



### IXARC Absolute Rotary Encoder

**OCD-E2A2B-1416-B100-PRM**



#### Interface

Interface	Ethernet POWERLINK V2
Profile	Powerlink V2, DS-406
Programming Functions	Resolution, time base and filter for velocity, preset, counting direction, IP-Address
Manual Functions	IP-Address switch 0-255
Features	Round Axis + Integrated Hub
Transmission Rate	10 / 100 Mbit
Interface Cycle Time	$\geq 400 \mu\text{s}$

#### Outputs

Output Driver	Ethernet
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#### 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	$< 250 \text{ ms}$
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
EMC: Emitted Interference	DIN EN 61000-6-4
EMC: Noise Immunity	DIN EN 61000-6-2

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Electrical Lifetime	>10 <sup>5</sup> h
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### Sensor

Technology	Optical
Resolution Singleturn	16 bit
Resolution Multiturn	14 bit
Multiturn Technology	Mechanical Gearing (no Battery)
Accuracy (INL)	±0.0220° (14 - 16 bit), ±0.0439° (≤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

Housing Material	Steel
Housing Coating	Wet coating (RAL 9006 White Aluminium) + Cathodic corrosion protection (>720 h salt spray resistance)
Flange Type	Blind Hollow, ø 58 mm (B)
Flange Material	Aluminum
Shaft Type	Blind Hollow, Depth = 30 mm
Shaft Diameter	ø 10 mm (0.39")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Rotor Inertia	≤ 30 gcm <sup>2</sup> [≤ 0.17 oz-in <sup>2</sup> ]
Friction Torque	≤ 3 Ncm @ 20 °C (4.2 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	≤ 12000 1/min
Shock Resistance	≤ 100 g (half sine 6 ms, EN 60068-2-27)
Permanent Shock Resistance	≤ 10 g (half sine 16 ms, EN 60068-2-29)
Vibration Resistance	≤ 10 g (10 Hz - 1000 Hz, EN 60068-2-6)
Length	98,5 mm (3.88")
Weight	380 g (0.84 lb)

### Electrical Connection

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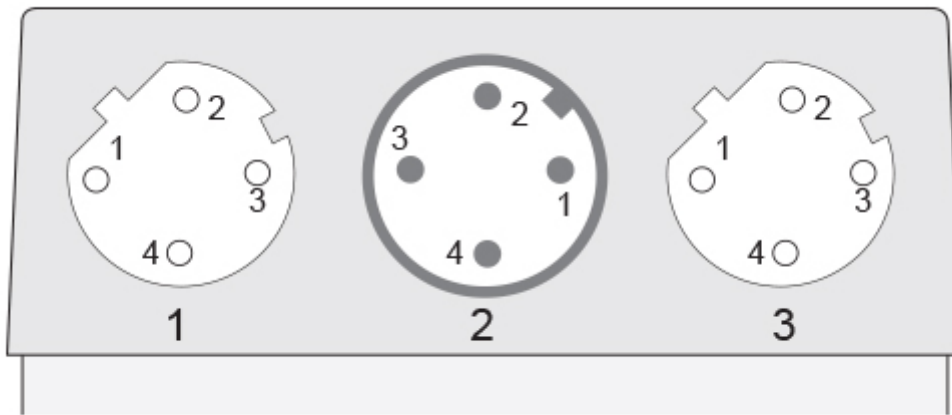
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Connection Orientation	Radial
Connector 1	M12, Female, 4 pin, d coded
Connector 2	M12, Male, 4 pin, a coded
Connector 3	M12, Female, 4 pin, d coded

