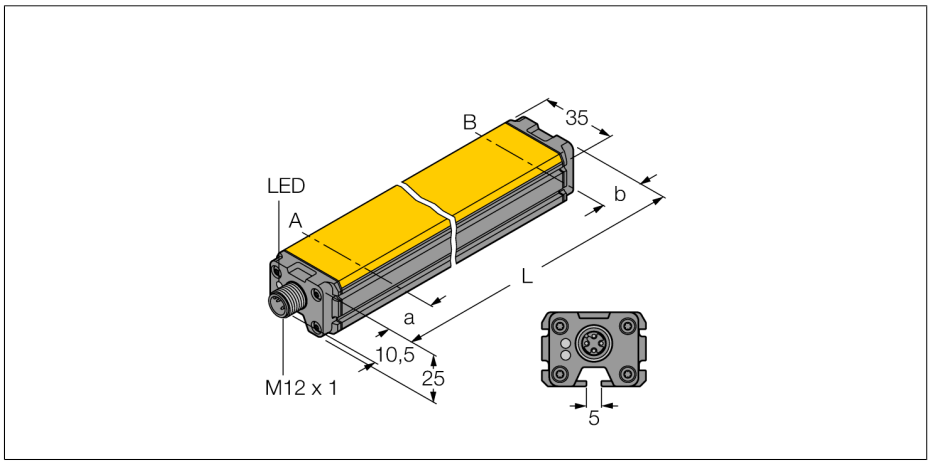
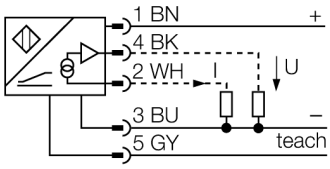
Inductive linear position sensor
LI1000P0-Q25LM0-LIU5X3-H1151



- **Rectangular, aluminium / plastic**
- **Versatile mounting possibilities**
- **Measuring range indicated via LED**
- **Immune to electromagnetic interferences**
- **Extremely short blind zones**
- **12 bit resolution**
- **4-wire, 15…30 VDC**
- **Analog output**
- **Programmable measuring range**
- **0…10 V and 4…20 mA**
- **M12 x 1 connector, 5-pole**

Type	LI1000P0-Q25LM0-LIU5X3-H1151
Ident-No.	1590008
Measuring range [A…B]	1000mm
Resolution	0,244 mm/12
blind zone a	29 mm
blind zone b	29 mm
Linearity deviation	≤ 0.056 % of full scale
Temperature drift	≤ ± 0.003 % / K
Ambient temperature	-25…+70 °C
Operating voltage	15…30VDC
Residual ripple	≤ 10 % U_{ss}
No-load current I_0	≤ 50 mA
Rated insulation voltage	≤ 0.5 kV
Short-circuit protection	yes
Wire breakage / Reverse polarity protection	yes/ complete
Output function	4-wire, Analog output
Voltage output	0…10V
Current output	4…20mA
Load resistance voltage output	≥ 4.7 kΩ
Load resistance current output	≤ 0.4 kΩ
Sample rate	500 Hz
Design	rectangular, Q25L
Dimensions	1058 x 35 x 25 mm
Housing material	aluminium
Material active face	Plastic, PC-GF20
Connection	connector, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	IP67
MTTF	138years acc. to SN 29500 (Ed. 99) 40 °C
Operating voltage	LED green
Measuring range display	Multifunction LED, green, yellow, yellow flashing

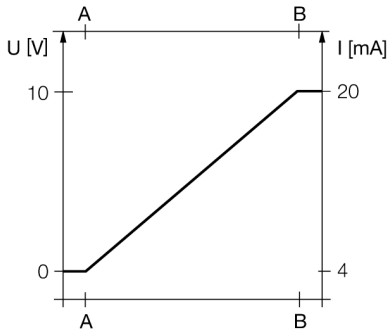
Wiring diagram



Functional principle

The measuring principle of linear position sensors is based on oscillation circuit coupling between the positioning element and the sensor whereby an output signal is provided proportional to the positioning element. Owing to the non-contact principle, the robust sensors are maintenance and wear-free and they excel in terms of optimum reproducibility, resolution and linearity within a broad temperature range. Thanks to the innovative technology, electromagnetic interferences have no influence on the measured signal.

