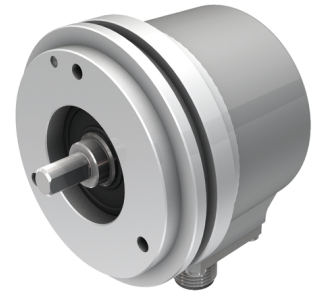
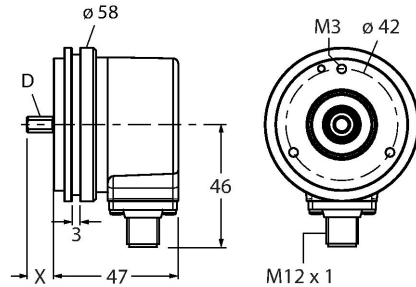


# RI-10S6S-2B512-H1181

## Incremental Encoder

### Industrial Line



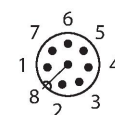
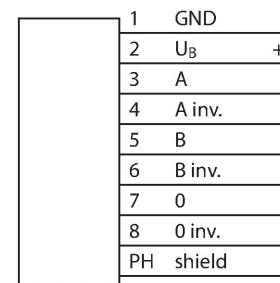
#### Technical data

|                                        |                                      |
|----------------------------------------|--------------------------------------|
| Type                                   | RI-10S6S-2B512-H1181                 |
| ID                                     | 1545923                              |
| Measuring principle                    | Optical                              |
| <b>General data</b>                    |                                      |
| Max. rotational speed                  | 6000 rpm                             |
| Moment of inertia of the rotor         | $1.8 \times 10^{-6} \text{ kgm}^2$   |
| Starting torque                        | < 0.05 Nm                            |
| Output type                            | Incremental                          |
| Resolution incremental                 | 512 ppr                              |
| <b>Electrical data</b>                 |                                      |
| Operating voltage $U_B$                | 10...30 VDC                          |
| No-load current                        | $\leq 100 \text{ mA}$                |
| Output current                         | $\leq 30 \text{ mA}$                 |
| Short-circuit protection               | yes                                  |
| Wire break/reverse polarity protection | yes                                  |
| Pulse frequency max.                   | 300 kHz                              |
| Signal level high                      | min. $U_B - 1 \text{ V}$             |
| Signal level low                       | max. 0.5 V                           |
| Output function                        | Push-Pull/HTL, with inverted signals |
| <b>Mechanical data</b>                 |                                      |
| Flange type                            | Synchro flange                       |
| Flange diameter                        | $\varnothing 58 \text{ mm}$          |
| Shaft Type                             | Solid shaft                          |

#### Features

- Servo flange,  $\varnothing 58 \text{ mm}$
- Solid shaft,  $\varnothing 6 \text{ mm} \times 10 \text{ mm}$
- Optical measuring principle
- Shaft material, stainless steel
- Protection class IP67 on housing and shaft side
- $-40 \dots +85 \text{ }^\circ\text{C}$
- Max. 6000 rpm (continuous operation 3000 rpm)
- 10...30 VDC
- Male connector, M12 x 1, 8-pole
- Push-pull, with inverted signals
- Pulse frequency max. 300 kHz
- 512 pulses per revolution

#### Wiring diagram

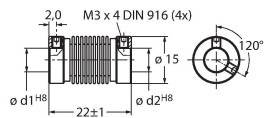


## Technical data

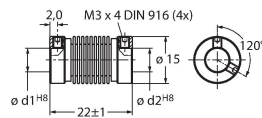
|                                     |                                     |
|-------------------------------------|-------------------------------------|
| Shaft diameter D (mm)               | 6                                   |
| Shaft Length L [mm]                 | 10                                  |
| Shaft material                      | Stainless steel                     |
| Housing material                    | Die-cast zinc                       |
| Electrical connection               | Connector, M12 × 1                  |
|                                     | 8-pin                               |
| Axial shaft load                    | 40 N                                |
| Radial shaft load                   | 80 N                                |
| <b>Environmental conditions</b>     |                                     |
| Ambient temperature                 | -40...+85 °C                        |
| Vibration resistance (EN 60068-2-6) | 300 m/s <sup>2</sup> , 10...2000 Hz |
| Shock resistance (EN 60068-2-27)    | 3000 m/s <sup>2</sup> , 6 ms        |
| Protection class                    | IP67                                |
| Protection class shaft              | IP67                                |

