



Superior Clamping and Gripping



Product Information

Collaborating gripper for small components Co-act EGP-C 40

Co-act EGP-C

Collaborating gripper for small components

Collaborative. Powerful. Certified.

Co-act EGP-C gripper

Electric 2-finger parallel gripper certified for collaborative operation with actuation via 24 V and digital I/O

Field of application

Gripping and moving small and medium-sized workpieces with flexible force in collaborative operation in the areas of assembly, electronics and machine tool loading.

Advantages – Your benefits

Certified gripping unit saves effort for safety assessment of the application

Plug & Work for a variety of different cobots

Control via digital I/O for easy commissioning and rapid integration into existing systems.

Functional safety ensured due to inherent safety with current limitation

Pre-assembled gripping unit with robot interface for a easy and fast integration

Integrated status display For a visual indicator of the application state

Service flaps in the collision protection cover fitted to adjust the gripping force and the sensor system

Brushless DC servomotor for almost wear-free use and a long service life

Attachment fingers available with three different inserts



Sizes
Quantity: 2



Weight
0.59 .. 1.38 kg



Gripping force
140 .. 230 N



Stroke per jaw
6 .. 10 mm



Workpiece weight
0.7 .. 1.15 kg

Functional description

The Co-act EGP-C gripper is electrically driven and has an integrated current limitation and collision protective cover. The current limitation ensures that the gripping force does not exceed a defined value. The collision

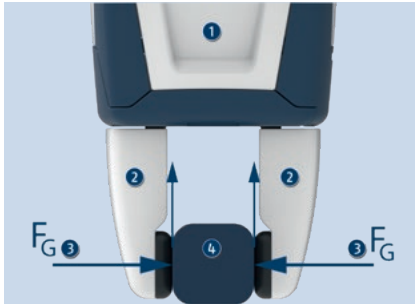
protective cover serves for minimizing the risk of injury during the use in collaborative operations.



- ① **Collision protection**
- ② **Gripper for small components EGP**
- ③ **Flange**
with integrated electronics and cabling
- ④ **LED strip light**
for status display
- ⑤ **Integrated sensor system**
to monitor the jaw position
- ⑥ **Service flap sensor system**
for adjusting the sensor system
- ⑦ **Service flap gripping force**
for adjusting the gripping force

Detailed functional description

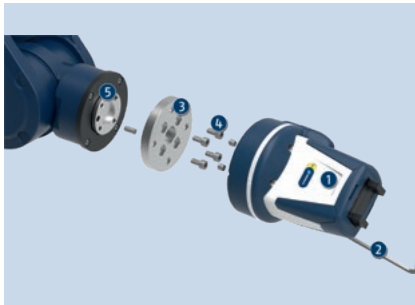
Observation of the gripping force in collaborative operation



The "gripping force" specification in the catalog refers to the arithmetic sum of the forces acting on each jaw individually at distance P (see illustration). For evaluation of the biomechanical limit values in accordance with ISO/TS 15066, only the gripping force acting on each gripper jaw must be used. Furthermore, the information in the operating manual is referred to.

- ① Co-act EGP-C gripper
- ② Gripper jaws (customized)
- ③ Gripping force applied to each gripper jaw
- ④ Workpiece

Simple assembly of the Co-act EGP-C



The Co-act EGP-C gripper was developed for simple assembly on collaborative robots (cobots). During assembly, the enclosed adapter plate has to be fastened with the supplied fastening material to the flange of the cobot. Subsequently, the gripper can be fastened with the enclosed hexagon socket wrench to the adapter flange. Finally, the electric connection (not version KETI) must be established.

- ① Co-act EGP-C gripper
- ② Hexagon socket wrench
- ③ Adapter flange
- ④ Mounting material
- ⑤ Flange of the cobot

Simple plug & work on several cobots



The standard Co-act gripper EGP-C is available for a wide range of collaborative robots (cobots) from a variety of manufacturers including KUKA, Universal Robots and FANUC. The gripper has been pre-configured in a way that it can be mounted directly electrically and mechanically onto the cobots. Depending on the manufacturer, different versions are also available depending on the flange version.

- ① Co-act-EGP-C gripper to KUKA LBR iiwa
- ② Co-act EGP-C gripper to FANUC CR-7iA
- ③ Co-act EGP-C grippers to UR

Co-act EGP-C for Universal Robots



For the robots of the manufacturers Universal Robots and Techman Robot, two variants of the Co-act EGP-C gripper are available. The variants -URID or -TMID use the tool interface of the robot for feed-through of the signals to the robot control system. However, this variant does not have a light band. The light band including the free actuation cannot be used for the variant with external cable routing.

- ① Co-act EGP-C to UR using the tool interface (version-URID)
- ② Co-act EGP-C to UR with external cable routing (version-UREK)

Ordering example Co-act EGP-C

	Co-act	EGP	-	C	-	40	-	N	-	N	-	KTOE
Co-act = Collaborative actuator												
Electric Small Parts Gripper EGP												
C = DGUV-certified unit												
Size												
40												
64												
N = not used												
N = not used												
Robot and flange interface												
FCR7 = FANUC CR-7 iA connection via EE interface												
KTOE = KUKA LBR iiwa Media flange touch, electrically												
URID = Universal Robots/with feed-through (electr. tool interface)												
UREK = Universal Robots/external cabling												
TMID = TM with feed-through (electr. tool interface)												
TMEK = TM external cabling												
M1013 = Doosan Robotics												
FCRXID = FANUC CRX 10-iA, CRX 10-iA/L with feed-through (electr. tool interface)												
FCRXEK = FANUC CRX 10-iA, CRX 10-iA/L external cabling												
ASSISTA = Mitsubishi MELFA ASSISTA with feed-through (electr. tool interface)												
GoFa = ABB GoFa (CRB 15000)												

Co-act EGP-C

Collaborating gripper for small components

General notes about the series

Operating principle: Rack and pinion principle

Housing material: Polyamide with glass fiber additive

Base jaw material: Steel

Actuation: servo-electric, via brushless DC servomotor

Warranty: see assembly and operating manual

Scope of delivery: Accessory pack with adapter flange, mounting material and hexagon socket wrench, assembly and operating manual with declaration of conformity and incorporation, safety information

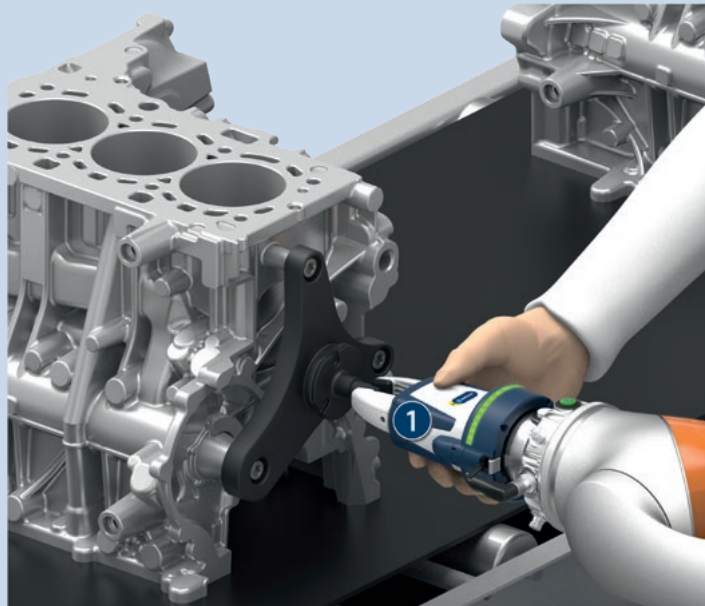
Gripping force: is the arithmetic total of the gripping force applied to each gripper jaw at distance P (see illustration). For more information, see the detailed functional description.

