



### IXARC Absolute Rotary Encoder

OCD-CAA1B-0016-C06S-H72



#### Interface

Interface	CANopen
Profile	DS-406
Programming Functions	Resolution, preset, 2 limit switches, 8 CAMS, baud rate, CAN-Identifier, bootloader, transmission modes: polled, cyclic, sync
Manual Functions	Address selector switch 0-99 and terminal resistor (with connection cap)
Features	Round Axis
Transmission Rate	min. 20 kBaud, max. 1 MBaud
Interface Cycle Time	$\geq 1$ ms
Video Manual	<a href="#">▶ Watch a simple installation video</a>

#### 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	$< 250$ ms
Reverse Polarity Protection	Yes

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Short Circuit Protection	Yes
EMC: Emitted Interference	DIN EN 61000-6-4
EMC: Noise Immunity	DIN EN 61000-6-2
MTTF	13.5 years @ 40 °C

### Sensor

Technology	Optical
Resolution Singleturn	16 bit
Accuracy (INL)	$\pm 0.0220^\circ$ (14 - 16 bit), $\pm 0.0439^\circ$ ( $\leq 13$ 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	Aluminum
Housing Material	Steel
Housing Coating	Cathodic corrosion protection (>720 hrs salt spray resistance)
Flange Type	Clamp, $\varnothing$ 58 mm (C)
Flange Material	Aluminum
Shaft Type	Solid, Length = 10 mm
Shaft Diameter	$\varnothing$ 6 mm (0.24")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Max. Shaft Load	Axial 40 N, Radial 110 N
Minimum Mechanical Lifetime (10 <sup>8</sup> revolutions with Fa/Fr)	530 (20 N / 40 N), 185 (40 N / 60 N), 130 (40 N / 80 N), 80 (40 N / 110 N)
Rotor Inertia	$\leq 30$ gcm <sup>2</sup> [ $\leq 0.17$ oz-in <sup>2</sup> ]
Friction Torque	$\leq 5$ Ncm @ 20 °C, (7.1 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	$\leq 3000$ 1/min
Shock Resistance	$\leq 100$ g (half sine 6 ms, EN 60068-2-27)
Permanent Shock Resistance	$\leq 10$ g (half sine 16 ms, EN 60068-2-29)
Vibration Resistance	$\leq 10$ g (10 Hz - 1000 Hz, EN 60068-2-6)

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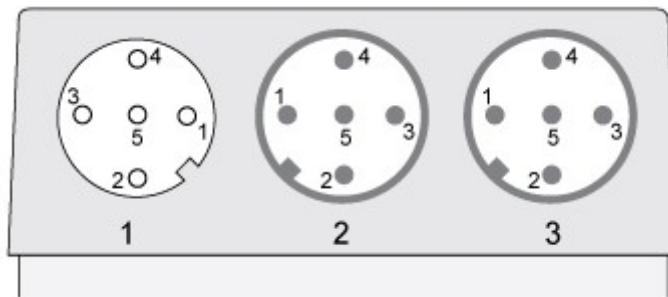
Length	69,5 mm (2.74")
Weight	460 g (1.01 lb)

### Electrical Connection

Connection Orientation	Radial
Connection Type	3 x M12 Connector (CAN/DeviceNet)
Connector 1	M12, Female, 5 pin, a coded
Connector 2	M12, Male, 5 pin, a coded
Connector 3	M12, Male, 5 pin, a coded

