



Superior Clamping and Gripping



Product Information

Miniature swivel Head SKE

SKE

Miniature swivel Head

Compact. Fast. Productive. SKE miniature swivel head

90° swivel head with single piston drive

Field of application

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

Advantages – Your benefits

90° swivel head with integrated end position stops

Low weight and compact design for short cycle times

Standardized interfaces to many grippers in the RH series for fast gripper assembly without using intermediate plates



Sizes
Quantity: 4



Weight
0.13 .. 1.95 kg



Torque
0.4 .. 9 Nm



Repeat accuracy
0.03°

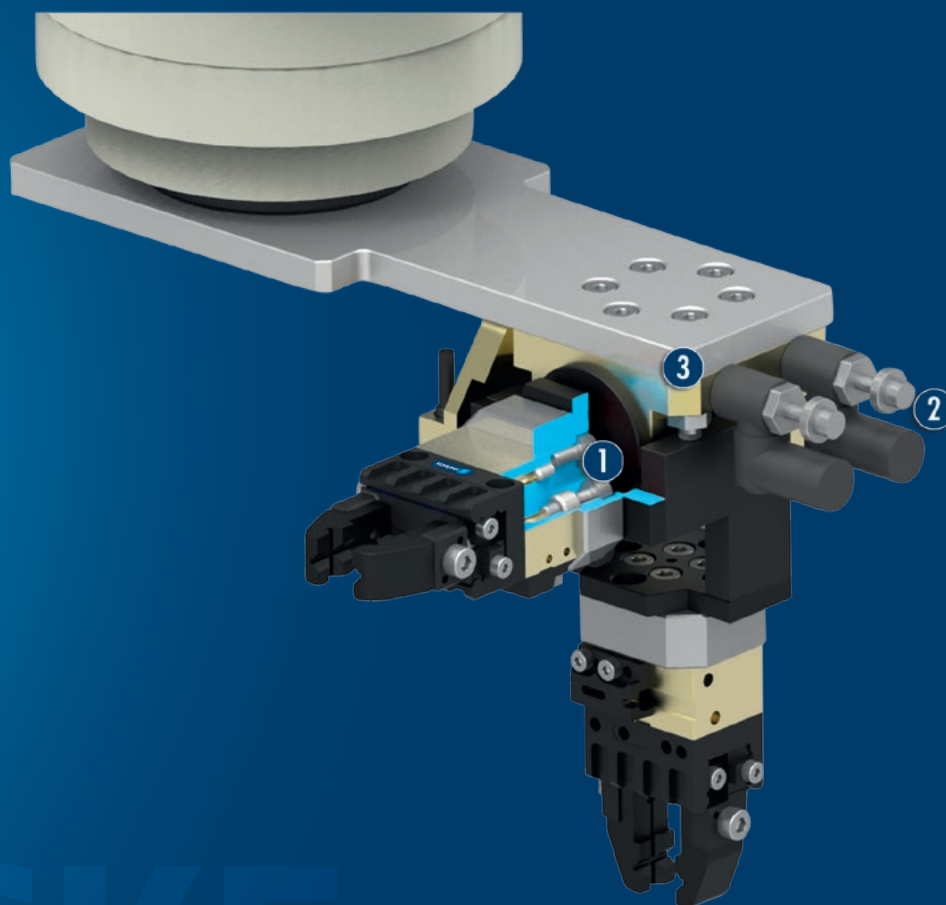


Angle of rotation
90°

Functional description

A double-acting piston integrated in the housing turns the die 90° swivel axis. The piston speed is restricted by flow

control couplings, ensuring that it travels cleanly to the end position.



① Screw connection diagram for adapter plates

② Flow control valves

③ End position adjustability

CAD data, operating manuals and other current product documents can be found online.

General notes about the series

Housing material: Aluminum

Material of the (internal) functional components: Steel

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

Operating principle: double acting piston with geared transmission

Scope of delivery: Small parts for mounting, flow control valves, assembly and operating manual with a manufacturer's declaration.

Warranty: 24 months

Repeat accuracy: is defined as a distribution of the end position for 100 consecutive cycles.