Finger length: is measured from the reference surface as the distance P in direction to the main axis.

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

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. For more information, see assembly and operating manual.

Closing and opening times: are purely the times that the base jaws or fingers are in motion. PLC reaction times are not included in the above-mentioned times and must be taken into consideration when determining cycle times.



Application example

Collaborating gripper unit to support the worker when feeding in and positioning workpieces.

- 1 Collaborating gripper for small components
Co-act EGP-C

SCHUNK offers more ...

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



Manual 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).

Options and special information

Light band with variants for Universal Robots, Techman Robot, FANUC, Mitsubishi: Actuation of the light band is possible for the variants –UREK for Universal Robots, –TMEK for Techman Robot, and –FCRXEK for FANUC with external cabling. For FANUC (variant –FCR7), use of the light band is possible for direct connection of the gripper to the robot control. For the connection via the EE interface, the actuation of the light band is not provided. For the variant for the Mitsubishi MELFA ASSISTA, actuation of the light strip is possible via the tool interface.

Manually adjustable gripping force: With an integrated rotary switch, the gripping force can be adjusted for the Co-act EGP-C 40 in four stages from 100%, 75%, 50%, and 25%. To adjust the gripping force, the service flap must be opened.

Integrated sensor system: The gripper has two integrated inductive proximity switches. With them, the "open" and "closed" position of the gripper is monitored as standard. A sensor can alternatively be used depending on the area for workpiece monitoring. For this, the sensor must be manually adjustable. For this, a service flap must be opened for the size 40.

SAC – safety notes: In the enclosed assembly and operating manual, extensive safety notes on the use of the gripper are also included. The instructions also provide information and recommendations on the overall application.

Weight: The weight comprises the entire Co-act gripper including cable and connecting plug.

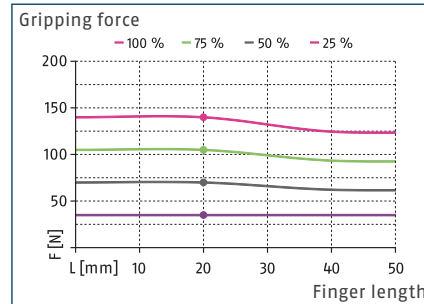
Co-act team: The experts of the SCHUNK Co-act team are available to answer further questions at all times on the topic of human-robot collaboration. You can reach the team at +49-7133-103-3444 or via e-mail at co-act-team@de.schunk.com.

Co-act EGP-C 40

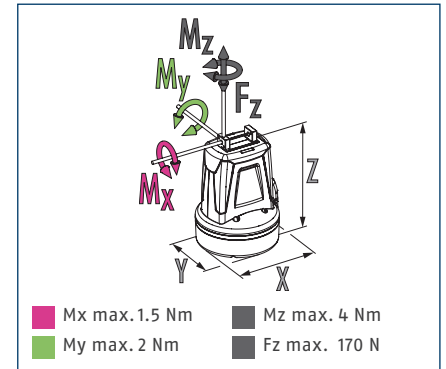
Collaborating gripper for small components



Gripping force



Dimensions and maximum loads



① The indicated moments and forces are statical values, apply for each base jaw and may appear simultaneously. Loads may additionally occur to the moment produced by the gripping force itself.

Technical data – Co-act EGP-C for ABB

Description		Co-act EGP-C 40-N-N-GoFa
ID		1468548
General operating data		
Compatible robot		ABB GoFa (CRB 15000)
Robot flange		Standard flange
Integrated sensors		yes, inductive in two directions
Dimensions X x Y x Z	[mm]	93.8 x 90.2 x 123
Mechanical operating data		
Stroke per jaw	[mm]	6
Min./max. gripping force	[N]	35/140
Min./max. force per jaw	[N]	17.5/70
Recommended workpiece weight	[kg]	0.7
Max. permissible finger length	[mm]	50
Max. permissible mass per finger	[kg]	0.08
Repeat accuracy	[mm]	0.02
Closing/opening time	[s]	0.2/0.2
Weight	[kg]	0.62
Min./max. ambient temperature	[°C]	5/55
IP protection class		30
Cable connector/cable end		2 x M8
Cable length L1	[mm]	70
Cable length L2	[mm]	175
Electrical operating data		
Nominal voltage	[V DC]	24
Nominal current	[A]	0.2
Max. current	[A]	2
Controller electronics		integrated
Communication interface		digital I/O
Number of digital I/O		4/2

Technical data—Co-act EGP-C for FANUC

Description		Co-act EGP-C 40-N-N-FCRXID	Co-act EGP-C 40-N-N-FCRXEK	Co-act EGP-C 40-N-N-FCR7
ID		1441947	1441949	1326456
General operating data				
Compatible robot		FANUC CRX-10iA, CRX-10iA/L	FANUC CRX-10iA, CRX-10iA/L	FANUC CR-7 iA
Robot flange		Standard flange	Standard flange	Standard flange
LED strip light			integrated	integrated
Displayable colors			green, yellow, red	green, yellow, red
Integrated sensors		yes, inductive in two directions	yes, inductive in two directions	yes, inductive in two directions
Dimensions X x Y x Z	[mm]	93.6 x 90.2 x 123	93.6 x 90.2 x 123	93.8 x 90.2 x 120.5
Mechanical operating data				
Stroke per jaw	[mm]	6	6	6
Min./max. gripping force	[N]	35/140	35/140	35/140
Min./max. force per jaw	[N]	17.5/70	17.5/70	17.5/70
Recommended workpiece weight	[kg]	0.7	0.7	0.7
Max. permissible finger length	[mm]	50	50	50
Max. permissible mass per finger	[kg]	0.08	0.08	0.08
Repeat accuracy	[mm]	0.02	0.02	0.02
Closing/opening time	[s]	0.2/0.2	0.2/0.2	0.2/0.2
Weight	[kg]	0.59	0.86	0.66
Min./max. ambient temperature	[°C]	5/55	5/55	5/55
IP protection class		30	30	30
Cable connector/cable end		M8	open wire strands	open wire strands
Cable length	[mm]	90	4000	1000
Electrical operating data				
Nominal voltage	[V DC]	24	24	24
Nominal current	[A]	0.2	0.2	0.2
Max. current	[A]	2	2	2
Controller electronics		integrated	integrated	integrated
Communication interface		digital I/O	digital I/O	digital I/O
Number of digital I/O		2/2	4/2	4/2

