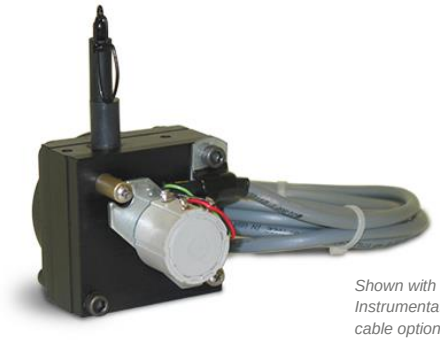
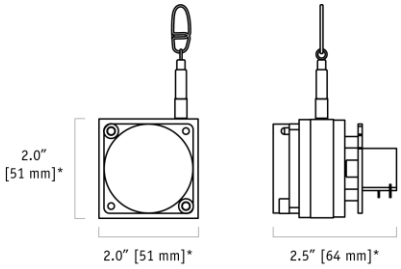


Shown with Instrumentation cable option

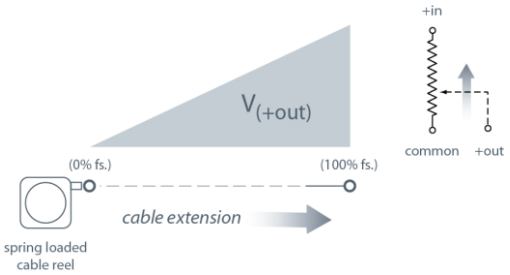


**note: 2–40" range shown for illustration, see outline drawing for other ranges.*

The PTX101 is a low cost, compact and easy-to-use cable-extension transducer. It is available with full-scale measurement ranges from 2 to 100 inches. The PTX101 provides a voltage feedback signal that is proportional to the linear movement of a traveling stainless-steel extension cable.

Simply mount the body of the transducer to a fixed surface and attach the extension cable to the moving object. The PTX101 is recommended for applications where space and money is limited.

Output Signal



PTX101

Cable Actuated Sensor
Instrument Grade • Voltage Divider

Absolute Linear Position to 100 inches (2540 mm)

Compact Design • OEM Applications

Anodized Aluminum Enclosure

IP50 / NEMA 1 • Automation & Testing Applications

General

Full Stroke Range	0-2 to 0-100 inches
Output Signal	voltage divider (potentiometer)
Accuracy	see ordering information
Repeatability	± 0.02% full stroke
Resolution	essentially infinite
Measuring Cable	.019-inch dia. nylon-coated stainless steel rope
Enclosure Material	anodized aluminum
Sensor	plastic-hybrid precision potentiometer
Potentiometer Cycle Life	see ordering information
Maximum Retraction Acceleration	see ordering information
Weight (maximum)	2 lbs. max.

Electrical

Input Resistance	500, 1K, 5K, 10K or bridge
Maximum Input Voltage	see ordering information
Power Rating	see ordering information
Output Signal Change Over Full Stroke Range	94% ±4% of input voltage

Environmental

Enclosure	IP50, NEMA 1
Temperature Coefficient of Sensing Element	88 PPM/°F
Humidity	100% RH @ 90°F (32° C)
Operating Temperature	-40° to 200°F (-40° to 90°C)
Vibration	up to 10 g to 2000 Hz maximum

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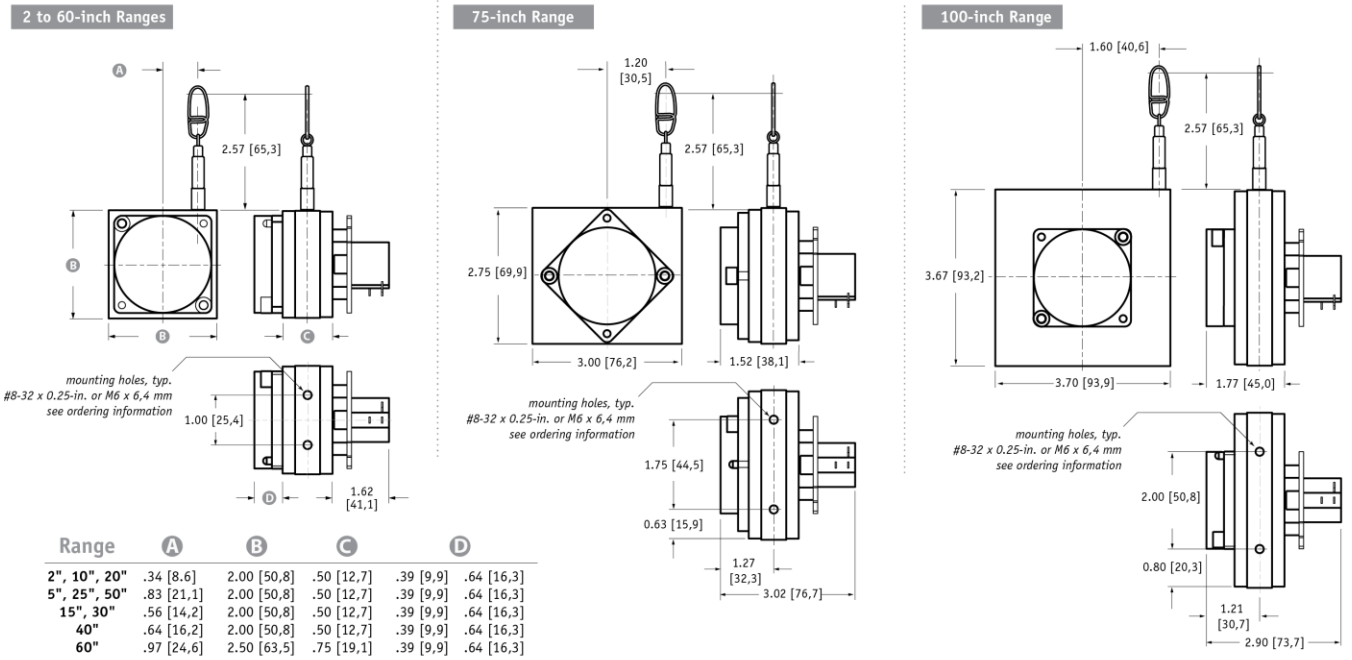
Azienda con sistema di gestione certificato Nr. 5010011753 secondo la norma UNI EN ISO 9001

