



## IXARC Absolute Rotary Encoder

### OCD-DPC1B-1212-C100-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
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#### Electrical Data

Supply Voltage	10 - 30 VDC
Power Consumption	≤ 1.5 W
Start-Up Time	< 1 s
Reverse Polarity Protection	Yes

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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	12 bit
Resolution Multiturn	12 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)	IP66/IP67
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	Aluminum
Housing Material	Steel
Housing Coating	Wet coating (RAL 9006 White Aluminium) + Cathodic corrosion protection (>720 h salt spray resistance)
Flange Type	Clamp, ø 58 mm (C)
Flange Material	Aluminum
Shaft Type	Solid, Single Flat, Length = 20 mm
Shaft Diameter	ø 10 mm (0.39")
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)	430 (20 N / 40 N), 150 (40 N / 60 N), 100 (40 N / 80 N), 55 (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
Shock Resistance	≤ 100 g (half sine 6 ms, EN 60068-2-27)

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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	80,5 mm (3.17")
Weight	475 g (1.05 lb)

### Electrical Connection

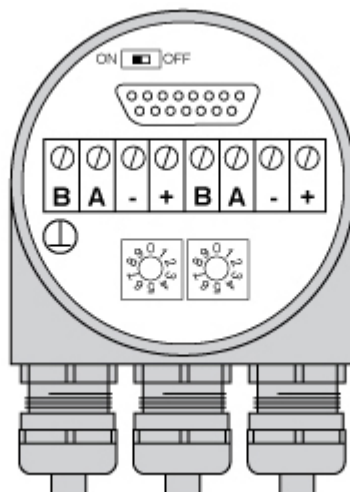
Connection Orientation	Radial
Connection Type	3 x Cable Gland
Connection Cap Type	Removable for easy replacing encoder without new installation of cable, Rotary switches with visible node number, No active components, Terminal resistor switch cut the outgoing bus too, Big spring clips

### Certification

Approval	CE
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### Product Life Cycle

Product Life Cycle	Established
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### Connection Plan

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

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Bus line B (Bus out)	B
Bus line A (Bus out)	A
GND	-
Power Supply	+

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

### **Accessories**

#### Couplings

Coupling Disc Type-10-12  
Coupling Bellow Type-10-10  
Coupling Bellow Type-06-10  
Coupling Bellow Type-08-10  
Coupling Bellow Type-10-12  
Coupling Bellow Type-10-(1/4")  
Coupling Bellow Type-10-(3/8")  
Coupling Jaw Type-06-10  
Coupling Jaw Type-08-10  
Coupling Jaw Type-10-12  
Coupling Jaw Type-10-(1/4")  
Coupling Jaw Type-10-(3/8")  
Coupling Jaw Type-10-10  
Coupling Disc Type-06-10  
Coupling Disc Type-10-10

More

#### Adapter Flanges

Mounting Bracket for Clamping Flange w/ fixtures  
L Mounting Bracket w/ screws  
Mounting Bracket Spring Loaded f. Clamping Flange  
Spring Loaded Pivot Arm 58mm

More

#### Clamping Rings

Clamp Disc w/ Eccentric Hole-4pcs  
Clamp Disc w/ Centred Hole-4pcs

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



## Contact Us

If the drawings are not available please refer to the "Download" section. The picture and drawing are for general presentation purposes only. 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.