



Description

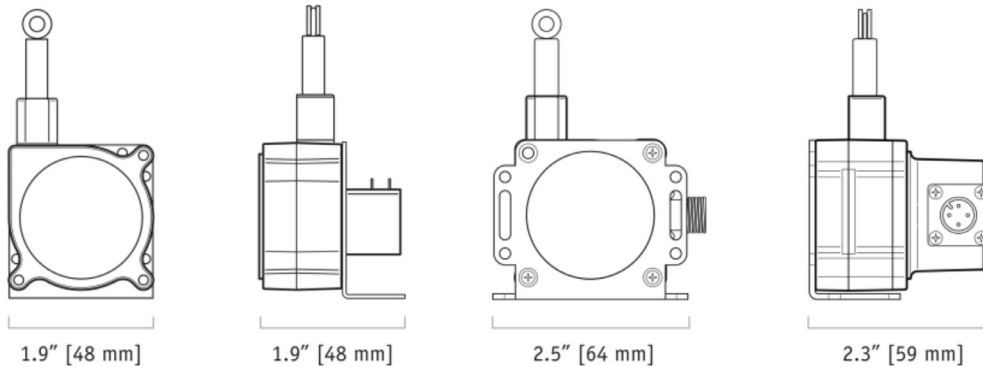
The SP12 is a convenient and versatile compact stringpot that offers a “voltage divider” output, making it easy to use for measuring distances up to 50 inches. Constructed from durable polycarbonate material, this rugged sensor is designed to fit into tight spaces and doesn’t require perfect alignment. Additionally, it comes with a stainless steel mounting bracket, allowing users to effortlessly position the sensor in any desired direction.

- Full stroke range: 12.5 in (317mm)
- Accuracy: 0.25%
- Max acceleration: 15 g
- Measuring Cable Tension (± 25%): 7oz (1,9N)
- Cycle life: 500K

Complete Specifications	
Stroke Range	0-12.5 inches
Output Signal	voltage divider (potentiometer)
Accuracy	±0.25 to ±1.00% (see ordering info)
Repeatability	± 0.05% full stroke
Resolution	essentially infinite
Measuring Cable	0.019-in. dia. nylon-coated stainless steel
Measuring Cable Tension	see ordering information
Maximum Cable Acceleration	see ordering information
Enclosure Material	Polycarbonate
Sensor	plastic-hybrid precision potentiometer
Weight, max. (includes bracket)	.4 lbs (.19 kg)

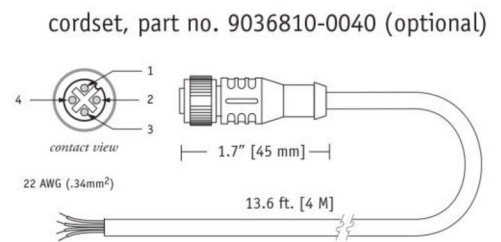
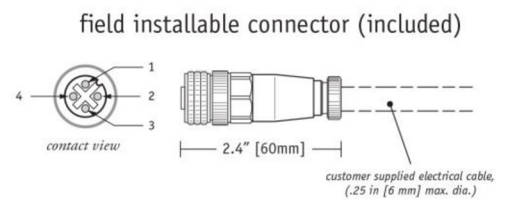
Electrical	
Input Resistance	10K ohms, ±10%
Power Rating, Watts	2.0 at 70°F derated to 0 at 250°
Recommended Maximum Input Voltage	30 V (AC/DC)
Output Signal Change Over Full Stroke Range	94% ±4% of input voltage
Electrical Connection, SP1-xx	solder terminals
Electrical Connection, SP1-xx-3	4-pin, M12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

