

# SR1E Industrial Low Cost String Pot

Incremental Encoder Output Signal 0-125, 0-175 inch Full Stroke Range Options Designed for Outdoor / Wet environments





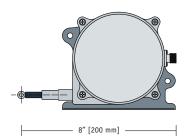
The SR1E is rugged, low-cost, high performance string pot built to withstand wet environments and outdoor applications. Designed for construction equipment and factory use, the SR1E is the perfect low-cost solution for OEM and stocking distributors.

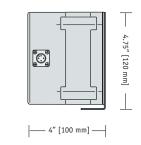
At the heart of this sensor is a robust incremental encoder that delivers a linear resolution of 101 pulses per inch. The SR1E ships with an industry standard push-pull encoder driver that can be powered by 5-30 VDC. (Other resolutions and complimentary channels are available, please consult factory). Each sensor ships with a 4-pin, field installable, M12 connector and an additional 13 ft. (4 m) cordset is also available. Just like the rest of our SR1 series, the SR1E is in stock for quick delivery.

# **SPECIFICATIONS**

Input Voltage	5-30 VDC
Input Current	100 mA max., no load
Sensor	incremental encoder
Output Driver Type	push-pull (note: Vin = Vout)
Output Driver Current	20 mA max., source/sink
Maximum Velocity	80 inches (2 meters) per second
Maximum Acceleration	10 g (retraction)
Operating Temperature	-4° to 185° F (-20° to 85° C)
Enclosure	polycarbonate
Measuring Cable	.034-inch dia. nylon-coated stainless
Electrical Connection	M12 Connector (mating plug included)
Weight	2.5 lbs. (1.3 Kg)

Full Stroke Range, <b>SR1E-125</b>	125 inches (3175 mm)
Full Stroke Range, <b>SR1E-175</b>	175 inches (4445 mm)
Output Signal	incremental encoder
Resolution	101 ±2 pulses per inch
Accuracy	± .1% FS.
Repeatability	± .05% FS.
Environmental Suitability	NEMA 6, IP67

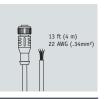




# **Ordering Information**







SR1E-125

SR1E-175

Part No. 9036810-0040

125-inch stroke range, M12 field-installable connector, IP67 environments, mounting bracket included 175-inch stroke range, M12 field-installable connector, IP67 environments, mounting bracket included OPTIONAL CORDSET for short-run connections, a 13-ft. cordset with 4-pin M12 connector

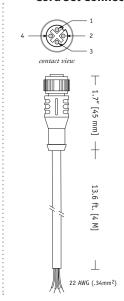
# **Electrical Connection**

#### **Field Installable Connector**



_ pin	signal		
1	530 VDC		
2	common		
3	channel A		
4	channel B		
channel A			
channel B			
	$V_{out} = V_{in}$		
	oo		

#### **Cord Set Connections**



1	brown	530 VDC			
2	white	common			
3	blue	channel A			
4	black	channel B			
cable specifications					
length:		13 ft. (4m)			

PVC

gray

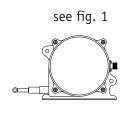
signal

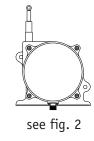
pin conductor

cable material:

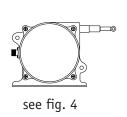
cable color:

Cable Exit Direction Options









Changing the Measuring Cable Exit and Electrical Connector Direction

### **Changing Measuring Cable Exit**

To change the direction of the measuring cable, remove the 4 mounting bracket screws and rotate bracket to one of four available positions. See figures 1 - 4 on the following pages for mounting dimensions.

#### **Changing Electrical Connector Direction**

To change the position of the electrical connector, remove the 4 rear cover screws and carefully separate rear cover from the sensor body.

Rotate the rear cover to desired position being careful to not tangle the wiring harness that runs to the connector.

