

IXARC Absolute Rotary Encoder

UCD-M200B-1516-Y10S-PRM



Interface

Interface	Modbus RTU
Programming Functions	Resolution, preset, direction, node ID, baud rate

Outputs

Output Driver	Line Driver RS485
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Electrical Data

Supply Voltage	10 - 30 VDC
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	350 years @ 40 °C

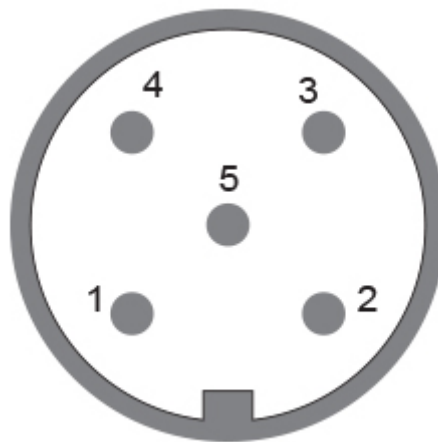
Sensor

Technology	Magnetic
Resolution Singleturn	16 bit
Resolution Multiturn	15 bit
Multiturn Technology	Self powered magnetic pulse counter (no battery, no gear)
Accuracy (INL)	$\pm 0.0878^\circ$ (≤ 12 bit)
Sense Signal (Default)	Clockwise shaft movement (front view on shaft)

Data Sheet

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Code	Binary
Environmental Specifications	
Protection Class (Shaft)	IP66/IP67
Protection Class (Housing)	IP66/IP67
Operating 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	Synchro, ø 58 mm (Y)
Flange Material	Aluminum
Shaft Type	Solid, Length = 20 mm
Shaft Diameter	ø 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 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	56,7 mm (2.23")
Weight	325 g (0.72 lb)
Electrical Connection	
Connection Orientation	Radial
Connector	M12, Male, 5 pin, a coded
Product Life Cycle	
Product Life Cycle	New
Approval	CE + cULus


Connection Plan

SIGNAL	CONNECTOR	PIN NUMBER
GND	Connector 1	3
Power Supply	Connector 1	2
Signal GND	Connector 1	1
RS485 A +	Connector 1	4
RS485 B -	Connector 1	5

Connector-View on Encoder

Dimensional Drawing

[2D Drawing](#)
Accessories
Connectors & Cables

POS M12 5pin-A Female+5m PUR Cable
 POS M12 5pin-A Female+2m PUR Cable
 POS M12 5pin-A Female+10m PUR Cable
 10m PUR Cable, 5pin, A-Coded, f IP69K
 M12, 5pin A-Coded, Female

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")

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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!

Sold & Serviced By:



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.