

Contactless Hall-IC Angle Sensor
CP2HX Series



Sensor Part

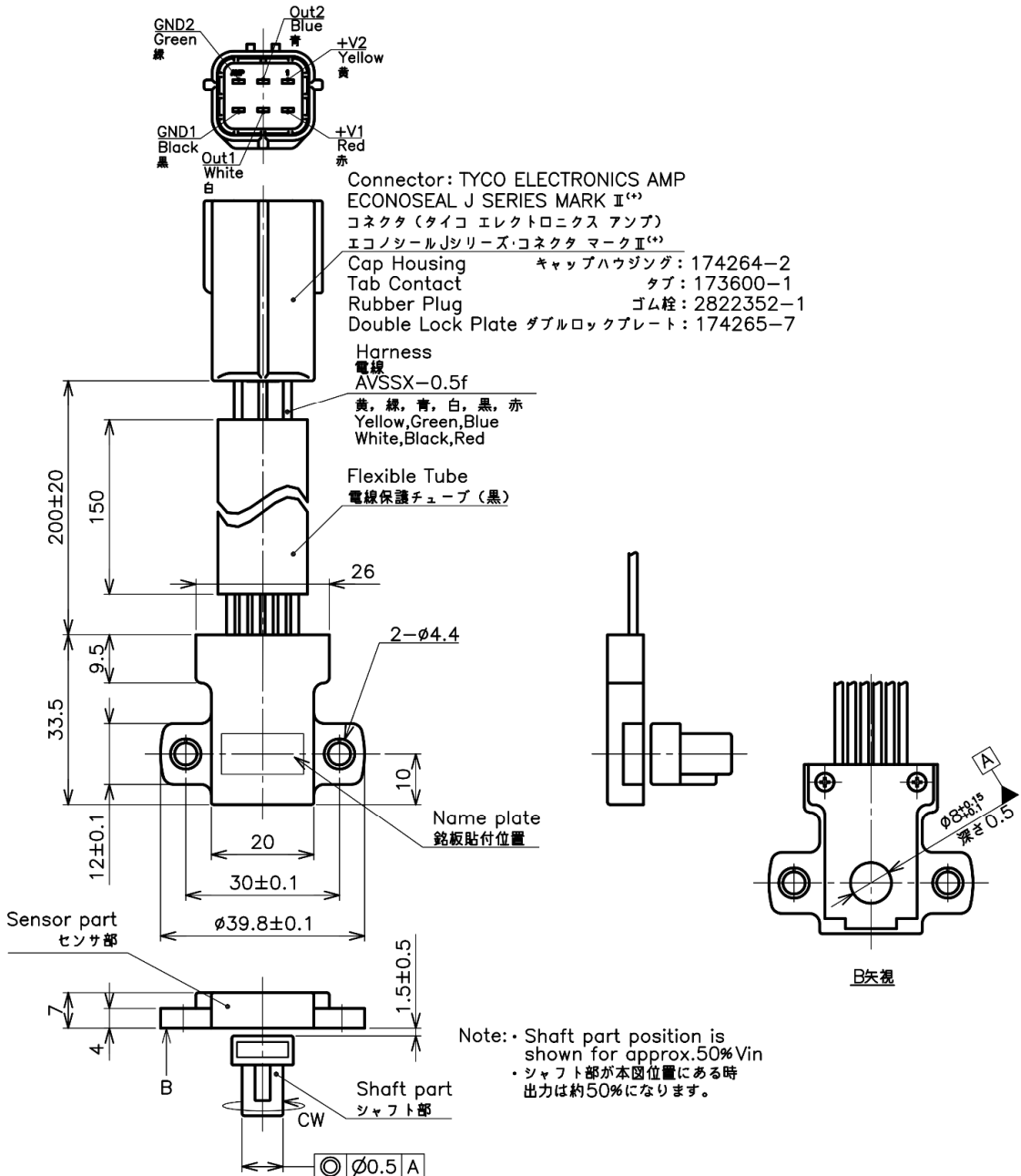


Shaft Part(MH01)

- Thin & Touchless (No shaft) Type
- Contactless Hall-IC Angle Sensor
- Effective Electrical Travel: ±180°
- Absolute Linearity: ±2%FS
- Voltage Ratio or PWM Output
- Dual Output (6 wires)
- Shaft Part : "MH01" (See below)
- Water drip proof : IP67
- 【Option】
- Effective Electrical Travel: ±45°、±90°
- Dual Parallel Output

Dimension [mm]

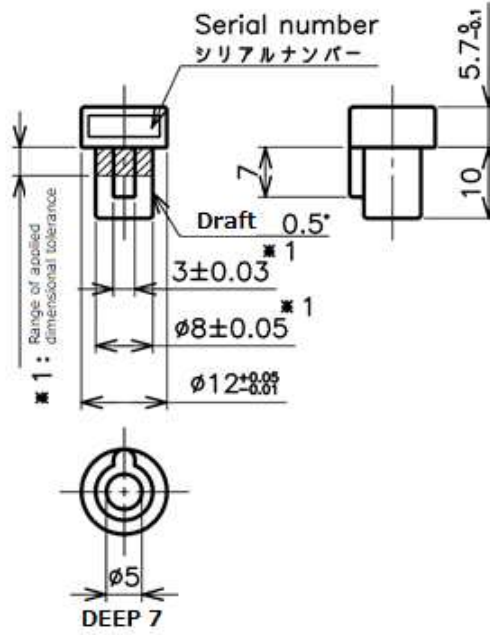
Sensor Part



■Dimension 【mm】

Shaft Part(Model:MH01)

