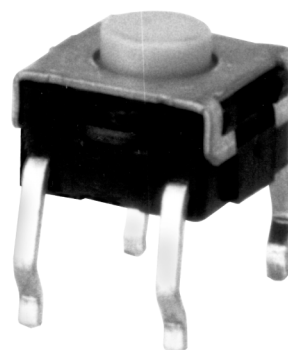


Tactile Switch

B3W

Tactile Switch with Sealed Construction for Automatic Soldering

- Available in two sizes:
6 mm square and 12 mm square
- Dome-shaped contact mechanism assures short key stroke and a sharp click to confirm actuation
- Ground terminal available to protect against static electricity
- Ideal for applications such as audio, office and communications equipment, measuring instruments, industrial robots, VCRs, TVs, and vending machines
- Stick packaging style available
- Sealed for CFC (Freon) cleaning
- RoHS Compliant



Ordering Information

Type	Plunger	Switch height x pitch	Operating force	Part number			
				Without ground terminal		With ground terminal	
				Bags	Sticks*	Bags	Sticks*
Standard 6x6 mm	 Flat	4.3 x 6.5 mm	General-purpose: 160 g	B3W-1000	B3W-1000S	B3W-1100	B3W-1100S
			High-force: 230 g	B3W-1002	B3W-1002S	B3W-1102	B3W-1102S
	 Projected	7.3 x 6.5 mm	General-purpose: 160 g	B3W-1050	B3W-1050S	B3W-1150	B3W-1150S
			High-force: 230 g	B3W-1052	B3W-1052S	B3W-1152	B3W-1152S
Standard 12x12mm	 Flat	4.3 x 6.5 mm	General-purpose: 200 g	B3W-4000	B3W-4000S	B3W-4100	B3W-4100S
			High-force: 350 g	B3W-4005	B3W-4005S	B3W-4105	B3W-4105S
	 Projected	7.3 x 6.5 mm	General-purpose: 200 g	B3W-4050	B3W-4050S	B3W-4150	B3W-4150S
			High-force: 350 g	B3W-4055	B3W-4055S	B3W-4155	B3W-4155S

* Number of switches per stick:

6 x 6 mm	Without ground terminal.....80/stick
	With ground terminal.....75/stick
12 x 12 mm	Without ground terminal.....45/stick
	With ground terminal.....40/stick

Important Note: Switches cannot be water-washed.

■ Accessories

See "B32" Tactile Switch Key Top data sheet for keycaps that fit projected plunger B3W models.

Plunger Identification Table

Use this table to determine keyswitch type by plunger color.

Plunger color	Operating force	Type
White	160 g	B3W-1000, 1050, 1100, 1150
White	200 g	B3W-4000, 4050, 4100, 4150
Yellow	230 g	B3W-1002, 1052, 1102, 1152
Yellow	350 g	B3W-4005, 4055, 4105, 4155

Specifications

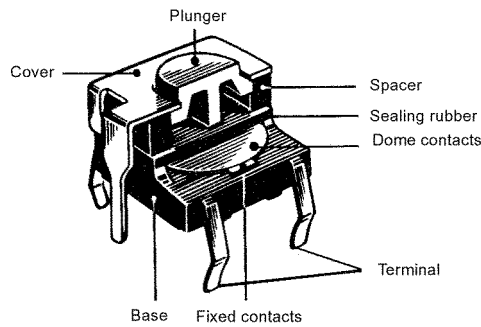
■ Characteristics

Switching capacity		50 mA 24 VDC (resistive load)	
Contact form		SPST-NO	
Permissible load		1 mA 5 VDC min. (resistive load)	
Contact resistance		100 MΩ max.	
Insulation resistance		100 MΩ min. (at 250 VDC)	
Dielectric strength		500 VAC, 50/60 Hz for 1 minute	
Bounce time		5 ms max.	
Vibration	Malfunction durability	10 to 55 Hz, 1.5-mm double amplitude	
Shock	Destruction durability	1,000 m/s ² (approx. 100 G)	
	Malfunction durability	100 m/s ² (approx. 10 G)	
Ambient temperature		-25° to 70°C	
Humidity		35% to 85% RH	
Service life [mechanical/electrical]	General-purpose type	B3W-1□□□ : 1,000,000 operations min.	B3W-4□□□ : 3,000,000 operations min.
	High-load type	300,000 operations min.	1,000,000 operations min.
Weight		B3W-1□□□ : Approx. 0.30 g	B3W-4□□□ : Approx. 1.00 g

