



Superior Clamping and Gripping



Product Information

Gripper for small components MEG

MEG

Gripper for small components

Flexible. Compact. High Performance Density. Gripper for small components MEG

Electric 2-finger parallel gripper with smooth-running base jaws guided on roller bearings

Field of application

Gripping and moving of small to medium-sized workpieces with flexible force, stroke, and speed in low-contamination environment

Advantages – Your benefits

Drive concept step motor for independent actuation without pneumatics or hydraulics

External electronic system for control-intensive handling tasks with pre-positioning capability

Cross roller guidance for precise gripping through due to a scope-free base jaw guidance

Base jaws guided on double roller bearings for low friction and smooth running

Mounting from two sides in three screw directions for universal and flexible gripper assembly



Sizes
Quantity: 3



Weight
0.47 .. 1.42 kg



Gripping force
40 .. 140 N



Stroke per jaw
6 .. 10 mm



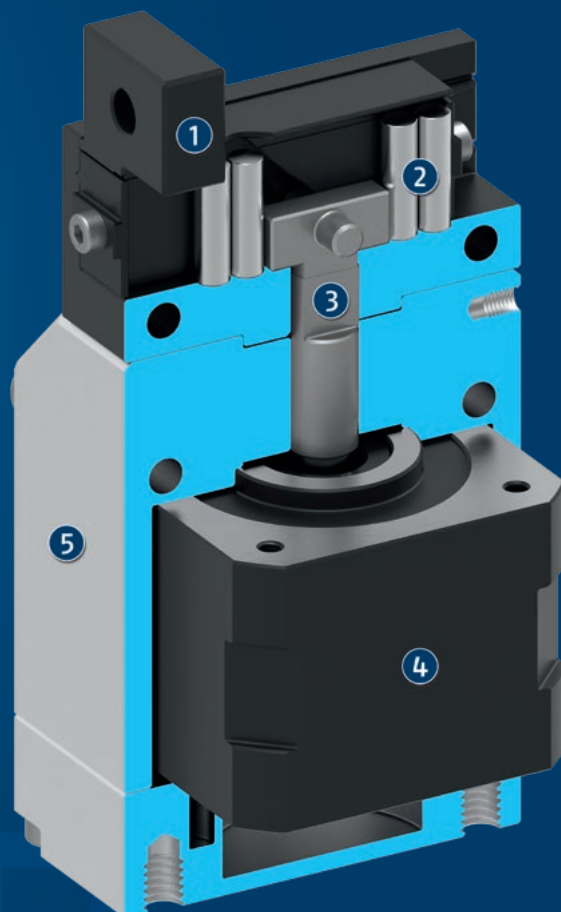
Workpiece weight
0.2 .. 0.7 kg

Functional description

The spindle is moved upwards or downwards via a step motor drive.

The lateral hooks on top of the spindle guide the angled groove of both base jaws, and this motion transfers into a

synchronized opening or closing of the base fingers.



- ① **Base Jaw**
for the connection of workpiece-specific gripper fingers
- ② **Cross roller guidance**
precise gripping due to backlash-free base jaw guidance

- ③ **Wedge-hook design**
for high force transmission and centric gripping
- ④ **Drive**
Step motor with spindle
- ⑤ **Housing**
is weight-optimized due to the use of high-strength aluminum alloy

General notes about the series

Operating principle: Wedge-hook kinematics

Housing material: Aluminum alloy, coated

Base jaw material: Steel

Actuation: electrically, via step motor or spindle

Warranty: 24 months

Scope of delivery: Enclosed accessory pack with centering sleeves, assembly and operating manual with installation instructions. An external MEG-C controller and a KA connection cable or similar are required for operation of the MEG gripper. These are optionally available and are not include in the scope of delivery.

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

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.

Closing and opening times: Minimum closing and opening times are merely the movement times of the base jaws or fingers at max. speed, max. acceleration, without current limitation (maximum current), and observance of the maximum permissible mass per finger.

Nominal currents: can be permanently actuated. With regard to all the currents which are ranging above the nominal current up to the maximum current, the notes of the individual product documentation has to be respected.



Application example

Compact dual 3-axis system, electrically powered, as an automatic loading unit for small components

- ① Universal linear module LDM
- ② Universal linear module LDT

- ③ Universal linear module LDN
- ④ Electric 2-finger parallel gripper MEG

SCHUNK offers more ...

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



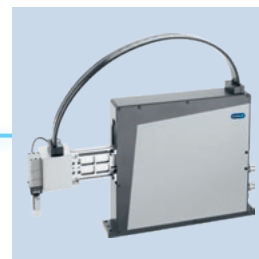
Linear module



Rotation unit



Rotary gripper module



Pick & Place Unit



Connection cables



Control unit



Finger blank

① 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

External electronic system: The control of the gripper MEG-EC takes place via the separately available external Controller MEG-C.

Easy control: Via digital and analog inputs the gripper parameters force, position, and speed as well as the various operating modes are predefined. The status of the gripper can be monitored via digital and analog outputs.

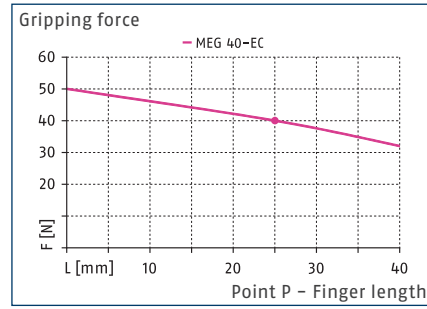
KA connection cable: Connection cables in various lengths with angled or straight sleeves can be ordered for the connection of gripper and controller.

