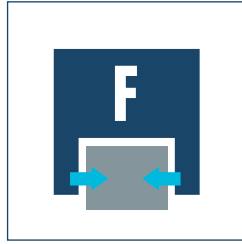




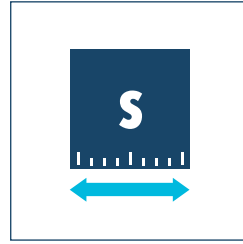
Sizes
60 ... 280



Weight
0.09 kg ... 4.2 kg



Gripping force
45 N ... 540 N

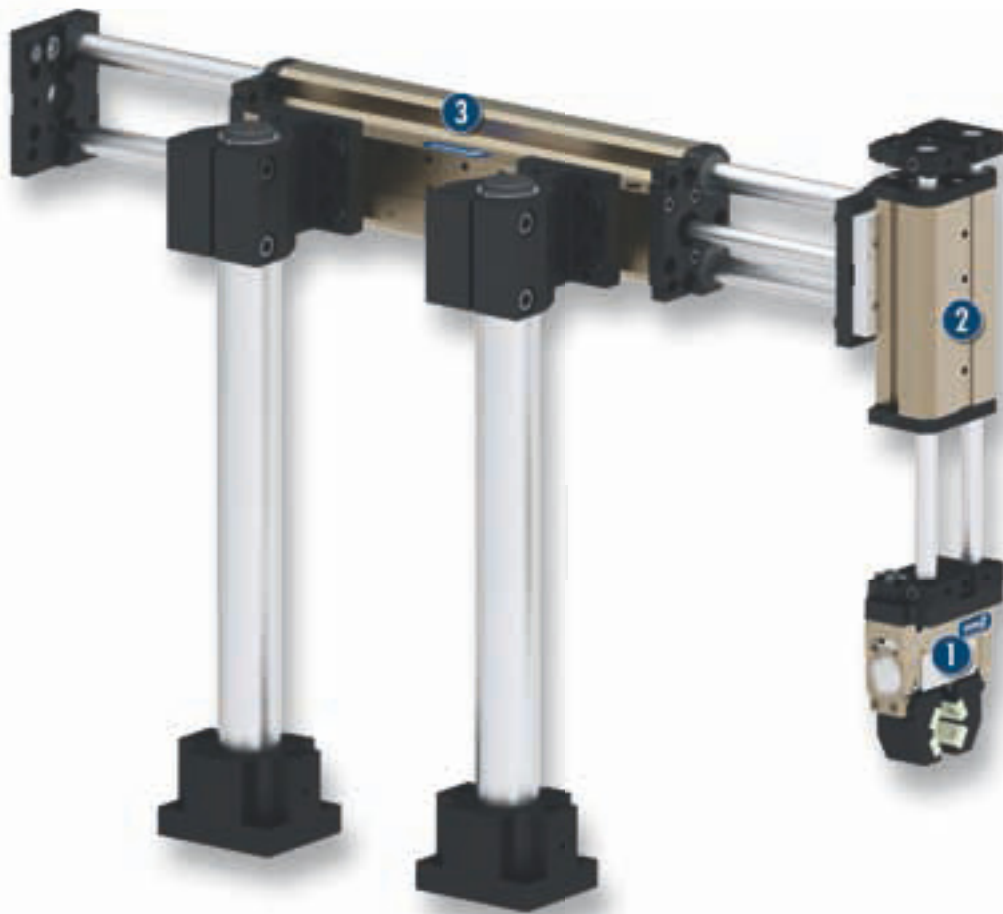


Stroke per finger
10 mm ... 60 mm



Workpiece weight
0.23 kg ... 2.7 kg

Application example



Ejection unit for small components, which require an especially long gripper stroke due to their great variation in size

- 1 KGG 2-Finger Parallel Gripper with workpiece-specific fingers
- 2 FST-S Mini-slide for horizontal movement
- 3 FST-S Mini-slide for vertical movement

Gripper for small components

narrow 2-finger parallel gripper with long stroke

Field of application

for universal use in clean environments with light to medium workpiece weights and a large stroke range

Your advantages and benefits

Robust T-slot guidance

for high maximum moments

Pneumatic 2-piston drive design

for direct power transmission and high efficiency

Rack and pinion principle

for centric clamping

Mounting from two sides in three screw directions possible

for universal and flexible gripper assembly

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

Directly driven base jaws, synchronized by rack and pinion

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)

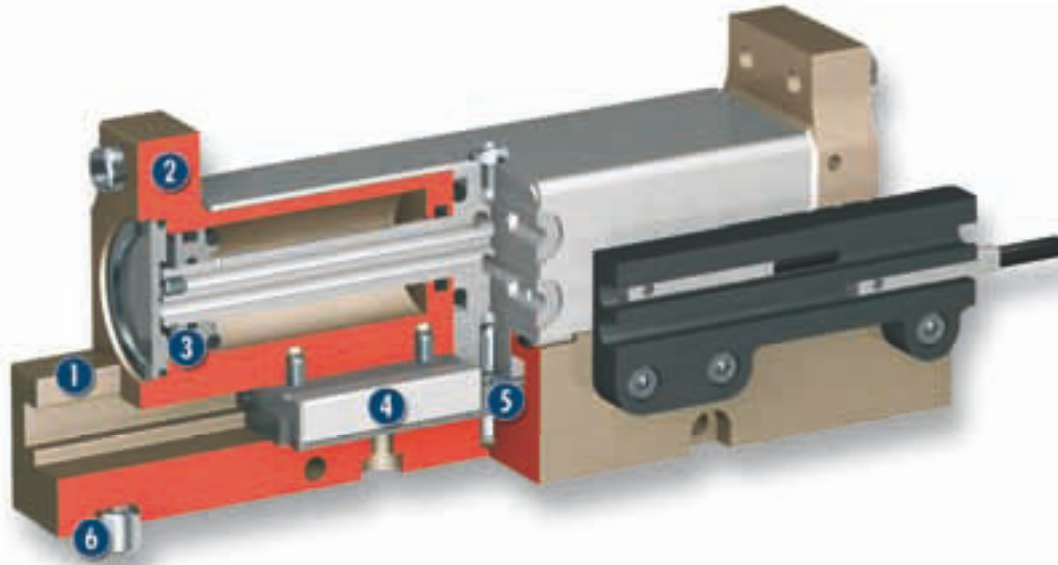
Scope of delivery

Brackets for proximity switches, centering sleeves, 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 Housing**
weight-optimized through application of hard-anodized, high-strength aluminum alloy
- 2 Base jaw**
for the connection of workpiece-specific gripper fingers
- 3 Drive**
pneumatic 2-piston system
- 4 Guidance**
high maximum moments due to the robust T-slot guidance
- 5 Kinematics**
pinion and rack principle for centric clamping, even at large strokes
- 6 Centering and mounting possibilities**
for assembly of the gripper to a base area and at the long side

Functional description

The aligned base jaws are actuated with compressed air directly by the fixed piston, which opens and closes them.
The base jaws are synchronized by the internal rack and pinion arrangement.

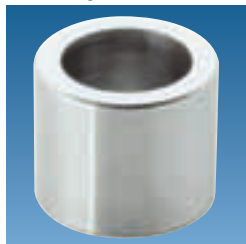
Options and special information

Please note that the mass moment of inertia of the gripper fingers must be kept to a minimum in the case of long-stroke grippers.

Accessories

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

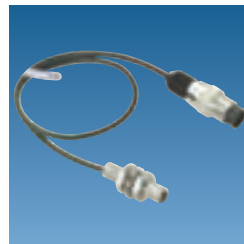
Centering sleeves



Fittings



Inductive proximity switches



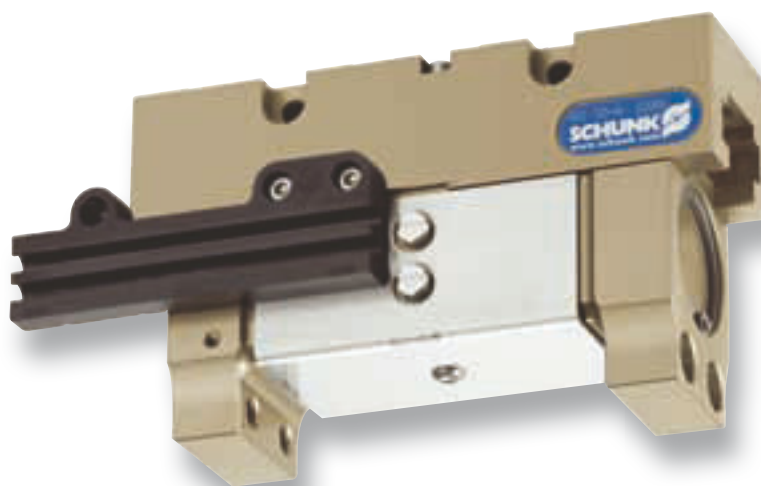
Magnetic Switches



Carbide clamping inserts



Plastic inserts



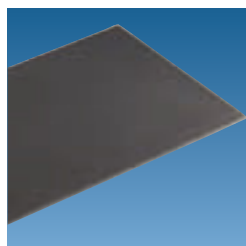
Sensor cables



Sensor Distributor



Gripper pads



Pressure maintenance valve



Finger blanks



Flexible Position Sensor



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

General note to the series

Gripping force

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

Finger length

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

Repeat accuracy

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

Workpiece weight

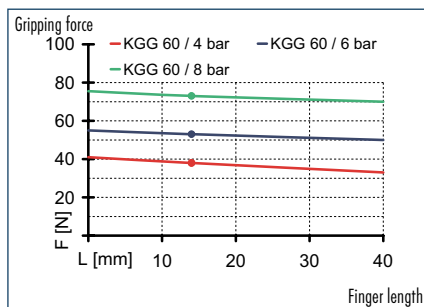
The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit gripping.

Closing and opening times

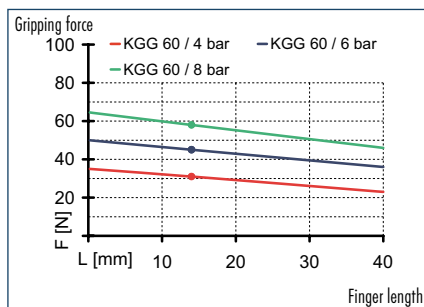
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.



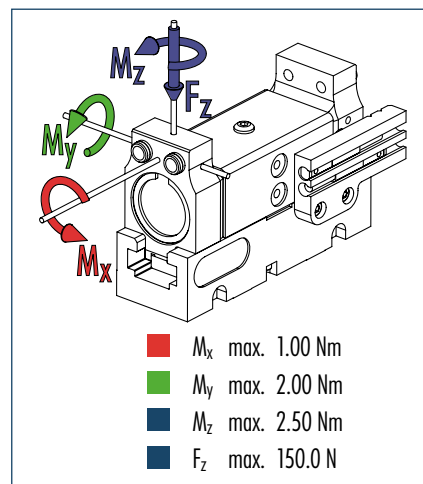
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



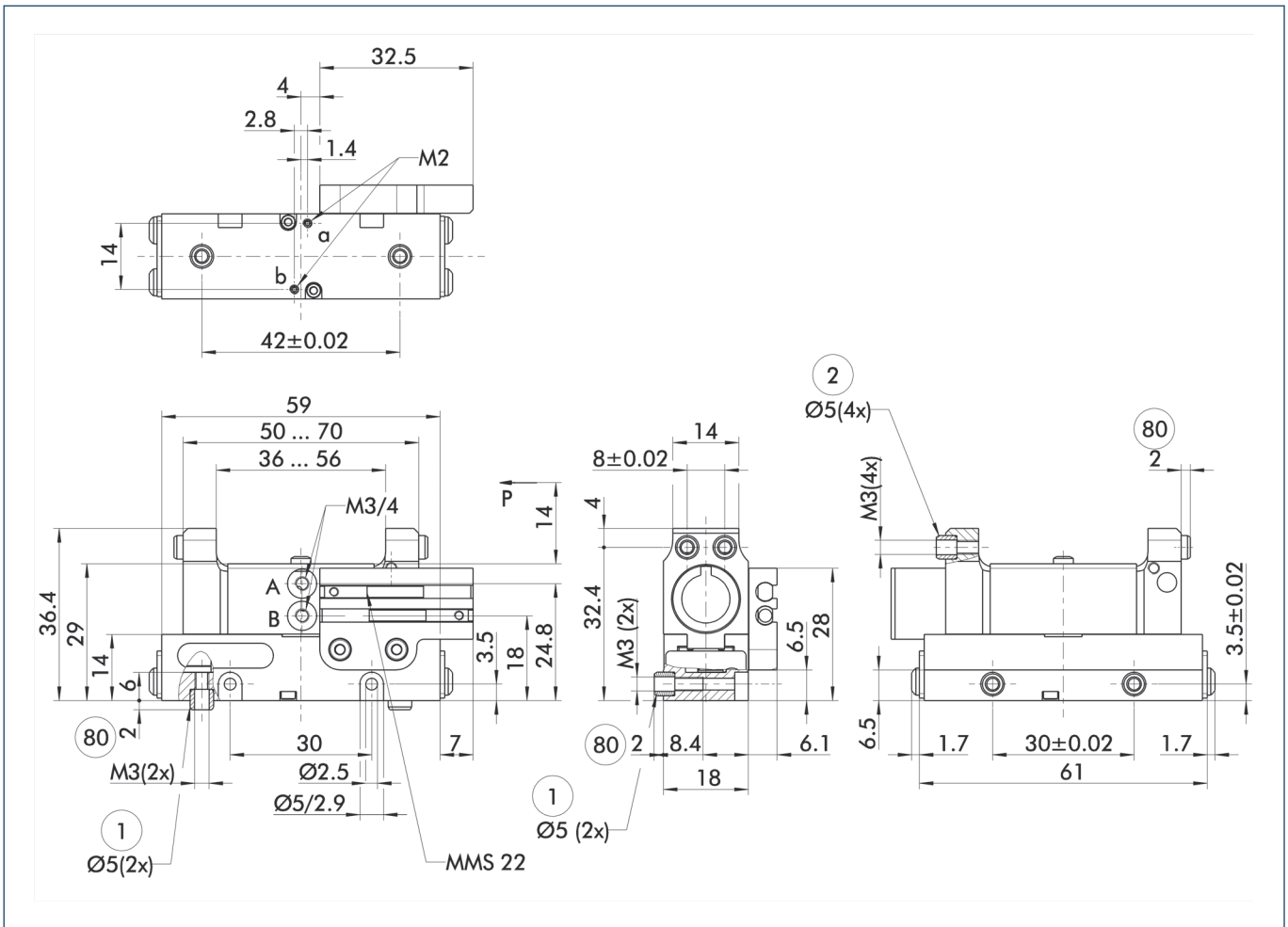
① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement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

Technical data

Description		KGG 60-20	KGG 60-40
ID		0303050	0303051
Stroke per finger	[mm]	10	20
Closing force	[N]	45	45
Opening force	[N]	53	53
Weight	[kg]	0.09	0.11
Recommended workpiece weight	[kg]	0.23	0.23
Air consumption per double stroke	[cm ³]	3	6
Min./max. operating pressure	[bar]	2/8	2/8
Nominal operating pressure	[bar]	6	6
Closing/opening time	[s]	0.03/0.03	0.04/0.04
Max. permitted finger length	[mm]	42	42
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

① Requirements to the evenness of the mounting face (relating to the total gripper connection surface) less than 0.02 mm at an edge length of up to 100 mm / more than 0.05 mm at an edge length of more than 100 mm.

