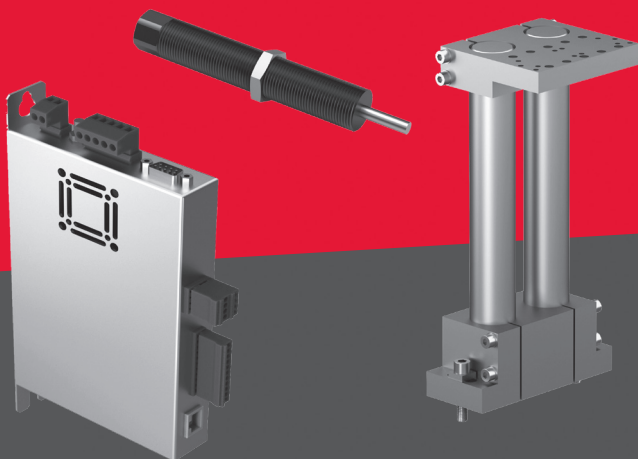




Handling  
technology HT  
Accessories

**More than  
Motion.**

Yesterday. Today. Tomorrow.





# Handling technology HT Accessories

As the components of a perfectly coordinated modular system, all product groups within Afag's handling technology HT are consequently designed for universal modularity. The combination of different sizes amongst each other is facilitated in a simple manner. Pneumatic linear modules, for example, can be combined with electrical axes as well as with electrical grippers. The quality of our handling technology components as well as innovation, customer proximity and service are the key elements of Afag's philosophy. Free CAD data for all modules can be quickly obtained from a partserver. The 24 month service life reduces standstill periods, and replacement costs are also significantly cut.

The accessories listed in this catalogue supplement our wide range of linear components, as well as gripping and rotary components. These pneumatic and electric components are available in various sizes and are listed in separate catalogues.

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## Updates of our documentations

Unlike the printed documents, our digital instructions manuals, product data sheets and catalogues are being continuously updated on our website.

Please keep in mind that the digital documents on our website are always the latest versions.

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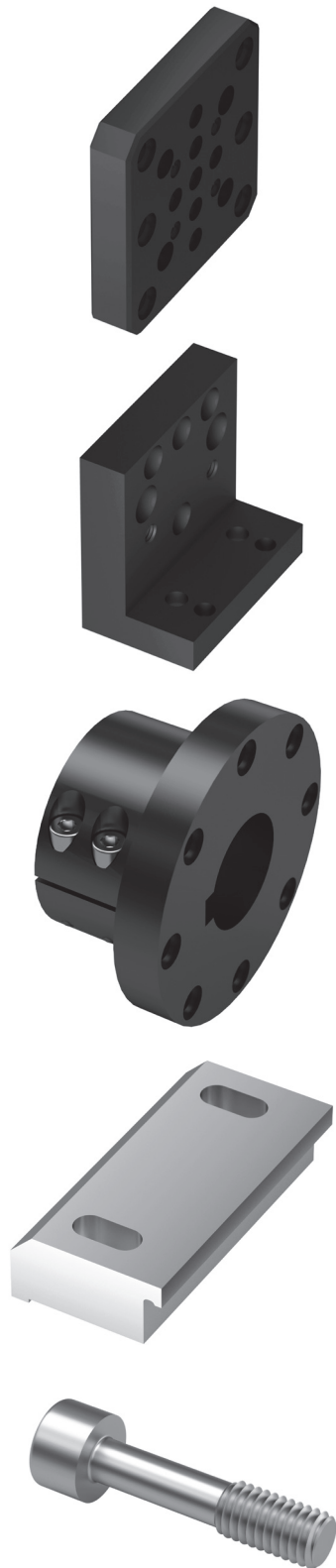




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Compressed air accessories	79	7
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# Connection elements

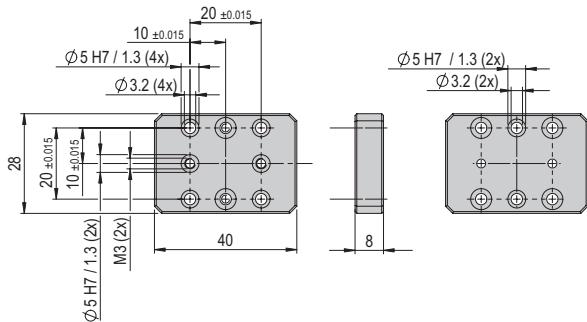


# Table of contents: Connection elements

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# Connection plates VP

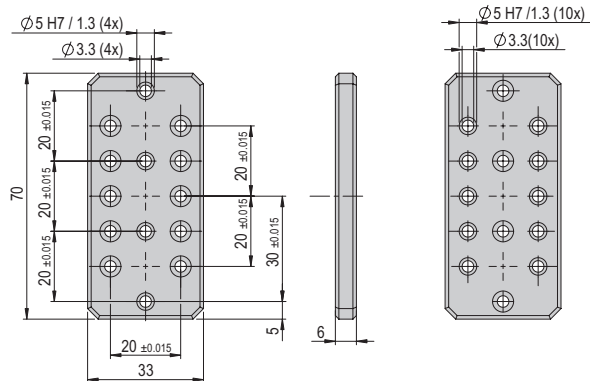
Connection plate VP 100	VP 100
<b>Order number</b>	<b>50077103</b>
Net weight	0.021 kg



## Included in the delivery

- 2x Special screw M3 x 10/4
- 4x Mounting screw M3x12
- 2x Centering bushing  $\varnothing 5 \times 2.5$

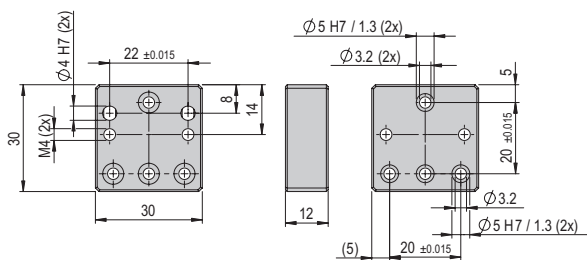
Connection plate VP 101	VP 101
<b>Order number</b>	<b>50041054</b>
Net weight	0.032 kg



## Included in the delivery

- 2x Mounting screw M3x10
- 2x Centering bushing  $\varnothing 5 \times 2.5$
- 6x Mounting screw M3x12

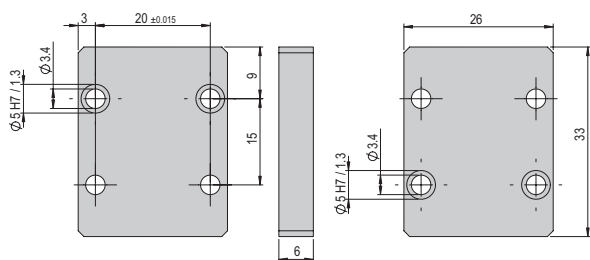
Connection plate VP 102	VP 102
<b>Order number</b>	<b>50077106</b>
Net weight	0.025 kg



## Included in the delivery

- 2x Mounting screw M3x16
- 2x Centering bushing  $\varnothing 5 \times 2.5$

Connection plate VP 103	VP 103
<b>Order number</b>	<b>50077107</b>
Net weight	0.013 kg



## Included in the delivery

- 4x Mounting screw M3x12
- 4x Centering bushing  $\varnothing 5 \times 2.5$





Connection plate VP 110

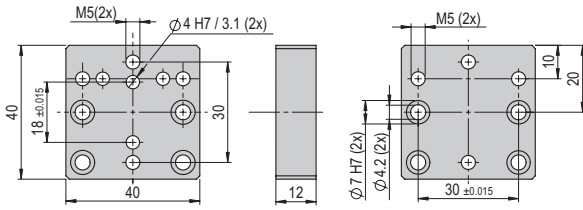
VP 110

Order number

50077115

Net weight

0.044 kg



Included in the delivery

- 2x Centering bushing Ø7x3
- 4x Mounting screw M4x12

Connection plate VP 111

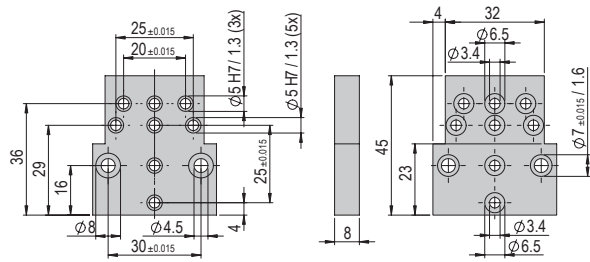
VP 111

Order number

50077116

Net weight

0.03 kg



Included in the delivery

- 2x Centering bushing Ø7x3
- 2x Mounting screw M3x10
- 2x Mounting screw M4x12
- 2x Centering bushing Ø5x2.5

Connection plate VP 112

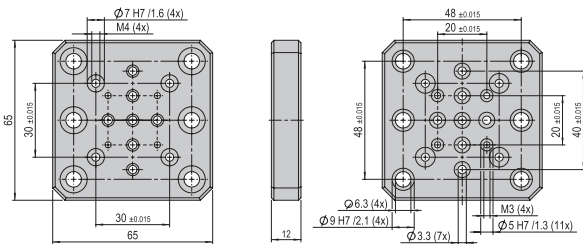
VP 112

Order number

50041068

Net weight

0.112 kg



Included in the delivery

- 2x Centering bushing Ø9x4
- 2x Mounting screw M3x16
- 2x Centering bushing Ø5x2.5
- 2x Mounting screw M4x10
- 4x Mounting screw M4x20
- 4x Mounting screw M6x16

Connection plate VP 113

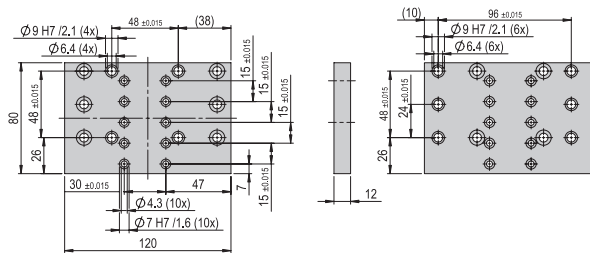
VP 113

Order number

50077118

Net weight

0.274 kg



Included in the delivery

- 2x Centering bushing Ø9x4
- 4x Mounting screw M4x12
- 4x Mounting screw M6x14
- 8x Mounting screw M6x20

Connection plate VP 114

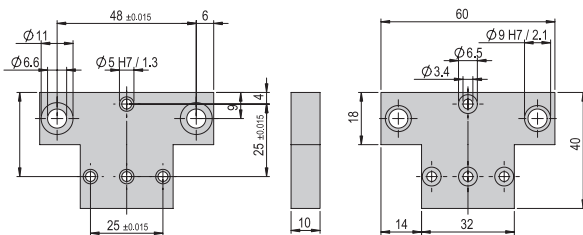
VP 114

Order number

50077119

Net weight

0.041 kg



Included in the delivery

- 2x Centering bushing Ø9x4
- 2x Mounting screw M3x12
- 2x Mounting screw M6x14
- 2x Centering bushing Ø5x2.5

Connection plate VP 115

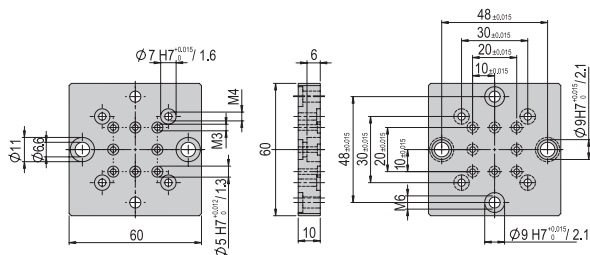
VP 115

Order number

50077120

Net weight

0.086 kg



Included in the delivery

- 2x Centering bushing Ø9x4
- 2x Mounting screw M6x14
- 2x Mounting screw M6x16
- 2 Mounting screw M6x25

Connection plate VP 117

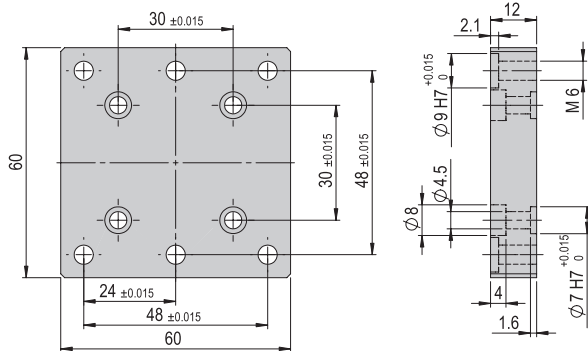
VP 117

Order number

50077121

Net weight

0.393 kg



Included in the delivery

- 2x Centering bushing Ø7x3
- 4x Mounting screw M4x16
- 4x Mounting screw M6x20
- 4x Mounting screw M6x30
- 4x Special screw M6 x 20/11

Connection plate VP 118

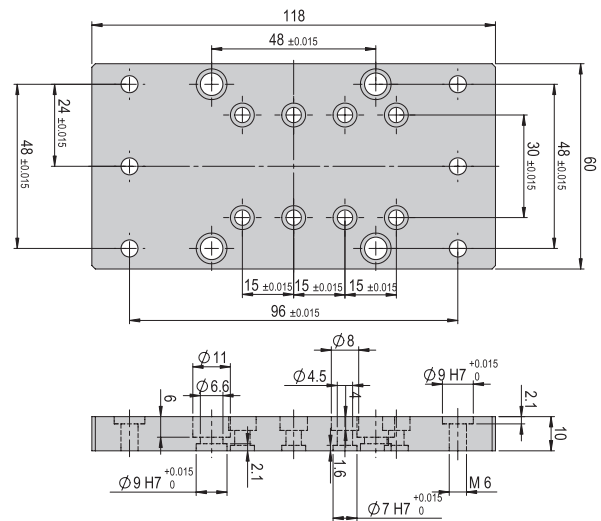
VP 118

Order number

50077122

Net weight

0.171 kg



Included in the delivery

- 2x Centering bushing Ø7x3
- 2x Centering bushing Ø9x4
- 4x Mounting screw M4x12
- 4x Mounting screw M6x16
- 4x Mounting screw M6x20

Connection plate VP 119

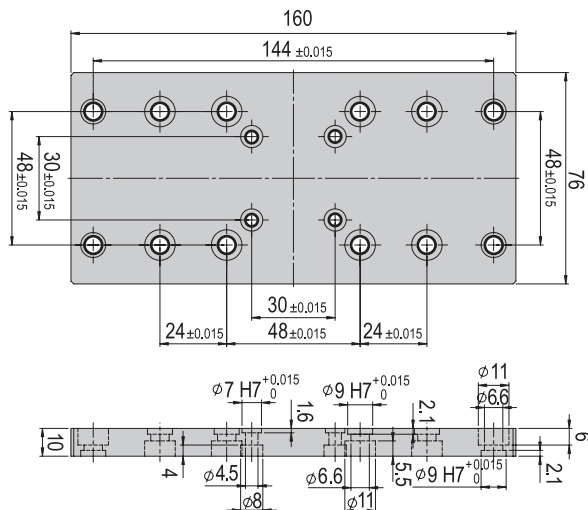
VP 119

Order number

11017417

Net weight

0.298 kg



Included in the delivery

- 2x Centering bushing Ø7x3
- 4x Centering bushing Ø9x4
- 4x Mounting screw M4x14
- 4x Mounting screw M6x12
- 8x Mounting screw M6x16

Connection plate VP 120

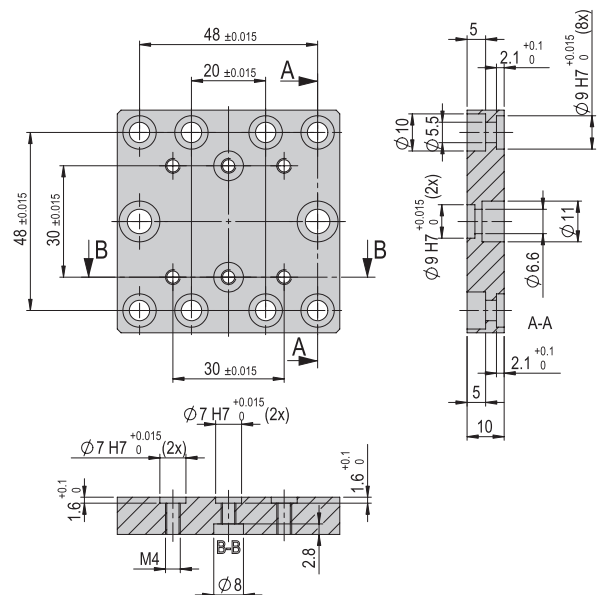
VP 120

Order number

11010369

Net weight

0.079 kg



Included in the delivery

- 4x Centering bushing Ø9x4
- 2x Mounting screw M4x12
- 4x Mounting screw M5x16
- 4x Mounting screw M6x16

Note: Connection plate, angle plates, flange plates can also be manufactured by the customer itself, please have a look at our website [www.afag.com](http://www.afag.com) where you can download shop drawings free of charge.

Connection plate VP 122

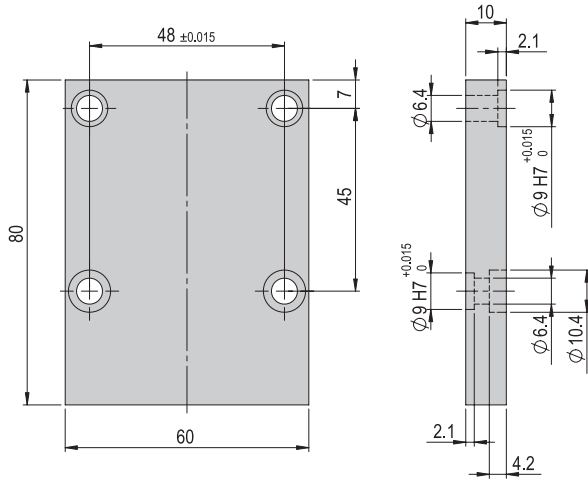
VP 122

Order number

11001621

Net weight

0.123 kg



Included in the delivery

- 4x Centering bushing  $\varnothing 9 \times 4$
- 2x Mounting screw M6x16
- 2x Mounting screw M6x20

Connection plate VP 125

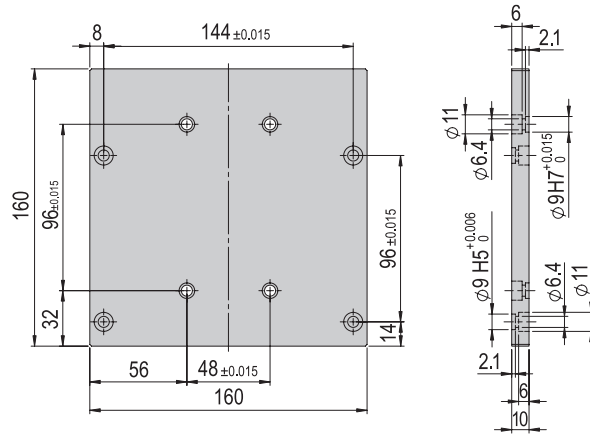
VP 125

Order number

50017888

Net weight

0.409 kg



Included in the delivery

- 8x Centering bushing  $\varnothing 9 \times 4$
- 8x Mounting screw M6x16

Connection plate VP 126

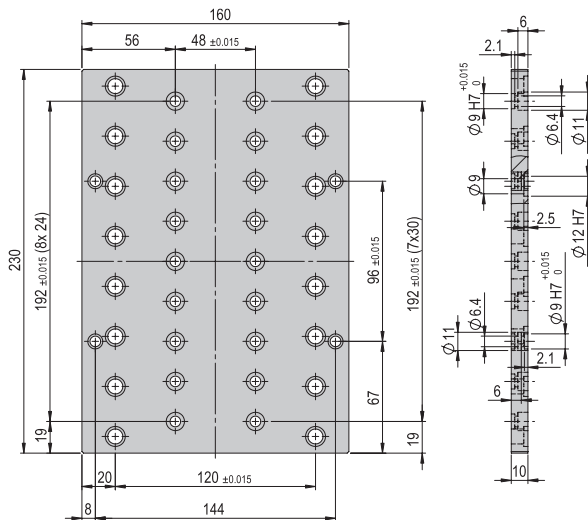
VP 126

Order number

50077130

Net weight

1.04 kg



Included in the delivery

- 4x Centering bushing  $\varnothing 9 \times 4$
- 2x Centering bushing  $\varnothing 12 \times 4.8$
- 4x Mounting screw M6x12
- 4x Mounting screw M6x18
- 4x Mounting screw M8x25

Connection plate VP 127

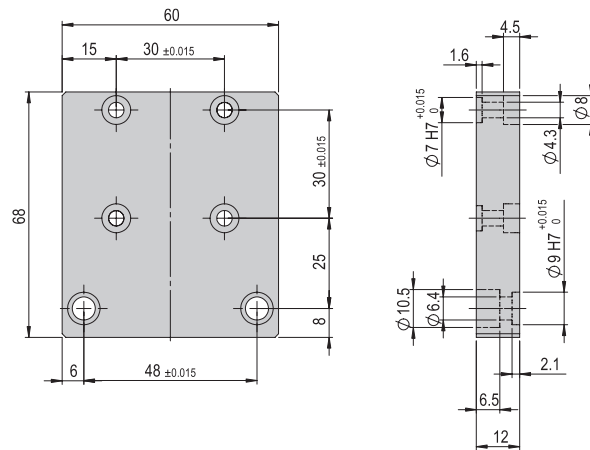
VP 127

Order number

50003068

Net weight

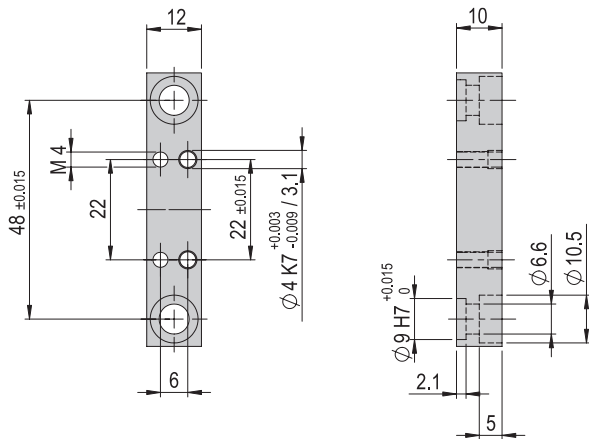
0.122 kg



Included in the delivery

- 2x Centering bushing  $\varnothing 7 \times 3$
- 2x Centering bushing  $\varnothing 9 \times 4$
- 4x Mounting screw M4x14
- 4x Mounting screw M4x20
- 2x Mounting screw M6x12
- 2x Mounting screw M6x20

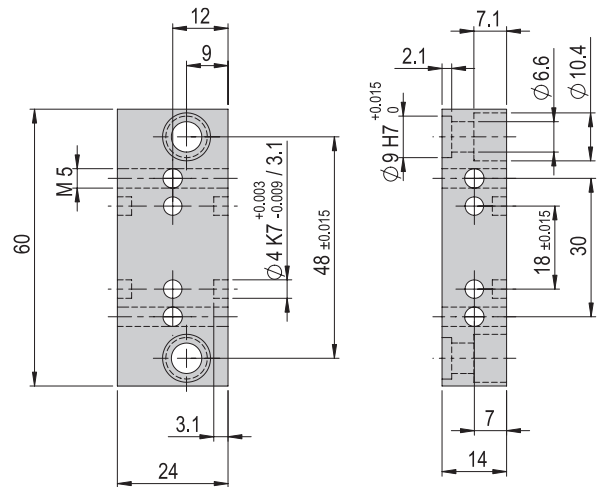
Connection plate VP 128	VP 128
<b>Order number</b>	<b>11005908</b>
Net weight	0.015 kg



#### Included in the delivery

- 2x Centering bushing Ø9x4
- 2x Mounting screw M4x30
- 2x Mounting screw M6x20
- 2x Washer M4

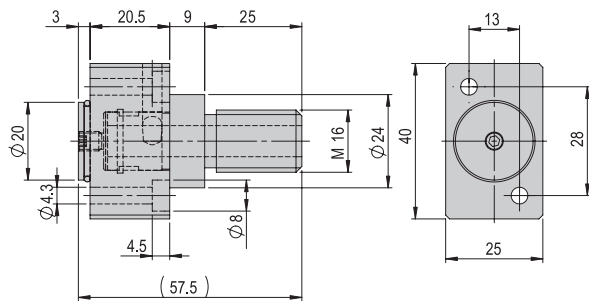
Connection plate VP 129	VP 129
<b>Order number</b>	<b>11001440</b>
Net weight	0.045 kg



#### Included in the delivery

- 2x Centering bushing Ø9x4
- 2x Mounting screw M6x20

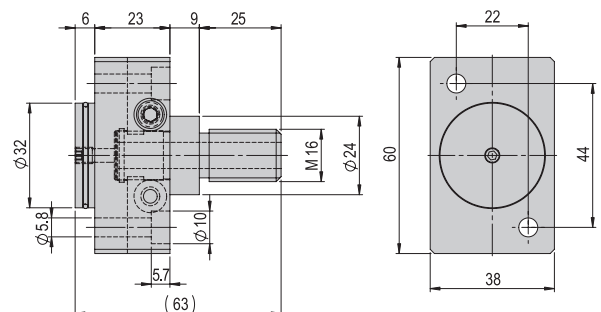
Connection plate VP 130	VP 130
<b>Order number</b>	<b>11009167</b>
Net weight	0.121 kg



#### Included in the delivery

- 2x Mounting screw M4x25
- 1x Set screw M5x6
- 1x Set screw M6x8
- 1x O-ring 15x1 mm
- 1x O-ring 18x1.5 mm
- 1x Lardon

Connection plate VP 131	VP 131
<b>Order number</b>	<b>11009168</b>
Net weight	0.241 kg



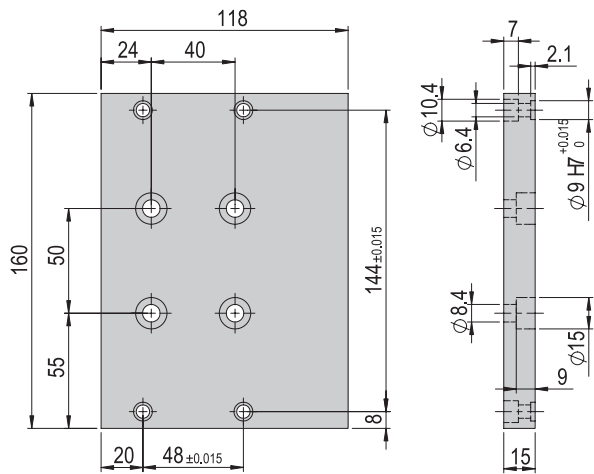
#### Included in the delivery

- 2x Mounting screw M5x30
- 1x Set screw M5x6
- 1x O-ring 15x1 mm
- 1x O-ring 29x1.5 mm

Note: Connection plate, angle plates, flange plates can also be manufactured by the customer itself, please have a look at our website [www.afag.com](http://www.afag.com) where you can download shop drawings free of charge.

Connection plate VP 132 VP 132

**Order number** 11004894  
**Net weight** 0.747 kg

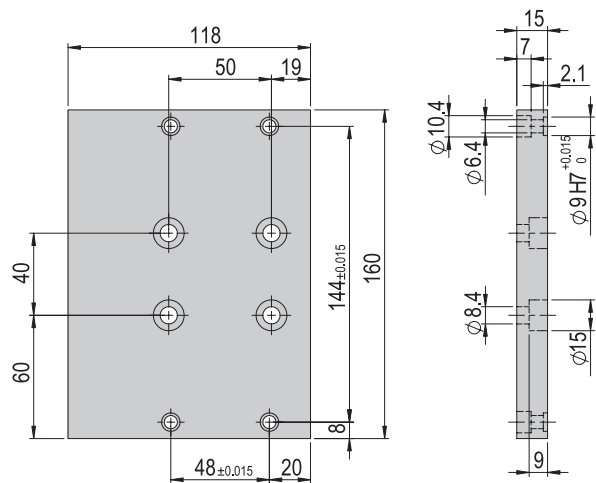


**Included in the delivery**

- 4x Centering bushing Ø9x4
- 4x Mounting screw M6x20
- 4x Mounting screw M8x25

Connection plate VP 133 VP 133

**Order number** 11004975  
**Net weight** 0.747 kg

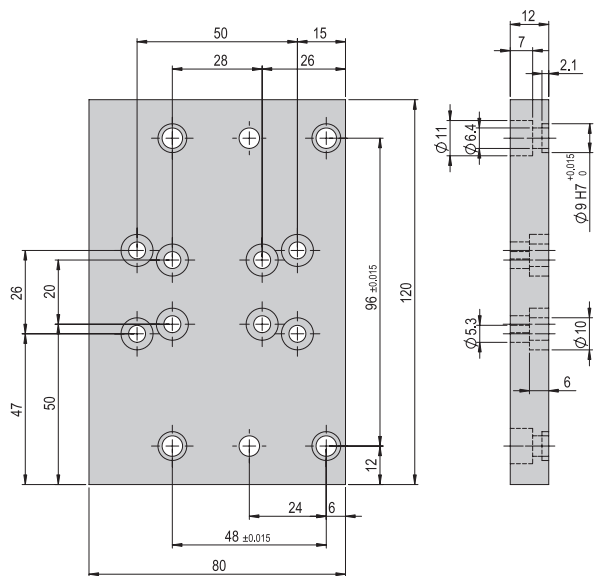


**Included in the delivery**

- 4x Centering bushing Ø9x4
- 4x Mounting screw M6x20
- 4x Mounting screw M8x16
- 4x T-nut M8

Connection plate VP 134 VP 134

**Order number** 11014949  
**Net weight** 0.282 kg

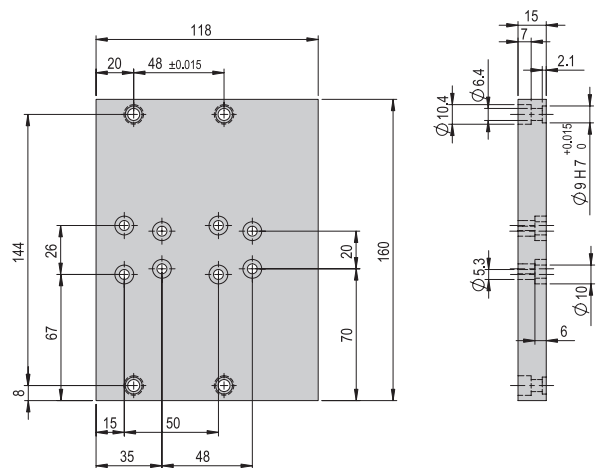


**Included in the delivery**

- 2x Centering bushing Ø9x4
- 4x Mounting screw M5x12
- 4x Mounting screw M5x16
- 4x Mounting screw M6x20
- 4x T-nut M5

Connection plate VP 135 VP 135

**Order number** 11014954  
**Net weight** 0.747 kg



**Included in the delivery**

- 2x Centering bushing Ø9x4
- 4x Mounting screw M5x12
- 4x Mounting screw M5x16
- 4x Mounting screw M6x20
- 4x T-nut M5

Connection plate VP 136

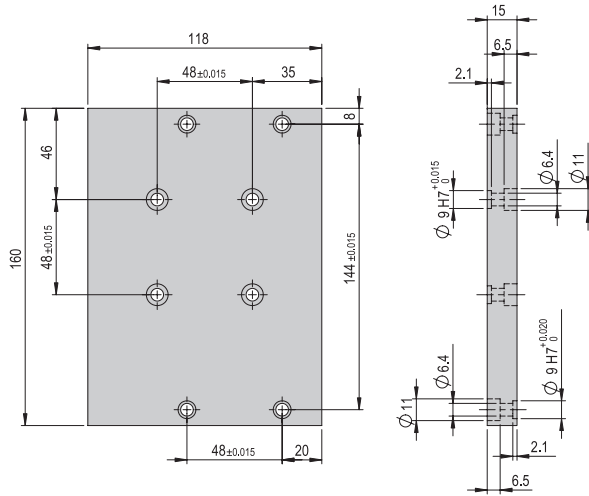
VP 136

Order number

11014931

Net weight

0.747 kg



Included in the delivery

- 4x Centering bushing  $\phi 9 \times 4$
- 4x Mounting screw M6x16
- 4x Mounting screw M6x20

Connection plate VP 137

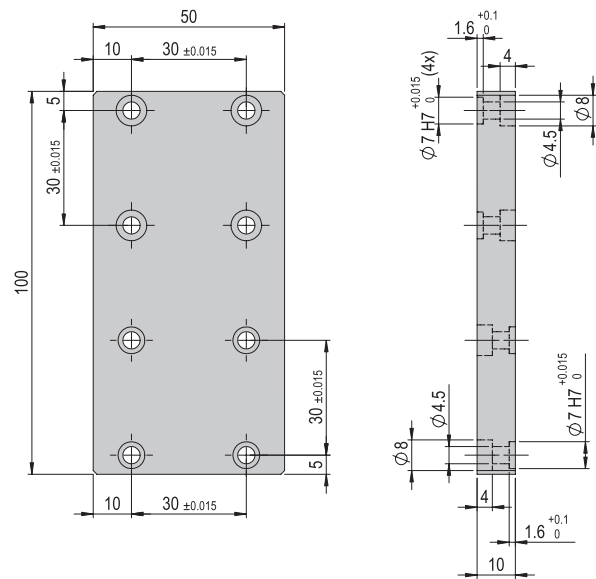
VP 137

Order number

50095813

Net weight

0.126 kg



Included in the delivery

- 4x Centering bushing  $\phi 7 \times 3$
- 4x Mounting screw M4x10
- 8x Mounting screw M4x14

Connection plate VP 138

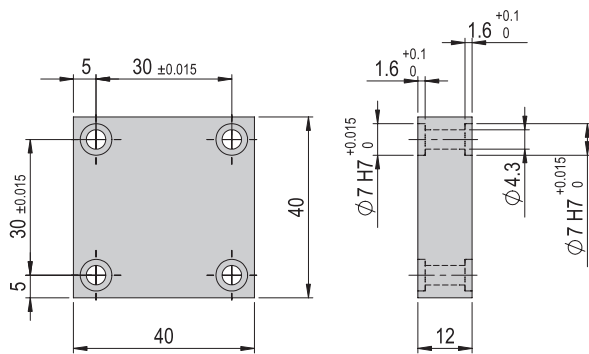
VP 138

Order number

50001370

Net weight

0.049 kg



Included in the delivery

- 2x Centering bushing  $\phi 7 \times 3$
- 4x Mounting screw M4x30

Connection plate VP 139

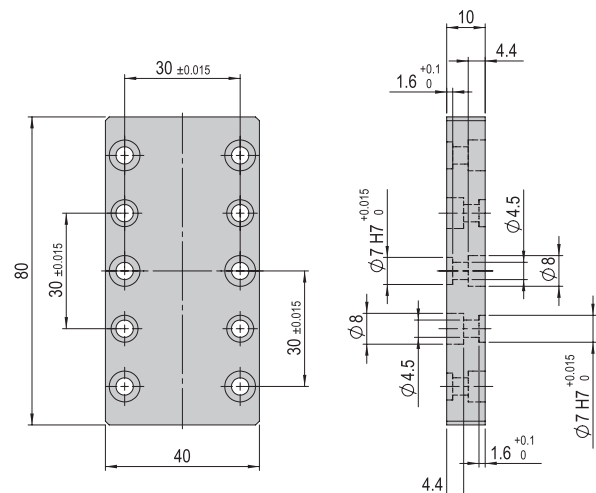
VP 139

Order number

11017960

Net weight

0.078 kg



Included in the delivery

- 4x Centering bushing  $\phi 7 \times 3$
- 8x Mounting screw M4x14

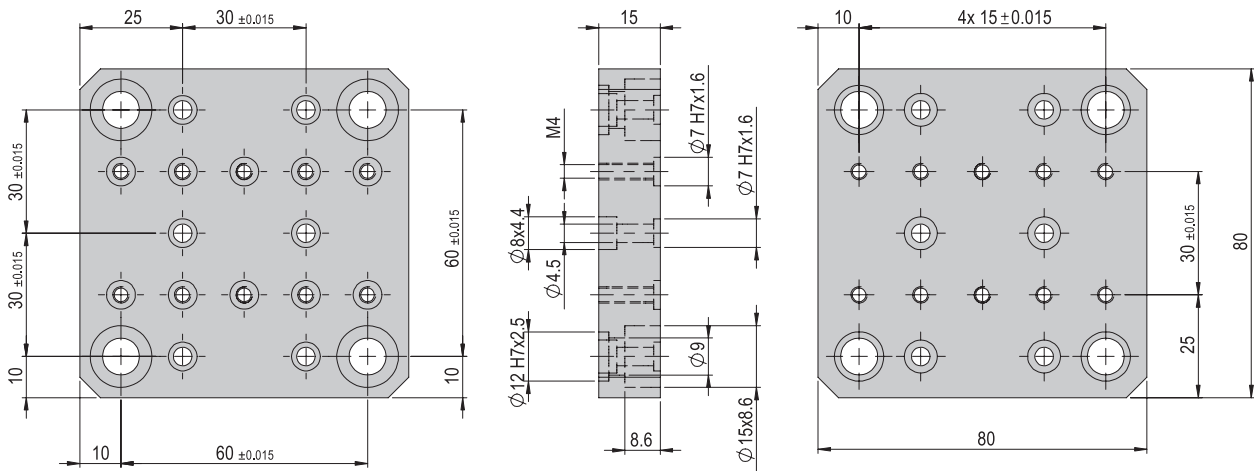
Note: Connection plate, angle plates, flange plates can also be manufactured by the customer itself, please have a look at our website [www.afag.com](http://www.afag.com) where you can download shop drawings free of charge.

Order number

50214488

Net weight

0.3 kg



**Included in the delivery**

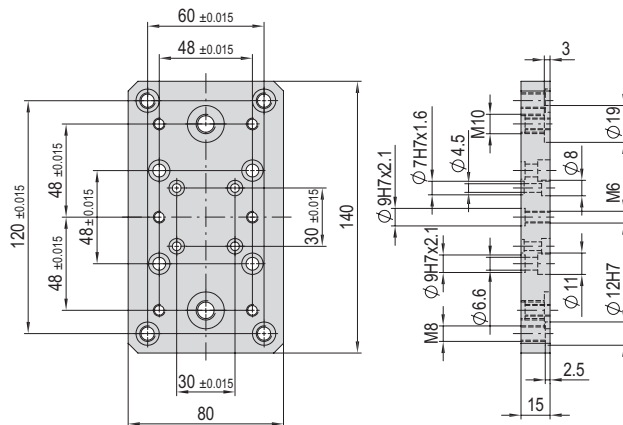
- 2x Centering bushing Ø7x3
- 2x Centering bushing Ø12x4.8
- 4x Mounting screw M4x18
- 4x Mounting screw M8x20

Order number

50272311

Net weight

0.465 kg



**Included in the delivery**

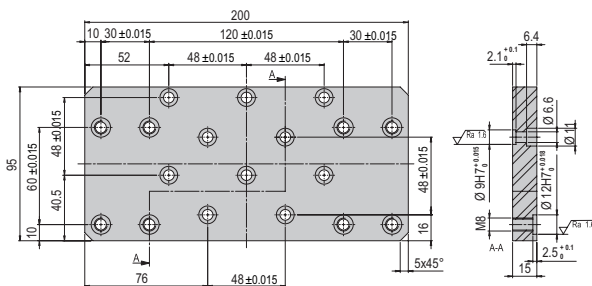
- 2x Centering bushing Ø9x4
- 4x Special screw M8 x 30/15
- 4x Mounting screw M4x20
- 4x Mounting screw M6x20

Order number

50272384

Net weight

0.789 kg



**Included in the delivery**

- 4x Centering bushing Ø9x4
- 4x Special screw M8 x 30/15
- 4x Mounting screw M6x20



Connection plate VP 144

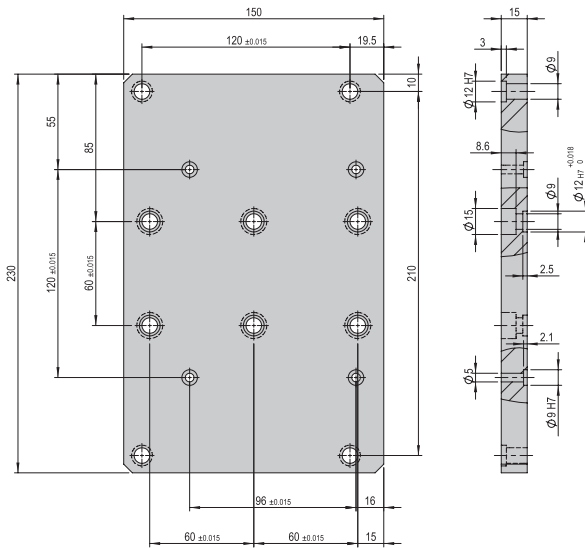
VP 144

Order number

50280005

Net weight

1.46 kg



Included in the delivery

- 2x Centering bushing  $\varnothing 12 \times 4.8$
- 4x Mounting screw M6x20
- 4x Mounting screw M8x20
- 4x Mounting screw M8x30

Connection plate VP 145

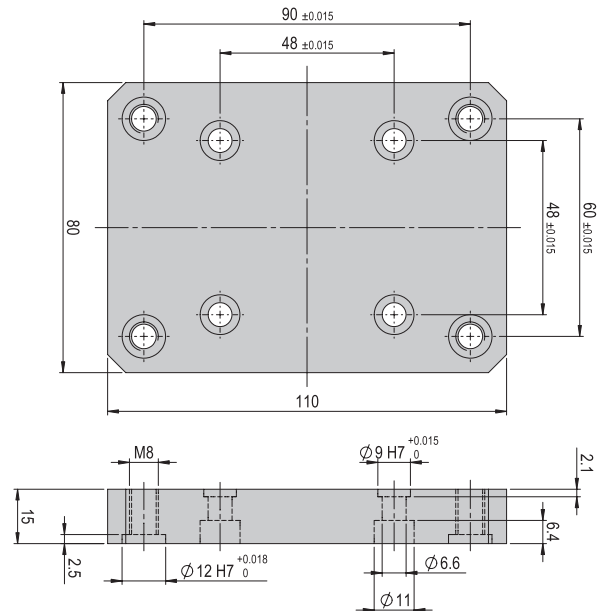
VP 145

Order number

50272309

Net weight

0.368 kg



Included in the delivery

- 2x Centering bushing  $\varnothing 9 \times 4$
- 4x Mounting screw M6x20

Connection plate VP 146

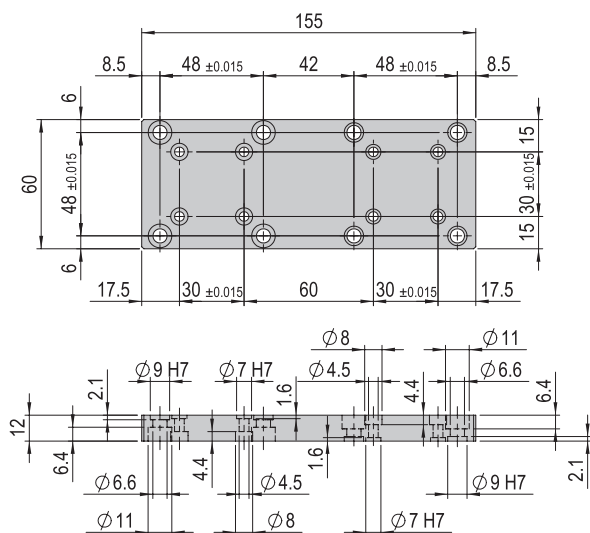
VP 146

Order number

50331960

Net weight

0.36 kg



Included in the delivery

- 4x Centering bushing  $\varnothing 7 \times 3$
- 4x Centering bushing  $\varnothing 9 \times 4$
- 8x Mounting screw M4x14
- 4x Mounting screw M6x12
- 8x Mounting screw M6x16

Connection plate VP 147

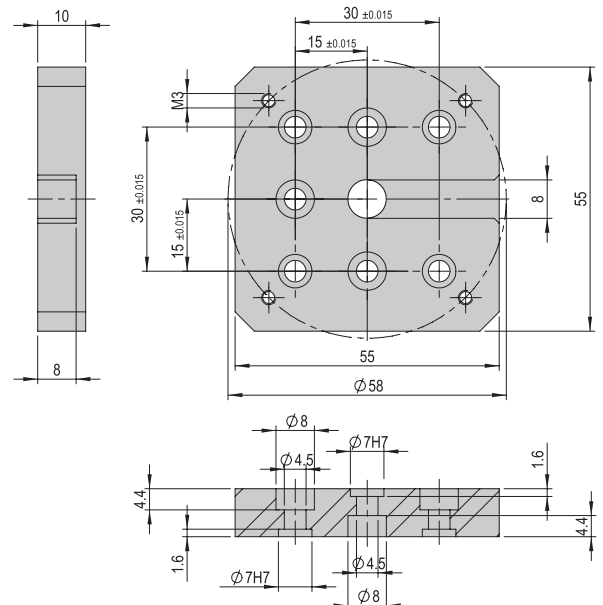
VP 147

Order number

50332006

Net weight

0.07 kg



Included in the delivery

- 2x Centering bushing  $\varnothing 7 \times 3$
- 4x Mounting screw M4x14

Note: Connection plate, angle plates, flange plates can also be manufactured by the customer itself, please have a look at our website [www.afag.com](http://www.afag.com) where you can download shop drawings free of charge.

Connection plate VP 148

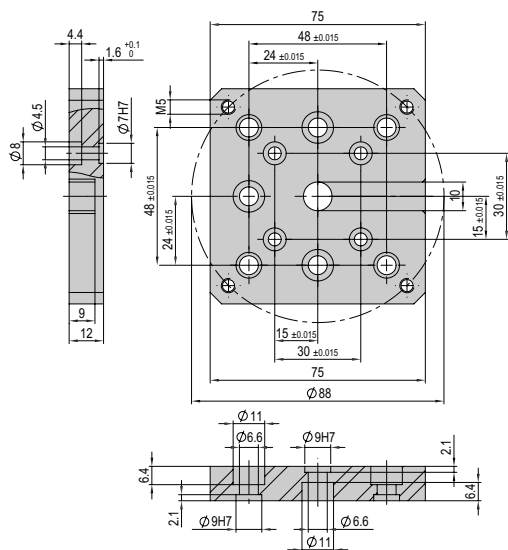
VP 148

Order number

50332008

Net weight

0.181 kg



Included in the delivery

- 2x Centering bushing  $\Phi 9 \times 4$
- 4x Mounting screw M6x16

Connection plate VP 149

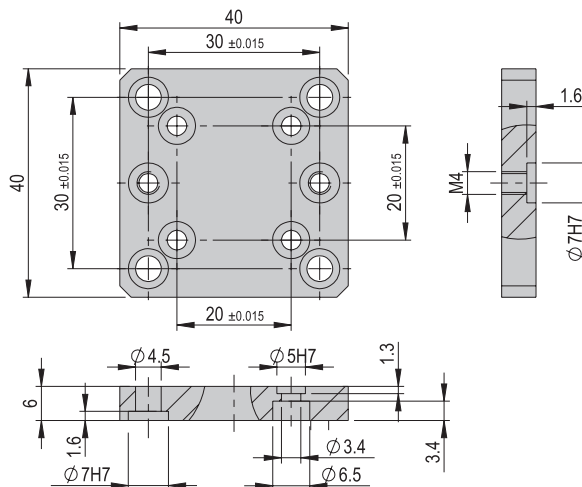
VP 149

Order number

50332010

Net weight

0.03 kg



Included in the delivery

- 2x Centering bushing  $\Phi 7 \times 3$
- 4x Mounting screw M3x10
- 2x Mounting screw M4x10
- 4x Mounting screw M4x14
- 2x Centering bushing  $\Phi 5 \times 2.5$

Connection plate VP 150

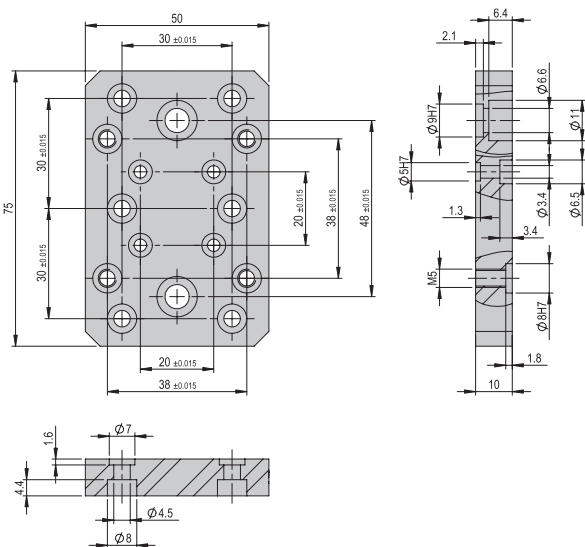
VP 150

Order number

50333787

Net weight

0.12 kg



Included in the delivery

- 2x Centering bushing  $\Phi 7 \times 3$
- 2x Centering bushing  $\Phi 9 \times 4$
- 4x Mounting screw M3x14
- 4x Mounting screw M4x12
- 2x Mounting screw M6x14
- 2x Centering bushing  $\Phi 5 \times 2.5$

Connection plate VP 151

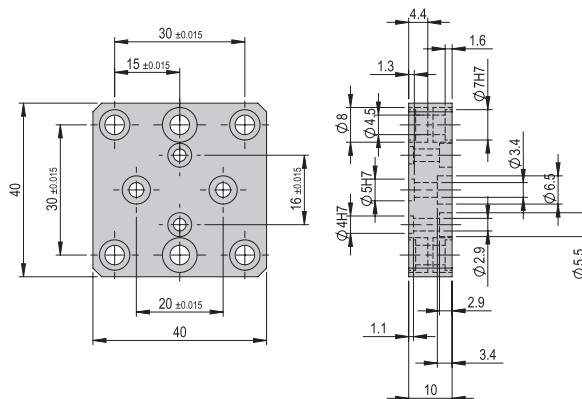
VP 151

Order number

50353062

Net weight

0.05 kg



Included in the delivery

- 2x Centering bushing  $\Phi 7 \times 3$
- 2x Mounting screw M2.5x10
- 2x Mounting screw M3x10
- 6x Mounting screw M4x12

Connection plate VP 152

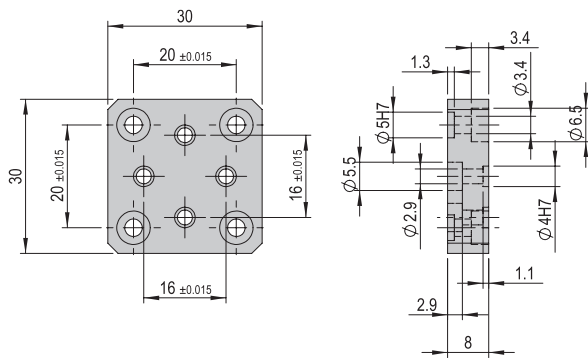
VP 152

Order number

50353197

Net weight

0.02 kg



Included in the delivery

- 2x Mounting screw M2.5x8
- 4x Mounting screw M3x10
- 2x Centering bushing Ø5x2.5

Connection plate VP 153

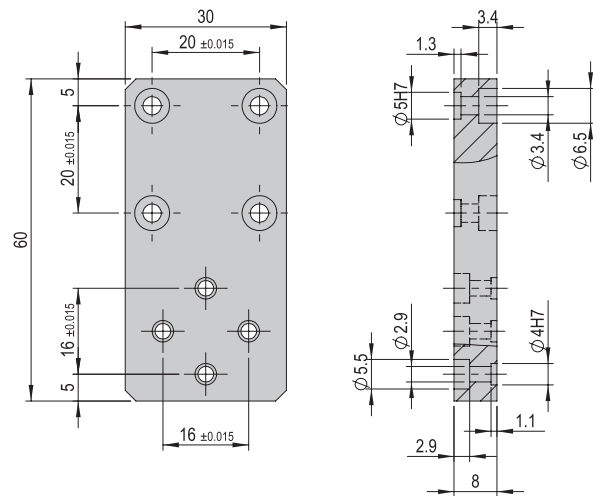
VP 153

Order number

50353229

Net weight

0.11 kg



Included in the delivery

- 2x Mounting screw M2.5x8
- 4x Mounting screw M3x10
- 2x Centering bushing Ø5x2.5

Connection plate VP 154

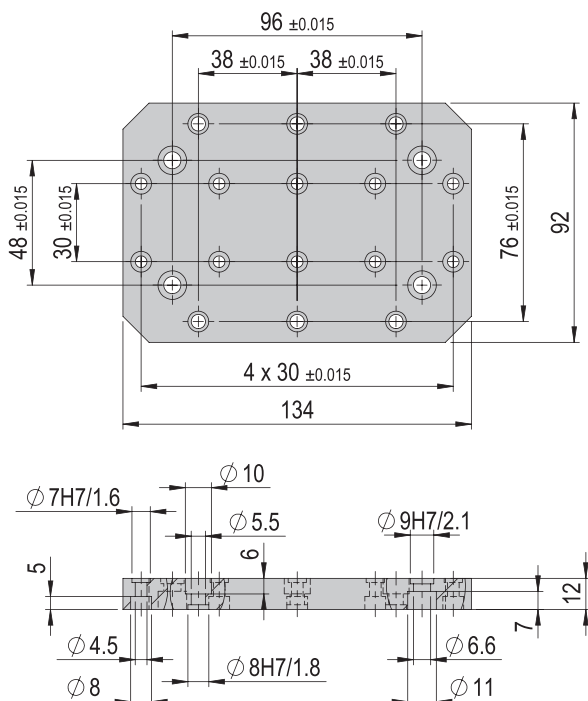
VP 154

Order number

50400907

Net weight

0.418 kg



Included in the delivery

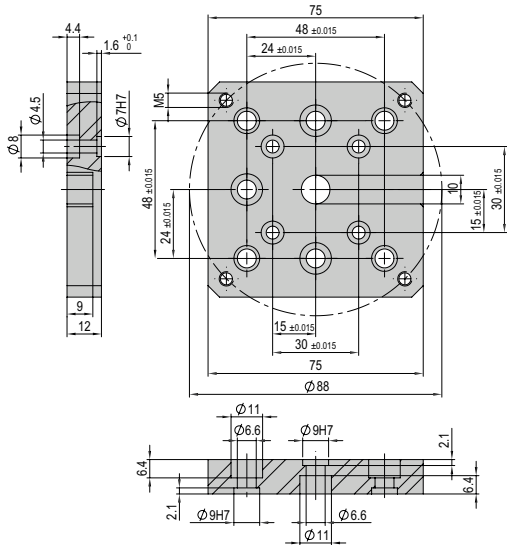
- 2x Centering bushing Ø7x3
- 2x Centering bushing Ø9x4
- 4x Mounting screw M4x14
- 6x Mounting screw M5x16
- 4x Mounting screw M6x16
- 2x Centering bushing Ø8x3.5

Note: Connection plate, angle plates, flange plates can also be manufactured by the customer itself, please have a look at our website [www.afag.com](http://www.afag.com) where you can download shop drawings free of charge.

Connection plate VP 150 VP 157 VP 157

**Order number** 50572976

**Net weight** 0.066 kg



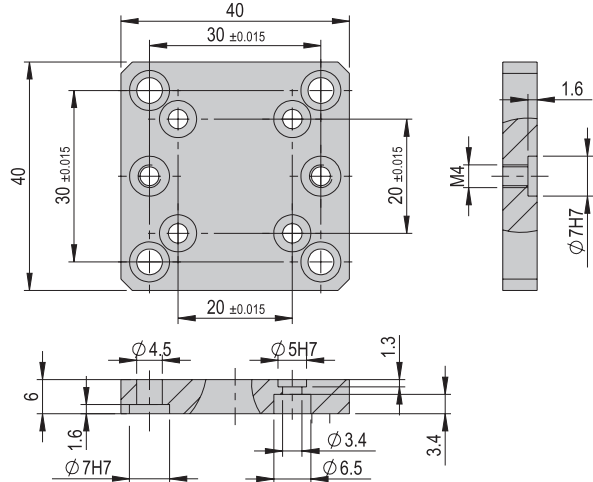
**Included in the delivery**

- 2x Centering bushing  $\varnothing 5 \times 2.5$
- 2x Centering bushing  $\varnothing 7 \times 3$
- 4x Mounting screw M3x12
- 4x Mounting screw M4x12

Connection plate VP 150 VP 158 VP 158

**Order number** 50572977

**Net weight** 0.066 kg



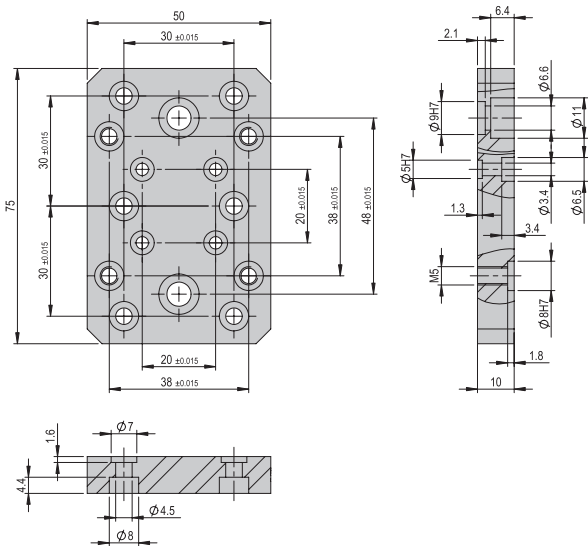
**Included in the delivery**

- 2x Centering bushing  $\varnothing 7 \times 3$
- 4x Mounting screw M4x10

Connection plate VP 150 VP 159 VP 159

**Order number** 50572982

**Net weight** 0.113 kg



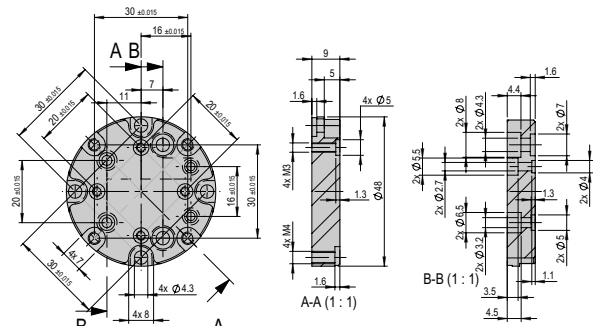
**Included in the delivery**

- 2x Centering bushing  $\varnothing 9 \times 4$
- 2x Mounting screw M6x10
- 2x Mounting screw M6x14

Connection plate VP 150 VP 160 VP 160

**Order number** 50573133

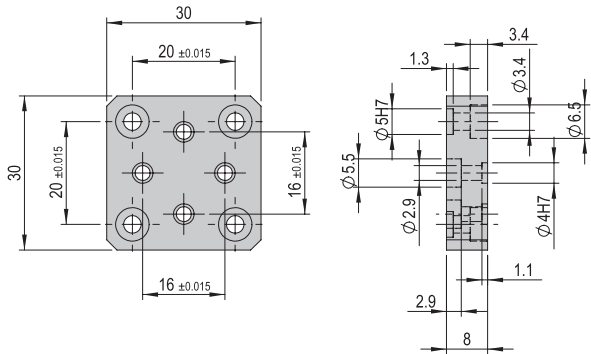
**Net weight** 0.05 kg



**Included in the delivery**

- 2x Centering bushing  $\varnothing 4 \times 2$
- 2x Centering bushing  $\varnothing 5 \times 2.5$
- 4x Centering bushing  $\varnothing 7 \times 3$
- 2x Mounting screw M2.5x10
- 2x Mounting screw M3x10
- 4x Mounting screw M4x10 n.K.
- 2x Mounting screw M4x10

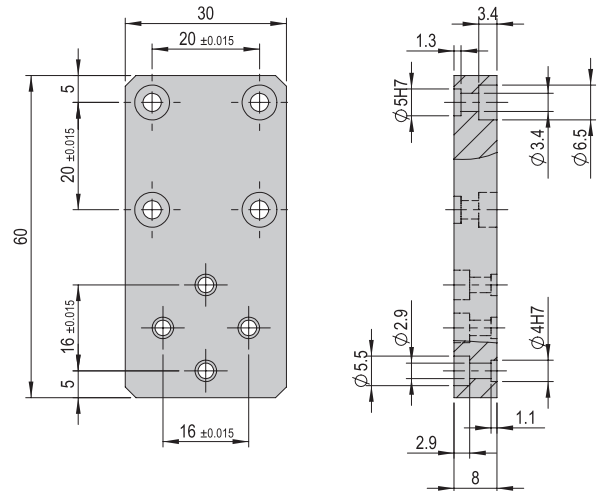
Connection plate VP 150 VP 161	VP 161
<b>Order number</b>	<b>50547871</b>
Net weight	0.012 kg



#### Included in the delivery

- 2x Centering bushing Ø5x2.5
- 2x Mounting screw M2.5x8
- 2x Mounting screw M3x10

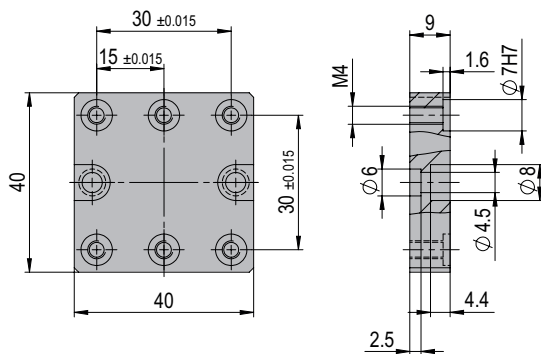
Connection plate VP 150 VP 162	VP 162
<b>Order number</b>	<b>50547872</b>
Net weight	0.04 kg



#### Included in the delivery

- 2x Centering bushing Ø7x3
- 2x Mounting screw M3x8
- 2x Mounting screw M4x10

Connection plate VP 163	VP 163
<b>Order number</b>	<b>50578392</b>
Net weight	0.046 kg



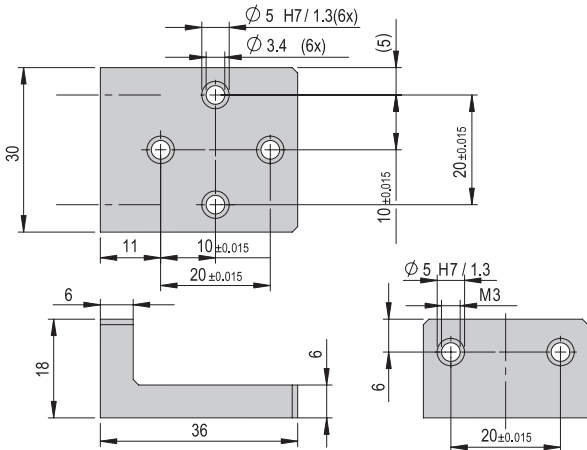
#### Included in the delivery

- 2x Centering bushing Ø7x3
- 4x Montageschrauben M4x12
- 2x Centering bushing SGE-40 SCH

Note: Connection plate, angle plates, flange plates can also be manufactured by the customer itself, please have a look at our website [www.afag.com](http://www.afag.com) where you can download shop drawings free of charge.

