



Hand in hand for tomorrow



Product data sheet

Long-stroke gripper PZH-plus

Flexible. Robust. Flat.

Universal gripper PZH-plus

Universal gripper with long travel and high maximum moment due to multi-tooth guidance

Field of application

multi- purpose thanks to a diverse range of accessories.
Can also be used in fields of application with special requirements to the gripper (temperature, chemical resistance, dirt, and many more).

Advantages – Your benefits

Robust multi-tooth guidance for precise handling

High maximum moments possible suitable for using long gripper fingers

Sensitive gripping for handling or large, sensitive workpieces

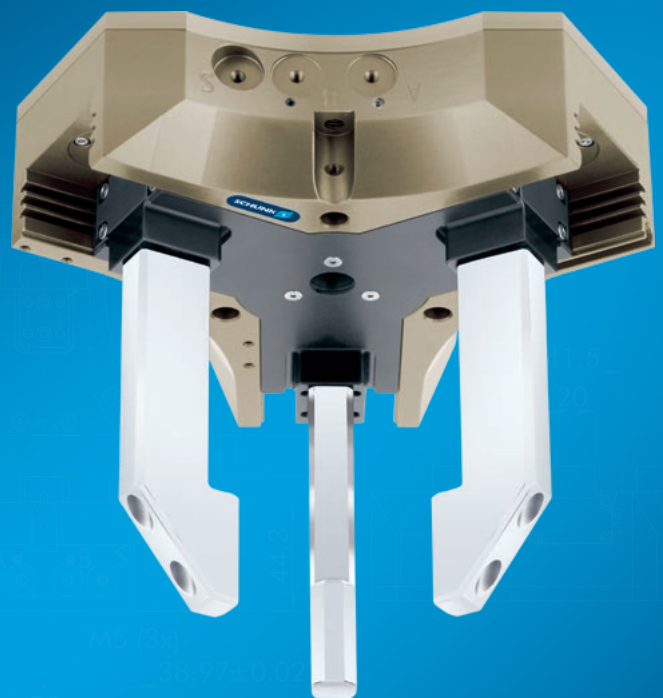
Air supply via hose-free direct connection or screw connections for flexible pressure supply in all automated systems

Comprehensive sensor accessory program for versatile querying possibilities and stroke position monitoring

Long stroke for a flexible range of parts

Flat design for less interfering contours

Center through-hole for feed-through of workpieces, supply hoses, sensor systems, optical workpiece recognition systems, etc.



Sizes
Quantity: 4



Weight
1.5 .. 33 kg



Gripping force
375 .. 4200 N



Stroke per jaw
20 .. 75 mm

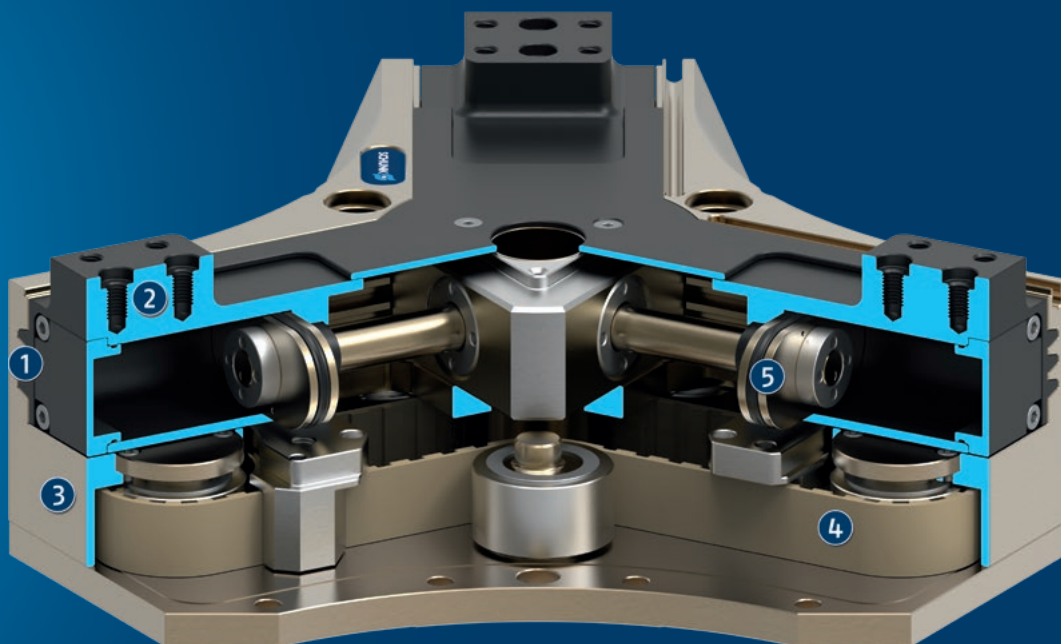


Workpiece weight
1.9 .. 22 kg

Functional description

The base jaws form the moving cylinder housing while the oval cylinder pistons are fixed. The piston areas are actuated with compressed air so that they are opened or closed. The base jaws are synchronized by a toothed belt

which is connected to one carrier per jaw.



- ① **Multi-tooth guidance**
highly loadable, nearly backlash-free base jaw guidance for long finger lengths
- ② **Base jaws**
for the connection of workpiece-specific gripper fingers

- ③ **Housing**
is weight-optimized due to the use of high-strength aluminum alloy
- ④ **Toothed belt for synchronization**
for centric gripping
- ⑤ **Drive**
pneumatic oval piston for maximum driving force

General notes about the series

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: 36 months

Service life characteristics: on request

Scope of delivery: Centering sleeves, O-rings for direct connection, assembly instructions (operating manual with declaration of incorporation is available online)

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).

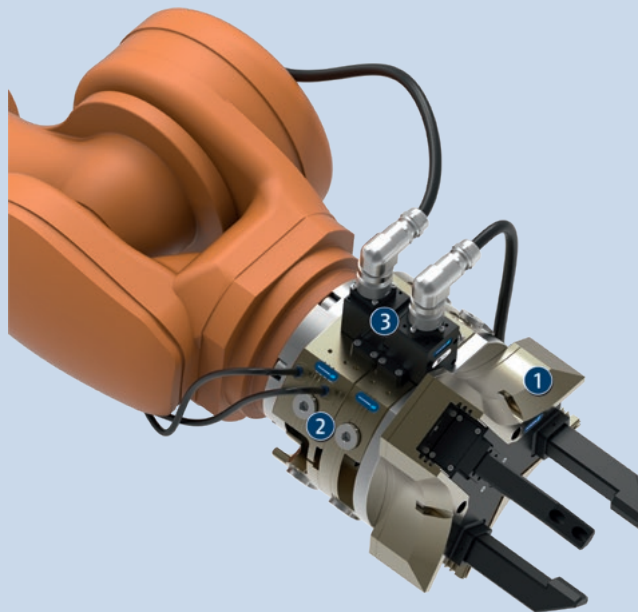
Finger length: is measured from the reference surface as the distance P in direction to the main axis.

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

SCHUNK end-of-arm competence.
Assembly unit for large, thin-walled,
rotationally symmetric components.

- ❶ 3-finger centric gripper PZH-plus
- ❷ Automatic tool changers CPS

- ❸ Optional modules COS

SCHUNK offers more ...

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



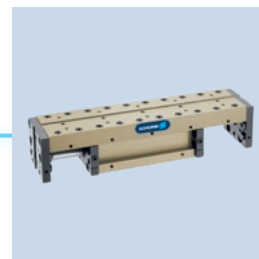
Tool changer



Universal swivel unit



Compensation unit



Linear module



Inductive proximity switch



Magnetic switches



Pressure maintenance valve

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

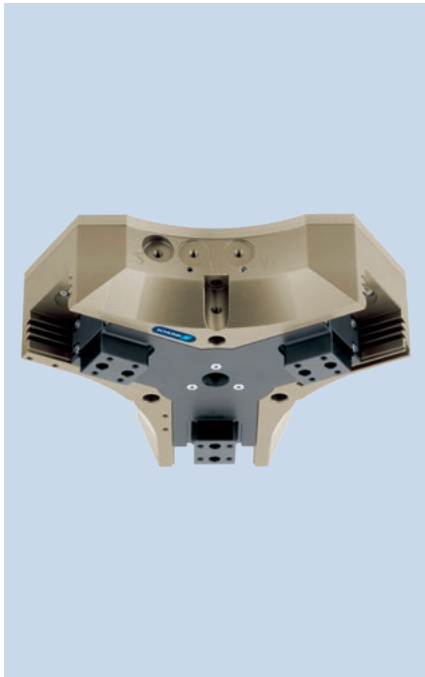
Options and special information

Please note that the weight of the gripper fingers should be as low as possible for long-stroke grippers.

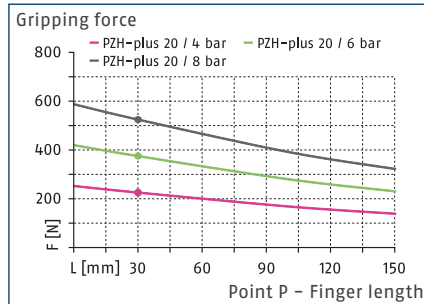
Food-grade lubrication: The product contains food-compliant lubricants as standard. The requirements of standard EN 1672-2:2020 are not fully met. The relevant NSF certificates are available at <https://info.nsf.org/USDA/Listings.asp> using the lubricant information in the operating manual. Components such as rolling bearings, linear guides, or shock absorbers are not provided with food-compliant lubricants.

