



Superior Clamping and Gripping



## Product data sheet

Long-stroke gripper PFH

# PFH

Long-stroke gripper

**Loadable. Flexible. Reliable.**

## Long-stroke gripper PFH

2-finger parallel gripper with long jaw stroke for large parts and/or a broad range of parts

### Field of application

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

### Advantages – Your benefits

**Robust sliding guide** for the precise handling of different workpieces

**High maximum moments possible** suitable for using long gripper fingers

**Double piston rack and pinion principle** for centric clamping

**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 flexible pressure supply in all automated systems



Sizes  
Quantity: 4



Weight  
18.9 .. 33.6 kg



Gripping force  
2120 N



Stroke per jaw  
150 .. 300 mm



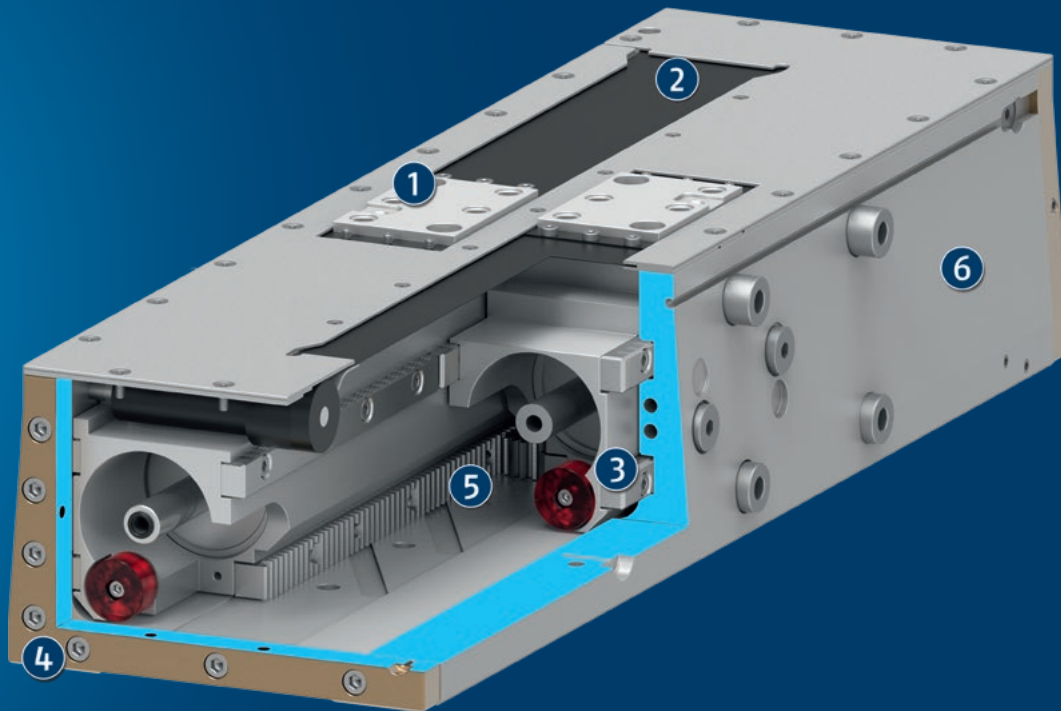
Workpiece weight  
11.2 .. 14.7 kg

## Functional description

The base jaws form the piston chambers while the pistons themselves remain stationary.

By pressure actuating opposing piston area, the base jaws set in motion.

The end of the stroke is dampened with an elastomer pad.



- ① **Base jaw**  
for the connection of workpiece-specific gripper fingers
- ② **Dust cover**  
along the whole guidance length against coarse dirt
- ③ **Sliding guide**  
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 and pinion principle for centric clamping
- ⑥ **Housing**  
sturdy, one-piece U-section

## General notes about the series

**Operating principle:** Double piston rack and pinion principle

**Housing material:** Aluminum alloy, anodized

**Base jaw material:** Steel

**Actuation:** pneumatic, with filtered compressed air as per ISO 8573-1:2010 [7:4:4].

**Warranty:** 24 months

**Service life characteristics:** on request

**Scope of delivery:** Gripper in the ordered variant, accessory kit (centering sleeves, O-rings for direct connection/detailed contents see operating manual) and safety information. Product-specific instructions can be downloaded at [schunk.com/downloads-manuals](http://schunk.com/downloads-manuals).

**Gripping force maintenance:** possible with pressure maintenance valve SDV-P

**Gripping force:** is the arithmetic sum of the individual force applied to each jaw at distance P (see illustration).

**Finger length:** is measured from the reference surface as the distance P in direction to the main axis.

The maximum permissible finger length applies until the nominal operating pressure is achieved. With higher pressures, the finger length must be reduced proportionally to the nominal operating pressure.

**Repeat accuracy:** is defined as a distribution of the end position for 100 consecutive strokes.

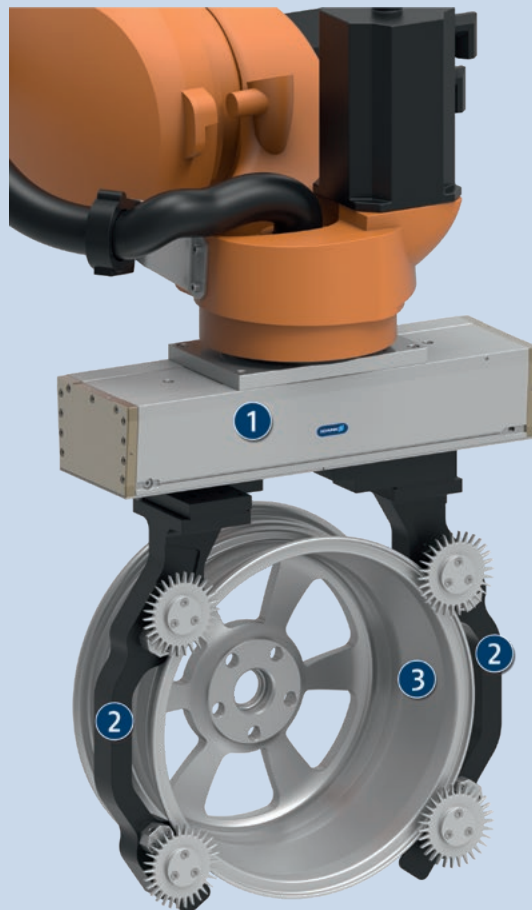
**Workpiece weight:** is calculated for force-fit gripping with a coefficient of static friction of 0.1 and a safety factor of 2 against workpiece slippage at acceleration due to gravity g. For form-fit or capture gripping, there are significantly higher permissible workpiece weights.

**Closing and opening times:** are movement times of the base jaws only, without application-specific gripper fingers. Valve switching times, hose fill times, or PLC reaction times are not included, and are to be considered when cycle times are calculated.

## 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 Top fingers for wheel rim handling
- 3 Workpiece: 19 inch wheel rim



## SCHUNK offers more ...

The following components make the product even more productive – the suitable addition for the highest functionality, flexibility, reliability, and controlled production.



Quick change system



Universal swivel unit



Pressure maintenance valve



Finger blank



Inductive proximity switch



Magnetic switches

① For more information on these products can be found on the following product pages or at [schunk.com](https://www.schunk.com).

## Options and special information

The gripper was particularly developed for handling car rims. It is capable of gripping rims from 13" to 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.

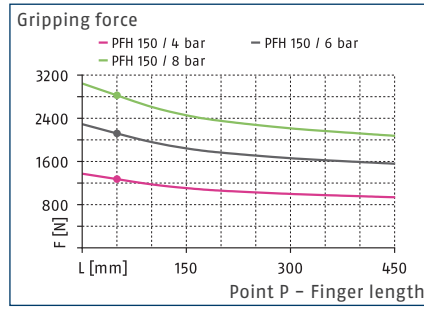
**Food-grade lubrication:** The product contains food-compliant lubricants as standard. The requirements of EN 1672-2:2020 are not fully met. The relevant NSF certificates are available at <https://info.nsf.org/USDA/Listings.asp> using the lubricant information in the operating manual.

