

Contactless Hall-IC Angle Sensor

# CP-3HABS Series

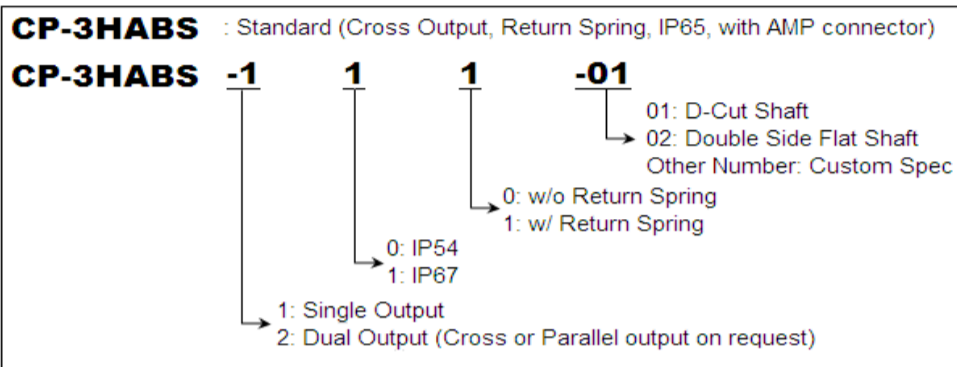


- Contactless Hall-IC Angle Sensor
- Effective Electrical Travel :  $\pm 45^\circ$
- Absolute Linearity :  $\pm 4\%$ FS (Independent Linearity :  $\pm 3\%$ FS)

