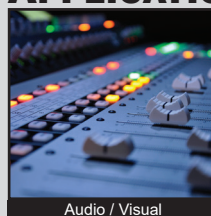


ULP SERIES PUSHBUTTON SWITCH

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



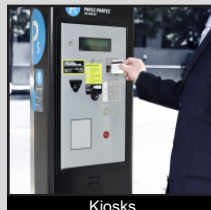
Audio / Visual



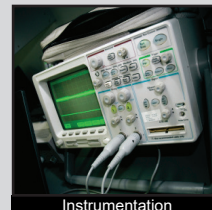
Consumer Electronics



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
<input type="text"/> <input type="text"/> <input type="text"/> ULP	<input type="text"/> <input type="text"/> 12 - SPDT 22 - DPDT	<input type="text"/> <input type="text"/> EE - Latching OA - Momentary	<input type="text"/> <input type="text"/> P1 - PC Pins M1 - Solder Lug	<input type="text"/> Q - Silver R - Gold	<input type="text"/> <input type="text"/> SS - Square Sculptured SF - Square Flat RF - Rectangular Flat PM - Panel Mount LS - Large Sculptured	<input type="text"/> <input type="text"/> <input type="text"/> CL1 - Clear Lens / White Diffuser OP1 - Black Opaque	<input type="text"/> <input type="text"/> <input type="text"/> NIL - No LED BLU - Blue GRN - Green RED - Red YEL - Yellow RGB - Red-Green-Blue	<input type="text"/> <input type="text"/> <input type="text"/> 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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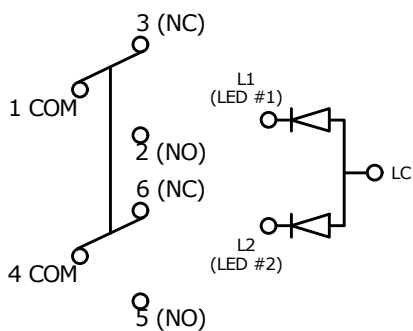
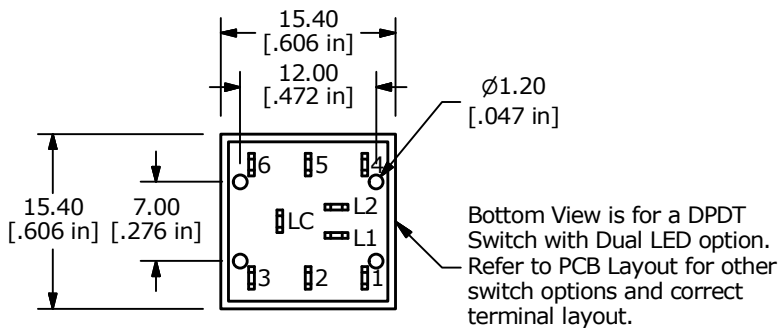
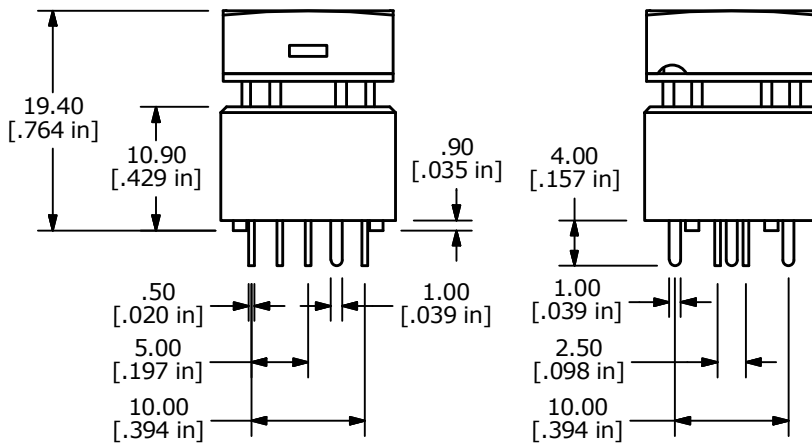
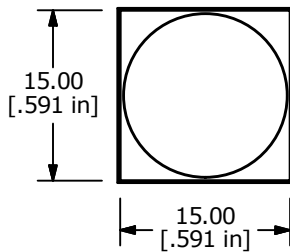
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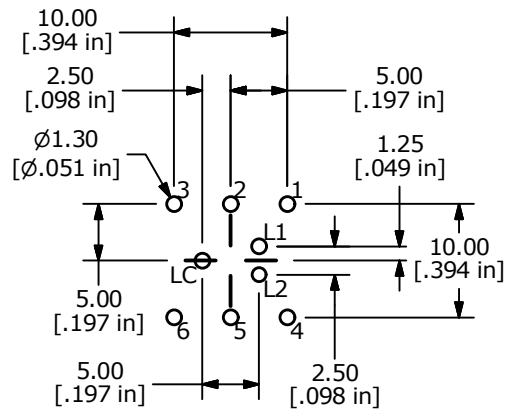
ULP SERIES PUSHBUTTON SWITCH

