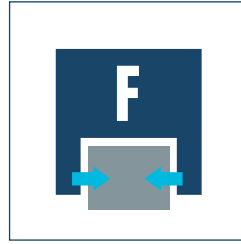




Sizes
30 ... 50



Weight
2.65 kg ... 12.6 kg



Gripping force
630 N ... 2950 N



Stroke per finger
30 mm ... 100 mm



Workpiece weight
3.15 kg ... 13 kg

Application example



Assembly unit for intermediate sleeves with various diameters. The unit is equipped with a collision protection device to prevent damages.

1 PFH 2-Finger Parallel Gripper with workpiece-specific gripper fingers

2 OPS collision and overload protection device

Long-stroke Gripper

2-Finger Parallel Gripper with large jaw stroke for large parts and/or a broad range of parts

Field of application

clean to slightly dirty environments

Your advantages and benefits

Robust guidance

for the precise handling of all kinds of workpieces

High maximum moments possible

suitable for using long gripper fingers

Double piston-rack-pinion principle

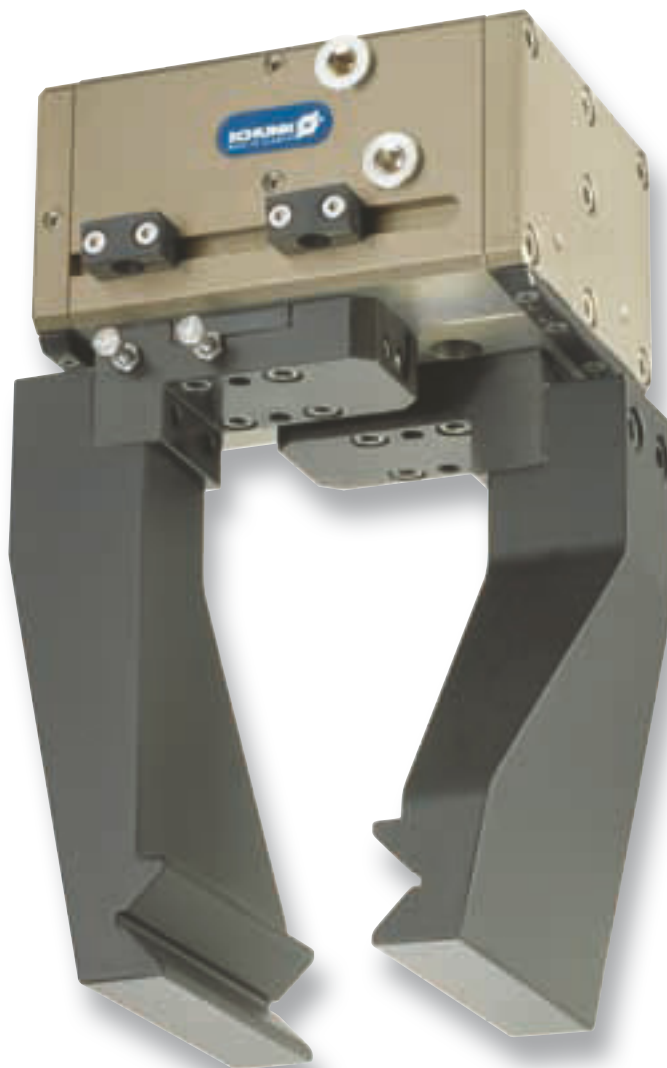
for centric clamping

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

Double piston-rack-pinion principle

Housing material

Aluminum alloy, hard-anodized

Base jaw material

Steel

Actuation

pneumatic, with filtered compressed air (10 microns): dry, lubricated or non-lubricated

Pressure medium: Required quality class of compressed air according to

DIN ISO 8573-1: 6 4 4

Warranty

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

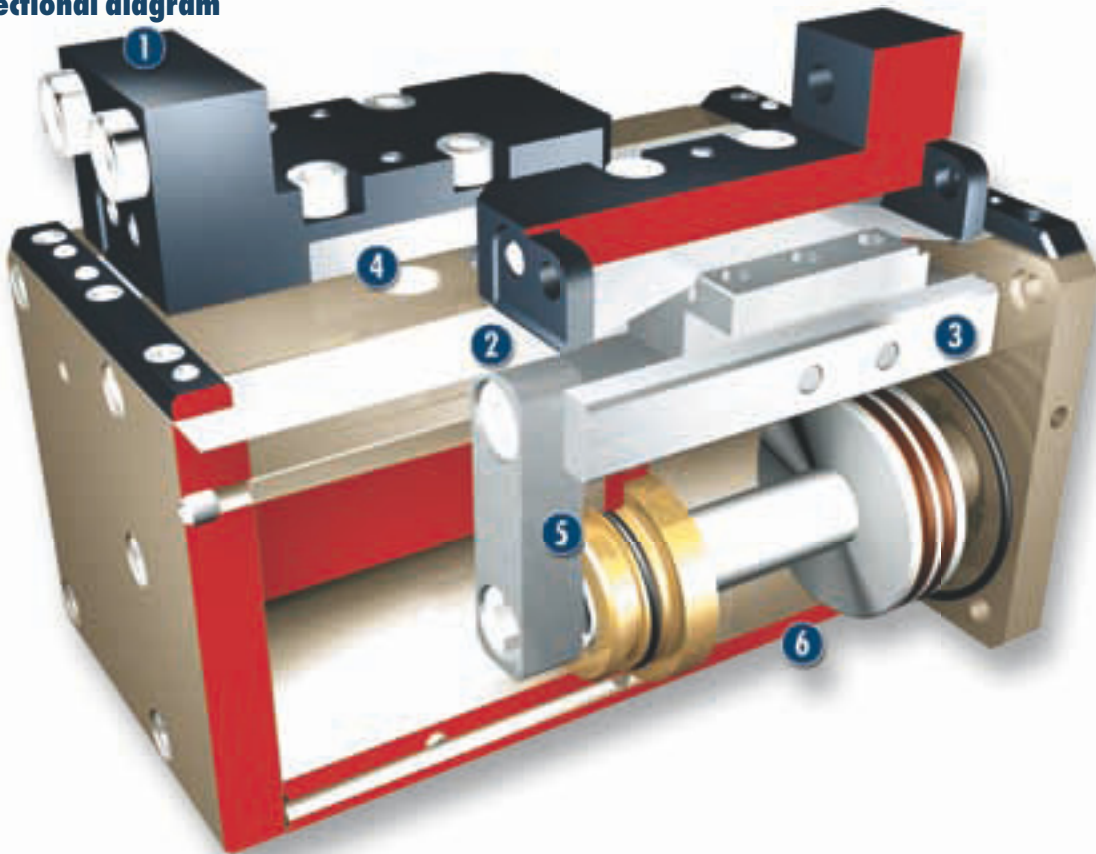
Scope of delivery

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

Gripping force maintenance device

possible with SDV-P pressure maintenance valve

Sectional diagram



- 1 Base jaw**
for the connection of workpiece-specific gripper fingers
- 2 Dirt-cover**
along the whole guidance length against coarse dirt
- 3 Guidance**
for precise gripping with minimal play at a high load capacity
- 4 Centering and mounting possibilities**
for universal assembly of the gripper
- 5 Kinematics**
Double piston-rack-pinion principle for centric spanning
- 6 Housing**
weight-optimized through application of hard-anodized, high-strength aluminum alloy

Functional description

By pressure actuation of the opposing piston, the base jaws, everyone is guided by a carrier on the piston, are set in motion. The jaw stroke is synchronized by means of rack and pinion kinematics.

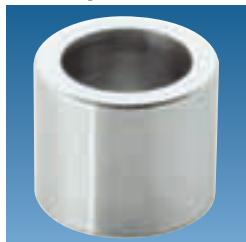
Options and special information

Gripper with guide cover
to protect against rough contamination. Gripper with double stroke is available as a special unit, however with the same gripping forces.

Accessories

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

Centering sleeves



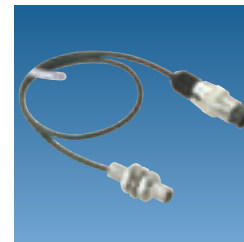
Fittings



Magnetic Switches



Inductive proximity switches



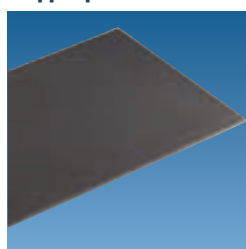
Plastic inserts



Sensor cables



Gripper pads



Sensor Distributor



Pressure maintenance valve



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

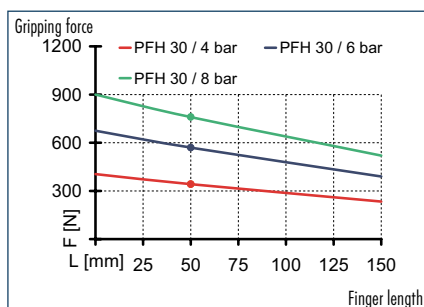
The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit gripping.

Closing and opening times

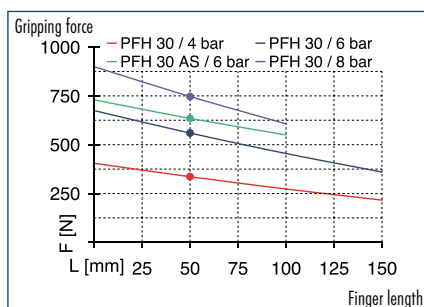
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.



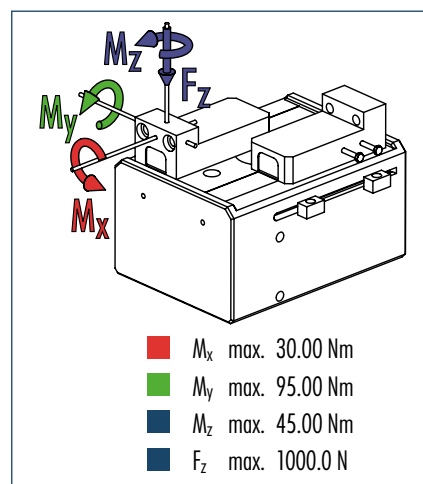
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



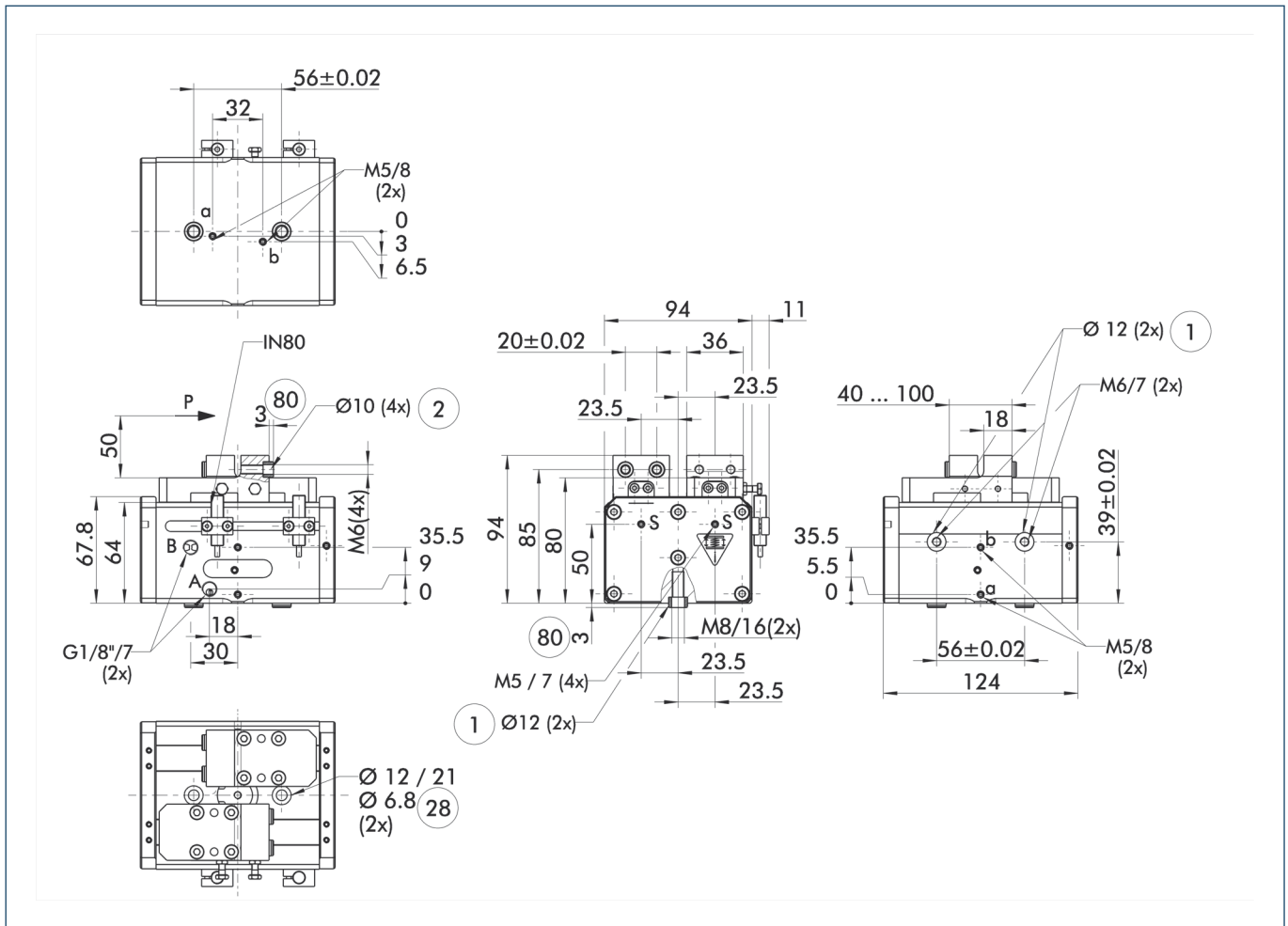
① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement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

