



POSITAL

FRABA

IXARC Absolute Rotary Encoder

UCD-C901B-1216-D10D-PAV



Interface

Interface	SAE J1939
Profile	J1939 specific
Manual Functions	Programmable
Features	Round Axis
Transmission Rate	min. 20 kBaud, max. 1 MBaud
Interface Cycle Time	≥ 1 ms
Programming Functions	Resolution, preset, direction, node ID, baud rate

Outputs

Output Driver	Transceiver (ISO 11898), Galvanically Isolated by Opto-Couplers
---------------	---

Electrical Data

Supply Voltage	9 - 30 VDC
Power Consumption	≤ 1.2 W
Start-Up Time	<500 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
MTTF	240 years @ 40 °C



POSITAL

FRABA

Sensor

Technology	Magnetic
Resolution Singleturn	16 bit
Resolution Multiturn	12 bit
Multiturn Technology	Self powered magnetic pulse counter (no battery, no gear)
Accuracy (INL)	$\pm 0.0878^\circ (\leq 12 \text{ bit})$
Code	Binary

Environmental Specifications

Protection Class (Shaft)	IP68/IP69K
Protection Class (Housing)	IP68/IP69K
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	Cathodic corrosion protection (>720 hrs salt spray resistance)
Flange Type	Synchro, \varnothing 36 mm Heavy Duty
Flange Material	Aluminum
Shaft Type	Solid, Length = 20 mm
Shaft Diameter	\varnothing 10 mm (0.39")
Shaft Material	Stainless Steel V4A (1.4112, 440 B), hardened
Max. Shaft Load	Axial 180 N, Radial 180 N
Minimum Mechanical Lifetime (10 ⁸ revolutions with Fa/Fr)	10 (180 N / 180 N), 15 (150 N, 150 N), 30 (100 N / 100 N)
Friction Torque	$\leq 5 \text{ Ncm @ } 20^\circ\text{C}$, (7.1 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	$\leq 6000 \text{ 1/min}$
Shock Resistance	$\leq 200 \text{ g}$ (half sine 11 ms, EN 60068-2-27)
Permanent Shock Resistance	$\leq 30 \text{ g}$ (half sine 16 ms, EN 60068-2-29)
Vibration Resistance	$\leq 30 \text{ g}$ (10 Hz - 1000 Hz, EN 60068-2-6)
Length	56 mm (2.20")
Weight	210 g (0.46 lb)

Electrical Connection

Data Sheet

Printed at 20-04-2020 15:04



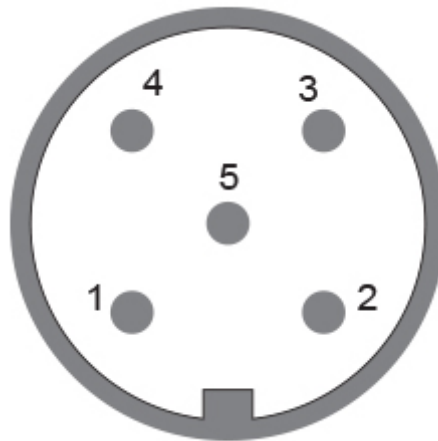
POSITAL

FRABA

Connection Orientation	Axial
Connection Type	Cable / Connector
Connector	M12, Male, 5 pin, a coded, with LED

Certification

Approval	CE + cULus
Product Life Cycle	New



Connection Plan

SIGNAL	PIN NUMBER
Power Supply	2
GND	3
CAN High	4
CAN Low	5
CAN GND	1

Connector-View on Encoder

Dimensional Drawing

[2D Drawing](#)

Accessories

Connectors & Cables

10m PUR Cable, 5pin, A-Coded, f

POS M12 5pin-A Female+5m PUR Cable

POS M12 5pin-A Female+2m PUR Cable

Data Sheet

Printed at 20-04-2020 15:04



POSITAL

FRABA

POS M12 5pin-A Female+10m PUR Cable

M12, 5pin A-Coded, Female

More

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

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.

Data Sheet

Printed at 20-04-2020 15:04