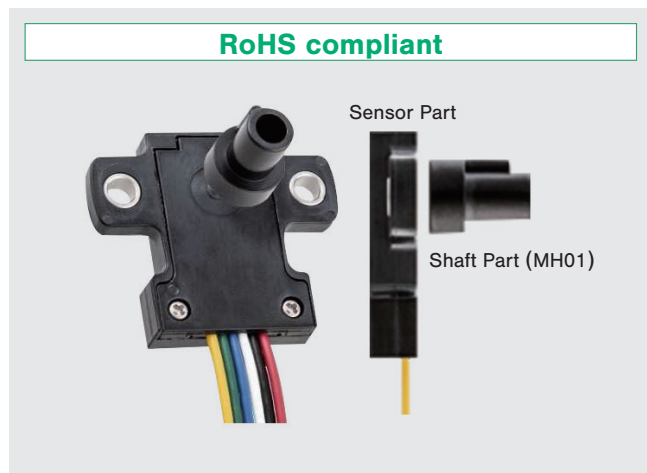


DRIP-PROOF AND DUAL OUTPUT SEPARATED TYPE CONTACTLESS HALL IC ROTARY ANGLE SENSOR

CP2HX series



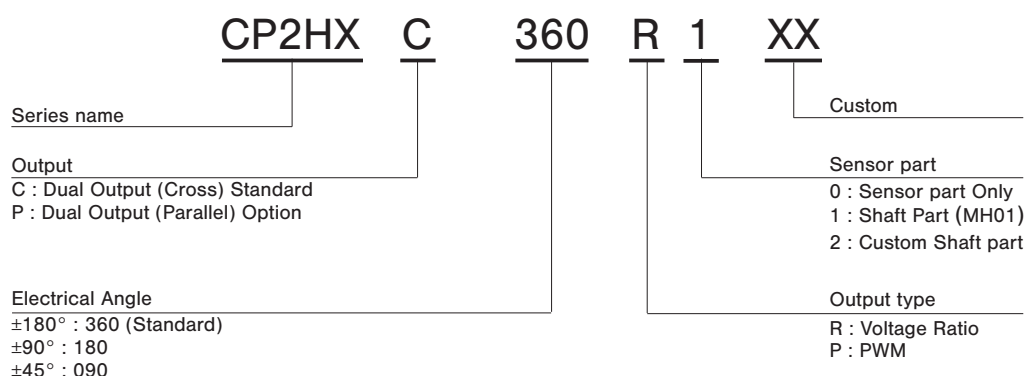
FEATURES

- Thin & Touchless (No shaft) Type
- Contactless Hall-IC Angle Sensor
- Effective Electrical Travel : $\pm 180^\circ$
- Absolute Linearity : $\pm 2\%$ FS
- Voltage Ratio or PWM Output
- Dual Output (6 wires)
- Shaft Part : "MH01" (See below)
- Water drip proof : IP67

OPTION

- Effective Electrical Travel : $\pm 45^\circ$, $\pm 90^\circ$
- Dual Parallel Output

PART NUMBER DESIGNATION



STANDARD SPECIFICATIONS

Electrical characteristics

Item \ Part No.	CP2HXCxxxRx	CP2HXPxxxRx	CP2HXCxxxPx	CP2HXPxxxPx
Effective Electrical Travel	±180°(Option: ±45°, ±90°)			
Output Range	Ratio Output 10 ~ 90 %Vin		PWM 10 ~ 90 %Duty	
Absolute Linearity	±2 %FS (When Gap is recommendation value)			
Input Voltage	5±0.5 VDC			
Load Resistance	10 kΩ min. /1ch			
Current Consumption	10 mA max. /1ch			
Insulation Resistance	100 MΩ min. / 50 VDC			
Resolution	12 bit (0 ~ 100%Vin)			
Hysteresis	1.0%FS			
Temp. Characteristics -40 ~ 100°C (25°C std.)	±1%FS			
Dual Output Difference	OUT1+OUT2: 100±1 %FS	±1%FS	OUT1+OUT2 :100±1 %FS	±1%FS

