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 LINEAR-MOTION CONTACTLESS POTENTIOMETER**

<table>
<thead>
<tr>
<th>S</th>
<th>LHK</th>
<th>15</th>
<th>P</th>
<th>30</th>
<th>0 0 0 0 0</th>
</tr>
</thead>
<tbody>
<tr>
<td>Special Specification</td>
<td>S means the potentiometer with special mechanical specifications not applicable to our standard.</td>
<td></td>
<td></td>
<td></td>
<td>4 or 5 digits branch number to be used for specific requirements.</td>
</tr>
<tr>
<td>Type</td>
<td>LHK means Hall effect IC type of linear-motion contactless potentiometer.</td>
<td></td>
<td></td>
<td></td>
<td>Stroke</td>
</tr>
<tr>
<td>Dimensions</td>
<td>15 means 15mm square in cross sectional outer size of the potentiometer.</td>
<td></td>
<td></td>
<td></td>
<td>30 means effective electrical stroke of 30mm and standard stroke is 30mm.</td>
</tr>
</tbody>
</table>

### Standard dimensions

**LHK15-30**

- 3.3 holes
- 4 pcs. in the case of dual output
- 6 pcs. in the case of dual independent output

**RoHS compliant**
### General specifications

- **Current Consumption:**
  - Single output: Max. within 15mA
  - Dual output / Dual Independent output: Max. within 30mA

- **Independent Linearity Tolerance:** ±0.5% FS

- **Mechanical Stroke (MS):** Approx. 34mm

- **Electrical Stroke:**
  - D.C. 5V ±10%
  - Load Resistance: 10KO min.
  - Effective Output: 10%±3% ~ 90%±3%Vin

- **Output Temperature Characteristics:** Within ±0.8% Vout • FS

- **Operating Temperature Range:**
  - -40ºC ~ +105ºC

- **Storage Temperature Range:**
  - -40ºC ~ +105ºC

- **Friction:** Within 0.6N(60gf)

- **Stopper Strength:** Approx. 20N (2kgf)

- **Mass:** Approx. 44g

- **Thermal Shock:**
  - -40ºC ~ +105ºC 5 cycles

- **Exposure at Low Temperature: 24 hours at -40ºC**

- **Exposure at High Temperature: 1,000 hours at +105ºC**

- **Vibration:**
  - 10 to 2,000Hz 196m/s² 12 hours
  - Shock: 980m/s² 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

**Note:** Life Expectancy may differ from the specifications depending on status of use.

### Output characteristics

- **Output Voltage**
  - 10%±1% (0–Vout 75%)
  - 10%±1% (4–Vout 75%)

- **Electrical Stroke:**
  - 30mm ± 0.5mm

- **Mechanical Stroke:** Approx. 34mm

- **PUSH**

- **OUT A** (in case of a parallel output)

- **OUT B** (in case of a crossing output)

### Terminal Connection Diagram

- **Single output**
  - RED: IN-A (5v)
  - WHT: OUT A
  - BLK: G-A (GND)

- **Dual output**
  - RED: IN-A (5v)
  - WHT: OUT A
  - BLK: G-A (GND)
  - BLU: OUT B

- **Dual Independent output**
  - RED: IN-A (5v)
  - WHT: OUT A
  - BLK: G-A (GND)
  - GRN: IN-B (5v)
  - BLU: OUT B
  - YLW: G-B (GND)

### 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.

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The information provided herein is to the best of our knowledge true and accurate, it is provided for guidance only. All specifications are subject to change without prior notification.

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