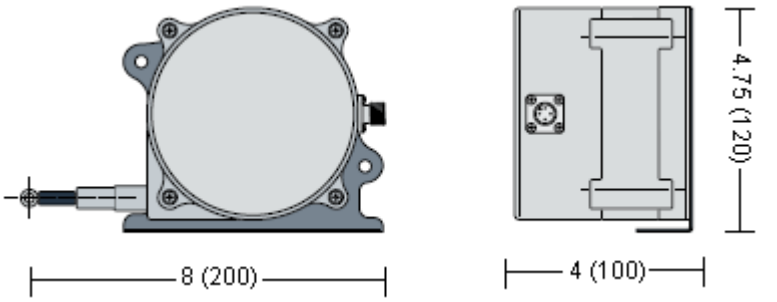
Industrial Low Cost String Pot

Precision Potentiometric Output

SR1A is a rugged, low-cost, high performance string pot built for wet environments and outdoor applications. Originally designed for off-road construction equipment, the SR1A is the perfect low-cost solution for OEM and stocking distributors.

Available in 125-inch stroke ranges, the SR1A is constructed of a rugged polycarbonate enclosure designed to withstand impact from harsh environments and rugged conditions. Each sensor ships with a handy mounting bracket to make just about any installation very simple. Every SR1A ships with a field installable mating connector and optional cord set are available.



Dimensions : Inches (Millimetres)

Specifications

Measurement range	: 0 - 125 inches (0 - 3,175 mm)
Accuracy	: ±0.5% FS
Environmental suitability	: NEMA 6, IP67
Operating temperature	: -40° to 185°F (-40° to 85°C)
Sensor	: Plastic-hybrid precision potentiometer
Input resistance	: 10 KΩ
Maximum input voltage	: 30 volts ac/dc
Resolution	: Essentially infinite
Repeatability	: ± 0.1% FS
Measuring cable	: 0.034 - inch diameter nylon-coated stainless
Maximum velocity	: 80 inches (2 meters) per second
Maximum acceleration	: 10 G (retraction)
Measuring cable tension	: 23 oz (6,4 N) ±30%
Cycle life	: 250,000 (potentiometer)
Enclosure	: polycarbonate
Electrical connection	: M12 connector (mating plug included)
Weight	: 2.5 lbs (1.3 Kg)

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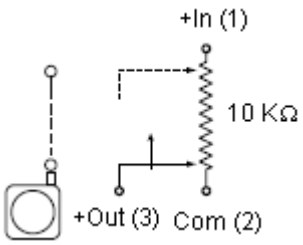
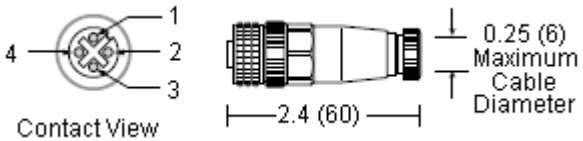
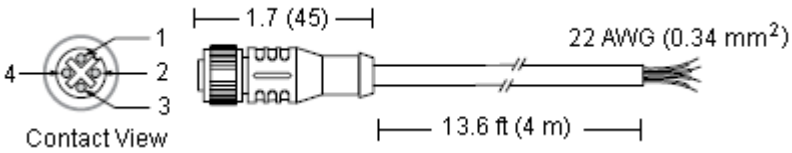
Electrical Connection

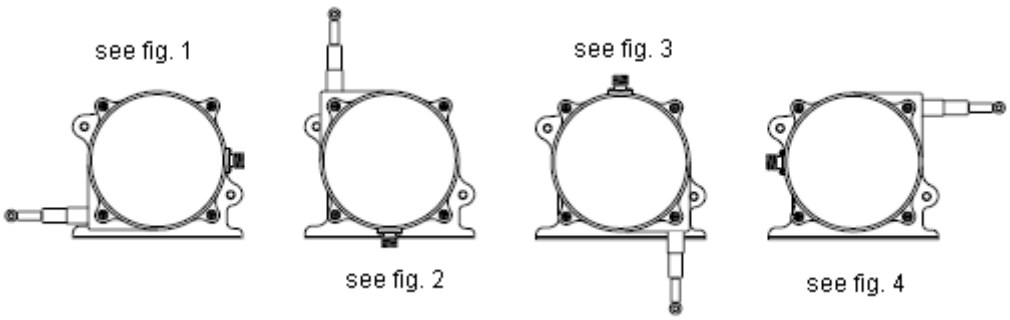
output signal	connector pin	colour code (cord set)
+in	1	brown
common	2	white
+out	3	blue
n/c	4	black







