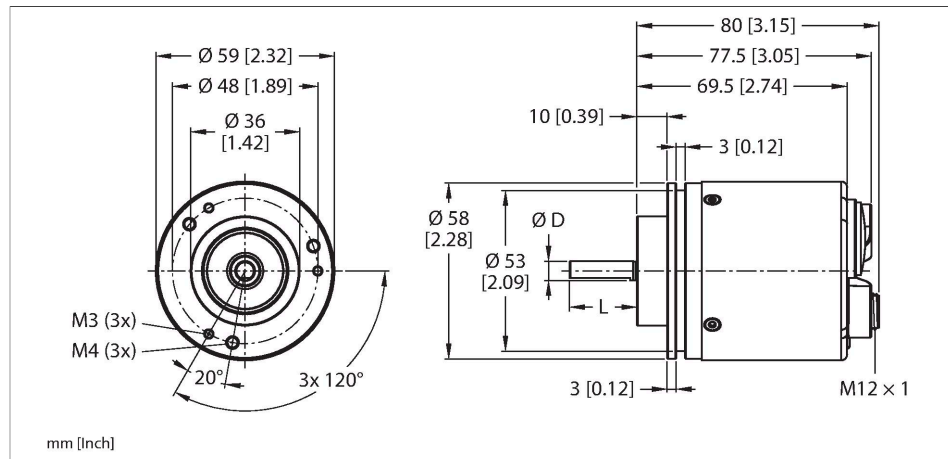


# RM-105T6C-9N43B-B3M12

## Absolute Rotary Encoder - Multiturn Industrial Line



### Technical data

|                                        |                                         |
|----------------------------------------|-----------------------------------------|
| Type                                   | RM-105T6C-9N43B-B3M12                   |
| ID                                     | 200010782                               |
| Measuring principle                    | Optical                                 |
| General data                           |                                         |
| Max. rotational speed                  | 9000 rpm                                |
| Moment of inertia of the rotor         | $3 \times 10^{-6} \text{ kgm}^2$        |
| Absolute accuracy                      | $\pm 0.015^\circ$ At $25^\circ\text{C}$ |
| Output type                            | Absolute multiturn                      |
| Resolution singleturn                  | 19 Bit                                  |
| Resolution multiturn                   | 24 Bit                                  |
|                                        | Singleturn scalable                     |
| Electrical data                        |                                         |
| Operating voltage $U_B$                | 10...30 VDC                             |
| No-load current                        | $\leq 250 \text{ mA}$                   |
| Short-circuit protection               | yes                                     |
| Wire break/reverse polarity protection | yes                                     |
| Communication protocol                 | EtherNet/IP                             |
| Mechanical data                        |                                         |
| Flange type                            | Clamping flange                         |
| Flange diameter                        | $\varnothing 58 \text{ mm}$             |
| Shaft Type                             | Solid shaft                             |
| Shaft diameter D (mm)                  | 6                                       |
| Shaft Length L [mm]                    | 10                                      |

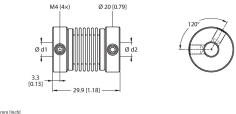
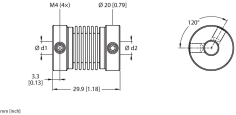
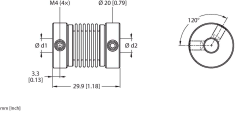
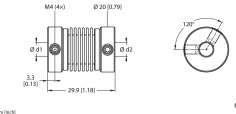
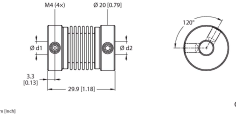
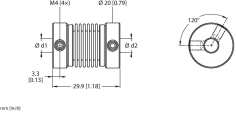
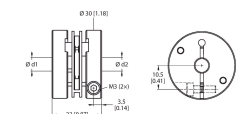
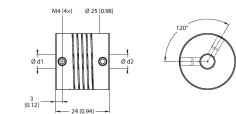
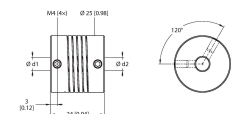
### Features

