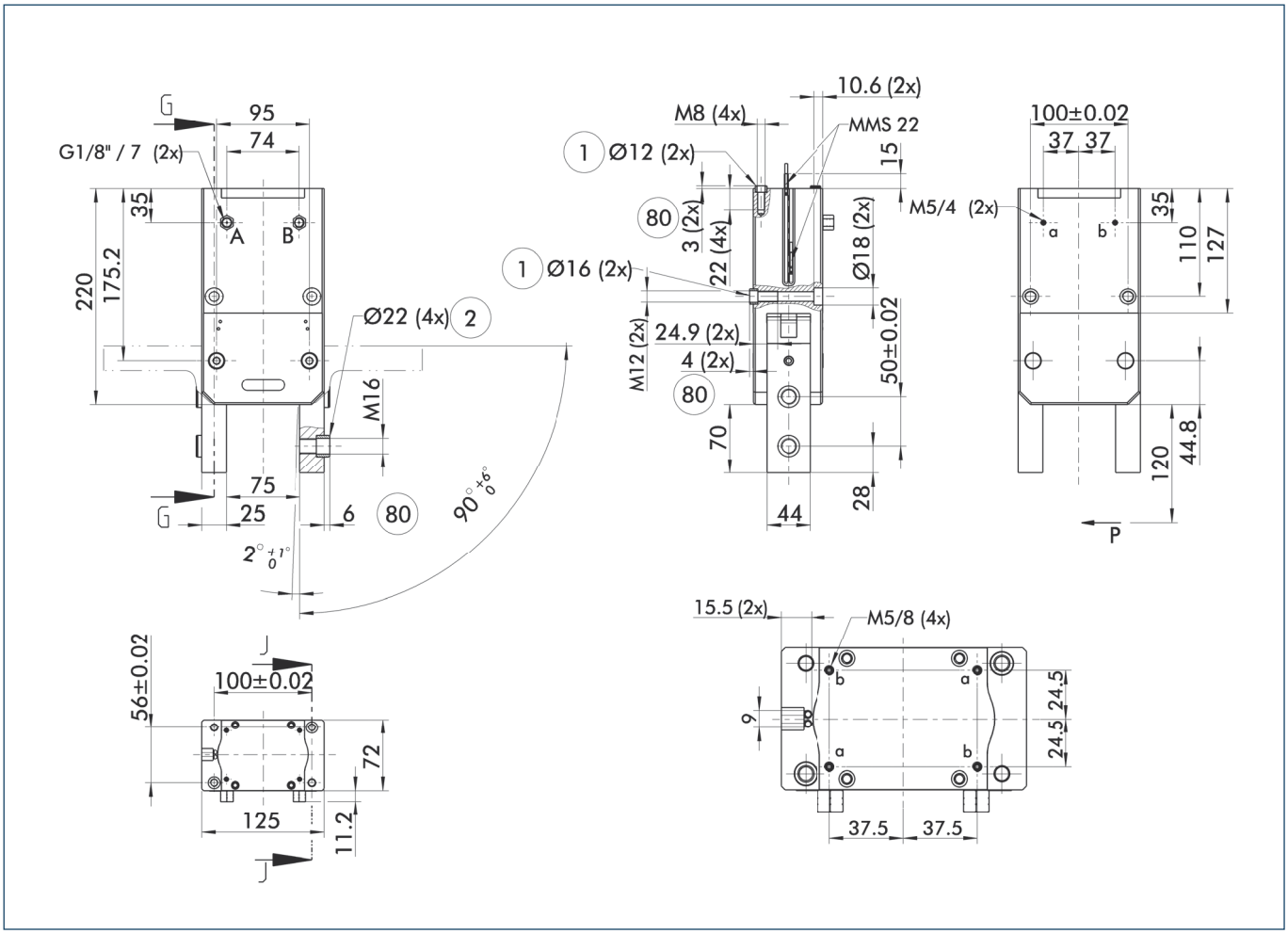
ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		PRG 125-30	PRG 125-30-AS	PRG 125-60	PRG 125-60-AS	PRG 125-90	PRG 125-90-AS
ID		**0303658**	**0303668**	**0303698**	**0303708**	**0303678**	**0303688**
Opening angle per jaw	[°]	30	30	60	60	90	90
Closed angle per jaw up to	[°]	4	4	4	4	4	4
Closing moment	[Nm]	225	295	225	295	225	295
Spring-actuated closing moment	[Nm]		70		70		70
Weight	[kg]	6.49	6.72	6.48	6.71	6.46	6.69
Recommended workpiece weight	[kg]	6.96	9.12	6.96	9.12	6.96	9.12
Air consumption per double stroke	[cm³]	475	475	520	520	580	580
Min./max. operating pressure	[bar]	2/8	4/6.5	2/8	4/6.5	2/8	4/6.5
Nominal operating pressure	[bar]	6	6	6	6	6	6
Closing time	[s]	0.25	0.22	0.5	0.43	0.75	0.65
Opening time	[s]	0.25	0.31	0.5	0.61	0.75	0.92
Max. permitted finger length	[mm]	240	240	240	240	240	240
Max. mass moment of inertia per jaw	[kgcm²]	386.8	386.8	386.8	386.8	386.8	386.8
IP class		20	20	20	20	20	20
Min./max. ambient temperature	[°C]	-10/90	-10/90	-10/90	-10/90	-10/90	-10/90
Repeat accuracy	[mm]	0.1	0.1	0.1	0.1	0.1	0.1
OPTIONS and their characteristics							
High-temperature version		**39303658**	**39303668**	**39303698**	**39303708**	**39303678**	**39303688**
Min./max. ambient temperature	[°C]	-10/130	-10/130	-10/130	-10/130	-10/130	-10/130

ⓘ The unit can be actuated without an external customer-specific throttling at the given value of max. mass moment of inertia per jaw. In case of higher mass moments of inertia, an additional throttling is possible (see diagram). The curve applies for 90° versions. For other versions the curve must be parallely off-set according to the opening and closing times.

Main view

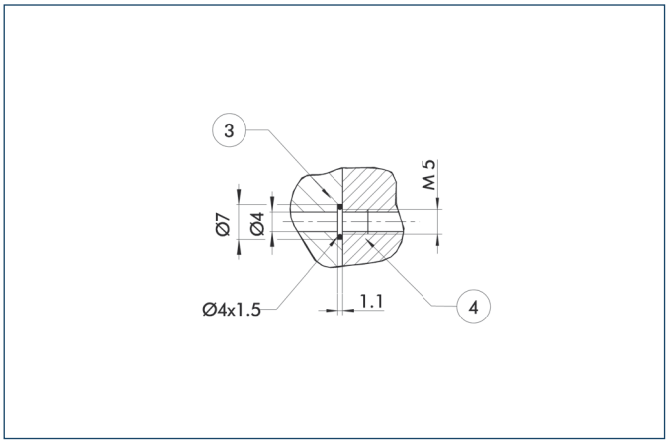


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ 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

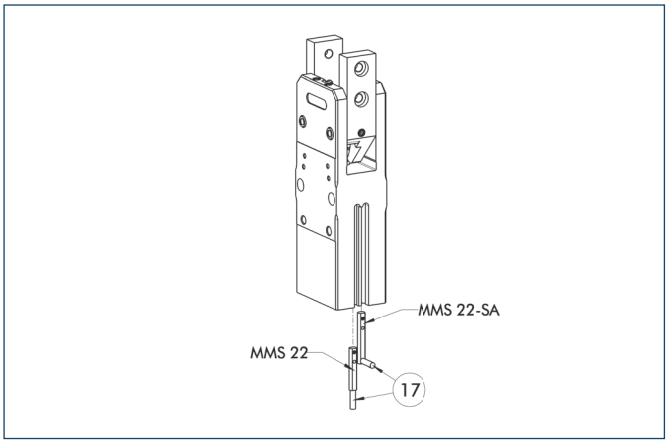
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Electronic magnetic switches



⑰ Cable outlet

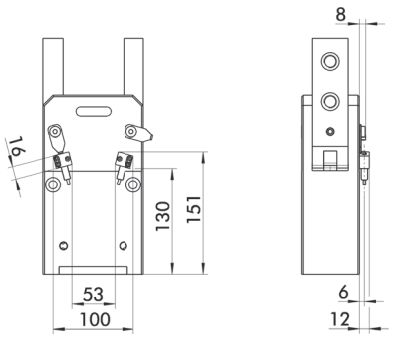
End position monitoring for mounting in the C-slot

Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	**0301438**	
MMS 22-S-M5-NPN	**0301439**	
MMS 22-S-M8-PNP	**0301432**	•
MMS 22-S-M8-NPN	**0301433**	
MMSK 22-S-PNP	**0301434**	
MMSK 22-S-NPN	**0301435**	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	**0301448**	
MMS 22-S-M5-NPN-SA	**0301449**	
MMS 22-S-M8-PNP-SA	**0301442**	•
MMS 22-S-M8-NPN-SA	**0301443**	
MMSK 22-S-PNP-SA	**0301444**	
MMSK 22-S-NPN-SA	**0301445**	
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-NPN	**0301602**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-NPN	**9641116**	
KA BW08-L 3P-0500-PNP	**0301502**	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Mounting kit for proximity switch

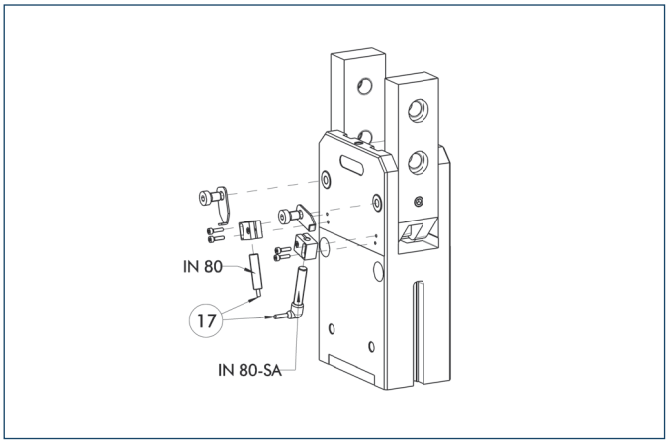


The mounting kit consists of brackets, control cams and appropriate fastening materials. Proximity switches have to be ordered separately.

Description	ID
Mounting kit for proximity switch	
AS-PRG 125-IN80	**0303628**

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

Inductive proximity switches



⑰ Cable outlet

End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-PRG 125-IN80	**0303628**	
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.

DRG

Pneumatic • 2-Finger Radial Gripper • Sealed Gripper

Sizes
44 ... 100

Weight
0.5 kg ... 4.46 kg

Gripping moment
8.2 Nm ... 143 Nm

Angle per jaw
90°

Workpiece weight
0.9 kg ... 7.2 kg

Application example

Linear gripping unit for removing workpieces from a pallet-loading station

1. Sealed 2-Finger Radial Gripper DRG
2. MLD Linear Motor Drive

Sealed Gripper

sealed 180° angular gripper for use in dirty environments

Field of application

For applications requiring a large opening range. Specially suitable for use in dirty environments.