Main view



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

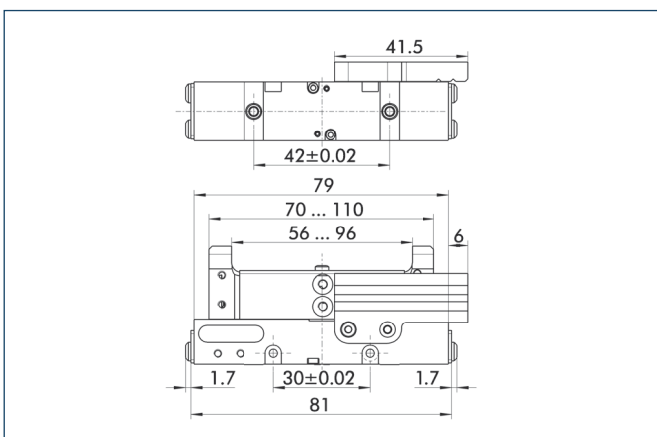
① The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

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

① Gripper connection
② Finger connection

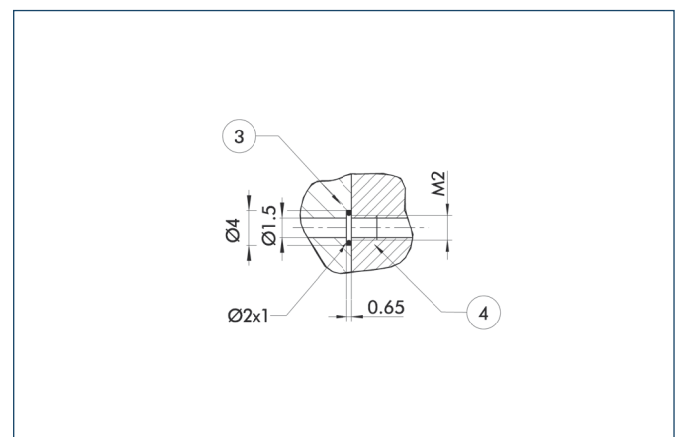
⊘ Depth of the centering sleeve hole in the matching part

Stroke versions



The drawing shows changes in dimensions of the versions with a differing stroke compared to the main view of the shown version.

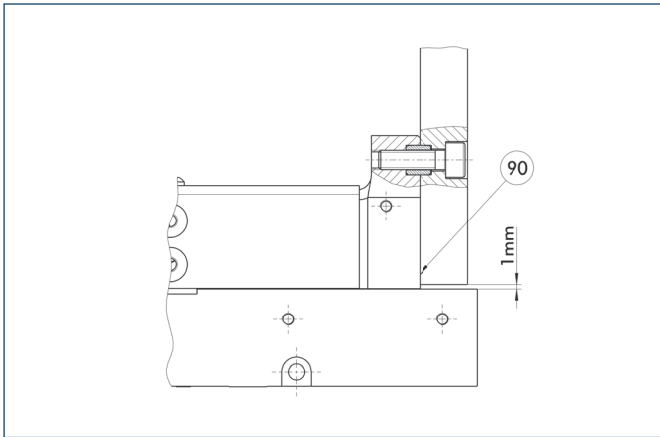
Hose-free direct connection



③ Adapter
④ Gripper

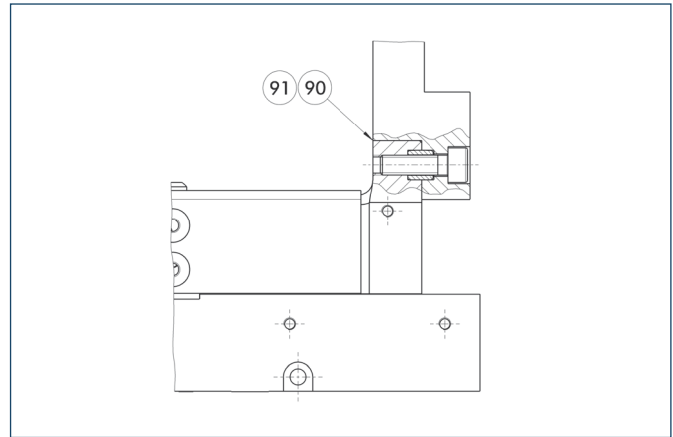
The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Jaw design O.D. gripping



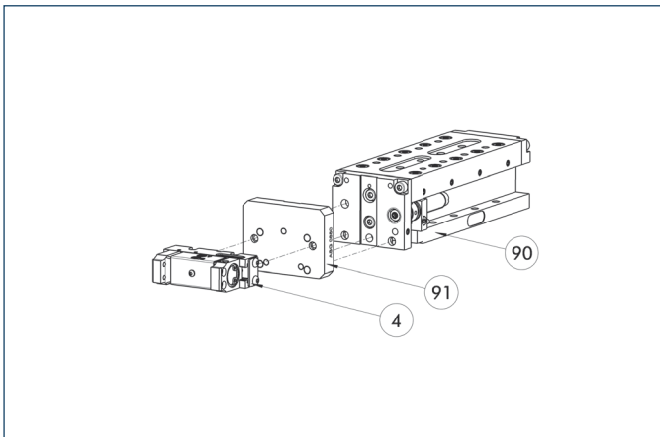
90 Support top jaws at the base jaw

Jaw design I.D. gripping



90 Support top jaws at the base jaw
91 For dimensions of steps at the top jaw see drawings of finger blanks

Modular Assembly Automation

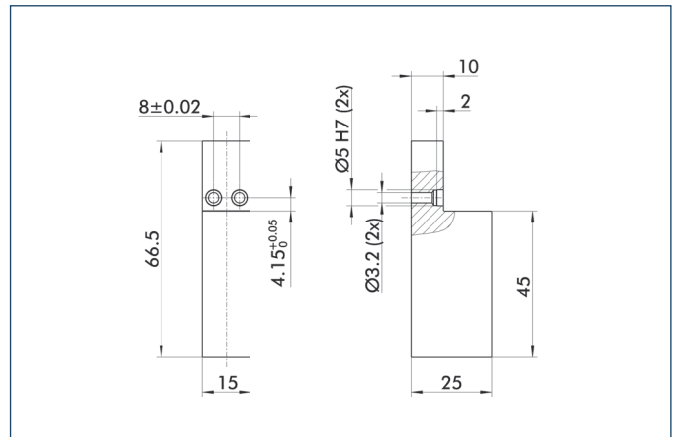


4 Gripper
90 CLM

91 ASG

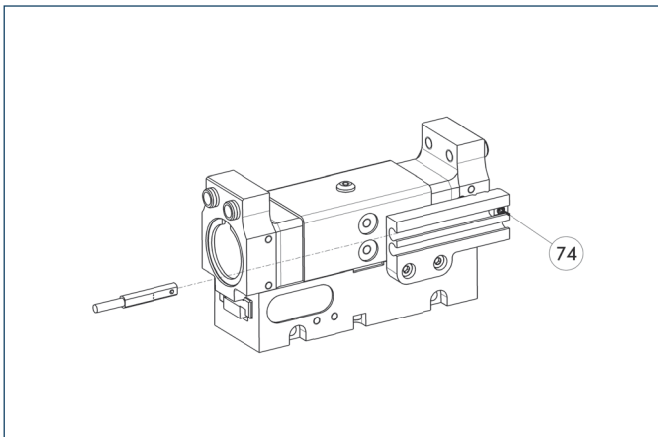
This gripper can be combined with the standard linear modules LM, KLM, CLM and ELM of the GEMOTEC modular system. For more information see our main catalog "Modular Assembly Automation".

Finger blanks



Description	ID	Material	Scope of delivery
Finger blanks			
RB 60	0303087	Aluminum	2

Programmable magnetic switch



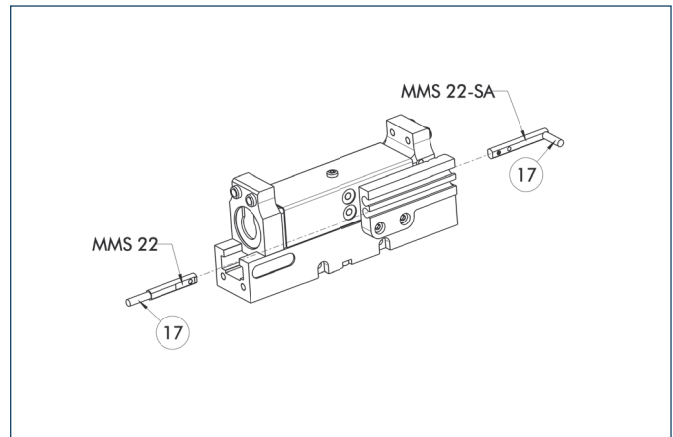
74 Stop for MMS-P

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	

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.
- ① Per gripper one sensor (closer/NO) is required, optionally a cable extension.
- ① Within the KGG series, the MMS-P could just cover the whole piston area of KGG 60-20/70-24/80-30

Electronic magnetic switches



17 Cable outlet

End position monitoring for mounting in the C-slot

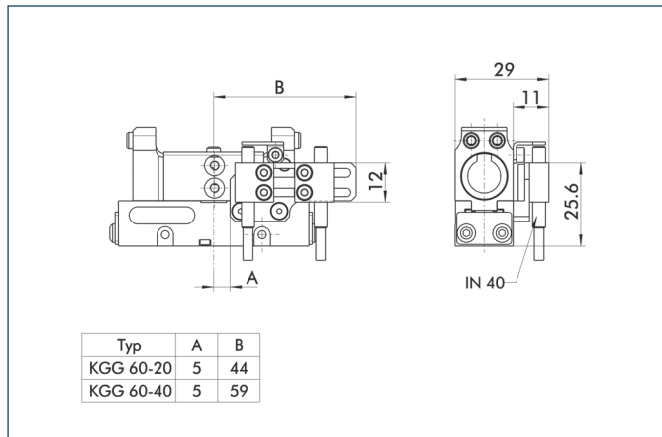
Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	0301438	
MMS 22-S-M5-NPN	0301439	
MMS 22-S-M8-PNP	0301432	•
MMS 22-S-M8-NPN	0301433	
MMSK 22-S-PNP	0301434	
MMSK 22-S-NPN	0301435	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	0301448	
MMS 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	

- ① Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



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

Mounting kit for proximity switch

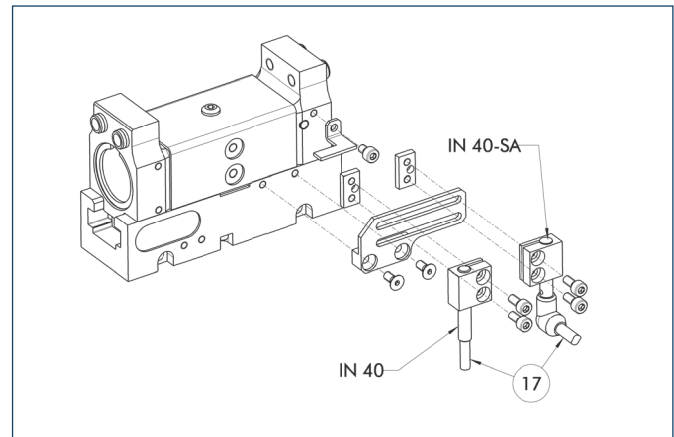


The mounting kit includes a bracket, switch cams and mounting screws. Proximity switches must be ordered separately.

Description	ID
Mounting kit for proximity switch	
AS-KGG 60-40 / 70-48	0303080
AS-KGG 60-20 / 70-24	0303081

① This mounting kit needs to be ordered optionally as an accessory.

Inductive proximity switches



⑰ Cable outlet

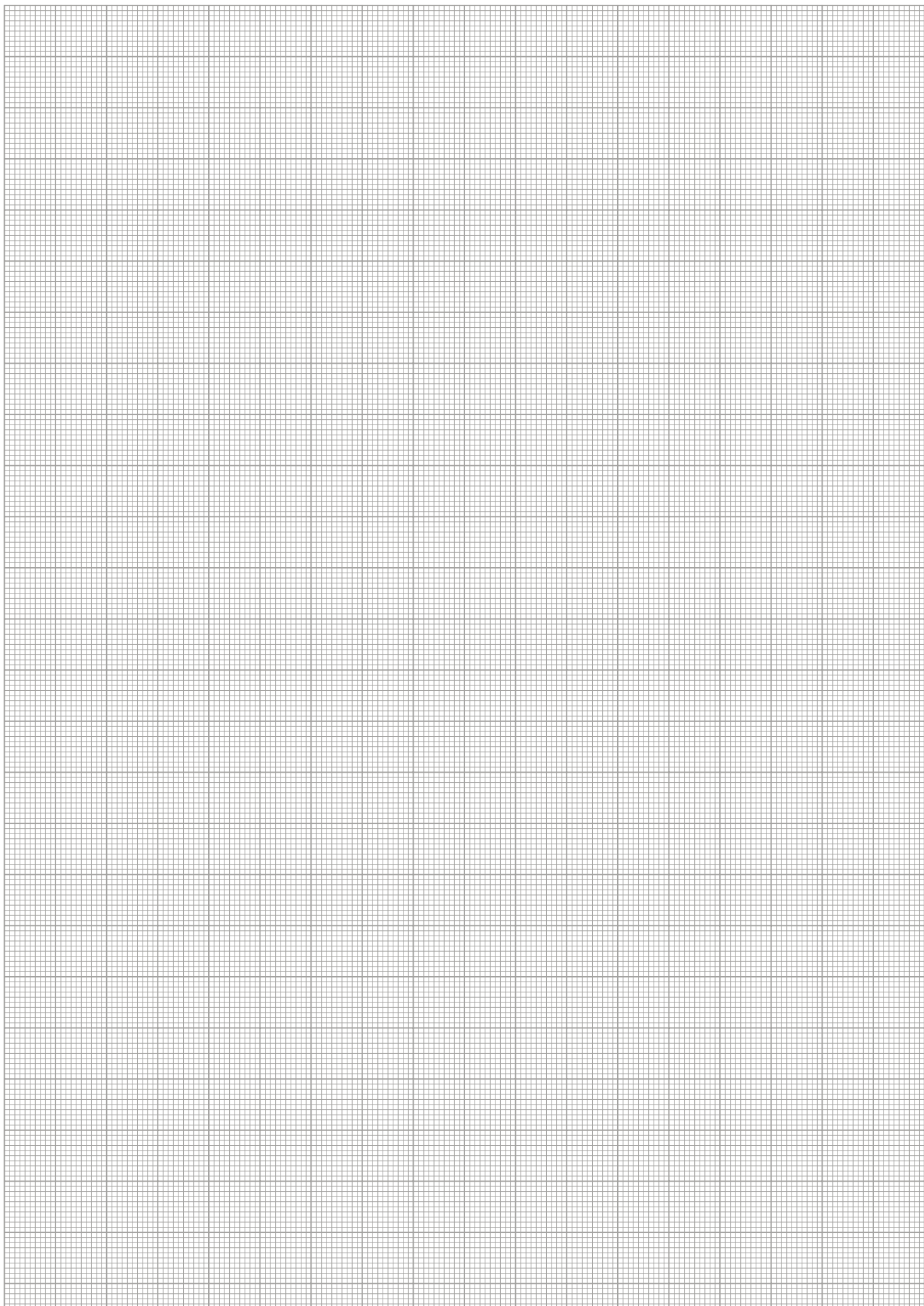
End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-KGG 60-40 / 70-48	0303080	
AS-KGG 60-20 / 70-24	0303081	
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	

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

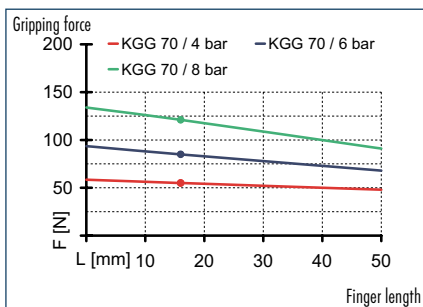
① This mounting kit needs to be ordered optionally as an accessory.

