

# Conductive Plastic Angle Sensor

## MIDORI CP-45Fx2 Series



### General

- Conductive Plastic Dual Output Angle Sensor
- Effective Electrical Angle: 350°
- Absolute Linearity:  $\pm 0.1\%FS$
- Output: Voltage Ratio Output
- Servo Mount & Screw Mount

**CP-45Fx2:**  $\Phi 4mm$  Shaft

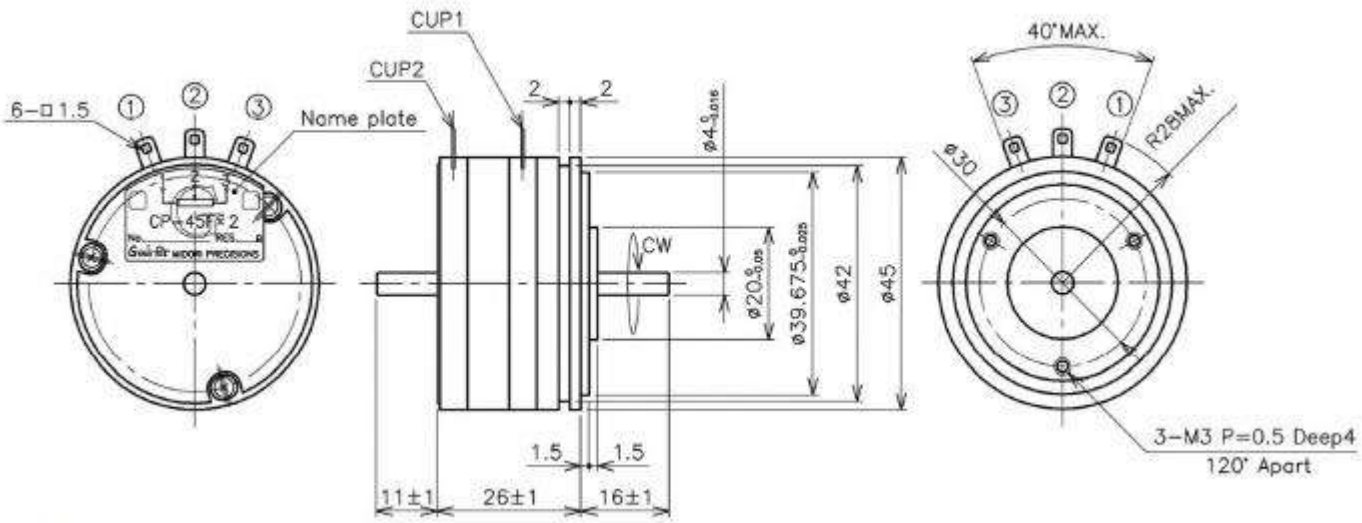
**CP-45FBx2:**  $\Phi 6mm$  Shaft

### Material

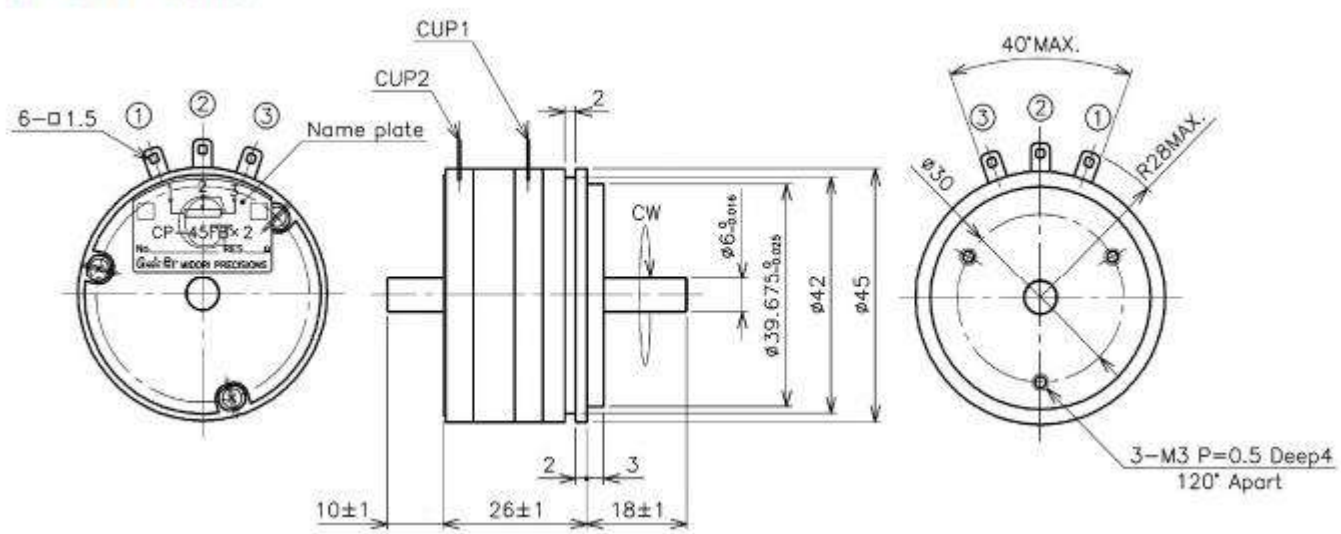
- Housing: Aluminum
- Shaft: Stainless Steel
- Ball Bearing: Stainless Steel

