

Cable-Extension Position Transducer

Short to Medium Range

Industrial Grade

Output Signal Options: 0...5, 0...10, -5...+5, -10...+10 VDC



PT8510



Specification Summary:

GENERAL

Full Stroke Ranges 0-2 to 0-60 inches, see ① next page
 Output Signal 0...10, 0...5, -5...+5, -10...+10 VDC, see ⑥
 Accuracy ± 0.28 to $\pm 0.15\%$ full stroke, see ②
 Repeatability $\pm 0.05\%$ full stroke
 Resolution essentially infinite
 Measuring Cable stainless steel, nylon-coated or thermoplastic, see ⑤
 Enclosure Material powder-painted aluminum or stainless steel, see ④
 Sensor plastic-hybrid precision potentiometer
 Weight, Aluminum (Stainless Steel) Enclosure 3 lbs. (6 lbs.) max.

ELECTRICAL

Input Voltage 14.5-40VDC (10.5-40VDC for 0...5, -5...+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, IP 65/67/68 see ⑦ and ⑧
 Operating Temperature -40° to 200°F
 Vibration up to 10 G's to 2000 Hz maximum

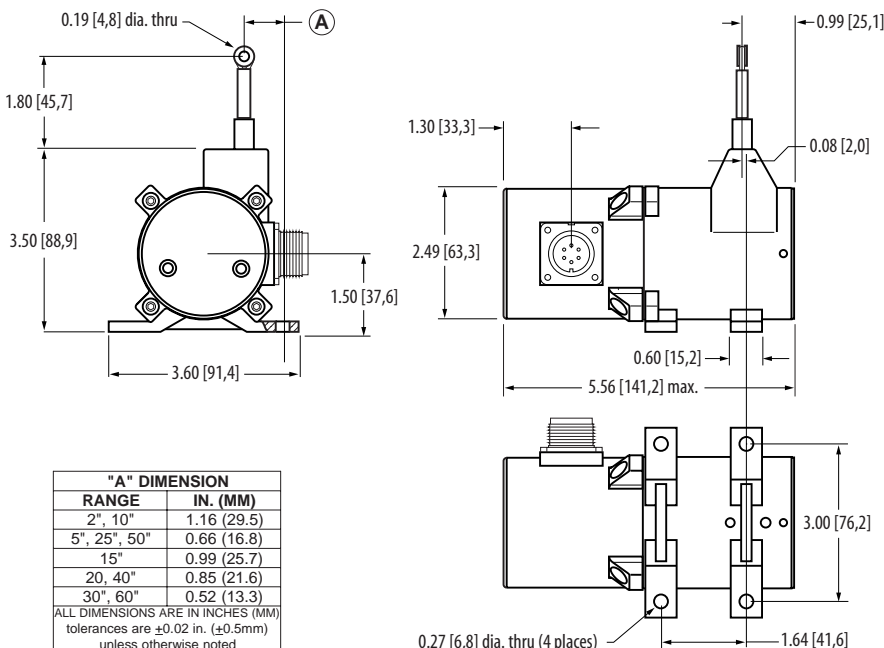
EMC COMPLIANCE PER DIRECTIVE 89/336/EEC

Emission / Immunity EN50081-2 / EN50082-2

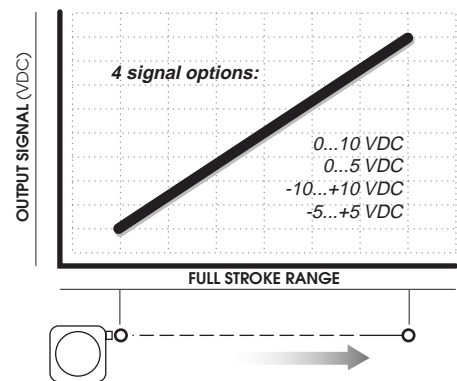
The PT8510 can operate from an unregulated 14.5 to 40 VDC power supply while providing an output signal that is proportional to the linear movement of its measuring cable. The PT8510 has a maximum measurement range up to 60" and has 4 output signal options to choose from: 0...10, 0...5, -10...+10 and -5...+5 Vdc.

As a member of Celesco's innovative family of NEMA-4 rated cable-extension transducers, the PT8510 offers numerous benefits. It installs in minutes, fits into areas unsuited for rod-type measurement devices, and works without perfectly parallel alignment.

