

N-Series Rocker Switches



The N-Series Addressable Switch offers the look and feel of a traditional Electro-mechanical control coupled with a built in PCB to provide customers with a flexible, cost effective alternative to a CAN/LIN based switch. The N Series produces up to 144 individual switch IDs by using a resistive ladder circuit. Different switch IDs are achieved by changing the resistor values tied to individual loads. The individual loads can then be assigned to the specific functions that the switch is controlling. Each switch is connected to an ECU and the application software is written to recognize the switch IDs to determine which load is being controlled as well as the selected actuator position. The end result means that wiring harnesses are simplified and specific loads can now be controlled from any location within a vehicle cab. Switch locations can now be rearranged without the need for a costly and time consuming harness redesign, giving designers the ultimate in design flexibility. The N-Series is available in lighted or non-lighted versions, with numerous choices of actuators, colors, lighting circuits, and legend imprints.

Electrical

Contact Rating4VA @ 28VDC (MAX)
Dielectric Strength	1250 Volts RMS between pole to pole 3750 Volts RMS between live parts and accessible surfaces
Insulation Resistance	50 Megaohms
Contact Bounce.	20 milliseconds max.
Contacts	gold plated
Terminals	Brass or copper/silver plate 3/16" (4.76mm) Quick Connect terminations standard.

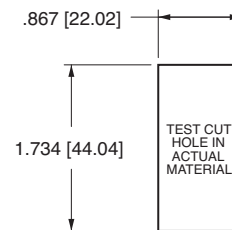
Endurance 250,000 cycles minimum

Lighted	Incandescent - rated 10,000 hours LED - rated 100,000 hours 1/2 life (LED is internally ballasted for voltages to 24VDC)
Seals	Rocker, base & bracket are sealed.
Base	Nylon 66 GF rated to 85°C with a flammability rating of 94V0.
Rocker and Paddle	Nylon 66 Reinforced, rated to 105°C
Laser Etched Rocker.	Polycarbonate rated at 100°C.
Lens	Polycarbonate rated at 100°C. Front snap-in.
Connector	Nylon 66 rated at 85°C. Polarized.
Bracket	Nylon Zytel

2 position	26°
3 positions	13° from center

Environmental

Environmental	IP67 for above the panel components of the actual switch, representing an index of protection as applied to electrical equipment in accordance with IEC 529, BS 5490, DIN 400 50 & NFC 20 010.
Operating Temperature	-40°C to +85°C
Vibration	Per SAE J1399 "electronic Tachometer Specification" for Class II truck and bus applications. Test Criteria: No change in resistance and no evidence of physical damage.
Salt Spray	Exposure to 95% water, 5% NCl fog solution at 95 degrees F according to ASTM B 117-90 "Standard Test Method of Salt Spray (fog) Testing". Test Criteria: No visual evidence of corrosion or external physical damage.
Humidity	Samples were exposed to selected temperature profile, while maintaining 90% +/- 5% relative humidity for 30 cycles. Test Criteria: No evidence of external physical deterioration.



MOUNTING HOLE

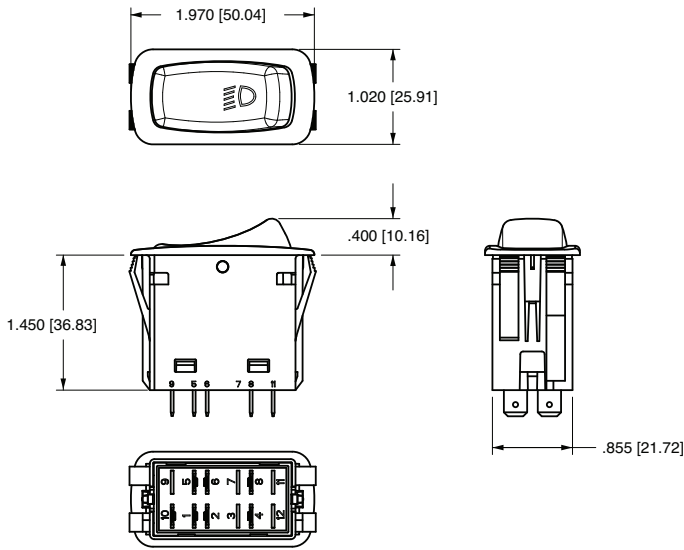
Panel Thickness Range

Acceptable Panel Thickness
.030 to .156 (.76mm to 3.96mm)
Recommended:
.030, .062, .093, .125 and .156

