


**LINARIX Linear Sensor**
**LD0-EEA1B-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                     | 1125 g (2.48 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                        | Optical (≤ 0.02°) |
| Accuracy                          | ±0.05 % FSO       |
| Repeatability                     | ±0.01 % FSO       |
| Resolution [Encoder - Singleturn] | 13 bit            |
| Resolution [Encoder - Multiturn]  | 12 bit            |
| Approx. Linear Resolution         | 40.7 μm           |
| 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    | ≥ 1 ms  |

### Outputs

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

### Electrical Connection

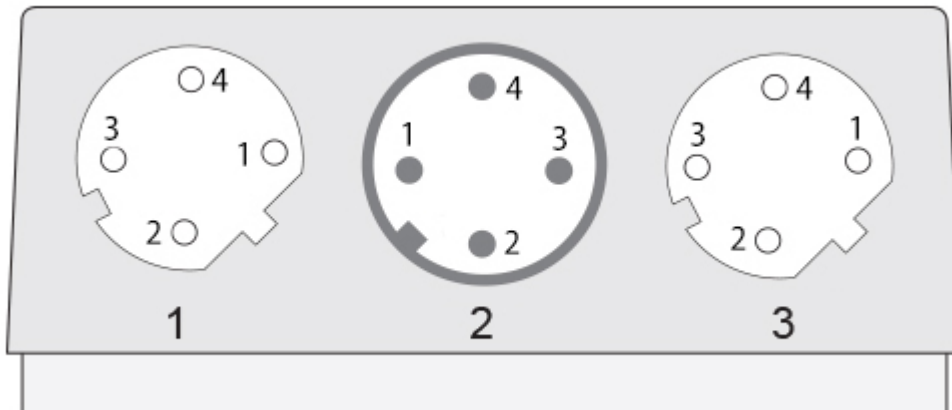
|  |                             |
|--|-----------------------------|
| Connection Orientation                   | Radial                      |
| Connection Orientation (w.r.t Draw Wire) | Radial 0 / Axial            |
| Connector 1                              | M12, Female, 4 pin, d coded |
| Connector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



## Product Life Cycle

Product Life Cycle

Established



### 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

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

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



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.