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

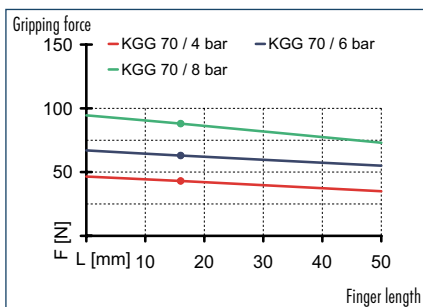




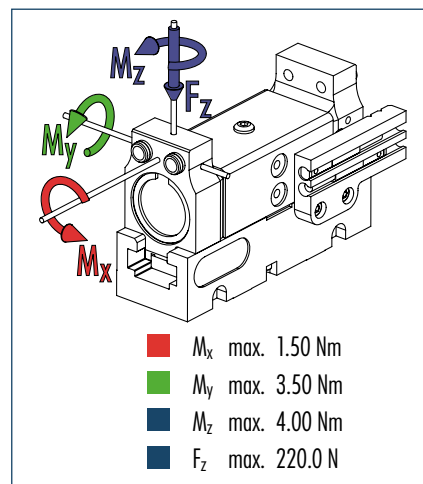
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



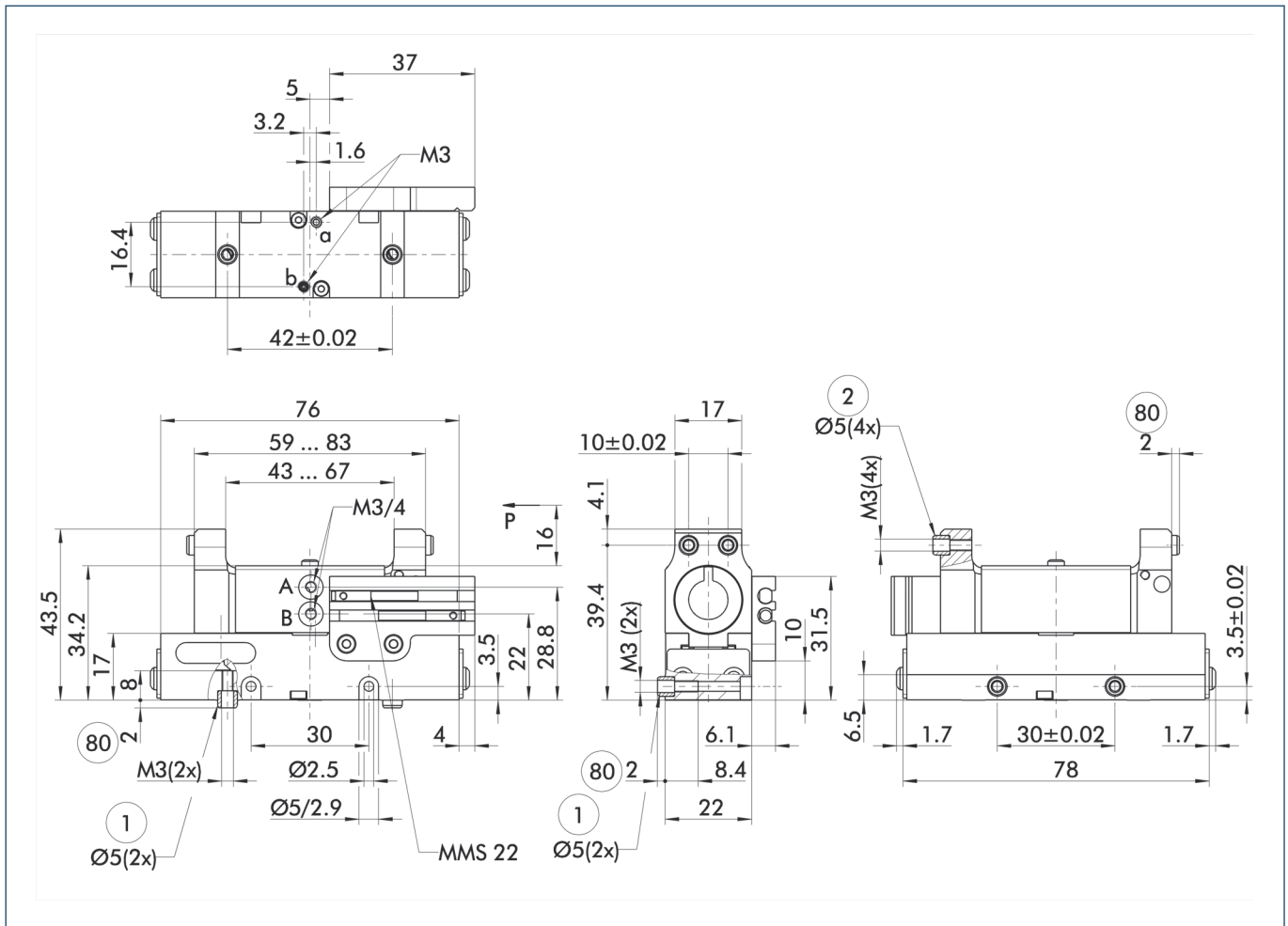
① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement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

Technical data

Description	KGG 70-24	KGG 70-48
ID	0303055	0303056
Stroke per finger [mm]	12	24
Closing force [N]	62	62
Opening force [N]	85	85
Weight [kg]	0.15	0.19
Recommended workpiece weight [kg]	0.32	0.32
Air consumption per double stroke [cm ³]	5	10
Min./max. operating pressure [bar]	2/8	2/8
Nominal operating pressure [bar]	6	6
Closing/opening time [s]	0.04/0.04	0.05/0.05
Max. permitted finger length [mm]	50	50
Max. permitted weight per finger [kg]	0.06	0.06
IP class	40	40
Min./max. ambient temperature [°C]	-10/90	-10/90
Repeat accuracy [mm]	0.02	0.02

① Requirements to the evenness of the mounting face (relating to the total gripper connection surface) less than 0.02 mm at an edge length of up to 100 mm / more than 0.05 mm at an edge length of more than 100 mm.

Main view



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

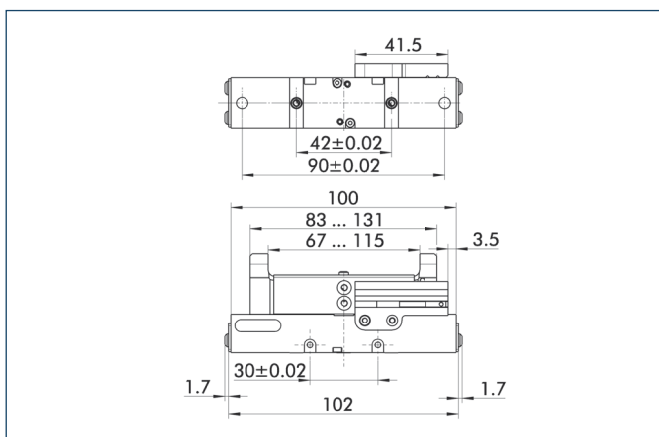
① The SDV-P pressure maintenance valve can be used as a gripping force maintenance device (see "Accessories" catalog section).

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

① Gripper connection
② Finger connection

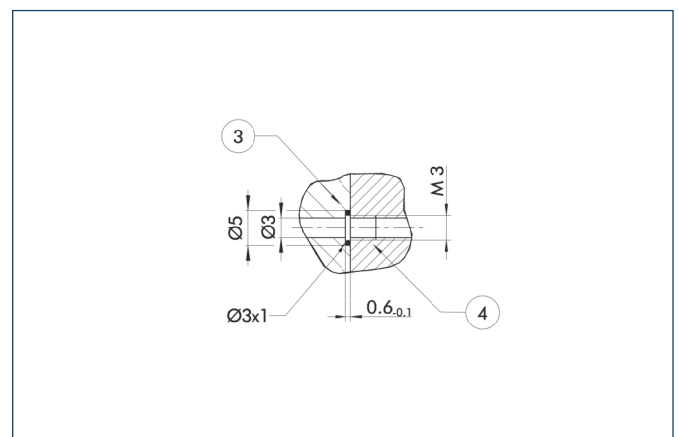
⊗ Depth of the centering sleeve hole in the matching part

Stroke versions



The drawing shows changes in dimensions of the versions with a differing stroke compared to the main view of the shown version.

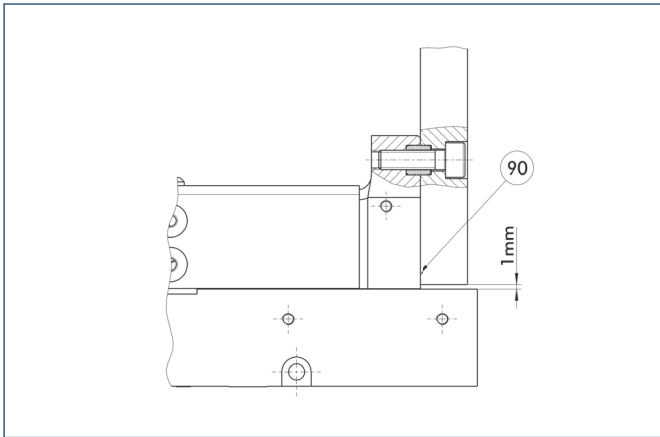
Hose-free direct connection



③ Adapter
④ Gripper

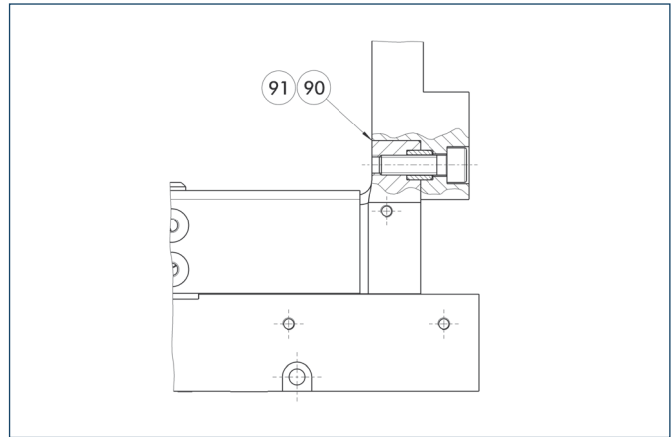
The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Jaw design O.D. gripping



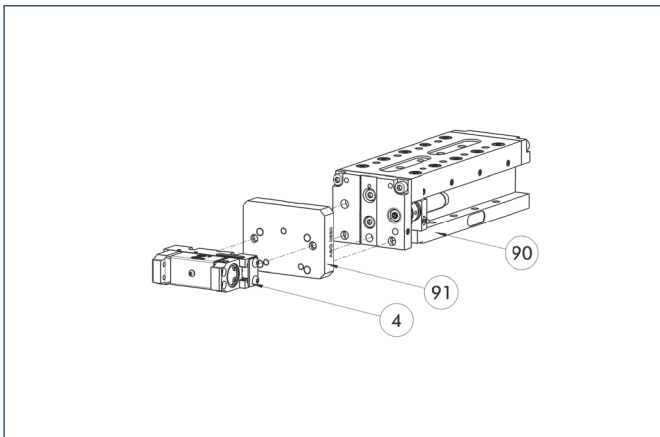
90 Support top jaws at the base jaw

Jaw design I.D. gripping



90 Support top jaws at the base jaw
91 For dimensions of steps at the top jaw see drawings of finger blanks

Modular Assembly Automation

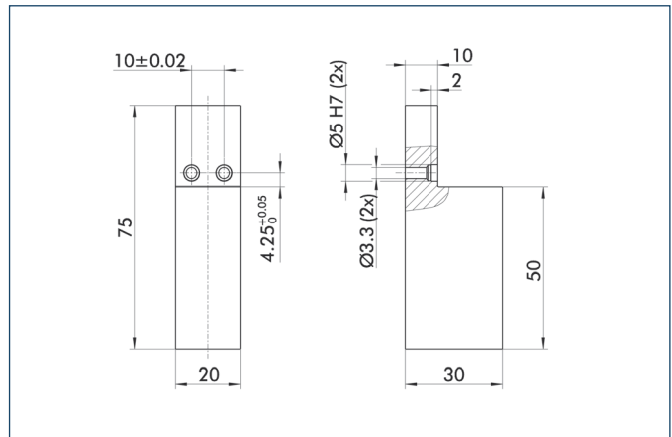


4 Gripper
90 CLM

91 ASG

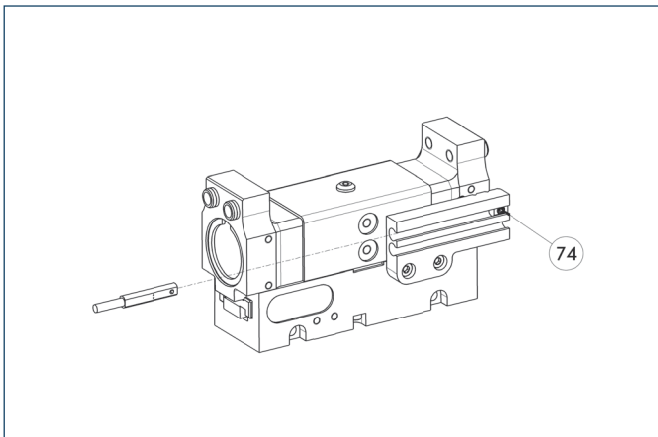
This gripper can be combined with the standard linear modules LM, KLM, CLM and ELM of the GEMOTEC modular system. For more information see our main catalog "Modular Assembly Automation".

