

# Cable-Extension Position Transducer

- ▼ Long Range
- ▼ Industrial Grade
- ▼ 0...10 VDC Output Signal



EXTENDED RANGE

# PT9510



## Specifications:

### GENERAL

Full Stroke Ranges-*on this datasheet*..... 0-600 to 0-1700inches, see ① next page  
 Output Signal ..... 0-10, 0-5 VDC, see ⑦  
 Accuracy .....  $\pm 0.12\%$  full stroke  
 Repeatability .....  $\pm 0.05\%$  full stroke  
 Resolution ..... essentially infinite  
 Measuring Cable ..... stainless steel or nylon-coated stainless steel, see ③  
 Enclosure Material ..... powder-painted aluminum or stainless steel, see ④  
 Sensor ..... plastic-hybrid precision potentiometer  
 Potentiometer Cycle Life\* ..... 250,000 min.  
 Maximum Retraction Acceleration ..... see ⑥  
 Maximum Velocity ..... see ⑤  
 Weight, Aluminum (Stainless Steel )Enclosure ..... 14 lbs. (28 lbs.) max.

### ELECTRICAL

Input Voltage ..... 14.5-40VDC (10.5-40VDC for 0-5 volt output)  
 Input Current ..... 10 mA maximum  
 Output Impedance ..... 1000 ohms  
 Maximum Output Load ..... 5000 ohms  
 Zero and Span Adjustment ..... 2:1 turndown

### ENVIRONMENTAL

Enclosure Design ..... NEMA 4/4X/6, IP65/67/68, see ⑧ and ⑨  
 Operating Temperature .....  $-40^{\circ}$  to  $200^{\circ}$ F  
 Vibration ..... up to 10 G's to 2000 Hz maximum

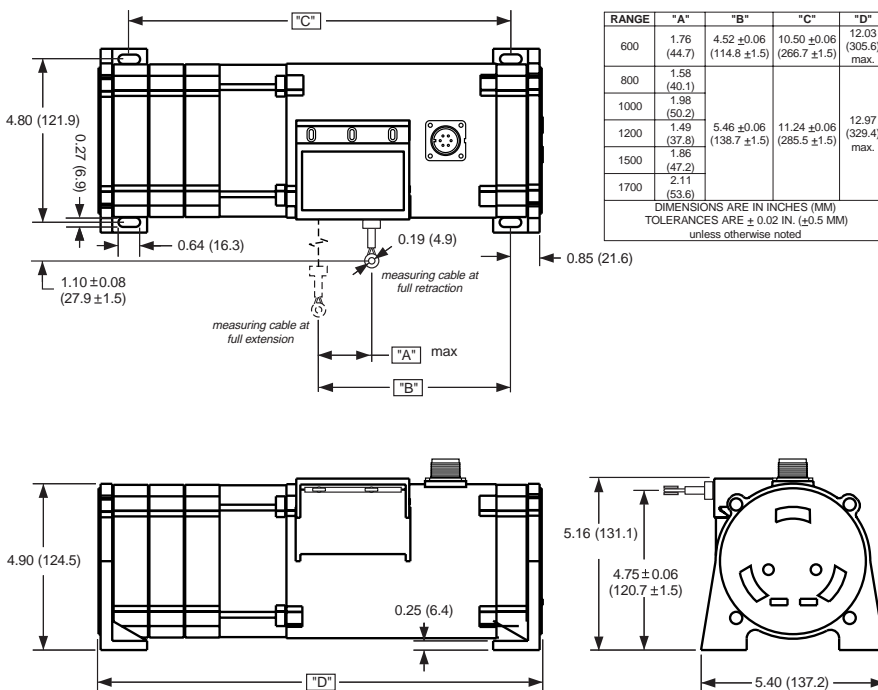
### EMC COMPLIANCE PER DIRECTIVE 89/336/EEC

