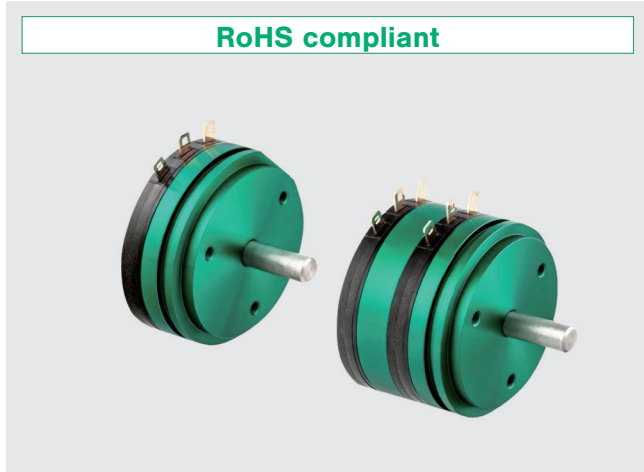


# NEW PROCESS, GREATER PRECISION

## CONDUCTIVE PLASTIC ROTARY ANGLE SENSOR

# CP-45F series



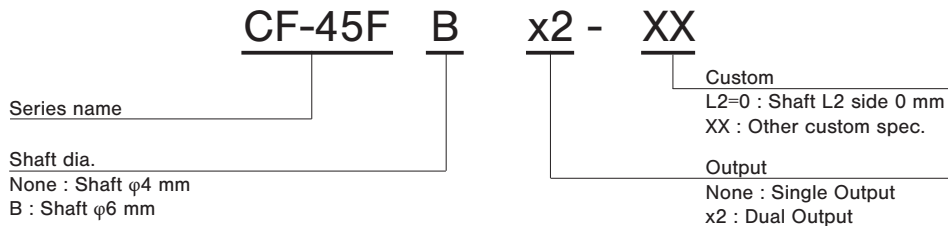
### FEATURES

- Conductive Plastic Angle Sensor
- Prolonged lifetime : 50 million revolutions or more
- Effective Electrical Travel : 350°
- Independent Linearity :  $\pm 0.1\%$ FS
- Ratio Output
- Servo Mount and Screw Mount

### OPTIONS

- Shaft L2 side 0 mm (With screw driver slot)
- Additional Center Tap :
  - C.T(A) : No shorted angle
  - C.T(B) : Shorted on Tap (Shorted angle 3° approx.)
- Dual Output

### PART NUMBER DESIGNATION



### STANDARD SPECIFICATIONS

#### Electrical characteristics

Effective Electrical Travel	350° +3, -2
Total Resistance	1, 2, 5 k $\Omega$
Total Resistance Tolerance	$\pm 15\%$
Independent Linearity	$\pm 0.1\%$ FS
Rated Dissipation	Single Output: 3 W / 70°C Dual Output: 1.8 W / 70°C
Output Smoothness	0.1% max.
Insulation Resistance	100 M $\Omega$ min. / 1000 VDC
Dielectric Strength	1000 VAC /1 Minute
Temperature Coefficient of Resistance	$\pm 400$ ppm/K

#### Mechanical characteristics

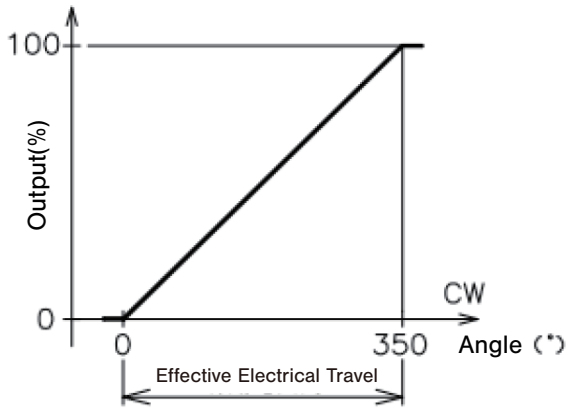
Total Mechanical Travel	360° Endless
Torque	Single Output: 1.8 mN·m max. Dual Output: 3.3 mN·m max.
Thrust Load Tolerance	2 N
Radial Load Tolerance	6 N
Net weight	Single Output: 51 g Dual Output: 75 g

