

# **Ultra-small Tactile Switch (SMT)**

**B3U** 

# Ultra-small-sized Tactile Switch with High Contact Reliability:

 $1.2 \times 3 \times 2.5 \text{ mm (H} \times \text{W} \times \text{D)}$ 

- Compact switch allows high-density mounting on PCBs for mobile equipment.
- Dust-proof construction provides high reliability in dusty environments.
- Surface mounted: Ideal for high-density mounting.
- Models with ground terminals are available for protection against static electricity.

RoHS Compliant



## **Ordering Information**

#### ■ List of Models

			Embossed taping (standard quantity)			Embossed taping (small quantity)		
Operation type	Locating pin	Plunger color	Without ground terminal	With ground terminal	Quantity per reel	Without ground terminal	With ground terminal	Quantity
Top-actuated	Without boss	Black	B3U-1000P	B3U-1100P	3,500	B3U-1000PM	B3U-1100PM	1,000
	With boss		B3U-1000P-B	B3U-1100P-B		B3U-1000PM-B	B3U-1100PM-B	
Side-	Without boss		B3U-3000P	B3U-3100P	4,000	B3U-3000PM	B3U-3100PM	1,000
actuated	With boss		B3U-3000P-B	B3U-3100P-B		B3U-3000PM-B	B3U-3100PM-B	

Note: Orders must be made in multiples of the order unit specified above.

## Specifications

#### ■ Ratings/Characteristics

Operation Item type	Top-actuated (B3U-1000 Series)	Side-actuated (B3U-3000 Series)			
Switching capacity	1 to 50 mA, 5 to 12 VDC (resistive load)				
Ambient operating temperature	-25°C to +70°C at 60%RH max. (with no icing or condensation)				
Ambient humidity	35% to 85% (at 5 to 35°C)				
Contact configuration	SPST-NO				
Contact resistance	100 m $\Omega$ max. (initial value) (rated: 1 mA, 5 VDC)				
Insulation resistance	100 MΩ min. (at 100 VDC)				
Dielectric strength	250 VAC, 50/60 Hz for 1 i	min			
Bounce time	5 ms max.				
Vibration resistance	10 to 55 Hz, 1.5 mm double amplitude				
Shock resistance	1,000 m/s <sup>2</sup> max.				
Durability	200,000 operations min.	100,000 operations min.			
Maximum operating force	30 N max.				
Weight	Approx. 0.022 g				

# **Operating Characteristics**

Operation type Item	Top-actuated (B3U-1000 Series)	Side-actuated (B3U-3000 Series)	
Operating force (OF)	1.50 ± 0.49 N {153 ± 50 gf}	$1.59 \pm 0.49 \text{ N}$ {162 $\pm$ 50 gf}	
Releasing force (RF)	0.2 N min. {20 gf}		
Pretravel (PT)	0.15 <sup>+0.2</sup> <sub>-0.1</sub> mm	0.2 <sup>+0.2</sup> <sub>-0.1</sub> mm	

### **Dimensions**

All dimensions are in millimeters unless otherwise indicated. Unless otherwise specified, a tolerance of ±0.2 mm applies to all di-

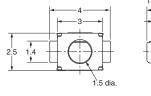
#### **■ Top-actuated Models**

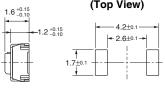
#### Without Ground Terminal, without Boss B3U-1000P(M)

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



**PCB Mounting** (Top View)

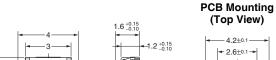


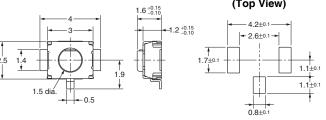


#### With Ground Terminal, without Boss B3U-1100P(M)

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







#### Without Ground Terminal, with Boss

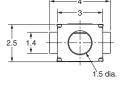
B3U-1000P(M)-B

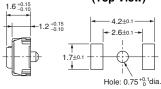


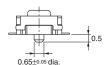
Terminal Arrangement /Internal Connections (Top View)



**PCB Mounting** (Top View)







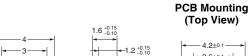
#### With Ground Terminal, with Boss

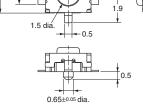
B3U-1100P(M)-B

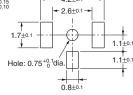


**Terminal Arrangement** /Internal Connections (Top View)





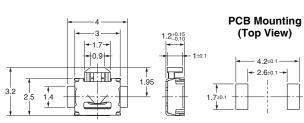


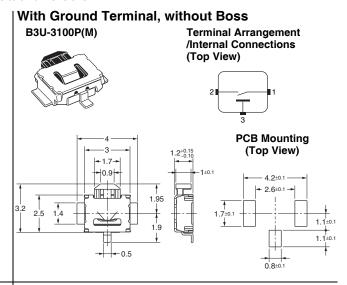


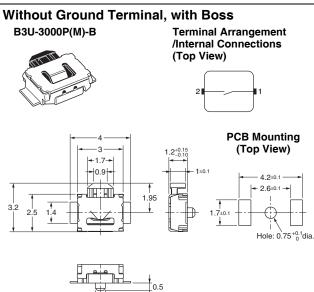
#### ■ Side-actuated Models

**Note:** Unless otherwise specified, a tolerance of  $\pm 0.2$  mm applies to all dimensions.

# Without Ground Terminal, without Boss B3U-3000P(M) Terminal Arrangement /Internal Connections (Top View)







0.65±0.05 dia.

