

Low-profile 7.5mm height contributes to flexibility in set design



Detector

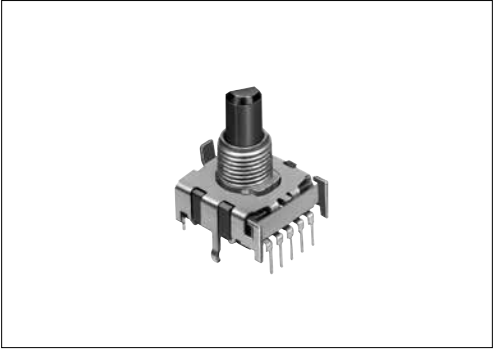
Slide

Push

Rotary

Power

Dual-in-line Package Type



### Typical Specifications

| Items   |              | Specifications              |
|---|--------------|-----------------------------|
| Rating (max.)/(min.) (Resistive load)               |              | 0.3A 16V DC / 50μA 3V DC    |
| Contact resistance (Initial / After operating life) |              | 50mΩ max. / 150mΩ max.      |
| Rotational torque                                   |              | 30±15mN·m                   |
| Operating life                                      | Without load | 10,000 cycles               |
|   | With load    | 10,000 cycles (0.3A 16V DC) |

### Product Line

| Poles | Positions | Changeover angle | Changeover timing | Actuator configuration | Actuator length (mm) | Minimum order unit (pcs.) |        | Product No.       |
|-------|-----------|------------------|-------------------|------------------------|----------------------|---------------------------|--------|-------------------|
|       |           |                  |                   |                        |                      | Japan                     | Export |                   |
| 1     | 3         | 30±3°            | Non shorting      | Flat                   | L=15                 | 165                       | 330    | <b>SRBV131803</b> |
|       |           |                  |                   |                        | L=20                 |                           |        | <b>SRBV131502</b> |
|       | 4         |                  |                   |                        | L=15                 |                           |        | <b>SRBV141404</b> |
|       |           |                  |                   |                        | L=20                 |                           |        | <b>SRBV141201</b> |
|       | 5         |                  |                   |                        | L=15                 |                           |        | <b>SRBV151102</b> |
|       |           |                  |                   |                        | L=20                 |                           |        | <b>SRBV150901</b> |
|       | 6         |                  |                   |                        | L=15                 |                           |        | <b>SRBV160803</b> |
|       | 7         |                  |                   |                        |                      |                           |        | <b>SRBV170701</b> |
|       | 8         |                  |                   |                        | L=20                 |                           |        | <b>SRBV170501</b> |
|       |           |                  |                   |                        | L=15                 |                           |        | <b>SRBV181004</b> |

### Packing Specifications

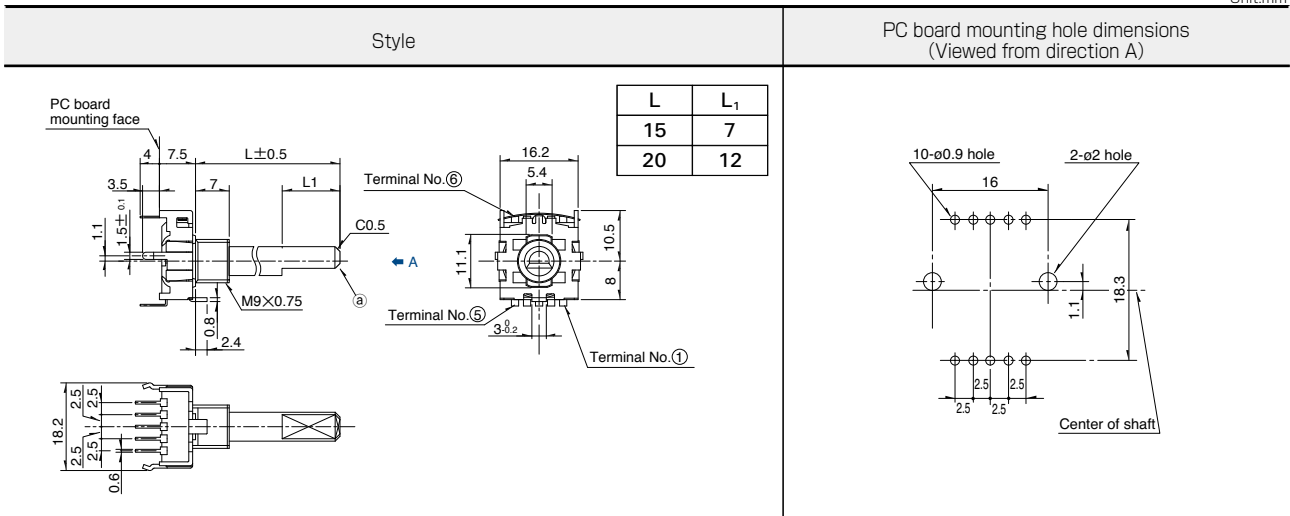
Tray

| Number of packages (pcs.) |                        | Export package measurements (mm) |
|---------------------------|------------------------|----------------------------------|
| 1 case /Japan             | 1 case /export packing |                                  |
| 165                       | 330                    | 400×270×185                      |