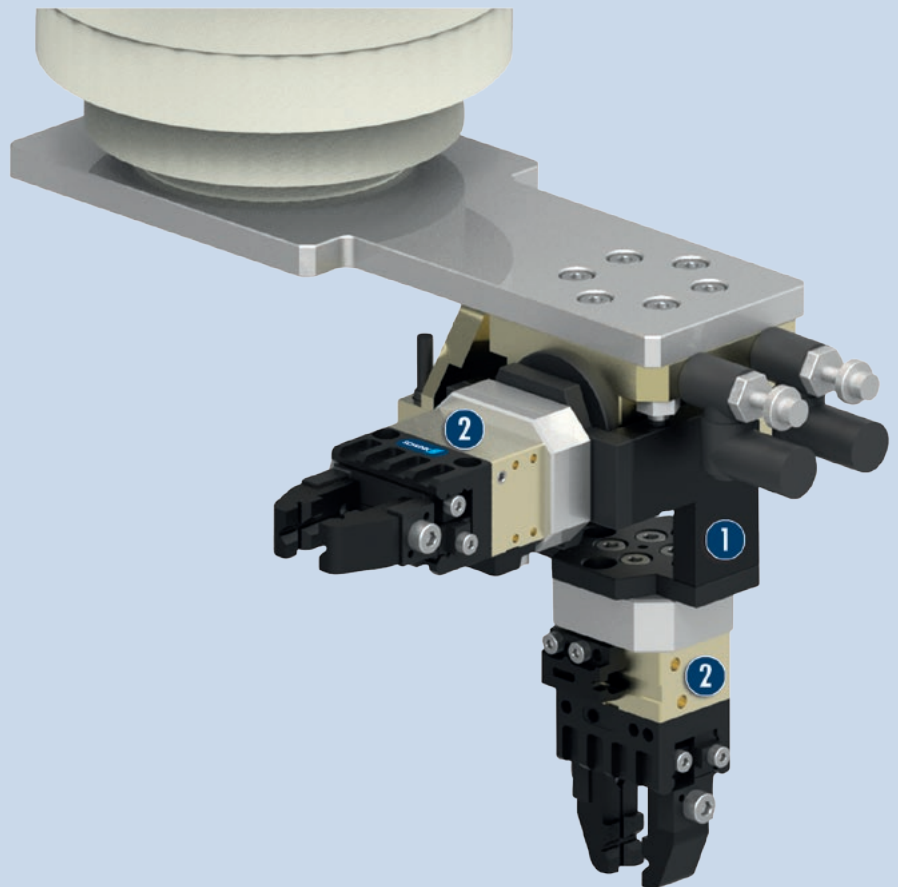
Cycle time: is the rotation time of pinion / flange around the nominal rotation angle. Valve switching times, hose filling times, or PLC reaction times are not a part of this and are to be considered when cycle times are calculated.

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

Application example

Robot/gripper module for the removal and loading of various axes and bolts

- 1 SKE swivel head
- 2 MPG-plus 2-finger parallel gripper



SCHUNK offers more ...

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



Fittings



Inductive proximity switches
IN



Pressure maintenance valve



Sensor cables



MPZ 3-finger centric gripper



Sensor distributor



Pneumatic Small Parts
Gripper MPG-plus

① Additional information regarding the products can be found on the following product pages or at www.schunk.com. Please contact us for further information: SCHUNK technical hotline +49-7133-103-2696

Options and special information

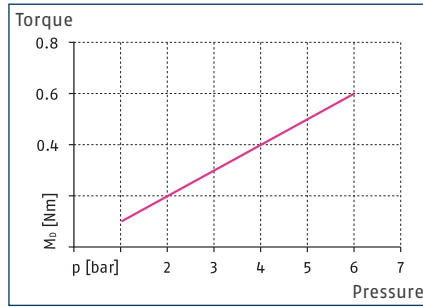
Please note that suitable emergency stop scenarios (e.g. controlled shut down) and restarting scenarios (e.g. pressure build-up valves, appropriate valve switching sequences) are needed for all pneumatic actuators. Cutting off the pressure in an uncontrolled manner could lead to undefined states and behavior.

