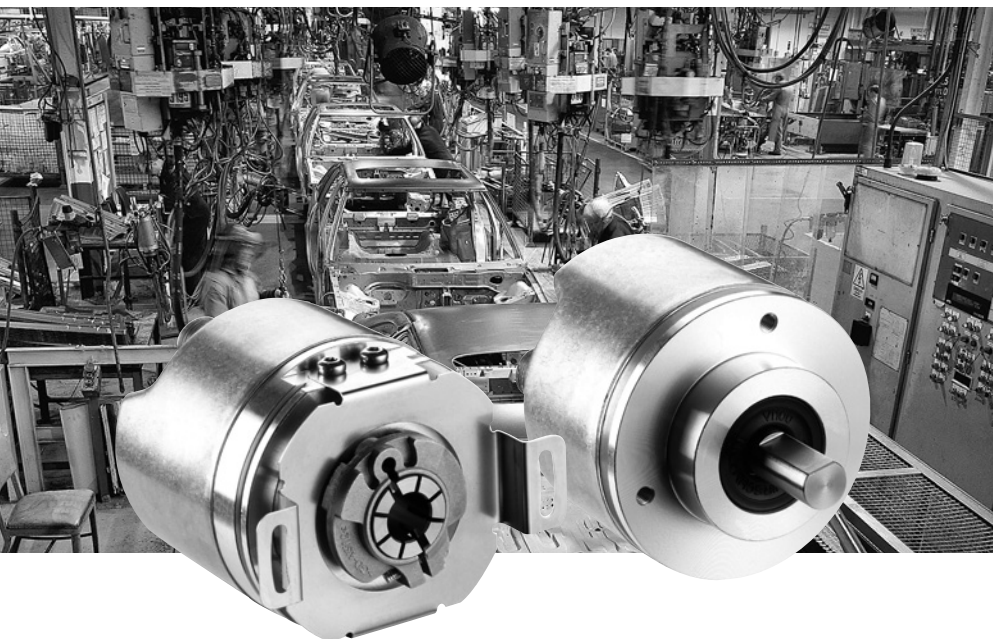


# A3M60: Absolute Encoders Multiturn, PROFIBUS



This ensures a long lifetime and increased operational reliability. These highly integrated single- and multiturn technologies combined with embedded PROFIBUS connectivity make the A3M60 a space and cost efficient solution especially suitable for applications with limited installation space. In addition the powerful microcontroller technology allows fast position calculation at data rates up to 12 MBit and clock synchronization (PROFIBUS-DP V2) in the range of  $\mu\text{s}$ .

The versatility of the A3M60 permits a wide range of applications e.g. in:

- Palletizer
- Rack feeder
- Cranes, stacker cranes
- Wood processing machines
- Packaging machines

The A3M60 is a very robust Absolute Multiturn Encoder in the 60 mm design. The pure magnetic technology for both single- and multiturn positioning offers highest reliability even under harshest environmental conditions. The cutting edge singleturn sensor combines the robustness of a magnetic sensor with high resolutions only known from optical systems. With the innovative gearless multiturn technology the number of moving components is considerably reduced.



**Resolution  
up to 31 bits**

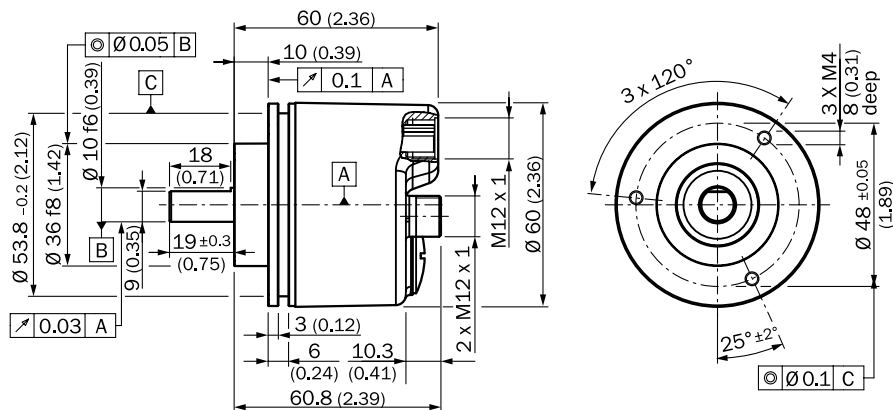
**Absolute Encoders Multiturn**



 **Resolution up to 31 bits**  
 Absolute Encoders Multiturn

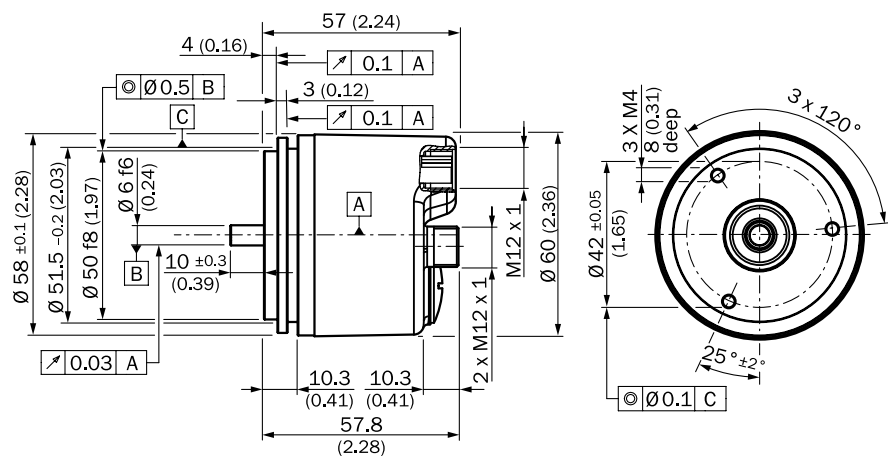
- PROFIBUS-DP V0, V1, V2 functionality
- Enclosure rating up to IP 67
- Simple and fast setup

**Dimensional drawing, face mount flange**



All dimensions in mm (inch)

**Dimensional drawing, servo flange**



All dimensions in mm (inch)



Product may differ from illustration



**Ordering information, single devices**

| A3M60 Basic, PROFIBUS, M12, resolution 13 x 13    |          |                                       |
|---|----------|---------------------------------------|
| Model name  | Part no. | Description                           |
| A3M60B-S4PB013X13                                 | 1038826  | Face mount flange, solid shaft, 10 mm |
| A3M60B-S1PB013X13                                 | 1051018  | Servo flange, solid shaft, 6 mm       |
| A3M60 Advanced, PROFIBUS, M12, resolution 14 x 17 |          |                                       |
| Model name  | Part no. | Description                           |
| A3M60A-S4PB014X17                                 | 1053341  | Face mount flange, solid shaft, 10 mm |
| A3M60A-S1PB014X17                                 | 1053342  | Servo flange, solid shaft, 6 mm       |

**Accessories**

|                             |
|-----------------------------|
| Connection systems (page 8) |
| Mounting systems (page 11)  |