ACTUATOR OPTIONS - SQUARE SCULPTURED



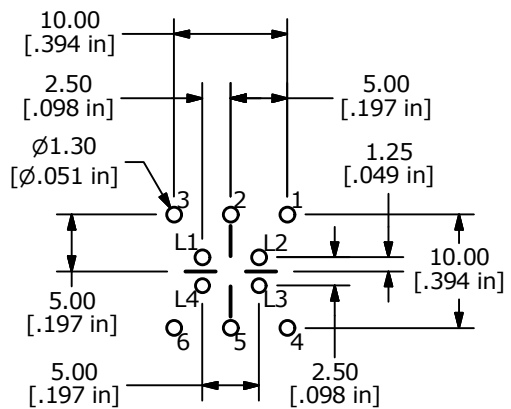
DPDT with Dual LED Circuit is shown
For SPDT the circuits 4, 5, & 6 are not included
For Single LED option, circuit LC-L2 is not included
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SCHEMATIC - DUAL LED



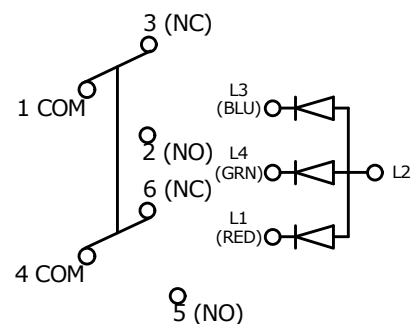
DPDT (ULP22) Layout is Shown
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PCB LAYOUT - DUAL LED



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PCB LAYOUT - RGB LED



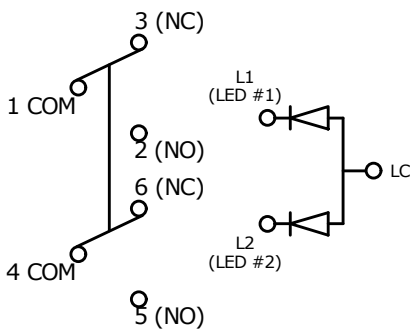
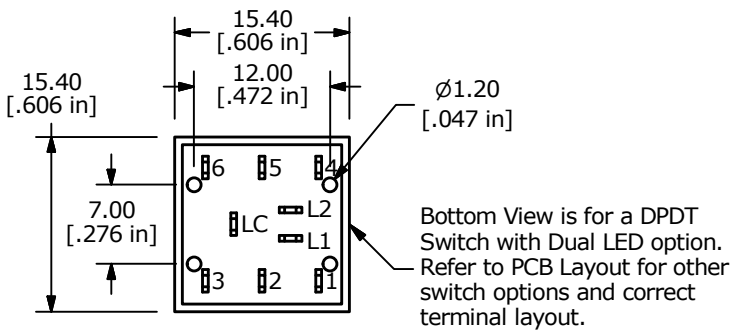
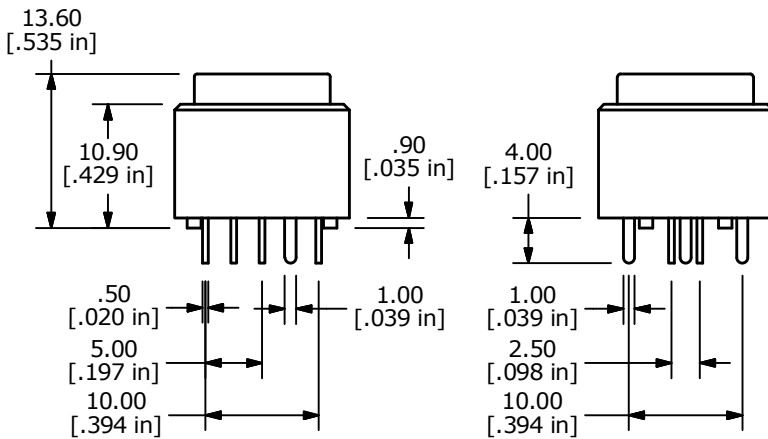
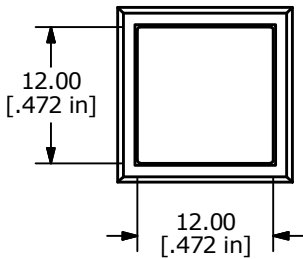
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SCHEMATIC - RGB LED