SKE 18

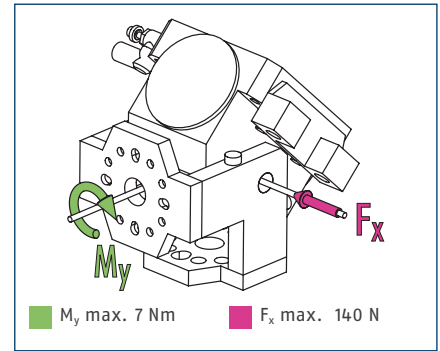
Miniature swivel Head



Torque



Forces and moments

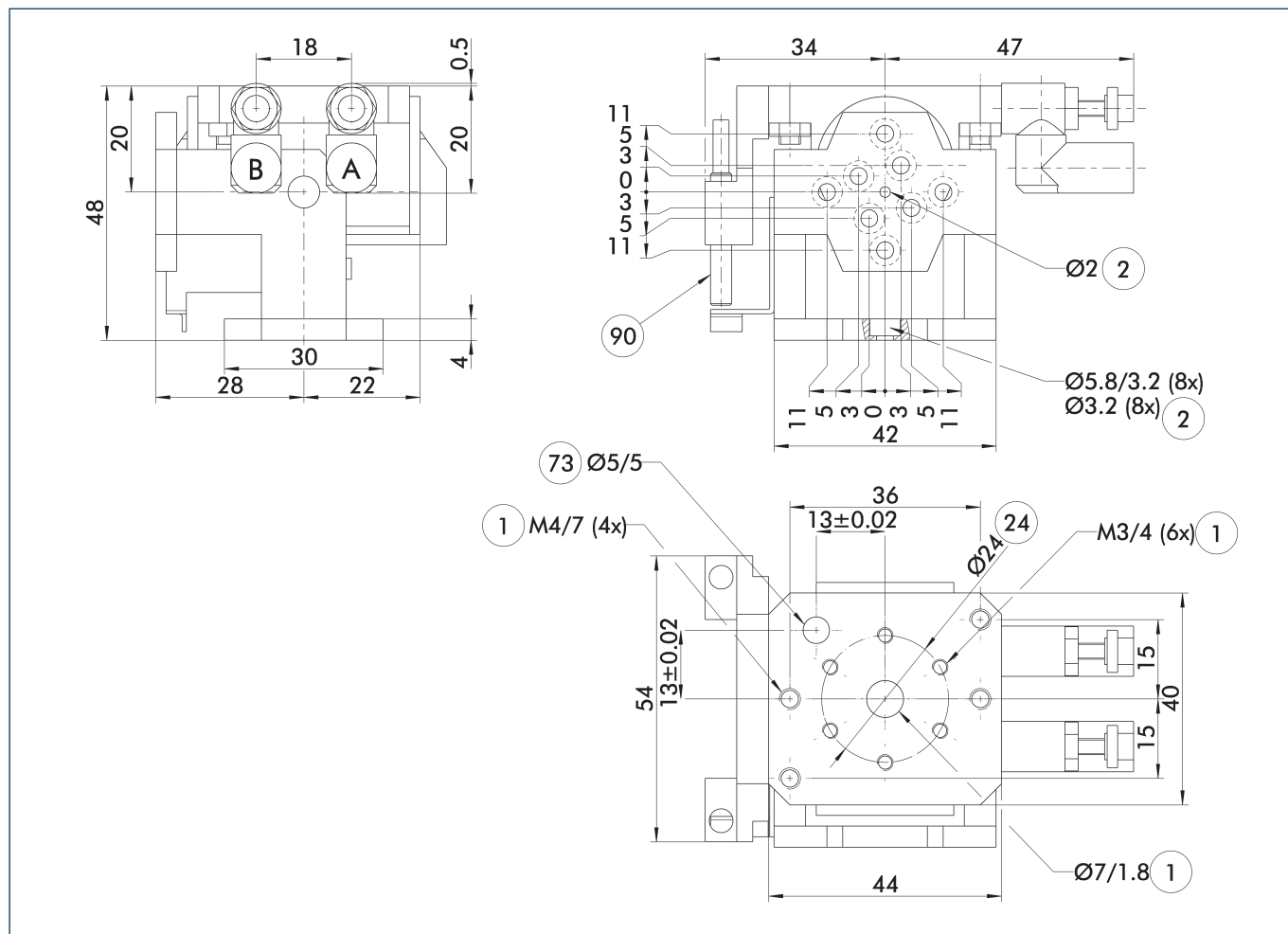


① The indicated moments and forces are static values and should not appear simultaneously. Throttling has to be done for ensuring that the rotary motion takes place without impact or bouncing, otherwise the service life reduces.

Technical data

Description		SKE 18
ID		0351100
Angle of rotation	[°]	90.0
End position adjustability	[°]	5.0
Torque	[Nm]	0.4
Protection class IP		30
Weight	[kg]	0.13
Cycle Time (1x rotation angle) without attached load	[s]	0.50
Fluid consumption (2 x nominal angle)	[cm ³]	10.0
Nominal operating pressure	[bar]	4.0
Min./max. operating pressure	[bar]	1/6
Diameter of connecting hose		4.3 x 3 x 0.65
Min./max. ambient temperature	[°C]	5/50
Repeat accuracy	[°]	0.03
Cleanroom class ISO 14644-1		5

Main view



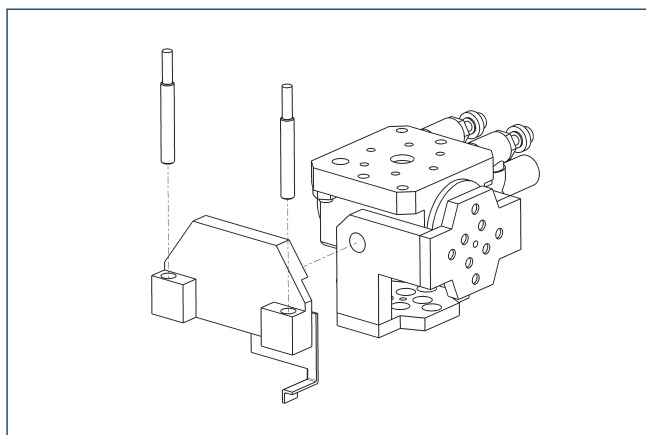
The drawing shows the unit in standard design, without considering any dimensions of the options described below.

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

- A, a Main / direct connection, swivel unit clockwise turning
- B, b Main / direct connection, swivel unit counterclockwise turning

- ① Connection swivel unit
- ② Attachment connection
- ②④ Bolt circle
- ⑦③ Fit for centering pins
- ⑨⑩ Sensor IN ...

