

# Transducer, Cable Extension



## Handy Mounting Bracket

Mounts easily and quickly in several directions

## Designed for Cable Misalignment

Long cable life, even when installation isn't perfect

## Polycarbonate Enclosure

Withstands impacts and chemicals

## "Free-Release" Tolerant

Greatly reduces damage due to mis-handling of cable

The SP1 String Pot is a compact, economical and durable device that utilizes a flexible cable, a spring-loaded spool, and a potentiometer to detect and measure linear position

The SP1 is designed for tight spaces, high-cycle applications and generously allows cable misalignment with 4 different measurement ranges and handy mounting brackets, the SP1 is a perfect solution for many applications, from light industrial to OEM

## Specifications:

### General

Full stroke range options	: 0 - 4.75 and 0 - 12.5 inches
Output signal	: Voltage divider (potentiometer)
Accuracy	: $\pm 0.25$ to $\pm 1\%$
Repeatability	: $\pm 0.05\%$ full stroke
Resolution	: Essentially infinite
Measuring cable	: 0.019-inch diameter nylon-coated stainless steel
Enclosure material	: Polycarbonate
Sensor	: Plastic-hybrid precision potentiometer
Weight	: 3oz (w/o mounting bracket) maximum

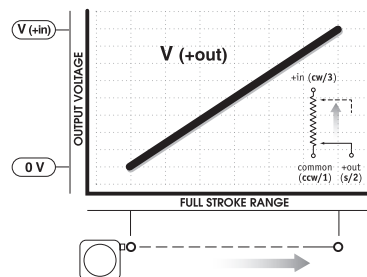
### Electrical

Input resistance	: 10K $\Omega$ , $\pm 10\%$
Power rating, watts	: 2 at 70°F derated to 0 at 250°C
Recommended maximum input voltage	: 30V (ac/dc)
Output signal change over full stroke range	: 94% $\pm 4\%$ of input voltage

### Environmental

Enclosure	: IP 50
Operating temperature	: 0°F to 160°F (-18°C to 71°C)
Vibration	: up to 10 G's to 2,000 Hz maximum

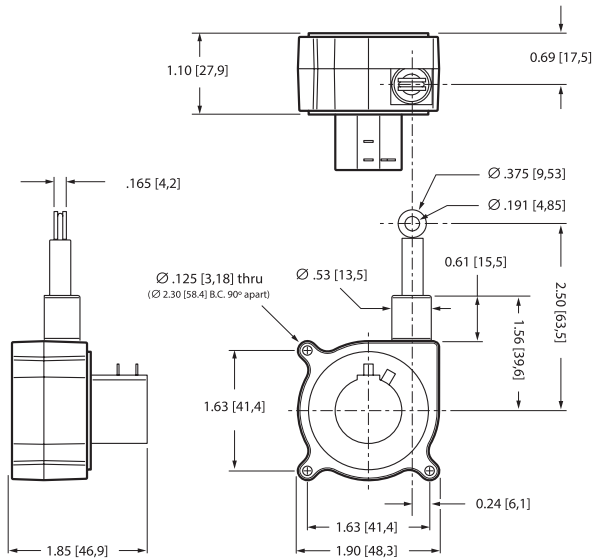
## Output Signal:



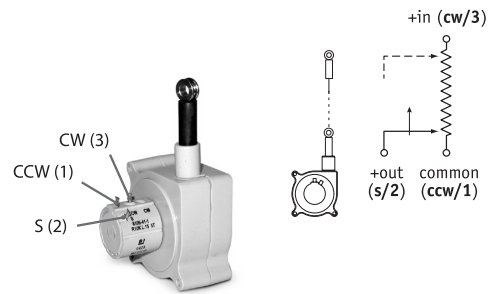
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## Installation Information:

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

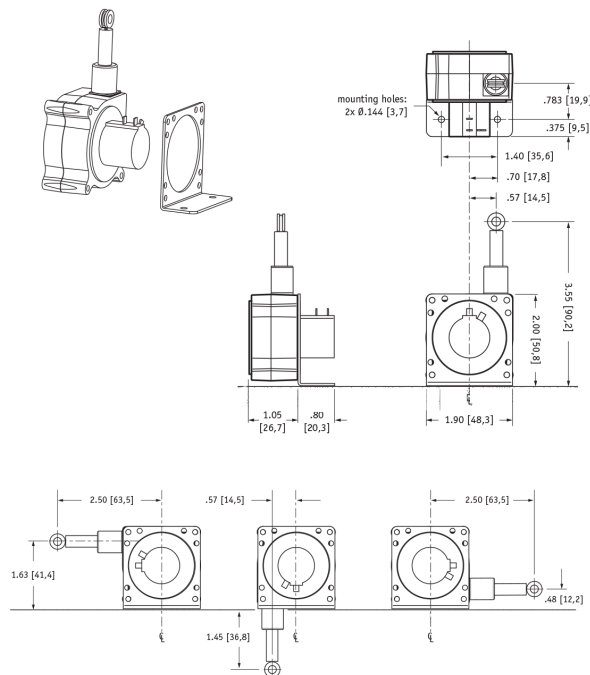


### Electrical Connection:



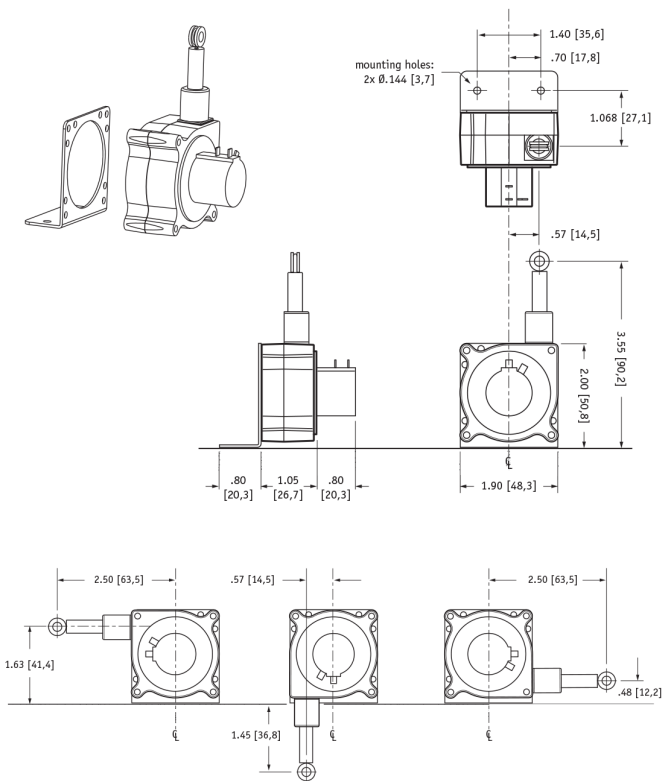
Dimensions : Inches (Millimetres)

## Mounting Options:



Dimensions : Inches (Millimetres)

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Dimensions : Inches (Millimetres)

## Part Number Table

Description	Full Stroke Range (Inch)	Accuracy (% of f.s.)	Potentiometer Cycle Life	Cable Tension ( $\pm 25\%$ )	Maximum Cable Acceleration	Part Number
Transducer, Cable Extension, 4.75in	4.75	1	2.5 M cycles	7 oz	30 G	SP1-4
Transducer, Cable Extension, 12.5in	12.5	0.25	500K cycles			SP1-12
Transducer, Cable Extension, 25in	25		250K cycles			SP1-25
Transducer, Cable Extension, 50in	50		250K cycles			SP1-50

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