

IXARC Incremental Encoder

UTD-IPH00-XXXXX-Y10S-PRL



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

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	Wet coating (RAL 9006 White Aluminium) + Cathodic corrosion protection (>720 h salt spray resistance)
Flange Type	Synchro, $\varnothing$ 58 mm (Y)
Flange Material	Aluminum
Shaft Type	Solid, Length = 20 mm
Shaft Diameter	$\varnothing$ 10 mm (0.39")
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 °C, (7.1 oz-in @ 68 °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	56,7 mm (2.23")

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Weight	285 g (0.63 lb)
Minimum Mechanical Lifetime (10 ⁸ revolutions with Fa/Fr)	420 (20 N / 40 N), 145 (40 N / 60 N), 100 (40 N / 80 N), 55 (40 N / 110 N)

Electrical Connection

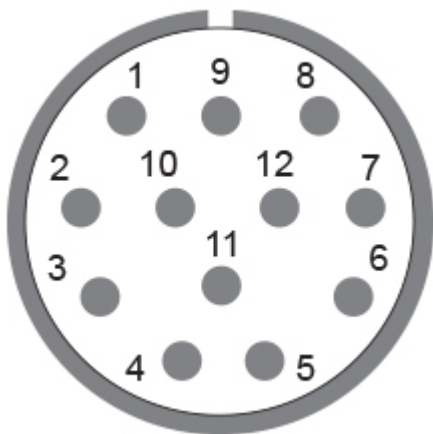
Connection Orientation	Radial
Connector	M23, Male, 12 pin, CCW / left

Certification

Approval	CE + cULus
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Product Life Cycle

Product Life Cycle	New
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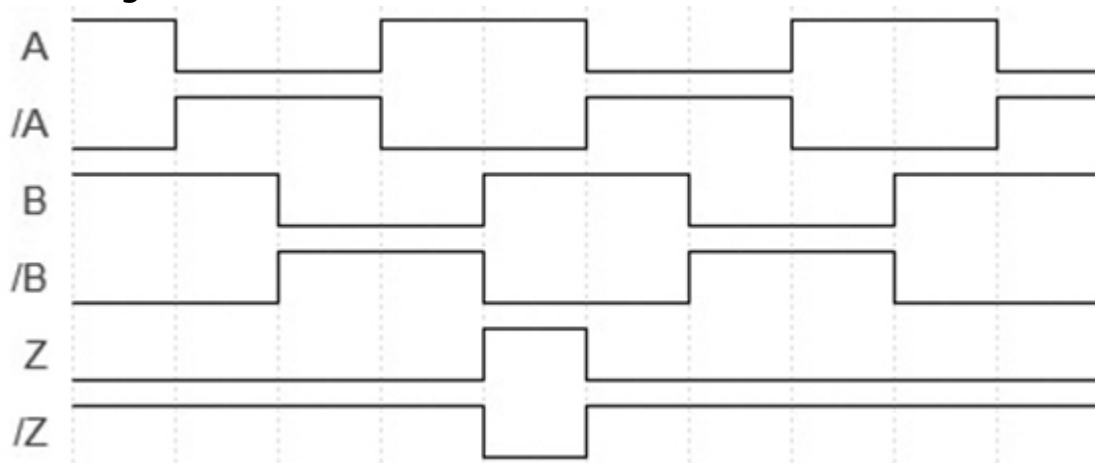


Connection Plan

SIGNAL	PIN NUMBER
Power Supply	12
GND	10
A	5
/A	6
B	8
/B	1
Z	3
/Z	4
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

10m PVC Cable, 12pin, Clockwise, f

15m PVC Cable, 12pin, Clockwise, f

1m PVC Cable, 12pin, Clockwise, f

20m PVC Cable, 12pin, Clockwise, f

5m PVC Cable, 12pin, Clockwise, f

30m PVC Cable, 12pin, Clockwise, f

2m PVC Cable, 12pin, Clockwise, f

M23, 12pin Clockwise, Female

More

Couplings

Coupling Disc Type-10-12

Coupling Bellow Type-10-10

Coupling Bellow Type-06-10

Coupling Bellow Type-08-10

Coupling Bellow Type-10-12

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

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

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Coupling Jaw Type-06-10

Coupling Jaw Type-08-10

Coupling Jaw Type-10-12

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

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

Coupling Jaw Type-10-10

Coupling Disc Type-06-10

Coupling Disc Type-10-10

More

Measuring Wheels

Measuring Wheels 200mm-Knurled Alu Surface

Measuring Wheels 200mm-Smooth PUR Surface

Measuring Wheels 200mm-Studded PUR Surface

Measuring Wheels 200mm-Corrugated PUR Surface

Measuring Wheels 500mm-Knurling Alu Surface

Measuring Wheels 500mm-Smooth PUR Surface

Measuring Wheels 500mm-Studded PUR Surface

Measuring Wheels 500mm-Corrugated PUR Surface

More

Adapter Flanges

Mounting Bracket for Synchro Flange w/ fixtures

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

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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.