Co-act EGP-C 40

Collaborating gripper for small components

Technical data—Co-act EGP-C for Universal Robots

Description		Co-act EGP-C 40-N-N-URID	Co-act EGP-C 40-N-N-UREK
ID		1326455	1327883
General operating data			
Compatible robot		UR 3/5/10/16	UR 3/5/10/16
Robot flange		Standard flange	Standard flange
LED strip light			integrated
Displayable colors			green, yellow, red
Integrated sensors		yes, inductive in two directions	yes, inductive in two directions
Dimensions X x Y x Z	[mm]	93.8 x 90.2 x 123	93.8 x 90.2 x 123
Mechanical operating data			
Stroke per jaw	[mm]	6	6
Min./max. gripping force	[N]	35/140	35/140
Min./max. force per jaw	[N]	17.5/70	17.5/70
Recommended workpiece weight	[kg]	0.7	0.7
Max. permissible finger length	[mm]	50	50
Max. permissible mass per finger	[kg]	0.08	0.08
Repeat accuracy	[mm]	0.02	0.02
Closing/opening time	[s]	0.2/0.2	0.2/0.2
Weight	[kg]	0.59	0.86
Min./max. ambient temperature	[°C]	5/55	5/55
IP protection class		30	30
Cable connector/cable end		M8	open wire strands
Cable length	[mm]	90	4000
Electrical operating data			
Nominal voltage	[V DC]	24	24
Nominal current	[A]	0.2	0.2
Max. current	[A]	0.6	2
Controller electronics		integrated	integrated
Communication interface		digital I/O	digital I/O
Number of digital I/O		2/2	4/2

Technical data – Co-act EGP-C for TM.

Description		Co-act EGP-C 40-N-N-TMID	Co-act EGP-C 40-N-N-TMEK
ID		1374363	1375931
General operating data			
Compatible robot		TM 5/12/14	TM 5/12/14
Robot flange		Standard flange	Standard flange
LED strip light			integrated
Displayable colors			green, yellow, red
Integrated sensors		yes, inductive in two directions	yes, inductive in two directions
Dimensions X x Y x Z	[mm]	93.8 x 90.2 x 123	93.8 x 90.2 x 123
Mechanical operating data			
Stroke per jaw	[mm]	6	6
Min./max. gripping force	[N]	35/140	35/140
Min./max. force per jaw	[N]	17.5/70	17.5/70
Recommended workpiece weight	[kg]	0.7	0.7
Max. permissible finger length	[mm]	50	50
Max. permissible mass per finger	[kg]	0.08	0.08
Repeat accuracy	[mm]	0.02	0.02
Closing/opening time	[s]	0.2/0.2	0.2/0.2
Weight	[kg]	0.59	0.86
Min./max. ambient temperature	[°C]	5/55	5/55
IP protection class		30	30
Cable connector/cable end		M8 connector, 8-pin	open wire strands
Cable length	[mm]	210	4000
Electrical operating data			
Nominal voltage	[V DC]	24	24
Nominal current	[A]	0.2	0.2
Max. current	[A]	0.6	2
Controller electronics		integrated	integrated
Communication interface		digital I/O	digital I/O
Number of digital I/O		2/2	4/2

Co-act EGP-C 40

Collaborating gripper for small components

Technical data – Co-act EGP-C for Doosan Robotics

Description		Co-act EGP-C 40-N-N-M1013
ID		1359018
General operating data		
Compatible robot		Doosan Robotics M-Series/A-Series/H-Series
Robot flange		Standard flange
Integrated sensors		yes, inductive in two directions
Dimensions X x Y x Z	[mm]	93.8 x 90.2 x 123
Mechanical operating data		
Stroke per jaw	[mm]	6
Min./max. gripping force	[N]	35/140
Min./max. force per jaw	[N]	17.5/70
Recommended workpiece weight	[kg]	0.7
Max. permissible finger length	[mm]	50
Max. permissible mass per finger	[kg]	0.08
Repeat accuracy	[mm]	0.02
Closing/opening time	[s]	0.2/0.2
Weight	[kg]	0.59
Min./max. ambient temperature	[°C]	5/55
IP protection class		30
Cable connector/cable end		M8 connector, 8-pin
Cable length	[mm]	100
Electrical operating data		
Nominal voltage	[V DC]	24
Nominal current	[A]	0.2
Max. current	[A]	2
Controller electronics		integrated
Communication interface		digital I/O
Number of digital I/O		2/2

Technical data – Co-act EGP-C for Mitsubishi

Description		Co-act EGP-C 40 N-N-ASSISTA
ID		1408586
General operating data		
Compatible robot		Mitsubishi MELFA ASSISTA
Robot flange		Standard flange
LED strip light		integrated
Displayable colors		green, yellow, red
Integrated sensors		yes, inductive in two directions
Dimensions X x Y x Z	[mm]	93.6 x 92.1 x 136.9
Mechanical operating data		
Stroke per jaw	[mm]	6
Min./max. gripping force	[N]	35/140
Min./max. force per jaw	[N]	17.5/70
Recommended workpiece weight	[kg]	0.7
Max. permissible finger length	[mm]	50
Max. permissible mass per finger	[kg]	0.08
Repeat accuracy	[mm]	0.02
Closing/opening time	[s]	0.2/0.2
Weight	[kg]	0.89
Min./max. ambient temperature	[°C]	5/55
IP protection class		30
Cable connector/cable end		M12 connector, 8-pin
Cable length	[mm]	120
Finger is included in the scope of delivery		Yes (AUB Co-act EGP 40/24)
Electrical operating data		
Nominal voltage	[V DC]	24
Nominal current	[A]	0.2
Max. current	[A]	0.6
Controller electronics		integrated
Communication interface		digital I/O
Number of digital I/O		2/2

Co-act EGP-C 40

Collaborating gripper for small components

Technical data—Co-act EGP-C for KUKA

Description		Co-act EGP-C 40-N-N-KTOE
ID		1321170
General operating data		
Compatible robot		KUKA LBR iiwa 7/14
Robot flange		Media flange touch electric
LED strip light		integrated
Displayable colors		green, yellow, red
Integrated sensors		yes, inductive in two directions
Dimensions X x Y x Z	[mm]	93.8 x 90.2 x 123
Mechanical operating data		
Stroke per jaw	[mm]	6
Min./max. gripping force	[N]	35/140
Min./max. force per jaw	[N]	17.5/70
Recommended workpiece weight	[kg]	0.7
Max. permissible finger length	[mm]	50
Max. permissible mass per finger	[kg]	0.08
Repeat accuracy	[mm]	0.02
Closing/opening time	[s]	0.2/0.2
Weight	[kg]	0.62
Min./max. ambient temperature	[°C]	5/55
IP protection class		30
Cable connector/cable end		M12
Cable length	[mm]	70
Electrical operating data		
Nominal voltage	[V DC]	24
Nominal current	[A]	0.2
Max. current	[A]	2
Controller electronics		integrated
Communication interface		digital I/O
Number of digital I/O		4/2