Finger blanks



Description	ID	Material	Scope of delivery
Finger blanks			
RB 70	0303088	Aluminum	2

Programmable magnetic switch



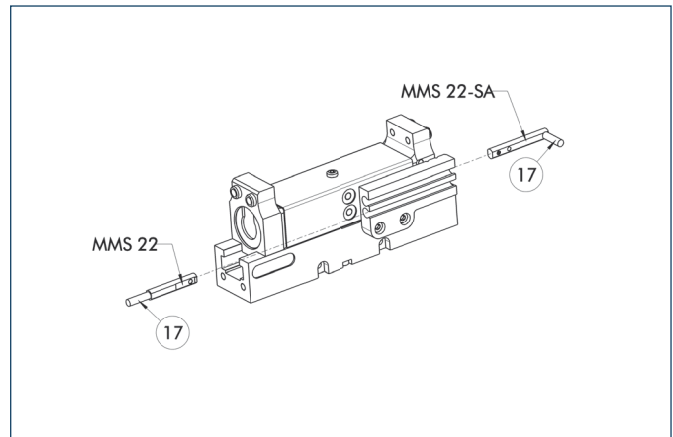
74 Stop for MMS-P

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	

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.
- ① Per gripper one sensor (closer/NO) is required, optionally a cable extension.
- ① Within the KGG series, the MMS-P could just cover the whole piston area of KGG 60-20/70-24/80-30

Electronic magnetic switches



17 Cable outlet

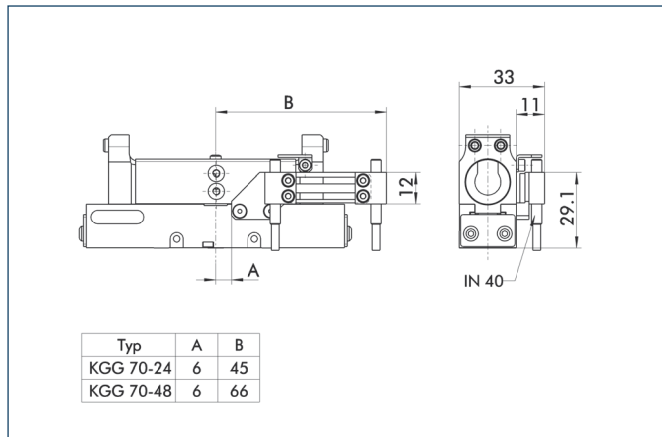
End position monitoring for mounting in the C-slot

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	

- ① Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

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

Mounting kit for proximity switch



Description	ID
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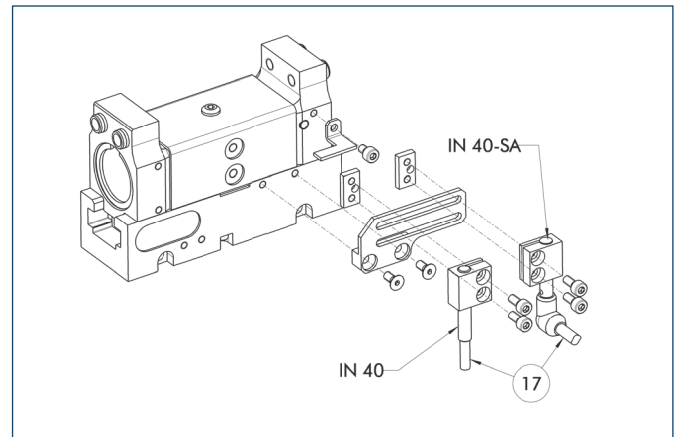
Mounting kit for proximity switch	
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AS-KGG 60-40 / 70-48	0303080
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AS-KGG 60-20 / 70-24	0303081
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① This mounting kit needs to be ordered optionally as an accessory.

Inductive proximity switches



⑰ Cable outlet

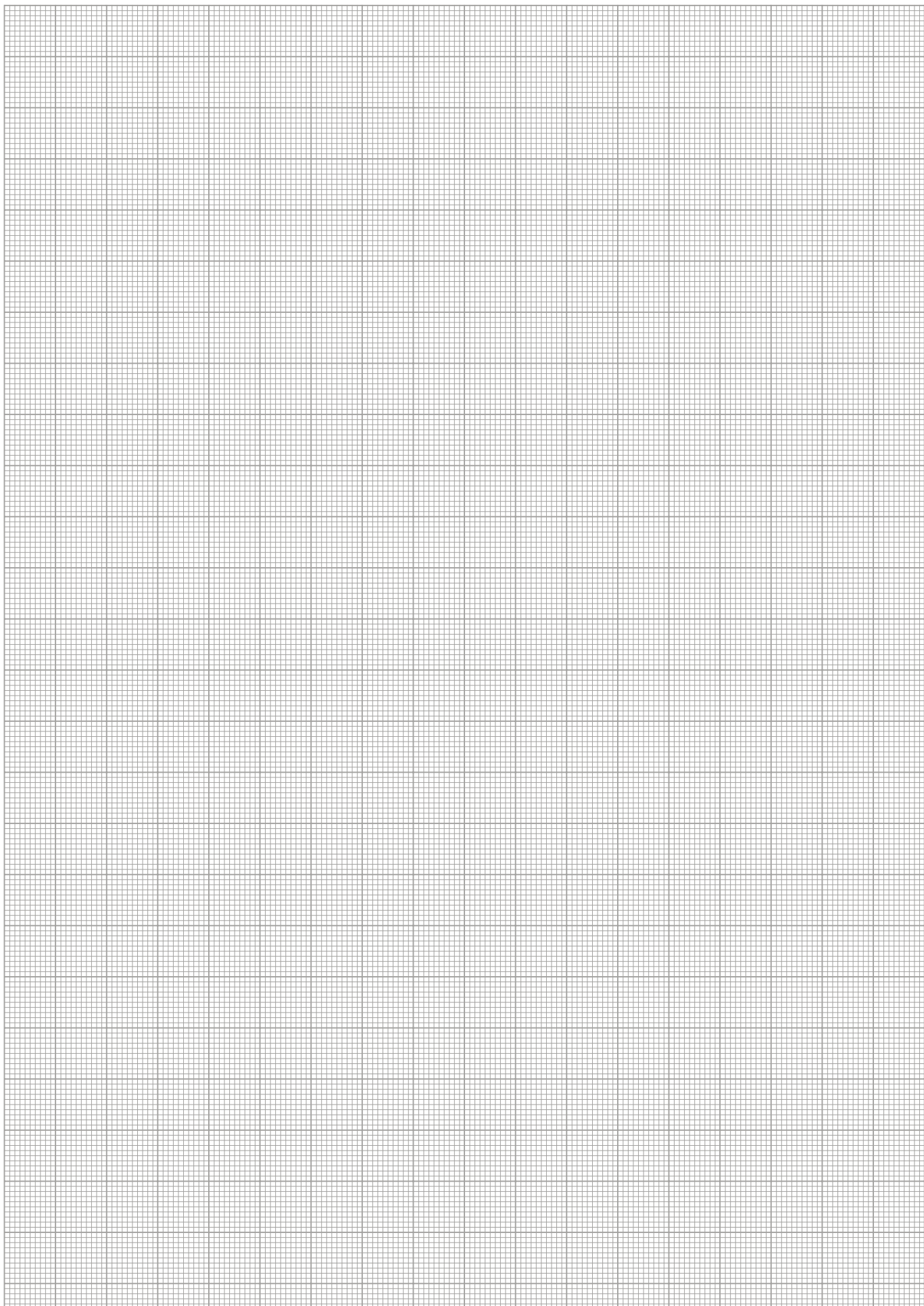
End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-KGG 60-40 / 70-48	0303080	
AS-KGG 60-20 / 70-24	0303081	
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	

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

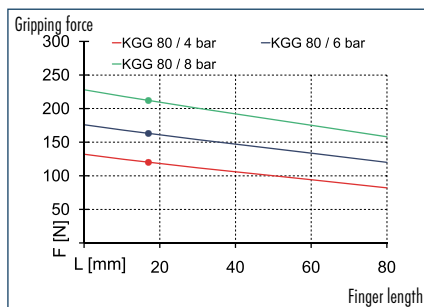
① This mounting kit needs to be ordered optionally as an accessory.

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

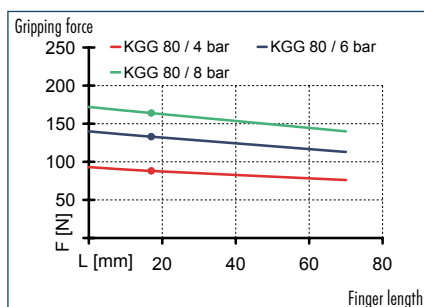




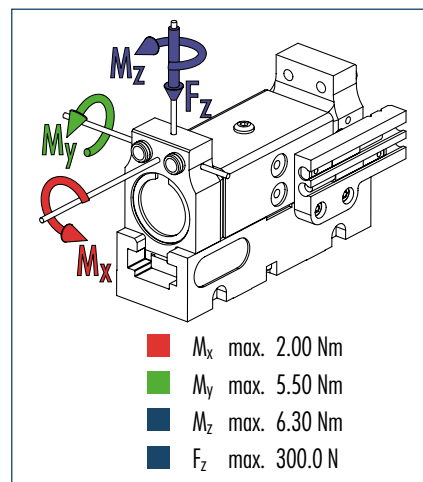
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



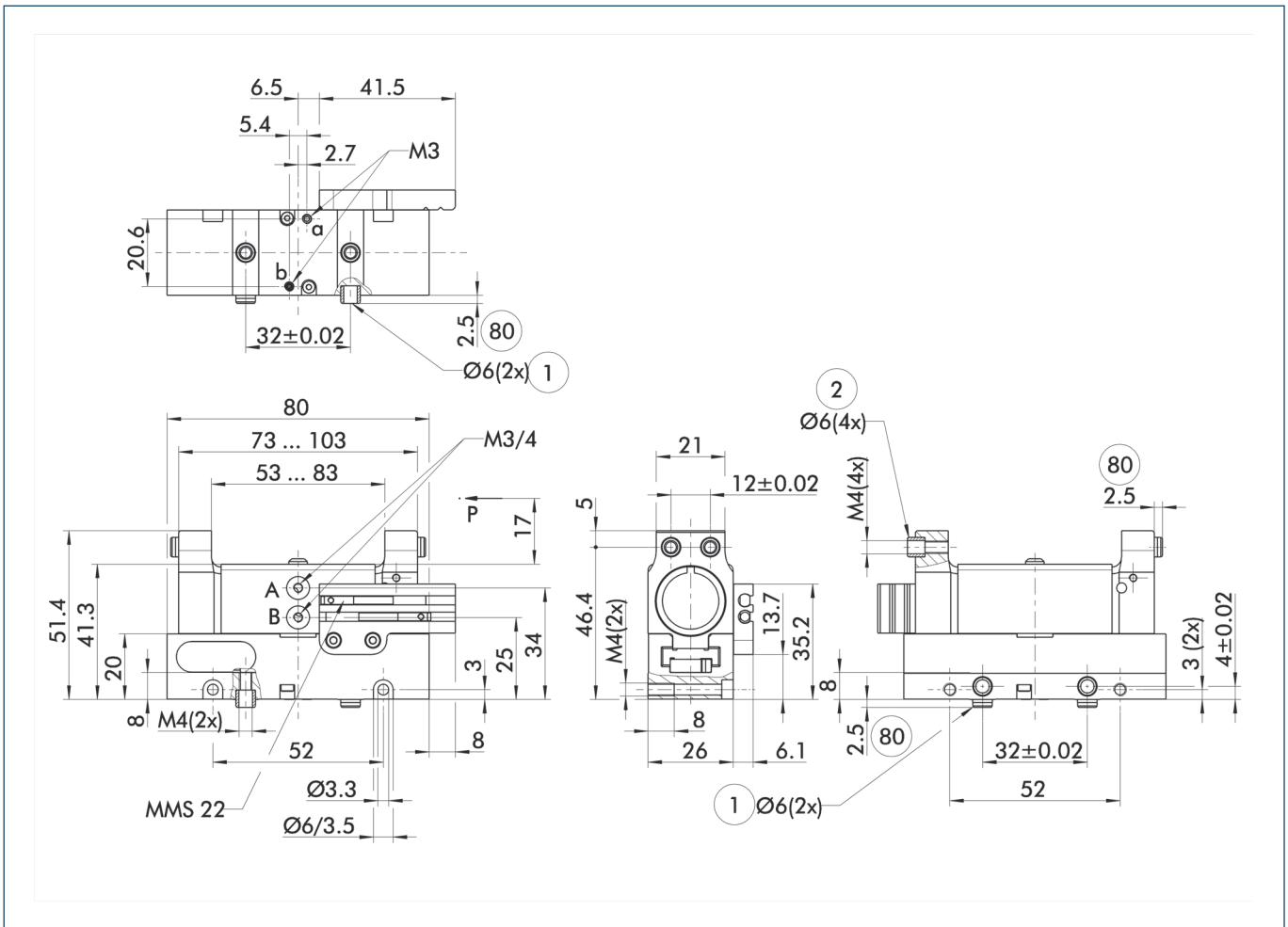
① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement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

Technical data

Description	KGG 80-30	KGG 80-60
ID	0303060	0303061
Stroke per finger [mm]	15	30
Closing force [N]	130	130
Opening force [N]	165	165
Weight [kg]	0.25	0.33
Recommended workpiece weight [kg]	0.66	0.66
Air consumption per double stroke [cm ³]	12	24
Min./max. operating pressure [bar]	2/8	2/8
Nominal operating pressure [bar]	6	6
Closing/opening time [s]	0.05/0.05	0.08/0.07
Max. permitted finger length [mm]	80	80
Max. permitted weight per finger [kg]	0.15	0.15
IP class	40	40
Min./max. ambient temperature [°C]	-10/90	-10/90
Repeat accuracy [mm]	0.02	0.02

① Requirements to the evenness of the mounting face (relating to the total gripper connection surface) less than 0.02 mm at an edge length of up to 100 mm / more than 0.05 mm at an edge length of more than 100 mm.

Main view



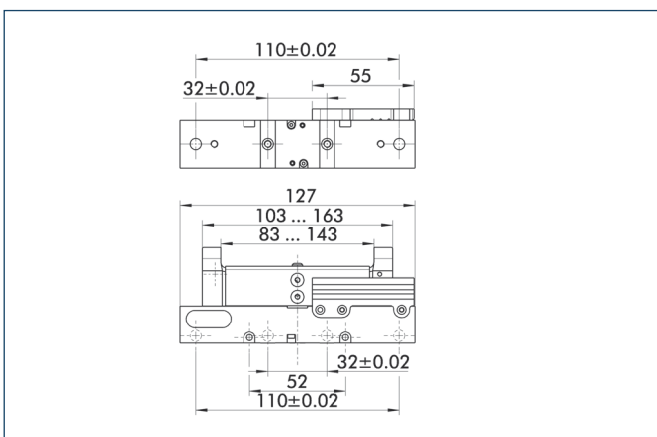
The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can 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

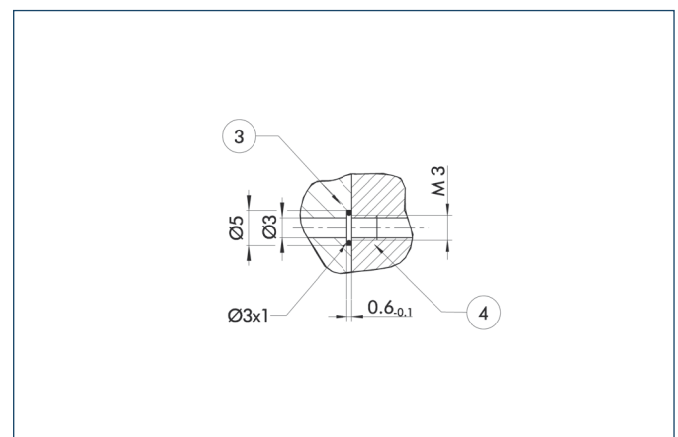
Ⓢ Depth of the centering sleeve hole in the matching part

Stroke versions



The drawing shows changes in dimensions of the versions with a differing stroke compared to the main view of the shown version.

