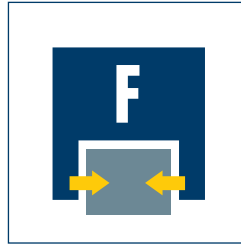




Sizes
60 .. 280



Weight
0.085 kg .. 4.2 kg



Gripping force
45 N .. 540 N



Stroke per finger
10 mm .. 60 mm



Workpiece weight
0.3 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 140 2-Finger Parallel Gripper with workpiece-specific fingers

2 FST-S 25-40 Mini-slide for horizontal movement

3 FST-S 16-60 Mini-slide for vertical movement

Gripper for Small Components

Narrow 2-finger parallel gripper with long stroke

Area of application

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

Your advantages and benefits

Robust T-slot guide

for high maximum moments

Pneumatic 2-piston drive design

for direct power transmission and high efficiency

Rack and pinion principle

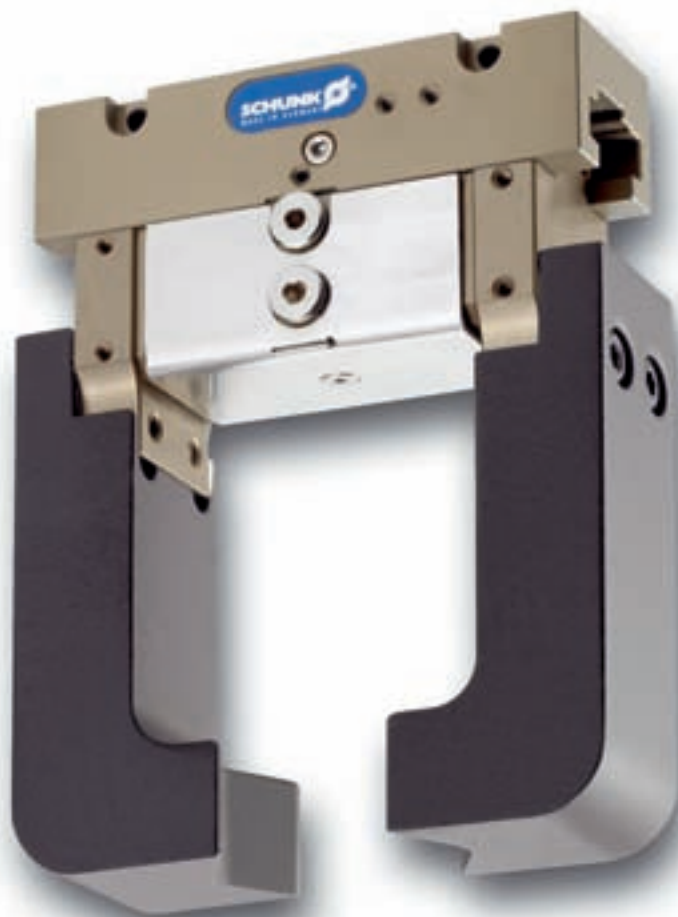
for centric clamping, even with long strokes

Mounting from two sides in three screw directions

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 information on the series

Working principle

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 µm): Dry, lubricated or non-lubricated
Pressure medium: Requirements on quality of the compressed air according to DIN ISO 8573-1: 6 4 4.

Warranty

24 months

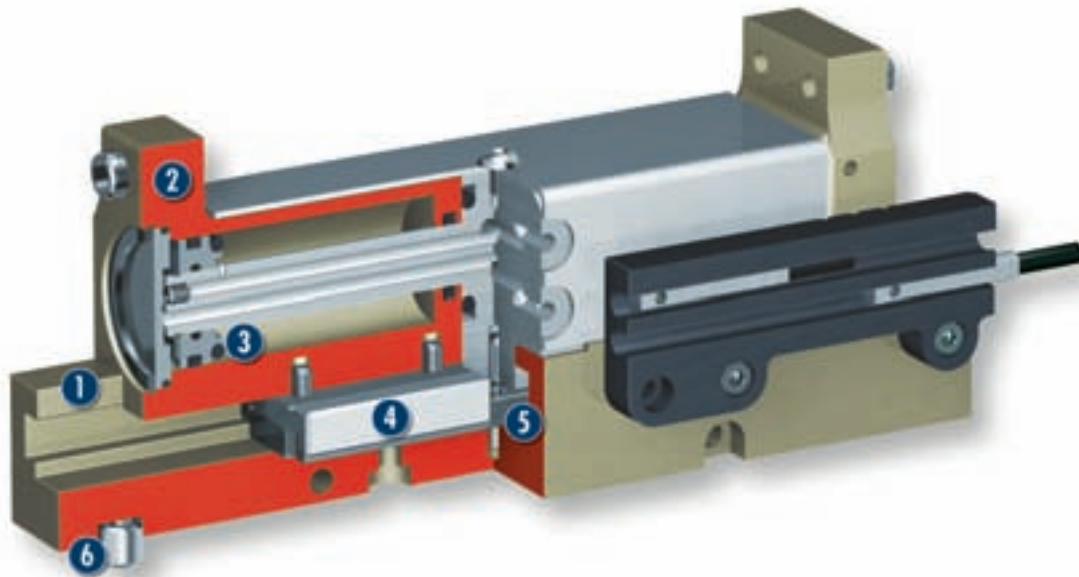
Scope of delivery

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

Maintenance of gripping force

possible with SDV-P pressure maintenance valve

Sectional diagram



- 1 Housing**
weight-reduced through the use of a hard-anodized, high-strength aluminum alloy
- 2 Base jaws**
for the connection of workpiece-specific gripper fingers
- 3 Drive**
Pneumatic 2-piston system
- 4 Guidance**
high maximum moments through robust T-slot guide
- 5 Kinematics**
rack and pinion principle for centric gripping, even with long strokes
- 6 Centering and mounting possibilities**
for assembly of the gripper to a base area and at the long side

Function description

The base jaws, arranged in a line, are introduced with compressed air directly by the fixed piston, which causes them to open and close. The base jaws are synchronized by the internal rack and pinion arrangement.

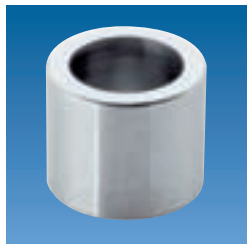
Options and special information

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



IN inductive proximity switches



KV/KA sensor cables



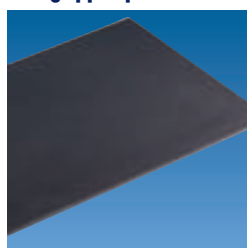
HM carbide clamping inserts



Quentes plastic inserts



HKI gripper pads



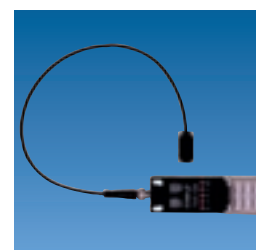
SDV-P pressure maintenance valves



V sensor distributors



FPS flexible position sensor



Finger blanks



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

General information on the series

Gripping force

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

Finger length

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

Repeat accuracy

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

Workpiece weight

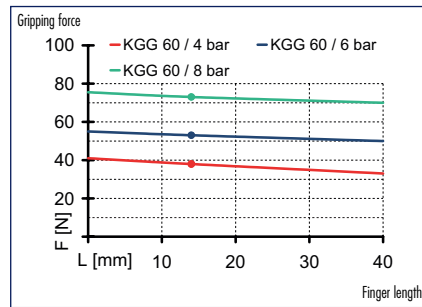
The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit gripping.

Closing and opening times

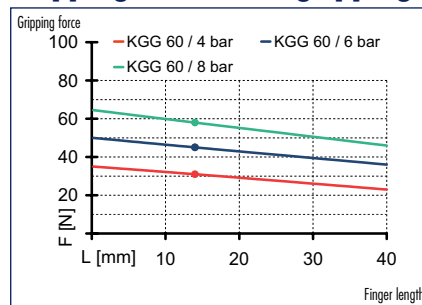
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.



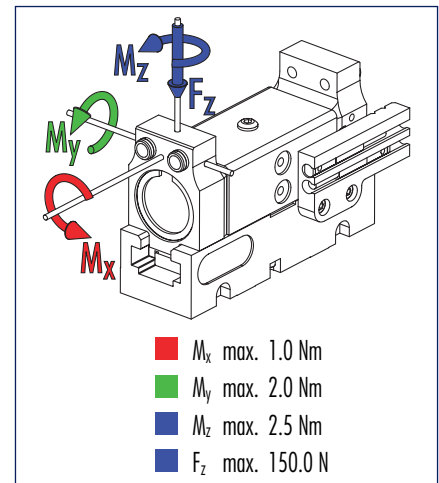
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

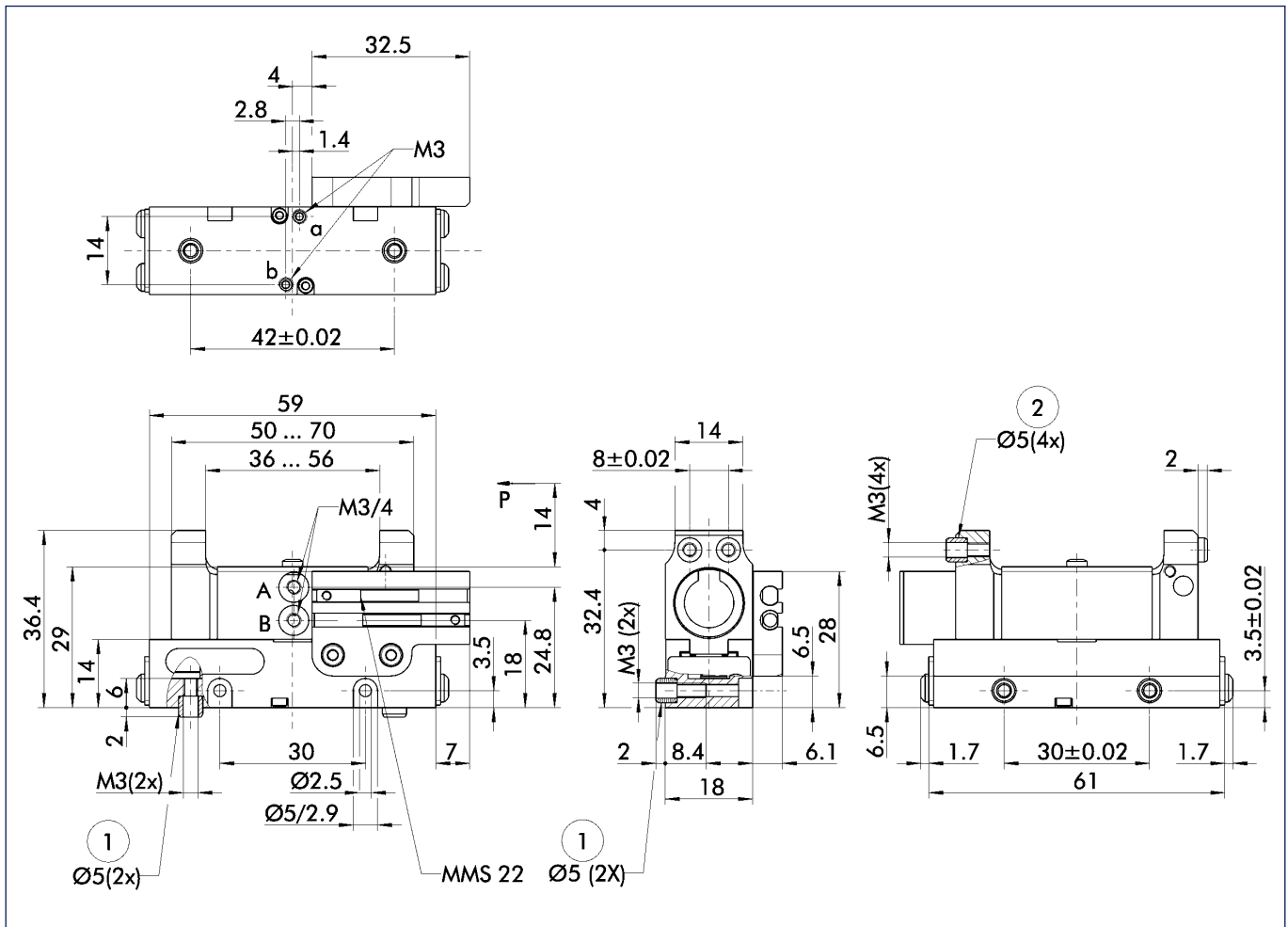


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing.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

Technical data

Description		KGG 60-20 0303050	KGG 60-40 0303051
Stroke per finger	[mm]	10.0	20.0
Closing force	[N]	45.0	45.0
Opening force	[N]	53.0	53.0
Weight	[kg]	0.085	0.108
Recommended workpiece weight	[kg]	0.23	0.23
Air consumption per double stroke	[cm ³]	3.0	6.0
Nominal pressure	[bar]	6.0	6.0
Minimum pressure	[bar]	2.0	2.0
Maximum pressure	[bar]	8.0	8.0
Closing time	[s]	0.03	0.04
Opening time	[s]	0.03	0.04
Max. permitted finger length	[mm]	42.0	42.0
Max. permitted weight per finger	[kg]	0.04	0.04
IP class		40	40
Min. ambient temperature	[°C]	-10.0	-10.0
Max. ambient temperature	[°C]	90.0	90.0
Repeat accuracy	[mm]	0.02	0.02

Main views

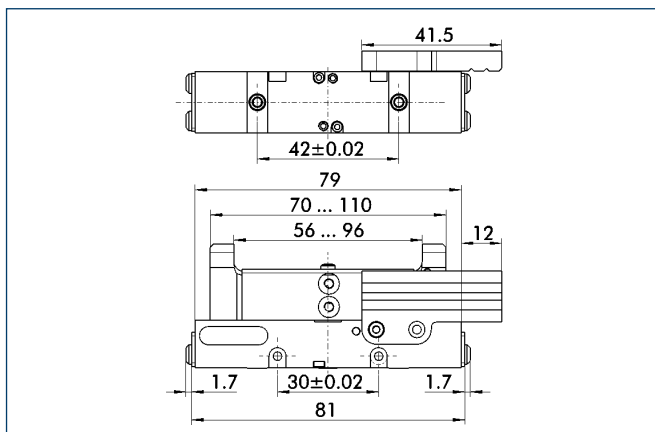


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

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

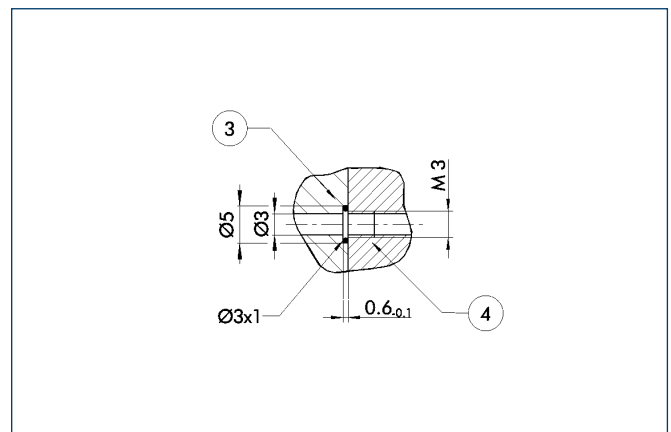
① The SDV-P pressure maintenance valve can also be used (see „Accessories“ catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

KGG 60-40 (double stroke)



The KGG 60-40 is a version with double stroke length.

