



IXARC Absolute Rotary Encoder

OCD-E2A2B-1416-C100-PRM



Interface

Interface	Ethernet POWERLINK V2
Profile	Powerlink V2, DS-406
Programming Functions	Resolution, time base and filter for velocity, preset, counting direction, IP-Address
Manual Functions	IP-Address switch 0-255
Features	Round Axis + Integrated Hub
Transmission Rate	10 / 100 Mbit
Interface Cycle Time	$\geq 400 \mu\text{s}$

Outputs

Output Driver	Ethernet
---------------	----------

Electrical Data

Supply Voltage	10 - 30 VDC
Current Consumption	$\leq 230 \text{ mA @ } 10 \text{ V DC}, \leq 100 \text{ mA @ } 24 \text{ V DC}$
Power Consumption	$\leq 2.5 \text{ W}$
Start-Up Time	$< 250 \text{ ms}$
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
EMC: Emitted Interference	DIN EN 61000-6-4
EMC: Noise Immunity	DIN EN 61000-6-2

Data Sheet

Printed at 27-09-2017 15:09

POSITAL

FRABA



Electrical Lifetime	>10 ⁵ h
---------------------	--------------------

Sensor

Technology	Optical
Resolution Singleturn	16 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)	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, ø 58 mm (C)
Flange Material	Aluminum
Shaft Type	Solid, Single Flat, 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)	430 (20 N / 40 N), 150 (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	≤ 3 Ncm @ 20 °C (4.2 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	≤ 12000 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	80 mm (3.15")
Weight	370 g (0.82 lb)

Data Sheet

Printed at 27-09-2017 15:09

POSITAL

FRABA

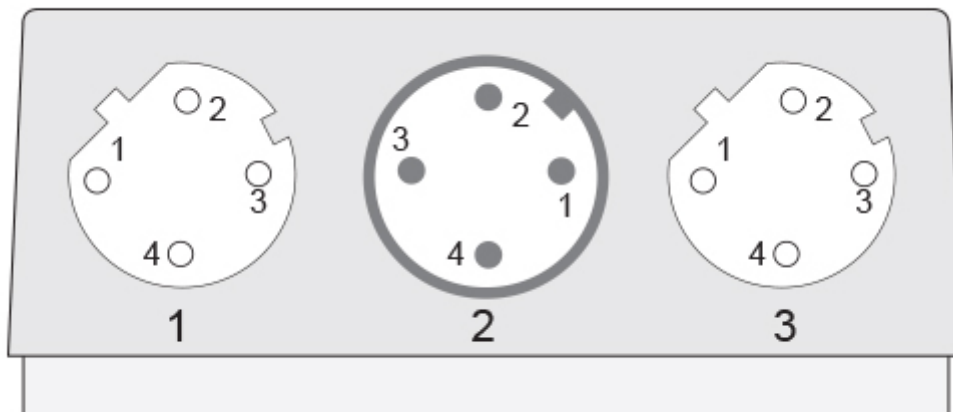


Electrical Connection

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

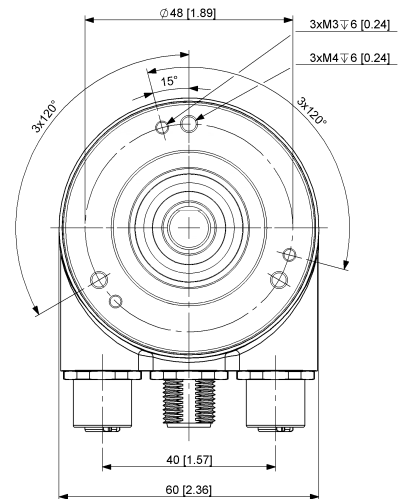
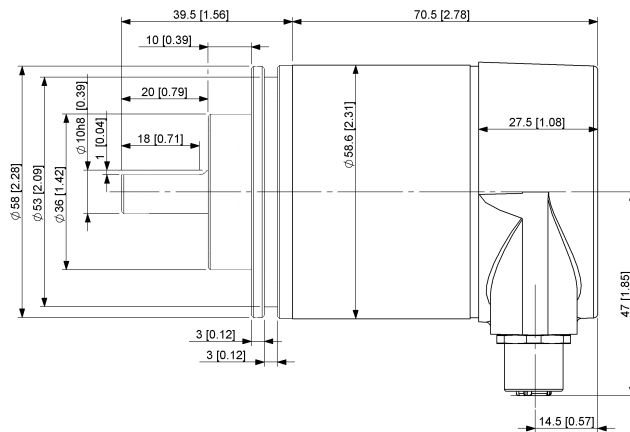
Approval	CE + cULus listed, Industrial Control Equipment
Product Life Cycle	Established



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

Connector-View on Encoder



[2D Drawing](#)

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

Clamp Disc w/ Eccentric Hole-4pcs

Data Sheet

Printed at 27-09-2017 15:09



Clamp Disc w/ Centred Hole-4pcs

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

Mounting Bracket for Clamping Flange w/ fixtures
L Mounting Bracket w/ screws
Mounting Bracket Spring Loaded f. Clamping Flange

Contact



POSITAL
Contact Us

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.