

Compact general purpose type with self-return option.

Detector

Slide

Push

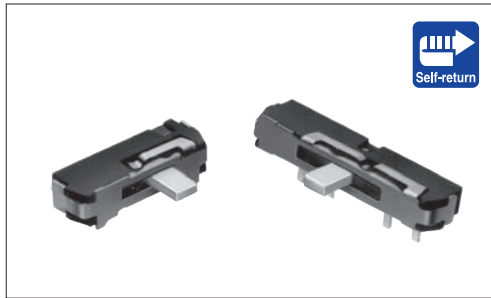
Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Small size
General Use typeBig size
General Use type

Typical Specifications

| Items | | Specifications |
|--|--------------|--|
| Rating (max.) / (min.) (Resistive load) | | 0.3A 4V DC / 50 μ A 3V DC |
| Contact resistance (Initial performance / After lifetime) | | 70m Ω max. / 130m Ω max. |
| Operating force | | Refer to the dimensions. |
| Operating life | Without load | 10,000cycles |
| | With load | 10,000cycles (0.3A 4V DC) |

Product Line

| Travel (mm) | Actuator direction | Actuator length (mm) | Poles | Positions | Changeover timing | Soldering | Operation | Minimum order unit (pcs.) | | Products No. | Drawing No. |
|----------------|-----------------------|-------------------------|-------|-----------|----------------------|-----------------------|------------|---------------------------|------------|--------------|----------------|
| | | | | | | | | Japan | Export | | |
| 2 | Horizontal | 2 | 1 | 2 | Not specified | Manual | Standard | 100 | 50,000 | SSSS710100 | 1 |
| | | | | | | | | | | | |
| | | | | 3 | Non shorting | Manual | | 100 | 40,000 | SSSS711100 | 4 |
| | | | | | | | | | | | |
| | | | | 2 | Reflow | Single-side recoil | 2,000 | 8,000 | SSSS7A0101 | 6 | |
| | | | | | | | | | | | SSSS7A0202 |
| 2 | Reflow | Double-side recoil | 2,000 | 8,000 | SSSS7B0101 | 3 | | | | | |
| | | | | | | | SSSS7B0101 | 3 | | | |

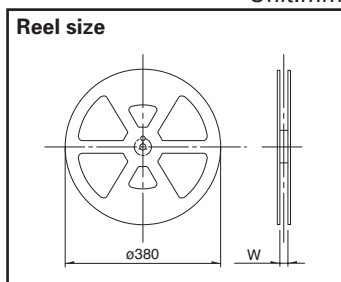
Notes

1. Other varieties are also available. Please inquire.
2. Please contact us for automotive use products.

Packing Specifications

Taping

Unit:mm




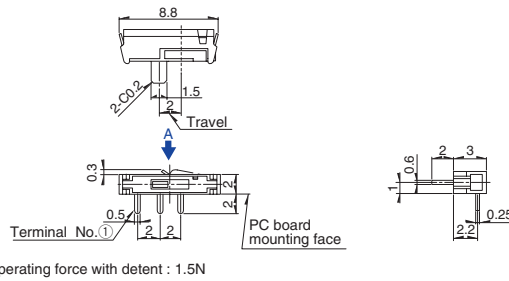
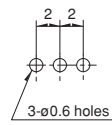

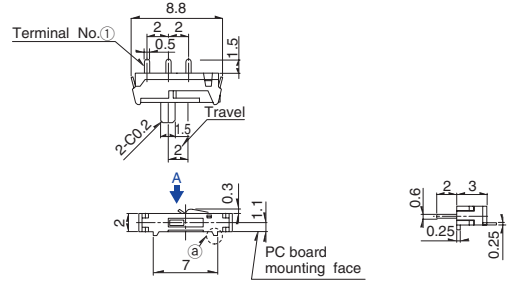
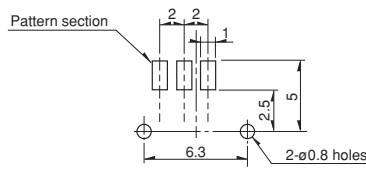