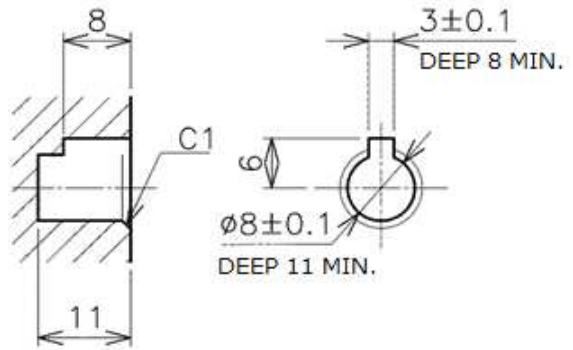
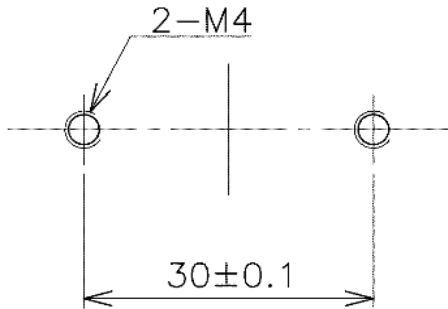
Note: If you require a custom shaft part, please contact us.



■Mounting 【mm】

Sensor Part

Shaft Part

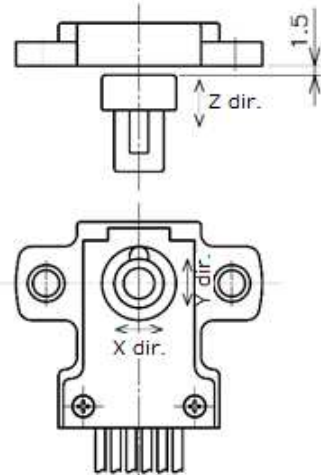


* Gap of Sensor Part and Shaft Part

Gap between Sensor Part and Shaft Part are recommended value of the table below. If Gap is out of recommendation value the specifications (Linearity, etc.) may be out of specifications.

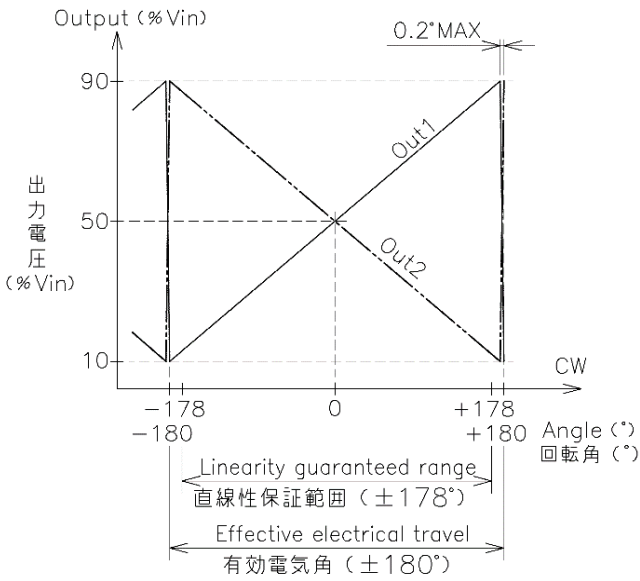
Mounting Recommendation Value

Direction	Recommendation value
Z Direction	1.5mm (0.5mm~3.5mm)
X⇔Y Direction	±0.5mm

