V-Series
Switch

Product Highlights:
• Maximum sealing protection with dual seals around lamps and rocker stem certified to IP66 & IP68. Optional panel seals for additional protection.
• Silver plated butt contact mechanism provides 50 to 100 thousand electrical cycles and a variety of different electrical ratings.
• Roller pin mechanism does not require lubricants and allows the switch to withstand extreme temperatures.
• The switch base accommodates up to 10 terminals and a large variety of switch and lighting circuits.
• The multi-step mounting wings provide a secure fit for panel thicknesses of 0.032” thru 0.250” in an industry standard 0.830” x 1.450” mounting hole.
• The switch connector allows the user to preload FQC terminals for easy assembly to switch base.
• Numerous choices of removable rockers allow for style change without having to retest or re-qualify the switch base.
• Illumination options are endless with bar, oval, and square lenses available in choices of incandescent, neon and a wide variety of LEDs including superbrite, megabrite, flashing and bicolor lighting.
• Available with a variety of complimentary mounting panels, hole plugs, illuminated indicators and boots to accommodate most any design need.

Carling Technologies’ fully sealed V-Series Contura switches are well known for their cutting edge design, high quality, maximum performance and unmatched reliability. These switches are a staple in the marine and transportation industries and have passed a range of environmental, corrosion, temperature, vibration, shock and sealing tests including MIL Std 202F, MIL Std 810C, UL 1500, ISO 8846, IEC 60529 and BS 5490 among others, making them one of the most rugged and reliable switches ever manufactured.
V-Series Switch

**MAXIMUM DESIGN OPTIONS WITH MINIMUM INVENTORIES**
Panel redesign is a snap, requiring no tooling change, with our removable interchangeable actuators. A unique balance between aesthetics and functionality.

**SEALS OUT WATER, DUST AND DEBRIS**
Dual seal protection locks out elements. Certified to IP66/IP68 for front panel components.

**CLEAN CONNECTIONS**
Offered in both eight and ten terminal base options. AMP & Packard compatible connectors available.

**SILVER PLATED BUTT**
Contact mechanism provides 50 to 100 thousand electrical cycles and a variety of different electrical ratings.

**WITHSTANDS EXTREME TEMPERATURES**
Roller pin mechanism eliminates the need for lubricants. Enables switch to withstand -40°C to +85°C temperatures.

**MULTIPLE LIGHTING OPTIONS**
Incandescent lamps & LED lighting. Our LED illumination is offered in a wide array of light intensities, colors, as well as dual level, tri-color, and flashing options.

**OPTIONAL PANEL SEAL**
Prevents water/dust egress behind panel.
V-Series Contura Switches

V-Series switches offer countless unique options including choices for ratings, colors, illuminations and symbols. These switches feature removable actuators in a choice of actuator styles and colors, and are available in single or double pole configurations. The V-Series switches can be illuminated with either square, oval and/or bar shaped lenses.

Contura II

The Contura II actuators are constructed of thermoplastic polycarbonate, & are offered with either a hard nylon overlay, or a “soft-touch” elastomer overlay. The Contura II incorporates an aesthetic design of two rows of raised “bumps” on the top & bottom of the rocker.

Contura III

The Contura III actuators are constructed of thermoplastic polycarbonate, & are offered with either a hard nylon or a “soft-touch” elastomer overlay. The Contura III incorporates three rows of bars on the top & bottom of the rocker.

Contura IV

The Contura IV’s “Shape to create a Shape” actuator supports the designer, by working with the curves, contours & advanced styling of the latest panel designs, flowing with these advanced curves & radii. This actuator style fits on the Contura flush bracket/bezel.

Contura V

The symmetrically curved Contura V actuator provides the perfect complement to the Contura IV’s “Shape to create a Shape” design concept. With its flush style mounting bracket, Contura V can be mounted in between two Contura IV’s, by itself, or in groups.

Contura VI (WAVE)

The Contura VI WAVE sealed rocker switches, when used in a row, create an uniquely appealing “wave” design on your panel. A variety of colors and finishes are available for both rocker and wave insert. Contura VI features bar and oval lenses.

Contura X

The raised bracket/bezel on the Contura X helps prevent inadvertent actuation of the rocker, as well as preventing debris from being trapped under the actuator. This curved rocker style is available with a variety of lenses and legends.

Contura XI

The raised bracket/bezel on the Contura XI helps prevent inadvertent actuation of the rocker, as well as preventing debris from being trapped under the actuator. This convex style rocker is available with a wide variety of lenses and legends.

Contura XII

The Contura XII version features a paddle style actuator with the raised bracket/bezel of Contura X and XI. The contoured handle design provides intuitive recognition and ease of operation and is available with all Contura X and XI lens and legend offerings.