# Angle plates VW

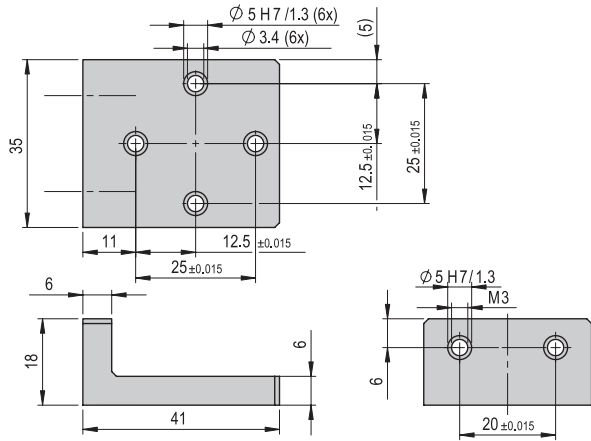
Angle plate VW 300	VW 300
<b>Order number</b>	<b>50077143</b>
<b>Net weight</b>	0.022 kg



## Included in the delivery

- 2x Mounting screw M3x12
- 2x Centering bushing  $\varnothing 5 \times 2.5$

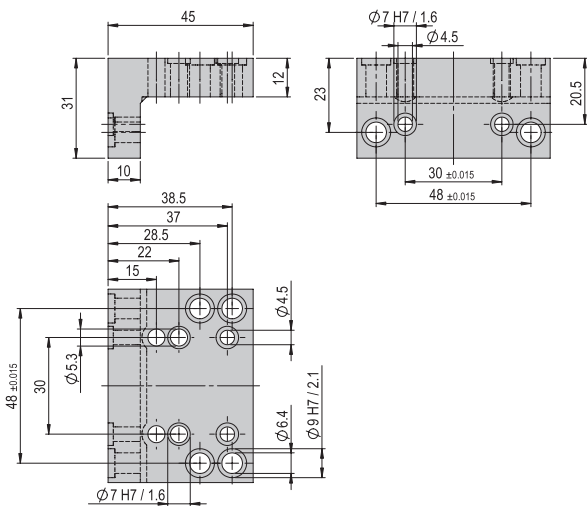
Angle plate VW 301	VW 301
<b>Order number</b>	<b>50077144</b>
<b>Net weight</b>	0.029 kg



## Included in the delivery

- 2x Mounting screw M3x12
- 2x Centering bushing  $\varnothing 5 \times 2.5$

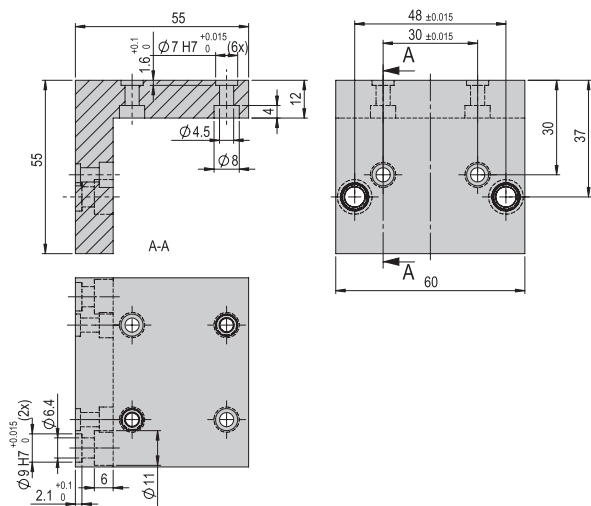
Angle plate VW 302	VW 302
<b>Order number</b>	<b>11012241</b>
<b>Net weight</b>	0.183 kg



## Included in the delivery

- 4x Centering bushing  $\varnothing 9 \times 4$
- 2x Mounting screw M4x18
- 2x Mounting screw M5x20
- 4x Mounting screw M6x18
- 4x Mounting screw M6x25
- 2x Ribbed washer M4
- 2x Ribbed washer M5
- 8x Ribbed washer M6

Angle plate VW 303	VW 303
<b>Order number</b>	<b>50077145</b>
<b>Net weight</b>	0.182 kg



## Included in the delivery

- 2x Centering bushing  $\varnothing 7 \times 3$
- 2x Centering bushing  $\varnothing 9 \times 4$
- 6x Mounting screw M4x14
- 2x Mounting screw M6x18

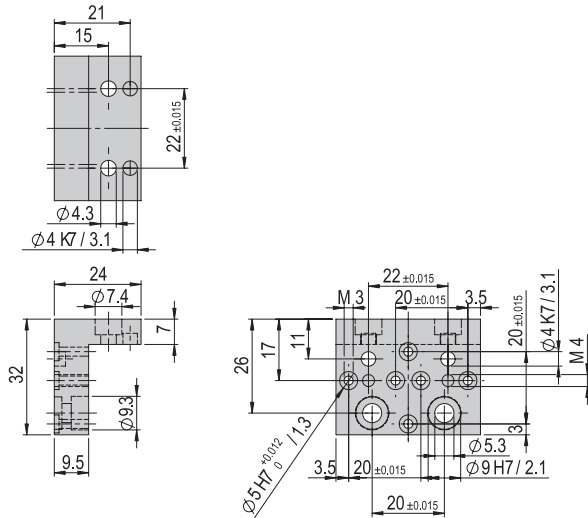
**Angle plate VW 304**

VW 304

**Order number****11010702**

Net weight

0.038 kg

**Included in the delivery**

- 2x Centering pin  $\Phi 4 \times 6$
- 2x Centering bushing  $\Phi 9 \times 4$
- 2x Mounting screw M4x8
- 2x Mounting screw M5x16

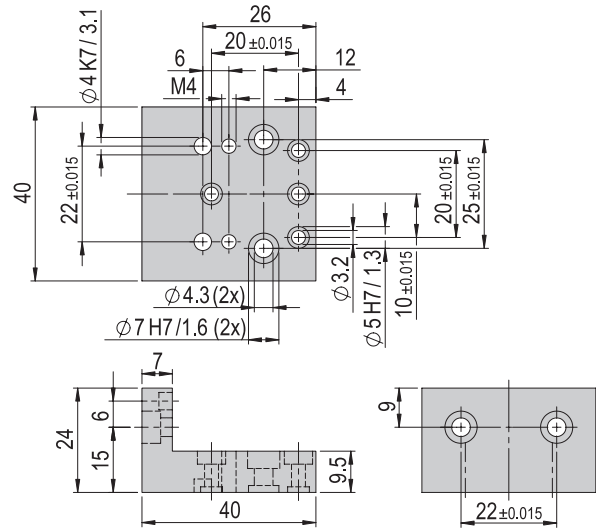
**Angle plate VW 305**

VW 305

**Order number****50077224**

Net weight

0.046 kg

**Included in the delivery**

- 2x Centering pin  $\Phi 4 \times 6$
- 2x Mounting screw M3x10
- 2x Mounting screw M3x16
- 2x Mounting screw M4x8
- 2x Centering bushing  $\Phi 5 \times 2.5$

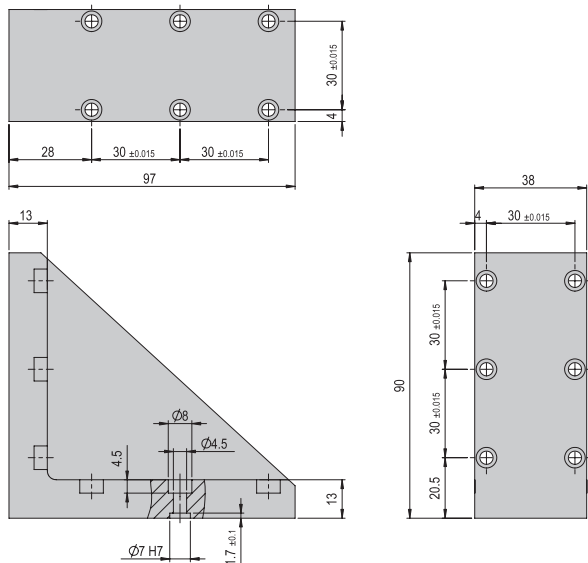
**Angle plate VW 308**

VW 308

**Order number****50205299**

Net weight

0.35 kg

**Included in the delivery**

- 4x Centering bushing  $\Phi 7 \times 3$
- 6x Mounting screw M4x14
- 6x Mounting screw M4x20

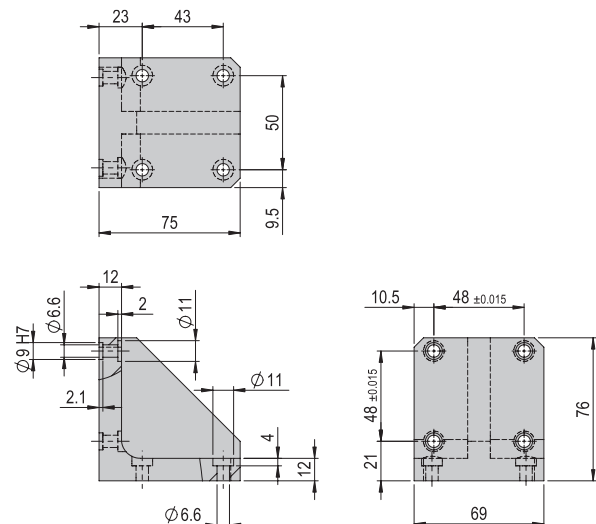
**Angle plate VW 310**

VW 310

**Order number****50254008**

Net weight

0.462 kg

**Included in the delivery**

- 2x Centering bushing  $\Phi 9 \times 4$
- 2x Mounting screw M6x16
- 4x Mounting screw M6x20
- 4x T-nut M6

Note: Connection plate, angle plates, flange plates can also be manufactured by the customer itself, please have a look at our website [www.afag.com](http://www.afag.com) where you can download shop drawings free of charge.

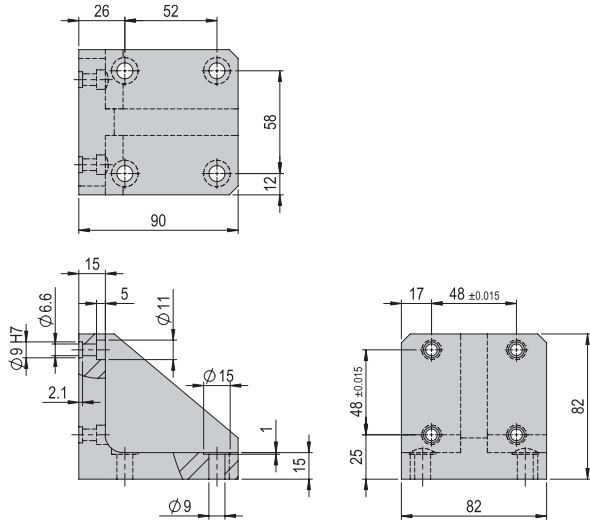
**Angle plate VW 311**

VW 311

**Order number****50254009**

Net weight

0.765 kg

**Included in the delivery**

- 2x Centering bushing  $\varnothing 9 \times 4$
- 4x Mounting screw M6x25
- 4x Mounting screw M8x25
- 4x T-nut M8

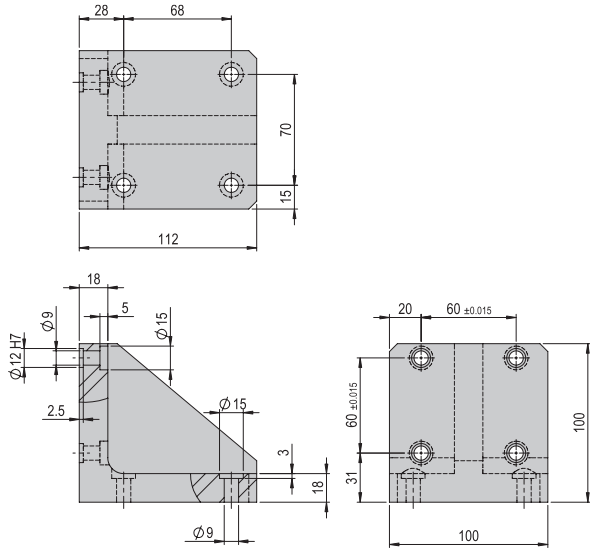
**Angle plate VW 312**

VW 312

**Order number****50254010**

Net weight

1.313 kg

**Included in the delivery**

- 2x Centering bushing  $\varnothing 12 \times 4.8$
- 4x Mounting screw M8x25
- 4x Mounting screw M8x30
- 4x T-nut M8

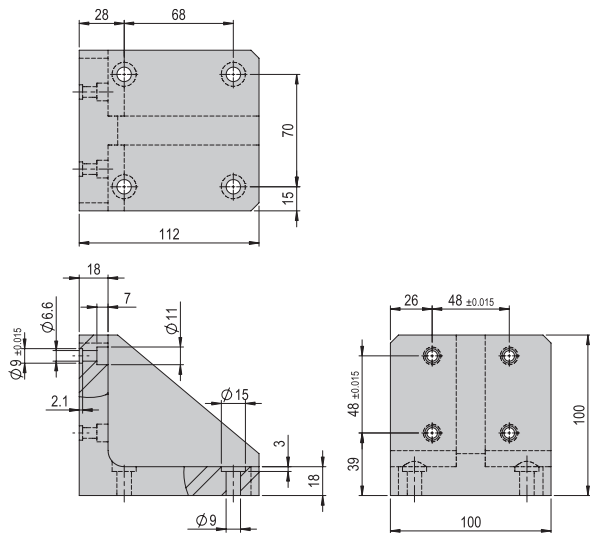
**Angle plate VW 313**

VW 313

**Order number****50254011**

Net weight

1.277 kg

**Included in the delivery**

- 2x Centering bushing  $\varnothing 9 \times 4$
- 4x Mounting screw M6x30
- 4x Mounting screw M8x25
- 4x T-nut M8

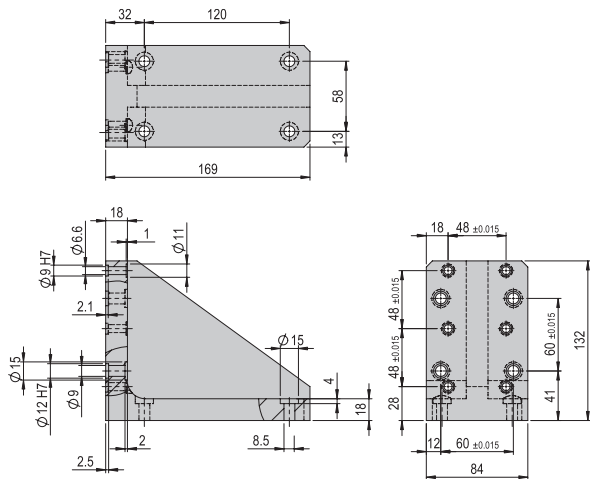
**Angle plate VW 314**

VW 314

**Order number****50254012**

Net weight

1.758 kg

**Included in the delivery**

- 2x Centering bushing  $\varnothing 9 \times 4$
- 4x Mounting screw M6x30
- 4x Mounting screw M8x25
- 4x T-nut M8



Angle plate VW 315

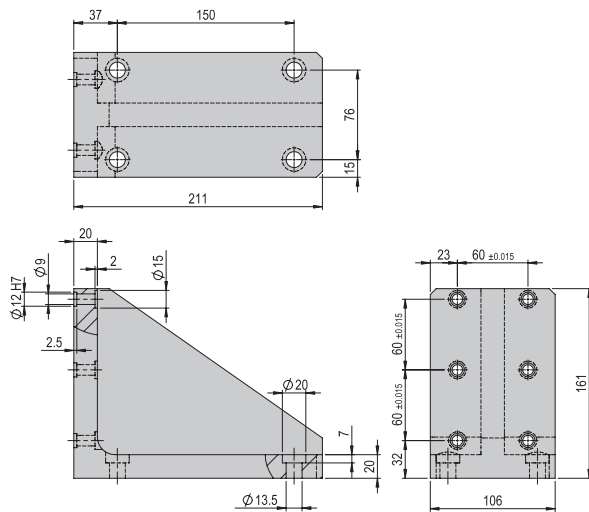
VW 315

Order number

50254013

Net weight

3.075 kg



Included in the delivery

- 2x Centering bushing  $\phi 12 \times 4.8$
- 4x Mounting screw M8x35
- 4x Mounting screw M10x20
- 4x T-nut M10

Angle plate VW 316

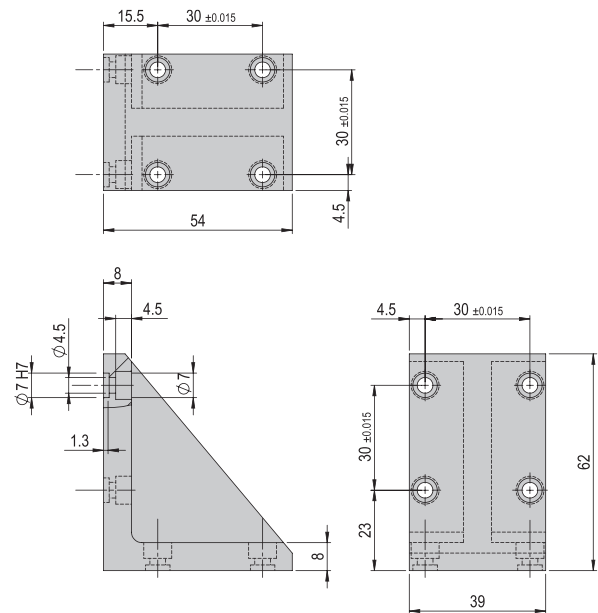
VW 316

Order number

50279234

Net weight

0.21 kg



Included in the delivery

- 2x Centering bushing  $\phi 7 \times 3$
- 4x Mounting screw M4x14
- 4x Mounting screw M4x20

Angle plate VW 317

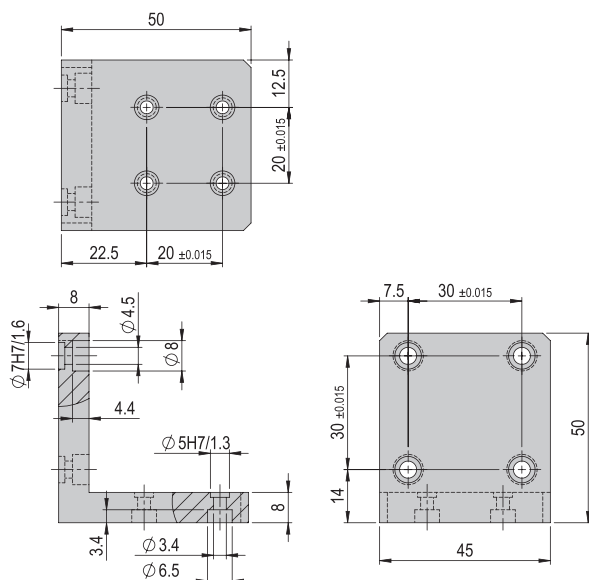
VW 317

Order number

50373127

Net weight

0.099 kg



Included in the delivery

- 2x Centering bushing  $\phi 7 \times 3$
- 4x Mounting screw M3x12
- 4x Mounting screw M4x12
- 2x Centering bushing  $\phi 5 \times 2.5$

Angle plate VW 318

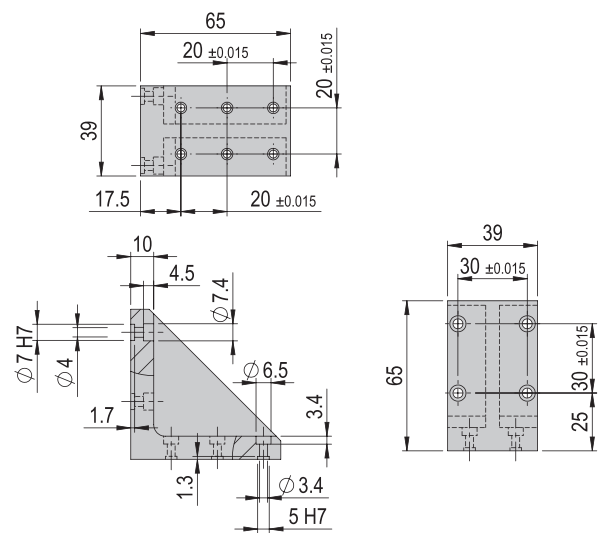
VW 318

Order number

50390283

Net weight

0.162 kg



Included in the delivery

- 2x Centering bushing  $\phi 7 \times 3$
- 6x Mounting screw M3x14
- 4x Mounting screw M4x14
- 2x Centering bushing  $\phi 5 \times 2.5$

Note: Connection plate, angle plates, flange plates can also be manufactured by the customer itself, please have a look at our website [www.afag.com](http://www.afag.com) where you can download shop drawings free of charge.

Angle plate VW 319

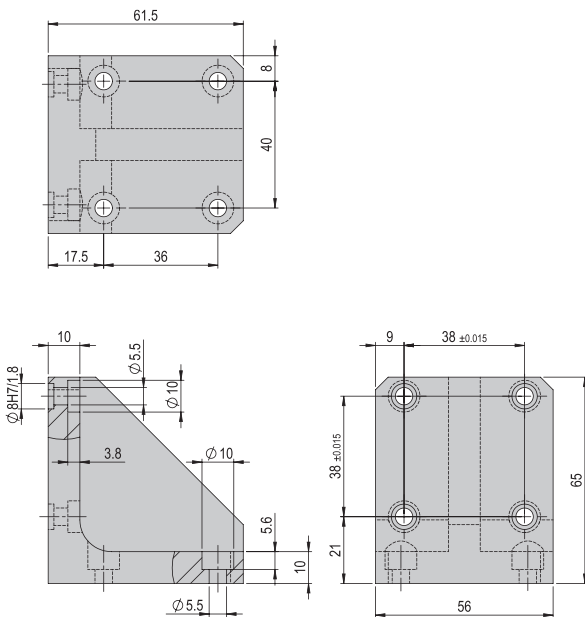
VW 319

Order number

50396474

Net weight

0.25 kg



Included in the delivery

- 2x Centering bushing Ø8x3.5
- 4x Mounting screw M5x10
- 4x Mounting screw M5x16
- 4x T-nut M5

Angle plate VW 320

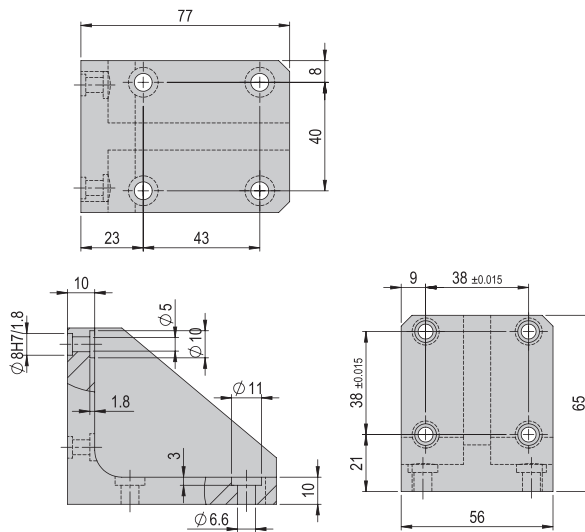
VW 320

Order number

50396475

Net weight

0.32 kg



Included in the delivery

- 4x Mounting screw M5x18
- 2x Centering bushing Ø8x3.5
- 4x Mounting screw M6x16
- 4x T-nut M6

Angle plate VW 321

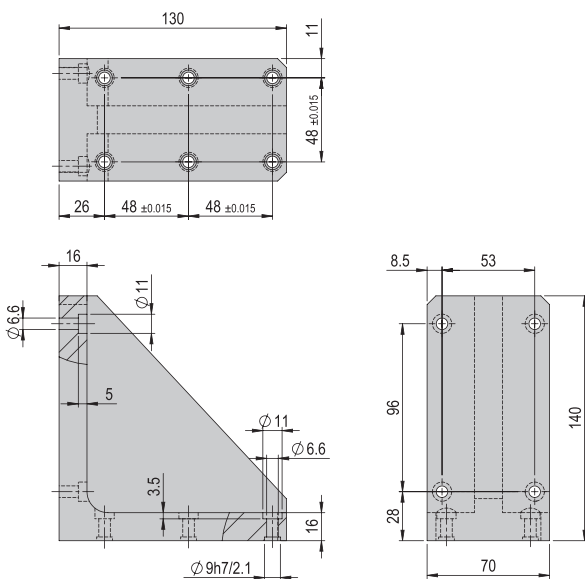
VW 321

Order number

50396476

Net weight

1.19 kg



Included in the delivery

- 2x Centering bushing Ø9x4
- 4x Mounting screw M6x20
- 6x Mounting screw M6x25
- 4x T-nut M6

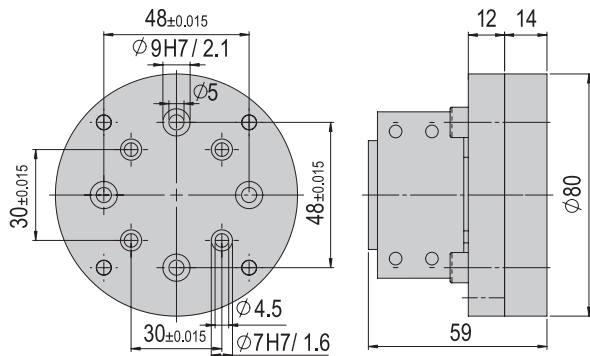




Flange plate VF 405 VF 405

Order number 50077219

Net weight 0.527 kg



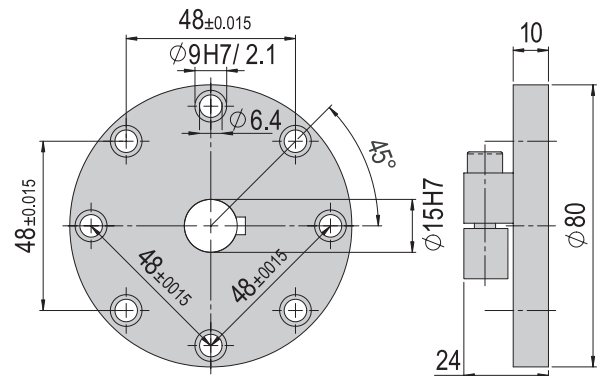
Included in the delivery

- 4x Mounting screw M4x20

Flange plate VF 406 VF 406

Order number 50077220

Net weight 0.173 kg



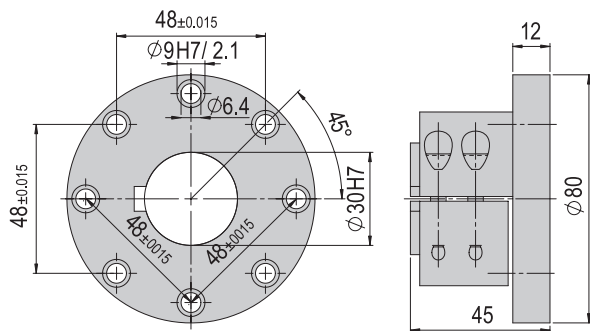
Included in the delivery

- 2x Centering bushing Ø9x4
- 4x Mounting screw M6x18
- 4x Mounting screw M6x25

Flange plate VF 407 VF 407

Order number 11001847

Net weight 0.274 kg



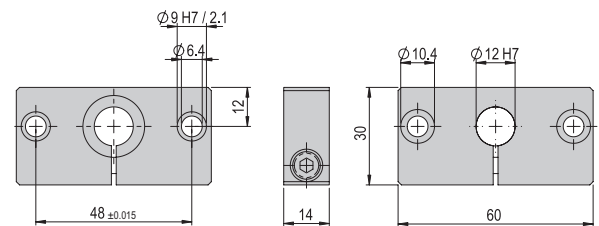
Included in the delivery

- 2x Centering bushing Ø9x4
- 4x Mounting screw M6x25

Flange plate VF 409 VF 409

Order number 11001825

Net weight 0.075 kg



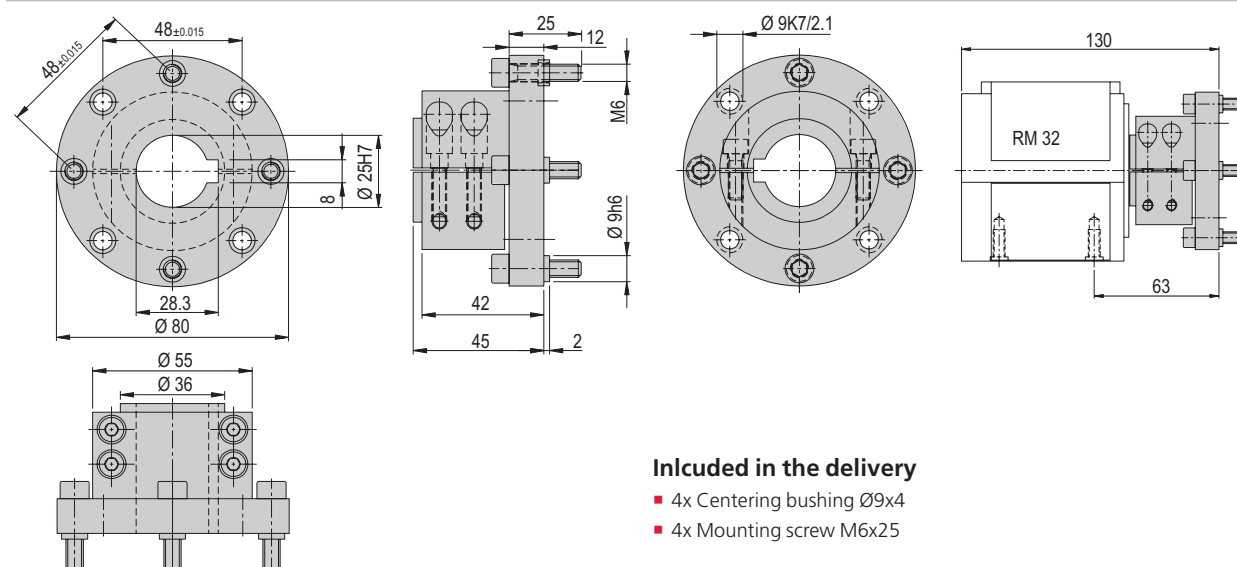
Included in the delivery

- 2x Centering bushing Ø9x4
- 4x Mounting screw M6x20

Flange plate VF 410 VF 410

Order number 11001821

Net weight 0.32 kg



Included in the delivery

- 4x Centering bushing Ø9x4
- 4x Mounting screw M6x25

# Connecting set VS

Connecting set VS 500	VS 500
<b>Order number</b>	<b>50074821</b>
Net weight	0.01 kg

### Included in the delivery

- 4x Special screw M4 x 18/9

Connecting set VS 502	VS 502
<b>Order number</b>	<b>50074823</b>
Net weight	0.01 kg

### Included in the delivery

- 4x Special screw M6 x 20/11

Connecting set VS 504	VS 504
<b>Order number</b>	<b>50074825</b>
Net weight	0.18 kg

### Included in the delivery

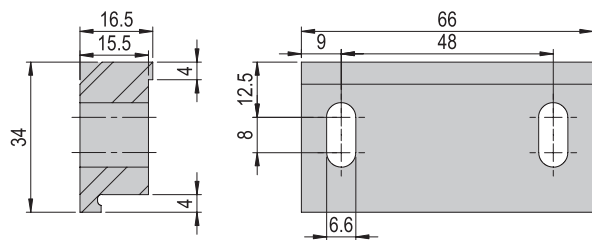
- 4x Mounting screw M8x30
- 4x Mounting screw M8x40
- 4x T-nut M8

Connecting set VS 506	VS 506
<b>Order number</b>	<b>50077086</b>
Net weight	0.01 kg

### Included in the delivery

- 2x Special screw M6 x 36/8

Connecting set VS 508	VS 508
<b>Order number</b>	<b>50254005</b>
Net weight	0.077 kg
Suitable for	PEZ-65



### Included in the delivery

- 4x Mounting screw M6x30
- 2x Washer M6
- 1x Clamping jaws PEZ-65

Connecting set VS 501	VS 501
<b>Order number</b>	<b>50074822</b>
Net weight	0.01 kg

### Included in the delivery

- 4x Special screw M6 x 36/8

Connecting set VS 503	VS 503
<b>Order number</b>	<b>50074824</b>
Net weight	0.005 kg

### Included in the delivery

- 2x Special screw M3 x 10/4

Connecting set VS 505	VS 505
<b>Order number</b>	<b>50074827</b>
Net weight	0.044 kg

### Included in the delivery

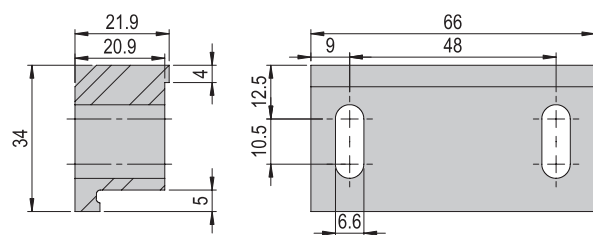
- 4x Mounting screw M4x25
- 4x Mounting screw M5x35
- 4x T-nut M4

Connecting set VS 507	VS 507
<b>Order number</b>	<b>50077087</b>
Net weight	0.01 kg

### Included in the delivery

- 2x Special screw M6 x 56/11

Connecting set VS 509	VS 509
<b>Order number</b>	<b>50254006</b>
Net weight	0.287 kg
Suitable for	PEZ-80, PEZ-100, PDZ-160

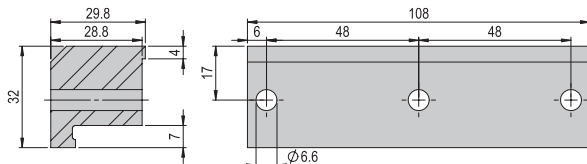


### Included in the delivery

- 2x Mounting screw M6x35
- 2x Washer M6
- 1x Clamping jaws PEZ-80/100 PDZ-160

# Connecting set VS

Connecting set VS 510	VS 510
<b>Order number</b>	<b>50254007</b>
Net weight	0.256 kg
Suitable for	PDZ-200



### Included in the delivery

- 3x Mounting screw M6x45
- 2x Washer M6
- 1x Clamping jaws PDZ-200

Connecting set VS 512	VS 512
<b>Order number</b>	<b>50353058</b>
Net weight	0.01 kg

### Included in the delivery

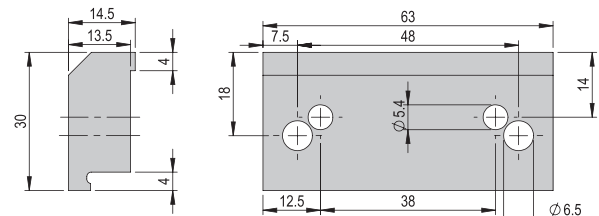
- 2x Special screw M4 x 16/5

Connecting set VS 511	VS 511
<b>Order number</b>	<b>50332465</b>
Net weight	0.03 kg

### Included in the delivery

- 2x Special screw M6 x 25/9

Connecting set VS 513	VS 513
<b>Order number</b>	<b>50396482</b>
Net weight	0.089 kg
Suitable for	PEZ-52, PDZ-128



### Included in the delivery

- 2x Mounting screw M5x25
- 2 Mounting screw M6x25
- 2x Washer M5
- 2x Washer M6
- 1x Clamping jaws PEZ-52 & PDZ-128

Connecting set VS 514	VS 514
<b>Order number</b>	<b>50401765</b>
Net weight	0.005 kg

### Included in the delivery

- 2x Special screw M2.5 x 10/5

Connecting set VS 515	VS 515
<b>Order number</b>	<b>50403642</b>
Net weight	0.05 kg

### Included in the delivery

- 2x Special screw M2.5 x 22/5-10

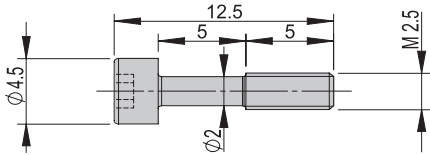
Note: Connection plate, angle plates, flange plates can also be manufactured by the customer itself, please have a look at our website [www.afag.com](http://www.afag.com) where you can download shop drawings free of charge.

# Special screws

## Special screw M2.5x10/5

**Order number** 50389779

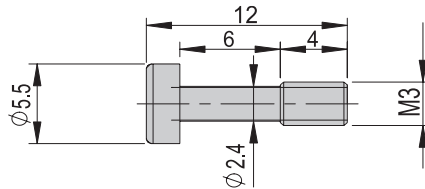
**Net weight** 0.001 kg



## Special screw M3x10/4

**Order number** 50040978

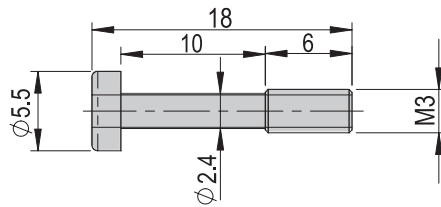
**Net weight** 0.001 kg



## Special screw M3x16/6

**Order number** 50035812

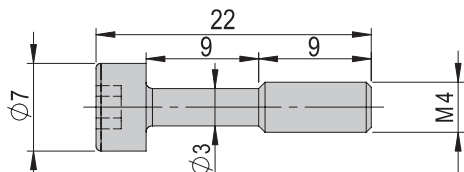
**Net weight** 0.001 kg



## Special screw M4x18/9

**Order number** 50001373

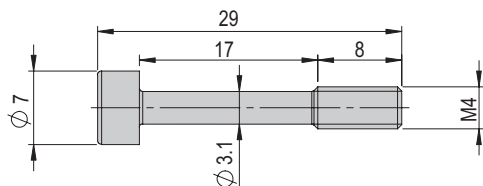
**Net weight** 0.002 kg



## Special screw M4x25/8

**Order number** 50060095

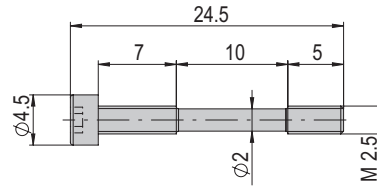
**Net weight** 0.002 kg



## Special screw M2.5x22/5-10

**Order number** 50403640

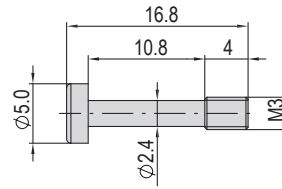
**Net weight** 0.001 kg



## Special screw M3x14.8/4

**Order number** 50473379

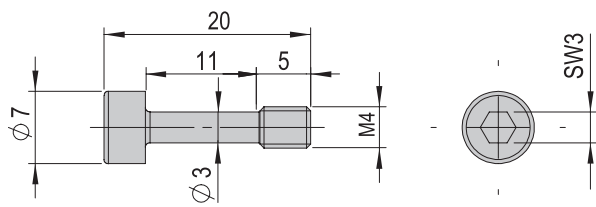
**Net weight** 0.001 kg



## Special screw M4x16/5

**Order number** 50353043

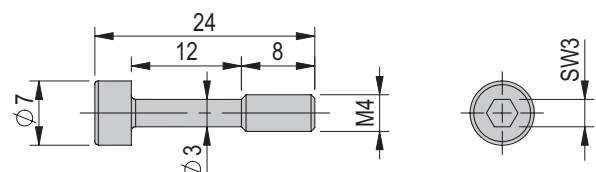
**Net weight** 0.002 kg



## Special screw M4x20/8

**Order number** 50101005

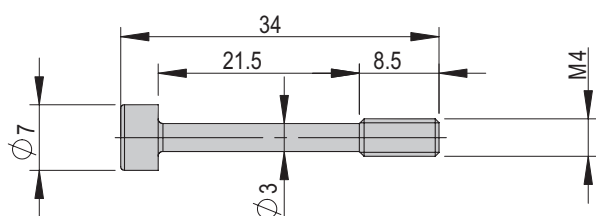
**Net weight** 0.002 kg



## Special screw M4x30/8.5

**Order number** 50001374

**Net weight** 0.003 kg



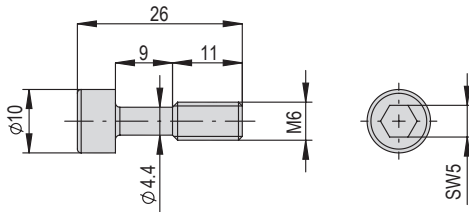


# Special screws

## Special screw M6x20/11

**Order number** 50035662

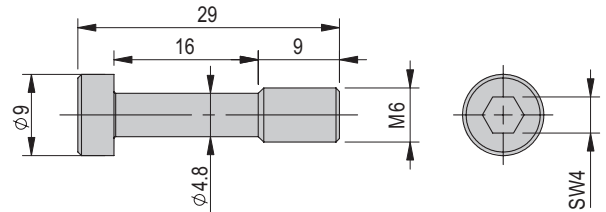
**Net weight** 0.006 kg



## Special screw M6x25/9

**Order number** 50101720

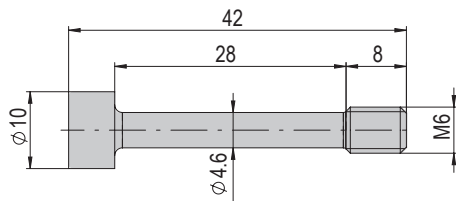
**Net weight** 0.005 kg



## Special screw M6x36/8

**Order number** 11005014

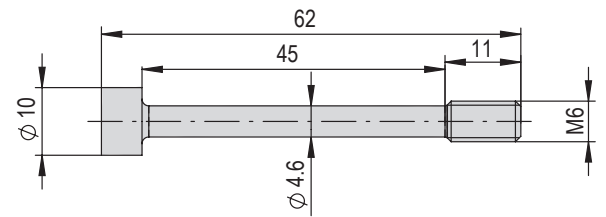
**Net weight** 0.001 kg



## Special screw M6x56/11

**Order number** 11005015

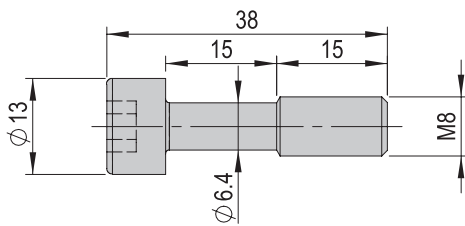
**Net weight** 0.001 kg



## Special screw M8x30/15

**Order number** 50332560

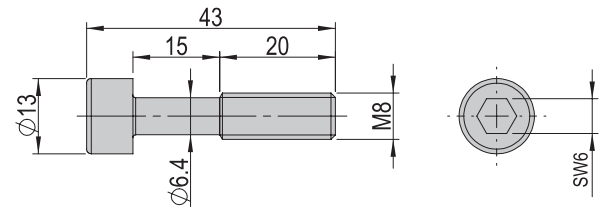
**Net weight** 0.016 kg



## Special screw M8x35/15

**Order number** 50244904

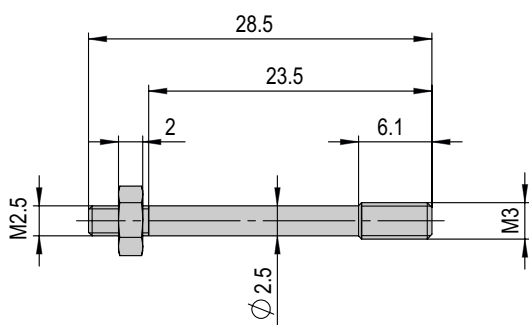
**Net weight** 0.002 kg



## Special screw M3x23 5/6

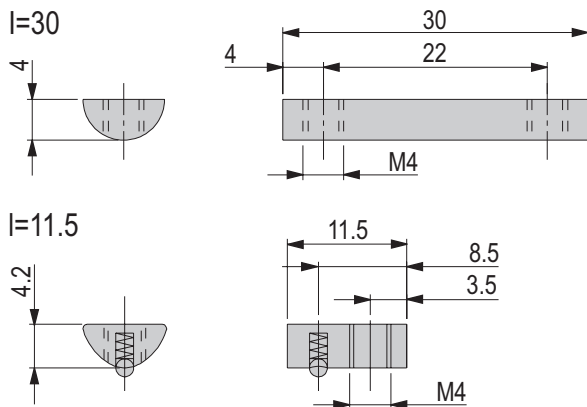
**Order number** 50561844

**Net weight** 0.002 kg

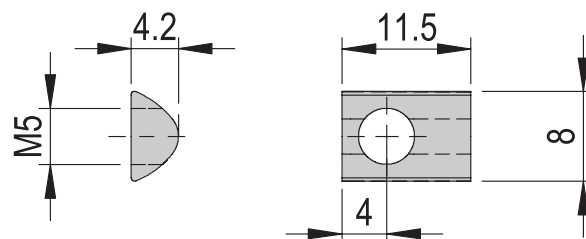


# T-nuts

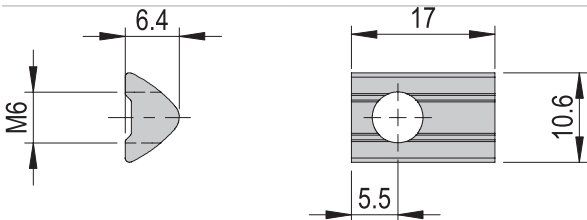
T-nuts M4	long	short
<b>Order number</b>	<b>11014646</b>	<b>11002448</b>
Net weight	0.01 kg	0.01 kg
Suitable for	PMP-c	PMP-c



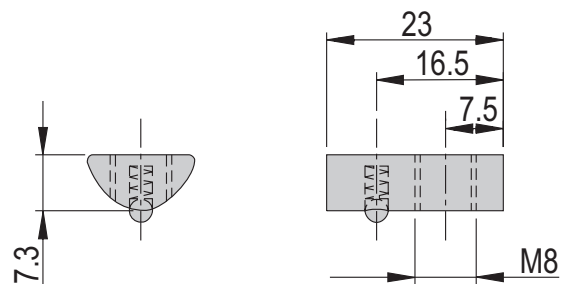
T-nut M5	
<b>Order number</b>	<b>11011070</b>
Net weight	0.001 kg
Suitable for	PEZ-52 PEZ-65, PDZ-128 side slot



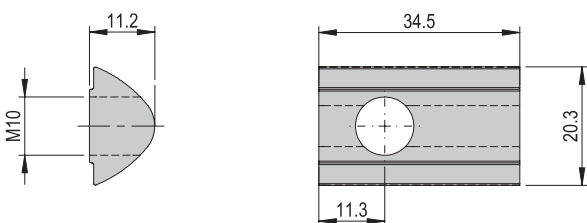
T-nut M6	
<b>Order number</b>	<b>50252676</b>
Net weight	0.004 kg
Suitable for	PEZ-65 PEZ-80, PEZ-100, PDZ-160 side slot PDZ-128 bottom



T-nut M8	
<b>Order number</b>	<b>11002452</b>
Net weight	0.009 kg
Suitable for	PEZ-80, PEZ-100, PDZ-160, PMP PDZ-200 side slot



T-nut M10	
<b>Order number</b>	<b>50252678</b>
Net weight	0.035 kg
Suitable for	PDZ-200





# Program for supports/columns

Ø25 mm - Ø45 mm



# Table of contents: Program for supports/columns

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Program for supports/columns Ø 45 mm	44

# Program for supports/columns Ø 25 mm

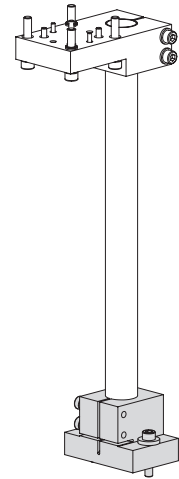
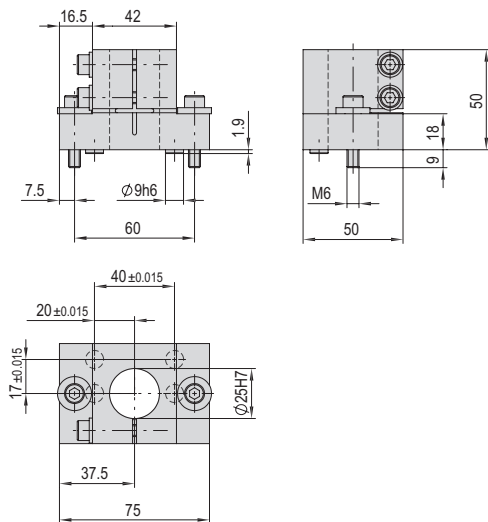
## Single column support d25

**Order number**

**11006862**

Net weight

0.33 kg



### Included in the delivery

- 2x Centering bushing Ø9x4
- 2x Mounting screw M6x35
- 2x Washer M6

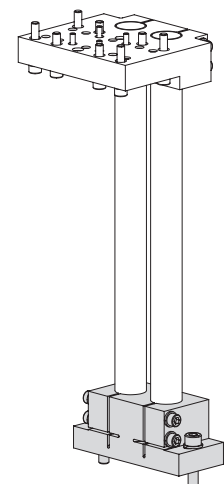
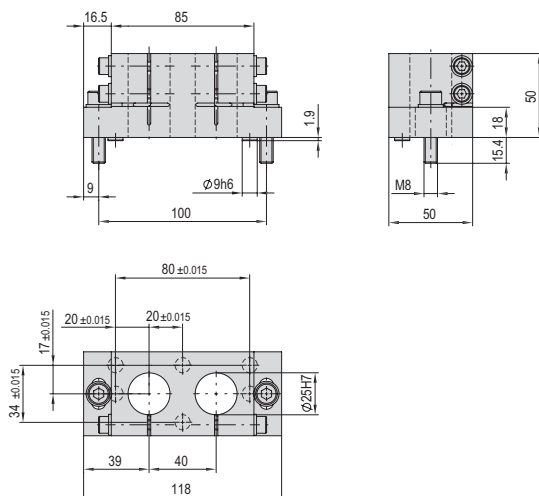
## Double column support d25

**Order number**

**11013417**

Net weight

0.5 kg



### Included in the delivery

- 2x Centering bushing Ø9x4
- 2x Mounting screw M8 x 35
- 2x Washer M8

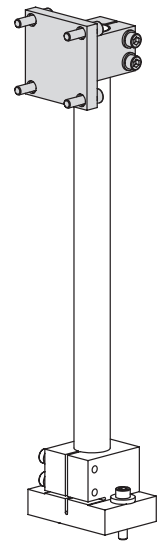
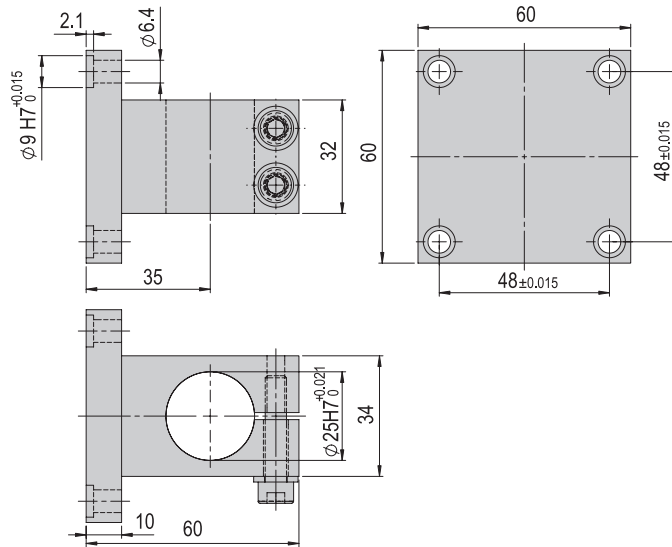
## MH 25x1 Module support

**Order number**

**11013415**

Net weight

0.25 kg



2

### Included in the delivery

- 4x Mounting screw M6x25
- 4x Ribbed washer M6

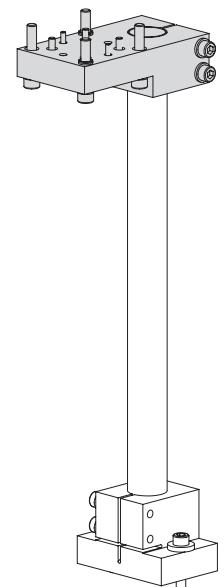
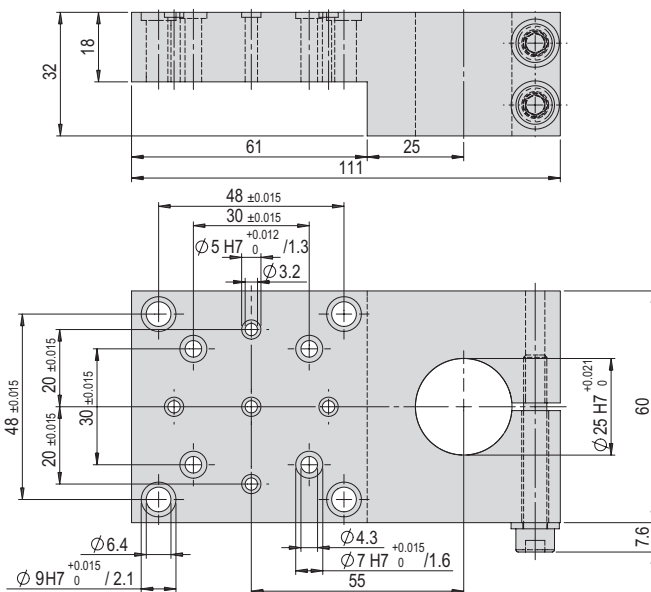
## MT 25x1 Single module support

**Order number**

**11013412**

Net weight

0.45 kg



### Included in the delivery

- 2x Mounting screw M3x25
- 4x Mounting screw M4x25
- 4x Mounting screw M6x35
- 4x Ribbed washer M6

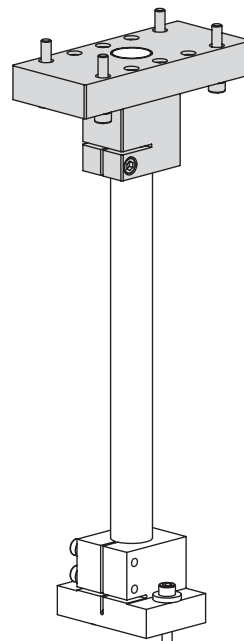
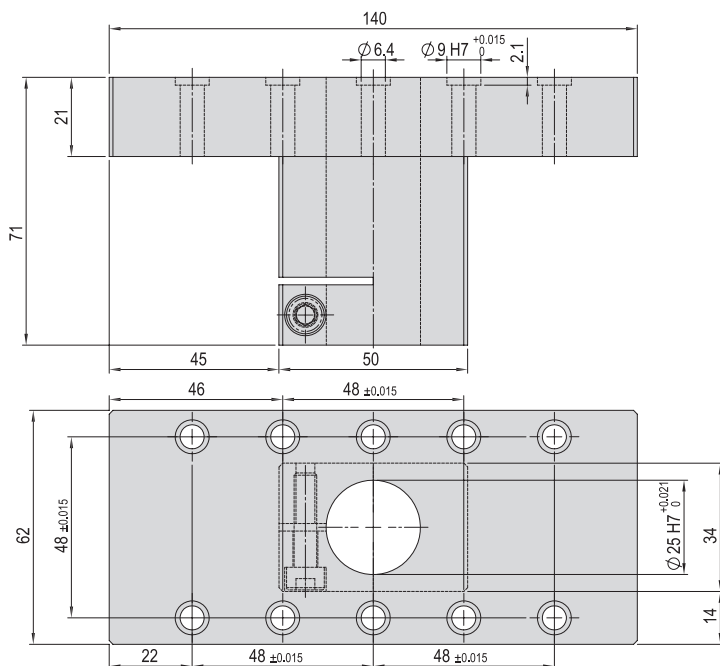
MTZ 25x1 Single module support centric

Order number

11013428

Net weight

0.71 kg



Included in the delivery

- 4x Mounting screw M6x35
- 4x Ribbed washer M6

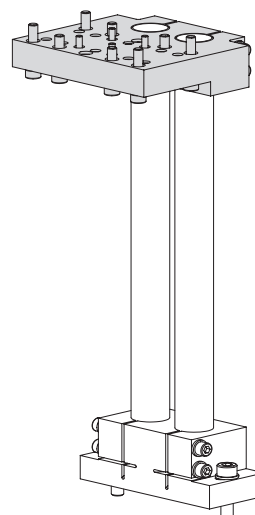
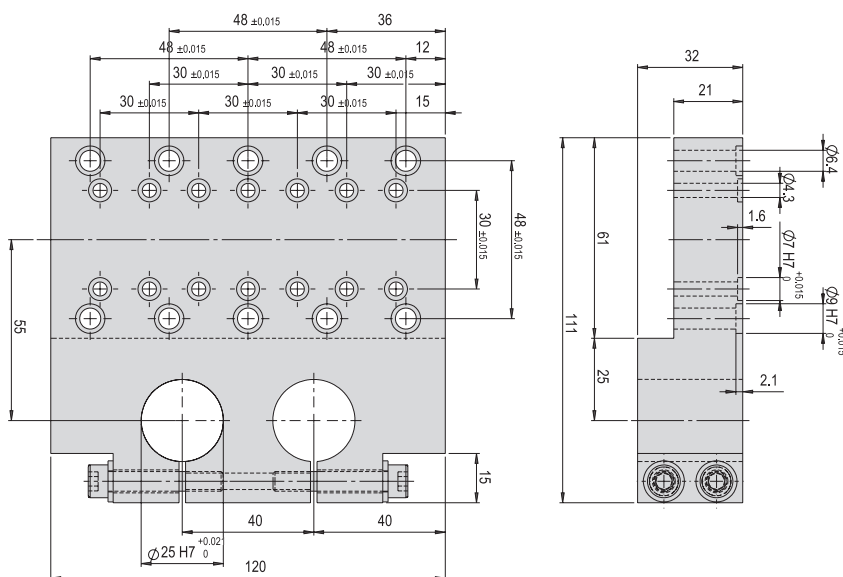
MT 25x2 Double module support

