

10719

REFERENCE: MPCL 95CAT PG 19

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

1.0 GENERAL DESCRIPTION:

MODEL CP-2UPX IS A CONTACTLESS ROTARY POSITION SENSOR PACKAGED FOR SERVO-MOUNT CONFIGURATION. THE SENSOR, WITH ø6 mm SHAFT, IS DESIGNED FOR APPLICATIONS REQUIRING LOW TORQUE AND HIGH PERFORMANCE IN OUTPUT SMOOTHNESS, RESOLUTION AND RELIABILITY.



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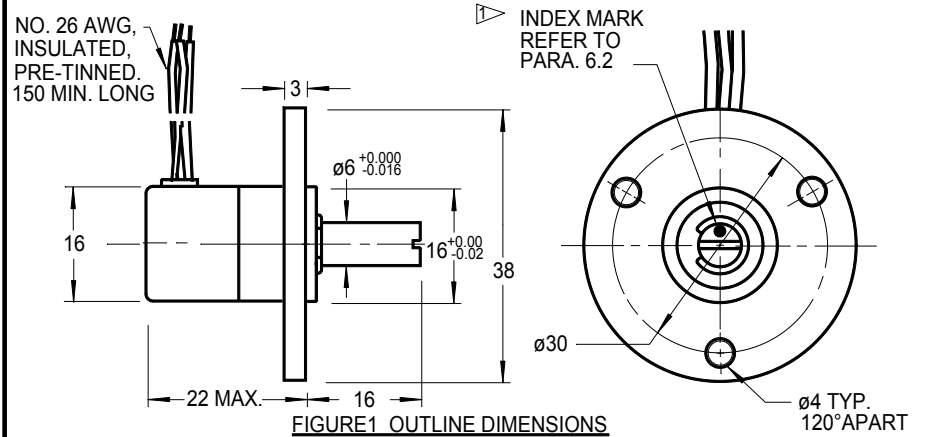


FIGURE1 OUTLINE DIMENSIONS

2.0 ENVIRONMENTAL SPECIFICATIONS:

- 2.1 OPERATING TEMPERATURE: -40°C to +125°C
- 2.2 VIBRATION: 20 G's per MIL-STD-202E, 204C.
- 2.3 SHOCK: 50 G's, 11 ms per MIL-STD-202E, 213B.

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

- 3.1 INPUT VOLTAGE (Vin): 10 Vdc MAX. Ta= -40°C to +125°C
- 3.2 INPUT IMPEDANCE: 15 kOHMS ±30%
- 3.3 ELECTRICAL ANGLE: ±45° (F.S.=90°) Ta= -40°C to +125°C
- 3.4 OUTPUT SENSITIVITY: 2.5% Vin/10° MIN.
- 3.5 INDEPENDENT LINEARITY: ±1.5% over F.S. Ta= -40°C to +125°C
- 3.6 INSULATION RESISTANCE: 100 meg OHMS @ 500 Vdc
- 3.7 DIELECTRIC STRENGTH: 500 Vrms @ 50/60 Hz for ONE MINUTE.

3.8 TEMPERATURE EFFECT (DEVIATION IS EXPRESSED IN EQUIVALENT ANGLE): REFER TO FIGURE 4 FOR CLARIFICATION.

3.8.1 FOR MODEL CP-2UPX (STANDARD UNIT W/O TEMP. COMPENSATION):

	Ta= 0°C to +75°C	Ta= -30°C to +125°C
AT 0° POSITION:	1.5° MAX.	4.5° MAX. (REF. ONLY)
AT ±45° POSITION:	7.3° MAX.	22° MAX. (REF. ONLY)

NOTE: THE VALUES SPECIFIED WITH " REF. ONLY " ARE PROVIDED ONLY AS DESIGN GUIDE INFORMATION NOT FOR GUARANTEED VALUE.

3.8.2 FOR MODEL CP-2UPX-1-TCx (TEMP. COMPENSATED UNIT):

	-TCA (Ta= 0°C to +60°C)	-TCB (Ta= -20°C to +80°C)	-TCC (Ta= -30°C to +100°C)
AT 0° POSITION:	0.3° MAX.	0.5° MAX.	0.7° MAX.
AT ±45° POSITION:	3.5° MAX.	5.5° MAX.	7.5° MAX.

4.0 MECHANICAL SPECIFICATIONS:

- 4.1 MECHANICAL ANGLE: 360° (ENDLESS)
- 4.2 TORQUE: 5 g-cm MAX.
- 4.3 WEIGHT: APPROX. 30 g

5.0 ELECTRICAL CONNECTIONS: SEE FIGURES 1 AND 2.

6.0 MARKING:

6.1 UNIT SHALL BE LABELED WITH MIDORI NAME, MODEL NO. AND SERIAL NO.

6.2 THE DOT ON SHAFT END SHOWN IN FIGURE 1 IS PROVIDED FOR DETERMINING APPROXIMATE MID-POINT (OUTPUT=50%Vin), BY ALIGNING WITH THE LEADS EXIT LINE AS SHOWN.

7.0 MATERIAL:

- HOUSING: CARBON STEEL, ZINC COATED
- SHAFT: STAINLESS STEEL
- MOUNTING FLANGE: ALUMINUM, ANODIZED

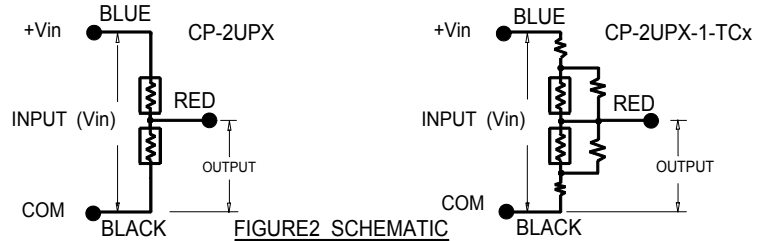


FIGURE2 SCHEMATIC

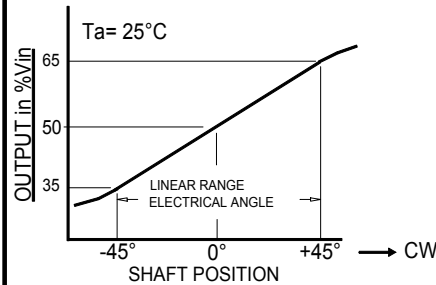


FIGURE3 TYPICAL OUTPUT CHARACTERISTICS

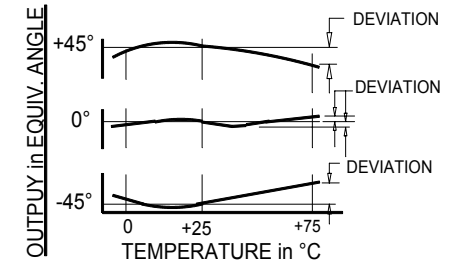


FIGURE4 TYPICAL TEMPERATURE CHARACTERISTICS

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 2/18/97	SPECIFICATION DWG FOR MODEL CP-2UPX CONTACTLESS POTENTIOMETER (ø6 SHAFT, SERVO MOUNT TYPE)	Midori America Corporation FULLERTON, CA
	CHECKED			
	APPROVED	DATE		
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SCALE:	FILE: CP-2UPX	A-MAC-B99		1 OF 1