

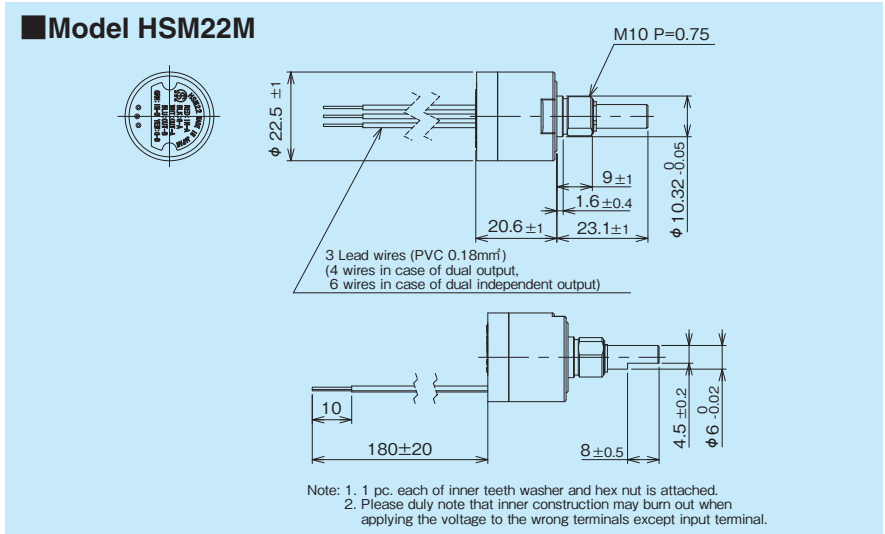
# MODEL HSM22M

- Hall effect IC
- Bushingmount
- RoHS Compliant

## Standard Dimensions



Model HSM22M



## General Specifications

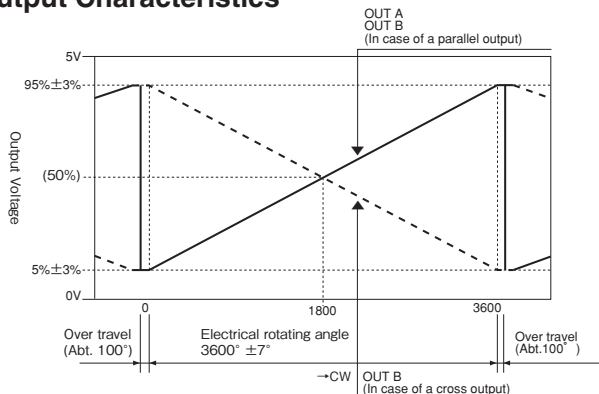
<b>Current Consumption</b>	Single output: Max. 16mA Dual output & dual independent output: Max. 32mA
<b>Independent Linearity Tolerance</b>	$\pm 0.5\%$ FS
<b>Mechanical Rotating Angle</b>	360° (Endless)
<b>Effective Electrical Angle</b>	3600° $\pm 7^\circ$
<b>Applied Voltage</b>	5V $\pm 10\%$ D.C.
<b>Load resistance</b>	10k $\Omega$ min
<b>Effective Output</b>	5% $\pm 3\%$ ~ 95% $\pm 3\%$ $V_{in}$
<b>Output Temperature Characteristics</b>	Within $\pm 0.3\%$ $V_{out}$ /FS
<b>Operating Temperature Range</b>	-40°C ~ +85°C
<b>Storage Temperature Range</b>	-40°C ~ +85°C
<b>Mass</b>	Approx. 35g
<b>Rotating Torque</b>	Within 5mN · m (within 50gf · cm)
<b>Backlash</b>	Within 10°
<b>Dielectric Strength</b>	1 minute at 500 V.A.C.
<b>Insulation Resistance</b>	Over 1,000 M $\Omega$ at 500 V.D.C.
<b>Index Protection</b>	IP50 (IP65 for the incorporated PCB part only)

## Environmental Specifications

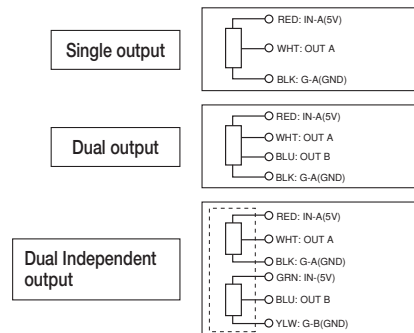
<b>Thermal Shock</b>	5 cycles -40°C ~ +85°C
<b>Exposure at Low Temperature</b>	24 hours at -40°C
<b>Exposure at High Temperature</b>	1,000 hours at +85°C
<b>Vibration</b>	10 to 2,000Hz 196m/s <sup>2</sup> 12 hours
<b>Shock</b>	490m/s <sup>2</sup> within 18 times
<b>Rotational Life Expectancy</b>	Approx. 20,000,000
<b>EMS Tolerance</b>	100V/m(80MHz~1GHz 1kHz Sinwave80% Amplitude Modulation)
<b>ESD Tolerance</b>	$\pm 8$ kV contact discharge $\pm 15$ kV aerial discharge (Based on IEC 61000-4-2)

Note: Rotational Life Expectancy may differ from the specifications depending on status of use.

## Output Characteristics



## Terminal Connection Diagram



## Special Specifications Available

(In case of the potentiometer with special specifications, the general specifications and environmental specifications may change. Please consult us in advance.)

- Special effective electrical angle (1080°, 1800°, 2880° - arbitrary angles)
- Special machining on the shaft
- Special output (Cross, parallel, Dual independent output)
- Special applied voltage (12V, 24V)
- PWM output
- Low current consumption in slow mode