Order number

11013418

Net weight

0.87 kg



Included in the delivery

- 4x Mounting screw M4x30
- 4x Mounting screw M6x30
- 4x Mounting screw M6x35
- 4x Ribbed washer M4
- 4x Ribbed washer M6



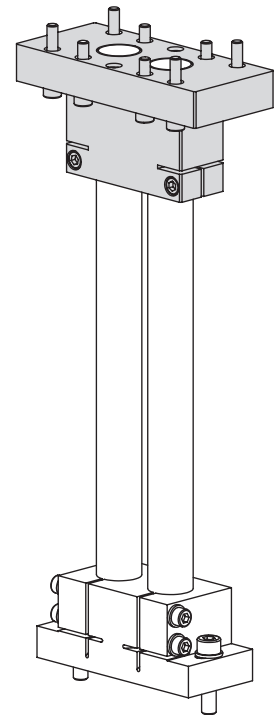
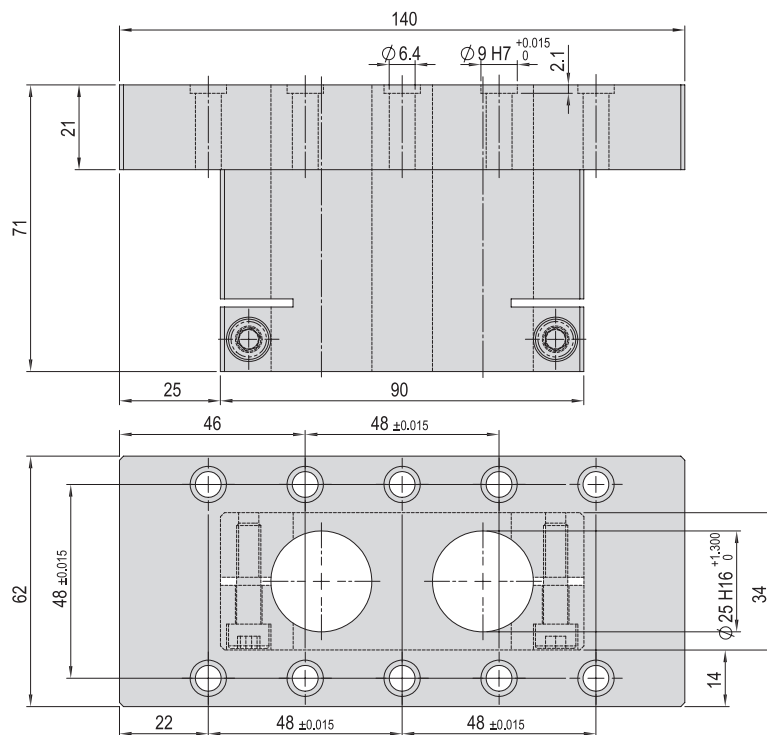
## MTZ 25x2 Double module support centric

Order number

11013955

Net weight

0.8 kg



2

### Included in the delivery

- 4x Mounting screw M6x30
- 4x Mounting screw M6x35
- 4x Ribbed washer M6

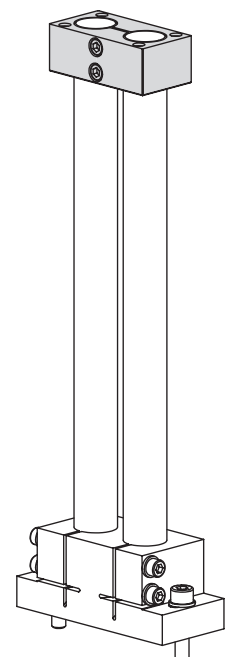
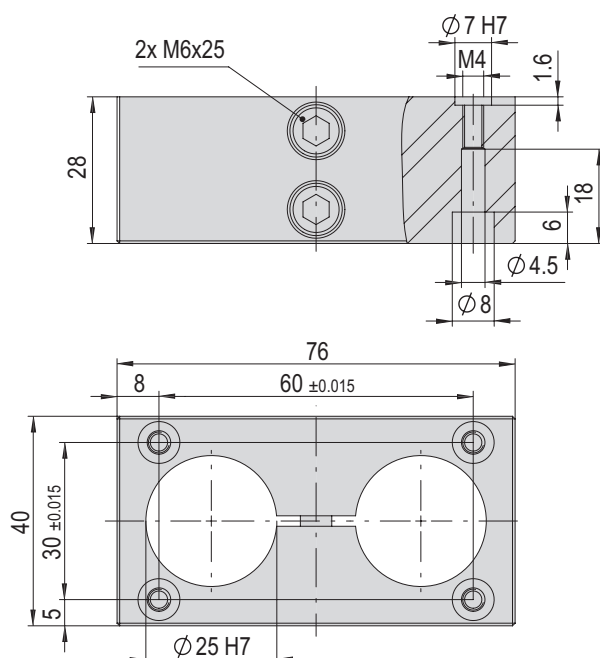
## MTZ 25x2b Double module support centric

Order number

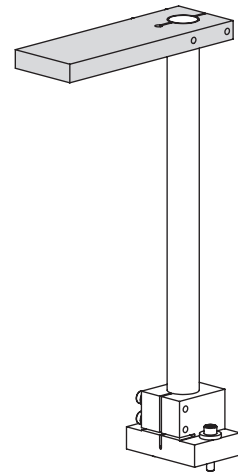
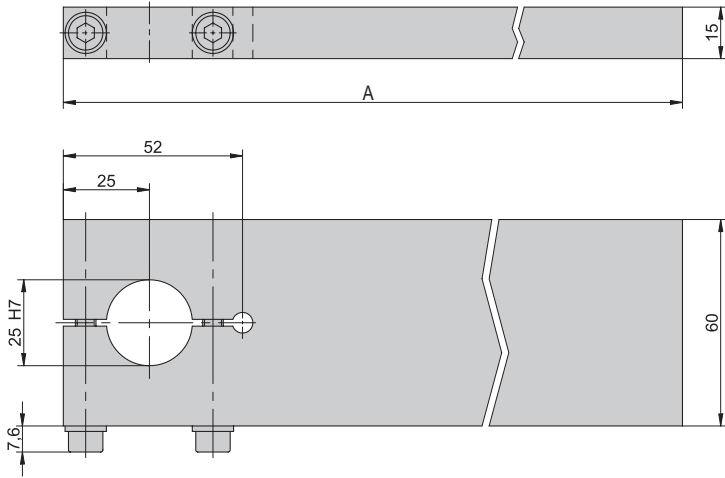
50432835

Net weight

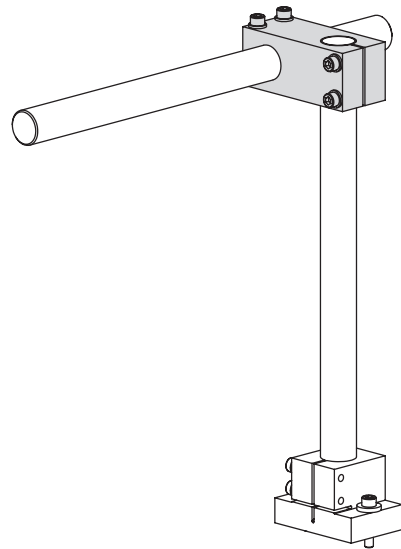
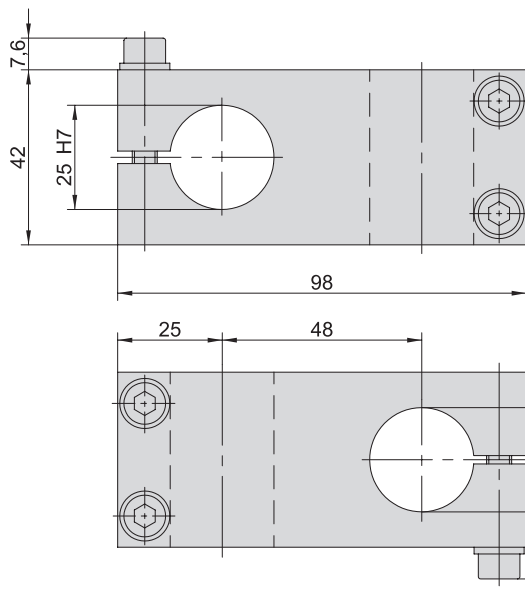
0.156 kg



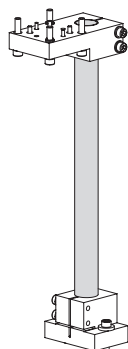
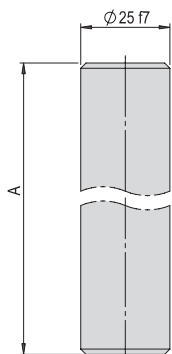
Support plate d25	180	280
<b>Order number</b>	<b>11013414</b>	<b>11013413</b>
Net weight	0.433 kg	0.675 kg
A	180 mm	280 mm



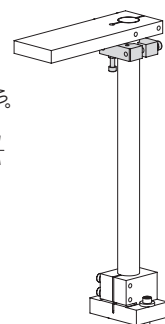
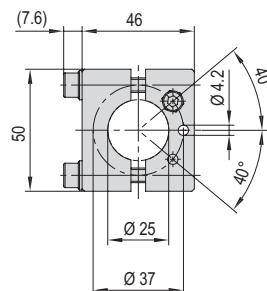
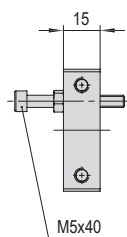
Cross support d25	11013416
Net weight	0.38 kg



Pillar d25	Weight/100 mm	350 mm
<b>Order number</b>	<b>11017840</b>	<b>11013429</b>
Net weight	0.38 kg/100 mm	1.35 kg
A	100-999 mm	350 mm



Elevating adjustment d25	50317963
Net weight	0.134 kg



# Program for supports/columns Ø 45 mm

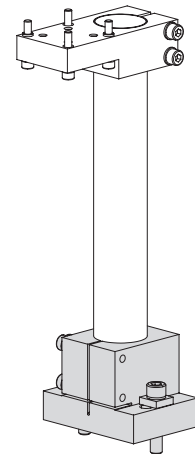
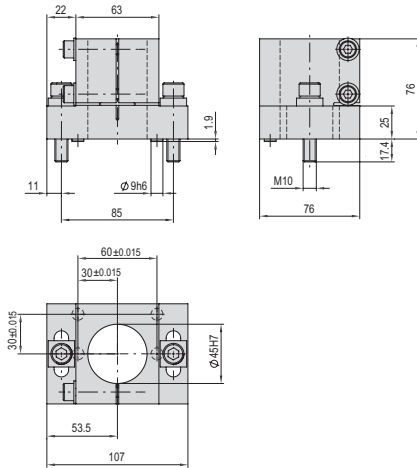
## Single column support d45

**Order number**

**11004998**

**Net weight**

0.942 kg



### Included in the delivery

- 2x Centering bushing Ø9x4
- 2x Mounting screw M10x50
- 2x Ribbed washer M10
- 2x Washer, square

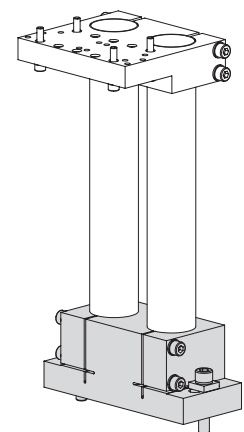
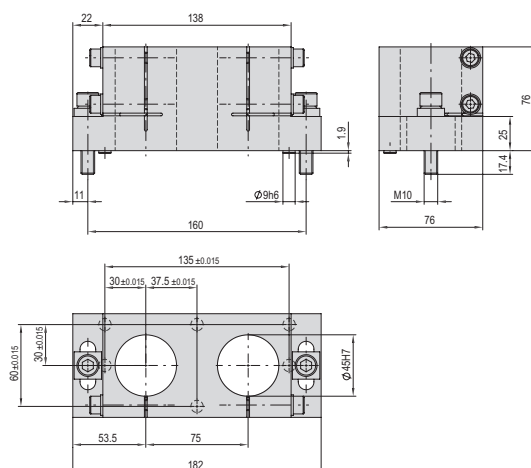
## Double column support d45

**Order number**

**11005008**

**Net weight**

1.78 kg



### Included in the delivery

- 2x Centering bushing Ø9x4
- 2x Mounting screw M10x50
- 2x Ribbed washer M10
- 2x Washer, square

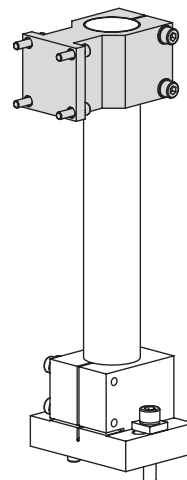
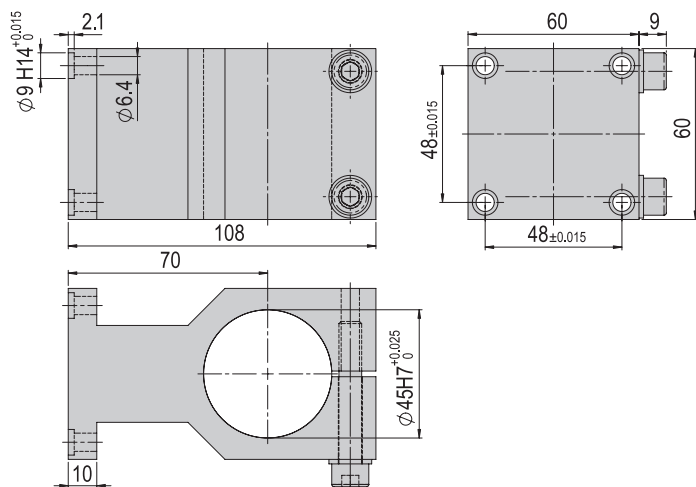
## MH 45x1 Module support

Order number

11005002

Net weight

0.707 kg



### Included in the delivery

- 4x Mounting screw M6x20
- 4x Mounting screw M6x25
- 4x Ribbed washer M6

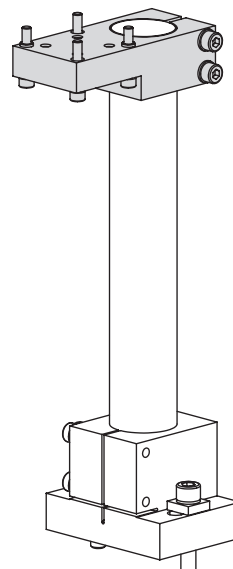
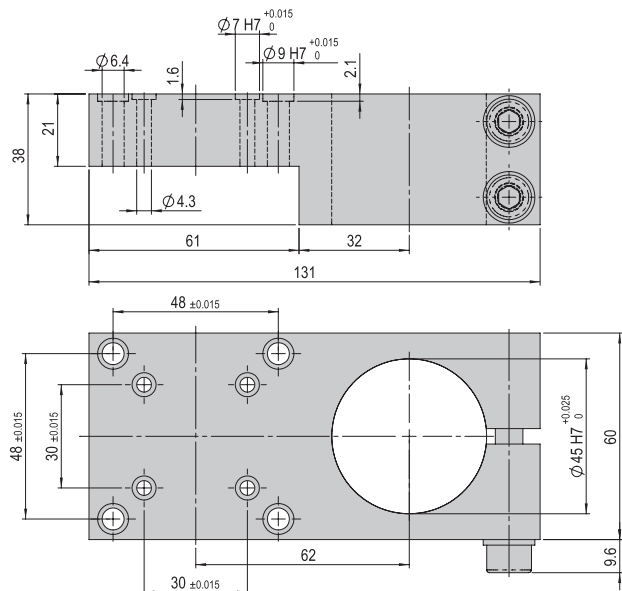
## MT 45x1 Single module support

Order number

11004999

Net weight

0.6 kg



### Included in the delivery

- 4x Mounting screw M4x30
- 4x Mounting screw M6x30
- 4x Mounting screw M6x35
- 4x Ribbed washer M4
- 4x Ribbed washer M6

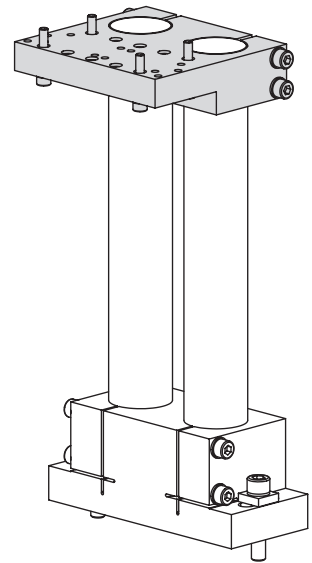
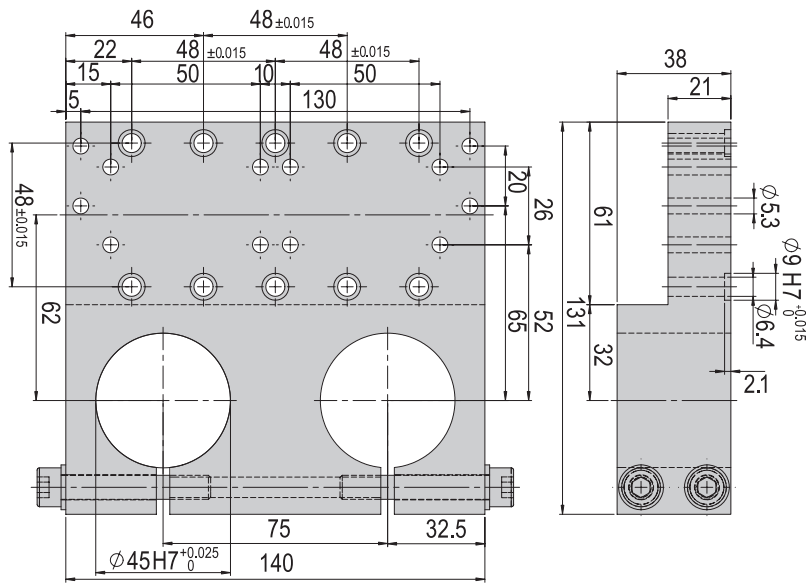
MT 45x2a Double module support L=62

Order number

11005009

Net weight

0.484 kg



2

Included in the delivery

- 4x Mounting screw M6x35
- 4x Ribbed washer M6

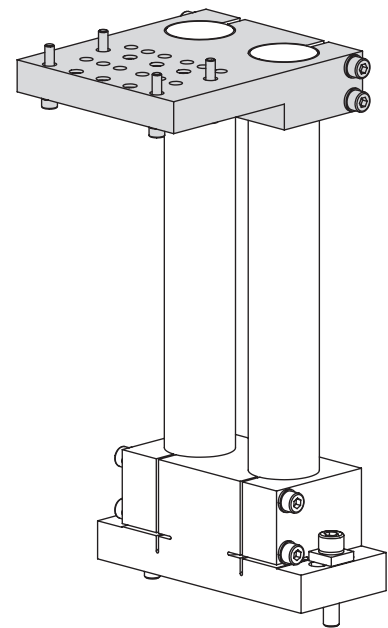
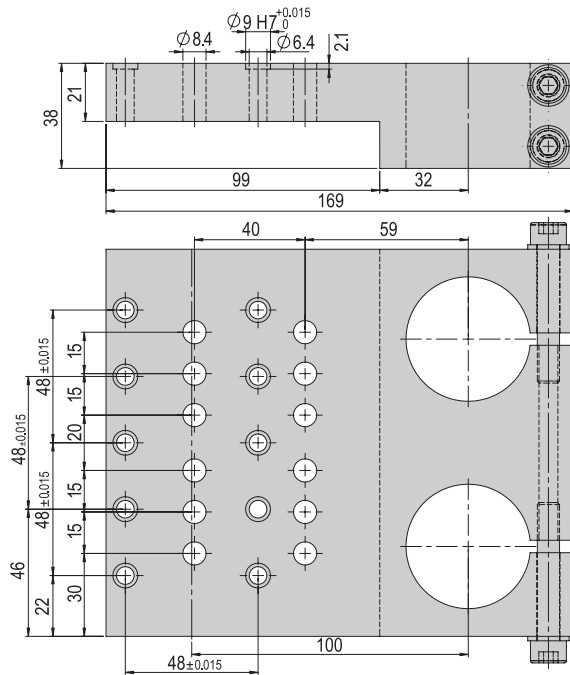
MT 45x2b Double module support L=100

Order number

11005010

Net weight

1.559 kg



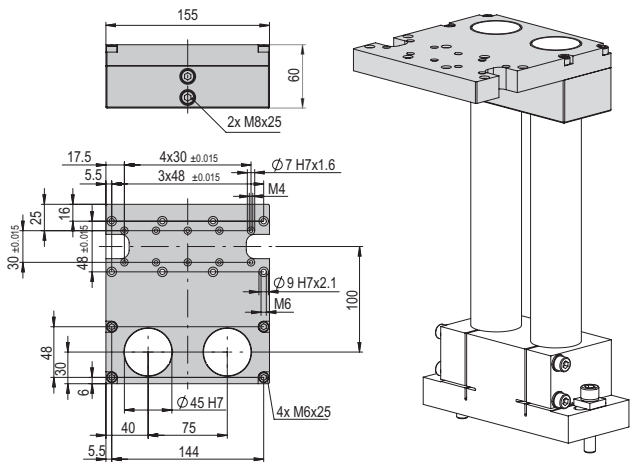
Included in the delivery

- 4x Mounting screw M6x35
- 4x Ribbed washer M6

**MT 45x2c Double module support L=100**

**Order number** 50433135

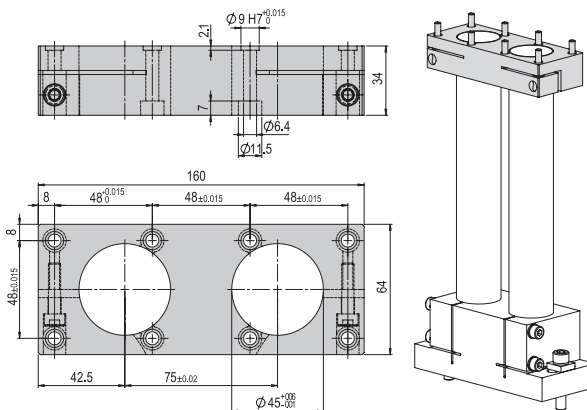
**Net weight** 1.909 kg



**MTZ 45x2 Double module support centric**

**Order number** 11017420

**Net weight** 0.58 kg



**Included in the delivery**

- 4x Mounting screw M6x25
- 4x Mounting screw M6x35
- 4x Mounting screw M6x40

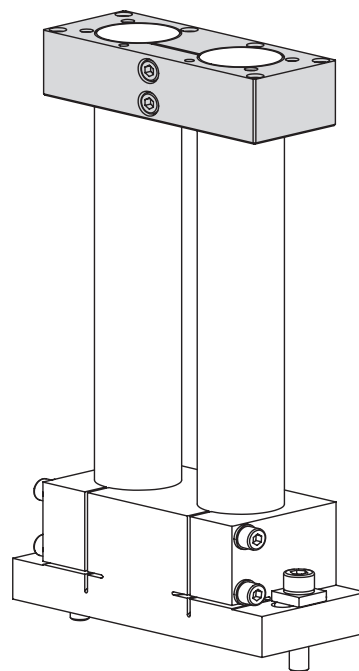
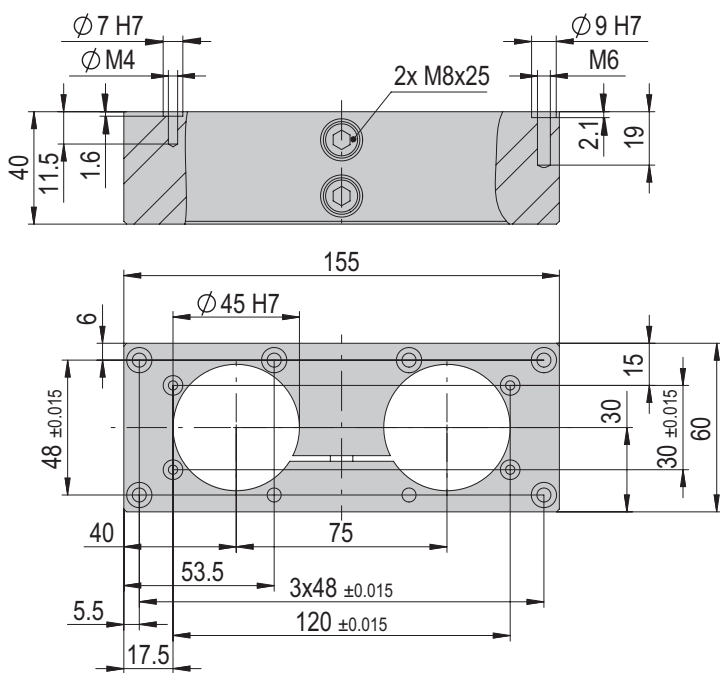
**MTZ 45x2b Double module support centric**

**Order number**

**50432836**

**Net weight**

**0.659 kg**



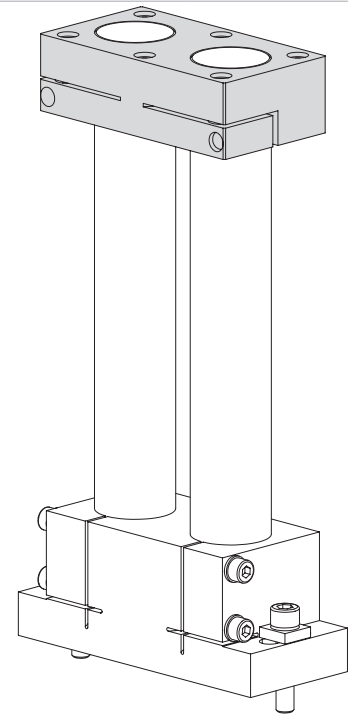
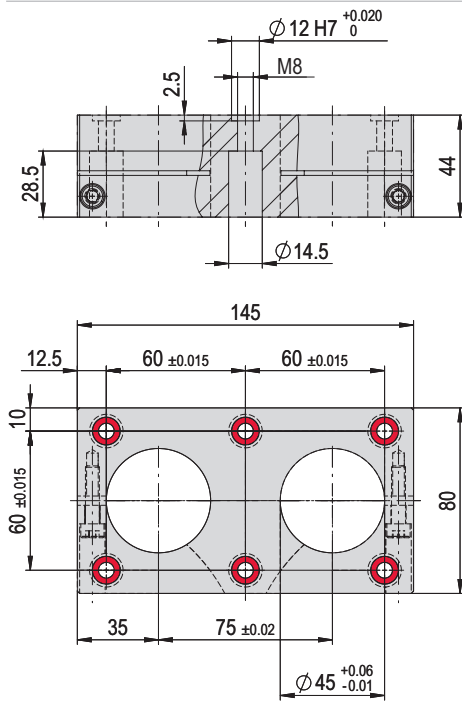
MTZ 45x2c Double module support centric

Order number

50466815

Net weight

0.894 kg



2

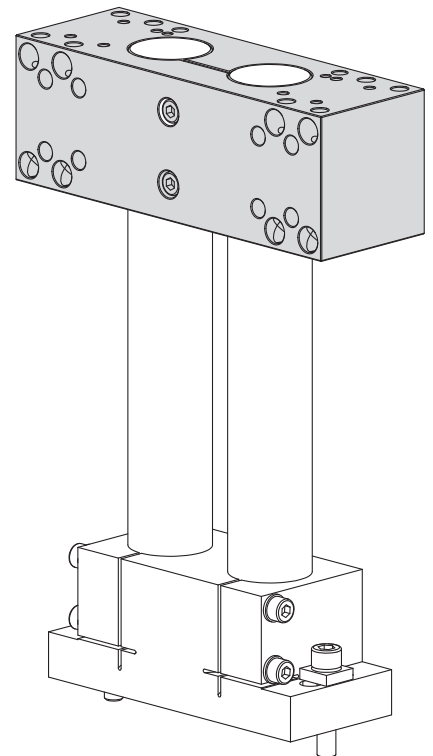
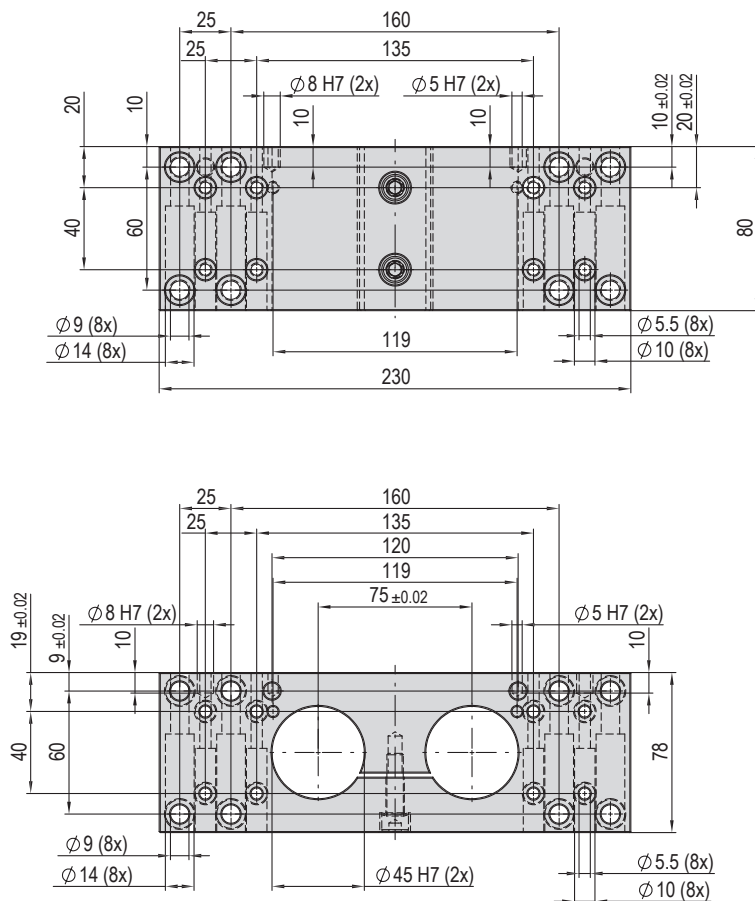
MTZ 45x2d Double module support centric

Order number

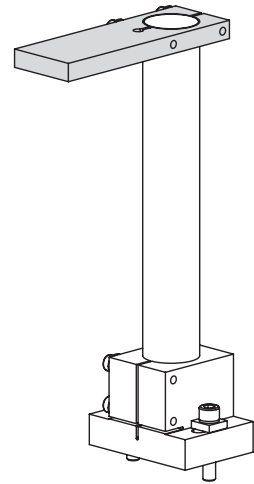
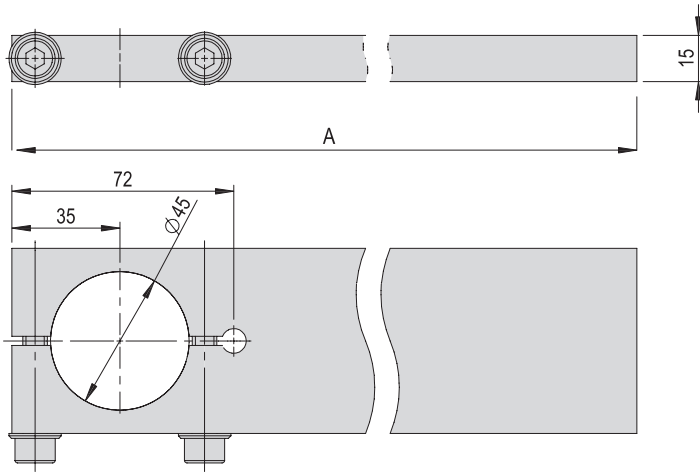
50470288

Net weight

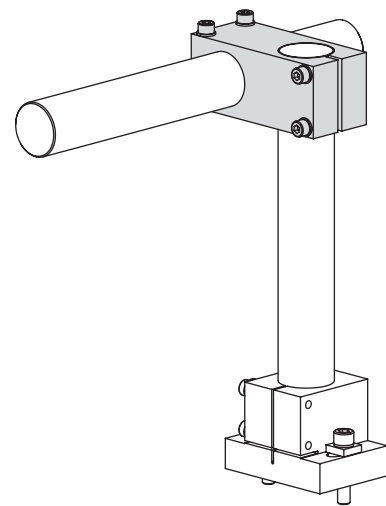
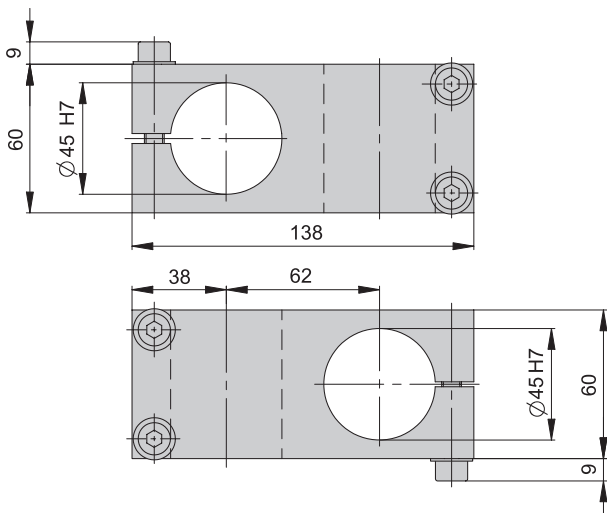
2.6 kg



Support plate d45	180 mm	280 mm
<b>Order number</b>	<b>11005001</b>	<b>11005000</b>
Net weight	0.412 kg	0.655 kg
A	180 mm	280 mm

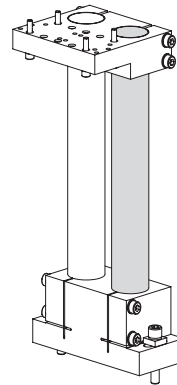
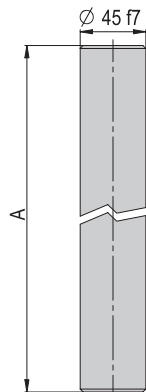


Cross support d45		
<b>Order number</b>		<b>11005003</b>
Net weight		0.821 kg



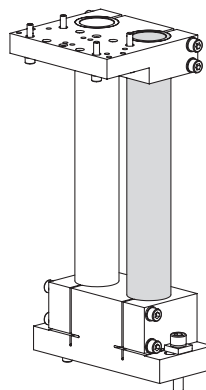
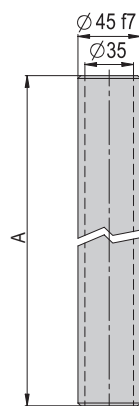


Pillar d45	Weight/100 mm	350 mm	550 mm	1000 mm
<b>Order number</b>	<b>11005005</b>	<b>11005004</b>	<b>11005006</b>	<b>11009036</b>
Net weight	1.20 kg/100 mm	4.2 kg	6.9 kg	12.245 kg
A	100-999 mm	350 mm	550 mm	1000 mm

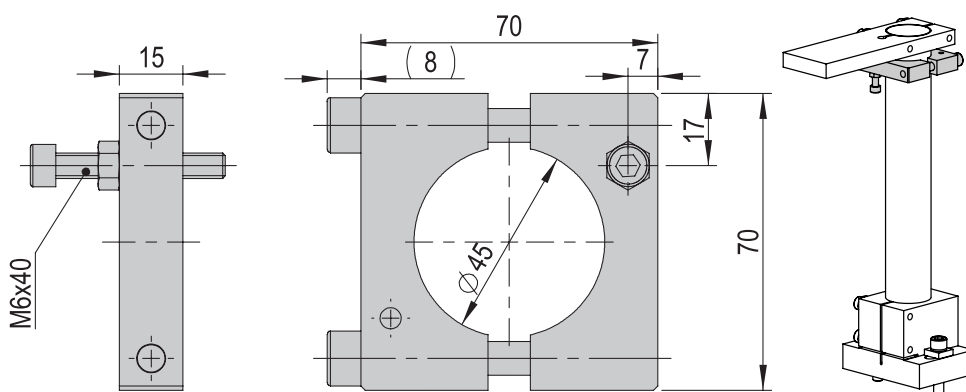


2

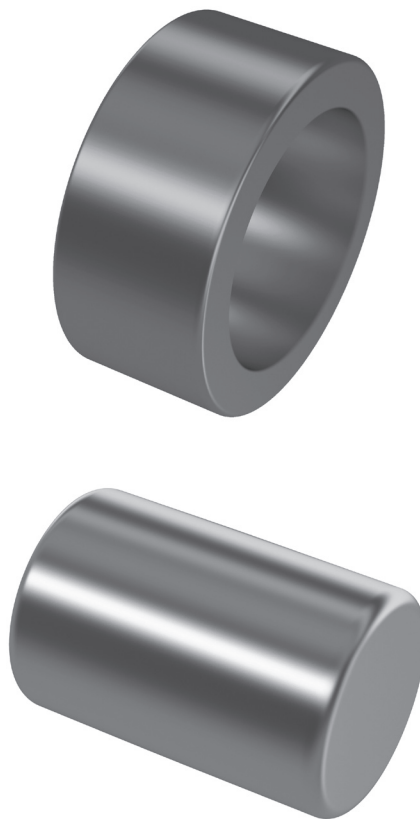
Hollow pillar d45/35	Weight/100 mm	35x1000 mm
<b>Order number</b>	<b>11005007</b>	<b>11009037</b>
Net weight	0.48 kg/100 mm	4.836 kg
A	100-999 mm	1000 mm



Elevating adjustment d45	Order number	50317945
Net weight		0.175 kg



# Module centering

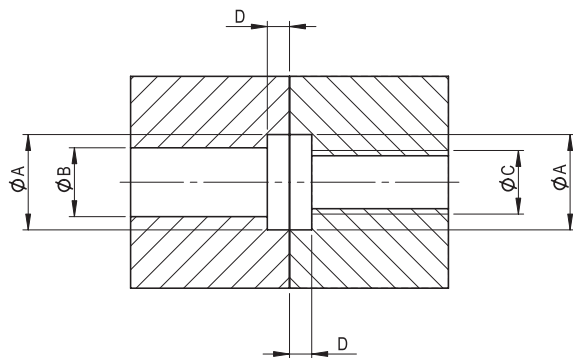


# Table of contents: Module centering

<b>Module centering</b>	Page
Centering bushings, centering pins, dowel pins, accessories intermediate stops, various	54

# Module centering

Bores							
Ø A*	19H7	12H7	9H7	8H7	7H7	5H7	4H7
Ø B	13	8.5	6.5	5.4	4.3	3.2	2.6
Ø C	M12	M8	M6	M5	M4	M3	M2.5
D	3.0 (+0.1/0)	2.5 (+0.1/0)	2.1 (+0.1/0)	1.8 (+0.1/0)	1.6 (+0.1/0)	1.3 (+0.1/0)	1.1 (+0.1/0)

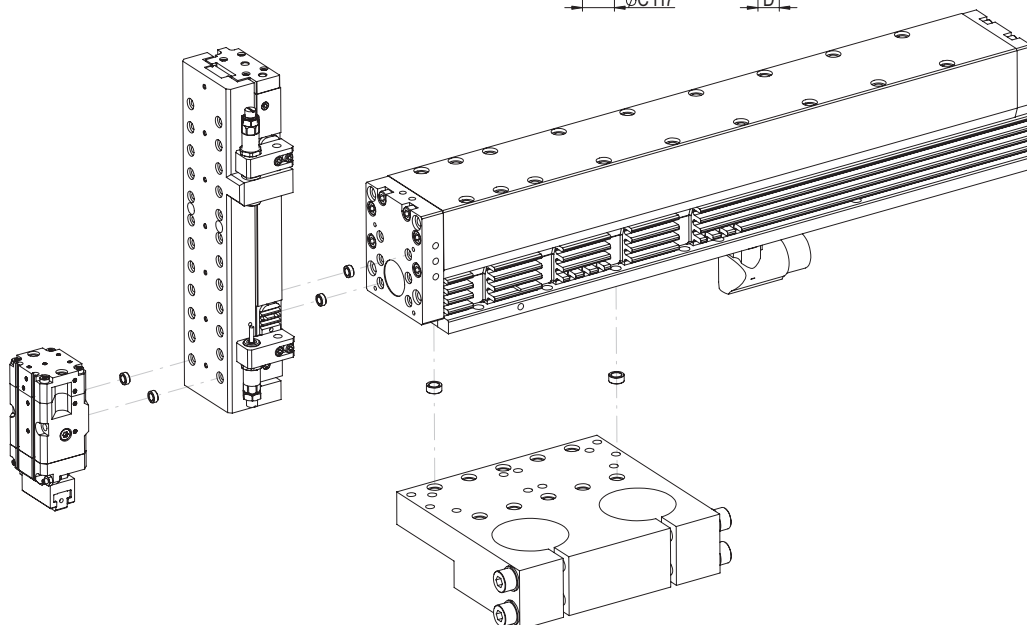
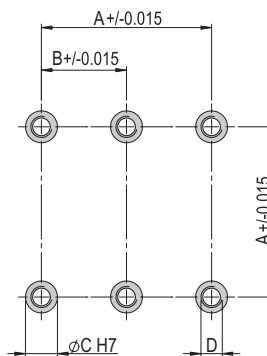


\*for several old modules, the bores are still K7 tolerated.

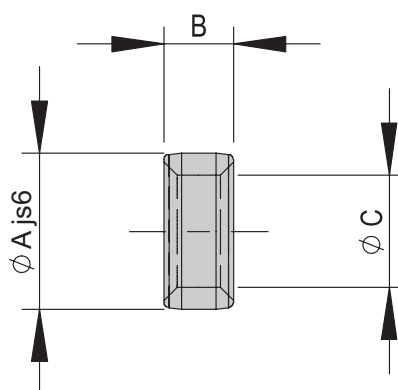
Attachment grid	16x16 mm	20x20 mm	30x30 mm	38x38 mm	48x48 mm	60x60 mm	75x75 mm	96x96 mm
A	16 mm	20 mm	30 mm	38 mm	48 mm	60 mm	75 mm	96 mm
B	8 mm	10 mm	15 mm	19 mm	24 mm	30 mm	37.5 mm	48 mm
C	4x1.1 mm	5x1.3 mm	7x1.6 mm	8x1.8 mm	9x2.1 mm	12x2.5 mm	15x2.7 mm	19x3 mm
D	M2.5	M3	M4	M5	M6	M8	M10	M12

## Module-centering, centering bushings

In order to guarantee a high and repetitive fit accuracy during installation, operation or replacement of a module, all components of the entire program are consequently provided with a precise module centering. Centering bushings or pins are supplied as standard with each module.



Centering bushings	Ø4x2	Ø5x2.5	Ø7x3	Ø8x3.5	Ø9x4	Ø12x4.8	Ø19x5.8
<b>Order number</b>	<b>50332257</b>	<b>50035831</b>	<b>11016850</b>	<b>50263565</b>	<b>11004942</b>	<b>50187424</b>	<b>50189497</b>
Net weight	0.001 kg	0.001 kg	0.001 kg	0.001 kg	0.001 kg	0.002 kg	0.006 kg
A	4 mm	5 mm	7 mm	8 mm	9 mm	12 mm	19 mm
B	2 mm	2.5 mm	3 mm	3.5 mm	4 mm	4.8 mm	5.8 mm
C	2.6 mm	3.2 mm	4.3 mm	5.4 mm	6.5 mm	8.5 mm	13 mm



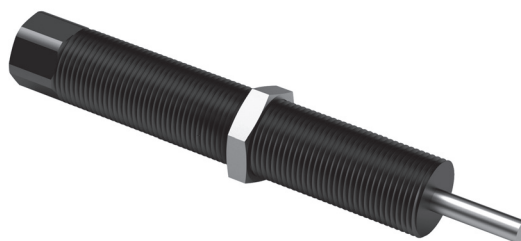
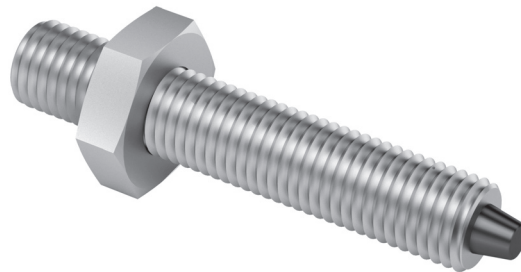
Centering pin	Ø4x6	Cylindrical pin 2h6x28
<b>Order number</b>	<b>11005017</b>	<b>11004755</b>
Net weight	0.001 kg	0.001 kg

Keys	Key 4x4x10	Key 5x5x10	Key 8x7x25	Key 8x7x32
<b>Order number</b>	<b>11002404</b>	<b>11002405</b>	<b>11002406</b>	<b>11002407</b>
Net weight	0.001 kg	0.001 kg	0.011 kg	0.014 kg

Accessories intermediate stops	Centering bushing ZA-PS 16	Centering bushing ZA-PS 25	Centering bushing ZA-PS 32	Nut M10x1 for ZA 32	Stop screw ZA20/25	Stop carrier ZA20/25
<b>Order number</b>	<b>50235575</b>	<b>50235901</b>	<b>50235989</b>	<b>11009300</b>	<b>11016912</b>	<b>11011027</b>
Net weight	0.001 kg	0.003 kg	0.003 kg	0.002 kg	0.014 kg	0.019 kg

Various	Stop carrier	Contact plate	Nut M5
<b>Order number</b>	<b>11001612</b>	<b>11001614</b>	<b>11000673</b>
Net weight	0.088 kg	0.105 kg	0.001 kg

# Shock absorbers



## Table of contents: Shock absorbers

<b>Shock absorbers</b>	<b>Page</b>
Elastomer shock absorber ASED	58
Accessories ASED	58
Stop screw/shock absorber ASSD	59
Shock absorbers SD	60
Accessories SD	62

	ASED M4x0.5-1 50389768	ASED M5x0.5-1 50282683	ASED M6x0.5-1 50298509	ASSD M5x0.5-2 50046138	ASSD M6x0.5-4 50570560	SD M6x0.5-2 50310020	SD M6x0.5-3 50287720	SD M8x1-2 11004990	SD M8x1-3 50041089	SD M8x1-4 50177008	SD M8x1-5 50288020	SD M10x1-4 50279077	SD M10x1-5 50337721	SD M12x1-1 50287972	SD M14x1-1 11004987	SD M14x1-2 11004988	SD M20x1.5-1 50252844	SD M25x1.5-1 50252854
CS 6	■																	
CS 8		■		■														
CS 12			■		■													
CS 16										■								
CS 20													■					
CS 25																■		
LM 12								■										
LM 16								■										
LM 20															■			
LM 25															■			
LM 32															■			
HM 10							■											
HM 16										■								
HM 25													■					
PMP															■			
PMP-c															■			
CR 12						■												
CR 16												■						
CR 20												■						
CR 25																	■	
CR 32																		■
RM 12								■										
RM 16									■									
RM 25															■			
RM 32																■		
GMQ 12								■										
GMQ 20								■										
GMQ 32								■										

■ This shock absorber (SD) may only be operated with Afag stop sleeves.

ASED: Stop screw with elastic shock absorber

ASSD: Stop screw with shock absorberr

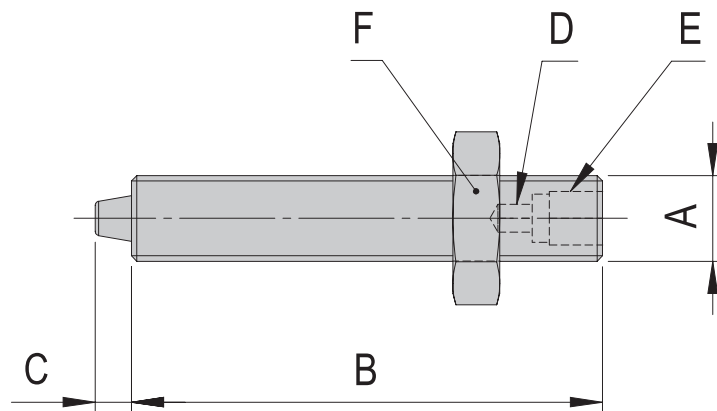
SD: Shock absorber



# Elastomer damper ASED

Elastomer shock absorber ASED	M4x0.5 -1	M5x05 -1	M6x0.5 -1
<b>Order number</b>	<b>50389768</b>	<b>50282683</b>	<b>50298509</b>
Net weight	0.002 kg	0.003 kg	0.006 kg
Repeat accuracy	+/- 0.01 mm	+/- 0.01 mm	+/- 0.01 mm
Max. energy input/stroke	0.005 Nm	0.02 Nm	0.03 Nm
Max. energy input/s	8 Nm	32.4 Nm	48 Nm
Suitable for	CS 6/...-ED	CS 8/...-ED	CS 12/...-ED
A	M4 x 0.5	M5 x 0.5	M6 x 0.5
B	22 mm	26 mm	30 mm
C	1.7 mm	2.8 mm	3.1 mm
D	SW 1.3 mm	SW 1.5 mm	SW 2 mm
E	SW 2.5 mm	SW 3 mm	SW 4 mm

4



## Accessories

- Absorbing element for ASED M4x0.5 -1 [S. 56]
- Absorbing element for ASED M5/M6x0.5 -1 [S. 56]

## Accessories ASED

Absorbing element for ASED M4x0.5 -1	
<b>Order number</b>	<b>50400874</b>
Net weight	0.001 kg
Suitable for	ASED M4x0.5-1

Absorbing element for ASED M5xM6x0.5 -1	
<b>Order number</b>	<b>50286941</b>
Net weight	0.001 kg
Suitable for	ASED M5/M6x0.5-1



# Stop screw/Shock absorber ASSD

## Stop screw/shock absorber ASSD M5

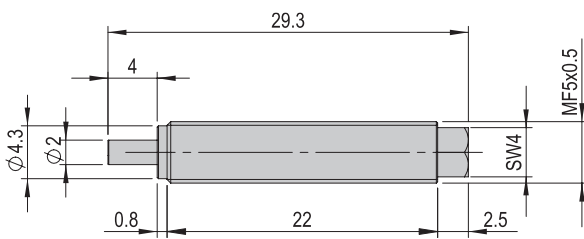
**Order number** 50046138

Net weight 0.005 kg

Max. energy input/stroke 0.6 Nm

Max. energy input/s 1 800 Nm

Suitable for CS 8/...-SD



## Stop screw/shock absorber ASSD M6

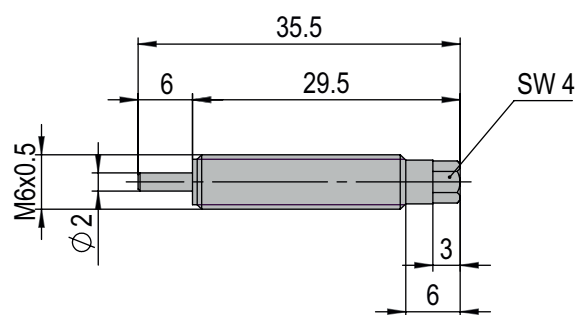
**Order number** 50570560

Net weight 0.003 kg

Max. energy input/stroke 1 Nm

Max. energy input/s 2 000 Nm

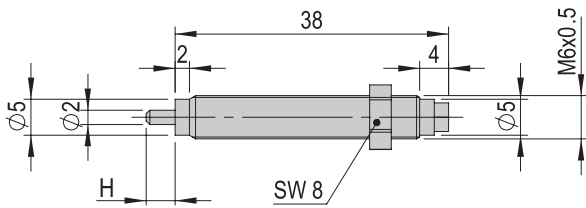
Suitable for CS 12/...-SD



# Shock absorbers SD

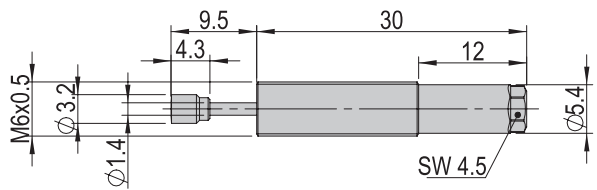
## Shock absorber SD M6x0.5 -2

<b>Order number</b>	<b>50310020</b>
Stroke H	4 mm
Net weight	0.007 kg
Max. energy input/stroke	1.5 Nm
Max. energy input/s	3 200 Nm
Suitable for	CR 12



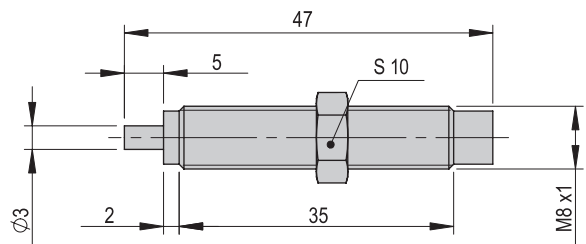
## Shock absorber SD M6x0.5 -3

<b>Order number</b>	<b>50287720</b>
Net weight	0.007 kg
Max. energy input/stroke	1 Nm
Max. energy input/s	2 400 Nm
Suitable for	HM 10



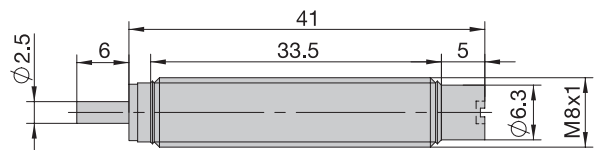
## Shock absorber SD M8x1 -2

<b>Order number</b>	<b>11004990</b>
Net weight	0.016 kg
Max. energy input/stroke	3 Nm
Max. energy input/s	5 650 Nm
Suitable for	LM 12, LM 16 RM 12 GMQ 12, GMQ 20, GMQ 32



## Shock absorber SD M8x1 -3

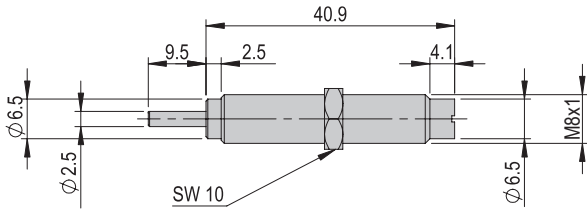
<b>Order number</b>	<b>50041089</b>
Net weight	0.011 kg
Max. energy input/stroke	3 Nm
Max. energy input/s	5 650 Nm
Suitable for	RM 16



# Shock absorbers SD

## Shock absorber SD M8x1 -4

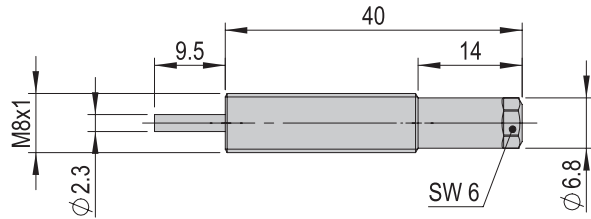
<b>Order number</b>	<b>50177008</b>
Net weight	0.001 kg
Max. energy input/stroke	3.5 Nm
Max. energy input/s	5 600 Nm
Suitable for	CS 16



Note: The shock absorber may only be operated with the stop sleeve!

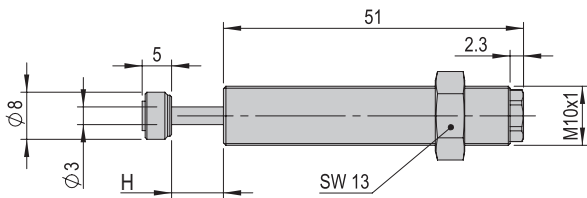
## Shock absorber SD M8x1 -5

<b>Order number</b>	<b>50288020</b>
Net weight	0.013 kg
Max. energy input/stroke	4 Nm
Max. energy input/s	9 000 Nm
Suitable for	HM 16



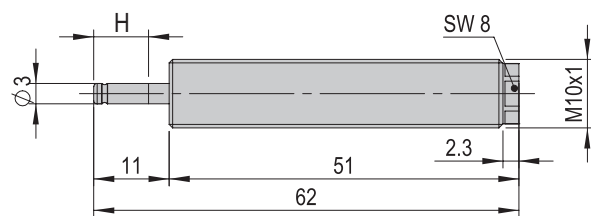
## Shock absorber SD M10x1 -4

<b>Order number</b>	<b>50279077</b>
Stroke H	8 mm
Net weight	0.038 kg
Max. energy input/stroke	12 Nm
Max. energy input/s	20 000 Nm
Suitable for	CR 16, CR 20



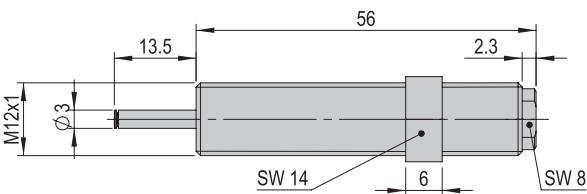
## Shock absorber SD M10x1 -5

<b>Order number</b>	<b>50337721</b>
Stroke H	8 mm
Net weight	0.02 kg
Max. energy input/stroke	10 Nm
Max. energy input/s	18 000 Nm
Suitable for	CS 20



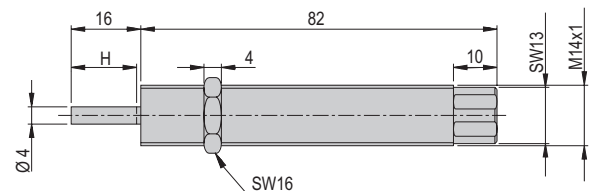
## Shock absorber SD M12x1 -1

<b>Order number</b>	<b>50287972</b>
Net weight	0.035 kg
Max. energy input/stroke	16 Nm
Max. energy input/s	30 000 Nm
Suitable for	HM 25



## Shock absorber SD M14x1 -1

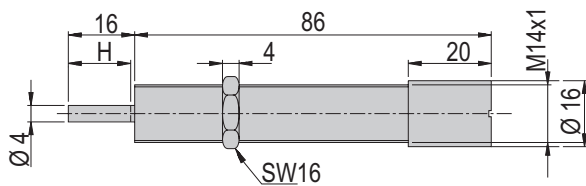
<b>Order number</b>	<b>11004987</b>
Stroke H	15 mm
Net weight	0.065 kg
Max. energy input/stroke	15 Nm
Max. energy input/s	32 000 Nm
Suitable for	LM 20, LM 25, LM 32 RM 25 PMP, PMP-c



# Shock absorbers SD

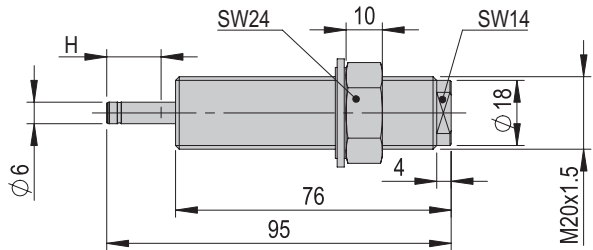
## Shock absorber SD M14x1 -2

<b>Order number</b>	<b>11004988</b>
Stroke H	15 mm
Net weight	0.077 kg
Max. energy input/stroke	17 Nm
Max. energy input/s	34 000 Nm
Suitable for	RM 32, RM 63 CS 25



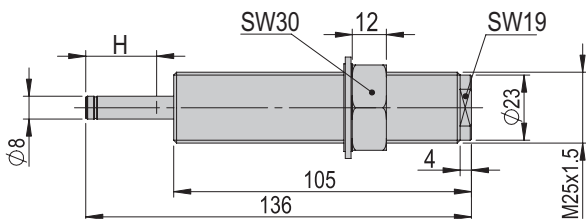
## Shock absorber SD M20x1.5 -1

<b>Order number</b>	<b>50252844</b>
Stroke H	15 mm
Net weight	0.07 kg
Max. energy input/stroke	80 Nm
Max. energy input/s	80 000 Nm
Suitable for	CR 25



## Shock absorber SD M25x1.5 -1

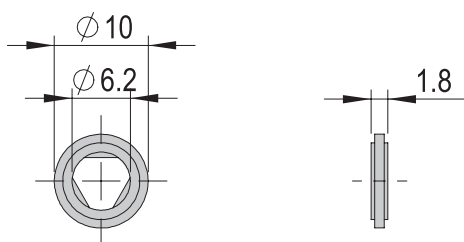
<b>Order number</b>	<b>50252854</b>
Stroke H	25 mm
Net weight	0.106 kg
Max. energy input/stroke	210 Nm
Max. energy input/s	120 000 Nm
Suitable for	CR 32



# Accessories SD

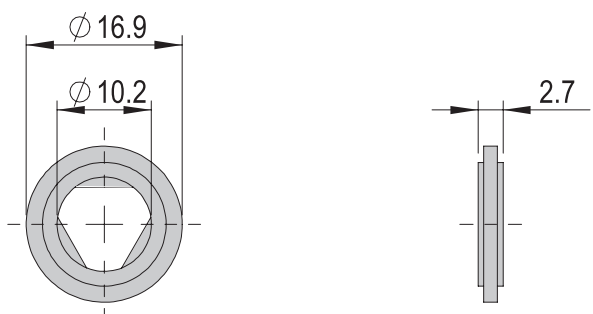
## Seal for SD M6x 0.5-2

<b>Order number</b>	<b>50310021</b>
Net weight	0.001 kg
Suitable for	SD M6x0.5-2

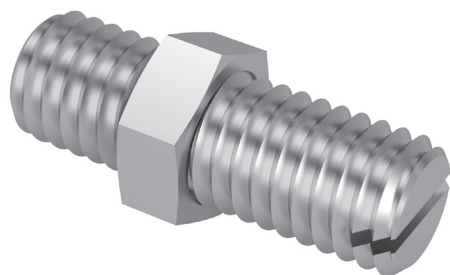
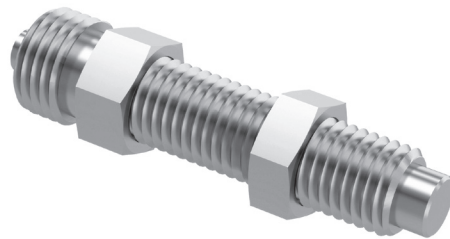


## Seal for SD M10x 1-4

<b>Order number</b>	<b>50300442</b>
Net weight	0.002 kg
Suitable for	SD M10x1-4



# Adjusting stops



## Table of contents: Adjusting stops

<b>Adjusting stops</b>	<b>Page</b>
Stop sleeves ASH	66
Stop screw AS	67
Steel stop ASS	68
Adjusting stop pin	69

	50286115	50098367	50287664	50100898	50287968	50224961	11011202	11004991	11004992	11004993	11004994	11017149	50465413	50465467	50036780	50045855	50046516	11009229	11009230	
	ASH M8x1-1	ASH M10x1-1	ASH M10x1-2	ASH M12x1-1	ASH M16x1-1	ASH M18x1-1	AS 08/15	AS 08/25	AS 08/40	AS 08/80	AS 12/60	ASC 08/30	ASS-03/25	ASS-04/25	ASS 05/12	ASS 05/22	ASS 05/37	M8x1/25	M8x1/40	
CS 8																				
CS 12																				
CS 16																				
CS 20																				
CS 25																				
LM 12																				
LM 16																				
LM 20																				
LM 25																				
LM 32																				
HM 10																				
HM 16																				
HM 25																				
PMP																				
PMP-c																				
CR 12																				
CR 16																				
CR 20																				
CR 25																				
CR 32																				
RM 12																				
RMZ 12																				
RM 16																				
RM 25																				
RM 32																				
GMQ 12																				
GMQ 20																				
GMQ 32																				

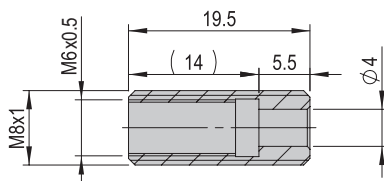
ASH: Stop sleeve  
 ASC, AS: Stop screw  
 ASS: Steel stop



# Stop sleeves

## Stop sleeve ASH M8x1 -1

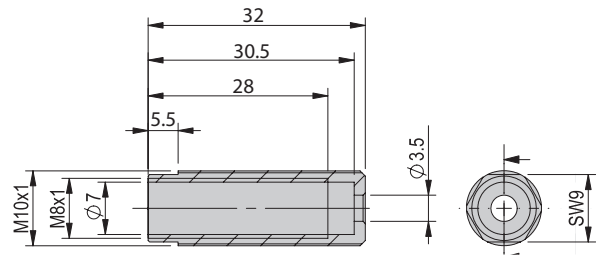
<b>Order number</b>	<b>50286115</b>
Net weight	0.004 kg
Suitable for	HM 10



Note: The ASH stop sleeves may only be operated with the shock absorbers!