MEG 40

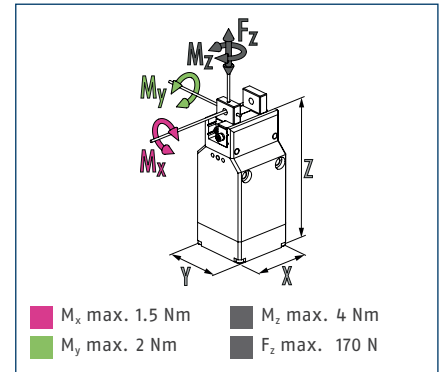
Gripper for small components



Gripping force



Dimensions and maximum loads

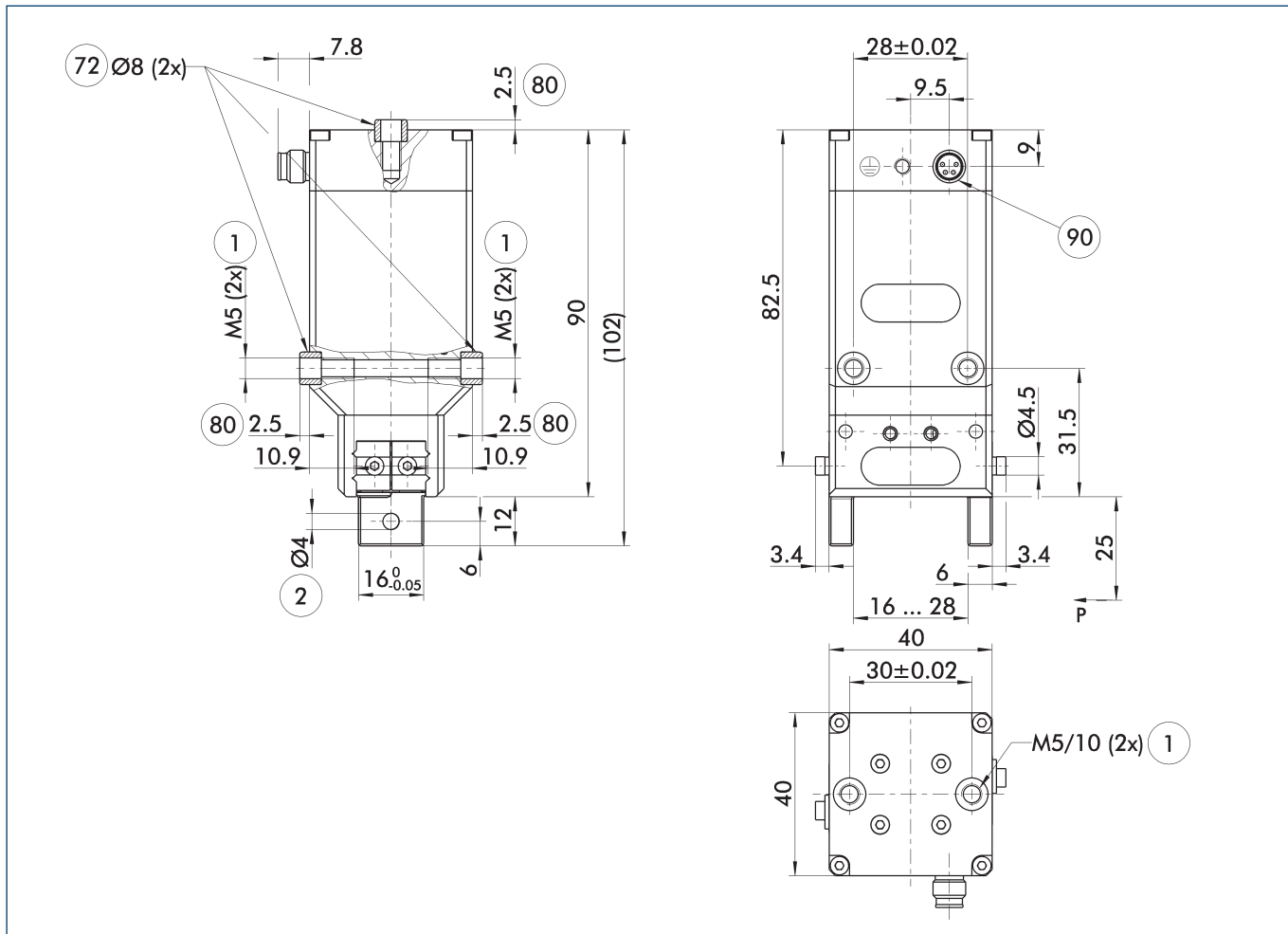


① The specified torques and forces are static values, apply for each base jaw, and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself.

Technical data

Description		MEG 40 EC
ID		0306008
General operating data		
Stroke per jaw	[mm]	6
Min./max. gripping force	[N]	35/40
Recommended workpiece weight	[kg]	0.2
Max. permissible finger length	[mm]	40
Max. permissible mass per finger	[kg]	0.08
Repeat accuracy	[mm]	0.02
Closing/opening time	[s]	0.62/0.62
Max. speed	[mm/s]	9.5
Weight	[kg]	0.47
Min./max. ambient temperature	[°C]	5/55
Protection class IP		30
Dimensions X x Y x Z	[mm]	40 x 40 x 90
Electrical operating data		
Nominal voltage	[V DC]	24
Nominal current	[A]	0.6
Max. current	[A]	1.5
Controller electronics		external
Controller type		MEG-C 040
Communication interface		Digital and analog I/O
Number of digital I/O		2/2
Number of analog inputs/outputs		3/3