Technical data

Description	PFH 30	PFH 30-60	PFH 30-AS
ID	0302030	0302033	0302031
Stroke per finger [mm]	30	60	30
Closing force [N]	630	630	720
Opening force [N]	570	570	
Min. spring force [N]			90
Weight [kg]	2.65	3.5	2.7
Recommended workpiece weight [kg]	3.15	3.15	3.15
Air consumption per double stroke [cm ³]	95	187	95
Min./max. operating pressure [bar]	2/8	2/8	5/6.5
Nominal operating pressure [bar]	6	6	6
Closing/opening time [s]	0.3/0.3	0.4/0.5	0.35/0.35
Max. permitted finger length [mm]	150	150	100
Max. permitted weight per finger [kg]	2	2	2
IP class	41	41	41
Min./max. ambient temperature [°C]	-10/90	-10/90	-10/90
Repeat accuracy [mm]	0.05	0.05	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.

Main view



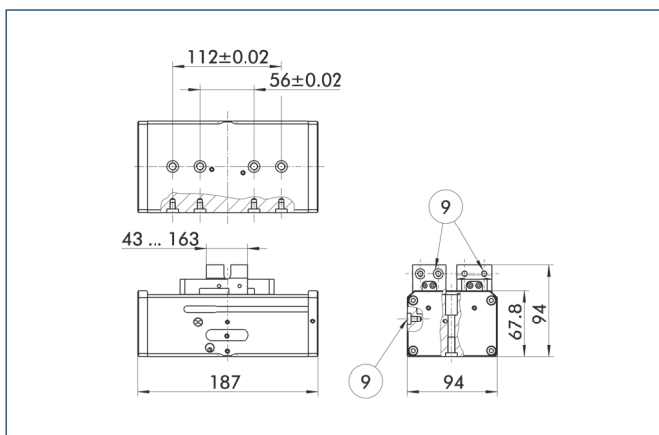
The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

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

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

⊘ Through-bore
 Ⓢ Depth of the centering sleeve hole in the matching part

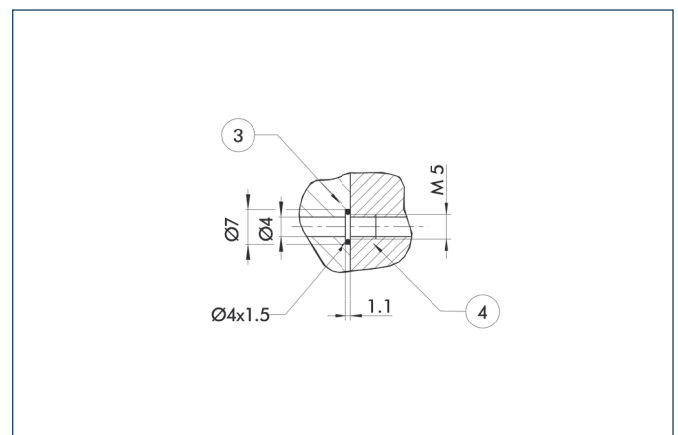
Stroke versions



⑨ For mounting screw connection diagram, see basic version

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

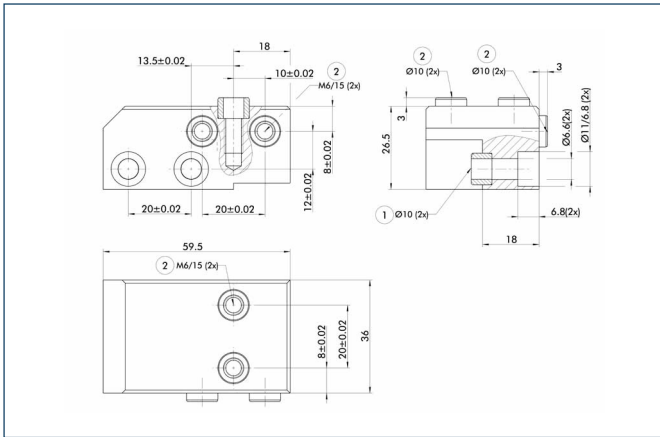
Hose-free direct connection



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.

Intermediate Jaws

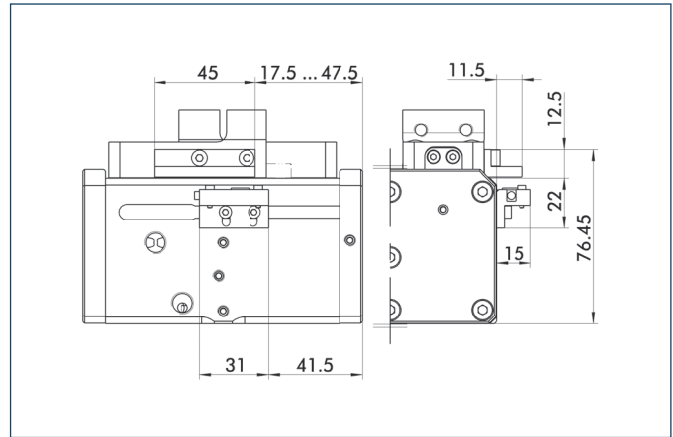


- ① Gripper connection
- ② Finger connection

Optionally intermediate jaws can be used, enabling direct connection and alignment of top jaws and various standard accessories in Z-direction.

Description	ID	Material	Scope of delivery
Intermediate Jaws			
ZBA-PFH 30	0300220	16 MnCr 5	2

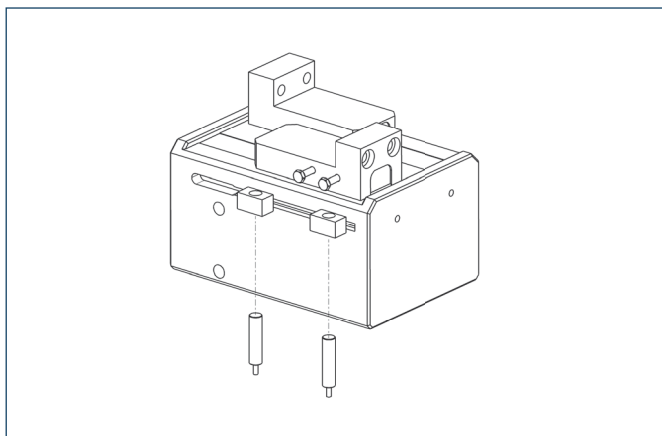
Mounting kit for FPS



The FPS flexible position sensor can distinguish between five freely programmable ranges or switching points for the stroke of a gripper and can be used in conjunction with a PC as a measuring system.

Description	ID
Mounting kit for FPS	
AS-PFH 30	0301733

Inductive proximity switches



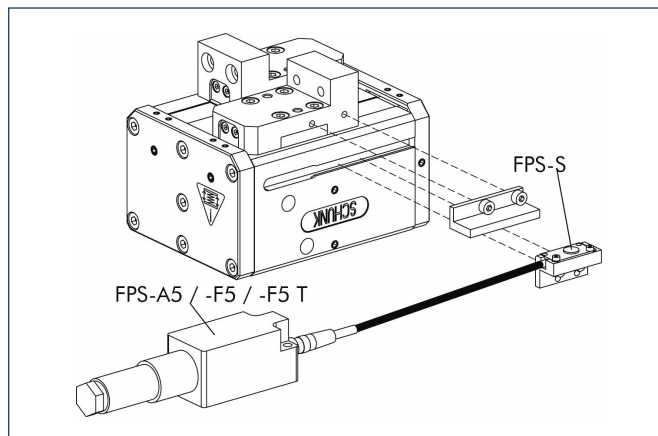
End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
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.

Flexible Position Sensor



Flexible position monitoring of up to five positions

Description	ID
Mounting kit for FPS	
AS-PFH 30	0301733
Electronic Processor	
FPS-F5	0301805
FPS-F5 T	0301807
Sensor	
FPS-S 13	0301705

① When using a FPS system, a FPS sensor (FPS-S) and a control unit (FPS-F5 / F5 T or A5) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are available as options in the "Accessories" catalog section.

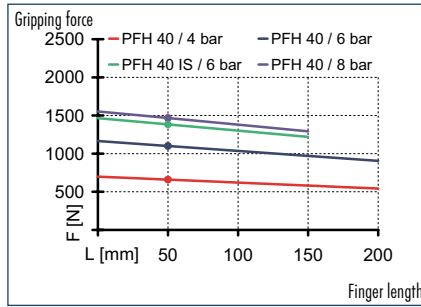
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

PFH 40

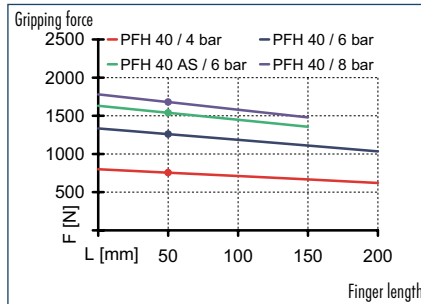
Pneumatic • 2-Finger Parallel Gripper • Long-stroke Gripper



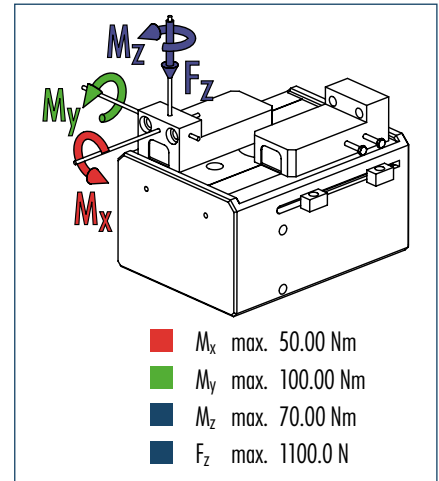
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



