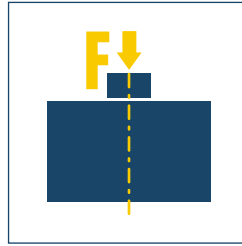




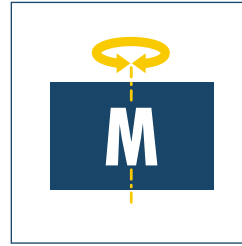
Sizes
18 .. 55



Weight
0.13 kg .. 1.95 kg



Axial force
140 N .. 2560 N

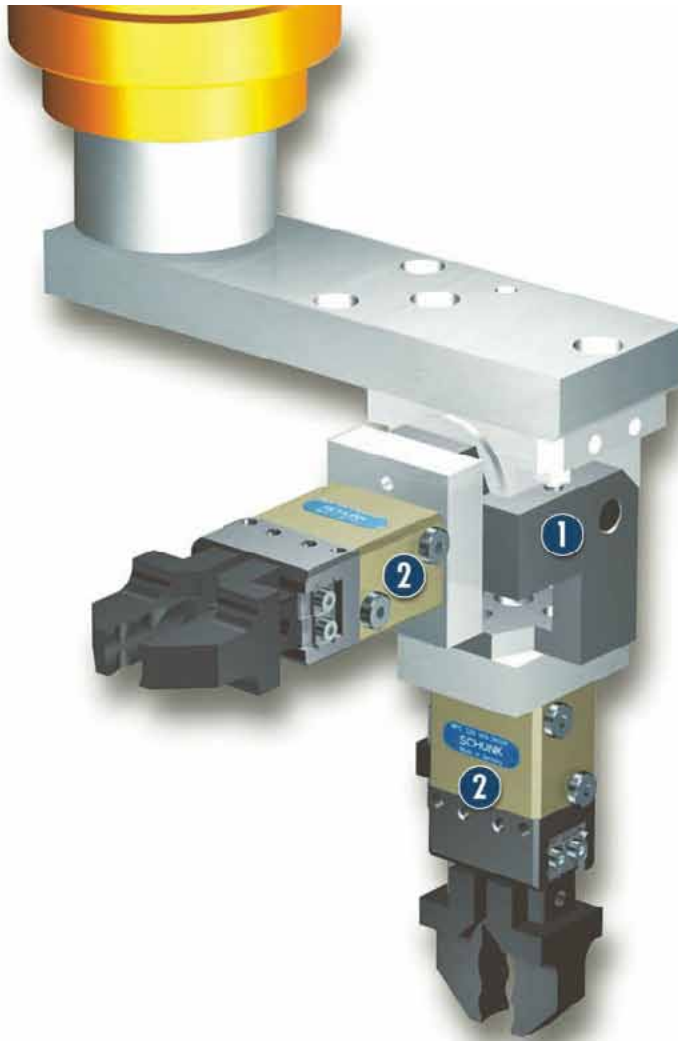


Torque
0.4 Nm .. 9.0 Nm



Bending moment
7.0 Nm .. 128 Nm

Application example



Robot gripper module for the removal and loading of a variety of axles and bolts

① SKE 22 Swivel Head

② MPG 32 2-Finger Parallel Gripper

Swivel Head

90° swivel head with single piston drive

Area of application

For use in clean environments such as assembly or packaging zones and for light external loads

Your advantages and benefits

90° swivel head

can travel to three positions

Low weight and compact design

for short cycle times

Standardized interfaces to many grippers in the RH series

for rapid gripper assembly without intermediate plates



Information about the series

Working principle

Double-acting single piston with transfer to a swivel movement by means of a serration

Housing material

High-strength aluminum

Material of functional components (internal)

Steel

Actuation

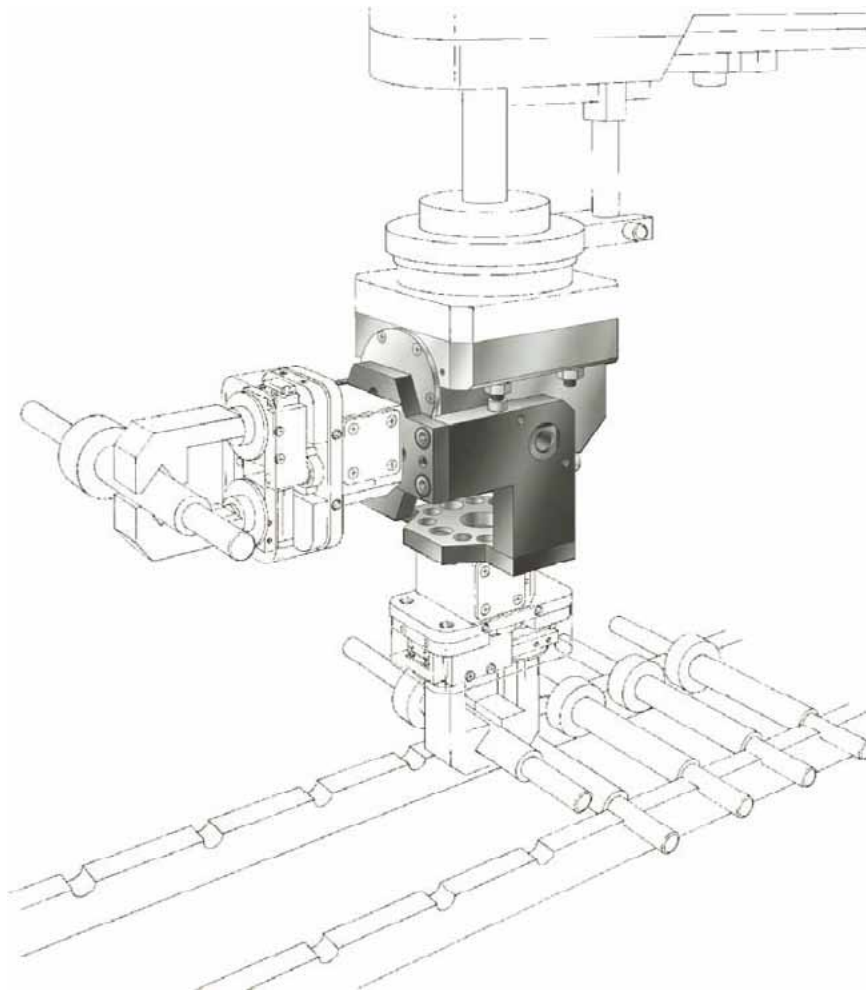
Pneumatic, with filtered compressed air (10 µm): Dry, lubricated or non-lubricated
 Pressure medium: Required quality class of compressed air according to DIN ISO 8573-1: Quality class 4

Warranty

24 months

Scope of delivery

Small parts for mounting, flow control couplings, assembly and operating manual with manufacturer's declaration



Function description

A double-acting piston located in the housing turns the die 90° swivel axis. Its speed is restricted by flow control couplings, ensuring that it travels cleanly to the end position.

