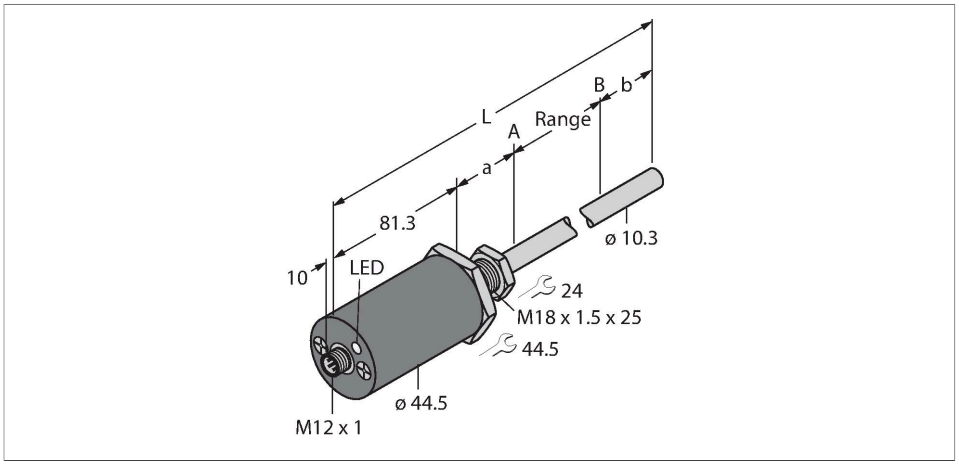
LTX150M-R10-LI0-X3-H1151
Pressure-Resistant Linear Position Sensor – Analog

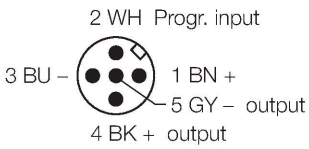


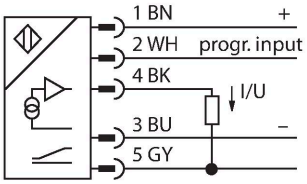
Technical data

Type	LTX150M-R10-LI0-X3-H1151
ID	1540018
Remark to product	Please note housing design on page 2
Measuring principle	Magnetostrictive
General data	
Measuring range	150 mm
Resolution	16 bit
Blind zone a	50.8 mm
Blind zone b	63.5 mm
Repeat accuracy	≤ 0.01 % of full scale
Linearity deviation	≤ 0.01 % f.s.
Hysteresis	≤ 0.025 mm
Electrical data	
Operating voltage U_B	7…30 VDC
Ripple U_{ss}	≤ 10 % U_{Bmax}
Short-circuit protection	yes/Cyclic
Wire break/reverse polarity protection	yes (voltage supply)
Output function	5-pin, Analog output, Differential or common ground (see manual)
Current output	4…20 mA
Load resistance current output	≤ 0.5 kΩ
Current consumption	< 60 mA at 24 VDC
Mechanical data	
Design	Rod, R10

Features

- Suited for hydraulic cylinders
- The sensor is pressure resistant up to 340 bar (permanent), 680 bar (short-term)
- Shock-proof up to 100 g
- Status displayed via 3 color LED
- 16-bit resolution
- Adjustable measuring range
- Operating temperature rod -40 °C…+105 °C
- Operating temperature electronics -40 °C… +85 °C
- Protection class IP68
- 7…30 VDC supply voltage
- Analog output 4…20 mA
- M12 × 1 connector





Functional principle

The LTX is a magnetostrictive sensor, optimized for precise position control in hydraulic cylinders. With the assistance of optional floats, the magnetically actuated position sensors also implement additional fill level monitoring. The absolute value sensor is very robust and precise, and also saves the position information in the event of a voltage failure, so that additional zeroing is unnecessary. The sensors operate on the contactless function principle and are thus wear and maintenance free.

