

LTX1850M-F10-LI0-X3-H1151

Pressure-Resistant Linear Position Sensor – Analog



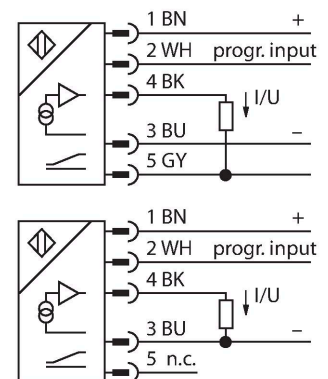
Technical data

| | |
|---|--|
| Type | LTX1850M-F10-LI0-X3-H1151 |
| ID | 1540318 |
| Remark to product | Please note housing design on page 2 |
| Measuring principle | Magnetostrictive |
| General data | |
| Measuring range | 1850 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 | 7...30 VDC |
| Residual ripple | ≤ 10 % U _{ss} |
| Short-circuit protection | yes / Cyclic |
| Wire breakage/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 |
| Dimensions | 2045.6 mm |
| Housing material | Metal, AL |
| Active area material | Stainless steel, 1.4404 (AISI 316L) |

Features

- Suited for hydraulic cylinders
- The sensor is pressure resistant up to 340 bar (permanent), 680 bar (short-term)
- Shock-proof up to 100g
- 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

Wiring diagram



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

Technical data

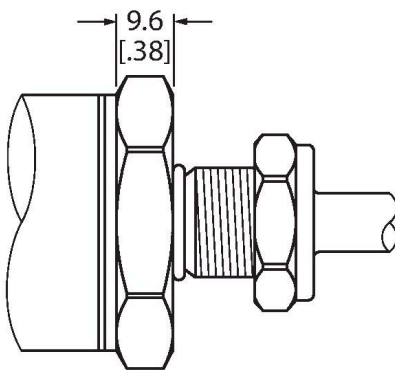
| | |
|---------------------------------|--------------------|
| Electrical connection | Connector, M12 × 1 |
| Environmental conditions | |
| Ambient temperature | -40...+85 °C |
| Vibration resistance | 30 Hz (1 mm) |
| Shock resistance | 100 g (11 ms) |
| Protection class | IP68 |
| Measuring range display | multifunction LED |

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.



Mounting instructions

Mounting instructions/Description



Flat Face Design

This sensor comes in flat 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

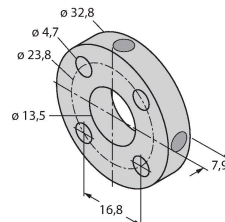
Standard positioning element, suitable for mounting in hydraulic cylinders



STM-AL-R10

6900409

Standard 4-hole positioning element, material: Aluminum



LSPM-AL-R10

6900414



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

EF-R10

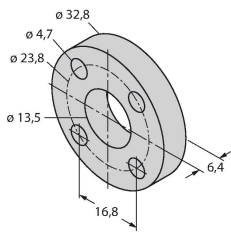
6900417



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

STS-R10

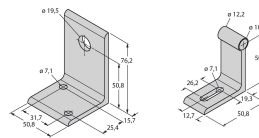
6900411



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

MB-R10

6900419



Mounting bracket for sensor head and rod, for external mounting

RB-R10

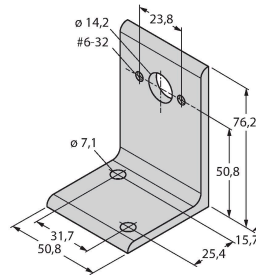
6900420



Mounting bracket for rod, for external mounting

MMB-R10

6900004



Mounting bracket for positioning element, for external mounting

RP-Q21

6900005

Teach adapter to adjust the measuring range

Kein Maßbild vorhanden/
No dimension drawing available