

Contactless Hall-IC Angle Sensor

CP-22H-S Series

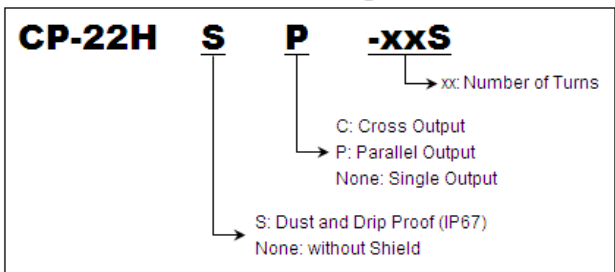


- Contactless Hall-IC Multi-Turn Angle Sensor
- Effective Electrical Travel : 1800°(5S) ~ 21600°(60S)
- Absolute Linearity : ±1%FS

【Material】

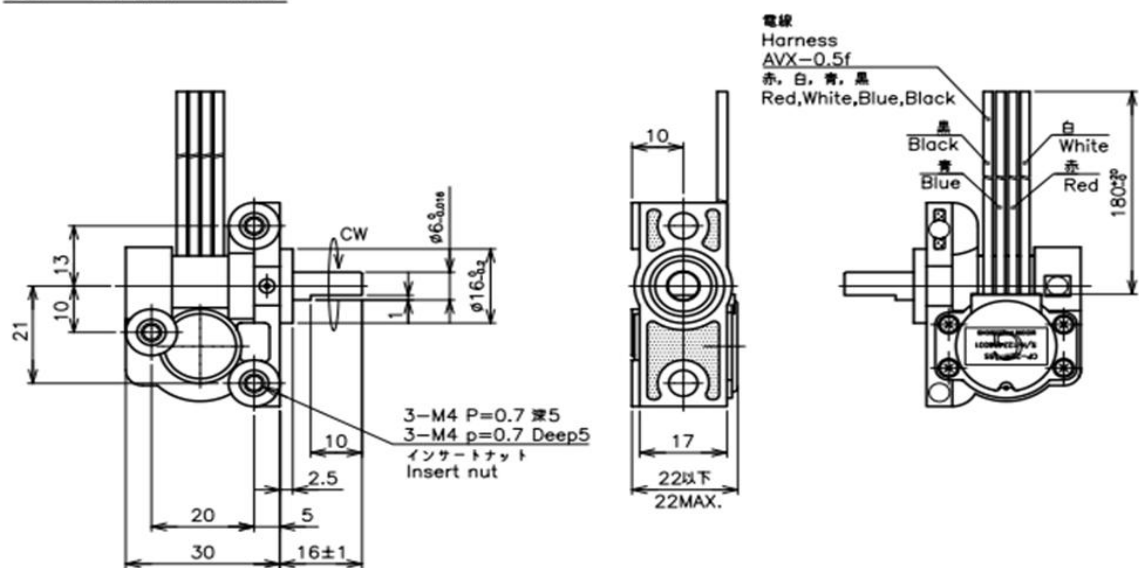
- Housing : PBT
- Shaft : Stainless Steel
- Bearing : Stainless Steel

