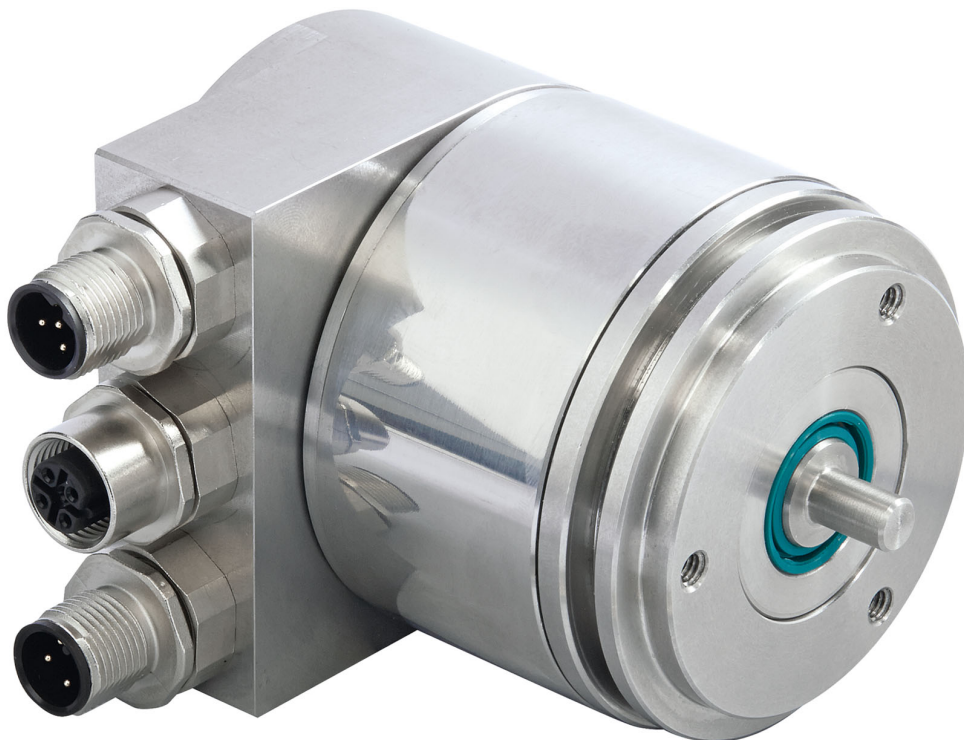



IXARC Absolute Rotary Encoder
OCD-EM00B-1413-S10V-PRM

Interface

Interface	Ethernet ModbusTCP
Profile	TCP/IP, UDP, Modbus TCP (IEC 61158)
Features	Boot-Loader, Web-Applet
Transmission Rate	10 / 100 Mbit
Interface Cycle Time	≥ 10 ms
Programming Functions	Resolution, preset, complement, transmission mode: polled mode, cyclic mode, change of state

Data Sheet

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Outputs

Output Driver	Ethernet
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Electrical Data

Supply Voltage	10 - 30 VDC
Current Consumption	≤ 230 mA @ 10 V DC, ≤ 100 mA @ 24 V DC
Power Consumption	≤ 2.5 W
Start-Up Time	< 1 s
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	134 years @ 60 °C

Sensor

Technology	Optical
Resolution Singleturn	13 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)	IP66/IP67
Protection Class (Housing)	IP66/IP67
Operating Temperature	0 °C (32 °F) - +60 °C (+140 °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	Synchro, ø 58 mm (S)
Flange Material	Stainless steel V2A (1.4305; 303)
Shaft Type	Solid, Length = 20 mm
Shaft Diameter	ø 10 mm (0.39")
Shaft Material	Stainless Steel V2A (1.4305, 303)

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Max. Shaft Load	Axial 40 N, Radial 110 N
Minimum Mechanical Lifetime (10 ⁸ revolutions with Fa/Fr)	420 (20 N / 40 N), 145 (40 N / 60 N), 100 (40 N / 80 N), 55 (40 N / 110 N)
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	92,2 mm (3.63")
Weight	640 g (1.41 lb)

Electrical Connection

Connection Orientation	Radial
Connector 1	M12, Male, 5 pin, a coded
Connector 2	M12, Female, 4 pin, d coded

Certification

Approval	CE + cULus
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Product Life Cycle

Product Life Cycle	Established
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Connection Plan

SIGNAL	CONNECTOR	PIN NUMBER
Power Supply	Connector 1	1
Power Supply	Connector 1	2
GND	Connector 1	3
GND	Connector 1	4
PE	Connector 1	5
Tx+	Connector 2	1
Rx+	Connector 2	2
Tx-	Connector 2	3
Rx-	Connector 2	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
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

Mounting Bracket for Synchro Flange w/ fixtures

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.