



This compact stringpot with "voltage divider" output, provides ease-of-use and flexibility for measurement ranges up to 50 inches. Made of rugged polycarbonate, the SP1 fits in small spaces, doesn't need perfect alignment and ships with a stainless steel mounting bracket to let the user easily orient this sensor in just about any direction imaginable.

The SP1 is available with a connector, mating plug and sensor cover to protect against IP67 (wet) environments and a lower cost, "open" sensor version priced for both the budget conscious single piece user and the OEM alike.

SP1

Compact String Pot | Voltage Divider

Linear Position to 50 inches (1270 mm)

Rugged Polycarbonate Enclosure | IP67 Optional

Mounting Bracket & Optional Sensor Cover w/Connector

SPECIFICATIONS

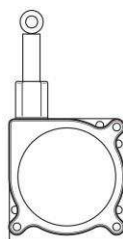
Available Stroke Ranges	0-4.75, 0-12.5, 0-25, 0-50 inches
Output Signal	voltage divider (potentiometric)
Accuracy	$\pm 0.25\%$ to $\pm 1.00\%$ FS. (see ordering info)
Repeatability	$\pm 0.05\%$ full stroke
Resolution	essentially infinite
Measuring Cable	.019-inch dia. nylon-coated stainless steel
Maximum Cable Tension	See ordering information
Measuring Cable Acceleration	See ordering information
Enclosure Material	Polycarbonate
Sensor	Plastic-hybrid precision potentiometer
Weight, max. (includes bracket)	.4 lbs (.19 kg)

Electrical

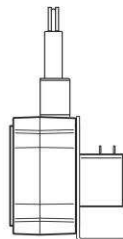
Input Resistance	10K ohms, $\pm 10\%$
Power Rating, Watts	2.0 at 70°F derated to 0 at 250°
Recommended Maximum Input Voltage	30 V (AC/DC)
Output Signal Change Over Full Stroke Range	94% $\pm 4\%$ of input voltage
Electrical Connection, SP1-xx	Solder terminals
Electrical connection, SP1-xx-3	4-pin, M12 connector

Environmental

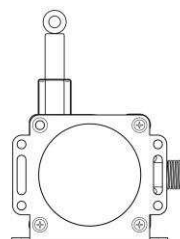
Enclosure	IP 50 (SP1-xx), IP67 (SP1-xx-3)
Operating Temperature, SP1-xx	0° to 160°F (-18° to 70°C)
Operating Temperature, SP1-xx-3	-40° to 160°F (-40° to 70°C)
Vibration	up to 10 g to 2000 Hz maximum



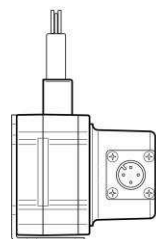
1.9" [48 mm]



1.9" [48 mm]



2.5" [64 mm]

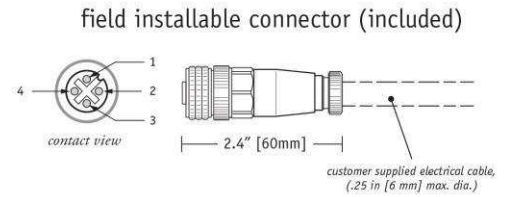
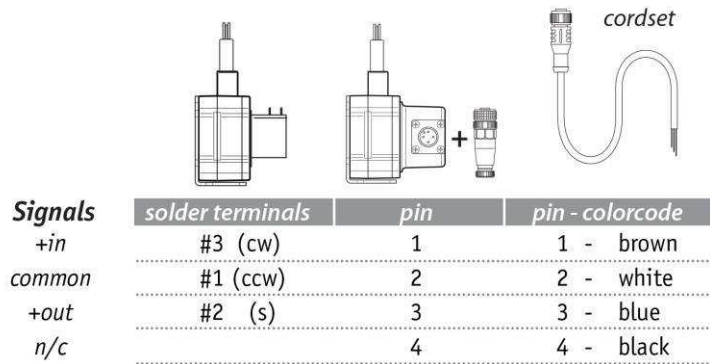


2.3" [59 mm]

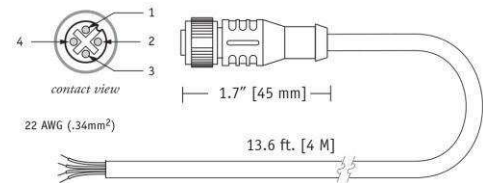
SP1

Compact String Pot | Voltage Divider Output

Electrical Connection:



