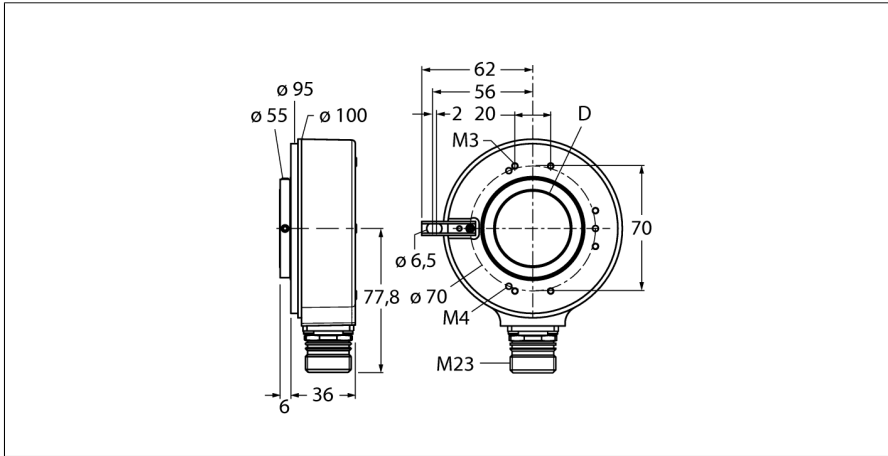


**Incremental Encoder
Industrial Line
RI-42H30S4-2B5000-12M23**



- Flange with long spring element, Ø 100 mm
- Hollow shaft, Ø 30 mm
- Optical measuring principle
- Shaft material: stainless steel
- Protection class IP65 on shaft side
- -40...+70 °C
- Max. 3000 rpm
- 10...30 VDC
- M23 × 1 male, 12-pin
- Push-pull, with inversion
- Pulse frequency max. 300 kHz
- 5000 pulses per revolution

| | |
|-------------------------------------|---------------------------------------|
| Type designation | RI-42H30S4-2B5000-12M23 |
| Ident no. | 1545230 |
| Measuring principle | Optical |
| Max. Rotational Speed | 3000 rpm |
| Moment of inertia of the rotor | 150 x10 ⁶ kgm ² |
| Starting torque | 0.2 Nm |
| Ambient temperature | -40...+70 °C |
| Operating voltage | 10...30 VDC |
| No-load current I ₀ | ≤ 100 mA |
| Output current | ≤ 30 mA |
| Short-circuit protection | yes |
| Output type | Incremental |
| Resolution, incremental | 5000 ppr |
| Pulse frequency max. | 300 kHz |
| Signal level high | min. U _s - 3 V |
| Signal level low | max. 2.5 V |
| Design | Hollow shaft |
| Flange type | Flange with mounting element |
| Flange diameter | 100 mm |
| Shaft Type | Hollow shaft |
| Shaft diameter D [mm] | 30 mm |
| Shaft material | Stainless steel |
| Housing material | Die-cast zinc |
| Electrical connection | Connector, M23 radial |
| Vibration resistance (EN 60068-2-6) | 100 m/s ² , 10...2000 Hz |
| Shock resistance (EN 60068-2-27) | 1000 m/s ² , 6 ms |
| Protection class housing | IP65 |
| Protection class shaft | IP65 |
| Included in delivery | Spring element, long |

| | | |
|----|---------------------|---|
| 1 | B inv. | |
| 2 | U _B sens | + |
| 3 | 0 | - |
| 4 | 0 inv. | - |
| 5 | A | |
| 6 | A inv. | |
| 7 | n.c. | |
| 8 | B | |
| 9 | n.c. | |
| 10 | GND | |
| 11 | 0V sens | |
| 12 | U _B | + |
| PH | shield | |

Incremental Encoder

Industrial Line

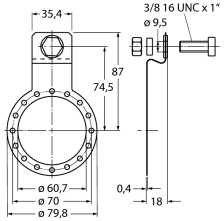
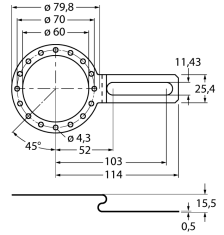
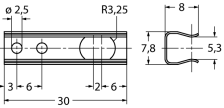
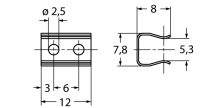
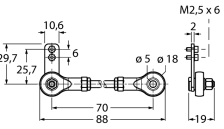
RI-42H30S4-2B5000-12M23

