



IXARC Incremental Encoder

UCD-IPH00-XXXXX-L06S-PAQ



The picture is for presentation purposes only. Please refer to the detailed technical drawing at the end of the page.

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)
Output Voltage High Level Push-Pull (HTL)	> 4 V @ 4.75-9 V Supply Voltage > V-3 V @ 9-30 V Supply Voltage
Output Voltage Low Level Push-Pull (HTL)	< 0.5 V
Output Voltage High Level RS422 (TTL)	> 4 V
Output Voltage Low Level RS422 (TTL)	< 0.5 V
Maximum Frequency Response	1 MHz
Maximum Switching Current	50 mA per Channel

Electrical Data

Supply Voltage	4.75 - 30 VDC
Current Consumption	$\leq$ 140mA @ 5V DC, $\leq$ 70mA @ 10V DC, $\leq$ 40mA @ 24V DC

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Power Consumption	$\leq 1.0 \text{ W}$
Start-Up Time	$< 1 \text{ s}$
Min. Load Resistance	120Ω
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 @ $40 \text{ }^{\circ}\text{C}$

Sensor

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

Environmental Specifications

Protection Class (Shaft)	IP66/IP67
Protection Class (Housing)	IP66/IP67
Operating Temperature	$-40 \text{ }^{\circ}\text{C}$ ($-40 \text{ }^{\circ}\text{F}$) - $+85 \text{ }^{\circ}\text{C}$ ($+185 \text{ }^{\circ}\text{F}$)
Humidity	98% RH, no condensation

Mechanical Data

Mechanical Data

Housing Material	Steel
Housing Coating	Wet coating (RAL 9006 White Aluminium) + Cathodic corrosion protection ($> 720 \text{ h}$ salt spray resistance)
Flange Type	Clamp, $\varnothing 58 \text{ mm}$ (L)
Flange Material	Aluminum
Shaft Type	Solid, Length = 10 mm
Shaft Diameter	$\varnothing 6 \text{ mm}$ ($0.24''$)
Shaft Material	Stainless Steel V2A (1.4305, 303)
Max. Shaft Load	Axial 40 N , Radial 110 N
Rotor Inertia	$\leq 30 \text{ gcm}^2$ [$\leq 0.17 \text{ oz-in}^2$]
Friction Torque	$\leq 5 \text{ Ncm}$ @ $20 \text{ }^{\circ}\text{C}$, (7.1 oz-in @ $68 \text{ }^{\circ}\text{F}$)
Max. Permissible Mechanical Speed	$\leq 3000 \text{ 1/min}$

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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	41,7 mm (1.64")
Weight	280 g (0.62 lb)
Minimum Mechanical Lifetime (10 ⁸ revolutions with Fa/Fr)	530 (20 N / 40 N), 185 (40 N / 60 N), 130 (40 N / 80 N), 80 (40 N / 110 N)

Electrical Connection

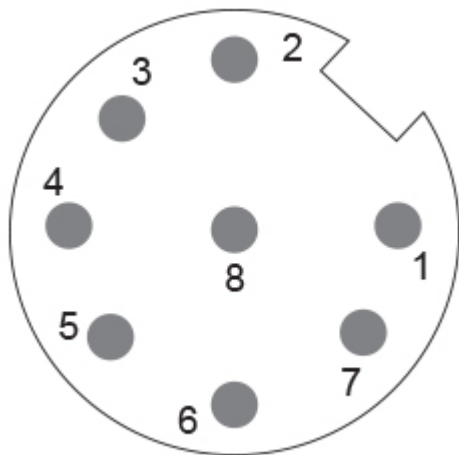
Connection Orientation	Axial
Connector	M12, Male, 8 pin, a coded

Certification

Approval	CE + cULus
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Product Life Cycle

Product Life Cycle	Established
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Connection Plan

SIGNAL	PIN NUMBER
A	3
/A	4
B	5
/B	6
Z	7

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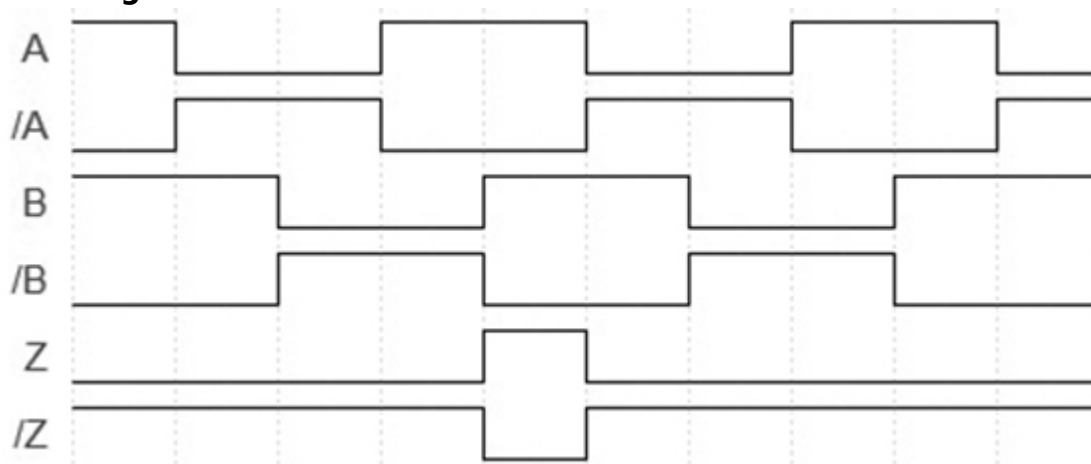
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/Z	8
Power Supply	2
GND	1
Shielding	Connector housing

Connector-View on Encoder

Pulse Diagram



Rotation Clockwise (seen on shaft)

Dimensional Drawing

[2D Drawing](#)

Accessories

Configuration/Programming Tools

UBIFAST Configuration Tool

Connectors & Cables

10m PUR Cable, 8pin, A-Coded, f

POS M12 8pin-A Female+5m PUR Cable

POS M12 8pin-A Female+2m PUR Cable

POS M12 8pin-A Female+10m PUR Cable

M12, 8pin A-Coded, Female

More

Couplings

Coupling Bellow Type-06-06

Coupling Bellow Type-06-10

Coupling Bellow Type-06-08

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Coupling Bellow Type-06-(3/8")
Coupling Bellow Type-06-(1/4")
Coupling Jaw Type-06-06
Coupling Jaw Type-06-10
Coupling Jaw Type-06-08
Coupling Jaw Type-06-12
Coupling Jaw Type-06-(1/4")
Coupling Jaw Type-06-(3/8")
Coupling Disc Type-06-06
Coupling Disc Type-06-10
More
Adapter Flanges
Mounting Bracket for Clamping Flange w/ fixtures
L Mounting Bracket w/ screws
Mounting Bracket Spring Loaded f. Clamping Flange
Spring Loaded Pivot Arm 58mm
More
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)
DiMod Counter (Relay o/p)
More
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

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.

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Specifications are subject to change without notice.