

9mm Size Insulated Shaft Long-life Potentiometer

RK09Y11 Series

A compact, long-life type with a rotational life of 1 million cycles.



Rotary Potentiometers

Slide Potentiometers

Trimmer Potentiometers

Multi Control Devices

Position Sensors

Features

- Achieved a rotation life of 1 million cycles with 9.5mm type.
- Provides independent linearity of $\pm 5\%$.
- Light rotation torque with a small operational irregularity.

Applications

- Game controllers of video game, electronic toy controllers

Typical Specifications

| Items | | Specifications | |
|------------------------|-----------------------------------|---|-----------|
| Electrical performance | Operating temperature range | -10°C to $+70^{\circ}\text{C}$ | |
| | Total resistance tolerance | $\pm 30\%$ | |
| | Rated power | 0.01W | |
| | Maximum operating voltage | 5V DC | |
| | Insulation resistance | 100M Ω min. 250V DC | |
| | Voltage proof | 1 minute 250V AC | |
| | Effective variable angle | 60° | |
| Mechanical performance | Total rotational angle | $300 \pm 5^{\circ}$ | |
| | Rotational torque | 5mN · m max. | |
| | Strength of the operating section | Stopper strength | 150mN · m |
| | | Push-pull strength | 30N max. |
| | Solderability | $230 \pm 5^{\circ}\text{C}$, $3 \pm 0.5\text{s}$ | |
| Solder heat resistance | Manual soldering | Lower than 350°C for less than 3 seconds | |
| Endurance | Operating life | 1,000,000 cycles | |
| Environmental test | Cold | -10°C for 96h | |
| | Long-term heat resistance | $+70^{\circ}\text{C}$ for 96h | |
| | Moisture resistance | $+40^{\circ}\text{C} \pm 2^{\circ}\text{C}$, 90 to 95%RH for 96h | |

Metal Shaft

Insulated Shaft

Knob Operating

Recommended Products List

| Number of resistor elements | Products No. | Shaft type | Length of the shaft (mm) | Total resistance (k Ω) | Resistance taper | Minimum packing unit (pcs.) |
|-----------------------------|--------------|------------|--------------------------|--------------------------------|------------------|-----------------------------|
| Single-unit | RK09Y11L0001 | Flat | 12 | 10 | 1B | 100 |

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Dimensions

Unit : mm

Rotary Potentiometers

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Trimmer Potentiometers


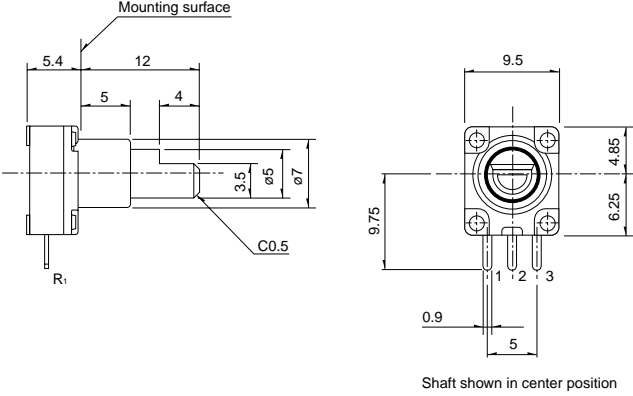
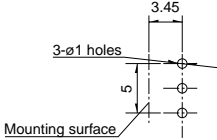
Multi Control Devices

Position Sensors

Metal Shaft

Insulated Shaft

Knob Operating

| Model | Style | PC board mounting hole dimensions (Viewed from mounting side) |
|---|--|---|
| <p>RK09Y11</p>  |  <p>Mounting surface</p> <p>Shaft shown in center position</p> |  <p>3-ø1 holes</p> <p>Mounting surface</p> |