

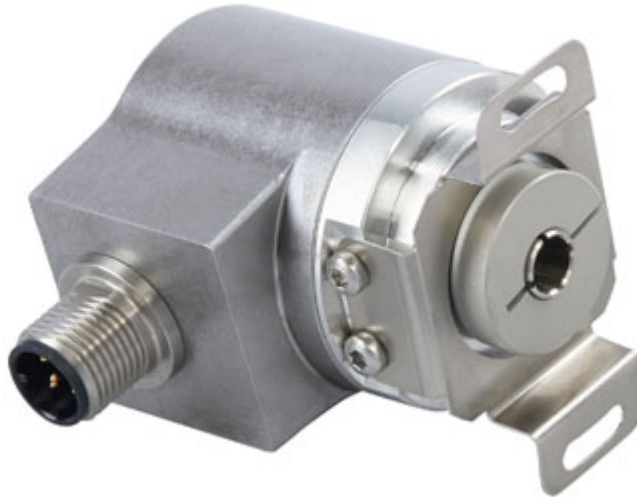


# POSITAL

## FRABA

### IXARC Incremental Encoder

UCD-IPH00-00512-VRS0-PRQ



#### 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)
Quadrature Phasing	$90^\circ \pm 4.5^\circ$ electrical
Output Voltage High Level Push-Pull (HTL)	$> 4 \text{ V}$ @ 4.75-9 V Supply Voltage $> 3 \text{ V}$ @ 9-30 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
Power Consumption	$\leq 1.0 \text{ W}$
Start-Up Time	$< 250 \text{ ms}$
Min. Load Resistance	120 $\Omega$

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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 °C

### Sensor

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

### 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

#### 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	$\varnothing 6.35$ mm (1/4")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Friction Torque	$\leq 3$ Ncm @ 20 °C (4.2 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	$\leq 12000$ 1/min
Shock Resistance	$\leq 100$ g (half sine 6 ms, EN 60068-2-27)
Permanent Shock Resistance	$\leq 10$ g (half sine 16 ms, EN 60068-2-29)
Vibration Resistance	$\leq 10$ g (10 Hz - 1000 Hz, EN 60068-2-6)
Length	50,2 mm (1.98")
Weight	140 g (0.31 lb)



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### Electrical Connection

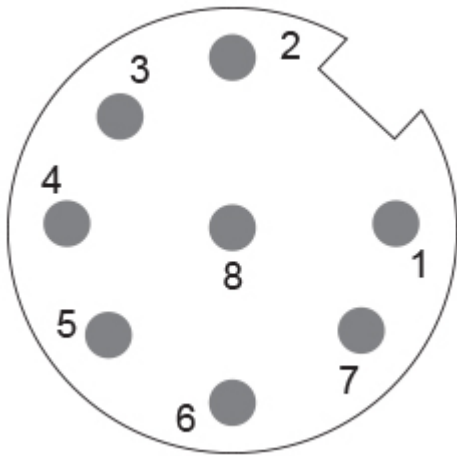
Connection Orientation	Radial
Connector	M12, Male, 8 pin, a coded

### Certification

Approval	CE + cULus listed, Industrial Control Equipment
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### Product Life Cycle

Product Life Cycle	Established
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### Connection Plan

SIGNAL	PIN NUMBER
A	3
/A	4
B	5
/B	6
Z	7
/Z	8
Power Supply	2
GND	1
Shielding	Connector housing