Characteristic



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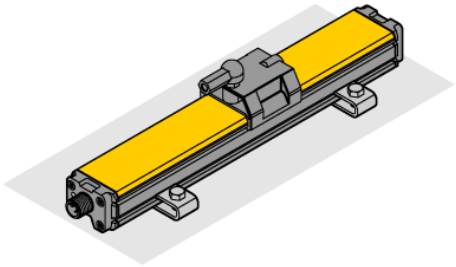
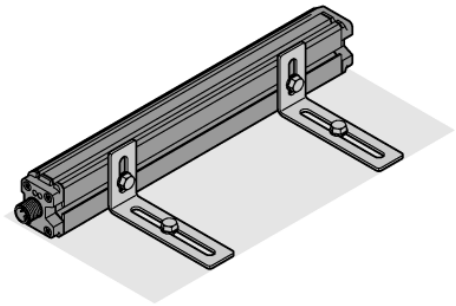
Mounting instructions





A large selection of accessories provide multiple mounting possibilities. Due to the measuring principle based on oscillating circuit coupling, the linear position sensor is immune to magnetized metal splinters and other interferences.

Measuring range displayed via LED:
green:
Positioning element is in the measuring range
yellow:
Positioning element is in the measuring range, lower signal quality (e.g. distance too large)
yellow flashing:
Positioning element is outside the measuring range
off:
Positioning element is outside the programmed measuring range (only with teachable versions)

Teaching mode
The start and end value of the measuring range are adjusted via teach adapater. Moreover the output curve can be inverted.
10 sec. jumper between pin 5 and pin 1= factory setting
10 sec. jumper between pin 5 and pin 3= factory setting inverted

2 sec. jumper between pin 5 and pin 3 = measuring range - start value
2 sec. jumper between pin 5 and pin 1 = measuring range - end value

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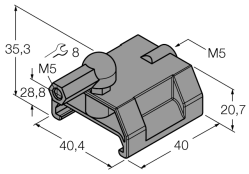
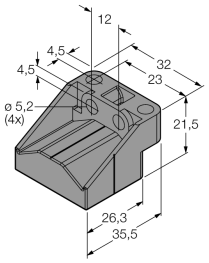
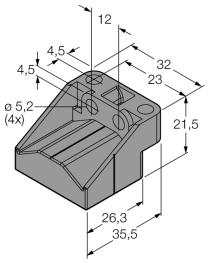
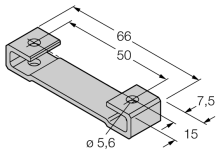
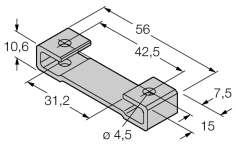
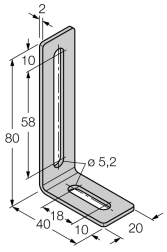
Accessories

Type code	Ident-No.	Short text	Dimension drawing
P1-Li-Q25L	6901041	Guided positioning element for Li-Q25L. The positioning element is inserted in the sensor guide.	
P2-Li-Q25L	6901042	Floating positioning element for Li-Q25L.	
P3-Li-Q25L	6901044	Free positioning element for Li-Q25L, offset mountable by 90°	
M1-Q25L	6901045	Mounting foot for linear position sensor Q25L; aluminium; 2 pcs. per bag	
M2-Q25L	6901046	Mounting foot for linear position sensor Q25L; aluminium; 2 pcs. per bag	
M4-Q25L	6901048	Mounting bracket for linear position sensor Q25L; material Stainless steel; 2 pcs. per bag	

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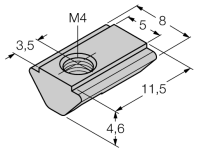
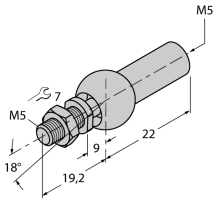
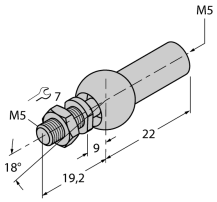
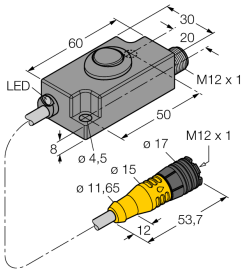
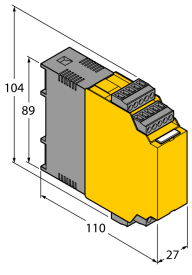
Accessories

Type code	Ident-No.	Short text	Dimension drawing
MN-M4-Q25	6901025	Sliding block with M4 thread for the backside profile of the Q25L; material Brass; 10 pcs. per bag	
AB-M5	6901057	Axial joint for Li-Q25L specific guided positioning elements	
ABVA-M5	6901058	Axial joint for guided positioning element, stainless steel	
TX1-Q20L60	6967114	Teach adapter for inductive linear position sensors	
IM43-13-SR	7540041	Limit value monitor; 1-channel; input 0/4…20 mA or 0/2…10 V; supply of 2- or 3-wire transmitters/sensors; limit value adjustment via teach button; three relay outputs with one NO contact each; removable terminal blocks; 27 mm wide; universal voltage supply 20…250 VUC; further limit value monitors are described in our "Interface Technology" catalog.	

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