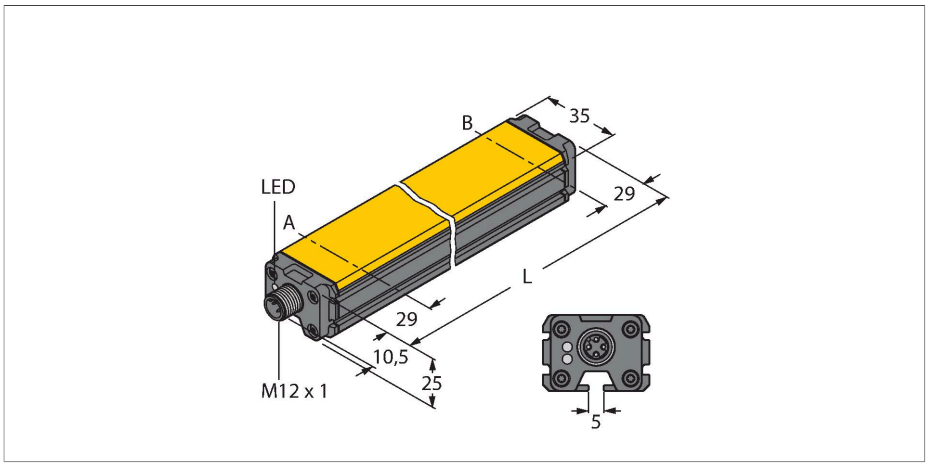
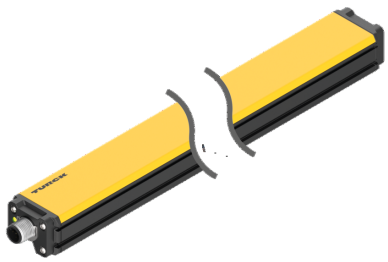
LI300P0-Q25LM0-IOLX3-H1141
Inductive Linear Position Sensor – IO-Link





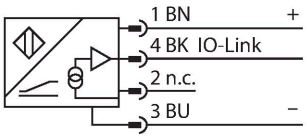
Technical data

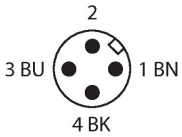
Type	LI300P0-Q25LM0-IOLX3-H1141
ID	100012825
Measuring principle	Inductive
General data	
Measuring range	300 mm
Nominal distance	1.5 mm
Blind zone a	29 mm
Blind zone b	29 mm
Repeat accuracy	≤ 0.02 % of full scale
Linearity deviation	≤ 0.07 % f.s.also under the influence of shock and vibration
Temperature drift	≤ ± 0.0001 %/K
Hysteresis	omitted as a matter of principle
Electrical data	
Operating voltage U_B	15…30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
Isolation test voltage	0.5 kV
Short-circuit protection	yes
Wire break/reverse polarity protection	yes (voltage supply)
Communication protocol	IO-Link
Diagnostic	Positioning element not within detection range via diagnostic bit
Sample rate	5000 Hz
Current consumption	< 100 mA
IO-Link	
IO-Link specification	V 1.1
Programming	FDT/DTM
Communication mode	COM 3 (230.4 kBaud)

Features

- Rectangular, aluminium / plastic
- Versatile mounting possibilities
- Measuring range displayed via LED
- Immune to electromagnetic interference
- Extremely short blind zones
- Process value in 32-bit IO-Link telegram
- 15…30 VDC
- M12 × 1 male connector, 4-pin

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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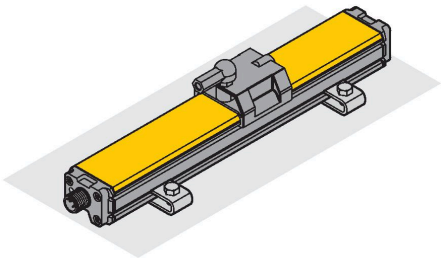
Technical data

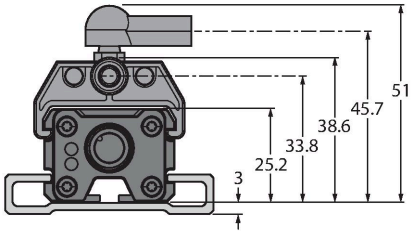
Process data width	32 bit
Minimum cycle time	1 ms
Function pin 4	IO-Link
Mechanical data	
Design	Profile, Q25L
Dimensions	358 x 35 x 25 mm
Housing material	Aluminum/plastic, PA6-GF30, Anodized
Active area material	Plastic, PA6-GF30
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-25…+70 °C
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
MTTF	138 years acc. to SN 29500 (Ed. 99) 20 °C
Power-on indication	LED, Green
Measuring range display	multifunction LED, green, yellow, yellow flashing
UL certificate	E210608

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Mounting instructions

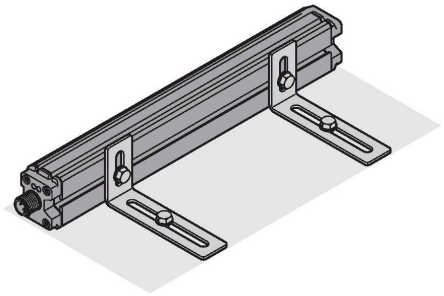
Mounting instructions/Description





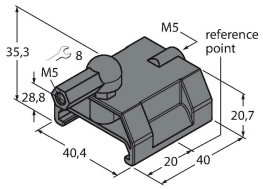
Extensive mounting accessories provide various options for installation. The measuring principle of RLC coupling makes the sensor immune to magnetized metal splinters and other interference fields.