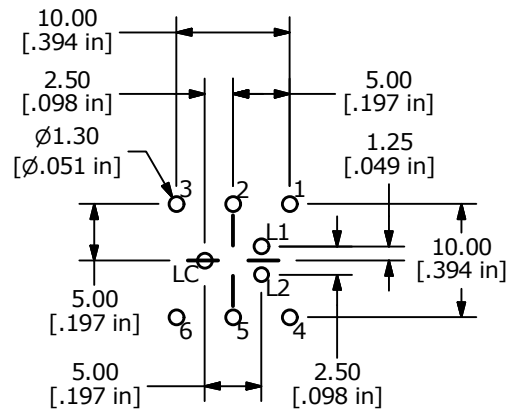
ULP SERIES PUSHBUTTON SWITCH

ACTUATOR OPTIONS - SQUARE FLAT



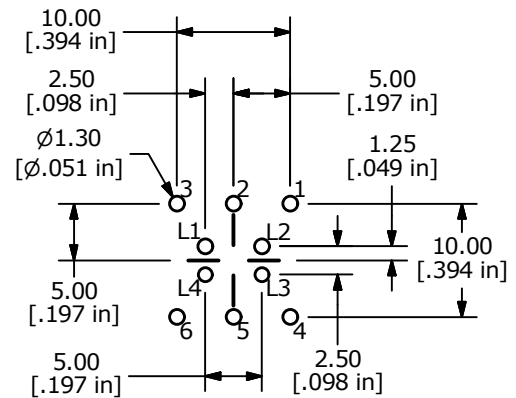
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SCHEMATIC - DUAL LED



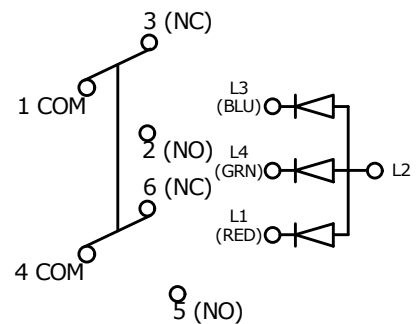
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PCB LAYOUT - DUAL LED



