



Superior Clamping and Gripping



## Product Information

Collaborating gripper for small components Co-act EGP-C 64

# 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

**Functional safety** ensured due to inherent safety with current limitation

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

**Plug & Work** for a variety of different cobots

**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

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

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

**Attachment fingers** available with three different inserts



Sizes  
Quantity: 4



Weight  
0.36 .. 1.38 kg



Gripping force  
40 .. 230 N



Stroke per jaw  
3 .. 10 mm



Workpiece weight  
0.2 .. 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

# Co-act EGP-C

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## Detailed functional description

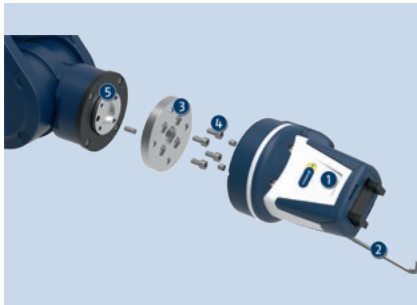
### Observation of the gripping force in collaborative operation



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
<b>Co-act = Collaborative actuator</b>							
<b>Electric Small Parts Gripper EGP</b>							
<b>C = DGUV-certified unit</b>							
<b>Size</b>							
25							
40							
50							
64							
<b>N = not used</b>							
<b>N = not used</b>							
<b>Robot and flange interface</b>							
FCR7 = FANUC CR-7 iA   connection via EE interface							
KETI = KUKA LBR iiwa   Media flange inside, electrically							
KTOE = KUKA LBR iiwa   Media flange touch, electrically							
URID = Universal Robots/with feed-through (electr. tool interface)							
UREK = Universal Robots/external cabling							
TMID = Techman Robot   with feed-through (electr.) tool interface)							
TMEK = Techman Robot   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							

# 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

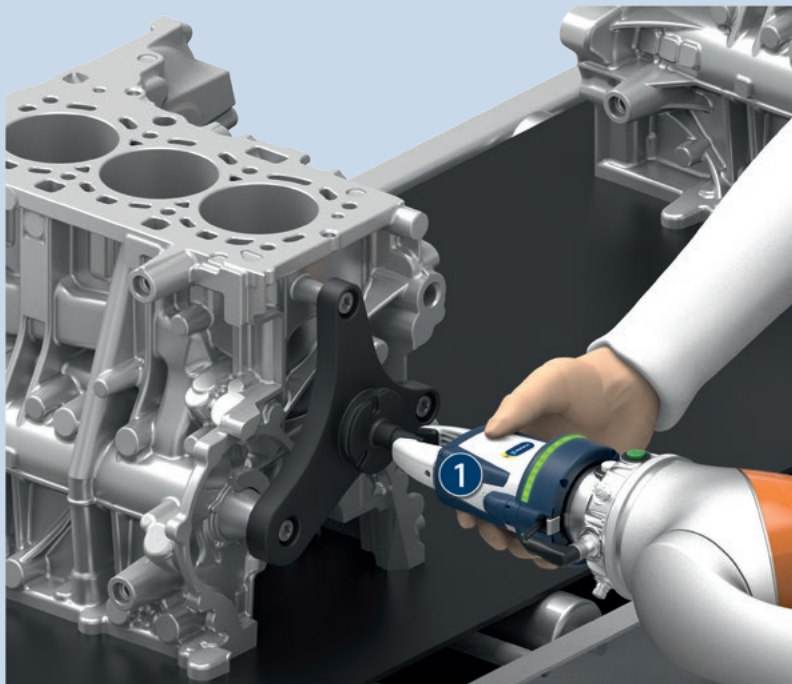
**Gripping force:** is the arithmetic total of the gripping force applied to each gripper jaw at distance P (see illustration). For more information, see the detailed functional description.

**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 Co-act EGP-C 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](http://schunk.com). Please contact us: SCHUNK technical hotline +49-7133-103-2696

## Options and special information

**Light band for variants for Universal Robots, Techman Robot and FANUC:** 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. Digital signals for actuation are not available for the variants –URID, –TMID and –FCRXID. For FANUC (variant –FCR7), use of the light band is possible for direct connection of the gripper to the robot control system. For the connection via the EE interface, the actuation of the light band is not provided.

**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.

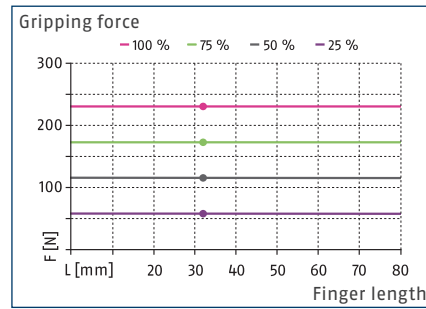
**Co-act team:** The Co-act team from SCHUNK is available to answer further questions at all times with experts on the topic of human/robot collaboration. You can reach the team at +49-7133-103-3444 or e-mail [co-act-team@de.schunk.com](mailto:co-act-team@de.schunk.com).

# Co-act EGP-C 64

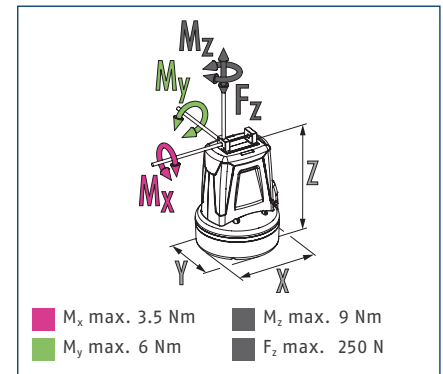
Collaborating gripper for small components



## Gripping force



## Dimensions and maximum loads



① The indicated moments and forces are static values, apply for each base jaw and should not appear simultaneously. Loads may additionally occur to the moment produced by the gripping force itself.