Your advantages and benefits

Completely sealed gripper version
allows applications in dirty environments

Air supply via hose-free direct connection or screw connections
for the flexible supply of compressed air in all automation systems

Equipped with gripping force maintenance device
ensuring that the workpiece stays gripped in case of power drop

Opening angle adjustable from 20° to 180°
for a versatile field of applications

Kinematics
Slotted link gear for concentric gripping with large opening and closing movements

General note to the series

Principle of function
Wedge-hook kinematics

Housing material
Aluminum alloy, hard-anodized

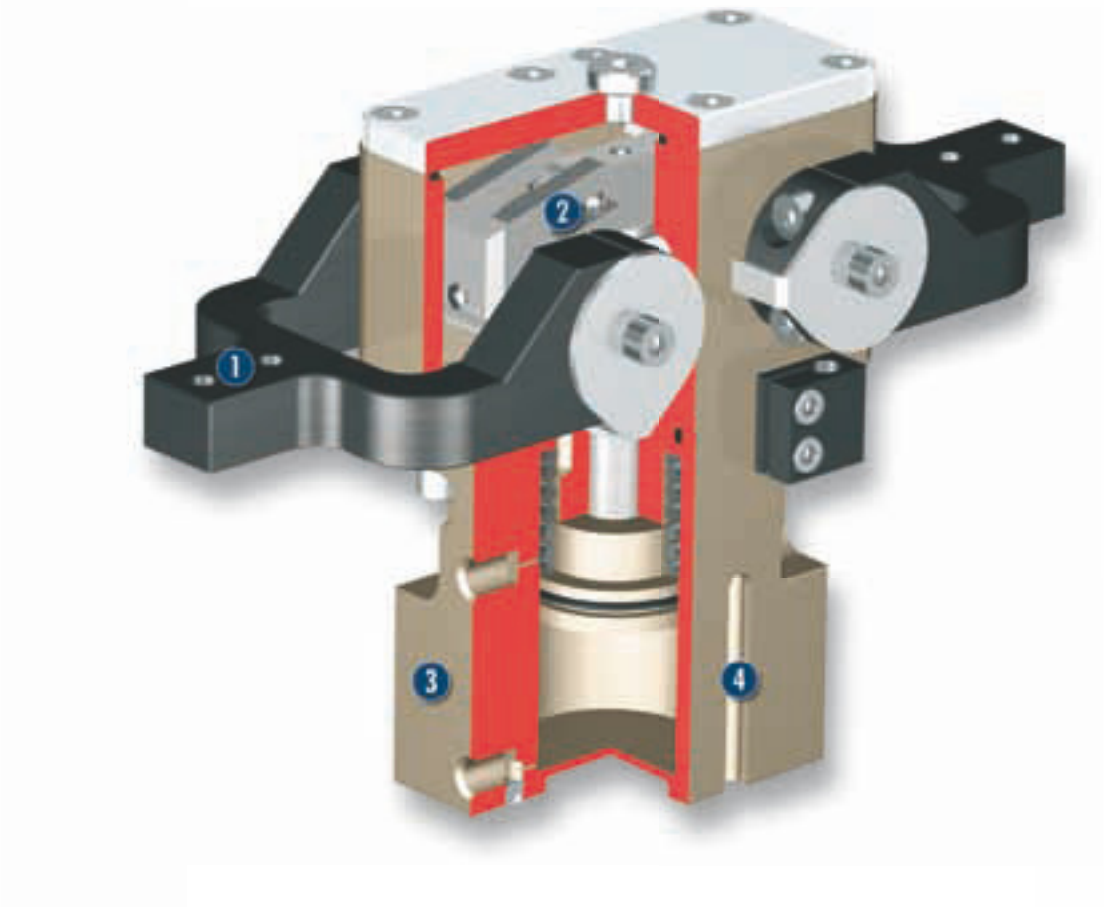
Base jaw material
Steel

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)

Scope of delivery
Brackets for proximity switches, centering sleeves, O-rings for direct connection, deaeration controls, assembly and operating manual with manufacturer's declaration

Sectional diagram



1 Base jaws
for the connection of workpiece-specific gripper fingers

2 Kinematics
Slotted link gear for concentric gripping with large opening and closing movements

3 Housing
weight-optimized through application of hard-anodized, high-strength aluminum alloy

4 Position monitoring
with C-slot switch

Functional description

The round piston is moved up or down by compressed air.
In the process, the two pins of the slotted link gear move in unison and relative to the groove in the top jaws. In the gripping moment, these two pins reach the largest lever arm.

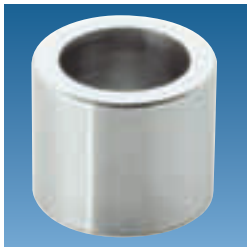
Options and special information

180° angular grippers (radial grippers) are advantageous in order to avoid additional stroke motions. Since each jaw rotates away by 90°, they are mostly removed from the work area; a stroke motion to retract the entire gripper can be omitted.

Accessories

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

Centering sleeves

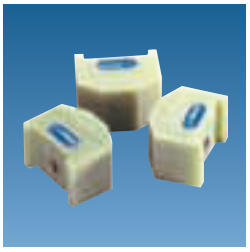


Fittings

Pressure maintenance valve

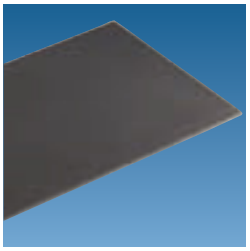
Inductive proximity switches

Plastic inserts



Sensor cables

Gripper pads



Sensor Distributor

ⓘ 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

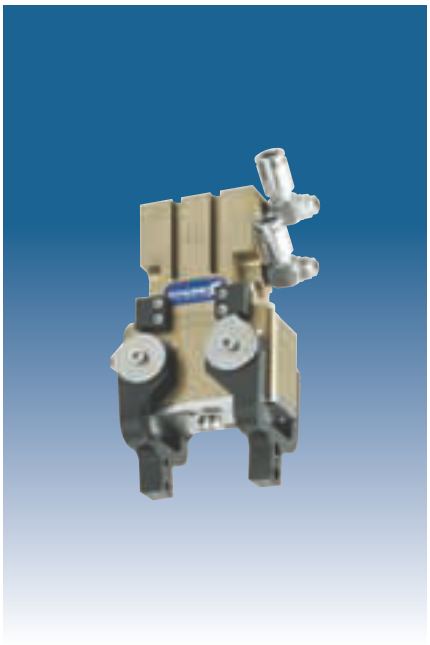
The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit gripping.

Closing and opening times

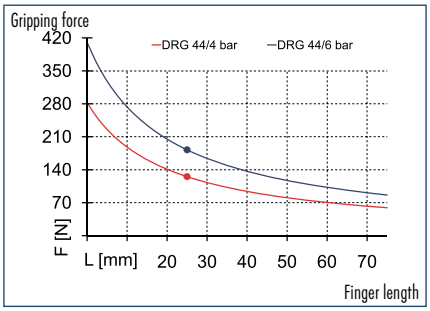
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.

DRG 44

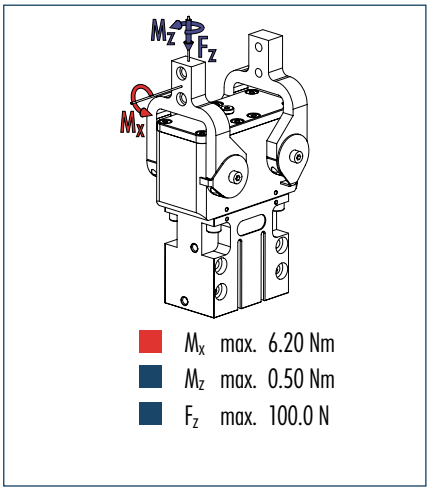
Pneumatic • 2-Finger Radial Gripper • Sealed Gripper



Gripping force, O.D. gripping



Finger load



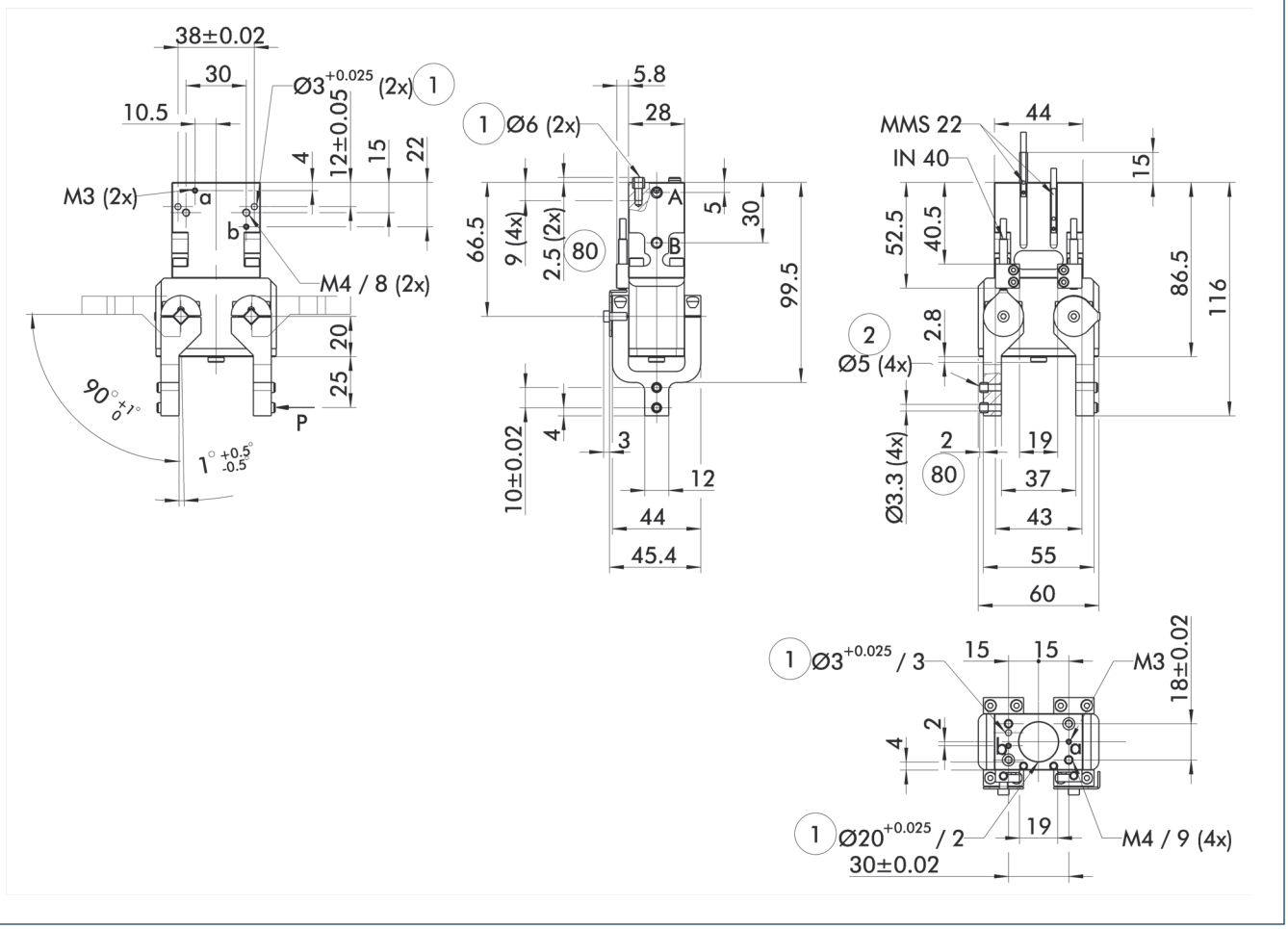
ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		DRG 44
ID		**0307106**
Opening angle per jaw	[°]	90
Closed angle per jaw up to	[°]	1.5
Closing moment	[Nm]	8.2
Spring-actuated closing moment	[Nm]	1.8
Weight	[kg]	0.5
Recommended workpiece weight	[kg]	0.9
Air consumption per double stroke	[cm³]	16
Min./max. operating pressure	[bar]	4/6.5
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.4/0.5
Max. permitted finger length	[mm]	50
Max. permitted weight per finger	[kg]	0.09
IP class		67
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.1
OPTIONS and their characteristics		
High-temperature version		**39307106**
Min./max. ambient temperature	[°C]	-10/130

ⓘ The opening angle of the base jaws can be limited.

