0...5, 0...10, –5...+5, –10...+10 VDC Output Options
Ranges: 0-75 to 0-550 inches
Industrial Grade

PT9510

CE

Specification Summary:

GENERAL

Full Stroke Range Options–*on this datasheet* ..... 0-75 to 0-550 inches
Output Signal Options ..... 0...10, 0...5, -5...+5, -10...+10 VDC
Accuracy ..... ± 0.12% full stroke
Repeatability ..... ± 0.05% full stroke
Resolution ..... essentially infinite
Measuring Cable Options ..... nylon-coated stainless steel or thermoplastic
Enclosure Material ..... powder-painted aluminum or stainless steel
Sensor ..... plastic-hybrid precision potentiometer
Potentiometer Cycle Life ..... 250,000, min. *–before signal degradation can occur*
Maximum Retraction Acceleration ..... *see ordering information*
Maximum Velocity ..... *see ordering information*
Weight, Aluminum (Stainless Steel) Enclosure ..... 8 lbs. (16 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 ..... *see ordering information*

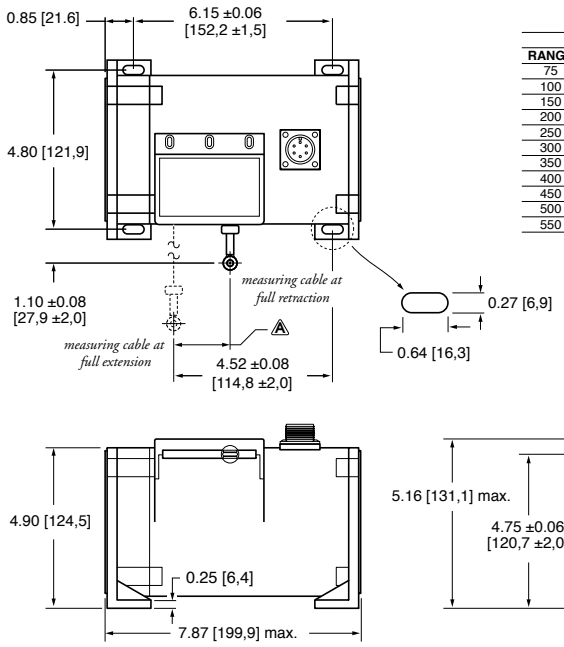
ENVIRONMENTAL

Enclosure ..... NEMA 4/4X/6, IP 67/68
Operating Temperature ..... -40º to 200ºF (-40º to 90ºC)
Vibration ..... up to 10 G's to 2000 Hz maximum

EMC COMPLIANCE PER DIRECTIVE 89/336/EEC

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

Fig. 1 – Outline Drawing (26 oz. cable tension only)



"A" DIMENSION

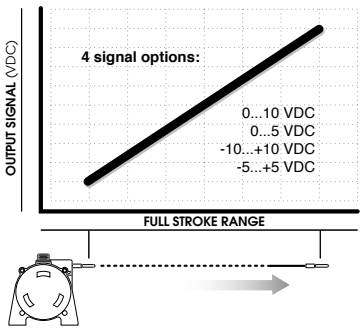
	MEASURING CABLE DIAMETER		
RANGE	0.034 in.	0.047 in.	0.062 in.
75	0.22	0.29	0.37
100	0.29	0.39	0.49
150	0.44	0.59	0.73
200	0.58	0.79	0.98
250	0.73	0.98	1.22
300	0.88	1.18	1.47
350	1.02	1.38	1.71
400	1.17	1.57	1.96
450	1.31	1.77	N/A
500	1.46	1.97	N/A
550	1.61	N/A	N/A

DIMENSIONS ARE IN INCHES (MM)
TOLERANCES ARE 0.03 IN. (0.5 MM) UNLESS OTHERWISE NOTED

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".

Output Signal



Celesco Transducer Products, Inc.
20630 Plummer Street • Chatsworth, CA 91311
tel: 800.423.5483 • +1.818.701.2750 • fax: +1.818.701.2799
celesco
celesco.com • info@celesco.com

Ordering Information:

Model Number:

PT9510- _____ Ⓡ **-** ___ Ⓐ ___ Ⓑ ___ Ⓒ **-** ___ Ⓓ ___ Ⓔ ___ Ⓕ **0** Ⓖ
order code:

Sample Model Number:

PT9510 - 0500 - 111 - 1110

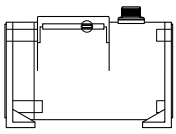
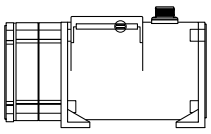
Ⓡ	range:	500 inches
Ⓐ	enclosure/cable tension:	aluminum/26 oz.
Ⓑ	measuring cable:	.034 nylon-coated stainless
Ⓒ	cable exit:	front
Ⓔ	output signal:	0...10 vdc
Ⓕ	electrical connection:	6-pin plastic connector

Full Stroke Range:

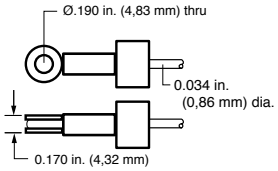
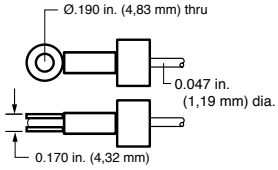
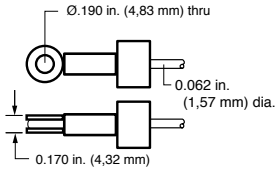
Ⓡ *order code:*	0075	0100	0150	0200	0250	0300	0350	0400	0450*	0500*	0550*
full stroke range, min:	75 in.	100 in.	150 in.	200 in.	250 in.	300 in.	350 in.	400 in.	450 in.	500 in.	550 in.