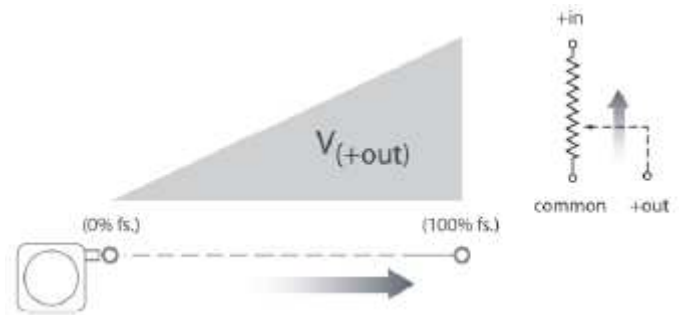
cordset, part no. 9036810-0040 (optional)



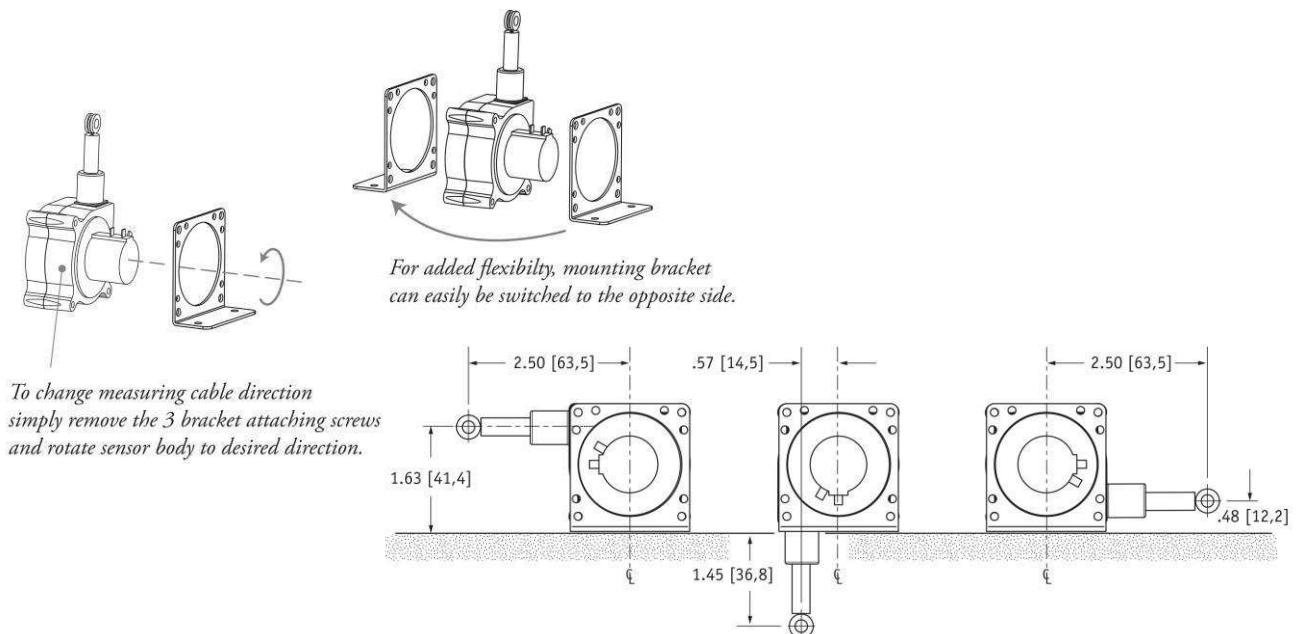
Terminal/Pin Location (SP1-xx):



Output Signal:



