Contactless Hall-IC Angle Sensor

MIDORI **CP-22H Gear Head Series**

General

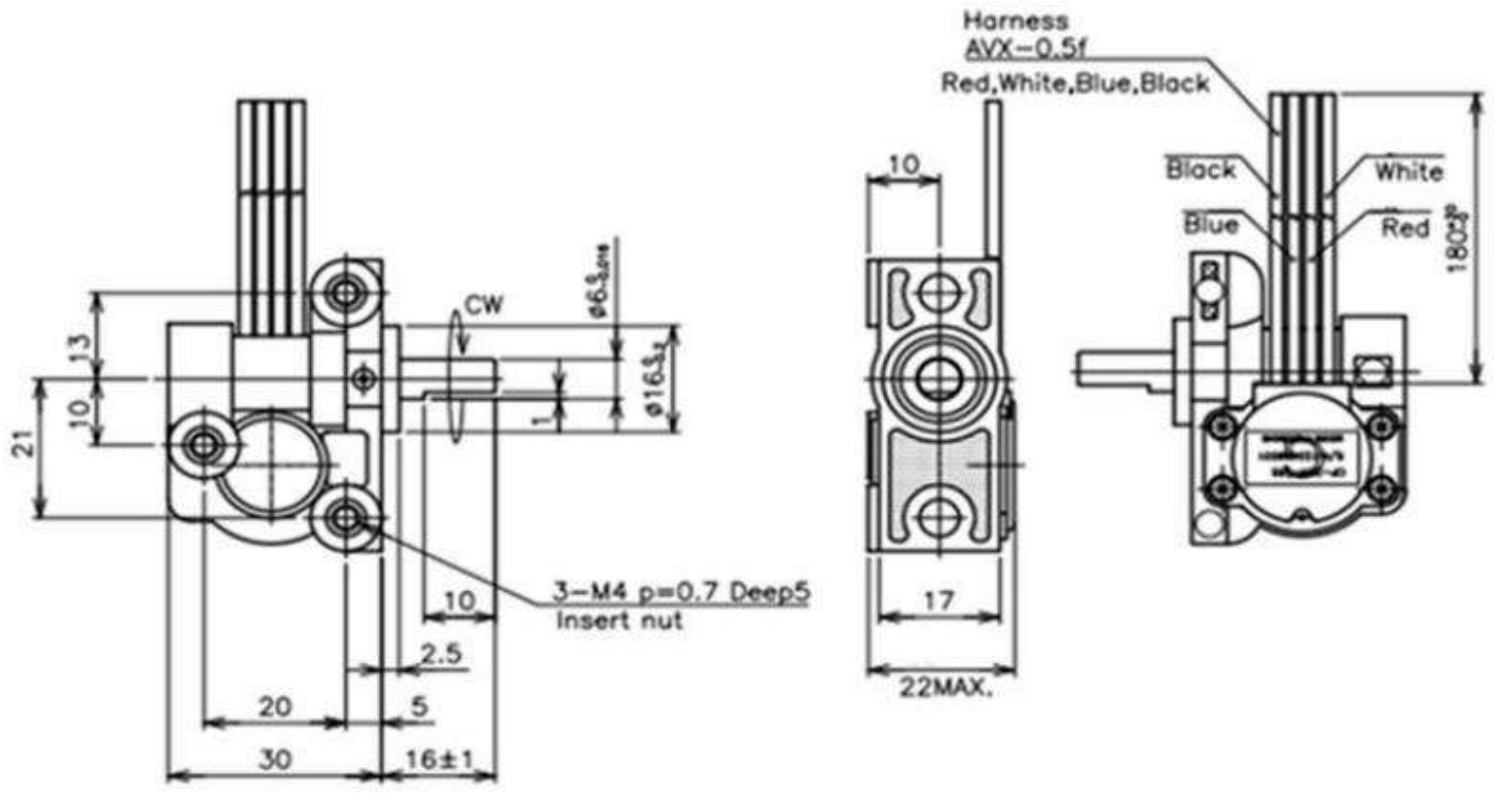
- Contactless Hall-IC Multi-Turn Angle Sensor
- Effective Electrical Angle: 1800°~21600°
- Absolute Linearity: ±1%FS
- Dual Output: Cross/ Parallel Output
- IP67