Cable Exit Direction Options



Changing the Cable Exit

To change measuring cable exit direction, remove the four screws that attach mounting bracket and rotate to desired position

See figs. 1-4 on the following pages for mounting dimensions

Electrical connector can also be rotated around to one of 4 different positions. Simply remove the 4 rear cover screws and rotate the cover

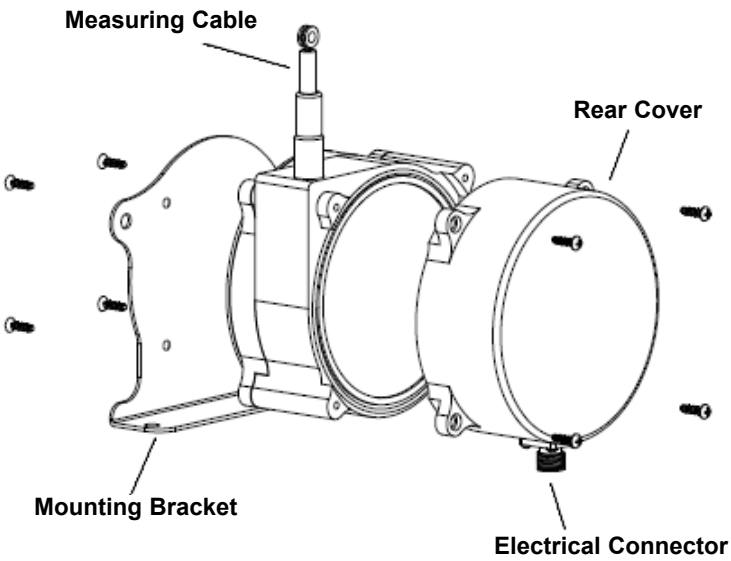


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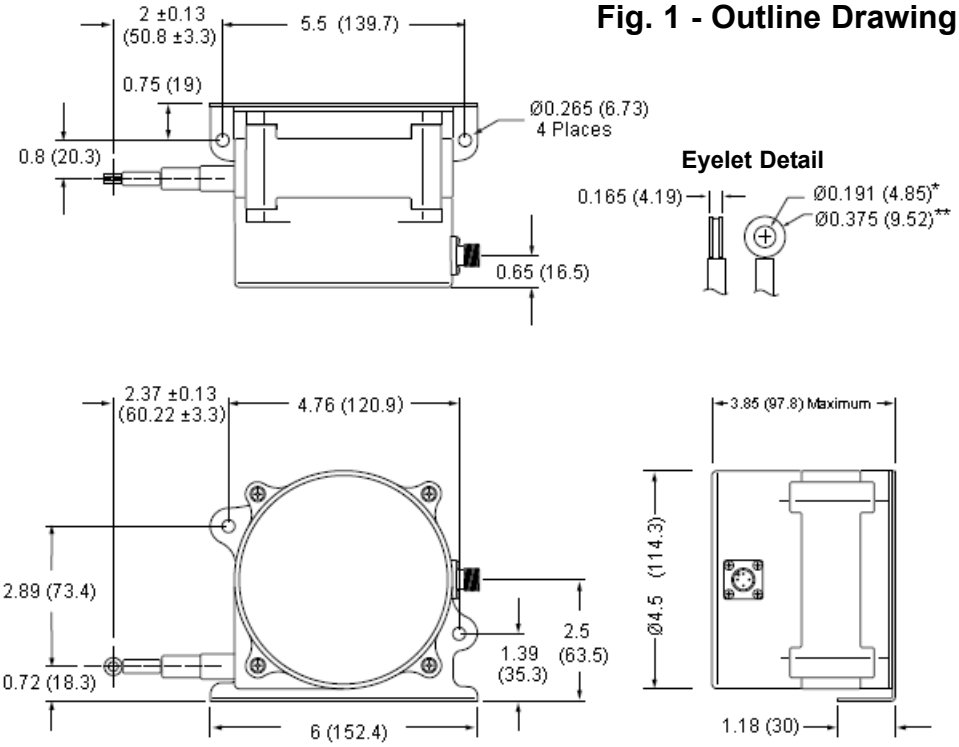
Fig. 1 - Outline Drawing

