

EAM580R-SC0.7NC6.14180.A

Solid shaft with clamping flange, magnetic multiturn encoder, 14 bit ST / 18 bit MT

Article number: 11197343

Overview

- Encoder multiturn / CANopen®
- E1 approval (KBA)
- High protection IP 67
- High resistance to shock and vibrations
- Protection against corrosion CX (C5-M)
- Wire cross section 0,5 mm²
- Electronic gear function
- Applicable up to PLd (ISO 13849)



Technical data

Technical data - electrical ratings

Voltage supply	10...30 VDC
Consumption typ.	20 mA (24 VDC, w/o load)
Initializing time	≤ 170 ms after power on
Interface	CANopen®
Function	Multiturn
Steps per revolution	16384 / 14 bit
Number of revolutions	262144 / 18 bit
Sensing method	Magnetic
Interference immunity	EN 61000-6-2 UN ECE R10
Emitted interference	EN 61000-6-4 UN ECE R10
MTTF _d (ISO 13849)	High (>100 years) Use in safety functions exclusively based on Application Note and MTTFd reliability prediction (request separately).
Approval	UL approval / E217823 E1 approval (KBA)

Technical data - mechanical design

Size (flange)	ø58 mm
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Technical data - mechanical design

Shaft type	ø10 x 20 mm, solid shaft with flat
Protection EN 60529	IP 67 (with shaft seal)
Operating speed	≤6000 rpm
Starting torque	≤2.5 Ncm (+20 °C, IP 67)
Moment of inertia	15.38 gcm ²
Admitted shaft load	≤40 N axial ≤80 N radial
Material	Housing: steel, powder-coated Flange: aluminium Shaft: stainless steel
Corrosion protection	IEC 60068-2-52 Salt mist for ambient conditions CX (C5-M) according to ISO 12944-2
Operating temperature	-40...+85 °C (see general information)
Relative humidity	95 %
Resistance	EN 60068-2-6 Vibration 30 g, 10-2000 Hz EN 60068-2-27 Shock 500 g, 1 ms
Weight approx.	250 g
Connection	Flange connector M12, 5-pin

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General information

Self-heating interrelated to speed, protection, attachment method and ambient conditions as well electronics and supply voltage must be considered for precise thermal dimensioning. Self-heating is supposed to approximates 8 K (IP 67 protection) per 1000 rpm. Operating the encoder close to the maximum limits requires measuring the real prevailing temperature at the encoder flange.

Terminal assignment

Cable

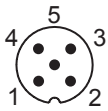
for connection reference -L

Core colour	Signals
white	0 V
brown	+Vs
green	CAN_H
yellow	CAN_L
grey	CAN_GND
Cable data: 5 x 0.5 mm ²	

Flange connector M12, 5-pin

for connection reference -N

Pin	Signals
1	CAN_GND
2	+Vs
3	0 V
4	CAN_H
5	CAN_L



CANopen® features

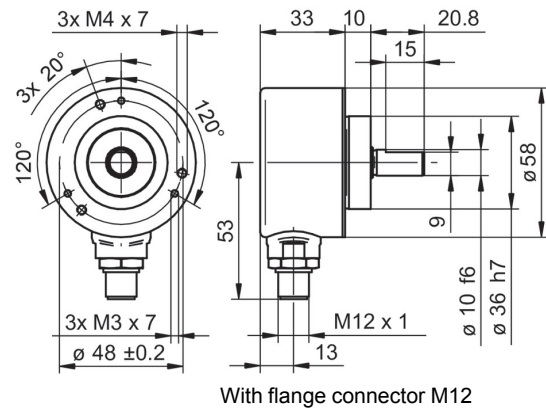
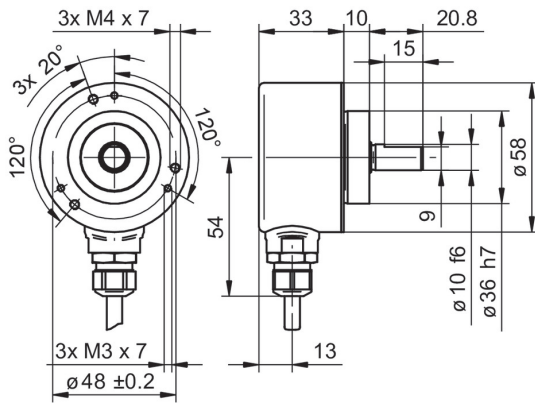
Operating modes	Time-driven (Event-Time) Synchronously triggered (Sync)
Node Monitoring	Heartbeat Node guarding
Programmable parameters	Operating modes Total resolution Scaling Electronic gear function
Diagnosis	Multiturn sensing Position error Temperature exceeding Speed exceeding
Default	50 kbit/s, Node-ID 1 (DS406) 250 kbit/s, Node-ID 4 (DS417)

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Dimensions



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Accessories

Mounting accessories

11101893	Spring encoder arm
10125051	Mounting adaptor