Main view

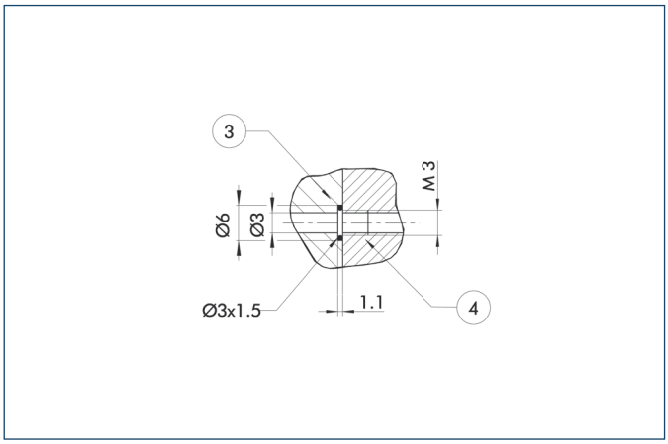


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a 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

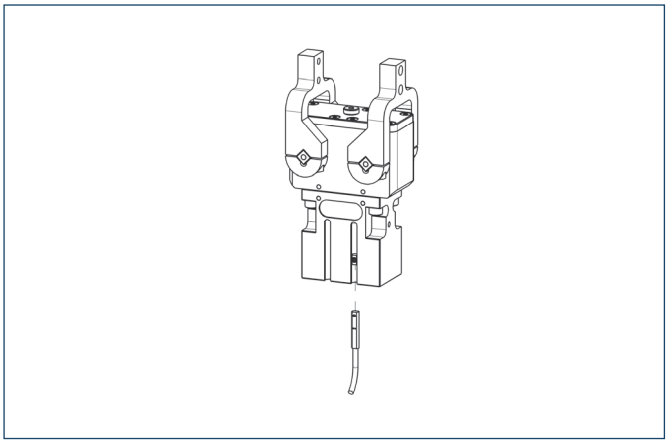
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Programmable magnetic switch



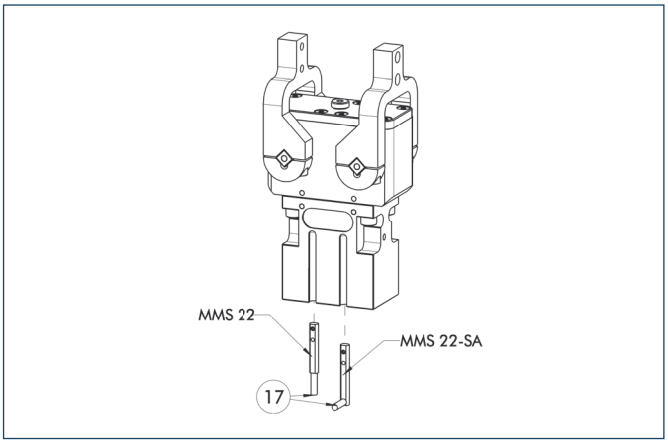
Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

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**	

ⓘ 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.

Electronic magnetic switches



⑰ Cable outlet

End position monitoring for mounting in the C-slot

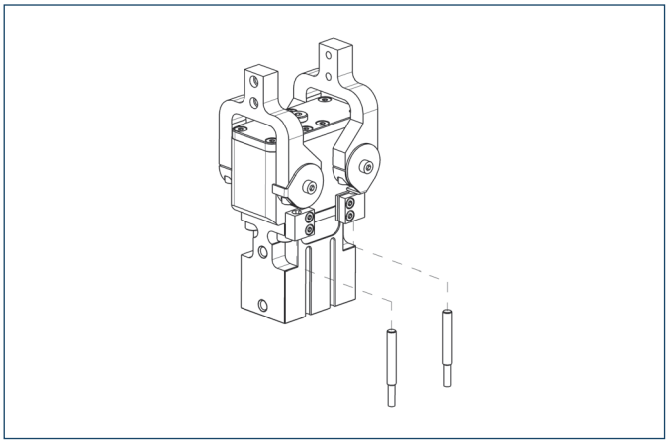
Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	**0301438**	
MMS 22-S-M5-NPN	**0301439**	
MMS 22-S-M8-PNP	**0301432**	•
MMS 22-S-M8-NPN	**0301433**	
MMSK 22-S-PNP	**0301434**	
MMSK 22-S-NPN	**0301435**	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	**0301448**	
MMS 22-S-M5-NPN-SA	**0301449**	
MMS 22-S-M8-PNP-SA	**0301442**	•
MMS 22-S-M8-NPN-SA	**0301443**	
MMSK 22-S-PNP-SA	**0301444**	
MMSK 22-S-NPN-SA	**0301445**	
Reed Switches		
RMS 22-S-M8	**0377720**	•
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-NPN	**0301602**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-NPN	**9641116**	
KA BW08-L 3P-0500-PNP	**0301502**	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.

Inductive proximity switches



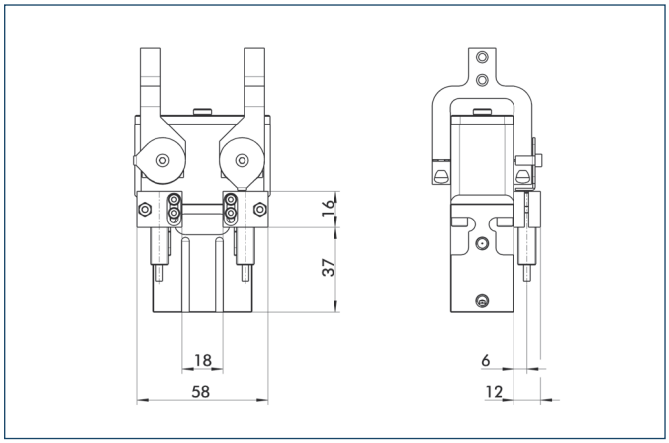
End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 40-S-M8	**0301474**	•
IN 40-S-M12	**0301574**	
INK 40-S	**0301555**	
IN 40-S-M5-PNP	**0301491**	
IN 40-S-M5-NPN	**0301492**	
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Mounting kit for proximity switch



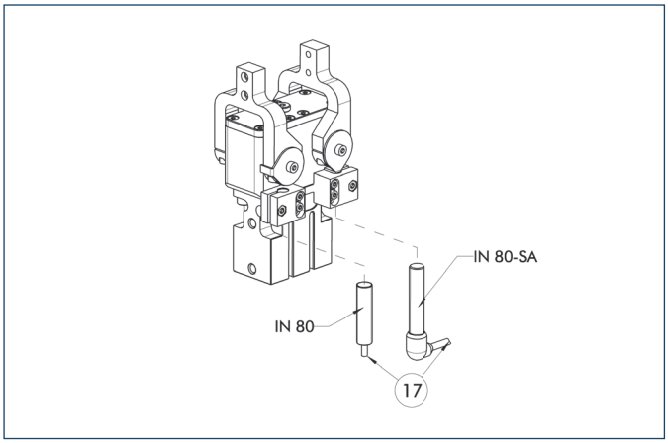
The mounting kit consists of brackets and the appropriate fastening materials. Proximity switches have to be ordered separately.

Description	ID
Mounting kit for proximity switch	
AS-DRG-44-80	**0304131**

ⓘ This mounting kit needs to be ordered optionally as an accessory.

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

Inductive proximity switches



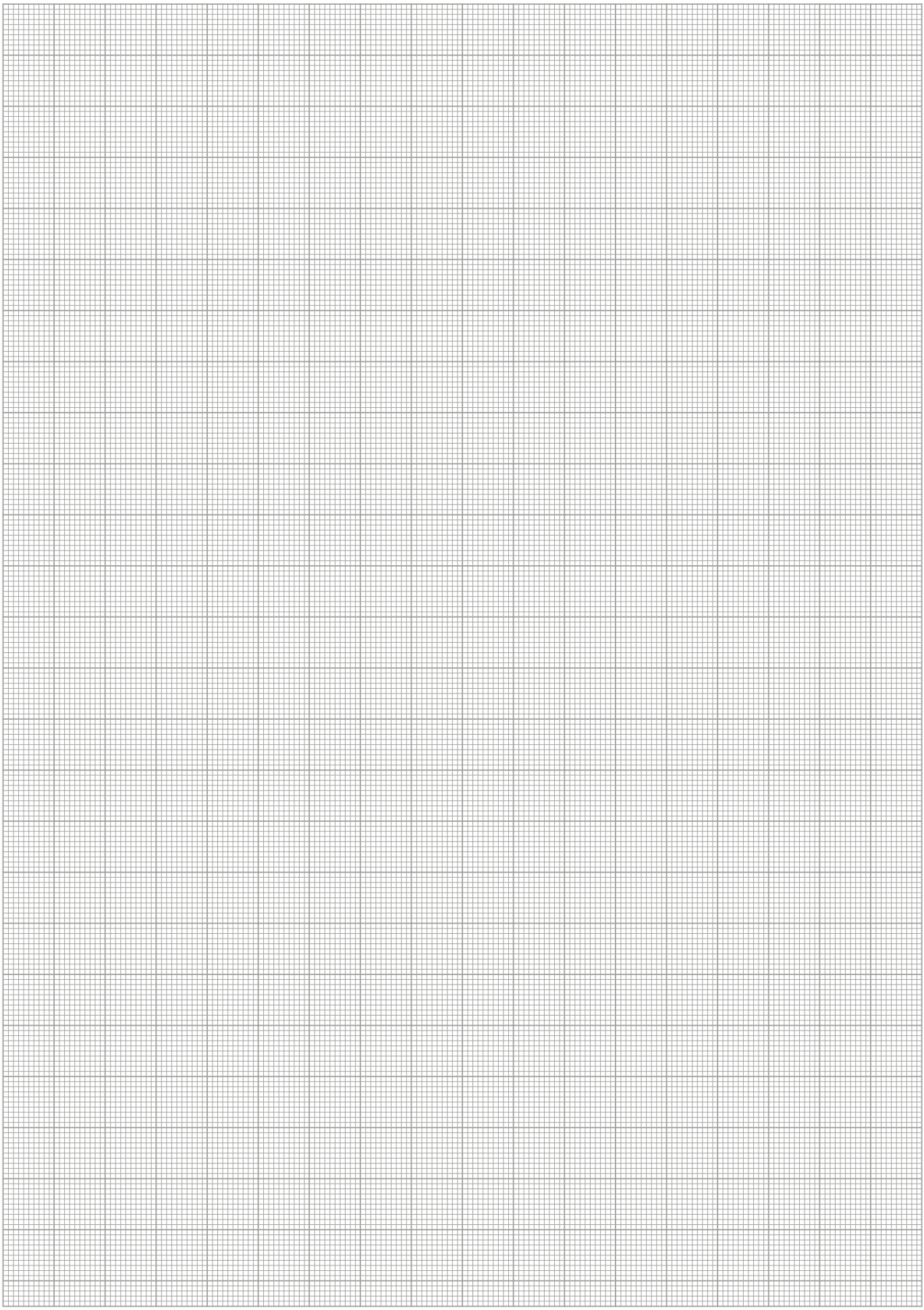
⑰ Cable outlet

End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-DRG-44-80	**0304131**	
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ This mounting kit needs to be ordered optionally as an accessory.
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

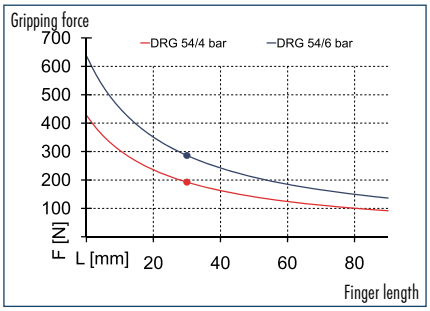
You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.



