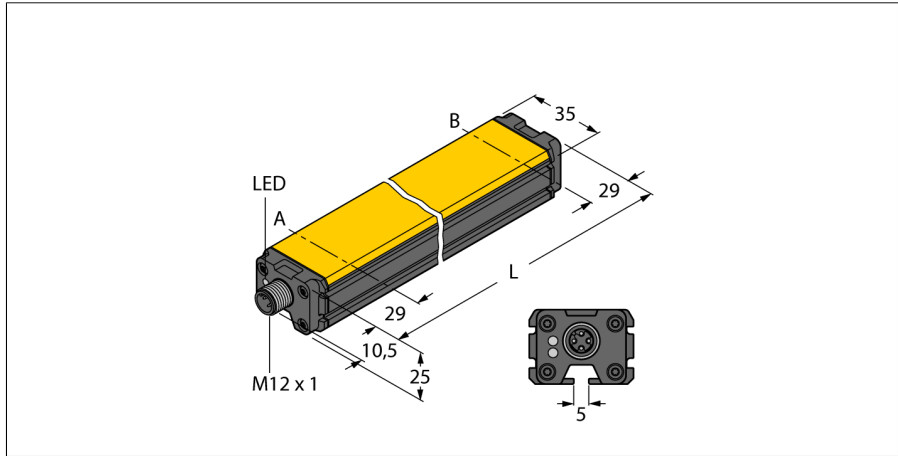


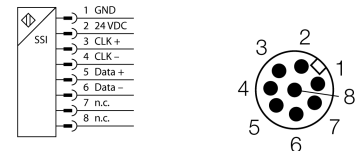
Inductive linear position sensor
LI200P0-Q25LM0-ESG25X3-H1181



- Rectangular, aluminium / plastic
- Versatile mounting possibilities
- Measuring range indicated via LED
- Immune to electromagnetic interferences.
- Extremely short blind zones
- Resolution 0,001 mm
- 15...30 VDC
- Male M12 x 1, 8-pin
- SSI output
- 25 bit, Gray-coded
- SSI clock rate: 62.5 kHz ... 1 MHz

Type code	LI200P0-Q25LM0-ESG25X3-H1181
Ident no.	1590010
Measuring range [A...B]	200mm
Resolution	0,001 mm
Blind zone a	29 mm
Blind zone b	29 mm
Reproducibility	≤ 10 µm
Linearity deviation	≤ 0.1 % f.s.
Temperature drift	≤ ± 0.0001 % / 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/ yes (voltage supply)
Output function	8-pin, SSI, 25 Bit, Gray coded
Process data area	Bit 0 ... Bit 19
Diagnostic bits	Bit 21: Positioning element left the measuring range and is outside the detectable area. Bit 22: Positioning element is in the measuring range, lower signal quality (e.g. distance too large) Bit 23: Positioning element is outside the measuring range
Sample rate	1000 Hz
Construction	rectangular, Q25L
Dimensions	258 x 35 x 25 mm
Housing material	aluminium, anodized
Material active area	plastic, PA
Connection	male, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
IP Rating	IP67
MTTF	138 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED green
Measuring range display	multifunction LED, green, yellow, yellow flashing

Wiring diagram



Functional principle

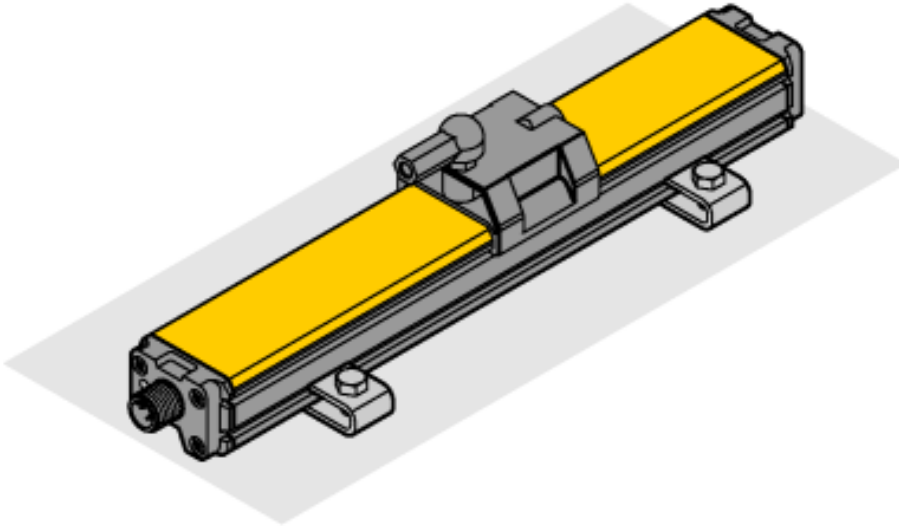
The measuring principle of linear position sensors is based on RLC coupling between the positioning element and the sensor, whereby an output signal is provided proportional to the position of the positioning element. The rugged sensors are wear and tear-free, thanks to the contactless operating principle. 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.

