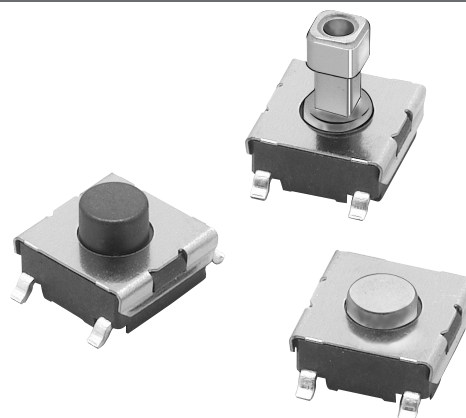


Tactile Switch (SMD)



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

Item					Model			
Type	Plunger	Height	Operating force (OF)	Plunger Color	Bag packaging (qty/bag)	Embossed tape packaging (qty/reel)		
Standard 6 x 6 mm		3.1 mm	100 gf (0.98 N)	Black	B3FS-1000	100	B3FS-1000P	3,000
			150 gf (1.47 N)	Ivory	B3FS-1002		B3FS-1002P	
			260 gf (2.55 N)	Blue	B3FS-1005		B3FS-1005P	
		4.3 mm	100 gf (0.98 N)	Black	B3FS-1010		B3FS-1010P	1,000
			150 gf (1.47 N)	Ivory	B3FS-1012		B3FS-1012P	
			260 gf (2.55 N)	Blue	B3FS-1015		B3FS-1015P	
		7.3 mm	100 gf (0.98 N)	Black	B3FS-1050		B3FS-1050P	
			150 gf (1.47 N)	Yellow	B3FS-1052		B3FS-1052P	

Note: Order in multiples of the quantities given for each package.

Important Note: Switches cannot be water-washed.

Specifications

■ 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 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 ² max. (approx. 100G max.) Malfunction: 100 m/s ² max. (approx. 10G max.)
Life expectancy	100 gf models	1,000,000 operations min.
	150 gf models	300,000 operations min.
	260 gf models	100,000 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		B3FS-1000: Approx. 0.2 g

Note: Data shown are of initial value

Engineering Data

■ Operating Characteristics

Characteristics	B3FS-1000 series		
	100 gf (0.98 N)	150 gf (1.47 N)	260 gf (2.55 N)
Operating force (OF)	100 ± 30 gf (0.98 ± 0.29 N)	150 ± 50 gf (1.47 ± 0.49 N)	260 ± 70 gf (2.55 ± 0.69 N)
Releasing force (RF)	20 gf (0.2 N)	50 gf (0.49 N)	
Pretravel (PT)	0.25 ^{+0.2} / _{–0.1} mm		

■ Accessories

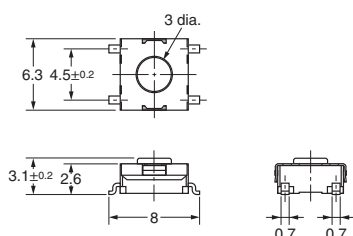
See “B32” Tactile Switch Key Top data sheet for keycaps that fit projected plunger B3FS models.

Dimensions

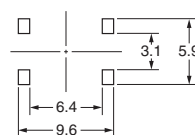
- Note:** 1. Unless otherwise specified, all units are in millimeters and a tolerance of ± 0.4 mm applies to all dimensions.
 2. Terminal numbers are not indicated on this switch. With the switch turned over so that the logo mark "OMRON" is visible on the upper part of the rear side of the switch base, the terminal on the right of the logo mark is numbered "1" and that on the bottom right is "3." Accordingly, two terminals on the left side are numbered "2" and "4" respectively.

Flat Type

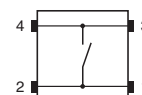
B3FS-1000
 B3FS-1002
 B3FS-1005
 B3FS-1000P
 B3FS-1002P
 B3FS-1005P



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

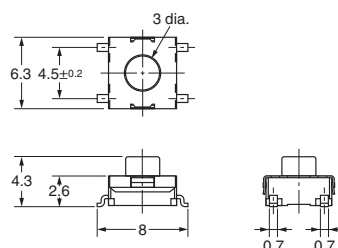


**Terminal Arrangement/
 Internal Connection**
 (Top View)

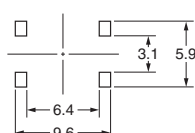


Flat Type

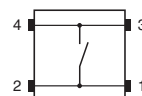
B3FS-1010
 B3FS-1012
 B3FS-1015
 B3FS-1010P
 B3FS-1012P
 B3FS-1015P



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

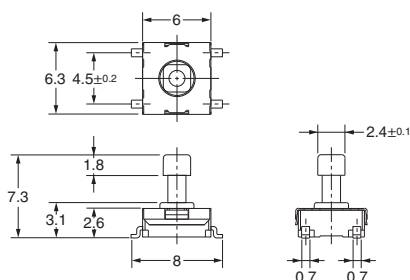
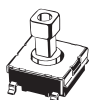


**Terminal Arrangement/
 Internal Connection**
 (Top View)

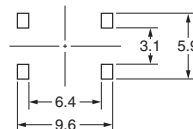


Projected Type

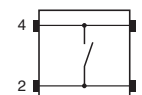
B3FS-1050
 B3FS-1052
 B3FS-1050P
 B3FS-1052P



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



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



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.

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ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

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

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