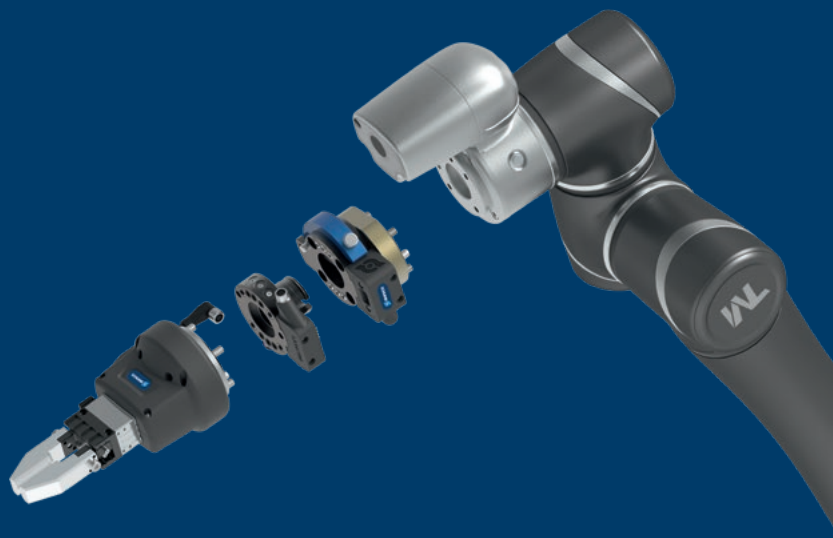




Superior Clamping and Gripping



Product Information

Plug & Work Portfolio Techman Robot

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Plug & Work Portfolio Techman Robot

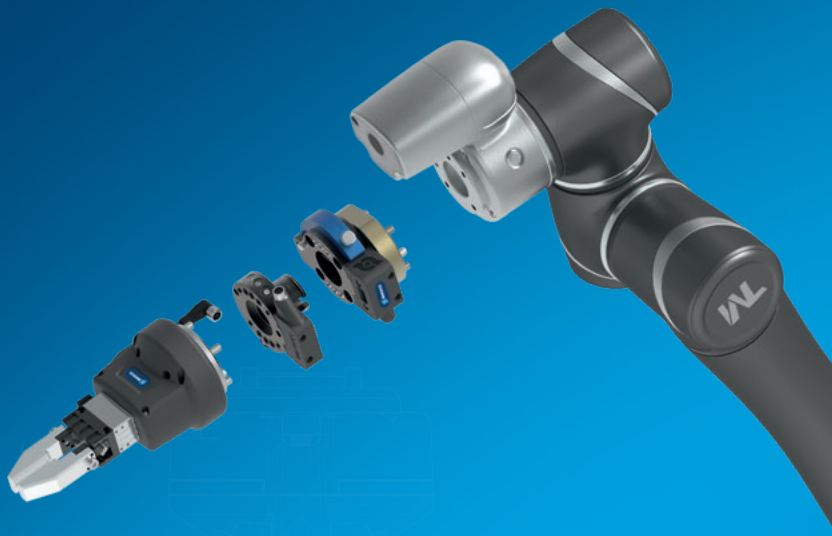
Modular. Flexible. Easy.

Plug & Work Portfolio Techman Robot

The Plug & Work portfolio consists of electrically and pneumatically actuated grippers, as well as quick-change modules that are specifically adapted to robot arms from Techman Robot.

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 of Techman Robot

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

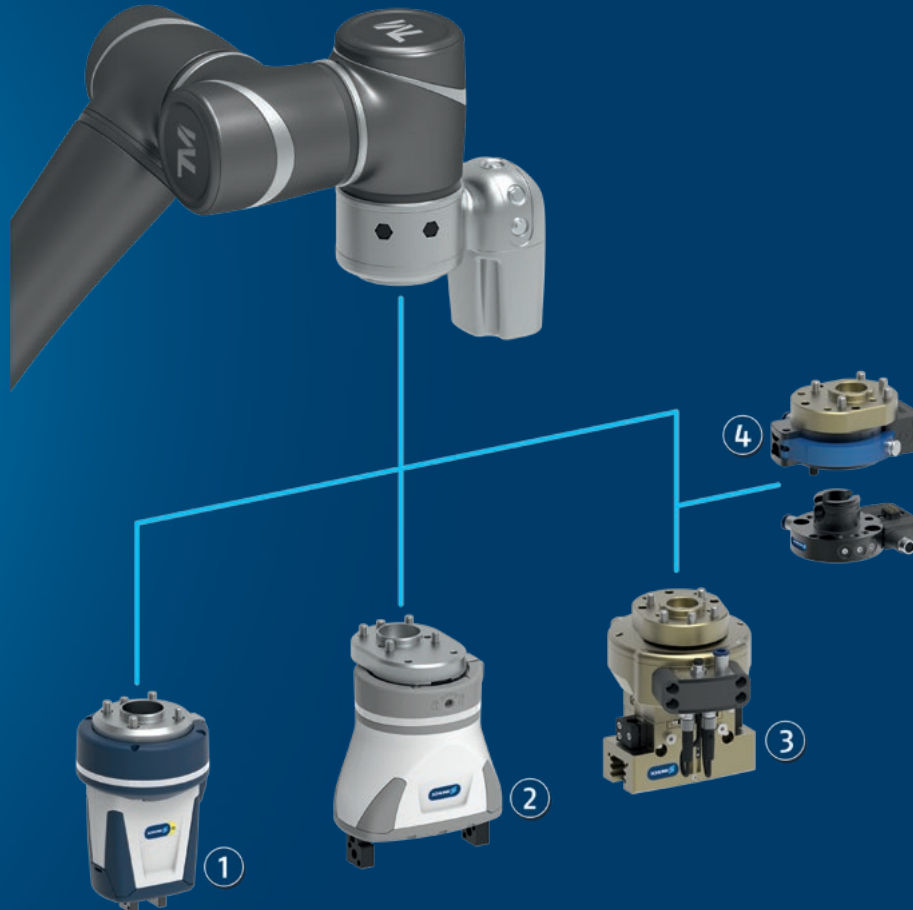
Electric grippers with a long adjustable stroke and force range for flexible workpiece handling

Pneumatic grippers For a high power density and simple integration

Functional description

All the Plug & Work components are ready for use for mechanical and electrical direct connection to the TM robot sizes 5, 12, and 14. Depending on the 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

General notes about the series

Scope of delivery: Components for direct connection to robots of Techman Robot, USB stick with TM Flow components, assembly and operating manual with declaration of incorporation

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

Robots equipped with electric and pneumatic gripping units from the Plug & Work portfolio for Techman Robot for flexible handling of different workpieces. By combining a changing system and gripping unit, the gripper can be exchanged to suit the workpiece.

- ❶ Manual change system SHS
- ❷ Electric 2-finger parallel gripper EGP
- ❸ 3-finger centric gripper PZN-plus



SCHUNK offers more ...

The following components make the product Plug & Work Portfolio Techman Robot 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

① For more information on these products can be found on the following product pages or at [schunk.com](https://www.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.