Refer to P.141 for shaft configurations.  
Refer to P.148 for soldering conditions.

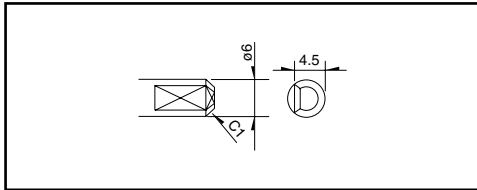
■ Dimensions

Unit:mm

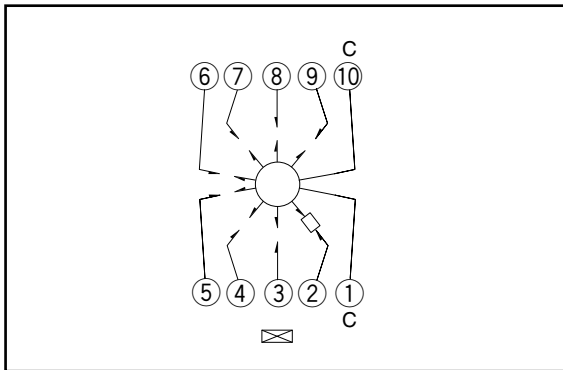


■ Operation Part Details ①

Unit:mm



■ Standard Circuit Diagram (Viewed from Direction A)

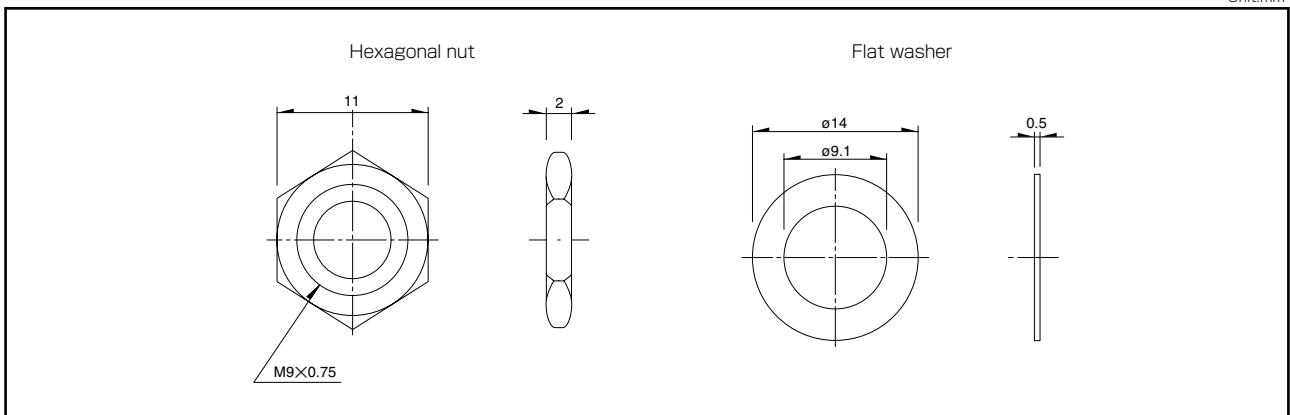


■ Dummy Terminals

|            |           |
|------------|-----------|
| 3-position | ⑤ ⑥ ⑦ ⑧ ⑨ |
| 4-position | ⑥ ⑦ ⑧ ⑨   |
| 5-position | ⑦ ⑧ ⑨     |
| 6-position | ⑧ ⑨       |
| 7-position | ⑨         |
| 8-position | —         |

