

IXARC Incremental Encoder

UTD-IPH00-XXXXX-4A7S-PRF



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 Incremental	A, /A, B, /B, Z, /Z
Output Voltage High Level Push-Pull (HTL)	$> 4 \text{ V}$ @ 4.75-9 V Supply Voltage $> V-3 \text{ V}$ @ 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	$\leq 60 \text{ mA}$ @ 5V DC, $\leq 30 \text{ mA}$ @ 10V DC, $\leq 25 \text{ mA}$ @ 24V DC
Power Consumption	$\leq 1.0 \text{ W}$
Start-Up Time	$< 1 \text{ s}$
Min. Load Resistance	120 Ω

Data Sheet

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

Environmental Specifications

Protection Class (Shaft)	IP66/IP67
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	Cathodic corrosion protection (>720 hrs salt spray resistance)
Flange Type	Square, $\square$ 2.5" (4)
Flange Material	Aluminum
Shaft Type	Solid, Single Flat, Length = 22.4 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	$\leq 30 \text{ gcm}^2 [\leq 0.17 \text{ oz-in}^2]$
Friction Torque	$\leq 5 \text{ Ncm @ } 20^\circ\text{C}, (7.1 \text{ oz-in @ } 68^\circ\text{F})$
Max. Permissible Mechanical Speed	$\leq 3000 \text{ 1/min}$
Shock Resistance	$\leq 100 \text{ g (half sine 6 ms, EN 60068-2-27)}$
Permanent Shock Resistance	$\leq 10 \text{ g (half sine 16 ms, EN 60068-2-29)}$
Vibration Resistance	$\leq 10 \text{ g (10 Hz - 1000 Hz, EN 60068-2-6)}$
Length	50 mm (1.97")

Data Sheet

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Weight	470 g (1.04 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	MS3102R18-1P, Male, 10 pin

Certification

Product Life Cycle

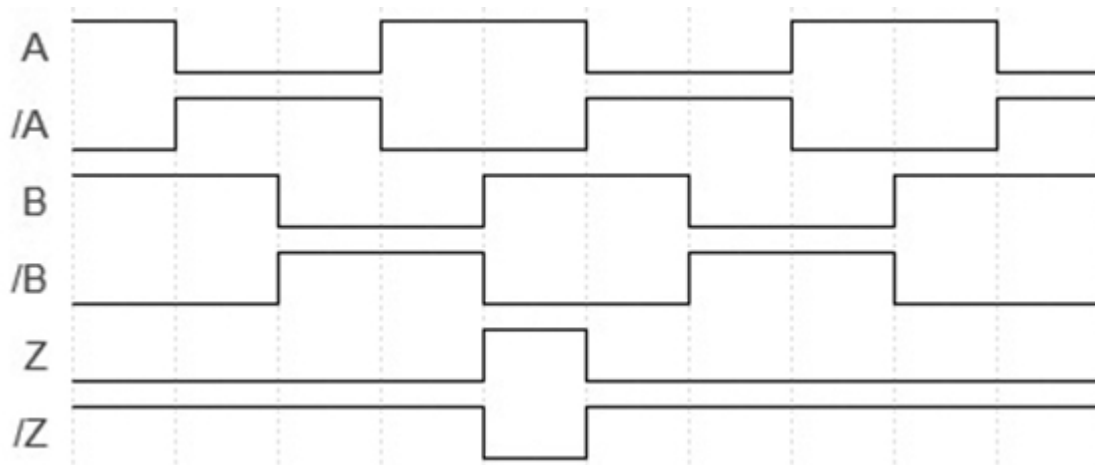
Product Life Cycle	New
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Connection Plan

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



Rotation Clockwise (seen on shaft)

Dimensional Drawing

Accessories

Configuration/Programming Tools

UBIFAST Configuration Tool

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")

Coupling Jaw Type-12-3/8"

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.