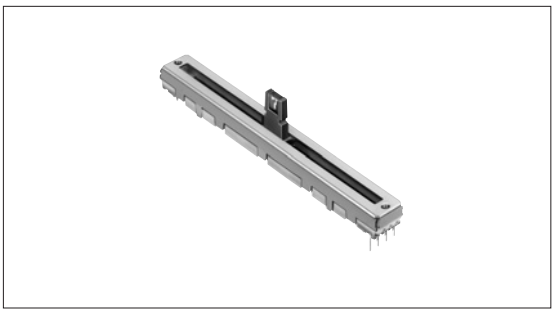
# Illuminated Type (Single-unit Type)

## RS602 Series

Car Use | RoHS applicable

**Ideal for audio equipment, available in three LED colors - red, orange and green.**



### Features

- Available with tap.
- Also available in snap type.
- Available in red, orange and green LED colors.

### Applications

- For in-car heater control
- For various control in audio equipment



### Typical Specifications

| Items | Specifications |
|---|---|
| Total resistance tolerance | ±20% |
| Maximum operating voltage | 200V AC,10V DC |
| Operating force | 0.3 to 2.5N |
| Operating life | 5,000cycles |
| Operating temperature range | −25℃ to +70℃ |

### Recommended Products List

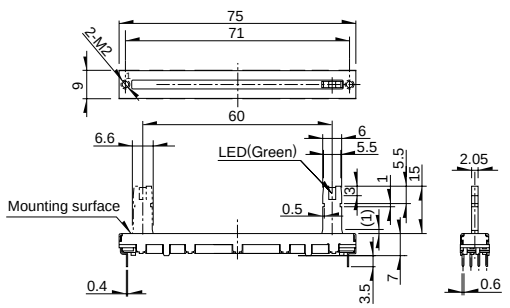
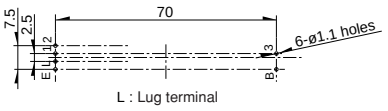
| Number of resistor elements | Travel (mm) | Length of lever (mm) | LED color | Total resistance (kΩ) | Resistance taper | Center detent | Mounting plate | Minimum packing unit (pcs.) | Products No. |
|---|---|---|---|---|---|---|---|---|---|
| Single-unit | 60 | 15 | Green | 10 | 1B | Without | Without | 100 | RS602111LA02 |
| | | | | | | With | | | RS602113LA05 |

**Note**

Dust covers are also available. Please contact us for details.

### Dimensions

Unit:mm

| Style | PC board mounting hole dimensions |
|---|---|
|  |  |





Refer to **P.126** for product varieties.
The length of the operating part (L1) can be customized. Refer to **P.126** for details.
Refer to **P.129** for product specifications.

# Product Varieties

**In addition to the recommended products, the following specifications can also be accommodated.**

## Total Resistance Variety

| Total resistance (kΩ) | 10 | 20 | 50 | 100 | 200 |
|---|---|---|---|---|---|

## Resistance Taper

| Resistance taper | 1B | 4B |
|---|---|---|

**Note**

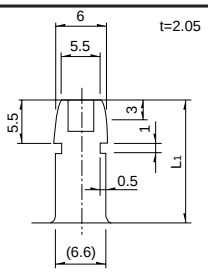
DC (10VDC) is also available. (Tapped types are not available)

## LED Color

| LED color | Red | Orange | Green |
|---|---|---|---|

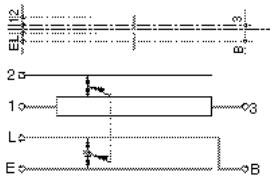
## Lever Types

Unit:mm

| Dimensions |  |
|---|---|
| Length $L_1$ | 10 / 15 |



## Terminal layout/Circuit diagram





L:Lug terminal
B (+), E (-) Terminal side:LED circuit

## Corresponding Specifications

| Resistance taper | 1B, 4B |
|---|---|
| Tap | Available (Only the center-positioned) |

**Notes**

1. marked are specifications recommended by ALPS.
2. Products other than those listed in the above list are also available. Please contact us for details.

