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# THE PREMIERE OF THE YEAR

SRU-plus pneumatic universal rotary actuator

# SRU-plus

## Pneumatic universal rotary actuator

**SRU-plus – one of the most powerful rotary actuator on the market. A consistent modular system with electronic rotary feed-through, locked middle position and lots of more options. Be one of the first to use this ingenious advance. Make use of the leading expert's know-how.**

- Shorter cycle times
- Larger reliable payloads
- Maximum positioning accuracy in every end position
- Maximum service life
- Oscillation-free approach to middle positions
- Now with IP 67 as standard



- 3 to 5 times better performance
- Up to 50 % increase of cycle times
- Unique electrical signal transmission
- With locked middle position

**One of the most powerful  
rotary actuator on the market**



# The top 5 highlights

## ■ It's your turn!

### Shorter cycle times – higher payloads

Two new dampening versions for greater efficiency thanks to extreme performance increase. The important and correct solution for challenging applications.

The benefit to you: "SOFT" version increases your cycle times by up to 50 % – with the same payloads. "HARD" version handles 3 to 5 times as much with the same unit interference contour.

## ■ Be modular!

### Variety in the modular system

The consistent modular system for further SRU-plus variants. For all sizes. Highly standardized, flexible combinations. Whether you need hose-free air feed-through, center bores, or inductive or magnetic proximity switches – your rotary actuator is tailored to your task. Uncompromising customization and efficiency.

## ■ Plug-n-play!

### EDF electrical rotary feed-through ①

The EDF electrical rotary feed-through is ordered together with the SRU-plus as a ready-to-install unit. The benefit to you: EDF prevents breaks and short-circuits in the cables installed on the exterior or through the center bore. Lasting process reliability in operation guaranteed. The option you can count on.

## ■ Be perfect!

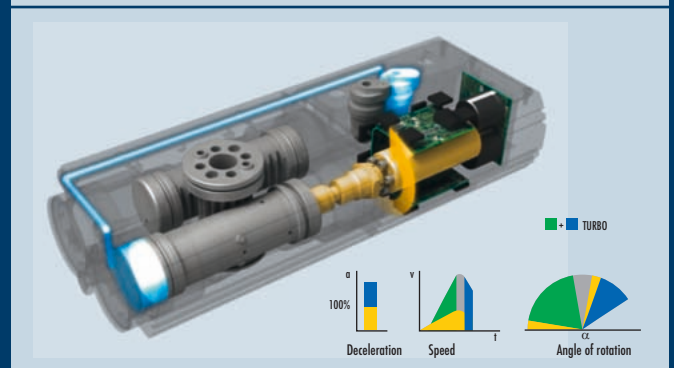
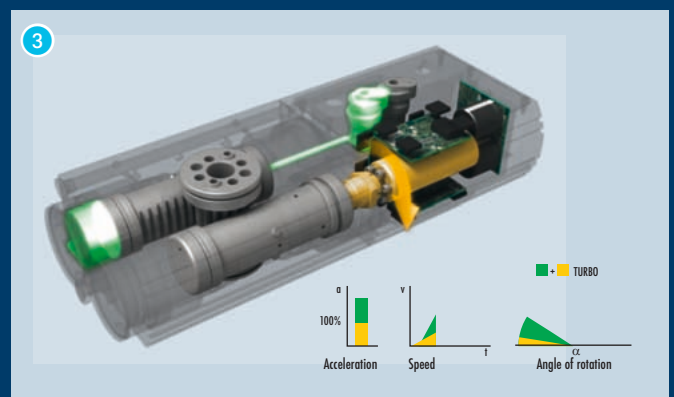
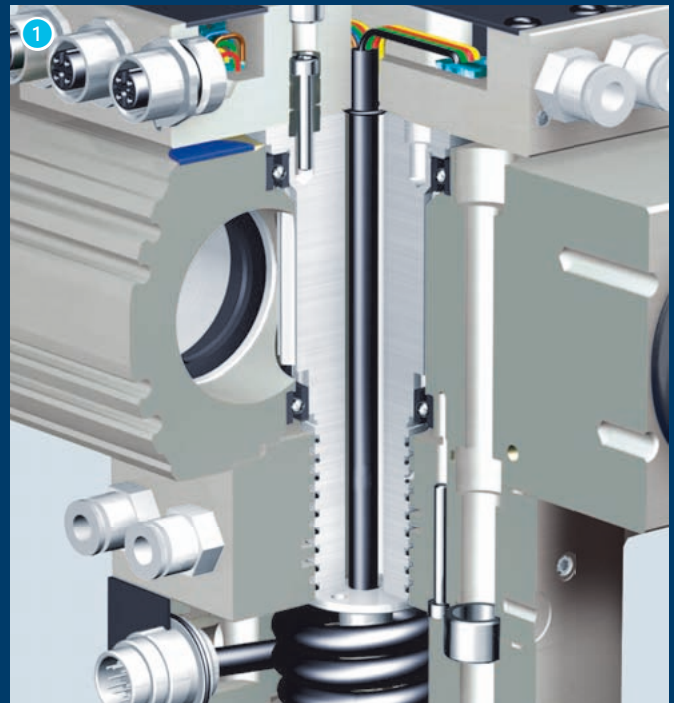
### Mechanically locked middle position ②

The benefits of a mechanically locked middle position: The intermediate position is reached with no oscillation. Fast, smooth deceleration and precision. The mechanical locking is held pneumatically and is hydraulically dampened. The benefit to you: Significantly reduced swiveling times and fast and secure approach to the middle position.

## ■ Booster inside!

### Masterdrive ③

The Masterdrive ingeniously combines two drive types. The electric motor ensures a fast approach. In the "flying start", the turbo pneumatic drive comes into play and accelerates at full force. At the end of the rotating movement, the pneumatic drive assists the braking operation and then "transfers" the precise positioning to the electric motor.

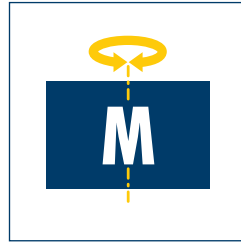




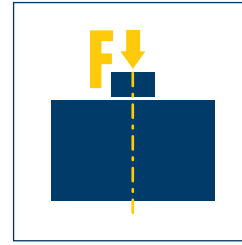
**Sizes**  
20 .. 63



**Weight**  
1.2 kg .. 26.5 kg



**Torque**  
1.1 Nm .. 115.0 Nm



**Axial force**  
800 N .. 11000 N



**Bending moment**  
10.5 Nm .. 950 Nm

### Application example



Unit for rotary replacement of roughly positioned small components

**1** SRU-plus 40-H-180-3 rotary actuator

**3** DKG 44 2-finger parallel gripper

**2** AGE-XY 50 compensation unit

### Universal rotary actuator

All-purpose unit for rotating movements up to 180°, particularly suitable for large and heavy superstructures.

#### Area of application

Can be used in either clean or contaminated areas, anywhere where pneumatic swiveling is suitable.  
Sealed rotary actuator in accordance with protection class IP 67.

#### Advantages – your benefits

**Clearly graduated series with uniform torque increase**  
which means that the correct size for numerous applications is available as a standard product

**Swivel angle can be selected as either 90° or 180°**  
Complete flexibility in selecting the swivel angle; special angles available on request

**End position adjustability**  
+3°/-3° (small) or +3°/-90° (large) can be selected

**Middle position can be pneumatic or locked**  
The locked middle position can be unlocked when loaded.  
The two types of middle position always allow further rotation in each direction.

**Fluid feed-through can be used for gases, fluids and vacuum**  
which means disruptive hoses can be avoided

**Electrical rotary feed-through**  
for lastingly process reliable feed-through of sensor, actuator and bus signals

**Choice of electronic magnetic switch or inductive proximity switch**  
for absolute variability of position monitoring

**Replaceable screw-in guide sleeves (bushing)**  
allow easy maintenance and rapid replacement after several million cycles.

**Series extends**  
downwards with the SRU-mini series, for a wide range of applications



### General information about the series

**Working principle**  
Double piston rack and pinion principle

**Housing material**  
Aluminum extruded section

**Piston and pinion material**  
Steel (16MnCr5), hardened

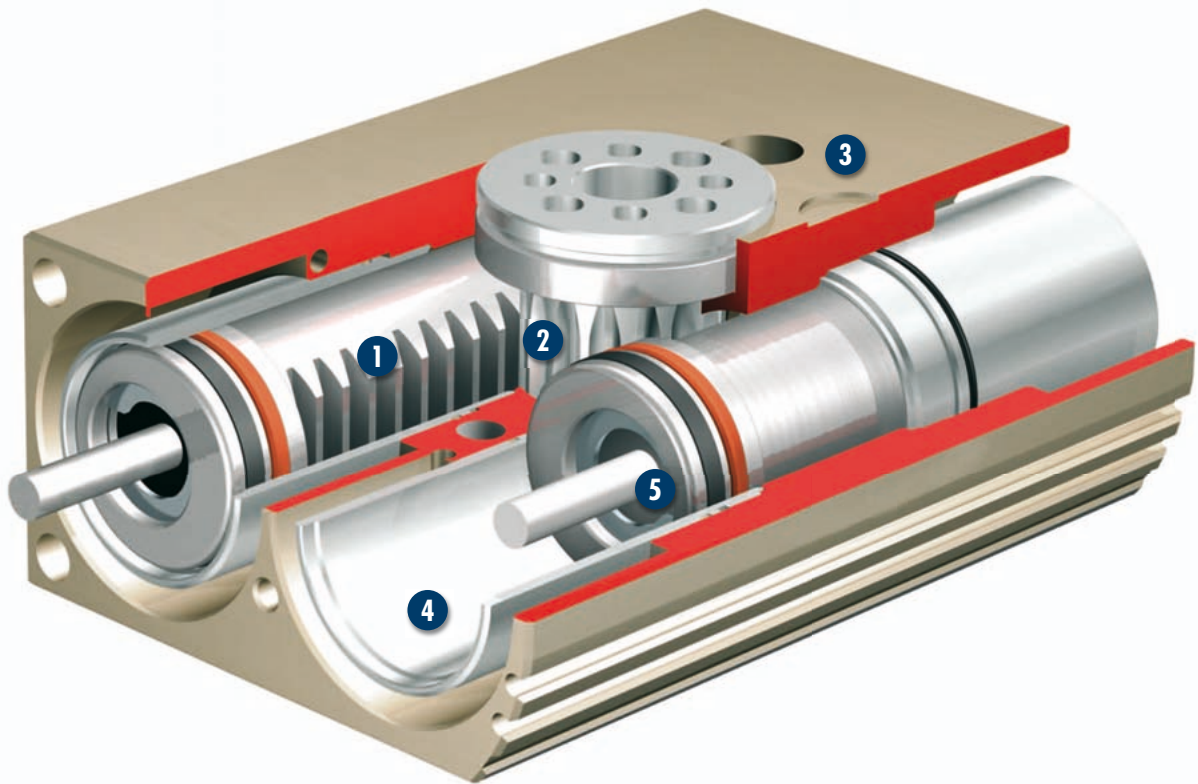
**Actuation**  
Pneumatic, via filtered compressed air (10 µm): dry, lubricated, or non-lubricated  
Pressurizing medium: requirements for compressed air quality class according to DIN ISO 8573-1: Quality class 4

**Standard conditions**  
The technical data shown refers to an environment of 20 °C and 1013 mbar

**Warranty**  
24 months

**Scope of delivery**  
Flow control coupling, centering bushings, O-rings for direct connection, fitting screws (SRU-plus 63 only), assembly and operating manual with manufacturer's declaration

## Sectional diagram



- 1 Drive**  
Pneumatic, powerful double piston drive
- 2 Pinion**  
Stable pinion, optionally available with fluid feed-through, for transforming the piston movement into a rotary movement
- 3 Housing**  
Weight-reduced through the use of a hard-anodized aluminum alloy
- 4 Sleeve technology**  
For radial adjustment of the end positions without a settling effect and ensuring rapid replacement for maintenance
- 5 Damping**  
Hydraulic shock absorbers for high moments of inertia

### Function description

When subjected to pressure, the two pneumatic pistons move their end faces in a straight line in their bores, turning the pinion by means of the serrations on their sides.

### Torque in end positions

Note that the final angular degrees (approx. 2°) before the end position can only be approached using the force of a drive piston. For this reason, double pressurized modules only have about half the rated torque available in this area. An external stop can provide the full torque in even the end positions.

### Options and special information

To dampen swiveling movements even more intensively, additional, external shock absorbers can also be fitted. Please contact us for more information.

Special angle of traverse greater than 180° can be provided quickly and economically, thanks to the innovative sleeve technology. Please contact us for more information.

We are also happy to provide our electrical feed-throughs with M5 or M12 connection sleeves, on request. Electrical feed-throughs can also be used to transmit bus signals. Please contact us for more information.

Note that suitable **emergency-off strategies** (e.g. controlled shut down) and **restarting strategies** (e.g. pressure build-up valves, appropriate valve switching sequences) are needed for all pneumatic actuators.

Cutting off the pressure in an uncontrolled manner could lead to undefined states and behavior.



### Accessories

Accessories from SCHUNK – the ideal components for the best functionality, reliability, and controlled production for all automation modules.

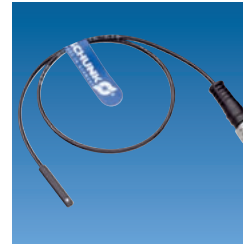
Centering sleeves



Fittings



MMS magnetic switch



IN inductive proximity switch



Sensor cable W/WK/KV/GK



V sensor distributor



SDV-P pressure maintenance valve



① Please see the side views at the end of the respective size for information concerning specific sizes, availability, designation, and ID numbers. You can find more information about our accessories program in the “Accessories” part of our catalog.

### General information about the series

#### Repeat accuracy

Repeat accuracy is defined as the spread of the limit positions for 100 consecutive swiveling cycles.

#### Pinion position

The position of the pinion is always shown in the left end position. The pinion rotates from here to the right in the clockwise direction. The arrow makes the direction of rotation clear.

#### Pinion screw connection diagram

Please note that when the angle of traverse is to be set for less than 90°, the left stop will generally be completely turned in. The left end position therefore has a screw connection diagram which has been rotated by 90° in the clockwise direction in relation to the drawing, which is shown at a 180° angle of rotation.

#### Travel to the pneumatic middle position

In double pressurized units, the travel to the middle position is carried out using only half the nominal torque.

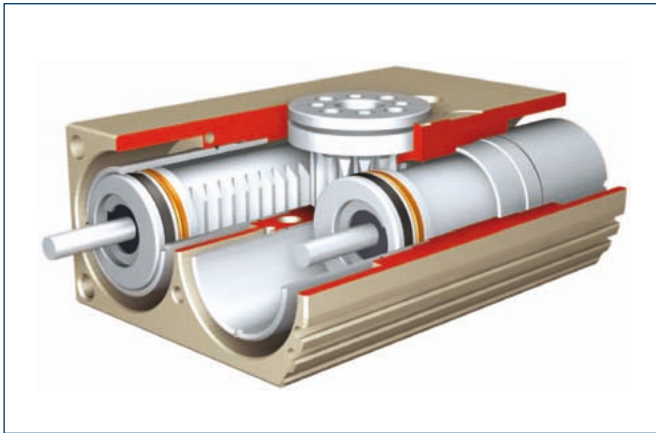
#### Cycle time

Cycle times are merely the time it takes for the pinion/flange to rotate through the nominal angle of rotation. Valve switching times, hose filling times, or PLC reaction times are not included in this and are to be considered when cycle times are calculated.

#### Swiveling time depending on the loading

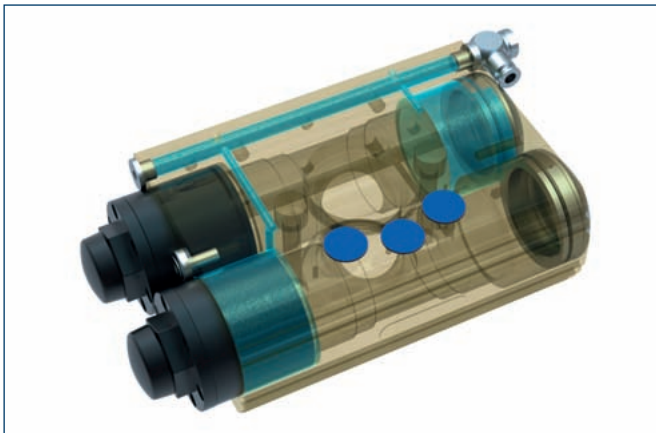
The diagrams shown here apply for angles of rotation of 90° and 180°, for units without a middle position, as well as for use with a vertical swiveling axis, and for purely centric loads with a horizontal swiveling axis and an operating pressure of 6 bar. The diagrams show the expected swiveling times and allowed cycles per hour, depending on the mass moment of inertia. Throttles should be used to keep to the swiveling times, otherwise the life span could be shortened. We would be happy to help you design other applications.

## Basic module



- Tailored to every application thanks to the options presented by the modular system
- Integrated hydraulic shock absorbers for short swiveling times
- Piston guided in guide sleeves that can be easily replaced during maintenance

## Pneumatic drive



- Large torques despite the small space, thanks to double pressurizing

## Shock absorber stroke adjustment



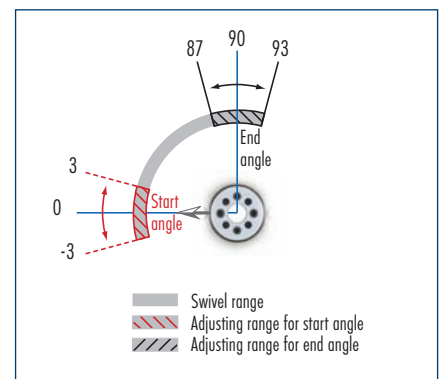
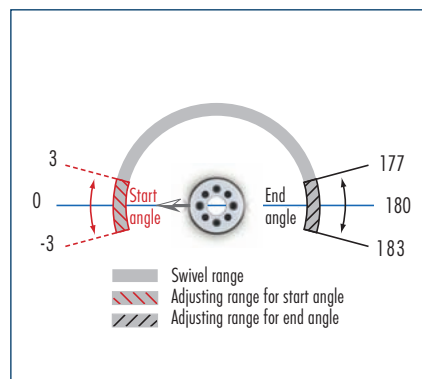
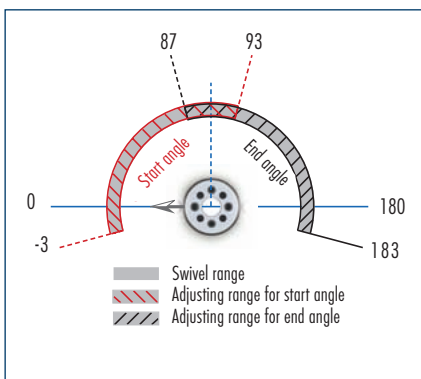
- For adjusting the dampening to the load and application for optimum cycle times

## End position adjustability of the two-position units

For 180° units and large end position adjustability (+90°) for variable adjustment of the angle of rotation

For 180° units and small end position adjustability (±3°) for fine adjustment

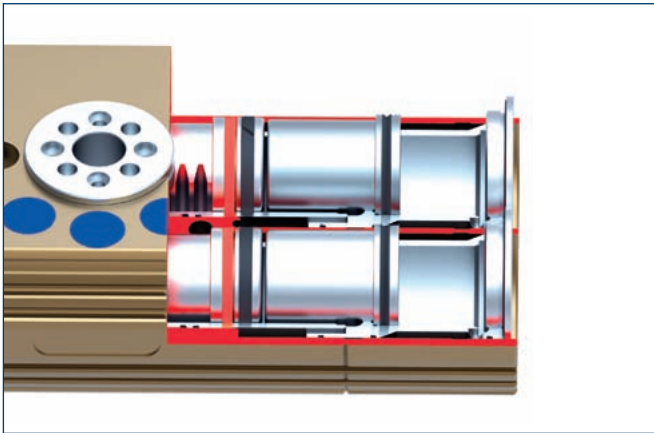
For 90° units and small end position adjustability (±3°) for fine adjustment



- Small end position adjustability for fast and precise fine adjustment
- Large end position adjustability for flexible adjustment of the angle of rotation

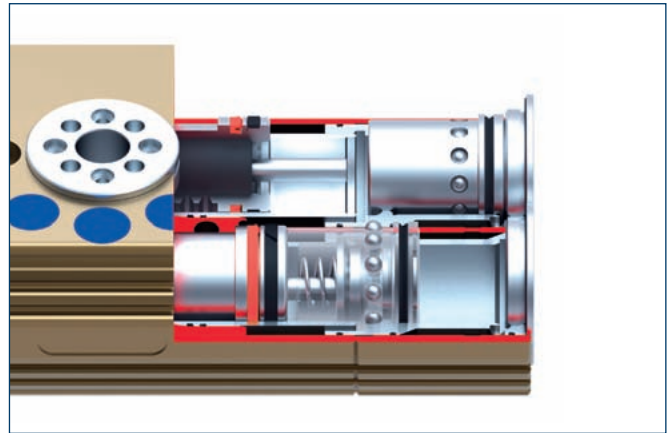


### Pneumatic middle position (M)



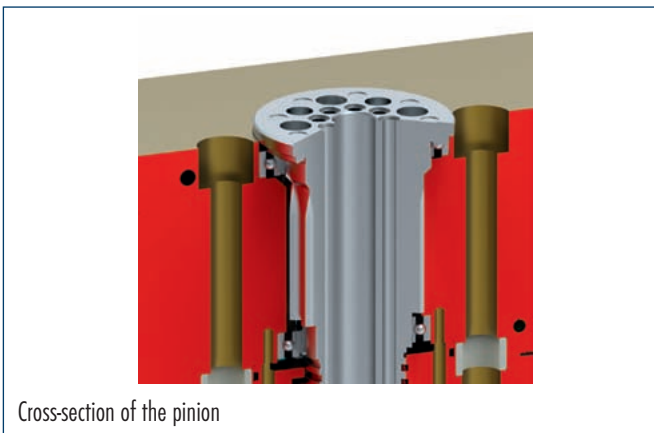
- Pneumatic middle position for flexibility in the intermediate position
- Middle position can be adjusted  $\pm 3^\circ$  for quick fine adjustment

### Locked middle position (VM)



- Mechanically locked and hydraulically dampened middle position for short swiveling times, not only with heavy loads
- Middle position can be adjusted  $\pm 3^\circ$  for quick fine adjustment

### Fluid feed-through



Cross-section of the pinion

- Hose-free fluid feed-through and a large center bore save space
- No process reliability hoses or cables thus increasing

### Electrical rotary feed-through



- Completely integrated feed-through for sensor, actuator and bus signals
- Connected via housing plugs and bushes

### End position monitoring options



MMS 22 electronic magnetic switch

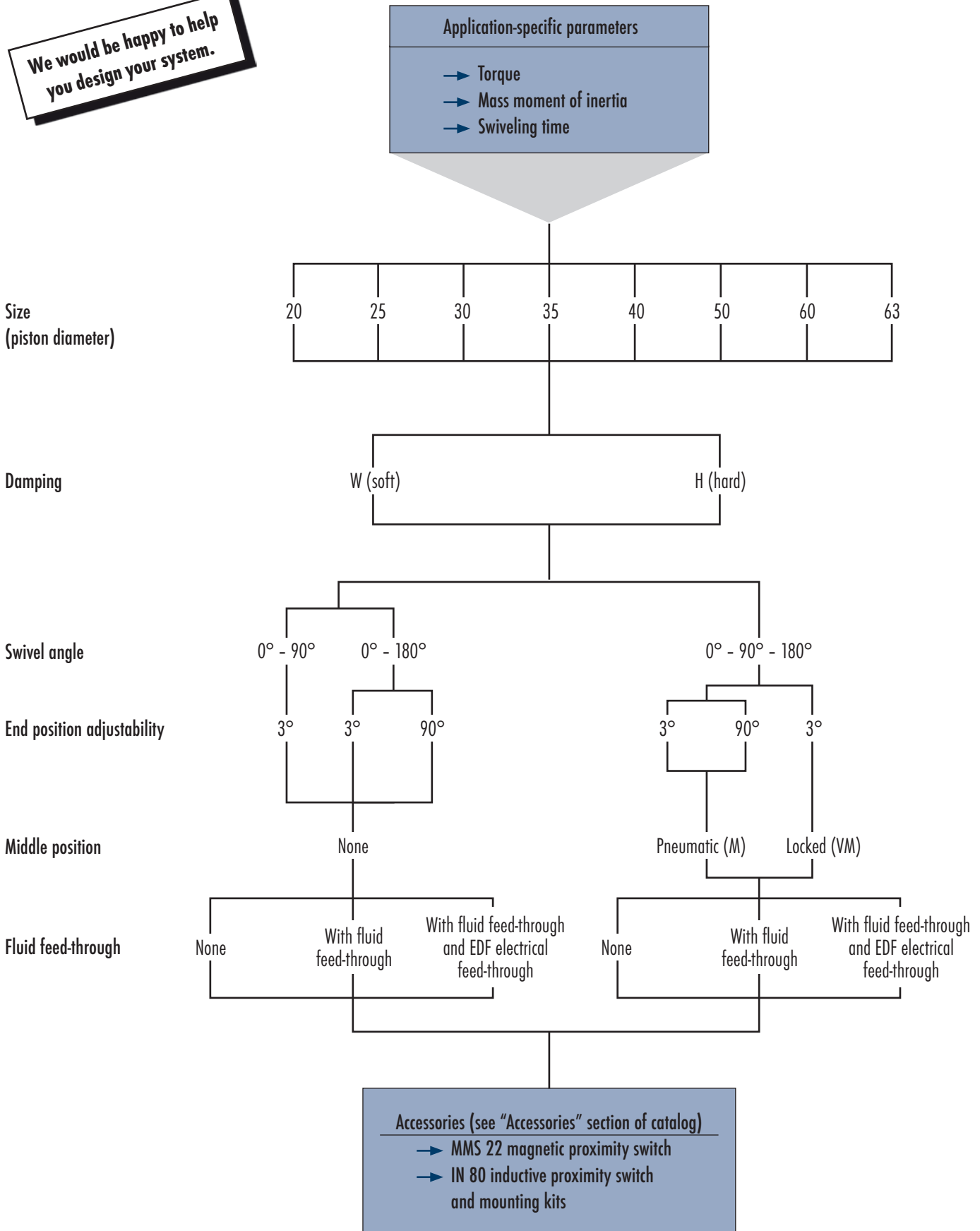
- Electronic magnetic switch can be completely recessed in the groove in order to minimize the interfering contour
- Up to eight positions can be monitored



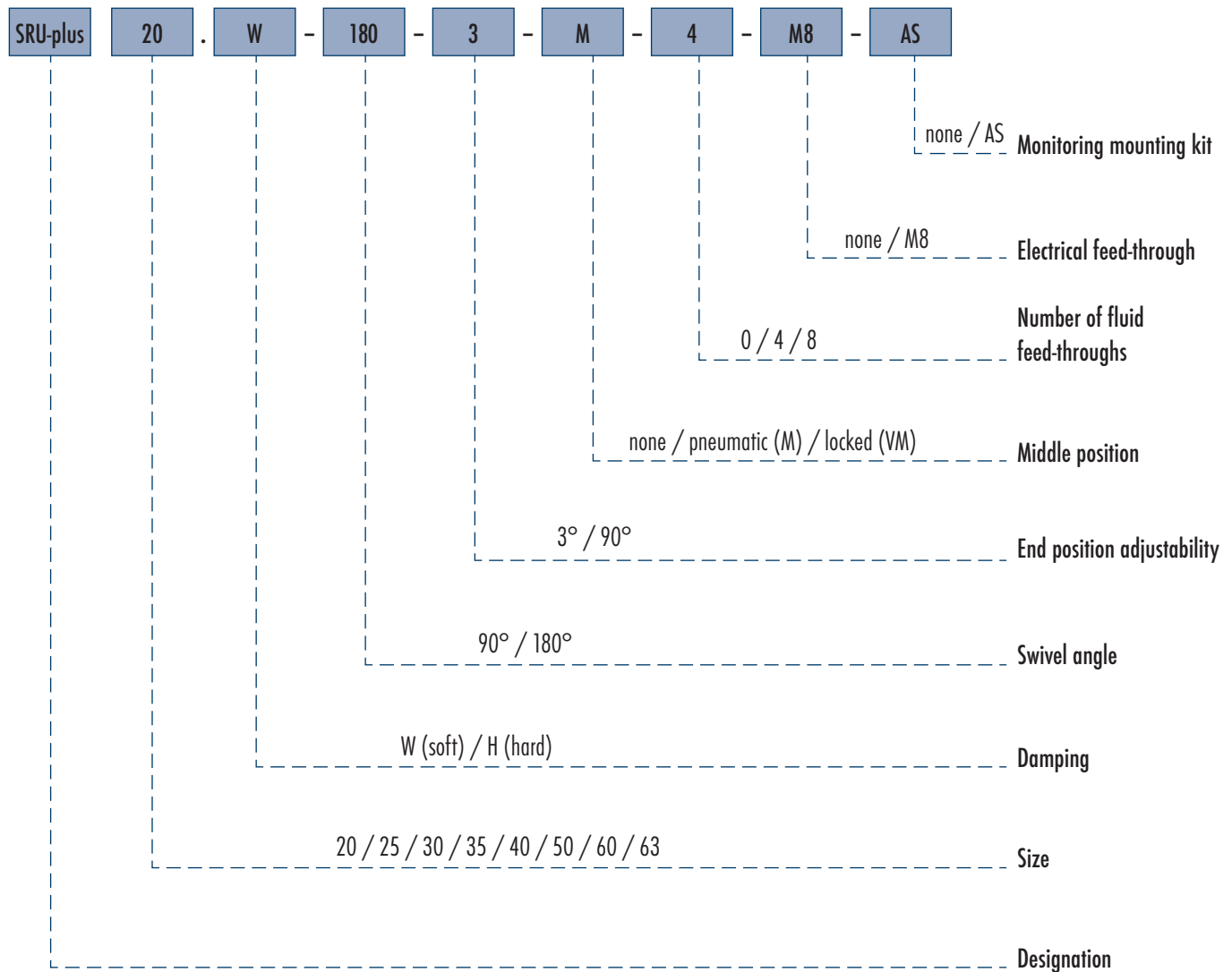
IN 80 inductive proximity switch

- Inductive proximity switch in the M8 version for quick assembly with a mounting kit
- Reliable monitoring of up to three positions

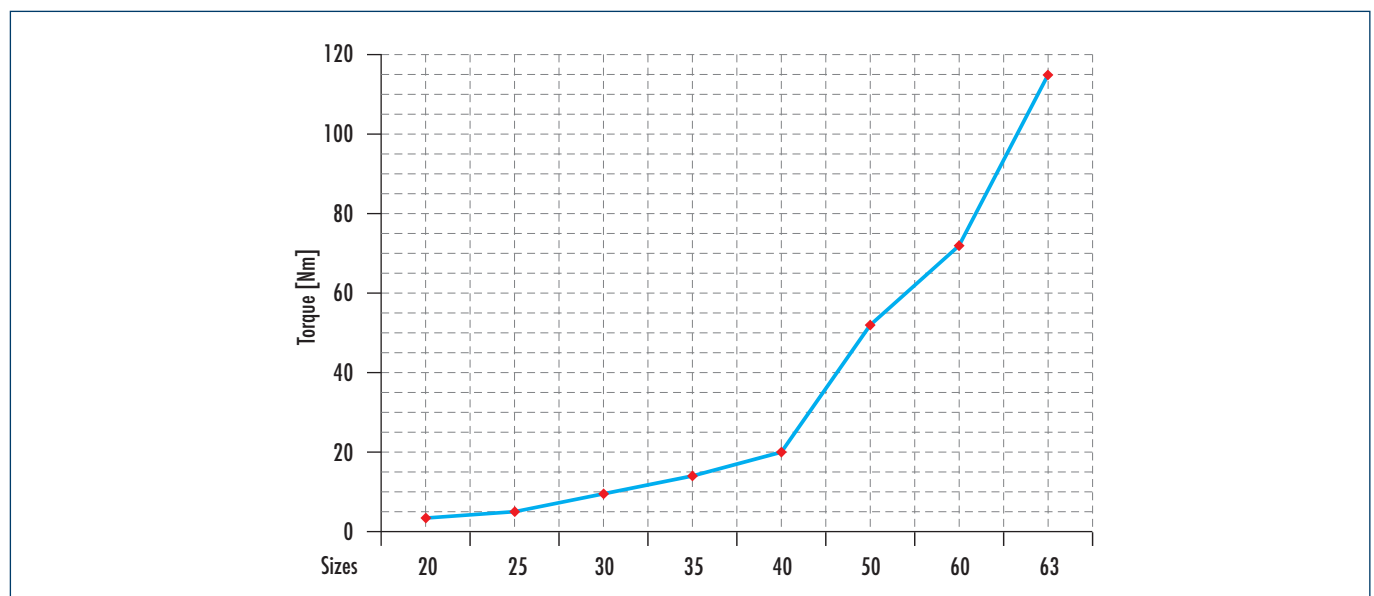
**We would be happy to help you design your system.**



### How to order

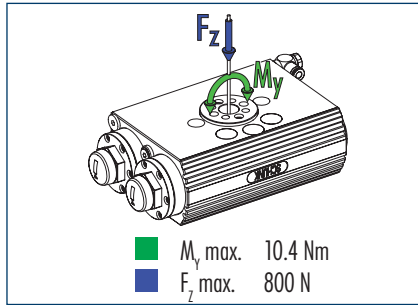


### Torque graduation





### Pinion load



ⓘ Moments and forces may occur simultaneously. When using heavy attachments or ones with high mass moments of inertia the speed must be restricted to ensure that the rotary movement occurs without any hitting or bouncing.

