



# POSITAL

## FRABA

### IXARC Absolute Rotary Encoder

UCD-LK00B-1516-R100-PRV



#### Interface

Interface	IO-Link Specification V1.1
Profile	Smart Sensor Profile 2nd Edition
Diagnostics	Device Status, Internal Temperature, Operating Hours Counter, Movement Hours Counter, Power Cycles Counter
Features	Position and Velocity Output, 5x SW CAM, Connector Pin 2 as Preset, Reset or HW CAM
Transmission Rate	COM3 230,4 kBaud
Interface Cycle Time	2.3 ms
Programming Functions	Singleturn and Total Resolution, Velocity Filter, Preset Value, HW and SW CAM, Counting Direction, Pin 2 I/O-Configuration

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### Electrical Data

Supply Voltage	18 - 32 VDC
Start-Up Time	< 1 s
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	283 years @40 °C

### Sensor

Technology	Magnetic
Resolution Singleturn	16 bit
Resolution Multiturn	15 bit
Multiturn Technology	Self powered magnetic pulse counter (no battery, no gear)
Accuracy (INL)	$\pm 0.0878^\circ$ ( $\leq 12$ bit)
Sense Signal (Default)	Clockwise shaft movement (front view on shaft)
Code	Binary

### 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	Synchro, $\varnothing$ 36 mm
Flange Material	Aluminum
Shaft Type	Solid, Length = 20 mm
Shaft Diameter	$\varnothing$ 10 mm (0.39")
Shaft Material	Stainless Steel V2A (1.4305, 303)
Max. Shaft Load	Axial 40 N, Radial 110 N
Minimum Mechanical Lifetime (10 <sup>8</sup> revolutions with Fa/Fr)	30 (20 N / 40 N), 10 (40 N / 60 N), 7 (40 N / 80 N), 3 (40 N / 110 N)
Friction Torque	$\leq 3$ 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	52 mm (2.05")
Weight	205 g (0.45 lb)

### Electrical Connection

Connection Orientation	Radial
Connector	M12, Male, 5 pin, a coded, with LED

### Product Life Cycle

Product Life Cycle	New
Approval	CE + cULus

### Connection Plan

SIGNAL	CONNECTOR	PIN NUMBER
Power Supply	Connector 1	1
GND	Connector 1	3
Digital Input / Output	Connector 1	2
IO-Link C/Q	Connector 1	4
Not Connected	Connector 1	5

Connector-View on Encoder

### Dimensional Drawing

[2D Drawing](#)

### Accessories

Connectors & Cables

POS M12 5pin-A Female+5m PUR Cable

POS M12 5pin-A Female+2m PUR Cable

POS M12 5pin-A Female+10m PUR Cable

M12, 5pin A-Coded, Female

More

Couplings

Coupling Disc Type-10-12

Coupling Bellow Type-10-10

Coupling Bellow Type-06-10

Coupling Bellow Type-08-10

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Coupling Bellow Type-10-12  
Coupling Bellow Type-10-(1/4")  
Coupling Bellow Type-10-(3/8")  
Coupling Jaw Type-06-10  
Coupling Jaw Type-08-10  
Coupling Jaw Type-10-12  
Coupling Jaw Type-10-(1/4")  
Coupling Jaw Type-10-(3/8")  
Coupling Jaw Type-10-10  
Coupling Disc Type-06-10  
Coupling Disc Type-10-10  
More  
Clamping Rings  
Clamp Disc w/ Eccentric Hole-4pcs  
Clamp Disc w/ Centred Hole-4pcs  
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)

**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.

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