

# LX-PA SERIES

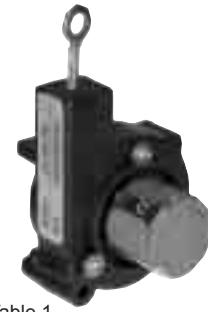
## RATIOMETRIC VOLTAGE OUTPUT

The UniMeasure LX-PA Series linear position transducer with analog output is a low cost, compact alternative for use in light to moderate duty applications in dry environments. The plastic bodied device is ideal for high volume OEM situations where cost is a major consideration and in applications where small size or low weight are of paramount importance.

Model LX-PA is available in eleven different measurement ranges with a maximum range of 50" (1250 mm). The output is voltage from a potentiometric voltage divider circuit. In standard form, the electrical connections are made directly to the contacts on the potentiometer of the unit. Optional electrical cable attached to the potentiometer is available in various lengths. Standard potentiometer value is 1K ohm with optional values of 2K, 5K and 10K ohm available.

**TABLE 1**

MODEL	RANGE		NOMINAL OUTPUT		NOMINAL WIRE ROPE TENSION	
	(inch)	(mm)	(mV/V/in)	(mV/V/mm)	(oz)	(N)
LX-PA-2	2	50	469	18.5	16	4.4
LX-PA-2.8	2.8	70	341	13.4	14	3.9
LX-PA-3.8	3.8	96	258	10.1	11	3.1
LX-PA-4.7	4.7	120	207	8.1	8	2.2
LX-PA-10	10	250	88	3.5	16	4.4
LX-PA-15	15	380	64	2.5	14	3.9
LX-PA-20	20	500	49	1.9	11	3.1
LX-PA-25	25	625	39	1.5	8	2.2
LX-PA-30	30	750	32	1.3	14	3.9
LX-PA-40	40	1000	24	1.0	11	3.1
LX-PA-50	50	1250	20	0.8	8	2.2



### SPECIFICATIONS

#### General

Measurement Ranges ..... See Table 1  
 Sensing Device ..... Precision Potentiometer  
 Resolution ..... Essentially Infinite  
 Linearity  
 2", 2.8", 3.8" 4.7" ranges ..... ±1.0% Full Scale  
 10" to 25" ranges ..... ±0.5% Full Scale  
 30" to 50" ranges ..... ±0.25% Full Scale  
 Repeatability ..... ±0.03% Full Scale  
 Construction ..... Thermoplastic Body  
 Cable ..... Ø.018 (0.46 mm) Jacketed Stainless Steel  
 Wire Rope Tension ..... See Table 1  
 Weight ..... 3 oz. (85 gm)  
 Connections ..... Solder terminals  
 Dimensional Information ..... See Next Page  
 Life

Ranges to 4.7" ..... 1,000,000 full stroke cycles  
 Ranges 10" to 25" ..... 250,000 full stroke cycles  
 Ranges 30" to 50" ..... 125,000 full stroke cycles

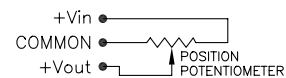
#### Electrical

Input Impedance ..... 1000 Ω ±15%  
 Output Impedance ..... 0 to 1000 Ω  
 Excitation Voltage ..... 25 Volts max. AC or DC

#### Environmental

Operating Temperature ..... -25°C to 75°C  
 Storage Temperature ..... -50°C to 80°C  
 Operating Humidity ..... 95 R.H. max. non-condensing  
 Vibration ..... 15 G's 0.1 ms max.  
 Shock ..... 50 G's 0.1 ms max.  
 Ingress Protection ..... NEMA 1, IP-40

### CIRCUIT DIAGRAM



## Model Number Configuration

LX-PA- - -

Range	
2	2.0" (50 mm)
2.8	2.8" (70 mm)
3.8	3.8" (96 mm)
4.7	4.7" (120 mm)
10	10" (250 mm)
15	15" (390 mm)
20	20" (500 mm)
25	25" (640 mm)
30	30" (750 mm)
40	40" (1000 mm)
50	50" (1250 mm)

