



Superior Clamping and Gripping



Product Information

Universal gripper PGN-plus-P 125

Reliable. Robust. Flexible.

Universal gripper PGN-plus-P

Universal electric 2-finger parallel gripper with permanent lubrication, high gripping force, and high maximum moments due to the use of a multi-tooth guidance.

Field of application

Pneumatic universal gripper for handling of workpieces in universal applications. For universal use in clean to slightly dirty environments. Special versions available for dirty environments.

Advantages – Your benefits

Robust multi-tooth guidance for precise handling

High maximum moments possible suitable for using long gripper fingers

Lubricant pockets in the multi-tooth guidance ensure process reliability and extended maintenance intervals

Maximum piston surface area for maximum gripping forces

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 universal and flexible gripper assembly

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

Manifold options for special optimization for your specific case of application (dustproof, high-temperature, corrosion-protected, etc.)



Sizes
Quantity: 11



Weight
0.08 .. 39.8 kg



Gripping force
180 .. 26100 N



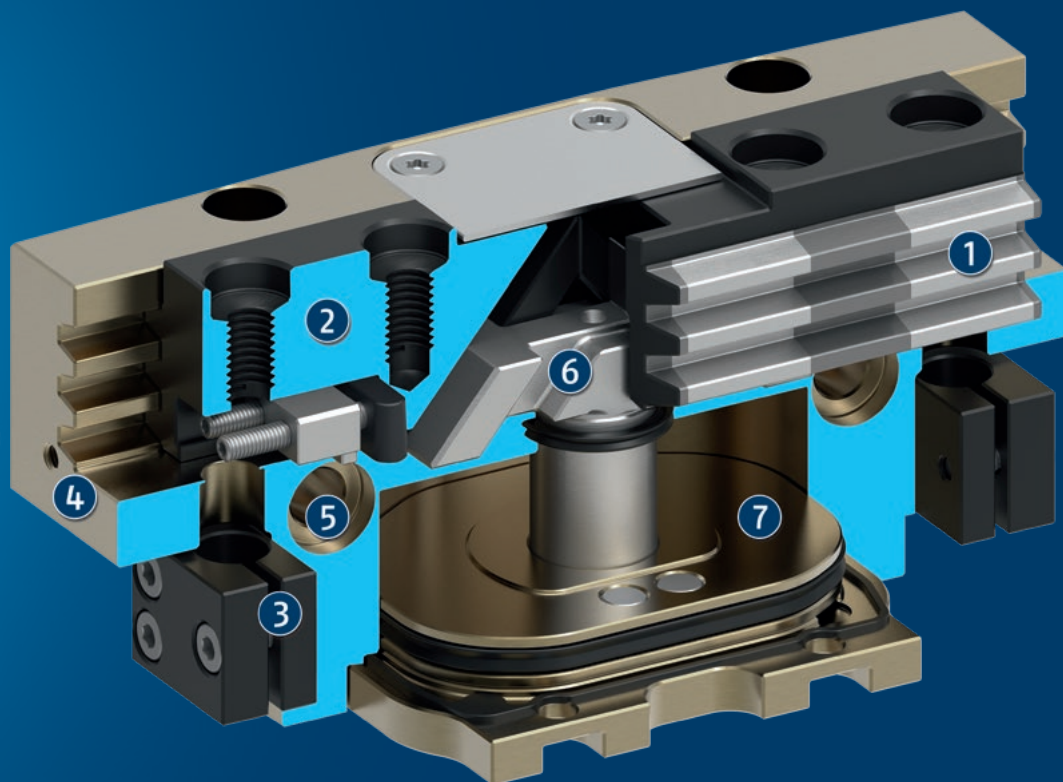
Stroke per jaw
2 .. 45 mm



Workpiece weight
0.9 .. 97.5 kg

Functional description

The piston is moved up and down by compressed air.
The angled active surfaces of the wedge-hook produce a synchronized, parallel jaw motion.



① Multi-tooth guidance

Maximum service life due to lubricant pockets in the robust multi-tooth guidance, and absorption of high forces and torques by means of the large guidance support

② Base Jaw

with standardized screw connection diagram for the connection of the workpiece-specific gripper fingers

③ Bracket for sensors

Brackets for proximity switches and adjustable control cams in the housing

④ Housing

is weight-optimized due to the use of high-strength aluminum alloy

⑤ Centering and mounting possibilities

for universal assembly of the gripper

⑥ Wedge-hook design

for high power transmission and minimal wear as a result of larger diagonal pull surfaces

⑦ Piston

Maximum force through maximum surface of drive piston

Detailed functional description

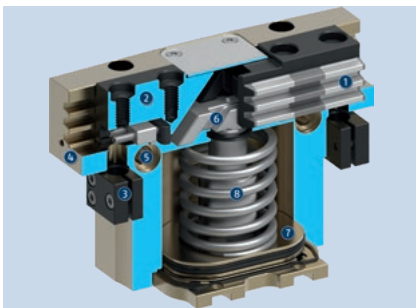
Dustproof version SD



The "dustproof" option increases the degree of protection against penetrating substances.

This can either be ordered in a ready-mounted gripper version or else retrofitted to the gripper using the "SAD PGN-plus-P" retrofit kit.

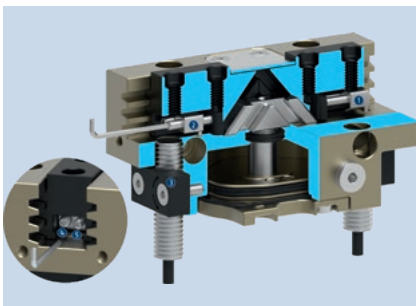
Gripping force maintenance version AS/IS



The mechanical gripping force maintenance device ensures that a minimum clamping force will be applied even if there is a drop in pressure. In the AS version this acts as a closing force, and in the IS version as an opening force. The image shows the AS version. The gripping force maintenance can also be used to increase the gripping force or for one-way gripping.

- ❶ Multi-tooth guidance
- ❷ Base Jaw
- ❸ Bracket for sensors
- ❹ Housing
- ❺ Centering and mounting possibilities
- ❻ Wedge-hook design
- ❼ Piston
- ❽ Gripping force maintenance device

Settings of the control cams during monitoring with inductive proximity switches

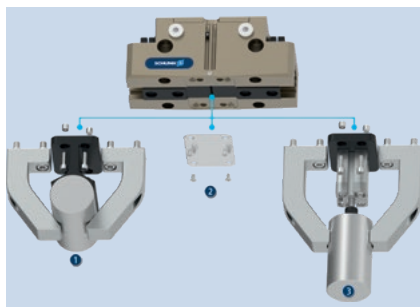


Monitoring with inductive proximity switch can be performed as standard from size 64. In delivery state, the positions "gripper open" and "gripper closed" are preset with the control cams. The inductive sensors must be ordered separately and are slid into the housing up to the stop and clamped.

In order to monitor any other position, such as "workpiece gripped" for example, both control cams can be individually set in the respective base jaws.

- ❶ Control cam preset for "gripper closed" position
- ❷ Control cam preset for "gripper open" position
- ❸ Holder with clamping screw for fixing the sensor
- ❹ Clamping screw for process-reliable fixing of the adjusted switching point
- ❺ Adjusting screw for setting any switching point

Optional mounting possibility under the cover sheet for customer-specific additional structure



In delivery state, a cover sheet is mounted to the gripper. This can be removed if necessary. Under the cover sheet are threads and fittings for mounting customer-specific designs for implementing additional functions.

- ❶ Additional centering or support of the workpiece
- ❷ The cover plate (can be removed)
- ❸ Ejector with external cylinder attached to the gripper

General notes about the series

Operating principle: Wedge gear with surface power transmission

Housing material: Aluminum

Base jaw material: Steel

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

Warranty: 36 months

Longlife: 30 years functional warranty (details can be found online)

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

Gripping force maintenance device: possible by using the version with mechanical gripping force maintenance or pressure maintenance valve SDV-P

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

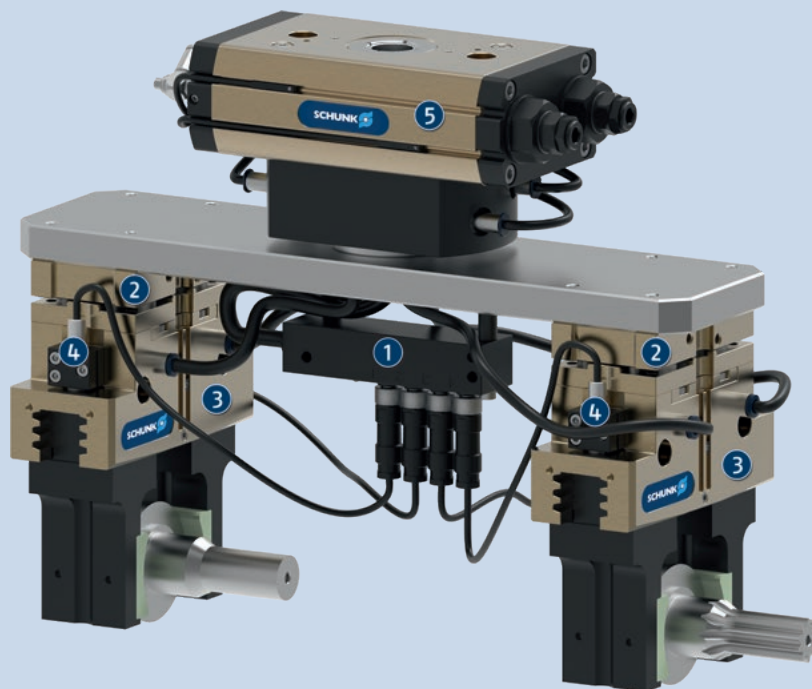
Finger length: is measured from the reference surface as the distance P in direction to the main axis.

