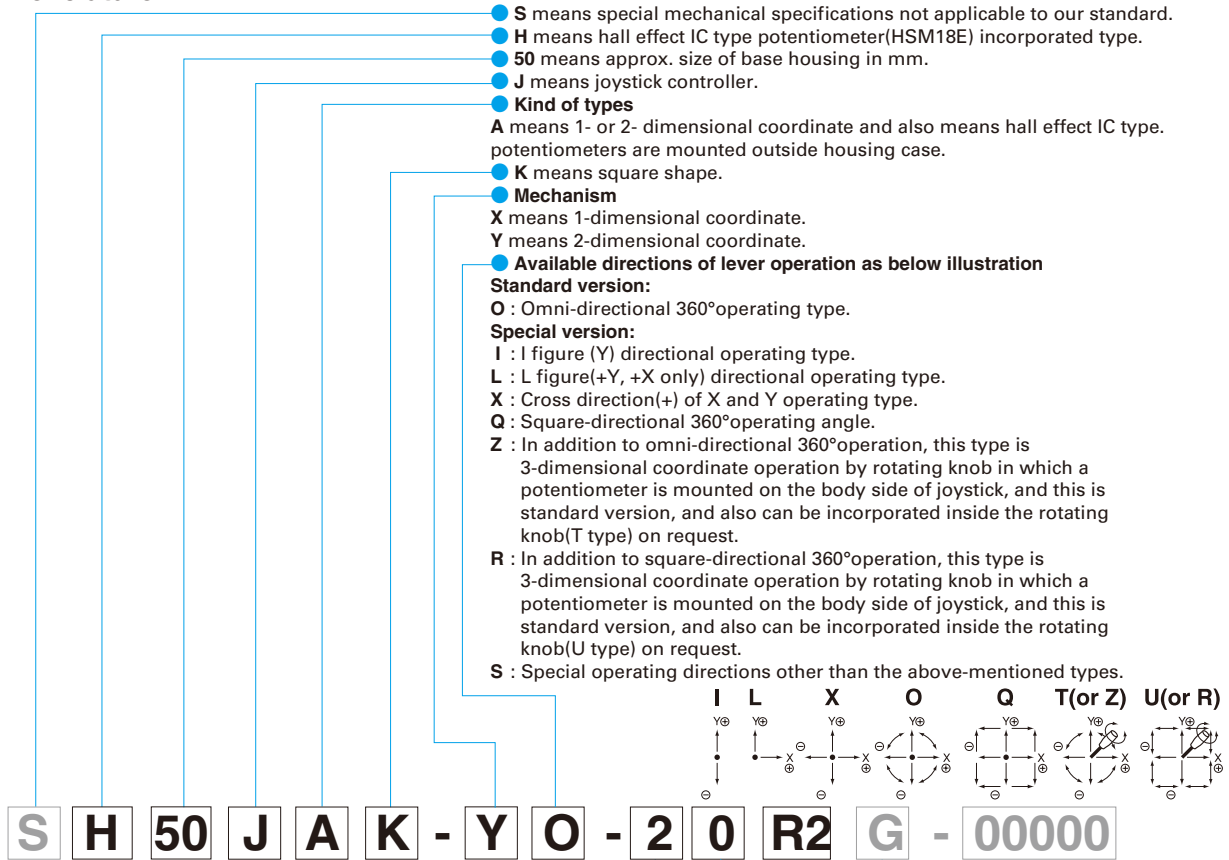


# H50JA

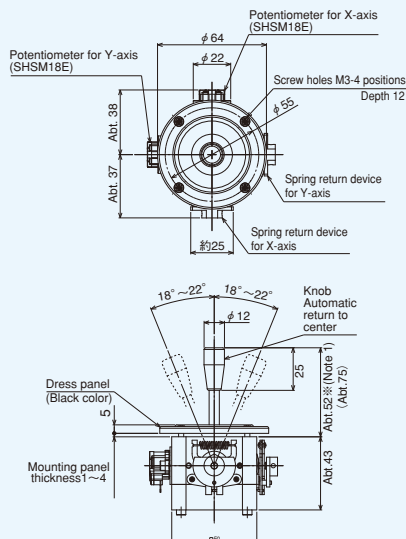
● Potentiometer outside-mounted type ● With a hall effect IC