CP2HX

POTENTIOMETERS

STANDARD SPECIFICATIONS

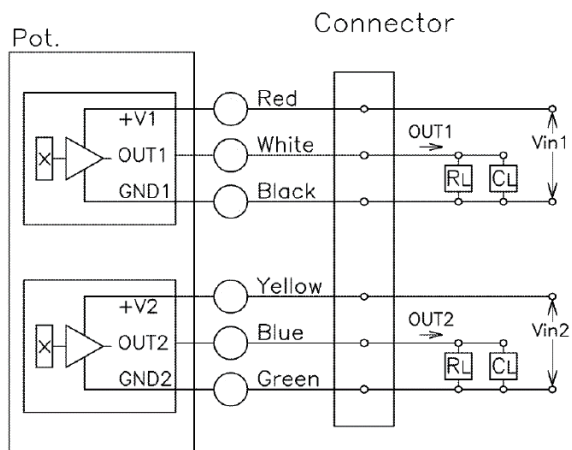
Mechanical characteristics

Total Mechanical Travel	360° Endless
Net weight	Approx. 30 g

Environmental characteristics

Life Cycles	Mechanical unlimited
Operating Temp. Range	-40 ~ 100 °C
Storage Temp. Range	-40 ~ 100 °C
Vibration	200 m/s ² , 5~500Hz 10 min, 3 axis 2 hours (Room Temp.)
Shock	1000 m/s ² , 11 ms, 3 axis 3 times (Room Temp.)
EMS	100V/m, 1 MHz ~ 1 GHz (ISO 11452-2, -3)
ESD (Case to Each Terminal)	Contact Discharge ±15 kV (IEC 61000-4-2)
ESD (Between Each Terminal)	Contact Discharge ±15 kV (IEC 61000-4-2)
IP Grade	IP67 (Circuit part only)

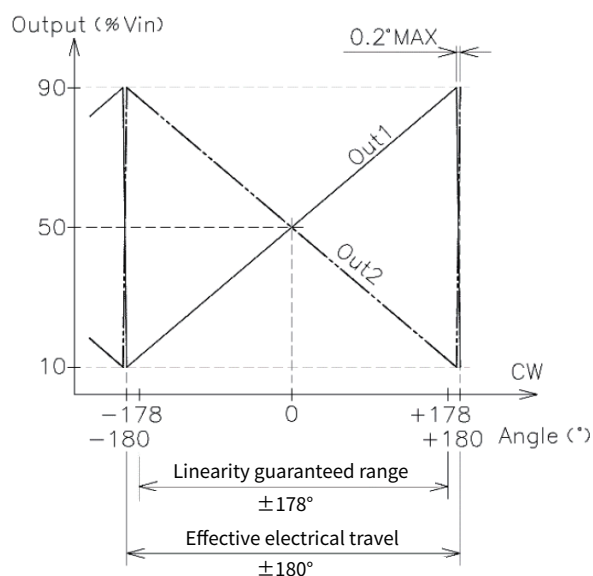
SCHEMATIC



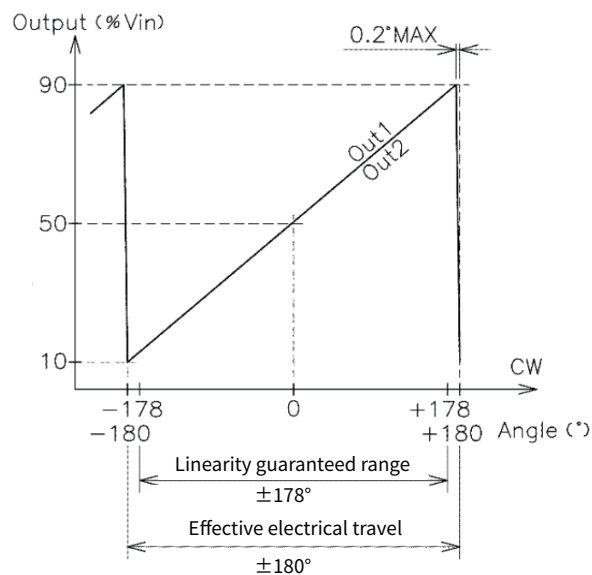
Red, White, Black, Yellow, Blue, Green indicate lead colors.

OUTPUT CHARACTERISTICS

Cross Output (Standard)



Parallel Output (Option)

