

# SP2

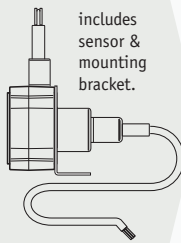
## Compact String Pot • Voltage Divider Output

Linear Position to 50 inches (1270 mm)

Low-Cost, Long Life • Rugged Polycarbonate Enclosure

40-in. Electrical Cable • Free-Release Tolerant

**In Stock for Quick Delivery!**

	Part No.	full stroke range	accuracy (% of f.s.)	cycle life
 <p>includes sensor &amp; mounting bracket.</p>	<b>SP2-4</b>	4.75 in (120 mm)	1.00%	2.5M cycles
	<b>SP2-12</b>	12.5 in (317 mm)	0.25%	500K cycles
	<b>SP2-25</b>	25 in (635 mm)	0.25%	500K cycles
	<b>SP2-50</b>	50 in (1270 mm)	0.25%	250K cycles

### COMPLETE SPECIFICATIONS

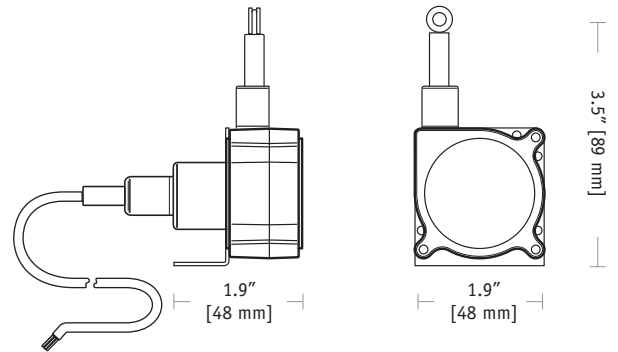
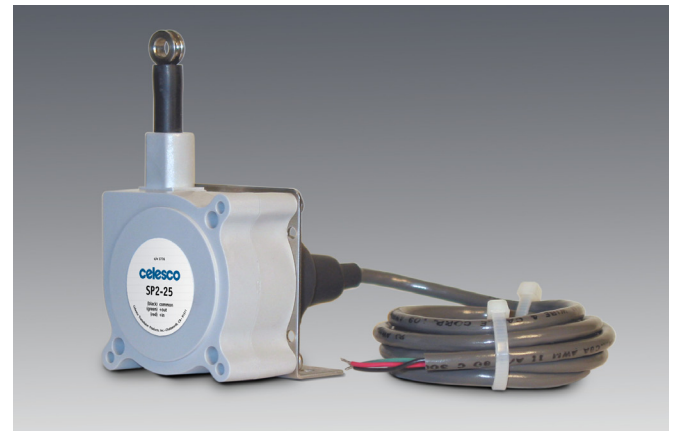
Full Stroke Range Options	0-4.75, 0-12.5, 0-25, 0-50 inches
Output Signal	voltage divider (potentiometer)
Accuracy	±0.25 to ±1.00% (see part no. above)
Repeatability	± 0.05% full stroke
Resolution	essentially infinite
Measuring Cable	0.019-in. dia. nylon-coated stainless steel
Measuring Cable Tension	7 oz. (1,9 N) ±25%
Maximum Cable Acceleration	15 g
Enclosure Material	polycarbonate
Sensor	plastic-hybrid precision potentiometer
Weight	5 oz. (w/o mounting bracket) max.

### ELECTRICAL

Input Resistance	10K ohms, ±10%
Power Rating, Watts	2.0 at 70°F derated to 0 at 250°
Recommended Maximum Input Voltage	30 V (AC/DC)
Output Signal Change Over Full Stroke Range	94% ±4% of input voltage
Electrical Connection	40-inch long, 24 guage shielded electrical cable

### ENVIRONMENTAL

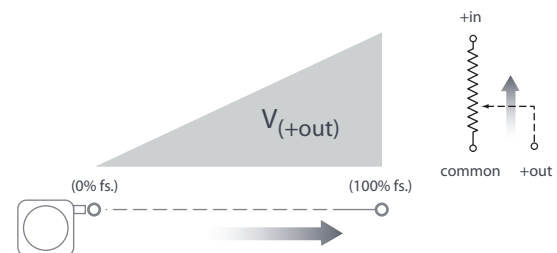
Enclosure	IP 50
Operating Temperature	0° to 160°F (-18° to 71°C)
Vibration	up to 10 g to 2000 Hz maximum



The SP2 String Pot from Celesco is a compact, economical and water resistant device that utilizes a flexible cable, a spring-loaded spool and a potentiometer to detect and measure linear position.

The SP2 is identical to the SP1 except for an added 40-inch electrical cable with a watertight rubber strain relief. The SP2 has been compactly designed for tight spaces and high cycle applications and generously allows for measuring cable misalignment. With 4 different ranges and a handy mounting bracket, the SP2 is a perfect solution for many applications from light industrial to OEM.

