



Superior Clamping and Gripping



Product Information

Manual change system SHS 080

Flexible. Compact. Intuitive.

Manual change system SHS

Manual tool change system with integrated air feed-through, locking monitoring, and optional electric feed-through.

Field of application

Excellently suitable for use in the flexible production of products with a comprehensive range of variants in which reliable manual changes are required.

Advantages – Your benefits

Series with six unit sizes for optimal size selection and a broad application range

Integrated pneumatic feed-through for a safe power supply of the handling modules and tools

The locking lever is opened sideways this allows the changer to be easily operated even in confined spaces

Optional locking and presence monitoring thus increased process reliability

Wide range of electric, pneumatic, and fluid modules for universal energy transmission possibilities

ISO mounting pattern for easy assembly to most types of robots without needing additional adapter plates



Sizes
Quantity: 6



Handling weight
9 .. 58 kg



Moment load M_x
15 .. 320 Nm

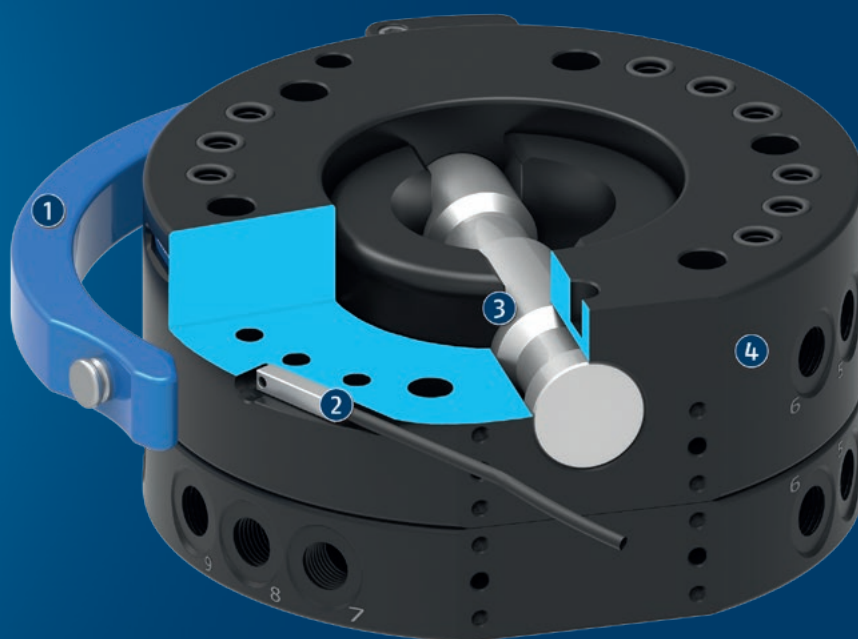


Moment load M_z
25 .. 775 Nm

Functional description

The manual change system (SHS) consists of a manual change head (SHK) and a manual change adapter (SHA). The manual change head (SHK) is form-fit locked with the manual change adapter (SHA), and due to the patented

locking it is free from play. A pin is pushed forward or backward via a locking lever for locking or unlocking. An integrated pneumatic feed-through supplies the tool with energy.



① **Locking lever**
for manual actuation

② **Lock sensing**
optional, for process-reliable monitoring of the locking condition

③ **Locking bolt**
made of corrosion-free steel for easy and secure locking

④ **Air feed-through**
without interfering contours due to the integration into the housing. Also suitable for vacuum.

General notes about the series

Actuation: Manual via locking lever

Operating principle: by turning the locking lever, the head and adapter are locked and unlocked.

