

# Combination Switch/Circuit Breaker

This patented product combines control functions and overload protection in a single device to meet household or industrial requirements. Its one-piece design cuts down product assembly time. It is ideal for power strips, uninterrupted power supplies, office machines, machine tools and electrical appliances.

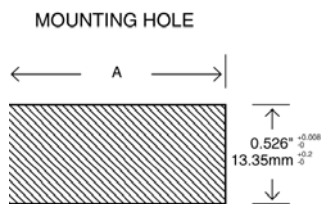
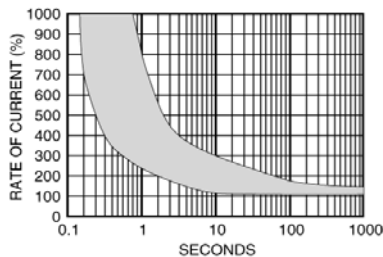
## Rated Current:

8 Amp to 15 Amp are available on request

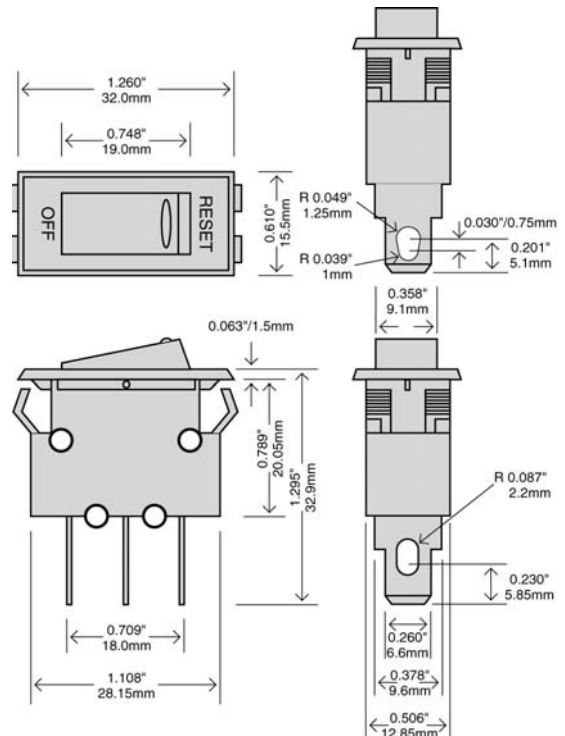
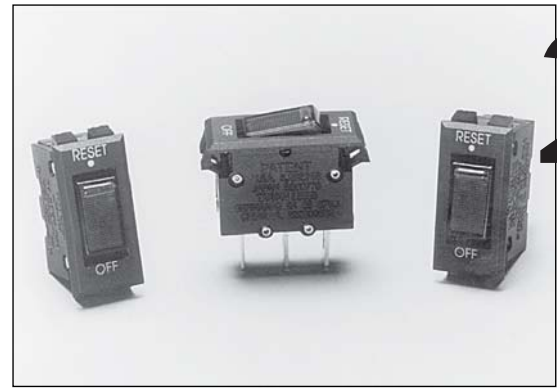


## Voltage:

125 VAC or 250 VAC  
12 VDC



THICKNESS	DIMENSION A
0.031" ~ 0.039" 0.8mm ~ 1.0mm	1.118" <sup>+0.004</sup> 28.4mm <sup>+0.1</sup>
0.043" ~ 0.055" 1.1mm ~ 1.4mm	1.134" <sup>+0.004</sup> 28.8mm <sup>+0.1</sup>
0.059" ~ 0.079" 1.5mm ~ 2.0mm	1.142" <sup>+0.004</sup> 29.0mm <sup>+0.1</sup>

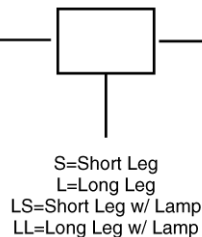


CIRCUIT DIAGRAM



## Ordering Information:

# SS-001CB



- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# S-Series Pushbutton Switches

Series S Pushbutton switches are designed for snap-in panel mounting.

## Approvals



UL recognized, CSA certified, VDE approved. Load rating: 10A 125/250 VAC, 1/4 HP, 125 VAC; 10A 14VDC. Contacts: fine silver, double break. Circuits: single-pole and double-pole. Dielectric strength: 2000 VAC RMS. Life: 25,000 operations at maximum rating.

## Low Level Control

For low level/dry circuit applications (<100 ma) contact factory for part number.

## Terminals/Contacts

1/4" quick-connect, 3/16" quick-connect and solder lug for #12 wire. Fine silver contacts (gold plating available).

## Mechanical Features

Positive mechanical indication of switch contact position. 100,000 mechanical operations.

## Lamps

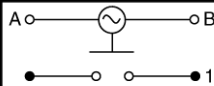
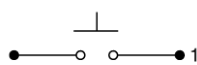
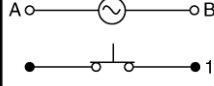
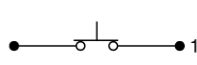
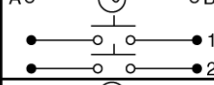
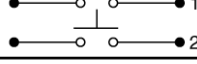
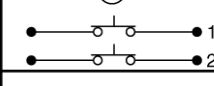
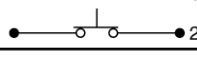
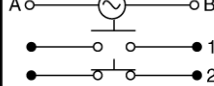
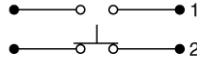
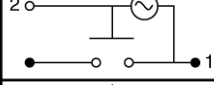
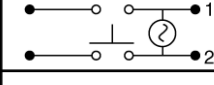

Integral with switch; internally connected per diagram. 6, 12 and 28 volt incandescent lamps standard. 125 and 250 volt neon lamps standard.

## Special Lamps

Green neon 125 and 250 volt lamps. LED 6 and 12 volt. Consult factory for special requirements.

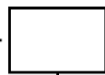
## Markings

Letters, numbers and symbols can be engraved, hot-stamped or pad printed on lens cap; mylar inserts are also available. See back cover gatefold for details.

Circuit	Switching	Circuit Diagram (Lighted)	Circuit Diagram (Non-Lighted)
1	Single-Pole Single-Throw Normally Open		
2	Single-pole Single-throw Normally Closed		
3	Double-Pole Single-Throw Normally Open		
4	Double-pole Single-throw Normally Closed		
5	Double-Pole Circuit #1 Normally Open Circuit #2 Normally Closed		
6	Single-Pole Single-Throw Normally Open		N/A
7	Double-Pole Single-Throw Normally Open		N/A
G	Indicator Light Only		N/A

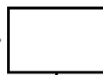
## Ordering Information:

**S**



### Lighting

L=Lighted  
P=Non-Lighted  
G=Indicator Light



### Action

M=Momentary  
A=Alternating  
T= Indicator Light  
Short Stroke Available\*\*\*\*



### Circuit

1=SPST, Normally Open  
2=SPST, Normally Closed  
3=DPST, Normally Open  
4=DPST, Normally Closed  
5=DPST, Normally 1 Circuit Open,  
1 Closed  
6\*=SPST, Normally Open  
7\*=DPST, Normally Open  
G=Indicator Light



