



# POSITAL

## FRABA

### IXARC Absolute Rotary Encoder

UCD-CA01B-0013-D10D-2AW



#### Interface

|                       |   |
|-----------------------|---|
| Interface             | CANopen   |
| Profile               | DS-406  |
| Features              | Round Axis  |
| Transmission Rate     | min. 20 kBaud, max. 1 MBaud   |
| Interface Cycle Time  | $\geq 1$ ms   |
| Video Manual          | <a href="#">▶ Watch a simple installation video</a>   |
| Programming Functions | Resolution, preset, 2 limit switches, 8 CAMS, baud rate, CAN-Identifier, bootloader, transmission modes: polled, cyclic, sync |

#### Outputs

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

#### Electrical Data

|                             |  |
|-----------------------------|--|
| Supply Voltage              | 9 - 30 VDC                                     |
| Current Consumption         | $\leq 65$ mA @ 10 V DC, $\leq 60$ mA @ 24 V DC |
| Power Consumption           | $\leq 1.2$ 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                               |

Data Sheet

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MTTF 240 years @ 40 °C

### Sensor

|                       |                                     |
|-----------------------|-------------------------------------|
| Technology            | Magnetic                            |
| Resolution Singleturn | 13 bit                              |
| Accuracy (INL)        | $\pm 0.0878^\circ$ ( $\leq 12$ bit) |
| Code                  | Binary                              |

### Environmental Specifications

|                            |  |
|----------------------------|--|
| Protection Class (Shaft)   | IP68/IP69K   |
| Protection Class (Housing) | IP68/IP69K   |
| Operating Temperature      | -40 °C fixed (-40 °F), -30 °C flexible (-22 °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 Heavy Duty                        |
| Flange Material  | Aluminum   |
| Shaft Type   | Solid, Length = 20 mm  |
| Shaft Diameter   | $\varnothing$ 10 mm (0.39")                                    |
| Shaft Material   | Stainless Steel V4A (1.4112, 440 B), hardened                  |
| Max. Shaft Load  | Axial 180 N, Radial 180 N                                      |
| Minimum Mechanical Lifetime (10 <sup>8</sup> revolutions with Fa/Fr) | 10 (180 N / 180 N), 15 (150 N, 150 N), 30 (100 N / 100 N)      |
| Friction Torque  | $\leq 5$ Ncm @ 20 °C, (7.1 oz-in @ 68 °F)                      |
| Max. Permissible Mechanical Speed                                    | $\leq 6000$ 1/min  |
| Shock Resistance   | $\leq 200$ g (half sine 11 ms, EN 60068-2-27)                  |
| Permanent Shock Resistance   | $\leq 30$ g (half sine 16 ms, EN 60068-2-29)                   |
| Vibration Resistance   | $\leq 30$ g (10 Hz - 1000 Hz, EN 60068-2-6)                    |
| Length   | 56 mm (2.20")  |
| Weight   | 360 g (0.79 lb)  |

### Electrical Connection

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|                        |  |
|------------------------|--|
| Connection Orientation | Axial                                  |
| Connection Type        | Cable / Connector                      |
| Cable Length           | 2 m [79"]                              |
| Wire Cross Section     | 0.34 mm <sup>2</sup> / AWG 22          |
| Material / Type        | PUR / PU                               |
| Cable Diameter         | 7.5 mm (0.30 in)                       |
| Minimum Bend Radius    | 56 mm (2.2") fixed, 75 mm (3") 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  
**Dimensional Drawing**

[2D Drawing](#)

### Accessories

Couplings

- 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")

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Coupling Jaw Type-10-(3/8")  
Coupling Jaw Type-10-10  
Coupling Disc Type-06-10  
Coupling Disc Type-10-10  
More

### 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. Specifications are subject to change without notice.