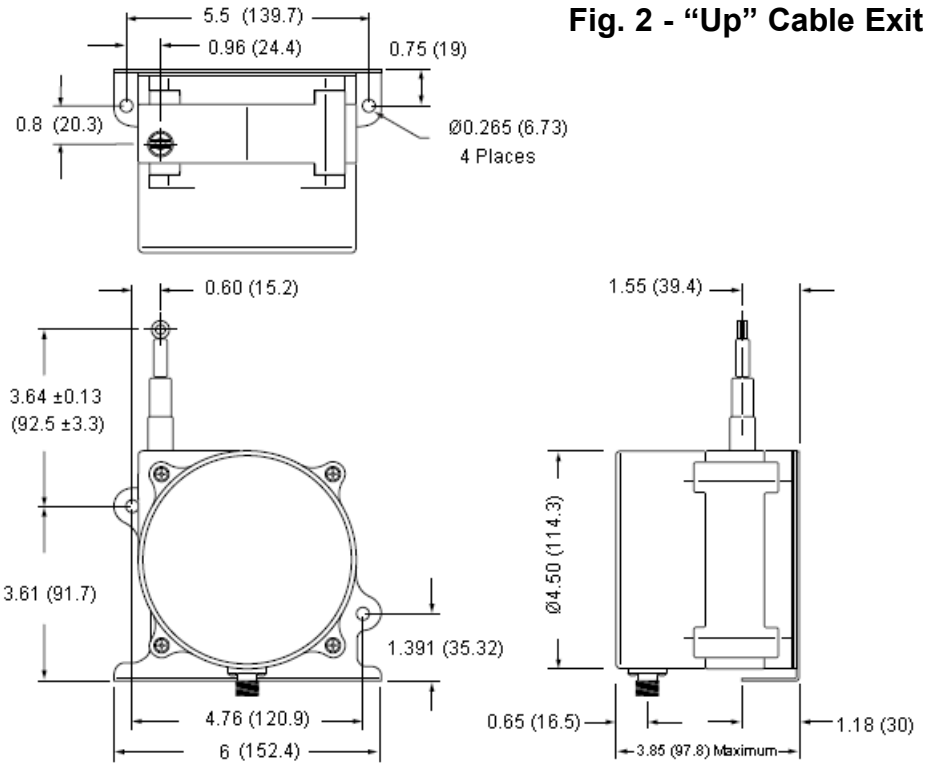


Tolerances : ± 0.04 (1.0)

Dimensions : Inches (Millimetres)