PZH-plus 20

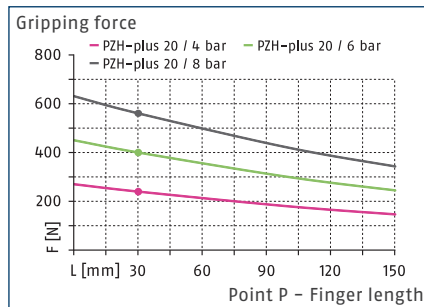
Long-stroke gripper



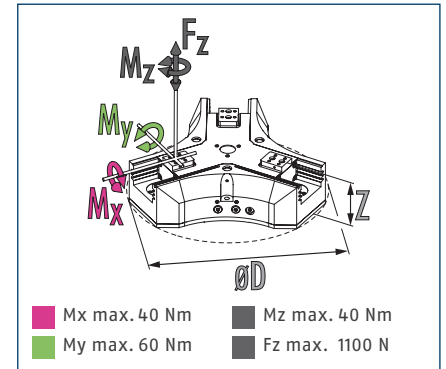
Gripping force O.D. gripping



Gripping force I.D. gripping



Dimensions and maximum loads



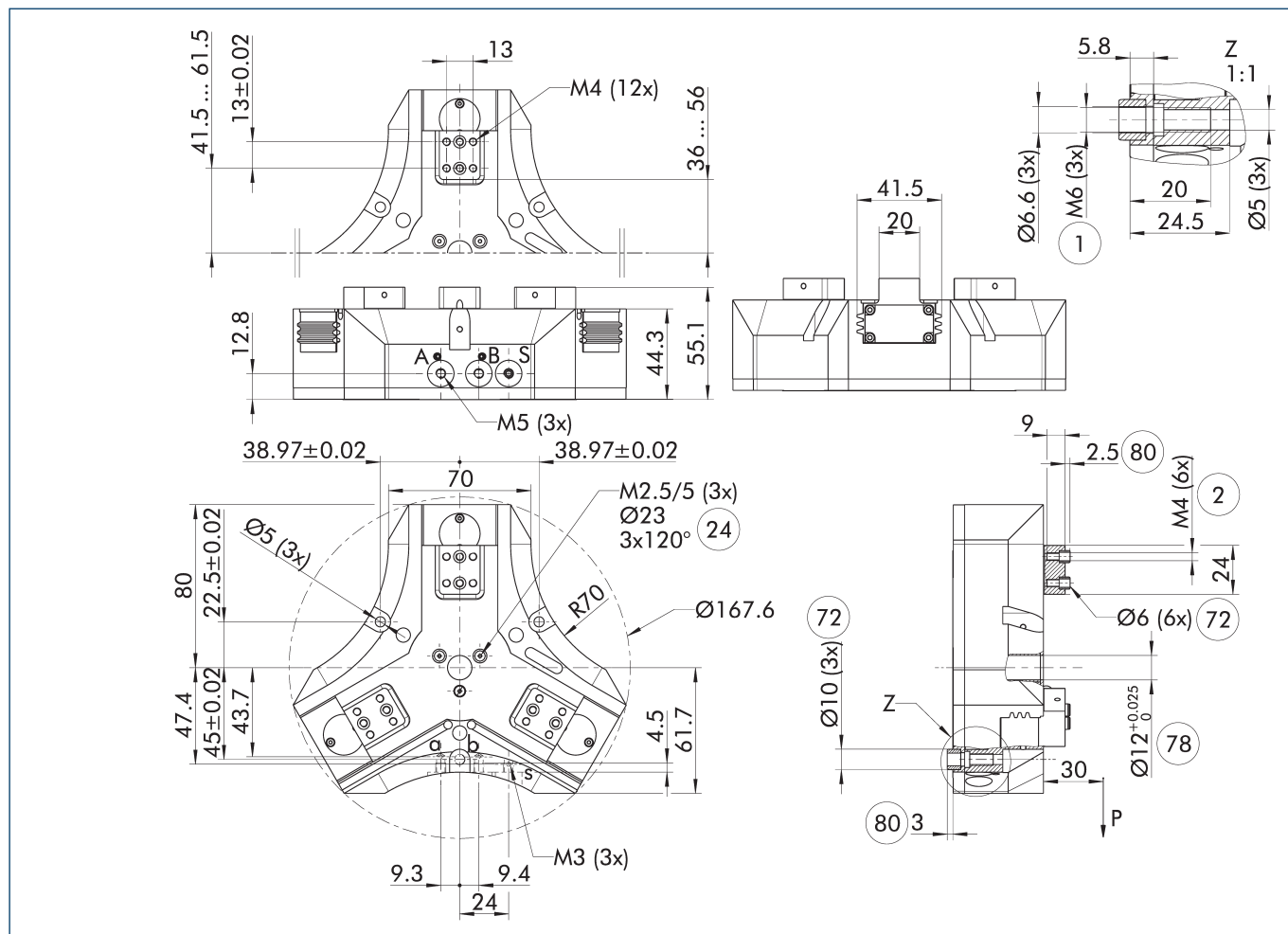
① The indicated moments and forces are static values, apply for each base jaw and may appear simultaneously. Loads may additionally occur to the moment produced by the gripping force itself.

Technical data

Description		PZH-plus 20
ID		0305360
Stroke per jaw	[mm]	20
Closing/opening force	[N]	375/400
Weight	[kg]	1.5
Recommended workpiece weight	[kg]	1.9
Cylinder volume per double stroke	[cm ³]	65
Min./nom./max. operating pressure	[bar]	2/6/8
Min./max. air purge pressure	[bar]	0.5/1
Closing/opening time	[s]	0.25/0.2
Max. permissible finger length	[mm]	150
Max. permissible weight per finger	[kg]	0.9
IP protection class		40
Min./max. ambient temperature	[°C]	5/90
Repeat accuracy	[mm]	0.02
Dimensions Ø D x Z	[mm]	167.6 x 55.1

① It may take a few 100 gripping cycles until the full gripping force (as indicated in the data table) will be available.

Main view



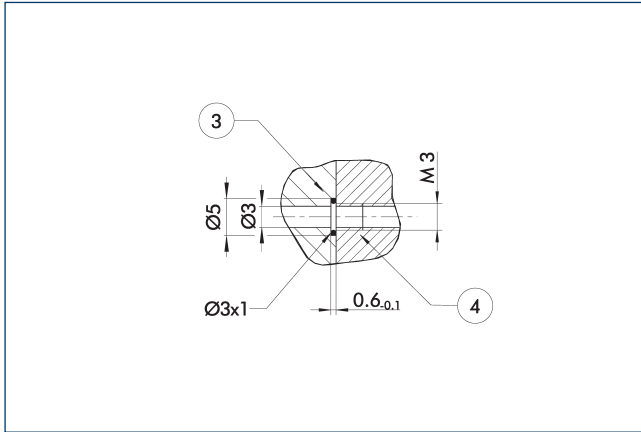
The drawing shows the gripper in the basic version with closed jaws, without dimensional consideration of the options described below.

- ① The SDV-P pressure maintenance valve can be used to maintain the position in the case of a loss of pressure (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
- ②④ Bolt circle
- ⑦② Fit for centering sleeves
- ⑦⑧ Fit for centering
- ⑧② Depth of the centering sleeve hole in the counter part

Hose-free direct connection M3

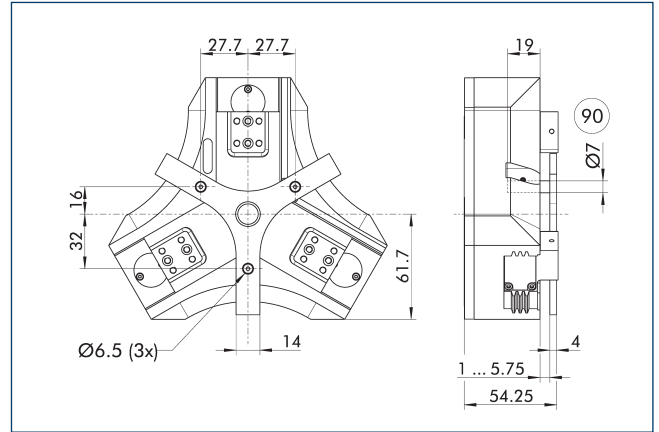


③ Adapter

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.

Spring-loaded pressure piece

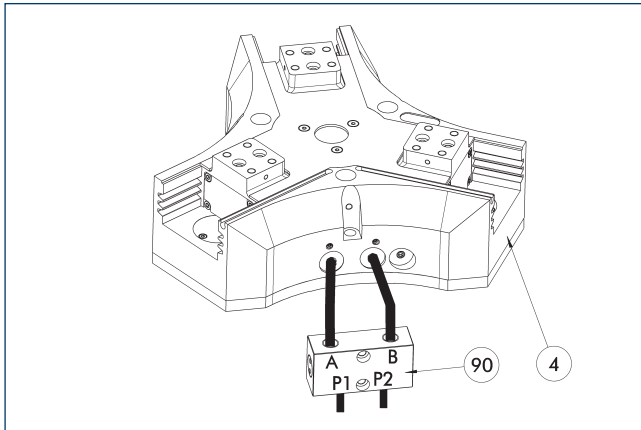


⑨ Guide pin

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

Description	ID	Stroke [mm]	Min. force [N]
Spring-loaded pressure piece			
A-PZH-plus 20	0305363	4.75	14

SDV-P pressure maintenance valve



④ Grippers

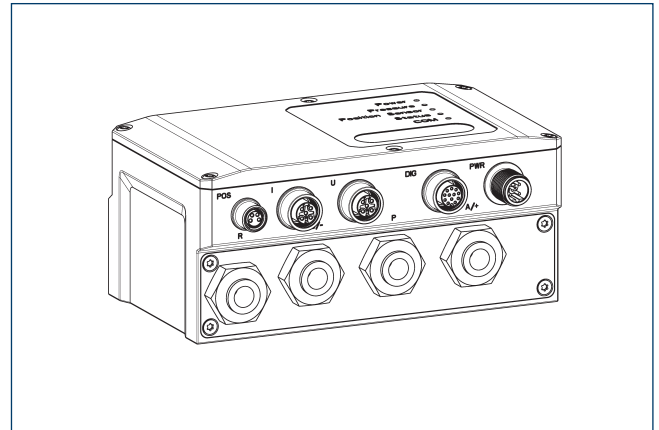
⑨ SDV-P pressure maintenance valve

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 04	0403130	6
Pressure maintenance valve with air bleed screw		
SDV-P 04-E	0300120	6

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.

Pneumatic positioning device PPD

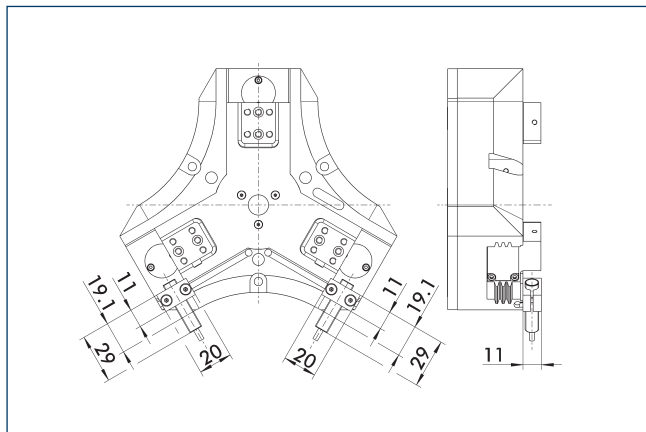


The PPD allows flexibility in all applications with pneumatic grippers through free positioning, gripping force and speed adjustment.

Description	ID	
Pneumatic positioning device		
PPD 10-IOL	1540698	
Adapter		
A GGN0804-1204-A	1540691	
IO-Link connection cable		
KA GGN1205-1212-IOL-00100-A	1540697	
Voltage supply connection cable – cable track compatible		
KA GLN12B05-LK-01000-A	1540660	
Cable extension		
KV GGN0804-IO-00150-A	1540662	
KV GGN0804-IO-00300-A	1540663	
Assembly set		
Assembly set PPD	1540705	

① In addition to the PPD, a position sensor (SCHUNK IO-Link sensor or analog sensor (4...20 mA)) is required.

Attachment kit for proximity switch IN 80

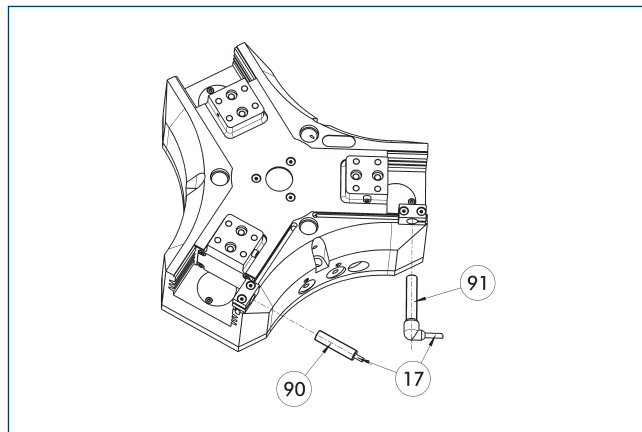


Attachment kit includes bracket, switch lugs/cams and mounting screws. Proximity switches must be ordered separately.

Description	ID
Attachment kit for proximity switch	
AS-IN80-PZH-plus 20-50	0305364

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

Inductive proximity switches



①7 Cable outlet

①0 Sensor IN ...