### Technical data of SRU-plus without middle position

| Description (soft damping)                               | SRU-plus 20-W-90-3 | SRU-plus 20-W-180-3 | SRU-plus 20-W-180-90 |
|--|--------------------|---------------------|----------------------|
| ID   | 0361400            | 0361420             | 0361450              |
| Angle of rotation [°]                                    | 90.0               | 180.0               | 180.0                |
| End position adjustability [°]                           | 3.0                | 3.0                 | 90.0                 |
| Torque [Nm]  | 3.4                | 3.4                 | 3.4                  |
| IP class   | 67                 | 67                  | 67                   |
| Weight [kg]  | 1.20               | 1.20                | 1.24                 |
| Fluid consumption (2 x nominal angle) [cm <sup>3</sup> ] | 36.0               | 60.0                | 60.0                 |
| Nominal operating pressure [bar]                         | 6.0                | 6.0                 | 6.0                  |
| Min./max. operating pressure [bar]                       | 3/8                | 3/8                 | 3/8                  |
| Diameter of connecting hose [mm]                         | 6.0                | 6.0                 | 6.0                  |
| Min./max. ambient temperature [°C]                       | 5/60               | 5/60                | 5/60                 |
| Repeat accuracy [°]                                      | 0.05               | 0.05                | 0.05                 |
| ISO-classification 14644-1                               | 5                  | 5                   | 5                    |

#### Options with fluid feed-through

| Description (soft damping)                | SRU-plus 20-W-90-3-4 | SRU-plus 20-W-180-3-4 | SRU-plus 20-W-180-90-4 |
|---|----------------------|-----------------------|------------------------|
| ID  | 0361402              | 0361422               | 0361452                |
| Torque [Nm]                               | 3.0                  | 3.0                   | 3.0                    |
| Weight [kg]                               | 1.40                 | 1.40                  | 1.44                   |
| No. of fluid feed-throughs                | 4                    | 4                     | 4                      |
| Max. pressure in fluid feed-through [bar] | 8                    | 8                     | 8                      |

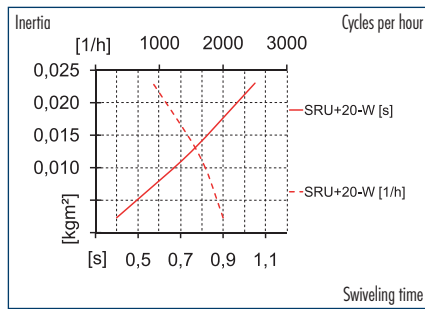
#### Options with fluid and electric feed-through

| Description (soft damping)                | SRU-plus 20-W-90-3-4-M8 | SRU-plus 20-W-180-3-4-M8 | SRU-plus 20-W-180-90-4-M8 |
|---|-------------------------|--------------------------|---------------------------|
| ID  | 0361404                 | 0361424                  | 0361454                   |
| Torque [Nm]                               | 3.0                     | 3.0                      | 3.0                       |
| Weight [kg]                               | 2.05                    | 2.05                     | 2.09                      |
| No. of fluid feed-throughs                | 4                       | 4                        | 4                         |
| Max. pressure in fluid feed-through [bar] | 8                       | 8                        | 8                         |
| Number of cores                           | 10.0                    | 10.0                     | 10.0                      |
| Max. voltage [V]                          | 24                      | 24                       | 24                        |
| Max. current per wire [A]                 | 1                       | 1                        | 1                         |
| Max. total current [A]                    | 1                       | 1                        | 1                         |
| Number of E-fittings on the output end    | 6                       | 6                        | 6                         |

#### Options with fluid and electric feed-through and mounting kit

| Description (soft damping) | SRU-plus 20-W-90-3-4-M8-AS | SRU-plus 20-W-180-3-4-M8-AS | SRU-plus 20-W-180-90-4-M8-AS |
|----------------------------|----------------------------|-----------------------------|------------------------------|
| ID                         | 0361407                    | 0361427                     | 0361457                      |

### Max. mass moment of inertia J



① The diagrams are valid for rotary angles of 90° and 180°, units without middle position and for applications with vertical rotary axis. Also for absolutely centric loads with horizontal rotary axis and with a pneumatic working pressure of 6 bars. The swiveling times need to be adjusted by using throttle valves, otherwise the life time could be reduced. Please contact us for calculations of other applications and further information.

### Technical data of SRU-plus with middle position

| Description (soft damping)                  | SRU-plus 20-W-180-3-M      | SRU-plus 20-W-180-3-VM      | SRU-plus 20-W-180-90-M     |
|---|----------------------------|-----------------------------|----------------------------|
| ID  | 0361430                    | 0361440                     | 0361460                    |
| Angle of rotation [°]                       | 180.0                      | 180.0                       | 180.0                      |
| End position adjustability [°]              | 3.0                        | 3.0                         | 90.0                       |
| Torque [Nm]                                 | 3.4                        | 3.4                         | 3.4                        |
| Middle position                             | M (pneum. middle position) | VM (locked middle position) | M (pneum. middle position) |
| Adjustability of middle position [°]        | 3.0                        | 3.0                         | 3.0                        |
| IP class                                    | 67                         | 67                          | 67                         |
| Weight [kg]                                 | 1.55                       | 1.76                        | 1.60                       |
| Fluid consumption (2 x nominal angle) [cm³] | 60.0                       | 60.0                        | 60.0                       |
| Nominal operating pressure [bar]            | 6.0                        | 6.0                         | 6.0                        |
| Min./max. operating pressure [bar]          | 3/8                        | 4/6.5                       | 3/8                        |
| Diameter of connecting hose [mm]            | 6.0                        | 6.0                         | 6.0                        |
| Min./max. ambient temperature [°C]          | 5/60                       | 5/60                        | 5/60                       |
| Repeat accuracy [°]                         | 0.05                       | 0.05                        | 0.05                       |
| ISO-classification 14644-1                  | 5                          | 5                           | 5                          |

### Options with fluid feed-through

| Description (soft damping)                | SRU-plus 20-W-180-3-M-4 | SRU-plus 20-W-180-3-VM-4 | SRU-plus 20-W-180-90-M-4 |
|---|-------------------------|--------------------------|--------------------------|
| ID  | 0361432                 | 0361442                  | 0361462                  |
| Torque [Nm]                               | 3.0                     | 3.0                      | 3.0                      |
| Weight [kg]                               | 1.75                    | 1.96                     | 1.80                     |
| No. of fluid feed-throughs                | 4                       | 4                        | 4                        |
| Max. pressure in fluid feed-through [bar] | 8                       | 8                        | 8                        |

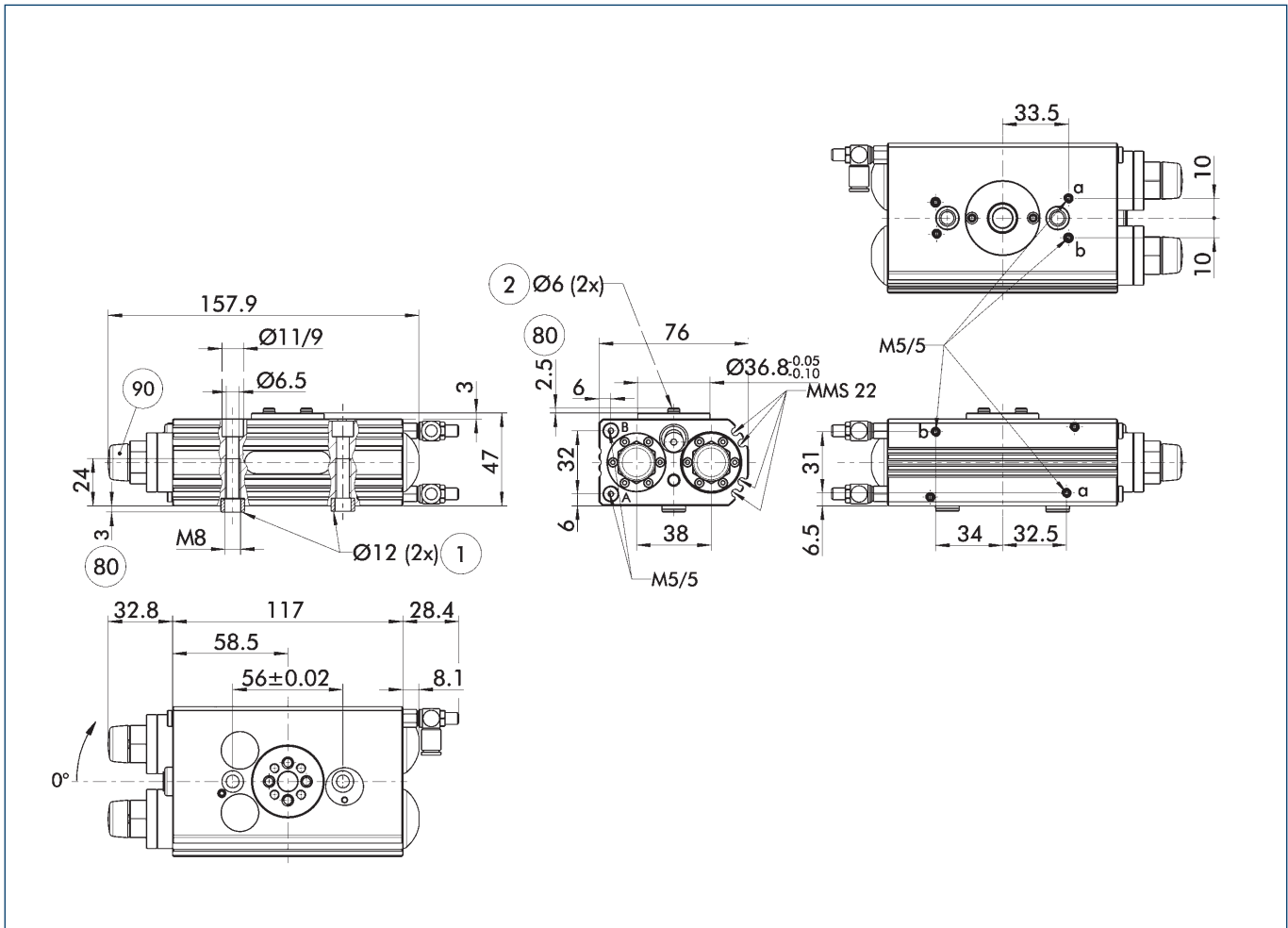
### Options with fluid and electric feed-through

| Description (soft damping)                | SRU-plus 20-W-180-3-M-4-M8 | SRU-plus 20-W-180-3-VM-4-M8 | SRU-plus 20-W-180-90-M-4-M8 |
|---|----------------------------|-----------------------------|-----------------------------|
| ID  | 0361434                    | 0361444                     | 0361464                     |
| Torque [Nm]                               | 3.0                        | 3.0                         | 3.0                         |
| Weight [kg]                               | 2.40                       | 2.61                        | 2.45                        |
| No. of fluid feed-throughs                | 4                          | 4                           | 4                           |
| Max. pressure in fluid feed-through [bar] | 8                          | 8                           | 8                           |
| Number of cores                           | 10.0                       | 10.0                        | 10.0                        |
| Max. voltage [V]                          | 24                         | 24                          | 24                          |
| Max. current per wire [A]                 | 1                          | 1                           | 1                           |
| Max. total current [A]                    | 1                          | 1                           | 1                           |
| Number of E-fittings on the output end    | 6                          | 6                           | 6                           |

### Options with fluid and electric feed-through and mounting kit

| Description (soft damping) | SRU-plus 20-W-180-3-M-4-M8-AS | SRU-plus 20-W-180-3-VM-4-M8-AS | SRU-plus 20-W-180-90-M-4-M8-AS |
|----------------------------|-------------------------------|--------------------------------|--------------------------------|
| ID                         | 0361437                       | 0361447                        | 0361467                        |

## Main views for SRU-plus without EDF

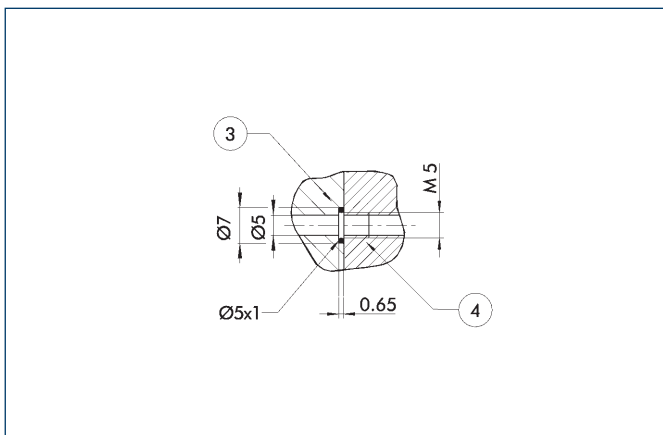


The main view shows the SRU-plus in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

- A, a Main/direct connection, clockwise rotary actuator
- B, b Main/direct connection, anti-clockwise rotary actuator
- 1 Rotary actuator connection
- 2 Attachment connection
- 80 Depth of the centering sleeve hole in the matching part
- 90 Setting shock absorber stroke

① The SDV-P pressure maintenance valve can be used to hold the position upon a loss of pressure (see „Accessories“ catalog section).

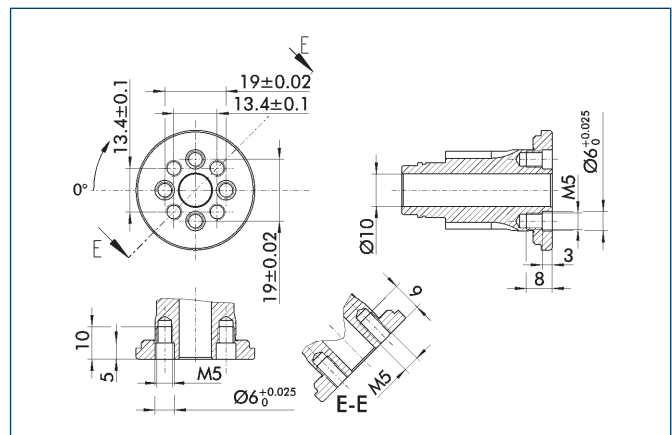
## Hose-free direct connection



- 3 Adapter
- 4 Rotary actuator

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

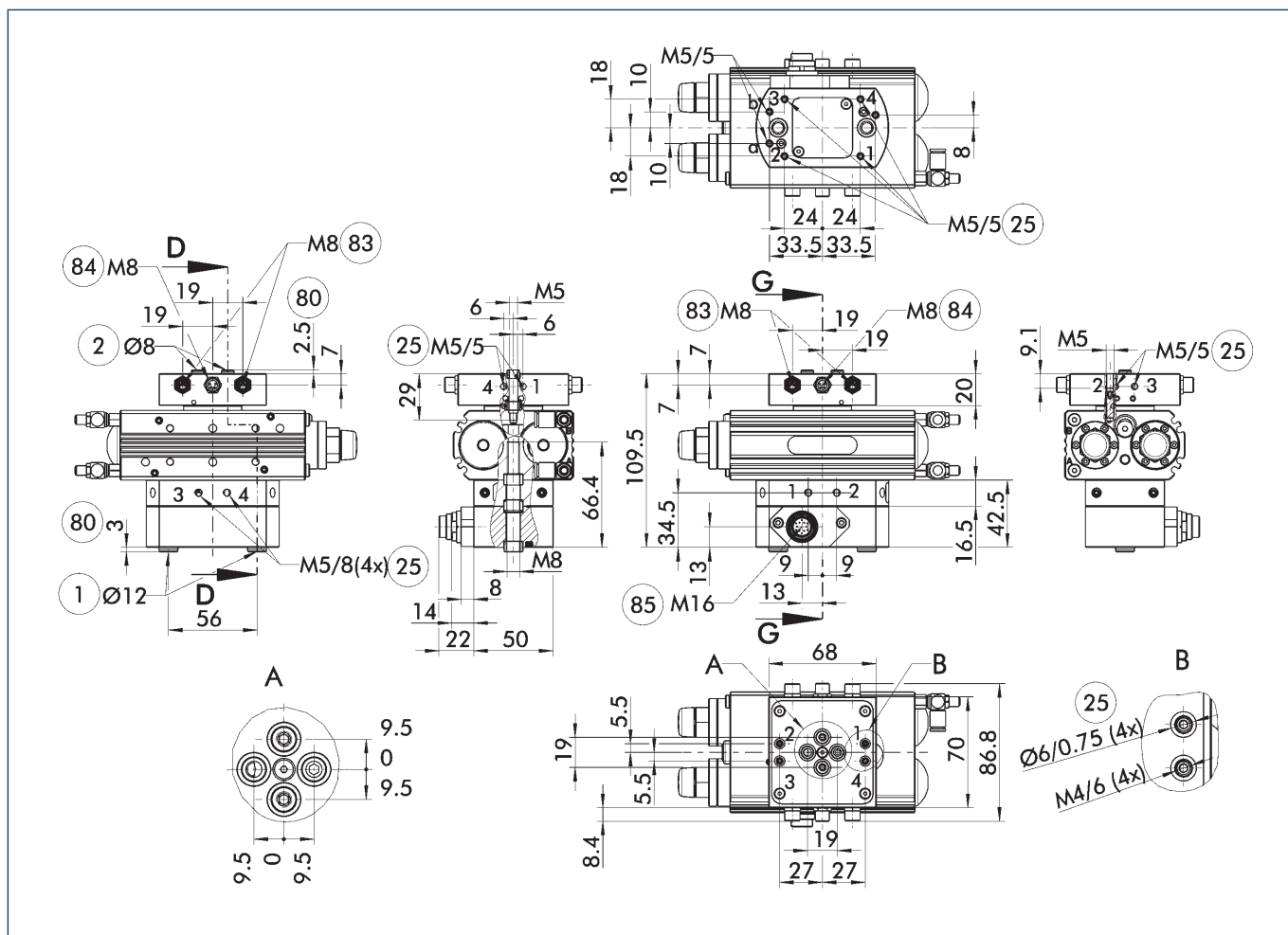
## Pinion without fluid feed-through



Pinion screw connection diagram for mounting the swiveling attachment. The „4x large thread for 4x screw and 2x flat fit for guide sleeve“ screw connection diagram is preferable to the „4x small thread for 2x screw and 2x dowel screw“ (in deep fit) screw connection diagram.



### Main views for SRU with EDF



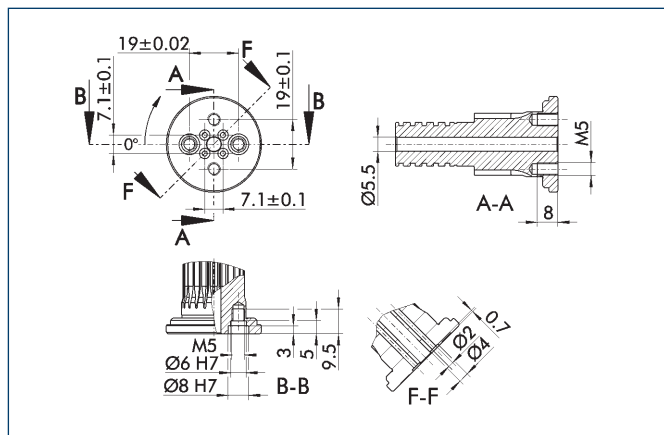
The main view shows the SRU in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

① The SDV-P pressure maintenance valve can be used to hold the position upon a loss of pressure (see „Accessories“ catalog section).

- A, a Main/direct connection, clockwise rotary actuator
- B, b Main/direct connection, anti-clockwise rotary actuator
- ① Rotary actuator connection
- ② Attachment connection
- ②⑤ Fluid feed-through

- ⑧⑩ Depth of the centering sleeve hole in the matching part
- ⑧③ Flange socket for 3-pin sensor feed-through
- ⑧④ Flange socket for 4-pin sensor feed-through
- ⑧⑤ Output for sensor feed-through

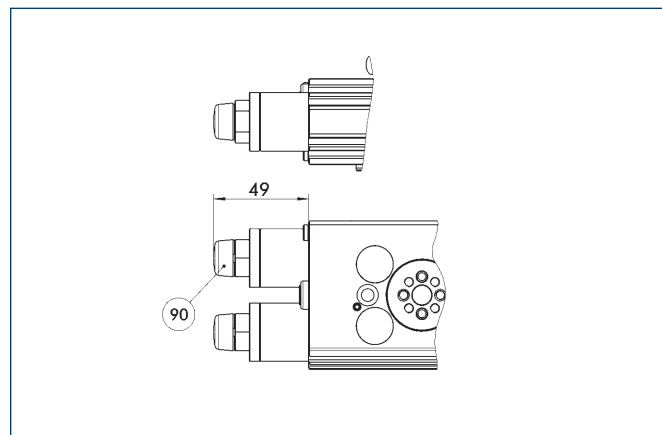
### Pinion with fluid feed-through



Pinion screw connection diagram for the „Fluid feed-through“ option. The preferred drilling pattern is 2 x screws and 2 x screws with guide sleeve (in Ø 8 H7).

① View applicable only for versions without EDF!

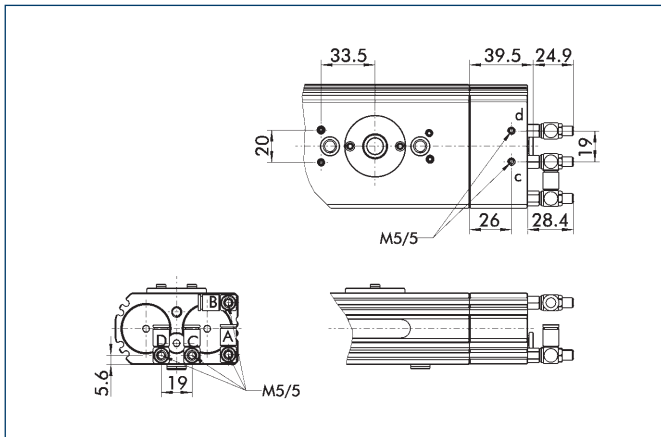
### Large end position adjustability 90°



⑨⑩ Setting shock absorber stroke

Different dimensions with the option „Large end position adjustability (90°)“. This permits the end positions to be adjusted by up to 93°. More information can be found in the introduction to the series.

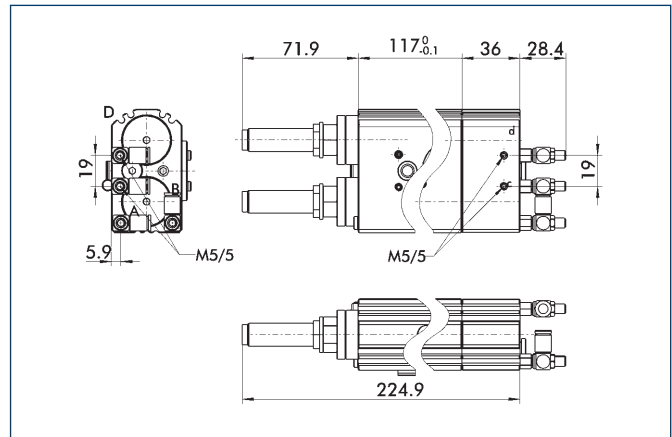
### Pneumatic middle position (M)



C, c Main/direct connection, middle position  
D, d Main/direct connection, middle position

Different dimensions with the „Pneumatic middle position (M)“ option. Heavy attachments may have to level out until they reach the correct position. The locked middle position (VM) offers relief.

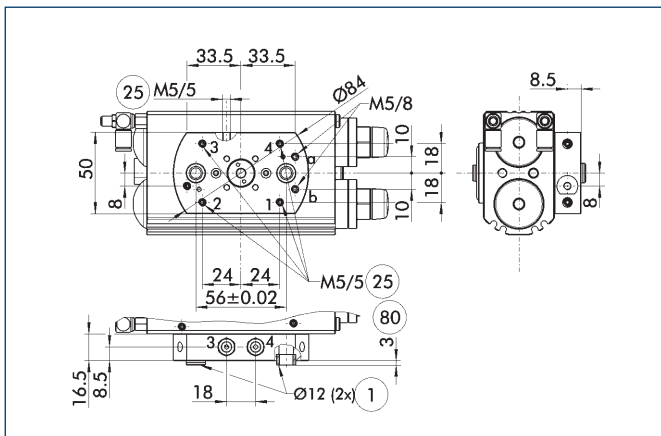
### Locked middle position (VM)



C, c Main/direct connection, middle position  
D, d Main/direct connection, middle position

Different dimensions with the „Locked middle position (VM)“ option. The middle position is locked. The unit travels to middle position using the force of the main drive piston. Shock absorbers brake the travel to middle position as fast as possible to prevent overshooting.

### Connections for fluid feed-through

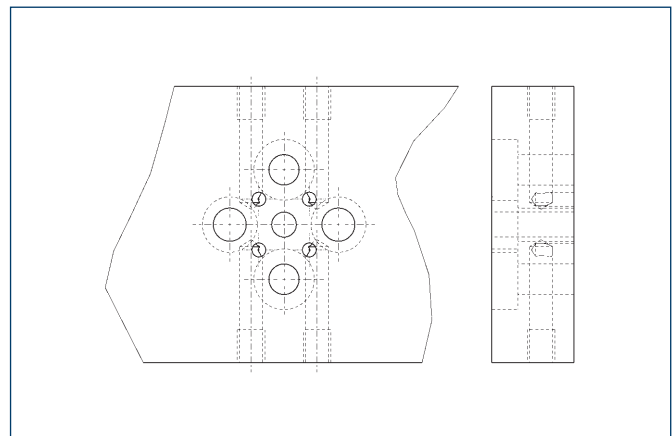


① Rotary actuator connection  
② Fluid feed-through  
⑧ Depth of the centering sleeve hole in the matching part

Lower mounting plate for the „Fluid feed-through“ option. Vacuum, gases or fluids can be conveyed. The connection may be a screw type or a direct connection.

① View applicable only for versions without EDF!

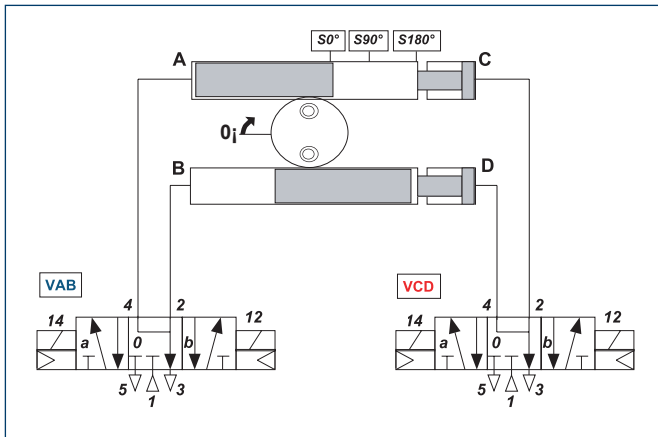
### Adapter plate arrangement



Suggested here is an arrangement of the adapter plate which enables all fluid feed-throughs to be reached as easily as possible.

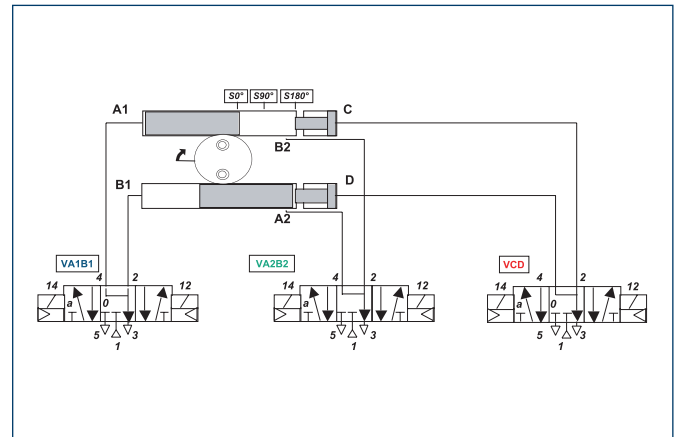
① View applicable only for versions without EDF!

### Pneumatic diagram of SRU-plus-VM – vertical axis



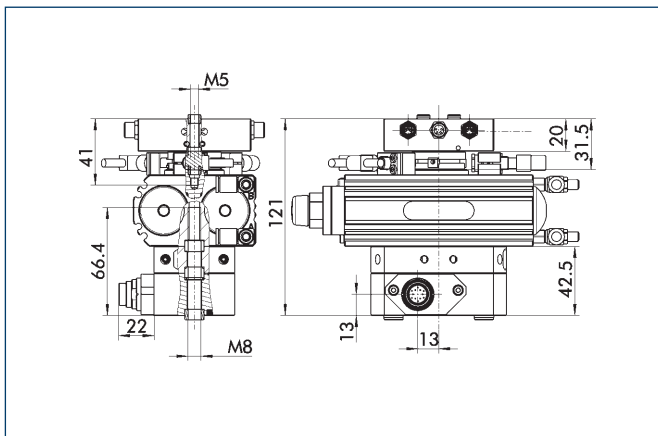
VM units with vertical swivel axis are generally actuated by two 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

### Pneumatic diagram of SRU-plus-VM – horizontal axis



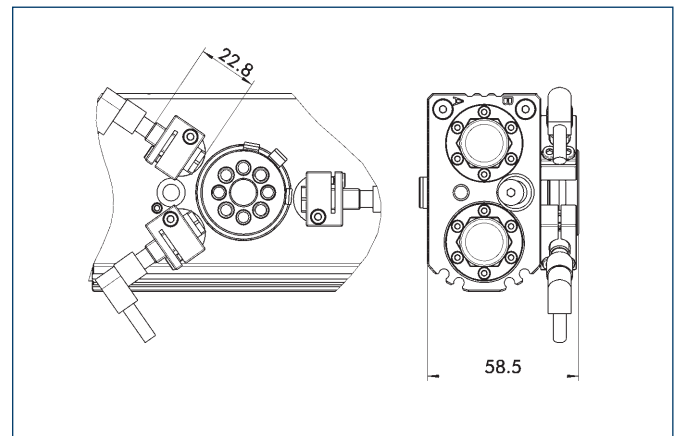
VM units with horizontal or non-vertical swivel axis must generally be actuated by three 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

### Mounting kit for proximity switch at SRU-plus with EDF



The mounting kit cannot be ordered separately. The SRU-plus rotary actuator with electric feed-through and mounting kit will be assembled and delivered as a complete unit by SCHUNK. Please pay attention to our options SRU-plus ...AS.

### Mounting kit for proximity switch at SRU-plus without EDF



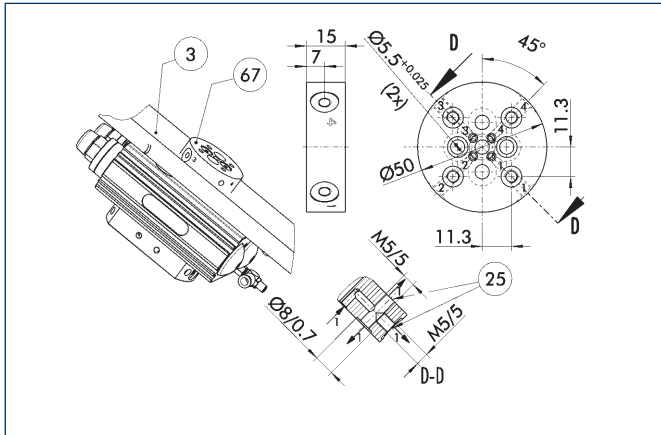
The size-specific mounting kit is required for installing the inductive proximity switches. Up to three proximity switches (2x end position, 1x middle position) can be attached using the mounting kit.

| Description                       | ID      |
|-----------------------------------|---------|
| Mounting kit for proximity switch |         |
| AS-SRU-plus 20                    | 0375390 |
| AS-SRU-plus 20/25/30-4            | 0357391 |

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



### Distributor for SRU-plus



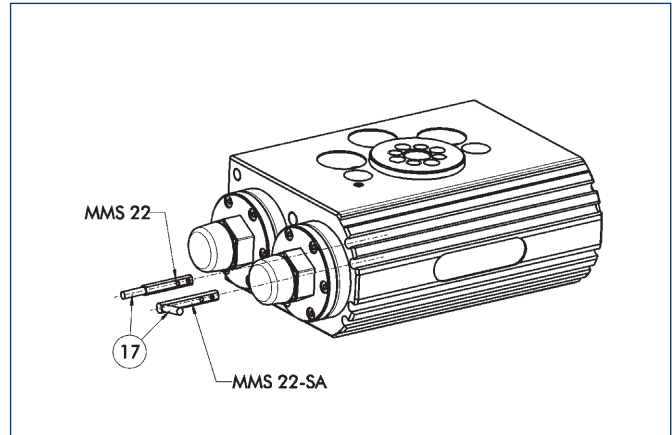
- ③ Adapter
- ⑥7 Distributor for fluid feed-through
- ②5 Fluid feed-through

The distributor for SRU-plus facilitates the use of the fluid feed-throughs, both at the direct attachment to the distributor and in the lines conveying the fluid inside the adapter plate. Thanks to the distributor, only a simple drilling pattern has to be drilled in the adapter plate situated between the pinion and the distributor.

| Description              | ID      |
|--------------------------|---------|
| Distributor for SRU-plus |         |
| V-SRU-plus 20/25/30      | 0357392 |

① View applicable only for versions without EDF!

### Electronic magnetic switches

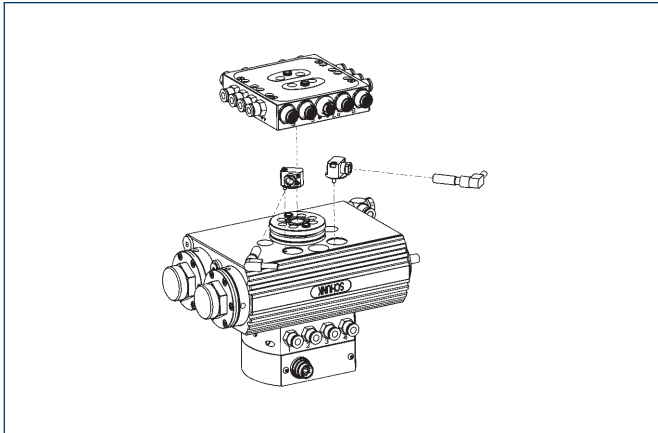


- ①7 Cable outlet
- End position monitoring for mounting in the C-slot

| Description                         | ID      | Our recommendation |
|-------------------------------------|---------|--------------------|
| <b>Electronic magnetic switches</b> |         |                    |
| MMS 22-S-M5-PNP                     | 0301438 |                    |
| MMS 22-S-M5-NPN                     | 0301439 |                    |
| MMS 22-S-M8-PNP                     | 0301432 | •                  |
| MMS 22-S-M8-NPN                     | 0301433 |                    |
| MMSK 22-S-PNP                       | 0301434 |                    |
| MMSK 22-S-NPN                       | 0301435 |                    |
| MMS 22-S-M5-PNP-SA                  | 0301448 |                    |
| MMS 22-S-M5-NPN-SA                  | 0301449 |                    |
| MMS 22-S-M8-PNP-SA                  | 0301442 |                    |
| MMS 22-S-M8-NPN-SA                  | 0301443 |                    |
| MMSK 22-S-PNP-SA                    | 0301444 |                    |
| MMSK 22-S-NPN-SA                    | 0301445 |                    |
| <b>Connection cables</b>            |         |                    |
| KA BG05-L 3P-0300                   | 0301652 |                    |
| KA BG08-L 3P-0300-PNP               | 0301622 |                    |
| KA BG08-L 3P-0500-PNP               | 0301623 |                    |
| KA BW05-L 3P-0300                   | 0301650 |                    |
| KA BW08-L 3P-0300-NPN               | 0301602 |                    |
| KA BW08-L 3P-0300-PNP               | 0301594 |                    |
| KA BW08-L 3P-0500-NPN               | 9641116 |                    |
| KA BW08-L 3P-0500-PNP               | 0301502 |                    |
| <b>Cable extensions</b>             |         |                    |
| KV BW08-SG08 3P-0030-PNP            | 0301495 |                    |
| KV BW08-SG08 3P-0100-PNP            | 0301496 |                    |
| KV BW08-SG08 3P-0200-PNP            | 0301497 |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

### Inductive proximity switches IN for SRU-plus with electric feed-through

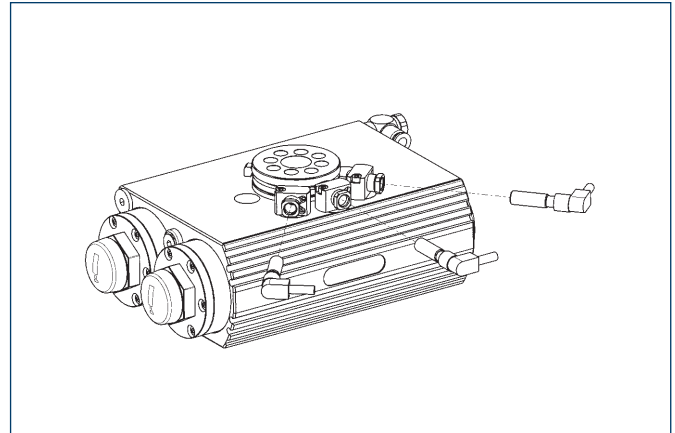


End position monitoring for direct mounting

| Description                         | ID       | Our recommendation |
|-------------------------------------|----------|--------------------|
| <b>Inductive proximity switches</b> |          |                    |
| IN 80-S-M8                          | 0301478  | •                  |
| IN 80-S-M12                         | 0301578  |                    |
| INK 80-S                            | 0301550  |                    |
| IN-C 80-S-M8                        | 0301475  |                    |
| INK 80-SL                           | 0301579  |                    |
| <b>Connection cables</b>            |          |                    |
| 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  |                    |
| <b>Cable extensions</b>             |          |                    |
| KV BG12-SG12 3P-0030-PNP            | 0301999  |                    |
| KV BG12-SG12 3P-0060-PNP            | 0301998  |                    |
| KV BW08-SG08 3P-0030-PNP            | 0301495  |                    |
| KV BW08-SG08 3P-0100-PNP            | 0301496  |                    |
| KV BW08-SG08 3P-0200-PNP            | 0301497  |                    |
| KV BW12-SG12 3P-0030-PNP            | 0301595  |                    |
| KV BW12-SG12 3P-0100-PNP            | 0301596  |                    |
| KV BW12-SG12 3P-0200-PNP            | 0301597  |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

### Inductive proximity switches IN for SRU-plus without electric feed-through

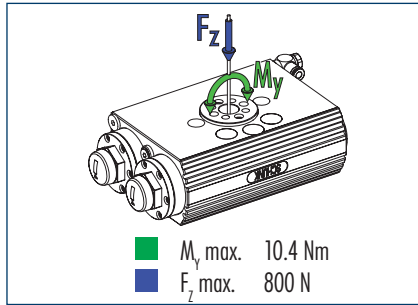


End position monitoring mounted with mounting kit

| Description                              | ID       | Our recommendation |
|--|----------|--------------------|
| <b>Mounting kit for proximity switch</b> |          |                    |
| AS-SRU-plus 20                           | 0375390  |                    |
| AS-SRU-plus 20/25/30-4                   | 0357391  |                    |
| <b>Connection cables</b>                 |          |                    |
| 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  |                    |
| <b>Inductive proximity switches</b>      |          |                    |
| IN 80-S-M8                               | 0301478  | •                  |
| IN 80-S-M12                              | 0301578  |                    |
| INK 80-S                                 | 0301550  |                    |
| IN-C 80-S-M8                             | 0301475  |                    |
| INK 80-SL                                | 0301579  |                    |
| <b>Cable extensions</b>                  |          |                    |
| KV BG12-SG12 3P-0030-PNP                 | 0301999  |                    |
| KV BG12-SG12 3P-0060-PNP                 | 0301998  |                    |
| KV BW08-SG08 3P-0030-PNP                 | 0301495  |                    |
| KV BW08-SG08 3P-0100-PNP                 | 0301496  |                    |
| KV BW08-SG08 3P-0200-PNP                 | 0301497  |                    |
| KV BW12-SG12 3P-0030-PNP                 | 0301595  |                    |
| KV BW12-SG12 3P-0100-PNP                 | 0301596  |                    |
| KV BW12-SG12 3P-0200-PNP                 | 0301597  |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① This mounting kit needs to be ordered optionally as an accessory.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.
- ① View applicable only for versions without EDF!

