

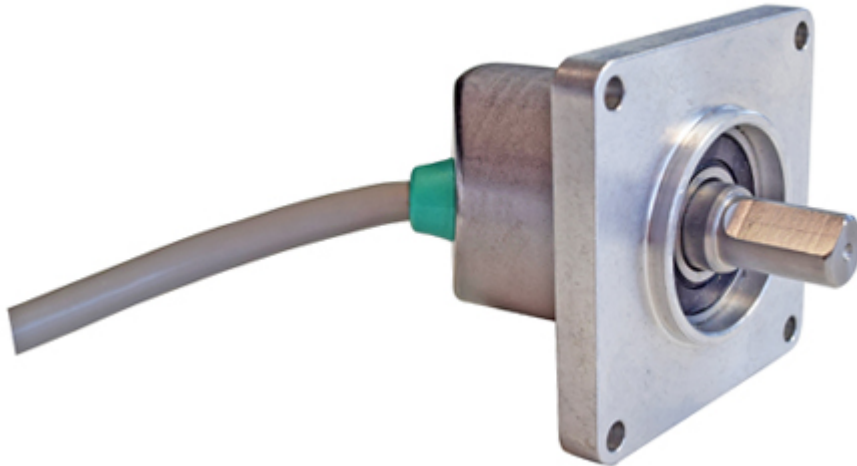


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IXARC Incremental Encoder

UCD-IPH00-XXXXX-3A70-2TW



The picture is for presentation purposes only. Please refer to the detailed technical drawing at the end of the page.

Interface

| | |
|-----------------------|---|
| Interface | Programmable Incremental |
| Programming Functions | PPR (1-16384), Output, Counting Direction |
| Configuration Tool | UBIFAST Configuration Tool (Version \geq 1.6.3) |

Outputs

| | |
|---|---|
| Output Driver | Push-Pull (HTL) |
| Output Voltage High Level Push-Pull (HTL) | $> 4 \text{ V}$ @ 4.75-9 V Supply Voltage $> \text{V}-3 \text{ V}$ @ 9-30 V Supply Voltage |
| Output Voltage Low Level Push-Pull (HTL) | $< 0.5 \text{ V}$ |
| Output Voltage High Level RS422 (TTL) | $> 4 \text{ V}$ |
| Output Voltage Low Level RS422 (TTL) | $< 0.5 \text{ V}$ |
| Maximum Frequency Response | 1 MHz |
| Maximum Switching Current | 50 mA per Channel |

Electrical Data

| | |
|---------------------|---|
| Supply Voltage | 4.75 - 30 VDC |
| Current Consumption | $\leq 140 \text{ mA}$ @ 5V DC, $\leq 70 \text{ mA}$ @ 10V DC, $\leq 40 \text{ mA}$ @ 24V DC |



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| | |
|-----------------------------|-------------------|
| 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° ± 27° (Speed > 100RPM) |
| Phase Angle | 90° ± 14° (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 | Square, □ 2" (3) |
| Flange Material | Aluminum |
| Shaft Type | Solid, Single Flat, Length = 16 mm |
| Shaft Diameter | ∅ 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 | ≤ 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) |

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| | |
|---|--|
| 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 | 41,5 mm (1.63") |
| Weight | 555 g (1.22 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 | Axial/Radial |
| Connection Type | Cable / Connector |
| Connector | Cable 2 m |
| Cable Length | 2 m [79"] |
| Wire Cross Section | 0.14 mm ² / 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

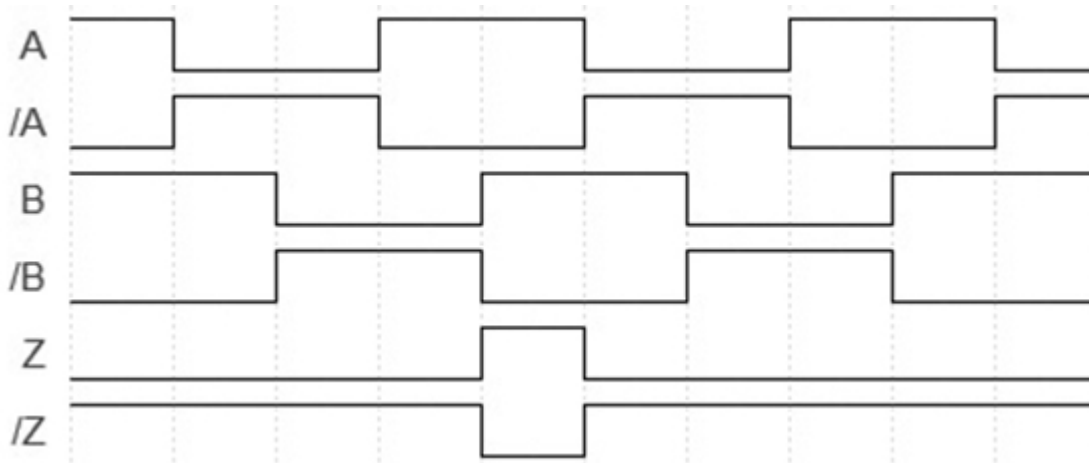
Pulse Diagram

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Rotation Clockwise (seen on shaft)

Dimensional Drawing

[2D 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!

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