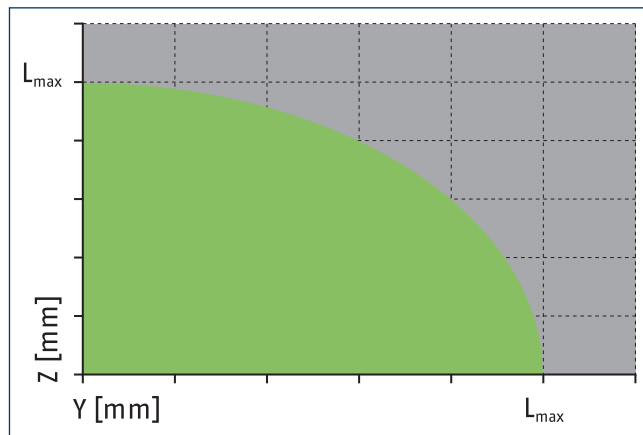
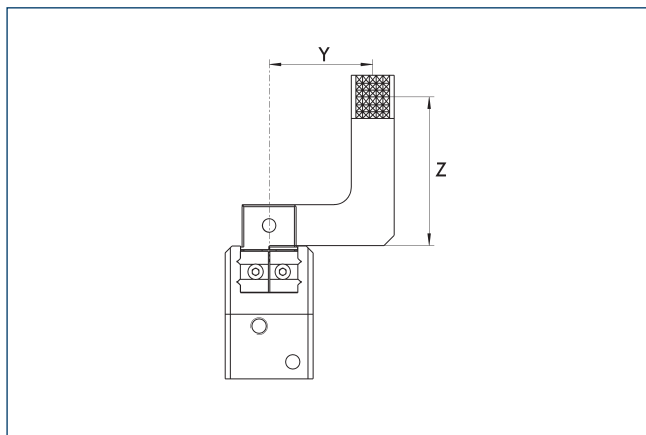
Main view



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

- ① Gripper connection
- ② Finger connection
- ⑦ Fit for centering sleeves
- ⑧ Depth of the centering sleeve hole in the counter part
- ⑨ Electrical connection

Maximum permitted finger projection

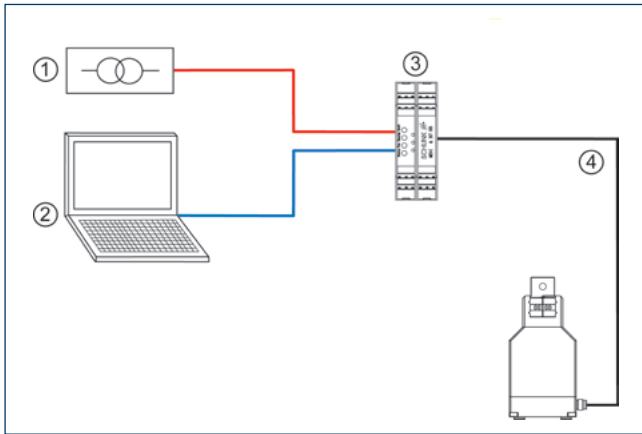


■ Permitted range ■ Inadmissible range
 L^{max} is equivalent to the maximum permitted finger length, see the technical data table.

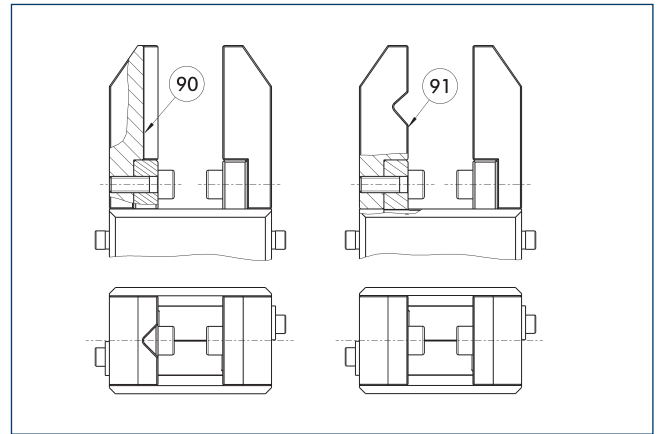
MEG 40

Gripper for small components

Actuation



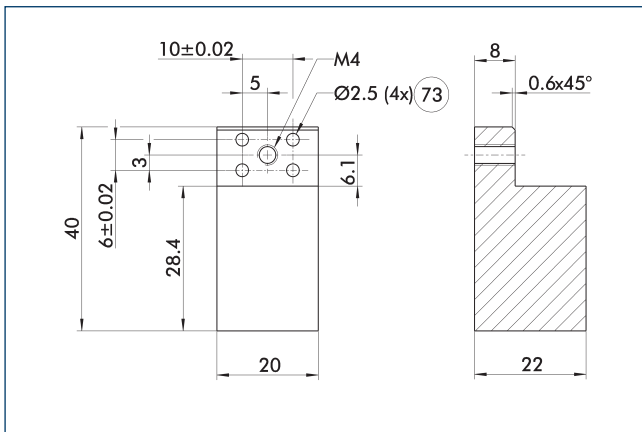
Jaw design



⑨⑩ Vertically positioned prism ⑨① Horizontally positioned prism

A workpiece, which is gripped using three points of contact, can be reliably gripped with high repeatability. A system with more than three points of contact is overdetermined. The drawing shows two alternative gripper finger designs for coaxial and radial gripping of a cylindrical part.

Finger blanks ABR-MPG-plus 40

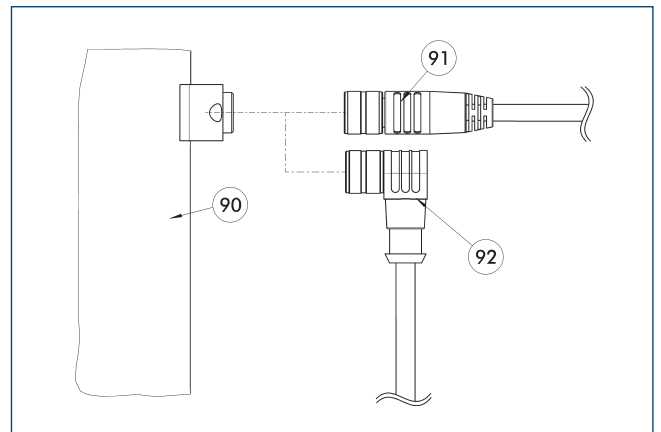


⑦③ Fit for centering pins

The drawing shows the finger blank which can be reworked by the customer.

