"Sakae"

MODEL HSM12・HSM18E

● Hall effect IC ● Bushingmount ● RoHS Compliant

Model HSM12

Model HSM18E
Lug terminal type

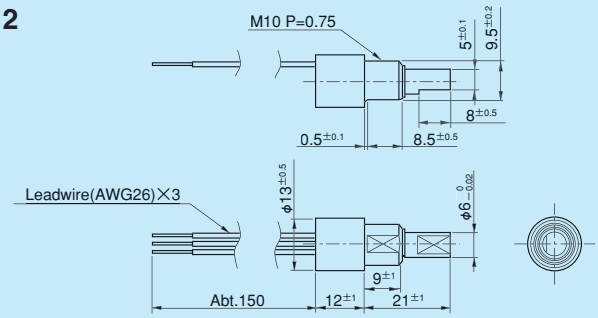
Model HSM18EL
Leadwire type

● Standard Model Numbers

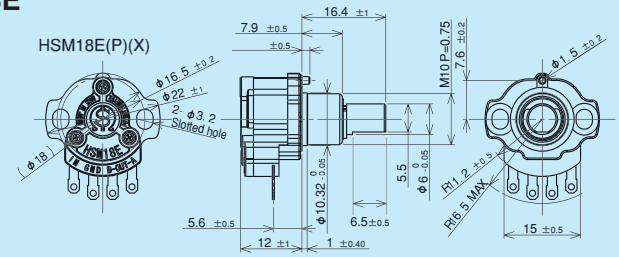
HSM12(Bushingmount type)
HSM18E・EL(Combined type with bushingmount and flange-mount)

● Standard Dimensions

■Model HSM12



■Model HSM18E



Note: 1) The drawings show the position of shaft flatted at the ratio value of 50%.
2) 1pc.each of inner teeth washer and hex nut are attached.(2pcs.each attached in case of HSM12)
3) Please duly note that inner construction may burn out when applying the voltage to the wrong terminals except input terminal.

● General Specifications

Model No.	HSM12	HSM18E・EL
Current Consumption	Approx. 7mA	Single output : Approx.7mA Dual output : Approx.14mA
Independent Linearity Tolerance	±1.5%FS(FS=90°)	
Mechanical Rotating Angle	360° (Endless)	
Effective Electrical Angle	±45° (Endless)	
Applied Voltage	5V±10%D.C.	
Load Resistance	Over 10KΩmin.	
Effective Output	Approx. 10%～Approx. 90%Vin・FS(FS=90°)	
Output Temperature Characteristic	Within ±2.5%Vout/FS	
Drift at Center Position	Within ±0.5%Vout/FS	
Operating Temperature Range	−40℃～+105℃	
Storage Temperature Range	−50℃～+105℃	
Mass	Approx. 15g	
Rotating Torque	Within 2mN・m（Within 20gf・cm）	

● Environmental Specifications

Model No.	HSM12	HSM18E・EL
Thermal Shock	5 cycles −50℃～+105℃	
Exposure at Low Temperature	24 hours at −50℃	
Exposure at High Temperature	1,000 hours at +105℃	
Vibration	10 to 2,000Hz 196m/s²	
Shock	980m/s² 6ms	
Rotational Life Expectancy	Approx. 50,000,000 shaft revolutions	
EMS Durability	50V/m(80MHz～1GHz1KHz 80% Amplitude Modulation)	100V/m(same as on the left)
ESD Durability	±4kV contact discharge ±4kV aerial discharge (Based on IEC 61000-4-2)	±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.

● 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 (Possible to meet with from ± 10° to ± 45° by 5° step, as requested) ● Special machining on the shaft

● Special output (HSM18E & EL are only available - Cross, Parallel)