

General Specifications

Electrical Capacity

Resistive Load: 10A @ 125V AC, 6A @ 250V AC, or 6A @ 30V DC
Inductive Load: 5A @ 125V AC (P. F. @ .60)

Other Ratings

Contact Resistance: 10 milliohms maximum
Insulation Resistance: 200 megohms minimum @ 500V DC
Dielectric Strength: 1,500V AC minimum for 1 minute minimum
Mechanical Life: 30,000 operations minimum
Electrical Life: 10,000 operations minimum
Nominal Operating Force: 11.77N for maintained & 17.65N for momentary
Angle of Throw: 34°

Materials & Finishes

Housing: Steel with chrome plating
Movable Contacts: Silver clad copper with silver plating
Stationary Contacts: Copper with silver plating
Base: Melamine
Common Terminal: Copper with tin plating
End Terminals: Brass with tin plating
Lamp Terminals: Phosphor bronze with nickel plating

Environmental Data

Operating Temperature Range: -20°C through +50°C (-4°F through +122°F)
Humidity: 90 ~ 95% humidity for 96 hours @ 40°C (104°F)
Vibration: 10 ~ 55Hz with peak-to-peak amplitude of 1.5mm traversing the frequency range & returning in 1 minute; 3 right angled directions for 2 hours
Shock: 50G (490m/s²) acceleration (tested in 3 right angled directions, with 3 shocks in each direction)

Installation

Cap Installation Force: 19.61N (4.41 lbf)
Soldering Time & Temperature: Manual Soldering: See Profile A in Supplement section.

Standards & Certifications

UL: File No. E44145 - Recognized only when ordered with marking on switch.
 Add "/U" or "/CUL" before first dash in part number to order UL recognized switch.
 All models recognized at 10A @ 125V AC & 6A @ 250V AC

Distinctive Characteristics

Each half of the rocker face is distinctly illuminated due to partitioned rocker construction and dual lamps.

Numerous lighting effects achievable by using white or clear rocker with colored filters or lamp covers, plus using different colors on each side of rocker.

Snap-in mounting allows fast, easy installation of switch into panel.

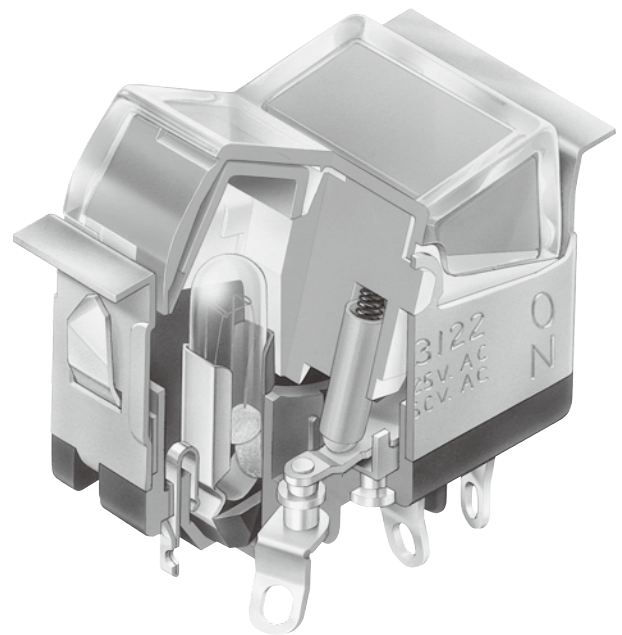
Stainless steel retaining clips provide secure mounting over a wide range of panel thicknesses.

Dual incandescent or neon lamps operate independently of each other.

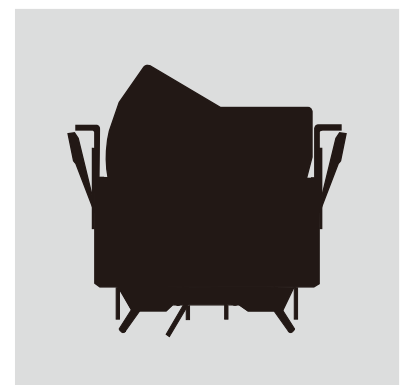
Front panel relamping.

Stationary lamp sockets are independent of rocker actuation, protecting lamps from damage due to shock and vibration.

Switch contacts are rated at 10 amps 125V AC which makes these devices well-suited for various power switching applications.



