

IXARC Incremental Encoder

UTD-IPT00-XXXXX-HUY0-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 | RS 422 (TTL) |
| 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

Printed at 13-04-2023 17:04



| | |
|---------------------------|-------------------|
| 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) | $\pm 0.0878^\circ$ (≤ 12 bit) |
| Duty Cycle | $180^\circ \pm 12^\circ$ (Speed > 100RPM) |
| Phase Angle | $90^\circ \pm 6^\circ$ (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 spray resistance) |
| Flange Type | Blind Hollow, \varnothing 58 mm (H) |
| Flange Material | Aluminum |
| Shaft Type | Blind Hollow, Depth = 28 mm |
| Shaft Diameter | \varnothing 15.9 mm (5/8") |
| Shaft Material | Stainless Steel V2A (1.4305, 303) |
| Rotor Inertia | ≤ 30 gcm ² [≤ 0.17 oz-in ²] |
| 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 | 71,2 mm (2.80") |
| Weight | 320 g (0.71 lb) |

Data Sheet

Printed at 13-04-2023 17:04

| | |
|-------------------------------------|---|
| Maximum Axial / Radial Misalignment | Static ± 0.3 mm / ± 0.5 mm; Dynamic ± 0.1 mm / ± 0.2 mm |
|-------------------------------------|---|

Electrical Connection

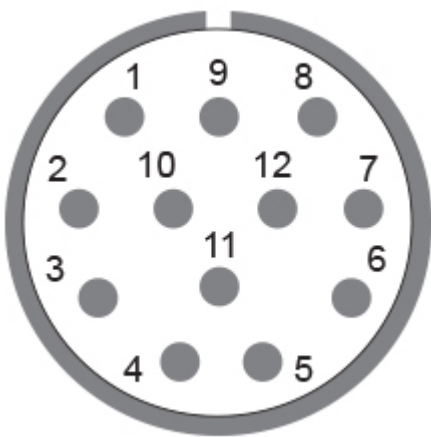
| | |
|------------------------|-------------------------------|
| Connection Orientation | Radial |
| Connector | M23, Male, 12 pin, CCW / left |

Certification

| | |
|----------|------------|
| Approval | CE + cULus |
|----------|------------|

Product Life Cycle

| | |
|--------------------|-----|
| Product Life Cycle | New |
|--------------------|-----|



Connection Plan

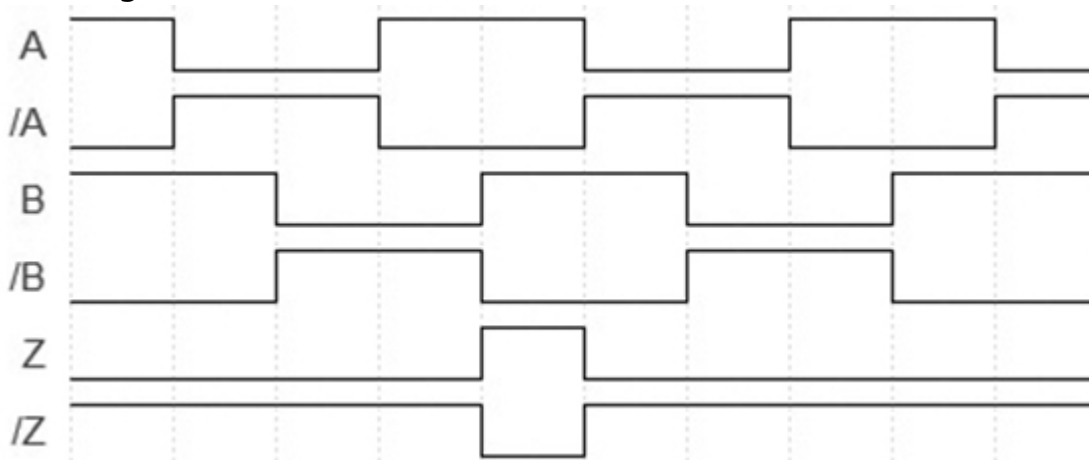
| SIGNAL | PIN NUMBER |
|--------------|-------------------|
| Power Supply | 12 |
| GND | 10 |
| A | 5 |
| /A | 6 |
| B | 8 |
| /B | 1 |
| Z | 3 |
| /Z | 4 |
| Shielding | Connector housing |

Connector-View on Encoder

Data Sheet

Printed at 13-04-2023 17:04

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

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

Data Sheet

Printed at 13-04-2023 17:04



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.