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 purely the times that the base jaws or fingers are in motion. 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

Handling tool for loading and unloading raw and finished parts and compensation of inaccurate position. A sensor distributor is used for routing signals through a cable.

① Sensor distributor V4

② Tolerance compensation unit TCU-Z

③ Universal gripper PGN-plus-P

④ IN sensors

⑤ Universal rotary actuator SRM

SCHUNK offers more ...

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



Rotary unit



Quick change system



Compensation unit



Linear module



Jaw quick-change system



Finger blank



Pressure maintenance valve



Universal intermediate jaw



Flexible position sensor



Analog position sensor



Magnetic switches



Inductive proximity switches

① For more information on these products can be found on the following product pages or at schunk.com. Please contact us: SCHUNK technical hotline +49-7133-103-2696

Options and special information

Gripping force maintenance version AS/IS: The mechanical gripping force maintenance version ensures minimum gripping force even in the event of a pressure drop. In the AS/IS version this acts as a closing force, in the IS version as an opening force.

High-temperature version V/H/T: for use in hot environments

Precision version P: for the highest accuracy

Anti-corrosion version K: for use in corrosion-inducing atmospheres

ATEX version EX: for explosive environments

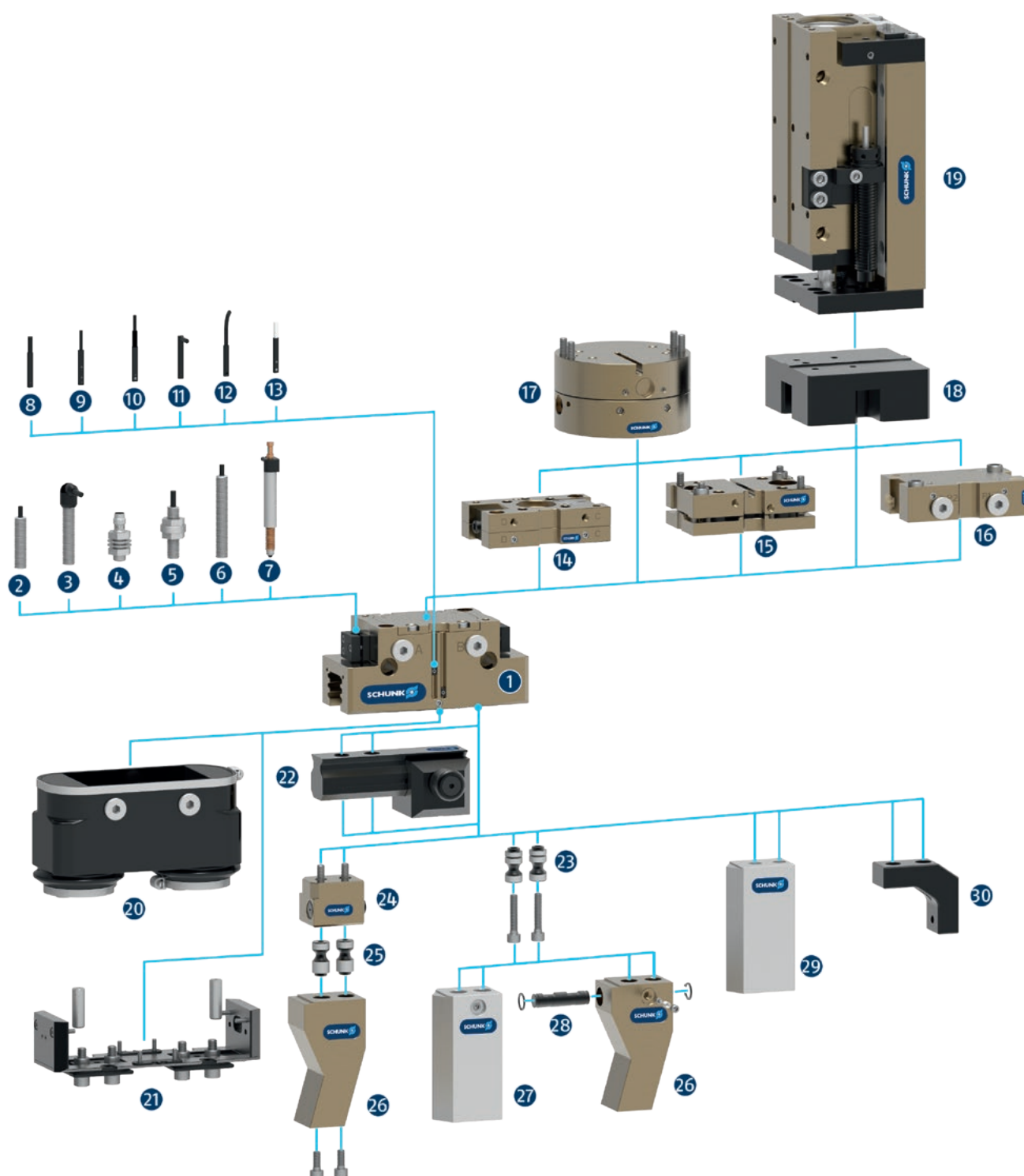
Dustproof version SD: absolutely dustproof, increased degree of protection against ingress of materials.

Additional versions: Various options can be combined with each other.

Integrated air purge connection: impedes the ingress of dirt into the inside of the gripper

SCHUNK gripper PGN-plus-P

Overview Accessories



1 PGN-plus-P

Universal 2-finger parallel gripper with a high gripping force and high maximum moments due to the use of a multi-tooth guidance

Sensor system

2 IN ...

Inductive proximity switch with molded cable and straight cable outlet

3 IN ...-SA

Inductive proximity switch with molded cable and lateral cable outlet

4 IN-C 80

Inductive proximity switch, directly pluggable

5 FPS

Flexible position sensor for monitoring up to five different, freely selectable positions

6 APS-Z80

Inductive position sensor for precise position detection of the gripper jaws with analog output

7 APS-M15

Mechanical measuring system for precise position detection of the gripper jaw with analog output

8 MMS 22

Magnetic switch with straight cable outlet for monitoring a position

MMS 22-PI1

Magnetic switch with straight cable outlet for monitoring a freely programmable position

9 MMS 22-PI2

Magnetic switch with straight cable outlet for monitoring two freely programmable positions

10 MMS 22-PI1-HD

MMS 22-PI1 in robust design

MMS 22-PI2-HD

MMS 22-PI2 in robust design

11 MMS 22-SA

Magnetic switch with lateral cable outlet for monitoring a position

MMS 22-PI1-SA

Magnetic switch with side cable outlet for monitoring a freely programmable position

12 MMS-P

Magnetic switch with straight cable outlet for monitoring two freely programmable positions

13 MMS-A

Analog magnetic switch with straight cable outlet for measuring the gripper jaw position with analog output and teach function

Complementary products

14 CWS

Manual change system with integrated air feed-through for simple exchange of the handling components

15 TCU

Tolerance compensation unit for compensating small tolerances in the plane

16 SDV-P-E-P

Pressure maintenance valve for temporary force and position maintenance

17 AGE

Compensation unit for compensation of large tolerances along the X and Y axes

18 ASG

Adapter plate for combining various automation components in the modular system

19 CLM

Linear module with pneumatic drive and scope-free pre-loaded junction rollers

20 HUE

Sleeve for protection against dirt

21 SAD

Dustproof version, retrofit kit

Fingerzubehör

22 UZB

The universal intermediate jaw allows fast tool-free and reliable plugging and shifting of top jaws at the gripper.

