

IXARC Absolute Rotary Encoder

OCD-EIC1B-1416-C100-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	14 bit
Multiturn Technology	Mechanical Gearing (no Battery)
Accuracy (INL)	$\pm 0.0220^\circ$ (14 - 16 bit), $\pm 0.0439^\circ$ (≤ 13 bit)
Code	Binary

Environmental Specifications

Protection Class (Shaft)	IP65
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	Clamp, $\varnothing$ 58 mm (C)
Flange Material	Aluminum
Shaft Type	Solid, Single Flat, Length = 20 mm
Shaft Diameter	$\varnothing$ 10 mm (0.39")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Max. Shaft Load	Axial 40 N, Radial 110 N
Minimum Mechanical Lifetime (10^8 revolutions with F_a/F_r)	430 (20 N / 40 N), 150 (40 N / 60 N), 100 (40 N / 80 N), 55 (40 N / 110 N)
Rotor Inertia	$\leq 30 \text{ gcm}^2$ [$\leq 0.17 \text{ oz-in}^2$]
Friction Torque	$\leq 3 \text{ Ncm}$ @ 20 °C (4.2 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	$\leq 12000 \text{ 1/min}$

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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	80 mm (3.15")
Weight	370 g (0.82 lb)

Electrical Connection

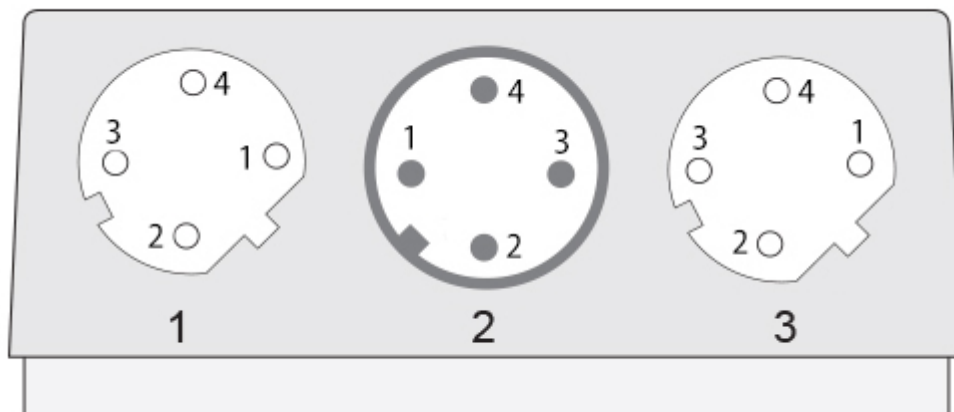
Connection Orientation	Radial
Connector 1	M12, Female, 4 pin, d coded
Connector 2	M12, Male, 4 pin, a coded
Connector 3	M12, Female, 4 pin, d coded

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

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Rx+	Connector 3	2
Tx-	Connector 3	3
Rx-	Connector 3	4

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

Couplings

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

Adapter Flanges

Data Sheet

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Mounting Bracket for Clamping Flange w/ fixtures
L Mounting Bracket w/ screws
Mounting Bracket Spring Loaded f. Clamping Flange
Spring Loaded Pivot Arm 58mm
More
Clamping Rings
Clamp Disc w/ Eccentric Hole-4pcs
Clamp Disc w/ Centred Hole-4pcs

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.