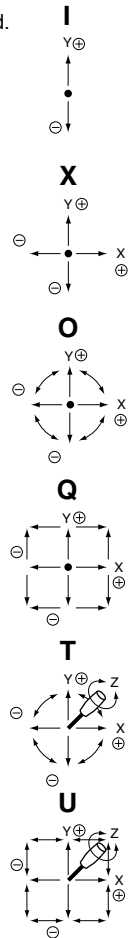


30JB

Potentiometer with a conductive plastic resistive element

Nomenclature

- **S** means special mechanical specifications not applicable to our standard.
- **30** means approx. size of base housing in mm.
- **J** means joystick controller.
- **Kind of types**
- **B** means type available with 1-, 2- and 3-dimensional coordinates. Potentiometers inside-incorporated type.
- **K** means square shape.
- **Mechanism**
- **X** means 1-dimensional coordinate. **Y** means 2-dimensional coordinate. **Z** means 3-dimensional coordinate.
- **Available directions of lever operation**
- **Standard version:**
- **O:** Omni-directional 360° operating type.
- **Special version:**
- **I:** I figure (Y) directional operating type.
- **X:** Cross directional operating type (X and Y)
- **Q:** Square-directional 360° operating type.
- **T:** In addition to omni-directional operation, 3-dimensional coordinate operation is possible by rotating knob in which a potentiometer is incorporated.
- **U:** In addition to square-directional operation, 3-dimensional coordinate operation is possible by rotating knob in which a potentiometer is incorporated.



S **30** **J** **B** **K** - **Y** **O** - **2** **0** **R2** **G** - **0000**

Number of potentiometers to be incorporated only for 30JBK.

- 0...no potentiometer incorporated. 1...1 potentiometer incorporated.
- 2...2 potentiometers incorporated. 3...3 potentiometers incorporated.

Number of switches to be incorporated.

- 0...no switch incorporated. 1...1 switch incorporated.
- 2...2 switches incorporated.

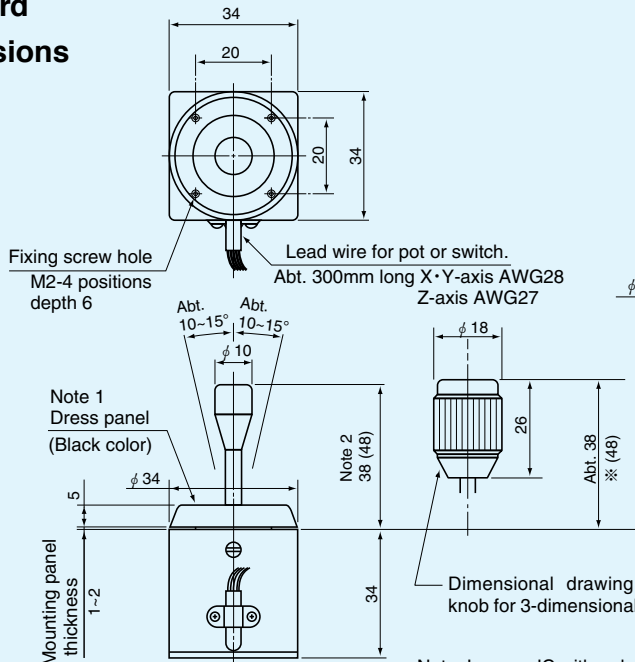
With spring return device : **R1:** with spring return device for 1-dimensional coordinate. ●
R2: with spring return device for 2-dimensional coordinate. ●
R3: with spring return device for 3-dimensional coordinate. ●

Mounting accessories : **G:** with dust proof rubber cover. ● **P:** with sub-panel for mounting. ●

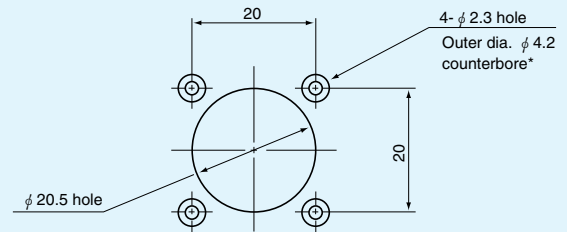
Special part number : ●

In case we produce customized products, we add 4-digit branch number.

Standard Dimensions



Panel Arrangements



Note: 1) In case JC with a dust-proof rubber cover, the counterbore-work (*part) is not necessary.
 2) 4 pcs. of mounting screw (M2 × 6) are attached.

Note: In case JC with a dust-proof rubber cover, the shape of dress panel shall be changed.

※ Numeral in parentheses shows dimensions of Dust-proof rubber cover.

(Unit : mm)



30JBK-YO-20R2

(standard)

(2-dimensional coordinate type)



30JBK-ZT-30R3

(standard)

(3-dimensional coordinate type)

STANDARD SPECIFICATIONS

Model 30JB Series
(Potentiometer inside-incorporated type)

●Mechanical Performance

Controlling range of operating lever :

X and Y directions : Approx. $\pm 10^\circ \sim \pm 15^\circ$ from center position.(Omni-directionally)
Z direction : Approx. $\pm 30^\circ \sim \pm 35^\circ$ from center position.

Operating force (Standard spring return device : Automatically return to center)(Omni-directionally)

X and Y directions : Approx. 0.8~2N (80~200gf)
Z direction : Approx. 15~60mN · m (150~600gf.cm)

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

Vibration : 10~55Hz 98m/s²

Shock : 294m/s²

Life expectancy : Approx. 5,000,000 operations

Mass : 2-dimensional coordinate type : Approx. 80g
3-dimensional coordinate type : Approx. 100g

●Electrical Performance

Potentiometers mounted : Special conductive plastic resistive element is exclusively used for 30JB series.

(X and Y axes pots)
Resistance value : $10\text{k}\Omega \pm 15\%$
Rating : 0.1W
Electrical rotating angle : Approx. 20°
Independent linearity tolerance : $\pm 3\%$

(Z axis pot.)
Resistance value : $10\text{k}\Omega \pm 15\%$
Rating : 0.04W
Electrical rotating angle : Approx. 60°
Independent linearity tolerance : $\pm 3\%$

Output smoothness : Below 0.2% against input voltage

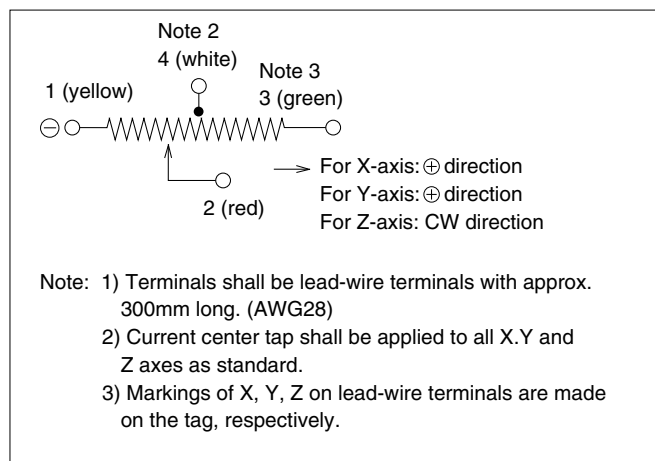
Contact resistance variation : Below 6% C.R.V

Resolution : Essentially infinite

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

Insulation resistance : Over 1,000M Ω at 500V.D.C.

●Terminal Connection Diagram



●Special Specifications Available

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