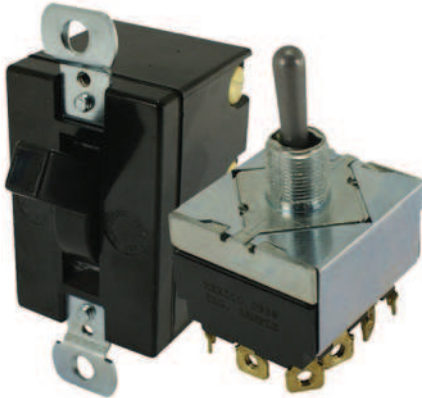


### Heavy Duty Hesitation Switches



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### Product 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.

### Standards and Certifications

- UL Recognized (except where noted)
- CSA Certified (where noted)



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

## Toggle Switches

### Heavy Duty Hesitation Switches

#### Product Selection






#### Heavy Duty Hesitation Switches—One-Hole Panel Mount

Rating	Poles and Throw <sup>②</sup>	Circuit with Toggle in ...			Base Circuit See Page V11-T6-39	Bushing Length "A" Inches (mm)	Lever Length "B" Inches (mm)	Lever Type	Catalog Number		
		UP Position 	CENTER Position 	DOWN Position (Keyway) 					Solder Terminals	Screw Lugs	0.250 in Spade Terminals
15A, 125 Vac <sup>①</sup> 10A, 250 Vac 3/4 hp, 250 Vac	2PDT	ON	OFF	ON	D	0.468 (11.89)	0.687 (17.45)	Bat	<b>7992K11</b>	<b>7992K10</b>	<b>7992K12</b>
15A, 125 Vac <sup>①</sup> 10A, 250 Vac 3/4 hp, 250 Vac	3PDT	ON	OFF	ON	F	0.468 (11.89)	0.687 (17.45)	Bat	<b>7991K11</b>	<b>7991K10</b>	<b>7991K12</b>
15A, 125 Vac <sup>①</sup> 10A, 250 Vac 3/4 hp, 250 Vac	4PDT	ON	OFF	ON	F	0.468 (11.89)	0.687 (17.45)	Bat	<b>7990K11</b>	<b>7990K10</b>	<b>7990K12</b>

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#### Heavy Duty Hesitation Switches—Flush Mount

Rating	Poles and Throw	Circuit with Toggle in ...			Lever Type	Termination Type	Catalog Number
		UP Position 	CENTER Position 	DOWN Position (Keyway) 			
20A, 125 Vac/Vdc 10A, 250 Vac/Vdc	2PDT	ON	NONE	ON	Square	Screw	<b>7810K1</b>
		ON	OFF	ON	Square	Screw	<b>7810K2</b> <sup>③④</sup>
30A, 125 Vac/Vdc 20A, 250 Vac/Vdc	2PDT	ON	OFF	ON	Square	Screw	<b>7811K5</b> <sup>③⑤</sup>
	3PDT	ON	OFF	ON	Square	Screw	<b>7812K2</b>
	4PDT	ON	OFF	ON	Square	Screw	<b>7813K2</b>

#### Notes

- ① Listed rating for 125 Vac also applies at 28 Vdc.
- ② Supplied in a four-pole base.
- ③ CSA Certified.
- ④ Also rated 5A, 600 Vac; 1-1/2 hp, 250 Vdc; 2 hp, 240 Vac.
- ⑤ Also rated 2 hp, 250 Vac/Vdc.

