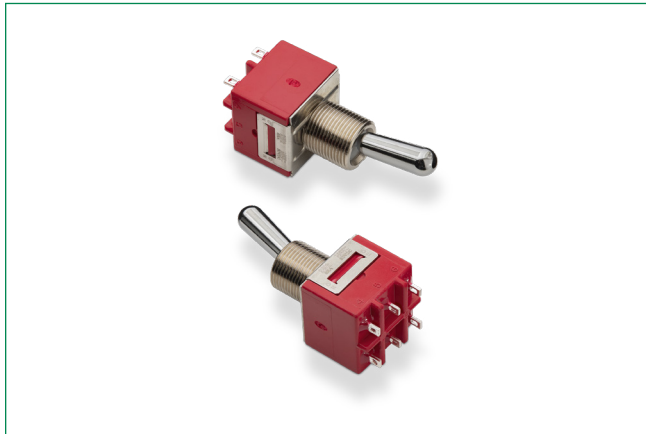


# 9000 Series

## Power Toggle Switches



### Agency Approvals

Agency	Agency File Number
UL US	E42363

### Specifications

<b>Contact Rating</b>	<b>9201 Model:</b> GP (general purpose) 6 amps 125 VAC 50/60 Hz T85 10,000 cycles (10E3) 3 amps 250 VAC 50/60 Hz T85 10,000 cycles R (resistive) 6 amps 30 VDC T85 10,000 cycles
	<b>9221 Model:</b> GP (general purpose) 10 amps 125 VAC 50/60 Hz T85 10,000 cycles 5 amps 250 VAC 50/60 Hz T85 10,000 cycles R (resistive) 10 amps 30 VDC T85 10,000 cycles
<b>Electrical Life</b>	25,000 make-and-break cycles at full load.
<b>Contact Resistance</b>	Below 10 m $\Omega$ typ. initial @ 2-4 V DC, 100 mA.
<b>Insulation Resistance</b>	10 <sup>9</sup> $\Omega$ min.
<b>Dielectric Strength</b>	2,500 Vrms min. @ sea level.
<b>Operating Temperature</b>	-30°C to 85°C.
<b>Solderability</b>	Per MIL-STD-202F method 208D, or EIA RS-186E method 9. (1 hour steam aging)

#### Notes:

Any models supplied with Q contact material are RoHS compliant and compatible. Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

### Description

Perfect for use as a shut-off switch or in small equipment, the 9000 series power toggle switch has a variety of options to meet designers' needs. The 9000 series switches are available with power ratings up to 10 amps, come in a wide variety of actuator styles, have optional locking levers and are available as double pole models.

### Features & Benefits

- Power ratings up to 10 amps
- Double pole models
- Locking lever options available
- Wide variety of actuator styles
- RoHS compliant and compatible

### Applications

- Shut-off switch
- Small equipment

### Materials

<b>Case</b>	Diallyl phthalate (DAP) (UL 94V-0)
<b>Actuator</b>	Brass, chrome plated
<b>Bushing</b>	Brass or zinc, nickel plated
<b>Housing</b>	Stainless steel
<b>Switch Support</b>	Brass or steel, matte-tin plated.
<b>End Contacts</b>	9201 Model: Coin silver, silver plated 9221 Model: Silver cadmium oxide
<b>Center Contacts</b>	Copper alloy, silver plated
<b>All Terminals</b>	9201 Model: Copper alloy, silver plated 9221 Model: Copper alloy, matte-tin plated
<b>Terminal Seal</b>	Epoxy
<b>Hardware</b>	Nut & Locking ring: Brass, nickel plated Lockwasher: Steel, nickel plated

