

Contactless Hall-IC Angle Sensor

# CP-22H Gear Head Series

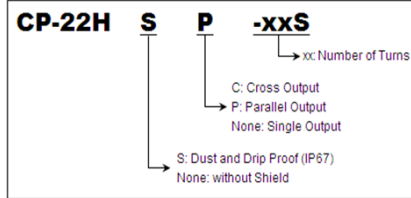


- Contactless Hall-IC Multi-Turn Angle Sensor
- Effective Electrical Travel : 1800°(5S) ~ 21600° (60S)
- Absolute Linearity : ±1%FS

[Material]

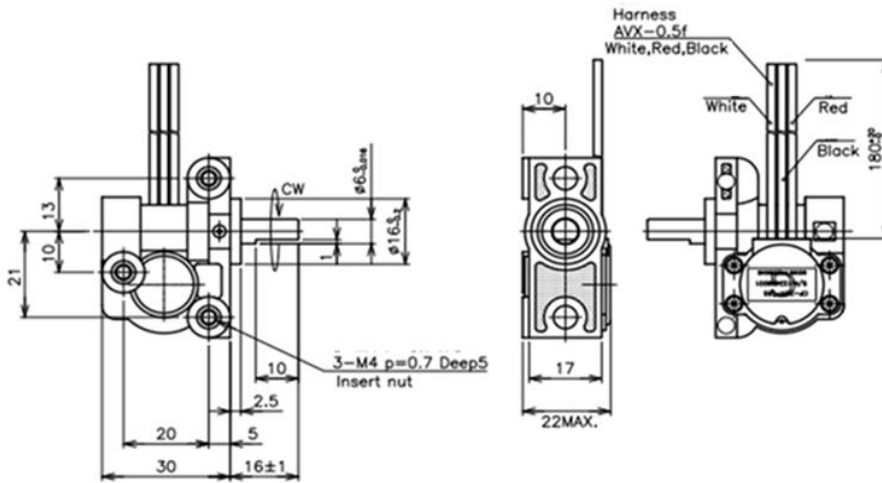
- Housing : PBT
- Shaft : Stainless Steel
- Bearing : Stainless Steel

### CP-22H-S Model Number Designation



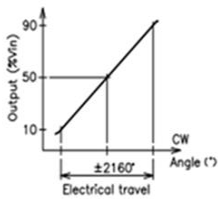
## Dimension (mm)

CP-22H-xxS (Single Output)



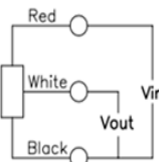
## Output Characteristics

CP-22H-12S (Single Output)



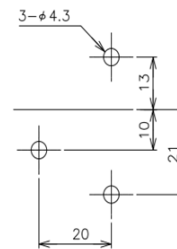
## Schematic

Single Output



• Red,White,Black indicate lead colors.

## Mounting



Model No.	5-Turn	12-Turn	30-Turn	50-Turn	60-Turn
Single Output	CP-22H-10S	CP-22H-12S	CP-22H-30S	CP-22H-50S	CP-22H-60S

Electrical Specifications					
Effective Electrical Travel	1800°	4320°	10800°	18000°	21600°
Output Range	10%~90%Vin				
Abso. Linearity	±1%FS				
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°C (Reference Temp. 25°C)	±11.25° MAX.	±27° MAX.	±67.5° MAX.	±112.5° MAX.	±135° MAX.

Mechanical Specifications	
Total Mechanical Travel	360°Endless
Torque	4mN · m MAX.
Thrust Load Tolerance	4N
Radial Load Tolerance	4N
Mass	Approx. 46g

Environmental Specifications	
Life Cycles	10 Million Cycles MIN. (Room Temp. No-load, Rotational direction CW/CCW)
Operating Temp. Range	-40~+100°C (No condensation)
Storage Temp. Range	-50~+100°C (No condensation)
Vibration	5~500Hz (6min) 200m/S <sup>2</sup> (20G) 3directions 2hours each
Shock	1000m/S <sup>2</sup> (100G) 6 directions 3times
EMS	100V/m 15K~1GHz (ISO 11452)
ESD (Case to each terminal)	±25KV MAX. (IEC 61000-4-2)
ESD (b/t Each Terminal)	±12KV MAX. (IEC 61000-4-2)
IP Level	IP54

~ Sealed Type ~

Model No.	5-Turn	12-Turn	30-Turn	50-Turn	60-Turn
Single Output	CP-22HS-5S	CP-22HS-12S	CP-22HS-30S	CP-22HS-50S	CP-22HS-60S

Electrical Specifications	
Torque	25mN · m MAX.
Mass	Approx. 46g

Environmental Specifications	
IP Level	IP67

**■ 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.