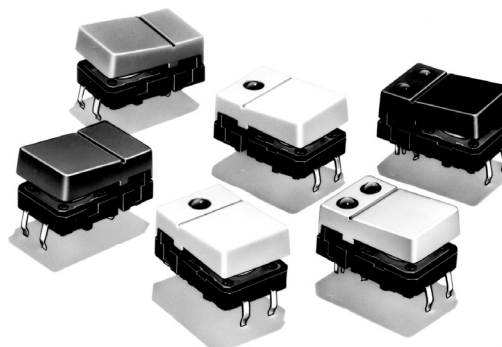


# Tactile Switch (Hinged Type)

## B3J

### Hinged Design Developed through Ergonomics

- Quick, superior snap action through hook-type hinge construction.
- Available with 1 or 2 LEDs or without LEDs.
- The hinge button is available in a wide variety of colors (five standard colors).
- RoHS Compliant.



## Ordering Information

| Color of hinged button | No LED   | One LED  |          |          | Two LEDs (left and right) |           |              |
|------------------------|----------|----------|----------|----------|---------------------------|-----------|--------------|
|                        |          | Red      | Yellow   | Green    | Red/Yellow                | Red/Green | Yellow/Green |
| Light gray             | B3J-1000 | B3J-2000 | B3J-3000 | B3J-4000 | B3J-5000                  | B3J-6000  | B3J-7000     |
| Black                  | B3J-1100 | B3J-2100 | B3J-3100 | B3J-4100 | B3J-5100                  | B3J-6100  | B3J-7100     |
| Orange                 | B3J-1200 | B3J-2200 | B3J-3200 | B3J-4200 | B3J-5200                  | B3J-6200  | B3J-7200     |
| Yellow                 | B3J-1300 | B3J-2300 | B3J-3300 | B3J-4300 | B3J-5300                  | B3J-6300  | B3J-7300     |
| Blue                   | B3J-1400 | B3J-2400 | B3J-3400 | B3J-4400 | B3J-5400                  | B3J-6400  | B3J-7400     |

## Specifications

### ■ Ratings/Characteristics

|                               |                                                                                                                   |
|-------------------------------|-------------------------------------------------------------------------------------------------------------------|
| Contact form                  | SPST-NO                                                                                                           |
| Switching capacity            | 1 to 50 mA, 5 to 24 VDC (resistive load)                                                                          |
| Contact resistance            | 100 mΩ max. (rated: 1 mA, 5 VDC)                                                                                  |
| Insulation resistance         | 100 MΩ min. (at 250 VDC)                                                                                          |
| Dielectric strength           | 500 VAC, 50/60 Hz for 1 min.                                                                                      |
| Bounce time                   | 5 ms max.                                                                                                         |
| Vibration resistance          | Malfunction: 10 to 55 Hz, 1.5-mm double amplitude                                                                 |
| Shock resistance              | Destruction: 1,000 m/s <sup>2</sup> (approx. 100 G) max.<br>Malfunction: 100 m/s <sup>2</sup> (approx. 10 G) max. |
| Life expectancy               | 3,000,000 operations min.                                                                                         |
| Ambient operating temperature | –25°C to 70°C (at 60% RH max.) with no icing or condensation                                                      |
| Ambient operating humidity    | 35% to 85% (at 5 to 35°C)                                                                                         |
| Weight                        | Approx. 1.5 to 1.7 g                                                                                              |

### ■ Operating Characteristics

|                      |                                          |
|----------------------|------------------------------------------|
| Operating force (OF) | 1.27±0.49 N (130 ± 50 gf)                |
| Releasing force (RF) | 0.29 N (30 gf) min.                      |
| Pretravel (PT)       | 0.3 <sup>+0.2</sup> / <sub>–0.1</sub> mm |

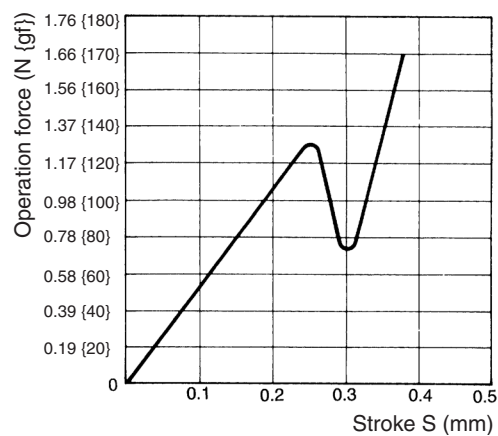
## ■ Built-in LED Performance

| Item                  |                             | Red | Yellow | Green |
|-----------------------|-----------------------------|-----|--------|-------|
| Forward voltage $V_F$ | Standard value (V)          | 2.0 | 2.0    | 2.1   |
| Forward current $I_F$ | Standard value (mA)         | 20  | 20     | 20    |
| Permissible loss P    | Absolute maximum value (mW) | 84  | 84     | 84    |
| Reverse voltage $V_R$ | Absolute maximum value (V)  | 5   | 5      | 5     |

**Note:** Since the built-in LED does not contain any limiting resistors, externally connect limiting resistors within the limits shown in the above table.