Material

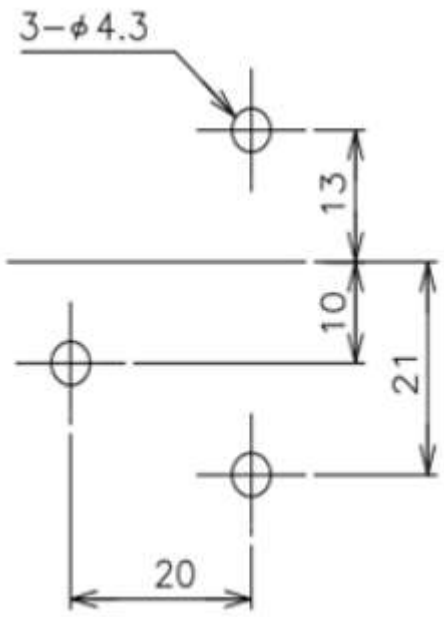
- Housing: PBT
- Shaft: Stainless Steel
- Bearing: Stainless Steel

Dimension (mm)

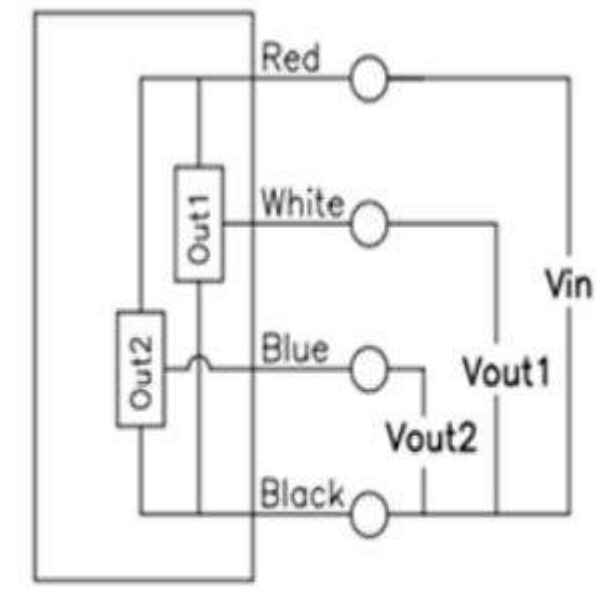
CP-22HC-xxS xx=12,50 (Dual Output)
CP-22HP-xxS



Mounting(mm)

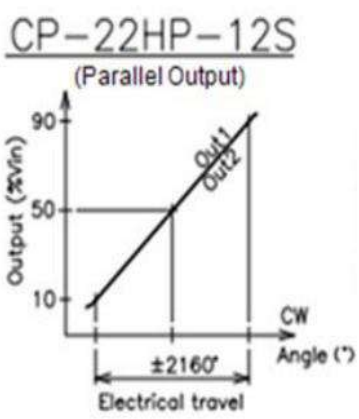


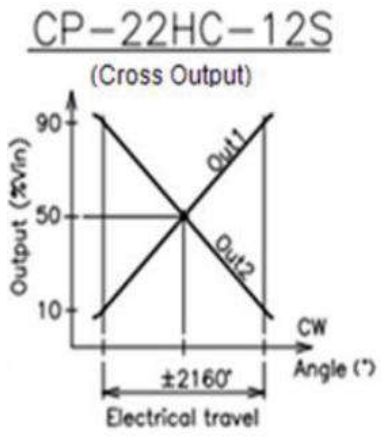
Schematic



• Red,White,Blue,Black indicate lead colors.

