

**L-Series Sealed Rocker Switches**

Making the right connections has never been easier — with the L-Series Rocker Switch from Carling Technologies. Not only does this innovative switch offer total design flexibility, it has set new standards for both performance and reliability. It's IP67 certified, and able to withstand temperatures from -40°C to +85°C. Features include countless switch and lamp circuit combinations, LED illuminated lenses or laser etched rockers, as well as hundreds of legend choices and several accessories.

**Eliminates need for retooling**

Neatly proportioned, our L-Series fits into industry standard mounting holes of 1.734" x .867" and 44.0mm x 22.0mm.

**Withstands extreme temperatures**

Roller pin mechanism eliminates need for lubricants, so it can withstand from -40°C to +85°C.

**Integrates easily into your system**

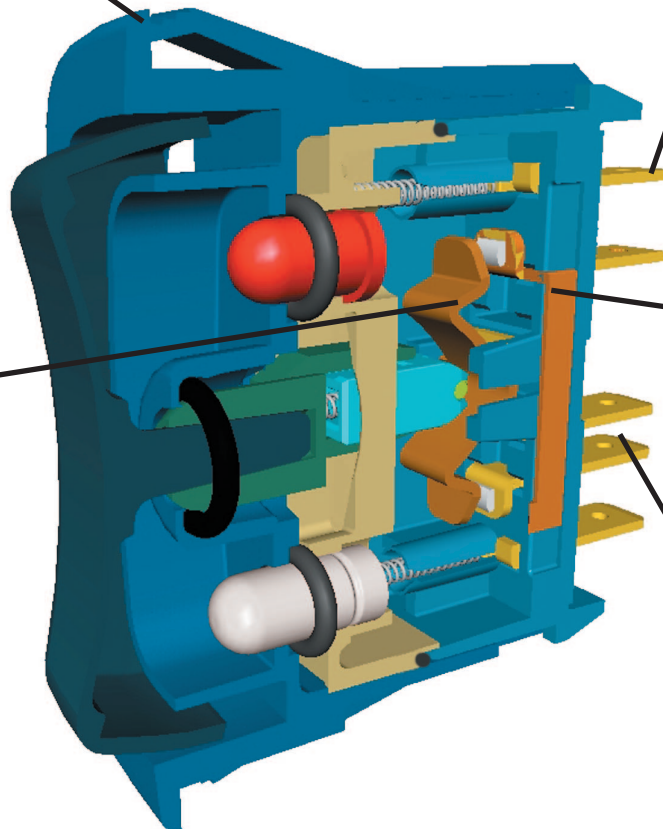
You can choose from a variety of termination options, including .250 TAB QC & .187 TAB QC.

**Ensures greater shock protection**

Welded lamp connection and one-piece internal, jumperless terminal withstand extreme shock and vibration.

**Maximizes your design flexibility**

Twelve terminals offer you an extensive range of switch and lamp circuit options, including LED or incandescent illumination.



### Electrical

|                               |                                                                                                                 |
|-------------------------------|-----------------------------------------------------------------------------------------------------------------|
| Contact Rating . . . . .      | .4VA @ 24VDC (MAX) resistive<br>15 amps, 125 VAC<br>10 amps, 250 VAC<br>20 amps, 4-14 VDC<br>15 amps, 15-28 VDC |
| Dielectric Strength . . . . . | 1250 Volts RMS between pole to pole<br>3750 Volts RMS between live parts and accessible surfaces                |
| Insulation Resistance . . .   | 50 Megohms                                                                                                      |
| Initial Contact Resistance.   | 10 milliohms max. @ 4 VDC                                                                                       |
| Life . . . . .                | 100,000 cycles maintained,<br>50,000 cycles momentary at rated voltage and current                              |
| Contacts . . . . .            | 90/10 silver-nickel, silver tin-oxide, gold                                                                     |
| Terminals . . . . .           | Brass or copper/silver plate<br>3/16" (4.76mm) & 1/4" (6.3mm)<br>Quick Connect terminations standard.           |

### Mechanical

|                     |                        |
|---------------------|------------------------|
| Endurance . . . . . | 250,000 cycles minimum |
|---------------------|------------------------|

### Physical

|                     |                                                                                                                                                    |
|---------------------|----------------------------------------------------------------------------------------------------------------------------------------------------|
| Lighted . . . . .   | Incandescent - rated 10,000 hours<br>LED - rated 100,000 hours 1/2 life<br>(LED is internally ballasted for volt-ages to 24 VDC)                   |
| Seals . . . . .     | Rocker, base & bracket are sealed.                                                                                                                 |
| Base . . . . .      | Polyester blend rated to 85°C with a flammability rating of 94VO.                                                                                  |
| Actuator . . . . .  | Nylon 66 Reinforced, rated to 105°C (modular lens). Locking rocker, stan-<br>dard rocker & paddle. Laser etching<br>with a polycarbonate actuator. |
| Lens . . . . .      | Polycarbonate rated at 100°C. Front<br>snap-in.                                                                                                    |
| Connector . . . . . | Nylon 66 rated at 85°C. Polarized.                                                                                                                 |

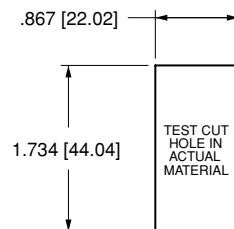
### Actuator Travel (Angular Displacement)

|                       |                 |
|-----------------------|-----------------|
| 2 position . . . . .  | 26°             |
| 3 positions . . . . . | 13° from center |