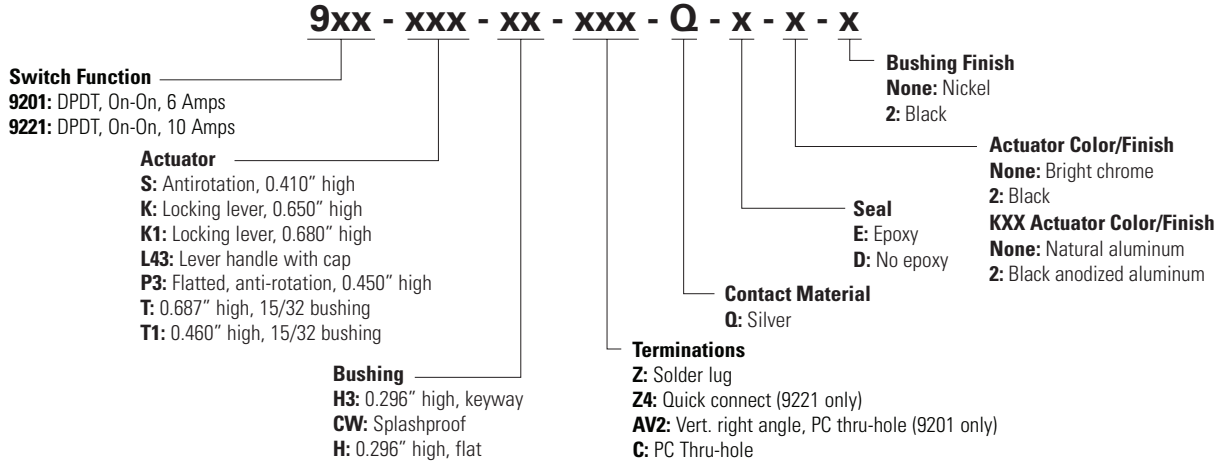
# 9000 Series

## Power Toggle Switches



### Ordering Number

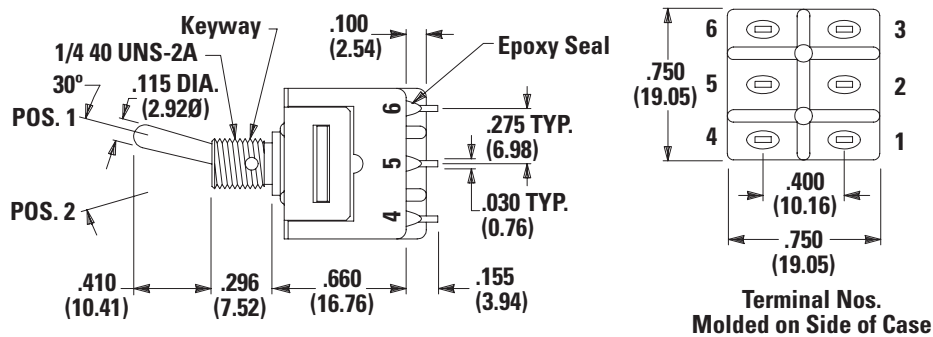
To order, simply select desired option from each category and place in the appropriate box. For additional options not shown in catalog, consult Customer Service Center.



### Switch Function

#### DPDT

No. Poles	Model No.	Rating	Switch Function		Connected Terminals		Schematic
			POS. 1 KEYWAY	POS. 2 KEYWAY	POS. 1 KEYWAY	POS. 2 KEYWAY	
DP	9201	6 AMPS	ON		2-3, 5-6	2-1, 5-4	
	9221	10 AMPS					



**Notes:**  
Part Number Shown: 9201SH3ZQE

All 9000 Series models meet international dimensional and electrical requirements. **UL US**  
9221 model must be ordered with Z4 terminations and D seal option.

