



Superior Clamping and Gripping



Product Information

Manual change system SHS

SHS

Manual change system

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 Mx
15 .. 320 Nm

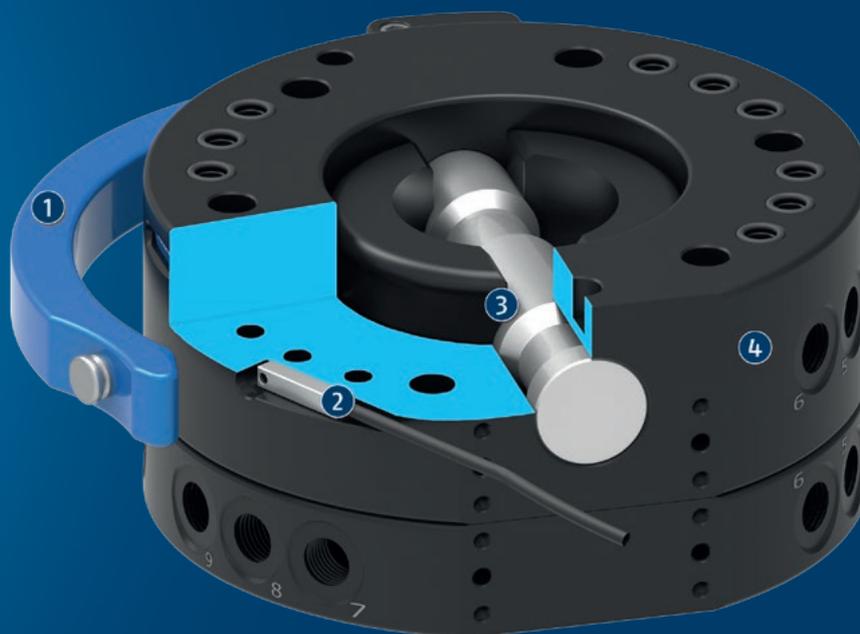


Moment load Mz
25 .. 775 Nm

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.

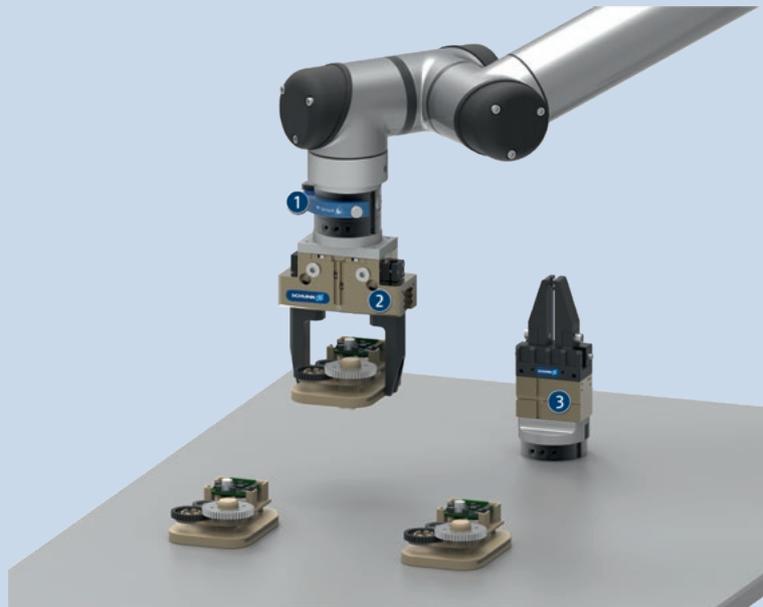
Energy transmission: Optional via electrical modules and/or fluid modules. Pneumatic feed-through already integrated.

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 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



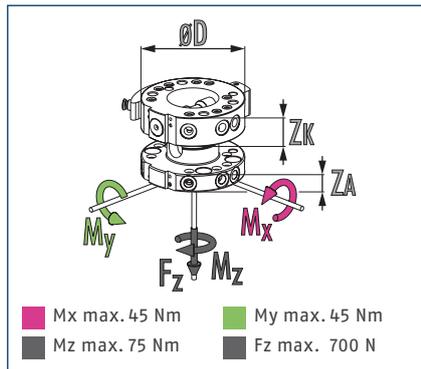
Inductive proximity switches



Electronic module

① For more information on these products can be found on the following product pages or at schunk.com.

Dimensions and maximum loads



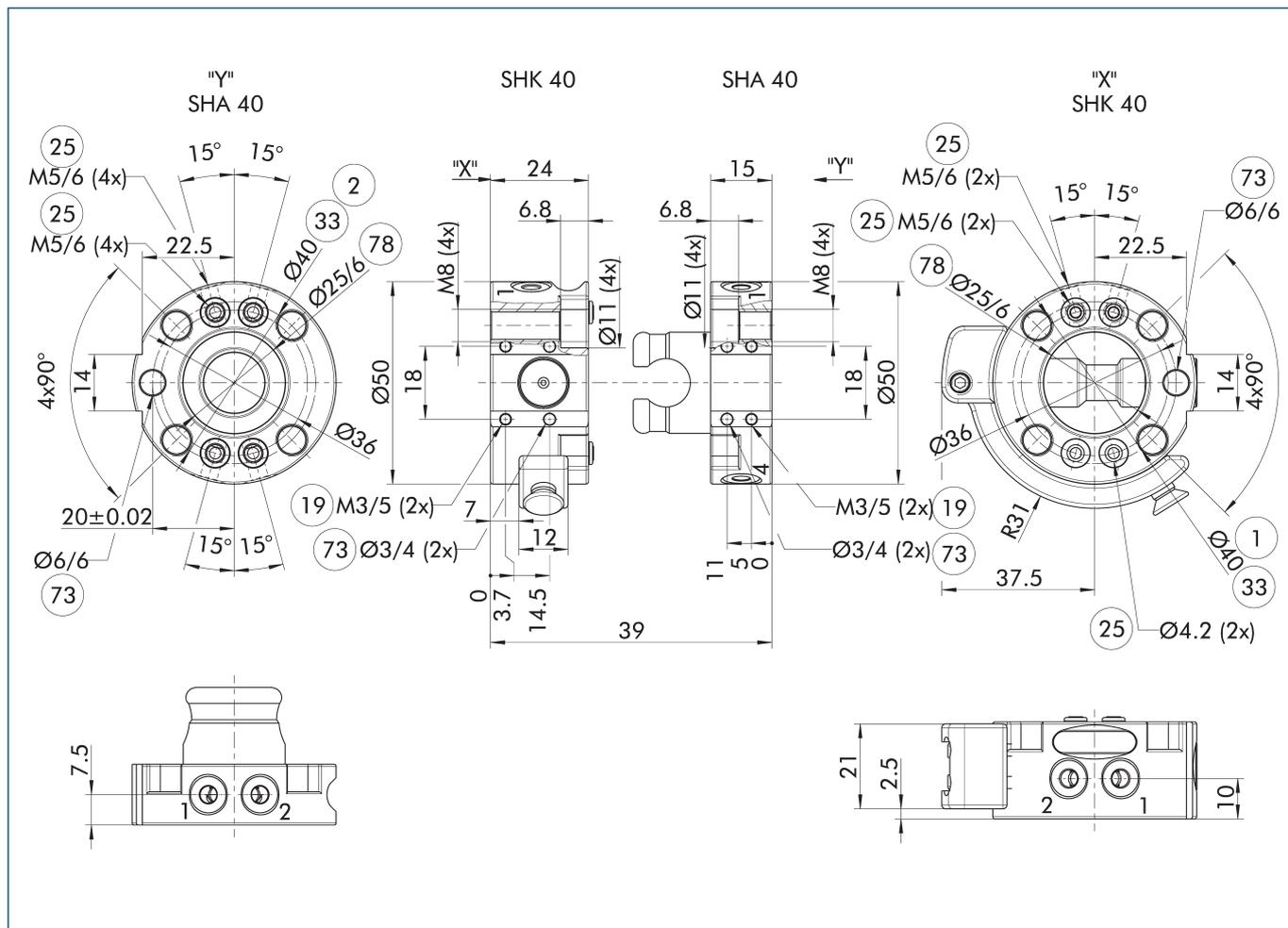
ⓘ This is the max. sum of all forces and moments which are permitted to act on the change system for ensuring proper functioning.

Technical data

| Description | | SHK-040-000-000 | SHA-040-000-000 |
|---------------------------------------|------|-------------------------------|-------------------------|
| | | Manual change head | Manual change adapter |
| ID | | 0310400 | 0310401 |
| Recommended handling weight | [kg] | 9 | 9 |
| Lock sensing | | optionally via attachment kit | |
| Repeat accuracy | [mm] | 0.02 | 0.02 |
| Weight | [kg] | 0.14 | 0.075 |
| Max. distance when locking | [mm] | 1 | 1 |
| Number of pneumatic feed-throughs | | 4 | 4 |
| Feed-throughs for radial use | | 2 | 4 |
| Pitch circle diameter | [mm] | 40 | 40 |
| Connection flange according to | | ISO 9409-1-40-4-M6 | |
| Min./max. ambient temperature | [°C] | 5/60 | 5/60 |
| Dimensions $\varnothing D \times Z^*$ | [mm] | 50 x 24 | 50 x 15 |
| Screw connection diagram | | S5/S7 via adapter plate | S5/S7 via 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.

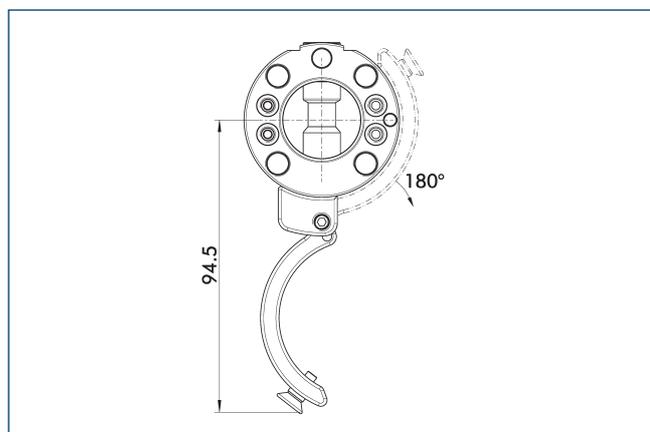
Main view



The main view shows the unit in its basic version.

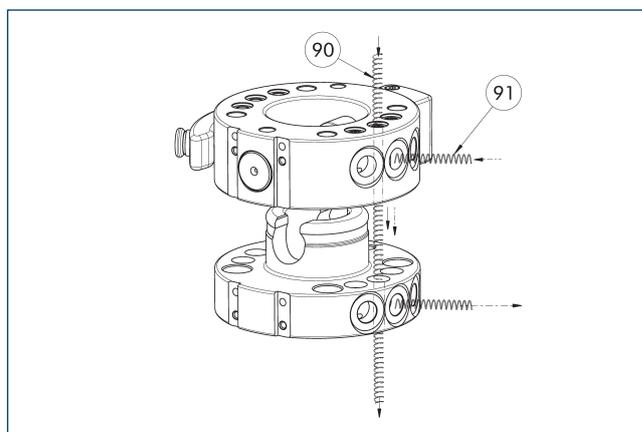
- ① Robot-side connection
- ② Tool-side connection
- ③ DIN ISO-9409 bolt circle
- ④ Fit for centering pins
- ⑤ Mounting surface for options
- ⑥ Fit for centering
- ⑦ Pneumatic feed-throughs

Interference Contour when locking/unlocking



The drawing shows the interfering contour when locking and unlocking. The specified values may vary depending on the opening angle of the locking lever.

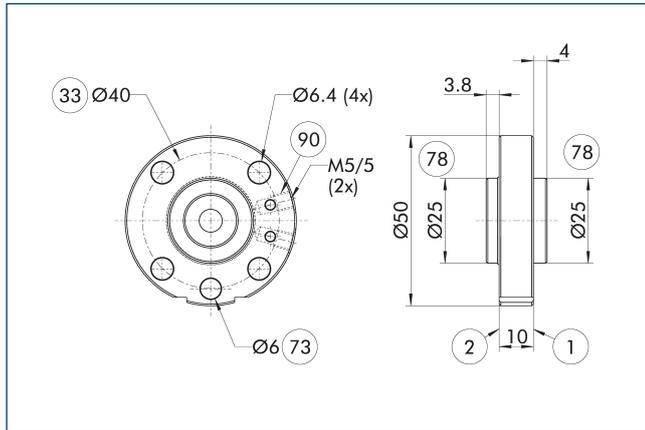
Pneumatic feed-through



- ⑨⑩ Feed-through axial
- ⑨⑪ Feed-through radial

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-A040-P-radial



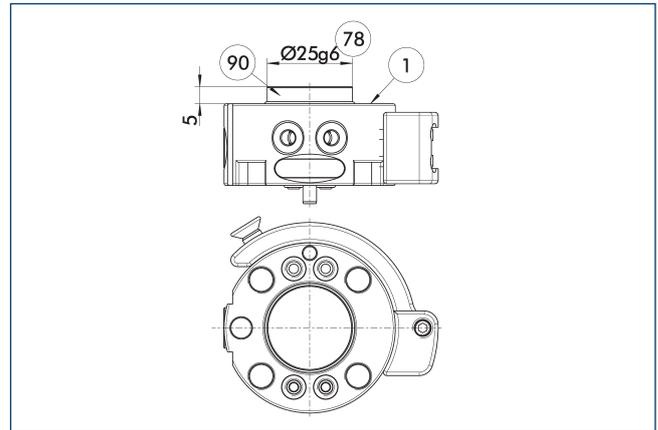
- ① Robot-side connection
- ② Tool-side connection
- ③③ DIN ISO-9409 bolt circle
- ⑦③ Fit for centering pins
- ⑦⑧ Fit for centering
- ⑨① Connections for radial air feed-through

Robot side adapter plate

| Description | ID |
|--------------------|---------|
| Robot side | |
| A-SHK-040-P-RADIAL | 1391534 |

- ① Adapter plate with radial air connections for using the integrated axial air connections of the SHK.

