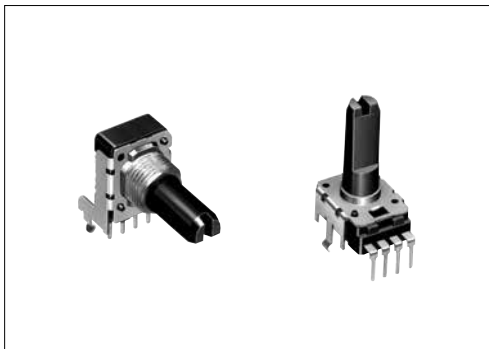


RK11K 1 1 mm Size Insulated Shaft Snap-in Type

A 1.1 mm wide potentiometer for audio, visual, electronic musical instruments and various applications



Typical Specifications

| Items | Specifications |
|-----------------------------|----------------|
| Total resistance tolerance | ±20% |
| Maximum operating voltage | 50V AC, 20V DC |
| Total rotational angle | 300° ±5° |
| Rotational torque | 3 to 20mN·m |
| Operating life | 15,000 cycles |
| Operating temperature range | -10°C to +70°C |

Product Line

| Number of resistor elements | Mounting direction | Bushing | Shaft type | Length of the shaft LM ₁ (mm) | Center detent | Total resistance (kΩ) | Resistance taper | Minimum order unit (pcs.) | | Products No. | Drawing No. |
|-----------------------------|--------------------|------------------------------|------------|--|---------------|-----------------------|------------------|---------------------------|------------------------------|------------------------------|-------------|
| | | | | | | | | Japan | Export | | |
| Single-unit (20V DC) | Vertical type | Without | Flat | 15 | Without | 10 | 1B | 1,200 | 2,400 | RK11K1130A2X | 2 |
| | | | | 20 | With | | | 1,000 | 2,000 | RK11K1130A0M RK11K1130040 | |
| | | | | 25 | Without | 800 | | 1,600 | RK11K1130A07 RK11K113002F | | |
| | | | | 20 | With | 1,000 | | 2,000 | RK11K114003Y RK11K1140A9L | | |
| | | 22.5 | | Without | 10 | 800 | | 1,600 | 4 | | |
| | | 25 | | With | | | | | | RK11K1140A23 RK11K114001Z | |
| | | 27.5 | | Without | 20 | 800 | | 1,600 | 4 | | |
| | | 30 | | | RK11K1140A3L | | | | | | |
| | 32.5 | RK11K1140A4Q RK11K1140A2S | | | | | | | | | |
| | 25 | Without | 10 | 800 | 1,600 | 3 | | | | | |
| | 22.5 | | With | | | | 1,000 | 2,000 | RK11K1120060 RK11K1120A5T | | |
| | 25 | | Without | | | | 10 | 800 | 1,600 | 3 | |
| | 27.5 | | Without | | | | 20 | | | | 15A |
| | Horizontal type | Without | 25 | Flat | 22.5 | With | 20 | 1,000 | 2,000 | RK11K1110A3D | 1 |
| | | With | 25 | | Without | 10 | 800 | | | | |
| | 27.5 | Without | 20 | 15A | 800 | 1,600 | | RK11K1120A31 | | | |

Notes

- Other varieties are also available. Refer to "Other Specifications" (P.355).
- Nut and washer are not attached. Please specify if required.

Packing Specifications

Tray


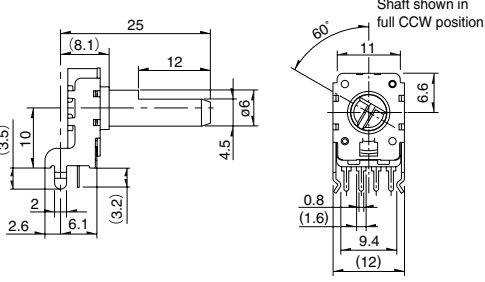
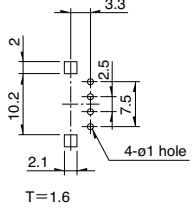