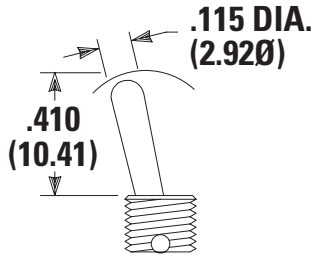
# 9000 Series

## Power Toggle Switches

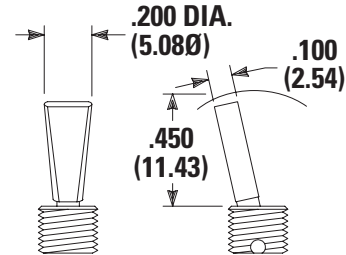


### Actuator

#### S Antirotation 0.410" High



#### P3 Flatted, Antirotation, 0.450" High

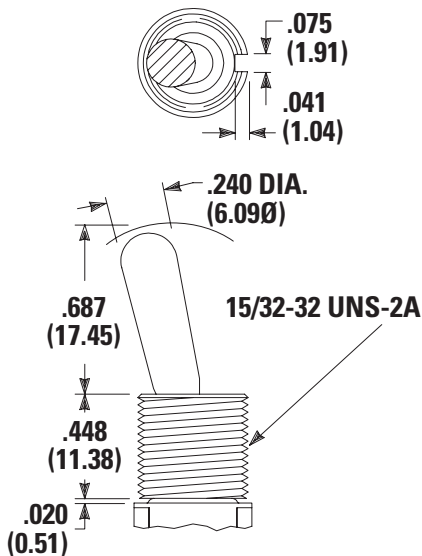


Dress nut part number: 709901201 supplied standard with P3 actuator.

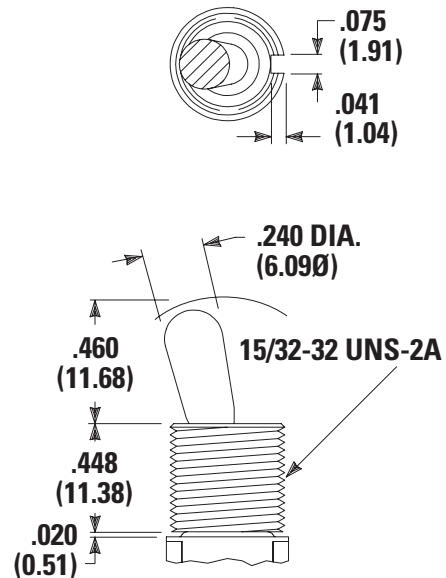
Option Code	Actuator Finish
None	Natural Aluminum - With Nickel Plating Bushing
2	Black

**Notes:**  
 Black hardware is supplied when either black actuators or bushings are specified. All hardware is available separately.  
 Antirotation is standard on all actuators, provides 'anti-push-in' feature on actuator.

#### T 0.687" High, 15/32 Bushing



#### T1 0.460" 15/32 Bushing



Option Code	Actuator Finish
None	Natural Aluminum - With Nickel Plating Bushing
2	Black

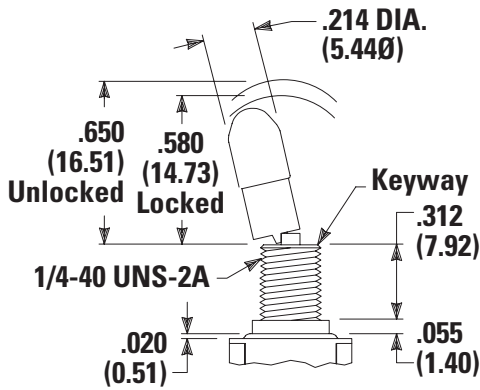
**Notes:**  
 Bushing option code not required for T & T1 actuators unless CW splashproof bushing ordered. Black hardware is supplied when either black actuators or bushings are specified. All hardware is available separately.  
 Antirotation is standard on all actuators except T & T1, provides 'anti-push-in' feature on actuator.

# 9000 Series

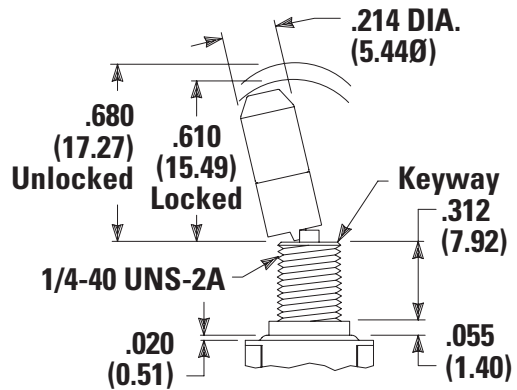
## Power Toggle Switches



**K Locking Lever, 0.650" High, Threaded**



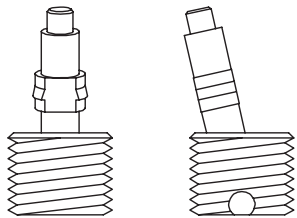
**K1 Locking Lever, 0.680" High, Threaded**