23 BSWS-AR

Adapter coupling of jaw quick-change system for fast, manual change of top jaws

24 BSWS-B

Locking mechanism of the jaw quick-change system for fast, manual exchange of top jaws

25 BSWS-A

Adapter coupling of the jaw quick-change system for adaptation to the customized finger

26 Customized fingers

27 BSWS-ABR

Finger blank made of aluminum with interface to the jaw quick-change system

BSWS-SBR

Finger blank made of steel with interface to the jaw quick-change system

28 BSWS-UR

Locking mechanism for the integration of the jaw quick-change system into customized fingers

29 ABR/SBR

Finger blanks made of steel or aluminum with standardized screw connection diagram

30 ZBA

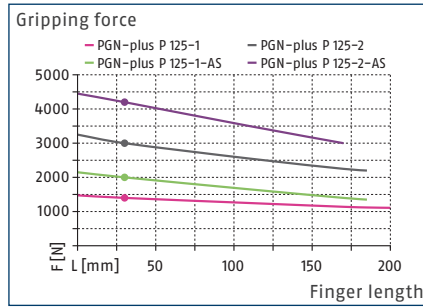
Intermediate jaws for reorientation of the mounting surface

PGN-plus-P 125

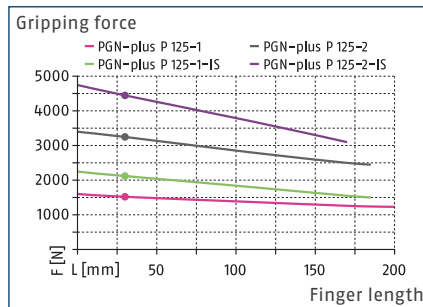
Universal gripper



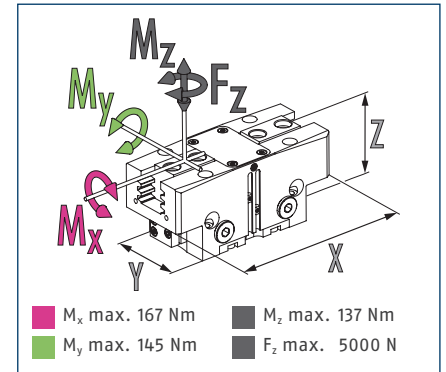
Gripping force O.D. gripping



Gripping force I.D. gripping



Dimensions and maximum loads



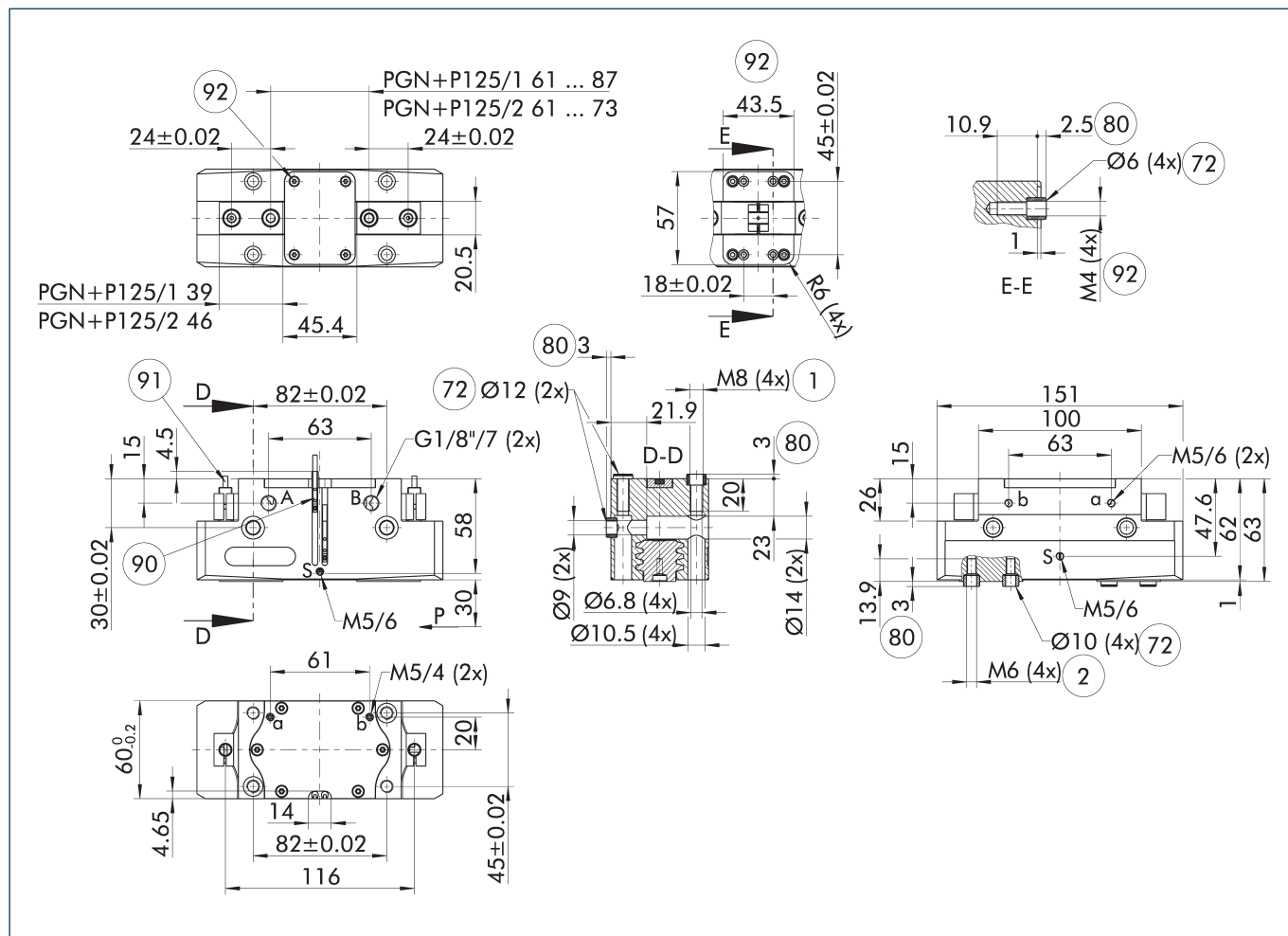
① The indicated moments and forces are static values, apply for each base jaw and should not appear simultaneously. Loads may additionally occur to the moment produced by the gripping force itself.

Technical data

| Characterization | | PGN-plus-P 125-1 | PGN-plus-P 125-2 | PGN-plus-P 125-1-AS | PGN-plus-P 125-2-AS | PGN-plus-P 125-1-IS | PGN-plus-P 125-2-IS |
|--|--------------------|------------------|------------------|---------------------|---------------------|---------------------|---------------------|
| ID | | 0318568 | 0318569 | 0318570 | 0318571 | 0318572 | 0318573 |
| Stroke per jaw | [mm] | 13 | 6 | 13 | 6 | 13 | 6 |
| Closing/opening force | [N] | 1400/1520 | 3000/3250 | 2000/- | 4200/- | -/2120 | -/4450 |
| Min. spring force | [N] | | | 600 | 1200 | 600 | 1200 |
| Weight | [kg] | 1.4 | 1.4 | 1.9 | 1.9 | 1.9 | 1.9 |
| Recommended workpiece weight | [kg] | 7 | 15 | 7 | 15 | 7 | 15 |
| Fluid consumption double stroke | [cm ³] | 110 | 110 | 160 | 160 | 185 | 185 |
| Min./nom./max. operating pressure | [bar] | 2.5/6/8 | 2.5/6/8 | 4/6/6.5 | 4/6/6.5 | 4/6/6.5 | 4/6/6.5 |
| Min./max. air purge pressure | [bar] | 0.5/1 | 0.5/1 | 0.5/1 | 0.5/1 | 0.5/1 | 0.5/1 |
| Closing/opening time | [s] | 0.09/0.09 | 0.09/0.09 | 0.08/0.12 | 0.08/0.12 | 0.12/0.08 | 0.12/0.08 |
| Closing/opening time with spring | [s] | | | 0.15 | 0.15 | 0.15 | 0.15 |
| Max. permissible finger length | [mm] | 200 | 185 | 185 | 170 | 185 | 170 |
| Max. permissible mass per finger | [kg] | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 | 2.4 |
| IP protection class | | 40 | 40 | 40 | 40 | 40 | 40 |
| Min./max. ambient temperature | [°C] | 5/90 | 5/90 | 5/90 | 5/90 | 5/90 | 5/90 |
| Repeat accuracy | [mm] | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 | 0.01 |
| Dimensions X x Y x Z | [mm] | 151 x 60 x 63 | 151 x 60 x 63 | 151 x 60 x 93 | 151 x 60 x 93 | 151 x 60 x 93 | 151 x 60 x 93 |
| Options and their characteristics | | | | | | | |
| Dustproof version | | 1317584 | 1317585 | 1317590 | 1317591 | 1317592 | 1317593 |
| IP protection class | | 64 | 64 | 64 | 64 | 64 | 64 |
| Weight | [kg] | 1.6 | 1.6 | 2.1 | 2.1 | 2.1 | 2.1 |
| Corrosion-protected version | | 38318568 | 38318569 | 38318570 | 38318571 | 38318572 | 38318573 |
| High-temperature version | | 39318568 | 39318569 | 39318570 | 39318571 | 39318572 | 39318573 |
| Min./max. ambient temperature | [°C] | 5/130 | 5/130 | 5/130 | 5/130 | 5/130 | 5/130 |
| Precision version | | 0318574 | 0318575 | 0318576 | 0318577 | | |

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 also be used for I.D. or O.D. gripping alternatively or in addition to the spring-loaded, mechanical gripping force maintenance device (see catalog section on accessories).

