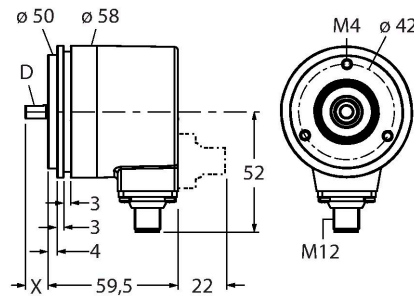


# RM-28S6S-3C25B-H1181

## Absolute Rotary Encoder - Multiturn Industrial Line



### Features

- Synchro flange, Ø 58 mm
- Solid shaft, Ø 6 mm × 10 mm
- Optical measuring principle
- Shaft material: stainless steel
- IP67 rated on shaft side
- -40...+70 °C
- Max. 9000 rpm
- 10...30 VDC
- SSI, gray
- M12 connector, 8-pin
- Singleturn, 13-bit resolution
- Multiturn, 12-bit resolution

### Technical data

|                                        |                                  |
|----------------------------------------|----------------------------------|
| Type                                   | RM-28S6S-3C25B-H1181             |
| ID                                     | 1545240                          |
| Measuring principle                    | Optical                          |
| <b>General data</b>                    |                                  |
| Max. rotational speed                  | 9000 rpm                         |
| Moment of inertia of the rotor         | $4 \times 10^{-6} \text{ kgm}^2$ |
| Starting torque                        | < 0.01 Nm                        |
| Output type                            | Absolute multiturn               |
| Resolution singleturn                  | 13 Bit                           |
| Resolution multiturn                   | 12 Bit                           |
| <b>Electrical data</b>                 |                                  |
| Operating voltage $U_B$                | 10...30 VDC                      |
| No-load current                        | $\leq 50 \text{ mA}$             |
| Output current                         | $\leq 20 \text{ mA}$             |
| Short-circuit protection               | yes                              |
| Wire break/reverse polarity protection | yes                              |
| Signal level high                      | typ. 3.8 V                       |
| Signal level low                       | typ. 1.3 V                       |
| Communication protocol                 | SSi                              |
| Output function                        | Gray coded                       |
| <b>Mechanical data</b>                 |                                  |
| Flange type                            | Synchro flange                   |
| Flange diameter                        | Ø 58 mm                          |

### Wiring diagram

|    |           |   |
|----|-----------|---|
| 1  | GND       |   |
| 2  | $U_B$     | + |
| 3  | C         | + |
| 4  | C         | - |
| 5  | D         | + |
| 6  | D         | - |
| 7  | SET       |   |
| 8  | DIR       |   |
| PH | shield/PE |   |

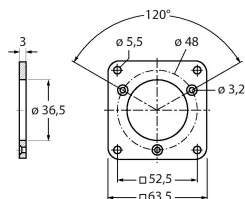
## Technical data

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| Shaft Type                          | Solid shaft                         |
| 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...+70 °C                        |
| Vibration resistance (EN 60068-2-6) | 100 m/s <sup>2</sup> , 55...2000 Hz |
| Shock resistance (EN 60068-2-27)    | 2500 m/s <sup>2</sup> , 6 ms        |
| Protection class housing            | IP67                                |
| Protection class shaft              | IP67                                |

## Accessories

RFA-2

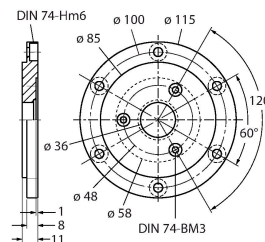
1544631



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

RFA-4

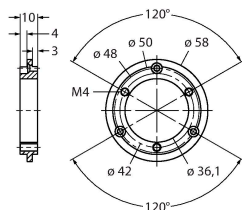
1544633



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

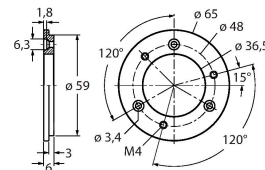
1544635



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

RFA-7

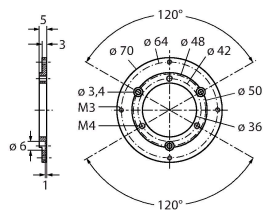
1544636



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

RFA-8

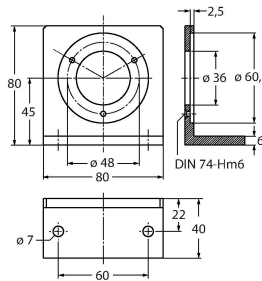
1544637



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

RFA-9

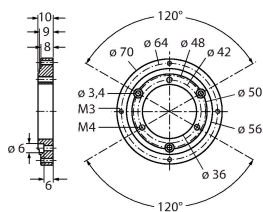
1544638



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

RFA-11

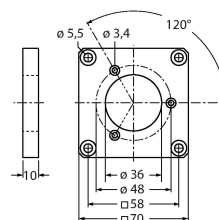
1544640



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

RFA-12

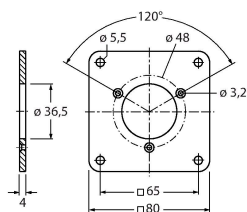
1544641



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

RFA-13

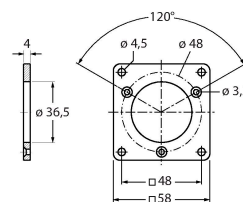
1544642



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