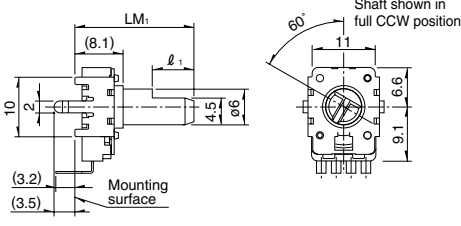
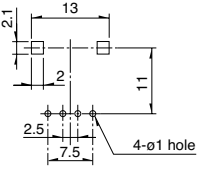
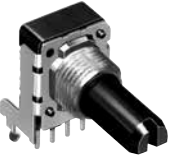
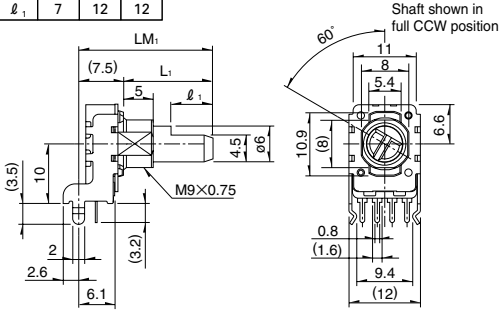
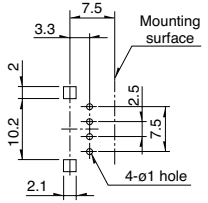

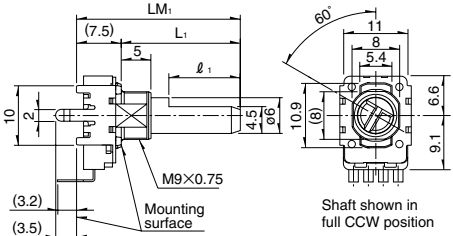
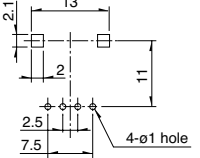
| Length of the shaft LM ₁ (mm) | Number of packages (pcs.) | | Export package measurements (mm) |
|--|---------------------------|-------------------------|----------------------------------|
| | 1 case / Japan | 1 case / export packing | |
| 15 | 1,200 | 2,400 | 543×377×250 |
| 20 to 22.5 | 1,000 | 2,000 | |
| 25 or more | 800 | 1,600 | |

Refer to P.355 for other specifications.
Refer to P.356 for ordering products not listed.
Refer to P.366 for soldering conditions.

RK11K 1.1 mm Size Insulated Shaft Snap-in Type

Dimensions

Unit:mm

| No. | Photo | Style | PC board mounting hole dimensions (Viewed from mounting side) | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|------|------|------|----------------|-----|------|----------------|--|----|------|----|---|----|----------------|---|---|----|----|----|----|---|
| 1 |  |  |  | | | | | | | | | | | | | | | | | | | | | |
| 2 |  | <table border="1" data-bbox="657 757 826 801"> <tr> <td>LM₁</td> <td>15</td> <td>20</td> <td>25</td> </tr> <tr> <td>ℓ₁</td> <td>4.5</td> <td>7</td> <td>12</td> </tr> </table>  | LM ₁ | 15 | 20 | 25 | ℓ ₁ | 4.5 | 7 | 12 |  | | | | | | | | | | | | | |
| LM ₁ | 15 | 20 | 25 | | | | | | | | | | | | | | | | | | | | | |
| ℓ ₁ | 4.5 | 7 | 12 | | | | | | | | | | | | | | | | | | | | | |
| 3 |  | <table border="1" data-bbox="657 1146 826 1220"> <tr> <td>LM₁</td> <td>22.5</td> <td>25</td> <td>27.5</td> </tr> <tr> <td>L₁</td> <td>15</td> <td>17.5</td> <td>20</td> </tr> <tr> <td>ℓ₁</td> <td>7</td> <td>12</td> <td>12</td> </tr> </table>  | LM ₁ | 22.5 | 25 | 27.5 | L ₁ | 15 | 17.5 | 20 | ℓ ₁ | 7 | 12 | 12 |  | | | | | | | | | |
| LM ₁ | 22.5 | 25 | 27.5 | | | | | | | | | | | | | | | | | | | | | |
| L ₁ | 15 | 17.5 | 20 | | | | | | | | | | | | | | | | | | | | | |
| ℓ ₁ | 7 | 12 | 12 | | | | | | | | | | | | | | | | | | | | | |
| 4 |  | <table border="1" data-bbox="657 1541 949 1612"> <tr> <td>LM₁</td> <td>20</td> <td>22.5</td> <td>25</td> <td>27.5</td> <td>30</td> <td>32.5</td> </tr> <tr> <td>L₁</td> <td>12.5</td> <td>15</td> <td>17.5</td> <td>20</td> <td>22.5</td> <td>25</td> </tr> <tr> <td>ℓ₁</td> <td>7</td> <td>7</td> <td>12</td> <td>12</td> <td>12</td> <td>12</td> </tr> </table>  | LM ₁ | 20 | 22.5 | 25 | 27.5 | 30 | 32.5 | L ₁ | 12.5 | 15 | 17.5 | 20 | 22.5 | 25 | ℓ ₁ | 7 | 7 | 12 | 12 | 12 | 12 |  |
| LM ₁ | 20 | 22.5 | 25 | 27.5 | 30 | 32.5 | | | | | | | | | | | | | | | | | | |
| L ₁ | 12.5 | 15 | 17.5 | 20 | 22.5 | 25 | | | | | | | | | | | | | | | | | | |
| ℓ ₁ | 7 | 7 | 12 | 12 | 12 | 12 | | | | | | | | | | | | | | | | | | |