Plug & Work Portfolio Techman Robot – Collaborative Gripping

Plug & Work Portfolio Techman Robot

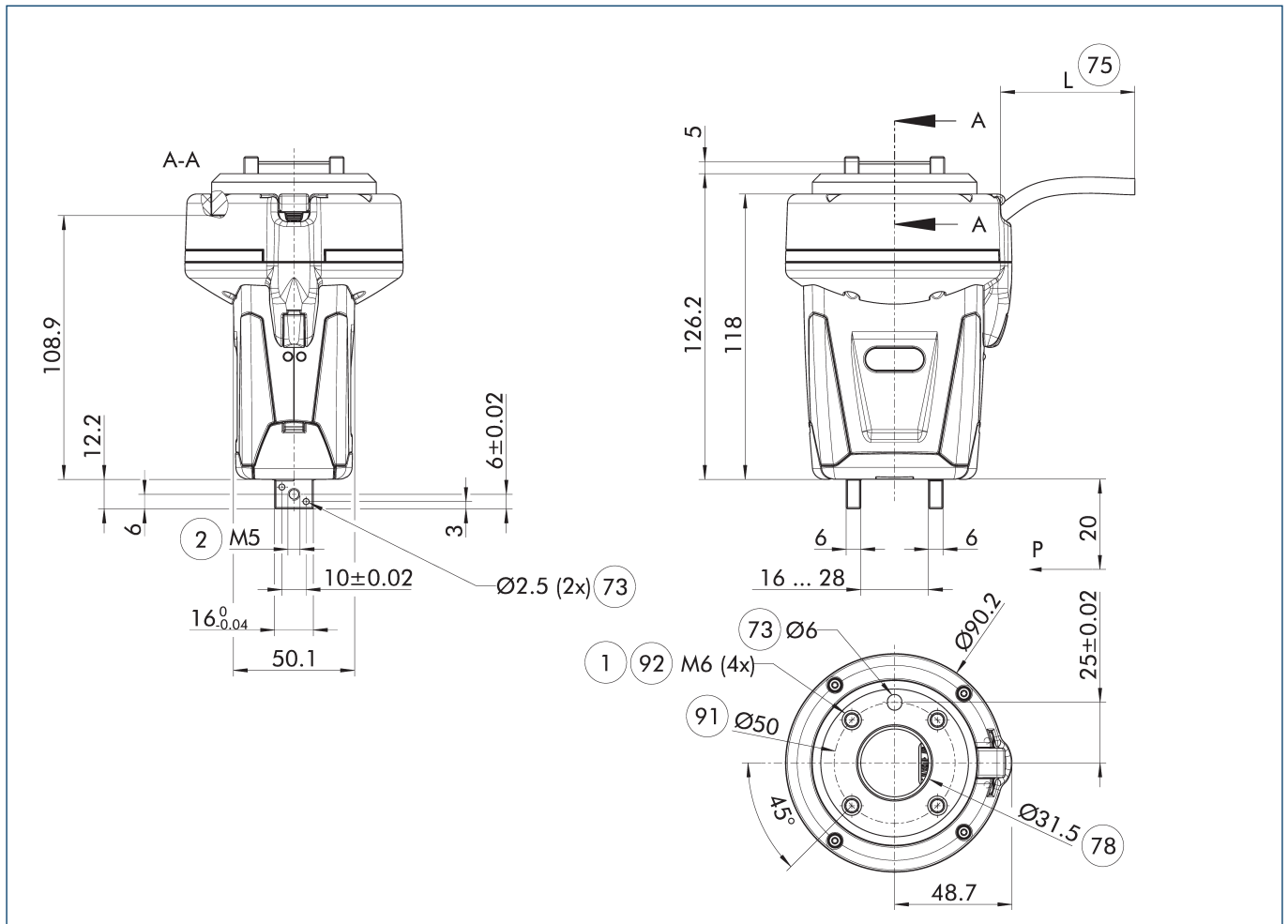


Technical data

Description		Co-act EGP-C 40-N-N-TMEK	Co-act EGP-C 40-N-N-TMID	Co-act EGP-C 64-N-N-TMEK
ID		1375931	1374363	1400578
Function		Gripping	Gripping	Gripping
Robot compatibility		Techman Robot TM5/TM12/TM14	Techman Robot TM5/TM12/TM14	Techman Robot TM5/TM12/TM14
Standard components		Co-act EGP-C 40-N-N-TMEK	Co-act EGP-C 40-N-N-TMID	Co-act EGP-C 64-N-N-TMEK
LED strip light		integrated		integrated
Stroke per jaw	[mm]	6	6	10
Max. gripping force	[N]	140	140	230
Weight	[kg]	0.6	0.86	1.38
Recommended workpiece weight	[kg]	0.7	0.7	1.15
Cable length	[mm]	4000	210	4000

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

Main view Co-act EGP-C 40-N-N-TMEK



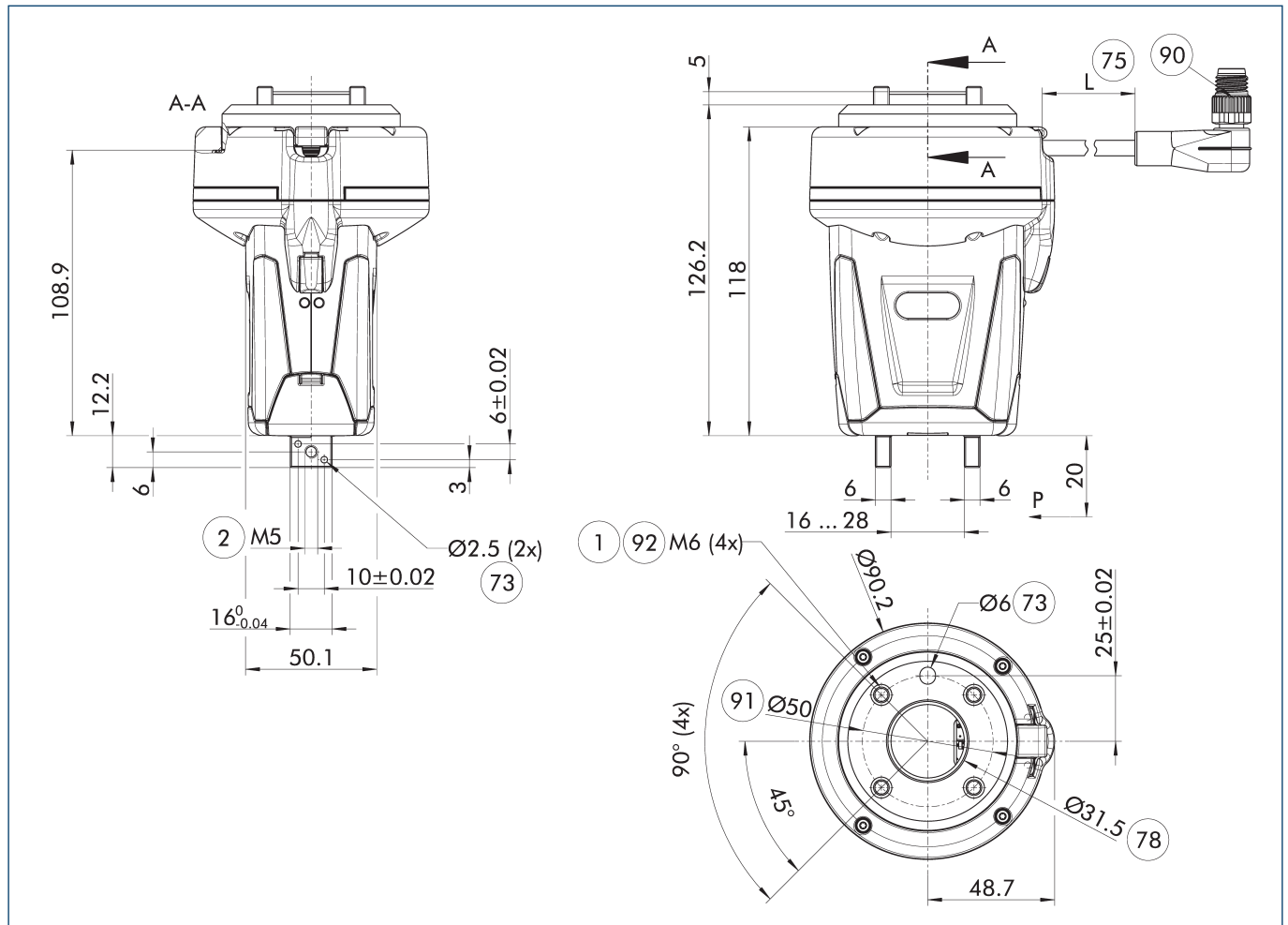
The drawing shows the basic version of the gripper with open jaws.