Options and special information

In order to keep the manufacturing costs and thus the sale prices low, the SKE series is designed for low-cost production. Therefore, repairs are generally not economically feasible.

Accessories

Accessories from SCHUNK – the suitable complement for the highest level of functionality, reliability and controlled production of all automation components.

Fittings



IN inductive proximity switches



W/WK/KV/GK sensor cables



V sensor distributors



SDV-P pressure maintenance valves



① For the exact size of the required accessories, availability of this size and the designation and ID, please refer to the additional views at the end of the size in question. You will find more detailed information on our accessory range in the „Accessories“ catalog section.

General information on the series

Clean environment

SKE rotary units may only be employed in a clean environment.

Repeat accuracy

Repeat accuracy is defined as the spread of the limit position after 100 consecutive swiveling cycles.

Cycle time

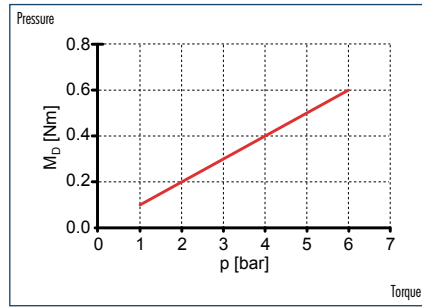
Cycle times are purely the times taken by the pinion/flange to turn round the nominal angle of rotation. Valve switching times, hose filling times or SPC reaction times are not included in the above times and must be taken into consideration when determining cycle times.

Direct connection of grippers

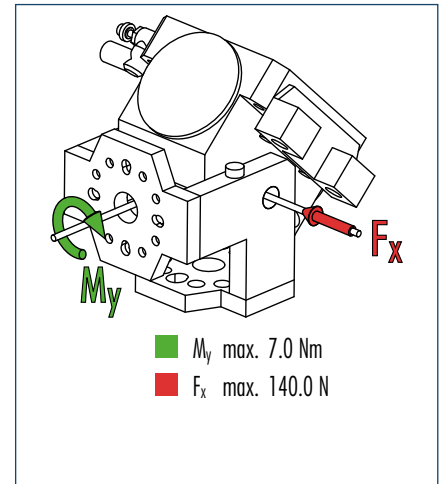
Some RH grippers can be flange-mounted directly to the SKE without an adapter plate. In this case, please note the screw connection diagram.



Torque



Moment load

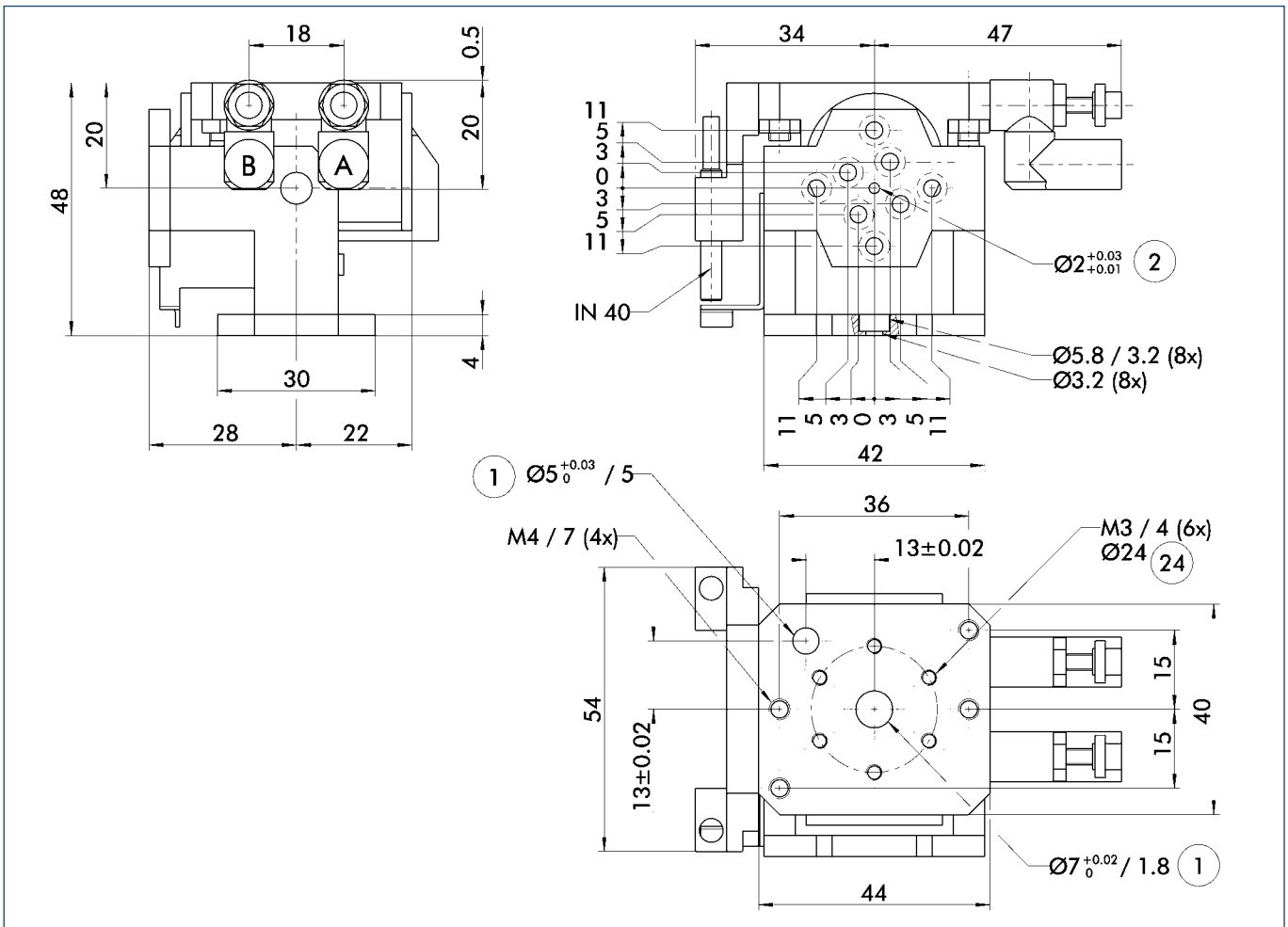


ⓘ Moments and forces may occur simultaneously. When using heavy attachments or ones with high mass moments of inertia, the speed must be restricted to ensure that the rotary movement occurs without any hitting or bouncing.