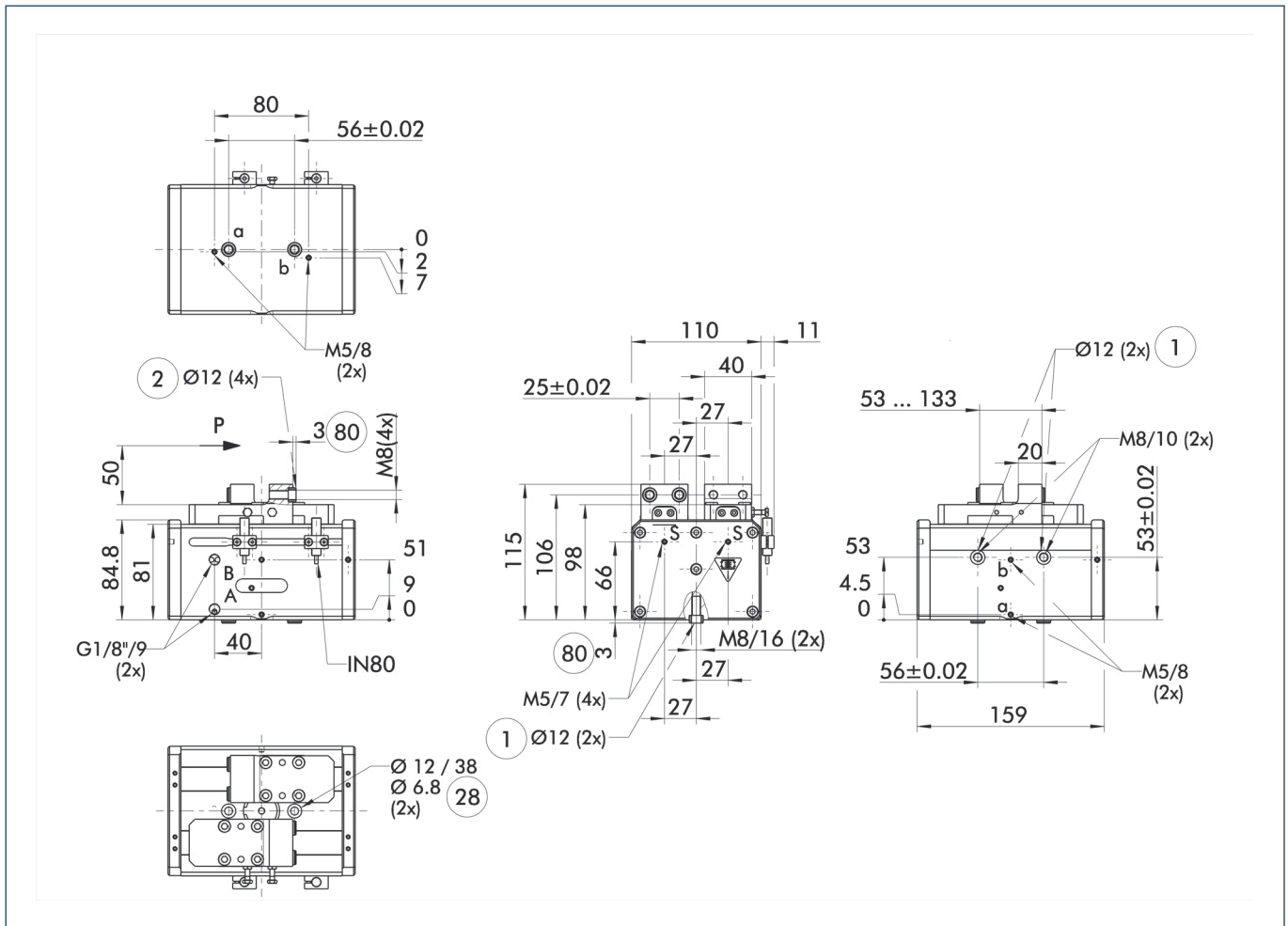
① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement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

Technical data

Description	PFH 40	PFH 40-80	PFH 40-AS	PFH 40-IS
ID	0302040	0302043	0302041	0302042
Stroke per finger [mm]	40	80	40	40
Closing force [N]	1260	1260	1540	
Opening force [N]	1100	1100		1540
Min. spring force [N]			280	280
Weight [kg]	4.6	6.2	4.7	4.7
Recommended workpiece weight [kg]	6.3	6.3	6.3	5.5
Air consumption per double stroke [cm ³]	245	487	245	245
Min./max. operating pressure [bar]	2/8	2/8	5/6.5	5/6.5
Nominal operating pressure [bar]	6	6	6	6
Closing/opening time [s]	0.3/0.3	0.5/0.6	0.25/0.4	0.4/0.25
Max. permitted finger length [mm]	200	200	150	150
Max. permitted weight per finger [kg]	3	3	3	3
IP class	41	41	41	41
Min./max. ambient temperature [°C]	-10/90	-10/90	-10/90	-10/90
Repeat accuracy [mm]	0.05	0.05	0.05	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.

Main view



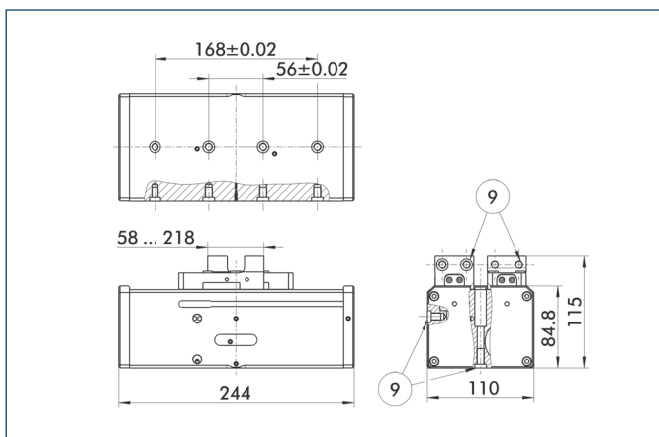
The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

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

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

- ⊘ Through-bore
- ⊘ Depth of the centering sleeve hole in the matching part

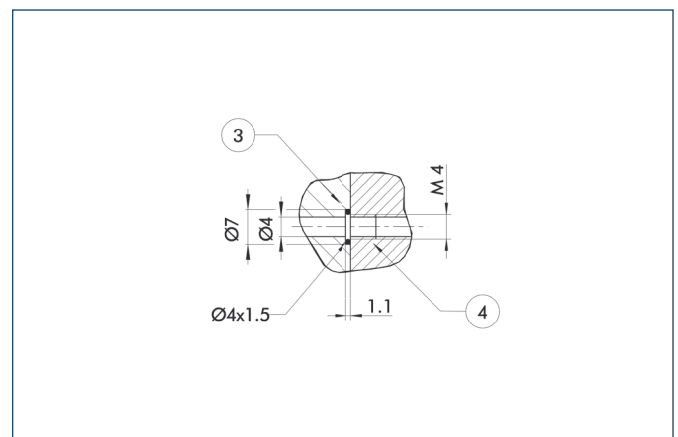
Stroke versions



⑨ For mounting screw connection diagram, see basic version

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

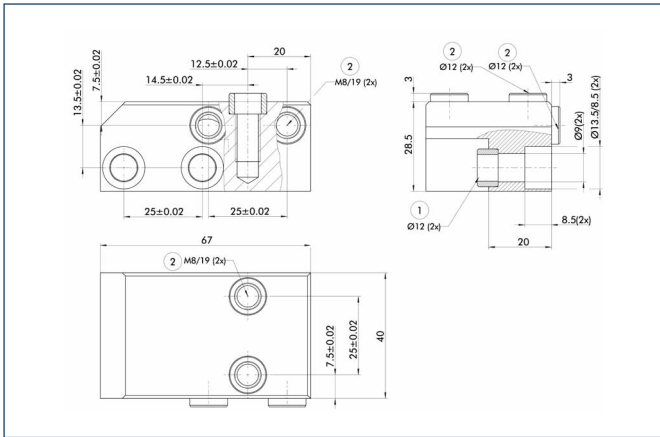
Hose-free direct connection



- 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.

Intermediate Jaws

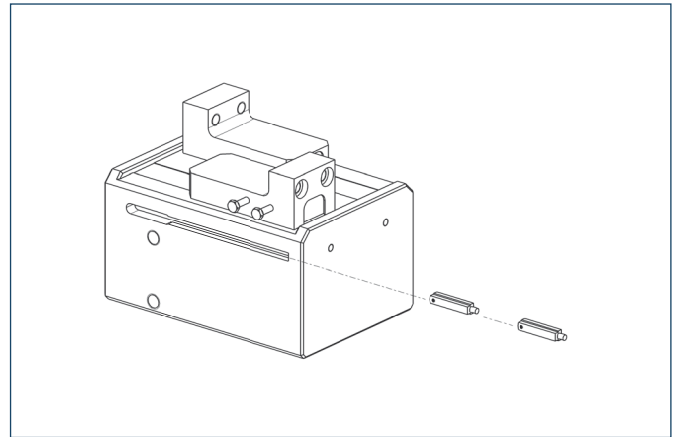


- ① Gripper connection
- ② Finger connection

Optionally intermediate jaws can be used, enabling direct connection and alignment of top jaws and various standard accessories in Z-direction.

Description	ID	Material	Scope of delivery
Intermediate Jaws			
ZBA-PFH 40	0300221	16 MnCr 5	2

Electronic magnetic switches

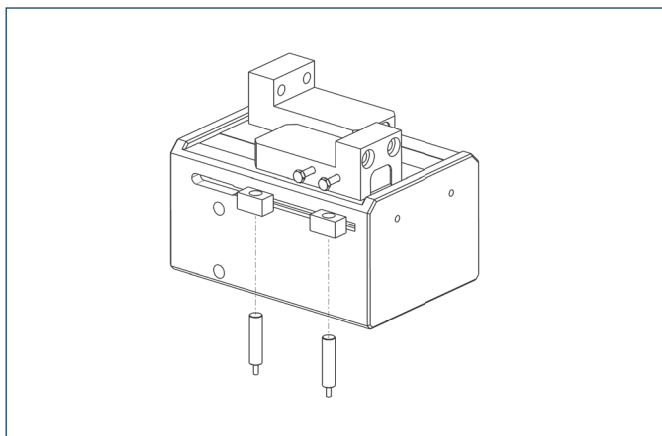


End position monitoring for mounting in the C-slot

Description	ID	Recommended product
Electronic magnetic switches		
MMS 30-S-M8-PNP	0301471	•
MMS 30-S-M12-PNP	0301571	
MMSK 30-S-PNP	0301563	
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	
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.

Inductive proximity switches



End position monitoring for direct mounting

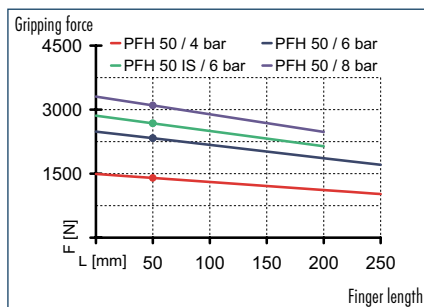
Description	ID	Recommended product
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
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.

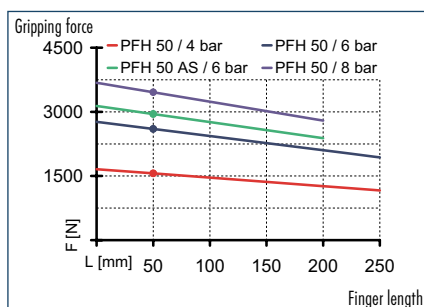
 You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.