## Stop sleeve ASH M10x1 -1

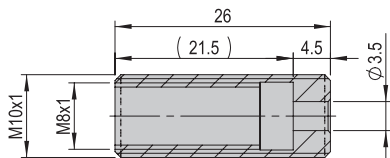
<b>Order number</b>	<b>50098367</b>
Net weight	0.009 kg
Suitable for	CS 16



Note: The ASH stop sleeves may only be operated with the shock absorbers!

## Stop sleeve ASH M10x1 -2

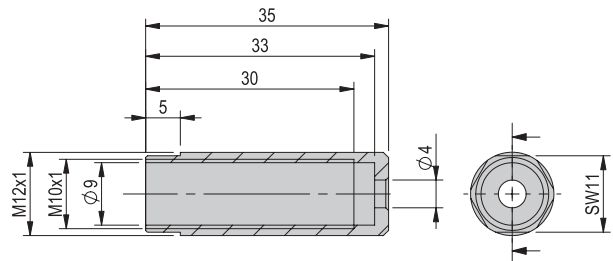
<b>Order number</b>	<b>50287664</b>
Net weight	0.008 kg
Suitable for	HM 16



Note: The ASH stop sleeves may only be operated with the shock absorbers!

## Stop sleeve ASH M12x1 -1

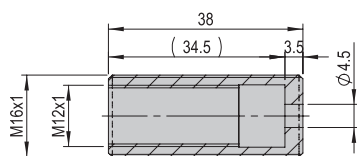
<b>Order number</b>	<b>50100898</b>
Net weight	0.014 kg
Suitable for	CS 20



Note: The ASH stop sleeves may only be operated with the shock absorbers!

## Stop sleeve ASH M16x1 -1

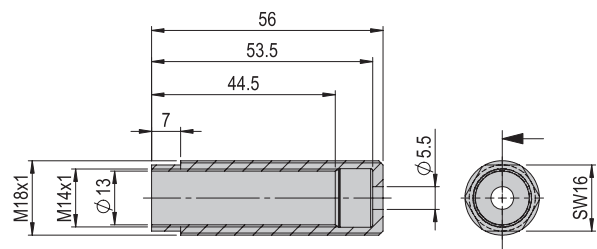
<b>Order number</b>	<b>50287968</b>
Net weight	0.031 kg
Suitable for	HM 25



Note: The ASH stop sleeves may only be operated with the shock absorbers!

## Stop sleeve ASH M18x1 -1

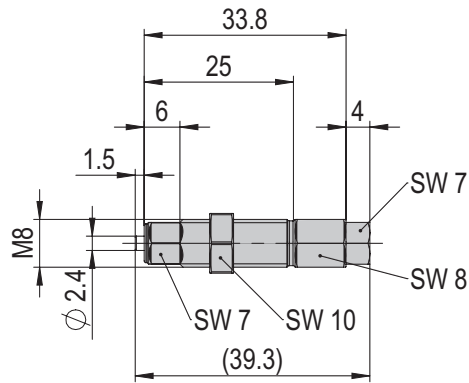
<b>Order number</b>	<b>50224961</b>
Net weight	0.017 kg
Suitable for	CS 25



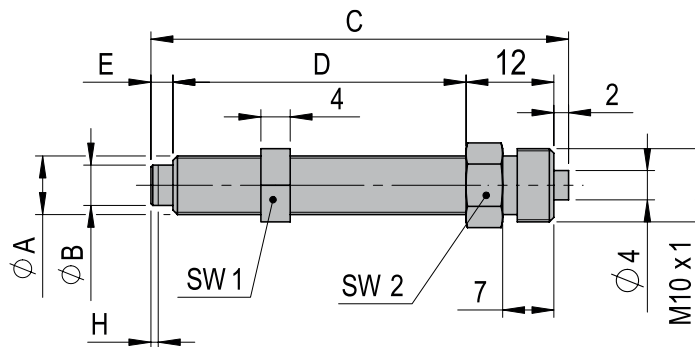
Note: The ASH stop sleeves may only be operated with the shock absorbers!

# Stop screw

Stop screw ASC	ASC 08/25
<b>Order number</b>	<b>50421608</b>
Net weight	0.01 kg
Suitable for	RMZ 12

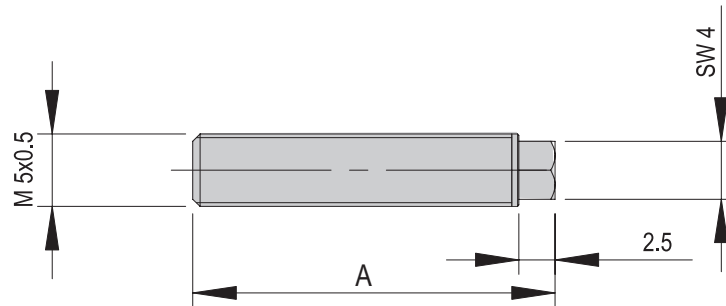


Stop screw AS	AS 08/15	AS 08/25	AS 08/40	AS 08/80	AS 12/60
<b>Order number</b>	<b>11011202</b>	<b>11004991</b>	<b>11004992</b>	<b>11004993</b>	<b>11004994</b>
Net weight	0.03 kg	0.02 kg	0.02 kg	0.04 kg	0.1 kg
Repeat accuracy	+/- 0.01 mm	+/- 0.01 mm	+/- 0.01 mm	+/- 0.01 mm	+/- 0.01 mm
Suitable for	GMQ 12, GMQ 20, GMQ 32	RM 12 LM 12, LM 16, LM 20	RM 16, RM 25 LM 12, LM 16, LM 20, LM 25 PMP-c	LM 12, LM 16, LM 20	RM 32, RM 63 LM 32
A	M8 x 1 mm	M8 x 1 mm	M8 x 1 mm	M8 x 1 mm	M12 x 1 mm
B	5.5 mm	5.5 mm	5.5 mm	5.5 mm	8 mm
C	32 mm	42 mm	57 mm	97 mm	78 mm
D	15 mm	25 mm	40 mm	80 mm	60 mm
E	3 mm	3 mm	3 mm	3 mm	4 mm
H	1 mm	1 mm	1 mm	1 mm	1 mm
SW 1	10 mm	10 mm	10 mm	10 mm	12 mm
SW 2	10 mm	10 mm	10 mm	10 mm	14 mm

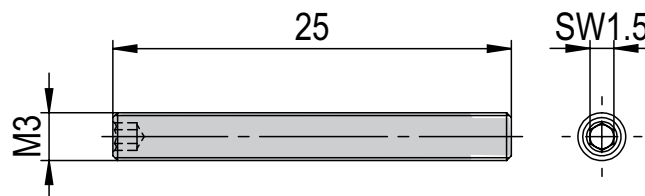


# Steel stop

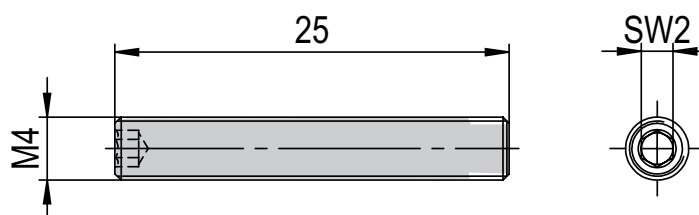
Steel stop	ASS 05/12	ASS 05/22	ASS 05/37
<b>Order number</b>	<b>50036780</b>	<b>50045855</b>	<b>50046516</b>
Net weight	0.002 kg	0.003 kg	0.005 kg
Suitable for	CS 8	CS 8	CS 8
A	16 mm	25 mm	40 mm



Steel stop	ASS 03/25
<b>Order number</b>	<b>50465413</b>
Net weight	0.001 kg
Suitable for	CS 8



Steel stop	ASS 04/25
<b>Order number</b>	<b>50465467</b>
Net weight	0.002 kg
Suitable for	CS 12



# Adjusting stop pin

## Adjusting stop pin M8x1/25

**Order number**

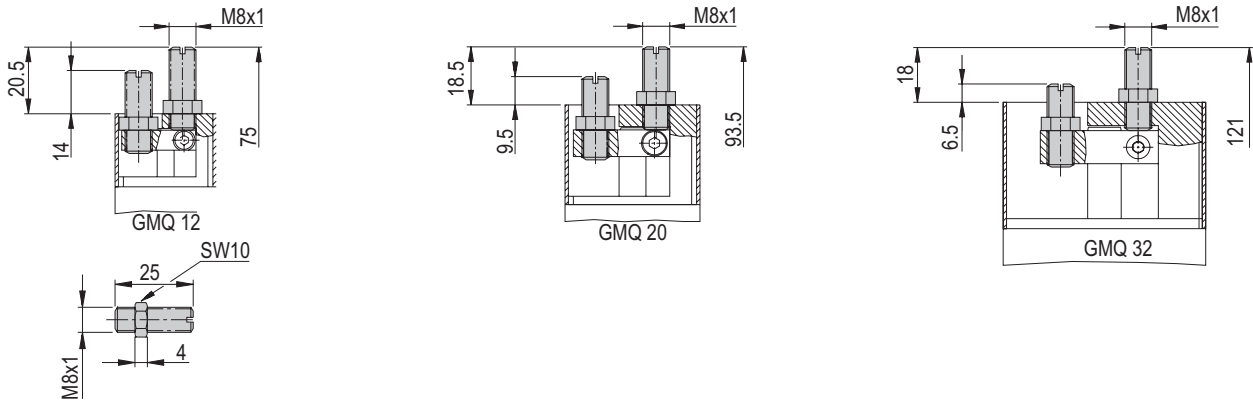
**11009229**

Net weight

0.01 kg

Suitable for

LM 12  
GMQ 12, GMQ 20, GMQ 32



## Adjusting stop pin M8x1/40

**Order number**

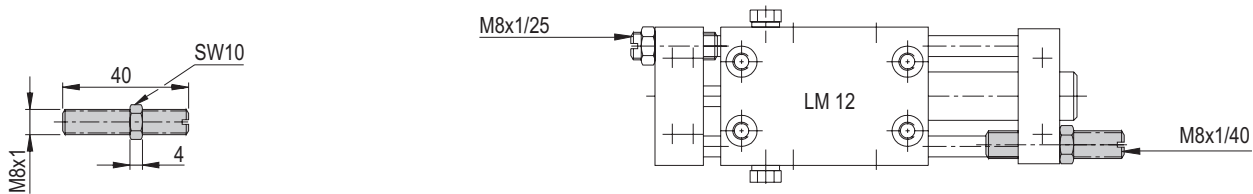
**11009230**

Net weight

0.016 kg

Suitable for

LM 12





# Proximity switches



# Table of contents: Proximity switches

<b>Proximity switches</b>	<b>Page</b>
Proximity switches	74
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	50448226	50001023	50448225	50093507	11016714	50003811	11005439	50230625	50428013	50313987	50536020	50033432	11012933	50562677	
CS 6															
CS 8															
CS 12															
CS 16															
ZA-CS 16															
CS 20															
ZA-CS 20															
CS 25															
ZA-CS 25															
LM 12															
LM 16															
LM 20															
LM 25															
ZA 20/25															
LM 32															
ZA 32															
HM 10															
HM 16															
HM 25															
PMP															
ZA-PMP															
PMP-c															
PEZ-52															
PEZ-65															
PEZ-80															
PEZ-100															
PDZ-128															
PDZ-160															
PDZ-200															
CR 12															
CR 16															
CR 20															
CR 25															
CR 32															
RM 12															
RMZ 12															
RM 16															
RM 25															
RM 32															
PG 12															
PG 16															
PG 20															
UG 20															
UG 25															
GMO 12															
GMO 20															
GMO 32															
DG 16															
DG 20															

INI d3x12-Sn0.8-PNP-NO  
 INI d3x22-Sn0.8-PNP-NO-M8x1  
 INI M4x12-Sn0.8-PNP-NO  
 INI d4x2.5-Sn1.0-PNP-NC-M8x1  
 INI d4x2.5-Sn1.0-PNP-NO-M8x1  
 INI d6.5x3.5-Sn1.5-PNP-NO-M8x1  
 INI d6.5x4.4-Sn1.5-PNP-NO-M8x1  
 INI 8x4.7x16-Sn2.0-PNP-NC-M8x1  
 INI 8x8x38.5-Sn1.5-PNP-NO-M8x1  
 INI c10x19.5-Em-PNP-NO-M8x1  
 INI c10x19.5-Em-PNP-NO-M8x1 black  
 INI c10x28.5-Em-PNP-NO-M8x1  
 INI 10.5x5.8x30-Em-PNP-NO-M8x1  
 INI c10x20-Em-PNP-NO-M8x1

Standard Alternative  
 Proximity switches nomenclature  
 d: Diameter  
 Em: Electromagnetic  
 Sn: Switching distance  
 INI: Proximity switch  
 c: C-slot  
 PNP: PNP  
 NO: Normally open  
 NC: Normally close  
 M8x1: Connection thread

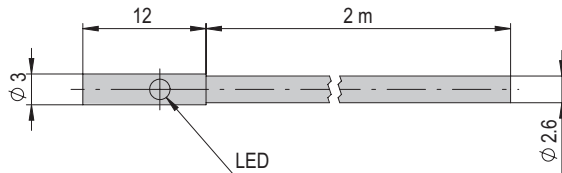


# Proximity switches

## INI d3x12-Sn0.8-PNP-NO

**Order number** 50448226

Net weight 0.01 kg



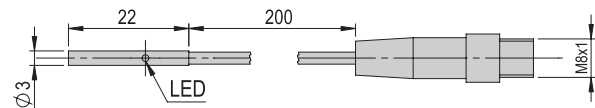
## INI d3x22-Sn0.8-PNP-NO-M8x1

**Order number** 50001023

Net weight 0.005 kg

Operating voltage 10 - 30 VDC

Switching distance 0.8 mm



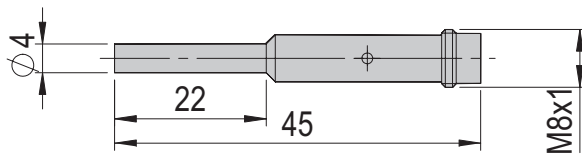
## INI d4/6.5x45-Sn1.0-PNP-NO-M8x1

**Order number** 11009034

Net weight 0.008 kg

Operating voltage 10 - 30 VDC

Switching distance 0.8 mm



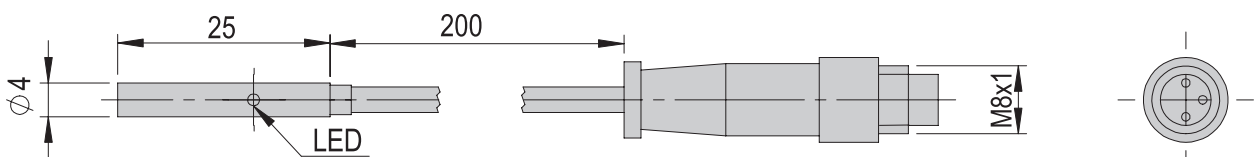
## INI d4x25-Sn1.0-PNP-NC-M8x1

**Order number** 50093507

Net weight 0.004 kg

Operating voltage 10 - 30 VDC

Switching distance 1.0 mm



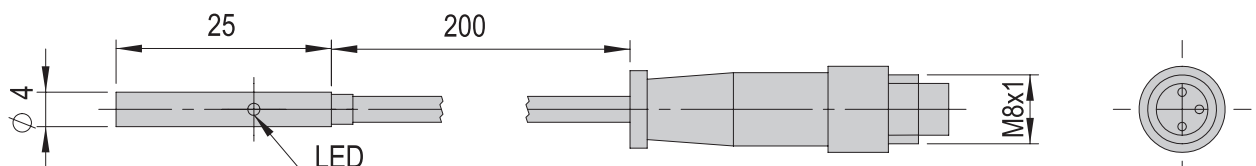
## INI d4x25-Sn1.0-PNP-NO-M8x1

**Order number** 11016714

Net weight 0.002 kg

Operating voltage 10 - 30 VDC

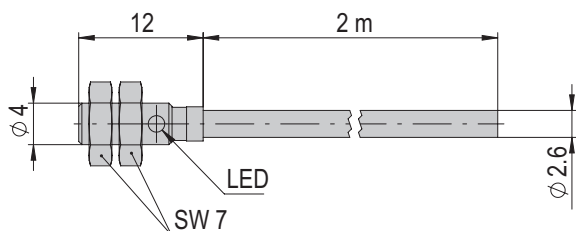
Switching distance 1.0 mm



**INI M4x12-Sn0.8-PNP-NO**

**Order number** 50448225

Net weight 0.01 kg



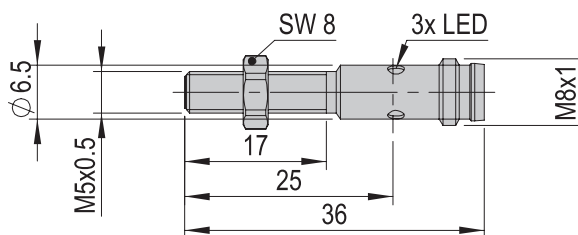
**INI d5x36-Sn2.0-PNP-NC-M8x1**

**Order number** 50285525

Net weight 0.007 kg

Operating voltage 10 - 30 VDC

Switching distance 1.5 mm

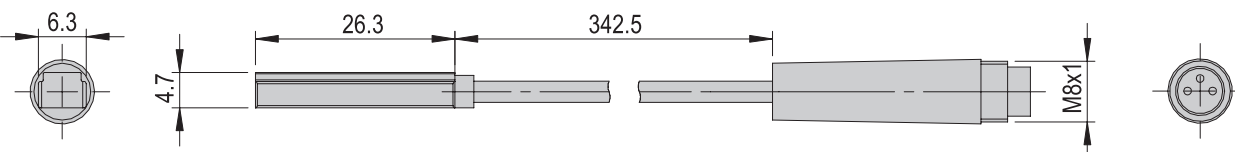


**INI 6.3x4.7x26.3-Em-PNP-NO-M8x1**

**Order number** 11010759

Net weight 0.007 kg

Operating voltage 10 - 30 VDC



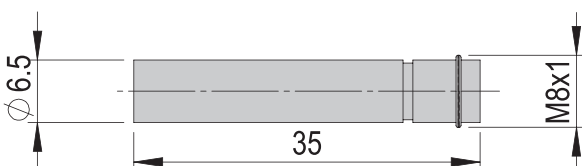
**INI d6.5x35-Sn1.5-PNP-NO-M8x1**

**Order number** 50003811

Net weight 0.009 kg

Operating voltage 10 - 30 VDC

Switching distance 1.5 mm



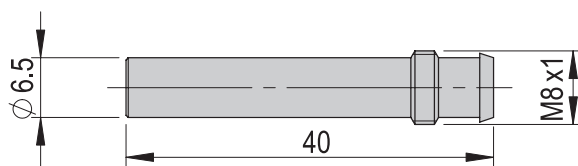
**INI d6.5x44-Sn1.5-PNP-NO-M8x1**

**Order number** 11005439

Net weight 0.005 kg

Operating voltage 10 - 30 VDC

Switching distance 1.5 mm



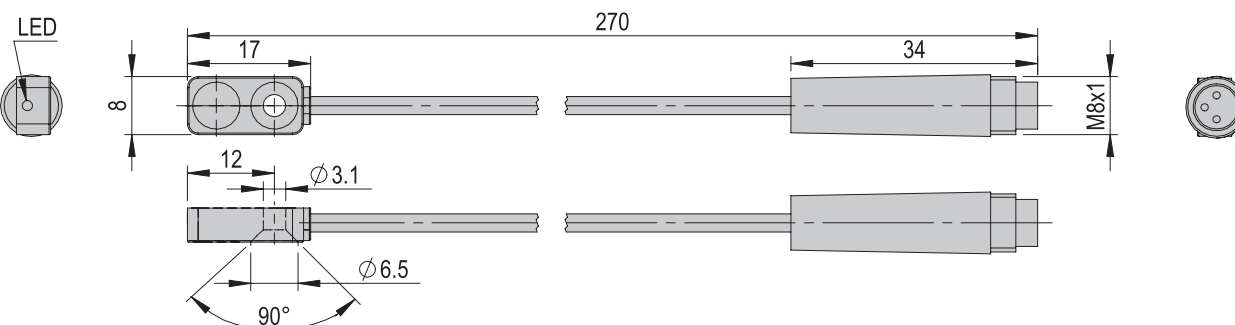
**INI 8x4.7x16-Sn2.0-PNP-NC-M8x1**

**Order number** 50230625

Net weight 0.004 kg

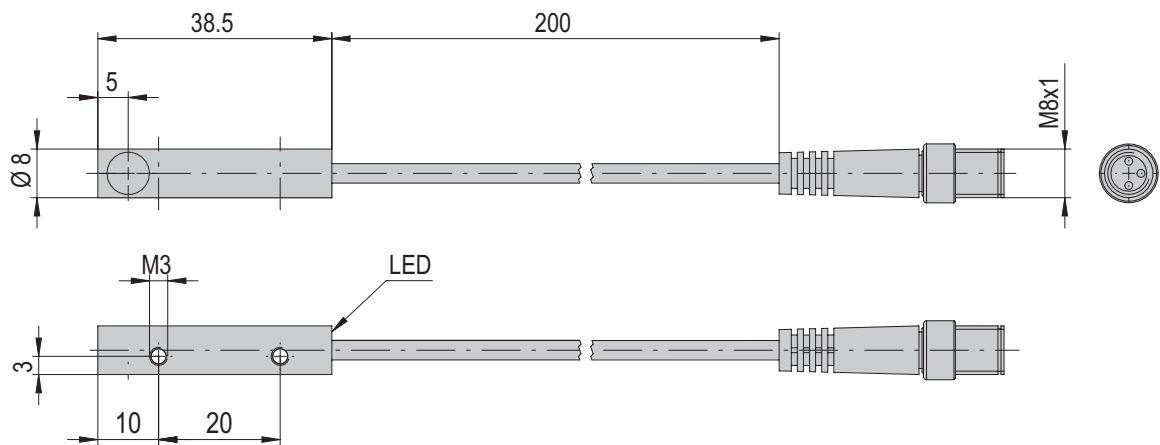
Operating voltage 10 - 30 VDC

Switching distance 1.5 mm



INI 8x8x38.5-Sn1.5-PNP-NO-M8x1

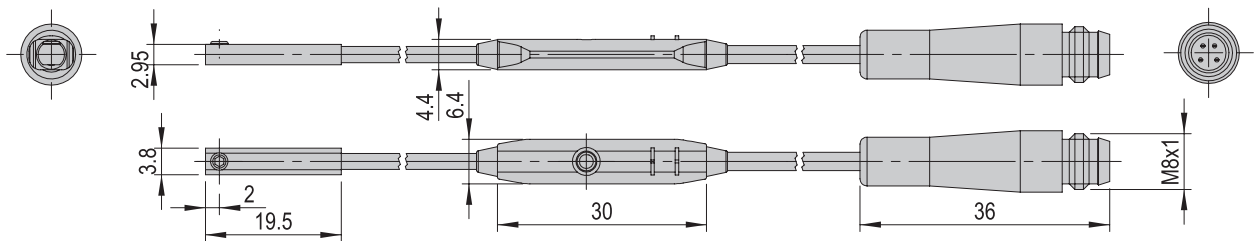
<b>Order number</b>	<b>50428013</b>
Net weight	0.043
Operating voltage	10 - 30 VDC
Switching distance	1.5 mm



6

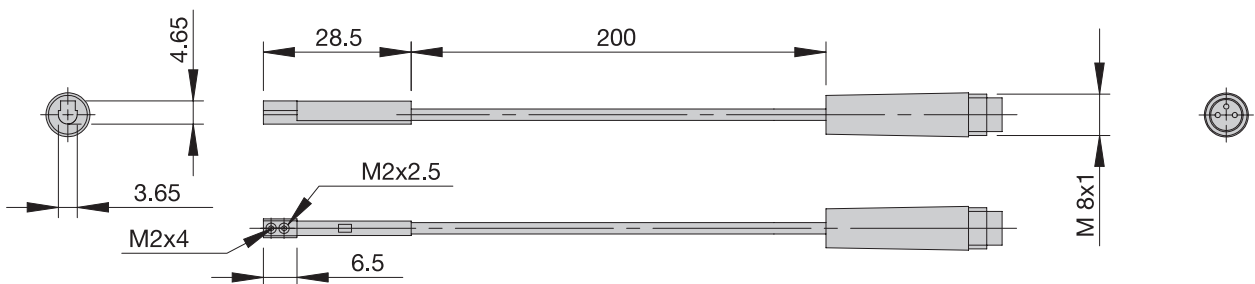
INI c10x19.5-Em-PNP-NO-M8x1

<b>Order number</b>	<b>50313987</b>
Net weight	0.021 kg
Operating voltage	10 - 30 VDC



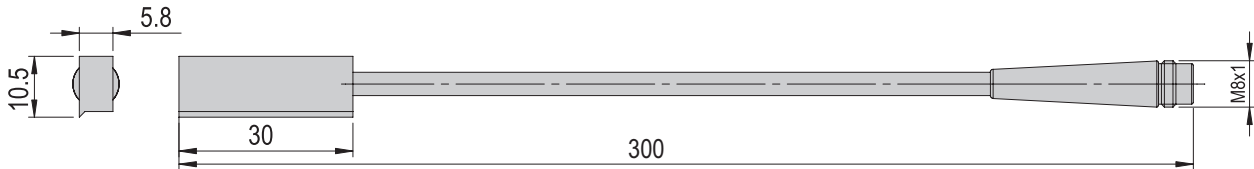
INI c10x28.5-Em-PNP-NO-M8x1

<b>Order number</b>	<b>50033432</b>
Net weight	0.02 kg
Operating voltage	10 - 30 VDC



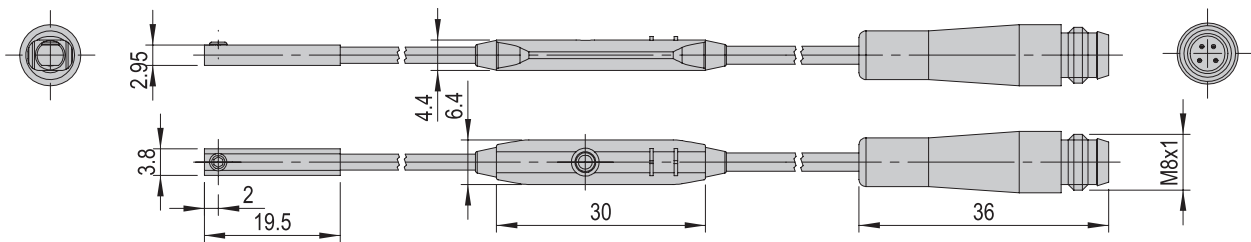
INI 10.5x5.8x30-Em-PNP-NO-M8x1

<b>Order number</b>	<b>11012933</b>
Net weight	0.013 kg
Operating voltage	10 - 30 VDC



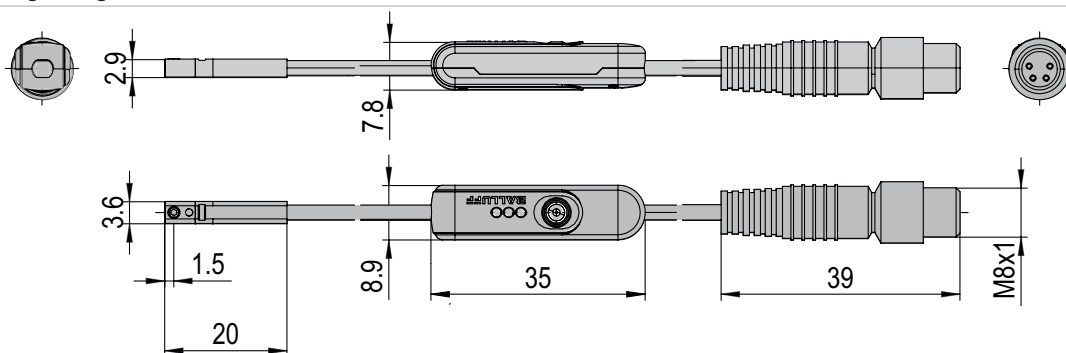
INI c10x19.5-Em-PNP-NO-M8x1-black

<b>Order number</b>	<b>50536020</b>
Net weight	0.021 kg
Operating voltage	10 - 30 VDC



INI c10x20-Em-PNP-NO-M8x1

<b>Order number</b>	<b>50562677</b>
Net weight	0.021 kg
Operating voltage	10 - 30 VDC



# Accessories proximity switches

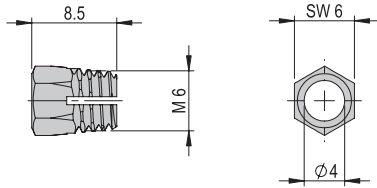
## Clamping nut M6x1

**Order number** 50042748

Net weight 0.001 kg

Ø 4 mm

Thread M6 x 1 mm



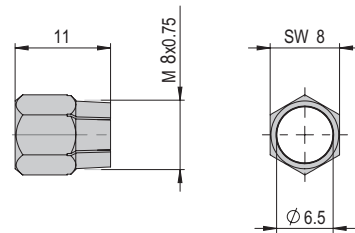
## Clamping nut M8x0.75

**Order number** 11005436

Net weight 0.001 kg

Ø 6.5 mm

Thread M8 x 0.75 mm



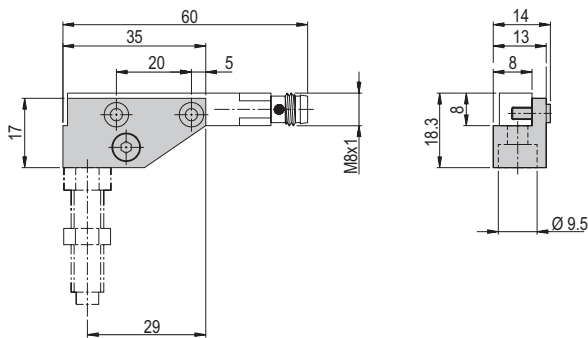
## Proximity switch holder IH9.5/8x8

**Order number** 11004997

Net weight 0.021 kg

Ø 8x8 mm

Material Die-cast zinc



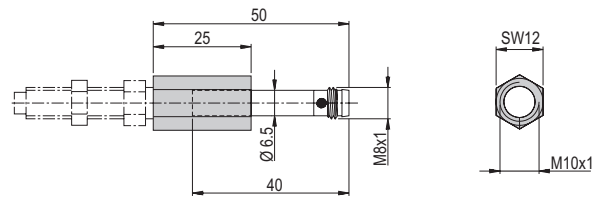
## Proximity switch holder IH10/6.5

**Order number** 11004995

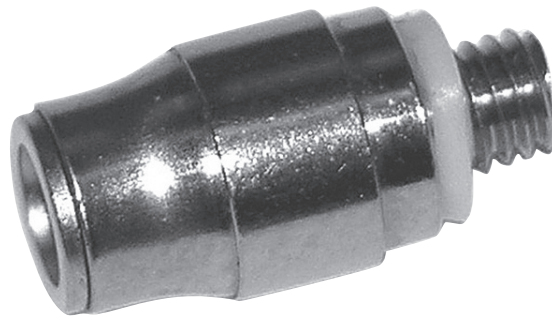
Net weight 0.015 kg

Ø 6.5 mm

Material Brass nickel-plated



# Compressed air Accessories



# Compressed air Accessories

## Threaded connection straight M3x0.5

<b>Order number</b>	<b>50073314</b>
Net weight	0.001 kg
Suitable for	PG 12, PG 16, PG 20, DG 16, HM 10

## Threaded connection angled M3x0.5

<b>Order number</b>	<b>50073315</b>
Net weight	0.004 kg
Suitable for	PG 12, PG 16, PG 20, DG 16, HM 10

## Drives

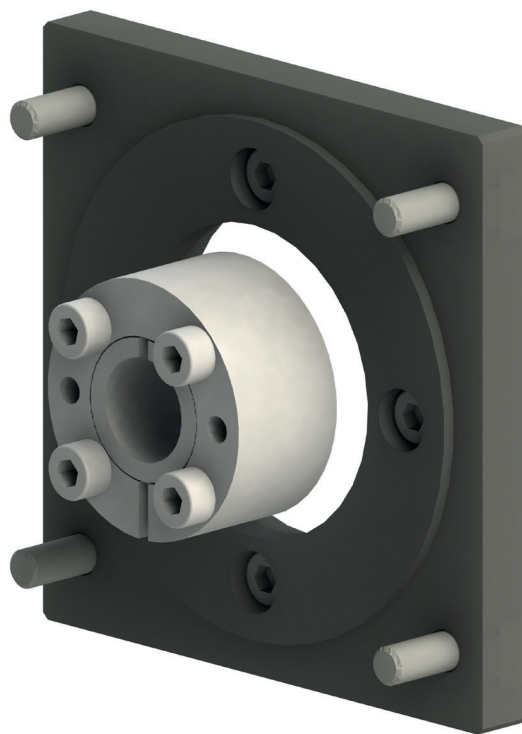
Mounting sets, planetary gearbox,  
angular gearbox & servo motors



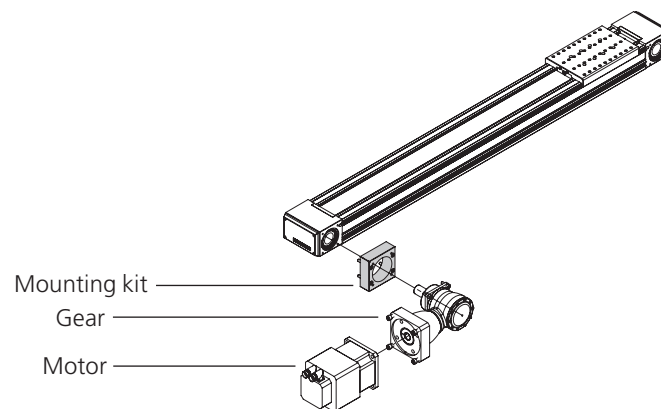
# Table of contents: Drives

<b>Drives</b>	<b>Page</b>
Mounting sets	83
Planetary gearbox	93
Angular gearbox	117
Servo motors	125

# Mounting sets



# Overview mounting kit



Gear - Axis	Order number	PEZ-52	PEZ-65	PEZ-80	PEZ-100	PDZ-128	PDZ-160	PDZ-200	LTM
042-PEZ-52	<b>50467366</b>	x							
050-PEZ-52	<b>50396325</b>	x							
050-PEZ-65/PDZ-128	<b>50253994</b>		x			x			
060-PEZ-65/PDZ-128	<b>50253996</b>		x			x			
070-PEZ-65/PDZ-128	<b>50253995</b>		x			x			
060-PEZ-80/PDZ-160	<b>50253999</b>			x			x		
070-PEZ-80/PDZ-160	<b>50253997</b>			x			x		
075-PEZ-80/PDZ-160/LTM	<b>50254000</b>			x			x		x
090-PEZ-80/PDZ-160	<b>50253998</b>			x			x		
075-PEZ-100/PDZ-200	<b>50254003</b>				x			x	
090-PEZ-100/PDZ-200	<b>50254001</b>				x			x	
100-PEZ-100/PDZ-200	<b>50254004</b>				x			x	
120-PEZ-100/PDZ-200	<b>50254002</b>				x			x	
075-LTM-100/LTM180	<b>50422661</b>								x

**Nomenclature mounting set:**  
**070 - PEZ-65/PDZ-128**  
 070: matching gear  
 PEZ-65/PDZ-128: matching axis

# Mounting sets

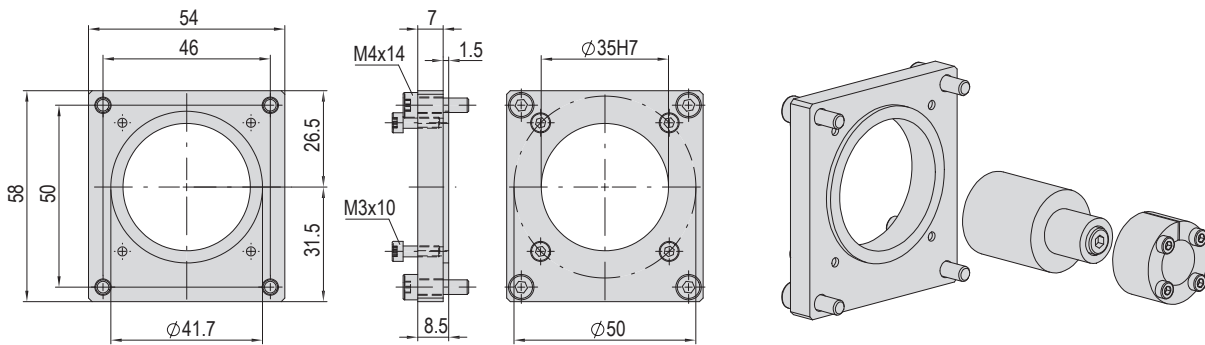
## Anbauset 042-PEZ-52

Order number

50467366

Net weight

0.1 kg



**Included in the delivery**  
(Catalogue HT accessories)

- 4x Mounting screw M3x10
- 4x Mounting screw M4x14

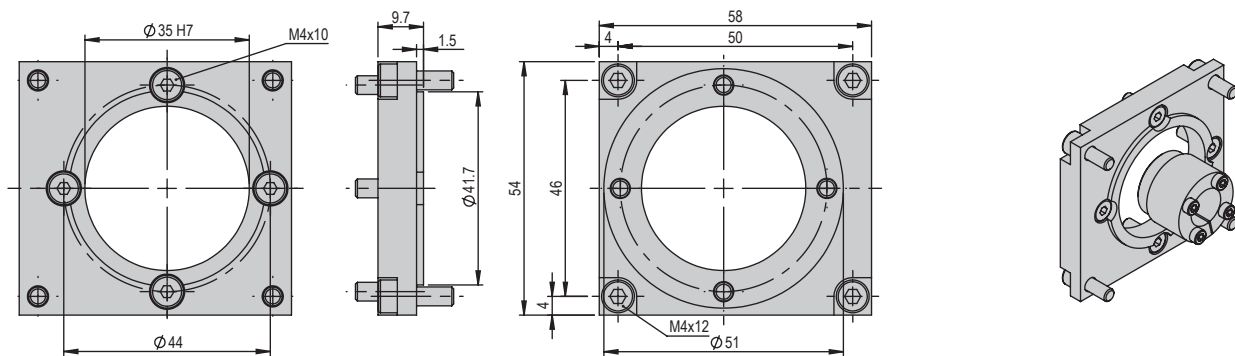
## Mounting set 050-PEZ-52

Order number

50396325

Net weight

0.1 kg



**Included in the delivery**  
(Catalogue HT accessories)

- 4x Mounting screw M4x10
- 4x Mounting screw M4x12

# Mounting sets

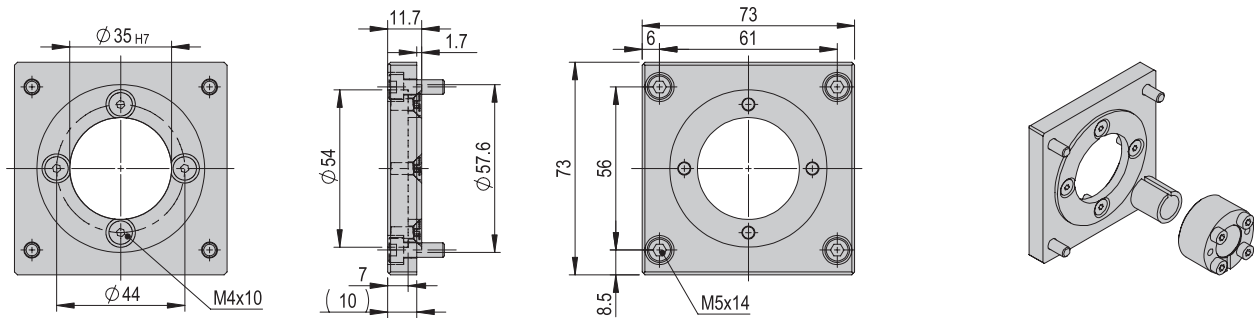
## Mounting kit 050-PEZ-65/PDZ-128

**Order number**

**50253994**

Net weight

0.2 kg



**Included in the delivery**  
(Catalogue HT accessories)

- 4x Mounting screw M4x10

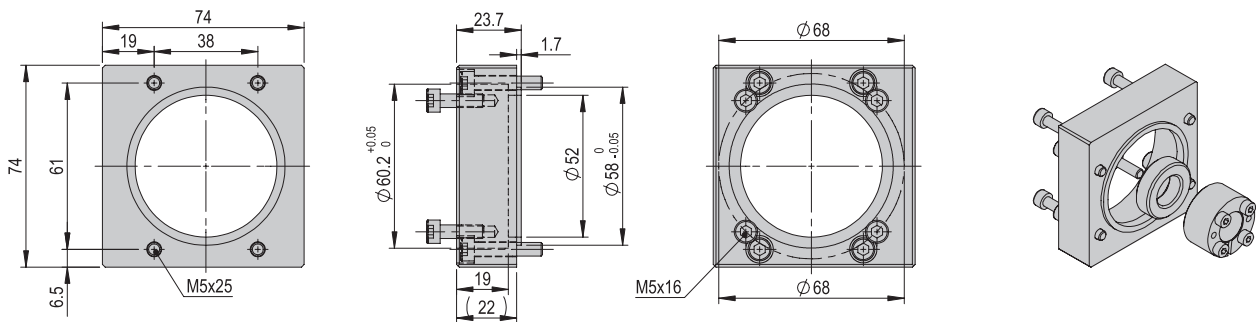
## Mounting kit 060-PEZ-65/PDZ-128

**Order number**

**50253996**

Net weight

0.3 kg



**Included in the delivery**  
(Catalogue HT accessories)

- 4x Mounting screw M5x16
- 4x Mounting screw M5x25

# Mounting sets

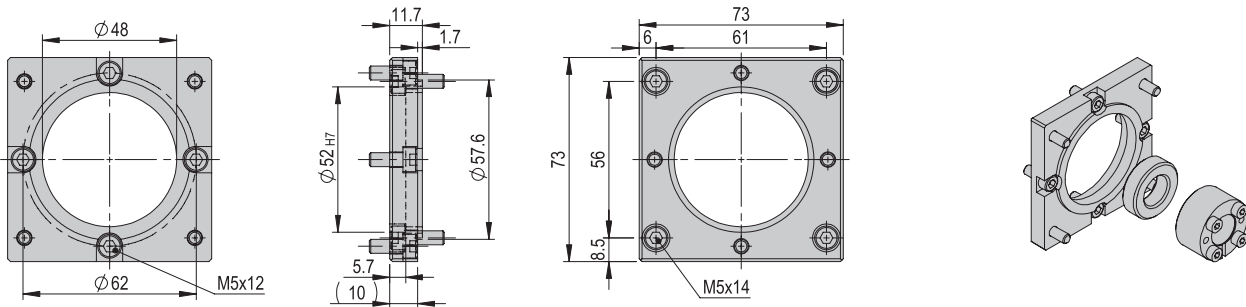
## Mounting kit 070-PEZ-65/PDZ-128

Order number

50253995

Net weight

0.2 kg



**Included in the delivery**  
(Catalogue HT accessories)

- 4x Mounting screw M5x12

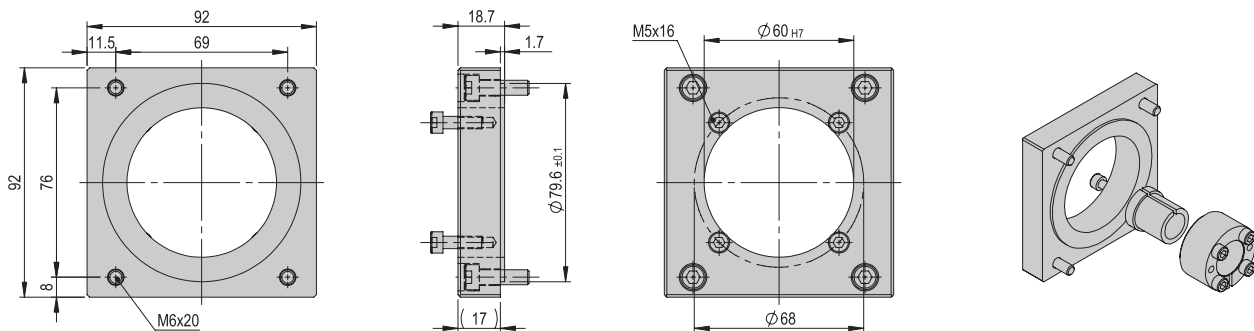
## Mounting kit 060-PEZ-80/PDZ-160

Order number

50253999

Net weight

0.5 kg



**Included in the delivery**  
(Catalogue HT accessories)

- 4x Mounting screw M5x16
- 4x Mounting screw M6x20

# Mounting sets

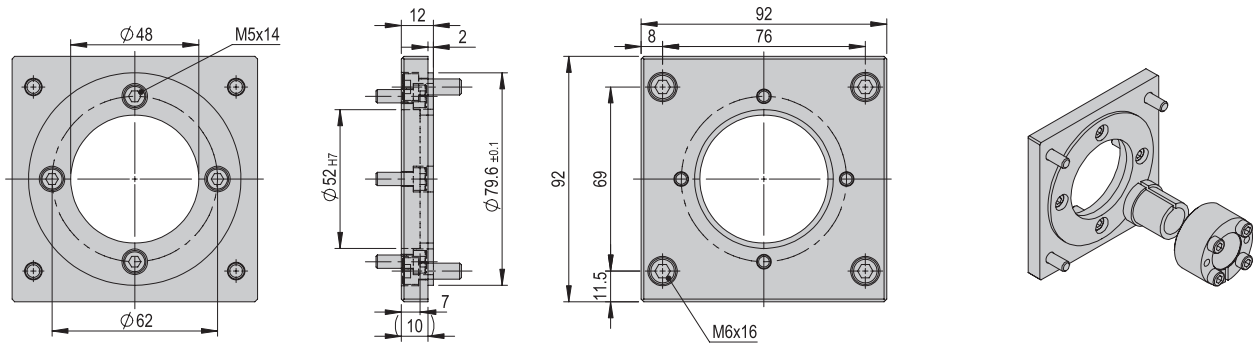
## Mounting kit 070-PEZ-80/PDZ-160

Order number

50253997

Net weight

0.4 kg



**Included in the delivery**  
(Catalogue HT accessories)

- 4x Mounting screw M6x16

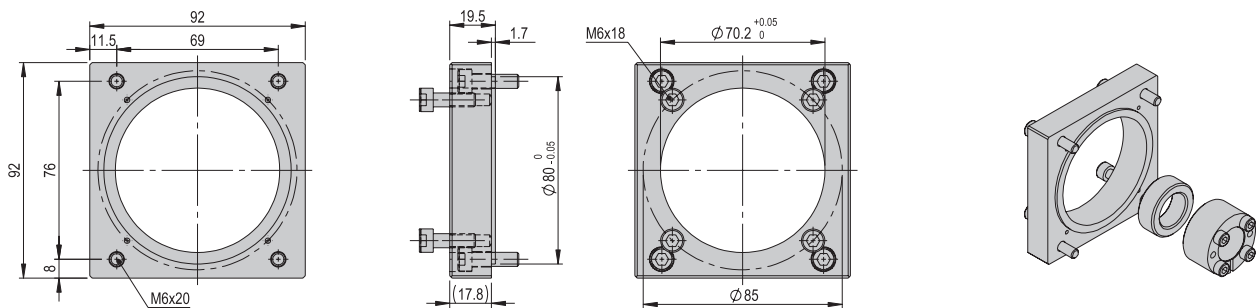
## Mounting kit 075-PEZ-80/PDZ-160/LTM

Order number

50254000

Net weight

0.4 kg



**Included in the delivery**  
(Catalogue HT accessories)

- 4x Mounting screw M6x18
- 4x Mounting screw M6x20

# Mounting sets

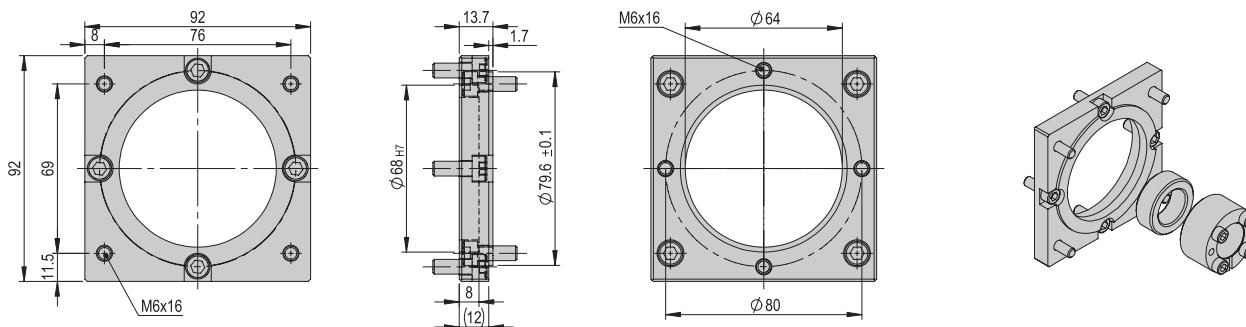
## Mounting kit 090-PEZ-80/PDZ-160

Order number

50253998

Net weight

0.3 kg



### Included in the delivery

(Catalogue HT accessories)

- 8x Mounting screw M6x16

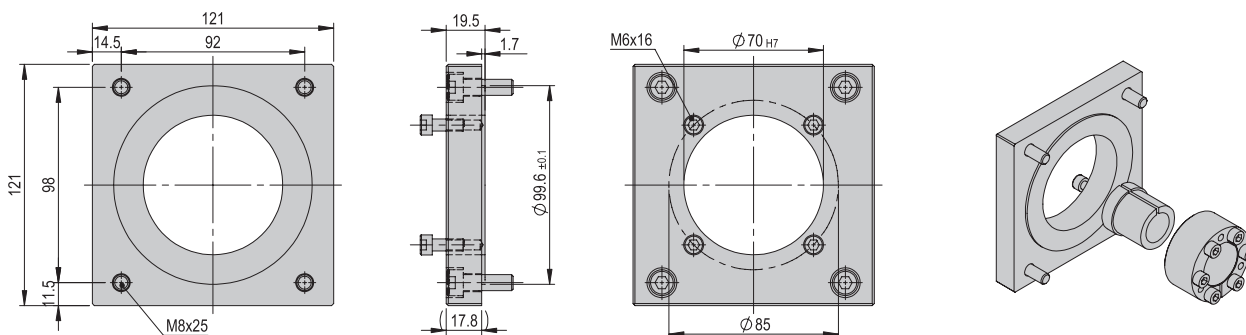
## Mounting kit 075-PEZ-100/PDZ-200

Order number

50254003

Net weight

1 kg



### Included in the delivery

(Catalogue HT accessories)

- 4x Mounting screw M6x16
- 4x Mounting screw M8x25



# Mounting sets

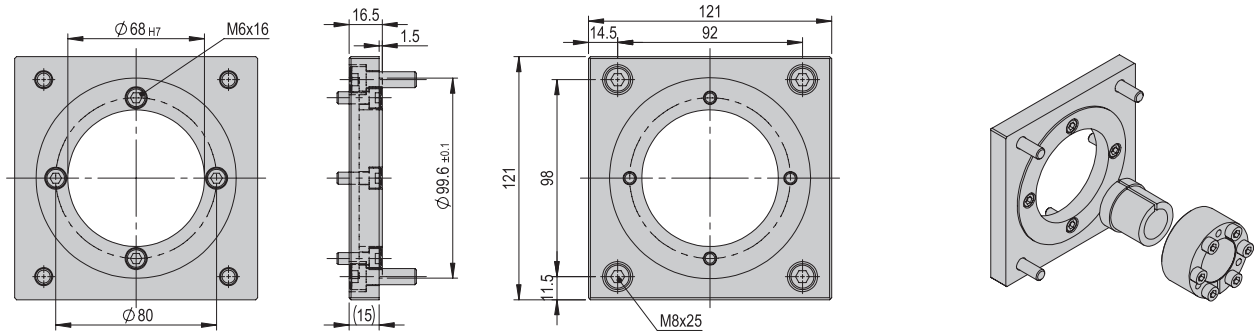
## Mounting kit 090-PEZ-100/PDZ-200

**Order number**

**50254001**

Net weight

0.9 kg



**Included in the delivery**  
(Catalogue HT accessories)

- 4x Mounting screw M6x16
- 4x Mounting screw M8x25

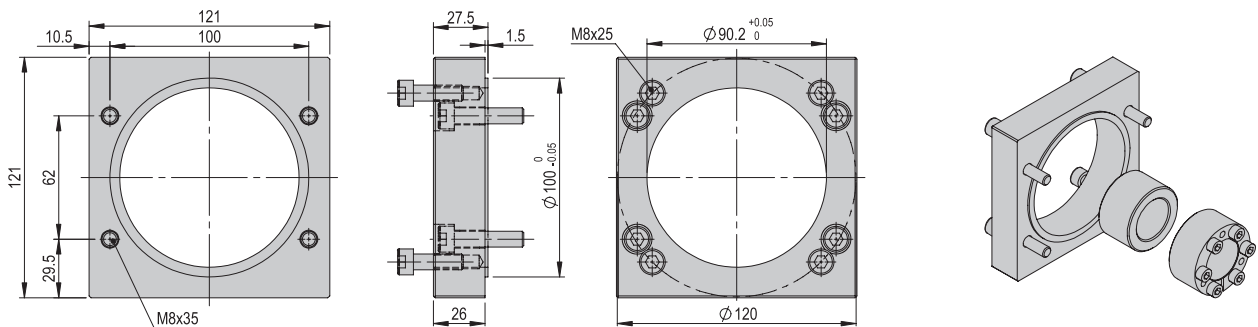
## Mounting kit 100-PEZ-100/PDZ-200

**Order number**

**50254004**

Net weight

1 kg



**Included in the delivery**  
(Catalogue HT accessories)

- 4x Mounting screw M8x25
- 4x Mounting screw M8x35

# Mounting sets

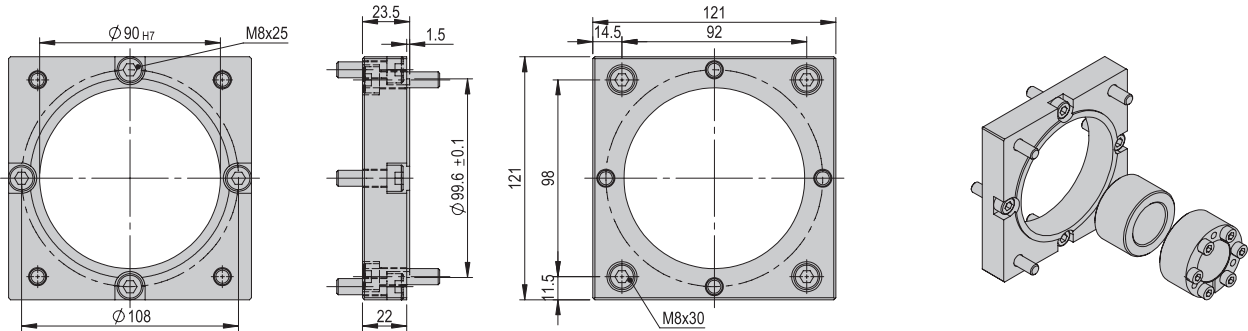
## Mounting kit 120-PEZ-100/PDZ-200

Order number

50254002

Net weight

0.9 kg



**Included in the delivery**  
(Catalogue HT accessories)

- 4x Mounting screw M8x25
- 4x Mounting screw M8x30

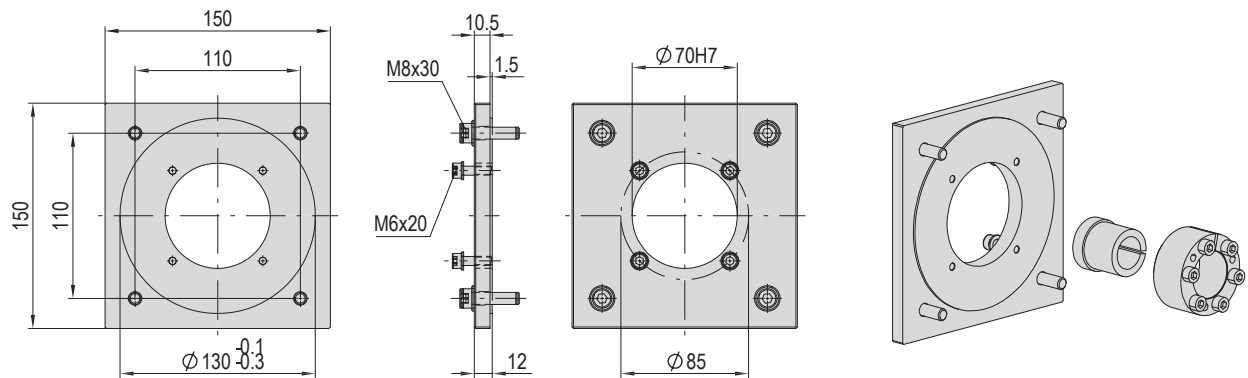
## Anbauset 075-LTM-100/LTM-180

Order number

50422661

Net weight

1.1 kg

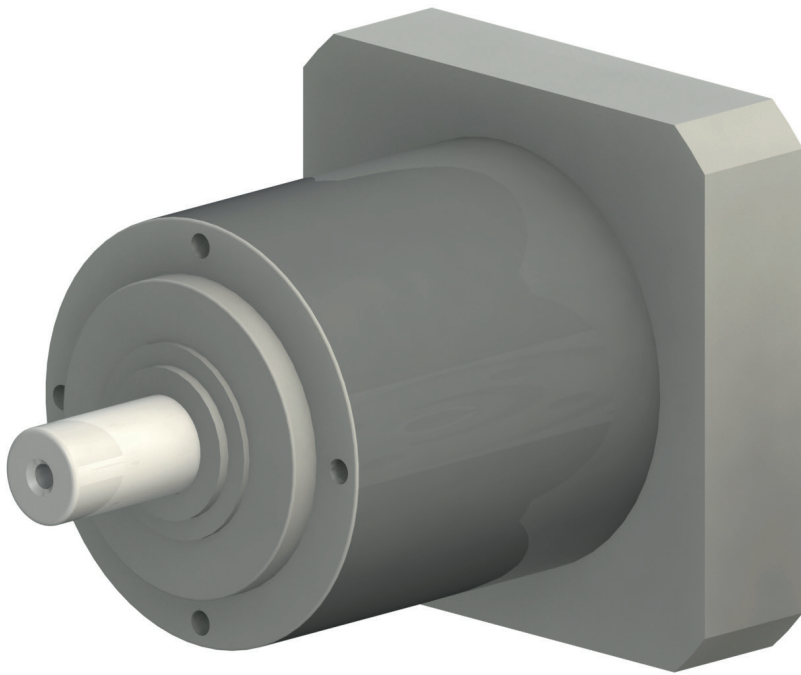


**Included in the delivery**  
(Catalogue HT accessories)

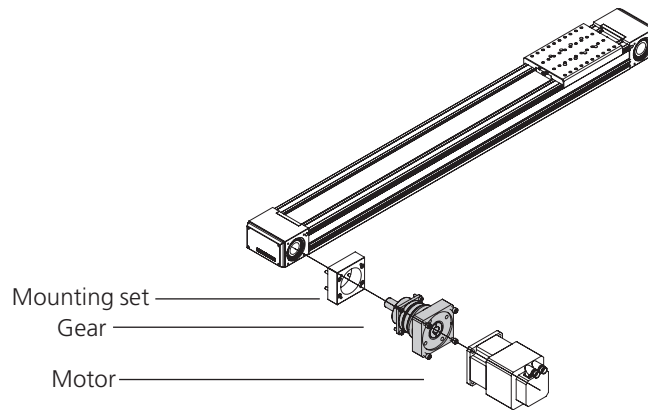
- 4x Mounting screw M6x20
- 4x Mounting screw M8x30



