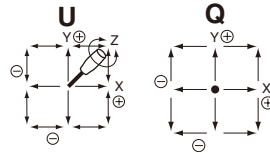


# H40JH

- Low-cost
- 3-dimensional coordinate
- With a hall effect IC

## Nomenclature

- S means special mechanical specifications not applicable to our standard.
- H means hall effect IC type resistive element incorporated.
- 40 means approx. size of base housing in mm.
- J means joystick controller.
- Kind of types
  - H means 3-dimensional coordinate low-cost type.
  - K means square shape.
- Mechanism
  - Z means 3-dimensional coordinate. Y means 2-dimensional coordinate.
- Available directions of lever operation
  - U: In addition to 360° square-directional operation, 3-dimensional coordinate operation is possible by the rotating knob in which a hall effect type potentiometer is incorporated.
  - Q: Square-directional 360° 2-dimensional coordinate type.

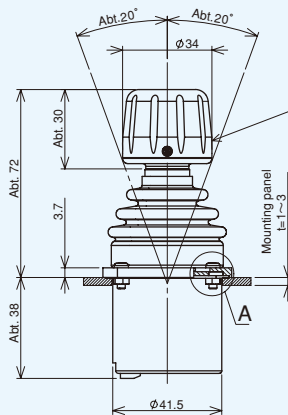
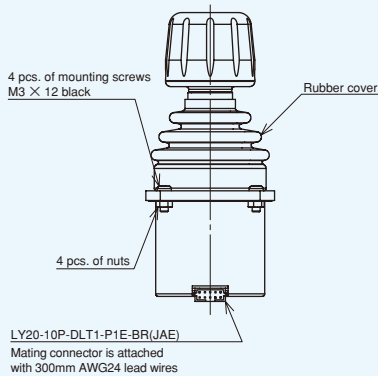
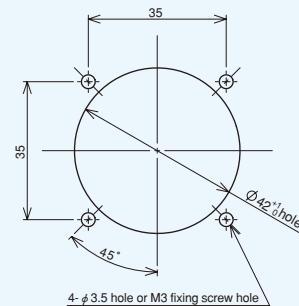
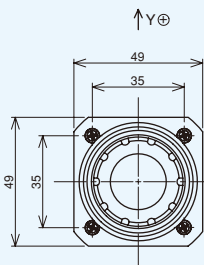


S H 40 J H K - Z U - 3 S 0 R3 G - 00000

- Number of potentiometers to be incorporated
  - 0...no potentiometer incorporated. 1...1 potentiometer incorporated.
  - 2...2 potentiometers incorporated. 3...3 potentiometers incorporated.
- Number of output and kind of output characteristic
  - S...single output. X...dual cross output. P...dual parallel output.
- Number of switches to be incorporated
  - 0... no switch incorporated. 1...1 switch incorporated. 2...2 switches incorporated.
  - 3...3 switches incorporated. 4...4 switches incorporated.
  - 5...5 switches incorporated.
- With spring return device:
  - R3: with spring return device for 3-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 the case we produce customized products, we add 4-digit or 5-digit branch number.

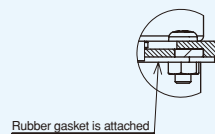
## Standard Dimensions

### Panel Arrangements



Knob  
X,Y axis about +/-20 degrees of operating angle  
Z axis about +/-30 degrees of rotational angle  
Every axis automatically returns to center position

Detailed cross-section diagram in the area A



Rubber gasket is attached



H40JHK-ZU-3S0R3G  
Standard

## STANDARD SPECIFICATIONS

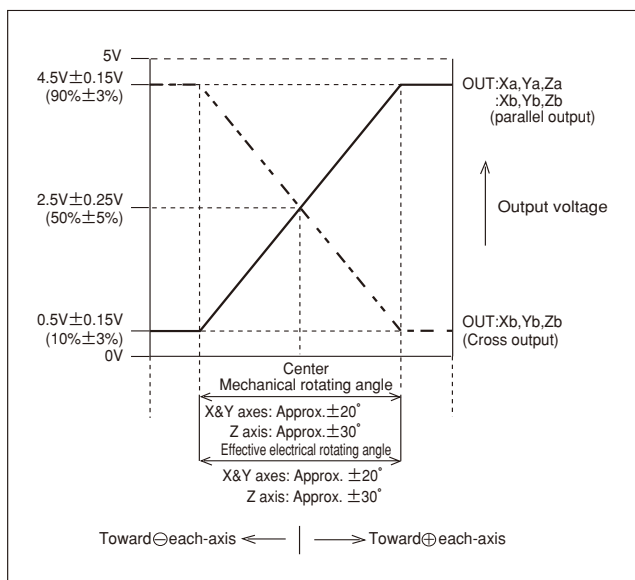
### Mechanical Performance

<b>Controlling range of operating lever</b>	3-dimensional coordinate type. X and Y directions: Approx. $\pm 20^\circ$ from center position. Z direction : Approx. $\pm 30^\circ$ from center position.
<b>Operating force</b>	Standard spring return device (Automatically return to center) X and Y directions: Approx. 1 ~ 4N(100~400gf) Z direction : Approx. 40~80mN·m(400~800gf·cm)
<b>Operating temperature range</b>	-20°C ~ +60°C
<b>Vibration</b>	10~55Hz 98m/s <sup>2</sup>
<b>Shock</b>	294m/s <sup>2</sup>
<b>Life expectancy</b>	Approx. 5,000,000 operations for X and Y axes. Approx. 3,000,000 operations for Z axis.
<b>Mass</b>	Approx. 110g

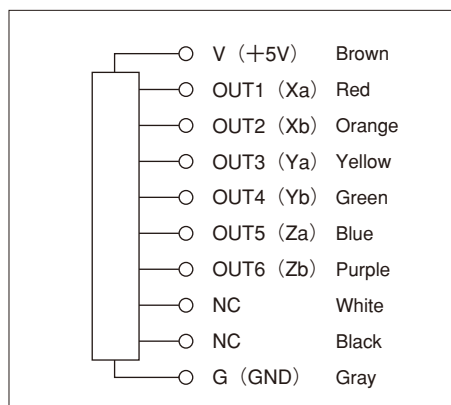
### Electrical Performance

<b>Hall effect IC type resistive element incorporated</b>	Applied voltage: 5V $\pm 10\%$ D.C. Effective output: Approx. 0.5V~4.5V Electrical rotating angle: X and Y-axis: Approx. $\pm 20^\circ$ Z-axis: Approx. $\pm 30^\circ$ Independent linearity tolerance: $\pm 3\%$ Load resistance: over 10K $\Omega$
<b>Dielectric strength</b>	1 minute at 500V.A.C.
<b>Insulation resistance</b>	Over 1,000M $\Omega$ at 500V.D.C.
<b>EMS tolerance</b>	100V/m (80MHz~1GHz 1kHz sine-wave 80%AM modulation)
<b>ESD tolerance</b>	$\pm 8$ kV contact $\pm 15$ kV air discharge (Based on IEC61000-4-2)

### Output Characteristic



### Terminal Connection Diagram



Note: The above colors show the colors of lead wires of the mating connector.