


**LINARIX Linear Sensor**
**LU0-IPT00-02000-3D00-PRQ**
**POSITAL**  
FRABA

**General Data**
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Supply Voltage	4.75 - 30 VDC
Power Consumption	≤ 1.0 W
Turn On Time	< 1 s
Operating Temperature	-40 °C (-40 °F) - +80 °C (+176 °F)
Weight	565 g (1.25 lb)
Protection Class (Encoder)	IP64 / IP65
EMC: Emitted Interference	DIN EN 61000-6-4
EMC: Noise Immunity	DIN EN 61000-6-2

**Mechanical Data**

Max. Measurement Length	3.00 m (9.84')
Length per Revolution	200 mm
Wire Material	Plastic Coated Stainless Steel
Wire Diameter	0.87 mm
Encoder Housing Material	Steel
Draw Wire Housing Material	Zinc Die-cast
Max. Speed of Wire Displacement	0.8 m / s
Max. Wire Acceleration	1.0 g
Max. Extension Force	3.0 N

Data Sheet

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Min. Retraction Force	2.5 N
Actuation Lifetime	Not Available
Wire Mounting	M6 Thread
Max. Wire Exit Angle	$\pm 0^\circ$

### Sensor Data

Technology	Magnetic ( $\leq 0.09^\circ$ )
Accuracy	$\pm 0.012$ % FSO
Repeatability	$\pm 0.005$ % FSO
Resolution [Encoder - Singleturn]	Incremental
Approx. Linear Resolution	0.1 mm/pulse (Default)
Pulses per Revolution	02000
Duty Cycle	$180^\circ \pm 27^\circ$ (Speed > 100RPM)
Phase Angle	$90^\circ \pm 14^\circ$ (Speed > 100RPM)

### Interface

Communication Interface	Programmable Incremental
Programming Functions	PPR (1-16384), Output, Counting Direction
Configuration Tool	UBIFAST Configuration Tool (Version $\geq 1.6.3$ )
Programmable Output	Push-Pull (HTL) or RS422 (TTL)

### Outputs

Output Driver	RS 422 (TTL)
Current Consumption	$\leq 140\text{mA}$ @ 5V DC, $\leq 70\text{mA}$ @ 10V DC, $\leq 40\text{mA}$ @ 24V DC
Output Voltage High Level Push-Pull (HTL)	$> 4$ V @ 4,75-9 V Supply Voltage; $> V-3$ V @ 9-30 V Supply
Output Voltage Low Level Push-Pull (HTL)	$< 0.5$ V
Output Voltage High Level RS422 (TTL)	$> 4$ V
Output Voltage Low Level RS422 (TTL)	$< 0.5$ V
Min. Load Resistance	120 $\Omega$
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
MTTF	280 years @ 40 $^\circ\text{C}$

### Electrical Connection

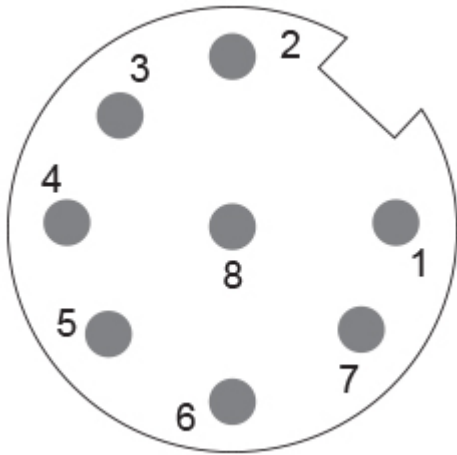
Connection Orientation	Radial
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Connection Orientation (w.r.t Draw Wire)	Radial 0 / Axial
Connector	M12, Male, 8 pin, a coded

### Product Life Cycle

Product Life Cycle	New
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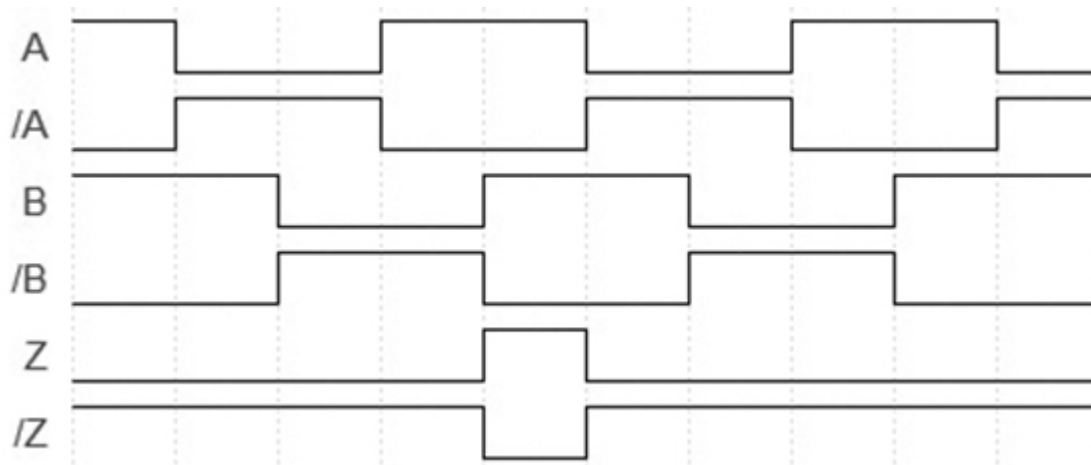


### Connection Plan

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



## Dimensional Drawing

### [2D Drawing](#)

#### Accessories

##### Connectors & Cables

10m PUR Cable, 8pin, A-Coded, f  
POS M12 8pin-A Female+5m PUR Cable  
POS M12 8pin-A Female+2m PUR Cable  
POS M12 8pin-A Female+10m PUR Cable  
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

##### Configuration/Programming Tools

UBIFAST Configuration Tool

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



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All dimension in [inch] mm. Encoder dimensions may vary depending on electrical interface and connector. This drawing and the information contained is for general presentation purposes only. Please refer to the "Download" section for detailed technical drawings. © FRABA B.V., All rights reserved. We do not assume responsibility for technical inaccuracies or omissions. Specifications are subject to change without notice.