

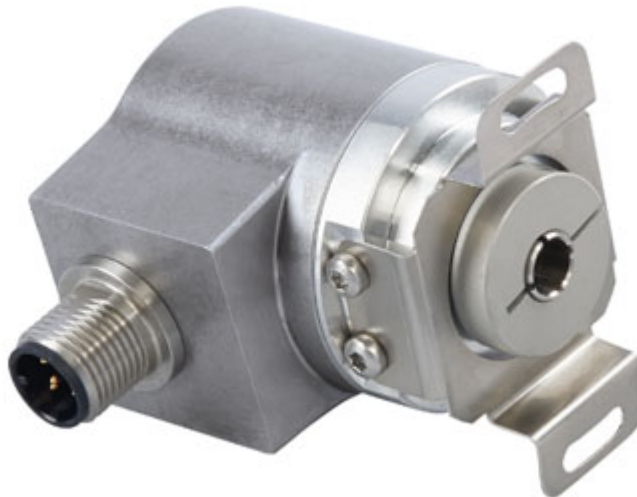


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IXARC Absolute Rotary Encoder

UCD-S101B-1216-VAS0-PRQ



Interface

Interface	SSI with Preset
Programming Functions	Absolute: Resolution, Revolution, Code, Preset
Manual Functions	Preset + complement via cable or connector
Interface Cycle Time	≥ 25 μs
Number of Preset Cycles	5,100,000
SSI Format	MMMMMMMMMMMMSSSSSSSSSSSSSSSS00
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	≤ 1.0 W
Start-Up Time	< 250 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	350 years @ 40 °C

Sensor

Technology	Magnetic
Resolution Singleturn	16 bit
Resolution Multiturn	12 bit
Multiturn Technology	Self powered magnetic pulse counter (no battery, no gear)
Accuracy (INL)	$\pm 0.0878^\circ (\leq 12 \text{ bit})$
Sense Signal (Default)	Clockwise shaft movement (front view on shaft)
Code	Binary

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	Blind Hollow, $\varnothing 36 \text{ mm} / \varnothing 42 \text{ mm}$
Flange Material	Aluminum
Shaft Type	Blind Hollow, Depth = 18 mm
Shaft Diameter	$\varnothing 10 \text{ mm} (0.39\text{'})$
Shaft Material	Stainless Steel V2A (1.4305, 303)
Friction Torque	$\leq 3 \text{ Ncm @ } 20 \text{ °C} (4.2 \text{ oz-in @ } 68 \text{ °F})$
Max. Permissible Mechanical Speed	$\leq 12000 \text{ 1/min}$
Shock Resistance	$\leq 100 \text{ g} (half \text{ sine } 6 \text{ ms, EN } 60068-2-27)$
Permanent Shock Resistance	$\leq 10 \text{ g} (half \text{ sine } 16 \text{ ms, EN } 60068-2-29)$
Vibration Resistance	$\leq 10 \text{ g} (10 \text{ Hz} - 1000 \text{ Hz, EN } 60068-2-6)$
Length	50,2 mm (1.98")
Weight	140 g (0.31 lb)

Electrical Connection

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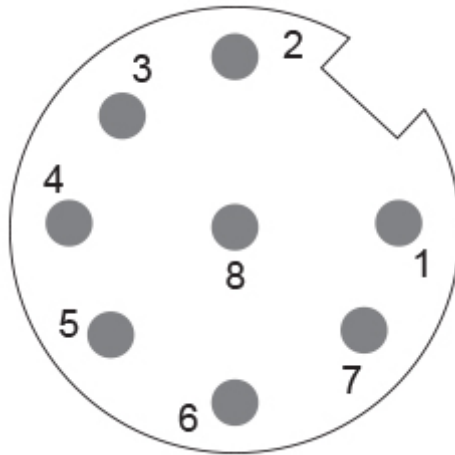
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Connection Orientation	Radial
Connector	M12, Male, 8 pin, a coded

