POSITAL
FRABA

## IXARC Absolute Rotary Encoder

## OCD-CAA1B-0016-SB90-2RW



| 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 |
| Manual Functions | Address selector switch 0-99 and terminal resistor (with connection cap) |
| 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 | 10 – 30 VDC |
| Current Consumption | ≤ 230 mA @ 10 V DC, ≤ 100 mA @ 24 V DC |
| Power Consumption | ≤ 2.5 W |
| Start-Up Time | < 250 ms |
| 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 | 13.5 years @ 40 °C |

**Sensor**

| | |
|---|---|
| Technology | Optical |
| Resolution Singleturn | 16 bit |
| Accuracy (INL) | ±0.0220° (14 – 16 bit), ±0.0439° (≤13 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 | Wet coating (RAL 9006 White Aluminium) + Cathodic corrosion protection (>720 h salt spay resistance) |
| Flange Type | Synchro, ø 58 mm (S) |
| Flange Material | Aluminum |
| Shaft Type | Solid, Single Flat, 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) | 420 (20 N / 40 N), 145 (40 N / 60 N), 100 (40 N / 80 N), 55 (40 N / 110 N) |
| Rotor Inertia | ≤ 30 gcm² [≤ 0.17 oz-in²] |
| 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 | 56,7 mm (2.23") |
| Weight | 430 g (0.95 lb) |

**Electrical Connection**

| | |
|---|---|
| Connection Orientation | Radial |
| 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 |

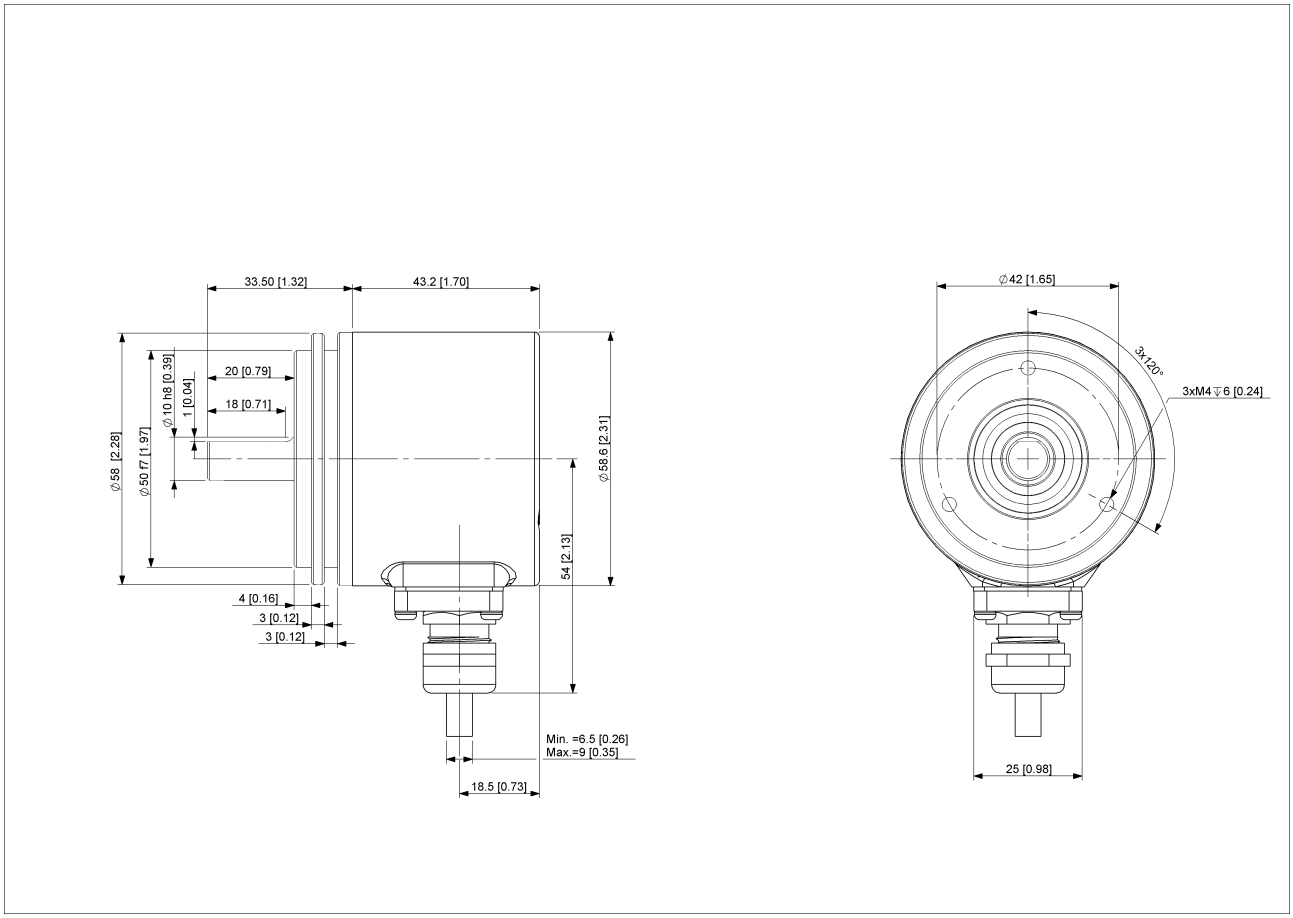
**Certification**

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

**Connection Plan**

| SIGNAL | CABLE COLOR |
|---|---|
| Power Supply | White |
| GND | Brown |
| CAN High | Yellow |
| CAN Low | Pink |
| 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-08-10
Coupling Jaw Type-10-12
Coupling Jaw Type-10-(1/4")
Coupling Jaw Type-10-(3/8")
Coupling Jaw Type-10-10

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

Mounting Bracket for Synchro Flange w/ fixtures

**Contact**



POSITAL
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. Specifications are subject to change without notice.