### Terminal

A=1/4" Quick Connect  
B=3/16" Quick Connect  
C=Solder Connect

\* Lighted models only

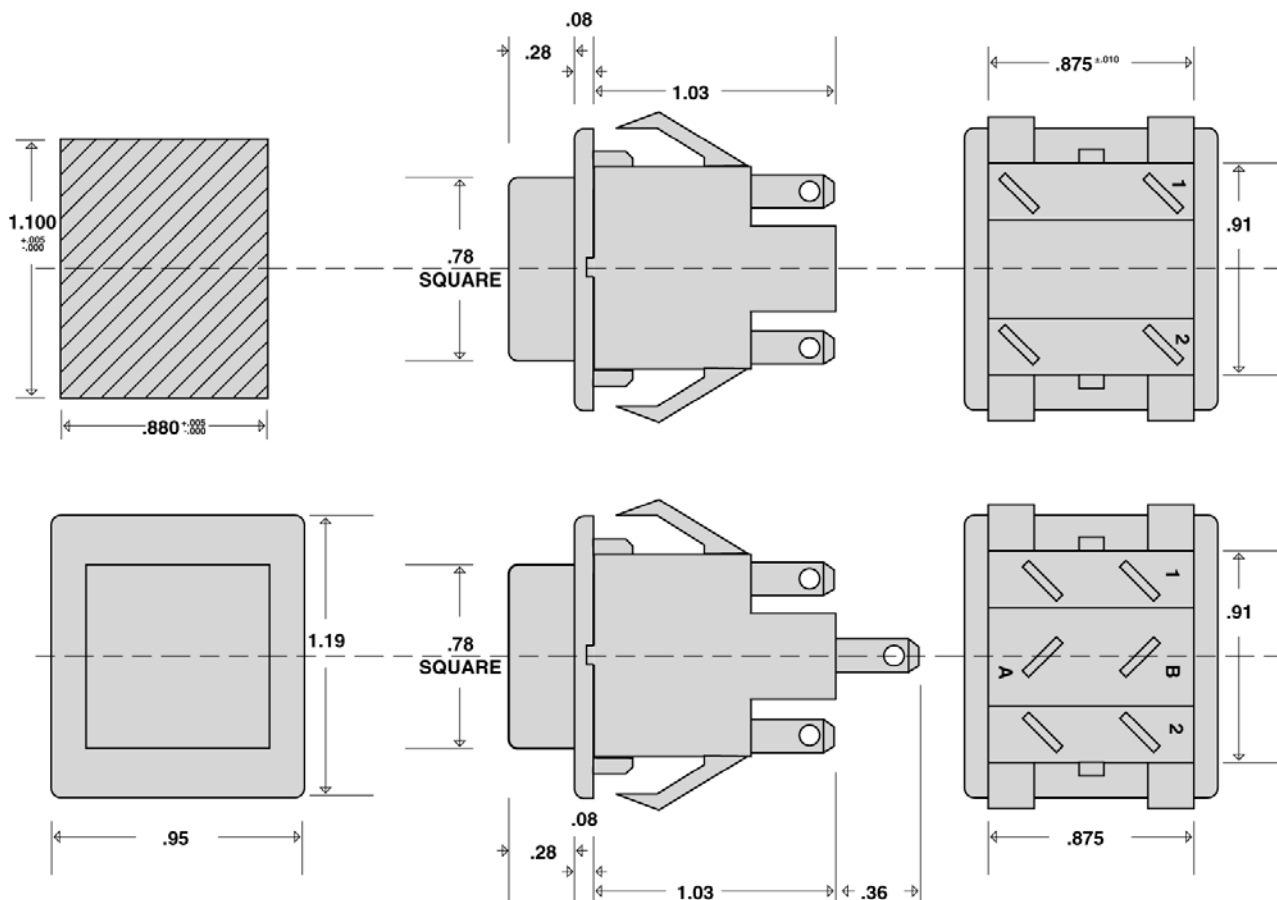
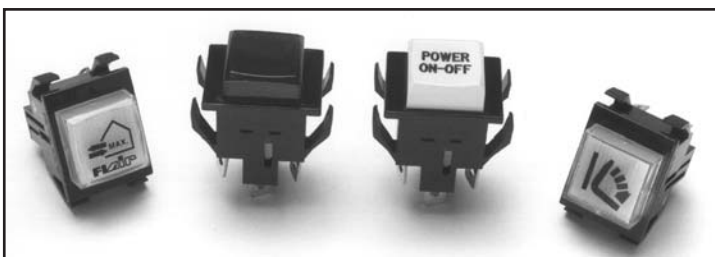
\*\* Available only with transparent colors.

\*\*\*Green & Blue lenses require non-standard neon lamps for units with neon lamps.

\*\*\*\*Momentary, normally open circuits only. Consult Factory.

# 2

# SWITCHES & KNOBS



Lamp or LED Voltage*	Cap Style	Lens Cap Color	Housing Color	Accessories (Optional)
6V=6 Volt Incandescent 12V=12 Volt Incandescent 28V=28 Volt Incandescent 125V= 125 Volt Neon 250V=250 Volt Neon 125VG=125 Volt Green Neon 250VG=250 Volt Green Neon 6VR=6 Volt Red LED 6VG=6 Volt Green LED 12VR=12 Volt Red LED 12VG=12 Volt Green LED	D**=Beveled Blank=Square Edged	TRANSPARENT COLORS 1=Red 2=Clear 3=Amber 4=Green*** 5=Blue***  OPAQUE COLORS 7=White 9=Black 11=Green 12=Red	Matte Finish M9=Black (For other colors contact factory)	B=Protective Barrier T=Boot CD=Clear Diffuser

# Q-Series Pushbutton Switches

Q-Series Pushbutton switches are designed for snap-in panel mounting.

## Approvals



UL re3cognized; CSA approved; VDE approval pending. Load rating: 10A 125/250 VAC, 1/4 HP, 125 VAC; 10A 14VDC. Contacts: fine silver, double break. Circuits: single-pole and double-pole. Dielectric strength: 2000 VAC RMS. Life: 25,000 operations at maximum rating.

## Low Level Control

For low level/dry circuit applications (<100 ma) contact factory for technical assistance.

## Terminals

3/16" quick-connect brass with fine silver contacts (gold plating available).

## Mechanical Features

Positive mechanical indication of switch contact position. 100,000 mechanical operations.

## Lamps

Integral with switch; internally connected per diagram.

**Incandescent Lamps** — 6, 12 and 28 volt for use with any color lens window.

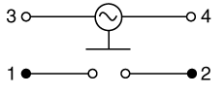
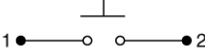
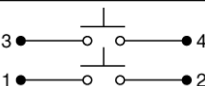
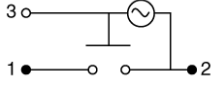
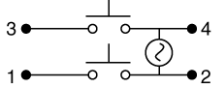

**Neon Lamps** — 125 and 250 volt standard orange for use with red, clear or amber caps. 125 and 250 volt special green for use with green or clear lens window.

**LED's** — 6 or 12 volt available in red or green color option: Red LED with red, clear or amber lens window; Green LED with clear or green lens window.

**Note** — LED polarity must be observed. (The positive terminal is marked on housing, terminal #3 or #4).

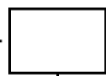
## Markings

Letters, numbers and symbols can be laser etched or pad printed on the button. See back cover gatefold for details

Circuit	Switching	Circuit Diagram (Lighted)	Circuit Diagram (Non-Lighted)
1	Single-Pole Single-Throw Normally Open		
3	Double-Pole Single-Throw Normally Open	N/A	
6	Single-Pole Single-Throw Normally Open		N/A
7	Double-Pole Single-Throw Normally Open		N/A
0	G		N/A

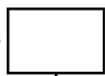
## Ordering Information:

**Q**



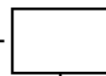
### Lighting

L=Lighted  
P=Non-Lighted  
G=Indicator



### Action

M=Momentary  
A=Alternating  
S=Short Indicator



### Circuit

1=SPST, Normally Open  
3=DPST, Normally Open  
6\*=SPST, Normally Open  
7\*=DPST, Normally Open  
G=Indicator Only



