

Contactless Hall-IC Angle Sensor (PWM Output)

CP2HX-P



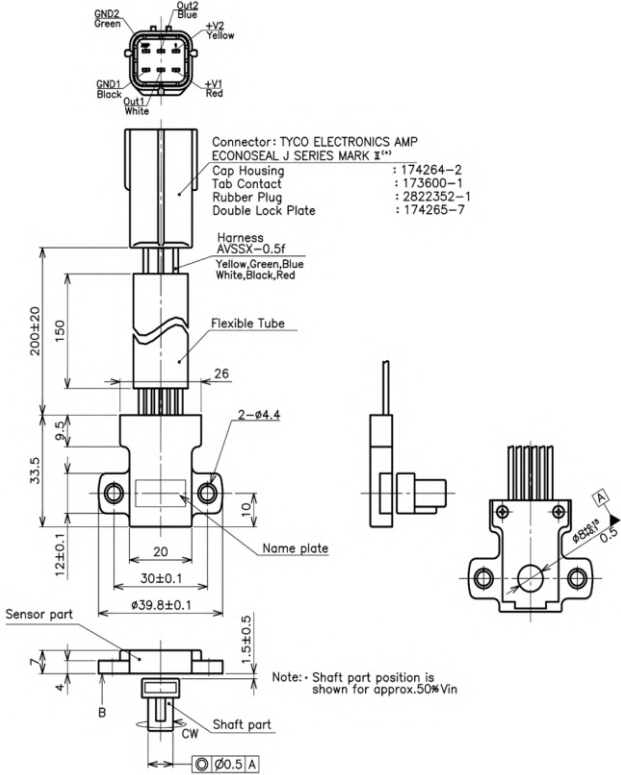
- Single-turn Hall-IC Angle Sensor
- Effective Electrical Angle (Standard) : $\pm 180^\circ$
- Absolute Linearity: $\pm 2\%FS$
- Output: PWM
- Dual Output (6-wire)
- Touchless Type (Sensor Body and Magnet Rotor)
- IP 67

[Material]

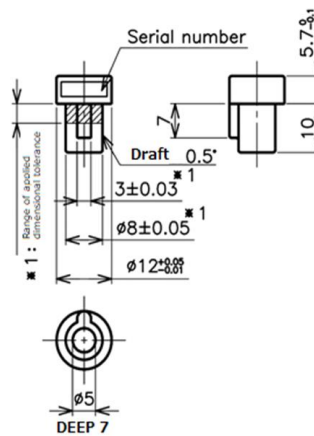
- Housing : PBT

Dimension (mm)

[Sensor Body]



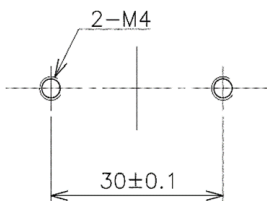
[Magnet Rotor: model MH01]



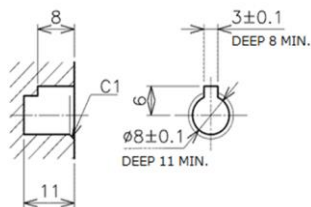
We can offer the different shape of the magnet rotor on demand. Please contact us more detail.

Mounting

Sensor Body



Magnet rotor

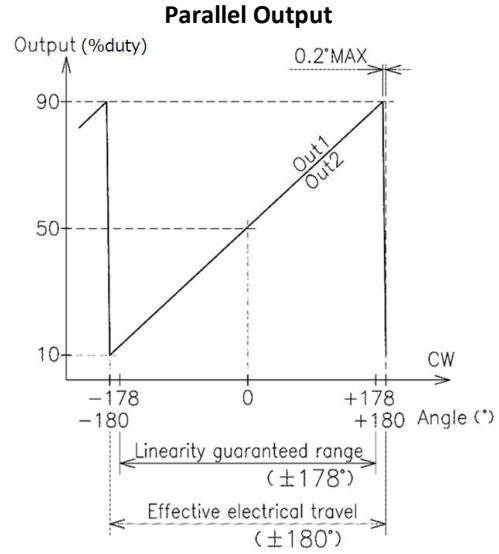
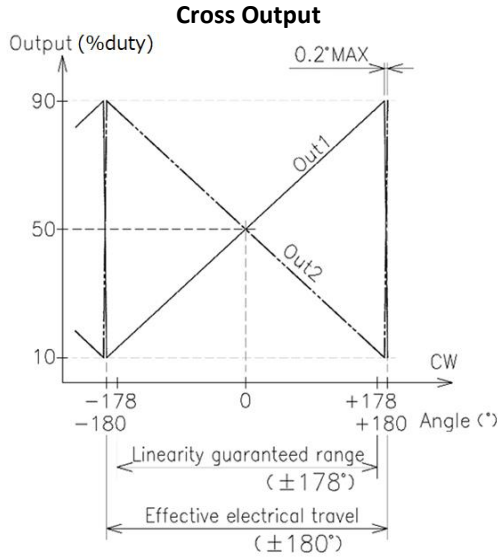


