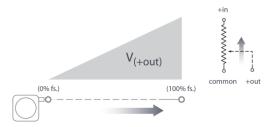




The SP2 String Pot from Celesco is a compact, economical and water resistant device that utilizes a flexible cable, a spring-loaded spool and a potentiometer to detect and measure linear position.

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 $\pm 1.00\%$ (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

10K ohms, ±10% Input Resistance

Power Rating, Watts 2.0 at 70°F derated to 0 at 250°

Recommended Maximum 30 V (AC/DC)

Input Voltage

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

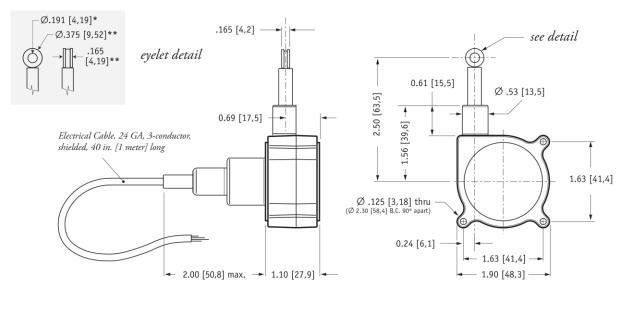


Part No.	full stroke range	accuracy (% of f.s.)	cycle life
SP2-4	4.75 in (120 mm)	1.00%	2.5M cycles
SP2-12	12.5 in (317 mm)	0.25%	500K cycles
SP2-25	25 in (635 mm)	0.25%	500K cycles
SP2-50	50 in (1270 mm)	0.25%	250K cycles

SENSOR SOLUTIONS /// SP2 12//2015 Page 1

Mounting Options Electrical Connection For added flexibilty, mounting bracket +in (red) can easily be switched to the opposite side. +out common (green) (black) To change measuring cable direction simply remove the 3 bracket attaching screws 2.50 [63,5] -.57 [14,5] 2.50 [63,5] and rotate sensor body to desired direction. 1.63 [41,4] .48 [12,2] 1.45 [36,8]

Outline Drawing (w/o bracket)



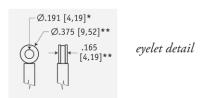
DIMENSIONS ARE IN INCHES [MM] tolerances are 0.04 IN. [1,0 MM] unless otherwise noted.

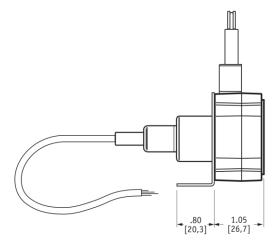
SENSOR SOLUTIONS /// SP2 12//2015 Page 2

^{*} tolerance = +.005 -.001 [+0,1 -0,0]

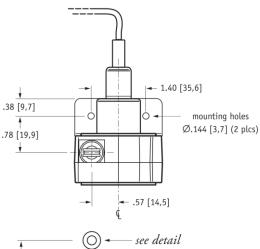
^{**} tolerance = +.005 -.005 [+0,1 -0,1]

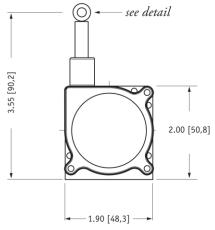
Outline Drawing (w/ bracket)





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]

NORTH AMERICA

Measurement Specialties, Inc., a TE Connectivity company 20630 Plummer Street Chatsworth, CA 91311 Tel +1 800 423 5483 Tel +1 818 701 2750

Fax +1 818 701 2799 info@celesco.com

TE.com/sensorsolutions

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