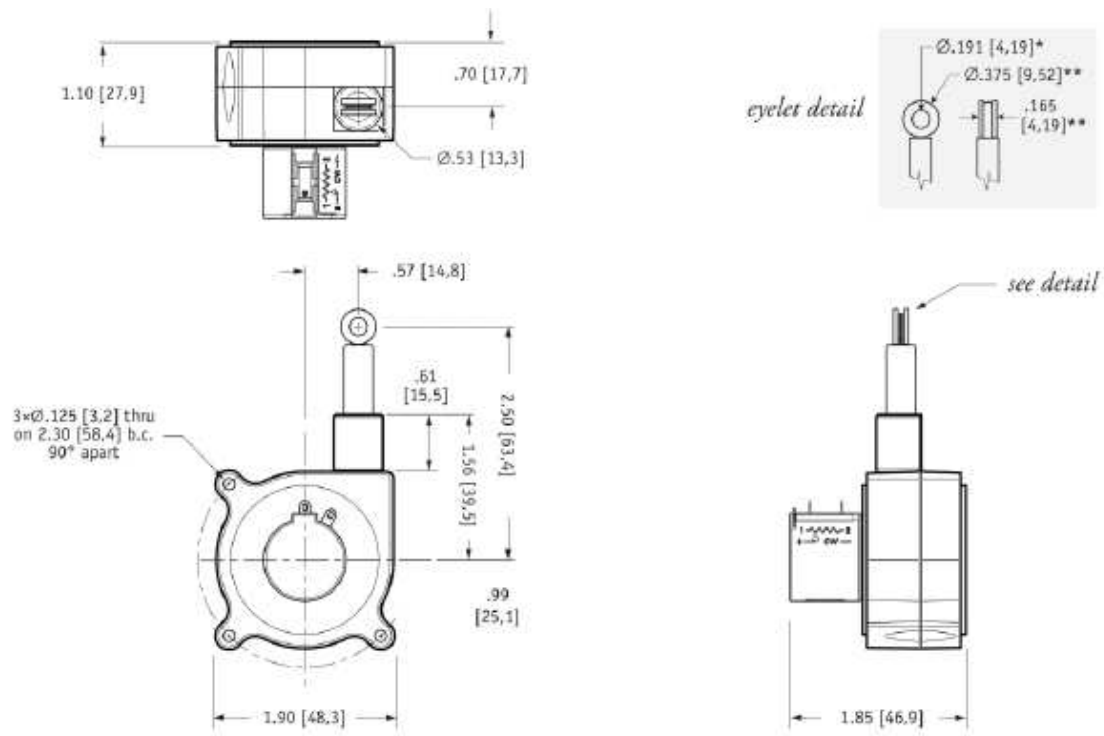
Mounting Options for SP1-xx:



SP1

Compact String Pot | Voltage Divider Output

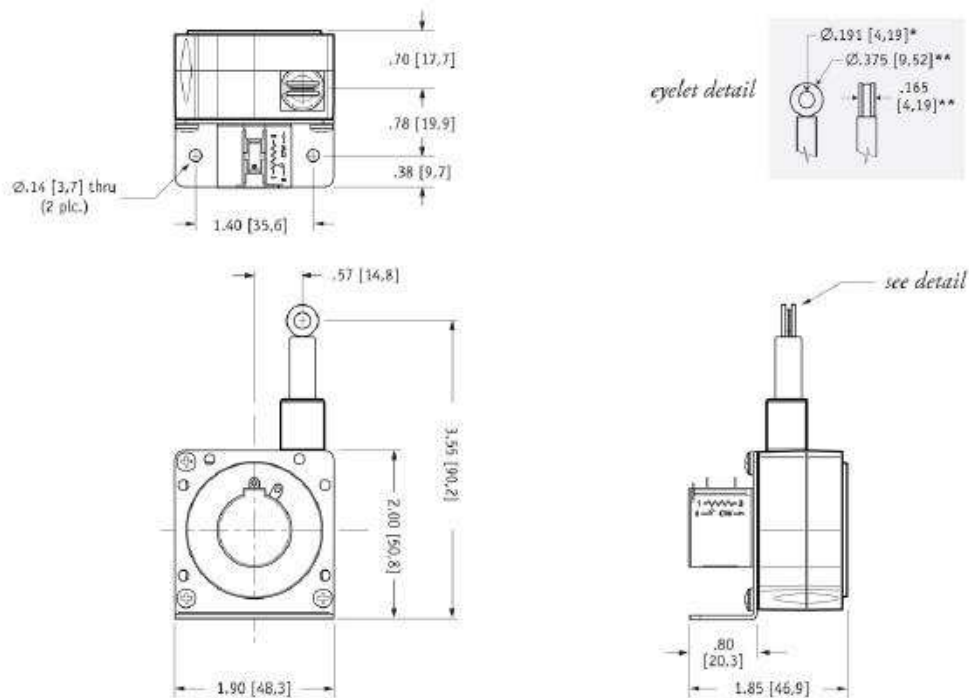
SP1-xx w/o Mounting Bracket:



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]

SP1-xx w/ Mounting Bracket:



