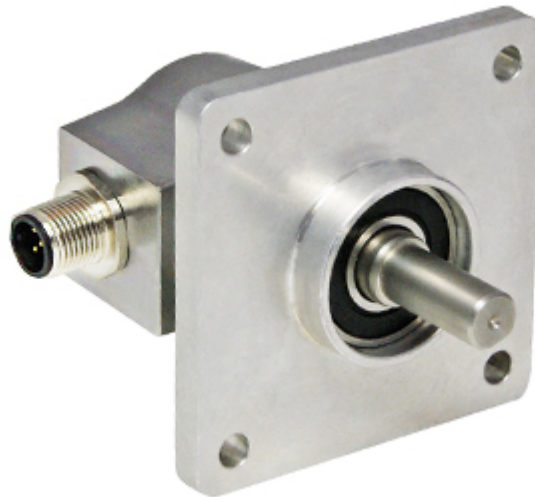


IXARC Absolute Rotary Encoder

UCD-CA01B-1213-4A7S-PRM



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	13 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)	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	None
Housing Material	Steel
Housing Coating	Cathodic corrosion protection (>720 hrs salt spray resistance)
Flange Type	Square, \square 2.5" (4)
Flange Material	Aluminum
Shaft Type	Solid, Single Flat, Length = 22.4 mm
Shaft Diameter	\varnothing 9.52 mm (3/8")
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)	430 (20 N / 40 N), 150 (40 N / 60 N), 100 (40 N / 80 N), 55 (40 N / 110 N)
Rotor Inertia	$\leq 30 \text{ gcm}^2 [\leq 0.17 \text{ oz-in}^2]$
Friction Torque	$\leq 5 \text{ Ncm @ } 20 \text{ }^\circ\text{C}, (7.1 \text{ oz-in @ } 68 \text{ }^\circ\text{F})$
Max. Permissible Mechanical Speed	$\leq 3000 \text{ 1/min}$
Shock Resistance	$\leq 100 \text{ g (half sine 6 ms, EN 60068-2-27)}$
Permanent Shock Resistance	$\leq 10 \text{ g (half sine 16 ms, EN 60068-2-29)}$
Vibration Resistance	$\leq 10 \text{ g (10 Hz - 1000 Hz, EN 60068-2-6)}$
Length	41,5 mm (1.63")
Weight	330 g (0.73 lb)

Data Sheet

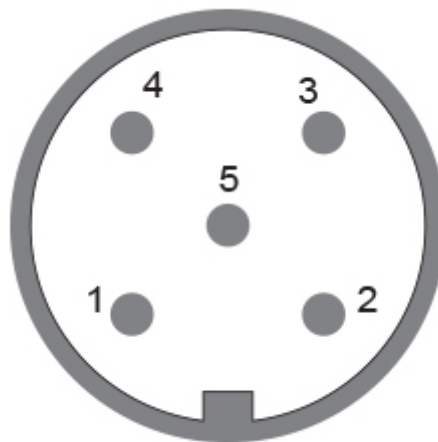
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Electrical Connection

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

Product Life Cycle

Product Life Cycle	Established
Approval	CE + cULus


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

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

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

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

10m PUR Cable, 5pin, A-Coded, f IP69K

M12, 5pin A-Coded, Female

More

Couplings

Coupling Bellow Type-10-(3/8")

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

Coupling Jaw Type-10-(3/8")

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

Coupling Jaw Type-12-3/8"

More

Got questions? Need an individual solution? We are here to help!

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