# SM<sub>1</sub>

# Miniature String Pot • Voltage Divider Output

Linear Position to 25 inches (635 mm)

Fits In Tight Spaces • Handy Mounting Bracket

Polycarbonate Enclosure • Free Release Tolerant

In Stock for Quick Delivery!

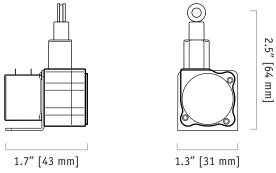


Order No.	full stroke range	accuracy (% of f.s.)	cycle life
SM1-2	2.5 in (64 mm)	1.00%	2.5M cycles
SM1-7	7.5 in (191 mm)	0.25%	500K cycles
SM1-12	12.5 in (318 mm)	0.25%	500K cycles
SM1-25	25 in (635 mm)	0.25%	250K cycles

#### **SPECIFICATIONS**

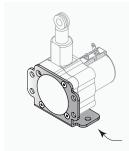
Available Stroke Ranges	2.5, 7.5, 12.5, 25 inches		
Output Signal voltage divider (potention			
Accuracy	.25% to 1% FS. (see ordering info)		
Repeatability	.05% FS.		
Resolution	essentially infinite		
Measuring Cable	.014-inch dia. nylon-coated stainless steel		
Maximum Acceleration	15 g (retraction)		
Measuring Cable Tension	5.1 oz. (1,4 N) ±30%		
Sensor	plastic-hybrid precision potentiometer		
Input Resistance	10K ohms, ±10%		
Power Rating, Watts	2.0 at 70°F derated to 0 at 250°		
Recommended Maximum Inp	out Voltage 30 V (AC/DC)		
Output Signal Change Over F	ull Stroke Range 94% ±4% of V(+in)		
Cycle Life	see ordering information		
Electrical Connection	solder terminals, directly to potentiometer		
Enclosure	glass-filled polycarbonate		
Environmental	IP 50		
Operating Temperature	0° to 160° F (-18° to 70° C)		
Weight (not including bracke	t) 3 oz (90 g)		





With it's ultra compact design the SM1 is the perfect solution when tight space is an issue. At just a little over an inch across, this miniature stringpot offers full stroke measurement ranges from 2½ to 25 inches. A precision plastic hybrid 10K-ohm potentiometer delivers a precise voltage divider output signal that is linearly proportional to the travel of the spring-loaded measuring cable.

Constructed with a rugged polycarbonate enclosure and free-release tolerant, the SM1 is the perfect solution for the OEM and single piece user alike.



#### **Optional Universal Mounting Kit**

Available as an optional accessory, this universal-style mounting bracket replaces the standard bracket to give added mounting flexibility.

It's easy to install and the mounting kit comes with the bracket and all of the screws needed to attach it to the sensor.

See fig. 3 for further details.

Order No: #9604300-0000

Output Signal:

V(+out)

(0% fs.)

(100% fs.)

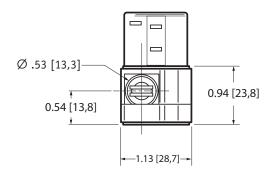
common +out

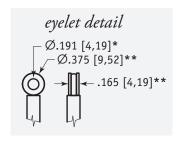




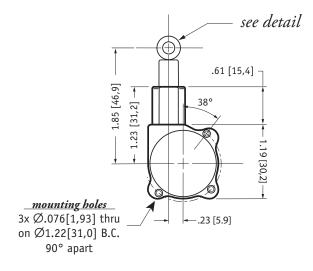


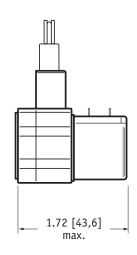
## Fig. 1 - Outline Drawing (w/o mounting bracket):





\*tolerance = +.005 -.001 [+.13 -.03] \*\*tolerance = +.005 -.005 [+.13 -.13]





INCHES [MM]

