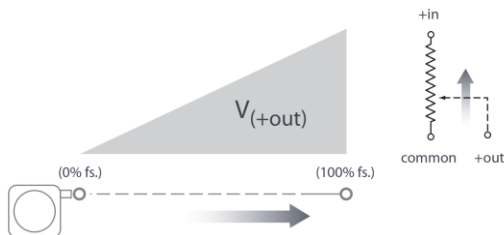


The SP2 String Pot from Celesco is a compact, economical and water resistant device that utilizes a flexible cable, a spring-loaded spool and a potentiometer to detect and measure linear position.

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



## SP2

### Compact String Pot • Incremental

**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!**

### Specifications

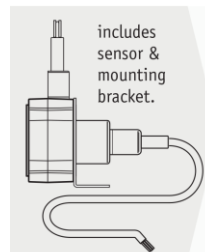
<b>Full Stroke Range Options</b>	0-4.75, 0-12.5, 0-25, 0-50 inches
<b>Output Signal</b>	voltage divider (potentiometer)
<b>Accuracy</b>	±0.25 to ±1.00% (see part no. above)
<b>Repeatability</b>	± 0.05% full stroke
<b>Resolution</b>	essentially infinite
<b>Measuring Cable</b>	0.019-in. dia. nylon-coated stainless steel
<b>Measuring Cable Tension</b>	7 oz. (1.9 N) ±25%
<b>Maximum Cable Acceleration</b>	15 g
<b>Enclosure Material</b>	polycarbonate
<b>Sensor</b>	plastic-hybrid precision potentiometer
<b>Weight</b>	5 oz. (w/o mounting bracket) max.

### Electrical

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

### Environmental

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

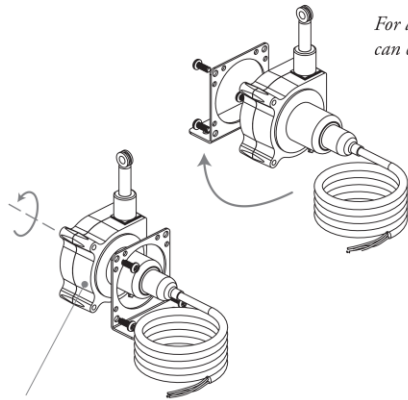


Part No.	full stroke range	accuracy (% of fs.)	cycle life
<b>SP2-4</b>	4.75 in (120 mm)	1.00%	2.5M cycles
<b>SP2-12</b>	12.5 in (317 mm)	0.25%	500K cycles
<b>SP2-25</b>	25 in (635 mm)	0.25%	500K cycles
<b>SP2-50</b>	50 in (1270 mm)	0.25%	250K cycles

**SP2**

Compact String Pot • Incremental Encoder

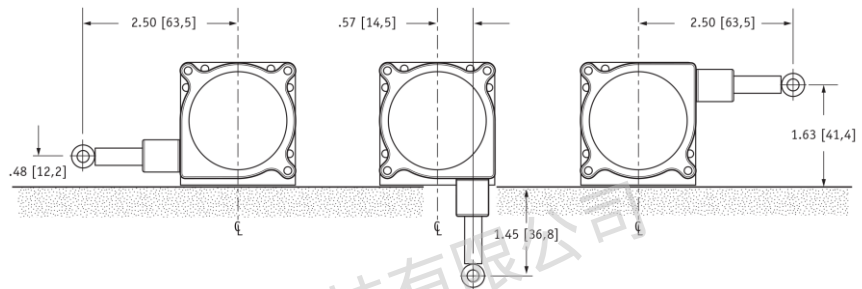
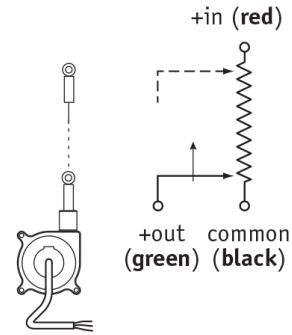
**Mounting Options**