Option Code	Actuator Cap Finish
None	Natural Aluminum - With Nickel Plating Bushing
2	Black

**Notes:**  
To prevent accidental actuation, toggles must be lifted before being actuated. When released, toggles again lock in place. Bushing option code not required. Overtightening mounting nut may cause actuator to bind.

**L40 Lever Handle Without Cap**

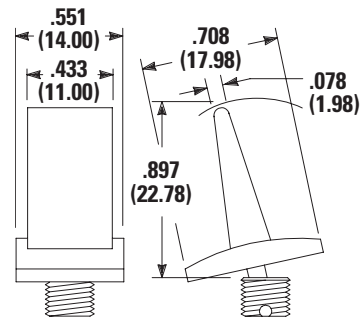


No color choice required.

Option Code	Actuator Cap Color
2	Black
None	No Actuator Color (L40 option)

**Notes:**  
Other colors available, consult Customer Service Center. Lever handle actuator L43 supplied, but not installed. For interchangeability, order L40 actuator option and order lever handles separately. Antirotation is standard on all actuators, provides 'anti-push-in' feature.

**L43 Plastic Lever Handle with Antirotation and Cap, P/N 4812**



Finish: Matte

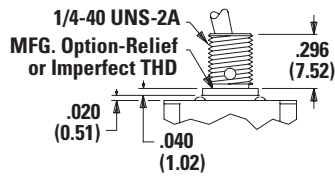
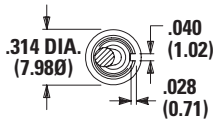
# 9000 Series

## Power Toggle Switches

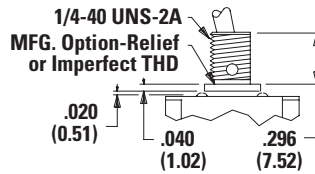
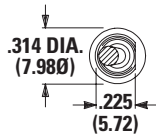


### Bushing

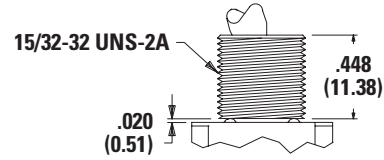
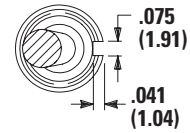
**H3 0.296" High, Threaded, Keyway**



**H 0.296" High, Threaded, Flat**



**CW Splashproof, 15/32 Bushing**



Will withstand 12 in./lbs. of torque with no distortion.

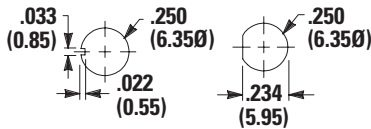
For T & T1 actuators only.

**Notes:**  
Two mounting nuts, locking ring and lockwasher supplied standard with threaded bushings. Black hardware is supplied when either black bushings or actuators are specified. Optional mounting nut and locking ring styles and finishes available. Internal actuator seal standard. External bushing seal available separately from APM Hexseal, part # MFS-60064

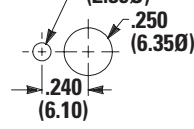
Option Code	Bushing Finish
None	Nickel
2	Black

### Panel Mounting

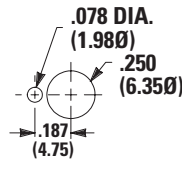
**1/4-40 UNS-2A**



Without locking ring.

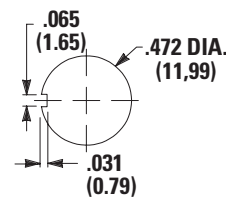


With standard locking ring.

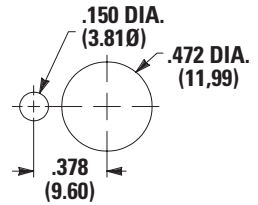


With small locking ring.

