

# REM-100B10E-5C13S12M-H1181

## Absolute Rotary Encoder - Multiturn Industrial Line



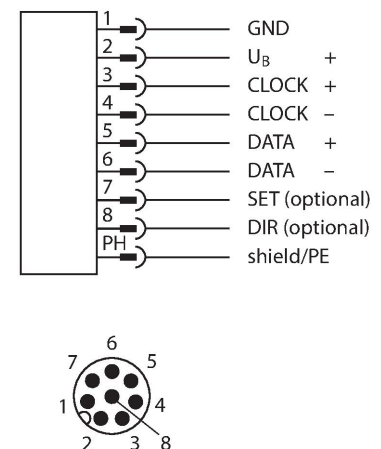
### Features

- Flange with stator coupling, Ø 46 mm
- Blind hole hollow shaft, Ø 10 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, binary
- M12 × 1 male, 8-pin
- Singleturn, 13-bit resolution
- Multiturn, 12-bit resolution

### Technical data

|                                          |                                  |
|------------------------------------------|----------------------------------|
| Type                                     | REM-100B10E-5C13S12M-H1181       |
| ID                                       | 100011281                        |
| 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                    | 13 Bit                           |
| Resolution multiturn                     | 12 Bit                           |
| <b>Electrical data</b>                   |                                  |
| Operating voltage $U_B$                  | 10...30 VDC                      |
| No-load current                          | $\leq 40 \text{ mA}$             |
| Short-circuit protection                 | yes                              |
| Wire break/reverse polarity protection   | yes                              |
| Communication protocol                   | SSi                              |
| Output function                          | Binary coded                     |
| <b>Mechanical data</b>                   |                                  |
| Flange type                              | Flange with stator coupling      |
| Flange diameter                          | Ø 46 mm                          |
| Shaft Type                               | Blind hole shaft                 |
| Shaft diameter D (mm)                    | 10                               |
| Shaft Length L [mm]                      | 18.5                             |
| Outer diameter of compression fitting D1 | 25.5 mm                          |

### Wiring diagram



Technical data

|                                     |                        |
|-------------------------------------|------------------------|
| 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> |