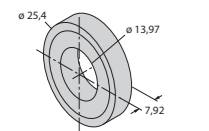
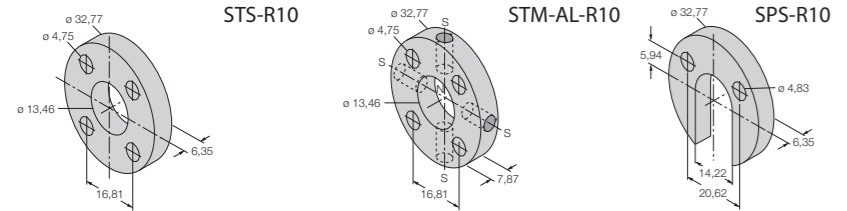
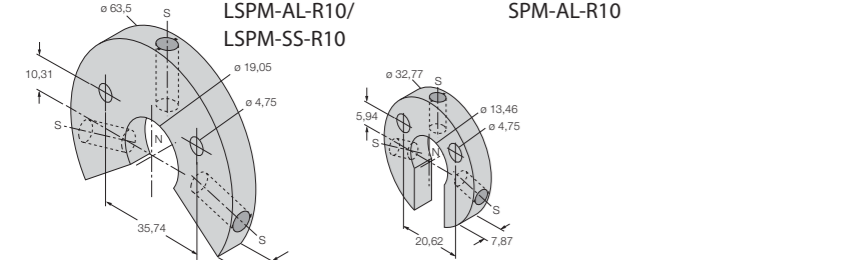

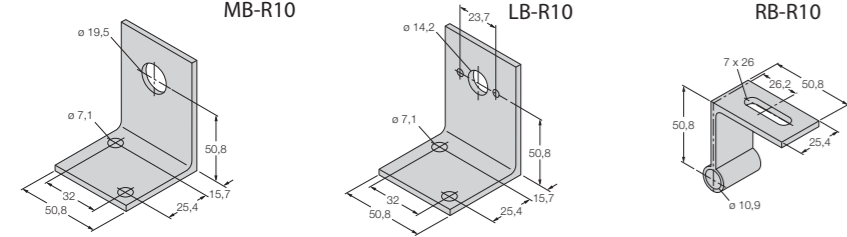
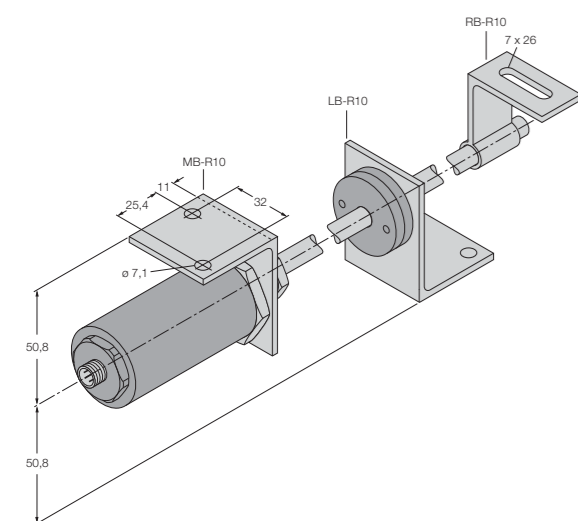


Accessories

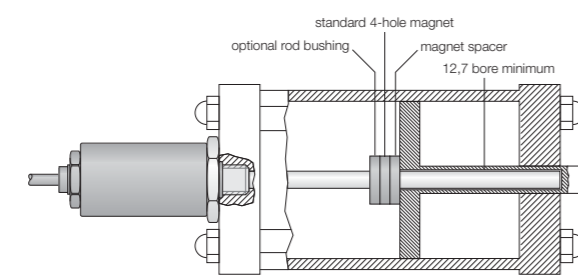
Type/Dimension drawings	Description
 CM-R10	Standard cylinder magnet
 STS-R10 STM-AL-R10 SPS-R10	Standard spacer Standard 4-hole magnet, aluminum Spacer with slot, for ring magnet
 LSPM-AL-R10/ LSPM-SS-R10 SPM-AL-R10	Large ring magnet with slot, aluminum Large ring magnet with slot, stainless steel Small ring magnet with slot, aluminum
 EF-R10 MF-R10	Float, stainless steel, specific gravity 0.62 N/m ³ Small float, stainless steel, specific gravity 0.66 N/m ³
 MB-R10 LB-R10 RB-R10	Mounting bracket, sensor head Mounting bracket, magnet Mounting bracket, rod