Dimensional Specifications in. [mm.]:

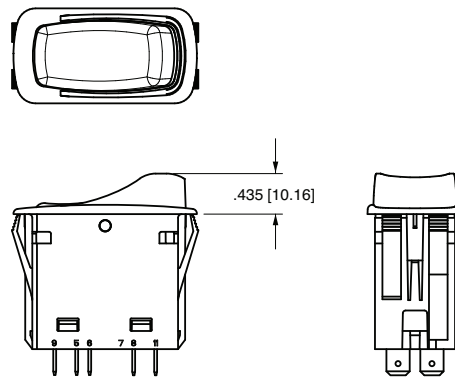
N-SERIES

SHOWN WITH LASER ETCHED ACTUATOR



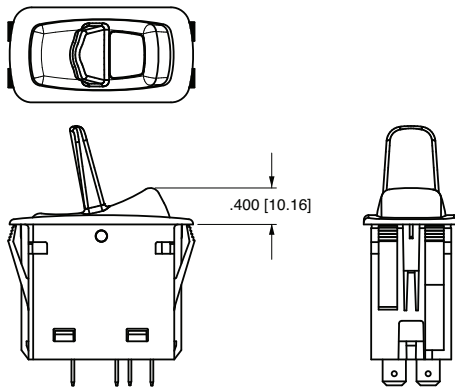
N-SERIES

SHOWN WITH ROCKER GUARD



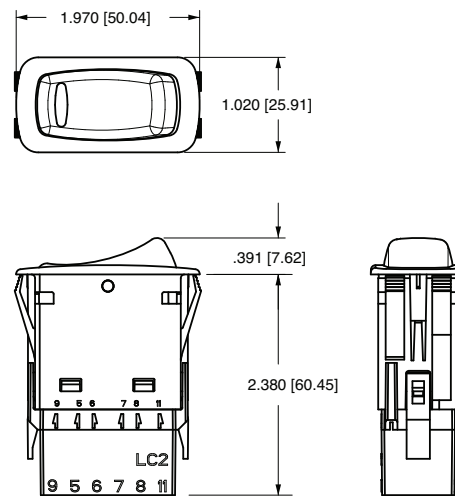
N-SERIES

SHOWN WITH LARGE LENS AND PADDLE ACTUATOR



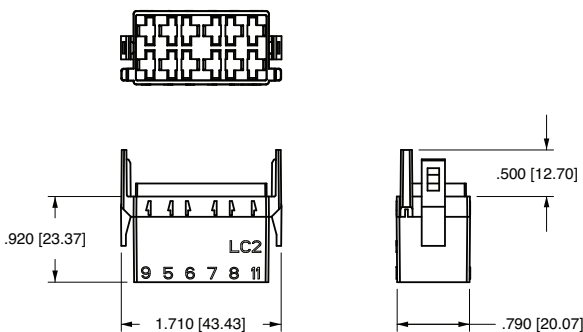
N-SERIES

SHOWN WITH BARS LENS AND CONNECTOR



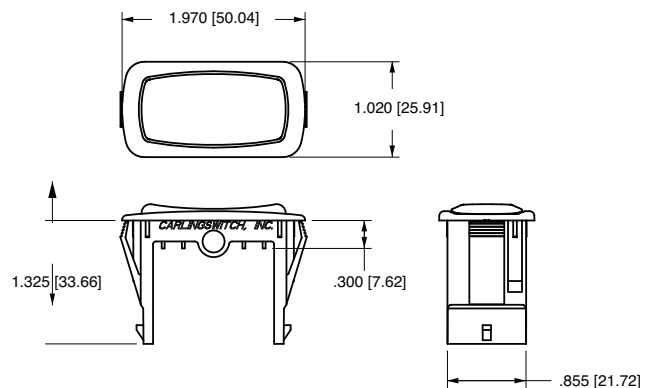
N-SERIES

LC2-01 BLACK .187 TAB CONNECTOR (PACKARD 480-SERIES)



N-SERIES

LH1 REMOVABLE HOLE PLUG WITH NON-SERRATED WINGS
LH2 HOLE PLUG WITH SERRATED WINGS



SWITCH CIRCUIT DIAGRAMS

CIRCUIT CODE	SCHEMATIC
4	
5	
6	
7	
8	

INTERNAL CIRCUIT BOARD (TYPICAL)

LAMP CIRCUIT DIAGRAMS

ILLUM. CODE	SCHEMATIC
A	
B	
C	
1	
2	
3	
4	