Emission / Immunity ..... EN50081-2 / EN50082-2

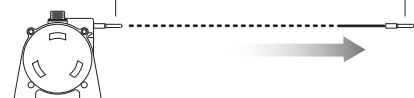
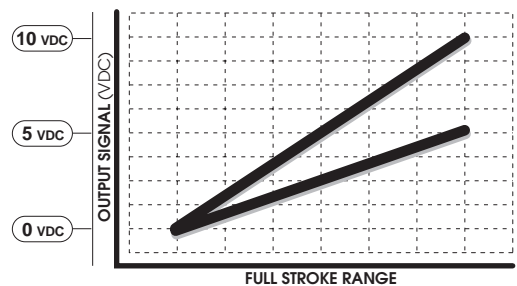
\*note: **potentiometer cycle life** is defined as the minimum number of times the measuring cable can be fully extended and retracted before any measureable degradation of the output signal occurs.

The PT9510 can operate from an unregulated 14.5 to 40 VDC power supply while providing a regulated output signal over it's full extended range of up to 1700". It provides a 0 - 10 VDC position feedback signal proportional to the linear movement of it's stainless steel measuring cable.

As a member of Celesco's innovative family of NEMA-4 rated cable-extension transducers, the PT9510 offers numerous benefits. It installs in minutes, functions properly without perfectly parallel alignment, and when its cable is retracted, it measures only 6".



### Electrical Output Signal:



**celesco**

# PT9510 • Extended Range • Cable-Extension Transducer • 0...10 VDC Output Signal

## ▼ Ordering Information

### Model Number:

**PT9510-** \_\_\_\_\_ **-** \_\_\_\_\_ **1** \_\_\_\_\_ **-** **1** \_\_\_\_\_ **0**

order code:                      **R**                      **A**                      **B**                      **C**                      **D**                      **E**                      **F**                      **G**

### Full Stroke Range:

	<b>R</b> order code:	<b>0600</b>	<b>0800</b>	<b>1000</b>	<b>1200</b>	<b>1500</b>	<b>1700</b>
① full stroke range, min:		600 inches	800 inches	1000 inches	1200 inches	1500 inches	1700 inches
cable tension (±30%):		25 oz.	25 oz.	24 oz.	24 oz.	23 oz.	23 oz.
② cable construction:		.034 nylon-coated stainless	.024 nylon-coated stainless	.019 nylon-coated stainless	.015 stainless steel		

### Enclosure Material:

	<b>A</b> order code:	<b>1</b>	<b>3</b>
③ enclosure material:		powder-painted aluminum	303 stainless steel
④ maximum velocity:		60 inches per second	20 inches per second
⑤ max. retraction acceleration:		1 G	0.33 G

### Cable Exit:

<b>G</b> order code:	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
direction:	front	top	rear	bottom

### Output Signals:

<b>F</b> order code:	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
⑦ output signal configuration:	0...10 VDC	10...0 VDC	0...5 VDC	5...0 VDC

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**Electrical Connection:**

Ⓣ order code:

	1	2	3	4
electrical connection:	6-pin plastic connector and mating plug	10 ft. waterproof cable	6-pin metal connector and mating plug	25 ft. instrumentation cable
		connections	connections	connections
	A = input voltage B = output signal C = common	WHT = input voltage GRN = output signal BLK = common		RED = input voltage GRN = output signal BLK = common
IP rating:	67	67, 68*	65	67
NEMA rating:	6, 4X**	6, 4X**	4	6

note: \*requires factory submersion test

\*\*applies to stainless steel enclosure, see Ⓞ

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**▼ Sample Model Number**

**PT9510-1500** - 1 1 1 - 1 1 1 0  
order code:      Ⓡ      ⓐ      ⓑ      Ⓒ      Ⓓ      Ⓔ      Ⓕ      Ⓖ

Specifications: Full Stroke Range: 1500 inches  
 Enclosure Material: powder-painted aluminum  
 Measuring Cable: 0.015-in dia. stainless steel cable  
 Cable Exit: front  
 Output Signals: 0-10 VDC, output increasing with cable extension  
 Electrical Connection: 6-pin plastic connector