## Engineering Data

**Operating Force vs. Stroke  
(Typical)**

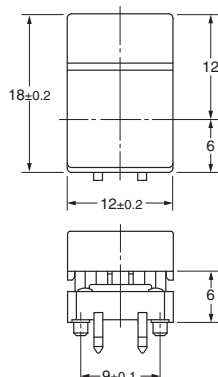
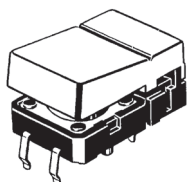


# Dimensions

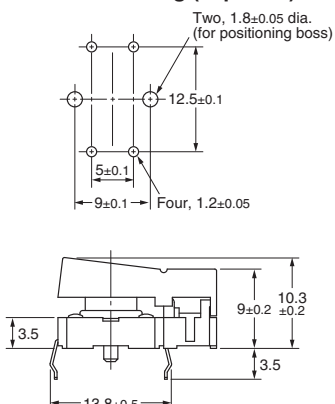
All units are in millimeters unless otherwise indicated. Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions.

## Types with no LED

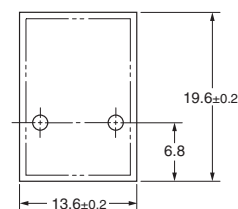
B3J-1□00



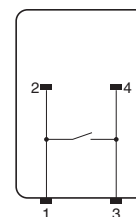
## PCB Mounting (Top View)



## Panel Cutout



## Terminal Arrangement /Internal Connections (Top View)

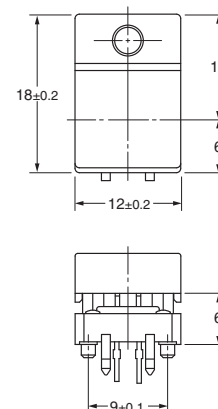
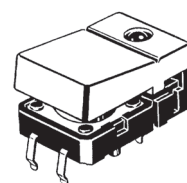


## 1 LED Types

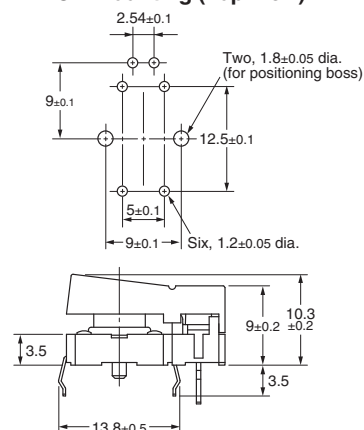
B3J-2□00

B3J-3□00

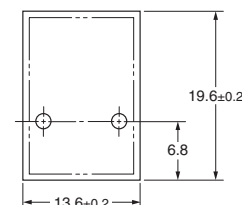
B3J-4□00



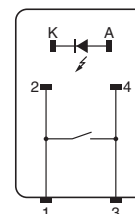
## PCB Mounting (Top View)



## Panel Cutout



## Terminal Arrangement /Internal Connections (Top View)

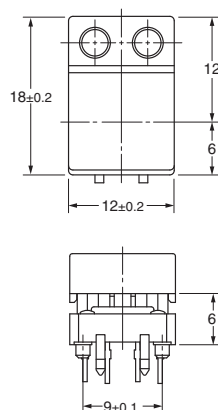
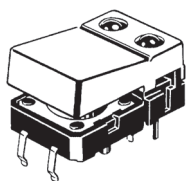


## 2 LED Types

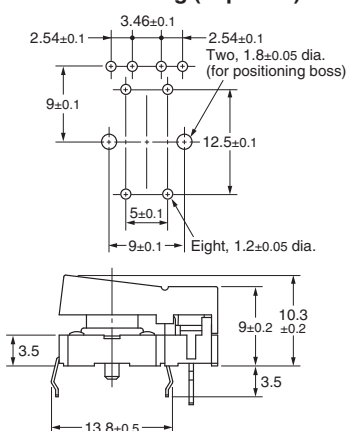
B3J-5□00

B3J-6□00

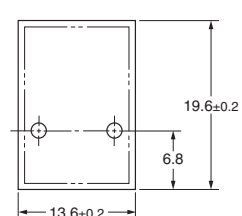
B3J-7□00



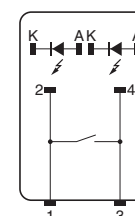
## PCB Mounting (Top View)



## Panel Cutout



## Terminal Arrangement /Internal Connections (Top View)



# Precautions

Be sure to read the precautions common to all Tactile Switches, contained in the Technical User's Guide, "Tactile Switches, Technical Information" for correct use.

All sales are subject to Omron Electronic Components LLC standard terms and conditions of sale, which can be found at [http://www.components.omron.com/components/web/webfiles.nsf/sales\\_terms.html](http://www.components.omron.com/components/web/webfiles.nsf/sales_terms.html)

**ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.**

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

---

**OMRON**<sup>®</sup>

**OMRON ELECTRONIC  
COMPONENTS LLC**

55 E. Commerce Drive, Suite B  
Schaumburg, IL 60173

**847-882-2288**

**OMRON ON-LINE**

Global - <http://www.omron.com>

USA - <http://www.components.omron.com>

Cat. No. X303-E-1

11/10

Specifications subject to change without notice

Printed in USA