# Planetary gearbox



# Overview planetary gearbox



Gear-Ratio-Size	Order number	PEZ-52	PEZ-65	PEZ-80	PEZ-100	PDZ-128	PDZ-160	PDZ-200	LTM
PE050-i=5-BG2	<b>50477897</b>	x	x			x			
PE050-i=7-BG2	<b>50477898</b>	x	x			x			
PE050-i=10-BG2	<b>50477899</b>	x	x			x			
PE070-i=5-BG3	<b>50477900</b>		x	x		x	x		
PE070-i=7-BG3	<b>50477901</b>		x	x		x	x		
PE070-i=10-BG3	<b>50477902</b>		x	x		x	x		
PE090-i=5-BG4	<b>50477903</b>			x	x		x	x	
PE090-i=7-BG4	<b>50477904</b>			x	x		x	x	
PE090-i=10-BG4	<b>50477905</b>			x	x		x	x	
PE120-i=5-BG5	<b>50477906</b>				x			x	
PE120-i=7-BG5	<b>50477907</b>				x			x	
PE120-i=10-BG5	<b>50477908</b>				x			x	
AF042-i=5-BG2	<b>50467055</b>	x							
AF042-i=7-BG2	<b>50467056</b>	x							
AF042-i=10-BG2	<b>50467057</b>	x							
AF060-i=5-BG3	<b>50467058</b>		x	x		x	x		
AF060-i=7-BG3	<b>50467059</b>		x	x		x	x		
AF060-i=10-BG3	<b>50467060</b>		x	x		x	x		
AF075-i=40-BG3	<b>50458160</b>								x
AF075-i=5-BG4	<b>50467061</b>			x	x		x	x	
AF075-i=7-BG4	<b>50467062</b>			x	x		x	x	
AF075-i=10-BG4	<b>50467063</b>			x	x		x	x	
AF100-i=5-BG5	<b>50467064</b>				x			x	
AF100-i=7-BG5	<b>50467065</b>				x			x	
AF100-i=10-BG5	<b>50467066</b>				x			x	

## Nomenclature planetary gearbox:

### PE070-i=5-BG3

PE070: Suitable gear

i=5: Gear ratio

BG3: Suitable motor size

PE: Planetary gearbox

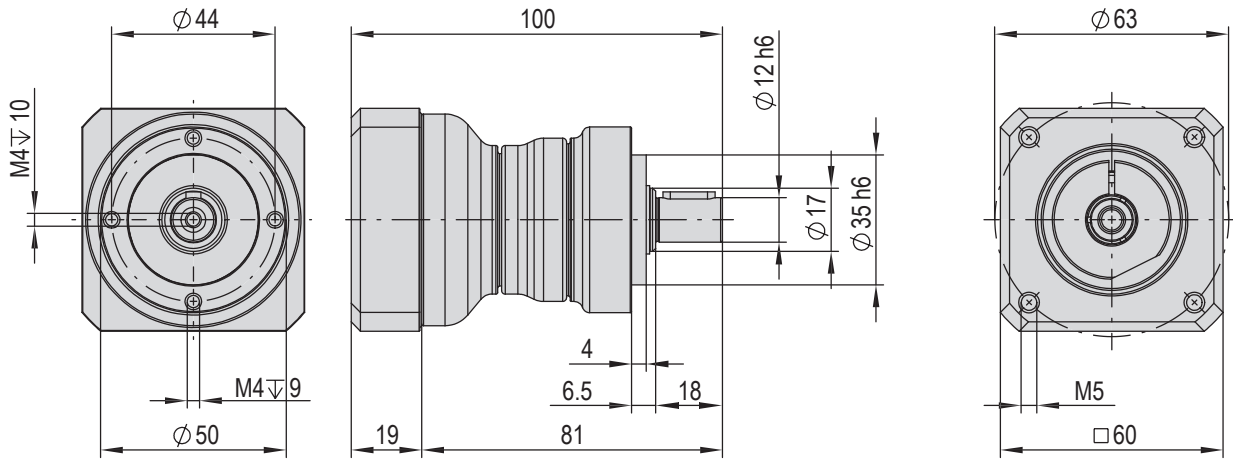
PER: Angular gearbox

AF: Planetary gearbox low-backlash

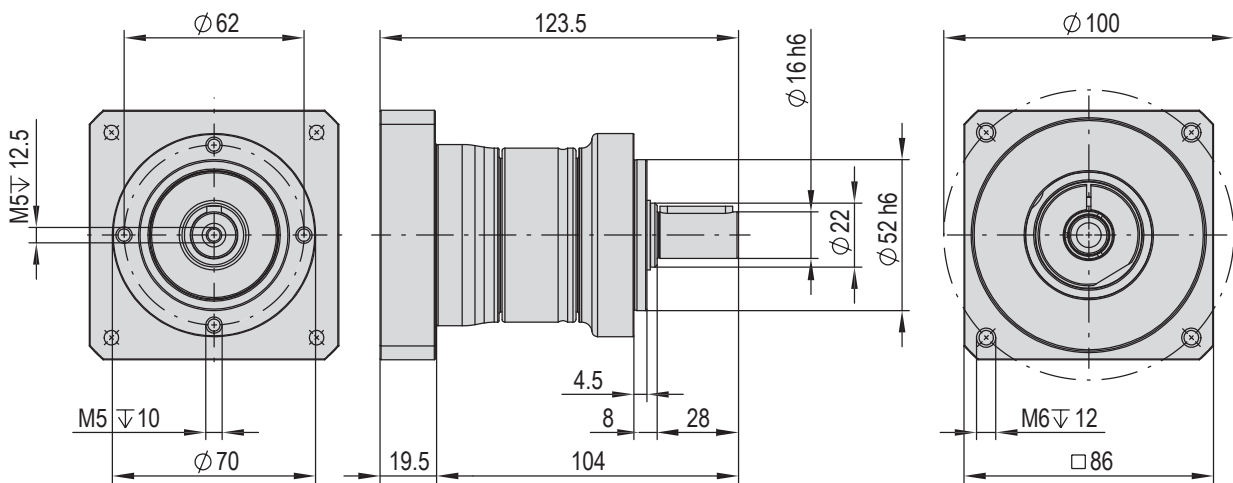
AFR: Angular gearbox low-backlash

# Planetary gearbox

Planetary gearbox PE050	PE050-i=5	PE050-i=7	PE050-i=10
<b>Order number</b>	<b>50477897</b>	<b>50477898</b>	<b>50477899</b>
Net weight	1 kg	1 kg	1 kg
Ratio	i = 5	i = 7	i = 10
Backlash	8' arcmin	8' arcmin	8' arcmin

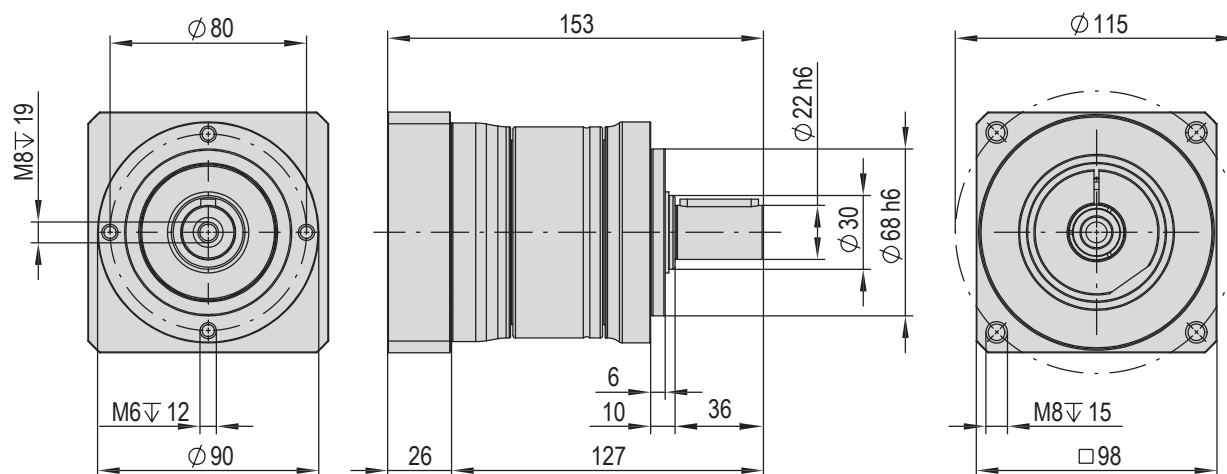


Planetary gearbox PE070	PE070-i=5	PE070-i=7	PE070-i=10
<b>Order number</b>	<b>50477900</b>	<b>50477901</b>	<b>50477902</b>
Net weight	2.2 kg	2.2 kg	2.2 kg
Ratio	i = 5	i = 7	i = 10
Backlash	7' arcmin	7' arcmin	7' arcmin



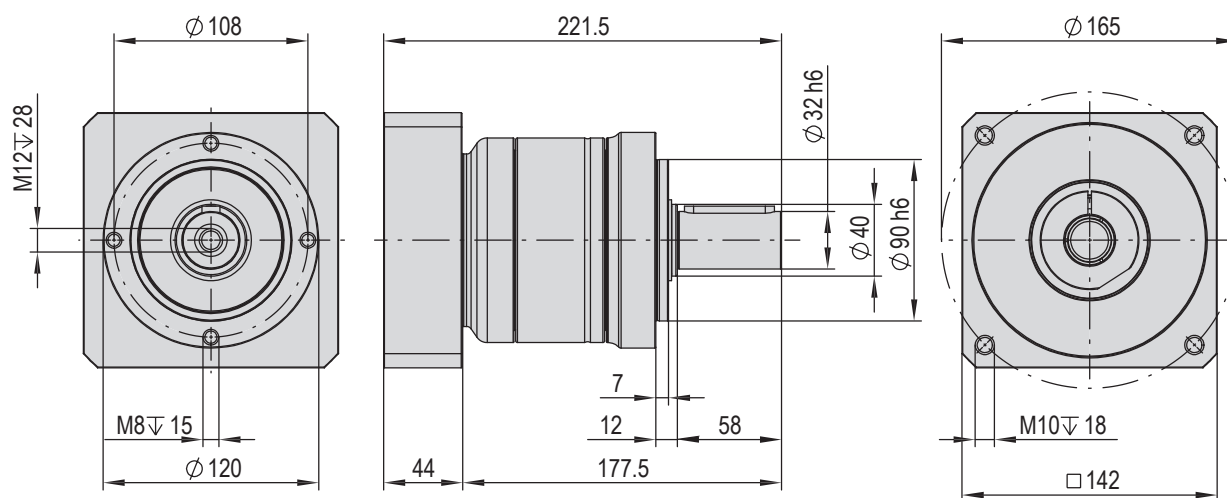
# Planetary gearbox

Planetary gearbox PE090	PE090-i=5	PE090-i=7	PE090-i=10
<b>Order number</b>	<b>50477903</b>	<b>50477904</b>	<b>50477905</b>
Net weight	4.5 kg	4.5 kg	4.5 kg
Ratio	i = 5	i = 7	i = 10
Backlash	6' arcmin	6' arcmin	6' arcmin



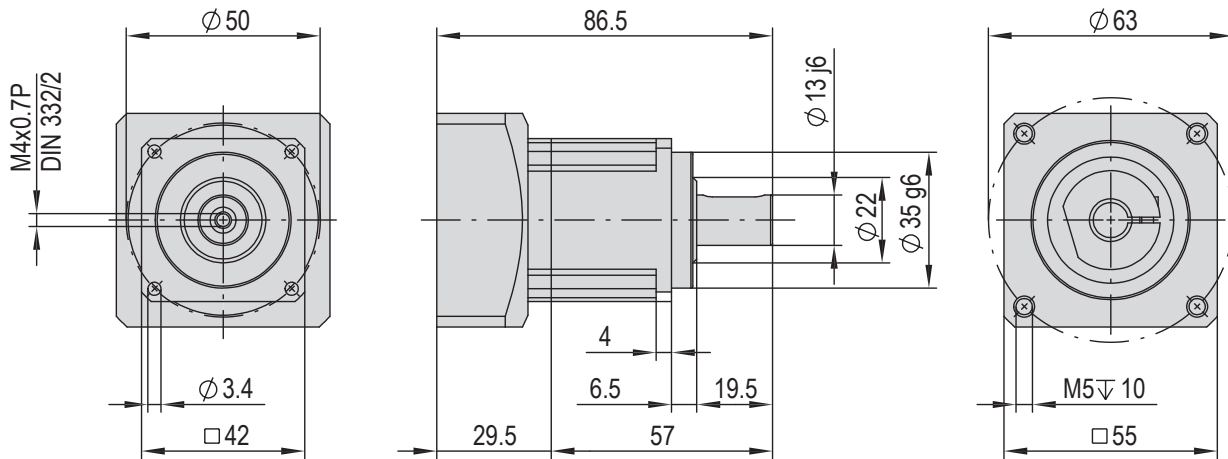
8

Planetary gearbox PE120	PE120-i=5	PE120-i=7	PE120-i=10
<b>Order number</b>	<b>50477906</b>	<b>50477907</b>	<b>50477908</b>
Net weight	12.2 kg	12.2 kg	12.2 kg
Ratio	i = 5	i = 7	i = 10
Backlash	6' arcmin	6' arcmin	6' arcmin

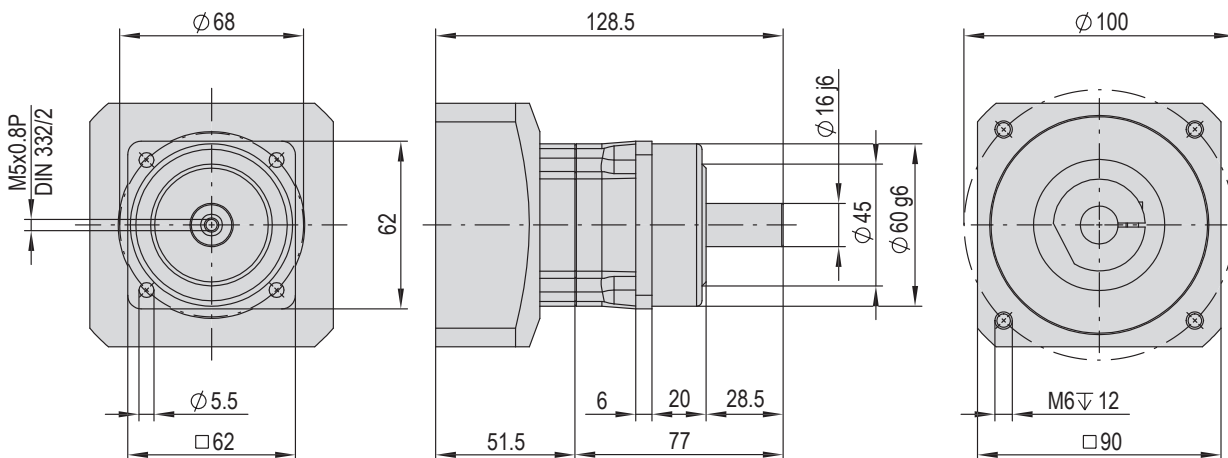


# Planetary gearbox

Planetary gearbox AF042	AF042-i=5	AF042-i=7	AF042-i=10
<b>Order number</b>	<b>50467055</b>	<b>50467056</b>	<b>50467057</b>
Net weight	0.6 kg	0.6 kg	0.6 kg
Ratio	i = 5	i = 7	i = 10
Backlash	3' arcmin	3' arcmin	3' arcmin



Planetary gearbox AF060	AF060-i=5	AF060-i=7	AF060-i=10
<b>Order number</b>	<b>50467058</b>	<b>50467059</b>	<b>50467060</b>
Net weight	1.3 kg	1.3 kg	1.3 kg
Ratio	i = 5	i = 7	i = 10
Backlash	3' arcmin	3' arcmin	3' arcmin

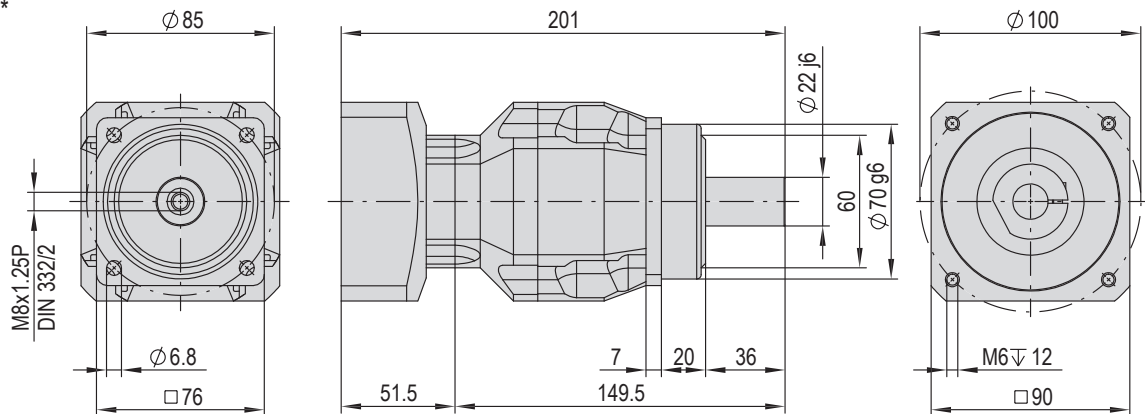




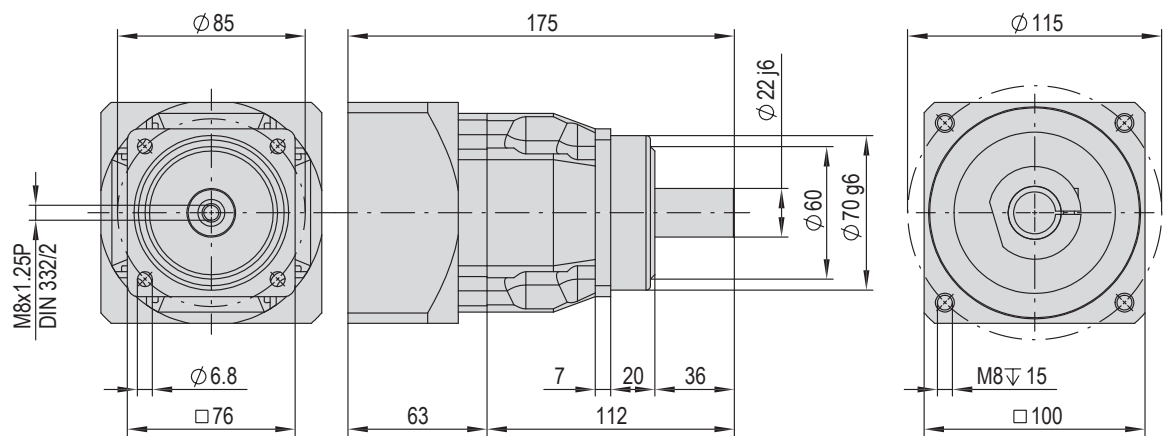
# Planetary gearbox

Planetary gearbox AF075	AF075*-i=40	AF075-i=5	AF075-i=7	AF075-i=10
<b>Order number</b>	<b>50458160</b>	<b>50467061</b>	<b>50467062</b>	<b>50467063</b>
Net weight	6.9 kg	3.7 kg	3.7 kg	3.7 kg
Ratio	i = 40	i = 5	i = 7	i = 10
Backlash	5' arcmin	3' arcmin	3' arcmin	3' arcmin

AF075\*

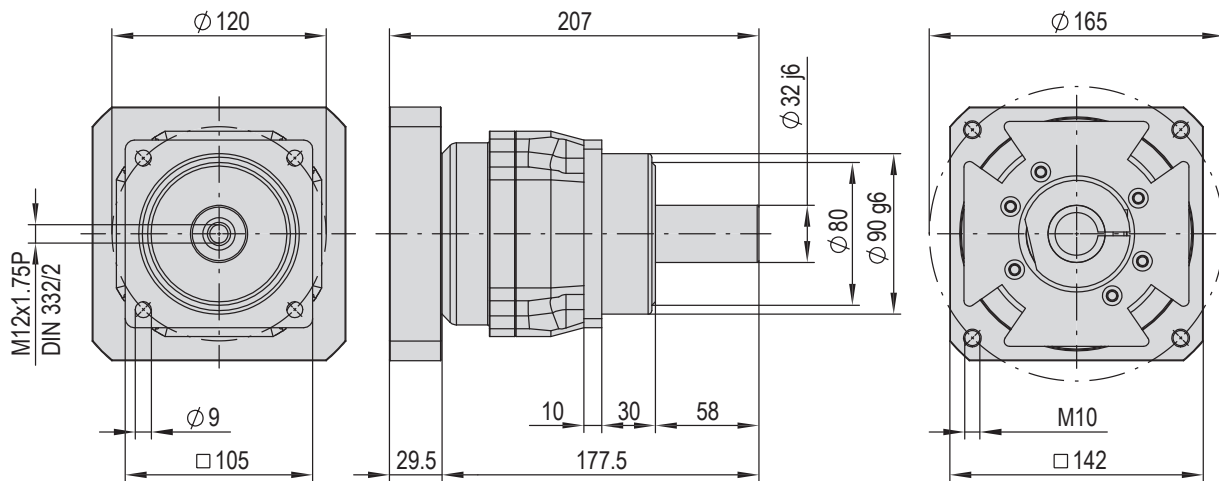


AF075



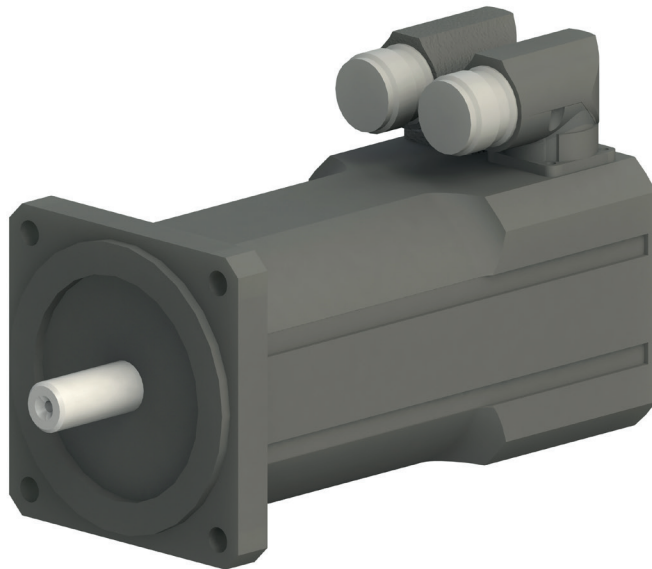
# Planetary gearbox

Planetary gearbox AF100	AF100-i=5	AF100-i=7	AF100-i=10
<b>Order number</b>	<b>50467064</b>	<b>50467065</b>	<b>50467066</b>
Net weight	6.9 kg	6.9 kg	6.9 kg
Ratio	i = 5	i = 7	i = 10
Backlash	3' arcmin	3' arcmin	3' arcmin





# Servomotors



Servomotor		SA-1	SA-3	SA-6	PEZ-52	PEZ-65 PDZ-128	PEZ-80 PDZ-160	PEZ-100 PDZ-200
11-72VDC-060W-60-B-I-x-x	<b>50485433</b>	x						
11-72VDC-060W-60-x-I-x-x	<b>50495876</b>	x						
11-72VDC-120W-60-B-I-x-x	<b>50485434</b>		x					
11-72VDC-120W-60-x-I-x-x	<b>50495877</b>		x					
11-320VDC-060W-60-B-R-x-x	<b>50495879</b>	x						
11-320VDC-060W-60-x-R-x-x	<b>50495878</b>	x						
11-320VDC-120W-60-B-R-x-x	<b>50495881</b>		x					
11-320VDC-120W-60-x-R-x-x	<b>50495880</b>		x					
21-72VDC-400W-45-B-I-x-x	<b>50485435</b>			x	x	x		
21-72VDC-400W-45-x-I-x-x	<b>50495882</b>			x	x	x		
21-320VDC-400W-45-B-R-x-x	<b>50495884</b>			x	x	x		
21-320VDC-400W-45-x-R-x-x	<b>50495883</b>			x	x	x		
31-320VDC-950W-45-B-R-x-x	<b>50503160</b>					x	x	
31-320VDC-950W-45-x-R-x-x	<b>50503156</b>					x	x	
31-560VDC-950W-45-B-I-x-x	<b>50485436</b>					x	x	
31-560VDC-950W-45-x-I-x-x	<b>50495885</b>					x	x	
31-560VDC-950W-45-B-R-x-x	<b>50495887</b>					x	x	
31-560VDC-950W-45-x-R-x-x	<b>50495886</b>					x	x	
41-560VDC-2.8kW-45-B-I-x-x	<b>50485437</b>						x	x
41-560VDC-2.8kW-45-x-I-x-x	<b>50495888</b>						x	x
41-560VDC-2.8kW-45-B-R-x-x	<b>50495890</b>						x	x
41-560VDC-2.8kW-45-x-R-x-x	<b>50495889</b>						x	x
51-560VDC-5.0kW-45-B-I-x-x	<b>50485438</b>							x
51-560VDC-5.0kW-45-x-I-x-x	<b>50495891</b>							x
51-560VDC-5.0kW-45-B-R-x-x	<b>50495893</b>							x
51-560VDC-5.0kW-45-x-R-x-x	<b>50495892</b>							x

**Nomenclature servomotor:**

**2-320VDC-400W-45-B-R-x-x**

21: Motor size

400W: Power

45: Rotational speed 100/min

B: Brake (B: yes, x: no)

R: Encoder system

(R: Resolver, I: Incremental)

# Servomotors 11

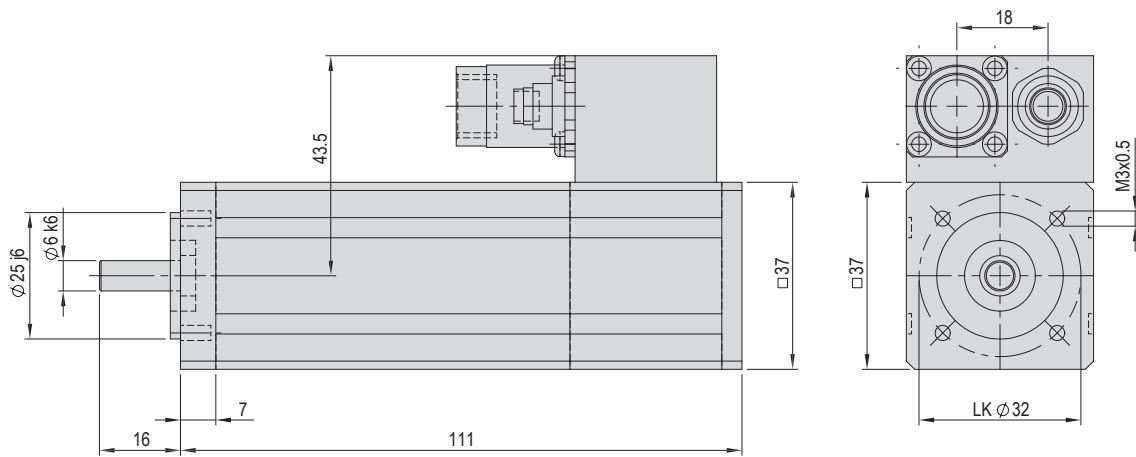
Servomotor-11-72VDC-60W-60-B-I-x-x

with brake

**Order number**

**50485433**

Net weight	0.5 kg
Peak torque	0.4 Nm
Nominal torque	0.09 Nm
Standstill torque	0.1 Nm
Torque of inertia	0.035 kgcm <sup>2</sup>
Nominal current	1.27 A
Maximum current	5.6 A
Nominal speed	6000 rpm



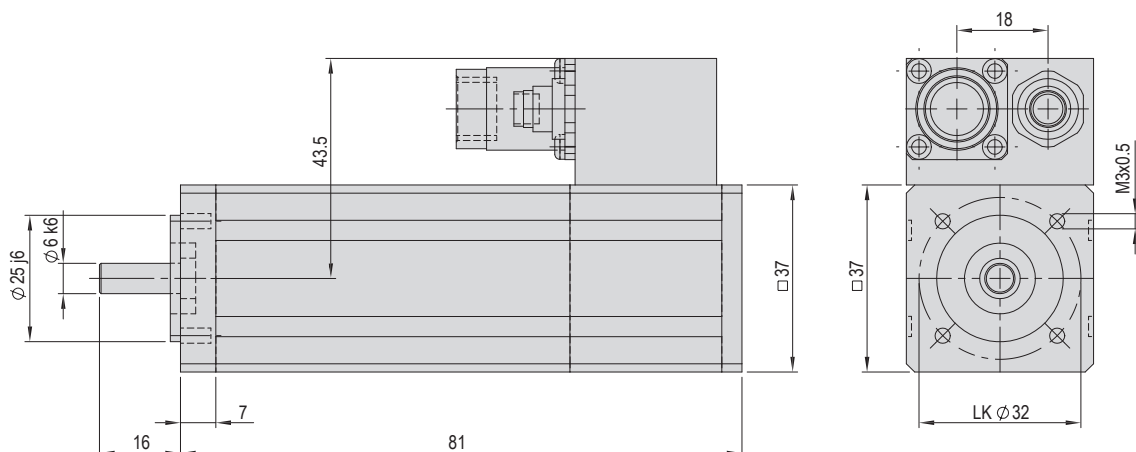
Servomotor-11-72VDC-060W-60-x-I-x-x

without brake

**Order number**

**50495876**

Net weight	0.4 kg
Peak torque	0.4 Nm
Nominal torque	0.09 Nm
Standstill torque	0.1 Nm
Torque of inertia	0.02 kgcm <sup>2</sup>
Nominal current	1.27 A
Maximum current	5.6 A
Nominal speed	6000 rpm



# Servomotors 11

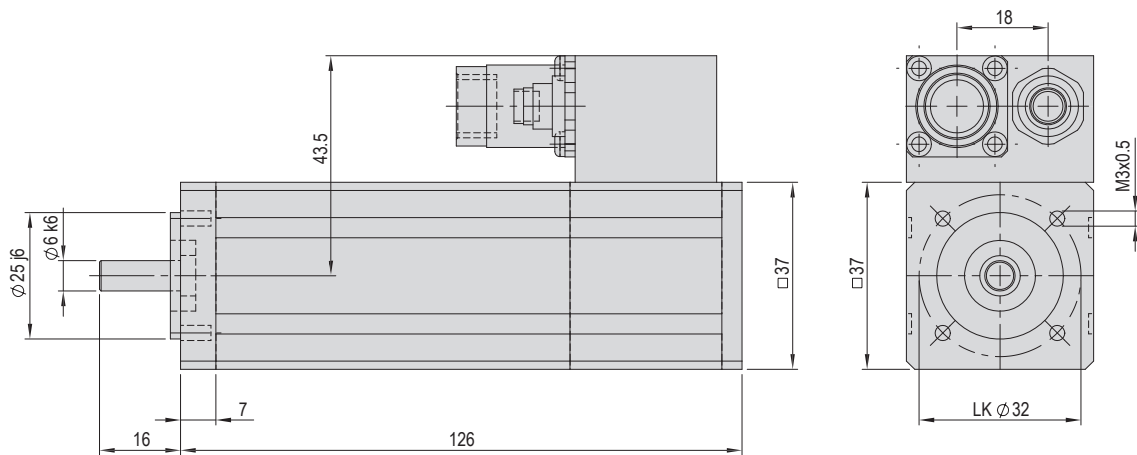
Servomotor-11-72VDC-120W-60-B-I-x-x

with brake

**Order number**

**50485434**

Net weight	0.6 kg
Peak torque	0.8 Nm
Nominal torque	0.18 Nm
Standstill torque	0.2 Nm
Torque of inertia	0.075 kgcm <sup>2</sup>
Nominal current	2.2 A
Maximum current	9.8 A
Nominal speed	6000 rpm



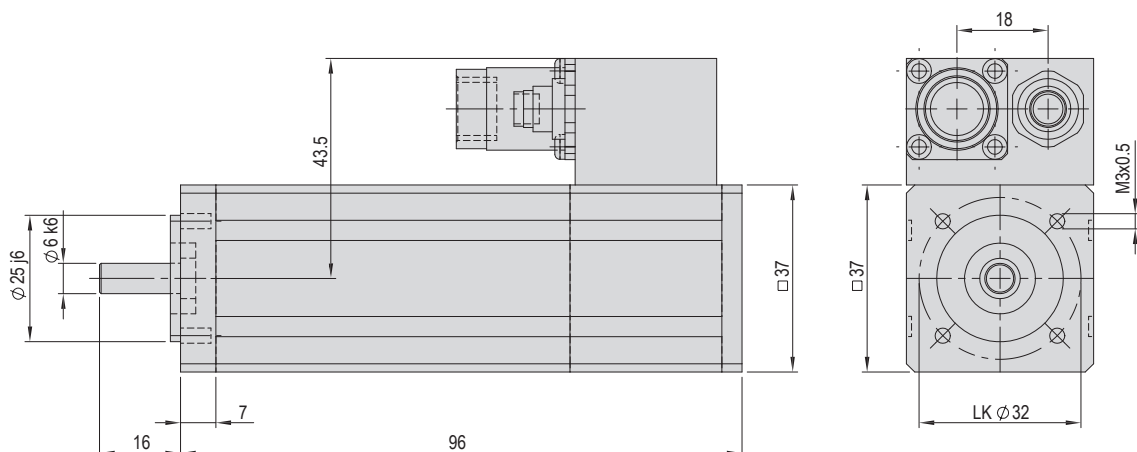
Servomotor-11-72VDC-120W-60-x-I-x-x

without brake

**Order number**

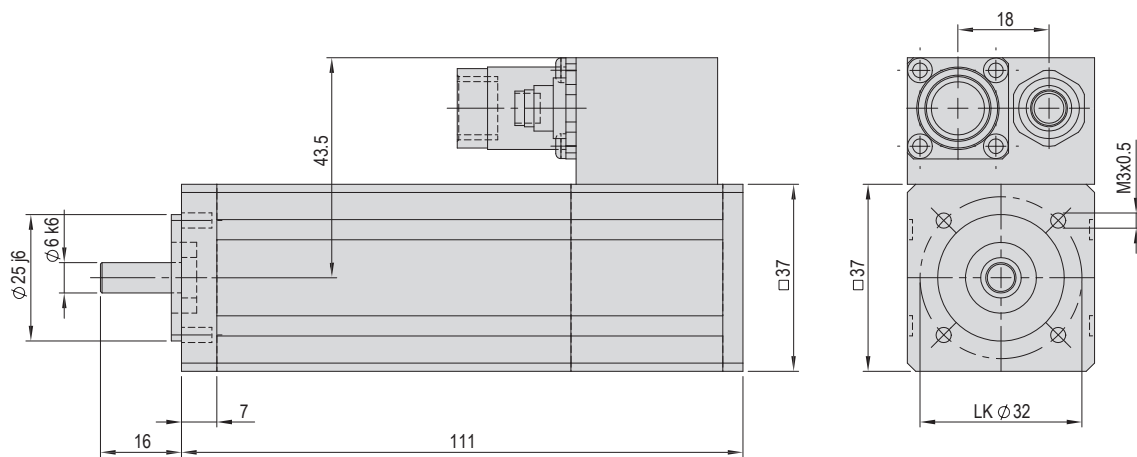
**50495877**

Net weight	0.5 kg
Peak torque	0.8 Nm
Nominal torque	0.18 Nm
Standstill torque	0.2 Nm
Torque of inertia	0.06 kgcm <sup>2</sup>
Nominal current	2.2 A
Maximum current	9.8 A
Nominal speed	6000 rpm

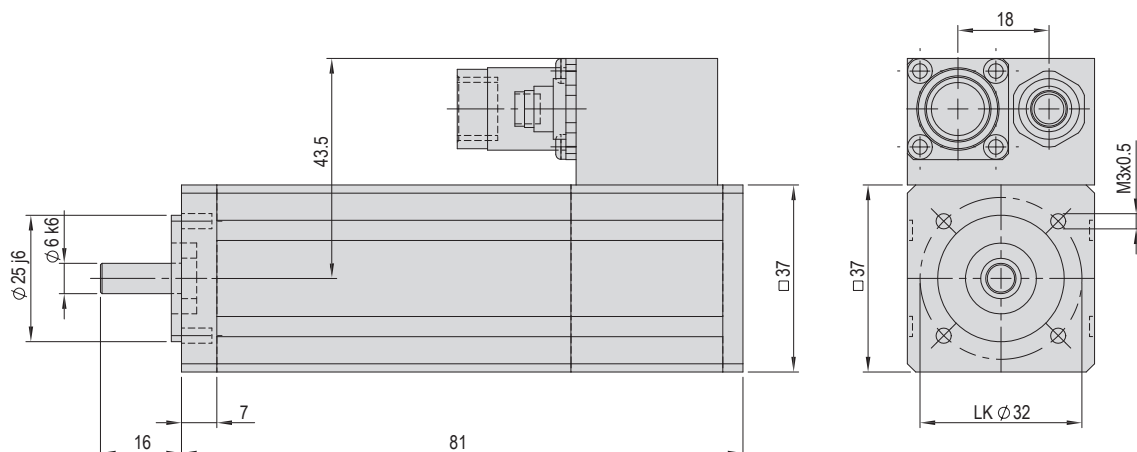


# Servomotors 11

Servomotor-11-320VDC-060W-60-B-R-x-x		with brake
<b>Order number</b>		<b>50495879</b>
Net weight		0.5 kg
Peak torque		0.4 Nm
Nominal torque		0.09 Nm
Standstill torque		0.1 Nm
Torque of inertia		0.035 kgcm <sup>2</sup>
Nominal current		0.52 A
Maximum current		2.3 A
Nominal speed		6000 rpm



Servomotor-11-320VDC-060W-60-x-R-x-x		without brake
<b>Order number</b>		<b>50495878</b>
Net weight		0.4 kg
Peak torque		0.4 Nm
Nominal torque		0.09 Nm
Standstill torque		0.1 Nm
Torque of inertia		0.02 kgcm <sup>2</sup>
Nominal current		0.52 A
Maximum current		2.3 A
Nominal speed		6000 rpm





# Servomotors 11

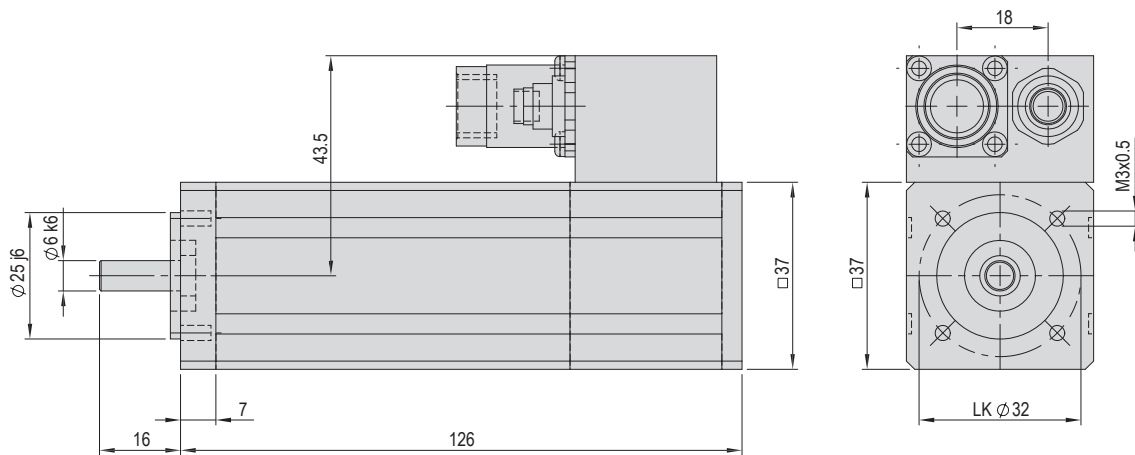
Servomotor-11-320VDC-120W-60-B-R-x-x

with brake

**Order number**

**50495881**

Net weight	0.6 kg
Peak torque	0.8 Nm
Nominal torque	0.18 Nm
Standstill torque	0.2 Nm
Torque of inertia	0.075 kgcm <sup>2</sup>
Nominal current	0.86 A
Maximum current	3.9 A
Nominal speed	6000 rpm



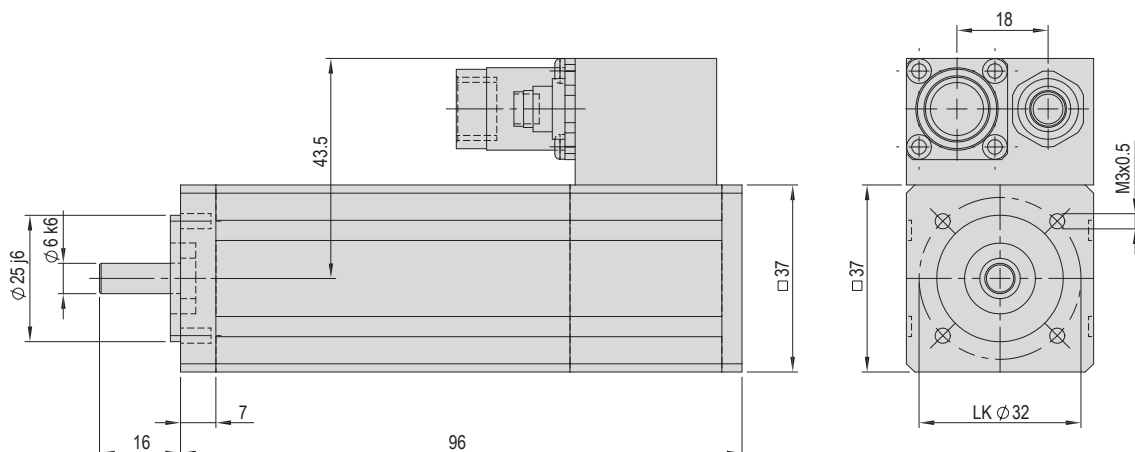
Servomotor-11-320VDC-120W-60-x-R-x-x

without brake

**Order number**

**50495880**

Net weight	0.5 kg
Peak torque	0.8 Nm
Nominal torque	0.18 Nm
Standstill torque	0.2 Nm
Torque of inertia	0.06 kgcm <sup>2</sup>
Nominal current	0.86 A
Maximum current	3.9 A
Nominal speed	6000 rpm



# Servomotors 21

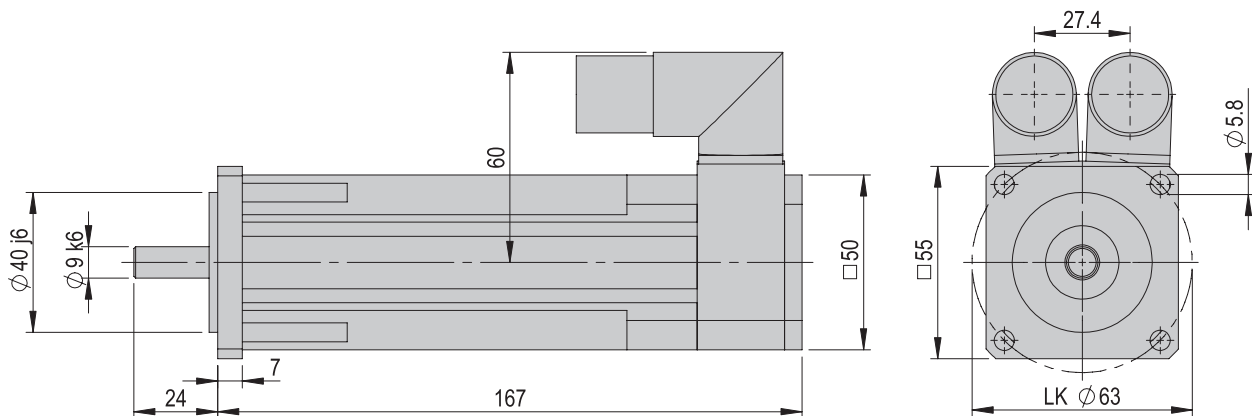
Servomotor-21-72VDC-400W-45-B-I-x-x

with brake

**Order number**

**50485435**

Net weight	1.6 kg
Peak torque	3.8 Nm
Nominal torque	0.85 Nm
Standstill torque	0.95 Nm
Torque of inertia	0.19 kgcm <sup>2</sup>
Nominal current	6.5 A
Maximum current	32 A
Nominal speed	4500 rpm



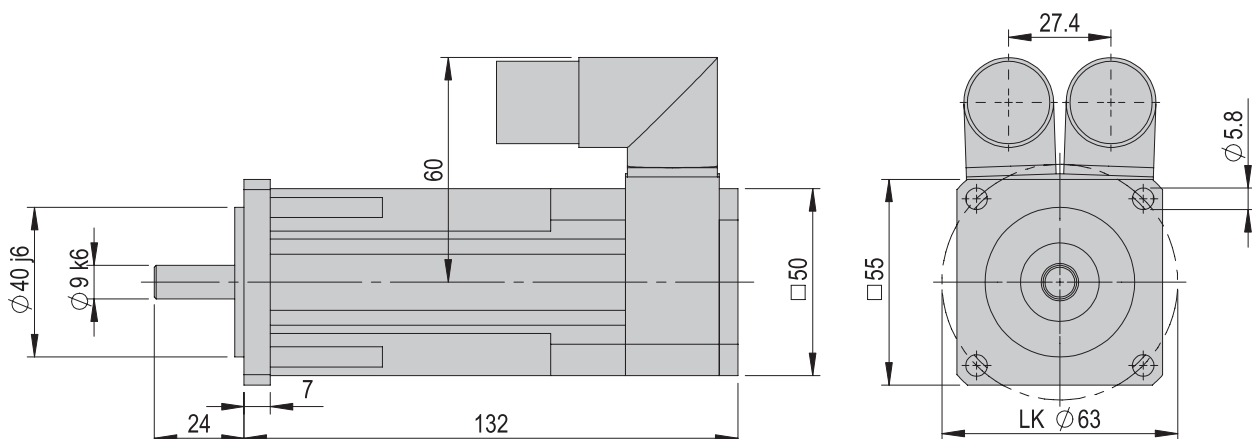
Servomotor-21-72VDC-400W-45-x-I-x-x

without brake

**Order number**

**50495882**

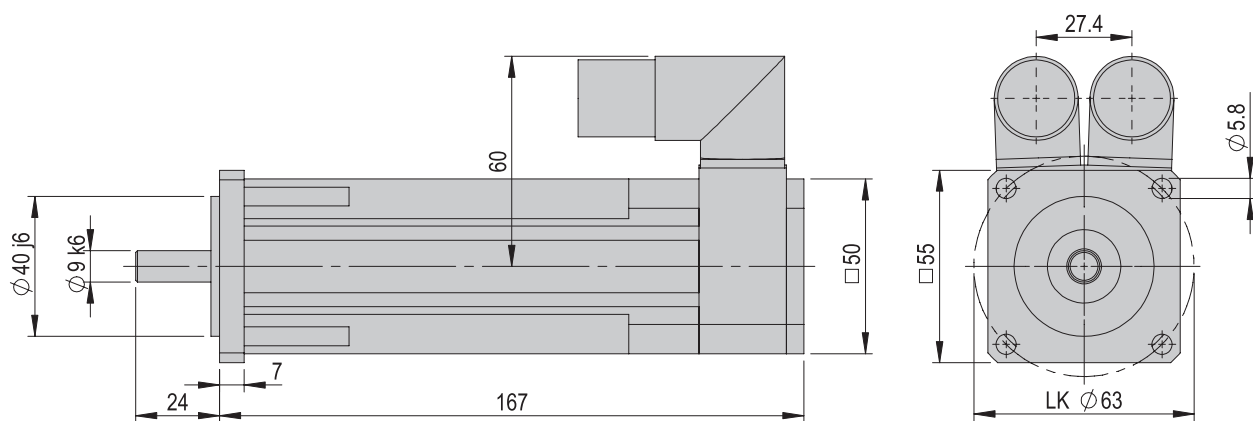
Net weight	1.2 kg
Peak torque	3.8 Nm
Nominal torque	0.85 Nm
Standstill torque	0.95 Nm
Torque of inertia	0.11 kgcm <sup>2</sup>
Nominal current	6.5 A
Maximum current	32 A
Nominal speed	4500 rpm



# Servomotors 21

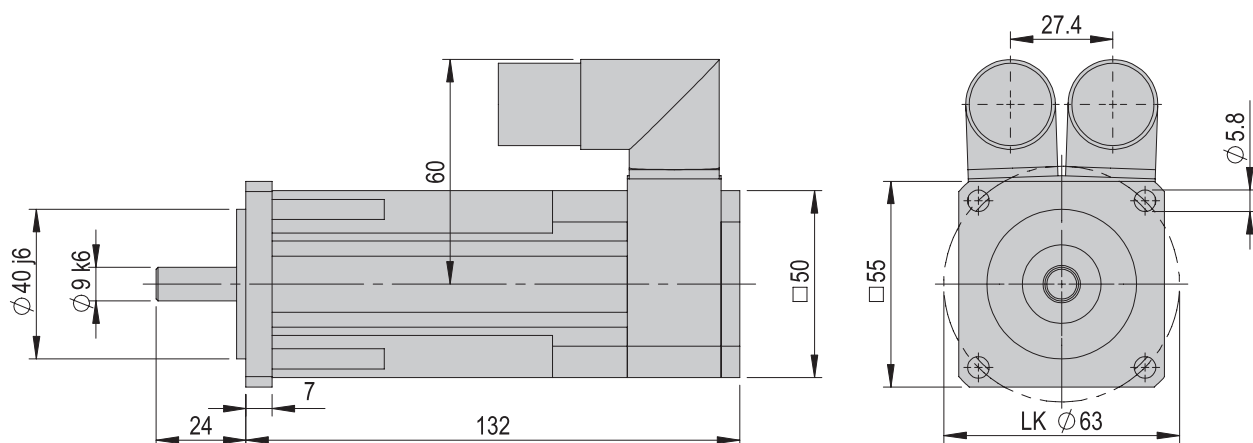
Servomotor-21-320VDC-400W-45-B-R-x-x with brake

<b>Order number</b>	<b>50495884</b>
Net weight	1.6 kg
Peak torque	3.8 Nm
Nominal torque	0.85 Nm
Standstill torque	0.95 Nm
Torque of inertia	0.19 kgcm <sup>2</sup>
Nominal current	1.7 A
Maximum current	8.4 A
Nominal speed	4500 rpm



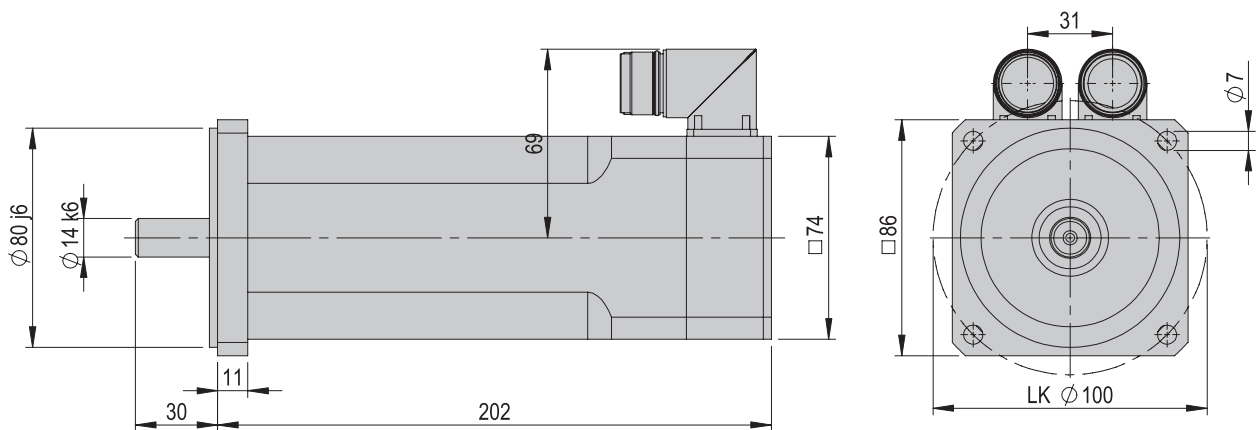
Servomotor-21-320VDC-400W-45-x-R-x-x without brake

<b>Order number</b>	<b>50495883</b>
Net weight	1.2 kg
Peak torque	3.8 Nm
Nominal torque	0.85 Nm
Standstill torque	0.95 Nm
Torque of inertia	0.11 kgcm <sup>2</sup>
Nominal current	1.7 A
Maximum current	8.4 A
Nominal speed	4500 rpm

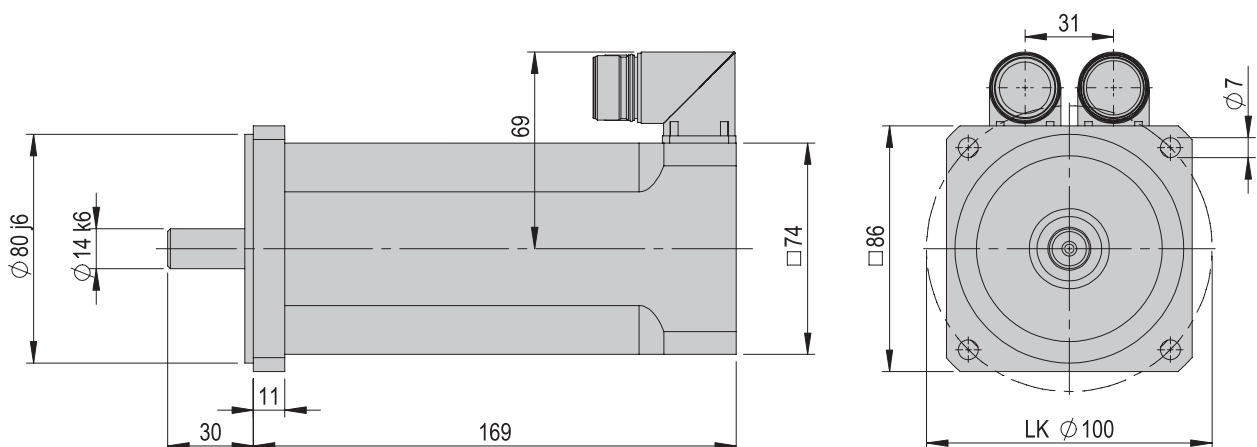


# Servomotors 31

Servomotor-31-320VDC-950W-45-B-R-x-x	with brake
<b>Order number</b>	<b>50503160</b>
Net weight	3.5 kg
Peak torque	10.5 Nm
Nominal torque	2.8 Nm
Standstill torque	3.5 Nm
Torque of inertia	1.24 kgcm <sup>2</sup>
Nominal current	6.1 A
Maximum current	28 A
Nominal speed	4500 rpm



Servomotor-31-320VDC-950W-45-x-R-x-x	without brake
<b>Order number</b>	<b>50503156</b>
Net weight	3 kg
Peak torque	10.5 Nm
Nominal torque	2.8 Nm
Standstill torque	3.5 Nm
Torque of inertia	1.04 kgcm <sup>2</sup>
Nominal current	6.1 A
Maximum current	28 A
Nominal speed	4500 rpm

