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## IXARC Absolute Rotary Encoder

## UCD-CA01B-1213-R100-2AW



| **Interface** | |
|---|---|
| Interface | CANopen |
| Profile | DS-406 |
| Programming Functions | Resolution, preset, 2 limit switches, 8 CAMS, baud rate, CAN-Identifier, bootloader, transmission modes: polled, cyclic, sync |
| Features | Round Axis |
| Transmission Rate | min. 20 kBaud, max. 1 MBaud |
| Interface Cycle Time | ≥ 1 ms |
| Video Manual | **Watch a simple installation video** |

| **Outputs** | |
|---|---|
| Output Driver | Transceiver (ISO 11898), Galvanically Isolated by Opto-Couplers |

| **Electrical Data** | |
|---|---|
| Supply Voltage | 9 – 30 VDC |
| Power Consumption | ≤ 1.2 W |
| 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 | 240 years @ 40 °C |

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| Sensor | |
|---|---|
| Technology | Magnetic |
| Resolution Singleturn | 13 bit |
| Resolution Multiturn | 12 bit |
| Multiturn Technology | Self powered magnetic pulse counter (no battery, no gear) |
| Accuracy (INL) | ±0.0878° (≤ 12 bit) |
| Code | Binary |

| 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) |
| Storage Temperature | -40 °C (-40 °F) – +85 °C (+185 °F) |
| Humidity | 98% RH, no condensation |

| Mechanical Data | |
|---|---|
| Connection Cap Material | None |
| Housing Material | Steel |
| Housing Coating | Cathodic corrosion protection (>720 hrs salt spray resistance) |
| Flange Type | Synchro, ø 36 mm |
| Flange Material | Aluminum |
| Shaft Type | Solid, Length = 20 mm |
| Shaft Diameter | ø 10 mm (0.39") |
| Shaft Material | Stainless Steel V2A (1.4305, 303) |
| Max. Shaft Load | Axial 40 N, Radial 110 N |
| Minimum Mechanical Lifetime (10^8 revolutions with Fa/Fr) | 30 (20 N / 40 N),10 (40 N / 60 N), 7 (40 N / 80 N), 3 (40 N / 110 N) |
| 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 | 56 mm (2.20") |
| Weight | 270 g (0.60 lb) |