LED 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



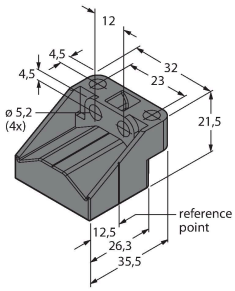
Accessories

P1-LI-Q25L	6901041



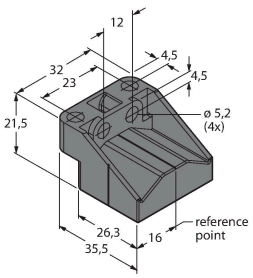
Guided positioning element for linear position sensors LI-Q25L, inserted in the groove of the sensor

P2-LI-Q25L	6901042



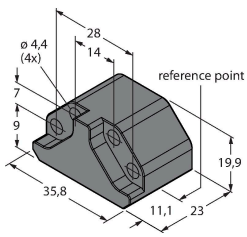
Floating positioning element for linear position sensors LI-Q25L; the nominal distance to the sensor is 1.5 mm; pairing with the linear position sensor at a distance of up to 5 mm or misalignment tolerance of up to 4 mm.

P3-LI-Q25L	6901044



Floating positioning element for Li-Q25L linear position sensors; operational at an offset of 90 ; nominal distance to sensor 1.5 mm; pairing with linear position sensor at a distance of up to 5 mm; misalignment tolerance of up to 4 mm

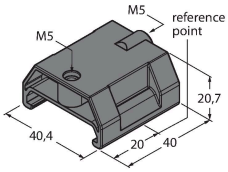
P6-LI-Q25L	6901069



Floating positioning element for linear position sensors 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.

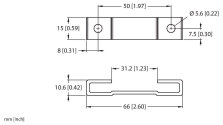
LI300P0-Q25LM0-IOLX3-H1141| 21-02-2025 15-29 | Technical modifications reserved

P7-LI-Q25L	6901087



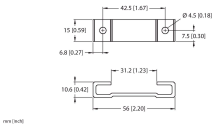
Guided positioning element for linear position sensors LI-Q25L, without ball joint

M1-Q25L	6901045



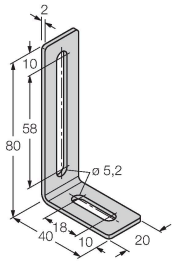
Mounting foot for linear position sensors LI-Q25L; material: aluminum; 2 pcs. per bag

M2-Q25L.	6901046



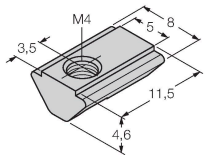
Mounting foot for linear position sensors LI-Q25L; material: aluminum; 2 pcs. per bag

M4-Q25L	6901048



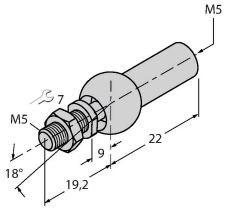
Mounting bracket and sliding block for linear position sensors LI-Q25L; material: Stainless steel; 2 pcs. per bag

MN-M4-Q25	6901025



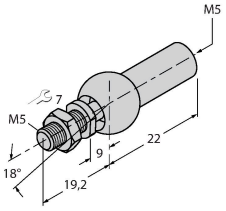
Sliding block with M4 thread for the backside profile of the LI-Q25L; material: galvanized steel; 10 pcs. per bag

AB-M5	6901057



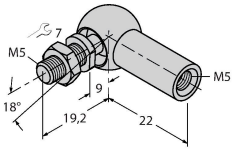
Axial Joint for Guided Positioning Elements

ABVA-M5	6901058



Axial joint for guided positioning element, stainless steel

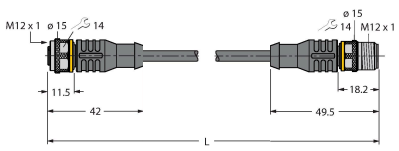
RBVA-M5	6901059



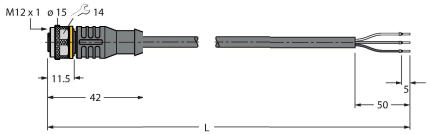
Angle joint for guided positioning element, stainless steel

Accessories

Dimension drawing	Type	ID	
	RKC4T-2-RSC4T/TXL	6625604	Extension cable, M12 female connector, straight, 3-pin to M12 male connector, straight, 3-pin; cable length: 2 m, jacket material: PUR, black; cULus approval



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Dimension drawing	Type	ID	
	RKC4T-2/TXL	6625500	Connection cable, M12 female connector, straight, 3-pin, cable length: 2 m, jacket material: PUR, black; cULus approval

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