

Double-sealed Construction Ensures Watertight and Dust-tight Performance

- Conforms to IEC529 IP67.
- Allows the use of radial-taping part insertion machines.
- As compact as 8 mm x 8 mm.



Ordering Information


■ Model Number Legend

B3WN-□□□□
1 2 3 4

1. **Appearance**
6: Radial taping
2. **Ground Terminal**
0: None

3. **Height**
0: 13 mm
4. **Operating Force (OF)**
2: 1.96 N {200 gf}

■ List of Models

Model	Height x pitch	Operating force (OF)	Model without ground terminal
B3WN 	13 x 5 mm	1.96 N {200 gf}	B3WN-6002

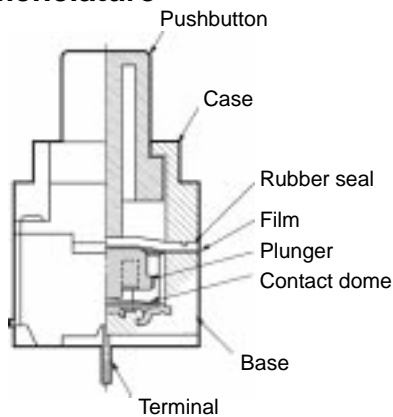
Note: Orders must be made in units of 1,000 pieces.

Specifications

■ Ratings/Characteristics

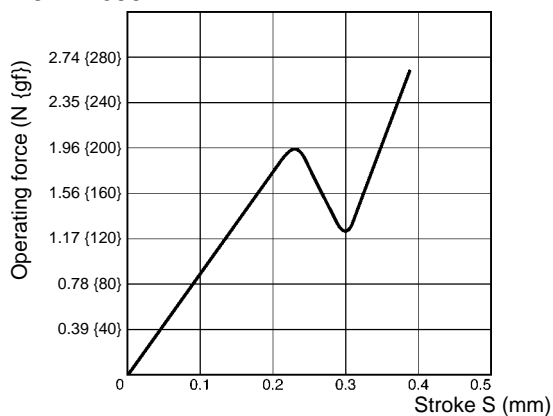
Switching capacity	50 mA, 12 VDC (resistive load)
Contact configuration	SPST-NO
Contact material	Silver plating
Contact resistance	100 mΩ max. (initial value) (rated: 1 mA, 5 VDC)
Insulation resistance	100 MΩ min. (at 100 VDC)
Dielectric strength	250 VAC, 50/60Hz for 1 min
Bounce time	10 ms max.
Vibration resistance	Malfunction: 10 to 55 Hz, 1.5-mm double amplitude
Shock resistance	Destruction: 784 m/s ² {approx. 80G} max. Malfunction: 100 m/s ² {approx. 10G} max.
Life expectancy	100,000 operations min.
Ambient temperature	Operating: -25°C to 85°C (with no icing)
Ambient humidity	Operating: 35% to 85%
Weight	Approx. 0.7 g

■ Nomenclature



Engineering Data

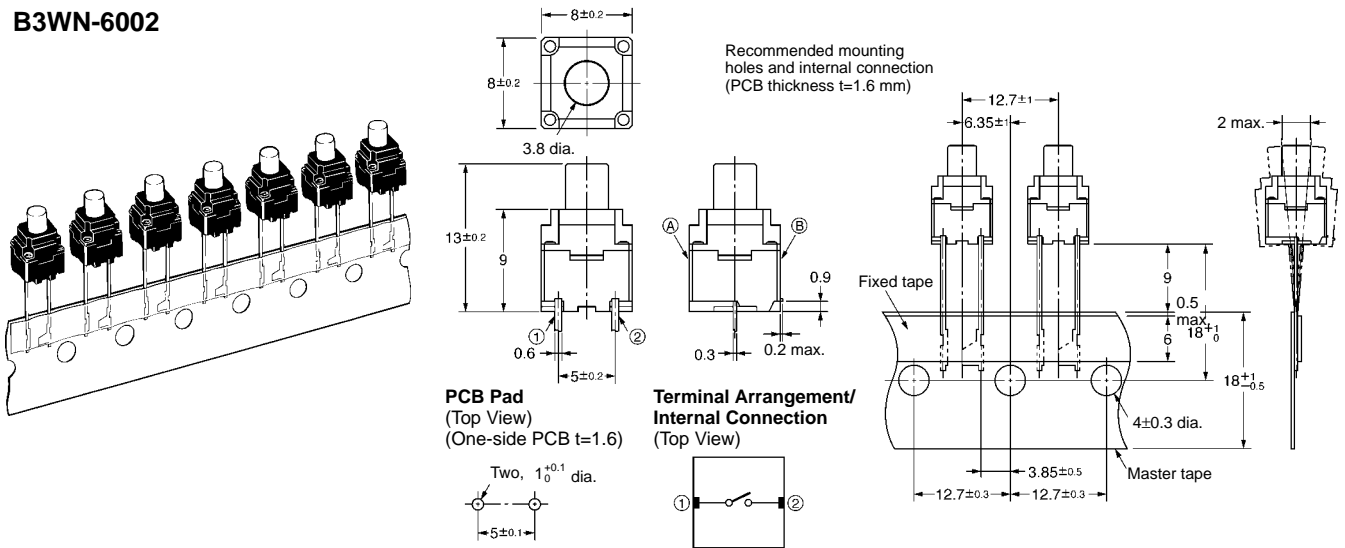
Operating Force vs. Stroke Characteristics B3WN-6002