### Pinion load



ⓘ Moments and forces may occur simultaneously. When using heavy attachments or ones with high mass moments of inertia the speed must be restricted to ensure that the rotary movement occurs without any hitting or bouncing.

### Technical data of SRU-plus without middle position

| Description (soft damping)            | SRU-plus 25-W-90-3      | SRU-plus 25-W-180-3 | SRU-plus 25-W-180-90 |
|---------------------------------------|-------------------------|---------------------|----------------------|
| ID                                    | 0361600                 | 0361620             | 0361650              |
| Description (hard damping)            | SRU-plus 25-H-90-3      | SRU-plus 25-H-180-3 | SRU-plus 25-H-180-90 |
| ID                                    | 0361700                 | 0361720             | 0361750              |
| Angle of rotation                     | [°] 90.0                | 180.0               | 180.0                |
| End position adjustability            | [°] 3.0                 | 3.0                 | 90.0                 |
| Torque                                | [Nm] 5.0                | 5.0                 | 5.0                  |
| IP class                              | 67                      | 67                  | 67                   |
| Weight                                | [kg] 1.60               | 1.60                | 1.65                 |
| Fluid consumption (2 x nominal angle) | [cm <sup>3</sup> ] 60.0 | 88.0                | 88.0                 |
| Nominal operating pressure            | [bar] 6.0               | 6.0                 | 6.0                  |
| Min./max. operating pressure          | [bar] 3/8               | 3/8                 | 3/8                  |
| Diameter of connecting hose           | [mm] 6.0                | 6.0                 | 6.0                  |
| Min./max. ambient temperature         | [°C] 5/60               | 5/60                | 5/60                 |
| Repeat accuracy                       | [°] 0.05                | 0.05                | 0.05                 |
| ISO-classification 14644-1            | 5                       | 5                   | 5                    |

### Options with fluid feed-through

| Description (soft damping)          | SRU-plus 25-W-90-3-4 | SRU-plus 25-W-180-3-4, | SRU-plus 25-W-180-90-4 |
|-------------------------------------|----------------------|------------------------|------------------------|
| ID                                  | 0361602              | 0361622                | 0361652                |
| Description (hard damping)          | SRU-plus 25-H-90-3-4 | SRU-plus 25-H-180-3-4, | SRU-plus 25-H-180-90-4 |
| ID                                  | 0361702              | 0361722                | 0361752                |
| Torque                              | [Nm] 4.6             | 4.6                    | 4.6                    |
| Weight                              | [kg] 1.80            | 1.80                   | 1.85                   |
| No. of fluid feed-throughs          | 4                    | 4                      | 4                      |
| Max. pressure in fluid feed-through | [bar] 8              | 8                      | 8                      |

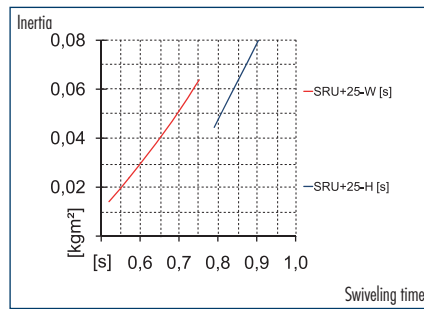
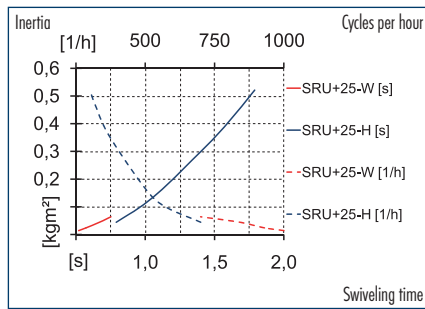
### Options with fluid and electric feed-through

| Description (soft damping)             | SRU-plus 25-W-90-3-4-M8 | SRU-plus 25-W-180-3-4-M8 | SRU-plus 25-W-180-90-4-M8 |
|--|-------------------------|--------------------------|---------------------------|
| ID                                     | 0361604                 | 0361624                  | 0361654                   |
| Description (hard damping)             | SRU-plus 25-H-90-3-4-M8 | SRU-plus 25-H-180-3-4-M8 | SRU-plus 25-H-180-90-4-M8 |
| ID                                     | 0361704                 | 0361724                  | 0361754                   |
| Torque                                 | [Nm] 4.6                | 4.6                      | 4.6                       |
| Weight                                 | [kg] 2.45               | 2.45                     | 2.50                      |
| No. of fluid feed-throughs             | 4                       | 4                        | 4                         |
| Max. pressure in fluid feed-through    | [bar] 8                 | 8                        | 8                         |
| Number of cores                        | 10.0                    | 10.0                     | 10.0                      |
| Max. voltage                           | [V] 24                  | 24                       | 24                        |
| Max. current per wire                  | [A] 1                   | 1                        | 1                         |
| Max. total current                     | [A] 1                   | 1                        | 1                         |
| Number of E-fittings on the output end | 6                       | 6                        | 6                         |

### Options with fluid and electric feed-through and mounting kit

| Description (soft damping) | SRU-plus 25-W-90-3-4-M8-AS | SRU-plus 25-W-180-3-4-M8-AS | SRU-plus 25-W-180-90-4-M8-AS |
|----------------------------|----------------------------|-----------------------------|------------------------------|
| ID                         | 0361607                    | 0361627                     | 0361657                      |
| Description (hard damping) | SRU-plus 25-H-90-3-4-M8-AS | SRU-plus 25-H-180-3-4-M8-AS | SRU-plus 25-H-180-90-4-M8-AS |
| ID                         | 0361707                    | 0361727                     | 0361757                      |

### Max. mass moment of inertia J



① The diagrams are valid for rotary angles of 90° and 180°, units without middle position and for applications with vertical rotary axis. Also for absolutely centric loads with horizontal rotary axis and with a pneumatic working pressure of 6 bars. The swiveling times need to be adjusted by using throttle valves, otherwise the life time could be reduced. Please contact us for calculations of other applications and further information.

### Technical data of SRU-plus with middle position

| Description (soft damping)            | SRU-plus 25-W-180-3-M      | SRU-plus 25-W-180-3-VM      | SRU-plus 25-W-180-90-M     |
|---------------------------------------|----------------------------|-----------------------------|----------------------------|
| ID                                    | 0361630                    | 0361640                     | 0361660                    |
| Angle of rotation                     | [°] 180.0                  | 180.0                       | 180.0                      |
| End position adjustability            | [°] 3.0                    | 3.0                         | 90.0                       |
| Torque                                | [Nm] 5.0                   | 5.0                         | 5.0                        |
| Middle position                       | M (pneum. middle position) | VM (locked middle position) | M (pneum. middle position) |
| Adjustability of middle position      | [°] 3.0                    | 3.0                         | 3.0                        |
| IP class                              | 67                         | 67                          | 67                         |
| Weight                                | [kg] 2.20                  | 2.60                        | 2.25                       |
| Fluid consumption (2 x nominal angle) | [cm³] 88.0                 | 88.0                        | 88.0                       |
| Nominal operating pressure            | [bar] 6.0                  | 6.0                         | 6.0                        |
| Min./max. operating pressure          | [bar] 3/8                  | 4/6.5                       | 3/8                        |
| Diameter of connecting hose           | [mm] 6.0                   | 6.0                         | 6.0                        |
| Min./max. ambient temperature         | [°C] 5/60                  | 5/60                        | 5/60                       |
| Repeat accuracy                       | [°] 0.05                   | 0.05                        | 0.05                       |
| ISO-classification 14644-1            | 5                          | 5                           | 5                          |

### Options with fluid feed-through

| Description (soft damping)          | SRU-plus 25-W-180-3-M-4 | SRU-plus 25-W-180-3-VM-4 | SRU-plus 25-W-180-90-M-4 |
|-------------------------------------|-------------------------|--------------------------|--------------------------|
| ID                                  | 0361632                 | 0361642                  | 0361662                  |
| Torque                              | [Nm] 4.6                | 4.6                      | 4.6                      |
| Weight                              | [kg] 2.40               | 2.80                     | 2.45                     |
| No. of fluid feed-throughs          | 4                       | 4                        | 4                        |
| Max. pressure in fluid feed-through | [bar] 8                 | 8                        | 8                        |

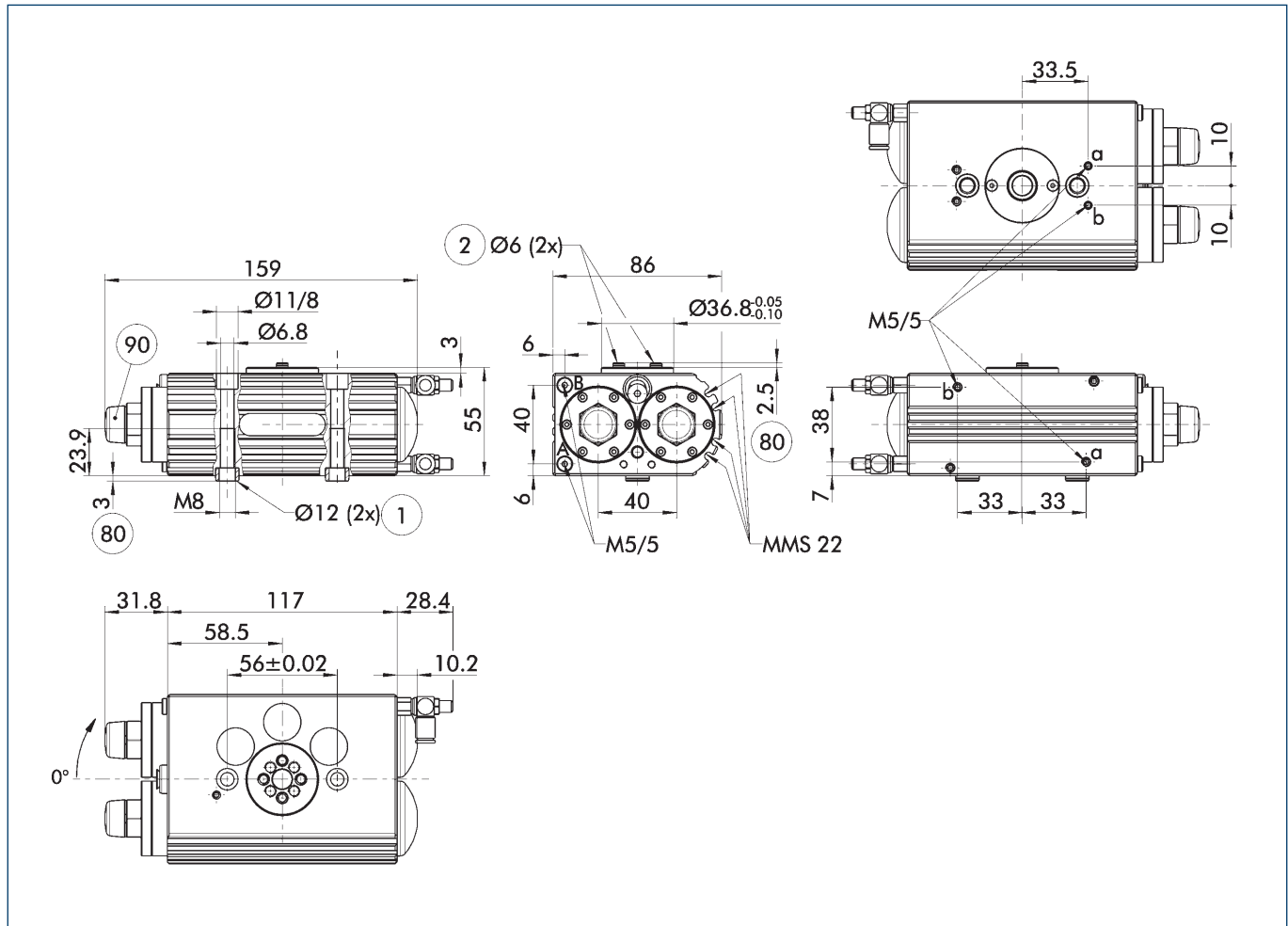
### Options with fluid and electric feed-through

| Description (soft damping)             | SRU-plus 25-W-180-3-M-4-M8 | SRU-plus 25-W-180-3-VM-4-M8 | SRU-plus 25-W-180-90-M-4-M8 |
|--|----------------------------|-----------------------------|-----------------------------|
| ID                                     | 0361634                    | 0361644                     | 0361664                     |
| Torque                                 | [Nm] 4.6                   | 4.6                         | 4.6                         |
| Weight                                 | [kg] 3.05                  | 3.45                        | 3.10                        |
| No. of fluid feed-throughs             | 4                          | 4                           | 4                           |
| Max. pressure in fluid feed-through    | [bar] 8                    | 8                           | 8                           |
| Number of cores                        | 10.0                       | 10.0                        | 10.0                        |
| Max. voltage                           | [V] 24                     | 24                          | 24                          |
| Max. current per wire                  | [A] 1                      | 1                           | 1                           |
| Max. total current                     | [A] 1                      | 1                           | 1                           |
| Number of E-fittings on the output end | 6                          | 6                           | 6                           |

### Options with fluid and electric feed-through and mounting kit

| Description (soft damping) | SRU-plus 25-W-180-3-M-4-M8-AS | SRU-plus 25-W-180-3-VM-4-M8-AS | SRU-plus 25-W-180-90-M-4-M8-AS |
|----------------------------|-------------------------------|--------------------------------|--------------------------------|
| ID                         | 0361637                       | 0361647                        | 0361667                        |

## Main views for SRU-plus without EDF

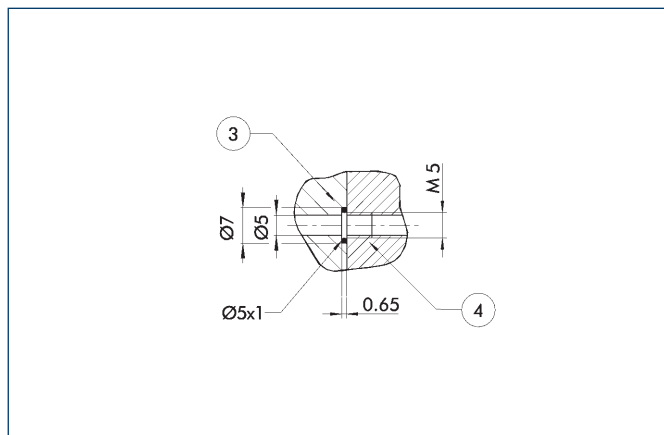


The main view shows the SRU-plus in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

- A, a Main/direct connection, clockwise rotary actuator
- B, b Main/direct connection, anti-clockwise rotary actuator
- 1 Rotary actuator connection
- 2 Attachment connection
- 80 Depth of the centering sleeve hole in the matching part
- 90 Setting shock absorber stroke

① The SDV-P pressure maintenance valve can be used to hold the position upon a loss of pressure (see „Accessories“ catalog section).

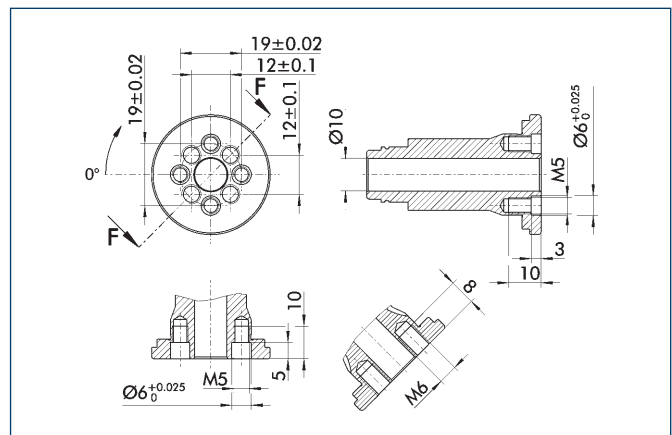
## Hose-free direct connection



- 3 Adapter
- 4 Rotary actuator

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

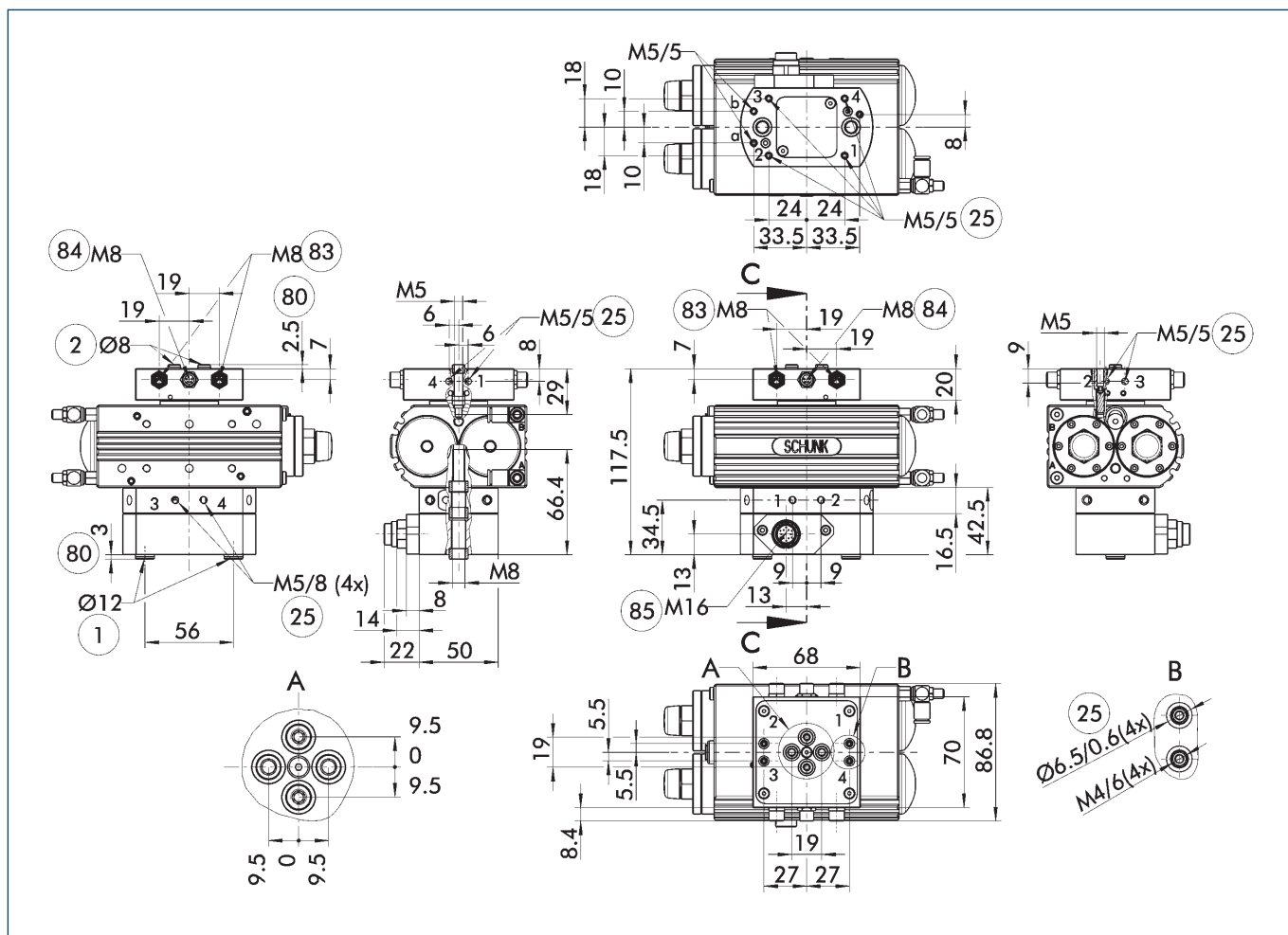
## Pinion without fluid feed-through



Pinion screw connection diagram for mounting the swiveling attachment. The „4x large thread for 4x screw and 2x flat fit for guide sleeve“ screw connection diagram is preferable to the „4x small thread for 2x screw and 2x dowel screw“ (in deep fit) screw connection diagram.



### Main views for SRU with EDF



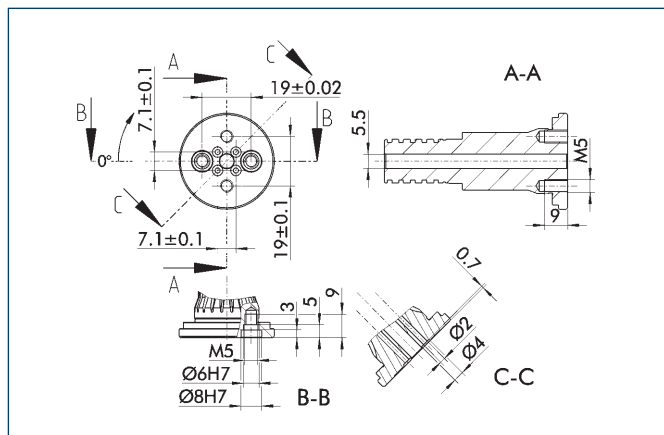
The main view shows the SRU in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

① The SDV-P pressure maintenance valve can be used to hold the position upon a loss of pressure (see „Accessories“ catalog section).

- A, a Main/direct connection, clockwise rotary actuator
- B, b Main/direct connection, anti-clockwise rotary actuator
- ① Rotary actuator connection
- ② Attachment connection
- ②⑤ Fluid feed-through

- ⑧⑩ Depth of the centering sleeve hole in the matching part
- ⑧③ Flange socket for 3-pin sensor feed-through
- ⑧④ Flange socket for 4-pin sensor feed-through
- ⑧⑤ Output for sensor feed-through

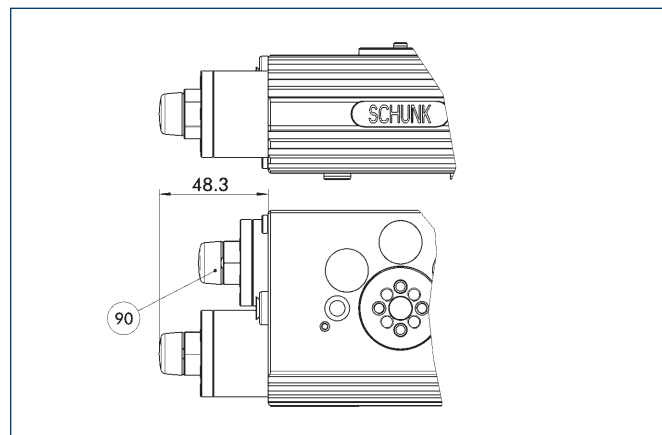
### Pinion with fluid feed-through



Pinion screw connection diagram for the „Fluid feed-through“ option. The preferred drilling pattern is 2 x screws and 2 x screws with guide sleeve (in  $\varnothing 8$  H7).

① View applicable only for versions without EDF!

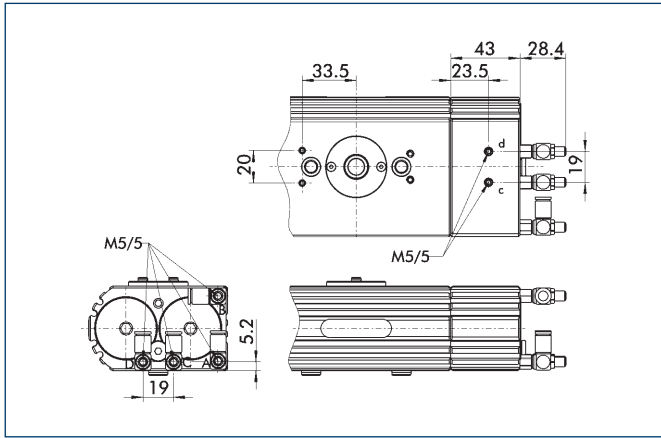
### Large end position adjustability 90°



⑨⑩ Setting shock absorber stroke

Different dimensions with the option „Large end position adjustability (90°)“. This permits the end positions to be adjusted by up to 93°. More information can be found in the introduction to the series.

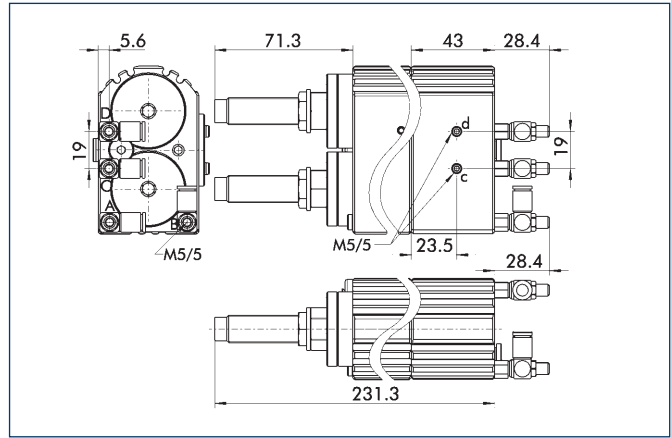
### Pneumatic middle position (M)



C, c Main/direct connection, middle position  
D, d Main/direct connection, middle position

Different dimensions with the „Pneumatic middle position (M)“ option. Heavy attachments may have to level out until they reach the correct position. The locked middle position (VM) offers relief.

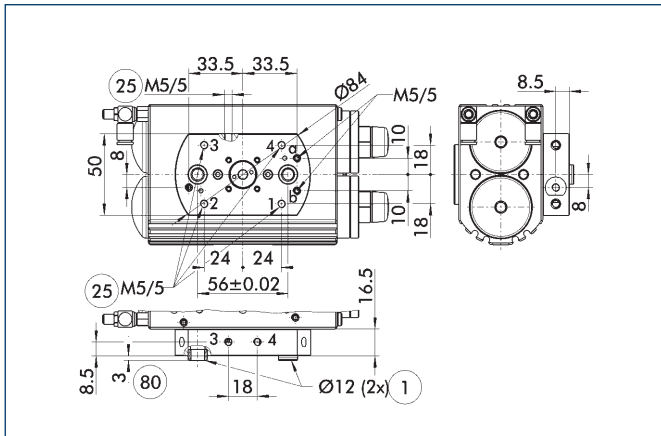
### Locked middle position (VM)



C, c Main/direct connection, middle position  
D, d Main/direct connection, middle position

Different dimensions with the „Locked middle position (VM)“ option. The middle position is locked. The unit travels to middle position using the force of the main drive piston. Shock absorbers brake the travel to middle position as fast as possible to prevent overshooting.

### Connections for fluid feed-through

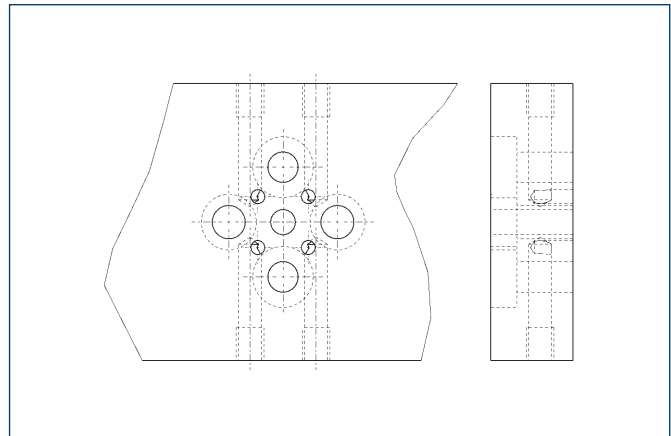


① Rotary actuator connection  
② Fluid feed-through  
⑧ Depth of the centering sleeve hole in the matching part

Lower mounting plate for the „Fluid feed-through“ option. Vacuum, gases or fluids can be conveyed. The connection may be a screw type or a direct connection.

① View applicable only for versions without EDF!

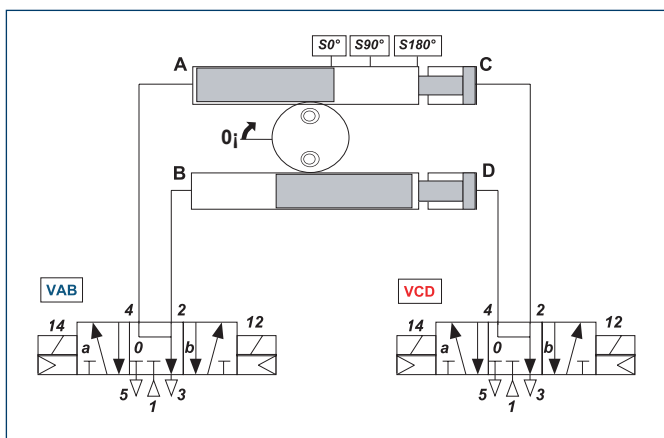
### Adapter plate arrangement



Suggested here is an arrangement of the adapter plate which enables all fluid feed-throughs to be reached as easily as possible.

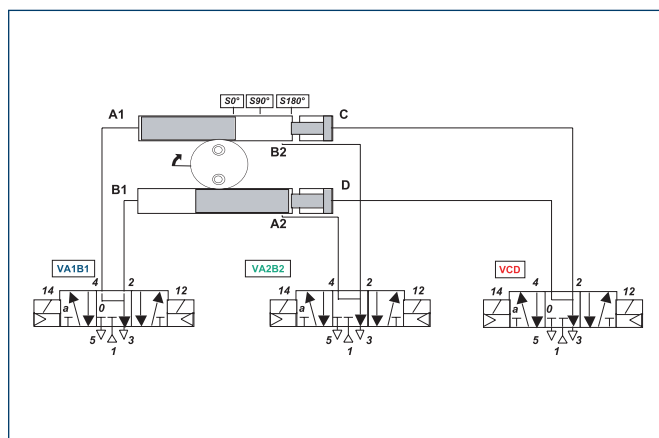
① View applicable only for versions without EDF!

### Pneumatic diagram of SRU-plus-VM – vertical axis



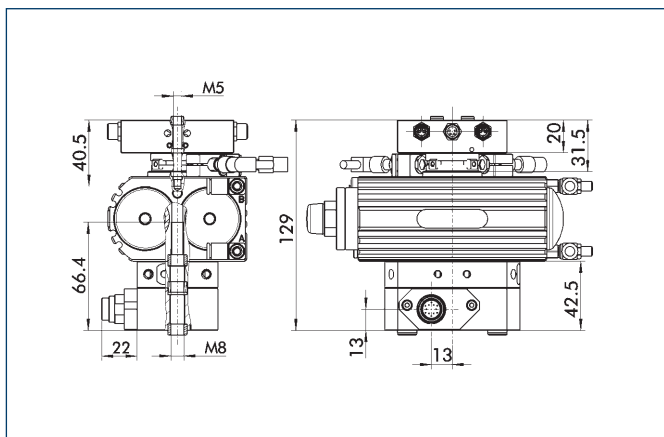
VM units with vertical swivel axis are generally actuated by two 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

### Pneumatic diagram of SRU-plus-VM – horizontal axis



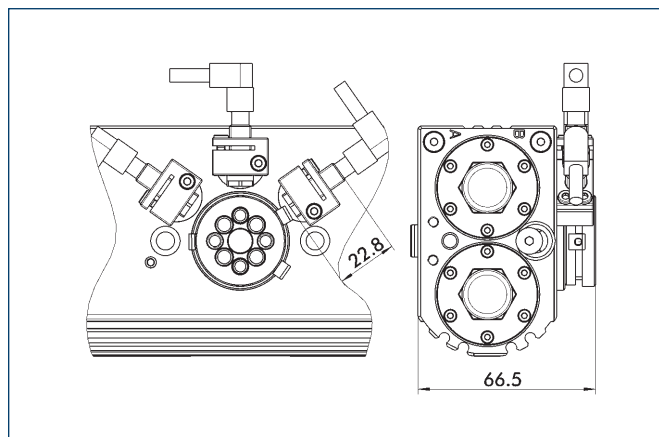
VM units with horizontal or non-vertical swivel axis must generally be actuated by three 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

### Mounting kit for proximity switch at SRU-plus with EDF



The mounting kit cannot be ordered separately. The SRU-plus rotary actuator with electric feed-through and mounting kit will be assembled and delivered as a complete unit by SCHUNK. Please pay attention to our options SRU-plus ...-AS.

