

SCHUNK ®


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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!

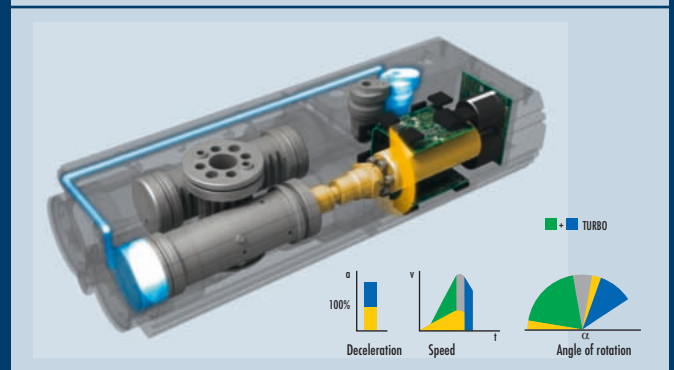
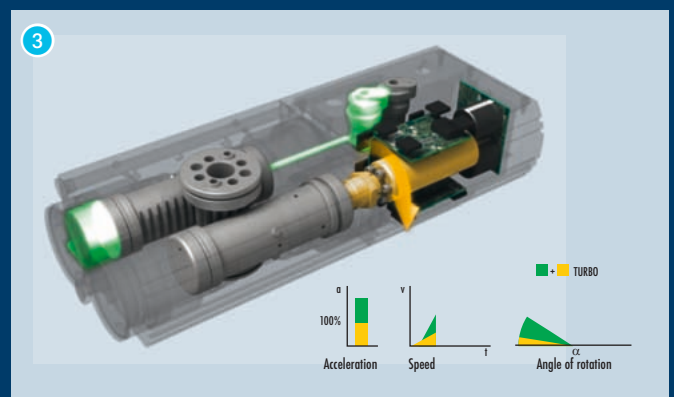
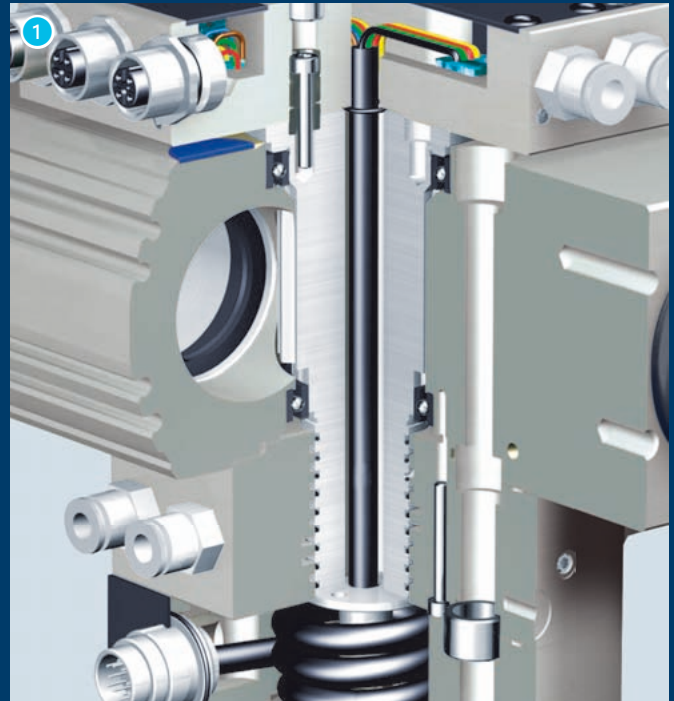
Mechanically locked middle position ②

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.

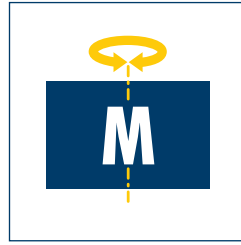




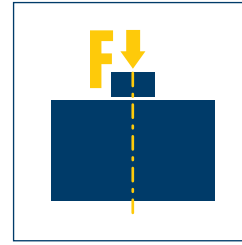
Sizes
20 .. 63



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

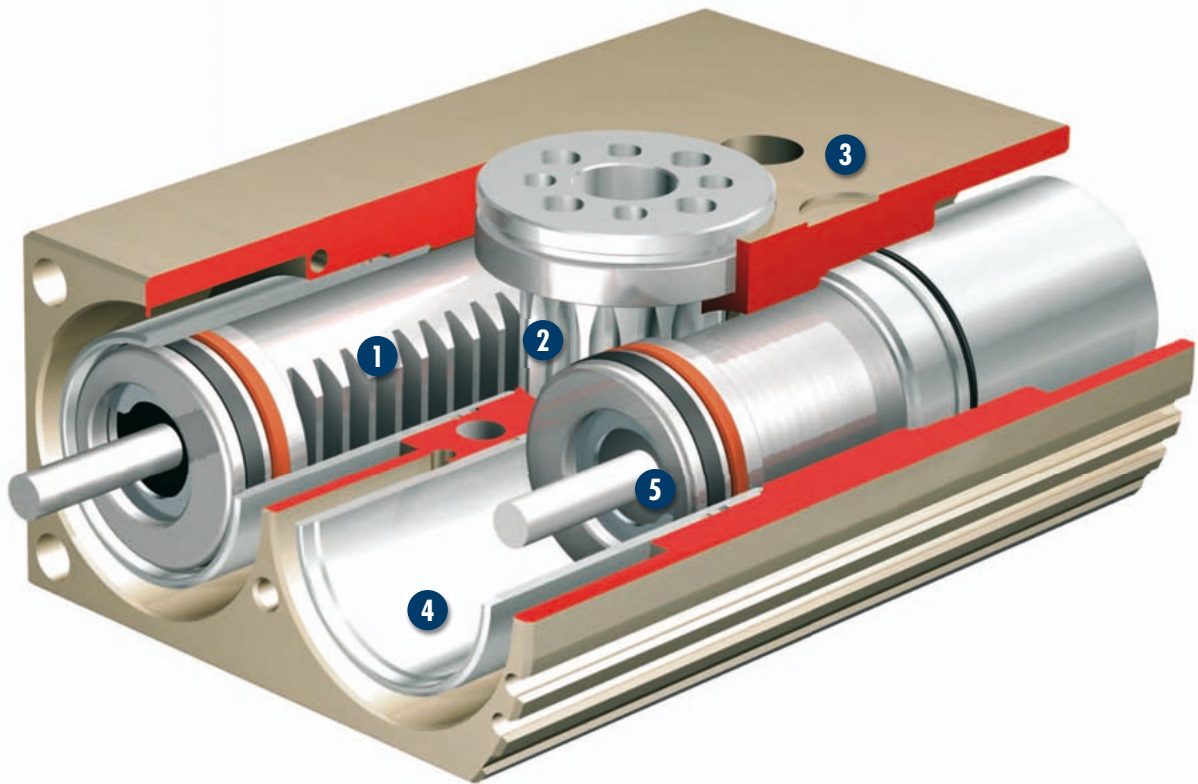
Actuation
Pneumatic, via filtered compressed air (10 µm): dry, lubricated, or non-lubricated
Pressurizing medium: requirements for compressed air quality class according to DIN ISO 8573-1: Quality class 4

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.

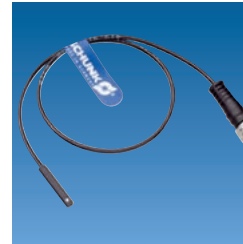
Centering sleeves



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.

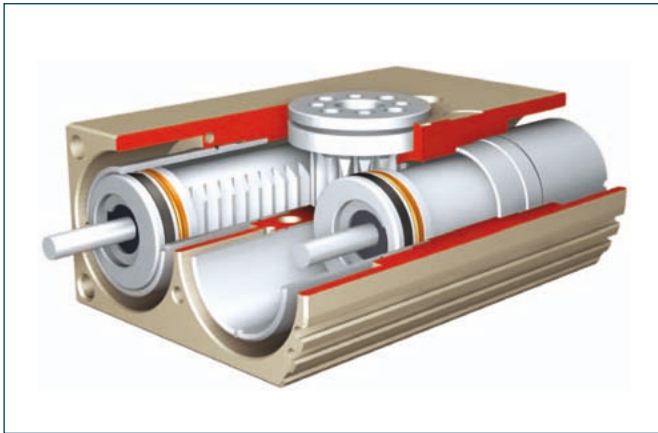
Cycle time

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

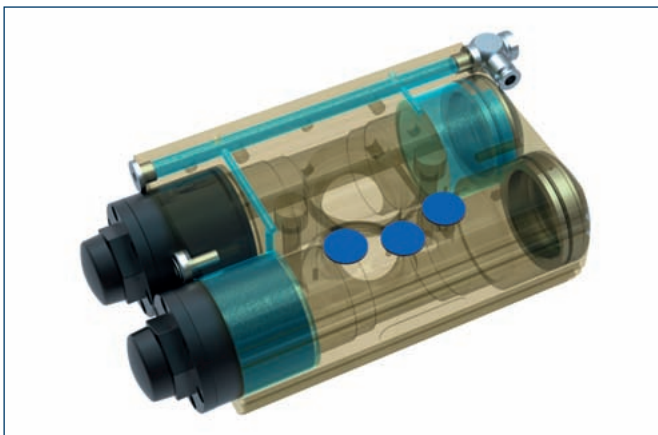
The diagrams shown here apply for angles of rotation of 90° and 180°, for units without a middle position, as well as for use with a vertical swiveling axis, and for purely centric loads with a horizontal swiveling axis and an operating pressure of 6 bar. The diagrams show the expected swiveling times 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



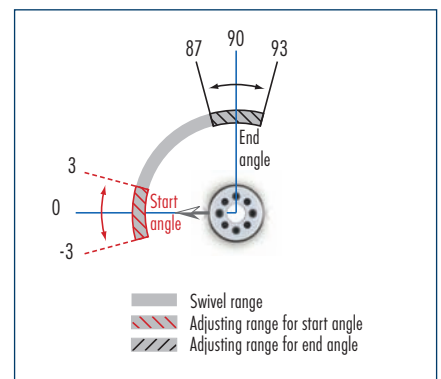
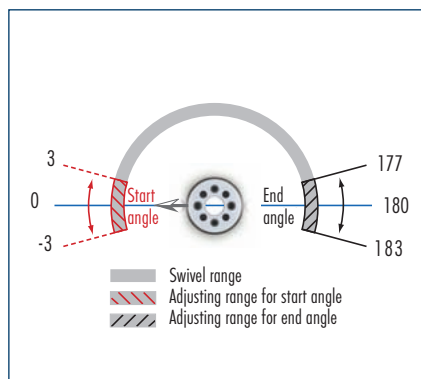
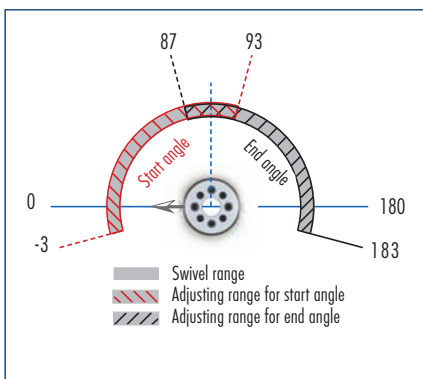
- For adjusting the dampening to the load and application for optimum cycle times

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

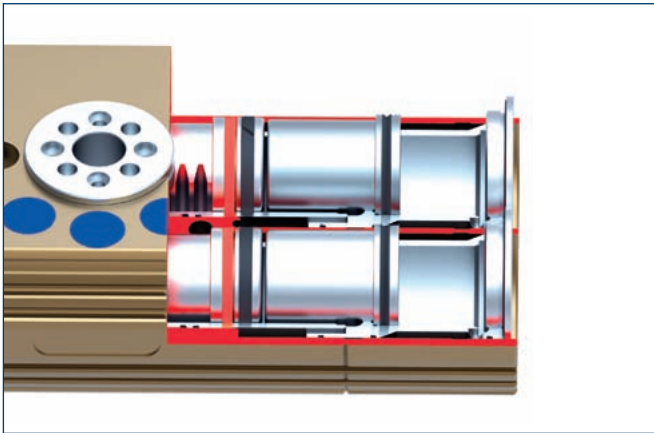
For 180° units and small end position adjustability (±3°) for fine adjustment

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



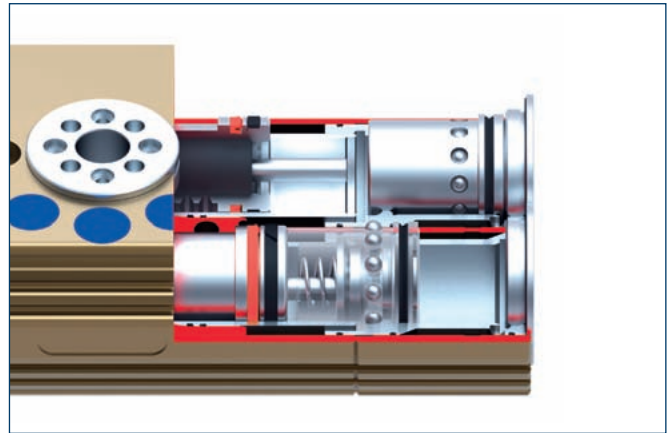
- Small end position adjustability for fast and precise fine adjustment
- Large end position adjustability for flexible adjustment of the angle of rotation

Pneumatic middle position (M)



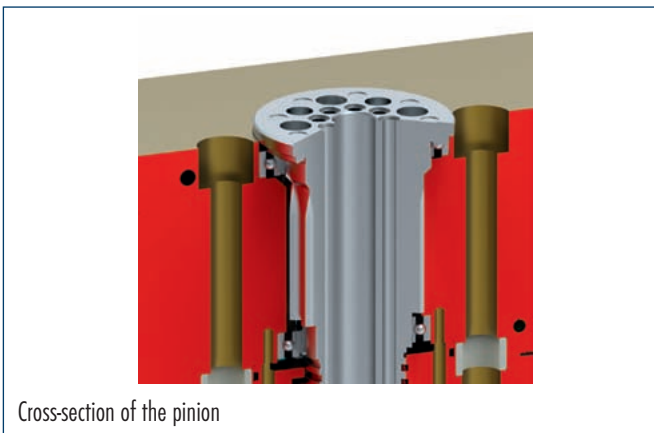
- Pneumatic middle position for flexibility in the intermediate position
- Middle position can be adjusted $\pm 3^\circ$ for quick fine adjustment

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

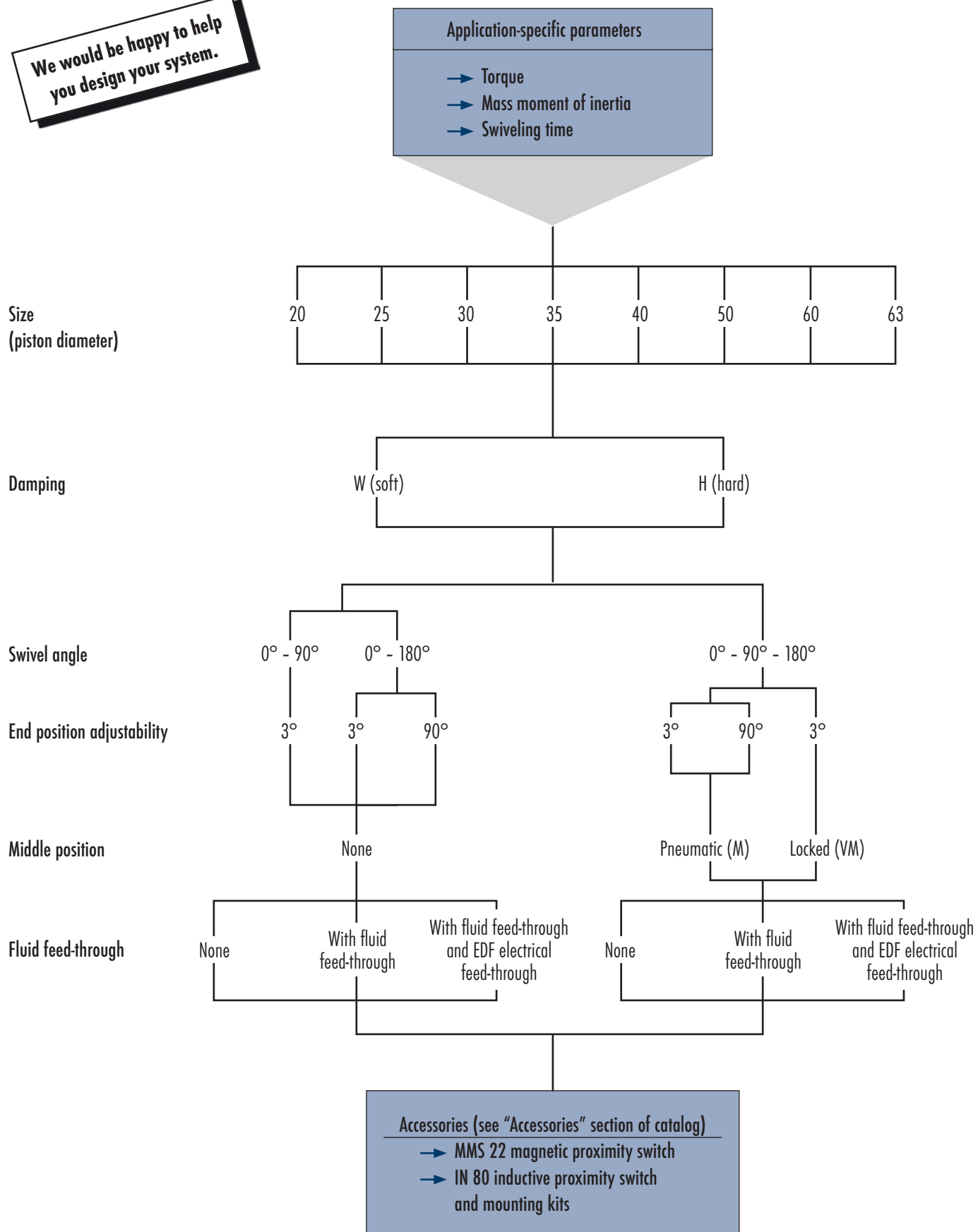
- Electronic magnetic switch can be completely recessed in the groove in order to minimize the interfering contour
- Up to eight positions can be monitored



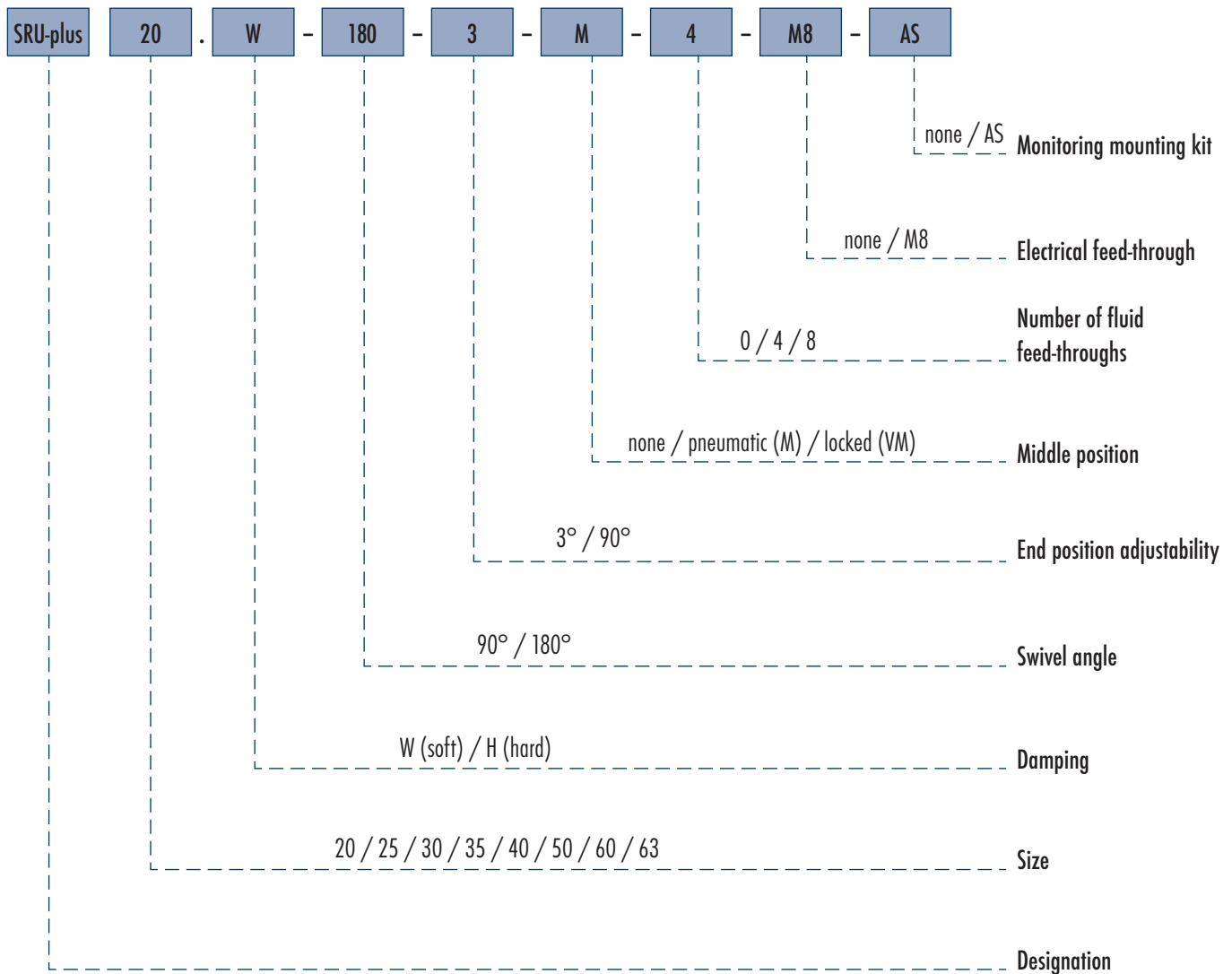
IN 80 inductive proximity switch

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

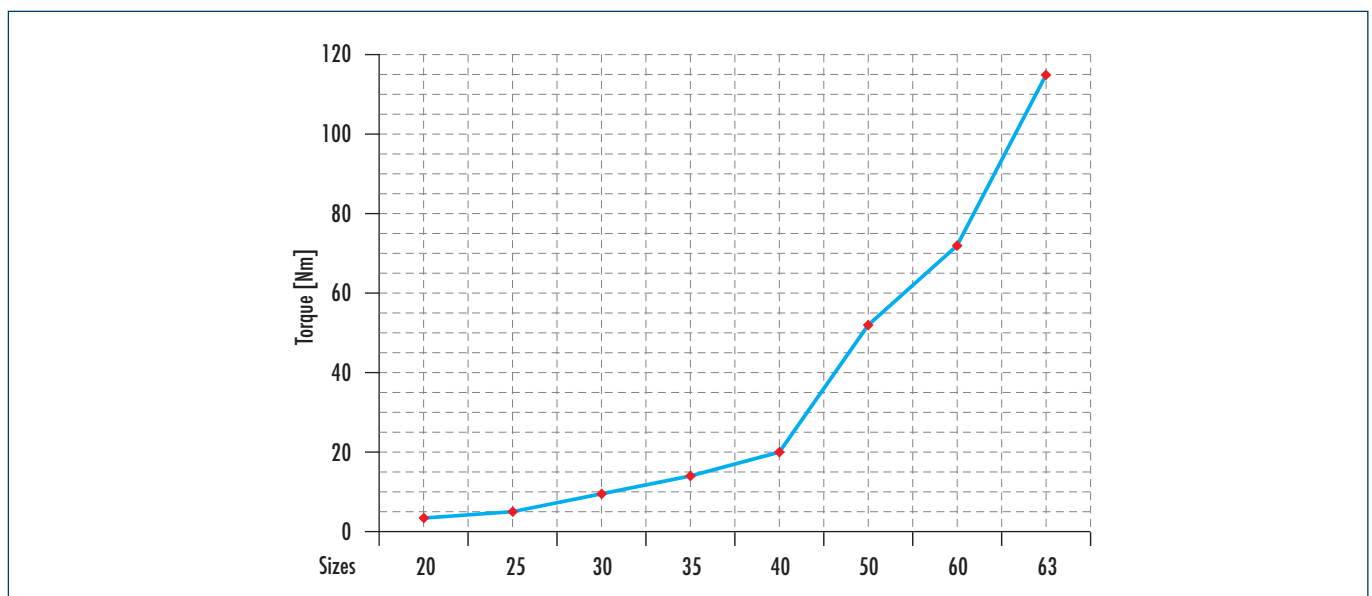
We would be happy to help you design your system.