### Environmental

|                             |                                                                                                                                                                                                                                                        |
|-----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Environmental . . . . .     | IP67, representing an index of protection as applied to electrical equipment in accordance with IEC 529, BS 5490, DIN 400 50 & NFC 20 010.                                                                                                             |
| Corrosion Resistance . . .  | MFG Class III per ASTM B-827 & B-845, Method H, with 3 years exposure.                                                                                                                                                                                 |
| Operating Temperature . .   | -40° C to + 85° C                                                                                                                                                                                                                                      |
| Vibration 1 . . . . .       | Per Mil-Std 202F, Method 204D Test Condition A 0.06 DA or 10G's 10-500 Hz. Tested with VCH connector. Test criteria - No loss of circuit during test and pre and post test contact resistance.                                                         |
| Vibration 2 . . . . .       | Resonance search<br>24-50 Hz 0.40 DA<br>50-2000 ±10 G's peak<br>Results Horizontal Axis 3-5 G's max.<br>Random<br>24 Hz 0.06 PSD-Gsq/Hz<br>60 Hz 0.50<br>100 Hz 0.50<br>200 Hz 0.025<br>2000 Hz 0.025<br>No loss of circuit during test; <10µ chatter. |
| Shock . . . . .             | Per Mil-Std 202F, Method 213B, Test Condition K @ 30G's. Tested with VCH connector. Test criteria - No loss of circuit during test, pre, and post test contact resistance.                                                                             |
| Salt Spray . . . . .        | Per Mil-Std 202F, Method 101D, Test Condition A, 48 Hrs.                                                                                                                                                                                               |
| Thermal Shock . . . . .     | Per Mil-Std 202F, Method 107F, Test Condition A, -55°C to 85°C. Test cri-<br>teria - pre and post test contact resistance.                                                                                                                             |
| Moisture Resistance . . . . | Per Mil-Std 202F, Method 106F, Test Criteria - pre and post test contact resistance.                                                                                                                                                                   |

### Mounting Specifications



MOUNTING HOLE

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

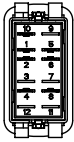
|             |              |             |                  |                   |           |           |              |               |                          |                          |              |                          |                            |   |    |
|-------------|--------------|-------------|------------------|-------------------|-----------|-----------|--------------|---------------|--------------------------|--------------------------|--------------|--------------------------|----------------------------|---|----|
| L           | 11           | E           | 3                | C                 | H         | N         | 1            | -             | 3                        | A                        | A            | 45                       | -                          | 1 | 48 |
| 1<br>Series | 2<br>Circuit | 3<br>Rating | 4<br>Termination | 5<br>Illumination | 6<br>Lamp | 7<br>Lamp | 8<br>Bracket | 9<br>Actuator | 10<br>Lens Style & Color | 11<br>Lens Style & Color | 12<br>Legend | 13<br>Legend Orientation | 14<br>Actuator Lens Legend |   |    |

## 1 SERIES

L

## 2 CIRCUIT<sup>2</sup>

### Terminal Orientation



( ) - momentary

SP - single pole - uses terminals 1, 2 & 4.  
DP - double pole uses terminals 5, 6 & 8.  
Terminals 9, 10, 11 & 12 for lamp circuit only.

| Position:                      | 1               | 2            | 3                   |
|--------------------------------|-----------------|--------------|---------------------|
| SP                             | DP              | 2 & 4, 6 & 8 | Connected Terminals |
| 11                             | 21              | ON           | NONE                |
| 12                             | 22              | (ON)         | NONE                |
| 13                             | 23              | ON           | NONE                |
| 14                             | 24              | ON           | NONE                |
| 15                             | 25              | ON           | NONE                |
| 16                             | 26              | ON           | OFF                 |
| 17                             | 27              | ON           | OFF                 |
| 18                             | 28              | (ON)         | OFF                 |
| CIRCUITS WITH JUMPER TERMINALS |                 |              |                     |
| 30                             | (2,4&5),(1,6&8) | OFF, OFF     | (1,2&8),(4,5&6)     |
| 31                             | 1,2&5           | 2,3&7        | 2,4&8               |
| PROGRESSIVE CIRCUITS           |                 |              |                     |
| 51                             | 3&4             | 2&3          | 1&2                 |
| 52                             | 3&4             | 2&3          | OFF                 |
| 53                             | (3&4)           | 2&3          | 1&2                 |
| 54                             | (3&4)           | 2&3          | OFF                 |
| 55                             | (3&4)           | 2&3          | (1&2)               |
| 56                             | (3&4)           | 2&3          | (OFF)               |
| 57                             | 3&4             | 2&3          | (OFF)               |
| 58                             | 2&4             | 2&3          | 1&2                 |
| 61                             | 3&4,7&8         | 2&3,6&7      | 1&2,5&6             |
| 62                             | 3&4,7&8         | 2&3,6&7      | OFF, OFF            |
| 63                             | (3&4),(7&8)     | 2&3,6&7      | 1&2,5&6             |
| 64                             | (3&4),(7&8)     | 2&3,6&7      | OFF, OFF            |
| 65                             | (3&4),(7&8)     | 2&3,6&7      | (1&2),(5&6)         |
| 66                             | (3&4),(7&8)     | 2&3,6&7      | (OFF),(OFF)         |
| 67                             | 3&4,7&8         | 2&3,6&7      | (OFF),(OFF)         |
| 68                             | 2&4,7&8         | 2&4, OFF     | OFF, OFF            |
| 69                             | 2&4,1,7&8       | 2&4, OFF     | OFF, OFF            |
| 70                             | (2&4),(7&8)     | 2&4,5&7      | (1&2),(5&7)         |
| 71                             | (2&4),(7&8)     | 2&4,5&7      | 1&2,5&7             |
| 72                             | 2&4,7&8         | 2&4,5&7      | 1&2,5&7             |
| 73                             | (2&4),(7&8)     | 2&4, OFF     | OFF, OFF            |
| 80                             | 2&4,6&8         | 2&4, OFF     | OFF,5&6             |
| HAZARD WARNING CIRCUITS        |                 |              |                     |
| A2                             | 6,7&8, 3&4      | NONE         | OFF,1&2             |
| A3                             | 6,7&8, 2&4      | NONE         | OFF,1&2             |

## 3 RATING<sup>2</sup>

|   |                                |   |         |
|---|--------------------------------|---|---------|
| 1 | .4VA @ 28VDC Resistive         | D | 20A 12V |
| 4 | 10A 250VAC 1/2 HP,             | E | 15A 12V |
|   | 15A 125VAC 1/2 HP, No Listings | G | 20A 6V  |
| B | 15A 24V                        | H | 20A 3V  |
| C | 20A 18V                        |   |         |

## 4 TERMINATION<sup>2,3,4</sup>

|   |                       |   |                       |
|---|-----------------------|---|-----------------------|
| 1 | .250 (6.4mm) TAB (QC) | 3 | .187 (4.7mm) TAB (QC) |
|---|-----------------------|---|-----------------------|

## 5 ILLUMINATION

Lamp #1: above terminals 9 & 10 end of switch.; Lamp #2 above terminals 11 & 12 end of switch. Positive (+) and negative (-) symbols apply to LED lamps only.