**Ordering information**

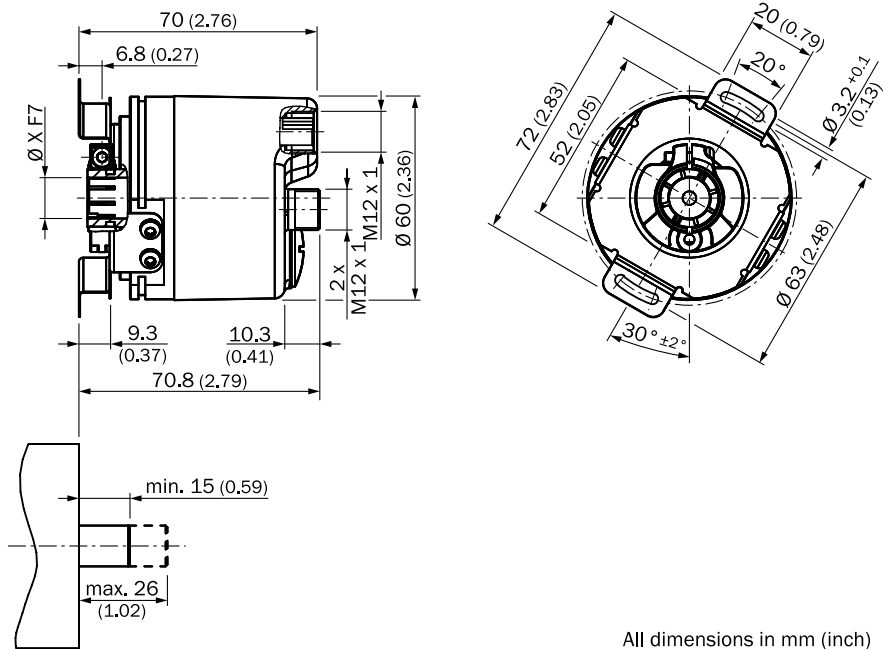
|                     |
|---------------------|
| Sales Kits (page 7) |
|---------------------|

| Technical data  |                   |         | A3M60                                       |          | Solid shaft |  |
|---|-------------------|---------|---|----------|-------------|--|
|   |                   |         | Basic                                       | Advanced |             |  |
| <b>Mechanical data</b>  |                   |         |   |          |             |  |
| <b>Solid shaft face mount flange</b>                              |                   |         | 10 x 19 mm                                  |          |             |  |
| <b>Solid shaft servo flange</b>                                   |                   |         | 6 x 10 mm                                   |          |             |  |
| <b>Mass</b>   |                   |         | Approx. 0.280 kg                            |          |             |  |
| <b>Material</b>   | Shaft             |         | Stainless steel                             |          |             |  |
|   | Flange            |         | Aluminium                                   |          |             |  |
|   | Housing           |         | Aluminium                                   |          |             |  |
| <b>Operating speed max.</b>                                       |                   |         | 6,000 min <sup>-1</sup>                     |          |             |  |
|   |                   |         | 9,000 min <sup>-1</sup>                     |          |             |  |
| <b>Resistance to shocks</b> (according to EN 60068-2-27)          |                   |         | 100 g/6 ms                                  |          |             |  |
| <b>Resistance to vibration</b> (according to EN 60068-2-6)        |                   |         | 30 g/10 to 2,000 Hz                         |          |             |  |
| <b>Starting torque at 20 °C</b>                                   |                   |         | 1 Ncm                                       |          |             |  |
| <b>Max. shaft loading</b>   | Radial            |         | 80 N  |          |             |  |
|   | Axial             |         | 40 N  |          |             |  |
| <b>Bearing lifetime</b>   |                   |         | 3 x 10 <sup>9</sup> revolutions             |          |             |  |
| <b>Max. angular acceleration</b>                                  |                   |         | 5 x 10 <sup>5</sup> rad/s <sup>2</sup>      |          |             |  |
| <b>Electrical data</b>  |                   |         |   |          |             |  |
| <b>Operating voltage range (U<sub>s</sub>)</b>                    |                   |         | 10 to 32 V with inverse-polarity protection |          |             |  |
| <b>Power consumption</b>  |                   |         | Max. 1.5 W                                  |          |             |  |
| <b>Resolution</b>   |                   |         |   |          |             |  |
| Max. number of steps/rev.   |                   |         | 8,192                                       |          |             |  |
|   |                   |         | 16,384                                      |          |             |  |
| Max. number of turns  |                   |         | 8,192                                       |          |             |  |
|   |                   |         | 131,072                                     |          |             |  |
| <b>Error limits at room temperature</b>                           |                   |         | ± 0.5°                                      |          |             |  |
|   |                   |         | ± 0.35°                                     |          |             |  |
| <b>Repeatability at room temperature</b>                          |                   |         | ± 0.25°                                     |          |             |  |
|   |                   |         | ± 0.15°                                     |          |             |  |
| <b>EMC</b> according to DIN EN 61000-6-2 and DIN EN 61000-6-3     |                   |         |   |          |             |  |
| <b>PROFIBUS protocol</b>  |                   |         | DP V0                                       |          |             |  |
|   |                   |         | DP V1 + V2                                  |          |             |  |
| <b>PROFIBUS Interface</b>   |                   |         | RS485                                       |          |             |  |
| <b>Transmission rate</b>  |                   |         | Max. 12 MBaud                               |          |             |  |
| <b>Programmable parameter</b>                                     |                   |         | Resolution, counting direction              |          |             |  |
| <b>Environmental data</b>   |                   |         |   |          |             |  |
| <b>Protection class</b> according to IEC 60529                    |                   |         |   |          |             |  |
|   |                   | Housing | IP 67                                       |          |             |  |
|   |                   | Shaft   | IP 65                                       |          |             |  |
|   |                   |         | IP 67                                       |          |             |  |
| <b>Working temperature range</b>                                  |                   |         | -10 to +70 °C                               |          |             |  |
|   |                   |         | -30 to +80 °C                               |          |             |  |
| <b>Storage temperature range</b>                                  |                   |         | -40 to +100 °C                              |          |             |  |
| <b>Self warming at max. operating speed</b>                       | Face mount flange |         | 30 k  |          |             |  |
|   | Servo flange      |         | 15 k  |          |             |  |
|   |                   |         | 25 k  |          |             |  |
| <b>Permissible relative humidity</b> (condensation not permitted) |                   |         | 95%   |          |             |  |

 **Resolution up to 31 bits**  
 Absolute Encoders Multiturn

- PROFIBUS-DP V0, V1, V2 functionality
- Enclosure rating up to IP 67
- Simple and fast setup

**Dimensional drawing, blind hollow shaft**



All dimensions in mm (inch)



