

New Products

NIKK
SWITCHES

CONTACT No. 295

On Target Highly Visible Spot Illumination



LP01 Series

**New Addition to Compact Body
Illuminated Pushbutton Switches**

NIKK SWITCHES CO., LTD.

Brilliant Spot Illumination Renders High Visibility

☞ Clear Partial Light-emitting

Concerning the light-emitting area, clear partial light-emitting by LED was realized. You have three colors choices, i.e., green, red, yellow.

☞ Short Body, but Long Stroke Lightly Operational Feeling

Concerning the contact area, a micro switch mechanism is adopted, so that long stroke and lightly operational feeling is fulfilled. The breaking arc area which is set on the movable contact piece prevents the arc which occurs from changing circuit from reaching to the hook area of the coil spring.

☞ Two methods of Mounting Panel

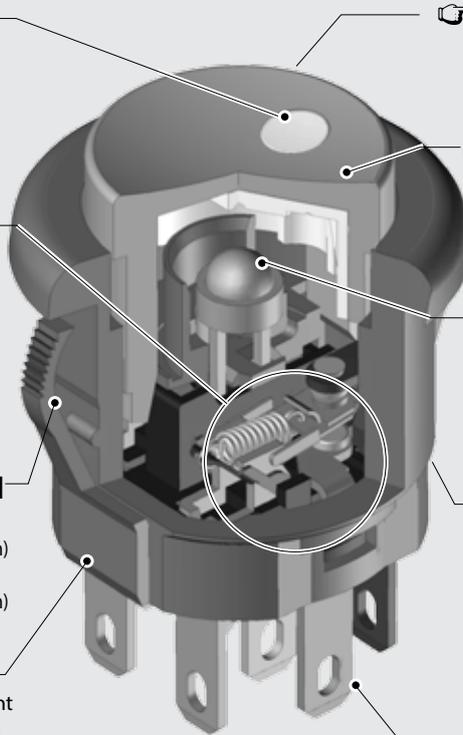
- Bushing—16 mm Diameter
(Recommended Panel Thickness: 2.0–6.5 mm)
- Snap-in—17.3 mm Diameter
(Recommended Panel Thickness: 1.0–3.2 mm)

☞ Shutting Out Flux Infiltration

Terminals are sealed with epoxy to prevent infiltration by flux, and to prevent slack in the terminals, greatly enhancing contact stability.

☞ Various Series Lineup

LP01 series consists of illuminated push-button switch and push-button switch.



☞ Tamper-resistant Button

The button is difficult to be detached in structure, so that is useful for tamper-resistance.

☞ Dimple Button Adopted

The dimple button which fits a fingertip softly is adopted.

☞ Super bright LED Adopted

Concerning light-emitting style, because of the adoption of super bright LED, the on-off mode of the switch is easy to distinguish. (light emission color: red, amber, green)

☞ Helping to Save Space

The switch body is a short 14 mm, helping to save space.

☞ Combined Terminal for Solder and Tab

The terminal is combined one for solder and tab(#110). If using as tab terminal, please use flat connecting terminal (receptacle for 0.5 mm in thickness of applied tab) which meets requirements for JISC2809.

► Applications

- Communication equipment, wireless equipment
- Test equipment
- Automation equipment
- Business equipment
- Household appliances

► General Specifications

Electrical Capacity	3A @ 125V or 3A @ 250V or 3A @ 30V DC	Operation Temperature Range	-10 °C – +50 °C
		Travel	3.0 mm
Contact Resistance	50 milliohms maximum 100 mA @ 2–4 V DC	Nominal Operating Force	1.5±0.7 N for Single Pole, 3.0±1.2 N for Double Pole
Insulation Resistance	200 megohms minimum @ 500 V DC	Soldering	When soldering iron is used 390° maximum @ 4 seconds maximum
Dielectric Strength	1,000 V AC minimum between contacts for 1 minute minimum 1,500 V AC minimum between contacts and case for 1 minute minimum	Note	100,000 operations minimum for 1 A @ 125 V/250 V AC & 1A @ 30V DC
Electrical Life	50,000 operations minimum		

Each rated value/performance value is obtained through independent testing. Therefore, the same results are not guaranteed under complex conditions. Please refer to General Specifications page in General Catalog "Switch Guide" on specific models, ratings and ordering instructions.