Mounting example

Mounted on a cylinder



Mounted in a cylinder



TURCK

Industrial Automation

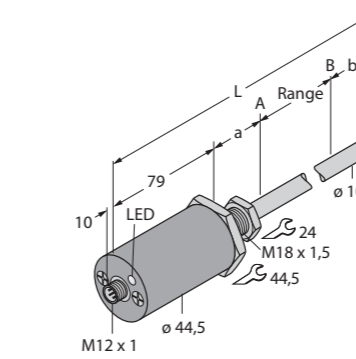
LINEAR POSITION SENSORS ROD-SHAPED



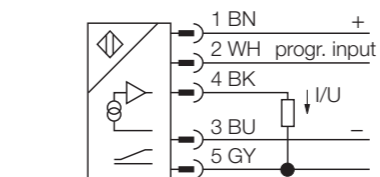
Sense it! Connect it! Bus it! Solve it!

Technical Data

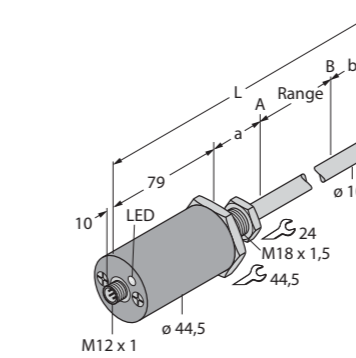
Dimension drawing



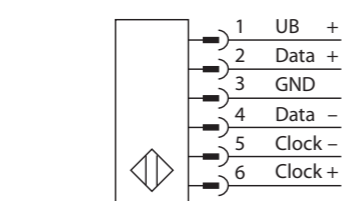
Wiring diagrams



Dimension drawing



Wiring diagrams



Analog output

Measuring range specifications	
Blind zone a	50.8 mm
Blind zone b	63.5 mm
Repeatability	≤ 0.01 %
Resolution	16 Bit
Linearity	0.01%
Resolution	16 bit

Electrical specifications	
Operating voltage	7...30 VDC
Current consumption	< 200 mA/15 VDC
Short-circuit protection	yes/cyclic
Output function	5-wire, analog
Current output	4...20 mA
Voltage output	0...10 V

Housing	
Housing type	cylinder/smooth
Housing material	metal, AL, black
Active face, material	metal, stainless steel, 316
Vibration resistance	30 Hz (1 mm)
Shock resistance	1000 g (11 ms)
Protection class	IP68

Miscellaneous	
Status indication	3-color LED green/yellow/red

SSI output

Measuring range specifications	
Blind zone a	50.8 mm
Blind zone b	63.5 mm
Repeatability	equal to resolution
Resolution	select table, see type code
Linearity	0.01 %
Ambient temperature electronics	-40...+85 °C
Ambient temperature rod	-40...+105 °C

Electrical specifications	
Operating voltage	7...30 VDC
Current consumption	< 200 mA/15 VDC
Short-circuit protection	yes/cyclic
Output function	6-wire, SSI

Housing	
Housing type	cylinder/smooth
Housing material	metal, AL, black
Active face, material	metal, stainless steel, 316
Vibration resistance	30 Hz (1 mm)
Shock resistance	1000 g (11 ms)
Protection class	IP68

