



LINARIX Linear Sensor

LU0-AC005-0413-3D90-PRM

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General Data

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Supply Voltage	8 - 32 VDC
Turn On Time	<500 ms
Operating Temperature	-40 °C (-40 °F) - +80 °C (+176 °F)
Weight	605 g (1.33 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
Max. Extension Force	3.0 N
Min. Retraction Force	2.5 N

Data Sheet

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Actuation Lifetime	Not Available
Wire Mounting	M6 Thread
Max. Wire Exit Angle	$\pm 0^\circ$

Sensor Data

Technology	Magnetic ($\leq 0.09^\circ$)
Accuracy	± 0.012 % FSO
Repeatability	± 0.005 % FSO
Resolution [Encoder - Singleturn]	13 bit
Resolution [Encoder - Multiturn]	4 bit
Approx. Linear Resolution	24.4 μm
Output Code	Analog Current 4 - 20 mA
Resolution of Output	Max. 13 bits over entire measuring range (Fractional Turns - Resolution decreases less than 13 bits when measurements range is less than 90 degrees)
Multiturn Range	16 turn (default setting). User can use the scaling functionality to measure up to 65536 turns.

Interface

Communication Interface	Analog Current
Manual Functions	Start and End point via Cable or Connector

Outputs

Electrical Data

Current Consumption	Typical 20 mA @24 V (no load)
Max Load Resistance	500 Ω
Analog Accuracy	@ 20 mA = ± 20 μA (with an ideal power supply)
Settling Time	32 ms (from min value to max value jump)
Reverse Polarity Protection	Yes
Short Circuit Protection	Yes
MTTF	240.8 years @ 40 $^\circ\text{C}$

Electrical Connection

Connection Orientation	Radial
Connection Orientation (w.r.t Draw Wire)	Radial 9
Connector	M12, Male, 5 pin, a coded

Data Sheet

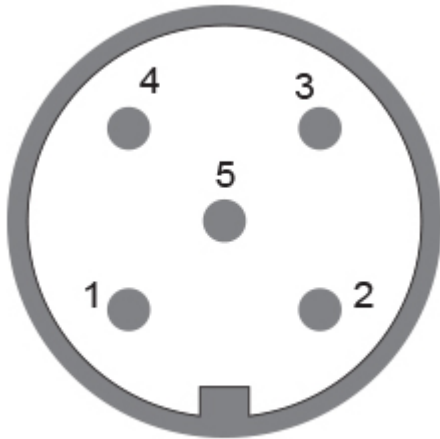
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Product Life Cycle

Product Life Cycle

Established



Connection Plan

SIGNAL	CONNECTOR	PIN NUMBER
Power Supply	Connector 1	2
GND	Connector 1	3
Analog Output	Connector 1	1
Set1/Direction	Connector 1	5
Set2/Zero Set	Connector 1	4

Connector-View on Encoder Dimensional Drawing

[2D Drawing](#)

Accessories

Connectors & Cables

POS M12 5pin-A Female+5m PUR Cable
 POS M12 5pin-A Female+2m PUR Cable
 POS M12 5pin-A Female+10m PUR Cable
 10m PUR Cable, 5pin, A-Coded, f IP69K
 M12, 5pin A-Coded, Female

More

Displays

AP22-D0 Analog Display (4 dig. o/p)
 DiMod-A Analog Display

Data Sheet

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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.