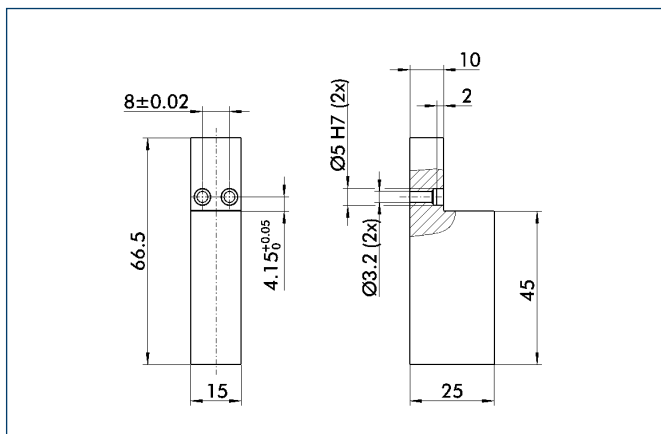
Hose-free direct connection



- ③ Adapter
- ④ Gripper

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

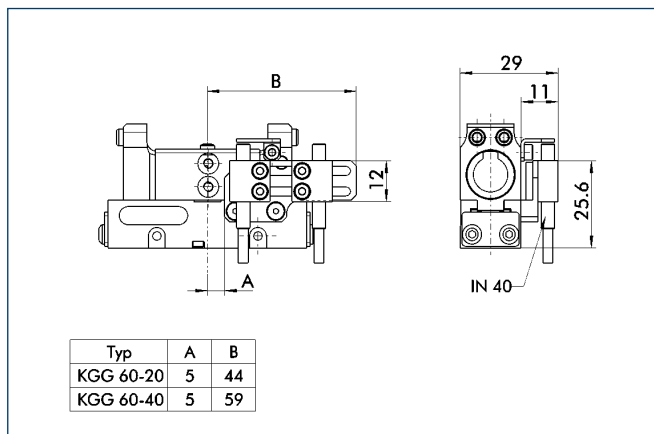
Finger blanks



Finger blanks for customized remachining

Description	Material	Scope of delivery	ID
RB 60	Aluminum	2	0303087

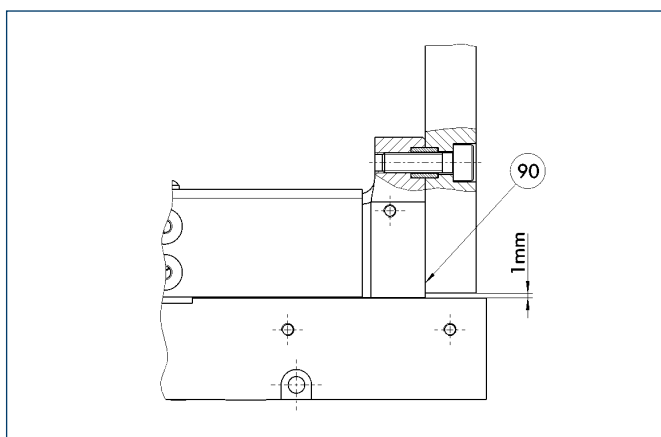
Mounting kit for proximity switch



The mounting kit consists of brackets, switch cams and the associated mounting materials. The proximity switches must be ordered separately.

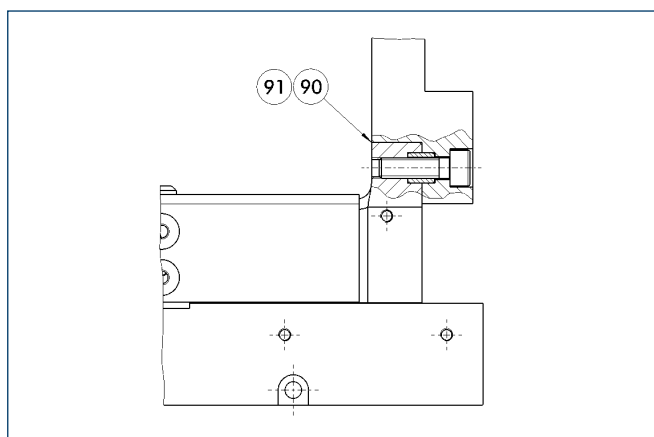
Description	ID
AS-KGG 60-20 / 70-24	0303081
AS-KGG 60-40 / 70-48	0303080

Jaw design O.D. gripping



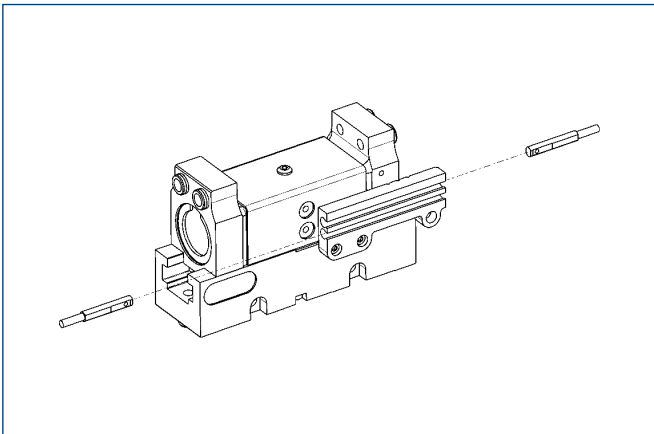
⑨⑩ Support top jaws at the base jaw

Jaw design I.D. gripping



⑨⑩ Support top jaws at the base jaw
 ⑨⑪ For dimensions of steps at the top jaw see drawings of finger blanks

Sensor system



End position monitoring:

Electronic magnetic switches, for mounting in C-slot

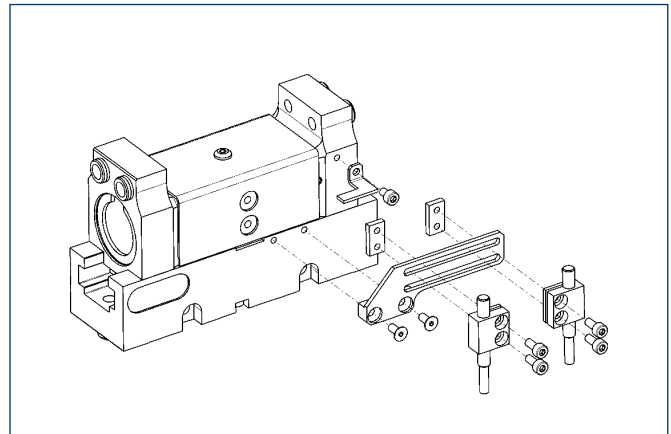
Description	ID	Recommended product
MMS 22-S-M5-NPN	0301439	
MMS 22-S-M5-NPN-SA	0301449	
MMS 22-S-M5-PNP	0301438	
MMS 22-S-M5-PNP-SA	0301448	
MMS 22-S-M8-NPN	0301433	
MMS 22-S-M8-NPN-SA	0301443	
MMS 22-S-M8-PNP	0301432	•
MMS 22-S-M8-PNP-SA	0301442	
MMSK 22-S-NPN	0301435	
MMSK 22-S-NPN-SA	0301445	
MMSK 22-S-PNP	0301434	
MMSK 22-S-PNP-SA	0301444	

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

Extension cables for proximity switches/magnetic switches

Description	ID
KA BG05-L 3P-0300	0301652
KA BG08-L 3P-0300-PNP	0301622
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
KA BW12-L 3P-0300-PNP	0301503
KA BW12-L 3P-0500-PNP	0301507
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 Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



End position monitoring:

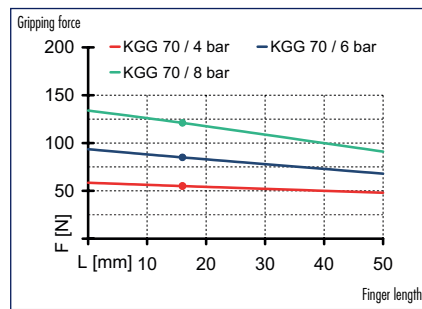
Inductive proximity switches, mounted with mounting kit

Description	ID
AS-KGG 60-20 / 70-24	0303081
AS-KGG 60-40 / 70-48	0303080
IN 40-S-M12	0301574
IN 40-S-M8	0301474
INK 40-S	0301555

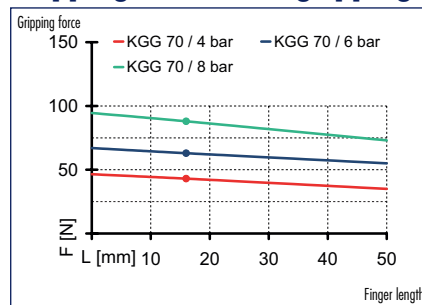
① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



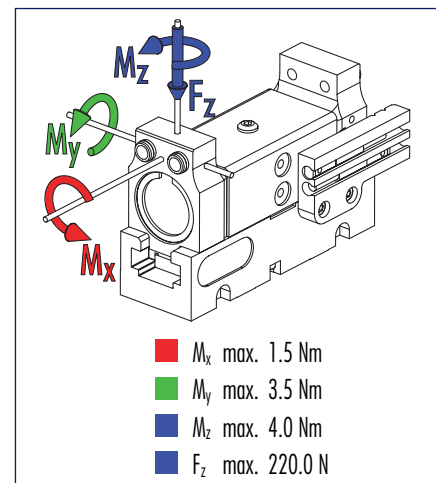
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

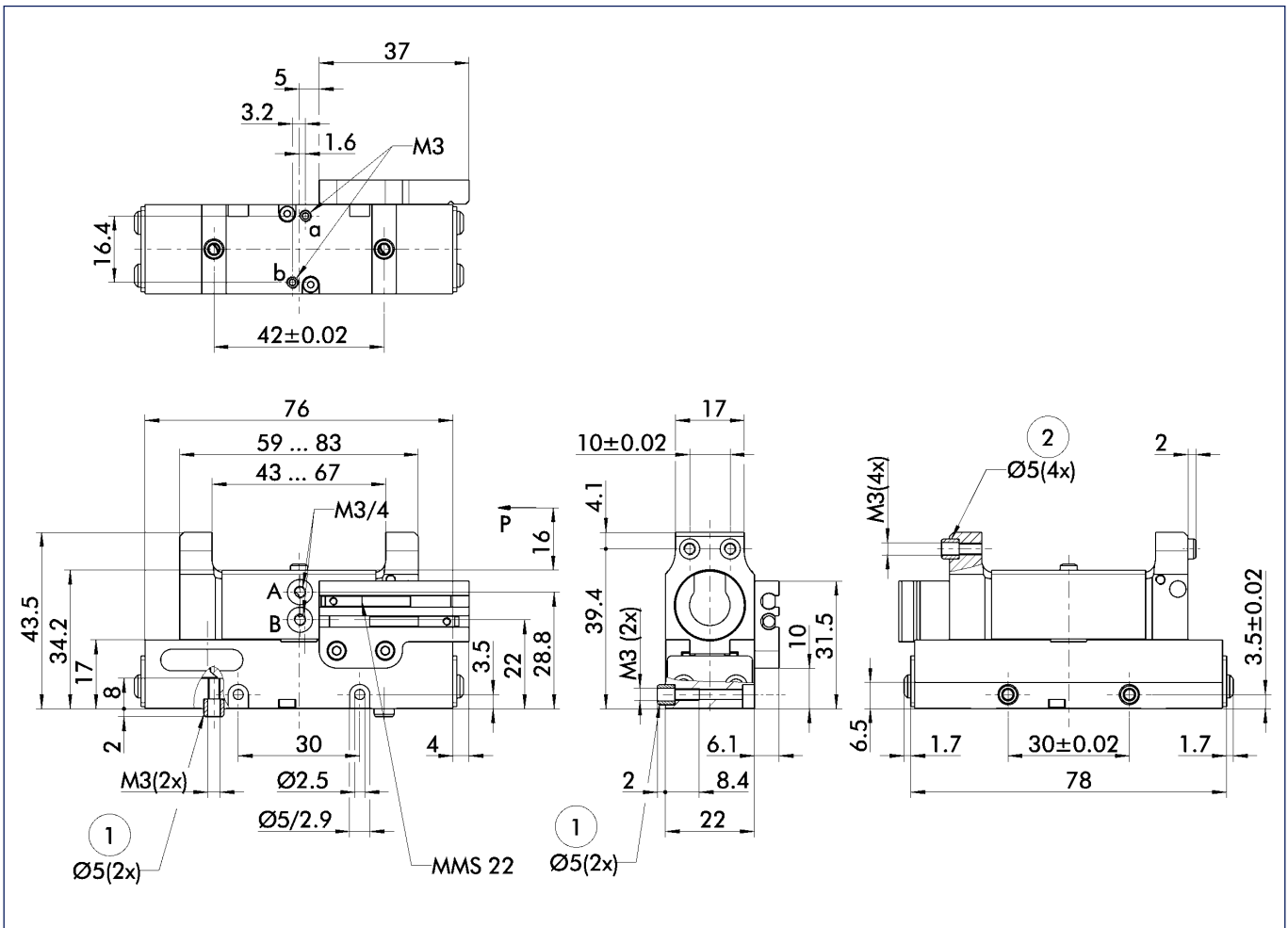


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing.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