Miscellaneous	
Status indication	3-color LED green/yellow/red

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Industrial Automation

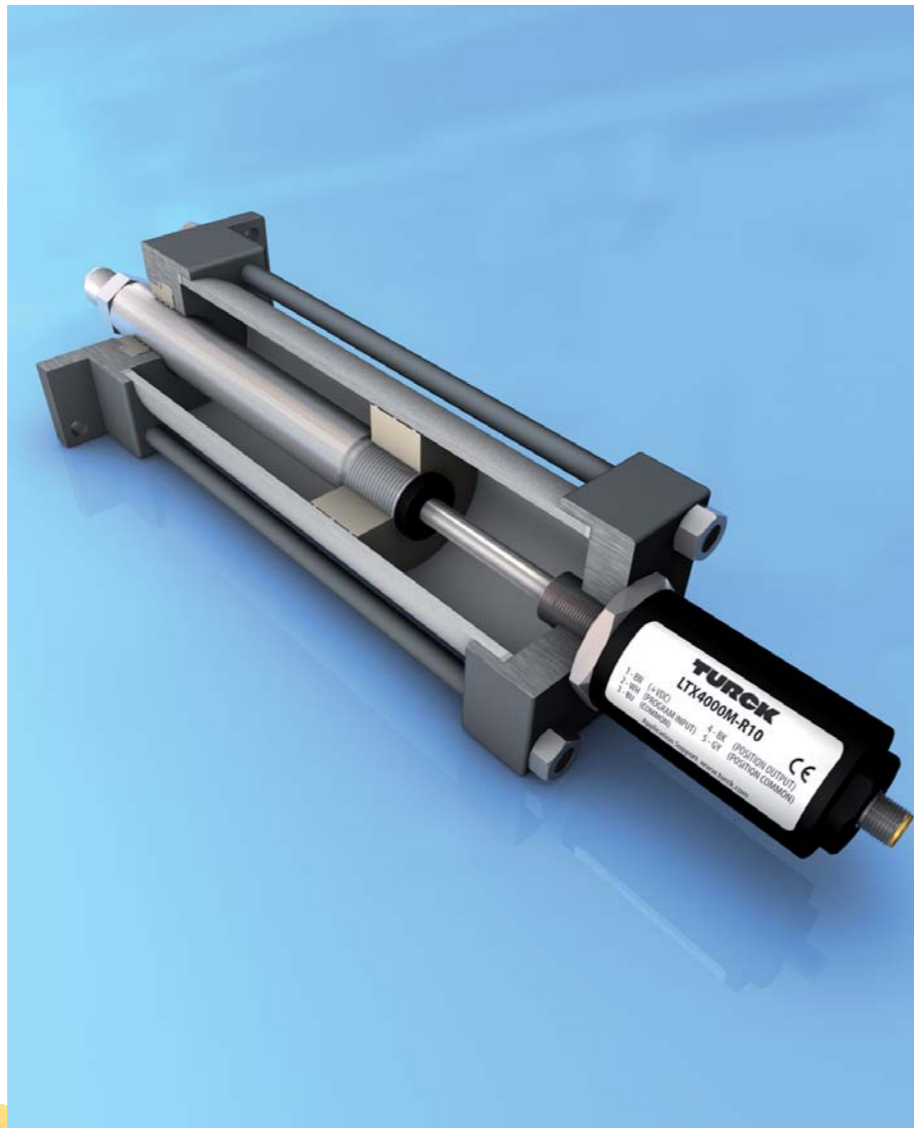


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D101909 2011/07

Linear position sensors – Rod-shaped

The LTX-R10 is a magnetostrictive sensor optimized for exact position detection in hydraulic cylinders. Together with the optionally available floats, the magnetically actuated sensor can also be used in level monitoring applications. Providing absolute values, the rugged sensor need not be reset either.



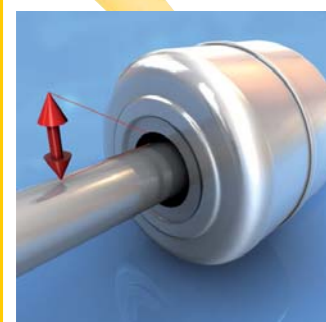
General features:

- High vibration resistance up to 30 g (laboratory tested)
- High shock resistance up to 1000 g (laboratory tested)
- Large input voltage range, 7...30 VDC
- High accuracy and high resolution
- Flexible application in all mobile and stationary systems
- Available in lengths up to 7500 mm
- Three-color diagnostic LED display
- Stainless steel attachment for use in hydraulic cylinders
- Very low power consumption (typically 1 Watt) permits direct connection to display and control interface modules
- High protection rating – IP68
- SSI output (Synchronous Serial Interface): 24, 25 or 26 bit, binary or Gray code
- Analog output: 0...10 VDC, 4...20 mA

Installing the cylinder in the hydraulic system

Contactless, wear-free, shock and vibration proof, these are just some features that make TURCK-LTX linear position sensors a standard when it comes to cylinder installation. Maintenance costs and downtimes are effectively reduced.