Certification

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



Connection Plan

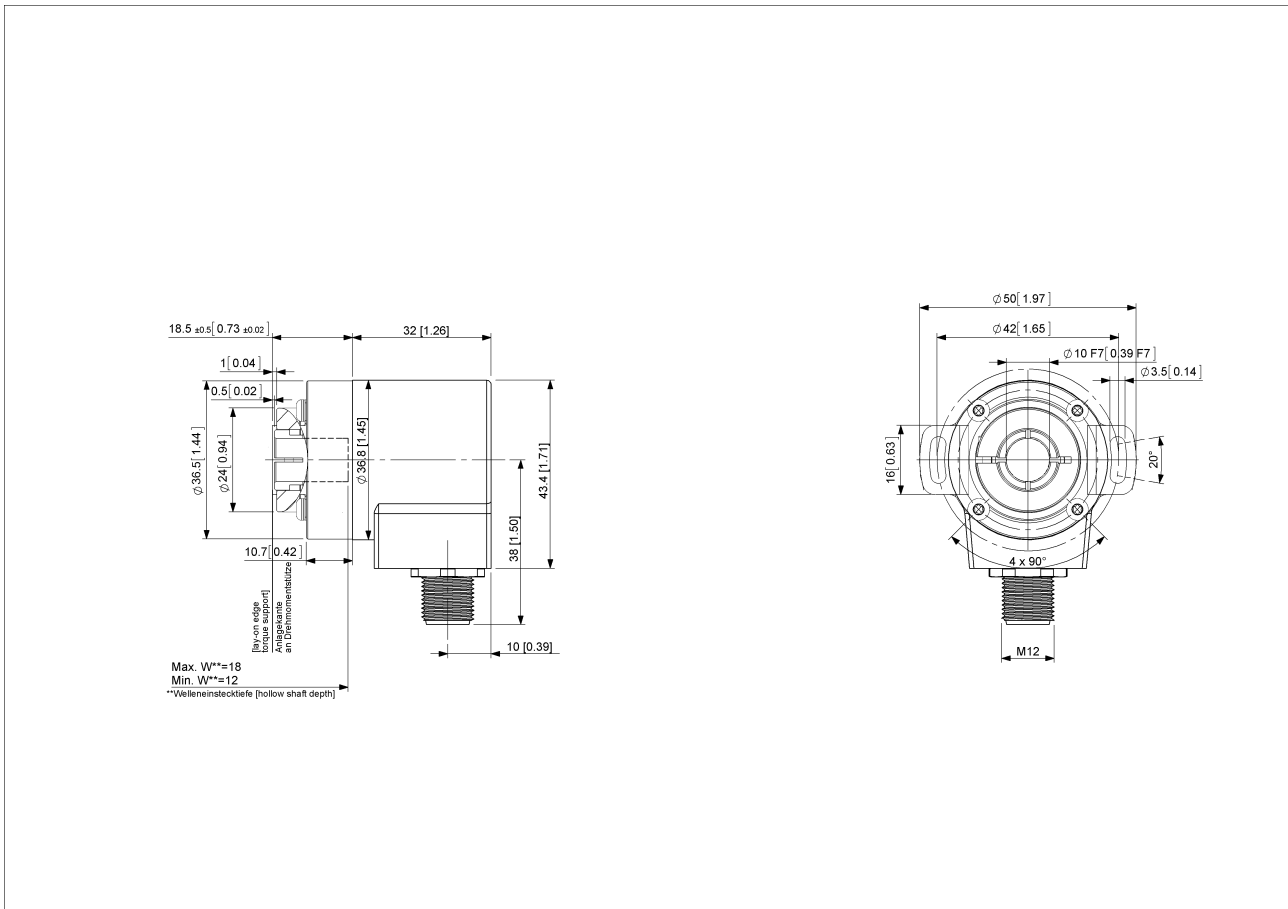
SIGNAL	PIN NUMBER
Power Supply	2
GND	1
Data+	5
Data-	6
Clock+	3
Clock-	4
Preset	7
DIR	8
Shielding	Connector Housing

Connector-View on Encoder
Rotation Clockwise (seen on shaft)



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[2D Drawing](#)

Accessories

Connectors & Cables

- 5m PUR Cable, 8pin, A-Coded, f
- 10m PUR Cable, 8pin, A-Coded, f
- 2m PUR Cable, 8pin, A-Coded, f
- 10m PUR Cable, 8pin, A-Coded, f
- M12, 8pin A-Coded, Female
- More

Clamping Ring V12

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.