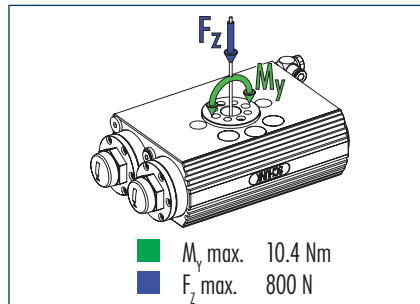
How to order



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 ³]	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

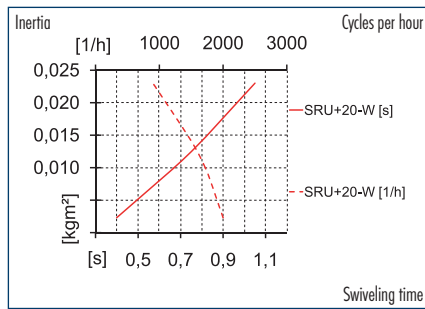
Options with fluid and electric feed-through

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

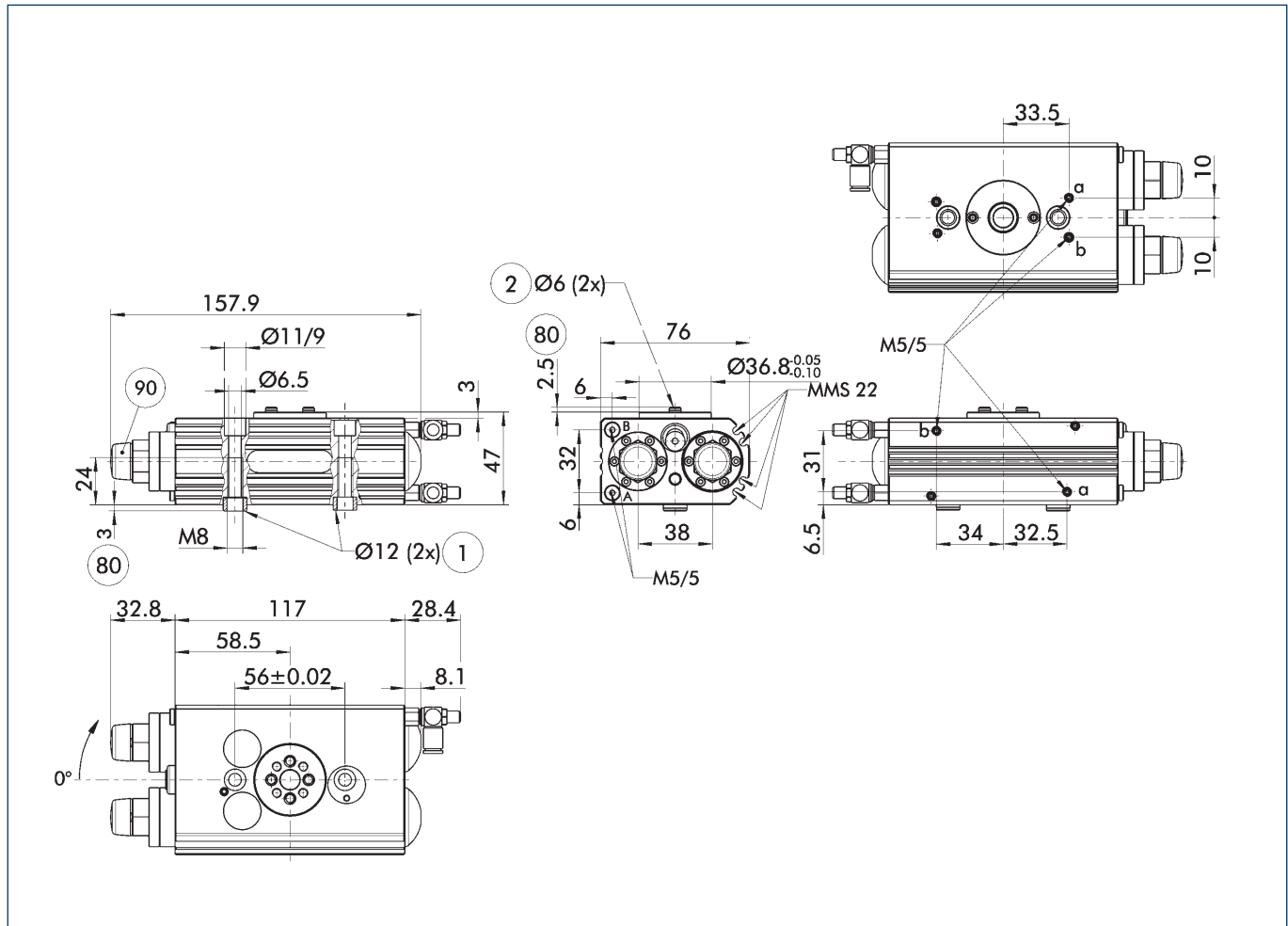
Options with fluid and electric feed-through

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

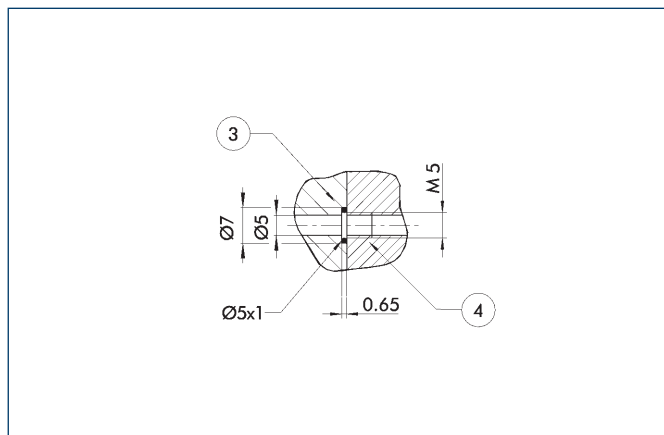


The main view shows the SRU-plus in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional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

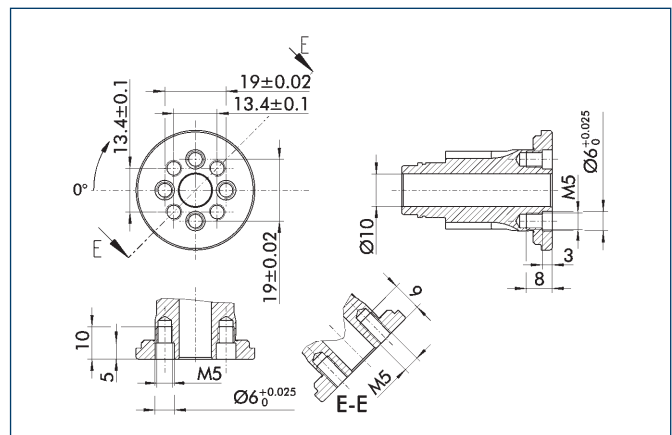
Hose-free direct connection



- 3 Adapter
- 4 Rotary actuator

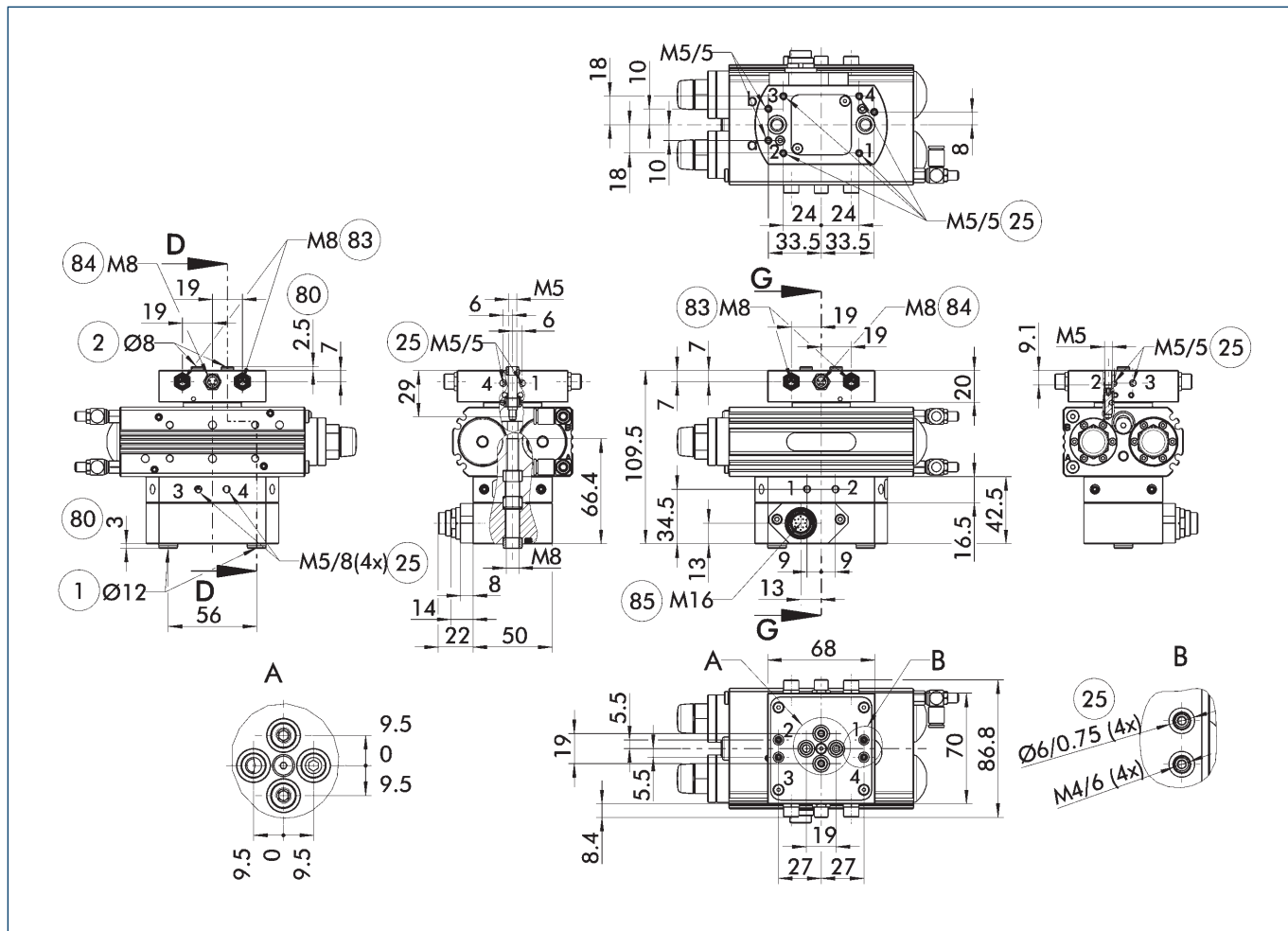
The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

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



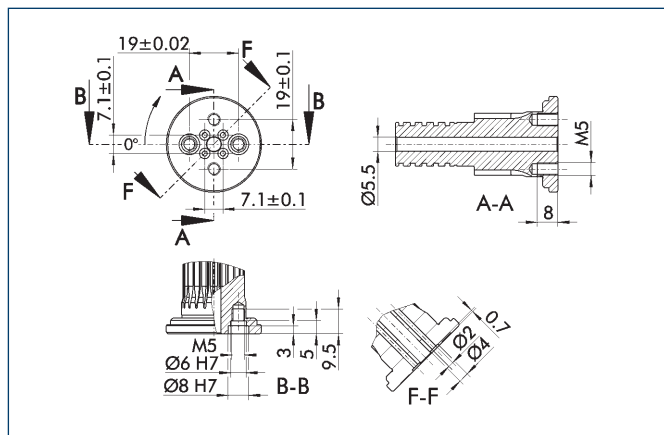
The main view shows the SRU in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

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
 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

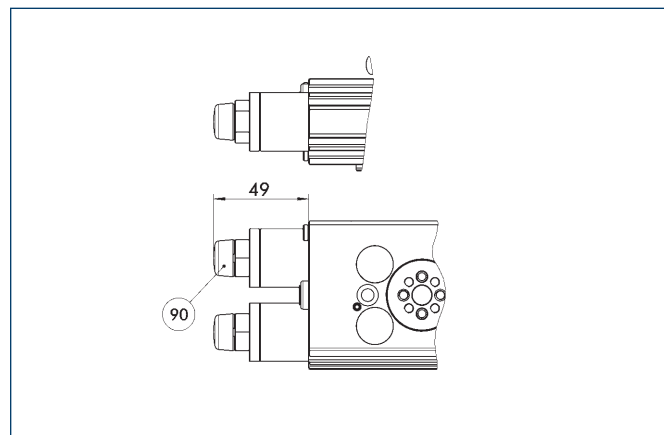
Pinion with fluid feed-through



Pinion screw connection diagram for 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!

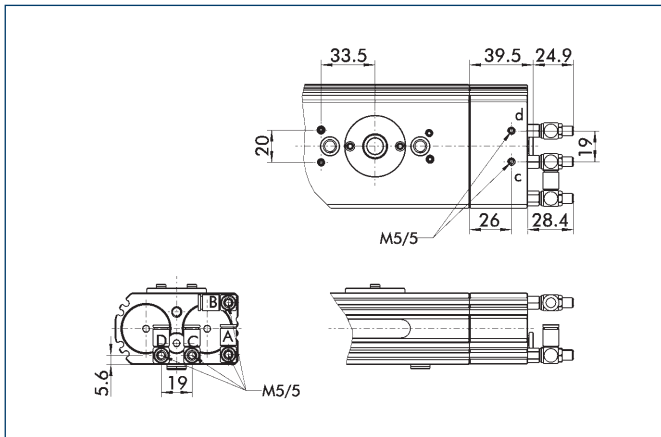
Large end position adjustability 90°



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.

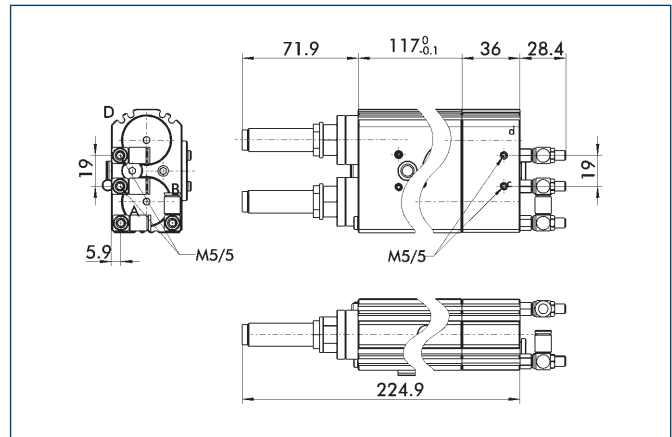
Pneumatic middle position (M)



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.

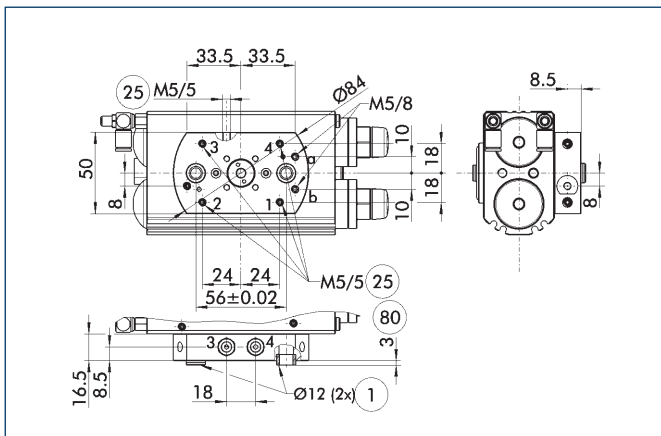
Locked middle position (VM)



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 middle position as fast as possible to prevent overshooting.

Connections for fluid feed-through

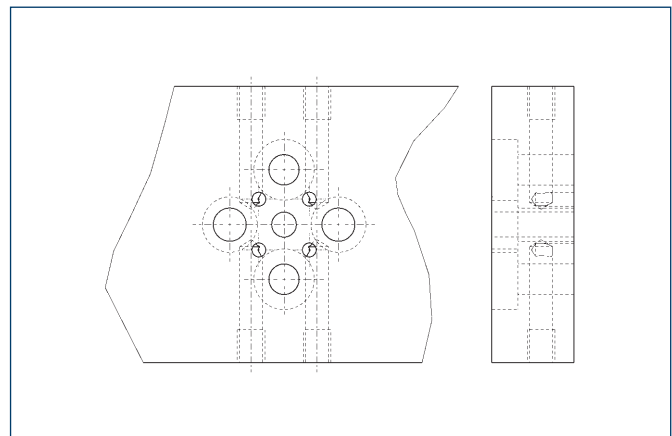


① Rotary actuator connection
② Fluid feed-through
⑧ Depth of the centering sleeve hole in the matching part

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!

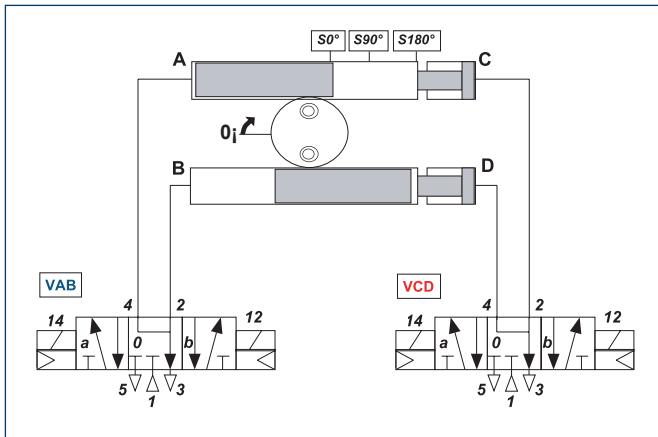
Adapter plate arrangement



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

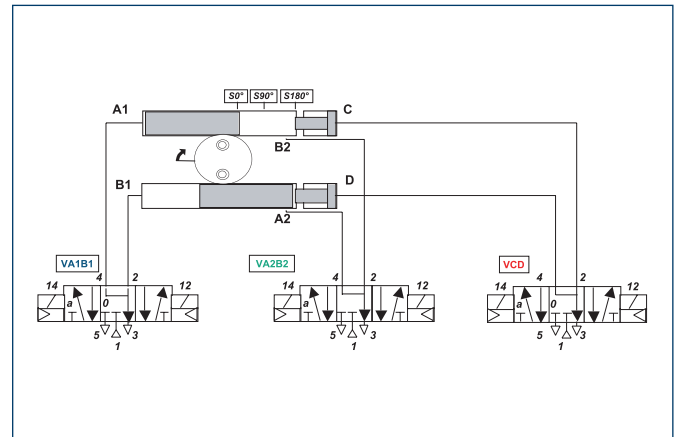
① View applicable only for versions without EDF!

Pneumatic diagram of SRU-plus-VM – vertical axis



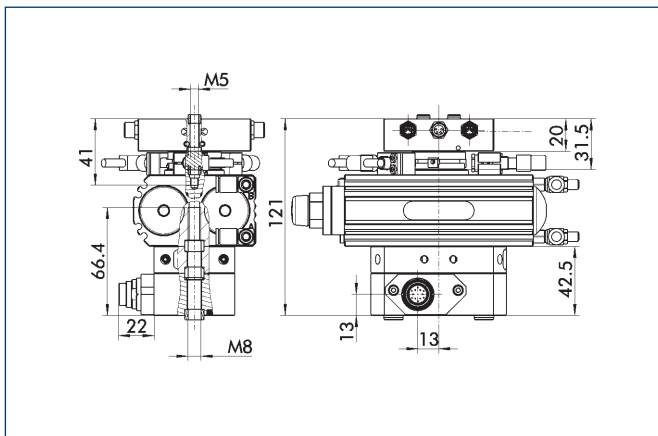
VM units with vertical swivel axis are generally actuated by two 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

Pneumatic diagram of SRU-plus-VM – horizontal axis



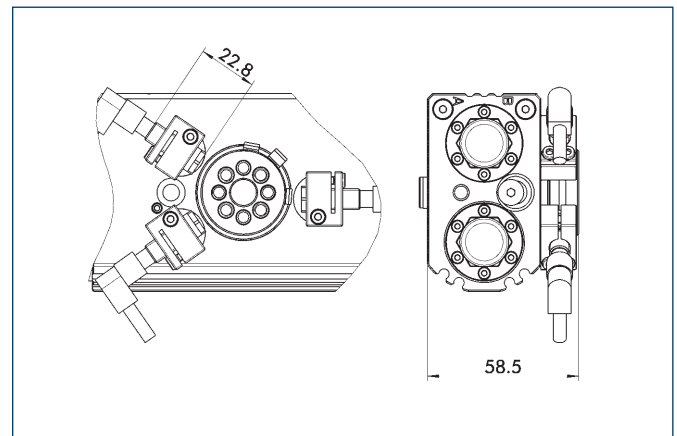
VM units with horizontal or non-vertical swivel axis must generally be actuated by three 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

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

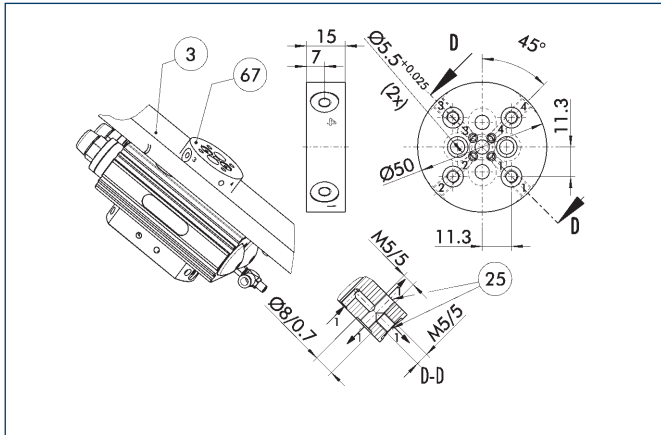


The size-specific mounting kit is required for installing the inductive proximity switches. Up to three proximity switches (2x end position, 1x middle position) can be attached using the mounting kit.