Connector-View on Encoder

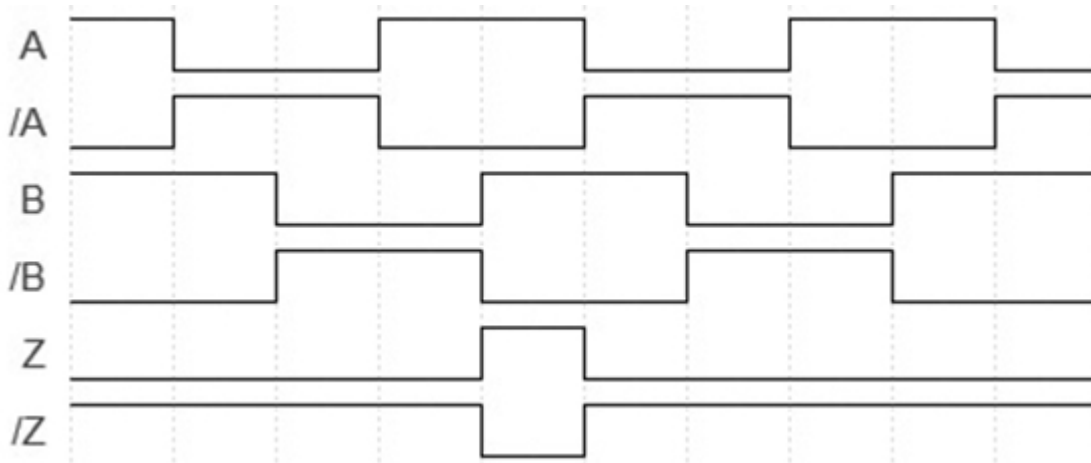
### Pulse Diagram

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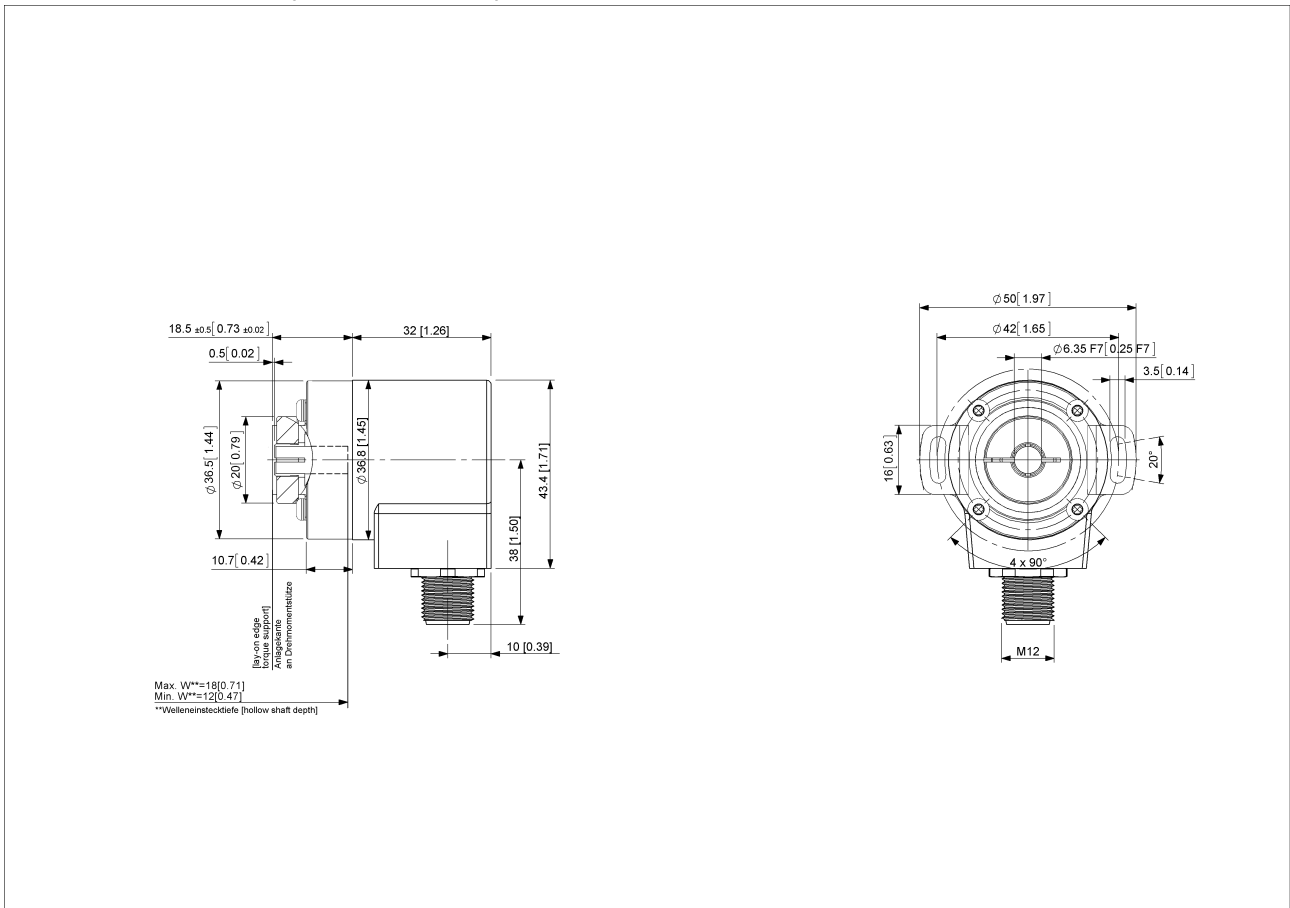


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Rotation Clockwise (seen on shaft)



[2D Drawing](#)

### Accessories

Configuration/Programming Tools  
UBIFAST Configuration Tool

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### Connectors & Cables

5m PUR Cable, 8pin, A-Coded, f

10m PUR Cable, 8pin, A-Coded, f

2m PUR Cable, 8pin, A-Coded, f

10m PUR Cable, 8pin, A-Coded, f

M12, 8pin A-Coded, Female

More

### Displays

AP20-00 Counter

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

Clamping Ring V06

### Contact



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.

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