Sensor system

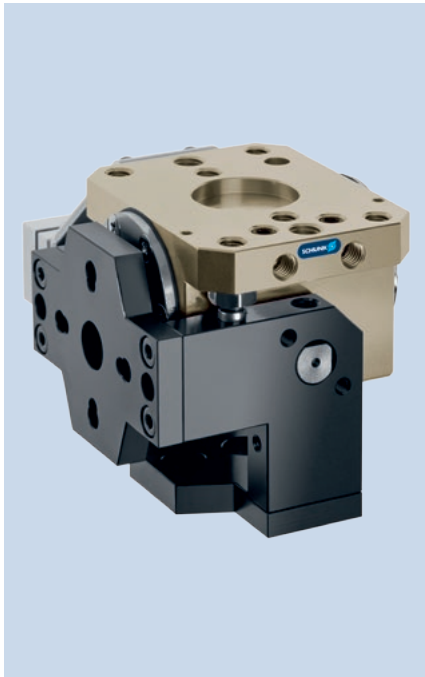


Description	ID	Often combined
Inductive Proximity Switches		
IN 40-S-M12	0301574	
IN 40-S-M8	0301474	●
INK 40-S	0301555	
Cable extension		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	●
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	
clip for plug/socket		
CLI-M12	0301464	
CLI-M8	0301463	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	●
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Sensor distributor		
V2-M12	0301776	●
V2-M8	0301775	●
V4-M12	0301747	
V4-M8	0301746	
V8-M12	0301752	
V8-M8	0301751	

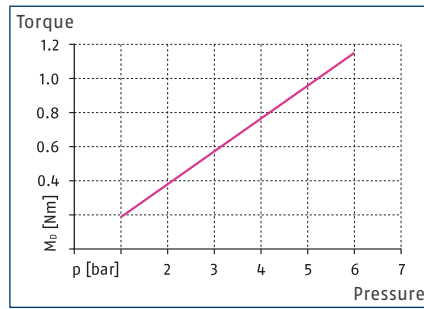
- ① Two sensors (closer/S) are required for each unit and extension cables are available as an option. For sensor cables, note the minimum permissible bending radii. These are generally 35 mm.

