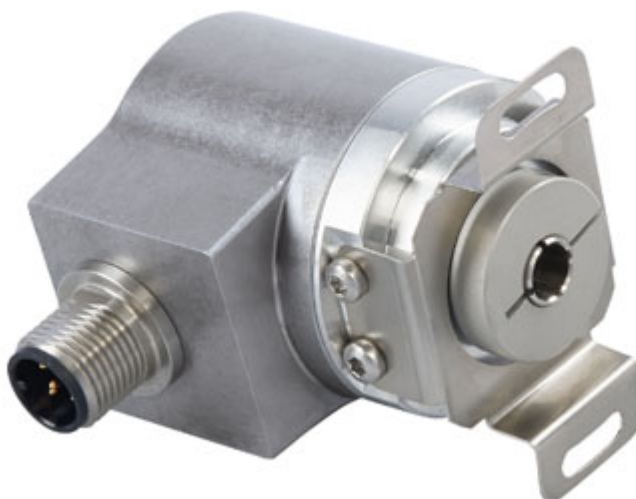



## IXARC Absolute Rotary Encoder

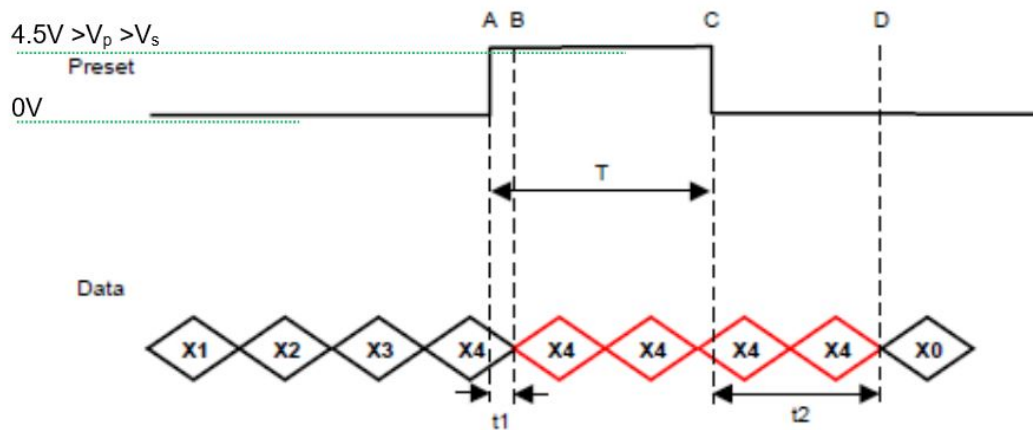
**UCD-S101G-0013-VSS0-PRQ**



### Interface

Interface	SSI with 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	SSSSSSSSSSSS0
Video Manual	<a href="#">  Watch a simple installation video         </a>

The Preset function allows to set the output value to zero at the present mechanical position.  
Input resistance is 110 k $\Omega$



$T = 105 \text{ msec } (+/- 2\text{msec})$

$t1 = 3.5 \text{ msec } +/- 2\text{msec}$

$T + t2 = 224 \text{ msec } (+/- 4\text{msec})$

The DIR-function allows to change the encoder counting direction.

0 (open or GND)	Increasing Values Turning Clockwise (Viewed from Flange Side)
1 (4.5 V to $V_s$ )	Decreasing Values Turning Clockwise (Viewed from Flange Side)
Min Time needed for change	40 msec
Input Resistance	60 k $\Omega$

## Outputs

Output Driver	RS422
---------------	-------

## Electrical Data

Supply Voltage	4.5 – 30 VDC
Current Consumption	Typical 50 mA
Power Consumption	$\leq 1.0 \text{ W}$
Start-Up Time	$< 1 \text{ s}$
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
EMC: Noise Immunity	DIN EN 61000-6-2
MTTF	500 years @ 40 °C

### Sensor

Technology	Magnetic
Resolution Singleturn	13 bit
Resolution Multiturn	0 bit
Accuracy (INL)	±0.0878° (≤ 12 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

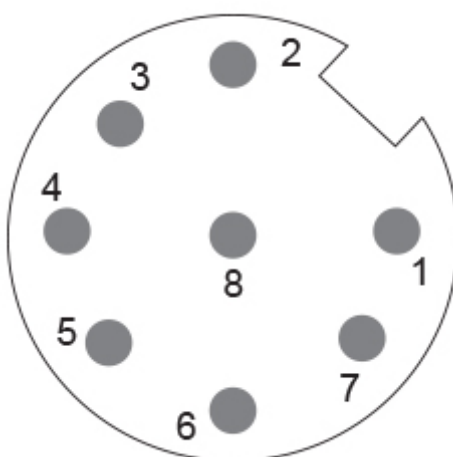
Housing Material	Steel
Housing Coating	Cathodic corrosion protection (>720 hrs salt spray resistance)
Flange Type	Blind Hollow, ø 36 mm / ø 42 mm
Flange Material	Aluminum
Shaft Type	Blind Hollow, Depth = 18 mm
Shaft Diameter	ø 9.52 mm (3/8")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Friction Torque	≤ 3 Ncm @ 20 °C (4.2 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	≤ 12000 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	50,2 mm (1.98")
Weight	140 g (0.31 lb)
Maximum Axial / Radial Misalignment	Static ± 0.3 mm / ± 0.5 mm; Dynamic ± 0.1 mm / ± 0.2 mm

### Electrical Connection

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

### Product Life Cycle

Product Life Cycle	Established
Approval	CE + cULus



### 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)

### Dimensional Drawing

[2D Drawing](#)

## Accessories

### Connectors & Cables

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

### More

### Clamping Rings

Clamping Ring V12

### Displays

AP21-00 SSI Display

AP21-DA SSI Display (4 dig. + analog o/p)

DiMod-P SSI Display

Configuration/Programming Tools

SSI2USB Adapter DB15 (VA01)

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

## Sold & Serviced By:

 Canadian and International Sales  
**ELECTROMATE**  
877-737-8698  
[sales@electromate.com](mailto:sales@electromate.com)  
[www.electromate.com](http://www.electromate.com)

U.S. Sales  
 **SERVO2GO.com**  
877-378-0240  
[sales@servo2go.com](mailto:sales@servo2go.com)  
[www.servo2go.com](http://www.servo2go.com)

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.