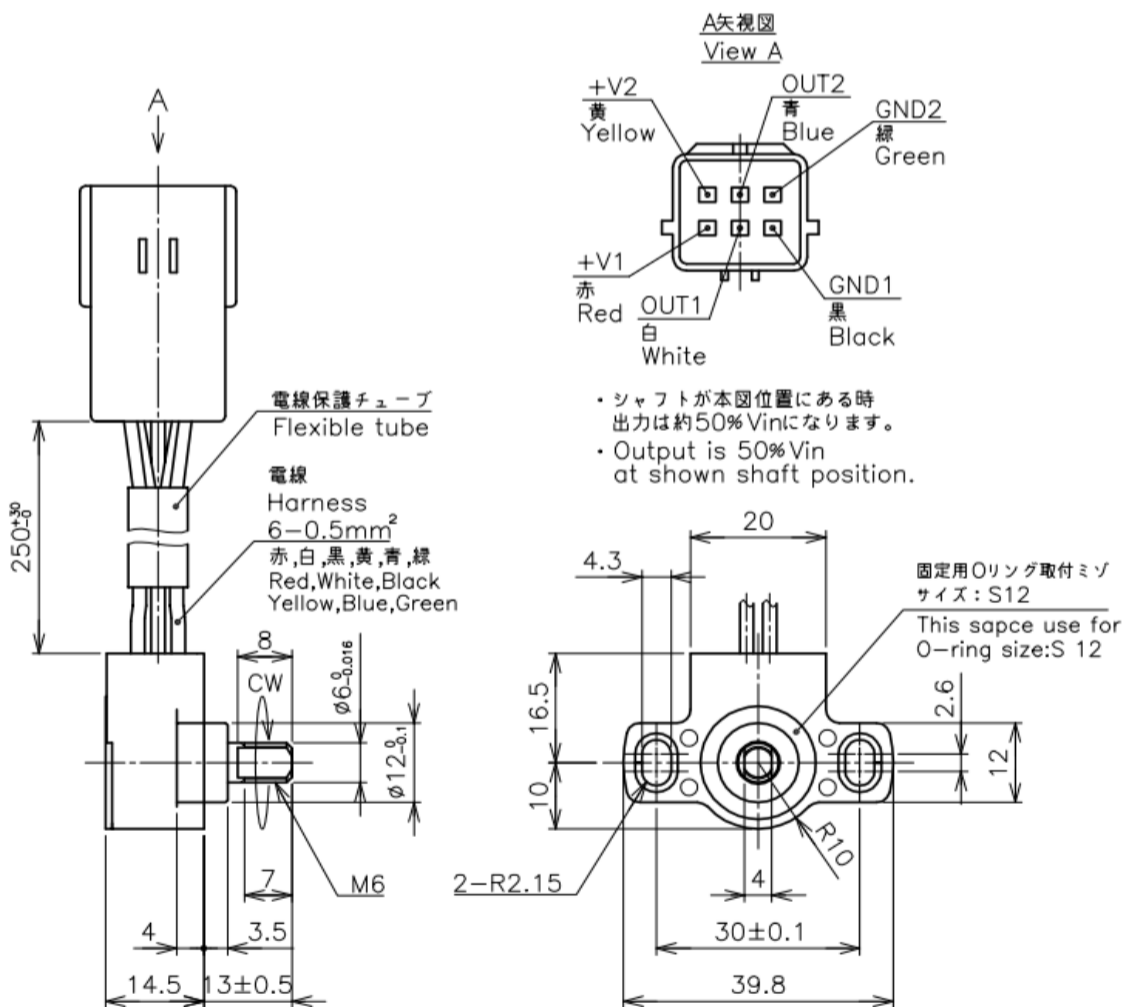
**【Material】**

- Housing : PBT
- Shaft : Stainless Steel
- Bearing : Copper Alloy

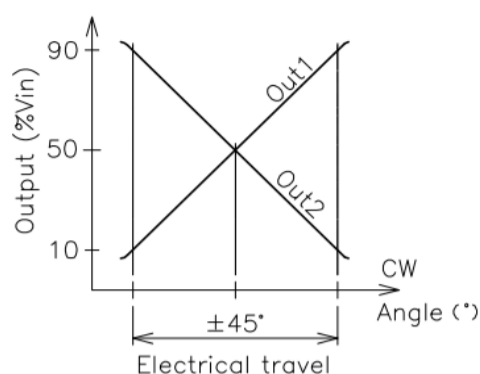
**CP-3HABS Model Number Designation**



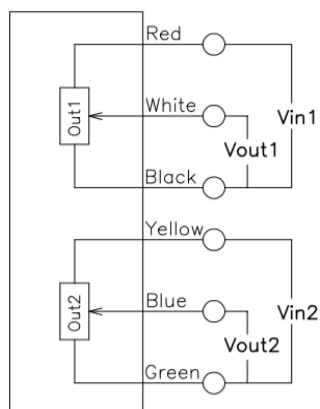
**Dimension** [mm]



### Output Characteristics

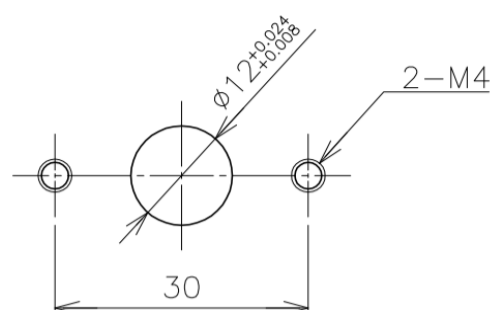


### Schematic



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

### Mounting



### 【Model No.】

CP-3HABS

### 【Electrical Specifications】

Effective Electrical Travel	±45	°
Output Range	10 ~ 90	%Vin
Absolute Linearity (Independent Linearity)	±4 (FS=90°) (Ind. Lin. ±3%FS)	%FS
Input Voltage	DC5±0.5	V
Load Resistance	MIN. 10	kΩ
Supply Current	MAX. 20	mA
Insulation Resistance	MIN. 100/DC50V	MΩ
Output Resolution	12	bit
Hysteresis	MAX. 0.3	°
Temp. Characteristics -40 ~ +125°C(Reference Temp. 25°C)	At 0°: ±2° At ±45°: ±4°	
2 Output Difference	±6.4 (At 25°C)	%Vin

### 【Mechanical Specifications】

Total Mechanical Travel	120±5	°
Stopper Strength	1	N·m
Torque	5 ~ 60	mN·m
Thrust Load Tolerance	3	N
Radial Load Tolerance	6	N
Mass	Approx. 30	g

### 【Environmental Specifications】

Life Cycles	50 Million	Cycle
Operating Temperature Range	-40 ~ +125	°C
Storage Temperature Range	-40 ~ +125	°C
Vibration	200m/s <sup>2</sup> 5-500Hz (6 min.) 3 axis 2 hours	
Shock	1000m/s <sup>2</sup> 6 ms 3 axis 3 times	
EMS	100V/m 200MH - 1GHz	
ESD (Case To Each Terminal)	±16kV(IEC61000-4-2)	
ESD (Between Each Terminal)	±8kV(IEC61000-4-2)	
IP Level	IP65	

### Options

- Single Output
- Dual Output (Parallel)
- Effective Electrical Travel : ±30°
- Without return spring (D-cut Shaft)
- Without AMP connector

### Handling Instruction

- Do not use Hall-IC sensor as a variable resistor.
- This product may be influenced from external magnetic field.
- Use this sensor in the place where is protected from ESD.