Operating Distance between Sensor Body and Magnet Rotor

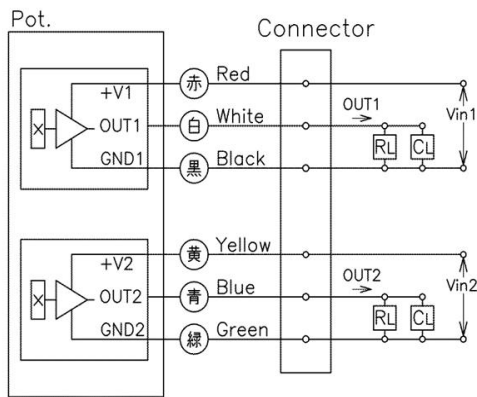
We recommend the installation distances in the table below to provide the good function of the sensor.

Position	Recommendation Distance
Z Position	1.5mm (0.5~3.5mm)
X \leftrightarrow Y Position	± 0.5 mm

Output Characteristics



Schematic



• Red,white,black,yellow,blue and green indicate harness colors.

[Model No.]	CP2HXC-P (Cross Output)	CP2HXP-P (Parallel Output)
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[Electrical Specifications]	
Effective Electrical Tilt Angle	±180°(Dead Angle 0.2°)
Output Range	PWM 10~90% Duty
Absolute Linearity	±2%FS
Input Voltage	DC5±0.5V
Load Resistance	10KΩ MIN./ 1ch
Current Consumption	10mA MAX./ 1ch
Insulation Resistance	100MΩ MIN./DC50V
Resolution	12bit (0~100%Vin)
Hysteresis	1.0%FS
Temp. Characteristics -40 ~ +85°C (25°C std)	±1°

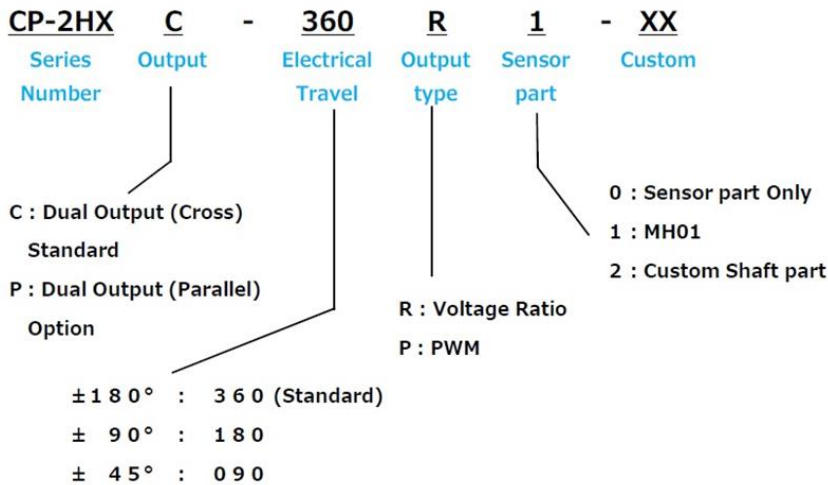
[Model No.]	CP2HXC-P	CP2HXP-P
Dual Output Difference	(Cross Output) Out1 + Out2:100%±1%	(Parallel Output) :±1%
[Mechanical Specifications]		
Total Mechanical Travel	360° Endless	
Weight	Approx. 30g	
[Environmental Specifications]		
Life Cycles	Mechanical unlimited due to the touchless mechanism	
Category Temp. Range	-40 ~ +100°C	
Storage Temp. Range	-40 ~ +100°C	
Vibration	200m/S ² , 5~500Hz, 10min, 3axis 2hours (Room Temp.)	
Shock	500m/S ² , 11ms, 3axis 3times (Room Temp.)	
EMS	100V/m, 1MHz ~ 1GHz (ISO 11452-2, -3)	
ESD (Case to Each Terminal)	Contact Discharge ±15KV (IEC 61000-0)	
ESD (Between Each Terminal)	Contact Discharge ±15KV (IEC 61000-0)	
IP Level	IP67 (Except shaft side for the mounting surface)	

Options

- Other effective electrical travel: ±45° and ±90°

Model Number Designation

[CP-2HX Series Model Number Designation]



Handling Instruction

- This product is work by the combination with sensor housing and magnet rotor (MH01).
- Please use the sensor body and magnet rotor marked with the same serial number in maintain the good accuracy of this product.
- This product may be influence by an external magnetic field.
- Use this product in an environment protected from ESD.