

OEM Series: Cable-Extension Position Transducer

Precision Potentiometric Output
Ranges: 0-2 to 0-100 inches
Compact Size • OEM Applications

PTX101

Specification Summary:

GENERAL

Full Stroke Range Options 0-2 to 0-100 inches
 Output Signal Options voltage divider (potentiometer)
 Accuracy $\pm 0.25\%$ to $\pm 0.10\%$ full stroke *see ordering information*
 Repeatability $\pm 0.02\%$ full stroke
 Resolution essentially infinite
 Measuring Cable
 with standard cable tension019-in. dia. nylon-coated stainless steel
 with increased or high tension024-in. dia. nylon-coated stainless steel
 Enclosure Material anodized aluminum
 Sensor plastic-hybrid precision potentiometer
 Potentiometer Cycle Life *see ordering information*
 Maximum Retraction Acceleration *see ordering information*
 Weight 2 lbs. max.

ELECTRICAL

Input Resistance Options 500, 1K, 5K, 10K ohms, *see ordering information*
 Maximum Input Voltage *see ordering information*
 Power Rating *see ordering information*
 Output Signal Change Over Full Stroke Range $94\% \pm 4\%$ of input voltage

ENVIRONMENTAL

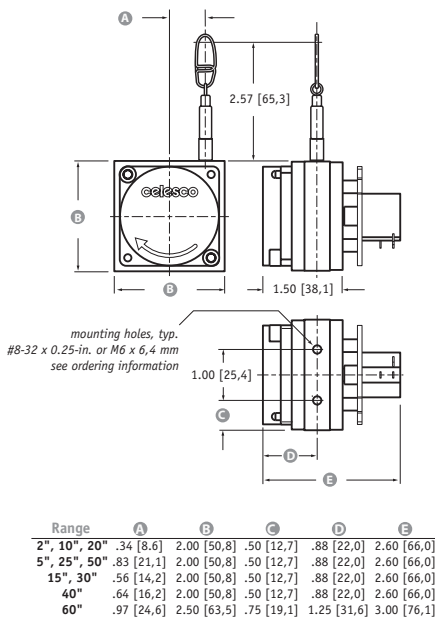
Enclosure NEMA 1
 Temperature Coefficient of Sensing Element 88 PPM/°F
 Humidity 100% RH @ 90°F (32 C)
 Operating Temperature -40° to 200°F (-40° to 90°C)
 Vibration up to 10 G's to 2000 Hz maximum



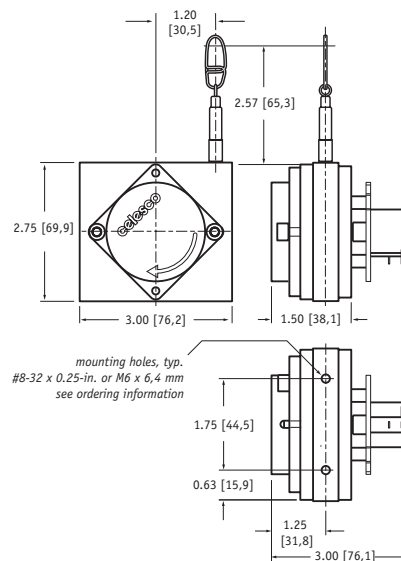
The PTX101 is a low cost, compact and easy-to-use cable-extension transducer. It is available with full-scale measurement ranges from 2 to 100 inches. The PTX101 provides a voltage feedback signal that is proportional to the linear movement of a traveling stainless-steel extension cable.

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.

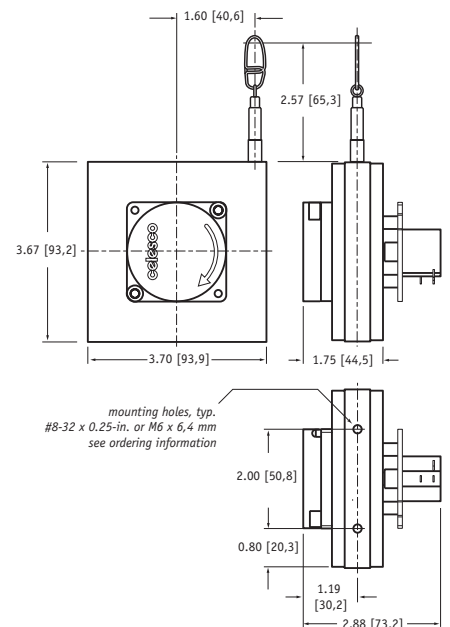
2 to 60-inch Ranges



75-inch Range



100-inch Range



All Dimensions are in INCHES [MM] tolerances are ± 0.03 in. [0.8 mm]

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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
- F** 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 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	2.5 x 10 ⁵	2.5 x 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:

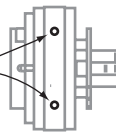
A order code:	1	2**	3**
	standard tension* (max. acceleration)	increased tension*	high tension*
2, 10, 20 inch range:	12 oz. (11 G)	72 oz.	144 oz.
5, 25, 50 inch range:	5 oz. (2 G)	30 oz.	60 oz.
15, 30 inch range:	8 oz. (3 G)	48 oz.	96 oz.
40 inch range:	6 oz. (4 G)	36 oz.	72 oz.
60 inch range:	13 oz. (4 G)	26 oz.	52 oz.
75, 80 inch range:	10 oz. (3 G)	20 oz.	40 oz.
100 inch range:	13 oz. (5 G)	26 oz.	52 oz.

*- tolerance: ±20% **-Options 2, 3 for re-orders only, Option 7 no longer available.

Mounting Holes:

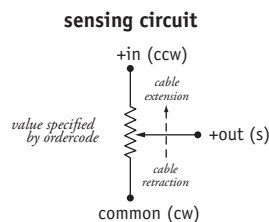
C order code:	1	2
	#8-32 x 0.25-in. threaded holes	M6 x 6,4 mm threaded holes

mounting holes (specified by ordercode)



Sensing Circuit:

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



max. input voltage and power rating

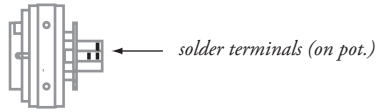
	2-inch, 5-inch range	10-inch to 100-inch range
500-ohms:	20 V AC/DC (1 W)	30 V AC/DC (2 W)
1K to 10K-ohms:	30 V AC/DC (1 W)	30 V AC/DC (2 W)

*tolerance = ±10%

Electrical Connection:

F *order code:*

0
solder terminals



terminal	signal
CCW	+in
CW	common
S	+out

1
10-ft. instrumentation cable
shielded, 24 AWG



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

version: 5.0 last updated: **June 2, 2011**