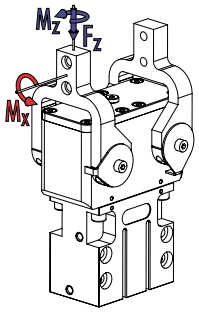
DRG 54

Pneumatic • 2-Finger Radial Gripper • Sealed Gripper

Gripping force, O.D. gripping



Finger load



- M_x max. 10.00 Nm
- M_z max. 1.00 Nm
- F_z max. 180.0 N

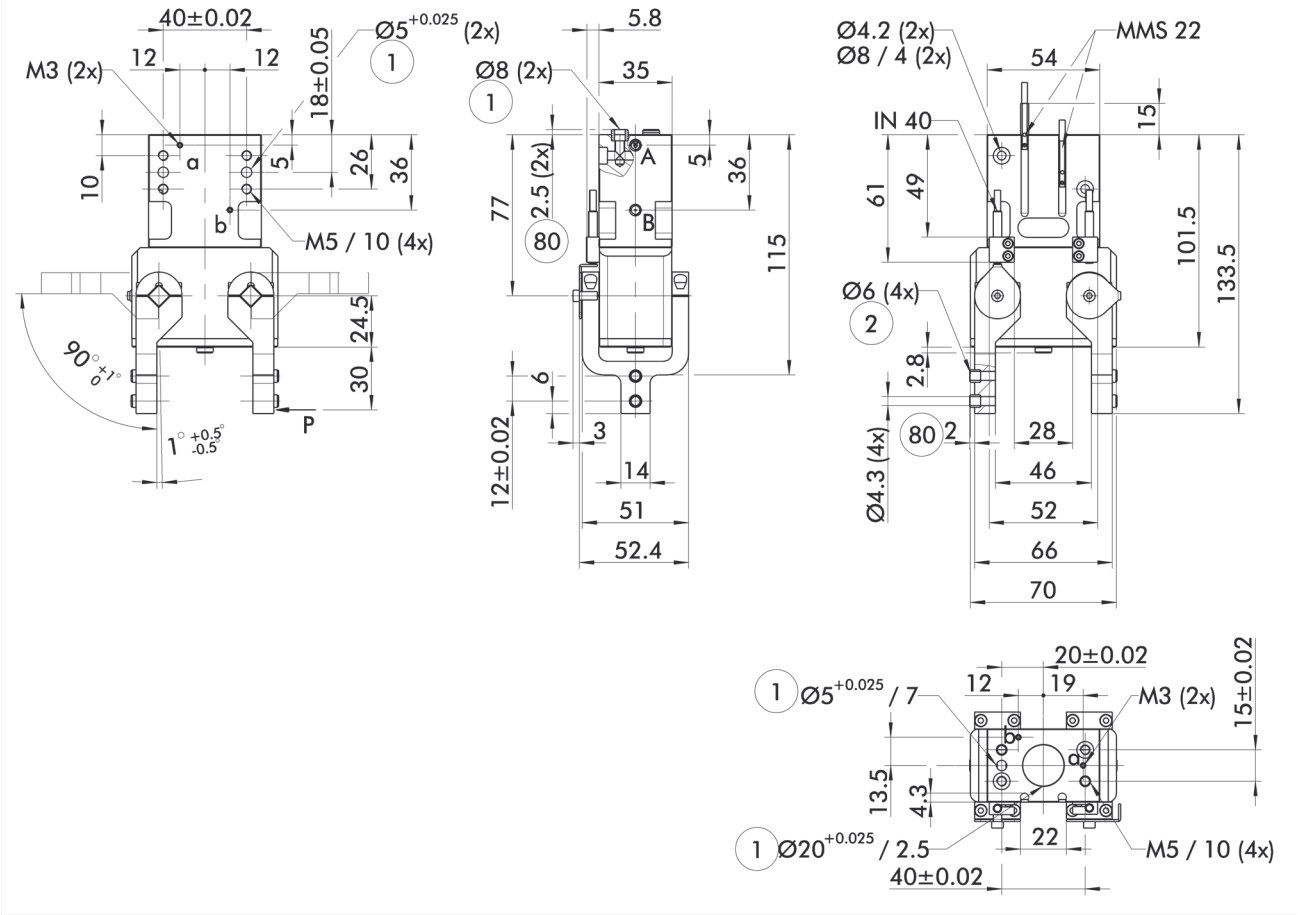
ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		DRG 54
ID		**0307107**
Opening angle per jaw	[°]	90
Closed angle per jaw up to	[°]	1.5
Closing moment	[Nm]	15.6
Spring-actuated closing moment	[Nm]	2.8
Weight	[kg]	0.77
Recommended workpiece weight	[kg]	1.5
Air consumption per double stroke	[cm³]	36
Min./max. operating pressure	[bar]	4/6.5
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.4/0.5
Max. permitted finger length	[mm]	60
Max. permitted weight per finger	[kg]	0.15
IP class		67
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.1
OPTIONS and their characteristics		
High-temperature version		**3907107**
Min./max. ambient temperature	[°C]	-10/130

ⓘ The opening angle of the base jaws can be limited.

Main view

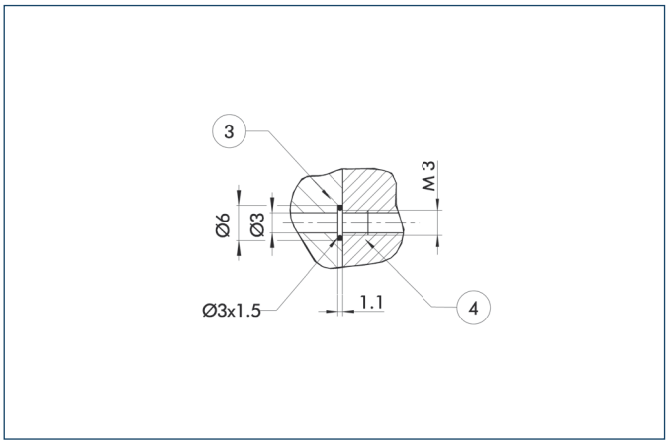


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a 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

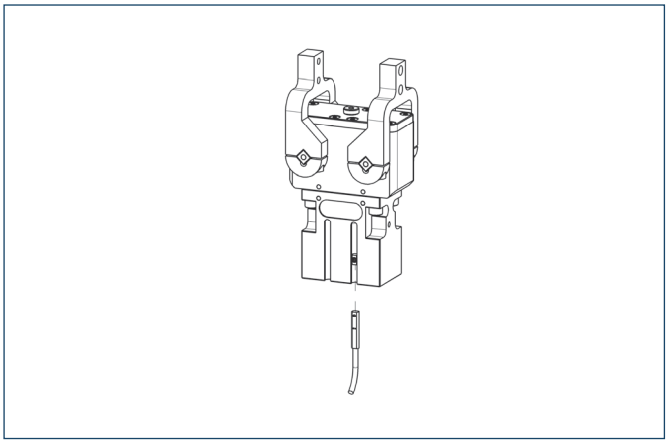
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Programmable magnetic switch



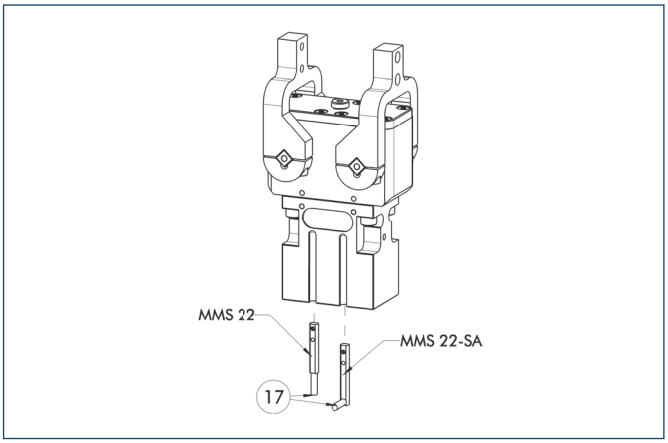
Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

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**	

ⓘ 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.

Electronic magnetic switches



⑰ Cable outlet

End position monitoring for mounting in the C-slot

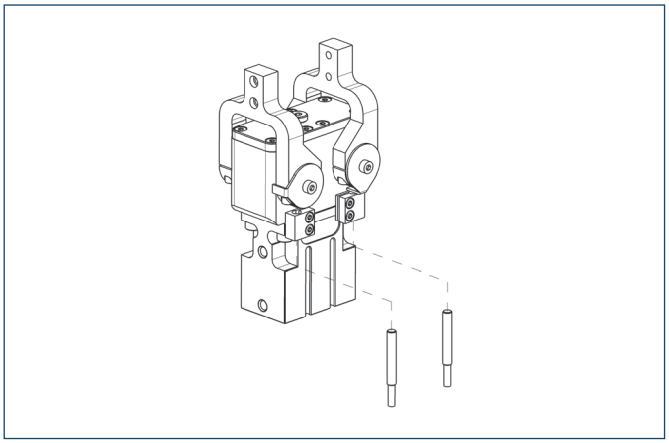
Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	**0301438**	
MMS 22-S-M5-NPN	**0301439**	
MMS 22-S-M8-PNP	**0301432**	•
MMS 22-S-M8-NPN	**0301433**	
MMSK 22-S-PNP	**0301434**	
MMSK 22-S-NPN	**0301435**	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	**0301448**	
MMS 22-S-M5-NPN-SA	**0301449**	
MMS 22-S-M8-PNP-SA	**0301442**	•
MMS 22-S-M8-NPN-SA	**0301443**	
MMSK 22-S-PNP-SA	**0301444**	
MMSK 22-S-NPN-SA	**0301445**	
Reed Switches		
RMS 22-S-M8	**0377720**	•
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-NPN	**0301602**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-NPN	**9641116**	
KA BW08-L 3P-0500-PNP	**0301502**	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.

Inductive proximity switches



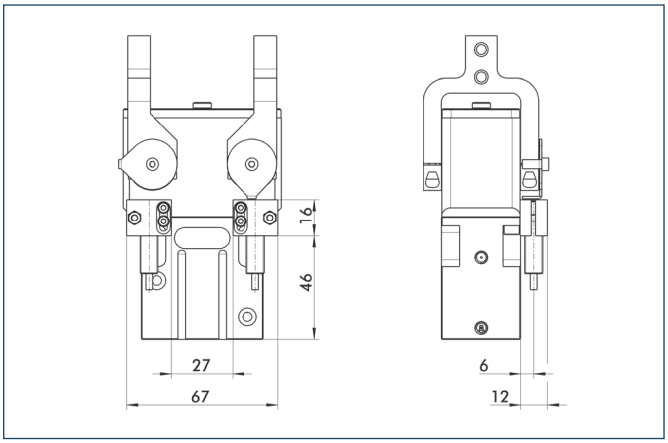
End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 40-S-M8	**0301474**	•
IN 40-S-M12	**0301574**	
INK 40-S	**0301555**	
IN 40-S-M5-PNP	**0301491**	
IN 40-S-M5-NPN	**0301492**	
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Mounting kit for proximity switch



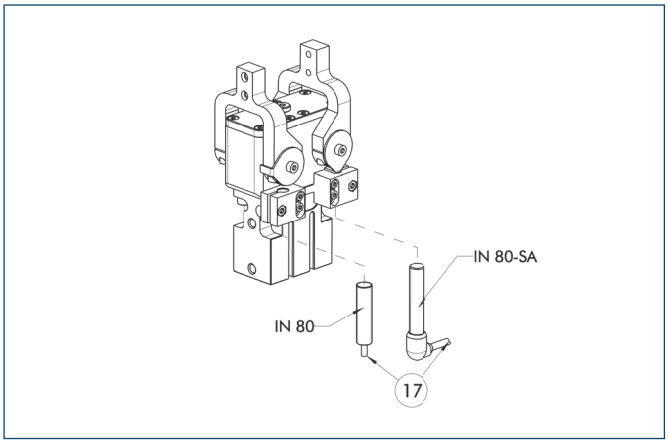
Description	ID
Mounting kit for proximity switch	
AS-DRG-44-80	**0304131**

ⓘ This mounting kit needs to be ordered optionally as an accessory.

