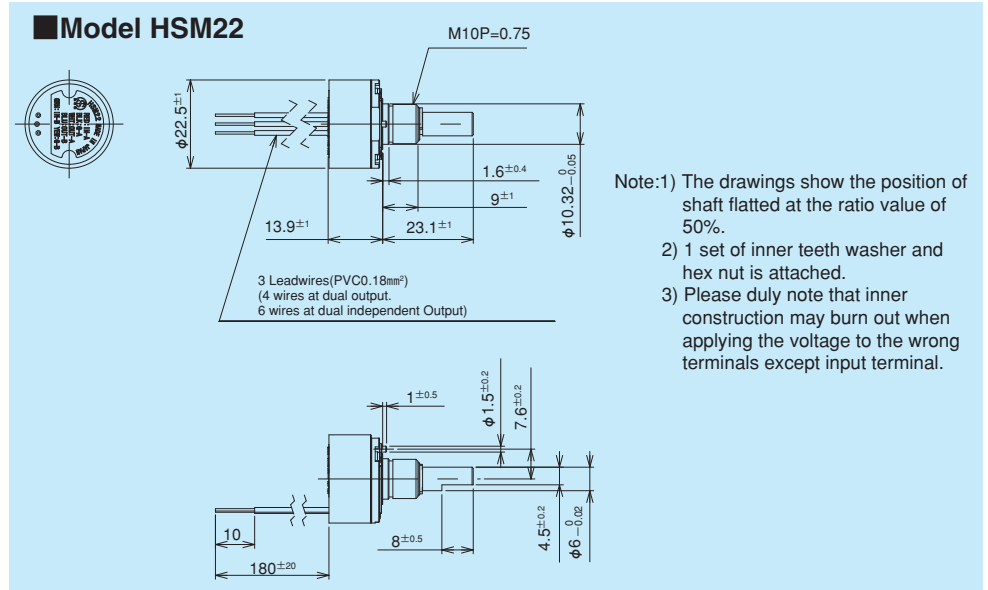


## ● Standard Dimensions



Model HSM22



1-Turn ▶ Contactless type ▶ Hall effect IC

## ● General Specifications

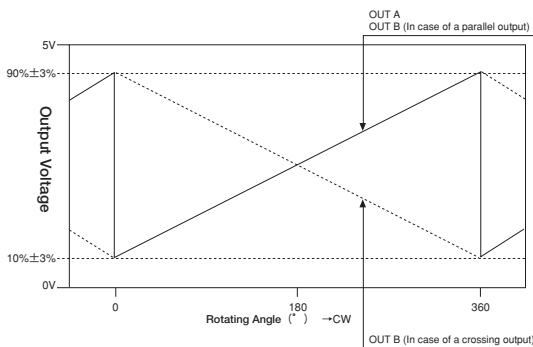
|   |  |
|---|--|
| <b>Current Consumption</b>                | Single output: Max. 16mA<br>Dual output: Max. 32mA |
| <b>Independent Linearity Tolerance</b>    | ±0.5%FS(FS=360°)                                   |
| <b>Mechanical Rotating Angle</b>          | 360° (Endless)                                     |
| <b>Electrical Angle</b>                   | 360°   |
| <b>Applied Voltage</b>                    | 5V±10%D.C.   |
| <b>Load resistance</b>                    | 10kΩmin  |
| <b>Effective Output</b>                   | 10%±3%~90%±3% Vin                                  |
| <b>Output Temperature Characteristics</b> | Within ±0.3%Vout/FS                                |
| <b>Operating Temperature Range</b>        | -40°C~+105°C                                       |
| <b>Storage Temperature Range</b>          | -40°C~+105°C                                       |
| <b>Mass</b>                               | Approx. 20g  |
| <b>Rotating Torque</b>                    | Within 5mN·m(within 50gf·cm)                       |

## ● Environmental Specifications

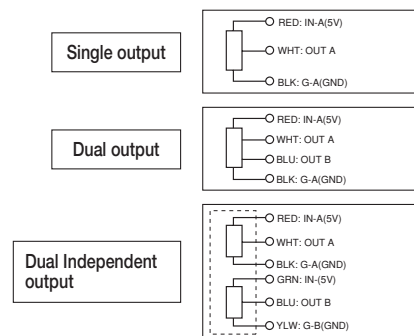
|                                     |  |
|-------------------------------------|--|
| <b>Thermal Shock</b>                | 5 cycles -40°C~+105°C  |
| <b>Exposure at Low Temperature</b>  | 24 hours at -40°C  |
| <b>Exposure at High Temperature</b> | 1,000 hours at +105°C  |
| <b>Vibration</b>                    | 10 to 2,000Hz 196m/s <sup>2</sup> 12 hours                                 |
| <b>Shock</b>                        | 980m/s <sup>2</sup> 6ms(18 times)  |
| <b>Rotational Life Expectancy</b>   | Approx. 50,000,000   |
| <b>EMS Tolerance</b>                | 100V/m(80MHz~1GHz 1kHz Sine wave80% Amplitude Modulation)                  |
| <b>ESD Tolerance</b>                | ±8kV contact discharge<br>/±15kV air discharge<br>(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 the case of the potentiometer with special specifications, the general specifications and environmental specifications may change. Please consult us in advance.)

- Special effective electrical angle (90°, 180°, 270° - 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 (Within 11mA)