

# SE1

## Compact String Pot • Incremental Encoder

Linear Position to 50 inches (1270 mm)

Low-Cost, Long Life • Rugged Polycarbonate Enclosure

Free-Release Tolerant Measuring Cable

**In Stock for Quick Delivery!**

Part No.	full stroke range	accuracy	cycle life
<b>SE1-25</b>	25 in (635 mm)	0.050 in.	1.1M cycles
<b>SE1-50</b>	50 in (1270 mm)	0.050 in.	1.1M cycles

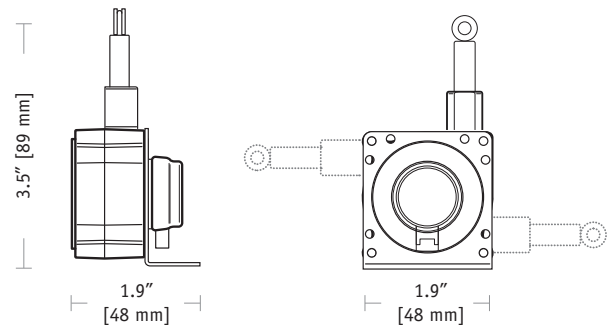
includes sensor, mounting bracket & conn. w/12-inch leads

### COMPLETE SPECIFICATIONS

Full Stroke Range Options	0-25, 0-50 inches
Output Signal	incremental encoder (quadrature)
Accuracy	±0.050 inches
Repeatability	± 0.025 inches
Resolution	56.40 ±.32 pulses per inch
Measuring Cable	0.019-in. dia. nylon-coated stainless steel
Measuring Cable Tension	7 oz. (1.9 N) ±25%
Maximum Cable Acceleration	15 g
Enclosure Material	polycarbonate
Sensor	optical encoder
Cycle Life	1.1 million cycles
Enclosure	IP 50
Operating Temperature	14° to 185°F (-10° to 85°C)
Vibration	up to 10 g to 2000 Hz max.
Weight	5 oz. (w/o mounting bracket) max.

### ELECTRICAL

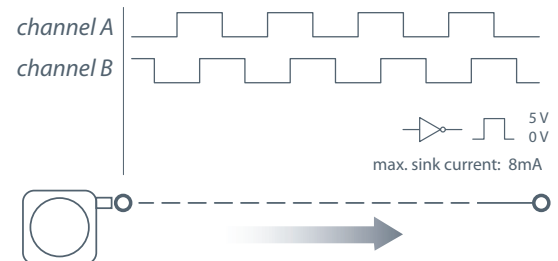
Input Voltage	5 VDC
Input Current	50 mA max.
Output Driver	TTL compatible
Sink Current	8 mA max.
Electrical Connection	mating plug with 12-inch leads, included
Electrical Connector	Molex 53048-0410
Mating Plug	Molex 51021-0400 (shell), 50079-8100 (pins)



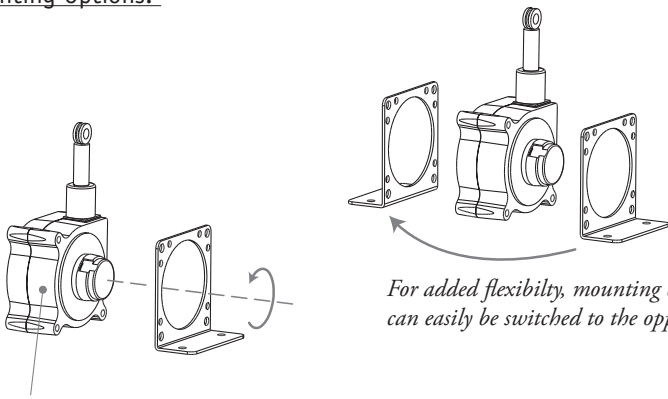
The Celesco SE1 is the digital encoder version of our compact String Pot series. The SE1 is an economical and durable device that utilizes a flexible cable, a spring-loaded spool and an incremental optical encoder to detect and measure linear position.

The SE1 is designed for tight spaces, high-cycle applications and generously allows cable misalignment. With a handy mounting bracket included, and 2 basic measurement ranges, the SE1 is a perfect solution for many applications, from light industrial to OEM.

### Output Signal:



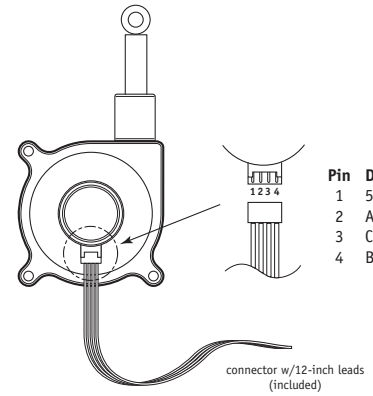
**Mounting Options:**



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

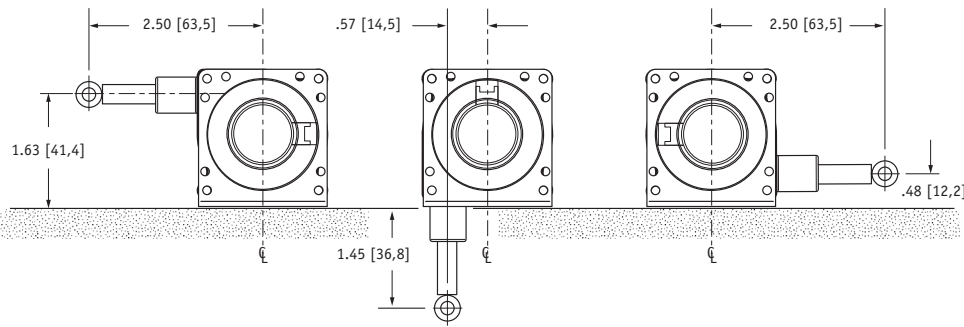
To change measuring cable direction simply remove the 3 bracket attaching screws and rotate sensor body to desired direction.

