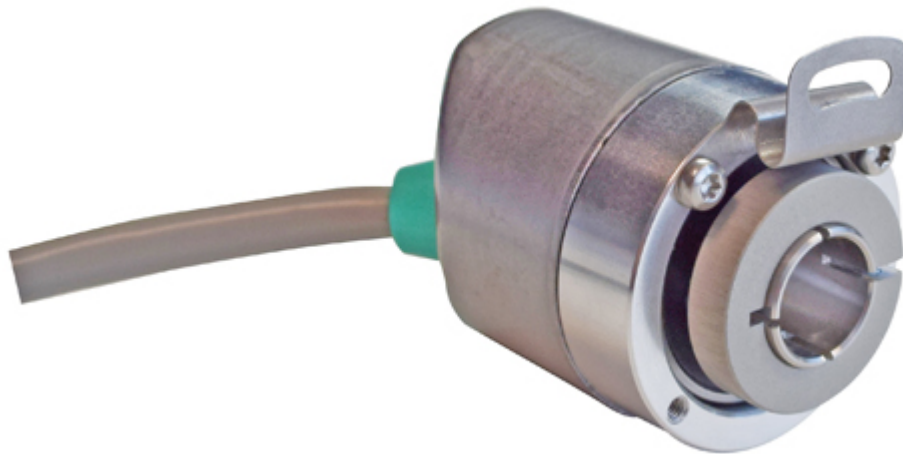


## IXARC Incremental Encoder

**UTD-IPH00-XXXXX-V6S0-2TW**



### 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<br>> 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 $\Omega$   |
| Reverse Polarity Protection | Yes  |

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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) | $\pm 0.0878^\circ$ ( $\leq 12$ 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) | IP65  |
| 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                     | Zinc Plated   |
| Flange Type                         | Blind Hollow, $\varnothing 36$ mm / $\varnothing 42$ mm                 |
| Flange Material                     | Aluminum  |
| Shaft Type                          | Blind Hollow, Depth = 18 mm   |
| Shaft Diameter                      | $\varnothing 6$ mm (0.24")  |
| Shaft Material                      | Stainless Steel V2A (1.4305, 303)                                       |
| Friction Torque                     | $\leq 3$ Ncm @ 20 °C (4.2 oz-in @ 68 °F)                                |
| Max. Permissible Mechanical Speed   | $\leq 12000$ 1/min  |
| Shock Resistance                    | $\leq 100$ g (half sine 6 ms, EN 60068-2-27)                            |
| Permanent Shock Resistance          | $\leq 10$ g (half sine 16 ms, EN 60068-2-29)                            |
| Vibration Resistance                | $\leq 10$ g (10 Hz - 1000 Hz, EN 60068-2-6)                             |
| Length                              | 50,2 mm (1.98")   |
| Weight                              | 405 g (0.89 lb)   |
| Maximum Axial / Radial Misalignment | Static $\pm 0.3$ mm / $\pm 0.5$ mm; Dynamic $\pm 0.1$ mm / $\pm 0.2$ mm |

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### Electrical Connection

|                        |   |
|------------------------|---|
| Connection Orientation | Axial/Radial                              |
| Connection Type        | Cable / Connector                         |
| Connector              | Cable 2 m                                 |
| Cable Length           | 2 m [79"]                                 |
| Wire Cross Section     | 0.14 mm <sup>2</sup> / 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 + cULus |
|----------|------------|

### Product Life Cycle

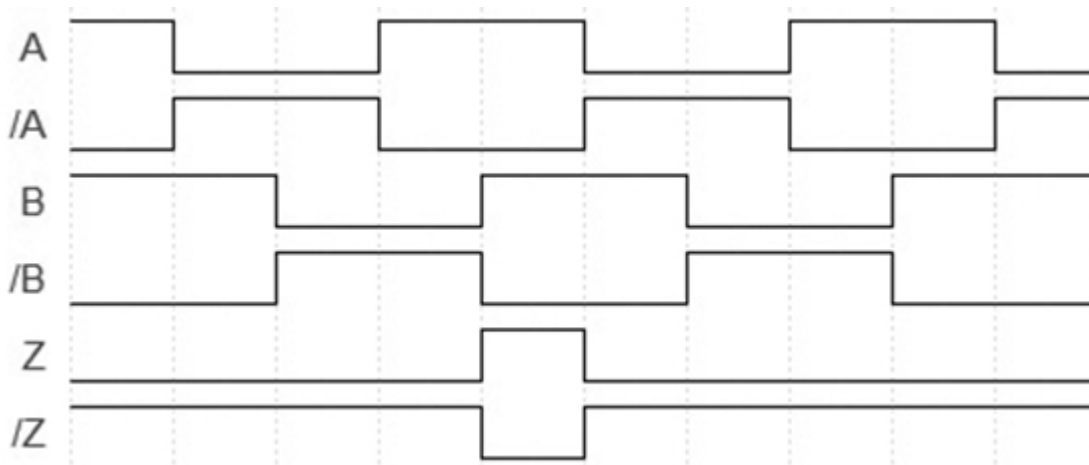
|                    |     |
|--------------------|-----|
| Product Life Cycle | New |
|--------------------|-----|

### 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

### 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 V06

**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.