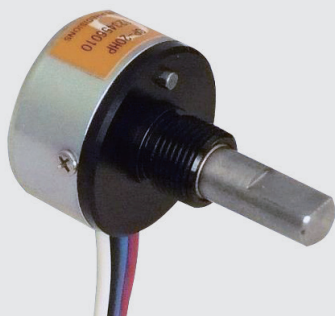


MINIATURE DRIP-PROOF DUAL OUTPUT LOW TORQUE CONTACTLESS HALL IC ROTARY ANGLE SENSOR

CP-20H series

RoHS compliant



FEATURES

- Contactless Angle Sensor
- Effective Electrical Angle : 170°
- Absolute Linearity : ± 1 %FS
- Bushing Mount

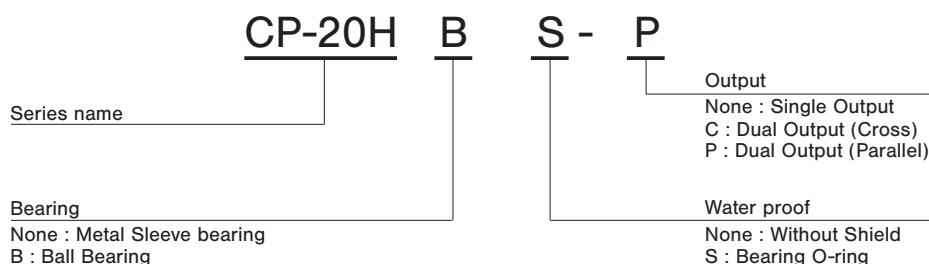
OPTIONS

- Effective Electrical Angle : 90° ~ 359°
- Output : Dual Output(4 wires)
- Shaft : $\phi 3.175$ mm (D-Cut)
- Bearing : Ball Bearing
- IP Rating : IP65 (Shaft only)

MATERIAL

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

PART NUMBER DESIGNATION



STANDARD SPECIFICATIONS

Electrical characteristics

Item	Part No.	CP-20H	CP-20HS	CP-20HB	CP-20HBS	CP-20HP	CP-20HSP	CP-20HBP	CP-20HBSP
						CP-20HC	CP-20HSC	CP-20HBC	CP-20HBSC
Effective Electrical Angle		Standard: $\pm 170^{\circ}$ (=340°) / Option: 270°, 300°, 359°							
Output Range		10 ~ 90 %Vin							
Absolute Linearity		± 1 %FS							
Input Voltage		5 $\pm$ 0.5 VDC							
Load Resistance		10 ~ 100 k Ω							
Supply Current		16 mA max.				32 mA max.			
Insulation Resistance		100 M Ω min. / 50 VDC							
Output Resolution		12 bit (0 ~ 100 %Vin)							
Hysteresis		0.3 %FS max.							
Temp. Characteristics -30 ~ 100°C		$\pm 1.7^{\circ}$ max. (Reference Temp. 25°C)							
2 Output Difference		-				± 1 %Vin			
						100 $\pm$ 1 %Vin (Sum 1, 2)			

CP-20H

POTENTIOMETERS

STANDARD SPECIFICATIONS

Mechanical characteristics

Item	Part No.	CP-20H	CP-20HS	CP-20HB	CP-20HBS	CP-20HP	CP-20HSP	CP-20HBP	CP-20HBSP
						CP-20HC	CP-20HSC	CP-20HBC	CP-20HBSC
Total Mechanical Travel		360 Endless							
Torque (max.)		2 mN·m	100 mN·m	2 mN·m	100 mN·m	2 mN·m	100 mN·m	2 mN·m	100 mN·m
Thrust Load Tolerance		2 N							
Radial Load Tolerance		5 N							
Net weight		Approx. 20g							

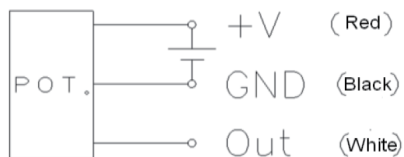
Environmental characteristics

Item	Part No.	CP-20H	CP-20HS	CP-20HB	CP-20HBS	CP-20HP	CP-20HSP	CP-20HBP	CP-20HBSP
						CP-20HC	CP-20HSC	CP-20HBC	CP-20HBSC
Life Cycles		10 Million Cycle							
Operating Temp. Range		-30 ~ +100 °C							
Storage Temp. Range		-30 ~ +100 °C							
Vibration		200 m/s ² , 5 - 500Hz, 6 minutes, 3 axis, 3 times (Room Temp.)							
Shock		1000 m/s ² , 6 ms, 3 axis, 3 times (Room Temp.)							
EMS		100 V/m 200 MHz - 1 GHz (ISO 11452-2)							
ESD (Case-Each Terminal)		±16 kV max. (IEC 61000-4-2)							
ESD (Between Each Terminal)		±8 kV max. (IEC 61000-4-2)							
IP Grade		IP50	IP65*	IP50	IP65*	IP50	IP65*	IP50	IP65*

