

**GENERAL DESCRIPTION:**

MODEL LP-3U IS A SHORT STROKE (3 mm), CONTACTLESS LINEAR POSITION SENSOR FEATURING LONG LIFE, LOW NOISE, SUPERB REPEATABILITY AND FAST MOTION TRACKING CAPABILITY.  
 MODEL LP-3U-1-TCx, WHICH CONTAINS TEMPERATURE COMPENSATION RESISTOR NETWORK, IS AVAILABLE FOR OPERATING IN AN EXTENDED TEMPERATURE RANGE.

**ENVIRONMENTAL SPECIFICATIONS:**

OPERATING TEMPERATURE: -20°C to +80°C  
 STORAGE TEMPERATURE: -20°C to +80°C

**ELECTRICAL SPECIFICATIONS:** (UNLESS OTHERWISE SPECIFIED, Ta=25°C)

EFFECTIVE STROKE: ±1.5 mm (3 mm FS)  
 INPUT VOLTAGE (Vin): 14 Vdc MAX.  
 OUTPUT SENSITIVITY: 8% Vin / mm MIN.  
 INDEPENDENT LINEARITY: ±1.5% FS  
 INPUT IMPEDANCE:

LP-3U: 25 kOHMS ±30%  
 LP-3U-1-TCx: 25 kOHMS ±40%

INSULATION RESISTANCE: 100 megOHMS MIN. @500Vdc  
 DIELECTRIC STRENGTH: 500 Vrms @50/60 Hz FOR 1 MINUTE

TEMPERATURE CHARACTERISTICS: (REFER TO TABLE 1 AND FIGURE 4.)

LP-3U: STANDARD UNIT

LP-3U-1-TCx: TEMPERATURE COMPENSATED UNIT

**TABLE 1 (DEVIATION IS EXPRESSED IN EQUIVALENT STROKE, TREF. = 25°C)**

	LP-3U (Ta= 0°C to +75°C)	LP-3U-1-TCA (Ta= 0°C to +60°C)	LP-3U-1-TCB (Ta= -20°C to +80°C)
AT 0 mm POSITION:	±0.25 mm (REF.)	±0.05 mm	±0.07 mm
AT ±1.5 mm POSITION:	±0.45 mm (REF.)	±0.15 mm	±0.20 mm

**MECHANICAL SPECIFICATIONS:**

MECHANICAL STROKE: 5 ±1 mm (SEE FIGURE 2)  
 FRICTION: 1 N (100 gf) MAX. (SPRING FORCE)  
 WEIGHT: APPROX. 24 g

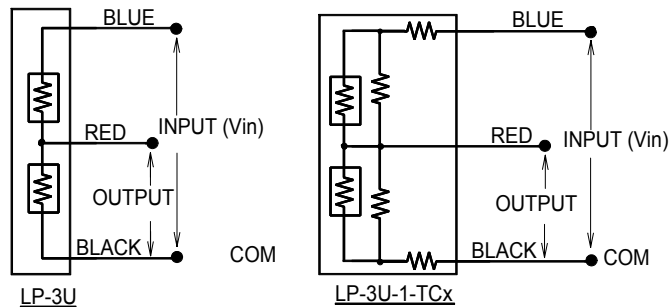


FIGURE 1 SCHEMATIC

C.O.N		SYM	REVISION DESCRIPTION	DATE	DRAWN	APPR'D
-------	--	-----	----------------------	------	-------	--------



**GUEMISA**  
 Sta. Virgilia 3-b ; 1ºF 28033 Madrid  
 Tño.: 91 764 21 00 Fax.: 91 764 21 32  
 Email: info@guemisa.com

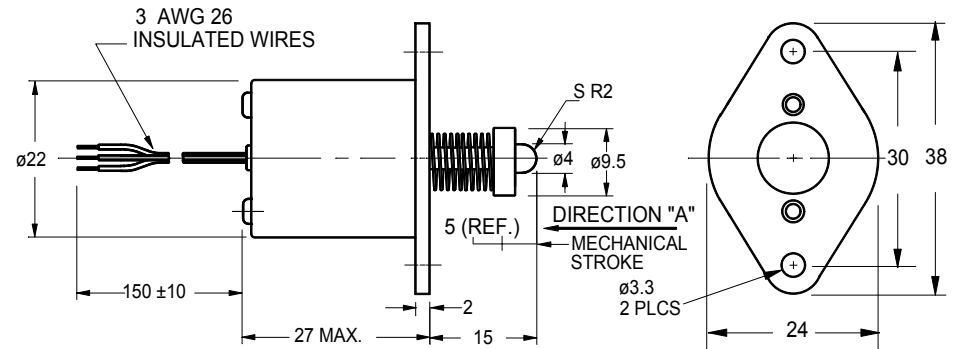


FIGURE 2 OUTLINE DIMENSIONS

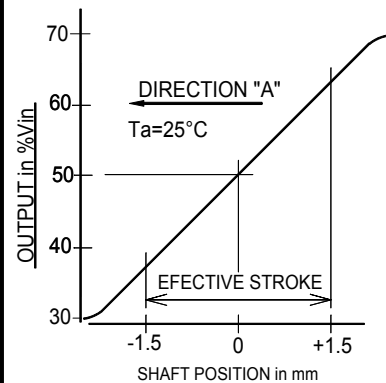


FIGURE 3 TYPICAL OUTPUT CHARACTERISTICS

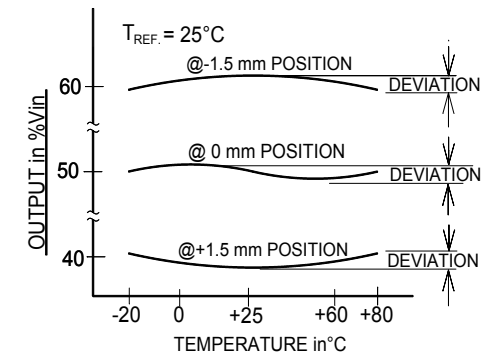


FIGURE 4 TEMPERATURE CHARACTERISTICS (APPLICABLE TO LP-3U-1-TCx ONLY)

UNLESS OTHERWISE SPECIFIED, DIMENSIONS ARE IN mm (in).  
 TOLERANCES:  
 ANGLES ±1.5°  
 <10 mm: ±0.25  
 <100 mm: ±0.5  
 >100 mm: ±1

DRAWN	T. TSUGAWA	DATE	08/06/02
CHECKED	Y. NAKAMURA	DATE	09/09/02
APPROVED		DATE	
APPROVED		DATE	
SCALE:			

**SPECIFICATION DWG**  
 FOR  
**LP-3U**  
 CONTACTLESS LINEAR  
 POSITION SENSOR

FILE: LP-3U

**Midori America Corporation**  
 FULLERTON, CA

**B-MAC-B61**

1 OF 1