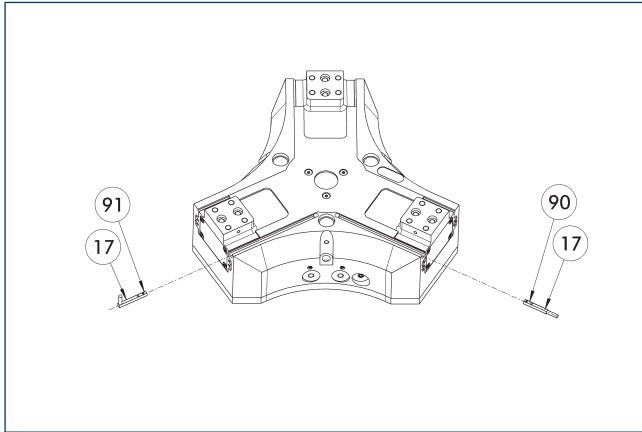
①1 Sensor IN...-SA

End position monitoring can be mounted with an attachment kit.

Description	ID	Often combined
Attachment kit for proximity switch		
AS-IN80-PZH-plus 20-50	0305364	
Inductive proximity switch		
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	●
IN-C 80-S-M8-PNP	0301475	
INK 80-S	0301550	
INK 80-SL	0301579	
Inductive proximity switch with lateral cable outlet		
IN 80-S-M12-SA	0301587	
IN 80-S-M8-SA	0301483	●
INK 80-S-SA	0301566	

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



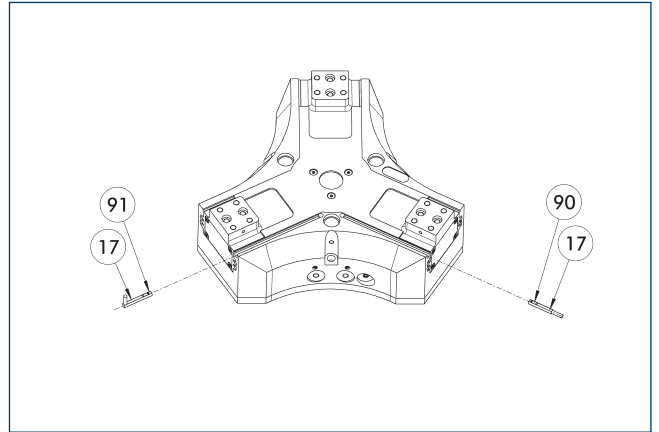
- ①⑦ Cable outlet ⑨① Sensor MMS 22...-SA
 ⑨⑦ Sensor MMS 22..

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	
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



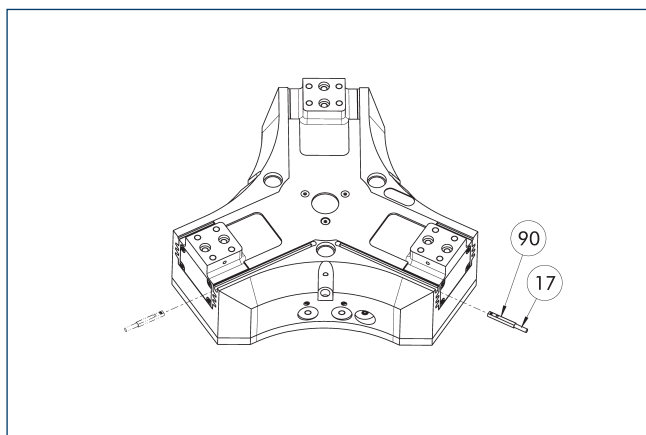
- ①⑦ Cable outlet ⑨① Sensor MMS 22 ..-PI1-...-SA
 ⑨⑦ Sensor MMS 22 PI1-...

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
Programmable magnetic switch		
MMS 22-PI1-S-M8-PNP	0301160	●
MMSK 22-PI1-S-PNP	0301162	
Programmable magnetic switch with lateral cable outlet		
MMS 22-PI1-S-M8-PNP-SA	0301166	●
MMSK 22-PI1-S-PNP-SA	0301168	
Programmable magnetic switch with stainless steel housing		
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.

Programmable magnetic switch MMS 22-PI2



17 Cable outlet

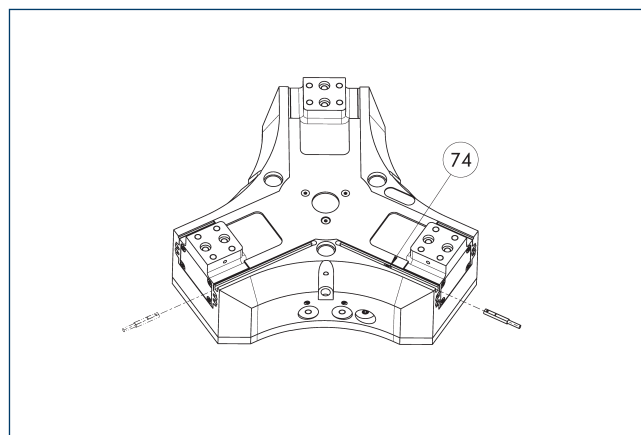
90 MMS 22...-PI2... sensor

Position monitoring with two programmable positions per sensor and electronics integrated 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
Programmable magnetic switch		
MMS 22-PI2-S-M8-PNP	0301180	●
MMSK 22-PI2-S-PNP	0301182	
Programmable magnetic switch with lateral cable outlet		
MMS 22-PI2-S-M8-PNP-SA	0301186	●
MMSK 22-PI2-S-PNP-SA	0301188	
Programmable magnetic switch with stainless steel housing		
MMS 22-PI2-S-M8-PNP-HD	0301130	●
MMSK 22-PI2-S-PNP-HD	0301132	

- ① One sensor is required per unit for monitoring two positions. Extension cables and sensor distributors are optionally available. Additional product variants of the sensor, and further information and technical data can be found in the catalog chapter sensor systems.

MMS-P programmable magnetic switch



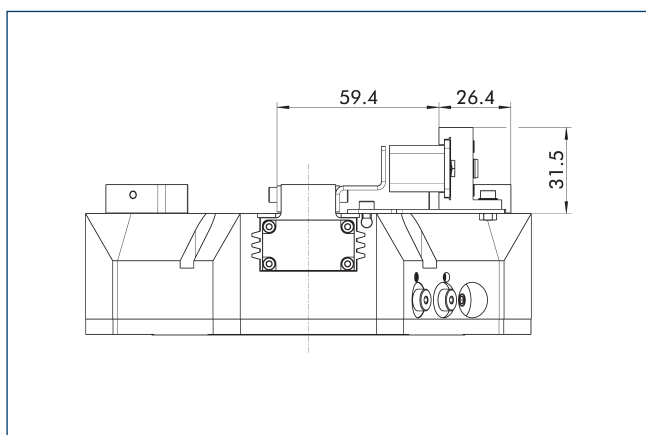
74 Limit stop for sensor

Position monitoring with two programmable positions per sensor. End position monitoring for mounting in the C-slot.

Description	ID	Often combined
Programmable magnetic switch		
MMSK-P 22-S-PNP	0301371	
MMS-P 22-S-M8-PNP	0301370	●
Connection cables		
KA GLN0804-LK-00500-A	0307767	●
KA GLN0804-LK-01000-A	0307768	
KA WLN0804-LK-00500-A	0307765	
KA WLN0804-LK-01000-A	0307766	
Clip for connector/socket		
CLI-M8	0301463	
Sensor distributor		
V2-M8-4P-2XM8-3P	0301380	

- ① One sensor is required per unit for monitoring two positions. Extension cables and sensor distributors are optionally available. Additional product variants of the sensor, and further information and technical data can be found in the catalog chapter sensor systems.

Attachment kit for inductive analog position sensor



The attachment kit includes switching cam, brackets and mounting screws. The position sensor must be ordered separately.

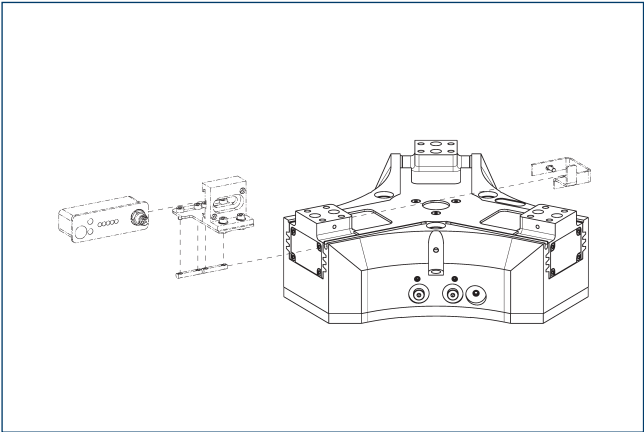
Description	ID
Attachment kit for position sensor	
AS-BIP-PZH-plus 20	1550226

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

PZH-plus 20

Long-stroke gripper

Inductive analog position sensor

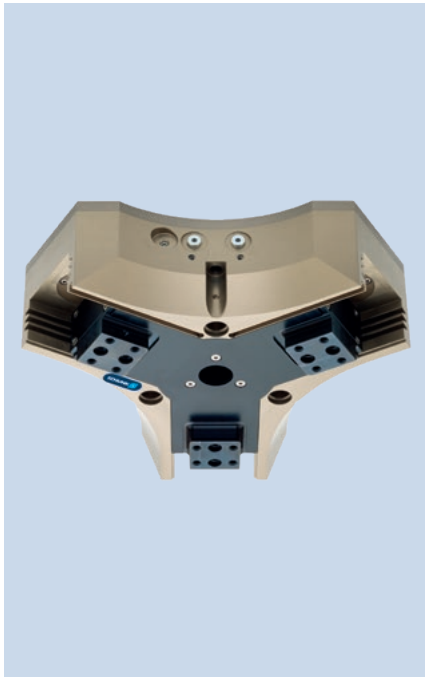


Position sensor mountable via attachment kit

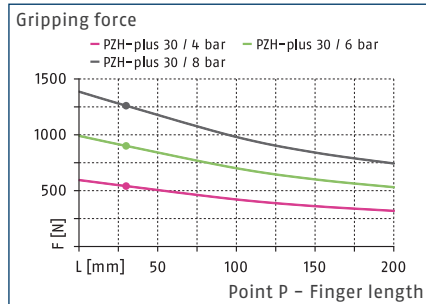
Description	ID	
Attachment kit for position sensor		
AS-BIP-PZH-plus 20	1550226	
Inductive analog position sensor		
BIP 048	1561246	
Cable extension		
KV GGN0804-IO-00150-A	1540662	
KV GGN0804-IO-00300-A	1540663	

PZH-plus 30

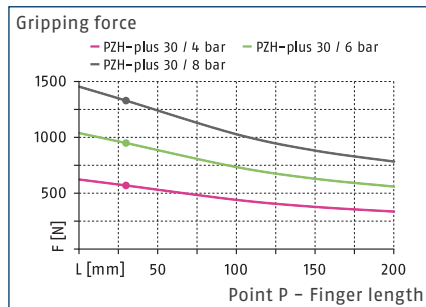
Long-stroke gripper



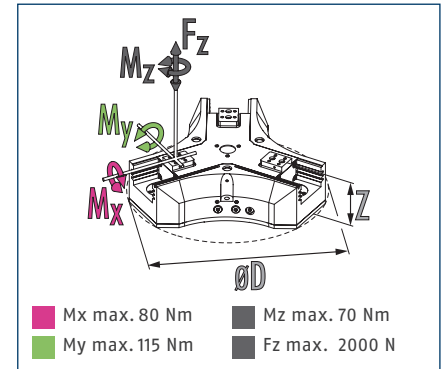
Gripping force O.D. gripping



Gripping force I.D. gripping



Dimensions and maximum loads



① 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		PZH-plus 30
ID		0305370
Stroke per jaw	[mm]	30
Closing/opening force	[N]	900/950
Weight	[kg]	3.9
Recommended workpiece weight	[kg]	4.5
Cylinder volume per double stroke	[cm³]	175
Min./nom./max. operating pressure	[bar]	2/6/8
Min./max. air purge pressure	[bar]	0.5/1
Closing/opening time	[s]	0.25/0.2
Max. permissible finger length	[mm]	200
Max. permissible weight per finger	[kg]	1.9
IP protection class		40
Min./max. ambient temperature	[°C]	5/90
Repeat accuracy	[mm]	0.02
Dimensions Ø D x Z	[mm]	229.5 x 72.5

① It may take a few 100 gripping cycles until the full gripping force (as indicated in the data table) will be available.