## Technical data—Co-act EGP-C for KUKA

Description		Co-act EGP-C 64-N-N-KETI	Co-act EGP-C 64-N-N-KTOE
ID		1326464	1321172
<b>General operating data</b>			
Compatible robot		KUKA LBR iiwa 7/14	KUKA LBR iiwa 7/14
Robot flange		Media flange electric inside	Media flange touch electric
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
Dimensions X x Y x Z	[mm]	125.5 x 86.4 x 161.2	125.5 x 86.4 x 146.7
<b>Mechanical operating data</b>			
Stroke per jaw	[mm]	10	10
Min./max. gripping force	[N]	65/230	65/230
Min./max. force per jaw	[N]	32.5/115	32.5/115
Recommended workpiece weight	[kg]	1.15	1.15
Max. permissible finger length	[mm]	80	80
Max. permissible mass per finger	[kg]	0.24	0.24
Repeat accuracy	[mm]	0.02	0.02
Closing/opening time	[s]	0.49/0.49	0.49/0.49
Weight	[kg]	1.13	1.15
Min./max. ambient temperature	[°C]	5/55	5/55
IP protection class		30	30
Cable connector/cable end			M12
Cable length	[mm]		70
<b>Electrical operating data</b>			
Nominal voltage	[V DC]	24	24
Nominal current	[A]	0.15	0.15
Max. current	[A]	2	2
Controller electronics		integrated	integrated
Number of digital I/O		4/2	4/2



## Technical data—Co-act EGP-C for FANUC

Description		Co-act EGP-C 64-N-N-FCRXID	Co-act EGP-C 64-N-N-FCRXEK	Co-act EGP-C 64-N-N-FCR7
ID		1441948	1441950	1326469
<b>General operating data</b>				
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]	125.5 x 86.4 x 149.2	125.5 x 86.4 x 149.2	125.5 x 86.4 x 146.7
<b>Mechanical operating data</b>				
Stroke per jaw	[mm]	10	10	10
Min./max. gripping force	[N]	65/230	65/230	65/230
Min./max. force per jaw	[N]	32.5/115	32.5/115	32.5/115
Recommended workpiece weight	[kg]	1.15	1.15	1.15
Max. permissible finger length	[mm]	80	80	80
Max. permissible mass per finger	[kg]	0.24	0.24	0.24
Repeat accuracy	[mm]	0.02	0.02	0.02
Closing/opening time	[s]	0.49/0.49	0.49/0.49	0.49/0.49
Weight	[kg]	1.11	1.38	1.38
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	4000
<b>Electrical operating data</b>				
Nominal voltage	[V DC]	24	24	24
Nominal current	[A]	0.15	0.15	0.15
Max. current	[A]	2	2	2
Controller electronics		integrated	integrated	integrated
Number of digital I/O		2/2	4/2	4/2

# Co-act EGP-C 64

Collaborating gripper for small components

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

Description		Co-act EGP-C 64-N-N-UREK
ID		1327885
<b>General operating data</b>		
Compatible robot		UR 3/5/10/16
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]	125.5 x 86.4 x 146.7
<b>Mechanical operating data</b>		
Stroke per jaw	[mm]	10
Min./max. gripping force	[N]	65/230
Min./max. force per jaw	[N]	32.5/115
Recommended workpiece weight	[kg]	1.15
Max. permissible finger length	[mm]	80
Max. permissible mass per finger	[kg]	0.24
Repeat accuracy	[mm]	0.02
Closing/opening time	[s]	0.49/0.49
Weight	[kg]	1.38
Min./max. ambient temperature	[°C]	5/55
IP protection class		30
Cable connector/cable end		open wire strands
Cable length	[mm]	4000
<b>Electrical operating data</b>		
Nominal voltage	[V DC]	24
Nominal current	[A]	0.15
Max. current	[A]	2
Controller electronics		integrated
Number of digital I/O		4/2

