



# POSITAL

## FRABA

### IXARC Absolute Rotary Encoder

### UCD-C901B-1212-VAS0-2RW



#### Interface

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

#### Outputs

Output Driver	Transceiver (ISO 11898), Galvanically Isolated by Opto-Couplers
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#### Electrical Data

Supply Voltage	9 - 30 VDC
Power Consumption	$\leq 1.2$ 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	$\varnothing 10 \text{ mm} (0.39\text{'})$
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	50,2 mm (1.98")
Weight	290 g (0.64 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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Connection Orientation	Radial
Connection Type	Cable / Connector
Cable Length	2 m [79"]
Wire Cross Section	0.14 mm <sup>2</sup> / 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.

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