# **OMRON** Middle-stroke Tactile Switch (SMT)

#### 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.
- A small package containing 100 embossed taping reels is available, in addition to the standard package.



### List of Models

#### $6 \times 6 \text{ mm Models}$

| Туре        | Contact<br>material | Plunger          | Height | Operating force<br>(OF) | Plunger<br>color | Embossed tape   |                         |
|-------------|---------------------|------------------|--------|-------------------------|------------------|-----------------|-------------------------|
|             |                     |                  |        |                         |                  | Model           | Minimum<br>packing unit |
| B3SL Series | Silver<br>plated    |                  | 3.4 mm | 1.96 N {200 gf}         | Yellow-<br>green | B3SL-1002P      | 2,000 pcs               |
|             |                     |                  |        |                         |                  | B3SL-1002P-R100 | 100 pcs                 |
|             |                     | (Flat type)      |        |                         |                  |                 |                         |
|             |                     |                  | 5.1 mm |                         | Gray             | B3SL-1022P      | 1,400 pcs               |
|             |                     | (Projected type) |        |                         |                  |                 |                         |
|             |                     |                  | 3.4 mm | 3.5 N {357 gf}          | Blue             | B3SL-1005P      | 2,000 pcs               |
|             |                     |                  |        |                         |                  | B3SL-1005P-R100 | 100 pcs                 |
|             |                     | (Flat type)      |        |                         |                  |                 |                         |
|             |                     |                  | 5.1 mm |                         | Blue             | B3SL-1025P      | 1,400 pcs               |
|             |                     | (Projected type) |        |                         |                  |                 |                         |

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 μA at 1 VDC (resistive load)                            |  |  |
| Ambient operating temperature             | -25℃ to +90℃ 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 mΩ 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   |  |  |

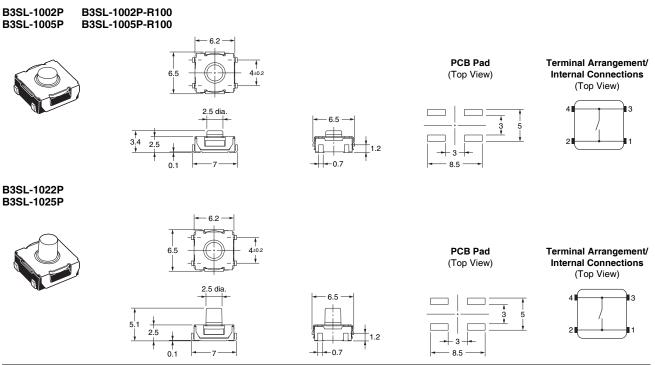
## Operating Characteristics

| Operation type       | B3SL-1002P                      | B3SL-1022P            | B3SL-1005P  | B3SL-1025P            |  |
|----------------------|---------------------------------|-----------------------|---|-----------------------|--|
| Item                 | B3SL-1002P-R100                 |                       | B3SL-1005P-R100                                   |                       |  |
| Operating force (OF) | $1.96 \pm 0.49$ N {200 $\pm$ 50 | gf}                   | $3.5 \pm 0.8 \text{ N} \{357 \pm 82 \text{ gf}\}$ |                       |  |
| Releasing force (RF) | 0.35 N min. {35 gf}             |                       | 0.5 N min. {51 gf}                                |                       |  |
| Pretravel (PT)       | $0.3\pm0.2~\text{mm}$           | $0.5\pm0.2~\text{mm}$ | $0.6\pm0.2\ \text{mm}$                            | $0.8\pm0.2~\text{mm}$ |  |

#### Model Structure



#### ■ Dimensions (Unit: mm)



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.

Please check each region's Terms & Conditions by region website.

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