

IXARC Absolute Rotary Encoder

UCD-AC1P5-PPPP-R060-2RW



Interface

Interface	Programmable Analog Current (Preset + Dir)
Manual Functions	Preset + complement via cable or connector
Configuration Tool	UBIFAST Configuration Tool (Version \geq 1.6.10) + Ubifast Adap
Video Manual	▶ Watch a simple installation video
Programming Functions	Measurement Range, Preset Value, Output Direction, Code

Electrical Data

Supply Voltage	8 - 32 VDC
Current Consumption	Typical 20 mA @24 V (no load)
Start-Up Time	<500 ms
Max Load Resistance	500 Ω
Analog Accuracy	@ 20 mA = \pm 20 μ A (with an ideal power supply)
Linearity	0.15%
Settling Time	32 ms (from min value to max value jump)
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	240.8 years @ 40 $^{\circ}$ C

Data Sheet

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Sensor

Technology	Magnetic
Resolution Singleturn	Programmable max. 13 bit, pre-programmed 13 bit
Resolution Multiturn	Programmable max. 16 bit, pre-programmed 4 bit
Multiturn Technology	Self powered magnetic pulse counter (no battery, no gear)
Accuracy (INL)	$\pm 0.0878^\circ$ (≤ 12 bit)
Code	Analog Current 4 - 20 mA
Cycle Time Base Sensor	$< 100 \mu\text{s}$
Minimum Measurement Range	0 - 11.25°
Resolution of Output	Max. 13 bits over entire measuring range (Fractional Turns - Resolution decreases less than 13 bits when measuring range is less than 90 degrees)
Multiturn Range	16 turn (default setting). User can use the UBIFAST Tool to measure up to 65536 turns.

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	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	≤ 3 Ncm @ 20 °C (4.2 oz-in @ 68 °F)

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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	39 mm (1.54")
Weight	290 g (0.64 lb)

Electrical Connection

Connection Orientation	Radial
Connector	Cable 2 m
Cable Length	2 m [79"]
Wire Cross Section	0.14 mm ² / AWG 26
Material / Type	PVC
Cable Diameter	6 mm (0.24 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	New
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Connection Plan

SIGNAL	CABLE COLOR
Power Supply	Red
GND	Yellow
Analog Output	Green
Set1/Direction	Brown
Set2/Zero Set	White
Shielding	Shield

Connector-View on Encoder

Dimensional Drawing

Accessories

Couplings

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
Adapter Flanges
Spring Loaded Pivot Arm 36mm
Clamping Rings
Clamp Disc w/ Eccentric Hole-4pcs
Clamp Disc w/ Centred Hole-4pcs
Displays
AP22-D0 Analog Display (4 dig. o/p)
DiMod-A Analog Display
Configuration/Programming Tools
UBIFAST Configuration Tool
Ubifast Adapter Cable - UCD-Ax-PxM

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.