

# POSITAL

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## FRABA

### IXARC Incremental Encoder UCD-IPH00-XXXXX-L12S-053



The picture is for presentation purposes only. Please refer to the detailed technical drawing.  
Alternative for PCA Part: **INSG-12HS-L7AM/xxxxx**  
**Default Setting:** 1024 PPR, HTL, A leads B

#### Interface

Interface

Programming Functions

Configuration Tool

Programmable Incremental

PPR (1-16384), Output, Counting Direction

UBIFAST Configuration Tool (Version  $\geq$  1.6.3)

#### Outputs

Output Driver

Output Voltage High Level Push-Pull (HTL)

Output Voltage Low Level Push-Pull (HTL)

Output Voltage High Level RS422 (TTL)

Output Voltage Low Level RS422 (TTL)

Maximum Frequency Response

Maximum Switching Current

Push-Pull (HTL)

$> 4\text{ V @ } 4.75\text{-}9\text{ V Supply Voltage}$

$> 3\text{ V @ } 9\text{-}30\text{ V Supply Voltage}$

$< 0.5\text{ V}$

$> 4\text{ V}$

$< 0.5\text{ V}$

1 MHz

50 mA per Channel

#### Electrical Data

Supply Voltage

Current Consumption

4.75 – 30 VDC

$\leq 140\text{mA @ } 5\text{V DC}$ ,  $\leq 70\text{mA @ } 10\text{V DC}$ ,  $\leq 40\text{mA @}$

24V DC

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Power Consumption	≤ 1.0 W
Start-Up Time	< 1 s
Min. Load Resistance	120 Ω
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)	±0.0878° (≤ 12 bit)
Duty Cycle	180° ± 27° (Speed > 100RPM)
Phase Angle	90° ± 14° (Speed > 100RPM)

### Environmental Specifications

Protection Class (Shaft)	IP66/IP67
Protection Class (Housing)	IP66/IP67
Operating Temperature	-40 °C (-40 °F) - +85 °C (+185 °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	Clamp, ø 58 mm (L)
Flange Material	Aluminum
Shaft Type	Solid, Single Flat, Length = 20 mm
Shaft Diameter	ø 12 mm (0.47")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Max. Shaft Load	Axial 40 N, Radial 110 N
Rotor Inertia	≤ 30 gcm <sup>2</sup> [≤ 0.17 oz-in <sup>2</sup> ]
Friction Torque	≤ 5 Ncm @ 20 °C, (7.1 oz-in @ 68 °F)
Max. Permissible Mechanical Speed	≤ 3000 1/min

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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	52,7 mm (2.07")
Weight	295 g (0.64 lb)
Minimum Mechanical Lifetime (10 <sup>8</sup> revolutions with Fa/Fr)	430 (20 N / 40 N), 150 (40 N / 60 N), 100 (40 N / 80 N), 55 (40 N / 110 N)

### Electrical Connection

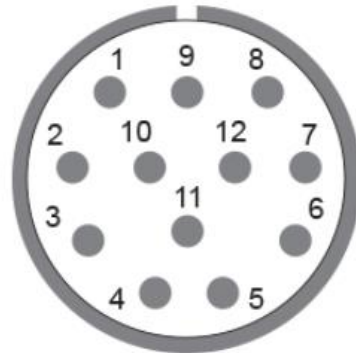
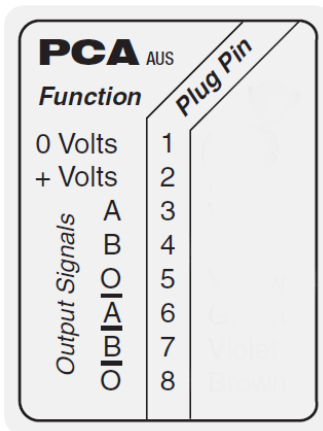
Connection Orientation	Radial
Connector	M23, Male, 12 pin, a coded

### Certification

Approval	CE + cULus
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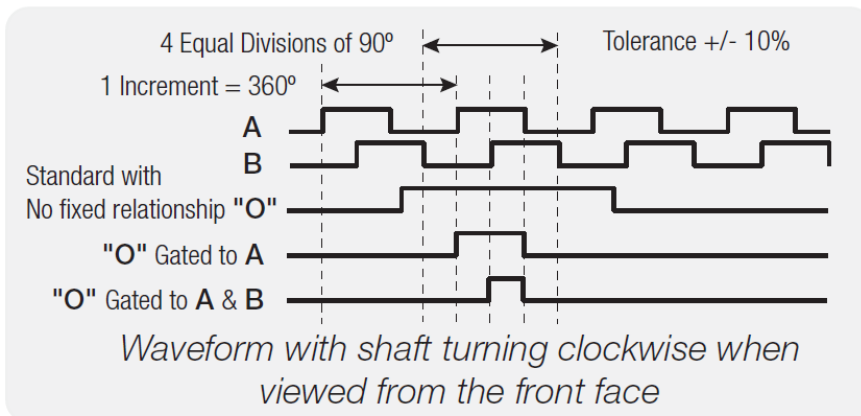
### Product Life Cycle

Product Life Cycle	Established
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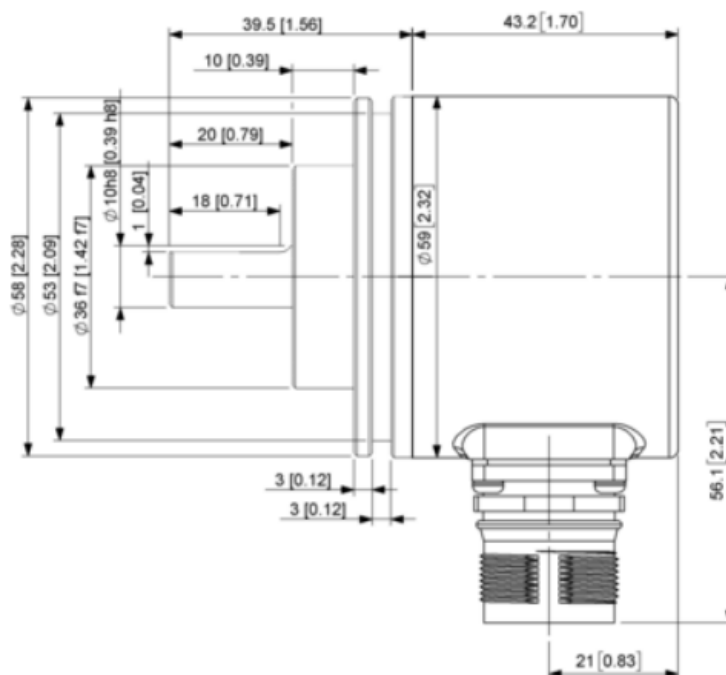


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### Physical Dimensions



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