Contact No. 250

Change Notice

NP01 Series Illuminated Pushbuttons

Change of Single & Bicolor LED Specifications

Type of Change:

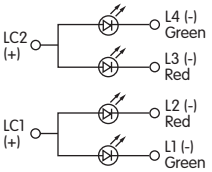
☑ Engineering ☐ Part Number
☑ Product ☑ Appearance

The NP01 Series Illuminated Pushbuttons will have changes to the single and bicolor LEDs. The change will effect all models, both standard and custom. Differences in the LED specification values are outlined in the following tables.

NP01 Pushbutton

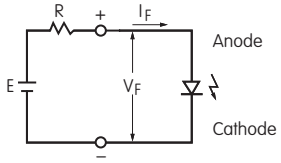
Electrical Specifications for NP01 Bicolor LED

Electrical specifications are determined at a basic temperature of 25°C. ATTENTION ELECTROSTATIC SENSITIVE DEVICES		Before Change CF		After Change CF	
	Color	Red	Green	Red	Green
Maximum Forward Current	I_{FM}	50mA (20)	30mA (20)	30mA (25)	25mA (25)
Typical Forward Current	I_F	20mA (15)	20mA (7.5)	20mA (20)	16mA (5)
Typical Forward Current for Alternating Legends	I_F	30mA	25mA	20mA	16mA
Forward Voltage	V_F	2.0V	3.5V	1.95V	3.3V
Maximum Reverse Voltage	V_{RM}	5V	5V	5V	5V
Current Reduction Rate	ΔI_F	0.88mA/°C above 40°C	0.48mA/°C above 30°C	0.40mA/°C above 25°C	0.33mA/°C above 25°C
Ambient Temperature Range		−25° ~ +50°C		−25° ~ +50°C	



Red/Green Bicolor LED

Notes
- Specifications in ( ) in table above denote simultaneous illumination of Red and Green.
- LEDs are an integral part of the switch and are not available separately.
- If the source voltage exceeds the rated voltage, a ballast resistor is required. The resistor value can be calculated by using the formula shown here.
- The changes to bicolor LEDs do not affect any external dimensions of the switches.
- Contact the factory if further details are needed.



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

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

NP01 Part Numbers Effected by Bicolor LED Specification Changes

Standard Operating Force	NP0115AG03LCF-JB	NP0115AG03LCF-J01	NP0115AG03LCF-J02	NP0115AG03LCF-J04
High Operating Force	NP0115HG03LCF-JB	NP0115HG03LCF-J01	NP0115HG03LCF-J02	NP0115HG03LCF-J04

Effective Date

Changes to Bicolor LEDs will be effective April 2015.

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2015/03/19 Engineering Department
Revised:2017/05/22

Contact No. 250

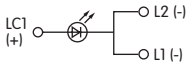
Change Notice

NP01 Series Illuminated Pushbuttons

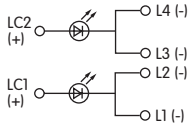
Change of Single & Bicolor LED Specifications

Electrical Specifications for NP01 Single Color LED							
Electrical specifications are determined at a basic temperature of 25°C.		Before Change			After Change		
ATTENTION ELECTROSTATIC SENSITIVE DEVICES	Color	C Red	D Amber	F Green	C Red	D Amber	F Green
Maximum Forward Current	I_{FM}	50mA	50mA	30mA	30mA	30mA	25mA
Typical Forward Current	I_F	20mA	20mA	20mA	20mA	20mA	16mA
Forward Voltage	V_F	2.0V	2.1V	3.5V	1.95V	2.0V	3.3V
Maximum Reverse Voltage	V_{RM}	5V	5V	5V	5V	5V	5V
Current Reduction Rate	ΔI_F	0.88mA/°C above 40°C	0.88mA/°C above 40°C	0.48mA/°C above 30°C	0.42mA/°C above 25°C	0.42mA/°C above 25°C	0.33mA/°C above 25°C
Ambient Temperature Range		−25° ~ +50°C			−25° ~ +50°C		

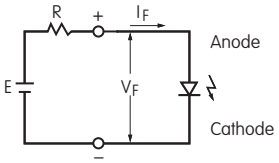
Red or Green LEDs



Amber LED



Notes
- LEDs are an integral part of the switch and are not available separately.
- If the source voltage exceeds the rated voltage, a ballast resistor is required. The resistor value can be calculated by using the formula shown here.
- The changes to single color LEDs do not affect any external dimensions of the switches.
- Contact the factory if further details are needed.



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

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

NP01 Part Numbers Effected by Single LED Specification Changes			
Standard Operating Force		High Operating Force	
NP0115AG03LC-JB	NP0115AG03LD-JD	NP0115HG03LC-JB	NP0115HG03LD-JD
NP0115AG03LC-JC	NP0115AG03LF-JB	NP0115HG03LC-JC	NP0115HG03LF-JB
NP0115AG03LD-JB	NP0115AG03LF-JF	NP0115HG03LD-JB	NP0115HG03LF-JF

Effective Date

Changes to Single Color LEDs will be effective October 2015.

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