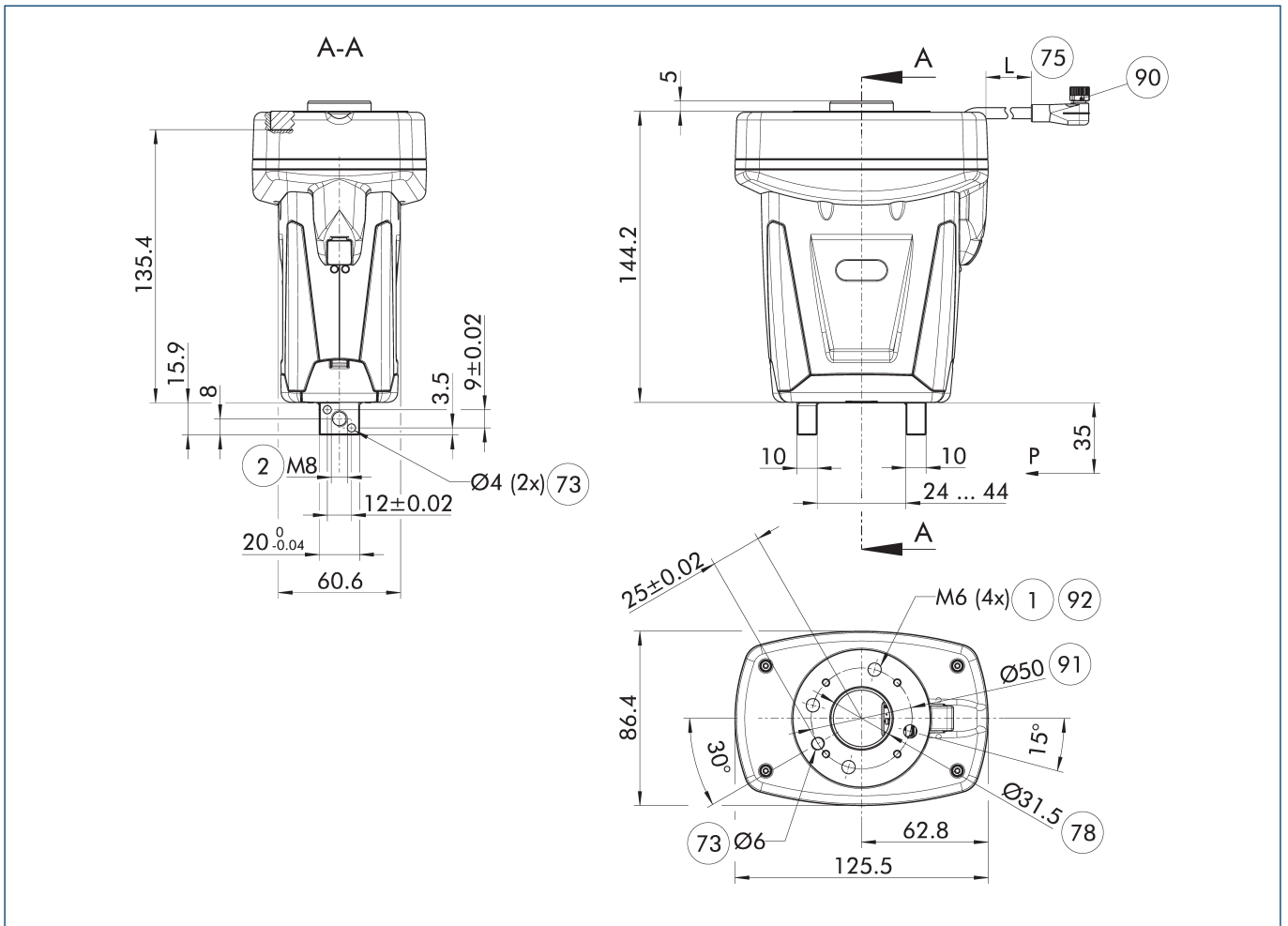
## Technical data – Co-act EGP-C for Techman Robot

Description		Co-act EGP-C 64-N-N-TMEK
ID		1400578
<b>General operating data</b>		
Compatible robot		Techman Robot TM5/TM12/TM14
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]	125.5 x 86.4 x 146.7
<b>Mechanical operating data</b>		
Stroke per jaw	[mm]	10
Min./max. gripping force	[N]	65/230
Min./max. force per jaw	[N]	32.5/115
Recommended workpiece weight	[kg]	1.15
Max. permissible finger length	[mm]	80
Max. permissible mass per finger	[kg]	0.24
Repeat accuracy	[mm]	0.02
Closing/opening time	[s]	0.49/0.49
Weight	[kg]	1.38
Min./max. ambient temperature	[°C]	5/55
IP protection class		30
Cable connector/cable end		open wire strands
Cable length	[mm]	4000
<b>Electrical operating data</b>		
Nominal voltage	[V DC]	24
Nominal current	[A]	0.15
Max. current	[A]	2
Controller electronics		integrated
Number of digital I/O		4/2

