

Superior Clamping and Gripping



Product Information

Plug & Work Portfolio Universal Robots – Electric Gripping

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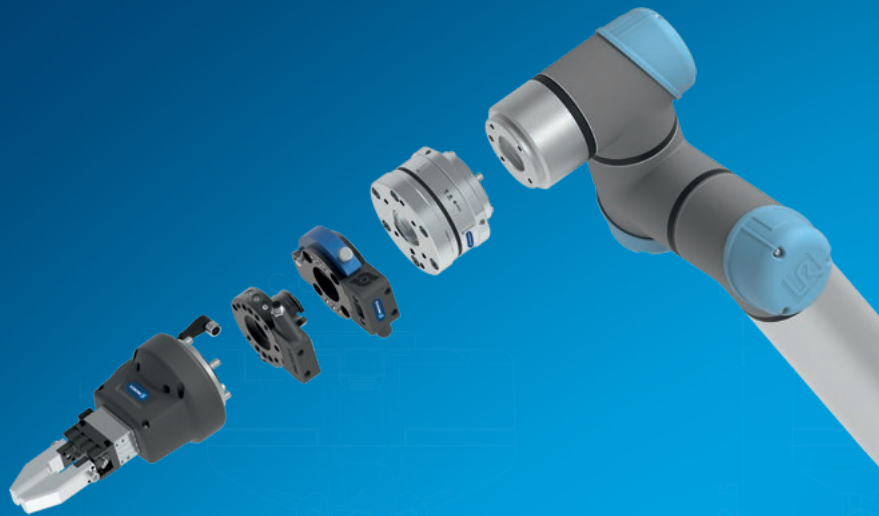
Modular. Flexible. Easy.

Plug & Work Portfolio Universal Robots

The Plug & Work portfolio consists of electrically and pneumatically actuated grippers, quick-change modules and force/moment sensors that are specifically adapted to robot arms from Universal Robots.

Field of application

The components can be used in clean and slightly dirty environments.



Advantages – Your benefits

Comprehensive portfolio consisting of various components and grippers for different applications for fast and easy entry into automation

Pre-assembled gripping unit with robot interface therefore no mounting kits or external valves required

Plug & Work with the interfaces suitable for all robots from Universal Robots

UR plug-in installation modules included in the scope of delivery for fast and easy commissioning

Certified SCHUNK Co-act grippers For quick and easy entry into the world of collaborative applications

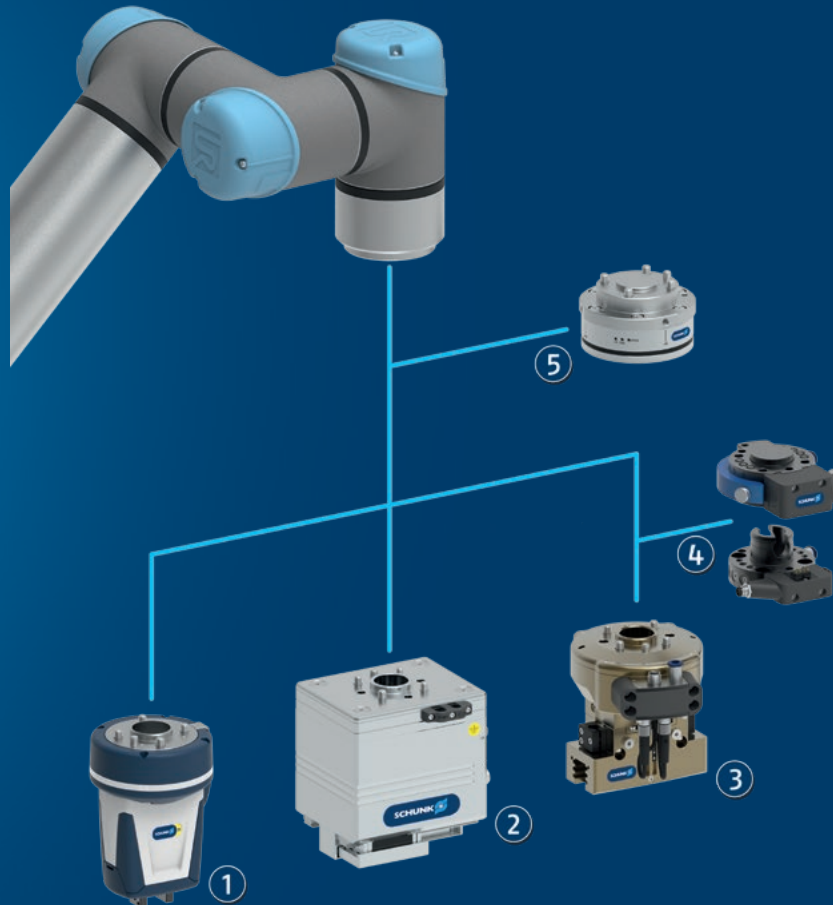
Electric grippers with a long adjustable stroke and force range for flexible workpiece handling

