IXARC Incremental Encoder

UTD-IPH00-XXXXX-L100-PRL

Interface	
Interface	Programmable Incremental
Programming Functions	PPR (1-32768), Output, Counting Direction
Configuration Tool	Configuration Tool: UBIFAST Configuration Tool (Version < 1.6.10), If PPR above 16384 is required, this and all additional setups must be adjusted during production.

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	≤60 mA @ 5V DC, ≤30 mA @ 10V DC, ≤25 mA @ 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° ± 12° (Speed > 100RPM)
Phase Angle	90° ± 6° (Speed > 100RPM)

Environmental Specifications

Protection Class (Shaft)	IP65
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 spay resistance)
Flange Type	Clamp, ø 58 mm (L)
Flange Material	Aluminum
Shaft Type	Solid, Single Flat, Length = 20 mm
Shaft Diameter	ø 10 mm (0.39")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Max. Shaft Load	Axial 40 N, Radial 110 N
Rotor Inertia	≤ 30 gcm² [≤ 0.17 oz-in²]
Friction Torque	≤ 3 Ncm @ 20 °C (4.2 oz-in @ 68 °F)
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	52,7 mm (2.07")
Weight	285 g (0.63 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

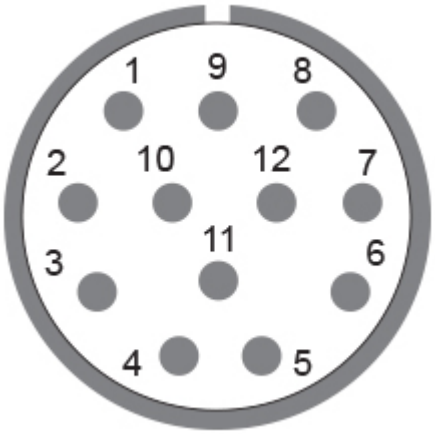
Connection Orientation	Radial
Connector	M23, Male, 12 pin, CCW / left

Certification

Approval	CE + cULus

Product Life Cycle

Product Life Cycle	Established



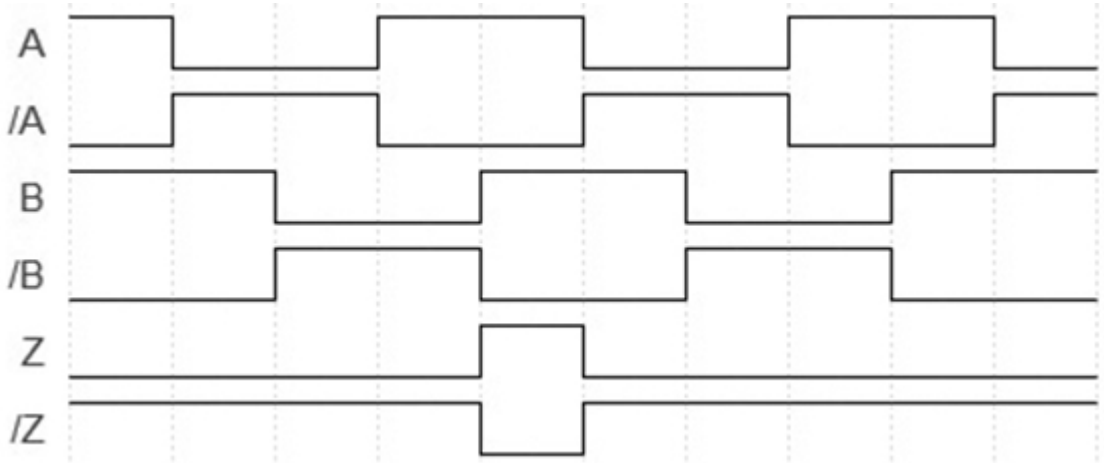
Connection Plan

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″)
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-Smooth PUR Surface
Measuring Wheels 200mm-Studded PUR Surface
Measuring Wheels 200mm-Knurling Alu Surface
Measuring Wheels 200mm-Corrugated PUR Surface
Measuring Wheels 500mm-Smooth PUR Surface
Measuring Wheels 500mm-Studded PUR Surface
Measuring Wheels 500mm-Corrugated PUR Surface
Measuring Wheels 500mm-Knurling Alu Surface
More
Adapter Flanges
Mounting Bracket for Clamping Flange w/ fixtures
L Mounting Bracket w/ screws
Spring Loaded Pivot Arm 58mm
Mounting Bracket Spring Loaded f. Clamping Flange
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
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

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.