Product may differ from illustration



**Ordering information, single devices**

| A3M60 Basic, PROFIBUS, M12, resolution 13 x 13 |          |   |
|--|----------|---|
| Model name                                     | Part no. | Description                             |
| A3M60B-BBPB013X13                              | 1051016  | Blind hollow shaft, $\varnothing$ 8 mm  |
| A3M60B-BCPB013X13                              | 1053327  | Blind hollow shaft, $\varnothing$ 3/8"  |
| A3M60B-BDPB013X13                              | 1038824  | Blind hollow shaft, $\varnothing$ 10 mm |
| A3M60B-BEPB013X13                              | 1038825  | Blind hollow shaft, $\varnothing$ 12 mm |
| A3M60B-BFPB013X13                              | 1053328  | Blind hollow shaft, $\varnothing$ 1/2"  |
| A3M60B-BGPB013X13                              | 1051325  | Blind hollow shaft, $\varnothing$ 14mm  |
| A3M60B-BHPB013X13                              | 1051017  | Blind hollow shaft, $\varnothing$ 15 mm |
| A3M60B-BJPB013X13                              | 1053329  | Blind hollow shaft, $\varnothing$ 5/8"  |

| A3M60 Advanced, PROFIBUS, M12, resolution 14 x 17 |          |   |
|---|----------|---|
| Model name  | Part no. | Description                             |
| A3M60A-BBPB014X17                                 | 1053330  | Blind hollow shaft, $\varnothing$ 8 mm  |
| A3M60A-BCPB014X17                                 | 1053334  | Blind hollow shaft, $\varnothing$ 3/8"  |
| A3M60A-BDPB014X17                                 | 1053331  | Blind hollow shaft, $\varnothing$ 10 mm |
| A3M60A-BEPB014X17                                 | 1053332  | Blind hollow shaft, $\varnothing$ 12 mm |
| A3M60A-BFPB014X17                                 | 1053335  | Blind hollow shaft, $\varnothing$ 1/2"  |
| A3M60A-BGPB014X17                                 | 1053336  | Blind hollow shaft, $\varnothing$ 14mm  |
| A3M60A-BHPB014X17                                 | 1053333  | Blind hollow shaft, $\varnothing$ 15 mm |
| A3M60A-BJPB014X17                                 | 1053337  | Blind hollow shaft, $\varnothing$ 5/8"  |

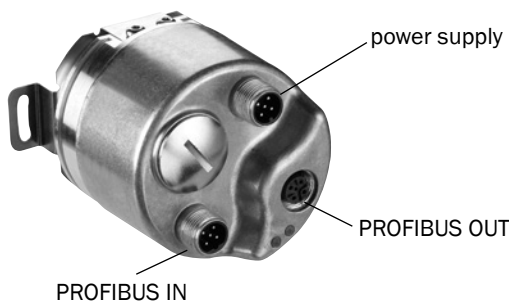
| Accessories                 |
|-----------------------------|
| Connection systems (page 8) |
| Mounting systems (page 11)  |
| Ordering information        |
| Sales Kits (page 7)         |

| Technical data  |                   |  | A3M60                                       | Blind hollow shaft |          |
|---|-------------------|--|---|--------------------|----------|
|   |                   |  |   | Basic              | Advanced |
| <b>Mechanical data</b>  |                   |  |   |                    |          |
| <b>Blind hollow shaft</b>   |                   |  | 8, 10, 12, 14, 15 mm and 3/8", 1/2", 5/8"   |                    |          |
| <b>Mass</b>   |                   |  | Approx. 0.280 kg                            |                    |          |
| <b>Material</b>   | Shaft             |  | Stainless steel                             |                    |          |
|   | Flange            |  | Aluminium                                   |                    |          |
|   | Housing           |  | Aluminium                                   |                    |          |
| <b>Operating speed max.</b>                                       |                   |  | 6,000 min <sup>-1</sup>                     |                    |          |
|   |                   |  | 9,000 min <sup>-1</sup>                     |                    |          |
| <b>Resistance to shocks</b> (according to EN 60068-2-27)          |                   |  | 100 g/6 ms                                  |                    |          |
| <b>Resistance to vibration</b> (according to EN 60068-2-6)        |                   |  | 30 g/10 to 2,000 Hz                         |                    |          |
| <b>Starting torque at 20 °C</b>                                   |                   |  | 1 Ncm                                       |                    |          |
|   |                   |  | 2 Ncm                                       |                    |          |
| <b>Permissible movement of the drive element</b>                  |                   |  |   |                    |          |
| Radial  | Static/dynamic    |  | ± 0.3 mm/± 0.1 mm                           |                    |          |
| Axial   | Static/dynamic    |  | ± 0.5 mm/± 0.2 mm                           |                    |          |
| <b>Bearing lifetime</b>   |                   |  | 3 x 10 <sup>9</sup> revolutions             |                    |          |
| <b>Max. angular acceleration</b>                                  |                   |  | 5 x 10 <sup>5</sup> rad/s <sup>2</sup>      |                    |          |
| <b>Electrical data</b>  |                   |  |   |                    |          |
| <b>Operating voltage range (U<sub>s</sub>)</b>                    |                   |  | 10 to 32 V with inverse-polarity protection |                    |          |
| <b>Power consumption</b>  |                   |  | Max. 1.5 W                                  |                    |          |
| <b>Resolution</b>   |                   |  |   |                    |          |
| Max. number of steps/rev.   |                   |  | 8,192                                       |                    |          |
|   |                   |  | 16,384                                      |                    |          |
| Max. number of turns  |                   |  | 8,192                                       |                    |          |
|   |                   |  | 131,072                                     |                    |          |
| <b>Error limits at room temperature</b>                           |                   |  | ± 0.5°                                      |                    |          |
|   |                   |  | ± 0.35°                                     |                    |          |
| <b>Repeatability at room temperature</b>                          |                   |  | ± 0.25°                                     |                    |          |
|   |                   |  | ± 0.15°                                     |                    |          |
| <b>EMC</b> according to DIN EN 61000-6-2 and DIN EN 61000-6-3     |                   |  |   |                    |          |
| <b>PROFIBUS protocol</b>  |                   |  | DP V0                                       |                    |          |
|   |                   |  | DP V1 + V2                                  |                    |          |
| <b>PROFIBUS Interface</b>   |                   |  | RS485                                       |                    |          |
| <b>Transmission rate</b>  |                   |  | Max. 12 MBaud                               |                    |          |
| <b>Programmable parameter</b>                                     |                   |  | Resolution, counting direction              |                    |          |
| <b>Environmental data</b>   |                   |  |   |                    |          |
| <b>Protection class</b> according to IEC 60529                    |                   |  |   |                    |          |
|   | Housing           |  | IP 67                                       |                    |          |
|   | Shaft             |  | IP 65                                       |                    |          |
|   |                   |  | IP 67                                       |                    |          |
| <b>Working temperature range</b>                                  |                   |  | -10 to +70 °C                               |                    |          |
|   |                   |  | -30 to +80 °C                               |                    |          |
| <b>Storage temperature range</b>                                  |                   |  | -40 to +100 °C                              |                    |          |
| <b>Self warming at max. operating speed</b>                       | Face mount flange |  | 30 k  |                    |          |
|   | Servo flange      |  | 15 k  |                    |          |
|   |                   |  | 25 k  |                    |          |
| <b>Permissible relative humidity</b> (condensation not permitted) |                   |  | 95 %  |                    |          |