Actual Size



Toggle

B Rockers

Pushbuttons

Illuminated PB

Programmable

Keylocks

Rotaries

Slides

Tactiles

Tilt

Touch

Indicators

Accessories

Supplement

TYPICAL SWITCH ORDERING EXAMPLE

LW31

2

2

H

4

C

F

A

Pole

2 DPDT

Circuits

	Up	Center	Down
2	ON	NONE	ON
3	ON	OFF	ON
5	ON	NONE	(ON)
8	(ON)	OFF	(ON)
9	ON	OFF	(ON)

() = Momentary

Lamps

Incandescent

E	6-volt
F	12-volt
H	18-volt
K	24-volt
L	28-volt

Neon

N	110-volt
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Not suitable with green & blue

Nonilluminated

0	No Lamp
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Rocker Caps

1	White without filters or lamp covers
2	White with filters
3	White with lamp covers
4	Clear with filters

Lamp Cover/Filter Colors For Up Position

0	No Cover/Filter
Lamp Cover	
C	Red
D	Amber
F	Green

Filter

B	White
C	Red
D	Amber
E	Yellow
F	Green
G	Blue

Lamp Cover/Filter Colors For Down Position

0	No Cover/Filter
Lamp Cover	
C	Red
D	Amber
F	Green

Filter

B	White
C	Red
D	Amber
E	Yellow
F	Green
G	Blue

Bezel

No Code	No Bezel
A	Black
B	White
C	Red
D	Amber
E	Yellow
F	Green
G	Blue
H	Gray

IMPORTANT:



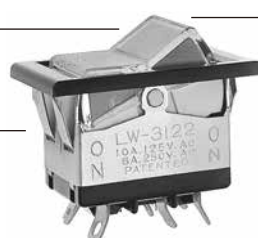
Switches are supplied without UL & cULus marking unless specified. **UL & cULus recognized only when ordered with marking on the switch.** Specific models, ratings, & ordering instructions are noted on General Specifications page.

DESCRIPTION FOR TYPICAL ORDERING EXAMPLE

LW3122-H4CF-A

Clear Rocker with Red Filter in Up Position & Green Filter in Down Position

DPDT ON-NONE-ON Circuit



18-volt Incandescent Lamp

Black Bezel

POLES & CIRCUITS

Pole	Model	Rocker Position () = Momentary			Connected Terminals			Throw & Power/Lamp Schematics
		Up	Center	Down	Up	Center	Down	
DP	LW3122 LW3123 LW3125 LW3128 LW3129	ON ON ON (ON) ON	NONE OFF NONE OFF OFF	ON ON (ON) (ON) (ON)	2-3 5-6	OPEN	2-1 5-4	Notes: Terminal numbers are not actually on switch. Lamp circuit is isolated and requires an external power source. DPDT

LAMP CODES & SPECIFICATIONS

Electrical specifications are determined at a basic temperature of 25°C. Lamp circuit is independent of switch operation.

For dimension drawing of lamps see Accessories & Hardware section.

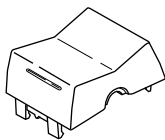
For neon, if the source voltage is greater than rated voltage, a ballast resistor is required. The ballast resistor calculation and more lamp detail are shown in the Supplement section. Neon not for use with green lamp cover or blue and green filters.

Incandescent & Neon Lamps for Solid & Design Caps

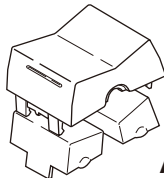
AT602 Incandescent	AT602N Neon	Voltage V	Current I	MSCP	Endurance Hours	Ambient Temperature Range	E	F	H	K	L	N
							6V AC	12V AC	18V AC	24V AC	28V AC	110V AC
			80mA	50mA	35mA	25mA	22mA	1.5mA				
			.159	.215	.398	.215	.247	NA				
			2,000 Average						15,000 Average			
			-20°C ~ +50°C						-20°C ~ +50°C			
Recommended Resistor for Neon: 33K ohms for 110V AC; 100K ohms for 220V AC												
T-1½ Pilot Slide Base		<div style="border: 1px solid black; padding: 2px; display: inline-block;">0</div> No Lamp Code 0 indicates that no lamp is used.										

