

ULP SERIES PUSHBUTTON SWITCH

ANTI-VANDAL
SWITCHES

DETECTOR
SWITCHES

DIP
SWITCHES

KEYLOCK
SWITCHES

NAVIGATION
SWITCHES

PUSHBUTTON
SWITCHES

ROCKER
SWITCHES

ROTARY
SWITCHES

SLIDE
SWITCHES

SNAP ACTION
SWITCHES

TACTILE
SWITCHES

TOGGLE
SWITCHES

CAP
OPTIONS



APPLICATIONS / MARKETS



Audio / Visual



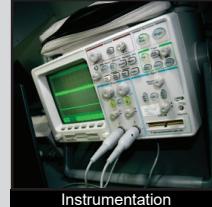
Consumer Electronics



Vending Machines



Kiosks



Instrumentation



Medical Equipment

RoHS

SPECIFICATIONS

Electrical Rating: Silver: .5A @ 25VDC

Gold: 0.1A Max @ 28VDC

Electrical Life: 200,000 Cycles

Contact Resistance: Silver: 50mΩ Max. initial

Gold: 100mΩ Max. initial

Insulation Resistance: 100 MΩ Min. @ 500VDC

Dielectric Strength: 1,000VAC

Operating/Storage Temperature: -40°C to 85°C

Travel: 2.20mm

Contact Arrangement: SPDT, DPDT

Actuation Force: SPDT: 200gf; DPDT: 300 gf

Panel Thickness: 0.75-3.0mm (panel mount version only)

FEATURES & BENEFITS

- Single pole or double pole functions
- Multiple color options including RGB color
- Multiple cap color and style options
- PC pin or solder lug termination
- Latching or momentary options
- Gold or silver contact material

PART NUMBER CONFIGURATOR

Series	Circuit Options	Mechanical Configuration Options	Termination Options	Contact Material Options	Cap Style Options	Cap Color Options	LED #1 Options	LED #2 Options
ULP	12 - SPDT 22 - DPDT	EE - Latching OA - Momentary	P1 - PC Pins M1 - Solder Lug	Q - Silver R - Gold	SS - Square Sculptured SF - Square Flat RF - Rectangular Flat PM - Panel Mount LS - Large Sculptured	CL1 - Clear Lens / White Diffuser OP1 - Black Opaque	NIL - No LED BLU - Blue GRN - Green RED - Red YEL - Yellow RGB - Red-Green-Blue	NIL - No LED BLU - Blue GRN - Green RED - Red YEL - Yellow

NOTES:

- 1) M1 Termination is only available with Panel Mount Cap Style
- 2) P1 Termination is not available with Panel Mount cap Style
- 3) OP1 Cap Color (black opaque) is not available with LEDs
- 4) When ordering RGB LED option, no designation is required for LED#2