Illuminated Indicator

The Illuminated Indicator is offered with removable/replaceable lamps and Contura II, III, V, or X styling. Illumination alerts the operator of essential system functions or malfunctions like: oil pressure, high temperature, fluid levels, parking brake, or general system malfunction.

V–Series Accessories/Options

Carling Technologies also offers many V-Series accessories including connectors, mounting panels, hole plugs, panel seals, and actuator removal tools.
## Electrical

<table>
<thead>
<tr>
<th>Contact Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>4VA @ 28VDC (MAX) resistive</td>
</tr>
<tr>
<td>15 amps, 125VAC</td>
</tr>
<tr>
<td>10 amps, 250VAC</td>
</tr>
<tr>
<td>1/2 HP 125-250VAC</td>
</tr>
<tr>
<td>20 amps, 4-14VDC</td>
</tr>
<tr>
<td>15 amps, 15-28VDC</td>
</tr>
<tr>
<td>10A, 14VT</td>
</tr>
<tr>
<td>6A, 125VAC L</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Dielectric Strength</th>
</tr>
</thead>
<tbody>
<tr>
<td>1500 Volts RMS</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Insulation Resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>50 Megohms</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Initial Contact Resistance</th>
</tr>
</thead>
<tbody>
<tr>
<td>10 millionohms max. @ 4VDC</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Life</th>
</tr>
</thead>
<tbody>
<tr>
<td>50,000-100,000 cycles circuit dependent</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contacts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silver alloy, silver tin-oxide, fine silver</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brass or copper/silver plate 1/4&quot; (6.3mm) Quick Connect terminations standard. Solder lug, Wire Lead</td>
</tr>
</tbody>
</table>

## Mechanical

<table>
<thead>
<tr>
<th>Endurance</th>
</tr>
</thead>
<tbody>
<tr>
<td>150,000 cycles minimum circuit dependent</td>
</tr>
</tbody>
</table>

## Physical

### Lighted
- Incandescent: rated 10,000 hours
- Neon: rated 25,000 hours
- LED: rated 100,000 hours 1/2 life (LED is internally ballasted for voltages to 24VDC)

### Seals
- Internal
- Optional external gasket panel seal

### Base
- Polyester blend rated to 125°C with a UL flammability rating of 94V0.

### Contura II, III, IV, V, VI Actuator
- Hard Surface: Basic actuator structure molded of thermoplastic polycarbonate with a hard Nylon 66 thermoplastic surface overlay.
- Soft Surface: Basic actuator structure molded of thermoplastic polycarbonate with an elastomer overlay.

### Contura X, XI, XII Actuator, VP
- Nylon 66 Reinforced rated to 105°C

### Lens
- Polycarbonate rated at 100°C

## Actuator Travel (Angular Displacement)

- 2 position: 18°
- 3 positions: 9° from center

## Mounting Specifications

<table>
<thead>
<tr>
<th>Panel Thickness Range</th>
<th>Acceptable Panel Thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>.030 to .250 (.76mm to 6.35mm)</td>
</tr>
<tr>
<td>1</td>
<td>.030 to .109 &amp; .147 to .157 (.76 to 2.77mm &amp; 3.73 to 3.98mm)</td>
</tr>
</tbody>
</table>

Recommended: No gasket with panel thickness of .032, .062, .093, .125, .187 or .250

## Agency Certifications

### Environmental

- **Operating Temperature**
  - 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 24-50 Hz 0.40 DA 50-2000 ±10 G's peak. Results Horizontal Axis 3-5 G's max. Random 24 Hz 0.06 PSD-Gsq/Hz 60 Hz 0.50 100 Hz 0.50 .200 Hz 0.025 2000 Hz 0.025
  - Shock: No loss of circuit during test; <10µ seconds chatter. 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. Sealed version only.
  - Dust: Per Mil-Std 202F, Method 107F, Test Cond. A, -55°C to 85°C. Test criteria: pre and post test contact resistance.