Technical data

Description		KGG 70-24	KGG 70-48
	ID	0303055	0303056
Stroke per finger	[mm]	12.0	24.0
Closing force	[N]	62.0	62.0
Opening force	[N]	85.0	85.0
Weight	[kg]	0.15	0.192
Recommended workpiece weight	[kg]	0.32	0.32
Air consumption per double stroke	[cm ³]	5.0	10.0
Nominal pressure	[bar]	6.0	6.0
Minimum pressure	[bar]	2.0	2.0
Maximum pressure	[bar]	8.0	8.0
Closing time	[s]	0.04	0.05
Opening time	[s]	0.04	0.05
Max. permitted finger length	[mm]	50.0	50.0
Max. permitted weight per finger	[kg]	0.06	0.06
IP class		40	40
Min. ambient temperature	[°C]	-10.0	-10.0
Max. ambient temperature	[°C]	90.0	90.0
Repeat accuracy	[mm]	0.02	0.02

Main views

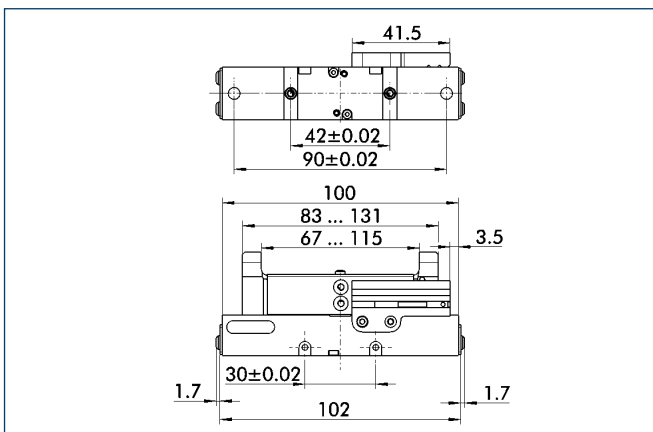


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

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

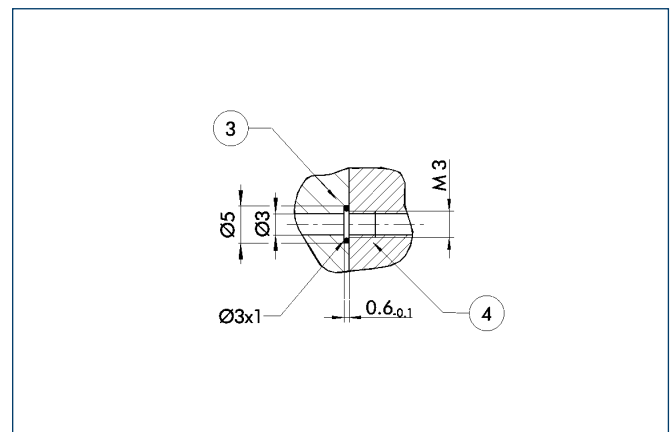
① The SDV-P pressure maintenance valve can also be used (see „Accessories“ catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

KGG 70-48 (double stroke)



The KGG 70-48 is a version with double stroke length.

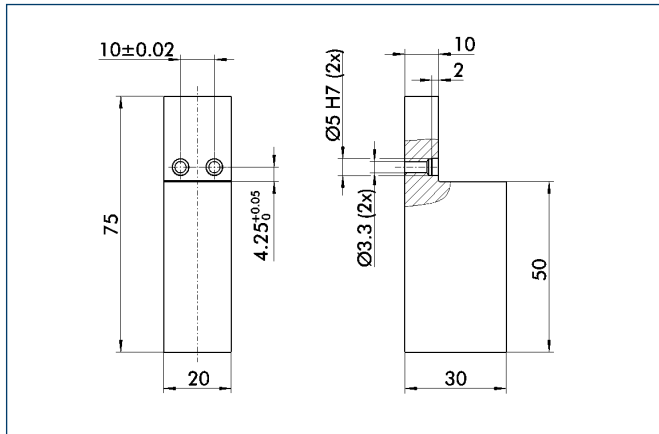
Hose-free direct connection



- ③ Adapter
- ④ Gripper

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

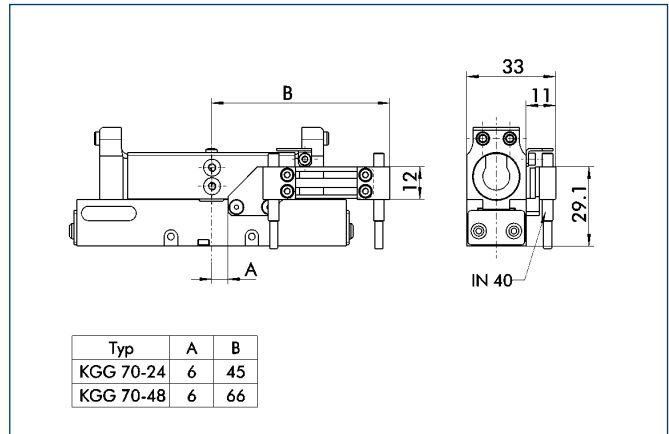
Finger blanks



Finger blanks for customized remachining

Description	Material	Scope of delivery	ID
RB 70	Aluminum	2	0303088

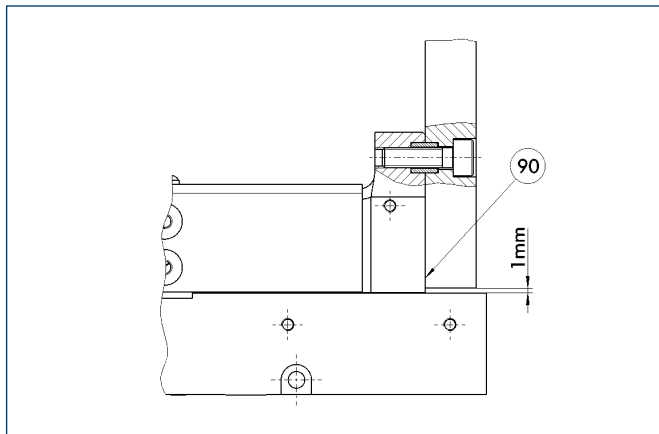
Mounting kit for proximity switch



The mounting kit consists of brackets, switch cams and the associated mounting materials. The proximity switches must be ordered separately.

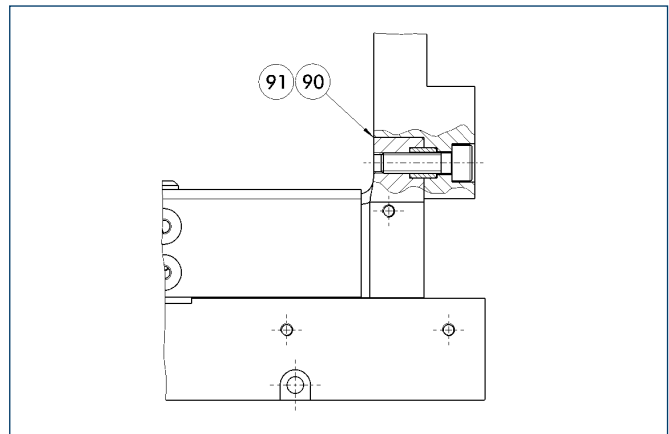
Description	ID
AS-KGG 60-20 / 70-24	0303081
AS-KGG 60-40 / 70-48	0303080

Jaw design O.D. gripping



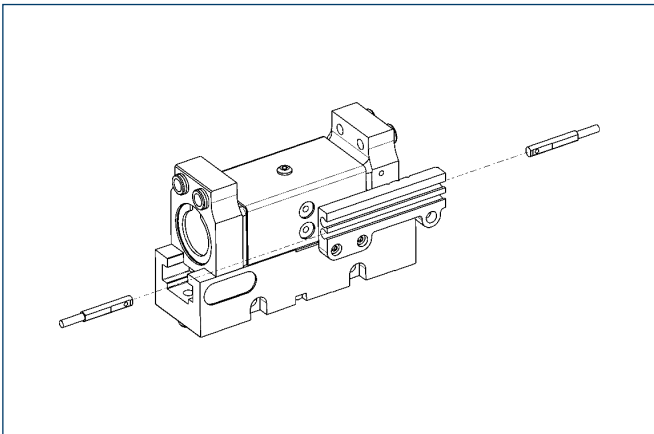
⑨⑩ Support top jaws at the base jaw

Jaw design I.D. gripping



⑨⑩ Support top jaws at the base jaw
 ⑨⑪ For dimensions of steps at the top jaw see drawings of finger blanks

Sensor system



End position monitoring:
Electronic magnetic switches, for mounting in C-slot

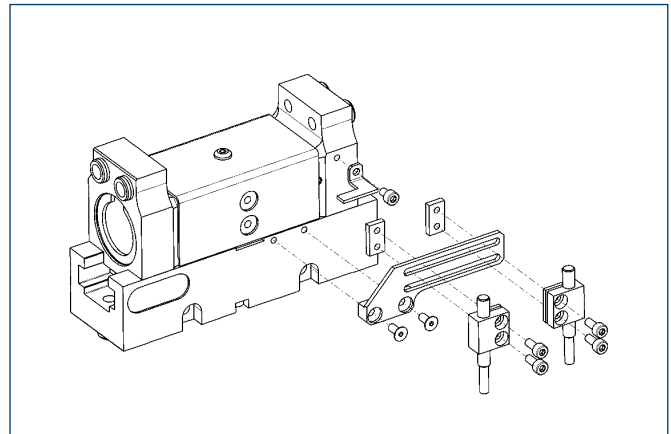
Description	ID	Recommended product
MMS 22-S-M5-NPN	0301439	
MMS 22-S-M5-NPN-SA	0301449	
MMS 22-S-M5-PNP	0301438	
MMS 22-S-M5-PNP-SA	0301448	
MMS 22-S-M8-NPN	0301433	
MMS 22-S-M8-NPN-SA	0301443	
MMS 22-S-M8-PNP	0301432	•
MMS 22-S-M8-PNP-SA	0301442	
MMSK 22-S-NPN	0301435	
MMSK 22-S-NPN-SA	0301445	
MMSK 22-S-PNP	0301434	
MMSK 22-S-PNP-SA	0301444	

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

Extension cables for proximity switches/magnetic switches

Description	ID
KA BG05-L 3P-0300	0301652
KA BG08-L 3P-0300-PNP	0301622
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
KA BW12-L 3P-0300-PNP	0301503
KA BW12-L 3P-0500-PNP	0301507
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 Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



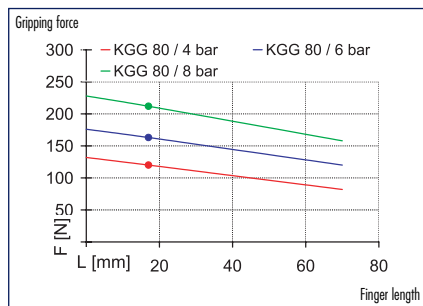
End position monitoring:
Inductive proximity switches, mounted with mounting kit

Description	ID
AS-KGG 60-20 / 70-24	0303081
AS-KGG 60-40 / 70-48	0303080
IN 40-S-M12	0301574
IN 40-S-M8	0301474
INK 40-S	0301555

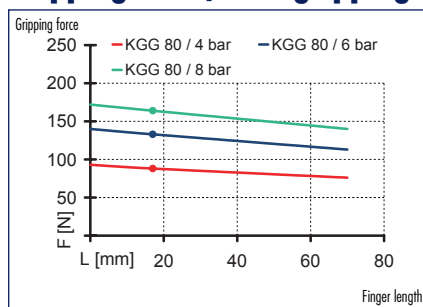
① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