180°

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

Inductive proximity switches



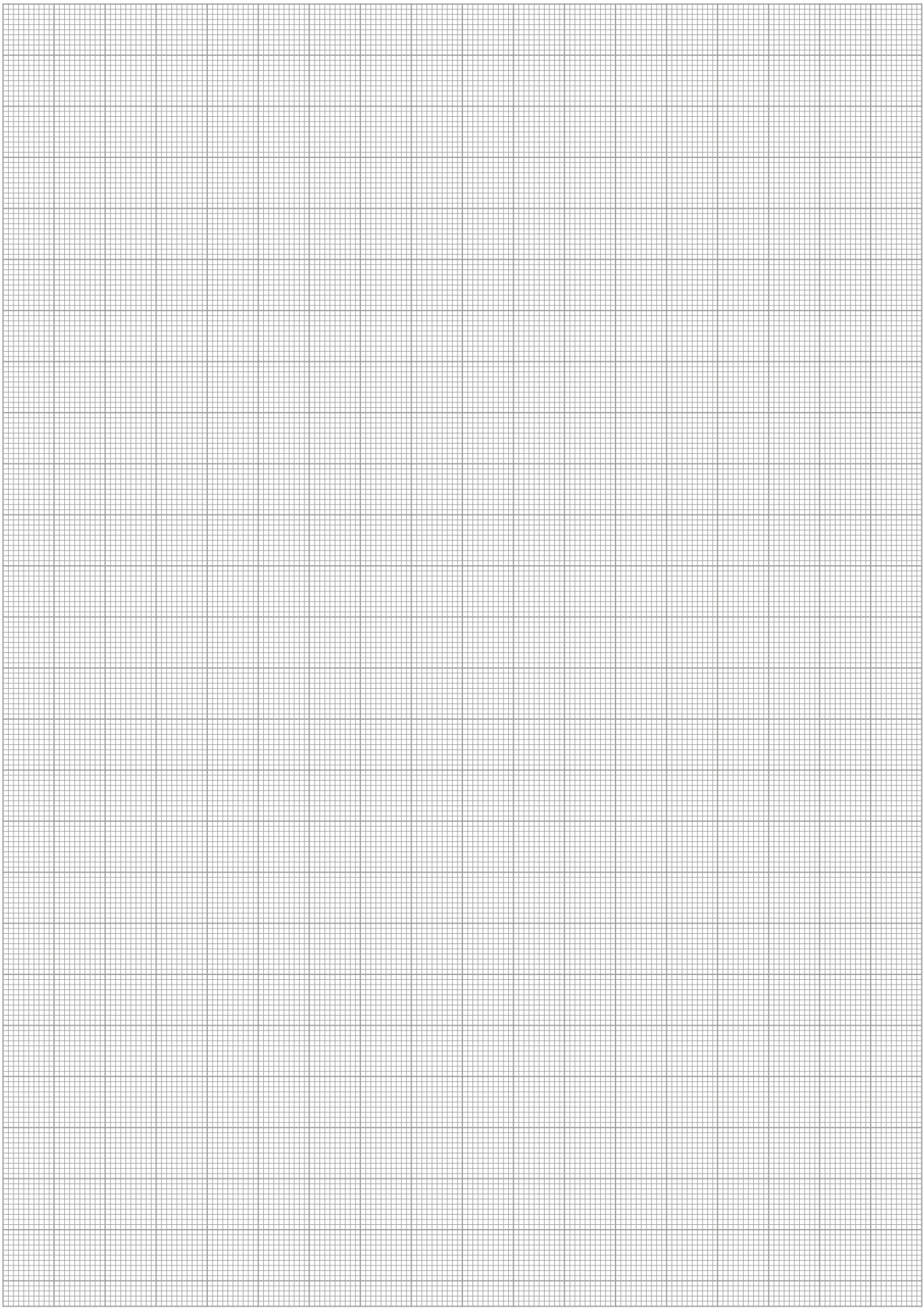
⑰ Cable outlet

End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-DRG-44-80	**0304131**	
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ This mounting kit needs to be ordered optionally as an accessory.
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

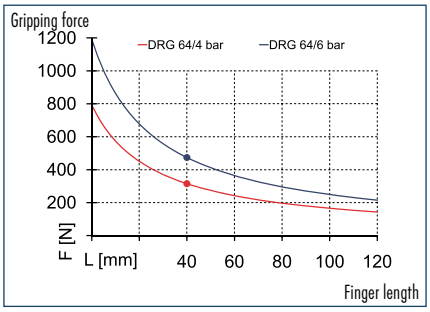
You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.



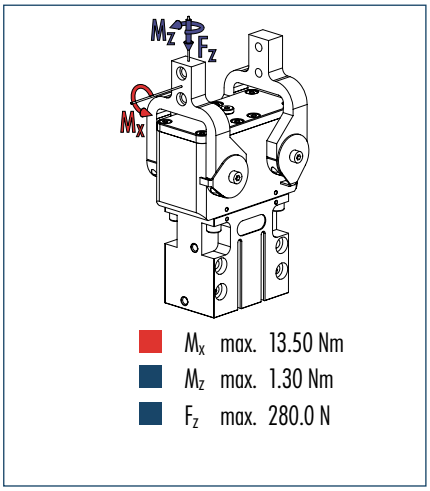
DRG 64

Pneumatic • 2-Finger Radial Gripper • Sealed Gripper

Gripping force, O.D. gripping



Finger load



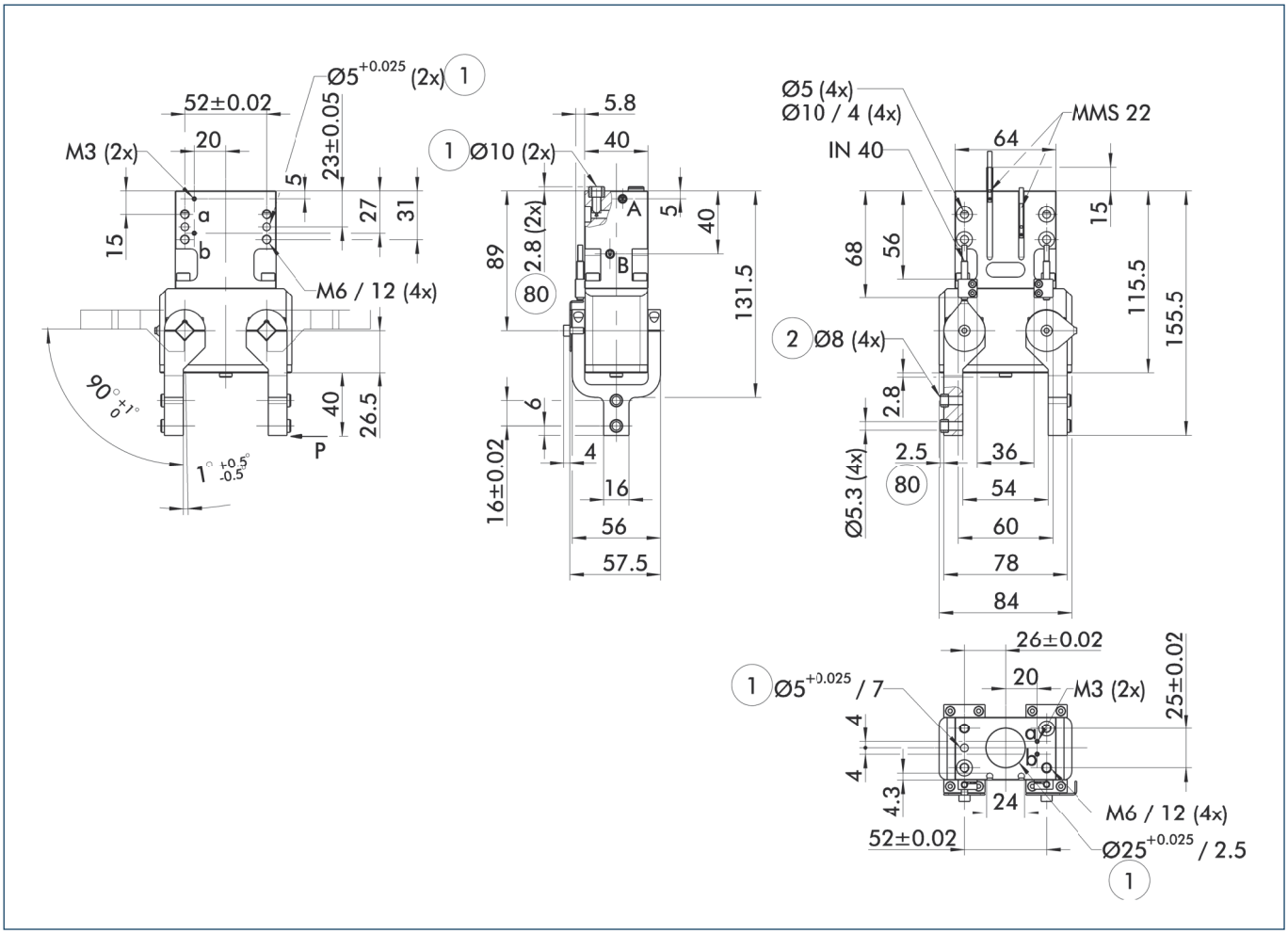
ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		DRG 64
ID		**0307108**
Opening angle per jaw	[°]	90
Closed angle per jaw up to	[°]	1.5
Closing moment	[Nm]	31.5
Spring-actuated closing moment	[Nm]	5.1
Weight	[kg]	1.15
Recommended workpiece weight	[kg]	2.4
Air consumption per double stroke	[cm³]	57
Min./max. operating pressure	[bar]	4/6.5
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.4/0.5
Max. permitted finger length	[mm]	80
Max. permitted weight per finger	[kg]	0.26
IP class		67
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.1
OPTIONS and their characteristics		
High-temperature version		**39307108**
Min./max. ambient temperature	[°C]	-10/130

ⓘ The opening angle of the base jaws can be limited.

