

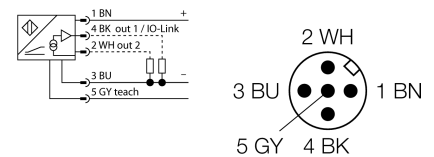
Inductive linear position sensor
IO-Link
LI300P0-Q25LM0-ELIUPN8X3-H1151



- Rectangular, aluminium / plastic
- Versatile mounting possibilities
- Measuring range indicated via LED
- Immune to electromagnetic interferences
- Extremely short blind zones
- Programmable measuring range
- 16 bit resolution
- 4-wire, 15...30 VDC
- Analog output
- All functions parameterizable via IO-Link/PACTware
- 4 programmable switching zones
- Parameterizable current and voltage outputs
- NC/NO programmable functions, available as NPN or PNP version
- Process value 16 bit IO-Link telegram
- M12 x 1 connector, 5-pole

Type code	LI300P0-Q25LM0-ELIUPN8X3-H1151
Ident no.	1590018
Measuring range [A...B]	300mm
Resolution	0,005 mm/16 bit
blind zone a	29 mm
blind zone b	29 mm
Linearity deviation	≤ 0.07 %
Temperature drift	≤ ± 0.003 % / K
Ambient temperature	-25...+70 °C
Operating voltage	15...30VDC
Residual ripple	≤ 10 % U _{is}
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, NO/NC , PNP/NPN, analog output
Output 1	Switching output or IO-Link mode
Output 2	Analog or switching output
Voltage output	0...10V
Current output	4...20mA
	parametrierbar über IO-Link
Load resistance voltage output	≥ 4.7 kΩ
Load resistance current output	≤ 0.4 kΩ
Sample rate	1000 Hz
Communication	IO-Link spezifiziert nach Version 1.0
Parameterization	FDT / DTM
Transmission rate	COM 2 / 38.4 kbps
Frame type	2.2
Design	rectangular, Q25L
Dimensions	358 x 35 x 25 mm
Housing material	aluminium
Material active area	Plastic, FRIANYL B63V0GV
Connection	male, M12 x 1
Vibration resistance	55 Hz (1 mm)
Shock resistance	30 g (11 ms)
Protection class	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 inductive angle sensors is based on oscillation circuit coupling between the positioning element and the sensor. The output signal provided is proportional to the angle of the positioning element. The rugged sensors are wear and maintenance-free, thanks to the contactless operating principle. They convince through their excellent repeatability, resolution and linearity within a broad temperature range. Thanks to the innovative technology, electromagnetic AC and DC fields have no influence on the measured signal.

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TURCK

Industrial
Automation

Mounting instructions / Description



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

At a push of a button, the start and end value of the measuring range is adjusted with the teach adapter. Moreover the output curve can be inverted.

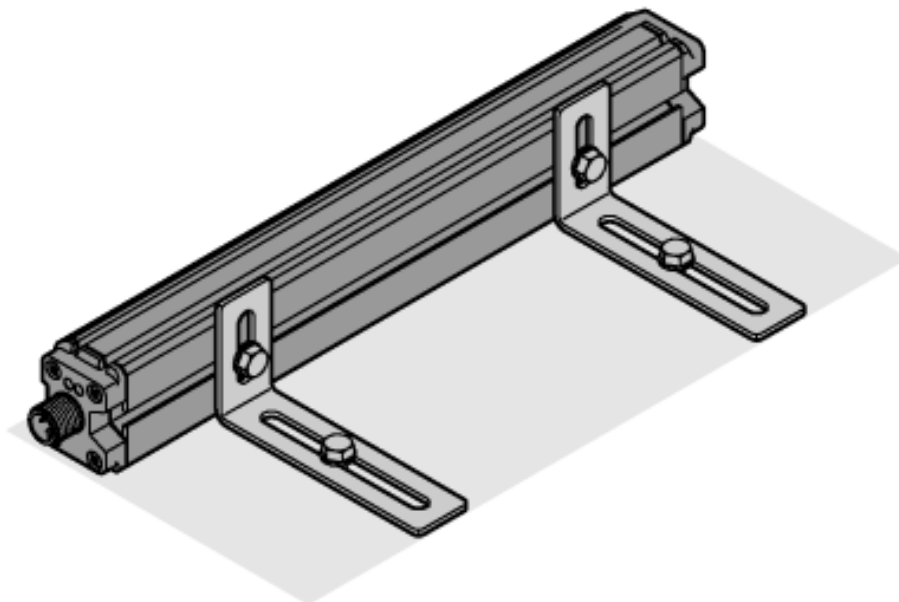
10 sec. jumper between pin 5 and pin 1= factory setting

10 sec. jumper between pin 5 and pin 3= factory setting

inverted

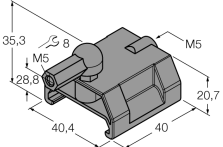
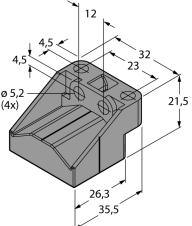
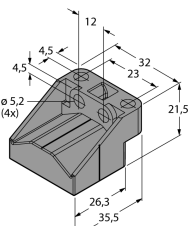
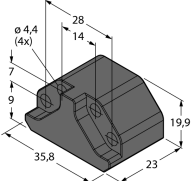
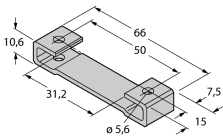
2 sec. jumper between pin 5 and pin 3 = measuring range - start value

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



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Accessories

Type code	Ident no.	Description	Dimension drawing
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 2 mm; 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 2 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 Li-Q25L; The nominal distance to the sensor is 2 mm; Pairing with the linear position sensor at a distance of up to 5 mm; Misalignment tolerance of up to 4 mm.	
M1-Q25L	6901045	Mounting foot for linear position sensor Q25L; aluminium; 2 pcs. per bag	

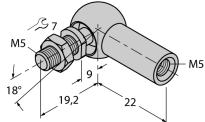
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Accessories

Type code	Ident no.	Description	Dimension drawing
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	
ABVA-M5	6901058	Axial joint for guided positioning element, stainless steel	

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Accessories

Type code	Ident no.	Description	Dimension drawing
RBVA-M5	6901059	Angle joint for guided positioning element, stainless steel	
USB-2-IOL-0001	6825481	IO-Link master with integrated USB port	