

LX-PA SERIES

RATIOMETRIC VOLTAGE



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
 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 Supplemental Data^[1]
 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

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 IP-40 (NEMA 1)

ELECTRICAL

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

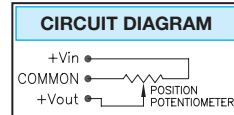


TABLE 1

MODEL	RANGE		NOMINAL OUTPUT ^[2] AT 1 VDC INPUT VOLTAGE		NOMINAL WIRE ROPE TENSION	
	(inch)	(mm)	(mV/in)	(mV/mm)	(oz)	(N)
LX-PA-2	2	50	469	18.5	16	4.4
LX-PA-2.8	2.8	70	341	13.4	10	2.8
LX-PA-3.8	3.8	96	258	10.1	8	2.2
LX-PA-4.7	4.7	120	207	8.1	6	1.7
LX-PA-10	10	250	88	3.5	16	4.4
LX-PA-15	15	380	64	2.5	10	2.8
LX-PA-20	20	500	49	1.9	8	2.2
LX-PA-25	25	625	39	1.5	6	1.7
LX-PA-30	30	750	32	1.3	10	2.8
LX-PA-40	40	1000	24	1.0	8	2.2
LX-PA-50	50	1250	20	0.8	6	1.7

FOOTNOTES TO SPECIFICATIONS

- Supplemental Data section located at end of LX Series pages.
- To Calculate nominal output in application, multiply nominal output shown by excitation voltage of application.

MODEL NUMBER CONFIGURATION

LX-PA- 0 - 1 2 3 - 4 5 6

BASIC CONFIGURATION (FOR ALL RANGES)

LX-PA-50-N1N-NNN

0 RANGE

2.....2" (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)

1 WIRE ROPE

N.....Ø.018 (0,45 mm)
 Nylon Jacketed
 Stainless Steel
 S.....Ø.016 (0,4 mm)
 Stainless Steel

2 POTENTIOMETER VALUE

1.....1K ohm
 3.....5K ohm
 4.....10K ohm

3 N..... Required Designator

4 COVER & ELECTRICAL CONNECTION LOCATION

N.....No Cover
 1.....Cover, w/ Electrical Exit Location 1
 2.....Cover, w/ Electrical Exit Location 2
 3.....Cover, w/ Electrical Exit Location 3

5 ELECTRICAL CABLE

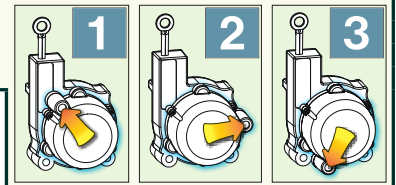
N.....No Electrical Cable
 P.....150 mm (6") pigtail
 1.....1 m (3')
 2.....2 m (6.5')
 3.....3 m (10')
 4.....4 m (13.5')
 5.....5 m (16.5')

6 CONNECTOR

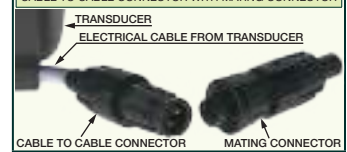
N.....No Connector
 C.....Cable to Cable Connector w/ Mating Connector, See FIG A
 K.....Cable to Cable Connector w/ NO Mating Connector, See FIG B

For option "K", electrical cable with mating connector may be ordered separately as item number 10248-xM, where "x" is the required length in meters.

- "C" and "K" options only apply when electrical cable is selected.
- Cable to cable connector does not connect cable shield/drain wire.



CONNECTOR OPTION "C" FIG A



CONNECTOR OPTION "K" FIG B

