



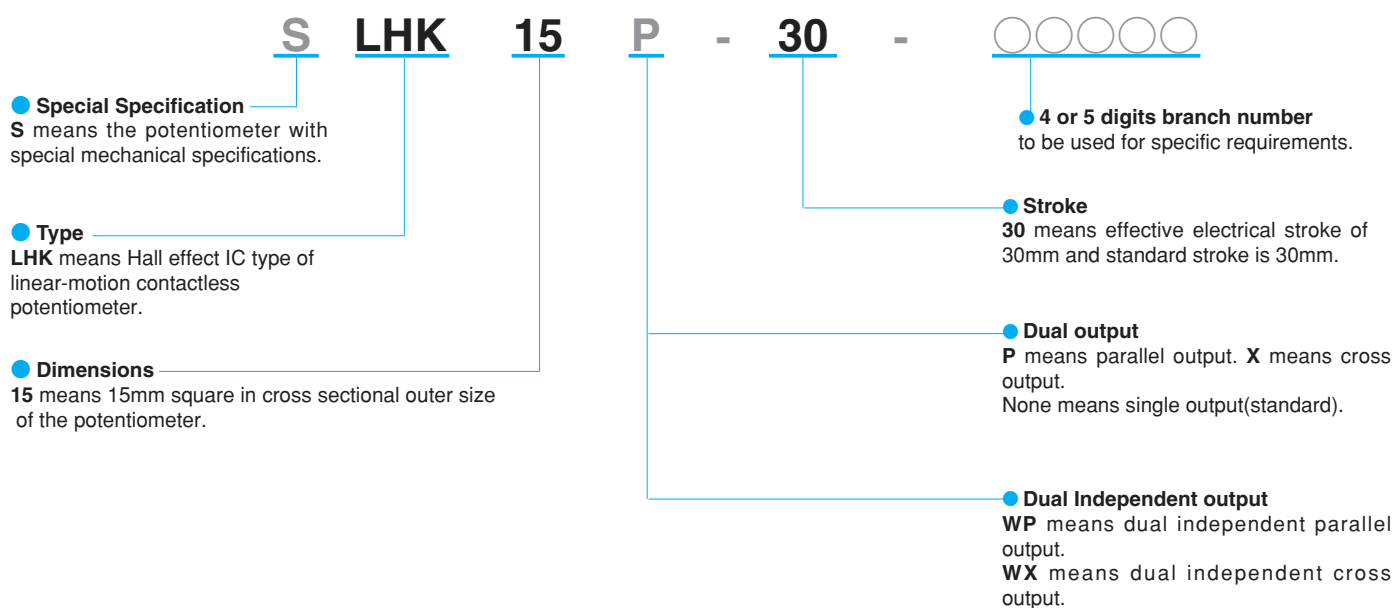
# LINEAR-MOTION CONTACTLESS POTENTIOMETER

(Hall effect IC type)

This is a linear-motion Contactless Potentiometer which is based on our own technical know-how through development of inductance type linear-motion Contactless Potentiometer and Hall effect IC type 1-turn Potentiometer. It offers 30mm stroke with contactless type and Index of Protection IP65.

It is best suitable at any applications to detect the position of linear-motion displacement.

## THE NOMENCLATURE OF SAKAE LINEAR-MOTION CONTACTLESS POTENTIOMETER



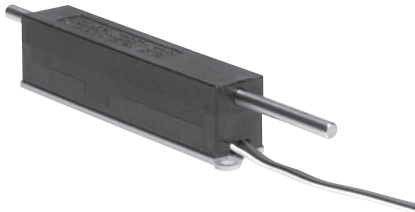
Non-linear  
Contactless type  
Hall effect IC