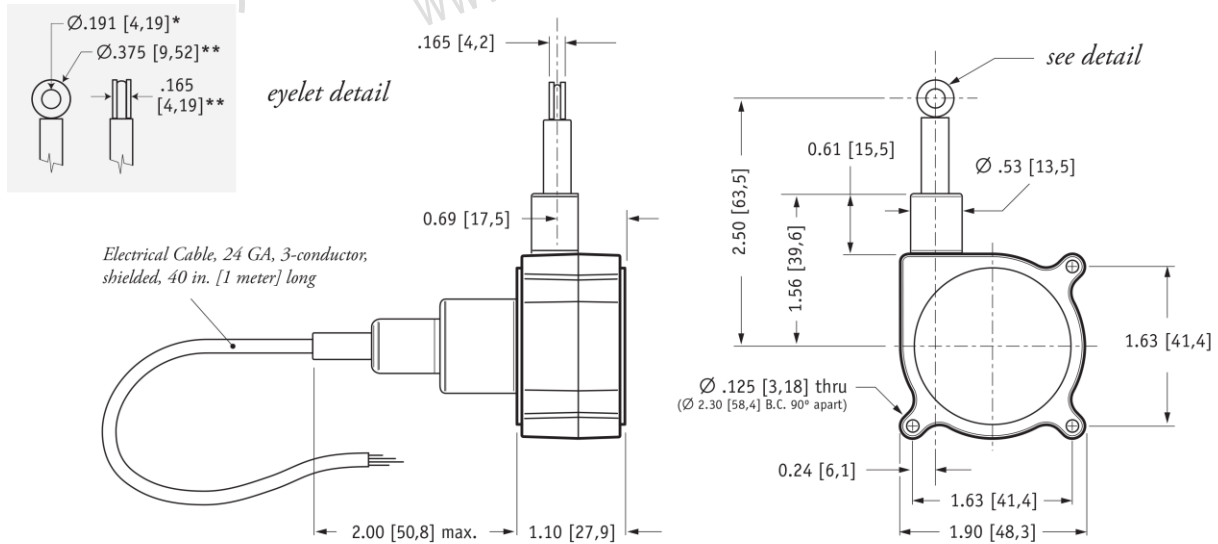
For added flexibility, mounting bracket can easily be switched to the opposite side.

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)**



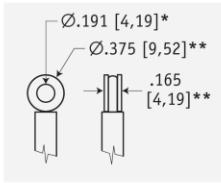
DIMENSIONS ARE IN INCHES [MM]  
tolerances are 0.04 IN. [1,0 MM] unless otherwise noted.

\* tolerance = +.005 -0.001 [+0,1 -0,0]  
\*\* tolerance = +.005 -0.005 [+0,1 -0,1]

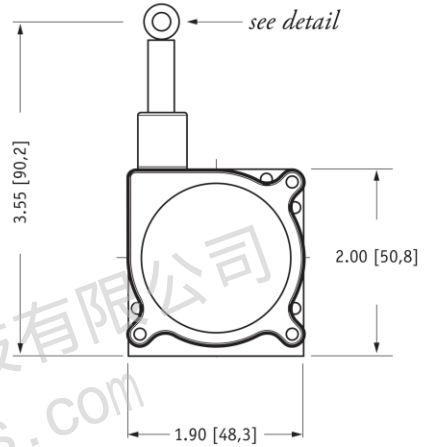
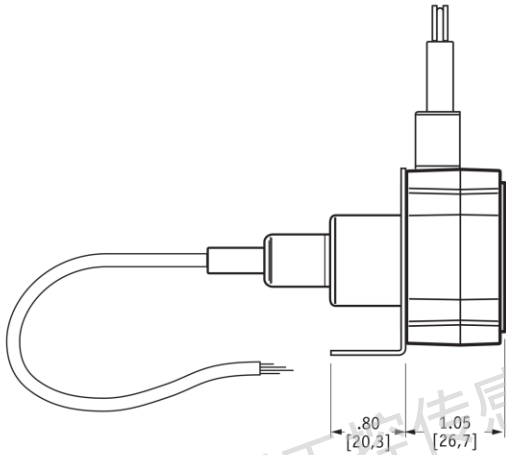
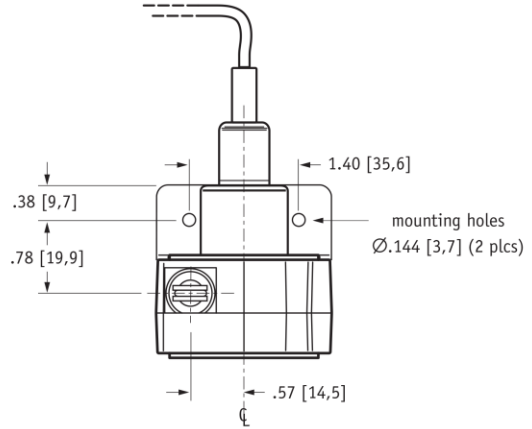
**SP2**

Compact String Pot • Incremental Encoder

Outline Drawing (w/ bracket)



eyelet detail



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

\* tolerance = +.005 -0.001 [+0,1 -0,0]  
\*\* tolerance = +.005 -0.005 [+0,1 -0,1]

广州工控传感科技有限公司

电话: 400-822-6658

邮箱: gzgk@foxmail.com

网址: www.gkmems.com

地址: 广州市天河区珠江西路15号16层