A, a Main / direct connection, gripper opening

B, b Main / direct connection, gripper closing

S Air purge connection

① Gripper connection

② Finger connection

72 Fit for centering sleeves

80 Depth of the centering sleeve hole in the counter part

90 Sensor MMS 22..

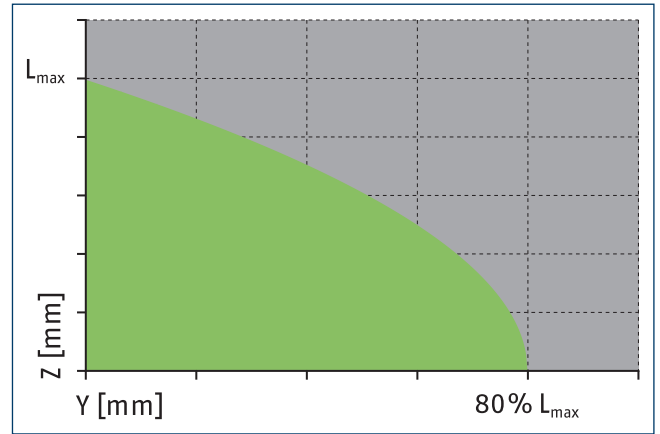
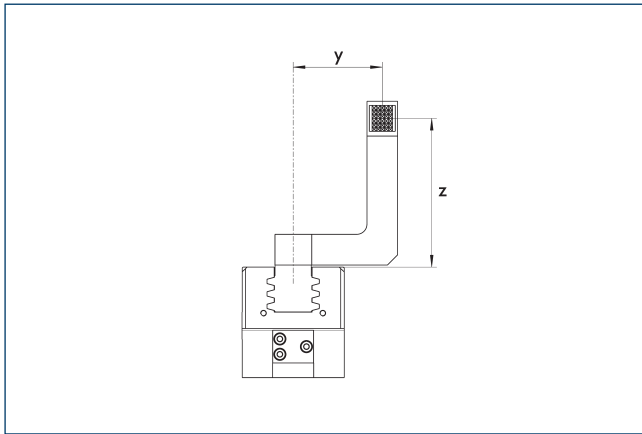
91 Sensor IN ...

92 Screw connection with centering for customized mounting (these centering sleeves are not included in the scope of delivery)

PGN-plus-P 125

Universal gripper

Maximum permitted finger projection

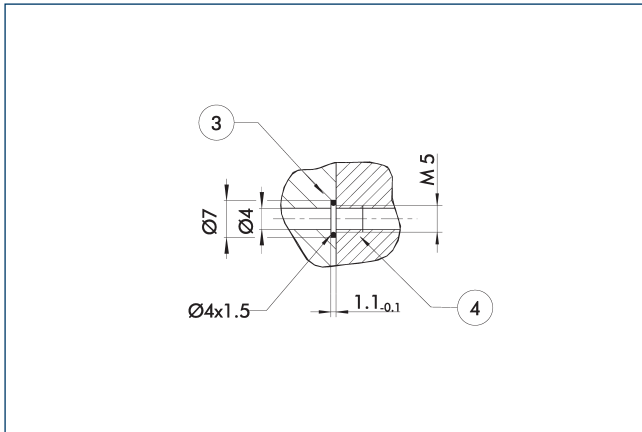


■ Permitted range

■ Inadmissible range

L_{max} is equivalent to the maximum permitted finger length, see the technical data table.

Hose-free direct connection M5

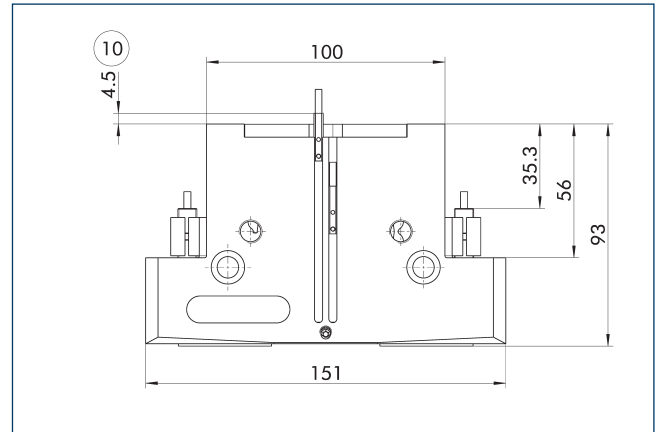


③ Adapter

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.

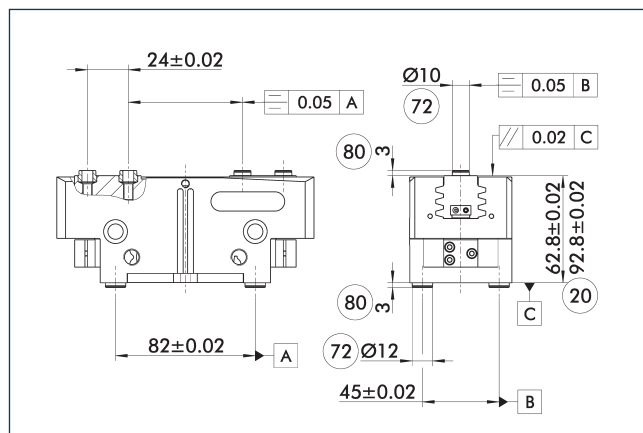
Gripping force maintenance device AS / IS



⑩ Projection applies only for AS version

The mechanical gripping force maintenance device ensures that a minimum clamping force will be applied even if there is a drop in pressure. This acts as closing force in the AS / S version, and as opening force in the IS version. Besides this, the gripping force maintenance device can be used to increase the gripping force or for single actuated gripping.

Precision version



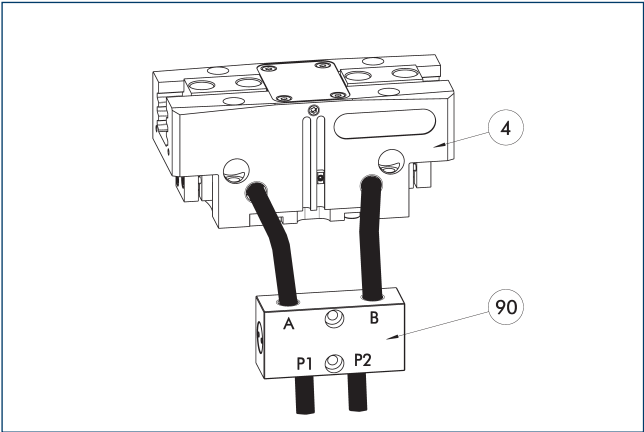
- (20) For AS / IS version
 (72) Fit for centering sleeves
 (80) Depth of the centering sleeve hole in the counter part

The indicated tolerances just refer to the variants of precision versions shown in the chart of technical specifications. All other variants of precision versions are available on request.

| Characterization | ID | |
|--------------------|---------|--|
| Dust cover | | |
| SAD PGN-plus-P 125 | 1347572 | |

- ① The "dustproof" option can either be ordered as a pre-mounted gripper version or can be retrofitted to the gripper using the "SAD PGN-plus-P" retrofit kit.