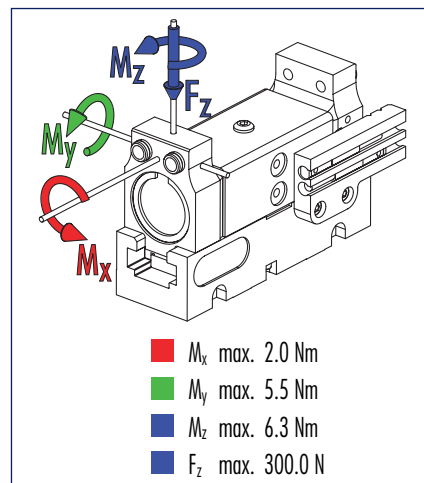
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

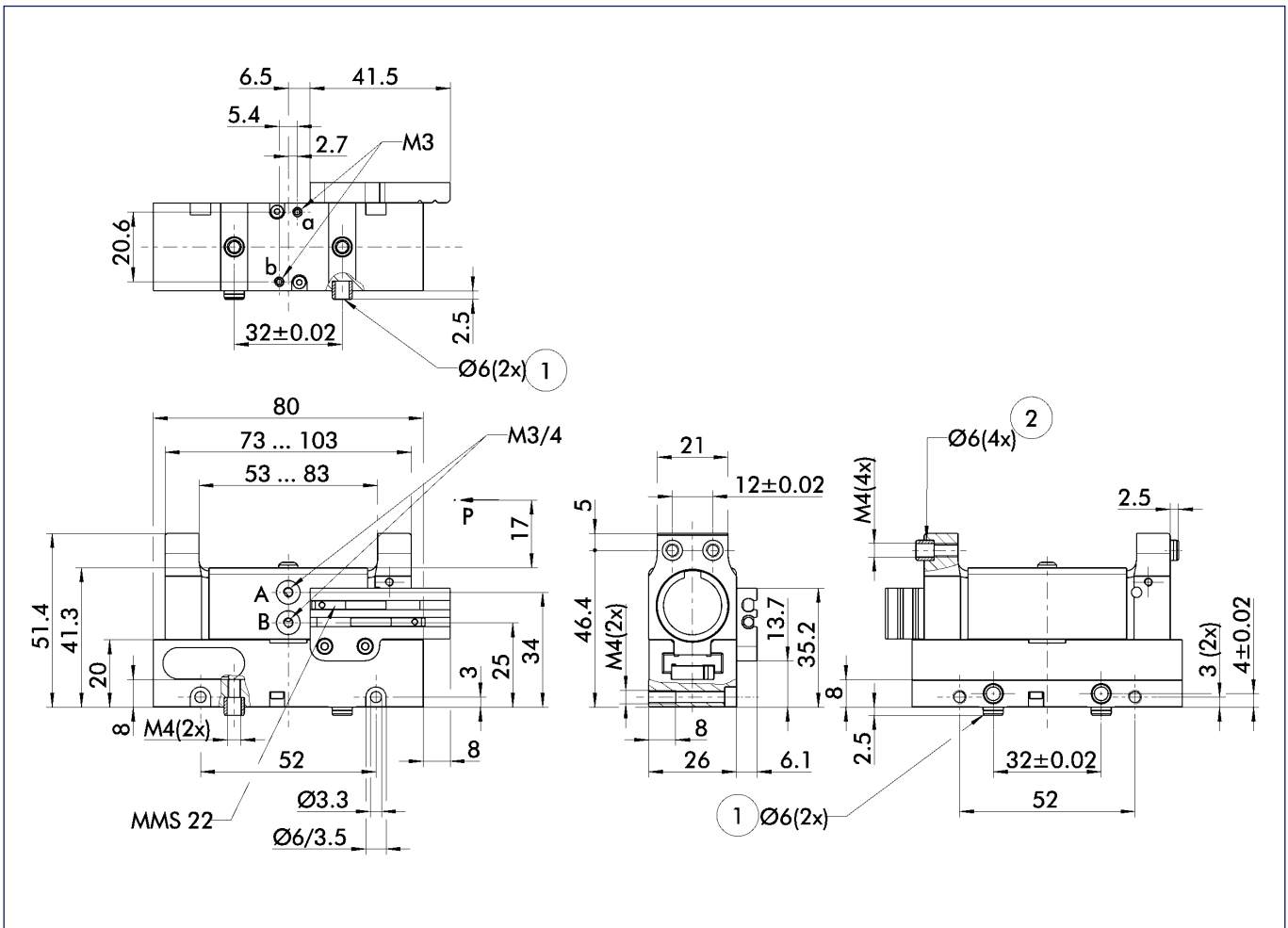


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing.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

Technical data

Description		KGG 80-30	KGG 80-60
	ID	0303060	0303061
Stroke per finger	[mm]	15.0	30.0
Closing force	[N]	130.0	130.0
Opening force	[N]	165.0	165.0
Weight	[kg]	0.25	0.33
Recommended workpiece weight	[kg]	0.66	0.66
Air consumption per double stroke	[cm ³]	12.0	24.0
Nominal pressure	[bar]	6.0	6.0
Minimum pressure	[bar]	2.0	2.0
Maximum pressure	[bar]	8.0	8.0
Closing time	[s]	0.05	0.08
Opening time	[s]	0.05	0.07
Max. permitted finger length	[mm]	80.0	80.0
Max. permitted weight per finger	[kg]	0.15	0.15
IP class		40	40
Min. ambient temperature	[°C]	-10.0	-10.0
Max. ambient temperature	[°C]	90.0	90.0
Repeat accuracy	[mm]	0.02	0.02

Main views

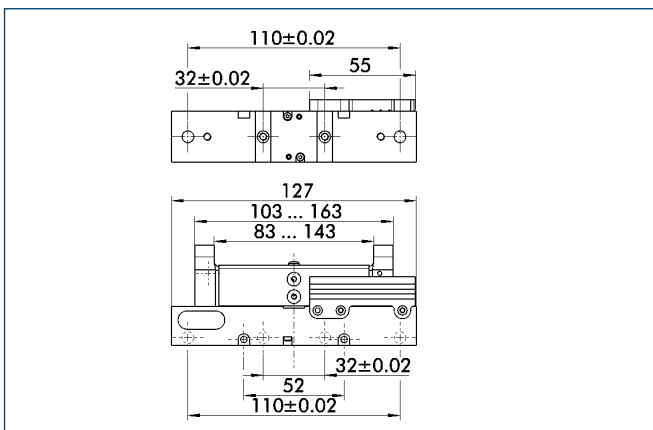


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

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

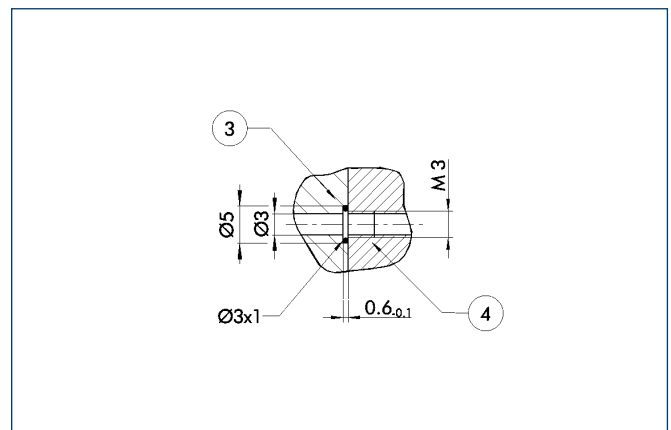
- A,a Main/direct connection, gripper opening
- B,b Main/direct connection, gripper closing
- ① Gripper connection
- ② Finger connection

KGG 80-60 (double stroke)



The KGG 80-60 is a version with double stroke length.

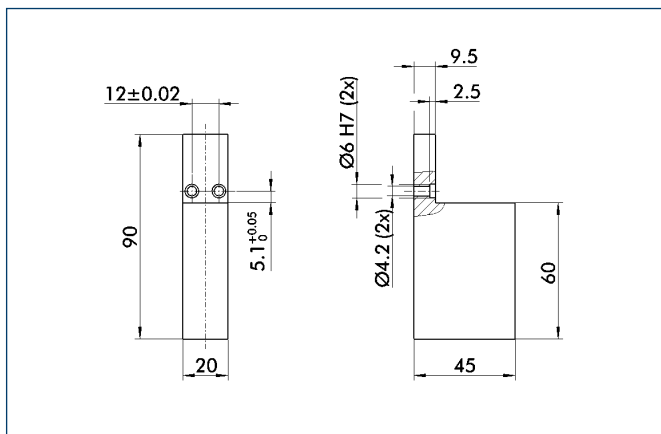
Hose-free direct connection



- ③ Adapter
- ④ Gripper

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

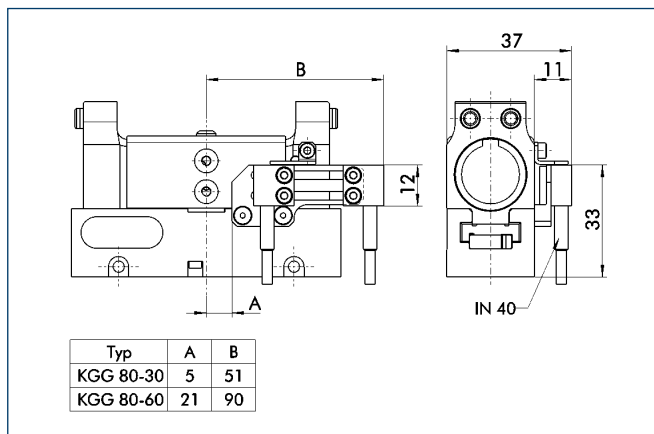
Finger blanks



Finger blanks for customized remachining

Description	Material	Scope of delivery	ID
RB 80	Aluminum	2	0303089

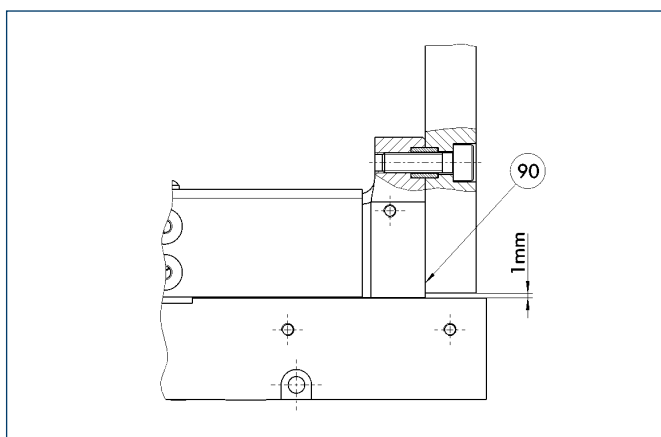
Mounting kit for proximity switch



The mounting kit consists of brackets, switch cams and the associated mounting materials. The proximity switches must be ordered separately.

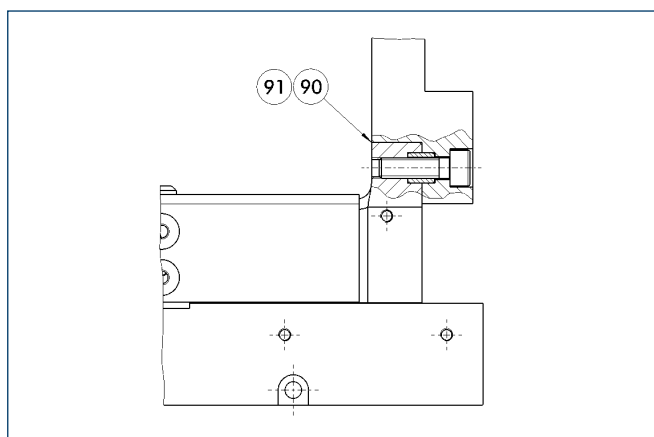
Description	ID
AS-KGG 80-30	0303083
AS-KGG 80-60 / 100-80 / 140-60	0303084

Jaw design O.D. gripping



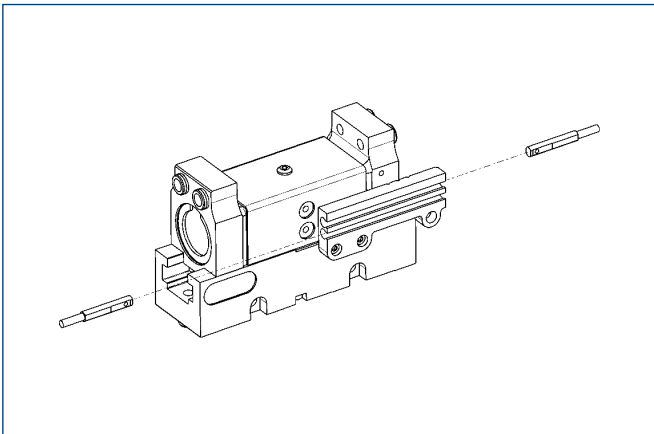
⑨⑩ Support top jaws at the base jaw

Jaw design I.D. gripping



⑨⑩ Support top jaws at the base jaw
 ⑨① For dimensions of steps at the top jaw see drawings of finger blanks