Specifications subject to change without notice 6.27.2019



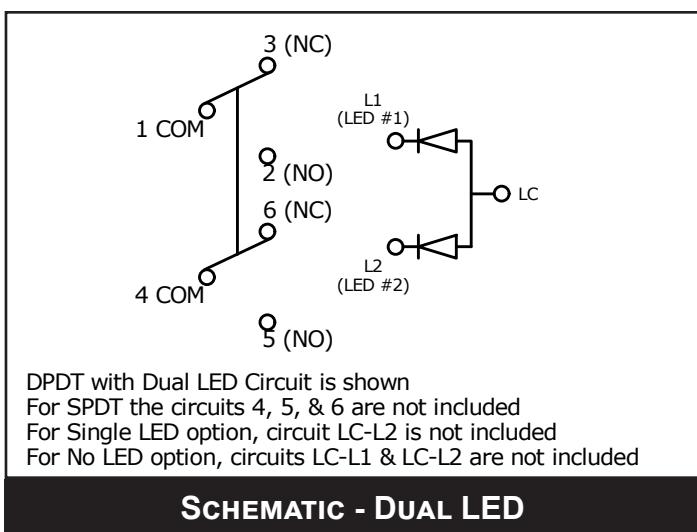
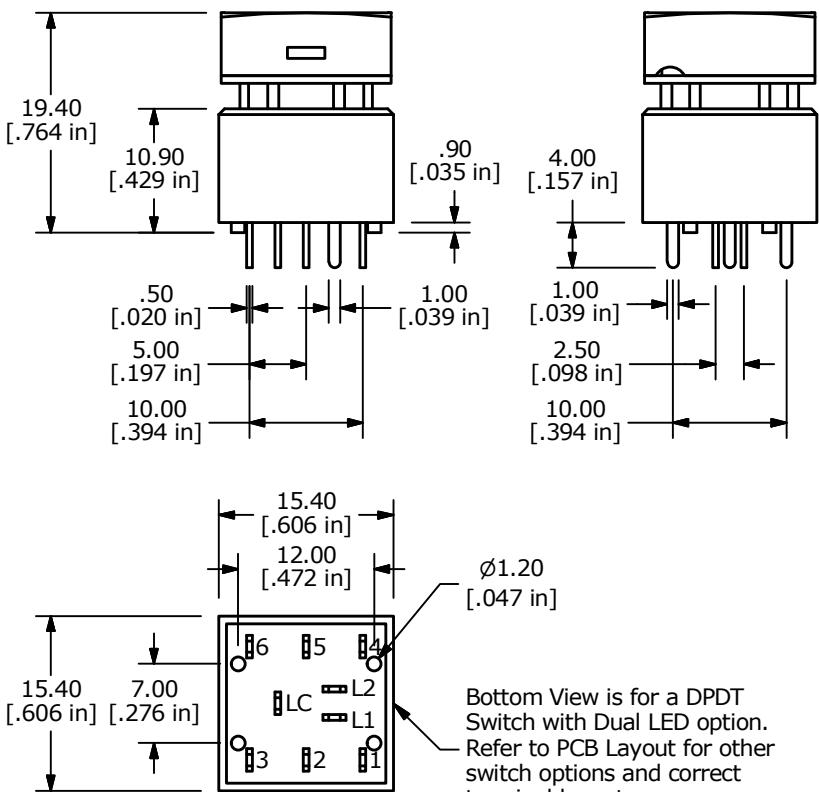
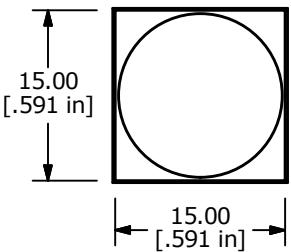
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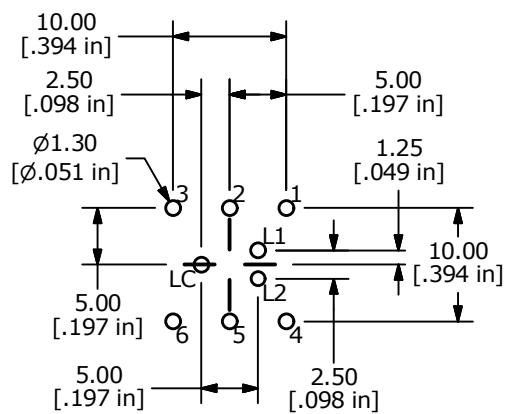
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ACTUATOR OPTIONS - SQUARE SCULPTURED