- | | |
|---------------------------|--|
| ① Gripper connection | ⑦⑧ Fit for centering |
| ② Finger connection | ⑨① DIN ISO-9409 bolt circle |
| ⑦③ Fit for centering pins | ⑨② Through holes for screw connections |
| ⑦⑤ Cable length | |

Plug & Work Portfolio Techman Robot – Collaborative Gripping

Plug & Work Portfolio Techman Robot

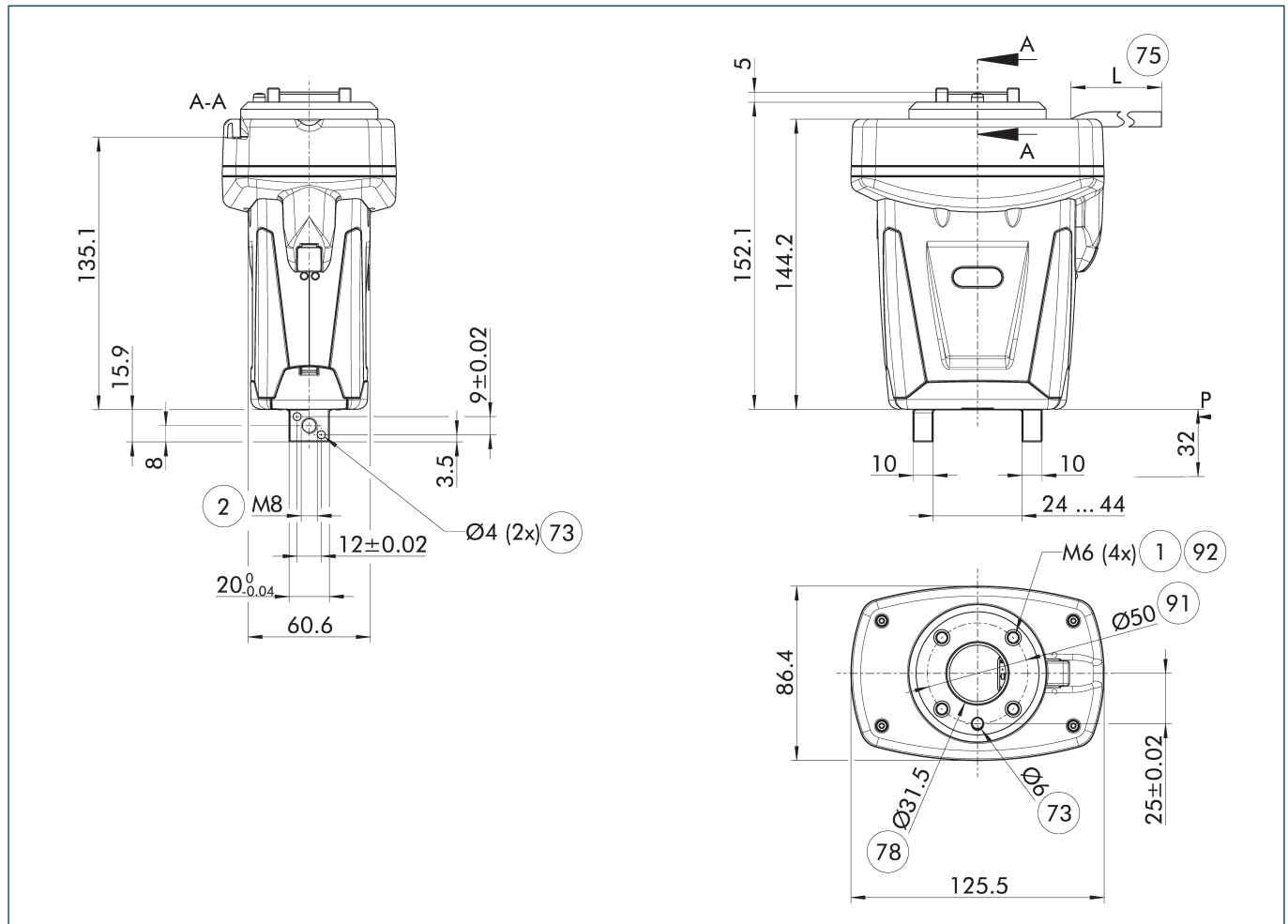
Main view Co-act EGP-C 40-N-N-TMID



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

- | | |
|---------------------------|--|
| ① Gripper connection | ⑦⑧ Fit for centering |
| ② Finger connection | ⑨⑩ M8 connector, 8-pin |
| ⑦③ Fit for centering pins | ⑨① DIN ISO-9409 bolt circle |
| ⑦⑤ Cable length | ⑨② Through holes for screw connections |

Main view Co-act EGP-C 64-N-N-TMEK



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

- | | |
|---------------------------|--|
| ① Gripper connection | ⑦⑧ Fit for centering |
| ② Finger connection | ⑨① DIN ISO-9409 bolt circle |
| ⑦③ Fit for centering pins | ⑨② Through holes for screw connections |
| ⑦⑤ Cable length | |

