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FRABA

IXARC Absolute Rotary Encoder

OCD-D2C1B-0016-B120-H3P



Interface

| | |
|-----------------------|--|
| Interface | DeviceNet |
| Profile | CIP (Common Industrial Protocol) |
| Manual Functions | Address selector switch 0-99 and terminal resistor (with connection cap) |
| Transmission Rate | 150 kBaud, 250 kBaud, 500 kBaud |
| Interface Cycle Time | ≥ 10 ms |
| Programming Functions | Resolution, preset, complement, transmission mode: polled mode, cyclic mode, sync mode |

Outputs

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

Electrical Data

| | |
|-----------------------------|--|
| Supply Voltage | 10 - 30 VDC |
| Current Consumption | ≤ 230 mA @ 10 V DC, ≤ 100 mA @ 24 V DC |
| Power Consumption | ≤ 2.5 W |
| Start-Up Time | < 1 s |
| Reverse Polarity Protection | Yes |
| Short Circuit Protection | Yes |
| EMC: Emitted Interference | DIN EN 61000-6-4 |
| EMC: Noise Immunity | DIN EN 61000-6-2 |

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| | |
|------|--------------------|
| MTTF | 13.5 years @ 40 °C |
|------|--------------------|

Sensor

| | |
|-----------------------|---|
| Technology | Optical |
| Resolution Singleturn | 16 bit |
| Accuracy (INL) | $\pm 0.0220^\circ$ (14 - 16 bit), $\pm 0.0439^\circ$ (≤ 13 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 | Aluminum |
| Housing Material | Steel |
| Housing Coating | Cathodic corrosion protection (>720 hrs salt spray resistance) |
| Flange Type | Blind Hollow, \varnothing 58 mm (B) |
| Flange Material | Aluminum |
| Shaft Type | Blind Hollow, Depth = 30 mm |
| Shaft Diameter | \varnothing 12 mm (0.47") |
| Shaft Material | Stainless Steel V2A (1.4305, 303) |
| Rotor Inertia | $\leq 30 \text{ gcm}^2$ [$\leq 0.17 \text{ oz-in}^2$] |
| Friction Torque | $\leq 3 \text{ Ncm}$ @ 20 °C (4.2 oz-in @ 68 °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 | 88 mm (3.46") |
| Weight | 470 g (1.04 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

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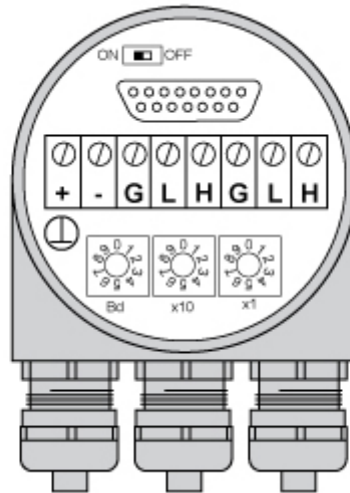
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| | |
|------------------------|-----------------|
| Connection Orientation | Radial |
| Connection Type | 3 x Cable Gland |

Product Life Cycle

| | |
|--------------------|-------------|
| Product Life Cycle | Established |
| Approval | CE |



Connection Plan

| SIGNAL | PIN NUMBER |
|--------------|------------|
| Power Supply | + |
| GND | - |
| CAN High | H |
| CAN Low | L |
| CAN GND | G |
| CAN High | H |
| CAN Low | L |
| CAN GND | G |
| GND | ⊥ |

Connector-View on Encoder
Dimensional Drawing

[2D Drawing](#)

Accessories

Clamping Rings

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Clamping Ring B15

Got questions? Need an individual solution? We are here to help!



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.

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