## Sealed Surface-mounting Tactile Switch

## Slim, Sealed Switches with Surfacemounting Terminals

■ Slim profile helps to downsize products.
■ Sealed construction conforming to IP67 (IEC60529) provides high reliability in locations exposed to dust or water. (* Excluding the terminal section.)

- Available with ground terminals for protection against static electricity.
■ Use of a stainless-steel spring provides a crisp clicking action.

- Gold-plating enables stable contact and insulation over long periods of time.
- Available in embossed taping packages for automatic insertion.


## RoHS Compliant (Refer to page 8 for details.)

## Ordering Information

## ■ List of Models

| Type | Bags (in units of 100 Switches) | Embossed taping (in units of 3,000 Switches) |
| :--- | :--- | :--- |
| Standard, without ground terminal | B3SN-3012 | B3SN-3012P |
| Standard, with ground terminal | B3SN-3112 | B3SN-3112P |
| Gold-plated, without ground terminal | --- | B3SN-3012P-G |

Note: Switches in bags must be ordered in units of 100 pieces, and Switches on embossed taping must be ordered in units of 3,000 pieces. Individual Switches are not sold individually.

## Specifications

## ■ Ratings/Characteristics

| Switching capacity | 1 to $50 \mathrm{~mA}, 5$ to 24 VDC (resistive load) |
| :--- | :--- |
| Ambient operating temperature | $-25^{\circ} \mathrm{C}$ to $70^{\circ} \mathrm{C}$ at $60 \%$ max. humidity (with no icing or condensation) |
| Ambient operating humidity | $35 \%$ to $85 \%$ (at 5 to $35^{\circ} \mathrm{C}$ ) |
| Contact configuration | $\mathrm{SPST}-\mathrm{NO}$ |
| Contact resistance | $100 \mathrm{~m} \Omega$ max. (initial value) (rated: $1 \mathrm{~mA}, 5 \mathrm{VDC}$ ) |
| Insulation resistance | $100 \mathrm{M} \Omega \mathrm{min}$. (at 250 VDC ) |
| Dielectric strength | $250 \mathrm{VAC}, 50 / 60 \mathrm{~Hz}$ for 1 min |
| Bounce time | 5 ms max. |
| Vibration resistance | Malfunction: 10 to $55 \mathrm{~Hz}, 1.5-\mathrm{mm}$ double amplitude |
| Shock resistance | Destruction: $1,000 \mathrm{~m} / \mathrm{s}^{2}$ \{approx. 100 G \} max. |
| Life expectancy | 100,000 operations min. |
| Weight | Approx. 0.2 g |

## ■ Operating Characteristics

| Item | Type | Standard |
| :--- | :--- | :--- |
| Operating force (OF) | $1.57 \pm 0.49 \mathrm{~N}\{160 \pm 50 \mathrm{gf}\}$ max. | $1.76 \pm 0.59 \mathrm{~N}\{180 \mathrm{gf}\}$ max. |
| Releasing force (RF) | $0.29 \mathrm{~N}\{30 \mathrm{gf}\}$ min. |  |


| Item | Type | Standard |
| :--- | :--- | :--- |
| Pretravel (PT) | $0.25 \pm 0.15 \mathrm{~mm}$ | Gold-plated (B3SN-G) |

## Nomenclature



## Dimensions

Note: 1. All units are in millimeters unless otherwise indicated. Unless otherwise specified, a tolerance of $\pm 0.4 \mathrm{~mm}$ applies to all dimensions.
2. No terminal numbers are indicated on the Switches. The numbers used for terminals in the following graphics are indicated in the "Bottom View" diagram below. In this diagram, the Switch is rotated so that the terminals are on the right and left-hand sides, and the OMRON logo appears the right way up.
(Bottom View)

## Without Ground Terminal

B3SN-3012
B3SN-3012P
B3SN-3012G


With Ground Terminal
B3SN-3112


PCB Pad (Top View)

Terminal Arrangement /Internal Connections (Top View)


## Precautions

Be sure to read the precautions common to all Tactile Switches on pages 5 to 7 for correct use.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.
To convert millimeters into inches, multiply by 0.03937 . To convert grams into ounces, multiply by 0.03527 .

Cat. No. C096-E1-04A