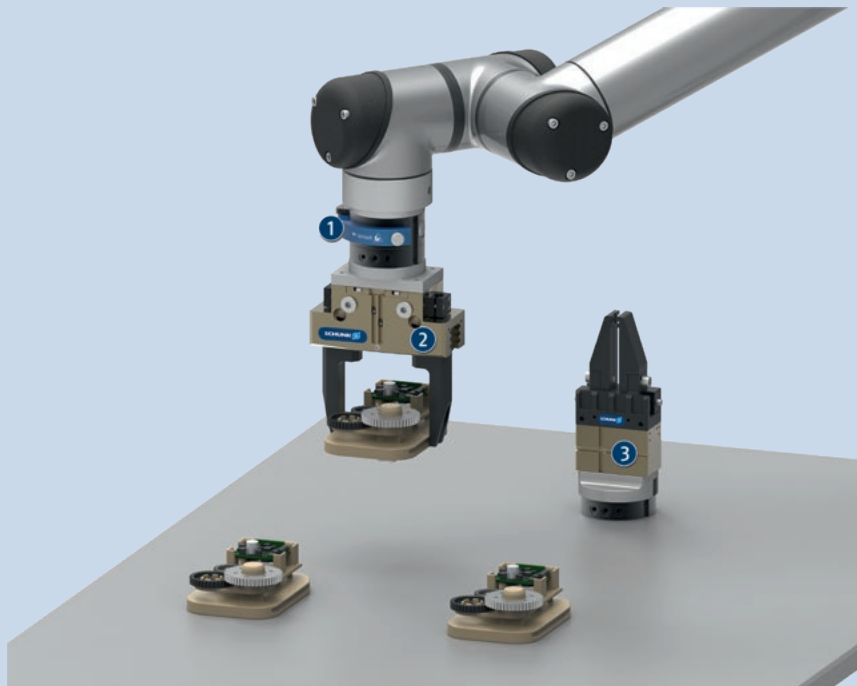
Energy transmission: Optional via electrical modules and/or fluid modules. Pneumatic feed-through already integrated.

Housing: The housing consists of high-strength, hard-coated aluminum alloy. The functional components are made of hardened steel.

Warranty: 24 months

Harsh environmental conditions: Please note that use under harsh environmental conditions (e.g. in the coolant area, cast and grinding dust) can considerably reduce the service life of the units, and we will not take over any warranty. However, in many cases we can find a solution. Please contact us for assistance.

Handling weight: is the weight of the total load attached to the flange. When designing, the permissible forces and moments have to be paid attention to. Please note that exceeding the recommended handling weight will shorten the lifespan.



Application example

Handling tool with manual tool change system for gripping of middle and small parts.

- ① Manual change system SHS
- ② 2-finger parallel gripper PGN-plus-P with customized gripper fingers
- ③ 2-finger parallel gripper MPG-plus with customized gripper fingers

SCHUNK offers more ...

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



Rotary feed-through



Compensation unit



Anti-collision and overload protection sensor



Universal gripper



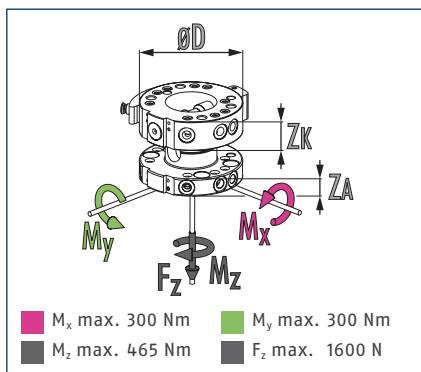
Inductive proximity switches



Electronic module

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

Dimensions and maximum loads



ⓘ This is the max. sum of all forces and moments which are permitted to act on the change system for ensuring proper functioning.

Technical data

Description		SHK-080-000-000	SHA-080-000-000
		Manual change head	Manual change adapter
ID		0310430	0310431
Recommended handling weight	[kg]	36	36
Lock sensing		optionally via attachment kit	
Repeat accuracy	[mm]	0.02	0.02
Weight	[kg]	0.74	0.35
Max. distance when locking	[mm]	1	1
Number of pneumatic feed-throughs		9	9
Feed-throughs for radial use		4	9
Pitch circle diameter	[mm]	80	80
Connection flange according to		ISO 9409-1-80-6-M8	
Min./max. ambient temperature	[°C]	5/60	5/60
Dimensions Ø D x Z*	[mm]	100 x 30	100 x 18
Screw connection diagram		K over adapter plate	K over adapter plate

