



IXARC Absolute Rotary Encoder

OCD-CAA1B-0016-S100-H72



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 |

Data Sheet

Printed at 27-09-2017 14:09

POSITAL

FRABA



| | |
|---------------------------|--------------------|
| 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) | $\pm 0.0220^\circ$ (14 - 16 bit), $\pm 0.0439^\circ$ (≤ 13 bit) |
| Code | Binary |

Environmental Specifications

| | |
|----------------------------|------------------------------------|
| Protection Class (Shaft) | IP65 |
| Protection Class (Housing) | IP65 |
| Operating Temperature | -40 °C (-40 °F) - +85 °C (+185 °F) |
| Storage Temperature | -40 °C (-40 °F) - +85 °C (+185 °F) |
| Humidity | 98% RH, no condensation |

Mechanical Data

| | |
|---|--|
| Connection Cap Material | Aluminum |
| Housing Material | Steel |
| Housing Coating | Cathodic corrosion protection (>720 hrs salt spray resistance) |
| Flange Type | Synchro, \varnothing 58 mm (S) |
| Flange Material | Aluminum |
| Shaft Type | Solid, Length = 20 mm |
| Shaft Diameter | \varnothing 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 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) |

Data Sheet

Printed at 27-09-2017 14:09

POSITAL

FRABA



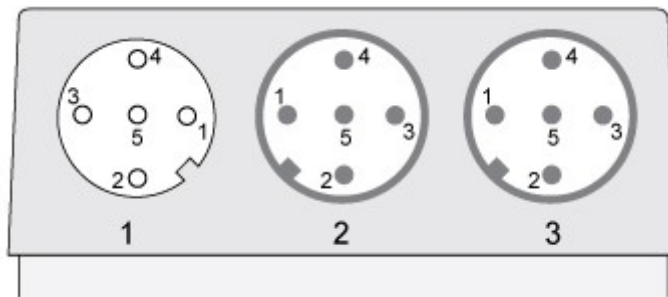
| | |
|--------|-----------------|
| Length | 73,5 mm (2.89") |
| Weight | 460 g (1.01 lb) |

Electrical Connection

| | |
|------------------------|-----------------------------------|
| Connection Orientation | Radial |
| Connection Type | 3 x M12 Connector (CAN/DeviceNet) |
| Connector 1 | M12, Female, 5 pin, a coded |
| Connector 2 | M12, Male, 5 pin, a coded |
| Connector 3 | M12, Male, 5 pin, a coded |

