

IXARC Absolute Rotary Encoder

OCD-EIC1B-1216-B12V-PRM



Interface

Interface	Profinet
Speed	Real Time (RT), Isochronous Real Time (IRT)
Profile	Profidrive Profile 4.x, Encoder Profile 4.0, 4.1, 4.2
Diagnostics	Different faults and warnings for Memory, Temperature, Synchronization, Commissioning diagnostics, Commissioning invalid scaling, Communication, Master's sign of life
Features	Boot-Loader, Round Axis, Flashing LEDs, MRP, MRPD, Acceleration values
Transmission Rate	100 Mbit
Interface Cycle Time	$\geq 125 \mu\text{s}$
Programming Functions	Resolution, time base and filter for velocity, preset, counting direction, IP-Address, Fractional scaling, Encoder parameter control via GSDML or Non-Volatile memory

Outputs

Output Driver	Ethernet
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Electrical Data

Supply Voltage	10 - 32 VDC
Power Consumption	$\leq 3 \text{ W}$
Start-Up Time	$< 15 \text{ s}$

Data Sheet

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Max. Permissible Electric Speed	12000 1/min (12bit), 1000 1/min (16bit)
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	95 years @ 40 °C

Sensor

Technology	Optical
Resolution Singleturn	16 bit
Resolution Multiturn	12 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)	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

Housing Material	Stainless Steel V2A (1.4305, 303)
Housing Coating	No Coating
Flange Type	Blind Hollow, ø 58 mm (B)
Flange Material	Stainless steel V2A (1.4305; 303)
Shaft Type	Blind Hollow, Depth = 30 mm
Shaft Diameter	ø 12 mm (0.47")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Rotor Inertia	≤ 30 gcm ² [≤ 0.17 oz-in ²]
Friction Torque	≤ 5 Ncm @ 20 °C, (7.1 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	≤ 3000 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")

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Weight	895 g (1.97 lb)
Maximum Axial / Radial Misalignment	Static ± 0.3 mm / ± 0.5 mm; Dynamic ± 0.1 mm / ± 0.2 mm

Electrical Connection

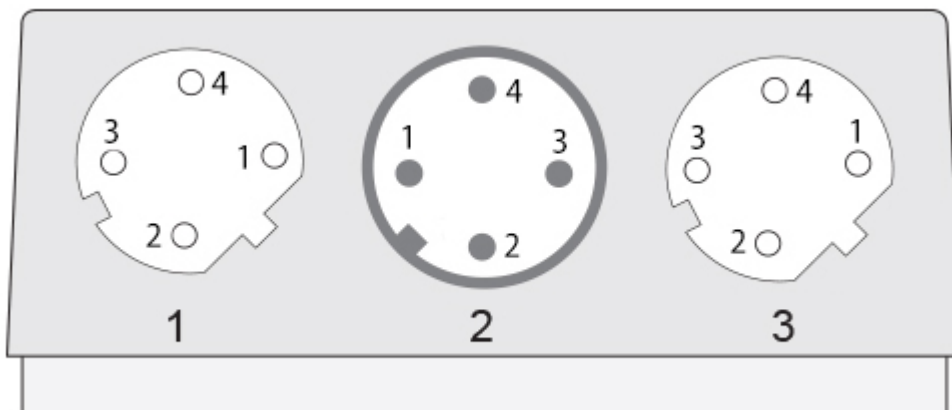
Connection Orientation	Radial
Connector 1	M12, Female, 4 pin, d coded
Connector 2	M12, Male, 4 pin, a coded
Connector 3	M12, Female, 4 pin, d coded

Certification

Approval	CE
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Product Life Cycle

Product Life Cycle	New
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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

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Connector-View on Encoder **Dimensional Drawing**

Accessories

Connectors & Cables

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
POS M12 5pin-A Female+5m PUR Cable
POS M12 5pin-A Female+2m PUR Cable
POS M12 5pin-A Female+10m PUR Cable
M12, 4pin D-Coded, Male
M12, 5pin A-Coded, Female
5m PUR Cable, 4pin, D-Coded, m
More
Clamping Rings
Clamping Ring B15-VA

Got questions? Need an individual solution? We are here to help!



Contact Us

If the drawings are not available please refer to the "Download" section. The picture and drawing are for general presentation purposes only. 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.