| Lamps          | Illumination Type | Lamp wired to Terminals |     |         |
|----------------|-------------------|-------------------------|-----|---------|
| S              | None              |                         |     |         |
| A              | # 1               | Independent             | 10+ | 9-      |
| B              | # 2               | Independent             | 12+ | 11-     |
| C              | # 1               | Independent             | 10+ | 9-      |
|                | &# 2              | Independent             | 12+ | 9-      |
| D              | # 1               | Dependent               | 4+  | 9-      |
| E              | # 1               | Independent             | 10+ | 9-      |
|                | &# 2              | Dependent               | 4+  | 9-      |
| F <sup>5</sup> | # 1               | Independent             | 10+ | 9-      |
|                | &# 2              | Dependent               | 8+  | 9-      |
| G              | # 1               | Dependent               | 4+  | 9-      |
|                | &# 2              | Independent             | 10+ | 9-      |
| H              | # 1               | Both Independent        | 10+ | 9-      |
|                | &# 2              | (in series)             |     |         |
| 1              | # 2               | Hazard                  | 6+  | 10+ 12- |
| 2              | # 1               | Hazard                  | 6+  | 10+ 12- |

## 6,7 LAMP (same coding for both selections)

Selection 6: above terminals 10 & 9; Selection 7: above terminals 12 & 11

|              |      |       |       |       |       |
|--------------|------|-------|-------|-------|-------|
| No lamp      | 0    |       |       |       |       |
| Incandescent | 4 3V | 5 6V  | 6 12V | 7 18V | 8 24V |
| LED*         | Red  | Amber | Green |       |       |
| 2VDC         | A    | L     | F     |       |       |
| 6VDC         | B    | M     | G     |       |       |
| 12VDC        | C    | N     | H     |       |       |
| 24VDC        | D    | P     | J     |       |       |

\* Consult factory for "daylight bright", blue/green and white LED options.  
Typical current draw for LED is 20ma.

## 8 BRACKET COLOR<sup>1</sup>

|                       |       |       |      |     |
|-----------------------|-------|-------|------|-----|
|                       | Black | White | Gray | Red |
| Standard Bracket      | 1 A   | 2 B   | 3 C  | 4 D |
| Rockerguard at Lamp 1 |       |       |      |     |
| Rockerguard at Lamp 2 | E     | F     | G    | H   |

## 9 ACTUATOR STYLE AND COLOR<sup>1</sup>

|        |       |       |      |     |              |
|--------|-------|-------|------|-----|--------------|
|        | Black | White | Gray | Red | Laser Etched |
| Rocker | A     | B     | C    | D   | 3            |
| Paddle | J     | N     | K    | M   | 4            |

## 10 & 11 LENS STYLE AND COLOR

Lens color for LEDs must be clear, white, or match color of LED. Green or blue lenses are not recommended with Neon lamps.

|                 | Clear | White | Amber | Green | Red | Blue |                             |
|-----------------|-------|-------|-------|-------|-----|------|-----------------------------|
| 0 - No Actuator |       |       |       |       |     |      | Z - No Lens                 |
| 1               | -     | B     | G     | M     | T   |      | Large Transparent           |
| -               | 7     | C     | H     | N     | U   |      | Large Translucent           |
| 3               | -     | D     | J     | P     | V   |      | Bar Transparent             |
| -               | 9     | E     | K     | R     | W   |      | Bar Transparent             |
| 5               | A     | -     | -     | -     | -   |      | Laser Etch background color |

## 12 LASER ETCH, LENS OR BODY LEGEND

00 No legend this location / no actuator  
For legend options & codes, see page 69 of this catalog.

## 13 LEGEND ORIENTATION

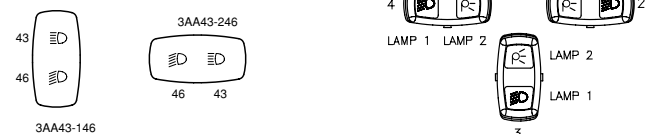
0 No legend (used with codes 11-18 in selection 12)

1 Orientation 1 - vertical, lamp 1 on top

2 Orientation 2 - horizontal, lamp 1 on right

3 Orientation 3 - vertical, lamp 1 on bottom

4 Orientation 4 - vertical, lamp 1 on left



## 14 ACTUATOR LENS LEGEND

00 No legend this location / no actuator  
For legend options & codes, see page 69 of this catalog.

### NOTES:

Consult factory to verify horsepower rating for your particular circuit choice.

- Custom colors are available. Consult factory.
- Circuits 30, 31, 58, 69 when used in combination with termination codes 1 and 3 are not available with rating codes 4, C, D, G or H.
- Termination 3 only available with rating codes 1, B, and E.
- Termination 1 not available with rating code 4.
- Not available with circuits 11-18, 51-57 and 69.

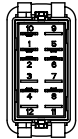
|             |              |             |                  |                   |           |           |              |               |            |            |              |                             |          |          |
|-------------|--------------|-------------|------------------|-------------------|-----------|-----------|--------------|---------------|------------|------------|--------------|-----------------------------|----------|----------|
| <b>L</b>    | <b>11</b>    | <b>D</b>    | <b>1</b>         | <b>S</b>          | <b>W</b>  | <b>C</b>  | <b>J</b>     | <b>-</b>      | <b>P</b>   | <b>M</b>   | <b>H</b>     | <b>00</b>                   | <b>-</b> | <b>0</b> |
| 1<br>Series | 2<br>Circuit | 3<br>Rating | 4<br>Termination | 5<br>Illumination | 6<br>Lock | 7<br>Lamp | 8<br>Bracket | 9<br>Actuator | 10<br>Lens | 11<br>Lock | 12<br>Legend | 13<br>Legend<br>Orientation |          |          |

## 1 SERIES

**L**

## 2 CIRCUIT<sup>6</sup>

Terminal Orientation



( ) - momentary

SP - single pole - uses terminals 1, 2 & 4.  
DP - double pole uses terminals 5, 6 & 8.  
Terminals 9, 10, 11 & 12 for lamp circuit only.