#### Environmental characteristics

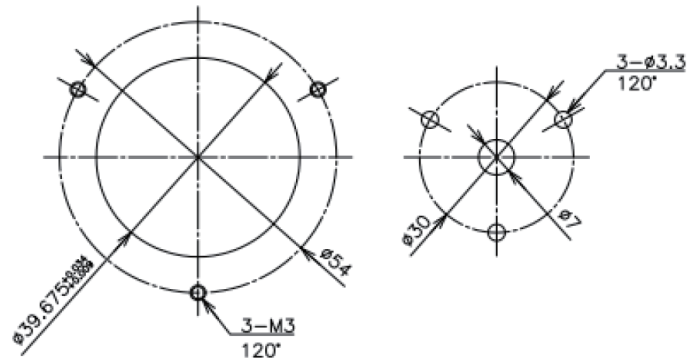
Life Cycles	50 Million Cycle min.
Operating Temp. Range	-40 ~ +120°C
Storage Temp. Range	-40 ~ +120°C
Vibration	200 m/s <sup>2</sup> , 2000 Hz 3 axis 2 hours each
Shock	600 m/s <sup>2</sup> , 11 ms 6 directions 3 times

# CP-45F POTENTIOMETERS

## OUTPUT CHARACTERISTICS



## MOUNTING

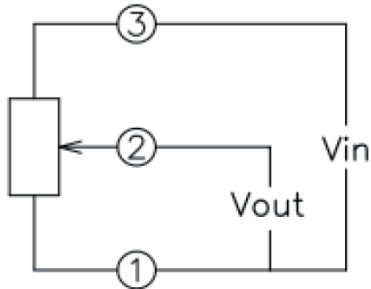


Servo Mount

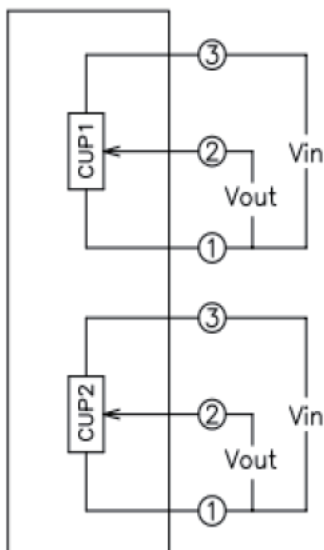
Screw Mount

## SCHEMATIC

### Single Output



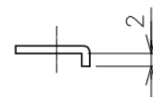
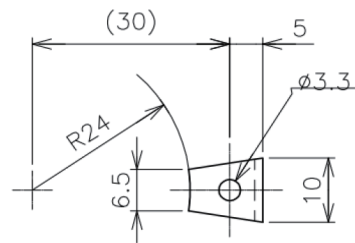
### Dual Output



①, ②, ③ : Terminal No.