Pneumatic grippers For a high power density and simple integration

Functional description

All the Plug & Work components are prepared for mechanical and electrical direct connection to Universal Robots sizes 3, 5, 10, and 16. Depending on requirements, various grippers and end-of-arm components can be selected.

The pneumatic gripping units are additionally equipped with micro valves meaning no external valves are required.



① **Co-act Gripper**
for implementing collaborative applications

② **Electric gripper**
for flexible handling of workpieces

③ **Pneumatic grippers**
For conventional, robust handling of workpieces

④ **Change systems**
for manual exchange of different grippers and actuators

⑤ **Force/torque sensor**
for measuring and processing of forces and torques on the robot arm

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General notes about the series

Scope of delivery: Components for direct connection to robots from Universal Robots, assembly and operating manual with declaration of incorporation, USB stick with URcap

Gripping force: is the arithmetic sum of the individual force applied to each jaw at distance P (see illustration).

Finger length: The maximum permissible finger length applies until the nominal operating pressure is achieved. With higher pressures, the finger length must be reduced proportionally to the nominal operating pressure.

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

Actuation: Control via digital I/O

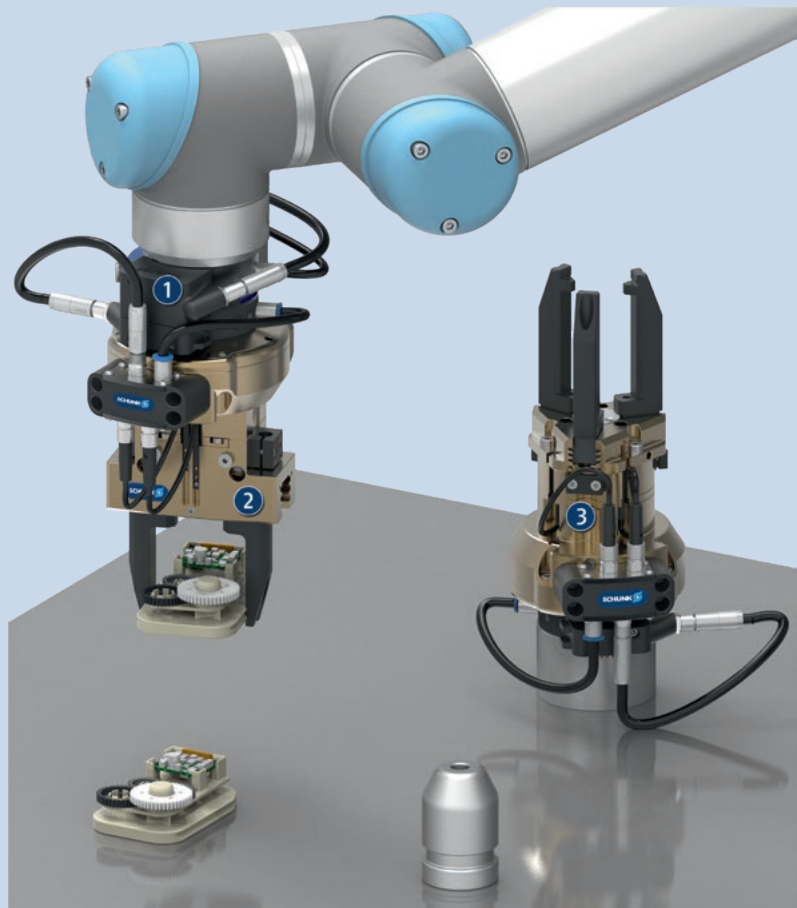
Workpiece weight: is calculated for force-fit gripping with a coefficient of static friction of 0.1 and a safety factor of 2 against workpiece slippage at acceleration due to gravity g . For form-fit or capture gripping, there are significantly higher permissible workpiece weights.