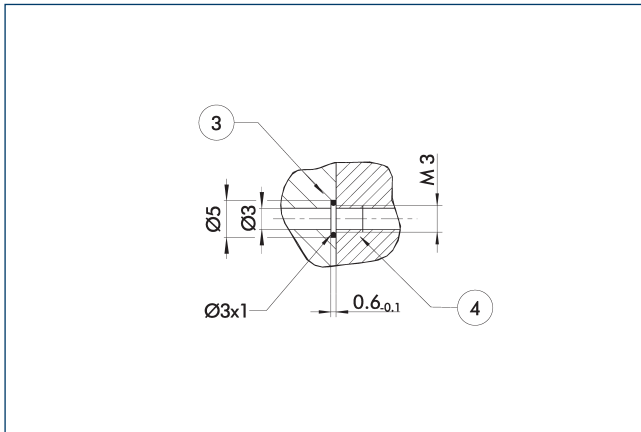
① The SDV-P pressure maintenance valve can be used to maintain the position in the case of a loss of pressure (see “Accessories” catalog section).

- | | |
|---|--|
| A, a Main / direct connection,
gripper opening | ② Finger connection |
| B, b Main / direct connection,
gripper closing | ②4 Bolt circle |
| S Air purge connection | ⑦2 Fit for centering sleeves |
| ① Gripper connection | ⑦8 Fit for centering |
| | ⑧0 Depth of the centering sleeve
hole in the counter part |

PZH-plus 30

Long-stroke gripper

Hose-free direct connection M3

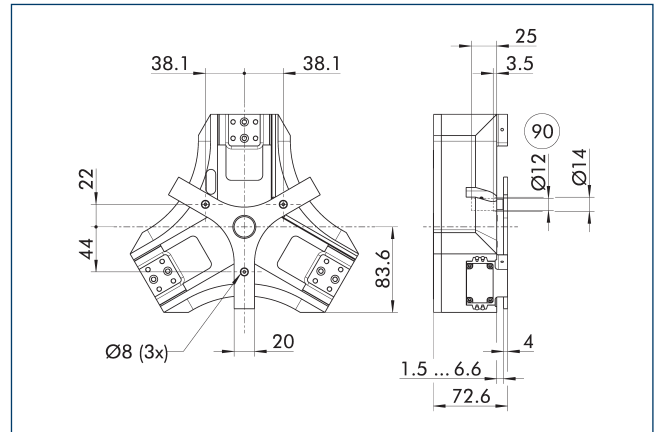


③ Adapter

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.

Spring-loaded pressure piece

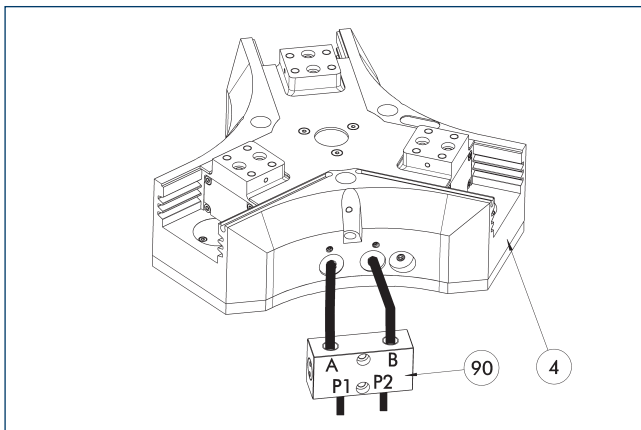


⑨ Guide pin

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

Description	ID	Stroke [mm]	Min. force [N]
Spring-loaded pressure piece			
A-PZH-plus 30	0305373	5.1	36

SDV-P pressure maintenance valve



④ Grippers

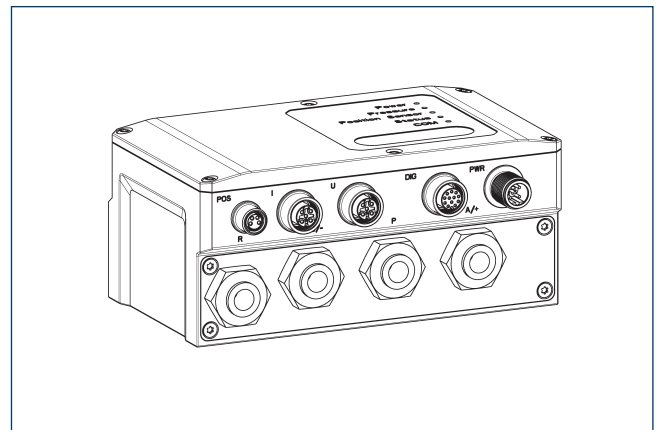
⑨ SDV-P pressure maintenance valve

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 04	0403130	6
Pressure maintenance valve with air bleed screw		
SDV-P 04-E	0300120	6

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.

Pneumatic positioning device PPD

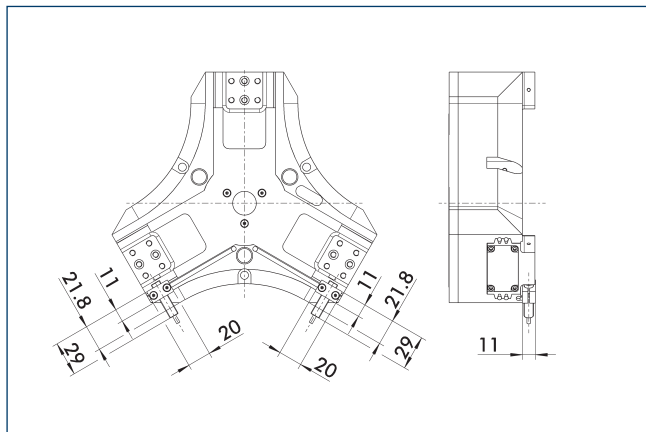


The PPD allows flexibility in all applications with pneumatic grippers through free positioning, gripping force and speed adjustment.

Description	ID	
Pneumatic positioning device		
PPD 20-IOL	1540700	
Adapter		
A GGN0804-1204-A	1540691	
IO-Link connection cable		
KA GGN1205-1212-IOL-00100-A	1540697	
Voltage supply connection cable – cable track compatible		
KA GLN12B05-LK-01000-A	1540660	
Cable extension		
KV GGN0804-IO-00150-A	1540662	
KV GGN0804-IO-00300-A	1540663	
Assembly set		
Assembly set PPD	1540705	

① In addition to the PPD, a position sensor (SCHUNK IO-Link sensor or analog sensor (4...20 mA)) is required.

Attachment kit for proximity switch IN 80

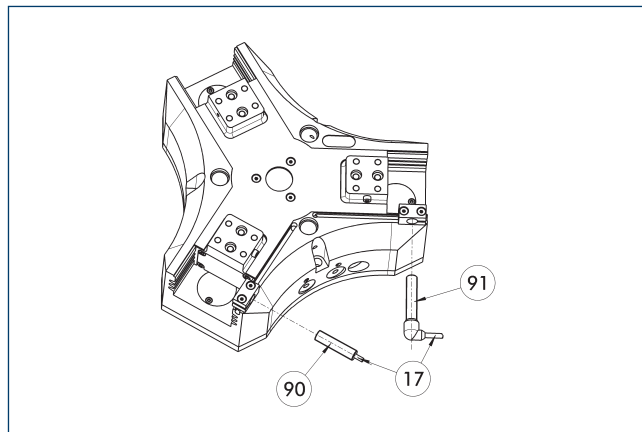


Attachment kit includes bracket, switch lugs/cams and mounting screws. Proximity switches must be ordered separately.

Description	ID
Attachment kit for proximity switch	
AS-IN80-PZH-plus 20-50	0305364

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

Inductive proximity switches



①7 Cable outlet

①0 Sensor IN ...

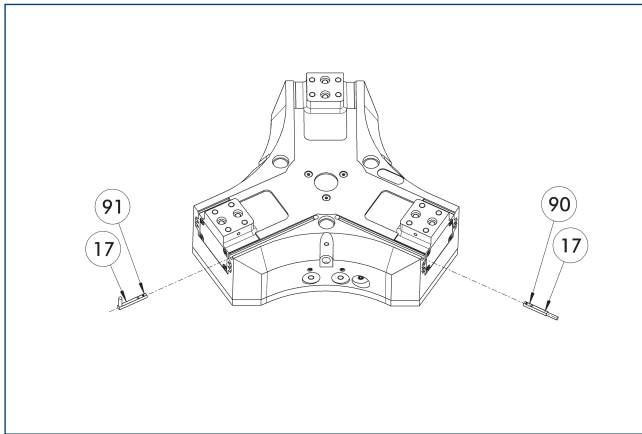
①1 Sensor IN...-SA

End position monitoring can be mounted with an attachment kit.

Description	ID	Often combined
Attachment kit for proximity switch		
AS-IN80-PZH-plus 20-50	0305364	
Inductive proximity switch		
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	●
IN-C 80-S-M8-PNP	0301475	
INK 80-S	0301550	
INK 80-SL	0301579	
Inductive proximity switch with lateral cable outlet		
IN 80-S-M12-SA	0301587	
IN 80-S-M8-SA	0301483	●
INK 80-S-SA	0301566	

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



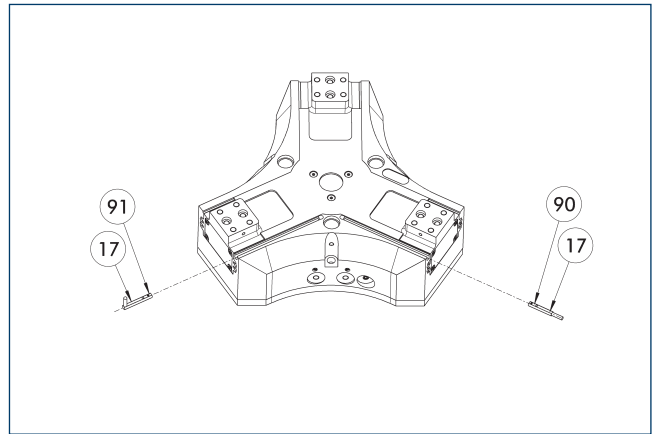
- ①⑦ Cable outlet ⑨① Sensor MMS 22...-SA
⑨⑦ Sensor MMS 22..

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	
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



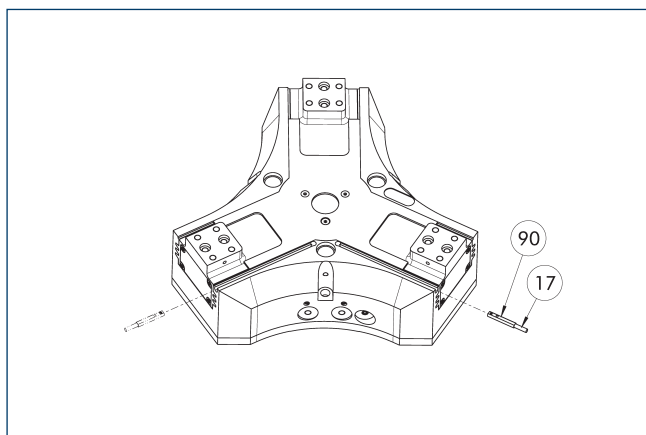
- ①⑦ Cable outlet ⑨① Sensor MMS 22 ..-PI1-...-SA
⑨⑦ Sensor MMS 22 PI1-...