Output Characteristics





Specifications

	5-Turn	12-Turn	30-Turn	50-Turn	60-Turn
Parallel Output	**CP-22HSP-5S**	**CP-22HSP-12S**	**CP-22HSP-30S**	**CP-22HSP-50S**	**CP-22HSP-60S**
Cross Output	**CP-22HSC-5S**	**CP-22HSC-12S**	**CP-22HSC-30S**	**CP-22HSC-50S**	**CP-22HSC-60S**

Electrical Specifications

Effective Electrical Travel	1800°	4320°	10800°	18000°	21600°
Absolute Linearity	±1%FS				
Output Range	10%~90%Vin				
Input Voltage	DC5V±0.5V				
Load Resistance	10~150KΩ MIN.				
Insulation Resistance	100MΩ/ DC50V MIN.				
Output Resolution	12bit (0~100%Vin)				
Response Time	0.9ms MAX.				
Hysteresis	0.5%FS MAX.				
Temp. Characteristics -40~+85℃ (Reference Temp. 25℃)	±11.25° MAX.	±27° MAX.	±67.5° MAX.	±112.5° MAX.	±135° MAX.
Output Difference	Parallel Output: Difference±1%Vin / Cross Output: Total 100±1%Vin				

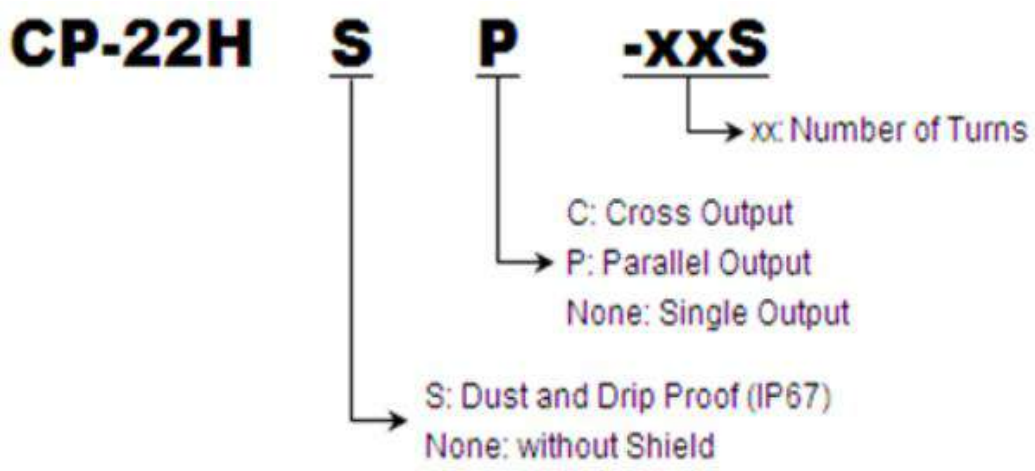
Mechanical Specifications

Total Mechanical Travel	360° Endless
Torque	25mN・m MAX.
Thrust Load Tolerance	4N
Radial Load Tolerance	4N
Weight	Approx. 46g

Environmental Specifications

Life Cycles	10M Cycles MIN. (Room Temp., No-load, Rotational direction CW/CCW)
Operation Temp. Range	-40~+100℃ (No condensation)
Storage Temp. Range	-50~+100℃ (No condensation)
Vibration	5~500Hz (6min) 200m/S2 (20G) 3directions 2hours each
Shock	1000m/S2 (100G) 6 directions 2hours each
EMS	100V/m 15K~1GHz (ISO 11452)
ESD (Case to each Terminal)	±25KV MAX. (IEC61000-4-2)
ESD (b/t each Terminal)	±12KV MAX. (IEC61000-4-2)
IP Level	IP 67

Model Number Designation



Handling Instruction

- This product will be locked a shaft at 50% output position with a stopper before shipping.
- 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.
- When the shaft is coupled, please do not apply heavy load to the shaft.