

# LP-22 Series Linear Potentiometer

Linear Potentiometer Designed for the Factory Automation Industry



**For use in:**  
Factory Automation  
Robotic Motion Control  
X/Y Table Position Feedback  
Mil/Aero Test Stands

The LP-22 series linear potentiometer is a cost effective solution for factory automation linear position sensing applications, such as: robotic motion control, X/Y table position feedback, flow control valve position, suspension travel, press and die position, injection molding machines, and mil/aero test stands.

The 3-wire resistive film sensor is available in stroke lengths from 25 to 300 mm (1 to 12 inches), with a maximum linearity error of 1% of full scale. The sensor has swivel rod eyes at each end for self-alignment and easy mounting. A 22 mm diameter anodized aluminum housing rated to IP-61 protects the unit from airborne contaminants, and the sensor is rugged enough to withstand the typical shock and vibration environments of industrial shop floors.

## Features:

- Full ranges from 25 to 300 mm (1 to 12 inches)
- Self-aligning swivel rod eyes on both ends
- 1 m long, 3-conductor cable
- 22 mm OD anodized aluminum housing

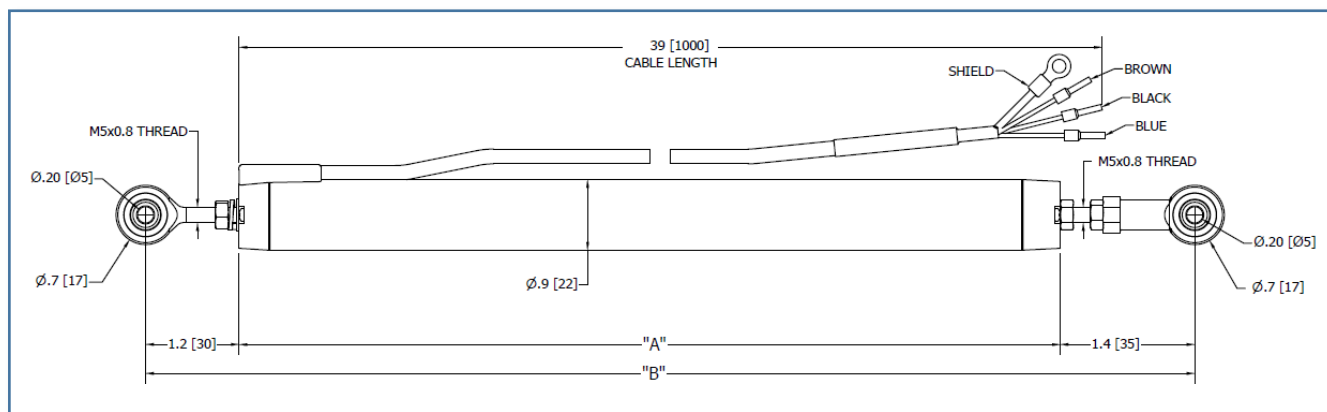
## Specifications:

**Input current:**  $\leq 12$  mA  
**Resolution:** Infinite  
**Output range:** 0 to 100% of input  
**Repeatability:** 0.01 mm (0.0004 inch)  
**Max operating speed:** 5 m/s  
**Linearity:**  $\pm 0.50\%$  of FS (typical)  $\pm 1\%$  max.  
**Operating Temperature:** -40 to 95°C (-40 to 203°F)  
**Temperature Coefficient:**  $\leq \pm 0.03\%$  of FS/°C  
**Shock Rating:** 50 g single hit, IEC68-2-29  
**Vibration Rating:** 20 g, IEC68-2-6  
**IP Rating:** IP-61

*All specifications are subject to change without notice.*

**ALLIANCE SENSORS GROUP**  
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# LP-22 Series



## Configuration Information:

Product	LP-22-025	LP-22-050	LPPS-22-100	LPPS-22-150	LPPS-22-200	LPPS-22-250	LPPS-22-300
Electrical Measuring Range (inch) [mm]	0.9 [25]	1.9 [50]	3.9 [100]	5.9 [150]	7.8 [200]	9.8 [250]	11.8 [300]
Mechanical Stroke Length (inch) [mm]	1.1 [28]	2.0 [53]	4.0 [103]	6.0 [153]	8.0 [203]	9.9 [253]	11.9 [303]
Resistance $\pm 20\%$ ( $\Omega$ )	2.0K	5.0K	5.0K	5.0K	5.0K	5.0K	5.0K
Max Input Voltage (VDC)	12	24	24	24	24	24	24
Dimension 'A' (inch) [mm]	3.1 [79]	4.1 [104]	6.1 [154]	8.0 [204]	10.0 [254]	12.0 [304]	13.9 [354]
Dimension 'B' (inch) [mm]	5.7 [144]	6.7 [169]	8.6 [219]	10.6 [269]	12.6 [319]	14.5 [369]	16.5 [419]
Weight (grams)	115	130	165	190	215	245	270

## Ordering Information:

Series	Body Diameter	Range, Metric
LP-	XX-	XXX-
	22- 22 mm	025- 25 mm
		050- 50 mm
		100- 100 mm
		150- 150 mm
		200- 200 mm
		250- 250 mm
		300- 300 mm

## Wiring Table:

Function	Cable Color
DC power input	Brown
Ground	Blue
Analog Output	Black

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