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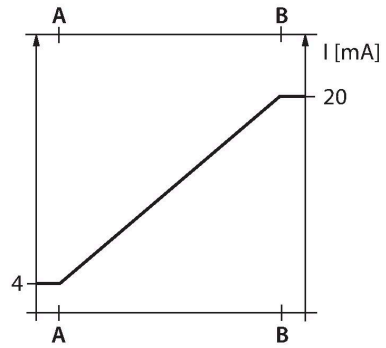
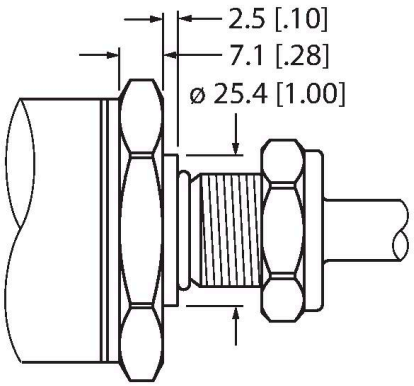
Technical data



Dimensions	345.6 mm
Housing material	Metal, AL, Black
Active area material	Stainless steel, 1.4404 (AISI 316L)
Electrical connection	Connector, M12 × 1
Environmental conditions	
Ambient temperature	-40…+85 °C
Vibration resistance	30 Hz (1 mm)
Shock resistance	100 g (11 ms)
Protection class	IP68
Measuring range display	multifunction LED

Mounting instructions

Mounting instructions/Description



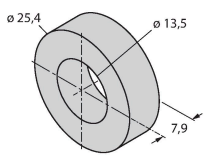
Raised Face Design

This sensor comes in raised face design (see drawing).

To fasten the sensor, the end cap of the hydraulic cylinder must have an M18 × 1.5 threaded bore according to ISO 6149-1. For more information, refer to the operating instructions.

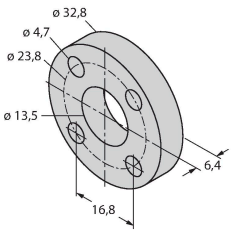
Accessories

CM-R10	6900416



Standard positioning element, suitable for mounting in hydraulic cylinders

STS-R10	6900411



Standard spacer made of non-ferrous material for separating the positioning element from the base of the hydraulic piston rod

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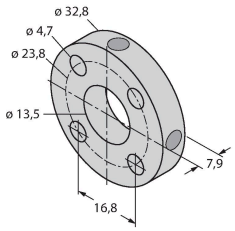
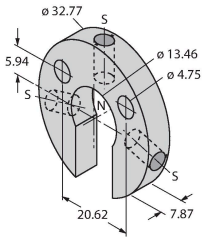
STM-AL-R10	6900409

Standard 4-hole positioning element, material: Aluminum



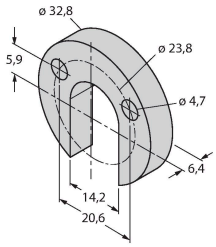
SPM-AL-R10	6900412

Small ring-type positioning element with slot, material: Aluminum



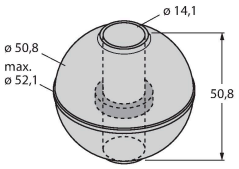
SPS-R10	6900413

Spacer for ring-type positioning element with slot



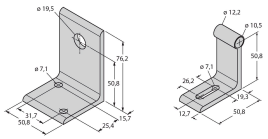
EF-R10	6900417

Float-type positioning element, specific weight 0.62 kg/m³, suitable for external mounting for level monitoring, material: Stainless steel



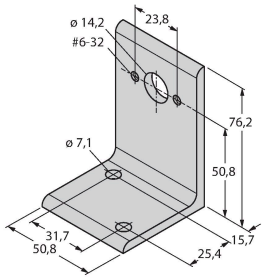
MB-R10	6900419

Mounting bracket for sensor head and rod, for external mounting



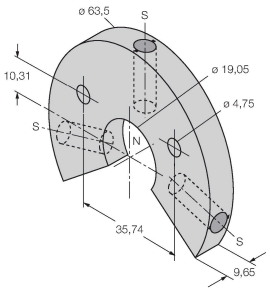
MMB-R10	6900004

Mounting bracket for positioning element, for external mounting



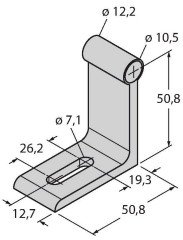
LSPM-AL-R10	6900414

Ring-type positioning element with slot, can be used for external mounting with mounting bracket RB-R10, material: Aluminum



RB-R10	6900420

Mounting bracket for rod, for external mounting



RP-Q21	6900005

Teach adapter to adjust the measuring range

Kein Maßbild vorhanden/
No dimension drawing available

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