### Terminal

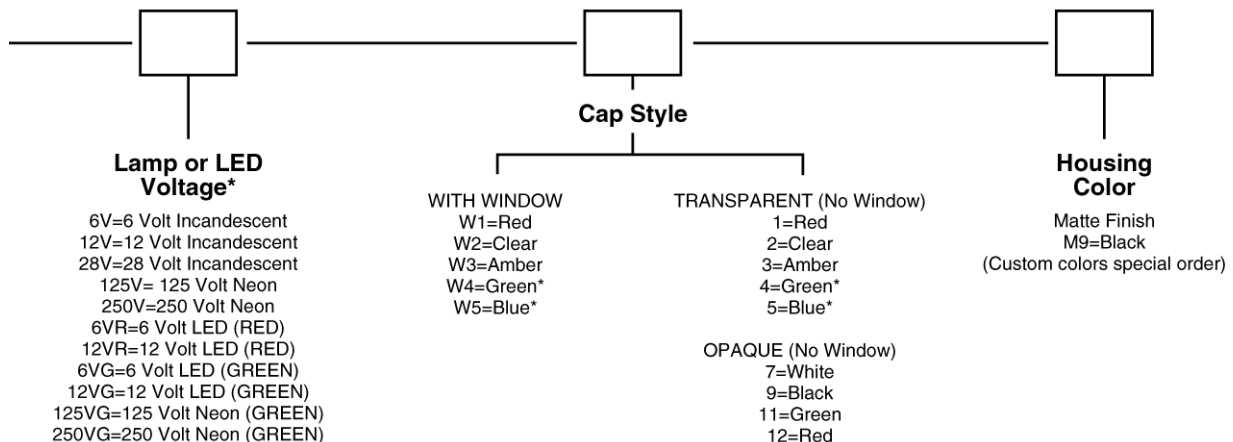
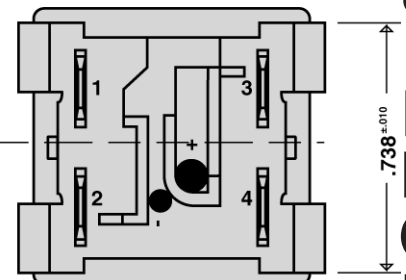
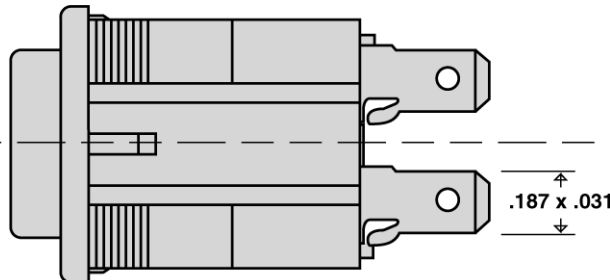
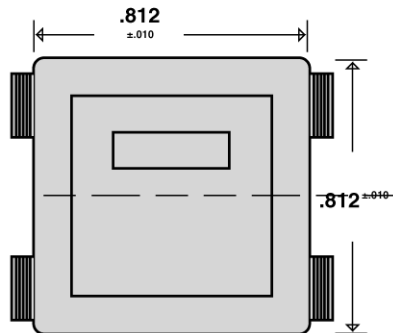
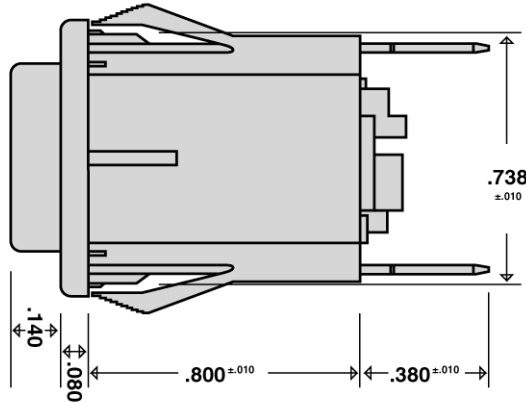
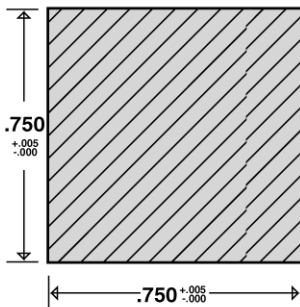
B=3/16" Quick Connect  
G=3/16" Quick Connect with gold plate

\*Green & Blue lenses require non-standard neon lamps for units with neon lamps.

# 2 SWITCHES & KNOBS



Panel Cutout  
Thickness: .031 - .094



# K-Series Single-pole Keylocks

Type K keylock switches offer low cost key operated protection against accidental or unauthorized access, with options in:

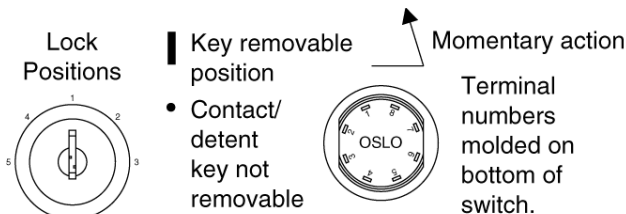
- Σ standard compact style or
  - anti-static version for static discharge protection
  - Available fifth tumbler detent
  - circuit arrangements
- Σ key coding
  - lock finishes
  - terminal styles
  - mounting styles
  - contact materials/ ratings
  - fire code keys available (contact factory)












## Specifications

Contact ratings: 4A/125 VAC or 28 VCD, 2A/250 VAC; UL recognized, CSA certified. Electrical life: 10,000 cycles min. at full load. Contact resistance: 10 milliohms max. initial at 2-4 VCD, 100mA. Insulation resistance: 10<sup>9</sup> ohms min. Dielectric strength: 1,000 rms at sea level. Indexing: 45° or 90°, single-pole styles 5 positions max., double-pole styles 3 positions max., various key pull positions available. Static resistance: 20,000 VCD static resistance at sea level, lock body to terminals.

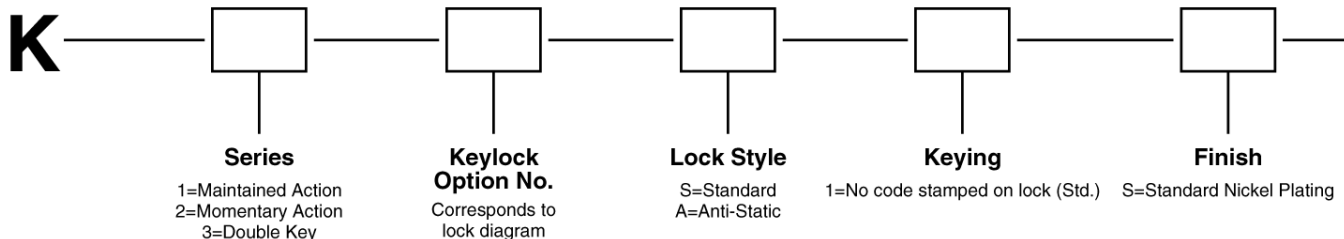
## Materials & Features

Lock: five tumbler brass mechanism. Zinc alloy, nickel plated steel (std); chrome plate or matte stainless steel face optional. Switch housing: 6/6 nylon (UL94V-2).



	Keylock Option	Lock Diagram	Key Position	Terminals Connected
K1 Series	100		1 3	8-1 1-3
	101			
	102			
	103		1 2 3	8-1 1-2 2-3
	104			
	107			
	108		1 3 5	8-1 2-3 6-7
	118			
K2 Series	101		1 3 5	8-1 2-3 6-7
	102		1 3	8-1 2-3
K3 Series	100		1 3 5	8-1 2-3 6-7

## Ordering Information:

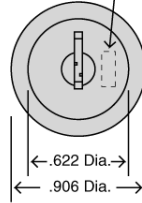


\* KEYING - Two matching keys are provided with each switchlock. All K-Series switches come with 2 keys, keyed alike. Nickel plated with code number. All locks on an individual order will be keyed alike (Ex. 0C01) unless otherwise specified at the time of order. When it is necessary to reorder a specific key code (Ex. 0C01) please include the key code when ordering.

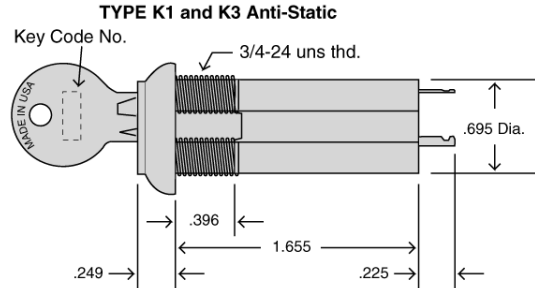
Note: Keylock switches may be custom configured to customer requirements, including multiple key codes and wire harness assemblies.



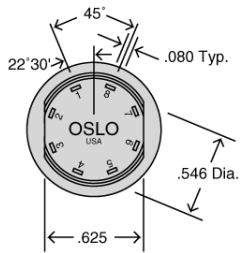
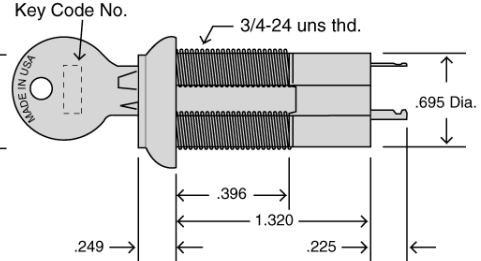
Optional Key Code No.



