

Conductive Plastic Angle Sensor

**CPP-45 Series**

- Conductive Plastic Angle Sensor
- Effective Electrical Travel : 350°
- Independent Linearity :  $\pm 0.3\%$  (Special Linearity :  $\pm 0.1\%$ )
- Servo Mount and Screw Mount

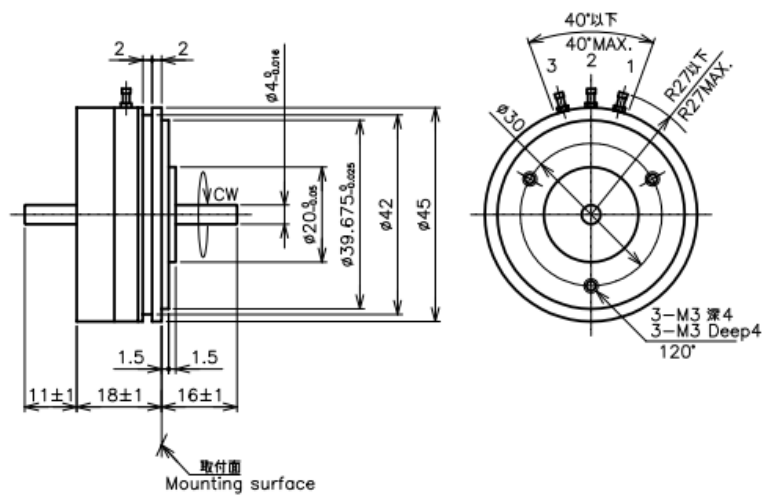
- CPP-45 :  $\phi 4\text{mm}$  Shaft
- CPP-45B :  $\phi 6\text{mm}$  Shaft

## 【Material】

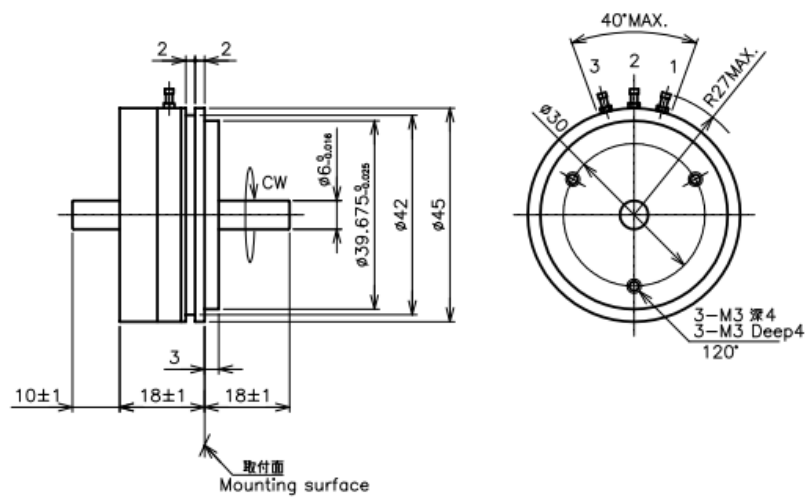
- Housing : Aluminum
- Shaft : Stainless Steel
- Ball Bearing : Stainless Steel

## ■ Dimension [mm]

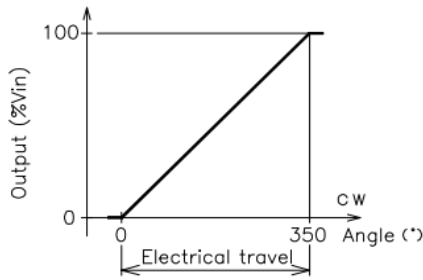
## CPP-45



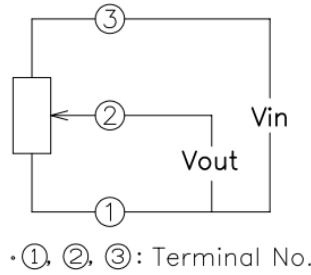
## CPP-45B



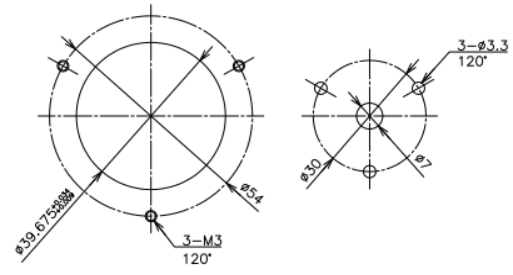
**Output Characteristics**



**Schematic**



**Mounting**



Servo Mount

Screw Mount

| 【Model No.】 | CPP-45<br>< φ 4mm Shaft > | CPP-45B<br>< φ 6mm Shaft > |
|-------------|---------------------------|----------------------------|
|-------------|---------------------------|----------------------------|

**【Electrical Specifications】**

|                                       |                                |       |
|---------------------------------------|--------------------------------|-------|
| Effective Electrical Travel           | 350 +2, -3                     | °     |
| Total Resistance                      | 0.5, 1, 2, 5, 10, 20           | kΩ    |
| Total Resistance Tolerance            | ±15                            | %     |
| Independent Linearity                 | ±0.3 (Special Linearity ±0.1%) | %     |
| Rated Dissipation                     | 3/70°C                         | W     |
| Output Smoothness                     | MAX. 0.1                       | %     |
| Insulation Resistance                 | MIN. 100/DC1000V               | MΩ    |
| Dielectric Strength                   | AC1000/1 Minute                | V     |
| Temperature Coefficient of Resistance | ±400                           | ppm/K |

**【Mechanical Specifications】**

|                         |   |      |   |
|-------------------------|---|------|---|
| Total Mechanical Travel | 360 Endless                                   | °    |   |
| Torque                  | MAX. 1.8<br>(Additional 1.2mN·m/add one gang) | mN·m |   |
| Thrust Load Tolerance   | 1   | 2    | N |
| Radial Load Tolerance   | 5   | 6    | N |
| Mass                    | Approx. 60 (Additional 10g/add one gang)      |      | g |

**【Environmental Specifications】**

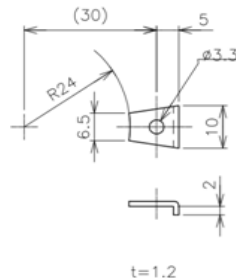
|                            |  |       |
|----------------------------|--|-------|
| Life Cycles                | 10 Million                                     | Cycle |
| Category Temperature Range | -40 ~ +120                                     | °C    |
| Storage Temperature Range  | -40 ~ +120                                     | °C    |
| Vibration                  | 150m/s <sup>2</sup> 2000Hz 3 axis 2 hours each |       |
| Shock                      | 500m/s <sup>2</sup> 11ms 6 directions 3 times  |       |

**Options**

- Multi Ganging : More than 4 sections, please contact us.
- Additional Taps : Up to 8 taps  
For Output : Type (A) ... No shorted angle  
For Input : Type (B) ... 1~5°shorted on Tap
- Additional Center Tap:  
C.T(A) ... No shorted angle  
C.T(B) ... Shorted on Tap (Shorted angle 1~5°)

**Accessories**

Mounting Cleats : 3 pieces



**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 100times and less than 1000times of total resistance.
- Slight continuous vibration such as dither might cause short lifetime of the sensor.