Technical data

Description	ID	SKE 18
Torque	[Nm]	0.4
Rotating angle	[°]	90.0
Adjustability of end positions	[°]	5.0
IP class		30
Weight	[kg]	0.13
Cycle time (1 x nominal angle of rotation) without attached load	[s]	0.5
Fluid consumption per cycle (2 x nominal angle)	[cm ³]	10.0
Nominal pressure	[bar]	4.0
Minimum pressure	[bar]	1.0
Maximum pressure	[bar]	6.0
Diameter of connecting hose	[mm]	4.0
Min. ambient temperature	[°C]	5.0
Max. ambient temperature	[°C]	50.0
Repeat accuracy	[°]	0.03

Main views

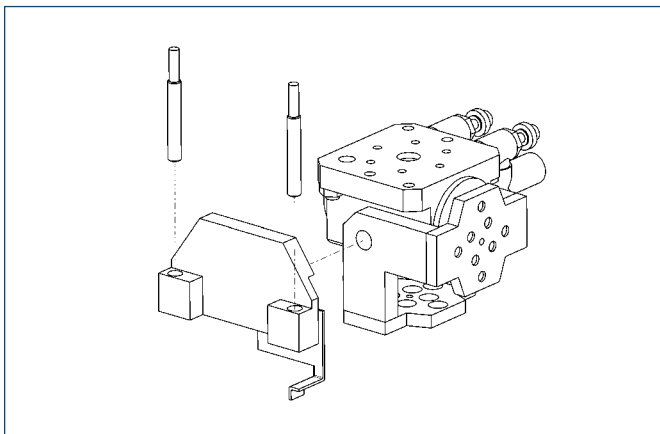


The drawing shows the swivel head in the basic version.

- A,a Main/direct connection, clockwise rotary unit
- B,b Main/direct connection, anti-clockwise rotary unit
- ① Rotary unit connection
- ② Attachment connection
- ⊙ Bolt circle

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

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 40-S-M12	0301574	
IN 40-S-M8	0301474	•
INK 40-S	0301555	

① Two sensors (NO contacts) are required for each swivel head, plus extension cables as an option.

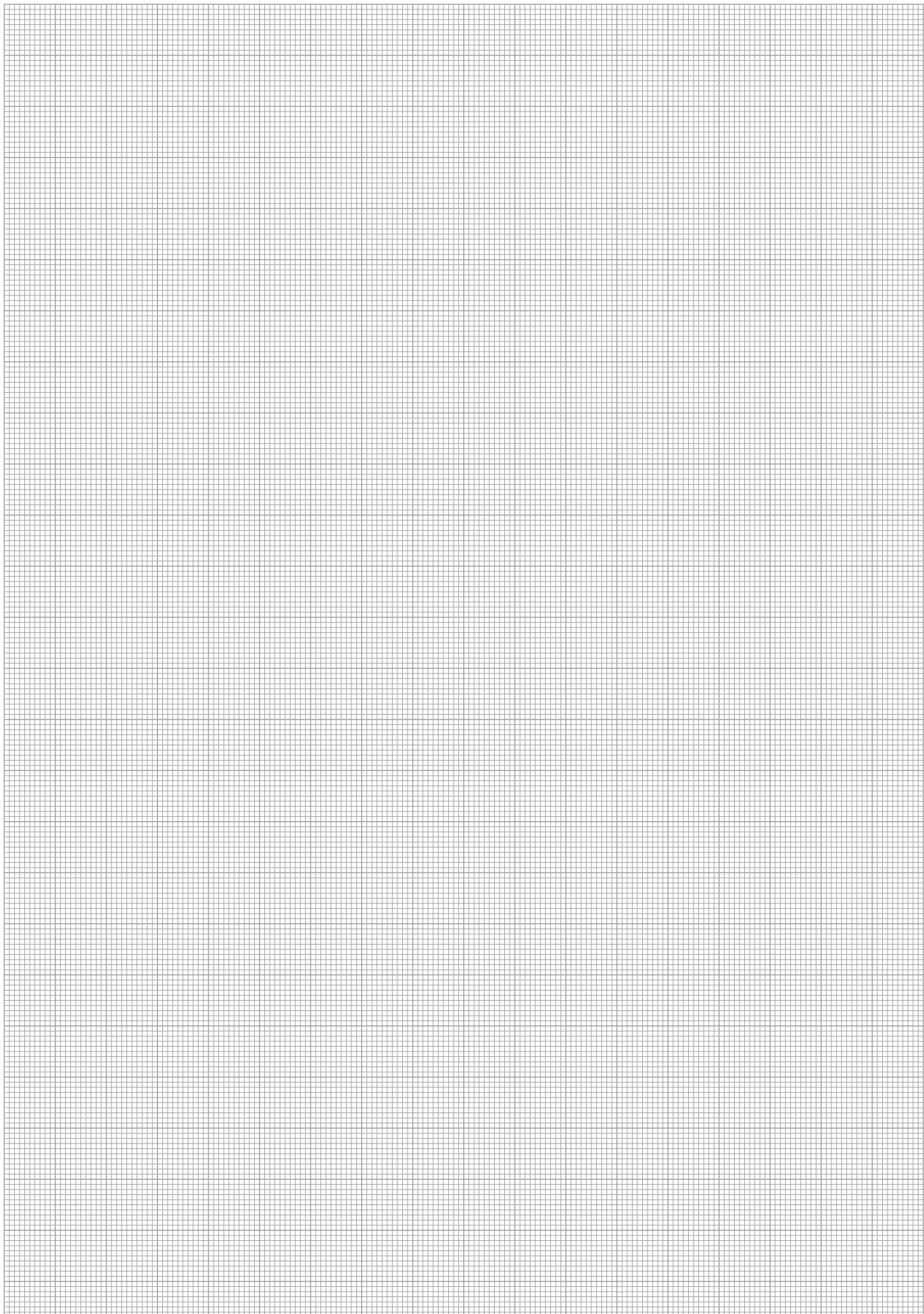
Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