Description	ID	Material	Scope of delivery
Finger blank			
ABR-MPG-plus 40	0340213	Aluminum	2

Connection cables

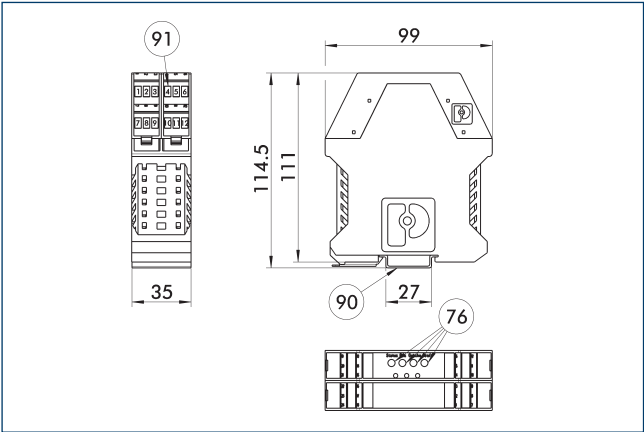


⑨⑩ Electrical connection component ⑨① Cable with straight connector
⑨② Cable with angled connector

Description	ID	Length	Often combined
		[m]	
Connection cables			
KA BG08-L 4P-0500	0307767	5	●
KA BG08-L 4P-1000	0307768	10	
KA BW08-L 4P-0500	0307765	5	
KA BW08-L 4P-1000	0307766	10	

⑩ BG stands for a connection cable with a straight female connector and BW for an angled female connector. SG stands for a connection cable with a straight male connector and SW for an angled male connector.

Motor controller



- 76 LED
- 90 Mounting on top-hat rail
- 91 Terminal strips

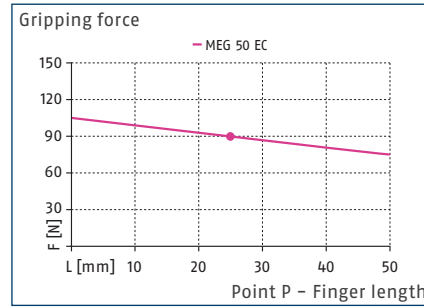
Description	ID	
Controller		
MEG-C-40	0307004	

MEG 50

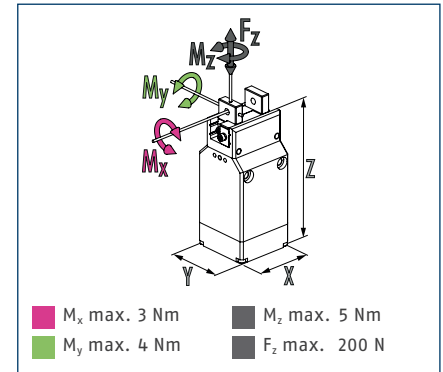
Gripper for small components



Gripping force I.D. gripping



Dimensions and maximum loads

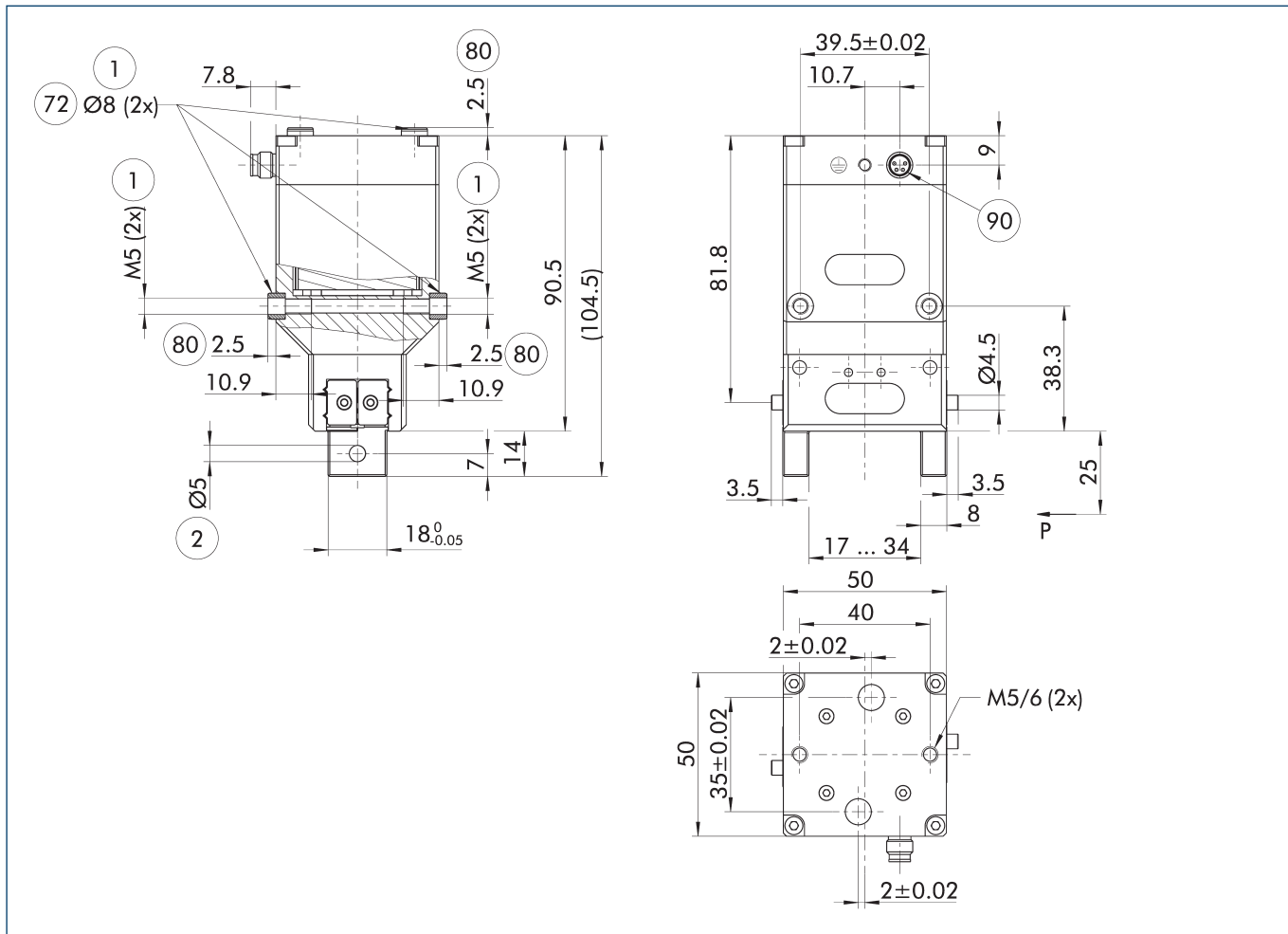


① The specified torques and forces are static values, apply for each base jaw, and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself.