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



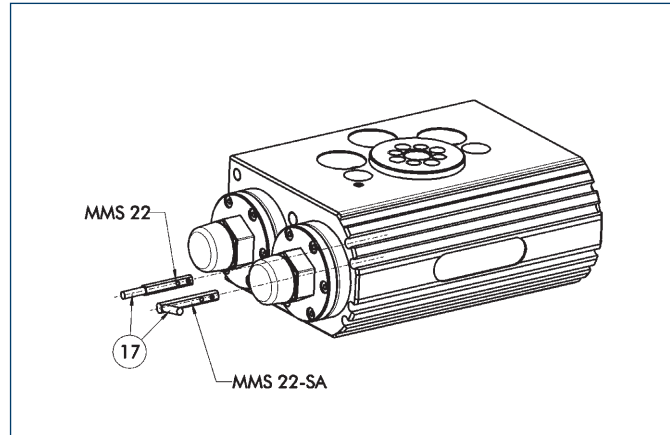
- ③ Adapter
- ②⑤ Fluid feed-through
- ⑥⑦ Distributor for fluid feed-through

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

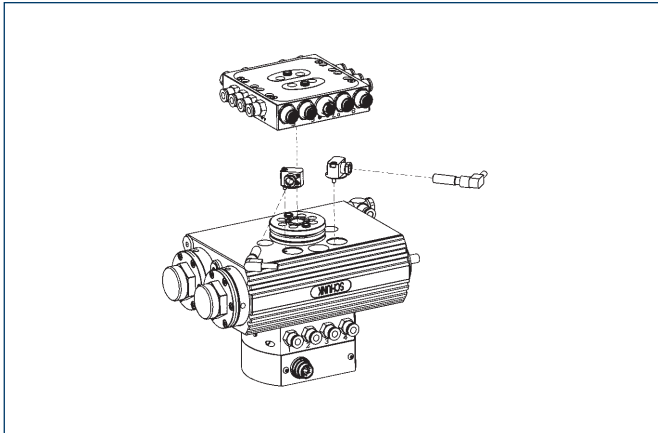


- ①⑦ Cable outlet
- End position monitoring for mounting in the C-slot

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

- ① 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

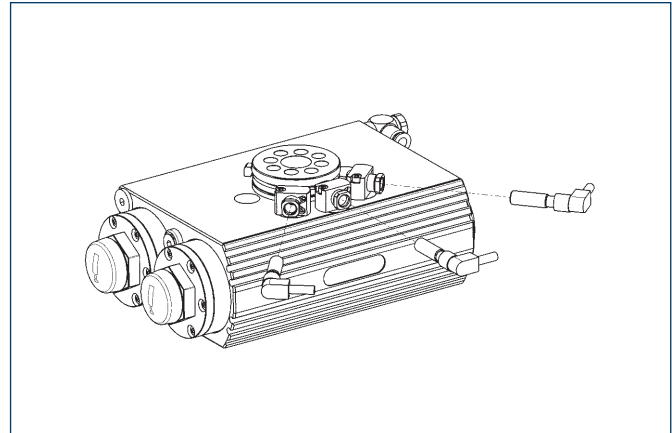


End position monitoring for direct mounting

Description	ID	Our recommendation
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
IN-C 80-S-M8	0301475	
INK 80-SL	0301579	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

- ① 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

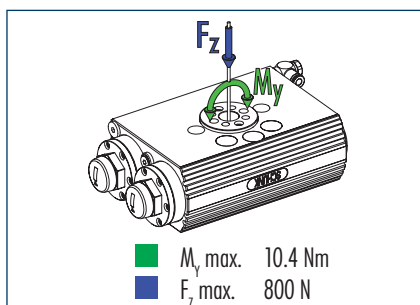


End position monitoring mounted with mounting kit

Description	ID	Our recommendation
Mounting kit for proximity switch		
AS-SRU-plus 20	0375390	
AS-SRU-plus 20/25/30-4	0357391	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
IN-C 80-S-M8	0301475	
INK 80-SL	0301579	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

- ① 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 ³] 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

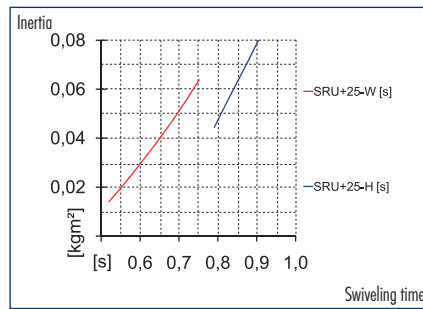
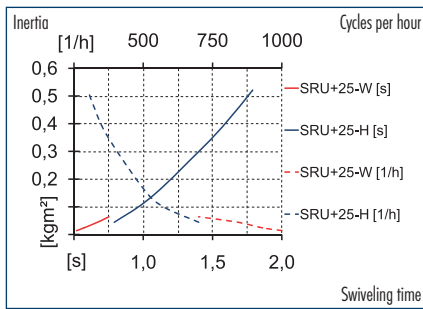
Options with fluid and electric feed-through

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

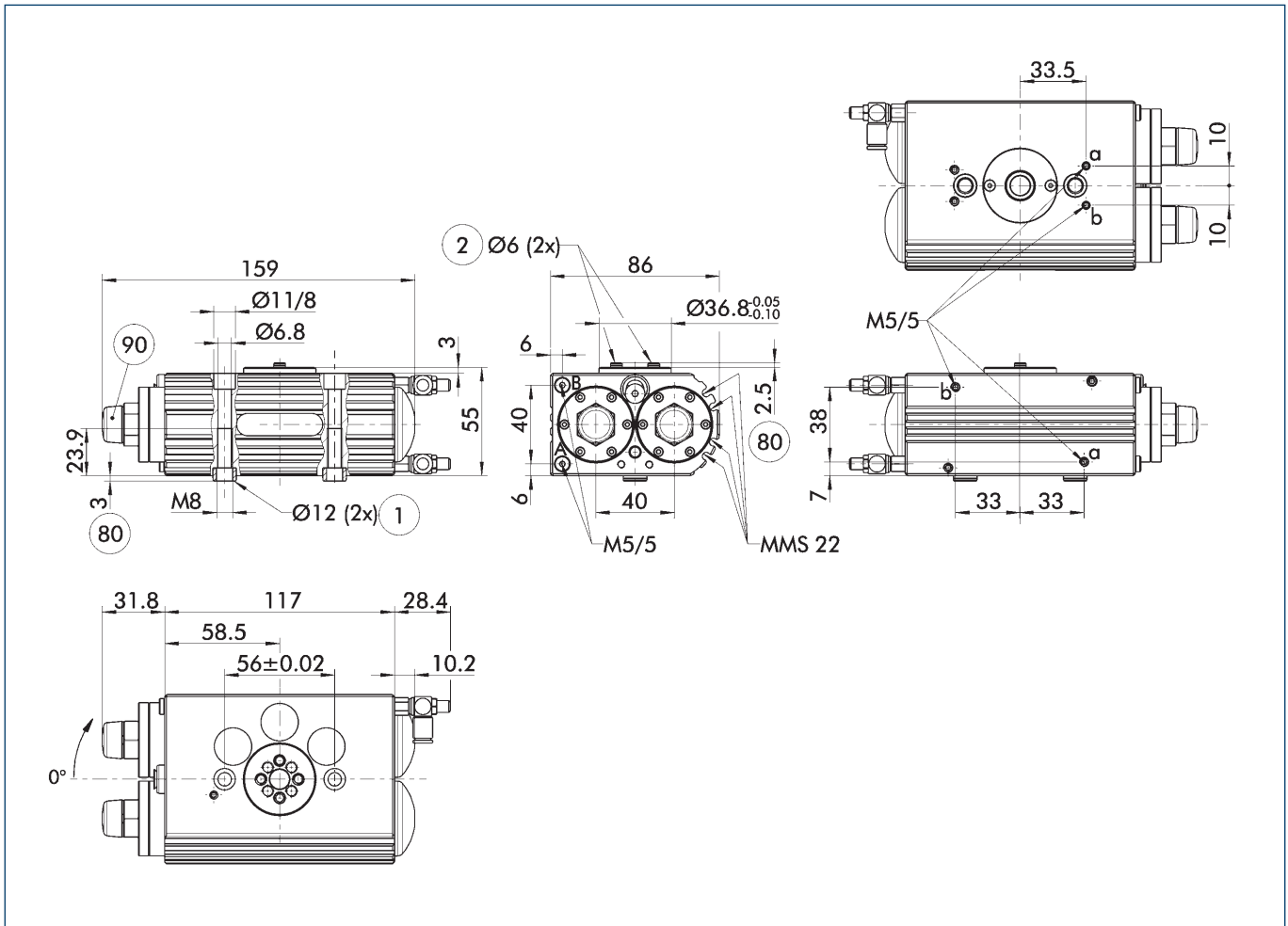
Options with fluid and electric feed-through

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



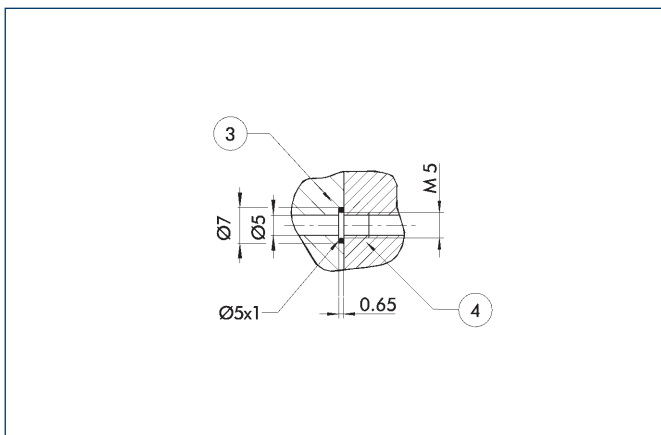
The main view shows the SRU-plus in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional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

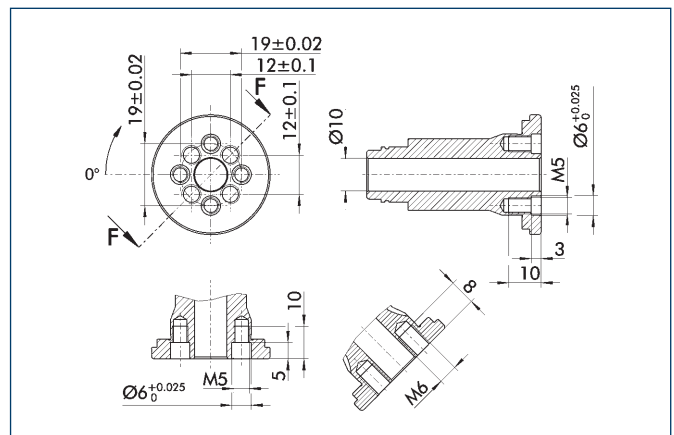
Hose-free direct connection



- ③ Adapter
- ④ Rotary actuator

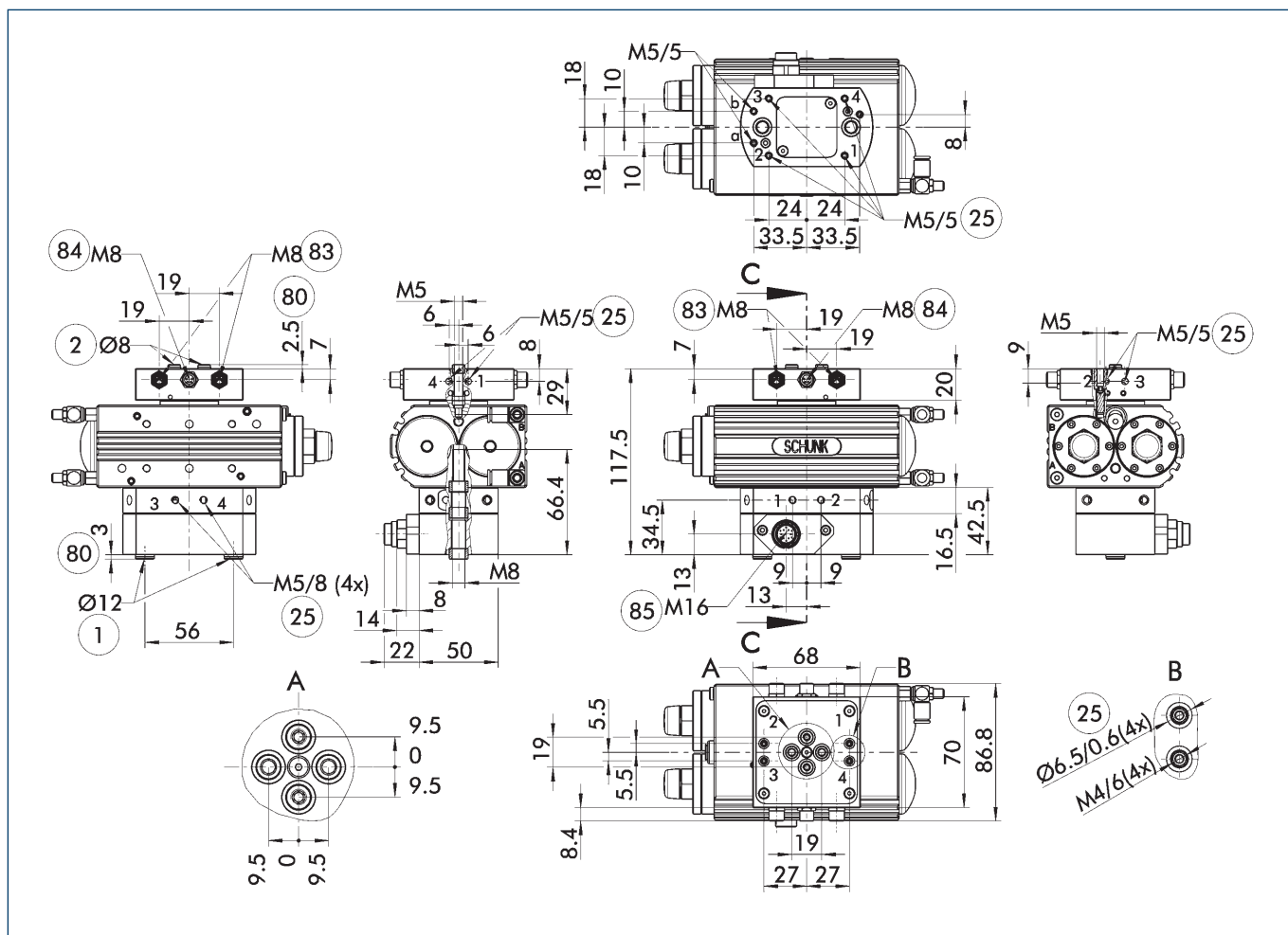
The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

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



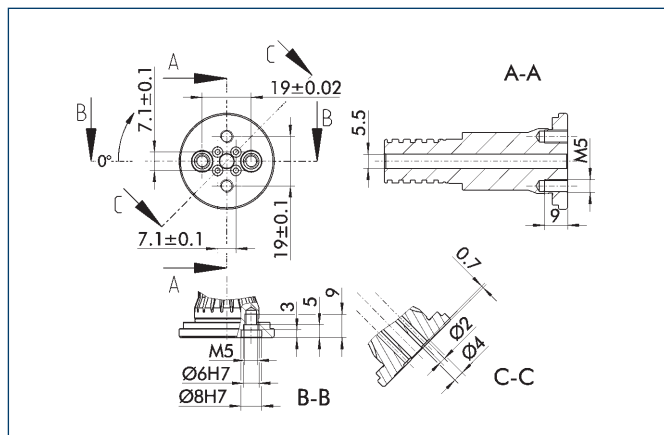
The main view shows the SRU in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

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

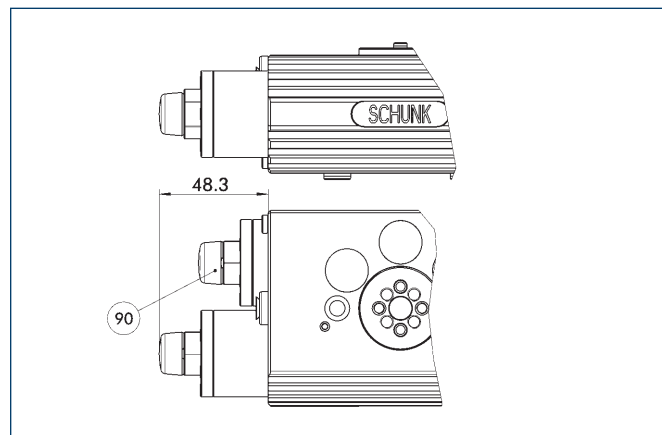
Pinion with fluid feed-through



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

① View applicable only for versions without EDF!

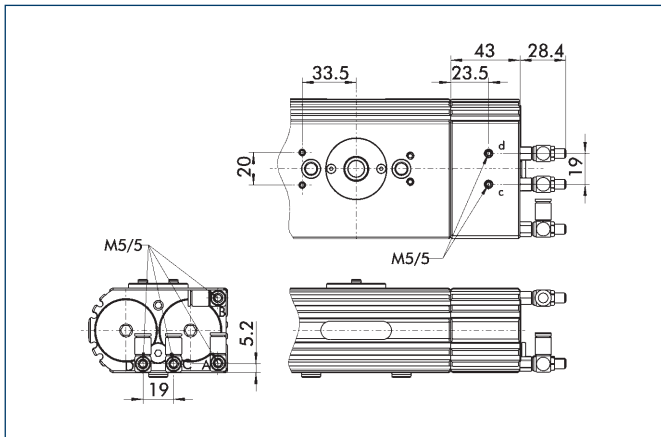
Large end position adjustability 90°



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.

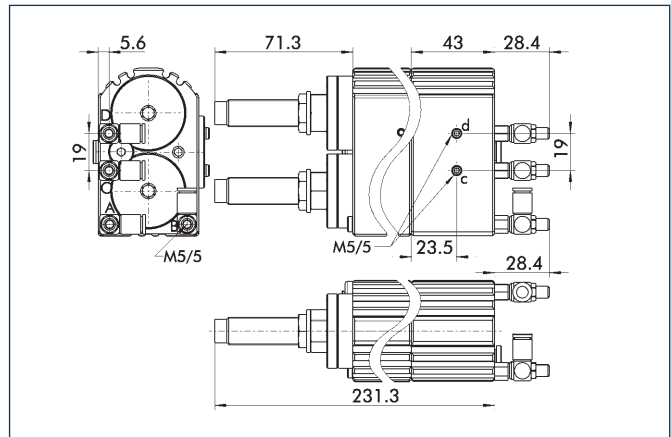
Pneumatic middle position (M)



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.

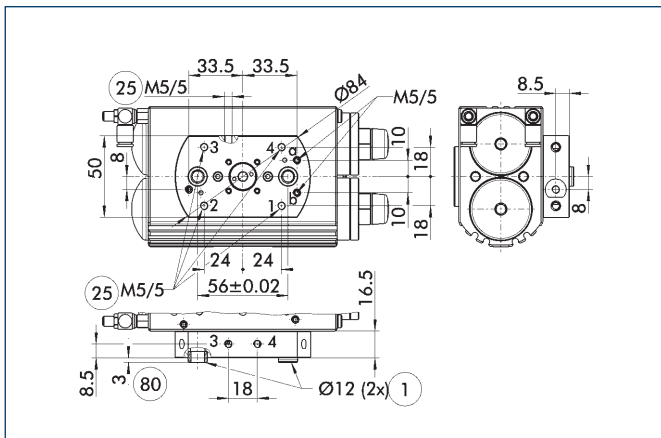
Locked middle position (VM)



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

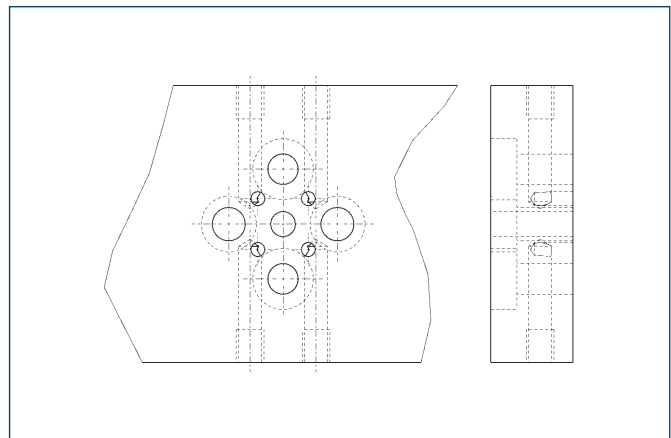


① Rotary actuator connection
② Fluid feed-through
⑧ Depth of the centering sleeve hole in the matching part

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!

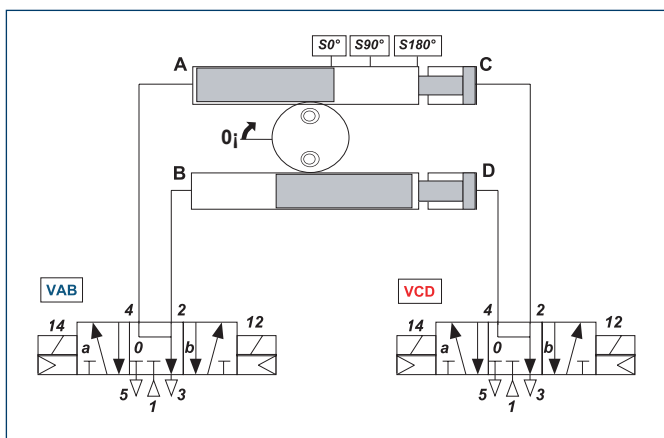
Adapter plate arrangement



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

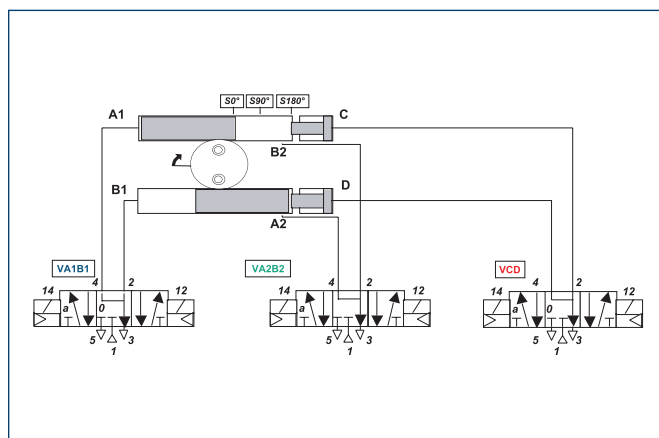
① View applicable only for versions without EDF!