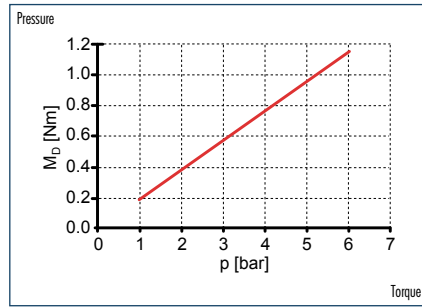


You can find more detailed information and individual parts of the above-mentioned accessories in the „Accessories“ catalog section.

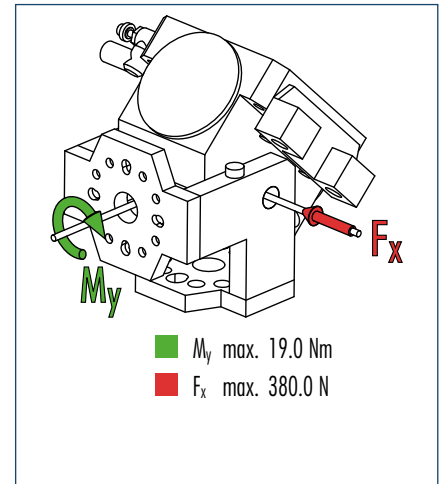




Torque



Moment load

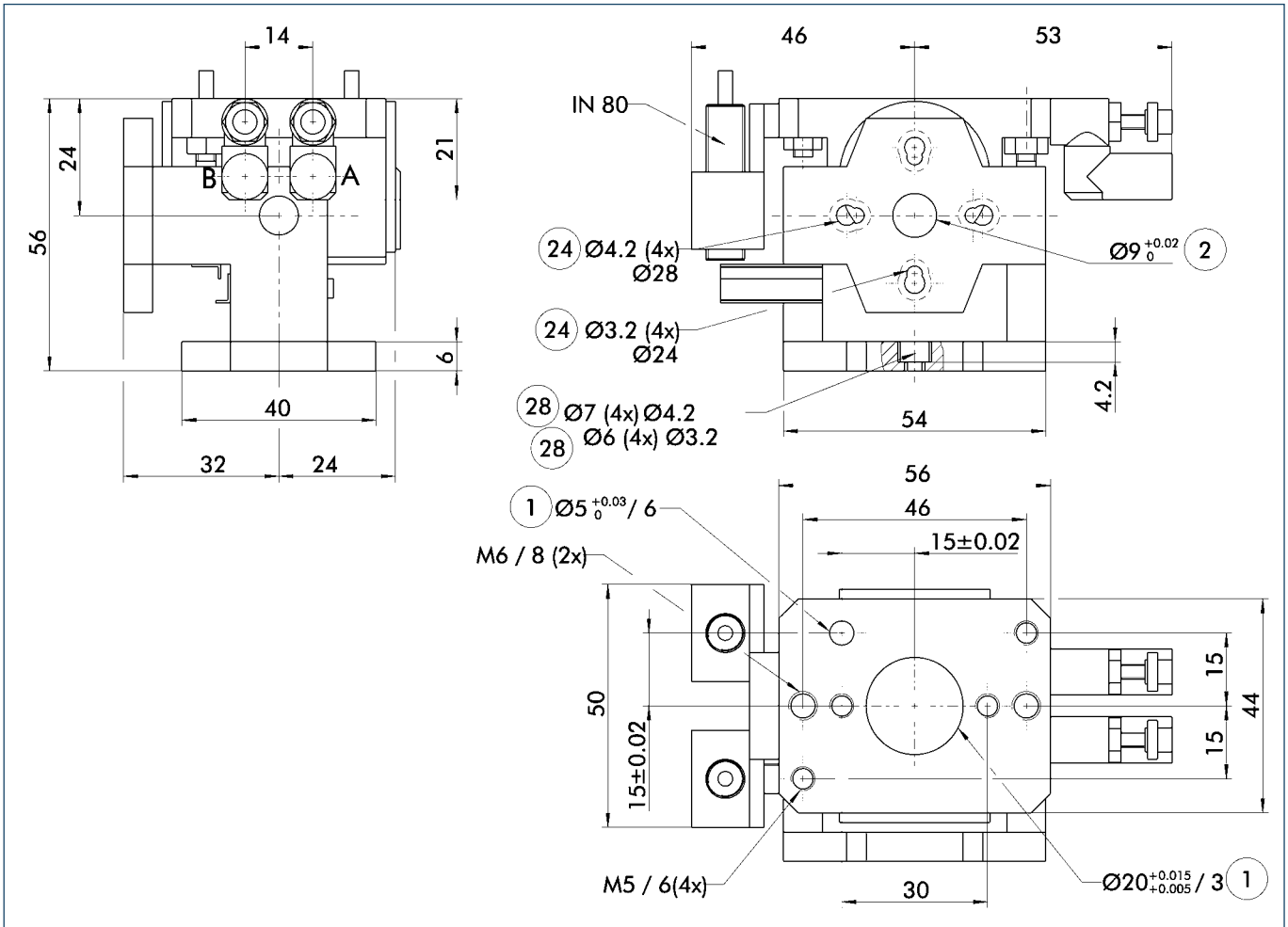


ⓘ Moments and forces may occur simultaneously. When using heavy attachments or ones with high mass moments of inertia, the speed must be restricted to ensure that the rotary movement occurs without any hitting or bouncing.