# Co-act EGP-C 64

Collaborating gripper for small components

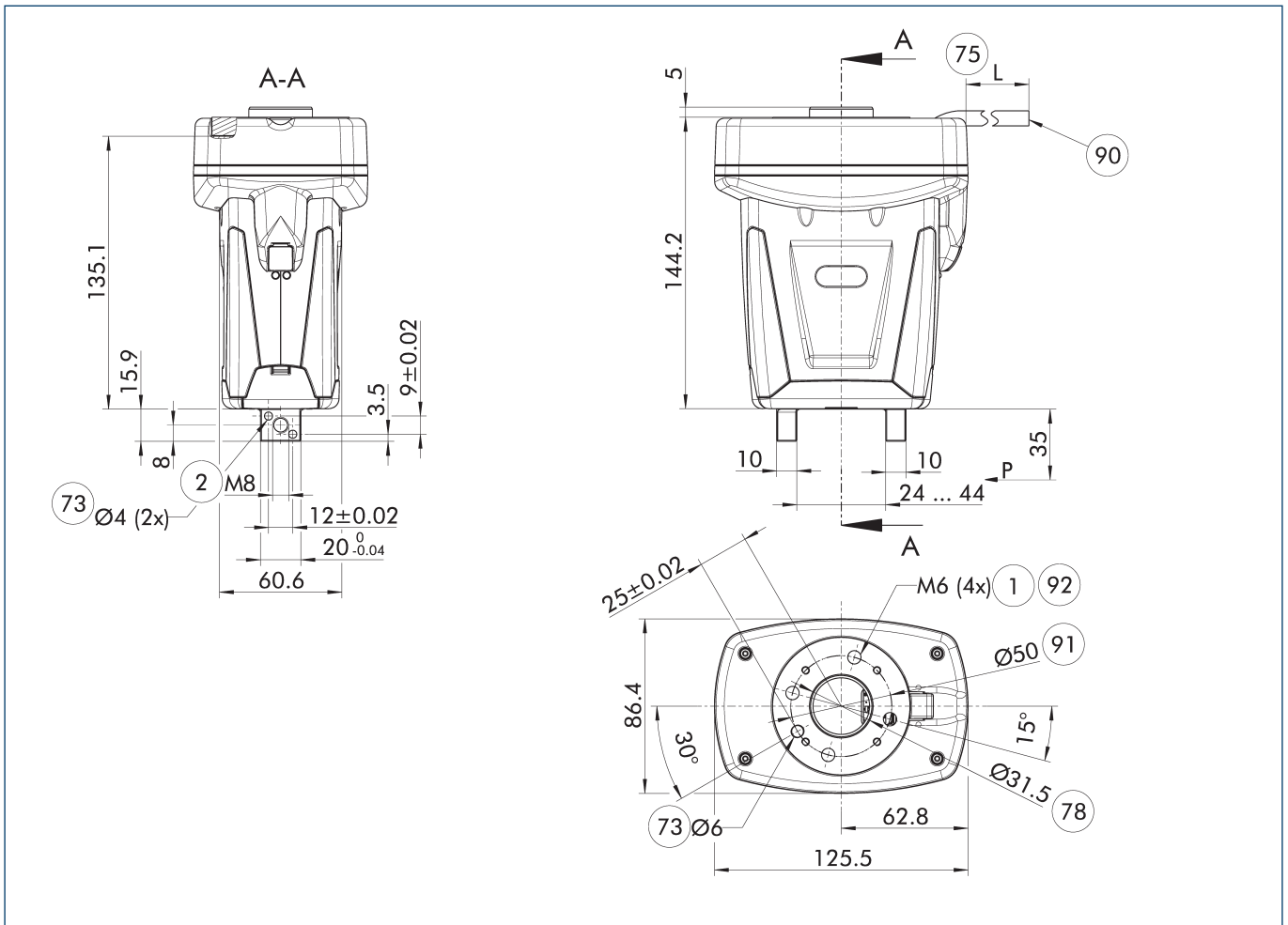
## Main view Co-act EGP-C 64-N-N-FCRXID



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                 |
| 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-FCRXEK



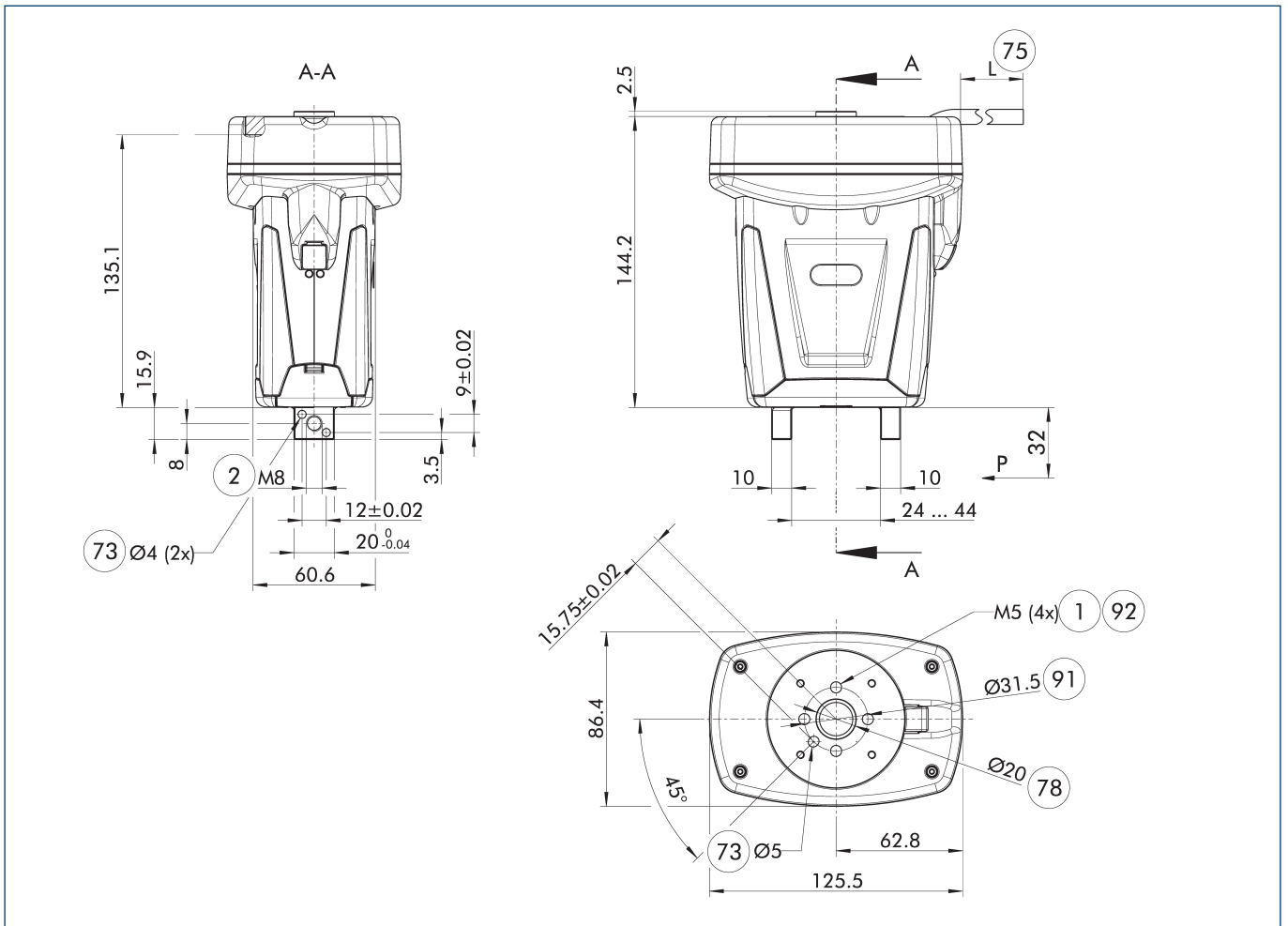
The drawing shows the basic version of the gripper with open jaws.

