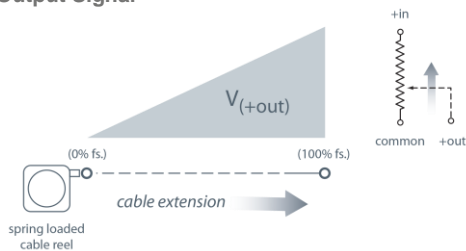


The PT5A potentiometric cable-extension transducer uses a unique thermoplastic cable that has virtually an infinite fatigue life. This cable, known as V62, has properties that are superior for high cycle and rugged applications.

Like Celesco's other transducers, the PT5A installs in minutes, functions properly without perfectly parallel alignment, and fits easily into small areas. The PT5A offers additional installation flexibility since its cable exit can be rotated relative to the mounting surface, providing four different cable exit orientations.

### Output Signal



-- bridge circuit option available, see ordering information

## PT5A

### Cable Actuated Sensor Industrial Grade • Voltage Divider Output

**Absolute Linear Position to 250 inches (6350 mm)**

**Hard Anodized Aluminum Enclosure**

**High Cycle Applications**

**IP67 • NEMA 6 Protection**

#### General

<b>Full Stroke Range</b>	0-10 to 0-250 inches
<b>Options</b>	
<b>Output Signal Options</b>	voltage divider (potentiometer)
<b>Accuracy</b>	±0.18% to ±0.75% full stroke (see ordering information)
<b>Repeatability</b>	±0.02% to ±0.1% full stroke (see ordering information)
<b>Resolution</b>	essentially infinite
<b>Measuring Cable</b>	stainless steel or thermoplastic
<b>Enclosure</b>	hard anodized aluminum
<b>Sensor</b>	plastic-hybrid precision potentiometer
<b>Potentiometer Cycle Life</b>	see ordering information
<b>Maximum Measuring Cable Velocity</b>	see ordering information
<b>Maximum Retraction Acceleration</b>	see ordering information
<b>Weight</b>	5 lbs. max.

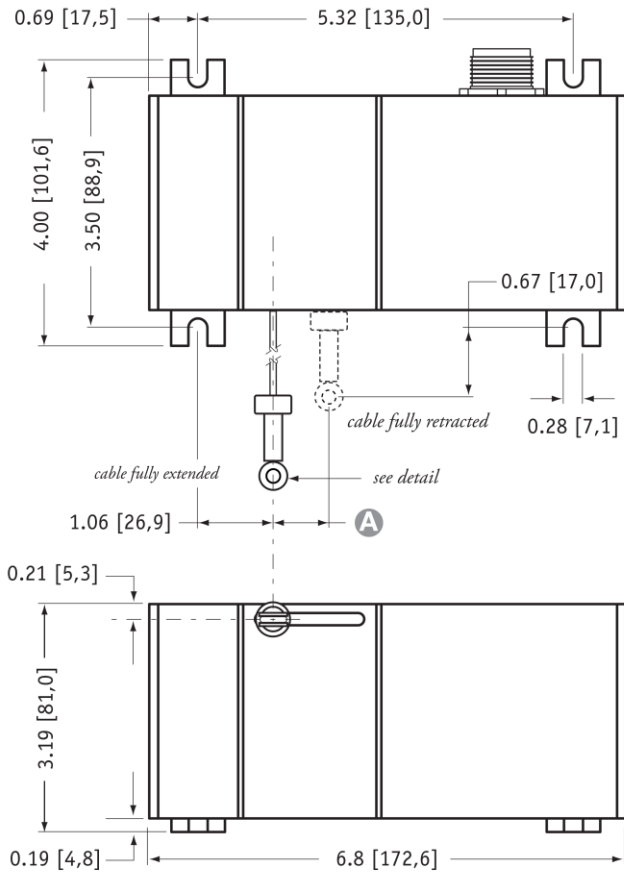
#### Electrical

<b>Input Resistance</b>	500, 1K, 5K, 10K ohms or bridge
<b>Options</b>	
<b>Power Rating, Watt</b>	see ordering information
<b>Recommended Maximum Input Voltage</b>	see ordering information
<b>Output Signal Change Over Full Stroke Range</b>	94% ±4% of input voltage

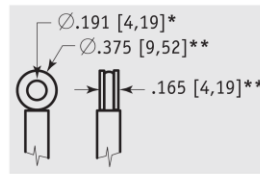
#### Environmental

<b>Enclosure</b>	NEMA 4/6, IP 65/67
<b>Operating Temperature</b>	-40° to 200°F (-40° to 90°C)
<b>Vibration</b>	up to 10 g to 2000 Hz maximum