Outline Drawing



Range	A	B	C	D	
2", 10", 20"	.34 [8.6]	2.00 [50,8]	.50 [12,7]	.39 [9,9]	.64 [16,3]
5", 25", 50"	.83 [21,1]	2.00 [50,8]	.50 [12,7]	.39 [9,9]	.64 [16,3]
15", 30"	.56 [14,2]	2.00 [50,8]	.50 [12,7]	.39 [9,9]	.64 [16,3]
40"	.64 [16,2]	2.00 [50,8]	.50 [12,7]	.39 [9,9]	.64 [16,3]
60"	.97 [24,6]	2.50 [63,5]	.75 [19,1]	.39 [9,9]	.64 [16,3]
				std. tension	*high tension*

All Dimensions are in INCHES [MM] tolerances are ±0.03 in. [0,8 mm]

Ordering Information

Model Number:

PTX101 - ____ - ____ 1 ____ - ____ 1 ____ 0 ____
order code: R A B C D E F G

Sample Model Number:

PTX101 - 0025 - 111 - 1110

R	range:	25 inches
A	measuring cable tension:	standard - 5 oz.
C	mounting holes:	8-32 x .25 in. threaded
D	sensing circuit:	500 ohms
E	electrical connection:	solder terminals

Full Stroke Range:

R *order code:*	0002	0005	0010	0015	0020	0025	0030	0040	0050	0060	0075	0100
full stroke range, min:	2 in.	5 in.	10 in.	15 in.	20 in.	25 in.	30 in.	40 in.	50 in.	60 in.	75 in.	100 in.
accuracy (% of f.s.):	0.25%	0.25%	0.15%	0.15%	0.10%	0.15%	0.10%	0.10%	0.10%	0.10%	0.10%	0.10%
potentiometer cycle life*:	2.5×10^6	2.5×10^6	5×10^5	5×10^5	5×10^5	5×10^5	5×10^5	2.5×10^5	2.5×10^5	2.5×10^5	2.5×10^5	2.5×10^5

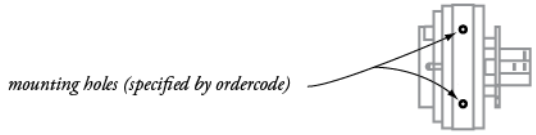
**–1 cycle is defined as the travel of the measuring cable from full retraction to full extension and back to full retraction*

Measuring Cable Tension:

A *order code:*	1			H		
	standard tension			high tension		
	tension, ±20%		*max acceleration*	*tension, ±40%*		*max acceleration*
2, 10, 20 inch range:	12 oz.	•	11 g	65 oz.	•	53 g
5, 25, 50 inch range:	5 oz.	•	2 g	26 oz.	•	11 g
15, 30 inch range:	8 oz.	•	3 g	43 oz.	•	23 g
40 inch range:	6 oz.	•	4 g	33 oz.	•	16 g
60 inch range:	13 oz.	•	4 g	22 oz.	•	8 g
75 inch range:	10 oz.	•	3 g	31 oz.	•	12 g
100 inch range:	13 oz.	•	5 g	52 oz.	•	20 g

Mounting Holes:

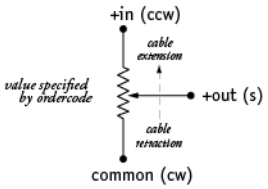
C order code:	1	2
	#8-32 x 0.25-in. threaded holes	M6 x 6,4 mm threaded holes



Sensing Circuit:

D order code:	1	2	3	4
	500 ohm*	1000 ohm*	5000 ohm*	10,000 ohm*

sensing circuit



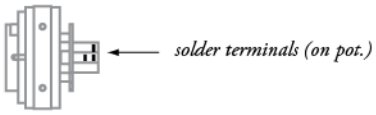
max. input voltage and power rating

	2-inch, 5-inch range	*10-inch to 100-inch range*
500-ohms:	20 V AC/DC (1 W)	30 V AC/DC (2 W)
1K to 10K-ohms:	30 V AC/DC (1 W)	30 V AC/DC (2 W)

**tolerance = ±10%*

Electrical Connection:

F order code:	0	1
	solder terminals	10-ft. instrumentation cable shielded, 24 AWG



terminal	signal
CCW	+in
CW	common
S	+out

color code	terminal	signal
RED	CCW	+ in
BLACK	CW	common
GREEN	S	+ out

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