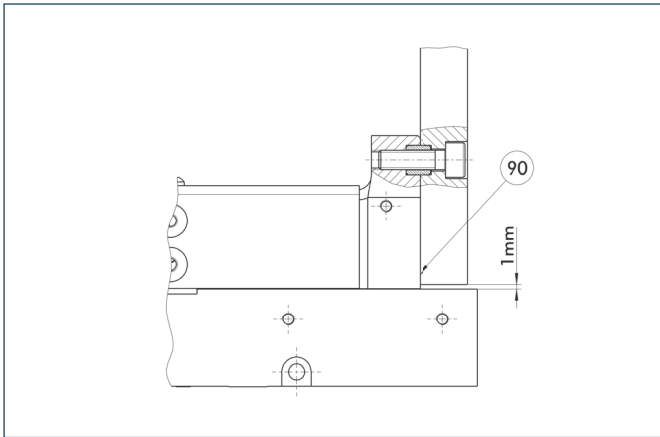
Hose-free direct connection



③ Adapter
 ④ Gripper

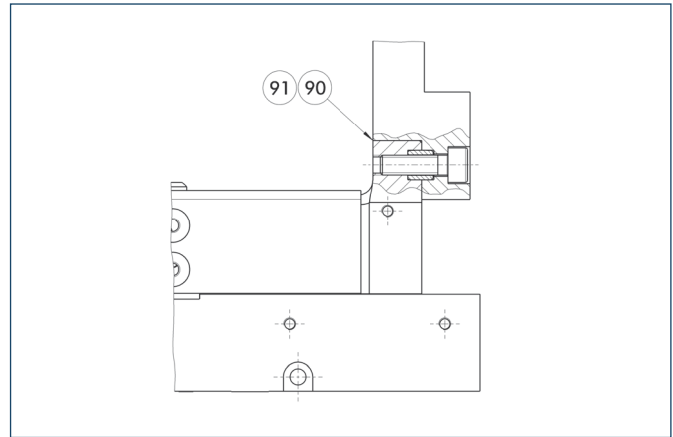
The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Jaw design O.D. gripping



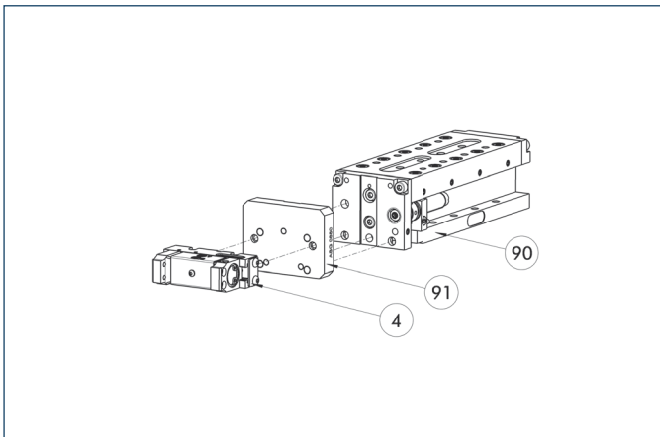
90 Support top jaws at the base jaw

Jaw design I.D. gripping



90 Support top jaws at the base jaw
91 For dimensions of steps at the top jaw see drawings of finger blanks

Modular Assembly Automation

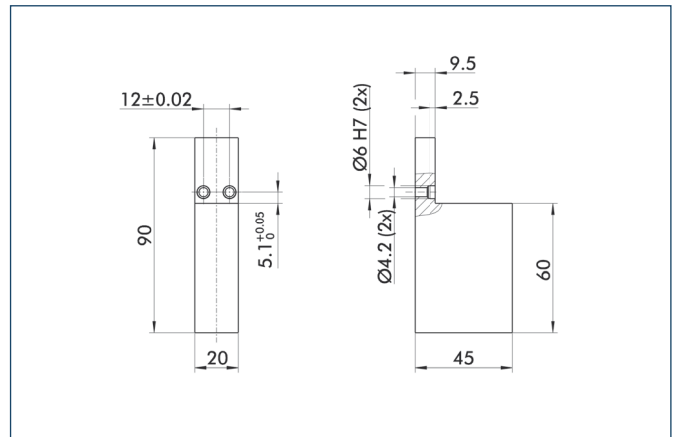


4 Gripper
90 CLM

91 ASG

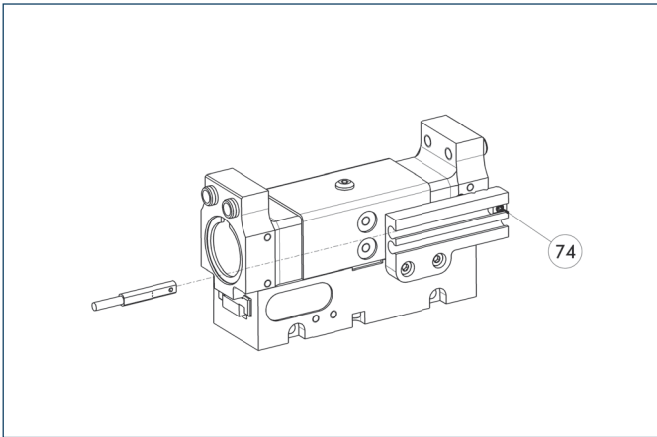
This gripper can be combined with the standard linear modules LM, KLM, CLM and ELM of the GEMOTEC modular system. For more information see our main catalog "Modular Assembly Automation".

Finger blanks



Description	ID	Material	Scope of delivery
Finger blanks			
RB 80	0303089	Aluminum	2

Programmable magnetic switch



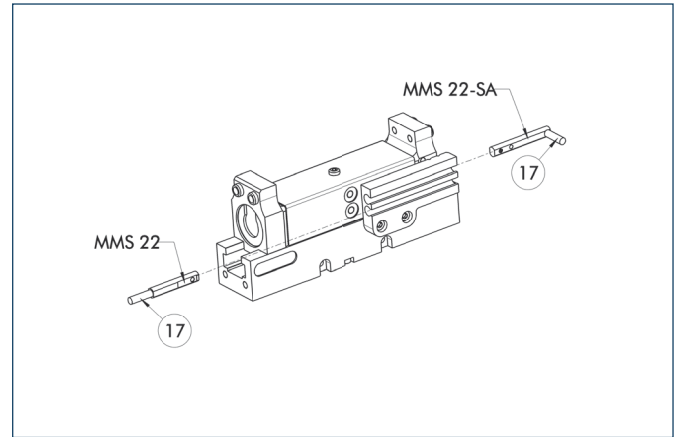
74 Stop for MMS-P

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	

- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.
- ① Per gripper one sensor (closer/NO) is required, optionally a cable extension.
- ① Within the KGG series, the MMS-P could just cover the whole piston area of KGG 60-20/70-24/80-30

Electronic magnetic switches



17 Cable outlet

End position monitoring for mounting in the C-slot

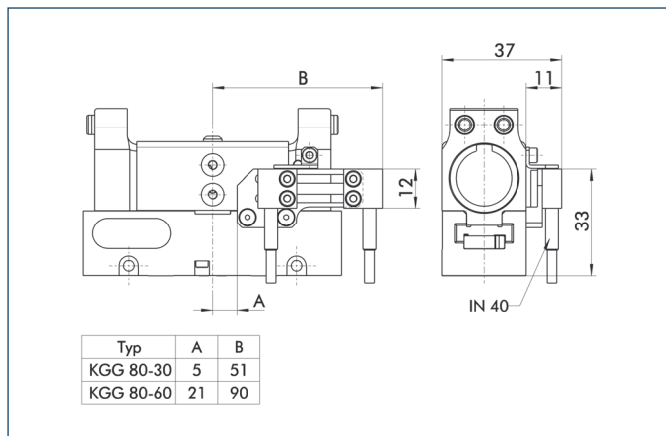
Description	ID	Recommended product
Electronic magnetic switches		
MMS 22-S-M5-PNP	0301438	
MMS 22-S-M5-NPN	0301439	
MMS 22-S-M8-PNP	0301432	•
MMS 22-S-M8-NPN	0301433	
MMSK 22-S-PNP	0301434	
MMSK 22-S-NPN	0301435	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M5-PNP-SA	0301448	
MMS 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	

- ① Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



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

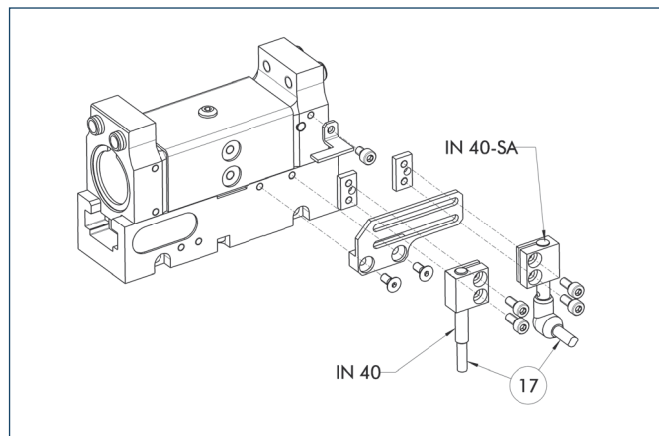
Mounting kit for proximity switch



Description	ID
Mounting kit for proximity switch	
AS-KGG 80-30	0303083
AS-KGG 80-60 / 100-80 / 140-60	0303084

① This mounting kit needs to be ordered optionally as an accessory.

Inductive proximity switches



⑰ Cable outlet

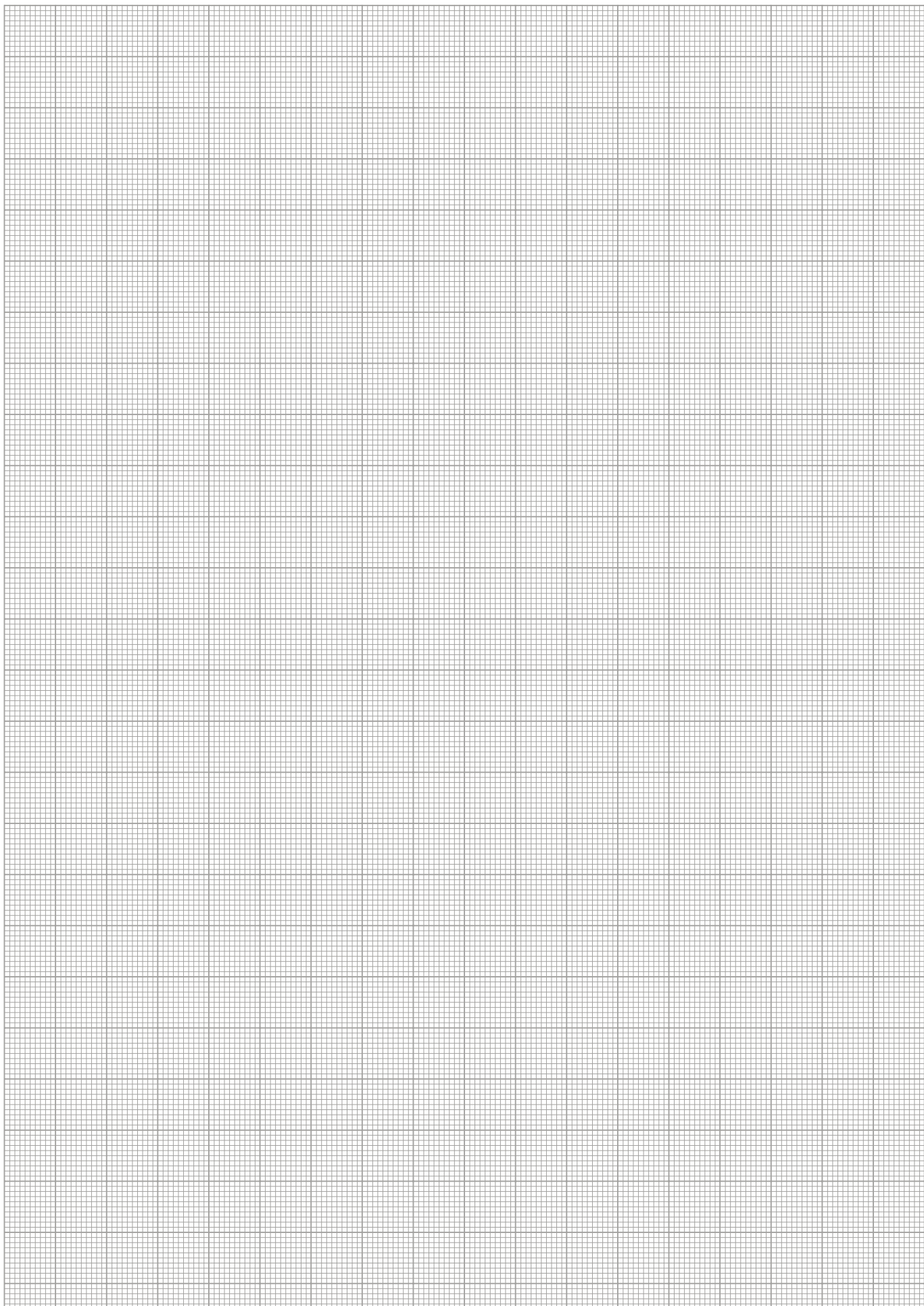
End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-KGG 80-30	0303083	
AS-KGG 80-60 / 100-80 / 140-60	0303084	
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	

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

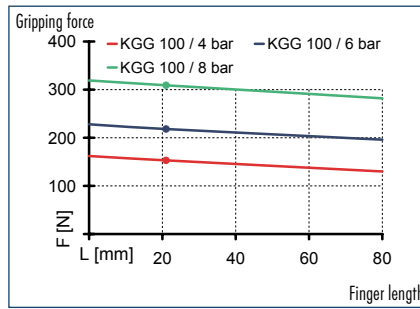
① This mounting kit needs to be ordered optionally as an accessory.

