

E-Series with Enhanced Resolution, Analog Output (U/I)



Assembly part number:
Li200P1-Q25LM2-ELIU5X3-H1151

Measuring Range Specifications

Measuring span (L):	100, 200, 300, 400, 500, 600, 700, 800, 900, 1,000 1250, 1500, 1750, 2000 mm
Blind zone (a):	29 mm
Blind zone (b):	29 mm
Nominal distance:	1.5 mm

System

Resolution:	16 bit (measuring range in mm/65536)
Repeatability:	≤ 0.02% of full scale
Linearity deviation:	≤ 0.1% of full scale (under the influence of shock and vibration)
Temperature drift:	≤ ±0.003 %/K
Ambient temperature:	-25 to +70 °C

Electrical Data

Operating voltage:	15-30 VDC
Residual ripple:	≤ 10% U _{pp}
No-load current:	≤ 50 mA
Isolation test voltage:	≤ 0.5 kV
Short-circuit protection:	yes
Wire breakage / reverse polarity protection:	yes/yes (supply voltage)
Output function:	5-wire, analog output
Voltage output:	0-10 V
Current output:	4-20 mA
Diagnostic:	output signal 24 mA or 11 V (positioning element not within detection range)
Load resistance of voltage output:	≥ 4.7 kΩ
Load resistance of current output:	≤ 0.4 kΩ
Current consumption:	< 100 mA
Sample rate:	5000 Hz

Housing Style

Housing style:	rectangular, Q25L
Dimensions:	profile 35 x 25 mm, L = measuring range + 58 mm
Housing material:	aluminum
Material active face:	plastic, PA6-GF30
Connection:	connector, M12 x 1
Vibration resistance (EN 60068-2-6):	20 g; 1.25 h/axis; 3 axis
Shock resistance (EN 60068-2-27):	200 g; 4 ms 1/2 sine
Protection class (IEC 60529/EN 60529):	IP67, IP66

LEDs

Power indication:	green LED
Measuring range indication:	green/yellow multifunctional LED

Product Features

- 16 bit resolution
- Current and voltage output in one device (5-wire, 15-30 VDC)
- M12 Eurofast connector (5-pin)
- 29 mm blind zones
- Programmable measuring range
- Captive and floating (0-4 mm from sensing face) position elements available
- Robust extruded aluminum housing
- Watertight (IP67) polycarbonate insert
- Multifunction LED

Measuring Range Indicated via LED

- **Green:** The positioning element is in the measuring range.
- **Yellow:** The positioning element is in the measuring range with a lower signal quality (e.g., the distance between sensor and element is too large).
- **Yellow flashing:** The positioning element is outside of the measuring range (max. range).
- **Off:** The positioning element is outside the programmed range but inside the total, non-programmed measuring length.

Setting the Measuring Range

The initial and final value of the measuring range is set at the push of a button, either via a teach adapter or programming line (pin 5). Furthermore, the output curve can be inverted.

- Factory setting (0 V/4 mA at the connector end): Jumper pin 5 and pin 1 for 10 sec.
- Factory setting inverted: Jumper pin 5 and pin 3 for 10 sec.
- Setting the initial value: Move positioning element to desired position and jumper pin 5 and pin 3 for 2 sec.
- Setting the final value: Move positioning element to desired position and jumper pin 5 and pin 1 for 2 sec.

Optional

- Teach lock/unlock: Jumper pin 5 and pin 1 for 30 sec. After 30 sec. the flashing changes to fast flashing. The teach lock is recommended in situations where it is necessary to prevent alterations of parameters.

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Part Number Key: E-Series

A	B	C		D	E		F		G
LI	100	P0	-	Q25L	M0	-	ELIU5X3	-	H1151

A	Type
LI	Linear Inductive

D	Housing Style
Q25L	Rectangle, 25 x 35 mm

B	Measuring Span
100	100 mm
200	200 mm
300	300 mm
400	400 mm
500	500 mm
600	600 mm
700	700 mm
800	800 mm
900	900 mm
1000	1000 mm
1250	1250 mm
1500	1500 mm
1750	1750 mm
2000	2000 mm

E	Mounting Bracket
M0	No Mounting Brackets
M1	M1-Q25L
M2	M2-Q25L
M3	M3-Q25L

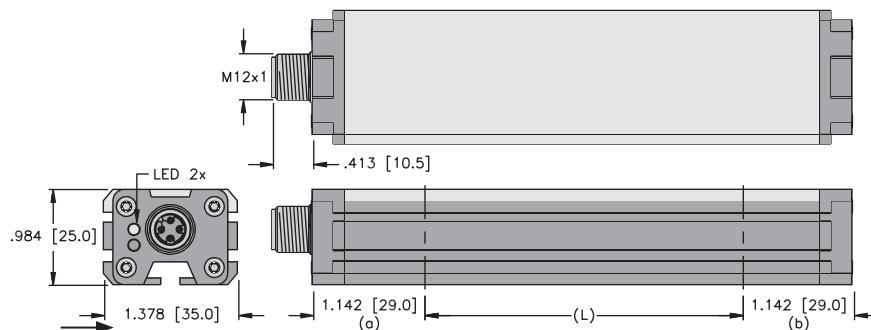
F	Operating Voltage and Output Type
ELIU5X3	15-30 VDC, 4-20 mA, 0-10 V, 3 LEDs

C	Positioning Element
P0	No Positioning Element
P1	P1-Li-Q25L (Captive)
P2	P2-Li-Q25L (Floating)*
P3	P3-Li-Q25L (Floating, Right Angle)*

*Operates at a distance of 0-4 mm from the sensor surface

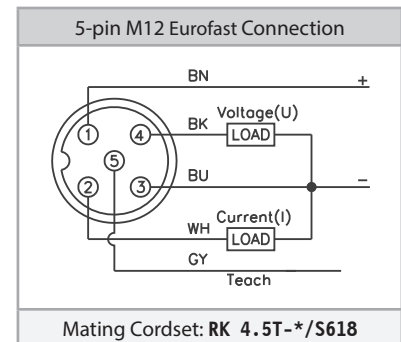
Linear Position Technology

Dimensions: E-Series



Note: Right angle cable direction

Wiring Diagram: E-Series



* Length in meters.

See page H1, Connectivity, for cables and connectors.

Ordering Information

The Q-track linear position sensors are available in different lengths from 100 to 2,000 mm, in increments of 100 mm. The sensors, mounting accessories, and positioning elements are available individually or as a kit.