Plug & Work Portfolio Techman Robot – Electric Gripping

Plug & Work Portfolio Techman Robot

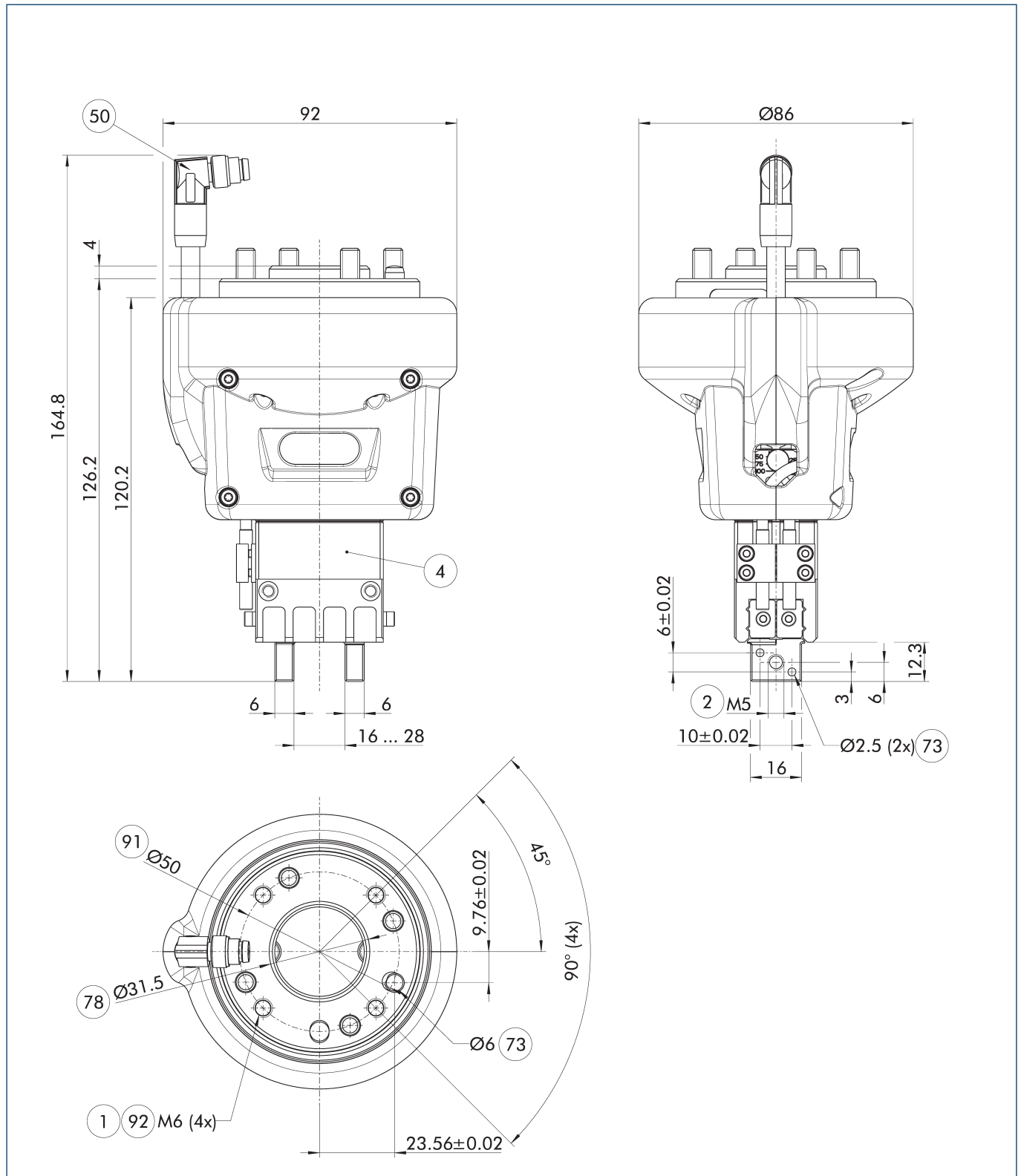


Technical data

Description		EOA-TM51214-EGP 40	EGH 80-IOL-N-TMEK Starter
ID		1399651	1437237
Function		Gripping	Gripping
Robot compatibility		Techman Robot TM5/TM12/TM14	Techman Robot TM5/TM12/TM14
Standard components		EGP 40	EGH 80
LED strip light			integrated
Stroke per jaw	[mm]	6	40
Max. gripping force	[N]	140	100
Weight	[kg]	0.8	1.06
Recommended workpiece weight	[kg]	0.7	0.5

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

Main view E0A-TM51214-EGP 40



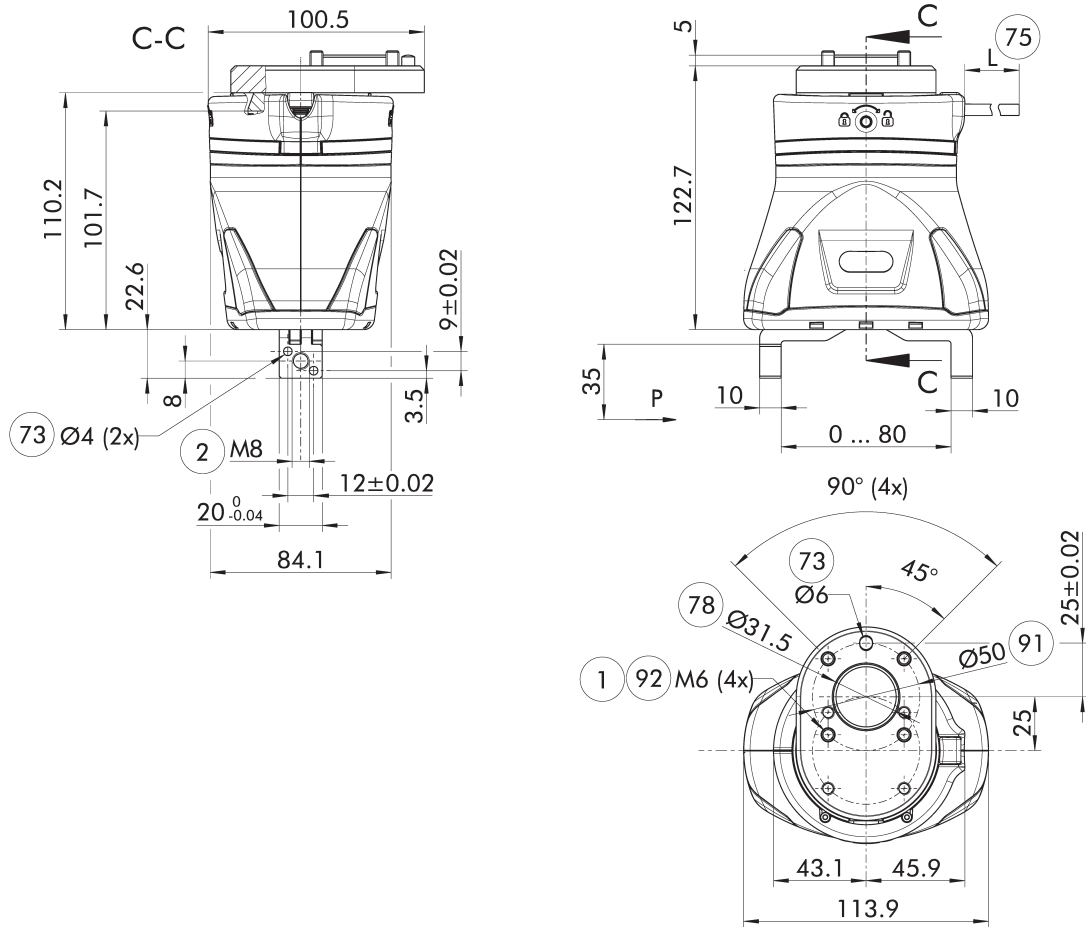
The drawing shows the basic version of the gripper without dimensional consideration of the options described below.