Sensor system



End position monitoring:
Electronic magnetic switches, for mounting in C-slot

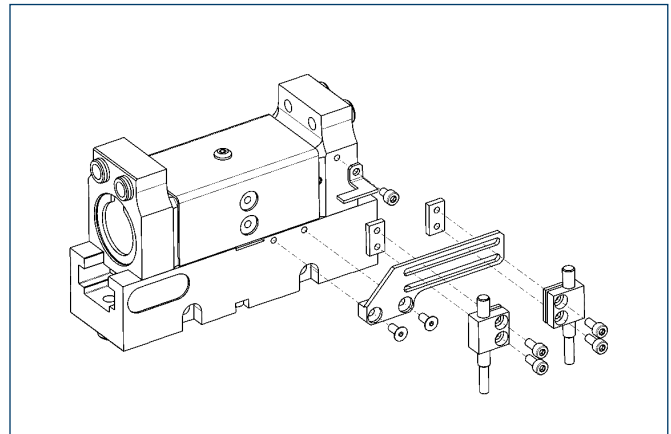
Description	ID	Recommended product
MMS 22-S-M5-NPN	0301439	
MMS 22-S-M5-NPN-SA	0301449	
MMS 22-S-M5-PNP	0301438	
MMS 22-S-M5-PNP-SA	0301448	
MMS 22-S-M8-NPN	0301433	
MMS 22-S-M8-NPN-SA	0301443	
MMS 22-S-M8-PNP	0301432	•
MMS 22-S-M8-PNP-SA	0301442	
MMSK 22-S-NPN	0301435	
MMSK 22-S-NPN-SA	0301445	
MMSK 22-S-PNP	0301434	
MMSK 22-S-PNP-SA	0301444	

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

Extension cables for proximity switches/magnetic switches

Description	ID
KA BG05-L 3P-0300	0301652
KA BG08-L 3P-0300-PNP	0301622
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
KA BW12-L 3P-0300-PNP	0301503
KA BW12-L 3P-0500-PNP	0301507
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 Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



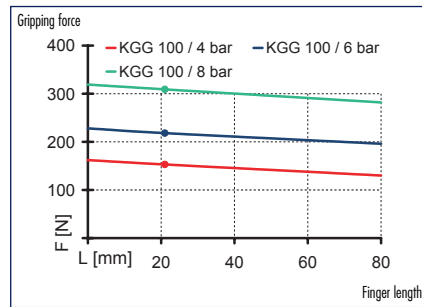
End position monitoring:
Inductive proximity switches, mounted with mounting kit

Description	ID
AS-KGG 80-30	0303083
AS-KGG 80-60 / 100-80 / 140-60	0303084
IN 40-S-M12	0301574
IN 40-S-M8	0301474
INK 40-S	0301555

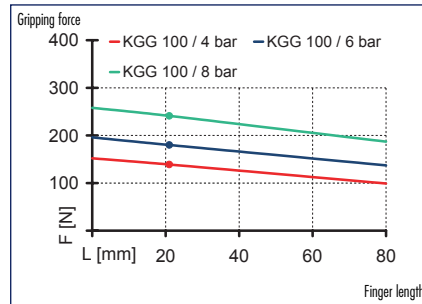
① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



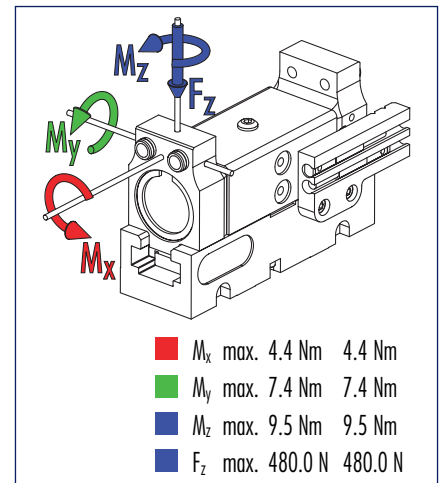
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

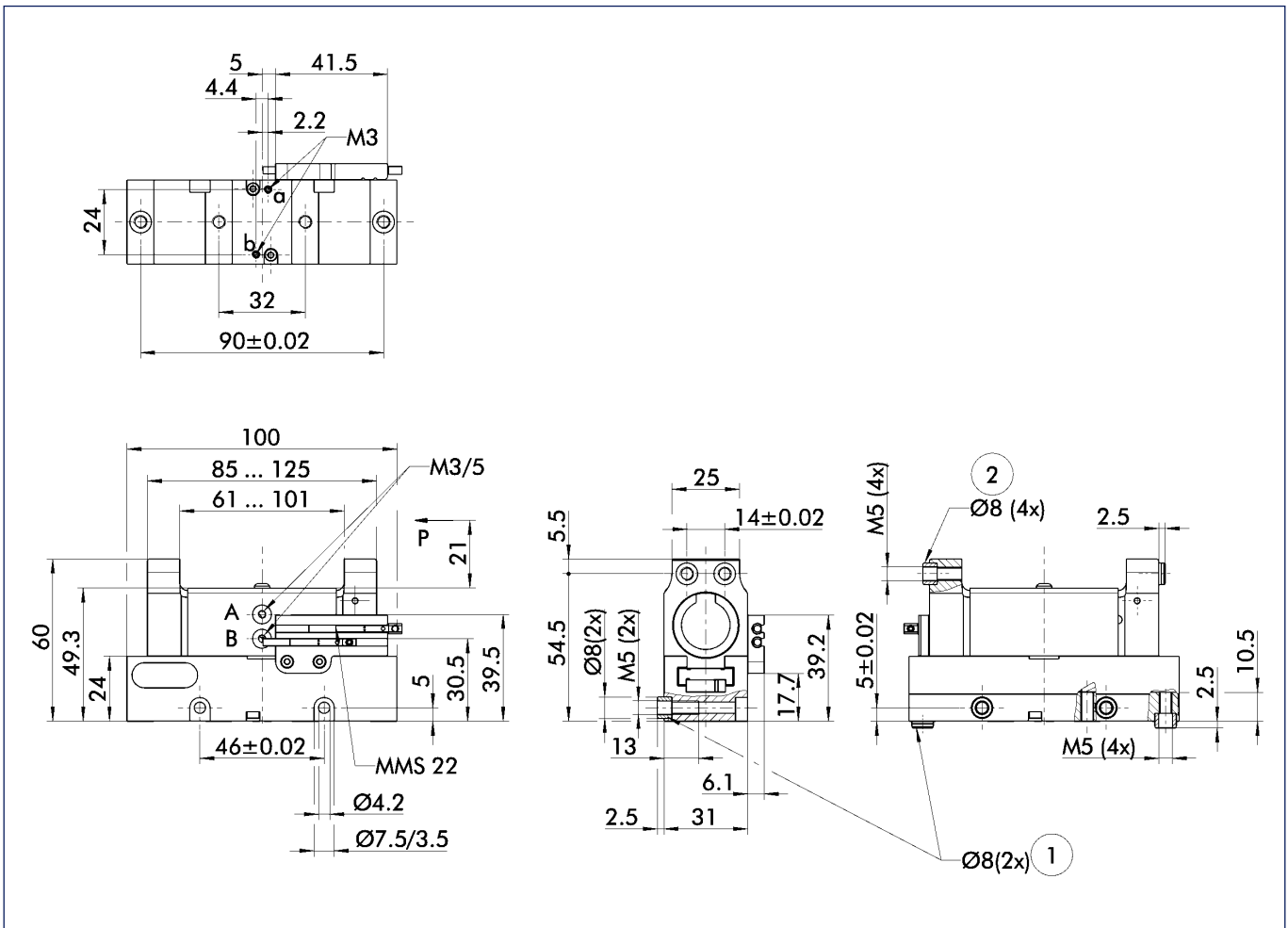


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing.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

Technical data

Description	ID	KGG 100-40	KGG 100-80
		0303065	0303066
Stroke per finger	[mm]	20.0	40.0
Closing force	[N]	175.0	175.0
Opening force	[N]	220.0	220.0
Weight	[kg]	0.37	0.5
Recommended workpiece weight	[kg]	0.9	0.9
Air consumption per double stroke	[cm ³]	22.5	45.0
Nominal pressure	[bar]	6.0	6.0
Minimum pressure	[bar]	2.0	2.0
Maximum pressure	[bar]	8.0	8.0
Closing time	[s]	0.09	0.15
Opening time	[s]	0.07	0.14
Max. permitted finger length	[mm]	80.0	80.0
Max. permitted weight per finger	[kg]	0.3	0.3
IP class		40	40
Min. ambient temperature	[°C]	-10.0	-10.0
Max. ambient temperature	[°C]	90.0	90.0
Repeat accuracy	[mm]	0.02	0.02

Main views

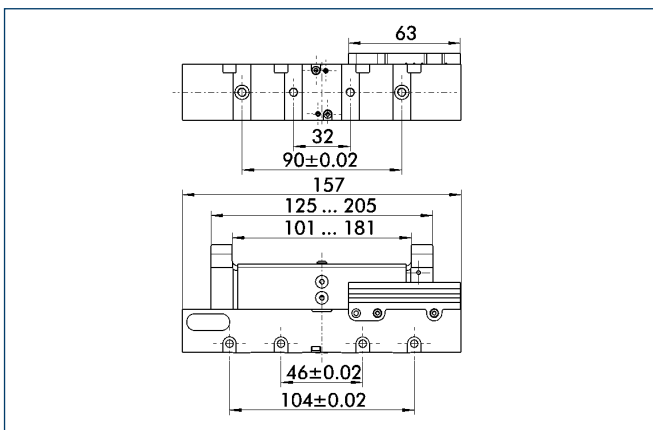


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

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

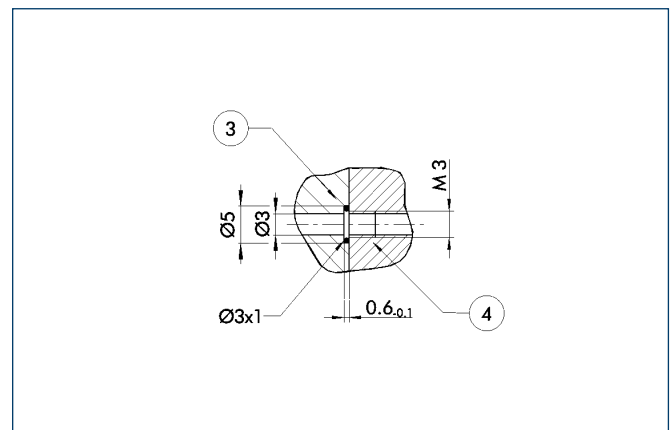
① The SDV-P pressure maintenance valve can also be used (see „Accessories“ catalog section) for I.D. or O.D. gripping as an alternative or in addition to the spring-loaded, mechanical gripping force safety device.

KGG 100-80 (double stroke)



The KGG 100-80 is a version with double stroke length

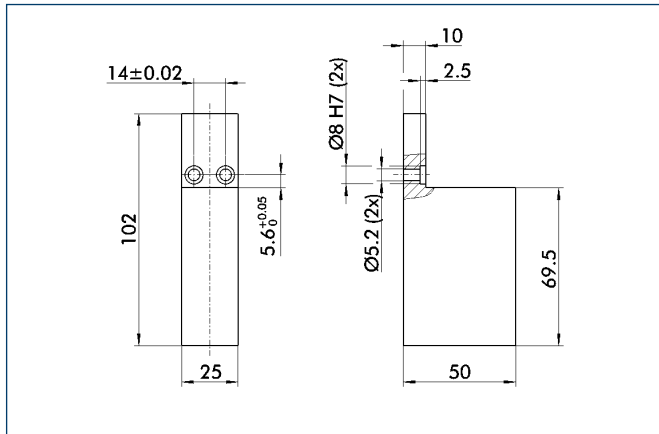
Hose-free direct connection



- ③ Adapter
- ④ Gripper

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

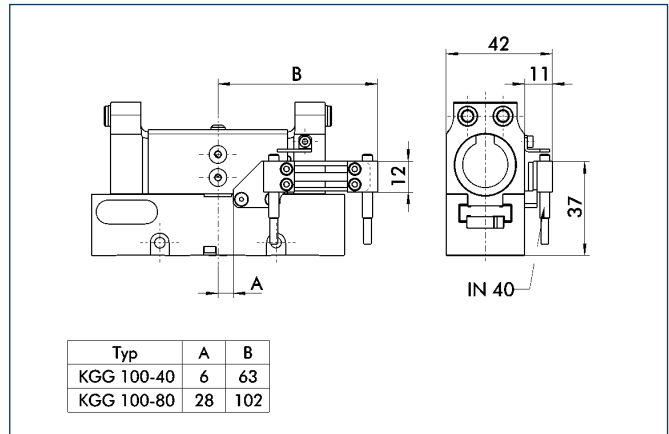
Finger blanks



Finger blanks for customized remachining

Description	Material	Scope of delivery	ID
RB 100	Aluminum	2	0303090

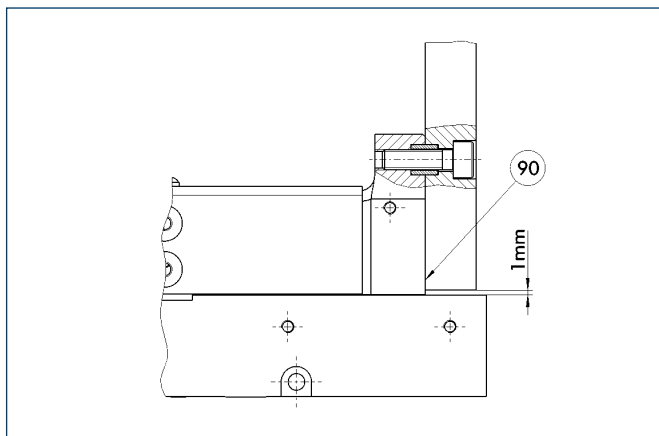
Mounting kit for proximity switch



The mounting kit consists of brackets, switch cams and the associated mounting materials. The proximity switches must be ordered separately.

