



# POSITAL

## FRABA

### IXARC Absolute Rotary Encoder

UCD-C901B-0013-D10D-PRV



#### Interface

|                       |   |
|-----------------------|---|
| Interface             | SAE J1939   |
| Profile               | J1939 specific                                    |
| Manual Functions      | Programmable                                      |
| Features              | Round Axis  |
| Transmission Rate     | min. 20 kBaud, max. 1 MBaud                       |
| Interface Cycle Time  | $\geq 1$ ms                                       |
| Programming Functions | Resolution, preset, direction, node ID, baud rate |

#### Outputs

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

#### Electrical Data

|                             |                   |
|-----------------------------|-------------------|
| Supply Voltage              | 9 - 30 VDC        |
| Power Consumption           | $\leq 1.2$ W      |
| Start-Up Time               | <500 ms           |
| 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  
Printed at 22-04-2020 10:04



# POSITAL

## FRABA

### 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 (-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  | 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   | 245 g (0.54 lb)  |

### Electrical Connection

|                        |                   |
|------------------------|-------------------|
| Connection Orientation | Radial            |
| Connection Type        | Cable / Connector |

Data Sheet

Printed at 22-04-2020 10:04



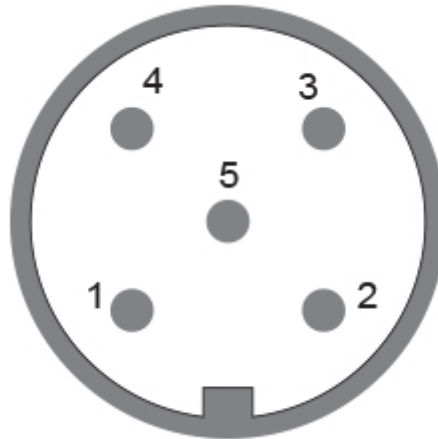
# POSITAL

## FRABA

Connector M12, Male, 5 pin, a coded, with LED

### Certification

|                    |            |
|--------------------|------------|
| Approval           | CE + cULus |
| Product Life Cycle | New        |



### Connection Plan

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

Connector-View on Encoder

### Dimensional Drawing

[2D Drawing](#)

### Accessories

Connectors & Cables

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

POS M12 5pin-A Female+5m PUR Cable

POS M12 5pin-A Female+2m PUR Cable

POS M12 5pin-A Female+10m PUR Cable

M12, 5pin A-Coded, Female

Data Sheet

Printed at 22-04-2020 10:04



# POSITAL

---

## FRABA

More

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")

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.

Data Sheet

Printed at 22-04-2020 10:04