

REM-100BA0T-3C13S12M-H1181
Absolute Rotary Encoder - Multiturn
Industrial Line



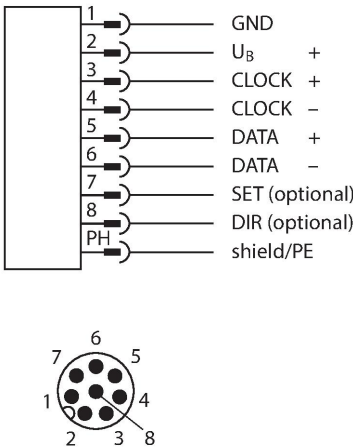
Technical data

Type	REM-100BA0T-3C13S12M-H1181
ID	100011270
Measuring principle	Magnetic
General data	
Max. rotational speed	4000 rpm
Moment of inertia of the rotor	$6 \times 10^{-6} \text{ kgm}^2$
Starting torque	$< 0.01 \text{ Nm}$
Repetition accuracy	$\pm 0.2^\circ \text{ At } 25^\circ \text{C}$
Absolute accuracy	$\pm 1^\circ \text{ At } 25^\circ \text{C}$
Output type	Absolute multiturn
Resolution singleturn	13 Bit
Resolution multiturn	12 Bit
Electrical data	
Operating voltage U_B	10...30 VDC
No-load current	$\leq 40 \text{ mA}$
Output current	$\leq 30 \text{ mA}$
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
Mechanical data	
Flange type	Flange with mounting element
Flange diameter	$\text{Ø } 36 \text{ mm}$
Shaft Type	Blind hole shaft

Features

- Flange with mounting element
- Blind hole hollow shaft, $\text{Ø } 6.35 \text{ mm}$ (plug-in depth max. 18.5 mm)
- Magnetic measuring principle
- Shaft material: stainless steel
- Protection class IP67 on housing and shaft side
- $-40 \dots +85^\circ \text{C}$
- Max. 4000 rpm (continuous operation 2000 rpm)
- Energy harvesting technology
- 10...30 VDC
- SSI, gray
- M12 $\times$ 1 male, 8-pin
- Singleturn, 13-bit resolution
- Multiturn, 12-bit resolution

Wiring diagram



Technical data

Shaft diameter D (mm)	6.35
Shaft diameter D	0.25 in
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 www.turck.com