

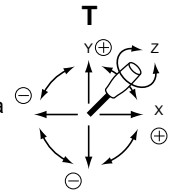


Model 30JH Low-cost 3-dimensional coordinate type

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**
- H** means 3-dimensional coordinate and low-cost type.
- K** means square shape.
- Mechanism**
- Z** means mechanisms of 3-dimensional coordinate type.
- Available directions of lever operation**
- T**: In addition to omni-directional operation, 3-dimensional coordinate operation is possible by rotating knob in which a potentiometer is incorporated.



S **30** **J** **H** **K-Z** **T-3** **0** **R3** **G-0000**

Number of potentiometers to be incorporated.

2 potentiometers incorporated (in case of the knob with an incorporated switch.)

3 potentiometers incorporated.

Number of Switches to be incorporated.

0no switch incorporated.

2 switches incorporated (These switches are active at the both ends of Z axis. These switches are incorporated inside Z-axis instead of potentiometer. This is special version.)

With spring return device :

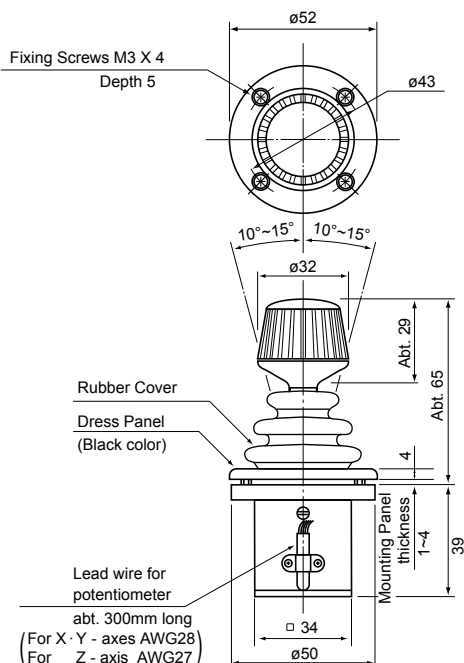
R3 : with spring return device for 3-dimensional coordinate type. (30JH standard option)

Mounting accessories : **G**: with dust proof rubber cover. (30JH standard option) **P**: with sub-panel for mounting.

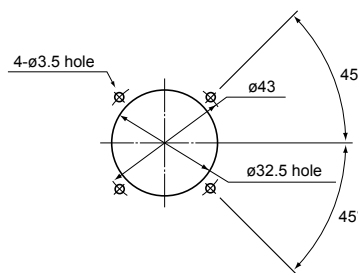
Special part number :

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

■ Standard Dimensions



■ Panel Arrangements



Note: 1) 4 pcs. of mounting screws (M3 X 8) are attached.

2) Fastening torque of fixing screws shall be below 400mN·m(4kgf·cm)

(Unit : mm)

■ Standard Specifications

Mechanical Performance

Controlling range of operating lever : 3-dimensional coordinate type.

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 (Omni-directionally)

X and Y directions : Approx. 1~2N (100~200gf)

Z direction : Approx. 30~70mN·m (300~700gf·cm)

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

60°C **Vibration** : 10 55Hz 98m/s²

Shock : 294m/s²

Life expectancy : Approx. 2,000,000

operations. **Mass** : Approx. 130g

Electrical Performance

Potentiometer incorporated : Special conductive plastic resistive element is exclusively used for 30JH series.

(X and Y axes pots)

Resistance value : $10\text{k}\Omega \pm 20\%$

Rating : 0.1W

Electrical rotating angle : Approx. 20°

Independent linearity tolerance : $\pm 5\%$

(Z axis pot.)

Resistance value : $10\text{k}\Omega \pm 20\%$

Rating : 0.04W

Electrical rotating angle : Approx. 60°

Independent linearity tolerance : $\pm 5\%$

Output smoothness : Below 0.2% against input voltage.

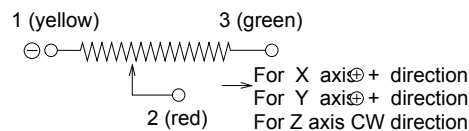
Contact resistance variation : Below 6% C.R.V.

Resolution : Essentially infinite

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

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

Terminal Connection Diagram



Note: Terminals shall be lead-wire terminals with approx. 300mm long.



30JHK-ZT-30R3G
(Standard)

(3-dimensional coordinate type)

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