Pneumatic diagram of SRU-plus-VM – vertical axis



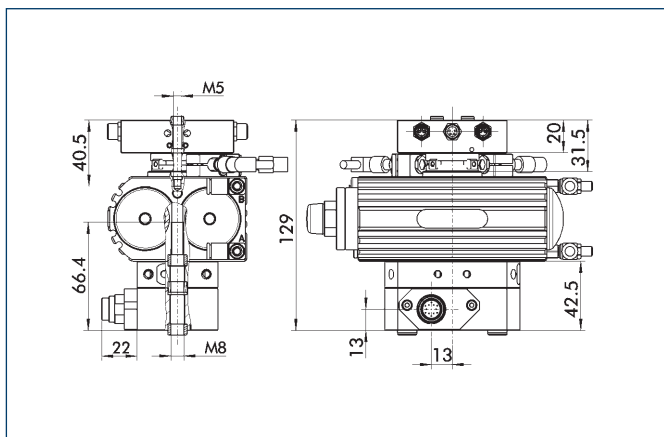
VM units with vertical swivel axis are generally actuated by two 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

Pneumatic diagram of SRU-plus-VM – horizontal axis



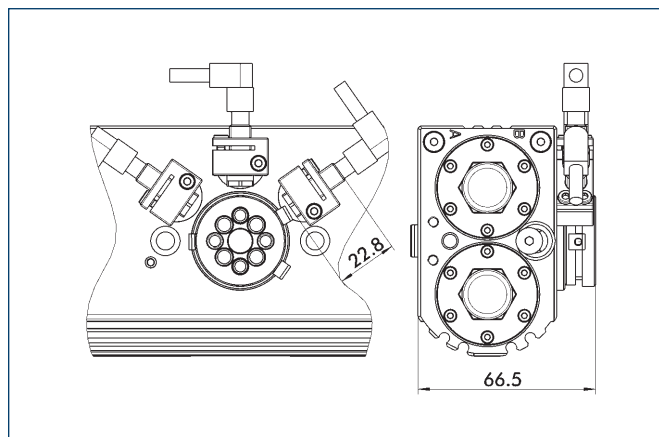
VM units with horizontal or non-vertical swivel axis must generally be actuated by three 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

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

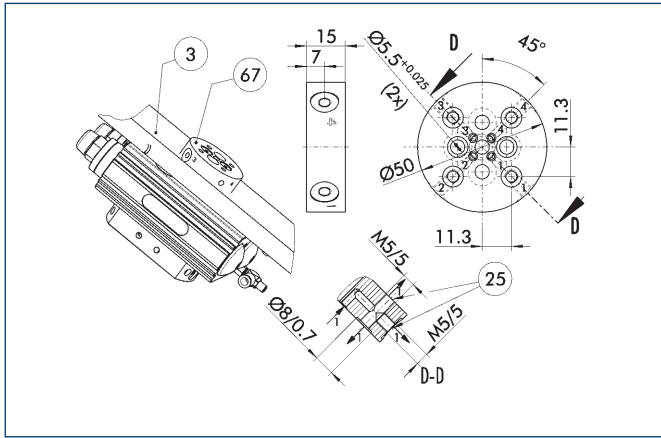


The size-specific mounting kit is required for installing the inductive proximity switches. Up to three proximity switches (2x end position, 1x middle position) can be attached using the mounting kit.

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



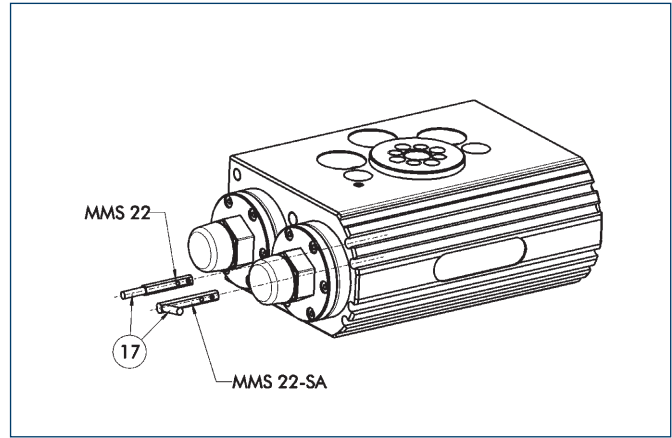
- ③ Adapter
- ②⑤ Fluid feed-through
- ⑥⑦ Distributor for fluid feed-through

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

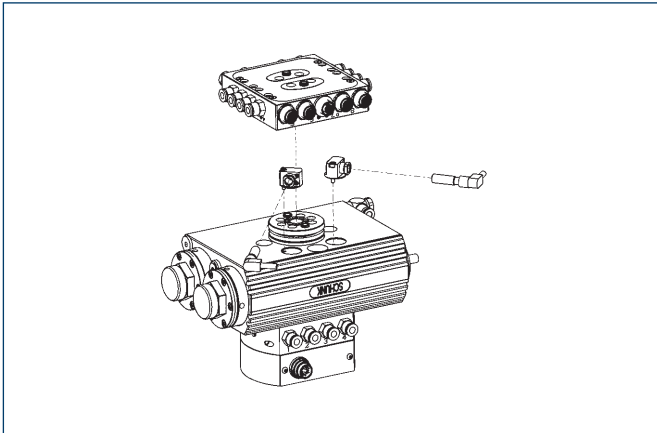


- ①⑦ Cable outlet
- End position monitoring for mounting in the C-slot

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

- ① 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

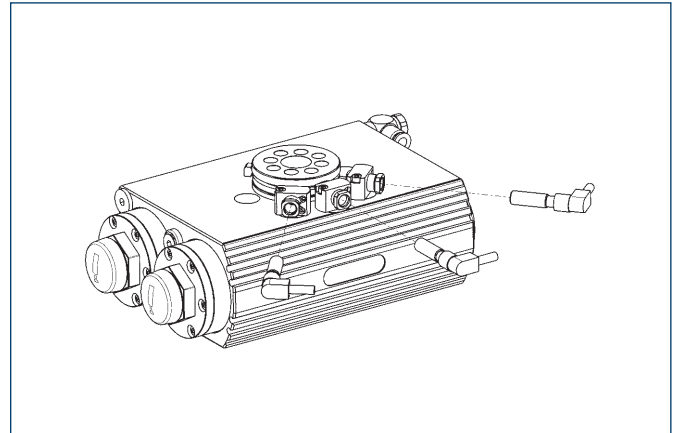


End position monitoring for direct mounting

Description	ID	Our recommendation
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
IN-C 80-S-M8	0301475	
INK 80-SL	0301579	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

- ① 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

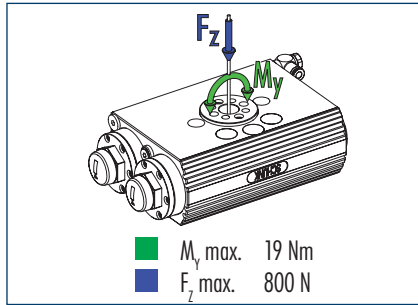


End position monitoring mounted with mounting kit

Description	ID	Our recommendation
Mounting kit for proximity switch		
AS-SRU-plus 20/25/30-4	0357391	
AS-SRU-plus 25/30	0357590	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
IN-C 80-S-M8	0301475	
INK 80-SL	0301579	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

- ① 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 ³] 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

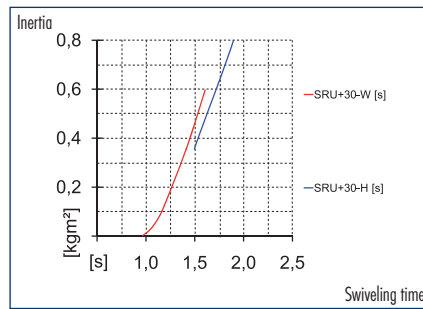
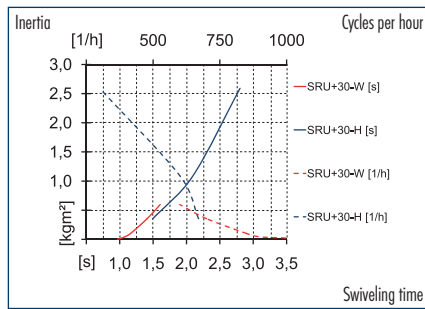
Options with fluid and electric feed-through

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

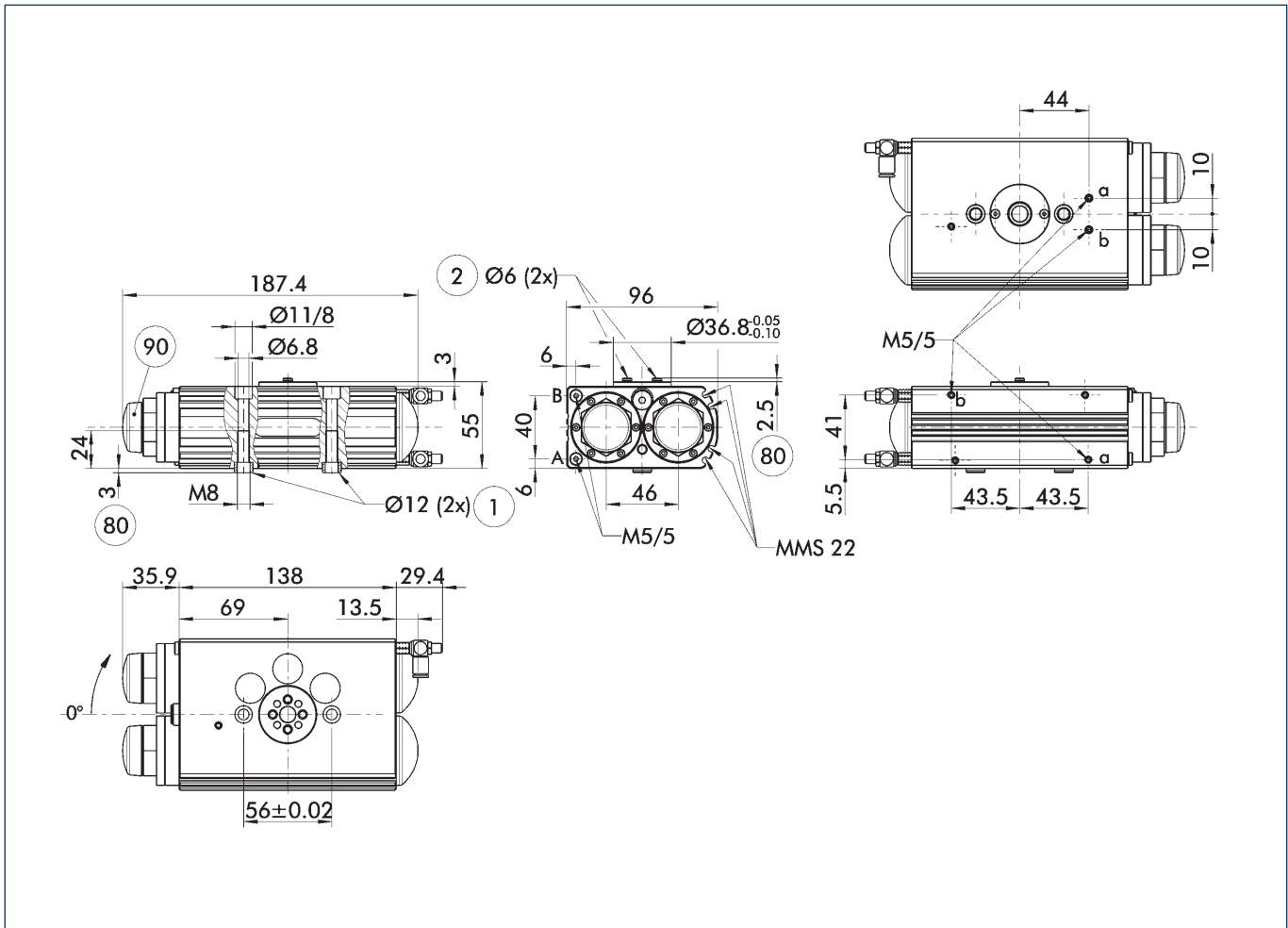
Options with fluid and electric feed-through

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

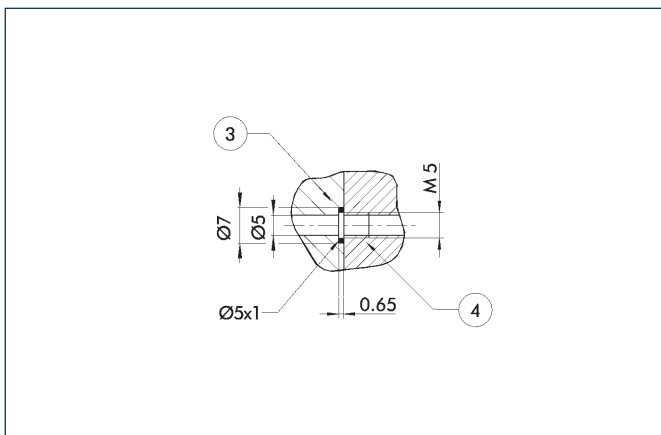


The main view shows the SRU-plus in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional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

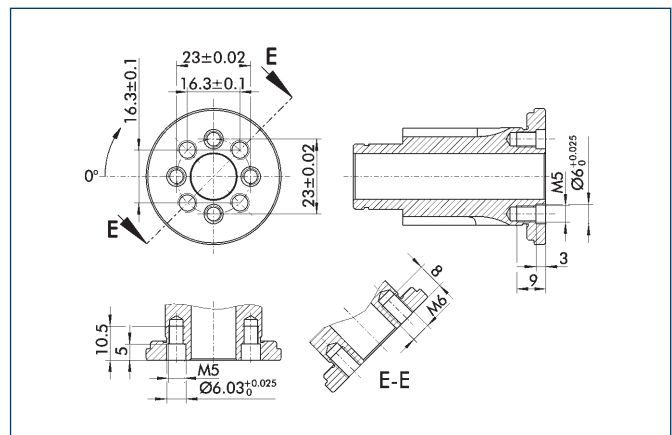
Hose-free direct connection



- ③ Adapter
- ④ Rotary actuator

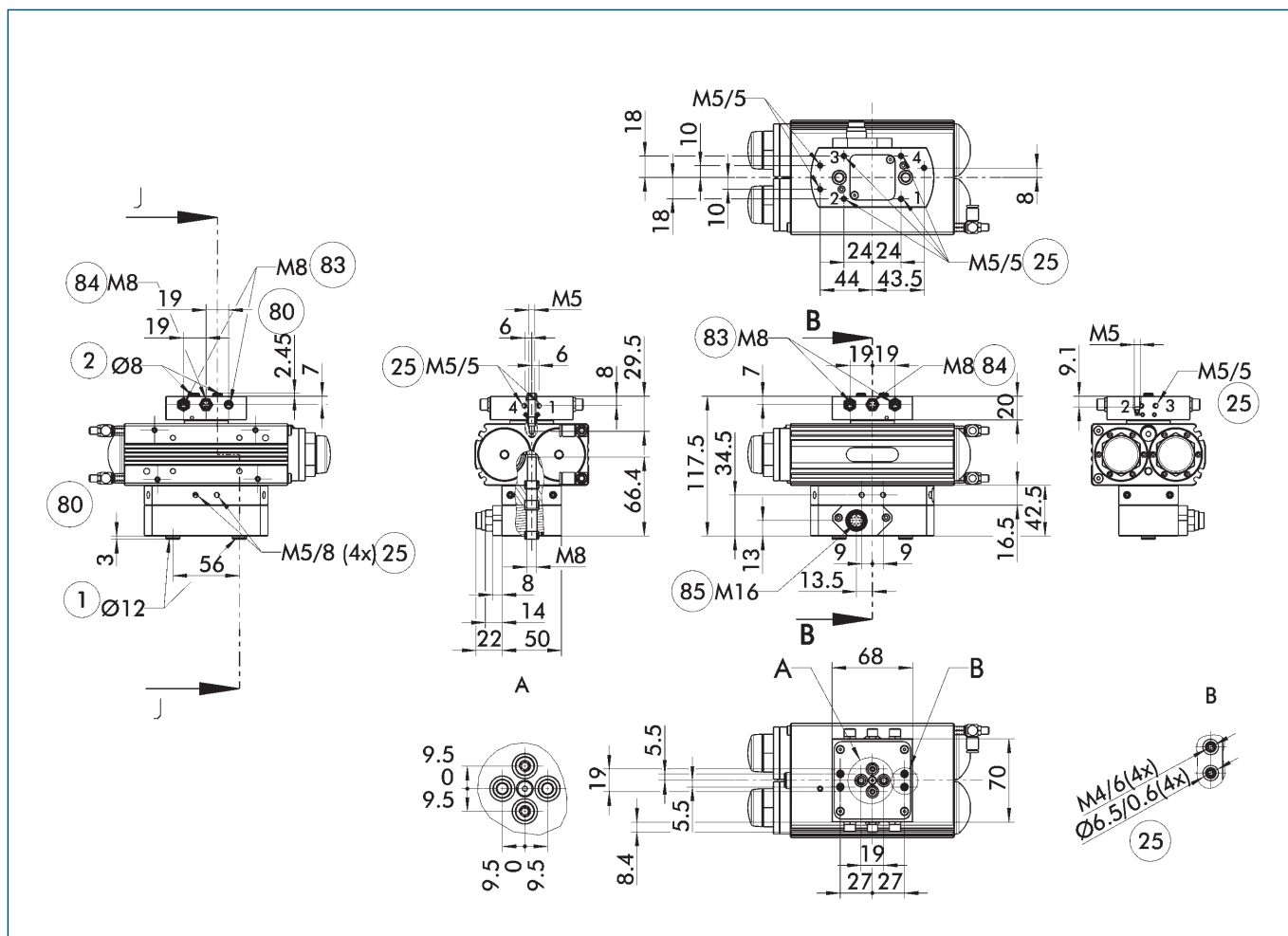
The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

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



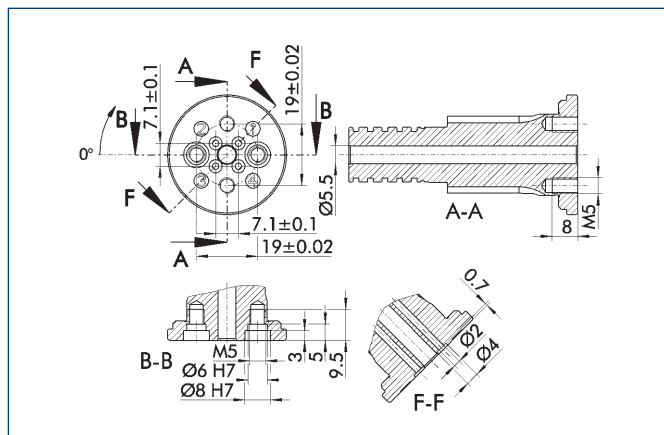
The main view shows the SRU in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

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

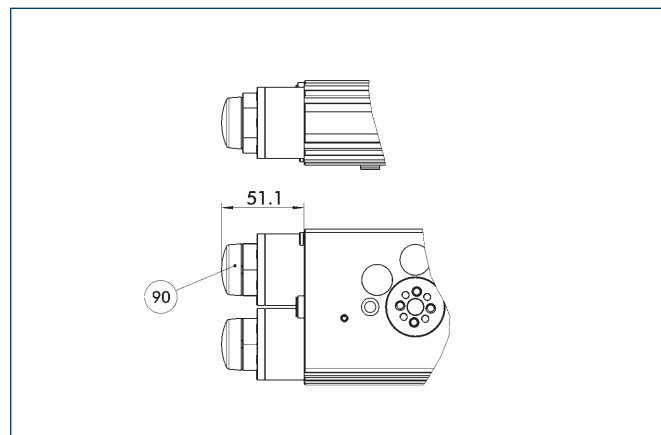
Pinion with fluid feed-through



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!

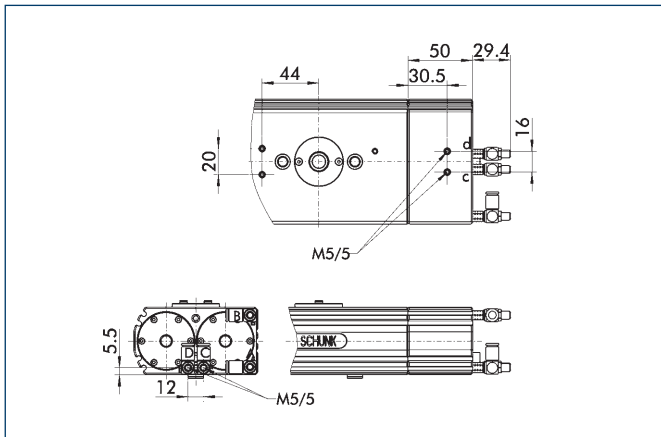
Large end position adjustability 90°



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.

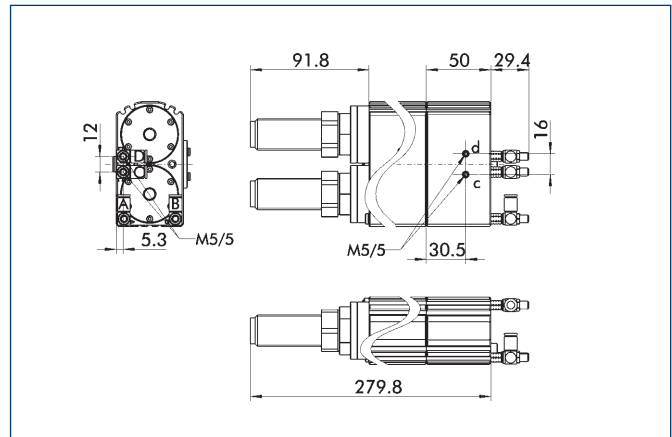
Pneumatic middle position (M)



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.

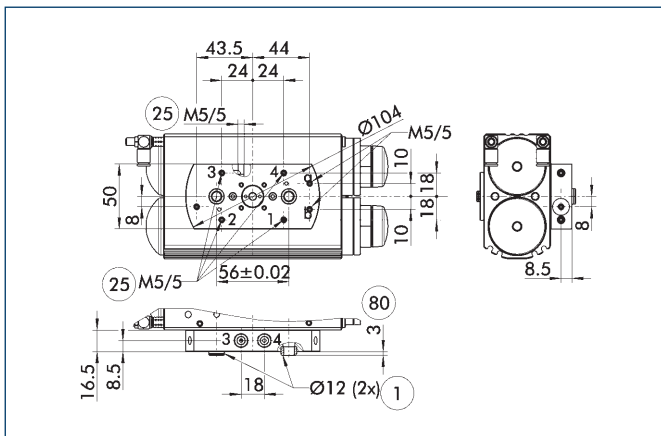
Locked middle position (VM)



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

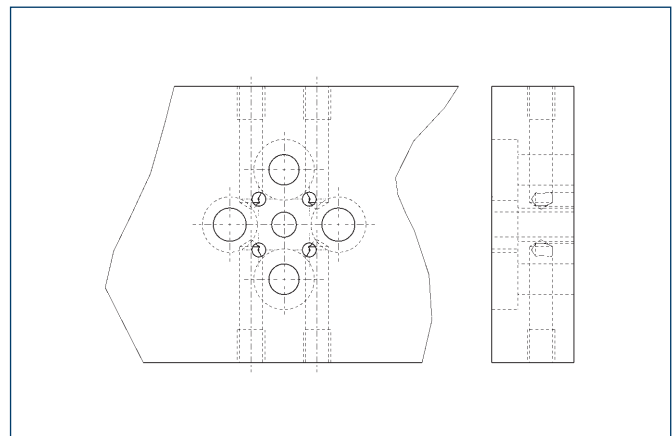


① Rotary actuator connection
②⑤ Fluid feed-through
⑧⑩ Depth of the centering sleeve hole in the matching part

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!