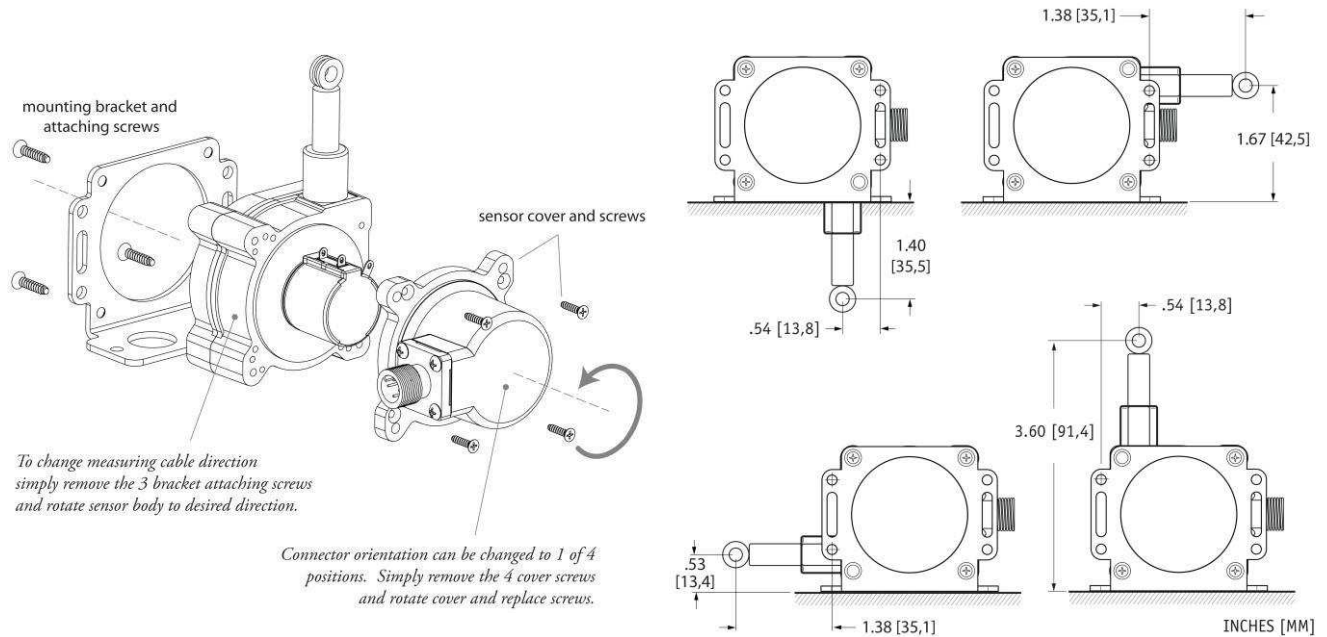
DIMENSIONS ARE IN INCHES (MM)
tolerances are 0.04 IN. [1,0 MM] unless otherwise noted.

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

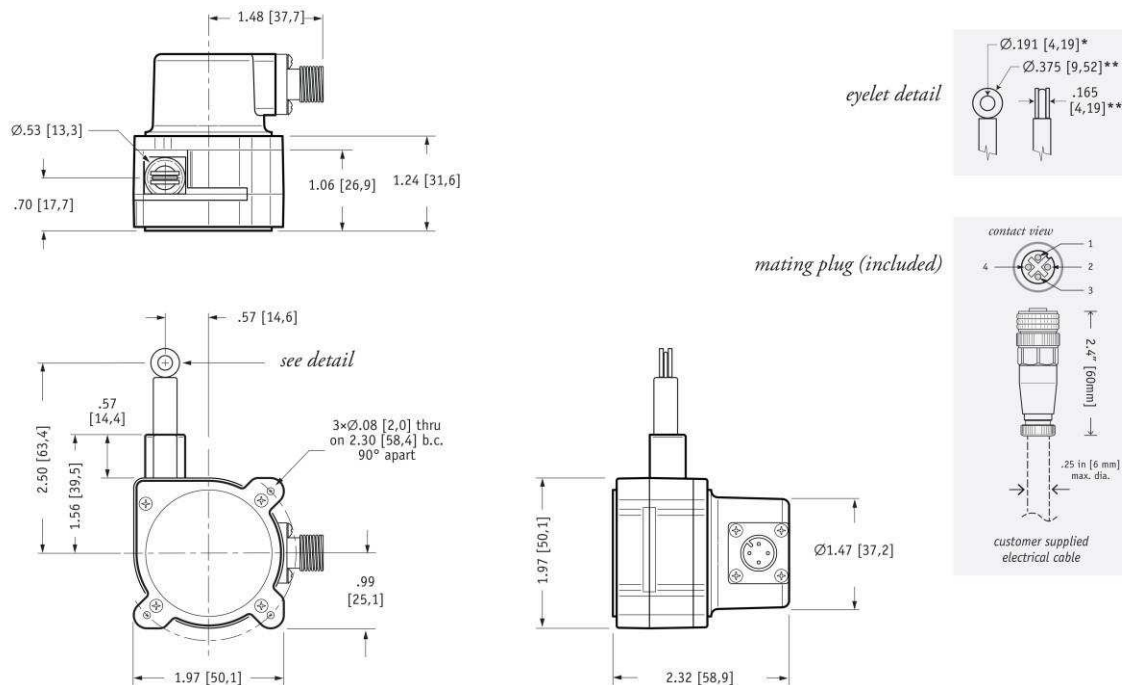
SP1

Compact String Pot | Voltage Divider Output

Mounting Options for SP1-xx-3:



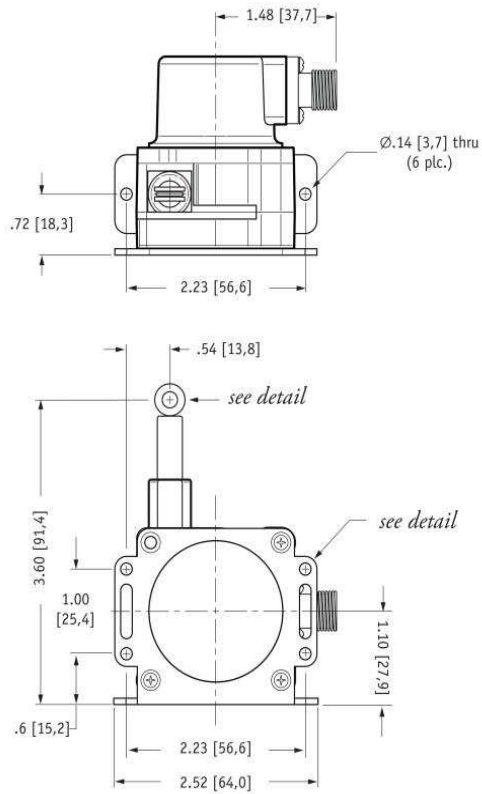
SP-xx-3 w/o Mounting Bracket:



SP1

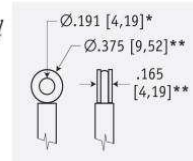
Compact String Pot | Voltage Divider Output

SP1-xx-3 w/ Mounting Bracket:

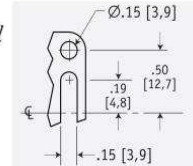


DIMENSIONS ARE IN INCHES [MM]
tolerances are 0.04 IN. [1,0 MM] unless otherwise noted.

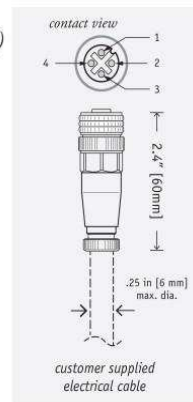
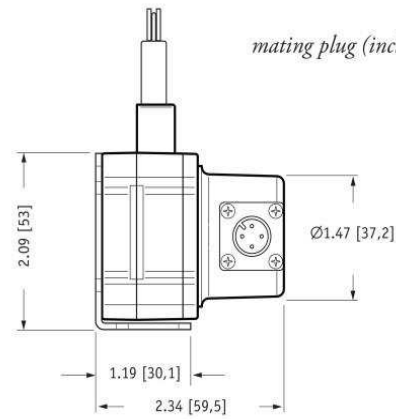
eyelet detail



bracket detail



mating plug (included)



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

SP1

Compact String Pot | Voltage Divider Output

Ordering Information:



includes sensor & mounting bracket.

Part Number	full stroke range	accuracy	max. acceleration	measuring cable tension (± 25%)	cycle life
SP1-4	4.75 in (120 mm)	1.00%	15 g	7oz. (1,9 N)	2.5M
SP1-12	12.5 in (317 mm)	.25%	15 g	7oz. (1,9 N)	500K
SP1-25	25 in (635 mm)	.25%	15 g	7oz. (1,9 N)	500K
SP1-50	50 in (1270 mm)	.25%	15 g	7oz. (1,9 N)	250K



includes sensor, mounting bracket & mating connector.

Part Number	full stroke range	accuracy	max. acceleration	measuring cable tension (± 25%)	cycle life
SP1-4-3	4.75 in (120 mm)	1.00%	11 g	11.5 oz. (3,2 N)	2.5M
SP1-12-3	12.5 in (317 mm)	.25%	11 g	13.9 oz. (3,7 N)	500K
SP1-25-3	25 in (635 mm)	.25%	11 g	11.5 oz. (3,2 N)	500K
SP1-50-3	50 in (1270 mm)	.25%	11 g	11.5 oz. (3,2 N)	250K



4-pin M12 connector
13 ft (4 m)
22 AWG (.34mm²)

Optional Cordset

Part No. **9036810-0040** for all SP1-xx-3 versions, an optional 13-ft. cordset with 4-pin M12 connector