■ Attached Parts

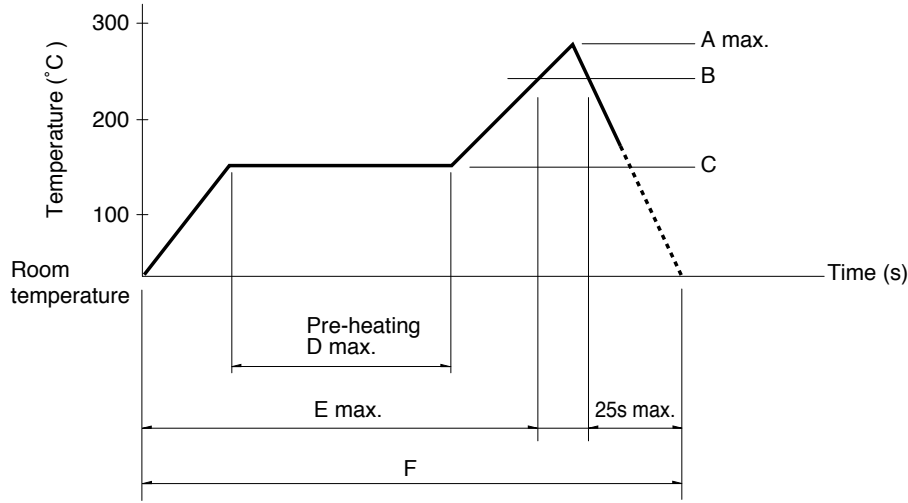
Unit:mm



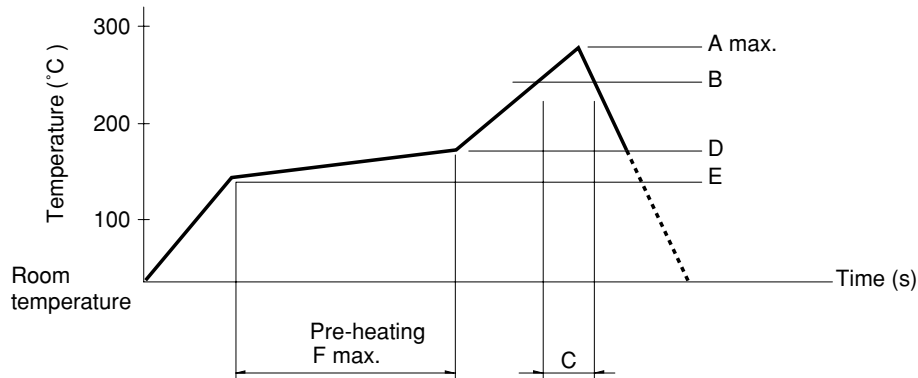


## Example of Reflow Soldering Condition

1. Heating method: Double heating method with infrared heater.
2. Temperature measurement: Thermocouple  $\phi 0.1$  to  $0.2$  CA (K) or CC (T) at soldering portion (copper foil surface). A heat resisting tape should be used for fixed measurement.
3. Temperature profile



| Series (Reflow type) | A (°C)<br>3s max. | B (°C) | C (°C) | D (s)     | E (s) | F (s) |
|----------------------|-------------------|--------|--------|-----------|-------|-------|
| <b>SRBQ</b>          | 250               | 200    | 150±5  | 80 to 100 | —     | —     |



| Series (Reflow type) | A (°C)<br>3s max. | B (°C) | C (s) | D (°C) | E (°C) | F (s) |
|----------------------|-------------------|--------|-------|--------|--------|-------|
| <b>SRBD</b>          | 260               | 230    | 40    | 180    | 150    | 120   |

- Notes**
1. The condition mentioned above is the temperature on the mounting surface of a PC board. There are cases where the PC board's temperature greatly differs from that of the switch, depending on the PC board's material, size, thickness, etc. The above-stated conditions shall also apply to switch surface temperatures.
  2. Soldering conditions differ depending on reflow soldering machines. Prior verification of soldering condition is highly recommended.

## Reference for Hand Soldering

| Series                              | Soldering temperature | Soldering time |
|-------------------------------------|-----------------------|----------------|
| <b>SRBQ, SRBM, SRBV, SRRM, SRRN</b> | 350±10°C              | 3+1/0s         |
| <b>SRBQ (Reflow type)</b>           | 350±5°C               | 3s max.        |

## Reference for Dip Soldering

(For PC board terminal types)

| Series                  | Items                  |                 | Dip soldering         |                       |
|-------------------------|------------------------|-----------------|-----------------------|-----------------------|
|                         | Preheating temperature | Preheating time | Soldering temperature | Duration of immersion |
| <b>SRBM</b>             | 100°C max.             | 60s max.        | 260±5°C               | 5s max.               |
| <b>SRBV, SRRM, SRRN</b> | —                      | —               | 260±5°C               | 10±1s                 |
| <b>SRBQ</b>             | —                      | —               | 260±5°C               | 5±1s                  |