



IXARC Absolute Rotary Encoder

OCD-EM00B-1416-B10S-PRM



Interface

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

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	< 250 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
MTTF	134 years @ 60 °C

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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)	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	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 10 mm (0.39")
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	106,7 mm (4.20")
Weight	490 g (1.08 lb)

Electrical Connection

Connection Orientation	Radial
Connector 1	M12, Male, 5 pin, a coded

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Connector 2

M12, Female, 4 pin, d coded

Certification

Approval

CE + cULus listed, Industrial Control Equipment

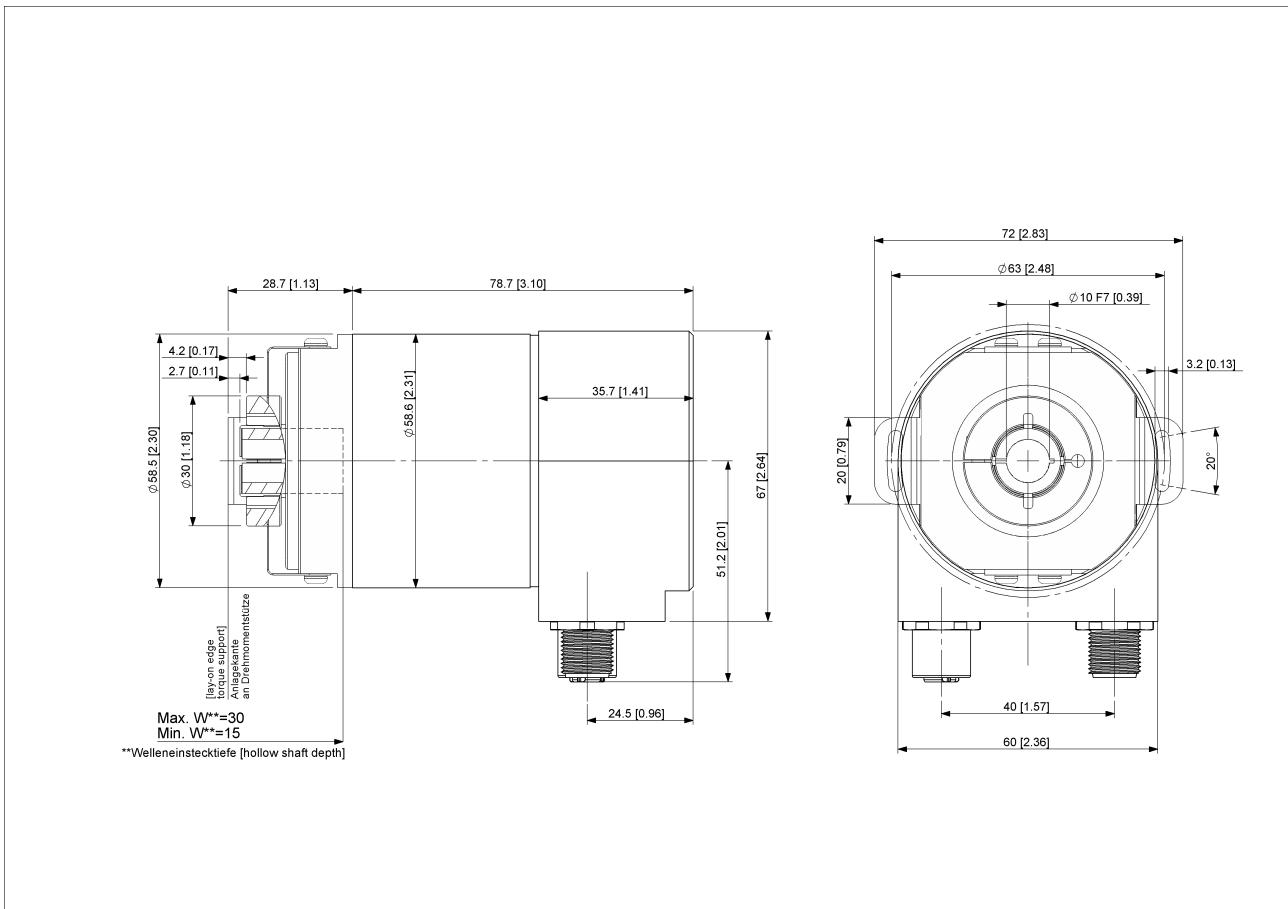
Product Life Cycle

Established

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



[2D Drawing](#)

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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
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
M12, 5pin A-Coded, Female
5m PUR Cable, 4pin, D-Coded, m
More

Clamping Ring B15

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.