- | | |
|---------------------------|--|
| 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 | |

Plug & Work Portfolio Techman Robot – Electric Gripping

Plug & Work Portfolio Techman Robot

Main view EGH 80-IOL-N-TMEK starter



The drawing shows the basic version of the gripper with open jaws, without dimensional consideration of the options described below.

- | | |
|---------------------------|--|
| ① Gripper connection | ⑦⑧ Fit for centering |
| ② Finger connection | ⑨① DIN ISO-9409 bolt circle |
| ⑦③ Fit for centering pins | ⑨② Through holes for screw connections |
| ⑦⑤ Cable length | |

Plug & Work Portfolio Techman Robot – Pneumatic Gripping

Plug & Work Portfolio Techman Robot



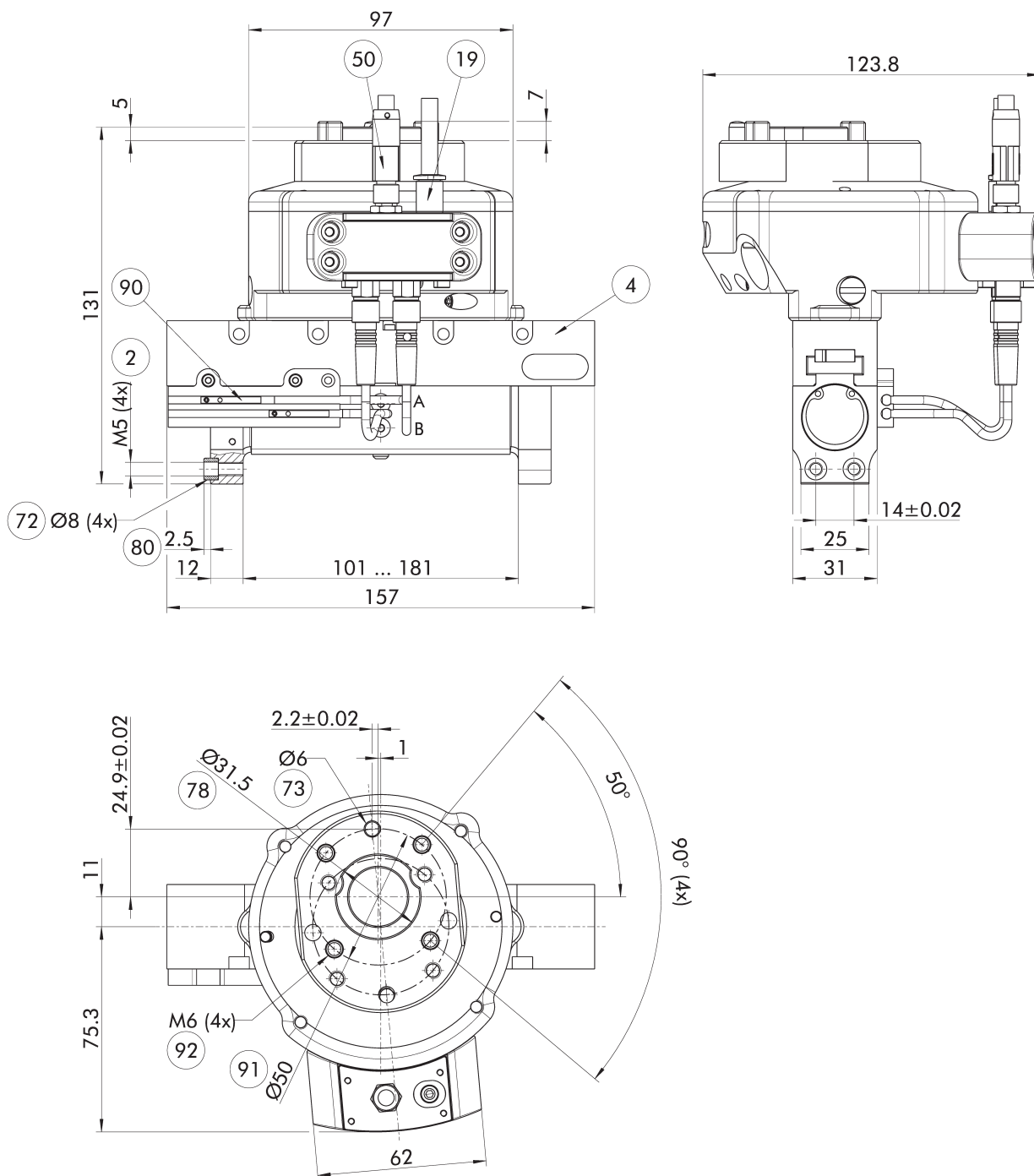
Technical data

Description		EOA-TM51214-KGG 100-80	EOA-TM51214-PSH 22-1	EOA-TM51214-JGP 80-1	EOA-TM51214-JGP 100-1	EOA-TM51214-PGN-plus-P 80-1	EOA-TM51214-PGN-plus-P 100-1
ID		1399641	1399640	1399647	1399646	1399645	1399644
Function		Gripping	Gripping	Gripping	Gripping	Gripping	Gripping
Robot compatibility		Techman Robot TM5/TM12/TM14	Techman Robot TM5/TM12/TM14	Techman Robot TM5/TM12/TM14	Techman Robot TM5/TM12/TM14	Techman Robot TM5/TM12/TM14	Techman Robot TM5/TM12/TM14
Standard components		KGG 100-80	PSH 22-1	JGP 80-1	JGP 100-1	PGN-plus-P 80-1	PGN-plus-P 100-1
Stroke per jaw	[mm]	40	28	8	10	8	10
Max. gripping force	[N]	175	320	415	660	550	870
Weight	[kg]	1.43	1.94	1.49	1.9	1.53	2
Recommended workpiece weight	[kg]	0.9	1.6	2.1	3.3	2.75	4.35

Description		EOA-TM51214-PZN-plus 64-1
ID		1399643
Function		Gripping
Robot compatibility		Techman Robot TM5/TM12/TM14
Standard components		PZN-plus 64-1
Stroke per jaw	[mm]	6
Max. gripping force	[N]	580
Weight	[kg]	1.37
Recommended workpiece weight	[kg]	2.9