Closing and opening times: are purely the times that the base jaws or fingers are in motion. Valve switching times, hose fill times, or PLC reaction times are not included, and are to be considered when cycle times are calculated.

Application example

Pneumatic gripping units for Universal Robots for flexible handling of various workpieces. By combining change system and gripping unit, the gripper can be exchanged to suit the workpiece.

- 1 Manual change system SHS
- 2 2-finger parallel gripper PGN-plus-P
- 3 3-finger centric gripper PZN-plus



SCHUNK offers more ...

The following components make the product Plug & Work Portfolio Universal Robots even more productive – the suitable addition for the highest functionality, flexibility, reliability, and controlled production.



Universal intermediate jaw



Jaw quick-change system



Finger blank



Finger blank with jaw quick-change system



Attachment fingers

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

Options and special information

Further technical data and accessories: The products from the Plug & Work portfolio represent a selection of SCHUNK standard products that are adapted for direct use with the respective robots. Further technical data and usable accessories for the individual Plug & Work components are therefore included in the product information for the respective SCHUNK standard components.

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Technical data

Characterization		EOA-UR3510-EGL 90	EOA-UR3510-EGL 90-AUB	EOA-UR3510-EGP 40
ID		1392477	1403607	1320370
Function		Gripping	Gripping	Gripping
Robot compatibility		UR 3/5/10/16	UR 3/5/10/16	UR 3/5/10/16
Standard components		EGL 90	EGL 90	EGP 40
Stroke per jaw	[mm]	42.5	42.5	6
Max. gripping force	[N]	600	600	140
Weight	[kg]	2.13	2.63	0.7
Recommended workpiece weight	[kg]	3	3	0.7

