

Contactless Hall-IC Angle Sensor

MIDORI CP-20H Series



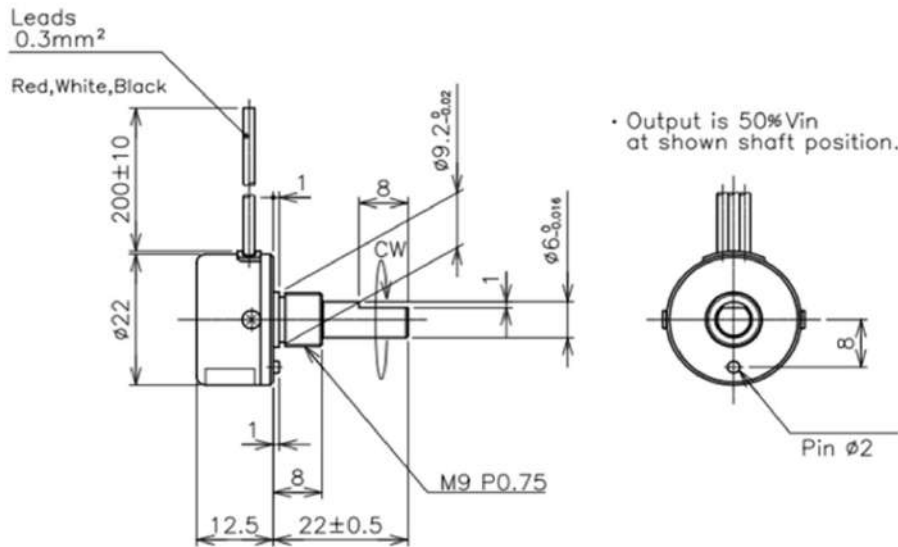
General

- Single-turn Hall-IC Angle Sensor
- Effective Electrical Travel: 340°
- Absolute Linearity: $\pm 1\%FS$
- Bushing Mount
- Low Cost

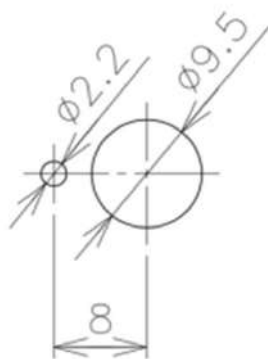
Material

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

Dimension (mm)

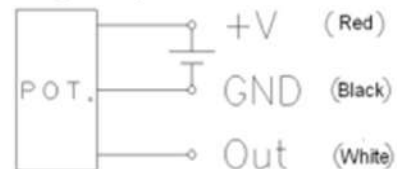


Mounting(mm)

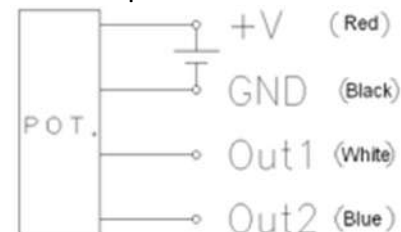


Schematic

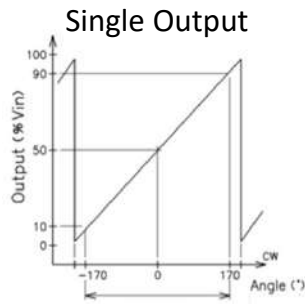
Single Output



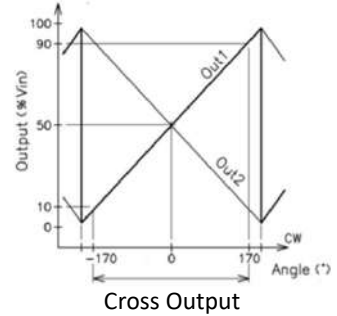
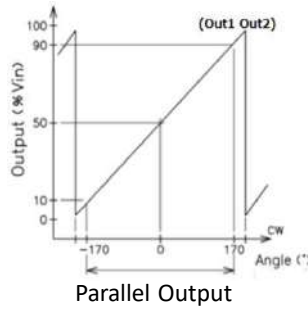
Dual Output



Output Characteristics



Dual Output



Specifications

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: 340° Option: 270°, 300°, 359°(=359.9°)	
Output Range	10%~90%Vin	
Absolute Linearity	±1%FS (FS=360°)	
Input Voltage	DC5V±0.5V	
Load Resistance	10KΩMIN.	
Insulation Resistance	100MΩ/ DC50V MIN.	
Supply Current	16mA MAX.	32mA MAX.
Output Resolution	12bit (0~100%Vin)	
Hysteresis	0.3%FS	
Temp. CHAR: -30~+100°C	±1.7° (Reference Temp. 25°C)	
2 Output Difference	---	±1%Vin 100%Vin ± 1% (Sum Output 1 and 2)

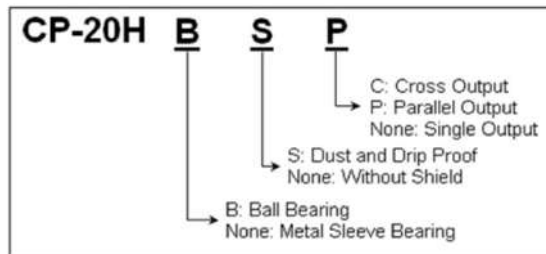
Mechanical Specifications

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

Environmental Specifications

Life Cycle	10 Million Cycle							
Category Temp. Range	-30~+100°C							
Storage Temp. Range	-30~+100°C							
Vibration	200mm2/S, 5-500Hz, 6minutes, 3axis, 3times (Room Temp.)							
Shock	1000mm2/S, 6ms, 3axis, 3times (Room Temp.)							
EMS	100V/m 200MHz-1GHz (ISO 11452-2)							
ESD (Case to Each Terminal)	±16kV MAX. (IEC61000-4-2)							
ESD (Between Each Terminal)	±8kV MAX. (IEC61000-4-2)							
Torque	IP50	IP60	IP50	IP60	IP50	IP60	IP50	IP60

CP-20H Model Number Designation



Handling Instruction

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