

# 2 TOGGLE SWITCHES

## Special Purpose Heavy Duty and Heavy Duty Hesitation Switches

### DESCRIPTION

#### One Hole Panel Mount




These heavy duty toggle switches are available in either two or three position. The three position switches offer a unique positive center stop feature which assures that the lever cannot be thrown from one side through the center "OFF" position without stopping. This design feature is a major factor in their widespread

acceptance for motor reversing and speed control applications. The most common application for the switch is to help prevent motor damage resulting from the high current generation by counter EMF of the armature at the time of reversing. This type of device is referred to within the industry as an anti-plugging, hesitation, positive stop or positive off switch. Typical applications include bench tools, coach and truck (electric lift) and X-Ray equipment.

#### Flush Mount

These three position switches also offer the positive center stop feature where the lever cannot be thrown from one side through the center "OFF" position without stopping. The high ratings of this series allow it to be used with a broad range of heavy duty applications. Copper contacts and brass screw terminals are standard.




**ONE HOLE PANEL MOUNT SWITCH SELECTION TABLE** (BOLD FACE TYPE INDICATES ITEMS NORMALLY IN DISTRIBUTOR STOCK)

Rating	Poles and Throw	Circuit with Toggle in			BASE CIRCUIT SEE PAGE 4.28	Bushing Length mm (inches)	Lever Length mm (inches)	Lever Type	CATALOG NUMBERS
		UP Position 	CENTER Position 	DOWN Position  (Keyway)					Screw Terminals
		<b>ONE HOLE PANEL MOUNT</b>			<b>ONE HOLE PANEL MOUNT</b>				
14A, 125V ac/dc 7A, 250V ac/dc 3/4 Hp, 125-250V ac/dc	2 P.D.T.	ON ON	NONE OFF	ON ON	D	10.31 (.406) 10.31 (.406)	13.49 (.531) 13.49 (.531)	Ball Ball	7814K1 7814K2
15A, 125V ac ① 10A, 250V ac 3/4 Hp, 250V ac	2 P.D.T.	ON	OFF	ON	D	11.89 (.468)	17.45 (.687)	Bat	7992K10
10A, 125V ac/dc 5A, 250V ac/dc	3 P.D.T.	ON	OFF	ON	F	10.31 (.406)	13.49 (.531)	Ball	7815K3
15A, 125V ac ① 10A, 250V ac 3/4 Hp, 250V ac	3 P.D.T.	ON	OFF	ON	F	11.89 (.468)	17.45 (.687)	Bat	7991K10
10A, 125V ac/dc 5A, 250V ac/dc	4 P.D.T.	ON	NONE	ON	F	10.31 (.406)	13.49 (.531)	Ball	7815K1 ②
10A, 125V ac/dc 5A, 250V ac/dc 1/2 Hp, 125-250V ac/dc	4 P.D.T.	ON	OFF	ON	F	10.31 (.406)	13.49 (.531)	Ball	7816K2
15A, 125V ac ① 10A, 250V ac 3/4 Hp, 250V ac	4 P.D.T.	ON	OFF	ON	F	11.89 (.468)	17.45 (.687)	Bat	7990K10

① Listed Rating for 125V ac also applies at 28V dc.

② Not UL Recognized.

**FLUSH MOUNT SWITCH SELECTION TABLE**

Rating	Poles and Throw	Circuit with Toggle in			Lever Type	Type of Termination	CATALOG NUMBERS
		UP Position 	CENTER Position 	DOWN Position  (Keyway)			Screw Terminals
		<b>FLUSH MOUNT SWITCH</b>			<b>FLUSH MOUNT SWITCH</b>		
20A, 125V ac/dc 10A, 250V ac/dc	2 P.D.T.	ON ON	NONE OFF	ON ON	Square Square	Screw Screw	7810K1 7810K2 ① ②
30A, 125V ac/dc 20A, 250V ac/dc	2 P.D.T.	ON	OFF	ON	Square	Screw	7811K2 ① ③
	3 P.D.T.	ON	OFF	ON	Square	Screw	7812K2
	4 P.D.T.	ON	OFF	ON	Square	Screw	7813K2

① CSA Certified.

② Also rated 5A, 600V ac; 1-1/2 Hp, 250V dc; 2 Hp, 240V ac.

③ Also rated 2 Hp, 250V ac/dc.

## SPECIFICATIONS

### Ratings:

See selection tables.

### Circuits:

2PDT, 3PDT, 4PDT.  
Maintained action.

### Contact Mechanism:

#### One Pole Panel Mount

*AC Rated Devices* —  
Slow-make/Slow-break  
butt contact.

*AC/DC Rated Devices* —  
Quick-make/Quick-break  
wiping contacts.

#### Flush Mount

Quick-make/Quick-break  
wiping contacts.

### Contact Material:

#### One Pole Panel Mount

*AC Rated Devices* —  
Movable — Silver plated  
copper with fine or coin  
silver contact face button.

Stationary — Copper with  
fine or coin silver contact  
face button.

*AC/DC Rated Devices* —

Movable — Copper.

Stationary — Bronze.

#### Flush Mount

Movable — Copper.

Stationary — Copper.

### Terminal Types:

Screw Terminals — Brass.

### Mounting Means:

#### One Pole Panel Mount

*AC Rated Devices* —  
Threaded Bushing —  
11.89mm (.468") dia.,  
32 threads/inch.  
Keyway — 1.73 x .89mm  
deep (.068 x .035" deep),  
provide anti-rotation feature.  
Hardware Supplied —  
1 hexagon locknut  
(Cat No. 15-192) and 1 hex  
facenut (Cat No. 15-966-2).  
Furnished unassembled.

*AC/DC Rated Devices* —

Threaded Bushing —  
19.05 mm (.750") dia.,  
32 threads/inch.

Keyway — 2.59 x 2.64mm  
(.102 x .104") x  
1.04 x 1.09mm  
(.041 - .043") deep.

Hardware Supplied —  
2 hexnuts  
(Cat No. 15-1043).  
Furnished unassembled.

#### Flush Mount

Flush mounting panel tabs.

### Dielectric Withstand:

1,000V RMS minimum.

### Operating Temperature Range:

-17.8°C to +65.6°C  
(0°F to +150°F).

### Approvals:

UL Recognized  
(except where noted).

CSA Certified  
(where noted).



7814K2  
Panel Mount



7815K1  
Panel Mount



7810K2  
Flush Mount



7811K2  
Flush Mount