## Ignition Protection

All Contura switches with sealed construction meet the requirements of UL1500/ISO8846 for ignition protection, in addition to conformance with EC directive 94/25/EC for marine products.
Dimensional Specifications: in. [mm]

**CONTURA II STYLE**
- Shown with square lens
- Dimensions:
  - 8 terminal base w/barriers
  - 1.960 [49.99]
  - 1.579 [40.29]
  - 1.550 [39.37]

**CONTURA III STYLE**
- 8 terminal base w/o barriers
- Dimensions:
  - 1.960 [49.99]
  - 0.80 [2.03]

**CONTURA IV STYLE**
- Shown with bar lens
- Dimensions:
  - 10 terminal base w/barriers
  - 2,000 [50.80]
  - 1.126 [28.67]

8 terminal base w/barriers
- Dimensions:
  - 0.940 [23.88]
  - 0.505 [12.83]
  - 0.250 [6.35]
  - 0.031 [0.78]
  - 0.20 [5.08]

10 terminal base w/barriers
- Dimensions:
  - 1.050 [26.70]
  - 0.250 [6.35]
  - 0.031 [0.78]
  - 0.20 [5.08]

Switch shown with VCH connector 8 terminal
- Dimensions:
  - 2.229 [56.69]

Bottom view terminal arrangement 8 terminal base
- Dimensions:
  - 8 terminal base 8 terminal base
  - 1.470 [37.37]

Bottom view terminal arrangement 10 terminal base
- Dimensions:
  - 10 terminal base 10 terminal base
  - 1.470 [37.37]

Switch shown with VC1 connector 10 terminal
- Dimensions:
  - 2.229 [56.69]
# Dimensional Specifications: in. [mm]

## Contura V
- **Shown with Bar Lens**

![Contura V Diagram](contura_v_diagram.png)

### 8 Terminal Base
- W/Barriers

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>0.25 (6.35)</td>
</tr>
<tr>
<td>Y</td>
<td>0.03 (0.78)</td>
</tr>
<tr>
<td>Width</td>
<td>1.920 (48.56)</td>
</tr>
<tr>
<td>Height</td>
<td>1.550 (39.37)</td>
</tr>
<tr>
<td>Length</td>
<td>1.079 (27.40)</td>
</tr>
</tbody>
</table>

## Contura V
- **Shown with Low Profile Lock**

![Contura V Diagram](contura_v_diagram.png)

### 8 Terminal Base
- W/O Barriers

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>0.25 (6.35)</td>
</tr>
<tr>
<td>Y</td>
<td>0.03 (0.78)</td>
</tr>
<tr>
<td>Width</td>
<td>1.920 (48.56)</td>
</tr>
<tr>
<td>Height</td>
<td>1.479 (37.57)</td>
</tr>
<tr>
<td>Length</td>
<td>1.079 (27.40)</td>
</tr>
</tbody>
</table>

## Contura VI
- **Shown with Oval Lens**

![Contura VI Diagram](contura_vi_diagram.png)

### 10 Terminal Base
- W/Barrier and Lamp Terminal

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>0.25 (6.35)</td>
</tr>
<tr>
<td>Y</td>
<td>0.03 (0.78)</td>
</tr>
<tr>
<td>Width</td>
<td>1.950 (49.53)</td>
</tr>
<tr>
<td>Height</td>
<td>1.126</td>
</tr>
<tr>
<td>Length</td>
<td>1.020 (25.91)</td>
</tr>
</tbody>
</table>

## V-Series Contura V & VI
- **Dimensional Specifications:**

<table>
<thead>
<tr>
<th>Measurement</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>0.25 (6.35)</td>
</tr>
<tr>
<td>Y</td>
<td>0.03 (0.78)</td>
</tr>
<tr>
<td>Width</td>
<td>2.029 (51.53)</td>
</tr>
<tr>
<td>Height</td>
<td>1.922 (48.56)</td>
</tr>
<tr>
<td>Length</td>
<td>1.020 (25.91)</td>
</tr>
</tbody>
</table>

## Switch Shown with VCH Connector
- 8 Terminal

![Switch Diagram](switch_diagram.png)

## Bottom View
- Terminal Arrangement
- 8 Terminal Base

- 10 Terminal Base

## Bottom View
- Terminal Arrangement
- 10 Terminal Base

![Bottom View Diagram](bottom_view_diagram.png)
Dimensional Specifications: in. [mm]

**CONTURA X STYLE**
Shown with Raised Bracket

**CONTURA XI STYLE**
Shown with Raised Bracket and Two Square Lenses

**CONTURA XII STYLE**
Shown with Paddle Actuator

**V-Series Contura X, XI & XII**
## Symbol Legend

<table>
<thead>
<tr>
<th>Sym.</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>○</td>
<td>Designates terminals and contacts</td>
</tr>
<tr>
<td>○</td>
<td>Designates lamp location</td>
</tr>
<tr>
<td>○</td>
<td>Designates maintained circuits</td>
</tr>
<tr>
<td>○</td>
<td>Designates other position</td>
</tr>
<tr>
<td>○</td>
<td>Designates momentary circuits</td>
</tr>
<tr>
<td>○</td>
<td>Designates two position connection</td>
</tr>
<tr>
<td>□</td>
<td>Designates external jumper provided by customer</td>
</tr>
</tbody>
</table>

