POSITAL
FRABA

IXARC Absolute Rotary Encoder

OCD-CAA1B-1416-B10S-H72



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)	IP66/IP67
Protection Class (Housing)	IP66/IP67
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 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	≤ 5 Ncm @ 20 °C, (7.1 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	≤ 3000 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)

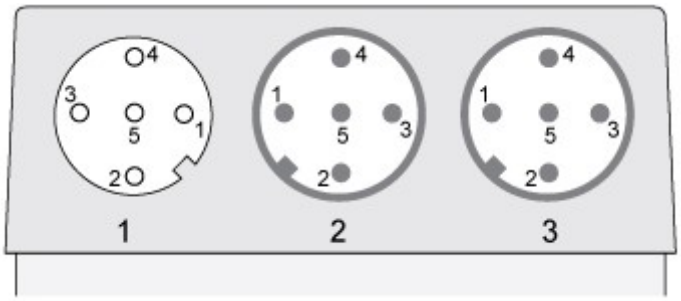
Length	99 mm (3.90")
Weight	495 g (1.09 lb)

Electrical Connection

Connection Orientation	Radial
Connection Type	3 x M12 Connector (CAN/DeviceNet)
Connector 1	M12, Female, 5 pin, a coded
Connector 2	M12, Male, 5 pin, a coded
Connector 3	M12, Male, 5 pin, a coded

Certification

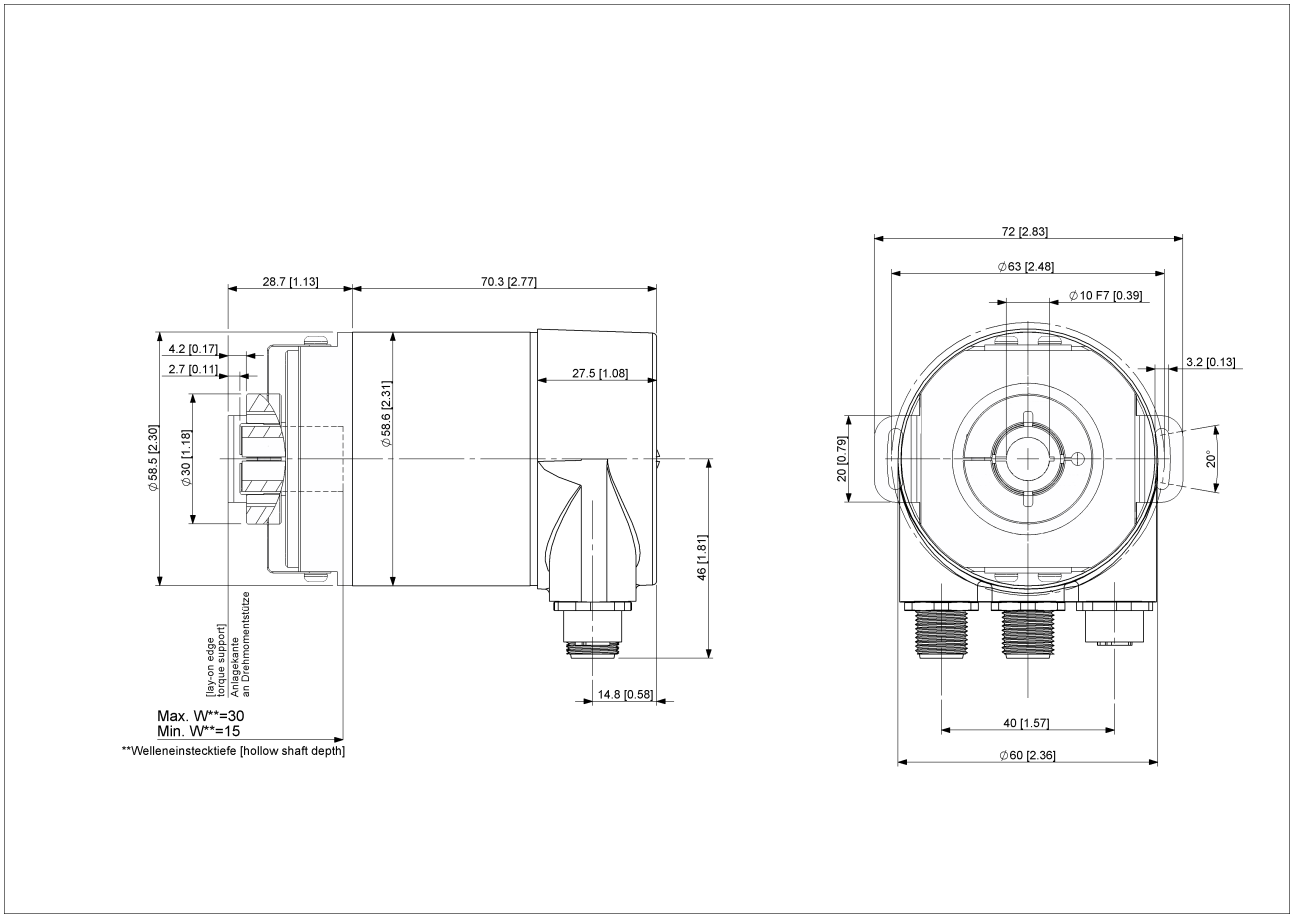
Approval	CE + cULus listed, Industrial Control Equipment
Product Life Cycle	Established



Connection Plan

SIGNAL	CONNECTOR	PIN NUMBER
CAN GND	Connector 1	1
Not Connected	Connector 1	2
Not Connected	Connector 1	3
CAN High	Connector 1	4
CAN Low	Connector 1	5
Power Supply	Connector 2	1
Power Supply	Connector 2	2
GND	Connector 2	3
GND	Connector 2	4
Not Connected	Connector 2	5
CAN GND	Connector 3	1
Not Connected	Connector 3	2
Not Connected	Connector 3	3
CAN High	Connector 3	4
CAN Low	Connector 3	5

Connector-View on Encoder



2D Drawing

Accessories

Connectors & Cables
M12, 5pin A-Coded, Male
10m PUR Cable, 5pin, A-Coded, f
2m PUR Cable, 5pin, A-Coded, f
5m PUR Cable, 5pin, A-Coded, f
2m PUR Cable, 5pin, A-Coded, m
5m PUR Cable, 5pin, A-Coded, m
10m PUR Cable, 5pin, A-Coded, m
M12, 5pin A-Coded, Female
More

Clamping Ring B15

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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.