## Accessories

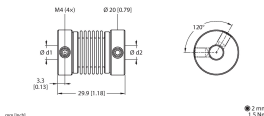
|                                                                      |         |
|----------------------------------------------------------------------|---------|
| RCS-15-08-06                                                         | 1545361 |
| Bellows coupling, outer diameter:<br>15 mm, bore diameter: 8 mm/6 mm |         |



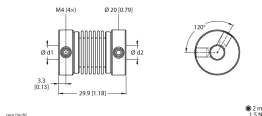
|                                                                      |         |
|----------------------------------------------------------------------|---------|
| RCS-15-06-04                                                         | 1545363 |
| Bellows coupling, outer diameter:<br>15 mm, bore diameter: 6 mm/4 mm |         |



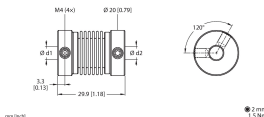
|                                                                     |           |
|---------------------------------------------------------------------|-----------|
| RA-BC-20-06-06                                                      | 100048777 |
| Bellows coupling with aluminum hub<br>Ø 20 mm; d1 = 6 mm, d2 = 6 mm |           |



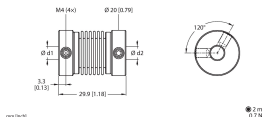
|                                                                     |           |
|---------------------------------------------------------------------|-----------|
| RA-BC-20-06-08                                                      | 100048778 |
| Bellows coupling with aluminum hub<br>Ø 20 mm; d1 = 6 mm, d2 = 8 mm |           |



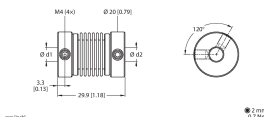
|                                                                      |           |
|----------------------------------------------------------------------|-----------|
| RA-BC-20-06-10                                                       | 100048779 |
| Bellows coupling with aluminum hub<br>Ø 20 mm; d1 = 6 mm, d2 = 10 mm |           |



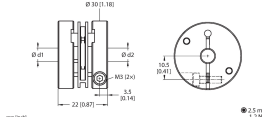
|                                                                   |           |
|-------------------------------------------------------------------|-----------|
| RA-BC-E-20-06-06                                                  | 100048785 |
| Stainless steel bellows coupling Ø<br>20 mm; d1 = 6 mm, d2 = 6 mm |           |



|                                                                    |           |
|--------------------------------------------------------------------|-----------|
| RA-BC-E-20-06-10                                                   | 100048786 |
| Stainless steel bellows coupling Ø<br>20 mm; d1 = 6 mm, d2 = 10 mm |           |



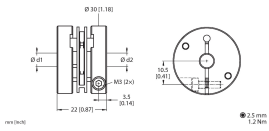
|                                                        |           |
|--------------------------------------------------------|-----------|
| RA-SDC-30-06-10                                        | 100048791 |
| Spring disc coupling Ø 30 mm; d1 =<br>6 mm, d2 = 10 mm |           |



RA-SDC-30-06-06

100048790

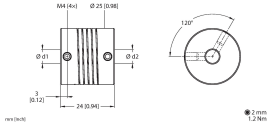
Spring disc coupling Ø 30 mm; d1 = 6 mm, d2 = 6 mm



RA-HC-25-06-10

100048795

Aluminum helix coupling Ø 25 mm; d1 = 6 mm, d2 = 10 mm



RA-HC-25-06-06

100048794

Aluminum helix coupling Ø 25 mm; d1 = 6 mm, d2 = 6 mm

