



# POSITAL

## FRABA

### IXARC Absolute Rotary Encoder

### OCD-D2C1B-1216-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	$\geq 10$ 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
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#### Electrical Data

Supply Voltage	10 - 30 VDC
Current Consumption	$\leq 230$ mA @ 10 V DC, $\leq 100$ mA @ 24 V DC
Power Consumption	$\leq 2.5$ 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

Data Sheet

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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), $\pm 0.0439^\circ$ ( $\leq 13$ 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	Wet coating (RAL 9006 White Aluminium) + Cathodic corrosion protection (>720 h salt spay 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	99 mm (3.90")
Weight	480 g (1.06 lb)
Maximum Axial / Radial Misalignment	Static $\pm 0.3 \text{ mm}$ / $\pm 0.5 \text{ mm}$ ; Dynamic $\pm 0.1 \text{ mm}$ / $\pm 0.2 \text{ mm}$

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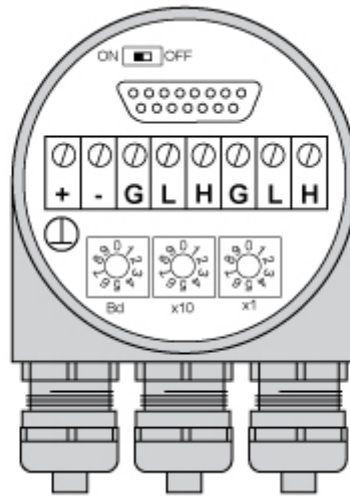
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### Electrical Connection

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

Clamping Rings  
Clamping Ring B15

### Contact

Sold & Serviced By:

 Canadian and International Sales  
**ELECTROMATE**  
877-737-8698  
[sales@electromate.com](mailto:sales@electromate.com)  
[www.electromate.com](http://www.electromate.com)

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