

Your Global Automation Partner

TURCK

LTE Embedded Mobile Hydraulics Sensor



Linear Position Sensor with Analog Output

Turck is adding the robust LTE for direct integration in hydraulic cylinders to its portfolio of linear position sensors. The magnetostrictive sensor can withstand shocks of up to 100 g and the vibrations that typically occur with agricultural and forestry machinery. The device is also insensitive to external influences, allowing the LTE to be used in the hydraulic cylinders of construction machinery in harsh environments.

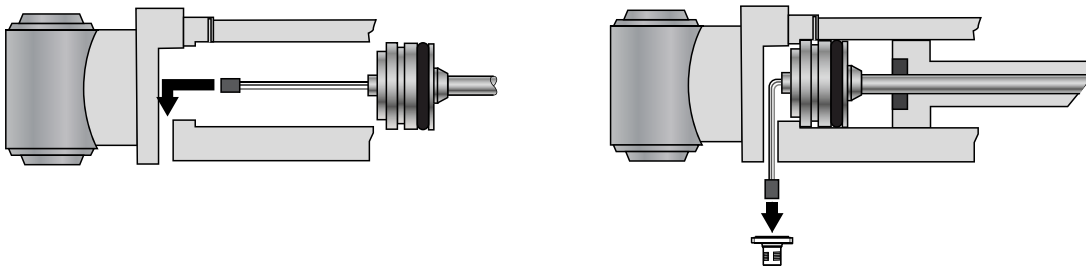
The user can set the measuring range flexibly according to the sensor type. Thanks to the field-proven magnetostrictive technology, the wear-free operating LTE guarantees high precision, linearity and repeatability. The sensor has a 16-bit resolution and also offers three signal ranges for mobile equipment (0 - 5 V, 0.25 - 4.75 V, or 0.5 - 4.5 V) in addition to the standard analog output signals of 0 - 10 V and 4 - 20 mA.

Your Benefits

- Adjustable measuring range with adjustment protection
- Automatic signal strength control
- Wide voltage range of 8 - 30 VDC
- Low power consumption
- High shock and vibration resistance
- Protection class IP68
- Connected via M12 connector or open connection cable

LTE Embedded

Mounting



Technical Features

Measuring Range Specifications	
Measuring range	50 - 2540 mm in 5 mm steps
Linearity	≤ 0.04 % full scale
Hysteresis	≤ 0.026 mm
Repeat accuracy	≤ 0.01 % full scale
Blind Zones	
Termination side	30 mm from front surface
End	63.2 mm
Design	
Housing	Metal, stainless steel, 303, 1.4305
Material, active face	Metal, stainless steel, 316, 1.4404
Pressure resistance (permanent)	10 mm – 350 bar, 8 mm – 300 bar
Pressure resistance (short-term)	10 mm – 689 bar, 8 mm – 400 bar
Protection class	IP68, EN 60529
Temperature	
Operating temperature electronics	-40 to +85 °C
Operating temperature rod	-40 to +105 °C
Shock and Vibration	
Shock resistance	100 g (11 ms), IEC -2-2-7
Vibration resistance	30 g, 10 Hz...2 kHz, IEC 60068-2-6
Electrical Data	
Current consumption	≤ 100 mA/15 VDC
Operating voltage	8 - 30 VDC

Pin Assignment

Pin	Pin Assignment	Wiring Diagram
Pin 1 (BN)	U_B	
Pin 2 (WH)	Teach	
Pin 3 (BU)	GND	
Pin 4 (BK)	I/U	
Pin 5 (GY)	Position Common	

Accessories

Type code	Description
STM-AL-R10	Standard 4-hole positioning element, aluminium
STS-R10	Standard spacer made of non-ferritic material, for separating the positioning element from the ferritic bottom of the hydraulic piston rod