### Output Signal:



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tel: 800.423.5483 • +1.818.701.2750 • fax: +1.818.701.2799

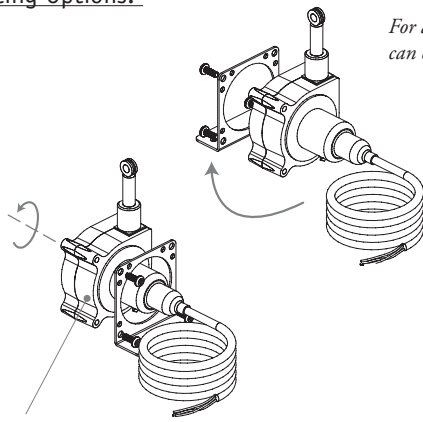
measurement  
SPECIALTIES™



celesco

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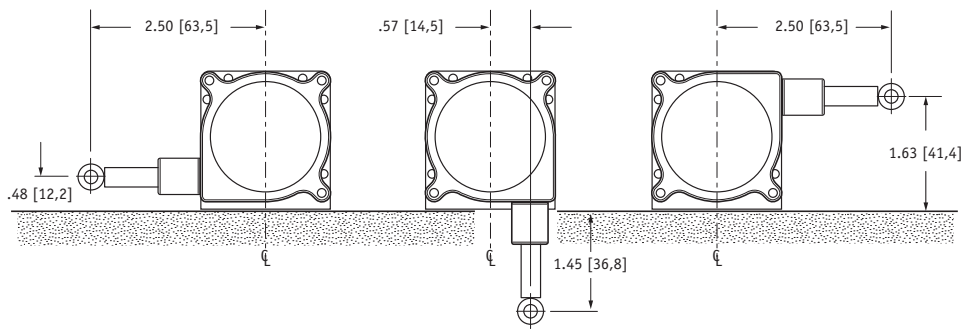
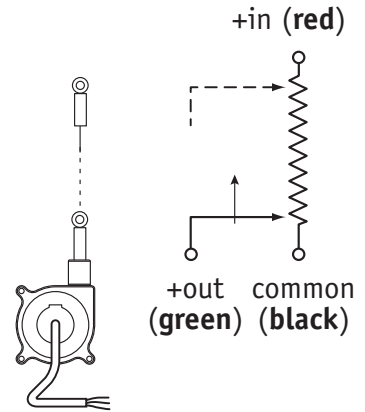
**Mounting Options:**



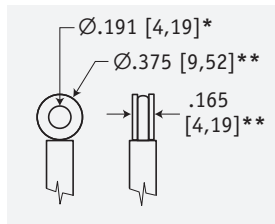
For added flexibility, mounting bracket can easily be switched to the opposite side.

To change measuring cable direction simply remove the 3 bracket attaching screws and rotate sensor body to desired direction.