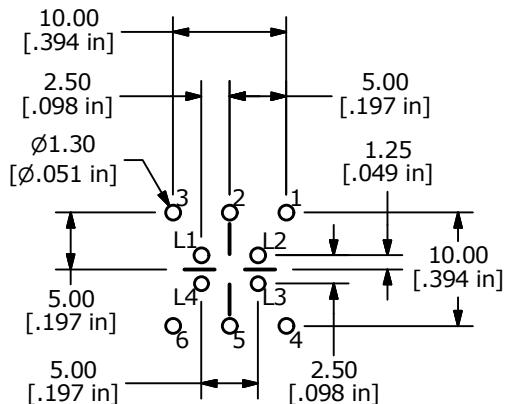


SCHEMATIC - DUAL LED



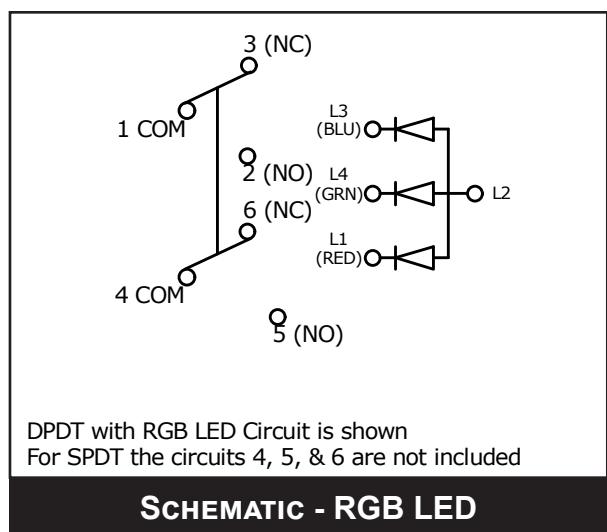
DPDT (ULP22) Layout is Shown
For SPDT (ULP11) holes 4, 5, & 6 are not required.
For Single LED option, hole L2 is not required
For No LED option, holes L1, L2, & LC are not required

PCB LAYOUT - DUAL LED



DPDT (ULP22) Layout is Shown
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PCB LAYOUT - RGB LED



SCHEMATIC - RGB LED



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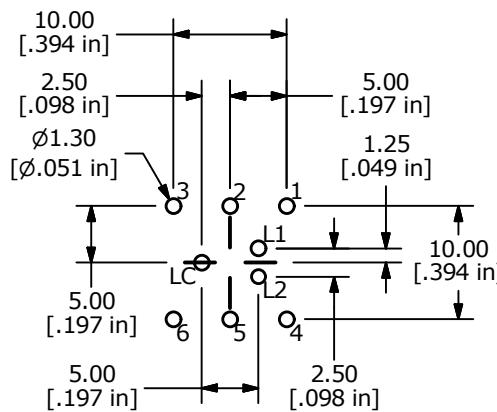
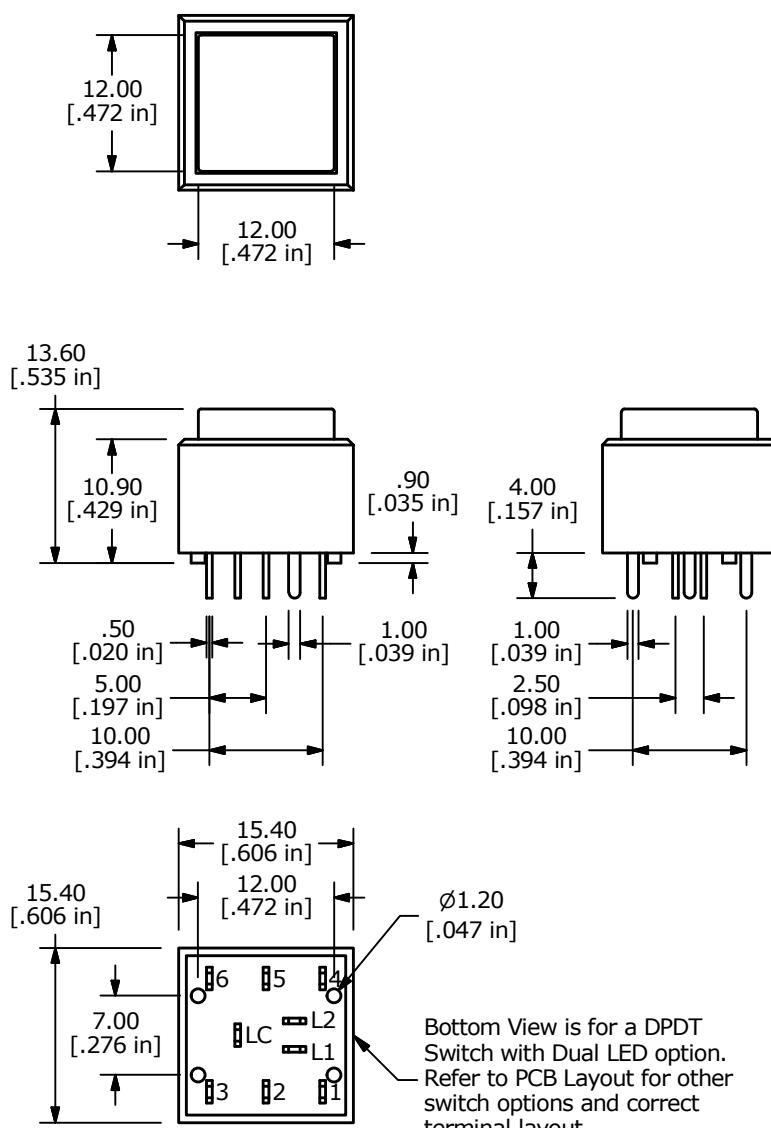
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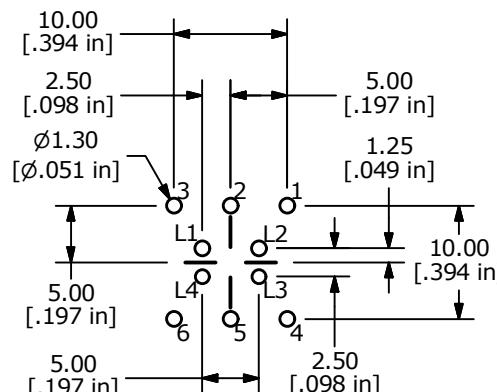
CAP
OPTIONS