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PCB LAYOUT - RGB LED



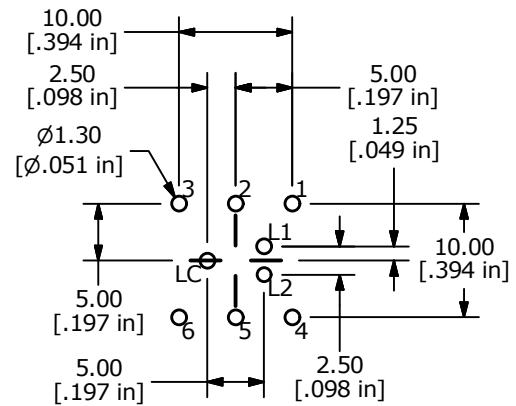
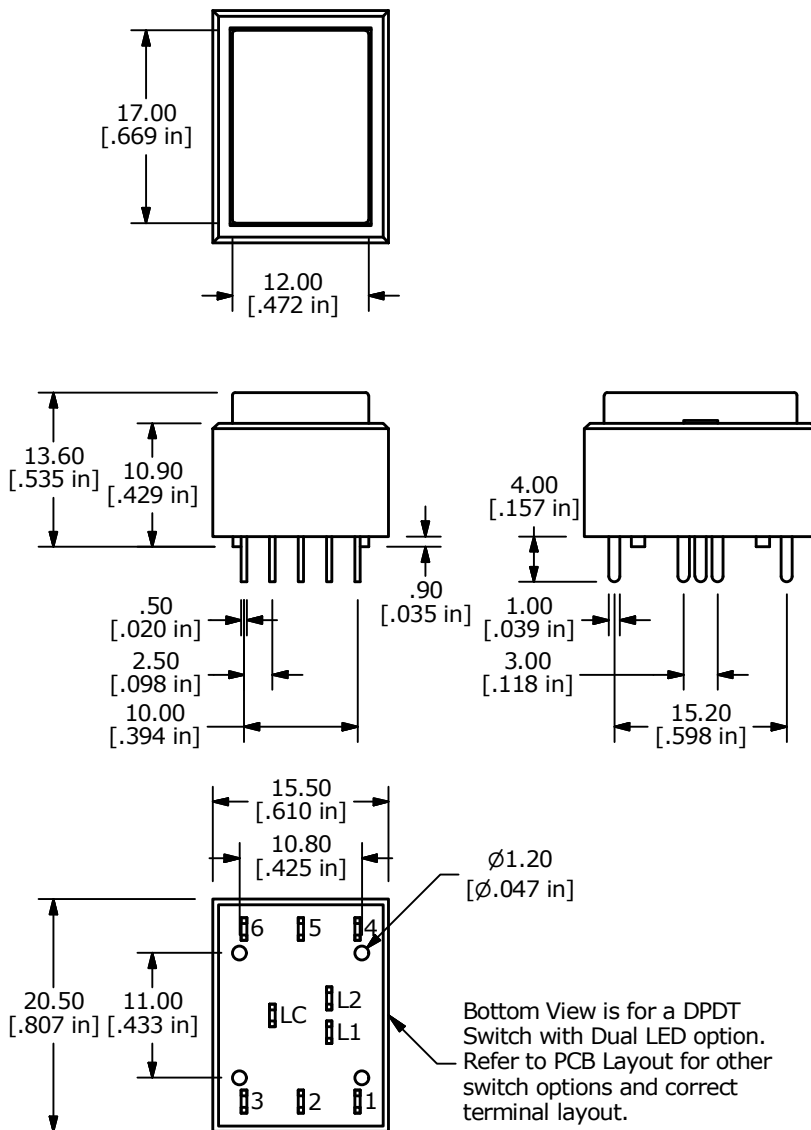
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SCHEMATIC - RGB LED



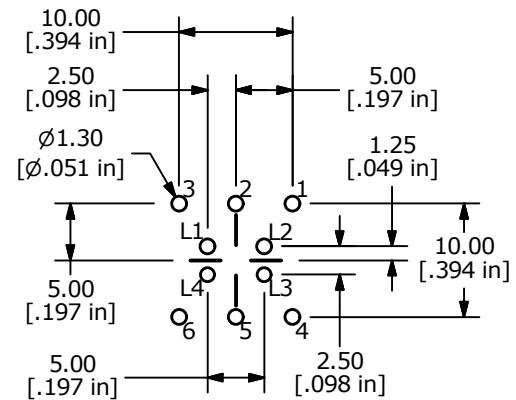
ULP SERIES PUSHBUTTON SWITCH

ACTUATOR OPTIONS - RECTANGULAR FLAT



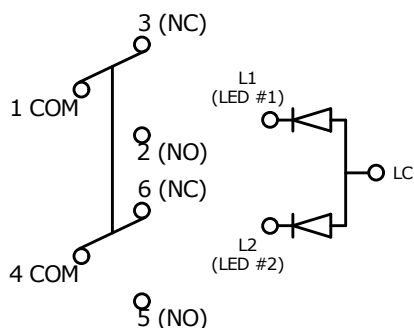
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PCB LAYOUT - DUAL LED