**Electrical Connection:**

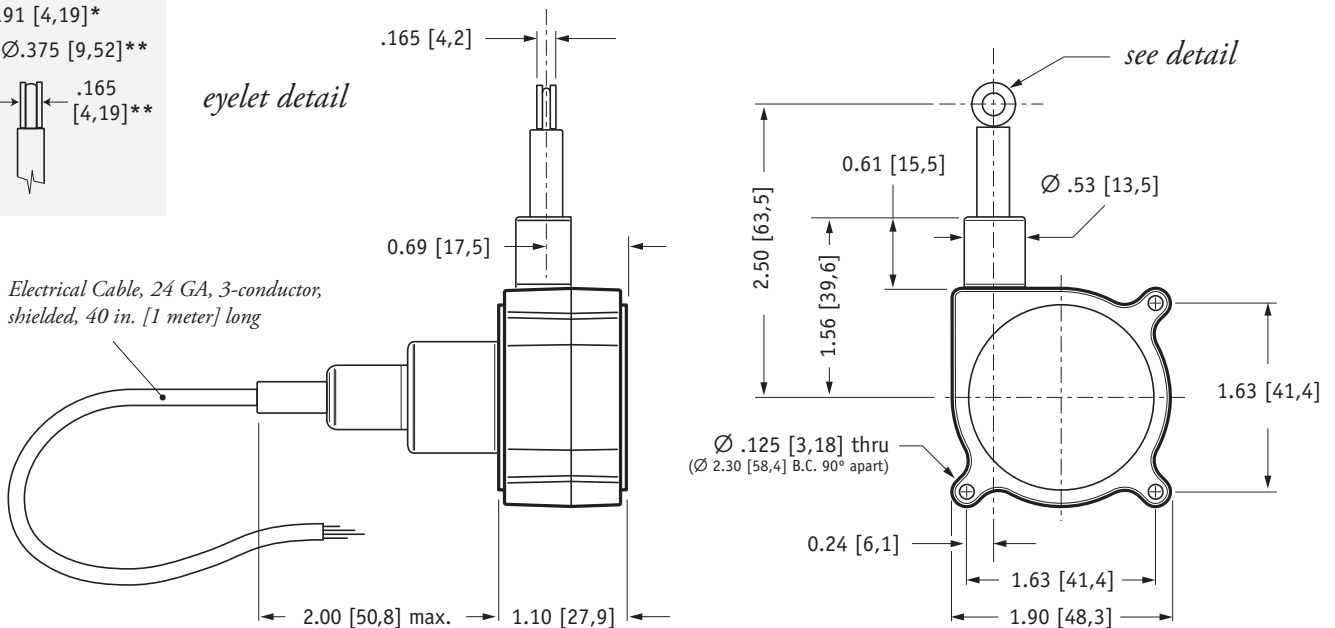


**Outline Drawing (w/o bracket):**



eyelet detail

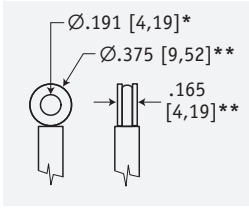
Electrical Cable, 24 GA, 3-conductor, shielded, 40 in. [1 meter] long



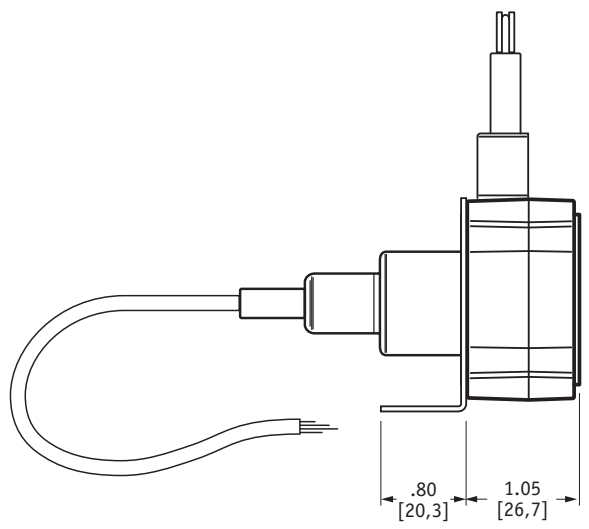
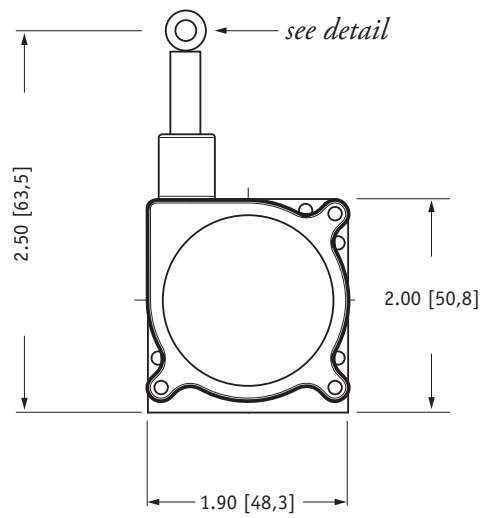
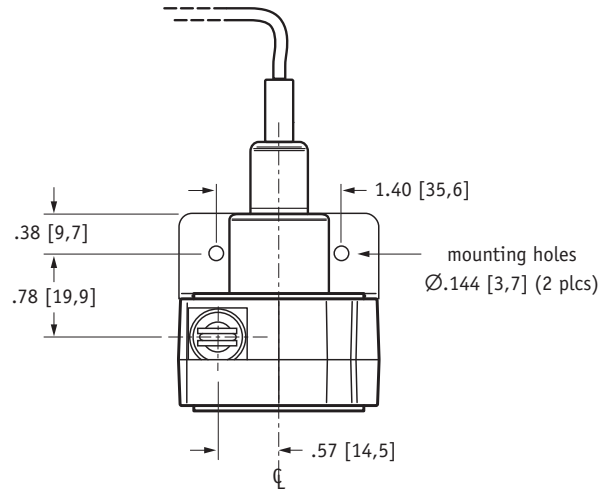
DIMENSIONS ARE IN INCHES [MM]  
tolerances are 0.04 IN. [1,0 MM] unless otherwise noted.

\* tolerance = +.005 - .001 [+0,1 -0,0]  
\*\* tolerance = +.005 - .005 [+0,1 -0,1]

Outline Drawing (with bracket):



eyelet detail



DIMENSIONS ARE IN INCHES [MM]  
tolerances are 0.04 IN. [1,0 MM] unless otherwise noted.

\* tolerance = +.005 - .001 [+0,1 -0,0]  
\*\* tolerance = +.005 - .005 [+0,1 -0,1]



version: 6.0 last updated: February 26, 2013