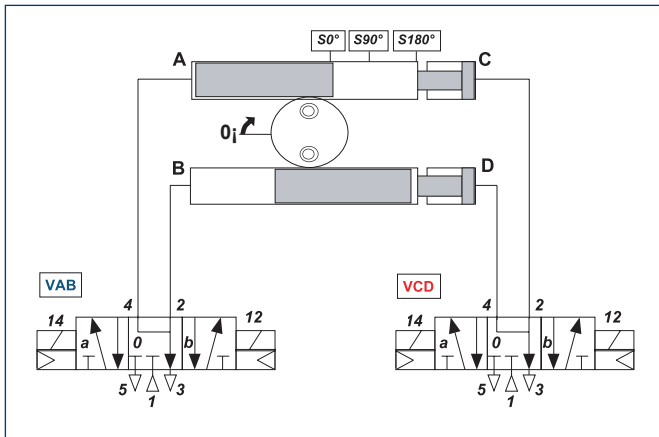
Adapter plate arrangement



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

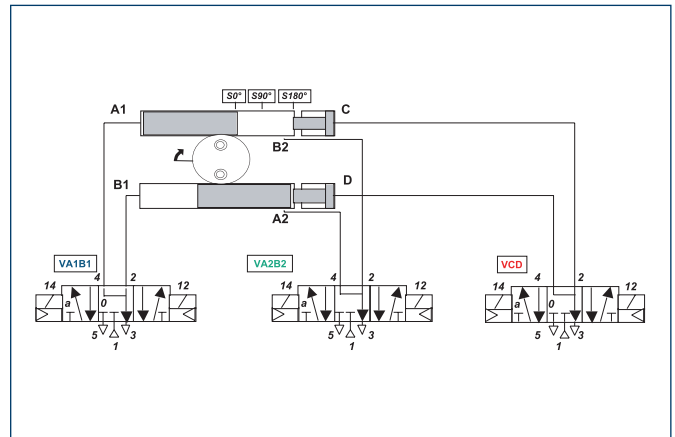
① View applicable only for versions without EDF!

Pneumatic diagram of SRU-plus-VM – vertical axis



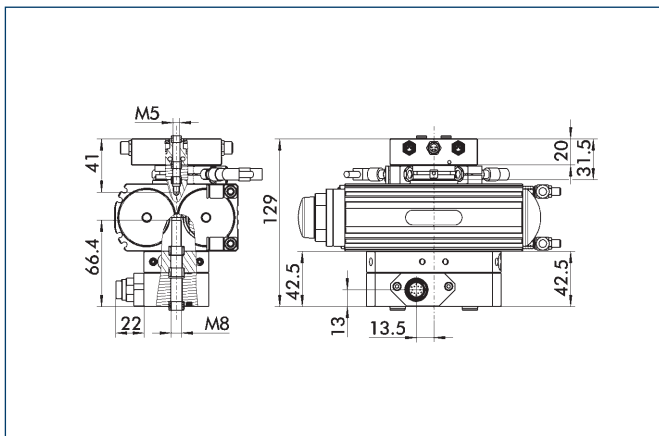
VM units with vertical swivel axis are generally actuated by two 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

Pneumatic diagram of SRU-plus-VM – horizontal axis



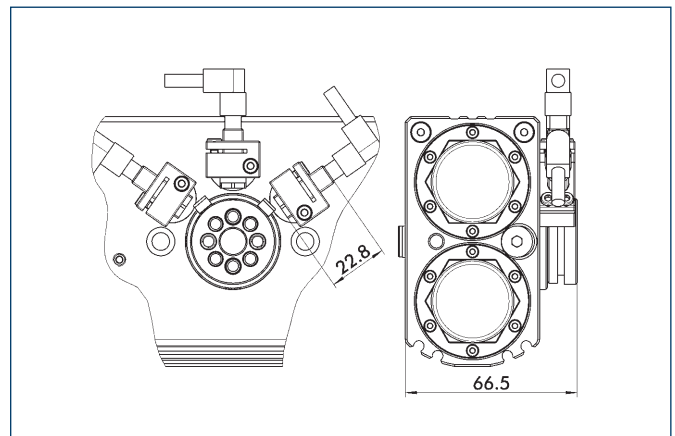
VM units with horizontal or non-vertical swivel axis must generally be actuated by three 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

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 with EDF

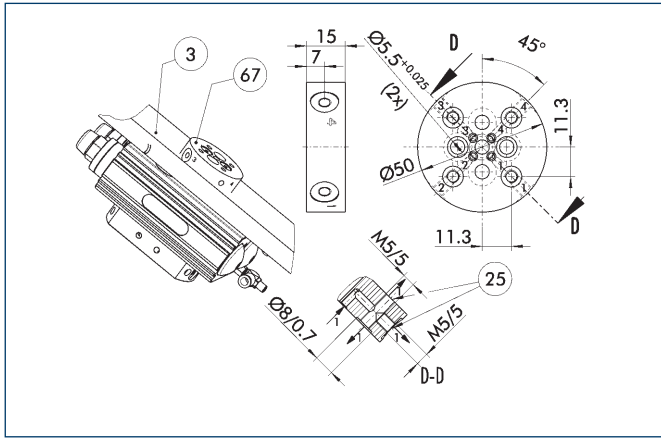


The mounting kit cannot be ordered separately. The SRU-plus rotary actuator with electric feed-through and mounting kit will be assembled and delivered as a complete unit by SCHUNK. Please pay attention to our options SRU-plus ...AS.

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



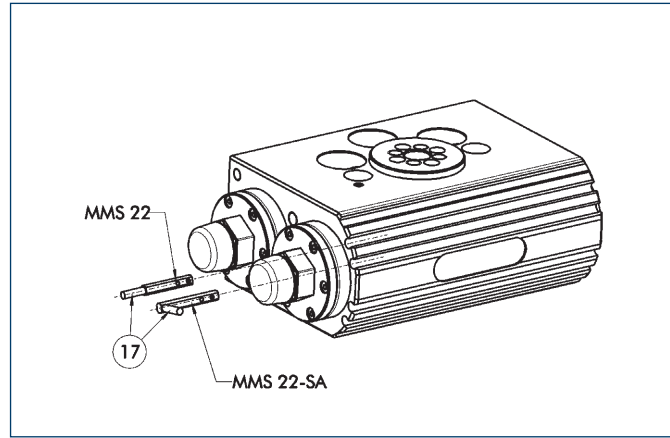
- ③ Adapter
- ⑥7 Distributor for fluid feed-through
- ②5 Fluid feed-through

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

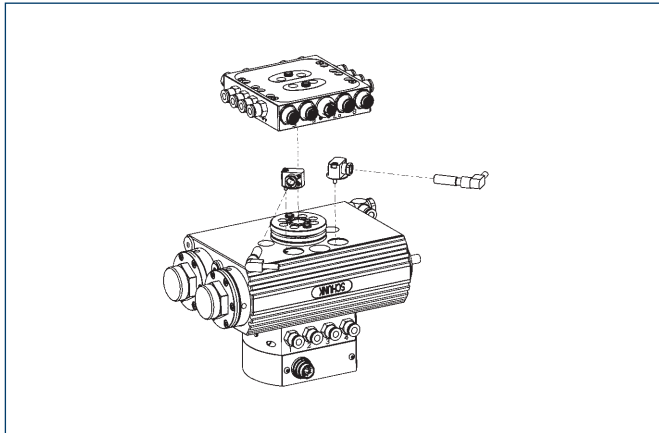


- ①7 Cable outlet
- End position monitoring for mounting in the C-slot

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

- ① 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

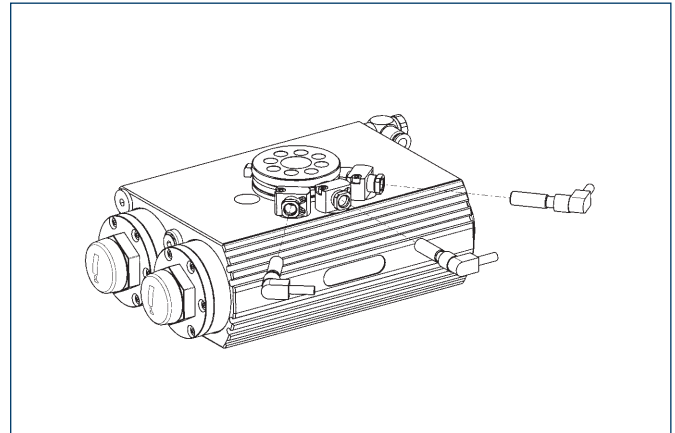


End position monitoring for direct mounting

Description	ID	Our recommendation
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
IN-C 80-S-M8	0301475	
INK 80-SL	0301579	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

- ① 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

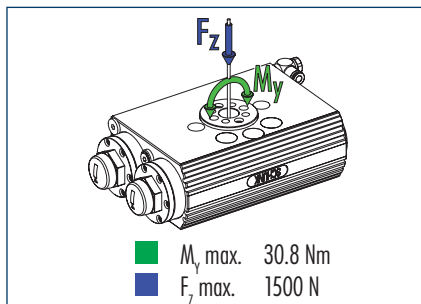


End position monitoring mounted with mounting kit

Description	ID	Our recommendation
Mounting kit for proximity switch		
AS-SRU-plus 20/25/30-4	0357391	
AS-SRU-plus 25/30	0357590	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
IN-C 80-S-M8	0301475	
INK 80-SL	0301579	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

- ① 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) [cm³]	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

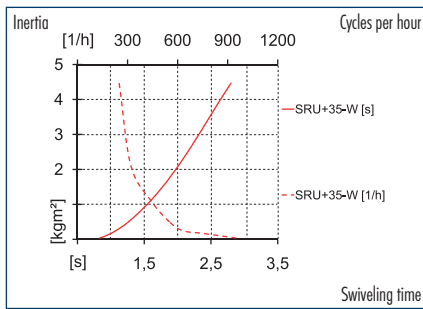
Options with fluid and electric feed-through

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

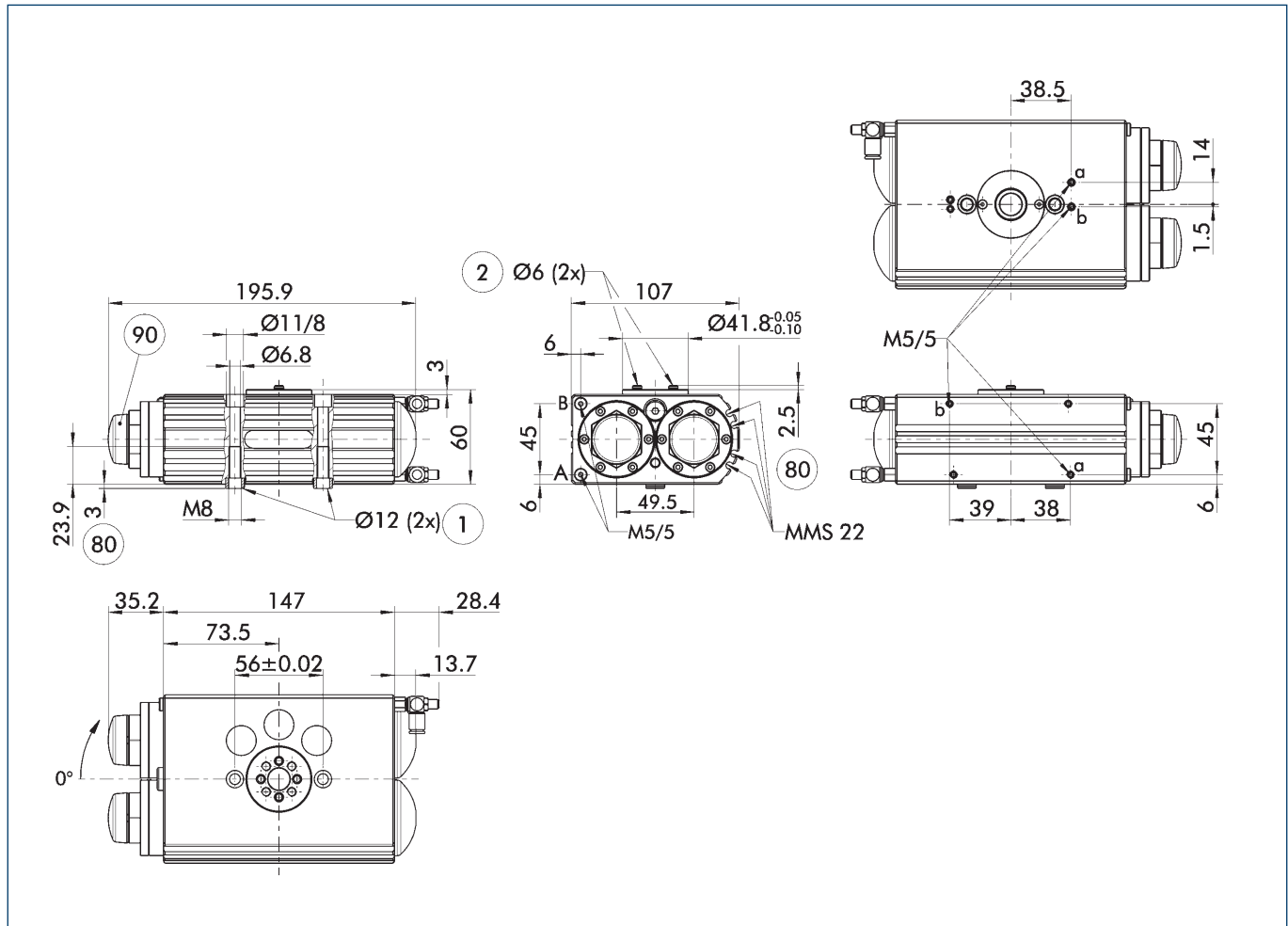
Options with fluid and electric feed-through

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

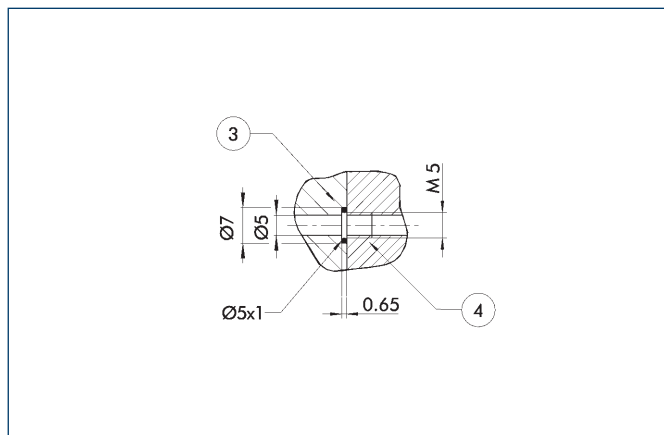


The main view shows the SRU-plus in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional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

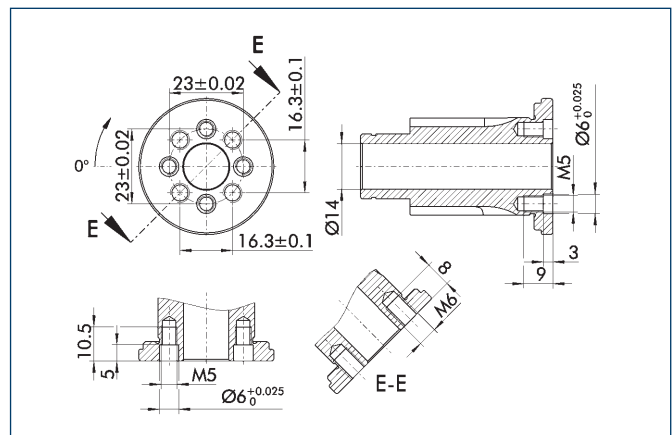
Hose-free direct connection



- ③ Adapter
- ④ Rotary actuator

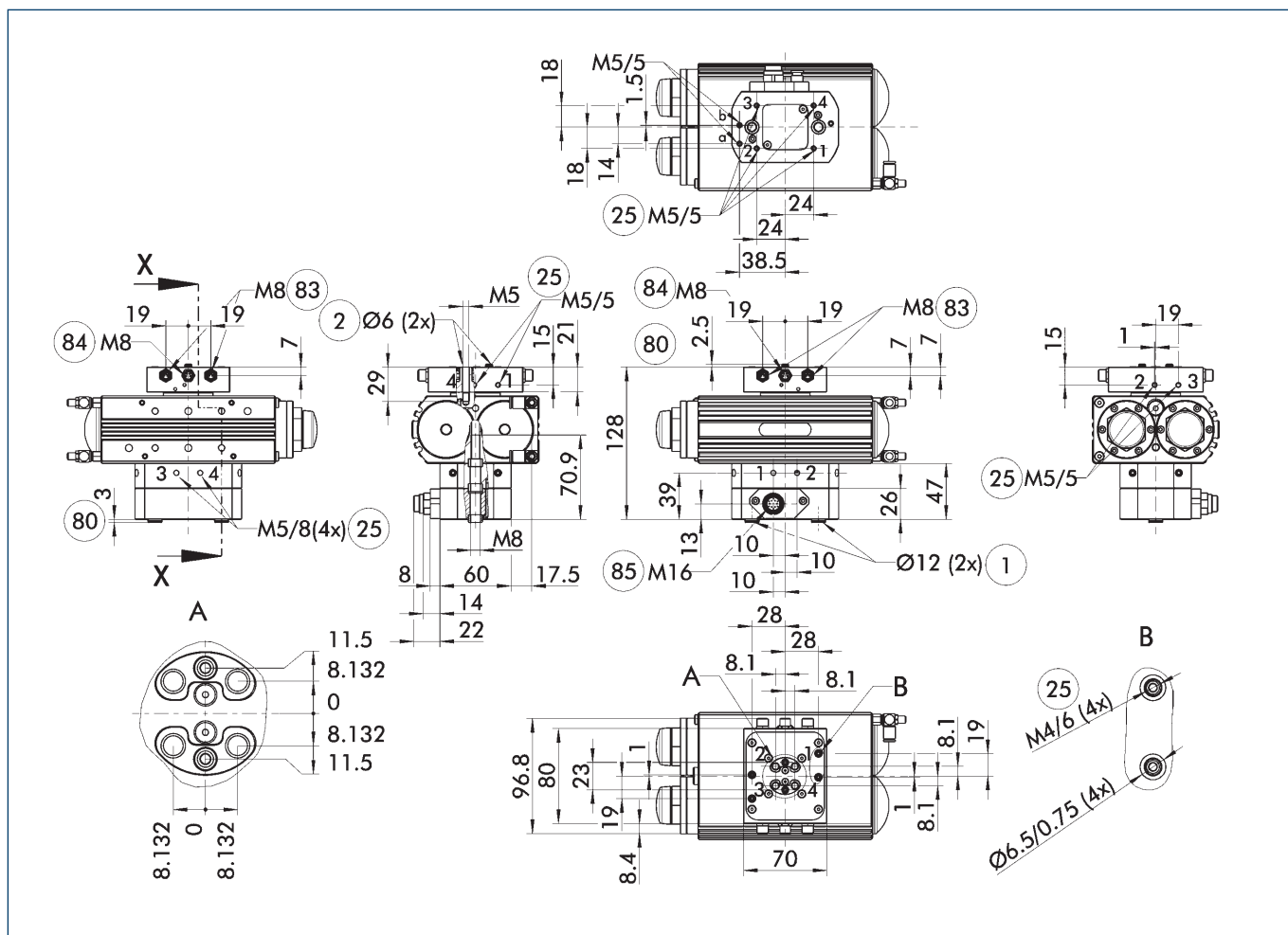
The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

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



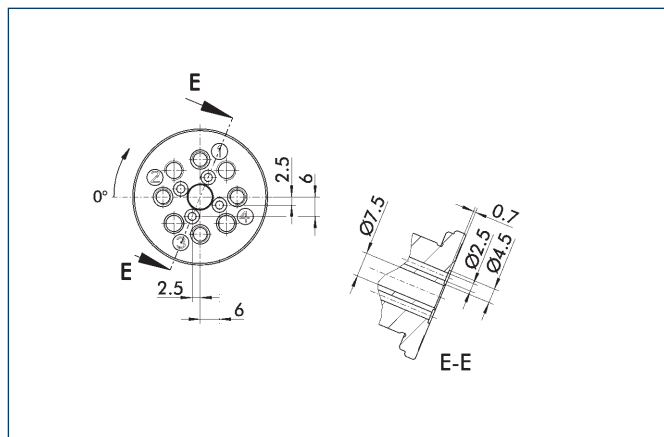
The main view shows the SRU in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

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
- 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

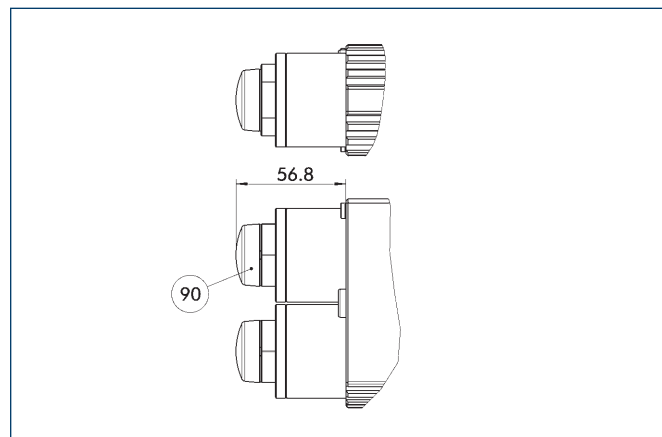
Pinion with fluid feed-through



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!

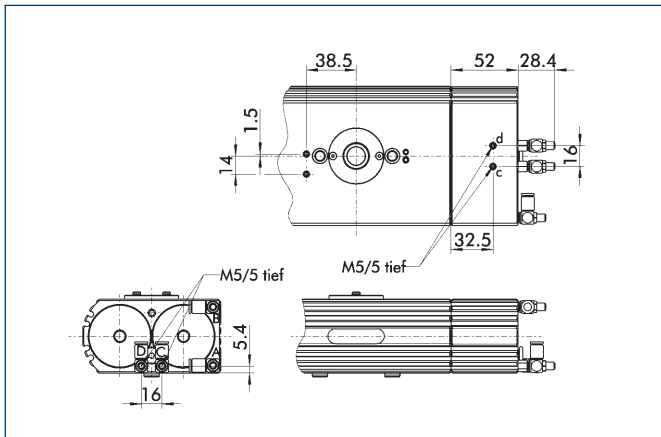
Large end position adjustability 90°



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.