## ACCESSORIES

Mounting Cleats: 3 pieces



t=1.2

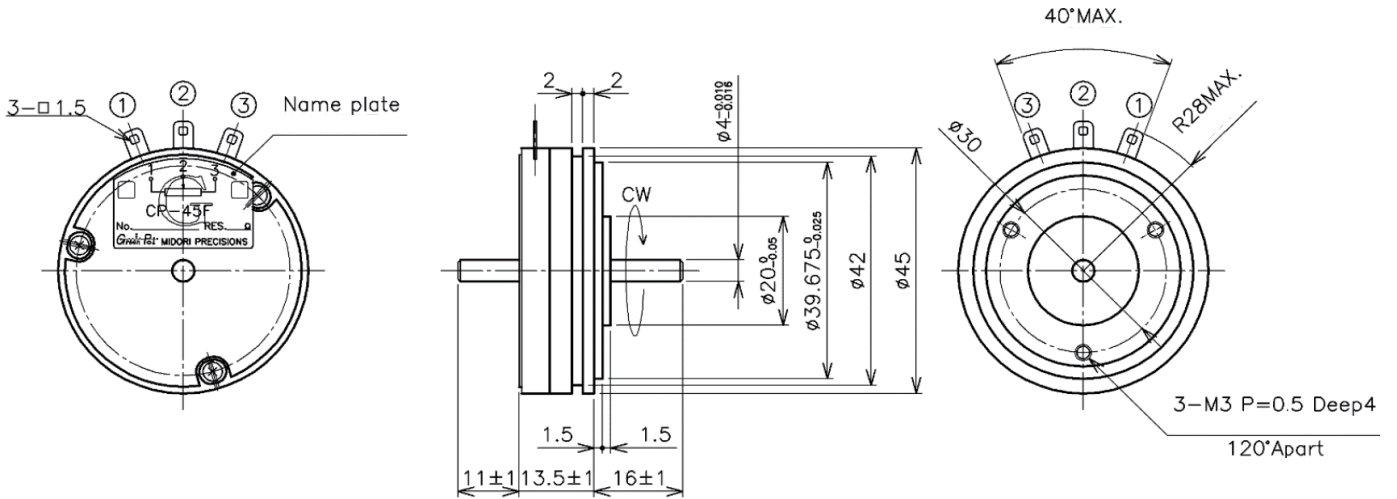
# CP-45F

## POTENTIOMETERS

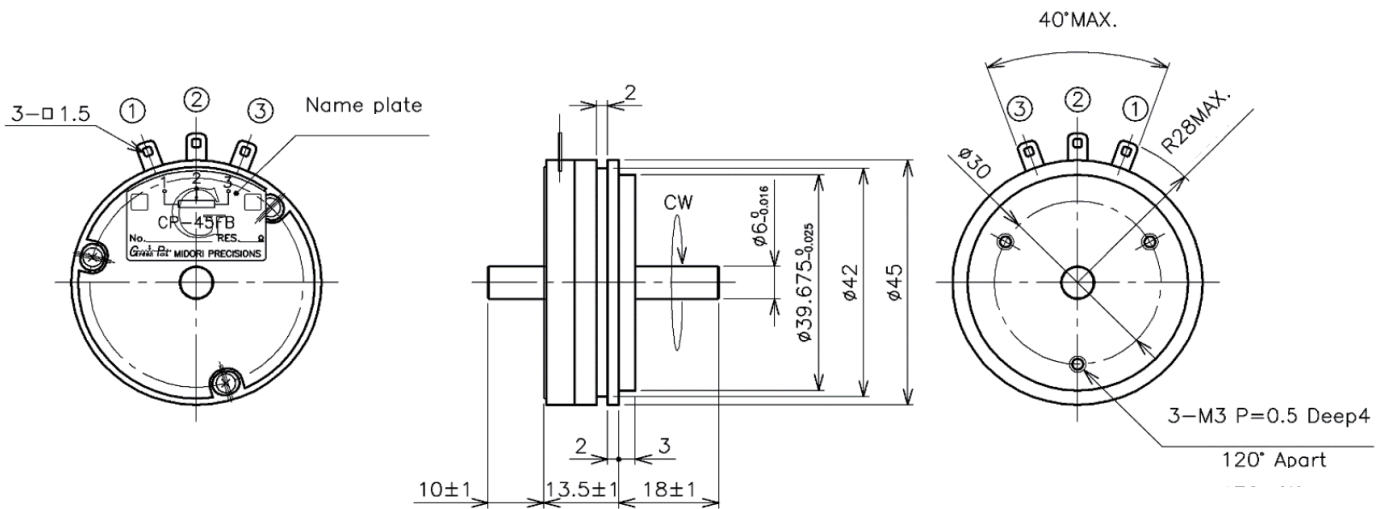
### OUTLINE DIMENSIONS

(Unit:mm)