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
Programmable magnetic switch		
MMS 22-PI1-S-M8-PNP	0301160	●
MMSK 22-PI1-S-PNP	0301162	
Programmable magnetic switch with lateral cable outlet		
MMS 22-PI1-S-M8-PNP-SA	0301166	●
MMSK 22-PI1-S-PNP-SA	0301168	
Programmable magnetic switch with stainless steel housing		
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.

Programmable magnetic switch MMS 22-PI2



17 Cable outlet

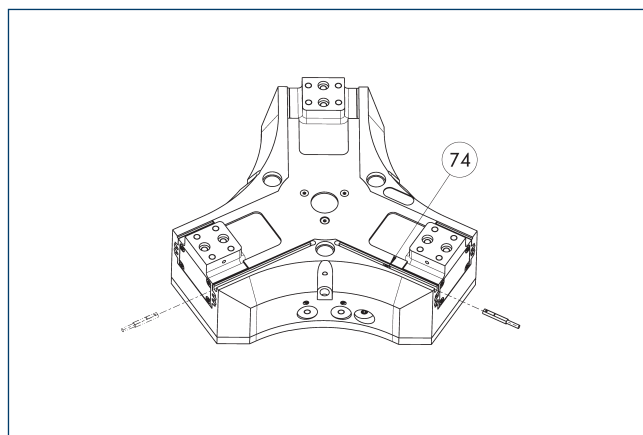
90 MMS 22...-PI2-... sensor

Position monitoring with two programmable positions per sensor and electronics integrated 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
Programmable magnetic switch		
MMS 22-PI2-S-M8-PNP	0301180	●
MMSK 22-PI2-S-PNP	0301182	
Programmable magnetic switch with lateral cable outlet		
MMS 22-PI2-S-M8-PNP-SA	0301186	●
MMSK 22-PI2-S-PNP-SA	0301188	
Programmable magnetic switch with stainless steel housing		
MMS 22-PI2-S-M8-PNP-HD	0301130	●
MMSK 22-PI2-S-PNP-HD	0301132	

- ① One sensor is required per unit for monitoring two positions. Extension cables and sensor distributors are optionally available. Additional product variants of the sensor, and further information and technical data can be found in the catalog chapter sensor systems.

MMS-P programmable magnetic switch



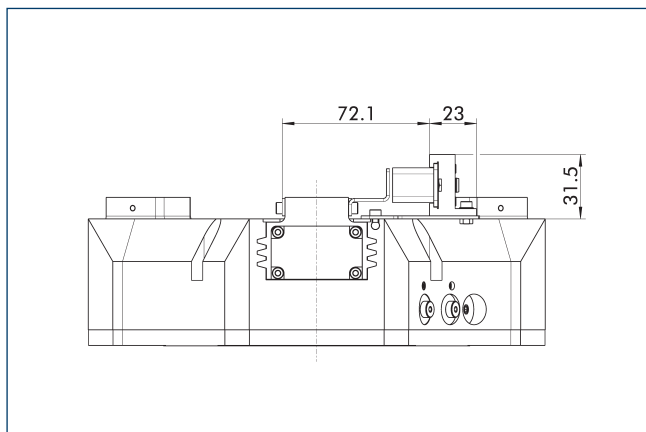
74 Limit stop for sensor

Position monitoring with two programmable positions per sensor. End position monitoring for mounting in the C-slot.

Description	ID	Often combined
Programmable magnetic switch		
MMSK-P 22-S-PNP	0301371	
MMS-P 22-S-M8-PNP	0301370	●
Connection cables		
KA GLN0804-LK-00500-A	0307767	●
KA GLN0804-LK-01000-A	0307768	
KA WLN0804-LK-00500-A	0307765	
KA WLN0804-LK-01000-A	0307766	
Clip for connector/socket		
CLI-M8	0301463	
Sensor distributor		
V2-M8-4P-2XM8-3P	0301380	

- ① One sensor is required per unit for monitoring two positions. Extension cables and sensor distributors are optionally available. Additional product variants of the sensor, and further information and technical data can be found in the catalog chapter sensor systems.

Attachment kit for inductive analog position sensor



The attachment kit includes switching cam, brackets and mounting screws. The position sensor must be ordered separately.

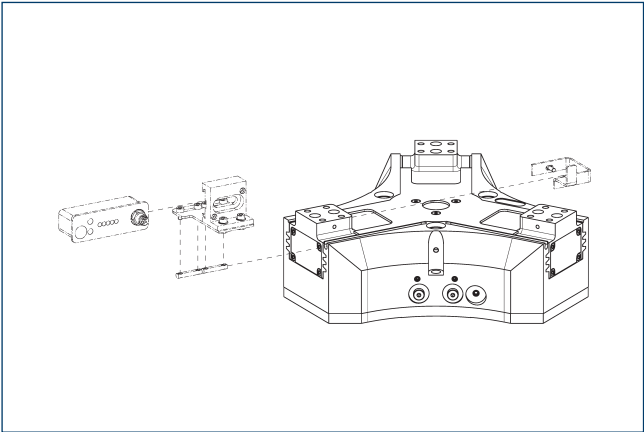
Description	ID
Attachment kit for position sensor	
AS-BIP-PZH-plus 30	1550229

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

PZH-plus 30

Long-stroke gripper

Inductive analog position sensor

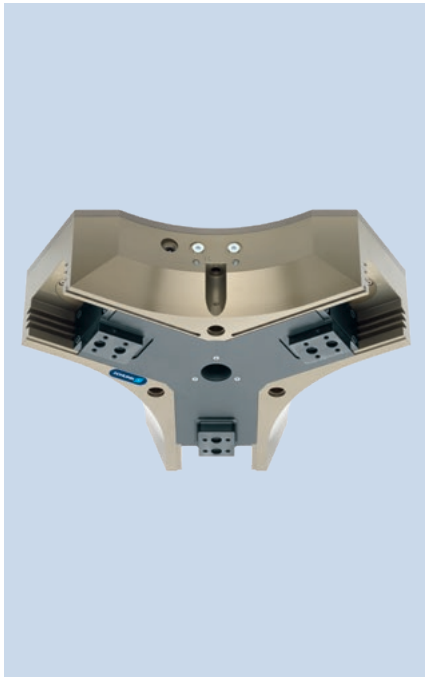


Position sensor mountable via attachment kit

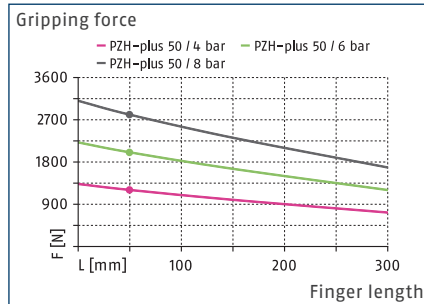
Description	ID	
Attachment kit for position sensor		
AS-BIP-PZH-plus 30	1550229	
Inductive analog position sensor		
BIP 048	1561246	
Cable extension		
KV GGN0804-IO-00150-A	1540662	
KV GGN0804-IO-00300-A	1540663	

PZH-plus 50

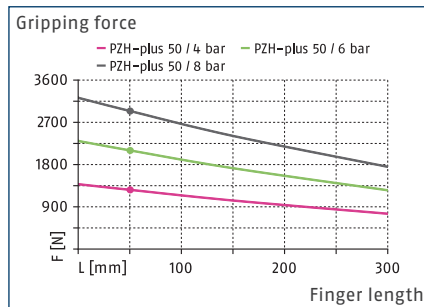
Long-stroke gripper



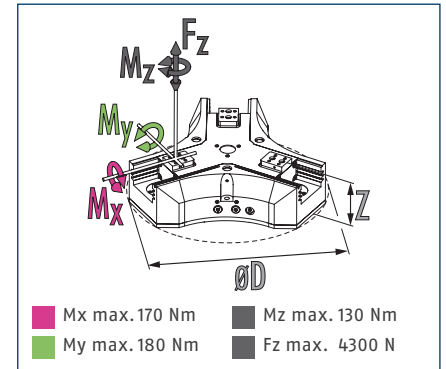
Gripping force O.D. gripping



Gripping force I.D. gripping



Dimensions and maximum loads



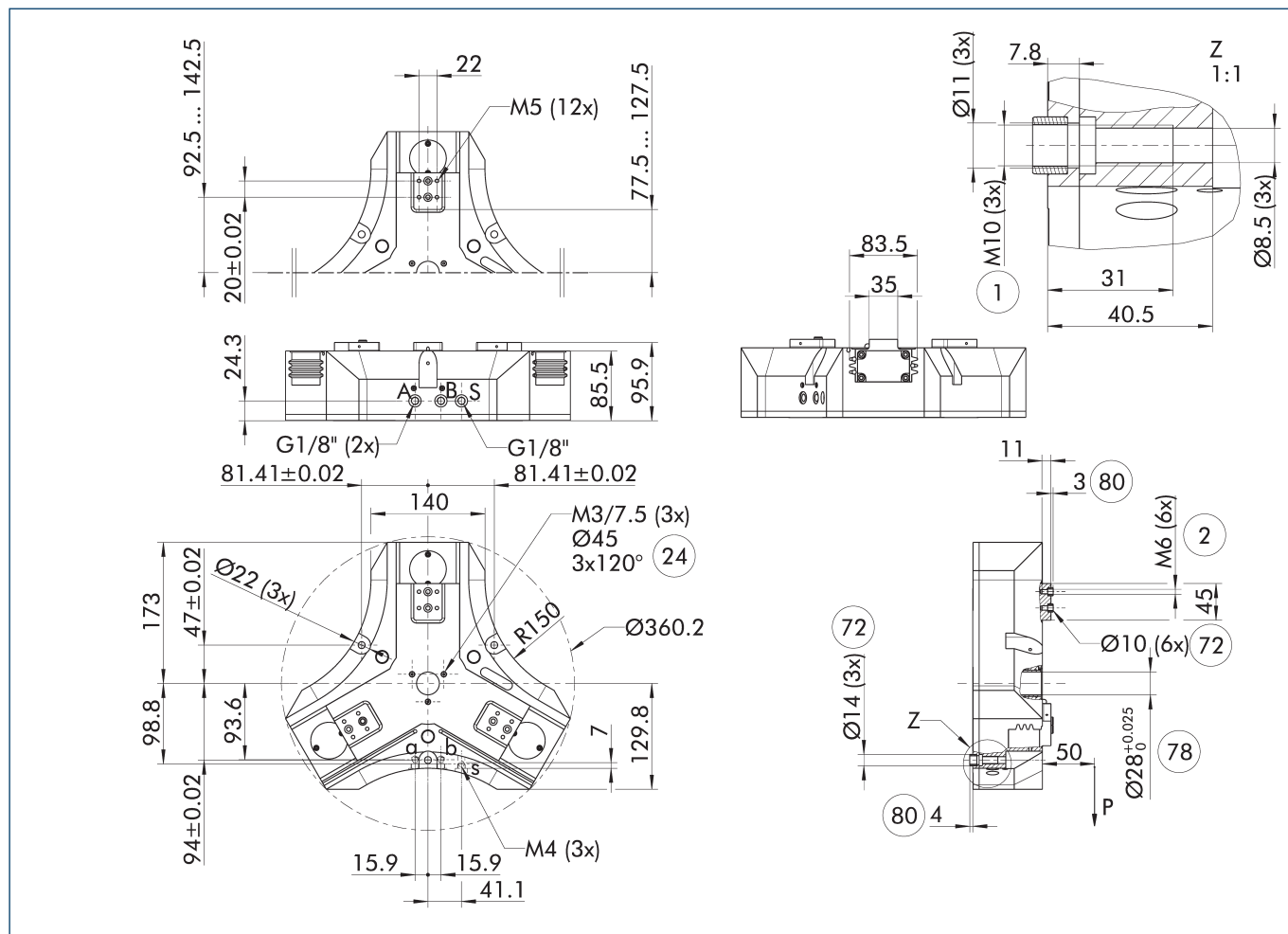
① The indicated moments and forces are static values, apply for each base jaw and may appear simultaneously. Loads may additionally occur to the moment produced by the gripping force itself.