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

# Co-act EGP-C 64

Collaborating gripper for small components

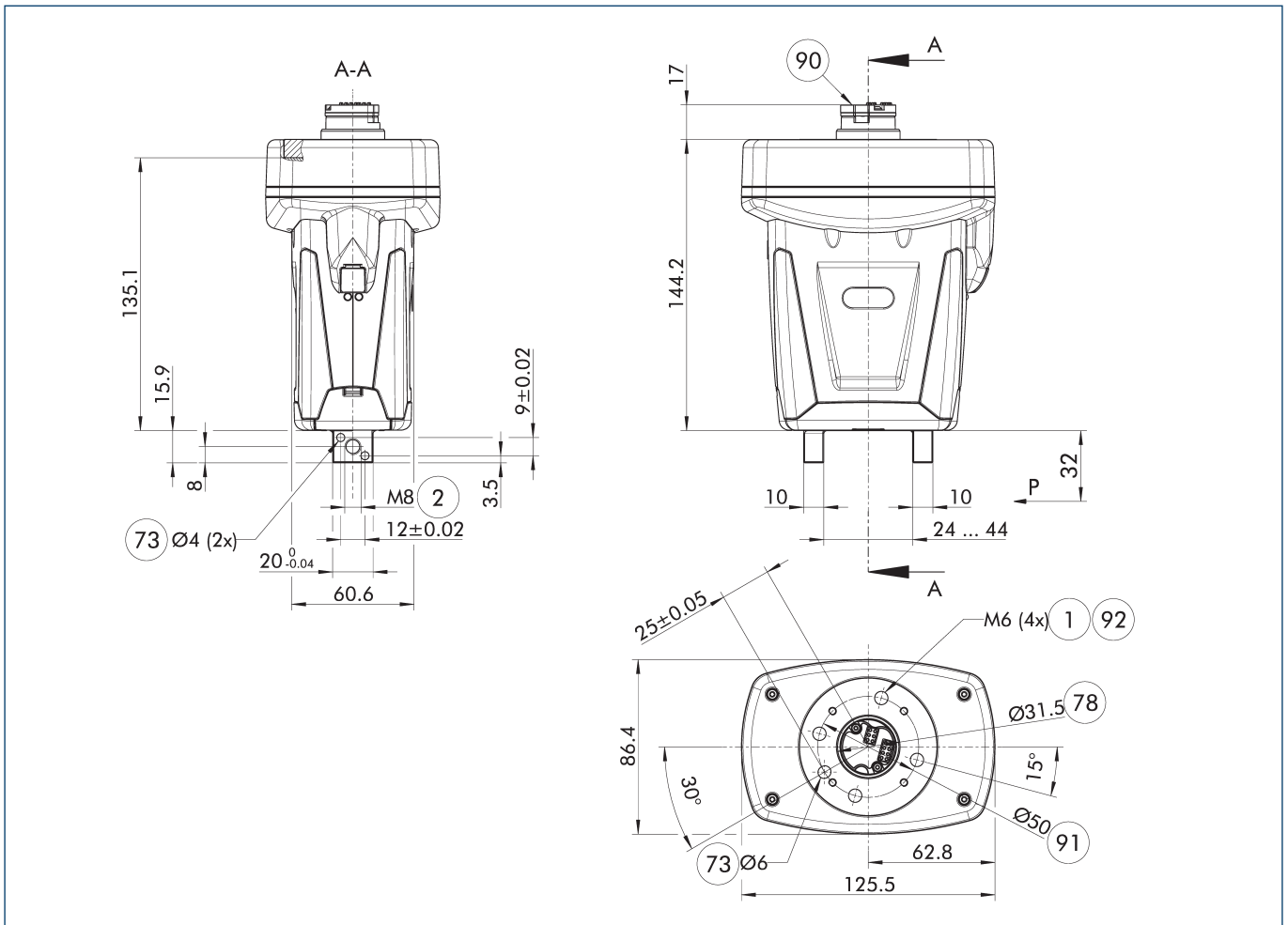
## Main view Co-act EGP-C variant - FCR7