Technical data

Description		MEG 50 EC
ID		0306010
General operating data		
Stroke per jaw	[mm]	8.5
Min./max. gripping force	[N]	60/90
Recommended workpiece weight	[kg]	0.45
Max. permissible finger length	[mm]	50
Max. permissible mass per finger	[kg]	0.14
Repeat accuracy	[mm]	0.02
Closing/opening time	[s]	0.3/0.3
Max. speed	[mm/s]	35
Weight	[kg]	0.71
Min./max. ambient temperature	[°C]	5/55
Protection class IP		30
Dimensions X x Y x Z	[mm]	50 x 50 x 90.5
Electrical operating data		
Nominal voltage	[V DC]	24
Nominal current	[A]	0.9
Max. current	[A]	1.5
Controller electronics		external
Controller type		MEG-C 050
Communication interface		Digital and analog I/O
Number of digital I/O		2/2
Number of analog inputs/outputs		3/3

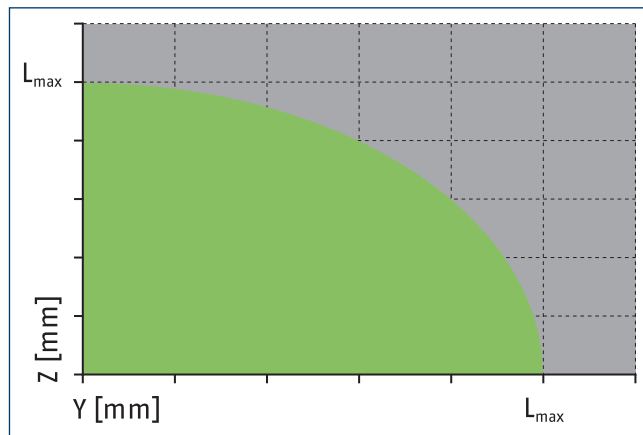
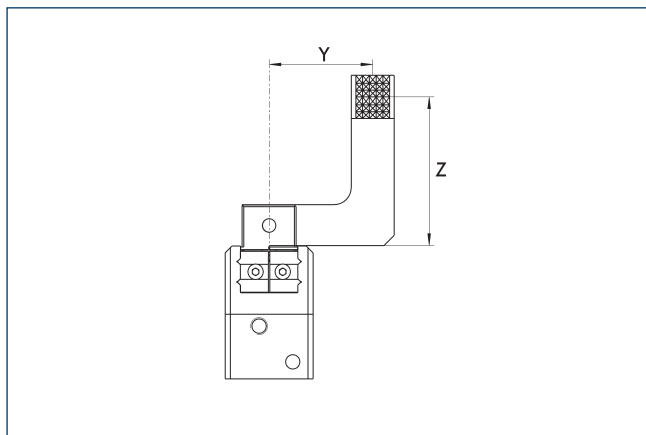
Main view



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

- ① Gripper connection
- ② Finger connection
- ⑦ Fit for centering sleeves
- ⑧ Depth of the centering sleeve hole in the counter part
- ⑨ Electrical connection

Maximum permitted finger projection

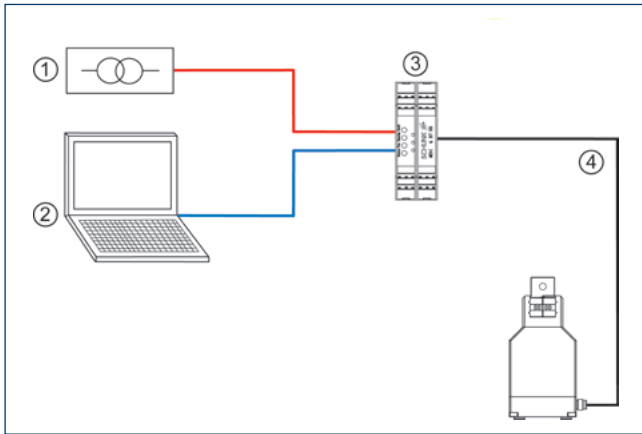


■ Permitted range ■ Inadmissible range
 L^{max} is equivalent to the maximum permitted finger length, see the technical data table.