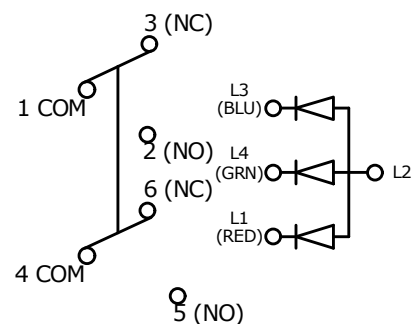
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PCB LAYOUT - RGB LED



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SCHEMATIC - DUAL LED



DPDT with RGB LED Circuit is shown
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SCHEMATIC - RGB LED



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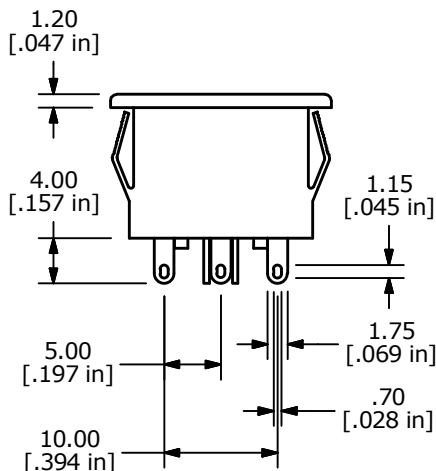
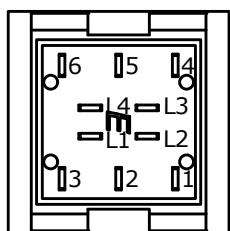
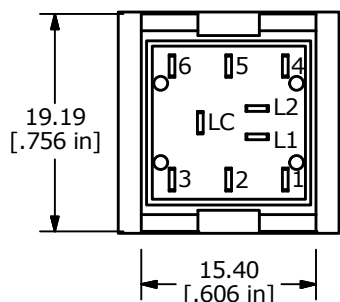
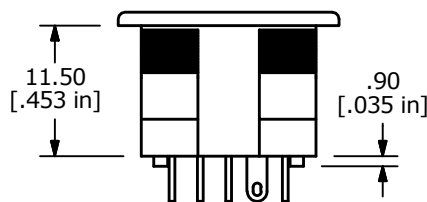
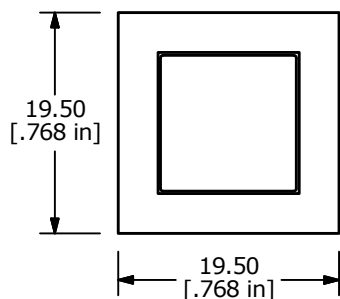
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4

ANTI-VANDAL SWITCHES
 DETECTOR SWITCHES
 DIP SWITCHES
 KEYLOCK SWITCHES
 NAVIGATION SWITCHES
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 ROCKER SWITCHES
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 TACTILE SWITCHES
 TOGGLE SWITCHES
 CAP OPTIONS

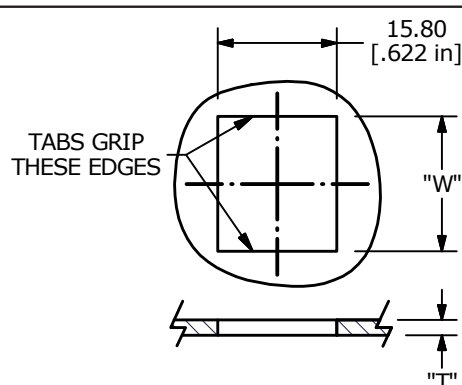
ULP SERIES PUSHBUTTON SWITCH

ACTUATOR OPTIONS - PANEL MOUNT



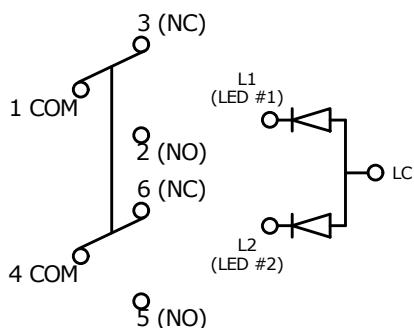
Bottom View of a DPDT Switch with Dual LED option. Refer to Schematic for one LED, zero LED, and SPST options for correct terminal layout.

