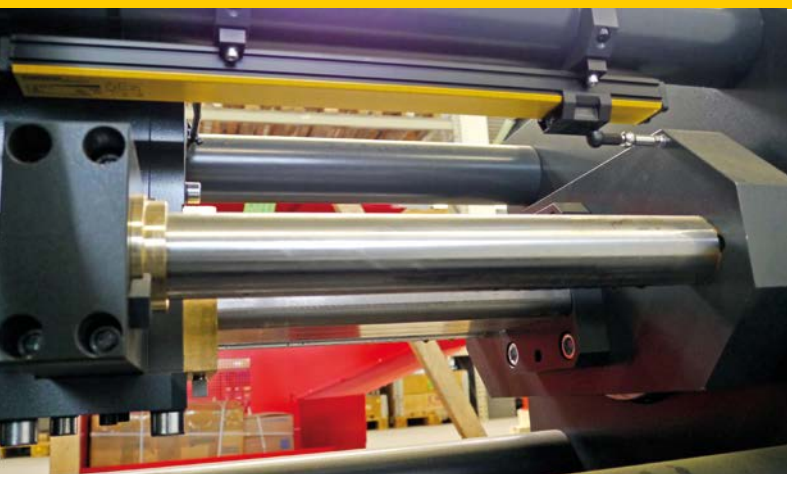
Your Global Automation Partner

TURCK

Li-Q25L
Linear Position Sensors



Shock resistant sensors with IO-Link

The contactless linear position sensors with IP67 protection not only withstand harsh environmental conditions such as moisture and dirt - the devices also reliably output a position signal during vibrations and shocks of up to 200 g. The sampling rate of 5 kHz reduces tracking errors to a minimum, and control loops can be optimally designed. Precision has also been increased again with a 16-bit D/A converter.

In general, the magnetic field insensitive Li-sensors show their advantages in metalworking; thanks to their high shock resistance, paths in presses and punches of all kinds can be detected at any time without any problems, as well as in woodworking or plastic injection molding machines.

The new sensors with IO-Link output combine the advantages of both worlds, the inductive measurement technology and the IO-Link protocol, such as simple wiring, fast exchange and easy parameterization. The devices with analog interface enable redundant, interference-free operation by simultaneously transmitting a 4…20 mA current and 0…10 V voltage signal. Turck offers the linear position sensors in measuring lengths from 100…2000 mm.

Your benefits

- Shock resistant up to 200 g
- Better control loop quality due to 5 kHz sampling rate
- Up to two meters measuring length
- Insensitive to magnetic interference fields
- High-precision measurement results due to 16-bit resolution
- IO-Link or 0…10 VDC/4…20 mA interface

IO-Link

Products are linked with further information.

Li-sensors – shock resistant up to 200 g

- **Excellent linearity properties even under extreme shock and vibration loads**
  Due to the contactless coupling between the positioning element and the linear position sensor, the latter is extremely insensitive to shock and vibration. The sensor housing itself is extremely robust and can also be used in demanding applications with high shock loads, e.g. on presses. In addition, the sensor signal is not affected in its quality even under a shock load of up to 200 g. In summary, the Li-Q25L family convinces with excellent linearity properties that do not change even in shock-loaded environments.

- **High sampling rate 5 kHz**
  Unlike conventional contactless systems, the inductive measuring principle is not based on a time-of-flight measurement. Therefore, longer detection ranges can be sampled just as quickly as shorter ones. An increased sampling rate is essential, especially where control quality is important. It is up to five times faster than with conventional systems.

- **High resolution 16 bit**
  The new Li generation uses a 16-bit converter as standard, which guarantees a high-resolution output signal even with long sensor versions offering large measuring ranges.

- **Automatic error diagnostics**
  The inductive linear position sensors indicate the current operating status via a diagnostic LED. If, for example, the distance between the sensor and the positioning element is likely to become too large, this is indicated by a yellow LED. The new generation also offers an error signal in the process output of 24 mA or 11 V as soon as the distance between the sensor and the positioning element is outside the permissible range. This information can be easily evaluated in the controller and facilitates the error diagnostics of a machine.

- **Advantages of the IO-Link interface**
  - Simplified installation
  - Automated parameterization
  - Extended diagnostics
  - Seamless integration into automation systems

Variants with analog interface

ID	Type code	Measuring range [mm]
100001932	LI100P0-Q25LM0-ELIU5X3-H1151	100
100001933	LI200P0-Q25LM0-ELIU5X3-H1151	200
100001934	LI300P0-Q25LM0-ELIU5X3-H1151	300
100001935	LI400P0-Q25LM0-ELIU5X3-H1151	400
100001936	LI500P0-Q25LM0-ELIU5X3-H1151	500
100001937	LI600P0-Q25LM0-ELIU5X3-H1151	600
100001938	LI700P0-Q25LM0-ELIU5X3-H1151	700
100001939	LI800P0-Q25LM0-ELIU5X3-H1151	800
100001940	LI900P0-Q25LM0-ELIU5X3-H1151	900
100001941	LI1000P0-Q25LM0-ELIU5X3-H1151	1000
100001317	LI1250P0-Q25LM0-ELIU5X3-H1151	1250
100001318	LI1500P0-Q25LM0-ELIU5X3-H1151	1500
100001319	LI1750P0-Q25LM0-ELIU5X3-H1151	1750
100001320	LI2000P0-Q25LM0-ELIU5X3-H1151	2000

Variants with IO-Link interface

ID	Type code	Measuring range [mm]
100012822	LI100P0-Q25LM0-IOLX3-H1141	100
100012823	LI200P0-Q25LM0-IOLX3-H1141	200
100012825	LI300P0-Q25LM0-IOLX3-H1141	300
100012827	LI400P0-Q25LM0-IOLX3-H1141	400
100012828	LI500P0-Q25LM0-IOLX3-H1141	500
100012829	LI600P0-Q25LM0-IOLX3-H1141	600
100012830	LI700P0-Q25LM0-IOLX3-H1141	700
100012831	LI800P0-Q25LM0-IOLX3-H1141	800
100012832	LI900P0-Q25LM0-IOLX3-H1141	900
100012833	LI1000P0-Q25LM0-IOLX3-H1141	1000
100012834	LI1250P0-Q25LM0-IOLX3-H1141	1250
100012835	LI1500P0-Q25LM0-IOLX3-H1141	1500
100012836	LI1750P0-Q25LM0-IOLX3-H1141	1750
100012837	LI2000P0-Q25LM0-IOLX3-H1141	2000

Accessories available separately

Products are linked with further information.

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