



# POSITAL

## FRABA

### IXARC Absolute Rotary Encoder

### UCD-CA01B-1413-HFS0-2RW



#### 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          | <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 |

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### Sensor

|                       |   |
|-----------------------|---|
| Technology            | Magnetic  |
| Resolution Singleturn | 13 bit  |
| Resolution Multiturn  | 14 bit  |
| Multiturn Technology  | Self powered magnetic pulse counter (no battery, no gear) |
| Accuracy (INL)        | $\pm 0.0878^\circ$ ( $\leq 12$ 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                    | $\varnothing$ 15 mm (0.59")   |
| Shaft Material                    | Stainless Steel V2A (1.4305, 303)   |
| Rotor Inertia                     | $\leq 30$ gcm <sup>2</sup> [ $\leq 0.17$ oz-in <sup>2</sup> ]   |
| Friction Torque                   | $\leq 3$ Ncm @ 20 °C (4.2 oz-in @ 68 °F)  |
| Max. Permissible Mechanical Speed | $\leq 12000$ 1/min  |
| Shock Resistance                  | $\leq 100$ g (half sine 6 ms, EN 60068-2-27)  |
| Permanent Shock Resistance        | $\leq 10$ g (half sine 16 ms, EN 60068-2-29)  |
| Vibration Resistance              | $\leq 10$ 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 <sup>2</sup> / 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

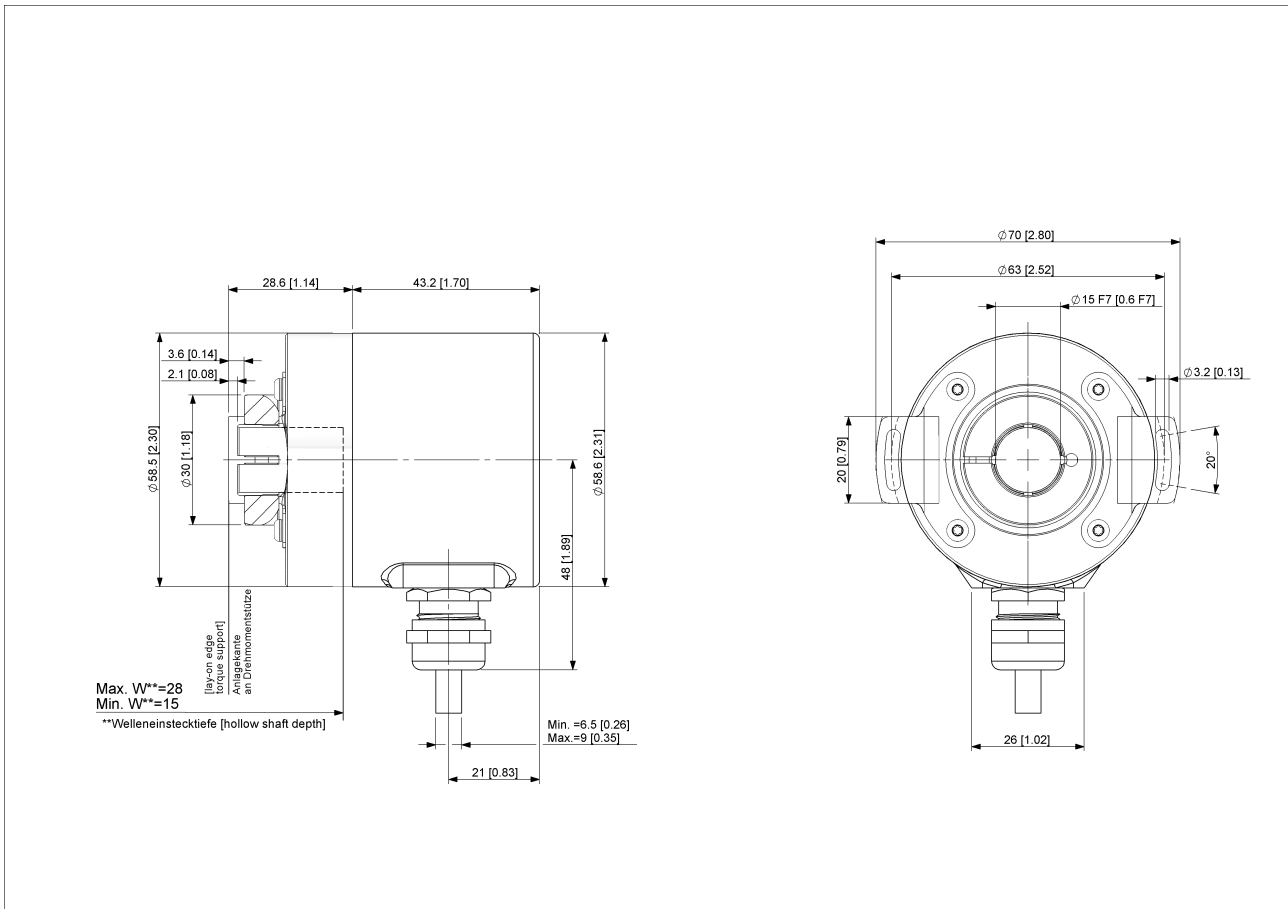
| SIGNAL       | CABLE COLOR |
|--------------|-------------|
| Power Supply | Red         |
| GND          | Yellow      |
| CAN High     | White       |
| CAN Low      | Brown       |
| CAN GND      | Green       |

Connector-View on Encoder



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## FRABA



[2D Drawing](#)

### Accessories

Clamping Ring B15

### Contact



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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.