■ Operating Characteristics

Characteristics	Part number			
	B3W-1□□□		B3W-4□□□	
	General-purpose	High-force	General-purpose	High-force
Operating force (OF) max.	160 g	230 g	200 g	350 g
Release force (RF) min.	20 g	50 g	30 g	50 g
Pretravel (PT)	0.25 ^{+0.2} / _{-0.1} mm	0.25 ^{+0.2} / _{-0.1} mm	0.3 ^{+0.2} / _{-0.1} mm	0.3 ^{+0.2} / _{-0.1} mm

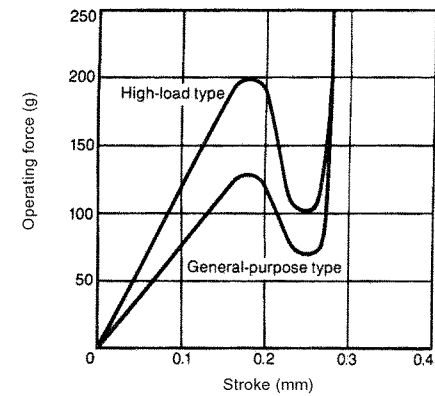
■ Construction



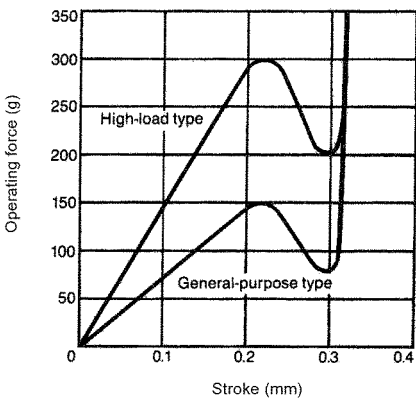
Engineering Data

■ Operating Force vs. Stroke (Typical Example)

B3W-1□□□ series



B3W-4□□□ series

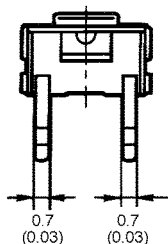
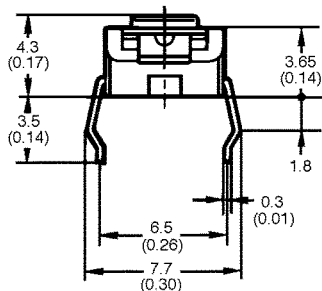
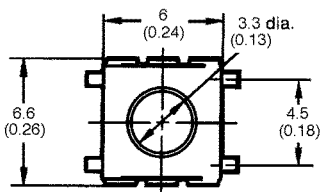


Dimensions

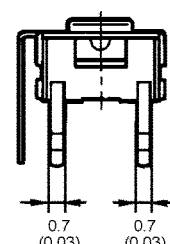
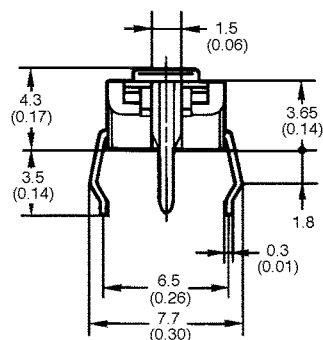
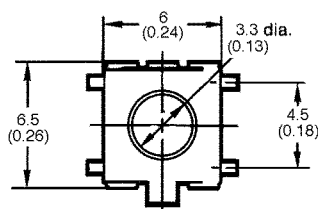
Unit: mm (inch)