| Position:                      | 1               | 2            | 3 (lock location)   |
|--------------------------------|-----------------|--------------|---------------------|
| SP                             | DP              | 2 & 4, 6 & 8 | Connected Terminals |
| 11                             | 21              | ON           | NONE                |
| 14                             | 24              | ON           | NONE                |
| 16                             | 26              | ON           | OFF                 |
| 17                             | 27              | ON           | OFF                 |
| 18                             | 28              | (ON)         | OFF                 |
| CIRCUITS WITH JUMPER TERMINALS |                 |              |                     |
| 30 <sup>2</sup>                | (2,4&5),(1,6&8) | OFF, OFF     | (1,2&8),(4,5&6)     |
| 31 <sup>2</sup>                | 1,2&5           | 2,3&7        | 2,4&8               |
| PROGRESSIVE CIRCUITS           |                 |              |                     |
| 51                             | 3&4             | 2&3          | 1&2                 |
| 52                             | 3&4             | 2&3          | OFF                 |
| 53                             | (3&4)           | 2&3          | 1&2                 |
| 54                             | (3&4)           | 2&3          | OFF                 |
| 55                             | (3&4)           | 2&3          | (1&2)               |
| 56                             | (3&4)           | 2&3          | (OFF)               |
| 57                             | 3&4             | 2&3          | (OFF)               |
| 58                             | 2&4             | 2&3          | 1&2                 |
| 61                             | 3&4,7&8         | 2&3,6&7      | 1&2,5&6             |
| 62                             | 3&4,7&8         | 2&3,6&7      | OFF, OFF            |
| 63                             | (3&4),(7&8)     | 2&3,6&7      | 1&2,5&6             |
| 64                             | (3&4),(7&8)     | 2&3,6&7      | OFF, OFF            |
| 65                             | (3&4),(7&8)     | 2&3,6&7      | (1&2),(5&6)         |
| 66                             | (3&4),(7&8)     | 2&3,6&7      | (OFF),(OFF)         |
| 67                             | 3&4,7&8         | 2&3,6&7      | (OFF),(OFF)         |
| 68                             | 2&4,7&8         | 2&4, OFF     | OFF, OFF            |
| 69                             | 2&4, 1,7&8      | 2&4, OFF     | OFF, OFF            |
| 70                             | (2&4),(7&8)     | 2&4,5&7      | (1&2),(5&7)         |
| 71                             | (2&4),(7&8)     | 2&4,5&7      | 1&2,5&7             |
| 72                             | 2&4,7&8         | 2&4,5&7      | 1&2,5&7             |
| 73                             | (2&4),(7&8)     | 2&4, OFF     | OFF, OFF            |
| 80                             | 2&4,6&8         | 2&4, OFF     | OFF,5&6             |

## 3 RATING<sup>6</sup>

|   |                                |   |         |
|---|--------------------------------|---|---------|
| 1 | .4VA @ 28VDC Resistive         | D | 20A 12V |
| 4 | 10A 250VAC 1/2 HP,             | E | 15A 12V |
|   | 15A 125VAC 1/2 HP, No Listings | G | 20A 6V  |
| B | 15A 24V                        | H | 20A 3V  |
| C | 20A 18V                        |   |         |

## 4 TERMINATION<sup>4,5</sup>

|   |                       |   |                       |
|---|-----------------------|---|-----------------------|
| 1 | .250 (6.4mm) TAB (QC) | 3 | .187 (4.7mm) TAB (QC) |
|---|-----------------------|---|-----------------------|

## 5 ILLUMINATION<sup>6</sup>

Lamp located above terminals 11 & 12, position 1 end of switch.  
Positive (+) and negative (-) symbols apply to LED lamps only.

|   | Lamps | Illumination Type | Lamp wired to Terminals |
|---|-------|-------------------|-------------------------|
| S | None  |                   |                         |
| B | # 2   | Independent       | 12+ 11-                 |

## 6 LOCK

W Lock above terminals 10 & 9.

## 7 LAMP

Above terminals 12 & 11

|              |      |       |       |       |       |
|--------------|------|-------|-------|-------|-------|
| No lamp      | 0    |       |       |       |       |
| Incandescent | 4 3V | 5 6V  | 6 12V | 7 18V | 8 24V |
| LED*         | Red  | Amber | Green |       |       |
| 2VDC         | A    | L     | F     |       |       |
| 6VDC         | B    | M     | G     |       |       |
| 12VDC        | C    | N     | H     |       |       |
| 24VDC        | D    | P     | J     |       |       |

\* Consult factory for "daylight bright", blue/green and white LED options.  
Typical current draw for LED is 20ma.

## 8 BRACKET COLOR<sup>1</sup>

Black J

## 9 ACTUATOR STYLE AND COLOR<sup>1</sup>

Locking Rocker Black Red  
P R

## 10 LENS STYLE AND COLOR

Lens color for LEDs must be clear, white, or match color of LED.  
Green or blue lenses are not recommended with Neon lamps.

|                 |             |       |       |     |                   |
|-----------------|-------------|-------|-------|-----|-------------------|
| 0 - No Actuator | Z - No Lens |       |       |     |                   |
| Clear           | White       | Amber | Green | Red | Blue              |
| 1               | -           | B     | G     | M   | T                 |
| -               | 7           | C     | H     | N   | U                 |
| 3               | -           | D     | J     | P   | V                 |
| -               | 9           | E     | K     | R   | W                 |
|                 |             |       |       |     | Large Transparent |
|                 |             |       |       |     | Large Translucent |
|                 |             |       |       |     | Bar Transparent   |
|                 |             |       |       |     | Bar Transparent   |

## 11 LOCK FUNCTION AND COLOR<sup>7</sup>

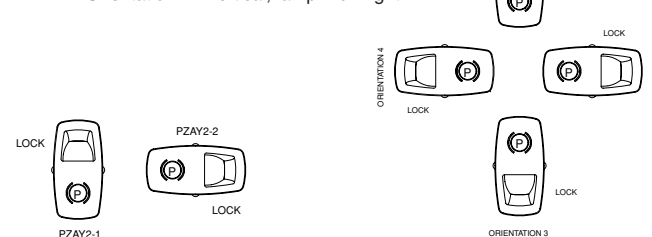
| Locking Position |      | Up & Down | Center <sup>d</sup> | Lock Color     |
|------------------|------|-----------|---------------------|----------------|
| Up               | Down |           |                     |                |
| A                | H    | R         | 1                   | Match Actuator |
| B                | J    | S         | 2                   | black          |
| C                | K    | T         | 3                   | white          |
| D                | L    | V         | 4                   | red            |
| E                | M    | W         | 5                   | safety orange  |