### Dimension (mm)

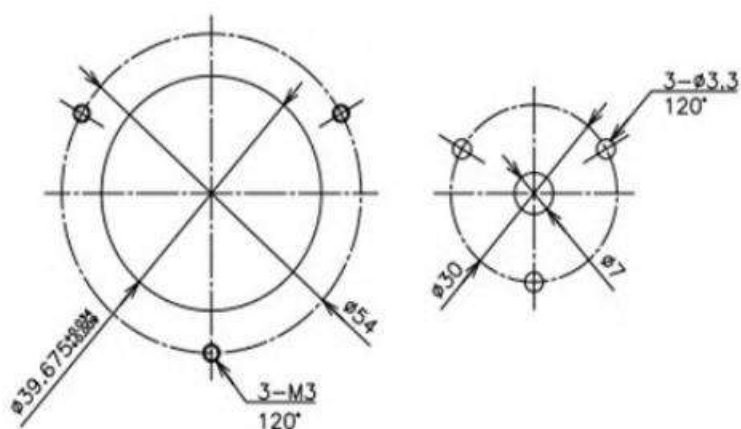
**CP-45Fx2 Series**



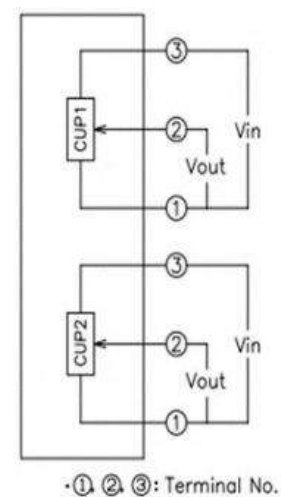
**CP-45FBx2 Series**



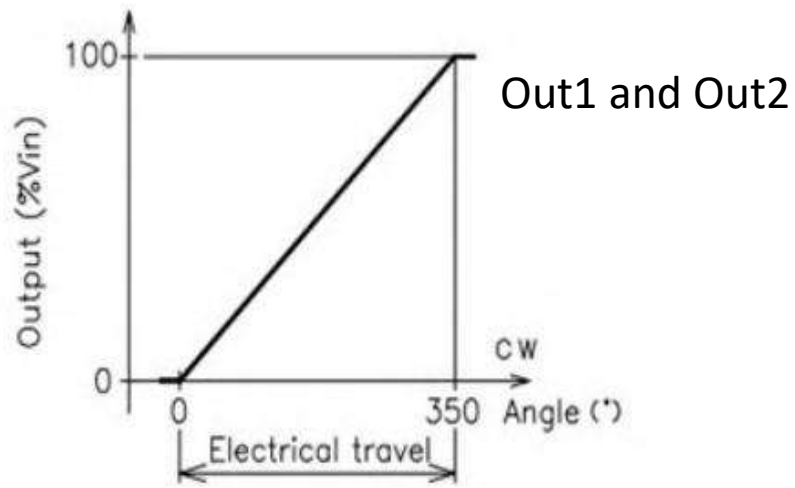
### Mounting(mm)



### Schematic



# Output Characteristics



# Specifications

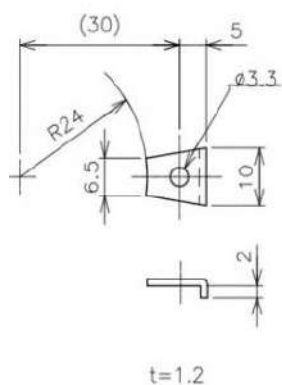
	CP-45Fx2 (Φ4mm Shaft)	CP-45FBx2 (Φ6mm Shaft)
<b>Electrical Specifications</b>		
Effective Electrical Travel	350° +3°, -2°	
Total Resistance	1K, 2K, 5K, 10K Ω	
Total Resistance Tolerance	±15%	
Independent Linearity	±0.1%	
Rated Dissipation	1.8W/70°C	
Output Smoothness	0.1% MAX.	
Insulation Resistance	100MΩ MIN./ DC1000V	
Dielectric Strength	AC1000V/ 1minute	
TC of Resistance	±400ppm/K	
<b>Mechanical Specifications</b>		
Total Mechanical Travel	360° Endless	
Torque	3.3mN · m MAX.	
Thrust Load Tolerance	2N	
Radial Load Tolerance	6N	
Weight	Approx. 75g	
<b>Environmental Specifications</b>		
Life Cycles	50M Cycles	
Storage Temp. Range	-40~+120°C	
Category Temp. Range	-40~+120°C	
Shock	600m/S <sup>2</sup> , 11ms, 6 directions 3 times	
Vibration	200m/S <sup>2</sup> , 2000Hz, 3 axis 2 hours each	