Centering disc for SHK

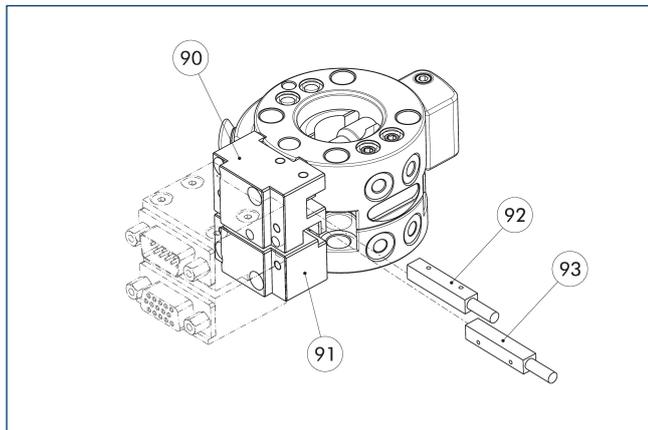


- ① Robot-side connection
- ⑦⑧ Fit for centering
- ⑨① Centring disc

| Description | ID |
|----------------|---------|
| Centering disc | |
| A-HWK-040-BOSS | 0302742 |

- ① Serves as a fitting collar for centering on mechanical interfaces, e. g. on the robot.

Accessories

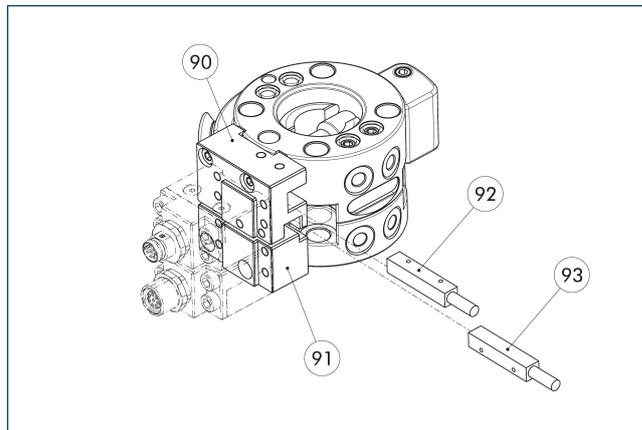


- 90 Robot side adapter plate 92 Locking sensor
 91 Tool side adapter plate 93 Tool side presence sensor

| Description | ID | Description |
|--|---------|---------------|
| Robot side | | |
| SHK-040-AK0-S7 | 1304690 | Adapter plate |
| Tool side | | |
| SHA-040-AK0-S7 | 1304691 | Adapter plate |
| Feed-through module for signal on the robot side | | |
| SWO-A15-K | 9936357 | |
| SWO-E10-011-K | 9935801 | |
| SWO-E20-011-K | 9936525 | |
| Feed-through module for signal on the tool side | | |
| SWO-A15-A | 9936356 | |
| SWO-E10-011-A | 9935802 | |
| SWO-E20-011-A | 9936526 | |
| Inductive proximity switches | | |
| IN 5-S-M12 | 0301569 | |
| IN 5-S-M8 | 0301469 | |

- 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.

Accessories

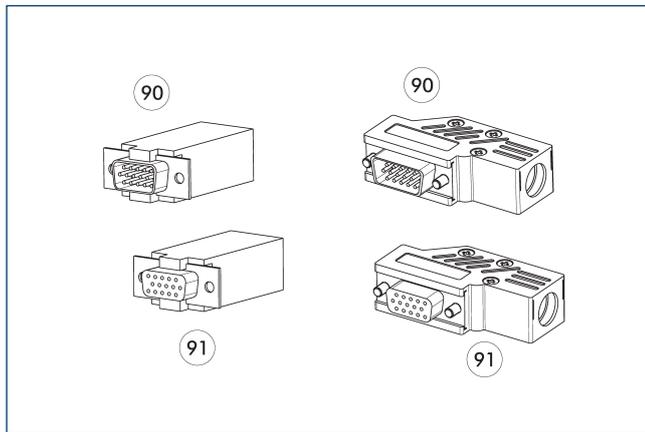


- 90 Robot side adapter plate 92 Locking sensor
 91 Tool side adapter plate 93 Tool side presence sensor

| Description | ID | Description |
|--|---------|---------------|
| Robot side | | |
| SHK-040-AK0-S5 | 1304684 | Adapter plate |
| Tool side | | |
| SHA-040-AK0-S5 | 1304688 | Adapter plate |
| Feed-through module for signal on the robot side | | |
| SWO-E3A-K | 9941631 | |
| SWO-EM8-005-K | 9966150 | |
| Feed-through module for signal on the tool side | | |
| SWO-E3A-A | 9941632 | |
| SWO-EM8-005-A | 9966151 | |
| Inductive proximity switches | | |
| IN 5-S-M12 | 0301569 | |
| IN 5-S-M8 | 0301469 | |

- 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



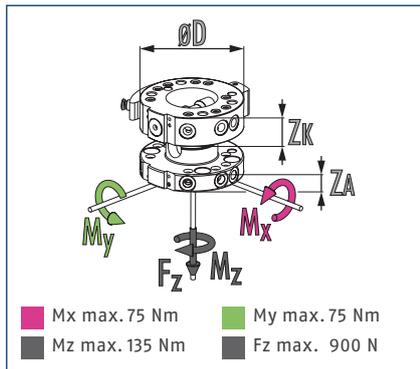
90 D-sub connecting plug

91 D-sub connector

| Description | ID |
|--------------------------------------|---------|
| Angled cable connector, robot-side | |
| KAS-A15-K-90 | 0301301 |
| Angled cable connector, tool-side | |
| KAS-A15-A-90 | 0301302 |
| Straight cable connector, robot-side | |
| KAS-A15-K-0 | 0301264 |
| Straight cable connector, tool-side | |
| KAS-A15-A-0 | 0301265 |

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

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-050-000-000 | SHA-050-000-000 |
|-----------------------------------|------|-------------------------------|-------------------------|
| | | Manual change head | Manual change adapter |
| ID | | 0310410 | 0310411 |
| Recommended handling weight | [kg] | 11 | 11 |
| Lock sensing | | optionally via attachment kit | |
| Repeat accuracy | [mm] | 0.02 | 0.02 |
| Weight | [kg] | 0.25 | 0.1 |
| Max. distance when locking | [mm] | 1 | 1 |
| Number of pneumatic feed-throughs | | 6 | 6 |
| Feed-throughs for radial use | | 3 | 6 |
| Pitch circle diameter | [mm] | 50 | 50 |
| Connection flange according to | | ISO 9409-1-50-4-M6 | ISO 9409-1-50-4-M6 |
| Min./max. ambient temperature | [°C] | 5/60 | 5/60 |
| Dimensions Ø D x Z* | [mm] | 63 x 26.5 | 63 x 16 |
| Screw connection diagram | | S5/S7 via adapter plate | S5/S7 via adapter plate |

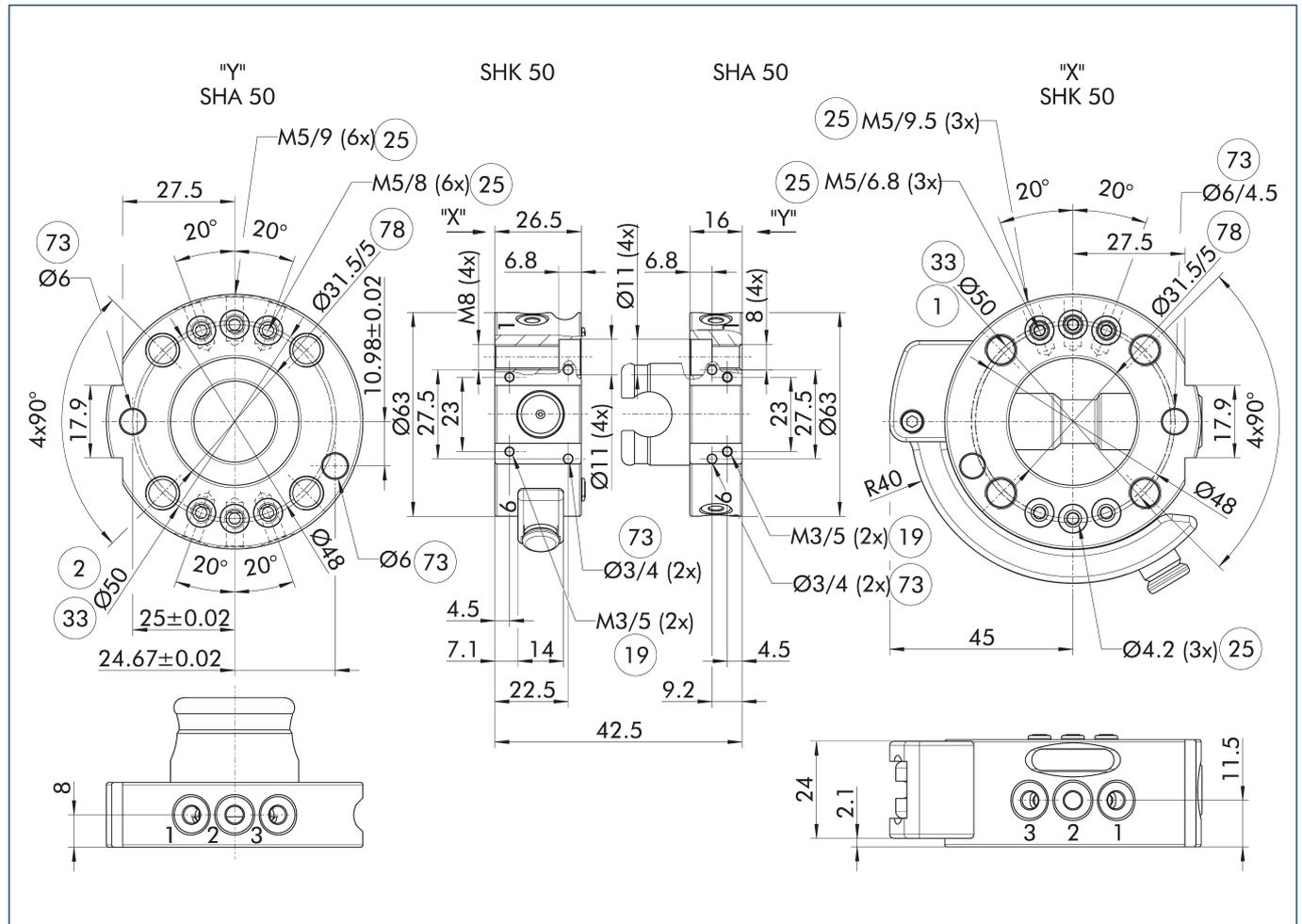
* Please note that the heights of the change master (ZK) and change adapter (ZA) differ. The sum represents the total height of a coupled change system.

Technical data for Universal Robots, Techman Robot, OMRON and Doosan Robotics

| Description | | EOA-UR3510-SHK-050-E08-000 | EOA-UR3510-SHA-050-E08-000 | EOA-TM51214-SHK-050-E08-000 | EOA-TM51214-SHA-050-E08-000 | EOA-DRM-SHK-050-E08-000 | EOA-DRM-SHA-050-E08-000 |
|-----------------------------------|--------|-------------------------------|----------------------------|-------------------------------|-----------------------------|-------------------------------|-------------------------|
| | | Manual change head | Manual change adapter | Manual change head | Manual change adapter | Manual change head | Manual change adapter |
| ID | | 1334788 | 1334789 | 1399638 | 1399639 | 1399576 | 1399581 |
| Recommended handling weight | [kg] | 11 | 11 | 11 | 11 | 11 | 11 |
| Lock sensing | | optionally via attachment kit | | optionally via attachment kit | | optionally via attachment kit | |
| Repeat accuracy | [mm] | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 | 0.02 |
| Weight | [kg] | 0.35 | 0.14 | 0.5 | 0.14 | 0.35 | 0.14 |
| Max. distance when locking | [mm] | 1 | 1 | 1 | 1 | 1 | 1 |
| Number of pneumatic feed-throughs | | 6 | 6 | 6 | 6 | 6 | 6 |
| Feed-throughs for radial use | | 3 | 6 | 3 | 6 | 3 | 6 |
| Pitch circle diameter | [mm] | 50 | 50 | 50 | 50 | 50 | 50 |
| Connection flange according to | | ISO 9409-1-50-4-M6 | ISO 9409-1-50-4-M6 | ISO 9409-1-50-4-M6 | ISO 9409-1-50-4-M6 | ISO 9409-1-50-4-M6 | ISO 9409-1-50-4-M6 |
| Min./max. ambient temperature | [°C] | 5/60 | 5/60 | 5/60 | 5/60 | 5/60 | 5/60 |
| Dimensions Ø D x Z* | [mm] | 63 x 26.5 | 63 x 16 | 63 x 26.5 | 63 x 16 | 63 x 26.5 | 63 x 16 |
| Screw connection diagram | | S5/S7 via adapter plate | S5/S7 via adapter plate | S5/S7 via adapter plate | S5/S7 via adapter plate | S5/S7 via adapter plate | S5/S7 via adapter plate |
| Media feed-through | | | | | | | |
| Transmission type | | Signal | Signal | Signal | Signal | Signal | Signal |
| Number of pin contacts | | 8 | 8 | 8 | 8 | 8 | 8 |
| Nominal current | [A] | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 | 1.5 |
| Nominal voltage | [V DC] | -/30 | -/30 | -/30 | -/30 | -/30 | -/30 |
| Electrical connection | | M8 socket, 8-pin | M8 connector, 8-pin | M8 socket, 8-pin | M8 connector, 8-pin | M8 socket, 8-pin | M8 connector, 8-pin |
| Electrical connection outlet | | tangential (right) | tangential (left) | tangential (right) | tangential (left) | tangential (right) | tangential (left) |

* 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.