ROCKER CAPS, LAMP COVER & FILTER

1 AT420B
White Rocker
without Filters
or Lamp Covers

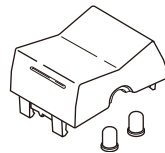


2 AT420B
White Rocker
with Filters



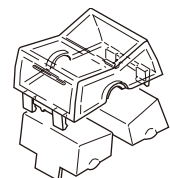
AT421

3 AT420B
White Rocker
with Lamp Covers



AT416

4 AT420J
Clear Rocker
with Filters



AT421

Rocker Cap Material: Polycarbonate

Finish: Glossy

Indicate the lamp cover or filter color desired in both the up and down positions.

- C** Red
- D** Amber
- F** Green

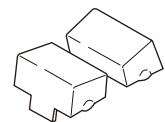
AT416 Lamp Cover



Material: Silicon Rubber

- B** White
- C** Red
- D** Amber
- E** Yellow
- F** Green
- G** Blue

AT421 Filter



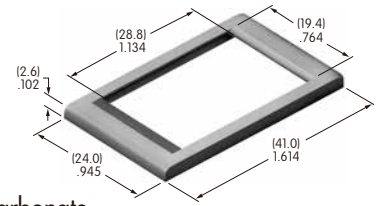
Material: Polycarbonate

Toggles
 Rockers
 Pushbuttons
 Illuminated PB
 Programmable
 Keylocks
 Rotaries
 Slides
 Tactiles
 Tilt
 Touch
 Indicators
 Accessories
 Supplement

BEZEL & BEZEL COLORS

AT206 Bezel & Color Codes

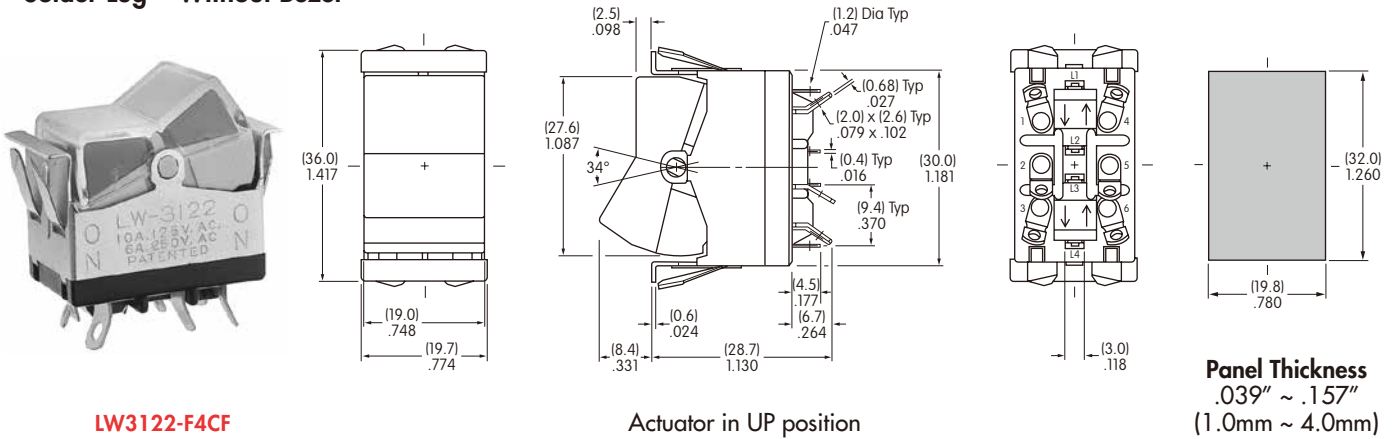
No Code	No Bezel	B	White	D	Amber	F	Green	H	Gray
A	Black	C	Red	E	Yellow	G	Blue		



