



# POSITAL

## FRABA

### LINARIX Linear Sensor

**LD0-D2C1B-1212-3D30-5RW**



#### General Data

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Supply Voltage	10 - 30 VDC
Power Consumption	≤ 2.5 W
Turn On Time	< 1 s
Operating Temperature	-30 °C fixed (-22 °F), -5 °C flexible (+23 °F) - +80 °C (+176 °F)
Weight	875 g (1.93 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

Data Sheet

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Max. Extension Force	3.0 N
Min. Retraction Force	2.5 N
Actuation Lifetime	Not Available
Wire Mounting	M4 Thread

### Sensor Data

Technology	Optical ( $\leq 0.02^\circ$ )
Accuracy	$\pm 0.012$ % FSO
Repeatability	$\pm 0.005$ % FSO
Resolution [Encoder - Singleturn]	12 bit
Resolution [Encoder - Multiturn]	12 bit
Approx. Linear Resolution	48.8 $\mu\text{m}$
Output Code	Binary

### Interface

Communication Interface	DeviceNet
Profile	CIP (Common Industrial Protocol)
Programming Functions	Resolution, preset, complement, transmission mode: polled mode, cyclic mode, sync mode
Manual Functions	Programmable
Transmission Rate	150 kBaud, 250 kBaud, 500 kBaud
Cycle Time Interface	$\geq 10$ ms

### Outputs

Output Driver	Transceiver (ISO 11898), Galvanically Isolated by Opto-Coupl
Current Consumption	$\leq 230$ mA @ 10 V DC, $\leq 100$ mA @ 24 V DC
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
MTTF	13.5 years @ 40 °C

### Electrical Connection

Connection Orientation	Radial
Connection Orientation (w.r.t Draw Wire)	Radial 3
Connection Type	Cable / Connector
Cable Length	5 m [197"]
Wire Cross Section	0.14 mm <sup>2</sup> / AWG 26



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Material / Type	PVC
Cable Diameter	6 mm (0.24 in)
Minimum Bend Radius	46 mm (1.81") fixed, 61 mm (2.4") flexing

### Product Life Cycle

Product Life Cycle	Established
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### Connection Plan

SIGNAL	CABLE COLOR
Power Supply	White
GND	Brown
CAN High	Yellow
CAN Low	Pink

Connector-View on Encoder  
**Dimensional Drawing**

[2D Drawing](#)

### 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.