# Options

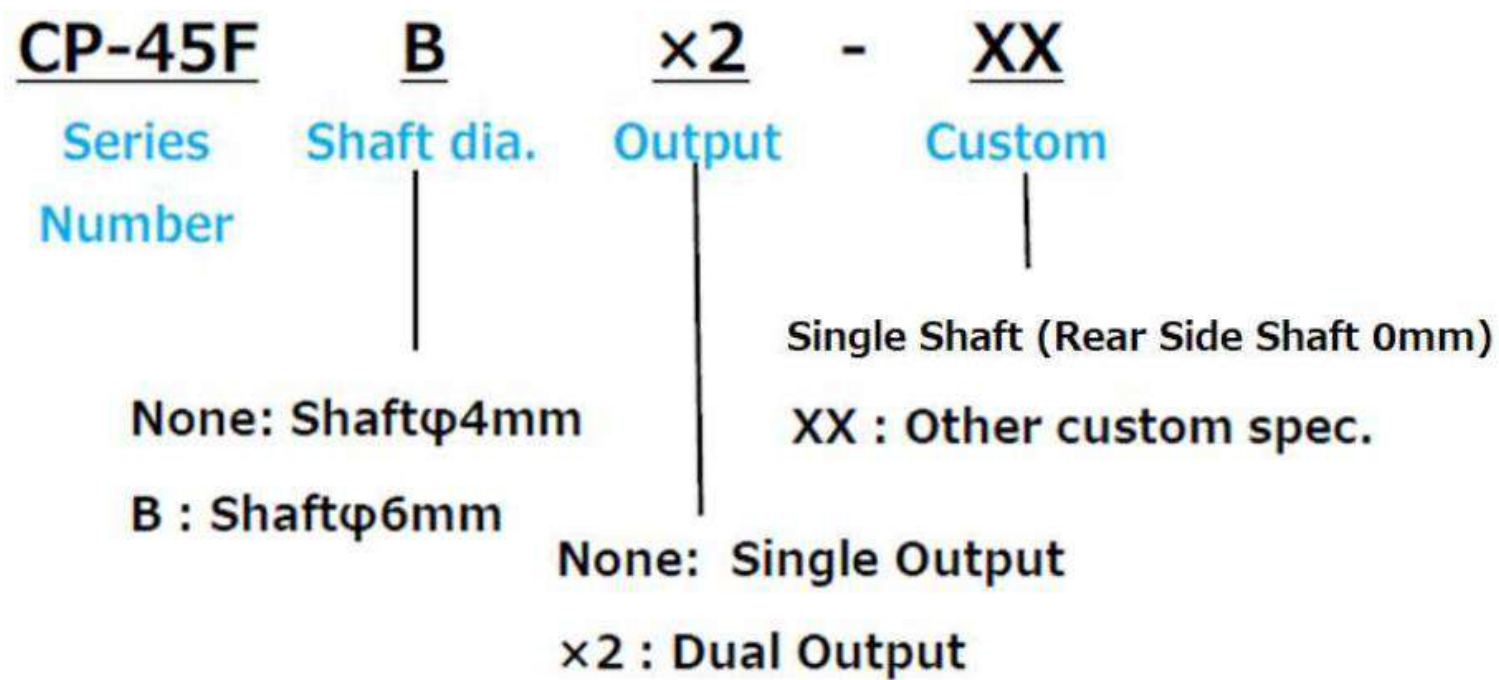
- Total Resistance: 0.5Ω and 20KΩ

# Accessories

Mounting Cleats: 3 Pieces



## CP-45F Series Model Number Designation



## Handling Instruction

- To avoid burnout of resistive element, do not supply more than 1mA current to terminal 2.
- Miswiring might cause burnout of resistive element.
- To reduce sliding noise, add load resistance should be more than 100 times and less than 1000 times of total resistance.
- Slight continuous vibration such as dither might cause short lifetime of the sensor.