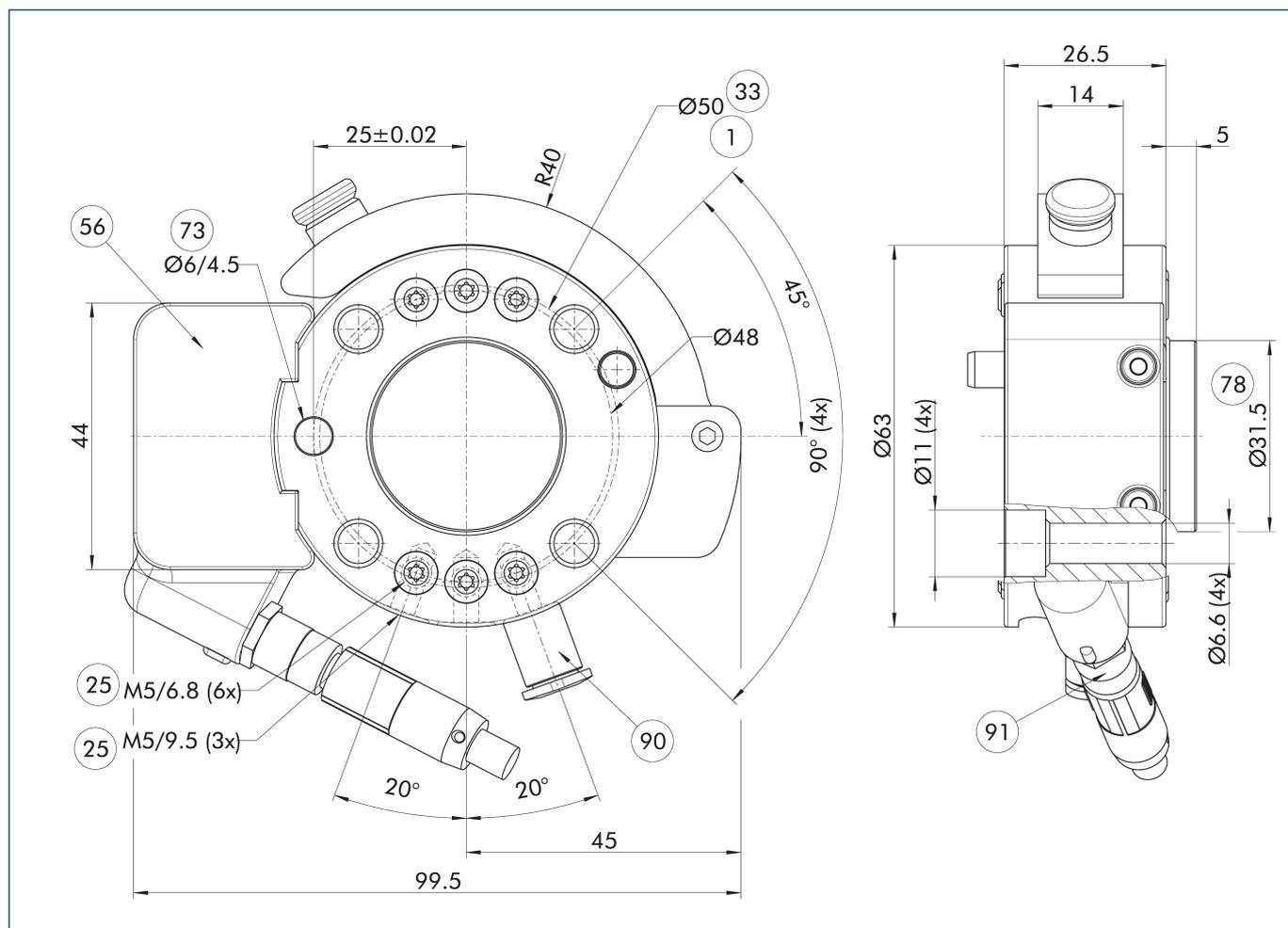
Main view



The main view shows the unit in its basic version.

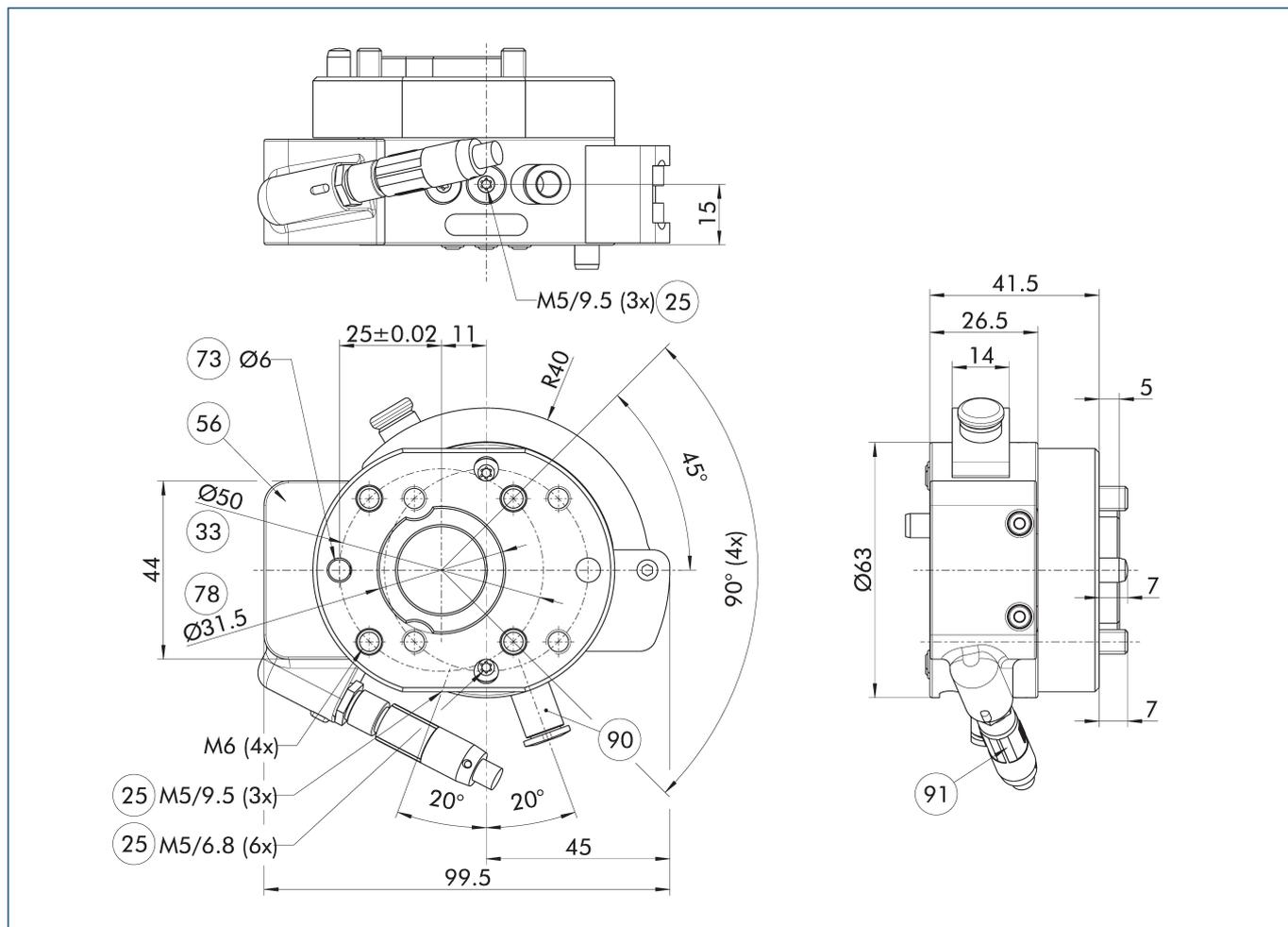
- | | |
|--------------------------------|-----------------------------|
| ① Robot-side connection | ③③ DIN ISO-9409 bolt circle |
| ② Tool-side connection | ⑦③ Fit for centering pins |
| ⑱ Mounting surface for options | ⑦⑧ Fit for centering |
| ⑵ Pneumatic feed-throughs | |

Main view EOA-UR3510-SHK-050



- | | |
|--------------------------------------|---------------------------|
| ① Robot-side connection | ⑦③ Fit for centering pins |
| ②⑤ Pneumatic feed-throughs | ⑦⑧ Fit for centering |
| ③③ DIN ISO-9409 bolt circle | ⑨⑩ Air connection |
| ⑤⑥ Included in the scope of delivery | ⑨① Electrical connection |

Main view EOA-TM51214-SHK-050

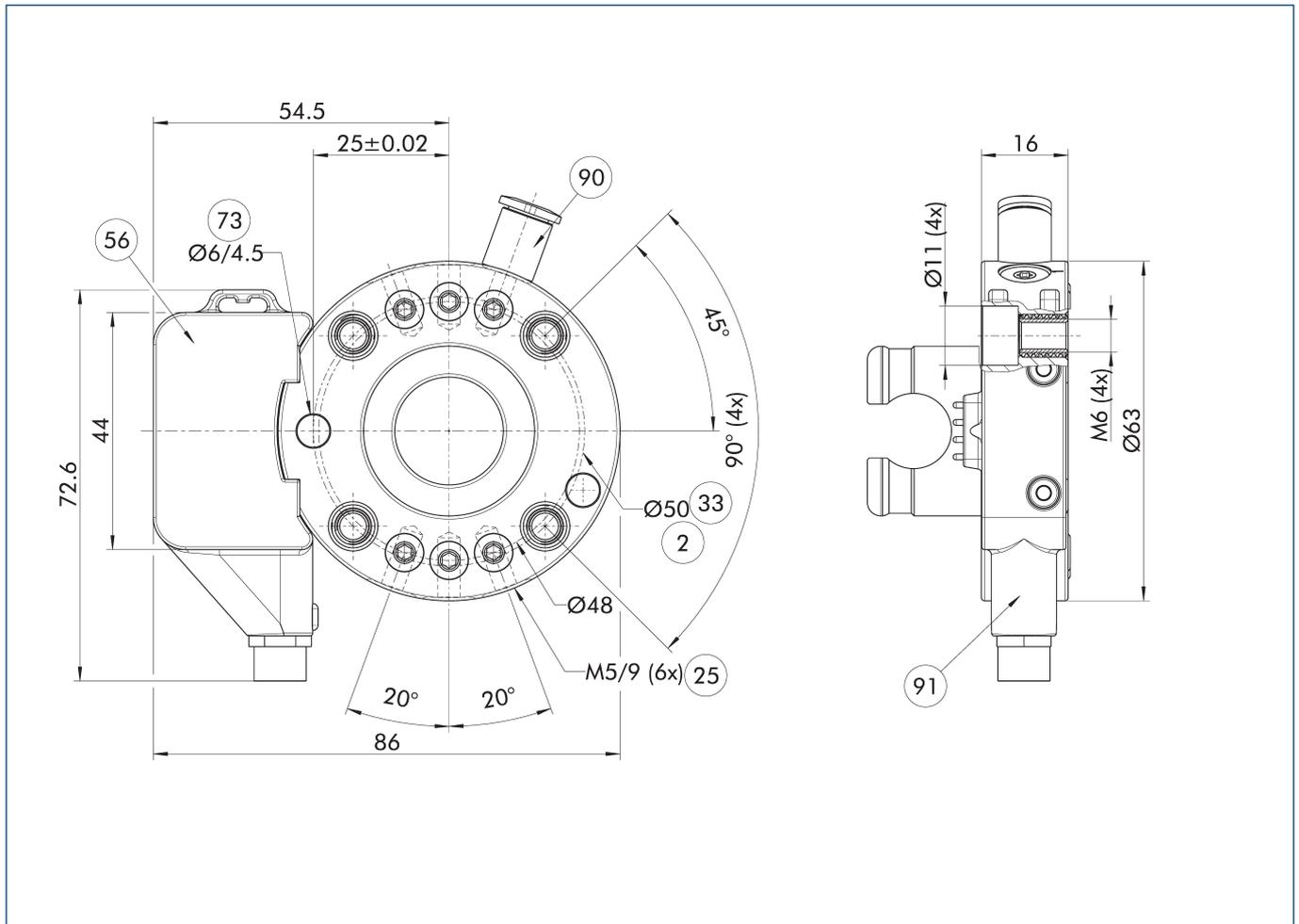


- | | |
|--------------------------------------|---------------------------|
| ① Robot-side connection | ⑦③ Fit for centering pins |
| ②⑤ Pneumatic feed-throughs | ⑦⑧ Fit for centering |
| ③③ DIN ISO-9409 bolt circle | ⑨⑩ Air connection |
| ⑤⑥ Included in the scope of delivery | ⑨① Electrical connection |

