

# LPPS-SL Spring Loaded Linear Potentiometer Position Sensor

## Features

- Compact lightweight design
- Cost-effective measuring system
- Stroke lengths from 10 to 100 mm (0.4 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-SL 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.

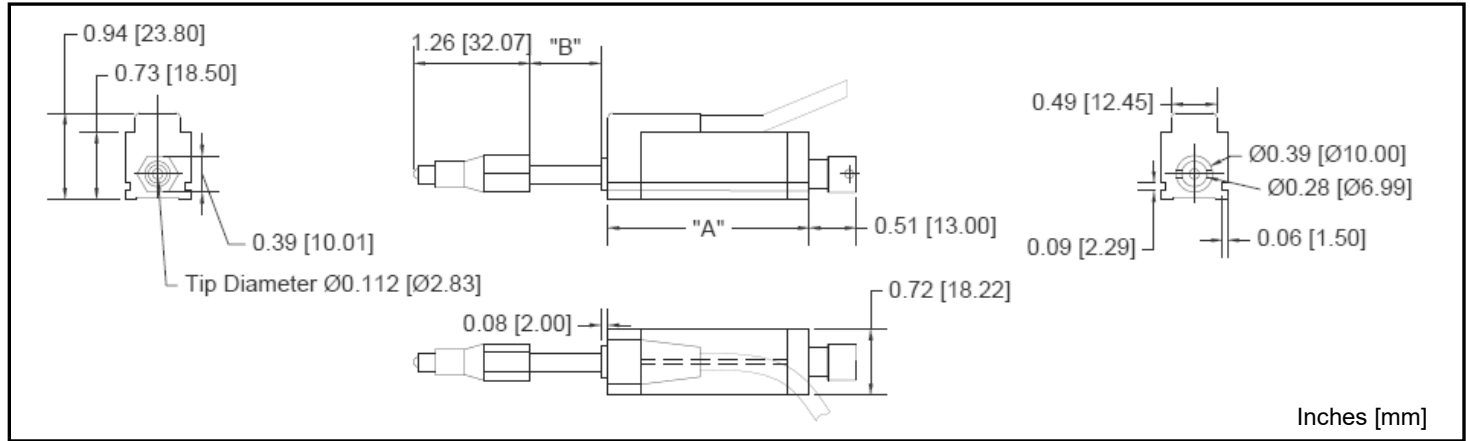
Resistive potentiometric element is made from conductive plastic. The output is ratiometric; from 0% to 100% of excitation voltage.

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

## Specifications

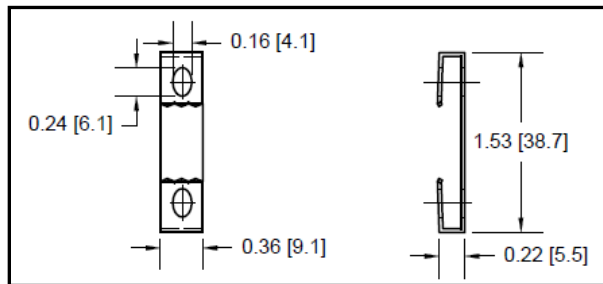
<b>Output:</b>	0 to 100% of Input Voltage (potentiometer circuit)
<b>Non-Linearity, Full Stroke: Best Fit Straight Line (BFSL)</b>	$\leq \pm 2.5\%$ of FSO
<b>Resolution:</b>	Infinite
<b>Repeatability:</b>	0.01 mm (0.0004 inch)
<b>Element Type:</b>	Conductive Plastic
<b>Operating Current:</b>	Input Voltage / Potentiometer Resistance Value (refer to chart on Page 2 for Resistance Value)
<b>Operating Temperature:</b>	-40 to +95°C (-40 to +203°F)
<b>Temperature Coefficient:</b>	$\leq \pm 0.03\%$ of FS / °C
<b>Shock Rating:</b>	50g (single hit) / IEC68-2-29
<b>Vibration Rating:</b>	20g / IEC68-2-6
<b>IP Rating:</b>	IP61

# LPPS-SL Spring Loaded Linear Potentiometer Position Sensor



## Specifications

	LPPS-SL-010	LPPS-SL-025	LPPS-SL-050	LPPS-SL-075	LPPS-SL-100
Stroke Length (inch) [mm]	0.4 [10]	1 [25]	2 [50]	3 [75]	4 [105]
Mechanical Stroke Length (inch) [mm]	0.5 [13]	1.1 [28]	2.1 [53]	3.1 [78]	4.1 [103]
Resistance $\pm 20\%$ ( $\Omega$ )	1.5K	3.0K	5.0K	5.0K	5.0K
Max Input Voltage (VDC)	12	24	36	36	36
Dimension 'A' (inch) [mm]	2.2 [56]	2.8 [71]	3.8 [96]	4.8 [121]	5.8 [147]
Dimension 'B' (inch) [mm]	0.8 [20]	1.2 [31]	2.6 [65]	3.8 [97]	5.0 [129]
Spring Rate (lbf/in) [kgf/cm]	1.5 [0.27]	2.0 [0.36]	1.7 [0.31]	1.5 [0.27]	1.7 [0.31]
Weight (grams)	95	105	125	140	165



Mounting brackets included

## Ordering Information

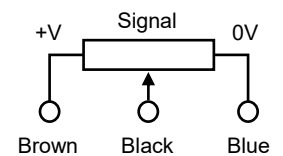
Model	Measuring Range
LPPS - SL	- □ □ □
010	10 mm [0.4 inch]
025	25 mm [1 inch]
050	50 mm [2 inch]
075	75 mm [3 inch]
100	100 mm [4 inch]

## Ordering Example

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

## Wiring Pin Out

	Integral Cable
DC Power In	Brown
Output	Black
Ground	Blue



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