

Contactless Hall-IC Angle Sensor

MIDORI CP-45H-A Series



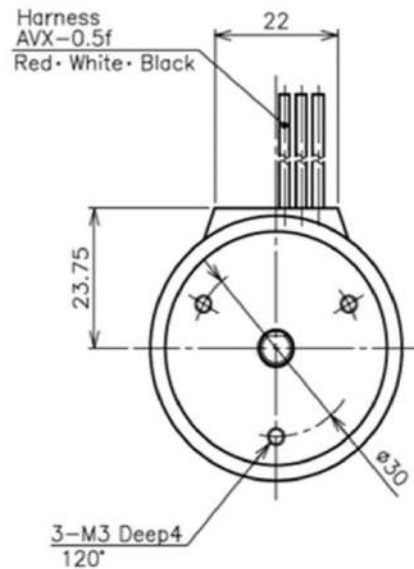
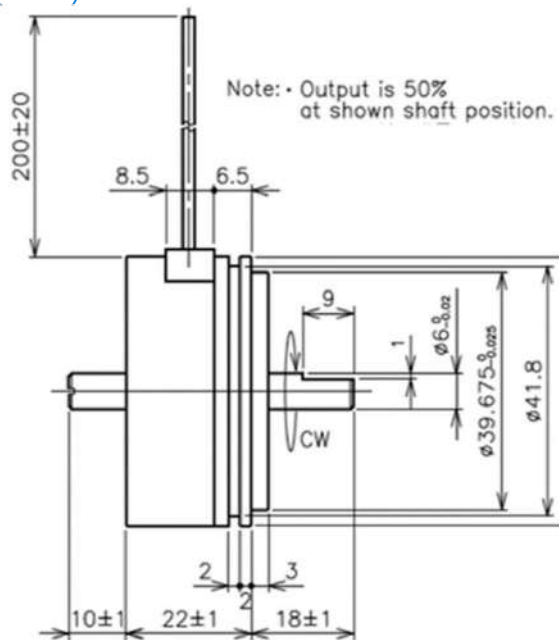
General

- Single-turn Hall-IC Angle Sensor
- Effective Electrical Travel: 360° (=359.8°)
- Absolute Linearity: ±1%FS
- Input Voltage: DC24V±4V
- Output range: 4~20mA
- Single (3wires)/ Dual Output (6wires or 4wires)

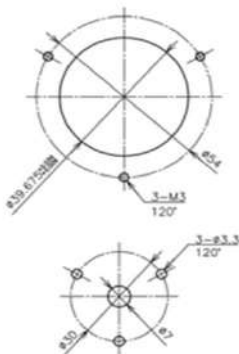
Material

- Housing: Aluminum
- Shaft: Stainless Steel

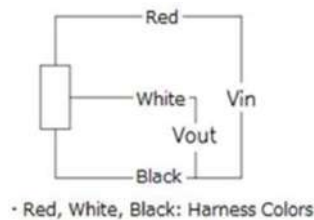
Dimension (mm)



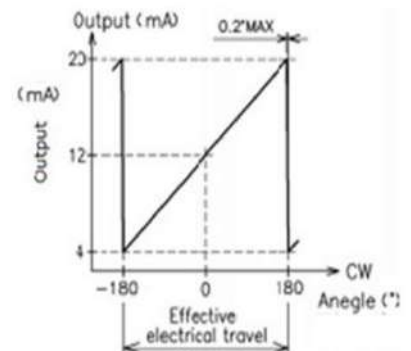
Mounting(mm)



Schematic

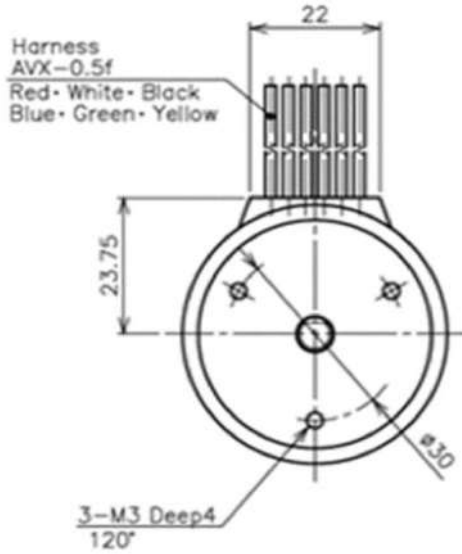


Output Characteristics

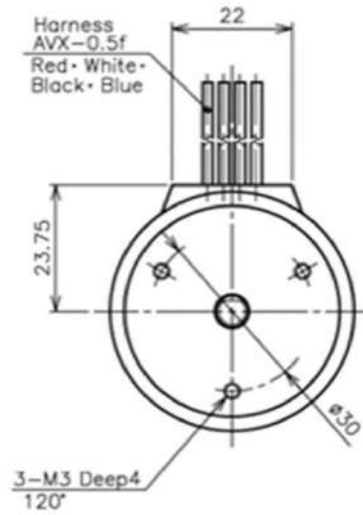


Dimension (mm)

