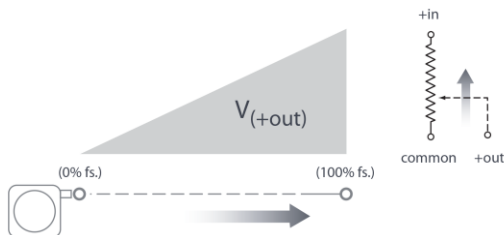


The SP2 String Pot from Celesco is a compact, economical and water resistant device that utilizes a flexible cable, a spring-loaded spool and a potentiometer to detect and measure linear position.

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

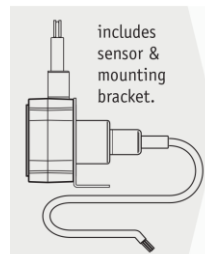
| | |
|-----------------------------------|---|
| Full Stroke Range Options | 0-4.75, 0-12.5, 0-25, 0-50 inches |
| Output Signal | voltage divider (potentiometer) |
| Accuracy | ±0.25 to ±1.00% (see part no. above) |
| Repeatability | ± 0.05% full stroke |
| Resolution | essentially infinite |
| Measuring 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 gauge shielded electrical cable |

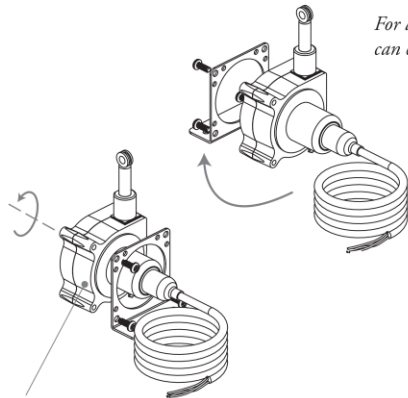
Environmental

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



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

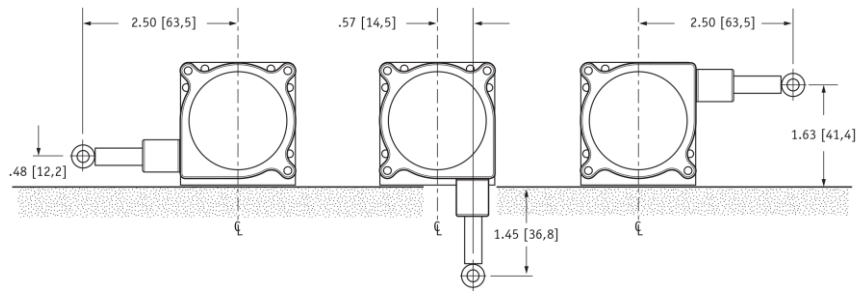
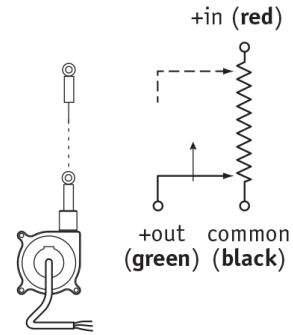
Mounting Options



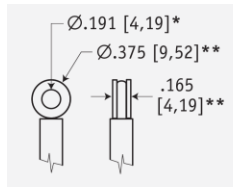
For added flexibility, mounting bracket can easily be switched to the opposite side.

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

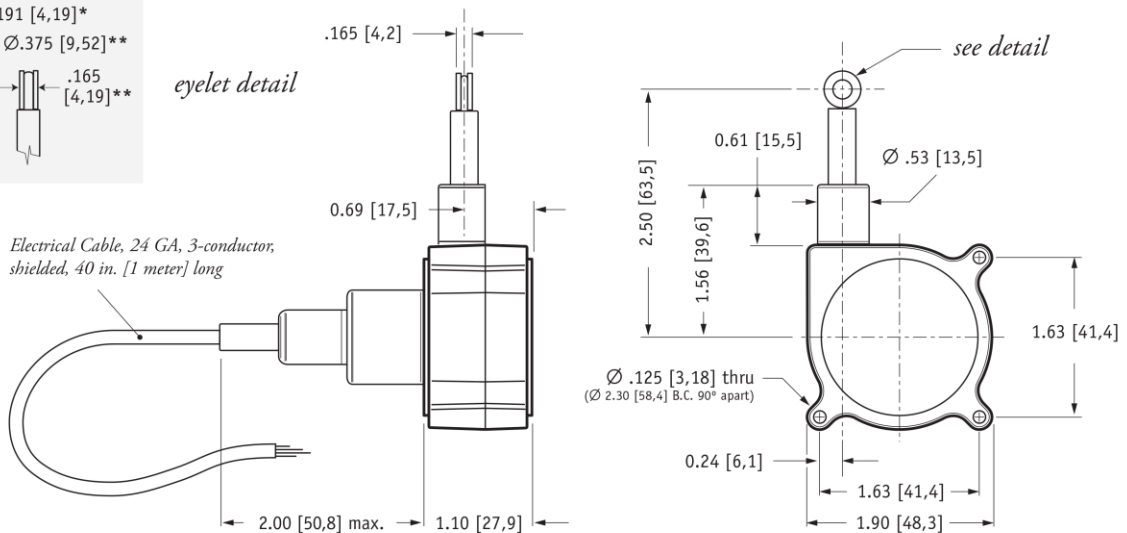
Electrical Connection



Outline Drawing (w/o bracket)



eyelet detail



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]