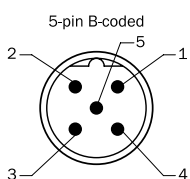
 **Resolution up to 31 bits**  
 Absolute Encoders Multiturn

- PROFIBUS-DP V0, V1, V2 functionality
- Enclosure rating up to IP 67
- Simple and fast setup

**Pin allocation, M12 connector**



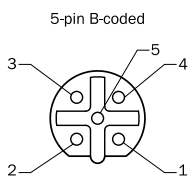
**PROFIBUS IN**



| PIN | Explanation     |
|-----|-----------------|
| 1   | Not connected   |
| 2   | PROFIBUS Data A |
| 3   | Not connected   |
| 4   | PROFIBUS Data B |
| 5   | Shield          |

**Attention: connect shield with housing.**  
 Use of PIN 5 for shielding optional, but not recommended. Use shielded cable.

**PROFIBUS OUT**

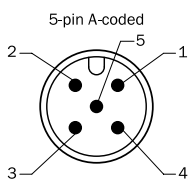


| PIN | Explanation              |
|-----|--------------------------|
| 1   | +5 V (2P5) <sup>1)</sup> |
| 2   | PROFIBUS Data A          |
| 3   | 0 V (2M) <sup>1)</sup>   |
| 4   | PROFIBUS Data B          |
| 5   | Shield                   |

<sup>1)</sup> For external bus termination

**Attention: connect shield with housing.**  
 Use of PIN 5 for shielding optional, but not recommended. Use shielded cable.

**Power supply**



| PIN | Explanation    |
|-----|----------------|
| 1   | Supply voltage |
| 2   | Do not connect |
| 3   | Ground (0 V)   |
| 4   | Do not connect |
| 5   | Not connected  |



Product may differ from illustration



**Accessories**

- Connection systems (page 8)
- Mounting systems (page 11)

**Ordering information**

- Sales Kits (page 7)

## Ordering information

## Sales Kits

## Sales Kit 01

**A3M60 PROFIBUS, M12, resolution 13 x 13**

+ Power supply: female connector M12, 4-pin, angled (page 8)

+ PROFIBUS IN: PROFIBUS female connector M12, 5-pin, angled, B-coding (page 9)



| Model name              | Part no. | Description  |
|-------------------------|----------|--|
| A3M60B-BBP Sales Kit 01 | 1052477  | Blind hollow shaft, Ø 8 mm incl. connection systems            |
| A3M60B-BDP Sales Kit 01 | 1052478  | Blind hollow shaft, Ø 10 mm incl. connection systems           |
| A3M60B-BEP Sales Kit 01 | 1052479  | Blind hollow shaft, Ø 12 mm incl. connection systems           |
| A3M60B-BGP Sales Kit 01 | 1053975  | Blind hollow shaft, Ø 14 mm incl. connection systems           |
| A3M60B-BHP Sales Kit 01 | 1052486  | Blind hollow shaft, Ø 15 mm incl. connection systems           |
| A3M60B-S4P Sales Kit 01 | 1052488  | Face mount flange, solid shaft, 10 mm incl. connection systems |
| A3M60B-S1P Sales Kit 01 | 1052489  | Servo flange, solid shaft, 6 mm incl. connection systems       |

## Sales Kit 02

**A3M60 PROFIBUS, M12, resolution 13 x 13**+ Power supply: Female connector M12, 5-pin, angled, pre-wired with 5 m cable 3 x 0.34 mm<sup>2</sup>, screened (page 8)+ PROFIBUS IN: PROFIBUS female connector M12, 5-pin, angled, pre-wired with 5 m bus cable 2-wire, 2 x 0.64 mm<sup>2</sup>, screened, B-coding (page 9)

| Model name              | Part no. | Description  |
|-------------------------|----------|--|
| A3M60B-BBP Sales Kit 02 | 1052490  | Blind hollow shaft, Ø 8 mm incl. connection systems            |
| A3M60B-BDP Sales Kit 02 | 1052491  | Blind hollow shaft, Ø 10 mm incl. connection systems           |
| A3M60B-BEP Sales Kit 02 | 1052493  | Blind hollow shaft, Ø 12 mm incl. connection systems           |
| A3M60B-BGP Sales Kit 02 | 1053976  | Blind hollow shaft, Ø 14 mm incl. connection systems           |
| A3M60B-BHP Sales Kit 02 | 1052494  | Blind hollow shaft, Ø 15 mm incl. connection systems           |
| A3M60B-S4P Sales Kit 02 | 1052492  | Face mount flange, solid shaft, 10 mm incl. connection systems |
| A3M60B-S1P Sales Kit 02 | 1052506  | Servo flange, solid shaft, 6 mm incl. connection systems       |

## Sales Kit 03

**A3M60 PROFIBUS, M12, resolution 13 x 13**

+ Power supply: Female connector M12, 4-pin, angled (page 8)

+ PROFIBUS IN: PROFIBUS female connector M12, 5-pin, angled, B-coding (page 9)

+ PROFIBUS OUT: PROFIBUS male connector M12, 5-pin, angled, B-coding (page 10)



| Model name              | Part no. | Description  |
|-------------------------|----------|--|
| A3M60B-BBP Sales Kit 03 | 1052507  | Blind hollow shaft, Ø 8 mm incl. connection systems            |
| A3M60B-BDP Sales Kit 03 | 1052508  | Blind hollow shaft, Ø 10 mm incl. connection systems           |
| A3M60B-BEP Sales Kit 03 | 1052509  | Blind hollow shaft, Ø 12 mm incl. connection systems           |
| A3M60B-BGP Sales Kit 03 | 1053977  | Blind hollow shaft, Ø 14 mm incl. connection systems           |
| A3M60B-BHP Sales Kit 03 | 1052510  | Blind hollow shaft, Ø 15 mm incl. connection systems           |
| A3M60B-S4P Sales Kit 03 | 1052513  | Face mount flange, solid shaft, 10 mm incl. connection systems |
| A3M60B-S1P Sales Kit 03 | 1052514  | Servo flange, solid shaft, 6 mm incl. connection systems       |