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 |

## Main view Co-act EGP-C variant - KETI



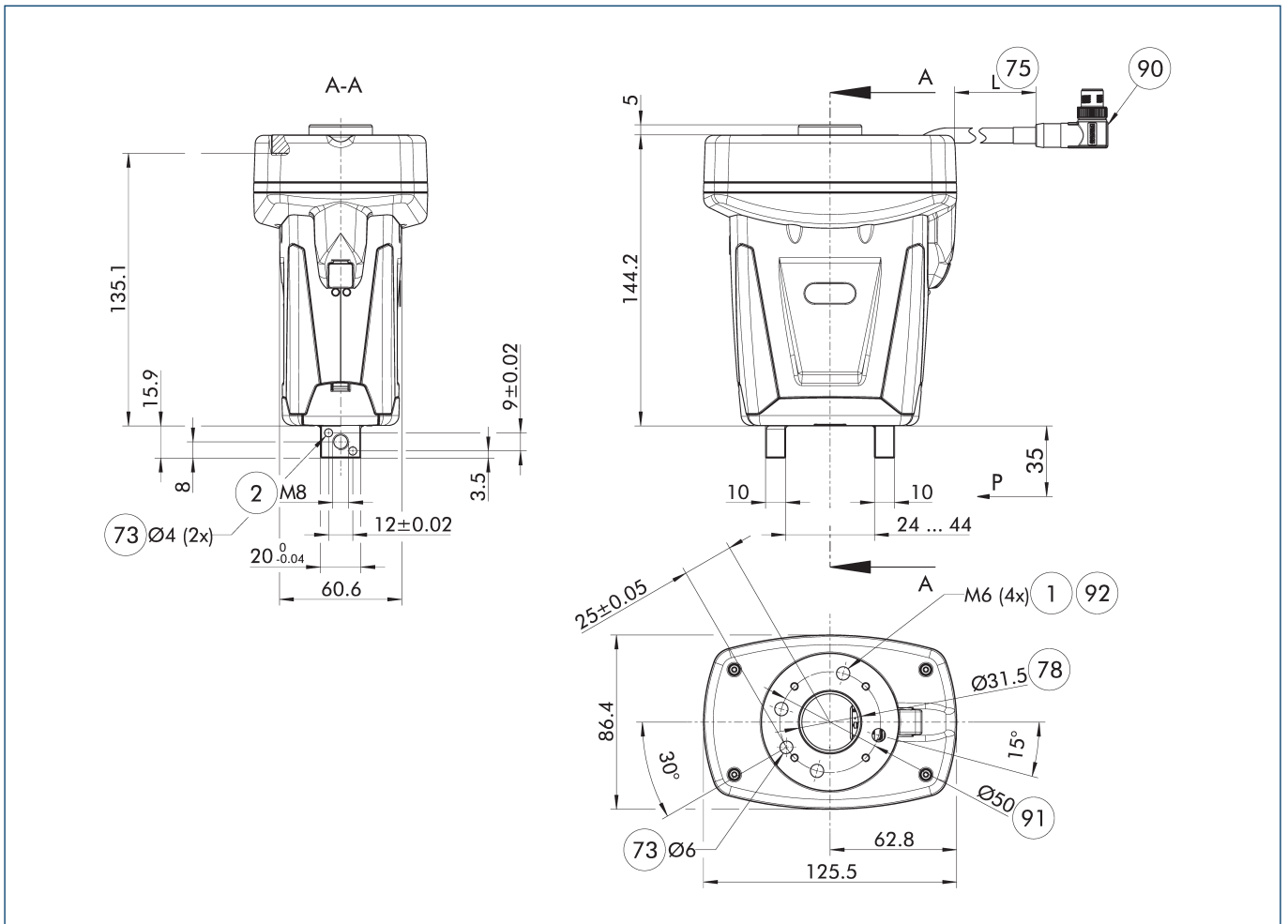
The drawing shows the basic version of the gripper with open jaws.

- |                           |  |
|---------------------------|--|
| ① Gripper connection      | ⑨⑩ KUKA-specific                       |
| ② Finger connection       | ⑨① DIN ISO-9409 bolt circle            |
| ⑦③ Fit for centering pins | ⑨② Through holes for screw connections |
| ⑦⑧ Fit for centering      |  |