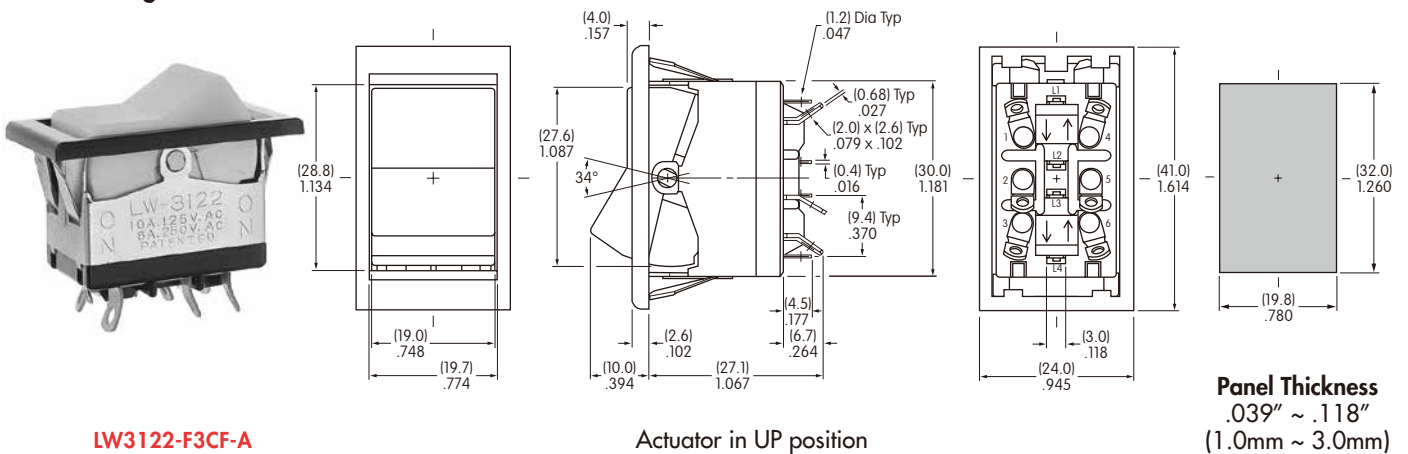
Material: Polycarbonate

TYPICAL SWITCH DIMENSIONS

Solder Lug • Without Bezel



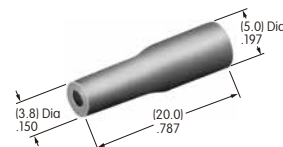
Solder Lug • With Bezel



OPTIONAL ACCESSORY

AT107 Lamp Extractor

Lamps can be changed without removing the switch from the panel. AT107 assists in removing lamps from the switch.



LEGENDS

Inscriptions can be placed on the rocker or filter. Details regarding screen printing may be obtained from the factory.

GENERAL SPECIFICATIONS







Electrical Capacity & Other Ratings

Resistive Load:	20A @ 110V AC
Contact Resistance:	10 milliohms maximum
Insulation Resistance:	1,000 megohms minimum @ 500V DC
Dielectric Strength:	2,000V AC minimum for 1 minute minimum
Mechanical Life:	30,000 operations minimum
Electrical Life:	10,000 operations minimum
Operating Temperature Range:	-10°C through +50°C (+14°F through +122°F)
Nominal Operating Force:	1,250 grams
Angle of Throw:	22°

Materials & Finishes

Rocker:	Polycarbonate resin
Mounting Frame:	Steel with chrome plating
Movable Contacts:	Silver alloy
Stationary Contacts:	Copper with silver plating
Base:	Melamine
Common & End Terminals:	Brass with tin plating

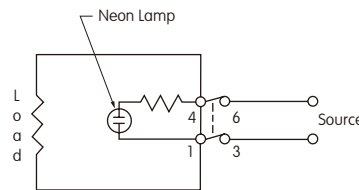
SINGLE POLE HIGH CAPACITY

Model	Pole	Rocker Position			Connected Terminals			Throw & Power/Lamp Schematics
		Up 	Center	Down 	Up 	Center	Down 	
LW3021A	DP	ON 	NONE	OFF 	1-3 4-6	OPEN	OPEN	Notes: Terminal numbers are on switch. Lamp circuit is synchronous to switching circuit.

Neon Lamp Specifications

.234" x .198" (5.94mm x 5.03mm) window is translucent red. Neon lamp with built-in ballast resistor is integral part of switch.

Voltage	V	90 - 120V AC
Internal Series Resistance		100K ohms
Current	I	0.8mA
Endurance		10,000 hours minimum



Since this is a double break device, one side of the electrical source should be connected to terminal 3 and the other side to terminal 6. The electrical load should be connected between terminals 1 and 4.

2 screws supplied for flush panel mounting.

Technical drawings showing dimensions for the LW-3021A rocker switch. Dimensions include: (13.5) .531, (38.0) 1.496, (45.0) 1.772, (18.5) .728, (5.9) .232, (6.0) .236, M3 P0.5, (2.4) Dia Typ .094, (31.2) 1.228, (27.0) 1.063, 22°, (1.0) .039, (9.6) .378, (33.3) 1.311, (5.7) .224, (0.86) Typ .034, (4.8) Typ .189, (3.5) Dia Typ .138, (28.0) 1.102, (38.0) 1.496, (14.0) .551.

Actuator in UP position

Maximum Panel Thickness: .197" (5.0mm)

LW-3021A