

## IXARC Incremental Encoder

### UTD-IPH0Z-XXXXX-8S1S-PRM



#### Interface

Interface	Programmable Incremental
Programming Functions	PPR (1-16384), Output, Counting Direction
Configuration Tool	UBIFAST Configuration Tool (Version $\geq$ 1.6.10)

#### 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	$\leq$ 60 mA @ 5V DC, $\leq$ 30 mA @ 10V DC, $\leq$ 25 mA @ 24V DC
Power Consumption	$\leq$ 1.0 W
Start-Up Time	< 1 s
Min. Load Resistance	120 $\Omega$
Reverse Polarity Protection	Yes

Data Sheet

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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)	$\pm 0.0878^\circ$ ( $\leq 12$ bit)
Duty Cycle	$180^\circ \pm 12^\circ$ (Speed > 100RPM)
Phase Angle	$90^\circ \pm 6^\circ$ (Speed > 100RPM)

### Environmental Specifications

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

### Mechanical Data

#### Mechanical Data

Housing Material	Aluminum
Housing Coating	Chromated
Flange Type	Square, $\square$ 2.25"
Flange Material	Aluminum
Flange Coating	Chromated
Shaft Type	Solid, Single Flat, Length = 15 mm
Shaft Diameter	$\varnothing$ 9.52 mm (3/8")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Max. Shaft Load	Axial 40 N, Radial 110 N
Rotor Inertia	$\leq 30$ gcm <sup>2</sup> [ $\leq 0.17$ oz-in <sup>2</sup> ]
Friction Torque	$\leq 5$ Ncm @ 20 °C, (7.1 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	$\leq 3000$ 1/min
Shock Resistance	$\leq 100$ g (half sine 6 ms, EN 60068-2-27)
Permanent Shock Resistance	$\leq 10$ g (half sine 16 ms, EN 60068-2-29)
Vibration Resistance	$\leq 10$ g (10 Hz - 1000 Hz, EN 60068-2-6)
Length	110,8 mm (4.36")
Weight	380 g (0.84 lb)

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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

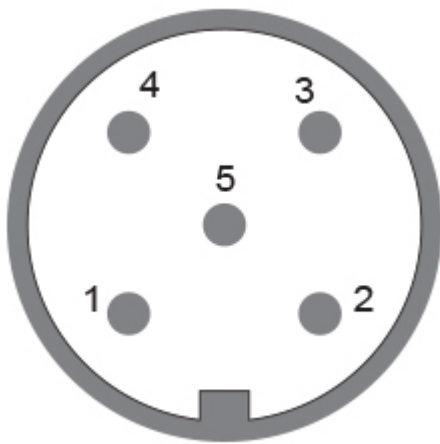
Approval

CE + cULus

### Product Life Cycle

Product Life Cycle

New

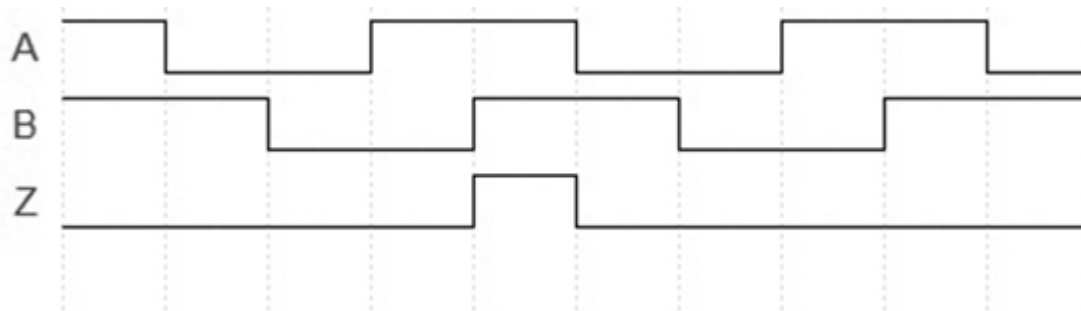


### Connection Plan

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

Connector-View on Encoder

### Pulse Diagram



Rotation Clockwise (seen on shaft)

### **Dimensional Drawing**

#### **Accessories**

Configuration/Programming Tools

UBIFAST Configuration Tool

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 Bellow Type-10-(3/8")

Coupling Bellow Type-06-(3/8")

Coupling Jaw Type-10-(3/8")

Coupling Jaw Type-06-(3/8")

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

**Got questions? Need an individual solution? We are here to help!**



Contact Us

If the drawings are not available please refer to the "Download" section. The picture and drawing are for general presentation purposes only. 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.