Certification

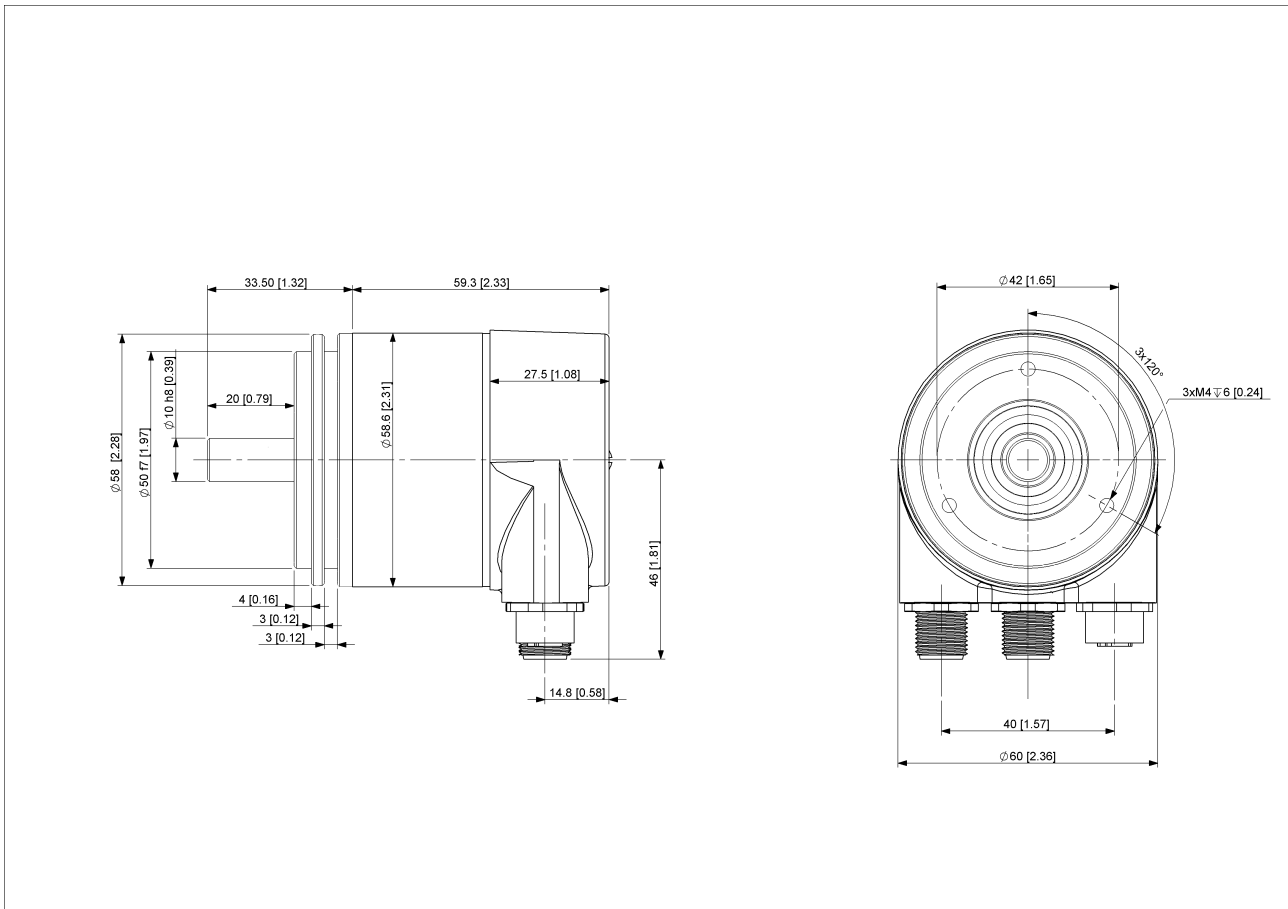
| | |
|--------------------|---|
| Approval | CE + cULus listed, Industrial Control Equipment |
| Product Life Cycle | Established |



Connection Plan

| SIGNAL | CONNECTOR | PIN NUMBER |
|---------------|-------------|------------|
| CAN GND | Connector 1 | 1 |
| Not Connected | Connector 1 | 2 |
| Not Connected | Connector 1 | 3 |
| CAN High | Connector 1 | 4 |
| CAN Low | Connector 1 | 5 |
| Power Supply | Connector 2 | 1 |
| Power Supply | Connector 2 | 2 |
| GND | Connector 2 | 3 |
| GND | Connector 2 | 4 |
| Not Connected | Connector 2 | 5 |
| CAN GND | Connector 3 | 1 |
| Not Connected | Connector 3 | 2 |
| Not Connected | Connector 3 | 3 |
| CAN High | Connector 3 | 4 |
| CAN Low | Connector 3 | 5 |

Connector-View on Encoder



[2D Drawing](#)

Accessories

Connectors & Cables

M12, 5pin A-Coded, Male

10m PUR Cable, 5pin, A-Coded, f

2m PUR Cable, 5pin, A-Coded, f

5m PUR Cable, 5pin, A-Coded, f

2m PUR Cable, 5pin, A-Coded, m

5m PUR Cable, 5pin, A-Coded, m

10m PUR Cable, 5pin, A-Coded, m

M12, 5pin A-Coded, Female

More

Clamp Disc w/ Eccentric Hole-4pcs

Clamp Disc w/ Centred Hole-4pcs

Coupling Disc Type-10-12

Data Sheet

Printed at 27-09-2017 14:09



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")
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.