

IXARC Absolute Rotary Encoder

OCD-EIC1B-0013-B12S-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	13 bit
Accuracy (INL)	$\pm 0.0220^\circ$ (14 - 16 bit), $\pm 0.0439^\circ$ (≤ 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	Steel
Housing Coating	Wet coating (RAL 9006 White Aluminium) + Cathodic corrosion protection (>720 h salt spray 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	$\leq 5 \text{ Ncm}$ @ 20 °C, (7.1 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	$\leq 3000 \text{ 1/min}$
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	87,5 mm (3.44")

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Weight	380 g (0.84 lb)
Maximum Axial / Radial Misalignment	Static ± 0.3 mm / ± 0.5 mm; Dynamic ± 0.1 mm / ± 0.2 mm

Electrical Connection

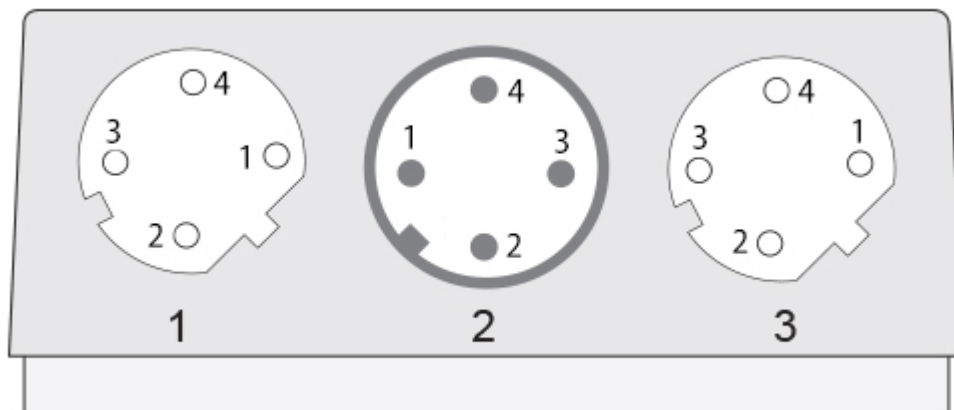
Connection Orientation	Radial
Connector 1	M12, Female, 4 pin, d coded
Connector 2	M12, Male, 4 pin, a coded
Connector 3	M12, Female, 4 pin, d coded

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

Data Sheet

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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

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.