



IXARC Absolute Rotary Encoder

OCE-EC00B-1416-F12W-HFE



Interface

| | |
|-----------------------|--|
| Interface | Ethercat |
| Profile | CoE (CANopen over EtherCAT, DS-301+DS-406) |
| Features | Boot-Loader, Round Axis |
| Transmission Rate | 10 / 100 Mbit |
| Interface Cycle Time | $\geq 62.5 \mu\text{s}$ |
| Programming Functions | Resolution, preset, counting direction |

Outputs

| | |
|---------------|----------|
| Output Driver | Ethernet |
|---------------|----------|

Electrical Data

| | |
|-----------------------------|--|
| Supply Voltage | 10 - 30 VDC |
| Current Consumption | $\leq 230 \text{ mA @ } 10 \text{ V DC}, \leq 100 \text{ mA @ } 24 \text{ V DC}$ |
| Power Consumption | $\leq 2.5 \text{ W}$ |
| Start-Up Time | $< 1 \text{ s}$ |
| Reverse Polarity Protection | Yes |
| Short Circuit Protection | Yes |
| EMC: Emitted Interference | DIN EN 61000-6-4 |
| EMC: Noise Immunity | DIN EN 61000-6-2 |
| Electrical Lifetime | $> 10^5 \text{ h}$ |

POSITAL

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Sensor

| | |
|-----------------------|---|
| Technology | Optical |
| Resolution Singleturn | 16 bit |
| Resolution Multiturn | 14 bit |
| Multiturn Technology | Mechanical Gearing (no Battery) |
| Accuracy (INL) | $\pm 0.0220^\circ$ (14 - 16 bit), $\pm 0.0439^\circ$ (≤ 13 bit) |
| Code | Binary |

Environmental Specifications

| | |
|----------------------------|------------------------------------|
| Protection Class (Shaft) | IP66/IP67 |
| Protection Class (Housing) | IP66/IP67 |
| Operating Temperature | -40 °C (-40 °F) - +70 °C (+158 °F) |
| Storage Temperature | -40 °C (-40 °F) - +85 °C (+185 °F) |
| Humidity | 98% RH, no condensation |

Mechanical Data

| | |
|-----------------------------------|--|
| Connection Cap Material | Stainless Steel V4A (1.4404; 316 L) |
| Housing Material | Stainless Steel V4A (1.4404, 316 L) |
| Housing Coating | No Coating |
| Flange Type | Clamp, \varnothing 78 mm, ATEX |
| Flange Material | Stainless steel V4A (1.4404, 316 L) |
| Shaft Type | Solid, Single Flat, Length = 20 mm |
| Shaft Diameter | \varnothing 12 mm (0.47") |
| Rotor Inertia | ≤ 35 gcm ² [≤ 0.2 oz-in ²] |
| Friction Torque | ≤ 3 Ncm @ 20 °C (4.2 oz-in @ 68 °F) |
| Max. Permissible Mechanical Speed | ≤ 3000 1/min |
| Shock Resistance | ≤ 100 g (half sine 11 ms, EN 60068-2-27) |
| Vibration Resistance | ≤ 10 g (10 Hz - 2000 Hz, EN 60068-2-6) |
| Length | 134 mm (5.28") |
| Weight | 2735 g (6.03 lb) |

Electrical Connection

| | |
|------------------------|------------------------|
| Connection Orientation | Radial |
| Connection Type | 3 x Blind Plug, Radial |

Product Life Cycle

| | |
|--------------------|-------------|
| Product Life Cycle | Established |
|--------------------|-------------|

Data Sheet

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Approval

CE + ATEX Zone 1 & 21 (Oil+Gas)

Connection Plan

Connector-View on Encoder
Dimensional Drawing

[2D Drawing](#)

Accessories

Explosion Proof Accessories

Ex-Proof Blind Plug- M20x1.5 V4A

Ex-Proof Cable Gland- M20x1.5 V4A (6.5-8mm)

Ex-Proof Cable Gland- M20x1.5 V4A (8-10mm)

Ex-Proof Cable Gland- M20x1.5 V4A (10-11.5mm)

[More](#)

Contact



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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.