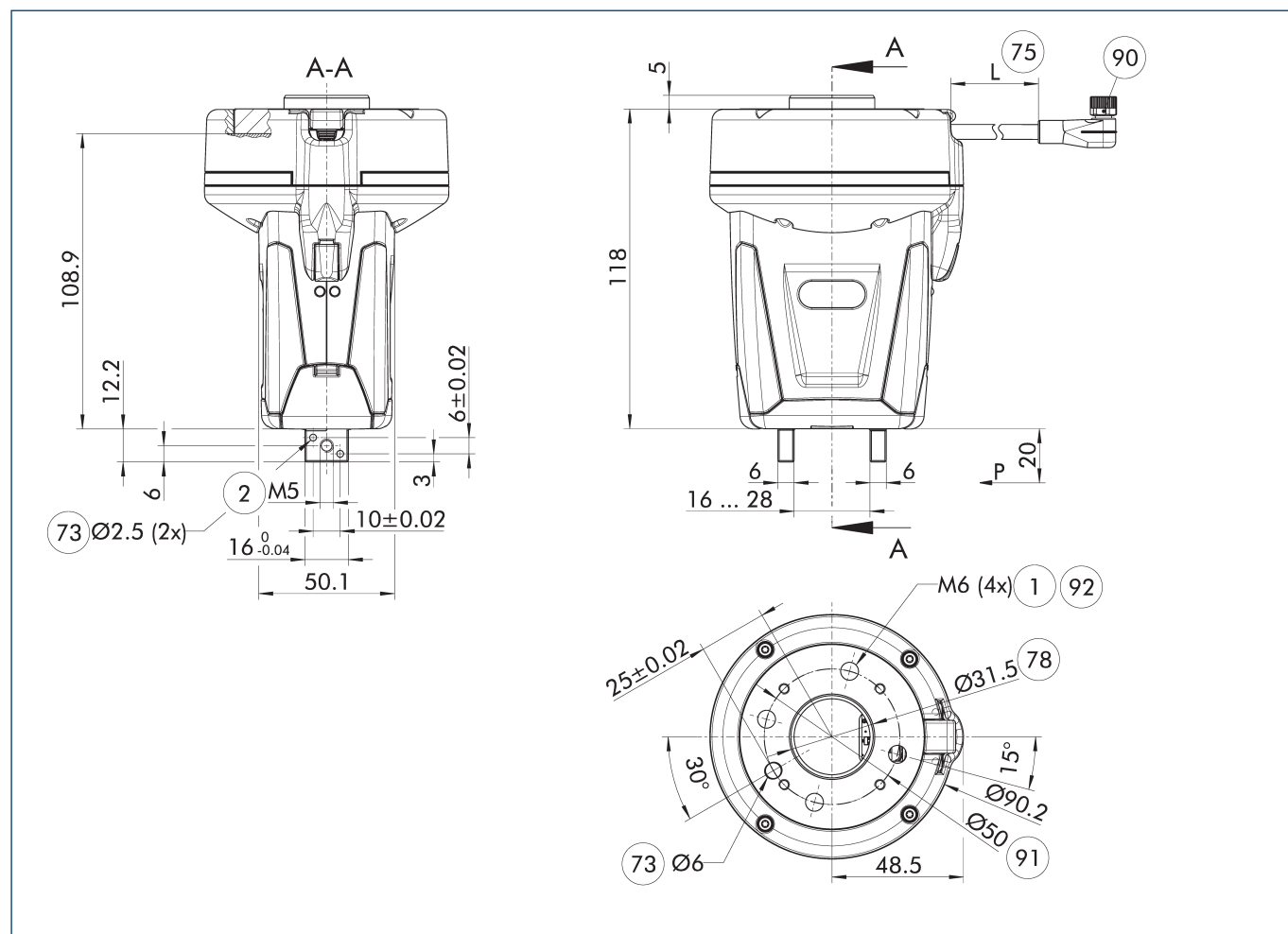
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① Gripper connection	⑨0 M8 connector, 3-pin
② Finger connection	⑨1 DIN ISO-9409 bolt circle
⑦3 Fit for centering pins	⑨2 Through holes for screw connections
⑦5 Cable length	⑨3 M8, 4-pin Male Connector
⑦8 Fit for centering	