**Electrical Connection:**

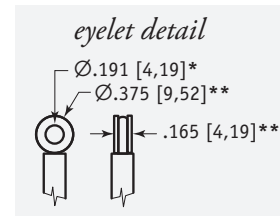
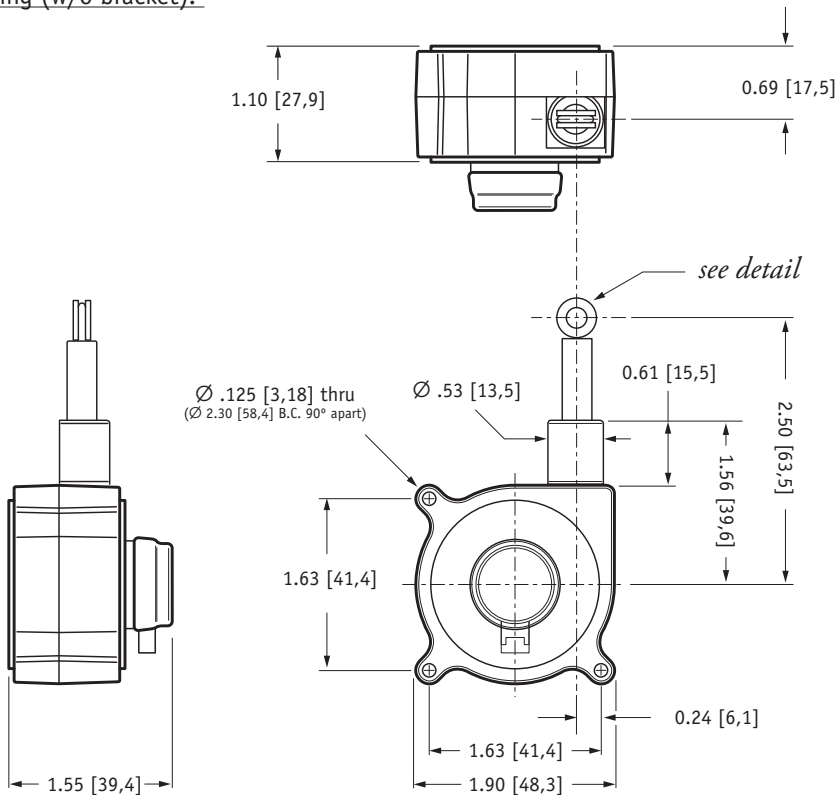


Pin	Description
1	5 VDC power
2	A channel
3	Common
4	B channel

connector w/12-inch leads (included)



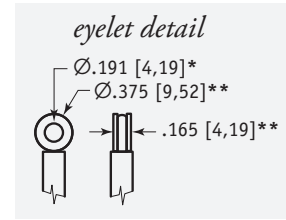
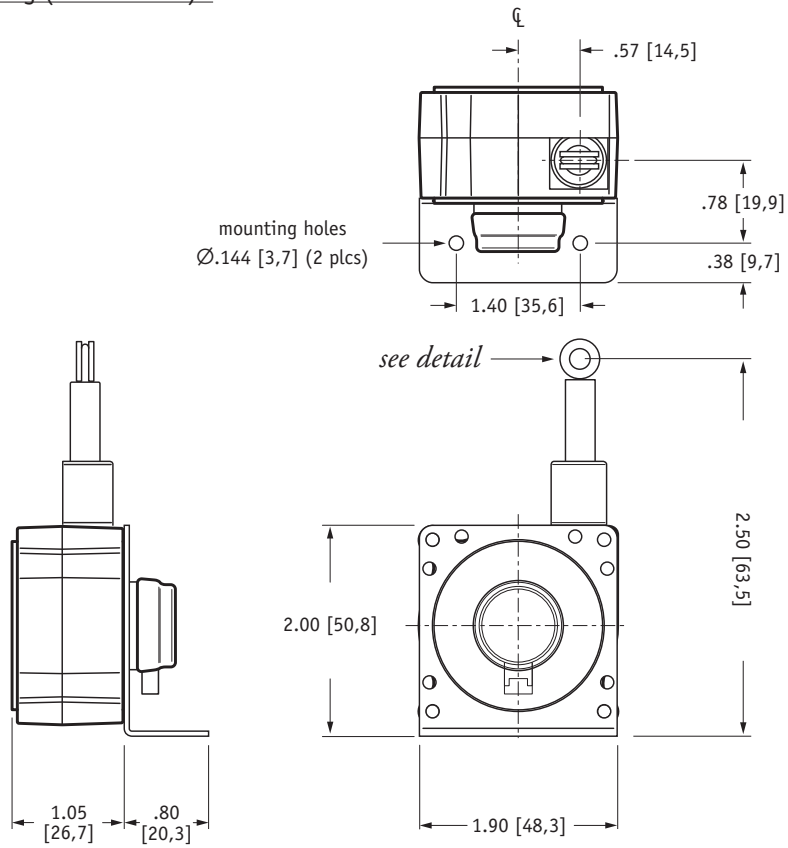
**Outline Drawing (w/o bracket):**



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

INCHES [MM]

Outline Drawing (with bracket):



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

INCHES [MM]

version: 5.0 last updated: February 15, 2013