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

Main view E0A-TM51214-KGG 100-80



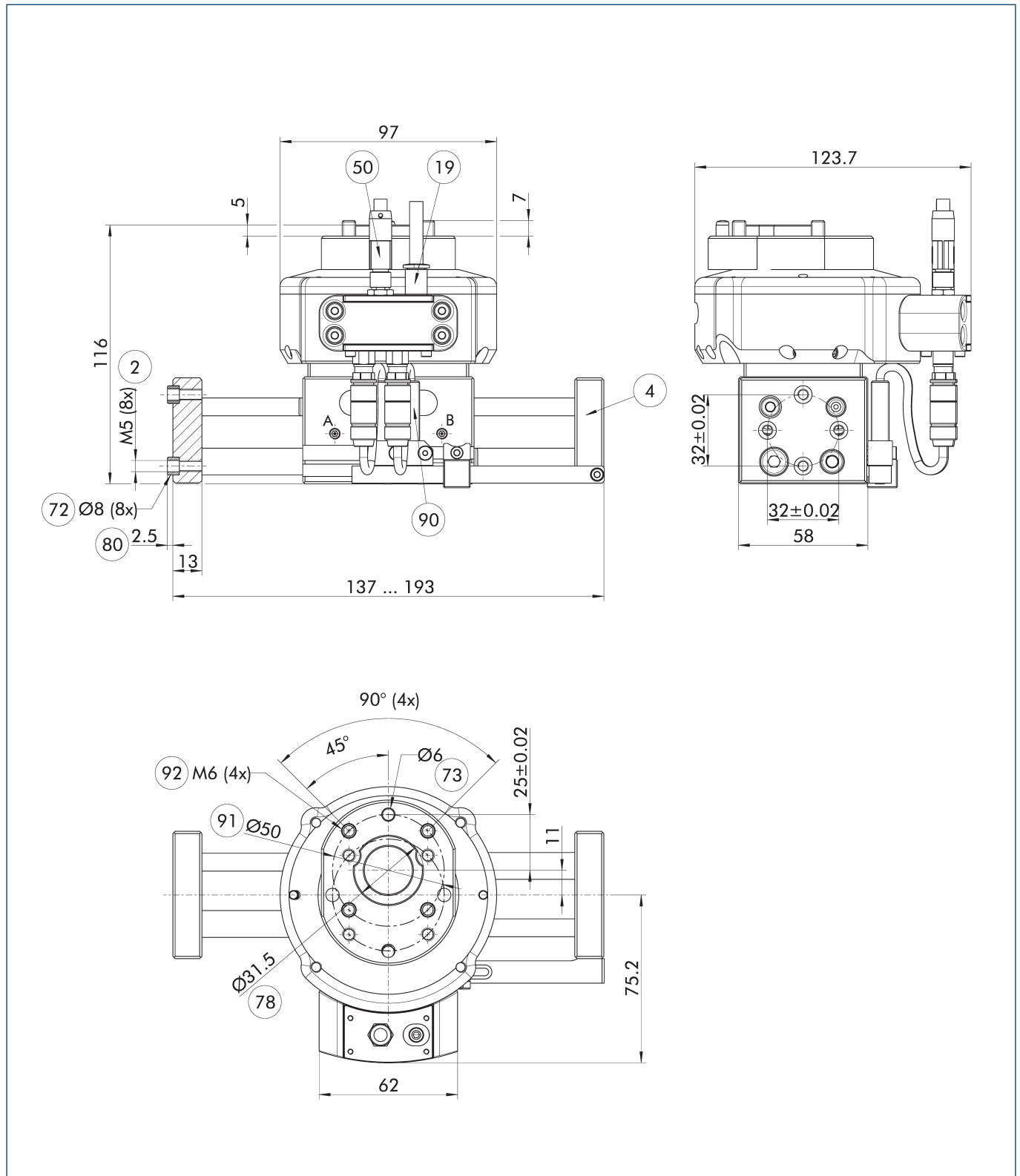
The drawing shows the basic version of the gripper without dimensional consideration of the options described below.

- | | |
|------------------------------|---|
| ② Finger connection | ⑦⑧ Fit for centering |
| ④ Grippers | ⑧⑩ Depth of the centering sleeve hole in the counter part |
| ①⑨ Air connection | ⑨⑩ Sensor MMS 22.. |
| ⑤⑩ Electrical connection | ⑨① DIN ISO-9409 bolt circle |
| ⑦② Fit for centering sleeves | ⑨② Through holes for screw connections |
| ⑦③ Fit for centering pins | |

Plug & Work Portfolio Techman Robot – Pneumatic Gripping

Plug & Work Portfolio Techman Robot

Main view E0A-TM51214-PSH 22-1



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

- | | |
|------------------------------|---|
| ② Finger connection | ⑦⑧ Fit for centering |
| ④ Grippers | ⑧⑩ Depth of the centering sleeve hole in the counter part |
| ①⑨ Air connection | ⑨⑩ Sensor MMS 22.. |
| ⑤⑩ Electrical connection | ⑨① DIN ISO-9409 bolt circle |
| ⑦② Fit for centering sleeves | ⑨② Through holes for screw connections |
| ⑦③ Fit for centering pins | |

Plug & Work Portfolio Techman Robot

Technical drawing of the JGP 80/1 26 valve, showing three views: top, side, and front.

Top View:

- Dimensions: 16 ± 0.02 , 16 ± 0.02 , 14.4 , 26.8 .
- Labels: JGP 80/1 26, JGP 80/1 37 ... 53.

Side View:

- Dimensions: 128 , 10 , 5 , 7 , 80 , 2.5 .
- Labels: 50, 19, 90, 4, 72, $\varnothing 8$ (4x), M5 (4x) 2, 80.

Front View:

- Dimensions: 24.1 ± 0.02 , 75.9 , 62 , 10.6 , 60° , 90° (4x).
- Labels: 73, $\varnothing 6$, 78, $\varnothing 31.5$, M6 (4x), 92, 91, $\varnothing 50$.