1 mm Size Insulated Shaft Snap-in Type / Other Specifications

In addition to the products listed, we can accommodate the follow specifications.

Total Resistance Variety

| | | | | | | |
|------------------------|---|----|----|----|-----|-----|
| Total resistance (k Ω) | 5 | 10 | 20 | 50 | 100 | 200 |
|------------------------|---|----|----|----|-----|-----|

Resistance Taper

| | | | | |
|------------------|-----|----|----|-----|
| Resistance taper | 15A | 1B | 3B | 15C |
|------------------|-----|----|----|-----|

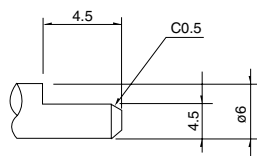
Tapped Types are Also Available

RK11K (single-unit) is also available with tap.

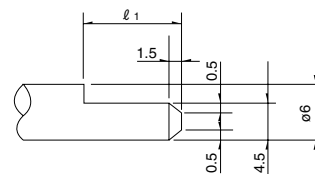
Shaft Variety

| Style | | Without bushing | | | | With bushing | | | | | |
|---------------|-----------------|-----------------|----|---------------|----|-----------------|------|---------------|------|------|------|
| | | Horizontal type | | Vertical type | | Horizontal type | | Vertical type | | | |
| Shaft variety | LM ₁ | 15 | 20 | 25 | 30 | 20 | 22.5 | 25 | 27.5 | 30 | 32.5 |
| | L ₁ | — | — | — | — | 12.5 | 15 | 17.5 | 20 | 22.5 | 25 |
| | ℓ ₁ | 4.5 | 7 | 12 | 12 | 7 | 7 | 12 | 12 | 12 | 12 |
| | L _B | — | — | — | — | 5 | 5 | 5 | 5 | 5 | 5 |

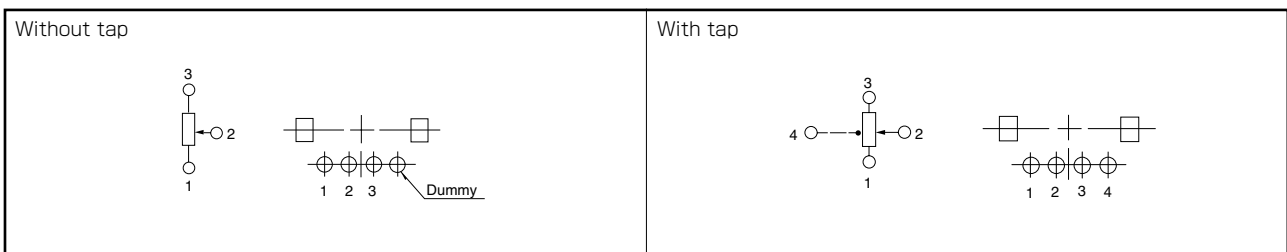
Detail dimensions



LM₁ =15 only application



Terminal Layout / Circuit Diagram



Note

Marked are specifications recommended by Alps Alpine.

