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IXARC Incremental Encoder UCD-IPH00-00256-L100-PRM



Interface

Interface	Programmable Incremental
Programming Functions	PPR (1-16384), Output, Counting Direction
Configuration Tool	UBIFAST Configuration Tool (Version \geq 1.6.3)

Outputs

Output Driver	Push-Pull (HTL)
Quadrature Phasing	$90^\circ \pm 4.5^\circ$ electrical
Output Voltage High Level Push-Pull (HTL)	$> 4 \text{ V}$ @ 4.75-9 V Supply Voltage $> 3 \text{ V}$ @ 9-30 V Supply Voltage
Output Voltage Low Level Push-Pull (HTL)	$< 0.5 \text{ V}$
Output Voltage High Level RS422 (TTL)	$> 4 \text{ V}$
Output Voltage Low Level RS422 (TTL)	$< 0.5 \text{ V}$
Maximum Frequency Response	1 MHz
Maximum Switching Current	50 mA per Channel

Electrical Data

Supply Voltage	4.75 - 30 VDC
Current Consumption	$\leq 140 \text{ mA}$ @ 5V DC, $\leq 70 \text{ mA}$ @ 10V DC, $\leq 40 \text{ mA}$ @ 24V DC
Power Consumption	$\leq 1.0 \text{ W}$
Start-Up Time	$< 250 \text{ ms}$
Min. Load Resistance	120 Ω

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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	280 years @ 40 °C

Sensor

Technology	Magnetic
Accuracy (INL)	$\pm 0.0878^\circ$ (≤ 12 bit)
Duty Cycle	$180^\circ \pm 27^\circ$ (Speed > 100RPM)
Phase Angle	$90^\circ \pm 14^\circ$ (Speed > 100RPM)

Environmental Specifications

Protection Class (Shaft)	IP65
Protection Class (Housing)	IP66/IP67
Operating Temperature	-40 °C (-40 °F) - +85 °C (+185 °F)
Humidity	98% RH, no condensation

Mechanical Data

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 (L)
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
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)

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Length	52,7 mm (2.07")
Weight	285 g (0.63 lb)
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)

Electrical Connection

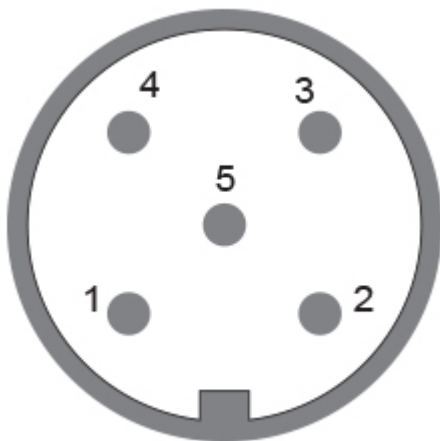
Connection Orientation	Radial
Connector	M12, Male, 5 pin, a coded

Certification

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

Product Life Cycle	Established
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Connection Plan