### Circuit Diagrams

- **A**: Designates terminals and contacts
- **B**: Designates lamp location
- **C**: Designates maintained circuits
- **D**: Designates other position
- **E**: Designates momentary circuits
- **F**: Designates two position connection
- **G**: Designates external jumper provided by customer

**V-Series Contura V & VI**

60 Johnson Avenue • Plainville, CT 06062–1177 • Phone: (860) 793–9281 • Fax: (860) 793–9231
Email: sales@carlingtech.com • www.carlingtech.com
NOTE:
J circuits are available for all non-locking V-Series styles. Consult factory for p/n details.
1 SERIES

V

2 CIRCUIT

Terminal Connections as viewed from bottom of switch: ( ) - momentary
8 terminal 10 terminal
8 - 7 8 - 7
8 - 7 8 - 7
2 - 5 2 - 5
2 - 5 2 - 5
3 - 6 3 - 6
3 - 6 3 - 6
Position: 3 - 6 6 1 - 2 4 6 1 - 2 4 6
3 - 6 6 1 - 2 4 6 1 - 2 4 6
8 terminal 10 terminal
Terminal Connections as viewed from bottom of switch: ( ) - momentary
8 terminal 10 terminal
8 - 7 8 - 7
8 - 7 8 - 7
2 - 5 2 - 5
2 - 5 2 - 5
3 - 6 3 - 6
3 - 6 3 - 6
Position: 3 - 6 6 1 - 2 4 6 1 - 2 4 6
3 - 6 6 1 - 2 4 6 1 - 2 4 6
8 terminal 10 terminal
8 terminal 10 terminal
2 CIRCUIT

6,7 LAMP (SAME CODING FOR BOTH SELECTIONS)
Selection 6: above terminals 1 & 4; Selection 7: above terminals 3 & 6
No lamp 0
Neon 1 125VAC 2 250VAC
Incandescent 4 3V 5 6V 6 12V 7 18V 8 24V
LED* Red Amber Green Red
2VDC A L F 7 R
6VDC B M G F 5 R
12VDC C N H F 5 R
24VDC D P J V
*Consult factory for “daylight bright” LED options. Typical current draw for LED is 20mA.

8 FLUSH BRACKET COLOR’, PANEL SEAL
No Seal B W G
One Seal C Y H

9 ACTUATOR

No Actuator 0
Contura II 9

10 LENS

0 - No Actuator 0
Z - No Lens 0
Clear White Amber Green Red Blue
1 6 B G M T 5
7 C H N P V 11
3 8 D J P V 11
Square lens options available only for Contura II:

11 ACTUATOR COLOR’ AND TEXTURE

0 - No Actuator 0
Z - No Lens 0
Black Gray Red White
Soft Surface B G R W
Hard Surface C H S Y

12 ACTUATOR LENS OR BODY LEGENDS’

11 ON 12 OFF 13 I 14 O
15 OO 16 OO 17 O1 18 IO
F N F N
For additional legend options & codes, see pages 54-65 of the Carling Transportation catalog

13 LEGEND ORIENTATION

0 No legend 0
Orientation 1 1
Orientation 2 2
Orientation 3 3
Orientation 4 4

14 ACTUATOR LENS LEGEND

00 No legend this location / no actuator
(used with codes 11-18 in selection 12) Selection 14 required when switch requires two legends. If the two legends consist of one lens and one body legend, lens legend must be specified in selection 12, body legend specified in selection 14.
For legend options & codes, see pages 54-65 of the Carling Transportation catalog

Notes:
1 Consult factory to verify horsepower rating for your particular circuit choice.
2 Custom colors are available. Consult factory.
3 Additional ratings available. See page 19.
4 Consult factory for details.
### V-Series Contura II & III Locking Sealed Rocker Switches

#### 1 SERIES

<table>
<thead>
<tr>
<th>V1</th>
<th>1</th>
<th>D</th>
<th>A</th>
<th>S</th>
<th>W</th>
<th>0</th>
<th>B</th>
<th>A</th>
<th>Z</th>
<th>E</th>
<th>00</th>
<th>0</th>
</tr>
</thead>
</table>

#### 2 CIRCUIT

<table>
<thead>
<tr>
<th>Terminal Connections as viewed from bottom of switch</th>
<th>( ) - momentary</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 terminal</td>
<td>10 terminal</td>
</tr>
<tr>
<td>8 - 7 B - 7</td>
<td>SP - single pole - uses terminals 1, 2 &amp; 3.</td>
</tr>
<tr>
<td>2 - 5 2 - 5</td>
<td>DP - double pole uses terminals 1, 2, 3, 4 &amp; 5.</td>
</tr>
<tr>
<td>3 - 6 3 - 6</td>
<td></td>
</tr>
</tbody>
</table>