Technical data

Description	ID	SKE 22
Torque	[Nm]	0.75
Rotating angle	[°]	90.0
Adjustability of end positions	[°]	5.0
IP class		30
Weight	[kg]	0.2
Cycle time (1 x nominal angle of rotation) without attached load	[s]	0.8
Fluid consumption per cycle (2 x nominal angle)	[cm ³]	20.0
Nominal pressure	[bar]	4.0
Minimum pressure	[bar]	1.0
Maximum pressure	[bar]	6.0
Diameter of connecting hose	[mm]	4.0
Min. ambient temperature	[°C]	5.0
Max. ambient temperature	[°C]	50.0
Repeat accuracy	[°]	0.03

Main views

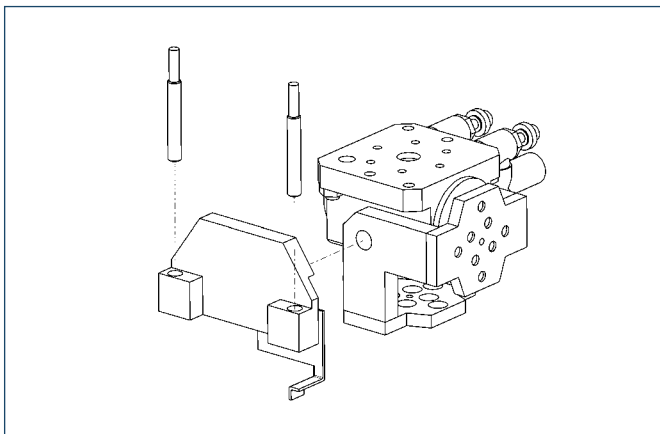


The drawing shows the swivel head in the basic version.

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 unit
- B,b Main/direct connection, anti-clockwise rotary unit
- ① Rotary unit connection
- ② Attachment connection
- 24 Bolt circle
- 28 Through-bore

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	•
IN-C 80-S-M8	0301475	
INK 80-S	0301550	

① Two sensors (NO contacts) are required for each swivel head, plus extension cables as an option.

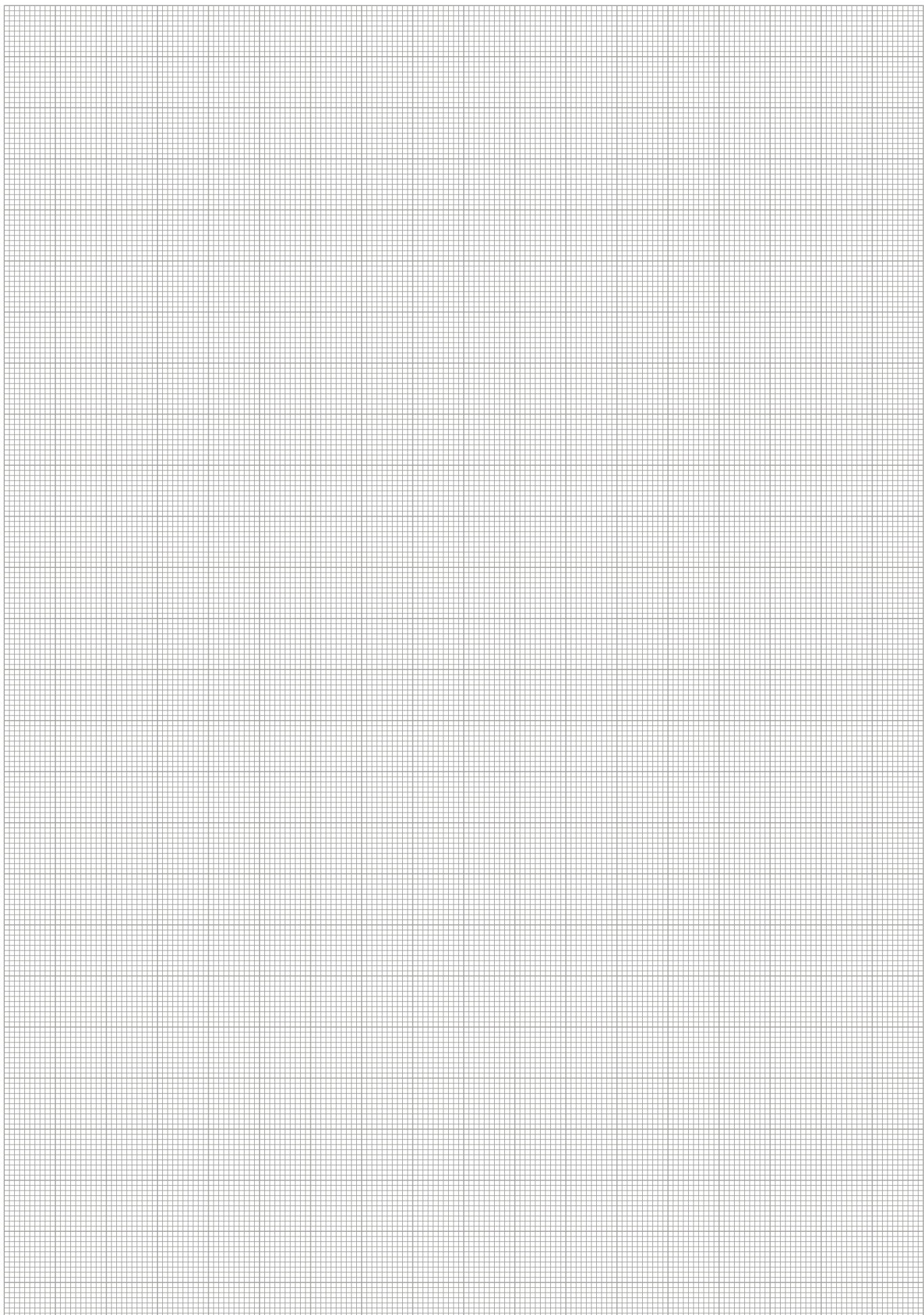
Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

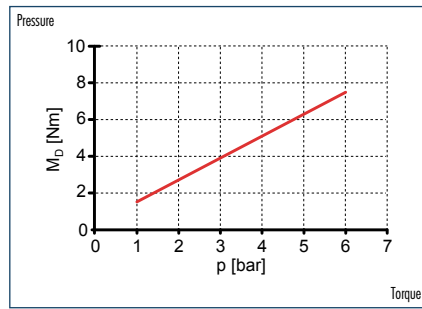


You can find more detailed information and individual parts of the above-mentioned accessories in the „Accessories“ catalog section.

