

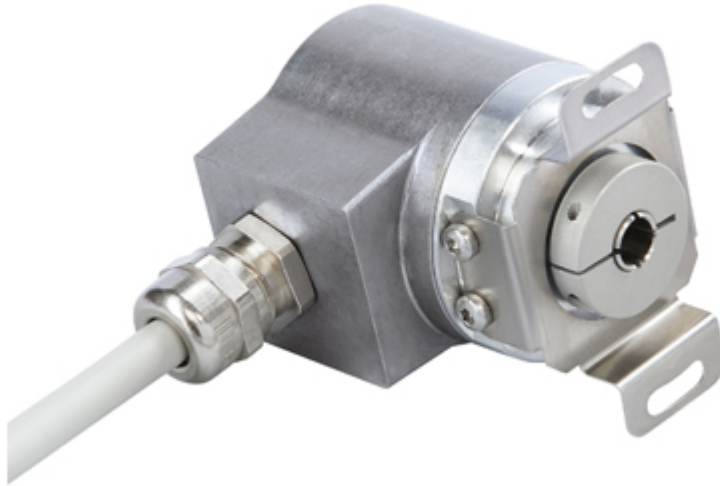


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## FRABA

### IXARC Absolute Rotary Encoder

**UCD-S101B-0016-V6S0-2RW**



#### Interface

|                         |                                                   |
|-------------------------|---------------------------------------------------|
| Interface               | SSI with Preset                                   |
| Programming Functions   | Absolute: Resolution, Revolution, Code, Preset    |
| Manual Functions        | Preset + complement via cable or connector        |
| Interface Cycle Time    | $\geq 25 \mu\text{s}$                             |
| Number of Preset Cycles | 5,100,000                                         |
| SSI Format              | SSSSSSSSSSSSSSSS00                                |
| Video Manual            | <a href="#">Watch a simple installation video</a> |

#### Outputs

|               |       |
|---------------|-------|
| Output Driver | RS422 |
|---------------|-------|

#### Electrical Data

|                             |                         |
|-----------------------------|-------------------------|
| Supply Voltage              | 4.5 - 30 VDC            |
| Current Consumption         | Typical 50 mA           |
| Power Consumption           | $\leq 1.0 \text{ W}$    |
| Start-Up Time               | $< 250 \text{ ms}$      |
| Clock Input                 | RS 422, via Optocoupler |
| Clock Frequency             | 100 kHz - 2 MHz         |
| Reverse Polarity Protection | Yes                     |
| Short Circuit Protection    | Yes                     |
| EMC: Emitted Interference   | DIN EN 61000-6-4        |

Data Sheet

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|                     |                   |
|---------------------|-------------------|
| EMC: Noise Immunity | DIN EN 61000-6-2  |
| MTTF                | 500 years @ 40 °C |

### Sensor

|                        |                                                |
|------------------------|------------------------------------------------|
| Technology             | Magnetic                                       |
| Resolution Singleturn  | 16 bit                                         |
| Accuracy (INL)         | ±0.0878° (≤ 12 bit)                            |
| Sense Signal (Default) | Clockwise shaft movement (front view on shaft) |
| Code                   | Binary                                         |

### Environmental Specifications

|                            |                                                                   |
|----------------------------|-------------------------------------------------------------------|
| Protection Class (Shaft)   | IP65                                                              |
| Protection Class (Housing) | IP65                                                              |
| Operating Temperature      | -30 °C fixed (-22 °F), -5 °C flexible (+23 °F) - +80 °C (+176 °F) |
| Humidity                   | 98% RH, no condensation                                           |

### Mechanical Data

|                                   |                                                                |
|-----------------------------------|----------------------------------------------------------------|
| Housing Material                  | Steel                                                          |
| Housing Coating                   | Cathodic corrosion protection (>720 hrs salt spray resistance) |
| Flange Type                       | Blind Hollow, ø 36 mm / ø 42 mm                                |
| Flange Material                   | Aluminum                                                       |
| Shaft Type                        | Blind Hollow, Depth = 18 mm                                    |
| Shaft Diameter                    | ø 6 mm (0.24")                                                 |
| Shaft Material                    | Stainless Steel V2A (1.4305, 303)                              |
| Friction Torque                   | ≤ 3 Ncm @ 20 °C (4.2 oz-in @ 68 °F)                            |
| Max. Permissible Mechanical Speed | ≤ 12000 1/min                                                  |
| Shock Resistance                  | ≤ 100 g (half sine 6 ms, EN 60068-2-27)                        |
| Permanent Shock Resistance        | ≤ 10 g (half sine 16 ms, EN 60068-2-29)                        |
| Vibration Resistance              | ≤ 10 g (10 Hz - 1000 Hz, EN 60068-2-6)                         |
| Length                            | 50,2 mm (1.98")                                                |
| Weight                            | 290 g (0.64 lb)                                                |

### Electrical Connection

|                        |           |
|------------------------|-----------|
| Connection Orientation | Radial    |
| Cable Length           | 2 m [79"] |



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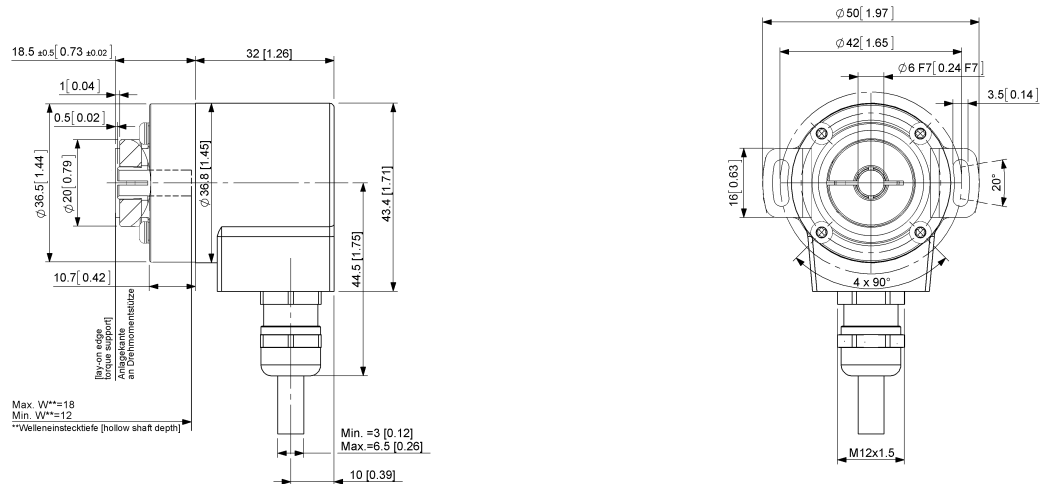
|                     |                                           |
|---------------------|-------------------------------------------|
| Wire Cross Section  | 0.14 mm <sup>2</sup> / AWG 26             |
| Material / Type     | PVC                                       |
| Cable Diameter      | 6 mm (0.24 in)                            |
| Minimum Bend Radius | 46 mm (1.81") fixed, 61 mm (2.4") flexing |

### Certification

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

### Connection Plan

|              |             |
|--------------|-------------|
| SIGNAL       | CABLE COLOR |
| Power Supply | Brown       |
| GND          | White       |
| Data+        | Gray        |
| Data-        | Pink        |
| Clock+       | Green       |
| Clock-       | Yellow      |
| Preset       | Blue        |
| DIR          | Red         |
| Shielding    | Shield      |



## 2D Drawing

## Accessories

## Clamping Ring V06

## 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.