General Specifications

Electrical Capacity (Resistive Load)
Power Level (silver): 3A @ 125V AC or 3A @ 250V AC or 3A @ 30V DC

Other Ratings
- Contact Resistance: 50 milliohms maximum (DC2 ~ 4V 100mA)
- Insulation Resistance: 200 megohms minimum @ 500V DC
- Dielectric Strength: 1,000V AC minimum between contacts for 1 minute minimum
- Mechanical Life: 500,000 operations minimum
- Electrical Life: 50,000 operations minimum for 3A @ 125V/250V AC & 3A @ 30V DC
- Nominal Operating Force: 1.5 ± 0.7N for Single Pole; 3.0 ± 1.2N for Double Pole
- Contact Timing: Nonshorting (break-before-make)
- Travel: Total Travel .118" (3.0mm)

Materials & Finishes
- Actuator: Polycarbonate
- Housing: Bushing mount: Glass fiber reinforced polyamide (UL94V-0);
  Snap in mount: Polybutylene terephthalate (PBT) (UL94V-0)
- Base: Glass fiber reinforced polyamide (UL94V-0)
- Movable Contact: Phosphor bronze & silver with silver plating
- Stationary Contacts: Common terminal: Phosphor bronze with silver plating;
  Contact terminals: Phosphor bronze with tin plating
- Lamp Terminals: Phosphor bronze with tin plating

Environmental Data
- Operating Temperature Range: –10°C through +50°C (+14°F through +122°F) for Illuminated
  –25°C through +70°C (–13°F through +158°F) for Nonilluminated
- Humidity: 90 ~ 95% humidity for 240 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 6 right angled directions, with 5 shocks in each direction)

Installation
- Mounting Torque: 0.8Nm (7.08 lb-in) maximum
- Cleaning: Hand clean locally with alcohol based solution

Standards & Certifications
- Flammability Standards: UL94V-0 housing & base
- UL: File No. E44145 - Recognized only when ordered with marking on switch.
  Add “/U” or “/CUL” to end of part number to order UL recognized switch.
  All single & double pole models recognized at 3A @ 125V/250V AC or 3A @ 30V DC.

Note: The spot illuminated switches do not have UL approval and cannot be ordered with the markings.
Series LP01

Distinctive Characteristics


Smooth, slightly concave surface of cap designed to fit fingertip. Unique design and construction of cap prevents its removal and limits tampering.

Bright LED illumination in choice of red, green or amber through translucent white cap. Spot illumination in red, green or amber enhanced by black cap.

Short body of .551” (14.0mm) conserves behind-panel space.

Installation options include 16.0mm bushing mount or 17.3mm snap-in mount.

Combination solder lug and .110” quick connect terminals are epoxy sealed to prevent entry of flux, dust, or other contaminants.

Crisp actuation and clear circuit status provided by snap-action contact mechanism. Arc barrier between movable contacts protects against crossover.

Actual Size
## TYPICAL SWITCH ORDERING EXAMPLE

<table>
<thead>
<tr>
<th>Pole</th>
<th>Model</th>
<th>Normal</th>
<th>Down</th>
<th>Normal</th>
<th>Down</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>LP0115</td>
<td>ON</td>
<td>(ON)</td>
<td>1-3</td>
<td>1-2</td>
</tr>
<tr>
<td>DP</td>
<td>LP0125</td>
<td>ON</td>
<td>(ON)</td>
<td>1-3</td>
<td>4-6</td>
</tr>
</tbody>
</table>

**POLES & CIRCUIT**

**Plunger Position**

<table>
<thead>
<tr>
<th>Pole</th>
<th>Model</th>
<th>Normal</th>
<th>Down</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>LP0115</td>
<td>ON</td>
<td>(ON)</td>
</tr>
<tr>
<td>DP</td>
<td>LP0125</td>
<td>ON</td>
<td>(ON)</td>
</tr>
</tbody>
</table>

**Connected Terminals**

<table>
<thead>
<tr>
<th>Pole</th>
<th>Model</th>
<th>Connected Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>LP0115</td>
<td>1-3, 1-2</td>
</tr>
<tr>
<td>DP</td>
<td>LP0125</td>
<td>1-3, 4-6, 1-2, 4-5</td>
</tr>
</tbody>
</table>

**Throw & Power/Lamp Schematics**

<table>
<thead>
<tr>
<th>Pole</th>
<th>Model</th>
<th>Terminals</th>
<th>Schematics</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>LP0115</td>
<td>1-3, 1-2</td>
<td><img src="image" alt="SPDT Schematic" /></td>
</tr>
<tr>
<td>DP</td>
<td>LP0125</td>
<td>1-3, 4-6, 1-2, 4-5</td>
<td><img src="image" alt="DPDT Schematic" /></td>
</tr>
</tbody>
</table>

**Note:** Terminal markings “COM, NO, NC, L, + and –” are actually on the switch; terminal numbers are not on the switch.

