OMRON

Sealed Tactile Switch (SMT) | B3S

Surface-mounting Tactile Switch for High Contact Reliability

- 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 mounting.

RoHS Compliant



■ List of Models

6 × 6 mm B3S-1000

Height	Operating force (OF)	Plunger color	Without ground terminal		With ground terminal	
			Bags (in units of 100 Switches)	Embossed taping (in units of 1,000 Switches)	Bags (in units of 100 Switches)	Embossed taping (in units of 1,000 Switches)
4.3 mm	1.57 N {160 gf}	Ivory	B3S-1000	B3S-1000P	B3S-1100	B3S-1100P
	2.26 N {230 gf}	Yellow	B3S-1002	B3S-1002P	B3S-1102	B3S-1102P

Note: Switches in bags must be ordered in units of 100 Switches, and Switches on embossed taping must be ordered in units of 1,000 Switches.

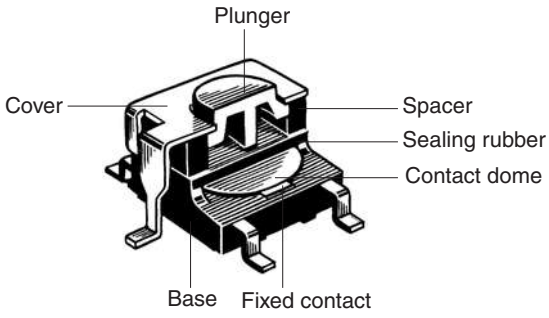
■ Ratings/Characteristics

Ratings	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 form	SPST-NO
Contact resistance	100 mΩ max. (initial value) (rated: 1 mA, 5 VDC)
Insulation resistance	100 MΩ min. (at 250 VDC)
Dielectric strength	500 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 {approx. 100G} max. Malfunction: 100 m/s^2 {approx. 10G} max.
Durability	Standard force models (1.57 N {160 gf}): 500,000 operations min. High-force models (2.26 N {230 gf}): 300,000 operations min.
Weight	Approx. 0.3 g

■ Operating Characteristics

Item	B3S-1□00	B3S-1□02
Operating force (OF)	1.57 N {160 gf} max.	2.26 N {230 gf} max.
Releasing force (RF)	0.2 N {20 gf} min.	0.49 N {50 gf} min.
Pretravel (PT)	$0.25\ ^{+0.2}/_{-0.1}$ mm	

■ Model Structure



■ Dimensions (Unit: mm)

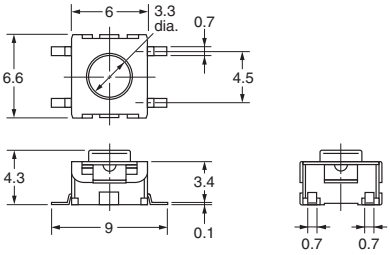
Note: The numbers used for terminals in the following graphics are indicated in the “Bottom View” diagram below. In this diagram, the Switch is rotated so that the terminals are on the right and left-hand sides, and the OMRON logo appears the right way up.



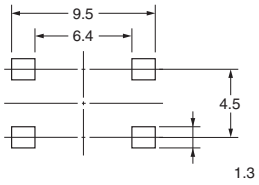
Without Ground Terminal

B3S-1000
B3S-1002

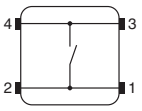




PCB Pad (Top View)

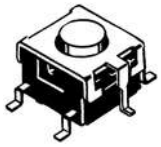


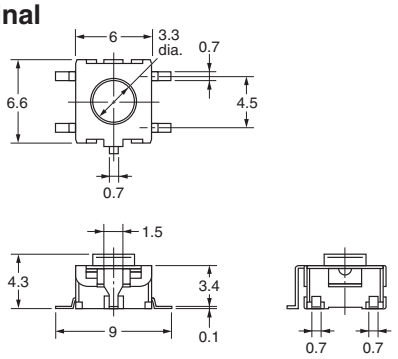
Terminal Arrangement /Internal Connections (Top View)



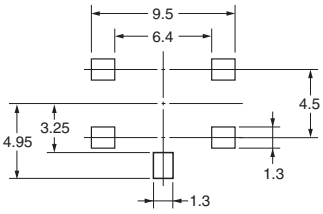
With Ground Terminal

B3S-1100
B3S-1102





PCB Pad (Top View)



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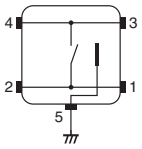

Note: Unless otherwise specified, a tolerance of ±0.4 mm applies to all dimensions. No terminal numbers are indicated on the Switches.

■ Precautions

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

• Application examples provided in this document are for reference only. In actual applications, confirm equipment functions and safety before using the product.
• Consult your OMRON representative before using the product under conditions which are not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, safety equipment, and other systems or equipment that may have a serious influence on lives and property if used improperly. Make sure that the ratings and performance characteristics of the product provide a margin of safety for the system or equipment, and be sure to provide the system or equipment with double safety mechanisms.

Note: Do not use this document to operate the Unit.

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