



POSITAL

FRABA

IXARC Absolute Rotary Encoder

UCD-CA01B-1416-R060-PAV

This product is a prototype

Interface

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

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

Sensor

Technology	Magnetic
Resolution Singleturn	16 bit
Resolution Multiturn	14 bit
Multiturn Technology	Self powered magnetic pulse counter (no battery, no gear)
Accuracy (INL)	±0.0878° (≤ 12 bit)
Code	Binary



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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	None
Housing Material	Steel
Housing Coating	Cathodic corrosion protection (>720 hrs salt spray resistance)
Flange Type	Synchro, ø 36 mm
Flange Material	Aluminum
Shaft Type	Solid, Length = 11.5 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)	40 (20 N / 40 N), 14 (40 N / 60 N), 10 (40 N / 80 N), 6 (40 N / 110 N)
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)
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	43 mm (1.69")
Weight	155 g (0.34 lb)

Electrical Connection

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

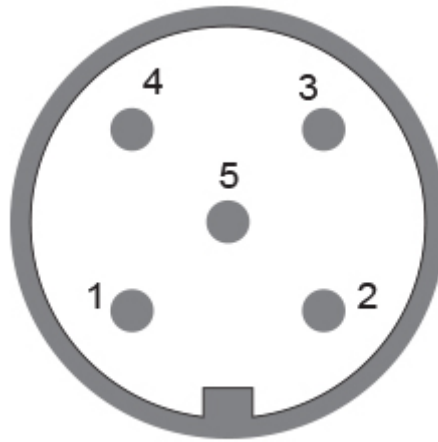
Certification

Approval	CE + cULus listed, Industrial Control Equipment + E1
Product Life Cycle	Prototype



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Connection Plan

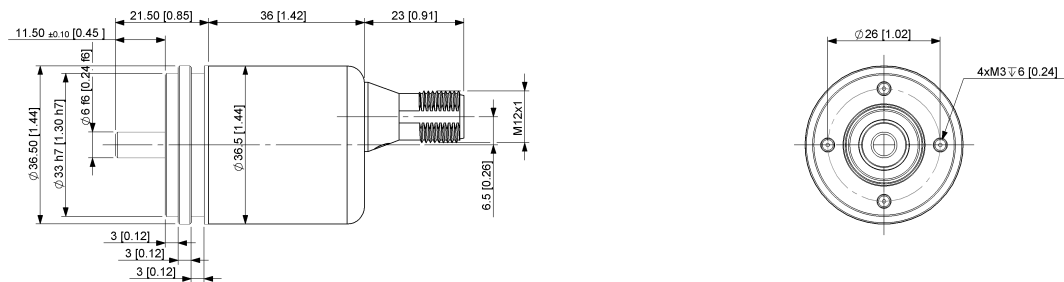
SIGNAL	PIN NUMBER
Power Supply	2
GND	3
CAN High	4
CAN Low	5
CAN GND	1

Connector-View on Encoder



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[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, 5pin A-Coded, Female

More

Clamp Disc w/ Eccentric Hole-4pcs

Clamp Disc w/ Centred Hole-4pcs

Coupling Bellow Type-06-06

Coupling Bellow Type-06-10

Coupling Bellow Type-06-(3/8")

Coupling Bellow Type-06-(1/4")

Coupling Jaw Type-06-06

Data Sheet

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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

Contact



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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.