# MODEL LHK15-30

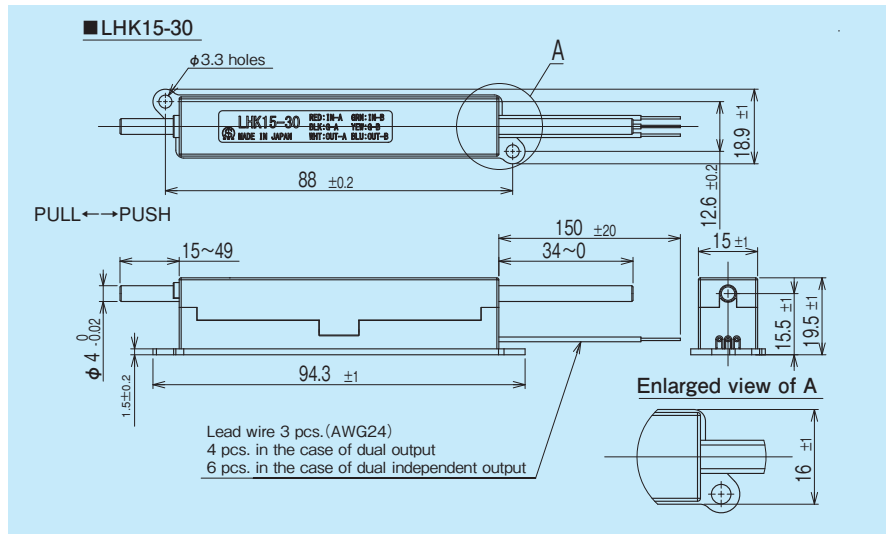
Sakae

- Hall effect IC
- With front and rear extended
- RoHS Compliant

## Standard Dimensions



LHK15-30



## General Specifications

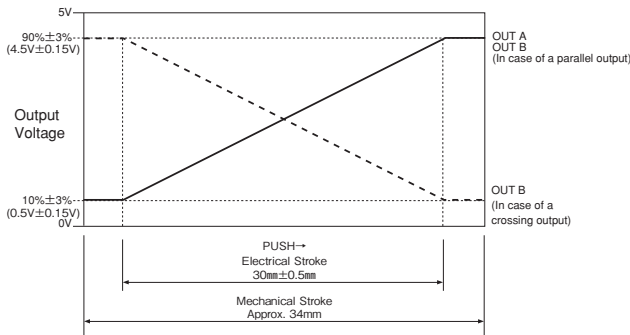
Current Consumption	Single output: Max. 15mA Dual output/Dual Independent output: Max. 30mA
Independent Linearity Tolerance	±0.5%FS
Mechanical Stroke (MS)	Approx. 34mm
Electrical Stroke	30mm±0.5mm
Applied Voltage	D.C.5V ±10%
Load Resistance	10kΩ min.
Effective Output	10%±3%~90%±3%Vin
Output Temperature Characteristics	Within ±0.8% Vout · FS
Operating Temperature Range	-40°C~+105°C
Storage Temperature Range	-40°C~+105°C
Friction	Within 0.6N (60gf)
Stopper Strength	Approx. 20N (2kgf)
Mass	Approx. 44g

## Environmental Specifications

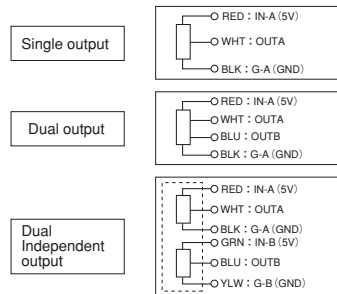
Thermal Shock	-40°C~+105°C 5cycles
Exposure at Low Temperature	24 hours at -40°C
Exposure at High Temperature	1,000 hours at +105°C
Vibration	10 to 2,000Hz 196m/s <sup>2</sup> 12 hours
Shock	980m/s <sup>2</sup> 6ms (18 times)
Life Expectancy	Approx. 50,000,000 reciprocating motions
EMS Durability	100V/m (80MHz~1GHz 1kHz 80% Amplitude Modulation)
ESD Durability	±8kV contact discharge / ±15kV aerial discharge (Based on IEC 61000-4-2)

(Note) 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.)

- With spring return device (Spring return device is mounted on the outer shaft and the shaft length is changed. Also, the expected longevity would be around 10,000,000 reciprocating motions.)
- Special machining on the shaft
- Special output (Cross, parallel, Dual independent output)
- PWM output
- Low current consumption in slow mode