Co-act EGP-C 40

Collaborating gripper for small components

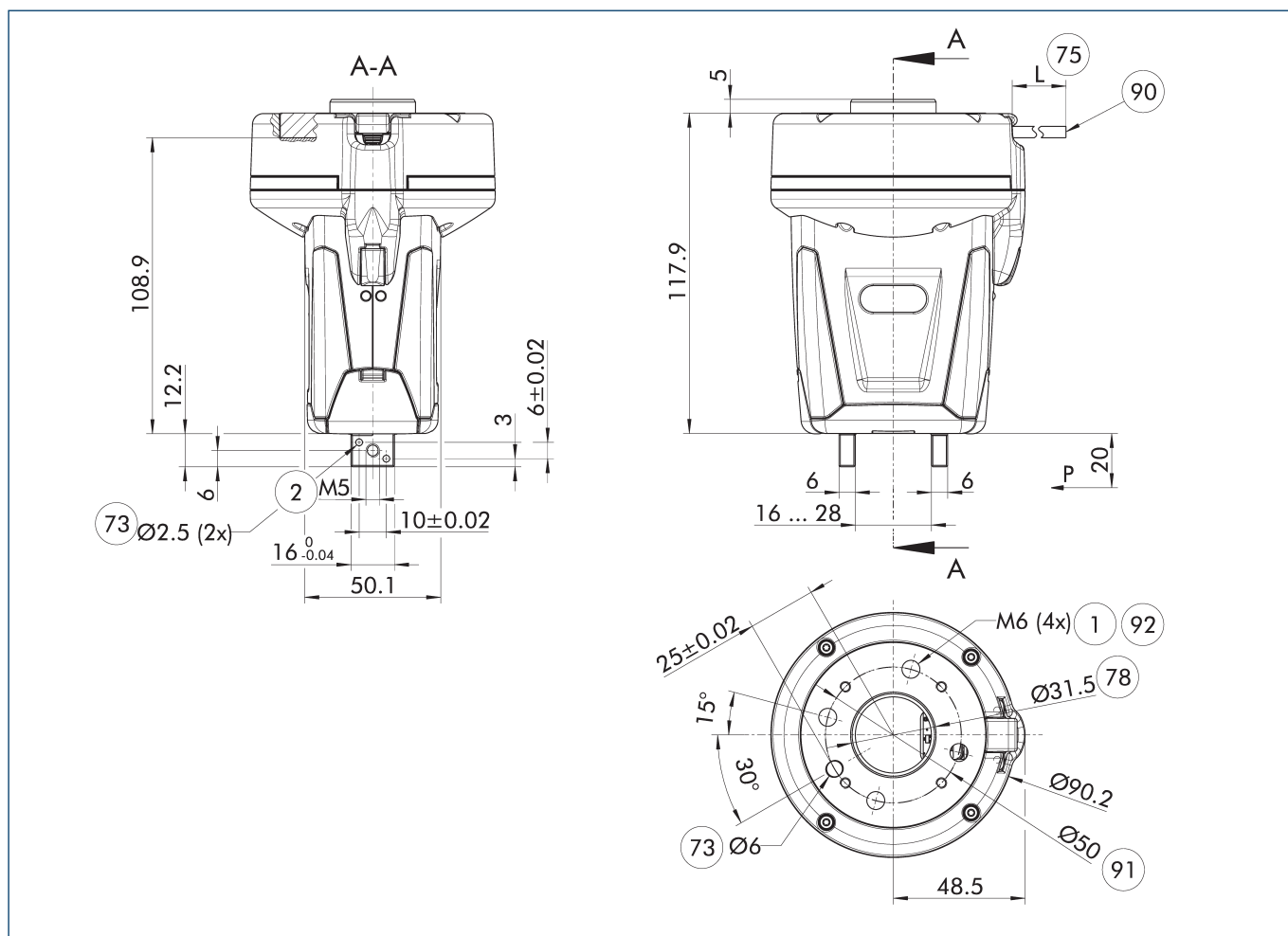
Main view Co-act EGP-C 40-N-N-FCRXID



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 |
| ⑦⑩ 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 40-N-N-FCRXEK



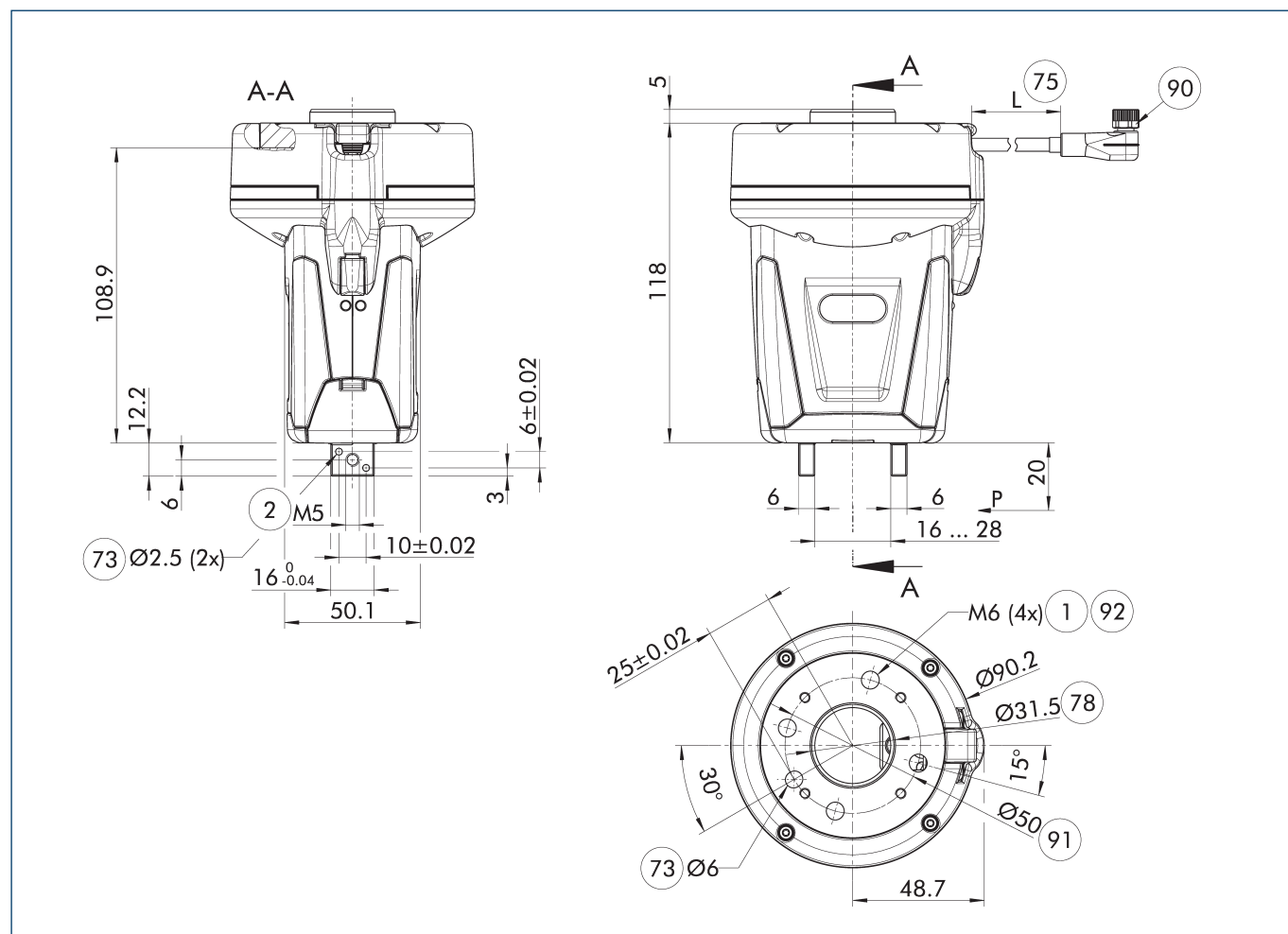
The drawing shows the basic version of the gripper with open jaws.

- | | |
|---------------------------|--|
| ① Gripper connection | ⑦⑧ Fit for centering |
| ② Finger connection | ⑨⑩ open wire strands |
| ⑦③ Fit for centering pins | ⑨① DIN ISO-9409 bolt circle |
| ⑦⑤ Cable length | ⑨② Through holes for screw connections |

Collaborating gripper for small components

① Gripper connection	⑦⑧ Fit for centering
② Finger connection	⑨⑩ open wire strands
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 40-N-N-URID