Technical data

Description		PZH-plus 50
ID		0305380
Stroke per jaw	[mm]	50
Closing/opening force	[N]	2000/2100
Weight	[kg]	12.5
Recommended workpiece weight	[kg]	10
Cylinder volume per double stroke	[cm ³]	580
Min./nom./max. operating pressure	[bar]	2/6/8
Min./max. air purge pressure	[bar]	0.5/1
Closing/opening time	[s]	0.55/0.45
Max. permissible finger length	[mm]	300
Max. permissible weight per finger	[kg]	5
IP protection class		40
Min./max. ambient temperature	[°C]	5/90
Repeat accuracy	[mm]	0.05
Dimensions Ø D x Z	[mm]	360.2 x 95.9

① 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 gripper in the basic version with closed jaws, without dimensional consideration of the options described below.

① The SDV-P pressure maintenance valve can be used to maintain the position in the case of a loss of pressure (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

②④ Bolt circle

⑦② Fit for centering sleeves

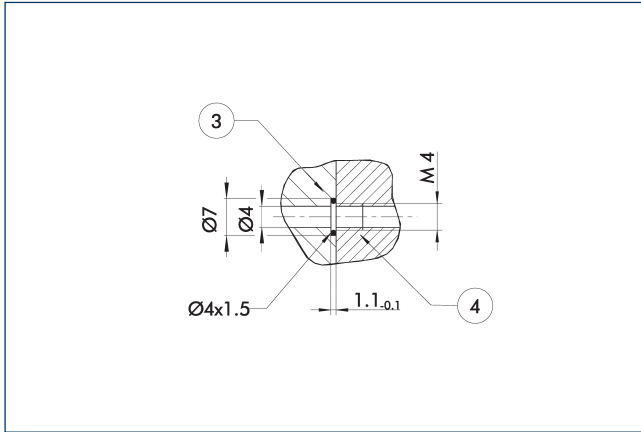
⑦⑧ Fit for centering

⑧① Depth of the centering hole in the counter part

PZH-plus 50

Long-stroke gripper

Hose-free direct connection M4

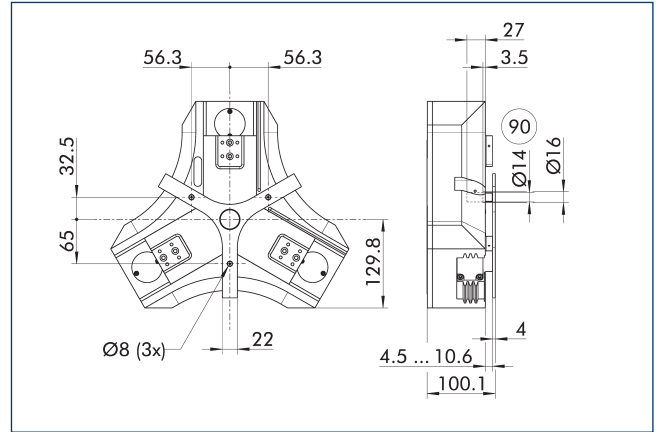


③ Adapter

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.

Spring-loaded pressure piece

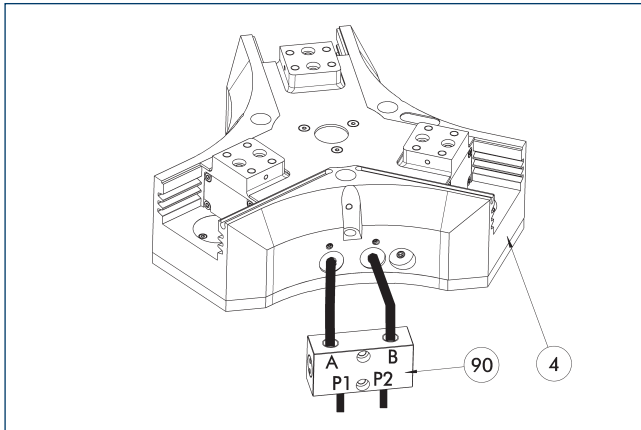


⑨ Guide pin

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

Description	ID	Stroke [mm]	Min. force [N]
Spring-loaded pressure piece			
A-PZH-plus 50	0305383	6.1	69

SDV-P pressure maintenance valve



④ Grippers

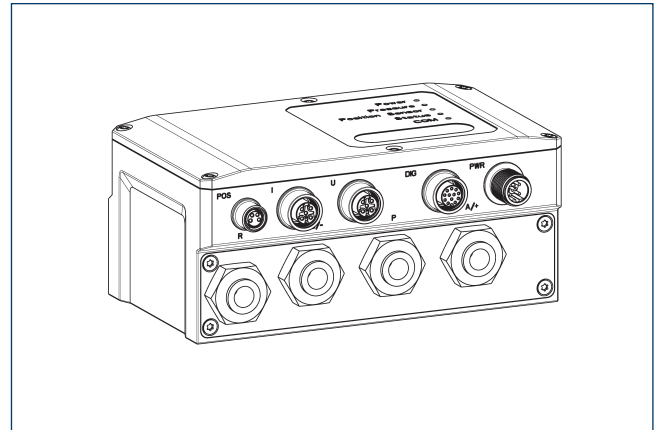
⑨ SDV-P pressure maintenance valve

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.

Pneumatic positioning device PPD

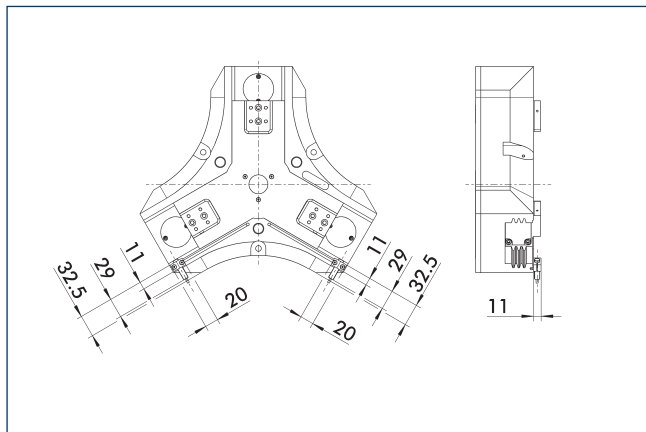


The PPD allows flexibility in all applications with pneumatic grippers through free positioning, gripping force and speed adjustment.

Description	ID	
Pneumatic positioning device		
PPD 20-IOL	1540700	
Adapter		
A GGN0804-1204-A	1540691	
IO-Link connection cable		
KA GGN1205-1212-IOL-00100-A	1540697	
Voltage supply connection cable – cable track compatible		
KA GLN12B05-LK-01000-A	1540660	
Cable extension		
KV GGN0804-I0-00150-A	1540662	
KV GGN0804-I0-00300-A	1540663	
Assembly set		
Assembly set PPD	1540705	

① In addition to the PPD, a position sensor (SCHUNK IO-Link sensor or analog sensor (4...20 mA)) is required.

Attachment kit for proximity switch IN 80

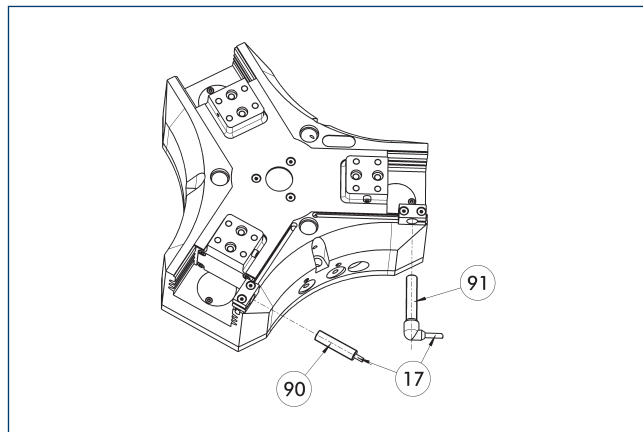


Attachment kit includes bracket, switch lugs/cams and mounting screws. Proximity switches must be ordered separately.

Description	ID	
Attachment kit for proximity switch		
AS-IN80-PZH-plus 20-50	0305364	

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

Inductive proximity switches



①7 Cable outlet

①0 Sensor IN ...

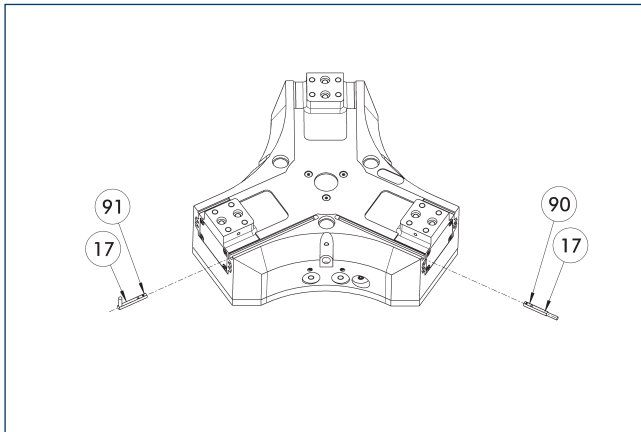
①1 Sensor IN...-SA

End position monitoring can be mounted with an attachment kit.

Description	ID	Often combined
Attachment kit for proximity switch		
AS-IN80-PZH-plus 20-50	0305364	
Inductive proximity switch		
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	●
IN-C 80-S-M8-PNP	0301475	
INK 80-S	0301550	
INK 80-SL	0301579	
Inductive proximity switch with lateral cable outlet		
IN 80-S-M12-SA	0301587	
IN 80-S-M8-SA	0301483	●
INK 80-S-SA	0301566	

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



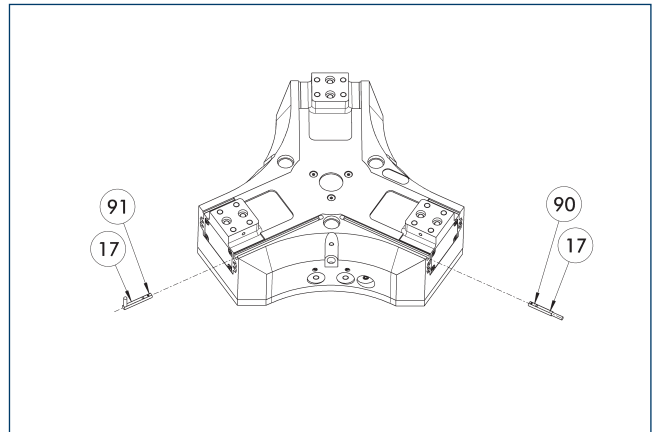
- ① Cable outlet ⑨ Sensor MMS 22...-SA
 ⑨ Sensor MMS 22..