ACTUATOR OPTIONS - SQUARE FLAT



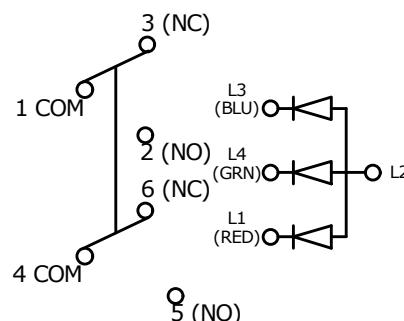
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PCB LAYOUT - DUAL LED



DPDT (ULP22) Layout is Shown
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PCB LAYOUT - RGB LED



DPDT with RGB LED Circuit is shown
For SPDT the circuits 4, 5, & 6 are not included

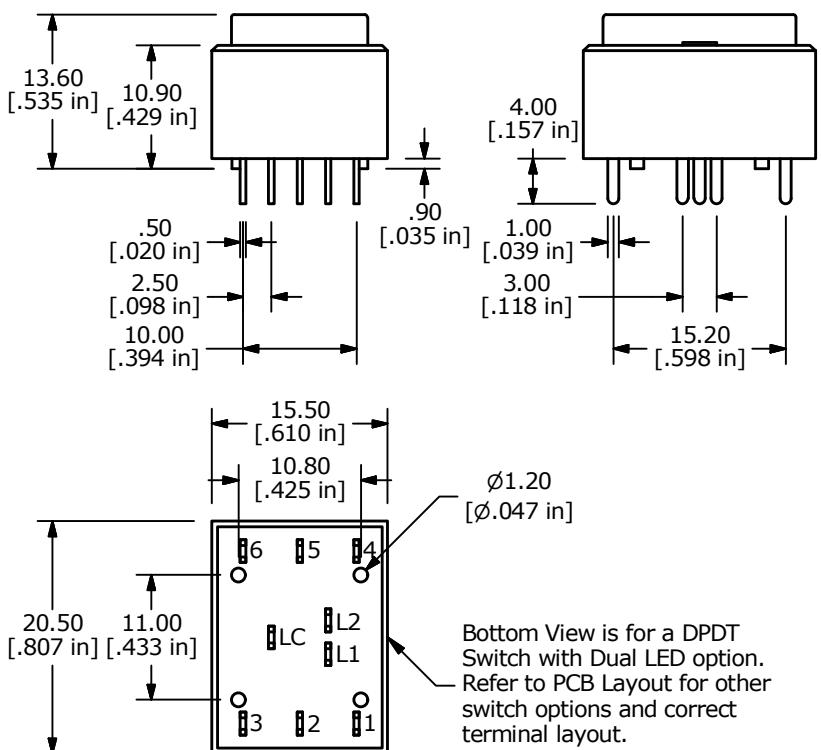
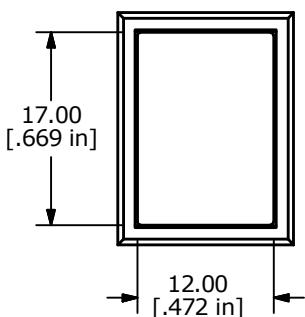
SCHEMATIC - DUAL LED