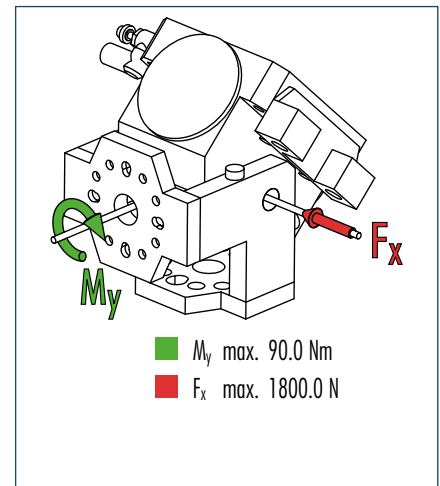




Torque



Moment load

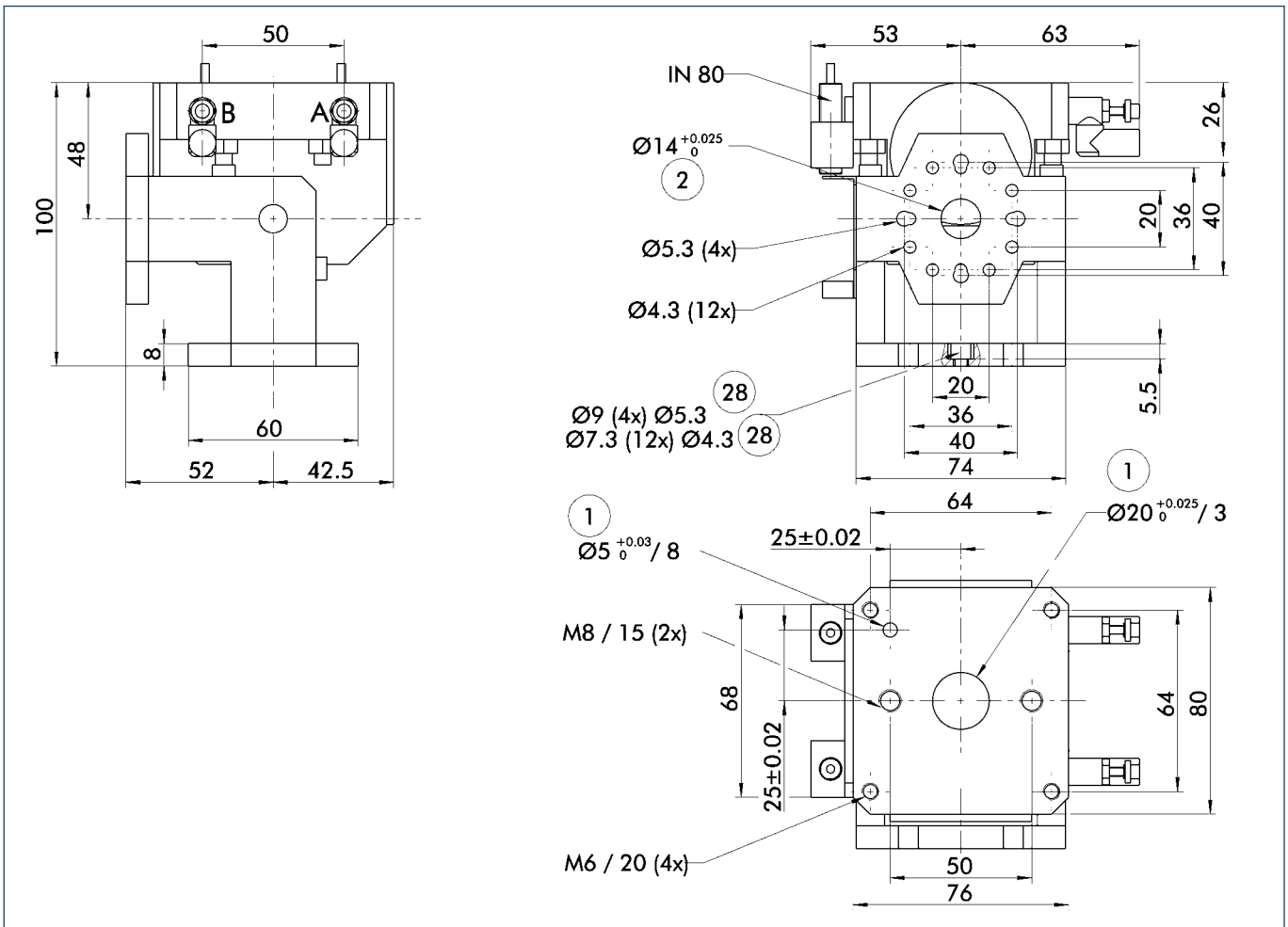


ⓘ Moments and forces may occur simultaneously. When using heavy attachments or ones with high mass moments of inertia, the speed must be restricted to ensure that the rotary movement occurs without any hitting or bouncing.

Technical data

Description	ID	SKE 40
Torque	[Nm]	5.0
Rotating angle	[°]	90.0
Adjustability of end positions	[°]	5.0
IP class		30
Weight	[kg]	0.92
Cycle time (1 x nominal angle of rotation) without attached load	[s]	1.0
Fluid consumption per cycle (2 x nominal angle)	[cm ³]	100.0
Nominal pressure	[bar]	4.0
Minimum pressure	[bar]	1.0
Maximum pressure	[bar]	6.0
Diameter of connecting hose	[mm]	4.0
Min. ambient temperature	[°C]	5.0
Max. ambient temperature	[°C]	50.0
Repeat accuracy	[°]	0.03

Main views

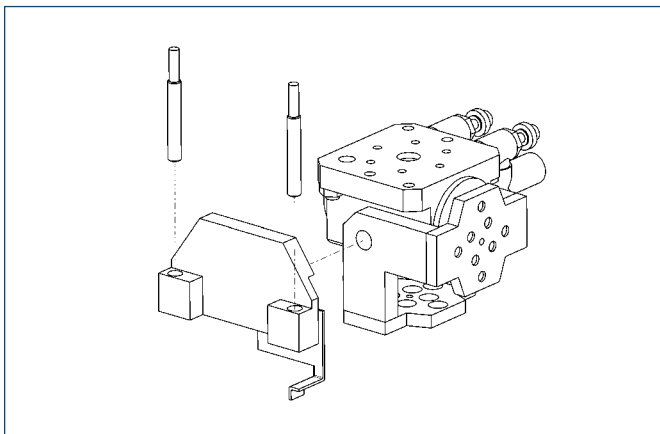


The drawing shows the swivel head in the basic version.

