



POSITAL

FRABA

IXARC Absolute Rotary Encoder

UCD-CA01B-1416-H8S0-2RW



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 | 16 bit |
| Resolution Multiturn | 14 bit |
| Multiturn Technology | Self powered magnetic pulse counter (no battery, no gear) |
| Accuracy (INL) | $\pm 0.0878^\circ$ (≤ 12 bit) |
| Code | Binary |

Environmental Specifications

| | |
|----------------------------|---|
| Protection Class (Shaft) | IP65 |
| Protection Class (Housing) | IP66/IP67 |
| 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 | Wet coating (RAL 9006 White Aluminium) + Cathodic corrosion protection (>720 h salt spray resistance) |
| Flange Type | Blind Hollow, \varnothing 58 mm (H) |
| Flange Material | Aluminum |
| Shaft Type | Blind Hollow, Depth = 28 mm |
| Shaft Diameter | \varnothing 8 mm (0.31") |
| Shaft Material | Stainless Steel V2A (1.4305, 303) |
| 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) |
| 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 | 71,2 mm (2.80") |
| Weight | 470 g (1.04 lb) |

Electrical Connection

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| | |
|------------------------|---|
| Connection Orientation | Radial |
| 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 + cULus listed, Industrial Control Equipment + E1 |
| Product Life Cycle | Established |

Connection Plan

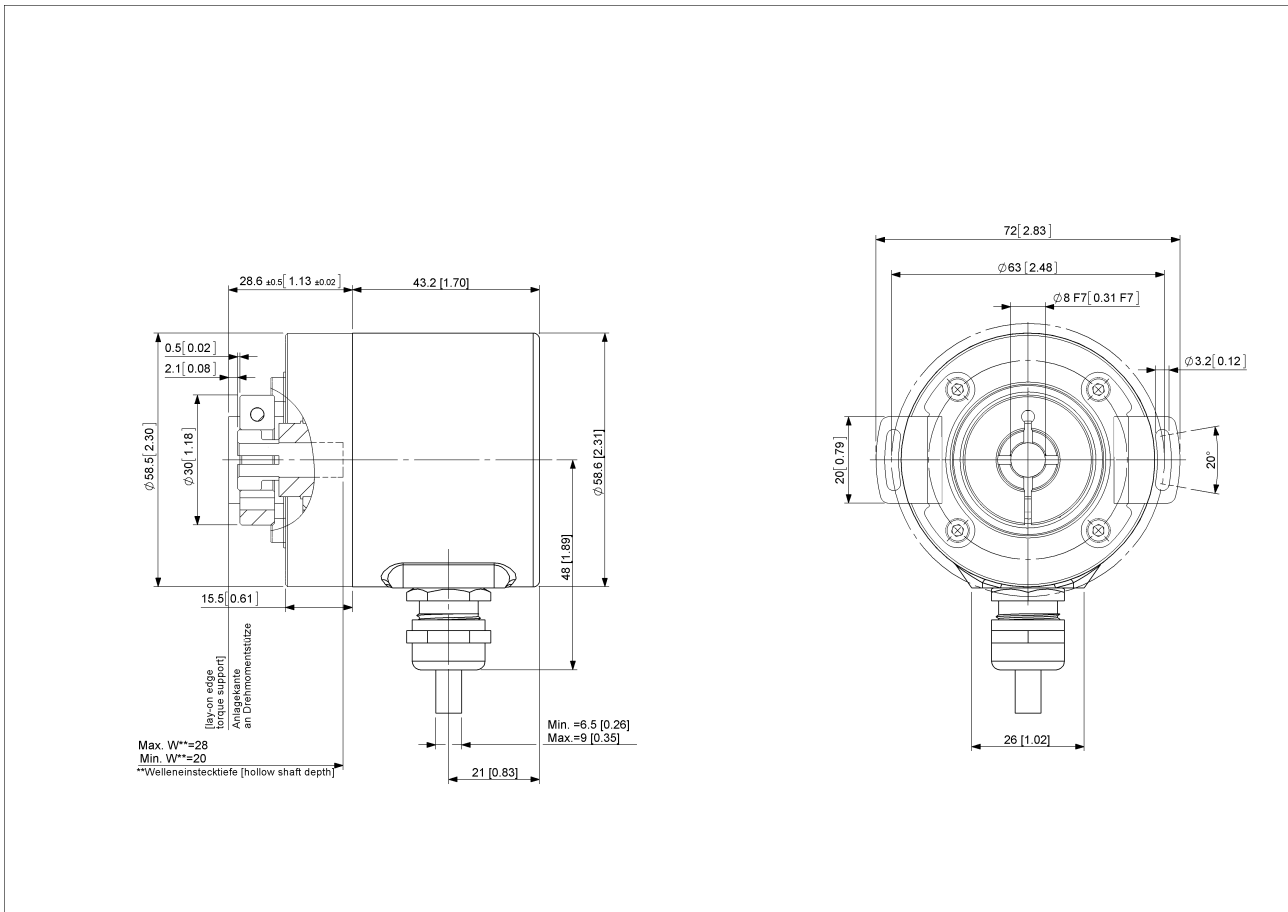
| | |
|--------------|-------------|
| SIGNAL | CABLE COLOR |
| Power Supply | Red |
| GND | Yellow |
| CAN High | White |
| CAN Low | Brown |
| CAN GND | Green |

Connector-View on Encoder



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[2D Drawing](#)

Accessories

Clamping Rings
Clamping Ring Hollow Shaft T120

Contact



Contact Us

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.

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Specifications are subject to change without notice.