Position: 10 - 9

<table>
<thead>
<tr>
<th>Position</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>SP</td>
<td>A</td>
<td>B</td>
<td>C</td>
<td>D</td>
<td>E</td>
<td>F</td>
<td>G</td>
<td>H</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>DP</td>
<td>1 &amp; 2</td>
<td>4 &amp; 5</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Connected Terminals</td>
<td>1 &amp; 2</td>
<td>4 &amp; 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
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</table>

#### 3 RATING

<table>
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<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.4VA @ 28VDC Resistive</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>15A 24V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>20A 18V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>20A 12V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>10A 14V, 10A 14VT (circuit 1, 4 , A &amp; D only)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>10A 14V, 6A 14VT (circuit 6 only)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>.4VA/20A 12V</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>.4VA/15A 24V</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

#### 4 TERMINATION/BASE STYLE

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
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<tbody>
<tr>
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<td>3</td>
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<td>3</td>
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<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9</td>
<td>10</td>
<td>11</td>
</tr>
</tbody>
</table>

#### 5 ILLUMINATION & SWITCH SEALING

Lamp #1 above terminals 1 & 4 end of switch; Lamp #2 above terminals 3 & 6 end of switch. Positive (+) and negative (-) symbols apply to LED lamps only.

<table>
<thead>
<tr>
<th>Sealed</th>
<th>Unsoldered</th>
<th>Lamps when illuminated</th>
<th>Terminals</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>9</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
</tr>
</tbody>
</table>

#### 6 LOCK

Lock above terminals 1 & 4 end of switch. W lock

Notes:
- Consult factory to verify horsepower rating for your particular circuit choice.
- Custom colors are available. Consult factory.
- White imprinting is standard on black actuators; Black imprinting is standard on white, red and gray actuators; Custom colors are available, consult factory.
- Only available with 3 position circuits. Center OFF and special circuits only available with center position lock function.
- Additional ratings available. See page 19.

### 7 LAMP

Lamp above terminals 3 & 6 end of switch

- No lamp 0
- Neon 1 125VAC 2 250VAC
- Incandescent 3-4 3V 5 6V 6 12V 7 18V 8 24V
- LED* Red Amber Green Red
  - 2VDC A L F R
  - 6VDC B M G
  - 12VDC C N H T
  - 24VDC D P J V
- *Consult factory for “daylight bright” LED options. Typical current draw for LED is 20mA.

### 8 FLUSH BRACKET COLOR, PANEL SEAL

- Black B
- White W
- Gray G
- Red R

### 9 HARD SURFACE ACTUATOR

- Contura II A G H
- Contura III C D E F
- Actuator orientation above terminals:
  - Orientation 1: 3 & 6, 1 & 2
  - Orientation 2: 3 & 6, 1 & 2
  - Orientation 3: 3 & 6, 1 & 2
  - Orientation 4: 3 & 6, 1 & 2

### 10 LENS

- Z - No Lens
- Clear White Amber Green Red Blue
- 3 8 D J P V
- Lens color for LEDs must be clear, white, or match color of LED. Green or blue lenses are not recommended with Neon lamps.

### 11 ACTUATOR LOCK FUNCTION AND COLOR

- Lock Color: Up Down Up Down Center
- Match Actuator: A H R 1
- Black B J S 2
- White C K T 3
- Red D L V 4
- Safety Orange E M W 5

### 12 ACTUATOR LENS OR BODY LEGEND

- 00 - No Legend
- 21 22 23 24
- OFF ON O I
- 25 O 26 O 27 O 28 I
- F N

For additional legend options & codes, see pages 54-65 of the Carling Transportation catalog.

### 13 LEGEND ORIENTATION

- 0 No legend (used with codes 21-28 in selection 12)
- 1 Orientation 1
- 2 Orientation 2
- 3 Orientation 3
- 4 Orientation 4

For additional orientation options & codes, see pages 54-65 of the Carling Transportation catalog.
### 2 CIRCUIT

#### Terminal Connections as viewed from bottom of switch:

<table>
<thead>
<tr>
<th>Terminals</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 - 4, 3 - 1</td>
<td>Single pole uses terminals 1, 2 &amp; 3.</td>
</tr>
<tr>
<td>2 - 4, 3 - 1</td>
<td>Double pole uses terminals 1, 2, 3, 4 &amp; 5.</td>
</tr>
</tbody>
</table>

#### 4 TERMINATION/BASE STYLE

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 - 2</td>
<td>100-100 &amp; with barriers</td>
</tr>
<tr>
<td>1 - 2</td>
<td>100-100 with barriers</td>
</tr>
<tr>
<td>1 - 2</td>
<td>100-200 with barriers</td>
</tr>
<tr>
<td>1 - 2</td>
<td>200-100 with barriers</td>
</tr>
</tbody>
</table>

