

Model HSM12

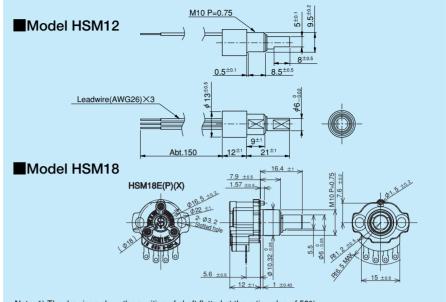


Standard Model Nos.

HSM12(Bushingmount type) HSM18E•EL(Bushingmount and flangemount)

General Specifications

Standard Dimensions



- 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 is attached.(2pcs.each attached in case of HSM12)
 - Please duly note that inner construction may burn out when applying the voltage to the wrong terminals except input terminal.

Model number	HSM12	HSM18E · EL
Current Consumption	Approx. 7mA	Single output : Approx.7mA Dual output : Approx.14mA
Independent Linearity Tolerance	±1.5%FS(FS=90°)	Output A:±1.5%FS (FS=90°) Output B:±3.0%FS (FS=90°)
Mechanical Rotating Angle	360° (Endless)	
Effective Electrical Angle	±45° (90°)	
Applied Voltage	5V±10%D.C.	
Load resistance	10KΩmin.	
Effective Output	Approx. 10%~Approx. 90%Vin • FS(FS=100°)	
Output Temperature Characteristics	Within ±2.5%Vout/FS	
Drift at center position	Within ±0.5%Vout/FS	
Operating Temperature Range	-40°C∼+105°C	
Storage Temperature Range	_50°C~+105°C	
Mass	Approx. 15g	
Rotating Torque	Within 2mN⋅m (Within 20gf⋅cm)	

Environmental Specifications

Model number	HSM12	HSM18E ⋅ EL	
Thermal Shock	5 cycles −50°C ~+105°C		
Exposure at Low Temperature	24 hours at −50°C		
Exposure at High Temperature	1,000 hours at +105℃		
Vibration	10 to 2,000Hz 196m/s²		
Shock	980m/s² 6ms		
Life Expectancy(shaft revolutions)	Approx. 50,000,000 shaft revolutions		
EMS Durability	50V/m(80MHz~1GHz 1KHz 80% Amplitude Modulation)	100V/m(same as on the left)	
ESD Durability	±4kV contact discharge/±4kV aerial discharge	±8kV contact discharge/±15kV aerial discharge	

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

Special Specifications Available.

Special effective electrical angle(Possible to meet with from $\pm 10^{\circ}$ to $\pm 45^{\circ}$ by 5° step, as requested), Special machining on the shaft, Special output(HSM18E & EL are only available - Cross, Parallel)