DPDT with Dual LED Circuit is shown
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For Single LED option, circuit LC-L2 are not included
For No LED option, circuits LC-L1 & LC-L2 are not included

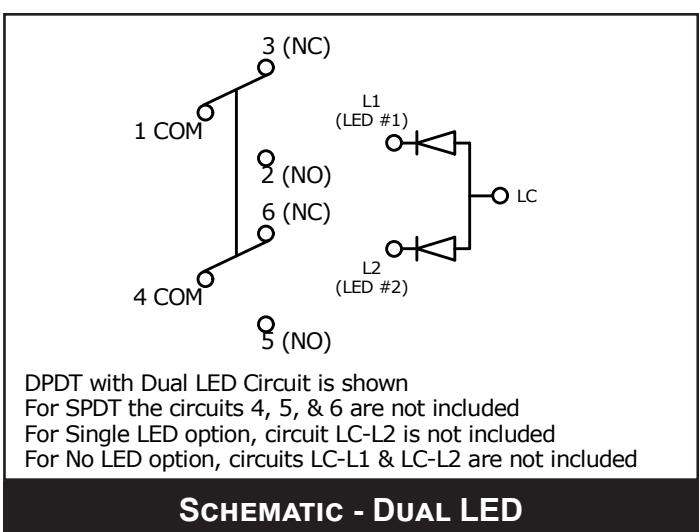
SCHEMATIC - RGB LED



ACTUATOR OPTIONS - RECTANGULAR FLAT

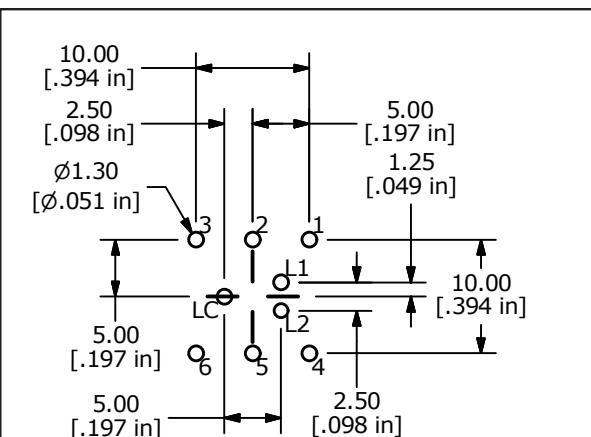


Bottom View is for a DPDT Switch with Dual LED option. Refer to PCB Layout for other switch options and correct terminal layout.



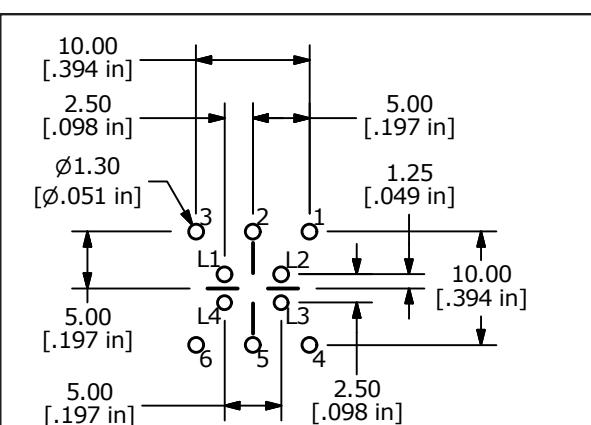
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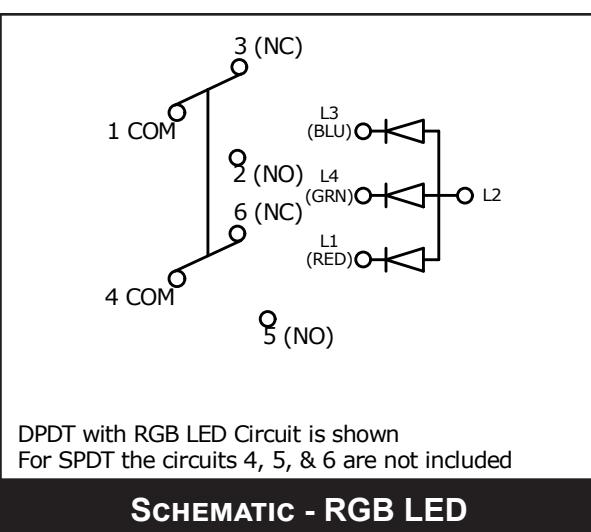
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PCB LAYOUT - DUAL LED