# PFH 150

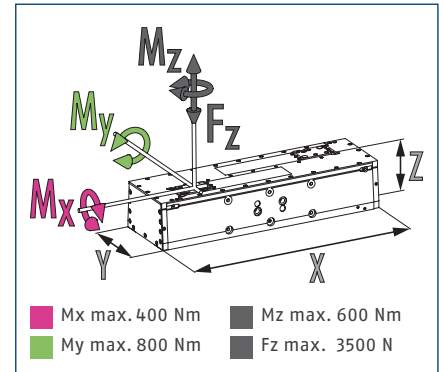
Long-stroke gripper



## Gripping force



## Dimensions and maximum loads



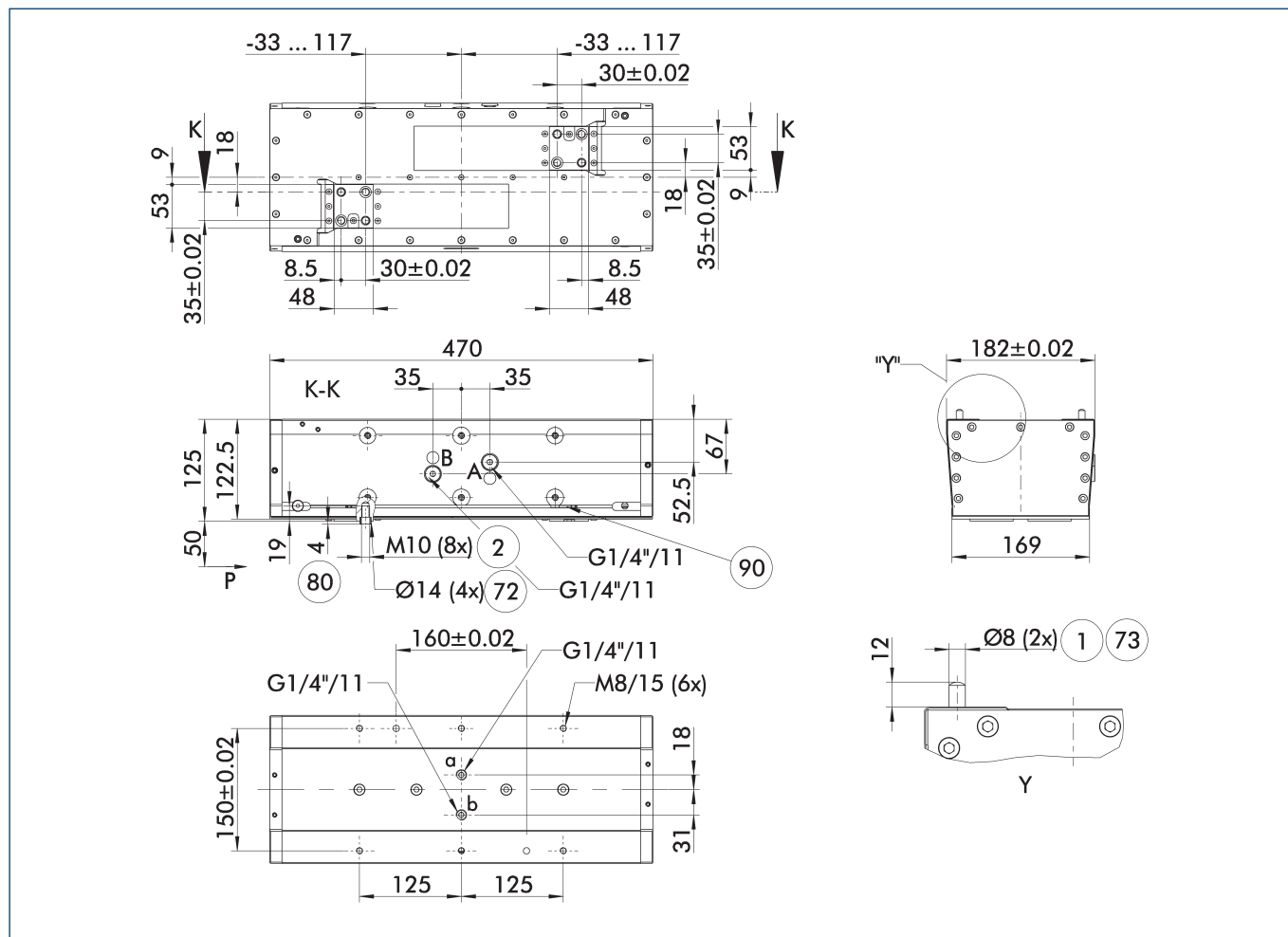
ⓘ The indicated moments and forces are static values, apply for each base jaw and may appear simultaneously. Loads may additionally occur to the moment produced by the gripping force itself.

## Technical data

Description		PFH 150
ID		0302000
Stroke per jaw	[mm]	150
Closing/opening force	[N]	2120/2120
Weight	[kg]	18.9
Recommended workpiece weight	[kg]	11.2
Cylinder volume per double stroke	[cm <sup>3</sup> ]	1510
Min./nom./max. operating pressure	[bar]	2/6/8
Closing/opening time	[s]	0.7/0.7
Max. permissible finger length	[mm]	450
Max. permissible weight per finger	[kg]	7
IP protection class		30
Min./max. ambient temperature	[°C]	5/90
Repeat accuracy	[mm]	0.02
Dimensions X x Y x Z	[mm]	470 x 182 x 125

ⓘ It may take a few 100 gripping cycles until the full gripping force (as indicated in the data table) will be available.

Main view

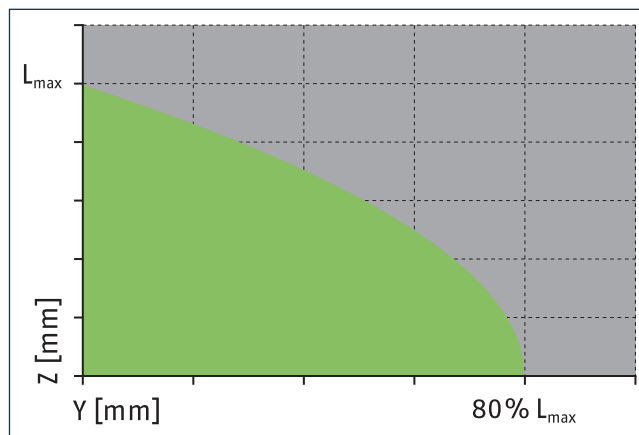
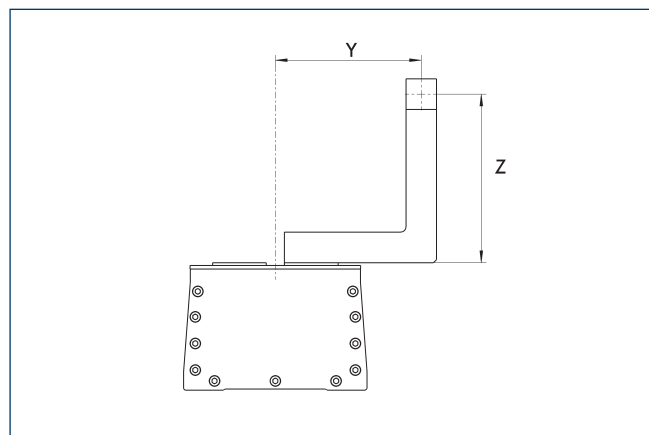


The drawing shows the basic version of the gripper with open jaws, without dimensional consideration of the options described below.

① As an alternative/in addition to spring-assisted mechanical gripping force maintenance, the SDV-P pressure maintenance valve can be used for I.D. and O.D. gripping (see "Accessories" section of catalog).

- A, a Main / direct connection, gripper opening
- B, b Main / direct connection, gripper closing
- ① Gripper connection
- ② Finger connection
- ⑦② Fit for centering sleeves
- ⑦③ Fit for centering pins
- ⑧① Depth of the centering sleeve hole in the counter part
- ⑨① Sensor MMS 22..

Maximum permitted finger projection

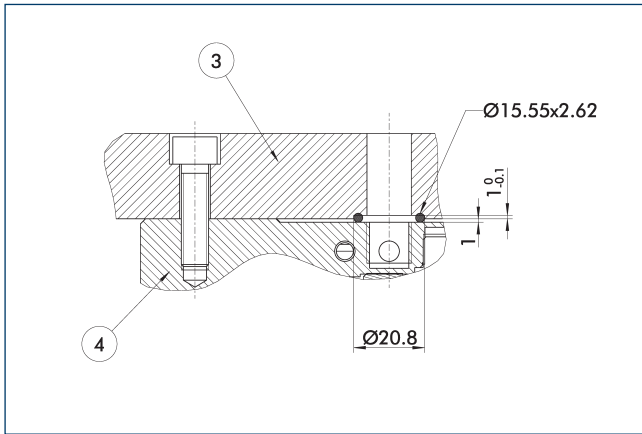


■ Permitted range      ■ Inadmissible range  
 $L_{max}$  is equivalent to the maximum permitted finger length, see the technical data table.

# PFH 150

Long-stroke gripper

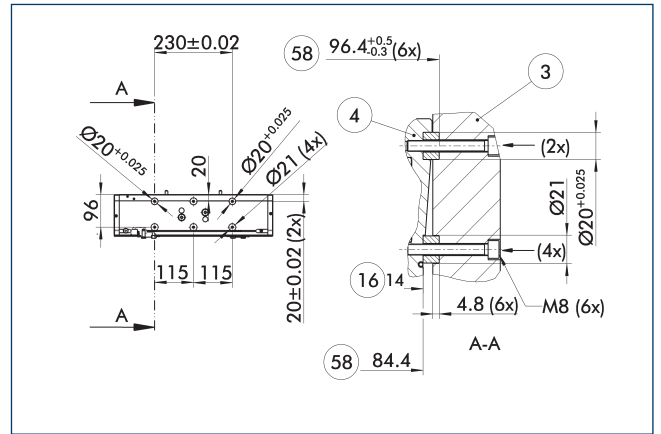
## Hose-free direct connection



- 3 Adapter
- 4 Grippers

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

## Attachment kit for side mounting

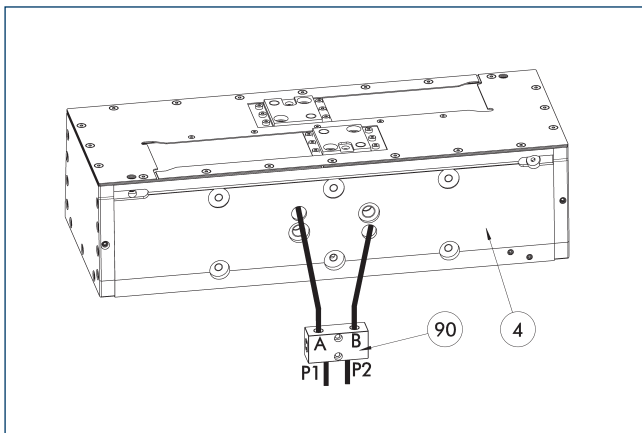


- 3 Adapter
- 4 Grippers
- 16 Maximum screw-in depth
- 58 Distance from center of gripper

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

Description	ID
Attachment kit for side mounting	
AS-S PFH 150-200	0302024

## SDV-P pressure maintenance valve



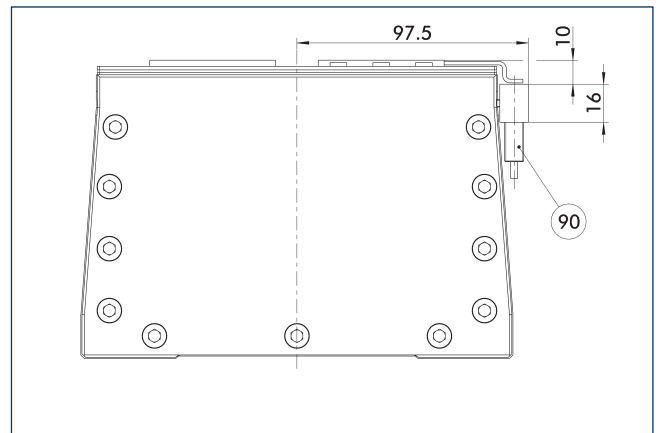
- 4 Grippers
- 90 SDV-P pressure maintenance valve

The SDV-P pressure maintenance valve ensures in emergency STOP situations that the pressure in the piston chamber of pneumatic gripper, swivel, linear, and quick-change modules is temporarily maintained.