#### 5 ILLUMINATION & SWITCH SEALING

<table>
<thead>
<tr>
<th>Lamp #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1, 2, 3</td>
<td>Use with single pole switches only.</td>
</tr>
<tr>
<td>4, 5, 6</td>
<td>Use with double pole switches only.</td>
</tr>
</tbody>
</table>

#### 6.7 LAMP (same coding for both selections)

<table>
<thead>
<tr>
<th>Rating</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>20A 12V</td>
<td>Power rating for each circuit.</td>
</tr>
<tr>
<td>20A 18V</td>
<td>Power rating for each circuit.</td>
</tr>
</tbody>
</table>

### 8 FLUSH BRACKET COLOR, PANEL SEAL

#### 10 LENS

<table>
<thead>
<tr>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clear</td>
<td>200-100 &amp; with barriers</td>
</tr>
<tr>
<td>White</td>
<td>100-100 with barriers</td>
</tr>
<tr>
<td>Amber</td>
<td>100-200 with barriers</td>
</tr>
<tr>
<td>Red</td>
<td>200-100 with barriers</td>
</tr>
</tbody>
</table>

### 11 ACTUATOR COLOR

<table>
<thead>
<tr>
<th>Color</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>200-100 &amp; with barriers</td>
</tr>
<tr>
<td>Gray</td>
<td>100-100 with barriers</td>
</tr>
<tr>
<td>Red</td>
<td>100-200 with barriers</td>
</tr>
<tr>
<td>White</td>
<td>200-100 with barriers</td>
</tr>
</tbody>
</table>

### 12 ACTUATOR LENS OR BODY LEGENDS

<table>
<thead>
<tr>
<th>Legend</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Orientation 1</td>
</tr>
<tr>
<td>2</td>
<td>Orientation 2</td>
</tr>
<tr>
<td>3</td>
<td>Orientation 3</td>
</tr>
<tr>
<td>4</td>
<td>Orientation 4</td>
</tr>
</tbody>
</table>

### 13 LEGEND ORIENTATION

<table>
<thead>
<tr>
<th>Legend</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No legend</td>
</tr>
</tbody>
</table>

### 14 ACTUATOR LENS LEGEND

<table>
<thead>
<tr>
<th>Legend</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No legend</td>
</tr>
</tbody>
</table>

#### Notes:

- Custom colors are available. Consult factory.
- White imprinting is standard on black actuators; Black imprinting is standard on white, red and gray actuators; Custom colors are available, consult factory.
- Gloss brown is on left side of E actuator and right side of F actuator.
- Additional ratings available. See page 19.
- Laser etched rocker only available with lens code Z & actuator colors black, nickel or pewter.
- Pewter and nickel colors only available with laser etched actuator.
1 SERIES

V

2 CIRCUIT

Terminal Connections as viewed from bottom of switch:
8 terminal 10 terminal SP - single pole - uses terminals 1, 2 & 3.
1 - 7 8 - 7 DP - double pole - uses terminals 1, 2, 3, 4 & 5 & 6.
1 - 4 1 - 4 Terminals 7, 8, 9 & 10 for lamp circuit only.
2 - 5 2 - 5
3 - 6 3 - 6
10 - 9 10 - 9

Position:

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>ON</td>
<td>NONE</td>
<td>OFF</td>
</tr>
<tr>
<td>B</td>
<td>ON</td>
<td>NONE</td>
<td>OFF</td>
</tr>
<tr>
<td>C</td>
<td>ON</td>
<td>NONE</td>
<td>OFF</td>
</tr>
<tr>
<td>D</td>
<td>ON</td>
<td>NONE</td>
<td>ON</td>
</tr>
<tr>
<td>E</td>
<td>ON</td>
<td>OFF</td>
<td>OFF</td>
</tr>
<tr>
<td>F</td>
<td>ON</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>G</td>
<td>OFF</td>
<td>OFF</td>
<td>ON</td>
</tr>
<tr>
<td>H</td>
<td>OFF</td>
<td>OFF</td>
<td>OFF</td>
</tr>
</tbody>
</table>

SPECIAL CIRCUITS

H* 2 x 3 2 x 3.5 x 6 & 5 x 6
G* 2 x 3.5 x 6 & 6 x 6
S 2 x 3 & 6 x 6 & 2 x 3 1 x 2
E* (2 x 3.5 x 6) & 2 x 3 OFF
M* (2 x 3 x 6) & 2 x 3 OFF
R* (2 x 3.5 x 6) & 2 x 3 1 x 2

* Jumper between terminals 2 & 6 for circuits H, G & M are specified in selection 4.