SHS 050

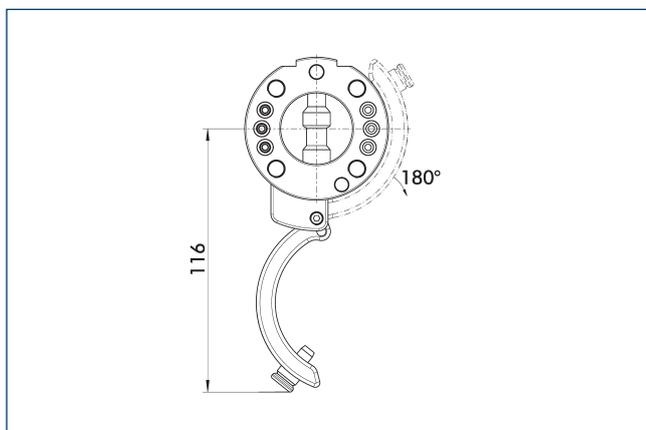
Manual change system

Main view E0A-DRM-SHA-050



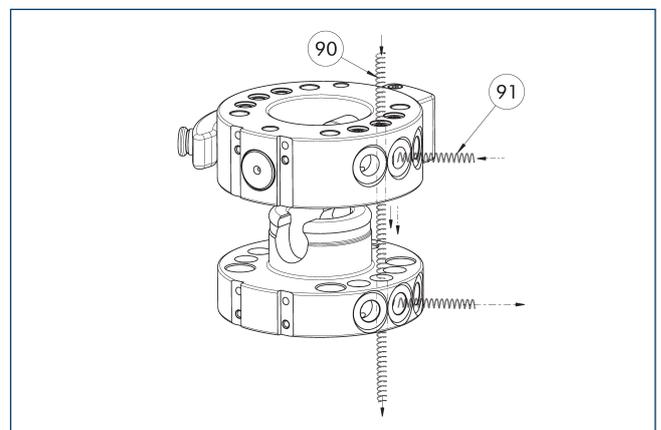
- | | |
|--------------------------------------|---------------------------|
| ② Tool-side connection | ⑦③ Fit for centering pins |
| ②⑤ Pneumatic feed-throughs | ⑨⑩ Air connection |
| ③③ DIN ISO-9409 bolt circle | ⑨① Electrical connection |
| ⑤⑥ Included in the scope of delivery | |

Interference Contour when locking/unlocking



The drawing shows the interfering contour when locking and unlocking. The specified values may vary depending on the opening angle of the locking lever.

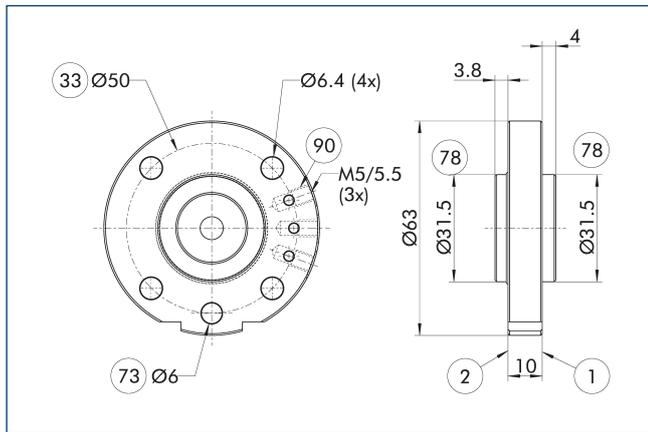
Pneumatic feed-through



- | | |
|-----------------------|------------------------|
| ⑨⑩ Feed-through axial | ⑨① Feed-through radial |
|-----------------------|------------------------|

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-A050-P-radial



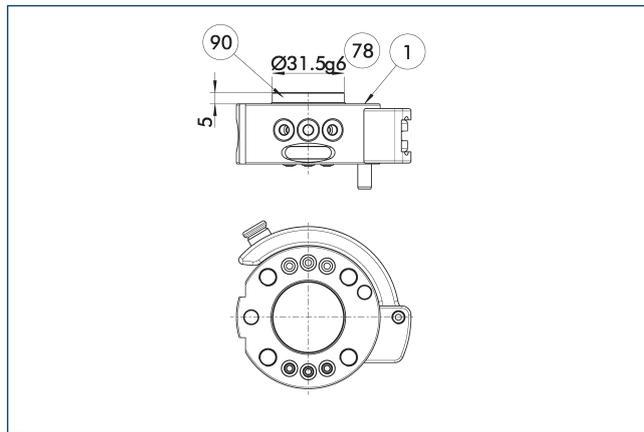
- ① Robot-side connection
- ② Tool-side connection
- ③③ DIN ISO-9409 bolt circle
- ⑦③ Fit for centering pins
- ⑦⑧ Fit for centering
- ⑨⑨ Connections for radial air feed-through

Robot side adapter plate

| Description | ID |
|--------------------|---------|
| Robot side | |
| A-SHK-050-P-RADIAL | 1391557 |

- ① Adapter plate with radial air connections for using the integrated axial air connections of the SHK.

Centering disc for SHK

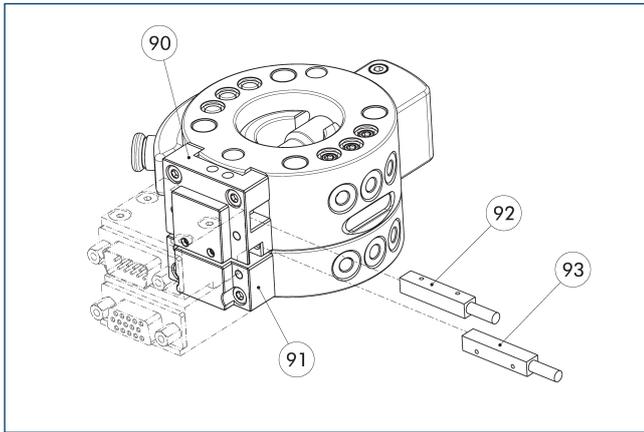


- ① Robot-side connection
- ⑦⑧ Fit for centering
- ⑨⑨ Centring disc

| Description | ID |
|----------------|---------|
| Centering disc | |
| A-HWK-050-BOSS | 0302752 |

- ① Serves as a fitting collar for centering on mechanical interfaces, e. g. on the robot.

Accessories

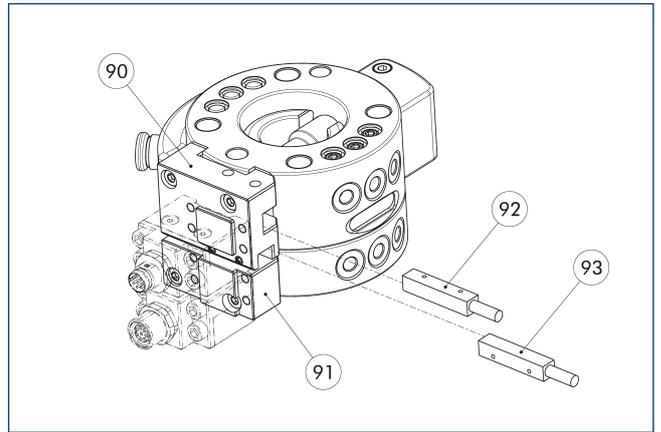


- 90 Robot side adapter plate
- 91 Tool side adapter plate
- 92 Locking sensor
- 93 Tool side presence sensor

| Description | ID | Description |
|---|---------|---------------|
| Robot side | | |
| SHK-050-AK0-S7 | 1304734 | Adapter plate |
| Tool side | | |
| SHA-050-AK0-S7 | 1304738 | Adapter plate |
| Feed-through module for signal on the robot side | | |
| SW0-A15-K | 9936357 | |
| SW0-E10-011-K | 9935801 | |
| SW0-E20-011-K | 9936525 | |
| Feed-through module for signal on the tool side | | |
| SW0-A15-A | 9936356 | |
| SW0-E10-011-A | 9935802 | |
| SW0-E20-011-A | 9936526 | |
| Inductive proximity switches | | |
| IN 5-S-M12 | 0301569 | |
| IN 5-S-M8 | 0301469 | |

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.

Accessories

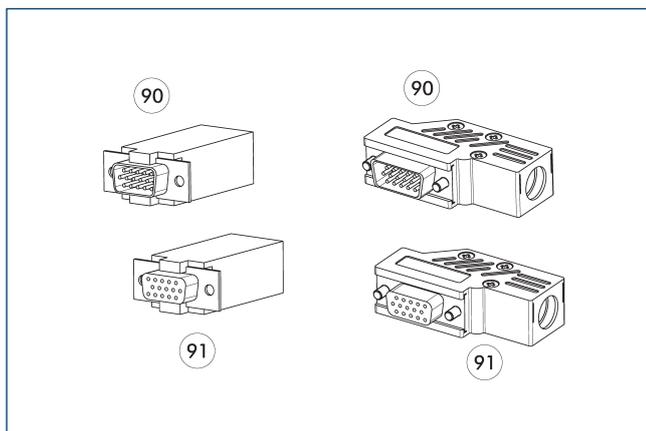


- 90 Robot side adapter plate
- 91 Tool side adapter plate
- 92 Locking sensor
- 93 Tool side presence sensor

| Description | ID | Description |
|---|---------|---------------|
| Robot side | | |
| SHK-050-AK0-S5 | 1304699 | Adapter plate |
| Tool side | | |
| SHA-050-AK0-S5 | 1304710 | Adapter plate |
| Feed-through module for signal on the robot side | | |
| SW0-E3A-K | 9941631 | |
| SW0-EM8-005-K | 9966150 | |
| Feed-through module for signal on the tool side | | |
| SW0-E3A-A | 9941632 | |
| SW0-EM8-005-A | 9966151 | |
| Inductive proximity switches | | |
| IN 5-S-M12 | 0301569 | |
| IN 5-S-M8 | 0301469 | |

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



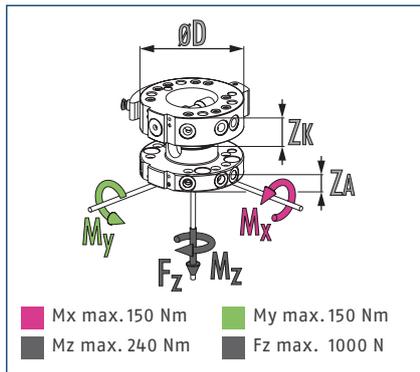
⑨⑩ D-sub connecting plug

⑨① D-sub connector

| Description | ID |
|--------------------------------------|---------|
| Angled cable connector, robot-side | |
| KAS-A15-K-90 | 0301301 |
| Angled cable connector, tool-side | |
| KAS-A15-A-90 | 0301302 |
| Straight cable connector, robot-side | |
| KAS-A15-K-0 | 0301264 |
| Straight cable connector, tool-side | |
| KAS-A15-A-0 | 0301265 |

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

Dimensions and maximum loads



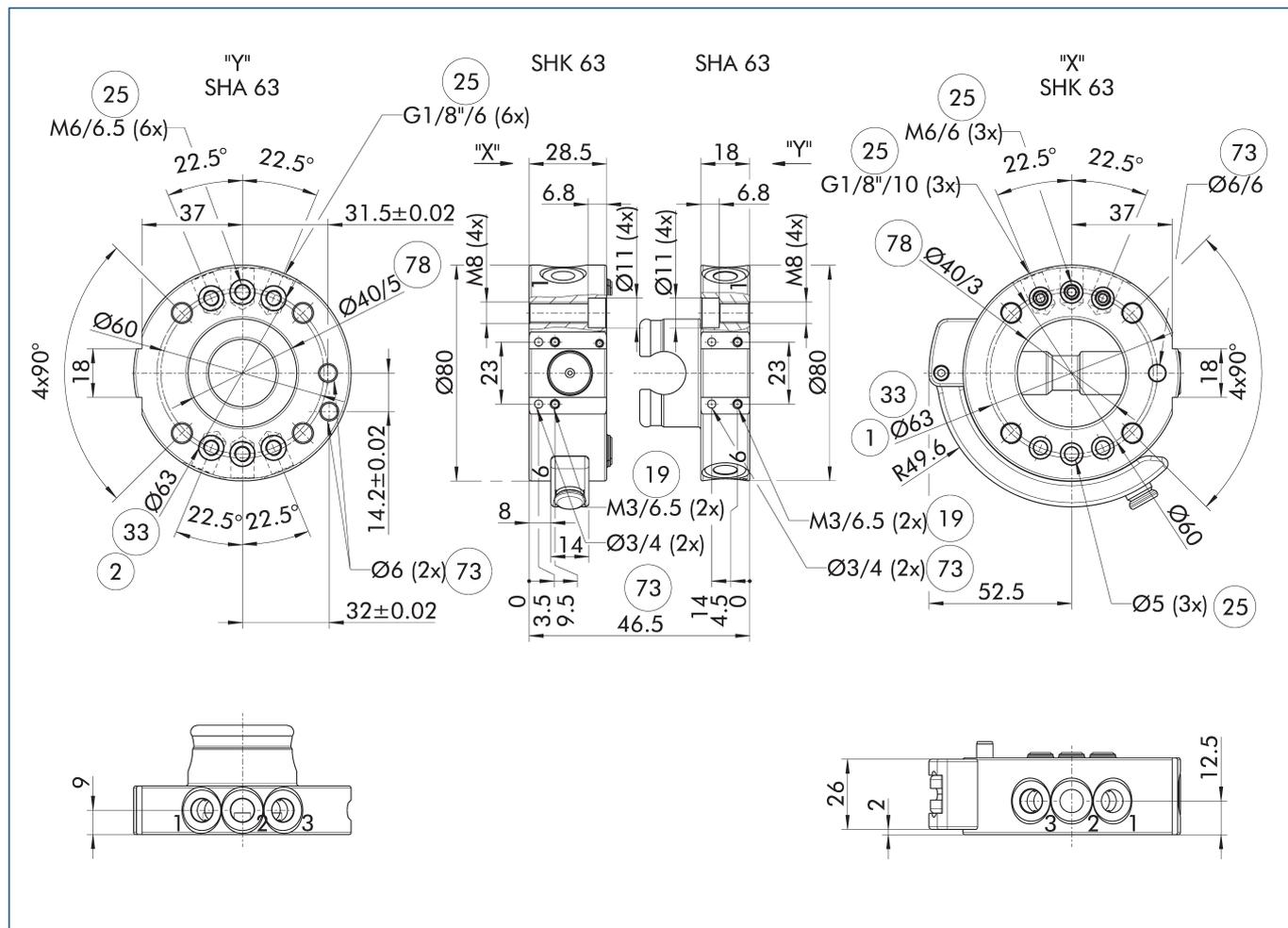
ⓘ This is the max. sum of all forces and moments which are permitted to act on the change system for ensuring proper functioning.