- $\varnothing 58 \text{ mm}$  clamping flange
- Solid shaft,  $\varnothing 6 \text{ mm} \times 10 \text{ mm}$
- Optical measuring principle
- Shaft material, stainless steel
- Protection class IP65 on the shaft side
- $-40 \dots +80^\circ\text{C}$
- max. 9000 rev / min
- 10...30 VDC
- Ethernet/IP
- M12  $\times$  3 male connector, 4-pin
- Singleturn resolution scalable to 19 bit (default 18 bit)
- Multiturn resolution scalable to 24 bit (default 12 bit)

## Technical data

|                                     |                               |
|-------------------------------------|-------------------------------|
| Shaft material                      | Stainless steel               |
| Housing material                    | Aluminium                     |
| Electrical connection               | Connector, 3 x M12            |
| Axial shaft load                    | 40 N                          |
| Radial shaft load                   | 80 N                          |
| Environmental conditions            |                               |
| Ambient temperature                 | -40...+80 °C                  |
| Vibration resistance (EN 60068-2-6) | 10 g (100 m/s²), 55...2000 Hz |
| Shock resistance (EN 60068-2-27)    | 250 g (2500 m/s²), 6 ms       |
| Protection class                    | IP65                          |
| Protection class shaft              | IP65                          |

## Accessories

|                                                                                                                                                                               |                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------|
| <b>RA-BC-20-06-06</b><br><br><small>mm (inch)</small><br><small>2 mm<br/>0.1 mm</small>     | <b>100048777</b><br>Bellows coupling with aluminum hub<br>Ø 20 mm; d1 = 6 mm, d2 = 6 mm  |
| <b>RA-BC-20-06-10</b><br><br><small>mm (inch)</small><br><small>2 mm<br/>0.1 mm</small>    | <b>100048779</b><br>Bellows coupling with aluminum hub<br>Ø 20 mm; d1 = 6 mm, d2 = 10 mm |
| <b>RA-BC-E-20-06-10</b><br><br><small>mm (inch)</small><br><small>2 mm<br/>0.1 mm</small>  | <b>100048786</b><br>Stainless steel bellows coupling Ø<br>20 mm; d1 = 6 mm, d2 = 10 mm   |
| <b>RA-BC-20-06-08</b><br><br><small>mm (inch)</small><br><small>2 mm<br/>0.1 mm</small>    | <b>100048778</b><br>Bellows coupling with aluminum hub<br>Ø 20 mm; d1 = 6 mm, d2 = 8 mm  |
| <b>RA-BC-E-20-06-06</b><br><br><small>mm (inch)</small><br><small>2 mm<br/>0.1 mm</small> | <b>100048785</b><br>Stainless steel bellows coupling Ø<br>20 mm; d1 = 6 mm, d2 = 6 mm    |
| <b>RA-SDC-30-06-10</b><br><br><small>mm (inch)</small><br><small>2.5 mm<br/>0.1 mm</small> | <b>100048791</b><br>Spring disc coupling Ø 30 mm; d1 =<br>6 mm, d2 = 10 mm               |
| <b>RA-SDC-30-06-06</b><br><br><small>mm (inch)</small><br><small>2.5 mm<br/>0.1 mm</small> | <b>100048790</b><br>Spring disc coupling Ø 30 mm; d1 =<br>6 mm, d2 = 6 mm                |
| <b>RA-HC-25-06-10</b><br><br><small>mm (inch)</small><br><small>2 mm<br/>0.1 mm</small>    | <b>100048795</b><br>Aluminum helix coupling Ø 25 mm; d1<br>= 6 mm, d2 = 10 mm            |
| <b>RA-HC-25-06-06</b><br><br><small>mm (inch)</small><br><small>2 mm<br/>0.1 mm</small>   | <b>100048794</b><br>Aluminum helix coupling Ø 25 mm; d1<br>= 6 mm, d2 = 6 mm             |