### Mounting kit for proximity switch at SRU-plus without EDF

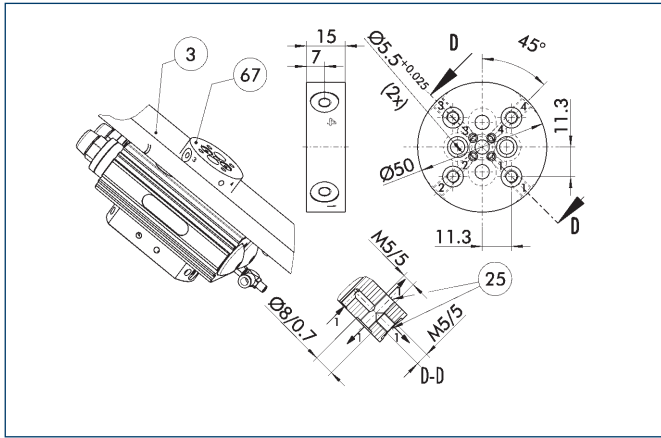


The size-specific mounting kit is required for installing the inductive proximity switches. Up to three proximity switches (2x end position, 1x middle position) can be attached using the mounting kit.

| Description                       | ID      |
|-----------------------------------|---------|
| Mounting kit for proximity switch |         |
| AS-SRU-plus 20/25/30-4            | 0357391 |
| AS-SRU-plus 25/30                 | 0357590 |

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

### Distributor for SRU-plus



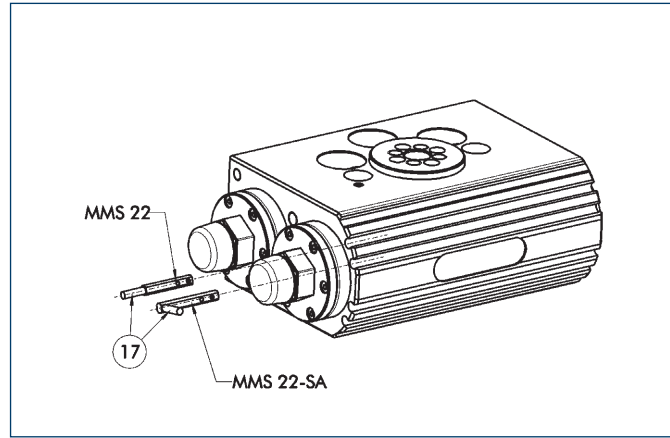
- ③ Adapter
- ②⑤ Fluid feed-through
- ⑥⑦ Distributor for fluid feed-through

The distributor for SRU-plus facilitates the use of the fluid feed-throughs, both at the direct attachment to the distributor and in the lines conveying the fluid inside the adapter plate. Thanks to the distributor, only a simple drilling pattern has to be drilled in the adapter plate situated between the pinion and the distributor.

| Description              | ID      |
|--------------------------|---------|
| Distributor for SRU-plus |         |
| V-SRU-plus 20/25/30      | 0357392 |

① View applicable only for versions without EDF!

### Electronic magnetic switches

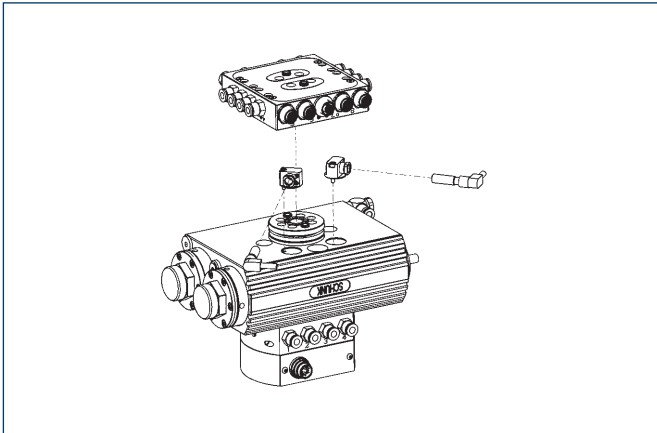


- ①⑦ Cable outlet
- End position monitoring for mounting in the C-slot

| Description                         | ID      | Our recommendation |
|-------------------------------------|---------|--------------------|
| <b>Electronic magnetic switches</b> |         |                    |
| MMS 22-S-M5-PNP                     | 0301438 |                    |
| MMS 22-S-M5-NPN                     | 0301439 |                    |
| MMS 22-S-M8-PNP                     | 0301432 | •                  |
| MMS 22-S-M8-NPN                     | 0301433 |                    |
| MMSK 22-S-PNP                       | 0301434 |                    |
| MMSK 22-S-NPN                       | 0301435 |                    |
| MMS 22-S-M5-PNP-SA                  | 0301448 |                    |
| MMS 22-S-M5-NPN-SA                  | 0301449 |                    |
| MMS 22-S-M8-PNP-SA                  | 0301442 |                    |
| MMS 22-S-M8-NPN-SA                  | 0301443 |                    |
| MMSK 22-S-PNP-SA                    | 0301444 |                    |
| MMSK 22-S-NPN-SA                    | 0301445 |                    |
| <b>Connection cables</b>            |         |                    |
| KA BG05-L 3P-0300                   | 0301652 |                    |
| KA BG08-L 3P-0300-PNP               | 0301622 |                    |
| KA BG08-L 3P-0500-PNP               | 0301623 |                    |
| KA BW05-L 3P-0300                   | 0301650 |                    |
| KA BW08-L 3P-0300-NPN               | 0301602 |                    |
| KA BW08-L 3P-0300-PNP               | 0301594 |                    |
| KA BW08-L 3P-0500-NPN               | 9641116 |                    |
| KA BW08-L 3P-0500-PNP               | 0301502 |                    |
| <b>Cable extensions</b>             |         |                    |
| KV BW08-SG08 3P-0030-PNP            | 0301495 |                    |
| KV BW08-SG08 3P-0100-PNP            | 0301496 |                    |
| KV BW08-SG08 3P-0200-PNP            | 0301497 |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

### Inductive proximity switches IN for SRU-plus with electric feed-through

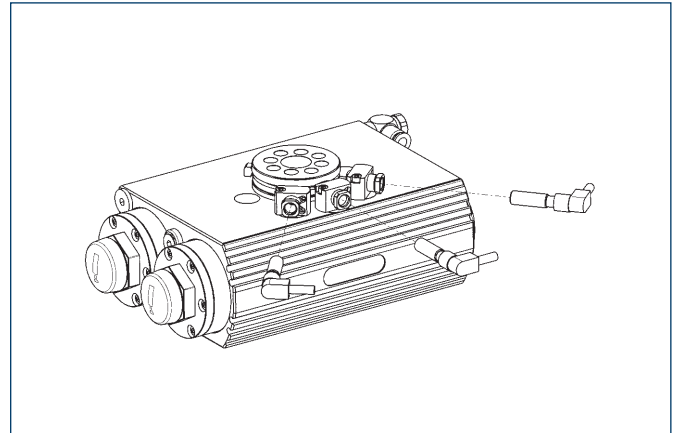


End position monitoring for direct mounting

| Description                         | ID       | Our recommendation |
|-------------------------------------|----------|--------------------|
| <b>Inductive proximity switches</b> |          |                    |
| IN 80-S-M8                          | 0301478  | •                  |
| IN 80-S-M12                         | 0301578  |                    |
| INK 80-S                            | 0301550  |                    |
| IN-C 80-S-M8                        | 0301475  |                    |
| INK 80-SL                           | 0301579  |                    |
| <b>Connection cables</b>            |          |                    |
| 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  |                    |
| <b>Cable extensions</b>             |          |                    |
| KV BG12-SG12 3P-0030-PNP            | 0301999  |                    |
| KV BG12-SG12 3P-0060-PNP            | 0301998  |                    |
| KV BW08-SG08 3P-0030-PNP            | 0301495  |                    |
| KV BW08-SG08 3P-0100-PNP            | 0301496  |                    |
| KV BW08-SG08 3P-0200-PNP            | 0301497  |                    |
| KV BW12-SG12 3P-0030-PNP            | 0301595  |                    |
| KV BW12-SG12 3P-0100-PNP            | 0301596  |                    |
| KV BW12-SG12 3P-0200-PNP            | 0301597  |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

### Inductive proximity switches IN for SRU-plus without electric feed-through



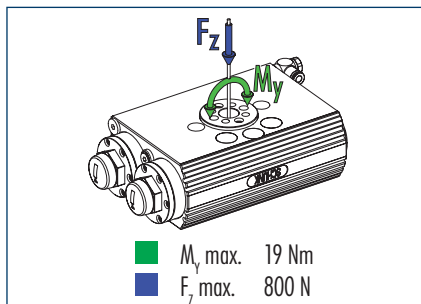
End position monitoring mounted with mounting kit

| Description                              | ID       | Our recommendation |
|--|----------|--------------------|
| <b>Mounting kit for proximity switch</b> |          |                    |
| AS-SRU-plus 20/25/30-4                   | 0357391  |                    |
| AS-SRU-plus 25/30                        | 0357590  |                    |
| <b>Connection cables</b>                 |          |                    |
| 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  |                    |
| <b>Inductive proximity switches</b>      |          |                    |
| IN 80-S-M8                               | 0301478  | •                  |
| IN 80-S-M12                              | 0301578  |                    |
| INK 80-S                                 | 0301550  |                    |
| IN-C 80-S-M8                             | 0301475  |                    |
| INK 80-SL                                | 0301579  |                    |
| <b>Cable extensions</b>                  |          |                    |
| KV BG12-SG12 3P-0030-PNP                 | 0301999  |                    |
| KV BG12-SG12 3P-0060-PNP                 | 0301998  |                    |
| KV BW08-SG08 3P-0030-PNP                 | 0301495  |                    |
| KV BW08-SG08 3P-0100-PNP                 | 0301496  |                    |
| KV BW08-SG08 3P-0200-PNP                 | 0301497  |                    |
| KV BW12-SG12 3P-0030-PNP                 | 0301595  |                    |
| KV BW12-SG12 3P-0100-PNP                 | 0301596  |                    |
| KV BW12-SG12 3P-0200-PNP                 | 0301597  |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① This mounting kit needs to be ordered optionally as an accessory.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.
- ① View applicable only for versions without EDF!



### Pinion load



ⓘ Moments and forces may occur simultaneously. When using heavy attachments or ones with high mass moments of inertia the speed must be restricted to ensure that the rotary movement occurs without any hitting or bouncing.

### Technical data of SRU-plus without middle position

| Description (soft damping)            | SRU-plus 30-W-90-3      | SRU-plus 30-W-180-3 | SRU-plus 30-W-180-90 |
|---------------------------------------|-------------------------|---------------------|----------------------|
| ID                                    | 0361800                 | 0361820             | 0361850              |
| Description (hard damping)            | SRU-plus 30-H-90-3      | SRU-plus 30-H-180-3 | SRU-plus 30-H-180-90 |
| ID                                    | 0361900                 | 0361920             | 0361950              |
| Angle of rotation                     | [°] 90.0                | 180.0               | 180.0                |
| End position adjustability            | [°] 3.0                 | 3.0                 | 90.0                 |
| Torque                                | [Nm] 9.5                | 9.5                 | 9.5                  |
| IP class                              | 67                      | 67                  | 67                   |
| Weight                                | [kg] 2.40               | 2.40                | 2.40                 |
| Fluid consumption (2 x nominal angle) | [cm <sup>3</sup> ] 90.0 | 145.0               | 145.0                |
| Nominal operating pressure            | [bar] 6.0               | 6.0                 | 6.0                  |
| Min./max. operating pressure          | [bar] 3/8               | 3/8                 | 3/8                  |
| Diameter of connecting hose           | [mm] 6.0                | 6.0                 | 6.0                  |
| Min./max. ambient temperature         | [°C] 5/60               | 5/60                | 5/60                 |
| Repeat accuracy                       | [°] 0.05                | 0.05                | 0.05                 |
| ISO-classification 14644-1            | 5                       | 5                   | 5                    |

#### Options with fluid feed-through

| Description (soft damping)          | SRU-plus 30-W-90-3-4 | SRU-plus 30-W-180-3-4 | SRU-plus 30-W-180-90-4 |
|-------------------------------------|----------------------|-----------------------|------------------------|
| ID                                  | 0361802              | 0361822               | 0361852                |
| Description (hard damping)          | SRU-plus 30-H-90-3-4 | SRU-plus 30-H-180-3-4 | SRU-plus 30-H-180-90-4 |
| ID                                  | 0361902              | 0361922               | 0361952                |
| Torque                              | [Nm] 9.0             | 9.0                   | 9.0                    |
| Weight                              | [kg] 2.70            | 2.70                  | 2.70                   |
| No. of fluid feed-throughs          | 4                    | 4                     | 4                      |
| Max. pressure in fluid feed-through | [bar] 8              | 8                     | 8                      |

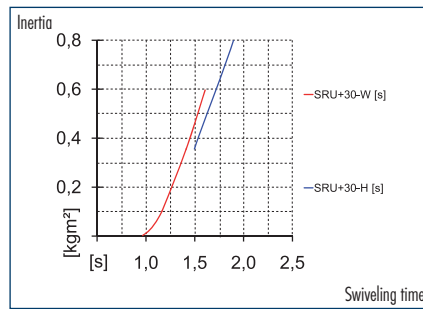
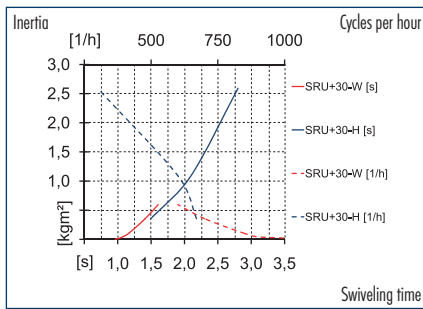
#### Options with fluid and electric feed-through

| Description (soft damping)             | SRU-plus 30-W-90-3-4-M8 | SRU-plus 30-W-180-3-4-M8 | SRU-plus 30-W-180-90-4-M8 |
|--|-------------------------|--------------------------|---------------------------|
| ID                                     | 0361804                 | 0361824                  | 0361854                   |
| Description (hard damping)             | SRU-plus 30-H-90-3-4-M8 | SRU-plus 30-H-180-3-4-M8 | SRU-plus 30-H-180-90-4-M8 |
| ID                                     | 0361904                 | 0361924                  | 0361954                   |
| Torque                                 | [Nm] 9.0                | 9.0                      | 9.0                       |
| Weight                                 | [kg] 3.40               | 3.40                     | 3.40                      |
| No. of fluid feed-throughs             | 4                       | 4                        | 4                         |
| Max. pressure in fluid feed-through    | [bar] 8                 | 8                        | 8                         |
| Number of cores                        | 10.0                    | 10.0                     | 10.0                      |
| Max. voltage                           | [V] 24                  | 24                       | 24                        |
| Max. current per wire                  | [A] 1                   | 1                        | 1                         |
| Max. total current                     | [A] 1                   | 1                        | 1                         |
| Number of E-fittings on the output end | 6                       | 6                        | 6                         |

#### Options with fluid and electric feed-through and mounting kit

| Description (soft damping) | SRU-plus 30-W-90-3-4-M8-AS | SRU-plus 30-W-180-3-4-M8-AS | SRU-plus 30-W-180-90-4-M8-AS |
|----------------------------|----------------------------|-----------------------------|------------------------------|
| ID                         | 0361807                    | 0361827                     | 0361857                      |
| Description (hard damping) | SRU-plus 30-H-90-3-4-M8-AS | SRU-plus 30-H-180-3-4-M8-AS | SRU-plus 30-H-180-90-4-M8-AS |
| ID                         | 0361907                    | 0361927                     | 0361957                      |

### Max. mass moment of inertia J



① The diagrams are valid for rotary angles of 90° and 180°, units without middle position and for applications with vertical rotary axis. Also for absolutely centric loads with horizontal rotary axis and with a pneumatic working pressure of 6 bars. The swiveling times need to be adjusted by using throttle valves, otherwise the life time could be reduced. Please contact us for calculations of other applications and further information.

### Technical data of SRU-plus with middle position

| Description (soft damping)            | SRU-plus 30-W-180-3-M      | SRU-plus 30-W-180-3-VM      | SRU-plus 30-W-180-90-M     |
|---------------------------------------|----------------------------|-----------------------------|----------------------------|
| ID                                    | 0361830                    | 0361840                     | 0361860                    |
| Angle of rotation                     | [°] 180.0                  | 180.0                       | 180.0                      |
| End position adjustability            | [°] 3.0                    | 3.0                         | 90.0                       |
| Torque                                | [Nm] 9.5                   | 9.5                         | 9.5                        |
| Middle position                       | M (pneum. middle position) | VM (locked middle position) | M (pneum. middle position) |
| Adjustability of middle position      | [°] 3.0                    | 3.0                         | 3.0                        |
| IP class                              | 67                         | 67                          | 67                         |
| Weight                                | [kg] 3.20                  | 3.40                        | 3.30                       |
| Fluid consumption (2 x nominal angle) | [cm³] 145.0                | 145.0                       | 145.0                      |
| Nominal operating pressure            | [bar] 6.0                  | 6.0                         | 6.0                        |
| Min./max. operating pressure          | [bar] 3/8                  | 4/6.5                       | 3/8                        |
| Diameter of connecting hose           | [mm] 6.0                   | 6.0                         | 6.0                        |
| Min./max. ambient temperature         | [°C] 5/60                  | 5/60                        | 5/60                       |
| Repeat accuracy                       | [°] 0.05                   | 0.05                        | 0.05                       |
| ISO-classification 14644-1            | 5                          | 5                           | 5                          |

#### Options with fluid feed-through

| Description (soft damping)          | SRU-plus 30-W-180-3-M-4 | SRU-plus 30-W-180-3-VM-4 | SRU-plus 30-W-180-90-M-4 |
|-------------------------------------|-------------------------|--------------------------|--------------------------|
| ID                                  | 0361832                 | 0361842                  | 0361862                  |
| Torque                              | [Nm] 9.0                | 9.0                      | 9.0                      |
| Weight                              | [kg] 3.50               | 3.70                     | 3.60                     |
| No. of fluid feed-throughs          | 4                       | 4                        | 4                        |
| Max. pressure in fluid feed-through | [bar] 8                 | 8                        | 8                        |

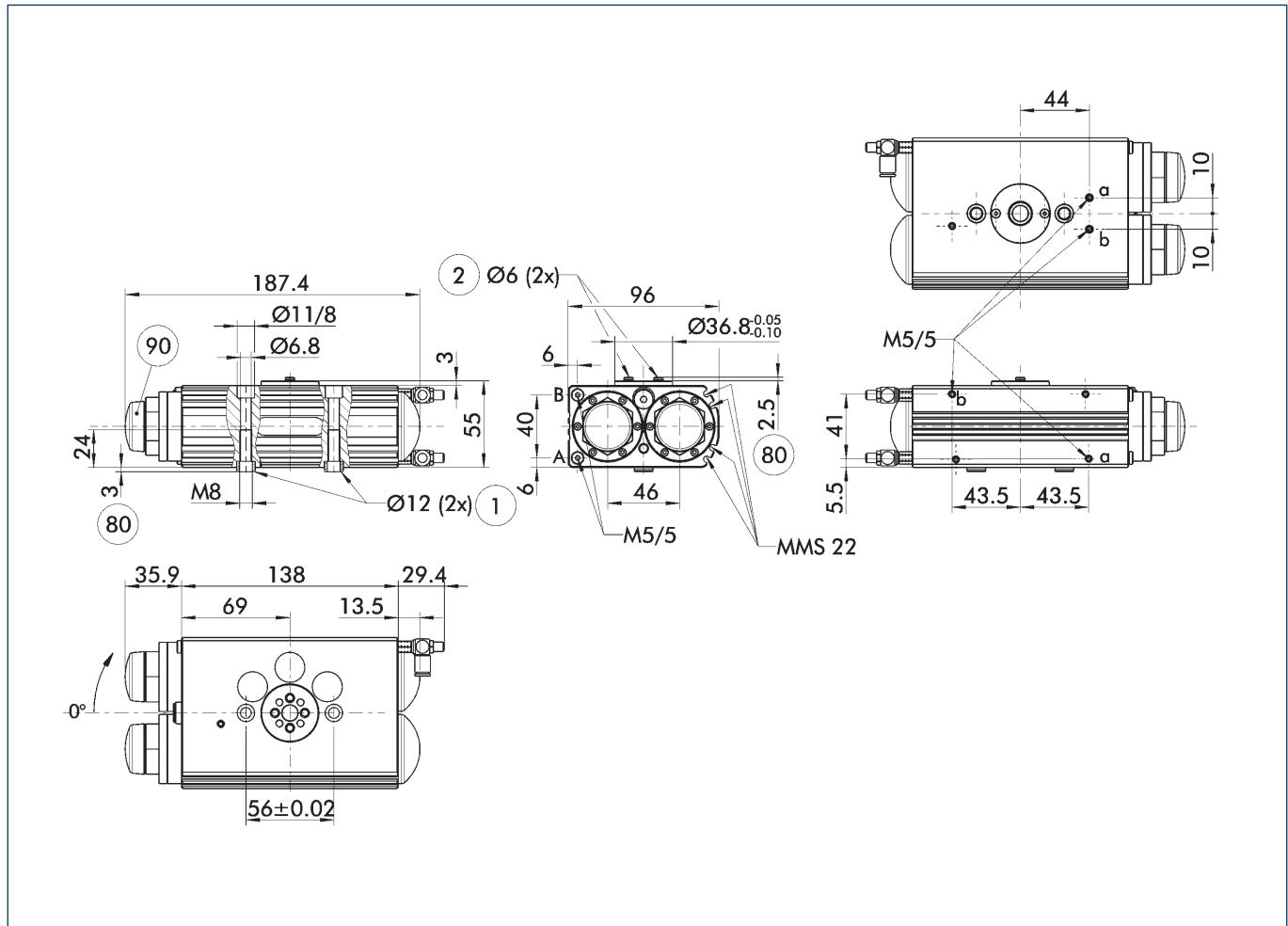
#### Options with fluid and electric feed-through

| Description (soft damping)             | SRU-plus 30-W-180-3-M-4-M8 | SRU-plus 30-W-180-3-VM-4-M8 | SRU-plus 30-W-180-90-M-4-M8 |
|--|----------------------------|-----------------------------|-----------------------------|
| ID                                     | 0361834                    | 0361844                     | 0361864                     |
| Torque                                 | [Nm] 9.0                   | 9.0                         | 9.0                         |
| Weight                                 | [kg] 4.20                  | 4.40                        | 4.30                        |
| No. of fluid feed-throughs             | 4                          | 4                           | 4                           |
| Max. pressure in fluid feed-through    | [bar] 8                    | 8                           | 8                           |
| Number of cores                        | 10.0                       | 10.0                        | 10.0                        |
| Max. voltage                           | [V] 24                     | 24                          | 24                          |
| Max. current per wire                  | [A] 1                      | 1                           | 1                           |
| Max. total current                     | [A] 1                      | 1                           | 1                           |
| Number of E-fittings on the output end | 6                          | 6                           | 6                           |

#### Options with fluid and electric feed-through and mounting kit

| Description (soft damping) | SRU-plus 30-W-180-3-M-4-M8-AS | SRU-plus 30-W-180-3-VM-4-M8-AS | SRU-plus 30-W-180-90-M-4-M8-AS |
|----------------------------|-------------------------------|--------------------------------|--------------------------------|
| ID                         | 0361837                       | 0361847                        | 0361867                        |

## Main views for SRU-plus without EDF

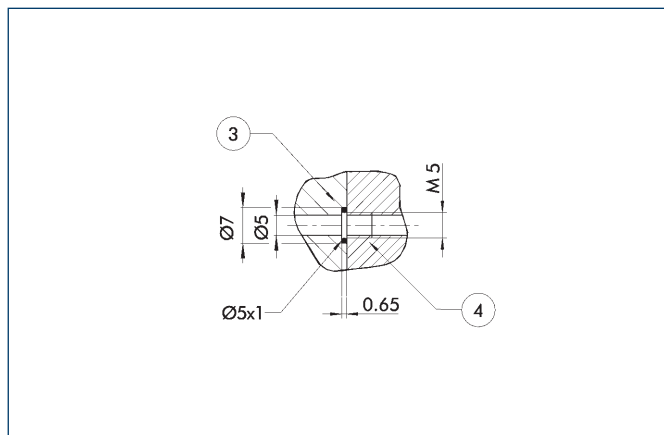


The main view shows the SRU-plus in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

- A, a Main/direct connection, clockwise rotary actuator
- B, b Main/direct connection, anti-clockwise rotary actuator
- ① Rotary actuator connection
- ② Attachment connection
- ⊘ Depth of the centering sleeve hole in the matching part
- ⊘ Setting shock absorber stroke

① The SDV-P pressure maintenance valve can be used to hold the position upon a loss of pressure (see „Accessories“ catalog section).

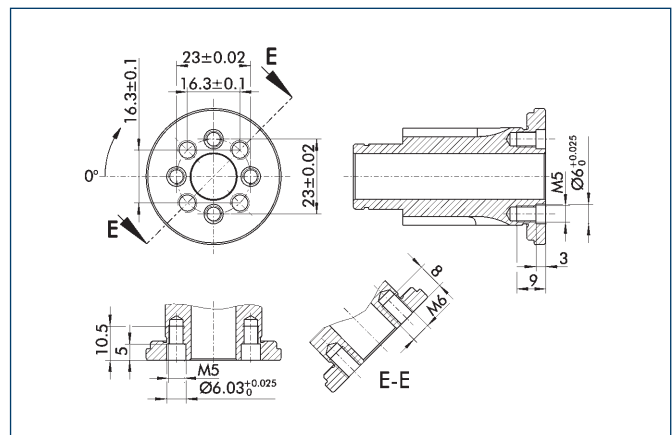
## Hose-free direct connection



- ③ Adapter
- ④ Rotary actuator

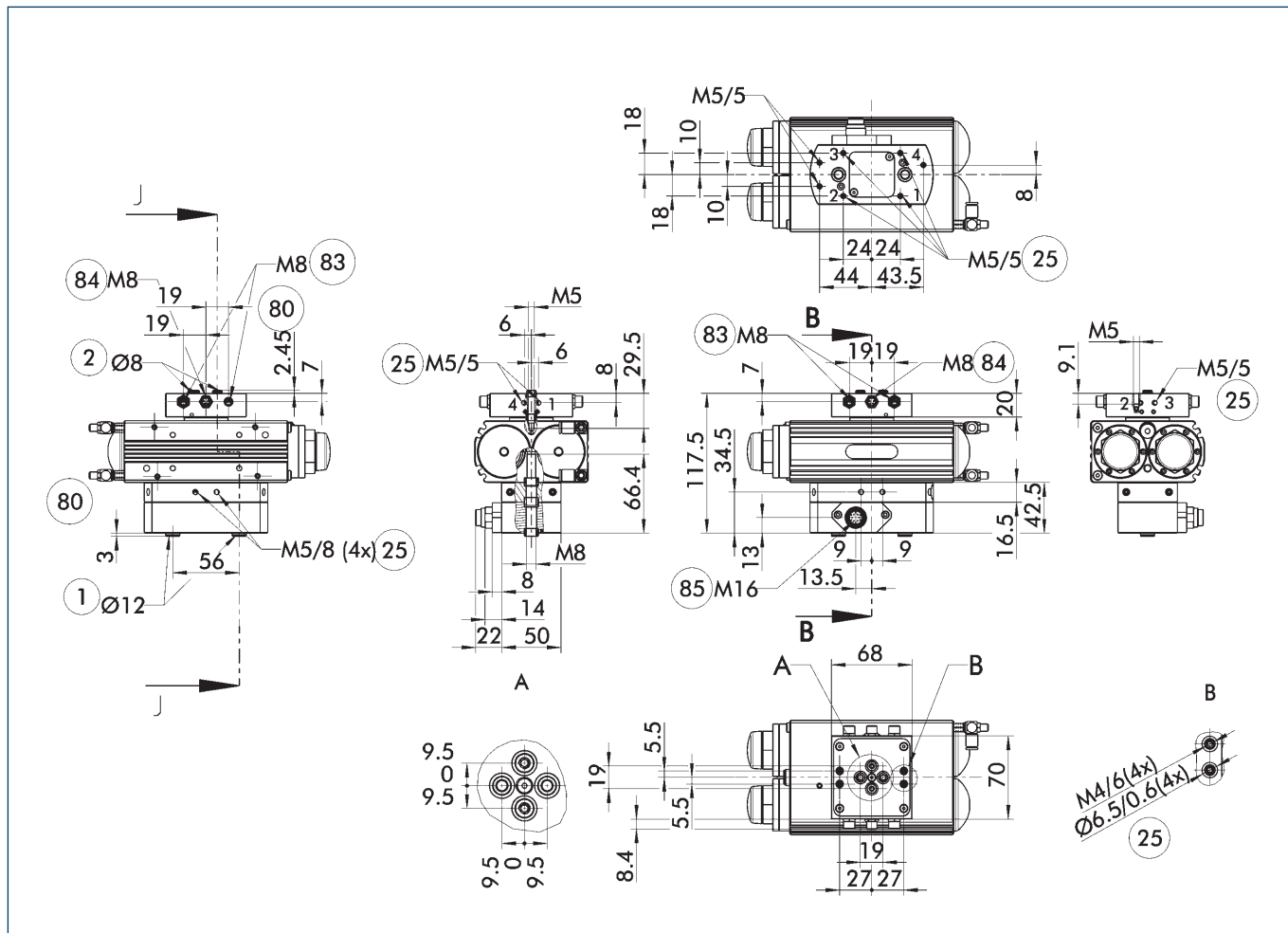
The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

## Pinion without fluid feed-through



Pinion screw connection diagram for mounting the swiveling attachment. The „4x large thread for 4x screw and 2x flat fit for guide sleeve“ screw connection diagram is preferable to the „4x small thread for 2x screw and 2x dowel screw“ (in deep fit) screw connection diagram.

### Main views for SRU with EDF



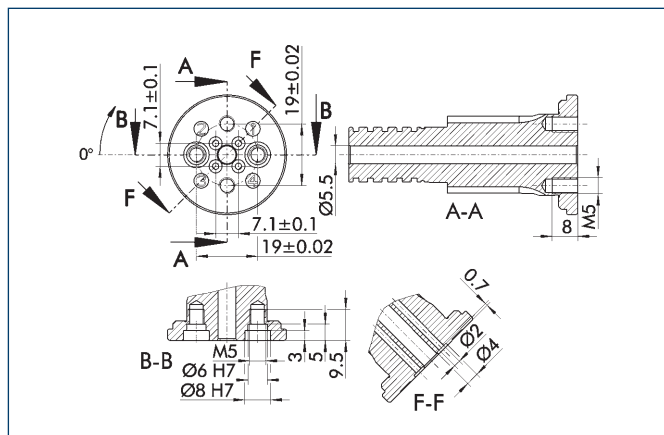
The main view shows the SRU in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

① The SDV-P pressure maintenance valve can be used to hold the position upon a loss of pressure (see „Accessories“ catalog section).

- A, a Main/direct connection, clockwise rotary actuator
- B, b Main/direct connection, anti-clockwise rotary actuator
- ① Rotary actuator connection
- ② Finger connection
- ②⑤ Fluid feed-through

- ⑧⑩ Depth of the centering sleeve hole in the matching part
- ⑧③ Flange socket for 3-pin sensor feed-through
- ⑧④ Flange socket for 4-pin sensor feed-through
- ⑧⑤ Output for sensor feed-through

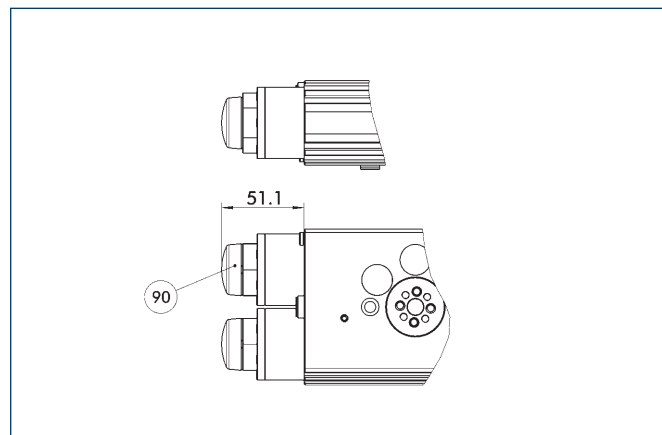
### Pinion with fluid feed-through



Pinion screw connection diagram for the „Fluid feed-through“ option. The preferred drilling pattern is 2 x screws and 2 x screws with guide sleeve (in  $\varnothing$  8 H7).

① View applicable only for versions without EDF!

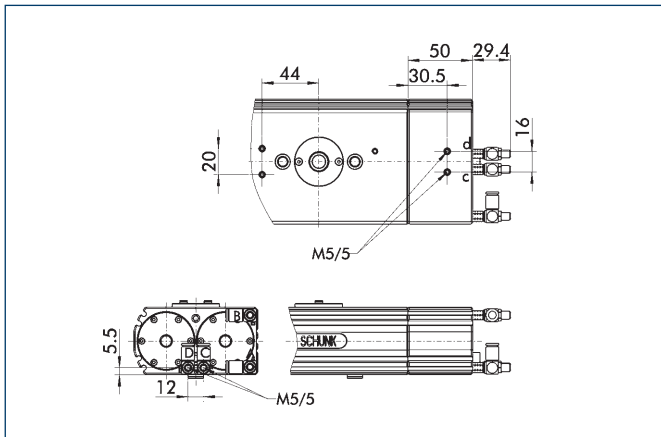
### Large end position adjustability 90°



⑨⑩ Setting shock absorber stroke

Different dimensions with the option „Large end position adjustability (90°)“. This permits the end positions to be adjusted by up to 93°. More information can be found in the introduction to the series.

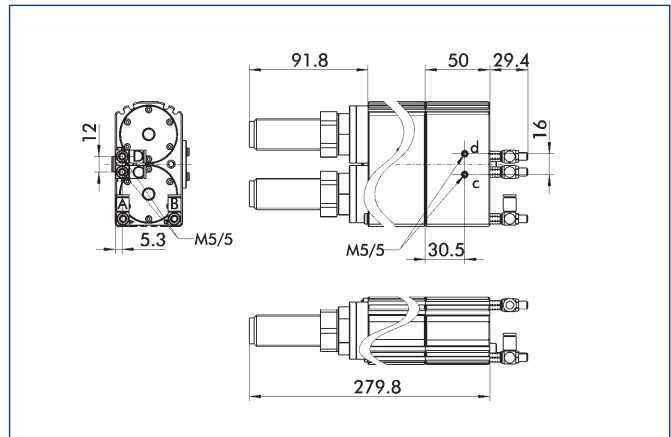
### Pneumatic middle position (M)



C, c Main/direct connection, middle position  
D, d Main/direct connection, middle position

Different dimensions with the „Pneumatic middle position (M)“ option. Heavy attachments may have to level out until they reach the correct position. The locked middle position (VM) offers relief.