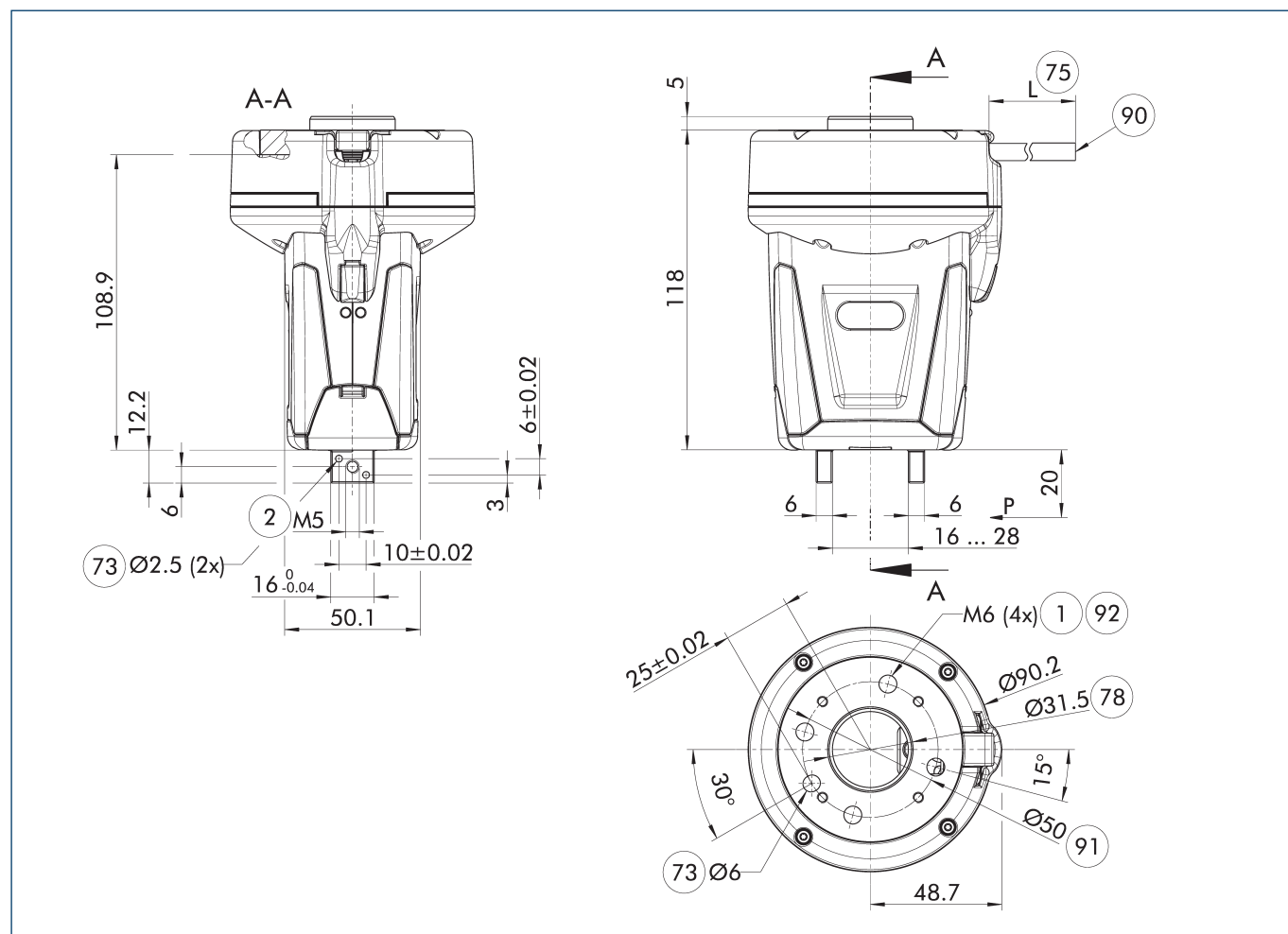
The drawing shows the basic version of the gripper with open jaws.

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

Co-act EGP-C 40

Collaborating gripper for small components

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



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

- | | |
|---------------------------|--|
| ① Gripper connection | ⑦⑧ Fit for centering |
| ② Finger connection | ⑨⑩ open wire strands |
| ⑦③ Fit for centering pins | ⑨① DIN ISO-9409 bolt circle |
| ⑦⑤ Cable length | ⑨② Through holes for screw connections |

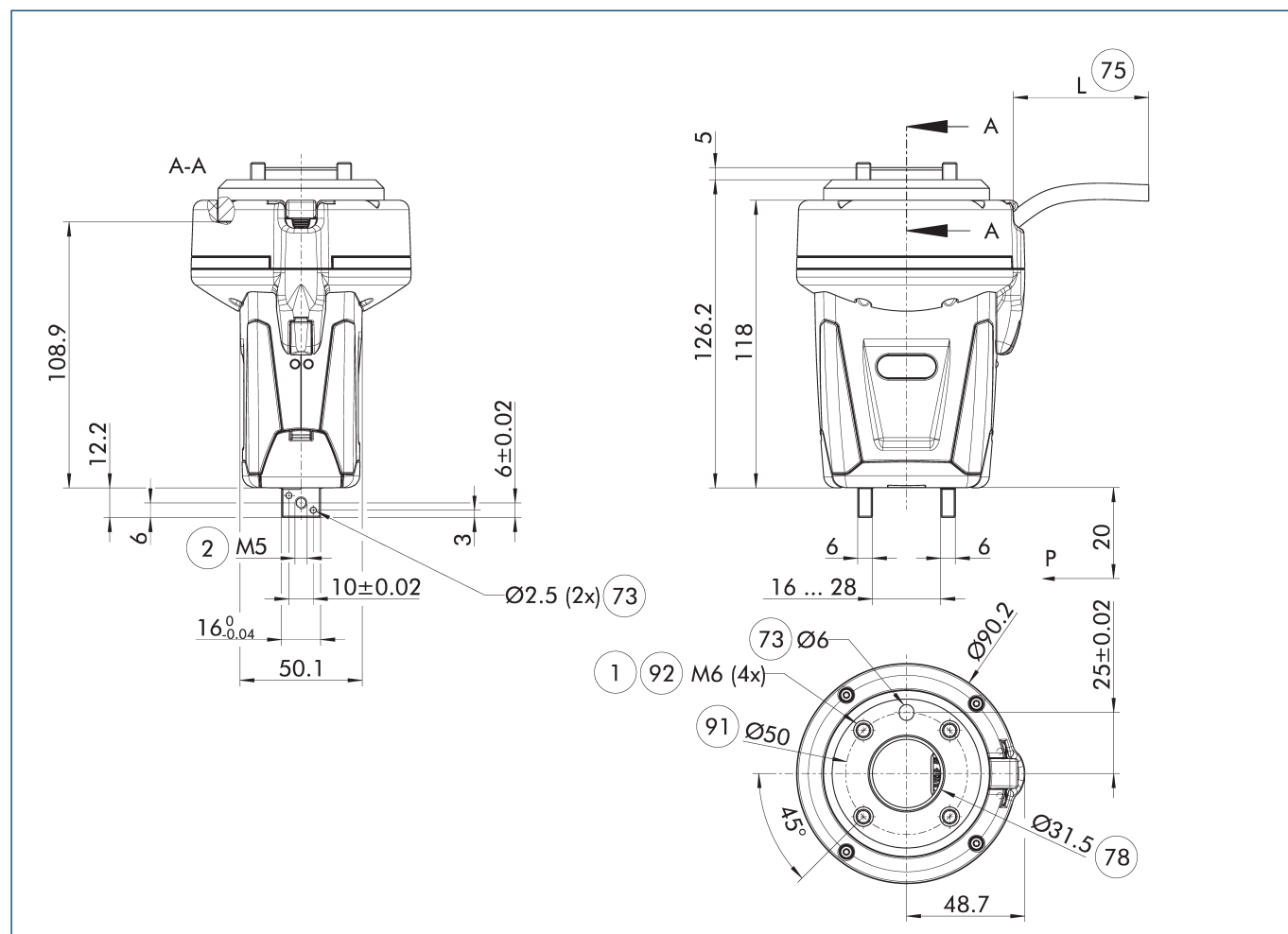
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① Gripper connection	⑦⑧ Fit for centering
② Finger connection	⑨⑩ M8 connector, 8-pin
⑦③ Fit for centering pins	⑨① DIN ISO-9409 bolt circle
⑦⑤ Cable length	⑨② Through holes for screw connections