## 12 LASER ETCH, LENS OR BODY LEGEND

00 No legend this location / no actuator  
For legend options & codes, see page 69 of this catalog.

## 13 LEGEND ORIENTATION<sup>3</sup>

- 0 No legend (used with codes 11-18 in selection 12)
- 1 Orientation 1 - vertical, lamp 2 on bottom
- 2 Orientation 2 - horizontal, lamp 2 on left
- 3 Orientation 3 - vertical, lamp 2 on top
- 4 Orientation 4 - vertical, lamp 2 on right



## NOTES:

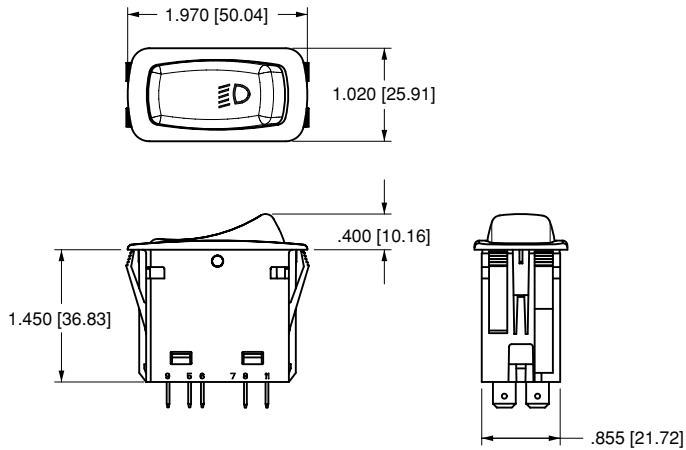
Consult factory to verify horsepower rating for your particular circuit choice.

- Custom colors are available. Consult factory.
- Additional lamp circuits available. Consult factory.
- Available only with 3 position circuits.
- Termination 1 not available with rating 4.
- Termination 3 only available with ratings 1, B and E.
- Circuits 30, 31, 58 and 69, when used in combination with termination codes 1 is not available with rating codes 4, C, D, G or H.
- Up, Up & Down, and Center lock options will be available 1Q2004.