Main view

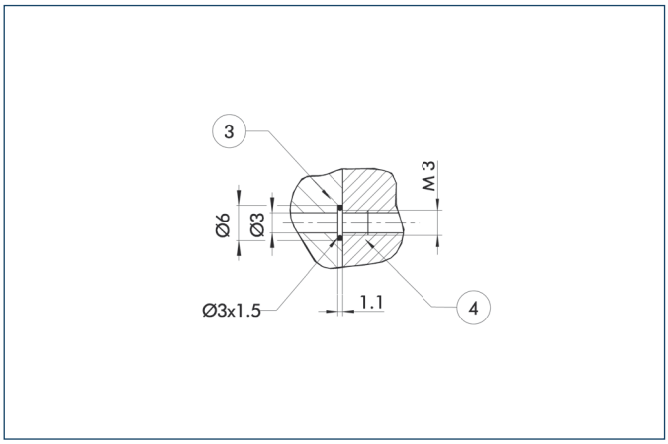


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a 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

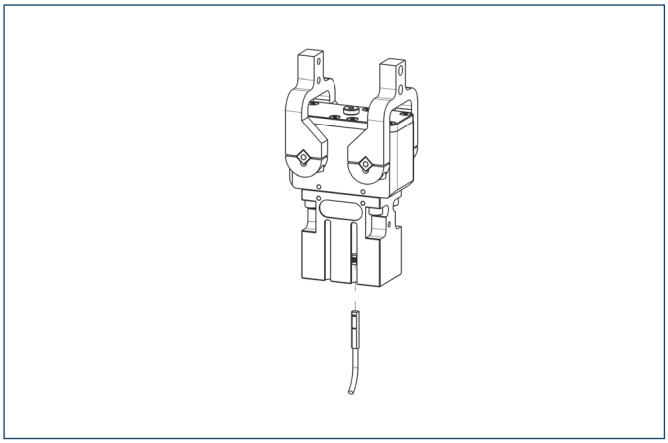
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Programmable magnetic switch



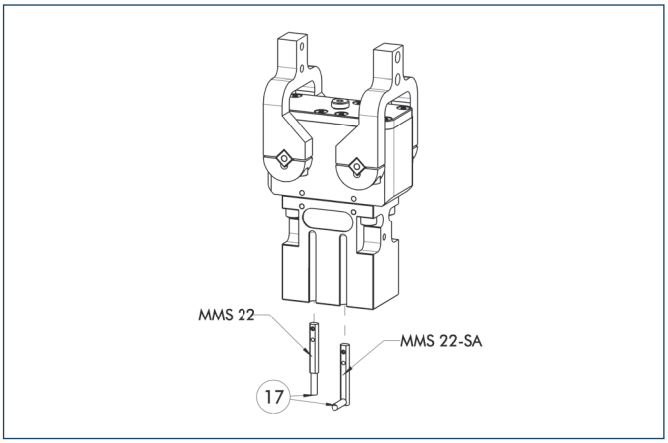
Position monitoring with two programmable positions per sensor. The end position monitoring is mounted in the C-slot.

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**	

ⓘ 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.

Electronic magnetic switches



⑰ Cable outlet

End position monitoring for mounting in the C-slot

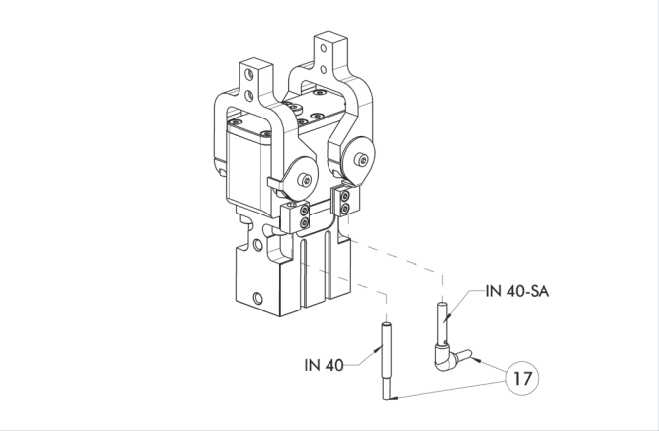
Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	**0301438**	
MMS 22-S-M5-NPN	**0301439**	
MMS 22-S-M8-PNP	**0301432**	•
MMS 22-S-M8-NPN	**0301433**	
MMSK 22-S-PNP	**0301434**	
MMSK 22-S-NPN	**0301435**	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	**0301448**	
MMS 22-S-M5-NPN-SA	**0301449**	
MMS 22-S-M8-PNP-SA	**0301442**	•
MMS 22-S-M8-NPN-SA	**0301443**	
MMSK 22-S-PNP-SA	**0301444**	
MMSK 22-S-NPN-SA	**0301445**	
Reed Switches		
RMS 22-S-M8	**0377720**	•
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-NPN	**0301602**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-NPN	**9641116**	
KA BW08-L 3P-0500-PNP	**0301502**	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.

Inductive proximity switches



⑰ Cable outlet

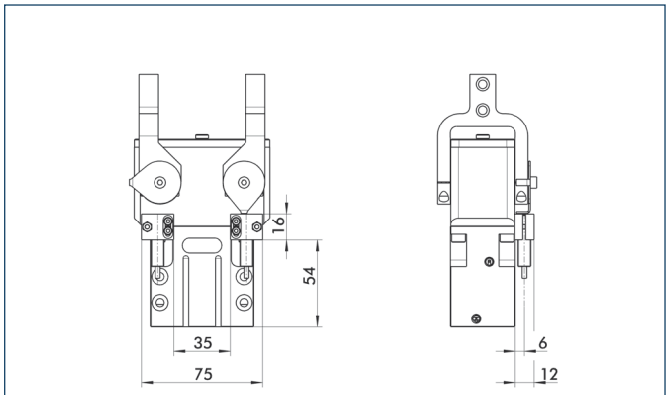
End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 40-S-M8	**0301474**	•
IN 40-S-M12	**0301574**	
INK 40-S	**0301555**	
IN 40-O-M8	**0301484**	
IN 40-O-M12	**0301584**	
INK 40-O	**0301556**	
IN 40-S-M5-PNP	**0301491**	
IN 40-S-M5-NPN	**0301492**	
Inductive proximity switch with lateral outlet		
IN 40-S-M12-SA	**0301577**	
IN 40-S-M8-SA	**0301473**	•
INK 40-S-SA	**0301565**	
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Mounting kit for proximity switch



The mounting kit consists of brackets and the appropriate fastening materials. Proximity switches have to be ordered separately.

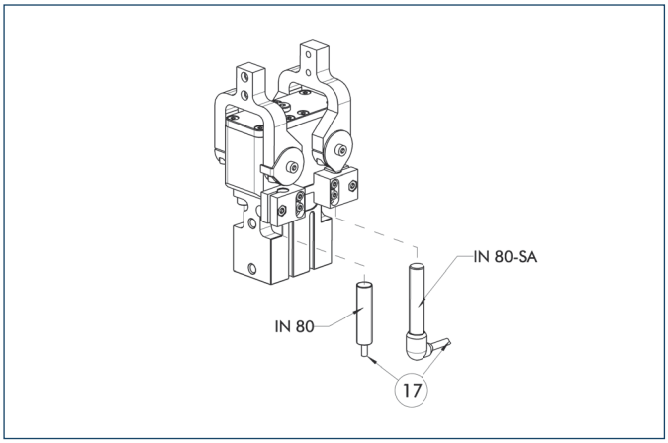
Description	ID
Mounting kit for proximity switch	
AS-DRG-44-80	**0304131**

ⓘ This mounting kit needs to be ordered optionally as an accessory.

180°

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

Inductive proximity switches



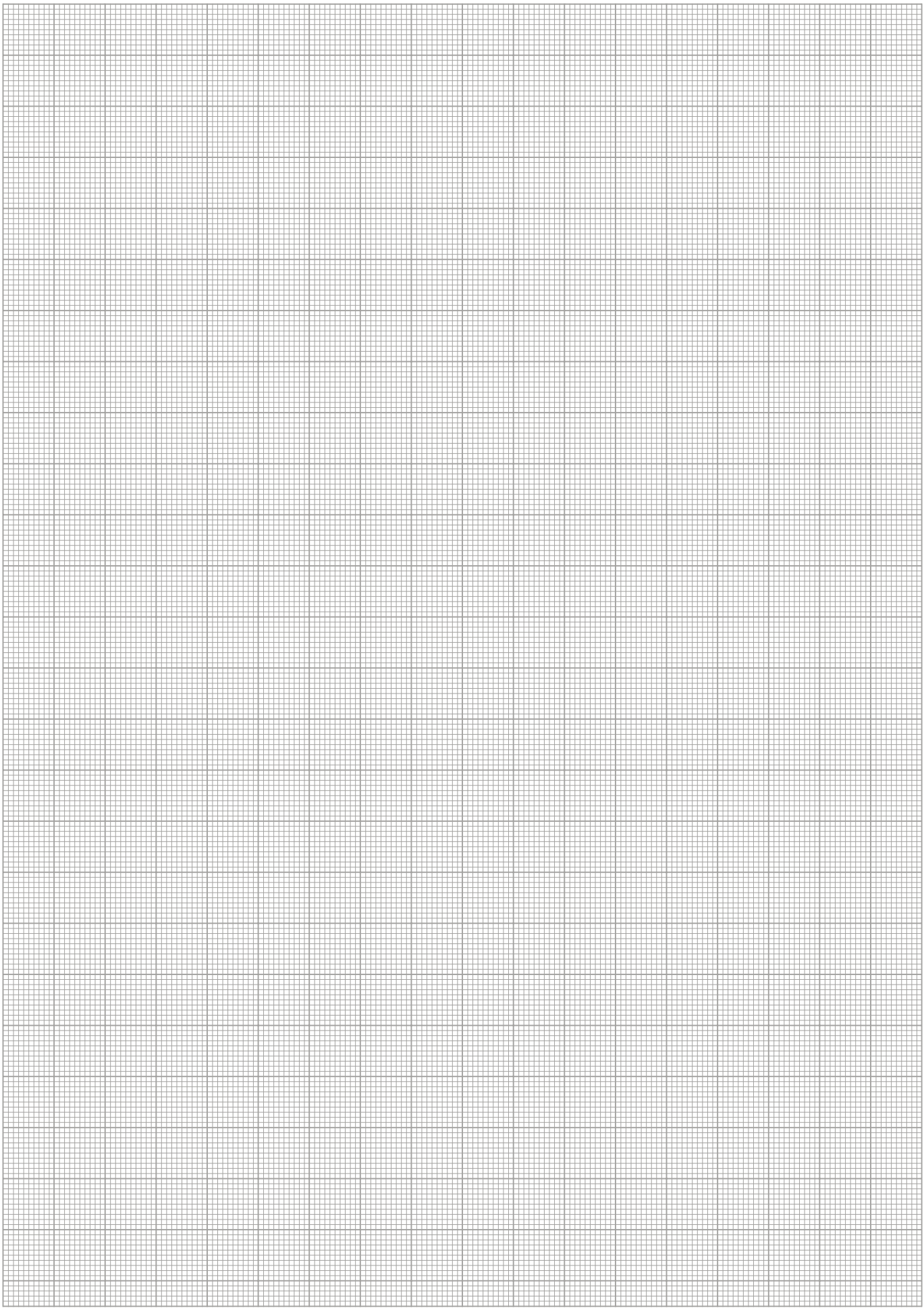
⑰ Cable outlet

End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-DRG-44-80	**0304131**	
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ This mounting kit needs to be ordered optionally as an accessory.
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

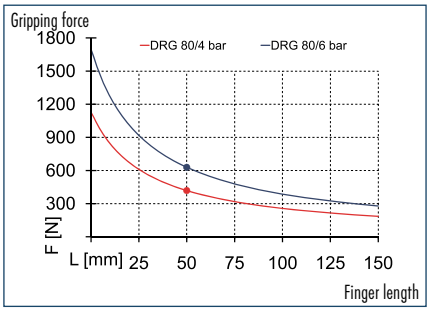
You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.