■ 6 mm Square Types

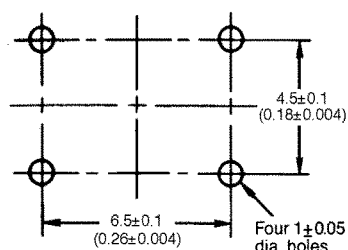
B3W-1000, B3W-1002



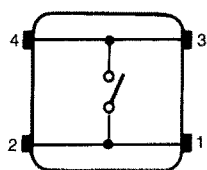
B3W-1100, B3W-1102



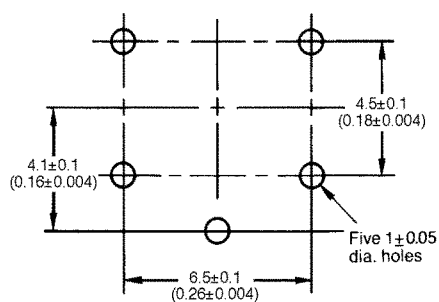
Mounting holes
in PCB (top view)



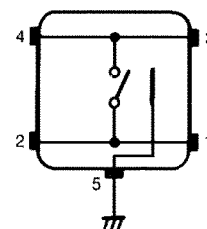
Terminal arrangement/
Internal connection
(top view)



Mounting holes
in PCB (top view)



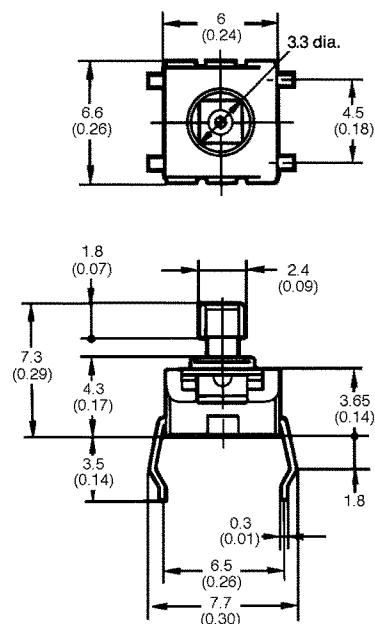
Terminal arrangement/
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(top view)



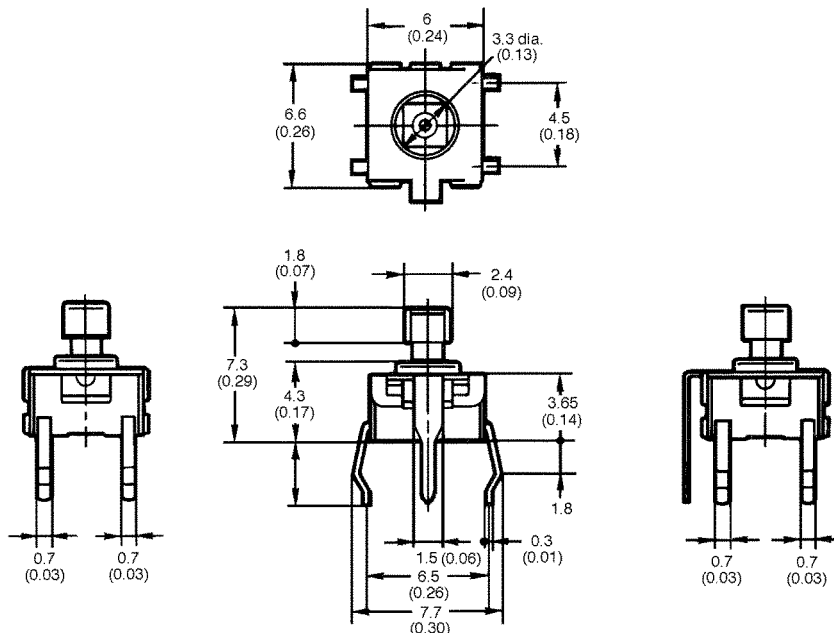
Note: Unless otherwise specified, a tolerance of ± 0.2 mm applies to all dimensions.

