



IXARC Absolute Rotary Encoder

UCD-SSPPP-PPPP-V060-PRP

This is a discontinued product!



Interface

Interface	Programmable SSI + Incremental RS422 5V
Optional Incremental Pulses	Programmable Pulses up to 16384, Default = 1024
Manual Functions	Preset + complement via cable or connector
Interface Cycle Time	$\geq 25 \mu\text{s}$
SSI Format	MMMMMMMMMMMMSSSSSSSSSSSS0
Programming Functions	Absolute: Resolution, Revolution, Code Incremental: Pulses per Revolution, Counting Direction

Outputs

Output Driver	RS422
Output Incremental	A, /A, B, /B, Z, /Z
Quadrature Phasing	$90^\circ \pm 4.5^\circ$ electrical

Electrical Data

Supply Voltage	4.75 - 5.5 VDC
Power Consumption	$\leq 1.0 \text{ W}$
Start-Up Time	$< 1 \text{ s}$
Clock Input	RS 422, via Optocoupler

Data Sheet

Printed at 21-04-2023 08:04



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	350 years @ 40 °C

Sensor

Technology	Magnetic
Resolution Singleturn	Programmable max. 16 bit, pre-programmed 13 bit
Resolution Multiturn	Programmable max. 16 bit, pre-programmed 12 bit
Multiturn Technology	Self powered magnetic pulse counter (no battery, no gear)
Accuracy (INL)	$\pm 0.0878^\circ$ (≤ 12 bit)
Code	Programmable Gray or Binary, preprogrammed Binary
Incremental Pulses	Programmable Pulses up to 16384, Default = 1024

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 mm / \varnothing 42 mm
Flange Material	Aluminum
Shaft Type	Blind Hollow, Depth = 18 mm
Shaft Diameter	\varnothing 6 mm (0.24")
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

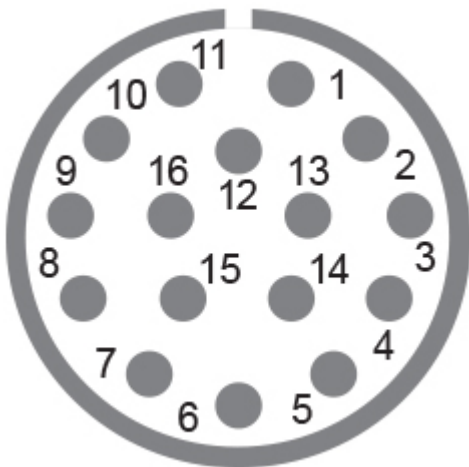
Connection Orientation	Radial
Connector	M23, Male, 16 pin

Certification

Approval	CE + cULus
----------	------------

Product Life Cycle

Product Life Cycle	Discontinued
--------------------	--------------



Connection Plan

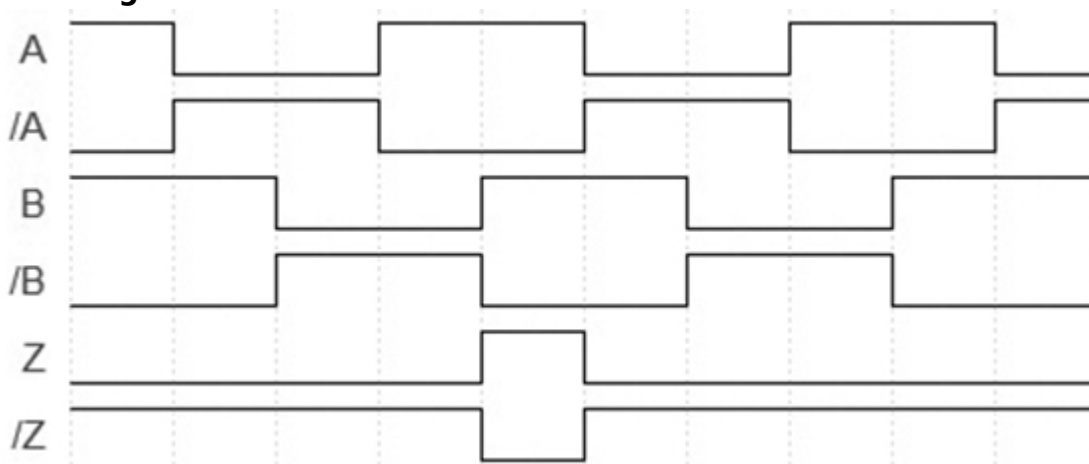
SIGNAL	PIN NUMBER
Power Supply	11
GND	12
Data+	3
Data-	4
Clock+	2



Clock-	1
DIR	8
Preset	9
A	5
/A	6
B	7
/B	10
Z	13
/Z	14
/Error	15
Shielding	Housing

Connector-View on Encoder

Pulse Diagram



Rotation Clockwise (seen on shaft)

Dimensional Drawing

Accessories

Connectors & Cables

5m PVC Cable, 16pin, f

1m PVC Cable, 16pin, f

2m PVC Cable, 16pin, f

10m PVC Cable, 16pin, f

M23, 16pin, Female

More

Data Sheet

Printed at 21-04-2023 08:04



Clamping Rings

Clamping Ring V06

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)

UBIFAST Configuration Tool

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.