POSITAL
FRABA

IXARC Absolute Rotary Encoder

OCD-CAA1B-1416-B100-PAM



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
Manual Functions	Address selector switch 0-99 and terminal resistor (with connection cap)
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

Electrical Data	
Supply Voltage	10 – 30 VDC
Current Consumption	≤ 230 mA @ 10 V DC, ≤ 100 mA @ 24 V DC
Power Consumption	≤ 2.5 W
Start-Up Time	< 250 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	13.5 years @ 40 °C

Sensor

Technology	Optical
Resolution Singleturn	16 bit
Resolution Multiturn	14 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

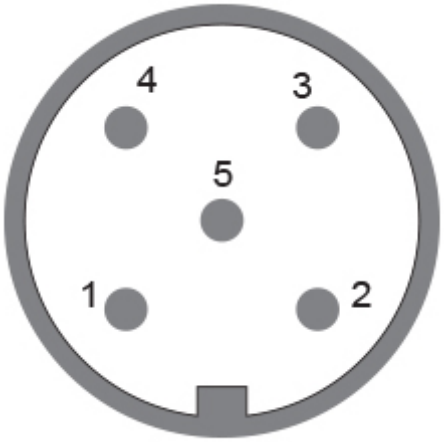
Mechanical Data

Connection Cap Material	None
Housing Material	Steel
Housing Coating	Wet coating (RAL 9006 White Aluminium) + Cathodic corrosion protection (>720 h salt spay resistance)
Flange Type	Blind Hollow, ø 58 mm (B)
Flange Material	Aluminum
Shaft Type	Blind Hollow, Depth = 30 mm
Shaft Diameter	ø 10 mm (0.39")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Rotor Inertia	≤ 30 gcm² [≤ 0.17 oz-in²]
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	71,2 mm (2.80")
Weight	335 g (0.74 lb)

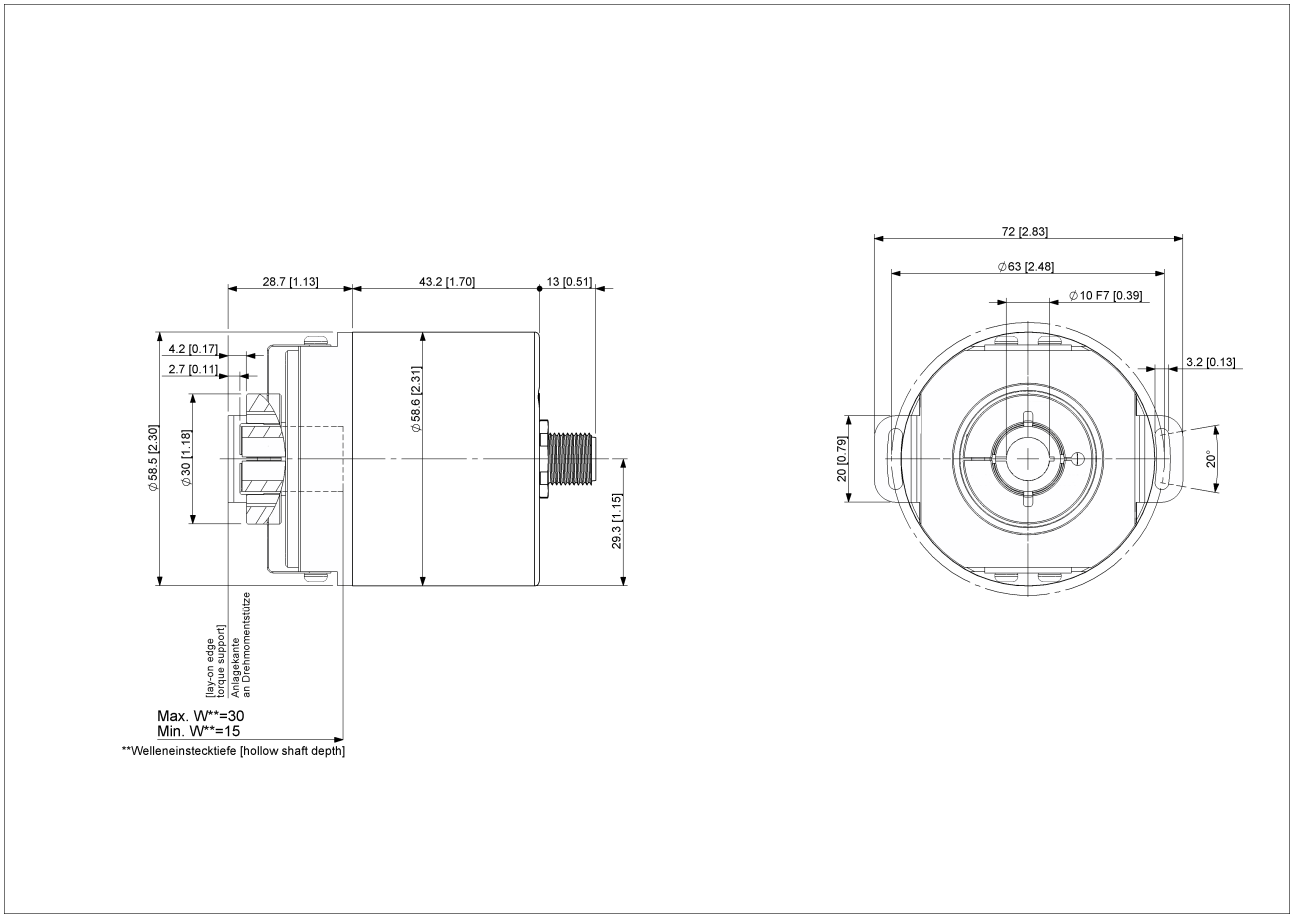
Electrical Connection	
Connection Orientation	Axial
Connection Type	Cable / Connector
Connector	M12, Male, 5 pin, a coded

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



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

Connector-View on Encoder



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
10m PUR Cable, 5pin, A-Coded, f
M12, 5pin A-Coded, Female
More

Clamping Ring B15

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.