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Mounting instructions / Description



Extensive mounting accessories provide various options for installation. The measuring principle of RLC coupling makes the sensor immune to magnetized metal splinters and other interference fields.

LED indications

green

positioning element is in the measuring range

yellow

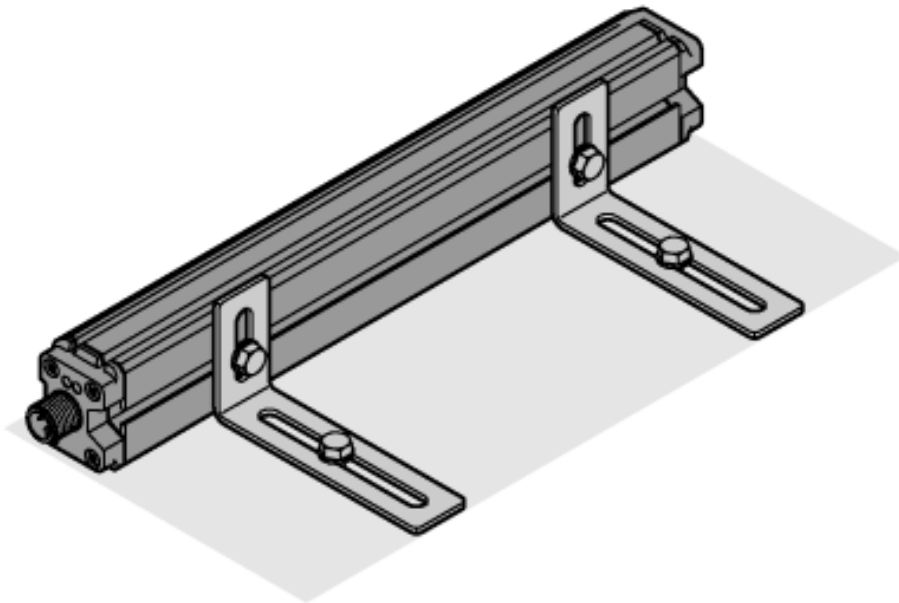
positioning element is in the measuring range, the distance is too large. This is indicated by a weaker signal, see status bit 22

yellow flashing

positioning element is outside the coverage, see status bit 23

off

positioning element is outside the programmed area (only with teachable versions)



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Accessories

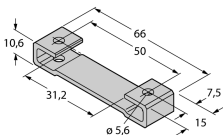
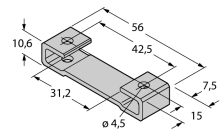
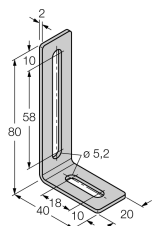
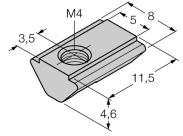
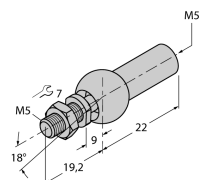
Type code	Ident no.	Description	Design
P1-Li-Q25L	6901041	Guided positioning element for Li-Q25L, inserted in the sensor guide.	
P2-Li-Q25L	6901042	Floating positioning element for Li-Q25L; The nominal distance to the sensor is 1.5m; Pairing with the linear position sensor at a distance of up to 5 mm; 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	

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Accessories

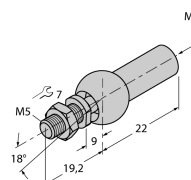
Type code	Ident no.	Description	Design
M1-Q25L	6901045	Mounting foot for linear position sensor Q25L; aluminium; 2 pcs. per bag	
M2-Q25L	6901046	Mounting foot for linear position sensor Q25L; aluminium; 2 pcs. per bag	
M4-Q25L	6901048	Mounting bracket for linear position sensor Q25L; material Stainless steel; 2 pcs. per bag	
MN-M4-Q25	6901025	Sliding block with M4 thread for the backside profile of the Q25L; material Brass; 10 pcs. per bag	
AB-M5	6901057	Axial joint for Li-Q25L specific guided positioning elements	

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Accessories

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