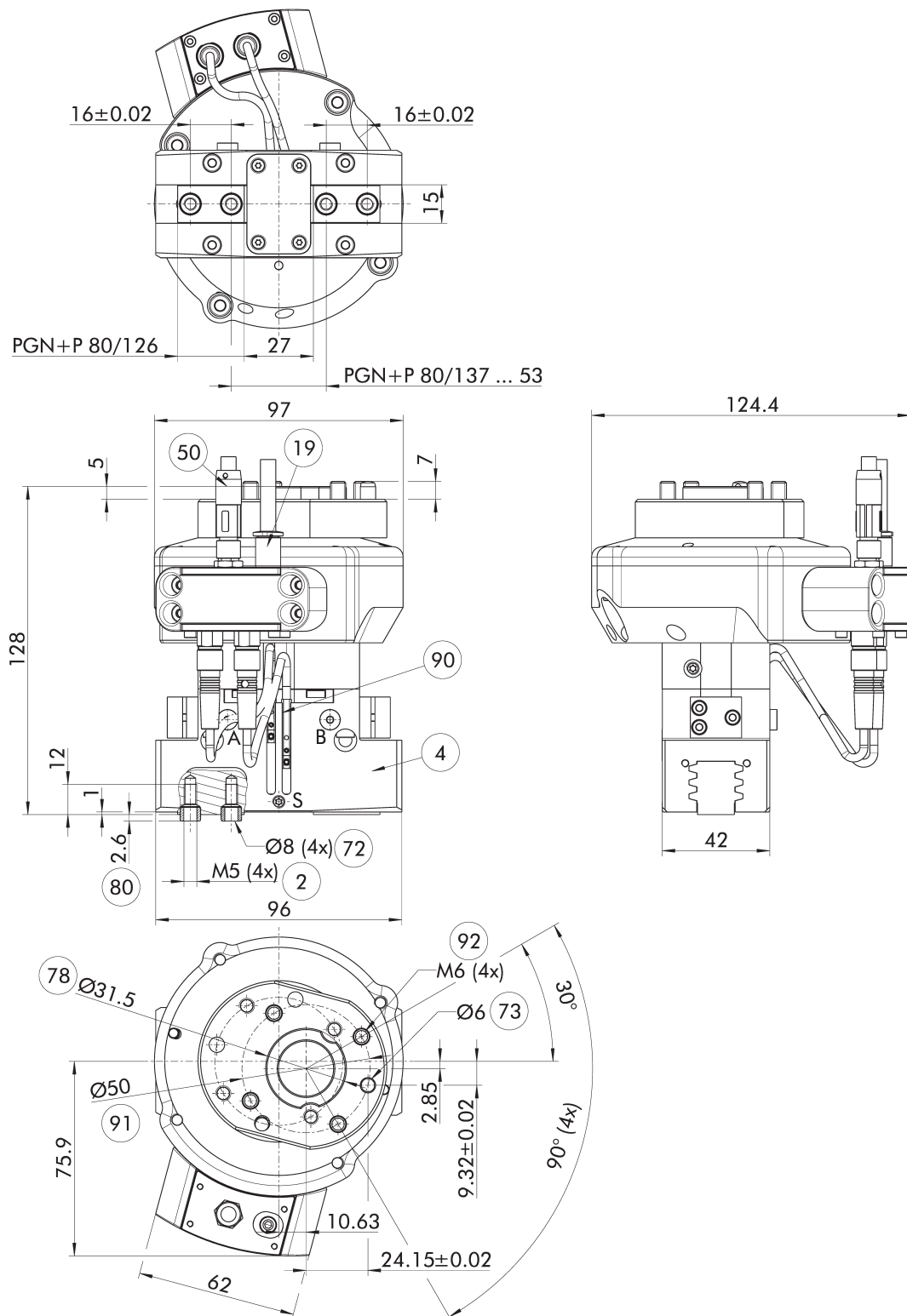
② Finger connection	⑦⑧ Fit for centering
④ Grippers	⑧⑩ Depth of the centering sleeve hole in the counter part
①⑨ Air connection	⑨⑩ Sensor MMS 22..
⑤⑩ Electrical connection	⑨① DIN ISO-9409 bolt circle
⑦② Fit for centering sleeves	⑨② Through holes for screw connections
⑦③ Fit for centering pins	

Plug & Work Portfolio Techman Robot

[illegible]

② Finger connection	⑦⑧ Fit for centering
④ Grippers	⑧⑩ Depth of the centering sleeve
⑬ Air connection	hole in the counter part
⑤⑩ Electrical connection	⑨⑩ Sensor MMS 22..
⑦② Fit for centering sleeves	⑨① DIN ISO-9409 bolt circle
⑦③ Fit for centering pins	⑨② Through holes for screw connections

Main view E0A-TM51214-PGN-plus-P 80-1



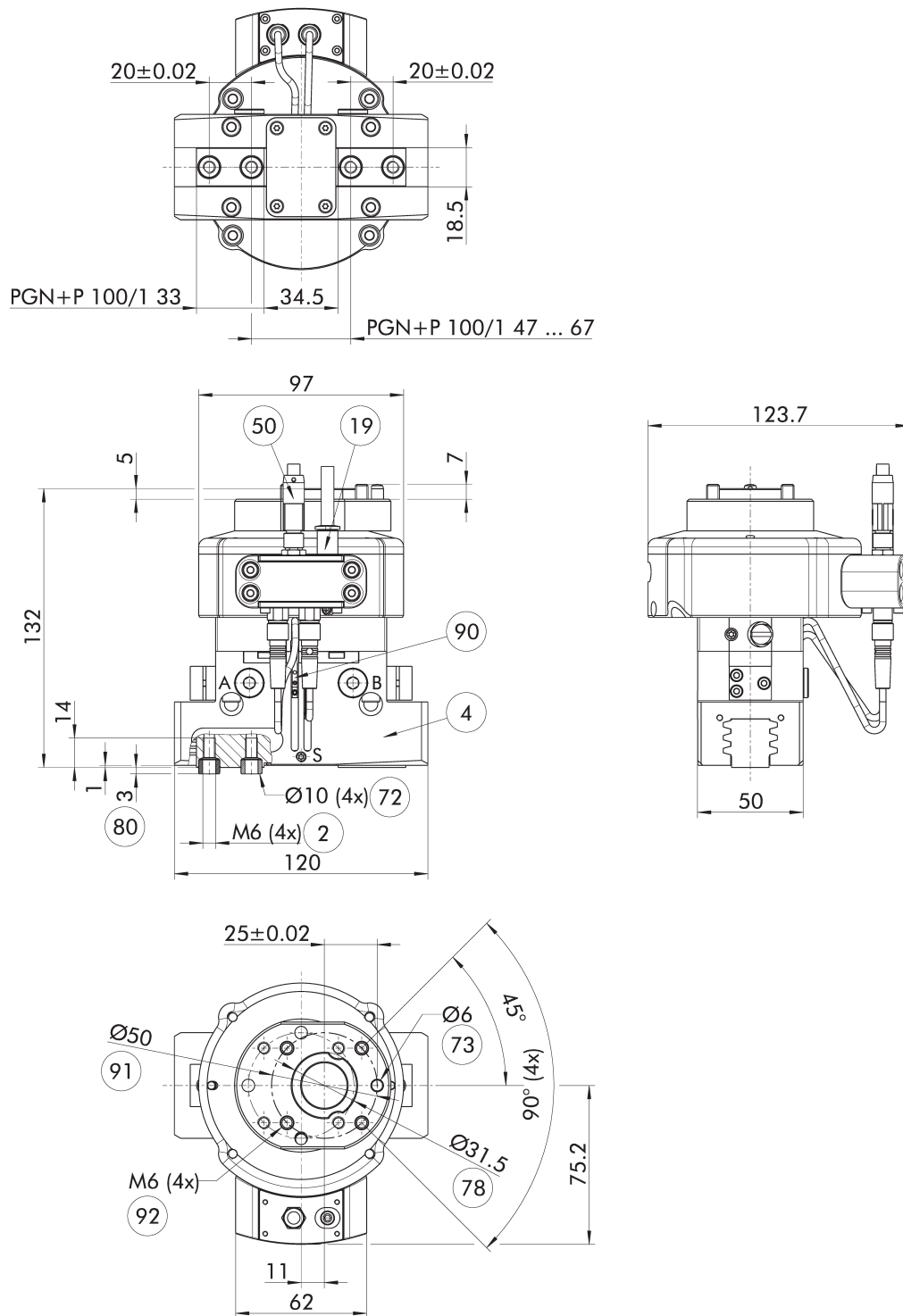
The drawing shows the basic version of the gripper without dimensional consideration of the options described below.