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

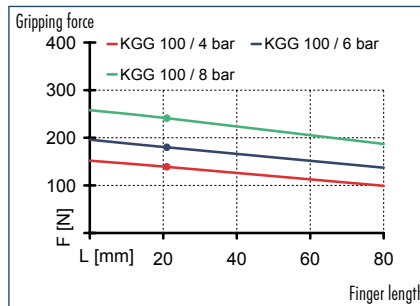




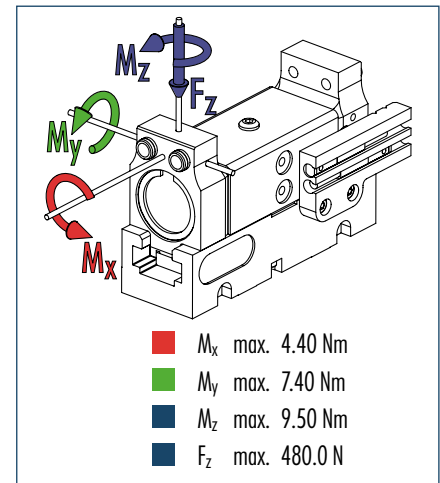
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



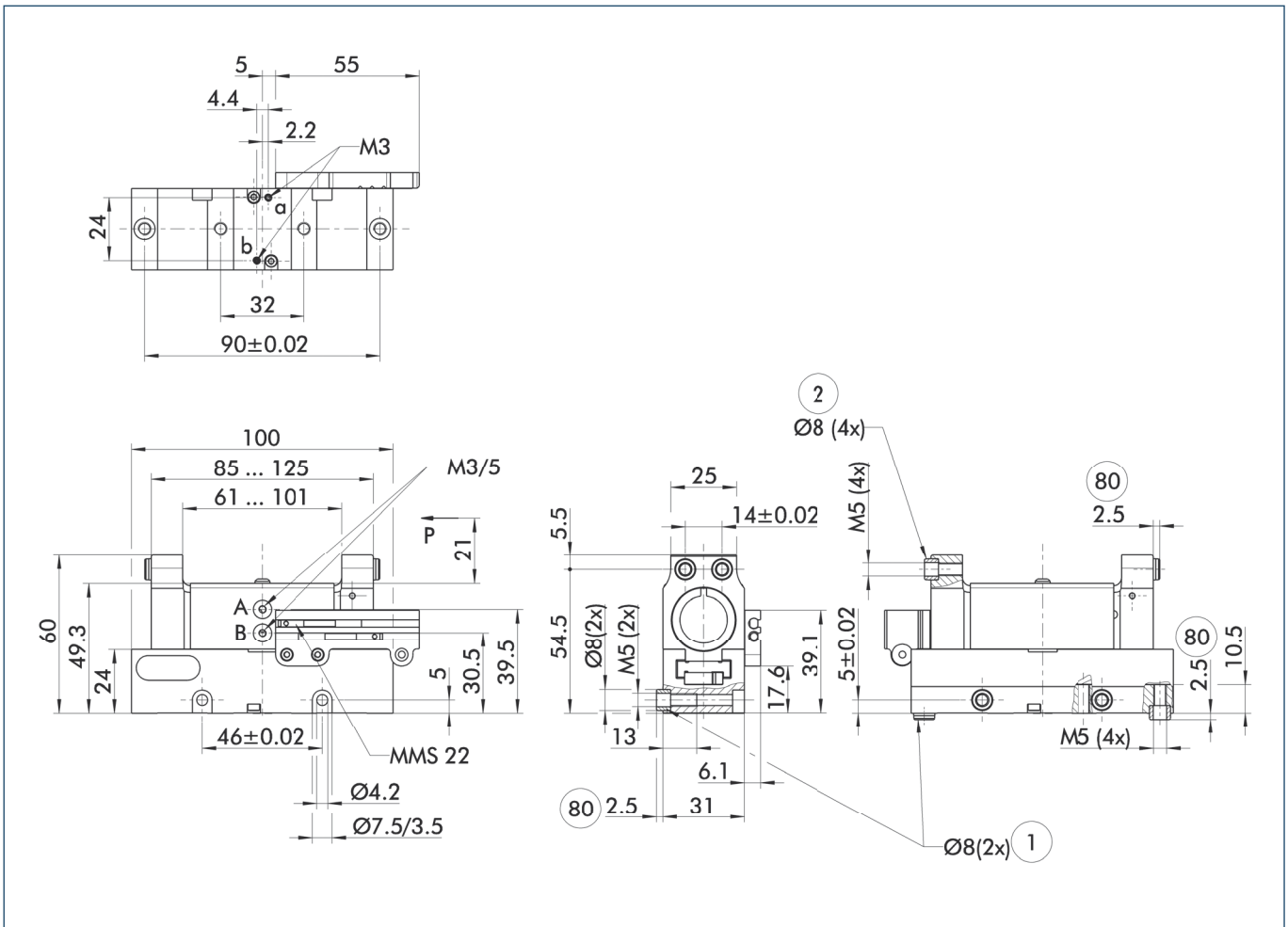
① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement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

Technical data

Description	KGG 100-40	KGG 100-80
ID	0303065	0303066
Stroke per finger [mm]	20	40
Closing force [N]	175	175
Opening force [N]	220	220
Weight [kg]	0.37	0.5
Recommended workpiece weight [kg]	0.9	0.9
Air consumption per double stroke [cm ³]	22.5	45
Min./max. operating pressure [bar]	2/8	2/8
Nominal operating pressure [bar]	6	6
Closing/opening time [s]	0.09/0.07	0.19/0.15
Max. permitted finger length [mm]	80	80
Max. permitted weight per finger [kg]	0.3	0.3
IP class	40	40
Min./max. ambient temperature [°C]	-10/90	-10/90
Repeat accuracy [mm]	0.02	0.02

① Requirements to the evenness of the mounting face (relating to the total gripper connection surface) less than 0.02 mm at an edge length of up to 100 mm / more than 0.05 mm at an edge length of more than 100 mm.

Main view



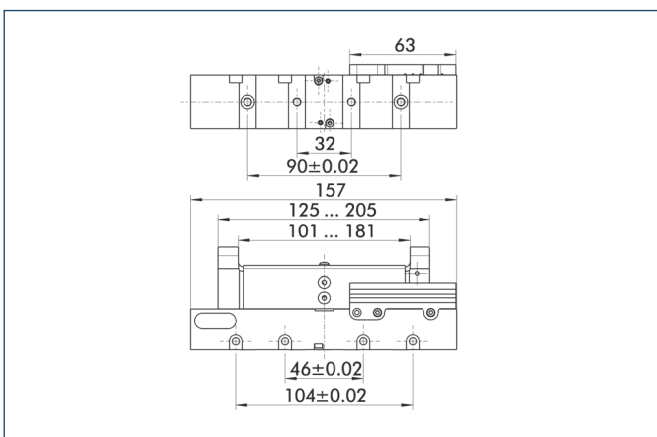
The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can 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

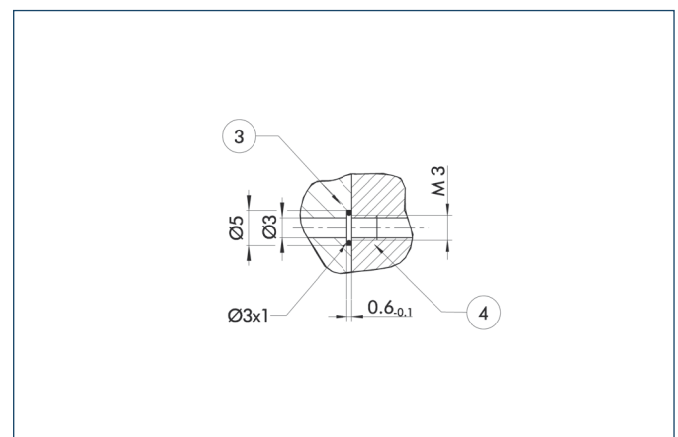
⊗ Depth of the centering sleeve hole in the matching part

Stroke versions



The drawing shows changes in dimensions of the versions with a differing stroke compared to the main view of the shown version.

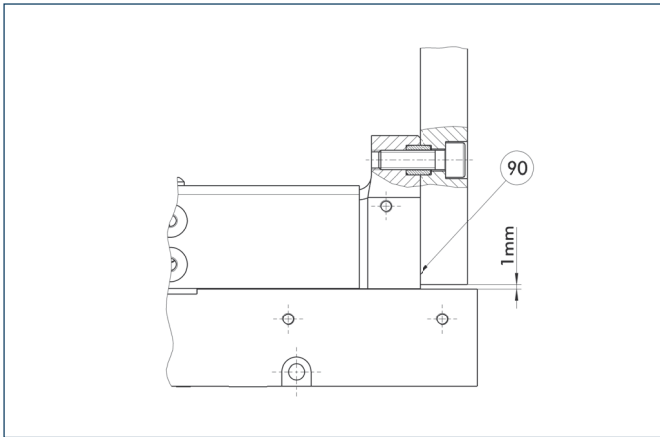
Hose-free direct connection



③ Adapter
 ④ Gripper

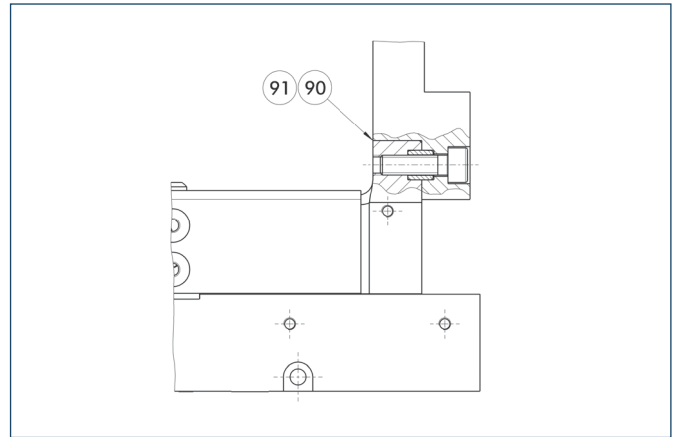
The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

Jaw design O.D. gripping



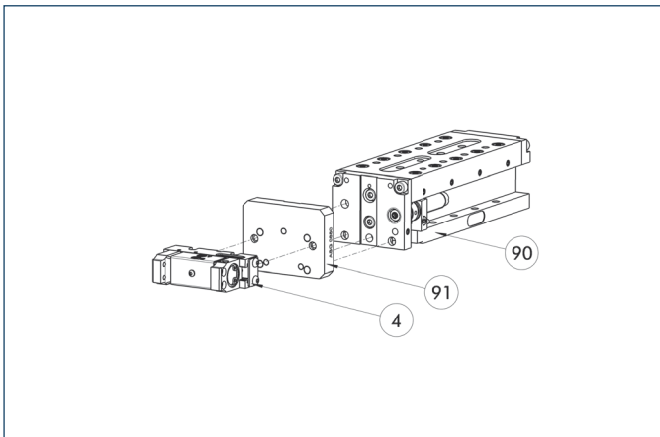
90 Support top jaws at the base jaw

Jaw design I.D. gripping



90 Support top jaws at the base jaw
91 For dimensions of steps at the top jaw see drawings of finger blanks

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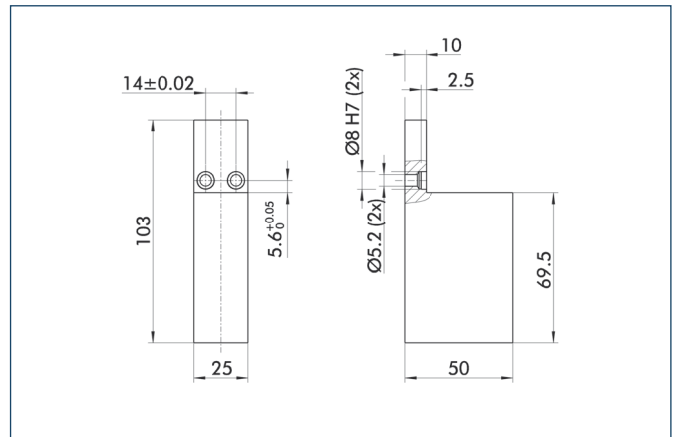


4 Gripper
90 CLM

91 ASG

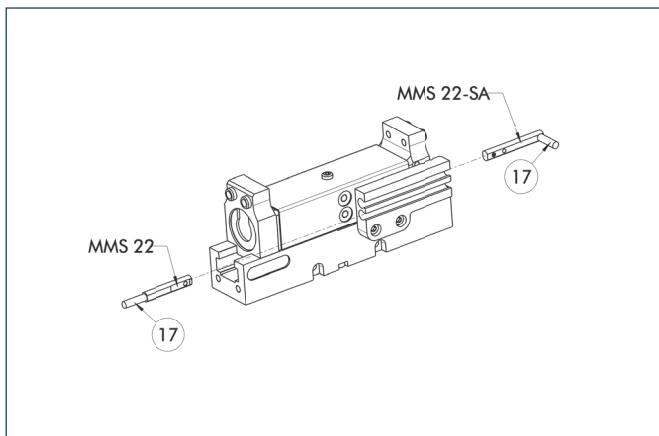
This gripper can be combined with the standard linear modules LM, KLM, CLM and ELM of the GEMOTEC modular system. For more information see our main catalog "Modular Assembly Automation".