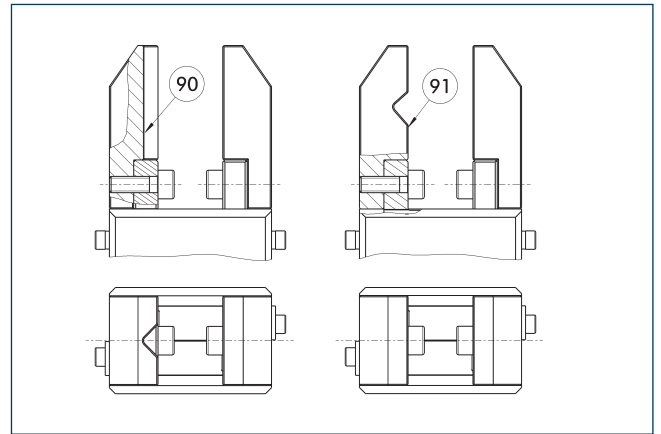
MEG 50

Gripper for small components

Actuation



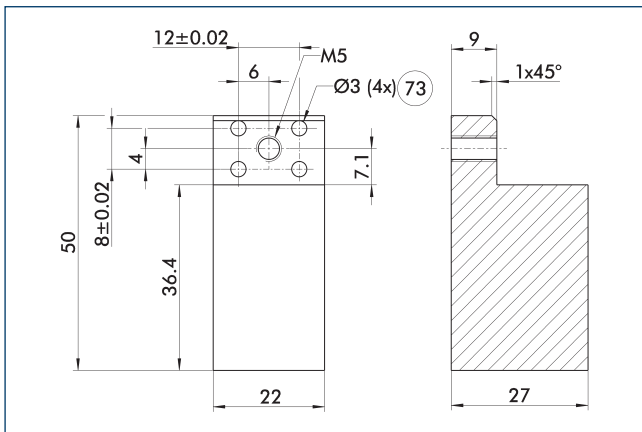
Jaw design



90 Vertically positioned prism 91 Horizontally positioned prism

A workpiece, which is gripped using three points of contact, can be reliably gripped with high repeatability. A system with more than three points of contact is overdetermined. The drawing shows two alternative gripper finger designs for coaxial and radial gripping of a cylindrical part.

Finger blanks ABR-MPG-plus 50

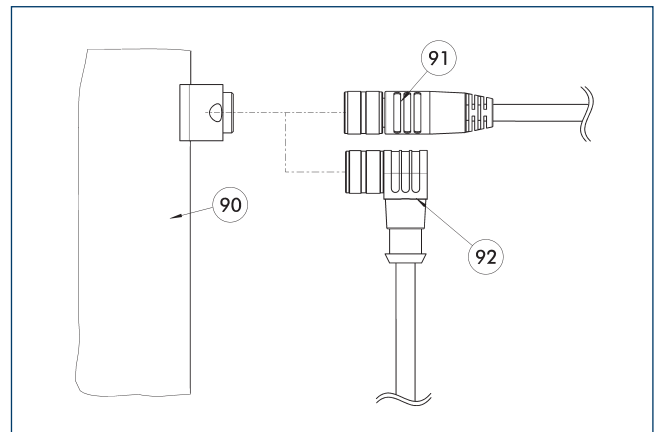


73 Fit for centering pins

The drawing shows the finger blank which can be reworked by the customer.

Description	ID	Material	Scope of delivery
Finger blank			
ABR-MPG-plus 50	0340214	Aluminum	2

Connection cables

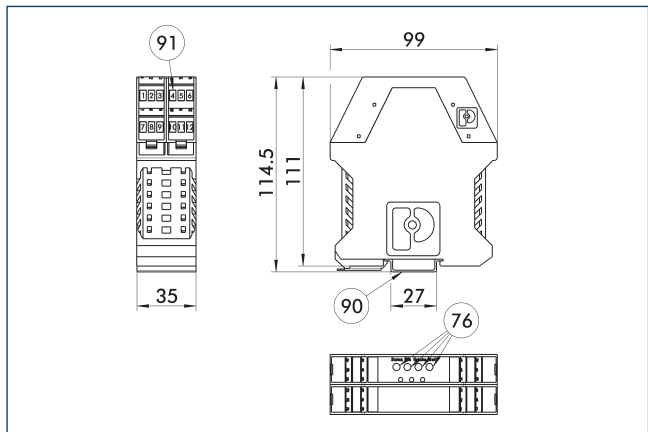


90 Electrical connection component 91 Cable with straight connector
92 Cable with angled connector

Description	ID	Length	Often combined
		[m]	
Connection cables			
KA BG08-L 4P-0500	0307767	5	●
KA BG08-L 4P-1000	0307768	10	
KA BW08-L 4P-0500	0307765	5	
KA BW08-L 4P-1000	0307766	10	

① BG stands for a connection cable with a straight female connector and BW for an angled female connector. SG stands for a connection cable with a straight male connector and SW for an angled male connector.

Motor controller



- 76 LED
- 90 Mounting on top-hat rail
- 91 Terminal strips

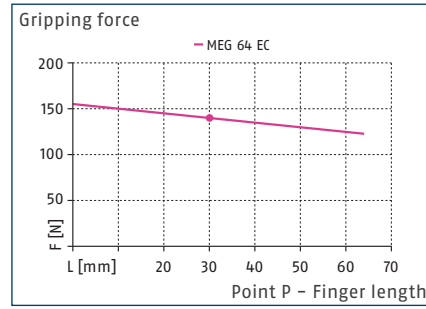
Description	ID	
Controller		
MEG-C-50	0307005	