Co-act EGP-C 40

Collaborating gripper for small components

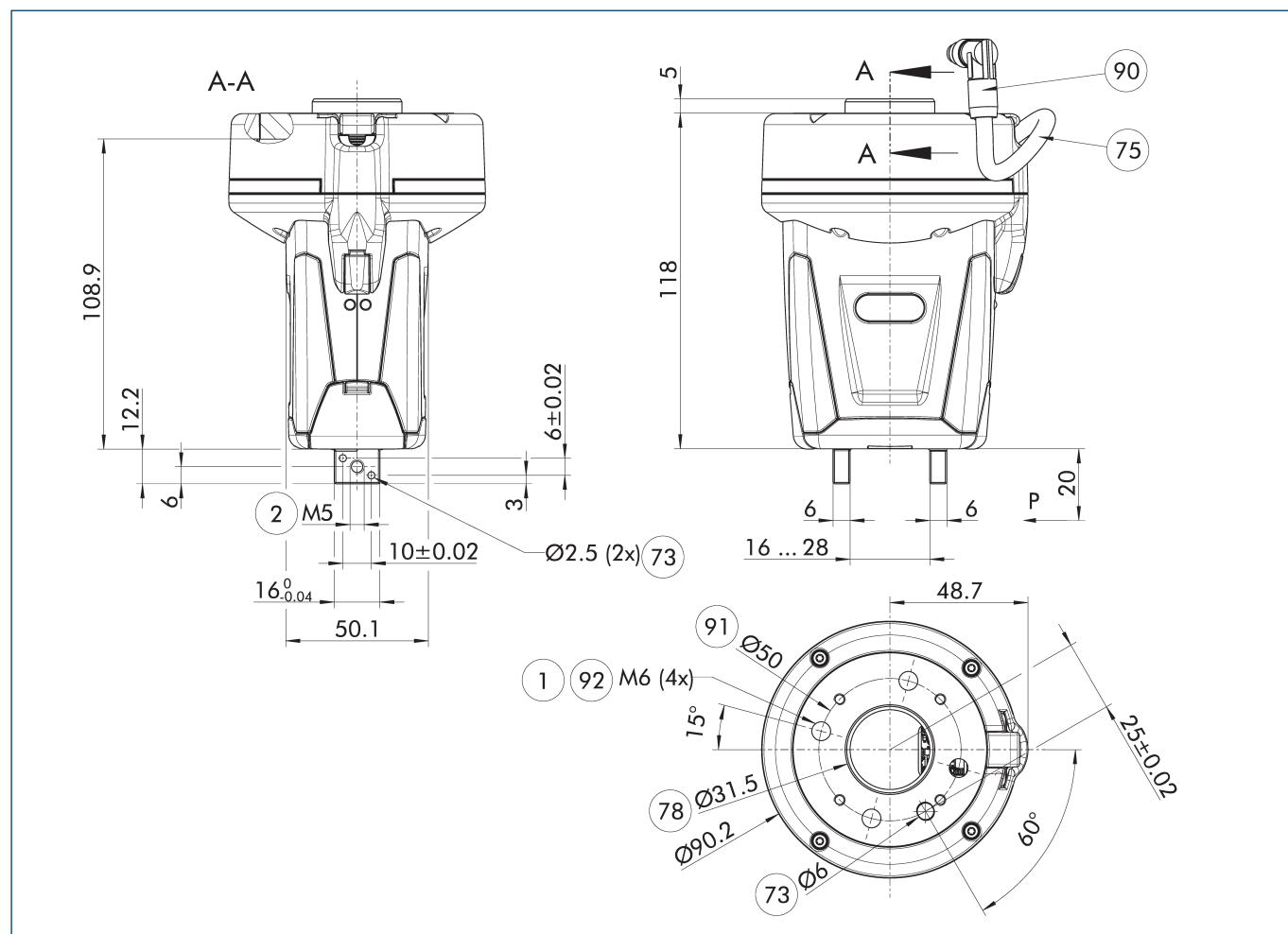
Main view Co-act EGP-C 40-N-N-TMEK



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 | |

Main view Co-act EGP-C 40-N-N-M1013



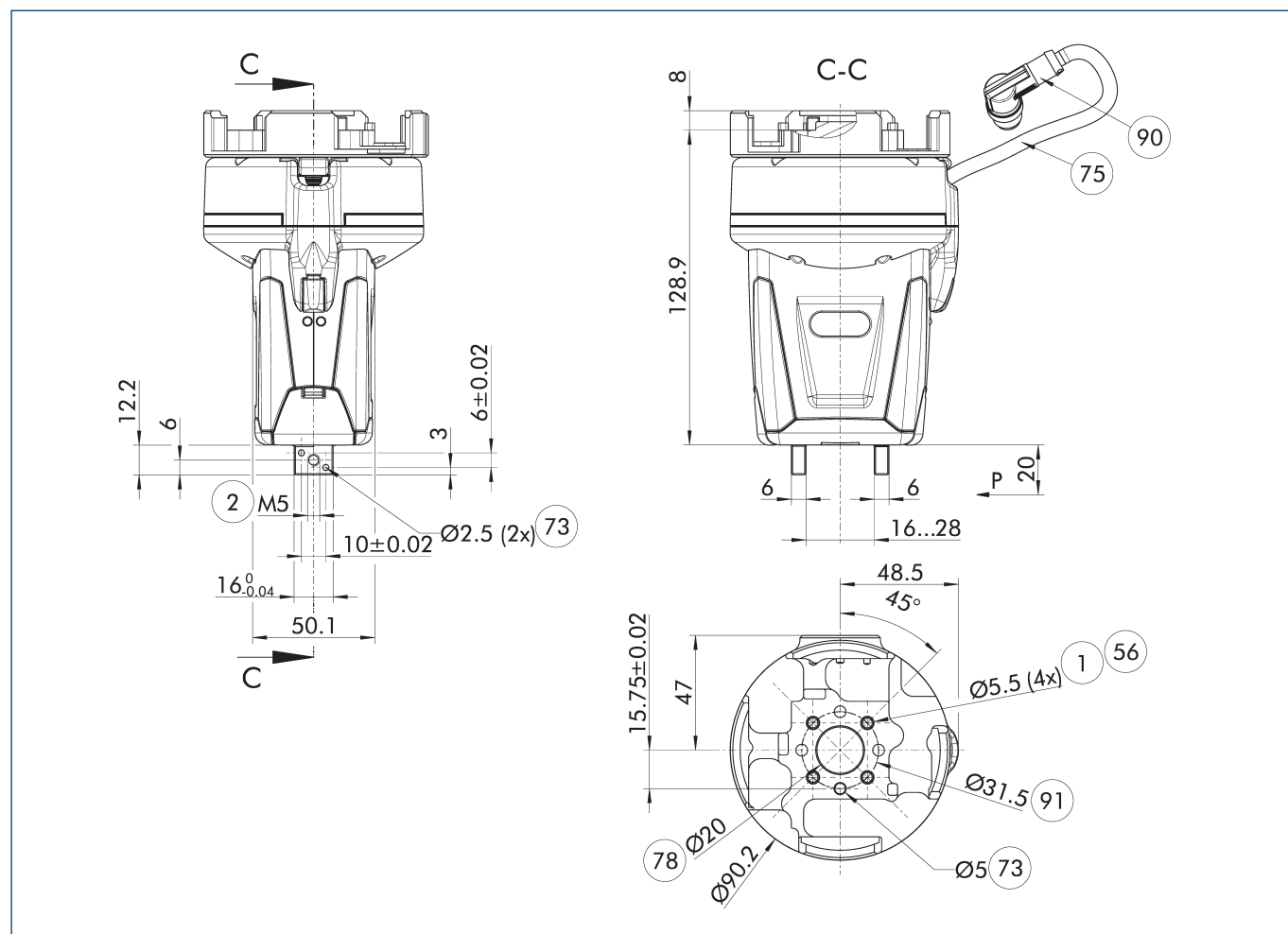
The drawing shows the basic version of the gripper with open jaws.

