

Cable-Extension Position Transducer

- ▼ Short to Medium Range
- ▼ Industrial Grade - High Cycle Applications
- ▼ 0...20 or 4...20 mA Output Signal CE

PT5MA



Specification Summary:

GENERAL
 Full Stroke Ranges 0-10 to 0-250 inches, see ① next page
 Output Signal 4 - 20 mA (2-wire), 0 - 20 mA (3-wire), see ④
 Accuracy ± 0.28 to $\pm 0.15\%$ full stroke, see ②
 Repeatability $\pm 0.05\%$ full stroke, max.
 Resolution essentially infinite
 Measuring Cable thermoplastic or stainless steel, see ③
 Enclosure Material hard-anodized aluminum
 Sensor plastic-hybrid precision potentiometer
 Weight 5 lbs., max.

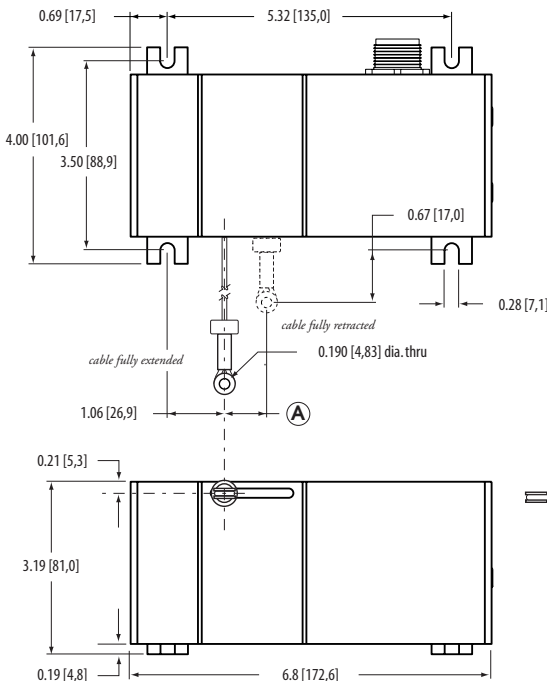
ELECTRICAL
 Input Voltage 12 to 40 VDC
 Input Current 20 mA, max.
 Loop Resistance (Load) (loop supply voltage - 12) / 0.02, max.
 Circuit Protection 38 mA maximum
 Impedance 100 M Ω @ 100 VDC, min.
 Zero and Span Adjustment 2:1 turndown

ENVIRONMENTAL
 Enclosure Design NEMA 4, IP 65/67, see ⑤ and ⑥
 Operating Temperature -40° F to 200° F
 Thermal Effects
 Zero 0.01% full stroke / °F, max.
 Span 0.01% / °F, max.
 Vibration up to 10 G's to 2000 Hz max.

EMC COMPLIANCE PER DIRECTIVE 89/336/EEC
 Emission / Immunity EN50081-2 / EN50082-2

The PT5MA 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 PT5MA installs in minutes, functions properly without perfectly parallel alignment, and fits easily into small areas. The PT5MA offers additional installation flexibility since its cable exit can be rotated relative to the mounting surface, providing four different cable exit orientations.

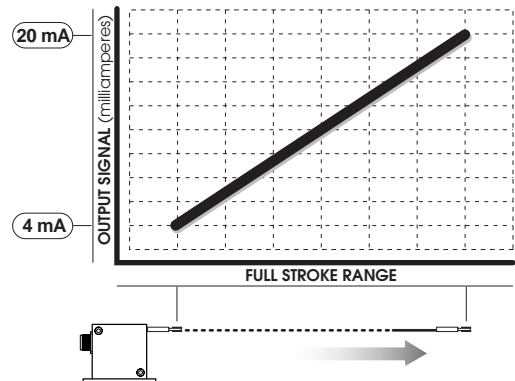


(A) Dimension

stroke range	measuring cable		
	S47	V62	N34
10	0.06 [1,5]	0.08 [2,0]	n/a
15	0.09 [2,3]	0.12 [3,1]	n/a
20	0.12 [3,1]	0.16 [4,1]	n/a
30	0.18 [4,6]	0.23 [5,8]	n/a
40	0.24 [6,1]	0.31 [7,9]	n/a
50	0.30 [7,6]	0.39 [9,9]	n/a
60	0.36 [9,1]	0.47 [11,9]	n/a
80	0.48 [12,2]	0.62 [15,7]	n/a
100	0.60 [15,2]	0.78 [19,8]	n/a
125	0.75 [19,1]	0.97 [24,6]	n/a
150	0.90 [22,9]	1.17 [29,7]	n/a
200	n/a	n/a	0.86 [21,9]
250	n/a	n/a	1.08 [27,4]

ALL DIMENSIONS ARE IN INCHES [MM]
 tolerances are ± 0.03 inches [0,8 mm]
 unless otherwise noted

Electrical Output Signal:



Latin Tech, Inc.