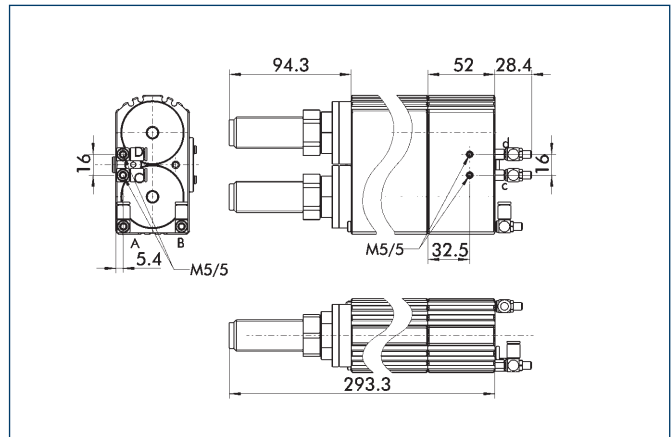
Pneumatic middle position (M)



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.

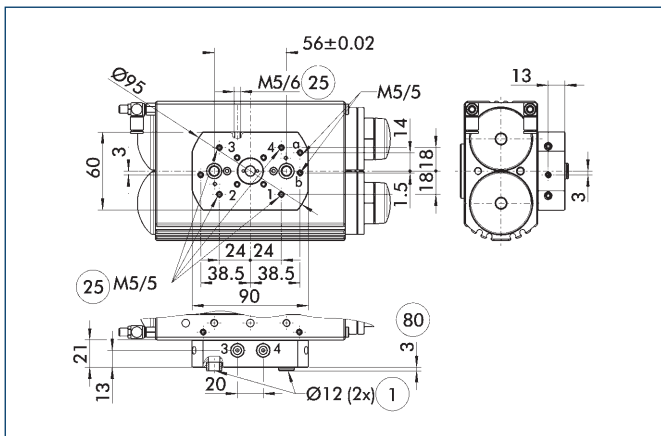
Locked middle position (VM)



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 center position as fast as possible to prevent overshooting.

Connections for fluid feed-through

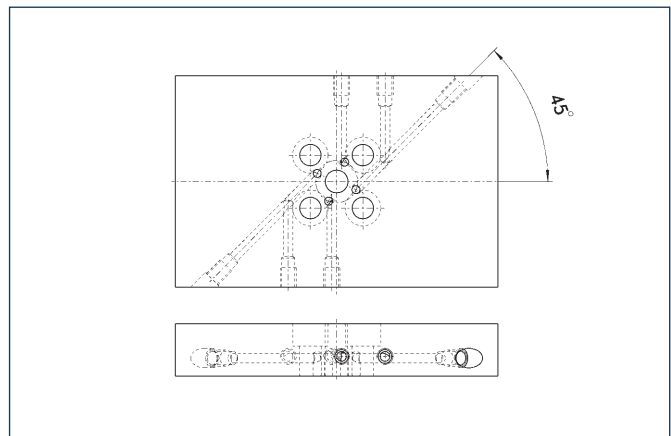


① Rotary actuator connection
② Fluid feed-through
⑧ Depth of the centering sleeve hole in the matching part

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!

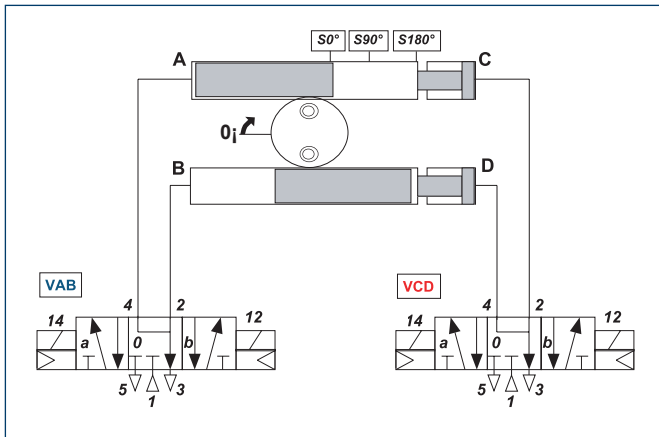
Adapter plate arrangement



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

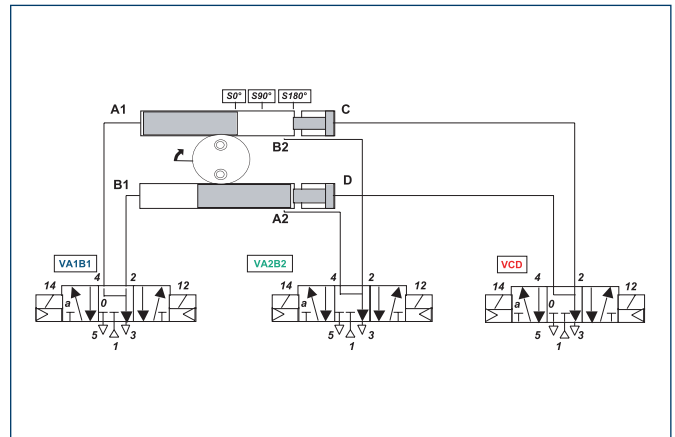
① View applicable only for versions without EDF!

Pneumatic diagram of SRU-plus-VM – vertical axis



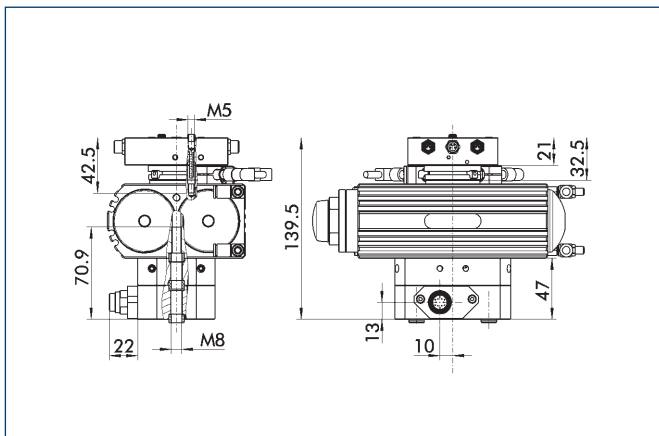
VM units with vertical swivel axis are generally actuated by two 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

Pneumatic diagram of SRU-plus-VM – horizontal axis



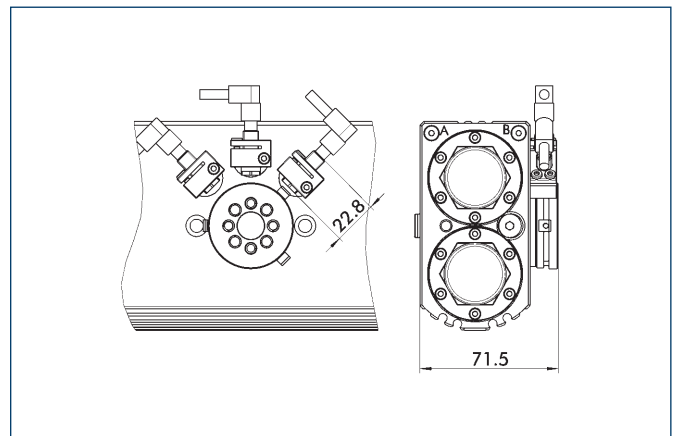
VM units with horizontal or non-vertical swivel axis must generally be actuated by three 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

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

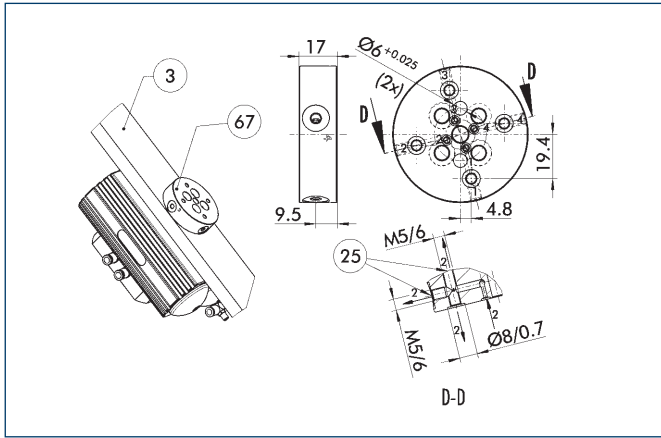


The mounting kit cannot be ordered separately. The SRU-plus rotary actuator with electric feed-through and mounting kit will be assembled and delivered as a complete unit by SCHUNK. Please pay attention to our options SRU-plus ...AS.

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



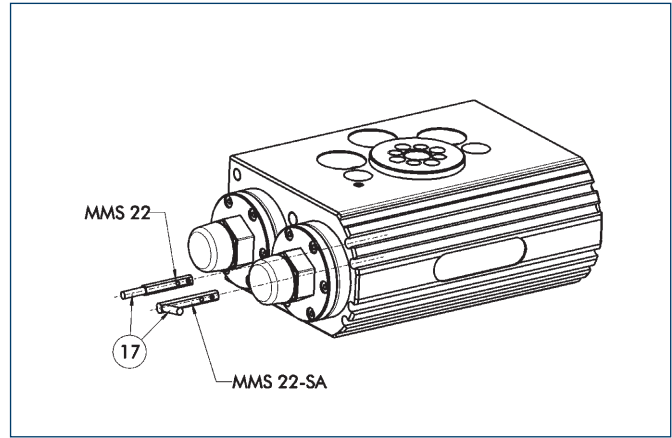
- ③ Adapter
- ⑥⑦ Distributor for fluid feed-through
- ②⑤ Fluid feed-through

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

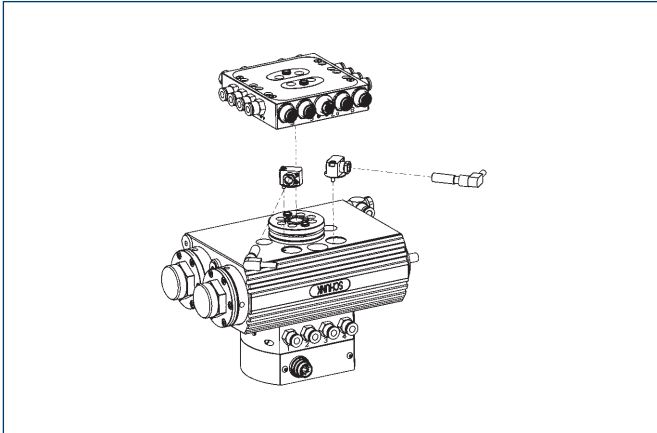


- ①⑦ Cable outlet
- End position monitoring for mounting in the C-slot

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

- ① 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

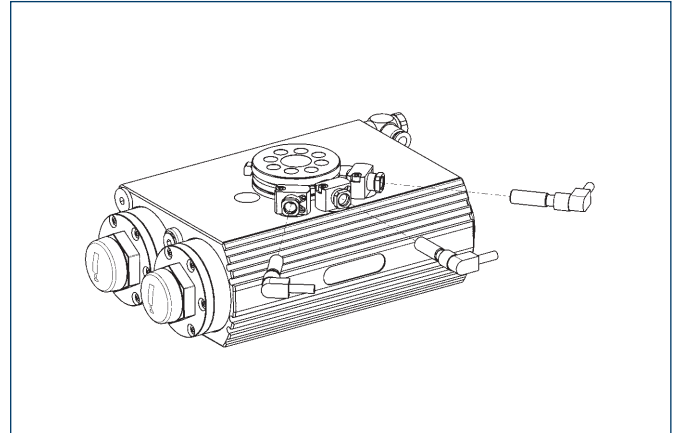


End position monitoring for direct mounting

Description	ID	Our recommendation
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
IN-C 80-S-M8	0301475	
INK 80-SL	0301579	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

- ① 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

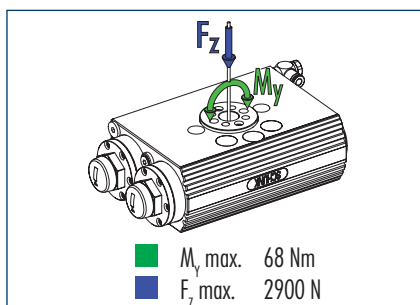


End position monitoring mounted with mounting kit

Description	ID	Our recommendation
Mounting kit for proximity switch		
AS-SRU-plus 35	0357790	
AS-SRU-plus 35-4	0357791	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
IN-C 80-S-M8	0301475	
INK 80-SL	0301579	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

- ① 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 ³] 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

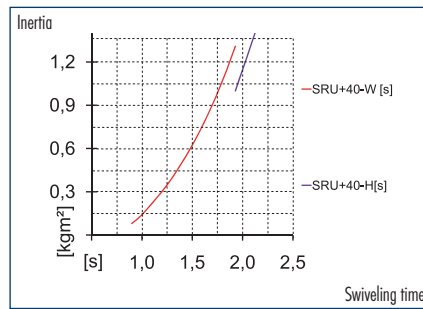
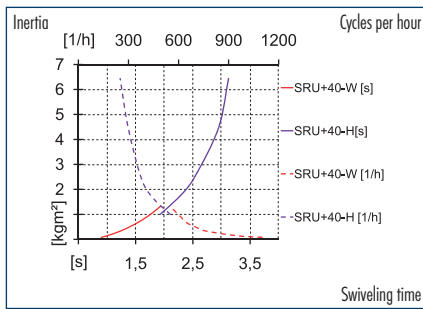
Options with fluid and electric feed-through

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

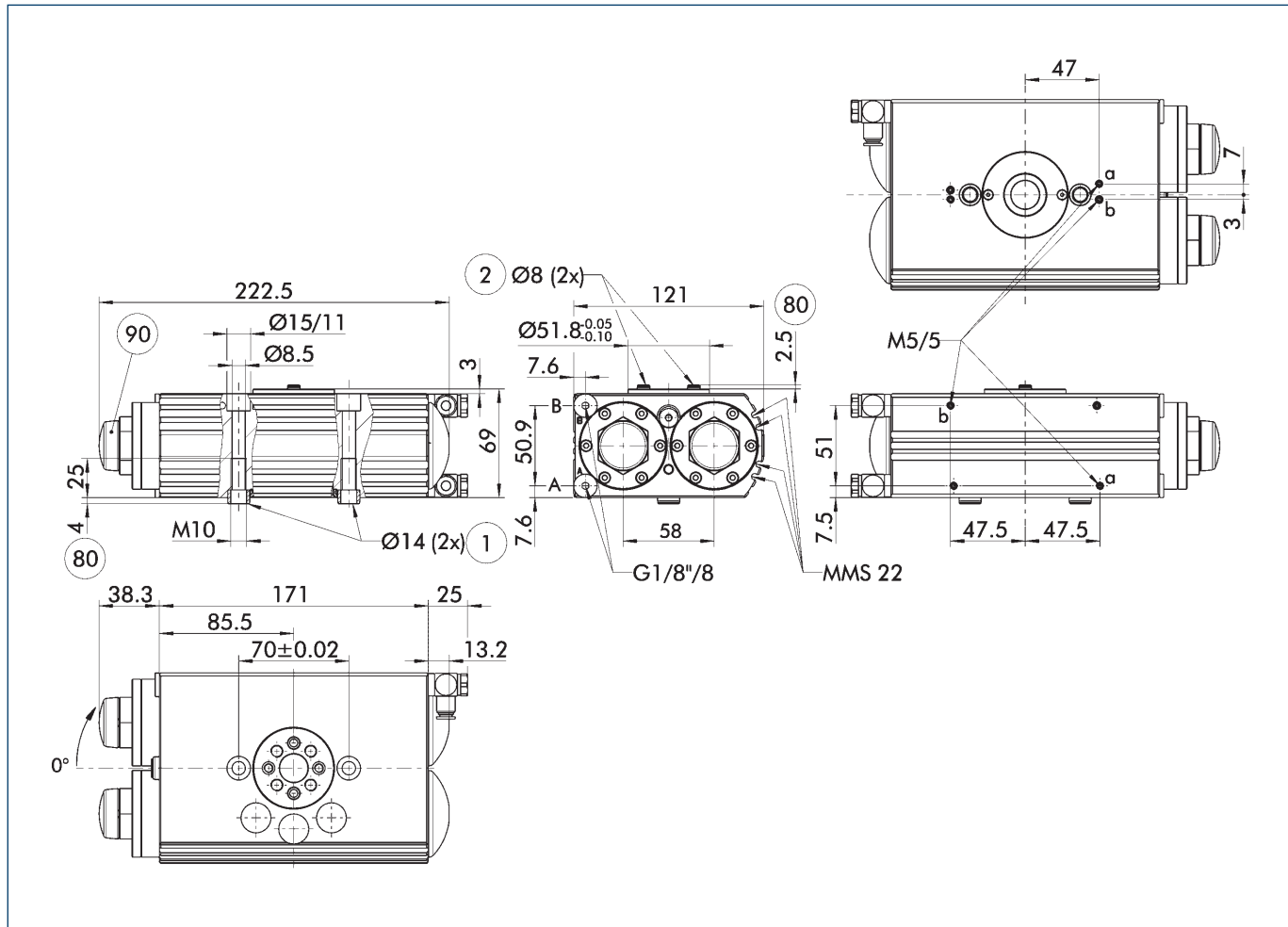
Options with fluid and electric feed-through

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

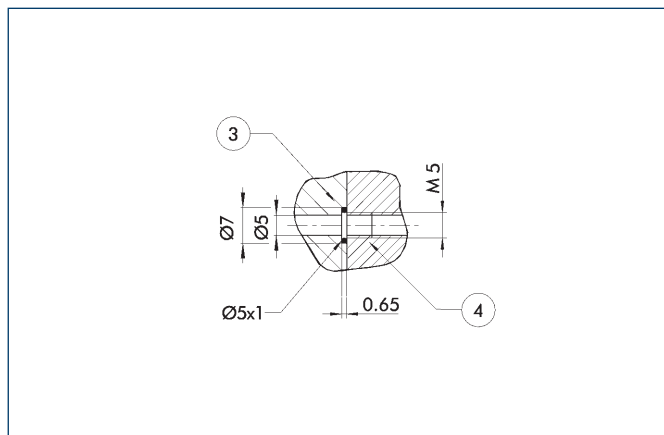


The main view shows the SRU-plus in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional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

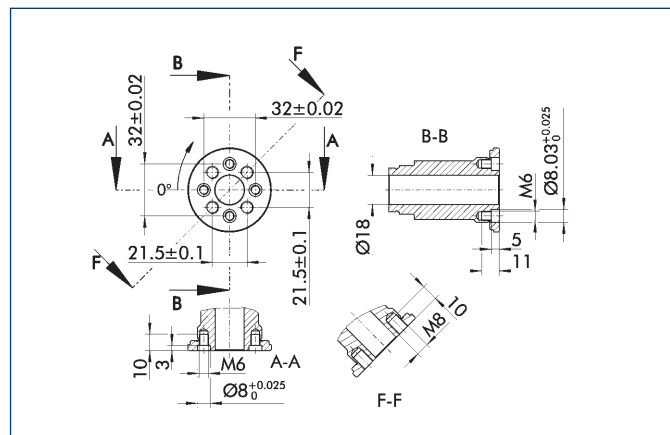
Hose-free direct connection



- ③ Adapter
- ④ Rotary actuator

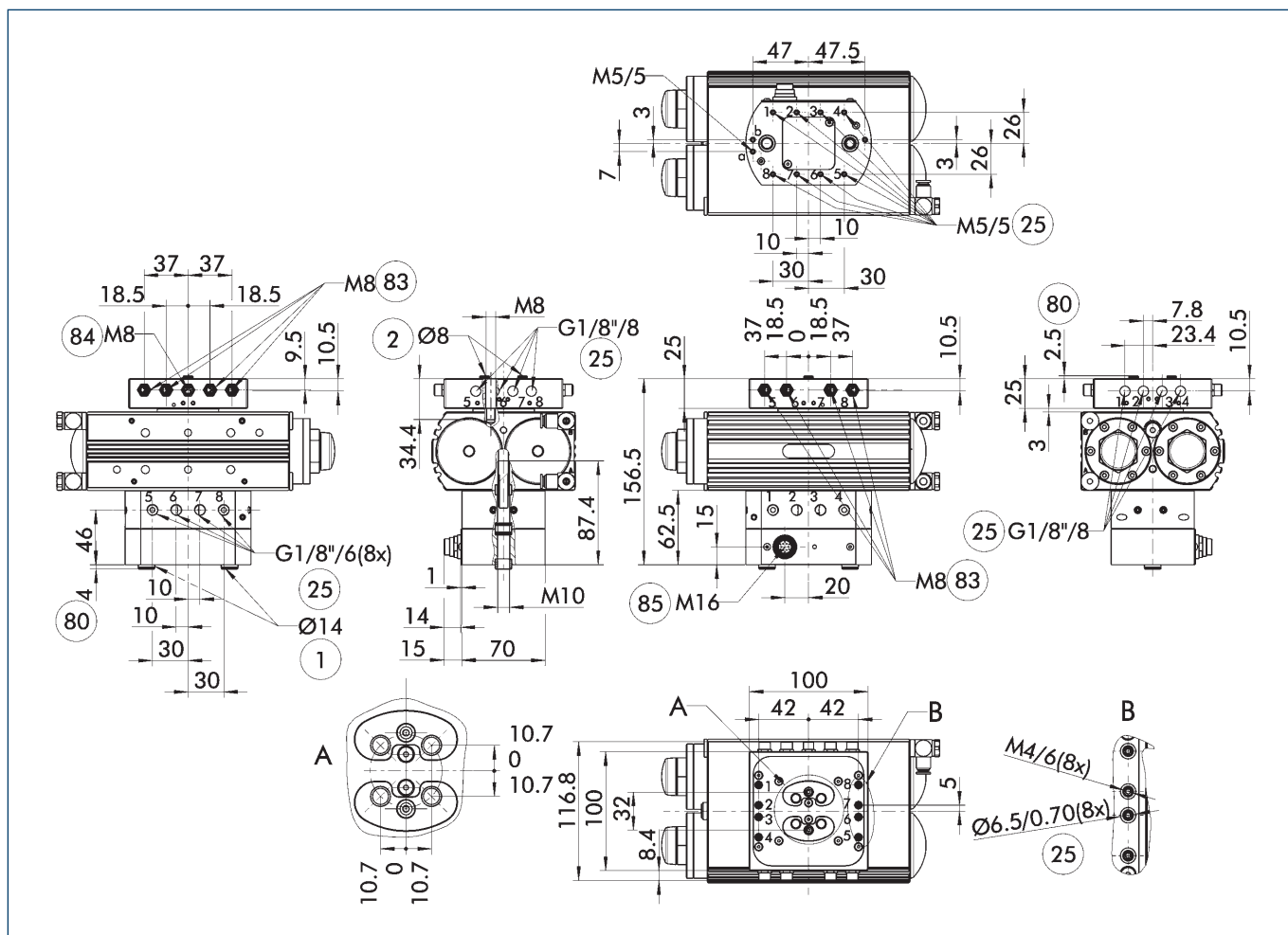
The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

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



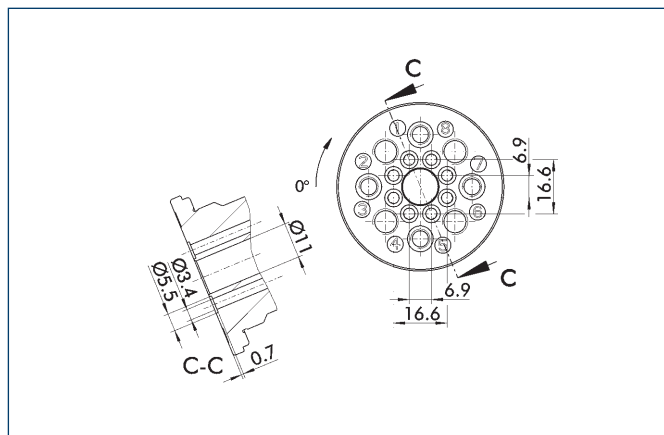
The main view shows the SRU in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

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

- ⑧ Depth of the centering sleeve hole in the matching part
- ⑧ Flange socket for 3-pin sensor feed-through
- ⑧ Flange socket for 4-pin sensor feed-through
- ⑧ Output for sensor feed-through

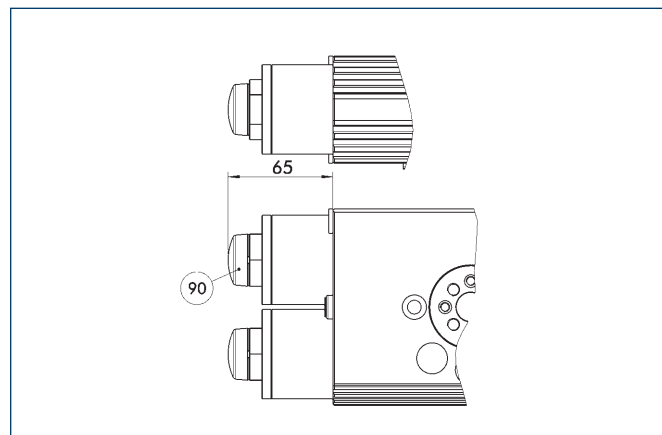
Pinion with fluid feed-through



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!

