



POSITAL

FRABA

LINARIX Linear Sensor

LU0-C901B-1216-3D0A-5AW



General Data

General Data

| | |
|----------------------------|---|
| Supply Voltage | 9 - 30 VDC |
| Power Consumption | ≤ 1.2 W |
| Turn On Time | <500 ms |
| Operating Temperature | -30 °C fixed (-22 °F), -5 °C flexible (+23 °F) - +80 °C (+176 °F) |
| Weight | 830 g (1.83 lb) |
| Protection Class (Encoder) | IP54 |
| 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 | Magnetic ($\leq 0.09^\circ$) |
| Accuracy | ± 0.012 % FSO |
| Repeatability | ± 0.005 % FSO |
| Resolution [Encoder - Singleturn] | 16 bit |
| Resolution [Encoder - Multiturn] | 12 bit |
| Approx. Linear Resolution | 3.1 μm (theoretical), limited by mechanics |
| Output Code | Binary |

Interface

| | |
|-------------------------|---|
| Communication Interface | SAE J1939 |
| Profile | J1939 specific |
| Programming Functions | Resolution, preset, direction, node ID, baud rate |
| Manual Functions | Programmable |
| Transmission Rate | min. 20 kBaud, max. 1 MBaud |
| Cycle Time Interface | ≥ 1 ms |

Outputs

| | |
|-----------------------------|--|
| Output Driver | Transceiver (ISO 11898), Galvanically Isolated by Opto-Coupl |
| Current Consumption | ≤ 70 mA @ 10 V DC, ≤ 50 mA @ 24 V DC |
| Reverse Polarity Protection | Yes |
| Short Circuit Protection | Yes |
| MTTF | 240 years @ 40 °C |

Electrical Connection

| | |
|--|-------------------------------|
| Connection Orientation | Axial |
| Connection Orientation (w.r.t Draw Wire) | Radial 0 / Axial |
| Connection Type | Cable / Connector |
| Cable Length | 5 m [197"] |
| Wire Cross Section | 0.14 mm ² / AWG 26 |
| Material / Type | PVC |



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| | |
|---------------------|---|
| 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 | New |
|--------------------|-----|

Connection Plan

| SIGNAL | CABLE COLOR |
|--------------|-------------|
| Power Supply | Red |
| GND | Yellow |
| CAN High | White |
| CAN Low | Brown |
| CAN GND | Green |

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.