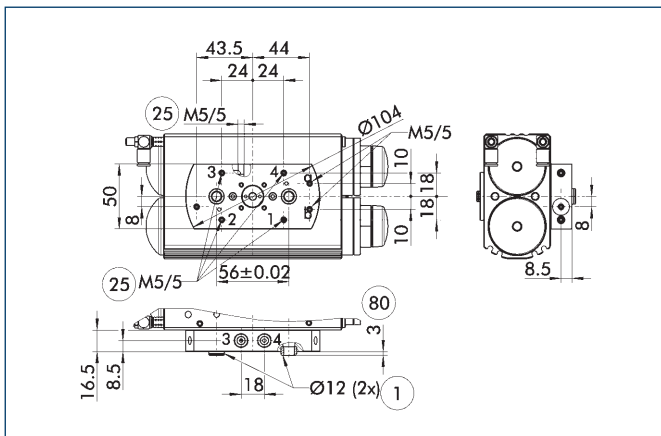
### Locked middle position (VM)



C, c Main/direct connection, middle position  
D, d Main/direct connection, middle position

Different dimensions with the „Locked middle position (VM)“ option. The middle position is locked. The unit travels to middle position using the force of the main drive piston. Shock absorbers brake the travel to middle position as fast as possible to prevent overshooting.

### Connections for fluid feed-through

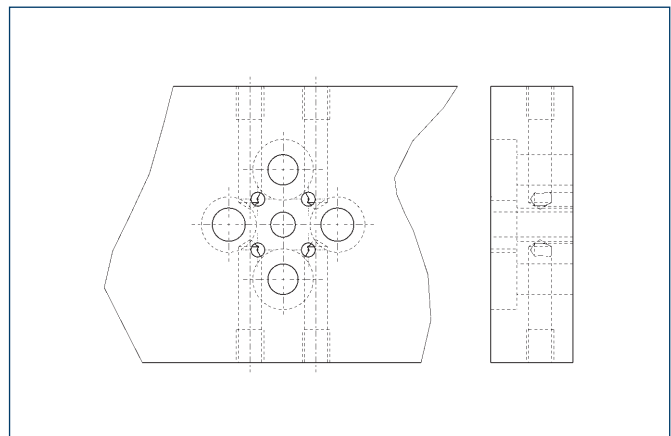


① Rotary actuator connection      ⑧⑩ Depth of the centering sleeve hole in the matching part  
②⑤ Fluid feed-through

Lower mounting plate for the „Fluid feed-through“ option. Vacuum, gases or fluids can be conveyed. The connection may be a screw type or a direct connection.

① View applicable only for versions without EDF!

### Adapter plate arrangement

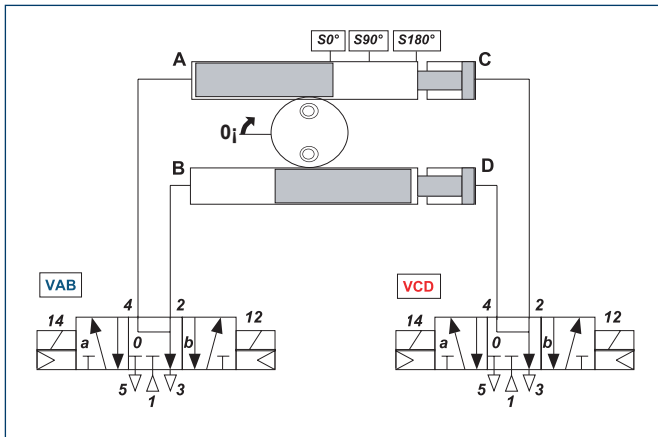


Suggested here is an arrangement of the adapter plate which enables all fluid feed-throughs to be reached as easily as possible.

① View applicable only for versions without EDF!

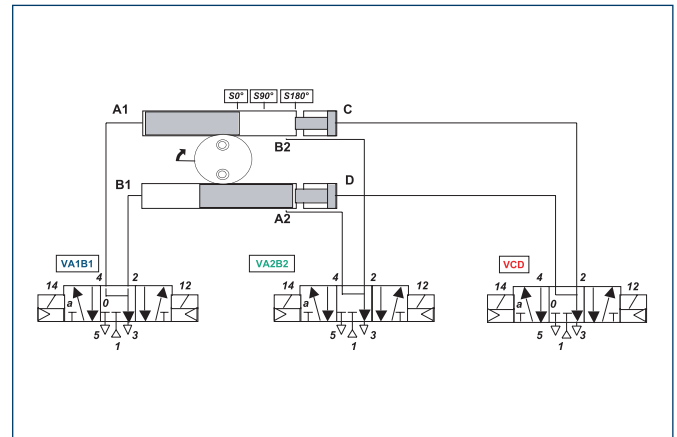


### Pneumatic diagram of SRU-plus-VM – vertical axis



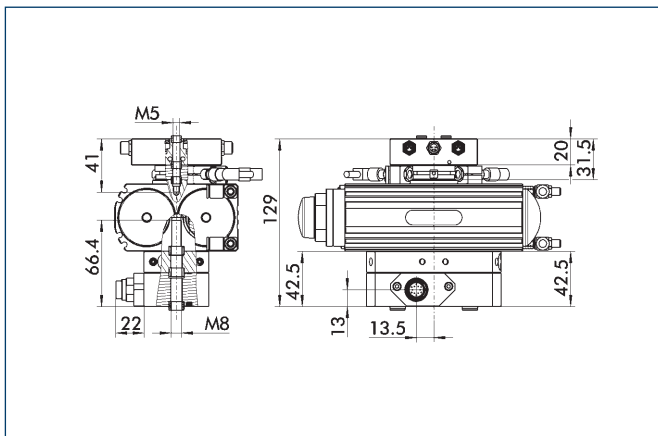
VM units with vertical swivel axis are generally actuated by two 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

### Pneumatic diagram of SRU-plus-VM – horizontal axis



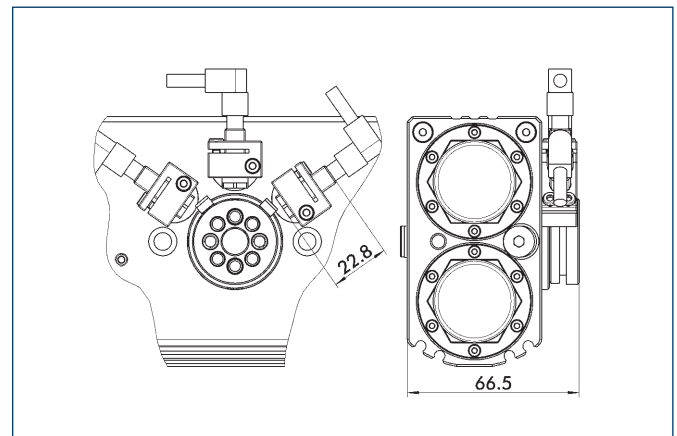
VM units with horizontal or non-vertical swivel axis must generally be actuated by three 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

### Mounting kit for proximity switch at SRU-plus with EDF



The mounting kit cannot be ordered separately. The SRU-plus rotary actuator with electric feed-through and mounting kit will be assembled and delivered as a complete unit by SCHUNK. Please pay attention to our options SRU-plus ...AS.

### Mounting kit for proximity switch at SRU-plus with EDF

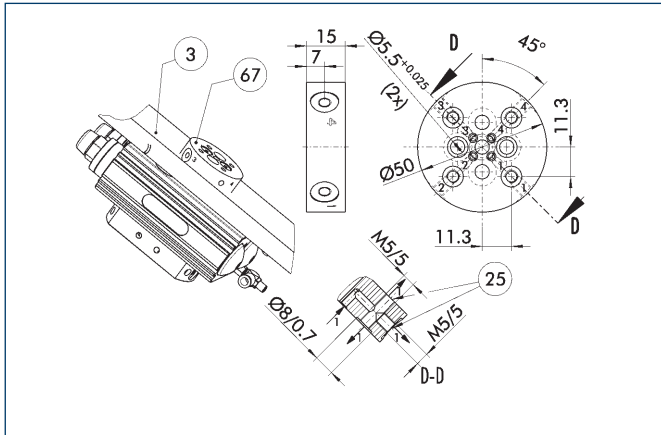


The mounting kit cannot be ordered separately. The SRU-plus rotary actuator with electric feed-through and mounting kit will be assembled and delivered as a complete unit by SCHUNK. Please pay attention to our options SRU-plus ...AS.

| Description                       | ID      |
|-----------------------------------|---------|
| Mounting kit for proximity switch |         |
| AS-SRU-plus 20/25/30-4            | 0357391 |
| AS-SRU-plus 25/30                 | 0357590 |

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

## Distributor for SRU-plus



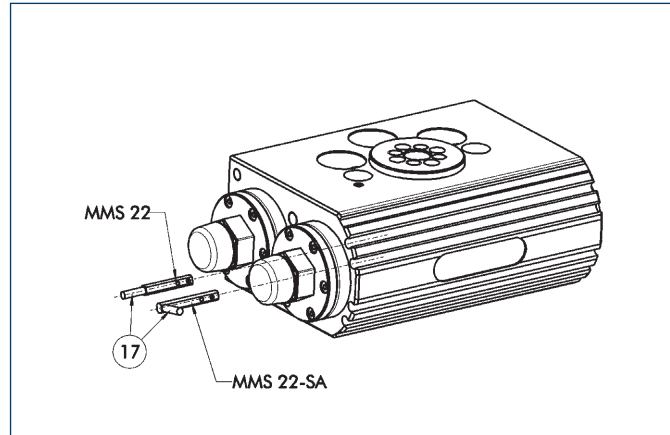
- ③ Adapter
- ②⑤ Fluid feed-through
- ⑥⑦ Distributor for fluid feed-through

The distributor for SRU-plus facilitates the use of the fluid feed-throughs, both at the direct attachment to the distributor and in the lines conveying the fluid inside the adapter plate. Thanks to the distributor, only a simple drilling pattern has to be drilled in the adapter plate situated between the pinion and the distributor.

| Description              | ID      |
|--------------------------|---------|
| Distributor for SRU-plus |         |
| V-SRU-plus 20/25/30      | 0357392 |

① View applicable only for versions without EDF!

## Electronic magnetic switches

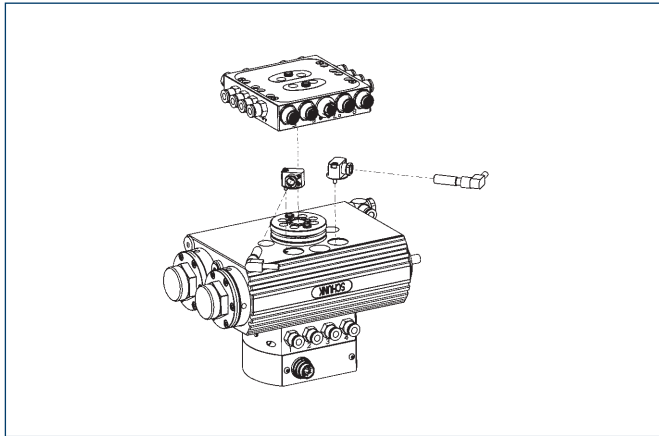


- ①⑦ Cable outlet
- End position monitoring for mounting in the C-slot

| Description                         | ID      | Our recommendation |
|-------------------------------------|---------|--------------------|
| <b>Electronic magnetic switches</b> |         |                    |
| MMS 22-S-M5-PNP                     | 0301438 |                    |
| MMS 22-S-M5-NPN                     | 0301439 |                    |
| MMS 22-S-M8-PNP                     | 0301432 | •                  |
| MMS 22-S-M8-NPN                     | 0301433 |                    |
| MMSK 22-S-PNP                       | 0301434 |                    |
| MMSK 22-S-NPN                       | 0301435 |                    |
| MMS 22-S-M5-PNP-SA                  | 0301448 |                    |
| MMS 22-S-M5-NPN-SA                  | 0301449 |                    |
| MMS 22-S-M8-PNP-SA                  | 0301442 |                    |
| MMS 22-S-M8-NPN-SA                  | 0301443 |                    |
| MMSK 22-S-PNP-SA                    | 0301444 |                    |
| MMSK 22-S-NPN-SA                    | 0301445 |                    |
| <b>Connection cables</b>            |         |                    |
| KA BG05-L 3P-0300                   | 0301652 |                    |
| KA BG08-L 3P-0300-PNP               | 0301622 |                    |
| KA BG08-L 3P-0500-PNP               | 0301623 |                    |
| KA BW05-L 3P-0300                   | 0301650 |                    |
| KA BW08-L 3P-0300-NPN               | 0301602 |                    |
| KA BW08-L 3P-0300-PNP               | 0301594 |                    |
| KA BW08-L 3P-0500-NPN               | 9641116 |                    |
| KA BW08-L 3P-0500-PNP               | 0301502 |                    |
| <b>Cable extensions</b>             |         |                    |
| KV BW08-SG08 3P-0030-PNP            | 0301495 |                    |
| KV BW08-SG08 3P-0100-PNP            | 0301496 |                    |
| KV BW08-SG08 3P-0200-PNP            | 0301497 |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

### Inductive proximity switches IN for SRU-plus with electric feed-through

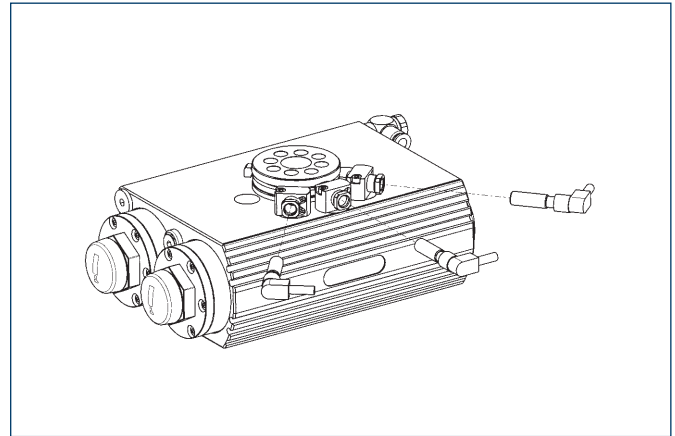


End position monitoring for direct mounting

| Description                         | ID       | Our recommendation |
|-------------------------------------|----------|--------------------|
| <b>Inductive proximity switches</b> |          |                    |
| IN 80-S-M8                          | 0301478  | •                  |
| IN 80-S-M12                         | 0301578  |                    |
| INK 80-S                            | 0301550  |                    |
| IN-C 80-S-M8                        | 0301475  |                    |
| INK 80-SL                           | 0301579  |                    |
| <b>Connection cables</b>            |          |                    |
| 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  |                    |
| <b>Cable extensions</b>             |          |                    |
| KV BG12-SG12 3P-0030-PNP            | 0301999  |                    |
| KV BG12-SG12 3P-0060-PNP            | 0301998  |                    |
| KV BW08-SG08 3P-0030-PNP            | 0301495  |                    |
| KV BW08-SG08 3P-0100-PNP            | 0301496  |                    |
| KV BW08-SG08 3P-0200-PNP            | 0301497  |                    |
| KV BW12-SG12 3P-0030-PNP            | 0301595  |                    |
| KV BW12-SG12 3P-0100-PNP            | 0301596  |                    |
| KV BW12-SG12 3P-0200-PNP            | 0301597  |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

### Inductive proximity switches IN for SRU-plus without electric feed-through

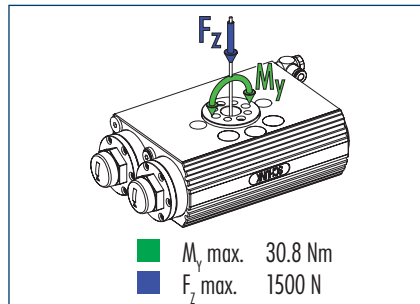


End position monitoring mounted with mounting kit

| Description                              | ID       | Our recommendation |
|--|----------|--------------------|
| <b>Mounting kit for proximity switch</b> |          |                    |
| AS-SRU-plus 20/25/30-4                   | 0357391  |                    |
| AS-SRU-plus 25/30                        | 0357590  |                    |
| <b>Connection cables</b>                 |          |                    |
| 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  |                    |
| <b>Inductive proximity switches</b>      |          |                    |
| IN 80-S-M8                               | 0301478  | •                  |
| IN 80-S-M12                              | 0301578  |                    |
| INK 80-S                                 | 0301550  |                    |
| IN-C 80-S-M8                             | 0301475  |                    |
| INK 80-SL                                | 0301579  |                    |
| <b>Cable extensions</b>                  |          |                    |
| KV BG12-SG12 3P-0030-PNP                 | 0301999  |                    |
| KV BG12-SG12 3P-0060-PNP                 | 0301998  |                    |
| KV BW08-SG08 3P-0030-PNP                 | 0301495  |                    |
| KV BW08-SG08 3P-0100-PNP                 | 0301496  |                    |
| KV BW08-SG08 3P-0200-PNP                 | 0301497  |                    |
| KV BW12-SG12 3P-0030-PNP                 | 0301595  |                    |
| KV BW12-SG12 3P-0100-PNP                 | 0301596  |                    |
| KV BW12-SG12 3P-0200-PNP                 | 0301597  |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① This mounting kit needs to be ordered optionally as an accessory.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.
- ① View applicable only for versions without EDF!

### Pinion load



ⓘ Moments and forces may occur simultaneously. When using heavy attachments or ones with high mass moments of inertia the speed must be restricted to ensure that the rotary movement occurs without any hitting or bouncing.

### Technical data of SRU-plus without middle position

| Description (soft damping)                               | SRU-plus 35-W-90-3 | SRU-plus 35-W-180-3 | SRU-plus 35-W-180-90 |
|--|--------------------|---------------------|----------------------|
| ID   | 0362000            | 0362020             | 0362050              |
| Angle of rotation [°]                                    | 90.0               | 180.0               | 180.0                |
| End position adjustability [°]                           | 3.0                | 3.0                 | 90.0                 |
| Torque [Nm]  | 14.0               | 14.0                | 14.0                 |
| IP class   | 67                 | 67                  | 67                   |
| Weight [kg]  | 2.65               | 2.65                | 2.75                 |
| Fluid consumption (2 x nominal angle) [cm <sup>3</sup> ] | 132.0              | 216.0               | 216.0                |
| Nominal operating pressure [bar]                         | 6.0                | 6.0                 | 6.0                  |
| Min./max. operating pressure [bar]                       | 3/8                | 3/8                 | 3/8                  |
| Diameter of connecting hose [mm]                         | 6.0                | 6.0                 | 6.0                  |
| Min./max. ambient temperature [°C]                       | 5/60               | 5/60                | 5/60                 |
| Repeat accuracy [°]                                      | 0.05               | 0.05                | 0.05                 |
| ISO-classification 14644-1                               | 5                  | 5                   | 5                    |

#### Options with fluid feed-through

| Description (soft damping)                | SRU-plus 35-W-90-3-4 | SRU-plus 35-W-180-3-4 | SRU-plus 35-W-180-90-4 |
|---|----------------------|-----------------------|------------------------|
| ID  | 0362002              | 0362022               | 0362052                |
| Torque [Nm]                               | 13.4                 | 13.4                  | 13.4                   |
| Weight [kg]                               | 2.95                 | 2.95                  | 3.05                   |
| No. of fluid feed-throughs                | 4                    | 4                     | 4                      |
| Max. pressure in fluid feed-through [bar] | 8                    | 8                     | 8                      |

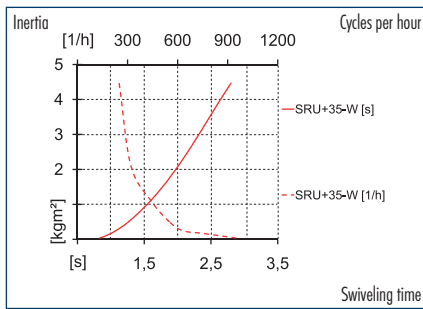
#### Options with fluid and electric feed-through

| Description (soft damping)                | SRU-plus 35-W-90-3-4-M8 | SRU-plus 35-W-180-3-4-M8 | SRU-plus 35-W-180-90-4-M8 |
|---|-------------------------|--------------------------|---------------------------|
| ID  | 0362004                 | 0362024                  | 0362054                   |
| Torque [Nm]                               | 13.4                    | 13.4                     | 13.4                      |
| Weight [kg]                               | 3.70                    | 3.70                     | 3.80                      |
| No. of fluid feed-throughs                | 4                       | 4                        | 4                         |
| Max. pressure in fluid feed-through [bar] | 8                       | 8                        | 8                         |
| Number of cores                           | 10.0                    | 10.0                     | 10.0                      |
| Max. voltage [V]                          | 24                      | 24                       | 24                        |
| Max. current per wire [A]                 | 1                       | 1                        | 1                         |
| Max. total current [A]                    | 1                       | 1                        | 1                         |
| Number of E-fittings on the output end    | 6                       | 6                        | 6                         |

#### Options with fluid and electric feed-through and mounting kit

| Description (soft damping) | SRU-plus 35-W-90-3-4-M8-AS | SRU-plus 35-W-180-3-4-M8-AS | SRU-plus 35-W-180-90-4-M8-AS |
|----------------------------|----------------------------|-----------------------------|------------------------------|
| ID                         | 0362007                    | 0362027                     | 0362057                      |

### Max. mass moment of inertia J



① The diagrams are valid for rotary angles of 90° and 180°, units without middle position and for applications with vertical rotary axis. Also for absolutely centric loads with horizontal rotary axis and with a pneumatic working pressure of 6 bars. The swiveling times need to be adjusted by using throttle valves, otherwise the life time could be reduced. Please contact us for calculations of other applications and further information.

### Technical data of SRU-plus with middle position

| Description (soft damping)            | SRU-plus 35-W-180-3-M      | SRU-plus 35-W-180-3-VM      | SRU-plus 35-W-180-90-M     |
|---------------------------------------|----------------------------|-----------------------------|----------------------------|
| ID                                    | 0362030                    | 0362040                     | 0362060                    |
| Angle of rotation                     | [°] 180.0                  | 180.0                       | 180.0                      |
| End position adjustability            | [°] 3.0                    | 3.0                         | 90.0                       |
| Torque                                | [Nm] 14.0                  | 14.0                        | 14.0                       |
| Middle position                       | M (pneum. middle position) | VM (locked middle position) | M (pneum. middle position) |
| Adjustability of middle position      | [°] 3.0                    | 3.0                         | 3.0                        |
| IP class                              | 67                         | 67                          | 67                         |
| Weight                                | [kg] 3.65                  | 4.15                        | 3.75                       |
| Fluid consumption (2 x nominal angle) | [cm³] 216.0                | 216.0                       | 216.0                      |
| Nominal operating pressure            | [bar] 6.0                  | 6.0                         | 6.0                        |
| Min./max. operating pressure          | [bar] 3/8                  | 4/6.5                       | 3/8                        |
| Diameter of connecting hose           | [mm] 6.0                   | 6.0                         | 6.0                        |
| Min./max. ambient temperature         | [°C] 5/60                  | 5/60                        | 5/60                       |
| Repeat accuracy                       | [°] 0.05                   | 0.05                        | 0.05                       |
| ISO-classification 14644-1            | 5                          | 5                           | 5                          |

### Options with fluid feed-through

| Description (soft damping)          | SRU-plus 35-W-180-3-M-4 | SRU-plus 35-W-180-3-VM-4 | SRU-plus 35-W-180-90-M-4 |
|-------------------------------------|-------------------------|--------------------------|--------------------------|
| ID                                  | 0362032                 | 0362042                  | 0362062                  |
| Torque                              | [Nm] 13.4               | 13.4                     | 13.4                     |
| Weight                              | [kg] 3.95               | 4.45                     | 4.05                     |
| No. of fluid feed-throughs          | 4                       | 4                        | 4                        |
| Max. pressure in fluid feed-through | [bar] 8                 | 8                        | 8                        |

### Options with fluid and electric feed-through

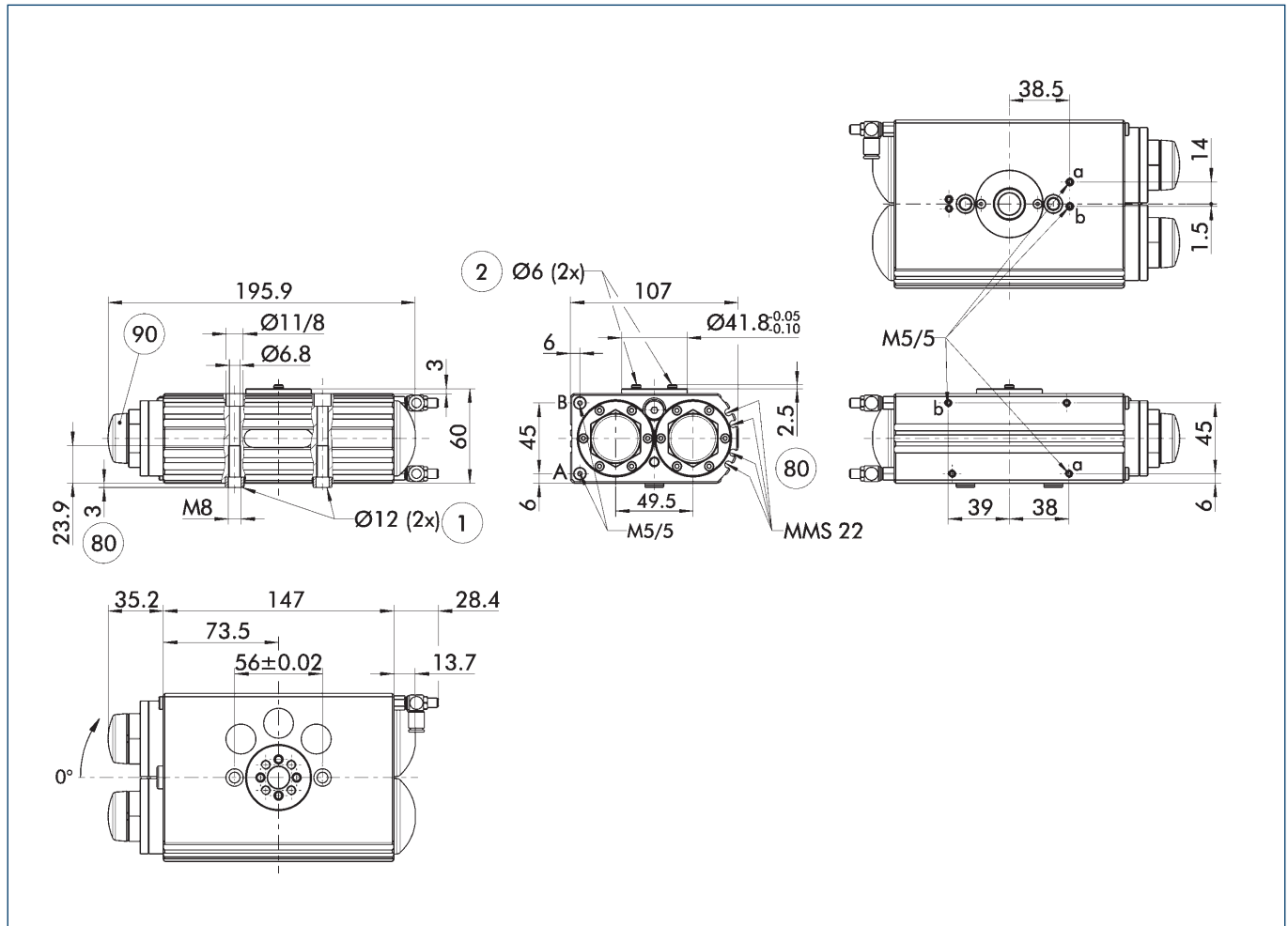
| Description (soft damping)             | SRU-plus 35-W-180-3-M-4-M8 | SRU-plus 35-W-180-3-VM-4-M8 | SRU-plus 35-W-180-90-M-4-M8 |
|--|----------------------------|-----------------------------|-----------------------------|
| ID                                     | 0362034                    | 0362044                     | 0362064                     |
| Torque                                 | [Nm] 13.4                  | 13.4                        | 13.4                        |
| Weight                                 | [kg] 4.70                  | 5.20                        | 4.80                        |
| No. of fluid feed-throughs             | 4                          | 4                           | 4                           |
| Max. pressure in fluid feed-through    | [bar] 8                    | 8                           | 8                           |
| Number of cores                        | 10.0                       | 10.0                        | 10.0                        |
| Max. voltage                           | [V] 24                     | 24                          | 24                          |
| Max. current per wire                  | [A] 1                      | 1                           | 1                           |
| Max. total current                     | [A] 1                      | 1                           | 1                           |
| Number of E-fittings on the output end | 6                          | 6                           | 6                           |

### Options with fluid and electric feed-through and mounting kit

| Description (soft damping) | SRU-plus 35-W-180-3-M-4-M8-AS | SRU-plus 35-W-180-3-VM-4-M8-AS | SRU-plus 35-W-180-90-M-4-M8-AS |
|----------------------------|-------------------------------|--------------------------------|--------------------------------|
| ID                         | 0362037                       | 0362047                        | 0362067                        |



## Main views for SRU-plus without EDF

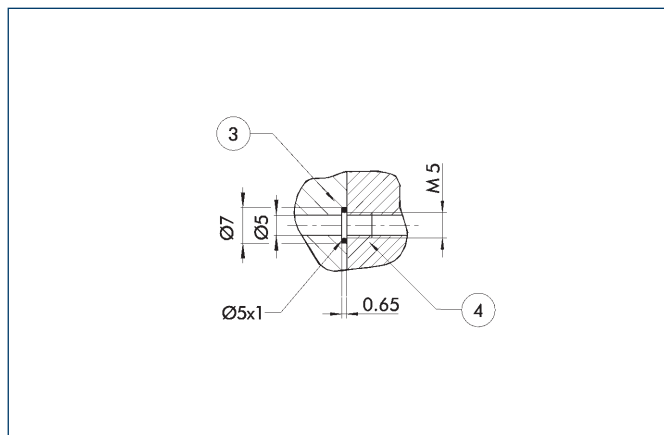


The main view shows the SRU-plus in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

- A, a Main/direct connection, clockwise rotary actuator
- B, b Main/direct connection, anti-clockwise rotary actuator
- ① Rotary actuator connection
- ② Attachment connection
- ⑧⑩ Depth of the centering sleeve hole in the matching part
- ⑨⑩ Setting shock absorber stroke

① The SDV-P pressure maintenance valve can be used to hold the position upon a loss of pressure (see „Accessories“ catalog section).

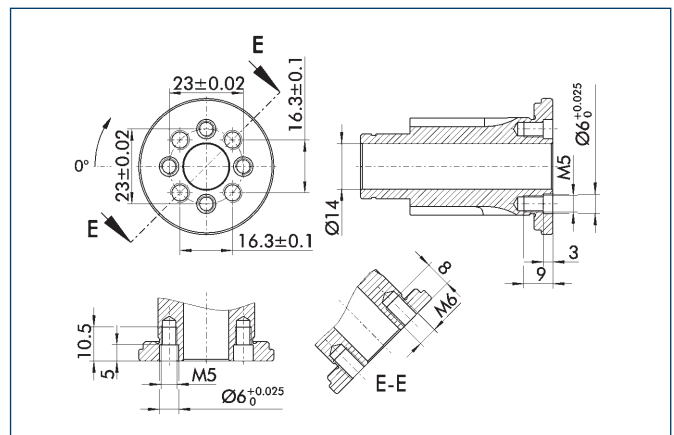
## Hose-free direct connection



- ③ Adapter
- ④ Rotary actuator

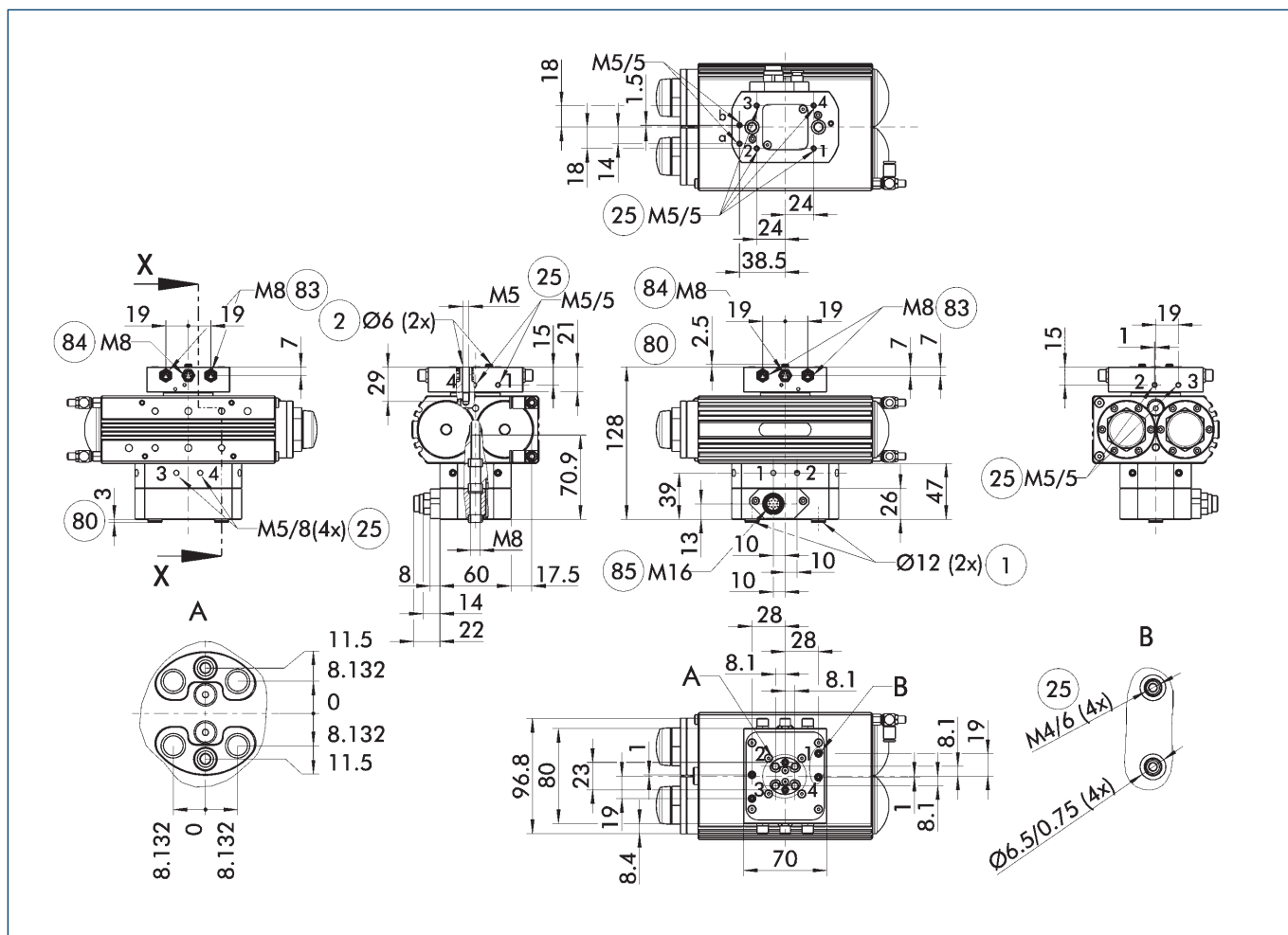
The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

## Pinion without fluid feed-through



Pinion screw connection diagram for mounting the swiveling attachment. The „4x large thread for 4x screw and 2x flat fit for guide sleeve“ screw connection diagram is preferable to the „4x small thread for 2x screw and 2x dowel screw“ (in deep fit) screw connection diagram.