* Shielded mounting surface side only

SCHEMATIC

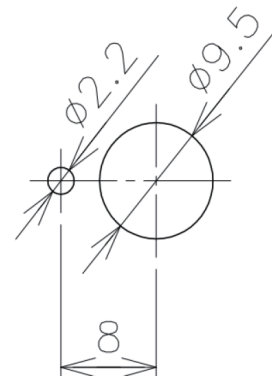
Single Output



Dual Output



MOUNTING

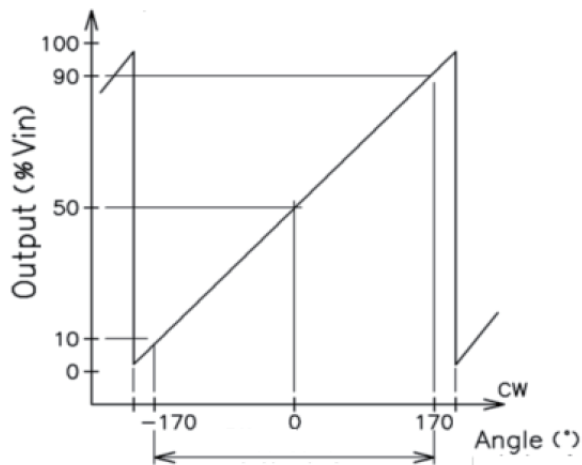


CP-20H

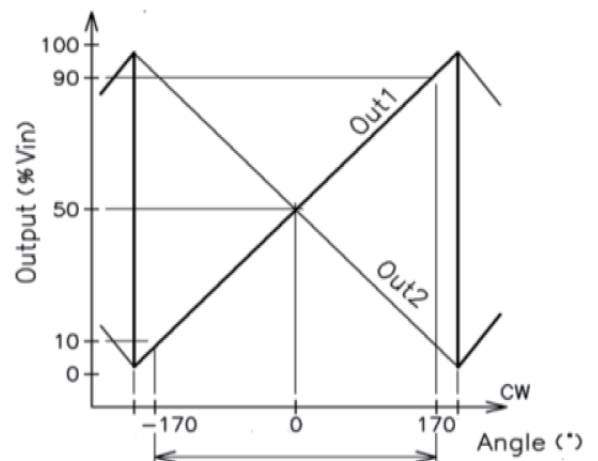
POTENTIOMETERS

■ OUTPUT CHARACTERISTICS

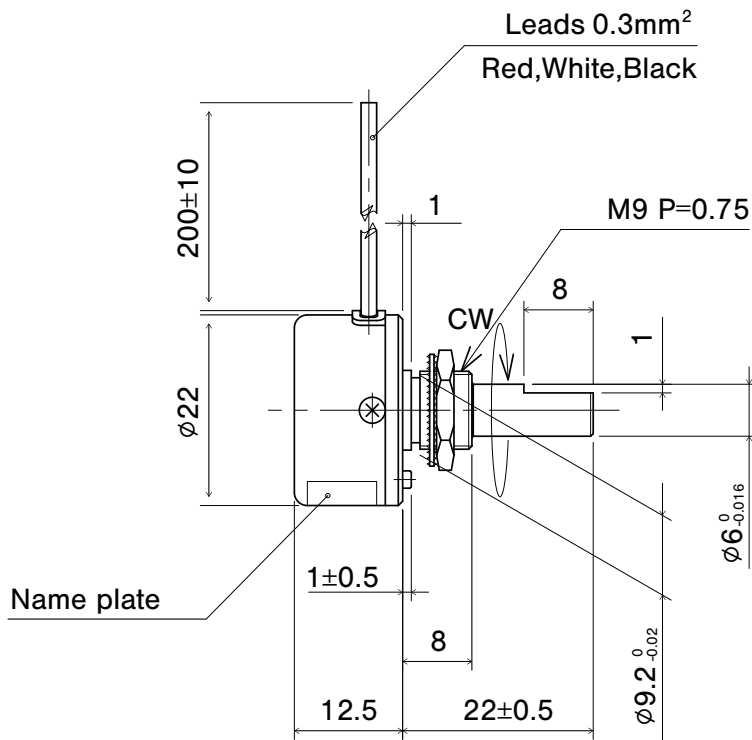
● Single Output/Dual Output (Parallel)



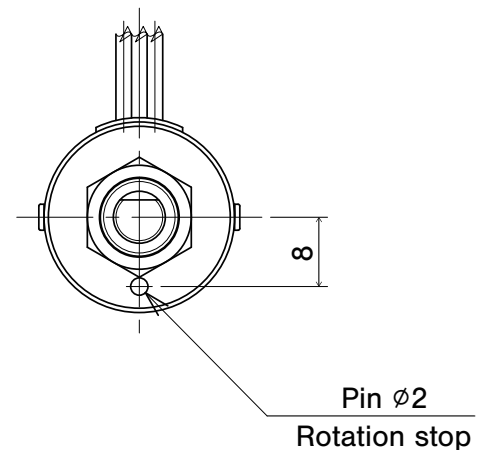
● Dual Output (Cross)



■ OUTLINE DIMENSIONS



Output is 50% Vin
at shown shaft position



■ 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.