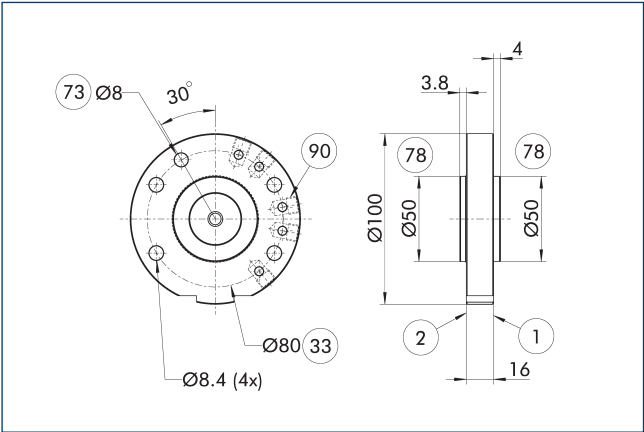
* Please note that the heights of the change master (ZK) and change adapter (ZA) differ. The sum represents the total height of a coupled change system.

[illegible]

① Robot-side connection	③③ DIN ISO-9409 bolt circle
② Tool-side connection	⑦③ Fit for centering pins
①⑨ Mounting surface for options	⑦⑧ Fit for centering
②⑤ Pneumatic feed-throughs	

The changing system has pneumatic feed-throughs. They can be used hose-free via the adapter plate (axial) or with a hose (radial). Some of the feed-throughs can be used axially.

Adapter plate ISO-A080-P-radial



- 1

Robot-side connection
- 2

Tool-side connection
- 33

DIN ISO-9409 bolt circle
- 73

Fit for centering pins
- 78

Fit for centering
- 90

Connections for radial air feed-through

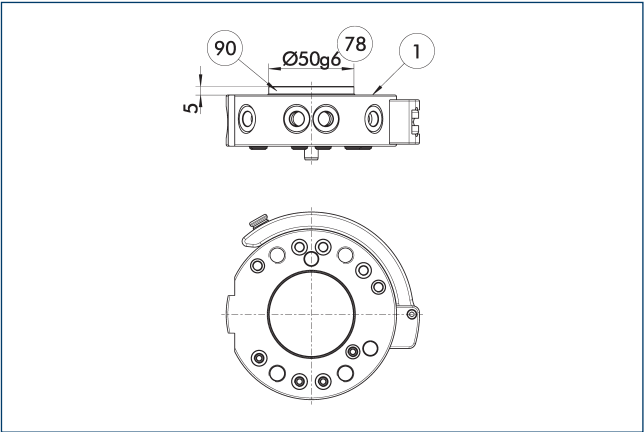
Robot side adapter plate

Description	ID	
Robot side		
A-SHK-080-P-RADIAL	1391564	

- 1

Adapter plate with radial air connections for using the integrated axial air connections of the SHK.

Centering disc for SHK



- 1

Robot-side connection
- 78

Fit for centering
- 90

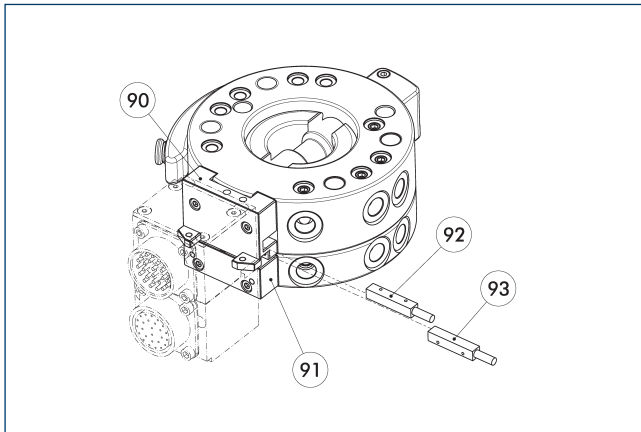
Centring disc

Description	ID	
Centering disc		
A-HWK-080-BOSS	0302782	

- 1

Serves as a fitting collar for centering on mechanical interfaces, e. g. on the robot.