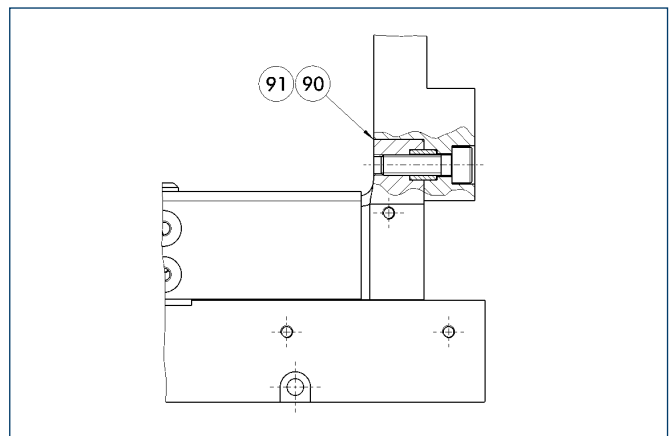
Description	ID
AS-KGG 100-40	0303082
AS-KGG 80-60 / 100-80 / 140-60	0303084

Jaw design O.D. gripping



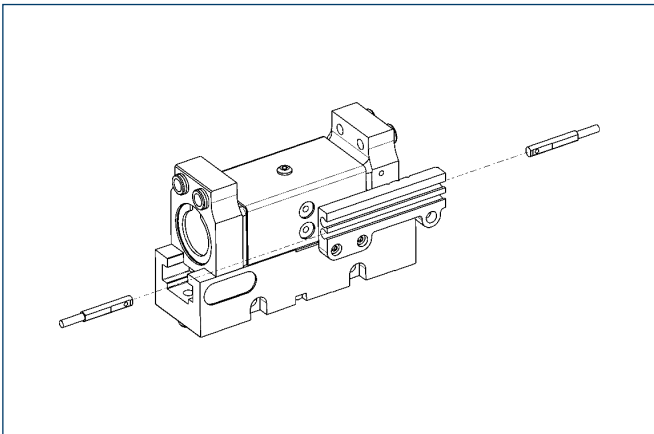
⑨⑩ Support top jaws at the base jaw

Jaw design I.D. gripping



⑨⑩ Support top jaws at the base jaw
 ⑨⑪ For dimensions of steps at the top jaw see drawings of finger blanks

Sensor system



End position monitoring:
Electronic magnetic switches, for mounting in C-slot

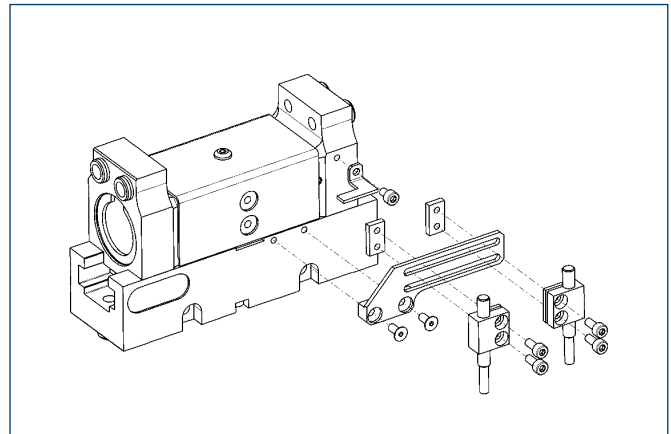
Description	ID	Recommended product
MMS 22-S-M5-NPN	0301439	
MMS 22-S-M5-NPN-SA	0301449	
MMS 22-S-M5-PNP	0301438	
MMS 22-S-M5-PNP-SA	0301448	
MMS 22-S-M8-NPN	0301433	
MMS 22-S-M8-NPN-SA	0301443	
MMS 22-S-M8-PNP	0301432	•
MMS 22-S-M8-PNP-SA	0301442	
MMSK 22-S-NPN	0301435	
MMSK 22-S-NPN-SA	0301445	
MMSK 22-S-PNP	0301434	
MMSK 22-S-PNP-SA	0301444	

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

Extensioncables for proximity switches/magnetic switches

Description	ID
KA BG05-L 3P-0300	0301652
KA BG08-L 3P-0300-PNP	0301622
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
KA BW12-L 3P-0300-PNP	0301503
KA BW12-L 3P-0500-PNP	0301507
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 Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



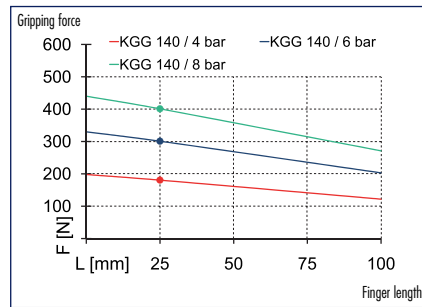
End position monitoring:
Inductive proximity switches, mounted with mounting kit

Description	ID
AS-KGG 100-40	0303082
AS-KGG 80-60 / 100-80 / 140-60	0303084
IN 40-S-M12	0301574
IN 40-S-M8	0301474
INK 40-S	0301555

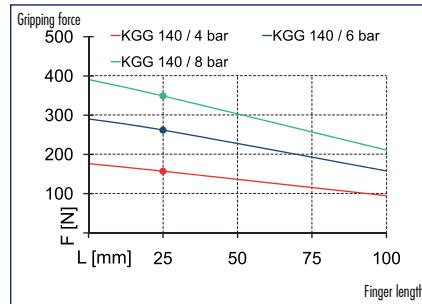
① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



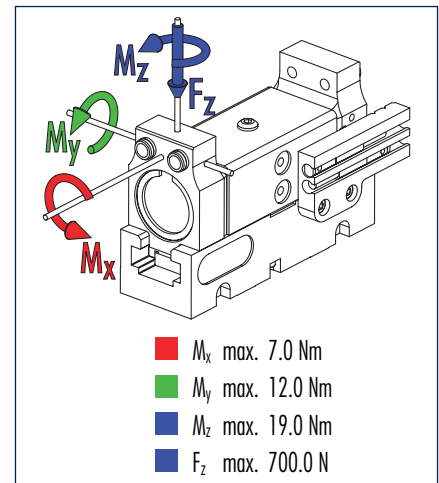
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

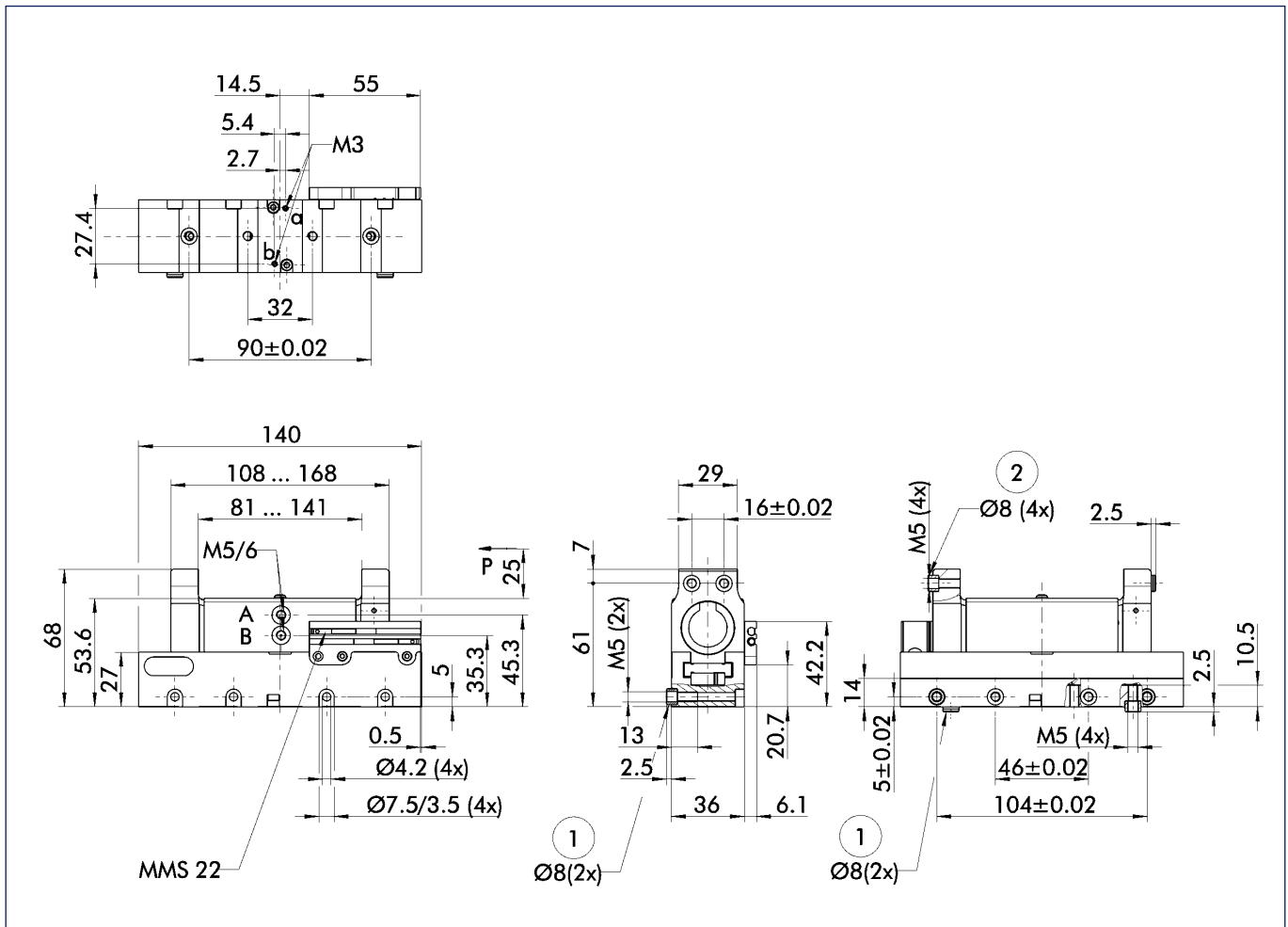


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing.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

Technical data

Description	KGG 140-60	
	ID	0303070
Stroke per finger	[mm]	30.0
Closing force	[N]	260.0
Opening force	[N]	300.0
Weight	[kg]	0.77
Recommended workpiece weight	[kg]	1.3
Air consumption per double stroke	[cm ³]	42.0
Nominal pressure	[bar]	6.0
Minimum pressure	[bar]	2.0
Maximum pressure	[bar]	8.0
Closing time	[s]	0.17
Opening time	[s]	0.17
Max. permitted finger length	[mm]	100.0
Max. permitted weight per finger	[kg]	0.5
IP class		40
Min. ambient temperature	[°C]	-10.0
Max. ambient temperature	[°C]	90.0
Repeat accuracy	[mm]	0.02

Main views

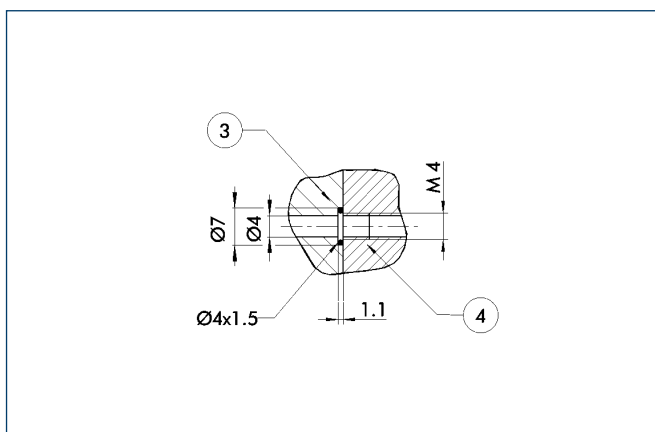


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

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

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

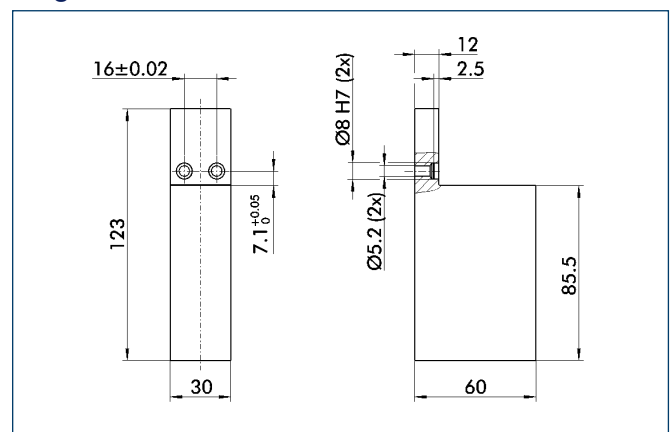
Hose-free direct connection



- ③ Adapter
- ④ Gripper

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

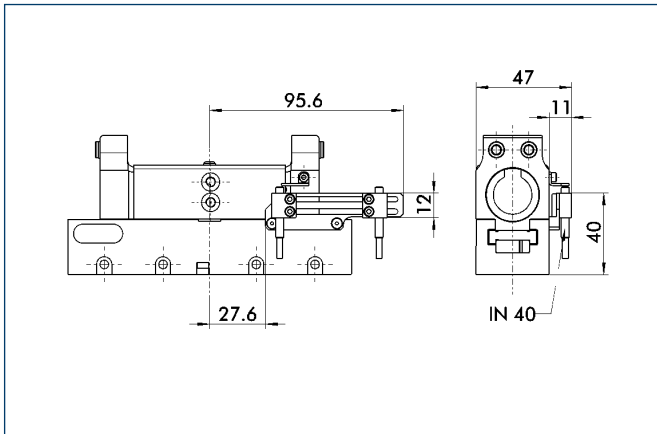
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
RB 140	Aluminum	2	0303091

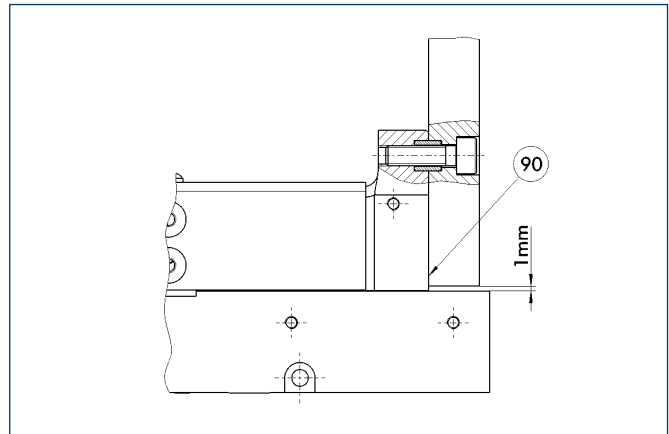
Mounting kit for proximity switch



The mounting kit consists of brackets, switch cams and the associated mounting materials. The proximity switches must be ordered separately.