SKE 22

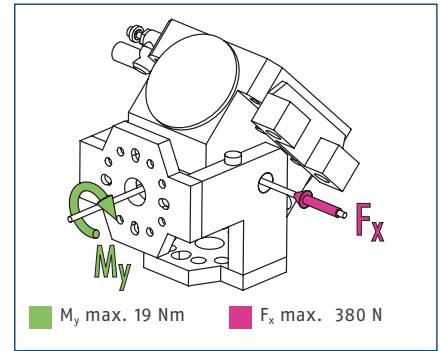
Miniature swivel Head



Torque



Forces and moments

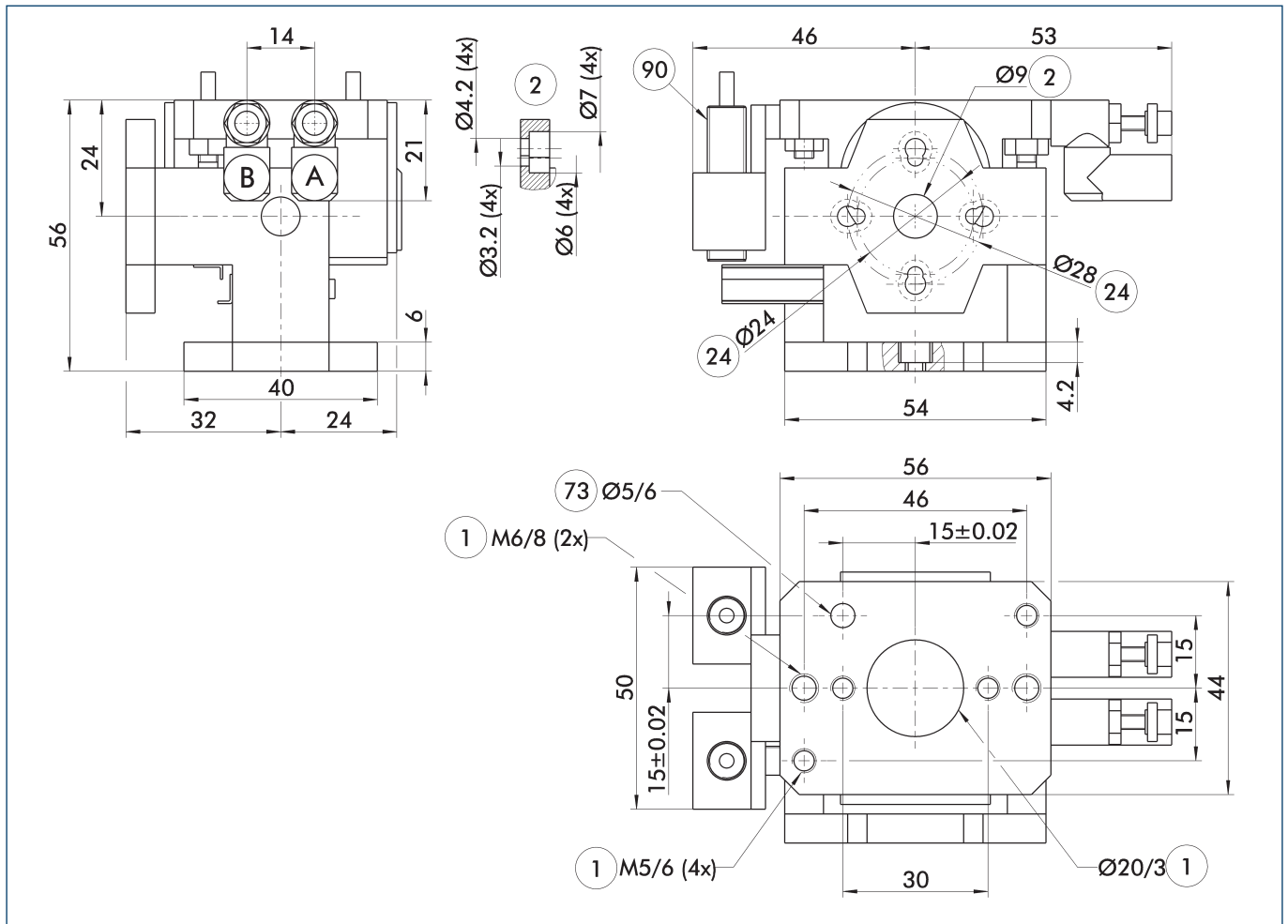


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Technical data

Description		SKE 22
ID		0351102
Angle of rotation	[°]	90.0
End position adjustability	[°]	5.0
Torque	[Nm]	0.75
Protection class IP		30
Weight	[kg]	0.2
Cycle Time (1x rotation angle) without attached load	[s]	0.80
Fluid consumption (2 x nominal angle)	[cm ³]	20.0
Nominal operating pressure	[bar]	4.0
Min./max. operating pressure	[bar]	1/6
Diameter of connecting hose		4.3 x 3 x 0.65
Min./max. ambient temperature	[°C]	5/50
Repeat accuracy	[°]	0.03
Cleanroom class ISO 14644-1		5

Main view



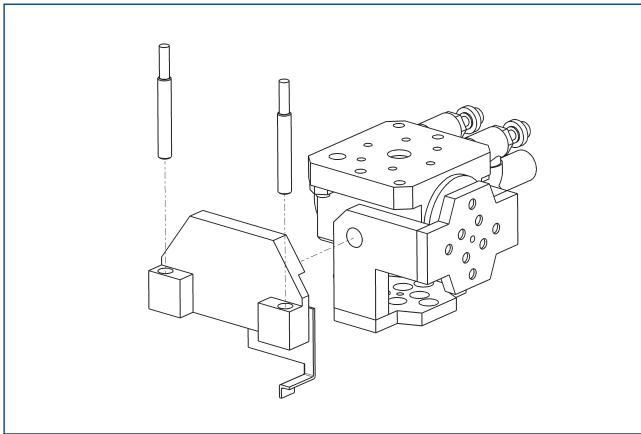
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- A, a Main / direct connection, swivel unit clockwise turning
- B, b Main / direct connection, swivel unit counterclockwise turning

- ① Connection swivel unit
- ② Attachment connection
- ②④ Bolt circle
- ⑦③ Fit for centering pins
- ⑨⑩ Sensor IN ...

Sensor system



Description	ID	Often combined
Inductive Proximity Switches		
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	●
IN-C 80-S-M8-PNP	0301475	
INK 80-S	0301550	
Cable extension		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	●
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	
clip for plug/socket		
CLI-M12	0301464	
CLI-M8	0301463	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	●
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Sensor distributor		
V2-M12	0301776	●
V2-M8	0301775	●
V4-M12	0301747	
V4-M8	0301746	
V8-M12	0301752	
V8-M8	0301751	

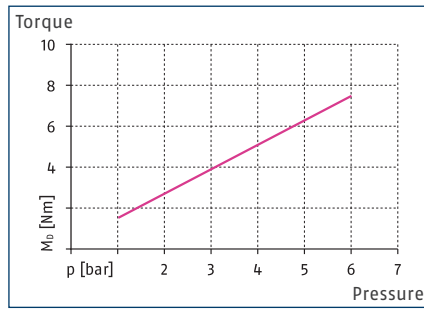
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SKE 40