Technical data

| Description | | SHK-063-000-000 | SHA-063-000-000 |
|---------------------------------------|------|-------------------------------|-----------------------|
| | | Manual change head | Manual change adapter |
| ID | | 0310420 | 0310421 |
| Recommended handling weight | [kg] | 18 | 18 |
| Lock sensing | | optionally via attachment kit | |
| Repeat accuracy | [mm] | 0.02 | 0.02 |
| Weight | [kg] | 0.41 | 0.2 |
| Max. distance when locking | [mm] | 1 | 1 |
| Number of pneumatic feed-throughs | | 6 | 6 |
| Feed-throughs for radial use | | 3 | 6 |
| Pitch circle diameter | [mm] | 63 | 63 |
| Connection flange according to | | ISO 9409-1-63-4-M6 | |
| Min./max. ambient temperature | [°C] | 5/60 | 5/60 |
| Dimensions $\varnothing D \times Z^*$ | [mm] | 80 x 28.5 | 80 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.

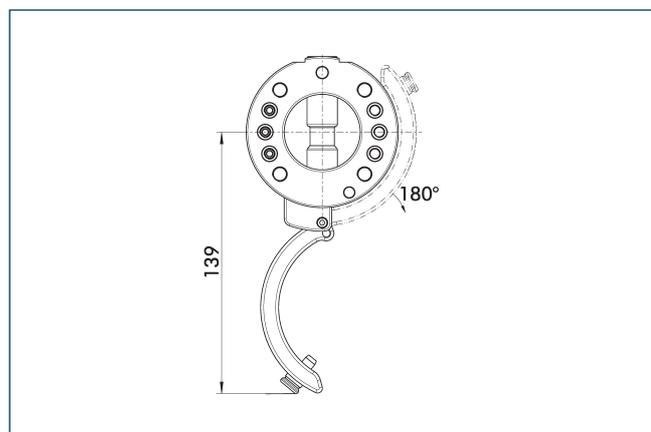
Main view



The main view shows the unit in its basic version.

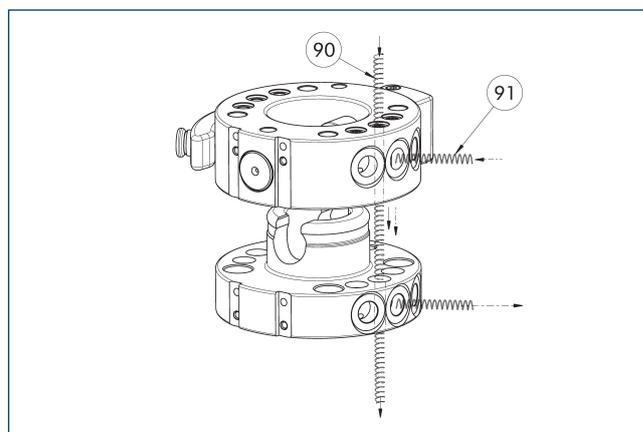
- ① Robot-side connection
- ② Tool-side connection
- ③ DIN ISO-9409 bolt circle
- ⑦ Fit for centering pins
- ⑧ Fit for centering
- ⑨ Mounting surface for options
- ⑩ Pneumatic feed-throughs

Interference Contour when locking/unlocking



The drawing shows the interfering contour when locking and unlocking. The specified values may vary depending on the opening angle of the locking lever.

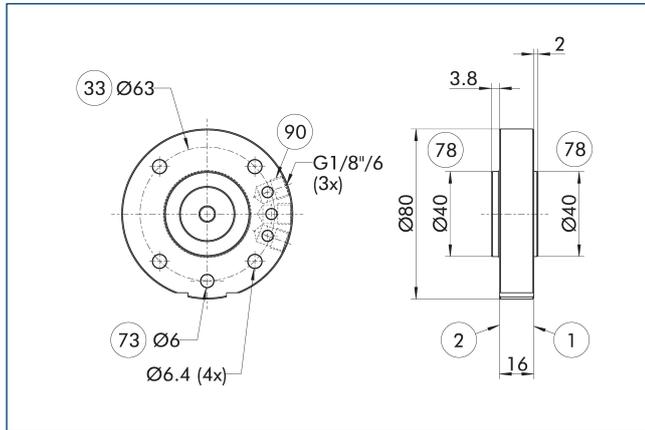
Pneumatic feed-through



- ⑨ Feed-through axial
- ⑩ Feed-through radial

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-A063-P-radial



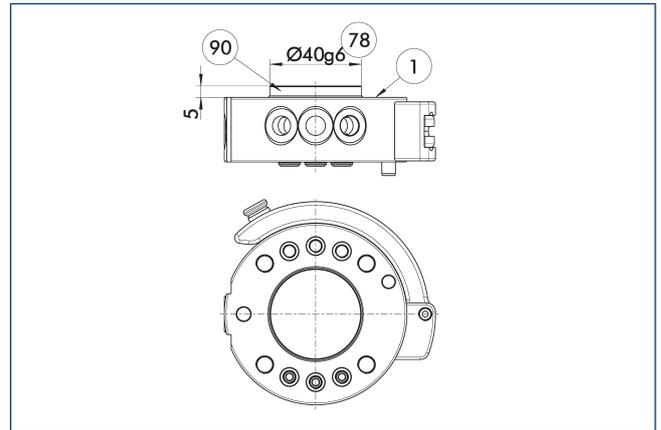
- ① Robot-side connection
- ② Tool-side connection
- ③③ DIN ISO-9409 bolt circle
- ⑦③ Fit for centering pins
- ⑦⑧ Fit for centering
- ⑨① Connections for radial air feed-through

Robot side adapter plate

| Description | ID |
|--------------------|---------|
| Robot side | |
| A-SHK-063-P-RADIAL | 1391562 |

- ① Adapter plate with radial air connections for using the integrated axial air connections of the SHK.

Centering disc for SHK

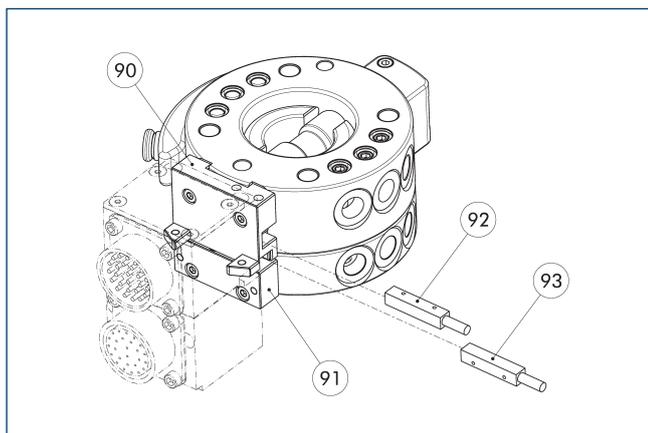


- ① Robot-side connection
- ⑦⑧ Fit for centering
- ⑨① Centring disc

| Description | ID |
|----------------|---------|
| Centering disc | |
| A-HWK-063-BOSS | 0302765 |

- ① Serves as a fitting collar for centering on mechanical interfaces, e. g. on the robot.

Accessories

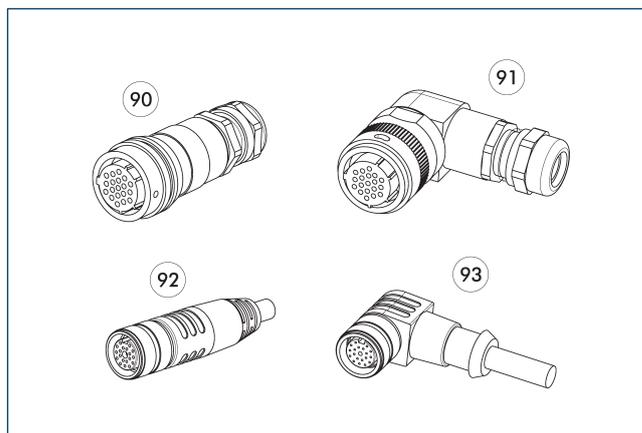


- 90 Robot side adapter plate 92 Locking sensor
 91 Tool side adapter plate 93 Tool side presence sensor

| Description | ID | Description |
|--|---------|---------------|
| Robot side | | |
| SHK-063-AK0-K | 1304742 | Adapter plate |
| Tool side | | |
| SHA-063-AK0-K | 1304745 | Adapter plate |
| Feed-through module for communication on the robot side | | |
| SWO-KE7-K | 9960993 | |
| SWO-KF6-K | 9965143 | |
| Feed-through module for communication on the tool side | | |
| SWO-KE7-A | 9960994 | |
| SWO-KF6-A | 9965144 | |
| Feed-through module for power on the robot side | | |
| SWO-KM14-K | 9940812 | |
| Feed-through module for power on the tool side | | |
| SWO-KM14-A | 9941480 | |
| Feed-through module for signal on the robot side | | |
| SWO-K12-K | 9948701 | |
| SWO-K19-K | 9937328 | |
| SWO-K26-K | 9937798 | |
| SWO-KF19-K | 9959886 | |
| SWO-KG19-K | 9950140 | |
| Feed-through module for signal on the tool side | | |
| SWO-K10-A | 9960543 | |
| SWO-K12-A | 9948702 | |
| SWO-K14-A | 9954959 | |
| SWO-K19-A | 9937329 | |
| SWO-K21-A | 9958100 | |
| SWO-K26-A | 9937799 | |
| SWO-KF10-A | 9961308 | |
| SWO-KF14-A | 9961307 | |
| SWO-KF19-A | 9959887 | |
| SWO-KG19-A | 9950144 | |
| Inductive proximity switches | | |
| IN 5-S-M12 | 0301569 | |
| IN 5-S-M8 | 0301469 | |

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



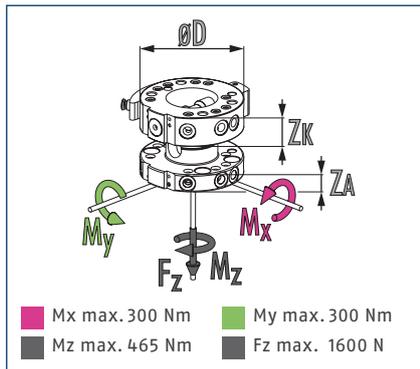
- 90 Connection plug / socket straight 92 Connection plug / socket straight with extension cable
 91 Connection plug / socket at an angle 93 Connection plug / socket at an angle with extension cable

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-19B-90 | 0302179 | 3 |
| KV-3-SWK-26B-90 | 0302185 | 3 |
| KV-5-SWK-19B-90 | 0302190 | 5 |
| KV-5-SWK-19F-90 | 0302172 | 5 |
| KV-5-SWK-26B-90 | 0302186 | 5 |
| Angled cable connector with cable, tool-side | | |
| KV-3-SWA-19B-90 | 0302191 | 3 |
| 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-19B-0 | 0302176 | 3 |
| KV-3-SWK-26B-0 | 0302192 | 3 |
| KV-5-SWK-19B-0 | 0302177 | 5 |
| KV-5-SWK-19F-0 | 0302170 | 5 |
| KV-5-SWK-26B-0 | 0302193 | 5 |
| Straight cable connector with cable, tool-side | | |
| KV-3-SWA-19B-0 | 0302178 | 3 |
| 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.