## Sales Kit 04

**A3M60 PROFIBUS, M12, resolution 13 x 13**+ Power supply: Female connector M12, 5-pin, angled, pre-wired with 5 m cable 3 x 0.34 mm<sup>2</sup>, screened (page 8)+ PROFIBUS IN: PROFIBUS female connector M12, 5-pin, angled, pre-wired with 5 m bus cable 2-wire, 2 x 0.64 mm<sup>2</sup>, screened, B-coding (page 9)+ PROFIBUS OUT: PROFIBUS male connector M12, 5-pin, angled, pre-wired with 5 m bus cable 2-wire, 2 x 0.64 mm<sup>2</sup>, screened, B-coding (page 10)

| Model name              | Part no. | Description  |
|-------------------------|----------|--|
| A3M60B-BBP Sales Kit 04 | 1052515  | Blind hollow shaft, Ø 8 mm incl. connection systems            |
| A3M60B-BDP Sales Kit 04 | 1052516  | Blind hollow shaft, Ø 10 mm incl. connection systems           |
| A3M60B-BEP Sales Kit 04 | 1052517  | Blind hollow shaft, Ø 12 mm incl. connection systems           |
| A3M60B-BGP Sales Kit 04 | 1053978  | Blind hollow shaft, Ø 14 mm incl. connection systems           |
| A3M60B-BHP Sales Kit 04 | 1052518  | Blind hollow shaft, Ø 15 mm incl. connection systems           |
| A3M60B-S4P Sales Kit 04 | 1052519  | Face mount flange, solid shaft, 10 mm incl. connection systems |
| A3M60B-S1P Sales Kit 04 | 1052520  | Servo flange, solid shaft, 6 mm incl. connection systems       |

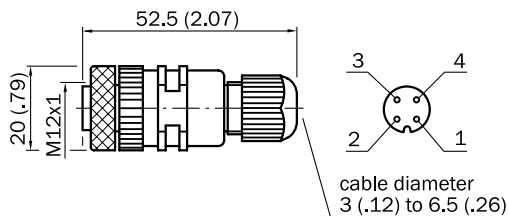
Connection systems

Dimensional drawings and ordering information

Power supply

Female connector M12, 4-pin, straight

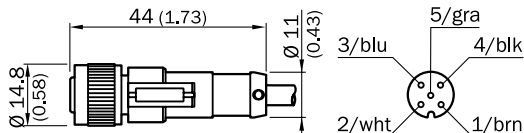
| Model name | Part no. | Contacts |
|------------|----------|----------|
| DOS-1204-G | 6007302  | 4        |



All dimensions in mm (inch)

Female connector M12, 5-pin, straight, pre-wired with cable 5 x 0.34 mm<sup>2</sup>, screened

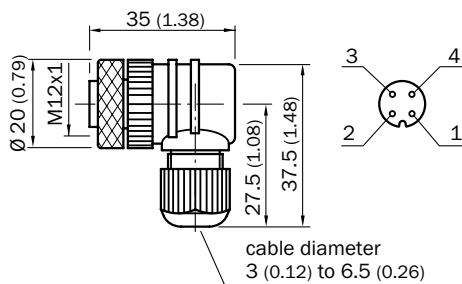
| Model name      | Part no. | Cable length |
|-----------------|----------|--------------|
| DOL-1205-G05MAC | 6036384  | 5 m          |
| DOL-1205-G10MAC | 6036385  | 10 m         |
| DOL-1205-G20MAC | 6036386  | 20 m         |



All dimensions in mm (inch)

Female connector M12, 4-pin, angled

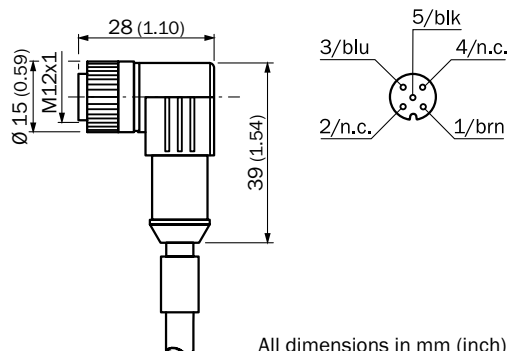
| Model name | Part no. |
|------------|----------|
| DOS-1204-W | 6007303  |



All dimensions in mm (inch)

Female connector M12, 5-pin, angled, pre-wired with cable 3 x 0.34 mm<sup>2</sup>, screened

| Model name     | Part no. | Cable length |
|----------------|----------|--------------|
| DOL-1202-W05MC | 6042067  | 5 m          |
| DOL-1202-W10MC | 6042068  | 10 m         |



All dimensions in mm (inch)

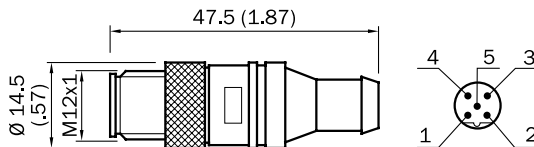
PROFIBUS

Bus cable 2-wire, per metre 2 x 0.22 mm<sup>2</sup>, screened

| Model name  | Part no. | Cores |
|-------------|----------|-------|
| LTG-2102-MW | 6021355  | 2     |

PROFIBUS terminating resistor

| Model name  | Part no. | Description           |
|-------------|----------|-----------------------|
| PRE-STE-END | 6021156  | Connector, 4 contacts |



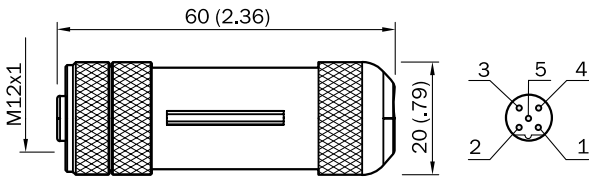
All dimensions in mm (inch)



**PROFIBUS IN**

**PROFIBUS female connector M12, 5-pin, straight, screened, B-coding**

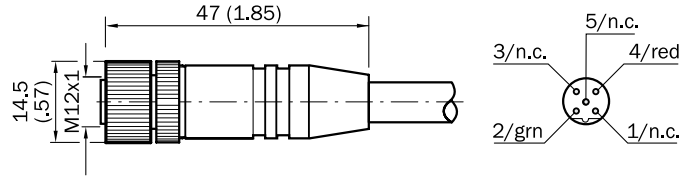
| Model name  | Part no. |
|-------------|----------|
| DOS-1205-GQ | 6021353  |



All dimensions in mm (inch)

**PROFIBUS female connector M12, 5-pin, straight, pre-wired with bus cable 2-wire, 2 x 0.22 mm<sup>2</sup>, screened, B-coding**

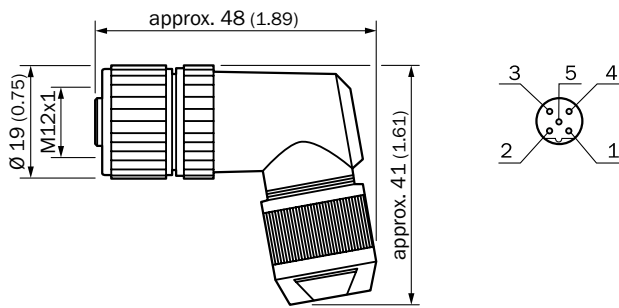
| Model name     | Part no. | Cable length |
|----------------|----------|--------------|
| DOL-1205-G05MQ | 6026006  | 5 m          |
| DOL-1205-G10MQ | 6026008  | 10 m         |