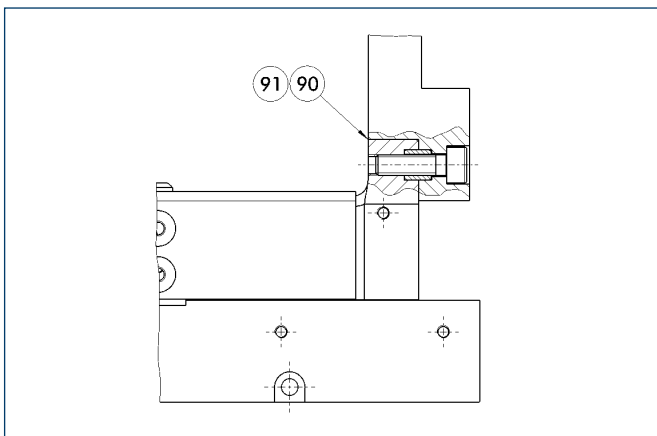
Description	ID
AS-KGG 80-60 / 100-80 / 140-60	0303084

Jaw design O.D. gripping



⑨⑩ Support top jaws at the base jaw

Jaw design I.D. gripping

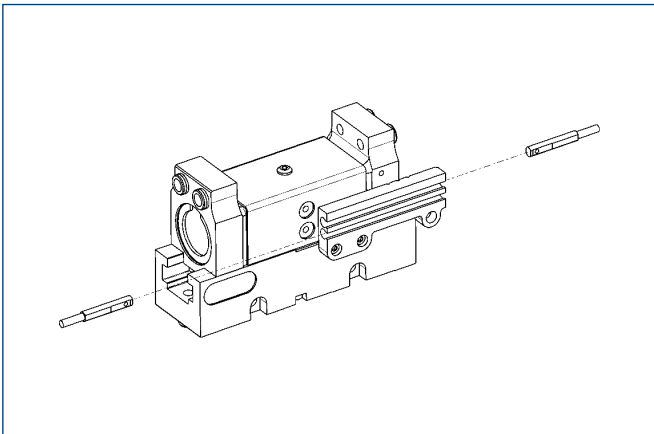


- ⑨⑩ Support top jaws at the base jaw
- ⑨⑪ For dimensions of steps at the top jaw see drawings of finger blanks



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

Sensor system



End position monitoring:
Electronic magnetic switches, for mounting in C-slot

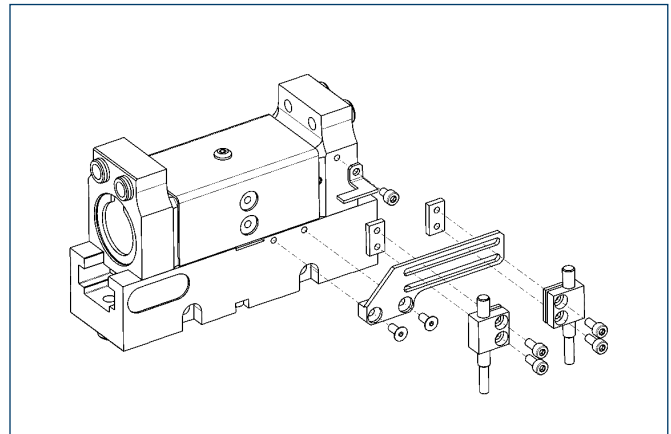
Description	ID	Recommended product
MMS 22-S-M5-NPN	0301439	
MMS 22-S-M5-NPN-SA	0301449	
MMS 22-S-M5-PNP	0301438	
MMS 22-S-M5-PNP-SA	0301448	
MMS 22-S-M8-NPN	0301433	
MMS 22-S-M8-NPN-SA	0301443	
MMS 22-S-M8-PNP	0301432	•
MMS 22-S-M8-PNP-SA	0301442	
MMSK 22-S-NPN	0301435	
MMSK 22-S-NPN-SA	0301445	
MMSK 22-S-PNP	0301434	
MMSK 22-S-PNP-SA	0301444	

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

Extension cables for proximity switches/magnetic switches

Description	ID
KA BG05-L 3P-0300	0301652
KA BG08-L 3P-0300-PNP	0301622
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
KA BW12-L 3P-0300-PNP	0301503
KA BW12-L 3P-0500-PNP	0301507
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 Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



End position monitoring:
Inductive proximity switches, mounted with mounting kit

Description	ID
AS-KGG 80-60 / 100-80 / 140-60	0303084
IN 40-S-M12	0301574
IN 40-S-M8	0301474
INK 40-S	0301555

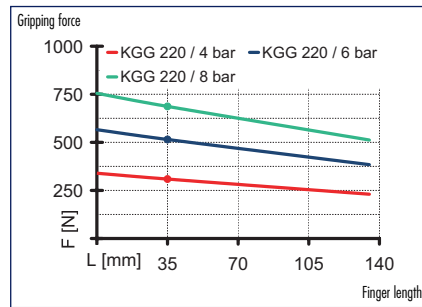
① Two sensors (NO contacts) are required for each gripper, plus extension cables as an option.



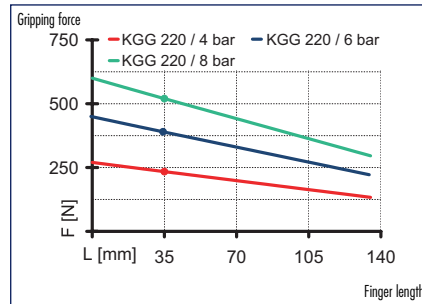
You can find more detailed information and individual parts of the above-mentioned accessories in the „Accessories“ catalog section.



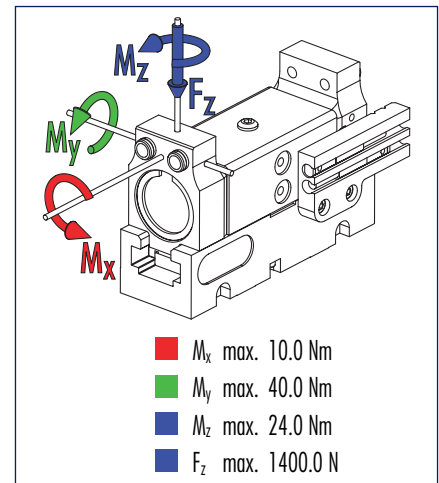
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

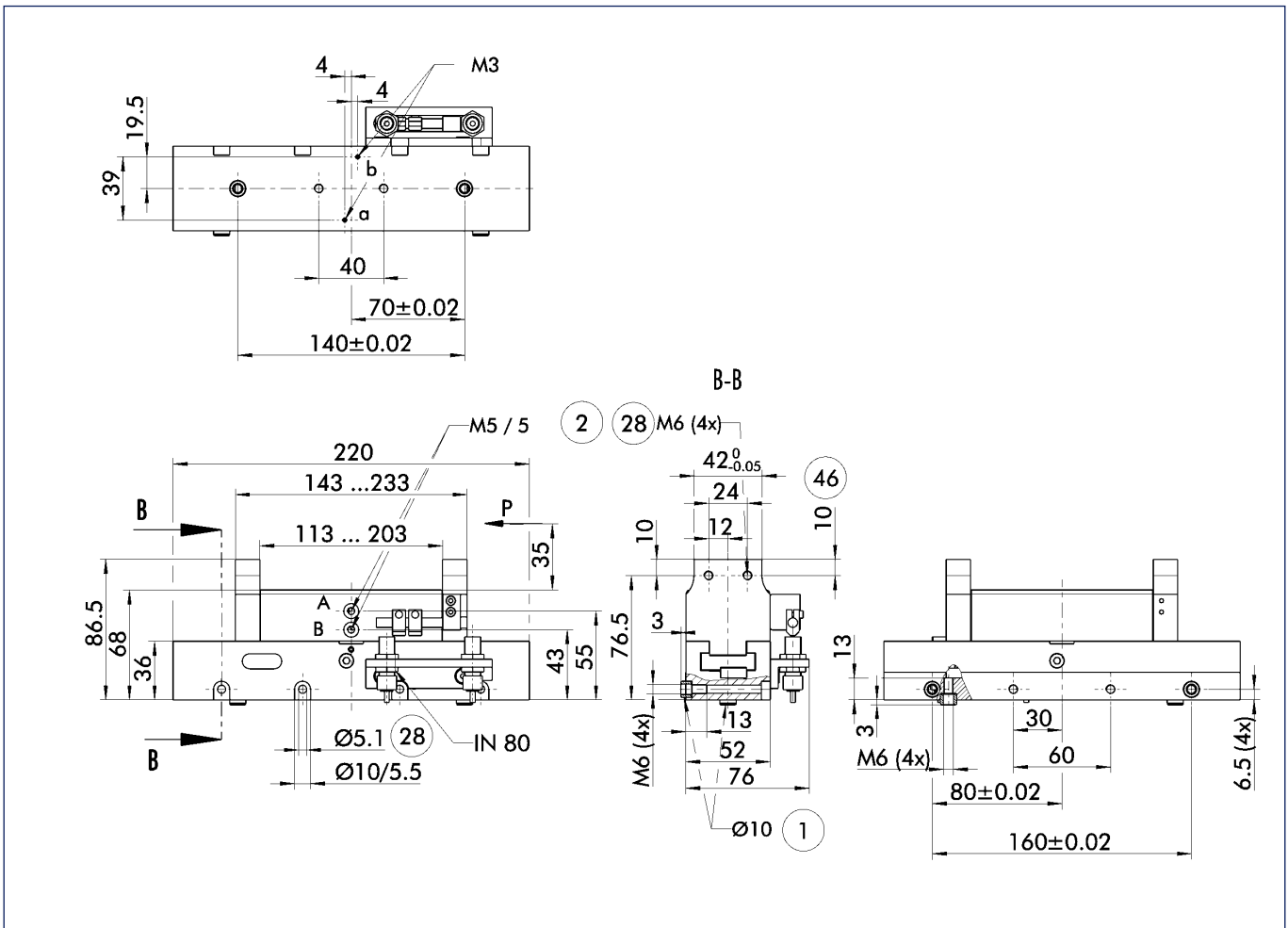


ⓘ Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing.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

Technical data

Description	KGG 220	
	ID	0340312
Stroke per finger	[mm]	45.0
Closing force	[N]	390.0
Opening force	[N]	515.0
Weight	[kg]	2.0
Recommended workpiece weight	[kg]	1.95
Air consumption per double stroke	[cm ³]	98.0
Nominal pressure	[bar]	6.0
Minimum pressure	[bar]	2.5
Maximum pressure	[bar]	8.0
Closing time	[s]	0.25
Opening time	[s]	0.25
Max. permitted finger length	[mm]	130.0
Max. permitted weight per finger	[kg]	1.0
IP class		30
Min. ambient temperature	[°C]	-10.0
Max. ambient temperature	[°C]	90.0
Repeat accuracy	[mm]	0.05

Main views

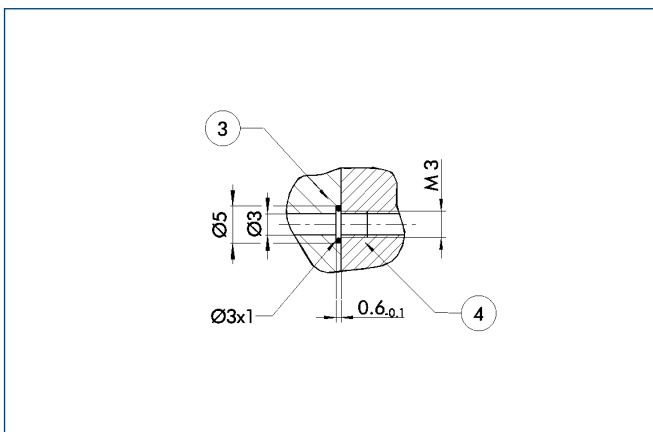


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can be used as a gripping force safety 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
- 28 Through-bore
- 46 Fitting length