Dimensions and maximum loads



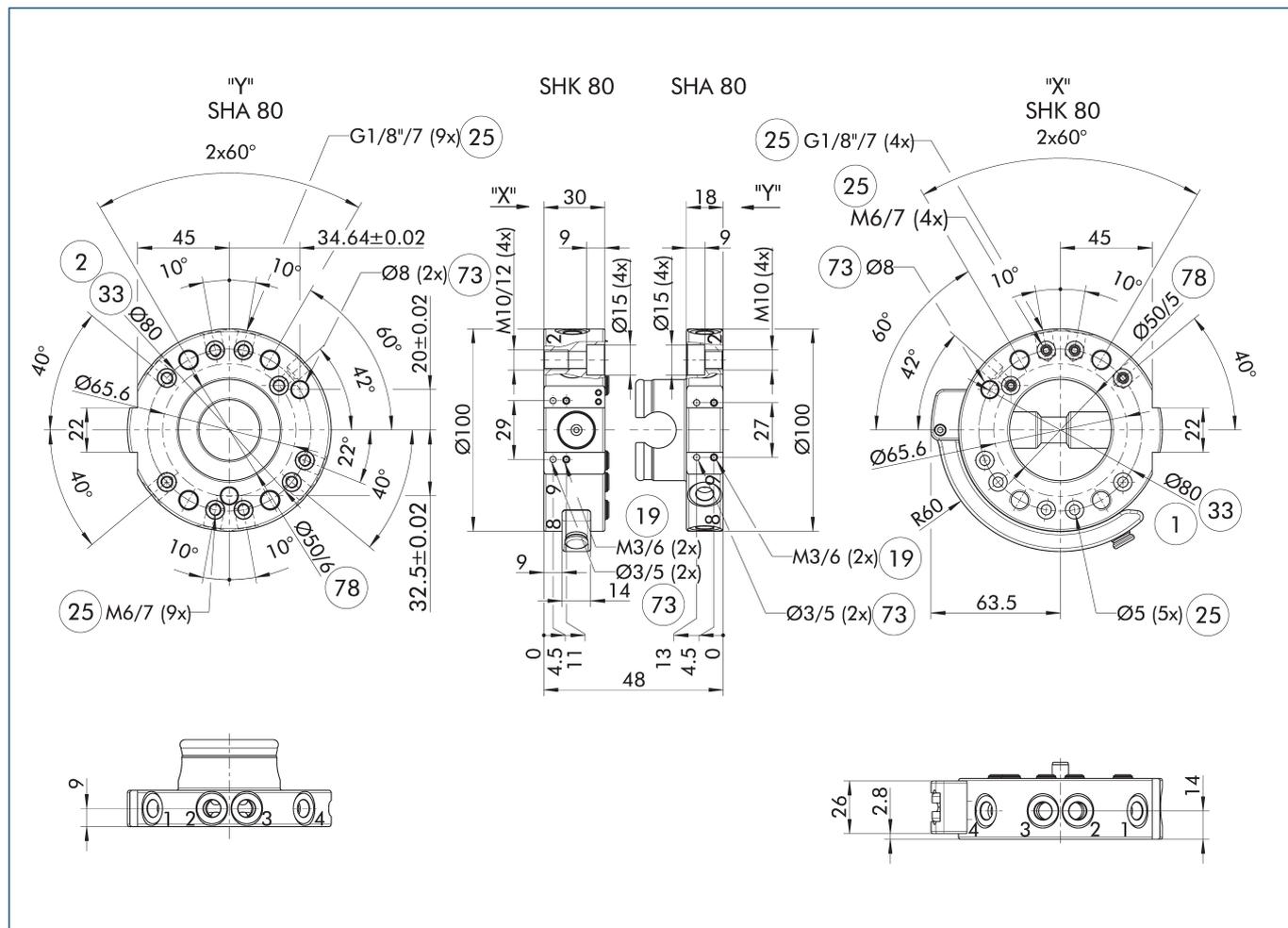
ⓘ This is the max. sum of all forces and moments which are permitted to act on the change system for ensuring proper functioning.

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 $\varnothing D \times Z^*$ | [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.

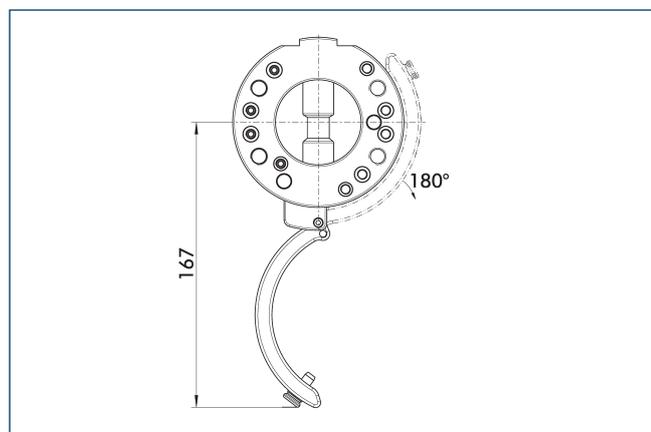
Main view



The main view shows the unit in its basic version.

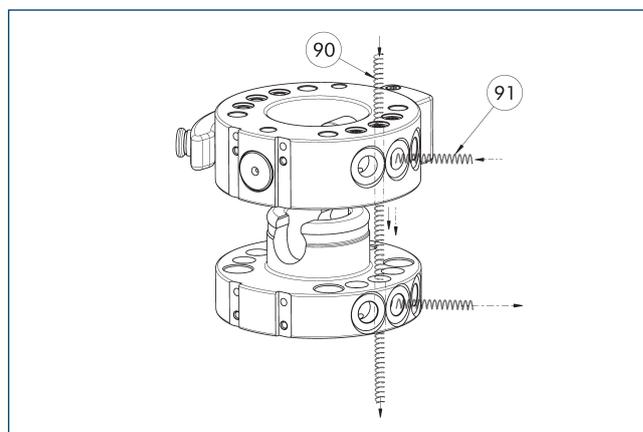
- ① Robot-side connection
- ② Tool-side connection
- ③ DIN ISO-9409 bolt circle
- ④ M3/6 (2x)
- ⑤ Pneumatic feed-throughs
- ⑥ Ø3/5 (2x)
- ⑦ M10 (4x)
- ⑧ Ø8 (2x)
- ⑨ Fit for centering pins
- ⑩ Fit for centering
- ⑪ M6/7 (4x)
- ⑫ M3/6 (2x)
- ⑬ Ø3/5 (2x)
- ⑭ Ø15 (4x)
- ⑮ Ø15 (4x)
- ⑯ M10/12 (4x)
- ⑰ Ø8 (2x)
- ⑱ M6/7 (9x)
- ⑲ M3/6 (2x)
- ⑳ Ø3/5 (2x)
- ㉑ Ø15 (4x)
- ㉒ M10 (4x)
- ㉓ Ø8 (2x)
- ㉔ Ø5 (5x)
- ㉕ Ø50/5
- ㉖ Ø65.6
- ㉗ Ø80
- ㉘ R60
- ㉙ 2x60°
- ㉚ 2x60°
- ㉛ 30
- ㉜ 18
- ㉝ 9
- ㉞ 9
- ㉟ 27
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Interference Contour when locking/unlocking



The drawing shows the interfering contour when locking and unlocking. The specified values may vary depending on the opening angle of the locking lever.

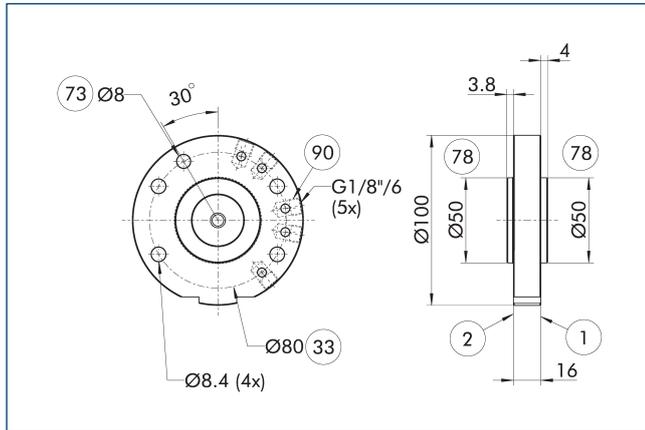
Pneumatic feed-through



- ⑨⑩ Feed-through axial
- ⑨⑪ Feed-through radial

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



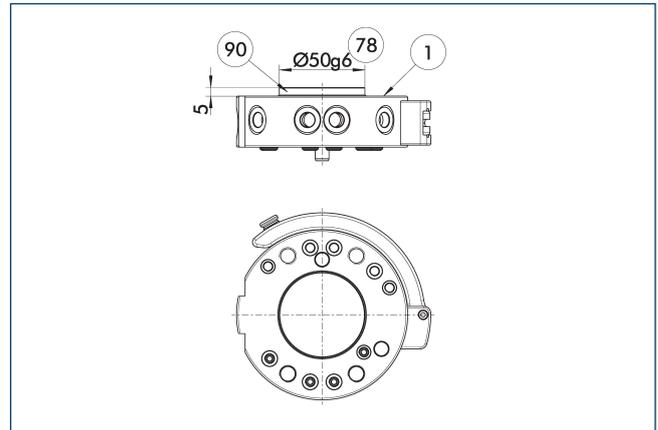
- ① Robot-side connection
- ② Tool-side connection
- ③③ DIN ISO-9409 bolt circle
- ⑦③ Fit for centering pins
- ⑦⑧ Fit for centering
- ⑨① Connections for radial air feed-through

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

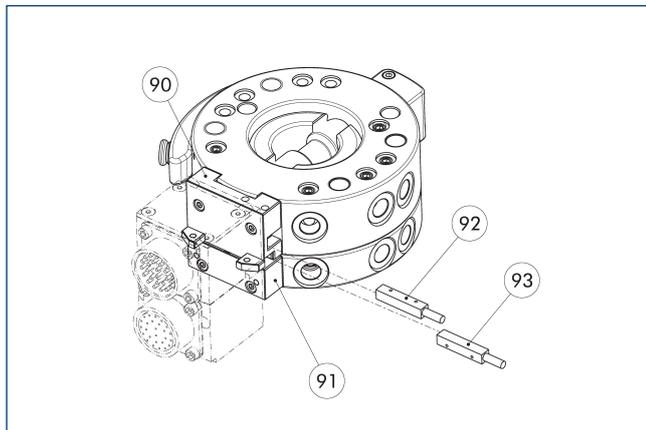


- ① Robot-side connection
- ⑦⑧ Fit for centering
- ⑨① Centring disc

| 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

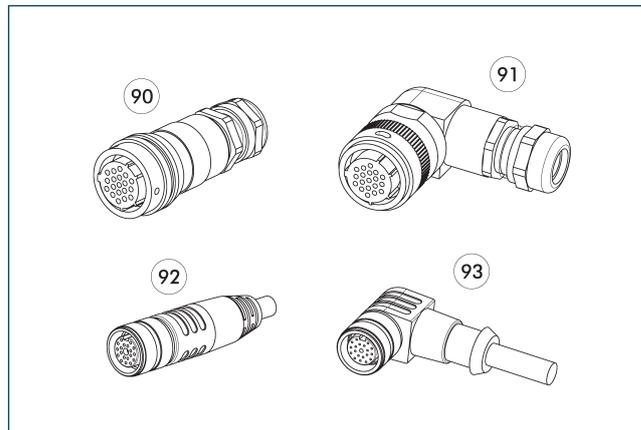


- 90 Robot side adapter plate 92 Locking sensor
 91 Tool side adapter plate 93 Tool side presence sensor

| Description | ID | Description |
|--|---------|---------------|
| Robot side | | |
| SHK-080-AK0-K | 1304759 | Adapter plate |
| Tool side | | |
| SHA-080-AK0-K | 1304762 | Adapter plate |
| Feed-through module for communication on the robot side | | |
| SWO-KE7-K | 9960993 | |
| SWO-KF6-K | 9965143 | |
| Feed-through module for communication on the tool side | | |
| SWO-KE7-A | 9960994 | |
| SWO-KF6-A | 9965144 | |
| Feed-through module for power on the robot side | | |
| SWO-KM14-K | 9940812 | |
| Feed-through module for power on the tool side | | |
| SWO-KM14-A | 9941480 | |
| Feed-through module for signal on the robot side | | |
| SWO-K12-K | 9948701 | |
| SWO-K19-K | 9937328 | |
| SWO-K26-K | 9937798 | |
| SWO-KF19-K | 9959886 | |
| SWO-KG19-K | 9950140 | |
| Feed-through module for signal on the tool side | | |
| SWO-K10-A | 9960543 | |
| SWO-K12-A | 9948702 | |
| SWO-K14-A | 9954959 | |
| SWO-K19-A | 9937329 | |
| SWO-K21-A | 9958100 | |
| SWO-K26-A | 9937799 | |
| SWO-KF10-A | 9961308 | |
| SWO-KF14-A | 9961307 | |
| SWO-KF19-A | 9959887 | |
| SWO-KG19-A | 9950144 | |
| Inductive proximity switches | | |
| IN 5-S-M12 | 0301569 | |
| IN 5-S-M8 | 0301469 | |

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



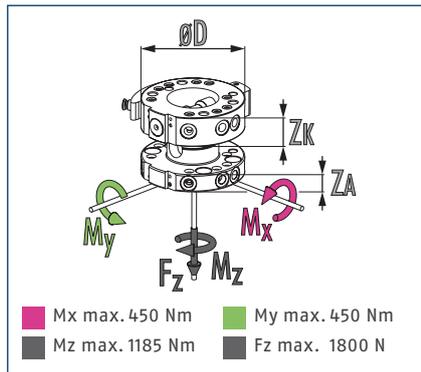
- 90 Connection plug / socket straight 92 Connection plug / socket straight with extension cable
 91 Connection plug / socket at an angle 93 Connection plug / socket at an angle with extension cable

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.