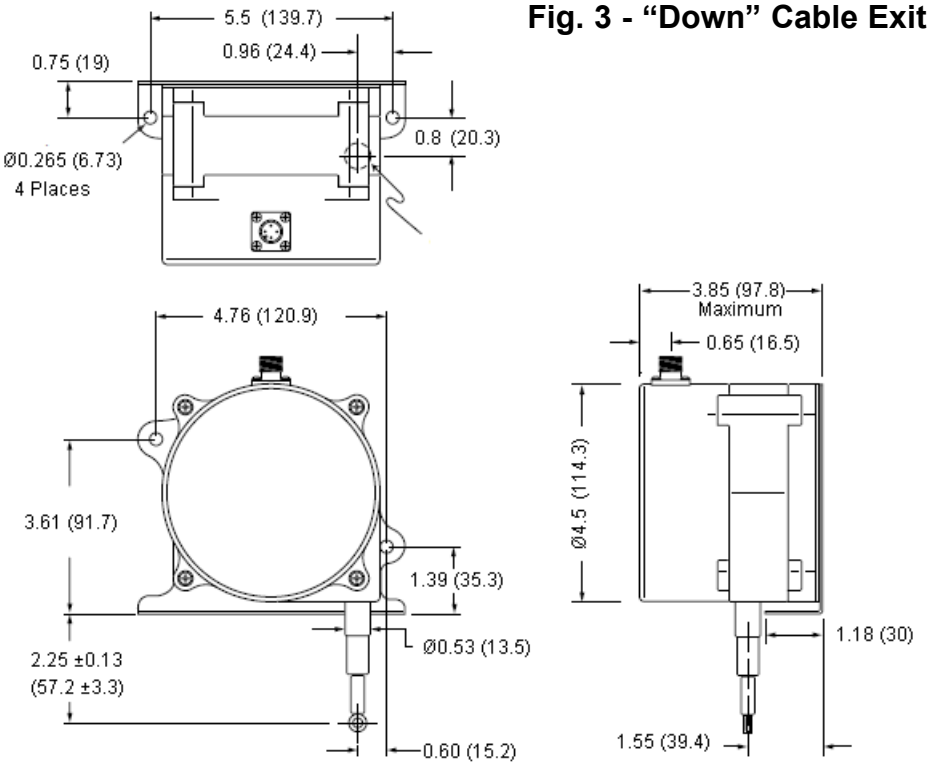
* tolerance = +0.005 – 0.001 (+0.13 – 0.03)
** tolerance = +0.005 – 0.005 (+0.13 – 0.13)

Fig. 2 - “Up” Cable Exit Direction



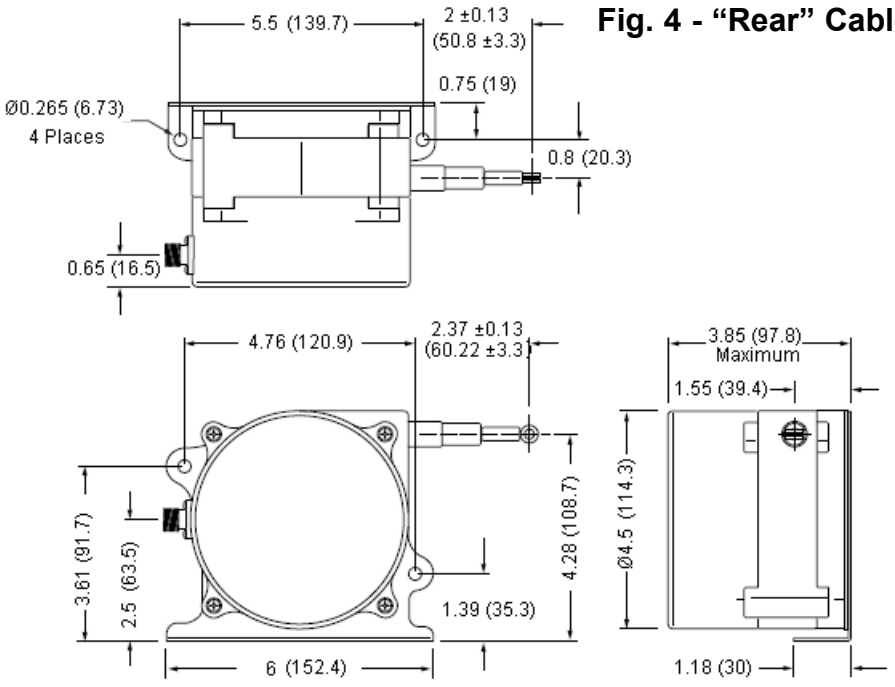
Dimensions : Inches (Millimetres)

Fig. 3 - “Down” Cable Exit Direction



Dimensions : Inches (Millimetres)

Fig. 4 - “Rear” Cable Exit Direction



Dimensions : Inches (Millimetres)

Part Number Table

Description	Part Number
Transducer, Cable Extension, 125IN, IP67	SR1A-125