## **Electrical Connection:**

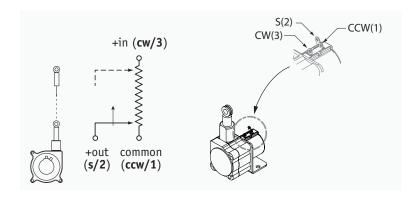
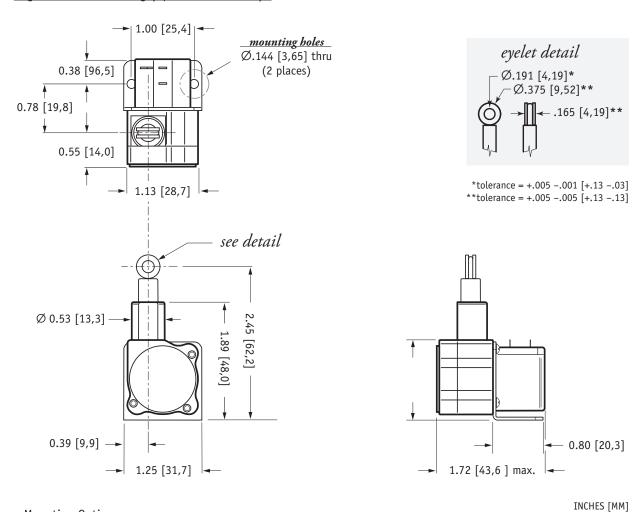


Fig. 2 - Outline Drawing (w/standard bracket):



#### Mounting Options:

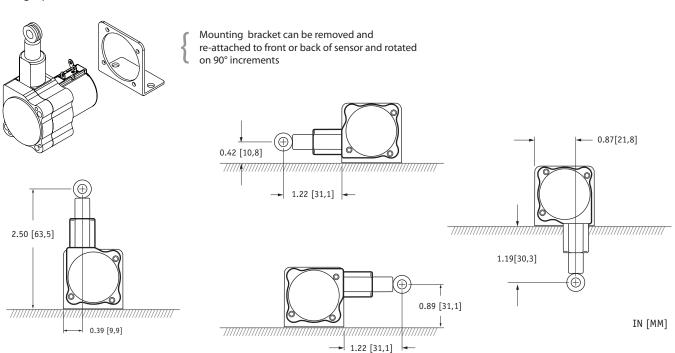
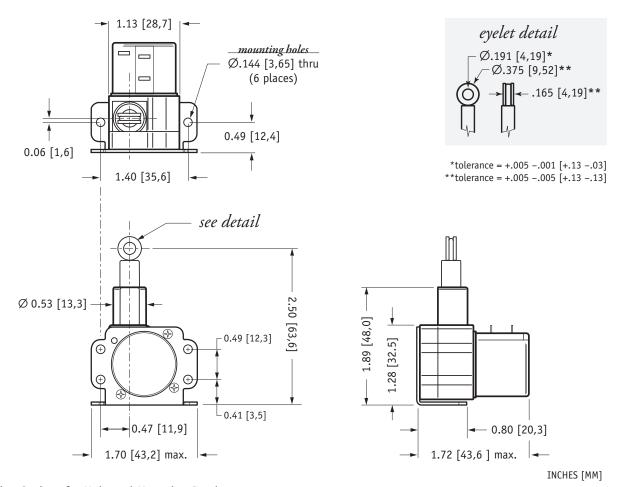
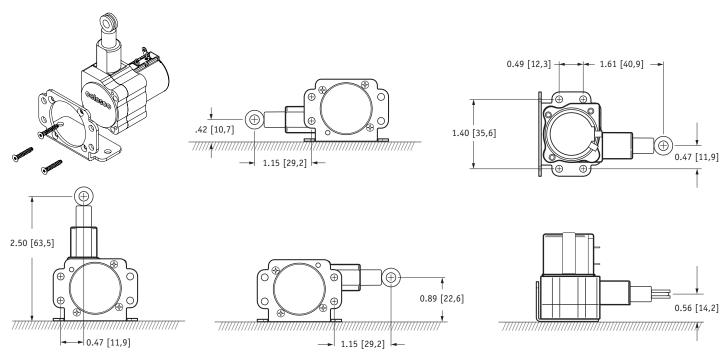


Fig 3 - Outline Drawing (w/optional Universal Mounting Bracket):



Mounting Options for Universal Mounting Bracket:



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