Pin configuration

| Signal | Gnd | +U _s | A | A inv. | B | B inv. | 0 | 0 inv. | Shield |
|-------------------|---------|----------------------|---|--------|---|--------|---|--------|--------|
| Pin configuration | 10 | 12 | 5 | 6 | 8 | 1 | 3 | 4 | PH |
| Signal | 0V sens | +U _s sens | - | - | - | - | - | - | - |
| Pin configuration | 11 | 2 | - | - | - | - | - | - | - |

**Incremental Encoder
Industrial Line
RI-42H30S4-2B5000-12M23**

Accessories

| Type code | Ident no. | | Dimension drawing |
|-----------|-----------|---|--|
| RME-5 | 1544616 | Stainless steel mounting panel for hollow shaft encoders, reference diameter 149 mm, for applications with axial play |  <p>Technical drawing of the RME-5 mounting panel. It shows a circular panel with a central hole and a mounting flange. Dimensions include: 35.4 mm for the top hole offset, 87 mm for the total height, 74.5 mm for the flange height, 0.4 mm for the flange thickness, and 18 mm for the flange width. The central hole has a diameter of 9.5 mm. The panel has three concentric circles with diameters of 60.7 mm, 70 mm, and 79.8 mm. A screw with a thread of 3/8 16 UNC x 1" is shown passing through the flange.</p> |
| RME-6 | 1544617 | Stainless steel mounting panel for hollow shaft encoders, reference diameter 104...206 mm, for applications with fixing points on adjustable reference diameter |  <p>Technical drawing of the RME-6 mounting panel. It shows a circular panel with a central hole and a mounting flange. Dimensions include: 79.8 mm for the outer diameter, 70 mm for the inner diameter, 60 mm for the reference diameter, 11.43 mm for the flange height, 25.4 mm for the flange width, 0.5 mm for the flange thickness, 15.5 mm for the total height, 103 mm for the mounting hole offset, 114 mm for the mounting hole diameter, 4.3 mm for the mounting hole diameter, 52 mm for the mounting hole offset, and a 45-degree chamfered edge.</p> |
| RME-10 | 1544621 | Stainless steel mounting element for hollow shaft encoders, pitch diameter 110 mm, for applications with high axial play |  <p>Technical drawing of the RME-10 mounting element. It shows a cylindrical component with a central hole. Dimensions include: 2.5 mm for the hole diameter, 30 mm for the total length, 6 mm for the hole length, 2 mm for the hole offset, 6 mm for the hole offset, 3 mm for the hole offset, 7.8 mm for the hole diameter, 8 mm for the hole diameter, 5.3 mm for the hole diameter, and R3.25 for the fillet radius.</p> |
| RME-11 | 1544622 | Stainless steel mounting element for hollow shaft encoders, pitch diameter 76 mm, for applications with limited mounting space |  <p>Technical drawing of the RME-11 mounting element. It shows a cylindrical component with a central hole. Dimensions include: 2.5 mm for the hole diameter, 12 mm for the total length, 6 mm for the hole length, 3 mm for the hole offset, 6 mm for the hole offset, 3 mm for the hole offset, 7.8 mm for the hole diameter, 8 mm for the hole diameter, and 5.3 mm for the hole diameter.</p> |
| RME-15 | 1544626 | Metal arm bracket, for hollow shaft encoders, length 70 mm; for applications with little axial and radial play; flexibly adjustable |  <p>Technical drawing of the RME-15 metal arm bracket. It shows a bracket with two mounting holes. Dimensions include: 10.6 mm for the hole offset, 29.7 mm for the total length, 25.7 mm for the hole offset, 6 mm for the hole offset, 70 mm for the total length, 88 mm for the total length, 5 mm for the hole diameter, 18 mm for the hole diameter, 2 mm for the hole diameter, 19 mm for the hole diameter, and M2.5 x 6 for the mounting hole.</p> |

**Incremental Encoder
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Accessories

| Type code | Ident no. | | Dimension drawing |
|-----------|-----------|--|-------------------|
| RME-16 | 1544627 | Metal arm bracket, for hollow shaft encoders, length 100 mm; for applications with little axial and radial play; flexibly adjustable | |
| RME-17 | 1544628 | Metal arm bracket, for hollow shaft encoders, length 150 mm; for applications with little axial and radial play; flexibly adjustable | |
| RME-18 | 1544629 | Stainless steel stator coupling for hollow shaft encoders, reference diameter 119 mm, for highly dynamic applications with axial and radial play | |