

General Specifications

B 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.

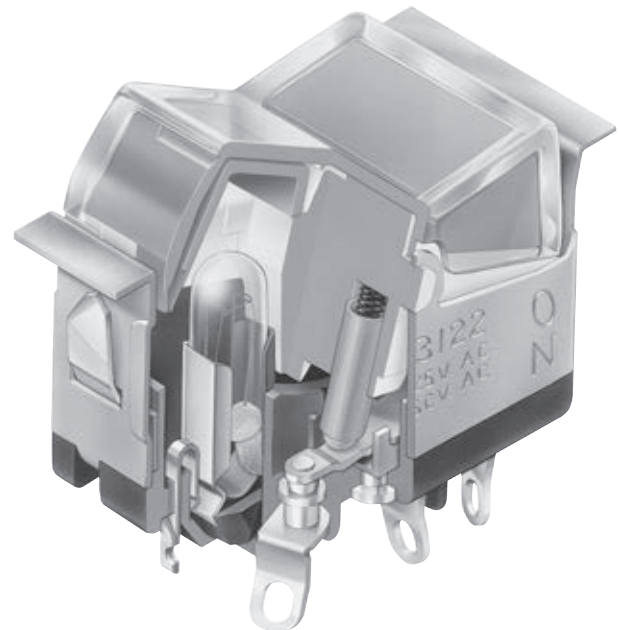
Stainless steel retaining clips provide secure mounting over a wide range of panel thicknesses.

Dual incandescent or neon lamps operate independently of each other.

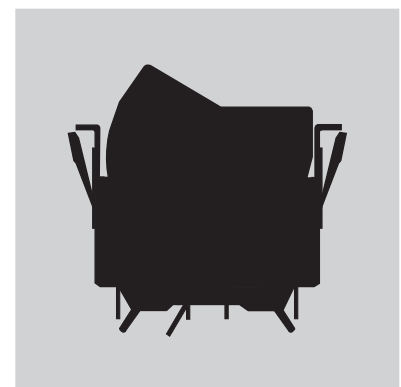
Front panel relamping.

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



Toggles
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

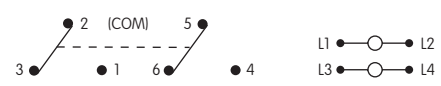
DPDT
 ON-NONE-ON Circuit



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	ON	NONE	ON				Notes: Terminal numbers are not actually on switch. Lamp circuit is isolated and requires an external power source. DPDT 
	LW3123	ON	OFF	ON				
	LW3125	ON	NONE	(ON)	2-3	5-6	OPEN	
	LW3128	(ON)	OFF	(ON)				
	LW3129	ON	OFF	(ON)				

LAMP CODES & SPECIFICATIONS

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

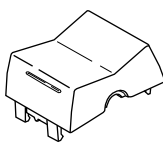
For dimension drawing of lamps see Accessories & Hardware section.

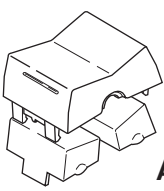
For neon, if the source voltage is greater than rated voltage, a ballast resistor is required. The ballast resistor calculation and more lamp detail are shown in the Supplement section. Neon not for use with green lamp cover or blue and green filters.

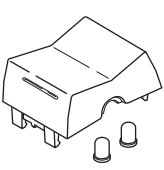
Incandescent & Neon Lamps for Solid & Design Caps

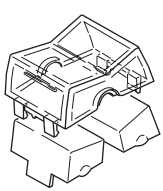
AT602 Incandescent 	AT602N Neon 		E	F	H	K	L	N		
		Voltage	V	6V AC	12V AC	18V AC	24V AC	28V AC	110V AC	
		Current	I	80mA	50mA	35mA	25mA	22mA	1.5mA	
		MSCP		.159	.215	.398	.215	.247	NA	
		Endurance	Hours	2,000 Average						15,000 Average
		Ambient Temperature Range		-20°C ~ +50°C						-20°C ~ +50°C
		Recommended Resistor for Neon: 33K ohms for 110V AC; 100K ohms for 220V AC								
T-1½ Pilot Slide Base		0	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


3 AT420B
White Rocker
with Lamp Covers


4 AT420J
Clear Rocker
with Filters


 **AT421**
Rocker Cap Material: Polycarbonate

 **AT416**
Finish: Glossy

 **AT421**

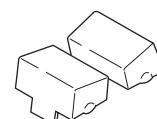
Indicate the lamp cover or filter color desired in both the up and down positions.

