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 the basic configuration, the electrical connections are made directly to the contacts on the potentiometer of the unit. Electrical cable and a cover for the potentiometer are optionally available. Standard potentiometer value is 1K ohm with optional values of 5K and 10K ohm available.

**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
- Weight: 3 oz. (85 gm)
- Connections: Solder terminals
- Dimensions: See Supplemental Data
- Life: Ranges 4.7" to 100,000 full stroke cycles
- 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: IP-40 (NEMA 1)

**ELECTRICAL**
- Input Impedance: 1000 Ω ±15%
- Output Impedance: 0 to 1000 Ω
- Excitation Voltage: 30 Volts max. AC or DC

**CIRCUIT DIAGRAM**

**TABLE 1**

<table>
<thead>
<tr>
<th>MODEL</th>
<th>RANGE (inch)</th>
<th>NOMINAL OUTPUT (mV/in)</th>
<th>NOMINAL WIRE ROPE TENSION (oz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LX-PA-2</td>
<td>2</td>
<td>469</td>
<td>16</td>
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<tr>
<td>LX-PA-2.8</td>
<td>2.8</td>
<td>341</td>
<td>10</td>
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<tr>
<td>LX-PA-3.8</td>
<td>3.8</td>
<td>258</td>
<td>8</td>
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<tr>
<td>LX-PA-4.7</td>
<td>4.7</td>
<td>207</td>
<td>6</td>
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<td>LX-PA-10</td>
<td>10</td>
<td>88</td>
<td>3.5</td>
</tr>
<tr>
<td>LX-PA-15</td>
<td>15</td>
<td>64</td>
<td>2.5</td>
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<tr>
<td>LX-PA-20</td>
<td>20</td>
<td>49</td>
<td>1.9</td>
</tr>
<tr>
<td>LX-PA-25</td>
<td>25</td>
<td>39</td>
<td>1.5</td>
</tr>
<tr>
<td>LX-PA-30</td>
<td>30</td>
<td>32</td>
<td>1.3</td>
</tr>
<tr>
<td>LX-PA-40</td>
<td>40</td>
<td>24</td>
<td>1.0</td>
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<tr>
<td>LX-PA-50</td>
<td>50</td>
<td>20</td>
<td>0.8</td>
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</table>

**FOOTNOTES TO SPECIFICATIONS**
1. Supplemental Data section located at end of LX-PA Series pages.
2. To calculate nominal output in application, multiply nominal output shown by excitation voltage of application.

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**MODEL NUMBER CONFIGURATION**

**LX-PA-50-N1N-NNN**

<table>
<thead>
<tr>
<th>0</th>
<th>RANGE (inch)</th>
<th>1</th>
<th>WIRE ROPE</th>
<th>2</th>
<th>POTENTIOMETER VALUE</th>
<th>3</th>
<th>COVER &amp; ELECTRICAL CONNECTION LOCATION</th>
<th>4</th>
<th>ELECTRICAL CABLE</th>
<th>5</th>
<th>CONNECTOR</th>
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</thead>
<tbody>
<tr>
<td>0</td>
<td>2</td>
<td>1</td>
<td>N...0.018</td>
<td>1</td>
<td>1K ohm</td>
<td>2</td>
<td>N...No Connector</td>
<td>3</td>
<td>N...NO Electrical Cable</td>
<td>4</td>
<td>K...K</td>
</tr>
<tr>
<td>2.8</td>
<td>2.8</td>
<td>1</td>
<td>N...0.018</td>
<td>1</td>
<td>1K ohm</td>
<td>2</td>
<td>N...No Connector</td>
<td>3</td>
<td>N...NO Electrical Cable</td>
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<td>N...0.018</td>
<td>1</td>
<td>1K ohm</td>
<td>2</td>
<td>N...No Connector</td>
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<td>N...NO Electrical Cable</td>
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<td>N...No Connector</td>
<td>3</td>
<td>N...NO Electrical Cable</td>
<td>4</td>
<td>K...K</td>
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<tr>
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<td>20</td>
<td>1</td>
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<td>1</td>
<td>1K ohm</td>
<td>2</td>
<td>N...No Connector</td>
<td>3</td>
<td>N...NO Electrical Cable</td>
<td>4</td>
<td>K...K</td>
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<td>N...No Connector</td>
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<td>1K ohm</td>
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<td>N...No Connector</td>
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<td>N...0.018</td>
<td>1</td>
<td>1K ohm</td>
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<td>N...NO Electrical Cable</td>
<td>4</td>
<td>K...K</td>
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</table>
**DIMENSIONAL INFORMATION**

### LX-PA Series

<table>
<thead>
<tr>
<th>RANGE</th>
<th>DIM &quot;A&quot; (inch)</th>
<th>DIM &quot;A&quot; (mm)</th>
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</thead>
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<tr>
<td>2&quot;, 10&quot;</td>
<td>1.01</td>
<td>25.7</td>
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<tr>
<td>2.8&quot;, 15&quot;, 30&quot;</td>
<td>1.14</td>
<td>29.0</td>
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<tr>
<td>3.8&quot;, 20&quot;, 40&quot;</td>
<td>1.30</td>
<td>33.0</td>
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<tr>
<td>4.7&quot;, 25&quot;, 50&quot;</td>
<td>1.46</td>
<td>37.1</td>
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</tbody>
</table>

Dimensions in brackets are millimeters

### ACCESSORIES

#### 10346 – RIGHT ANGLE MOUNTING BRACKET

The Right Angle Mounting Bracket serves as a base for mounting the LX transducer perpendicular to a surface. The transducer may be mounted in any of four different wire rope exit orientations when mounted on the outside of the bracket (see figure) or any of three orientations when placed above the bracket mounting holes.

ORDER MODEL NUMBER: 10346

#### 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

#### 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.

**Clip** - This end connects to fitting on transducer

Clip and crimp sleeve included in kit

**Crimp Sleeve** - This end connects to the moving element.

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

**NOTE:**

1. 1 cm = 0.394", 1 inch = 2.54 cm
2. Shortest length "L" is 5 cm (approximately 2")