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PCB LAYOUT - RGB LED



DPDT with RGB LED Circuit is shown
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SCHEMATIC - RGB LED

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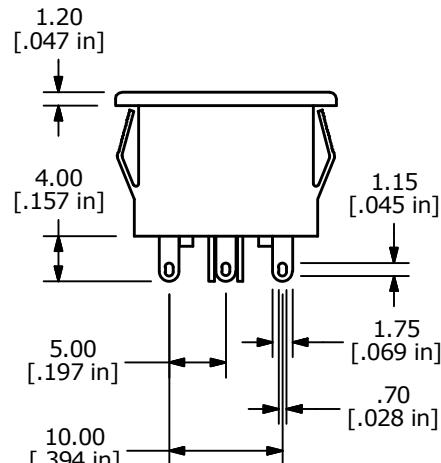
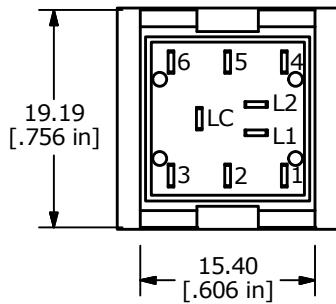
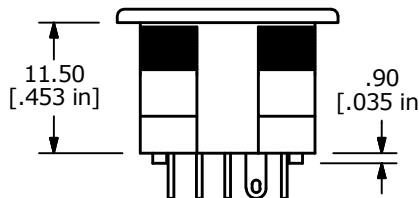
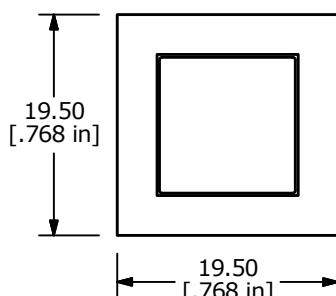
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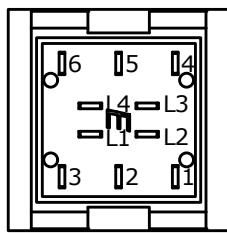
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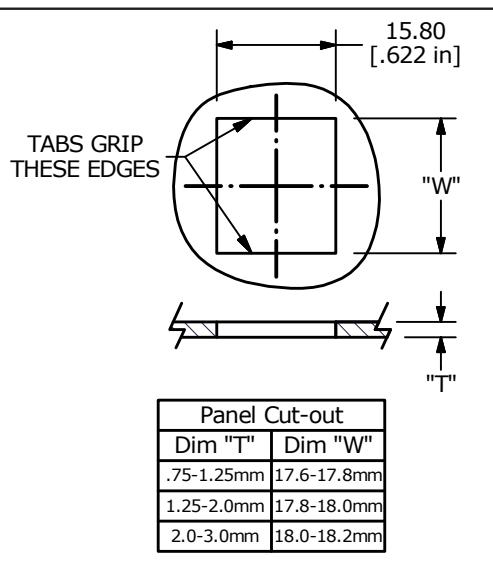
ACTUATOR OPTIONS - PANEL MOUNT



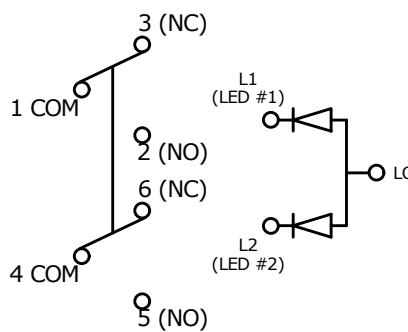
Bottom View of a DPDT Switch with Dual LED option. Refer to Schematic for one LED, zero LED, and SPST options for correct terminal layout.



