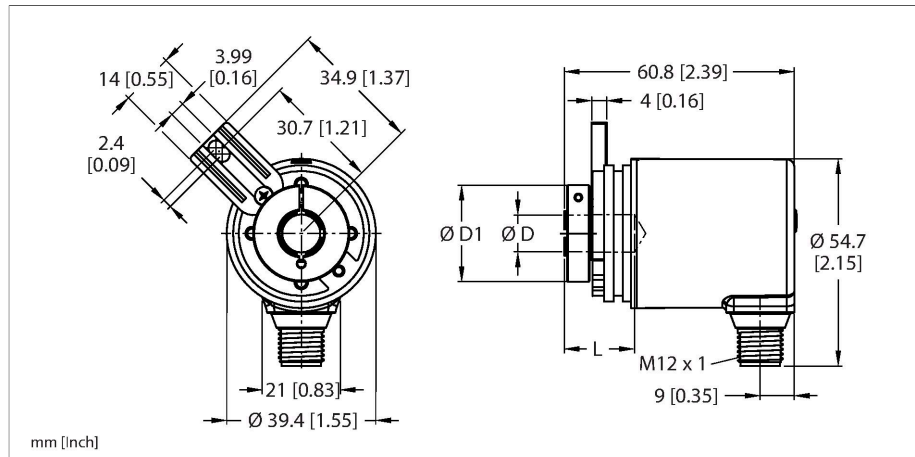


# REM-100BA0T-3C12S12M-H1181

## Absolute Rotary Encoder - Multiturn Industrial Line



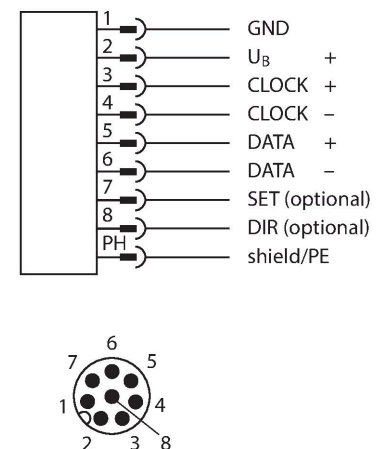
### Features

- Flange with mounting element
- Blind hole hollow shaft, Ø 6.35 mm (plug-in depth max. 18.5 mm)
- Magnetic measuring principle
- Shaft material: stainless steel
- Protection class IP67 on housing and shaft side
- -40...+85 °C
- Max. 4000 rpm (continuous operation 2000 rpm)
- Energy harvesting technology
- 10...30 VDC
- SSI, gray
- M12 × 1 male, 8-pin
- Singleturn, 12-bit resolution
- Multiturn, 12-bit resolution

### Technical data

|                                           |                                  |
|-------------------------------------------|----------------------------------|
| Type                                      | REM-100BA0T-3C12S12M-H1181       |
| ID                                        | 100011278                        |
| Measuring principle                       | Magnetic                         |
| <b>General data</b>                       |                                  |
| Max. Rotational Speed                     | 4000 rpm                         |
| Moment of inertia of the rotor            | $6 \times 10^{-6} \text{ kgm}^2$ |
| Starting torque                           | < 0.01 Nm                        |
| Repetition accuracy                       | $\pm 0.2^\circ$ At 25 °C         |
| Absolute accuracy                         | $\pm 1^\circ$ At 25 °C           |
| Output type                               | Absolute multiturn               |
| Resolution singleturn                     | 12 Bit                           |
| Resolution multiturn                      | 12 Bit                           |
| <b>Electrical data</b>                    |                                  |
| Operating voltage                         | 10...30 VDC                      |
| No-load current                           | 40 mA                            |
| Output current                            | $\leq 30 \text{ mA}$             |
| Short-circuit protection                  | yes                              |
| Wire breakage/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>                    |                                  |
| Design                                    | Hollow shaft                     |
| Flange type                               | Flange with mounting element     |

### Wiring diagram



Technical data

|                                          |                        |
|------------------------------------------|------------------------|
| Flange diameter                          | Ø 36 mm                |
| Shaft Type                               | Blind hole shaft       |
| Shaft diameter D [mm]                    | 6.35                   |
| Shaft Length L [mm]                      | 18.5                   |
| Outer diameter of compression fitting D1 | 24 mm                  |
| Shaft material                           | Stainless steel        |
| Housing material                         | Die-cast zinc          |
| Electrical connection                    | Connector, M12 × 1     |
|                                          | M12, 8-pin             |
| Axial shaft load                         | 20 N                   |
| Radial shaft load                        | 40 N                   |
| Environmental conditions                 |                        |
| Ambient temperature                      | -40...+85 °C           |
| Vibration resistance (EN 60068-2-6)      | 300 m/s², 10...2000 Hz |
| Shock resistance (EN 60068-2-27)         | 2500 m/s², 6 ms        |
| Protection class                         | IP67                   |
| Protection class shaft                   | IP67                   |

Accessories

| Dimension drawing                                                                   | Type           | ID      |                                                                                                                                                                                                                                            |
|-------------------------------------------------------------------------------------|----------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | E-RKC 8T-264-2 | U-04781 | Connection cable, female M12, straight, 8-pin (twisted pairs), shielded, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a> |