



POSITAL

FRABA

IXARC Absolute Rotary Encoder

OCD-D2C1B-1216-C10V-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 |
| Resolution Multiturn | 12 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) - +85 °C (+185 °F) |
| Storage Temperature | -40 °C (-40 °F) - +85 °C (+185 °F) |
| Humidity | 98% RH, no condensation |

Mechanical Data

| | |
|---|--|
| Connection Cap Material | Stainless Steel V2A (1.4305; 303) |
| Housing Material | Stainless Steel V2A (1.4305, 303) |
| Housing Coating | No Coating |
| Flange Type | Clamp, \varnothing 58 mm (C) |
| Flange Material | Stainless steel V2A (1.4305; 303) |
| Shaft Type | Solid, Single Flat, Length = 20 mm |
| Shaft Diameter | \varnothing 10 mm (0.39") |
| Shaft Material | Stainless Steel V2A (1.4305, 303) |
| Max. Shaft Load | Axial 40 N, Radial 110 N |
| Minimum Mechanical Lifetime (10^8 revolutions with Fa/Fr) | 430 (20 N / 40 N), 150 (40 N / 60 N), 100 (40 N / 80 N), 55 (40 N / 110 N) |
| Rotor Inertia | $\leq 30 \text{ gcm}^2$ [$\leq 0.17 \text{ oz-in}^2$] |
| Friction Torque | $\leq 5 \text{ Ncm}$ @ 20 °C, (7.1 oz-in @ 68 °F) |
| Max. Permissible Mechanical Speed | $\leq 3000 \text{ 1/min}$ |
| 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 | 81,5 mm (3.21") |
| Weight | 1025 g (2.26 lb) |

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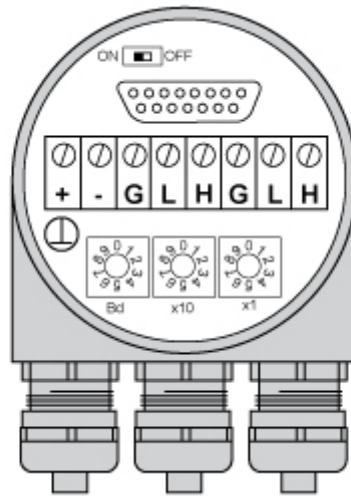
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Electrical Connection

| | |
|------------------------|-----------------|
| 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](#)



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Accessories

Couplings

Coupling Disc Type-10-12
Coupling Bellow Type-10-10
Coupling Bellow Type-06-10
Coupling Bellow Type-08-10
Coupling Bellow Type-10-12
Coupling Bellow Type-10-(1/4")
Coupling Bellow Type-10-(3/8")
Coupling Jaw Type-06-10
Coupling Jaw Type-08-10
Coupling Jaw Type-10-12
Coupling Jaw Type-10-(1/4")
Coupling Jaw Type-10-(3/8")
Coupling Jaw Type-10-10
Coupling Disc Type-06-10
Coupling Disc Type-10-10

More

Adapter Flanges

Mounting Bracket for Clamping Flange w/ fixtures
L Mounting Bracket w/ screws
Mounting Bracket Spring Loaded f. Clamping Flange
Clamping Rings
Clamp Disc w/ Eccentric Hole-4pcs
Clamp Disc w/ Centred Hole-4pcs

Contact

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