MEG 64

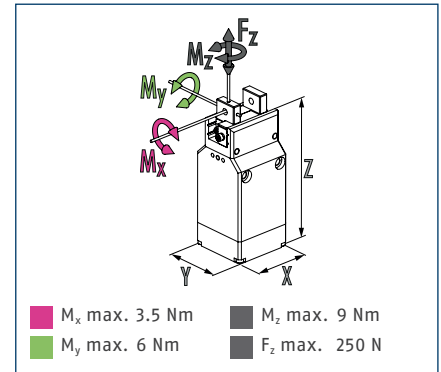
Gripper for small components



Gripping force



Dimensions and maximum loads

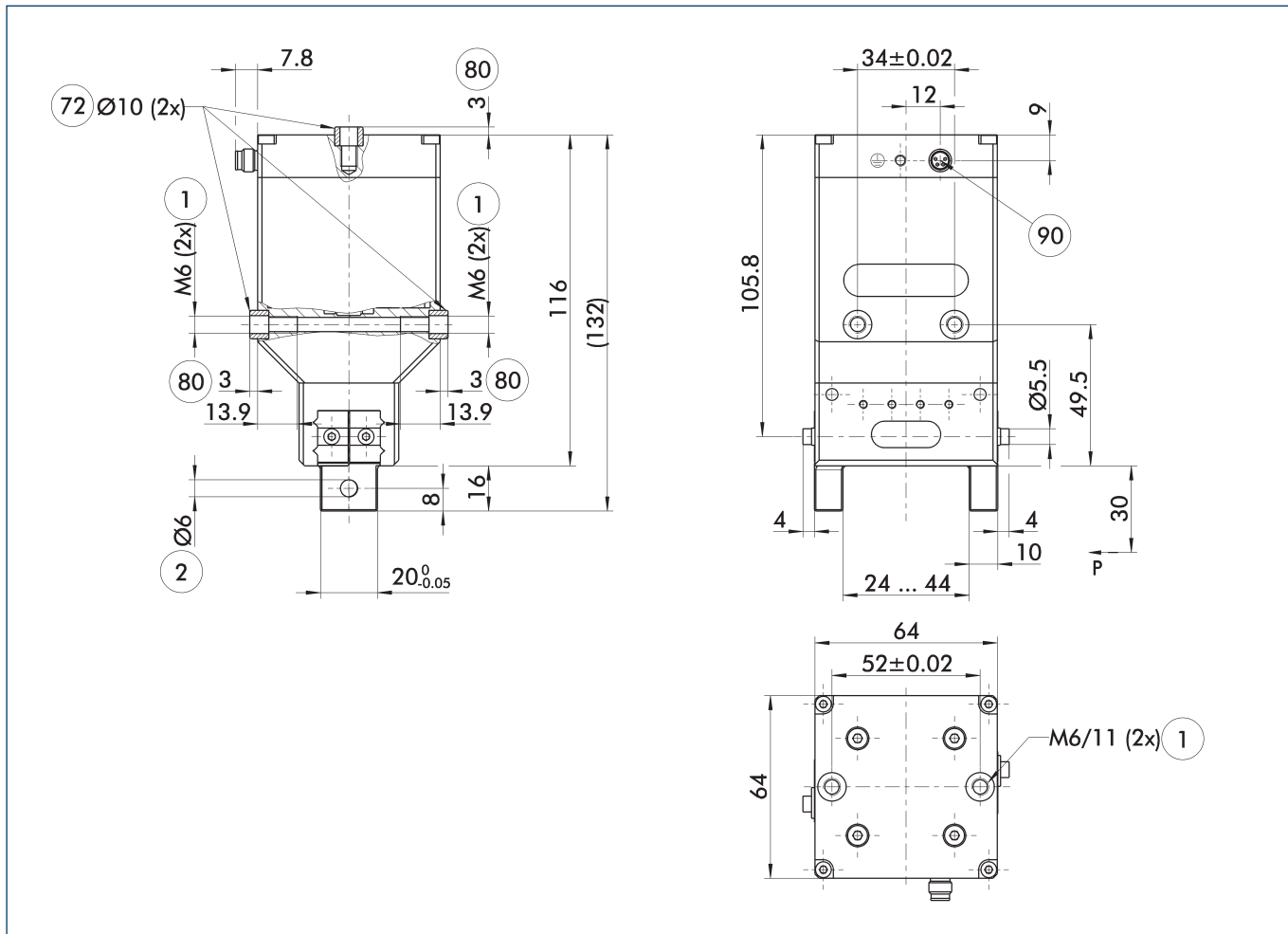


① The specified torques and forces are static values, apply for each base jaw, and may occur simultaneously. M_y may arise in addition to the moment generated by the gripping force itself.

Technical data

Description		MEG 64 EC
ID		0306012
General operating data		
Stroke per jaw	[mm]	10
Min./max. gripping force	[N]	40/140
Recommended workpiece weight	[kg]	0.7
Max. permissible finger length	[mm]	64
Max. permissible mass per finger	[kg]	0.24
Repeat accuracy	[mm]	0.02
Closing/opening time	[s]	0.6/0.6
Max. speed	[mm/s]	17
Weight	[kg]	1.42
Min./max. ambient temperature	[°C]	5/55
Protection class IP		30
Dimensions X x Y x Z	[mm]	64 x 64 x 116
Electrical operating data		
Nominal voltage	[V DC]	24
Nominal current	[A]	1.3
Max. current	[A]	1.5
Controller electronics		external
Controller type		MEG-C 064
Communication interface		Digital and analog I/O
Number of digital I/O		2/2
Number of analog inputs/outputs		3/3

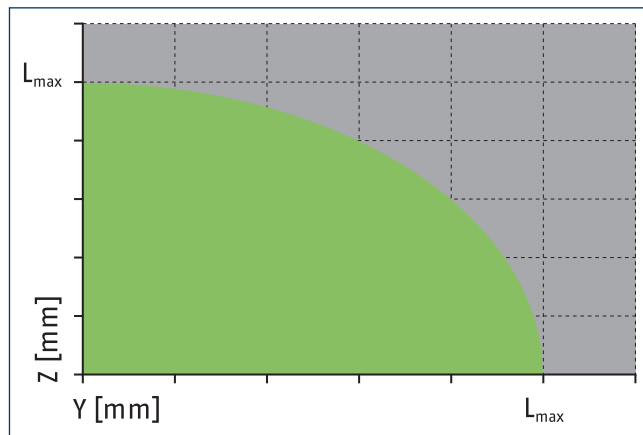
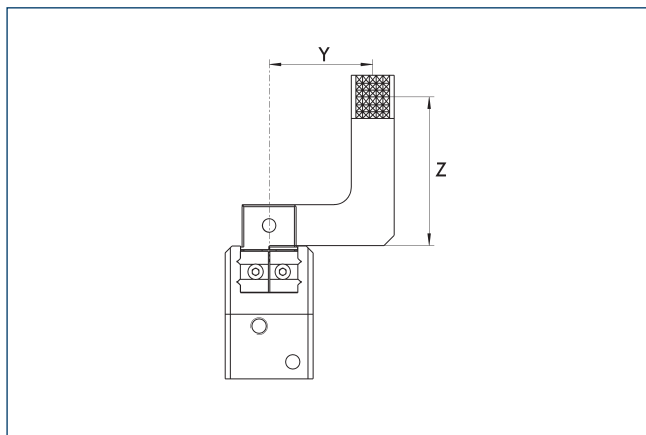
Main view



