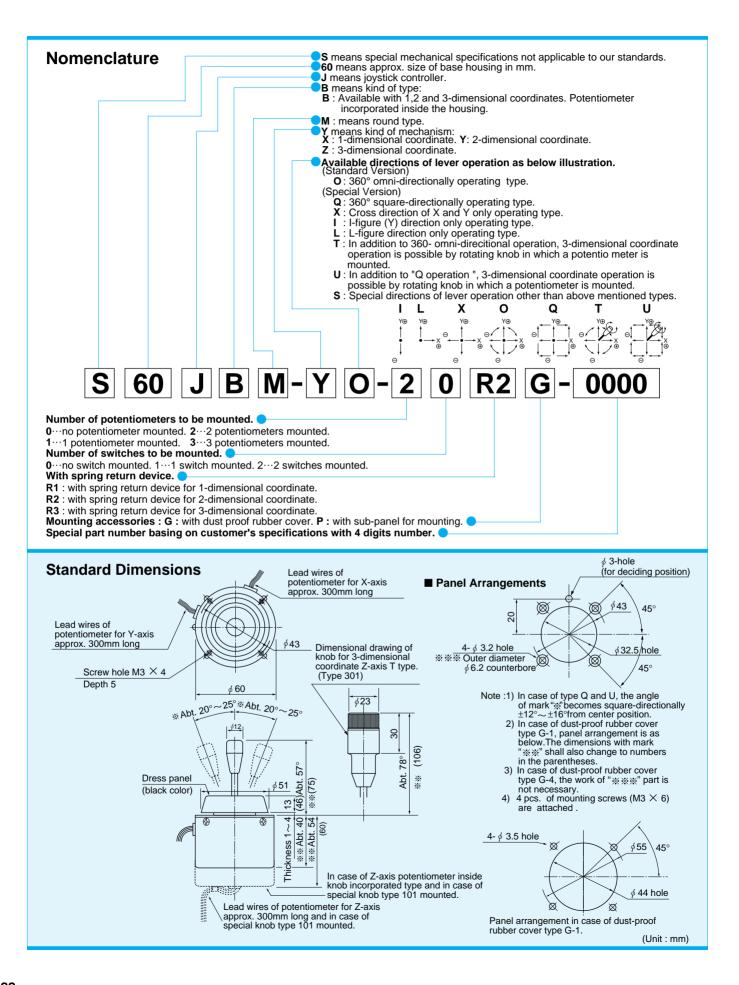
60JB





60JBM-YO-20R2 (standard) (2-dimensional coordinate type)

60JBM-ZT-30R3

(3-dimensional coordinate Z-axis potentiometer-inside-knob incorporated type) and flat shaped rubber cover (type G-4)



60JBM-YO-20R2G (With dust-proof rubber type G-1)

STANDARD SPECIFICATIONS

Mechanical Performances

Controlling range of operating lever :

- 2-dimensional coordinate type : Omni-directionally approx. ±20° ~ ±25° operation from center position.
- 3-dimensional coordinate type : Approx. ±45° ~ ±50° operation from the center position of knob, in addition to the controlling range of 2-dimensional coordinate type.

Operating force :

With standard automatically center returning spring return device.

X, Y directions : Approx. 0.8 ~1.5N (80 ~150gf.) [2 springs fitted (subject to directivity) are standard version]

X, Y directions : Approx. $1 \sim 5N$ (100 \sim 500gf.) [1 spring fitted (omni-directional type) is optional version.] Z direction : Approx. $20 \sim 85mN$ •m ($200 \sim 850gf$ •cm)

Operating temperature range : -20°C ~+65°C

Vibration: 10~55Hz 98m/s² (10G)

Shock : 294m/s² (30G)

Life expectancy : Approx. 5,000,000 operations

Mass: 2-dimensional coordinate type : Approx. 240g

3-dimensional coordinate type : Approx. 300g

Electrical Performances

Potentiometers mounted :

Special resistive element exclusively used for 60JB series is incorporated, $10k\Omega \pm 15\%$, 0.2W (Electrical rotating angle approx. 40°), independent linearity tolerance $\pm 3\%$ (conductive plastic resistive element).

In case of 3-dimensional coordinate Z-axis potentiometer-inside-knob incorporated type (T-type), the following potentiometer is used :

SFCP12AC $10k\Omega \pm 15\%$. independent linearity tolerance $\pm 3\%$, 0.06W (Electrical rotating angle : Approx. 90°).

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 1,000MΩat 500V.D.C.

Terminal Connection Diagram

1 (yellow)		3 (green)
⊖o—⁄www Ĺ	/////////////////////////////////////	←O For X-axis : ⊕ direction For Y-axis : ⊕ direction For Z-axis : CW direction
Note :1) Terminals shall be lead-wire terminals with approx. 300mm long . (AWG26)		

approx. 300mm long . (AWG26)
2) Output leadwires from X. Y and Z axes are discriminated by the tags and similar device attached on respective leadwires.

Special Specifications Available

Please see page 41, a table of "Standard and Special Specifications Available".