All dimensions in mm (inch)

**PROFIBUS female connector M12, 5-pin, angled, B-coding**

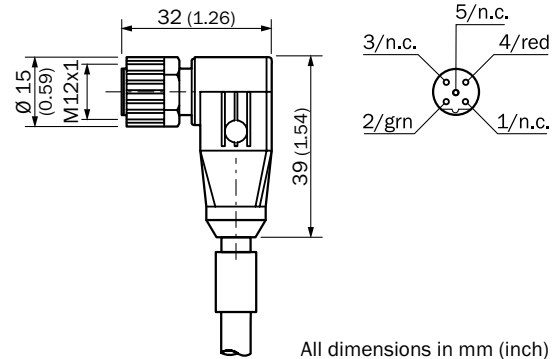
| Model name  | Part no. |
|-------------|----------|
| DOS-1205-WQ | 6041429  |



All dimensions in mm (inch)

**PROFIBUS female connector M12, 5-pin, angled, pre-wired with bus cable 2-wire, 2 x 0.64 mm<sup>2</sup>, screened, B-coding**

| Model name     | Part no. | Cable length |
|----------------|----------|--------------|
| DOL-1205-W05MQ | 6041423  | 5 m          |
| DOL-1205-W10MQ | 6041425  | 10 m         |



All dimensions in mm (inch)

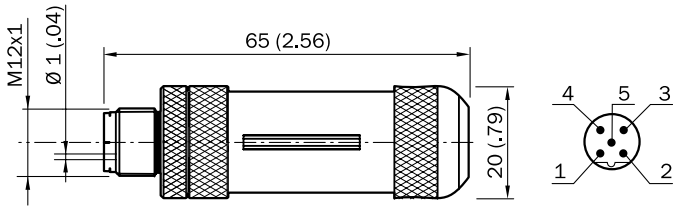
**Sales kit connection system angled**

| Model name  | Part no. | Description   |
|-------------|----------|---|
| DOS-3XM12-W | 2058177  | <b>A3M60 sales kit consisting of three pieces:</b><br>Power supply female connector (6007303)<br>PROFIBUS female connector (6041429)<br>PROFIBUS male connector (6041428) |

**PROFIBUS OUT**

**PROFIBUS male connector M12, 5-pin, straight, screened, B-coding**

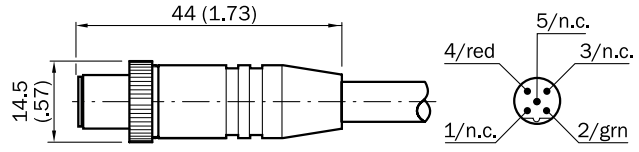
| Model name  | Part no. |
|-------------|----------|
| STE-1205-GQ | 6021354  |



All dimensions in mm (inch)

**PROFIBUS male connector M12, 5-pin, straight, pre-wired with cable 2-wire, 2 x 0.22 mm<sup>2</sup>, screened, B-coding**

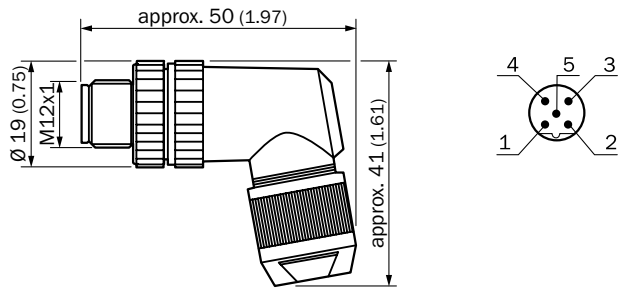
| Model name     | Part no. | Cable length |
|----------------|----------|--------------|
| STL-1205-G05MQ | 6026005  | 5 m          |
| STL-1205-G10MQ | 6026007  | 10 m         |



All dimensions in mm (inch)

**PROFIBUS male connector M12, 5-pin, angled, B-coding**

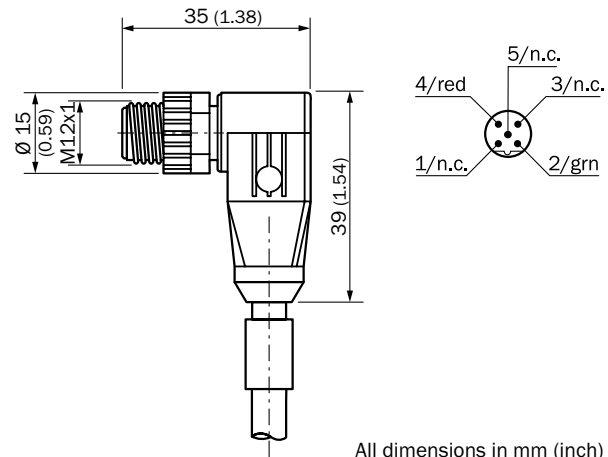
| Model name  | Part no. |
|-------------|----------|
| STE-1205-WQ | 6041428  |



All dimensions in mm (inch)

**PROFIBUS male connector M12, 5-pin, angled, pre-wired with cable 2-wire, 2 x 0.64 mm<sup>2</sup>, screened, B-coding**

| Model name     | Part no. | Cable length |
|----------------|----------|--------------|
| STL-1205-W05MQ | 6041426  | 5 m          |
| STL-1205-W10MQ | 6041427  | 10 m         |



All dimensions in mm (inch)

Mounting systems

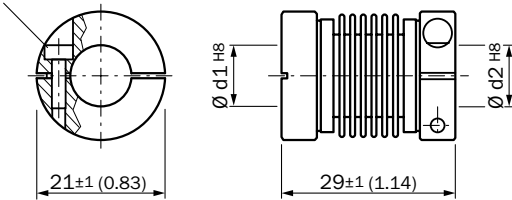
Dimensional drawings and ordering information

Couplings

**Bellows coupling, max. shaft offset radial  $\pm 0.3$  mm, axial 0.4 mm, angle  $\pm 4$  degrees, torsion spring stiffness 120 Nm/rad, bellows of stainless steel, hubs of aluminium**

| Model name | Part no. | Shaft diameter  |
|------------|----------|-----------------|
| KUP-0606-B | 5312981  | 6 mm ... 6 mm   |
| KUP-0610-B | 5312982  | 6 mm ... 10 mm  |
| KUP-1010-B | 5312983  | 10 mm ... 10 mm |
| KUP-1012-B | 5312984  | 10 mm ... 12 mm |

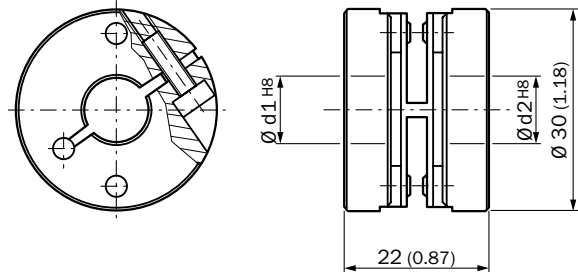
Cheese-head screw  
M2.5 x 8, DIN 912 A2