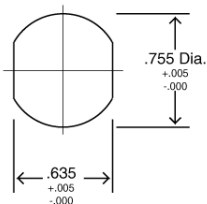
**TYPE K1 and K3 Standard**



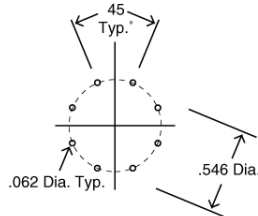
**TYPE K2 (Momentary) Standard**



**Panel Mounting**

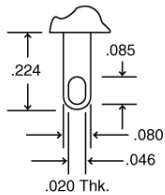


**PC Mounting**

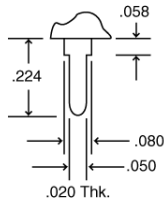


**Terminals**

**Standard**



**Board Mount**

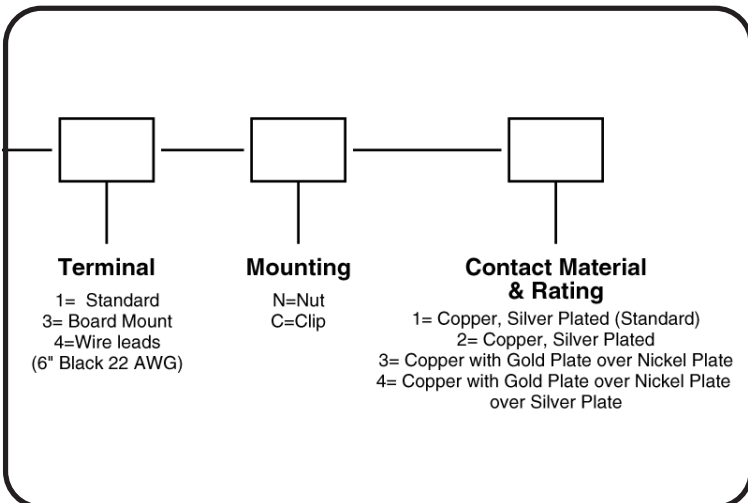


Mounting Option	Panel Thickness Recommended
	.250 in. max.
	.065 - .090 in.

Option	Contact Material	Ratings	Approvals
1 (std.)	Copper, Silver Plated	4A At 125 VAC or 28 VDC at 250 VAC	Ratings and approvals not marked on switch
2	Copper, Silver Plated	4A At 125 VAC or 28 VDC at 250 VAC*	UL Ⓢ
3	Copper with gold plate over nickel plate	0.4 VA max at 20 VAC or DC max.	None for dry circuit
4	Copper with gold plate over nickel plate over silver plate	4A At 125 VAC or 28 VDC at 250 VAC*	UL Ⓢ

\* Ratings and approvals are marked on switch.

**Note 1.** Option 4 can be used in either dry circuit or power circuit applications. However, when dry circuit rating is exceeded, the gold plating on the contact surfaces is removed and the switch cannot then be used in dry circuit applications.



# K-Series Double-pole Keylock Switches

Type K keylock switches offer low cost key operated protection against accidental or unauthorized access, with options in:







- Σ standard compact style or
  - anti-static version for static discharge protection
  - Available fifth tumbler detent
  - circuit arrangements
- Σ key coding
  - lock finishes
- terminal styles
- mounting styles
- contact materials/ratings
- fire code keys available(contact factory)

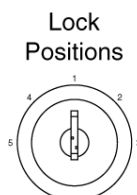
## Specifications

Contact ratings: 4A/125 VAC or 28 VCD, 2A/250 VAC; UL recognized, CSA certified. Electrical life: 10,000 cycles min. at full load. Contact resistance: 10 milliohms max. initial at 2-4 VCD, 100mA. Insulation resistance:  $10^9$  ohms min. Dielectric strength: 1,000 rms at sea level. Indexing: 45° or 90°, single-pole styles 5 positions max., double-pole styles 3 positions max., various key pull positions available. Static resistance: 20,000 VCD static resistance at sea level, lock body to terminals.

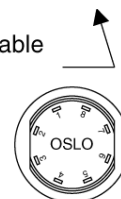
## Materials & Features

Lock: five tumbler brass mechanism. Zinc alloy, nickel plated steel (std); chrome plate or matte stainless steel face optional. Switch housing: 6/6 nylon (UL94V-2).

Keylock Option No.	Lock Diagram	Key Position	Terminals Connected
200		1 3	8-1,4-5 2-3,6-7
201			
202			
203		1 2 3	8-1,4-5 1-2,5-6 2-3,6-7
204			
206		1 2 4	8-1,4-5 1-2,5-6 7-8,3-4



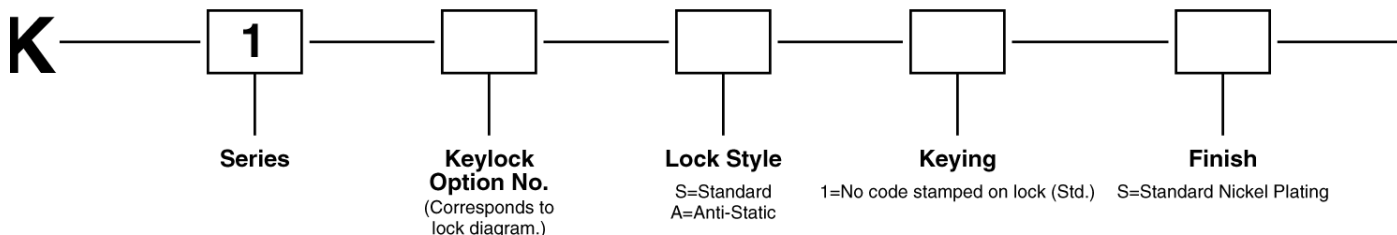
- Key removable position
- Contact/detent key not removable



Momentary action

Terminal numbers molded on bottom of switch.

## Ordering Information:

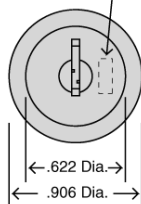


\* KEYING - Two matching keys are provided with each switchlock. All K-Series switches come with 2 keys, keyed alike. Nickel plated with code number. All locks on an individual order will be keyed alike (Ex. 0C01) unless otherwise specified at the time of order. When it is necessary to reorder a specific key code (Ex. 0C01) please include the key code when ordering.

Note: Keylock switches may be custom configured to customer requirements, including multiple key codes and wire harness assemblies.

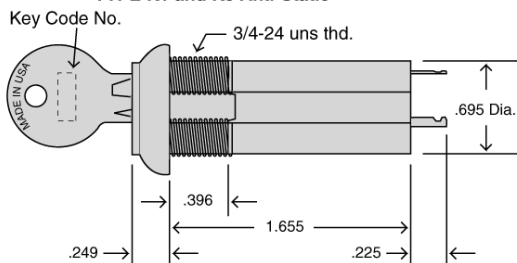


Optional Key Code No.

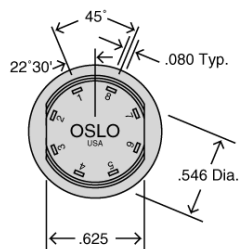
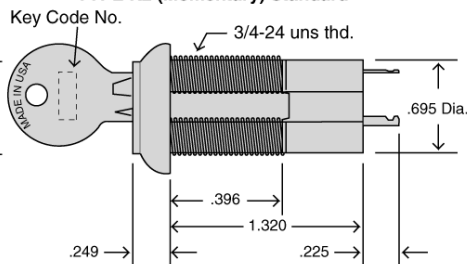


TYPE K1 and K3 Standard

TYPE K1 and K3 Anti-Static

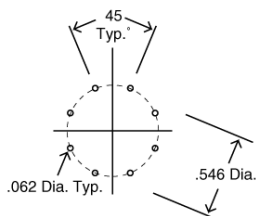
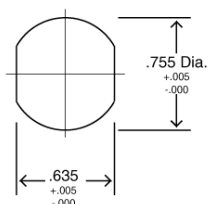


TYPE K2 (Momentary) Standard



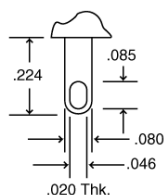
Panel Mounting

PC Mounting

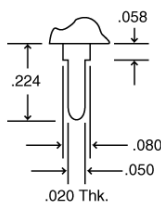


Terminals

Standard



Board Mount

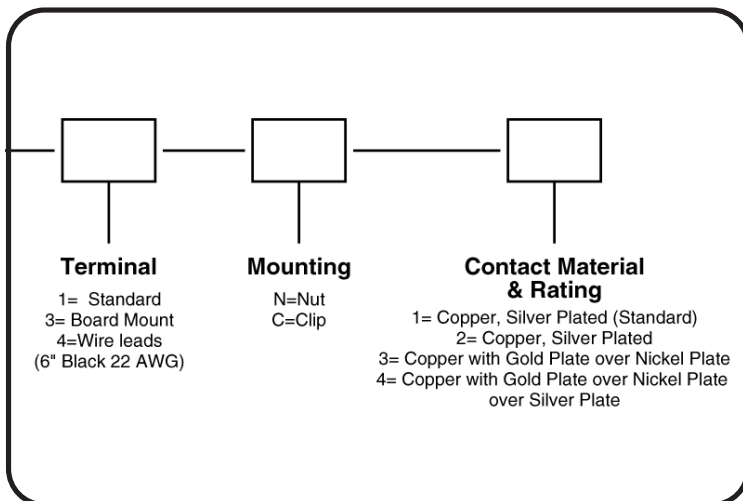


Mounting Option	Panel Thickness Recommended
<p>Nut</p>	.250 in. max.
<p>Clip</p>	.065 - .090 in.