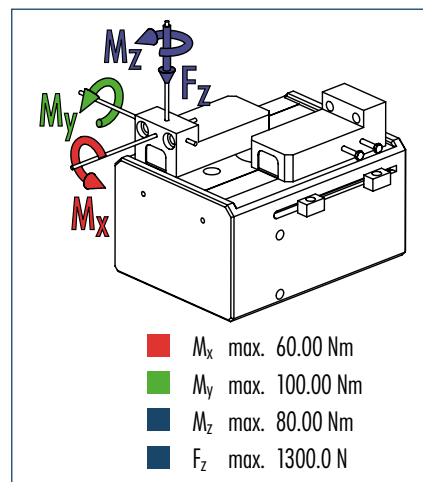
Gripping force, I.D. gripping



Gripping force, O.D. gripping



Finger load



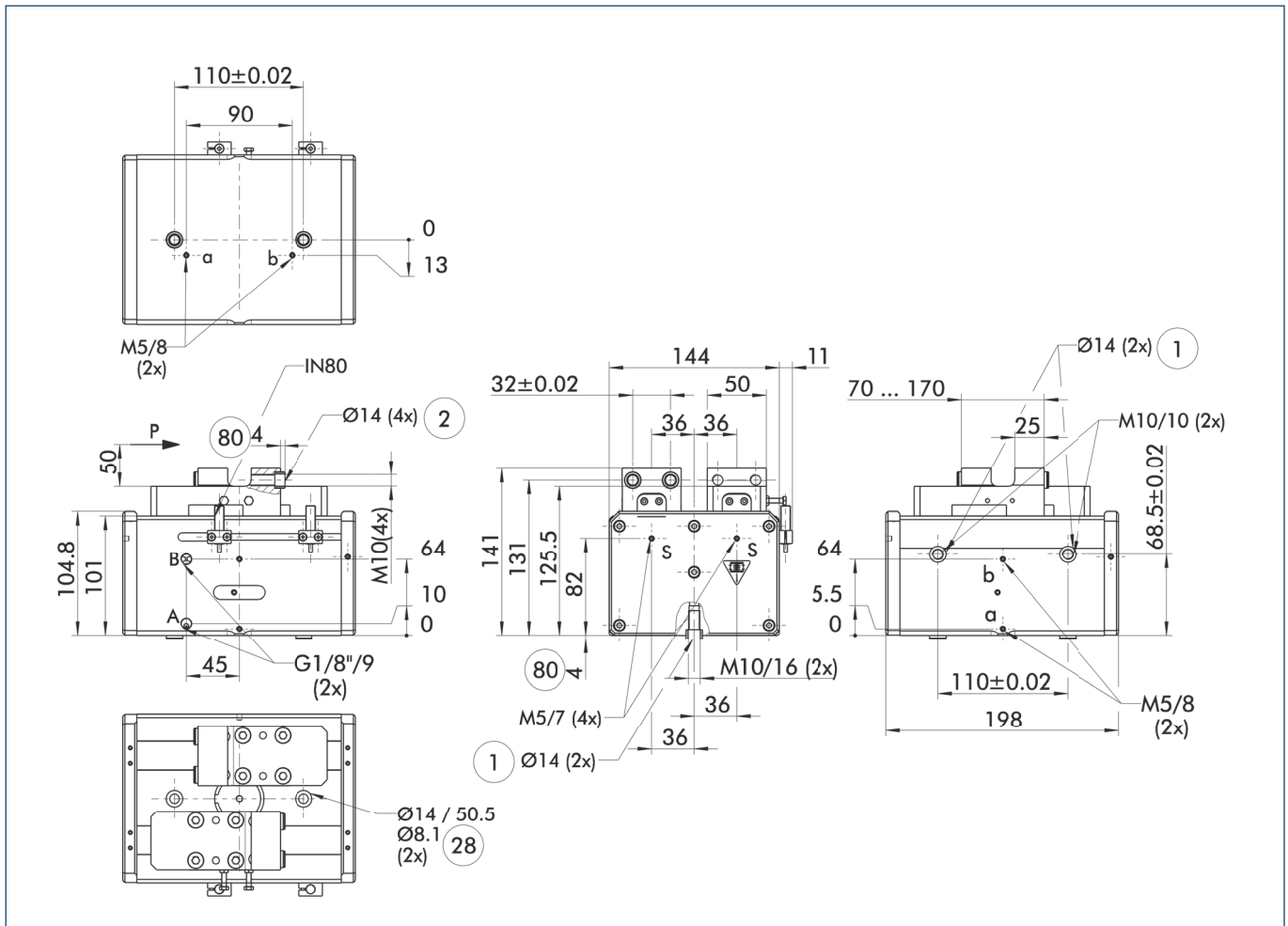
① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement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

Technical data

Description	PFH 50	PFH 50-100	PFH 50-AS	PFH 50-IS
ID	0302050	0302053	0302051	0302052
Stroke per finger [mm]	50	100	50	50
Closing force [N]	2600	2600	2950	
Opening force [N]	2330	2330		2950
Min. spring force [N]			350	350
Weight [kg]	9.6	12.6	9.7	9.7
Recommended workpiece weight [kg]	13	13	13	11.65
Air consumption per double stroke [cm ³]	603	1205	603	603
Min./max. operating pressure [bar]	2/8	2/8	5/6.5	5/6.5
Nominal operating pressure [bar]	6	6	6	6
Closing/opening time [s]	0.6/0.7	1/1.2	0.5/0.8	0.7/0.6
Max. permitted finger length [mm]	250	250	200	200
Max. permitted weight per finger [kg]	4	4	4	4
IP class	41	41	41	41
Min./max. ambient temperature [°C]	-10/90	-10/90	-10/90	-10/90
Repeat accuracy [mm]	0.05	0.05	0.05	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.

Main view



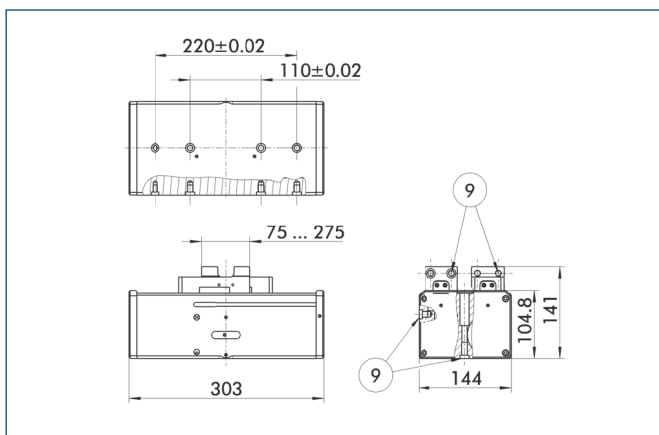
The drawing shows the gripper in the basic version with closed jaws, the dimensions do not include the options described below.

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

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

- ⊘ Through-bore
- ⊘ Depth of the centering sleeve hole in the matching part

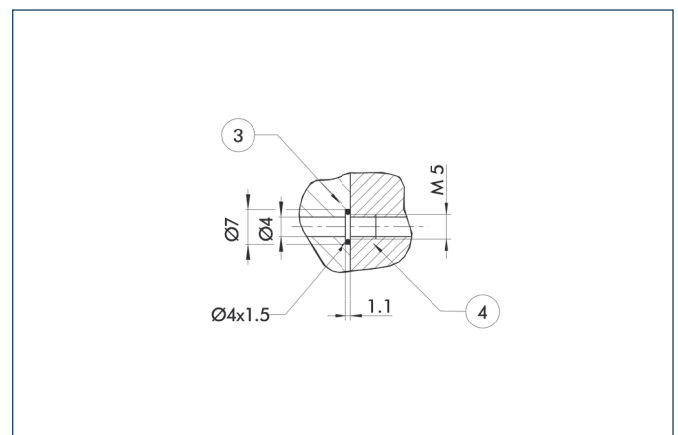
Stroke versions



⑨ For mounting screw connection diagram, see basic version

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

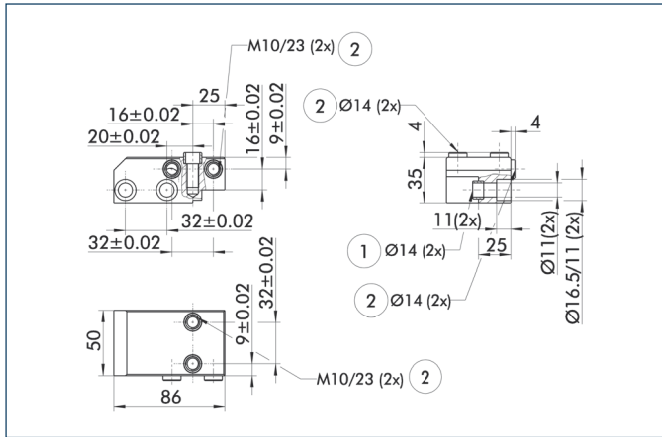
Hose-free direct connection



- 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.

Intermediate Jaws

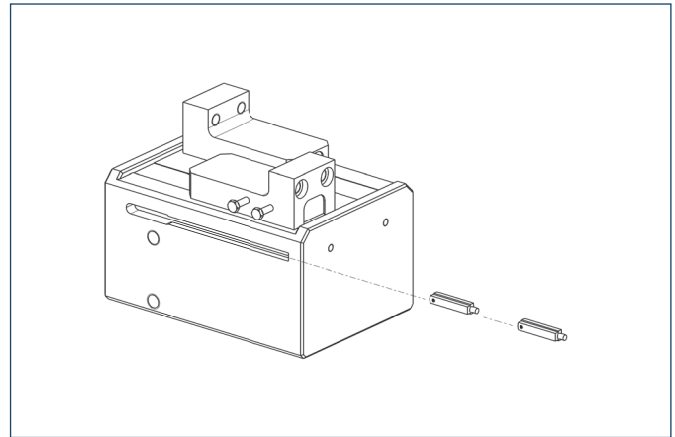


- ① Gripper connection
- ② Finger connection

Optionally intermediate jaws can be used, enabling direct connection and alignment of top jaws and various standard accessories in Z-direction.

Description	ID	Material	Scope of delivery
Intermediate Jaws			
ZBA-PFH 50	0300222	16 MnCr 5	2

Electronic magnetic switches

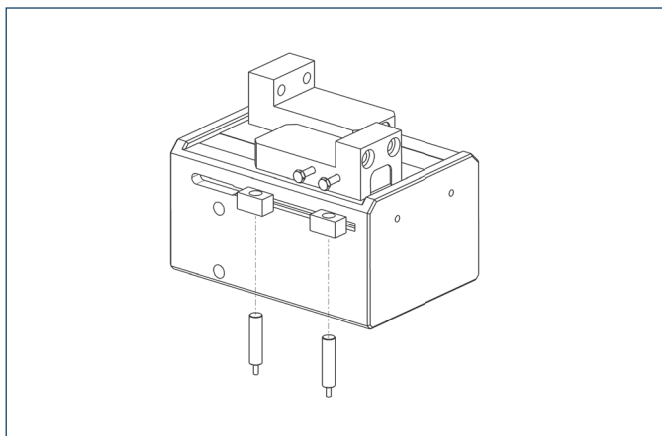


End position monitoring for mounting in the C-slot

Description	ID	Recommended product
Electronic magnetic switches		
MMS 30-S-M8-PNP	0301471	•
MMS 30-S-M12-PNP	0301571	
MMSK 30-S-PNP	0301563	
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	
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.

Inductive proximity switches



End position monitoring for direct mounting

Description	ID	Recommended product
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
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.

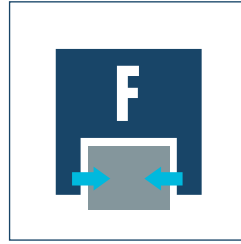
 You can find more detailed information and individual parts of the above-mentioned accessories in the “Accessories” catalog section.



Sizes
150 ... 300



Weight
18.9 kg ... 33.6 kg



Gripping force
2200 N



Stroke per finger
150 mm ... 300 mm



Workpiece weight
14.7 kg

Application example



Gripper unit for handling car and truck rims. Special fingers enable process reliable gripping of pre-machined and finished parts.

- 1 2-Finger Long-stroke Gripper PFH
- 2 Special fingers for wheel rim handling
- 3 Workpiece: 19 inch wheel rim

Long-stroke Gripper

2-Finger Parallel Gripper with large jaw stroke for large parts and/or a broad range of parts

Field of application

clean to slightly dirty working environments, especially suitable for the handling of car rims

