

Contactless Hall-IC Angle Sensor (PWM Output)

# CP-1Hx-P

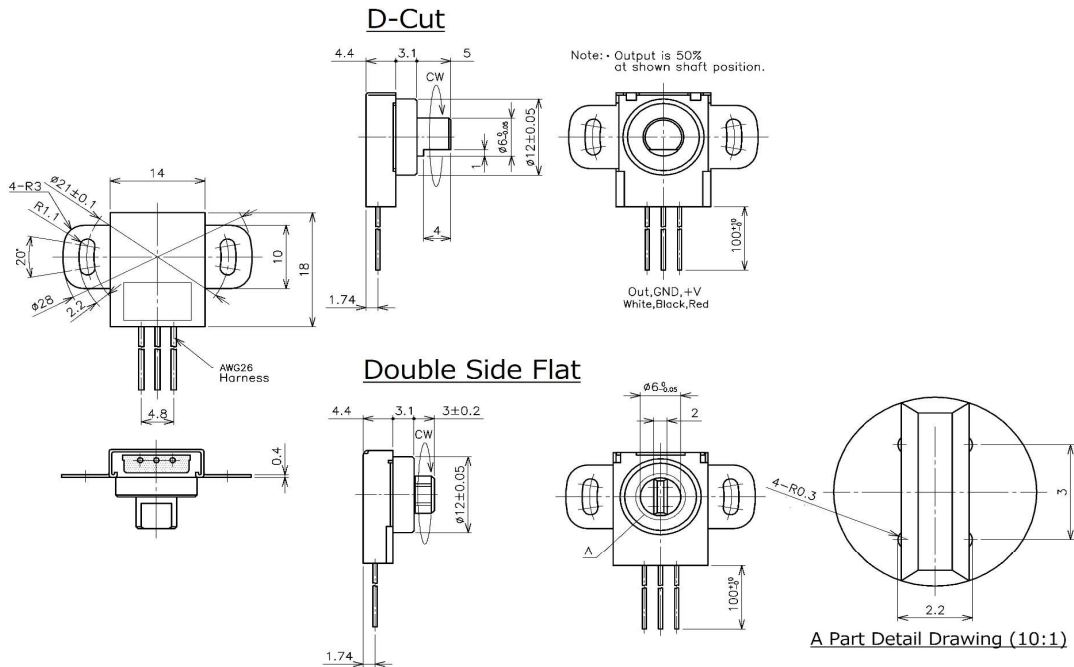


- Single-turn Hall-IC Angle Sensor
- Effective Electrical Angle (Standard) :
  - ±45° (=90°)
  - ±90° (=180°)
  - ±180° (=359.9°)
- Absolute Linearity: ±2%FS
- Output: PWM
- Single Output (3-wire), Dual Output (6-wire)
- Shaft: D-Cut, Double Side Flat
- IP 67

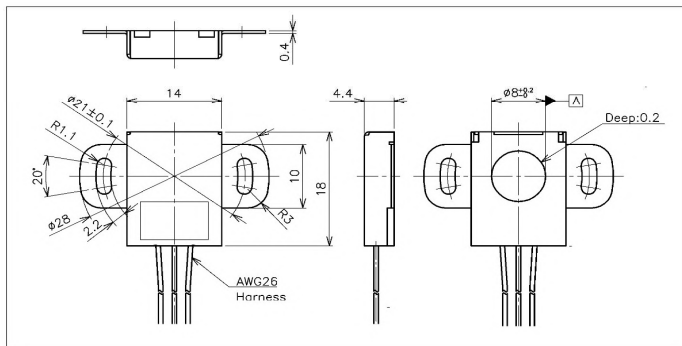
**[Material]**

- Housing : PBT
- Flange : Stainless Steel

**■ Dimension (mm)**

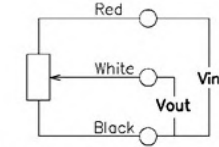


**Touchless** Please contact us the detail about Thouchless version



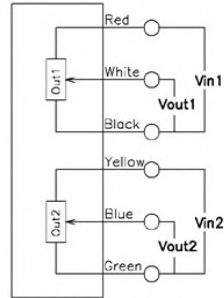
**Schematic**

**Single Output**



Red, White, Black indicate harness colors.