- | | |
|------------------------------|---|
| ② Finger connection | ⑧⑩ Depth of the centering sleeve hole in the counter part |
| ④ Grippers | ⑨⑩ Sensor MMS 22.. |
| ①⑨ Air connection | ⑨① DIN ISO-9409 bolt circle |
| ⑤⑩ Electrical connection | ⑨② Through holes for screw connections |
| ⑦② Fit for centering sleeves | |
| ⑦③ Fit for centering pins | |

Plug & Work Portfolio Techman Robot – Pneumatic Gripping

Plug & Work Portfolio Techman Robot

Main view EOA-TM51214-PGN-plus-P 100-1



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

- | | |
|------------------------------|---|
| ② Finger connection | ⑦⑧ Fit for centering |
| ④ Grippers | ⑧⑩ Depth of the centering sleeve hole in the counter part |
| ①⑨ Air connection | ⑨⑩ Sensor MMS 22.. |
| ⑤⑩ Electrical connection | ⑨① DIN ISO-9409 bolt circle |
| ⑦② Fit for centering sleeves | ⑨② Through holes for screw connections |
| ⑦③ Fit for centering pins | |

Plug & Work Portfolio Techman Robot

Technical drawing of the PZN 64/1 gripper, showing three views: top, front, and side. The drawing includes detailed dimensions and callouts for various components.

Top View Dimensions:

- Overall width: 17.5 ... 23.5
- Overall height: 34.5 ... 40.5
- Distance from top edge to center: 13 ± 0.02
- Distance from center to bottom edge: 12.5

Front View Dimensions:

- Overall width: 101.5
- Overall height: 124.3
- Distance from top edge to center: 5
- Distance from center to bottom edge: 7

Side View Dimensions:

- Overall width: 124.9
- Distance from top edge to center: 10
- Distance from center to bottom edge: 1
- Distance from bottom edge to center: 2.5

Callouts and Details:

- 90:** Cable connector
- 19:** Cable
- 50:** Cable
- 10.3:** Cable
- 23.5 ± 0.02:** Cable
- Ø6 (6x) 72:** Cable
- M4 (6x) 2:** Cable
- Ø50:** Cable
- 91:** Cable
- 78:** Cable
- 92:** Cable
- 73:** Cable
- Ø6:** Cable
- 3.8:** Cable
- 8.6 ± 0.02:** Cable
- 65°:** Cable
- 90° (4x):** Cable
- 62:** Cable
- 76.4:** Cable
- 4:** Cable
- B:** Cable
- A:** Cable

② Finger connection	⑦⑧ Fit for centering
④ Grippers	⑧⑩ Depth of the centering sleeve
⑬ Air connection	hole in the counter part
⑤⑩ Electrical connection	⑨⑩ Sensor MMS 22..
⑦② Fit for centering sleeves	⑨① DIN ISO-9409 bolt circle
⑦③ Fit for centering pins	⑨② Through holes for screw
	connections

Plug & Work Portfolio Techman Robot – Changing

Plug & Work Portfolio Techman Robot

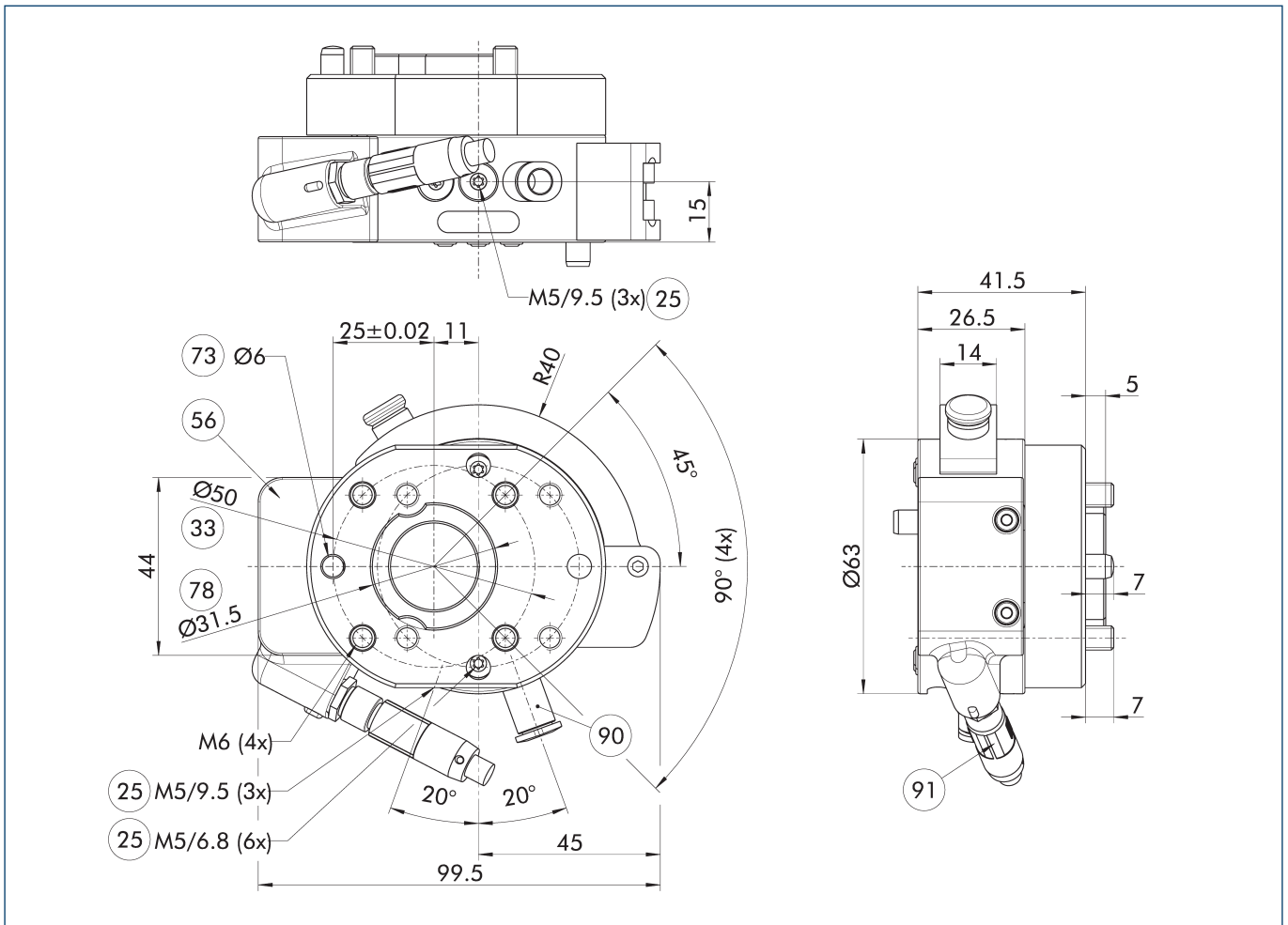


Technical data

Description		EOA-TM51214-SHK-050-E08-000	EOA-TM51214-SHA-050-E08-000
ID		1399638	1399639
Function		Changing	Changing
Robot compatibility		Techman Robot TM5/TM12/TM14	Techman Robot TM5/TM12/TM14
Standard components		SHS 50	SHS 50
Weight	[kg]	0.5	0.14
Recommended workpiece weight	[kg]	11	11
Max. dynamic bending moment M_x / M_y	[Nm]	75	75
Max. dynamic bending moment M_z	[Nm]	135	135

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

Main view E0A-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 |

Plug & Work Portfolio Techman Robot

[illegible]

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

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