# 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!

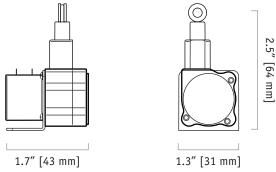


Order No.	full stroke range	accuracy (% of f.s.)	cycle life
SM1-2	2.5 in (64 mm)	1.00%	2.5M cycles
SM1-7	7.5 in (191 mm)	0.25%	500K cycles
SM1-12	12.5 in (318 mm)	0.25%	500K cycles
SM1-25	25 in (635 mm)	0.25%	250K cycles

#### **SPECIFICATIONS**

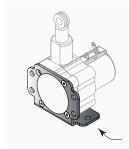
Available Stroke Ranges	2.5, 7.5, 12.5, 25 inches	
Output Signal	voltage divider (potentiometric)	
Accuracy	.25% to 1% FS. (see ordering info)	
Repeatability	.05% FS.	
Resolution	essentially infinite	
Measuring Cable	.014-inch dia. nylon-coated stainless steel	
Maximum Acceleration	15 g (retraction)	
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	ut 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 polyca		
Environmental	IP 50	
Operating Temperature	0° to 160° F (-18° to 70° C)	
Weight (not including bracket	) 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

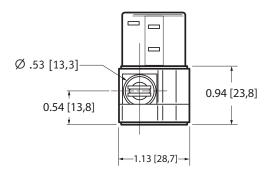
Output Signal: V<sub>(+out)</sub> (0% fs ) (100% fs) -O

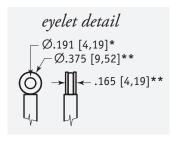
20630 Plummer Street . Chatsworth, CA 91311 tel: 800.423.5483 • +1.818.701.2750 • fax: +1.818.701.2799



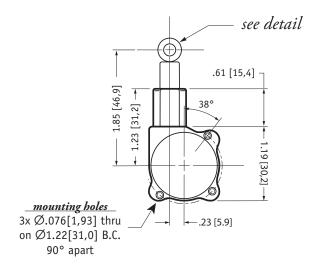
measurement

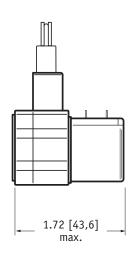
# Fig. 1 - Outline Drawing (w/o mounting bracket):





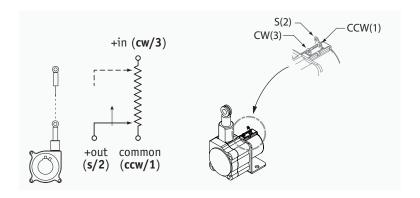
\*tolerance = +.005 -.001 [+.13 -.03] \*\*tolerance = +.005 -.005 [+.13 -.13]





INCHES [MM]

### **Electrical Connection:**

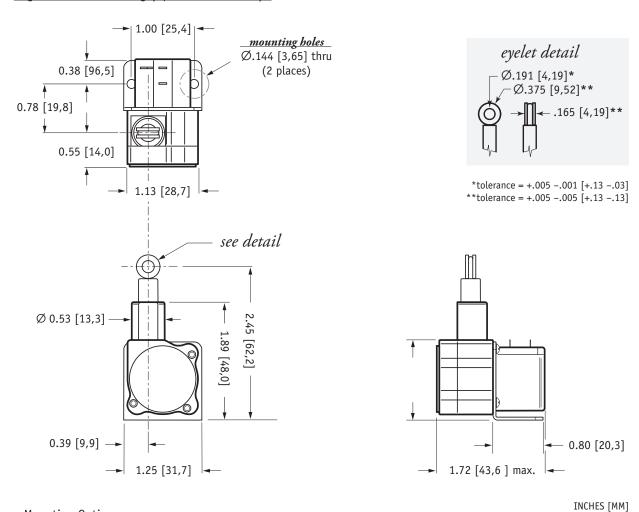


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Fig. 2 - Outline Drawing (w/standard bracket):



## Mounting Options:

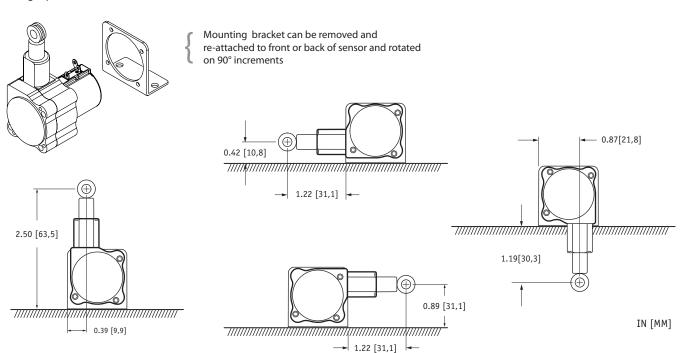
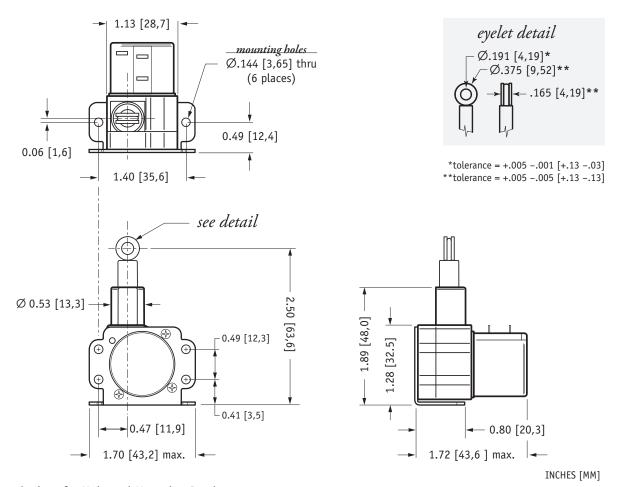
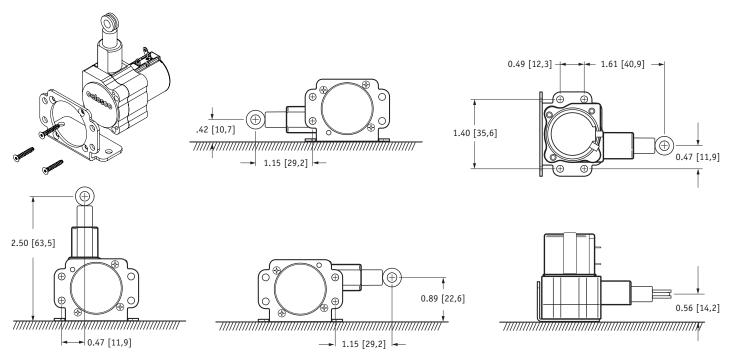


Fig 3 - Outline Drawing (w/optional Universal Mounting Bracket):



Mounting Options for Universal Mounting Bracket:



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