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- ① Gripper connection
- ② Finger connection
- ⑦ Fit for centering sleeves
- ⑧0 Depth of the centering sleeve hole in the counter part
- ⑨0 Electrical connection

Maximum permitted finger projection



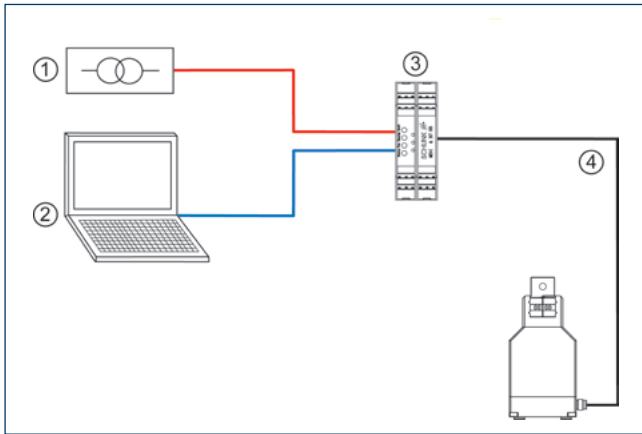
■ Permitted range ■ Inadmissible range

L_{max} is equivalent to the maximum permitted finger length, see the technical data table.

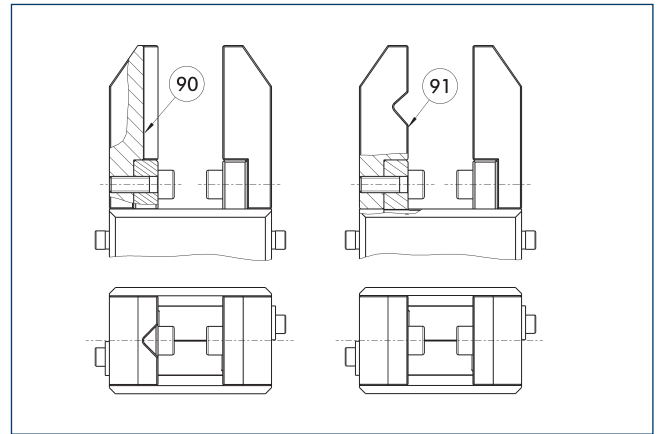
MEG 64

Gripper for small components

Actuation



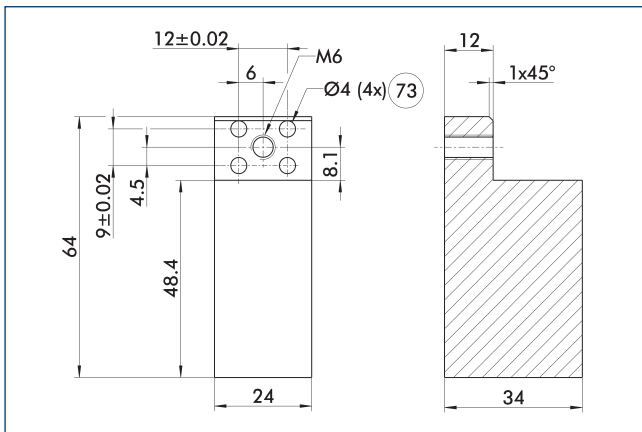
Jaw design



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Finger blanks ABR-MPG-plus 64

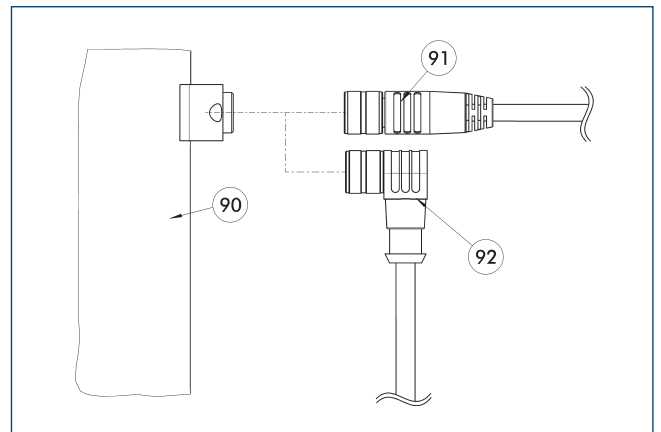


73 Fit for centering pins

The drawing shows the finger blank which can be reworked by the customer.

Description	ID	Material	Scope of delivery
Finger blank			
ABR-MPG-plus 64	0340215	Aluminum	2

Connection cables

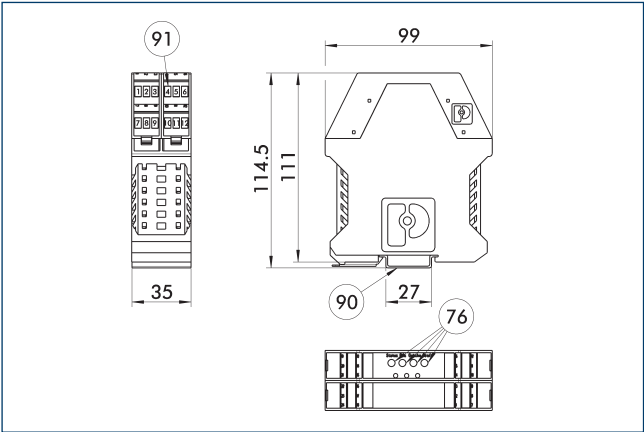


90 Electrical connection component 91 Cable with straight connector
92 Cable with angled connector

Description	ID	Length	Often combined
		[m]	
Connection cables			
KA BG08-L 4P-0500	0307767	5	●
KA BG08-L 4P-1000	0307768	10	
KA BW08-L 4P-0500	0307765	5	
KA BW08-L 4P-1000	0307766	10	

① BG stands for a connection cable with a straight female connector and BW for an angled female connector. SG stands for a connection cable with a straight male connector and SW for an angled male connector.

Motor controller



- 76 LED
- 90 Mounting on top-hat rail
- 91 Terminal strips

Description	ID	
Controller		
MEG-C-64	0307006	

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