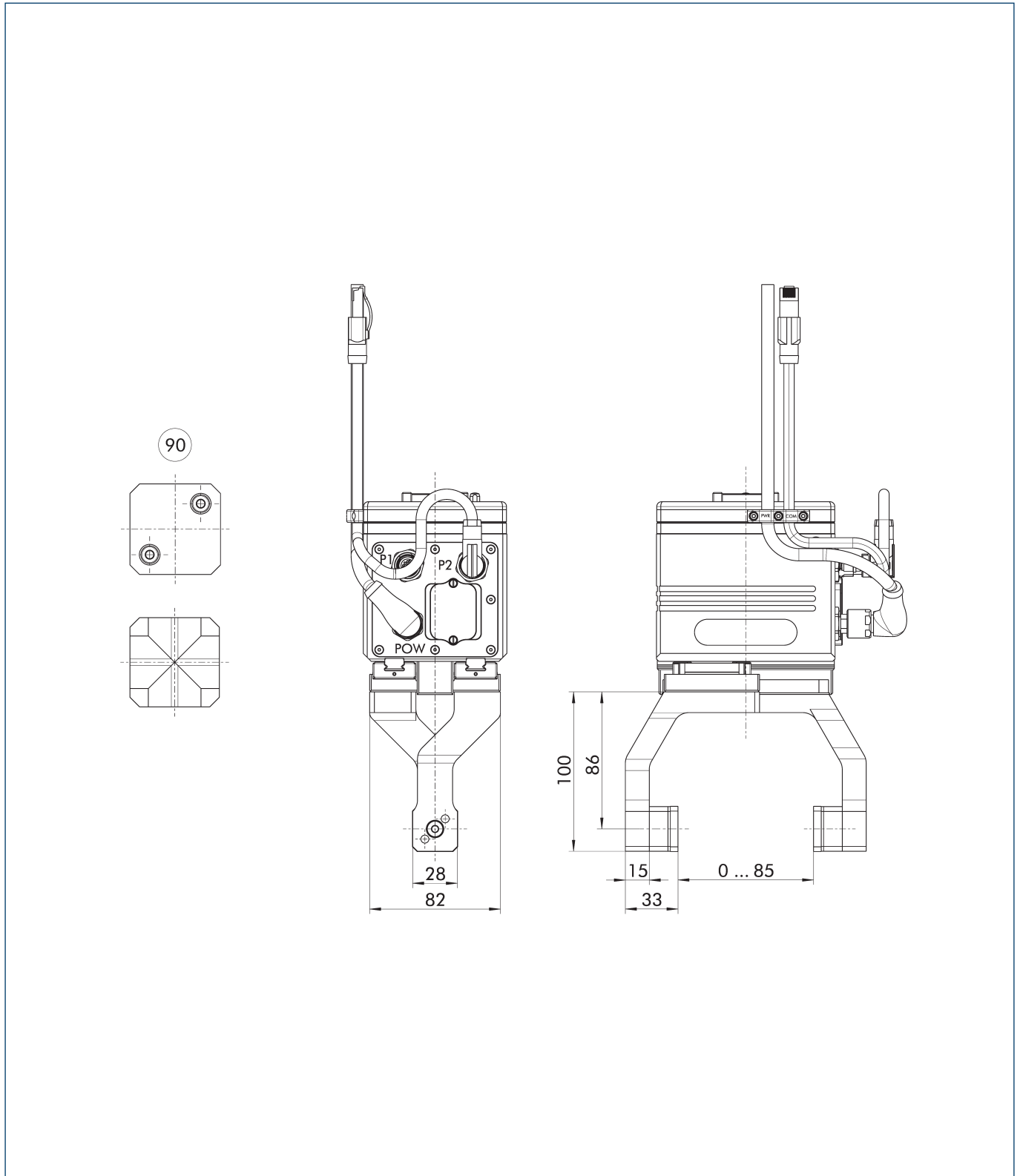
① You can find more technical values in the catalog chapter for the respective standard component.

The adapter plate ID 1355667 is required for combining the EGP 40 with a force/torque sensor, change system, or UR 16. Cable extension ID 1339964 is required when the EGP 40 is combined with the force/torque sensor.