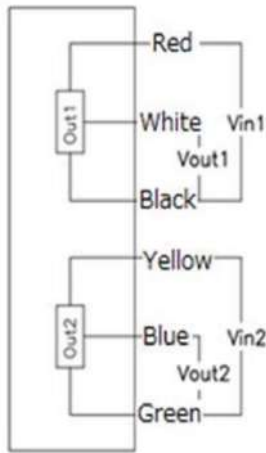
Dual Output, 6 wires



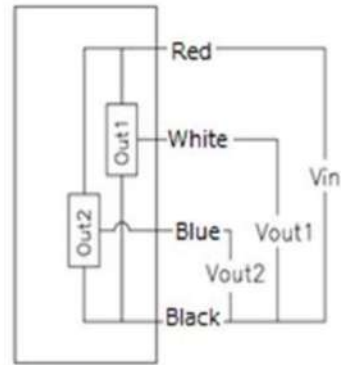
Dual Output, 4 wires



Schematic



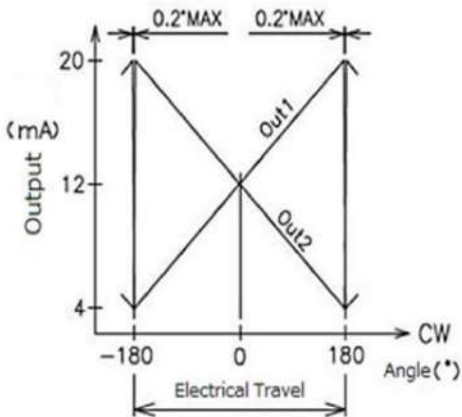
Each color indicate harness colors



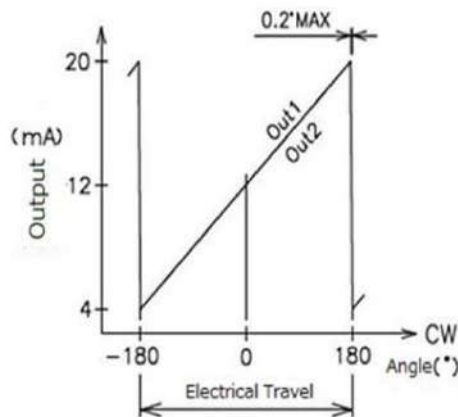
Each color indicate harness colors

Output Characteristics

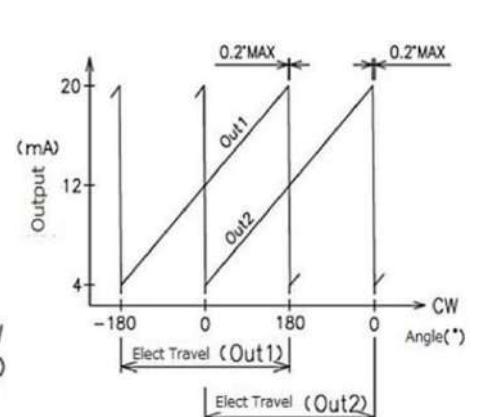
Cross Output



Parallel Output



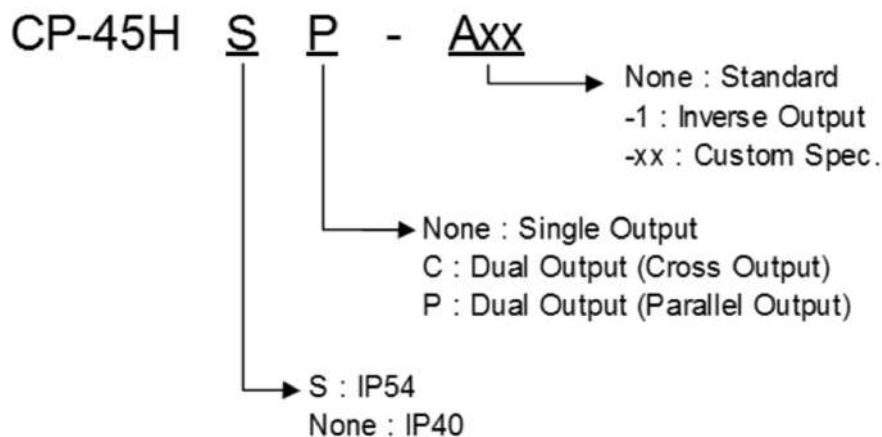
180° Phase Output



Specifications

	CP-45H-A	CP-45HS-A	CP-45HC-A	CP-45HP-A	CP-45HSP-A	CP-45HSC-A
Electrical Specifications						
Effective Electrical Travel	360° (=359.8°)					
Output Range	4~20mA					
Absolute Linearity	±1%FS (FS=360°)					
Input Voltage	DC24V±4V					
Load Resistance	600ΩMIN.					
Insulation Resistance	100MΩMIN. DC50V					
Supply Current	13mA MAX.		26mA MAX.			
Output Resolution	0.034%FS (Shaft Rotational Speed 23rpm MAX.)					
Hysteresis	±0.2%FS MAX.					
Response Time	0.9ms MAX.					
Temp. Characteristics -30~85°C (Ref.Temp. 25°C)	±5.4° MAX.					
Dual Output Difference	---	---	100±1.5%Vin	±1.5%Vin	±1.5%Vin	100±1.5%Vin
Mechanical Specifications						
Total Mechanical Travel	360° Endless					
Thrust Load Tolerance	2N					
Radial Load Tolerance	6N					
Mass	Approx. 100g					
Torque	1.8mN · m	30mN · m	1.8mN · m	1.8mN · m	30mN · m	30mN · m
Environmental Specifications						
Life Cycle	10 Million Cycle (Room Temp. No load)					
Category Temp. Range	-40~+100°C					
Storage Temp. Range	-40~+100°C					
Vibration	5~500Hz(6min), 200m/S ² (20G) 3directions 4hours each					
Shock	1000m/S ² (100G), 6directions 3times					
EMS	100V/m 1M~1GHz (ISO 11452)					
ESD (Case to Each Terminal)	±15kV MAX. (IEC61000-4-2)					
ESD (Between Each Terminal)	±15kV MAX. (IEC61000-4-2)					
IP Level	IP40	IP54	IP40	IP40	IP54	IP54

CP-45H 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.