Refer to **P.127** for resistance taper.

# Orders Other Than Recommended Products

When ordering product varieties that are not listed in the Recommended Product list, please specify by referring to the below example.

## Sample Part Number

| R | S | 6 | 0 | 2 | 1 | 1 | – | 1 | 0 | – | C | 0 | – | P | 0 | – | G | – | B | 1 | 0 | 3 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

### Travel (mm)

| 60 |
|---|

### Length of operation unit

| Code | Length (mm) |
|---|---|
| 10 | 10 |
| 15 | 15 |

### Detent

| Code | Detent |
|---|---|
| C0 | Without |
| C1 | Center |

See page P.128

### Mounting plate

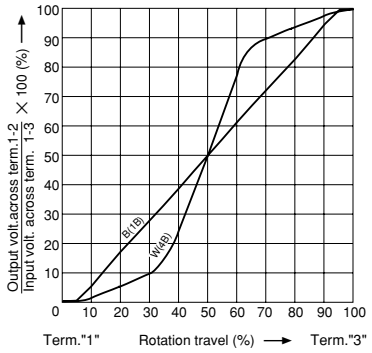
| Code | Mounting plate |
|---|---|
| P0 | Without |
| P1 | With |

### LED color

| Code | Color |
|---|---|
| R | Red |
| O | Orange |
| G | Green |

### Resistance taper

| Code | Resistance taper |
|---|---|
| B | 1B |
| W | 4B |




### Total resistance

| Code | Total resistance (kΩ) | Code | Total resistance (kΩ) |
|---|---|---|---|
| 103 | 10 | 104 | 100 |
| 203 | 20 | 204 | 200 |
| 503 | 50 | | |

**Note**

marked are specifications recommended by ALPS.

# Products Specifications

| Type | Compact reflow type | Long-life, Compact type | Illuminated type Single-unit type |
|---|---|---|---|
| Model | RS06U | RD7097 | RS60211 |

## Mechanical Performance

| | | | | |
|---|---|---|---|---|
| Operating temperature range | | −10℃ to +70℃ | | −25℃ to +70℃ |
| Operating force | | 0.34N±0.15N | 0.5N max | 0.3 to 2.5N |
| Stopper strength | | 15N | 10N | 50N |
| Lever push-pull strength | | 10N | | |
| Lever wobble (mm) ※Both sides | | ——— | 1.4 max. | 3 max. |
| Detent slip-out force | | Without | | Operating force+(0.2 to 2N) |
| Lever deviation (mm) ※One sides | | ——— | 0.3 max. | 0.5 max. |
| Solder heat resistance | Manual soldering | 350℃ max. 3s max. | | |
| | Dip soldering | ——— | 260℃ max. 5s max. | |
| | Reflow soldering | 250°C, 3s max. | ——— | |

## Electrical Performance

| | | |
|---|---|---|
| Total resistance (kΩ) | 30 | 10, 20, 50, 100, 200 |
| Total resistance tolerance | ±30% | ±20% |
| Resistance taper | Linear (B) | 1B, 4B |

## Endurance

| | | | |
|---|---|---|---|
| Sliding life | 10,000cycles | 2,000,000cycles | 5,000cycles |

## Environmental Test

| | | | |
|---|---|---|---|
| Cold | −30±2℃ for 240h | −30±2℃ for 96h | |
| Dry heat | 70±2℃ for 240h | 80±2℃ for 96h | 70±2℃ for 96h |
| Damp heat | 40±2℃, 90 to 95 % RH for 240h | 60±2℃, 90 to 95 % RH for 96h | 40±2℃, 90 to 95 % RH for 96h |

**Notes**

1. "L" in the "Lever Wobble" column of the above table indicates the length of lever.
2. Products other than those listed in the above list are also available. Please contact us for details.
3. The resistance taper specification in ( ) are individually defined.

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*Тел: +7 (812) 336 43 04 (многоканальный)*
*Email: org@lifeelectronics.ru*

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