External jumper between terminals 2 & 4 for circuit E are provided by customer. Circuit E may be used for SP OFF-ON circuit.

3 RATING

1 4VA @ 28VDC Resistive
B 15A 24V
C 20A 18V
D 20A 12V
E 20A 14V, 10A 14V (circuit 1, 4, A & D only)
F 10A 14V, 6A 14V (circuit 6 only)
M 4VA/20A 12V
N 4VA/15A 24V

4 TERMINATION/BASE STYLE

8 term 10 term Termination Jumper

1 2 250 TAB (QC) no barriers Yes T2 to 5
2 2 250 TAB (QC) with barriers No

J 2 Solder Lug no barriers Yes T2 to 5
K 2 Solder Lug no barriers No

5 6 Wire Leads no barriers No

E 2 Wire Leads No

Note: Codes J & K for circuits H, G & M.

5 ILLUMINATION & SWITCH SEALING

Lamp #1: above terminals 1 & 4 of end of switch; Lamp #2: above terminals 3 & 6 end of switch. Positive (+) and negative (-) symbols apply to LED lamps only terminals 1, 2, 3, 4, 5 & 6.

Sealed Unsealed Lamps

<table>
<thead>
<tr>
<th>S</th>
<th>0</th>
<th>NONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>#1</td>
</tr>
<tr>
<td>B</td>
<td>1</td>
<td>#2</td>
</tr>
<tr>
<td>C</td>
<td>1</td>
<td>#3</td>
</tr>
<tr>
<td>D</td>
<td>1</td>
<td>#4</td>
</tr>
<tr>
<td>E</td>
<td>5</td>
<td>#5</td>
</tr>
<tr>
<td>F</td>
<td>6</td>
<td>#6</td>
</tr>
<tr>
<td>G</td>
<td>7</td>
<td>#7</td>
</tr>
<tr>
<td>H</td>
<td>7</td>
<td>#8</td>
</tr>
<tr>
<td>U</td>
<td>7</td>
<td>#9</td>
</tr>
</tbody>
</table>

Selections for Single Pole Switches Only:

J 8 #1 Down 3+ 7-
K W #1 Independent 6+ 7-

Selections for Double Pole Switches Only:

L 9 #1 Down 3+ 6-
M N #2 Up 3+ 6-
P V #1 Up 3+ 4-
Q R #2 Down 3+ 4-

6.7 LAMP (same coding for both selections)
Selection 6: above terminals 1 & 4; Selection 7: above terminals 3 & 6
No lamp 0
Neon 115VAC 2 250VAC
Incandescent 4 3V 5 6V
LED* 6 12V superbright
Green Red
2VDC A L F R
12VDC B M G S
24VDC C N H T

* Consult factory for “daylight bright” LED options. Typical current draw for LED is 20mA.

8 FLUSH BRACKET COLOR*, PANEL SEAL

No Seal Black White Gray
Contura V Black White
Contura V, laser etched P

10 LENS

Lamp 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
1 Off Amber
2 On Blue
3 No Lens
4 P wound
5 Red
6 Black
7 White
8 Gray
9 Nickel
10 Pewter

11 ACTUATOR COLOR

No Actuator 0 Black C Gray H Red S White Y Nickel D Pewter E

12 ACTUATOR LENS OR BODY LEGENDS

11 ON 12 OFF 13 I 14 O
OFF ON O I

For additional legend options & codes, see pages 54-65 of the Carling Transportation catalog.

13 LEGEND ORIENTATION

0 No legend (used with codes 11-18 in selection 12)
1 Orientation 1
2 Orientation 2
3 Orientation 3
4 Orientation 4

14 ACTUATOR LENS LEGEND

00 No legend this location / no actuator
(used with codes 11-18 in selection 12) Selection 14 required when switch requires two legends. If the two legends consist of one lens and one body legend, lens legend must be specified in selection 12; body legend specified in selection 14.

For legend options & codes, see pages 54-65 of the Carling Transportation catalog.

