

GENERAL DESCRIPTION:

MODEL LP-1U IS A SHORT STROKE (0.6mm), CONTACTLESS LINEAR POSITION SENSOR FEATURING LONG LIFE, LOW NOISE, SUPERB REPEATABILITY AND FAST MOTION TRACKING CAPABILITY.

MODEL LP-1U-2, WHICH CONSISTS OF MODEL LP-1U AND A SET OF EXTERNAL TEMPERATURE COMPENSATION RESISTORS, 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: ±0.3 mm (0.6 mm FS)
 INPUT VOLTAGE (Vin): 8 Vdc MAX.
 OUTPUT SENSITIVITY: 2.5% Vin / 0.1mm MIN.
 INDEPENDENT LINEARITY: ±1% FS
 INPUT IMPEDANCE:
 LP-1U: 7 KOHMS ±30%
 LP-1U-2: 7 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-1U: STANDARD UNIT
 LP-1U-2: LP-1U WITH EXTERNAL TEMP. COMPENSATION RESISTORS.

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

	LP-1U (Ta= 0°C to +75°C)	LP-1U-2 (Ta= -20°C to +80°C)
AT 0 mm POSITION:	±0.065 mm (REF.)	±0.013 mm
AT ±0.3 mm POSITION:	±0.1 mm (REF.)	±0.033 mm

MECHANICAL SPECIFICATIONS:

MECHANICAL STROKE: 1.0 ^{+0.5}/_{0.2} mm (SEE FIGURE 2)
 FRICTION: 1 N (100 gf) MAX. (SPRING FORCE)
 WEIGHT: APPROX. 45 g

ACCESSORY: (APPLICABLE TO MODEL LP-2U-2 ONLY)

EACH UNIT IS SUPPLIED WITH A SET OF MATCHED EXTERNAL TEMPERATURE COMPENSATION RESISTORS (P1, P2, Q1 AND Q2). REFER TO FIGURE 1 SCHEMATIC FOR ELECTRICAL CONNECTIONS.

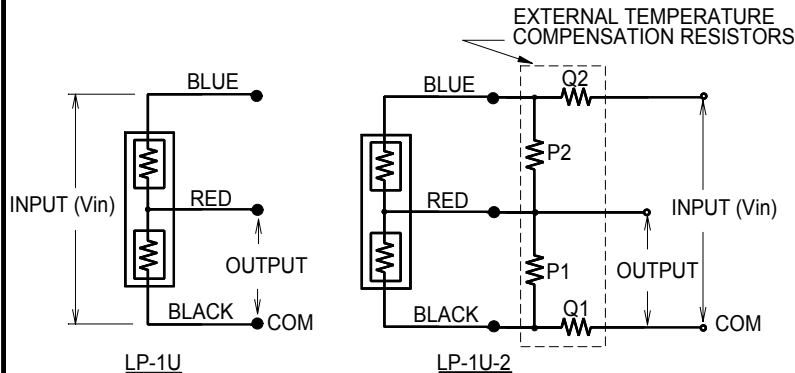


FIGURE 1 SCHEMATIC

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



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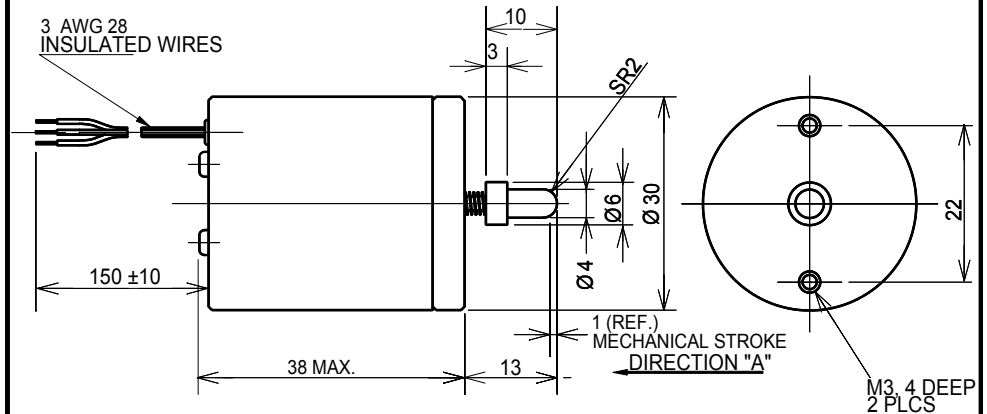


FIGURE 2 OUTLINE DIMENSIONS

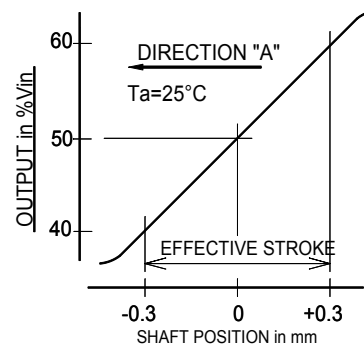


FIGURE 3 TYPICAL OUTPUT CHARACTERISTICS

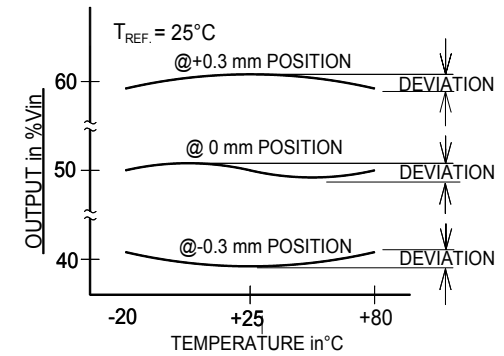


FIGURE 4 TEMPERATURE CHARACTERISTICS (APPLICABLE TO MODEL LP-1U-2 ONLY)

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	08/05/02
CHECKED	Y. NAKAMURA	DATE	09/09/02
APPROVED		DATE	
APPROVED		DATE	
SCALE:			

SPECIFICATION DWG FOR MODEL LP-1U CONTACTLESS LINEAR POSITION SENSOR

FILE: LP-1U

Midori America Corporation
 FULLERTON, GA

B-MAC-B60