#### CP-45F



#### CP-45FB

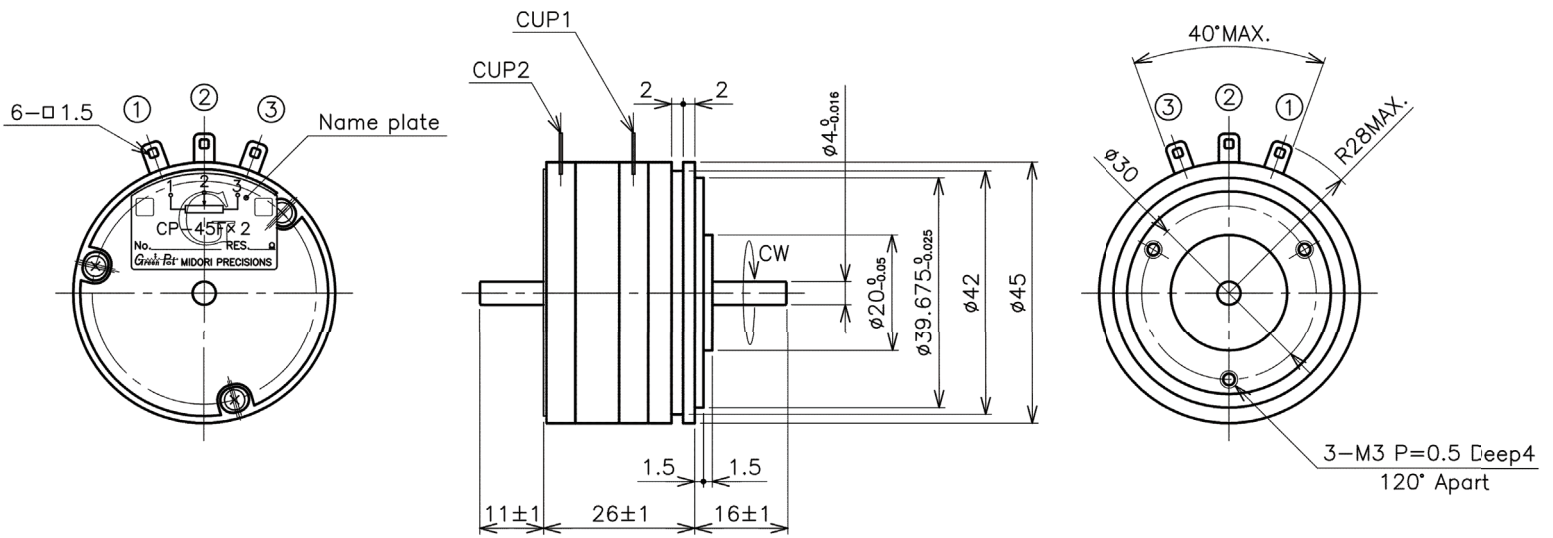


# CP-45F POTENTIOMETERS

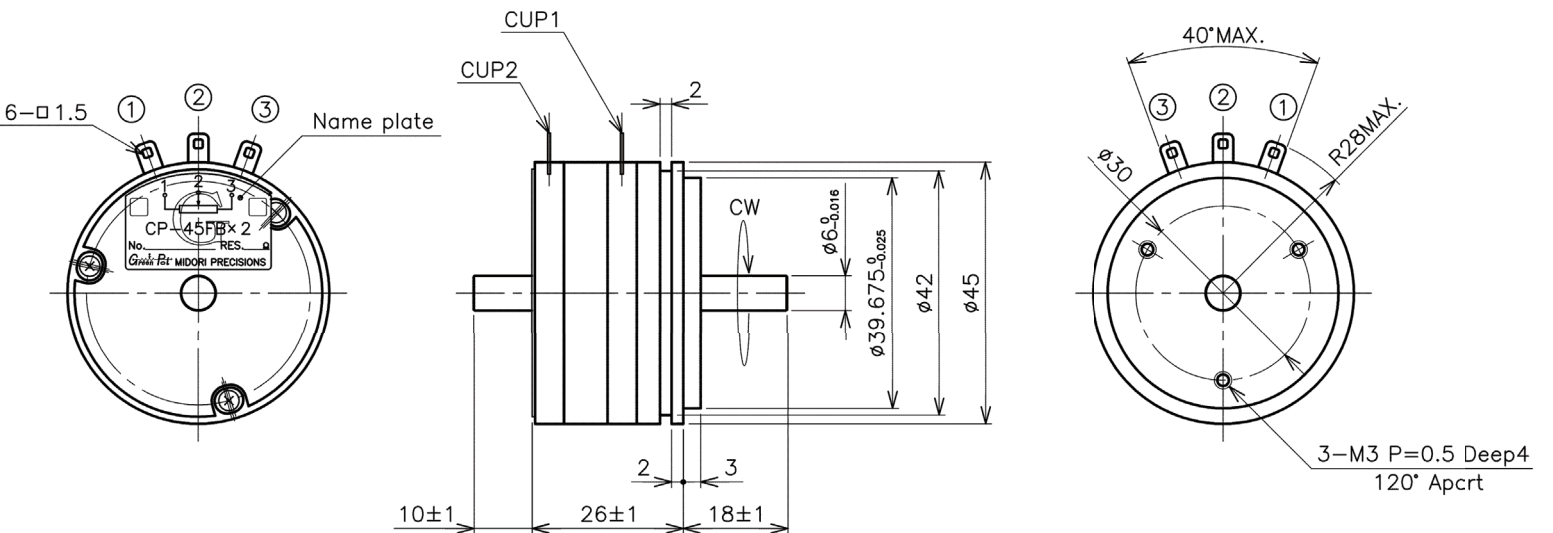
## OUTLINE DIMENSIONS

(Unit:mm)