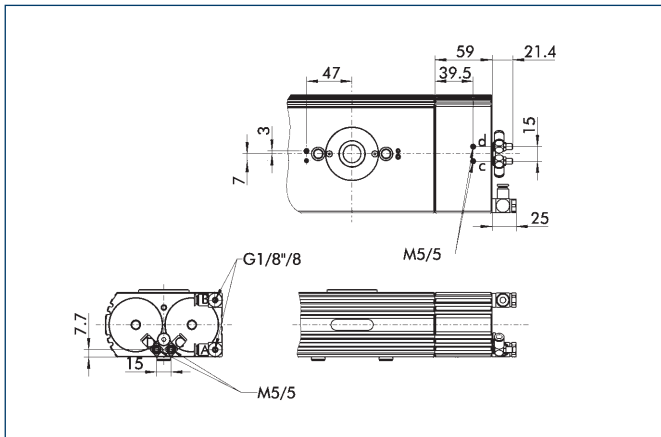
Large end position adjustability 90°



⑨ 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.

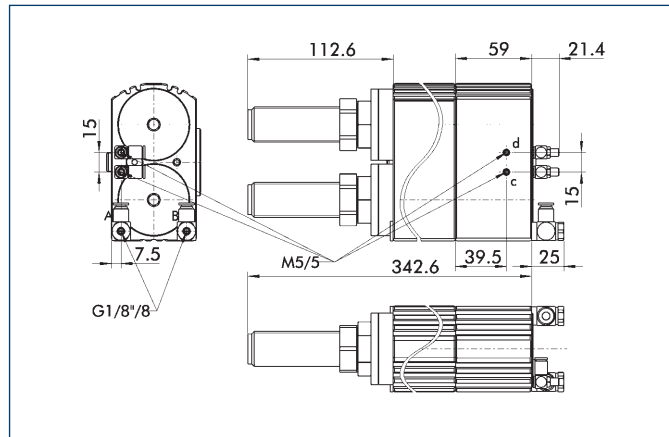
Pneumatic middle position (M)



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.

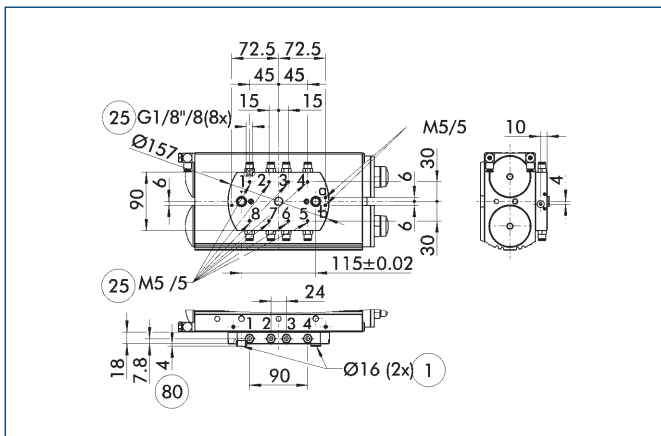
Locked middle position (VM)



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

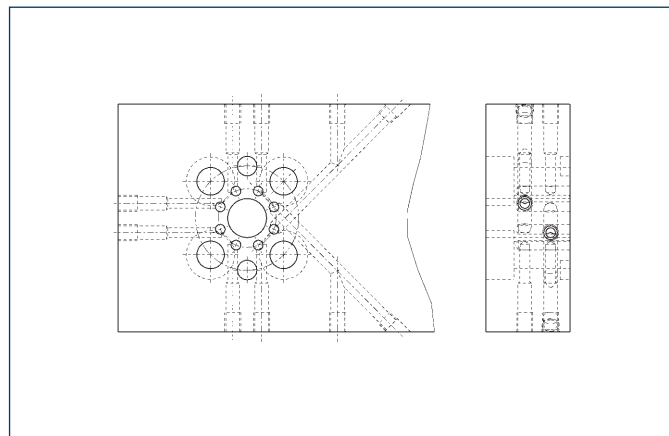


① Rotary actuator connection Ⓢ Depth of the centering sleeve hole in the matching part
 ② Fluid feed-through

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!

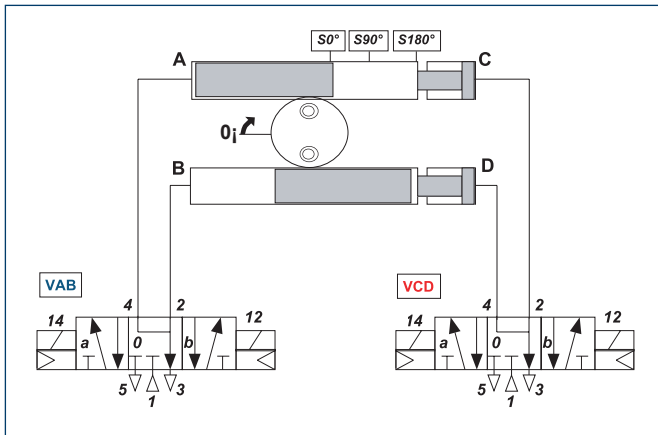
Adapter plate arrangement



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

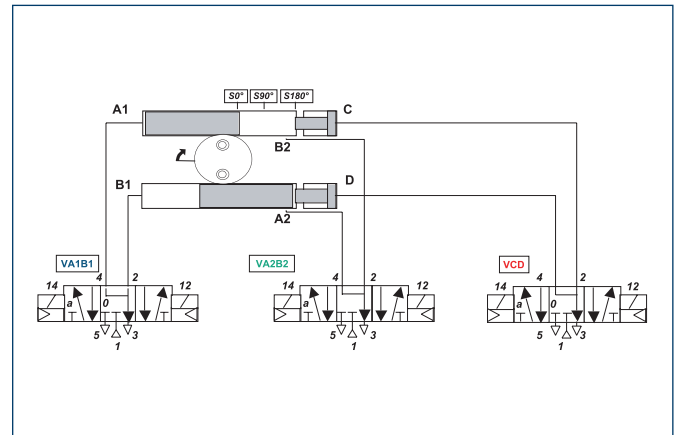
① View applicable only for versions without EDF!

Pneumatic diagram of SRU-plus-VM – vertical axis



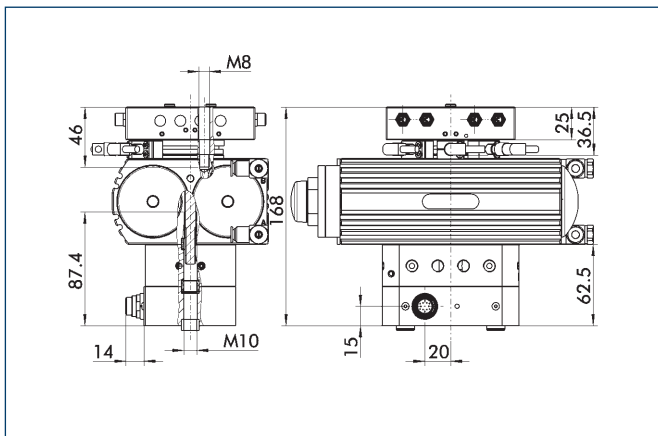
VM units with vertical swivel axis are generally actuated by two 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

Pneumatic diagram of SRU-plus-VM – horizontal axis



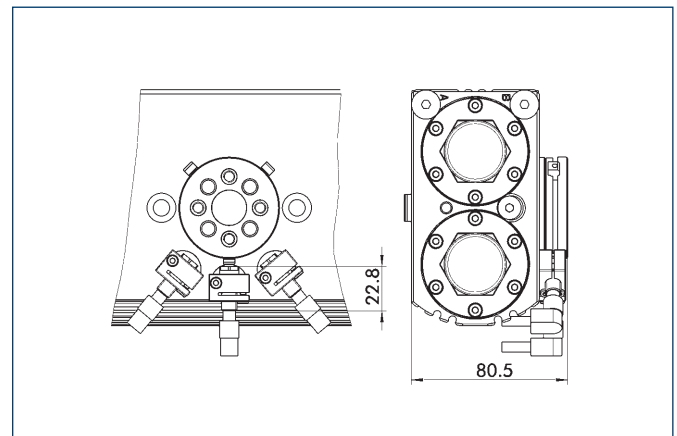
VM units with horizontal or non-vertical swivel axis must generally be actuated by three 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

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 without EDF

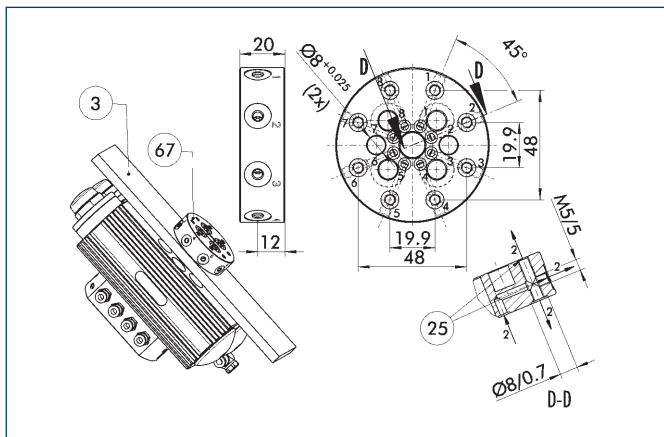


The size-specific mounting kit is required for installing the inductive proximity switches. Up to three proximity switches (2x end position, 1x middle position) can be attached using the mounting kit.

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



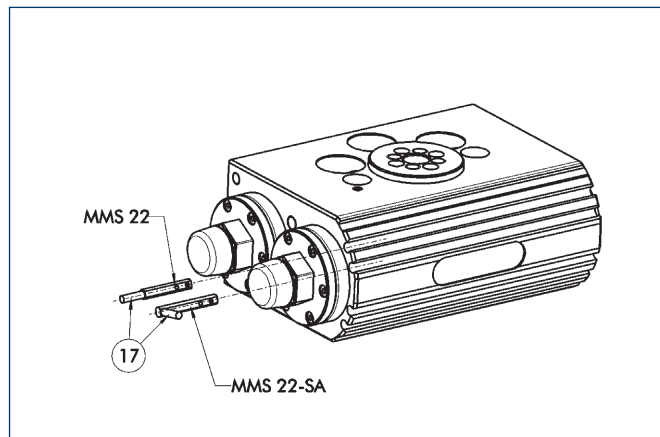
- ③ Adapter
- ⑥⑦ Distributor for fluid feed-through
- ②⑤ Fluid feed-through

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 40	0357992

① View applicable only for versions without EDF!

Electronic magnetic switches



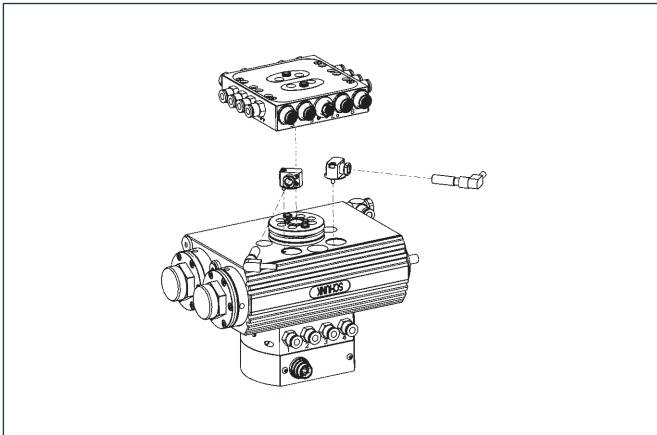
- ①⑦ Cable outlet

End position monitoring for mounting in the C-slot

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

- ① 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

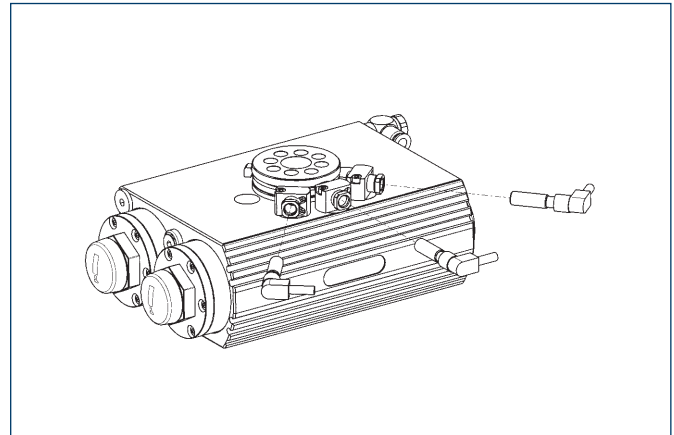


End position monitoring for direct mounting

Description	ID	Our recommendation
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
IN-C 80-S-M8	0301475	
INK 80-SL	0301579	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

- ① 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

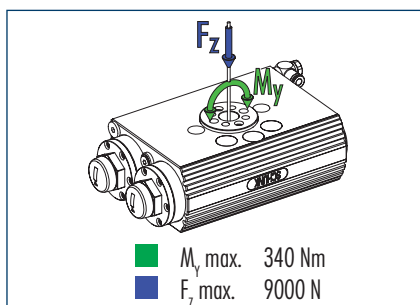
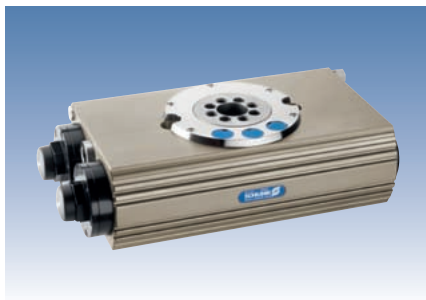


End position monitoring mounted with mounting kit

Description	ID	Our recommendation
Mounting kit for proximity switch		
AS-SRU-plus 40	0357990	
AS-SRU-plus 40-8	0357991	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
IN-C 80-S-M8	0301475	
INK 80-SL	0301579	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

- ① 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 ³] 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

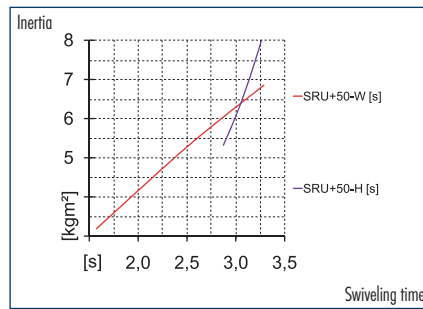
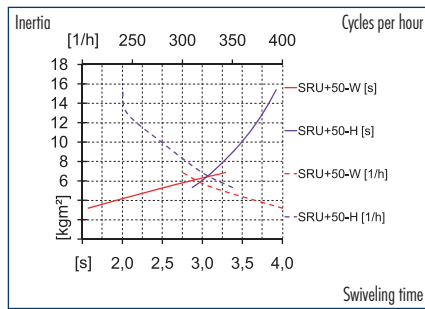
Options with fluid and electric feed-through

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

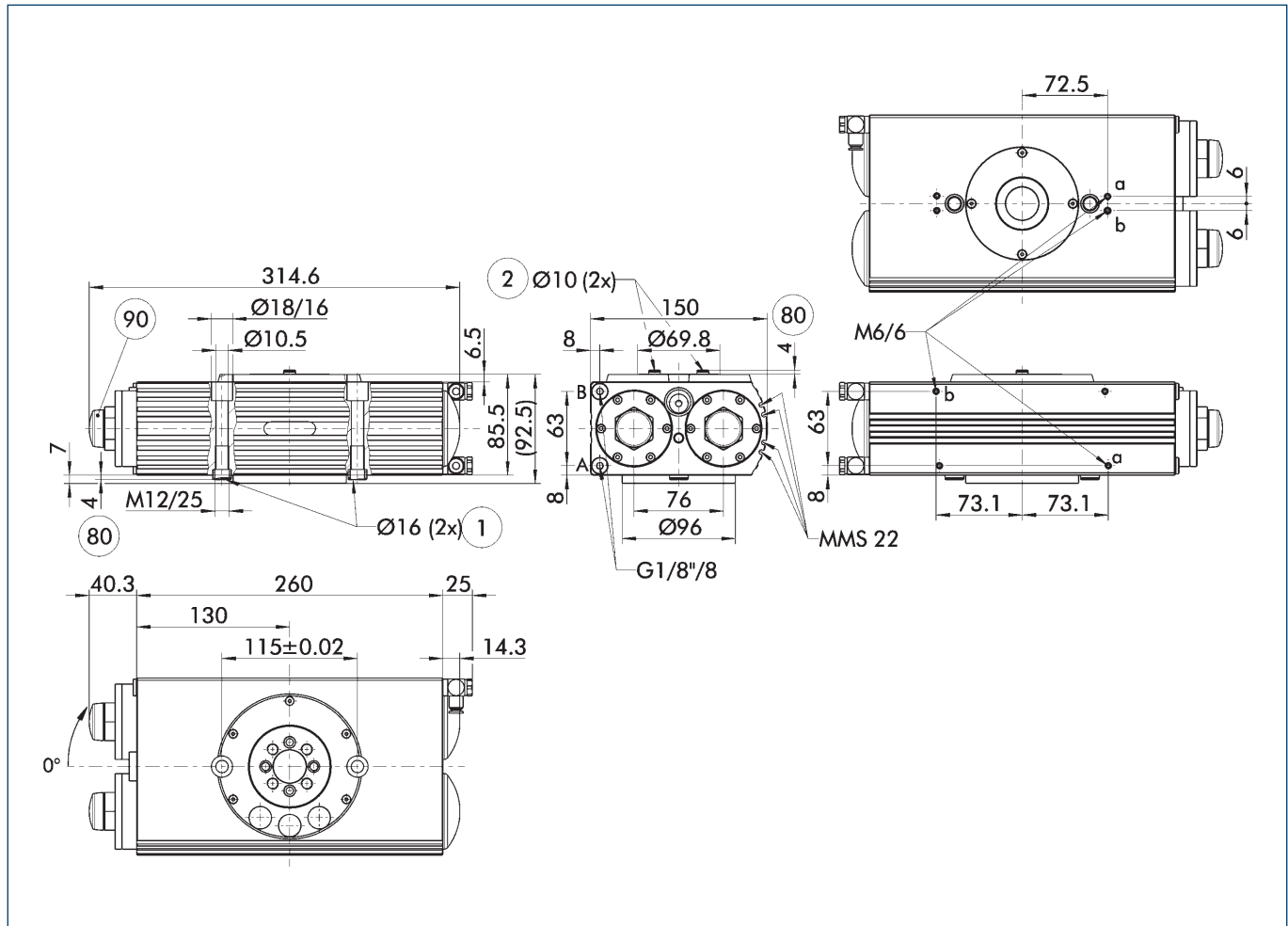
Options with fluid and electric feed-through

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

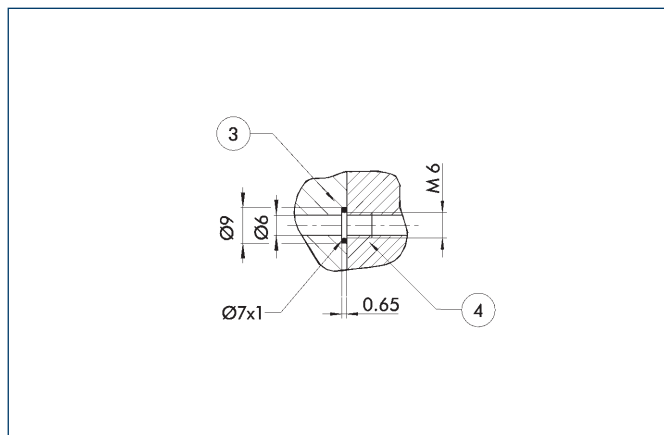


The main view shows the SRU-plus in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional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

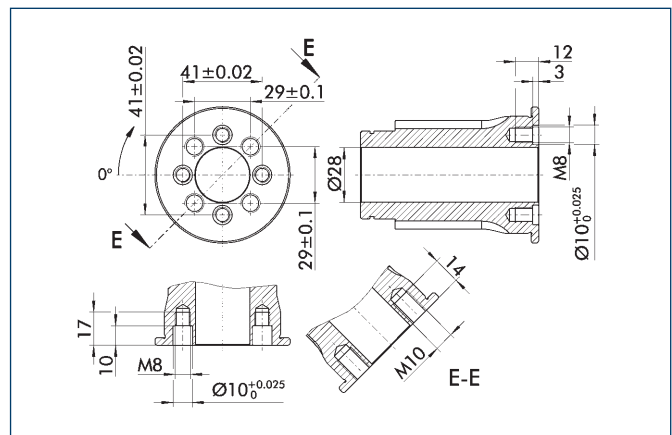
Hose-free direct connection



- ③ Adapter
- ④ Rotary actuator

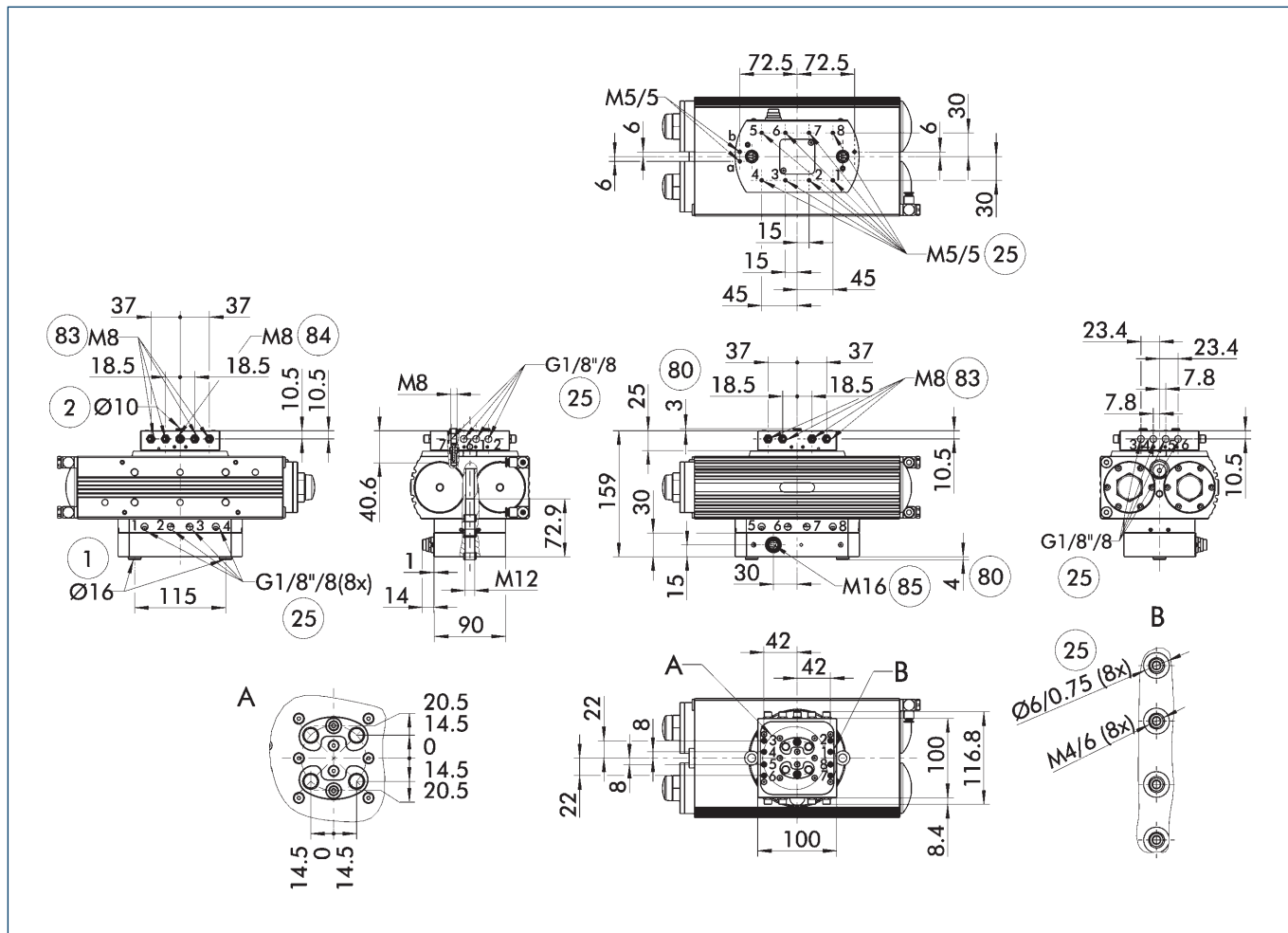
The direct connection is used for supplying compressed air without hoses. Instead, the pressure medium is fed through bore-holes in the mounting plate.

