

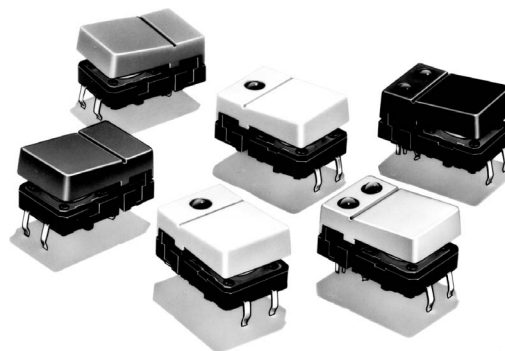
## Hinged Tactile Switch

## B3J

### Hinged Design with Distinctive Snapping Action

- 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



### List of Models

| Color of hinged button | No LED   | One LED  |          |          | Two LEDs (left and right) |           |              |
|------------------------|----------|----------|----------|----------|---------------------------|-----------|--------------|
|                        |          | Red      | Yellow   | Green    | Red/Yellow                | Red/Green | Yellow/Green |
| Ivory                  | 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     |

### Ratings/Characteristics

|                               |                                                                                                                 |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Ratings                       | 1 to 50 mA, 5 to 24 VDC (resistive load)                                                                        |
| 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)                                                                                     |
| Contact form                  | SPST-NO                                                                                                         |
| 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. 100G} max.<br>Malfunction: 100 m/s <sup>2</sup> {approx. 10G} max. |
| Durability                    | 3,000,000 operations min.                                                                                       |
| 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 |

## ■ LED Specifications

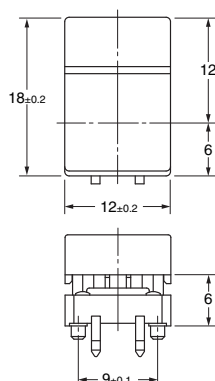
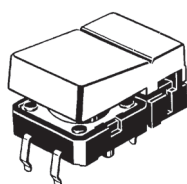
| Item                  |                             | Red | Yellow | Green |
|-----------------------|-----------------------------|-----|--------|-------|
| Forward voltage $V_F$ | Standard value (V)          | 2.0 | 2.0    | 2.1   |
| Forward current $I_F$ | Standard value (mA)         | 20  | 20     | 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.

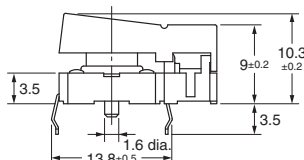
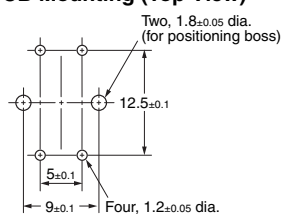
## ■ Dimensions (Unit: mm)

### Types with no LED

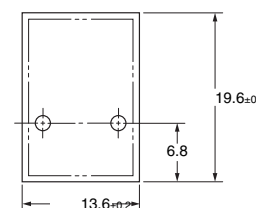
B3J-1□00



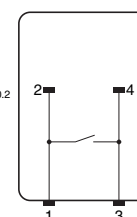
### PCB Mounting (Top View)



### Panel Cutout



### Terminal Arrangement / Internal Connections (Top View)

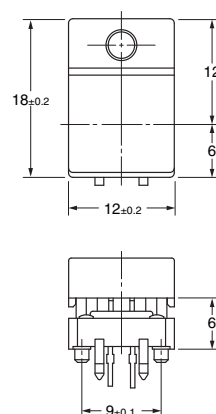
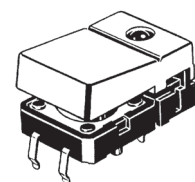


### 1 LED Types

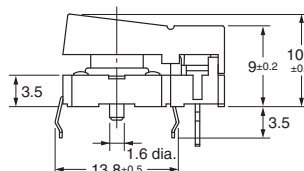
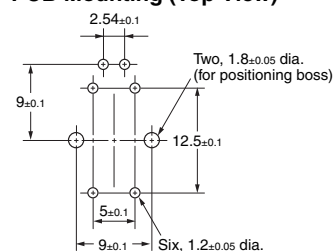
B3J-2□00

B3J-3□00

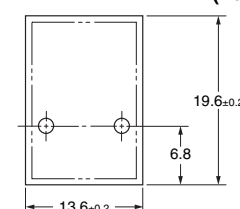
B3J-4□00



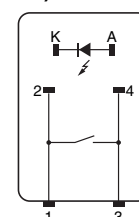
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### Panel Cutout



### Terminal Arrangement / Internal Connections (Top View)

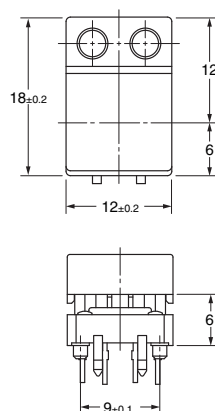
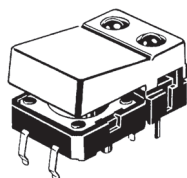


### 2 LED Types

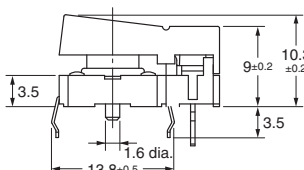
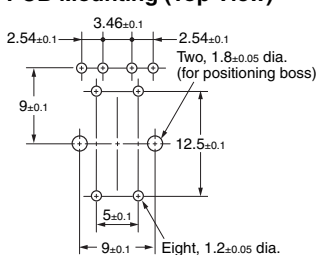
B3J-5□00

B3J-6□00

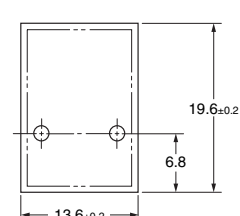
B3J-7□00



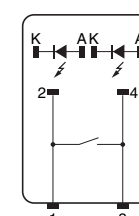
### PCB Mounting (Top View)



### Panel Cutout



### Terminal Arrangement / Internal Connections (Top View)



**Note:** Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions.

## ■ Precautions

Be sure to read the safety precautions common to all Tactile Switches 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.**

**OMRON Corporation**

ELECTRONIC AND MECHANICAL COMPONENTS COMPANY

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