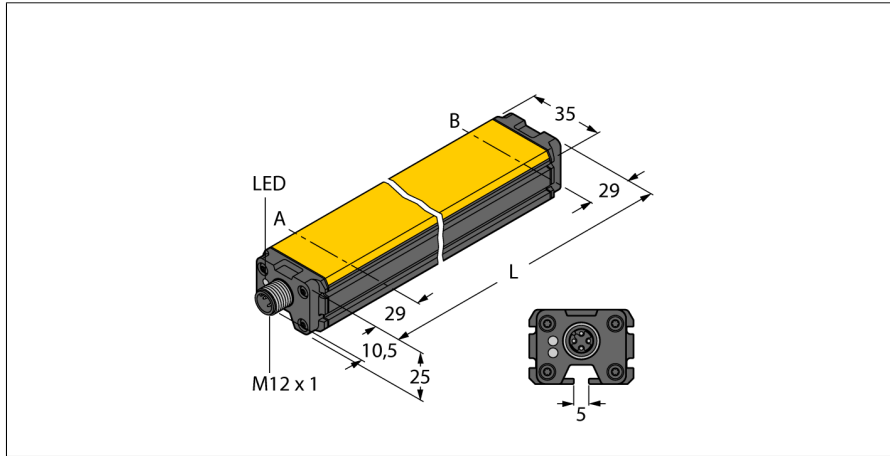


Inductive Linear Position Sensor

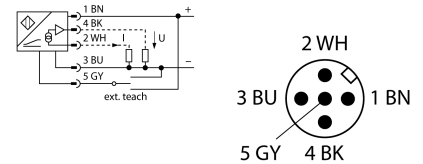
Li200P0-Q25LM0-ELIU5X3-H1151



- Rectangular, aluminium / plastic
- Versatile mounting possibilities
- Measuring range displayed via LED
- Immune to electromagnetic interference
- Extremely short blind zones
- Resolution, 16-bit
- 4-wire, 15...30 VDC
- Analog output
- Programmable measuring range
- 0...10 V and 4...20 mA, improved machine safety possible through redundancy
- M12 × 1 connector, 5-pin

Type designation	Li200P0-Q25LM0-ELIU5X3-H1151
Ident-No.	100001933
Measuring principle	inductive
Measuring range	200 mm
Resolution	16 bit
Nominal distance	1.5 mm
Blind zone a	29 mm
Blind zone b	29 mm
Repeat accuracy	≤ 0.02 % of full scale
Linearity deviation	≤ 0.1 % f.s. also under the influence of shock and vibration
Temperature drift	≤ ± 0.003 % / K
Hysteresis	omitted as a matter of principle
Ambient temperature	-25...+70 °C
Operating voltage	15...30 VDC
Residual ripple	≤ 10 % U _{in}
Isolation test voltage	≤ 0.5 kV
Short-circuit protection	yes
Wire breakage/Reverse polarity protection	yes/ yes (voltage supply)
Output function	5-pin, Analog output
Voltage output	0...10V
Current output	4...20 mA
Diagnostic	Positioning element not within detection range: Output signal 24mA or 11 V
Load resistance voltage output	≥ 4.7 kΩ
Load resistance, current output	≤ 0.4 kΩ
Sample rate	5000 Hz
Current consumption	< 50 mA
Design	Profile, Q25L
Dimensions	258 x 35 x 25 mm
Housing material	Aluminum/plastic, PA6-GF30, Anodized
Active area material	Plastic, PA6-GF30
Electrical connection	Connector, M12 × 1
Vibration resistance (EN 60068-2-6)	20 g; 1.25 h/axis; 3 axes
Shock resistance (EN 60068-2-27)	200 g; 4 ms ½ sine
Protection class	IP67
	IP66
MTTF	138 years acc. to SN 29500 (Ed. 99) 40 °C

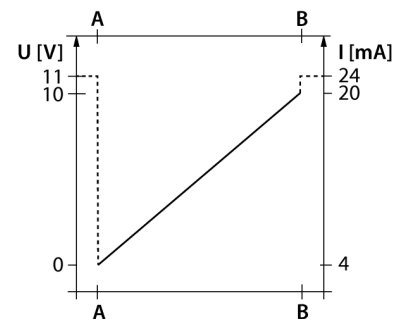
Wiring Diagram



Functional principle

The measuring principle of linear position sensors is based on RLC coupling between the positioning element and the sensor, whereby an output signal is provided proportional to the position of the positioning element. The rugged sensors are wear and tear-free, thanks to the contactless operating principle. They convince through their excellent repeatability, resolution and linearity within a broad temperature range. The innovative technology ensures a high immunity to electromagnetic DC and AC fields.

