



### SPECIAL PURPOSE

### **Basic Switch**

D3C

### Subminiature Basic Switch

- Built-in slide mechanism selects shorting or non-shorting switch timing
- 3 mm (0.12 in) long stroke
- PCB mount switch with 100 milliamp capacity
- Ideal for household appliances, sound equipment, office equipment, communications equipment, etc.
- Compact size

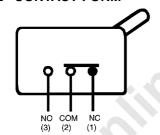


# **Ordering Information**



	Part Number				
	General Purpose		Low Operating Force		
Actuator	Non-shorting Model	Shorting Model	Non-shorting Model	Shorting Model	
Hinge lever	D3C-1210	D3C-2210	D3C-1220	D3C-2220	

#### **■** CONTACT FORM



## Characteristics

Electrical rating		0.1 A, 30 VDC (resistive load)		
Operating speed		1 to 500 mm/second (0.04 to 19.7 in/second)		
Operating frequency	Mechanical	200 operations per minute		
	Electrical	30 operations per minute		
Contact resistance		50 mΩ max.		
Insulation resistance		100 MΩ min. at 250 VDC		
Dielectric strength		250 VAC, 50/60 Hz for 1 minute between contacts of same polarity 250 VAC, 50/60 Hz for 1 minute between each terminal and ground		
Vibration	Malfunction durability	10 to 55 Hz, 1.5 mm double amplitude		
Shock	Malfunction durability	300 m/s <sup>2</sup> minimum (approx. 30 g minimum)		
Ambient temperature	Operating	-20° to 80°C with no icing		
Humidity	Operating	65% max. at 5° to 35°C		
Service life		50,000 operations minimum at the rated switch frequency		
Weight		Approx. 0.3 g		

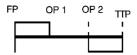
Note: Data shown are of initial value.

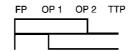


D3C \_\_\_\_\_\_\_ OMRON \_\_\_\_\_\_ D3C

#### **■ SWITCHING TIMING**

#### **Non-shorting Model**



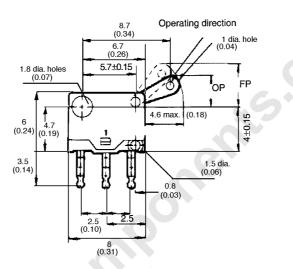


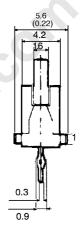
## **Dimensions**

Unit: mm (inch)

D3C



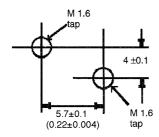




Operating	Non-shorting Model		Shorting Model	
characteristics	D3C-1210	D3C-1220	D3C-2210	D3C-2220
OF max.	130 g	40 g	130 g	40 g
RF min.	10 g	3 g	10 g	3 g
OP1	$3.5 \pm 0.3$ mm (0.14 $\pm$ 0.01 in)		3.4 ± 0.3 mm (0.13 ± 0.01 in)	
OP2	2.5 ± 0.3 mm (0.10 ± 0.01 in)		2.6 ± 0.3 mm (0.10 ± 0.01 in)	
TTP	1.3 ± 0.4 mm (0.05 ± 0.02 in)		1.3 ± 0.4 mm (0.05 ± 0.02 in)	
FP max.	4.8 mm (0.19 inches)		4.8 mm (0.19 inches)	

#### **Mounting holes**

When mounting the D3C with screws, use M1.6 mounting screws with plain washers or spring washers. Tighten the screws to a torque of  $4.9 \text{ to } 9.8 \text{ X } 10^2 \text{ N}$ .



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

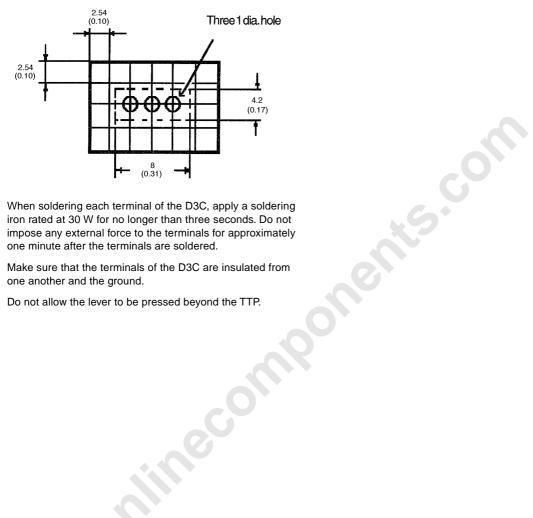


OMRON D3C =**= D3C** 

### **Precautions**

#### **■** MOUNTING

Refer to the following dimensions for PCB mounting. The distance between two adjacent terminals is 2.54 mm.



When soldering each terminal of the D3C, apply a soldering iron rated at 30 W for no longer than three seconds. Do not impose any external force to the terminals for approximately one minute after the terminals are soldered.

Make sure that the terminals of the D3C are insulated from one another and the ground.

Do not allow the lever to be pressed beyond the TTP.



**OMRON ELECTRONICS, INC.** 

One East Commerce Drive Schaumburg, IL 60173

1-800-55-OMRON

**OMRON CANADA, INC.** 

885 Milner Avenue Scarborough, Ontario M1B 5V8

416-286-6465