

# B3FS

## Tactile Switch (SMT)

### 6 × 6-mm Surface-mounting Switches for High-density Mounting. Available on Embossed Tape

- Provide a sharp click and high durability.
- Tape packing style also available.
- B32-series Key Tops mount to models with projected plungers.
- A small package containing 100 embossed taping reels is available, in addition to the standard package.



### Model Number Legend

B3FS - 10       P -     
 (1) (2) (3)

**(1) Plunger types**

- 0 : Flat type (Height 3.1 mm)
- 1 : Flat type (Height 4.3 mm)
- 5 : Projected type
- 9 : Key top integrated type

**(2) Force required for operation (Operating Force)**



- 0 : 0.98 N
- 2 : 1.47 N
- 5 : 2.55 N

**(3) Key-top height / Small-package capability**

- No display : Standard
- A : 7.0 mm
- R100 : 100 pcs

### List of Models

● 6 × 6 mm Models

Type	Contact material	Plunger type	Height	Operating force (OF)	Plunger color	Packaging		Embossed taping		
						Model	Minimum packing unit	Model	Minimum packing unit	
B3FS-1000 models	Silver plated	 (Flat type)	3.1 mm	0.98 N	Black	B3FS-1000	100 pcs	B3FS-1000P	3,000 pcs	
				1.47 N	Ivory	B3FS-1002		B3FS-1000P-R100	100 pcs	
				2.55 N	Blue	B3FS-1005		B3FS-1002P	3,000 pcs	
			4.3 mm	0.98 N	Black	B3FS-1010		B3FS-1002P-R100	100 pcs	
				1.47 N	Ivory	B3FS-1012		B3FS-1005P	3,000 pcs	
				2.55 N	Blue	B3FS-1015		B3FS-1010P	1,000 pcs	
		7.3 mm	0.98 N	Black	B3FS-1050	B3FS-1010P-R100		100 pcs		
			1.47 N	Yellow	B3FS-1052	B3FS-1012P		1,000 pcs		
						B3FS-1012P-R100		100 pcs		
		 (Key top integrated type)	4.9 mm	1.47 N	Black	---		---	B3FS-1015P	1,000 pcs
			4.9 mm	2.55 N					B3FS-1050P	
			7.0 mm	1.47 N					B3FS-1052P	
						B3FS-1092P	900 pcs			
						B3FS-1095P	900 pcs			
						B3FS-1092P-A	700 pcs			

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

## ■ Ratings/Characteristics

Rating (resistive load)		1 to 50 mA, 3 to 24 VDC
Minimum applicable load (reference value)		10 $\mu$ A at 1 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 (initial value)		100 m $\Omega$ max.
Insulation resistance		100 M $\Omega$ min. (at 100 VDC with insulation tester)
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> max.
	Malfunction	100 m/s <sup>2</sup> max.
Durability		Standard models (OF: 0.98 N): 1,000,000 operations min. High-force models (OF: 1.47 N): 300,000 operations min. High-force models (OF: 2.55 N): 100,000 operations min.
Weight		Approx. 0.2 g
Degree of protection		IEC IP00 equivalent
Washing		Not possible

## ■ Operating Characteristics

### ● 6 × 6 mm Models

Item	Type Operating force (OF) Model	B3FS-1000				
		0.98 N		1.47 N		2.55 N
		B3FS-10□0P	B3FS-10□2P	B3FS-1092P	B3FS-10□5P	B3FS-1095P
Operating force (OF)		0.98±0.29 N	1.47±0.49 N	1.47±0.49 N	2.55±0.69 N	2.55±0.69 N
Releasing force (RF)		0.2 N min.	0.49 N min.	0.2 N min.	0.49 N min.	0.2 N min.
Pretravel (PT)		0.25 <sup>+0.2</sup> / <sub>-0.1</sub> mm				

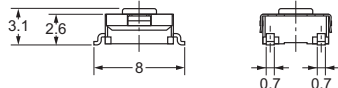
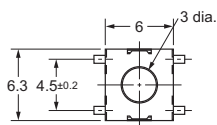
**Dimensions**

**CAD Data** marked products, 2D drawings and 3D CAD models are available.  
For CAD information, please visit our website, which is noted on the last page.

