


**LINARIX Linear Sensor**
**LU0-EC00B-1213-7W00-PRM**

**General Data**
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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	1115 g (2.46 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	7.50 m (24.61')
Length per Revolution	333.3 mm
Wire Material	Coated Polyamide Stainless Steel
Wire Diameter	0.45 mm
Encoder Housing Material	Steel
Draw Wire Housing Material	Plastic
Max. Wire Acceleration	1.5 g
Max. Extension Force	13.0 N
Min. Retraction Force	7.0 N

Data Sheet

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Actuation Lifetime	0.5 mio Cycles (Estimated based on ideal conditions)
Wire Mounting	Wireclip
Max. Wire Exit Angle	±3°

### Sensor Data

Technology	Magnetic ( $\leq 0.09^\circ$ )
Accuracy	±0.05 % FSO
Repeatability	±0.01 % FSO
Resolution [Encoder - Singleturn]	13 bit
Resolution [Encoder - Multiturn]	12 bit
Approx. Linear Resolution	40.7 $\mu\text{m}$
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

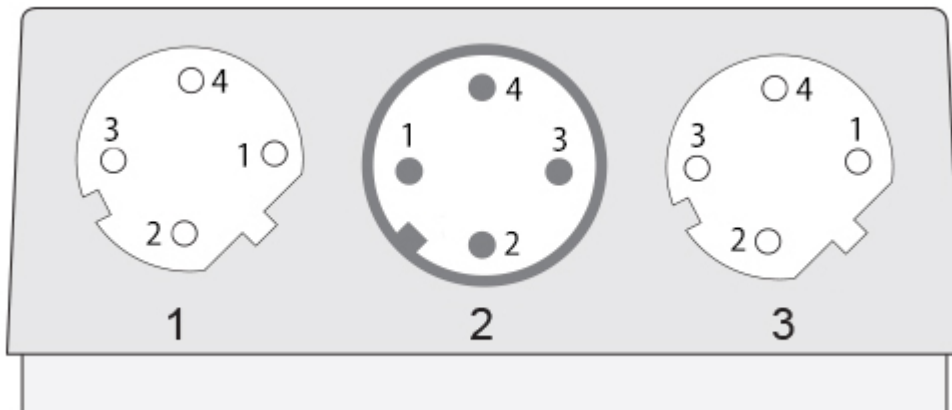
Output Driver	Ethernet
Current Consumption	$\leq 230 \text{ mA @ } 10 \text{ V DC}, \leq 100 \text{ mA @ } 24 \text{ V DC}$
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
Electrical Lifetime	$>10^5 \text{ h}$

### 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

Product Life Cycle	Established
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#### 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

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

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

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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.