## Dimensional Specifications

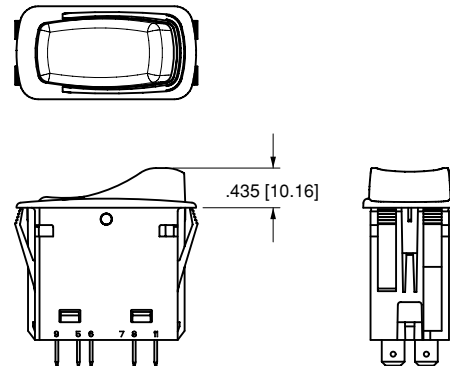
### L SERIES

SHOWN WITH LASER ETCHED  
ACTUATOR



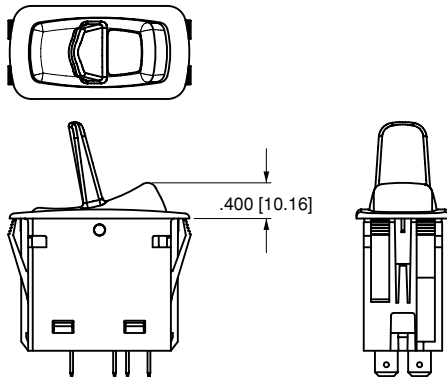
### L SERIES

SHOWN WITH ROCKER GUARD



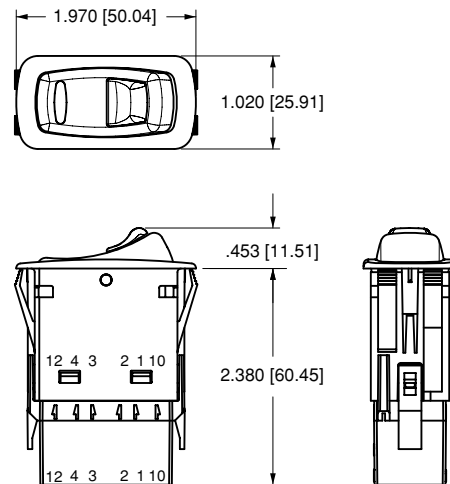
### L SERIES

SHOWN WITH LARGE LENS  
AND PADDLE ACTUATOR



### L SERIES

SHOWN WITH BAR LENS, LOCK  
AND CONNECTOR

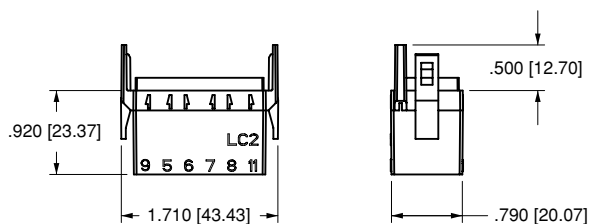


## Connector

### L SERIES CONNECTOR

LC1-01 BLACK .250 TAB CONNECTOR

LC1-02 BLACK .187 TAB CONNECTOR

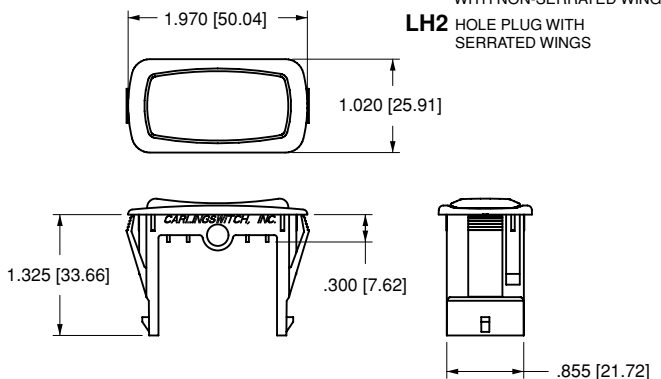


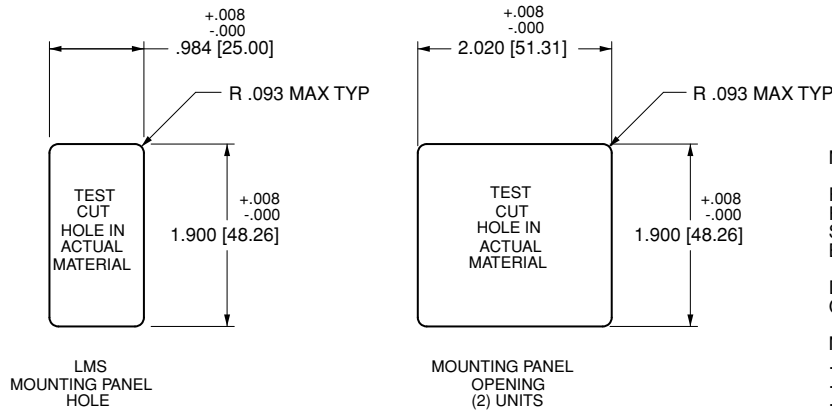
## Hole Plug

### L SERIES HOLE PLUG

LH1 REMOVABLE HOLE PLUG  
WITH NON-SERRATED WINGS

LH2 HOLE PLUG WITH  
SERRATED WINGS



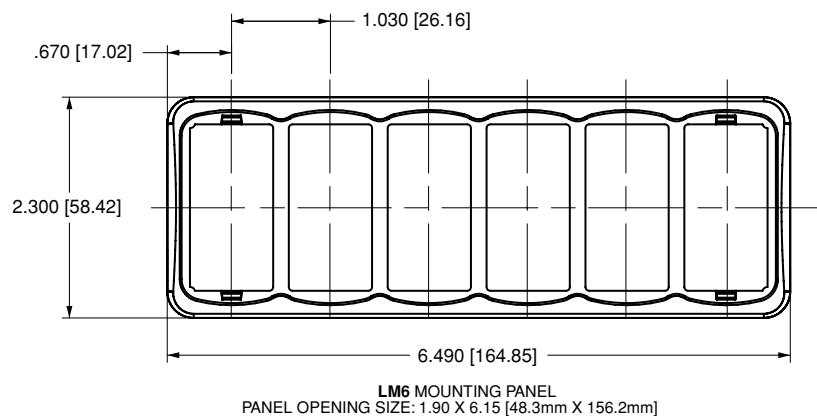
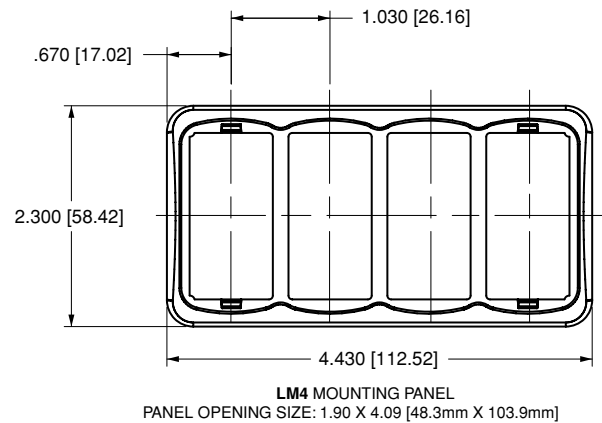
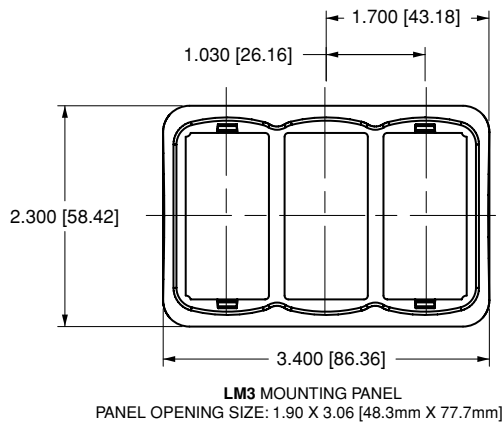
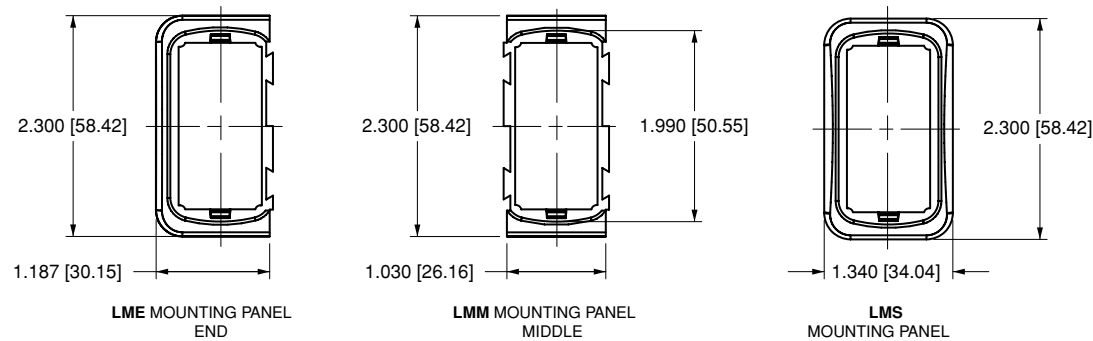
**Mounting Panel**
**Dimensional Specifications: in. [mm]**