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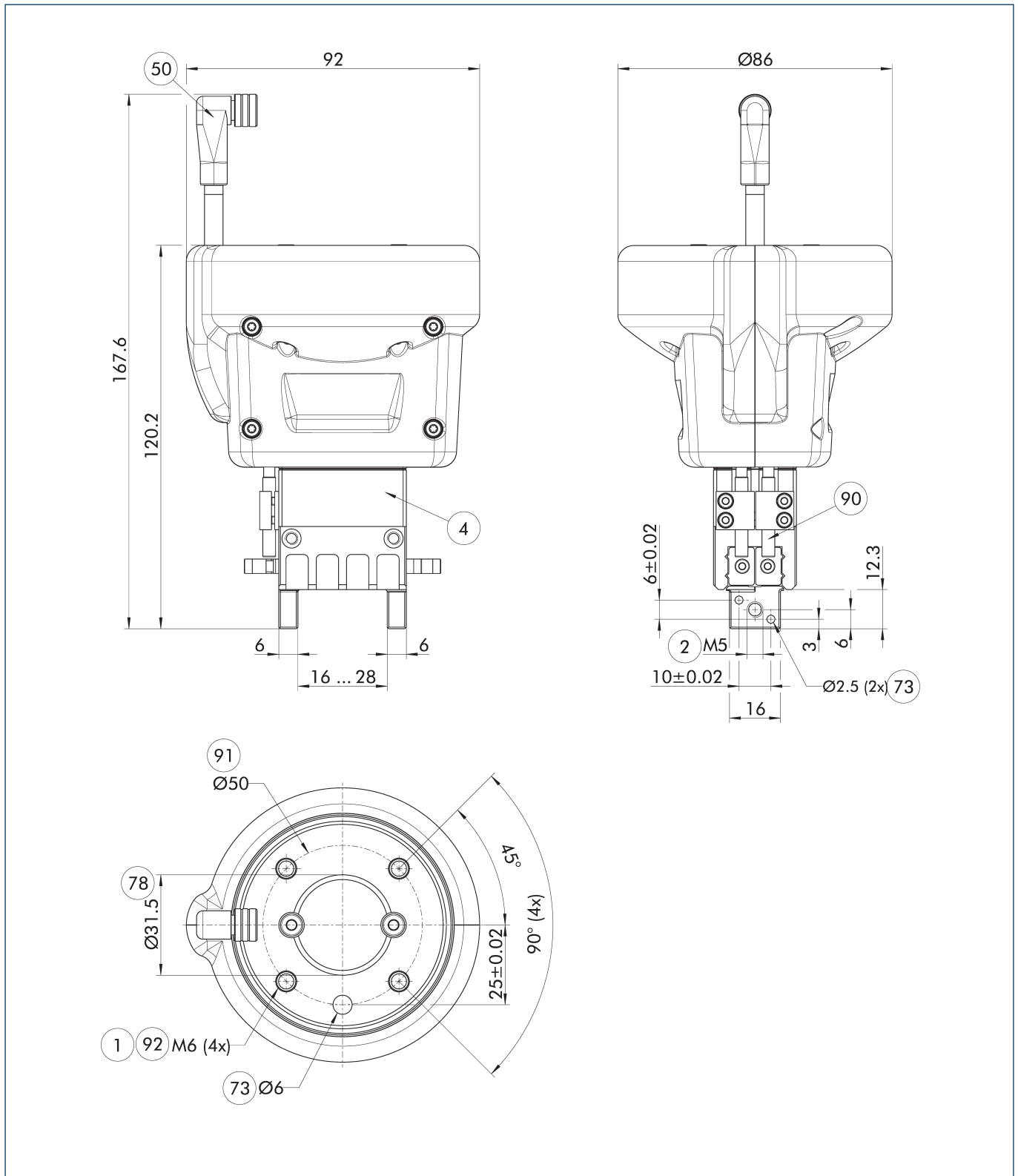
Main view EOA-UR3510-EGL 90-AUB with top jaws



The drawing shows the basic version of the gripper with top jaws.