---

**IMPORTANT:**

Switches are supplied without UL & cULus markings unless specified. UL & cULus recognized only when ordered with marking on switch. Specific models, ratings, & ordering instructions are noted on the General Specifications page. Spot illuminated switches do not have UL approval and cannot be ordered with the markings.
Short Body Pushbuttons

**Series LP01**

### MOUNTING TYPES

**C**  
**Bushing**  
.630” (16.0mm) Diameter  
This mounting option is supplied with a steel hexagon nut with nickel plating.

**M**  
**Snap-in**  
.681” (17.3mm) Diameter

**Recommended Panel Thickness:**  
.079” ~ .256”  
(2.0mm ~ 6.5mm)

Allow .984” (25.0mm) distance from center-to-center between switches when mounted side-by-side.

### HOUSING

**K**  
**Black**  
Housing available in black only. The one-piece body and bezel have a matte finish.

### CONTACT MATERIALS, RATINGS, & TERMINALS

**W01**  
**Silver Contacts**  
Power Level  
3A @ 125V AC/250V AC; 3A @ 30V DC

**Solder Lug/Quick Connect**  
.110” (2.8mm)

Note: If used at 1A @ 125V AC/250V AC or 1A @ 30V DC, electrical life will be 100,000 operations minimum.

### LED COLORS & SPECIFICATIONS

The electrical specifications shown are determined at a basic temperature of 25°C. LED circuit is isolated and requires external power source. Polarity marks are on the switch.

If the source voltage exceeds the rated voltage, a ballast resistor is required. The resistor value can be calculated by using the formula in the Supplement section.

<table>
<thead>
<tr>
<th>Colors</th>
<th>Single Color LED with 1 Element</th>
<th>5C</th>
<th>5D</th>
<th>5F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Red</strong></td>
<td><strong>Amber</strong></td>
<td><strong>Green</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Max. Forward Current</strong></td>
<td>$I_{FM}$</td>
<td>30mA</td>
<td>30mA</td>
<td>30mA</td>
</tr>
<tr>
<td><strong>Typical Forward Current</strong></td>
<td>$I_F$</td>
<td>20mA</td>
<td>20mA</td>
<td>20mA</td>
</tr>
<tr>
<td><strong>Forward Voltage</strong></td>
<td>$V_F$</td>
<td>1.95V</td>
<td>2.0V</td>
<td>2.1V</td>
</tr>
<tr>
<td><strong>Max. Reverse Voltage</strong></td>
<td>$V_{RM}$</td>
<td>5V</td>
<td>5V</td>
<td>5V</td>
</tr>
<tr>
<td><strong>Current Reduction Rate Above 25°C</strong></td>
<td>$\Delta I_F$</td>
<td>0.41mA/°C</td>
<td>0.29mA/°C</td>
<td>0.39mA/°C</td>
</tr>
<tr>
<td><strong>Ambient Temperature Range</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

LEDs are an integral part of the switch and are not available separately.

- **No Code**  
- **No Lamp**
Series LP01

Short Body Pushbuttons

CAP COLORS

Spot Illuminated Cap
Cap Color Available:
A Black with Spot Illumination

Illuminated Cap
Cap Color Available:
B White

Nonilluminated Cap
Cap Colors Available:
A Black
C Red
F Green

Material: Polycarbonate
Finish: Matte
Spot illuminated, illuminated, and nonilluminated caps are an integral part of the switch and are not available separately.

TYPICAL SWITCH DIMENSIONS

Bushing Mount

Snap-in Mount

Bushing Mount & Spot Illumination

Snap-in Mount & Spot Illumination

www.nkkswitches.com
OPTIONAL ACCESSORIES

Material: Glass fiber reinforced polyamide      Note: Order adaptors separately

Switch Dimensions Shown with Adaptor AT716

Dimension A: Solder Lug .197” (5.0mm); Straight PC .157” (4.0mm)
Panel thickness for LP01 Bushing Mount: .079” ~ .256” (2.0mm ~ 6.5mm)

LEGENDS

NKK Switches can provide custom legends for caps. Contact factory for more information.

Suggested Printable Area for LP01 Cap

Recommended Methods:
Pad Print or Laser Etch on cap.
Epoxy based ink is recommended.

Note: Suggested printable area does not apply to spot illuminated cap.

Shaded area is printable area