

MODEL HSM30 · HSM30F

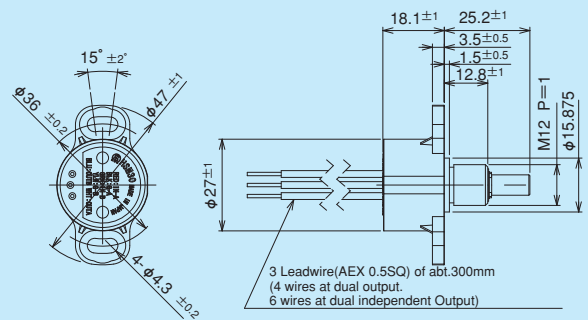
"Sakae"

● Hall effect IC ● Bushingmount ● RoHS Compliant



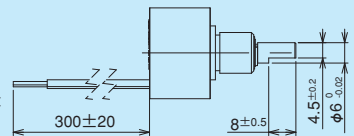
Standard Dimensions

Model HSM30F



Model HSM30

Note: 1) The drawings show the position of shaft flatted at the ratio value of 50%.
 2) 1 set of inner teeth washer and hex nut is 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

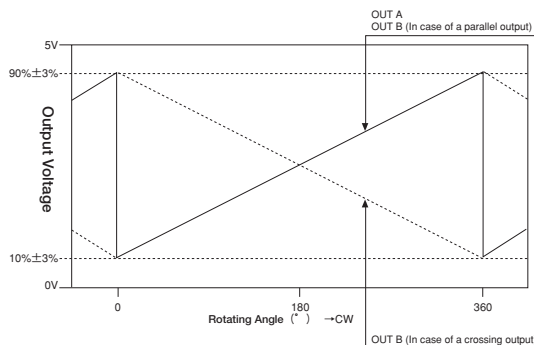
Current Consumption	Single output: Max. 16mA Dual output: Max. 32mA
Independent Linearity Tolerance	±0.5%FS(FS=360°)
Mechanical Rotating Angle	360° (Endless)
Effective Electrical Angle	360° (Endless)
Applied Voltage	5V ± 10% D.C.
Load resistance	10kΩ min
Effective Output	10% ± 3% ~ 90% ± 3% Vin
Output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

Environmental Specifications

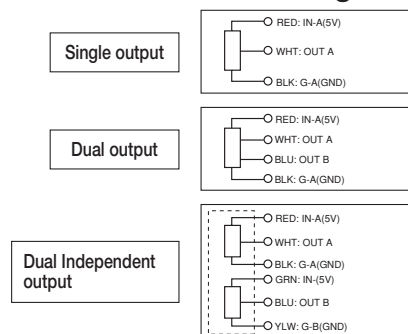
Thermal Shock	5 cycles -50°C ~ +125°C
Exposure at Low Temperature	24 hours at -50°C
Exposure at High Temperature	1,000 hours at +125°C
Vibration	10 to 2,000Hz 196m/s ² 12 hours
Shock	980m/s ² 6ms (18 times)
Rotational Life Expectancy	Approx. 50,000,000 shaft revolutions
EMS Tolerance	100V/m (80MHz ~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

- 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)

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

1-Turn ▶ Contactless type ▶ Hall effect IC