JX-PA SERIES
RATIOMETRIC VOLTAGE OUTPUT

The UniMeasure JX-PA series linear position transducer with analog output is primarily for use in moderate duty applications in wet or dry environments. The chemical resistant thermoplastic case of the transducer provides optional NEMA 4 (IP-65) ingress protection for applications where exposure to washdown, rain, oil and other liquids may occur. The sealed case is achieved through the use of o-rings and a low friction shaft seal. An integral dust wiper insures that the wire rope stays clear of debris as it is extracted and retracted. Electrical connection options include body mounted sealed plastic connector with mating connector or a sealed bulkhead fitting and three conductor electrical cable of user specified length. If connector with mating connector option is chosen, the mating connector is available with or without electrical cable attached. As an installation convenience, optional connector locations on the transducer body are offered. In addition, the wire rope exit direction may be specified at time of order or may be user adjusted at time of installation. Typical applications include but are not limited to forklift positioning, suspension travel measurement, valve positioning, liquid level measurement, flood and irrigation gate monitoring, and saw blade positioning.

General
Measurement Range .......... See Range Table below
Sensing Device .......... Precision Potentiometer
Resolution .......... Essentially Infinite
Linearity
2", 2.8", 3.5", 4.7" ranges ........ ±1.0% Full Scale
10" to 25" ranges ........ ±0.5% Full Scale
30" to 80" ranges .......... ±0.25% Full Scale
Repeatability .......... ±0.02% Full Scale
Construction .......... Thermoplastic Body
Wire Rope .......... 0.018 (0.46 mm) Jacketed Stainless Steel
Wire Rope Tension .......... See Supplemental Data
Weight .......... 6.3 oz. (180 gm)
Connections .......... Electrical cable, or plastic connector
Life
Ranges to 4.7" .......... 2,000,000 full stroke cycles
Ranges 10" to 25" .......... 500,000 full stroke cycles
Ranges 30" to 80" .......... 250,000 full stroke cycles

Electrical
Input Impedance .......... 1000 Ω ±15% Standard
Output Impedance .......... 0 to 1000 Ω
Excitation Voltage .......... 25 V Max.
Nominal Output Voltage (Use Range from table below)
Range in inches mV/V/Inch
Range in mm mV/V/mm

Environmental
Operating Temperature .......... -25°C to +60°C
Storage Temperature .......... -50°C to +80°C
Operating Humidity .......... 100% R.H.
Vibration .......... 15 G’s 0.1 ms max.
Shock .......... 50 G’s 0.1 ms max.
Ingress Protection .......... NEMA 12 or 4X, IP-52 or 65

FOOTNOTES TO SPECIFICATIONS
1. Supplemental Data located at end of JX Series pages.

Model Number Configuration

JX-PA-

Wire Rope
N .......... 0.018" nylon jacketed stainless steel

Range
2
2.8
3.5
4.7
10
15
20
25
30
40
50
60
80

Wire Rope Exit Direction
END VIEW

Ingress Protection
1 .......... IP-65 (NEMA 4X) dust and spraying water protection
2 .......... IP-52 (NEMA 12) dust and dripping liquids

Potentiometer Value
1 .......... 1K ohm
2 .......... 2K ohm
3 .......... 5K ohm
4 .......... 10K ohm

Output Polarity
S .......... Standard (Voltage increases as wire rope is extended)
R .......... Reversed (Voltage decreases as wire rope is extended)

Electrical Cable
N .......... No electrical cable (see note 1 below)
1 .......... 1 m (3’) (See note 2 below)
2 .......... 2 m (6.5’) (See note 2 below)
3 .......... 3 m (10’) (See note 2 below)
4 .......... 4 m (13.5’) (See note 2 below)
5 .......... 5 m (16.5’) (See note 2 below)

Note:
1) Selection N applies to Electrical Connection option 3 only (3 pin connector with mating connector).
2) One of options 1 through 5 is required when Electrical Connection option 3 (Bulkhead Fitting) is selected or if electrical cable is required with mating connector. When Electrical Connection option 3 (3 pin connector with mating connector) is required.

Electrical Connection
1 .......... No electrical cable or electrical cable (connectors included)
3 .......... 3 pin connector with mating connector (electrical cable with connector optional) Not: With option 1, electrical cable must be included. With option 3, mating connector may be ordered with or without electrical cable. See Electrical Cable Options for cable lengths.

Example
JX-PA-25-N11-21S-311

NOTE
1) Shaded options available at additional cost.
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 terminated for situations where it is more convenient to size the wire rope length during installation. The clip and crimp sleeve are included as loose parts for user termination.

Dimensions in brackets are millimeters.

Table A

<table>
<thead>
<tr>
<th>Range</th>
<th>Dim “A” (in)</th>
<th>Nominal Wire Rope Tension (oz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2, 10</td>
<td>39</td>
<td>16 4-3</td>
</tr>
<tr>
<td>28, 15, 30</td>
<td>50</td>
<td>12 7 14 3-9</td>
</tr>
<tr>
<td>33, 35, 40</td>
<td>68</td>
<td>16 7 11 3-1</td>
</tr>
<tr>
<td>47, 25, 50</td>
<td>82</td>
<td>20 8 8 2-2</td>
</tr>
</tbody>
</table>

Table B

<table>
<thead>
<tr>
<th>Range</th>
<th>Dim “A” (in)</th>
<th>Nominal Wire Rope Tension (oz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>98</td>
<td>24 9 10 2-8</td>
</tr>
<tr>
<td>80</td>
<td>128</td>
<td>32 5 8 6 2-4</td>
</tr>
</tbody>
</table>

Dimensions in brackets are millimeters.

10067-CM-

** Stars: 
- asterisk: completed kit (no designator required) 
- asterisk underlined: terminated clip end (clip and crimp sleeve included in kit) 
- asterisk underlined with caret symbol: leave blank. No designator required.

** 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”).