



IXARC Absolute Rotary Encoder

OCD-DPC1B-1216-C060-H72



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

Data Sheet

Printed at 19-09-2019 14:09

POSITAL

FRABA



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	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)	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	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, 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 ⁸ revolutions with Fa/Fr)	530 (20 N / 40 N), 185 (40 N / 60 N), 130 (40 N / 80 N), 80 (40 N / 110 N)
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

Data Sheet

Printed at 19-09-2019 14:09

POSITAL

FRABA



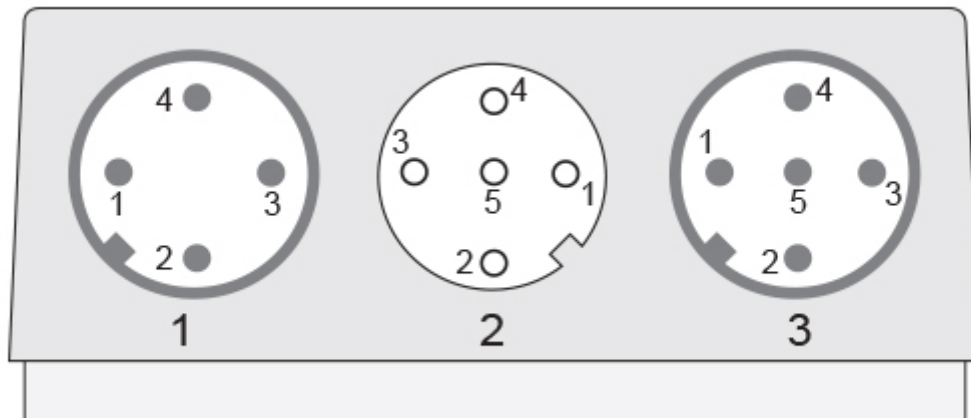
Shock Resistance	≤ 100 g (half sine 6 ms, EN 60068-2-27)
Permanent Shock Resistance	≤ 10 g (half sine 16 ms, EN 60068-2-29)
Vibration Resistance	≤ 10 g (10 Hz - 1000 Hz, EN 60068-2-6)
Length	80,5 mm (3.17")
Weight	465 g (1.03 lb)

Electrical Connection

Connection Orientation	Radial
Connection Type	3 x M12 Connector (Profibus)
Connection Cap Type	Rotary switches with visible node number, No active components, Terminal resistor switch cut the outgoing bus too
Connector 1	M12, Male, 4 pin, a coded
Connector 2	M12, Female, 5 pin, b coded
Connector 3	M12, Male, 5 pin, b coded

Product Life Cycle

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



Connection Plan

SIGNAL	CONNECTOR	PIN NUMBER
Power Supply	Connector 1	1
Not Connected	Connector 1	2
GND	Connector 1	3
Not Connected	Connector 1	4
Not Connected	Connector 2	1
Bus line A (Bus out)	Connector 2	2
Not Connected	Connector 2	3
Bus line B (Bus out)	Connector 2	4

Data Sheet

Printed at 19-09-2019 14:09



Not Connected	Connector 2	5
Not Connected	Connector 3	1
Bus line A (Bus in)	Connector 3	2
Not Connected	Connector 3	3
Bus line B (Bus in)	Connector 3	4
Not Connected	Connector 3	5

Connector-View on Encoder

Dimensional Drawing

[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
M12, 4pin A-Coded, Female
Profibus Termination Resistor-M12S-M04B-PL
M12, 5pin B-Coded, Female
M12, 5pin B-Coded, Male
2m PUR Cable, 5pin, B-Coded, m
5m PUR Cable, 5pin, B-Coded, m
10m PUR Cable, 5pin, B-Coded, m
2m PUR Cable, 5pin, B-Coded, f
5m PUR Cable, 5pin, B-Coded, f
10m PUR Cable, 5pin, B-Coded, f
More

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 Clamping Flange w/ fixtures

L Mounting Bracket w/ screws

Mounting Bracket Spring Loaded f. Clamping Flange

Clamping Rings

Clamp Disc w/ Eccentric Hole-4pcs

Clamp Disc w/ Centred Hole-4pcs

Contact



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.