All dimensions in mm (inch)

**Spring-disc coupling, max. shaft offset radial  $\pm 0.3$  mm, axial 0.4 mm, angle  $\pm 2.5$  degrees, torsion spring stiffness 50 Nm/rad, flange of aluminium, spring-discs of glass-fibre-reinforced plastic**

| Model name | Part no. | Shaft diameter  |
|------------|----------|-----------------|
| KUP-0610-F | 5312985  | 6 mm ... 10 mm  |
| KUP-1010-F | 5312986  | 10 mm ... 10 mm |

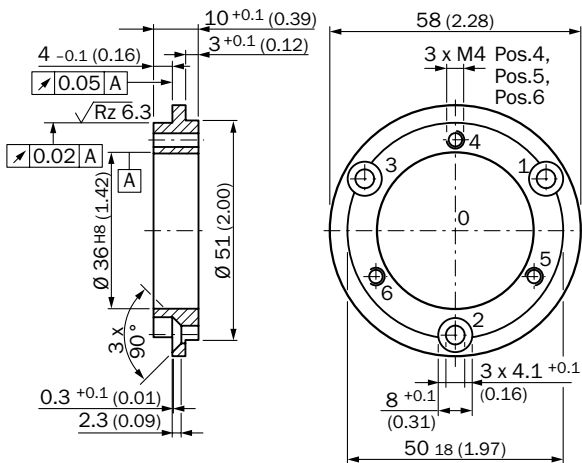


All dimensions in mm (inch)

Mechanical Adapters

**Adapter flange of aluminium for face mount flange, spigot 36 mm**

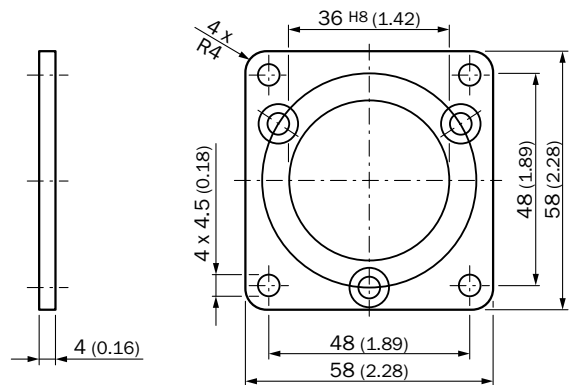
| Model name     | Part no. | Adaption              |
|----------------|----------|-----------------------|
| BEF-FA-036-050 | 2029160  | To 50 mm servo flange |



All dimensions in mm (inch)

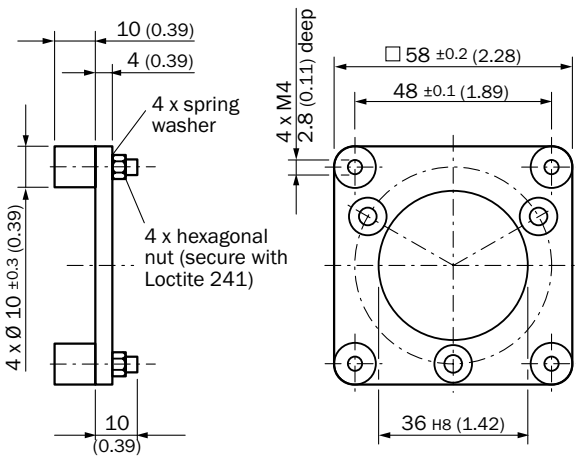
**Adapter flange of aluminium for face mount flange, spigot 36 mm**

| Model name        | Part no. | Adaption                       |
|-------------------|----------|--------------------------------|
| BEF-FA-036-060REC | 2029162  | To 60 mm square mounting plate |



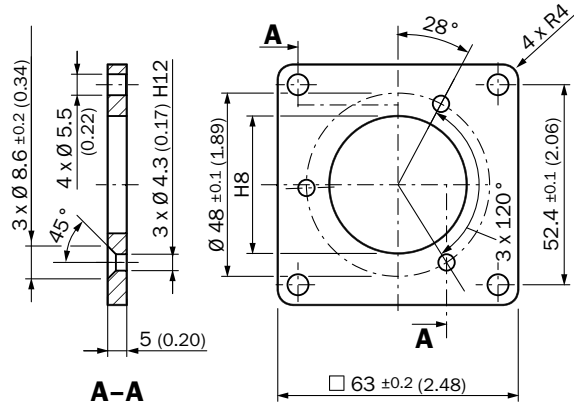
All dimensions in mm (inch)

| Adapter flange of aluminium for face mount flange, spigot 36 mm |          |   |
|---|----------|---|
| Model name  | Part no. | Adaption  |
| BEF-FA-036-060RSA   | 2029163  | To 60 mm square mounting plate with shock absorbers |



All dimensions in mm (inch)

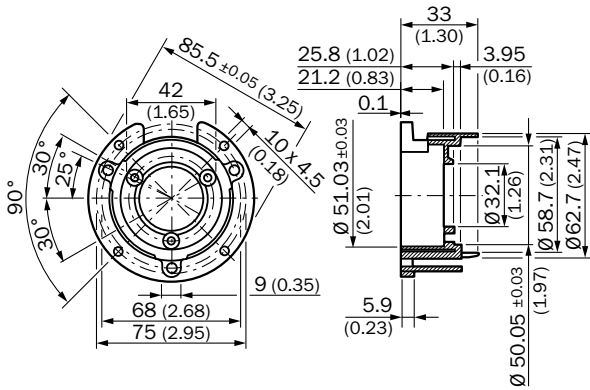
| Adapter flange of aluminium for face mount flange, spigot 36 mm |          |                                |
|---|----------|--------------------------------|
| Model name  | Part no. | Adaption                       |
| BEF-FA-036-063REC   | 2034225  | To 63 mm square mounting plate |



All dimensions in mm (inch)

**Mounting bell incl. fixing set for encoder with servo flange**

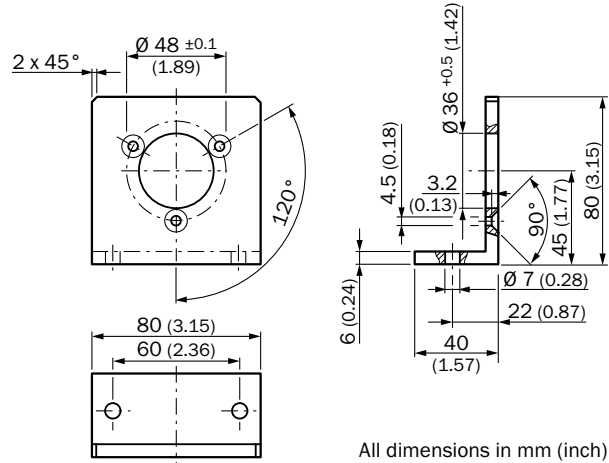
| Model name | Part no. | Flange spigot  |
|------------|----------|----------------|
| BEF-MG-50  | 5312987  | Diameter 50 mm |