PT5MA • Cable-Extension Transducer • 4...20 mA Output Signal

▼ Ordering Information

Model Number:

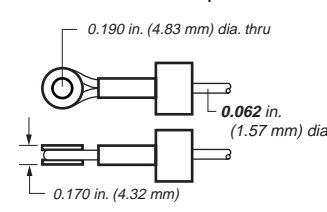
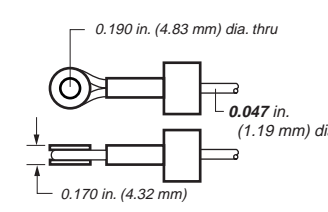
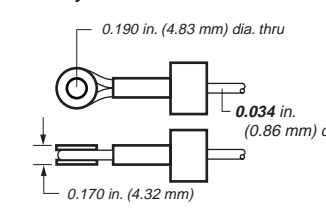
PT5MA - - - - -
order code: **R** **A** **B** **C** **D**

Full Stroke Range:

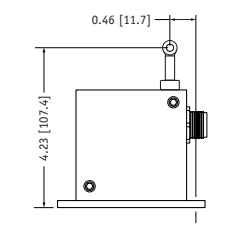
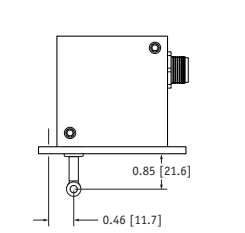
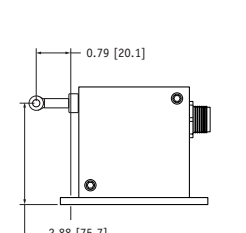
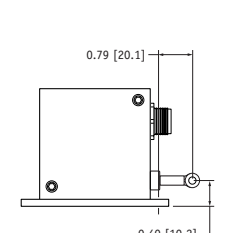
R order code:	10	15	20	25	30	40	50	60	80	100	125	150	200	250
① full stroke range, min:	10 in.	15 in.	20 in.	25 in.	30 in.	40 in.	50 in.	60 in.	80 in.	100 in.	125 in.	150 in.	200 in.	250 in.
② accuracy (% of f.s.):	0.25 %	0.25 %	0.25 %	0.25%	0.25%	0.15%	0.15%	0.15%	0.15%	0.15%	0.15%	0.10%	0.10%	0.10%
std. cable tension (±30%):	42 oz.	42 oz.	42 oz.	42 oz.	42 oz.	42 oz.	42 oz.	42 oz.	42 oz.	42 oz.	42 oz.	42 oz.	21 oz.	21 oz.
potentiometer cycle life*:	2.5 x 10 ⁶	2.5 x 10 ⁶	2.5 x 10 ⁶	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	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.*

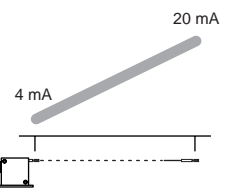
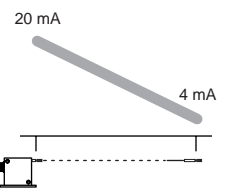
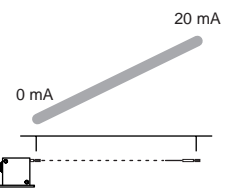
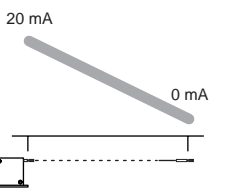
Measuring Cable:

A order code:	V62	S47	N34
③ available full stroke ranges:	all ranges up to 150 inches	all ranges up to 150 inches	200 and 250 inches only
cable construction:	.062 thermoplastic	.047 stainless steel	.034 nylon-coated stainless steel
			

Cable Exit:

B order code:	UP	DN	FR	BK
direction:	up	down	front	back
				

Output Signals:

C order code:	420E	420R	020E	020R
④ output signal configuration:	4...20 mA (2-wire)	20...4 (2-wire)	0...20 mA (3-wire)	20...0 (3-wire)
				

PT5MA • Cable-Extension Transducer • 4...20 mA Output Signal

Electrical Connection:

① order code:

electrical connection:

	M6	C25	M6M																																																												
	6-pin plastic connector and mating plug	25 ft. instrumentation cable	6-pin metal connector and mating plug																																																												
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⑤ IP rating:	67	67	65																																																												
⑥ NEMA rating:	6	6	4																																																												

▼ Sample Model Number

PT5MA - 30 - V62 - UP - 420E - M6

Specifications:	Full Stroke Range:	30 inches
	Measuring Cable:	0.062-in dia. thermoplastic cable
	Measuring Cable Exit:	Up
	Output Signals:	4...20 VDC, output increasing with cable extension
	Electrical Connection:	6-pin plastic connector