

Contactless Hall-IC Tilt Angle Sensor

MIDORI PMP-HTL Series



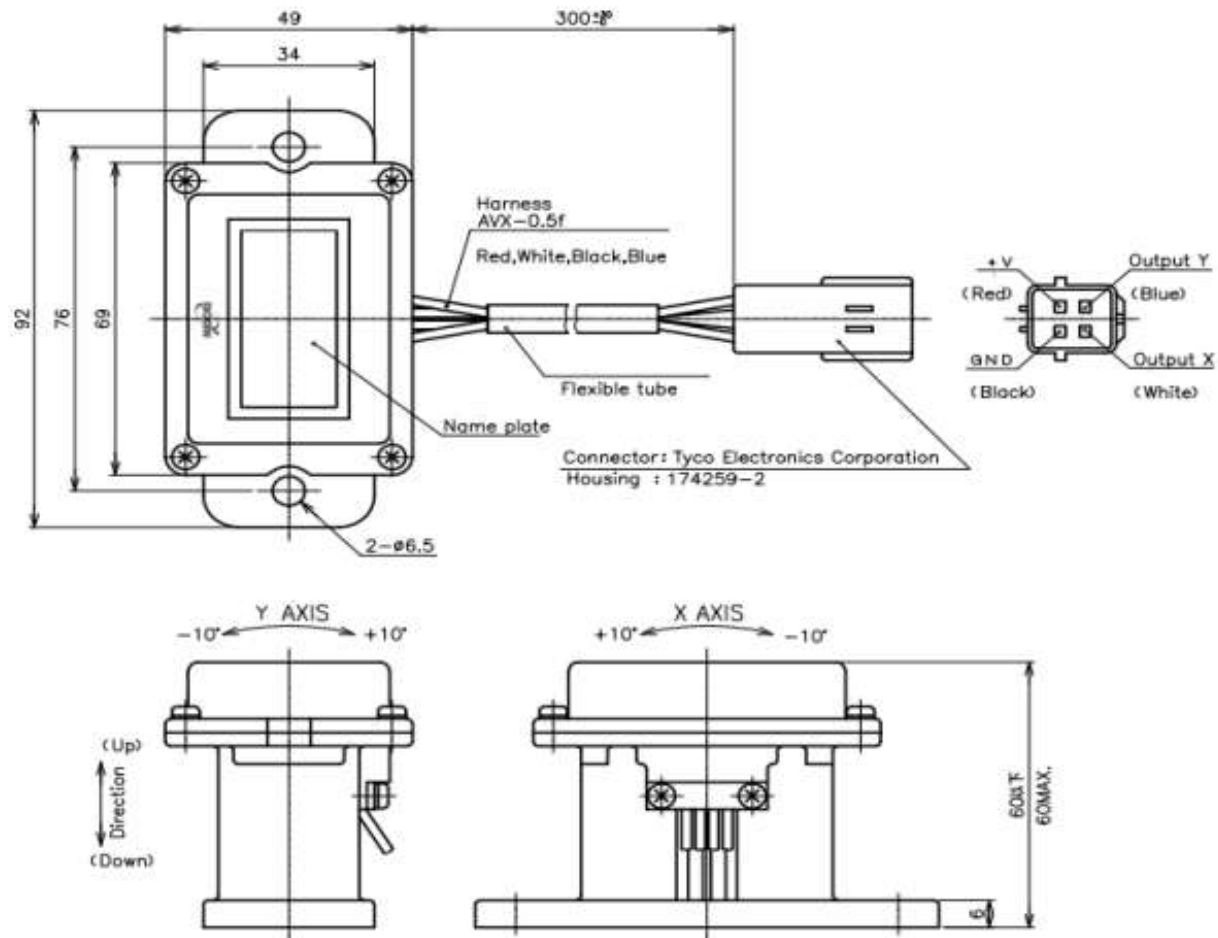
General

- Single/ Dual Axis Tilt Angle Sensor
PMP-xxHTL (Single Axis) / PMP-xxHTZL (Dual Axis)
- Effective Electrical Tilt Angle :
 - ±5° (PMP-5HTL/ 5HTZL)
 - ±10° (PMP-10HTL/ 10HTZL)
 - ±20° (PMP-20HTL/ 20HTZL)
 - ±30° (PMP-30HTL/ 30HTZL)
- Center Based Linearity: ±1%FS (X, Y axis)

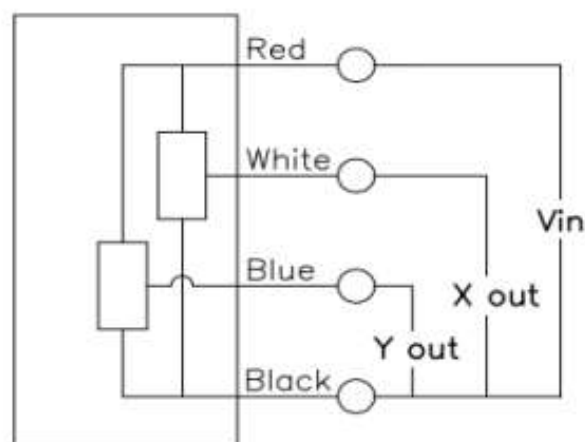
Material

- Housing: Aluminum

Dimension (mm)



Schematic

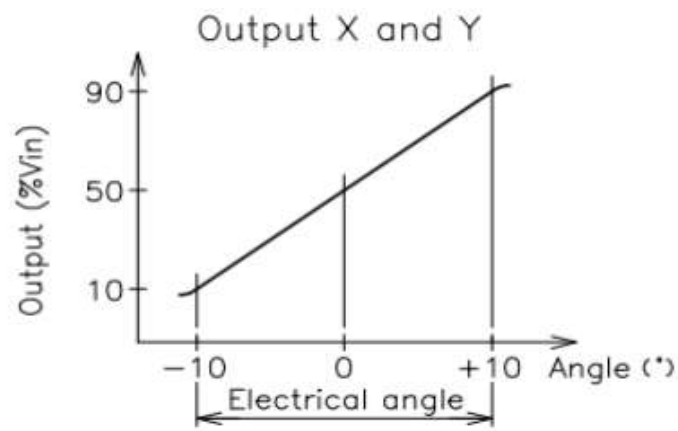


Red, White, Blue, Black indicate lead colors.

Mounting



Output Characteristics



Specifications

	PMP-10HTL PMP-10HTZL	PMP-5HTL PMP-5HTZL	PMP-20HTL PMP-20HTZL	PMP-30HTL PMP-30HTZL
Electrical Specifications				
Effective Electrical Tilt Angle	±10°	±5°	±20°	±30°
Index Point	50%±4%Vin	50%±8%Vin	50%±3%Vin	50%±3%Vin
Output Range	10~90%Vin			
Input Voltage	DC5V±0.5V			
Center Based Linearity	±1%FS	±1%FS	±1%FS	±1.5%FS
Load Resistance	10KΩ MIN.			
Supply Current	20mA MAX.			
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°
Insulation Resistance	100MΩ/ DC50V MIN.			
Mechanical Specifications				
Response Time	Approx. 0.5 Sec. (Damper Oil 200mm ² /S)			
Total Mechanical Tilt Angle	±12° MIN.	±6° MIN.	±24° MIN.	±36° MIN.
Mass	Approx. 230g			
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 Cable End)			

Handling Instruction

- Different effective electrical tilt angle between X and Y axis (ex. X-axis: ±5° / Y-axis: ±10°)
- Other damper oil viscosity
- Narrower output voltage range

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.**