**MOUNTING PANEL**

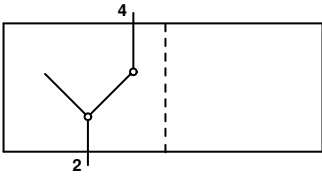
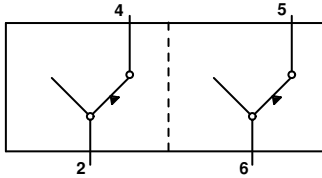
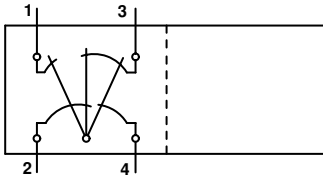
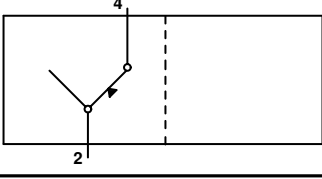
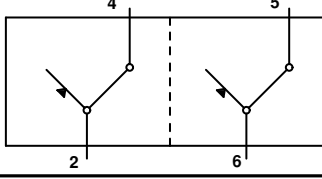
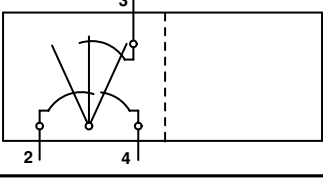
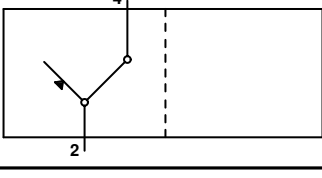
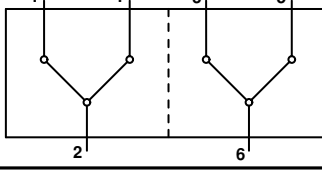
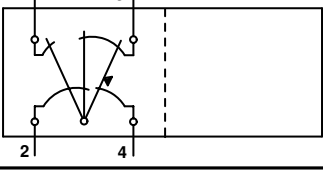
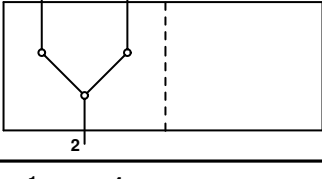
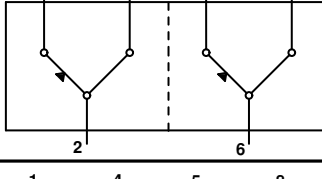
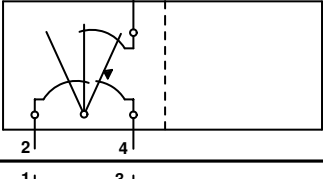
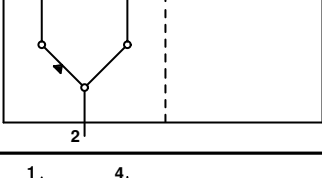
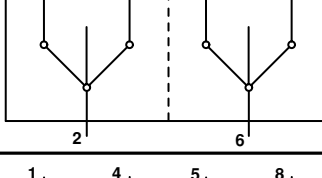
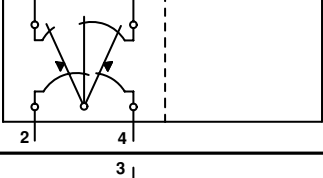
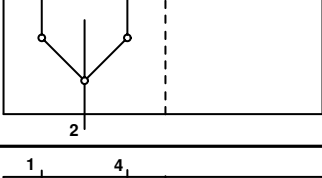
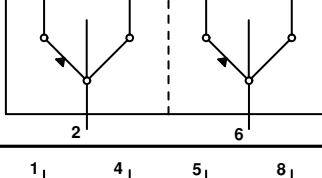
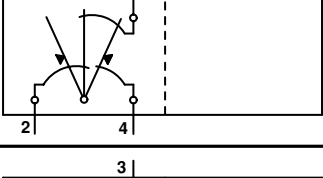
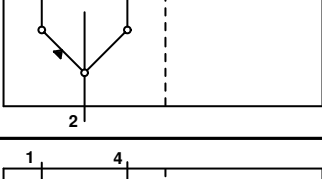
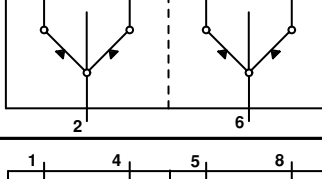
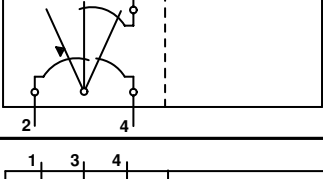
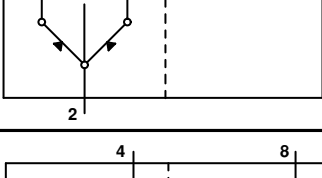
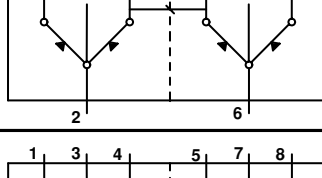
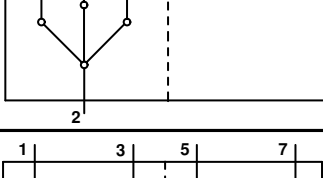
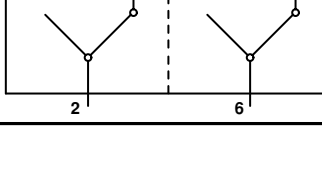
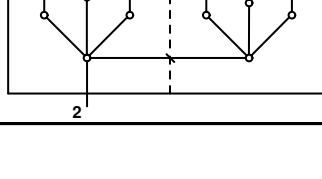
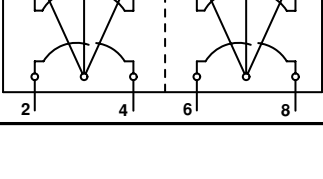
FOR ADDITIONAL UNITS, ADD 1.03 [26.2] PER UNIT. FOR MORE THAN 2 L-SERIES SWITCHES, ADD MIDDLE SECTION. AVAILABLE IN PANEL THICKNESSES LISTED BELOW. CONSULT FACTORY

DIMENSIONS: LME 2.02 [51.3mm] PLUS NUMBER OF CENTER BEZELS (LMM) X 1.034 [26.26mm]

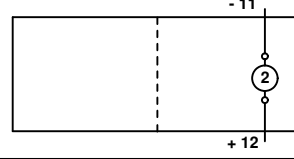
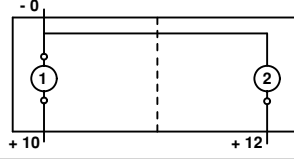
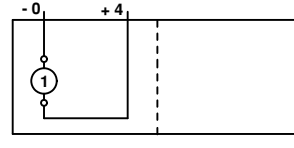
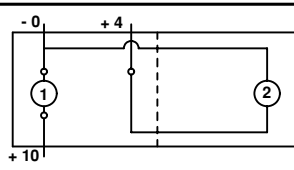
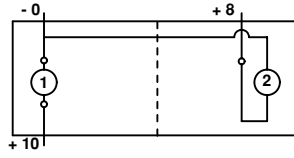
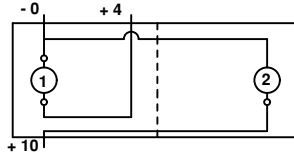
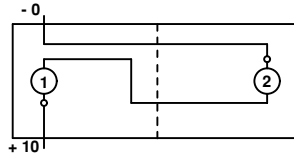
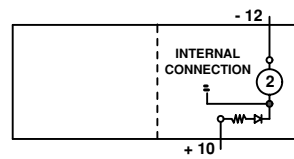
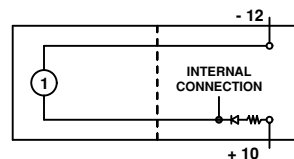
**MOUNTING PANEL THICKNESS**