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



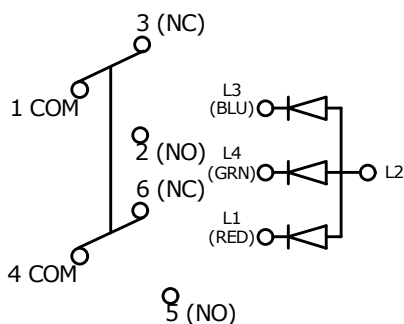
Panel Cut-out	
Dim "T"	Dim "W"
.75-1.25mm	17.6-17.8mm
1.25-2.0mm	17.8-18.0mm
2.0-3.0mm	18.0-18.2mm

RECOMMENDED PANEL CUTOUT



DPDT with Dual LED Circuit is shown
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SCHEMATIC - DUAL LED



DPDT with RGB LED Circuit is shown
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SCHEMATIC - RGB LED



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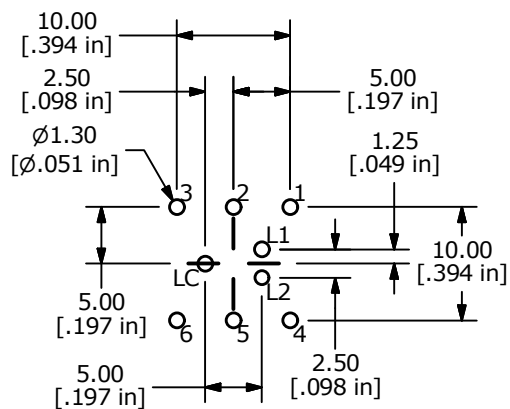
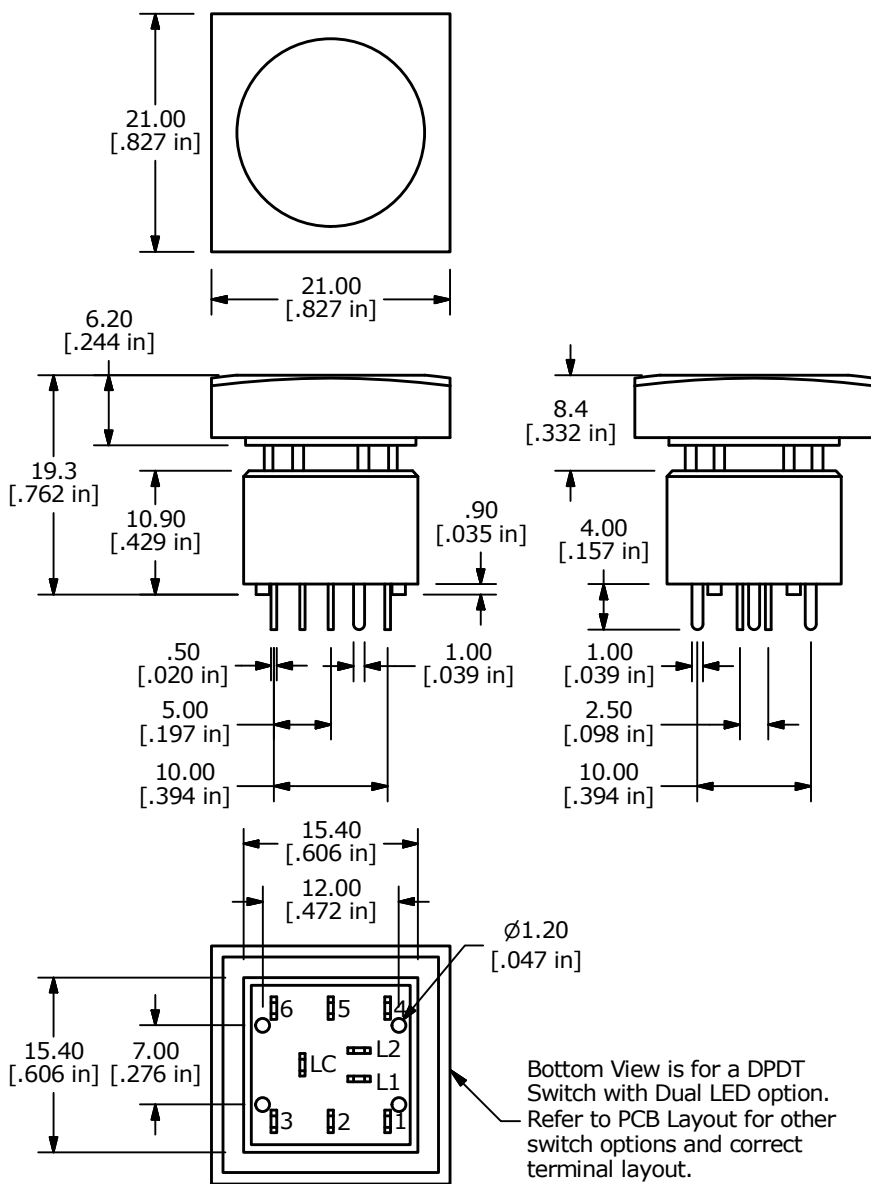
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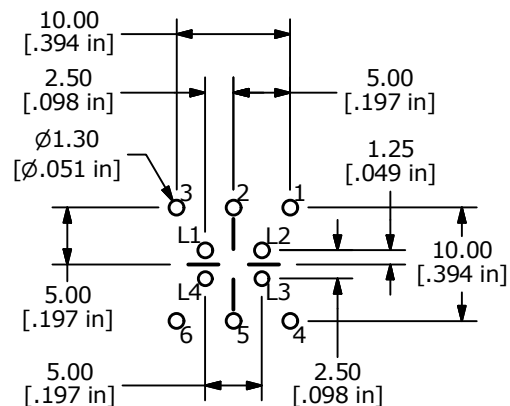
ULP SERIES PUSHBUTTON SWITCH