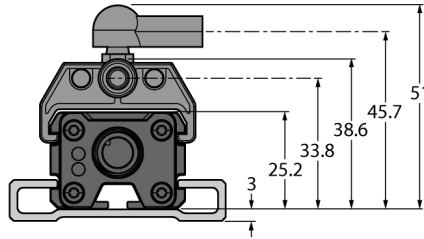
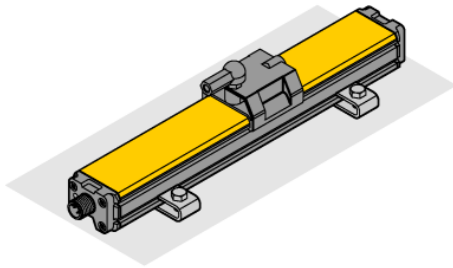
Characteristic



Power-on indication	LED, Green
Measuring range display	multifunction LED, green, yellow, yellow flashing

Inductive Linear Position Sensor Li200P0-Q25LM0-ELIU5X3-H1151

Mounting instructions/Description



Extensive mounting accessories provide various options for installation. Due to the measuring principle, which is based on the functional principle of an RLC coupling, the linear position sensor is immune to magnetized metal splinters and other interferences.

Status display via LED

Green:
Sensor is supplied properly

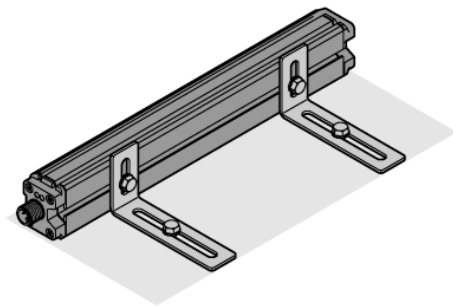
LED indicates measuring range

Green:
Positioning element is within the measuring range

Yellow:
Positioning element is within the measuring range, low signal intensity (e.g. distance too large)

Yellow flashing:
Positioning element is outside the detection range

Off:
Positioning element is outside the programmed range (only with teachable versions)



Teaching

The start and end point of the measuring range are set by pressing the button on the teach adapter. Moreover there is the possibility of inverting the course of the output curve.

Zero/Span

Bridge pin 5 and pin 3 for 2 s = sets start value of measuring range

After 2 seconds the green LED is illuminated continuously

Bridge pin 5 and pin 1 for 2 s = sets end value of measuring range

After 2 seconds the green LED is illuminated continuously

Factory setting

Bridge pin 5 and pin 1 for 10 s = factory setting

After 10 seconds the green LED flashes green

Bridge pin 5 and pin 3 for 10 s = factory setting inverted

After 10 seconds the green LED flashes green

Optional:

Bridge pin 5 and pin 1 for 30 s = teach lock active/inactive

After 30 s. the flashing changes to fast flashing

The configured settings do not need to be locked using the teach lock because as a general rule they are saved in the sensor's non-volatile memory even after power is lost. The teach lock is recommended in situations where it is necessary to prevent subsequent alteration of the parameters.

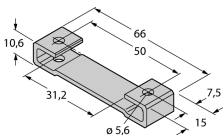
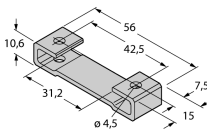
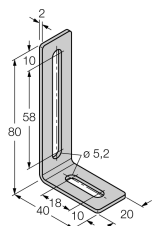
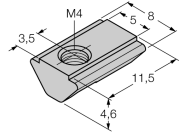
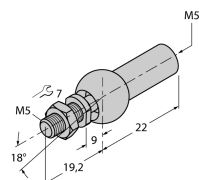
Inductive Linear Position Sensor Li200P0-Q25LM0-ELIU5X3-H1151

Accessories

Type code	Ident-No.	Description	
P1-LI-Q25L	6901041	Guided positioning element for Li-Q25L, inserted in the sensor guide.	
P2-LI-Q25L	6901042	Floating positioning element for Li-Q25L; the nominal distance to the sensor is 1.5 mm; pairing with the linear position sensor at a distance of up to 5 mm or misalignment tolerance of up to 4 mm.	
P3-LI-Q25L	6901044	Floating positioning element for Li-Q25L; Operational at an offset of 90°; Nominal distance to sensor 1.5mm; Pairing with linear position sensor at a distance of up to 5 mm; misalignment tolerance of up to 4 mm.	
P6-LI-Q25L	6901069	Floating positioning element for Li-Q25L; The nominal distance to the sensor is 1.5mm; Pairing with the linear position sensor at a distance of up to 5 mm; Misalignment tolerance of up to 4 mm.	
P7-LI-Q25L	6901087	Guided positioning element for Li-Q25L without ball joint	

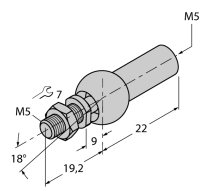
Inductive Linear Position Sensor Li200P0-Q25LM0-ELIU5X3-H1151

Accessories

Type code	Ident-No.	Description	
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	
MN-M4-Q25	6901025	Sliding block with M4 thread for the backside profile of the Q25L; material: galvanized steel; 10 pcs. per bag	
AB-M5	6901057	Axial joint for Li-Q25L specific guided positioning elements	

Inductive Linear Position Sensor
Li200P0-Q25LM0-ELIU5X3-H1151

Accessories

Type code	Ident-No.	Description	
ABVA-M5	6901058	Axial joint for guided positioning element, stainless steel	
RBVA-M5	6901059	Angle joint for guided positioning element, stainless steel	