#### Potentiometer Value

\* ..... 1K ohm  
 P2K ..... 2K ohm  
 P5K ..... 5K ohm  
 P10K ..... 10K ohm

#### Electrical Cable Length

\* ..... No Electrical Cable  
 LPM ..... 150 mm (6") pigtail  
 L1M ..... (1 m) 40"  
 L2M ..... (2 m) 80"  
 L3M ..... (3 m) 120"  
 L4M ..... (4 m) 160"  
 L5M ..... (5 m) 200"

#### NOTE

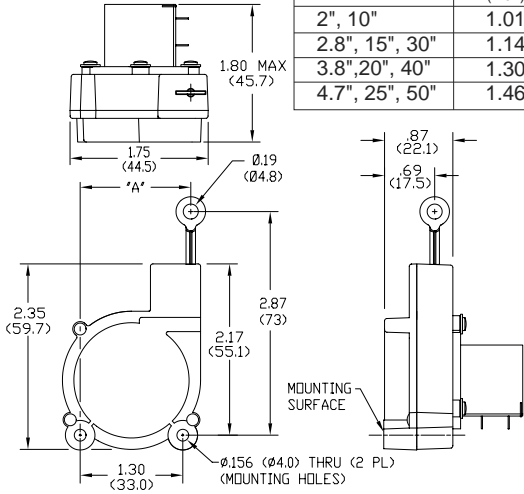
- \*—Asterisk items are standard configuration. No option designator is required.
- Shaded options available at additional cost.

Example  
**LX-PA-20-L1M**

# LX DIMENSIONAL INFORMATION

## LX-PA

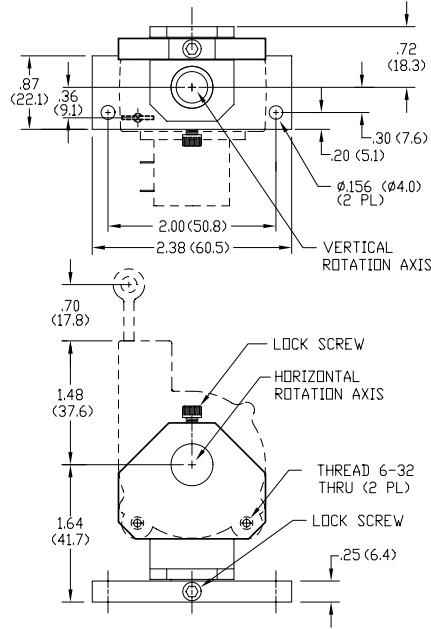
Range	Dim "A"	
	(inch)	(mm)
2", 10"	1.01	25.7
2.8", 15", 30"	1.14	29.0
3.8", 20", 40"	1.30	33.0
4.7", 25", 50"	1.46	37.1



Dimensions in brackets are millimeters

## ACCESSORY—10156 TWO AXIS SWIVEL BASE

With a capability of 360° rotation about the vertical axis and 245° rotation about the horizontal axis, the 10156 Two Axis Swivel Base allows easy setup of the LX-PA or the LX-EP transducer. The axes may be locked in place after the transducer is oriented. Ideal for quick setups. Order model number: **10156**.

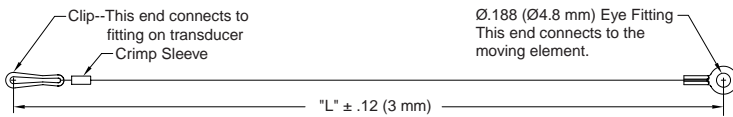


10156 Two Axis Swivel Base



With Transducer Mounted

## ACCESSORY—10067 AUXILIARY WIRE ROPE EXTENSION KIT



The auxiliary wire rope extension may be used to facilitate mounting the transducer remotely from the measurement point. The clip on the extension attaches to the eye fitting on the transducer. The eye fitting on the opposite end, which is identical to the fitting on the transducer, mounts to the moving element. The extension kit is also available with the clip end unterminated for situations where it is more convenient to size the wire rope length during installation. Clip and crimp fitting are included with the unterminated version.

## Ordering

### Dimension "L"

Specify dimension "L" in centimeters to the nearest whole centimeter.

Note 1. 1 cm = 0.394", 1 inch = 2.54 cm

Note 2. Shortest length "L" is 5 cm (approximately 2").

10067- CM-

\*..... Completed kit (no designator required)

U..... Unterminated clip end  
(clip and crimp sleeve included in kit)

\* Leave blank. No designator required.



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