Option	Contact Material	Ratings	Approvals
1 (std.)	Copper, Silver Plated	4A At 125 VAC or 28 VDC at 250 VAC	Ratings and approvals not marked on switch
2	Copper, Silver Plated	4A At 125 VAC or 28 VDC at 250 VAC*	UL SF
3	Copper with gold plate over nickel plate	0.4 VA max at 20 VAC or DC max.	None for dry circuit
4	Copper with gold plate over nickel plate over silver plate	4A At 125 VAC or 28 VDC at 250 VAC*	UL SF

\* Ratings and approvals are marked on switch.

**Note 1.** Option 4 can be used in either dry circuit or power circuit applications. However, when dry circuit rating is exceeded, the gold plating on the contact surfaces is removed and the switch cannot then be used in dry circuit applications.



# WRSP Series Weatherproof Single-pole Rocker Switches

## Approvals

UL recognized. CSA and VDE approvals pending.  
Load rating: 20A 125/250 VAC. 3/4 HP, 125/250 VAC. 14A 14VDC. Contacts: fine silver for long life dependability. Dielectric strength: 1250 volts (live parts to ground). Life: 35,000 operations at maximum rating. Insulation resistance: 5 megohms.

## Water & Dust Resistance

Designed to meet IP-64.

## High Inrush

125 Amp inrush capability (AgNi contacts).

## Low Level Control

For low level/dry circuit applications (<100 am) contact factory for part number.

## Terminals

Style A - 1/4-inch quick-connect

## Mechanical Features





















100,000 mechanical operations

## Markings

Letters, numbers and symbols can be applied to rocker actuator or to integral nylon bezel; see inside back cover for details.

## Mounting

Snap-in type panel mounting for ease of installation without additional mounting hardware.

Circuit	Switching	
1	SPST Maintained	 
2	SPDT Maintained	 
3	SPDT Maintained Center Off	  
4	SPST (Momentary) Normally Open	 
5	SPDT (Momentary) Normally Closed	 
6	SPDT (Momentary) Transfer	 
7	SPDT Maintained Center Off (Momentary)	  
8	SPDT (Momentary) Center Off (Momentary)	  

## Ordering Information:

# WRSP

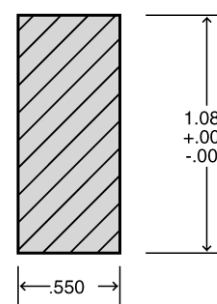
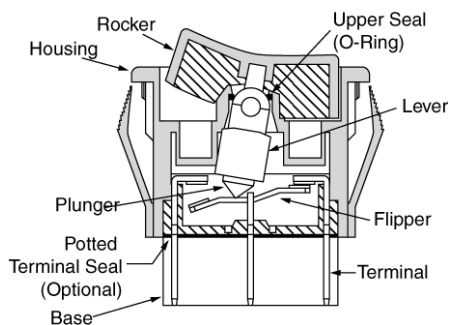
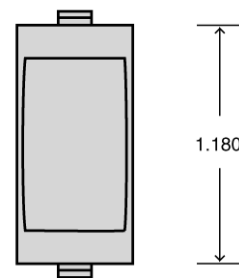
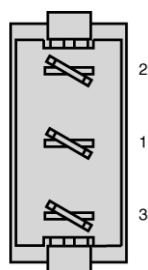
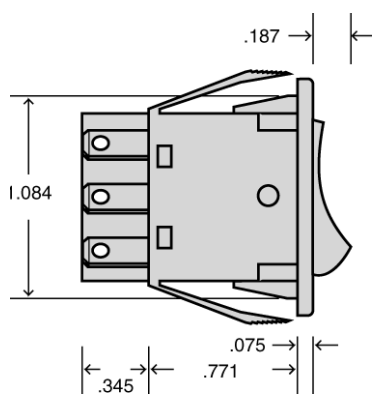
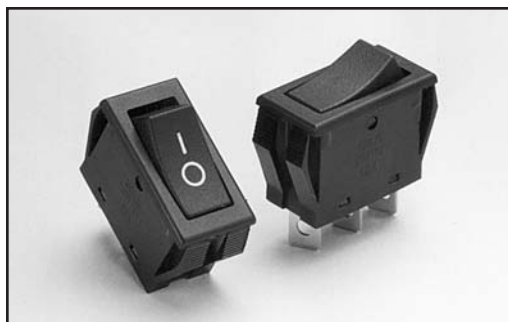
### Circuit

1=SPST Maintained  
2=SPDT Maintained  
3=SPDT Maintained Center Off  
4=SPST (Momentary) Normally Open  
5=SPST (Momentary) Normally Closed  
6=SPDT (Momentary) Transfer  
7=SPDT Maintained Center Off (Momentary)  
8=SPDT (Momentary) Center Off (Momentary)

### Terminal Option

A=Fine Silver (Normal Duty)  
G=Gold Plated Contacts  
H=High Inrush Contacts

# 2 SWITCHES & KNOBS



Panel Cut Out  
Panel Thickness 1/32" - 3/16"

## Actuator Color

7=White  
9=Black  
11=Green (non-stock)  
12=Red

## Housing Color

M9=Matte Black  
(For other colors contact factory)

## Accessories (Optional)

T=Boot  
E=Epoxy Seal  
G=Panel Gasket

# CRSP Series Non-lighted Single-pole Rocker Switches

## Approvals

UL recognized, CSA certified. Load rating: 20A 125/250 VAC. 3/4 HP, 125/250 VAC. 14A 14VDC, VDE approval 15A. Dielectric strength: 1250 volts (live parts to ground). Life: 35,000 operations at maximum rating. Insulation resistance: 5 megohms.

## Low Level Control

For low level/dry circuit applications (<100 ma) contact factory for part number (Gold plated contacts).

## High Inrush

125 Amp inrush capability (AgNi contacts).

## Terminals

Style A - 1/4-inch quick-connect with fine silver contacts (gold plating available).

## Mechanical Features




























100,000 mechanical operations

## Markings

Letters, numbers and symbols can be applied to rocker actuator or to integral nylon bezel; see inside back cover for details.

## Mounting

Snap-in type panel mounting for ease of installation without additional mounting hardware.

Circuit	Switching			
1	SPST Maintained			
2	SPDT Maintained			
3	SPDT Maintained Center Off			
4	SPST (Momentary) Normally Open			
5	SPDT (Momentary) Normally Closed			
6	SPDT (Momentary) Transfer			
7	SPDT Maintained Center Off (Momentary)			
8	SPDT (Momentary) Center Off (Momentary)			

## Ordering Information:

# CRSP



### Circuit

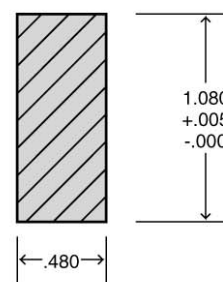
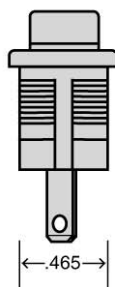
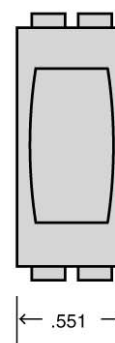
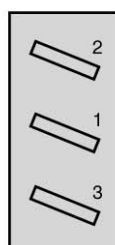
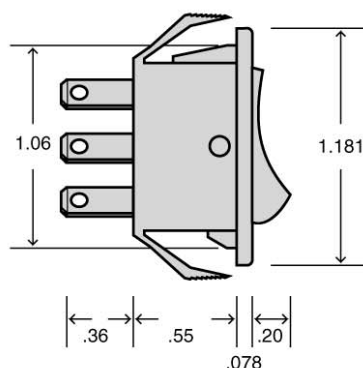
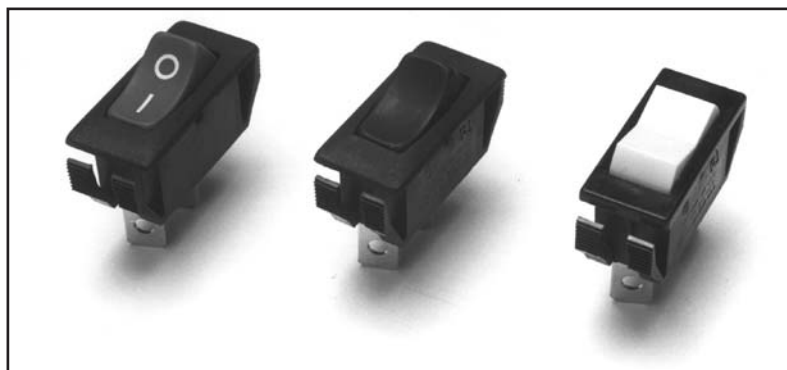
- 1=SPST Maintained
- 2=SPDT Maintained
- 3=SPDT Maintained Center Off
- 4=SPST (Momentary) Normally Open
- 5=SPST (Momentary) Normally Closed
- 6=SPDT (Momentary) Transfer
- 7=SPDT Maintained Center Off (Momentary)
- 8=SPDT (Momentary) Center Off (Momentary)