Description	ID	Recommended hose diameter
		[mm]
Pressure maintenance valve		
SDV-P 07	0403131	8
Pressure maintenance valve with air bleed screw		
SDV-P 07-E	0300121	8

In order to achieve the specified closing and opening time for each gripper variant, the recommended hose diameter must be used. The direct allocation of the respective variant of the gripper for the respective SDV-P can be found at schunk.com.

## Attachment kit for proximity switch



- 90 Sensor IN ...

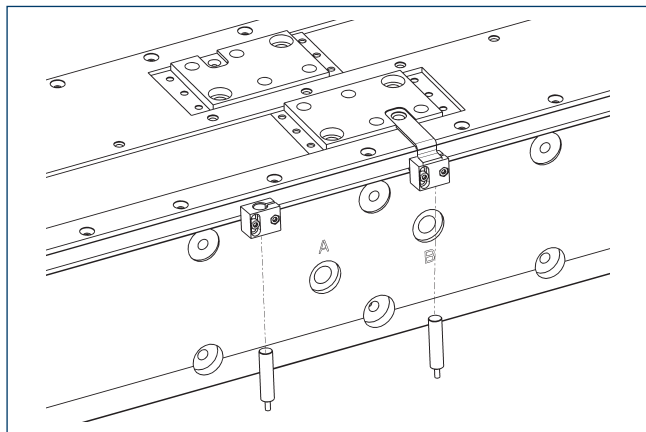
The attachment kit enables the assembly of two inductive proximity switches. The attachment kit is mounted in the sensor slot of the slot switch.

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

This attachment kit needs to be ordered optionally as an accessory.



### Inductive proximity switches

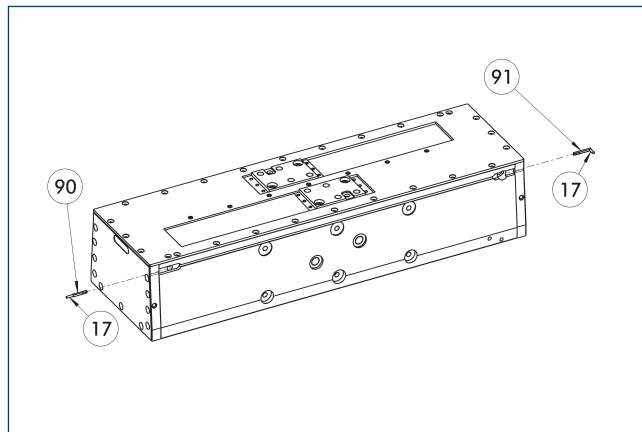


End position monitoring can be mounted with an attachment kit.

Description	ID	Often combined
Attachment kit for proximity switch		
HG-PFH 150-300	0300770	
Inductive proximity switch		
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	●
INK 80-S	0301550	

① Two sensors (closer/S) are required for each unit and extension cables are available as an option. This attachment kit needs to be ordered optionally as an accessory. For sensor cables, note the minimum permissible bending radii. These are generally 35 mm.

### Electronic magnetic switch MMS



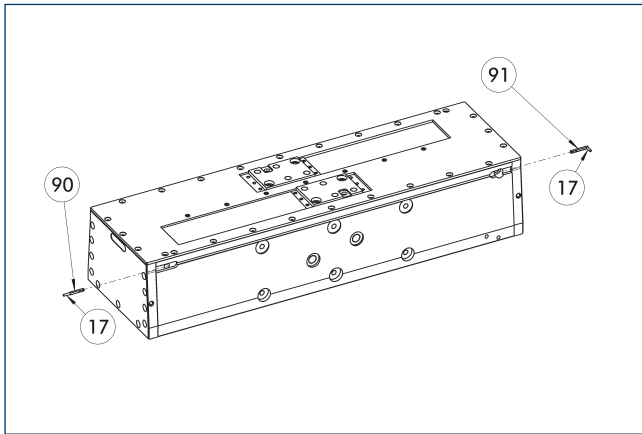
- ①⑦ Cable outlet
- ①⑨ Sensor MMS 22..
- ①⑨① Sensor MMS 22...-SA

End position monitoring for mounting in the C-slot.

Description	ID	Often combined
Electronic magnetic switch		
MMS 22-S-M8-PNP	0301032	●
MMSK 22-S-PNP	0301034	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M8-PNP-SA	0301042	●
MMSK 22-S-PNP-SA	0301044	
Reed Switches		
RMS 22-S-M8	0377720	●
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	●
KA BG08-L 3P-0500-PNP	0301623	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
Clip for connector/socket		
CLI-M8	0301463	
Cable extension		
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	●
Sensor distributor		
V2-M8	0301775	●
V4-M8	0301746	
V8-M8	0301751	

① Two sensors are required per unit for monitoring two positions. On option, extension cables and sensor distributors are available. Additional product variants of the sensor, and further information and technical data can be found in the catalog chapter sensor system.

## Programmable magnetic switch MMS 22-PI1



- ①⑦ Cable outlet
- ①⑨ Sensor MMS 22 ..-PI1-...-SA
- ①⑩ Sensor MMS 22 PI1-...

Position monitoring with one programmable position per sensor and integrated electronic system in the sensor. Can be programmed using MT magnetic teaching tool (included in the scope of delivery, ID 0301030) or ST plug teaching tool (optional). End position monitoring for mounting in the C-slot. If the ST plug teaching tools are listed in the table provided, teaching is only possible with the ST teaching tools.

Description	ID	Often combined
<b>Programmable magnetic switch</b>		
MMS 22-PI1-S-M8-PNP	0301160	●
MMSK 22-PI1-S-PNP	0301162	
<b>Programmable magnetic switch with lateral cable outlet</b>		
MMS 22-PI1-S-M8-PNP-SA	0301166	●
MMSK 22-PI1-S-PNP-SA	0301168	
<b>Programmable magnetic switch with stainless steel housing</b>		
MMS 22-PI1-S-M8-PNP-HD	0301110	●
MMSK 22-PI1-S-PNP-HD	0301112	

- ① Two sensors are required per unit for monitoring two positions. On option, extension cables and sensor distributors are available. Additional product variants of the sensor, and further information and technical data can be found in the catalog chapter sensor system.