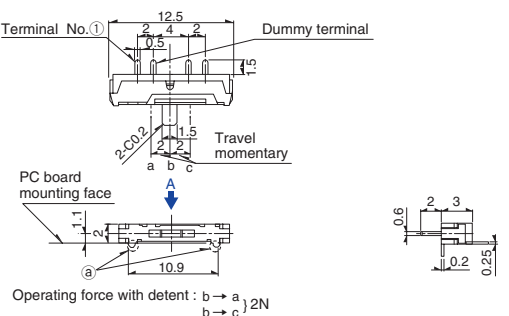
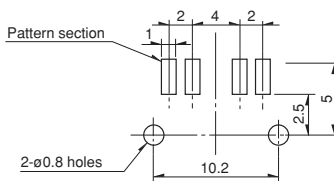

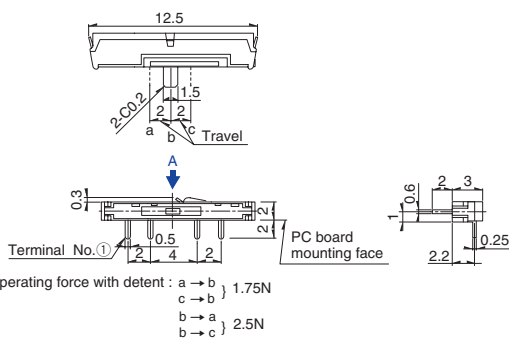
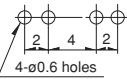
| Series | Number of packages (pcs.) | | | Reel width W (mm) | Tape width (mm) | Export package measurements (mm) |
|----------------|---------------------------|-------------------|----------------------------|-------------------------|-----------------------|--|
| | 1 reel | 1 case / Japan | 1 case / export packing | | | |
| SSSS710607 | 2,000 | 4,000 | 8,000 | 17.4 | 16 | 417 × 409 × 139 |
| SSSS711403 | | | | | | |
| SSSS7A, SSSS7B | | | | 25.4 | 24 | 406 × 406 × 190 |

Bulk

| Series | Number of packages (pcs.) | | Export package measurements (mm) |
|------------|---------------------------|----------------------------|--|
| | 1 case / Japan | 1 case / export packing | |
| SSSS710100 | 10,000 | 50,000 | 400 × 270 × 290 |
| SSSS711100 | 8,000 | 40,000 | |

Dimensions

Unit:mm

| No. | Photo | Style | PC board mounting hole dimensions (Viewed from direction A) |
|-----|---|--|---|
| 1 |  |  |  |
| 2 |  |  |  |
| 3 |  |  |  |
| 4 |  |  |  |

