



IXARC Absolute Rotary Encoder

OCD-EEA1B-0016-B060-PRM



Interface

| | |
|-----------------------|---|
| Interface | EtherNet/IP |
| Profile | CIP (Common Industrial Protocol) |
| Diagnostics | Memory |
| Programming Functions | Resolution, time base and filter for velocity, preset, counting direction, IP-Address |
| Features | Boot-Loader, Round Axis |
| Transmission Rate | 10 / 100 Mbit |
| Interface Cycle Time | ≥ 1 ms |

Outputs

| | |
|---------------|----------|
| Output Driver | Ethernet |
|---------------|----------|

Electrical Data

| | |
|-----------------------------|--|
| Supply Voltage | 10 - 30 VDC |
| Current Consumption | ≤ 230 mA @ 10 V DC, ≤ 100 mA @ 24 V DC |
| Power Consumption | ≤ 2.5 W |
| Start-Up Time | < 250 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 |

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| | |
|------|------------------|
| MTTF | 65 years @ 40 °C |
|------|------------------|

Sensor

| | |
|-----------------------|---|
| Technology | Optical |
| Resolution Singleturn | 16 bit |
| Accuracy (INL) | $\pm 0.0220^\circ$ (14 - 16 bit), $\pm 0.0439^\circ$ (≤ 13 bit) |
| Code | Binary |

Environmental Specifications

| | |
|----------------------------|------------------------------------|
| Protection Class (Shaft) | IP65 |
| Protection Class (Housing) | IP65 |
| 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

| | |
|-----------------------------------|--|
| Housing Material | Steel |
| Housing Coating | Cathodic corrosion protection (>720 hrs salt spray resistance) |
| Flange Type | Blind Hollow, \varnothing 58 mm (B) |
| Flange Material | Aluminum |
| Shaft Type | Blind Hollow, Depth = 30 mm |
| Shaft Diameter | \varnothing 6 mm (0.24") |
| Shaft Material | Stainless Steel V2A (1.4305, 303) |
| Rotor Inertia | ≤ 30 gcm ² [≤ 0.17 oz-in ²] |
| 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 | 87,5 mm (3.44") |
| Weight | 395 g (0.87 lb) |

Electrical Connection

| | |
|------------------------|-----------------------------|
| Connection Orientation | Radial |
| Connector 1 | M12, Female, 4 pin, d coded |
| Connector 2 | M12, Male, 4 pin, a coded |