Dimensions

Note: All units are in millimeters unless otherwise indicated. Unless otherwise specified, a tolerance of ± 0.4 mm applies to all dimensions.

B3WN-6002



Note: Switch fixing direction (A and B) on the tape may change.

Operating Characteristics

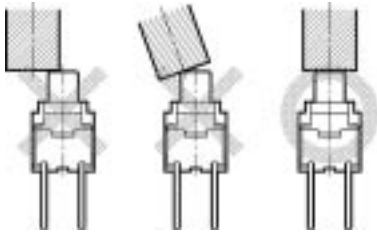
Item	B3WN-6002
Operating force (OF)	1.96 ± 0.67 N { 200 ± 70 gf}
Releasing force (RF)	0.49 N { 50 gf} min.
Pretravel (PT)	$0.3 \begin{smallmatrix} +0.2 \\ -0.1 \end{smallmatrix}$ mm

Precautions

Operation

Do not repeatedly operate the Switch with excessive force. Applying excessive pressure or applying additional force after the plunger has stopped may deform the disc spring of the Switch, resulting in malfunction.

Be sure to set up the Switch so that the plunger will operate in a straight vertical line. A decrease in the life of the Switch may result if the plunger is pressed off-center or from an angle.



PCB

The Switch is designed for a 1.6-mm-thick, single-sided PCB. Using PCBs that are different in thickness or using double-sided, through-hole PCBs may result in loose mounting, improper insertion, or poor heat resistance in soldering. Whether these problems arise or not will depend on the type of holes, patterns, etc. Therefore, it is recommended that a verification test is conducted before use.

Soldering

The Switch can be soldered automatically or manually.

The automatic soldering of the Switch on a 1.6-mm-thick, single-sided PCB must be completed within five seconds at a soldering temperature of 260°C maximum.

The manual soldering of the Switch on a 1.6-mm-thick, single-sided PCB must be completed within three seconds at a soldering iron tip temperature of 350°C maximum.

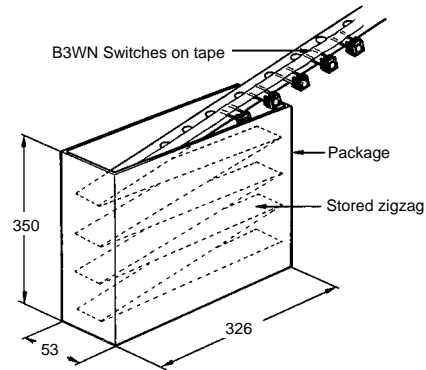
When using a multi-layer PCB, test the PCB in advance because the Switch mounted to the PCB may be deformed by heat if the pattern or land design is improper.

Soldering may be repeated only once at a minimum interval of five minutes if the Switch is not soldered properly.

Make sure that no flux will rise on the mounting surface of the PCB.

Switch Packing

B3WN Switches are packed on tape as shown below.



Do not press strongly, vibrate, or drop the package, otherwise the terminals of the Switches may deform.

Pull out the tape slowly. Make sure that the tape is not entangled while pulling it out, otherwise the terminals of the Switches may deform.

Do not store the package in locations with high temperature or high humidity. Use the Switches as soon as possible. The package made of paper is not tightly sealed. Storing the package in locations with high temperature or high humidity for a long time may result in the discoloration of the Switch terminals.

Cleaning

B3WN Switches are designed to allow submersed cleaning after soldering. When cleaning, please follow the guidelines given as follows;

1. Clean with alcohol solvents. Do not use chlorine solvents or water.
2. When using ultrasonic cleaning in 2- or 3-tank systems, do not clean for more than 1 minute at a time or for more than 3 minutes total.
3. Do not apply external force to the Switch during cleaning.
4. Do not clean immediately after soldering. Allow components to stand for at least 3 minutes before cleaning if possible.
5. The Switch cannot be used where subject to direct contact with water.

Other Precautions

When using the Switch in a very humid environment or where condensation may occur, mount the Switch and then apply coating to the terminals until they are completely covered with coating in order to prevent current leakage from terminals.

Do not use coating materials that contain toluene or xylene.

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.