SDV-P pressure maintenance valve



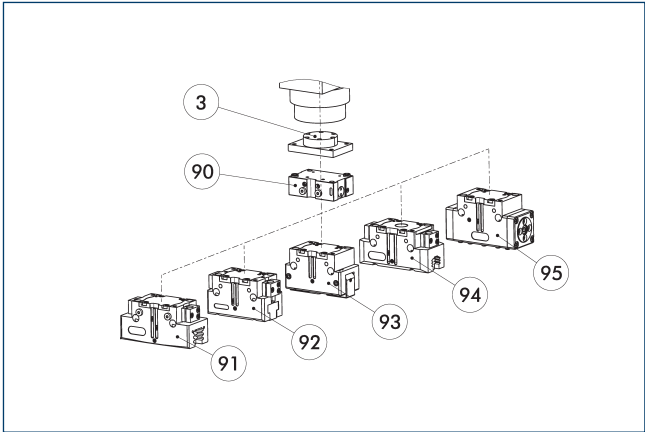
- ④ Grippers
- ⑨0 SDV-P pressure maintenance valve

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.

| Characterization | ID | Recommended hose diameter |
|---|---------|---------------------------|
| | | [mm] |
| Pressure maintenance valve | | |
| SDV-P 04 | 0403130 | 6 |
| SDV-P 07 | 0403131 | 8 |
| Pressure maintenance valve with air bleed screw | | |
| SDV-P 04-E | 0300120 | 6 |
| 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.

SDV-P E-P pressure maintenance valve

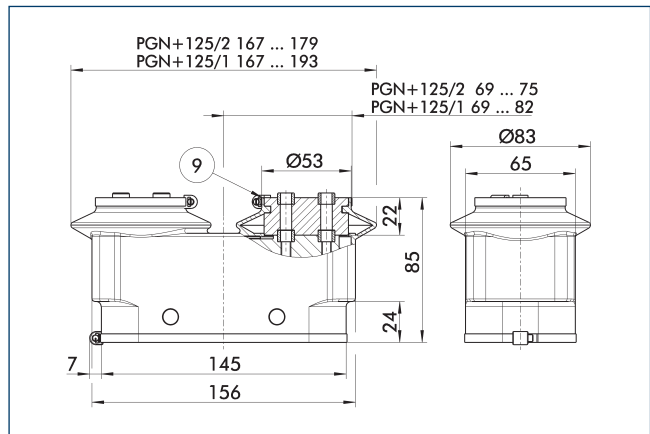


- ③ Adapter
- ⑨0 SDV-P E-P pressure maintenance valve
- ⑨1 PGN-plus / PGN-plus-P 2-finger parallel gripper
- ⑨2 JGP 2-finger parallel grippers
- ⑨3 2-finger angular gripper PWG-plus
- ⑨4 2-finger parallel gripper PGB
- ⑨5 Sealed DPG-plus gripper

The SDV-P E-P pressure maintenance valves ensure that the pressure in the piston chamber is maintained temporarily during an emergency stop. SDV-P E-P can be directly connected to the listed grippers without the need for additional pneumatic hoses.

| Characterization | ID | |
|----------------------------|---------|--|
| Pressure maintenance valve | | |
| SDV-P 125-E-P | 0300127 | |

Protective cover HUE PGN-plus 125



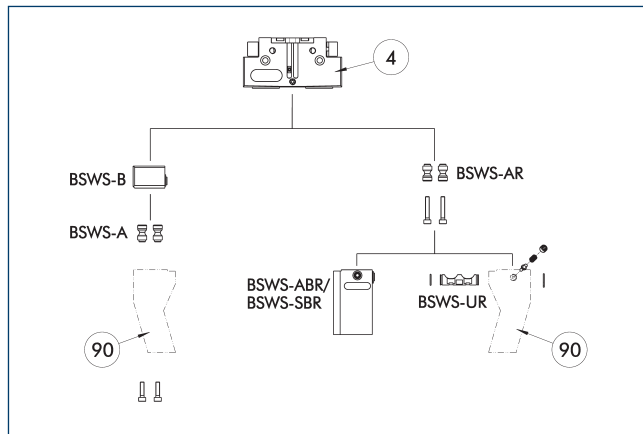
⑨ For mounting screw connection diagram, see basic version

The HUE protective cover fully protects the gripper against external influences. The cover is suitable for applications of up to IP65 if an additional sealing of the cover bottom is provided. For detailed information, please see the HUE series. The connection diagram shifts by the height of the intermediate jaw.

| Characterization | ID | IP protection class |
|------------------|---------|---------------------|
| Protection cover | | |
| HUE PGN-plus 125 | 0371483 | 65 |

① The HUE protective cover is not suitable for use on grippers with gripping force maintenance. An inductive monitoring of the gripper in connection with the HUE protective cover is not possible. SCHUNK recommends the use of magnetic sensors that are approved for the respective gripper variant.

BSWS jaw quick-change jaw systems



④ Grippers

⑨0 Customized gripper fingers

There are various jaw quick-change systems available for the gripper. For detailed information, please refer to the corresponding product.

| Characterization | ID | Scope of delivery |
|---|---------|-------------------|
| Jaw quick-change system adapter plate | | |
| BSWS-A 125 | 0303028 | 2 |
| BSWS-AR 125 | 0300095 | 2 |
| Quick-change jaw system base | | |
| BSWS-B 125 | 0303029 | 1 |
| Jaw quick-change system finger blank | | |
| BSWS-ABR-PGZN-plus 125 | 0300075 | 1 |
| BSWS-SBR-PGZN-plus 125 | 0300085 | 1 |
| Jaw quick-change system locking mechanism | | |
| BSWS-UR 125 | 0302994 | 1 |

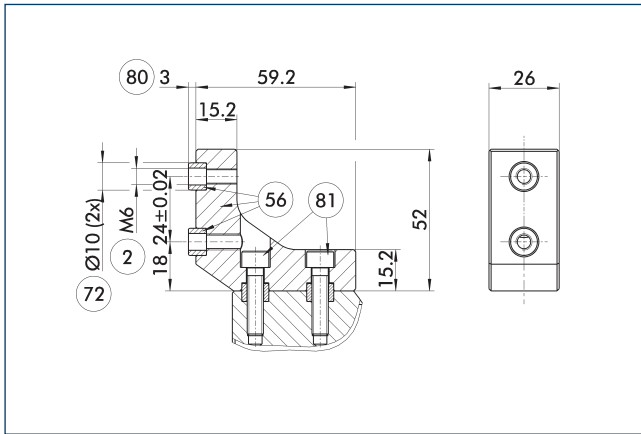
① Only systems that are listed in the table, can be used. This accessory product can only be used in combination with the PGN-plus-P 125 gripper with the stroke variant -1.

Fields of application

| Series | Size | Variant | Suitability |
|------------|--|-----------------------|-------------|
| PGN-plus-P | 125 | -1 (6 bar) | ■■■■■ |
| PGN-plus-P | 125 | -1-AS / -1-IS (6 bar) | ■■■■■ |
| PGN-plus-P | 125 | -2 (6 bar) | ■■■□□ |
| PGN-plus-P | 125 | -2-AS / -2-IS (6 bar) | ■■■□□ |
| Legend | | | |
| ■■■■■ | Can be combined without restrictions | | |
| ■■■□□ | Use with restrictions (see loading limits) | | |
| □□□□ | cannot be combined | | |

The load limits for describing the application limits can be found in the catalog chapter of the corresponding accessories. If the operating pressure is higher than 6 bar, suitability for use above the application limits must be checked.

ZBA-L-plus 125 intermediate jaws

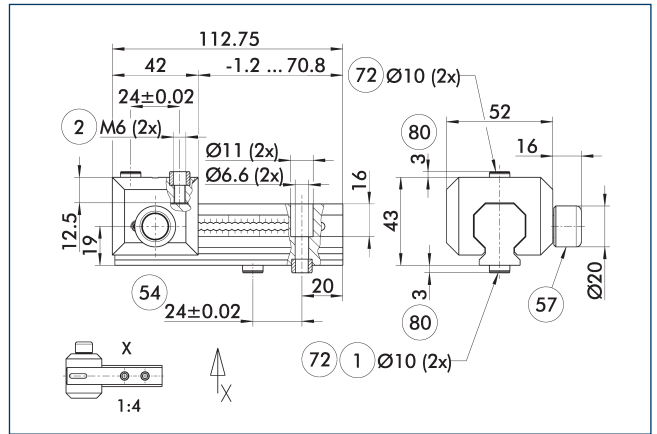


- ② Finger connection
- ⑤⑥ Included in the scope of delivery
- ⑦② Fit for centering sleeves
- ⑧① Depth of the centering sleeve hole in the counter part
- ⑧① Not included in the scope of delivery

The optional ZBA-L-plus intermediate jaws allow the screw connection diagram of the top jaws to be rotated by 90°. This makes it easier to design and produce top jaws (particularly for long versions) because no deep through-bores are required.

| Characterization | ID | Material | Finger interface | Scope of delivery |
|------------------|---------|----------|------------------|-------------------|
| Intermediate jaw | | | | |
| ZBA-L-plus 125 | 0311752 | Aluminum | PGN-plus 125 | 1 |

UZZ 125 universal intermediate jaw



- ① Gripper connection
- ② Finger connection
- ⑤④ Optional right or left connection
- ⑤⑦ Locking
- ⑦② Fit for centering sleeves
- ⑧① Depth of the centering sleeve hole in the counter part

The drawing shows the UZZ universal intermediate jaw. The fully removable UZZ-S slide (can also be ordered separately) allows for a quick jaw change.