► LED Colors & Specifications

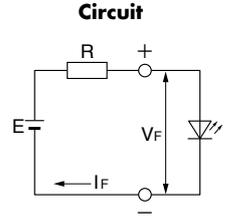
Super Bright LED Specifications (Ta=25 °C)				
LED Colors	5C Red	5D Amber	5F Green	Unit
Maximum Forward Current	30			mA
Typical Forward Current	20			mA
Forward Voltage	1.95	2.0	2.1	V
Maximum Reverse Voltage	5			V
Current Reduction Rate Above 25°C	0.41	0.29	0.39	mA / °C
Ambient Temperature Range	-10~+50			°C

Ballast Resistor Calculations & Recommendations

If the source voltage is greater than the rated voltage of a lamp or LED, a ballast resistor must be connected in series with the lamp. The following circuit diagram and formula will assist in calculating the value of the required ballast resistor.

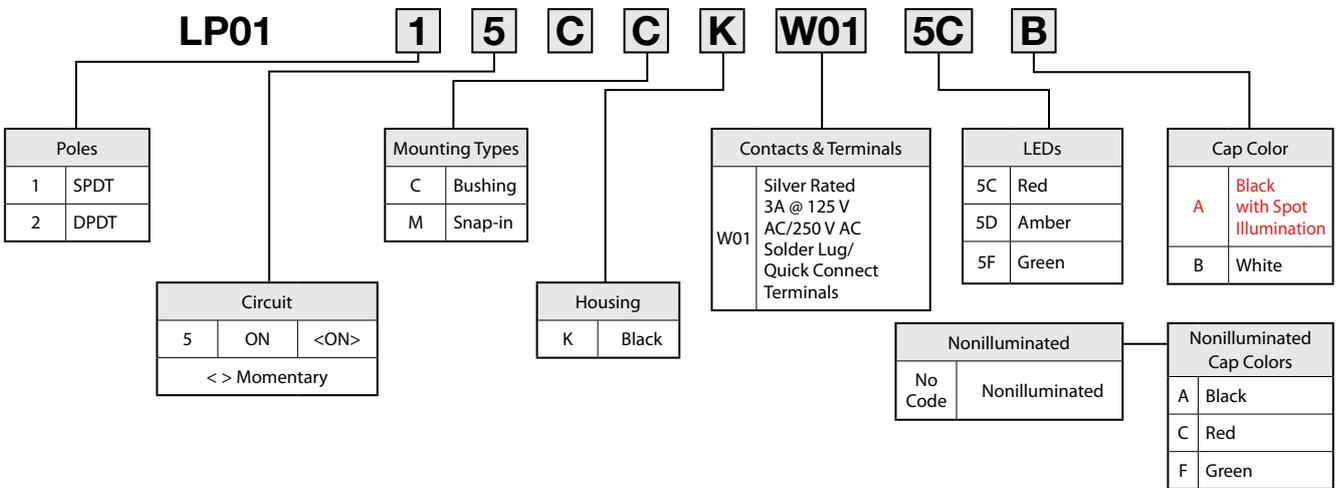
$$R = \frac{E - V_F}{I_F}$$

Where: R= Resistor Value (Ohms)
 E= Source Voltage (V)
 V_F= Forward Voltage (V)
 I_F= Forward Current (A)



Watt recommendations provide a margin to reduce heat rise and increase life.