# Co-act EGP-C 64

Collaborating gripper for small components

## Main view Co-act EGP-C variant - KTOE

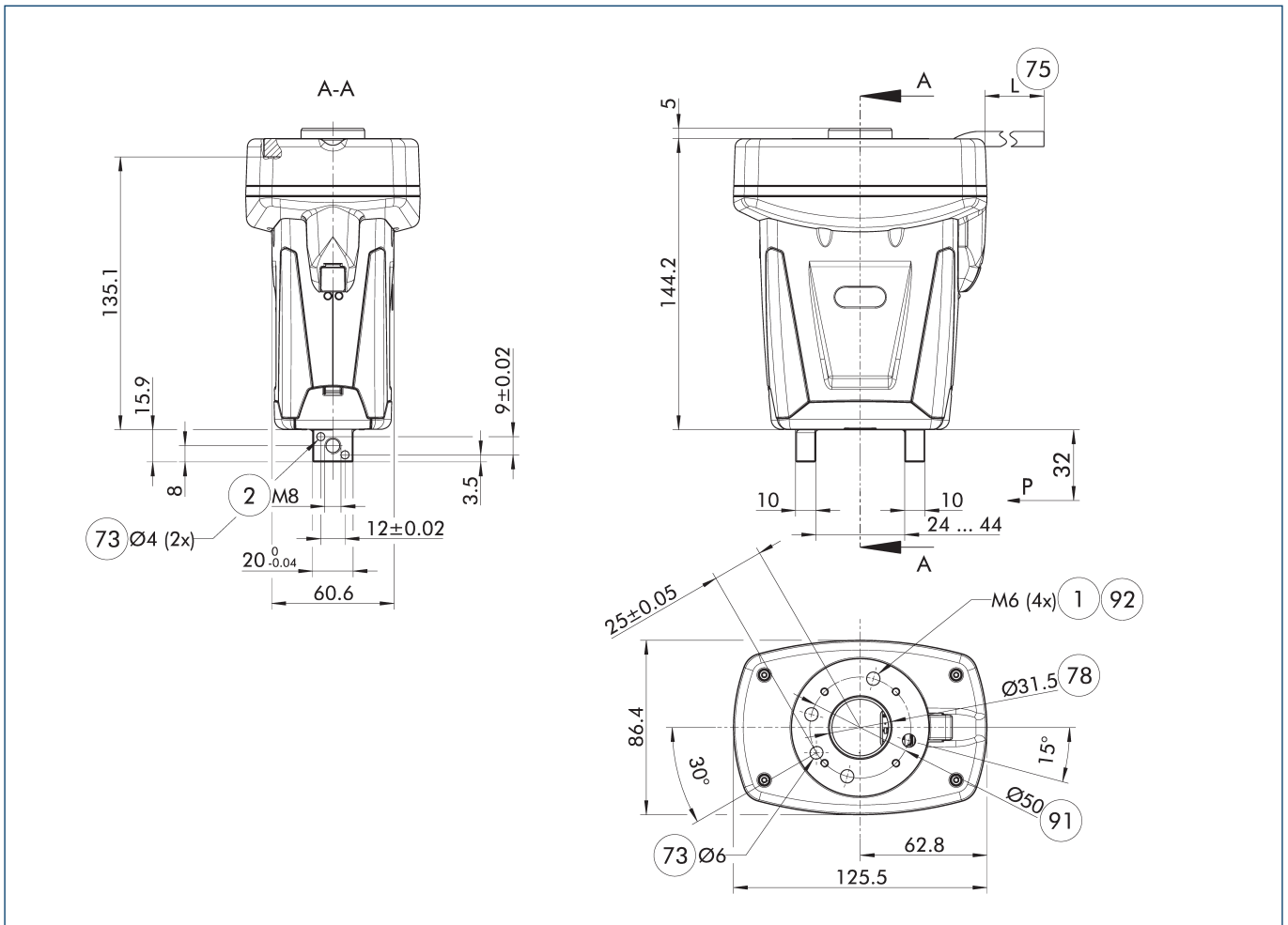


The drawing shows the basic version of the gripper with open jaws.

- |                           |  |
|---------------------------|--|
| ① Gripper connection      | ⑦⑧ Fit for centering                   |
| ② Finger connection       | ⑨⑩ M12 connector, 17-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-UREK



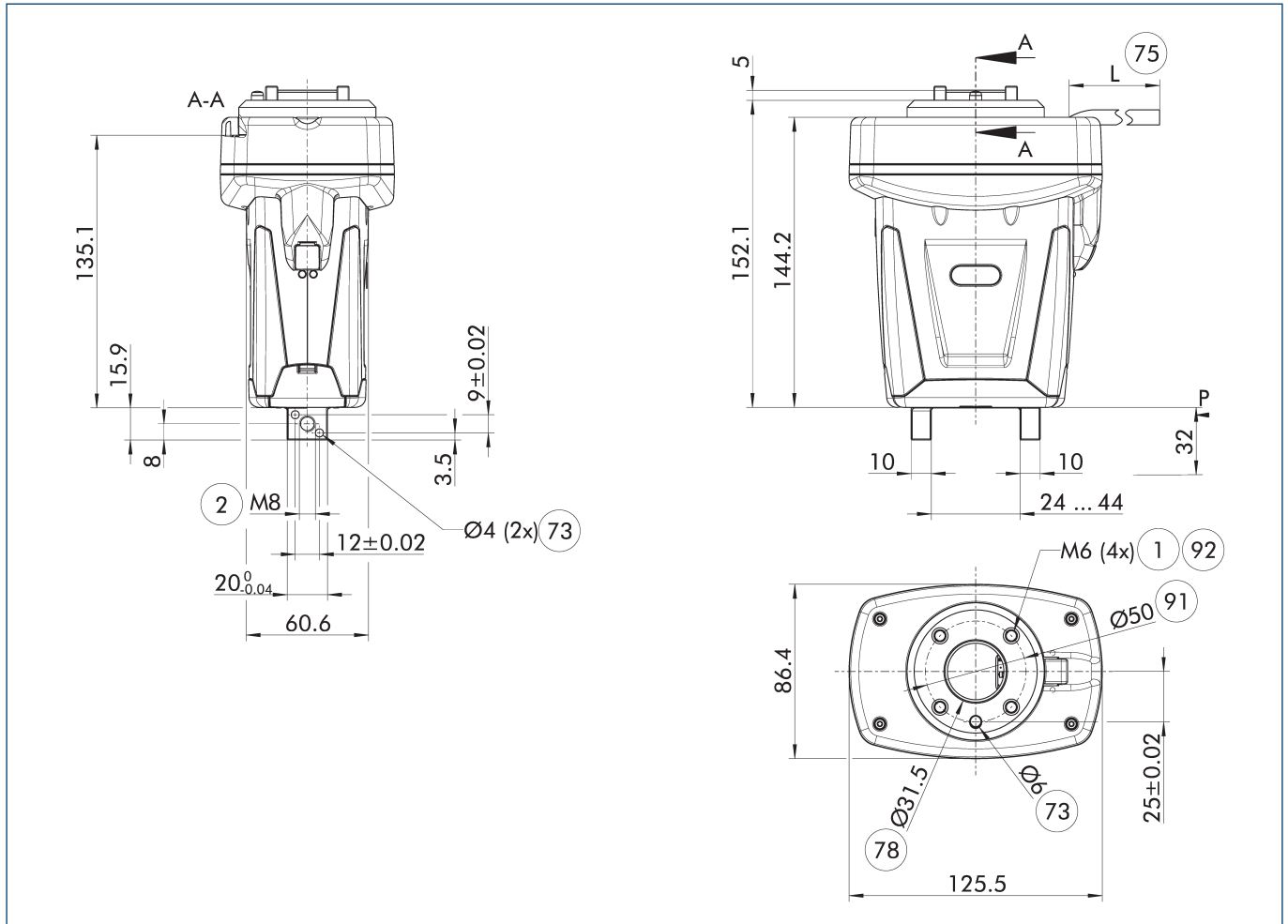
The drawing shows the basic version of the gripper with open jaws.

