

# 9000 Series

## Power Rocker and Lever Handle Switches



### Features/Benefits

- *Thermoset UL 94V-0 housing*
- *Rugged construction*
- *Variety of actuator and termination options*
- *RoHS compliant*

### Typical Applications

- *Small equipment*
- *Shut-off switch*



### Specifications

CONTACT RATING: 9201 Model: 6 AMPS @ 120 V AC or 28 V DC; 3 AMPS @ 250 V AC. 9221 Model: 10 AMPS @ 125 V AC or 28 V DC; 5 AMPS @ 250 V AC.

ELECTRICAL LIFE: 25,000 make-and-break cycles at full load.

CONTACT RESISTANCE: Below 10 m  $\Omega$  typ. initial @ 2-4 V DC, 100 mA.

INSULATION RESISTANCE: 10<sup>9</sup>  $\Omega$  min.

DIELECTRIC STRENGTH: 2,500 Vrms min. @ sea level.

OPERATING TEMPERATURE: -30°C to 85°C.

SOLDERABILITY: Per MIL-STD-202F method 208D, or EIA RS-186E method 9 (1 hour steam aging).

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

**NOTE:** Specifications and materials listed above are for switches with standard options. For information on specific and custom switches, consult Customer Service Center.

### Materials

CASE: Diallyl phthalate (DAP) (UL 94V-0).

ACTUATOR: Nylon, black standard.

FRAME-REAR MOUNT OPTIONS: Spring steel, black.

BUSHING: Brass, nickel plated.

HOUSING: Stainless steel.

SWITCH SUPPORT: Brass or steel, matte-tin plated.

MOUNTING BRACKET: Stainless steel.

END CONTACTS: 9201 Model: Coin silver, silver plated. 9221 Model: Silver cadmium oxide.

CENTER CONTACTS: Copper alloy, silver plated.

ALL TERMINALS: 9201 Model: Copper alloy, silver plated. 9221 Model: Copper alloy, matte-tin plated.

TERMINAL SEAL: Epoxy.

HARDWARE: Nut, Screw & Lockwasher: Stainless steel. Standoff: Nylon standard, aluminum available, consult Customer Service Center.

\*Cadmium used in electrical contacts is acceptable for RoHS.

### Build-A-Switch

To order, simply select desired option from each category and place in the appropriate box. Available options are shown and described on pages H-53 through H-56. For additional options not shown in catalog, consult Customer Service Center.

Switch Function

9201 DP On-On, 6 Amps

9221 DP On-On, 10 Amps

Actuator

J1 Rocker

J2 Lever

J3 Rocker

J37 Rocker with metal frame

Terminations

Z Solder lug (9201 only)

AV2 Vertical right angle, PC thru-hole (9201 only)

C PC Thru-hole (9201 only)

Z4 Quick connect

Contact Material

Q Silver

Seal

E Epoxy

D No Seal

Actuator Color

2 Black

1 White

3 Red

Frame Color

2 Black

NONE No frame color required

Rocker

Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

H-52

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# 9000 Series Power Rocker and Lever Handle Switches

## SWITCH FUNCTION



NO. POLES	MODEL NO.	RATING*	SWITCH FUNCTION		CONNECTED TERMINALS		SCHEMATIC
			POS. 1	POS. 2	POS. 1	POS. 2	
DP	9201	6 AMPS	ON	ON	2-3,5-6	2-1,5-4	
	9221	10 AMPS	ON	ON			

**DPDT**

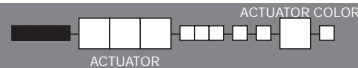
Part number shown: 9201J1ZQE2

All 9000 Series models meet international dimensional and electrical requirements.

\* See CONTACT MATERIAL, page H-55, for complete ratings.

9221 model must be ordered with Z4 terminations and D seal option.