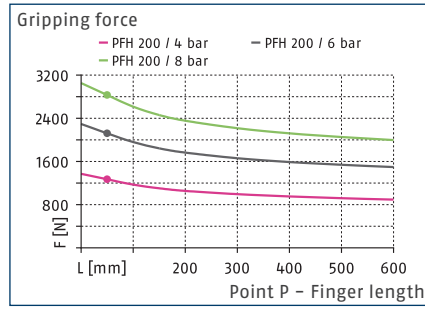


# PFH 200

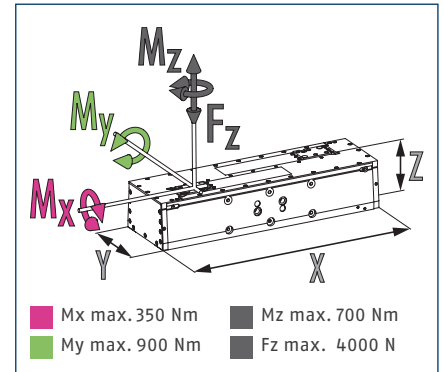
Long-stroke gripper



## Gripping force



## Dimensions and maximum loads



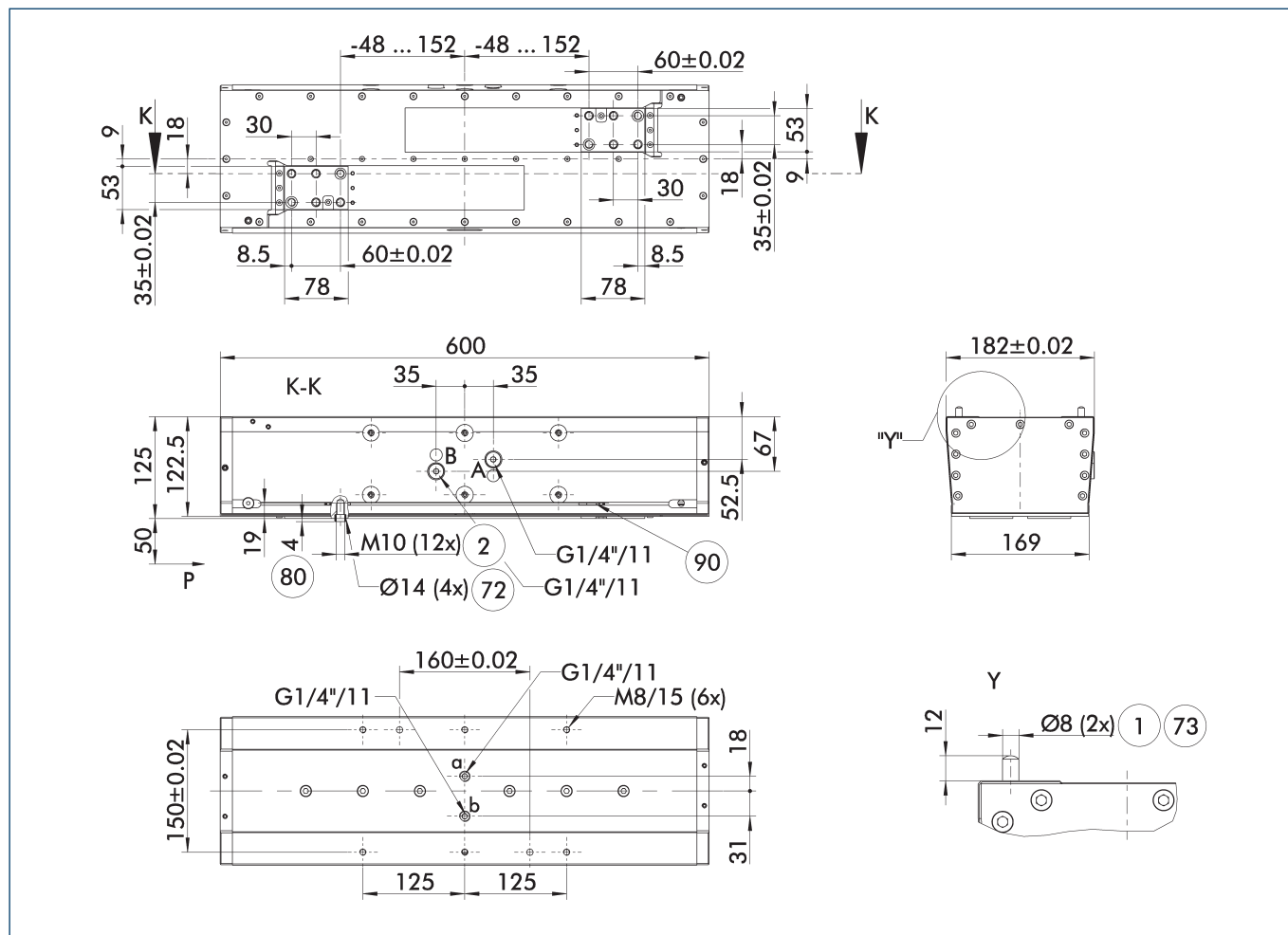
ⓘ The indicated moments and forces are static values, apply for each base jaw and may appear simultaneously. Loads may additionally occur to the moment produced by the gripping force itself.

## Technical data

Description		PFH 200
ID		0302020
Stroke per jaw	[mm]	200
Closing/opening force	[N]	2120/2120
Weight	[kg]	23.5
Recommended workpiece weight	[kg]	11.2
Cylinder volume per double stroke	[cm <sup>3</sup> ]	1990
Min./nom./max. operating pressure	[bar]	2/6/8
Closing/opening time	[s]	0.9/0.9
Max. permissible finger length	[mm]	600
Max. permissible weight per finger	[kg]	8
IP protection class		30
Min./max. ambient temperature	[°C]	5/90
Repeat accuracy	[mm]	0.02
Dimensions X x Y x Z	[mm]	600 x 182 x 125

ⓘ It may take a few 100 gripping cycles until the full gripping force (as indicated in the data table) will be available.

Main view

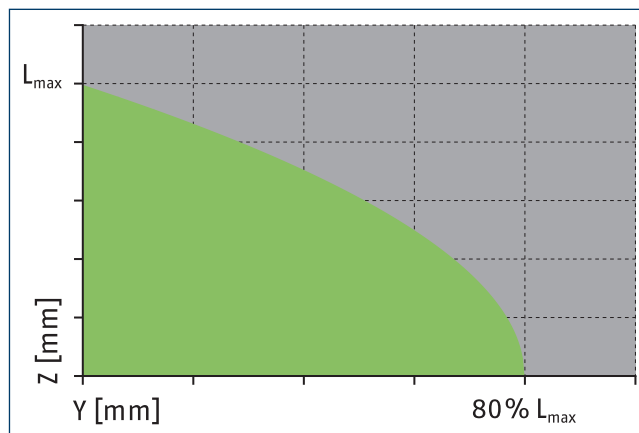
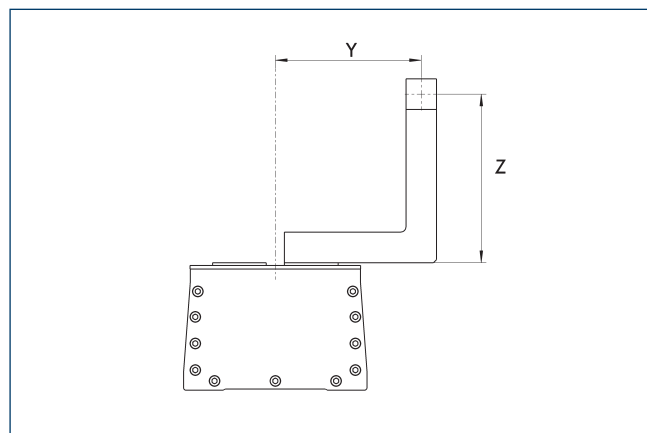


The drawing shows the basic version of the gripper with open jaws, without dimensional consideration of the options described below.

① As an alternative/in addition to spring-assisted mechanical gripping force maintenance, the SDV-P pressure maintenance valve can be used for I.D. and O.D. gripping (see "Accessories" section of catalog).

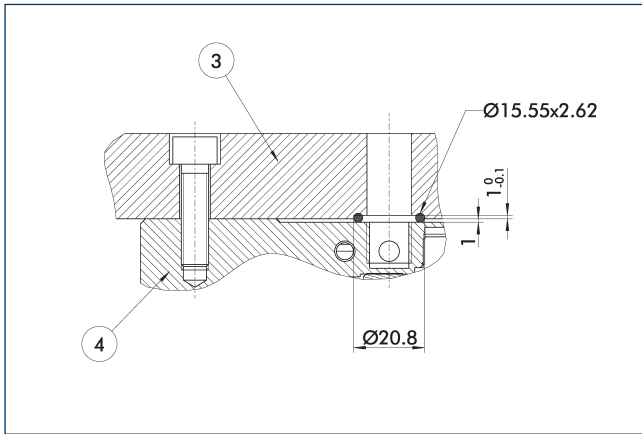
- A, a Main / direct connection, gripper opening
- B, b Main / direct connection, gripper closing
- ① Gripper connection
- ② Finger connection
- ⑦② Fit for centering sleeves
- ⑦③ Fit for centering pins
- ⑧① Depth of the centering sleeve hole in the counter part
- ⑧② Sensor MMS 22..

Maximum permitted finger projection



■ Permitted range      ■ Inadmissible range  
 L<sup>max</sup> is equivalent to the maximum permitted finger length, see the technical data table.

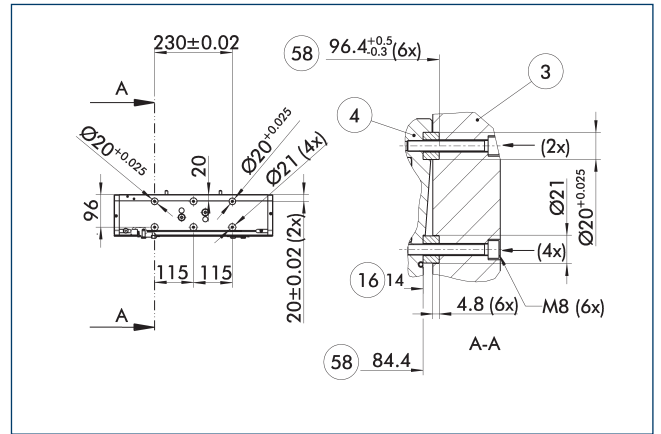
### Hose-free direct connection



③ Adapter                      ④ Grippers

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

### Attachment kit for side mounting

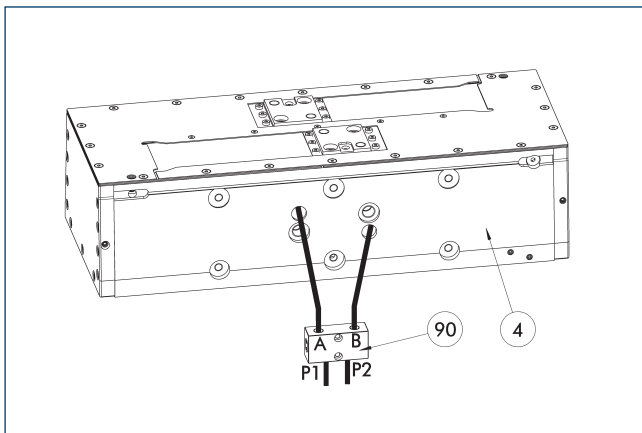


③ Adapter                      ⑬ Maximum screw-in depth  
④ Grippers                    ⑮ Distance from center of gripper

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

Description	ID
Attachment kit for side mounting	
AS-S PFH 150-200	0302024

### SDV-P pressure maintenance valve



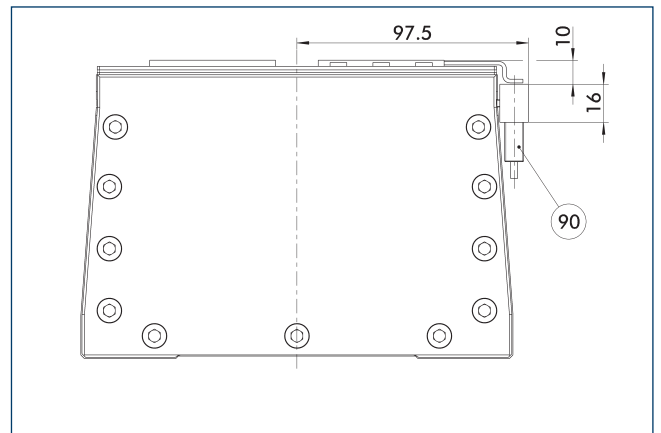
④ Grippers                      ⑨ SDV-P pressure maintenance valve

The SDV-P pressure maintenance valve ensures in emergency STOP situations that the pressure in the piston chamber of pneumatic gripper, swivel, linear, and quick-change modules is temporarily maintained.

