



### IXARC Incremental Encoder UCD-IPH00-XXXXX-3C40-PRF



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 Incremental	A, /A, B, /B, Z, /Z
Output Voltage High Level Push-Pull (HTL)	$> 4 \text{ V @ } 4.75\text{-}9 \text{ V Supply Voltage}$ $> \text{V-}3 \text{ V @ } 9\text{-}30 \text{ V Supply Voltage}$
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
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Current Consumption	≤140mA @ 5V DC, ≤70mA @ 10V DC, ≤40mA @ 24V DC
Power Consumption	≤ 1.0 W
Start-Up Time	< 1 s
Min. Load Resistance	120 Ω
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)	±0.0878° (≤ 12 bit)
Duty Cycle	180° ± 27° (Speed > 100RPM)
Phase Angle	90° ± 14° (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	Steel
Housing Coating	Cathodic corrosion protection (>720 hrs salt spray resistance)
Flange Type	Square, □ 2" (3)
Flange Material	Aluminum
Shaft Type	Solid, Single Flat, Length = 16 mm
Shaft Diameter	∅ 6.35 mm (1/4")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Max. Shaft Load	Axial 40 N, Radial 110 N
Rotor Inertia	≤ 30 gcm <sup>2</sup> [≤ 0.17 oz-in <sup>2</sup> ]
Friction Torque	≤ 3 Ncm @ 20 °C (4.2 oz-in @ 68 °F)

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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	100,5 mm (3.96")
Weight	395 g (0.87 lb)
Minimum Mechanical Lifetime (10 <sup>8</sup> 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	MS3102R18-1P, Male, 10 pin

### Certification

### Product Life Cycle

Product Life Cycle	Established
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### Connection Plan

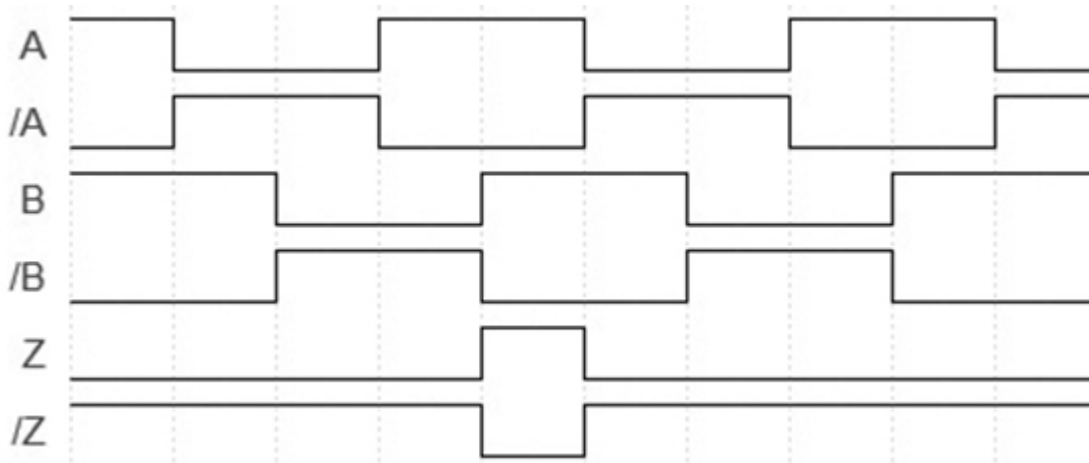
SIGNAL	PIN NUMBER
A	A
/A	H
B	B
/B	I
Z	C
/Z	J
Power Supply	D
GND	F
Shielding	Connector housing

Connector-View on Encoder

### Pulse Diagram

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Rotation Clockwise (seen on shaft)

### Dimensional Drawing

### [2D Drawing](#)

### Accessories

Configuration/Programming Tools

UBIFAST Configuration Tool

Couplings

Coupling Bellow Type-10-(1/4")

Coupling Bellow Type-06-(1/4")

Coupling Jaw Type-10-(1/4")

Coupling Jaw Type-06-(1/4")

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!**

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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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