**Outline Drawing**

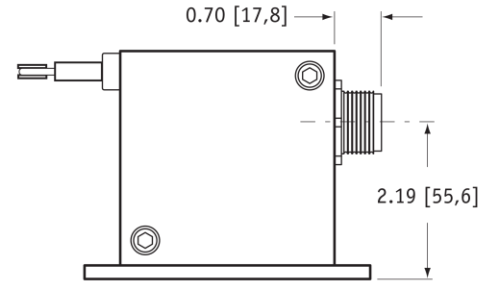


**eyelet detail**



**A DIMENSION (inches[mm])**

RANGE	DIMENSION (inches[mm])	
	N34 measuring cable	S47 & V62 measuring cable
10	0.05 [1,2]	0.08 [2,0]
15	0.07 [1,8]	0.12 [3,0]
20	0.09 [2,4]	0.16 [3,9]
30	0.14 [3,5]	0.23 [5,9]
40	0.19 [4,7]	0.31 [7,9]
50	0.23 [5,9]	0.39 [9,9]
60	0.28 [7,0]	0.47 [11,8]
80	0.37 [9,4]	0.62 [15,8]
100	0.46 [11,7]	0.78 [19,7]
125	0.58 [14,7]	0.97 [24,7]
150	0.69 [17,6]	1.16 [29,6]
200	0.92 [23,5]	n/a
250	1.16 [29,3]	n/a

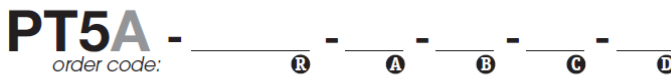


DIMENSIONS ARE IN INCHES [MM]  
tolerances are 0.03 IN. [0.5 MM] unless otherwise noted.

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

**Ordering Information**

**Model Number:**



Sample Model Number:

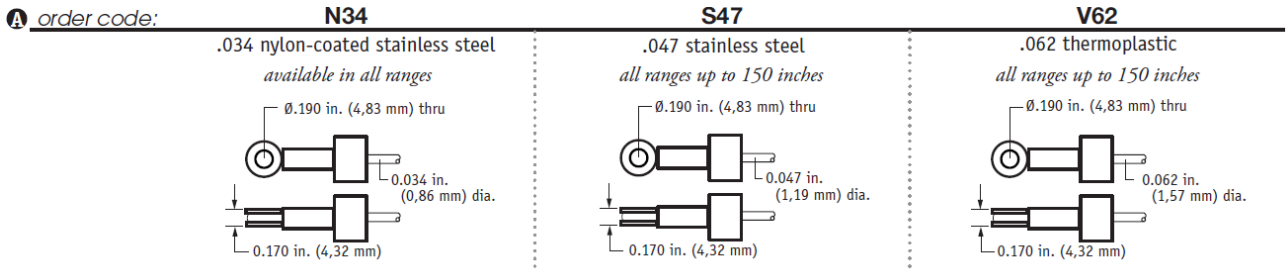
**PT5A - 100 - N34 - FR - 500 - M6**

- R** range: 100 inches
- A** measuring cable: .034 nylon-coated stainless
- B** cable exit: front
- C** output signal: 500 ohm potentiometer
- D** electrical connection: 6-pin plastic connector

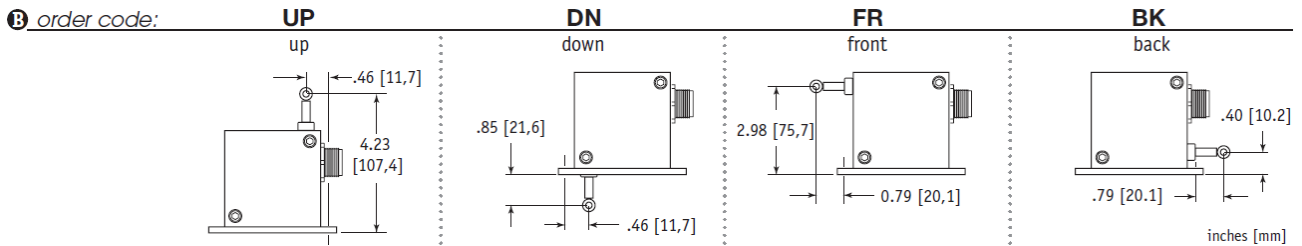
**Full Stroke Range:**

<b>R</b> order code:	10	15	20	25	30	40	50	60	80	100	125	150	200	250
full stroke range, min:	10 in.	15 in.	20 in.	25 in.	30 in.	40 in.	50 in.	60 in.	80 in.	100 in.	125 in.	150 in.	200 in.	250 in.
accuracy (±% of f.s.):	.75%	.6%	.5%	.5%	.5%	.3%	.3%	.25%	.25%	.25%	.25%	.18%	.18%	.18%
repeatability (±% of f.s.):	.1%	.1%	.05%	.05%	.05%	.05%	.05%	.02%	.02%	.02%	.02%	.02%	.02%	.02%
potentiometer cycle life:	2,500,000 cycles						500,000 cycles					250,000 cycles		
cable tension (20%):	41 ounces												21 ounces	
max. cable velocity/acceleration:	300 in./sec • 5 g												120 in./sec • 2 g	