Description	ID	Recommended hose diameter
		[mm]
Pressure maintenance valve		
SDV-P 07	0403131	8
Pressure maintenance valve with air bleed screw		
SDV-P 07-E	0300121	8

① In order to achieve the specified closing and opening time for each gripper variant, the recommended hose diameter must be used. The direct allocation of the respective variant of the gripper for the respective SDV-P can be found at schunk.com.

### Attachment kit for proximity switch



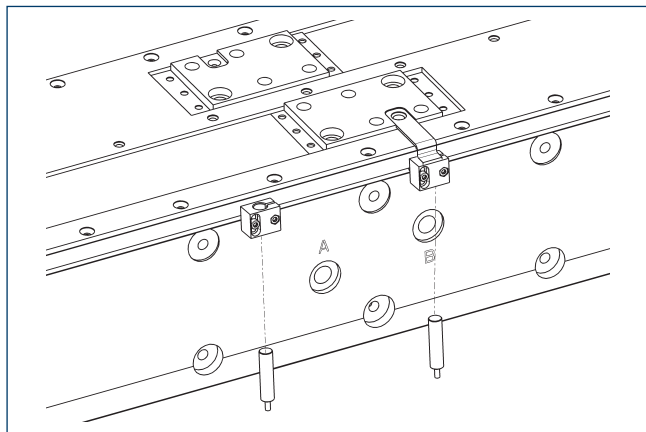
⑨ Sensor IN ...

The attachment kit enables the assembly of two inductive proximity switches. The attachment kit is mounted in the sensor slot of the slot switch.

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

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

### Inductive proximity switches

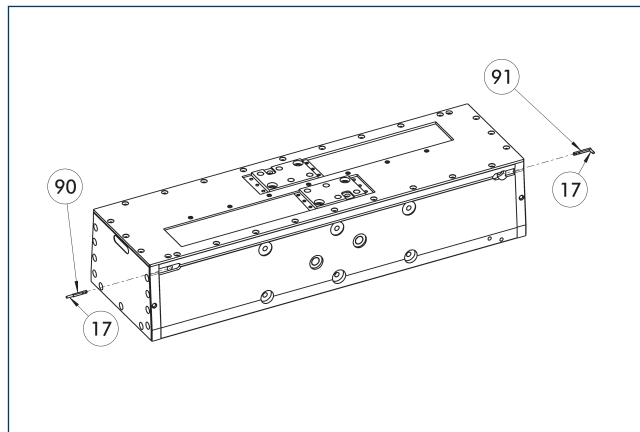


End position monitoring can be mounted with an attachment kit.

Description	ID	Often combined
Attachment kit for proximity switch		
HG-PFH 150-300	0300770	
Inductive proximity switch		
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	●
INK 80-S	0301550	

① Two sensors (closer/S) are required for each unit and extension cables are available as an option. This attachment kit needs to be ordered optionally as an accessory. For sensor cables, note the minimum permissible bending radii. These are generally 35 mm.

### Electronic magnetic switch MMS



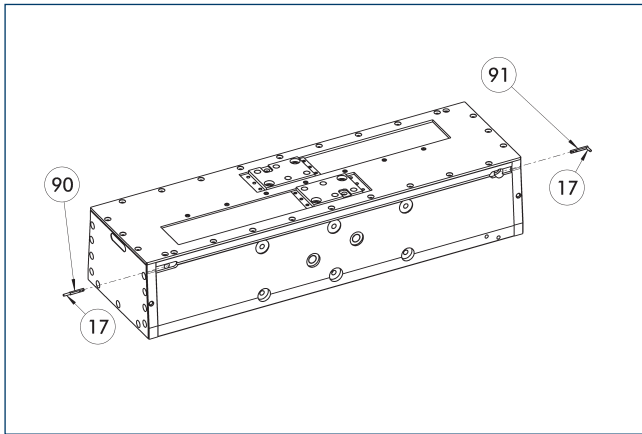
- ①⑦ Cable outlet
- ①⑨ Sensor MMS 22...
- ①⑨ Sensor MMS 22...-SA

End position monitoring for mounting in the C-slot.

Description	ID	Often combined
Electronic magnetic switch		
MMS 22-S-M8-PNP	0301032	●
MMSK 22-S-PNP	0301034	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M8-PNP-SA	0301042	●
MMSK 22-S-PNP-SA	0301044	
Reed Switches		
RMS 22-S-M8	0377720	●
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	●
KA BG08-L 3P-0500-PNP	0301623	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
Clip for connector/socket		
CLI-M8	0301463	
Cable extension		
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	●
Sensor distributor		
V2-M8	0301775	●
V4-M8	0301746	
V8-M8	0301751	

① Two sensors are required per unit for monitoring two positions. On option, extension cables and sensor distributors are available. Additional product variants of the sensor, and further information and technical data can be found in the catalog chapter sensor system.

## Programmable magnetic switch MMS 22-PI1



- ①⑦ Cable outlet
- ①⑨ Sensor MMS 22 ..-PI1-...-SA
- ①⑩ Sensor MMS 22 PI1-...

Position monitoring with one programmable position per sensor and integrated electronic system in the sensor. Can be programmed using MT magnetic teaching tool (included in the scope of delivery, ID 0301030) or ST plug teaching tool (optional). End position monitoring for mounting in the C-slot. If the ST plug teaching tools are listed in the table provided, teaching is only possible with the ST teaching tools.

Description	ID	Often combined
<b>Programmable magnetic switch</b>		
MMS 22-PI1-S-M8-PNP	0301160	●
MMSK 22-PI1-S-PNP	0301162	
<b>Programmable magnetic switch with lateral cable outlet</b>		
MMS 22-PI1-S-M8-PNP-SA	0301166	●
MMSK 22-PI1-S-PNP-SA	0301168	
<b>Programmable magnetic switch with stainless steel housing</b>		
MMS 22-PI1-S-M8-PNP-HD	0301110	●
MMSK 22-PI1-S-PNP-HD	0301112	

- ① Two sensors are required per unit for monitoring two positions. On option, extension cables and sensor distributors are available. Additional product variants of the sensor, and further information and technical data can be found in the catalog chapter sensor system.



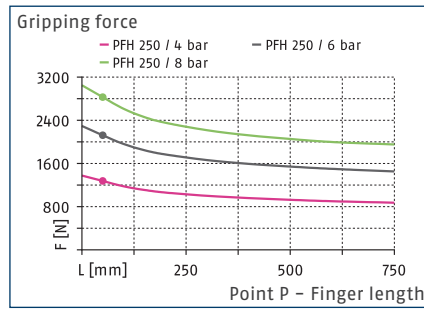


# PFH 250

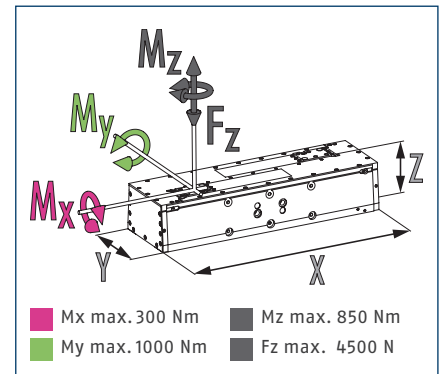
Long-stroke gripper



## Gripping force



## Dimensions and maximum loads



ⓘ The indicated moments and forces are static values, apply for each base jaw and may appear simultaneously. Loads may additionally occur to the moment produced by the gripping force itself.

## Technical data

Description		PFH 250
ID		0302005
Stroke per jaw	[mm]	250
Closing/opening force	[N]	2120/2120
Weight	[kg]	28.6
Recommended workpiece weight	[kg]	11.2
Cylinder volume per double stroke	[cm <sup>3</sup> ]	2510
Min./nom./max. operating pressure	[bar]	2/6/8
Closing/opening time	[s]	1.1/1.1
Max. permissible finger length	[mm]	750
Max. permissible weight per finger	[kg]	9
IP protection class		30
Min./max. ambient temperature	[°C]	5/90
Repeat accuracy	[mm]	0.02
Dimensions X x Y x Z	[mm]	730 x 182 x 125

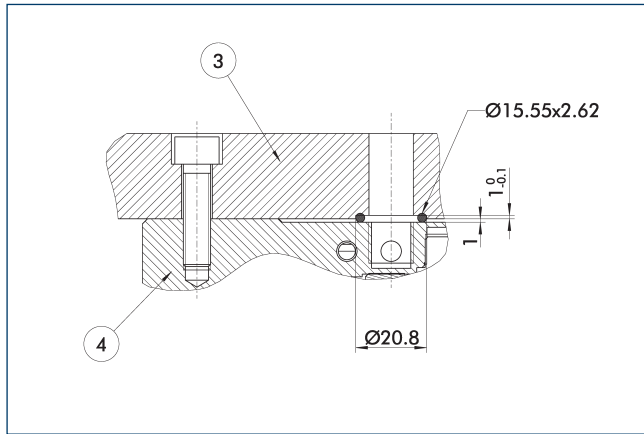
ⓘ It may take a few 100 gripping cycles until the full gripping force (as indicated in the data table) will be available.