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Connector 3

M12, Female, 4 pin, d coded

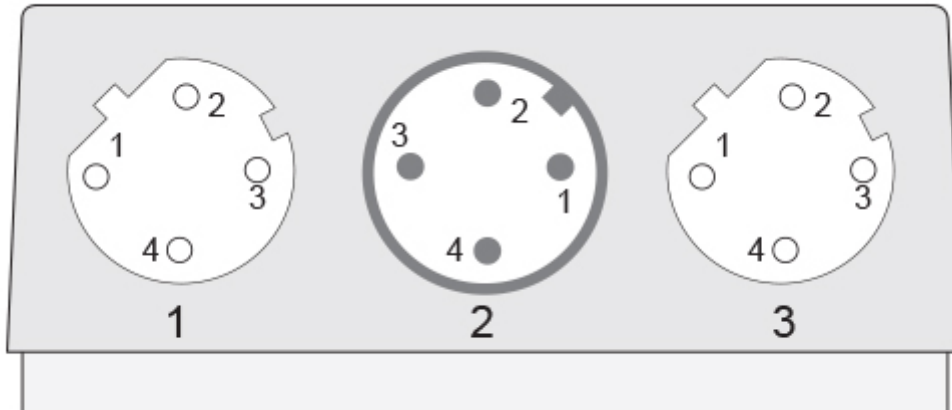
Certification

Approval

CE + cULus listed, Industrial Control Equipment

Product Life Cycle

Established



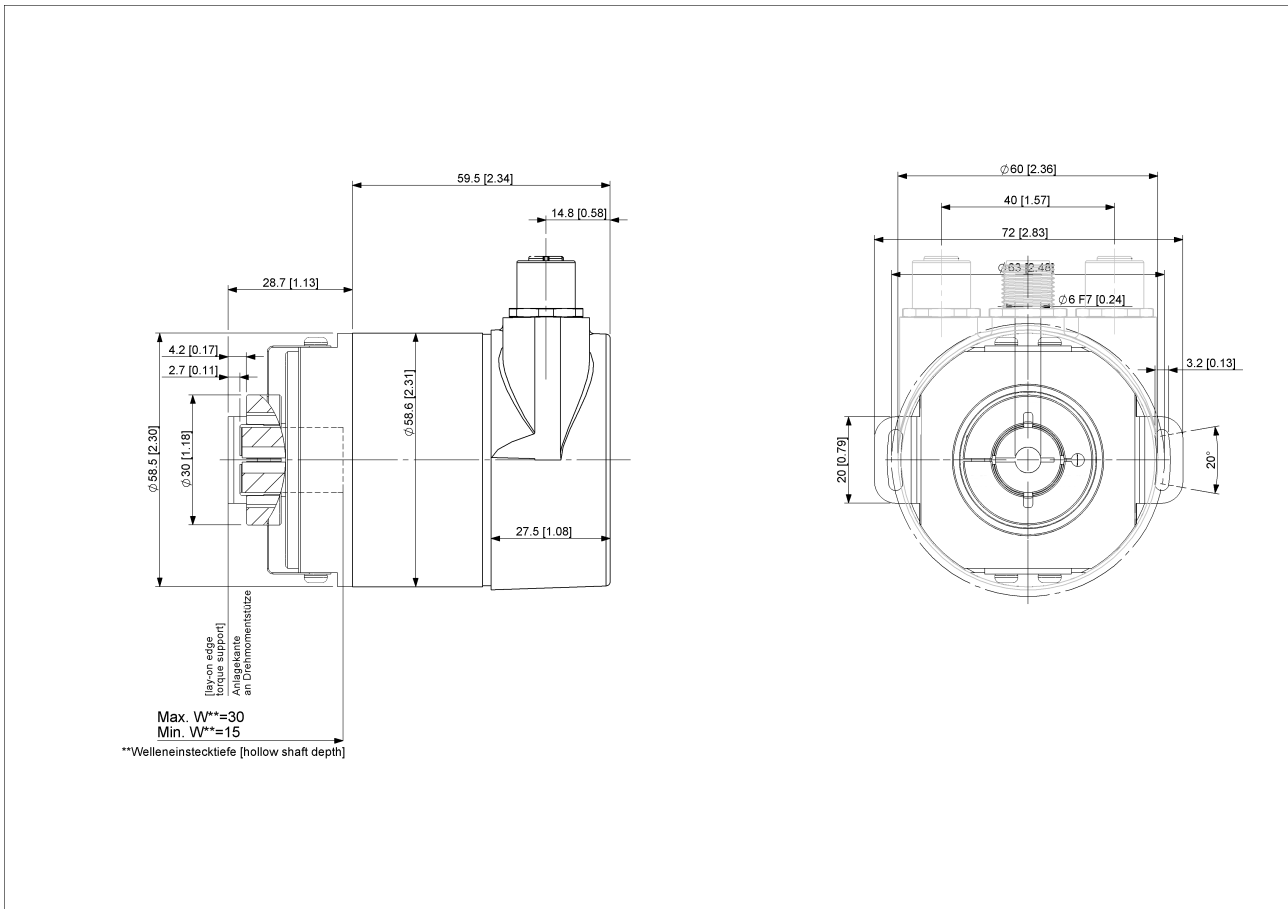
Connection Plan

| SIGNAL | CONNECTOR | PIN NUMBER |
|---------------|-------------|------------|
| Tx+ | Connector 1 | 1 |
| Rx+ | Connector 1 | 2 |
| Tx- | Connector 1 | 3 |
| Rx- | Connector 1 | 4 |
| Power Supply | Connector 2 | 1 |
| Not Connected | Connector 2 | 2 |
| GND | Connector 2 | 3 |
| Not Connected | Connector 2 | 4 |
| Tx+ | Connector 3 | 1 |
| Rx+ | Connector 3 | 2 |
| Tx- | Connector 3 | 3 |
| Rx- | Connector 3 | 4 |

Connector-View on Encoder

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[2D Drawing](#)

Accessories

Connectors & Cables

- 10m PUR Cable, 5pin, A-Coded, f
- 2m PUR Cable, 5pin, A-Coded, f
- 5m PUR Cable, 5pin, A-Coded, f
- 2m PUR Cable, 4pin, D-Coded, m
- M12, 4pin A-Coded, Female
- 10m PUR Cable, 4pin, D-Coded, m
- 10m PVC Cable, 4pin, D-Coded, m
- 2m PVC Cable, 4pin, D-Coded, m
- 5m PVC Cable, 4pin, D-Coded, m
- M12, 4pin D-Coded, Male
- 5m PUR Cable, 4pin, D-Coded, m
- More

Clamping Ring B15

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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. Specifications are subject to change without notice.