



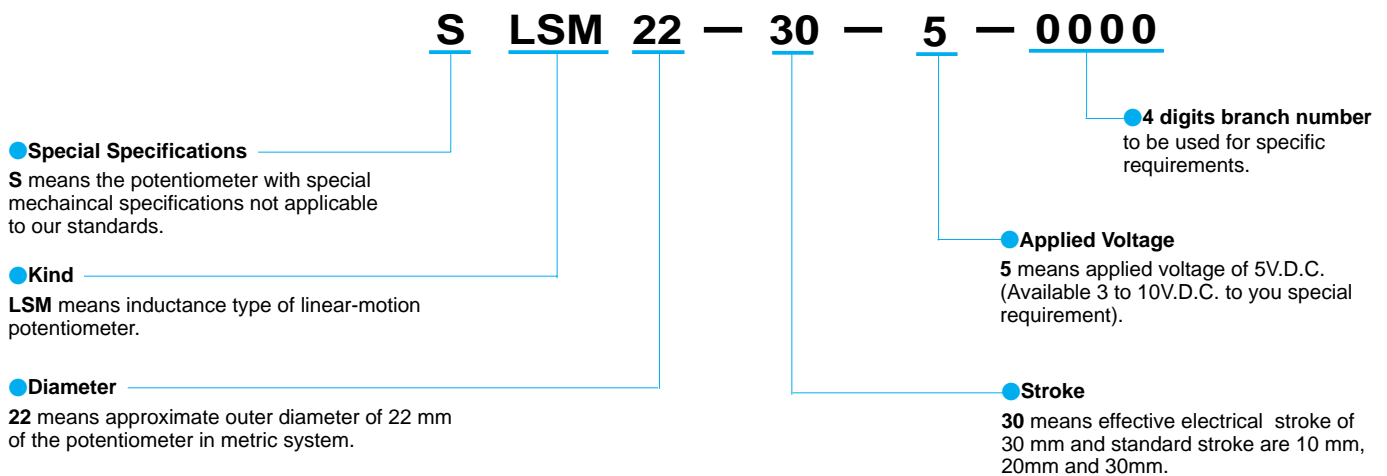
# LINEAR-MOTION CONTACTLESS POTENTIOMETER

(Inductance type)

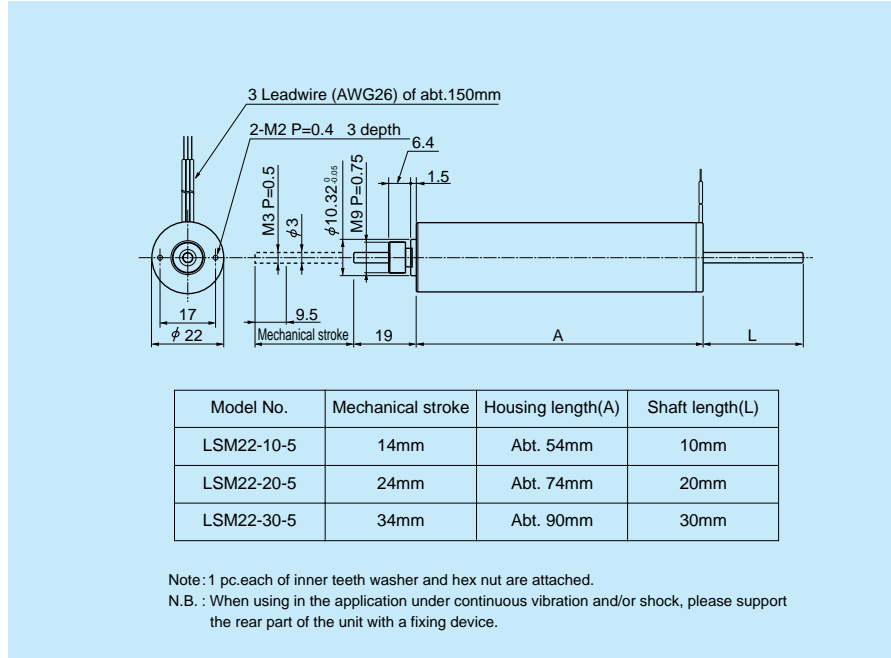
This is a linear-motion Contactless Potentiometer using inductance coil technology, which has been developed based on our own technical know-how (Japan pat.-No.3009764). Inductance type contactless potentiometer has almost no influence by outside magnetic field. This linear-motion contactless potentiometer offers a little

hysteresis, exact response to very small displacement and excellent temperature characteristic. It is the best suitable for the applications to detect the position of linear-motion displacement such as industrial machines, construction machines, medical instruments, various machine tools, etc.

## THE NOMENCLATURE OF SAKAE LINEAR-MOTION CONTACTLESS POT.SERIES



● Standard Dimensions



● Standard Model No.

- LSM22-10-5
- LSM22-20-5
- LSM22-30-5

● General Specifications

Model No.	LSM22-10-5	LSM22-20-5	LSM22-30-5
Current Consumption	Approx. 5mA		
Independent Linearity Tolerance	±0.5% • FS		
Mechanical Stroke	Approx. 14mm	Approx. 24mm	Approx. 34mm
Effective Electrical Stroke	Approx. 10mm	Approx. 20mm	Approx. 30mm
Applied Voltage	5V D.C.		
Load Resistance	10kΩ min.		
Output Sensibility	Approx. 10% ~ Approx. 90% Vin		
Output Temperature Characteristic	Below ±2.5% Vout • FS		
Drift at Center Position	Below ±0.5% Vout • FS		
Operating Temperature Range	-40°C ~ +105°C		
Storage Temperature Range	-40°C ~ +105°C		
Mass	Approx. 30g	Approx. 40g	Approx. 60g
Friction N (gf)	0.1N(10gf)		

● Environmental Specifications

Model No.	LSM22-10-5	LSM22-20-5	LSM22-30-5
Thermal Shock	5 cycles under -50°C ~ +105°C		
Exposure at Low Temperature	24 hours at -50°C		
Exposure at High Temperature	1,000 hours at +105°C		
Moisture Resistance	40°C 95% RH 120 hours		
Vibration	10 to 2,000Hz 196m/s <sup>2</sup>		
Shock	980m/s <sup>2</sup> (18 times) 12 hours		
Life Expectancy (Shaft reciprocating motions)	Approx. 50,000,000		
Protection Grade	IP40		

● Special Specifications Available

Spring return device incorporated, Other special specifications are also possible and please consult us with your concrete requirements.