SIGNAL	PIN NUMBER
A	4
B	2
Z	5
Power Supply	1
GND	3
Shielding	Connector housing

Connector-View on Encoder

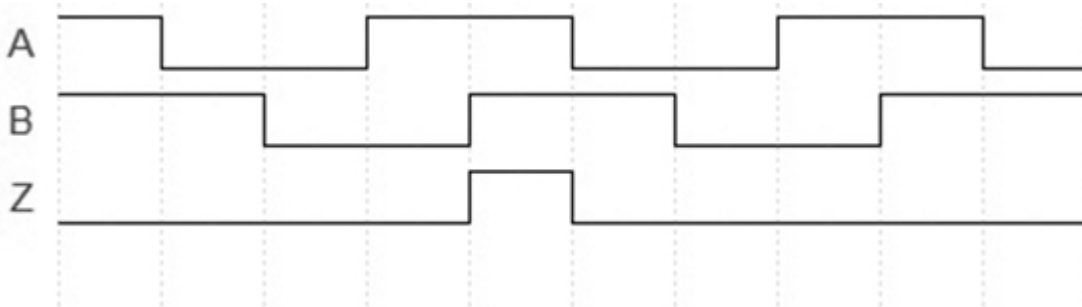
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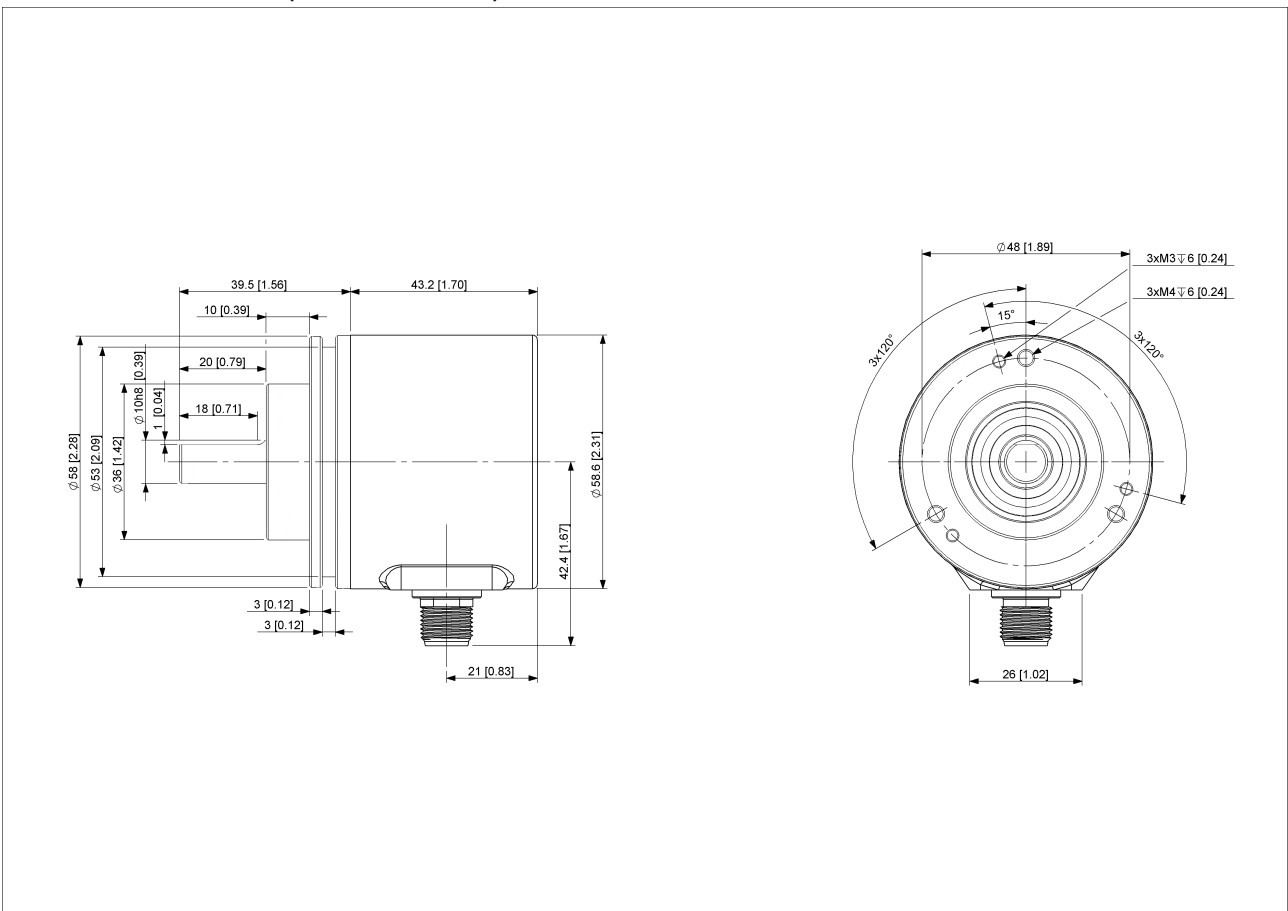
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Pulse Diagram



Rotation Clockwise (seen on shaft)



[2D Drawing](#)

Accessories

Configuration/Programming Tools

UBIFAST Configuration Tool

Connectors & Cables

10m PUR Cable, 5pin, A-Coded, f

2m PUR Cable, 5pin, A-Coded, f

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5m PUR Cable, 5pin, A-Coded, f
10m PUR Cable, 5pin, A-Coded, f
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")
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

Measuring Wheels

Measuring Wheels 200mm-Knurled Alu Surface
Measuring Wheels 200mm-Smooth PUR Surface
Measuring Wheels 200mm-Studded PUR Surface
Measuring Wheels 200mm-Corrugated PUR Surface
Measuring Wheels 500mm-Knurling Alu Surface
Measuring Wheels 500mm-Smooth PUR Surface
Measuring Wheels 500mm-Studded PUR Surface
Measuring Wheels 500mm-Corrugated PUR Surface

More

Adapter Flanges

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

Displays

AP20-00 Counter
AP20-D0 Counter (4 dig. o/p)
AP20-0A Counter (analog o/p)
AP20-DA Counter (4 dig. + analog o/p)

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DiMod Counter (Relay o/p)

More

Clamping Rings

Clamp Disc w/ Eccentric Hole-4pcs

Clamp Disc w/ Centred Hole-4pcs

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.

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