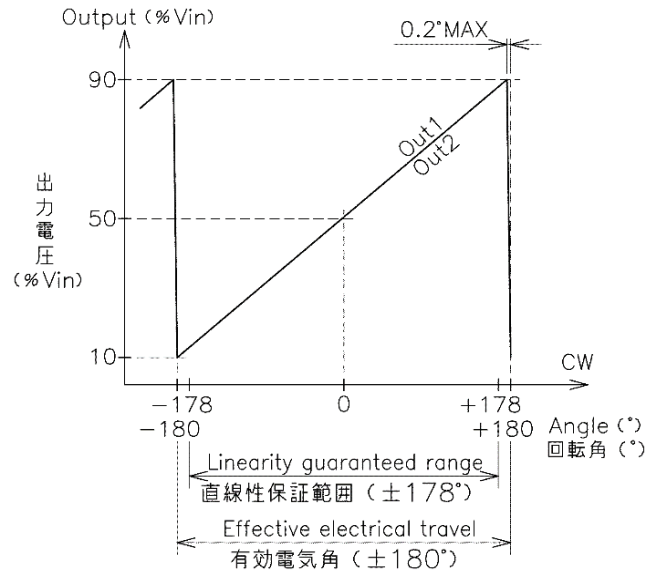


■ Output Characteristics

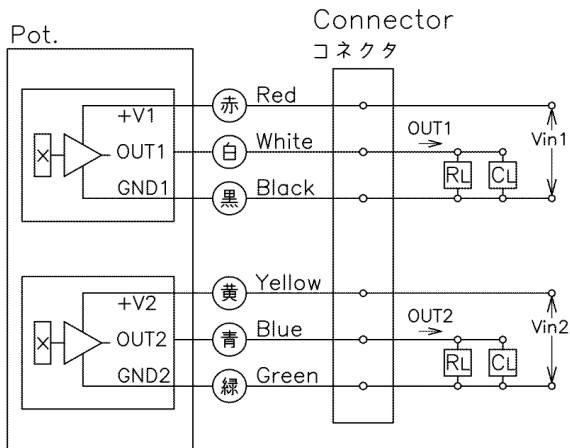
Cross Output (Standard)



Parallel Output (Option)



■ Schematic



- Red, white, black, yellow, blue and green indicate harness colors.
- 赤, 白, 黒, 黄, 青, 緑は 電線の色を表す。

【Model Number】	CP2HXCxxxRx	CP2HXPxxxRx	CP2HXCxxxPx	CP2HXPxxxPx
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【Electrical Specifications】

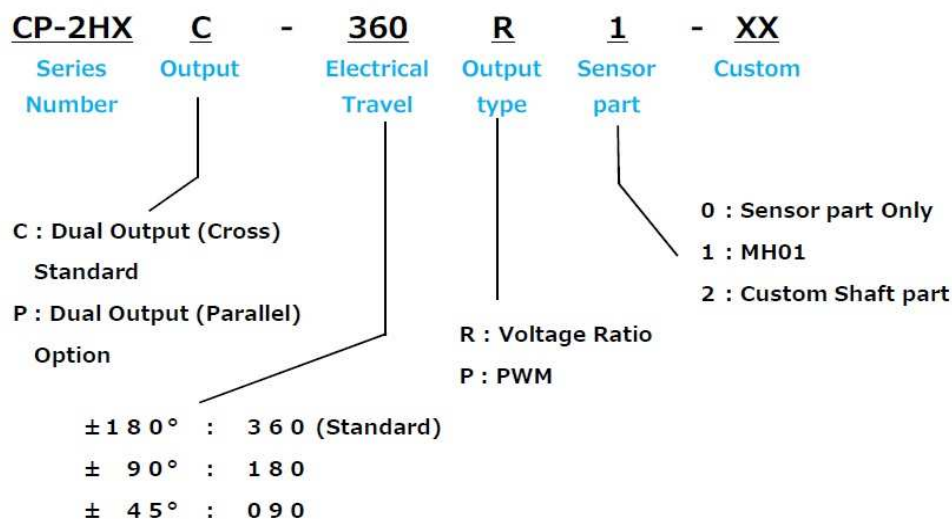
Effective Electrical Travel	±180(Option: ±45°、±90°)				°
Output Range	Ratio Output 10~90%Vin	PWM 10~90%Duty			
Absolute Linearity	±2 (When Gap is recommendation value)				%FS
Input voltage	DC5±0.5				V
Load Resistance	10 min./1ch				kΩ
Current Consumption	10 max./1ch				mA
Insulation Resistance	100以上/DC50V				MΩ
Resolution	12(0~100%Vin)				bit
Hysteresis	1.0				%FS
Temp. Characteristics -40~+85°C (25°C std.)	±1				°
Dual Output Difference	OUT1+OUT2:100±1%	OUT1+OUT2::±1%	OUT1+OUT2:100±1%	OUT1+OUT2::±1%	%Vin

【Mechanical Specifications】

Total Mechanical Travel	360 Endless	°
Mass	Approx. 30	g

【Environmental Specifications】

Lfie Cycles	Mechanical unlimited		
Category Temp. Range	-40~100		°C
Storage Temperature Range	-40~100		°C
Vibration	200m/s ² , 5~500Hz 10min, 3axis 2hours (Room Temp.)		
Shock	500m/s ² , 11ms, 3axis 3 times (Room Temp.)		
EMS	100V/m, 1MHz~1GHz (ISO 11452-2, -3)		
ESD (Case to Each Terminal)	Contact Discharge ±15 (IEC 61000-4-2)	kV	
ESD (Between Each Terminal)	Contact Discharge ±15 (IEC 61000-4-2)	kV	
IP Rating	IP67(Circuit part only)		

【CP-2HX Series Model Number Designation】**■ Handling Instruction**

- Please mating a pair of the sensor part and the shaft part (same serial numbers are marked) for being guaranteed the accuracy of this product.
- Please mount the sensor part and the shaft part just as this drawing dimension. Please the magnetic substance and the magnet are kept away from this product.
- This product uses the strong magnet. Please materials that are susceptible to magnetic force are kept away from this product.
- Use this sensor in the place where is protected from ESD.
- Do not connect other than above Schematic diagram