



### IXARC Absolute Rotary Encoder

**OCD-DPC1B-1416-S060-HCC**



#### Interface

|                       |                                                                                                                                                                          |
|-----------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Interface             | Profibus DP                                                                                                                                                              |
| Profile               | DPV0, DPV1 and DPV2 Class 2 (EN50170 + EN50254)                                                                                                                          |
| Diagnostics           | Memory                                                                                                                                                                   |
| Programming Functions | Resolution, gearing factor (physical resolution) , velocity scaling + filter, preset (zero point), counting direction, limit switches , node number, teach-in, diagnosis |
| Manual Functions      | Address selector switch 0-99 and terminal resistor (with connection cap)                                                                                                 |
| Features              | Round Axis                                                                                                                                                               |
| Transmission Rate     | ≤12 Mbaud                                                                                                                                                                |
| Interface Cycle Time  | ≥ 1 ms                                                                                                                                                                   |

#### Outputs

|               |                                                                  |
|---------------|------------------------------------------------------------------|
| Output Driver | Profibus Data Interface, galvanically isolated via opto-couplers |
|---------------|------------------------------------------------------------------|

#### Electrical Data

|                     |                                       |
|---------------------|---------------------------------------|
| Supply Voltage      | 10 - 30 VDC                           |
| Current Consumption | ≤ 115 mA @ 10 V DC, ≤ 50 mA @ 30 V DC |
| Power Consumption   | ≤ 1.5 W                               |
| Start-Up Time       | < 1 s                                 |

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|                             |                    |
|-----------------------------|--------------------|
| 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                        | 13.5 years @ 40 °C |

### Sensor

|                       |                                            |
|-----------------------|--------------------------------------------|
| Technology            | Optical                                    |
| Resolution Singleturn | 16 bit                                     |
| Resolution Multiturn  | 14 bit                                     |
| Multiturn Technology  | Mechanical Gearing (no Battery)            |
| Accuracy (INL)        | ±0.0220° (14 - 16 bit), ±0.0439° (≤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

|                                                                      |                                                                                                       |
|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------|
| Connection Cap Material                                              | None                                                                                                  |
| Housing Material                                                     | Steel                                                                                                 |
| Housing Coating                                                      | Wet coating (RAL 9006 White Aluminium) + Cathodic corrosion protection (>720 h salt spray resistance) |
| Flange Type                                                          | Synchro, ø 58 mm (S)                                                                                  |
| Flange Material                                                      | Aluminum                                                                                              |
| Shaft Type                                                           | Solid, Length = 10 mm                                                                                 |
| Shaft Diameter                                                       | ø 6 mm (0.24")                                                                                        |
| Shaft Material                                                       | Stainless Steel V2A (1.4305, 303)                                                                     |
| Max. Shaft Load                                                      | Axial 40 N, Radial 110 N                                                                              |
| Minimum Mechanical Lifetime (10 <sup>8</sup> revolutions with Fa/Fr) | 550 (20 N / 40 N), 195 (40 N / 60 N), 135 (40 N / 80 N), 85 (40 N / 110 N)                            |
| Rotor Inertia                                                        | ≤ 30 gcm <sup>2</sup> [≤ 0.17 oz-in <sup>2</sup> ]                                                    |
| Friction Torque                                                      | ≤ 3 Ncm @ 20 °C (4.2 oz-in @ 68 °F)                                                                   |
| Max. Permissible Mechanical Speed                                    | ≤ 12000 1/min                                                                                         |

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|                            |                                              |
|----------------------------|----------------------------------------------|
| Shock Resistance           | $\leq 100$ g (half sine 6 ms, EN 60068-2-27) |
| Permanent Shock Resistance | $\leq 10$ g (half sine 16 ms, EN 60068-2-29) |
| Vibration Resistance       | $\leq 10$ g (10 Hz - 1000 Hz, EN 60068-2-6)  |
| Length                     | 56,5 mm (2.22")                              |
| Weight                     | 300 g (0.66 lb)                              |

### Electrical Connection

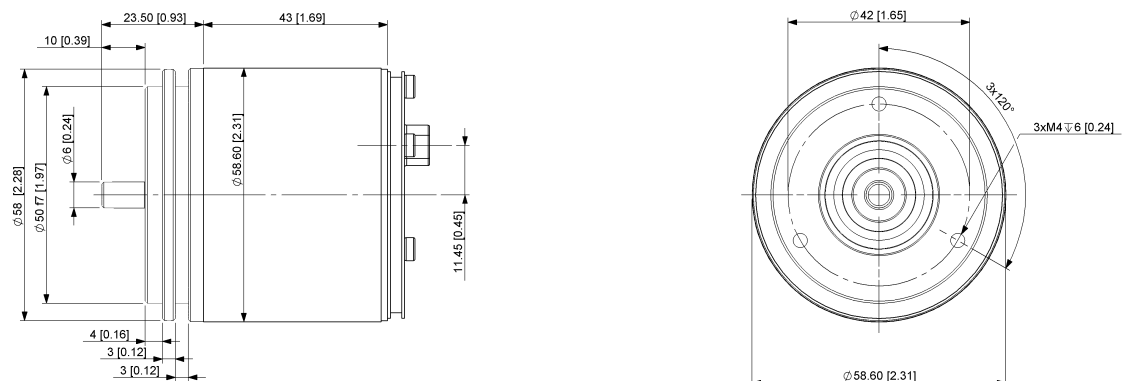
|                        |                        |
|------------------------|------------------------|
| Connection Orientation | Radial                 |
| Connection Type        | Without Connection Cap |

### Certification

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

### Connection Plan

#### Connector-View on Encoder



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### [2D Drawing](#)

#### **Accessories**

Clamp Disc w/ Eccentric Hole-4pcs

Clamp Disc w/ Centred Hole-4pcs

Coupling Bellow Type-06-06

Coupling Bellow Type-06-10

Coupling Bellow Type-06-08

Coupling Bellow Type-06-(3/8")

Coupling Bellow Type-06-(1/4")

Coupling Jaw Type-06-06

Coupling Jaw Type-06-10

Coupling Jaw Type-06-08

Coupling Jaw Type-06-12

Coupling Jaw Type-06-(1/4")

Coupling Jaw Type-06-(3/8")

Coupling Disc Type-06-06

Coupling Disc Type-06-10

More

Mounting Bracket for Synchro Flange w/ fixtures

#### **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.