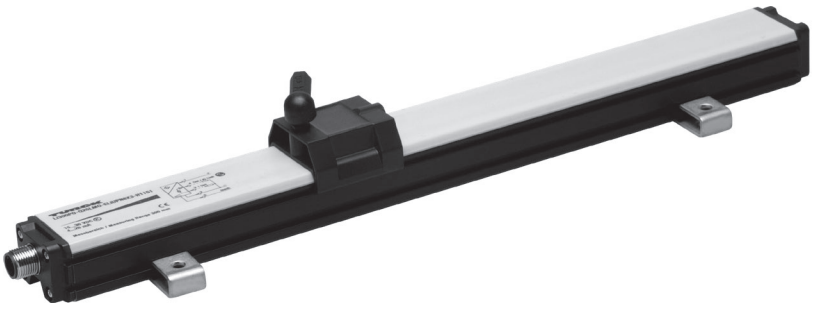
E-Series with Enhanced Resolution, IO-Link Compatible



Assembly part number:
Li300P1-Q25LM1-ELIUPN8X3-H1151

Product Features

- Enhanced resolution of 16 bit
- Enhanced sample rate 1 kHz
- Improved linearity
- Two programmable outputs (analog output current or voltage, switching outputs, PWM) IO-Link compatible
- M12 Eurofast connector (5-pin)
- 29 mm blind zones
- Robust extruded aluminum housing
- Watertight (IP67) polycarbonate insert
- Multifunction LED

Measuring Range Specifications

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

System

Resolution:	16 bit (D/A converter and IO-Link) measuring range in mm / 65536)
Repeatability:	0.0015% (0.0015 mm per 100 mm)
Linearity deviation:	≤ 0.035% of full scale
Temperature drift:	≤ ±0.003 % / K
Ambient temperature:	-25 to +70 °C

Electrical Data

Operating voltage:	15-30 VDC
Residual ripple:	≤ 10% U_{PP}
Isolation test voltage:	≤ 0.5 kV
Short-circuit protection:	yes
Wire breakage / reverse polarity protection:	yes/yes (voltage supply)
Output function:	two programmable outputs (analog output current or voltage, switching outputs, PWM, …) IO-Link compatible Factory setting: 0-10 V on pin 2, PNP switching output on pin 4. Changes to settings via IO-Link only.
Load resistance of voltage output:	≥ 4.7 kΩ
Load resistance of current output:	≤ 0.4 kΩ
Current consumption:	< 50 mA
Sample rate:	1000 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:	55 Hz (1 mm)
Shock resistance:	30 g (11 ms)
Protection class (IEC 60529/EN 60529):	IP67

LEDs

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

Programming and IO-Link

Output functions, measuring ranges and alarm outputs are set via a teach adapter or programming line (pin 5). Alternatively, the sensor can also be operated in IO-Link mode. For this purpose, connect the sensor to an IO-Link compatible module. The established connection is indicated by a green flashing LED. For more information, please see the corresponding instruction manual.

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E-Series with Enhanced Resolution, IO-Link Compatible

Part Number Key: E-Series / IO-Link

A	B	C		D	E		G		H
LI	100	P0	-	Q25L	M0	-	ELIUPN8X3	-	H1151

A	Type
LI	Linear Inductive

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

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

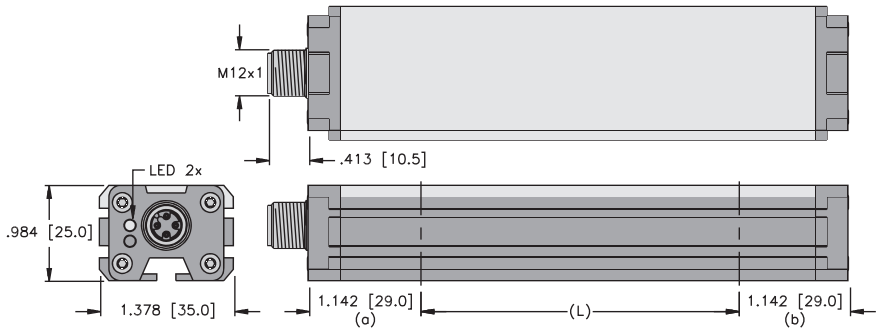
D	Housing Style
Q25L	Rectangular, 25 x 35 mm

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

G	Operating Voltage and Output Type
ELIUPN8X3	15-30 VDC, IO-Link Configurable, 3 LEDs

H	Type of Connection
H1151	5-pin M12 Eurofast Connector

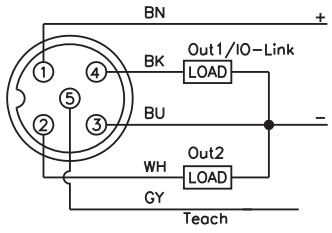
Dimensions: E-Series / IO-Link



Note: Right angle cable direction

Wiring Diagram: E-Series / IO-Link

5-pin M12 Eurofast Connection



Mating Cordset: **RK 4.5T-*/S618**

* Length in meters.

Ordering Information
The Q-track linear position sensors are available in different lengths from 100 to 1,000 mm, in increments of 100 mm. The sensors, mounting accessories, and positioning elements are available individually or as a kit.

See page H1, Connectivity, for cables and connectors.

Sample Networked Communication: IO-Link Master

The following components can be used to connect a linear position sensor through IO-Link to any Turck supported network protocol:

	BL20	BL67	TBEN	BLC
1 x IO-Link Master	BL20-E-4IOL	BL67-4IOL	TBEN-*-*IOL	BLCEN-*-4IOL-*
1 x BL67 Base	N/A	BL67-B-4M12	N/A	N/A
1 x Connection Cable	RK 4.4T-*	RK 4.4T-*-RS 4.4T	RK 4.4T-*-RS 4.4T	RK 4.4T-*-RS 4.4T

Sample Configuration: IO-Link Master

The following components can be used for parameterization of a linear sensor through IO-Link:

1 x IO-Link Master	USB-2-IOL-0002
1 x Connection Cable	RK 4.5T-*-RS 4.5T

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