► Typical Switch Ordering Example



► Poles & Circuit

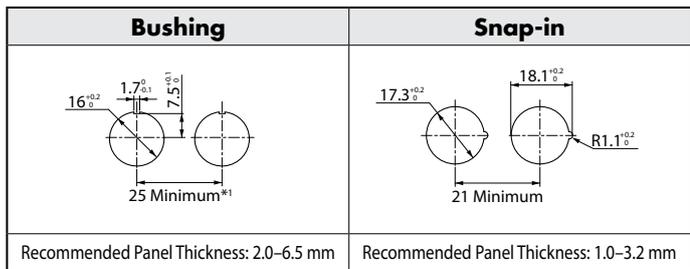
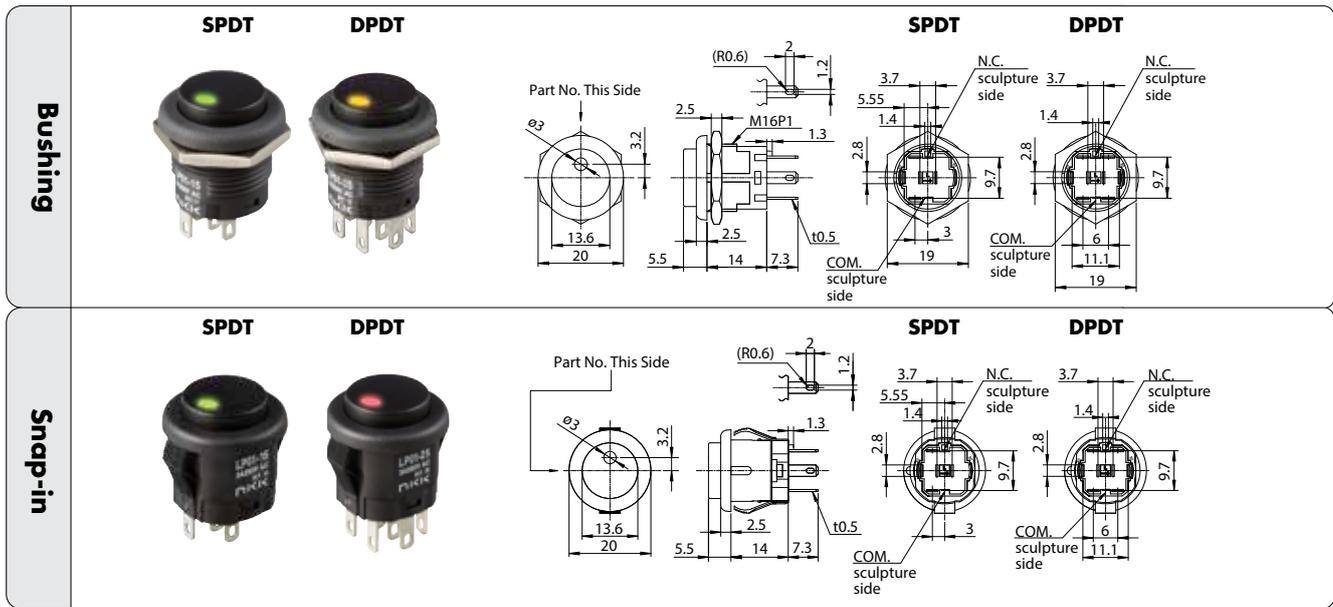
Plunger Position <> Momentary	Model		Contacted Terminal	
	Bushing	Snap-in		
SPDT	ON <ON>	LP0115CCKW01**A	LP0115CMKW01**A	COM.-N.C. COM.-N.O.
DPDT	ON <ON>	LP0125CCKW01**A	LP0125CMKW01**A	COM.1-N.C.1 COM.2-N.C.2 COM.1-N.O.1 COM.2-N.O.2

** LEDs 5C=Red, 5D=Amber, 5F=Green

► Sales Start Date

October 27, 2016

► Typical Switch Dimensions



Snap-in Mounting
 Cut hole in panel with nub as shown to prevent rotation.
 Position switch vertically into cutout.

*1 Allow 25mm distance from center-to-center between switches when mounted side-by-side.

► Comprehensive Line

LP01 Series includes nonilluminated and fully illuminated as well as the new spot illuminated switches. See the catalog or website or contact the sales department for more information.



* Specifications presented here are subject to change without notice. Check with our staff for the latest specifications.

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