Your advantages and benefits

Robust guidance

for the precise handling of all kinds of workpieces

High maximum moments possible

suitable for using long gripper fingers

Double piston-rack-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

Double piston-rack-pinion principle

Housing material

Aluminum alloy, hard-anodized

Base jaw material

Steel

Actuation

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

Warranty

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

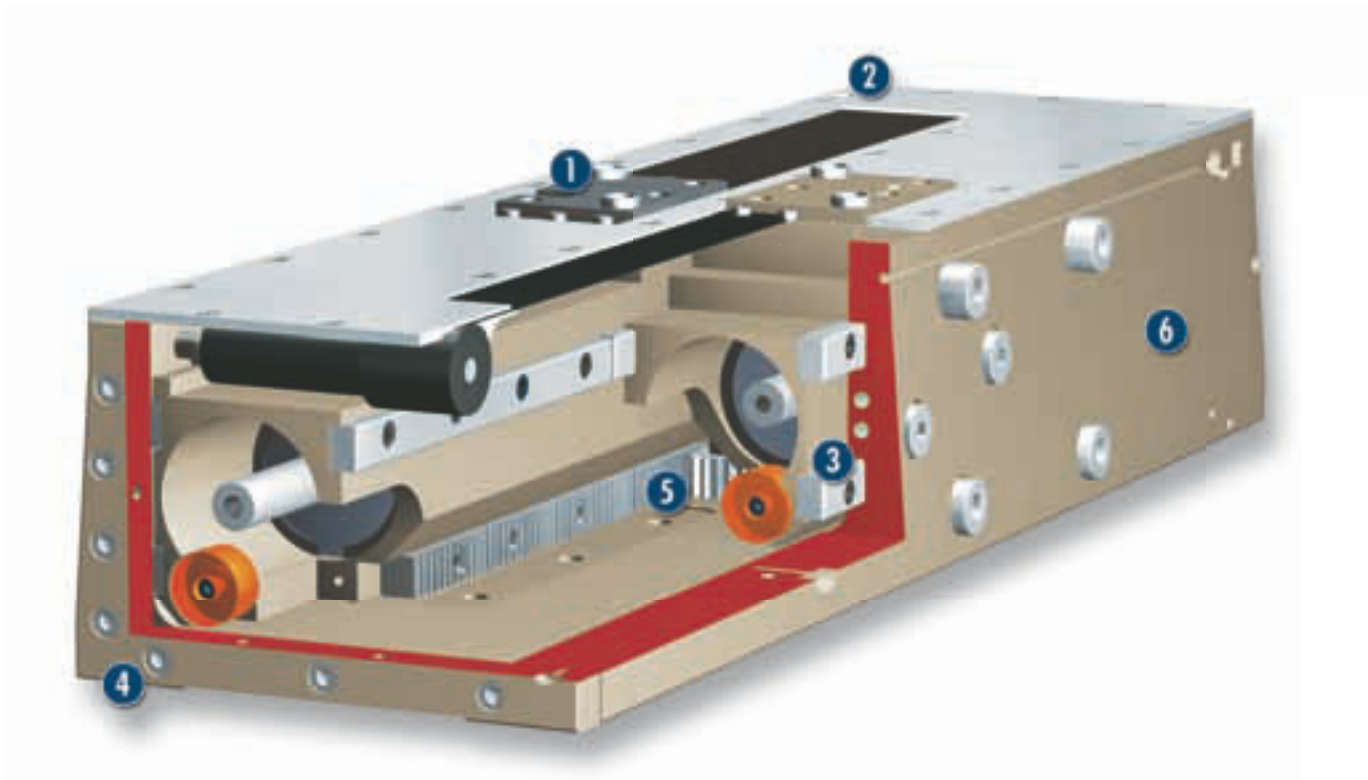
Scope of delivery

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

Gripping force maintenance device

possible with SDV-P pressure maintenance valve

Sectional diagram



- 1 Base jaw**
for the connection of workpiece-specific gripper fingers
- 3 Guidance**
for precise gripping with minimal play at a high load capacity
- 5 Kinematics**
Double piston-rack-pinion principle for centric spanning
- 2 Dirt-cover**
along the whole guidance length against coarse dirt
- 4 Centering and mounting possibilities**
for universal assembly of the gripper
- 6 Housing**
sturdy, one-piece U-section

Functional description

The base jaws form the piston areas, while the pistons themselves are fixed. By pressure actuating each opposing piston area, the base jaws set in motion. The end of the stroke is dampened with an elastomer pad.

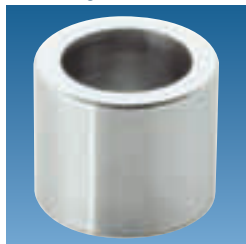
Options and special information

The gripper was specially developed for handling car rims. It is capable of gripping rims from 13" bis 21", but can also be used for handling other large workpieces. Units with manual stroke adjustment and versions with shorter and longer strokes are available on request.

Accessories

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

Centering sleeves



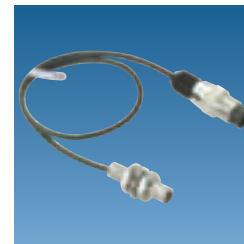
Fittings



Magnetic Switches



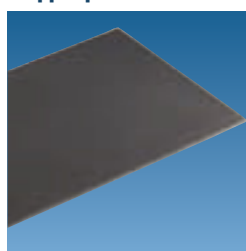
Inductive proximity switches



Plastic inserts



Gripper pads



Pressure maintenance valve



Sensor cables



Sensor Distributor



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

General note to the series

Gripping 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

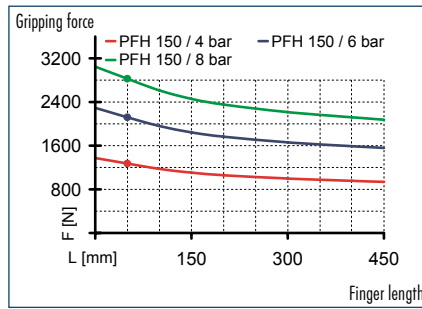
The recommended workpiece weight is calculated for a force-type connection with a coefficient of friction of 0.1 and a safety factor of 2 against slippage of the workpiece on acceleration due to gravity g. Considerably heavier workpiece weights are permitted with form-fit gripping.

Closing and opening times

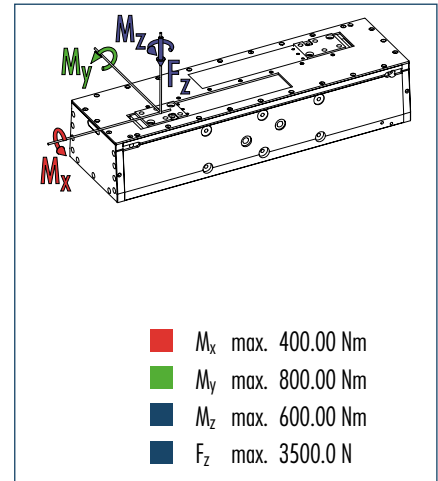
Closing and opening times are purely the times that the base jaws or fingers are in motion. Valve switching times, hose filling times or PLC reaction times are not included in the above times and must be taken into consideration when determining cycle times.



Gripping force



Finger load



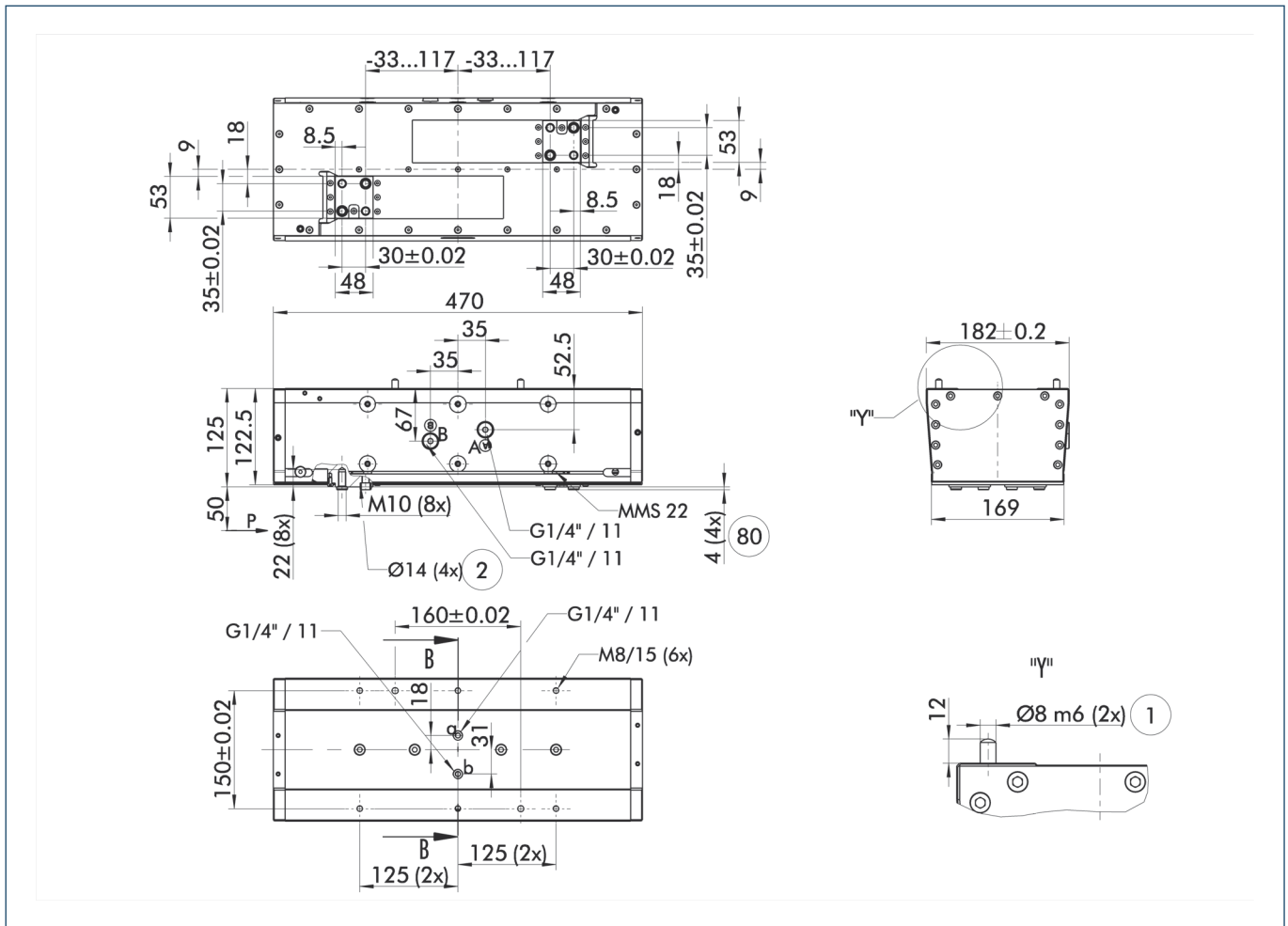
① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement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

Technical data

Description		PFH 150
ID		0302000
Stroke per finger	[mm]	150
Closing force	[N]	2200
Opening force	[N]	2200
Weight	[kg]	18.9
Recommended workpiece weight	[kg]	14.7
Air consumption per double stroke	[cm ³]	1510
Min./max. operating pressure	[bar]	2/8
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.7/0.7
Max. permitted finger length	[mm]	450
Max. permitted weight per finger	[kg]	7
IP class		30
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.

Main view



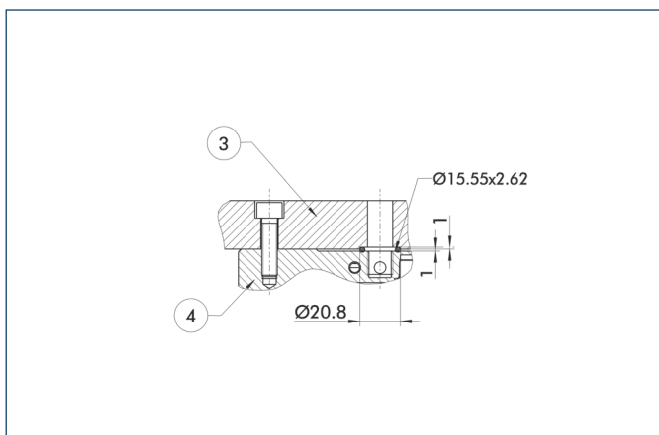
The drawing shows the gripper in the basic version with opened jaws without considering the dimensions of the described options below.

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

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

80 Depth of the centering sleeve hole in the matching part

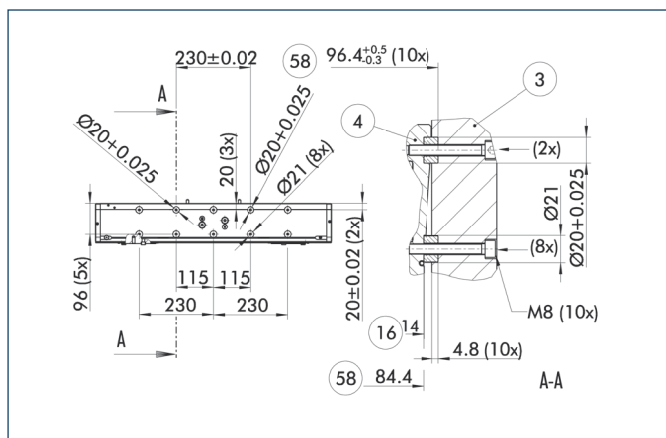
Hose-free direct connection



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.

Mounting kit for side mount

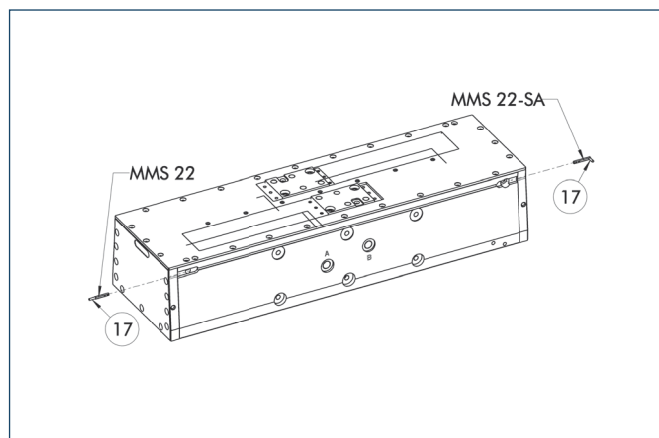


- ③ Adapter
- ④ Gripper
- ⑬ Max. depth of engagement
- ⑮ Distance from center of gripper

The mounting kit for side mount enables parallel and centric fastening at the side surface.