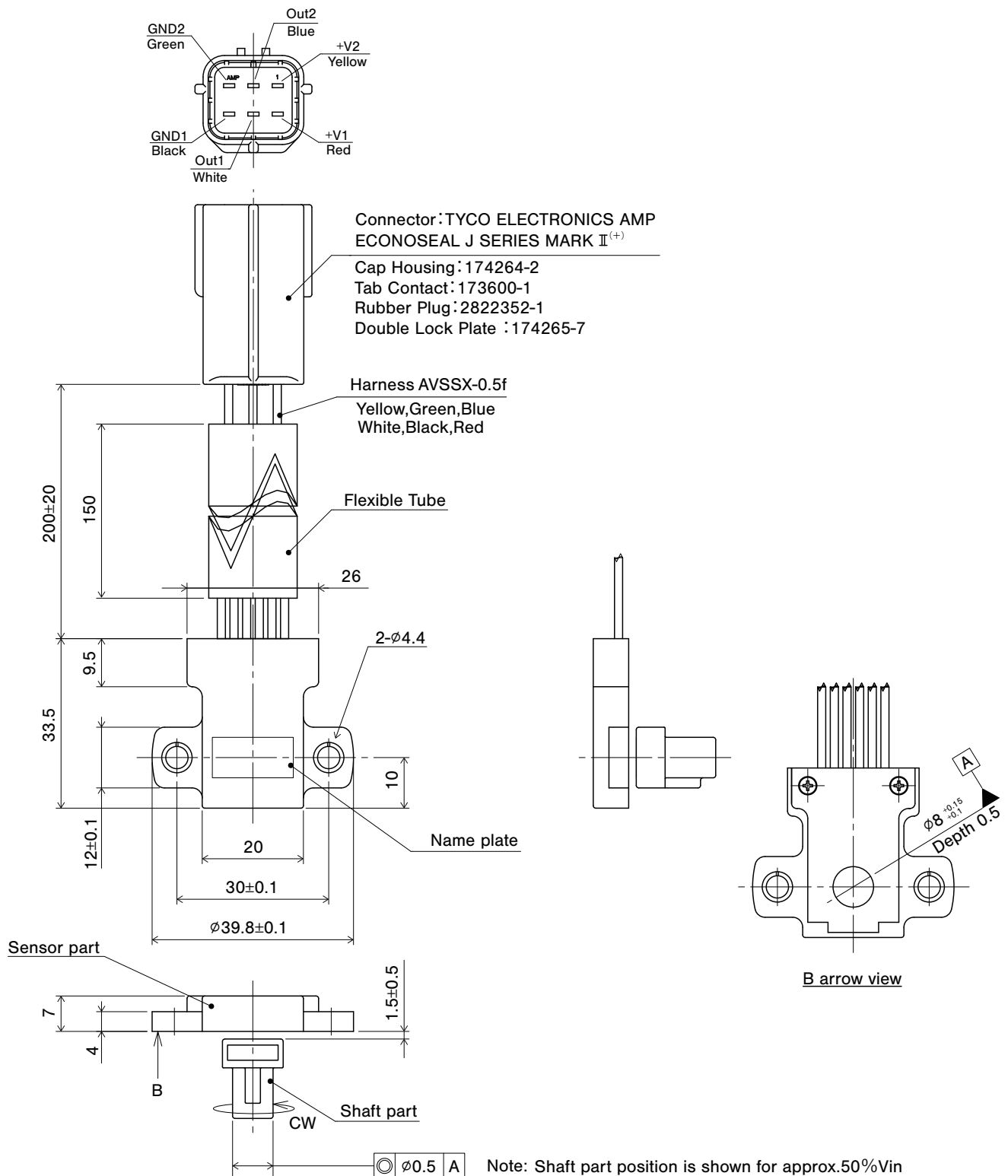


CP2HX

POTENTIOMETERS

OUTLINE DIMENSIONS

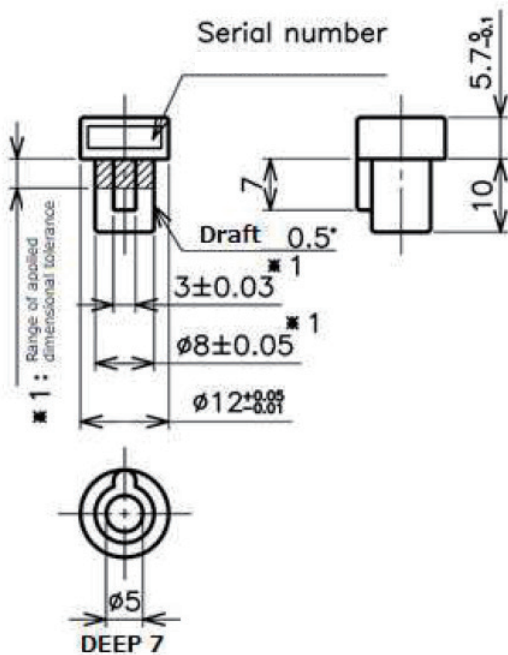
Sensor Part



CP2HX

POTENTIOMETERS

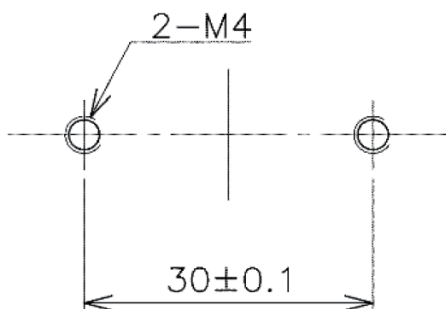
● Shaft Part (Model : MH01)



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

■ MOUNTING

● Sensor 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	1.5 mm (0.5 mm ~ 3.5 mm)
X ⇄ Y Direction	±0.5 mm

■ 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.

● Shaft Part