Bottom View of a DPDT Switch with RGB LED option. Refer to Schematic for SPST option and correct terminal layout.

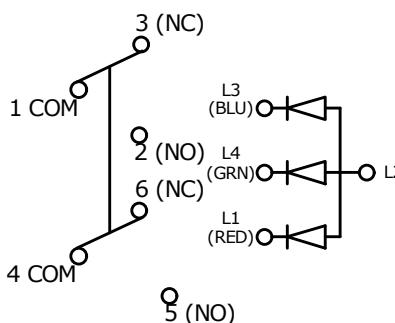


RECOMMENDED PANEL CUTOUT



DPDT with Dual LED Circuit is shown
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For Single LED option, circuit LC-L2 is not included
For No LED option, circuits LC-L1 & LC-L2 are not included

SCHEMATIC - DUAL LED



DPDT with RGB LED Circuit is shown
For SPDT the circuits 4, 5, & 6 are not included

SCHEMATIC - RGB LED



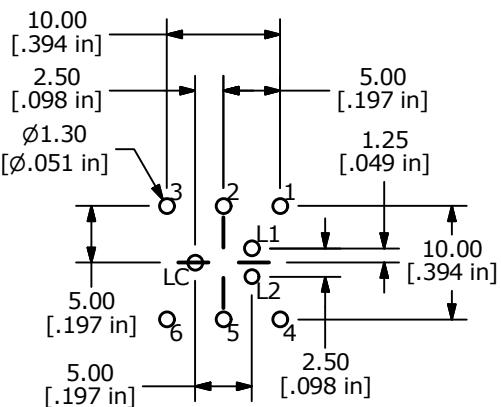
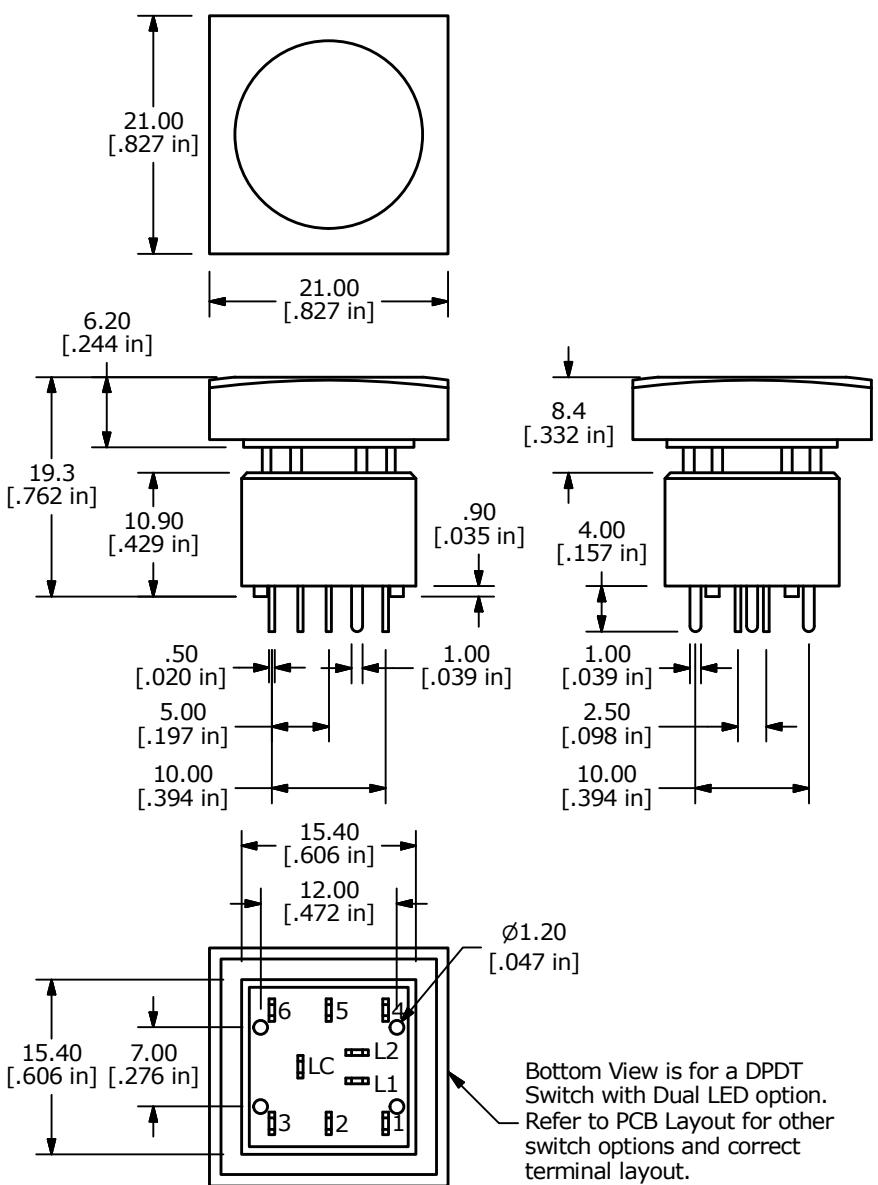
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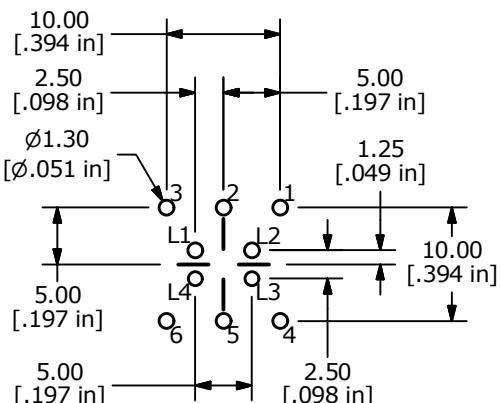
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ACTUATOR OPTIONS - LARGE SCULPTURED