6 mm Square Types

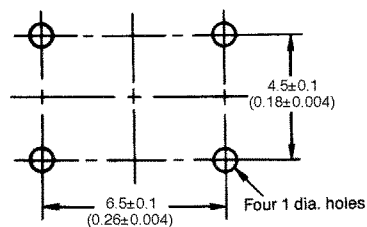
B3W-1050, B3W-1052



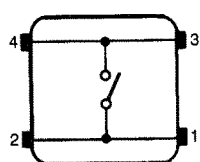
B3W-1150, B3W-1152



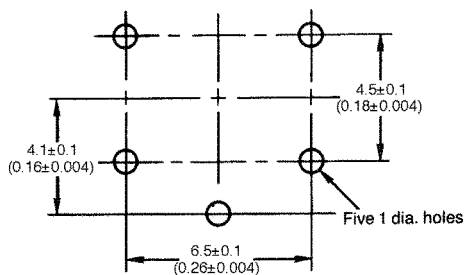
Mounting holes
in PCB (top view)



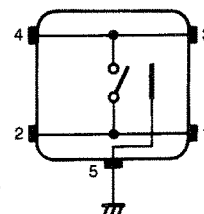
Terminal arrangement/
Internal connection
(top view)



Mounting holes
in PCB (top view)



Terminal arrangement/
Internal connection
(top view)

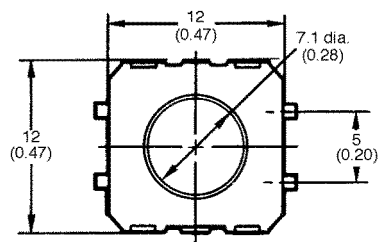


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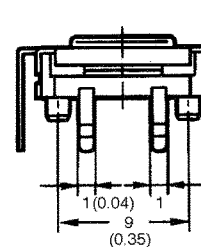
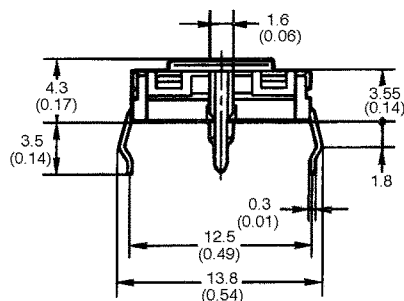
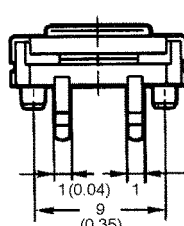
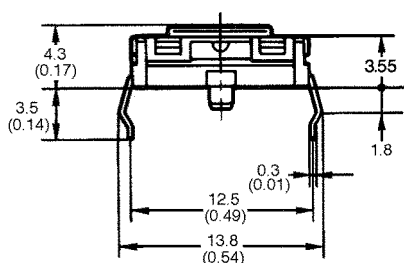
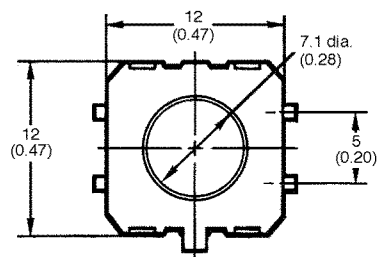
Unit: mm (inch)

■ 12 mm Square Types

B3W-4000, B3W-4005

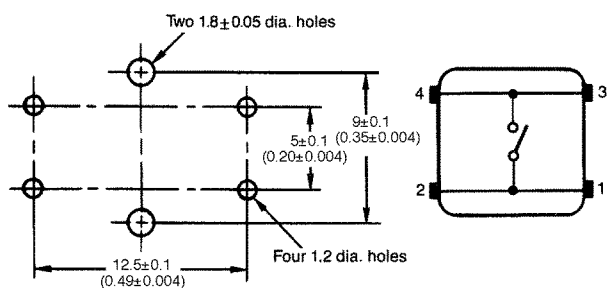


B3W-4100, B3W-4105



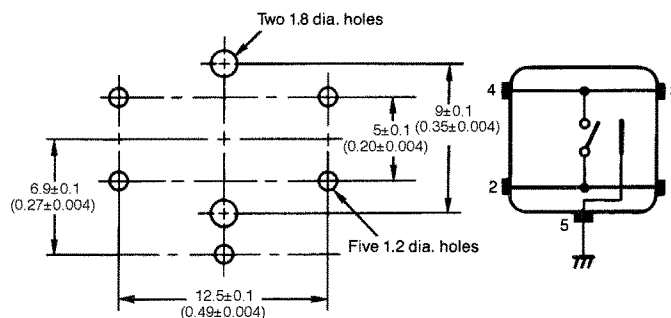
Mounting holes
in PCB (top view)

