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FRABA

IXARC Absolute Rotary Encoder

UCD-C901B-1212-V8S0-2AW



Interface

| | |
|-----------------------|---|
| Interface | SAE J1939 |
| Profile | J1939 specific |
| Manual Functions | Programmable |
| Features | Round Axis |
| Transmission Rate | min. 20 kBaud, max. 1 MBaud |
| Interface Cycle Time | ≥ 1 ms |
| Programming Functions | Resolution, preset, direction, node ID, baud rate |

Outputs

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

Electrical Data

| | |
|-----------------------------|-------------------|
| Supply Voltage | 9 - 30 VDC |
| Power Consumption | ≤ 1.2 W |
| Start-Up Time | <500 ms |
| 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 |



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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 | -30 °C fixed (-22 °F), -5 °C flexible (+23 °F) - +80 °C (+176 °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 | $\leq 100 \text{ g (half sine 6 ms, EN 60068-2-27)}$ |
| Permanent Shock Resistance | $\leq 10 \text{ g (half sine 16 ms, EN 60068-2-29)}$ |
| Vibration Resistance | $\leq 10 \text{ g (10 Hz - 1000 Hz, EN 60068-2-6)}$ |
| Length | 54,2 mm (2.13") |
| Weight | 255 g (0.56 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

Data Sheet

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| | |
|------------------------|---|
| Connection Orientation | Axial |
| Connection Type | Cable / Connector |
| Cable Length | 2 m [79"] |
| Wire Cross Section | 0.14 mm ² / AWG 26 |
| Material / Type | PVC |
| Cable Diameter | 6 mm (0.24 in) |
| Minimum Bend Radius | 46 mm (1.81") fixed, 61 mm (2.4") flexing |

Certification

| | |
|--------------------|------------|
| Approval | CE + cULus |
| Product Life Cycle | New |

Connection Plan

| | |
|--------------|-------------|
| SIGNAL | CABLE COLOR |
| Power Supply | Red |
| GND | Yellow |
| CAN High | White |
| CAN Low | Brown |
| CAN GND | Green |

Connector-View on Encoder
Dimensional Drawing

[2D Drawing](#)

Accessories

Clamping Rings
Clamping Ring V12

Contact



Contact Us

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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.