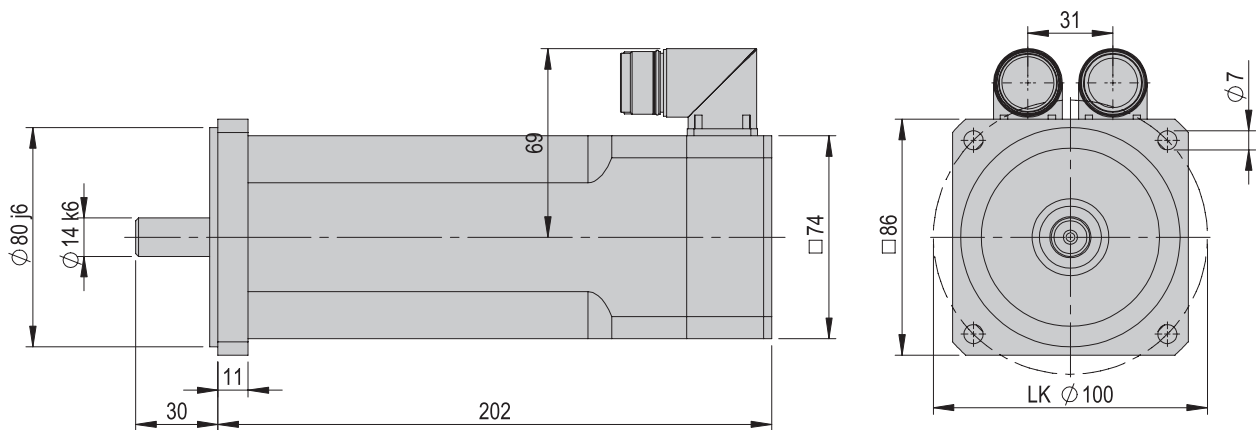


# Servomotors 31

Servomotor-31-560VDC-950W-45-B-I-x-x

with brake

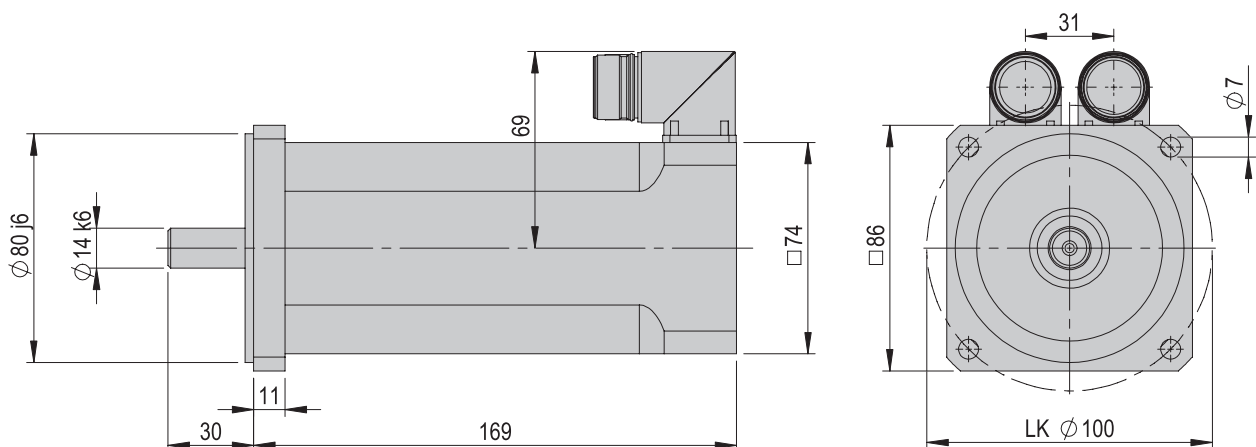
<b>Order number</b>	<b>50485436</b>
Net weight	3.5 kg
Peak torque	10.5 Nm
Nominal torque	2.8 Nm
Standstill torque	3.5 Nm
Torque of inertia	1.24 kgcm <sup>2</sup>
Nominal current	3 A
Maximum current	10.9 A
Nominal speed	4500 rpm



Servomotor-31-560VDC-950W-45-x-I-x-x

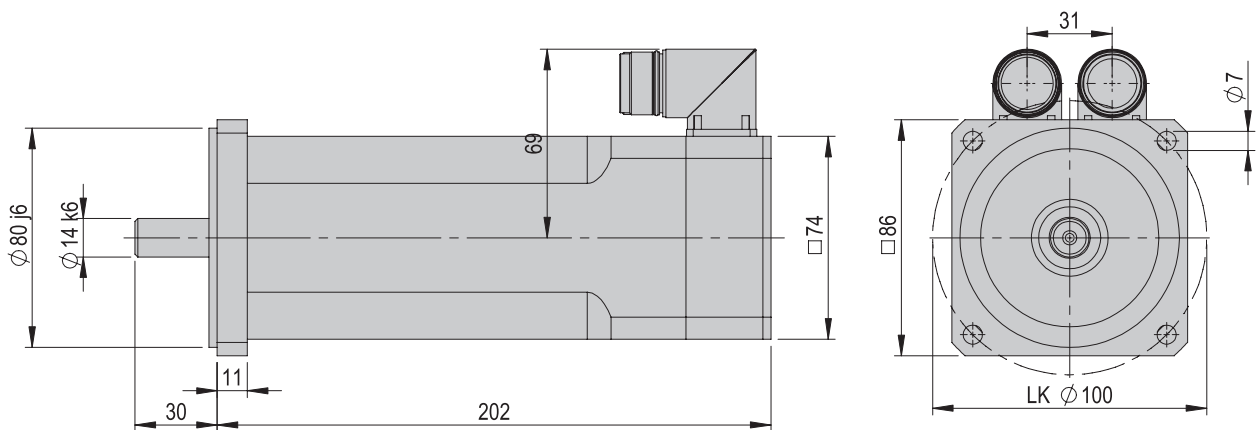
without brake

<b>Order number</b>	<b>50495885</b>
Net weight	3 kg
Peak torque	10.5 Nm
Nominal torque	2.8 Nm
Standstill torque	3.5 Nm
Torque of inertia	1.04 kgcm <sup>2</sup>
Nominal current	3 A
Maximum current	10.9 A
Nominal speed	4500 rpm

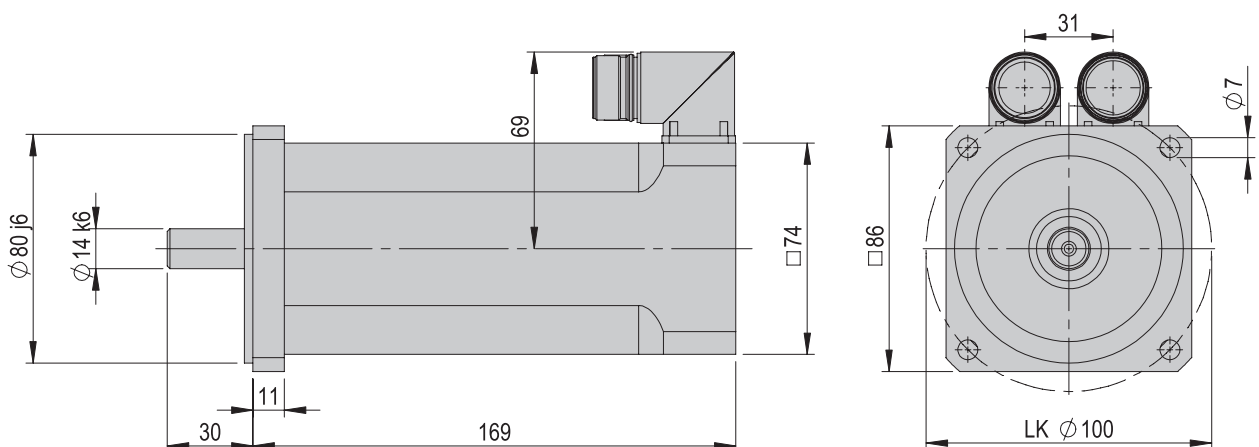


# Servomotors 31

Servomotor-31-560VDC-950W-45-B-R-x-x		with brake
<b>Order number</b>	<b>50495887</b>	
Net weight	3.5 kg	
Peak torque	10.5 Nm	
Nominal torque	2.8 Nm	
Standstill torque	3.5 Nm	
Torque of inertia	1.24 kgcm <sup>2</sup>	
Nominal current	3 A	
Maximum current	10.9 A	
Nominal speed	4500 rpm	



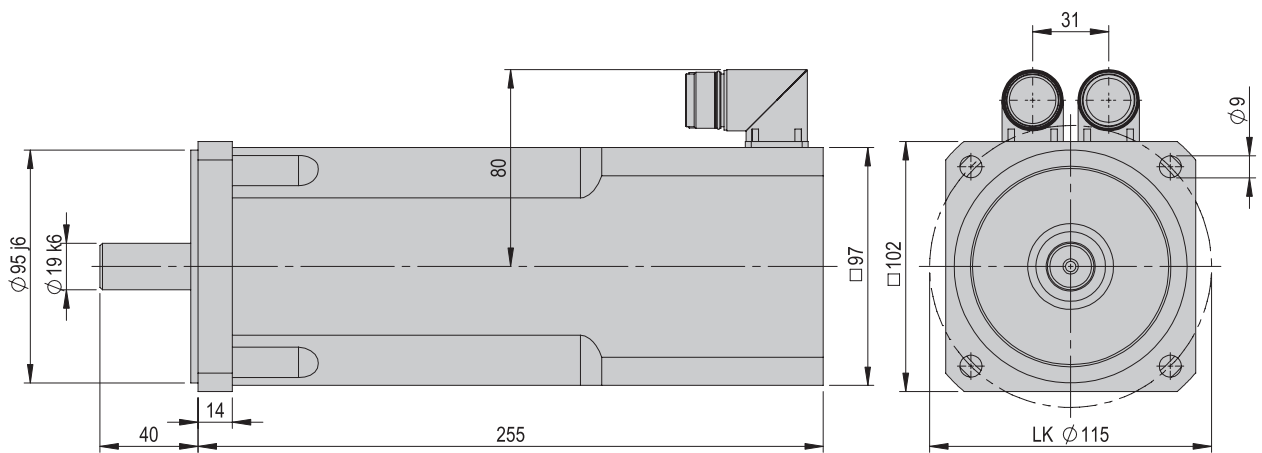
Servomotor-31-560VDC-950W-45-x-R-x-x		without brake
<b>Order number</b>	<b>50495886</b>	
Net weight	3 kg	
Peak torque	10.5 Nm	
Nominal torque	2.8 Nm	
Standstill torque	3.5 Nm	
Torque of inertia	1.04 kgcm <sup>2</sup>	
Nominal current	3 A	
Maximum current	10.9 A	
Nominal speed	4500 rpm	



# Servomotors 41

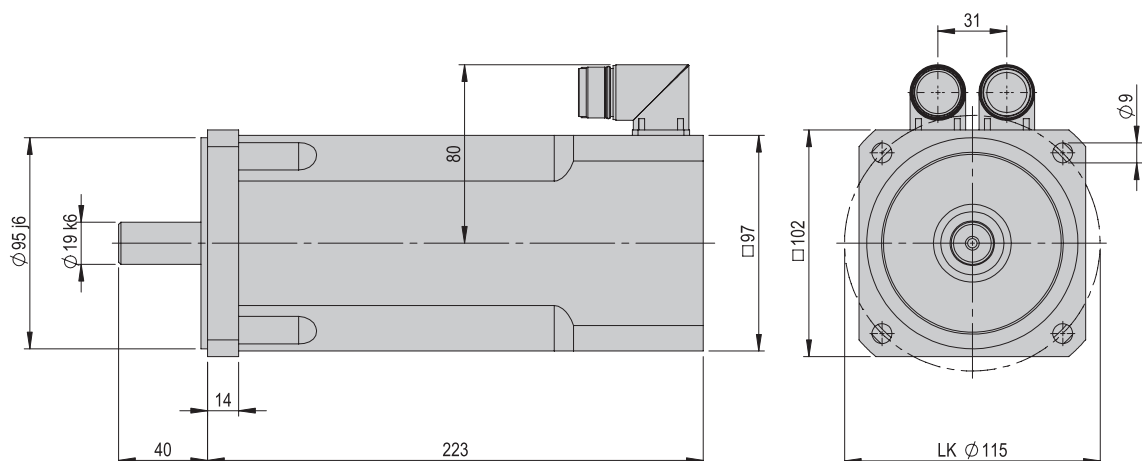
Servomotor-41-560VDC-2.8kW-45-B-I-x-x with brake

<b>Order number</b>	<b>50485437</b>
Net weight	9 kg
Peak torque	34 Nm
Nominal torque	7.2 Nm
Standstill torque	11.3 Nm
Torque of inertia	6.3 kgcm <sup>2</sup>
Nominal current	8.4 A
Maximum current	35 A
Nominal speed	4500 rpm



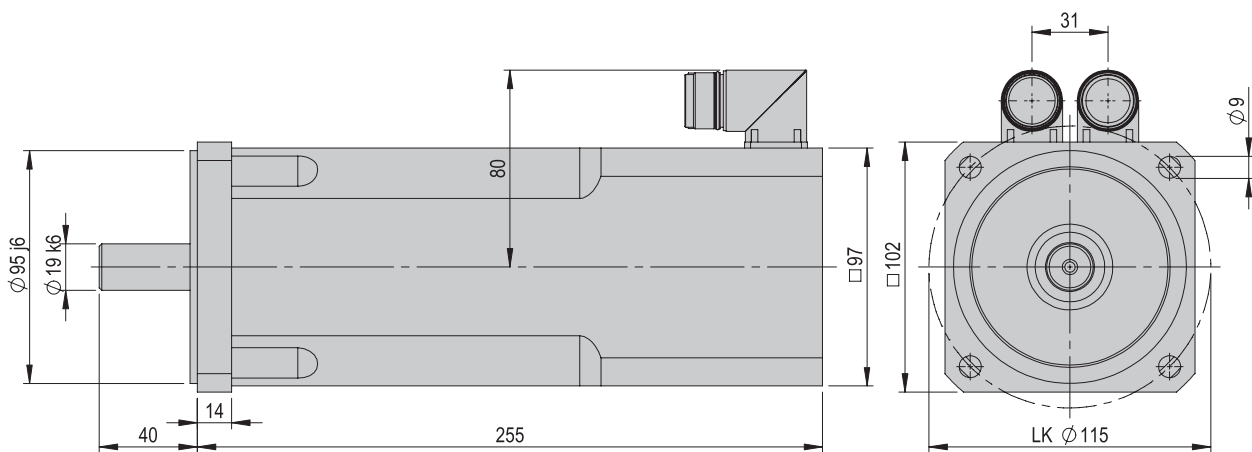
Servomotor-41-560VDC-2.8kW-45-x-I-x-x without brake

<b>Order number</b>	<b>50495888</b>
Net weight	7.2 kg
Peak torque	34 Nm
Nominal torque	7.2 Nm
Standstill torque	11.3 Nm
Torque of inertia	5.7 kgcm <sup>2</sup>
Nominal current	8.4 A
Maximum current	35 A
Nominal speed	4500 rpm

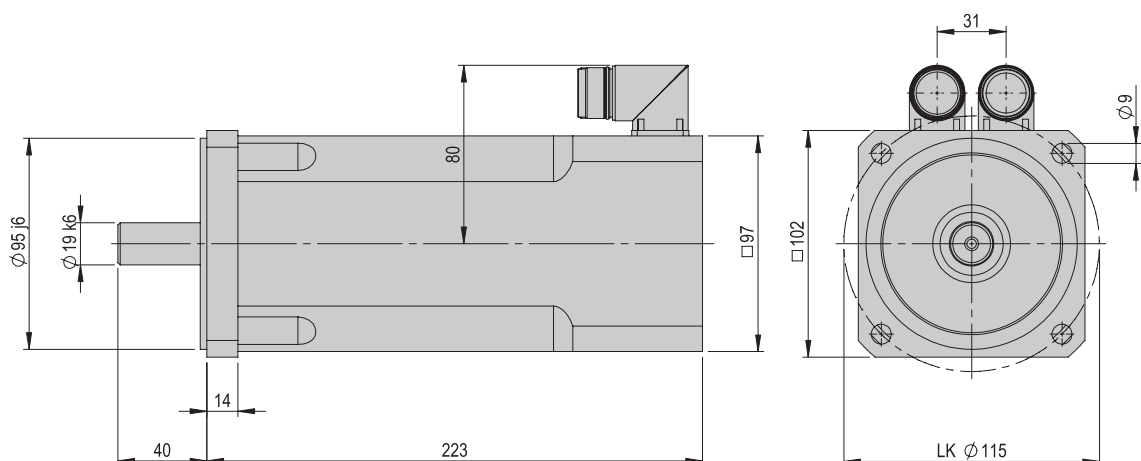


# Servomotors 41

Servomotor-41-560VDC-2.8kW-45-B-R-x-x		with brake
<b>Order number</b>		<b>50495890</b>
Net weight		9 kg
Peak torque		34 Nm
Nominal torque		7.2 Nm
Standstill torque		11.3 Nm
Torque of inertia		6.3 kgcm <sup>2</sup>
Nominal current		8.4 A
Maximum current		35 A
Nominal speed		4500 rpm



Servomotor-41-560VDC-2.8kW-45-x-R-x-x		without brake
<b>Order number</b>		<b>50495889</b>
Net weight		7.2 kg
Peak torque		34 Nm
Nominal torque		7.2 Nm
Standstill torque		11.3 Nm
Torque of inertia		5.7 kgcm <sup>2</sup>
Nominal current		8.4 A
Maximum current		35 A
Nominal speed		4500 rpm

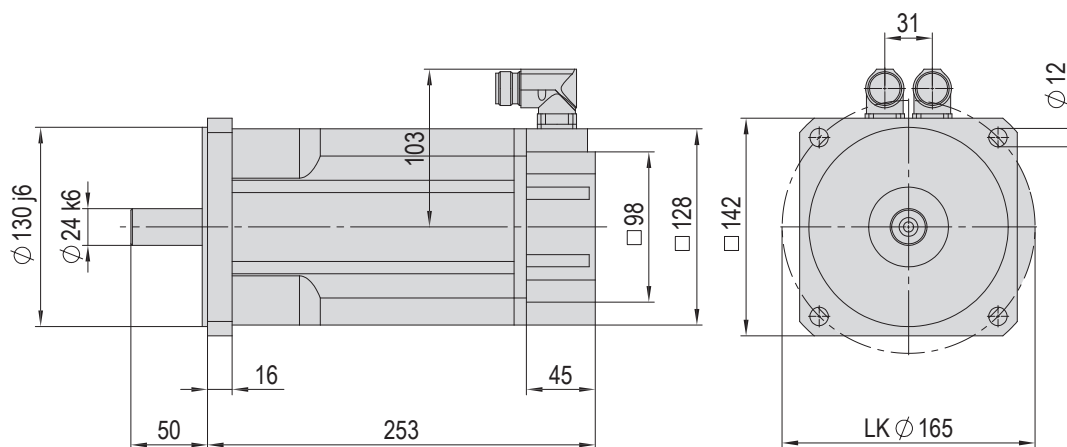




# Servomotors 51

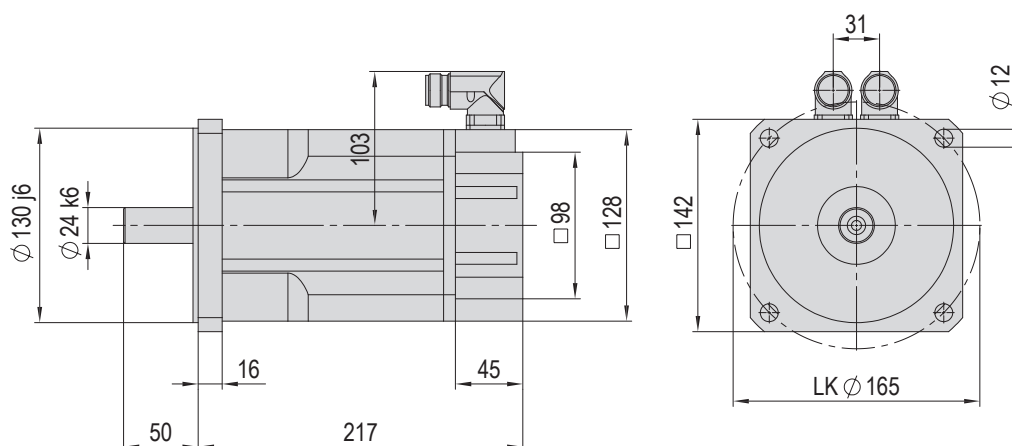
Servomotor-51-560VDC-5.0kW-45-B-I-x-x with brake

<b>Order number</b>	<b>50485438</b>
Net weight	13.7 kg
Peak torque	60 Nm
Nominal torque	12.9 Nm
Standstill torque	20 Nm
Torque of inertia	17.1 kgcm <sup>2</sup>
Nominal current	14.3 A
Maximum current	55 A
Nominal speed	4500 rpm



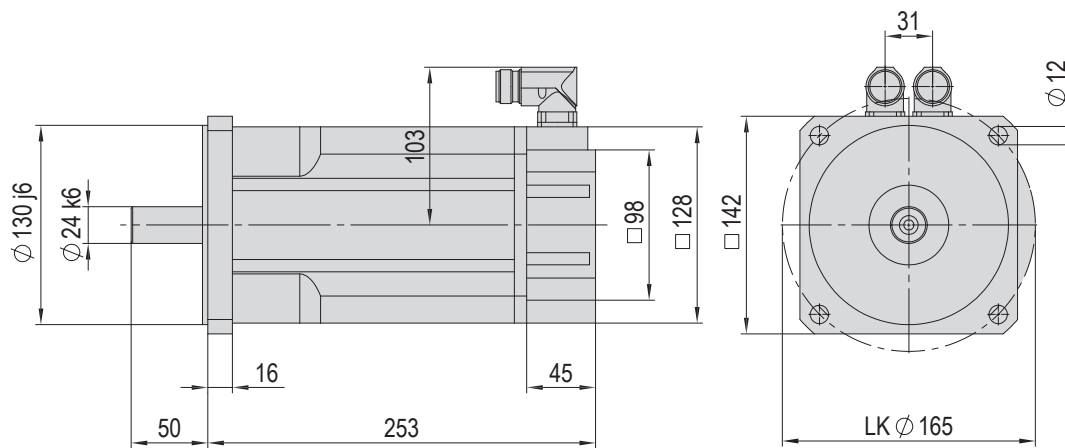
Servomotor-51-560VDC-5.0kW-45-x-I-x-x without brake

<b>Order number</b>	<b>50495891</b>
Net weight	12.6 kg
Peak torque	60 Nm
Nominal torque	12.9 Nm
Standstill torque	20 Nm
Torque of inertia	15.1 kgcm <sup>2</sup>
Nominal current	14.3 A
Maximum current	55 A
Nominal speed	4500 rpm

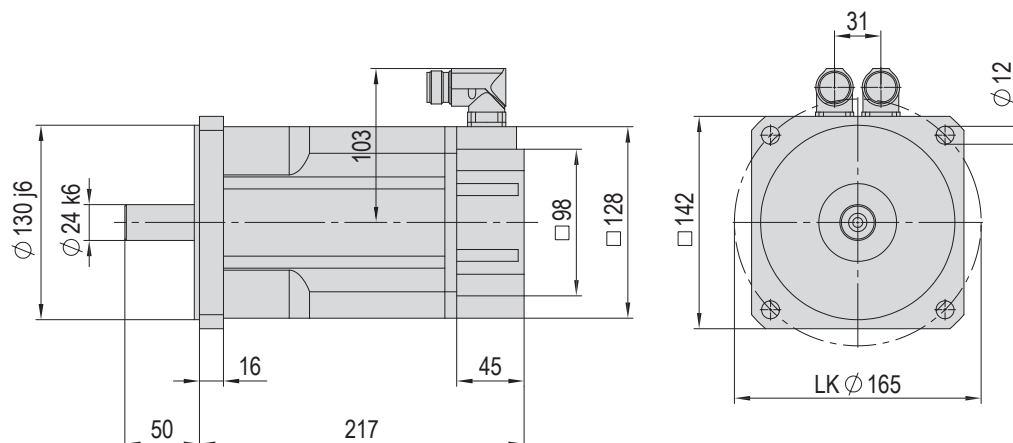


# Servomotors 51

Servomotor-51-560VDC-5.0kW-45-B-R-x-x		with brake
<b>Order number</b>		<b>50495893</b>
Net weight		13.7 kg
Peak torque		60 Nm
Nominal torque		12.9 Nm
Standstill torque		20 Nm
Torque of inertia		17.1 kgcm <sup>2</sup>
Nominal current		14.3 A
Maximum current		55 A
Nominal speed		4500 rpm

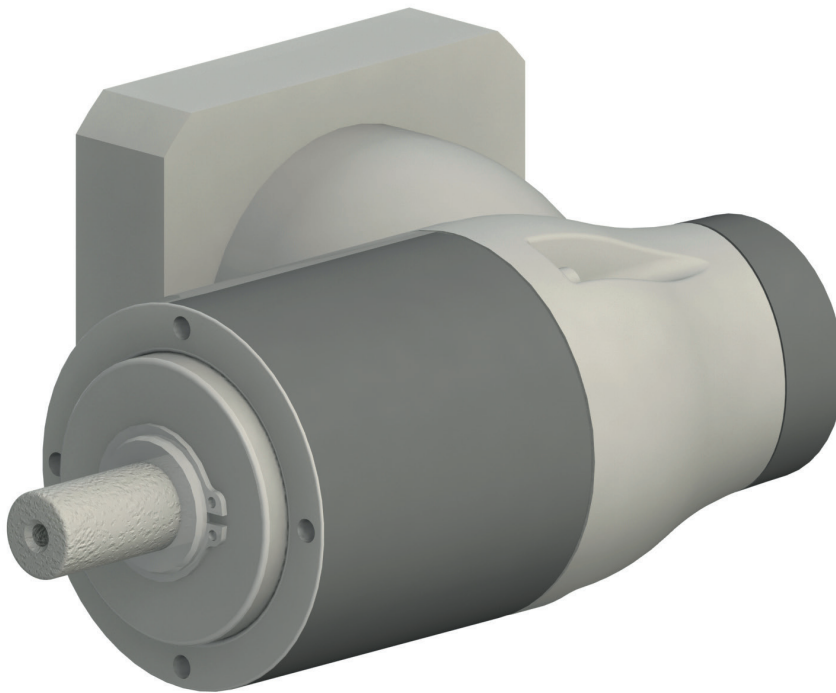


Servomotor-51-560VDC-5.0kW-45-x-R-x-x		without brake
<b>Order number</b>		<b>50495892</b>
Net weight		12.6 kg
Peak torque		60 Nm
Nominal torque		12.9 Nm
Standstill torque		20 Nm
Torque of inertia		15.1 kgcm <sup>2</sup>
Nominal current		14.3 A
Maximum current		55 A
Nominal speed		4500 rpm

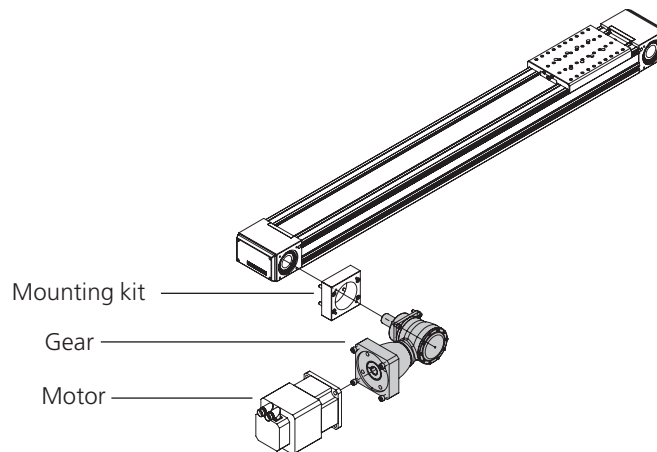




# Angular gearbox



# Overview Angular gearbox



Gear-Ratio-Size	Order number	PEZ-52	PEZ-65	PEZ-80	PEZ-100	PDZ-128	PDZ-160	PDZ-200	LTM
PER050-i=5-BG2	<b>50477909</b>	x							
PER050-i=7-BG2	<b>50477910</b>	x							
PER050-i=10-BG2	<b>50477911</b>	x							
PER070-i=5-BG3	<b>50477912</b>		x	x		x	x		
PER070-i=7-BG3	<b>50477913</b>		x	x		x	x		
PER070-i=10-BG3	<b>50477914</b>		x	x		x	x		
PER090-i=5-BG4	<b>50477915</b>			x	x		x	x	
PER090-i=7-BG4	<b>50477916</b>			x	x		x	x	
PER090-i=10-BG4	<b>50477917</b>			x	x		x	x	
PER120-i=5-BG5	<b>50477918</b>				x			x	
PER120-i=7-BG5	<b>50477919</b>				x			x	
PER120-i=10-BG5	<b>50477920</b>				x			x	
AFR042-i=5-BG2	<b>50467067</b>	x							
AFR042-i=7-BG2	<b>50467068</b>	x							
AFR042-i=10-BG2	<b>50467069</b>	x							
AFR060-i=5-BG3	<b>50467070</b>		x	x		x	x		
AFR060-i=7-BG3	<b>50467071</b>		x	x		x	x		
AFR060-i=10-BG3	<b>50467072</b>		x	x		x	x		
AFR075-i=40-BG3	<b>50469108</b>								x
AFR075-i=5-BG4	<b>50467073</b>			x	x		x	x	
AFR075-i=7-BG4	<b>50467074</b>			x	x		x	x	
AFR075-i=10-BG4	<b>50467075</b>			x	x		x	x	
AFR100-i=5-BG5	<b>50467076</b>				x			x	
AFR100-i=7-BG5	<b>50467077</b>				x			x	
AFR100-i=10-BG5	<b>50467078</b>				x			x	

**Nomenclature planetary gearbox:**

**PER070-i=5-BG3**

PER070: Suitable gear

i=5: Gear ratio

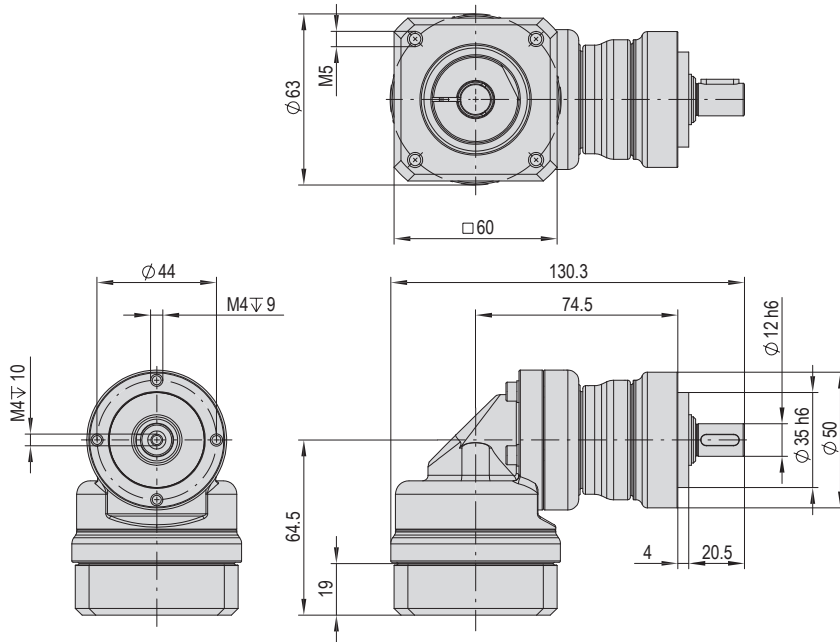
BG3: Suitable motor size

PER: Angular gearbox

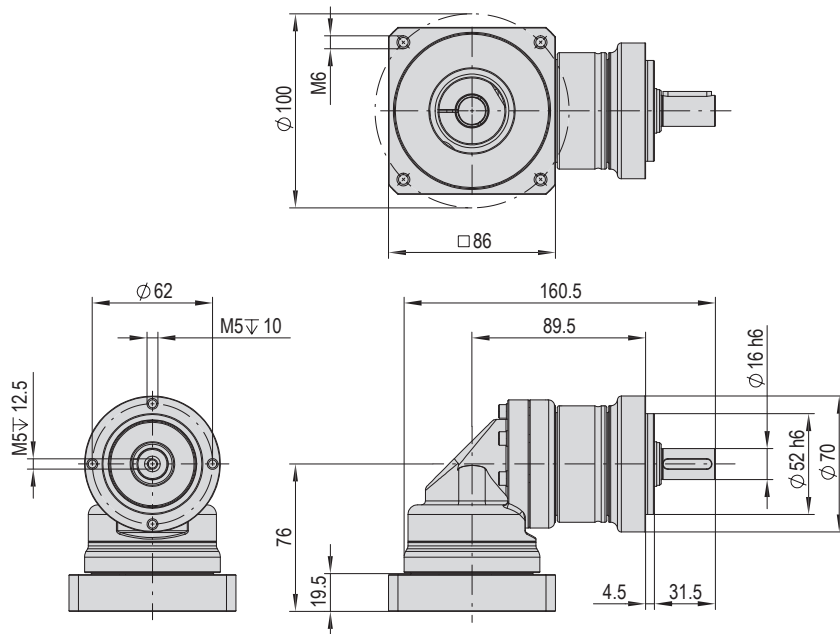
AFR: Angular gearbox low-backlash

# Angular gearbox

Angular gearbox PER050	PER050-i=5	PER050-i=7	PER050-i=10
<b>Order number</b>	<b>50477909</b>	<b>50477910</b>	<b>50477911</b>
Net weight	1.5 kg	1.5 kg	1.5 kg
Ratio	i = 5	i = 7	i = 10
Backlash	12' arcmin	12' arcmin	12' arcmin

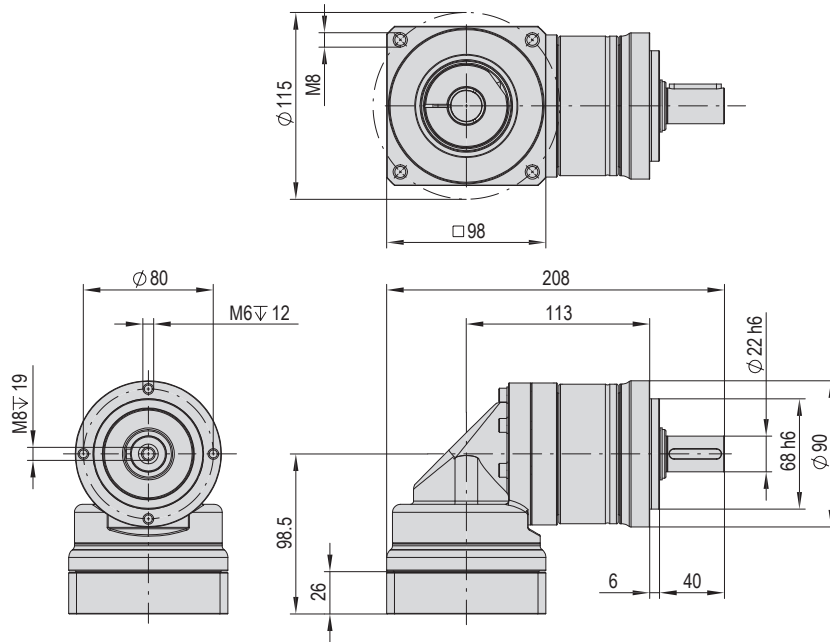


Angular gearbox PER070	PER070-i=5	PER070-i=7	PER070-i=10
<b>Order number</b>	<b>50477912</b>	<b>50477913</b>	<b>50477914</b>
Net weight	3.2 kg	3.2 kg	3.2 kg
Ratio	i = 5	i = 7	i = 10
Backlash	11' arcmin	11' arcmin	11' arcmin

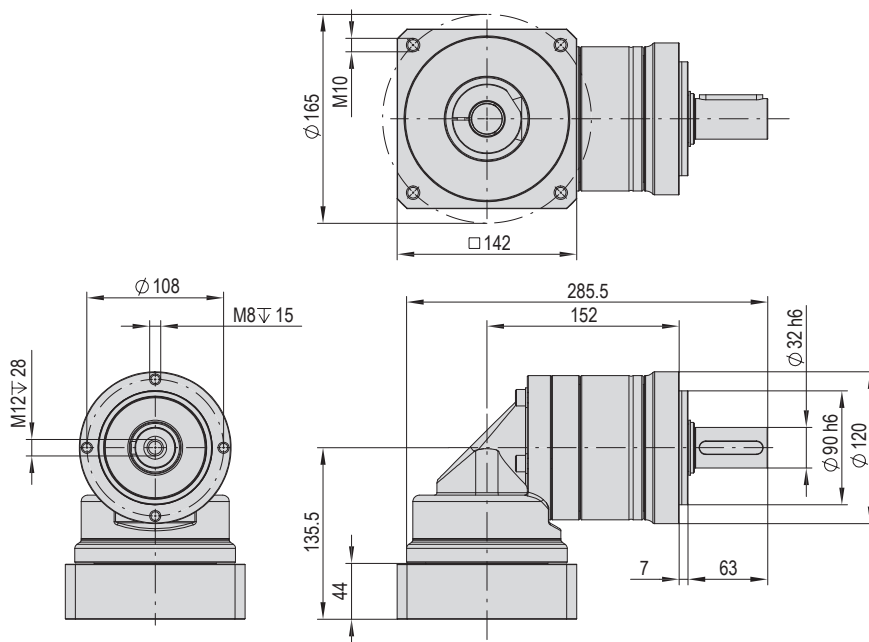


# Angular gearbox

Angular gearbox PER090	PER090-i=5	PER090-i=7	PER090-i=10
<b>Order number</b>	<b>50477915</b>	<b>50477916</b>	<b>50477917</b>
Net weight	6.6 kg	6.6 kg	6.6 kg
Ratio	i = 5	i = 7	i = 10
Backlash	10' arcmin	10' arcmin	10' arcmin

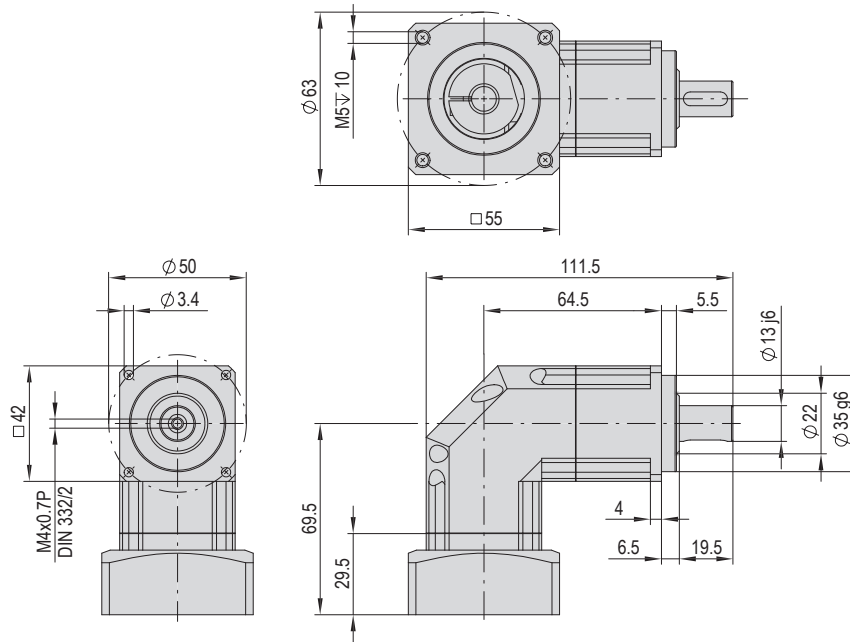


Angular gearbox PER120	PER120-i=5	PER120-i=7	PER120-i=10
<b>Order number</b>	<b>50477918</b>	<b>50477919</b>	<b>50477920</b>
Net weight	16.3 kg	16.3 kg	16.3 kg
Ratio	i = 5	i = 7	i = 10
Backlash	10' arcmin	10' arcmin	10' arcmin

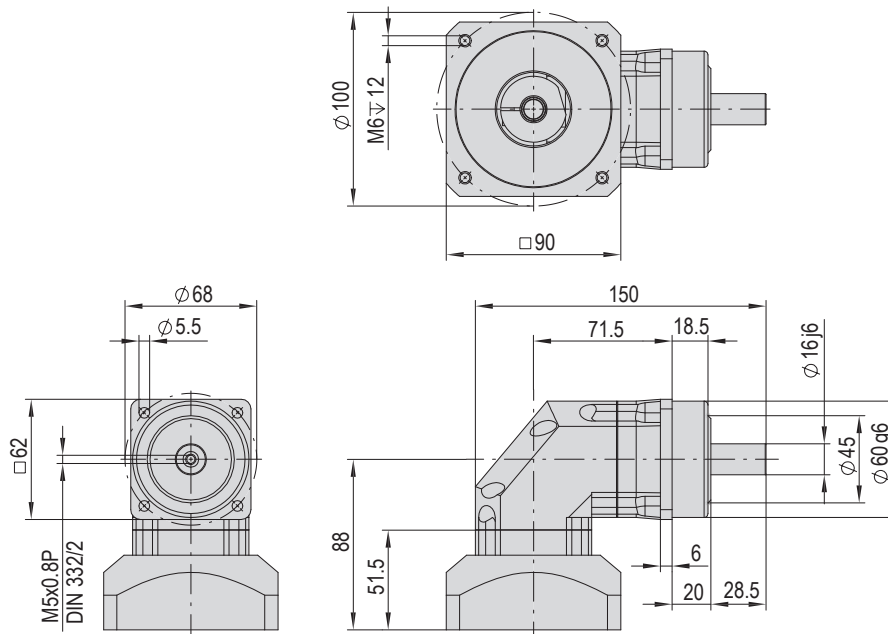


# Angular gearbox

Angular gearbox AFR042	AFR042-i=5	AFR042-i=7	AFR042-i=10
<b>Order number</b>	<b>50467067</b>	<b>50467068</b>	<b>50467069</b>
Net weight	0.9 kg	0.9 kg	0.9 kg
Ratio	i = 5	i = 7	i = 10
Backlash	4' arcmin	4' arcmin	4' arcmin



Angular gearbox AFR060	AFR060-i=5	AFR060-i=7	AFR060-i=10
<b>Order number</b>	<b>50467070</b>	<b>50467071</b>	<b>50467072</b>
Net weight	2.1 kg	2.1 kg	2.1 kg
Ratio	i = 5	i = 7	i = 10
Backlash	4' arcmin	4' arcmin	4' arcmin

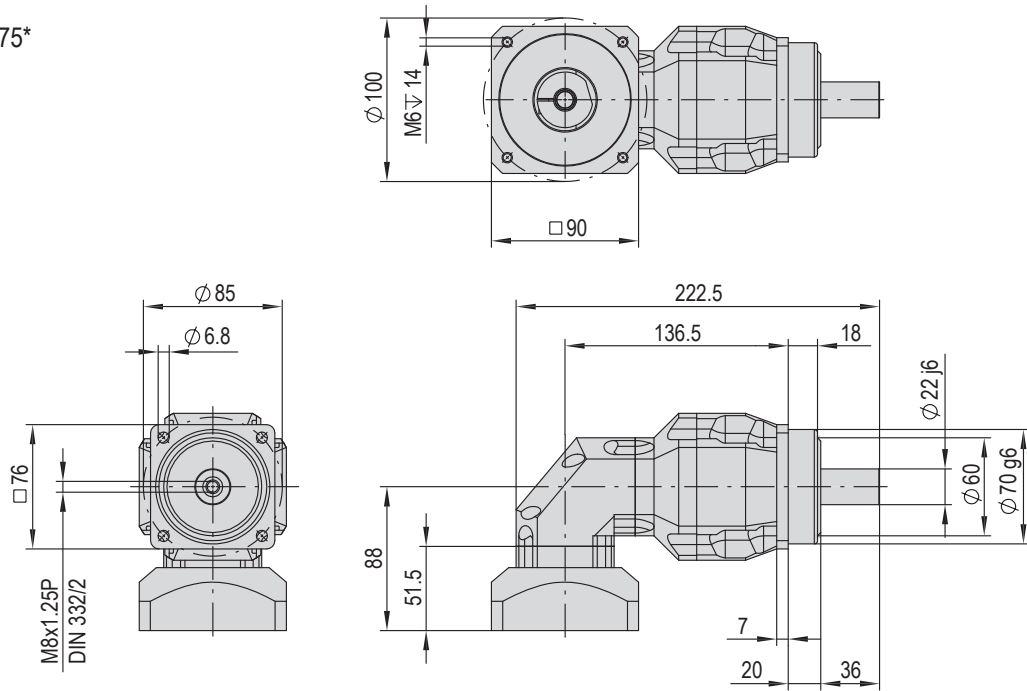




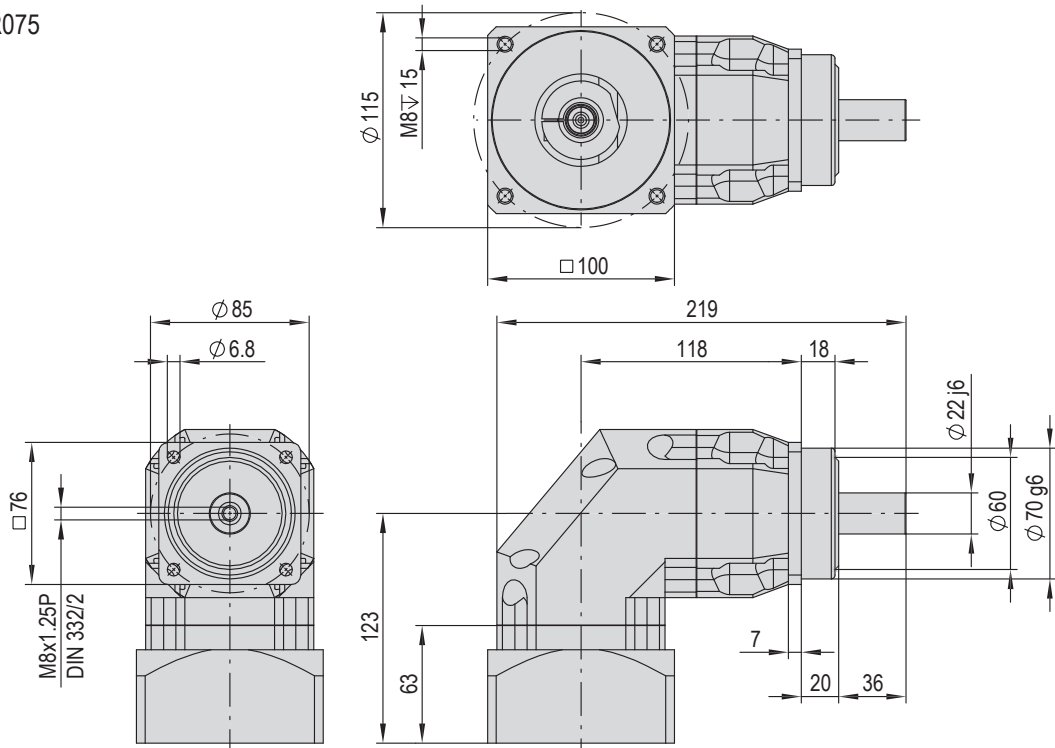
# Angular gearbox

Angular gearbox AFR075	AFR075*-i=40	AFR075-i=5	AFR075-i=7	AFR075-i=10
<b>Order number</b>	<b>50469108</b>	<b>50467073</b>	<b>50467074</b>	<b>50467075</b>
Net weight	7.8 kg	6.4 kg	6.4 kg	6.4 kg
Ratio	i = 40	i = 5	i = 7	i = 10
Backlash	7' arcmin	4' arcmin	4' arcmin	4' arcmin

AFR075\*

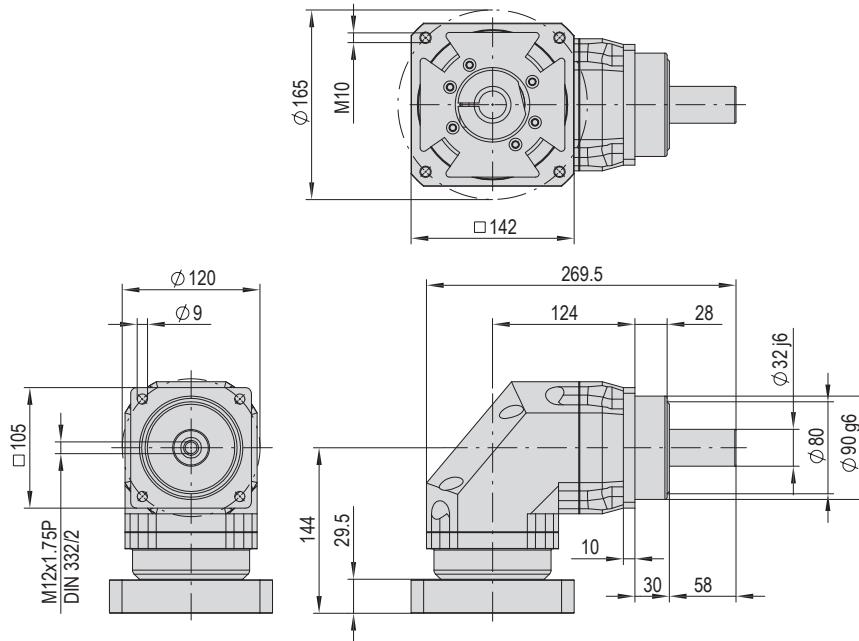


AFR075



# Angular gearbox

Angular gearbox AFR100	AFR100-i=5	AFR100-i=7	AFR100-i=10
<b>Order number</b>	<b>50467076</b>	<b>50467077</b>	<b>50467078</b>
Net weight	13.9 kg	13.9 kg	13.9 kg
Ratio	i = 5	i = 7	i = 10
Backlash	4' arcmin	4' arcmin	4' arcmin





# Servo controllers and accessories



## Table of contents: Servo controllers

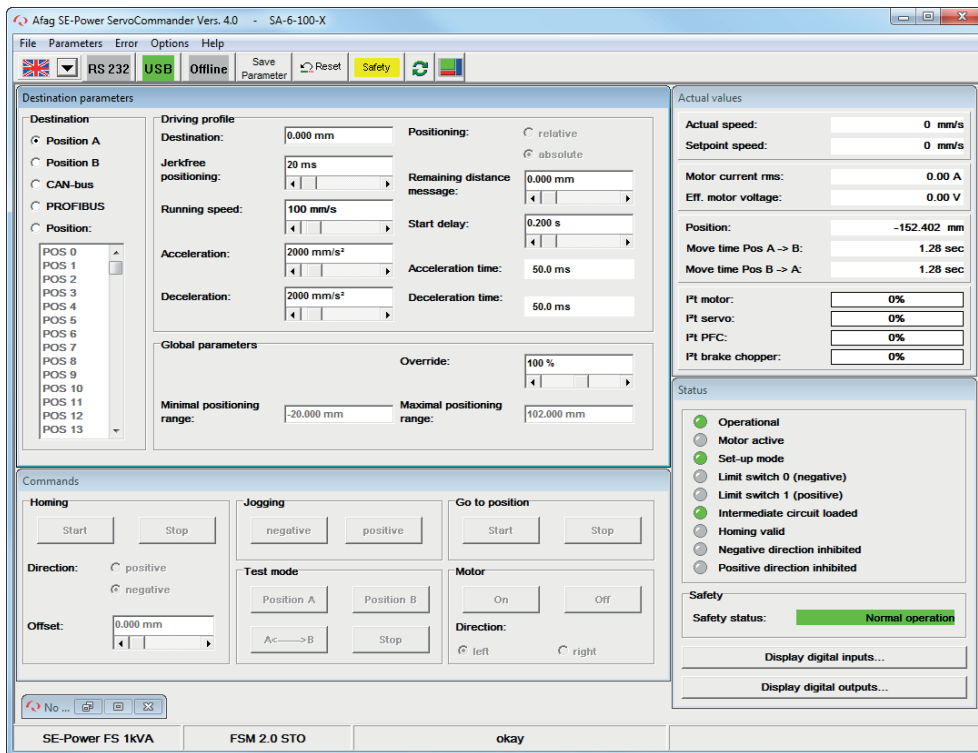
Servo controllers	Page
SE-24	129
SE-Power	131
C11xx	133
C12xx	135
E12xx	137
E14xx	139
Accessories servo controllers	141
Power supply	143
Overview controlsystems	146

Modules	SE-24	SE-Power 1kVA	SE-Power 3kVA	SE-Power 6kVA	C11xx	C12xx	E12xx	E14xx	Third party controllers
<b>Catalogue HT linear</b>									
ES12					Standard	Alternative	Alternative	Alternative	Alternative
ES20					Standard	Alternative	Alternative	Alternative	Alternative
ES30					Standard	Alternative	Alternative	Alternative	Alternative
ES40/-HP					Standard	Alternative	Alternative	Alternative	Alternative
SA-1/-FL		Standard			Alternative	Alternative	Alternative	Alternative	Alternative
SA-3/-FL		Standard			Alternative	Alternative	Alternative	Alternative	Alternative
SA-6/-FL		Standard			Alternative	Alternative	Alternative	Alternative	Alternative
PEZ-52		Standard			Alternative	Alternative	Alternative	Alternative	Alternative
PEZ-65		Standard	Alternative		Alternative	Alternative	Alternative	Alternative	Alternative
PEZ-80		Alternative	Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
PEZ-100		Alternative	Alternative	Standard	Alternative	Alternative	Alternative	Alternative	Alternative
PDZ-128		Standard	Alternative		Alternative	Alternative	Alternative	Alternative	Alternative
PDZ-160		Alternative	Standard	Alternative	Alternative	Alternative	Alternative	Alternative	Alternative
PDZ-200		Alternative	Alternative	Standard	Alternative	Alternative	Alternative	Alternative	Alternative
PEL20/-SL					Standard	Alternative	Alternative	Alternative	Alternative
PDL30					Standard	Alternative	Alternative	Alternative	Alternative
PDL40/-HP					Standard	Alternative	Alternative	Alternative	Alternative
<b>Catalogue HT gripping &amp; turning</b>									
RE-50		Standard			Alternative	Alternative	Alternative	Alternative	Alternative
RE-50 18-100V	Alternative	Alternative			Standard	Alternative	Alternative	Alternative	Alternative
RE-75		Standard			Alternative	Alternative	Alternative	Alternative	Alternative
RE-75 18-100V A		Alternative			Standard	Alternative	Alternative	Alternative	Alternative
SE20					Standard	Alternative	Alternative	Alternative	Alternative
SE30					Standard	Alternative	Alternative	Alternative	Alternative
RA-40					Standard	Alternative	Alternative	Alternative	Alternative
SG-50	Standard				Alternative	Alternative	Alternative	Alternative	Alternative
SG-50-ABq					Standard	Alternative	Alternative	Alternative	Alternative

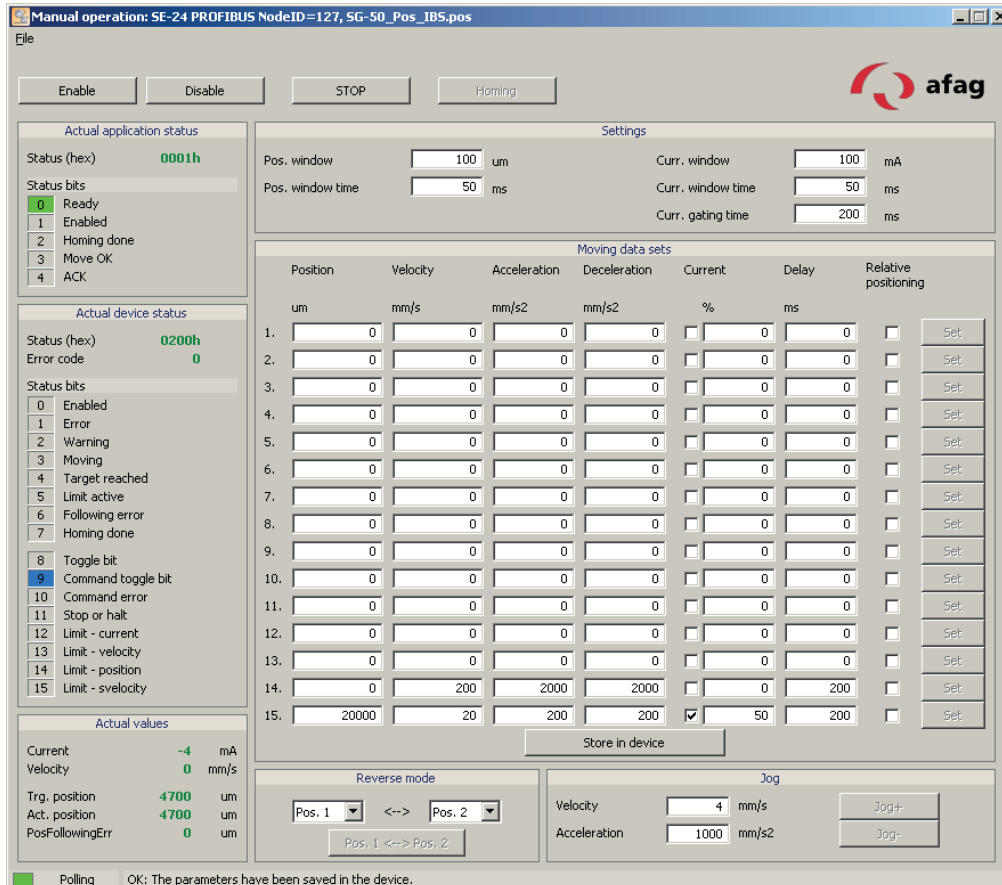
The servo controllers (except the third party controllers) are servo position controllers that are specifically tailored to all Afag modules and axes. They provide you, the user, with extremely short commissioning times and simple, practical handling. The effort required for system integration is reduced to a minimum because all modules and axes are parameterised ex works, and processed to ensure optimal operation.

Note: In order to be connected to third party controllers, all cables are also available with open ends. If you have any questions, please contact your sales partner.

 Standard  
 Alternative

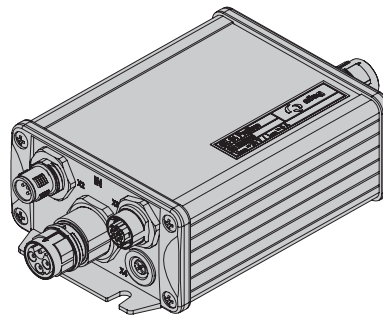
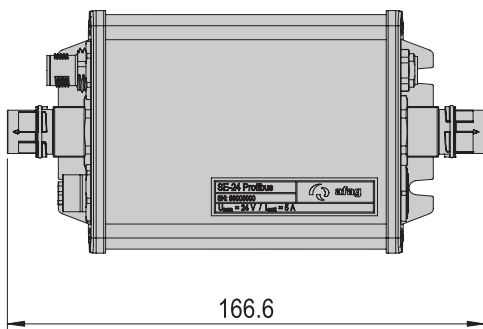
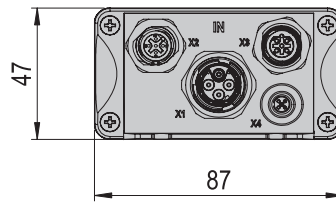
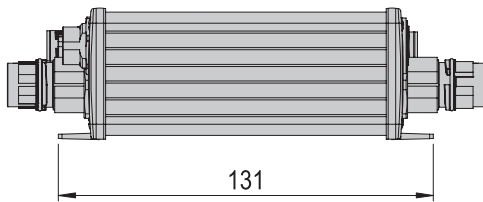
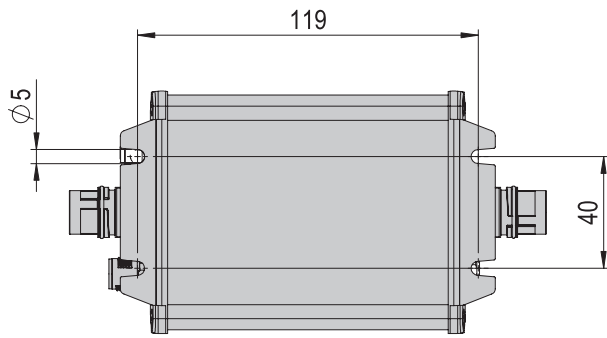


SE-COMMANDER  
SE-Power  
operating interface



AFAG-TOOLS SE-24  
operating interface

Detailed information on the operating software can be found in the handbooks of the corresponding controllers.