Refer to P.356 for ordering products not listed.

Rotary Potentiometers
 Slide Potentiometers
 Metal Shaft
 Insulated Shaft
 Knob Operating
 Through Shaft Type
 Ring Type

11 mm Size Insulated Shaft Snap-in Type / Ordering Products Not Listed

When ordering product varieties that are not listed, specify referring to the examples below.

Sample Part Number

R K 1 1 K 1 1 4 0 - **F 2 2** - **C 0** - **B 1 0 3**

Model type _____

| Code | Model type |
|------|---------------------------------|
| 1 | Horizontal type without bushing |
| 2 | Horizontal type with bushing |
| 3 | Vertical type without bushing |
| 4 | Vertical type with bushing |

Shaft type _____

| Code | Shaft type |
|------|------------|
| F | Flat |

*Only available in flat format.

Length of the shaft LM₁ (mm) _____

| Code | Length of the shaft | Code | Length of the shaft |
|------|---------------------|------|---------------------|
| 15 | 15 | 25 | 25 |
| 20 | 20 | 30 | 30 |
| 22 | 22.5 | 32 | 32.5 |
| 27 | 27.5 | — | — |

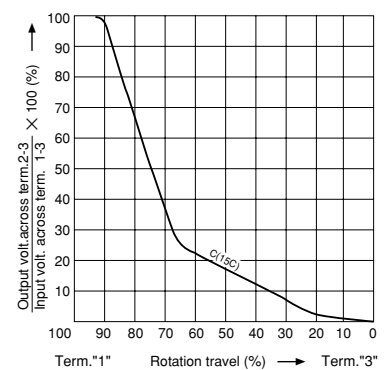
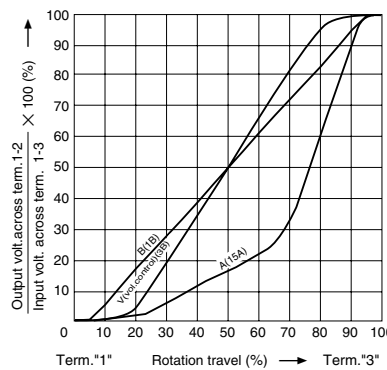
Detent _____

| Code | Center detent |
|------|---------------|
| C0 | Without |
| C1 | With |

Resistance taper _____

| Code | Resistance taper | Code | Resistance taper |
|------|------------------|------|------------------|
| A | 15A | C | 15C |
| B | 1B | V | 3B |

B : For tone & general
V : For vol.



Total resistance _____












| Code | Total resistance (k Ω) | Code | Total resistance (k Ω) |
|------|------------------------|------|------------------------|
| 502 | 5 | 503 | 50 |
| 103 | 10 | 104 | 100 |
| 203 | 20 | 204 | 200 |

Note

Marked are specifications recommended by Alps Alpine.

