

Tactile Switch B3S

Surface Mount Tactile Switch for High-Density Packaging

- Sealed construction conforming to IP67 (IEC-60529) provides high contact reliability in locations exposed to dust or water (*Excluding the terminal section)
- Surface-mounting terminals for high-density mounting
- Ground terminal available to protect against static electricity
- Available in embossed taping packages for automatic insertion
- RoHS Compliant



Ordering Information

Switch height	Operating force	Model			
		Without ground terminal		With ground terminal	
		Bags (100 per bag)	Embossed Tape (1,000 per reel)	Bags (100 per bag)	Embossed Tape (1,000 per reel)
4.3	General-purpose: 160 g	B3S-1000	B3S-1000P	B3S-1100	B3S-1100P
	High-force: 230 g	B3S-1002	B3S-1002P	B3S-1102	B3S-1102P

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 250 VDC)
Dielectric strength		500 VAC, 50/60 Hz for 1 minute
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 (approx. 100 G) max. Malfunction: 100 m/s ² (approx. 10 G) max.
Ambient operating temperature		-25° to 70°C (at 60% RH max.) with no icing or condensation
Ambient operating humidity		35% to 85% (at 5 to 30°C)
Service life	General-purpose type	500,000 operations min.
	High-force type	300,000 operations min.
Weight		Approx. 0.30 g

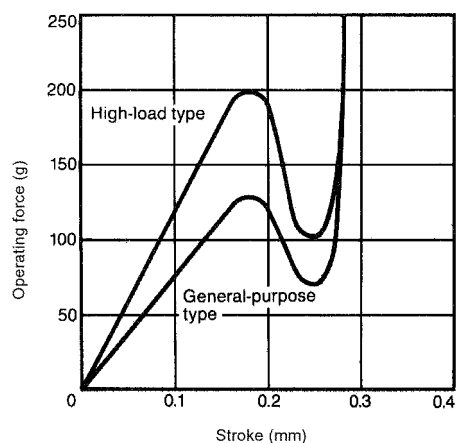
Note: Data shown are of initial value.

■ Operating Characteristics

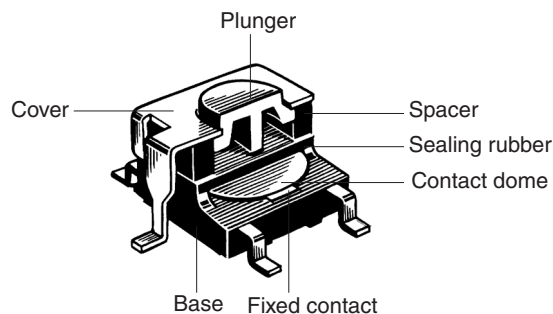
Characteristics	General-purpose	High-force
Operating force (OF) max.	160 g	230 g
Release force (RF) min.	20 g	50 g
Pretravel (PT)	0.25 ^{+0.2} / _{-0.1} mm	

Engineering Data

■ Operating Force vs. Stroke (Typical Example)



■ Construction



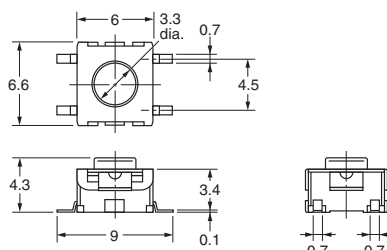
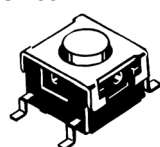
Dimensions

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

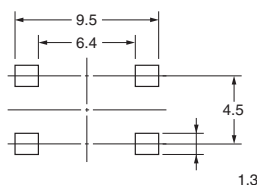
2. Terminal numbers are not indicated on this switch. With the switch turned over so that the logo mark "OMRON" is visible on the upper part of the rear side of the switch base, the terminal on the right of the logo mark is numbered "1" and that on the bottom right is "3." Accordingly, two terminals on the left side are numbered "2" and "4" respectively.

Without Ground Terminal

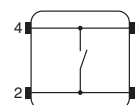
B3S-1000
B3S-1002



PCB Pad (Top View)

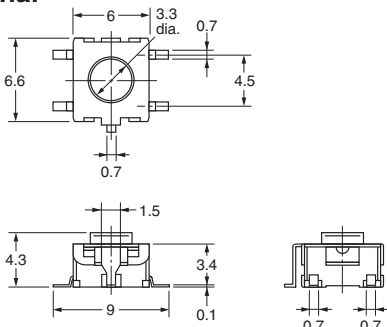
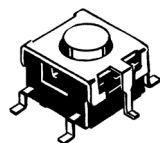


Terminal Arrangement /Internal Connections (Top View)

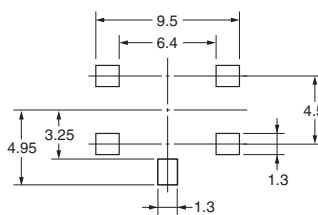


With Ground Terminal

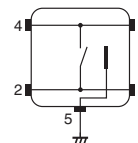
B3S-1100
B3S-1102



PCB Pad (Top View)



Terminal Arrangement /Internal Connections (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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Cat. No. X303-E-1

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