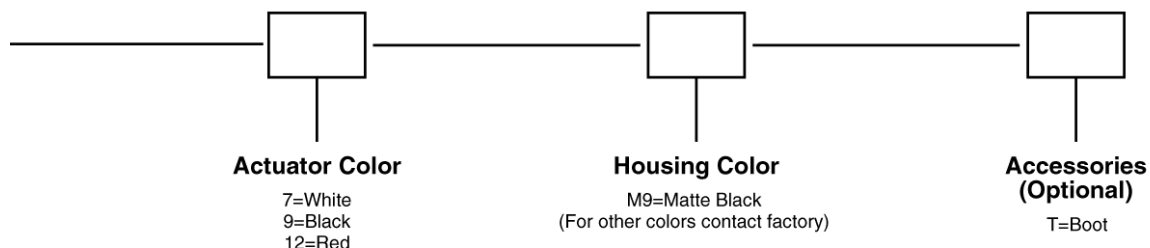
### Terminal Option

- A=Fine Silver (Normal Duty)
- G=Gold Plated Contacts
- H=High Inrush Contacts

# 2 SWITCHES & KNOBS



Panel Cut Out  
Panel Thickness  $\frac{1}{32}$ " -  $\frac{3}{16}$ "



# CRSL Series Lighted Single-pole Rocker Switches

## Approvals

UL recognized, CSA certified. Load rating: 20A 125/250 VAC. 3/4 HP, 125/250 VAC. 14A 14VDC, VDE approval 15A. Contacts: fine silver for long life dependability. Dielectric strength: 1250 volts (live parts to ground). Life: 35,000 operations at maximum rating. Insulation resistance: 5 megohms.

## Low Level Control

For low level/dry circuit applications (<100 am) contact factory for part number (Gold plated contacts).

## High Inrush

125 Amp inrush capability (AgNi contacts).

## Terminals

Style A - 1/4-inch quick-connect

## Mechanical Features

100,000 mechanical operations

## Lamps

6, 12 and 28 volt incandescent lamps standard.

125 and 250 volt neon lamps standard.

## Special Lamps

Green neon 125 and 250 volt lamps for green actuator.

## LED Display








LED display options available. Consult factory.

## Markings

Letters, numbers and symbols can be applied to rocker actuator or to integral nylon bezel; see inside back cover for details.

## Mounting

Snap-in type panel mounting for ease of installation without additional mounting hardware.

Circuit	Switching		
1	SPST Maintained Refer to Note 1		
4	SPST (Momentary) Normally Open Refer to Note 1		
0	G		

**NOTE 1.** Furnished with one side of the lamp internally connected and a single lamp-terminal at the back of the switch.

## Ordering Information:

**CRS**

**L**

### Lighting Option

L=Lighted Switch

**1**

### Circuit

1=SPST Maintained (Refer to Note 1)  
4=SPST (Momentary) Normally Open (Refer to Note 1)  
O=Indicator Only (see pp. 36-37)

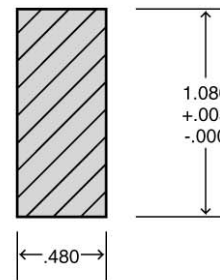
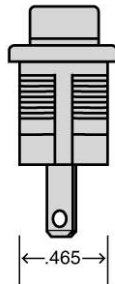
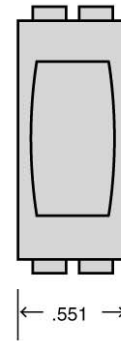
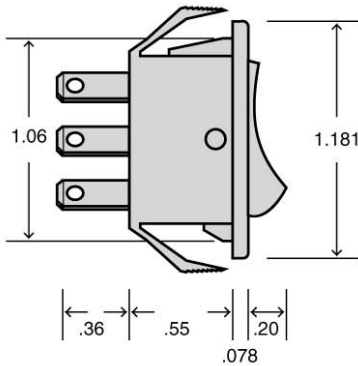
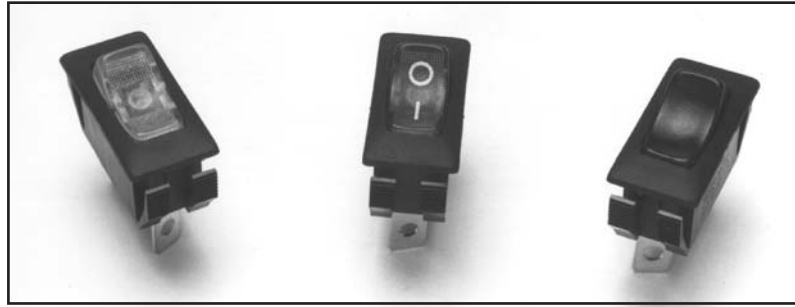
**A**

### Terminal Option

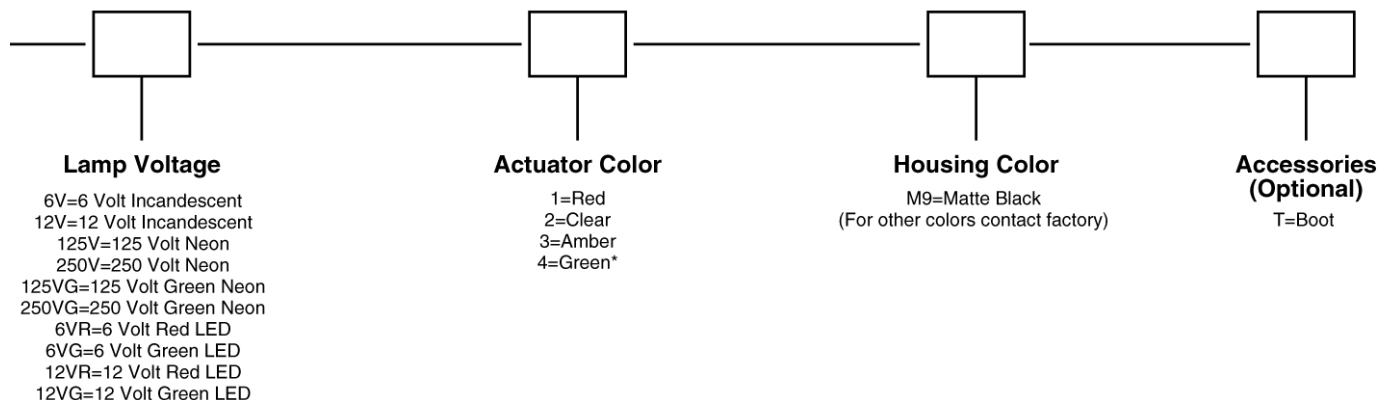
A=Fine Silver (Normal Duty)  
G=Gold Plated Contacts  
H=High Inrush Contacts

\*Green lenses require non-standard neon lamps for units with neon lamps.

# 2 SWITCHES & KNOBS



Panel Cut Out  
Panel Thickness  $\frac{1}{32}$ " -  $\frac{3}{16}$ "



# C RTP Series Non-lighted Double-pole Rocker Switches

## Approvals

UL recognized, CSA certified. Load rating: 20A 125/250 VAC. 3/4 HP, 125/250 VAC. 14A 14VDC, VDE approval 15A. Contacts: fine silver for long life dependability. Dielectric strength: 1250 volts (live parts to ground). Life: 35,000 operations at maximum rating. Insulation resistance: 5 megohms.

## Low Level Control

For low level/dry circuit applications (<100 am) contact factory for part number (Gold plated contacts).

