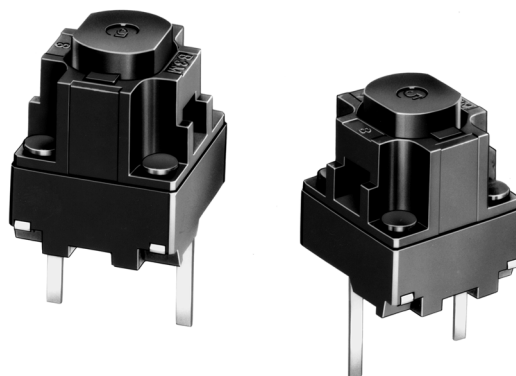


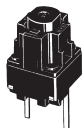
Tactile Switch B3M

Designed for a Long Stroke and Positive Click

- Long stroke of 0.85 mm provides radically improved operability.
- Light touch with a minimum overstroke of 0.25 mm.
- Improved reliability with a service life of 2,000,000 operations.
- RoHS Compliant.



Ordering Information

Size	Switch height x pitch	Operating force (OF)	Model
6 x 6 mm type 	7.3 x 5.0 mm	70±20 gf	B3M-6009

Important Note: Switches cannot be water-washed.

Specifications

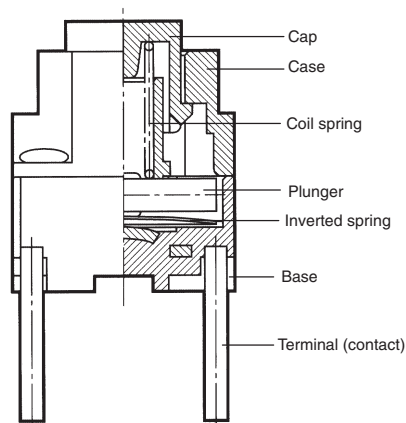
■ Characteristics

Switching capacity	50 mA 12 VDC (resistive load)	
Contact form	SPST-NO	
Contact resistance	500 mΩ max. (initial value) (Rated 5 VDC, 1 mA)	
Insulation resistance	100 MΩ min. (at 250 VDC)	
Dielectric strength	250 VAC, 50/60 Hz for 1 min.	
Bounce time	5 ms max.	
Vibration resistance	10 to 55 Hz, 1.5 mm double amplitude	
Shock resistance	Destruction: 100 m/s ² min. (approx. 10 G min.)	
Life expectancy	2,000,000 operations min.	
Ambient temperature	Operating	-25° to 70°C (with no icing)
Ambient humidity	Operating	35% to 85%
Weight	Approx. 0.27 g	

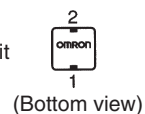
Operating Characteristics

Characteristics	
Operating force (OF max.)	70±20 gf
Reset force (RF min.)	20 gf min.
Pretravel (PT)	0.5 mm max.
Overtravel (OT)	0.2 mm min.

Construction



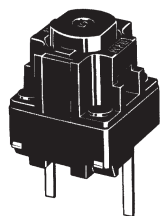
Note: No terminal numbers appear on the Switch. To orient a Switch in the “bottom view” position, turn it so that the terminals are on the right and left sides and the word OMRON is right-side up.



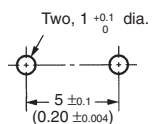
Dimensions

Unit: mm (inch)

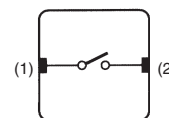
B3M-6009



Example of Dimensions for PCB Holes (Top View)
(t = 1.6, Single-sided PCB)



Terminal Arrangement/
Internal Connections (Top View)

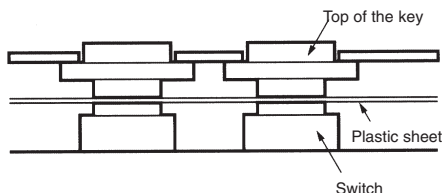


Precautions

■ Handling

Do not apply excessive force repeatedly on the Switch. The round plate spring will deform and cause faulty operation if additional force or an excessive load is applied to the plunger once it has stopped moving.

The Switch is not sealed. Use a resin sheet or other measures to protect the Switch during operation in dust-prone environments



■ PCB

A single-sided PCB with a thickness of 1.6 mm is recommended. Check other types of PCBs (other thickness or through holes) prior to use because a non-standard PCB may affect operation as well as the mounting and solder heat resistance characteristics of the Switch.

■ Soldering

Use either automatic or manual soldering.

Automatic:

Soldering temperature of 260°C max. within 5 sec. (t=1.6, single-sided PCB)

Manual:

Soldering iron tip temperature of 350°C max. within 3 sec. (t=1.6 single-sided PCB)

Check multi-level or other non-standard PCBs prior to use because patterning and land areas may cause thermal deformation of the Switch.

Do not solder more than twice during repairs or other re-soldering work, and always allow at least 5 minutes between the first and second applications of solder.

Carefully control the amount of foam in the flux so the flux does not rise above components mounted on the PCB.

Wipe flux away after soldering instead of washing it away. The Switch will fail if cleaning solution, flux, or dirt from the PCB penetrates into the Switch.

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01/07

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