Detector

Slide

Push

Rotary

Encoders

Power

Dual-in-line
Package Type

TACT Switch™

Small size
General Use type

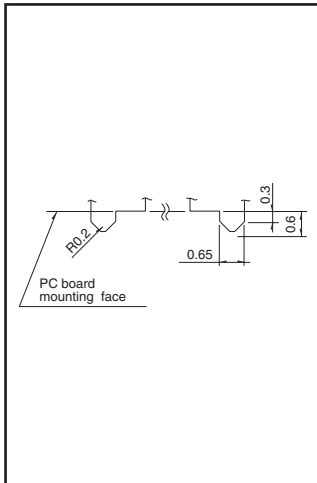
Big size
General Use type

Unit:mm

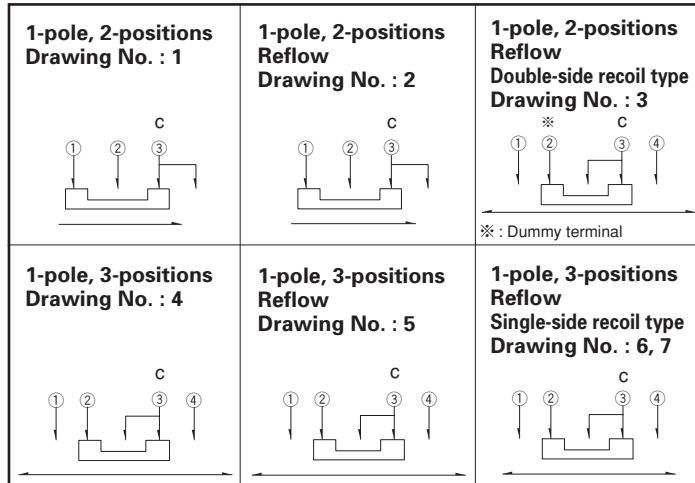
Dimensions

| No. | Photo | Style | PC board mounting hole dimensions (Viewed from direction A) |
|-----|-------|---|---|
| 5 | | <p>Operating force with detent : a → b } 1.75N c → b } b → a } 2.5N b → c }</p> | |
| 6 | | <p>Operating force with detent b → c : 2.25N c → b : 1.75N b → a : 2N</p> | |
| 7 | | <p>Operating force with detent : b → c 1.5N a → b 1.6N b → a 2.2N</p> | |

Detail of (a) Unit:mm

















Circuit Diagram (Viewed from Direction A)



Slide Switches

List of Varieties

| Series | | SSAJ | SSAH | SSSS8 | SSAL | SSAG | SSSS7※1 | SSSS2 | |
|--------------------------------|--|--|--|--|--|--|--|--|-----|
| Photo | |  |  |  |  |  |  |  | |
| Actuator direction | Horizontal | ● | ● | ● | ● | ● | ● | ● | |
| | Vertical | — | — | ● | — | — | — | ● | |
| Dimensions (mm) | W | 5.5 | 9.5 | 9.7 | 7.6 | 9.05 | 8.8 | 13 | |
| | D | 2.5 | 3 | 2.6 | | 3 | | 3.5 | |
| | H | 0.7 | 0.9 | 1.4 | 1.2 | 1.15 | 2 | | |
| Poles-positions | 1-2 | ● | — | ● | ● | — | ● | ● | |
| | 1-3 | — | ● | ● | — | ● | ● | ● | |
| | 1-4 | — | — | — | — | — | — | ● | |
| | 2-2 | — | — | ● | — | — | — | ● | |
| | 2-3 | — | — | ● | — | — | — | ● | |
| | 2-4 | — | — | — | — | — | — | ● | |
| | 4-2 | — | — | — | — | — | — | — | |
| Travel (mm) | | 1.4 | 1.5 | 1.5 2 | 2 | 1.5 | 2 | 2 | |
| Operating temperature range | | -10°C to +60°C | -30°C to +60°C | -40°C to +85°C | -10°C to +60°C | | -40°C to +85°C | | |
| Automotive use | | — | — | ● | — | — | — | — | |
| Life cycle | |  |  |  |  |  |  |  | |
| Rating (max.) (Resistive load) | | 10mA 5V DC | 1mA 5V DC | 0.3A 5V DC | 10mA 5V DC | | 0.3A 4V DC | 0.3A 6V DC | |
| Rating (min.) (Resistive load) | | 50μA 3V DC | — | 50μA 3V DC | | | | | |
| Durability | Operating life without load | 10,000cycles 500mΩ max. | 10,000cycles 300mΩ max. | 10,000cycles 100mΩ max. | 100,000cycles 10Ω max. | 30,000cycles (Lockside) 100,000cycles (Recoilside) 500mΩ max. | 10,000cycles 100mΩ max.※2 | 10,000cycles 130mΩ max.※2 | |
| | Operating life without load Load:as rating | | | 10,000cycles 130mΩ max. | | | | | |
| Electrical performance | Initial contact resistance | 300mΩ max. | 200mΩ max. | 70mΩ max. | 10Ω max. | 200mΩ max. | 70mΩ max. | | |
| | Insulation resistance | 100MΩ min. 100V DC | | | | | 100MΩ min. 500V DC | | |
| | Voltage proof | 100V AC for 1minute | | | | | 500V AC for 1minute | | |
| Mechanical performance | Terminal strength | 3N for 1minute | | | | | | | |
| | Actuator strength | Operating direction | | 10N | 10N | 10N | | 10N | 20N |
| | | Pulling direction | | 10N Static force | | 10N | | 10N Static force | |
| Environmental performance | Cold | -40±2°C for 96h | | -40±2°C for 500h | -40±2°C for 96h | | -20±2°C for 500h | | |
| | Dry heat | 85±2°C for 96h | | 85±2°C for 500h | 85±2°C for 96h | | 85±2°C for 500h | | |
| | Damp heat | 40±2°C, 90 to 95%RH for 96h | 60±2°C, 90 to 95%RH for 240h | 60±2°C, 90 to 95%RH for 500h | 40±2°C, 90 to 95%RH for 96h | | 40±2°C, 90 to 95%RH for 500h | | |
| Page | | 70 | 72 | 74 | 77 | 79 | 82 | 85 | |