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



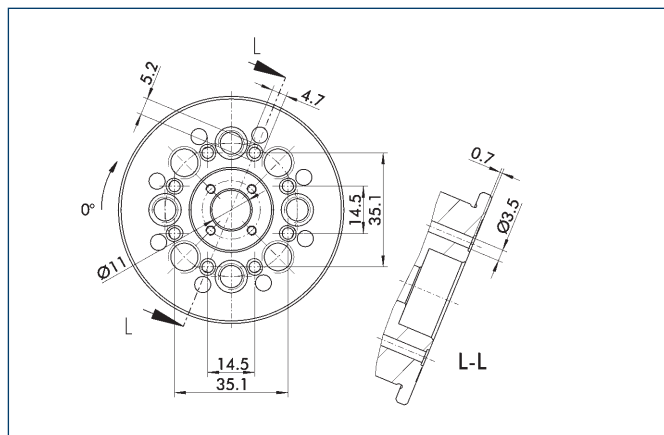
The main view shows the SRU in the most basic version, that is with an angle of traverse of 180°/90°, small end position adjustability of 3°, without middle position and without fluid feed-through. Modifications to the drawings as a result of various options can be seen in the relevant additional views.

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
- 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

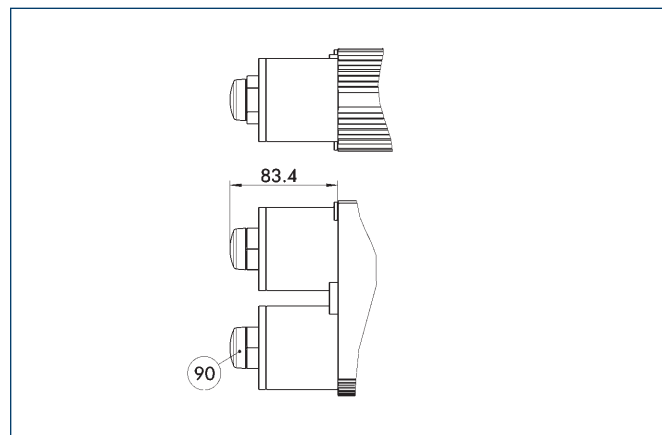
Pinion with fluid feed-through



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!

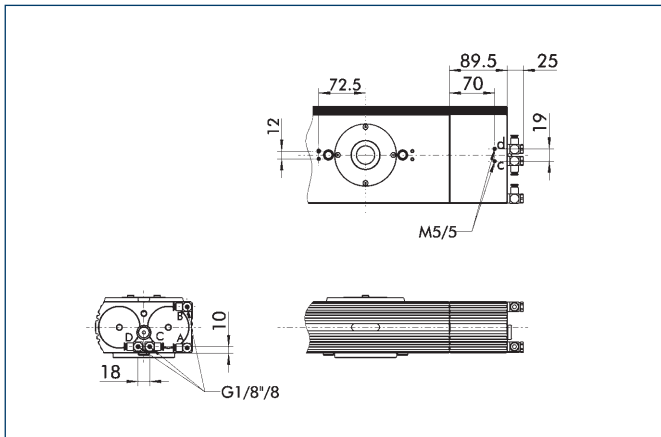
Large end position adjustability 90°



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.

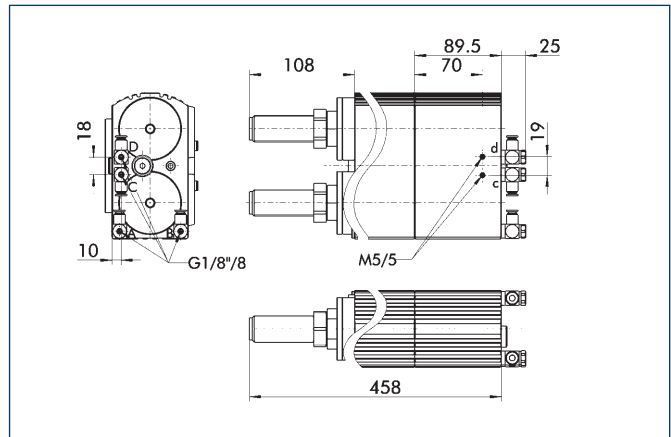
Pneumatic middle position (M)



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.

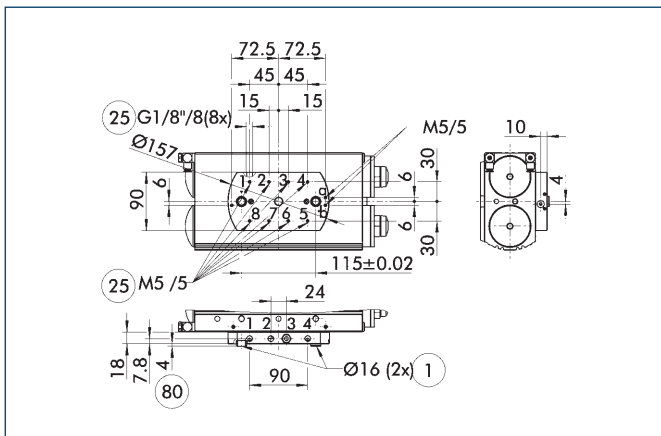
Locked middle position (VM)



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

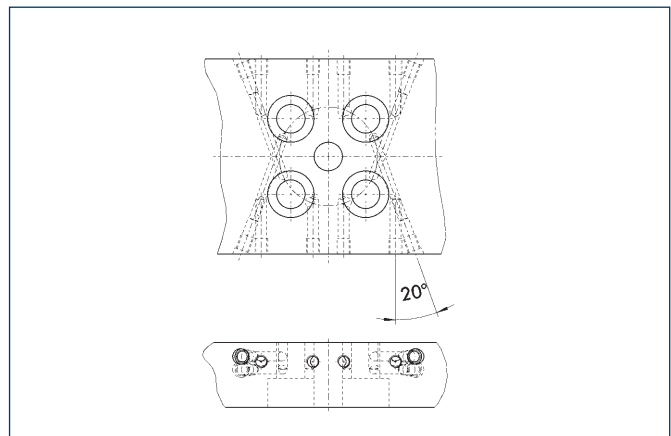


① Rotary actuator connection
②⑤ Fluid feed-through
⑧⑩ Depth of the centering sleeve hole in the matching part

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!

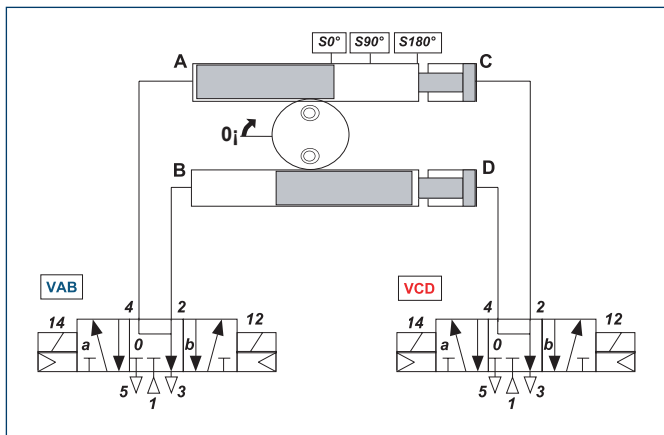
Adapter plate arrangement



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

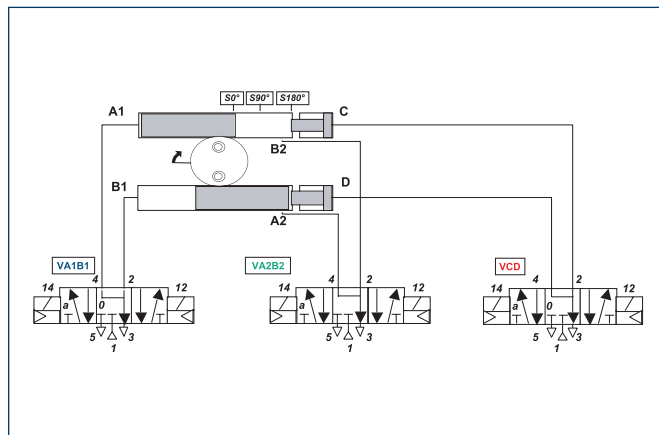
① View applicable only for versions without EDF!

Pneumatic diagram of SRU-plus-VM – vertical axis



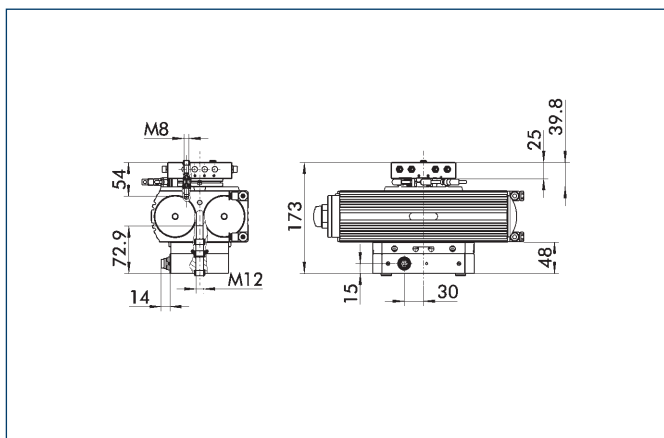
VM units with vertical swivel axis are generally actuated by two 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

Pneumatic diagram of SRU-plus-VM – horizontal axis



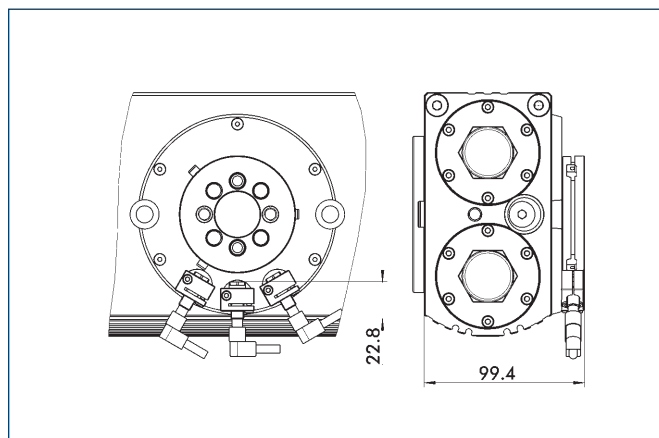
VM units with horizontal or non-vertical swivel axis must generally be actuated by three 5/3 directional control valves with deaerated middle position. To prevent damage, it is essential that you pay attention to the actuation sequence in the operating manual.

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

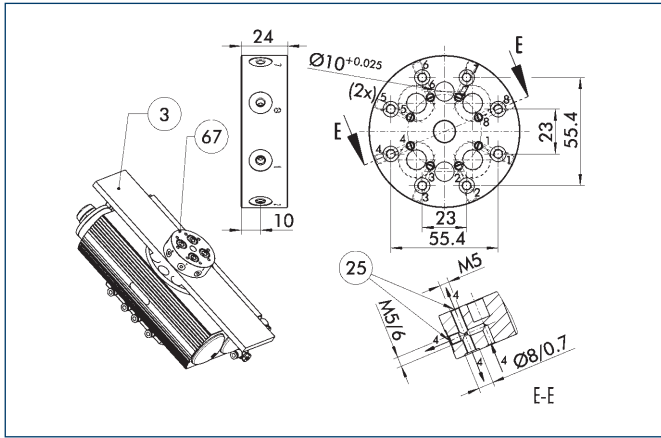


The size-specific mounting kit is required for installing the inductive proximity switches. Up to three proximity switches (2x end position, 1x middle position) can be attached using the mounting kit.

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



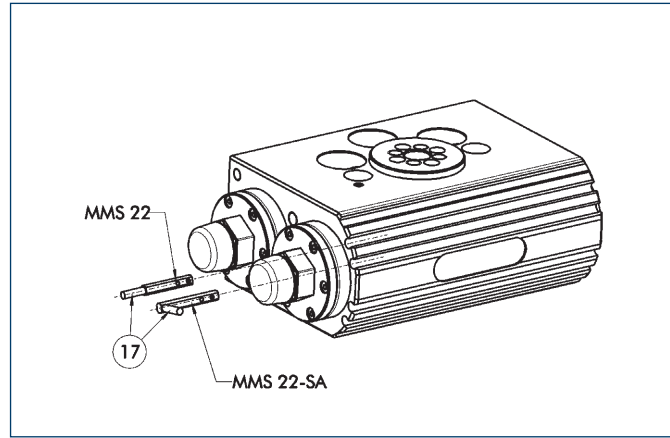
- ③ Adapter
- ②⑤ Fluid feed-through
- ⑥⑦ Distributor for fluid feed-through

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 50/60	0358192

① View applicable only for versions without EDF!

Electronic magnetic switches

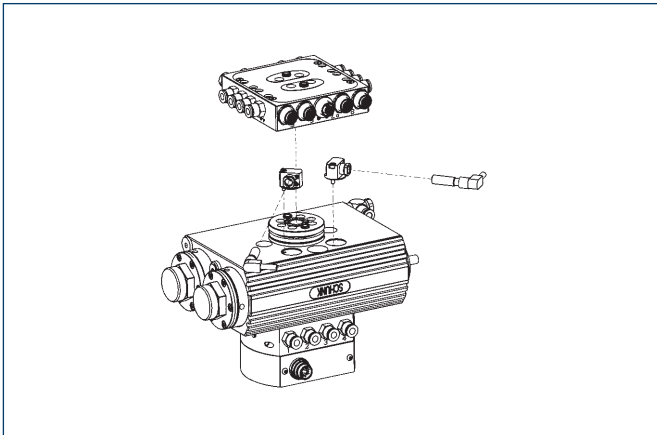


- ①⑦ Cable outlet
- End position monitoring for mounting in the C-slot

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

- ① 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

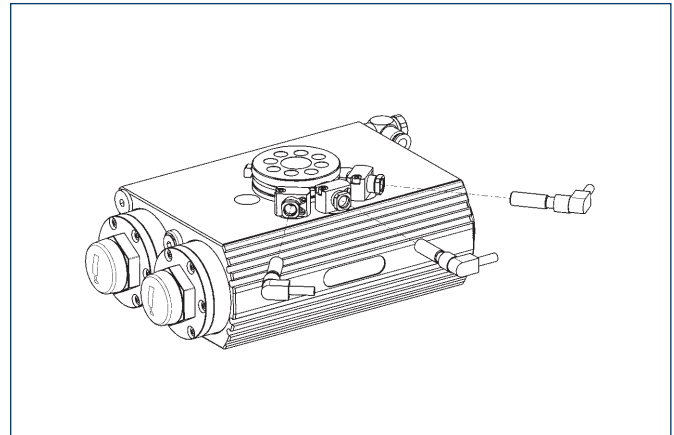


End position monitoring for direct mounting

Description	ID	Our recommendation
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
IN-C 80-S-M8	0301475	
INK 80-SL	0301579	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

- ① 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.

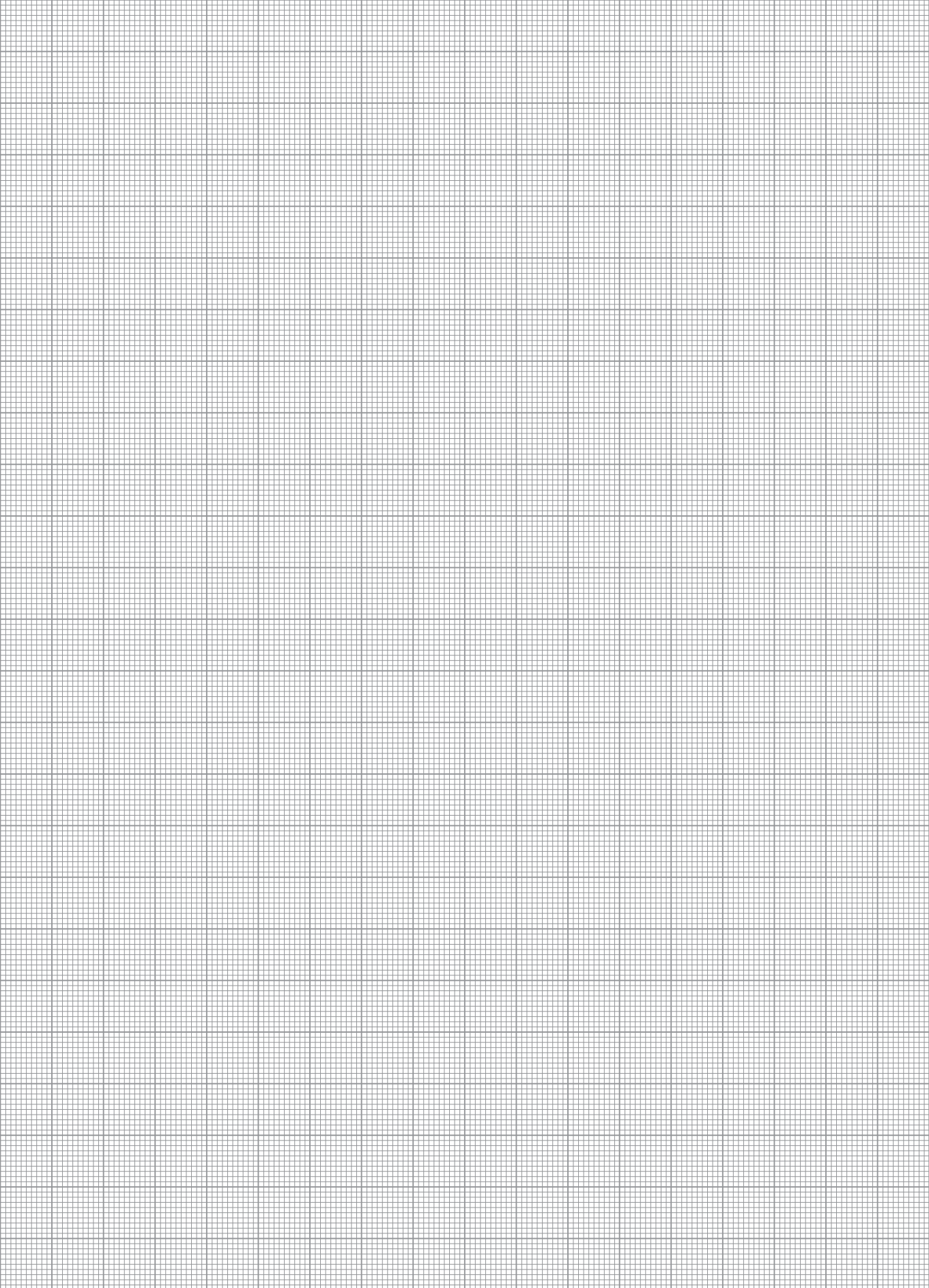
Inductive proximity switches IN for SRU-plus without electric feed-through



End position monitoring mounted with mounting kit

Description	ID	Our recommendation
Mounting kit for proximity switch		
AS-SRU-plus 50/60	0358190	
AS-SRU-plus 50/60-8	0358191	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Inductive proximity switches		
IN 80-S-M8	0301478	•
IN 80-S-M12	0301578	
INK 80-S	0301550	
IN-C 80-S-M8	0301475	
INK 80-SL	0301579	
Cable extensions		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	

- ① 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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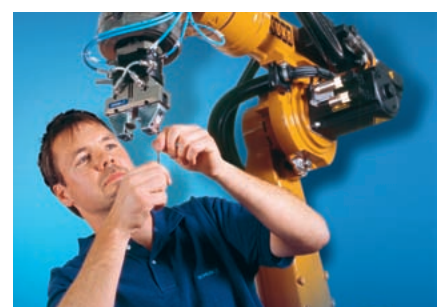
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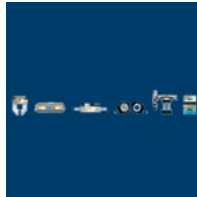
Robot Accessories



Modular Assembly Technology



Machine Vision



Automation Product Overview



Modular Assembly Technology Product Overview



Modular Robotics



Industry Solutions



Highlights New Products

Complete program Automation

Toolholding and Workholding



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// The desire to automate handling applications is our
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