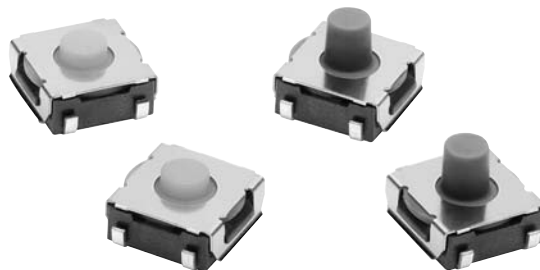


## Middle-stroke Tactile Switch (SMT)

## B3SL

**Surface-mounting Switches with a Sealed Structure (Rubber Plunger), Crisp Feel, and Middle Stroke. Available on Embossed Tape**

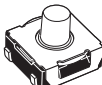
- Sealed construction conforming to IP67 (IEC 60529) provides high contact reliability in dusty environments. (\* Excluding the terminal section.)
- Crisp click feeling and middle stroke with rubber plunger.
- Embossed taping package for automatic mounting.



**RoHS Compliant**

### ■ List of Models

#### 6 × 6 mm Models

| Type        | Contact material | Plunger                                                                                                 | Height | Operating force (OF) | Plunger color | Embossed tape |                      |
|-------------|------------------|---------------------------------------------------------------------------------------------------------|--------|----------------------|---------------|---------------|----------------------|
|             |                  |                                                                                                         |        |                      |               | Model         | Minimum packing unit |
| B3SL Series | Silver plated    | <br>(Flat type)        | 3.4 mm | 1.96 N {200 gf}      | Yellow-green  | B3SL-1002P    | 2,000                |
|             |                  | <br>(Projected type) | 5.1 mm |                      | Gray          | B3SL-1022P    | 1,400                |
|             |                  | <br>(Flat type)      | 3.4 mm | 3.5 N {357 gf}       | Blue          | B3SL-1005P    | 2,000                |
|             |                  | <br>(Projected type) | 5.1 mm |                      | Blue          | B3SL-1025P    | 1,400                |

**Note:** Orders must be made in multiples of the minimum order. Switches are not sold individually.

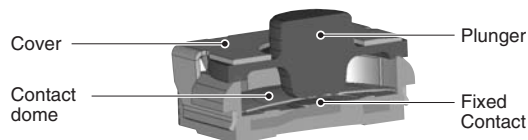
### ■ Ratings/Characteristics

|                                           |                                                              |
|-------------------------------------------|--------------------------------------------------------------|
| Rating (resistive load)                   | 1 to 50 mA at 3 to 12 VDC                                    |
| Minimum applicable load (reference value) | 10 $\mu$ A at 1 VDC (resistive load)                         |
| Ambient operating temperature             | -25°C to +90°C at 60%RH max. (with no icing or condensation) |
| Ambient operating humidity                | 35% to 85% (at +5 to +35°C)                                  |
| Contact form                              | SPST-NO                                                      |
| Contact resistance (initial value)        | 100 m $\Omega$ max.                                          |
| Insulation resistance                     | 100 M $\Omega$ min. (at 250 VDC with insulation tester)      |
| Dielectric strength                       | 250 VAC, 50/60 Hz for 1 min                                  |
| Bounce time                               | 5 ms max.                                                    |
| Vibration resistance                      | Destruction: 10 to 55 Hz, 1.5-mm double amplitude            |
| Shock resistance                          | Destruction: 1,000 m/s <sup>2</sup> {approx. 100 G} max.     |
| Durability                                | 100,000 operations min.                                      |
| Degree of protection                      | IEC IP67                                                     |
| Washing                                   | Not possible                                                 |

## ■ Operating Characteristics

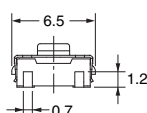
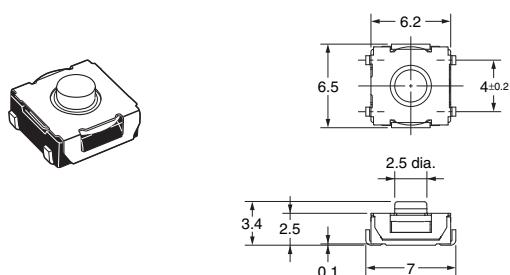
| Operation type       | B3SL-1002P                  | B3SL-1022P   | B3SL-1005P                | B3SL-1025P   |
|----------------------|-----------------------------|--------------|---------------------------|--------------|
| Item                 |                             |              |                           |              |
| Operating force (OF) | 1.96 ± 0.49 N {200 ± 50 gf} |              | 3.5 ± 0.8 N {357 ± 82 gf} |              |
| Releasing force (RF) | 0.35 N min. {35 gf}         |              | 0.5 N min. {51 gf}        |              |
| Pretravel (PT)       | 0.3 ± 0.2 mm                | 0.5 ± 0.2 mm | 0.6 ± 0.2 mm              | 0.8 ± 0.2 mm |

## ■ Model Structure

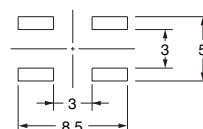


## ■ Dimensions (Unit: mm)

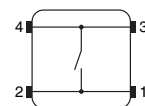
B3SL-1002P  
B3SL-1005P



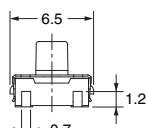
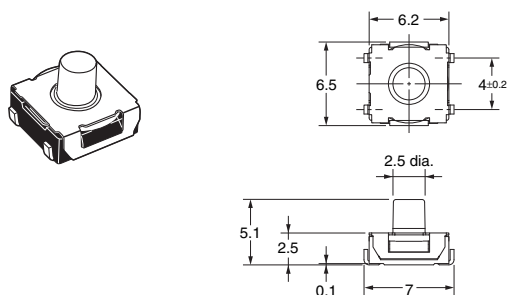
PCB Pad  
(Top View)



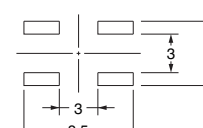
Terminal Arrangement/  
Internal Connections  
(Top View)



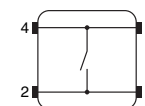
B3SL-1022P  
B3SL-1025P



PCB Pad  
(Top View)



Terminal Arrangement/  
Internal Connections  
(Top View)



**Note:** Unless otherwise specified, a tolerance of ±0.4 mm applies to all dimensions. No terminal numbers are indicated on the Switches.

## ■ Precautions

Be sure to read the precautions common to all Tactile Switches on pages for correct use.

- Application examples provided in this document are for reference only. In actual applications, confirm equipment functions and safety before using the product.
- Consult your OMRON representative before using the product under conditions which are not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, safety equipment, and other systems or equipment that may have a serious influence on lives and property if used improperly. Make sure that the ratings and performance characteristics of the product provide a margin of safety for the system or equipment, and be sure to provide the system or equipment with double safety mechanisms.

**Note: Do not use this document to operate the Unit.**