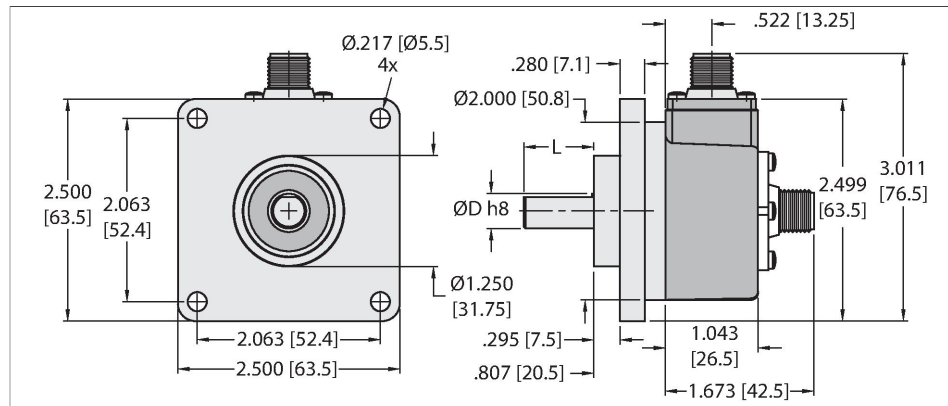


# RI-10SA1R-2K60-H1181

## Incremental Shaft Encoder

### Industrial Line



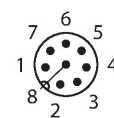
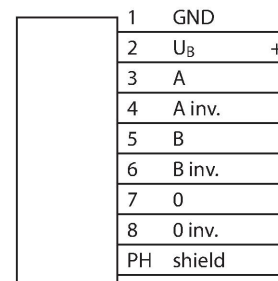
#### Features

- Square flange, Ø 63.5 mm
- Solid shaft, Ø 3/8" x 7/8"
- Optical measuring principle
- Shaft material, stainless steel
- Protection class IP67 on housing and shaft side
- -40...+85 °C
- Max. 6000 rpm (continuous operation 3000 rpm)
- 5...30 VDC
- Male connector, M12 x 1 , 8-pole
- Push-pull, with inverted signals
- Pulse frequency max. 300 kHz
- 60 pulses per revolution

#### Technical data

|                                        |                                       |
|----------------------------------------|---------------------------------------|
| Type                                   | RI-10SA1R-2K60-H1181                  |
| ID                                     | 1546713                               |
| 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                 | 60 ppr                                |
| <b>Electrical data</b>                 |                                       |
| Operating voltage $U_B$                | 5...30 VDC                            |
| No-load current                        | ≤ 100 mA                              |
| Output current                         | ≤ 20 mA                               |
| Short-circuit protection               | yes                                   |
| Wire break/reverse polarity protection | no                                    |
| Pulse frequency max.                   | 300 kHz                               |
| Signal level high                      | min. $U_B - 2 \text{ V}$              |
| Signal level low                       | max. 0.5 V                            |
| Output function                        | Push-Pull 7272, with inverted signals |
| <b>Mechanical data</b>                 |                                       |
| Flange type                            | Rectangular flange                    |
| Flange diameter                        | Ø 63.5 mm                             |
| Shaft Type                             | Solid shaft                           |
| Shaft diameter D                       | 0.375 in                              |

#### Wiring diagram



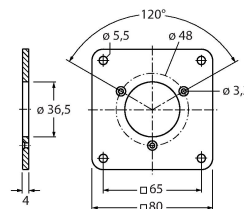
## Technical data

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| Shaft length (L)                    | 0.875 in                            |
| Shaft material                      | Stainless steel                     |
| Housing material                    | Die-cast zinc                       |
| Electrical connection               | Connector, M12 × 1                  |
|                                     | 8-pin                               |
| Axial shaft load                    | 50 N                                |
| Radial shaft load                   | 100 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                                |

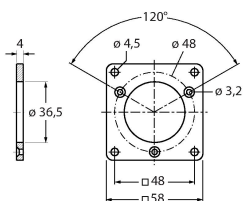
## Accessories

**RFA-2**
**1544631**

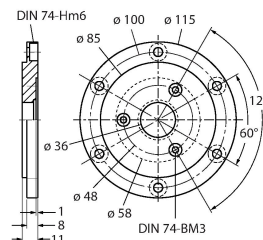

Aluminium flange adapter, rectangular, for solid shaft encoders with clamping flange; edge length 63.5 mm; 3 mm thick

**RFA-13**
**1544642**


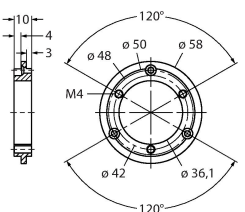
Aluminium flange adapter, rectangular, for solid shaft encoders with clamping flange; edge length 80 mm; 4 mm thick

**RFA-1**
**1544630**


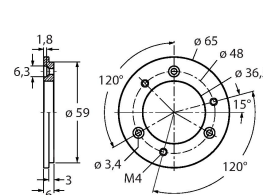
Aluminium flange adapter, rectangular, for solid shaft encoders with clamping flange; edge length 58 mm; 4 mm thick

**RFA-4**
**1544633**


Euro flange – aluminium flange adapter for solid shaft encoders, Ø 115 mm; reference diameter 100 mm; adapts 58 mm clamping flange to Euro flange

**RFA-6**
**1544635**


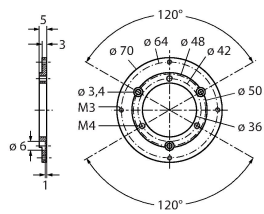
Aluminium flange adapter for solid shaft encoders with clamping flange, Ø 58 mm; adapts clamping flange to synchro flange

**RFA-7**
**1544636**


Aluminium flange adapter for solid shaft encoders, Ø 65 mm; adapts to Ø 65 mm flange and 48 mm reference diameter

## RFA-8

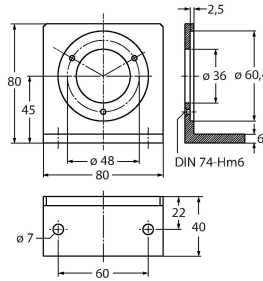
1544637



Aluminium flange adapter for solid shaft encoders with clamping flange, Ø 70 mm; thickness 4 mm, adapts to Ø 70 mm flange

## RFA-9

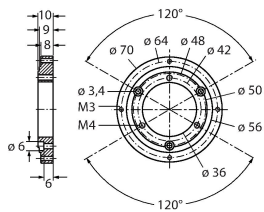
1544638



Aluminium angle flange for solid shaft encoders with Ø 58 mm clamping flange

## RFA-11

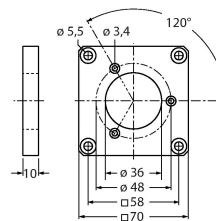
1544640



Aluminium flange adapter for solid shaft encoders with clamping flange, Ø 70 mm; thickness 10 mm, adapts to Ø 70 mm flange

## RFA-12

1544641



Aluminium flange adapter, rectangular, for solid shaft encoders with clamping flange; edge length 70 mm; 10 mm thick