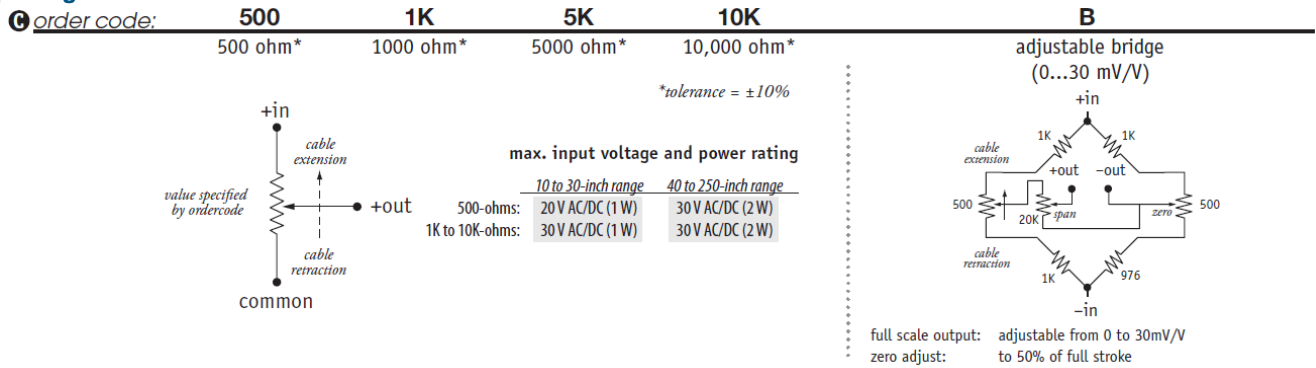
**Measuring Cable:**



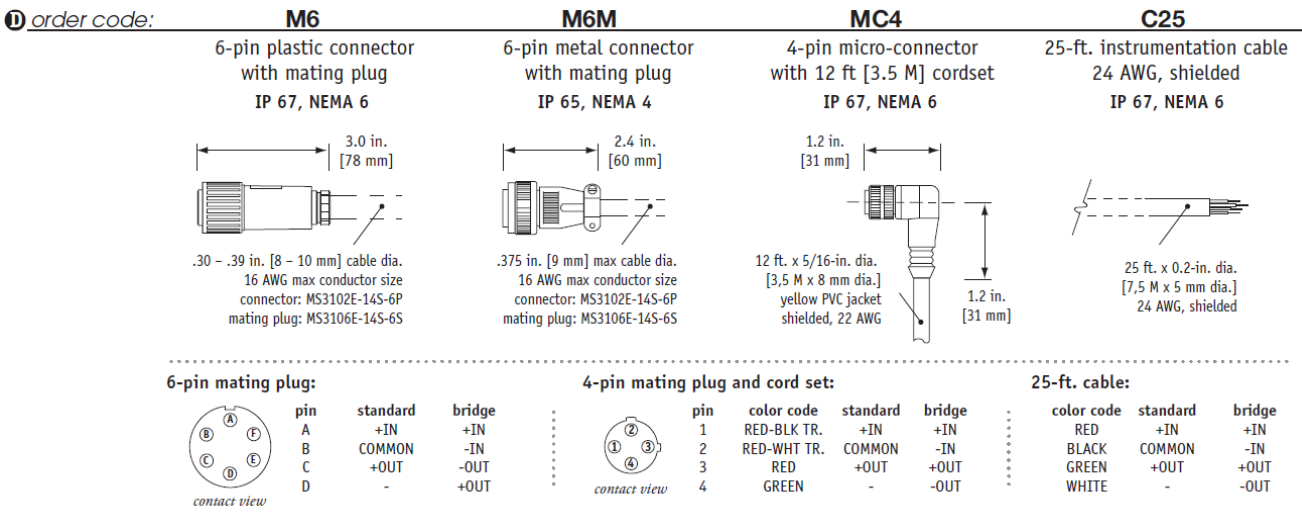
**Cable Exit:**



**Output Signals:**



**Electrical Connection:**



## PT5A

Industrial Grade • Voltage Divider

---



**19 Waterman Ave. Toronto, Ont. M4B1Y2**  
**Tel: 416-445-5500 Fax: 416-445-1170**  
**Toll Free: 1-800-465-1600**  
**Email: [sales@intertechnology.com](mailto:sales@intertechnology.com)**  
**Website: [www.intertechnology.com](http://www.intertechnology.com)**

### [TE.com/sensorsolutions](http://TE.com/sensorsolutions)

Measurement Specialties, Inc., a TE Connectivity company.

Measurement Specialties, TE Connectivity, TE Connectivity (logo) and EVERY CONNECTION COUNTS are trademarks. All other logos, products and/or company names referred to herein might be trademarks of their respective owners.

The information given herein, including drawings, illustrations and schematics which are intended for illustration purposes only, is believed to be reliable. However, TE Connectivity makes no warranties as to its accuracy or completeness and disclaims any liability in connection with its use. TE Connectivity's obligations shall only be as set forth in TE Connectivity's Standard Terms and Conditions of Sale for this product and in no case will TE Connectivity be liable for any incidental, indirect or consequential damages arising out of the sale, resale, use or misuse of the product. Users of TE Connectivity products should make their own evaluation to determine the suitability of each such product for the specific application.

© 2015 TE Connectivity Ltd. family of companies All Rights Reserved.

PT5A 12/01/2015