# PFH 250

Long-stroke gripper

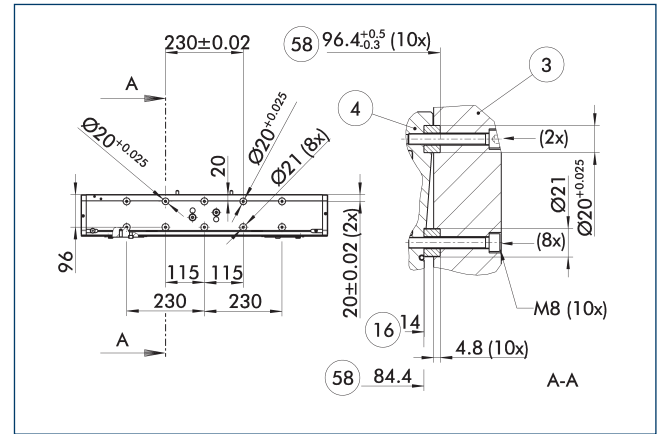
## Hose-free direct connection



③ Adapter                      ④ Grippers

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

## Attachment kit for side mounting

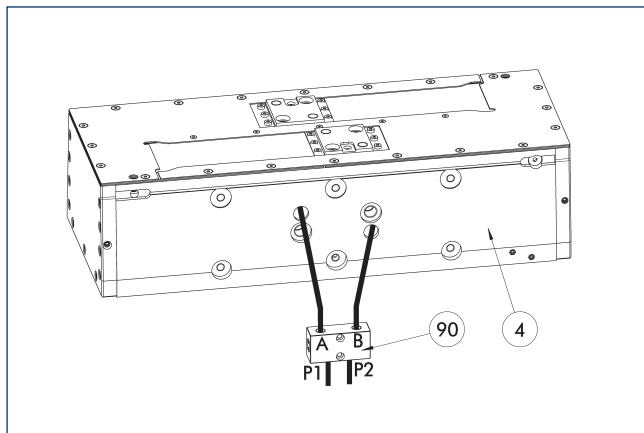


③ Adapter                      ⑬ Maximum screw-in depth  
④ Grippers                      ⑮ Distance from center of gripper

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

Description	ID
Attachment kit for side mounting	
AS-S PFH 250-300	0302026

## SDV-P pressure maintenance valve



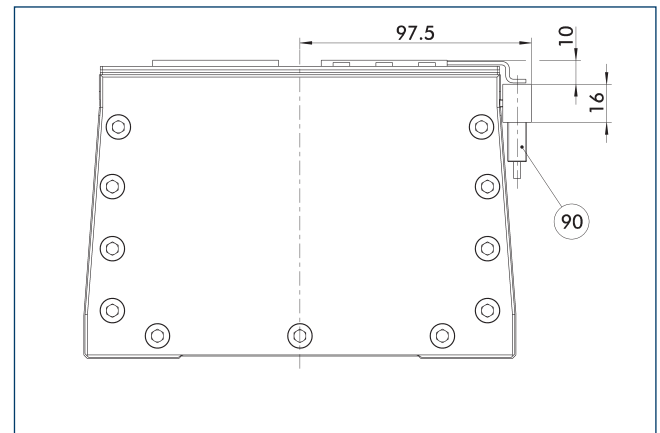
④ Grippers                      ⑨ SDV-P pressure maintenance valve

The SDV-P pressure maintenance valve ensures in emergency STOP situations that the pressure in the piston chamber of pneumatic gripper, swivel, linear, and quick-change modules is temporarily maintained.

Description	ID	Recommended hose diameter [mm]
Pressure maintenance valve		
SDV-P 07	0403131	8
Pressure maintenance valve with air bleed screw		
SDV-P 07-E	0300121	8

① In order to achieve the specified closing and opening time for each gripper variant, the recommended hose diameter must be used. The direct allocation of the respective variant of the gripper for the respective SDV-P can be found at schunk.com.

## Attachment kit for proximity switch



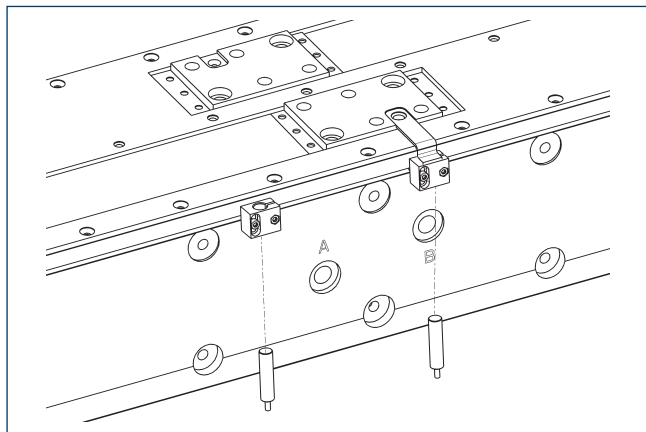
⑨ Sensor IN ...

The attachment kit enables the assembly of two inductive proximity switches. The attachment kit is mounted in the sensor slot of the slot switch.

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

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

### Inductive proximity switches

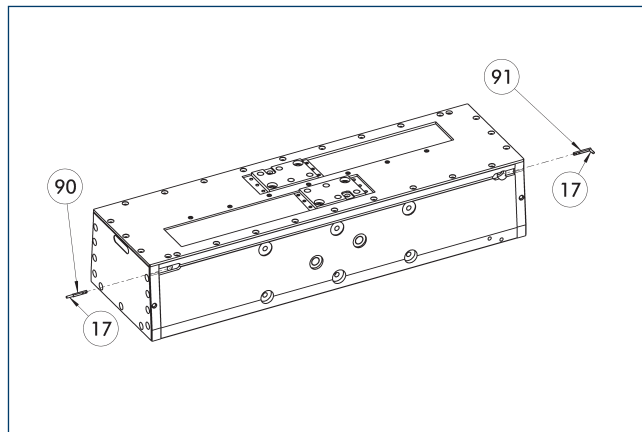


End position monitoring can be mounted with an attachment kit.

Description	ID	Often combined
Attachment kit for proximity switch		
HG-PFH 150-300	0300770	
Inductive proximity switch		
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	●
INK 80-S	0301550	

① Two sensors (closer/S) are required for each unit and extension cables are available as an option. This attachment kit needs to be ordered optionally as an accessory. For sensor cables, note the minimum permissible bending radii. These are generally 35 mm.

### Electronic magnetic switch MMS



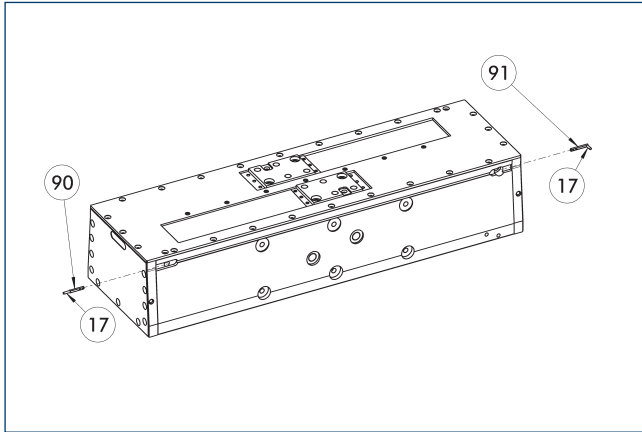
- ①⑦ Cable outlet
- ①⑨ Sensor MMS 22...
- ①⑨ Sensor MMS 22...
- ①⑨ Sensor MMS 22...-SA

End position monitoring for mounting in the C-slot.

Description	ID	Often combined
Electronic magnetic switch		
MMS 22-S-M8-PNP	0301032	●
MMSK 22-S-PNP	0301034	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M8-PNP-SA	0301042	●
MMSK 22-S-PNP-SA	0301044	
Reed Switches		
RMS 22-S-M8	0377720	●
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	●
KA BG08-L 3P-0500-PNP	0301623	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
Clip for connector/socket		
CLI-M8	0301463	
Cable extension		
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	●
Sensor distributor		
V2-M8	0301775	●
V4-M8	0301746	
V8-M8	0301751	

① Two sensors are required per unit for monitoring two positions. On option, extension cables and sensor distributors are available. Additional product variants of the sensor, and further information and technical data can be found in the catalog chapter sensor system.

## Programmable magnetic switch MMS 22-PI1



- ①⑦ Cable outlet
- ①⑨ Sensor MMS 22 ..-PI1-...-SA
- ①⑩ Sensor MMS 22 PI1-...

Position monitoring with one programmable position per sensor and integrated electronic system in the sensor. Can be programmed using MT magnetic teaching tool (included in the scope of delivery, ID 0301030) or ST plug teaching tool (optional). End position monitoring for mounting in the C-slot. If the ST plug teaching tools are listed in the table provided, teaching is only possible with the ST teaching tools.

Description	ID	Often combined
<b>Programmable magnetic switch</b>		
MMS 22-PI1-S-M8-PNP	0301160	●
MMSK 22-PI1-S-PNP	0301162	
<b>Programmable magnetic switch with lateral cable outlet</b>		
MMS 22-PI1-S-M8-PNP-SA	0301166	●
MMSK 22-PI1-S-PNP-SA	0301168	
<b>Programmable magnetic switch with stainless steel housing</b>		
MMS 22-PI1-S-M8-PNP-HD	0301110	●
MMSK 22-PI1-S-PNP-HD	0301112	

- ① Two sensors are required per unit for monitoring two positions. On option, extension cables and sensor distributors are available. Additional product variants of the sensor, and further information and technical data can be found in the catalog chapter sensor system.

