



POSITAL

FRABA

IXARC Absolute Rotary Encoder

UCD-CA01B-1216-D10D-2AW



Interface

Interface	CANopen
Profile	DS-406
Features	Round Axis
Transmission Rate	min. 20 kBaud, max. 1 MBaud
Interface Cycle Time	≥ 1 ms
Video Manual	▶ Watch a simple installation video
Programming Functions	Resolution, preset, 2 limit switches, 8 CAMS, baud rate, CAN-Identifier, bootloader, transmission modes: polled, cyclic, sync

Outputs

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

Supply Voltage	9 - 30 VDC
Power Consumption	≤ 1.2 W
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

Data Sheet

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Sensor

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

Environmental Specifications

Protection Class (Shaft)	IP68/IP69K
Protection Class (Housing)	IP68/IP69K
Operating Temperature	-40 °C fixed (-40 °F), -30 °C flexible (-22 °F) - +80 °C (+176 °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	≤ 5 Ncm @ 20 °C, (7.1 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	≤ 6000 1/min
Shock Resistance	≤ 200 g (half sine 11 ms, EN 60068-2-27)
Permanent Shock Resistance	≤ 30 g (half sine 16 ms, EN 60068-2-29)
Vibration Resistance	≤ 30 g (10 Hz - 1000 Hz, EN 60068-2-6)
Length	56 mm (2.20")
Weight	360 g (0.79 lb)

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Electrical Connection

Connection Orientation	Axial
Connection Type	Cable / Connector
Cable Length	2 m [79"]
Wire Cross Section	0.34 mm ² / AWG 22
Material / Type	PUR / PU
Cable Diameter	7.5 mm (0.30 in)
Minimum Bend Radius	56 mm (2.2") fixed, 75 mm (3") flexing

Certification

Approval	CE
Product Life Cycle	Established

Connection Plan

SIGNAL	CABLE COLOR
Power Supply	Red
GND	Yellow
CAN High	White
CAN Low	Brown
CAN GND	Green

Connector-View on Encoder

Dimensional Drawing

[2D 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

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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.