



IXARC Absolute Rotary Encoder

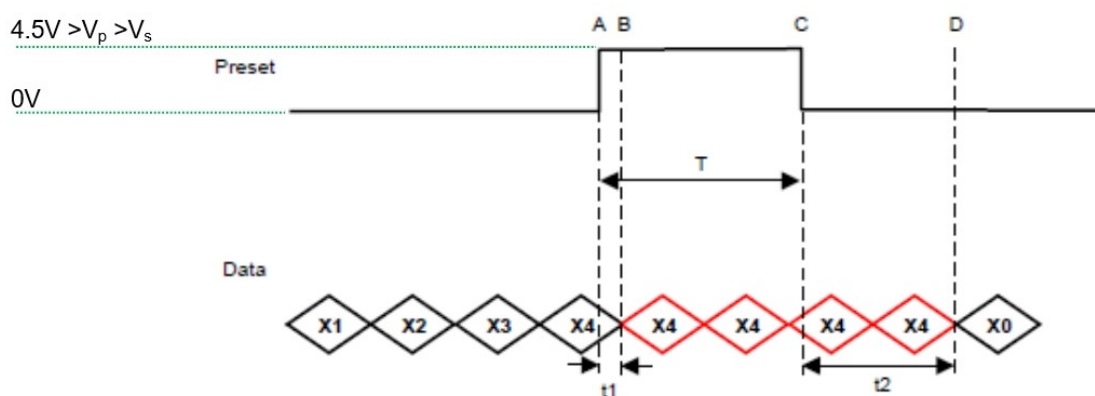
OCD-S101G-1212-B150-CAW



Interface

Interface	SSI with Preset
Manual Functions	Preset + complement via cable or connector
Interface Cycle Time	$\geq 25 \mu\text{s}$

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



$$T = 103\text{msec} \pm 2\text{msec}$$

$$t1 = 3\text{msec} \pm 2\text{msec}$$

$$T+t2 = 225\text{msec} (\pm 13\text{msec})$$

Data Sheet

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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)
Input Resistance	60 kΩ

Outputs

Output Driver	RS422
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Electrical Data

Supply Voltage	4.5 - 30 VDC
Power Consumption	≤ 1.5 W
Start-Up Time	< 1 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	16.2 years @ 40 °C

Sensor

Technology	Optical
Resolution Singleturn	12 bit
Resolution Multiturn	12 bit
Multiturn Technology	Mechanical Gearing (no Battery)
Accuracy (INL)	±0.0220° (14 - 16 bit), ±0.0439° (≤13 bit)
Code	Gray

Environmental Specifications

Protection Class (Shaft)	IP65
Protection Class (Housing)	IP65
Operating Temperature	-30 °C fixed (-22 °F), -5 °C flexible (+23 °F) - +80 °C (+176 °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	Blind Hollow, \varnothing 58 mm (B)
Flange Material	Aluminum
Shaft Type	Blind Hollow, Depth = 30 mm
Shaft Diameter	\varnothing 15 mm (0.59")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Rotor Inertia	$\leq 30 \text{ gcm}^2$ [$\leq 0.17 \text{ oz-in}^2$]
Friction Torque	$\leq 3 \text{ Ncm}$ @ 20 °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	71,2 mm (2.80")
Weight	370 g (0.82 lb)
Maximum Axial / Radial Misalignment	Static $\pm 0.3 \text{ mm}$ / $\pm 0.5 \text{ mm}$; Dynamic $\pm 0.1 \text{ mm}$ / $\pm 0.2 \text{ mm}$

Electrical Connection

Connection Orientation	Axial
Cable Length	1 m [39"]
Wire Cross Section	0.14 mm ² / AWG 26
Material / Type	PVC
Cable Diameter	7.1 mm (0.28 in)
Minimum Bend Radius	46 mm (1.81") fixed, 61 mm (2.4") flexing

Certification

Approval	CE + cULus
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Product Life Cycle

Product Life Cycle	Established
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Connection Plan

SIGNAL	CABLE COLOR
Power Supply	Brown
GND	White

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Data+	
Data-	Pink
Clock+	Green
Clock-	Yellow
Preset	Blue
DIR	Red
Shielding	Shield

Dimensional Drawing

Accessories

Clamping Rings
Clamping Ring B15
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!



Contact Us

If the drawings are not available please refer to the "Download" section. The picture and drawing are for general presentation purposes only. 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.