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	
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



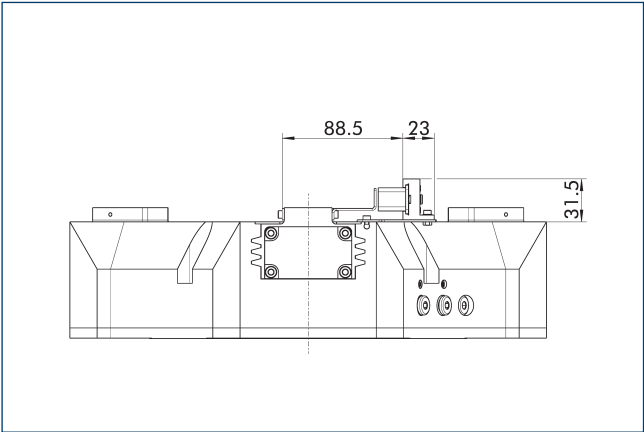
- ① Cable outlet ⑨ Sensor MMS 22 ..-PI1-...-SA
 ⑨ Sensor MMS 22 PI1-...

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
Programmable magnetic switch		
MMS 22-PI1-S-M8-PNP	0301160	●
MMSK 22-PI1-S-PNP	0301162	
Programmable magnetic switch with lateral cable outlet		
MMS 22-PI1-S-M8-PNP-SA	0301166	●
MMSK 22-PI1-S-PNP-SA	0301168	
Programmable magnetic switch with stainless steel housing		
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.

Attachment kit for inductive analog position sensor

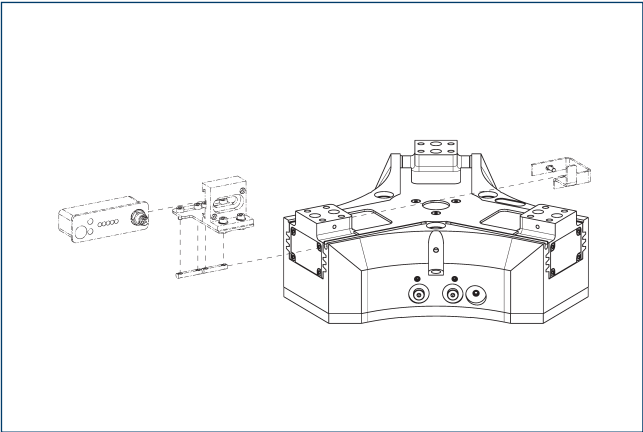


The attachment kit includes switching cam, brackets and mounting screws. The position sensor must be ordered separately.

Description	ID	
Attachment kit for position sensor		
AS-BIP-PZH-plus 50	1550241	

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

Inductive analog position sensor

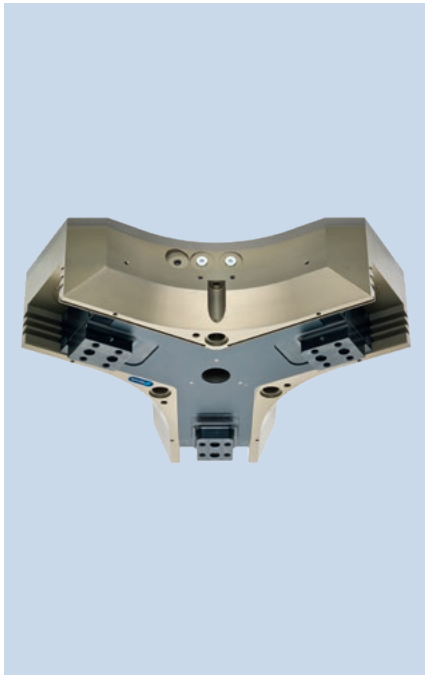


Position sensor mountable via attachment kit

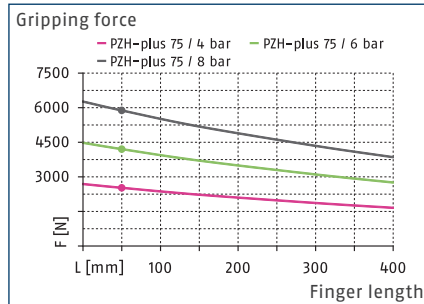
Description	ID	
Attachment kit for position sensor		
AS-BIP-PZH-plus 50	1550241	
Inductive analog position sensor		
BIP 070	1561247	
Cable extension		
KV GGN0804-IO-00150-A	1540662	
KV GGN0804-IO-00300-A	1540663	

PZH-plus 75

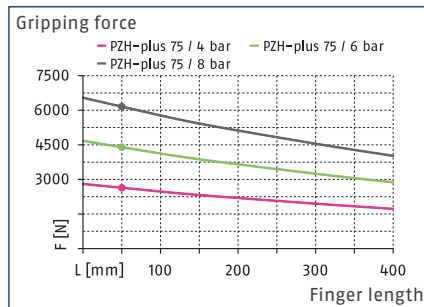
Long-stroke gripper



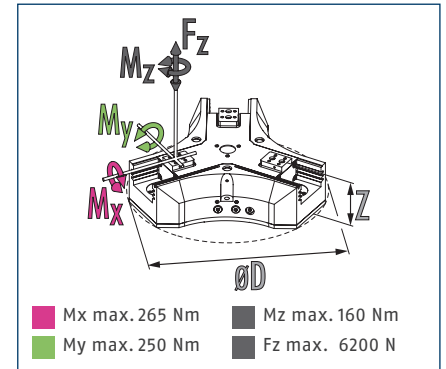
Gripping force O.D. gripping



Gripping force I.D. gripping



Dimensions and maximum loads



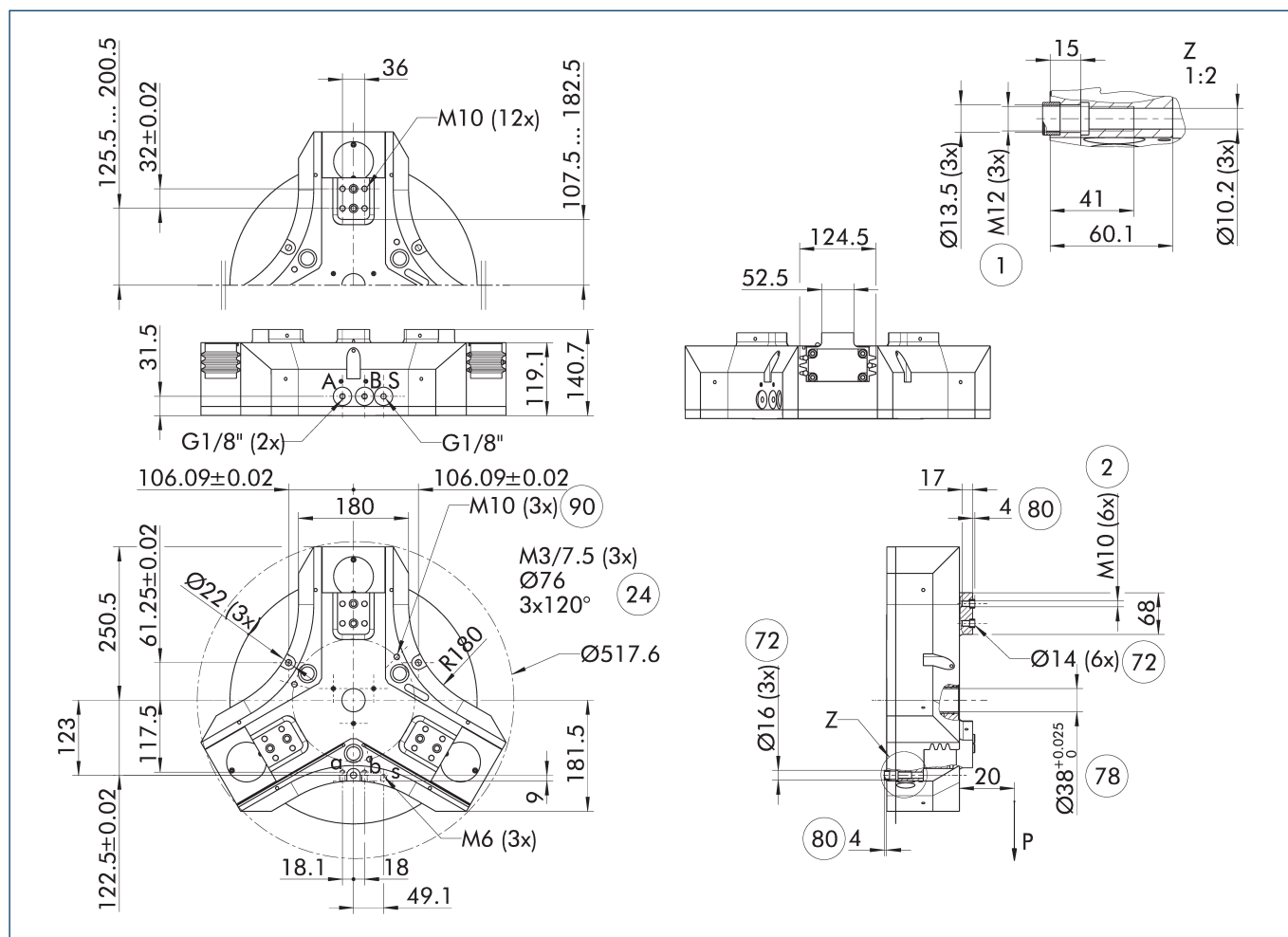
① The indicated moments and forces are static values, apply for each base jaw and may appear simultaneously. Loads may additionally occur to the moment produced by the gripping force itself.

Technical data

Description		PZH-plus 75
ID		0305390
Stroke per jaw	[mm]	75
Closing/opening force	[N]	4200/4400
Weight	[kg]	33
Recommended workpiece weight	[kg]	22
Cylinder volume per double stroke	[cm ³]	1860
Min./nom./max. operating pressure	[bar]	2/6/8
Min./max. air purge pressure	[bar]	0.5/1
Closing/opening time	[s]	1.05/0.85
Max. permissible finger length	[mm]	400
Max. permissible weight per finger	[kg]	8.5
IP protection class		40
Min./max. ambient temperature	[°C]	5/90
Repeat accuracy	[mm]	0.05
Dimensions Ø D x Z	[mm]	517.6 x 140.7

① It may take a few 100 gripping cycles until the full gripping force (as indicated in the data table) will be available.

Main view

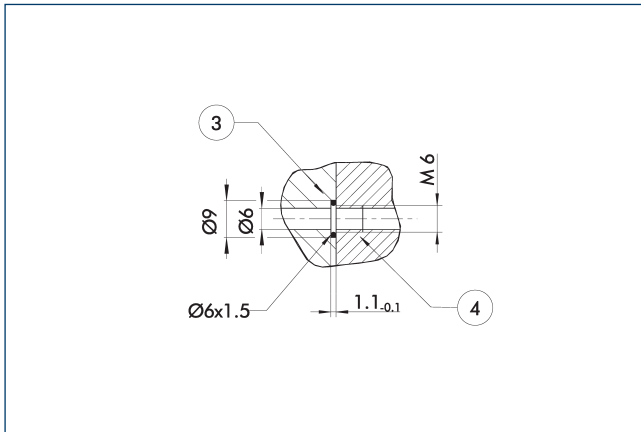


The drawing shows the gripper in the basic version with closed jaws, without dimensional consideration of the options described below.

