

Contactless Hall-IC Angle Sensor

# CP-20H Series

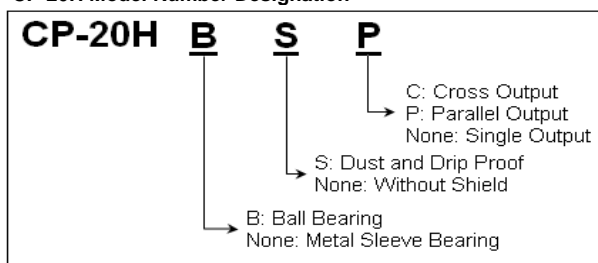


- Contactless Hall-IC Angle Sensor
- Effective Electrical Travel : 340°(standard), 270° , 300° , 359°
- Absolute Linearity : ±1%FS
- Bushing Mount
- Available with φ 3.175mm Shaft on Request

**【Material】**

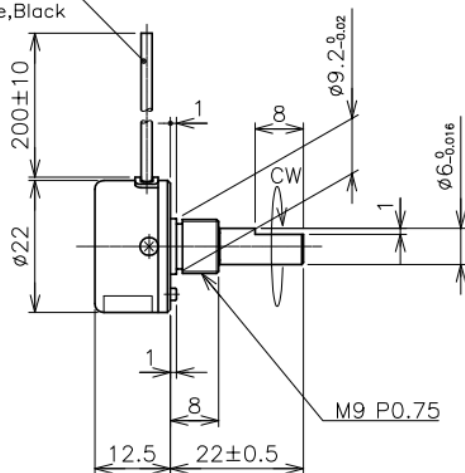
- Housing : Aluminum
- Shaft : Stainless Steel
- Bearing : Stainless Steel

**CP-20H Model Number Designation**

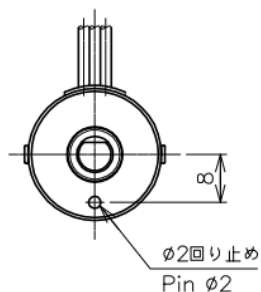


**Dimension [mm]**

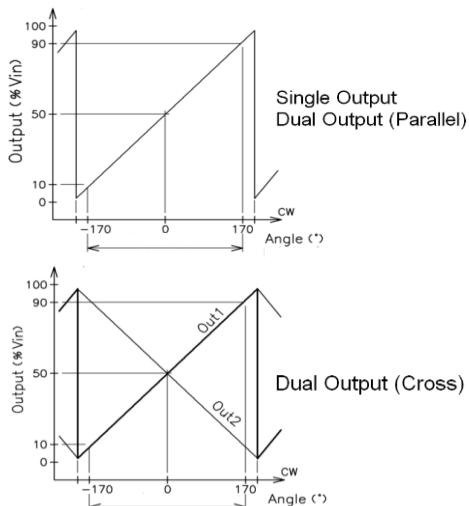
耐熱ビニル電線  
Leads  
0.3mm<sup>2</sup>  
赤, 白, 黒  
Red, White, Black



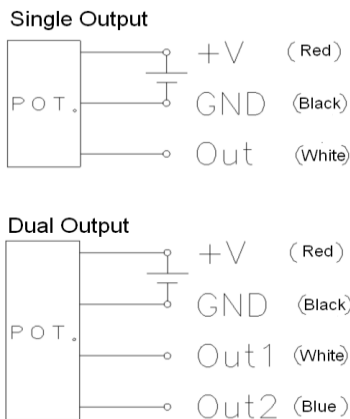
- シャフトが本図位置にある時出力は約50%Vinになります。
- Output is 50%Vin at shown shaft position.



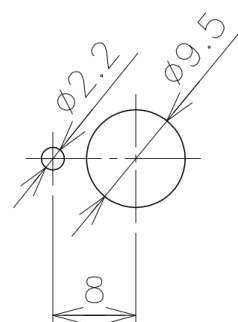
**Output Characteristics**



**Schematic**



**Mounting**



【Model No.】	Single Output				Dual Output P=Parallel, C=Cross			
	CP-20H	CP-20HS	CP-20HB	CP-20HBS	CP-20HP	CP-20HSP	CP-20HBP	CP-20HBSP
					CP-20HC	CP-20HSC	CP-20HBC	CP-20HBSC

### 【Electrical Specifications】

Effective Electrical Travel	Standard: $\pm 170$ (=340)				Option: 270, 300, 359				°
Output Range	10 ~ 90								%Vin
Absolute Linearity	$\pm 1$								%FS
Input Voltage	DC5 $\pm$ 0.5								V
Load Resistance	MIN. 10								k $\Omega$
Supply Current	MAX. 16				MAX. 32				mA
Insulation Resistance	MIN. 100/DC50V								M $\Omega$
Output Resolution	12 (0 ~ 100%Vin)								bit
Hysteresis	0.3								%FS
Temp. Characteristics -30 - +100°C (Reference Temp. 25°C)	$\pm 1.7$								°
2 Output Difference	—				$\pm 1$ 100 $\pm$ 1(Sum 1,2)	$\pm 1$ 100 $\pm$ 1(Sum 1,2)	$\pm 1$ 100 $\pm$ 1(Sum 1,2)	$\pm 1$ 100 $\pm$ 1(Sum 1,2)	%Vin

### 【Mechanical Specifications】

Total Mechanical Travel	360 Endless								°
Torque	MAX. 2	MAX. 100	MAX. 2	MAX. 100	MAX. 2	MAX. 100	MAX. 2	MAX. 100	mN·m
Thrust Load Tolerance	2								N
Radial Load Tolerance	5								N
Mass	Approx. 20								g

### 【Environmental Specifications】

Life Cycles	10 Million								Cycle
Operating Temperature Range	-30 ~ +100								°C
Storage Temperature Range	-30 ~ +100								°C
Vibration	200mm <sup>2</sup> /s, 5 - 500Hz, 6 minutes, 3 axis, 3 times (Room Temp.)								
Shock	1000mm <sup>2</sup> /s, 6ms, 3 axis, 3 times (Room Temp.)								
EMS	100V/m 200MHz - 1GHz (ISO 11452-2)								
ESD (Case To Each Terminal)	MAX. $\pm$ 16(IEC 61000-4-2)								kV
ESD (Between Each Terminal)	MAX. $\pm$ 8(IEC 61000-4-2)								kV
IP Level	IP50	IP60 *	IP50	IP60 *	IP50	IP60 *	IP50	IP60 *	

\* Shielded mounting surface side only

### ■ 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.