

Contactless Hall-IC Tilt Angle Sensor

MIDORI PMP-SHT Series



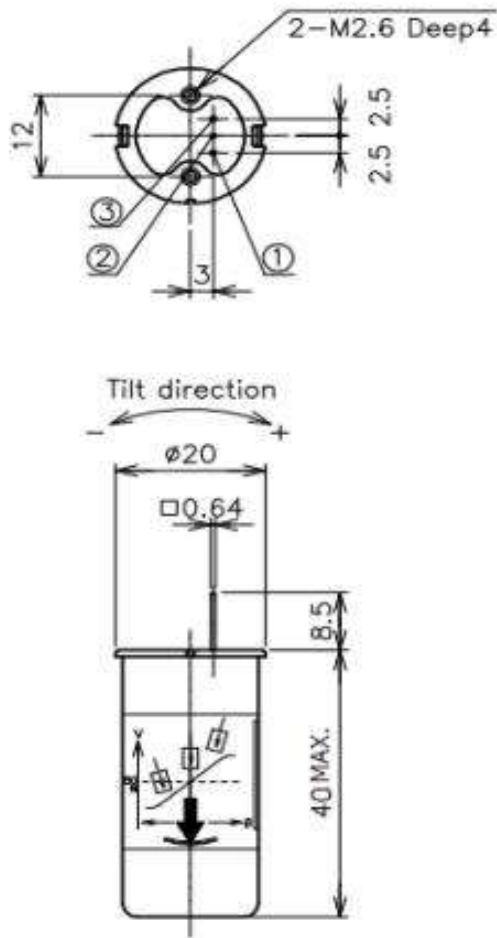
General

- Single Axis Tilt Angle Sensor
- Effective Electrical Tilt Angle :
 - $\pm 5^\circ$ (PMP-S5HT)
 - $\pm 10^\circ$ (PMP-S10HT)
 - $\pm 20^\circ$ (PMP-S20HT)
 - $\pm 30^\circ$ (PMP-S30HT)
- Center Based Linearity: $\pm 1\%FS$

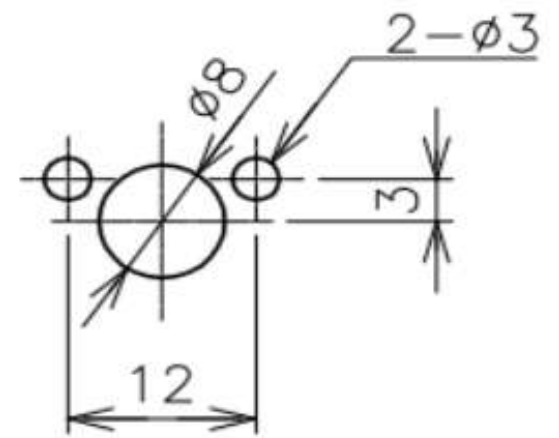
Material

- Housing: Zinc, Nickel Plate
- Cover: Steel, Nickel Plate

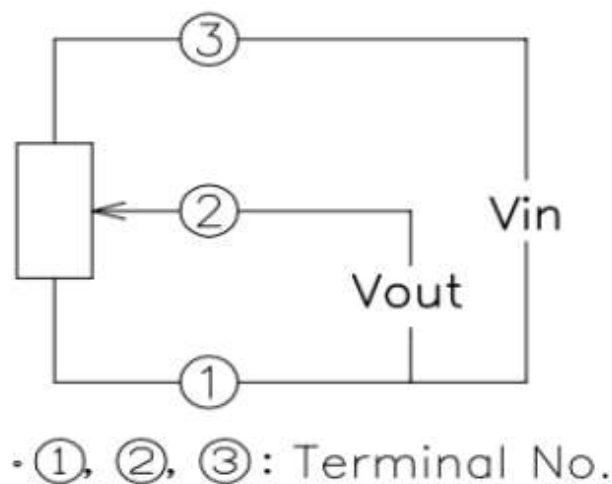
Dimension (mm)



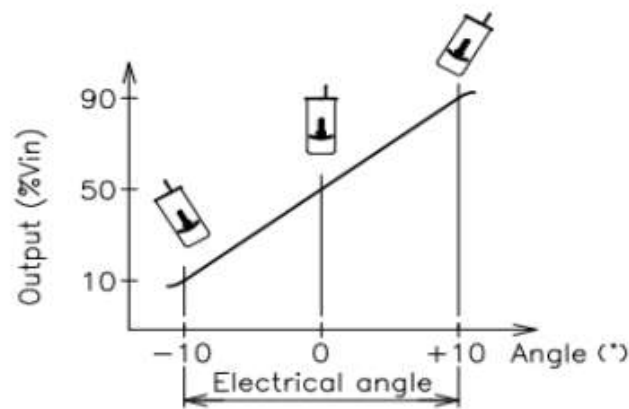
Mounting



Schematic



Output Characteristics



Specifications

Electrical Specifications

	PMP-S10HT	PMP-S5HT	PMP-S20HT	PMP-S30HT
Effective Electrical Tilt Angle	±10°	±5°	±20°	±30°
Tilt Sensitivity	0.02° MAX.	0.01° MAX.	0.04° MAX.	0.06° MAX.
Output Range	10~90%Vin			
Output Sensitivity	1.05 (~1.75)%Vin/°			
Index Point	50%±3%Vin	50%±6%Vin	50%±2%Vin	50±2%Vin
Center Based Linearity	±1%FS	±1%FS	±1%FS	±1%FS
Input Voltage	DC5V ±0.5V			
Temp. Characteristics -20~+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°
Load Resistance	10KΩ MIN.			
Supply Current	10mA MAX.			
Insulation Resistance	100MΩ/ DC50V MIN.			

Mechanical Specifications

Response Time	Approx. 0.3Sec. (Damper Oil 200mm ² /S)			
Total Mechanical Tilt Angle	±12° MIN.	±6° MIN.	±24° MIN.	±36° MIN.
Weight	Approx. 35g			

Environmental Specifications

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

Handling Instruction

- Do not use Hall-IC sensors as a variable resistor.
- This product may be influence from external magnetic field.
- Use this sensor in the place where is protected from ESD.
- To avoid the spring pendulum bending, do not lay this unit on its side.