### Main views for SRU with EDF



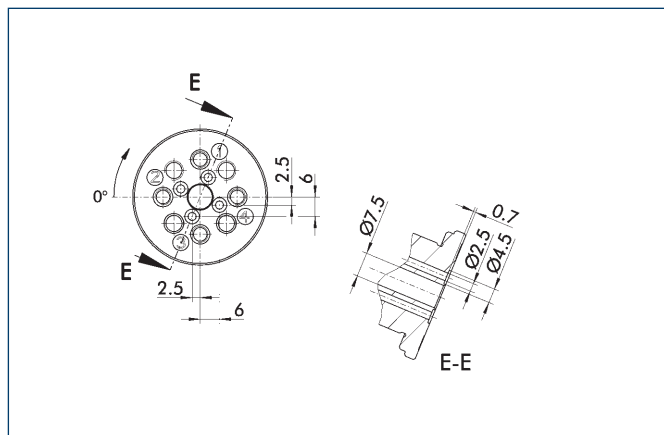
The main view shows the SRU in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

① The SDV-P pressure maintenance valve can be used to hold the position upon a loss of pressure (see „Accessories“ catalog section).

- A, a Main/direct connection, clockwise rotary actuator
- B, b Main/direct connection, anti-clockwise rotary actuator
- ① Rotary actuator connection
- ② Attachment connection
- ②⑤ Fluid feed-through

- ⑧⑩ Depth of the centering sleeve hole in the matching part
- ⑧③ Flange socket for 3-pin sensor feed-through
- ⑧④ Flange socket for 4-pin sensor feed-through
- ⑧⑤ Output for sensor feed-through

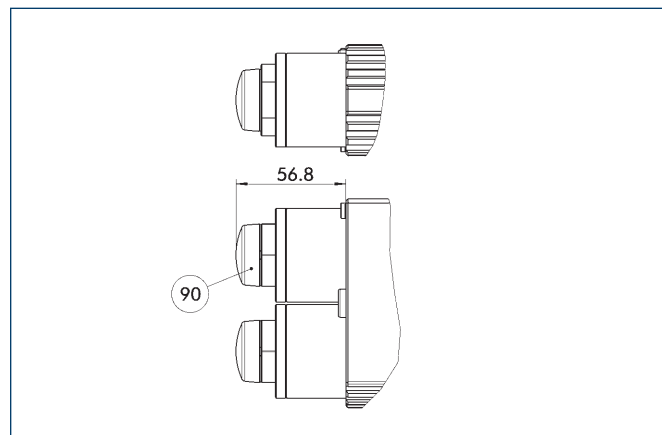
### Pinion with fluid feed-through



Pinion screw connection diagram for mounting the swiveling attachment. The „4x large thread for 4x screw and 2x flat fit for guide sleeve“ screw connection diagram is preferable to the „4x small thread for 2x screw and 2x dowel screw“ (in deep fit) screw connection diagram.

① View applicable only for versions without EDF!

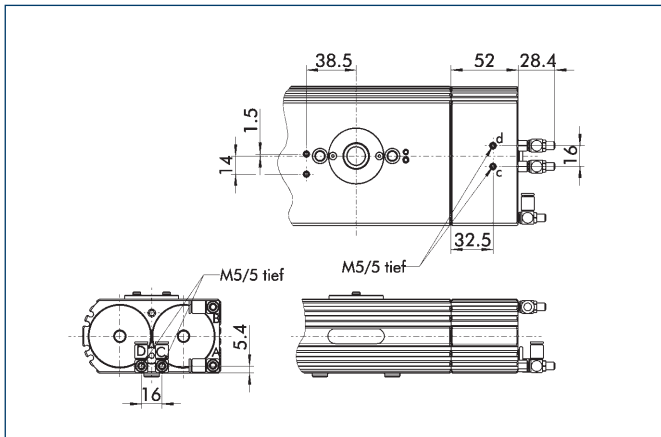
### Large end position adjustability 90°



⑧⑩ Setting shock absorber stroke

Different dimensions with the option „Large end position adjustability (90°)“. This permits the end positions to be adjusted by up to 93°. More information can be found in the introduction to the series.

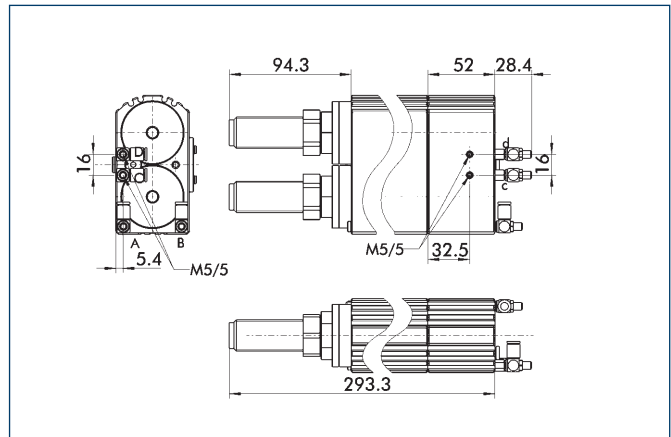
### Pneumatic middle position (M)



C, c Main/direct connection, middle position  
D, d Main/direct connection, middle position

Different dimensions with the „Pneumatic middle position (M)“ option. Heavy attachments may have to level out until they reach the correct position. The locked middle position (VM) offers relief.

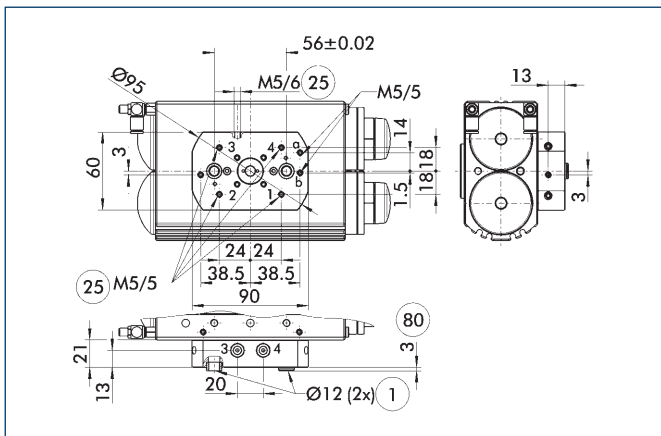
### Locked middle position (VM)



C, c Main/direct connection, middle position  
D, d Main/direct connection, middle position

Different dimensions with the „Locked middle position (VM)“ option. The middle position is locked. The unit travels to middle position using the force of the main drive piston. Shock absorbers brake the travel to center position as fast as possible to prevent overshooting.

### Connections for fluid feed-through

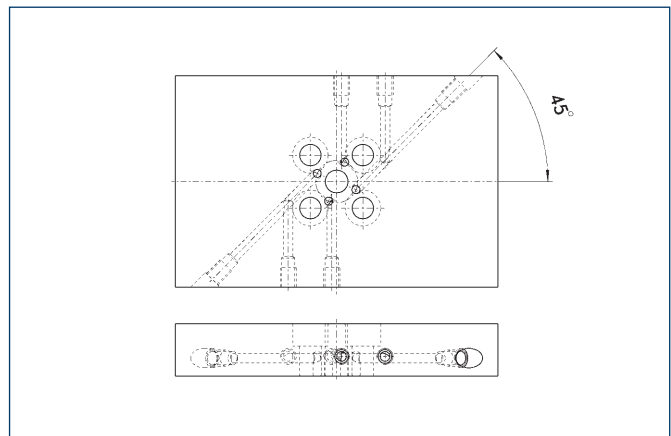


① Rotary actuator connection  
② Fluid feed-through  
⑧ Depth of the centering sleeve hole in the matching part

Lower mounting plate for the „Fluid feed-through“ option. Vacuum, gases or fluids can be conveyed. The connection may be a screw type or a direct connection.

① View applicable only for versions without EDF!

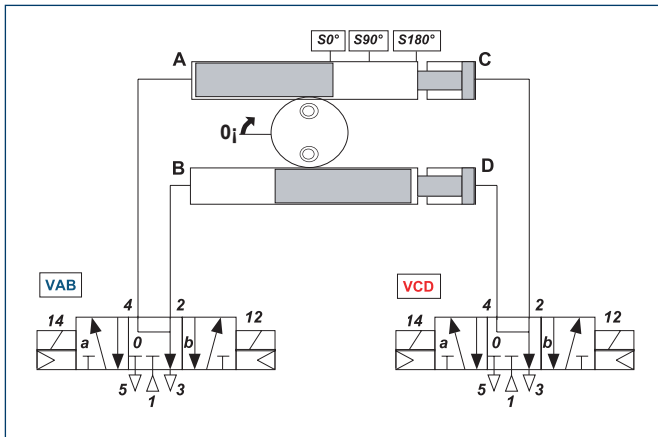
### Adapter plate arrangement



Suggested here is an arrangement of the adapter plate which enables all fluid feed-throughs to be reached as easily as possible.

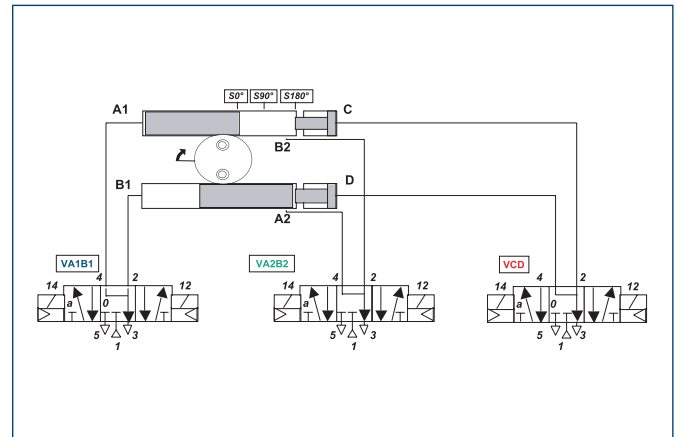
① View applicable only for versions without EDF!

### Pneumatic diagram of SRU-plus-VM – vertical axis



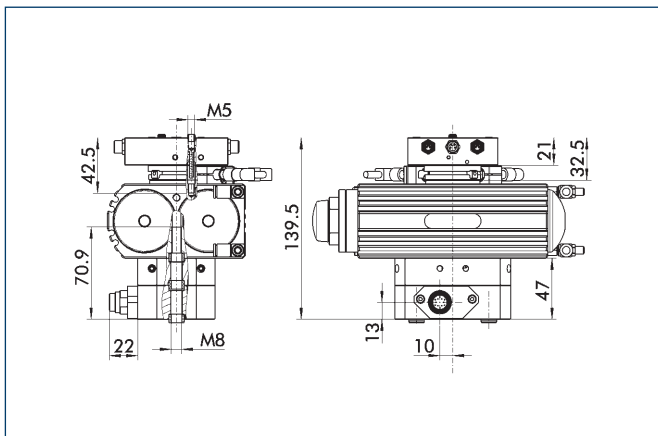
VM units with vertical swivel axis are generally actuated by two 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

### Pneumatic diagram of SRU-plus-VM – horizontal axis



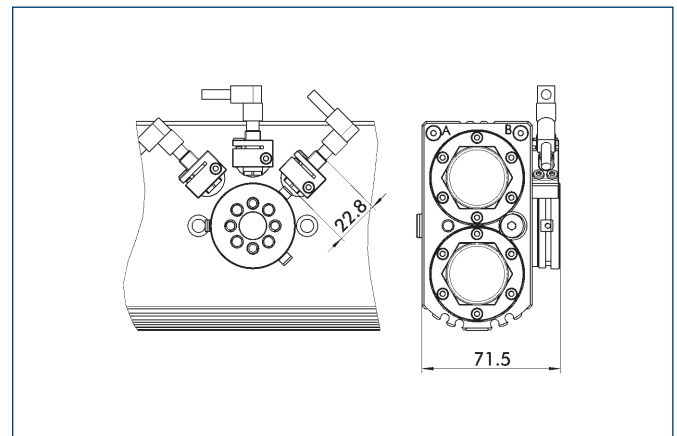
VM units with horizontal or non-vertical swivel axis must generally be actuated by three 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

### Mounting kit for proximity switch at SRU-plus with EDF



The mounting kit cannot be ordered separately. The SRU-plus rotary actuator with electric feed-through and mounting kit will be assembled and delivered as a complete unit by SCHUNK. Please pay attention to our options SRU-plus ...AS.

### Mounting kit for proximity switch at SRU-plus with EDF

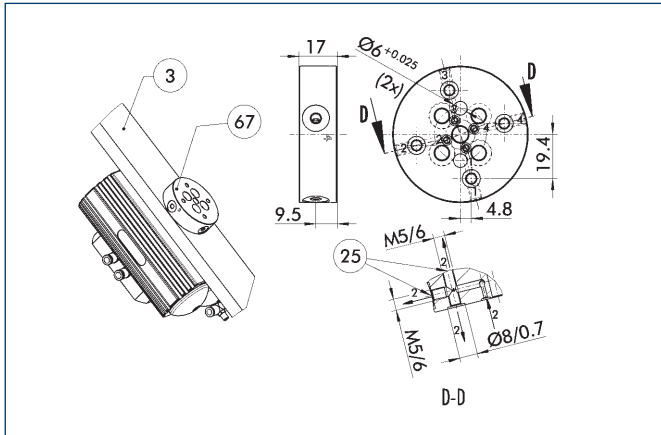


The mounting kit cannot be ordered separately. The SRU-plus rotary actuator with electric feed-through and mounting kit will be assembled and delivered as a complete unit by SCHUNK. Please pay attention to our options SRU-plus ...AS.

| Description                       | ID      |
|-----------------------------------|---------|
| Mounting kit for proximity switch |         |
| AS-SRU-plus 35                    | 0357790 |
| AS-SRU-plus 35-4                  | 0357791 |

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

## Distributor for SRU-plus



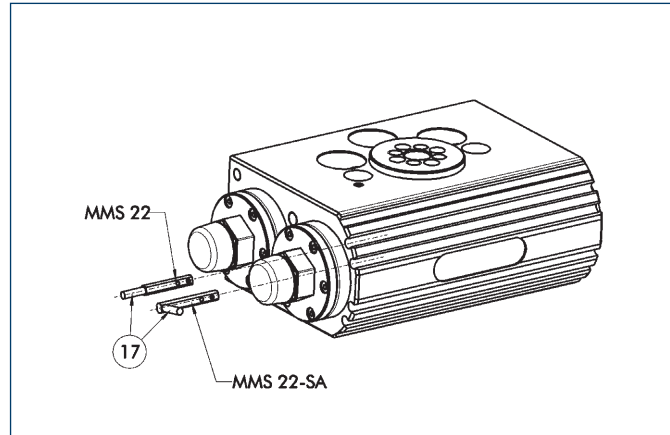
- ③ Adapter
- ⑥7 Distributor for fluid feed-through
- ②5 Fluid feed-through

The distributor for SRU-plus facilitates the use of the fluid feed-throughs, both at the direct attachment to the distributor and in the lines conveying the fluid inside the adapter plate. Thanks to the distributor, only a simple drilling pattern has to be drilled in the adapter plate situated between the pinion and the distributor.

| Description              | ID      |
|--------------------------|---------|
| Distributor for SRU-plus |         |
| V-SRU-plus 35            | 0357792 |

① View applicable only for versions without EDF!

## Electronic magnetic switches

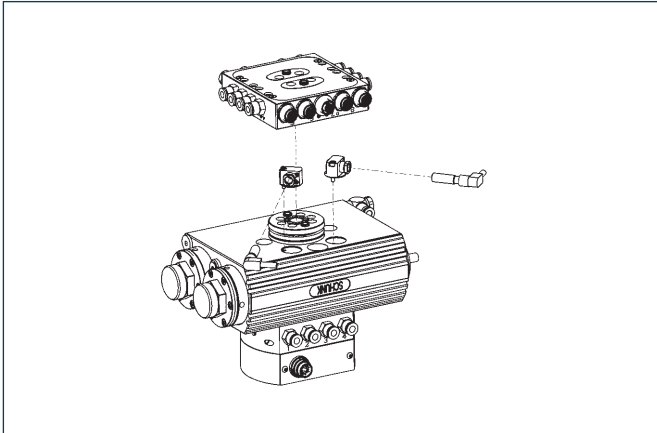


- ①7 Cable outlet
- End position monitoring for mounting in the C-slot

| Description                         | ID      | Our recommendation |
|-------------------------------------|---------|--------------------|
| <b>Electronic magnetic switches</b> |         |                    |
| MMS 22-S-M5-PNP                     | 0301438 |                    |
| MMS 22-S-M5-NPN                     | 0301439 |                    |
| MMS 22-S-M8-PNP                     | 0301432 | •                  |
| MMS 22-S-M8-NPN                     | 0301433 |                    |
| MMSK 22-S-PNP                       | 0301434 |                    |
| MMSK 22-S-NPN                       | 0301435 |                    |
| MMS 22-S-M5-PNP-SA                  | 0301448 |                    |
| MMS 22-S-M5-NPN-SA                  | 0301449 |                    |
| MMS 22-S-M8-PNP-SA                  | 0301442 |                    |
| MMS 22-S-M8-NPN-SA                  | 0301443 |                    |
| MMSK 22-S-PNP-SA                    | 0301444 |                    |
| MMSK 22-S-NPN-SA                    | 0301445 |                    |
| <b>Connection cables</b>            |         |                    |
| KA BG05-L 3P-0300                   | 0301652 |                    |
| KA BG08-L 3P-0300-PNP               | 0301622 |                    |
| KA BG08-L 3P-0500-PNP               | 0301623 |                    |
| KA BW05-L 3P-0300                   | 0301650 |                    |
| KA BW08-L 3P-0300-NPN               | 0301602 |                    |
| KA BW08-L 3P-0300-PNP               | 0301594 |                    |
| KA BW08-L 3P-0500-NPN               | 9641116 |                    |
| KA BW08-L 3P-0500-PNP               | 0301502 |                    |
| <b>Cable extensions</b>             |         |                    |
| KV BW08-SG08 3P-0030-PNP            | 0301495 |                    |
| KV BW08-SG08 3P-0100-PNP            | 0301496 |                    |
| KV BW08-SG08 3P-0200-PNP            | 0301497 |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

### Inductive proximity switches IN for SRU-plus with electric feed-through

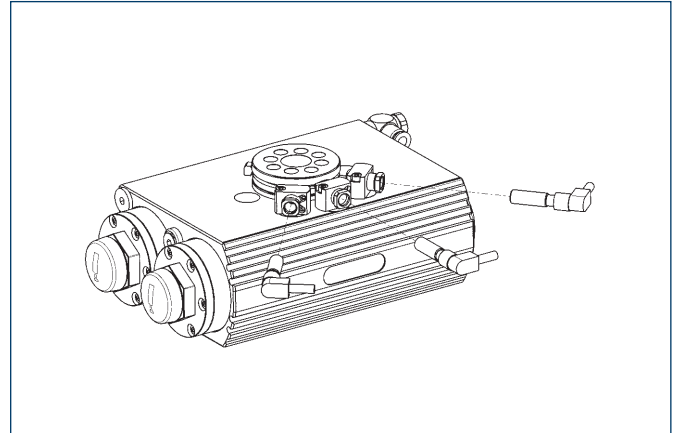


End position monitoring for direct mounting

| Description                         | ID       | Our recommendation |
|-------------------------------------|----------|--------------------|
| <b>Inductive proximity switches</b> |          |                    |
| IN 80-S-M8                          | 0301478  | •                  |
| IN 80-S-M12                         | 0301578  |                    |
| INK 80-S                            | 0301550  |                    |
| IN-C 80-S-M8                        | 0301475  |                    |
| INK 80-SL                           | 0301579  |                    |
| <b>Connection cables</b>            |          |                    |
| 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  |                    |
| <b>Cable extensions</b>             |          |                    |
| KV BG12-SG12 3P-0030-PNP            | 0301999  |                    |
| KV BG12-SG12 3P-0060-PNP            | 0301998  |                    |
| KV BW08-SG08 3P-0030-PNP            | 0301495  |                    |
| KV BW08-SG08 3P-0100-PNP            | 0301496  |                    |
| KV BW08-SG08 3P-0200-PNP            | 0301497  |                    |
| KV BW12-SG12 3P-0030-PNP            | 0301595  |                    |
| KV BW12-SG12 3P-0100-PNP            | 0301596  |                    |
| KV BW12-SG12 3P-0200-PNP            | 0301597  |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

### Inductive proximity switches IN for SRU-plus without electric feed-through



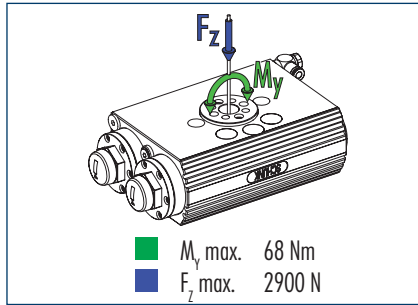
End position monitoring mounted with mounting kit

| Description                              | ID       | Our recommendation |
|--|----------|--------------------|
| <b>Mounting kit for proximity switch</b> |          |                    |
| AS-SRU-plus 35                           | 0357790  |                    |
| AS-SRU-plus 35-4                         | 0357791  |                    |
| <b>Connection cables</b>                 |          |                    |
| 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  |                    |
| <b>Inductive proximity switches</b>      |          |                    |
| IN 80-S-M8                               | 0301478  | •                  |
| IN 80-S-M12                              | 0301578  |                    |
| INK 80-S                                 | 0301550  |                    |
| IN-C 80-S-M8                             | 0301475  |                    |
| INK 80-SL                                | 0301579  |                    |
| <b>Cable extensions</b>                  |          |                    |
| KV BG12-SG12 3P-0030-PNP                 | 0301999  |                    |
| KV BG12-SG12 3P-0060-PNP                 | 0301998  |                    |
| KV BW08-SG08 3P-0030-PNP                 | 0301495  |                    |
| KV BW08-SG08 3P-0100-PNP                 | 0301496  |                    |
| KV BW08-SG08 3P-0200-PNP                 | 0301497  |                    |
| KV BW12-SG12 3P-0030-PNP                 | 0301595  |                    |
| KV BW12-SG12 3P-0100-PNP                 | 0301596  |                    |
| KV BW12-SG12 3P-0200-PNP                 | 0301597  |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① This mounting kit needs to be ordered optionally as an accessory.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.
- ① View applicable only for versions without EDF!



### Pinion load



ⓘ Moments and forces may occur simultaneously. When using heavy attachments or ones with high mass moments of inertia the speed must be restricted to ensure that the rotary movement occurs without any hitting or bouncing.

### Technical data of SRU-plus without middle position

| Description (soft damping)                               | SRU-plus 40-W-90-3 | SRU-plus 40-W-180-3 | SRU-plus 40-W-180-90 |
|--|--------------------|---------------------|----------------------|
| ID   | 0362200            | 0362220             | 0362250              |
| Description (hard damping)                               | SRU-plus 40-H-90-3 | SRU-plus 40-H-180-3 | SRU-plus 40-H-180-90 |
| ID   | 0362300            | 0362320             | 0362350              |
| Angle of rotation [°]                                    | 90.0               | 180.0               | 180.0                |
| End position adjustability [°]                           | 3.0                | 3.0                 | 90.0                 |
| Torque [Nm]  | 20.0               | 20.0                | 20.0                 |
| IP class   | 67                 | 67                  | 67                   |
| Weight [kg]  | 4.20               | 4.20                | 4.30                 |
| Fluid consumption (2 x nominal angle) [cm <sup>3</sup> ] | 208.0              | 336.0               | 336.0                |
| Nominal operating pressure [bar]                         | 6.0                | 6.0                 | 6.0                  |
| Min./max. operating pressure [bar]                       | 3/8                | 3/8                 | 3/8                  |
| Diameter of connecting hose [mm]                         | 6.0                | 6.0                 | 6.0                  |
| Min./max. ambient temperature [°C]                       | 5/60               | 5/60                | 5/60                 |
| Repeat accuracy [°]                                      | 0.05               | 0.05                | 0.05                 |
| ISO-classification 14644-1                               | 5                  | 5                   | 5                    |

### Options with fluid feed-through

| Description (soft damping)                | SRU-plus 40-W-90-3-8 | SRU-plus 40-W-180-3-8 | SRU-plus 40-W-180-90-8 |
|---|----------------------|-----------------------|------------------------|
| ID  | 0362202              | 0362222               | 0362252                |
| Description (hard damping)                | SRU-plus 40-H-90-3-8 | SRU-plus 40-H-180-3-8 | SRU-plus 40-H-180-90-8 |
| ID  | 0362302              | 0362322               | 0362352                |
| Torque [Nm]                               | 19.2                 | 19.2                  | 19.2                   |
| Weight [kg]                               | 4.90                 | 4.90                  | 5.00                   |
| No. of fluid feed-throughs                | 8                    | 8                     | 8                      |
| Max. pressure in fluid feed-through [bar] | 8                    | 8                     | 8                      |

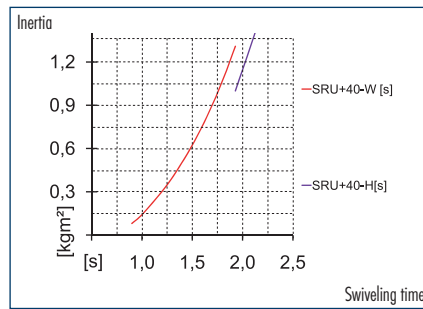
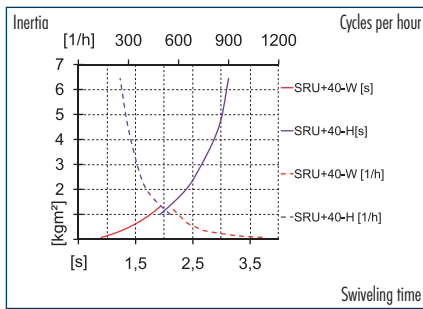
### Options with fluid and electric feed-through

| Description (soft damping)                | SRU-plus 40-W-90-3-8-M8 | SRU-plus 40-W-180-3-8-M8 | SRU-plus 40-W-180-90-8-M8 |
|---|-------------------------|--------------------------|---------------------------|
| ID  | 0362204                 | 0362224                  | 0362254                   |
| Description (hard damping)                | SRU-plus 40-H-90-3-8-M8 | SRU-plus 40-H-180-3-8-M8 | SRU-plus 40-H-180-90-8-M8 |
| ID  | 0362304                 | 0362324                  | 0362354                   |
| Torque [Nm]                               | 19.2                    | 19.2                     | 19.2                      |
| Weight [kg]                               | 6.45                    | 6.45                     | 6.55                      |
| No. of fluid feed-throughs                | 8                       | 8                        | 8                         |
| Max. pressure in fluid feed-through [bar] | 8                       | 8                        | 8                         |
| Number of cores                           | 10.0                    | 10.0                     | 10.0                      |
| Max. voltage [V]                          | 24                      | 24                       | 24                        |
| Max. current per wire [A]                 | 1                       | 1                        | 1                         |
| Max. total current [A]                    | 1                       | 1                        | 1                         |
| Number of E-fittings on the output end    | 9                       | 9                        | 9                         |

### Options with fluid and electric feed-through and mounting kit

| Description (soft damping) | SRU-plus 40-W-90-3-8-M8-AS | SRU-plus 40-W-180-3-8-M8-AS | SRU-plus 40-W-180-90-8-M8-AS |
|----------------------------|----------------------------|-----------------------------|------------------------------|
| ID                         | 0362207                    | 0362227                     | 0362257                      |
| Description (hard damping) | SRU-plus 40-H-90-3-8-M8-AS | SRU-plus 40-H-180-3-8-M8-AS | SRU-plus 40-H-180-90-8-M8-AS |
| ID                         | 0362307                    | 0362327                     | 0362357                      |

### Max. mass moment of inertia J



① The diagrams are valid for rotary angles of 90° and 180°, units without middle position and for applications with vertical rotary axis. Also for absolutely centric loads with horizontal rotary axis and with a pneumatic working pressure of 6 bars. The swiveling times need to be adjusted by using throttle valves, otherwise the life time could be reduced. Please contact us for calculations of other applications and further information.

### Technical data of SRU-plus with middle position

| Description (soft damping)            | SRU-plus 40-W-180-3-M      | SRU-plus 40-W-180-3-VM      | SRU-plus 40-W-180-90-M     |
|---------------------------------------|----------------------------|-----------------------------|----------------------------|
| ID                                    | 0362230                    | 0362240                     | 0362260                    |
| Angle of rotation                     | [°] 180.0                  | 180.0                       | 180.0                      |
| End position adjustability            | [°] 3.0                    | 3.0                         | 90.0                       |
| Torque                                | [Nm] 20.0                  | 20.0                        | 20.0                       |
| Middle position                       | M (pneum. middle position) | VM (locked middle position) | M (pneum. middle position) |
| Adjustability of middle position      | [°] 3.0                    | 3.0                         | 3.0                        |
| IP class                              | 67                         | 67                          | 67                         |
| Weight                                | [kg] 5.50                  | 6.50                        | 5.70                       |
| Fluid consumption (2 x nominal angle) | [cm³] 336.0                | 336.0                       | 336.0                      |
| Nominal operating pressure            | [bar] 6.0                  | 6.0                         | 6.0                        |
| Min./max. operating pressure          | [bar] 3/8                  | 4/6.5                       | 3/8                        |
| Diameter of connecting hose           | [mm] 6.0                   | 6.0                         | 6.0                        |
| Min./max. ambient temperature         | [°C] 5/60                  | 5/60                        | 5/60                       |
| Repeat accuracy                       | [°] 0.05                   | 0.05                        | 0.05                       |
| ISO-classification 14644-1            | 5                          | 5                           | 5                          |

### Options with fluid feed-through

| Description (soft damping)          | SRU-plus 40-W-180-3-M-8 | SRU-plus 40-W-180-3-VM-8 | SRU-plus 40-W-180-90-M-8 |
|-------------------------------------|-------------------------|--------------------------|--------------------------|
| ID                                  | 0362232                 | 0362242                  | 0362262                  |
| Torque                              | [Nm] 19.2               | 19.2                     | 19.2                     |
| Weight                              | [kg] 6.20               | 7.20                     | 6.40                     |
| No. of fluid feed-throughs          | 8                       | 8                        | 8                        |
| Max. pressure in fluid feed-through | [bar] 8                 | 8                        | 8                        |

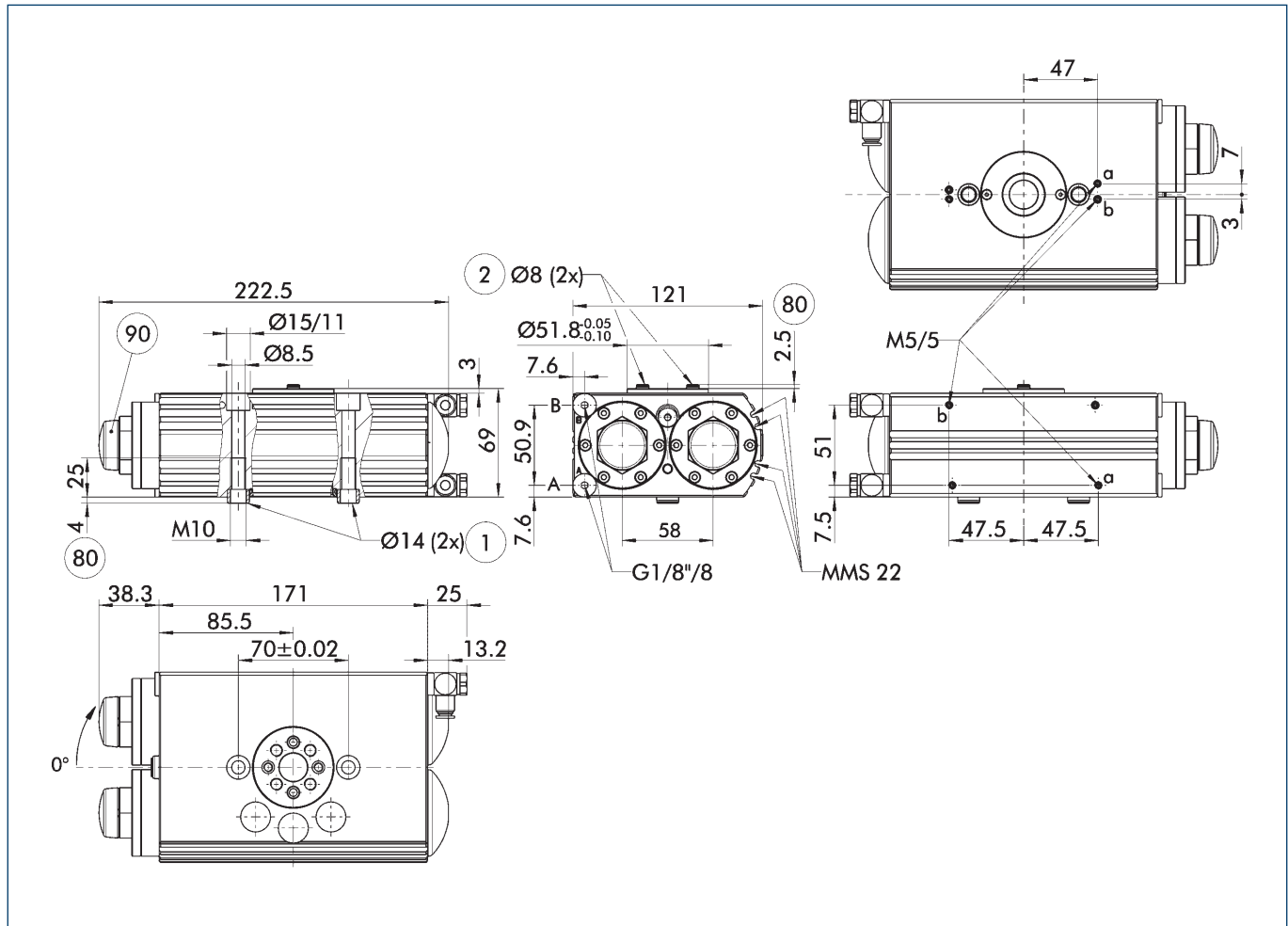
### Options with fluid and electric feed-through

| Description (soft damping)             | SRU-plus 40-W-180-3-M-8-M8 | SRU-plus 40-W-180-3-VM-8-M8 | SRU-plus 40-W-180-90-M-8-M8 |
|--|----------------------------|-----------------------------|-----------------------------|
| ID                                     | 0362234                    | 0362244                     | 0362264                     |
| Torque                                 | [Nm] 19.2                  | 19.2                        | 19.2                        |
| Weight                                 | [kg] 7.75                  | 8.75                        | 7.95                        |
| No. of fluid feed-throughs             | 8                          | 8                           | 8                           |
| Max. pressure in fluid feed-through    | [bar] 8                    | 8                           | 8                           |
| Number of cores                        | 10.0                       | 10.0                        | 10.0                        |
| Max. voltage                           | [V] 24                     | 24                          | 24                          |
| Max. current per wire                  | [A] 1                      | 1                           | 1                           |
| Max. total current                     | [A] 1                      | 1                           | 1                           |
| Number of E-fittings on the output end | 9                          | 9                           | 9                           |

### Options with fluid and electric feed-through and mounting kit

| Description (soft damping) | SRU-plus 40-W-180-3-M-8-M8-AS | SRU-plus 40-W-180-3-VM-8-M8-AS | SRU-plus 40-W-180-90-M-8-M8-AS |
|----------------------------|-------------------------------|--------------------------------|--------------------------------|
| ID                         | 0362237                       | 0362247                        | 0362267                        |

## Main views for SRU-plus without EDF

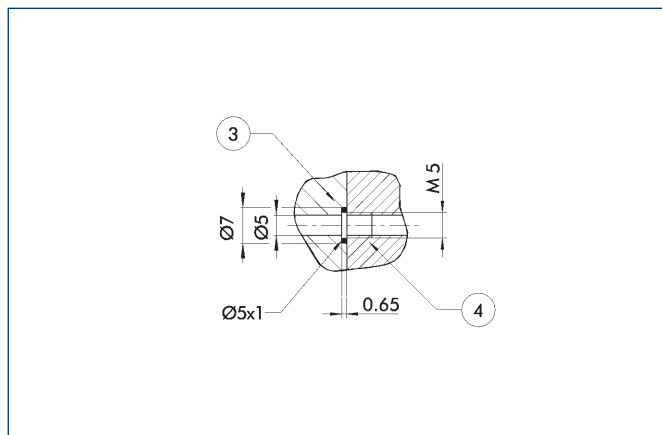


The main view shows the SRU-plus in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

- A, a Main/direct connection, clockwise rotary actuator
- B, b Main/direct connection, anti-clockwise rotary actuator
- ① Rotary actuator connection
- ② Attachment connection
- ⊘ Depth of the centering sleeve hole in the matching part
- ⊘ Setting shock absorber stroke

① The SDV-P pressure maintenance valve can be used to hold the position upon a loss of pressure (see „Accessories“ catalog section).