Insulated Shaft Potentiometers

List of Varieties

| Type | 9mm size | | | 11mm size | 12mm size | 14mm size | |
|------------------------------|---|--|---|--|---|--|------------------------------------|
| Series | RK09K11 RK09D11 | RK09K12 | RK09Y11L | RK11K | RK12L12 | RK14K | |
| | Single-unit | Dual-unit | Single-unit | Single-unit | Dual-unit | Dual-unit | |
| Photo |  |  |  |  |  |  | |
| Terminal mounting | Vertical / Horizontal | | Horizontal | Vertical / Horizontal | | | |
| Bushing | Without | | | With / Without | Without | With / Without | |
| Operating temperature range | -10°C to +70°C | | | | | | |
| Operating life | 5,000 cycles | 10,000 cycles | 1,000,000 cycles | 15,000 cycles | | | |
| Available for automotive use | — | — | — | — | — | — | |
| Life cycle |  | |  |  |  |  | |
| Electrical performance | Total resistance (k Ω) | 5, 10, 20, 50, 100, 200 | | 10 | 5, 10, 20, 50, 100, 200 | | |
| | Resistance taper | 15A, 1B, 3B, 15C | | B | 15A, 1B, 3B, 15C | | |
| | Total resistance tolerance | ±20% | ±30% | ±30% | ±20% | | |
| | Rated power | 0.05W | 0.03W | 0.01W | 0.05W | | |
| | Maximum operating voltage | 50V AC 20V DC | 50V AC for AC only | 50V AC 5V DC | 50V AC 20V DC | 50V AC for AC only | |
| | Gang error | — | -40dB to 0dB 3dB max. | — | — | Volume control -40dB to 0dB 3dB max. For tone control within 2dB at center | |
| | Insulation resistance | 100MΩ min. 250V DC | | | 100MΩ min. 500V DC | 100MΩ min. 250V DC | |
| | Voltage proof | 250V AC for 1minute | | | 500V AC for 1minute | 300V AC for 1minute | |
| | Center-taps | Without | | | Without / With | Without | Without / With (Volume control) |
| Mechanical performance | Detent | Without, Center | | Without | Without, Center | Without, Center | |
| | Stopper strength | 0.3N·m | | — | Without bushing 0.5N·m With bushing 0.6N·m | 0.5N·m 0.6N·m | |
| | Push-pull strength | 50N max. | | 30N max. | 80N max. | | |
| | Vibration | 10 to 55 to 10Hz/min., the amplitude is 1.5mm for all the frequencies, in the 3 direction of X, Y and Z and for 2 hours respectively | | | | | |
| Shaft configuration | Flat type, Knob type, Screwdriver type | | | Flat type | | | |
| Terminal style | Insertion | | | | | | |
| Page | 345 364(RK09D117) | | 352 | 353 | 357 364(RK12L12H, RK12L127) | 360 | |

| | |
|---|-----|
| Insulated Shaft Potentiometers Soldering Conditions | 366 |
| Potentiometers Cautions | 418 |
| Potentiometers Measurement and Test Methods | 420 |
| Potentiometers Resistance Taper | 422 |

Note

● Indicates applicability to all products in the series.

Reference for Manual Soldering

| Series | Tip temperature | Soldering time | No. of solders |
|--|-----------------|----------------|----------------|
| RK09D, RK09K, RK09Y11L, RK11K, RK12L, RK14K | 350°C max. | 3s max. | 1 time |

Reference for Dip Soldering

| Series | Preheating | | Dip soldering | | No. of solders |
|--------------|-------------------------------|--------------|-----------------------|----------------|----------------|
| | Soldering surface temperature | Heating time | Soldering temperature | Soldering time | |
| RK12L | 100°C | 1 min. max. | 260°C max. | 5s max. | 2 time max. |

Rotary Potentiometers

Slide Potentiometers

Metal Shaft

Insulated Shaft

Knob Operating

Through Shaft Type

Ring Type

Компания «Life Electronics» занимается поставками электронных компонентов импортного и отечественного производства от производителей и со складов крупных дистрибьюторов Европы, Америки и Азии.

С конца 2013 года компания активно расширяет линейку поставок компонентов по направлению коаксиальный кабель, кварцевые генераторы и конденсаторы (керамические, пленочные, электролитические), за счёт заключения дистрибьюторских договоров

Мы предлагаем:

- Конкурентоспособные цены и скидки постоянным клиентам.
- Специальные условия для постоянных клиентов.
- Подбор аналогов.
- Поставку компонентов в любых объемах, удовлетворяющих вашим потребностям.
- Приемлемые сроки поставки, возможна ускоренная поставка.
- Доставку товара в любую точку России и стран СНГ.
- Комплексную поставку.
- Работу по проектам и поставку образцов.
- Формирование склада под заказчика.
- Сертификаты соответствия на поставляемую продукцию (по желанию клиента).
- Тестирование поставляемой продукции.
- Поставку компонентов, требующих военную и космическую приемку.
- Входной контроль качества.
- Наличие сертификата ISO.

В составе нашей компании организован Конструкторский отдел, призванный помогать разработчикам, и инженерам.

Конструкторский отдел помогает осуществить:

- Регистрацию проекта у производителя компонентов.
- Техническую поддержку проекта.
- Защиту от снятия компонента с производства.
- Оценку стоимости проекта по компонентам.
- Изготовление тестовой платы монтаж и пусконаладочные работы.



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Email: org@lifeelectronics.ru