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

Co-act EGP-C 40

Collaborating gripper for small components

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



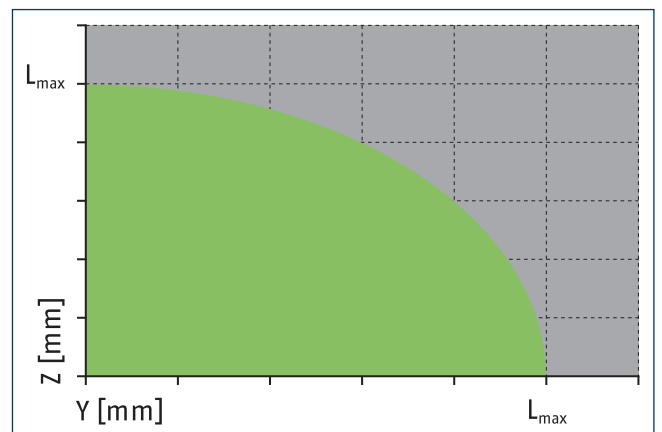
The drawing shows the basic version of the gripper with open jaws.

- | | |
|--------------------------------------|-----------------------------|
| ① Gripper connection | ⑦⑤ Cable length |
| ② Finger connection | ⑦⑧ Fit for centering |
| ⑤⑥ Included in the scope of delivery | ⑨⑩ Angled plug |
| ⑦③ Fit for centering pins | ⑨① DIN ISO-9409 bolt circle |

[illegible]

- ① Gripper connection
- ② Finger connection
- ⑦③ Fit for centering pins
- ⑦⑤ Cable length
- ⑦⑧ Fit for centering
- ⑨⑩ M12 connector, 17-pin
- ⑨① DIN ISO-9409 bolt circle
- ⑨② Through holes for screw connections

A technical line drawing of a 3D printer. The printer has a wide, flat base. On top of the base is a vertical column. At the top of the column is a horizontal arm. The arm has a circular component on its left side and a rectangular component on its right side. A vertical dashed line runs through the center of the printer. Dimension lines are used to indicate size: 'Y' is the width of the horizontal arm, and 'Z' is the height of the vertical column. There are small circles on the base and the arm, possibly representing screws or mounting points.



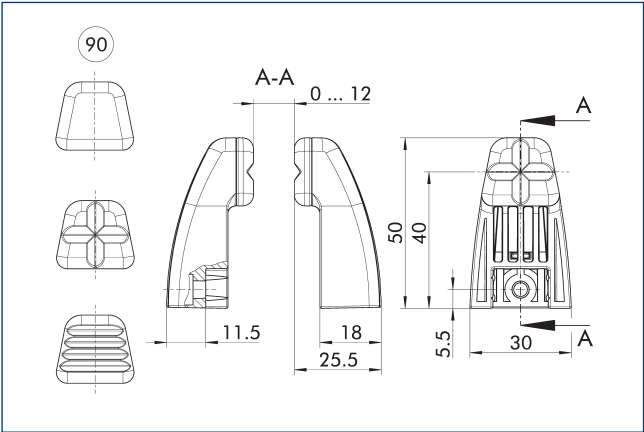
■ Inadmissible range



Co-act EGP-C 40

Collaborating gripper for small components

Top jaw AUB Co-act EGP



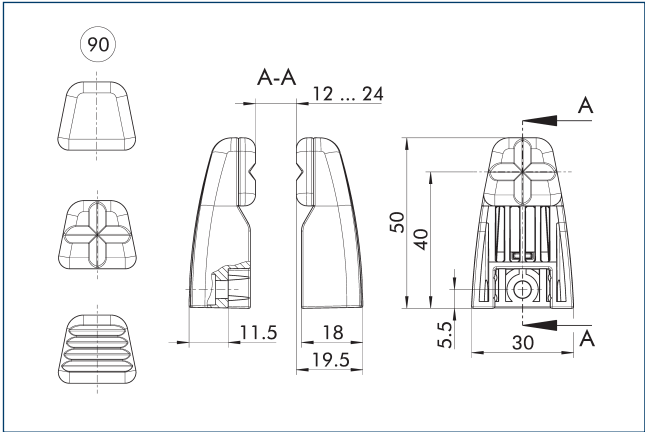
90 Finger inserts

The top jaws are specifically designed for the Co-act EGP gripper. Depending on the size, they are available with varying clamping ranges. Depending on the application and workpiece, one of the supplied finger inserts can be used. The finger inserts are manufactured from rigid or elastic material.

Description	ID	Material
Finger blank		
AUB Co-act EGP 40/12	1401285	PA/TPU

- ① The scope of delivery includes two top jaws including fastening material. Observe the notes in the Assembly and Operating Manual of the Co-act EGP gripper.

Top jaw AUB Co-act EGP



90 Finger inserts

The top jaws are specifically designed for the Co-act EGP gripper. Depending on the size, they are available with varying clamping ranges. Depending on the application and workpiece, one of the supplied finger inserts can be used. The finger inserts are manufactured from rigid or elastic material.

Description	ID	Material
Finger blank		
AUB Co-act EGP 40/24	1401286	PA/TPU

- ① The scope of delivery includes two top jaws including fastening material. Observe the notes in the Assembly and Operating Manual of the Co-act EGP gripper.



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