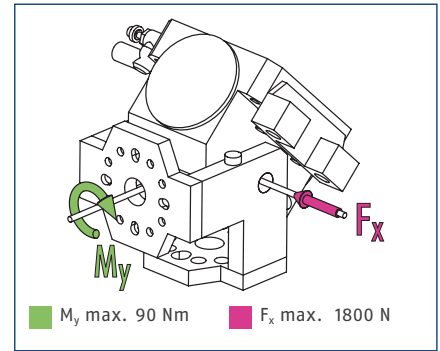
Miniature swivel Head



Torque



Forces and moments

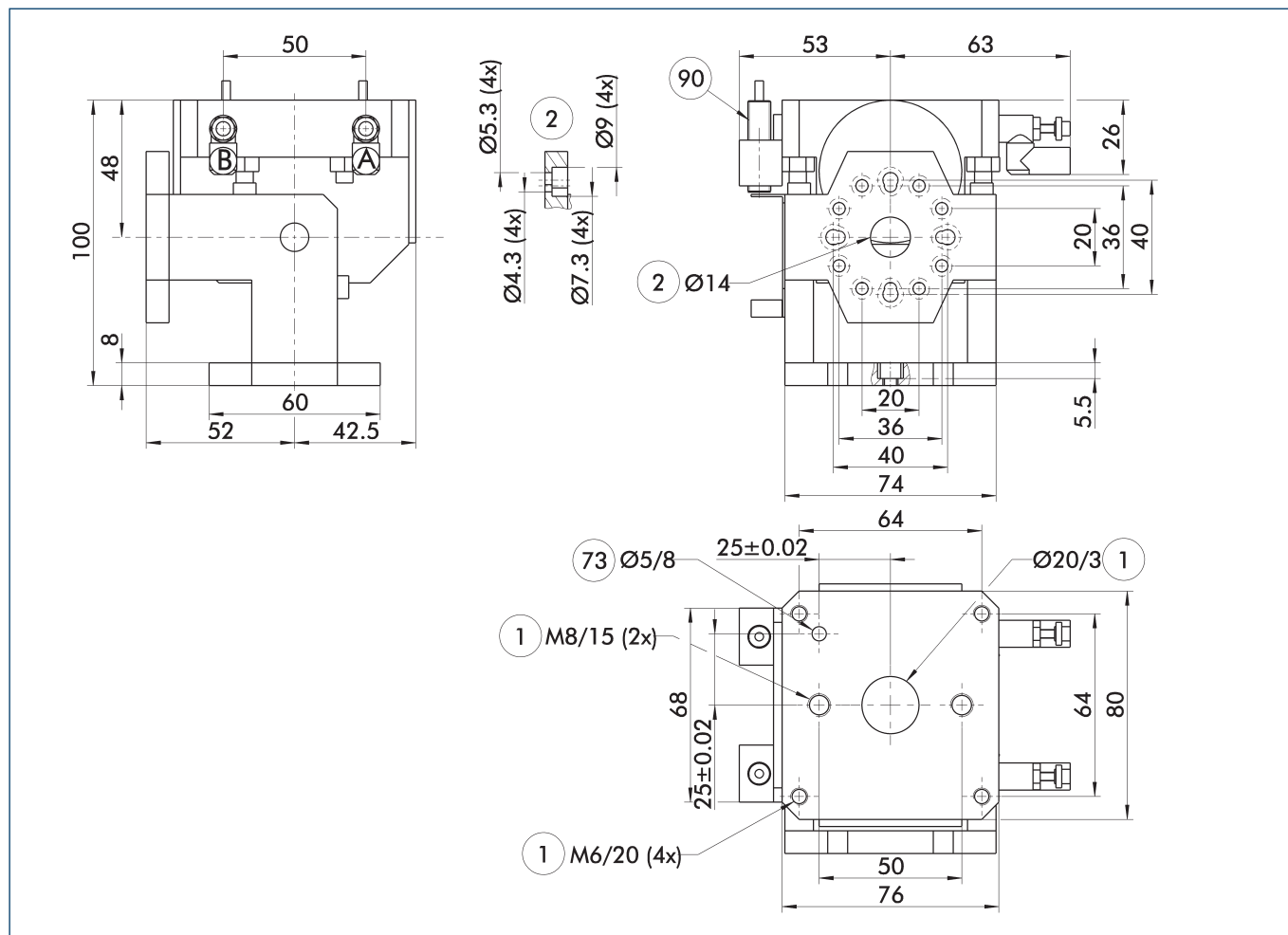


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Technical data

Description		SKE 40
ID		0351104
Angle of rotation	[°]	90.0
End position adjustability	[°]	5.0
Torque	[Nm]	5
Protection class IP		30
Weight	[kg]	0.92
Cycle Time (1x rotation angle) without attached load	[s]	1.00
Fluid consumption (2 x nominal angle)	[cm ³]	100.0
Nominal operating pressure	[bar]	4.0
Min./max. operating pressure	[bar]	1/6
Diameter of connecting hose		4.3 x 3 x 0.65
Min./max. ambient temperature	[°C]	5/50
Repeat accuracy	[°]	0.03
Cleanroom class ISO 14644-1		5

Main view



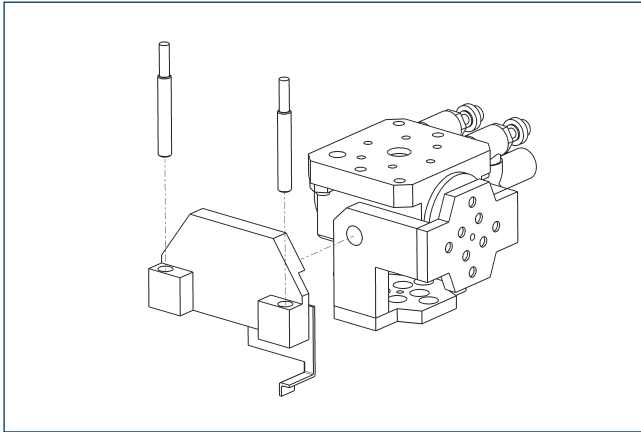
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- B, b Main / direct connection, swivel unit counterclockwise turning

- ① Connection swivel unit
- ② Attachment connection
- ⑦③ Fit for centering pins
- ⑨⑩ Sensor IN ...