⑨0 Finger inserts

Main view E0A-UR3510-EGP 40



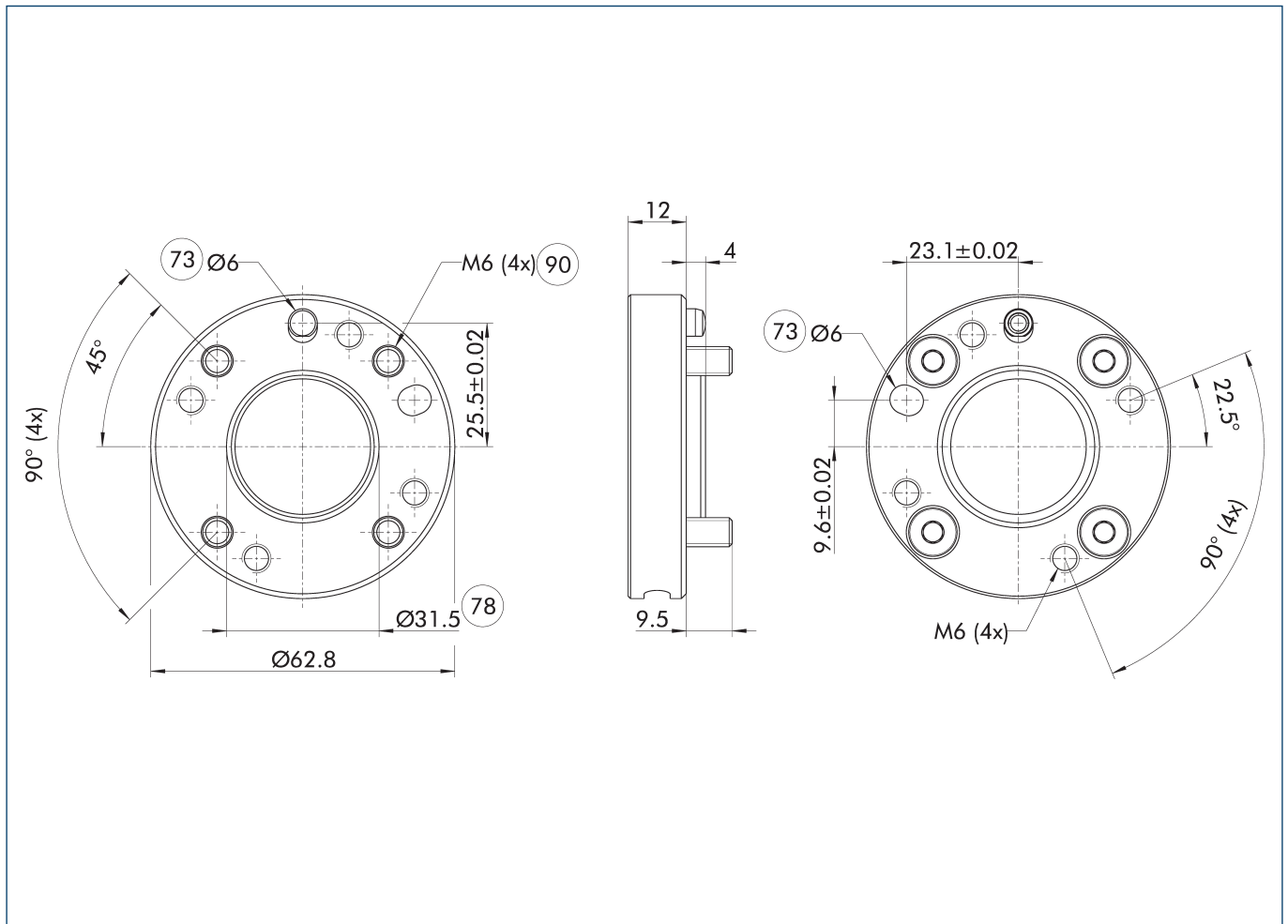
The drawing shows the basic version of the gripper without dimensional consideration of the options described below.

- | | |
|---------------------------|--|
| ① Gripper connection | ⑦⑧ Fit for centering |
| ② Finger connection | ⑨⑩ Sensor IN ... |
| ④ Grippers | ⑨① DIN ISO-9409 bolt circle |
| ⑤⑩ Electrical connection | ⑨② Through holes for screw connections |
| ⑦③ Fit for centering pins | |

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Adapter plate IS050-IS050



⑦③ Fit for centering pins

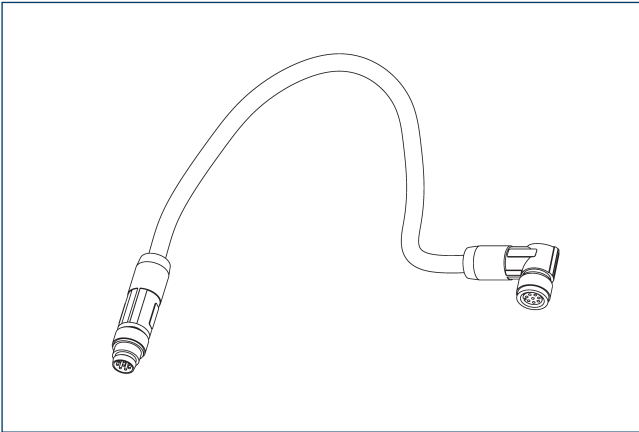
⑨① Through holes for screw connections

⑦⑧ Fit for centering

Characterization	ID
Adapter plate	
EOA-UR3510-AK0-EGP 40	1355667

① The adapter plate ID 1355667 is required for combining the EGP 40 with a force/torque sensor, change system, or UR 16. Cable extension ID 1339964 is required when the EGP 40 is combined with the force/torque sensor.

Cable extension



Characterization	ID	
Cable extension		
KV SG08 BW08 8P 0,3m	1339964	

- ① For the Co-act EGP-C-URID combined with force/moment sensor, cable extension ID 1339964 is required. For the EGP 40 combined with force/moment-sensor, adapter plate ID 1355667 and cable extension ID 1339964 are required.

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J. Lehmann

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