### Certification

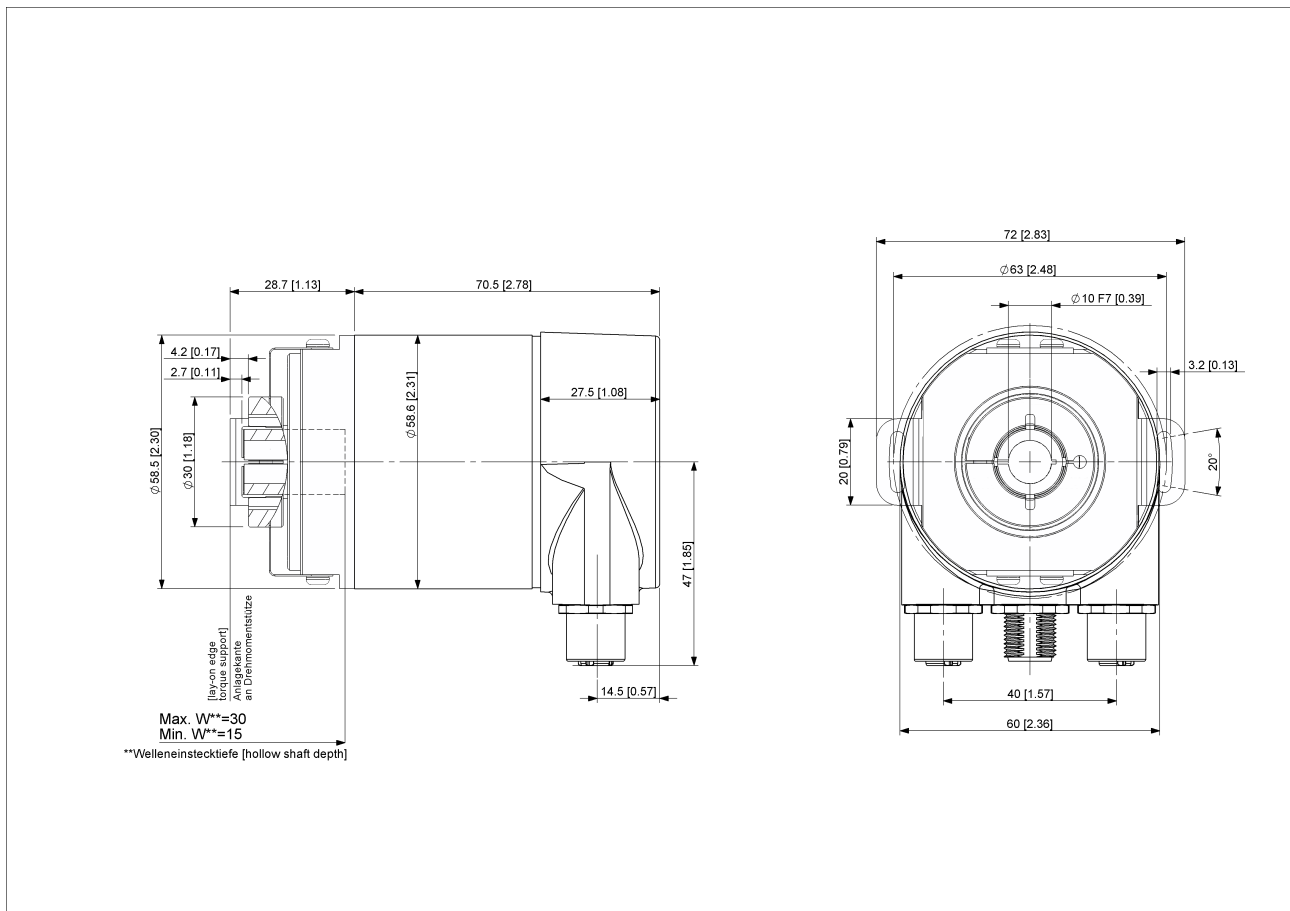
Approval	CE + cULus listed, Industrial Control Equipment
Product Life Cycle	Established



### Connection Plan

SIGNAL	CONNECTOR	PIN NUMBER
Tx+	Connector 1	1
Rx+	Connector 1	2
Tx-	Connector 1	3
Rx-	Connector 1	4
Power Supply	Connector 2	1
Not Connected	Connector 2	2
GND	Connector 2	3
Not Connected	Connector 2	4
Tx+	Connector 3	1
Rx+	Connector 3	2
Tx-	Connector 3	3
Rx-	Connector 3	4

Connector-View on Encoder



### [2D Drawing](#)

### Accessories

#### Connectors & Cables

- 10m PUR Cable, 5pin, A-Coded, f
- 2m PUR Cable, 5pin, A-Coded, f
- 5m PUR Cable, 5pin, A-Coded, f
- 2m PUR Cable, 4pin, D-Coded, m
- M12, 4pin A-Coded, Female
- 10m PUR Cable, 4pin, D-Coded, m
- 10m PVC Cable, 4pin, D-Coded, m
- 2m PVC Cable, 4pin, D-Coded, m
- 5m PVC Cable, 4pin, D-Coded, m
- M12, 4pin D-Coded, Male
- 5m PUR Cable, 4pin, D-Coded, m
- More

#### Clamping Ring B15

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### 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.