Contactless and wear-free



The magnetostrictive measurement principle works contactless and wear-free. Important characteristics such as accuracy, linearity, resistance to shock and vibration are maintained throughout the service life and ensure proper functioning of the sensor.

Rugged housing and easy installation



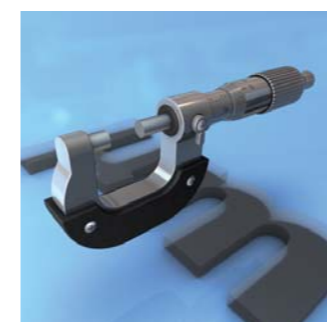
The compact LTX sensor meets the IP68 protection category and is resistant to many chemicals and oils. The rod is made of high-quality stainless steel and offers optimal protection – even against aggressive media.

Flexible process connection



The LTX adapts perfectly to any application environment. The sensor is available in different versions, either with 0...10 VDC or 4...20 mA analog output, or with an SSI interface. The connection is established via standard M12 connectors – special connectors are not required.

Highest possible accuracy



High-quality components and an innovative QM-system ensure accurately measured signals and form the basis for high linearity and repeatability. With TURCK linear position sensors, even the most demanding applications can be mastered in an economically and technically efficient way.

Shock and vibration resistance



The very rugged construction ensures high stability in the event of vibration and mechanical load. A vibration resistance of 30 g RMS and a shock resistance of 1,000 g RMS prevent interference and machine downtimes, even under intense load in mechanically demanding applications.

Programmable measuring range



The LTX sensor is easily programmed. The required measuring range can be adjusted in an instant. This helps you to reduce the inventory of different device types sustainably.

LTX with analog output

The LTX sensor series offers devices with 0...10 VDC or 4...20 mA analog output.

LED signalling

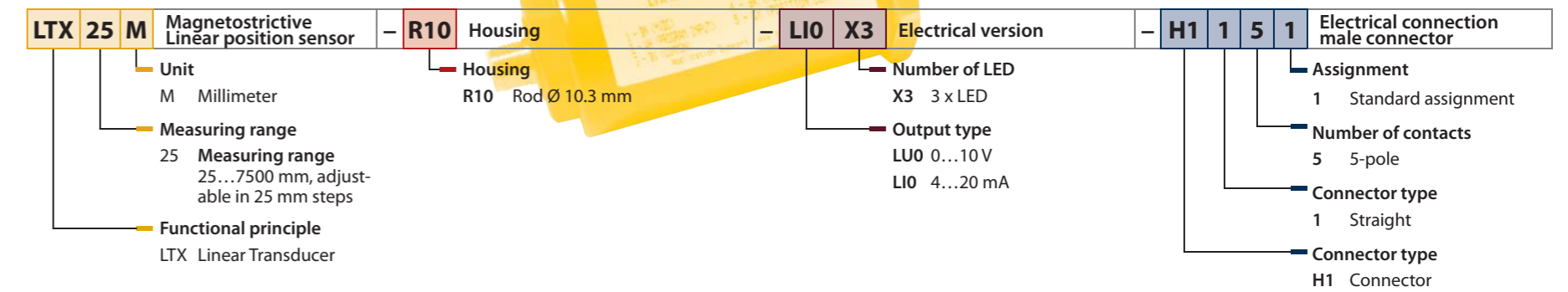
LEDs on the sensor housing indicate the switching status:

- GREEN = magnetic signal detected, within the programmed range
- YELLOW = magnetic signal detected, outside the programmed range
- RED = no magnetic signal detected

You can program the end point and the zero point of the LTX in just a few simple steps:

- Turn on the device
- Place the positioning element (magnet) at the zero point of the measuring range for four seconds
- Bridge pin 2 (white) and pin 3 (blue) for four seconds
- Place the positioning element (magnet) at the end point of the measuring range for four seconds
- Bridge pin 2 (white) and pin 1 (brown) for four seconds

LTX 25 M – R10 – LI0 X3 – H 1 1 5 1



Setting the measuring range

LTX with SSI output

The highly accurate SSI output is specifically designed for transferring digital signals directly to the control system without conversion loss or remotely via I/O fieldbus station. The preferred encoding of the LTX sensor series is gray 25 bit. It can normally be set via the control or fieldbus module.

LTX 25 M – R10 – SSI 1 – B S F 1 – X3 A – H1 1 6 1