All dimensions in mm (inch)

**Mounting angle incl. fixing set for encoder with face mount flange**

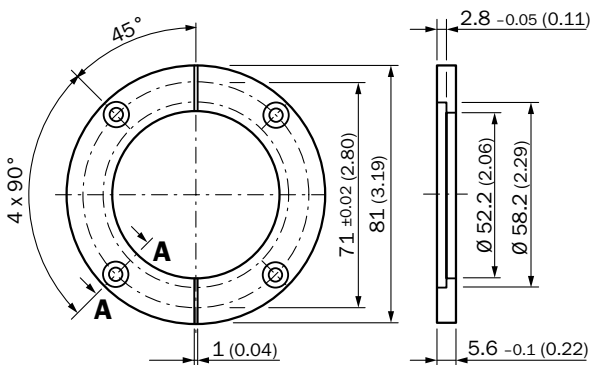
| Model name | Part no. | Flange spigot  |
|------------|----------|----------------|
| BEF-WF-36  | 2029164  | Diameter 36 mm |



All dimensions in mm (inch)

**Servo clamps half ring, Set (comprises 2 pieces) for servo flanges with spigot diameter 50 mm**

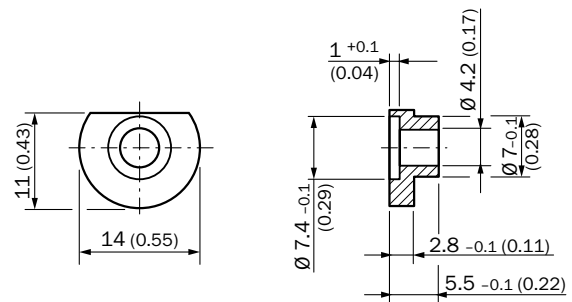
| Model name   | Part no. |
|--------------|----------|
| BEF-WG-SF050 | 2029165  |



All dimensions in mm (inch)

**Servo clamps small, Set (comprises 3 pieces) for servo flanges**

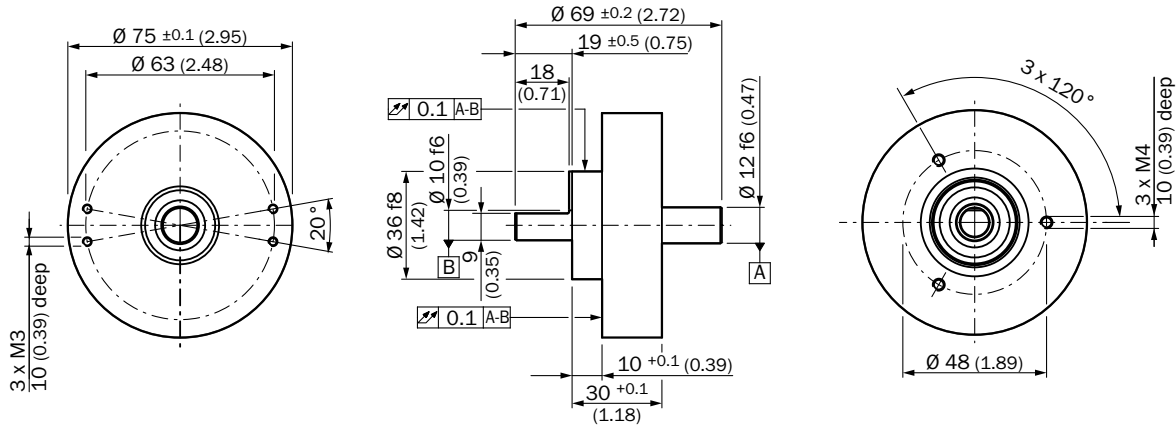
| Model name | Part no. |
|------------|----------|
| BEF-WK-SF  | 2029166  |



All dimensions in mm (inch)

**Heavy duty bearing block for very large radial and axial shaft loads**

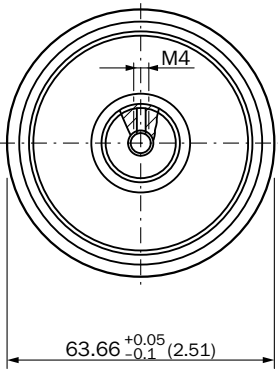
|                   |                 |
|-------------------|-----------------|
| <b>Model name</b> | <b>Part no.</b> |
| BEF-FA-B12-010    | 2042728         |



All dimensions in mm (inch)

**Measuring wheel for encoder shafts with diameter 10 mm, type material plastic (Hytrel), wheel material plastic with aluminium hub**

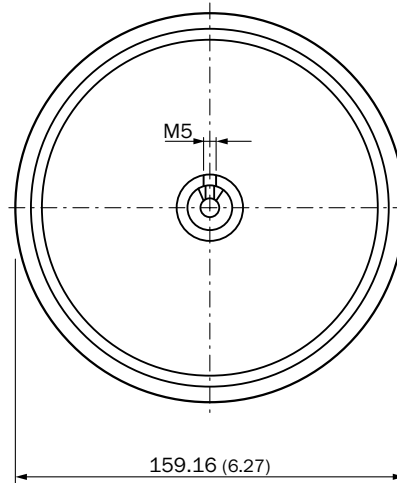
| Model name     | Part no. | Circumference | Surface |
|----------------|----------|---------------|---------|
| BEF-MR-010020  | 5312988  | 0.2 m         | Smooth  |
| BEF-MR-010020G | 5318678  | 0.2 m         | Knurled |



All dimensions in mm (inch)

**Measuring wheel for encoder shafts with diameter 10 mm, type material plastic (Hytrel), wheel material plastic with aluminium hub**

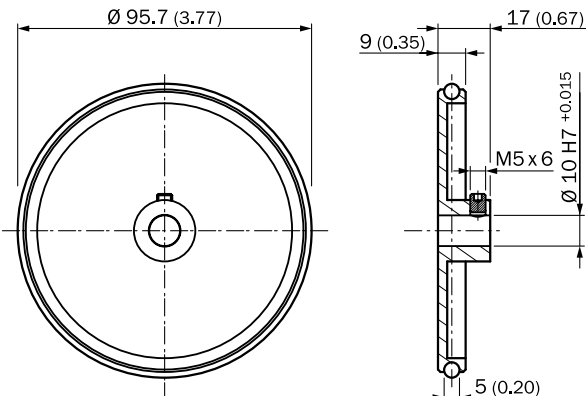
| Model name    | Part no. | Circumference | Surface |
|---------------|----------|---------------|---------|
| BEF-MR-010050 | 5312989  | 0.5 m         | Smooth  |



All dimensions in mm (inch)

**Measuring wheel for encoder shafts with diameter 10 mm**

| Model name    | Part no. | Circumference | Surface |
|---------------|----------|---------------|---------|
| BEF-MR-010030 | 2049278  | 0.3 m         | O-Ring  |



All dimensions in mm (inch)



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