## Nomenclature

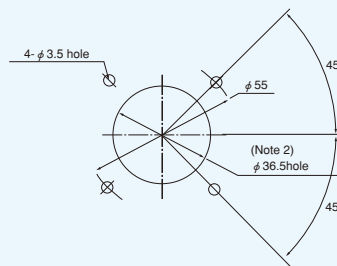


**Number of potentiometers to be incorporated**  
**0**...no potentiometer incorporated. **1**...1 potentiometer incorporated.  
**2**...2 potentiometers incorporated.  
**Number of switches to be incorporated**  
**0**...no switch incorporated. **1**...1 switch incorporated. **2**...2 switches incorporated.  
**3**...3 switches incorporated. **4**...4 switches incorporated.  
**5**...5 switches incorporated. **6**...6 and over 6 switches incorporated.  
**9**...9 Other switches to your special request.  
**With spring return device:**  
**R1**: with spring return device for 1-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 product, we add 4-digit or 5-digit branch number.

## Standard Dimensions



## Panel Arrangements



Note 1: In case a dust-proof rubber cover is mounted, the shape of dress panel shall change. \* Numeral in parentheses shows that of with a dust-proof rubber cover.  
 Note 2: In the case of a dust-proof rubber cover is mounted, it is φ 44 hole.  
 Note 3: 4 pcs. of mounting screws(M3X14) are attached.

(Unit : mm)



**H50JAK-YO-20R2**  
(Standard  
2-dimensional coordinate type)

## STANDARD SPECIFICATIONS

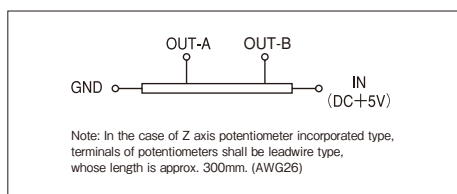
### Mechanical Performance

<b>Controlling range of operating lever</b>	2-dimensional coordinate type. Omni-directionally approx. $\pm 18^\circ \sim \pm 22^\circ$ operation from center position.
<b>Operating force</b>	With spring return device with directive feeling. X and Y directions: Approx. 0.8~1.5N(80~150gf)
<b>Operating temperature range</b>	-20°C~+65°C
<b>Vibration</b>	10~55Hz 98m/s <sup>2</sup>
<b>Shock</b>	294m/s <sup>2</sup>
<b>Mechanical life expectancy</b>	Approx. 10,000,000 operations.
<b>Mass</b>	2-dimensional coordinate type: Approx. 280g

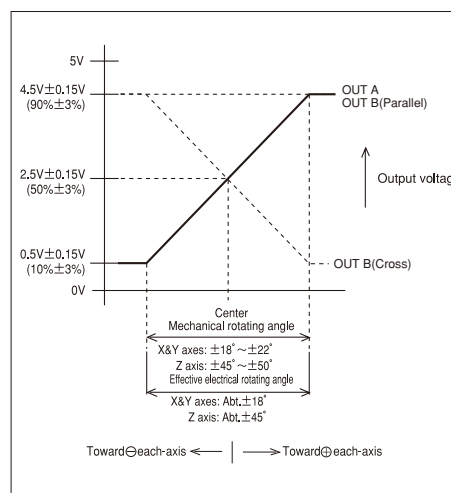
### Electrical Performance

<b>Hall effect IC type potentiometer(SHSM18E) mounted</b>	Applied voltage: 5V $\pm 10\%$ D.C. Effective output: Approx. 0.5V~4.5V Electrical rotating angle: Approx. $\pm 18^\circ$ Independent linearity tolerance: $\pm 3\%$ Load resistance: over 10K $\Omega$
<b>Resolution</b>	Infinitesimal
<b>Dielectric strength</b>	1 minute at 250V.A.C.
<b>Insulation resistance</b>	Over 100M $\Omega$ at 250V.D.C.
<b>EMS tolerance</b>	100V/m(80MHz ~ 1GHz 1KHz sine-wave 80%AM modulation)
<b>ESD tolerance</b>	$\pm 8KV$ contact $\pm 15KV$ air discharge (Based on IEC61000-4-2)

### Terminal Connection Diagram



### Output Characteristic



### Special Specifications Available

Please see page 55, a table of "Special Specifications Available". Regarding kind of output characteristic, dual cross output or dual parallel output instead of single output is also available.