Accessories

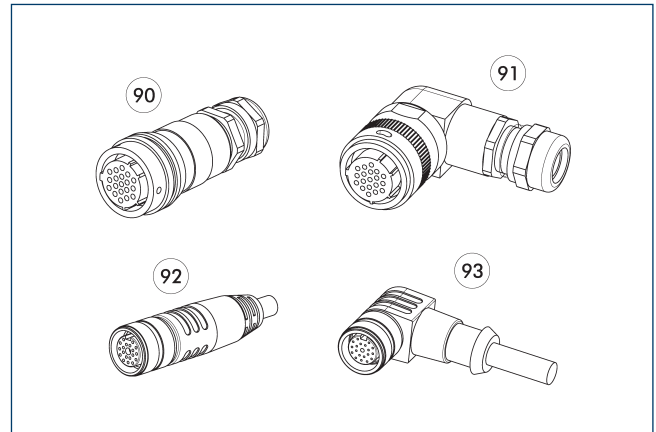


- 90 Robot side adapter plate
 91 Tool side adapter plate
 92 Locking sensor
 93 Tool side presence sensor

Description	ID	Description
Robot side		
SHK-080-AK0-K	1304759	Adapter plate
Tool side		
SHA-080-AK0-K	1304762	Adapter plate
Inductive proximity switches		
IN 5-S-M12	0301569	
IN 5-S-M8	0301469	
Signal feed-through module		
SW0-K10-A	9960543	
SW0-K12-A	9948702	
SW0-K12-K	9948701	
SW0-K14-A	9954959	
SW0-K19-A	9937329	
SW0-K19-K	9937328	
SW0-K19P-K	9949315	
SW0-K19W-K	9949316	
SW0-K21-A	9958100	
SW0-K26-A	9937799	
SW0-K26-K	9937798	
SW0-K26P-K	1301550	
SW0-KE7-A	9960994	
SW0-KE7-K	9960993	
SW0-KF10-A	9961308	
SW0-KF14-A	9961307	
SW0-KF19-A	9959887	
SW0-KF19-K	9959886	
SW0-KF19P-K	9872377	
SW0-KF6-A	9965144	
SW0-KF6-K	9965143	
SW0-KG19-A	9950144	
SW0-KG19-K	9950140	
SW0-KM14-A	9941480	
SW0-KM14-K	9940812	

① A change system with adapter plate or feed-through module are optionally available, and can be ordered as a complete assembly group. Please contact us for assistance.

Cable connector/cable extension



- 90 Connection plug / socket straight
 91 Connection plug / socket at an angle
 92 Connection plug / socket straight with extension cable
 93 Connection plug / socket at an angle with extension cable

Other cable lengths on request.

Description	ID	Length
		[m]
Angled cable connector, robot-side		
KAS-19B-K-90-C	0301294	
Angled cable connector, tool-side		
KAS-19B-A-90-C	0301295	
Angled cable connector with cable, robot-side		
KV-10-SWK-19F-90	0302173	10
KV-3-SWK-26B-90	0302185	3
KV-5-SWK-19F-90	0302172	5
KV-5-SWK-26B-90	0302186	5
Angled cable connector with cable, tool-side		
KV-3-SWA-19F-90	0302175	3
KV-3-SWA-26B-90	0302187	3
Straight cable connector, robot-side		
KAS-19B-K-0-C	0301283	
Straight cable connector, tool-side		
KAS-19B-A-0-C	0301284	
Straight cable connector with cable, robot-side		
KV-10-SWK-19F-0	0302171	10
KV-3-SWK-26B-0	0302192	3
KV-5-SWK-19F-0	0302170	5
KV-5-SWK-26B-0	0302193	5
Straight cable connector with cable, tool-side		
KV-3-SWA-19F-0	0302174	3
KV-3-SWA-26B-0	0302184	3

① For more detailed information and other cable connectors, see catalog chapter "Options" or visit our website.

SCHUNK GmbH & Co. KG
Spann- und Greiftechnik

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



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