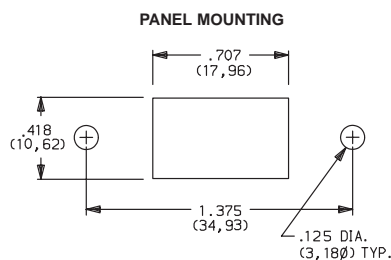
## ACTUATOR-PANEL MOUNT



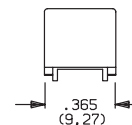
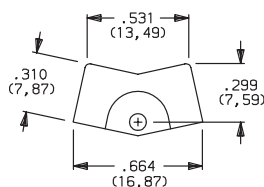
OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE
3	RED

Finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

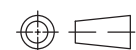
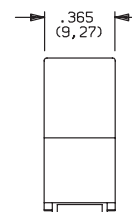
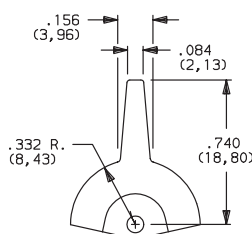
**NOTE:** Hardware: two each—mounting screws, nuts, lockwashers and standoffs for 1/8 inch thick panel are supplied standard on all switches with panel mounting brackets. Actuators available separately, see page H-55-56. Hardware available separately, see Technical Data section of this catalog.



### J1 ROCKER



### J2 LEVER



Third Angle Projection

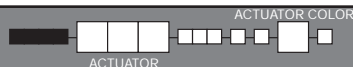
Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

**C&K**

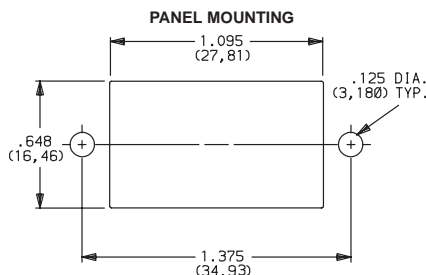
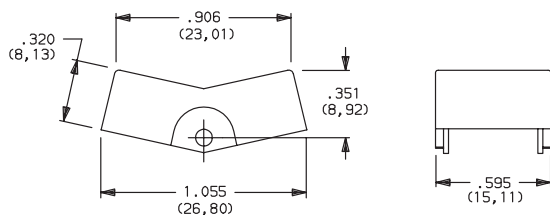


# 9000 Series Power Rocker and Lever Handle Switches

## ACTUATOR-PANEL MOUNT



### J3 ROCKER

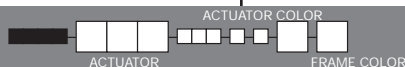


OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE
3	RED

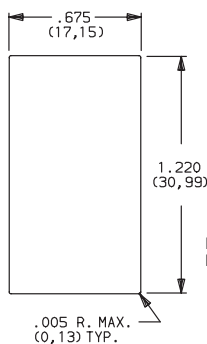
Actuator finish: Matte. Other colors, custom actuator markings and legends available, consult Customer Service Center.

**NOTE:** Actuators available separately, see page H-55-56. Hardware: two each—mounting screws, nuts, lockwashers and standoffs for 1/8 inch thick panel are supplied standard on all switches with panel mounting brackets. Hardware available separately, see Technical Data section of this catalog.

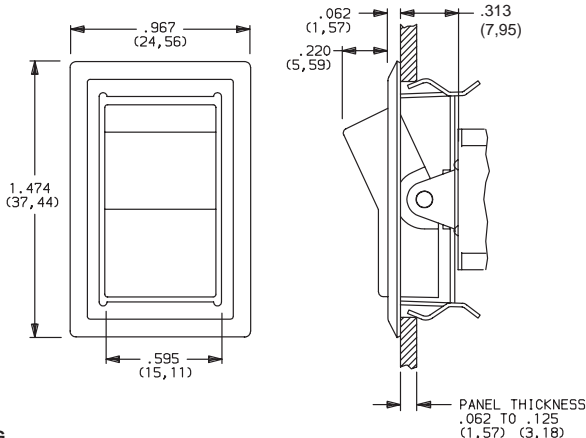
## ACTUATOR-REAR MOUNT



### J37 ROCKER WITH METAL FRAME



PANEL MOUNTING



Not available with AV2 termination.

OPTION CODE	ACTUATOR COLOR
2	BLACK
1	WHITE
3	RED

OPTION CODE	FRAME COLOR
2	BLACK

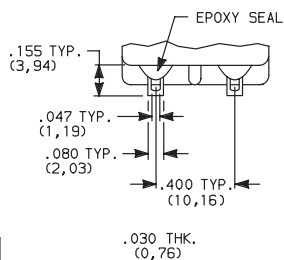
Actuator finish: Matte. Frame finish: Gloss. Other colors, custom actuator markings and legends available, consult Customer Service Center.