Description	ID
Mounting kit for side mount	
AS-S PFH 150-200	0302024

Electronic magnetic switches



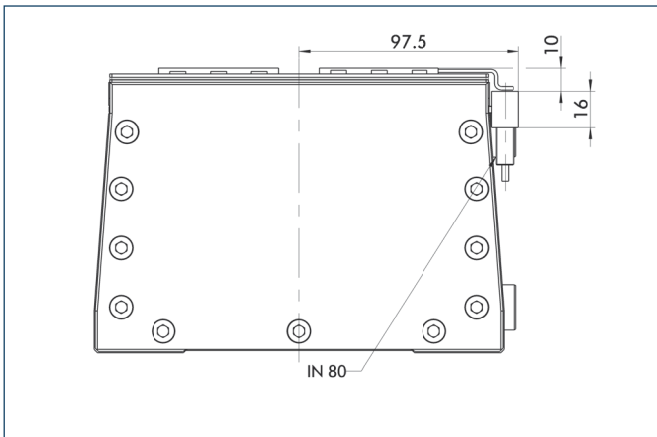
- ⑰ Cable outlet

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

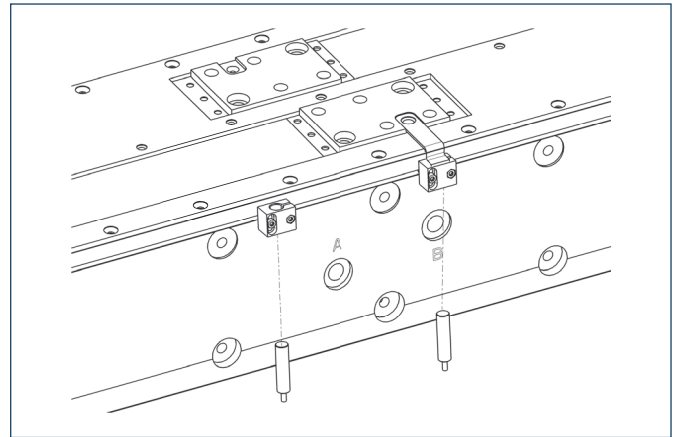


The mounting kit enables assembly of two inductive proximity switches. The kit is fitted in the sensor slot of the slotted switch.

Description	ID
Mounting kit for proximity switch	
HG-PFH 150-300	0300770

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

Inductive proximity switches



End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
HG-PFH 150-300	0300770	
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
INK 80-SL	0301579	

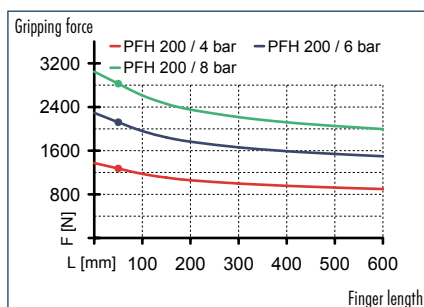
- ① Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
- ① This mounting kit needs to be ordered optionally as an accessory.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



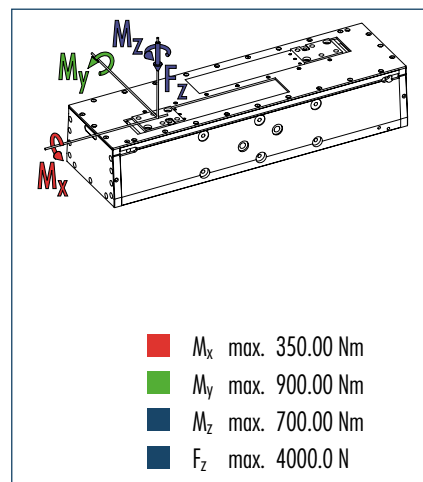
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.



Gripping force



Finger load



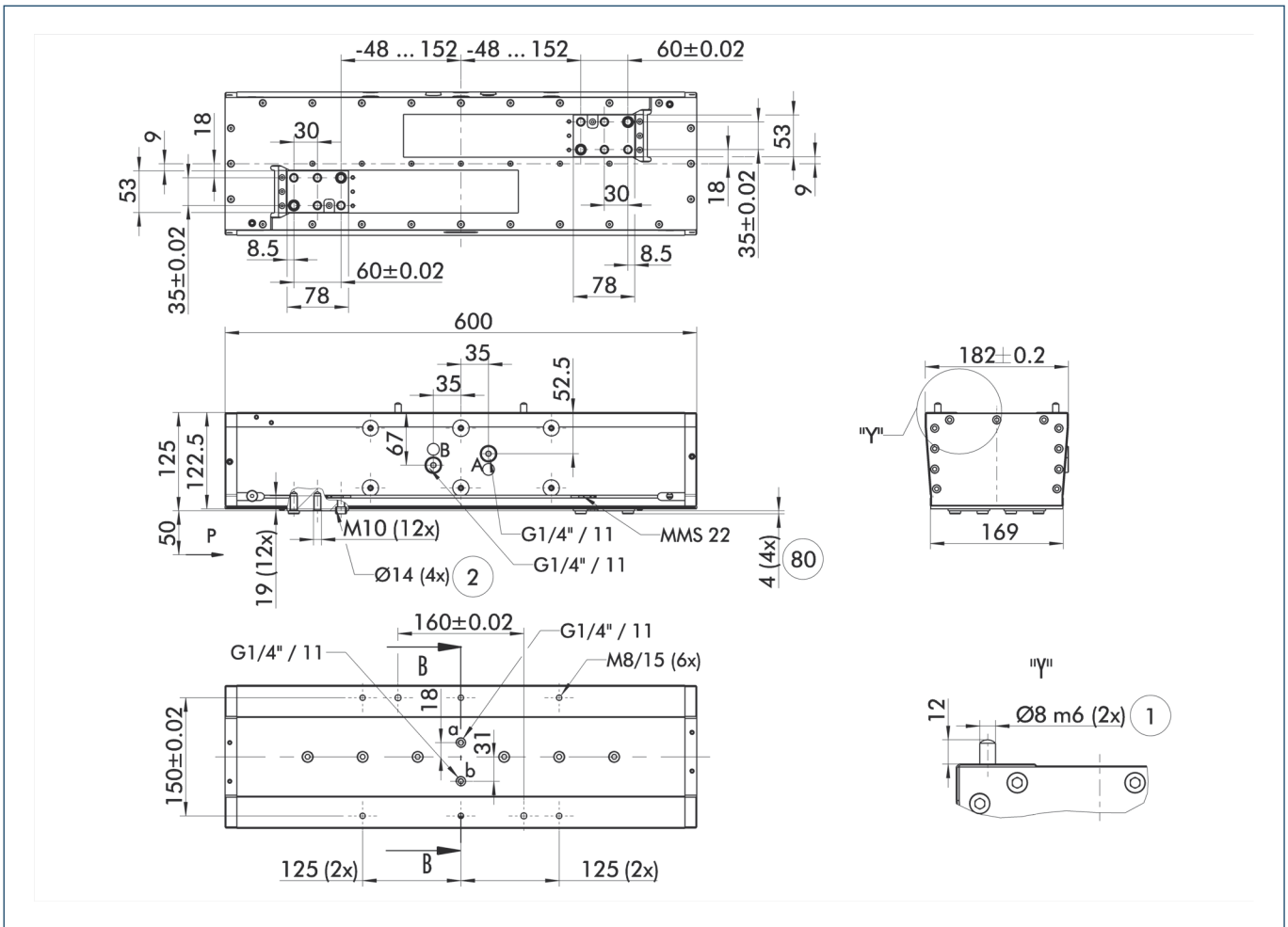
① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement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

Technical data

Description		PFH 200
ID		0302020
Stroke per finger	[mm]	200
Closing force	[N]	2200
Opening force	[N]	2200
Weight	[kg]	23.5
Recommended workpiece weight	[kg]	14.7
Air consumption per double stroke	[cm ³]	1990
Min./max. operating pressure	[bar]	2/8
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	0.9/0.9
Max. permitted finger length	[mm]	600
Max. permitted weight per finger	[kg]	8
IP class		30
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.

Main view



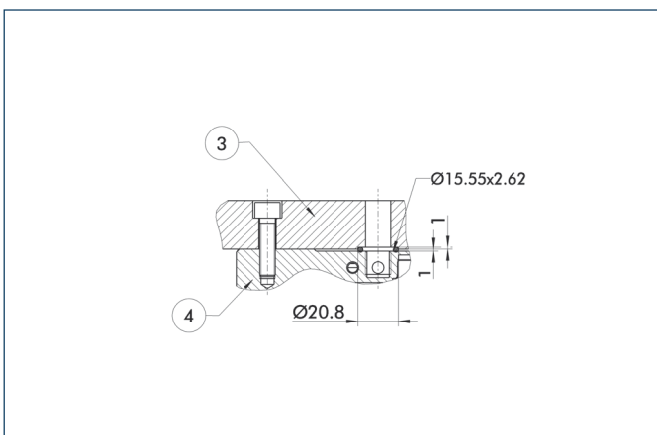
The drawing shows the gripper in the basic version with opened jaws without considering the dimensions of the described options below.

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

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

⊗ Depth of the centering sleeve hole in the matching part

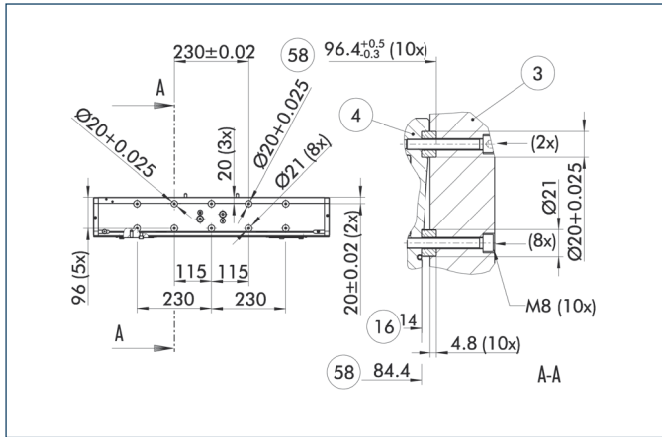
Hose-free direct connection



③ Adapter
 ④ Gripper

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

Mounting kit for side mount

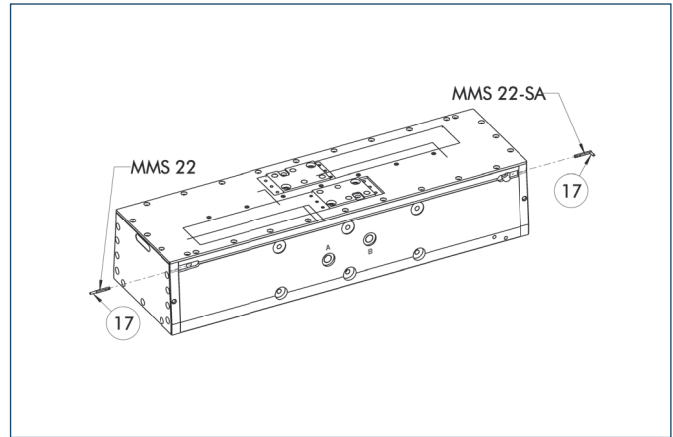


- ③ Adapter
- ④ Gripper
- ⑬ Max. depth of engagement
- ⑮ Distance from center of gripper

The mounting kit for side mount enables parallel and centric fastening at the side surface.

