

Contactless Hall-IC Angle Sensor (Ratio Output)

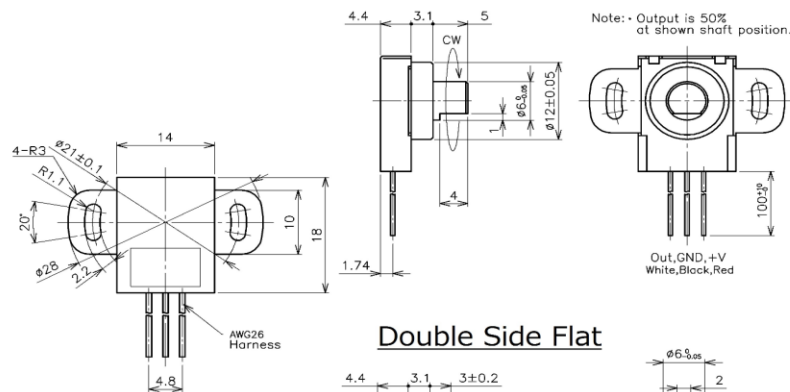
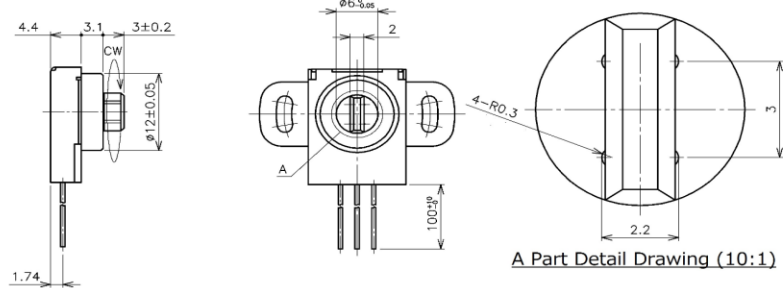
CP-1Hx-R



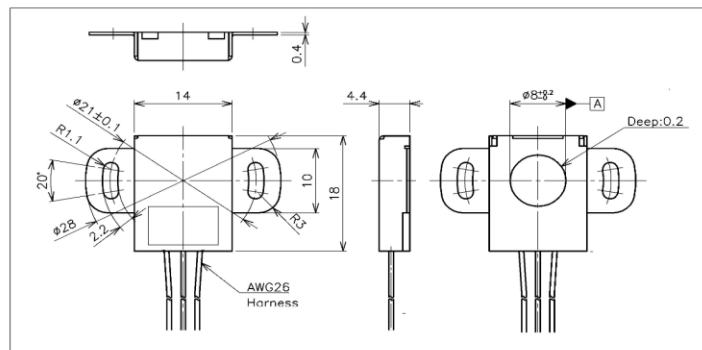
- Single-turn Hall-IC Angle Sensor
- Effective Electrical Angle (Standard) :
 - $\pm 45^\circ$ (=90°)
 - $\pm 90^\circ$ (=180°)
 - $\pm 180^\circ$ (=359.9°)
- Absolute Linearity: $\pm 2\%$ FS
- Voltage Ratio Output
- Single Output (3-wire), Dual Output (6-wire)
- Shaft: D-Cut, Double Side Flat
- IP 67

[Material]

- Housing : PBT
- Flange : Stainless Steel

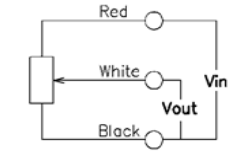
■ Dimension (mm)**D-Cut****Double Side Flat****Touchless**

Please contact us the detail about Touchless version

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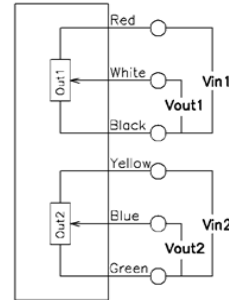
Schematic

Single Output



• Red, White, Black indicate harness colors.

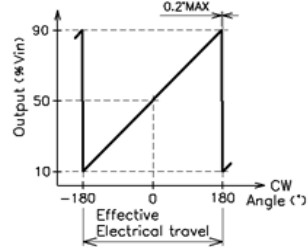
Dual Output



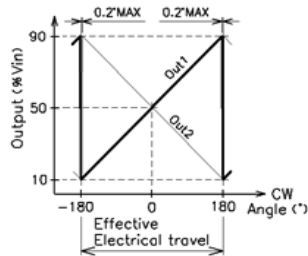
• Red, White, Black, Yellow, Blue, Green indicate harness colors.

Output Characteristics

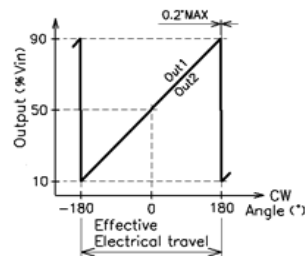
Single Output



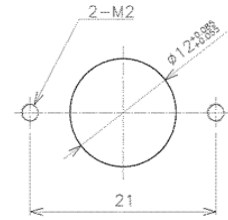
Dual Output (Cross)



Dual Output (Parallel)



Mounting



[Model No.]

CP-1Hx-R (Single Output)

CP-1Hx-R (Dual Output)

[Electrical Specifications]

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

[Mechanical Specifications]

Total Mechanical Travel	360° Endless
Torque	3mN · m MAX.
Thrust Load Tolerance	4N
Radial Load Tolerance	3N
Weight	Approx. 5g

[Environmental Specifications]

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



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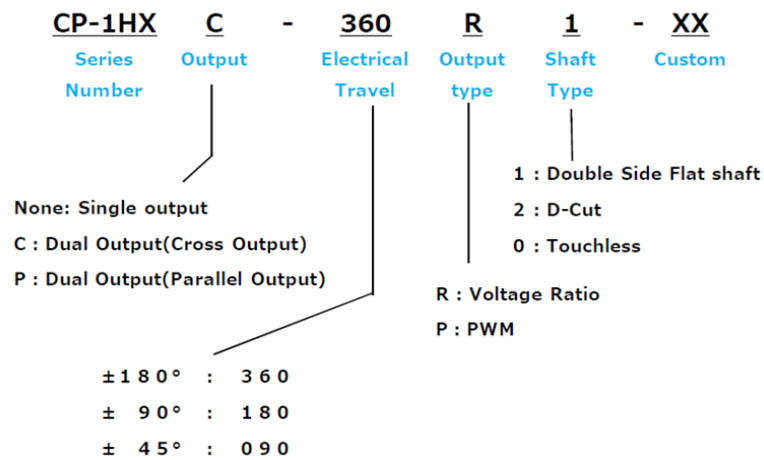
Vibration	200m/S ² , 5~500Hz, 10min, 3axis 2hours (Room Temp.)
Shock	500m/S ² , 11ms, 3axis 3times (Room Temp.)
EMS	100V/m, 1MHz ~ 1GHz (ISO 11452-2, -3)
ESD (Case to Each Terminal)	Contact Discharge ±15KV (IEC 61000-0)
ESD (Between Each Terminal)	Contact Discharge ±15KV (IEC 61000-0)
IP Level	IP67 (Except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

■ Options

- Other effective electrical travel in the range of 90 ~ 359.9°
- Digital Output: SPI Output

■ 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.



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