Contactless Hall-IC Angle Sensor (Ratio Output)

**CP2HX-R**

- Single-turn Hall-IC Angle Sensor
- Effective Electrical Angle (Standard) : ±180°
- Absolute Linearity: ±2%FS
- Output: Voltage Ratio Output
- 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.

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**Material**
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**Dimension (mm)**

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### [Model No.]
- **CP2HXC-R** (Cross Output)
- **CP2HXP-R** (Parallel Output)

#### [Electrical Specifications]

<table>
<thead>
<tr>
<th>Specification</th>
<th>CP2HXC-R</th>
<th>CP2HXP-R</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effective Electrical Tilt Angle</td>
<td>±180°(Dead Angle 0.2°)</td>
<td>±1°</td>
</tr>
<tr>
<td>Output Range</td>
<td>Voltage Ratio Output 10~90%Vin</td>
<td></td>
</tr>
<tr>
<td>Absolute Linearity</td>
<td>±2%FS</td>
<td></td>
</tr>
<tr>
<td>Input Voltage</td>
<td>DC5±0.5V</td>
<td></td>
</tr>
<tr>
<td>Load Resistance</td>
<td>10KΩ MIN./ 1ch</td>
<td></td>
</tr>
<tr>
<td>Current Consumption</td>
<td>10mA MAX./ 1ch</td>
<td></td>
</tr>
<tr>
<td>Insulation Resistance</td>
<td>100MΩ MIN./DC50V</td>
<td></td>
</tr>
<tr>
<td>Resolution</td>
<td>12bit (0~100%Vin)</td>
<td></td>
</tr>
<tr>
<td>Hysteresis</td>
<td>±1.0%FS</td>
<td></td>
</tr>
<tr>
<td>Temp. Characteristics</td>
<td>-40 ~ +85°C (25°C std)</td>
<td>±1°</td>
</tr>
</tbody>
</table>
- Other effective electrical travel: ±45° and ±90°

- 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.

## Mechanical Specifications

<table>
<thead>
<tr>
<th>Category Temp. Range</th>
<th>Storage Temp. Range</th>
<th>Vibration</th>
<th>Shock</th>
<th>EMS</th>
<th>ESD (Case to Each Terminal)</th>
<th>ESD (Between Each Terminal)</th>
<th>IP Level</th>
</tr>
</thead>
<tbody>
<tr>
<td>-40 ~ +100℃</td>
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<td>200m/S², 5~500Hz, 10min, 3axis 2hours (Room Temp.)</td>
<td>500m/S², 11ms, 3axis 3times (Room Temp.)</td>
<td>100V/m, 1MHz ~ 1GHz (ISO 11452-2, -3)</td>
<td>Contact Discharge ±15KV (IEC 61000-0)</td>
<td>Contact Discharge ±15KV (IEC 61000-0)</td>
<td>IP67 (Except shaft side for the mounting surface)</td>
</tr>
</tbody>
</table>

## Environmental Specifications

- Mechanical unlimited due to the touchless mechanism

## Options

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

## Model Number Designation

**[CP-2HX Series Model Number Designation]**

<table>
<thead>
<tr>
<th>CP-2HX Series</th>
<th>C (Output)</th>
<th>360 (Electrical Travel)</th>
<th>R (Output type)</th>
<th>1 (Sensor part)</th>
<th>XX (Custom)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- C : Dual Output (Cross) Standard
- P : Dual Output (Parallel) Option
- ±180° : 360 (Standard) ±90° : 180 ±45° : 090

- R : Voltage Ratio
- 0 : Sensor part Only
- 1 : MH01
- 2 : Custom Shaft part

**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.