Finger blanks



Description	ID	Material	Scope of delivery
Finger blanks			
RB 100	0303090	Aluminum	2

Electronic magnetic switches



⑰ Cable outlet

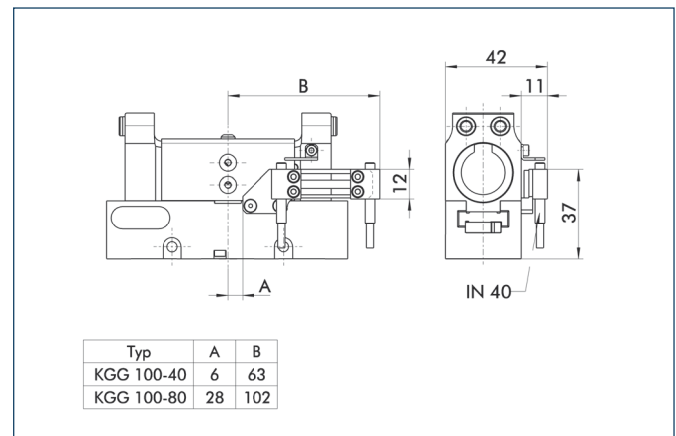
End position monitoring for mounting in the C-slot

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	

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

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

Mounting kit for proximity switch



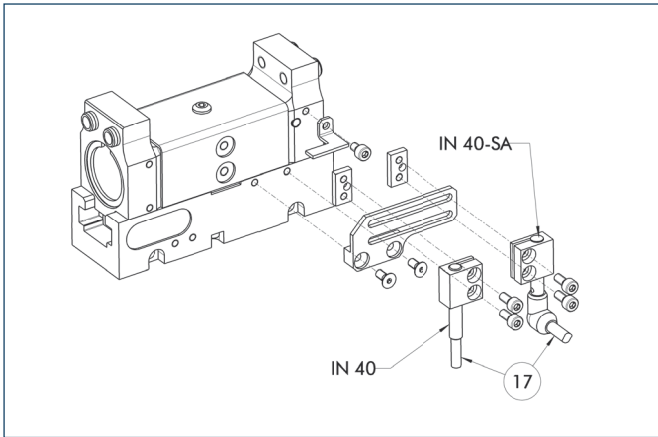
Description	ID
Mounting kit for proximity switch	
AS-KGG 100-40	0303082
AS-KGG 80-60 / 100-80 / 140-60	0303084

① 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-KGG 100-40	0303082	
AS-KGG 80-60 / 100-80 / 140-60	0303084	
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	

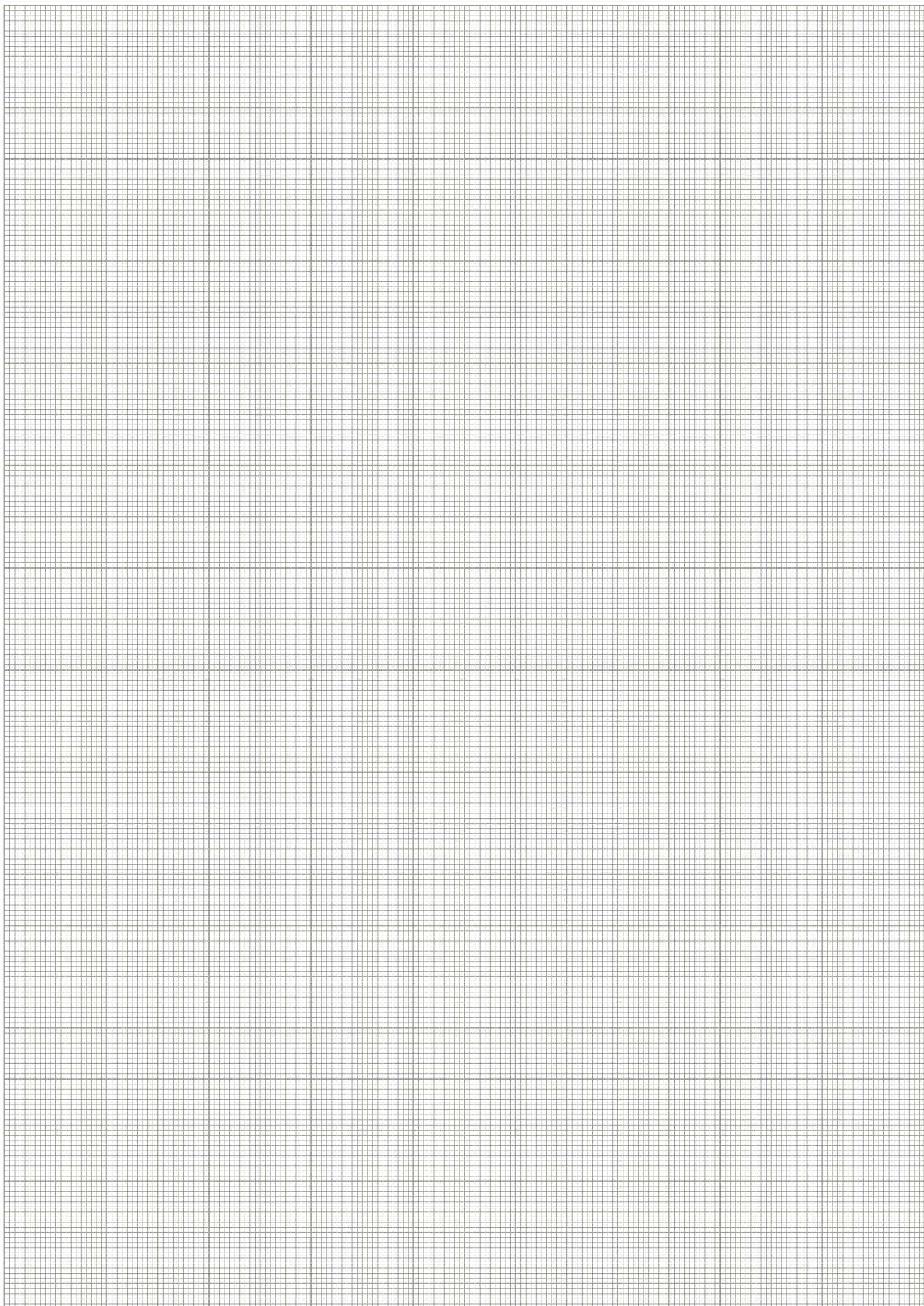
① Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.

① This mounting kit needs to be ordered optionally as an accessory.

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

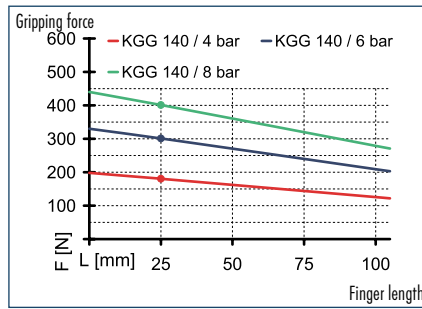


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

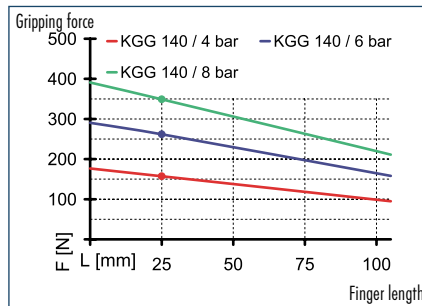




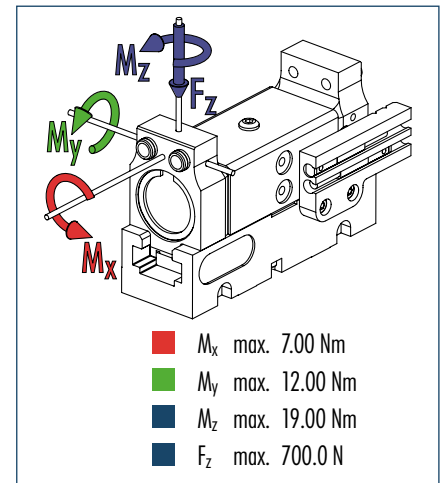
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



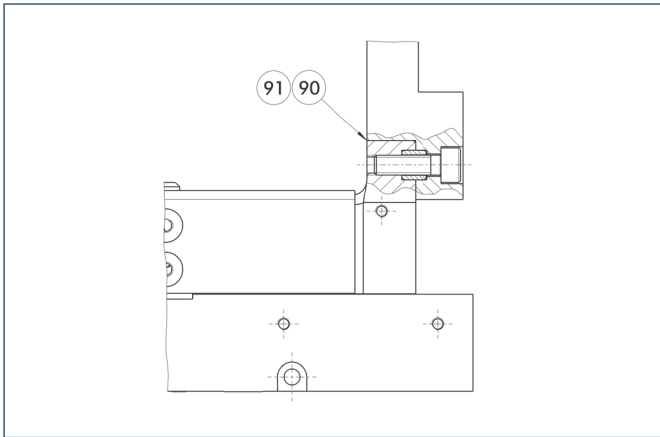
① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement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

Technical data

Description		KGG 140-60
ID		0303070
Stroke per finger	[mm]	30
Closing force	[N]	260
Opening force	[N]	300
Weight	[kg]	0.77
Recommended workpiece weight	[kg]	1.3
Air consumption per double stroke	[cm ³]	42
Min./max. operating pressure	[bar]	2/8
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.17/0.17
Max. permitted finger length	[mm]	100
Max. permitted weight per finger	[kg]	0.5
IP class		40
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.02

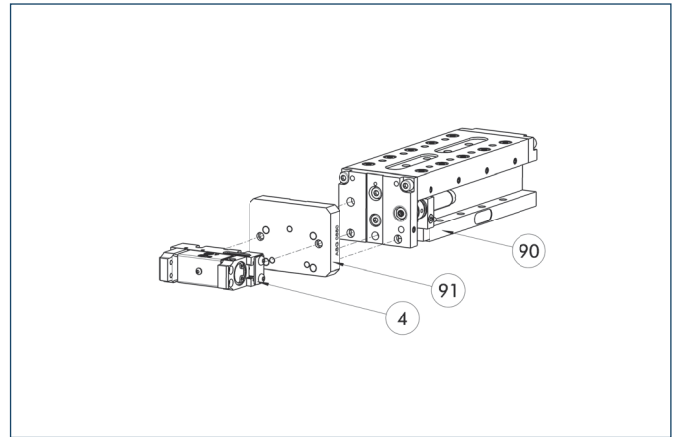
① Requirements to the evenness of the mounting face (relating to the total gripper connection surface) less than 0.02 mm at an edge length of up to 100 mm / more than 0.05 mm at an edge length of more than 100 mm.

Jaw design I.D. gripping



- 90 Support top jaws at the base jaw
- 91 For dimensions of steps at the top jaw see drawings of finger blanks

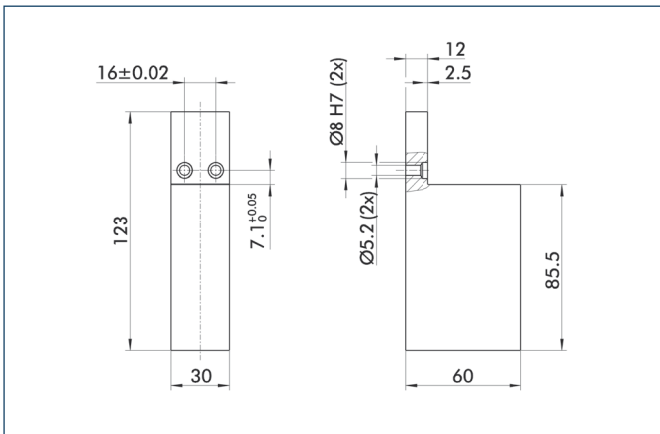
Modular Assembly Automation



- 4 Gripper
- 90 CLM
- 91 ASG

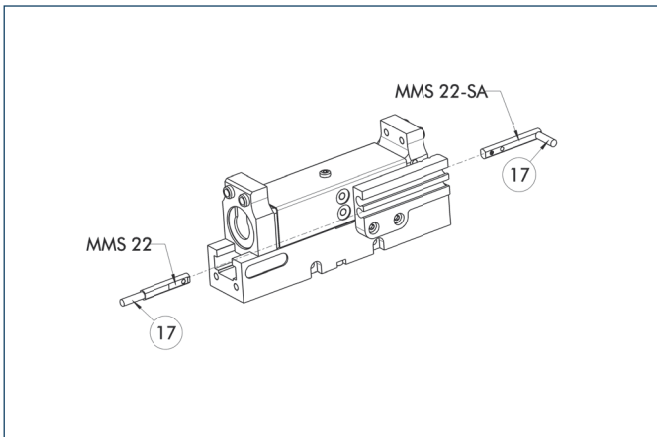
This gripper can be combined with the standard linear modules LM, KLM, CLM and ELM of the GEMOTEC modular system. For more information see our main catalog "Modular Assembly Automation".

Finger blanks



Description	ID	Material	Scope of delivery
Finger blanks			
RB 140	0303091	Aluminum	2

Electronic magnetic switches



⑰ Cable outlet

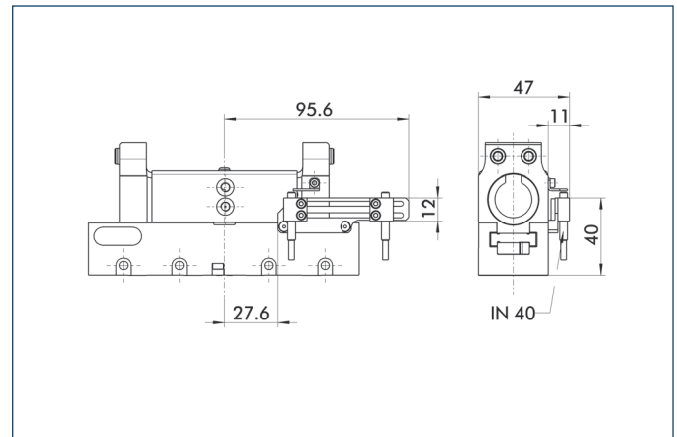
End position monitoring for mounting in the C-slot

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	

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

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

Mounting kit for proximity switch



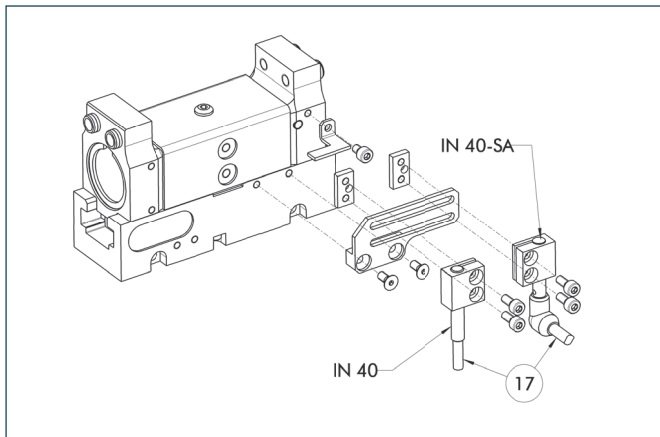
Description	ID
Mounting kit for proximity switch	
AS-KGG 80-60 / 100-80 / 140-60	0303084