### Technical Data and Specifications

#### Heavy Duty Hesitation Switches

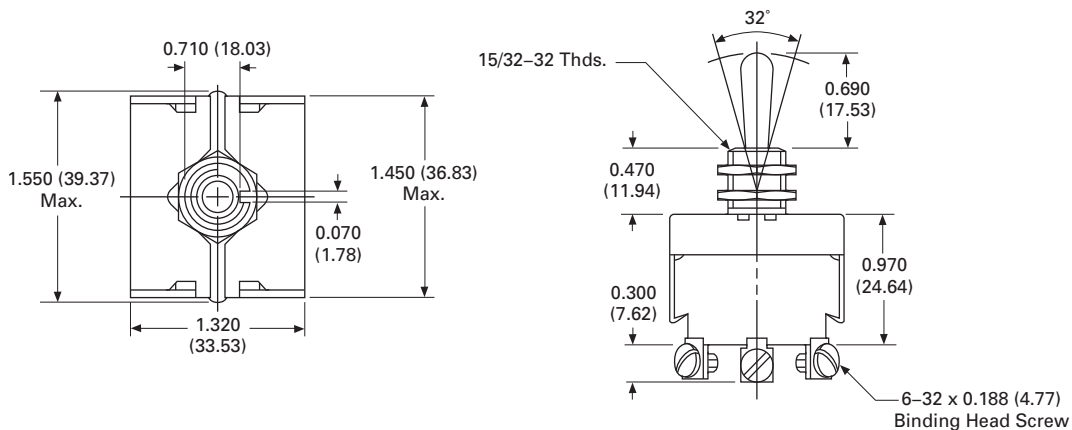
Description	Specification
Ratings	See Product Selection tables; Switch ratings at 125 Vac also apply to 28 Vdc
Circuits	2PDT, 3PDT, 4PDT; maintained action
Contact mechanism	
One-hole panel mount	AC rated devices—slow-make/Slow-break butt contact AC/DC rated devices—Quick-make/quick-break wiping contacts
Flush mount	Quick-make/quick-break wiping contacts
Contact material	
One-hole 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-hole panel mount	AC rated devices: Threaded bushing—0.468 in (11.89 mm) dia., 32 threads/in Keyway—0.068 x 0.035 in (1.73 x 0.89 mm) deep, provide anti-rotation feature Hardware supplied— 1 hexagon locknut (Catalog Number 15-192) and 1 hex facenut (Catalog Number 15-966-2) Furnished unassembled  AC/DC rated devices: Threaded bushing—0.750 in (19.05 mm) dia., 32 threads/inch Keyway—0.102 x 0.104 in (2.59 x 2.64 mm) x 0.041 x 0.043 in (1.04 x 1.09 mm) deep Hardware supplied— 2 hexnuts (Catalog Number 15-1043) Furnished unassembled
Flush mount	Flush mounting panel tabs
Dielectric withstand	1000V rms minimum
Operating temperature range	0° to 150°F (–17.8° to 65.6°C)

### Dimensions

Approximate Dimensions in Inches (mm)

#### One-Hole Panel Mount

##### 7990K10—4PDT



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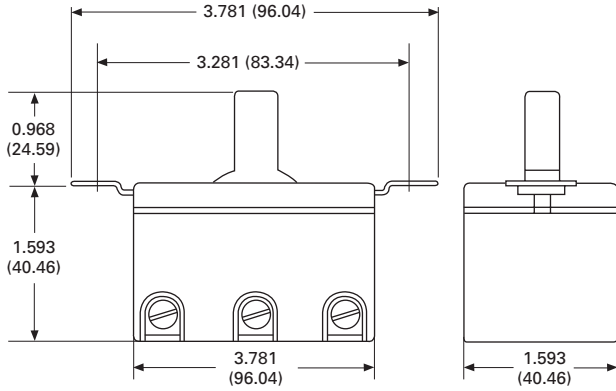
## Toggle Switches

### Heavy Duty Hesitation Switches

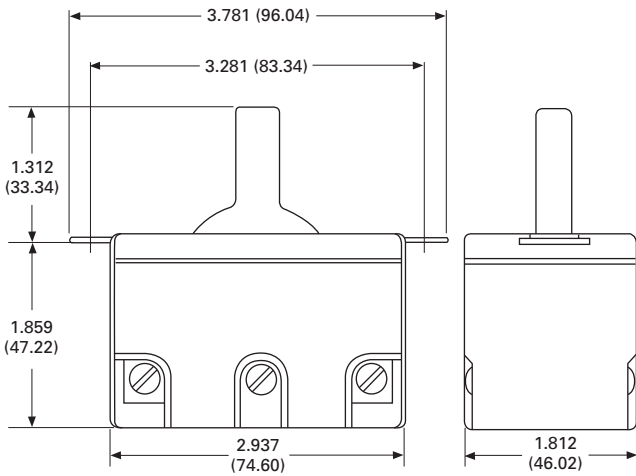
Approximate Dimensions in Inches (mm)

#### Flush Mount

##### 7810K2—2PDT



##### 7811K2—2PDT



##### 7813K2—4PDT

