LX-EP SERIES TWO CHANNEL DIGITAL OUTPUT

The UniMeasure LX-EP Series linear position transducer with digital output is a low cost, compact device 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. The sensing element in the LX-EP is an optical incremental encoder with electrical outputs consisting of two square wave, TTL level output channels in guadrature. Each output channel is open collector, current sinking with an internal 5.4K Ω pullup resistor.



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THIS PRODUCT HAS BEEN DISCONTINUED AND IS NO LONGER AVAILABLE. PLEASE CLICK HERE OR SEE LX-EP2 FOR REPLACEMENT PRODUCT.

GENERAL

GENERAL	ELECTRICAL							
Measurement RangesSee Table 2	Excitation Volta	ge		5.00 ±	0.25 VDC	;		
Sensing DeviceIncremental Optical Encoder	Excitation Current							
ResolutionSee Table 2	Output Two channel square wave in quadrature,							
Linearity±0.10% of Full Scale	TTL level current sinking with 5.4K Ω pullups							
Repeatability±0.015% of Full Scale								
ConstructionThermoplastic Body								
Wire RopeØ.018 (0.46 mm) Jacketed Stainless Steel	OUTPUT STAG	E	STAN	IDARD OU	TPUT	CONNECT	ION DIA	GRAM
Wire Rope TensionSee Table 2	۶Vcc			WAVEFORM	.	GND NC	chA +Vin	chB
Weight	₹5.4K±25%	8						
Connector0.025" (0.64 mm) square pins on 0.100" (2.54 mm) centers	Vout			╄╣┚╄╣		0	0	
Dimensional InformationSee Supplemental Data ^[1]			вН	┯╻┿╻┯╻┽	┛╨╵╵╽╎			
Life						¢.	0	
Ranges 10" to 25"					(
Ranges 30" to 50" 1,000,000 full stroke cycles	TABLE 2							
ENVIRONMENTAL	IADLE Z							
Operating Temperature40°C to 75°C	MODEL		NGE	BESOL		RESOLUTION	NOMINA	
Storage Temperature40°C to 85°C				counts/inch		TOLERANCE ^[3]	ROPE TE	
Operating Humidity	LX-EP-10	(inch)	()			. 500/	(oz) 16	(N)
Vibration5G	LX-EP-10	10	250	113.5	4.46	±.50%	10	4.4
			2511	0.16	2.16	2607		

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tour with interface electronics capable of quadrature times 4 counting mode. 3. Resolution shown is a calculation based upon the capstan diameter, wire rope diameter and line count of the encoding device. Tolerance on resolution accounts for resolutional differences from unit to unit due to manufacturing tolerances on the capstan and wire rope. In practice, the output count in a given unit of travel is an integer.

LX-EP-50 50 1250 50.4 1.98 ±.35% 6 1.7

MODEL NUMBER CONFIGURATION				
LX-EP-	BASIC CONFIGURATION (FOR ALL RAN	(FOR ALL RANGES)		
	LX-EP-50			

(0)	RANGE
\smile	1010" (250 mm)
	15 15" (390 mm)
	20
	2525" (640 mm)
	30
	40 40" (1000 mm)
	50 50" (1250 mm)

Note: For mating connector with electrical cable see Accessory 10172.

ACCESSORY-10172 ELECTRICAL CABLE (LX-EP ONLY) THIS PRODUCT HAS BEEN DISCONTINUED AND IS NO LONGER AVAILABLE. PLEASE CLICK HERE OR SEE LX-EP2 FOR REPLACEMENT PRODUCT.

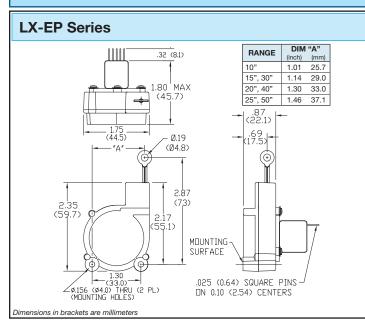
10172-3M	3 m (10 ft)
10172-4M	4 m (13.5 ft)
10172-5M	5 m (16.5 ft)

chA to WHT----+Vin to REDchB to GRN-

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DIMENSIONAL INFORMATION



ACCESSORIES

10346 – RIGHT ANGLE MOUNTING BRACKET 10156 – TWO AXIS SWIVEL BASE The Right Angle Mounting Bracket serves as a base for mounting the LX transducer 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 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 LX-EP transducer. The axes may be locked in place after the transducer is oriented. Ideal for quick setups. ORDER MODEL NUMBER: 10156 any of three orientations when placed above the bracket mounting holes. ORDER MODEL NUMBER: 10346 WIRE ROPE CENTERLINE .72 (18.3) 2.40 (61) L.30 (7.6) L.20 (5.1) 1.14 (29 MOUNTING HOLES (2X) #6 or 4mm SCREWS 山 Ø.156 (Ø4.0) Ð 2.00(50.8) VERTICAL ROTATION AXIS RIGHT ANGLE MOUNTING BRACKET 2.38 (60.5) TWO AXIS SWIVEL BASE .70 (17.8) ALTERNATE DRIENTATION LOCK SCREW HORIZONTAL ROTATION AXIS 1.48 (37.6) ())E C THREAD 6-32 THRU (2 PL) æ ۲ LOCK SCREW 1.64 -.25 (6.4) BIGHT ANGLE MOUNTING BRACKET $(\bigcirc$ WITH TRANSDUCER MOUNTED SWIVEL BASE W/ TRANSDUCER MOUNTED Dimensions in brackets are millimeters Dimensions in brackets are millimeters 10067 - AUXILIARY WIRE ROPE EXTENSION KIT The auxiliary wire rope extension may be used to facilitate mounting the transducer remotely 10067--CM 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 1 2 transducer, mounts to the moving element. The extension kit is also available with the clip 1 DIMENSION "L" end unterminated for situations where it is more convenient to size the wire rope length during Specify Dimension "L" in centimeters to the installation. Clip and crimp fitting are included with the unterminated version. nearest whole centimeter <u>NOTES:</u> 1. 2 . 1 cm = 0.394", 1 inch = 2.54 cm . Shortest length "L" is 5 cm (approximately 2") Clip-This end connects to Ø.188 (Ø4.8 mm) Eye Fitting fitting on transducer This end connects to the UNTERMINATED CLIP END Crimp Sleeve moving element. Leave Blank Completed kit (No designator required) Unterminated Clip End "L" ± 0.3 cm (0.12") (clip and crimp sleeve included in kit)

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