**NOTE:** Actuators & frames available separately, see page H-55-56. Hardware: two each—mounting screws, nuts, lockwashers and standoffs for 1/8 inch thick panel are supplied standard on all switches with panel mounting brackets. Hardware available separately, see Technical Data section of this catalog.

## TERMINATIONS

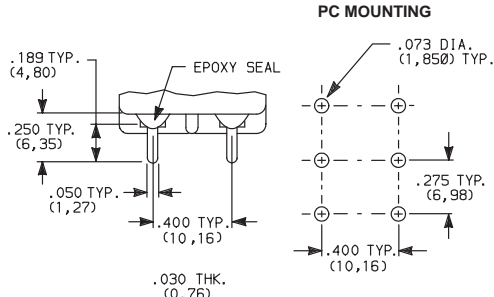


### Z SOLDER LUG



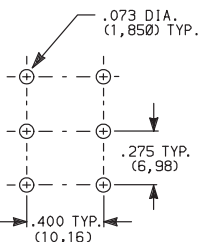
9201 Only

### C PC THRU-HOLE

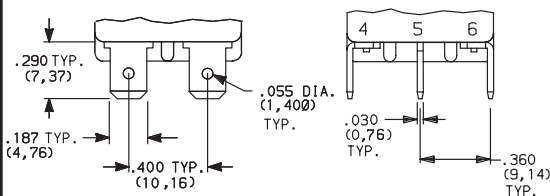


9201 Only

### PC MOUNTING



### Z4 QUICK CONNECT



### 9201 and 9221

**NOTE:** Only termination available with 9221 model. Must be ordered with D seal option. Mating terminal standard Nema .187" quick connect.



Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

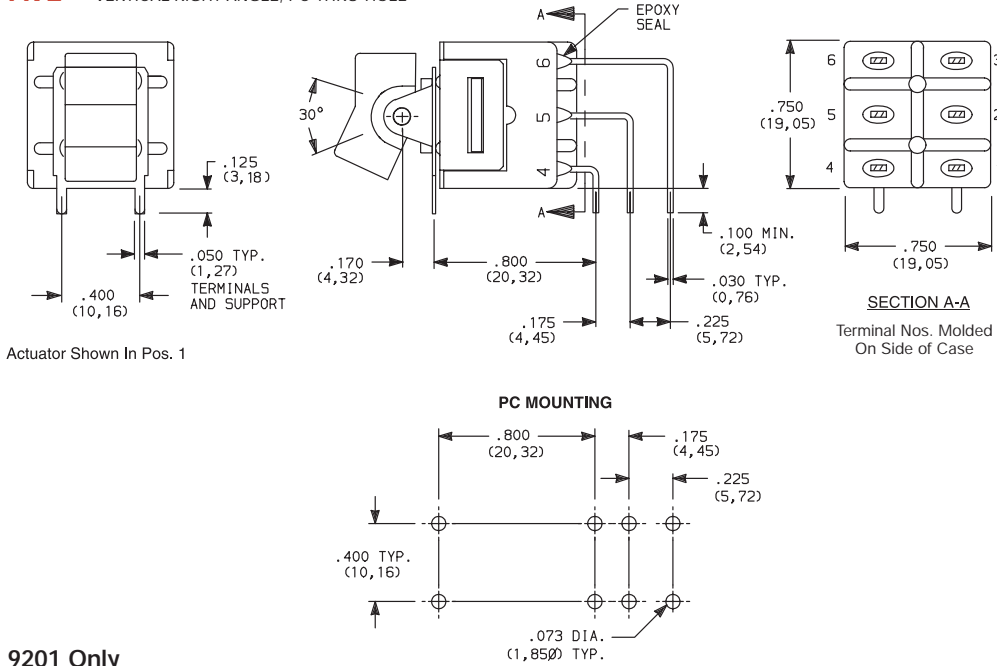
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# 9000 Series Power Rocker and Lever Handle Switches

## TERMINATIONS

### AV2 VERTICAL RIGHT ANGLE, PC THRU-HOLE



9201J1AV2QE2  
Vertical Actuation  
DPDT

### 9201 Only

NOTE: Terminal bend radii and lead-in manufacturing option.  
Terminal spacing greater than 3mm at all points.