Terminal arrangement/
Internal connection
(top view)



Mounting holes
in PCB (top view)

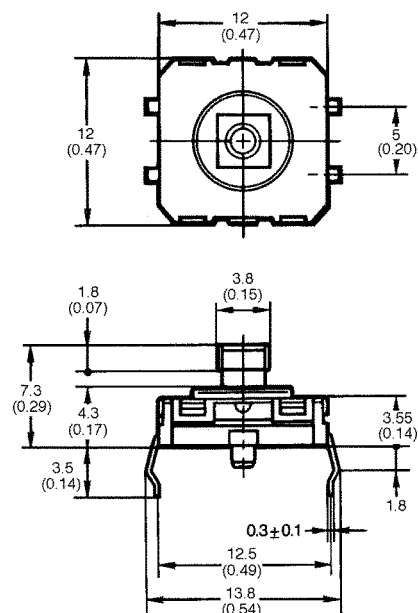
Terminal arrangement/
Internal connection
(top view)



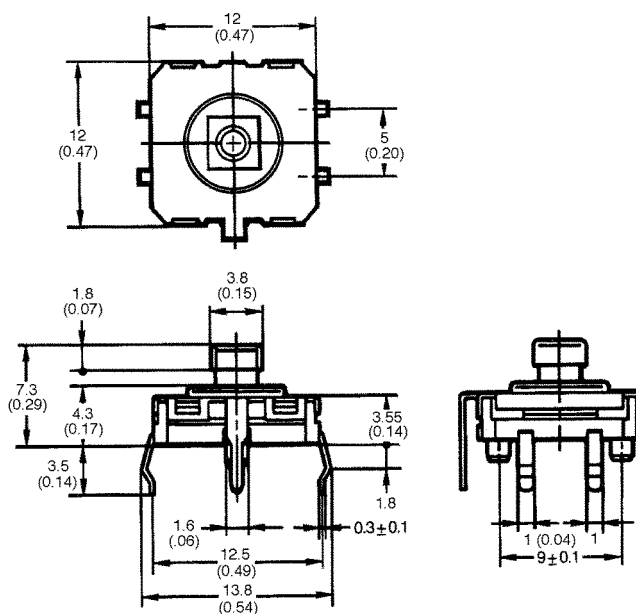
Note: Unless otherwise specified, a tolerance of ± 0.2 mm applies to all dimensions.

■ 12 mm Square Types

B3W-4050, B3W-4055

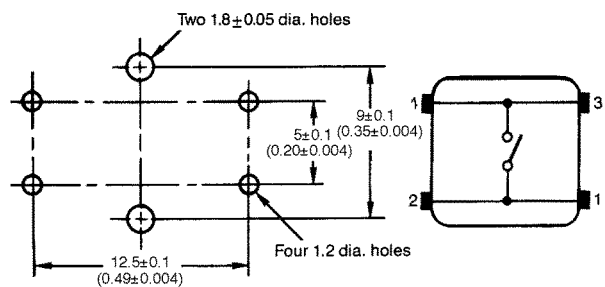


B3W-4150, B3W-4155



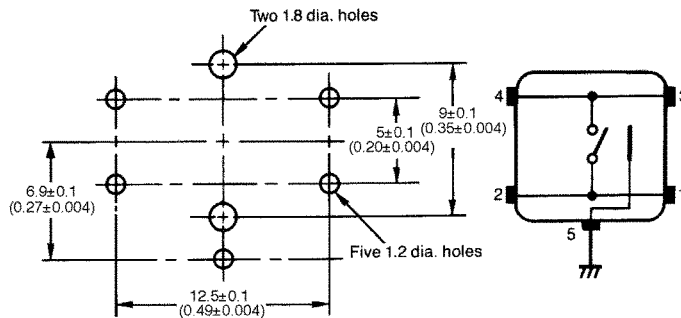
Mounting holes
in PCB (top view)

Terminal arrangement/
Internal connection
(top view)



Mounting holes
in PCB (top view)

Terminal arrangement/
Internal connection
(top view)



Note: Unless otherwise specified, a tolerance of ± 0.2 mm applies to all dimensions.

MEMO

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