



POSITAL

FRABA

IXARC Absolute Rotary Encoder

UCD-CA01B-1312-R06A-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 |

Data Sheet

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Sensor

| | |
|-----------------------|---|
| Technology | Magnetic |
| Resolution Singleturn | 12 bit |
| Resolution Multiturn | 13 bit |
| Multiturn Technology | Self powered magnetic pulse counter (no battery, no gear) |
| Accuracy (INL) | $\pm 0.0878^\circ (\leq 12 \text{ bit})$ |
| Code | Binary |

Environmental Specifications

| | |
|----------------------------|---|
| Protection Class (Shaft) | IP65 |
| Protection Class (Housing) | IP54 |
| 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, \varnothing 36 mm |
| Flange Material | Aluminum |
| Shaft Type | Solid, Length = 11.5 mm |
| Shaft Diameter | \varnothing 6 mm (0.24") |
| 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) | 40 (20 N / 40 N), 14 (40 N / 60 N), 10 (40 N / 80 N), 6 (40 N / 110 N) |
| Friction Torque | $\leq 3 \text{ Ncm @ } 20 \text{ }^\circ\text{C}$ (4.2 oz-in @ 68 °F) |
| Max. Permissible Mechanical Speed | $\leq 12000 \text{ 1/min}$ |
| Shock Resistance | $\leq 100 \text{ g}$ (half sine 6 ms, EN 60068-2-27) |
| Permanent Shock Resistance | $\leq 10 \text{ g}$ (half sine 16 ms, EN 60068-2-29) |
| Vibration Resistance | $\leq 10 \text{ g}$ (10 Hz - 1000 Hz, EN 60068-2-6) |
| Length | 43 mm (1.69") |
| Weight | 255 g (0.56 lb) |

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Electrical Connection

| | |
|------------------------|---|
| Connection Orientation | Axial |
| Connection Type | Cable / Connector |
| 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 |
| Product Life Cycle | Established |

Connection Plan

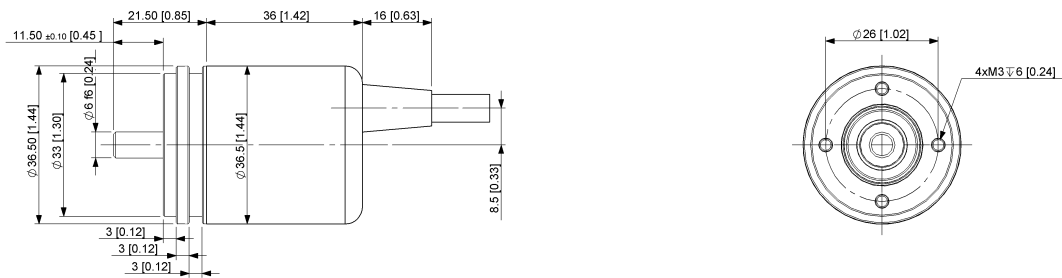
| | |
|--------------|-------------|
| SIGNAL | CABLE COLOR |
| Power Supply | Red |
| GND | Yellow |
| CAN High | White |
| CAN Low | Brown |
| CAN GND | Green |

Connector-View on Encoder



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[2D Drawing](#)

Accessories

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

Coupling Bellow Type-06-06
Coupling Bellow Type-06-10
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

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