

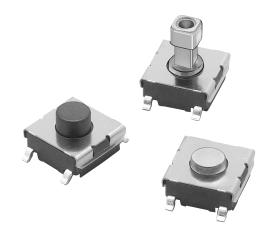
# **Tactile Switch (SMT)**

B3FS

### Surface-mounting Switches Ideal for High-density Mounting

- Tape packing style also available
- Allows reflow soldering
- 3 actuator heights for design flexibility; Projected plunger versions allow installation of B32-series keytops

RoHS Compliant



# **Ordering Information**

### **■ List of Models**

Туре	Plunger type	Height	Operating force (OF)	Plunger color	Bag		Embossed taping	
					Model	Quantity per package	Model	Quantity per package
6 × 6 mm B3FS-1000 models		3.1 mm	0.98 N {100 gf}	Black	B3FS-1000	100	B3FS-1000P	3,000
			1.47 N {150 gf}	Ivory	B3FS-1002		B3FS-1002P	
	(Flat type)		2.55 N {260 gf}	Blue	B3FS-1005	-	B3FS-1005P	
		4.3 mm	0.98 N {100 gf}	Black	B3FS-1010	-	B3FS-1010P	1,000
			1.47 N {150 gf}	Ivory	B3FS-1012	-	B3FS-1012P	
	(Flat type)		2.55 N {260 gf}	Blue	B3FS-1015	-	B3FS-1015P	
	(Projected type)	7.3 mm	0.98 N {100 gf}	Black	B3FS-1050		B3FS-1050P	
			1.47 N {150 gf}	Yellow	B3FS-1052		B3FS-1052P	

Note: Order in multiples of the minimum order unit. Switches are not sold individually.

# Specifications

## ■ Ratings/Characteristics

Switching capacity	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 configuration	SPST-NO			
Contact resistance	100 mΩ max. (initial value) (rated: 1 mA, 5 VDC)			
Insulation resistance	100 MΩ min. (at 100 VDC)			
Dielectric strength	250 VAC, 50/60 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. Malfunction: 100 m/s <sup>2</sup> {approx. 10G} max.			
Durability	Standard models (0.98 N {100 gf}): 1,000,000 operations min. High-force models (1.47 N {150 gf}): 300,000 operations min. High-force models (2.55 N {260 gf}): 100,000 operations min.			
Weight	B3FS-1000: Approx. 0.2 g			

### ■ Operating Characteristics

	B3FS-1000					
Item	0.98 N	1.47 N	2.55 N			
Operating force (OF)	0.98±0.29 N {100±30 gf}	1.47±0.49 N {150±50 gf}	2.55±0.69 N {260±70 gf}			
Releasing force (RF)	0.2 N {20 gf} min.	0.49 N {50 gf} min.	0.49 N {50 gf} min.			
Pretravel (PT)	0.25 <sup>+0.2</sup> / <sub>-0.1</sub> mm					

### **Dimensions**

Note: 1. All units are in millimeters unless otherwise indicated. Unless otherwise specified, a tolerance of ±0.4 mm applies to all dimensions

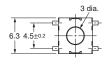
The numbers used for terminals in the following graphics are indicated in the "Bottom View" diagram below. In this diagram, the Switch is rotated so that the terminals are on the right and left-hand sides, and the OMRON logo appears the right way up.





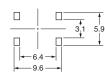
B3FS-1000 B3FS-1002 B3FS-1005 B3FS-1000P B3FS-1002P B3FS-1005P











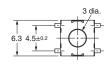
#### Terminal Arrangement/ Internal Connection (Top View)



### **Flat Type**

B3FS-1010 B3FS-1012 B3FS-1015 B3FS-1010P B3FS-1012P B3FS-1015P

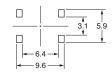








PCB Pad (Top View) (One-side PCB t= 1.6)



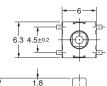
Terminal Arrangement/ Internal Connection (Top View)

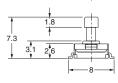


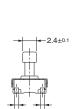
### **Projected Type**

B3FS-1050 B3FS-1052 B3FS-1050P B3FS-1052P

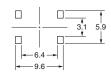








### PCB Pad (Top View) (One-side PCB t= 1.6)



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



## **Key Tops**

B32-series Special Key Tops are available for projected plunger models. Refer to the Datasheet of B32 for details.

# **Precautions**

Be sure to read the safety precautions common to all Tactile Switches for correct use.

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