.062 [1.57]  
.093 [2.36]  
.125 [3.17]  
.156 [3.96]



| CIRCUIT CODE | SCHEMATIC                                                                           | CIRCUIT CODE | SCHEMATIC                                                                            | CIRCUIT CODE | SCHEMATIC                                                                             |
|--------------|-------------------------------------------------------------------------------------|--------------|--------------------------------------------------------------------------------------|--------------|---------------------------------------------------------------------------------------|
| 11           |    | 22           |    | 51           |    |
| 12           |    | 23           |    | 52           |    |
| 13           |    | 24           |    | 53           |    |
| 14           |    | 25           |    | 54           |    |
| 15           |  | 26           |  | 55           |  |
| 16           |  | 27           |  | 56           |  |
| 17           |  | 28           |  | 57           |  |
| 18           |  | 30           |  | 58           |  |
| 21           |  | 31           |  | 61           |  |

| CIRCUIT CODE | SCHEMATIC | CIRCUIT CODE | SCHEMATIC |
|--------------|-----------|--------------|-----------|
| <b>62</b>    |           | <b>71</b>    |           |
| <b>63</b>    |           | <b>72</b>    |           |
| <b>64</b>    |           | <b>73</b>    |           |
| <b>65</b>    |           | <b>80</b>    |           |
| <b>66</b>    |           | <b>A2</b>    |           |
| <b>67</b>    |           | <b>A3</b>    |           |
| <b>68</b>    |           |              |           |
| <b>69</b>    |           |              |           |
| <b>70</b>    |           |              |           |

| ILLUM. CODE | SCHEMATIC                                                                           |
|-------------|-------------------------------------------------------------------------------------|
| <b>A</b>    |    |
| <b>B</b>    |    |
| <b>C</b>    |    |
| <b>D</b>    |    |
| <b>E</b>    |   |
| <b>F</b>    |  |
| <b>G</b>    |  |
| <b>H</b>    |  |
| <b>1</b>    |  |
| <b>2</b>    |  |

| LEGEND                                                                              |                       |
|-------------------------------------------------------------------------------------|-----------------------|
| SYMBOL                                                                              | DEFINITION            |
|    | TERMINAL LOCATION     |
|    | LAMP LOCATION         |
|    | LAMP LOCATION         |
|  | MAINTAINED CIRCUIT    |
|  | MOMENTARY CIRCUIT     |
|  | 2 POSITION CONNECTION |
|  | 3 POSITION CONNECTION |

| LEGEND                                                                              |                                              | LEGEND CODE |                       |          |
|-------------------------------------------------------------------------------------|----------------------------------------------|-------------|-----------------------|----------|
| SYMBOL                                                                              | NAME<br>(SYMBOL MEANING)                     | BODY        | LENS                  |          |
|                                                                                     |                                              |             | NEGATIVE <sup>1</sup> | POSITIVE |
|    | RUNNING LIGHTS<br>(UNDER POWER)              | AA          | NA                    | MA       |
|    | LIGHT                                        | AB          | NB                    | MB       |
|    | MASTER<br>LIGHT<br>SWITCH                    | AC          | NC                    | MC       |
|    | HORN                                         | AD          | ND                    | MD       |
|    | PROPULSION SYSTEM TRIM<br>TRIMMING OPERATION | AE          | NE                    | ME       |
|    | VENTILATION FAN<br>OR BLOWER                 | AF          | NF                    | MF       |
|    | WINDSHIELD<br>WASHER                         | AG          | NG                    | MG       |
|   | WINDSHIELD WIPER                             | AH          | NH                    | MH       |
|  | BILGE PUMP                                   | AJ          | NJ                    | MJ       |
|  | BILGE BLOWER                                 | AK          | NK                    | MK       |
|  | POTABLE<br>WATER PRESSURE                    | AL          | NL                    | ML       |
|  | ENGINE<br>START                              | AM          | ED                    | MM       |
|  | ENGINE<br>STOP                               | AN          | EE                    | MN       |
|  | DRIVE TILT<br>TILT OPERATION                 | 30          |                       | 31       |
|  | EMERGENCY<br>START                           | 32          |                       | 33       |
|  | UP/DOWN LIFT                                 | 34          |                       |          |
|  | TRIM TAB TRIMMING<br>OPERATION               | 35          |                       | 36       |

| LEGEND                                                                              |                                     | LEGEND CODE |                       |          |
|-------------------------------------------------------------------------------------|-------------------------------------|-------------|-----------------------|----------|
| SYMBOL                                                                              | NAME<br>(SYMBOL MEANING)            | BODY        | LENS                  |          |
|                                                                                     |                                     |             | NEGATIVE <sup>1</sup> | POSITIVE |
|    | ANCHOR LIGHT                        | 37          |                       | 38       |
|    | ANCHOR                              | 39          |                       | 40       |
|    | WATER FLUSHING TAP<br>FOR OUTBOARDS | 41          |                       | 42       |
|    | HIGH BEAM                           | 43          | 44                    | 45       |
|    | LOW / DIPPED BEAM                   | 46          | 47                    | 48       |
|    | SIDE MARKER LIGHT                   | DG          | 49                    | DF       |
|    | INTERIOR LIGHT                      | 50          | 51                    | 52       |
|   | WORK LIGHT                          | 53          | 54                    | 55       |
|  | WORK LAMP                           | 56          | 57                    | 58       |
|  | LOADING FLOOR LAMP                  | CW          | 59                    | CY       |
|  | ON<br>-WIPER-<br>INT DELAY          | 60          |                       |          |
|  | ROTARY BEACON                       | 61          | 62                    | 63       |
|  | LAMP TEST                           | DK          | 64                    | DL       |
|  | WINDSHIELD<br>WIPER/WASHER          | 65          | 66                    | 67       |
|  | HAZARD WARNING                      | 68          | 69                    | 70       |
|  | WARM AIR BLOWER                     | 71          | 72                    | 73       |
|  | HORN REAR                           | AX          | 74                    | Y4       |

NOTE

<sup>1</sup> Negative lens not available on L or LD-Series.  
Additional Standard Markings available. Consult factory.