## High Inrush

125 Amp inrush capability (AgNi contacts). Positive action on/off available.

## Terminals

Style A - 1/4-inch quick-connect

## Mechanical Features

100,000 mechanical operations

## Markings

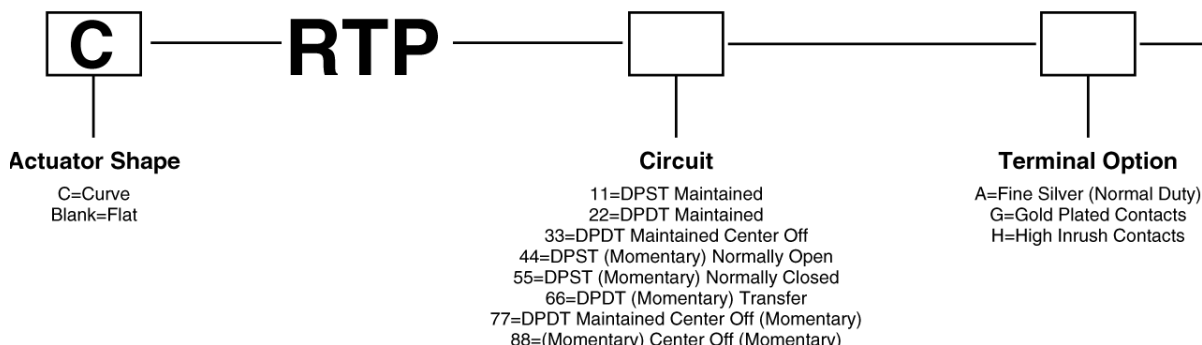
Letters, numbers and symbols can be applied to rocker actuator or to integral nylon bezel; see inside back cover for details.

## Mounting

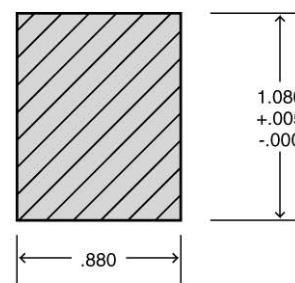
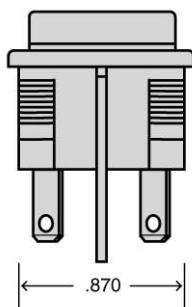
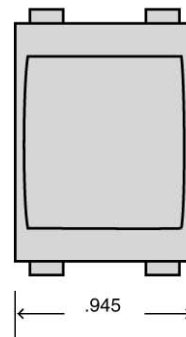
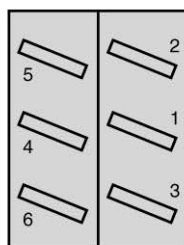
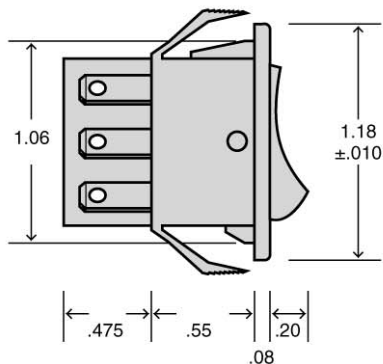
Snap-in type panel mounting for ease of installation without

Circuit	Switching	
11	DPST Maintained	
22	DPDT Maintained	
33	DPDT Maintained Center Off	
44	DPST (Momentary) Normally Open	
55	DPDT (Momentary) Normally Closed	
66	DPDT (Momentary) Transfer	
77	DPDT Maintained Center Off (Momentary)	
88	DPDT (Momentary) Center Off (Momentary)	

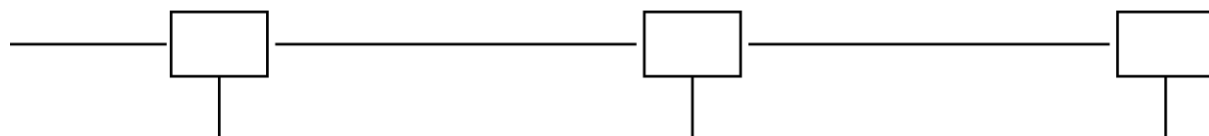
## Ordering Information:



# 2 SWITCHES & KNOBS



Panel Cut Out  
Panel Thickness 1/32" - 3/16"



## Actuator Color

7=White  
9=Black  
11=Green (non-stock)  
12=Red

## Housing Color

M9=Matte Black  
(For other colors contact factory)

## Accessories (Optional)

B=Protective Barrier  
T=Boot  
E=Epoxy Seal

# CRTL Series Lighted Double-pole Rocker Switches

## Approvals

UL recognized, CSA certified. Load rating: 20A 125/250 VAC. 3/4 HP, 125/250 VAC. 14A 14VDC, VDE approval 15A. Contacts: fine silver for long life dependability. Dielectric strength: 1250 volts (live parts to ground). Life: 35,000 operations at maximum rating. Insulation resistance: 5 megohms.

## Low Level Control

For low level/dry circuit applications (<100 am) contact factory for part number (Gold plated contacts).

## High Inrush

125 Amp inrush capability (AgNi contacts). Positive action on/off available..

## Terminals

Style A - 1/4-inch quick-connect

## Mechanical Features

100,000 mechanical operations

## Lamps

6, 12 and 28 volt incandescent lamps standard. 125 and 250 volt neon lamps standard.

## Special Lamps

Green neon 125 and 250 volt lamps. Consult factory.

## LED Display

LED display options available.

## Markings

Letters, numbers and symbols can be applied to rocker actuator

or to integral nylon bezel; see inside back cover for details.

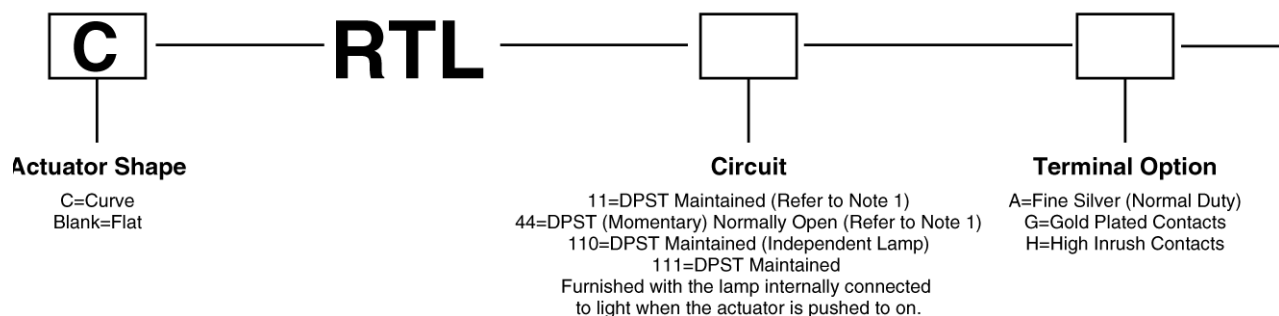
## Mounting

Snap-in type panel mounting for ease of installation without additional mounting hardware.

Circuit	Switching		
11	DPST Maintained Refer to Note 1		
44	DPST (Momentary) Normally Open Refer to Note 1		
110	DPST Maintained Independent Lamp		
111	DPST Maintained Furnished with the lamp internally connected to light when the actuator is pushed to on.		

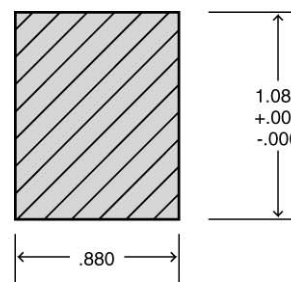
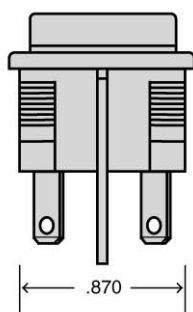
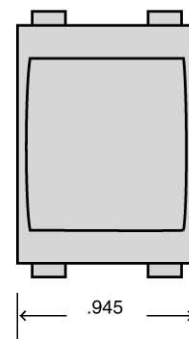
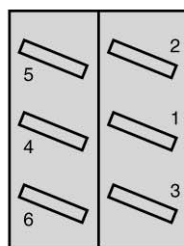
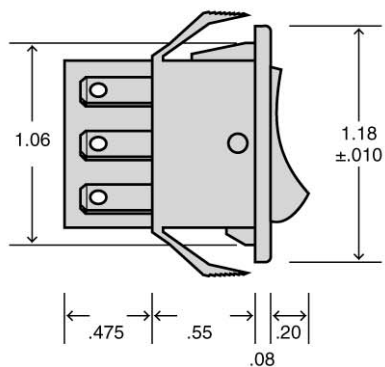
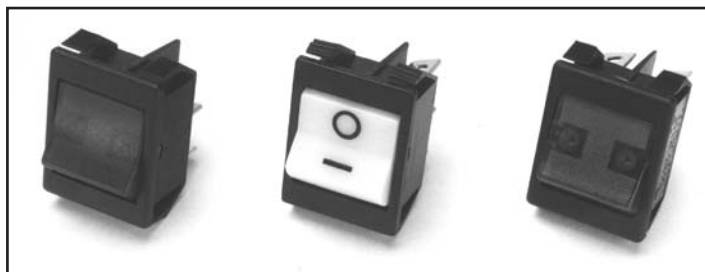
**NOTE 1.** Furnished with one side of the lamp internally connected and a single lamp-terminal at the back of the switch.

