



# POSITAL

## FRABA

### IXARC Absolute Rotary Encoder

### UCD-CA01B-1412-M100-PRM



#### 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          | <a href="#">▶ Watch a simple installation video</a>   |

#### 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  | 14 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) | 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  | None   |
| Housing Material   | Steel  |
| Housing Coating  | Cathodic corrosion protection (>720 hrs salt spray resistance)             |
| Flange Type  | Clamp, $\varnothing$ 58 mm (M)   |
| Flange Material  | Aluminum   |
| Shaft Type   | Solid, Single Flat, 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 <sup>8</sup> revolutions with Fa/Fr) | 430 (20 N / 40 N), 150 (40 N / 60 N), 100 (40 N / 80 N), 55 (40 N / 110 N) |
| Rotor Inertia  | $\leq 30 \text{ gcm}^2 [\leq 0.17 \text{ oz-in}^2]$                        |
| 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   | 92 mm (3.62")  |
| Weight   | 255 g (0.56 lb)  |

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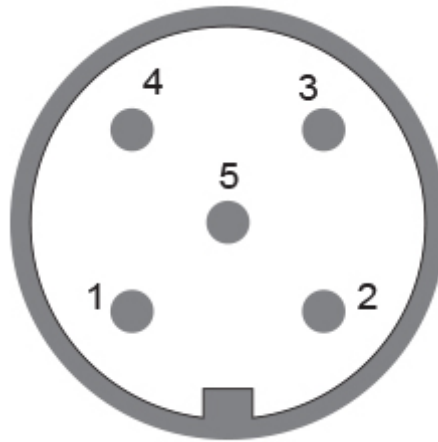
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### Electrical Connection

|                        |                           |
|------------------------|---------------------------|
| Connection Orientation | Radial                    |
| Connection Type        | Cable / Connector         |
| Connector              | M12, Male, 5 pin, a coded |

### Certification

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



### Connection Plan

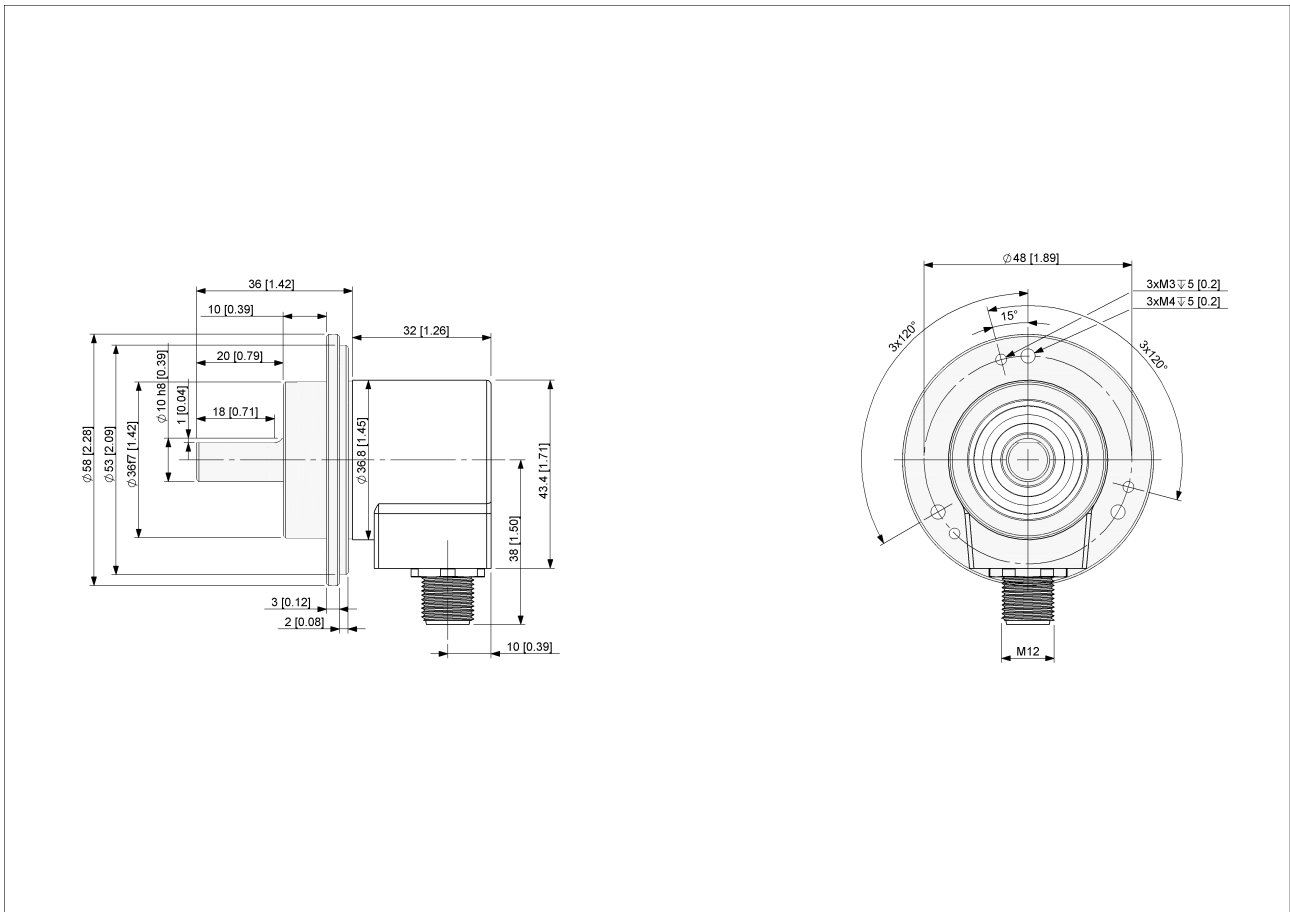
| SIGNAL       | PIN NUMBER |
|--------------|------------|
| Power Supply | 2          |
| GND          | 3          |
| CAN High     | 4          |
| CAN Low      | 5          |
| CAN GND      | 1          |

Connector-View on Encoder



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### [2D Drawing](#)

### Accessories

#### Connectors & Cables

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

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

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

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

M12, 5pin A-Coded, Female

More

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

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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 Clamping Flange w/ fixtures  
L Mounting Bracket w/ screws  
Mounting Bracket Spring Loaded f. Clamping Flange

### Contact



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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.