



IXARC Incremental Encoder

UCD-IPH00-XXXXX-HFSS-2RW



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



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)	IP66/IP67
Protection Class (Housing)	IP66/IP67
Operating Temperature	-30 °C fixed (-22 °F), -5 °C flexible (+23 °F) - +80 °C (+176 °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	Blind Hollow, ø 58 mm (H)
Flange Material	Aluminum
Shaft Type	Blind Hollow, Depth = 28 mm
Shaft Diameter	ø 15 mm (0.59")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Rotor Inertia	≤ 30 gcm ² [≤ 0.17 oz-in ²]
Friction Torque	≤ 5 Ncm @ 20 °C, (7.1 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	≤ 3000 1/min
Shock Resistance	≤ 100 g (half sine 6 ms, EN 60068-2-27)

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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	71,2 mm (2.80")
Weight	720 g (1.59 lb)
Maximum Axial / Radial Misalignment	Static ± 0.3 mm /± 0.5 mm; Dynamic ± 0.1 mm /± 0.2 mm

Electrical Connection

Connection Orientation	Radial
Connector	Cable 2 m
Cable Length	2 m [79"]
Wire Cross Section	0.14 mm ² / AWG 26
Material / Type	PVC
Cable Diameter	6 mm (0.24 in)
Minimum Bend Radius	46 mm (1.81") fixed, 61 mm (2.4") flexing

Certification

Approval	CE
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Product Life Cycle

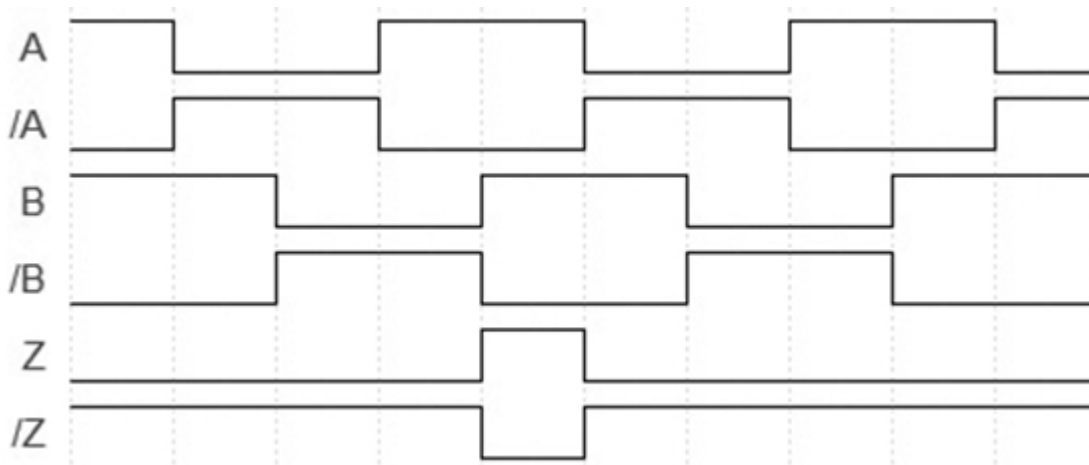
Product Life Cycle	Established
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Connection Plan

SIGNAL	CABLE COLOR
A	Green
/A	Yellow
B	Gray
/B	Pink
Z	Blue
/Z	Red
Power Supply	Brown
GND	White
Shielding	Shield

Connector-View on Encoder

Pulse Diagram



Rotation Clockwise (seen on shaft)

Dimensional Drawing

[2D Drawing](#)

Accessories

Configuration/Programming Tools

UBIFAST Configuration Tool

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

Clamping Ring B15

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



Contact Us

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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.