



IXARC Incremental Encoder UCD-IPH00-XXXXX-Y06S-PRL



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 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 140mA @ 5V DC, \leq 70mA @ 10V DC, \leq 40mA @ 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) | 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 | Wet coating (RAL 9006 White Aluminium) + Cathodic corrosion protection (>720 h salt spray resistance) |
| Flange Type | Synchro, ø 58 mm (Y) |
| Flange Material | Aluminum |
| Shaft Type | Solid, Length = 10 mm |
| Shaft Diameter | ø 6 mm (0.24") |
| 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 |

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| | |
|---|---|
| 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 | 56,7 mm (2.23") |
| Weight | 275 g (0.61 lb) |
| Minimum Mechanical Lifetime (10 ⁸ revolutions with Fa/Fr) | 400 (20 N / 40 N) |

Electrical Connection

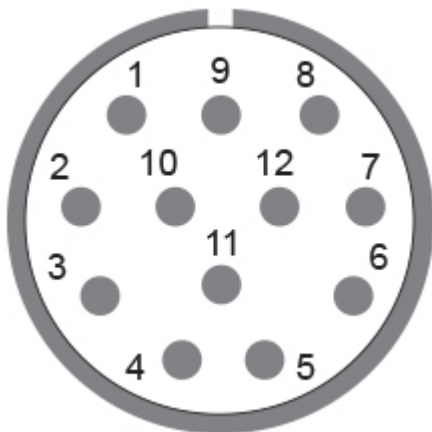
| | |
|------------------------|-------------------------------|
| Connection Orientation | Radial |
| Connector | M23, Male, 12 pin, CCW / left |

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 |

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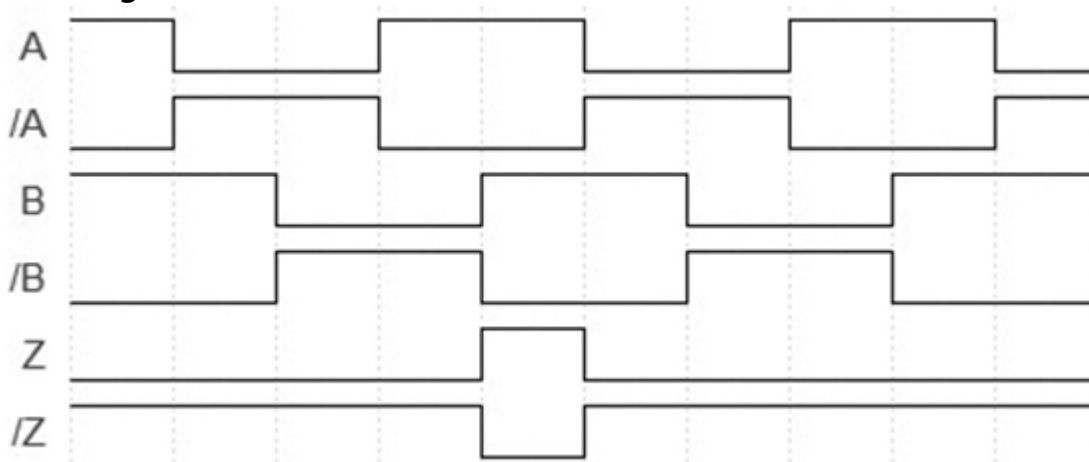
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| | |
|-----------|-------------------|
| /B | 1 |
| Z | 3 |
| /Z | 4 |
| Shielding | Connector housing |

Connector-View on Encoder

Pulse Diagram



Rotation Clockwise (seen on shaft)

Dimensional Drawing

[2D 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

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Coupling Bellow Type-06-06
Coupling Bellow Type-06-10
Coupling Bellow Type-06-08
Coupling Bellow Type-06-(3/8")
Coupling Bellow Type-06-(1/4")
Coupling Jaw Type-06-06
Coupling Jaw Type-06-10
Coupling Jaw Type-06-08
Coupling Jaw Type-06-12
Coupling Jaw Type-06-(1/4")
Coupling Jaw Type-06-(3/8")
Coupling Disc Type-06-06
Coupling Disc Type-06-10
More
Adapter Flanges
Mounting Bracket for Synchro Flange w/ fixtures
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

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