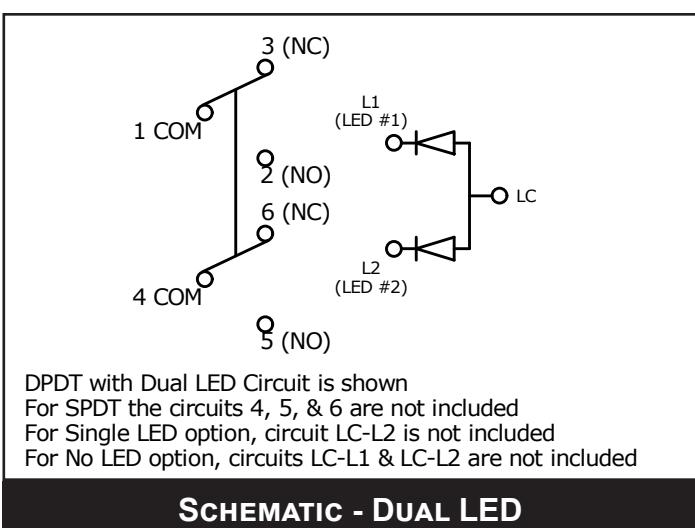
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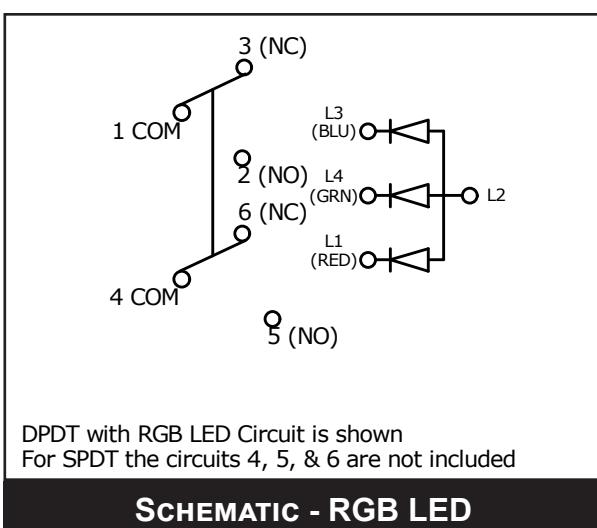


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PCB LAYOUT - RGB LED



SCHEMATIC - DUAL LED



SCHEMATIC - RGB LED