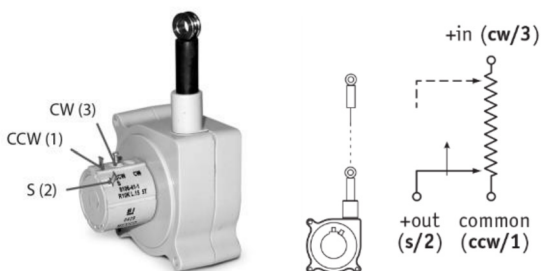


Electrical Connection

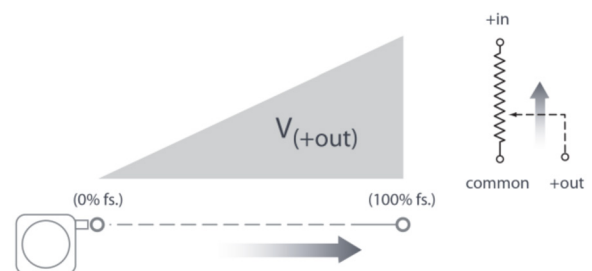
Signals	solder terminals	pin	pin - colorcode
+in	#3 (cw)	1	1 - brown
common	#1 (ccw)	2	2 - white
+out	#2 (s)	3	3 - blue
n/c		4	4 - black



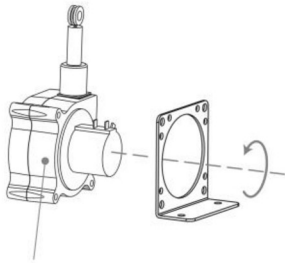
Terminal/Pin Location



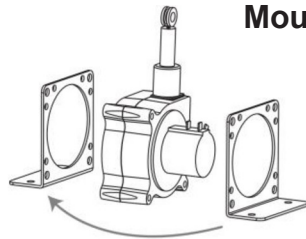
Output Signal



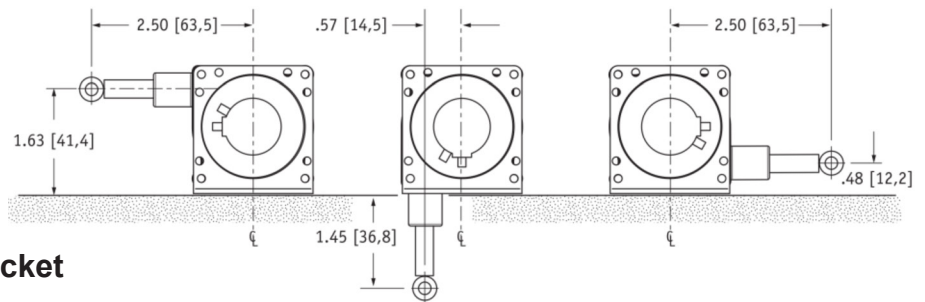
Mounting Options



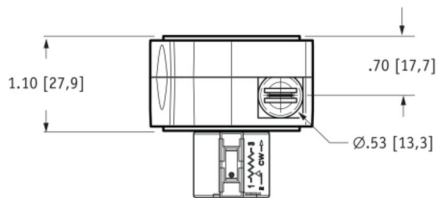
To change measuring cable direction simply remove the 3 bracket attaching screws and rotate sensor body to desired direction.



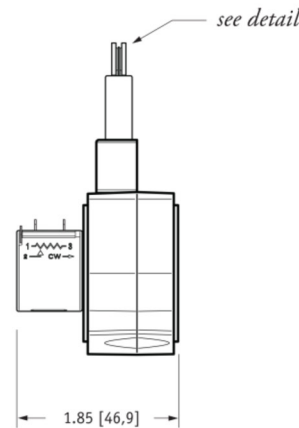
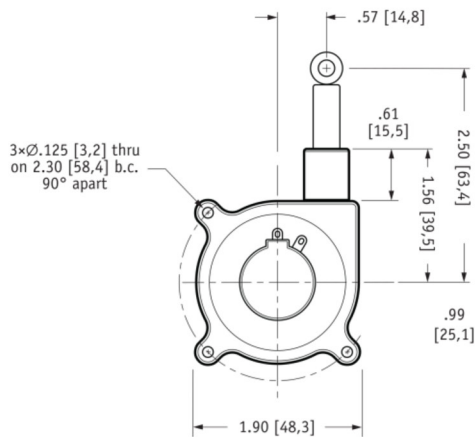
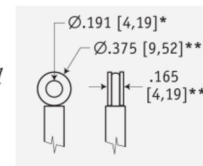
For added flexibility, mounting bracket can easily be switched to the opposite side.



Mounting Bracket



eyelet detail



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

* tolerance = +.005 -0.01 [+0,1 -0,0]
** tolerance = +.005 -0.005 [+0,1 -0,1]

Part Number Table

Description	Part Number
Linear Position Transducer, 12.5 in (317mm), Voltage Divider (Potentiometer)	SP1-12

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