### CP-45F×2



### CP-45FB×2



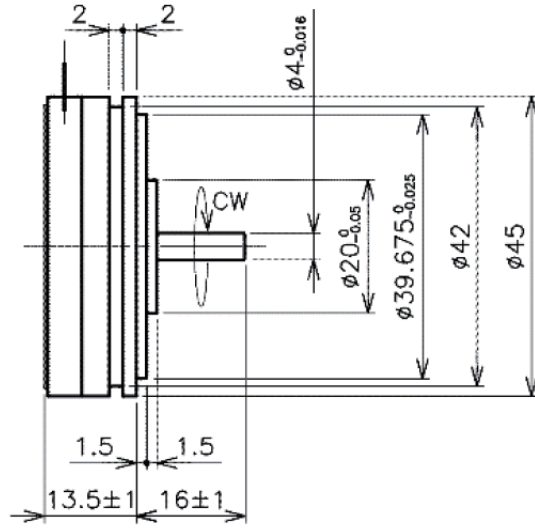
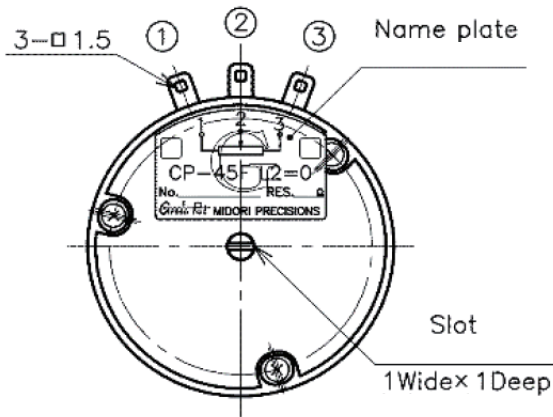
# CP-45F

## POTENTIOMETERS

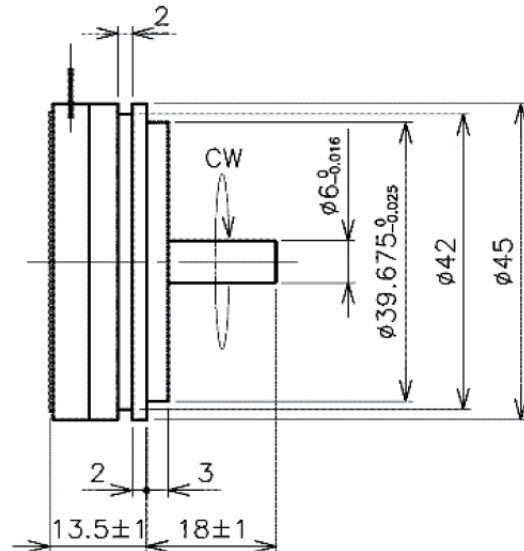
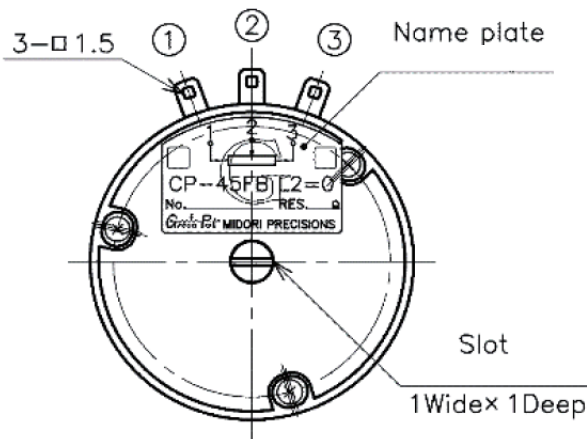
### OUTLINE DIMENSIONS

(Unit:mm)

#### CP-45F L2=0 Option : Shaft L2=0 type



#### CP-45FB L2=0 Option : Shaft L2=0 type



### 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.