**15/32-32 UNS-2A**



Without locking ring.



With standard locking ring.

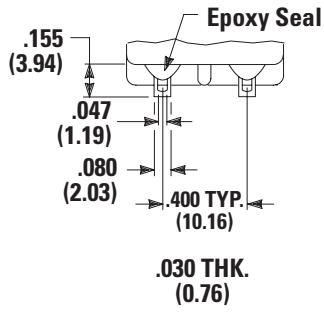
# 9000 Series

## Power Toggle Switches



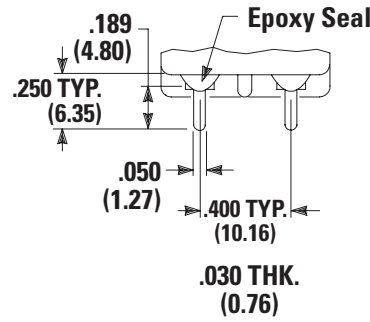
### Terminations

#### Z Solder Lug



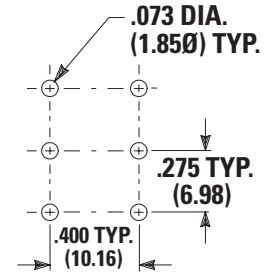
9201 Only

#### C PC Thru-hole

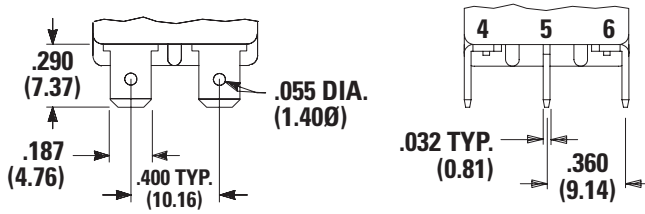


9201 Only

#### PC Mounting



#### Z4 0.187" Quick Connect



9221 Only

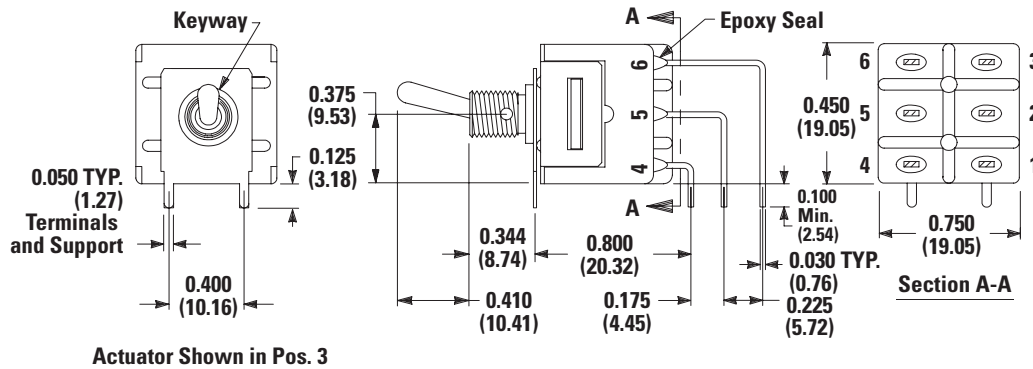
**Notes:**  
 Only termination available with 9221 model. Must be ordered with D seal option.  
 Mates with standard .187 Nema female connector.

# 9000 Series

## Power Toggle Switches



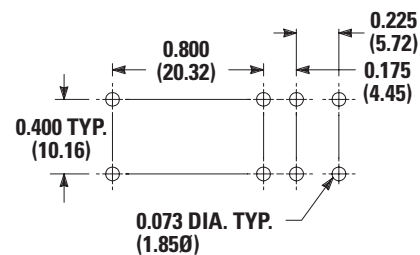
### AV2 Vertical Right Angle, PC Thru-hole 9201SH3AV2QE Vertical Actuation DPDT



#### 9201 Only

**Notes:** Terminal bend radii and lead-in manufacturing option. Terminal spacing greater than 3mm at all points. Terminal Nos. For Reference Only

