



### IXARC Absolute Rotary Encoder

**OCD-DPC1B-0013-S06V-H3P**



#### Interface

|                       |  |
|-----------------------|--|
| Interface             | Profibus DP  |
| Profile               | DPV0, DPV1 and DPV2 Class 2 (EN50170 + EN50254)  |
| Diagnostics           | Memory   |
| 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   |
| Programming Functions | Resolution, gearing factor (physical resolution) , velocity scaling + filter, preset (zero point), counting direction, limit switches , node number, teach-in, diagnosis |

#### 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 | 13 bit                                     |
| Accuracy (INL)        | ±0.0220° (14 - 16 bit), ±0.0439° (≤13 bit) |
| Code                  | Binary                                     |

### Environmental Specifications

|                            |                                    |
|----------------------------|------------------------------------|
| Protection Class (Shaft)   | IP66/IP67                          |
| Protection Class (Housing) | IP68/IP69K                         |
| Operating Temperature      | - +85 °C (+185 °F)                 |
| Storage Temperature        | -40 °C (-40 °F) - +85 °C (+185 °F) |
| Humidity                   | 98% RH, no condensation            |

### Mechanical Data

|   |  |
|---|--|
| Connection Cap Material   | Stainless Steel V2A (1.4305; 303)                  |
| Housing Material  | Stainless Steel V2A (1.4305, 303)                  |
| Housing Coating   | No Coating   |
| Flange Type   | Synchro, ø 58 mm (S)                               |
| Flange Material   | Stainless steel V2A (1.4305; 303)                  |
| 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<br>(10 <sup>8</sup> revolutions with Fa/Fr) | 400 (20 N / 40 N)                                  |
| Rotor Inertia   | ≤ 30 gcm <sup>2</sup> [≤ 0.17 oz-in <sup>2</sup> ] |
| Friction Torque   | ≤ 5 Ncm @ 20 °C, (7.1 oz-in @ 68 °F)               |
| Max. Permissible Mechanical Speed                                       | ≤ 3000 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)             |

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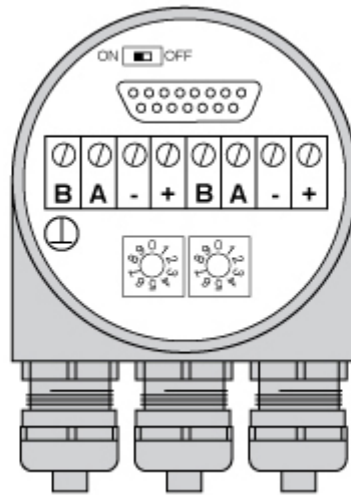
|        |                 |
|--------|-----------------|
| Length | 74,5 mm (2.93") |
| Weight | 985 g (2.17 lb) |

### Electrical Connection

|                        |   |
|------------------------|---|
| Connection Orientation | Radial  |
| Connection Type        | 3 x Cable Gland   |
| Connection Cap Type    | Removable for easy replacing encoder without new installation of cable, Rotary switches with visible node number, No active components, Terminal resistor switch cut the outgoing bus too, Big spring clips |

### Product Life Cycle

|                    |             |
|--------------------|-------------|
| Product Life Cycle | Established |
| Approval           | CE          |



### Connection Plan

| SIGNAL               | PIN NUMBER |
|----------------------|------------|
| Bus line B (Bus in)  | B          |
| Bus line A (Bus in)  | A          |
| GND                  | -          |
| Power Supply         | +          |
| Bus line B (Bus out) | B          |
| Bus line A (Bus out) | A          |
| GND                  | -          |
| Power Supply         | +          |



### Connector-View on Encoder **Dimensional Drawing**

#### [2D Drawing](#)

#### **Accessories**

##### Couplings

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

Adapter Flanges

Mounting Bracket for Synchro Flange w/ fixtures

Clamping Rings

Clamp Disc w/ Eccentric Hole-4pcs

Clamp Disc w/ Centred Hole-4pcs

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Specifications are subject to change without notice.