Description	ID
Mounting kit for side mount	
AS-S PFH 150-200	0302024

Electronic magnetic switches



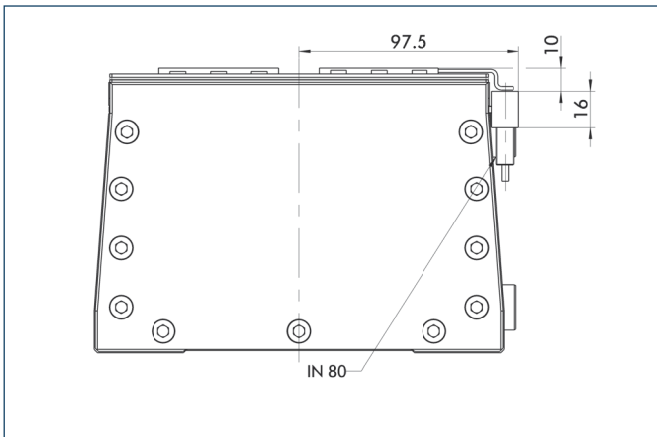
- ⑰ Cable outlet

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

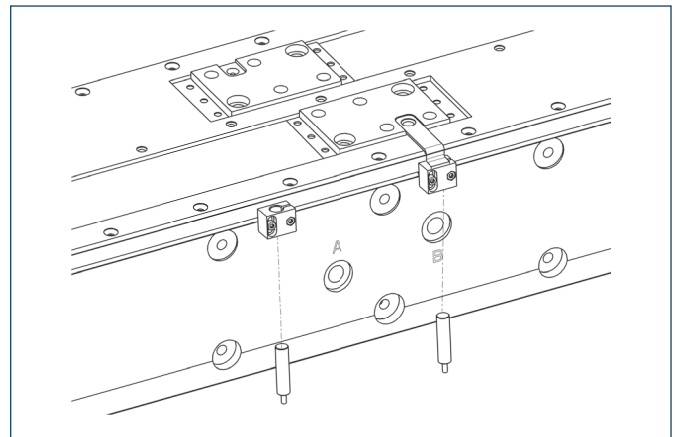


The mounting kit enables assembly of two inductive proximity switches. The kit is fitted in the sensor slot of the slotted switch.

Description	ID
Mounting kit for proximity switch	
HG-PFH 150-300	0300770

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

Inductive proximity switches



End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
HG-PFH 150-300	0300770	
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
INK 80-SL	0301579	

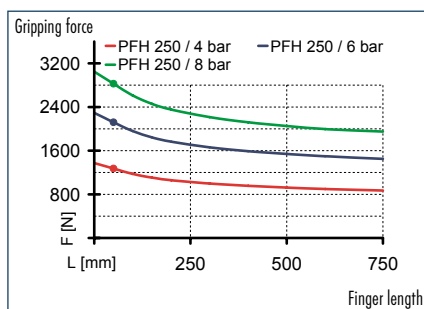
- ① Two sensors (closer/NO) are required for each gripper, plus extension cables as an option.
- ① This mounting kit needs to be ordered optionally as an accessory.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



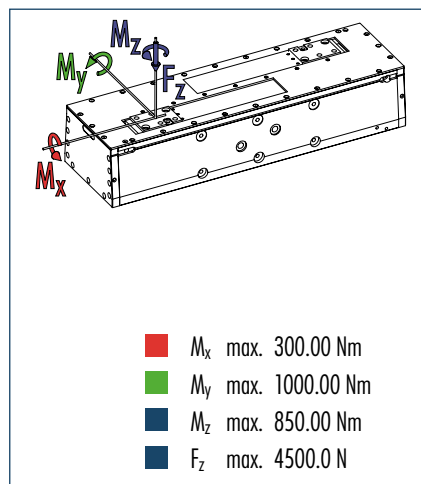
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.



Gripping force



Finger load



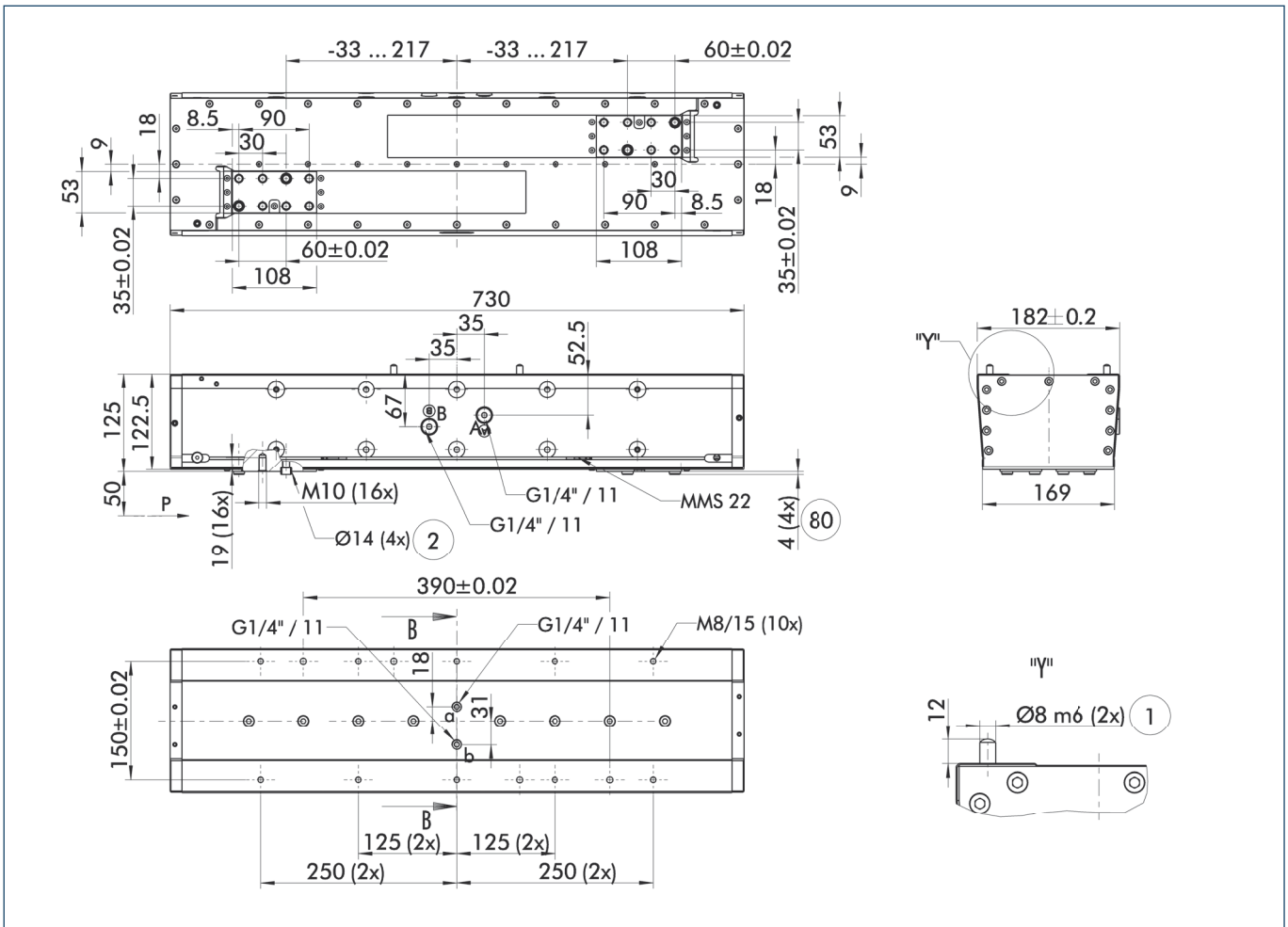
① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement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

Technical data

Description		PFH 250
ID		0302005
Stroke per finger	[mm]	250
Closing force	[N]	2200
Opening force	[N]	2200
Weight	[kg]	28.6
Recommended workpiece weight	[kg]	14.7
Air consumption per double stroke	[cm ³]	2510
Min./max. operating pressure	[bar]	2/8
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	1.1/1.1
Max. permitted finger length	[mm]	750
Max. permitted weight per finger	[kg]	9
IP class		30
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.

Main view



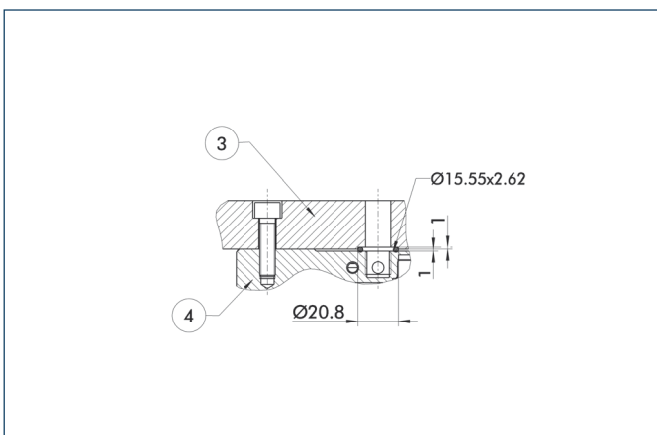
The drawing shows the gripper in the basic version with opened jaws without considering the dimensions of the described options below.

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

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

⑧ Depth of the centering sleeve hole in the matching part

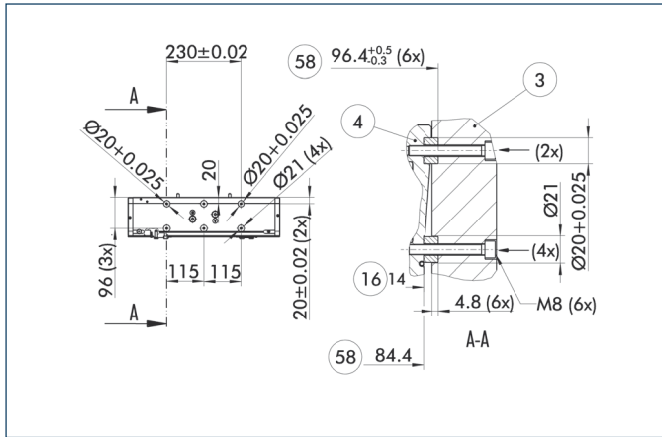
Hose-free direct connection



③ Adapter
 ④ Gripper

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

Mounting kit for side mount

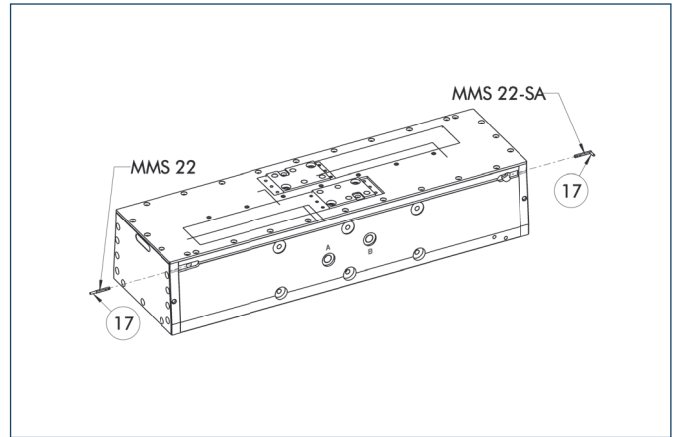


- ③ Adapter
- ④ Gripper
- ⑬ Max. depth of engagement
- ⑮ Distance from center of gripper

The mounting kit for side mount enables parallel and centric fastening at the side surface.

Description	ID
Mounting kit for side mount	
AS-S PFH 250-300	0302026

Electronic magnetic switches



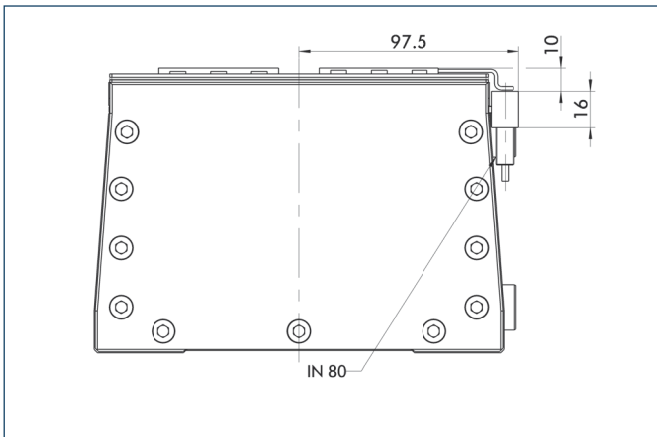
- ⑰ Cable outlet

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

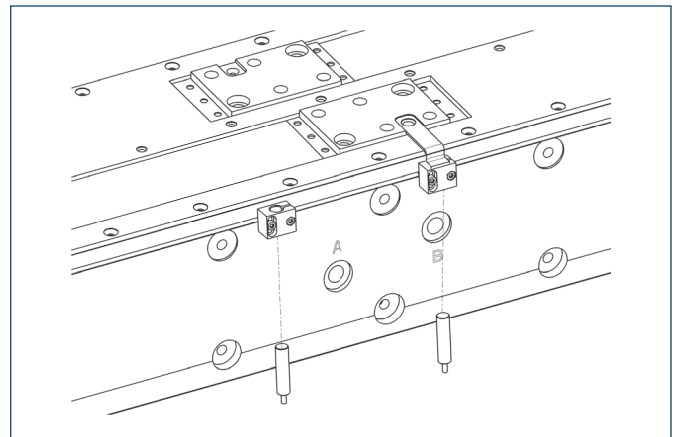


The mounting kit enables assembly of two inductive proximity switches. The kit is fitted in the sensor slot of the slotted switch.