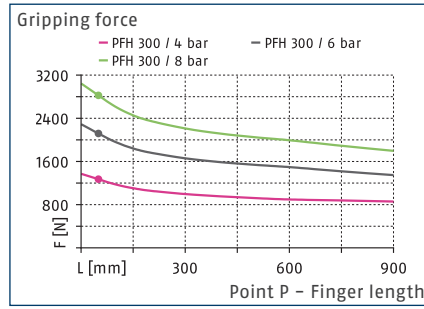


# PFH 300

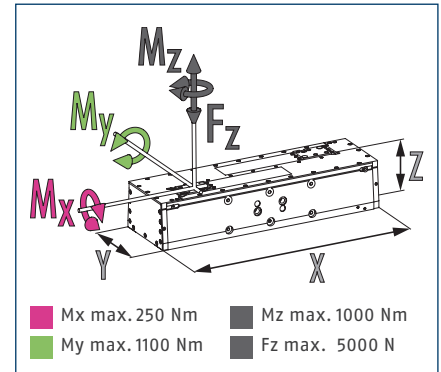
Long-stroke gripper



## Gripping force



## Dimensions and maximum loads



ⓘ The indicated moments and forces are static values, apply for each base jaw and may appear simultaneously. Loads may additionally occur to the moment produced by the gripping force itself.

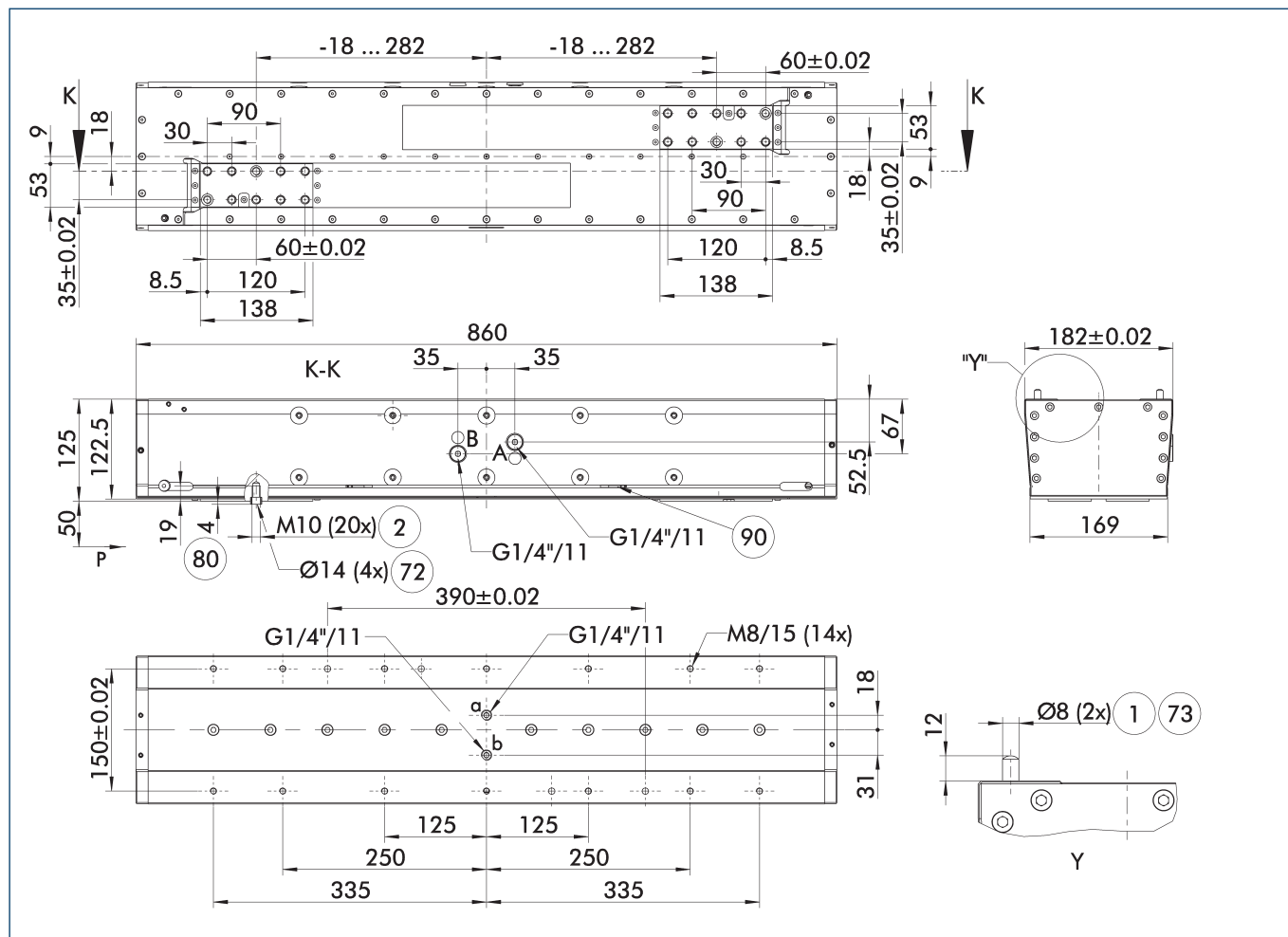
## Technical data

Description		PFH 300
ID		0302010
Stroke per jaw	[mm]	300
Closing/opening force	[N]	2120/2120
Weight	[kg]	33.6
Recommended workpiece weight	[kg]	14.7
Cylinder volume per double stroke	[cm <sup>3</sup> ]	3010
Min./nom./max. operating pressure	[bar]	2/6/8
Closing/opening time	[s]	1.25/1.25
Max. permissible finger length	[mm]	900
Max. permissible weight per finger	[kg]	10
IP protection class		30
Min./max. ambient temperature	[°C]	5/90
Repeat accuracy	[mm]	0.02
Dimensions X x Y x Z	[mm]	860 x 182 x 125

ⓘ It may take a few 100 gripping cycles until the full gripping force (as indicated in the data table) will be available.



Main view



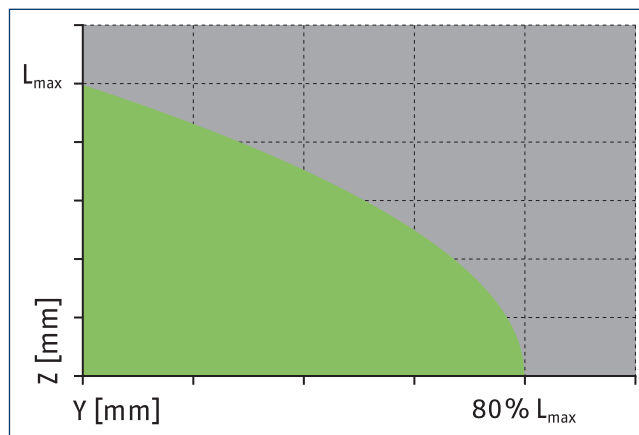
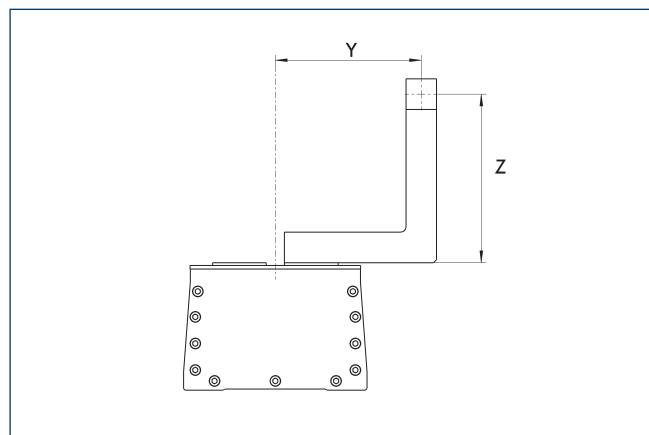
The drawing shows the basic version of the gripper with open jaws, without dimensional consideration of the options described below.

① As an alternative/in addition to spring-assisted mechanical gripping force maintenance, the SDV-P pressure maintenance valve can be used for I.D. and O.D. gripping (see "Accessories" section of catalog).

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

- ⑦② Fit for centering sleeves
- ⑦③ Fit for centering pins
- ⑧① Depth of the centering sleeve hole in the counter part
- ⑨① Sensor MMS 22..

Maximum permitted finger projection

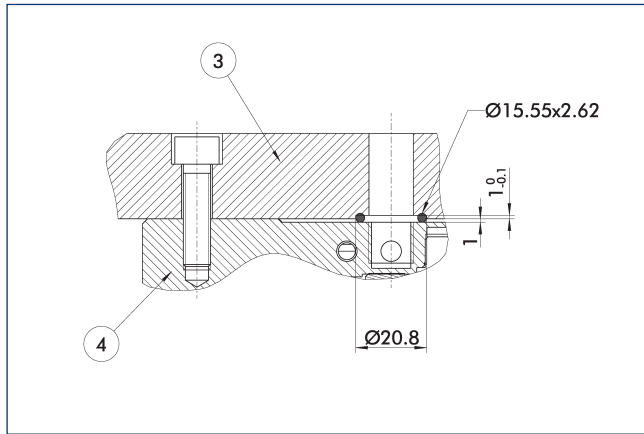


■ Permitted range      ■ Inadmissible range  
 L<sup>max</sup> is equivalent to the maximum permitted finger length, see the technical data table.