- AT416 Lamp Cover**
- C** Red
D Amber
F Green



Material: Silicon Rubber

- AT421 Filter**
- B** White
C Red
D Amber
E Yellow
F Green
G Blue



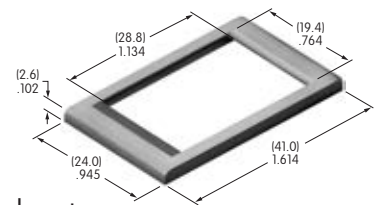
Material: Polycarbonate

BEZEL & BEZEL COLORS

AT206 Bezel & Color Codes

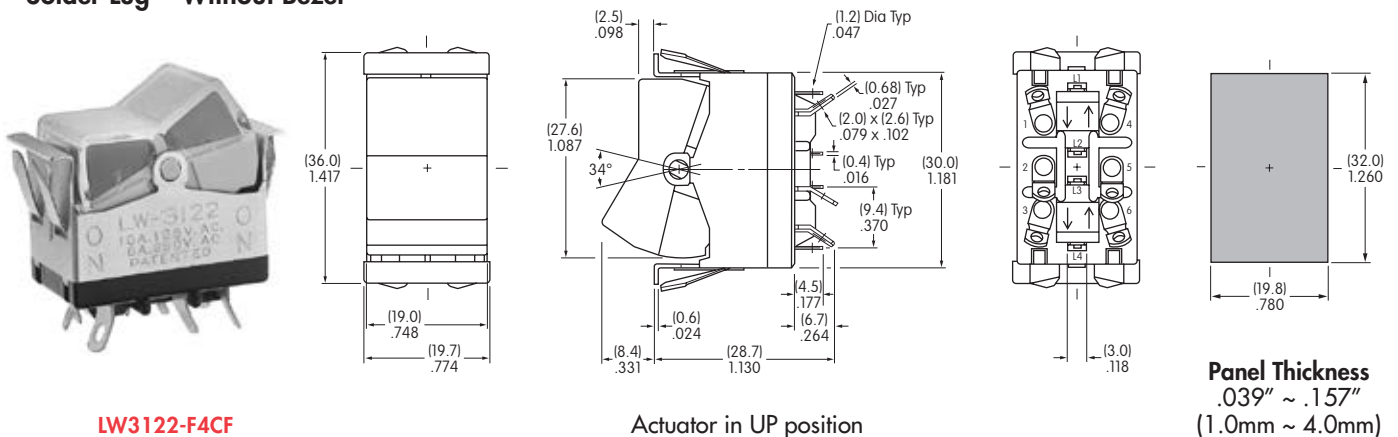
No Code	No Bezel	B	White	D	Amber	F	Green	H	Gray
A	Black	C	Red	E	Yellow	G	Blue		

Material: Polycarbonate

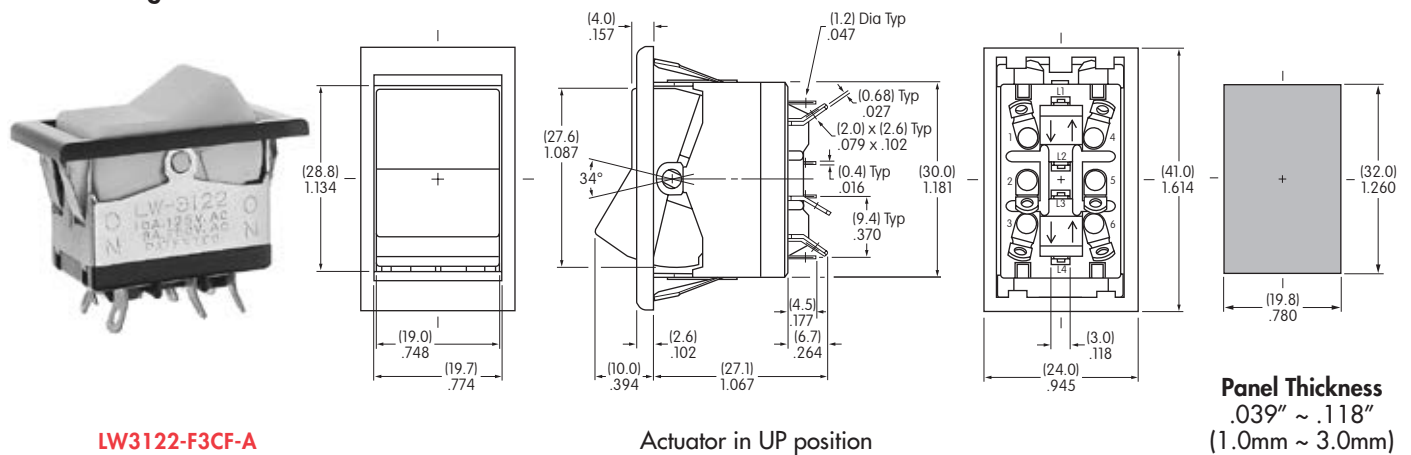


TYPICAL SWITCH DIMENSIONS

Solder Lug • Without Bezel



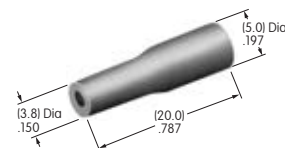
Solder Lug • With Bezel



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.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

NKK Switches:

[LW3128-E2BB-RO](#) [LW3129-E2BB-RO](#) [LW3123-L4DF-A](#) [LW3123-H4GC-A](#) [LW3122-N3CC-A-RO](#) [LW3122-F2CF-A-RO](#) [LW3123-F4GG-A-RO](#) [LW3123-K4FG-B](#) [LW3129-N2CC-A-RO](#) [LW3123-F4FC-A-RO](#) [LW3129-F4CF-A-RO](#) [LW3123-F4DC-A-RO](#) [LW3122-N4DD-A](#) [LW3123-E2BB-RO](#) [LW3123-E4CB-A](#) [LW3123-N4CC-A](#) [LW3122-L100-A-RO](#) [LW3122-N4CB-H](#) [LW3122/U-L4CF-A-RO](#) [LW3123-F3CF-A](#) [LW3122-F4CF-A-RO](#) [LW3122-L2BC-RO](#) [LW3123-N4CF-H](#) [LW3122E3CFA](#) [LW3123-F4DC-A](#) [LW3129-N2CC-A](#) [LW3123-F4FC-A](#) [LW3122-N4CD-A](#) [LW3123-F4CG-A](#) [LW3123-N4CF-A](#) [LW3129-K4CF-A](#)