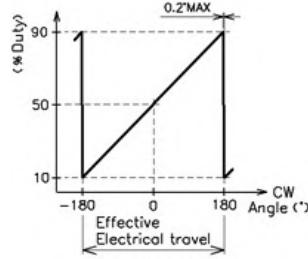
**Dual Output**



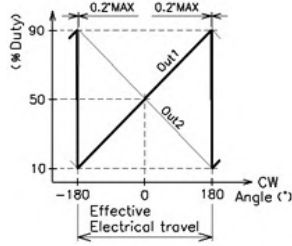
Red, White, Black, Yellow, Blue, Green indicate harness colors.

**Output Characteristics**

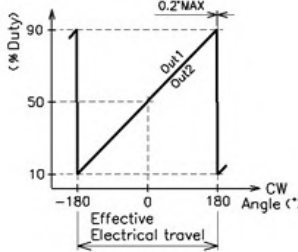
**Single Output**



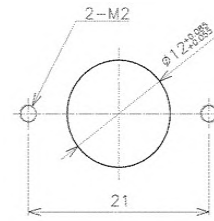
**Dual Output (Cross)**



**Dual Output (Parallel)**



**Mounting**



[Model No.]	CP-1Hx-P (Single Output)	CP-1Hx-P (Dual Output)
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**[Electrical Specifications]**

Effective Electrical Tilt Angle	±180°(Dead Angle 0.2°), ±90°, ±45°	
Output Range	PWM 10~90%Duty	
Absolute Linearity	±2%FS	
Input Voltage	DC5±0.5V	
Load Resistance	10KΩ MIN.	
Current Consumption	10mA MAX.	20mA MAX.
Insulation Resistance	100MΩ MIN./DC50V	
Resolution	12bit (0~100%Vin)	
Hysteresis	1.0%FS	
Temp. Characteristics -40 ~ +85°C (25°C std)	±1°	
Dual Output Difference	---	100±1%Duty

**[Mechanical Specifications]**

Total Mechanical Travel	360° Endless	
Torque	3mN · m MAX.	
Thrust Load Tolerance	4N	
Radial Load Tolerance	3N	
Weight	Approx. 5g	
Index Point Setting	Configurable within 0°±5° range (Option)	

**[Environmental Specifications]**

Life Cycles	7M cycles (Room Temp. No Load)	
Category Temp. Range	-40 ~ +85°C	

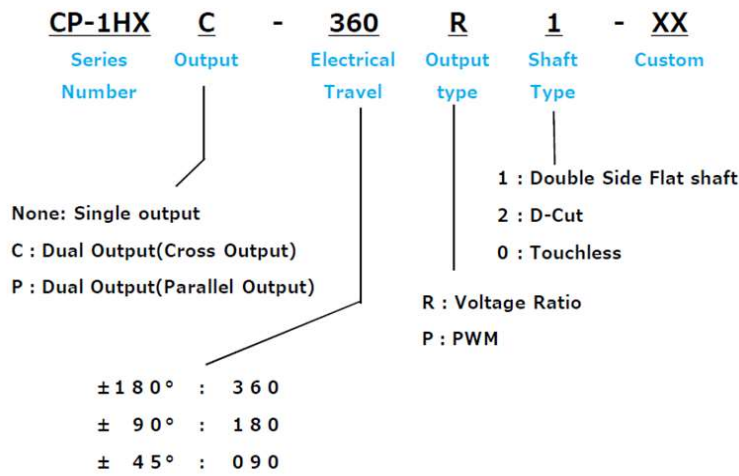
Storage Temp. Range	-40 ~ +85°C
Vibration	200m/S <sup>2</sup> , 5~500Hz, 10min, 3axis 2hours (Room Temp.)
Shock	500m/S <sup>2</sup> , 11ms, 3axis 3times (Room Temp.)
EMS	100V/m, 1MHz ~ 1GHz (ISO 11452-2, -3)
ESD (Case to Each Terminal)	Contact Discharge ±15KV (IEC 61000-0)
ESD (Between Each Terminal)	Contact Discharge ±15KV (IEC 61000-0)
IP Level	IP67 (Except shaft side fro the mounting surface)

**Options**

- Other effective electrical travel in the range of 90 ~ 359.9°

**Model Number Designation**

**[CP-1HX Series Model Number Designation]**



**Handling Instruction**

- This product can not be used for measurement of resistance value.
- Use this product in an environment protected from ESD.