SE-24	
Operating temperature	0 - 40 °C
Bearing temperature	-25 - 70 °C
Humidity	< 90 %

Type	SE-24 I/O	SE-24 Profibus	SE-24 EtherCAT	SE-24 CANopen
<b>Order number</b>	<b>50315434</b>	<b>50315435</b>	<b>50315436</b>	<b>50315437</b>
Net weight	0.49 kg	0.58 kg	0.49 kg	0.56 kg
Dimensions W x H x D	87x47x165 mm	87x47x165 mm	87x47x165 mm	87x47x165 mm
Nominal current	5 A	5 A	5 A	5 A
Supply voltage	9-35 VDC	9-35 VDC	9-35 VDC	9-35 VDC
Control voltage	9-30 VDC	9-30 VDC	9-30 VDC	9-30 VDC
Protection type	IP 65	IP 65	IP 65	IP 65
Intermediate circuit voltage	24 VDC	24 VDC	24 VDC	24 VDC
Output power	120 VA	120 VA	120 VA	120 VA
Programming interface	USB	USB	USB	USB
Number of position data records	15	15	15	15

### Accessories

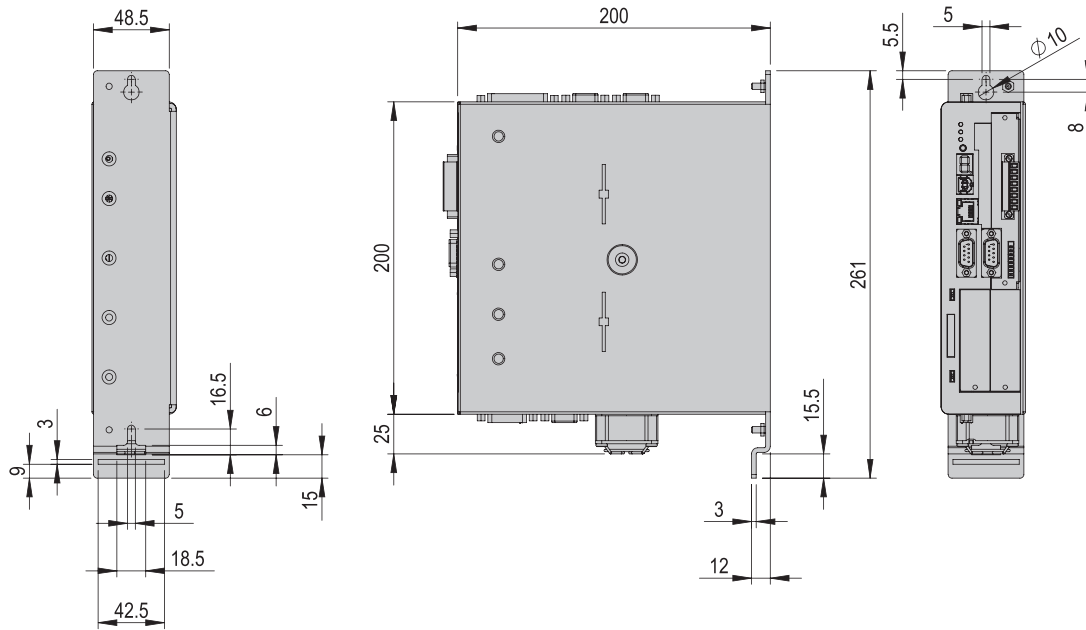
- Programming cable SE-24
- Power cable SE-24
- I/O cable SE-24
- SE-24 Stick

### Alternative Accessories

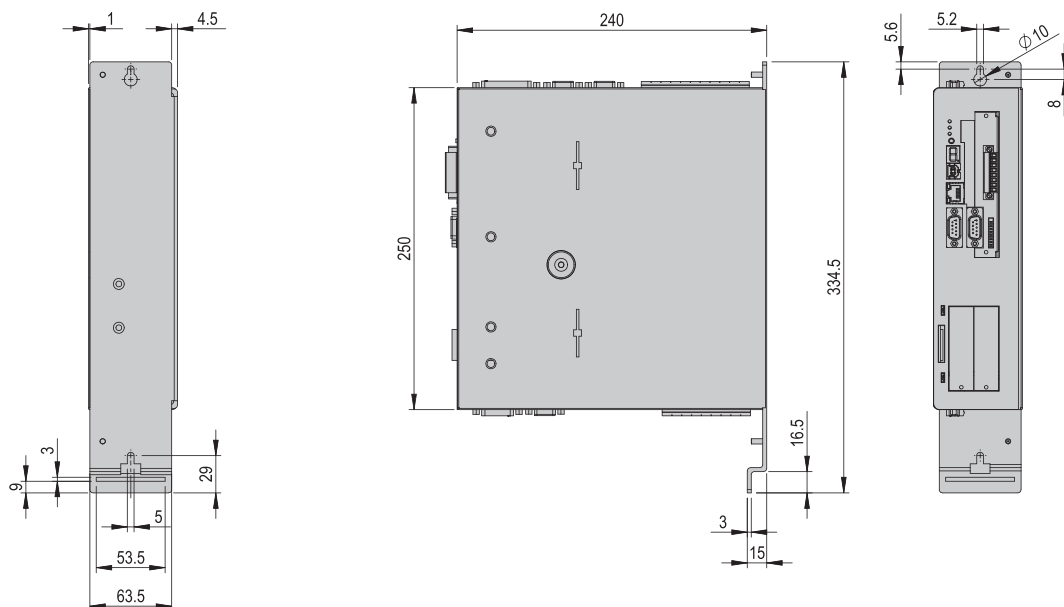
- Additional power and I/O cables

Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

SE-Power 1kVA



SE-Power 3kVA / 6kVA





SE-Power	
Operating temperature	0 - 40 °C
Bearing temperature	-25 - 70 °C
Humidity	< 90 %
Encoder evaluation	Resolver, incr., SinCos, Hiperface, en Dat

Type	SE-Power 1kVA	SE-Power 3kVA	SE-Power 6kVA
<b>Order number</b>	<b>50036337</b>	<b>50162993</b>	<b>50183996</b>
Net weight	2.1 kg	3.7 kg	3.7 kg
Dimensions W x H x D	54x201x200 mm	69x250x240 mm	69x250x240 mm
Nominal output current	5 A	5 A	10 A
Supply voltage	48 - 230 VAC	3 x 400 VAC	3 x 400 VAC
Voltage supply, alternative	60 - 380 VDC		
Control voltage	24 VDC	24 VDC	24 VDC
Protection type	IP 20	IP 20	IP 20
Intermediate circuit voltage	320 VDC	560 VDC	560 VDC
Output power	1 kVA	3 kVA	6 kVA
Programming interface	USB/RS 232	USB/RS 232	USB/RS 232
Standard interfaces for higher-level control	CANopen DSP 402	CANopen DSP 402	CANopen DSP 402
Number of position data records via Onboard I/Os	16	16	16
Number of position data records with option I/O interface	250	250	250
Analog	+/- 10 V	+/- 10 V	+/- 10 V

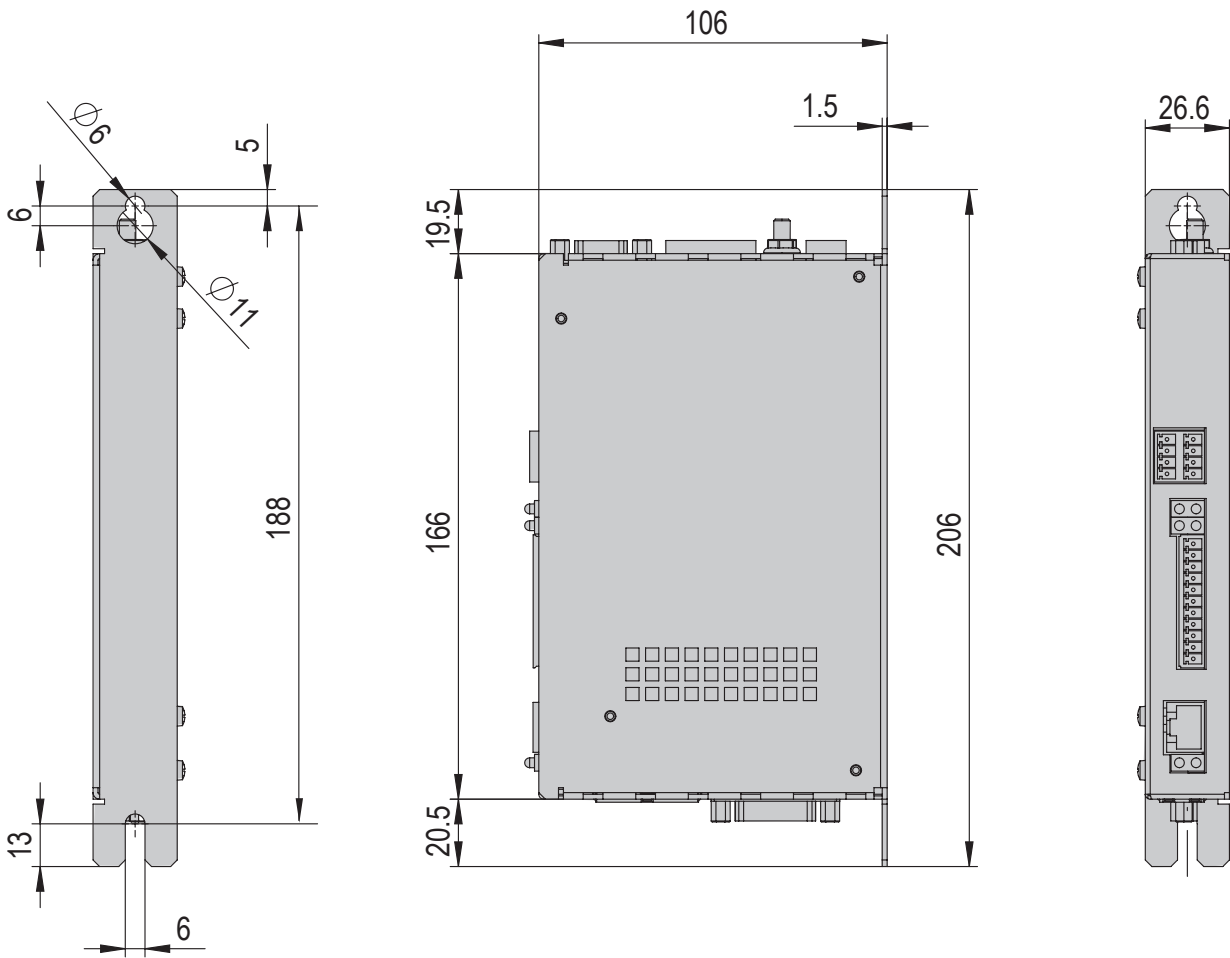
### Accessories

- Programming cable USB SE power FS
- Programming cable RS232 SE power
- I/O Interface
- Profibus Interface
- Profinet Interface
- EtherCAT Interface
- FS Safety Module FSM 2.0

Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

# Dimensions and dimension drawings

C11xx





C11xx	
Operating temperature	0 - 40 °C
Bearing temperature	-25 - 70 °C
Humidity	< 90 %

Type	C1100 CanOpen STO	C1150 EtherCat STO	C1150 Profinet PN STO
<b>Order number</b>	<b>50419402</b>	<b>50419403</b>	<b>50419404</b>
Net weight	0.7 kg	0.7 kg	0.7 kg
Dimensions W x H x D	26.6x206x106 mm	26.6x206x106 mm	26.6x206x106 mm
Nominal output current	25 A	25 A	25 A
Supply voltage	24 - 72 VDC	24 - 72 VDC	24 - 72VDC
Control voltage	24 VDC	24 VDC	24 VDC
Protection type	IP 20	IP 20	IP 20
Intermediate circuit voltage	24 - 80 VDC	24 - 80 VDC	24 - 80 VDC
Programming interface	RS 232	RS 232	RS 232

### Included in the delivery

- 1x Plug kit for C1xxx-1S

### Accessories

- Power supply S01-72/500, 1-phase
- Motor plug for controller C1x00
- USB-RS232 Converter for controllers

### Alternative Accessories

- Additional power supplies

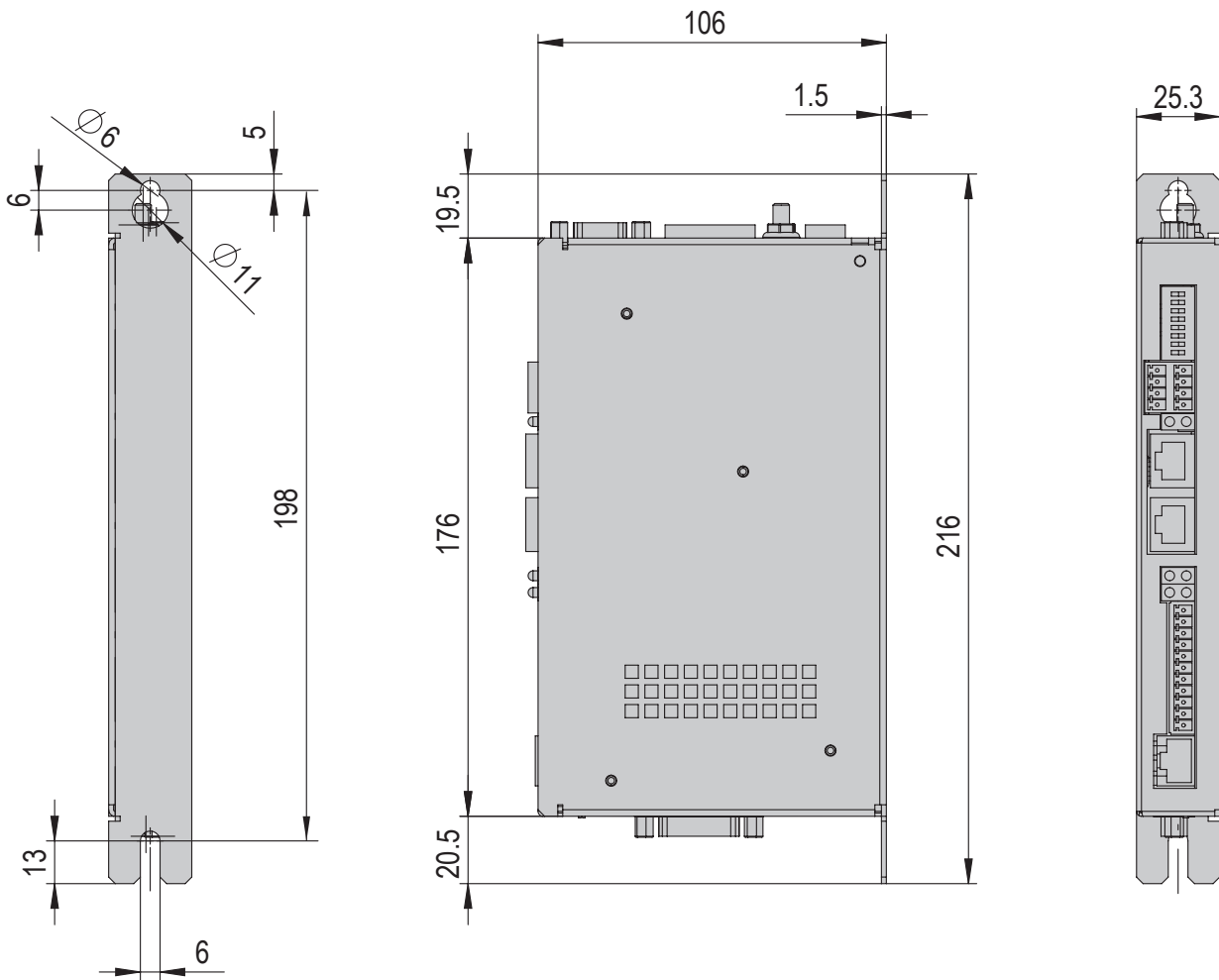
Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

afag.com

Handling technology HT Accessories

# Dimensions and dimension drawings

C12xx





C12xx	
Operating temperature	0 - 40 °C
Bearing temperature	-25 - 70 °C
Humidity	< 90 %

Type	C1250 EtherCat STO	C1250 Profinet PN STO
<b>Order number</b>	<b>50419400</b>	<b>50419401</b>
Net weight	0.7 kg	0.7 kg
Dimensions W x H x D	25.3x216x106 mm	25.3x216x106 mm
Nominal output current	25 A	25 A
Supply voltage	24 - 72 VDC	24 - 72 VDC
Control voltage	24 VDC	24 VDC
Protection type	IP 20	IP 20
Intermediate circuit voltage	24 - 80 VDC	24 - 80 VDC
Programming interface	RS 232	RS 232

### Included in the delivery

- 1x Plug kit for C1xxx-1S

### Accessories

- Power supply S01-72/500, 1-phase
- Motor plug for controller C1x00
- USB-RS232 Converter for controllers

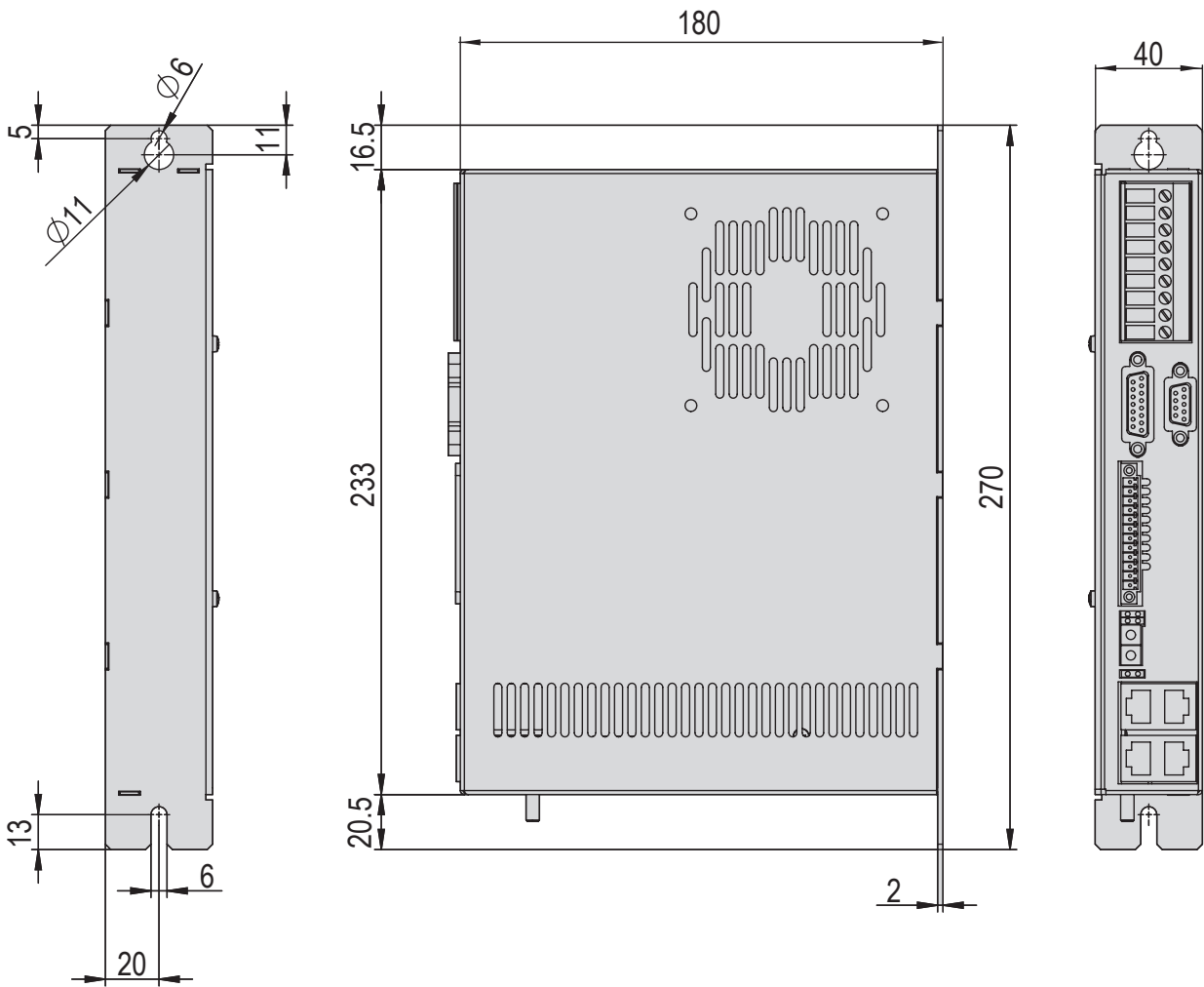
### Alternative Accessories

- Additional power supplies

Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

# Dimensions and dimension drawings

E12xx







E12xx	
Operating temperature	0 - 40 °C
Bearing temperature	-25 - 40 °C
Humidity	< 90 %

Type	E1250 Powerlink PL-UC	E1250 Ethernet IP-UC	E1250 Ethercat SoE SE-UC	E1250 Sercos III SC-UC
<b>Order number</b>	<b>50465787</b>	<b>50465792</b>	<b>50465793</b>	<b>50465794</b>
Net weight	1 kg	1 kg	1 kg	1 kg
Dimensions W x H x D	40x270x180 mm	40x270x180 mm	40x270x180 mm	40x270x180 mm
Nominal output current	32 A	32 A	32 A	32 A
Supply voltage	24 - 72 VDC	24 - 72 VDC	24 - 72 VDC	24 - 72 VDC
Control voltage	24 VDC	24 VDC	24 VDC	24 VDC
Protection type	IP 20	IP 20	IP 20	IP 20
Intermediate circuit voltage	max. 91 VDC	max. 91 VDC	max. 91 VDC	max. 91 VDC
Programming interface	RS 232 + Ethernet	RS 232 + Ethernet	RS 232 + Ethernet	RS 232 + Ethernet

### Accessories

- Power supply S01-72/500, 1-phase
- USB-RS232 Converter for controllers

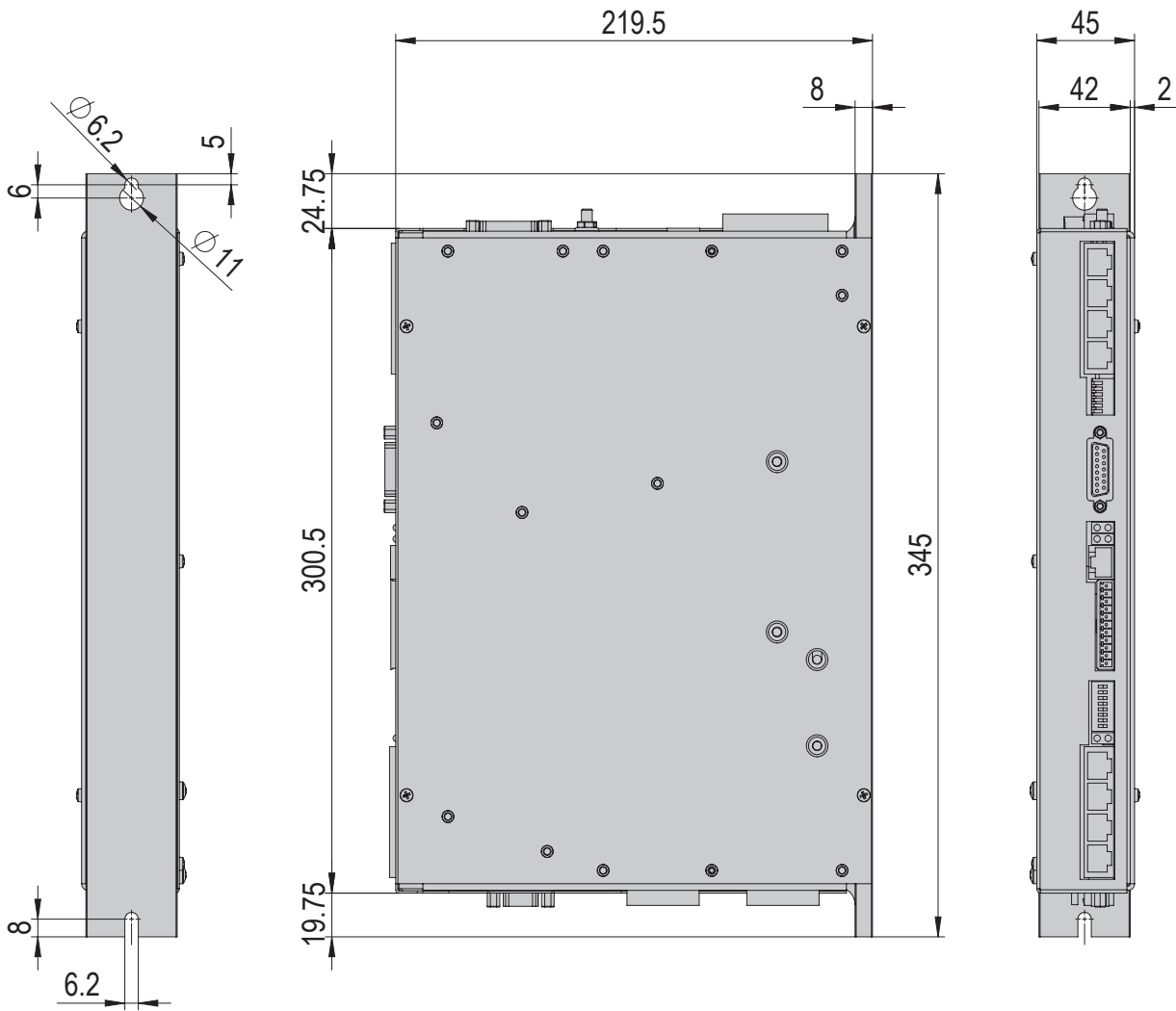
### Alternative Accessories

- Additional power supplies

Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

# Dimensions and dimension drawings

E14xx





E14xx	
Operating temperature	0 - 40 °C
Bearing temperature	-25 - 70 °C
Humidity	< 90 %

Type	E1450 Ethercat EC STO	E1450 Profinet PN STO
<b>Order number</b>	<b>50436475</b>	<b>50421487</b>
Net weight	1.5 kg	1.5 kg
Dimensions W x H x D	45x345x219,5 mm	45x345x219,5 mm
Nominal output current	28 A	28 A
Supply voltage	400 VAC	400 VAC
Control voltage	24 VDC VDC	24 VDC VDC
Protection type	IP 20	IP 20
Intermediate circuit voltage	400 VAC	400 VAC
Programming interface	RS 232	RS 232

### Accessories

- Motor plug for controller E1400
- Plug kit for controller E1400-1S
- USB-RS232 Converter for controllers

Warranty: 24 months following commissioning, but a maximum of 27 months following delivery

# Accessories Servo controllers

## Accessories SE-24

SE-24 Stick	
<b>Order number</b>	<b>50315432</b>
Net weight	0.008 kg

## Programming cables

Programming cable SE-24	
<b>Order number</b>	<b>50315431</b>
Net weight	0.06 kg
Cable Ø	4 mm
Material	PVC
Length	3 m

Programming cable RS232 SE-Power	
<b>Order number</b>	<b>50038526</b>
Net weight	0.2 kg
Cable Ø	4.8 mm
Material	PVC
Length	3 m

Programming cable USB SE-Power FS	
<b>Order number</b>	<b>50395197</b>
Net weight	0.1 kg
Length	3 m

# Transformers

## Accessories SE-Power

SE-Power I/O Interface	
<b>Order number</b>	<b>50112458</b>
Net weight	0.15 kg

SE-Power EtherCAT Interface	
<b>Order number</b>	<b>50038777</b>
Net weight	0.15 kg

SE-Power FS Safety Module FSM 2.0 STO	
<b>Order number</b>	<b>50393463</b>
Net weight	0.075 kg

SE-Power Profibus Interface	
<b>Order number</b>	<b>50036340</b>
Net weight	0.1 kg

SE-Power Profinet Interface	
<b>Order number</b>	<b>50445640</b>
Net weight	0.15 kg

SE-Power FS Safety Module MOV	
<b>Order number</b>	<b>50418506</b>
Net weight	0.12 kg

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## Accessories C1xxx

Motor plug for controller C1xxx	
<b>Order number</b>	<b>50426481</b>
Net weight	0.01 kg

Plug kit for controller C1xxx-1S	
<b>Order number</b>	<b>50426471</b>
Net weight	0.02 kg

USB-RS232 Converter for controllers	
<b>Order number</b>	<b>50426494</b>
Net weight	0.07 kg

Plug X3 for controller C1xxx	
<b>Order number</b>	<b>50530603</b>
Net weight	0.02 kg

## Accessories E14xx

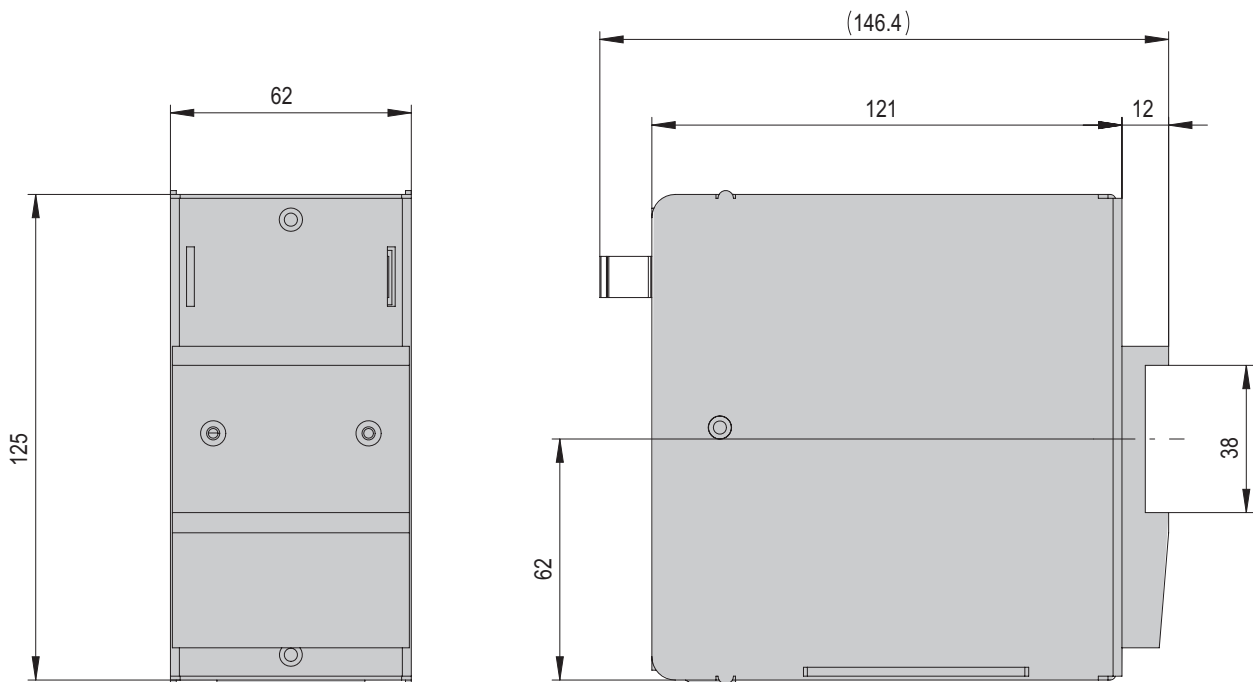
Motor plug for controller E1400	
<b>Order number</b>	<b>50426480</b>
Net weight	0.03 kg

Plug kit for controller E1400-1S	
<b>Order number</b>	<b>50426476</b>
Net weight	0.05 kg

# Transformers

Power supply S01-72/500, 1 phase	
Operating temperature	-25 - 70 °C

Type	Power supply S01-72/500, 1-phase
<b>Order number</b>	<b>50439465</b>
Net weight	1 kg
Protection rating	IP 20
Output power	480 W
Primar voltage	90 - 132 VAC, 50/60 Hz oder 180 - 264 VAC, 50/60 Hz
Secondary voltage	54 - 80 VDC adjustable
Nominal output current	10 A
External fuse	6 A (C, D, K Typ)

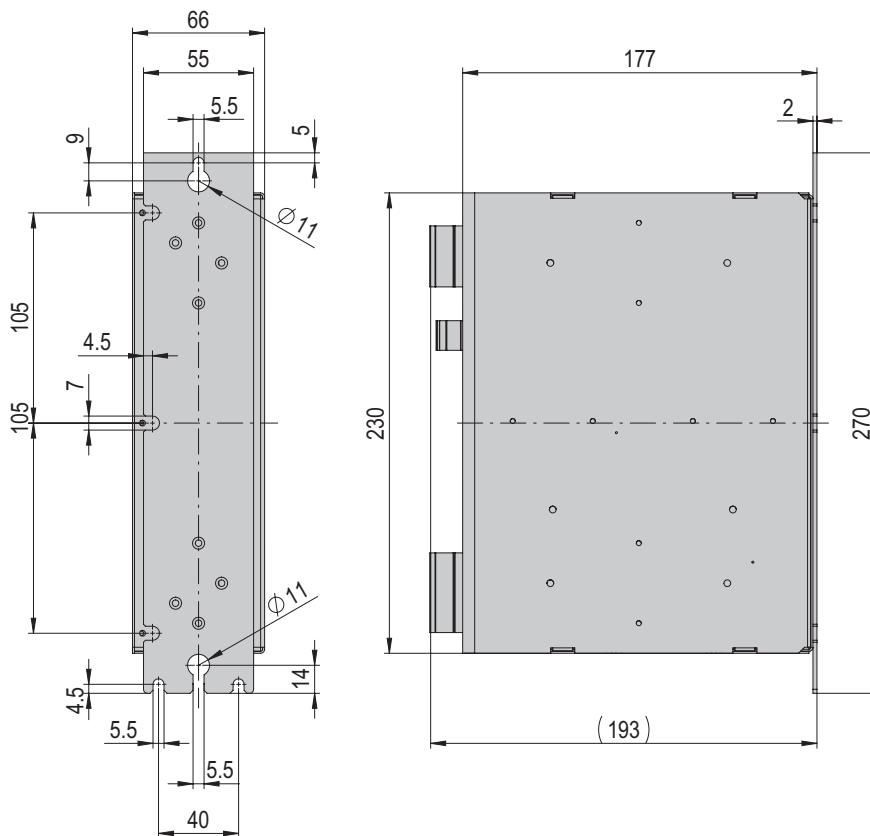


# Transformers

Power supply S01-72/1000, 3 phase	
Operating temperature	-25 - 70 °C

Type	Power supply S01-72/1000, 3-phase
<b>Order number</b>	<b>50439466</b>
Net weight	2 kg
Protection rating	IP 20
Output power	960 W
Primar voltage	3x 340 - 550 VAC, 50/60 Hz
Secondary voltage	54 - 80 VDC adjustable
Nominal output current	27 A
External fuse	16-32 A (C, D, K Typ)

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# Transformers

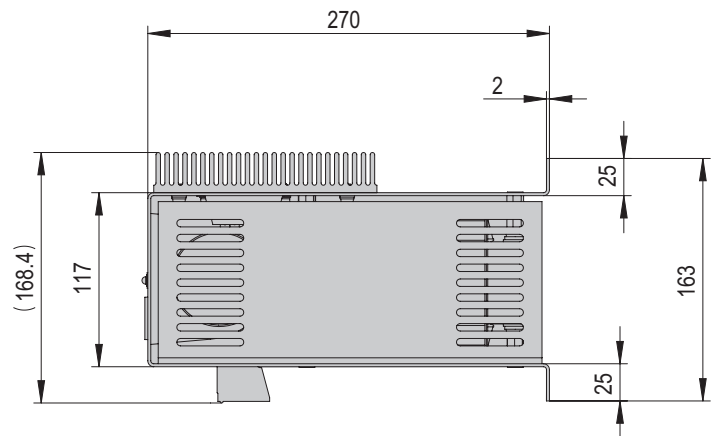
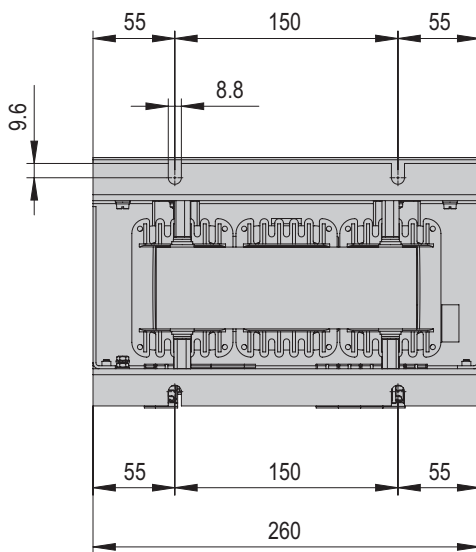
## Power supply T01-72/1500 multi, 3-phases

Operating temperature 0 - 40 °C

## Type Power supply T01-72/1500 Multi, 3-phase

**Order number 50438369**

Net weight	17 kg
Output power	IP 20
Protection rating	1500 W
Primar voltage	3x 230/400/480 VAC, 50/60 Hz
Secondary voltage	72 VDC
Nominal output current	50 A
External fuse	8 A (C, D, K Typ)





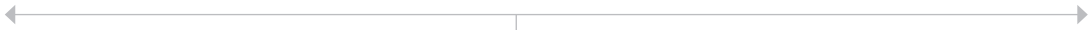


- Power cable SE-24, 5 m
- Power cable SE-24, 10 m
- I/O-cable SE-24, 5 m
- I/O-cable SE-24, 10 m
- Programming cable SE-24, 3 m
- SE-24 Stick



	M	G	R
RE-50 18-100V	M15	G12	R2
SG-50	M14		

**SE-24**



- Programming cable SE-Power, 3 m




	M	G	R
SA-1	M10	G6	R8
SA-3	M10	G6	R1
SA-6	M5	G5	R1
RE-50/RE-75	M12	G10	R1
PEZ/PDZ	M5	G5	R1

**SE-Power**

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USB-RS232  
converter  
for Linmot  
controller




	M			G	R	Motor connector	Plug X3	Adapter
	...-X	...-1	...-2	...-1	...-1			
ES12	M16	M16	M16					50455642
ES20	M16	M16	M16					
ES30	M23	M17						
ES40	M23	M17						
SA-1		M10		G14	R8	50426481	50530603	
SA-3		M10		G14	R1	50426481	50530603	
SA-6		M18		G16	R1	50426481	50530603	
PEZ-52		M18		G16	R1	50426481	50530603	
PEZ-65		M18		G16	R1	50426481	50530603	
PDZ-128		M18		G16	R1	50426481	50530603	
PEL20	M16	M16	M16					
PDL30	M23	M17						
PDL40	M23	M17						
RE-50 18-100V		M12		G14	R1	50426481		
RE-75 18-100V A		M27		G14	R1	50426481		
RA-40	M16	M16	M16					
SE30	M23	M17						
SG-50-Abq		M19				50426481		

**C11xx & C12xx**

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USB-RS232  
converter for  
Linmot controller




**E12xx**

	M			G	R	Adapter
	...-X	...-1	...-2	...-1	...-1	
ES12	M20	M20				50455642
ES20	M20	M20				
ES30	M24	M22	M22			
ES40	M24	M22	M22			
SA-1		M10		G14	R8	
SA-3		M10		G14	R1	
SA-6		M18		G16	R1	
PEZ-52		M18		G16	R1	
PEZ-65		M18		G16	R1	
PDZ-128		M18		G16	R1	
PEL20	M20	M20				
PDL30	M24	M22	M22			
PDL40	M24	M22	M22			
RE-50 18-100V		M12		G14	R1	
RE-75 18-100V A		M27		G14	R1	
RA-40	M20	M20				
SE30	M24	M22	M22			

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USB-RS232  
converter for  
Linmot controller



**E14xx**

	M			G	R	Motor connector	Brake connector
	...-X	...-1	...-2	...-1	...-1		
PEZ/PDZ		M18		G16	R1	50426480	50474519*

\* Only required for motor with brake

# Cables



# Table of contents: Cables

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Motor cables	153
Encoder cables	161
Proximity switch cables	167
Power cables	171
Sensor-actuator cables	172

Motor cables	2 m	3 m	4 m	5 m	6 m	8 m	10 m
M5- .... -0-open-1				50075693			50224179
M10- .... -0-open-1				50219768			50249065
M12- .... -0-open-1				50290459			50310506
M12- .... -90-open-1				50290460			50310507
M14- .... -0-0-1		50311491		50341510			
M15- .... -0-0-1		50332418		50338977			
M15- .... -90-0-1		50332420		50338978			
M16- .... -0-1-X			50463073		50463076	50463078	
M16- .... -0-1-1			50437168		50437167	50427023	
Extension M16- .... -0-0-1	50450944		50427026		50463082		
Extension M16- .... -0-0-2	50463081						
M17- .... -0-1-1			50437170		50437169	50427021	
Extension M17- .... -0-0-1	50463084		50427024		50463087		
Extension M17- .... -0-0-2	50463085		50463086				
M18- .... -0-open				50450380			50446251
M19- .... -0-0-1		50459733		50459734			
M20- .... -0-2-X			50463088		50463090	50463092	
M20- .... -0-2-1			50463089		50463091	50463093	
M22- .... -0-2-1			50463100		50463101	50463103	
M23- .... -0-1-X			50463104		50463105	50463106	
M24- .... -0-2-X			50463107		50463108	50463109	
M27- .... -0-open-1				50545333			50545334
M27- .... -90-open-1				50545335			50545336

Encoder cables	2 m	3 m	4 m	5 m	6 m	8 m	10 m
G5-.... -0-0-1				50075695			50224183
G6- .... -0-0-1				50100693			50224185
G10- .... -0-0-1				50297199			50310508
G10- .... -90-0-1				50297200			50310509
G11- .... -0-0-1				50311323			50311325
G12- .... -0-0-1		50332416		50338975			
G12- .... -90-0-1		50332417		50338976			
G14- .... -0-0-1		50443145		50439300			50450518
G14- .... -90-0-1		50450519		50450520			50450521
G16- .... -0-0-1				50450376			50446252
G17- .... -0-0-1				50450378			50450379
G18- .... -0-0-1							50468310
G18- .... -90-0-1							50468311
Extension G18- .... -0-0-1	50468312			50468313			
G19- .... -0-0-1							50468314
G19- .... -90-0-1							50468315

Proximity switch cables	0.1 m	0.6 m	1.5 m	2 m	3 m	5 m	10 m
R1- .... -0-open-1				11006443	50340925	11006446	50072072
R1- .... -90-open-1				11006447	50340954	11007826	50310513
R2- .... -0-0-1		11015003			50340271	11017754	
R2- .... -90-0-1					50340272	50340903	
R3- .... -0-open-1				11006428		11006431	50098553
R3- .... -90-open-1				11006429		11006430	
R6- .... -0-0-1			50164838				
R9- .... -0-0-1					50341476	50341478	
R10- .... -0-0-1	50386489						

Sensor-actuator cable	0.1 m	0.6 m	1.5 m	2 m	3 m	5 m	10 m
S1-0-open		50512492					
S2-0-open						50512467	
S3-0-open				50359710		11007828	
S3-90-open				50551477		50551478	
S4-0-0			50573863		50573865		
S4-90-0			50573864		50573866		
S4-0-open						50573867	50573870
S4-90-open						50573868	50573871

**Cable nomenclature:**

Cable designation - Cable type - Cable length - Plug, module side - Plug, controller side - Cable type

e. g. **Motor cable-M5-5m-0-open-1:**

**Cable designation:**

- M: Motor cable
- G: Encoder cable
- R: Proximity switch cable
- S: Sensor-actuator cable

**Cable type:**

- M5: Cable type

**Cable length:**

- 5m: Cable length in m

**Plug, module side:**

- 0: Plug, straight
- 90: Plug, 90° angle

**Plug, controller side:**

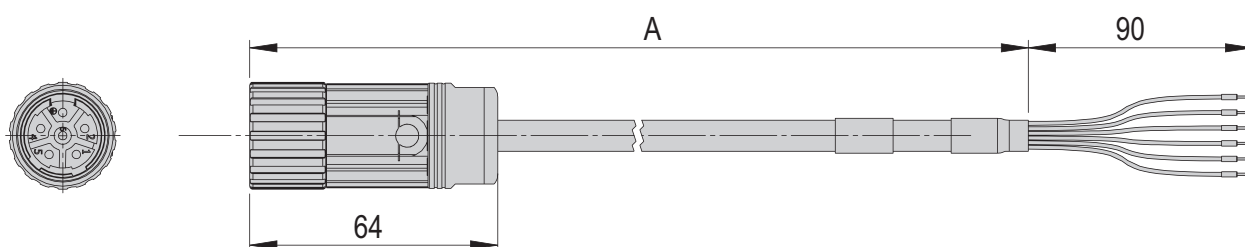
- 0: Plug, straight
- 1: Plug, straight/motor phases with additional plug
- 2: Plug, straight/motor phases open
- 3: Plug, straight/open wires
- open: open wires

**Cable type**

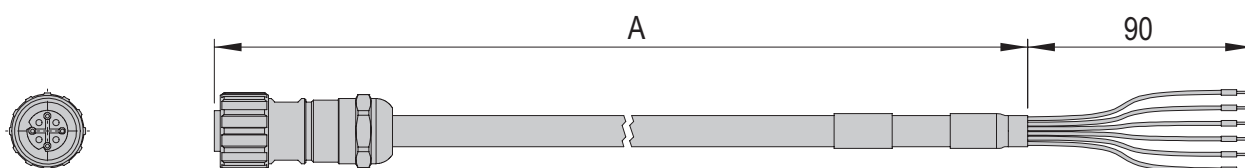
- X: Non-moving transfer
- 1: Moving transfer, drag chain
- 2: Moving transfer, robot

# Cables

Motor cable-M5	5m-0-open-1	10m-0-open-1
<b>Order number</b>	<b>50075693</b>	<b>50224179</b>
Net weight	0.2 kg	0.4 kg
Cable Ø	11.2 mm	11.3 mm
Min. bending radii	90 mm	90 mm
Material	PUR	PUR
A	5 m	10 m



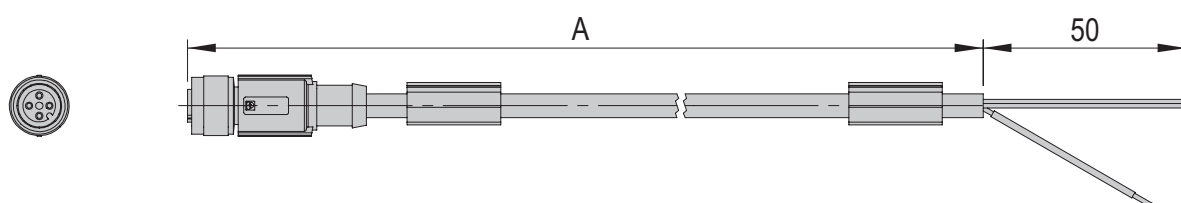
Motor cable-M10	5m-0-open-1	10m-0-open-1
<b>Order number</b>	<b>50219768</b>	<b>50249065</b>
Net weight	0.6 kg	1.1 kg
Cable Ø	10 mm	10 mm
Min. bending radii	90 mm	90 mm
Material	PUR	PUR
A	5 m	10 m





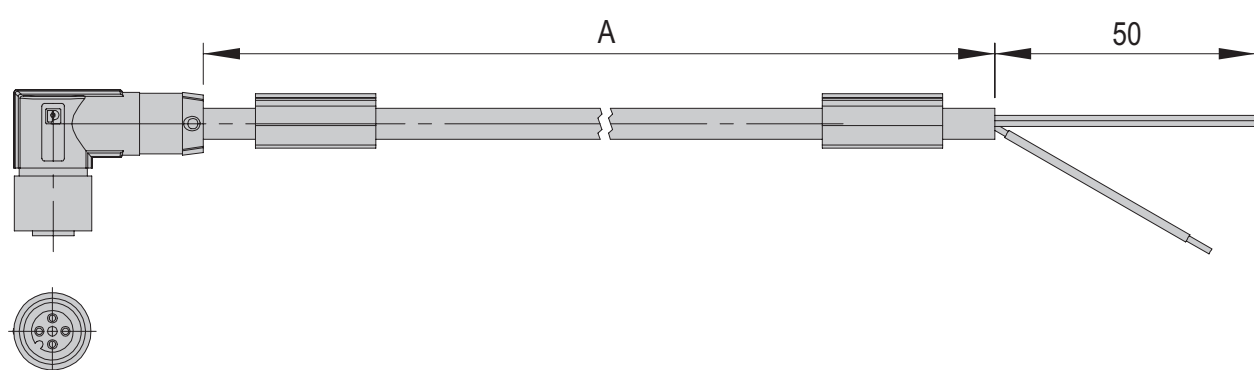
# Cables

Motor cable-M12	5m-0-open-1	10m-0-open-1
<b>Order number</b>	<b>50290459</b>	<b>50310506</b>
Net weight	0.1 kg	0.2 kg
Cable Ø	6 mm	6 mm
Min. bending radii	90 mm	90 mm
Material	PUR	PUR
A	5 m	10 m



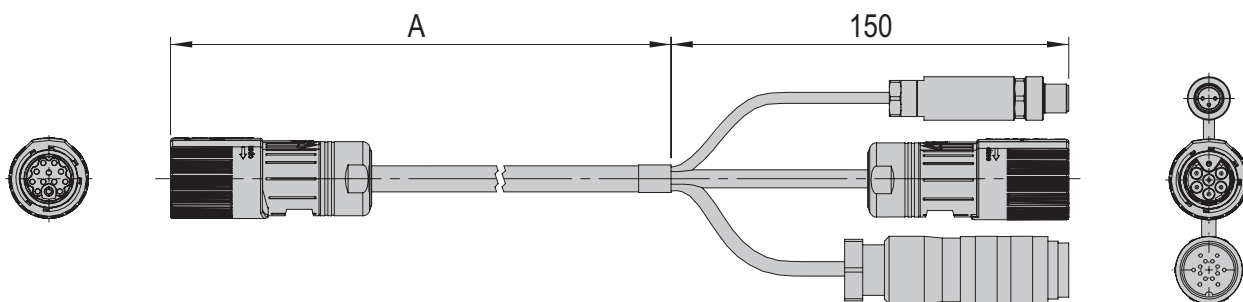
10

Motor cable-M12-90	5m-90-open-1	10m-90-open-1
<b>Order number</b>	<b>50290460</b>	<b>50310507</b>
Net weight	0.1 kg	0.2 kg
Cable Ø	6 mm	6 mm
Min. bending radii	90 mm	90 mm
Material	PUR	PUR
A	5 m	10 m

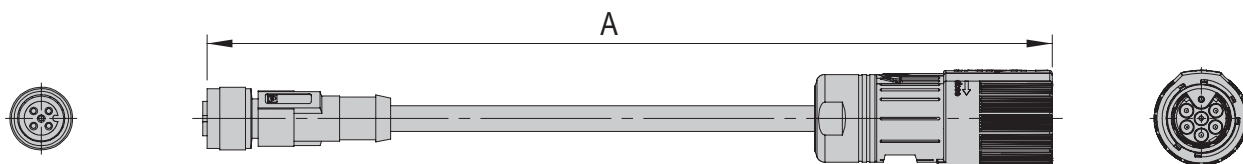


# Cables

Motor cable-M14	3m-0-0-1	5m-0-0-1
<b>Order number</b>	<b>50311491</b>	<b>50341510</b>
Net weight	0.3 kg	0.5 kg
Cable Ø	7 mm	7 mm
Min. bending radii	90 mm	90 mm
Material	PUR	PUR
A	3 m	5 m

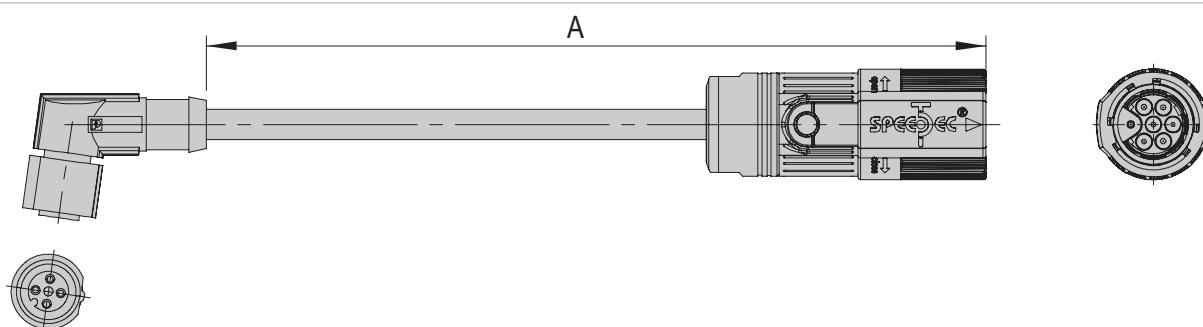


Motor cable-M15	3m-0-0-1	5m-0-0-1
<b>Order number</b>	<b>50332418</b>	<b>50338977</b>
Net weight	0.2 kg	0.3 kg
Cable Ø	6 mm	6 mm
Min. bending radii	90 mm	90 mm
Material	PUR	PUR
A	3 m	5 m



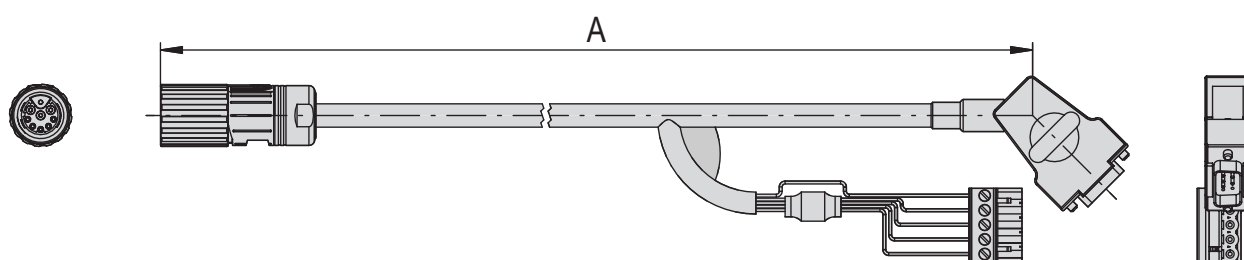
# Cables

Motor cable-M15-90	3m-90-0-1	5m-90-0-1
<b>Order number</b>	<b>50332420</b>	<b>50338978</b>
Net weight	0.1 kg	0.2 kg
Cable Ø	6 mm	6 mm
Min. bending radii	90 mm	90 mm
Material	PUR	PUR
A	3 m	5 m

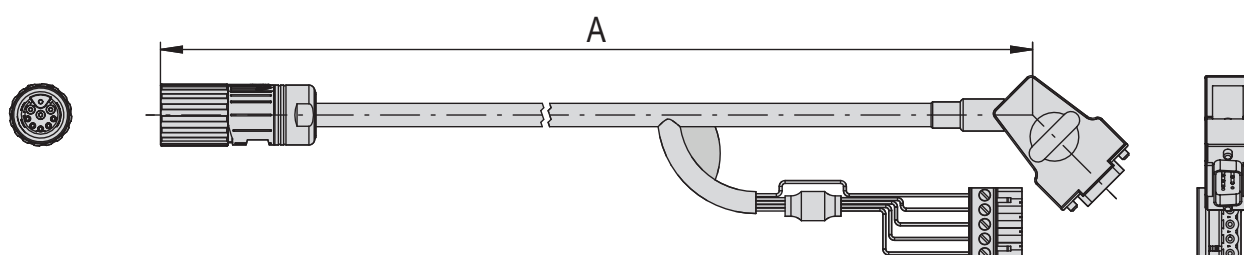


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Motor cable-M16-0-1-X	4m-0-1-X	6m-0-1-X	8m-0-1-X
<b>Order number</b>	<b>50463073</b>	<b>50463076</b>	<b>50463078</b>
Net weight	0.6 kg	0.9 kg	1.2 kg
Cable Ø	8.2 mm	8.2 mm	8.2 mm
Min. bending radii	static 25 mm	static 25 mm	static 25 mm
Material	PUR	PUR	PUR
A	4 m	6 m	8 m

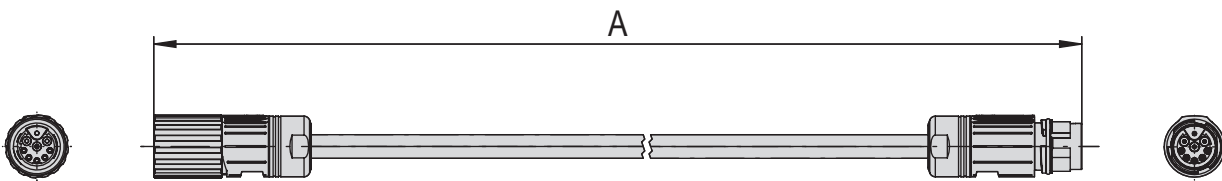


Motor cable M16-0-1-1	4m-0-1-1	6m-0-1-1	8m-0-1-1
<b>Order number</b>	<b>50437168</b>	<b>50437167</b>	<b>50427023</b>
Net weight	0.6 kg	0.9 kg	1.2 kg
Cable Ø	9.5 mm	9.5 mm	9.5 mm
Min. bending radii	60 mm	60 mm	60 mm
Material	PUR	PUR	PUR
A	4 m	6 m	8 m

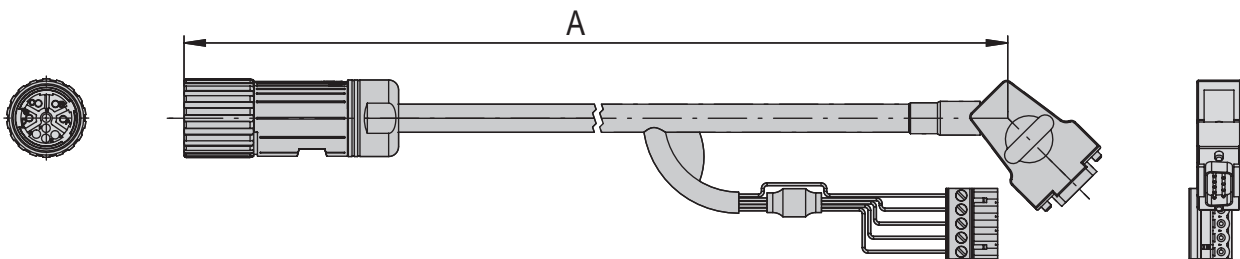


# Cables

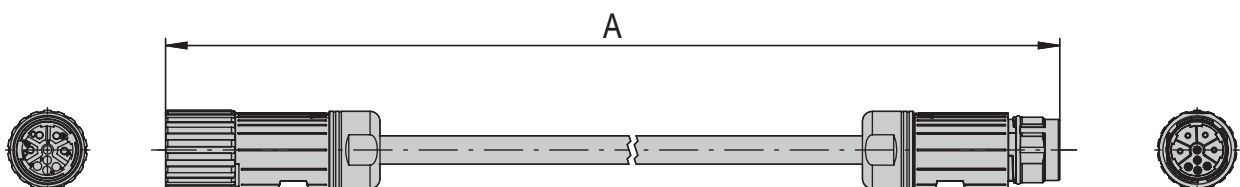
Motor cable extension for M16-0-0-1/2	2m-0-0-1	4m-0-0-1	6m-0-0-1	2m-0-0-2
<b>Order number</b>	<b>50450944</b>	<b>50427026</b>	<b>50463082</b>	<b>50463081</b>
Net weight	0.3 kg	0.6 kg	0.9 kg	0.2 kg
Cable Ø	9.5 mm	9.5 mm	9.5 mm	9.7 mm
Min. bending radii	60 mm	60 mm	60 mm	60 mm
Material	PUR	PUR	PUR	PUR
A	2 m	4 m	6 m	2 m



Motor cable-M17-0-1-1	4m-0-1-1	6m-0-1-1	8m-0-1-1
<b>Order number</b>	<b>50437170</b>	<b>50437169</b>	<b>50427021</b>
Net weight	0.6 kg	0.8 kg	1.1 kg
Cable Ø	10.8 mm	10.8 mm	10.8 mm
Min. bending radii	100 mm	100 mm	100 mm
Material	PUR	PUR	PUR
A	4 m	6 m	8 m

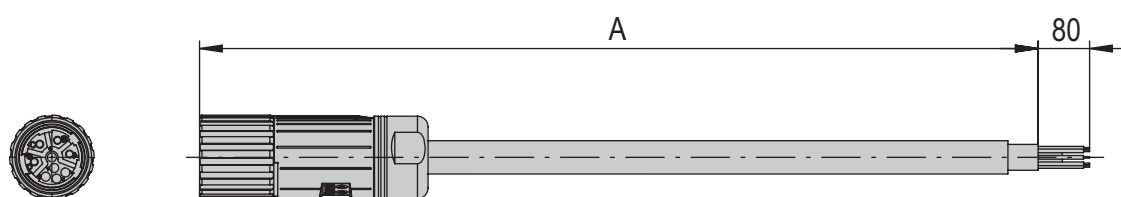


Motor cable extension for M17-0-0-1/2	2m-0-0-1	4m-0-0-1	6m-0-0-1	2m-0-0-2	4m-0-0-2
<b>Order number</b>	<b>50463084</b>	<b>50427024</b>	<b>50463087</b>	<b>50463085</b>	<b>50463086</b>
Net weight	0.4 kg	0.8 kg	1.2 kg	0.4 kg	0.8 kg
Cable Ø	10.8 mm	10.8 mm	10.8 mm	10.9 mm	10.9 mm
Min. bending radii	100 mm	100 mm	100 mm	100 mm	100 mm
Material	PUR	PUR	PUR	PUR	PUR
A	2 m	4 m	6 m	2 m	4 m



