OMRON Hinged Tactile Switch

B3J

Through-hole-mounting Switches with Hinges for a Sharp Snap Action

- Quick, superior snap action through hook-type hinge construction.
- Available with 1 or 2 LEDs or without LEDs.
- The hinge button is available in a wide variety of colors (five standard colors).

RoHS Compliant



List of Models

				Box	
Operation type	Contact material	Operating force (OF)	Color of hinged button	Model	Minimum packing unit
Non-lighted: B3J-1000 Series	Silver plated	1.27 N {130 gf}	lvory	B3J-1000	
			Black	B3J-1100	
			Orange	B3J-1200	300 pcs
			Yellow	B3J-1300	
			Blue	B3J-1400	

				Box			
	Contact Operating		Color of	LED color			Minimum
Operation type	material	force (OF)	hinged button	Red	Yellow	Green	packing unit
One LED:	Silver plated	1.27 N {130 gf}	lvory	B3J-2000	B3J-3000	B3J-4000	
B3J-2000 Series			Black	B3J-2100	B3J-3100	B3J-4100	
B3J-3000 Series B3J-4000 Series		Orange	B3J-2200	B3J-3200	B3J-4200	300 pcs	
			Yellow	B3J-2300	B3J-3300	B3J-4300	
			Blue	B3J-2400	B3J-3400	B3J-4400	

				Box			
Contact		Operating Color	Color of	LED color			Minimum
Operation type	material	force (OF)	hinged button	Red/Yellow	Red/Green	Yellow/Green	packing unit
Two LEDs:	Silver plated	1.27 N {130 gf}	lvory	B3J-5000	B3J-6000	B3J-7000	
B3J-5000 Series B3J-6000 Series			Black	B3J-5100	B3J-6100	B3J-7100	
B3J-7000 Series			Orange	B3J-5200	B3J-6200	B3J-7200	300 pcs
			Yellow	B3J-5300	B3J-6300	B3J-7300	1
			Blue	B3J-5400	B3J-6400	B3J-7400	1

Ratings/Characteristics

1 to 50 mA, 3 to 24 VDC			
10 µA at 1 VDC (resistive load)			
-25°C to +70°C at 60%RH max. (with no icing or condensation)			
35% to 85% (at +5 to +35°C)			
SPST-NO			
100 mΩ max.			
100 M Ω min. (at 250 VDC with insulation tester)			
500 VAC, 50/60 Hz for 1 min			
5 ms max.			
Malfunction: 10 to 55 Hz, 1.5-mm double amplitude			
Destruction: 1,000 m/s ² {approx. 100G} max.			
Malfunction: 100 m/s ² {approx. 10G} max.			
3,000,000 operations min.			
Approx. 1.5 to 1.7 g			
IEC IP00			
Not possible			

Operating Characteristics

Operating force (OF)	1.27±0.49 N {130±50 gf}		
Releasing force (RF)	0.29 N {30 gf} min.		
Pretravel (PT)	0.3 ^{+0.2} / _{-0.1} mm		

LED Specifications

	Red	Yellow	Green	
Forward voltage VF	Standard value (V)	2.0	2.0	2.1
Forward current IF	Standard value (mA)	20	20	20
Permissible loss P	Absolute maximum value (mW)	84	84	84
Reverse voltage VR	Absolute maximum value (V)	5	5	5

Note: Since the built-in LED does not contain any limiting resistors, externally connect limiting resistors within the limits shown in the above table.

■ **Dimensions** (Unit: mm)

Types with no LED







PCB Processing Dimensions (Reference Only)



Panel Cutout

Terminal Arrangement /Internal Connections (Top View)



1 LED Types

B3J-2□00 B3J-3□00 B3J-400





PCB Processing Dimensions

(Reference Only)

(Top View)

Terminal Arrangement /Internal Connections **Panel Cutout** (Top View)



A -



B3J-7000



12±0.2

9±0.1

Terminal Arrangement /Internal Connections (Top View)



Panel Cutout



Note: Unless otherwise specified, a tolerance of ± 0.4 mm applies to all dimensions.

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.

OMRON Corporation

Electronic and Mechanical Components Company

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