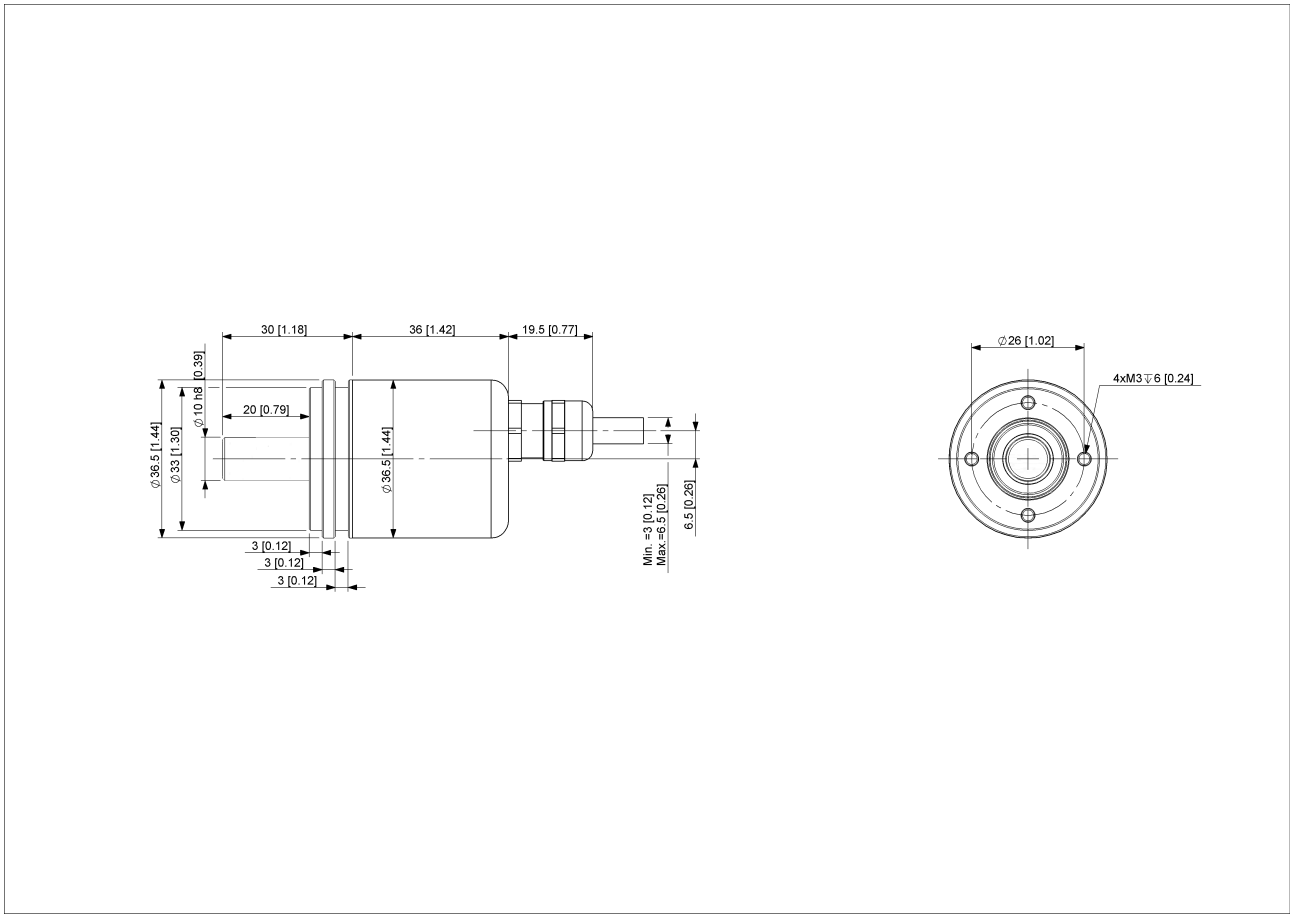
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| Electrical Connection | |
|---|---|
| Connection Orientation | Axial |
| Connection Type | Cable / Connector |
| Cable Length | 2 m [79"] |
| Wire Cross Section | 0.14 mm² / AWG 26 |
| Material / Type | PVC |
| Cable Diameter | 6 mm (0.24 in) |
| Minimum Bend Radius | 46 mm (1.81") fixed, 61 mm (2.4") flexing |

| Certification | |
|---|---|
| Approval | CE + cULus listed, Industrial Control Equipment + E1 |
| Product Life Cycle | Established |

| Connection Plan | |
|---|---|
| SIGNAL | CABLE COLOR |
| Power Supply | Red |
| GND | Yellow |
| CAN High | White |
| CAN Low | Brown |
| CAN GND | Green |

Connector-View on Encoder




2D Drawing

**Accessories**

Clamp Disc w/ Eccentric Hole-4pcs
Clamp Disc w/ Centred Hole-4pcs

Coupling Disc Type-10-12
Coupling Bellow Type-10-10
Coupling Bellow Type-06-10
Coupling Bellow Type-08-10
Coupling Bellow Type-10-12
Coupling Bellow Type-10-(1/4")
Coupling Bellow Type-10-(3/8")
Coupling Jaw Type-06-10
Coupling Jaw Type-08-10
Coupling Jaw Type-10-12
Coupling Jaw Type-10-(1/4")
Coupling Jaw Type-10-(3/8")

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Coupling Jaw Type-10-10
Coupling Disc Type-06-10
Coupling Disc Type-10-10
More

**Contact**



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The picture and drawing are for general presentation purposes only. Please refer to the "Download" section for detailed technical drawings. 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.