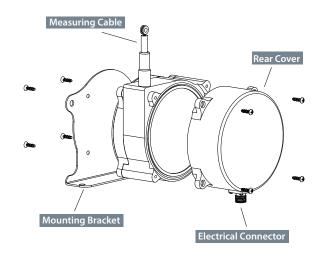


Fig. 1 - Outline Drawing (as shipped)

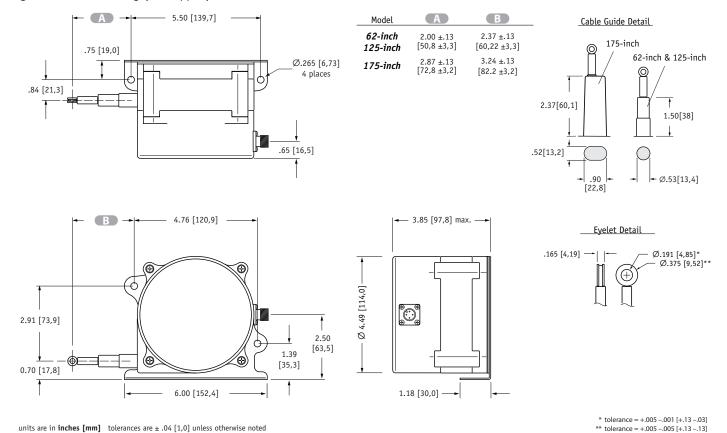
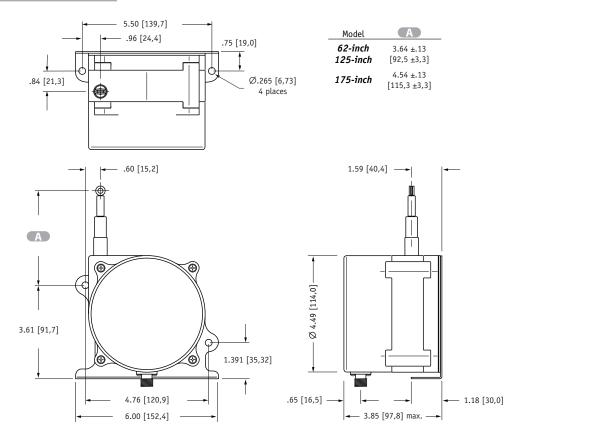
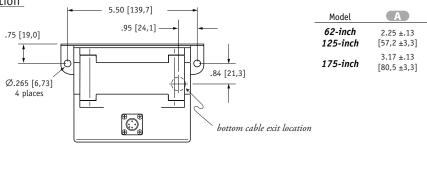
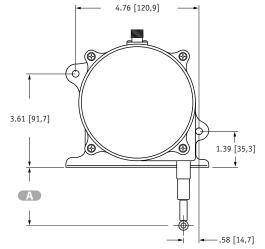
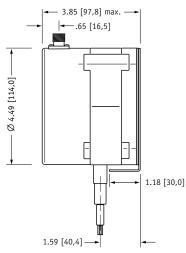


Fig. 2 - "Up" Cable Exit Direction



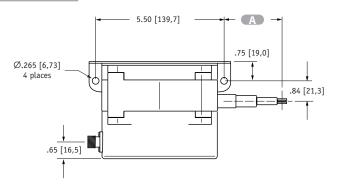




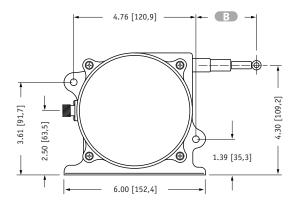


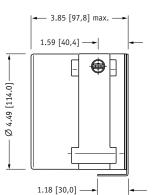
\_Fig. 4 - "Rear" Cable Exit Direction

version: 2.0 last updated: February 28, 2012



Model	A	В
62-inch 125-inch	2.00 ±.13 [50,8 ±3,3]	2.37 ±.13 [60,22 ±3,3]
175-inch	2.87 ±.13 [72,8 ±3,2]	3.24 ±.13 [82.2 ±3,2]





units are in inches [mm] tolerances are  $\pm$  .04 [1,0] unless otherwise noted