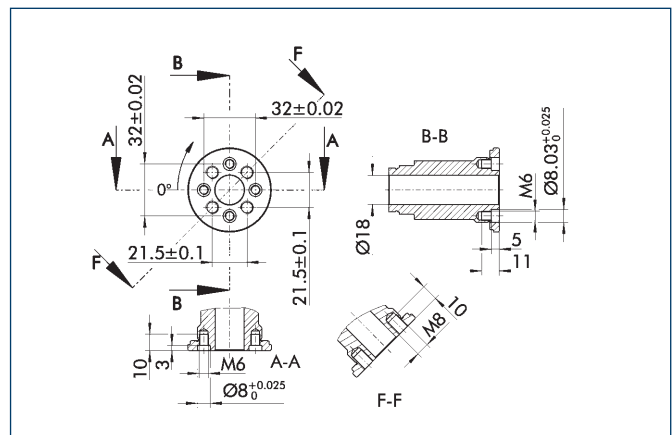
### Hose-free direct connection



- ③ Adapter
- ④ Rotary actuator

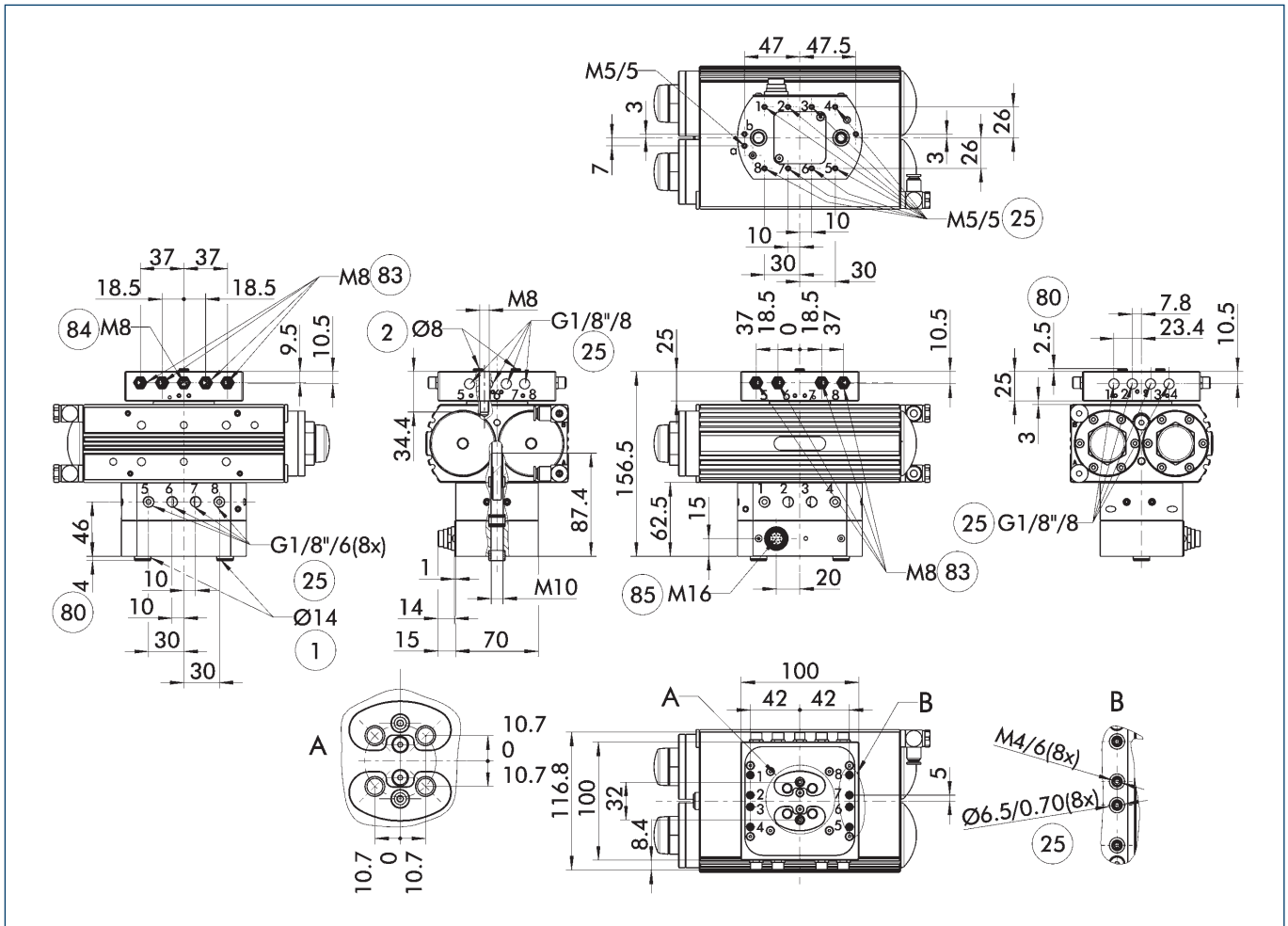
The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

### Pinion without fluid feed-through



Pinion screw connection diagram for mounting the swiveling attachment. The „4x large thread for 4x screw and 2x flat fit for guide sleeve“ screw connection diagram is preferable to the „4x small thread for 2x screw and 2x dowel screw“ (in deep fit) screw connection diagram.

## Main views for SRU with EDF



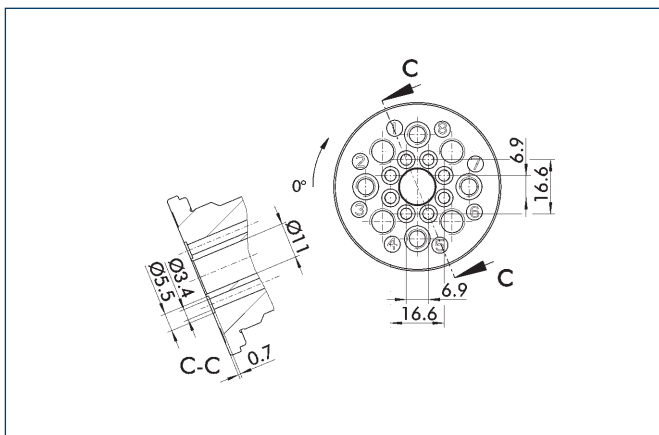
The main view shows the SRU in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

① The SDV-P pressure maintenance valve can be used to hold the position upon a loss of pressure (see „Accessories“ catalog section).

- A, a Main/direct connection, clockwise rotary actuator
- B, b Main/direct connection, anti-clockwise rotary actuator
- ① Rotary actuator connection
- ② Attachment connection
- ② Fluid feed-through

- ⑧⑩ Depth of the centering sleeve hole in the matching part
- ⑧③ Flange socket for 3-pin sensor feed-through
- ⑧④ Flange socket for 4-pin sensor feed-through
- ⑧⑤ Output for sensor feed-through

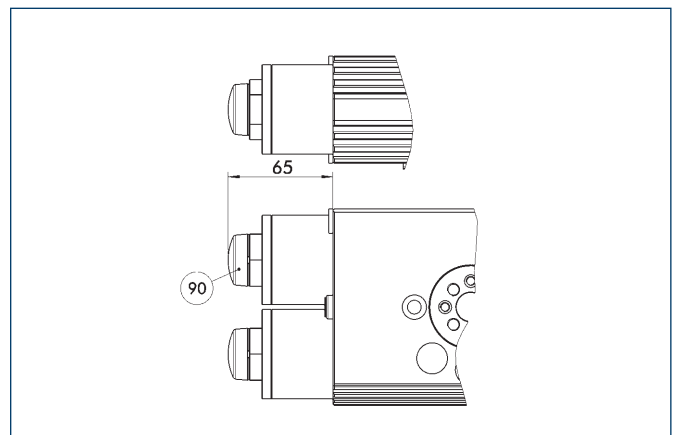
## Pinion with fluid feed-through



Pinion screw connection diagram for mounting the swiveling attachment. The „4x large thread for 4x screw and 2x flat fit for guide sleeve“ screw connection diagram is preferable to the „4x small thread for 2x screw and 2x dowel screw“ (in deep fit) screw connection diagram.

① View applicable only for versions without EDF!

## Large end position adjustability 90°

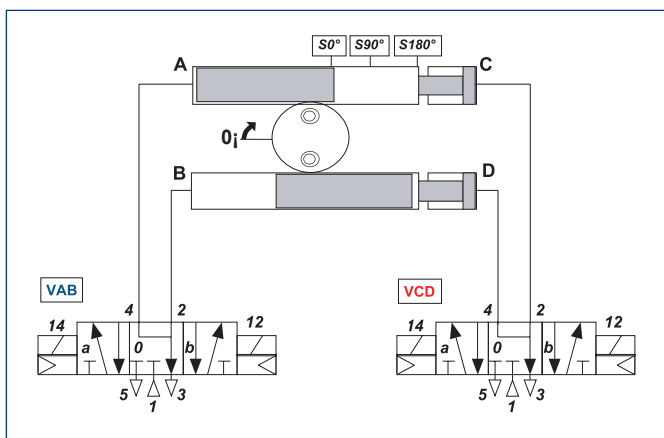


⑨⑩ Setting shock absorber stroke

Different dimensions with the option „Large end position adjustability (90°)“. This permits the end positions to be adjusted by up to 93°. More information can be found in the introduction to the series.

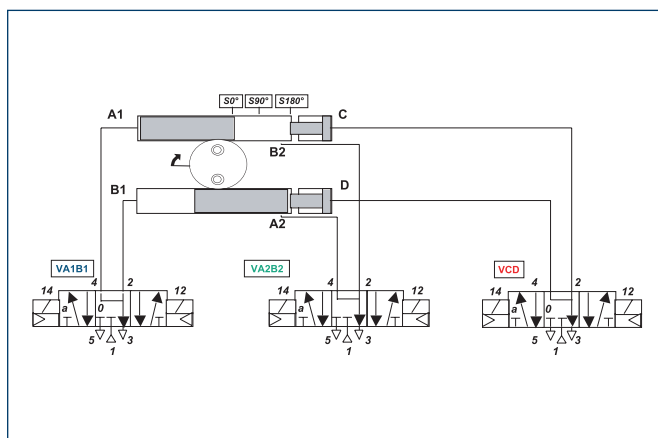


### Pneumatic diagram of SRU-plus-VM – vertical axis



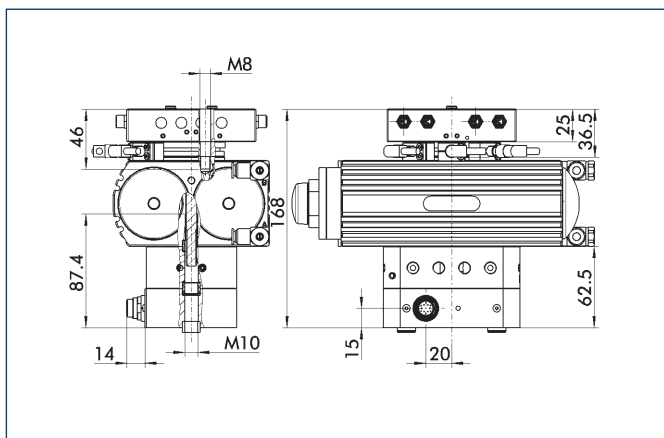
VM units with vertical swivel axis are generally actuated by two 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

### Pneumatic diagram of SRU-plus-VM – horizontal axis



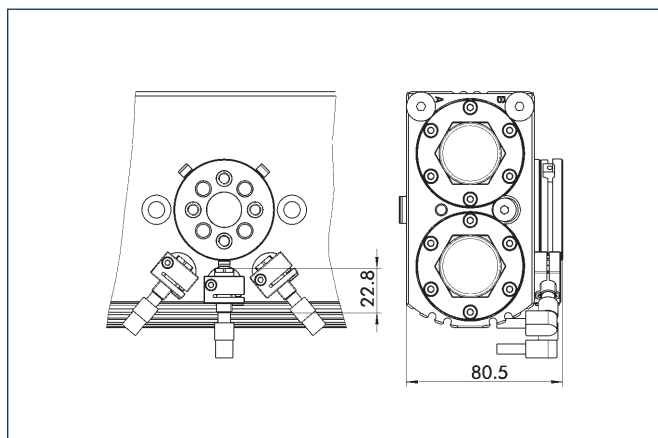
VM units with horizontal or non-vertical swivel axis must generally be actuated by three 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

### Mounting kit for proximity switch at SRU-plus with EDF



The mounting kit cannot be ordered separately. The SRU-plus rotary actuator with electric feed-through and mounting kit will be assembled and delivered as a complete unit by SCHUNK. Please pay attention to our options SRU-plus ...AS.

### Mounting kit for proximity switch at SRU-plus without EDF



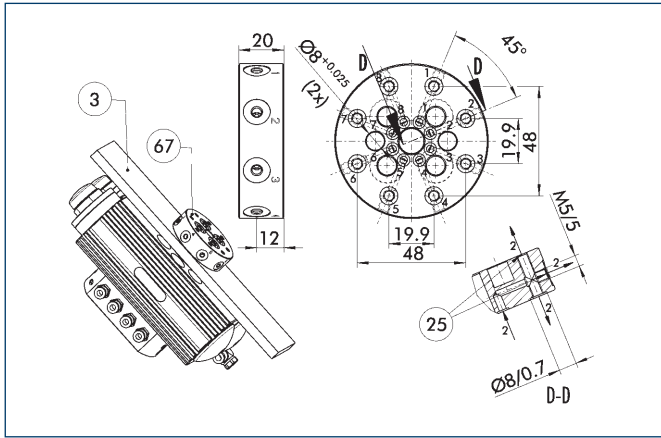
The size-specific mounting kit is required for installing the inductive proximity switches. Up to three proximity switches (2x end position, 1x middle position) can be attached using the mounting kit.

| Description                       | ID      |
|-----------------------------------|---------|
| Mounting kit for proximity switch |         |
| AS-SRU-plus 40                    | 0357990 |
| AS-SRU-plus 40-8                  | 0357991 |

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



## Distributor for SRU-plus



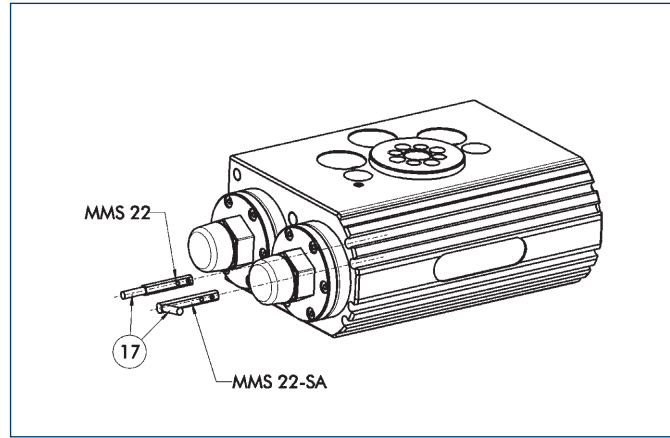
- ③ Adapter
- ②⑤ Fluid feed-through
- ⑥⑦ Distributor for fluid feed-through

The distributor for SRU-plus facilitates the use of the fluid feed-throughs, both at the direct attachment to the distributor and in the lines conveying the fluid inside the adapter plate. Thanks to the distributor, only a simple drilling pattern has to be drilled in the adapter plate situated between the pinion and the distributor.

| Description              | ID      |
|--------------------------|---------|
| Distributor for SRU-plus |         |
| V-SRU-plus 40            | 0357992 |

① View applicable only for versions without EDF!

## Electronic magnetic switches

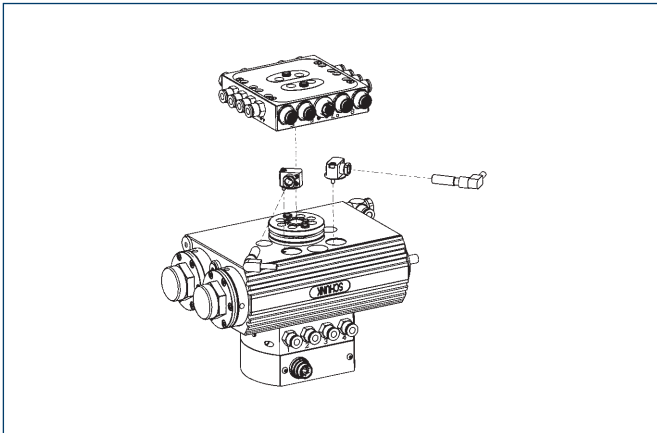


- ①⑦ Cable outlet
- End position monitoring for mounting in the C-slot

| Description                         | ID      | Our recommendation |
|-------------------------------------|---------|--------------------|
| <b>Electronic magnetic switches</b> |         |                    |
| MMS 22-S-M5-PNP                     | 0301438 |                    |
| MMS 22-S-M5-NPN                     | 0301439 |                    |
| MMS 22-S-M8-PNP                     | 0301432 | •                  |
| MMS 22-S-M8-NPN                     | 0301433 |                    |
| MMSK 22-S-PNP                       | 0301434 |                    |
| MMSK 22-S-NPN                       | 0301435 |                    |
| MMS 22-S-M5-PNP-SA                  | 0301448 |                    |
| MMS 22-S-M5-NPN-SA                  | 0301449 |                    |
| MMS 22-S-M8-PNP-SA                  | 0301442 |                    |
| MMS 22-S-M8-NPN-SA                  | 0301443 |                    |
| MMSK 22-S-PNP-SA                    | 0301444 |                    |
| MMSK 22-S-NPN-SA                    | 0301445 |                    |
| <b>Connection cables</b>            |         |                    |
| KA BG05-L 3P-0300                   | 0301652 |                    |
| KA BG08-L 3P-0300-PNP               | 0301622 |                    |
| KA BG08-L 3P-0500-PNP               | 0301623 |                    |
| KA BW05-L 3P-0300                   | 0301650 |                    |
| KA BW08-L 3P-0300-NPN               | 0301602 |                    |
| KA BW08-L 3P-0300-PNP               | 0301594 |                    |
| KA BW08-L 3P-0500-NPN               | 9641116 |                    |
| KA BW08-L 3P-0500-PNP               | 0301502 |                    |
| <b>Cable extensions</b>             |         |                    |
| KV BW08-SG08 3P-0030-PNP            | 0301495 |                    |
| KV BW08-SG08 3P-0100-PNP            | 0301496 |                    |
| KV BW08-SG08 3P-0200-PNP            | 0301497 |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

### Inductive proximity switches IN for SRU-plus with electric feed-through

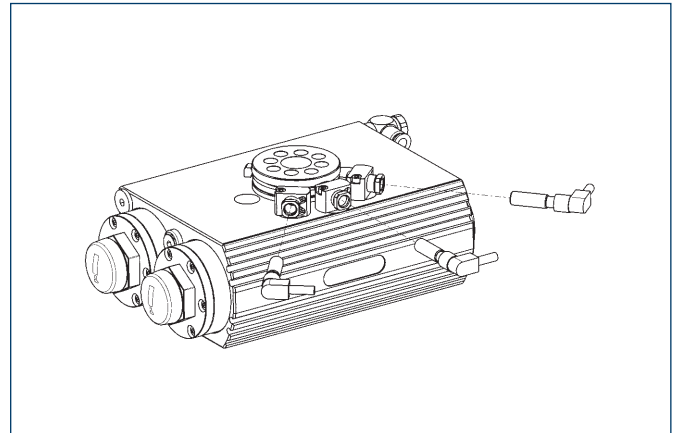


End position monitoring for direct mounting

| Description                         | ID       | Our recommendation |
|-------------------------------------|----------|--------------------|
| <b>Inductive proximity switches</b> |          |                    |
| IN 80-S-M8                          | 0301478  | •                  |
| IN 80-S-M12                         | 0301578  |                    |
| INK 80-S                            | 0301550  |                    |
| IN-C 80-S-M8                        | 0301475  |                    |
| INK 80-SL                           | 0301579  |                    |
| <b>Connection cables</b>            |          |                    |
| 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  |                    |
| <b>Cable extensions</b>             |          |                    |
| KV BG12-SG12 3P-0030-PNP            | 0301999  |                    |
| KV BG12-SG12 3P-0060-PNP            | 0301998  |                    |
| KV BW08-SG08 3P-0030-PNP            | 0301495  |                    |
| KV BW08-SG08 3P-0100-PNP            | 0301496  |                    |
| KV BW08-SG08 3P-0200-PNP            | 0301497  |                    |
| KV BW12-SG12 3P-0030-PNP            | 0301595  |                    |
| KV BW12-SG12 3P-0100-PNP            | 0301596  |                    |
| KV BW12-SG12 3P-0200-PNP            | 0301597  |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

### Inductive proximity switches IN for SRU-plus without electric feed-through

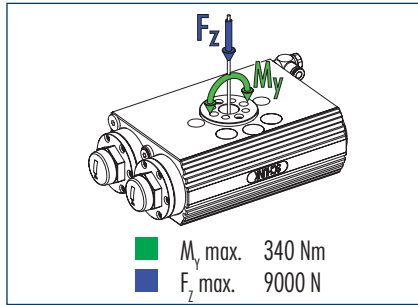
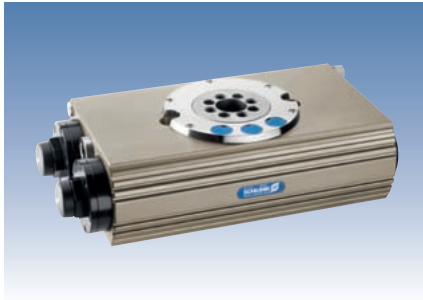


End position monitoring mounted with mounting kit

| Description                              | ID       | Our recommendation |
|--|----------|--------------------|
| <b>Mounting kit for proximity switch</b> |          |                    |
| AS-SRU-plus 40                           | 0357990  |                    |
| AS-SRU-plus 40-8                         | 0357991  |                    |
| <b>Connection cables</b>                 |          |                    |
| 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  |                    |
| <b>Inductive proximity switches</b>      |          |                    |
| IN 80-S-M8                               | 0301478  | •                  |
| IN 80-S-M12                              | 0301578  |                    |
| INK 80-S                                 | 0301550  |                    |
| IN-C 80-S-M8                             | 0301475  |                    |
| INK 80-SL                                | 0301579  |                    |
| <b>Cable extensions</b>                  |          |                    |
| KV BG12-SG12 3P-0030-PNP                 | 0301999  |                    |
| KV BG12-SG12 3P-0060-PNP                 | 0301998  |                    |
| KV BW08-SG08 3P-0030-PNP                 | 0301495  |                    |
| KV BW08-SG08 3P-0100-PNP                 | 0301496  |                    |
| KV BW08-SG08 3P-0200-PNP                 | 0301497  |                    |
| KV BW12-SG12 3P-0030-PNP                 | 0301595  |                    |
| KV BW12-SG12 3P-0100-PNP                 | 0301596  |                    |
| KV BW12-SG12 3P-0200-PNP                 | 0301597  |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① This mounting kit needs to be ordered optionally as an accessory.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.
- ① View applicable only for versions without EDF!

### Pinion load



ⓘ Moments and forces may occur simultaneously. When using heavy attachments or ones with high mass moments of inertia the speed must be restricted to ensure that the rotary movement occurs without any hitting or bouncing.

### Technical data of SRU-plus without middle position

| Description (soft damping)                               | SRU-plus 50-W-90-3 | SRU-plus 50-W-180-3 | SRU-plus 50-W-180-90 |
|--|--------------------|---------------------|----------------------|
| ID   | 0362600            | 0362620             | 0362650              |
| Description (hard damping)                               | SRU-plus 50-H-90-3 | SRU-plus 50-H-180-3 | SRU-plus 50-H-180-90 |
| ID   | 0362700            | 0362720             | 0362750              |
| Angle of rotation [°]                                    | 90.0               | 180.0               | 180.0                |
| End position adjustability [°]                           | 3.0                | 3.0                 | 90.0                 |
| Torque [Nm]  | 52.0               | 52.0                | 52.0                 |
| IP class   | 67                 | 67                  | 67                   |
| Weight [kg]  | 9.40               | 9.40                | 9.80                 |
| Fluid consumption (2 x nominal angle) [cm <sup>3</sup> ] | 448.0              | 776.0               | 776.0                |
| Nominal operating pressure [bar]                         | 6.0                | 6.0                 | 6.0                  |
| Min./max. operating pressure [bar]                       | 3/8                | 3/8                 | 3/8                  |
| Diameter of connecting hose [mm]                         | 6.0                | 6.0                 | 6.0                  |
| Min./max. ambient temperature [°C]                       | 5/60               | 5/60                | 5/60                 |
| Repeat accuracy [°]                                      | 0.05               | 0.05                | 0.05                 |
| ISO-classification 14644-1                               | 5                  | 5                   | 5                    |

### Options with fluid feed-through

| Description (soft damping)                | SRU-plus 50-W-90-3-8 | SRU-plus 50-W-180-3-8 | SRU-plus 50-W-180-90-8 |
|---|----------------------|-----------------------|------------------------|
| ID  | 0362602              | 0362622               | 0362652                |
| Description (hard damping)                | SRU-plus 50-H-90-3-8 | SRU-plus 50-H-180-3-8 | SRU-plus 50-H-180-90-8 |
| ID  | 0362702              | 0362722               | 0362752                |
| Torque [Nm]                               | 50.3                 | 50.3                  | 50.3                   |
| Weight [kg]                               | 9.60                 | 9.60                  | 10.00                  |
| No. of fluid feed-throughs                | 8                    | 8                     | 8                      |
| Max. pressure in fluid feed-through [bar] | 8                    | 8                     | 8                      |

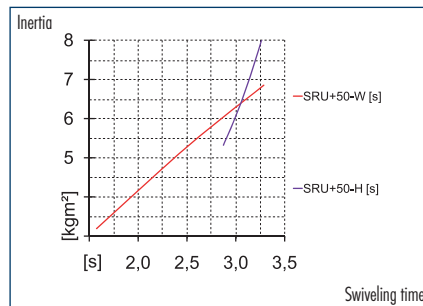
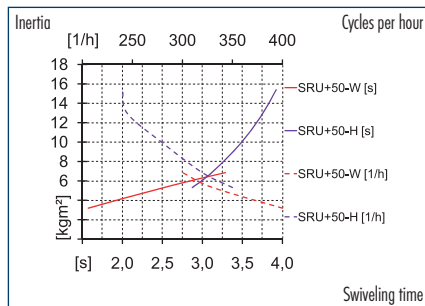
### Options with fluid and electric feed-through

| Description (soft damping)                | SRU-plus 50-W-90-3-8-M8 | SRU-plus 50-W-180-3-8-M8 | SRU-plus 50-W-180-90-8-M8 |
|---|-------------------------|--------------------------|---------------------------|
| ID  | 0362604                 | 0362624                  | 0362654                   |
| Description (hard damping)                | SRU-plus 50-H-90-3-8-M8 | SRU-plus 50-H-180-3-8-M8 | SRU-plus 50-H-180-90-8-M8 |
| ID  | 0362704                 | 0362724                  | 0362754                   |
| Torque [Nm]                               | 50.3                    | 50.3                     | 50.3                      |
| Weight [kg]                               | 11.55                   | 11.55                    | 11.95                     |
| No. of fluid feed-throughs                | 8                       | 8                        | 8                         |
| Max. pressure in fluid feed-through [bar] | 8                       | 8                        | 8                         |
| Number of cores                           | 10.0                    | 10.0                     | 10.0                      |
| Max. voltage [V]                          | 24                      | 24                       | 24                        |
| Max. current per wire [A]                 | 1                       | 1                        | 1                         |
| Max. total current [A]                    | 1                       | 1                        | 1                         |
| Number of E-fittings on the output end    | 9                       | 9                        | 9                         |

### Options with fluid and electric feed-through and mounting kit

| Description (soft damping) | SRU-plus 50-W-90-3-8-M8-AS | SRU-plus 50-W-180-3-8-M8-AS | SRU-plus 50-W-180-90-8-M8-AS |
|----------------------------|----------------------------|-----------------------------|------------------------------|
| ID                         | 0362607                    | 0362627                     | 0362657                      |
| Description (hard damping) | SRU-plus 50-H-90-3-8-M8-AS | SRU-plus 50-H-180-3-8-M8-AS | SRU-plus 50-H-180-90-8-M8-AS |
| ID                         | 0362707                    | 0362727                     | 0362757                      |

### Max. mass moment of inertia J



① The diagrams are valid for rotary angles of 90° and 180°, units without middle position and for applications with vertical rotary axis. Also for absolutely centric loads with horizontal rotary axis and with a pneumatic working pressure of 6 bars. The swiveling times need to be adjusted by using throttle valves, otherwise the life time could be reduced. Please contact us for calculations of other applications and further information.

### Technical data of SRU-plus with middle position

| Description (soft damping)            | SRU-plus 50-W-180-3-M      | SRU-plus 50-W-180-3-VM      | SRU-plus 50-W-180-90-M     |
|---------------------------------------|----------------------------|-----------------------------|----------------------------|
| ID                                    | 0362630                    | 0362640                     | 0362660                    |
| Angle of rotation                     | [°] 180.0                  | 180.0                       | 180.0                      |
| End position adjustability            | [°] 3.0                    | 3.0                         | 90.0                       |
| Torque                                | [Nm] 52.0                  | 52.0                        | 52.0                       |
| Middle position                       | M (pneum. middle position) | VM (locked middle position) | M (pneum. middle position) |
| Adjustability of middle position      | [°] 3.0                    | 3.0                         | 3.0                        |
| IP class                              | 67                         | 67                          | 67                         |
| Weight                                | [kg] 12.20                 | 12.80                       | 12.60                      |
| Fluid consumption (2 x nominal angle) | [cm³] 776.0                | 776.0                       | 776.0                      |
| Nominal operating pressure            | [bar] 6.0                  | 6.0                         | 6.0                        |
| Min./max. operating pressure          | [bar] 3/8                  | 4/6.5                       | 3/8                        |
| Diameter of connecting hose           | [mm] 6.0                   | 6.0                         | 6.0                        |
| Min./max. ambient temperature         | [°C] 5/60                  | 5/60                        | 5/60                       |
| Repeat accuracy                       | [°] 0.05                   | 0.05                        | 0.05                       |
| ISO-classification 14644-1            | 5                          | 5                           | 5                          |

### Options with fluid feed-through

| Description (soft damping)          | SRU-plus 50-W-180-3-M-8 | SRU-plus 50-W-180-3-VM-8 | SRU-plus 50-W-180-90-M-8 |
|-------------------------------------|-------------------------|--------------------------|--------------------------|
| ID                                  | 0362632                 | 0362642                  | 0362662                  |
| Torque                              | [Nm] 50.3               | 50.3                     | 50.3                     |
| Weight                              | [kg] 12.40              | 13.00                    | 12.80                    |
| No. of fluid feed-throughs          | 8                       | 8                        | 8                        |
| Max. pressure in fluid feed-through | [bar] 8                 | 8                        | 8                        |

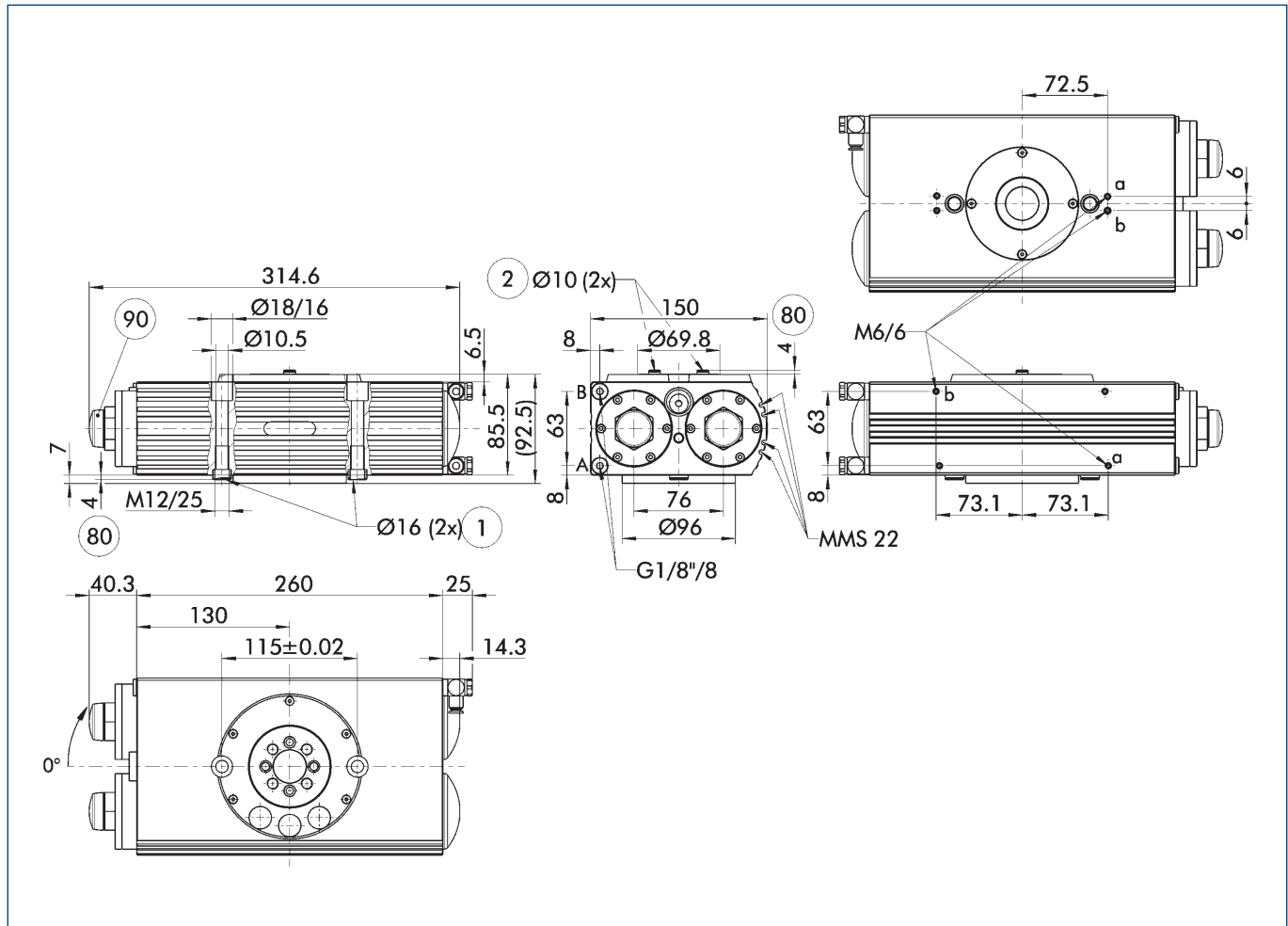
### Options with fluid and electric feed-through

| Description (soft damping)             | SRU-plus 50-W-180-3-M-8-M8 | SRU-plus 50-W-180-3-VM-8-M8 | SRU-plus 50-W-180-90-M-8-M8 |
|--|----------------------------|-----------------------------|-----------------------------|
| ID                                     | 0362634                    | 0362644                     | 0362664                     |
| Torque                                 | [Nm] 50.3                  | 50.3                        | 50.3                        |
| Weight                                 | [kg] 14.35                 | 14.95                       | 14.75                       |
| No. of fluid feed-throughs             | 8                          | 8                           | 8                           |
| Max. pressure in fluid feed-through    | [bar] 8                    | 8                           | 8                           |
| Number of cores                        | 10.0                       | 10.0                        | 10.0                        |
| Max. voltage                           | [V] 24                     | 24                          | 24                          |
| Max. current per wire                  | [A] 1                      | 1                           | 1                           |
| Max. total current                     | [A] 1                      | 1                           | 1                           |
| Number of E-fittings on the output end | 9                          | 9                           | 9                           |

### Options with fluid and electric feed-through and mounting kit

| Description (soft damping) | SRU-plus 50-W-180-3-M-8-M8-AS | SRU-plus 50-W-180-3-VM-8-M8-AS | SRU-plus 50-W-180-90-M-8-M8-AS |
|----------------------------|-------------------------------|--------------------------------|--------------------------------|
| ID                         | 0362637                       | 0362647                        | 0362667                        |

## Main views for SRU-plus without EDF

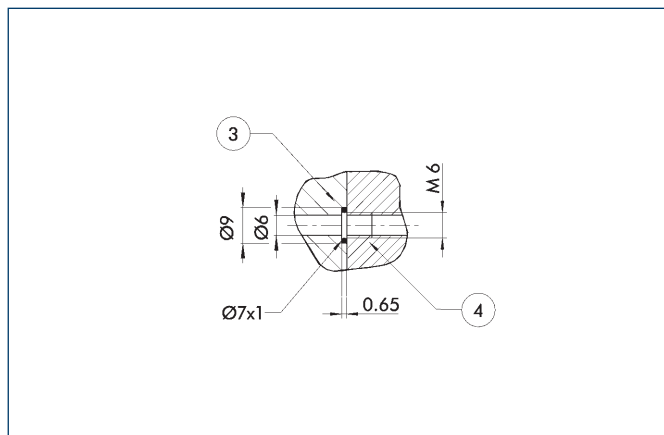


The main view shows the SRU-plus in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

- A, a Main/direct connection, clockwise rotary actuator
- B, b Main/direct connection, anti-clockwise rotary actuator
- ① Rotary actuator connection
- ② Attachment connection
- 80 Depth of the centering sleeve hole in the matching part
- 90 Setting shock absorber stroke

① The SDV-P pressure maintenance valve can be used to hold the position upon a loss of pressure (see „Accessories“ catalog section).