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- Slide Switches Cautions 112

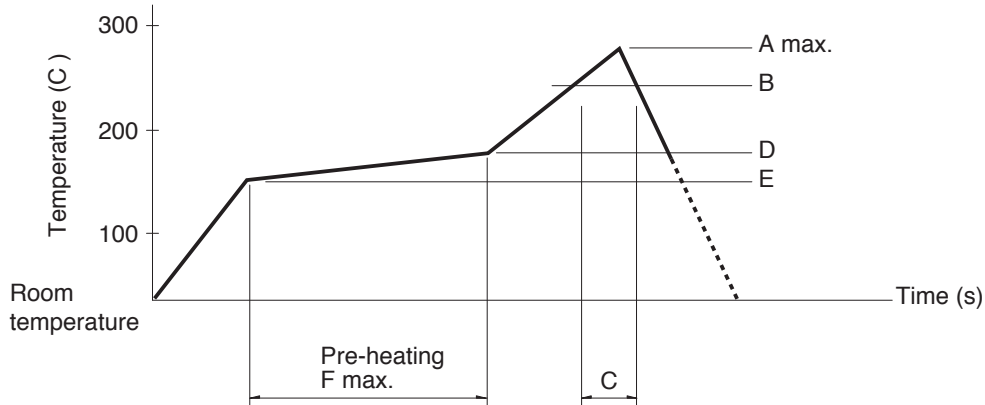
Notes

1. ※1. The operating temperature range for automotive applications can be raised upon request. Please contact us for details.
2. ※2. Operating life for SSSS213202 is 100 cycles
3. ● indicates applicability to all products in the series.

Slide Switches Soldering Conditions

Example of Reflow Soldering Condition

1. Heating method: Double heating method with infrared heater.
2. Temperature measurement: Thermocouple 0.1 to 0.2 φ 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) 3s max. | B (°C) | C (s) | D (°C) | E (°C) | F (s) |
|-------------------------------|------------|--|-------------------|--------|-------|--------|--------|-------|
| SSSS2 | Vertical | 1-pole, 3-positions | 250 | 230 | 40 | 180 | 150 | 120 |
| | Horizontal | 1-pole, 2-positions 1-pole, 3-positions 2-poles, 3-positions | 260 | | | | | |
| | Vertical | 1-pole, 2-positions | 250 | | | | | |
| SSSS7 | | | 260 | | | | | |
| SSAH, SSAG, SSAJ, SSAL, SSSS8 | | | 260 | | | | | |

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 |
|--------------------------------------|-----------------------|----------------|
| SSSF, SSSU, SSSB, SSAA | 350±10°C | 3+1 / 0s |
| SSSS2 | 350±10°C | 4s max. |
| SSSS9 | 350±10°C | 3s max. |
| SSAH, SSAG, SSAJ, SSAL, SSSS8, SSSS7 | 350±5°C | 3s max. |
| SSAC | 300±5°C | 2s max. |

Reference for Dip Soldering

(For PC board terminal types)

| Series | Items | | Dip soldering | |
|------------------|------------------------|-----------------|-----------------------|-----------------------|
| | Preheating temperature | Preheating time | Soldering temperature | Duration of immersion |
| SSSS2 | 100°C max. | 60s max. | 260±5°C | 3±1s |
| SSSS9 | 120°C max. | 60s max. | 260±5°C | 5+ 0 / -1s (2times) |
| SSAA | 100°C max. | 60s max. | 260±5°C | 10±1s |
| SSSF, SSSU, SSSB | — | | 260±5°C | 10±1s |
| SSAC | — | | 260±5°C | 5±1s |

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Small size
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