

Contactless Angle Sensor

CP-20H Series

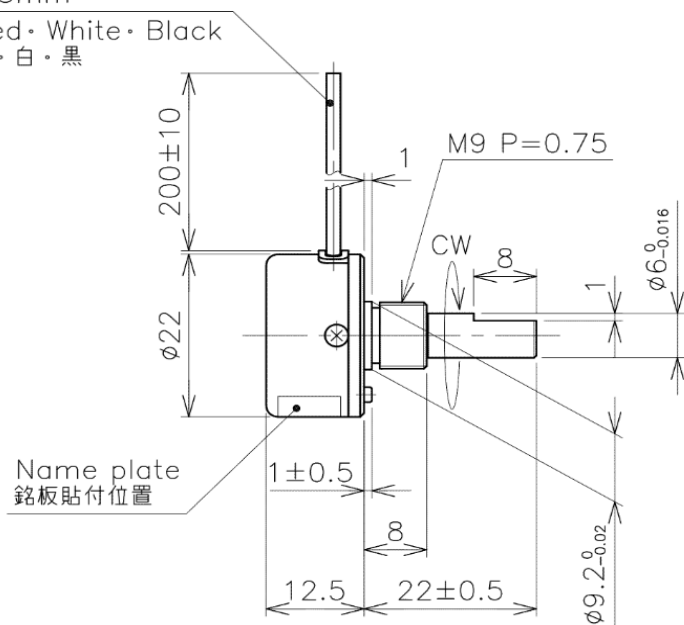


- Contactless Angle Sensor
- Effective Electrical Travel : $\pm 170^\circ$
- Absolute Linearity : $\pm 2\%FS$
- Bushing Mount
- 【Options】
- Effective Electrical Travel : $90^\circ - 359^\circ$
- Output : Dual Output(4wires)
- Shaft : $\phi 3.175\text{mm}$ (D-Cut)
- Bearing : Ball Bearing
- IP Rating : IP60(Shaft only)
- 【Material】
- Housing : Aluminum
- Shaft : Stainless Steel
- Bearing : Stainless steel

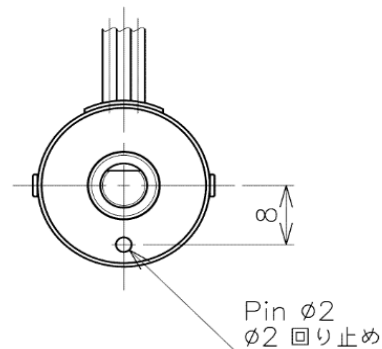
Dimension [mm]

Leads
耐熱ビニル電線
 0.3mm^2

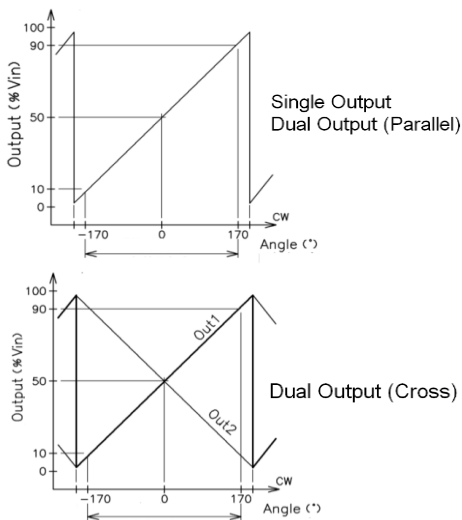
Red · White · Black
赤 · 白 · 黒



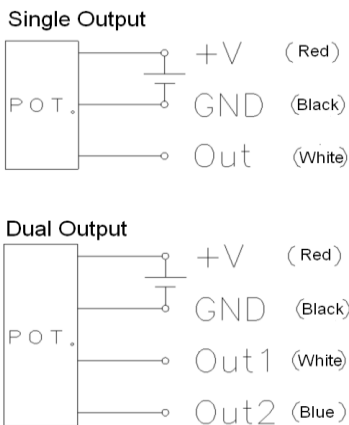
- Output is 50% V_{in} at shown shaft position.
- シャフトが本図位置にある時出力は約50% V_{in} になります。



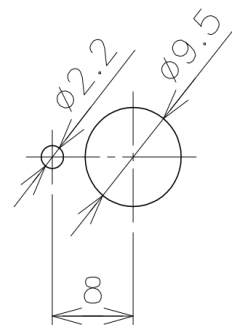
Output Characteristics



Schematic

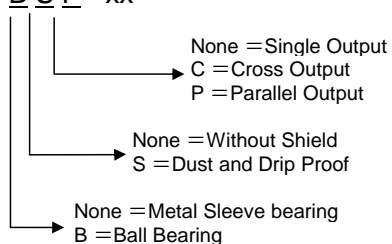


Mounting



Model Number Designation

CP-20H **B** **S** **P** - xx



【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: ± 170 (=340) Option: 270, 300, 359								°
Output Range	10 ~ 90								%Vin
Absolute Linearity	± 1								%FS
Input Voltage	DC5 \pm 0.5								V
Load Resistance	MIN. 10								k Ω
Supply Current	MAX. 16				MAX. 32				mA
Insulation Resistance	MIN. 100/DC50V								M Ω
Output Resolution	12 (0 ~ 100%Vin)								bit
Hysteresis	0.3								%FS
Temp. Characteristics -30 - +100°C (Reference Temp. 25°C)	± 1.7								°
2 Output Difference	—				± 1 100 \pm 1(Sum 1,2)	± 1 100 \pm 1(Sum 1,2)	± 1 100 \pm 1(Sum 1,2)	± 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 ² /s, 5 - 500Hz, 6 minutes, 3 axis, 3 times (Room Temp.)								
Shock	1000mm ² /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	IP65 *	IP50	IP65 *	IP50	IP65 *	IP50	IP65 *	

* 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 ES⁻