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 unit
- B, b Main/direct connection, anti-clockwise rotary unit
- ① Rotary unit connection
- ② Attachment connection
- ②⑧ Through-bore

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	•
IN-C 80-S-M8	0301475	
INK 80-S	0301550	

① Two sensors (NO contacts) are required for each swivel head, plus extension cables as an option.

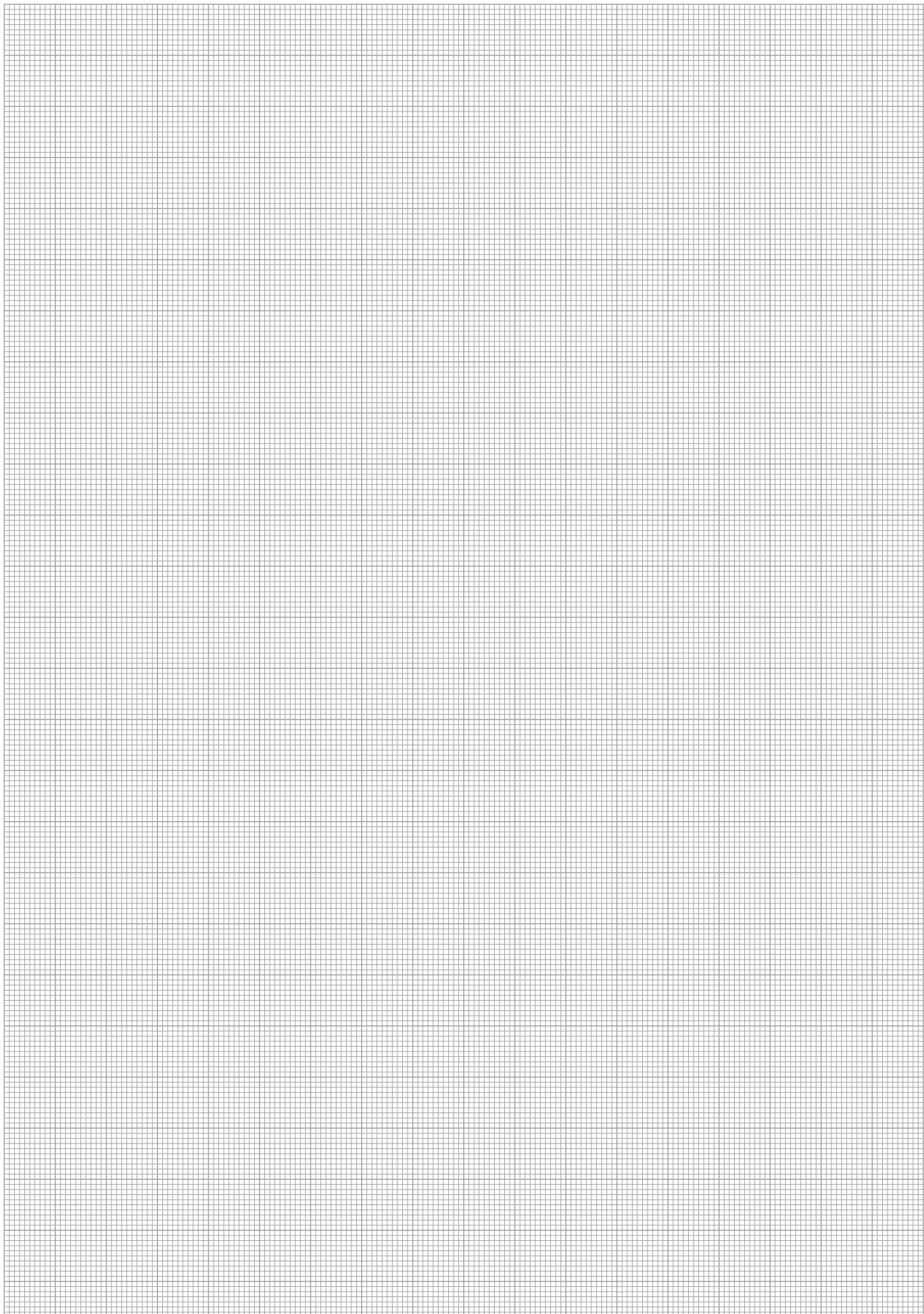
Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.

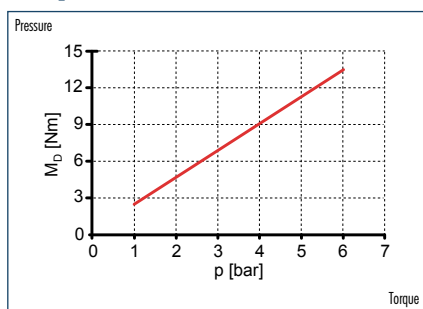


You can find more detailed information and individual parts of the above-mentioned accessories in the „Accessories“ catalog section.

