



# POSITAL

## FRABA

### IXARC Absolute Rotary Encoder

UCD-S101G-0012-L06S-PRL



#### Interface

Interface	SSI with Preset
Programming Functions	Absolute: Resolution, Revolution, Code, Preset
Manual Functions	Preset + complement via cable or connector
Interface Cycle Time	$\geq 25 \mu\text{s}$
Number of Preset Cycles	5,100,000
SSI Format	SSSSSSSSSS00
Video Manual	<a href="#">▶ Watch a simple installation video</a>

#### 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)	$\pm 0.0878^\circ$ ( $\leq 12$ bit)
Sense Signal (Default)	Clockwise shaft movement (front view on shaft)
Code	Gray

### Environmental Specifications

Protection Class (Shaft)	IP66/IP67
Protection Class (Housing)	IP66/IP67
Operating Temperature	-40 °C (-40 °F) - +85 °C (+185 °F)
Humidity	98% RH, no condensation

### Mechanical Data

Housing Material	Steel
Housing Coating	Wet coating (RAL 9006 White Aluminium) + Cathodic corrosion protection (>720 h salt spray resistance)
Flange Type	Clamp, $\varnothing$ 58 mm (L)
Flange Material	Aluminum
Shaft Type	Solid, Length = 10 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 <sup>8</sup> revolutions with Fa/Fr)	530 (20 N / 40 N), 185 (40 N / 60 N), 130 (40 N / 80 N), 80 (40 N / 110 N)
Rotor Inertia	$\leq 30$ gcm <sup>2</sup> [ $\leq 0.17$ oz-in <sup>2</sup> ]
Friction Torque	$\leq 5$ Ncm @ 20 °C, (7.1 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	$\leq 3000$ 1/min
Shock Resistance	$\leq 100$ g (half sine 6 ms, EN 60068-2-27)
Permanent Shock Resistance	$\leq 10$ g (half sine 16 ms, EN 60068-2-29)
Vibration Resistance	$\leq 10$ g (10 Hz - 1000 Hz, EN 60068-2-6)
Length	52,7 mm (2.07")
Weight	280 g (0.62 lb)

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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

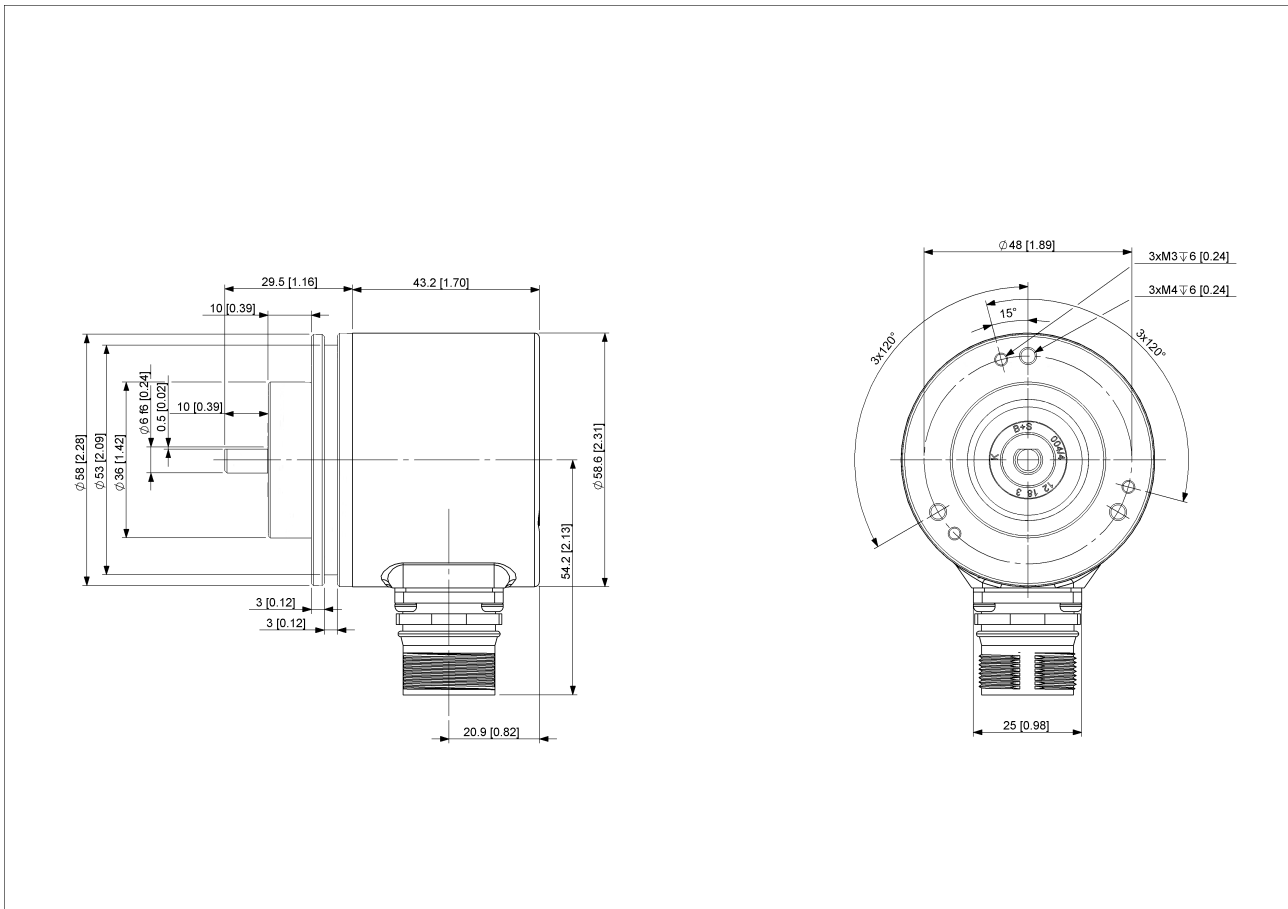
SIGNAL	PIN NUMBER
Power Supply	11
GND	12
Data+	3
Data-	4
Clock+	2
Clock-	1
Preset	9
DIR	8
Not Connected	5
Not Connected	6
Not Connected	7
Not Connected	10

Connector-View on Encoder



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### [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-06-08  
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

Mounting Bracket for Clamping Flange w/ fixtures  
L Mounting Bracket w/ screws  
Mounting Bracket Spring Loaded f. Clamping Flange

### 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. 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.