** – 42 oz. cable tension strongly recommended*

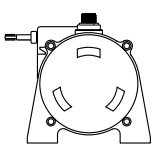
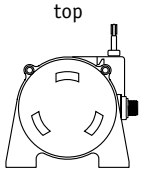
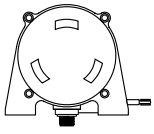
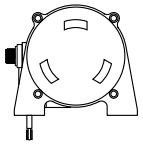
Enclosure Material and Measuring Cable Tension:

Ⓐ *order code:*	1	3	2	4
tension (±30%):	26 oz.		52 oz.	
enclosure material:	*powder-painted aluminum*	*303 stainless steel*	*powder-painted aluminum*	*303 stainless steel*
max. acceleration:	1 G	.33 G	5 G	2 G
max. velocity:	60 inches/sec	20 inches/sec	200 inches/sec	80 inches/sec
	 standard housing *see fig 1.*		 dual-spring housing *see fig 2.*	

Measuring Cable:

Ⓑ *order code:*	1	2	3
	.034 nylon-coated stainless steel *available in **all** ranges*	.047 stainless steel *all ranges up to **500 inches***	.062 thermoplastic *all ranges up to **400 inches***
			

Cable Exit:

Ⓒ *order code:*	1	2	3	4
	front	top	back	down
				

Ordering Information:

Output Signals:

Ⓑ order code:	1	2	3	4	5	6	7	8
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
input voltage:	14.5 – 40 vdc		10.5 – 40 vdc		14.5 – 40 vdc		10.5 – 40 vdc	
span adjustment:	from 100% to 50% of full stroke range				from 100% to 75% of full stroke range			
zero adjustment:	from factory set zero to 50% of full stroke range				from factory set zero to 25% of full stroke range			

example:

ordercode = **1** = 0...10 VDC

0 vdc =

10 vdc =

Electrical Connection:

Ⓕ order code:	1	2	3	4
	6-pin plastic connector with mating plug	10-ft. waterproof cable 18 AWG, sealed strain relief	6-pin metal connector with mating plug	25-ft. instrumentation cable 24 AWG, shielded
	IP 67, NEMA 4X*,6	**IP 67,68** NEMA 4X*,6**	**IP 65, NEMA 4**	**IP 67, NEMA 6**
	3.0 in. [78 mm]		2.4 in. [60 mm]	
	.30 – .39 in. [8 – 10 mm] cable dia. 16 AWG max conductor size connector: MS3102E-14S-6P mating plug: MS3106E-14S-6S	10 ft. x 0.4-in. dia. [3 M x 10 mm dia.] 18 AWG, type SJOW-A	3/8-in. [9 mm] max cable dia. 16 AWG max conductor size connector: MS3102E-14S-6P mating plug: MS3106E-14S-6S	25 ft. x 0.2-in. dia. [7,5 M x 5 mm dia.] 24 AWG, shielded

6-pin mating plug:

pin	signal
A	input voltage
B	output signal
C	common

contact view

10-ft. waterproof cable:

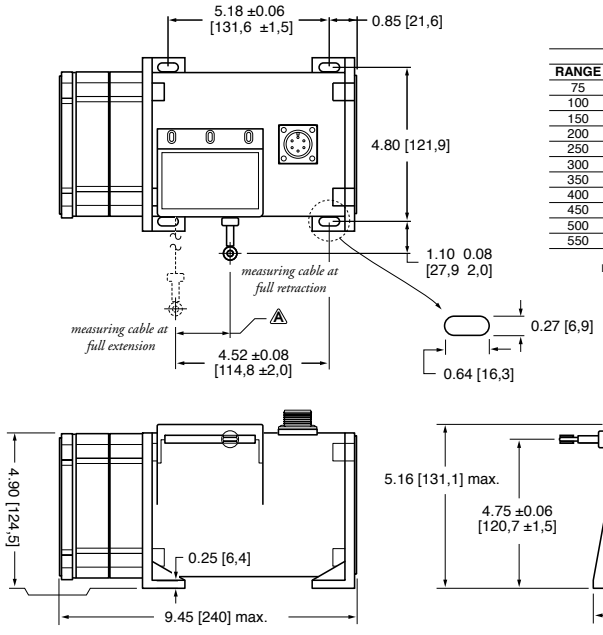
color code	signal
WHITE	input voltage
GREEN	output signal
BLACK	common

25-ft. instrumentation cable:

color code	signal
RED	input voltage
GREEN	output signal
BLACK	common

** –applies to stainless steel enclosure only. ** –requires factory submersion test*

Fig. 2 – Outline Drawing (42 oz. cable tension only)



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