CE Emission / Immunity EN50081-2 / EN50082-2



Electrical Output Signal:



Latin Tech, Inc.

www.lt-automation.com • info@lt-automation.com

▼ **Ordering Information**

Model Number:

PT8510- _____ **-** _____ **1** - **1** _____ _____ _____
 order code: **R** **A** **B** **C** **D** **E** **F** **G**

Full Stroke Range:

R order code:	0002	0005	0010	0015	0020	0025	0030	0040	0050	0060
① full stroke range, min:	2 in.	5 in.	10 in.	15 in.	20 in.	25 in.	30 in.	40 in.	50 in.	60 in.
② accuracy (% of f.s.):	0.28%	0.28%	0.18%	0.18%	0.18%	0.18%	0.18%	0.15%	0.15%	0.15%
maximum cable acceleration:	25 G's	5 G's	25 G's	10 G's	8 G's	5 G's	3 G's	8 G's	5 G's	3 G's
③ std. cable tension (±20%):	28 oz.	12 oz.	28 oz.	19 oz.	15 oz.	12 oz.	9 oz.	15 oz.	12 oz.	9 oz.
potentiometer cycle life*:	2.5 x 10 ⁶	2.5 x 10 ⁶	5 x 10 ⁵	5 x 10 ⁵	5 x 10 ⁵	5 x 10 ⁵	5 x 10 ⁵	2.5 x 10 ⁵	2.5 x 10 ⁵	2.5 x 10 ⁵

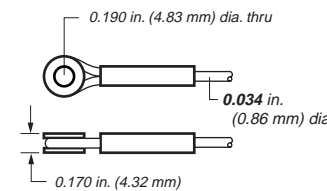
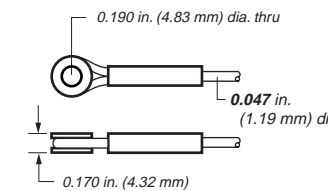
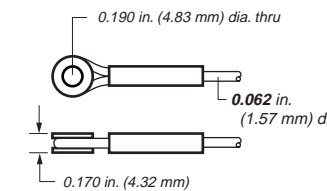
*note: **potentiometer cycle life** is defined as the minimum number of times the measuring cable can be fully extended and retracted before any measurable degradation of the output signal occurs.

Enclosure Material and Measuring Cable Tension:

A order code:	1	2	3	4
④ enclosure material:	powder-painted aluminum		303 stainless steel	
cable tension* multiplier:	1x	3x	1x	3x

note: *refer to ③ above

Measuring Cable:

B order code:	1*	2**	3***
⑤ cable construction:	.034 nylon-coated stainless steel	.047 stainless steel	.062 thermoplastic
			

notes: *available in all ranges

**5, 15, 20, 25, 30-inch ranges only

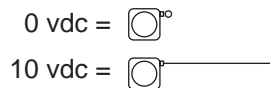
***available in ranges up to 30-inches only

Output Signals:

B order code:	1	2	3	4	5	6	7	8
⑥ output signal options:	0...10 Vdc	10...0 Vdc	0...5 Vdc	5...0 Vdc	-10...+10 Vdc	+10...-10 Vdc	-5...+5 Vdc	+5...-5 Vdc

option example:

0...10 Vdc



PT8510 • Cable-Extension Transducer: 0...10 to -10...10 VDC Output Options

Electrical Connection:

⑥ 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
contact view		connections	connections	connections
	<p>A = input voltage B = output signal C = common</p>	<p>WHT = input voltage GRN = output signal BLK = common</p>		<p>RED = input voltage GRN = output signal BLK = common</p>
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 ④

Cable Guide Options:

⑥ order code:

	0	1	2*	3
	standard nylon cable guide	stainless steel cable guide	polyurethane cable bellows	integral cable brush

note: *will limit measurement range to 25 inches (635 mm) maximum

▼ Sample Model Number

PT8510-0030 - 1 1 1 - 1 1 1 0
order code: R A B C D E F G

Specifications: Full Stroke Range: 30 inches
 Enclosure Material: powder-painted aluminum
 Measuring Cable: 0.034-in dia. nylon coated stainless steel cable
 Output Signals: 0-10 VDC, output increasing with cable extension
 Electrical Connection: 6-pin plastic connector
 Cable Guide: standard nylon