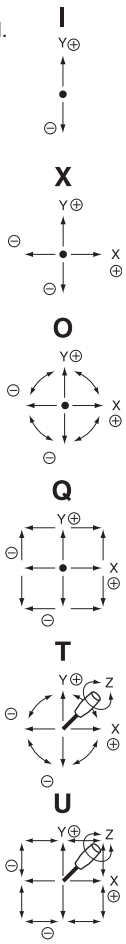
30JB

Potentiometer with a conductive plastic resistive element

Nomenclature

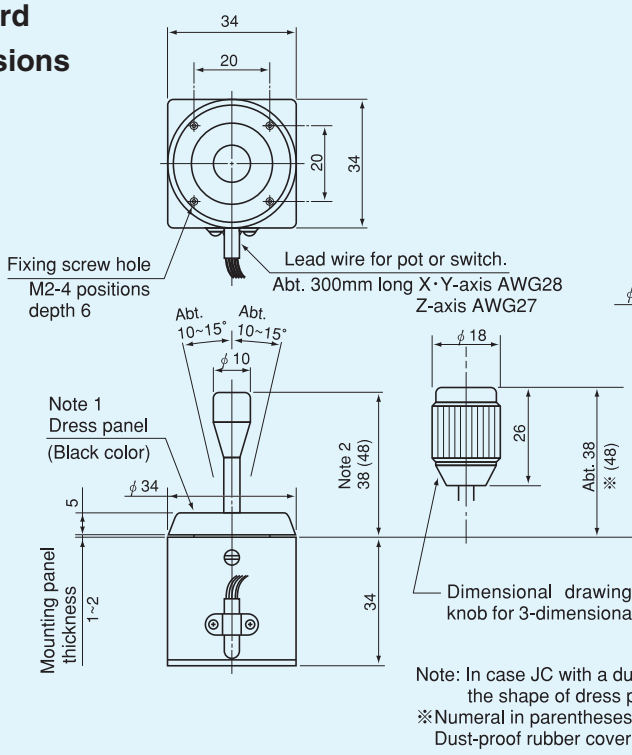
- **S** means special mechanical specifications not applicable to our standard.
- **30** means approx. size of base housing in mm.
- **J** means joystick controller.
- **Kind of types**
  B means type available with 1-, 2- and 3-dimensional coordinates. Potentiometers inside-incorporated type.
- **K** 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	-	00000

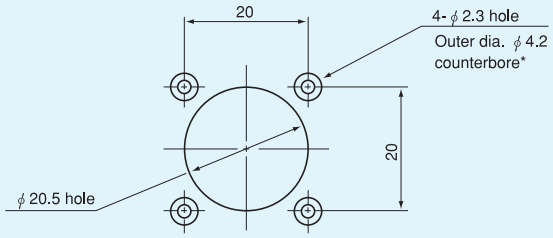
Number of potentiometers to be incorporated only for 30JBK.
0···no potentiometer incorporated. **1**···1 potentiometer incorporated.
2···2 potentiometers incorporated. **3**···3 potentiometers incorporated.
Number of switches to be incorporated.
0···no switch incorporated. **1**···1 switch incorporated.
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 or 5-digit branch number.

Standard Dimensions



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.

■ 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.

(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.±10°～±15° from center position.(Omni-directionally)
Z direction : Approx.±30°～±35° 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°C～+65°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

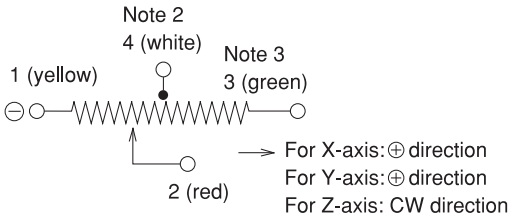
Potentiometers mounted : Special conductive plastic resistive element is exclusively used for 30JB series.

(X and Y axes pots)
Resistance value : 10kΩ±15%
Rating : 0.1W
Electrical rotating angle : Approx.20°
Independent linearity tolerance : ±3%

(Z axis pot.)
Resistance value : 10kΩ±15%
Rating : 0.04W
Electrical rotating angle : Approx.60°
Independent linearity tolerance : ±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 1,000MΩ at 500V.D.C.

●Terminal Connection Diagram



Note: 1) Terminals shall be lead-wire terminals with approx. 300mm long. (AWG28)
2) Current center tap shall be applied to all X.Y and Z axes as standard.
3) Markings of X, Y, Z on lead-wire terminals are made on the tag, respectively.

●Special Specifications Available

Please see page 47, a table of "Standard and Special Specifications Available".