



# POSITAL

## FRABA

### IXARC Absolute Rotary Encoder

UCD-CA01B-1412-HFS0-2AW



#### 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  | $\geq 1$ 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           | $\leq 1.2$ 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  |
| MTTF                        | 240 years @ 40 °C |

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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)        | $\pm 0.0878^\circ$ ( $\leq 12$ 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                   | Cathodic corrosion protection (>720 hrs 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                     | $\leq 30 \text{ gcm}^2$ [ $\leq 0.17 \text{ oz-in}^2$ ]        |
| Friction Torque                   | $\leq 3 \text{ Ncm}$ @ 20 °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                            | 71,2 mm (2.80")                                                |
| Weight                            | 475 g (1.05 lb)                                                |

### Electrical Connection

|                        |            |
|------------------------|------------|
| Connection Orientation | Axial      |
|                        | Data Sheet |

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|                     |                                           |
|---------------------|-------------------------------------------|
| 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

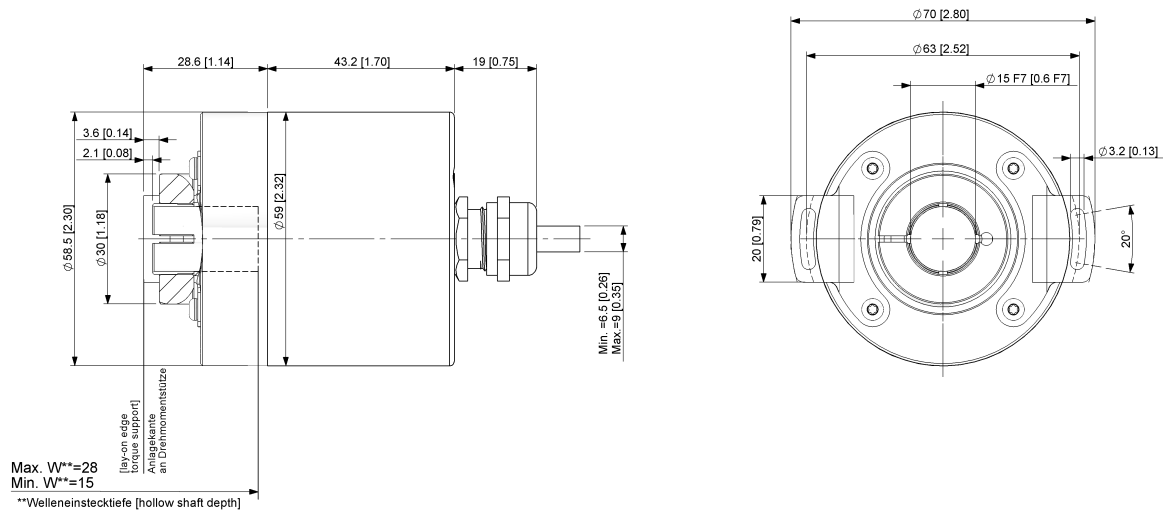
|              |             |
|--------------|-------------|
| SIGNAL       | CABLE COLOR |
| Power Supply | Red         |
| GND          | Yellow      |
| CAN High     | White       |
| CAN Low      | Brown       |
| CAN GND      | Green       |

Connector-View on Encoder



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### 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.