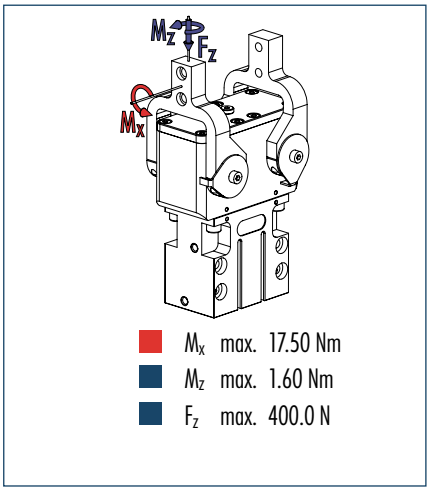
DRG 80

Pneumatic • 2-Finger Radial Gripper • Sealed Gripper

Gripping force, O.D. gripping



Finger load



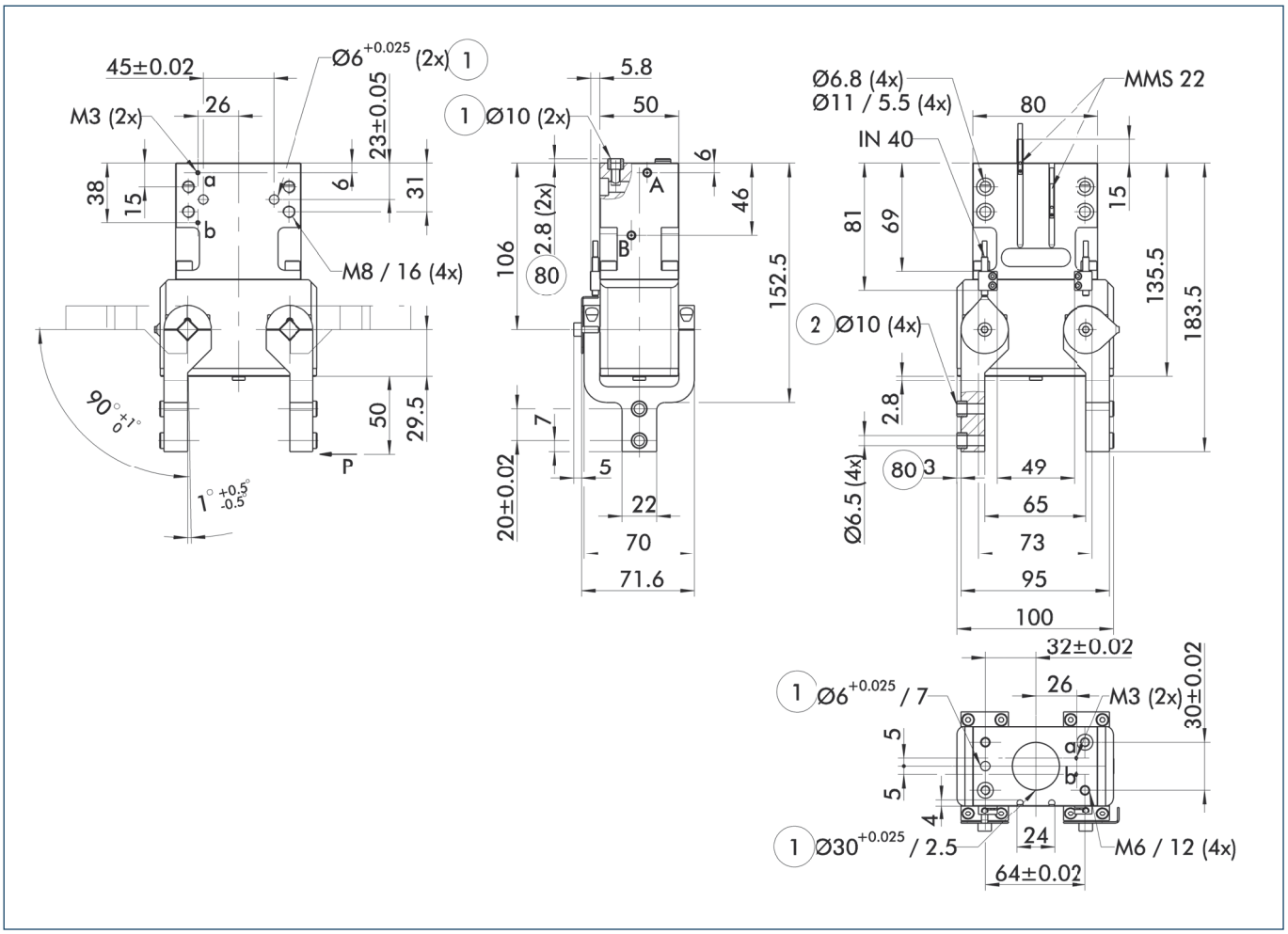
ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		DRG 80
ID		**0307109**
Opening angle per jaw	[°]	90
Closed angle per jaw up to	[°]	1.5
Closing moment	[Nm]	50
Spring-actuated closing moment	[Nm]	8.1
Weight	[kg]	2
Recommended workpiece weight	[kg]	3.2
Air consumption per double stroke	[cm³]	110
Min./max. operating pressure	[bar]	4/6.5
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.5/0.6
Max. permitted finger length	[mm]	100
Max. permitted weight per finger	[kg]	0.5
IP class		67
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.1
OPTIONS and their characteristics		
High-temperature version		**39307109**
Min./max. ambient temperature	[°C]	-10/130

ⓘ The opening angle of the base jaws can be limited.

Main view

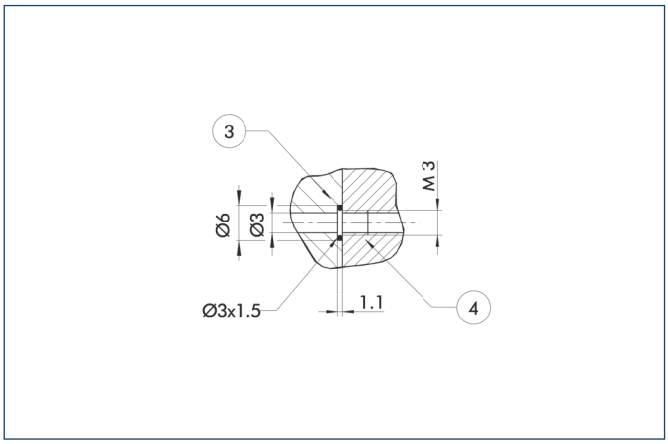


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a 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

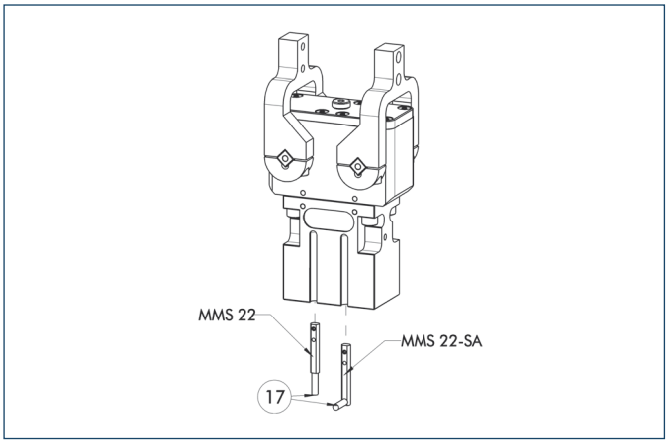
Hose-free direct connection



③ Adapter
④ Gripper

The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Electronic magnetic switches



⑰ Cable outlet

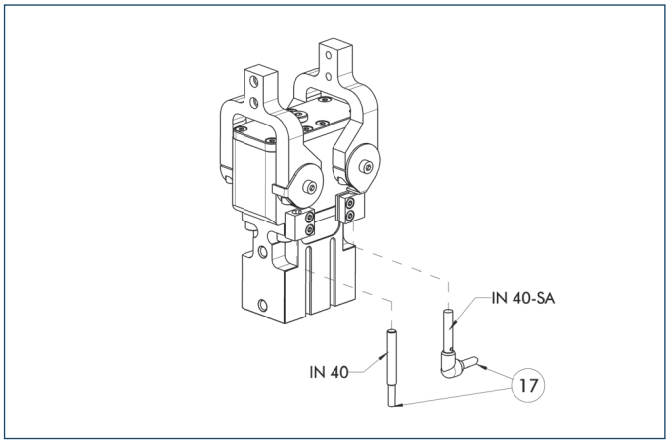
End position monitoring for mounting in the C-slot

Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	**0301438**	
MMS 22-S-M5-NPN	**0301439**	
MMS 22-S-M8-PNP	**0301432**	•
MMS 22-S-M8-NPN	**0301433**	
MMSK 22-S-PNP	**0301434**	
MMSK 22-S-NPN	**0301435**	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	**0301448**	
MMS 22-S-M5-NPN-SA	**0301449**	
MMS 22-S-M8-PNP-SA	**0301442**	•
MMS 22-S-M8-NPN-SA	**0301443**	
MMSK 22-S-PNP-SA	**0301444**	
MMSK 22-S-NPN-SA	**0301445**	
Reed Switches		
RMS 22-S-M8	**0377720**	•
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-NPN	**0301602**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-NPN	**9641116**	
KA BW08-L 3P-0500-PNP	**0301502**	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Inductive proximity switches



⑰ Cable outlet

End position monitoring for direct mounting

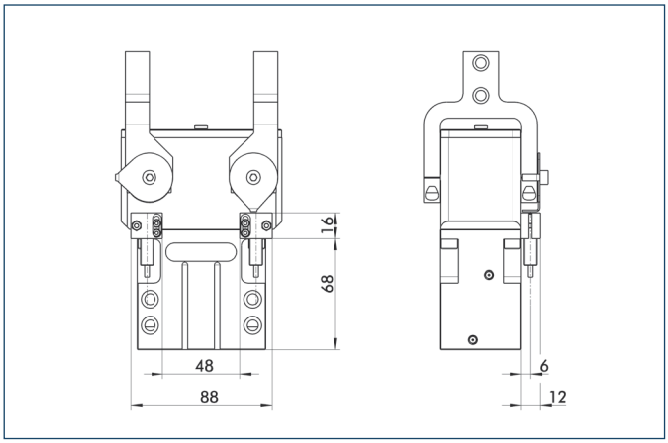
Description	ID	Recommended product
Inductive proximity switches		
IN 40-S-M8	**0301474**	•
IN 40-S-M12	**0301574**	
INK 40-S	**0301555**	
IN 40-S-M5-PNP	**0301491**	
IN 40-S-M5-NPN	**0301492**	
Inductive proximity switch with lateral outlet		
IN 40-S-M12-SA	**0301577**	
IN 40-S-M8-SA	**0301473**	•
INK 40-S-SA	**0301565**	
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.

Mounting kit for proximity switch

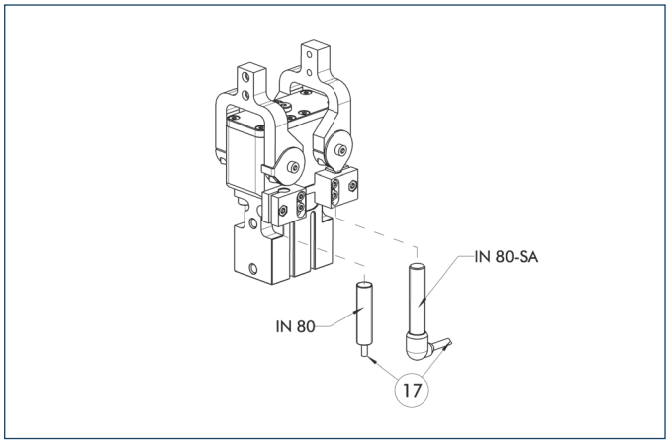


The mounting kit consists of brackets and the appropriate fastening materials. Proximity switches have to be ordered separately.