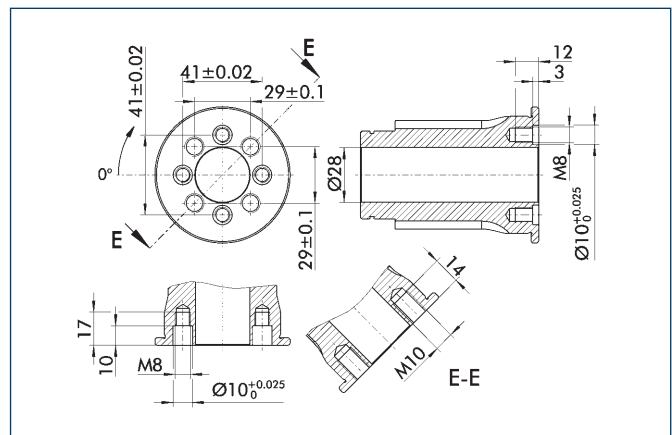
### Hose-free direct connection



- ③ Adapter
- ④ Rotary actuator

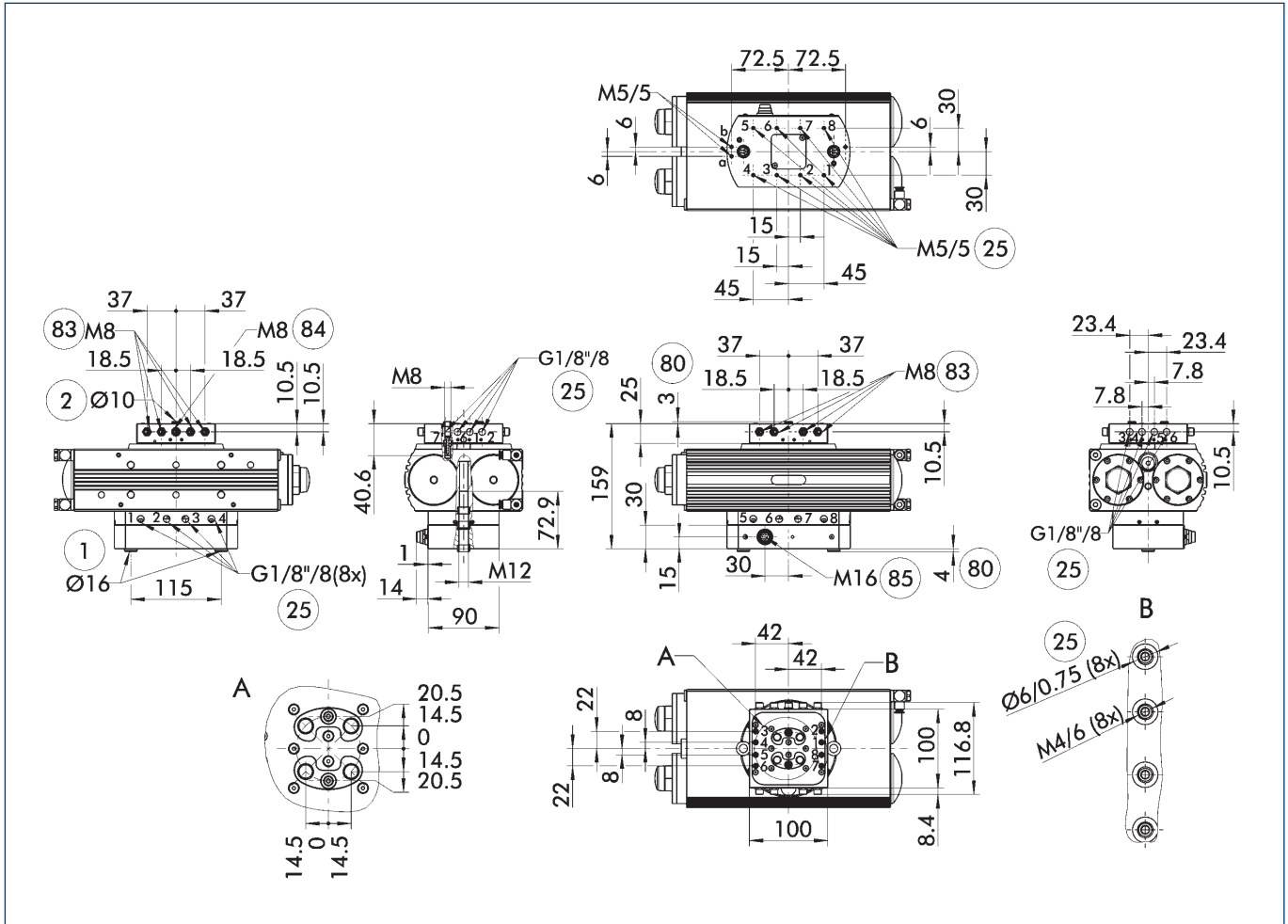
The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

### Pinion without fluid feed-through



Pinion screw connection diagram for mounting the swiveling attachment. The „4x large thread for 4x screw and 2x flat fit for guide sleeve“ screw connection diagram is preferable to the „4x small thread for 2x screw and 2x dowel screw“ (in deep fit) screw connection diagram.

### Main views for SRU with EDF



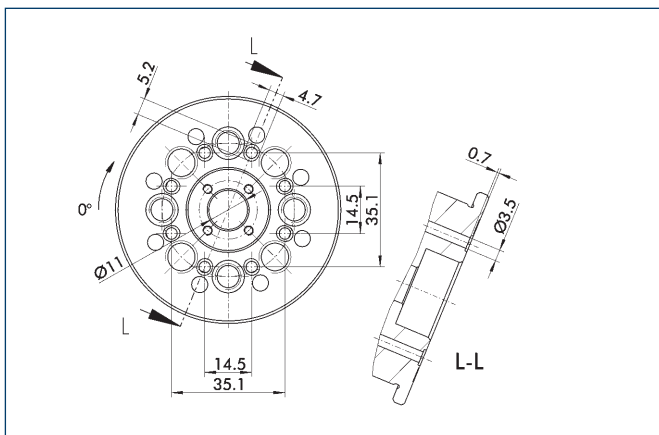
The main view shows the SRU in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

① The SDV-P pressure maintenance valve can be used to hold the position upon a loss of pressure (see „Accessories“ catalog section).

- A, a Main/direct connection, clockwise rotary actuator
- B, b Main/direct connection, anti-clockwise rotary actuator
- ① Rotary actuator connection
- ② Attachment connection
- ⑤ Fluid feed-through

- ⑧⑩ Depth of the centering sleeve hole in the matching part
- ⑧③ Flange socket for 3-pin sensor feed-through
- ⑧④ Flange socket for 4-pin sensor feed-through
- ⑧⑤ Output for sensor feed-through

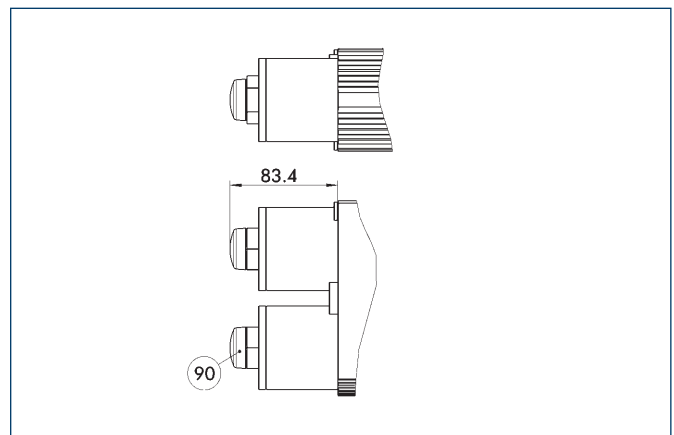
### Pinion with fluid feed-through



Pinion screw connection diagram for mounting the swiveling attachment. The „4x large thread for 4x screw and 2x flat fit for guide sleeve“ screw connection diagram is preferable to the „4x small thread for 2x screw and 2x dowel screw“ (in deep fit) screw connection diagram.

① View applicable only for versions without EDF!

### Large end position adjustability 90°

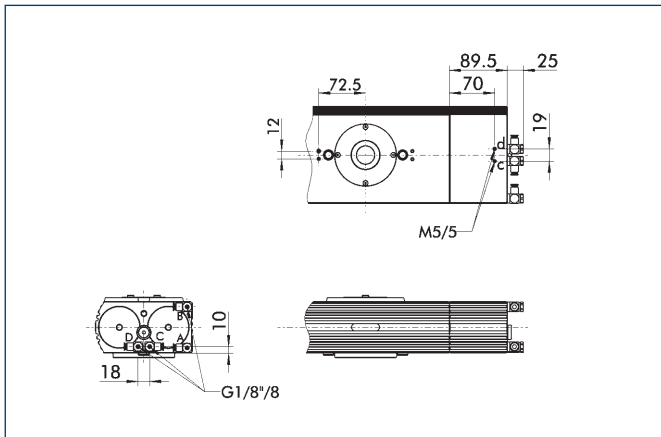


⑨⑩ Setting shock absorber stroke

Different dimensions with the option „Large end position adjustability (90°)“. This permits the end positions to be adjusted by up to 93°. More information can be found in the introduction to the series.



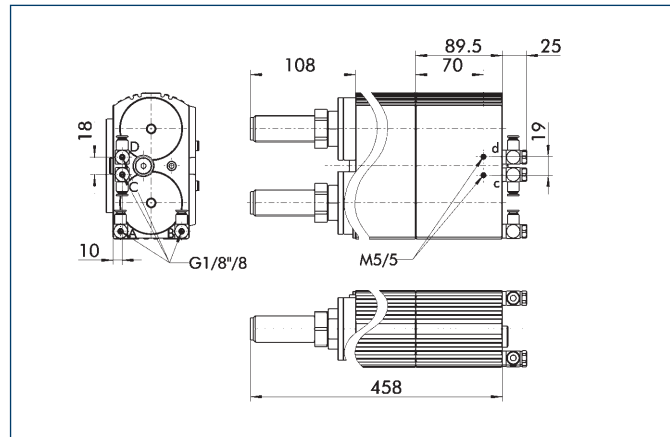
### Pneumatic middle position (M)



C, c Main/direct connection, middle position  
D, d Main/direct connection, middle position

Different dimensions with the „Pneumatic middle position (M)“ option. Heavy attachments may have to level out until they reach the correct position. The locked middle position (VM) offers relief.

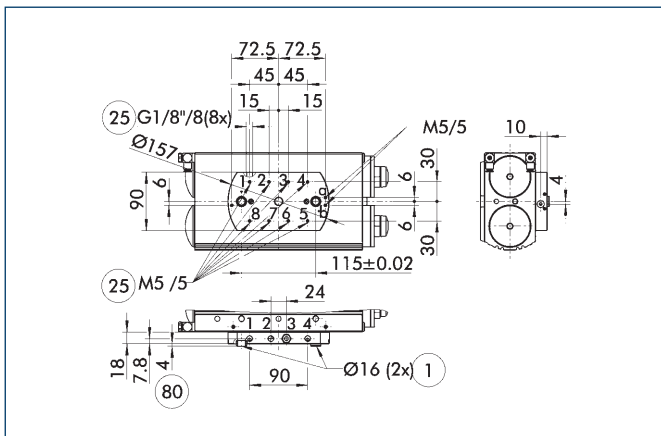
### Locked middle position (VM)



C, c Main/direct connection, middle position  
D, d Main/direct connection, middle position

Different dimensions with the „Locked middle position (VM)“ option. The middle position is locked. The unit travels to middle position using the force of the main drive piston. Shock absorbers brake the travel to middle position as fast as possible to prevent overshooting.

### Connections for fluid feed-through

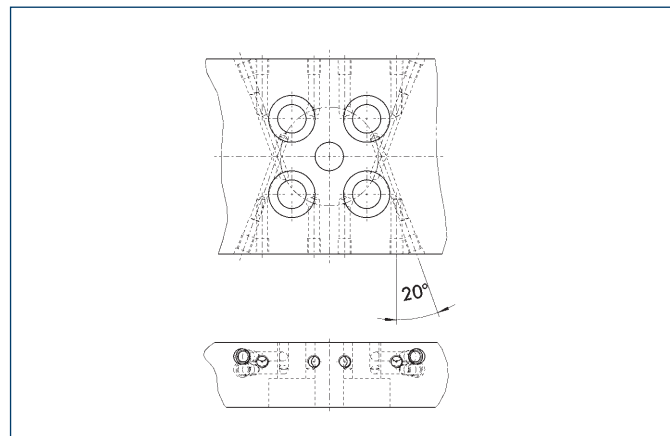


① Rotary actuator connection  
②⑤ Fluid feed-through  
⑧⑩ Depth of the centering sleeve hole in the matching part

Lower mounting plate for the „Fluid feed-through“ option. Vacuum, gases or fluids can be conveyed. The connection may be a screw type or a direct connection.

① View applicable only for versions without EDF!

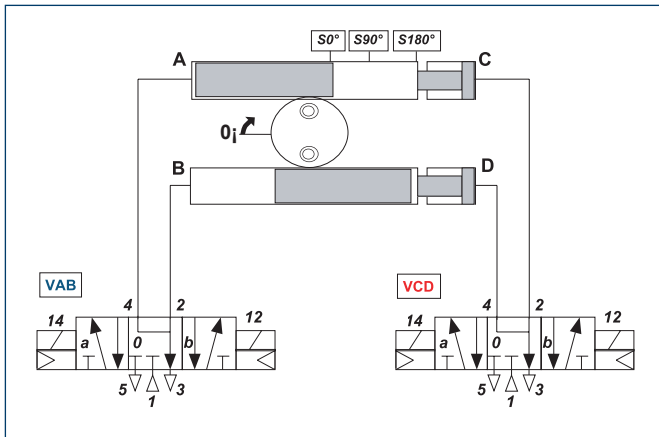
### Adapter plate arrangement



Suggested here is an arrangement of the adapter plate which enables all fluid feed-throughs to be reached as easily as possible.

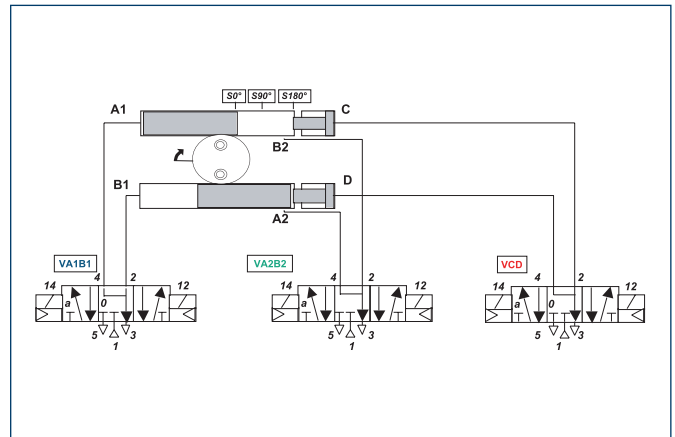
① View applicable only for versions without EDF!

### Pneumatic diagram of SRU-plus-VM – vertical axis



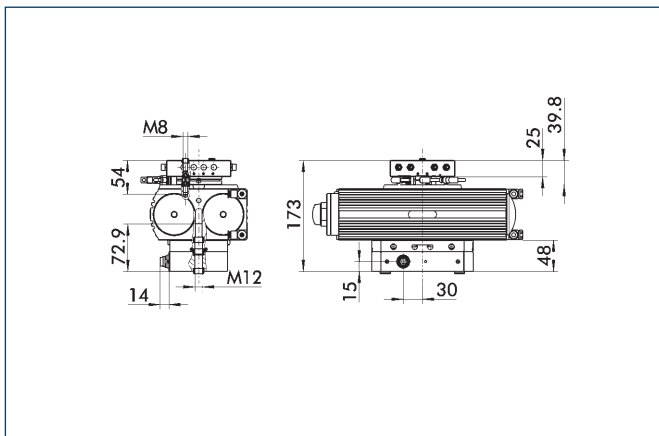
VM units with vertical swivel axis are generally actuated by two 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

### Pneumatic diagram of SRU-plus-VM – horizontal axis



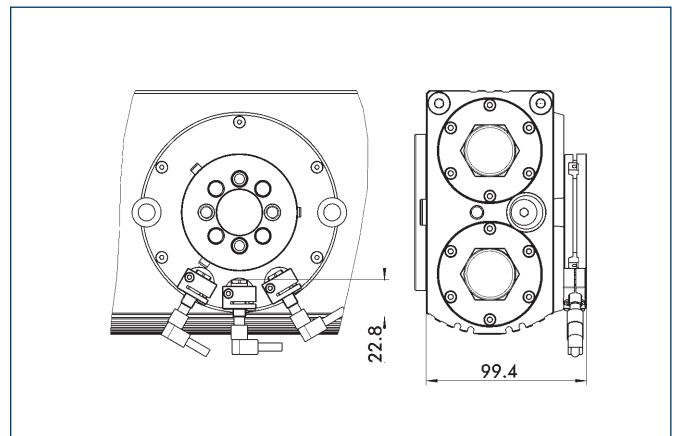
VM units with horizontal or non-vertical swivel axis must generally be actuated by three 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

### Mounting kit for proximity switch at SRU-plus with EDF



The mounting kit cannot be ordered separately. The SRU-plus rotary actuator with electric feed-through and mounting kit will be assembled and delivered as a complete unit by SCHUNK. Please pay attention to our options SRU-plus ...AS.

### Mounting kit for proximity switch at SRU-plus without EDF

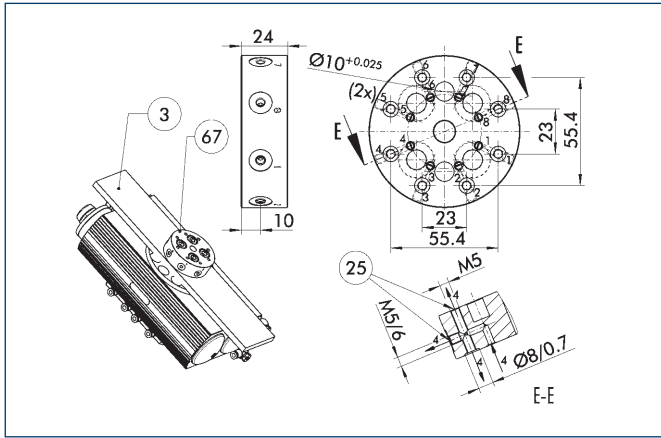


The size-specific mounting kit is required for installing the inductive proximity switches. Up to three proximity switches (2x end position, 1x middle position) can be attached using the mounting kit.

| Description                       | ID      |
|-----------------------------------|---------|
| Mounting kit for proximity switch |         |
| AS-SRU-plus 50/60                 | 0358190 |
| AS-SRU-plus 50/60-8               | 0358191 |

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

### Distributor for SRU-plus



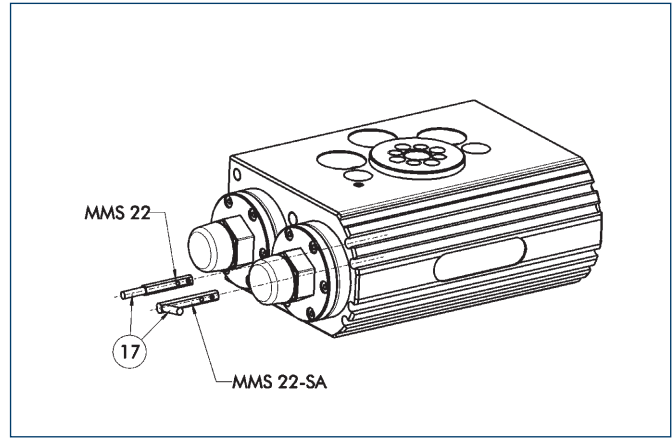
- ③ Adapter
- ⑥ Fluid feed-through
- ⑥⑦ Distributor for fluid feed-through

The distributor for SRU-plus facilitates the use of the fluid feed-throughs, both at the direct attachment to the distributor and in the lines conveying the fluid inside the adapter plate. Thanks to the distributor, only a simple drilling pattern has to be drilled in the adapter plate situated between the pinion and the distributor.

| Description              | ID      |
|--------------------------|---------|
| Distributor for SRU-plus |         |
| V-SRU-plus 50/60         | 0358192 |

① View applicable only for versions without EDF!

### Electronic magnetic switches

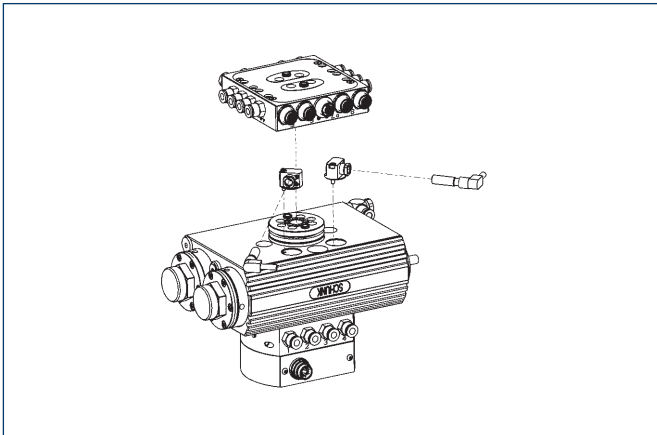


- ①⑦ Cable outlet
- End position monitoring for mounting in the C-slot

| Description                         | ID      | Our recommendation |
|-------------------------------------|---------|--------------------|
| <b>Electronic magnetic switches</b> |         |                    |
| MMS 22-S-M5-PNP                     | 0301438 |                    |
| MMS 22-S-M5-NPN                     | 0301439 |                    |
| MMS 22-S-M8-PNP                     | 0301432 | •                  |
| MMS 22-S-M8-NPN                     | 0301433 |                    |
| MMSK 22-S-PNP                       | 0301434 |                    |
| MMSK 22-S-NPN                       | 0301435 |                    |
| MMS 22-S-M5-PNP-SA                  | 0301448 |                    |
| MMS 22-S-M5-NPN-SA                  | 0301449 |                    |
| MMS 22-S-M8-PNP-SA                  | 0301442 |                    |
| MMS 22-S-M8-NPN-SA                  | 0301443 |                    |
| MMSK 22-S-PNP-SA                    | 0301444 |                    |
| MMSK 22-S-NPN-SA                    | 0301445 |                    |
| <b>Connection cables</b>            |         |                    |
| KA BG05-L 3P-0300                   | 0301652 |                    |
| KA BG08-L 3P-0300-PNP               | 0301622 |                    |
| KA BG08-L 3P-0500-PNP               | 0301623 |                    |
| KA BW05-L 3P-0300                   | 0301650 |                    |
| KA BW08-L 3P-0300-NPN               | 0301602 |                    |
| KA BW08-L 3P-0300-PNP               | 0301594 |                    |
| KA BW08-L 3P-0500-NPN               | 9641116 |                    |
| KA BW08-L 3P-0500-PNP               | 0301502 |                    |
| <b>Cable extensions</b>             |         |                    |
| KV BW08-SG08 3P-0030-PNP            | 0301495 |                    |
| KV BW08-SG08 3P-0100-PNP            | 0301496 |                    |
| KV BW08-SG08 3P-0200-PNP            | 0301497 |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

### Inductive proximity switches IN for SRU-plus with electric feed-through

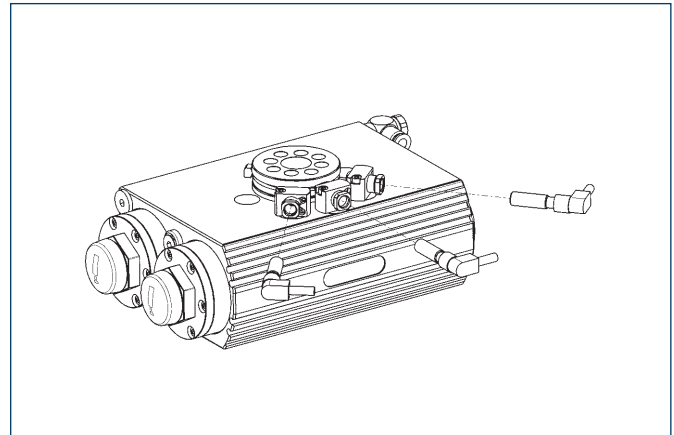


End position monitoring for direct mounting

| Description                         | ID       | Our recommendation |
|-------------------------------------|----------|--------------------|
| <b>Inductive proximity switches</b> |          |                    |
| IN 80-S-M8                          | 0301478  | •                  |
| IN 80-S-M12                         | 0301578  |                    |
| INK 80-S                            | 0301550  |                    |
| IN-C 80-S-M8                        | 0301475  |                    |
| INK 80-SL                           | 0301579  |                    |
| <b>Connection cables</b>            |          |                    |
| 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  |                    |
| <b>Cable extensions</b>             |          |                    |
| KV BG12-SG12 3P-0030-PNP            | 0301999  |                    |
| KV BG12-SG12 3P-0060-PNP            | 0301998  |                    |
| KV BW08-SG08 3P-0030-PNP            | 0301495  |                    |
| KV BW08-SG08 3P-0100-PNP            | 0301496  |                    |
| KV BW08-SG08 3P-0200-PNP            | 0301497  |                    |
| KV BW12-SG12 3P-0030-PNP            | 0301595  |                    |
| KV BW12-SG12 3P-0100-PNP            | 0301596  |                    |
| KV BW12-SG12 3P-0200-PNP            | 0301597  |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

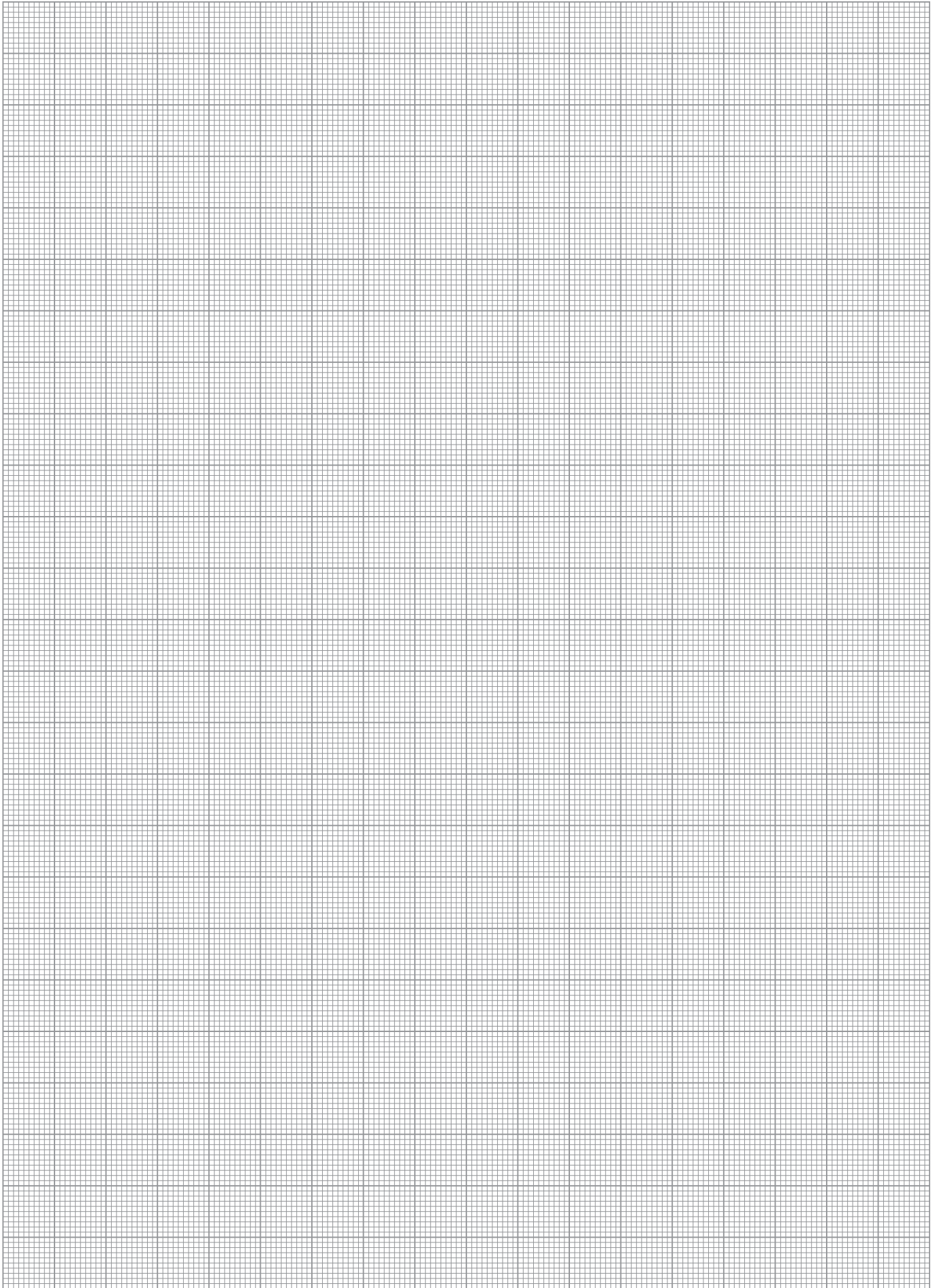
### Inductive proximity switches IN for SRU-plus without electric feed-through



End position monitoring mounted with mounting kit

| Description                              | ID       | Our recommendation |
|--|----------|--------------------|
| <b>Mounting kit for proximity switch</b> |          |                    |
| AS-SRU-plus 50/60                        | 0358190  |                    |
| AS-SRU-plus 50/60-8                      | 0358191  |                    |
| <b>Connection cables</b>                 |          |                    |
| 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  |                    |
| <b>Inductive proximity switches</b>      |          |                    |
| IN 80-S-M8                               | 0301478  | •                  |
| IN 80-S-M12                              | 0301578  |                    |
| INK 80-S                                 | 0301550  |                    |
| IN-C 80-S-M8                             | 0301475  |                    |
| INK 80-SL                                | 0301579  |                    |
| <b>Cable extensions</b>                  |          |                    |
| KV BG12-SG12 3P-0030-PNP                 | 0301999  |                    |
| KV BG12-SG12 3P-0060-PNP                 | 0301998  |                    |
| KV BW08-SG08 3P-0030-PNP                 | 0301495  |                    |
| KV BW08-SG08 3P-0100-PNP                 | 0301496  |                    |
| KV BW08-SG08 3P-0200-PNP                 | 0301497  |                    |
| KV BW12-SG12 3P-0030-PNP                 | 0301595  |                    |
| KV BW12-SG12 3P-0100-PNP                 | 0301596  |                    |
| KV BW12-SG12 3P-0200-PNP                 | 0301597  |                    |

- ① Each rotary actuator generally requires two sensors, or three if there is additional monitoring of the middle position, plus extension cables as an option.
- ① This mounting kit needs to be ordered optionally as an accessory.
- ① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.
- ① View applicable only for versions without EDF!





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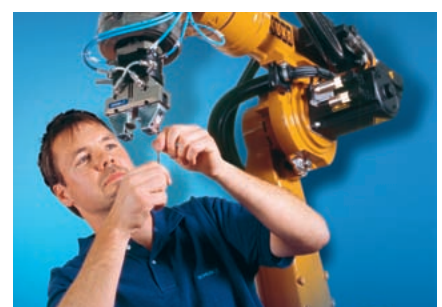
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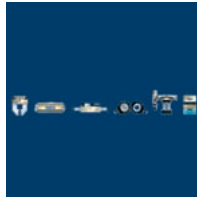
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