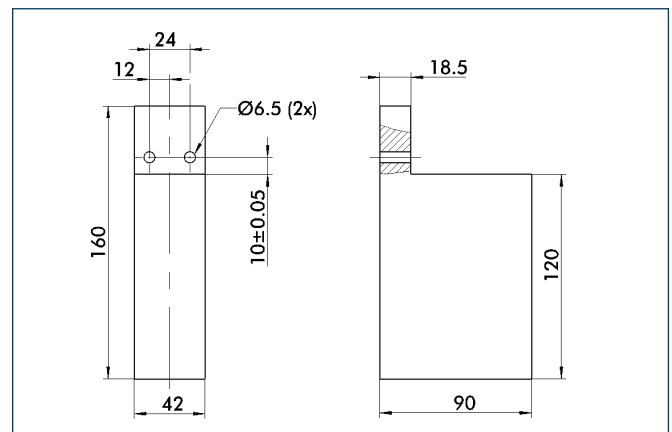
Hose-free direct connection



- ③ Adapter
- ④ Gripper

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

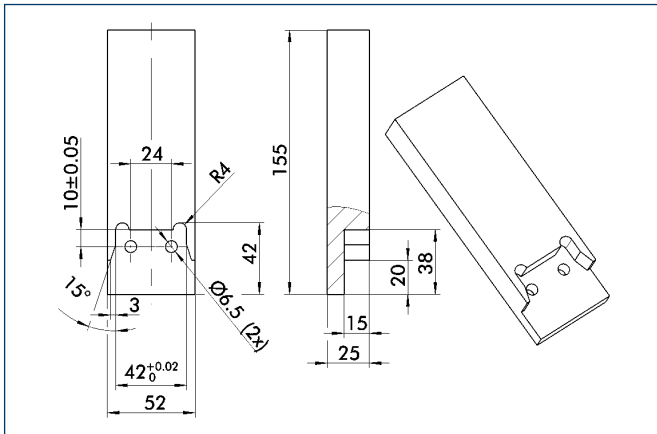
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

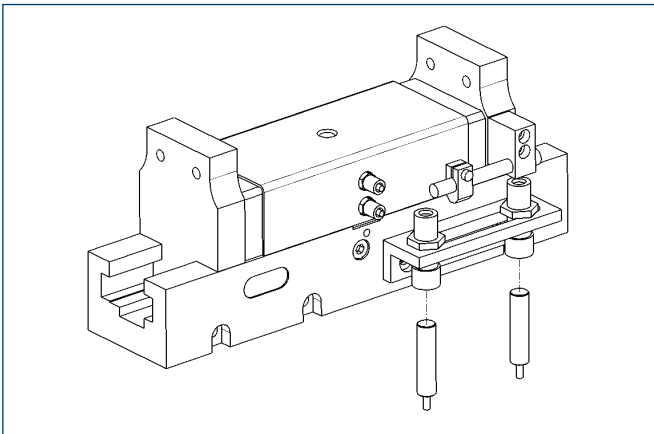
Description	Material	Scope of delivery	ID
RB 220	Aluminum	2	0300286

Finger design



Suggested connection dimensions for gripper fingers

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

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

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

Extension cables for proximity switches/magnetic switches

Description	ID
KA BG08-L 3P-0300-PNP	0301622
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
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

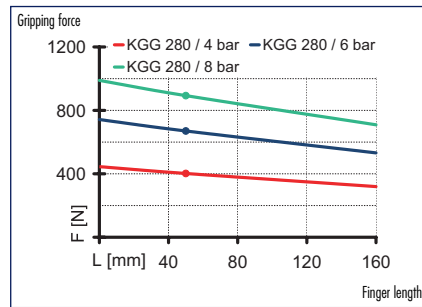
① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



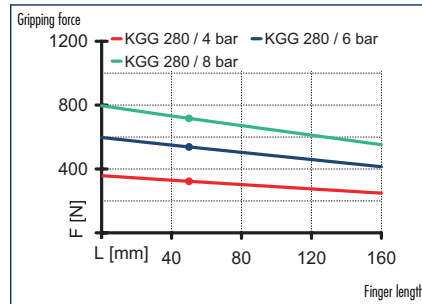
You can find more detailed information and individual parts of the above-mentioned accessories in the „Accessories“ catalog section.



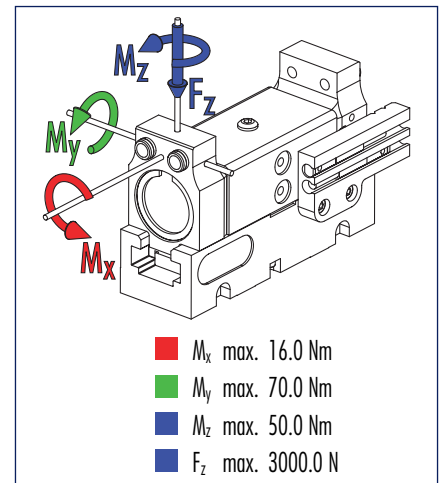
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load

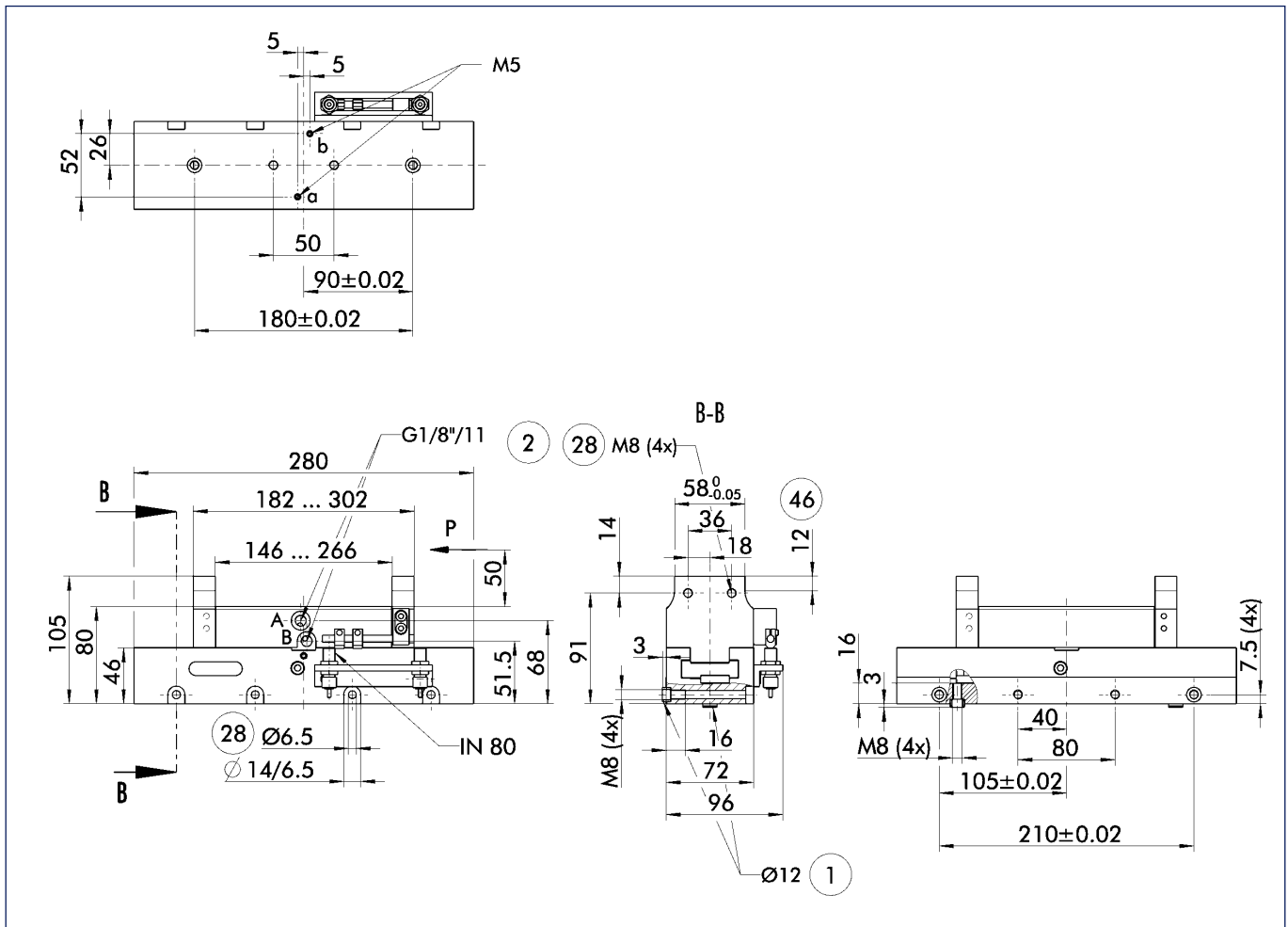


① Moments and forces apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement occurs without any hitting or bouncing.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

Technical data

Description	KGG 280	
	ID	0340313
Stroke per finger	[mm]	60.0
Closing force	[N]	540.0
Opening force	[N]	670.0
Weight	[kg]	4.2
Recommended workpiece weight	[kg]	2.7
Air consumption per double stroke	[cm ³]	170.0
Nominal pressure	[bar]	6.0
Minimum pressure	[bar]	2.5
Maximum pressure	[bar]	8.0
Closing time	[s]	0.29
Opening time	[s]	0.25
Max. permitted finger length	[mm]	160.0
Max. permitted weight per finger	[kg]	2.0
IP class		30
Min. ambient temperature	[°C]	-10.0
Max. ambient temperature	[°C]	90.0
Repeat accuracy	[mm]	0.1

Main views

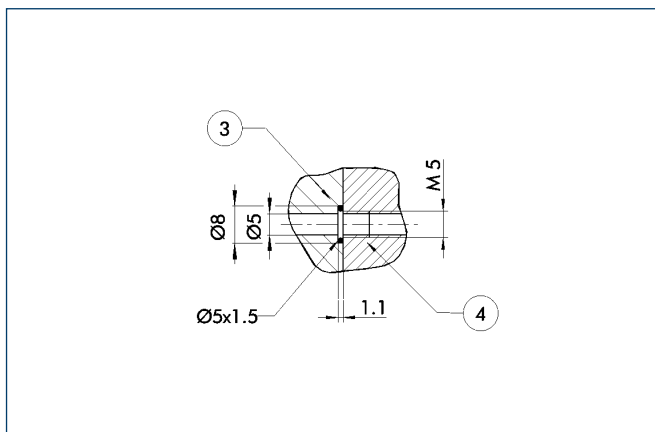


The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

① The SDV-P pressure maintenance valve can be used as a gripping force safety 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
- 28 Through-bore
- 46 Fitting length

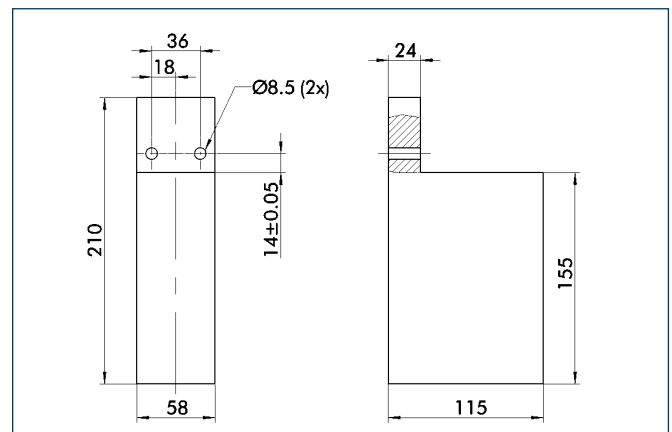
Hose-free direct connection



- ③ Adapter
- ④ Gripper

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

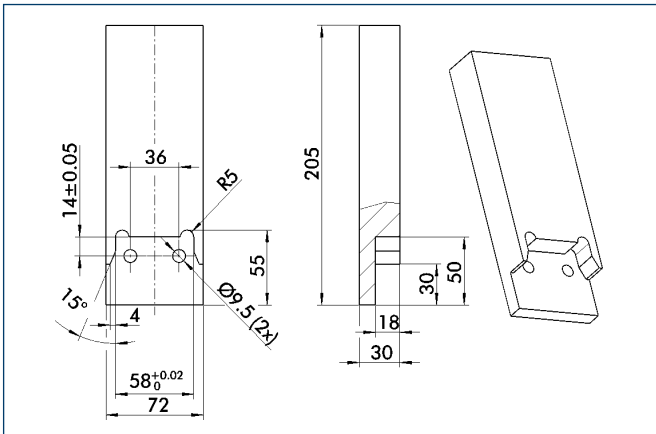
Finger blanks



Finger blanks for customized subsequent machining, incl. screw connection diagram

Description	Material	Scope of delivery	ID
RB 280	Aluminum	2	0300287

Finger design

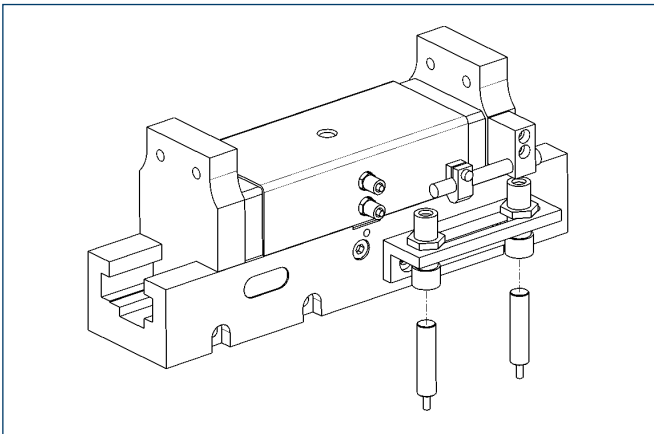


Suggested connection dimensions for gripper fingers



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

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

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

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

Extension cables for proximity switches/magnetic switches

Description	ID
KA BG08-L 3P-0300-PNP	0301622
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
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 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.