Description	ID
Mounting kit for proximity switch	
HG-PFH 150-300	0300770

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

Inductive proximity switches



End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
HG-PFH 150-300	0300770	
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
INK 80-SL	0301579	

- 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.



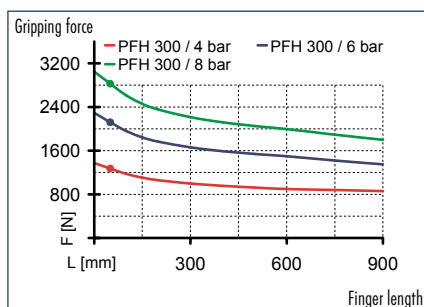
You can find more detailed information and individual parts of the above-mentioned accessories in the "Accessories" catalog section.

PFH 300

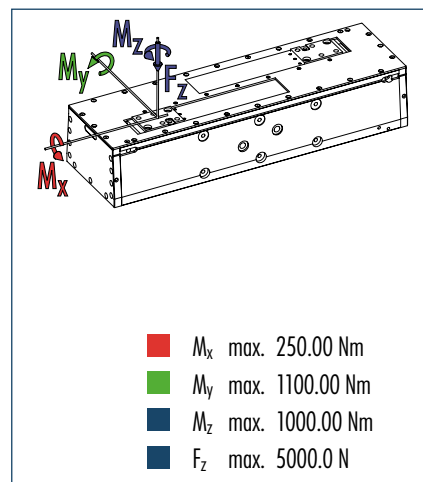
Pneumatic • 2-Finger Parallel Gripper • Long-stroke Gripper



Gripping force



Finger load



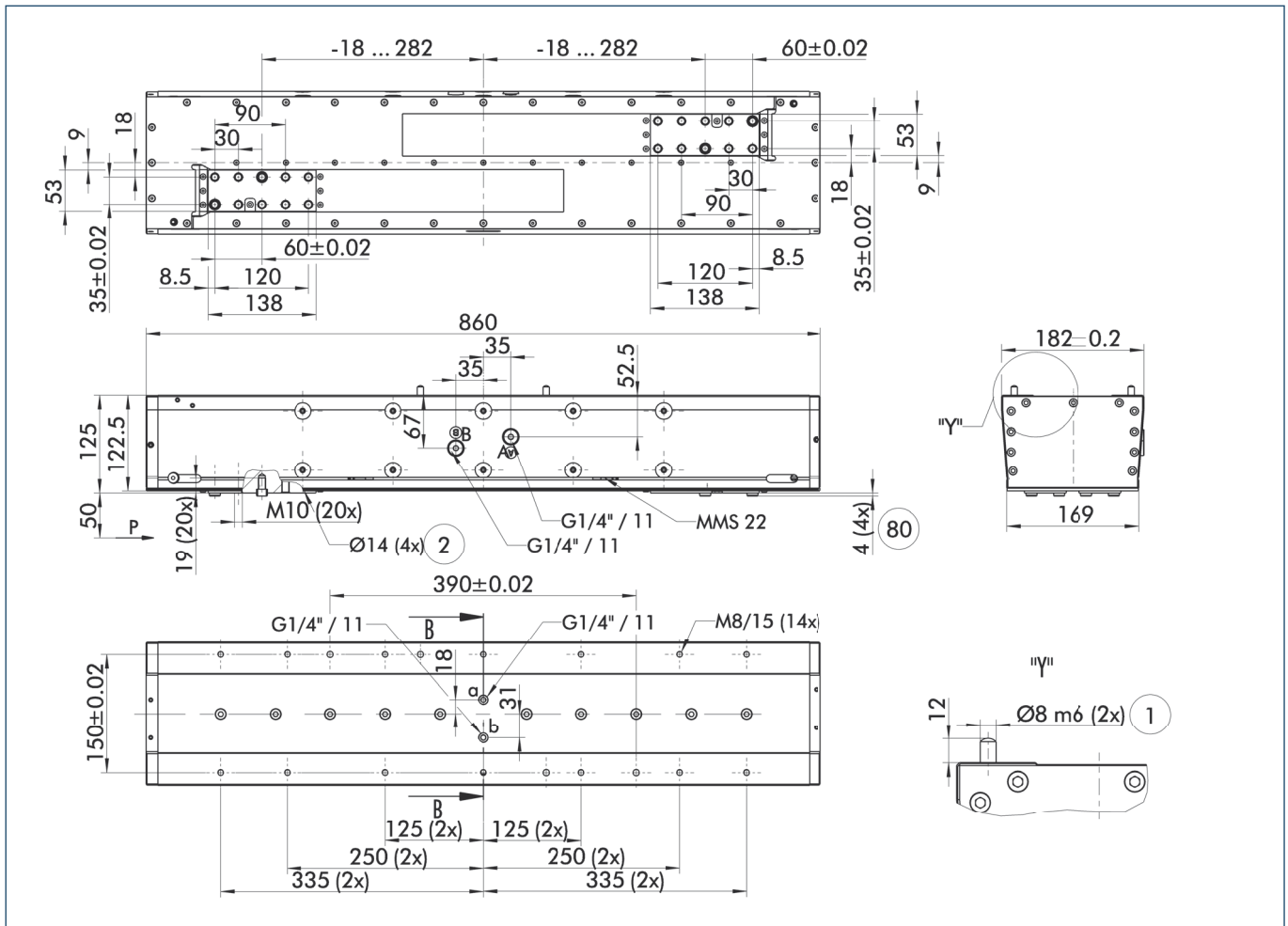
① The indicated moments and forces are static values, apply per base jaw and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself. If the max. permitted finger weight is exceeded, it is imperative to throttle the air pressure so that the jaw movement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

Technical data

Description		PFH 300
ID		0302010
Stroke per finger	[mm]	300
Closing force	[N]	2200
Opening force	[N]	2200
Weight	[kg]	33.6
Recommended workpiece weight	[kg]	14.7
Air consumption per double stroke	[cm ³]	3010
Min./max. operating pressure	[bar]	2/8
Nominal operating pressure	[bar]	6
Closing/opening time	[s]	1.25/1.25
Max. permitted finger length	[mm]	900
Max. permitted weight per finger	[kg]	10
IP class		30
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.

Main view



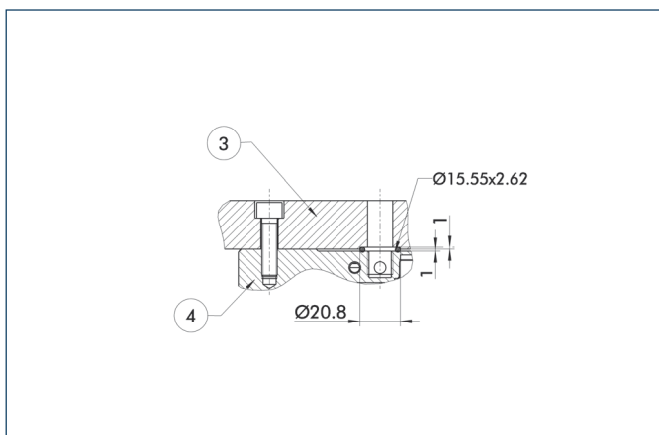
The drawing shows the gripper in the basic version with opened jaws without considering the dimensions of the described options below.

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

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

⑧ Depth of the centering sleeve hole in the matching part

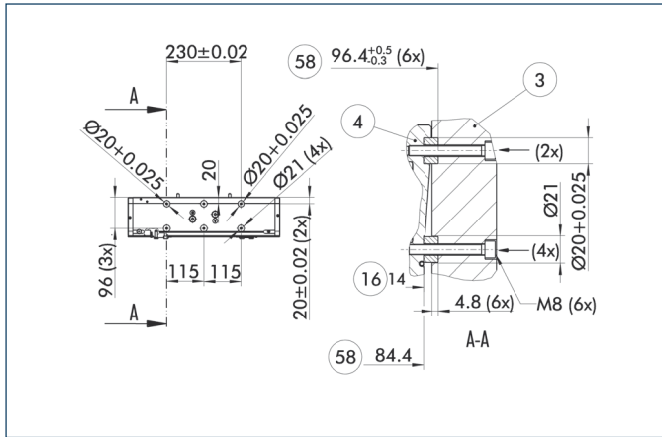
Hose-free direct connection



③ Adapter
 ④ Gripper

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

Mounting kit for side mount

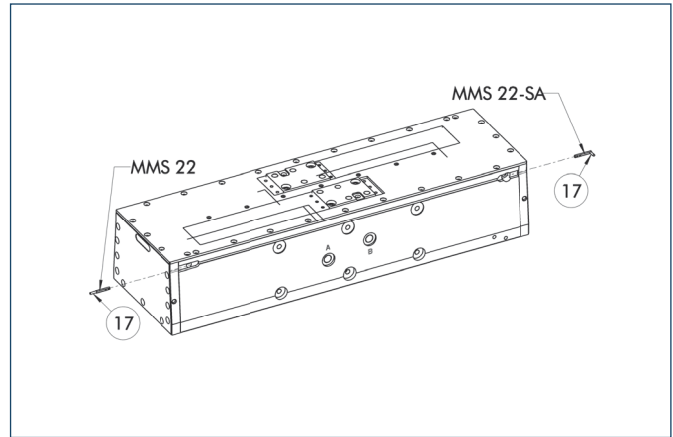


- ③ Adapter
- ④ Gripper
- ⑬ Max. depth of engagement
- ⑮ Distance from center of gripper

The mounting kit for side mount enables parallel and centric fastening at the side surface.

Description	ID
Mounting kit for side mount	
AS-S PFH 250-300	0302026

Electronic magnetic switches



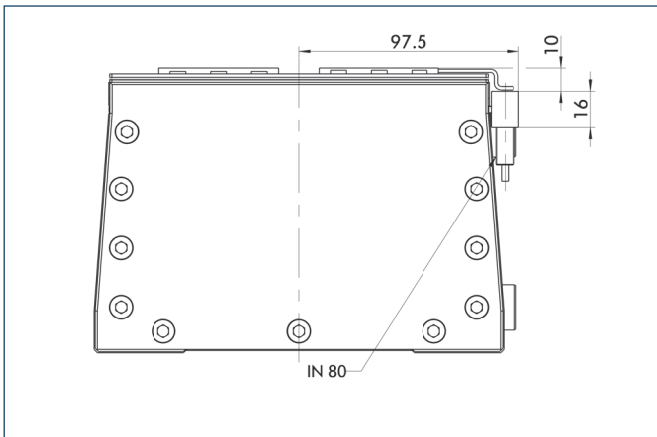
- ⑰ Cable outlet

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

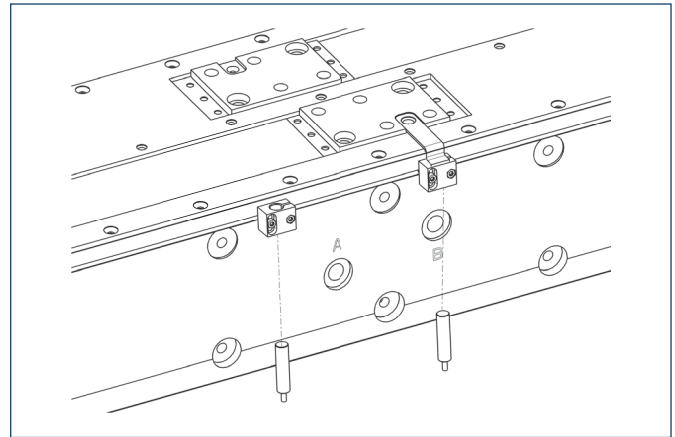


The mounting kit enables assembly of two inductive proximity switches. The kit is fitted in the sensor slot of the slotted switch.

Description	ID
Mounting kit for proximity switch	
HG-PFH 150-300	0300770

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

Inductive proximity switches



End position monitoring mounted with mounting kit

Description	ID	Recommended product
Mounting kit for proximity switch		
HG-PFH 150-300	0300770	
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
INK 80-SL	0301579	

- 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.