Contactless Hall-IC Tilt Angle Sensor

PMP-HTL Series

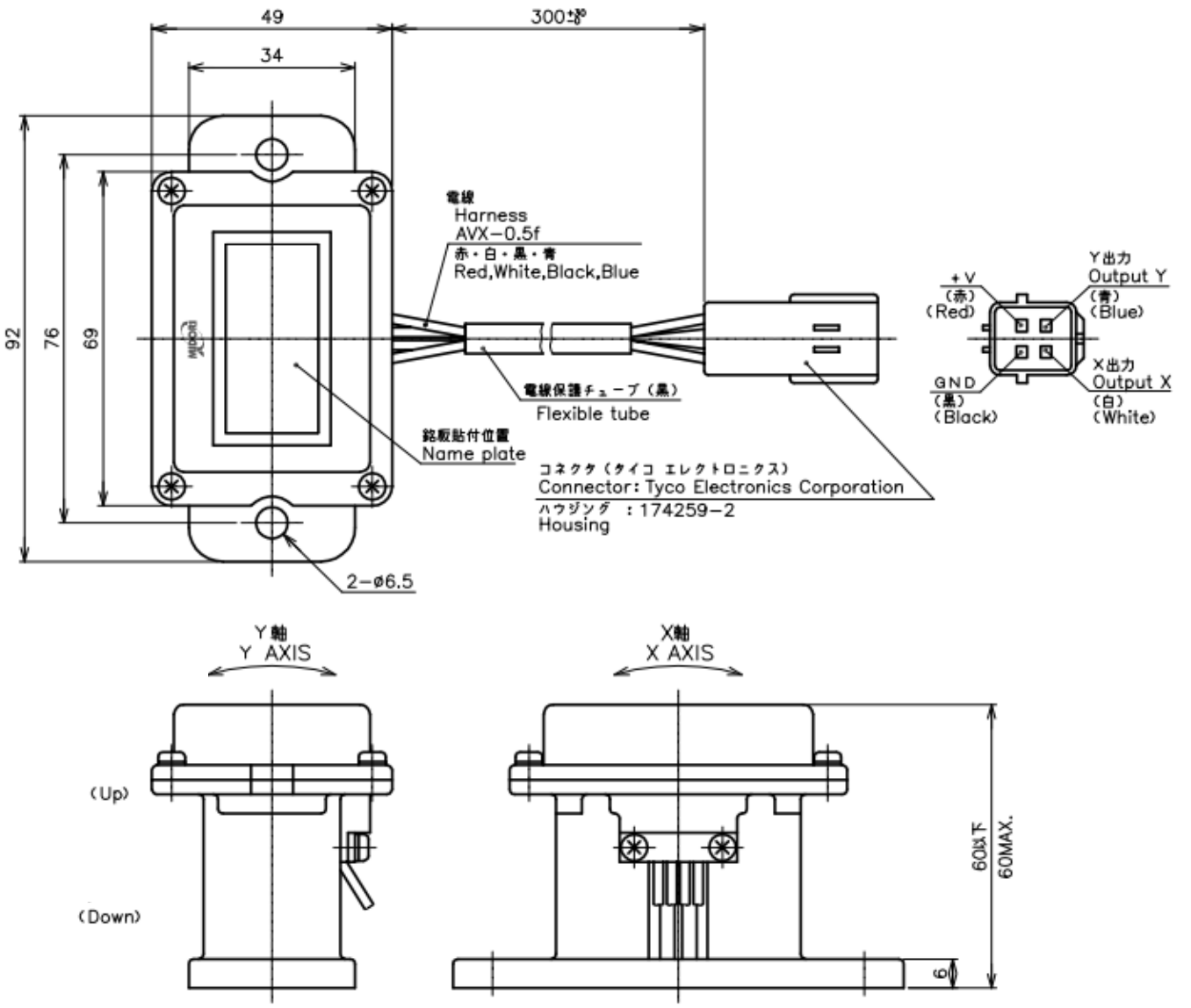
・Contactless Single / Dual Axis Tilt Angle Sensor
Single Axis (X-axis ONLY) : **PMP-xxHTL**
Dual Axis : **PMP-xxHTZL**

・Effective Electrical Tilt Angle : ±5°(PMP-5HTL / 5HTZL)
±10°(PMP-10HTL / 10HTZL: Standard)
±20°(PMP-20HTL / 20HTZL)
±30°(PMP-30HTL / 30HTZL)

・Center Based Linearity : ±1%FS (X,Y axis）

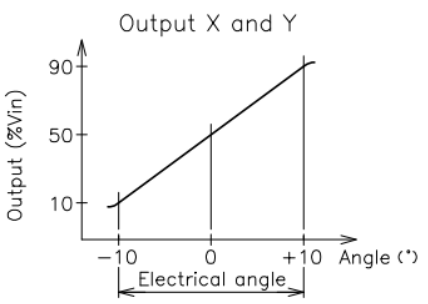
【Material】
●Housing :Aluminum

■Dimension [mm]

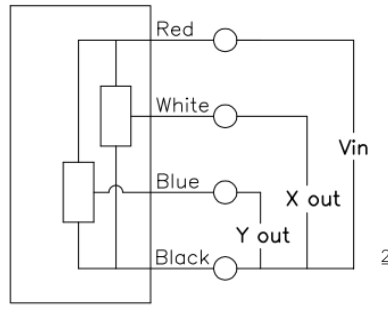


MIDORI PRECISIONS
URL: http://www.midori.co.jp
E-mail: overseas@midori.co.jp

■Output Characteristics

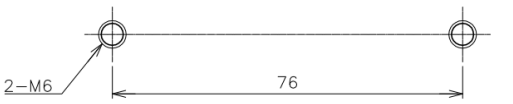


■Schematic



· Red,White,Blue,Black indicate lead colors.

■Mounting



【Model No.】	PMP-10HTL PMP-10HTZL	PMP-5HTL PMP-5HTZL	PMP-20HTL PMP-20HTZL	PMP-30HTL PMP-30HTZL	
【Electrical Specifications】				X and Y axis	
Effective Electrical Tilt Angle	±10	±5	±20	±30	°
Output Range	10 - 90				%Vin
Index Point	50±4	50±8	50±3		%Vin
Center Based Linearity	±1			±1.5	%FS
Input Voltage	DC 5±0.5				V
Load Resistance	MIN. 10				kΩ
Supply Current	MAX. 20				mA
Insulation Resistance	MIN. 100/DC50V				MΩ
Temp. Characteristics -20℃～80℃ (Reference Temp. 25℃)	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. 0.5 (Damper Oil 1000mm^2/s)				Sec.
Total Mechanical Tilt Angle	MIN. ±12	MIN. ±6	MIN. ±24	MIN. ±36	°
Mass	Approx.230				g

【Environmental Specifications】		
Operating Temperature Range	-20～+80	℃
Storage Temperature Range	-40～+80	℃
Vibration	70m/s^2 3 axis 2 hours	
Shock	1000m/s^2 6 directions 3 times	
EMS	100V/m 200M ～1GHz	
ESD(Case To Each Terminal)	±4	kV
ESD(Between Each Terminal)	±4	kV
IP Level	IP65	

■Options

・Different effective electrical tilt angle between X and Y axis (ex. X-axis=± 5°, Y-axis=±10°)
・Other dumper oil viscosity
・Narrower output voltage range

■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.

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