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OMRON

Sealed Tactile Switch (SMT)

B3S

Surface-mounting Switches with a Sealed Structure for High Reliability. Available on Embossed Tape

- 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 Models

Operation type	Contact material	Height	Operating force (OF)	Plunger color	Without ground terminal				With ground terminal			
					Bags		Embossed taping		Bags		Embossed taping	
					Model	Minimum packing unit	Model	Minimum packing unit	Model	Minimum packing unit	Model	Minimum packing unit
B3S-1000 Series	Silver plated	4.3 mm	1.57 N {160 gf} max.	Ivory	B3S-1000	100 pcs	B3S-1000P	1,000 pcs	B3S-1100	100 pcs	B3S-1100P	1,000 pcs
			2.26 N {230 gf} max.	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

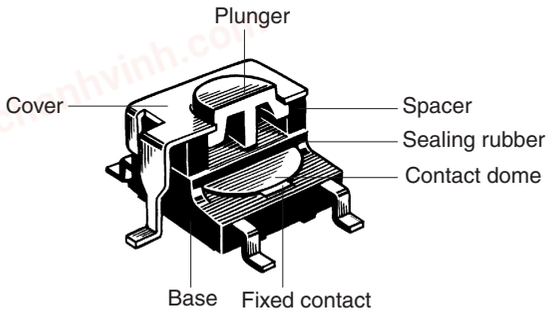
Rating (resistive load)	1 to 50 mA, 3 to 24 VDC
Minimum applicable load (reference value)	10 μA at 1 VDC (resistive load)
Ambient operating temperature	-25°C to +70°C at 60%RH max. (with no icing or condensation)
Ambient operating humidity	35% to 85% (at +5 to +35°C)
Contact form	SPST-NO
Contact resistance (initial value)	100 mΩ max.
Insulation resistance	100 MΩ min. (at 250 VDC with insulation tester)
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
Degree of protection	IEC IP67
Washing	Possible

■ Operating Characteristics

Type	B3S Series	
Operating force (OF)	1.57 N	2.26 N
Item / Model	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	

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■ Model Structure



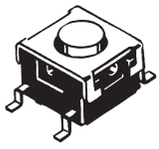
■ Dimensions (Unit: mm)

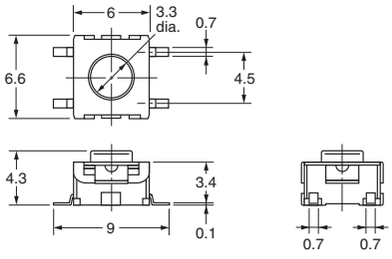
Note: The numbers used for terminals in the following graphics are indicated in the “Bottom View” diagram below. In this diagram, the Switch is rotated so that the terminals are on the right and left-hand sides, and the OMRON logo appears the right way up.



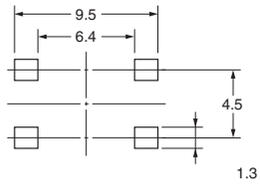
Without Ground Terminal

B3S-1000
B3S-1002

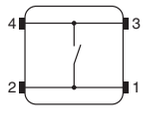




PCB Pad (Top View)

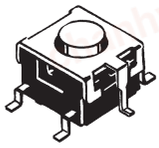


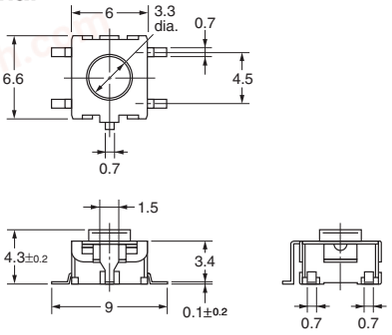
Terminal Arrangement /Internal Connections (Top View)



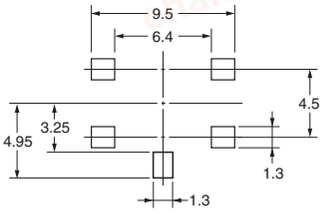
With Ground Terminal

B3S-1100
B3S-1102

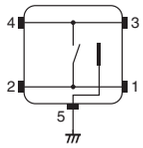




PCB Pad (Top View)



Terminal Arrangement /Internal Connections (Top View)



Note: Unless otherwise specified, a tolerance of ±0.3 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.

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