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FRABA

IXARC Absolute Rotary Encoder

UCD-S401G-0012-R060-PRL



Interface

Interface	SSI with Button and LEDs
Programming Functions	Absolute: Resolution, Revolution, Code, Preset
Manual Functions	Preset via push button and cable or connector
Interface Cycle Time	$\geq 25 \mu\text{s}$
Number of Preset Cycles	5,100,000
SSI Format	SSSSSSSSSS00
Video Manual	Watch a simple installation video

Outputs

Output Driver	RS422
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Electrical Data

Supply Voltage	4.5 - 30 VDC
Current Consumption	Typical 50 mA
Power Consumption	$\leq 1.0 \text{ W}$
Start-Up Time	$< 250 \text{ ms}$
Clock Input	RS 422, via Optocoupler
Clock Frequency	100 kHz - 2 MHz
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
EMC: Emitted Interference	DIN EN 61000-6-4

Data Sheet

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EMC: Noise Immunity	DIN EN 61000-6-2
MTTF	500 years @ 40 °C

Sensor

Technology	Magnetic
Resolution Singleturn	12 bit
Resolution Multiturn	0 bit
Accuracy (INL)	$\pm 0.0878^\circ (\leq 12 \text{ bit})$
Sense Signal (Default)	Clockwise shaft movement (front view on shaft)
Code	Gray

Environmental Specifications

Protection Class (Shaft)	IP65
Protection Class (Housing)	IP65
Operating Temperature	-40 °C (-40 °F) - +85 °C (+185 °F)
Humidity	98% RH, no condensation

Mechanical Data

Housing Material	Steel
Housing Coating	Cathodic corrosion protection (>720 hrs salt spray resistance)
Flange Type	Synchro, $\varnothing$ 36 mm
Flange Material	Aluminum
Shaft Type	Solid, Length = 11.5 mm
Shaft Diameter	$\varnothing$ 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	$\leq 3 \text{ Ncm @ } 20^\circ\text{C}$ (4.2 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	$\leq 12000 \text{ 1/min}$
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	43 mm (1.69")
Weight	140 g (0.31 lb)



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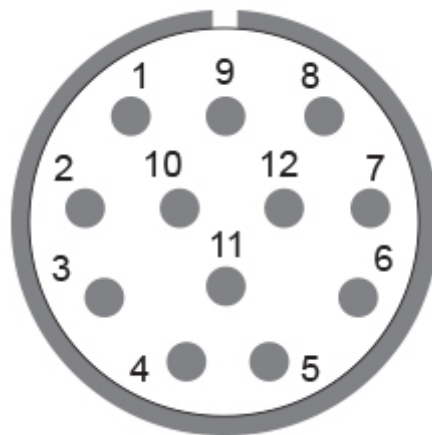
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Electrical Connection

Connection Orientation	Radial
Connector	M23, Male, 12 pin, CCW / left

Certification

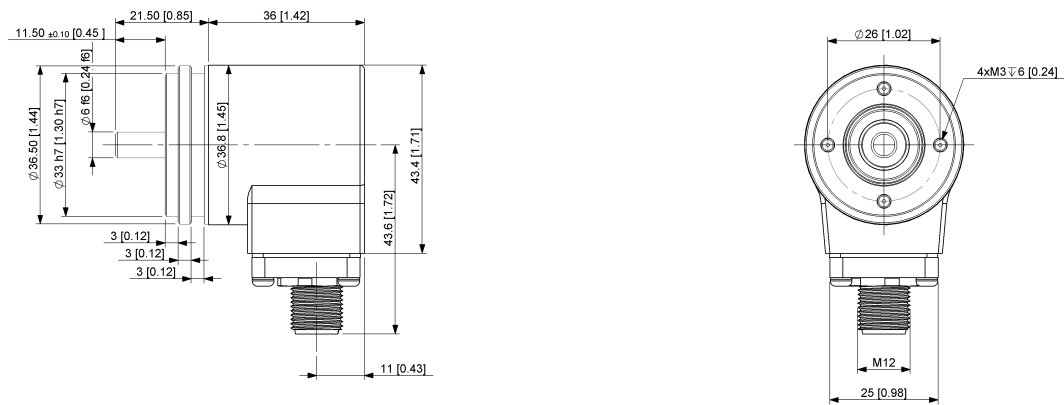
Approval	CE + cULus listed, Industrial Control Equipment
Product Life Cycle	Established



Connection Plan

SIGNAL	PIN NUMBER
Power Supply	11
GND	12
Data+	3
Data-	4
Clock+	2
Clock-	1
Preset	9
DIR	8
Not Connected	5
Not Connected	6
Not Connected	7
Not Connected	10

Connector-View on Encoder



[2D Drawing](#)

Accessories

Connectors & Cables

10m PVC Cable, 12pin, Clockwise, f
15m PVC Cable, 12pin, Clockwise, f
1m PVC Cable, 12pin, Clockwise, f
20m PVC Cable, 12pin, Clockwise, f
5m PVC Cable, 12pin, Clockwise, f
30m PVC Cable, 12pin, Clockwise, f
2m PVC Cable, 12pin, Clockwise, f
M23, 12pin Clockwise, Female
More

Clamp Disc w/ Eccentric Hole-4pcs
Clamp Disc w/ Centred Hole-4pcs

Coupling Bellow Type-06-06

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Coupling Bellow Type-06-10
Coupling Bellow Type-06-(3/8")
Coupling Bellow Type-06-(1/4")
Coupling Jaw Type-06-06
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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Contact Us

The picture and drawing are for general presentation purposes only. Please refer to the "Download" section for detailed technical drawings.
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Specifications are subject to change without notice.