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FRABA

IXARC Absolute Rotary Encoder

UCD-CA01B-1212-V8S0-PAM



Interface

Interface	CANopen
Profile	DS-406
Features	Round Axis
Transmission Rate	min. 20 kBaud, max. 1 MBaud
Interface Cycle Time	≥ 1 ms
Video Manual	▶ Watch a simple installation video
Programming Functions	Resolution, preset, 2 limit switches, 8 CAMS, baud rate, CAN-Identifier, bootloader, transmission modes: polled, cyclic, sync

Outputs

Output Driver	Transceiver (ISO 11898), Galvanically Isolated by Opto-Couplers
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Electrical Data

Supply Voltage	9 - 30 VDC
Power Consumption	≤ 1.2 W
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
EMC: Emitted Interference	DIN EN 61000-6-4
EMC: Noise Immunity	DIN EN 61000-6-2
MTTF	240 years @ 40 °C

Data Sheet

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Sensor

Technology	Magnetic
Resolution Singleturn	12 bit
Resolution Multiturn	12 bit
Multiturn Technology	Self powered magnetic pulse counter (no battery, no gear)
Accuracy (INL)	$\pm 0.0878^\circ (\leq 12 \text{ bit})$
Code	Binary

Environmental Specifications

Protection Class (Shaft)	IP65
Protection Class (Housing)	IP65
Operating Temperature	-40 °C (-40 °F) - +85 °C (+185 °F)
Storage Temperature	-40 °C (-40 °F) - +85 °C (+185 °F)
Humidity	98% RH, no condensation

Mechanical Data

Connection Cap Material	None
Housing Material	Steel
Housing Coating	Cathodic corrosion protection (>720 hrs salt spray resistance)
Flange Type	Blind Hollow, $\varnothing 36 \text{ mm} / \varnothing 42 \text{ mm}$
Flange Material	Aluminum
Shaft Type	Blind Hollow, Depth = 18 mm
Shaft Diameter	$\varnothing 8 \text{ mm} (0.31\text{'})$
Shaft Material	Stainless Steel V2A (1.4305, 303)
Friction Torque	$\leq 3 \text{ Ncm} @ 20 \text{ }^\circ\text{C} (4.2 \text{ oz-in} @ 68 \text{ }^\circ\text{F})$
Max. Permissible Mechanical Speed	$\leq 12000 \text{ 1/min}$
Shock Resistance	$\leq 100 \text{ g} (\text{half sine } 6 \text{ ms, EN 60068-2-27})$
Permanent Shock Resistance	$\leq 10 \text{ g} (\text{half sine } 16 \text{ ms, EN 60068-2-29})$
Vibration Resistance	$\leq 10 \text{ g} (10 \text{ Hz} - 1000 \text{ Hz, EN 60068-2-6})$
Length	54,2 mm (2.13")
Weight	145 g (0.32 lb)
Maximum Axial / Radial Misalignment	Static $\pm 0.3 \text{ mm} / \pm 0.5 \text{ mm}$; Dynamic $\pm 0.1 \text{ mm} / \pm 0.2 \text{ mm}$

Electrical Connection

Connection Orientation	Axial
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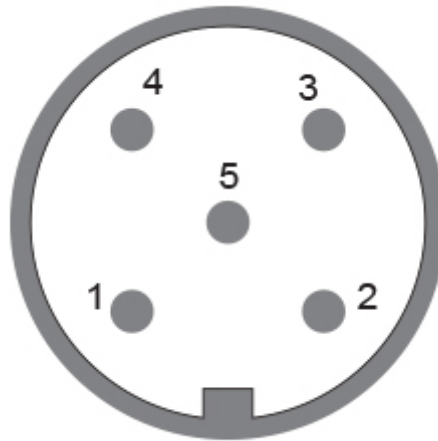
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Connection Type	Cable / Connector
Connector	M12, Male, 5 pin, a coded

Certification

Approval	CE + cULus + E1
Product Life Cycle	Established



Connection Plan

SIGNAL	PIN NUMBER
Power Supply	2
GND	3
CAN High	4
CAN Low	5
CAN GND	1

Connector-View on Encoder

Dimensional Drawing

[2D Drawing](#)

Accessories

Connectors & Cables

10m PUR Cable, 5pin, A-Coded, f

POS M12 5pin-A Female+5m PUR Cable

POS M12 5pin-A Female+2m PUR Cable

POS M12 5pin-A Female+10m PUR Cable

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M12, 5pin A-Coded, Female
More
Clamping Rings
Clamping Ring V12

Contact



Contact Us

The picture and drawing are for general presentation purposes only. Please refer to the "Download" section for detailed technical drawings. All dimension in [inch] mm. © FRABA B.V., All rights reserved. We do not assume responsibility for technical inaccuracies or omissions. Specifications are subject to change without notice.