ACTUATOR OPTIONS - LARGE SCULPTURED



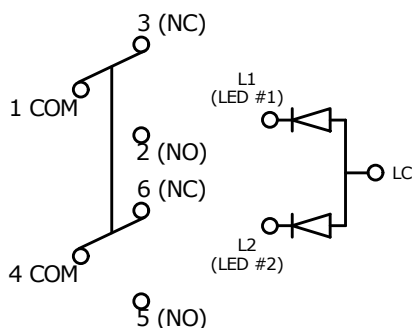
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PCB LAYOUT - DUAL LED



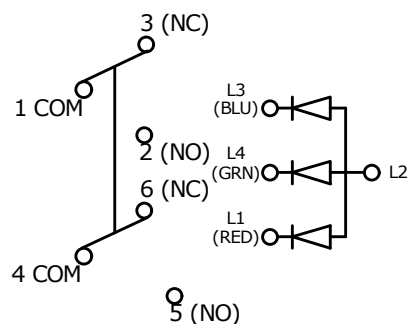
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PCB LAYOUT - RGB LED



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SCHEMATIC - DUAL LED



DPDT with RGB LED Circuit is shown
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SCHEMATIC - RGB LED



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[ULP22OAP1RSSCL1RGB](#) [ULP12OAM1RPMCL1REDWHT](#) [ULP12OAM1RPMCL1RGB](#) [ULP12OAP1RSSCL1BLUYEL](#)
[ULP12EEP1QLSCL1GRNBLU](#) [ULP12EEP1RSSCL1RGB](#) [ULP22EEP1RLSCL1RGB](#) [ULP22EEP1RSFCL1RGB](#)
[ULP22EEP1RSSCL1RGB](#) [ULP22OAP1RSFCL1RGB](#) [ULP12EEM1RPMCL1GRNNIL](#) [ULP12OAM1RPMCL1REDNIL](#)
[ULP12EEP1QLSCL1GRNNIL](#)