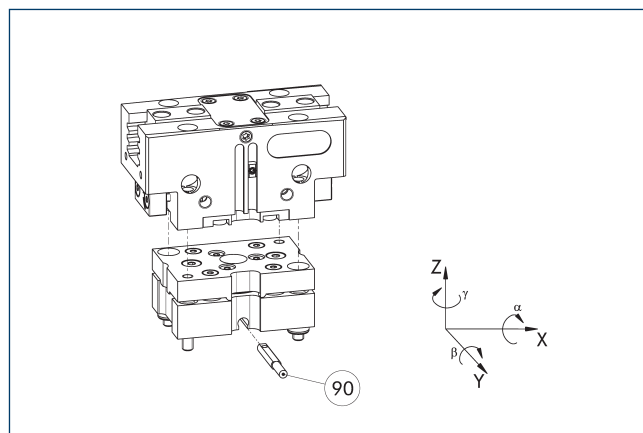
| Characterization | ID | Grid dimension |
|--------------------------------------|---------|----------------|
| | | [mm] |
| Universal intermediate jaw | | |
| UZZ 125 | 0300045 | 3 |
| Finger blank | | |
| ABR-PGZN-plus 125 | 0300013 | |
| SBR-PGZN-plus 125 | 0300023 | |
| Slide for universal intermediate jaw | | |
| UZZ-S 125 | 5518273 | 3 |

Fields of application

| Series | Size | Variant | Suitability |
|------------|--|-----------------------|-------------|
| PGN-plus-P | 125 | -1 (6 bar) | ■■■■ |
| PGN-plus-P | 125 | -1-AS / -1-IS (6 bar) | ■■■□ |
| PGN-plus-P | 125 | -2 (6 bar) | ■■■□ |
| PGN-plus-P | 125 | -2-AS / -2-IS (6 bar) | □□□□ |
| Legend | | | |
| ■■■■ | Can be combined without restrictions | | |
| ■■■□ | Use with restrictions (see loading limits) | | |
| □□□□ | cannot be combined | | |

The load limits for describing the application limits can be found in the catalog chapter of the corresponding accessories. If the operating pressure is higher than 6 bar, suitability for use above the application limits must be checked.

Tolerance compensation unit TCU



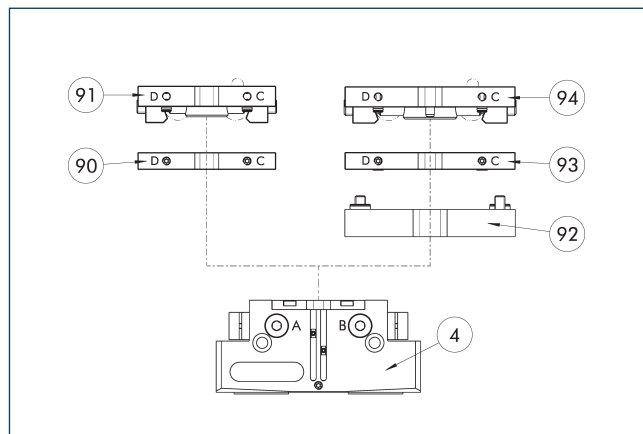
⑦2 Fit for centering sleeves

⑨ Monitoring of locking

| Characterization | ID | Material | Scope of delivery |
|-------------------|---------|----------|-------------------|
| Finger blank | | | |
| ABR-PGZN-plus 125 | 0300013 | Aluminum | 1 |
| SBR-PGZN-plus 125 | 0300023 | Steel | 1 |

| Characterization | ID | Locking | Deflection | Often combined |
|-------------------|---------|---------|---|----------------|
| Compensation unit | | | | |
| TCU-P-125-3-MV | 0324828 | yes | $\pm 1^\circ / \pm 1,5^\circ / \pm 1,5^\circ$ | ● |
| TCU-P-125-3-OV | 0324829 | no | $\pm 1^\circ / \pm 1,5^\circ / \pm 1,5^\circ$ | |

Compact change system for grippers



④ Grippers

⑨2 A-CWA adapter plate

⑨0 CWA compact change adapter

⑨③ CWA compact change adapter

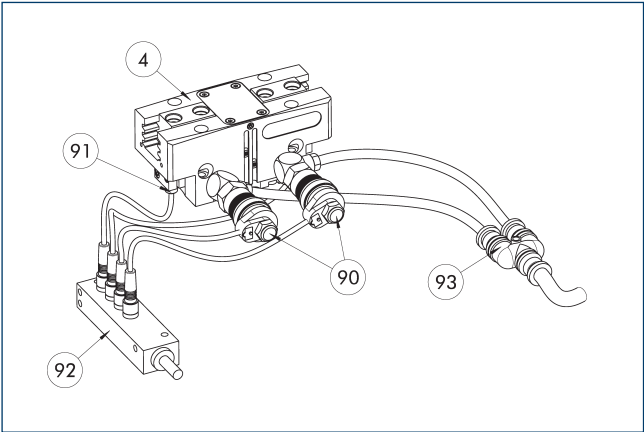
⑨① CWK compact change master

94 CWK compact change master

| Characterization | ID | Compensation XY | Reset force | Often combined |
|-------------------|---------|-----------------|-------------|----------------|
| | | [mm] | [N] | |
| Compensation unit | | | | |
| AGE-F-XY-080-1 | 0324960 | ± 5 | 39 | |
| AGE-F-XY-080-2 | 0324961 | ± 5 | 85 | |
| AGE-F-XY-080-3 | 0324962 | ± 5 | 90 | ● |

| Characterization | ID | |
|----------------------------|---------|--|
| CWA compact change adapter | | |
| CWA-125-P | 0305826 | |
| CWK compact change master | | |
| CWK-125-P | 0305825 | |

Attachment valves



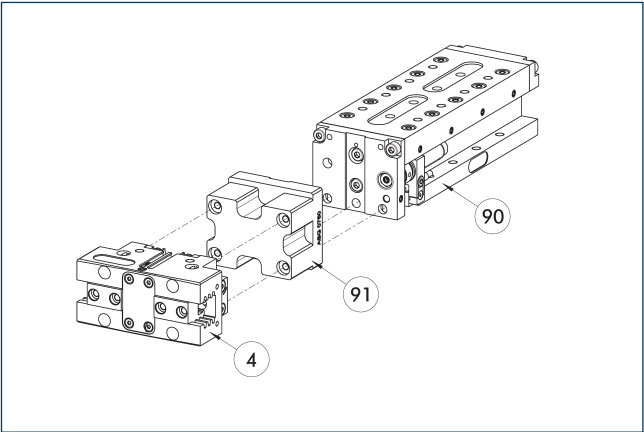
- ④ Grippers
- ⑨② Sensor distributor
- ⑨① Micro valves
- ⑨③ Y distributor
- ⑨① Sensor

The set of attachment valves reduces the compressed air consumption as there is no need to ventilate or bleed the supply lines. This can also reduce cycle time. The hose-free direct assembly of the micro valves reduces the hosing effort for the gripper. To further simplify electrical connection of the valves and sensors, their signals can be bundled via an optional distributor.

| Characterization | ID | Often combined |
|---------------------|---------|----------------|
| Attachment valve | | |
| ABV-MV30-G1/8 | 0303328 | |
| ABV-MV30-G1/8-V2-M8 | 0303396 | |
| ABV-MV30-G1/8-V4-M8 | 0303366 | ● |
| ABV-MV30-G1/8-V8-M8 | 0303367 | |

① A set of attachment valves ABV is required per actuator. The ABV set contains two 3/2 micro valves, an Y-distributor for compressed air supply and optionally a sensor distributor with two, four or eight inputs or outputs. Sensors for monitoring the gripper need to be ordered separately. Pneumatic hoses are not included in the scope of delivery.

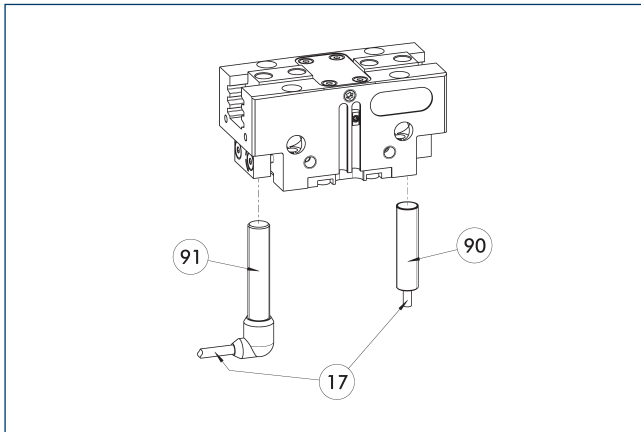
Modular Assembly Automation



- ④ Grippers
- ⑨① ASG adapter plate
- ⑨① CLM/KLM/LM/ELP/ELM/ELS/HLM linear modules

Grippers and linear modules can be combined with standard adapter plates from the modular assembly system. For more information see our main catalog "Modular Assembly Automation".

