



IXARC Incremental Encoder

UCD-IPH00-XXXXX-Y060-5RW



The picture is for presentation purposes only. Please refer to the detailed technical drawing at the end of the page.

Interface

Interface	Programmable Incremental
Programming Functions	PPR (1-16384), Output, Counting Direction
Configuration Tool	UBIFAST Configuration Tool (Version $\geq$ 1.6.3)

Outputs

Output Driver	Push-Pull (HTL)
Output Voltage High Level Push-Pull (HTL)	$> 4\text{ V}$ @ $4.75\text{--}9\text{ V}$ Supply Voltage $> 3\text{ V}$ @ $9\text{--}30\text{ V}$ Supply Voltage
Output Voltage Low Level Push-Pull (HTL)	$< 0.5\text{ V}$
Output Voltage High Level RS422 (TTL)	$> 4\text{ V}$
Output Voltage Low Level RS422 (TTL)	$< 0.5\text{ V}$
Maximum Frequency Response	1 MHz
Maximum Switching Current	50 mA per Channel

Electrical Data

Supply Voltage	4.75 – 30 VDC
Current Consumption	$\leq 140\text{ mA}$ @ 5V DC, $\leq 70\text{ mA}$ @ 10V DC, $\leq 40\text{ mA}$ @ 24V DC

Data Sheet

Printed at 13-05-2021 07:05

POSITAL

FRABA



Power Consumption	$\leq 1.0 \text{ W}$
Start-Up Time	$< 1 \text{ s}$
Min. Load Resistance	120Ω
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	280 years @ $40 \text{ }^{\circ}\text{C}$

Sensor

Technology	Magnetic
Accuracy (INL)	$\pm 0.0878^{\circ}$ ($\leq 12 \text{ bit}$)
Duty Cycle	$180^{\circ} \pm 27^{\circ}$ (Speed $> 100\text{RPM}$)
Phase Angle	$90^{\circ} \pm 14^{\circ}$ (Speed $> 100\text{RPM}$)

Environmental Specifications

Protection Class (Shaft)	IP65
Protection Class (Housing)	IP66/IP67
Operating Temperature	$-30 \text{ }^{\circ}\text{C}$ fixed ($-22 \text{ }^{\circ}\text{F}$), $-5 \text{ }^{\circ}\text{C}$ flexible ($+23 \text{ }^{\circ}\text{F}$) - $+80 \text{ }^{\circ}\text{C}$ ($+176 \text{ }^{\circ}\text{F}$)
Humidity	98% RH, no condensation

Mechanical Data

Mechanical Data

Housing Material	Steel
Housing Coating	Wet coating (RAL 9006 White Aluminium) + Cathodic corrosion protection ($> 720 \text{ h}$ salt spray resistance)
Flange Type	Synchro, $\varnothing 58 \text{ mm}$ (Y)
Flange Material	Aluminum
Shaft Type	Solid, Length = 10 mm
Shaft Diameter	$\varnothing 6 \text{ mm}$ ($0.24''$)
Shaft Material	Stainless Steel V2A (1.4305, 303)
Max. Shaft Load	Axial 40 N , Radial 110 N
Rotor Inertia	$\leq 30 \text{ gcm}^2$ [$\leq 0.17 \text{ oz-in}^2$]
Friction Torque	$\leq 3 \text{ Ncm}$ @ $20 \text{ }^{\circ}\text{C}$ (4.2 oz-in @ $68 \text{ }^{\circ}\text{F}$)
Max. Permissible Mechanical Speed	$\leq 12000 \text{ 1/min}$

Data Sheet

Printed at 13-05-2021 07:05

POSITAL

FRABA



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	56,7 mm (2.23")
Weight	870 g (1.92 lb)
Minimum Mechanical Lifetime (10 ⁸ revolutions with Fa/Fr)	550 (20 N / 40 N), 195 (40 N / 60 N), 135 (40 N / 80 N), 85 (40 N / 110 N)

Electrical Connection

Connection Orientation	Radial
Cable Length	5 m [197"]
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
----------	----

Product Life Cycle

Product Life Cycle	Established
--------------------	-------------

Connection Plan

SIGNAL	CABLE COLOR
A	Green
/A	Yellow
B	Gray
/B	Pink
Z	Blue
/Z	Red
Power Supply	Brown
GND	White
Shielding	Shield

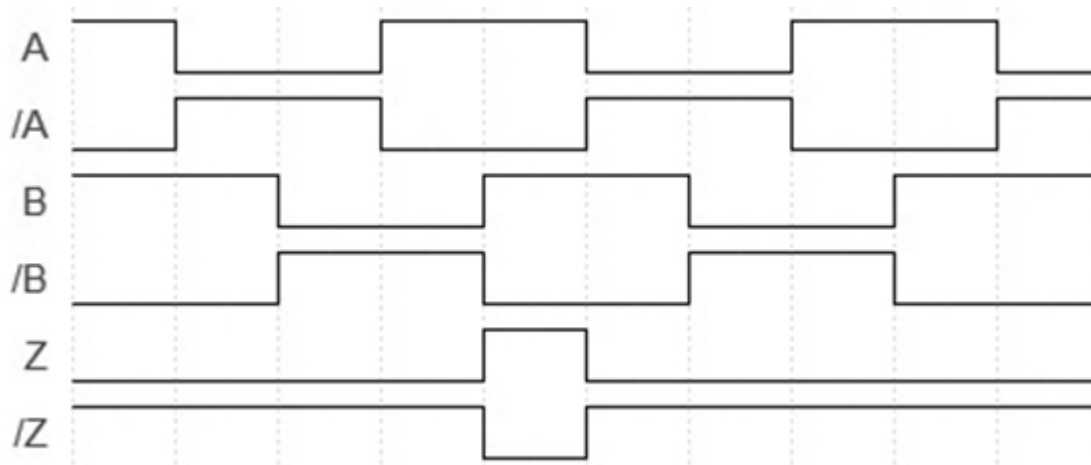
Connector-View on Encoder

Pulse Diagram

Data Sheet
Printed at 13-05-2021 07:05

POSITAL

FRABA



Rotation Clockwise (seen on shaft)

Dimensional Drawing

[2D Drawing](#)

Accessories

Configuration/Programming Tools

UBIFAST Configuration Tool

Couplings

Coupling Bellow Type-06-06

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

Adapter Flanges

Mounting Bracket for Synchro Flange w/ fixtures

Displays

AP20-00 Counter

Data Sheet

Printed at 13-05-2021 07:05



AP20-D0 Counter (4 dig. o/p)
AP20-0A Counter (analog o/p)
AP20-DA Counter (4 dig. + analog o/p)
DiMod Counter (Relay o/p)
More
Clamping Rings
Clamp Disc w/ Eccentric Hole-4pcs
Clamp Disc w/ Centred Hole-4pcs

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



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.