Description	ID
Mounting kit for proximity switch	
AS-DRG-44-80	**0304131**

ⓘ This mounting kit needs to be ordered optionally as an accessory.

Inductive proximity switches



⑰ Cable outlet

End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-DRG-44-80	**0304131**	
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	

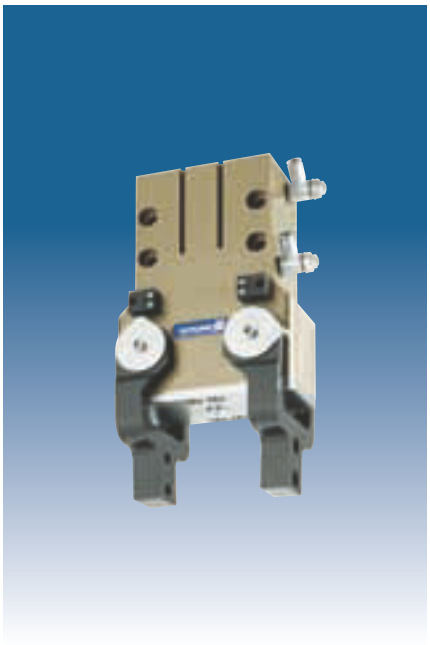
ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
ⓘ This mounting kit needs to be ordered optionally as an accessory.
ⓘ Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

180°

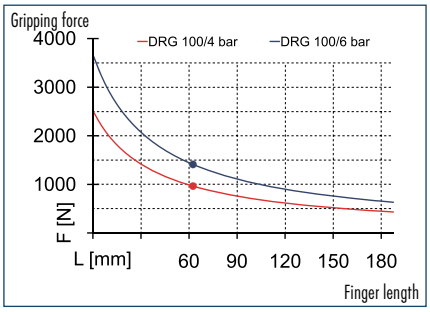
You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.

DRG 100

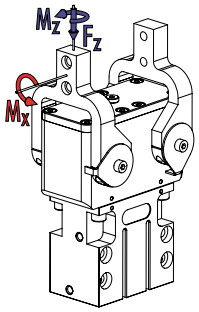
Pneumatic • 2-Finger Radial Gripper • Sealed Gripper



Gripping force, O.D. gripping



Finger load



M_x max. 35.00 Nm
M_z max. 10.00 Nm
F_z max. 1200.0 N

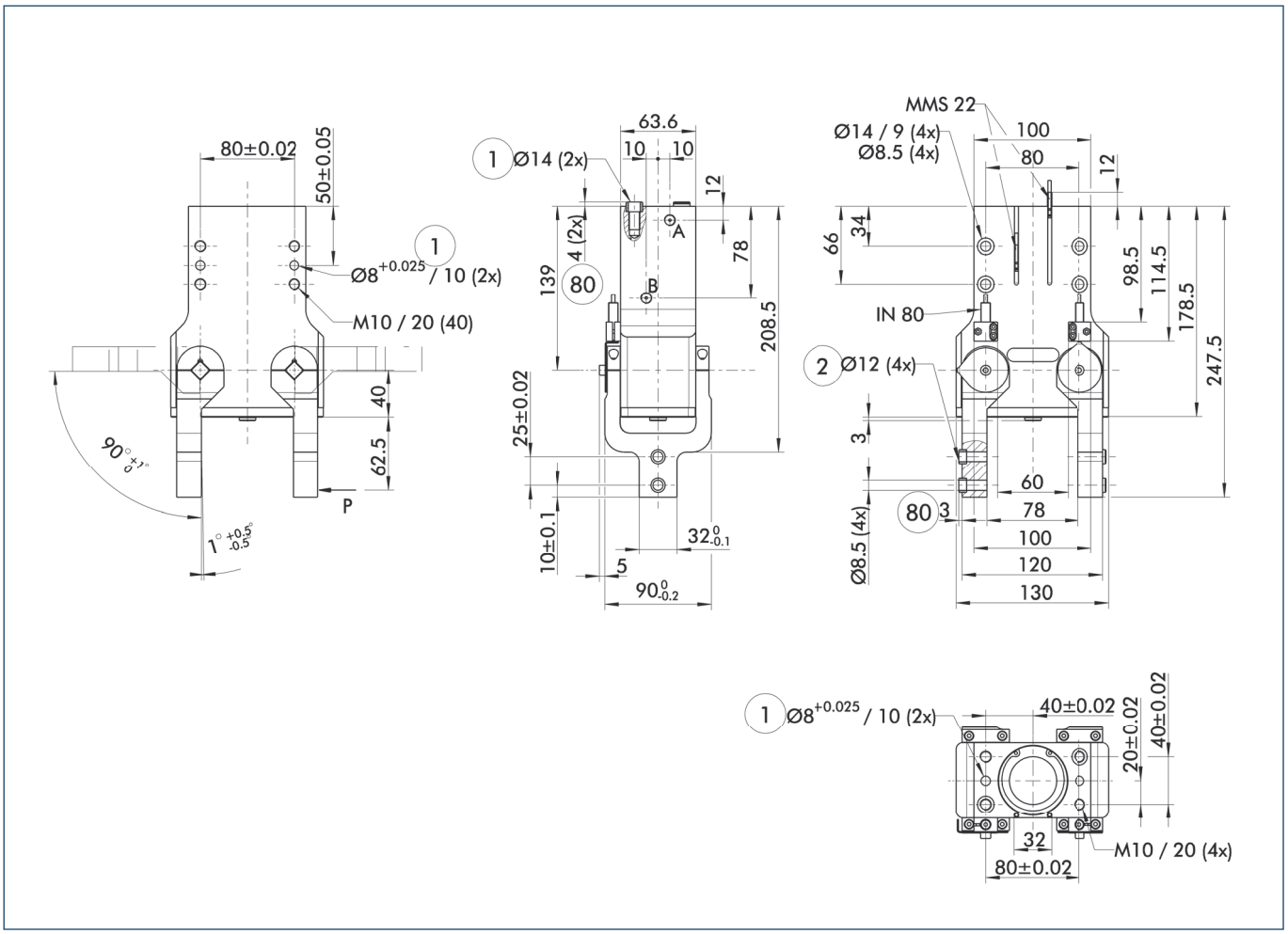
ⓘ The indicated moments and forces are statical values, apply for each base jaw and should not appear simultaneously. If the maximum admissible finger weight is exceeded, throttling is necessary in order to ensure a smooth jaw motion without jerks or bounces. The life-time may reduce.

Technical data

Description		DRG 100
ID		**0307110**
Opening angle per jaw	[°]	90
Closed angle per jaw up to	[°]	1.5
Closing moment	[Nm]	143
Spring-actuated closing moment	[Nm]	30
Weight	[kg]	4.46
Recommended workpiece weight	[kg]	7.2
Air consumption per double stroke	[cm³]	217
Min./max. operating pressure	[bar]	4/6.5
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.3/0.6
Max. permitted finger length	[mm]	125
Max. permitted weight per finger	[kg]	1
IP class		67
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.1
OPTIONS and their characteristics		
High-temperature version		**39307110**
Min./max. ambient temperature	[°C]	-10/130

ⓘ The opening angle of the base jaws can be limited.

Main view

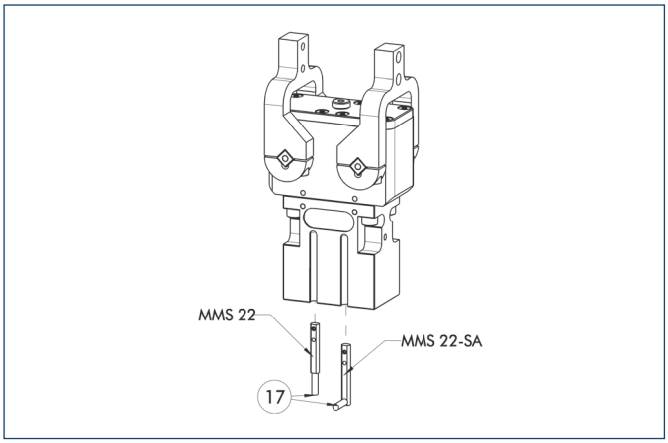


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

ⓘ The SDV-P pressure maintenance valve can be used as a 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

Electronic magnetic switches



⑰ Cable outlet

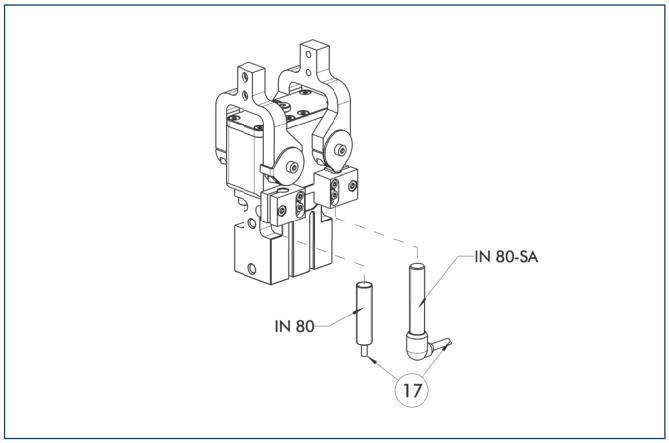
End position monitoring for mounting in the C-slot

Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	**0301438**	
MMS 22-S-M5-NPN	**0301439**	
MMS 22-S-M8-PNP	**0301432**	•
MMS 22-S-M8-NPN	**0301433**	
MMSK 22-S-PNP	**0301434**	
MMSK 22-S-NPN	**0301435**	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	**0301448**	
MMS 22-S-M5-NPN-SA	**0301449**	
MMS 22-S-M8-PNP-SA	**0301442**	•
MMS 22-S-M8-NPN-SA	**0301443**	
MMSK 22-S-PNP-SA	**0301444**	
MMSK 22-S-NPN-SA	**0301445**	
Reed Switches		
RMS 22-S-M8	**0377720**	•
Connection cables		
KA BG05-L 3P-0300	**0301652**	
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BW05-L 3P-0300	**0301650**	
KA BW08-L 3P-0300-NPN	**0301602**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-NPN	**9641116**	
KA BW08-L 3P-0500-PNP	**0301502**	
Cable extensions		
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

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

Inductive proximity switches



⑰ Cable outlet

End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 80-S-M8	**0301478**	•
IN 80-S-M12	**0301578**	
INK 80-S	**0301550**	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	**0301587**	
IN 80-S-M8-SA	**0301483**	•
INK 80-S-SA	**0301566**	
Connection cables		
KA BG08-L 3P-0300-PNP	**0301622**	
KA BG08-L 3P-0500-PNP	**0301623**	
KA BG12-L 3P-0500-PNP	**30016369**	
KA BW08-L 3P-0300-PNP	**0301594**	
KA BW08-L 3P-0500-PNP	**0301502**	
KA BW12-L 3P-0300-PNP	**0301503**	
KA BW12-L 3P-0500-PNP	**0301507**	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	**0301999**	
KV BG12-SG12 3P-0060-PNP	**0301998**	
KV BW08-SG08 3P-0030-PNP	**0301495**	
KV BW08-SG08 3P-0100-PNP	**0301496**	
KV BW08-SG08 3P-0200-PNP	**0301497**	
KV BW12-SG12 3P-0030-PNP	**0301595**	
KV BW12-SG12 3P-0100-PNP	**0301596**	
KV BW12-SG12 3P-0200-PNP	**0301597**	

ⓘ Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

ⓘ 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.