Inductive Proximity Switches



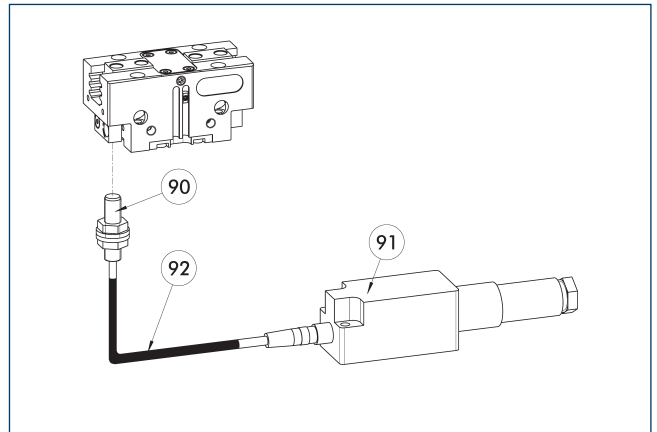
- 17 Cable outlet
90 Sensor IN...-SA

Directly mounted end position monitoring.

| Characterization | ID | Often combined |
|--|----------|----------------|
| Inductive proximity switches | | |
| IN 80-S-M12 | 0301578 | |
| IN 80-S-M8 | 0301478 | ● |
| INK 80-S | 0301550 | |
| Inductive proximity switch with lateral cable outlet | | |
| IN 80-S-M12-SA | 0301587 | |
| IN 80-S-M8-SA | 0301483 | ● |
| INK 80-S-SA | 0301566 | |
| Cable extension | | |
| 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 | |
| clip for plug/socket | | |
| CLI-M12 | 0301464 | |
| CLI-M8 | 0301463 | |
| 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 | |
| Sensor distributor | | |
| V2-M12 | 0301776 | ● |
| V2-M8 | 0301775 | ● |
| V4-M12 | 0301747 | |
| V4-M8 | 0301746 | |
| V8-M12 | 0301752 | |
| 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.

Flexible position sensor



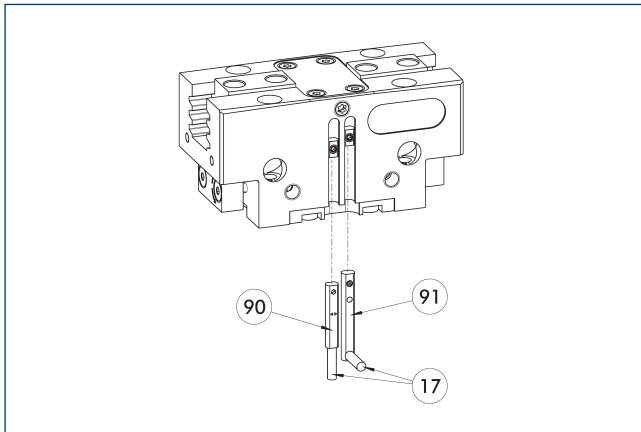
- 90 FPS-S sensor
91 FPS-F5 evaluation electronic
92 Cable extension

Flexible position monitoring of up to five positions.

| Characterization | ID | |
|-------------------------|---------|--|
| Attachment kit for FPS | | |
| AS-FPS-PGN-plus-P 125-1 | 1363894 | |
| AS-FPS-PGN-plus-P 125-2 | 1366173 | |
| Sensor | | |
| FPS-S M8 | 0301704 | |
| Cable extension | | |
| KV BG08-SG08 3P-0050 | 0301598 | |
| KV BG08-SG08 3P-0100 | 0301599 | |
| Evaluation electronics | | |
| FPS-F5 | 0301805 | |

- ① When using an FPS system, an FPS sensor (FPS-S) as well as an electronic processor (FPS-F5 / F5 T) are required for each gripper as well as a mounting kit (AS), if listed. Cable extensions (KV) are optionally available – see catalog chapter "Accessories."

Electronic magnetic switch MMS



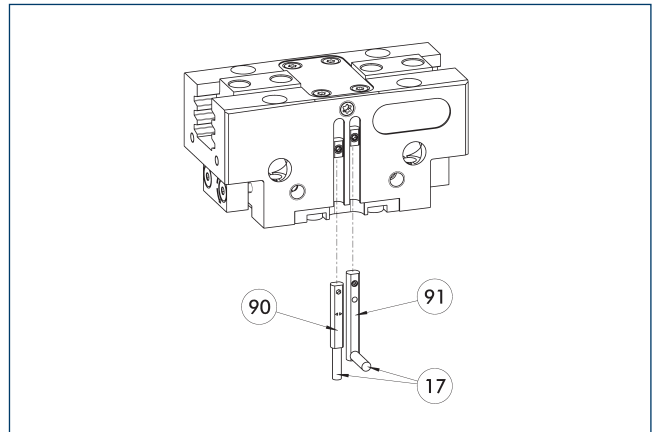
- ① Cable outlet
② Sensor MMS 22 ..-PI1-...-SA
③ Sensor MMS 22 PI1-...

End position monitoring for mounting in the C-slot.

| Characterization | 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 | |
| Cable extension | | |
| KV BW08-SG08 3P-0030-PNP | 0301495 | |
| KV BW08-SG08 3P-0100-PNP | 0301496 | |
| KV BW08-SG08 3P-0200-PNP | 0301497 | ● |
| clip for plug/socket | | |
| CLI-M8 | 0301463 | |
| 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 | |
| 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



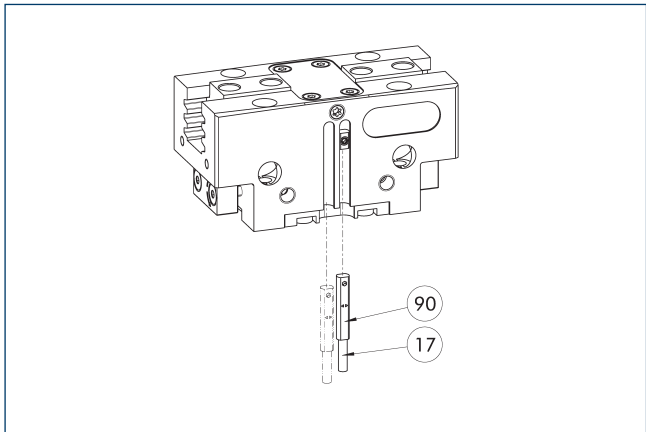
- ① Cable outlet
② Sensor MMS 22 ..-PI1-...-SA
③ Sensor MMS 22 PI1-...

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) 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.

| Characterization | 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

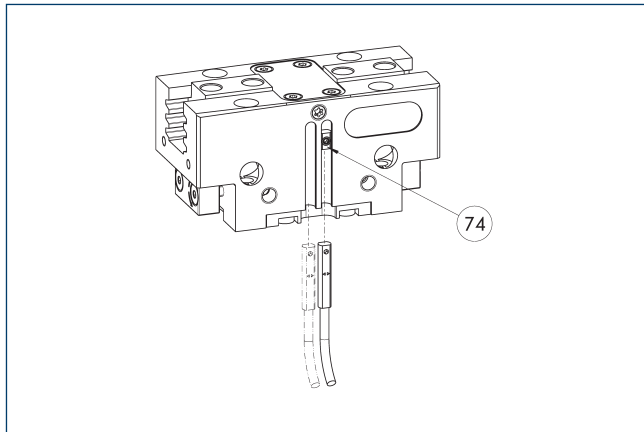
90 MMS 22...-PI2-... sensor

Position monitoring with two programmable positions per sensor and electronics built into the sensor. Can be programmed using MT magnetic teaching tool (included in the scope of delivery) 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.

| Characterization | 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



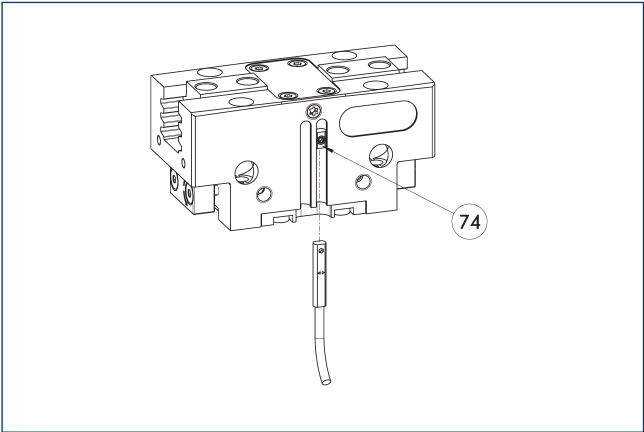
74 Limit stop for sensor

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

| Characterization | ID | Often combined |
|------------------------------|---------|----------------|
| Programmable magnetic switch | | |
| MMSK-P 22-S-PNP | 0301371 | |
| MMS-P 22-S-M8-PNP | 0301370 | ● |
| clip for plug/socket | | |
| CLI-M8 | 0301463 | |
| Connection cables | | |
| KA BG08-L 4P-0500 | 0307767 | ● |
| KA BG08-L 4P-1000 | 0307768 | |
| KA BW08-L 4P-0500 | 0307765 | |
| KA BW08-L 4P-1000 | 0307766 | |
| 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.

