

Contactless Hall-IC Angle Sensor

# CP-45H Gear Head Series

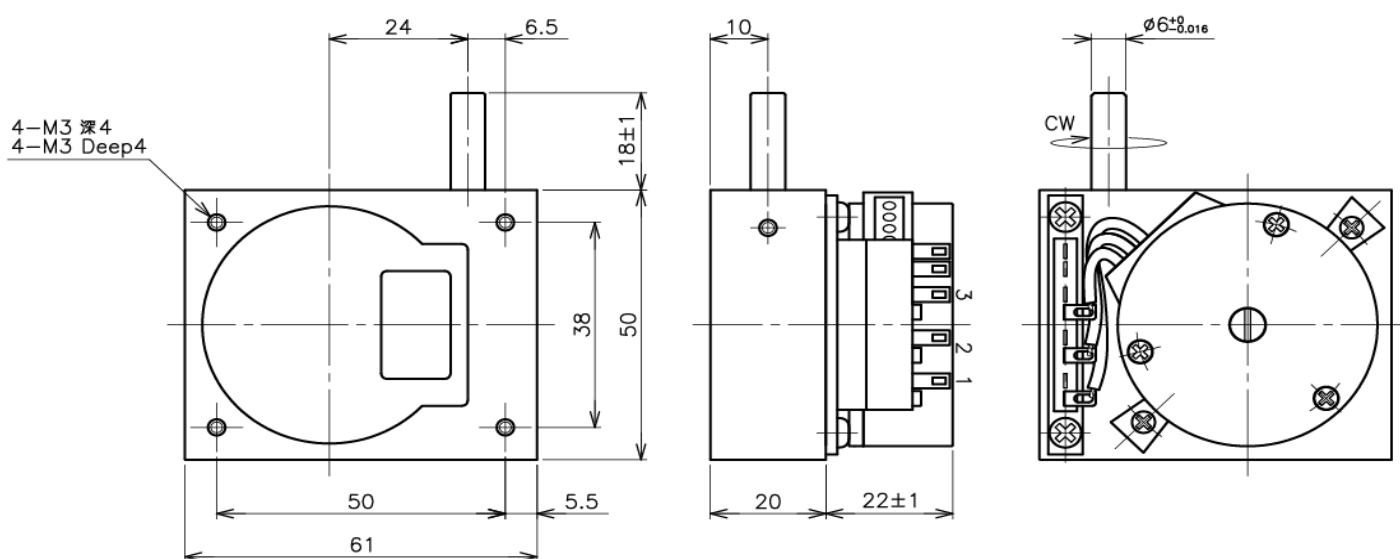


- Contactless Hall-IC Multi-Turn Angle Sensor
- Effective Electrical Travel : 3500° (CP-45H-10S)  
: 35000° (CP-45H-100S)
- Absolute Linearity :  $\pm 0.4\%$ FS (Independent Linearity  $\pm 0.2\%$ FS)

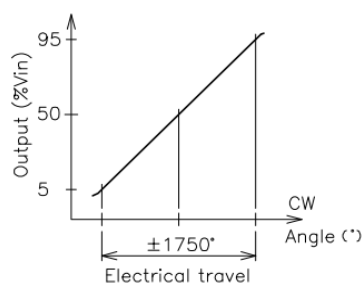
### 【Material】

- Housing : Aluminum
- Shaft : Stainless Steel
- Ball Bearing : Stainless Steel
- Gear Box : Aluminum die-casting

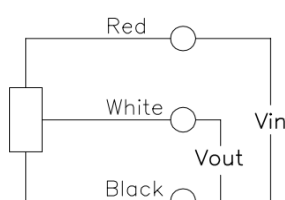
### ■ Dimension [mm]



### ■ Output Characteristics

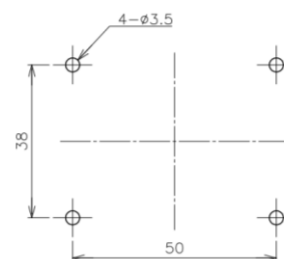


### ■ Schematic



- Red, White, Black indicate harness colors.

### ■ Mounting



【Model No.】	CP-45H-10S (10-turn)	CP-45H-100S (100-turn)	
<b>【Electrical Specifications】</b>			
Effective Electrical Travel	3500	35000	°
Output Range	5~95		%Vin
Absolute Linearity	±0.4 (Independent Linearity : ±0.2%FS) (FS=3500°)	±0.4 (Independent Linearity : ±0.3%FS) (FS=3500°)	%FS
Input Voltage	DC5±0.5		V
Load Resistance	MIN. 10		KΩ
Supply Current	MAX. 10		mA
Output Resolution	MAX. 1 (MAX. 4000rpm)		°
Temp. Characteristics -40°C ~ +100°C(Reference Temp. 25°C)	±0.3 (FS=3500°)	±0.3 (FS=35000°)	%FS
<b>【Mechanical Specifications】</b>			
Total Mechanical Travel	Endless		°
Gear Ratio	10:1 (10-turn)	100:1 (100-turn)	
Torque	MAX. 4		mN·m
Repeatability	±7 (±0.2%FS=3500°) Including Backlash	±70 (±0.2%FS=35000°) Including Backlash	°
Thrust Load Tolerance	5		N
Radial Load Tolerance	16		N
Mass	Approx. 280		g
<b>【Environmental Specifications】</b>			
Category Temperature Range	-40 ~ +100		°C
Storage Temperature Range	-40 ~ +100		°C
EMS (IEC61000-4-2)	100V/m、1M - 1GHz		
ESD (Case To Each Terminal)	±15kV (IEC61000-4-2)		
ESD (Between Each Terminal)	±15kV (IEC61000-4-2)		
IP Level	IP40		

#### ■ Handling Instruction

- In applying input power, voltage Vin must rise to 4.5V within 0.2 second, otherwise, output shall be disabled (Vout=0V).
- 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.