

# 50JC

- Potentiometer outside-mounted type
- With conductive plastic element

## ● Nomenclature

● **S** means special mechanical specifications not applicable to our standards.

● **50** means approx. size of base housing in mm.

● **J** means joystick controller.

● **C** means 1 and 2-dimensional coordinates is available and also means potentiometers outside-mounted type. Dust proof rubber cover and spring return device are available as standard version.

● **K** means square shape.

● **Y** means kind of mechanism:  
**X** : 1-dimensional coordinate. **Y** : 2-dimensional coordinate.

● **Available directions of lever operation**  
**Standard version:**  
**O** : Omni-directional 360° operating type.  
**Special version:**  
**I** : I figure (Y) directional operating type.  
**L** : L figure(+Y, +X only) directional operating type.  
**X** : Cross directional of X and Y operating type.  
**Q** : Square-directional 360° operating angle.  
**S** : Special operating directions other than the above-mentioned types.

S

50

J

C

K

-

Y

O

-

2

0

R2

G

-

00000

**Number of potentiometers to be mounted.**  
 0...no potentiometer mounted. 2...2 potentiometers mounted.  
 1...1 potentiometer mounted. 3...3 potentiometers mounted.

**Number of switches to be mounted.**  
 0...no switch mounted. 4...4 switches mounted.  
 1...1 switch mounted. 5...5 switches mounted.  
 2...2 switches mounted. 6...6 and over 6 switches mounted.  
 3...3 switches mounted. 9...other switches to your special request.

**With spring return device : (50JC standard)**  
**R1**: with spring return device for 1-dimensional coordinate.  
**R2**: with spring return device for 2-dimensional coordinate.

**Mounting accessories :**  
**G**: with dust proof rubber cover.(50JC standard) **P**: with sub-panel for mounting.  
**Special part number :**  
 In the case we produce customized product, we add 4-digit or 5-digit branch number.

## ● Standard Dimensions

In the case 1 pc of micro-switch is incorporated for each X and Y direction.

### ■ Panel Arrangements

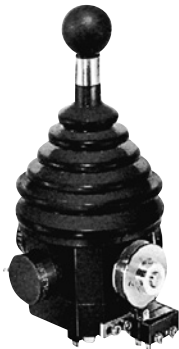
In the case a switch is incorporated for detecting center position.

(Unit : mm)



**50JCK-YO-20R2G**

(Standard 2-dimensional coordinate type)



**S50JCK-YO-25R2G**

(With 5 micro switches and 1 or them is for detecting the center position)

**Special Knobs Available**

For detailed dimensions, please refer to page 56.



Knob 102A



Knob 201



Knob 203

**STANDARD SPECIFICATIONS**

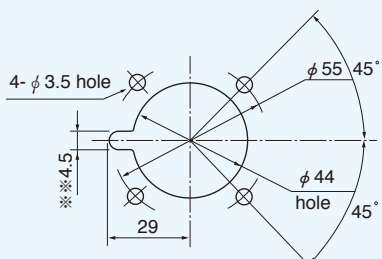
**Mechanical Performance**

<b>Controlling range of operating lever</b>	2-dimensional coordinate type : Omni-directionally approx. $\pm 30^\circ \sim \pm 35^\circ$ operation from center position.
<b>Operating force</b>	Standard spring return device : Automatically return to center (omni-directional type) Approx. 3~15N (300~1,500gf.)
<b>Operating temperature range</b>	$-20^\circ\text{C} \sim +65^\circ\text{C}$
<b>Vibration</b>	10~55Hz 98m/s <sup>2</sup>
<b>Shock</b>	294m/s <sup>2</sup>
<b>Life expectancy</b>	Approx. 5,000,000 operations.
<b>Mass</b>	Approx. 350g

**Electrical Performance**

<b>Potentiometers mounted</b>	SFCP22E 10k $\Omega$ $\pm$ 15%, 0.2W (conductive plastic resistive element) Independent linearity tolerance $\pm$ 3% Electrical rotating angle: Approx. 60° All terminals can be fitted with the Tyco 110 series fasten receptacle (2.8 x 0.5mm) or equivalents.
<b>Output smoothness</b>	Below 0.2% against input voltage.
<b>Contact resistance variation</b>	Below 5% C.R.V.
<b>Resolution</b>	Essentially infinite
<b>Dielectric strength</b>	1 minute at 500V.A.C.
<b>Insulation resistance</b>	Over 1,000M $\Omega$ at 500V.D.C.

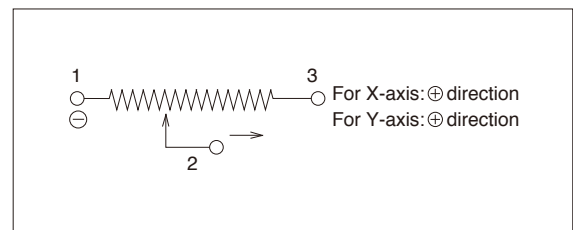
**Panel Arrangements**



- Note : 1) In the case of type Q, the angle of mark "※" becomes 360° square-direction and  $\pm 20^\circ \sim \pm 25^\circ$  from center position.  
2) In the case of JC with knob type 102A, if other components, except our standard pot model SFCP22E, are mounted, the position of mark "※" may be changed to other position.  
3) 4 pcs. of mounting screws (M3 x 14) are attached.

(Unit : mm)

**Terminal Connection Diagram**



**Special Specifications Available**

Please see page 55, a table of "Special Specifications Available".