

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	: ± 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

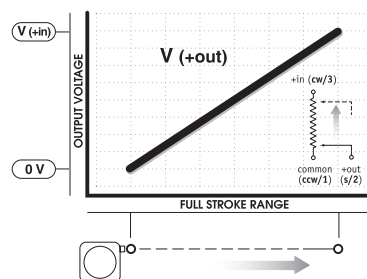
Electrical

Input resistance	: 10K Ω , $\pm 10\%$
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

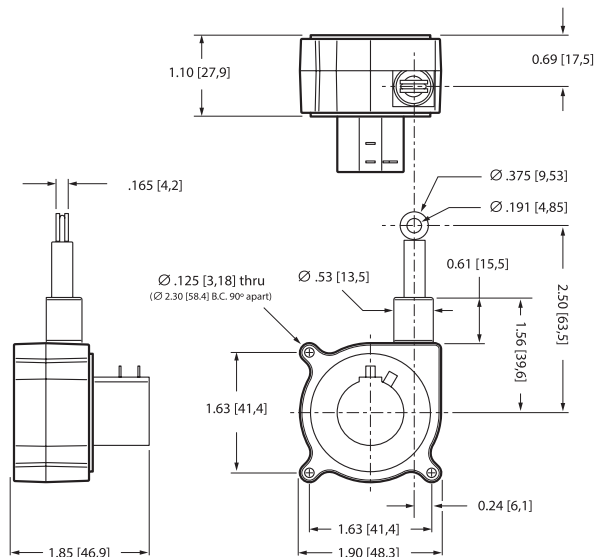
Output Signal:



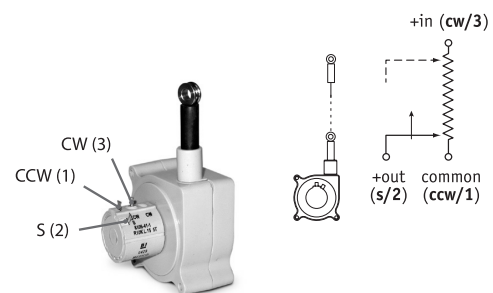
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Installation Information:

Outline Drawing (w/o bracket):

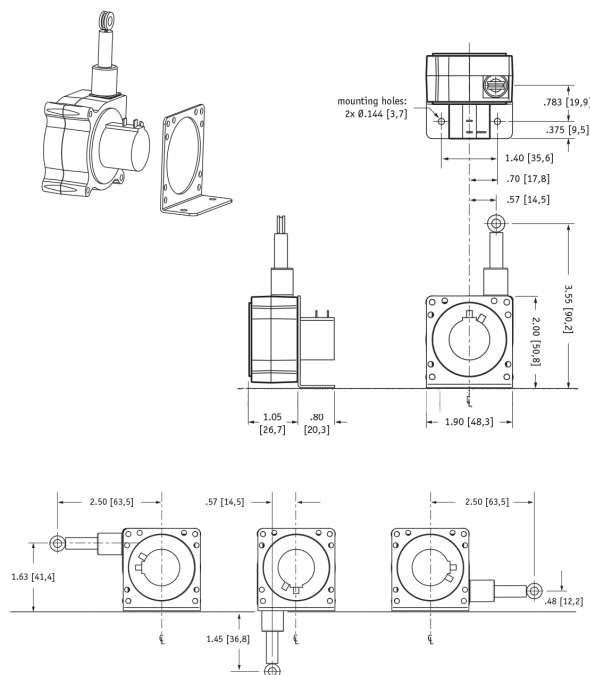


Electrical Connection:



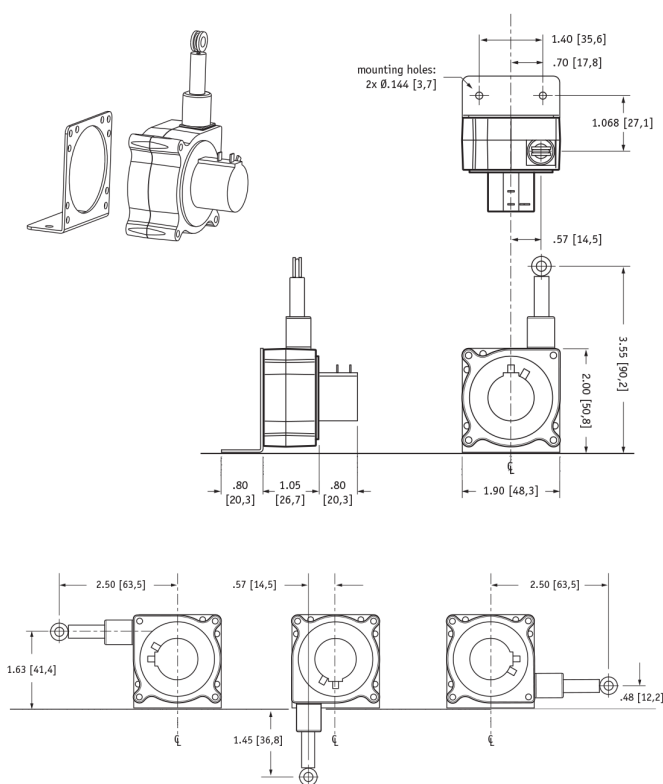
Dimensions : Inches (Millimetres)

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 (±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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