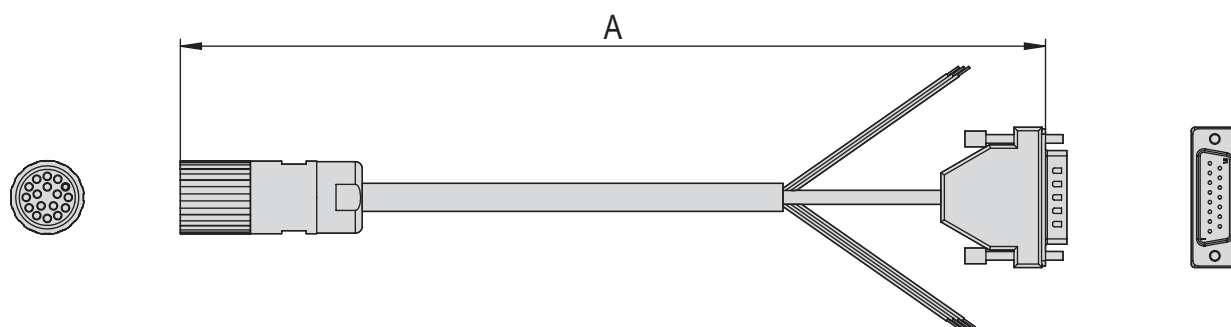
# Cables

Motor cable-M18	5m-0-open-1	10m-0-open-1
<b>Order number</b>	<b>50450380</b>	<b>50446251</b>
Net weight	0.5 kg	0.6 kg
Cable Ø	10.2 mm	10.2 mm
Min. bending radii	120 mm	120 mm
Material	PUR	PUR
A	5 m	10 m

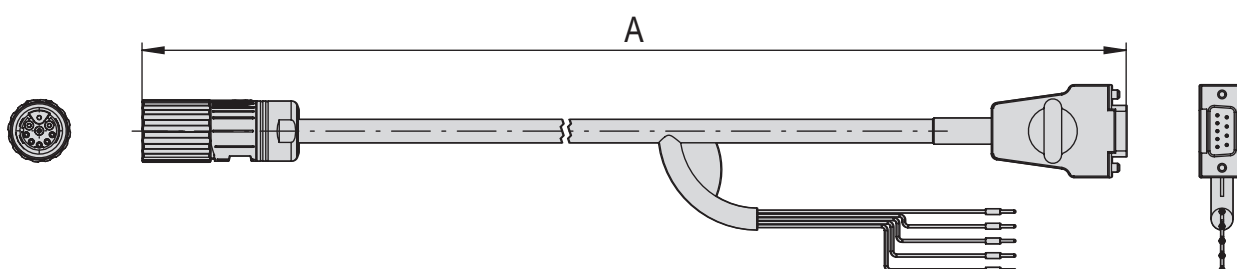


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Motor cable-M19-0-0-1	3m-0-0-1	5m-0-0-1
<b>Order number</b>	<b>50459733</b>	<b>50459734</b>
Net weight	1 kg	1.3 kg
Cable Ø	8.3 mm	8.3 mm
Min. bending radii	90 mm	90 mm
Material	PUR	PUR
A	3 m	5 m

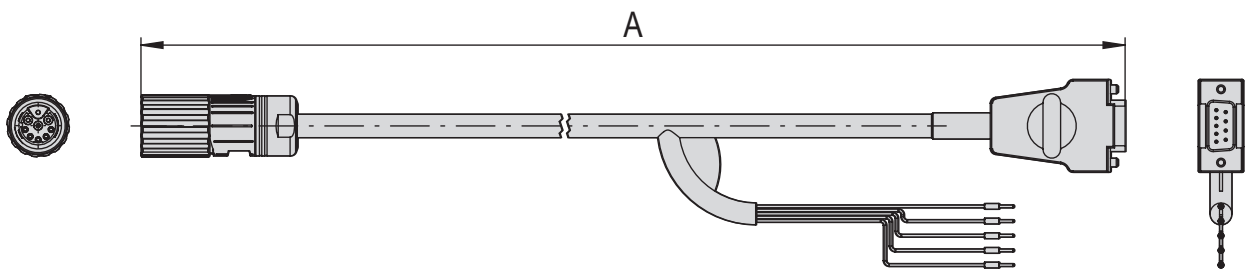


Motor cable-M20-0-2-X	4m-0-2-X	6m-0-2-X	8m-0-2-X
<b>Order number</b>	<b>50463088</b>	<b>50463090</b>	<b>50463092</b>
Net weight	0.6 kg	0.9 kg	1.2 kg
Cable Ø	8.2 mm	8.2 mm	8.2 mm
Min. bending radii	static 25 mm	static 25 mm	static 25 mm
Material	PUR	PUR	PUR
A	4 m	6 m	8 m

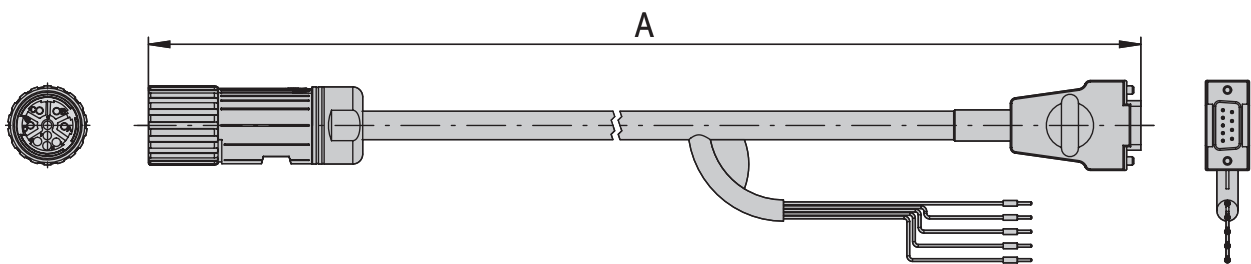


# Cables

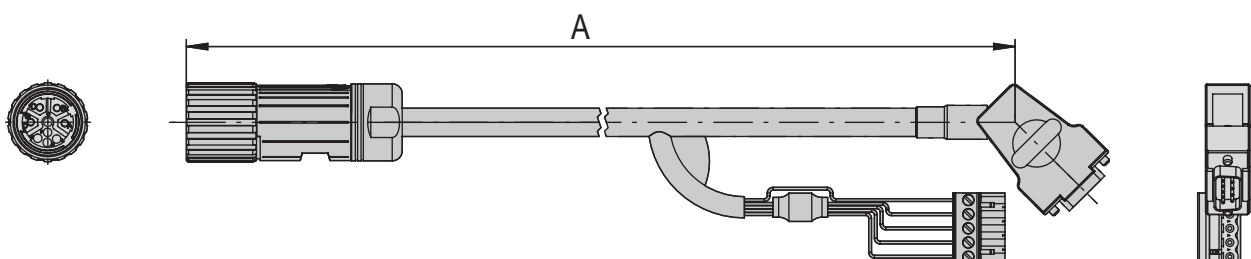
Motor cable-M20-0-2-1	4m-0-2-1	6m-0-2-1	8m-0-2-1
<b>Order number</b>	<b>50463089</b>	<b>50463091</b>	<b>50463093</b>
Net weight	0.6 kg	1 kg	1.3 kg
Cable Ø	9.5 mm	9.5 mm	9.5 mm
Min. bending radii	60 mm	60 mm	60 mm
Material	PUR	PUR	PUR
A	4 m	6 m	8 m



Motor cable-M22-0-2-1	4m-0-2-1	6m-0-2-1	8m-0-2-1
<b>Order number</b>	<b>50463100</b>	<b>50463101</b>	<b>50463103</b>
Net weight	0.7 kg	1.1 kg	1.4 kg
Cable Ø	10.8 mm	10.8 mm	10.8 mm
Min. bending radii	100 mm	100 mm	100 mm
Material	PUR	PUR	PUR
A	4 m	6 m	8 m

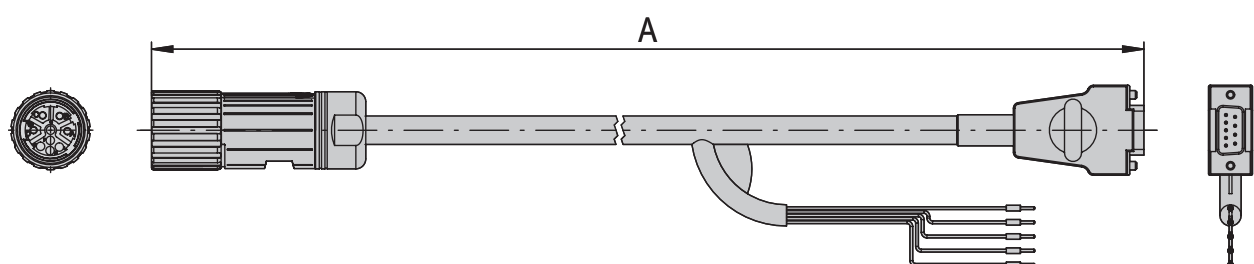


Motor cable-M23-0-1-X	4m-0-1-X	6m-0-1-X	8m-0-1-X
<b>Order number</b>	<b>50463104</b>	<b>50463105</b>	<b>50463106</b>
Net weight	1 kg	1.5 kg	2 kg
Cable Ø	11.2 mm	11.2 mm	11.2 mm
Min. bending radii	static 50 mm	static 50 mm	static 50 mm
Material	PUR	PUR	PUR
A	4 m	6 m	8 m



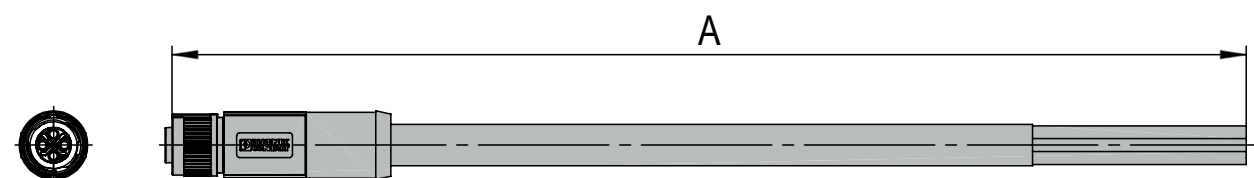
# Cables

Motor cable-M24-0-2-X	4m-0-2-X	6m-0-2-X	8m-0-2-X
<b>Order number</b>	<b>50463107</b>	<b>50463108</b>	<b>50463109</b>
Net weight	1 kg	1.5 kg	2 kg
Cable Ø	11.2 mm	11.2 mm	11.2 mm
Min. bending radii	50 mm	50 mm	50 mm
Material	PUR	PUR	PUR
A	4 m	6 m	8 m

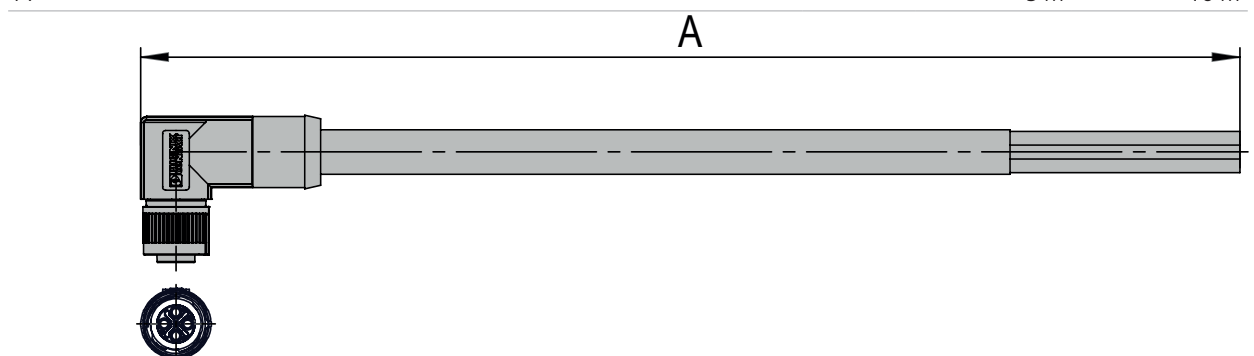


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Motor cable-M27	5m-0-open-1	10m-0-open-1
<b>Order number</b>	<b>50545333</b>	<b>50545334</b>
Net weight	0.75 kg	1.47 kg
Cable Ø	9.7 mm	9.7 mm
Min. bending radii	97 mm	97 mm
Material	PUR	PUR
A	5 m	10 m



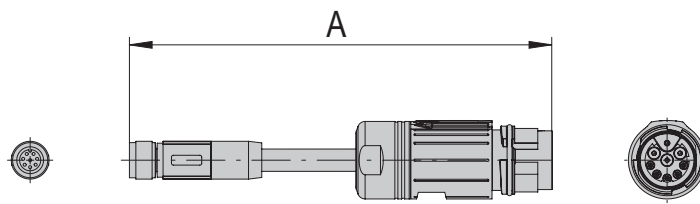
Motor cable-M27-90	5m-90-open-1	10m-90-open-1
<b>Order number</b>	<b>50545335</b>	<b>50545336</b>
Net weight	0.75 kg	1.48 kg
Cable Ø	9.7 mm	9.7 mm
Min. bending radii	97 mm	97 mm
Material	PUR	PUR
A	5 m	10 m



# Encoder cables

## Adapter ES8/12 cable M16

<b>Order number</b>	<b>50455642</b>
Net weight	0.1 kg
Cable Ø	11.2 mm
Min. bending radii	static 50
Material	PUR
A	0.11 m

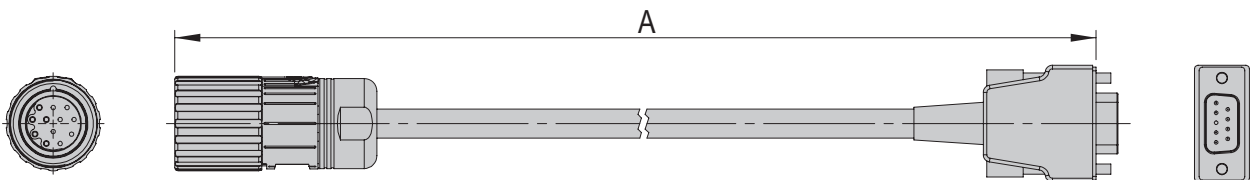


## Encoder cable-G5

5m-0-0-1

10m-0-0-1

<b>Order number</b>	<b>50075695</b>	<b>50224183</b>
Net weight	0.4 kg	0.7 kg
Cable Ø	7 mm	7 mm
Min. bending radii	90 mm	90 mm
Material	PUR	PUR
A	5 m	10 m

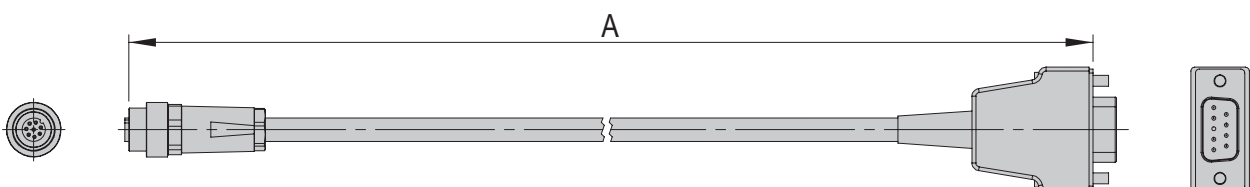


## Encoder cable-G6

5m-0-0-1

10m-0-0-1

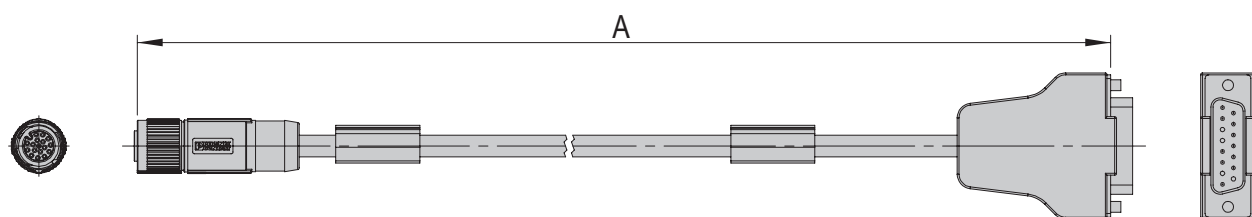
<b>Order number</b>	<b>50100693</b>	<b>50224185</b>
Net weight	0.2 kg	0.4 kg
Cable Ø	7 mm	7 mm
Min. bending radii	90 mm	90 mm
Material	PUR	PUR
A	5 m	10 m





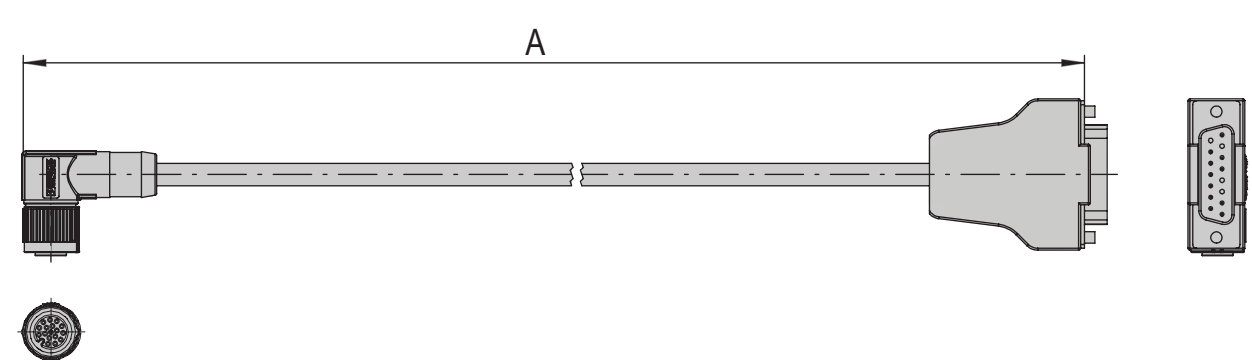
# Encoder cables

Encoder cable-G10	5m-0-0-1	10m-0-0-1
<b>Order number</b>	<b>50297199</b>	<b>50310508</b>
Net weight	0.6 kg	1.2 kg
Cable Ø	9.2 mm	9.2 mm
Min. bending radii	90 mm	90 mm
Material	PUR	PUR
A	5 m	10 m



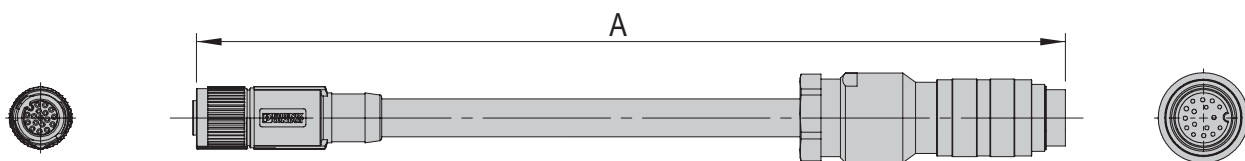
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Encoder cable-G10-90	5m-90-0-1	10m-90-0-1
<b>Order number</b>	<b>50297200</b>	<b>50310509</b>
Net weight	0.6 kg	1.1 kg
Cable Ø	9.2 mm	9.2 mm
Min. bending radii	90 mm	90 mm
Material	PUR	PUR
A	5 m	10 m

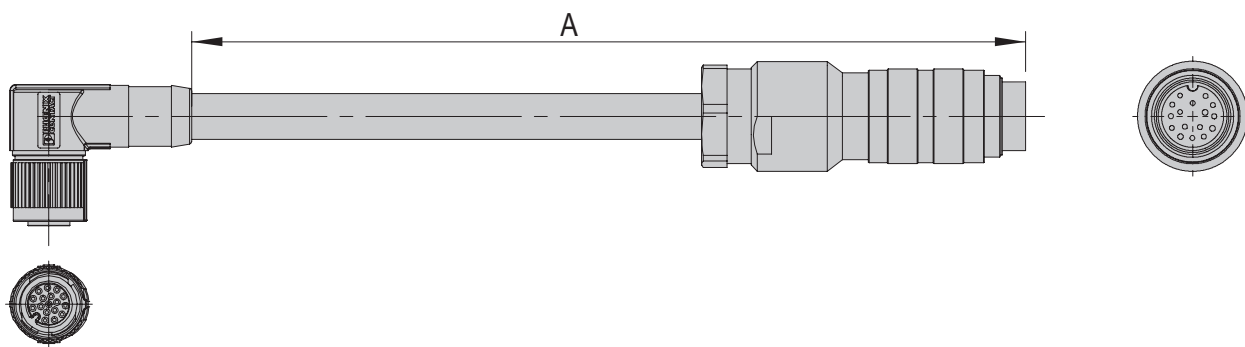


# Encoder cables

Encoder cable-G12	3m-0-0-1	5m-0-0-1
<b>Order number</b>	<b>50332416</b>	<b>50338975</b>
Net weight	0.4 kg	0.6 kg
Cable Ø	9.2 mm	9.2 mm
Min. bending radii	90 mm	90 mm
Material	PUR	PUR
A	3 m	5 m

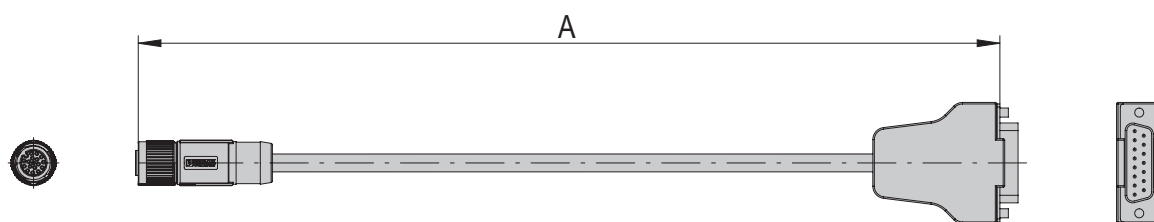


Encoder cable-G12-90	3m-90-0-1	5m-90-0-1
<b>Order number</b>	<b>50332417</b>	<b>50338976</b>
Net weight	0.4 kg	0.6 kg
Cable Ø	9.2 mm	9.2 mm
Min. bending radii	90 mm	90 mm
Material	PUR	PUR
A	3 m	5 m



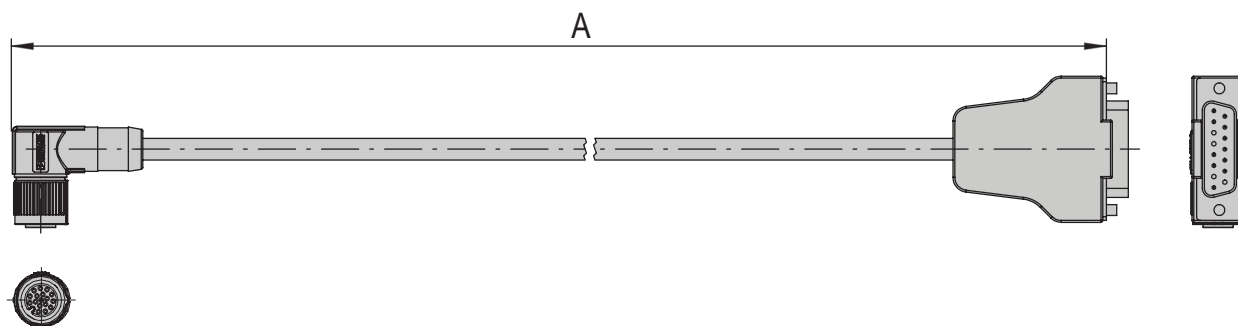
# Encoder cables

Encoder cable-G14	3m-0-0-1	5m-0-0-1	10m-0-0-1
<b>Order number</b>	<b>50443145</b>	<b>50439300</b>	<b>50450518</b>
Net weight	0.2 kg	0.3 kg	0.6 kg
A	3 m	5 m	10 m

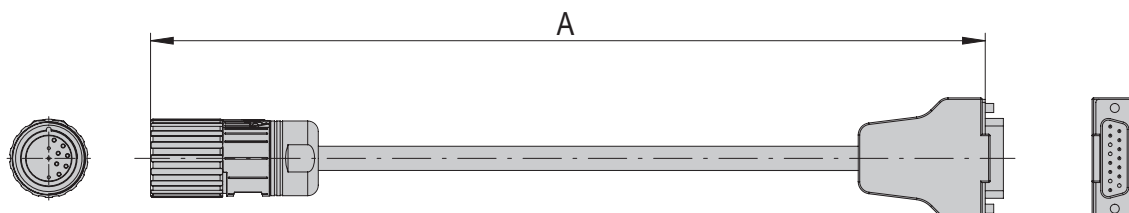


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Encoder cable-G14-90	3m-90-0-1	5m-90-0-1	10m-90-0-1
<b>Order number</b>	<b>50450519</b>	<b>50450520</b>	<b>50450521</b>
Net weight	0.1 kg	0.2 kg	0.4 kg
A	3 m	5 m	10 m

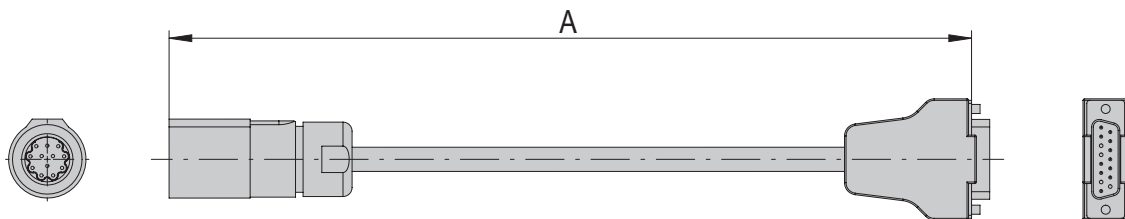


Encoder cable-G16	5m-0-0-1	10m-0-0-1
<b>Order number</b>	<b>50450376</b>	<b>50446252</b>
Net weight	0.4 kg	0.8 kg
A	5 m	10 m

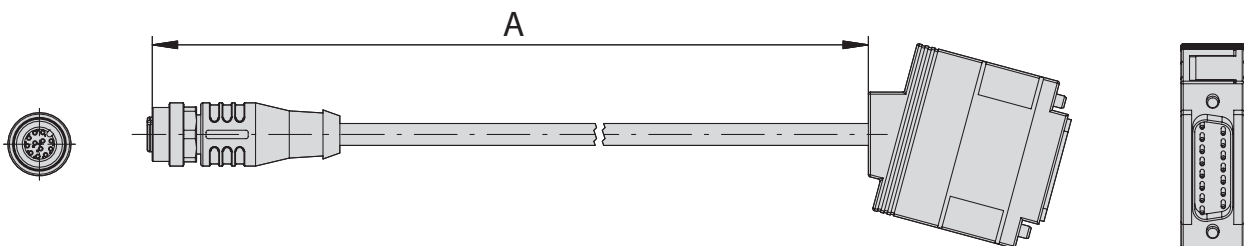


# Encoder cables

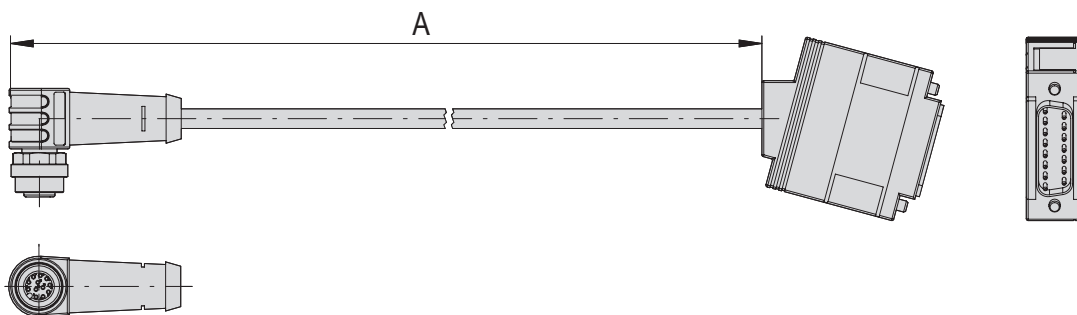
Encoder cable-G17	5m-0-0-1	10m-0-0-1
<b>Order number</b>	<b>50450378</b>	<b>50450379</b>
Net weight	0.4 kg	0.8 kg
A	5 m	10 m



Encoder cable-G18	10m-0-0-1
<b>Order number</b>	<b>50468310</b>
Net weight	0.6 kg
A	10 m

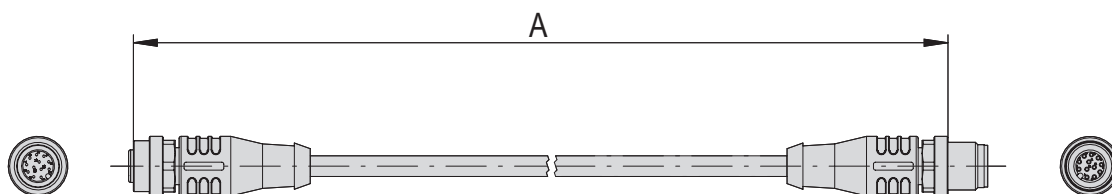


Encoder cable-G18-90	10m-90-0-1
<b>Order number</b>	<b>50468311</b>
Net weight	0.6 kg
A	10 m

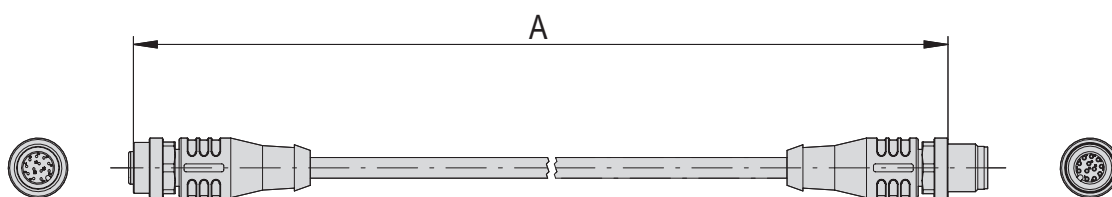


# Encoder cables

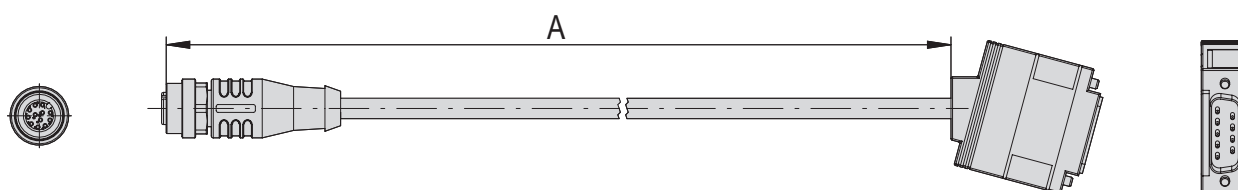
Extension-G18	2m-0-0-1
<b>Order number</b>	<b>50468312</b>
Net weight	0.1 kg
A	2 m



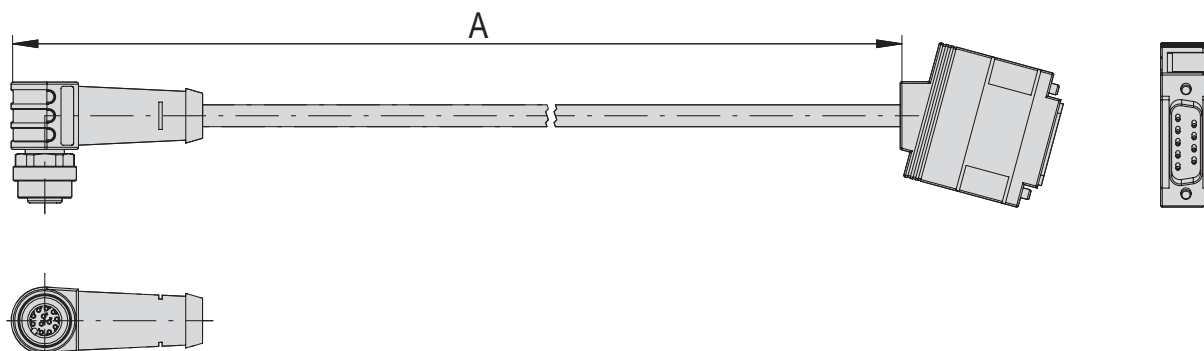
Extension-G18	5m-0-0-1
<b>Order number</b>	<b>50468313</b>
Net weight	0.3 kg
A	5 m



Encoder cable-G19	10m-0-0-1
<b>Order number</b>	<b>50468314</b>
Net weight	0.6 kg
A	10 m

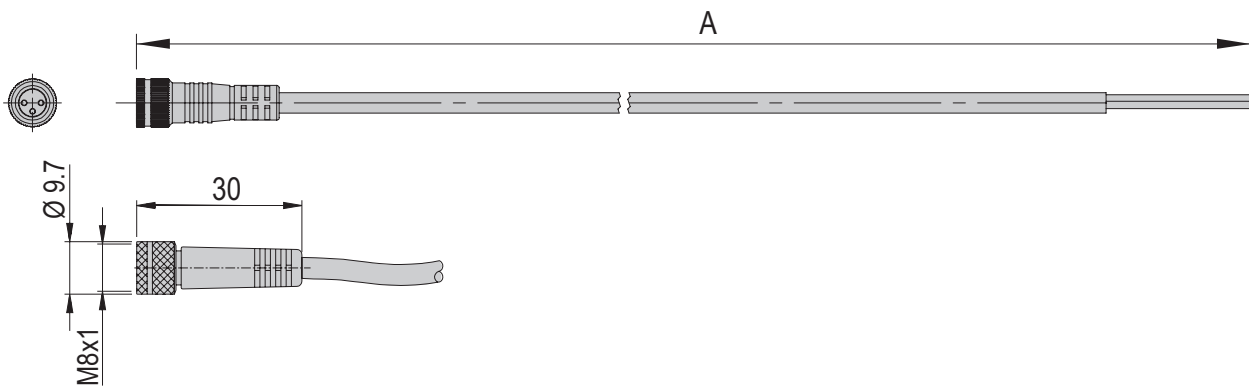


Encoder cable-G19-90	10m-0-0-1
<b>Order number</b>	<b>50468315</b>
Net weight	0.6 kg
A	10 m

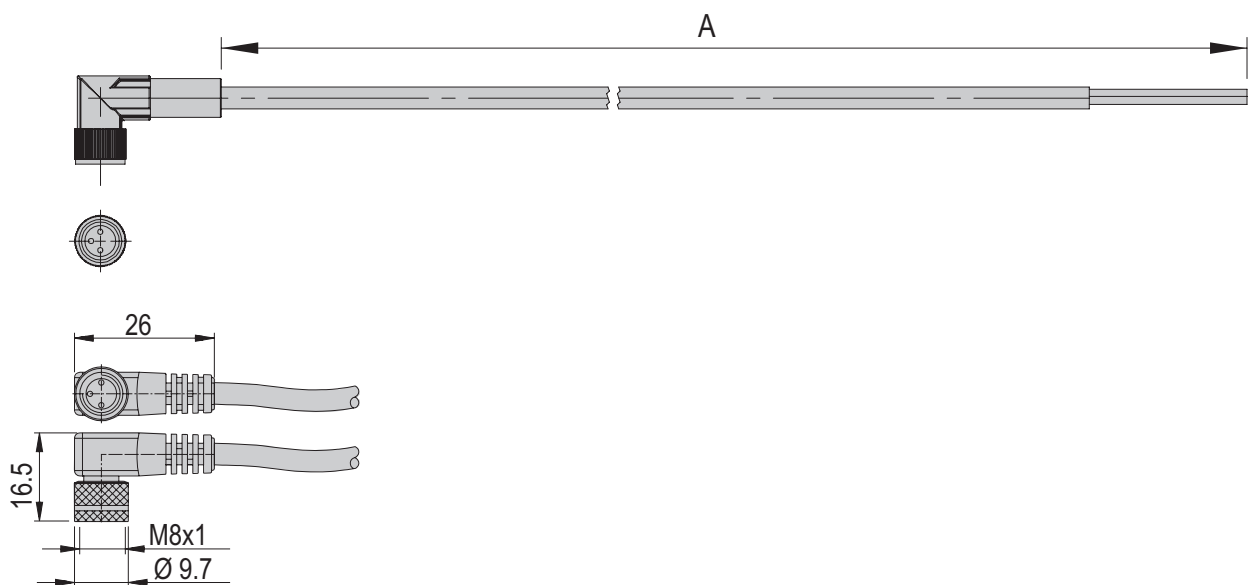


# Proximity switch cables

Proximity switch cable-R1	2m-0-open	3m-0-open	5m-0-open	10m-0-open
<b>Order number</b>	<b>11006443</b>	<b>50340925</b>	<b>11006446</b>	<b>50072072</b>
Net weight	0.03 kg	0.03 kg	0.1 kg	0.2 kg
Cable Ø	4.5 mm	4.5 mm	4.5 mm	4.5 mm
Min. bending radii	50 mm	50 mm	50 mm	50 mm
Material	PUR	PUR	PUR	PUR
A	2 m	3 m	5 m	10 m

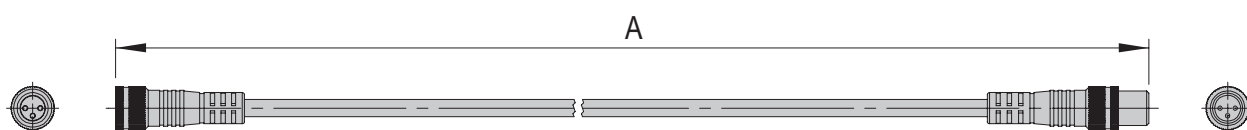


Proximity switch cable-R1-90	2m-90-open	3m-90-open	5m-90-open	10m-90-open
<b>Order number</b>	<b>11006447</b>	<b>50340954</b>	<b>11007826</b>	<b>50310513</b>
Net weight	0.04 kg	0.04 kg	0.1 kg	0.2 kg
Cable Ø	4.5 mm	4.5 mm	4.5 mm	4.5 mm
Min. bending radii	50 mm	50 mm	50 mm	50 mm
Material	PUR	PUR	PUR	PUR
A	2 m	3 m	5 m	10 m



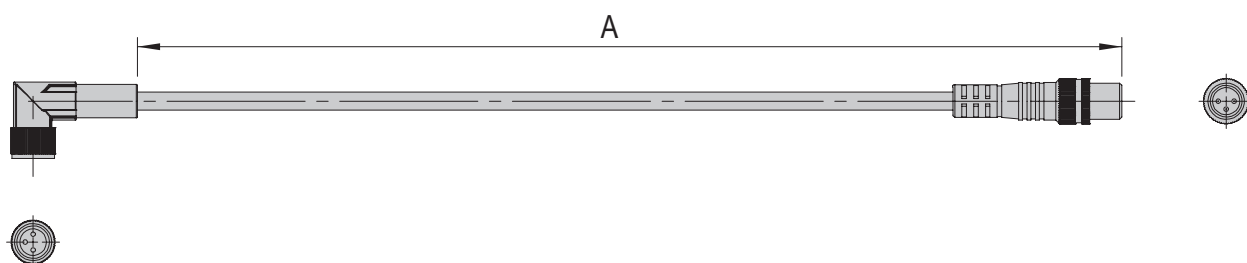
# Proximity switch cables

Proximity switch cable-R2	0.6m-0-0	3m-0-0	5m-0-0
<b>Order number</b>	<b>11015003</b>	<b>50340271</b>	<b>11017754</b>
Net weight	0.04 kg	0.07 kg	0.1 kg
Cable Ø	4.5 mm	4.5 mm	4.5 mm
Min. bending radii	50 mm	50 mm	50 mm
Material	PUR	PUR	PUR
A	0.6 m	3 m	5 m

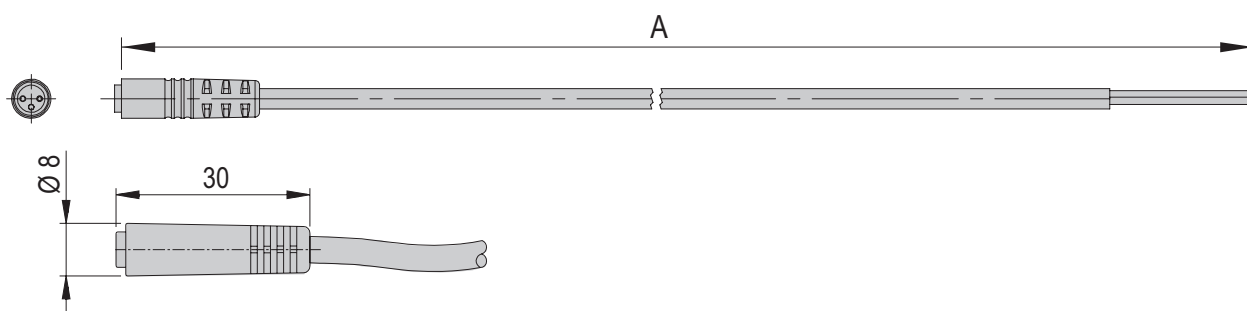


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Proximity switch cable-R2-90	3m-90-0	5m-90-0
<b>Order number</b>	<b>50340272</b>	<b>50340903</b>
Net weight	0.08 kg	0.1 kg
Cable Ø	4.5 mm	4.5 mm
Min. bending radii	50 mm	50 mm
Material	PUR	PUR
A	3 m	5 m

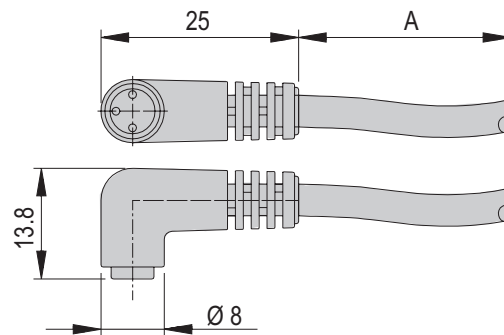


Proximity switch cable-R3	2m-0-open	5m-0-open	10m-0-open
<b>Order number</b>	<b>11006428</b>	<b>11006431</b>	<b>50098553</b>
Net weight	0.03 kg	0.1 kg	0.2 kg
Cable Ø	4.5 mm	4.5 mm	4.5 mm
Min. bending radii	50 mm	50 mm	50 mm
Material	PVC	PVC	PVC
A	2 m	5 m	10 m

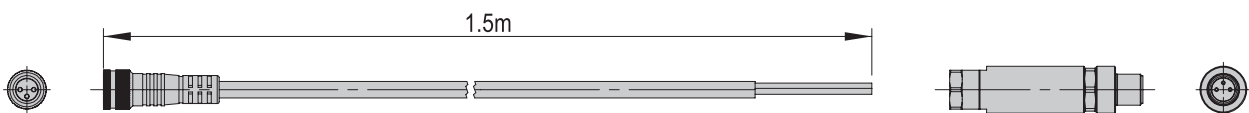


# Proximity switch cables

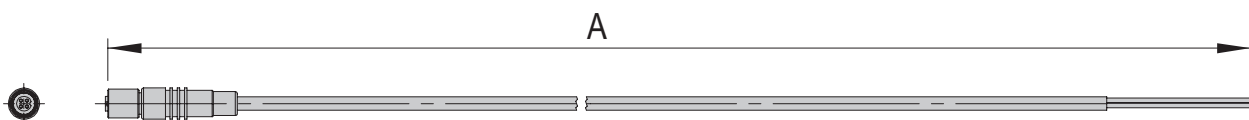
Proximity switch cable-R3-90	2m-90-open	5m-90-open
<b>Order number</b>	<b>11006429</b>	<b>11006430</b>
Net weight	0.03 kg	0.1 kg
Cable Ø	4.5 mm	4.5 mm
Min. bending radii	50 mm	50 mm
Material	PVC	PVC
A	2 m	5 m



Proximity switch cable-R6	1.5m-0-0
<b>Order number</b>	<b>50164838</b>
Net weight	0.07 kg
Cable Ø	4.5 mm
Min. bending radii	50 mm
Material	PUR



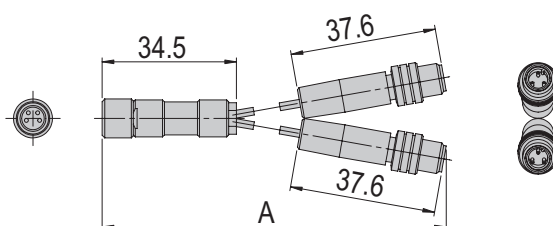
Proximity switch cable-R8	3m-0-open	5m-0-open	10n-0-open
<b>Order number</b>	<b>50340912</b>	<b>50265807</b>	<b>50310514</b>
Net weight	0.04 kg	0.07 kg	0.1 kg
Cable Ø	4.5 mm	4.5 mm	4.5 mm
Min. bending radii	50 mm	50 mm	50 mm
Material	PUR	PUR	PUR
A	3 m	5 m	10 m





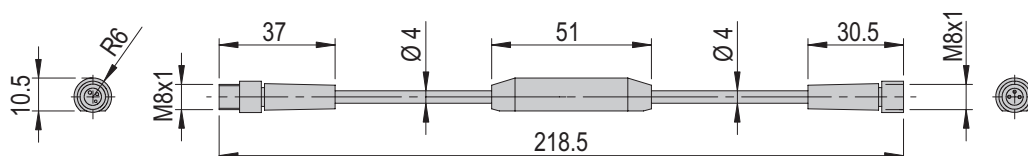
## Proximity switch cables

Proximity switch cable-R10		0.1m-0-00
<b>Order number</b>		<b>50386489</b>
Net weight		0.05 kg
Cable Ø		3 mm
Min. bending radii		50 mm
Material		PUR
A		0.1 m



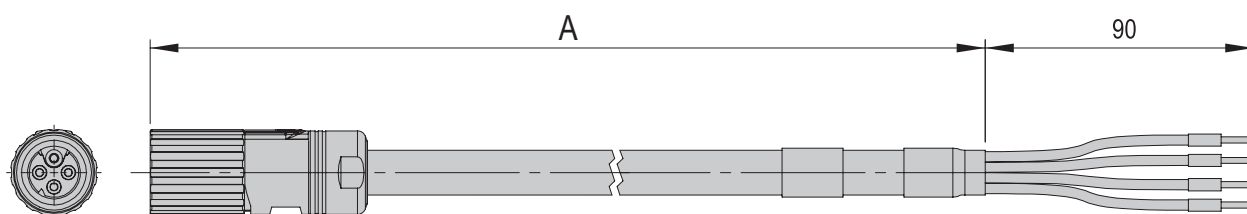
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Converter PNP/NPN		50113272
<b>Order number</b>		<b>50113272</b>
Net weight		0.01 kg
Cable Ø		4 mm



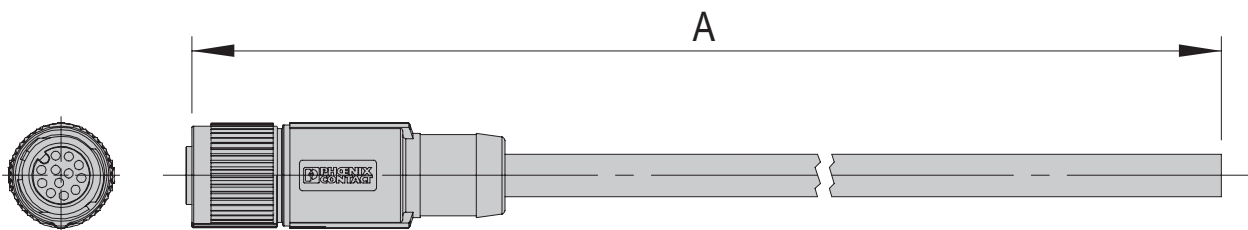
## Power cables

Power cabel SE-24		
<b>Order number</b>	<b>50118124</b>	<b>50235739</b>
Net weight	1.1 kg	0.3 kg
Cable Ø	11.3 mm	11.3 mm
Material	PVC	PVC
A	5 m	10 m



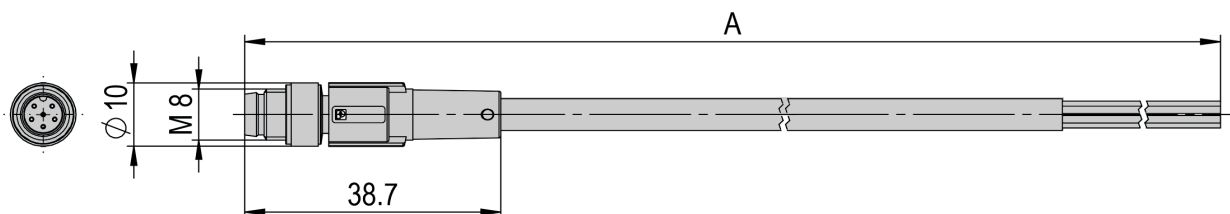
## I/O cables

I/O cable SE-24		
Order number	50312913	50342940
Net weight	0.03 kg	0.06 kg
Cable Ø	6 mm	6 mm
Material	PVC	PVC
A	5 m	10 m



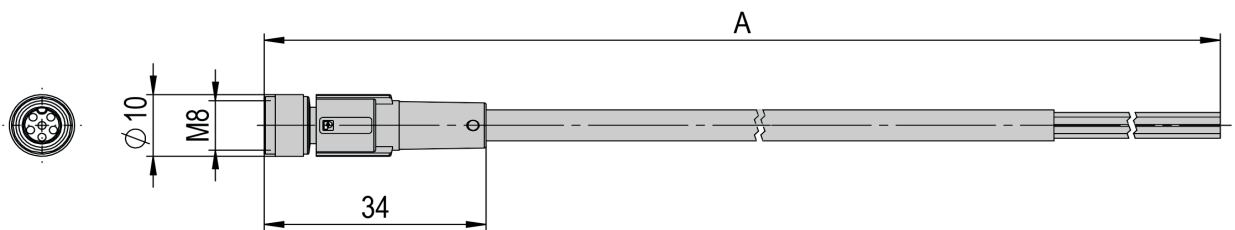
## Sensor-actuator cables

Sensor-actuator cable-S1		0.6m-0-open-1
Order number	50512492	
Net weight	0.04 kg	
Cable Ø	5 mm	
Material	PUR	
A	0.6 m	

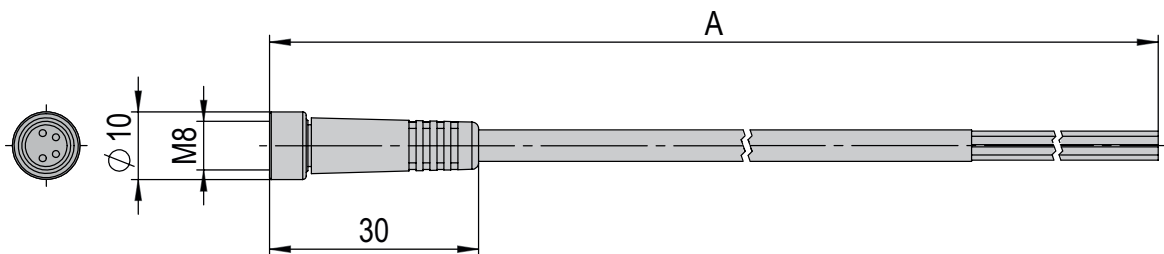


# Sensor-actuator cables

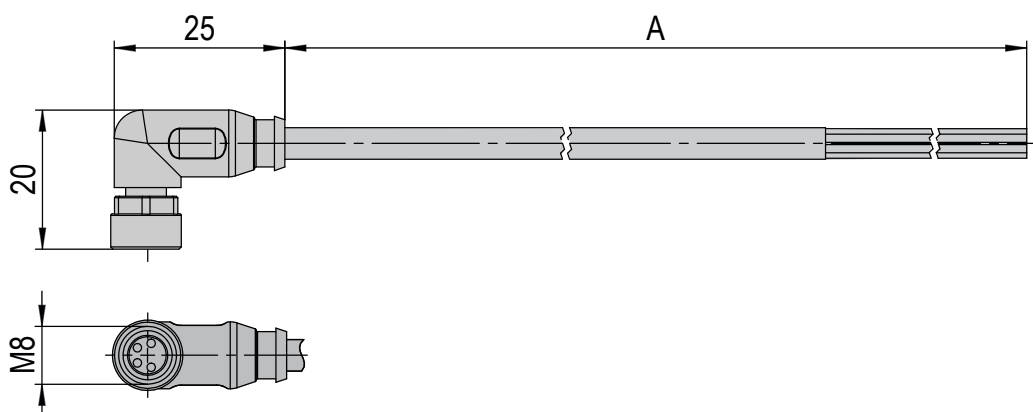
Sensor-actuator cable-S2		5m-0-open-1
<b>Order number</b>		<b>50512467</b>
Net weight		0.20 kg
Cable Ø		5 mm
Material		PUR
A		5 m



Sensor-actuator cable-S3		2m-0-open-1	5m-0-open-1
<b>Order number</b>		<b>50359710</b>	<b>11007828</b>
Net weight		0.01 kg	0.01 kg
Cable Ø		5 mm	5 mm
Material		PUR	PUR
A		2 m	5 m

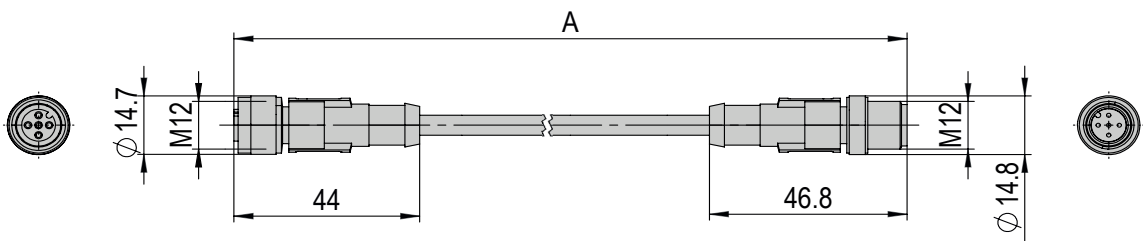


Sensor-actuator cable-S3		2m-90-open-1	5m-90-open-1
<b>Order number</b>		<b>50551477</b>	<b>50551478</b>
Net weight		0.01 kg	0.01 kg
Cable Ø		5 mm	5 mm
Material		PUR	PUR
A		2 m	5 m

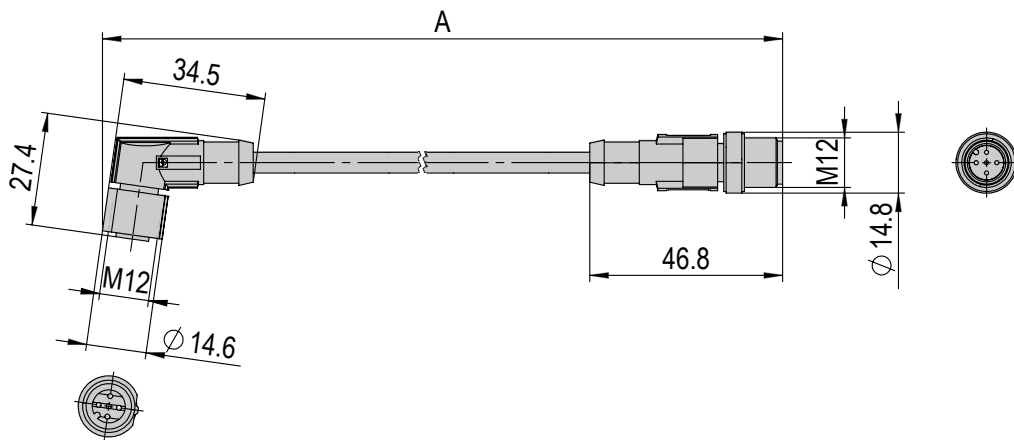


# Sensor-actuator cables

Sensor-actuator cable-S4	1.5m-0-0-2	3m-0-0-2
<b>Order number</b>	<b>50573863</b>	<b>50573865</b>
Net weight	0.071 kg	0.120 kg
Cable Ø	5 mm	5 mm
Min. bending radii	40 mm	40 mm
Material	PUR	PUR
A	1.5 m	3 m

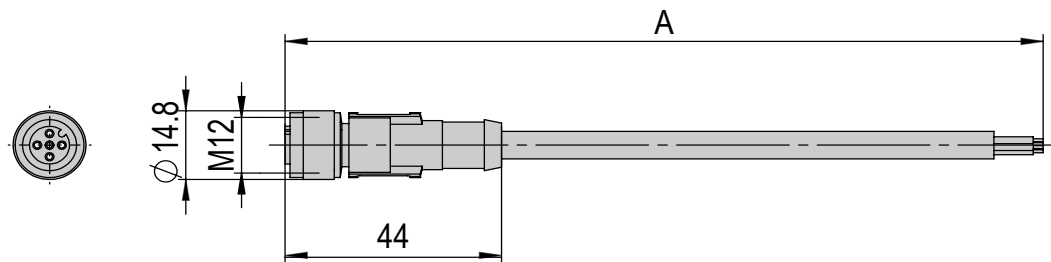


Sensor-actuator cable-S4	1.5m-90-0-2	3m-90-0-2
<b>Order number</b>	<b>50573864</b>	<b>50573866</b>
Net weight	0.078 kg	0.127 kg
Cable Ø	5 mm	5 mm
Min. bending radii	40 mm	40 mm
Material	PUR	PUR
A	1.5 m	3 m



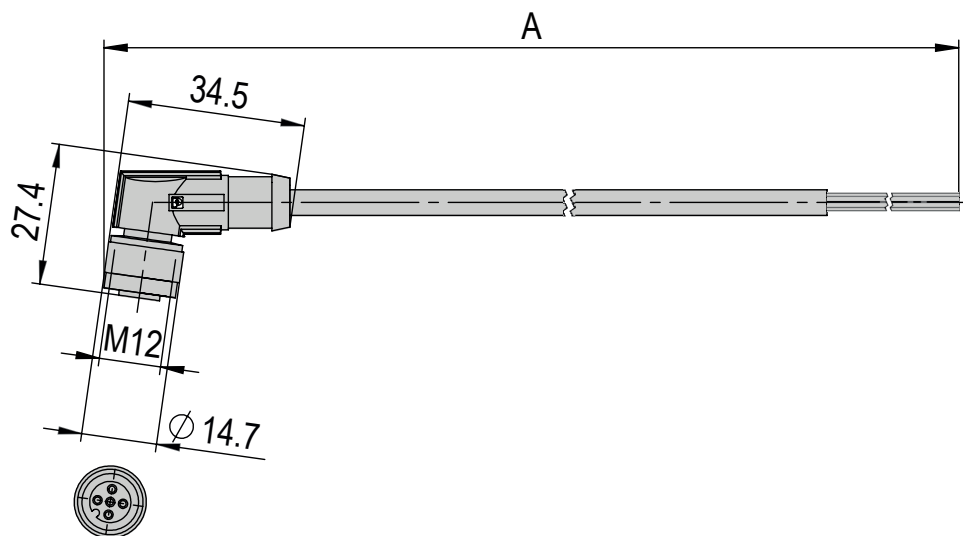
## Sensor-actuator cables

Sensor-actuator cable-S4	5m-0-open-2	10m-0-open-2
<b>Order number</b>	<b>50573867</b>	<b>50573870</b>
Net weight	0.185 kg	0.351 kg
Cable Ø	5 mm	5 mm
Min. bending radii	40 mm	40 mm
Material	PUR	PUR
A	5 m	10 m



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Sensor-actuator cable-S4	5m-90-open-2	10m-90-open-2
<b>Order number</b>	<b>50573868</b>	<b>50573871</b>
Net weight	0.185 kg	0.351 kg
Cable Ø	5 mm	5 mm
Min. bending radii	40 mm	40 mm
Material	PUR	PUR
A	5 m	10 m



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