

REF. NO:

		REVISION	DATE	DRAWN	APPR'D
CON	SYM	DESCRIPTION			
	A	(1) WAS BLUE. (2) WAS RED. (3) "DIELECTRIC STRENGTH" REQ. DELETED. (4) WAS @500Vdc. (5) WAS 13. (6) WAS "OUTPUT CURRENT: 1 mA"	05/07/02	T.TSUGAWA	Y.N.

1.0 GENERAL DESCRIPTION:

MODEL QP-2H IS ONE OF MIDORI CONTACTLESS ANGLE SENSORS, UTILIZING TEMPERATURE STABILIZED HALL EFFECT SENSING IC, SPECIFICALLY DESIGNED FOR FEEDBACK POSITION SENSING APPLICATIONS IN WIDE OPERATING TEMPERATURE RANGE.

2.0 ENVIRONMENTAL SPECIFICATIONS:

- 2.1 OPERATING TEMPERATURE: -40°C to +125°C
- 2.2 STORAGE TEMPERATURE: -40°C to +125°C
- 2.3 THERMAL SHOCK: -40°C to +100°C, 10 CYCLES, PER MIL-STD 202F, 107C.
- 2.4 VIBRATION: 20 G's per MIL-STD-202F, 204D, COND. D.
- 2.5 SHOCK: 50 G's per MIL-STD-202F, 213B, COND. C.

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

- 3.1 INPUT VOLTAGE (Vin):
 - 3.11 OPERATING VOLTAGE: 5 Vdc ±10% (-40°C to +125°C)
 - 3.12 ABSOLUTE MAXIMUM VOLTAGE: 8 Vdc (-40°C to +125°C)
- 3.2 OPERATING CURRENT: 10 mA MAX. @ Vin=5.5 Vdc
- 3.3 ELECTRICAL ANGLE: ±45° (F.S.=90°)
- 3.4 OUTPUT SENSITIVITY: (44 ±6)mV/1° @ Vin=5 Vdc
- 3.5 INDEPENDENT LINEARITY: ±1.5% F.S.
- 3.6 OUTPUT LOAD: 10 KOHMS MIN.
- 3.7 INSULATION RESISTANCE: 100 megOHMS @ 50 Vdc^(A)
- 3.8 TEMPERATURE EFFECT: (EXPRESSED IN EQUIVALENT ANGLE) OPERATING TEMPERATURE RANGE of -30°C to +100°C
 - @ 0° SHAFT POSITION: ±0.5°
 - @ ±45° SHAFT POSITION: ±2.0°

3.9 ELECTRICAL MID-POINT SETTING: SEE FIGURE 1.

4.0 MECHANICAL SPECIFICATIONS:

- 4.1 MECHANICAL ANGLE: 360°
- 4.2 TORQUE: 0.5 g-cm (0.007 in-oz)
- 4.3 WEIGHT: 10 g NOMINAL
- 4.4 MOUNTING HARDWARE: A PANEL NUT and INTERNAL TOOTH LOCKWASHER SHALL BE SUPPLIED WITH EACH UNIT.

5.0 ELECTRICAL CONNECTION: SEE FIGURES 1 and 2

6.0 MARKING:

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

7.0 MATERIAL:

- HOUSING: CARBON STEEL, ZINC COATED
- SHAFT: STAINLESS STEEL
- BUSHING and FRONT LID: ALUMINUM, ANODIZED
- MTG NUT and WASHER: STEEL, GALVANIZED, CHROMATE FINISHED

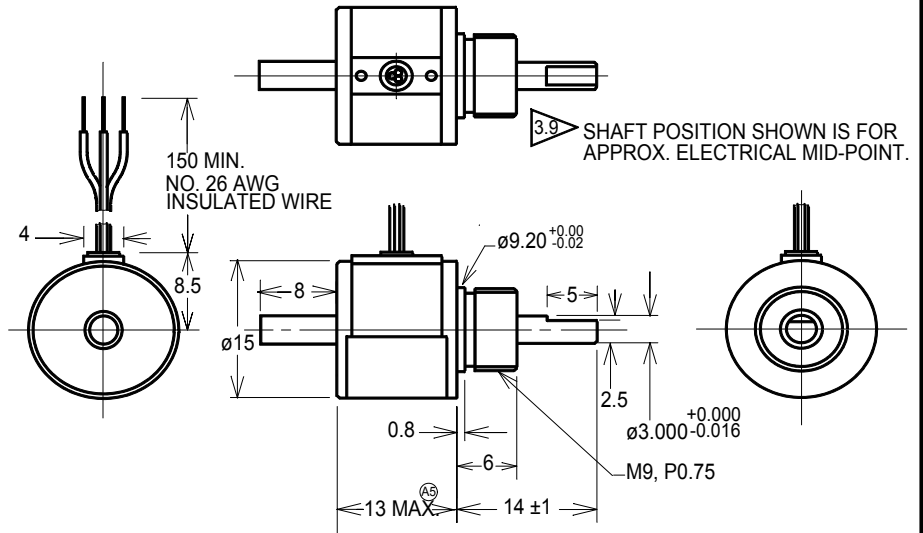


FIGURE 1 OUTLINE DIMENSIONS

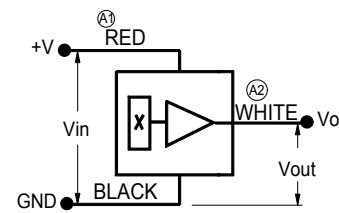


FIGURE 2 SCHEMATIC

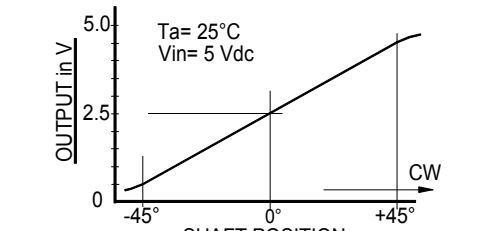


FIGURE 3 TYPICAL OUTPUT CHARACTERISTICS



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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 03/16/00	SPECIFICATION DWG FOR MODEL QP-2H CONTACTLESS ANGLE SENSOR (HALL EFFECT TYPE, WITH REAR SHAFT)	B-MAC-B49 A
	CHECKED Y. NAKAMURA	DATE 03/16/00		
	APPROVED	DATE		
	APPROVED	DATE		
SCALE:	FILE: QP-2H			1 OF 1