# PFH 300

Long-stroke gripper

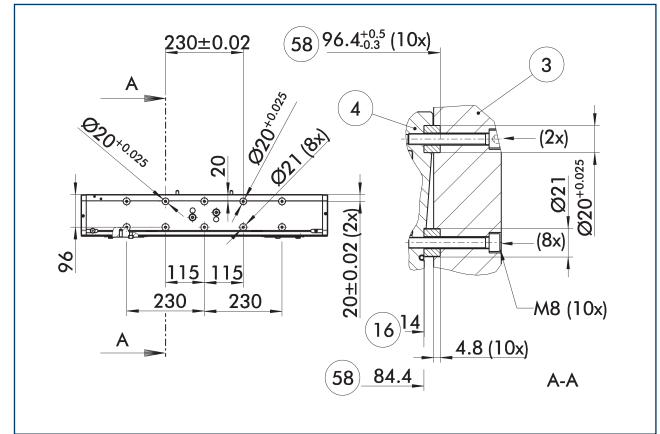
## Hose-free direct connection



③ Adapter                      ④ Grippers

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

## Attachment kit for side mounting

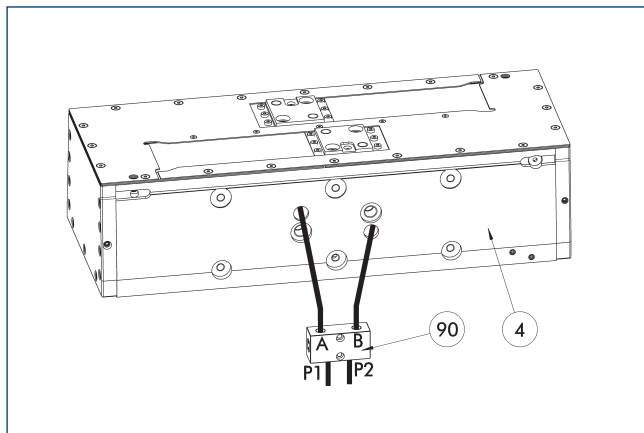


③ Adapter                      ④ Grippers                      ⑬ Maximum screw-in depth                      ⑭ Distance from center of gripper

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

Description	ID
Attachment kit for side mounting	
AS-S PFH 250-300	0302026

## SDV-P pressure maintenance valve



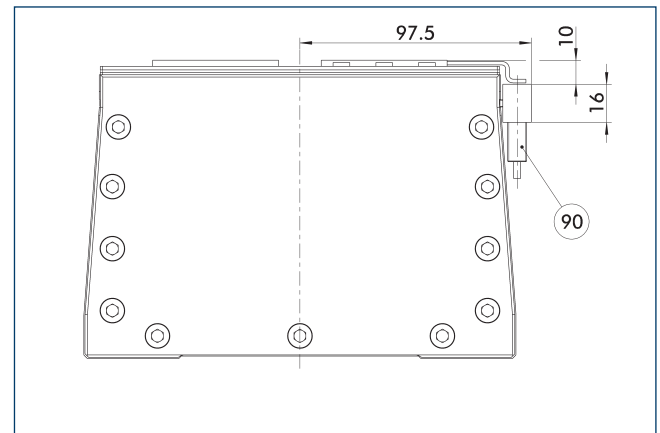
④ Grippers                      ⑨ SDV-P pressure maintenance valve

The SDV-P pressure maintenance valve ensures in emergency STOP situations that the pressure in the piston chamber of pneumatic gripper, swivel, linear, and quick-change modules is temporarily maintained.

Description	ID	Recommended hose diameter
		[mm]
Pressure maintenance valve with air bleed screw		
SDV-P 10-E	0300109	10

ⓘ In order to achieve the specified closing and opening time for each gripper variant, the recommended hose diameter must be used. The direct allocation of the respective variant of the gripper for the respective SDV-P can be found at schunk.com.

## Attachment kit for proximity switch



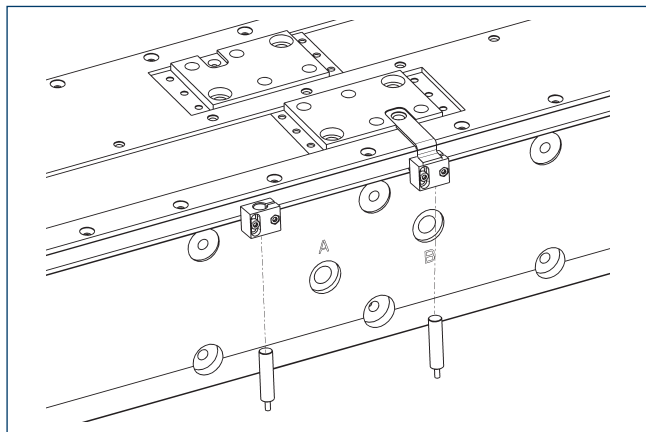
⑨ Sensor IN ...

The attachment kit enables the assembly of two inductive proximity switches. The attachment kit is mounted in the sensor slot of the slot switch.

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

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

**Inductive proximity switches**

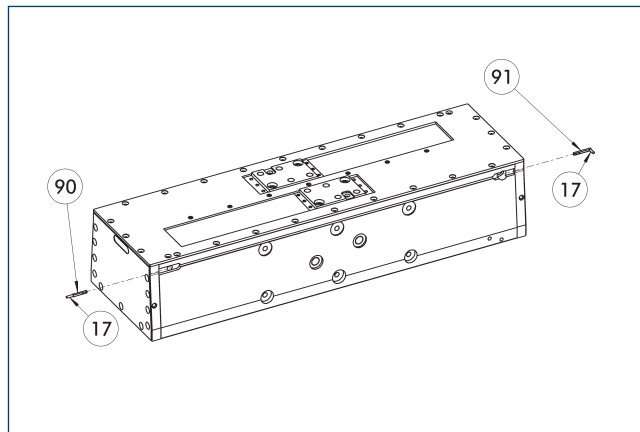


End position monitoring can be mounted with an attachment kit.

Description	ID	Often combined
Attachment kit for proximity switch		
HG-PFH 150-300	0300770	
Inductive proximity switch		
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	●
INK 80-S	0301550	

① Two sensors (closer/S) are required for each unit and extension cables are available as an option. This attachment kit needs to be ordered optionally as an accessory. For sensor cables, note the minimum permissible bending radii. These are generally 35 mm.

**Electronic magnetic switch MMS**



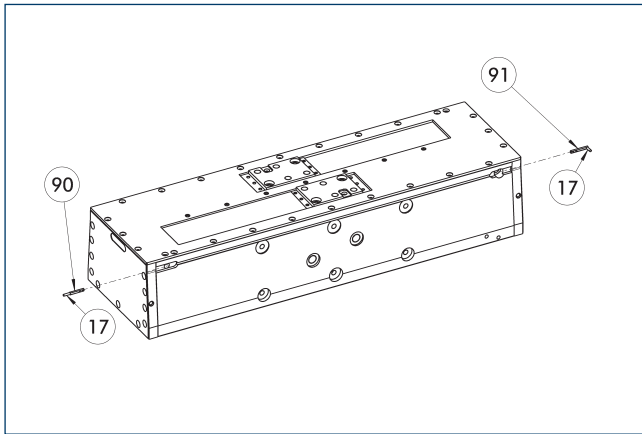
- ①⑦ Cable outlet
- ①⑨ Sensor MMS 22...
- ①⑨ Sensor MMS 22..
- ①⑨ Sensor MMS 22...-SA

End position monitoring for mounting in the C-slot.

Description	ID	Often combined
Electronic magnetic switch		
MMS 22-S-M8-PNP	0301032	●
MMSK 22-S-PNP	0301034	
Electronic magnetic switches with lateral cable outlet		
MMS 22-S-M8-PNP-SA	0301042	●
MMSK 22-S-PNP-SA	0301044	
Reed Switches		
RMS 22-S-M8	0377720	●
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	●
KA BG08-L 3P-0500-PNP	0301623	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
Clip for connector/socket		
CLI-M8	0301463	
Cable extension		
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	●
Sensor distributor		
V2-M8	0301775	●
V4-M8	0301746	
V8-M8	0301751	

① Two sensors are required per unit for monitoring two positions. On option, extension cables and sensor distributors are available. Additional product variants of the sensor, and further information and technical data can be found in the catalog chapter sensor system.

### Programmable magnetic switch MMS 22-PI1



- ①⑦ Cable outlet
- ①⑨ Sensor MMS 22 ..-PI1-...-SA
- ①⑩ Sensor MMS 22 PI1-...

Position monitoring with one programmable position per sensor and integrated electronic system in the sensor. Can be programmed using MT magnetic teaching tool (included in the scope of delivery, ID 0301030) or ST plug teaching tool (optional). End position monitoring for mounting in the C-slot. If the ST plug teaching tools are listed in the table provided, teaching is only possible with the ST teaching tools.

Description	ID	Often combined
<b>Programmable magnetic switch</b>		
MMS 22-PI1-S-M8-PNP	0301160	●
MMSK 22-PI1-S-PNP	0301162	
<b>Programmable magnetic switch with lateral cable outlet</b>		
MMS 22-PI1-S-M8-PNP-SA	0301166	●
MMSK 22-PI1-S-PNP-SA	0301168	
<b>Programmable magnetic switch with stainless steel housing</b>		
MMS 22-PI1-S-M8-PNP-HD	0301110	●
MMSK 22-PI1-S-PNP-HD	0301112	

- ① Two sensors are required per unit for monitoring two positions. On option, extension cables and sensor distributors are available. Additional product variants of the sensor, and further information and technical data can be found in the catalog chapter sensor system.





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