Sensor system

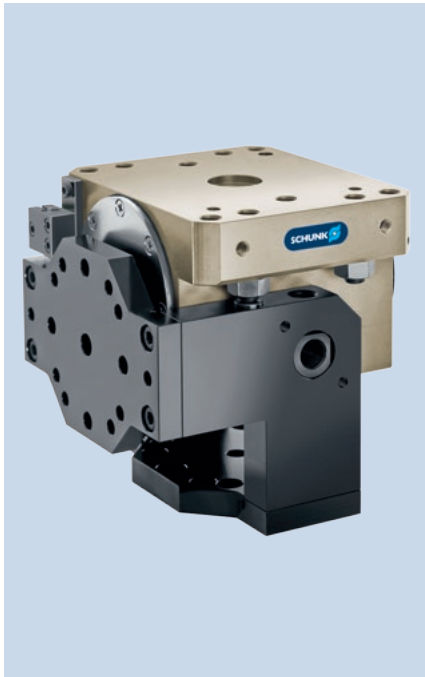


Description	ID	Often combined
Inductive Proximity Switches		
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	●
IN-C 80-S-M8-PNP	0301475	
INK 80-S	0301550	
Cable extension		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	●
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	
clip for plug/socket		
CLI-M12	0301464	
CLI-M8	0301463	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	●
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Sensor distributor		
V2-M12	0301776	●
V2-M8	0301775	●
V4-M12	0301747	
V4-M8	0301746	
V8-M12	0301752	
V8-M8	0301751	

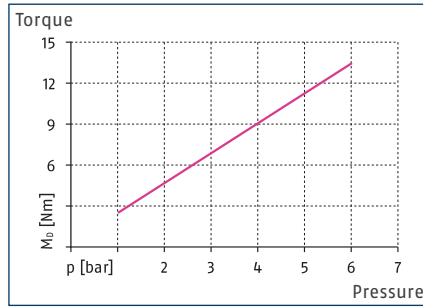
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SKE 55