Dimensions and maximum loads



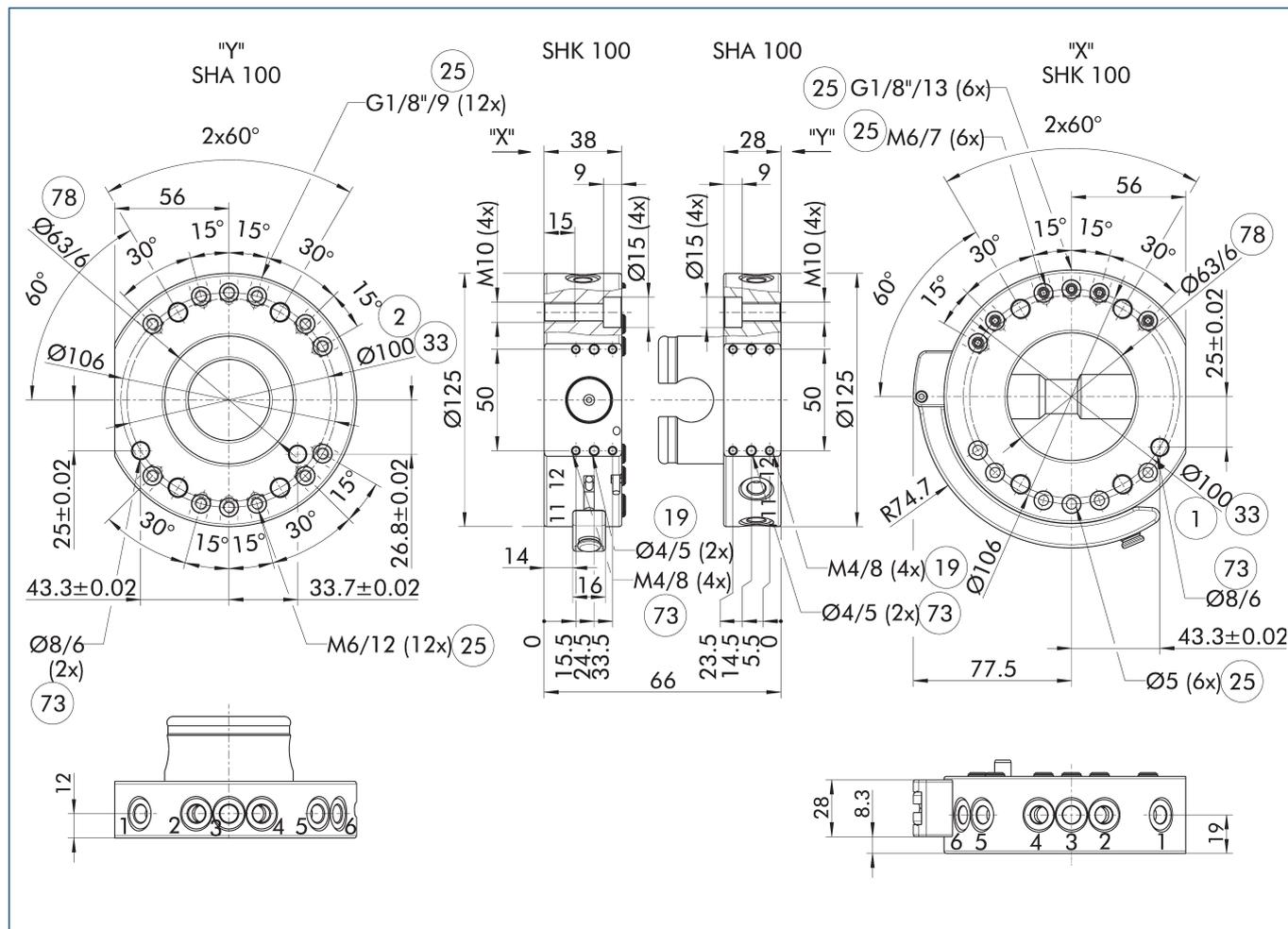
ⓘ This is the max. sum of all forces and moments which are permitted to act on the change system for ensuring proper functioning.

Technical data

| Description | | SHK-100-000-000 | SHA-100-000-000 |
|---------------------------------------|------|---------------------|-----------------------|
| | | Manual change head | Manual change adapter |
| ID | | 0310440 | 0310441 |
| Recommended handling weight | [kg] | 43 | 43 |
| Lock sensing | | optional | |
| Repeat accuracy | [mm] | 0.02 | 0.02 |
| Weight | [kg] | 1.3 | 0.55 |
| Max. distance when locking | [mm] | 1 | 1 |
| Number of pneumatic feed-throughs | | 12 | 12 |
| Feed-throughs for radial use | | 6 | 12 |
| Pitch circle diameter | [mm] | 100 | 100 |
| Connection flange according to | | ISO 9409-1-100-6-M8 | |
| Min./max. ambient temperature | [°C] | 5/60 | 5/60 |
| Dimensions $\varnothing D \times Z^*$ | [mm] | 125 x 38 | 125 x 28 |
| Screw connection diagram | | J | J |

* 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.

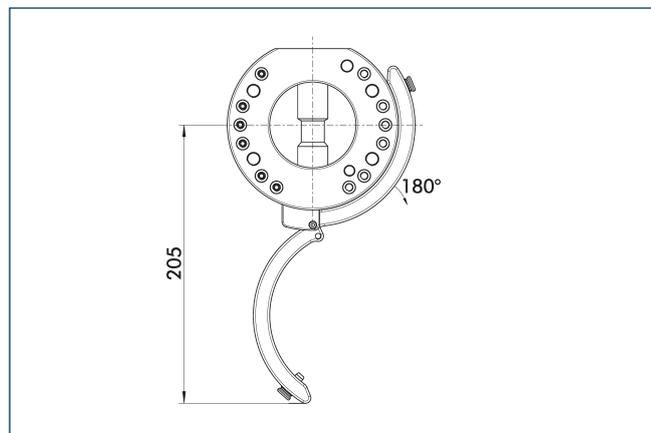
Main view



The main view shows the unit in its basic version.

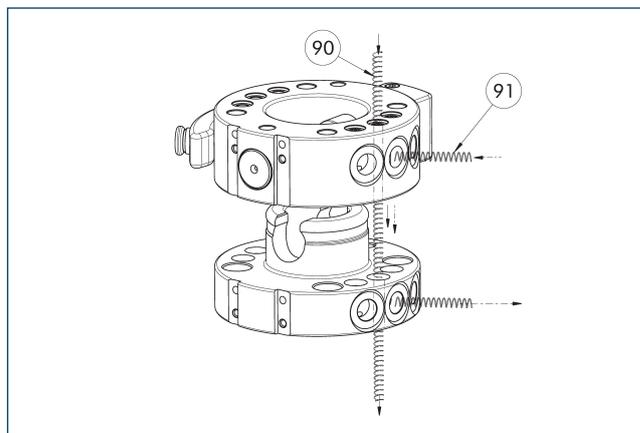
- ① Robot-side connection
- ② Tool-side connection
- ③ DIN ISO-9409 bolt circle
- ④ Fit for centering pins
- ⑤ Mounting surface for options
- ⑥ Fit for centering
- ⑦ Pneumatic feed-throughs

Interference Contour when locking/unlocking



The drawing shows the interfering contour when locking and unlocking. The specified values may vary depending on the opening angle of the locking lever.

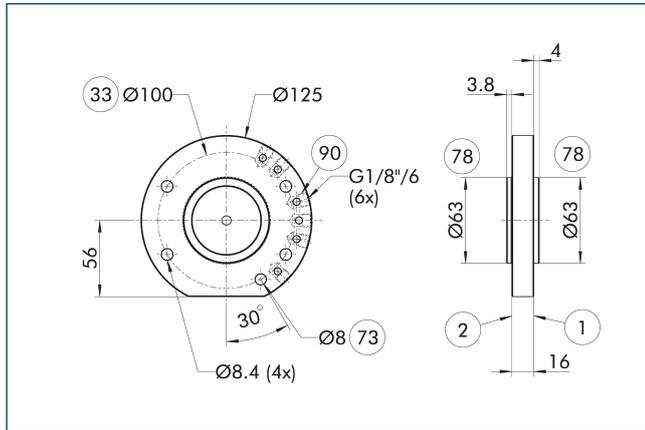
Pneumatic feed-through



- ⑨0 Feed-through axial
- ⑨1 Feed-through radial

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-A100-P-radial



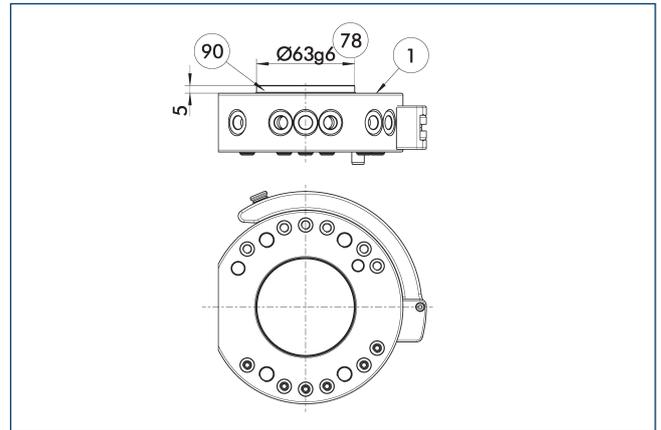
- ① Robot-side connection
- ② Tool-side connection
- ③③ DIN ISO-9409 bolt circle
- ⑦③ Fit for centering pins
- ⑦⑧ Fit for centering
- ⑨⑦ Connections for radial air feed-through

Robot side adapter plate

| Description | ID |
|--------------------|---------|
| Robot side | |
| A-SHK-100-P-RADIAL | 1391567 |

- ① Adapter plate with radial air connections for using the integrated axial air connections of the SHK.

Centering disc for SHK

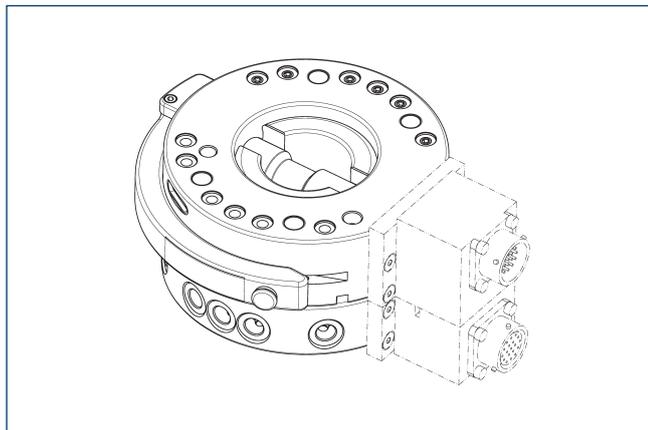


- ① Robot-side connection
- ⑦⑧ Fit for centering

| Description | ID |
|----------------|---------|
| Centering disc | |
| A-HWK-100-BOSS | 0302802 |

- ① Serves as a fitting collar for centering on mechanical interfaces, e. g. on the robot.

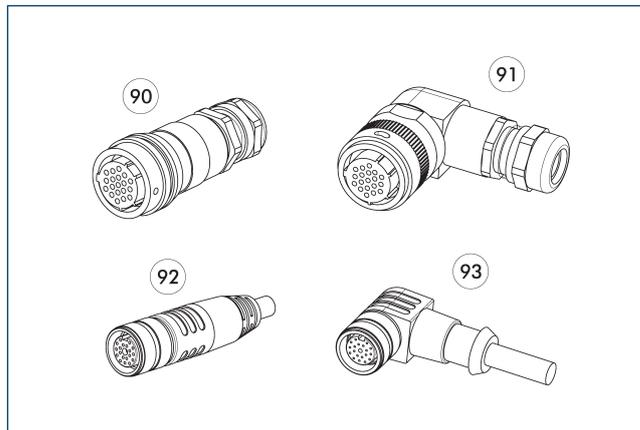
Electric feed-through module



| Description | ID | No. Pins |
|---|---------|----------|
| Feed-through module for communication on the robot side | | |
| SWO-RE5-K | 9957444 | |
| Feed-through module for communication on the tool side | | |
| SWO-RE5-A | 9957445 | |
| Feed-through module for power on the robot side | | |
| SWO-MT8-K | 9937157 | |
| Feed-through module for power on the tool side | | |
| SWO-MT8-A | 9937158 | |
| Feed-through module for signal on the robot side | | |
| SWO-G19-K | 9940649 | 19 |
| SWO-R19-K | 9935815 | 19 |
| SWO-R26-K | 9935819 | 26 |
| SWO-R32-K | 9941387 | 32 |
| SWO-RF19-K | 9948654 | 19 |
| Feed-through module for signal on the tool side | | |
| SWO-G19-A | 9940650 | 19 |
| SWO-R19-A | 9935816 | 19 |
| SWO-R26-A | 9935820 | 26 |
| SWO-R32-A | 9941388 | 32 |
| SWO-RF19-A | 9948657 | 19 |

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



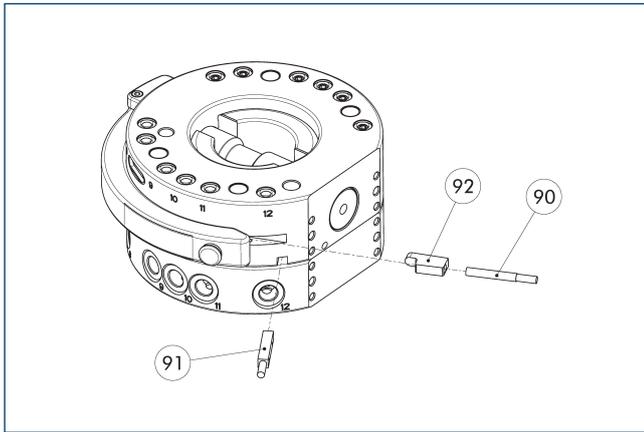
- 90 Connection plug / socket straight
 91 Connection plug / socket at an angle
 92 Connection plug / socket straight with extension cable
 93 Connection plug / socket at an angle with extension cable

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-19B-90 | 0302179 | 3 |
| KV-5-SWK-19B-90 | 0302190 | 5 |
| KV-5-SWK-19F-90 | 0302172 | 5 |
| Angled cable connector with cable, tool-side | | |
| KV-3-SWA-19B-90 | 0302191 | 3 |
| KV-3-SWA-19F-90 | 0302175 | 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-19B-0 | 0302176 | 3 |
| KV-5-SWK-19B-0 | 0302177 | 5 |
| KV-5-SWK-19F-0 | 0302170 | 5 |
| Straight cable connector with cable, tool-side | | |
| KV-3-SWA-19B-0 | 0302178 | 3 |
| KV-3-SWA-19F-0 | 0302174 | 3 |

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

Monitoring via inductive proximity switches

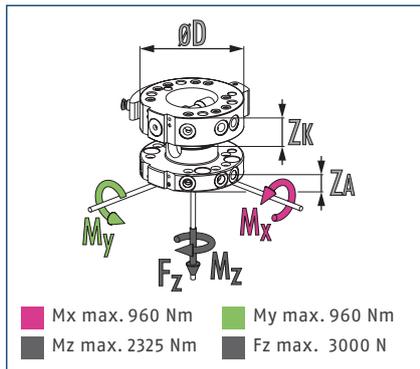


- 90 Locking sensor IN 40-S-...
 91 Workpiece presence sensor IN 5-S-...
 92 A sensor bracket is included in the scope of delivery

| Description | ID | Often combined |
|-------------------------------------|----------|----------------|
| Inductive proximity switches | | |
| IN 40-S-M12 | 0301574 | |
| IN 40-S-M8 | 0301474 | |
| IN 5-S-M12 | 0301569 | |
| IN 5-S-M8 | 0301469 | |
| 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 | |
| clip for plug/socket | | |
| CLI-M12 | 0301464 | |
| CLI-M8 | 0301463 | |
| 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 | |
| Sensor distributor | | |
| V2-M12 | 0301776 | ● |
| V2-M8 | 0301775 | ● |
| V4-M8 | 0301746 | |
| V8-M8 | 0301751 | |

- ⓘ For more detailed information and other cable extensions, see catalog chapter "Accessories" or visit our website.

