

IXARC Incremental Encoder

UTD-IPH00-XXXXX-3A7S-PRF



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 Incremental | A, /A, B, /B, Z, /Z |
| 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 |

Data Sheet

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| | |
|-----------------------------|-------------------|
| 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) | $\pm 0.0878^\circ$ (≤ 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) | 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 | Cathodic corrosion protection (>720 hrs salt spray resistance) |
| Flange Type | Square, \square 2" (3) |
| Flange Material | Aluminum |
| Shaft Type | Solid, Single Flat, Length = 16 mm |
| Shaft Diameter | \varnothing 9.52 mm (3/8") |
| Shaft Material | Stainless Steel V2A (1.4305, 303) |
| Max. Shaft Load | Axial 40 N, Radial 110 N |
| 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) |
| 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 | 50 mm (1.97") |

Data Sheet

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| | |
|---|--|
| Weight | 480 g (1.06 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 | MS3102R18-1P, Male, 10 pin |

Certification

Product Life Cycle

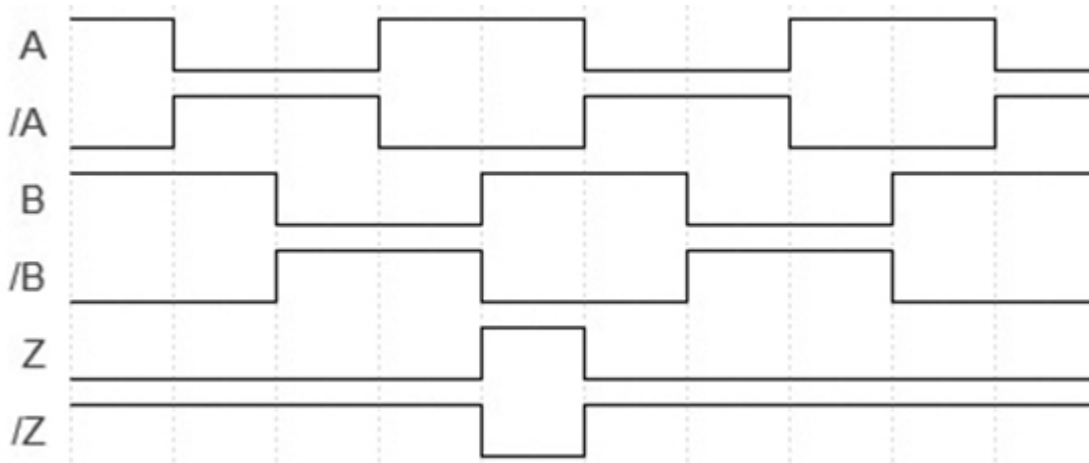
| | |
|--------------------|-----|
| Product Life Cycle | New |
|--------------------|-----|

Connection Plan

| SIGNAL | PIN NUMBER |
|--------------|-------------------|
| A | A |
| /A | H |
| B | B |
| /B | I |
| Z | C |
| /Z | J |
| Power Supply | D |
| GND | F |
| Shielding | Connector housing |

Connector-View on Encoder

Pulse Diagram



Rotation Clockwise (seen on shaft)

Dimensional Drawing

Accessories

Configuration/Programming Tools

UBIFAST Configuration Tool

Couplings

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

Coupling Bellow Type-06-(3/8")

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

Coupling Jaw Type-06-(3/8")

Coupling Jaw Type-12-3/8"

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

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.