## CONTACT MATERIAL

OPTION CODE	MODEL	CONTACT MATERIAL	TERMINAL PLATING	RATINGS	
Q	9201	SILVER <sup>1,2</sup>	SILVER OR TIN <sup>2,5</sup>	POWER	6 AMPS @120 V AC OR 28 V DC; 3 AMPS @ 250 V AC.
	9221	SILVER CADMIUM OXIDE <sup>3,4,6</sup>	TIN <sup>5</sup>		10 AMPS @125 V AC OR 28 V DC; 5 AMPS @ 250 V AC.

\* Note: See Technical Data section of this catalog for RoHS compliant and compatible definitions and specifications.

- <sup>1</sup> END CONTACTS: Coin silver, silver plated.
- <sup>2</sup> CENTER CONTACTS & ALL TERMINALS: Copper alloy, silver plated.
- <sup>3</sup> END CONTACTS: Silver cadmium oxide.
- <sup>4</sup> CENTER CONTACTS: Copper alloy, silver plated.
- <sup>5</sup> Z4 TERMINALS ONLY: Copper alloy, tin plated.
- <sup>6</sup> Cadmium used for electrical contacts is acceptable for RoHS.

NOTE: Any models supplied with Q contact material is RoHS compliant.

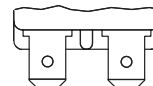
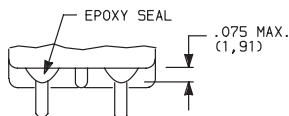
9221 model must be ordered with Z4 terminations and D seal option.

All 9000 Series models meet international dimensional and electrical requirements.

## SEAL

### E EPOXY SEAL

### D NO EPOXY SEAL



Not available with 9221 model or Z4 terminations.

Must be ordered with 9221 model and Z4 termination.



Dimensions are shown: Inch (mm)  
Specifications and dimensions subject to change

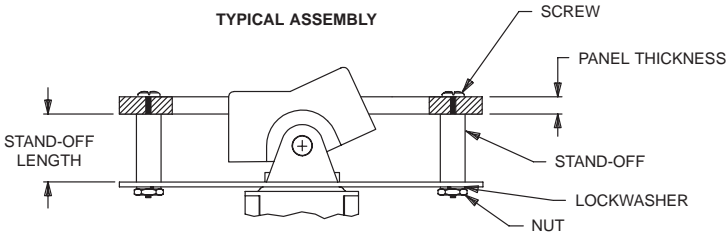


# 9000 Series

## Power Rocker and Lever Handle Switches




AVAILABLE HARDWARE

Panel mounting hardware for rocker and lever handle switches is available separately. Mounting hardware consists of two screws, two nuts, two standoffs and two lockwashers per switch, and is available for panel thicknesses of 1/16, 3/32 and 1/8 inch. See part numbers below.

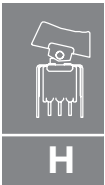


J1 & J2 actuators

PART NO.	PANEL THK.	STANDOFF LENGTH
761101000	1/16 IN. (1,59)	.295 (7,49)
761102000	3/32 IN. (2,38)	.264 (6,71)
761103000	1/8 IN. (3,18)	.233 (5,92)

<p>J1 Actuator</p>  <p>PART NO.  776A01000 WHITE  776A02263 BLACK  776A03000 RED</p> <p>Material: Nylon  Finish: Matte</p>	<p>J2 Actuator</p>  <p>PART NO.  760501000 WHITE  760502263 BLACK  760503000 RED</p> <p>Material: Nylon  Finish: Matte</p>	<p>J3, J37 Actuators</p>  <p>PART NO.  766601000 WHITE  766602263 BLACK  766603000 RED</p> <p>Material: Nylon  Finish: Matte</p>
<p>Frame for J37 Actuators</p>  <p>PART NO.  445400746 BLACK ENAMEL  445400747 WHITE ENAMEL</p> <p>Material: Spring Steel</p>	<p><b>NOTE:</b> Additional nuts, screws and lockwashers available separately, see Technical Data section of this catalog.</p> <p>Other colors available, consult Customer Service Center.</p>	

Rocker



Dimensions are shown: Inch (mm)  
 Specifications and dimensions subject to change