Dimensions and maximum loads



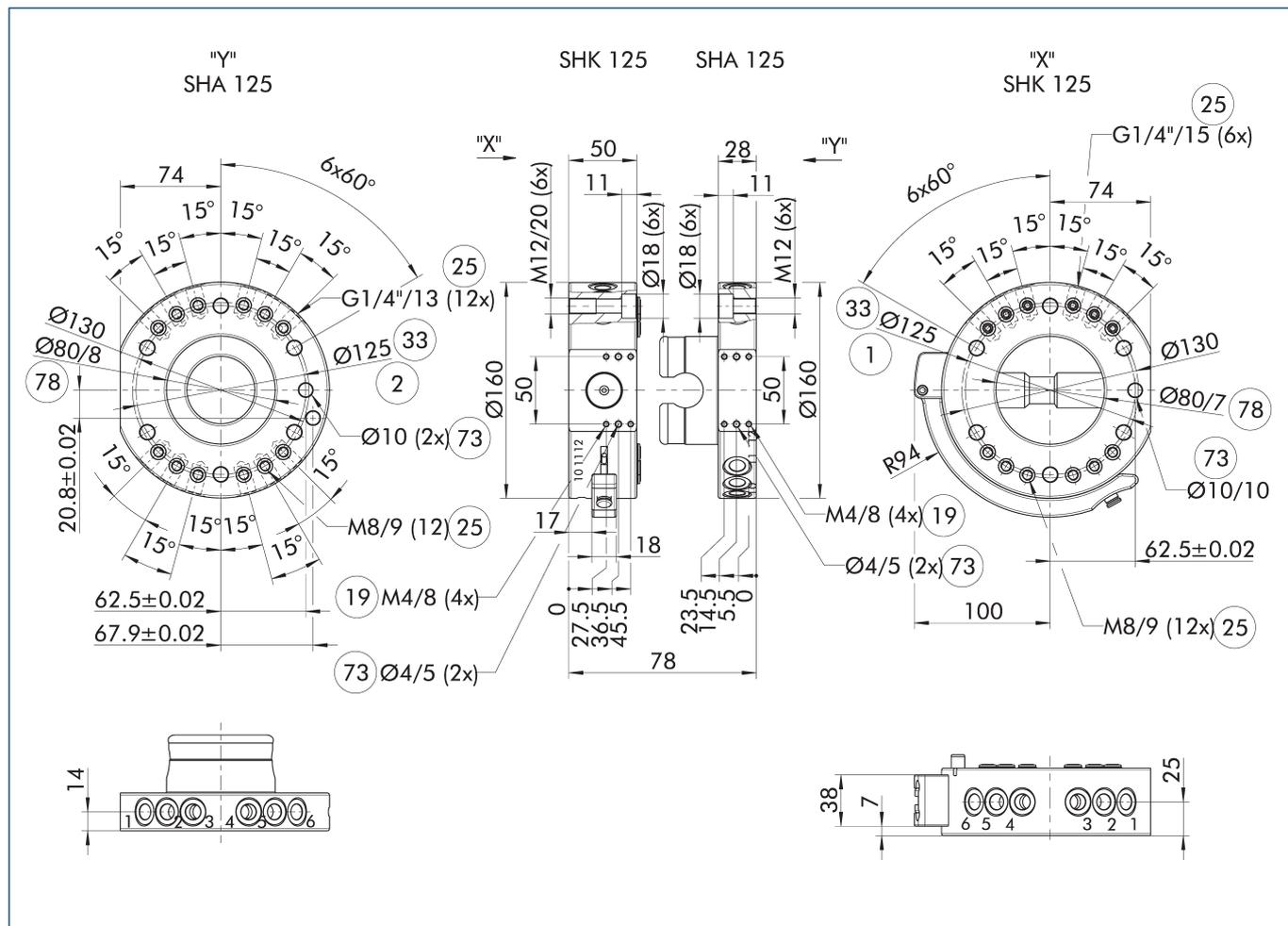
ⓘ This is the max. sum of all forces and moments which are permitted to act on the change system for ensuring proper functioning.

Technical data

| Description | | SHK-125-000-000 | SHA-125-000-000 |
|---------------------------------------|------|----------------------|-----------------------|
| | | Manual change head | Manual change adapter |
| ID | | 0310450 | 0310451 |
| Recommended handling weight | [kg] | 58 | 58 |
| Lock sensing | | optional | |
| Repeat accuracy | [mm] | 0.02 | 0.02 |
| Weight | [kg] | 2.8 | 1.2 |
| Max. distance when locking | [mm] | 1 | 1 |
| Number of pneumatic feed-throughs | | 12 | 12 |
| Feed-throughs for radial use | | 6 | 12 |
| Pitch circle diameter | [mm] | 125 | 125 |
| Connection flange according to | | ISO 9409-1-125-6-M10 | |
| Min./max. ambient temperature | [°C] | 5/60 | 5/60 |
| Dimensions $\varnothing D \times Z^*$ | [mm] | 160 x 50 | 160 x 28 |
| Screw connection diagram | | J | J |

* 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.

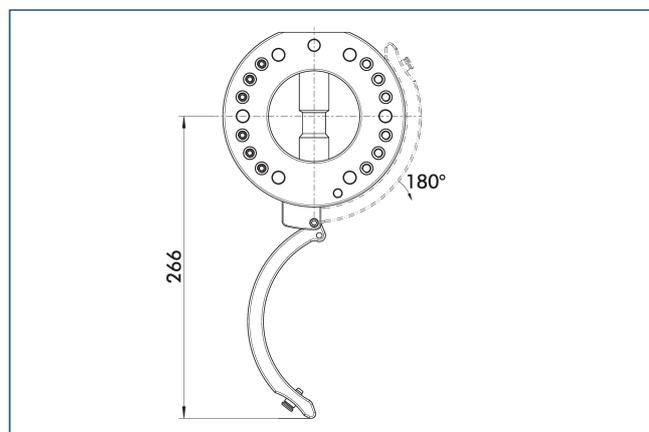
Main view



The main view shows the unit in its basic version.

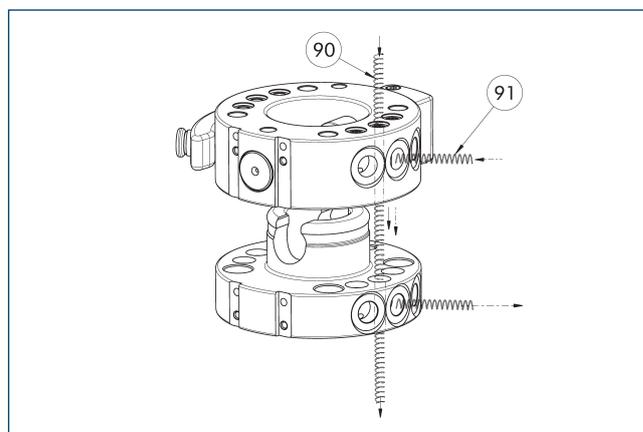
- ① Robot-side connection
- ② Tool-side connection
- ③ DIN ISO-9409 bolt circle
- ④ Mounting surface for options
- ⑤ Pneumatic feed-throughs
- ⑥ Fit for centering pins
- ⑦ Fit for centering

Interference Contour when locking/unlocking



The drawing shows the interfering contour when locking and unlocking. The specified values may vary depending on the opening angle of the locking lever.

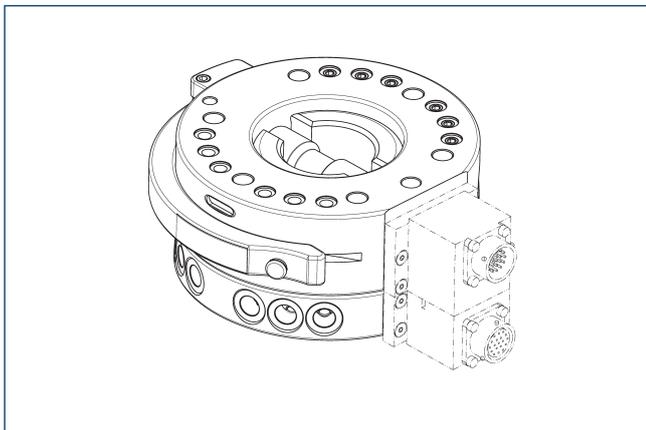
Pneumatic feed-through



- ⑨⑩ Feed-through axial
- ⑨⑪ Feed-through radial

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.

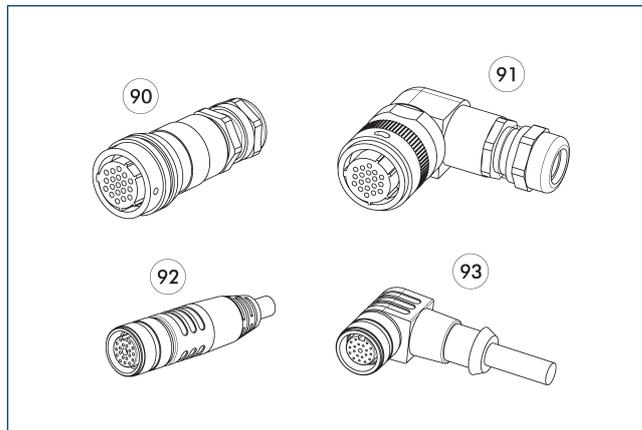
Electric feed-through module



| Description | ID | No. Pins |
|---|---------|----------|
| Feed-through module for communication on the robot side | | |
| SWO-RE5-K | 9957444 | |
| Feed-through module for communication on the tool side | | |
| SWO-RE5-A | 9957445 | |
| Feed-through module for power on the robot side | | |
| SWO-MT8-K | 9937157 | |
| Feed-through module for power on the tool side | | |
| SWO-MT8-A | 9937158 | |
| Feed-through module for signal on the robot side | | |
| SWO-G19-K | 9940649 | 19 |
| SWO-R19-K | 9935815 | 19 |
| SWO-R26-K | 9935819 | 26 |
| SWO-R32-K | 9941387 | 32 |
| SWO-RF19-K | 9948654 | 19 |
| Feed-through module for signal on the tool side | | |
| SWO-G19-A | 9940650 | 19 |
| SWO-R19-A | 9935816 | 19 |
| SWO-R26-A | 9935820 | 26 |
| SWO-R32-A | 9941388 | 32 |
| SWO-RF19-A | 9948657 | 19 |

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



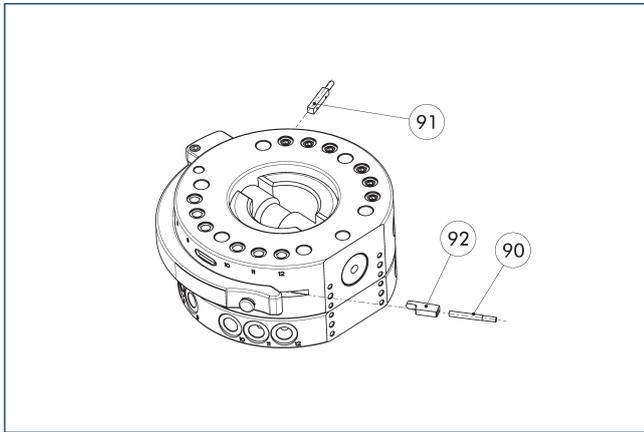
- ⑨⑩ Connection plug / socket straight
- ⑨① Connection plug / socket at an angle
- ⑨② Connection plug / socket straight with extension cable
- ⑨③ Connection plug / socket at an angle with extension cable

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-19B-90 | 0302179 | 3 |
| KV-5-SWK-19B-90 | 0302190 | 5 |
| KV-5-SWK-19F-90 | 0302172 | 5 |
| Angled cable connector with cable, tool-side | | |
| KV-3-SWA-19B-90 | 0302191 | 3 |
| KV-3-SWA-19F-90 | 0302175 | 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-19B-0 | 0302176 | 3 |
| KV-5-SWK-19B-0 | 0302177 | 5 |
| KV-5-SWK-19F-0 | 0302170 | 5 |
| Straight cable connector with cable, tool-side | | |
| KV-3-SWA-19B-0 | 0302178 | 3 |
| KV-3-SWA-19F-0 | 0302174 | 3 |

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Monitoring via inductive proximity switches



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- ⑨① Workpiece presence sensor IN 5-S-...
- ⑨② A sensor bracket is included in the scope of delivery

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