

Contactless Hall-IC Tilt Angle Sensor

PMP-SHT Series



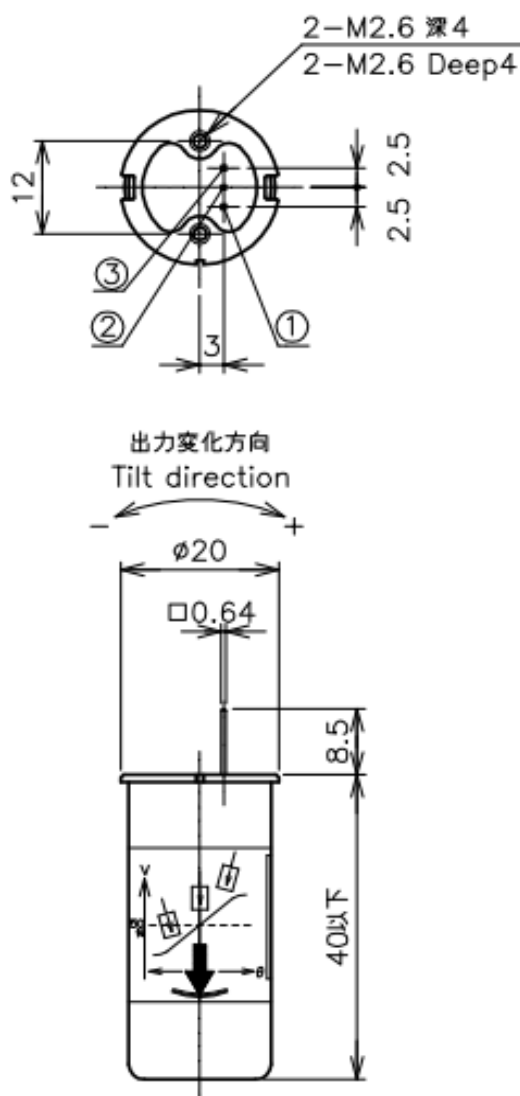
- Single Axis Tilt Angle Sensor
- Effective Electrical Tilt Angle
 - : $\pm 5^\circ$ (PMP-S5HT)
 - : $\pm 10^\circ$ (PMP-S10HT : Standard)
 - : $\pm 20^\circ$ (PMP-S20HT)
 - : $\pm 30^\circ$ (PMP-S30HT)

• Center Based Linearity : $\pm 1\%FS$

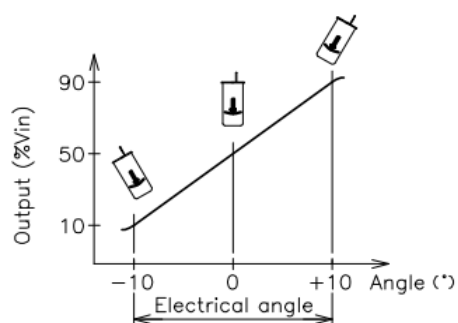
【Material】

- Housing : Zinc, Nickel plate
- Case : Steel, Nickel plate

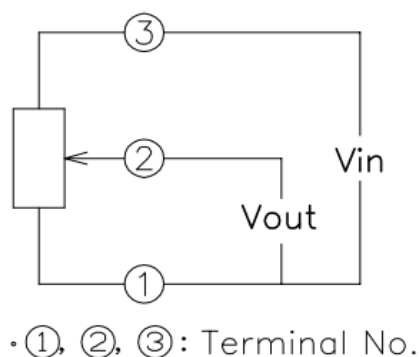
■ Dimension [mm]



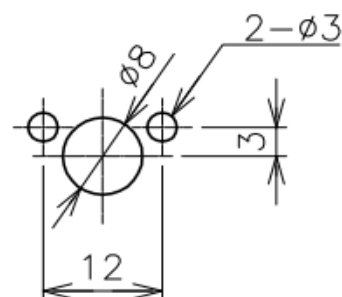
■ Output Characteristics



■ Schematic



■ Mounting



【Model No.】	PMP-S10HT	PMP-S5HT	PMP-S20HT	PMP-S30HT
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【Electrical Specifications】

Effective Electrical Tilt Angle	±10	±5	±20	±30	°
Tilt Sensitivity	MAX. 0.02	MAX. 0.01	MAX. 0.04	MAX. 0.06	°
Output Range	10~90				%Vin
Index Point	50±3	50±6	50±2		%Vin
Center Based Linearity	±1			±1.5	%FS
Input Voltage	DC 5±0.5				V
Load Resistance	MIN. 10				kΩ
Supply Current	MAX. 10				mA
Insulation Resistance	MIN. 100/DC50V				V
Temp. Characteristics -20°C~80°C (Reference Temp. 25°C)	At 0°:±1.0° At ±10°:±1.5°	At 0°:±1.0° At ±5°:±1.5°	At 0°:±2.5° At ±20°:±2.5°	At 0°:±2.5° At ±30°:±3.0°	

【Mechanical Specifications】

Response time	Approx. 0.3 (Damper Oil 200mm ² /s)				Sec.
Total Mechanical Tilt Angle	MIN. ±12	MIN. ±24	MIN. ±24	MIN. ±36	°
Mass	Approx. 35				g

【Environmental Specifications】

Operating Temperature Range	-20~+80				°C
Storage Temperature Range	-40~+80				°C
Vibration	70m/s ² 3axis 2hours				
Shock	1000m/s ² 6directions 3times				
EMS	100V/m 200M ~1GHz				
ESD(Case To Each Terminal)	±4				kV
ESD(Between Each Terminal)	±4				kV
IP Level	IP65 (Without Terminals)				

■ Handling Instruction

- Hall-IC sensor is impossible to measure resistance value as a variable resistor.
- This product may be influenced from external magnetic field.
- Use this sensor in the place where is protected from ESD.
- To avoid the spring pendulum bending, don't lay this unit on its side.