

# MODEL HSM30 · HSM30F

● Hall effect IC ● Bushingmount ● RoHS Compliant

1-Turn ▶ Contactless type ▶ Hall effect IC



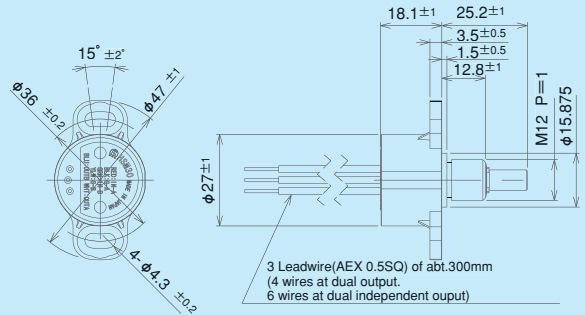
Model HSM30F



Model HSM30

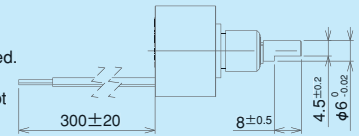
## Standard Dimensions

### Model HSM30F



### Model HSM30

- Note:1) The drawings show the position of shaft flatted at the ratio value of 50%.  
 2) 1 pc. each of inner teeth washer and hex nut are attached.  
 3) Please duly note that inner construction may burn out when applying the voltage to the wrong terminals except input terminal.



Note: The difference between HSM30F and HSM30 is with or without flange only. The following performances are the same.

## General Specifications

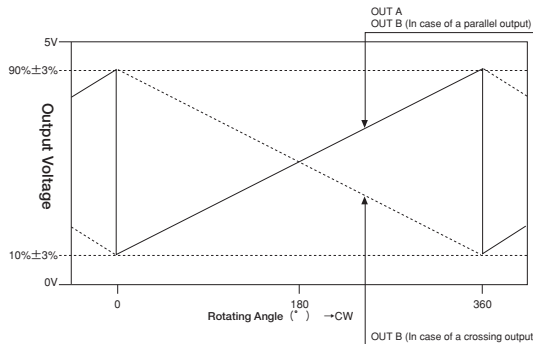
<b>Current Consumption</b>	Single output: Max. 16mA Dual output: Max. 32mA
<b>Independent Linearity Tolerance</b>	±0.5%FS(FS=360°)
<b>Mechanical Rotating Angle</b>	360° (Endless)
<b>Effective Electrical Angle</b>	360° (Endless)
<b>Applied Voltage</b>	5V ± 10% D.C.
<b>Load resistance</b>	10kΩ min
<b>Effective Output</b>	10% ± 3% ~ 90% ± 3% Vin
<b>Output Temperature Characteristics</b>	Within ±0.3% Vout/FS
<b>Operating Temperature Range</b>	-40°C ~ +120°C
<b>Storage Temperature Range</b>	-40°C ~ +120°C
<b>Mass</b>	Approx. 45g(HSM30F)
<b>Rotating Torque</b>	Within 5mN · m (Below 50gf · cm)

## Environmental Specifications

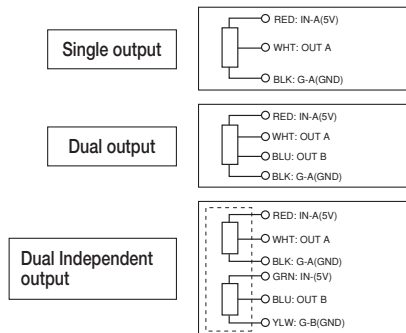
<b>Thermal Shock</b>	5 cycles -50°C ~ +125°C
<b>Exposure at Low Temperature</b>	24 hours at -50°C
<b>Exposure at High Temperature</b>	1,000 hours at +125°C
<b>Vibration</b>	10 to 2,000Hz 196m/s <sup>2</sup> 12 hours
<b>Shock</b>	980m/s <sup>2</sup> 6ms(18 times)
<b>Rotational Life Expectancy</b>	Approx. 50,000,000 shaft revolutions
<b>EMS Tolerance</b>	100V/m(80MHz~1GHz 1kHz 80% Amplitude Modulation)
<b>ESD Tolerance</b>	±8kV contact discharge ±15kV 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 (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