- ① The SDV-P pressure maintenance valve can be used to maintain the position in the case of a loss of pressure (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
- ②④ Bolt circle
- ⑦② Fit for centering sleeves
- ⑦⑧ Fit for centering
- ⑧⑩ Depth of the centering sleeve hole in the counter part
- ⑨⑩ Transport thread

Hose-free direct connection M6

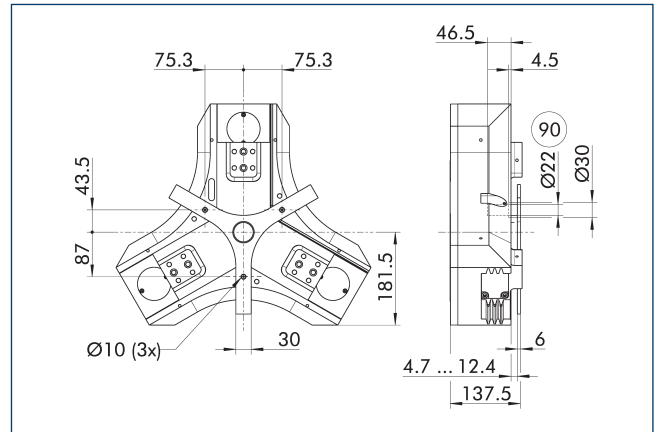


③ Adapter

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.

Spring-loaded pressure piece

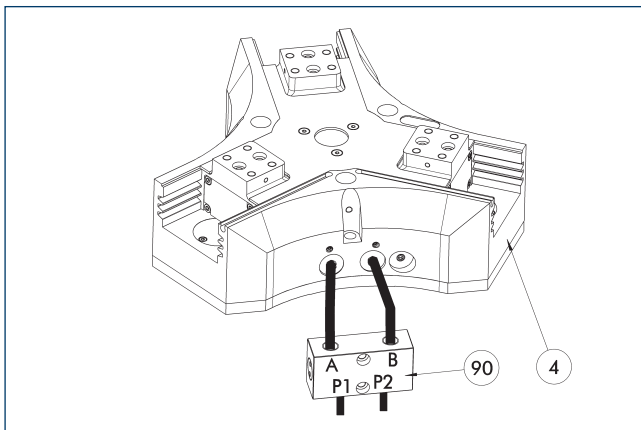


⑨ Guide pin

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

Description	ID	Stroke [mm]	Min. force [N]
Spring-loaded pressure piece			
A-PZH-plus 75	0305393	7.7	108

SDV-P pressure maintenance valve



④ Grippers

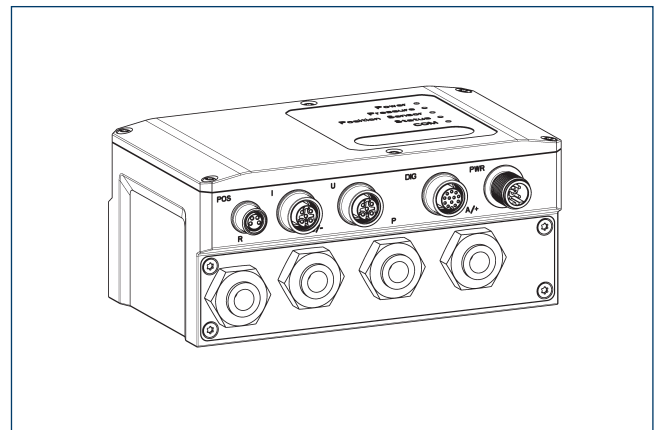
⑨ SDV-P pressure maintenance valve

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.

Pneumatic positioning device PPD

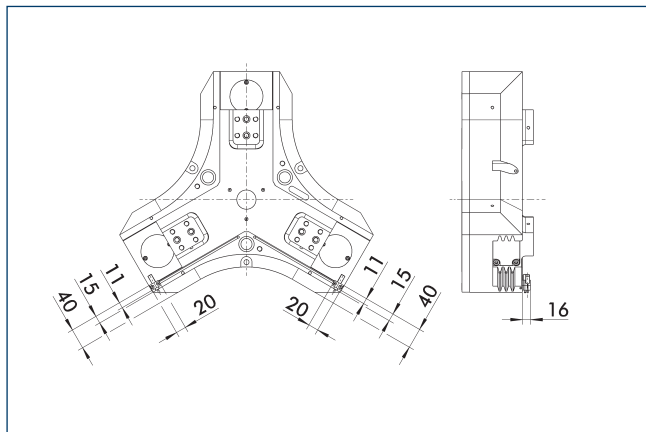


The PPD allows flexibility in all applications with pneumatic grippers through free positioning, gripping force and speed adjustment.

Description	ID	
Pneumatic positioning device		
PPD 20-IOL	1540700	
Adapter		
A GGN0804-1204-A	1540691	
IO-Link connection cable		
KA GGN1205-1212-IOL-00100-A	1540697	
Voltage supply connection cable – cable track compatible		
KA GLN12B05-LK-01000-A	1540660	
Cable extension		
KV GGN0804-IO-00150-A	1540662	
KV GGN0804-IO-00300-A	1540663	
Assembly set		
Assembly set PPD	1540705	

① In addition to the PPD, a position sensor (SCHUNK IO-Link sensor or analog sensor (4...20 mA)) is required.

Attachment kit for proximity switch IN 80

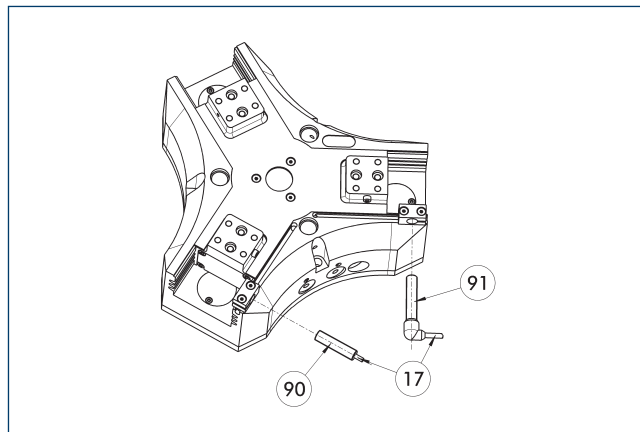


Attachment kit includes bracket, switch lugs/cams and mounting screws. Proximity switches must be ordered separately.

Description	ID
Attachment kit for proximity switch	
AS-IN80-PZH-plus 75	0305394

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

Inductive proximity switches



①7 Cable outlet

①0 Sensor IN ...

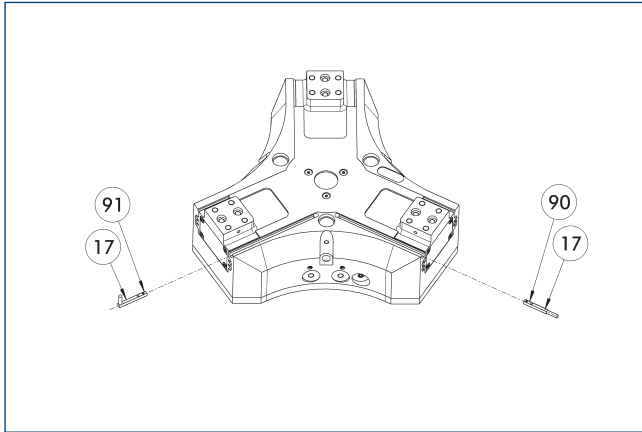
①1 Sensor IN...-SA

End position monitoring can be mounted with an attachment kit.

Description	ID	Often combined
Attachment kit for proximity switch		
AS-IN80-PZH-plus 75	0305394	
Inductive proximity switch		
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	●
IN-C 80-S-M8-PNP	0301475	
INK 80-S	0301550	
INK 80-SL	0301579	
Inductive proximity switch with lateral cable outlet		
IN 80-S-M12-SA	0301587	
IN 80-S-M8-SA	0301483	●
INK 80-S-SA	0301566	

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



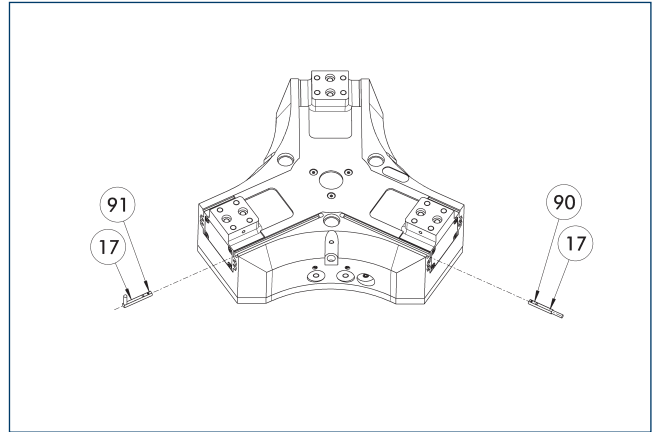
- ①⑦ Cable outlet ⑨① Sensor MMS 22...-SA
⑨⑦ Sensor MMS 22..

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	
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



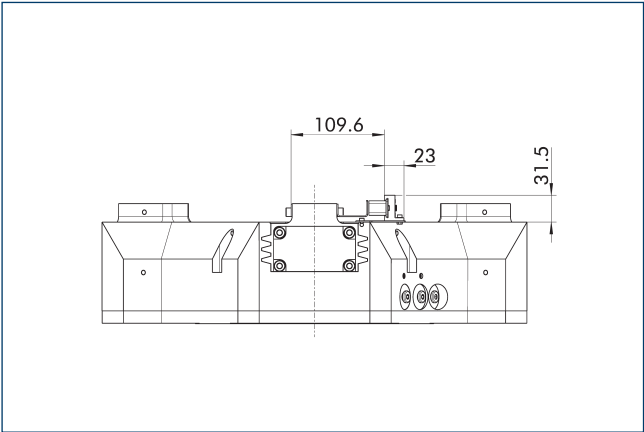
- ①⑦ Cable outlet ⑨① Sensor MMS 22 ..-PI1-...-SA
⑨⑦ Sensor MMS 22 PI1-...

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
Programmable magnetic switch		
MMS 22-PI1-S-M8-PNP	0301160	●
MMSK 22-PI1-S-PNP	0301162	
Programmable magnetic switch with lateral cable outlet		
MMS 22-PI1-S-M8-PNP-SA	0301166	●
MMSK 22-PI1-S-PNP-SA	0301168	
Programmable magnetic switch with stainless steel housing		
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.

Attachment kit for inductive analog position sensor

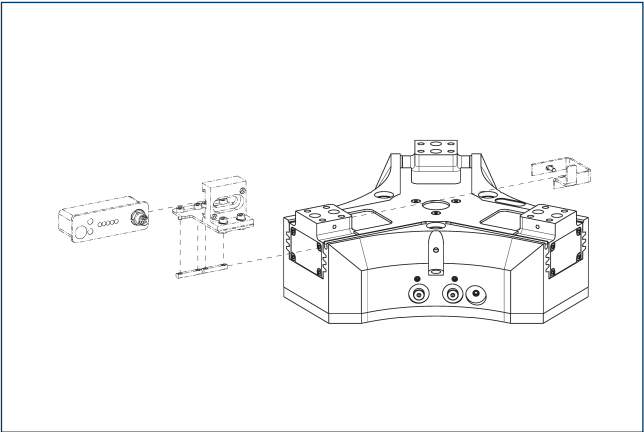


The attachment kit includes switching cam, brackets and mounting screws. The position sensor must be ordered separately.

Description	ID	
Attachment kit for position sensor		
AS-BIP-PZH-plus 75	1550242	

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

Inductive analog position sensor



Position sensor mountable via attachment kit

Description	ID	
Attachment kit for position sensor		
AS-BIP-PZH-plus 75	1550242	
Inductive analog position sensor		
BIP 103	1561248	
Cable extension		
KV GGN0804-IO-00150-A	1540662	
KV GGN0804-IO-00300-A	1540663	



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