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

# Co-act EGP-C 64

Collaborating gripper for small components

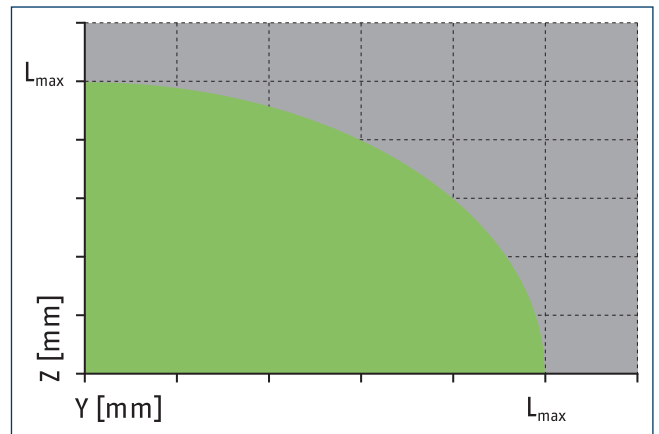
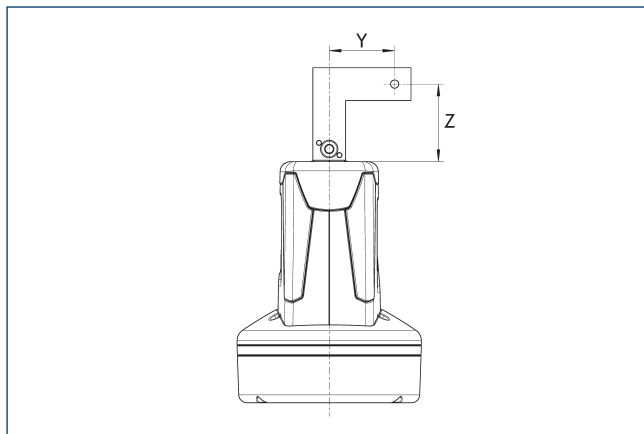
## Main view Co-act EGP-C 64-N-N-TMEK



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

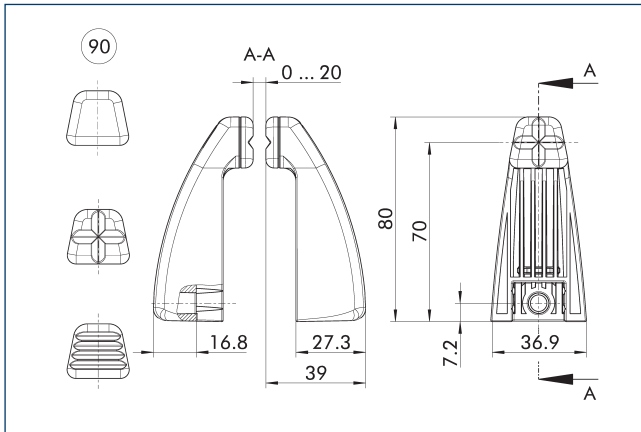
- ① Gripper connection
- ② Finger connection
- ⑦⑧ Fit for centering
- ⑦⑨ Fit for centering pins
- ⑦⑩ Cable length
- ⑨① DIN ISO-9409 bolt circle
- ⑨② Through holes for screw connections

## Maximum permitted finger projection



■ Permitted range      ■ Inadmissible range  
 L<sup>max</sup> is equivalent to the maximum permitted finger length, see the technical data table.

## Top jaw AUB Co-act EGP



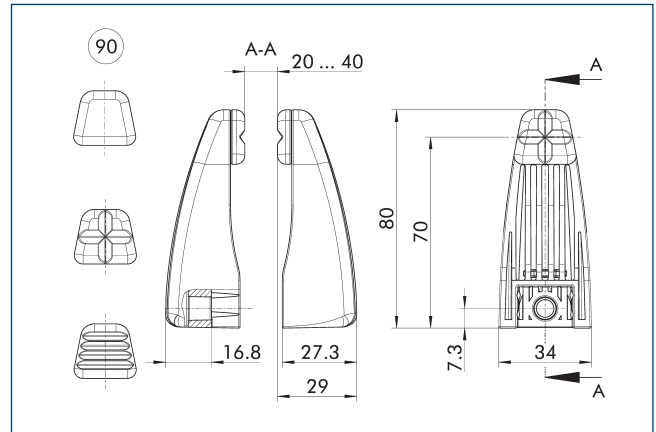
### 90 Finger inserts

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 64/20	1401294	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 64/40	1401297	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.

**SCHUNK GmbH & Co. KG**  
**Spann- und Greiftechnik**

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