CP-22H-S Model Number Designation

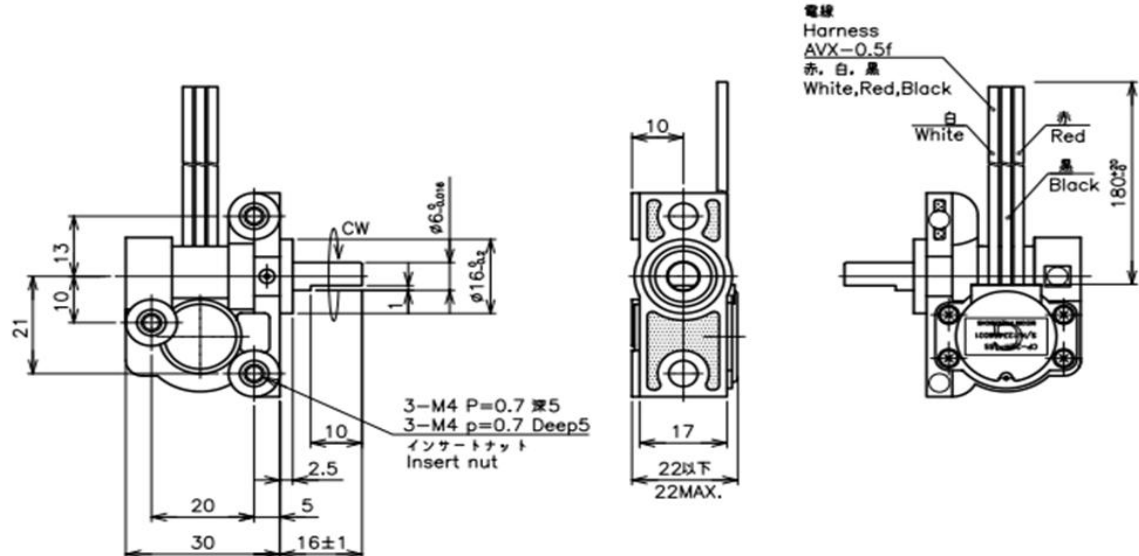


Dimension

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

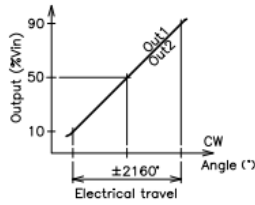


CP-22H-xxS (Single Output)

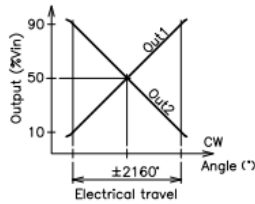


Output Characteristics

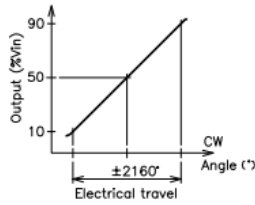
CP-22HP-12S (Parallel Output)



CP-22HC-12S (Cross Output)

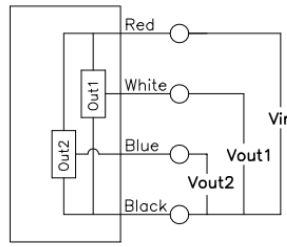


CP-22H-12S (Single Output)



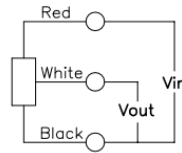
Schematic

Dual Output



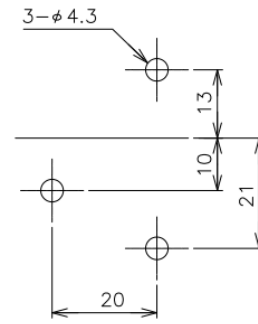
• Red,White,Blue,Black indicate lead colors.

Single Output



• Red,White,Black indicate lead colors.

Mounting



		(5-turn)	(12-turn)	(30-turn)	(50-turn)	(60-turn)	
【Model No.】	Single Output	CP-22H-5S	CP-22H-12S	CP-22H-30S	CP-22H-50S	CP-22H-60S	
	Parallel Output	CP-22HP-5S	CP-22HP-12S	CP-22HP-30S	CP-22HP-50S	CP-22HP-60S	
	Cross Output	CP-22HC-5S	CP-22HC-12S	CP-22HC-30S	CP-22HC-50S	CP-22HC-60S	

【Electrical Specifications】

Effective Electrical Travel		1800	4320	10800	18000	21600		°
Output Range		10 ~ 90						%Vin
Absolute Linearity		±1						%FS
Input Voltage		DC5±0.5						V
Load Resistance		10 ~ 150						kΩ
Supply Current		MAX. 16 (Single Output) / MAX. 32 (Dual Output)						mA
Insulation Resistance		MIN. 100/DC50						MΩ
Output Resolution		12 (0 ~ 100%Vin)						bit
Response Time		MAX. 0.9						ms
Hysteresis		MAX. 0.5						%FS
Temp. Characteristics -40 ~ +85°C(Reference Temp. 25°C)		MAX. ±11.25	MAX. ±27	MAX. ±67.5	MAX. 112.5	MAX. ±135		°
Output Difference (Out 1 and Out 2)	Parallel Output	Difference: ±1						%Vin
	Cross Output	Total: 100±1						

【Mechanical Specifications】

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

【Environmental Specifications】

Life Cycles		10 Million (Room Temp., No-load, Rotational direction CW/CCW)						Cycle
Operating Temperature Range		-40 ~ +100 (No condensation)						°C
Storage Temperature Range		-50 ~ +100 (No condensation)						°C
Vibration		5 - 500Hz(6min) 200m/s ² (20G) 3 directions 2 hours each						
Shock		1000m/s ² (100G) 6 directions 3 times						
EMS		100V/m 15k - 1GHz (ISO 11452)						
ESD (Case To Each Terminal)		MAX. ±25kV (IEC 61000-4-2)						
ESD (Between Each Terminal)		MAX. ±12kV (IEC 61000-4-2)						
IP Level		IP54						

Shielded Type		(5-turn)	(12-turn)	(30-turn)	(50-turn)	(60-turn)	
【Model No.】	Single Output	CP-22HS-5S	CP-22HS-12S	CP-22HS-30S	CP-22HS-50S	CP-22HS-60S	
	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】			
Torque		MAX. 25	mN·m
Mass		Approx. 46	g

【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.