### Certification

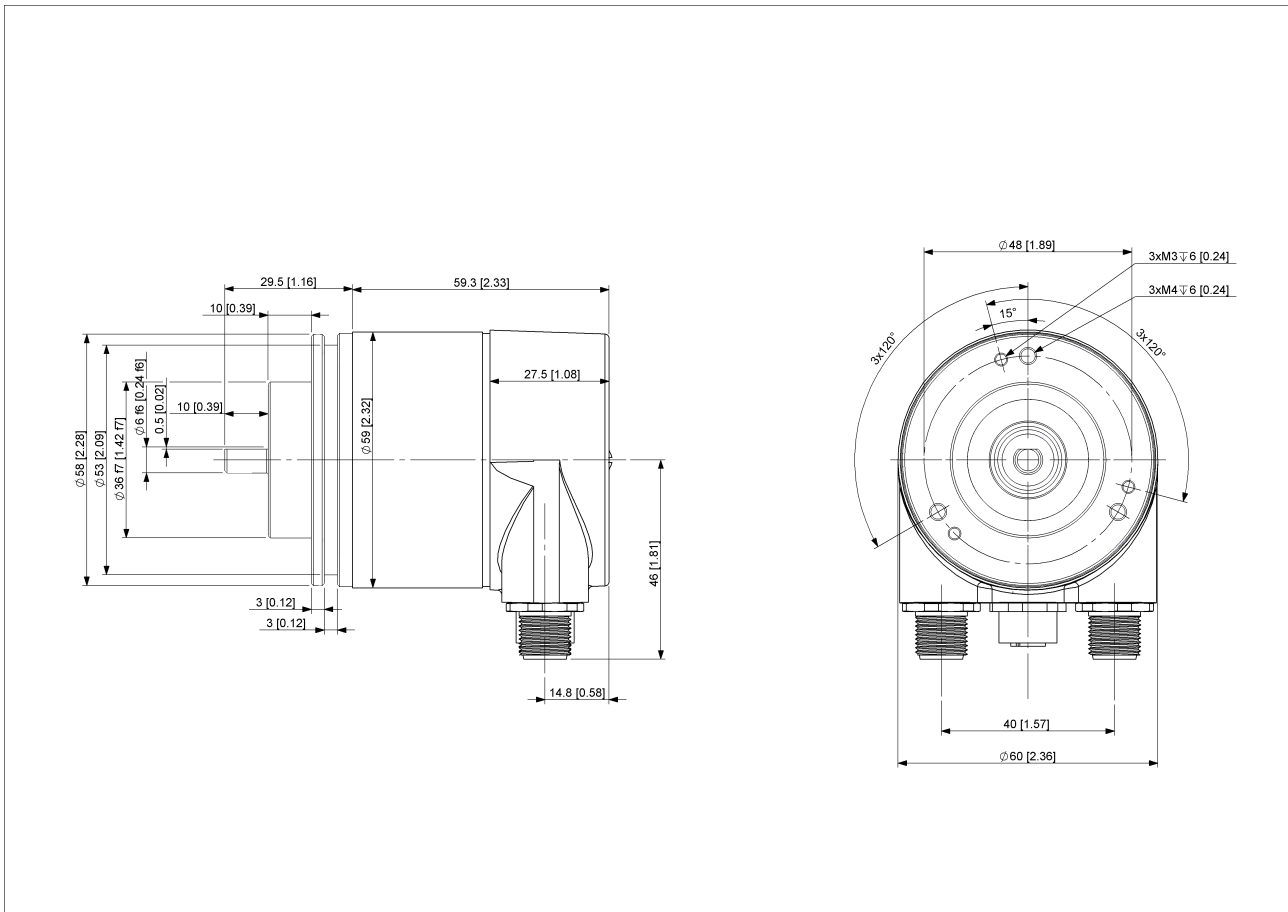
Approval	CE + cULus listed, Industrial Control Equipment
Product Life Cycle	Established



### Connection Plan

SIGNAL	CONNECTOR	PIN NUMBER
CAN GND	Connector 1	1
Not Connected	Connector 1	2
Not Connected	Connector 1	3
CAN High	Connector 1	4
CAN Low	Connector 1	5
Power Supply	Connector 2	1
Power Supply	Connector 2	2
GND	Connector 2	3
GND	Connector 2	4
Not Connected	Connector 2	5
CAN GND	Connector 3	1
Not Connected	Connector 3	2
Not Connected	Connector 3	3
CAN High	Connector 3	4
CAN Low	Connector 3	5

Connector-View on Encoder



### [2D Drawing](#)

### Accessories

#### Connectors & Cables

M12, 5pin A-Coded, Male

10m PUR Cable, 5pin, A-Coded, f

2m PUR Cable, 5pin, A-Coded, f

5m PUR Cable, 5pin, A-Coded, f

2m PUR Cable, 5pin, A-Coded, m

5m PUR Cable, 5pin, A-Coded, m

10m PUR Cable, 5pin, A-Coded, m

M12, 5pin A-Coded, Female

More

Clamp Disc w/ Eccentric Hole-4pcs

Clamp Disc w/ Centred Hole-4pcs

Coupling Bellow Type-06-06

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

Mounting Bracket for Clamping Flange w/ fixtures  
L Mounting Bracket w/ screws  
Mounting Bracket Spring Loaded f. Clamping Flange

### 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.