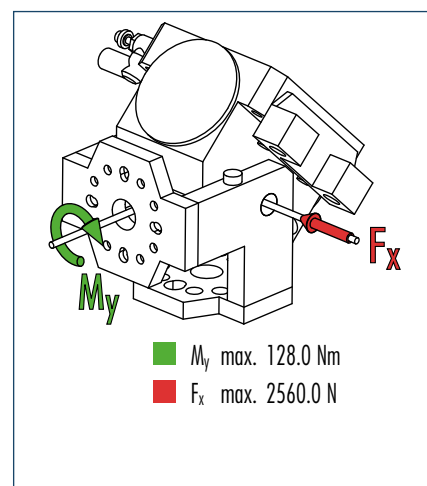




Torque



Moment load

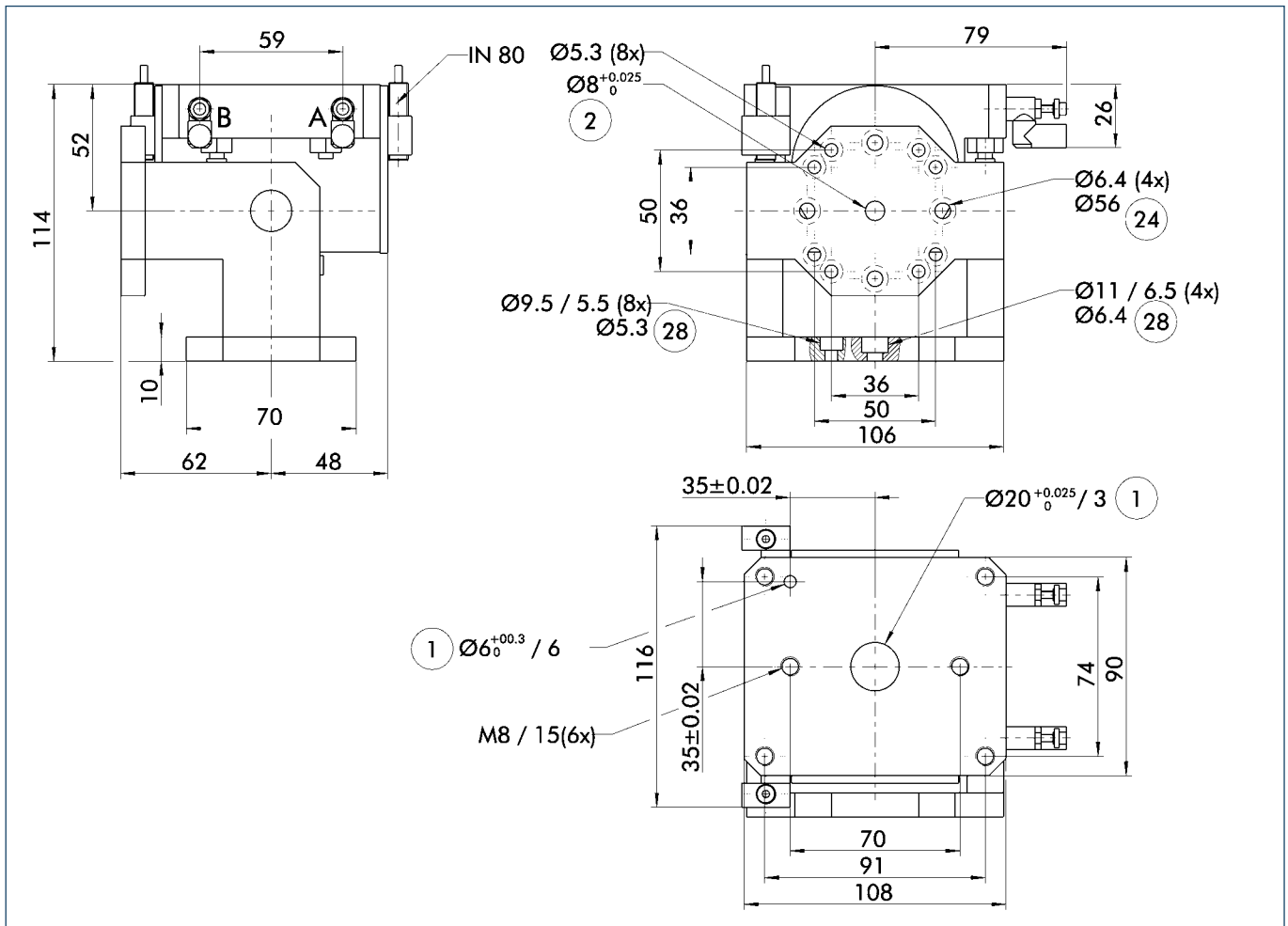


ⓘ Moments and forces may occur simultaneously. When using heavy attachments or ones with high mass moments of inertia, the speed must be restricted to ensure that the rotary movement occurs without any hitting or bouncing.

Technical data

Description	ID	SKE 55
Torque	[Nm]	9.0
Rotating angle	[°]	90.0
Adjustability of end positions	[°]	5.0
IP class		30
Weight	[kg]	1.95
Cycle time (1 x nominal angle of rotation) without attached load	[s]	1.5
Fluid consumption per cycle (2 x nominal angle)	[cm ³]	160.0
Nominal pressure	[bar]	4.0
Minimum pressure	[bar]	1.0
Maximum pressure	[bar]	6.0
Diameter of connecting hose	[mm]	4.0
Min. ambient temperature	[°C]	5.0
Max. ambient temperature	[°C]	50.0
Repeat accuracy	[°]	0.03

Main views

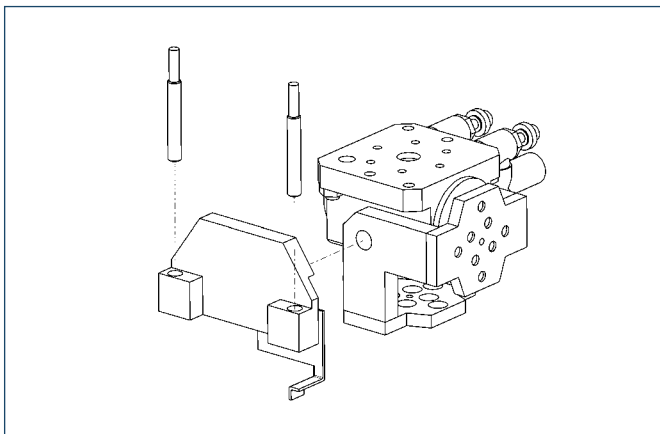


The drawing shows the swivel head in the basic version.

- A,a Main/direct connection, clockwise rotary unit
- B,b Main/direct connection, anti-clockwise rotary unit
- ① Rotary unit connection
- ② Attachment connection
- ②4 Bolt circle
- ②8 Through-bore

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

Sensor system



End position monitoring:

Inductive proximity switches, for direct mounting

Description	ID	Recommended product
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	•
IN-C 80-S-M8	0301475	
INK 80-S	0301550	

① Two sensors (NO contacts) are required for each swivel head, plus extension cables as an option.

Extension cables for proximity switches/magnetic switches

Description	ID
GK 3-M8	0301622
KV 10-M12	0301596
KV 10-M8	0301496
KV 20-M12	0301597
KV 20-M8	0301497
KV 3-M12	0301595
KV 3-M8	0301495
W 3-M12	0301503
W 5-M12	0301507
WK 3-M8	0301594
WK 5-M8	0301502

① Please note the minimum permitted bending radii for the sensor cables, which are generally 35 mm.



You can find more detailed information and individual parts of the above-mentioned accessories in the „Accessories“ catalog section.