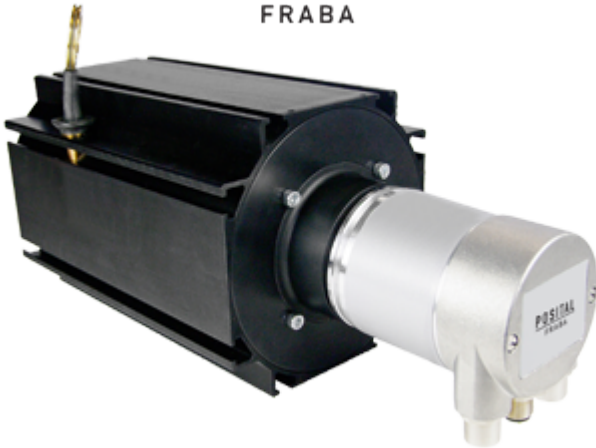




## LINARIX Linear Sensor

LD0-EEA1B-1213-FR30-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	3855 g (8.50 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	15.00 m (49.21')
Length per Revolution	315 mm
Wire Material	Coated Polyamide Stainless Steel
Wire Diameter	1.00 mm
Encoder Housing Material	Steel
Draw Wire Housing Material	Aluminum
Max. Speed of Wire Displacement	2.0 m / s
Max. Wire Acceleration	3.0 g
Max. Extension Force	25.0 N

Data Sheet

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Min. Retraction Force	8.0 N
Actuation Lifetime	0.5 mio Cycles
Wire Mounting	Eyelet
Max. Wire Exit Angle	$\pm 3^\circ$

### Sensor Data

Technology	Optical ( $\leq 0.02^\circ$ )
Accuracy	$\pm 0.01$ % FSO
Repeatability	$\pm 0.001$ % FSO
Resolution [Encoder - Singleturn]	13 bit
Resolution [Encoder - Multiturn]	12 bit
Approx. Linear Resolution	38.5 $\mu\text{m}$
Output Code	Binary

### Interface

Communication Interface	EtherNet/IP
Profile	CIP (Common Industrial Protocol)
Diagnostics	Memory
Programming Functions	Resolution, time base and filter for velocity, preset, counting direction, IP-Address
Transmission Rate	10 / 100 Mbit
Cycle Time Interface	$\geq 1$ ms

### Outputs

Output Driver	Ethernet
Current Consumption	$\leq 230$ mA @ 10 V DC, $\leq 100$ mA @ 24 V DC
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
MTTF	65 years @ 40 °C

### Electrical Connection

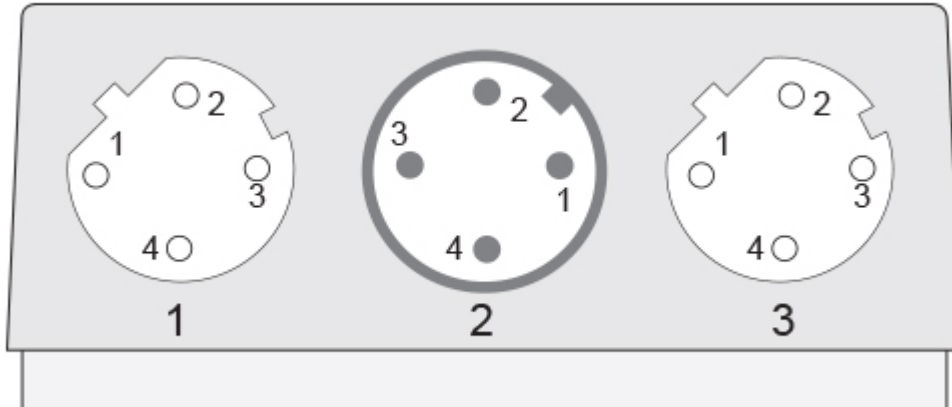
Connection Orientation	Radial
Connection Orientation (w.r.t Draw Wire)	Radial 3
Connector 1	M12, Female, 4 pin, d coded
Connector 2	M12, Male, 4 pin, a coded
Connector 3	M12, Female, 4 pin, d coded



### Product Life Cycle

Product Life Cycle

Established



### 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

- 10m PUR Cable, 5pin, A-Coded, f
- 2m PUR Cable, 5pin, A-Coded, f
- 5m PUR Cable, 5pin, A-Coded, f
- 2m PUR Cable, 4pin, D-Coded, m
- M12, 4pin A-Coded, Female
- 10m PUR Cable, 4pin, D-Coded, m

Data Sheet

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

### Contact



Contact Us

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.