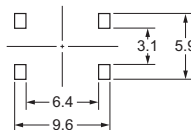
**● 6 × 6 mm Models**

**● Flat Type**

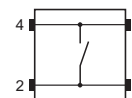
- B3FS-1000
- B3FS-1002
- B3FS-1005
- B3FS-1000P
- B3FS-1002P
- B3FS-1005P
- B3FS-1000P-R100
- B3FS-1002P-R100



**PCB Pad  
(Top View)  
(PCB t= 1.6)**



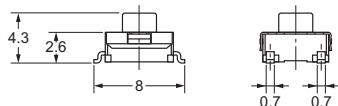
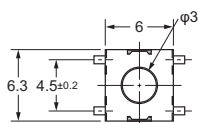
**Terminal Arrangement/  
Internal Connection  
(Top View)**



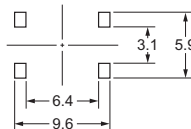
**CAD Data**

**● Flat Type**

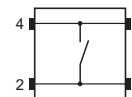
- B3FS-1010
- B3FS-1012
- B3FS-1015
- B3FS-1010P
- B3FS-1012P
- B3FS-1015P
- B3FS-1010P-R100
- B3FS-1012P-R100



**PCB Pad  
(Top View)  
(PCB t= 1.6)**



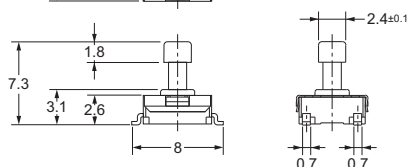
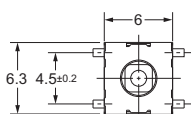
**Terminal Arrangement/  
Internal Connection  
(Top View)**



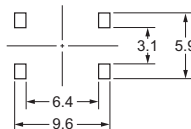
**CAD Data**

**● Projected Type**

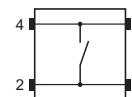
- B3FS-1050
- B3FS-1052
- B3FS-1050P
- B3FS-1052P



**PCB Pad  
(Top View)  
(PCB t= 1.6)**



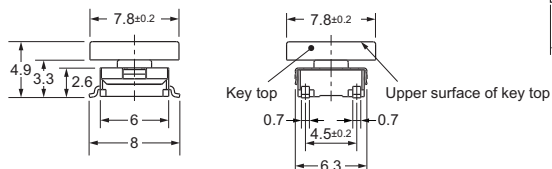
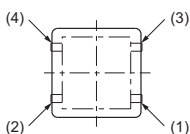
**Terminal Arrangement/  
Internal Connection  
(Top View)**



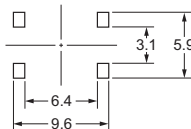
**CAD Data**

**● Key Top Integrated Type**

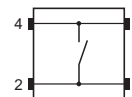
- B3FS-1092P
- B3FS-1095P



**PCB Pad  
(Top View)  
(PCB t= 1.6)**

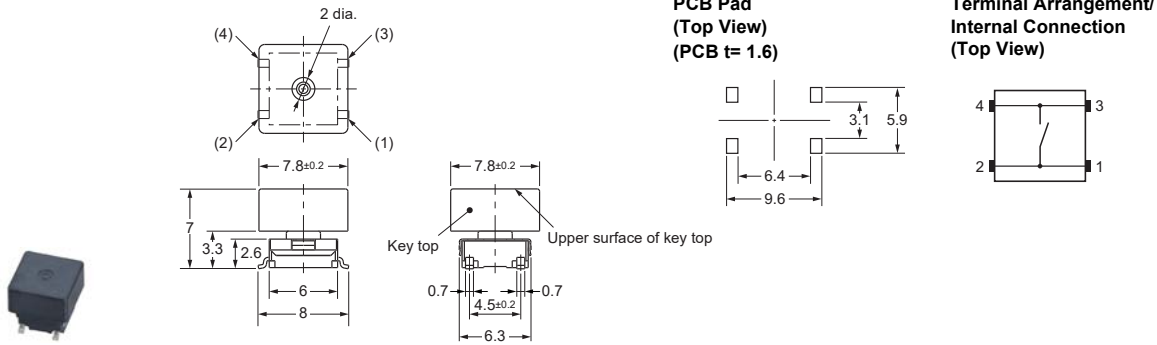


**Terminal Arrangement/  
Internal Connection  
(Top View)**



**CAD Data**

● Key Top Integrated Type  
B3FS-1092P-A



CAD Data

**Note: 1.** 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.



**Note: 2.** Unless otherwise specified, a tolerance of  $\pm 0.4$  mm applies to all dimensions. No terminal numbers are indicated on the Switches.

■ Key Tops

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

■ Precautions

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

## MEMO

A large grid of dashed lines for taking notes, consisting of 20 columns and 20 rows.

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