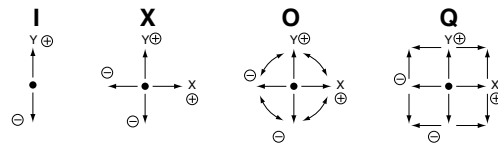


# 40JB

Potentiometer with a conductive plastic resistive element

## Nomenclature

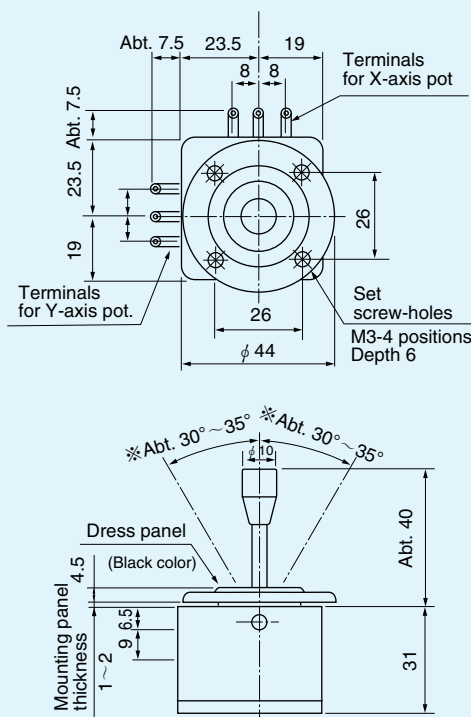
- **S** means special mechanical specifications not applicable to our standard.
- **40** means approx. size of base housing in mm.
- **J** means joystick controller.
- **Kind of types**  
**B** means 1- or 2-dimensional coordinates is available and also means potentiometer is incorporated inside housing case.  
**K** means square shape.
- **Mechanism**  
**X** means 1-dimensional coordinate.  
**Y** means 2-dimensional coordinate. (Standard Version)
- **Available directions of lever operation Standard version:**  
**O**: Omni-directional 360° operating type.  
**Special version:**  
**I**: I figure (Y) directional operating type.  
**X**: Cross direction of X and Y operating type.  
**Q**: Square-directional 360° operating type.



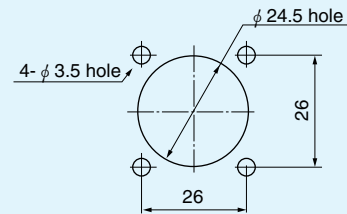
**S** **40** **J** **B** **K**-**Y** **O**-**2** **0** **R2** **G** - **0000**

- **Number of potentiometers to be incorporated.**  
**1**...1 potentiometer incorporated.  
**2**...2 potentiometers incorporated.
- **Number of switches to be incorporated.**  
**0**...no switch incorporated. **1**...1 switch incorporated.
- **With spring return device :**  
**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.  
**P** : with sub-panel for mounting.
- **Special part number :**  
 In case we produce customized products, we add 4-digit branch number.

## Standard Dimensions



## Panel Arrangements



- Note : 1) In case of type Q, the angle of mark "※" becomes 360° square-directionally and  $\pm 20^\circ \sim \pm 25^\circ$  from center position.
- 2) 4 pcs. of mounting screw (M3 × 8) are attached.

(Unit : mm)



**40JBK-YO-20**  
(Standard)  
(2-dimensional coordinate type)



**40JBK-YO-20R2G**  
(2-dimensional coordinate type  
with dust proof rubber cover  
and spring return device)

## STANDARD SPECIFICATIONS

### ●Mechanical Performance

#### Controlling range of operating lever :

- 2-dimensional coordinate type.  
Omni-directionally approx.  $\pm 30^\circ \sim \pm 35^\circ$  from center position.

#### Operating force :

- Standard : Approx. 0.2~0.6N (20~60gf.)
- High torque type : Approx. 0.7~1.5N (70~150gf.)
- With spring return device (omni-directional type) : Approx. 0.6~3N (60~300gf.)

#### Operating temperature range : $-20^\circ\text{C} \sim +65^\circ\text{C}$

#### Vibration : 10~55Hz 98m/s<sup>2</sup>

#### Shock : 294m/s<sup>2</sup>

#### Life expectancy : Approx. 5,000,000 operations.

- Mass : Without spring return device : Approx. 160g
- With spring return device : Approx. 180g

### ●Electrical Performance

**Potentiometers incorporated** : Special conductive plastic resistive element is exclusively used for 40JB series.

Total resistance value :  $10\text{k}\Omega \pm 15\%$

Rating : 0.2W

Electrical rotating angle : Approx.  $60^\circ$

Independent linearity tolerance  $\pm 3\%$

[All terminals can be fitted with AMP110 series fasten receptacle (2.8 × 0.5mm) or equivalents]

**Output smoothness** : Below 0.2% against input voltage.

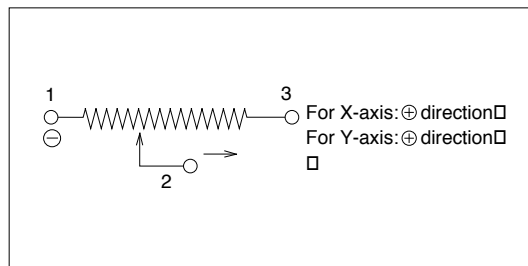
**Contact resistance variation** : Below 5% C.R.V.

**Resolution** : Essentially infinite

**Dielectric strength** : 1 minute at 500V.A.C.

**Insulation resistance** : Over 1,000M $\Omega$  at 500V. D.C.

### ●Terminal Connection Diagram



### ●Special Specifications Available

Please see page 45, a table of "Standard and Special Specifications Available".