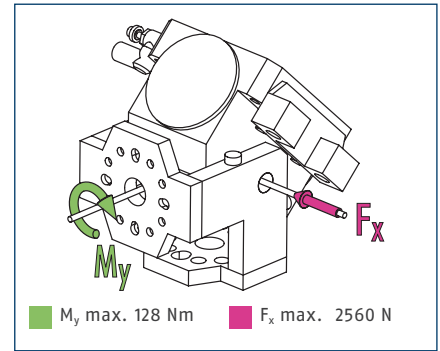
Miniature swivel Head



Torque



Forces and moments

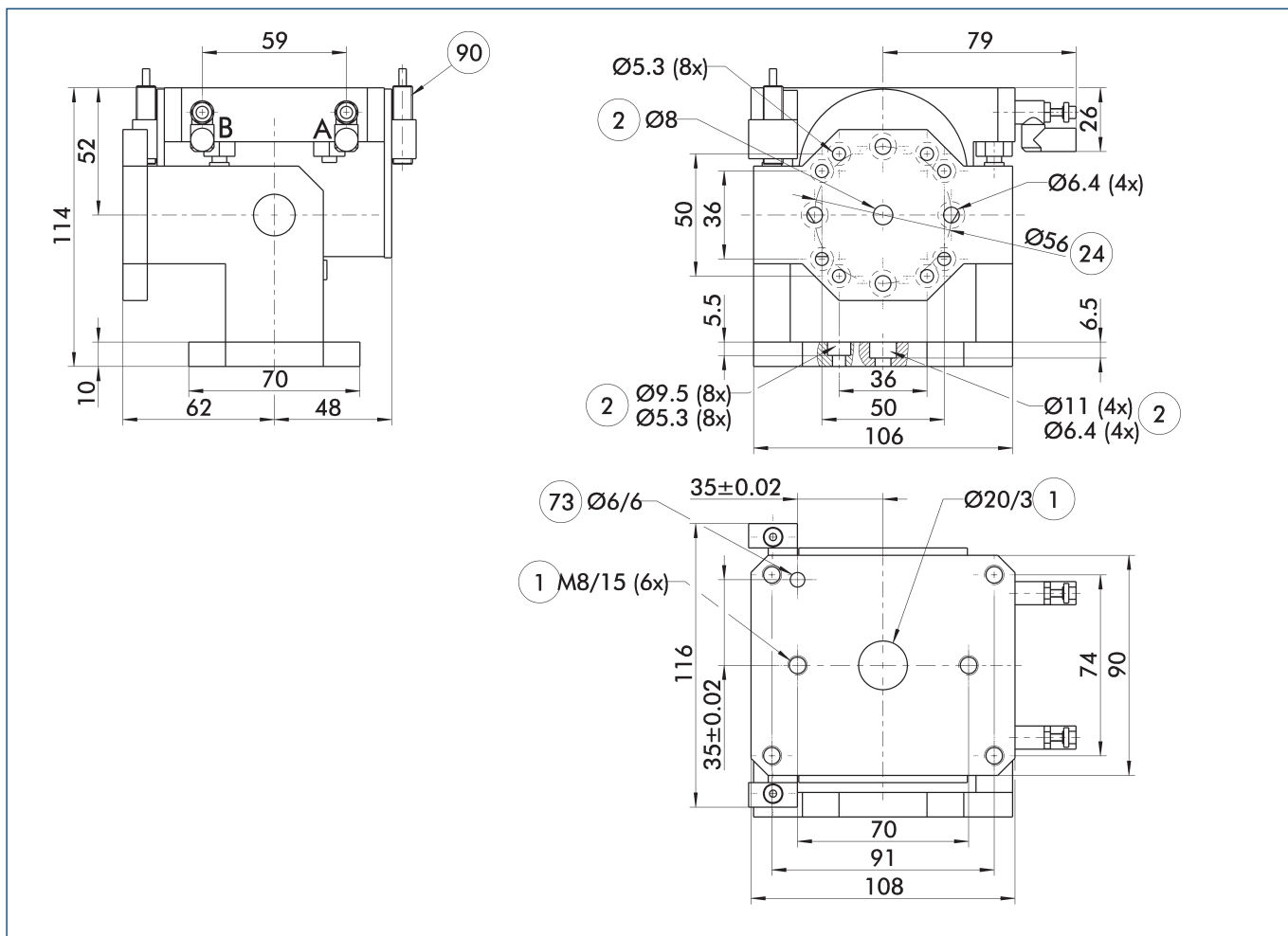


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Technical data

Description		SKE 55
ID		0351106
Angle of rotation	[°]	90.0
End position adjustability	[°]	5.0
Torque	[Nm]	9
Protection class IP		30
Weight	[kg]	1.95
Cycle Time (1x rotation angle) without attached load	[s]	1.50
Fluid consumption (2 x nominal angle)	[cm ³]	160.0
Nominal operating pressure	[bar]	4.0
Min./max. operating pressure	[bar]	1/6
Diameter of connecting hose		4.3 x 3 x 0.65
Min./max. ambient temperature	[°C]	5/50
Repeat accuracy	[°]	0.03
Cleanroom class ISO 14644-1		5

Main view



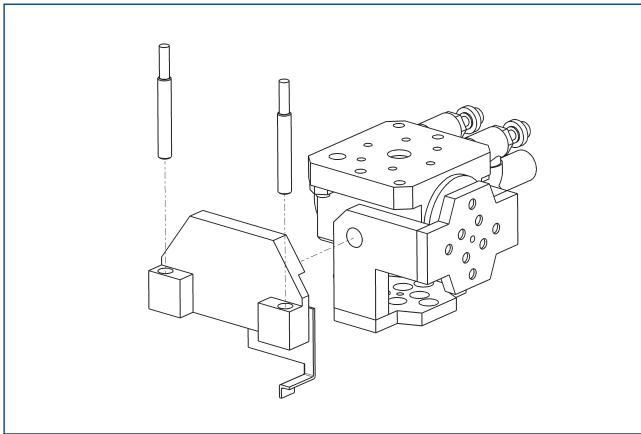
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① Connection swivel unit
 ② Attachment connection
 ②④ Bolt circle
 ⑦③ Fit for centering pins
 ⑨⑩ Sensor IN ...

Sensor system



Description	ID	Often combined
Inductive Proximity Switches		
IN 80-S-M12	0301578	
IN 80-S-M8	0301478	●
IN-C 80-S-M8-PNP	0301475	
INK 80-S	0301550	
Cable extension		
KV BG12-SG12 3P-0030-PNP	0301999	
KV BG12-SG12 3P-0060-PNP	0301998	
KV BW08-SG08 3P-0030-PNP	0301495	
KV BW08-SG08 3P-0100-PNP	0301496	
KV BW08-SG08 3P-0200-PNP	0301497	●
KV BW12-SG12 3P-0030-PNP	0301595	
KV BW12-SG12 3P-0100-PNP	0301596	
KV BW12-SG12 3P-0200-PNP	0301597	
clip for plug/socket		
CLI-M12	0301464	
CLI-M8	0301463	
Connection cables		
KA BG08-L 3P-0300-PNP	0301622	●
KA BG08-L 3P-0500-PNP	0301623	
KA BG12-L 3P-0500-PNP	30016369	
KA BW08-L 3P-0300-PNP	0301594	
KA BW08-L 3P-0500-PNP	0301502	
KA BW12-L 3P-0300-PNP	0301503	
KA BW12-L 3P-0500-PNP	0301507	
Sensor distributor		
V2-M12	0301776	●
V2-M8	0301775	●
V4-M12	0301747	
V4-M8	0301746	
V8-M12	0301752	
V8-M8	0301751	

- ① Two sensors (closer/S) are required for each unit and extension cables are available as an option. For sensor cables, note the minimum permissible bending radii. These are generally 35 mm.

SCHUNK GmbH & Co. KG
Spann- und Greiftechnik

Bahnhofstr. 106 – 134
D-74348 Lauffen/Neckar
Tel. +49-7133-103-0
Fax +49-7133-103-2239
info@de.schunk.com
www.schunk.com

Folgen Sie uns



J. Lehmann

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