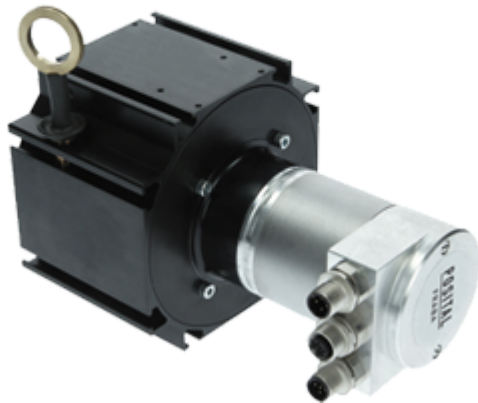



**LINARIX Linear Sensor**
**LU0-EC00B-1213-3F00-PRM**
**POSITAL**  
FRABA

**General Data**
**General Data**

Supply Voltage	10 - 30 VDC
Power Consumption	≤ 2.5 W
Turn On Time	< 1 s
Operating Temperature	-20 °C (-4 °F) - +80 °C (+176 °F)
Weight	1145 g (2.52 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	260 mm
Wire Material	Coated Polyamide Stainless Steel
Wire Diameter	0.80 mm
Encoder Housing Material	Steel
Draw Wire Housing Material	Aluminum
Max. Speed of Wire Displacement	2.0 m / s
Max. Wire Acceleration	7.0 g
Max. Extension Force	9.0 N

Data Sheet

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Min. Retraction Force	5.5 N
Actuation Lifetime	3.0 mio Cycles (Estimated based on ideal conditions)
Wire Mounting	M4 Thread
Max. Wire Exit Angle	±3°

### Sensor Data

Technology	Magnetic ( $\leq 0.09^\circ$ )
Accuracy	±0.02 % FSO
Repeatability	±0.003 % FSO
Resolution [Encoder - Singleturn]	13 bit
Resolution [Encoder - Multiturn]	12 bit
Approx. Linear Resolution	31.7 $\mu\text{m}$
Output Code	Binary

### Interface

Communication Interface	Ethercat
Profile	CoE (CANopen over EtherCAT, DS-301+DS-406)
Programming Functions	Resolution, preset, counting direction
Transmission Rate	10 / 100 Mbit
Cycle Time Interface	$\geq 80 \mu\text{s}$

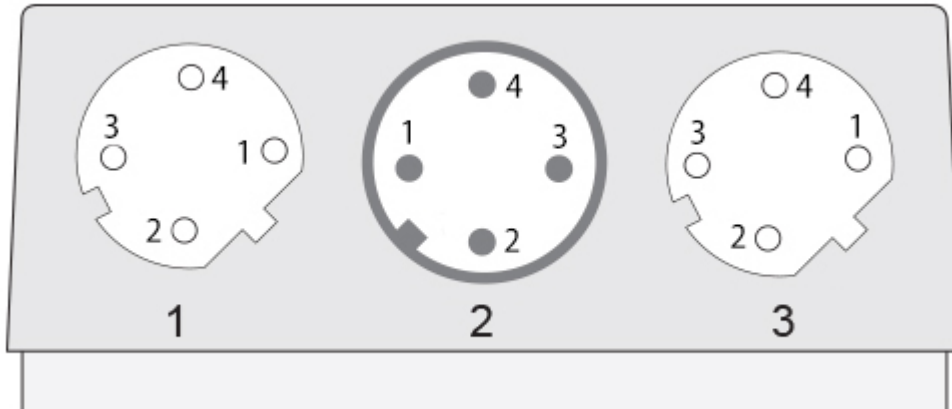
### Outputs

Output Driver	Ethernet
Current Consumption	$\leq 230 \text{ mA @ } 10 \text{ V DC}, \leq 100 \text{ mA @ } 24 \text{ V DC}$
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
Electrical Lifetime	$>10^5 \text{ h}$

### Electrical Connection

Connection Orientation	Radial
Connection Orientation (w.r.t Draw Wire)	Radial 0 / Axial
Connector 1	M12, Female, 4 pin, d coded
Connector 2	M12, Male, 4 pin, a coded
Connector 3	M12, Female, 4 pin, d coded

### Product Life Cycle


**Connection Plan**

SIGNAL	CONNECTOR	PIN NUMBER
Tx+	Connector 1	1
Rx+	Connector 1	2
Tx-	Connector 1	3
Rx-	Connector 1	4
Power Supply	Connector 2	1
Not Connected	Connector 2	2
GND	Connector 2	3
Not Connected	Connector 2	4
Tx+	Connector 3	1
Rx+	Connector 3	2
Tx-	Connector 3	3
Rx-	Connector 3	4

**Connector-View on Encoder**  
**Dimensional Drawing**
[2D Drawing](#)
**Accessories**
**Connectors & Cables**

2m PUR Cable, 4pin, D-Coded, m

M12, 4pin A-Coded, Female

10m PUR Cable, 4pin, D-Coded, m

10m PVC Cable, 4pin, D-Coded, m

2m PVC Cable, 4pin, D-Coded, m

5m PVC Cable, 4pin, D-Coded, m

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

Data Sheet

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POS M12 5pin-A Female+2m PUR Cable  
POS M12 5pin-A Female+10m PUR Cable  
M12, 4pin D-Coded, Male  
M12, 5pin A-Coded, Female  
5m PUR Cable, 4pin, D-Coded, m  
More

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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.