LPPS-MSL Spring Loaded Linear Potentiometer Position Sensor

Features

- **Compact lightweight design**
- **Cost-effective measuring system**
- **Stroke lengths from 5 to 100 mm (0.2 to 4 inches)**
- **Industrial duty, liquid and corrosion resistant**
- **Spring extend design for ease of mounting**

Applications

- **Motorsport and Automotive R&D Testing**
- **Industrial Test Stands**
- **Factory Automation**

Overview

The Sensor Connection LPPS-MSL series spring loaded Linear Potentiometer Position Sensors are used to monitor and track the linear motion or position of a target. These ruggedized sensors are ideal for use in industrial and laboratory applications including automotive R&D, motorsports, industrial, motion control, medical, military and aerospace.

Resistive potentiometric element is made from conductive plastic. The output is ratiometric; from 0% to 100% of excitation voltage.

The LPPS-MSL series sensor is made from industrial duty materials for resistance to dust, temperature, shock, and vibration.

Specifications

Output:	0 to 100% of Input Voltage (potentiometer circuit)
Non-Linearity, Full Stroke: **Best Fit Straight Line (BFSL)**	±0.50% (typical), ±1.0% (max)
Resolution:	Infinite
Repeatability:	0.01 mm (0.0004 inch)
Element Type:	Conductive Plastic
Operating Current:	Input Voltage / Potentiometer Resistance Value (refer to chart on Page 2 for Resistance Value)
Operating Temperature:	-40 to +95°C (-40 to +203°F)
Temperature Coefficient:	≤ +/- 0.03% of FS / °C
Shock Rating:	50g (single hit) / IEC68-2-29
Vibration Rating:	20g / IEC68-2-6
IP Rating:	IP61

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The Sensor Connection

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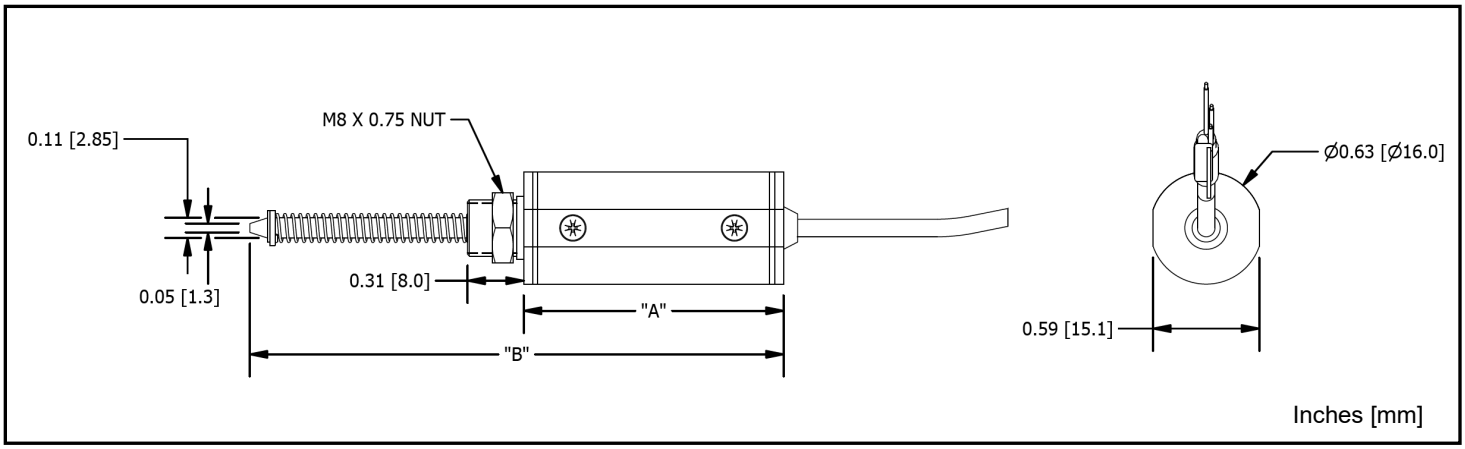


Specifications

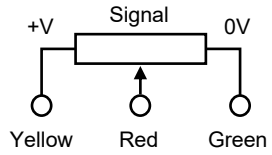
	LPPS-MSL-005	LPPS-MSL-015	LPPS-MSL-025	LPPS-MSL-050	LPPS-MSL-075	LPPS-MSL-100
Electrical Stroke Length (inch) [mm]	0.20 [5]	0.60 [15]	1 [25]	2 [50]	3 [75]	4 [100]
Mechanical Stroke Length (inch) [mm]	0.35 [9]	0.75 [19]	1.15 [29]	2.13 [54]	3.11 [79]	4.09 [104]
Pretravel (inch) [mm] ***nominal***	0.08 [2]	0.08 [2]	0.08 [2]	0.08 [2]	0.08 [2]	0.08 [2]
Overtravel (inch) [mm] ***nominal***	0.08 [2]	0.08 [2]	0.08 [2]	0.08 [2]	0.08 [2]	0.08 [2]
Resistance ± 20% (Ω)	3.0K	3.0K	2.0K	5.0K	5.0K	5.0K
Max Input Voltage (VDC)	24	24	24	36	36	36
Dimension 'A' (inch) [mm]	1.46 [37]	1.85 [47]	2.24 [57]	3.31 [84]	4.29 [109]	5.28 [134]
Dimension 'B' (inch) [mm]	2.99 [76]	3.78 [96]	4.57 [116]	6.54 [166]	8.94 [227]	11.26 [286]
Spring Rate (lbf/in) [kgf/cm] ***nominal***	1.0 [0.18]	1.5 [0.27]	1.5 [0.27]	1.0 [0.18]	1.5 [0.27]	1.0 [0.18]
Weight (grams)	23	28	30	40	50	60

Ordering Information

Model	Measuring Range
LPPS - MSL	**-□□□**
	005 5 mm [0.2 inch] **015** 15 mm [0.6 inch] **025** 25 mm [1 inch] **050** 50 mm [2 inch] **075** 75 mm [3 inch] **100** 100 mm [4 inch]

Wiring Pin Out

	Integral Cable
DC Power In	Yellow
Output	Red
Ground	Green



IMPORTANT !
DO NOT CONNECT THE RED WIRE TO POWER SUPPLY
THIS WILL CAUSE DAMAGE TO THE SENSOR

Ordering Example

LPPS-MSL-100: 0 to 100 mm [4 inch] measuring range

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