#### PC Mounting



#### Contact Material

Option Code	Model	Contact Material	Terminal Plating	Rated
Q	9201	Silver <sup>1,2</sup>	Silver or Tin <sup>2,5</sup>	GP (general purpose) 6 amps 125 VAC 50/60 Hz T85 10,000 cycles (10E3) 3 amps 250 VAC 50/60 Hz T85 10,000 cycles R (resistive) 6 amps 30 VDC T85 10,000 cycles
	9221	Silver Cadmium Oxide <sup>3,4,6</sup>	Tin <sup>5</sup>	GP (general purpose) 10 amps 125 VAC 50/60 Hz T85 10,000 cycles 5 amps 250 VAC 50/60 Hz T85 10,000 cycles R (resistive) 10 amps 30 VDC T85 10,000 cycles

**Notes:**

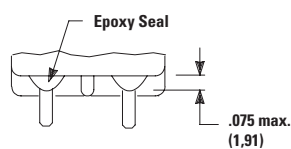
1. End Contacts: Coin silver, silver plated.
2. Center Contacts & All Terminals: Copper alloy, silver plated.
3. End Contacts: Silver cadmium oxide.
4. Center Contacts: Copper alloy, silver plated.
5. Z4 Terminals Only: Copper alloy, matte-tin plated.
6. Cadmium in electrical switch contacts is exempt from RoHS.

**Notes:** Any models supplied with Q contact material are RoHS compliant.

All 9000 Series models meet international dimensional and electrical requirements. **UL** **US**  
9221 model must be ordered with Z4 terminations and D seal option.

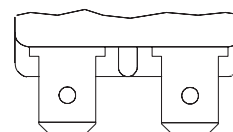
#### Seal

##### E Epoxy Seal



**Notes:** Not available with 9221 model or Z4 terminations.

##### D No Epoxy Seal



**Notes:** Must be ordered with 9221 model or Z4 terminations.

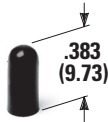
# 9000 Series

## Power Toggle Switches



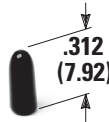
### Available Hardware

#### Cap Compatible with S actuator



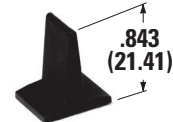
**Part No.**  
 896801000 WHITE  
 896802000 BLACK  
 896803000 RED  
**Material:** Polyethylene  
**Finish:** Matte

#### Cap Compatible with S actuator



**Part No.**  
 706201000 WHITE  
 706202000 BLACK  
 706203000 RED  
**Material:** Vinyl  
**Finish:** Matte

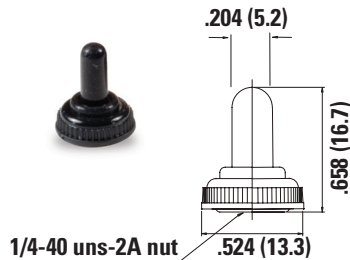
#### L43 Lever Handle



**Part No.**  
 481202000 BLACK  
 481203000 RED  
**Material:** Nylon  
**Finish:** Matte

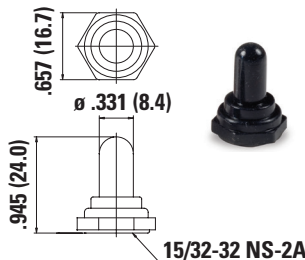
**Notes:** L43: Additional nuts, locking rings and lockwashers available separately  
 Other colors available, consult Customer Service Center.

#### 759D02000 Sealing Boot



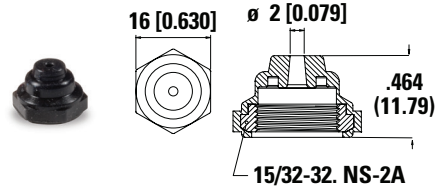
**Notes:** For use with S actuator style when combined with H3 and H bushings

#### 703D02000 Sealing Boot



**Notes:** For use with T style actuator

#### 704D02000 Sealing Boot



**Notes:** For use with T style actuator

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