① 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



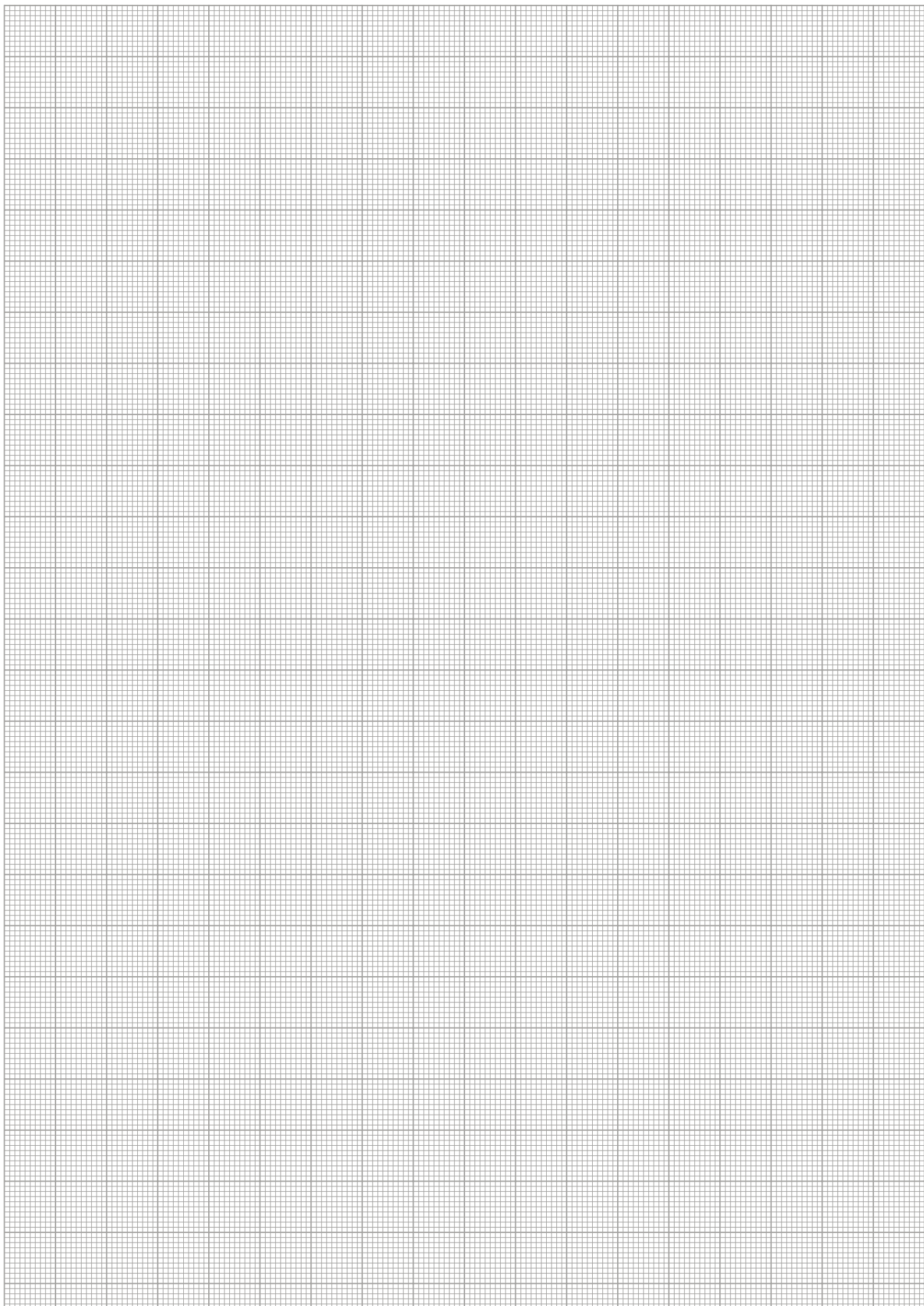
⑰ Cable outlet

End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
AS-KGG 80-60 / 100-80 / 140-60	0303084	
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	

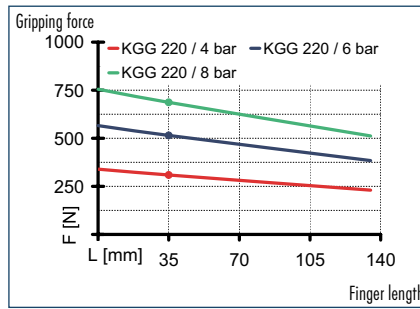
- ① Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
- ① This mounting kit needs to be ordered optionally as an accessory.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

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

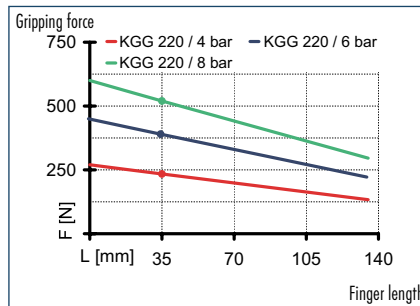




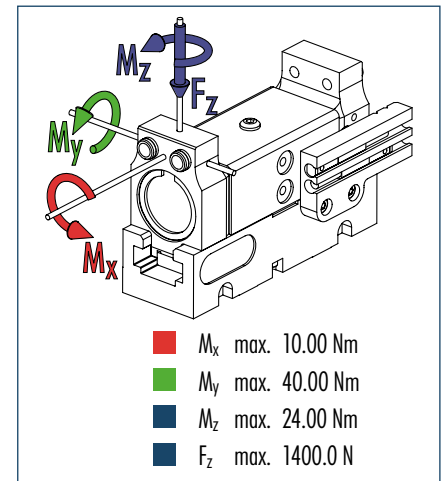
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



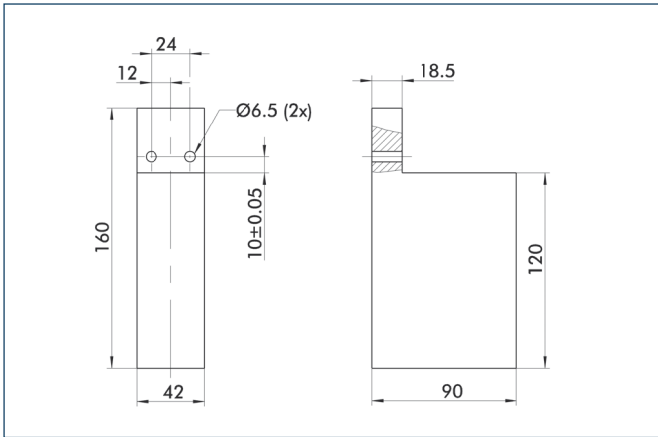
① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement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

Technical data

Description		KGG 220
ID		0340312
Stroke per finger	[mm]	45
Closing force	[N]	390
Opening force	[N]	515
Weight	[kg]	2
Recommended workpiece weight	[kg]	1.95
Air consumption per double stroke	[cm ³]	98
Min./max. operating pressure	[bar]	2.5/8
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.25/0.25
Max. permitted finger length	[mm]	130
Max. permitted weight per finger	[kg]	1
IP class		30
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.05

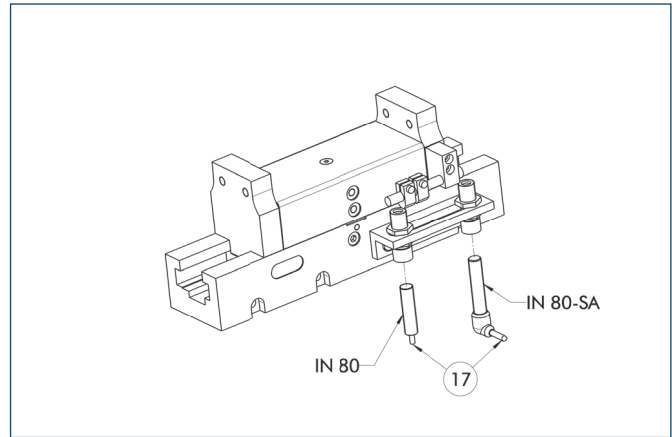
① Requirements to the evenness of the mounting face (relating to the total gripper connection surface) less than 0.02 mm at an edge length of up to 100 mm / more than 0.05 mm at an edge length of more than 100 mm.

Finger blanks



Description	ID	Material	Scope of delivery
Finger blanks			
RB 220	0300286	Aluminum	2

Inductive proximity switches



⑰ Cable outlet

End position monitoring for direct mounting

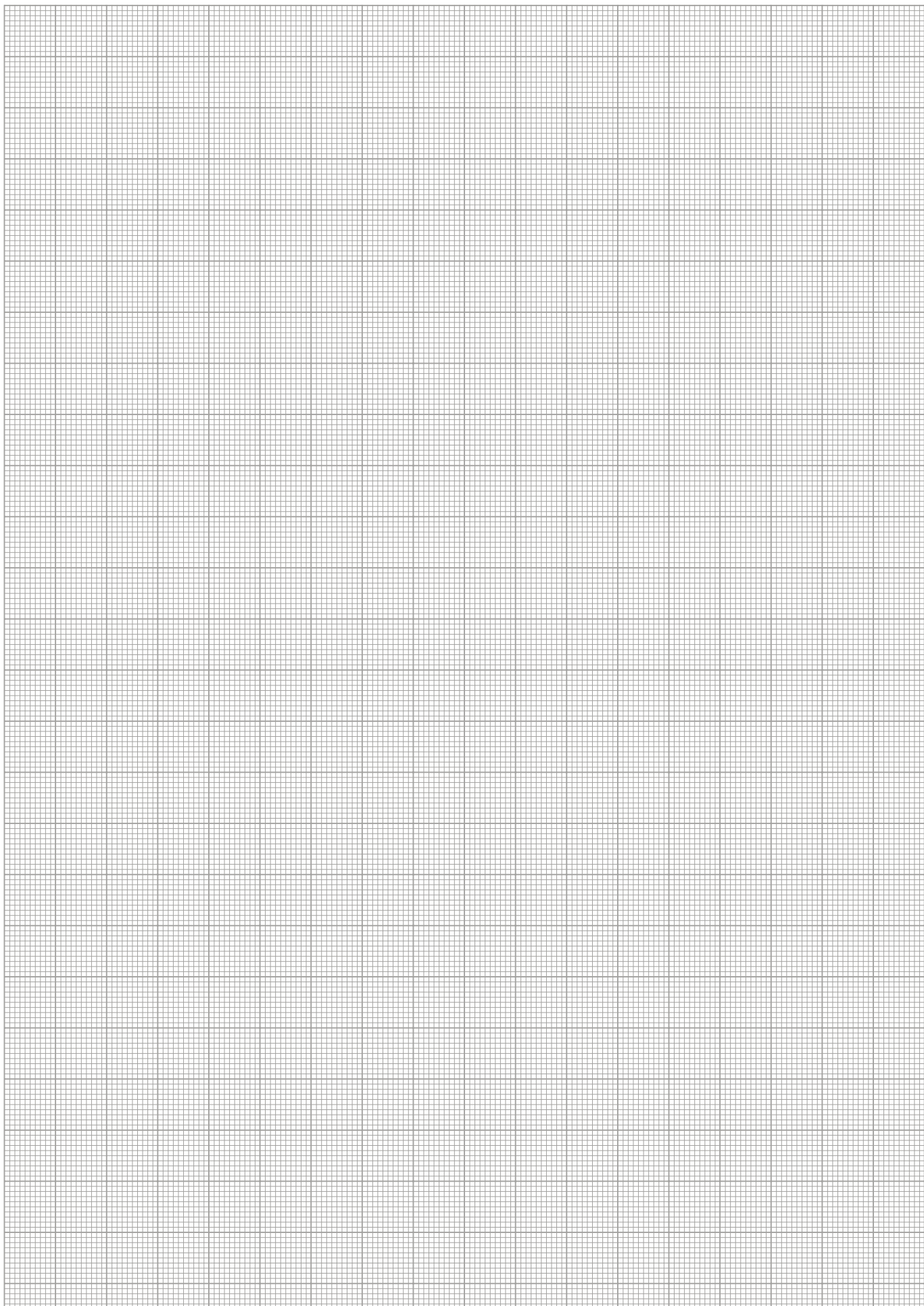
Description	ID	Recommended product
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
Inductive proximity switch with lateral outlet		
IN 80-S-M12-SA	0301587	
IN 80-S-M8-SA	0301483	•
INK 80-S-SA	0301566	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 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	

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

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

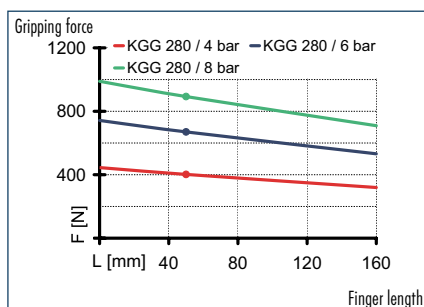


You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

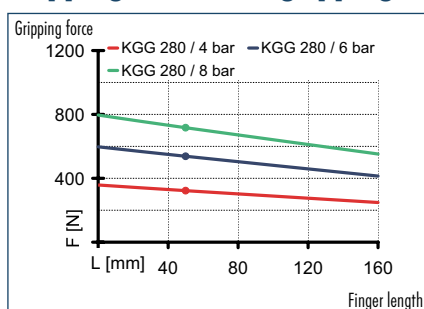




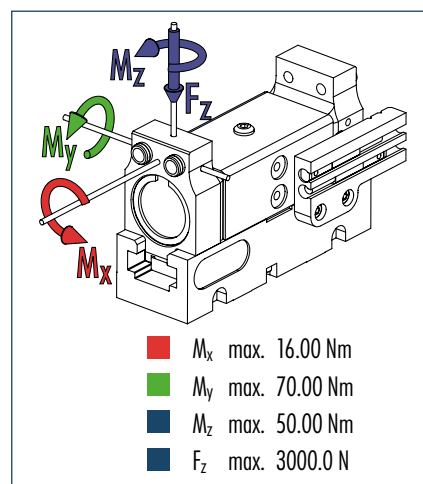
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



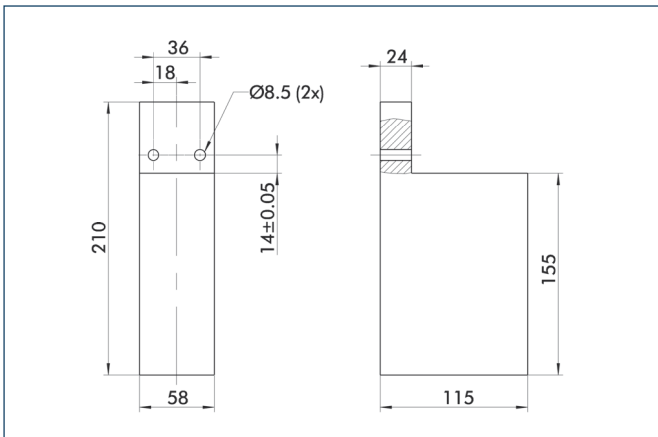
① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement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

Technical data

Description		KGG 280
ID		0340313
Stroke per finger	[mm]	60
Closing force	[N]	540
Opening force	[N]	670
Weight	[kg]	4.2
Recommended workpiece weight	[kg]	2.7
Air consumption per double stroke	[cm ³]	170
Min./max. operating pressure	[bar]	2.5/8
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.29/0.25
Max. permitted finger length	[mm]	160
Max. permitted weight per finger	[kg]	2
IP class		30
Min./max. ambient temperature	[°C]	-10/90
Repeat accuracy	[mm]	0.1

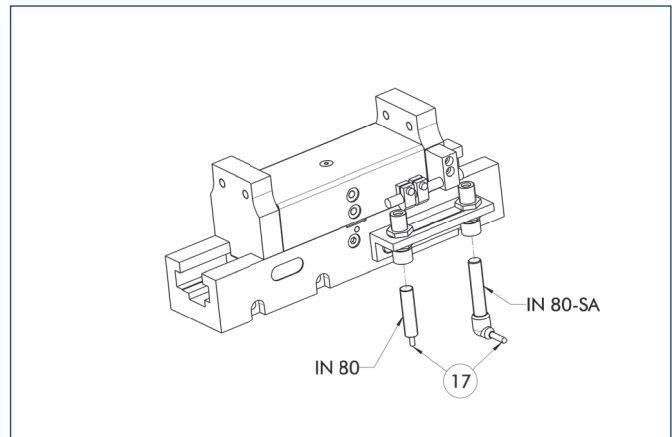
① Requirements to the evenness of the mounting face (relating to the total gripper connection surface) less than 0.02 mm at an edge length of up to 100 mm / more than 0.05 mm at an edge length of more than 100 mm.

Finger blanks



Description	ID	Material	Scope of delivery
Finger blanks			
RB 280	0300287	Aluminum	2

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	

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

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



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