

REF. NO:

REVISION

1.0 GENERAL DESCRIPTION:

MODEL PMP-SxxHTIS A CONTACTLESS INCLINOMETER, MADE WITH STATE OF THE ART MICROELECTRONIC SENSING ELEMENT, A MAGNET ATTACHED TO PATENTED SPRING PLATE PENDULUM, SILICON DAMPER OIL AND SEALED METAL HOUSING.ITS INPUT/OUTPUT ARE TERMINATED WITH INDUSTRY STANDARD, 2.5 mm SPACED, PIN TERMINALS. THE INCLINOMETER IS SUITABLE FOR WIDE RANGE OF INDUSTRIAL APPLICATIONS SUCH AS OFF-ROAD, MARINE, PROCESS CONTROL AND CONSTRUCTION EQUIPMENT.

2.0 ENVIRONMENTAL SPECIFICATIONS:

- 2.1 OPERATING TEMPERATURE: -20°C to +80°C
- 2.2 STORAGE TEMPERATURE: -40°C to +80°C
- 2.3 VIBRATION: 7 G's, 10Hz to 500Hz
- 2.4 SHOCK: 100 G's, 11ms

3.0 ELECTRICAL AND MECHANICAL SPECIFICATIONS: (UNLESS OTHERWISE SPECIFIED, T_A =25°C, Vin=5Vdc. REFER TO FIGURES 1, 2 AND 3)

- 3.1 INPUT VOLTAGE (Vin): 5.0 ±0.5 Vdc
- 3.2 OPERATING CURRENT: 10 mA MAX.
- 3.3 OUTPUT LOAD (R_L): 10 KOHMS MIN.
- 3.4 INSULATION RESISTANCE: 100 meg OHMS @50 Vdc
- 3.5 DAMPER OIL: SILICON OIL 200 cSt
- 3.6 WEIGHT: APPROX. 35g
- 3.7 INDEX POINT: 2.50 ±0.05 V

	PMP-S5HT(REF.)	PMP-S10HT	PMP-S20HT(REF.)	PMP-S30HT(REF.)
3.8 TILT ANGLE, ELECTRICAL:	±5°(FS=10°)	±10°(FS=20°)	±20°(FS=40°)	±30°(FS=60°)
3.9 TILT ANGLE, MECHANICAL:	±6° MIN.	±12° MIN.	±24° MIN.	±36° MIN. (B)
3.10 ZERO-BASED LINEARITY:	±1% FS	±1% FS	±1% FS	±1.5% FS (B)
3.11 TILT SENSIBILITY:	±0.01° MAX.	±0.02° MAX. (A)	±0.04° MAX.	±0.06° MAX. (B)
3.12 OUTPUT SENSITIVITY:	400mV±2.5 % per 1°	200mV±2.5 % per 1° (A)	100mV±2.5 % per 1°	66.5 mV ±7.5% (B)
3.13 APPROX. RESPONSE TIME:	0.3 SEC.	0.3 SEC.	0.3 SEC.	0.3 SEC.
3.14 TEMPERATURE EFFECT:	(T _{REF} = 25°C, T _A = -20°C to +80°C)			

- AT 0° TILT ANGLE: (A) ±5% FS MAX.
- AT MAX. TILT ANGLE: (B) ±7.5% FS MAX.

4.0 ELECTRICAL CONNECTION: REFER TO FIGURES 1 AND 2.

5.0 MARKING:

EACH UNIT SHALL BE LABELED WITH "MIDORI" NAME, MODEL NO. AND SERIAL NO.(or DATE CODE).

C.O.N	SYM	DESCRIPTION	DATE	DRAWN	APPR'D
	A	1) WAS ±1.3%FS MAX. (2) WAS±3%FS MAX. 3) WAS 200 mV±1.3% (4) WAS.01° MAX.	3/15/05	T.TSUGAWA	
	B	1) WAS ±40° MIN. (2) WAS ±1.3% (3) WAS 67mV ±2.5%	3/1/07	T.TSUGAWA	

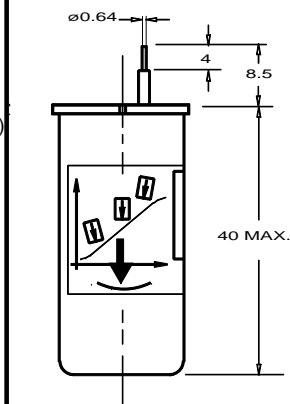
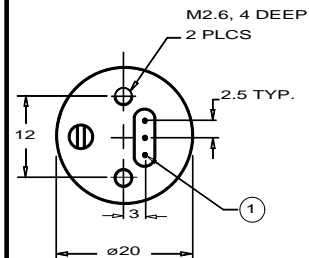


FIGURE 1 OUTLINE DIMENSION

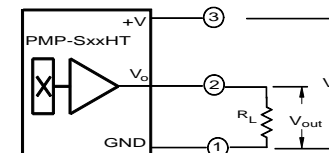


FIGURE 2 SCHEMATIC

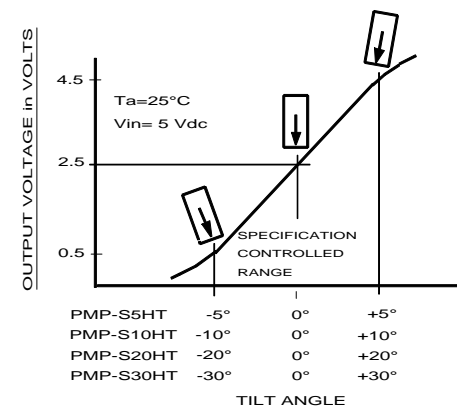


FIGURE 3 TYPICAL OUTPUT CHARACTERISTICS

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 02/27/03
CHECKED	DATE
APPROVED	DATE
APPROVED	DATE
SCALE:	

SPECIFICATION DWG
 FOR
 MODEL PMP-SxxHT
 INCLINOMETER

Midori America
 Corporation
 FULLERTON, CA

B-MAC-B68 B

FILE: PMP-SxxHT

1 OF 1