## Ordering Information:



\*Green lenses require non-standard neon lamps for units with neon lamps.

# 2 SWITCHES & KNOBS



Panel Cut Out  
Panel Thickness 1/32" - 3/16"

## Lamp Voltage

6V=6 Volt Incandescent  
12V=12 Volt Incandescent  
28V=28 Volt Incandescent  
125V= 125 Volt Neon  
250V=250 Volt Neon  
125VG=125 Volt Green Neon  
250VG=250 Volt Green Neon  
6VR=6Volt Red LED  
6VG=6 Volt Green LED  
12VR=12 Volt Red LED  
12VG=12 Volt Green LED

## Actuator Color

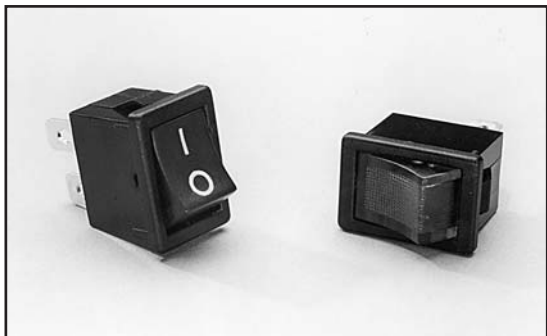
1=Red  
2=Clear  
3=Amber  
4=Green\*

## Housing Color

M9=Matte Black  
(For other colors contact factory)

## Accessories (Optional)

T=Boot  
B=Protective Barrier  
E=Epoxy Seal



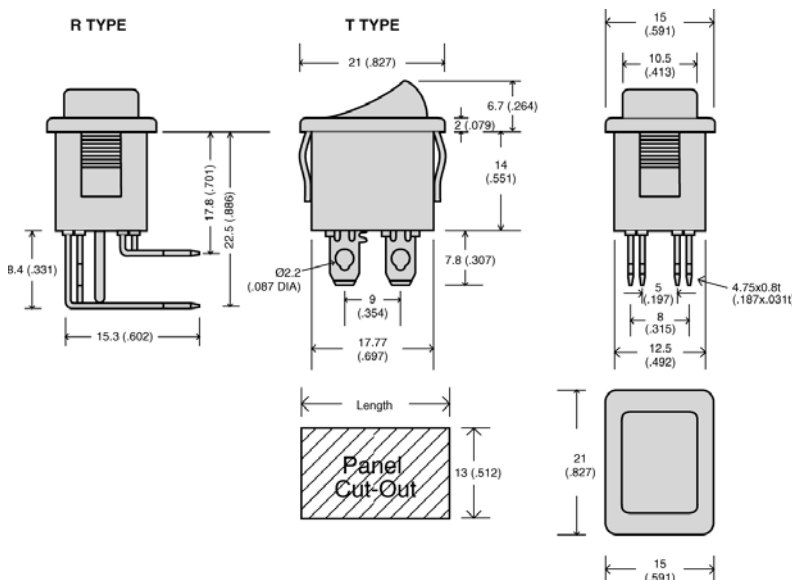
# R9 Miniature Rocker Switches

## Features

- Σ Lighted or non-lighted
- Σ Snap-in mounting
- Σ Quick connect terminals
- Σ approvals available

## Specifications

- Σ Rating .....6A 250V AC
- Σ Mechanical Life .....15,000 Cycles
- Σ Electrical Life .....10,000 Cycles
- Σ Contact Resistance .....20mW max.
- Σ Insulation Resistance .....1,000MW min.
- Σ Dielectric Strength .....1,500V AC for 1 Minute  
3,000V AC between poles



Panel Thickness (mm)	Length (mm)
0.7 ~ 1.25	19.0 + 0.2
1.26 ~ 2.0	19.3 + 0.2
2.1 ~ 3	19.6 + 0.2

## Ordering Information:

**R9**    — **2** —    —    —    —    —    —   

**Function**  
1=SPST  
9=SPST w/Neon  
D=DPST  
Y=DPST w/Neon

**Rating**  
2=6A,250V AC

**Housing Color**  
K=Black  
W=White

**Rocker Color**  
K=Black  
W=White  
O=Orange  
R=Red  
Y=Yellow  
M=Green

**Marking**

A =	F =
B =	G =
C =	H =
D =	I =
E =	L =

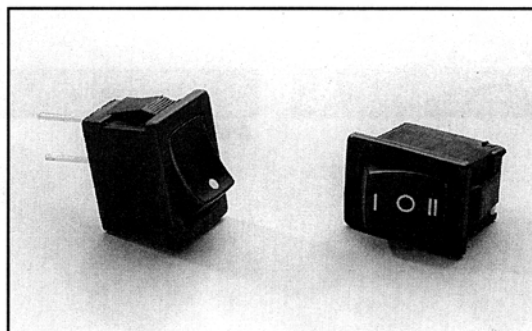
**Terminal Type**

**Lamp Voltage**  
0=No Lamp  
1=125V AC  
2=250V AC  
3=12V DC  
4=24V DC  
6=6V DC

**T Type**

**R Type**


# RA Miniature Rocker Switches



2

SWITCHES &amp; KNOBS

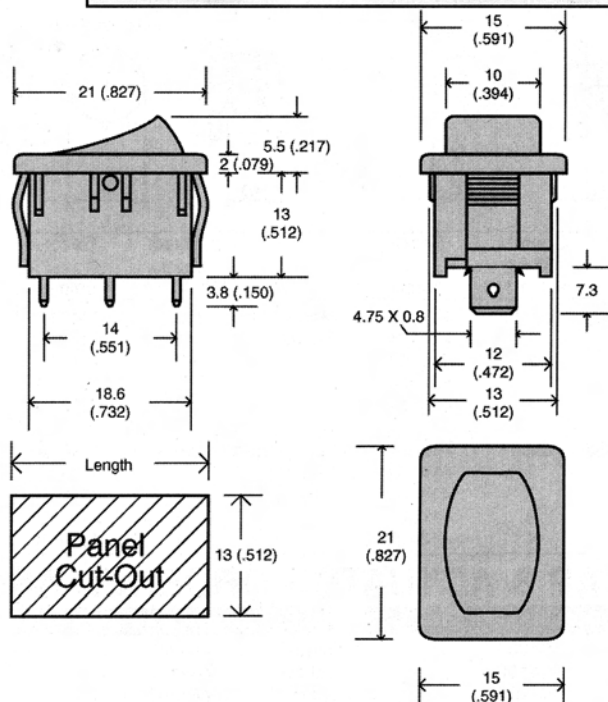
## Features

- Snap-in mounting
- Choice of terminals
-  approvals available
- Maintained or momentary

## Specifications

- Rating .....6A 250V AC
- Mechanical Life.....15,000 Cycles
- Electrical Life .....10,000 Cycles
- Contact Resistance .....20mΩ max.
- Insulation Resistance .....1,000MΩ min.
- Dielectric Strength .....1,500V AC for 1 Minute  
3,000V AC between poles

Panel Thickness (mm)	Length (mm)
0.7 ~ 1.25	19.0 + 0.2
1.26 ~ 2.0	19.3 + 0.2
2.1 ~ 3	19.6 + 0.2



## Ordering Information:

RA       

### Function

- 1=SPST;ON/OFF
- 2=SPDT;ON/ON
- 3=SPDT;ON/OFF/ON
- 4=SPDT;ON/(ON)
- 5=SPST;OFF/(ON)
- 6=SPDT;(ON)/OFF/(ON)
- 7=SPST;ON/(OFF)
- 8=SPDT;ON/OFF/(ON)

### Rating

- 0=2A,250V AC
- 2=6A,250V AC
- 5=8A,250V AC
- 15A 125V AC











### Housing Color

- K=Black  
W=White

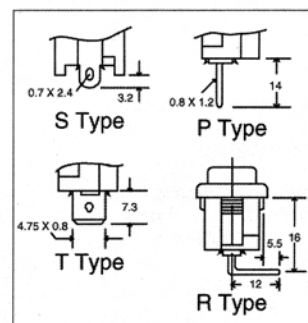
### Rocker Color

- K=Black  
W=White  
O=Orange  
R=Red

### Marking

- A =  F =   
B =  G =   
C =  H =   
D =  I =   
E =  L = 

### Terminal Type



- Notes: 1. Function #3,6 & 8 are available with S Type Terminal only.  
2. Rating available for functions 1 & 2 only.