MMS-A analog position sensor



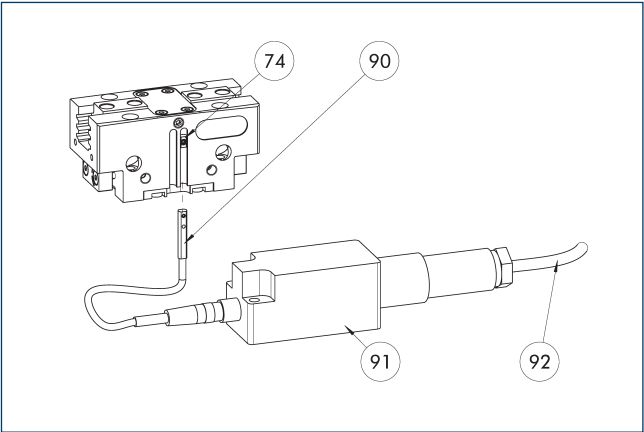
74 Limit stop for sensor

No-contact measuring, analog multi-position monitoring for any number of positions.

| Characterization | ID | |
|------------------------|---------|--|
| Analog position sensor | | |
| MMS 22-A-10V-M08 | 0315825 | |
| MMS 22-A-10V-M12 | 0315828 | |

① One sensor is required for each gripper. No additional mounting kit is required – the gripper is equipped for use of the sensor by default. Further information and technical data can be found in the catalog chapter sensor systems.

Flexible position sensor with MMS-A



74 Limit stop for sensor

90 MMS 22-A-... sensor

91 FPS-F5 evaluation electronic

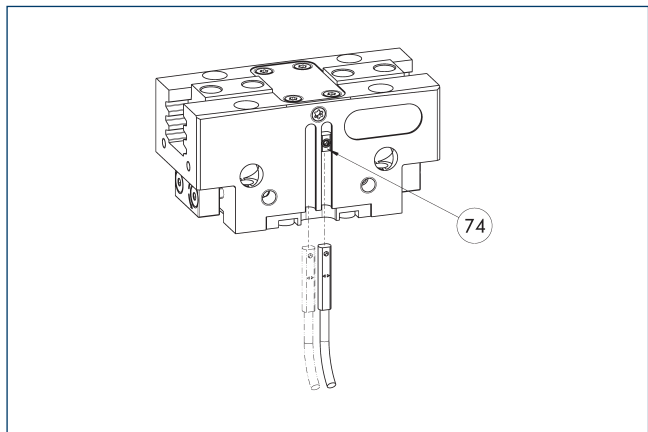
92 Connection cables

Flexible position monitoring of up to five positions.

| Characterization | ID | |
|------------------------|---------|--|
| Analog position sensor | | |
| MMS 22-A-05V-M08 | 0315805 | |
| Evaluation electronics | | |
| FPS-F5 | 0301805 | |
| Connection cables | | |
| KA BG16-L 12P-1000 | 0301801 | |

① When using an FPS system, one MMS 22-A-05V and one electronic processor (FPS-F5) are required per each gripper, as well as a mounting kit (AS), if listed. Cable extensions (KV) are optionally available – see catalog chapter "Accessories."

Programmable magnetic switch MMS-I0-Link



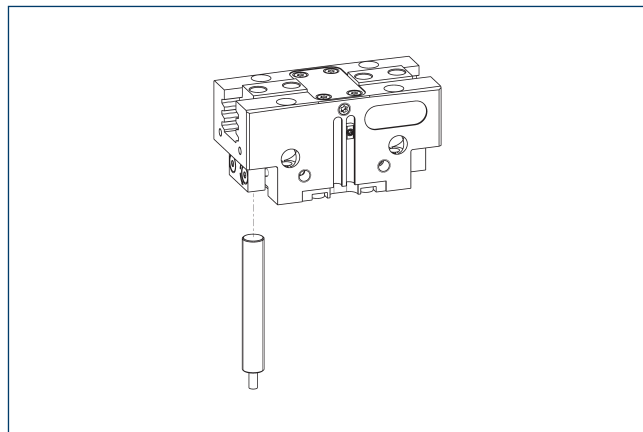
74 Limit stop for sensor

Sensor for multi-position monitoring through detection of the complete gripper stroke. The sensor is mounted directly in the C-slot of the gripper. Sensor programming on the gripper takes place via the IO-Link interface or the MT magnetic teach tool (included in scope of delivery). An IO-Link master is required for operation.

| Characterization | ID | |
|------------------------------|---------|--|
| Programmable magnetic switch | | |
| MMS 22-I0L-M08 | 0315830 | |
| MMS 22-I0L-M12 | 0315835 | |

- ① One sensor is required for each gripper. No additional mounting kit is required – the gripper is equipped for use of the sensor by default. Further information and technical data can be found in the catalog chapter sensor systems.

APS-Z80 analog position sensor



No-contact measuring, analog multi-position monitoring for any number of positions.

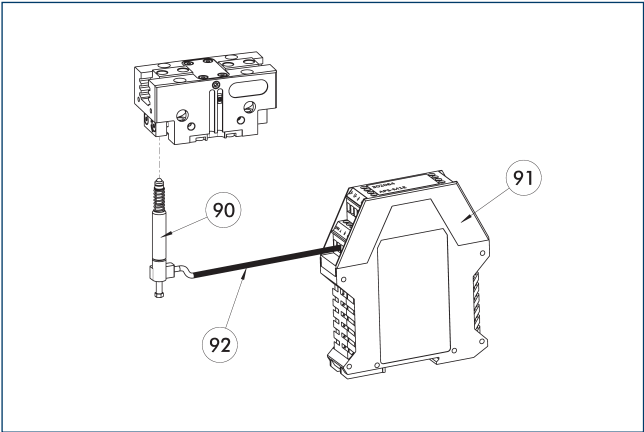
| Characterization | ID | Often combined |
|-----------------------------|---------|----------------|
| Mounting kit for APS-Z80 | | |
| AS-APS-Z80-PGN-plus-P 125-1 | 1366226 | |
| AS-APS-Z80-PGN-plus-P 125-2 | 1366228 | |
| Analog position sensor | | |
| APS-Z80-K | 0302072 | |
| APS-Z80-M8 | 0302070 | ● |

- ① When using an APS system, one mounting kit (AS-APS-Z80) and one APS-Z80 sensor is required per gripper. The resolution of the sensor can be lower in the peripheral areas of the gripper. You can find further information on the product in the operating manual.

PGN-plus-P 125

Universal gripper

APS-M1 analog position sensor



- 90 APS-M1S sensor
- 91 APS-M1E electronic processor
- 92 APS-K extension cable

Analog multi position monitoring for any desired positions

| Characterization | ID | |
|----------------------------|---------|--|
| Mounting kit for APS-M1 | | |
| AS-APS-M1-PGN-plus-P 125-1 | 1363743 | |
| AS-APS-M1-PGN-plus-P 125-2 | 1363745 | |
| Analog position sensor | | |
| APS-M1S | 0302062 | |

- ① When using an APS system, for each gripper an attachment kit (AS-APS-M1), an APS-M1S sensor (incl. 3 m cable) as well as an electronics (APS-M1e) are required. An extension cable (APS-K) can be connected between the sensor and the electronics as an option. The max. cable length between the sensor and the electronics is 10 m, between the electronics and their control unit (PLC) it is max. 1 m.

SCHUNK GmbH & Co. KG
Spann- und Greiftechnik

Bahnhofstr. 106 - 134
D-74348 Lauffen/Neckar
Tel. +49-7133-103-0
Fax +49-7133-103-2399
info@de.schunk.com
schunk.com



J. Lehmann
Jens Lehmann, German goalkeeper legend, SCHUNK brand ambassador since 2012 for
safe, precise gripping and holding.
schunk.com/Lehmann