

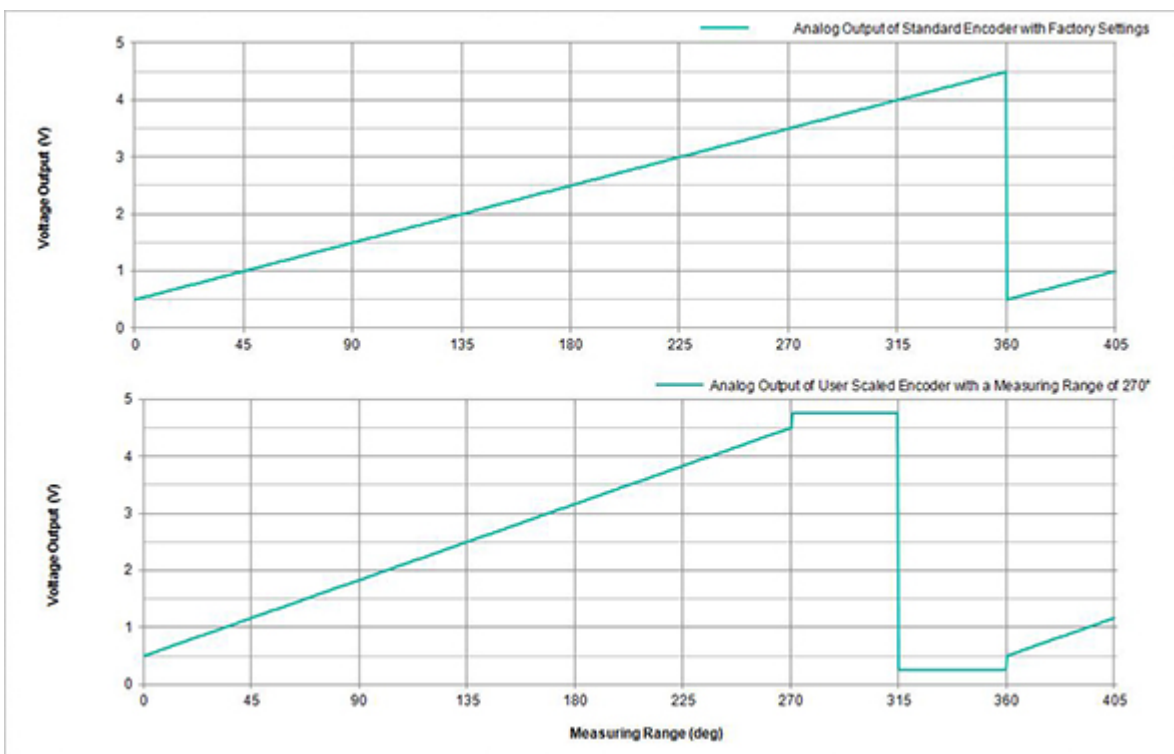
IXARC Absolute Rotary Encoder

UCD-AV003-0013-0340-2RW



Interface

| | |
|------------------|---|
| Interface | Analog Voltage |
| Manual Functions | Start and End point via Cable or Connector |
| Video Manual | ▶ Watch a simple installation video |



Data Sheet

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Electrical Data

| | |
|-----------------------------|--|
| Supply Voltage | 8 - 32 VDC |
| Current Consumption | Typical 15 mA @24V (no load) |
| Start-Up Time | <500 ms |
| Min. Load Resistance | 5 kΩ |
| Analog Accuracy | @ 10 V = ±10 mV (with an ideal power supply) |
| Linearity | 0.15% |
| Settling Time | 32 ms (from min value to max value jump) |
| 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 | 300.9 years @ 40 °C |

Sensor

| | |
|---------------------------|--|
| Technology | Magnetic |
| Resolution Singleturn | 13 bit |
| Accuracy (INL) | ±0.0878° (≤ 12 bit) |
| Sense Signal (Default) | Counterclockwise shaft movement (front view on shaft) |
| Code | Analog Voltage 0.5 - 4.5 V |
| Cycle Time Base Sensor | < 100 μs |
| Minimum Measurement Range | 0 - 11.25° |
| Resolution of Output | Max. 13 bits over entire measuring range (Fractional Turns - Resolution decreases less than 13 bits when measurements range is less than 90 degrees) |
| Multiturn Range | Singleturn |

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 | Clamp, ø 37 mm |
| Flange Material | Aluminum |
| Flange Coating | No Coating |
| Shaft Type | Solid, Single Flat, Length = 5 mm |
| Shaft Diameter | ø 5 mm (0.20") |
| Shaft Material | Stainless Steel V2A (1.4305, 303) |
| Max. Shaft Load | Axial 40 N, Radial 110 N |
| Minimum Mechanical Lifetime (10 ⁸ revolutions with Fa/Fr) | 40 (20 N / 40 N), 14 (40 N / 60 N), 10 (40 N / 80 N), 6 (40 N / 110 N) |
| 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 | 31 mm (1.22") |
| Weight | 540 g (1.19 lb) |

Electrical Connection

| | |
|------------------------|---|
| Connection Orientation | Radial |
| Connector | Cable 2 m |
| Cable Length | 2 m [79"] |
| Wire Cross Section | 0.14 mm ² / 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 |

Product Life Cycle

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

Connection Plan

| | |
|---------------|-------------|
| SIGNAL | CABLE COLOR |
| Power Supply | Red |
| GND | Yellow |
| Analog Output | Green |



| | |
|----------------|--------|
| Set1/Direction | Brown |
| Set2/Zero Set | White |
| Shielding | Shield |

Connector-View on Encoder **Dimensional Drawing**

[2D Drawing](#)

Accessories

Clamping Rings
Clamp Disc w/ Centred Hole-4pcs
Displays
AP22-D0 Analog Display (4 dig. o/p)
DiMod-A Analog Display

Got questions? Need an individual solution? We are here to help!



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.