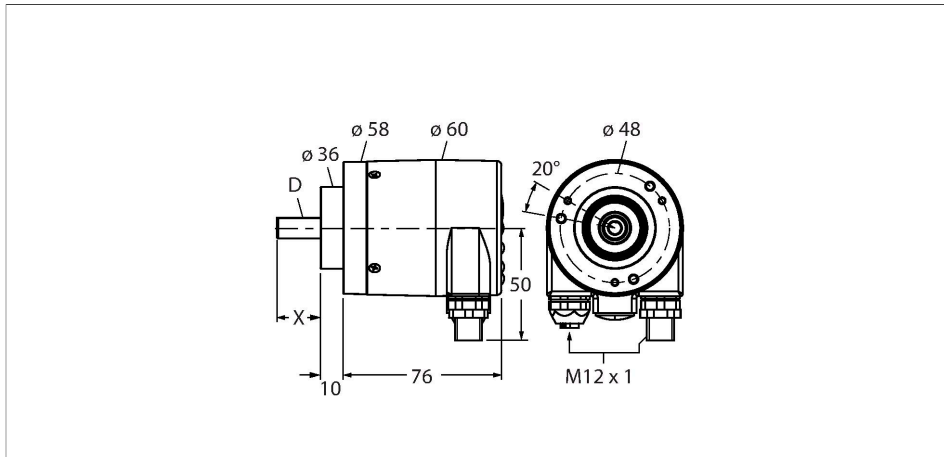


# RM-29S10C-9A28B-R3M12

## Absolute Rotary Encoder - Multiturn Industrial Line



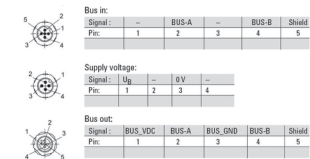
### Features

- Clamping flange, Ø 58 mm
- Solid shaft, Ø 10 mm × 20 mm
- Optical measuring principle
- Shaft material: stainless steel
- Protection class IP67 on shaft side
- -40...+80 °C
- Max. 3000 rpm
- Profibus
- Removable bus cover with male, 3 × M12
- Singleturn, resolution scalable to 16 bit (default 13-bit)
- Multiturn resolution max. 12 bit, scalable

### Technical data

|   |                                      |
|---|--------------------------------------|
| Type                                      | RM-29S10C-9A28B-R3M12                |
| ID no.                                    | 1544416                              |
| Measuring principle                       | Optical                              |
| Max. Rotational Speed                     | 3000 rpm                             |
| Moment of inertia of the rotor            | 4 x10 <sup>-6</sup> kgm <sup>2</sup> |
| Starting torque                           | < 0.01 Nm                            |
| Ambient temperature                       | -40...+80 °C                         |
| Operating voltage                         | 10...30 VDC                          |
| No-load current                           | ≤ 120 mA                             |
| Wire breakage/Reverse polarity protection | yes                                  |
| Output type                               | Absolute multiturn                   |
| Resolution singleturn                     | 16 Bit                               |
| Resolution multiturn                      | 12 Bit                               |
|   | single-turn scalable                 |
| Communication protocol                    | PROFIBUS-DP                          |
| Design                                    | Solid shaft                          |
| Flange type                               | Clamping flange                      |
| Flange diameter                           | Ø 58 mm                              |
| Shaft Type                                | Solid shaft                          |
| Shaft diameter D [mm]                     | 10                                   |
| Wavelength L [mm]                         | 20                                   |
| Shaft material                            | Stainless steel                      |
| Housing material                          | Die-cast zinc                        |

### Wiring diagram



## Technical data

|                                     |                                     |
|-------------------------------------|-------------------------------------|
| Electrical connection               | Bus connection                      |
|                                     | 3 x M12                             |
| Axial shaft load                    | 40 N                                |
| Radial shaft load                   | 80 N                                |
| 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                                |

|             |                |          |          |              |              |              |              |              |   |
|-------------|----------------|----------|----------|--------------|--------------|--------------|--------------|--------------|---|
| Signal      | PB_A           | PB_B     | Shield   | BUS_VDC      | PB_A         | BUS_GND      | PB_B         | Shield       | - |
| Signal -Pin | BUS in 2       | BUS in 4 | BUS in 5 | BUS out<br>1 | BUS out<br>2 | BUS out<br>3 | BUS out<br>4 | BUS out<br>5 | - |
| Power       | U <sub>B</sub> | -        | 0V       | -            | -            | -            | -            | -            | - |
| Power- Pin  | 1              | 2        | 3        | 4            | 5            | -            | -            | -            | - |