Notes:
Consult factory to verify horsepower rating for your particular circuit choice.
1 Custom colors are available. Consult factory.
2 White imprinting is standard on black actuators. Black imprinting is standard on white, red and gray actuators. Custom colors are available. Consult factory.
3 Laser Etched rocker only available with lens code Z & actuator colors black, nickel or pewter.
4 Additional ratings available. See page 19.
5 Nickel and Pewter colors only available with laser etched actuator.
6 Consult factory for laser etched lens cutout.
V SERIES

2 CIRCUIT

Terminal Connections as viewed from bottom of switch:
- 8 terminal: 10 terminal
- 8 - 7 B - 7
- 1 - 4 1 - 4
- 2 - 5 2 - 5
- 3 - 6 3 - 6

Position:
- SP: Single pole - uses terminals 1, 2 & 3
- DP: Double pole uses terminals 1, 2, 3, 4, 5 & 6

3 RATING

- 1: 4VA @ 20VDC
- 20A 12V
- 15A 24V
- .4VA @ 28VDC Resistive
- 20A 12V
- 10A 14V, 6A 14VT (circuit 1, A & D only)
- 12VDC
- 24VDC

4 TERMINATION/BASE STYLE

<table>
<thead>
<tr>
<th>Term</th>
<th>10 Term</th>
<th>Termination</th>
<th>Jumper</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>B</td>
<td>.250 TAB (QC) no barriers</td>
<td>No</td>
</tr>
<tr>
<td>J</td>
<td>K</td>
<td>.250 TAB (QC) with barriers</td>
<td>No</td>
</tr>
<tr>
<td>C</td>
<td>D</td>
<td>Solder Lug no barriers</td>
<td>No</td>
</tr>
<tr>
<td>E</td>
<td></td>
<td>Wire Leads no barriers</td>
<td>No</td>
</tr>
</tbody>
</table>

5 ILLUMINATION & SWITCH SEALING

- Lamp #1 above terminals 1 & 4 end of switch: Lamp #2 above terminals 3 & 6 end of switch.
- Positive (+) and negative (-) symbols apply to LED lamps only.

6 LOCK

- Lock above terminals 1 & 4 end of switch.
- Low profile lock
- High profile lock

7 LAMP

- Lamp above terminals 3 & 6 end of switch
- No lamp
- Neon
- Incandescent 4 3V 5 6V 6 12V 7 18V 8 24V
- LED: Red Amber Green Red
- 2VDC: Red
- 6VDC: M
- 12VDC: C
- 24VDC: D

8 FLUSH BRACKET COLOR, PANEL SEAL

- No Seal
- B Black
- W White
- G Gray
- Y Yellow

9 HARD SURFACE ACTUATOR

- CONTURA IV:
  - Orientation: Black Grey Red White
  - Left: J K L M
  - Right: N P R S
- CONTURA V:
  - Orientation: Black Grey Red White
  - U V W Y

10 LENS

- Z: No Lens
- Clear: White Amber Green Red Blue
- A B C D E F
- G H J K L M
- Oval lens: A B C D E F
- Bar lens: G H J K L M

11 ACTUATOR LOCK FUNCTION AND COLOR

- Lock Color: Up Down Up & Down Center
- Match Actuator: A H R 1
- Black: B J S 2
- White: C K T 3
- Red: D L V 4
- Safety Orange: E M W 5
- Gray: F G N 6

12 ACTUATOR LENS OR BODY LEGEND

- 00: No Legend
- 1 Orientation 1
- 2 Orientation 2
- 3 Orientation 3
- 4 Orientation 4

13 LEGEND ORIENTATION

For additional legend options & codes, see pages 54-65 of the Carling Transportation catalog.
1 SERIES
V

2 CIRCUIT
Terminal Connections as viewed from bottom of switch:
8 terminal 10 terminal SP - single pole - uses terminals 1, 2 & 3.
8 - 7 6 - 5 2 - 5 Terminals 7, 8, 9 & 10 for lamp circuit only.
8 - 6 2 - 5 3 - 6 4 - 6
10 - 9
Position:
SP DP 2 & 3, 5 & 6 2, 4 & 5
1 A # ON NONE OFF
2 B (ON) NONE OFF
3 C ON NONE (OFF)
4 D ON NONE ON
5 F ON NONE (ON)
6 J ON OFF ON
7 K ON OFF (ON)
8 L (ON) OFF (ON)

SPECIAL CIRCUITS
H* 2 & 3 2 & 3, 5 & 4 5 & 4
G* 2 & 3, 5 & 6 2 & 3, 5 & 6 OFF
S 3 & 5 & 6 2 & 4, 3 & 2 5 & 3
M* 2 & 3, 5 & 6 2 & 3, 5 & 6 OFF
R 3 & 5 & 6 2 & 4, 3 & 2 5 & 3
E* 5 & 6 5 & 6 5 & 6

* Jumper between terminals 2 & 5 for circuits H, G, & M are specified in selection 4. External jumper between terminals 2 & 4 for circuit E are provided by customer. Circuit E may be used for SP OFF-ON-ON circuit.

3 RATING
1 .4VA @ 28VDC Resistive
B 15A 24V
C 20A 18V
D 20A 12V
E 10A 14V, 10A 14VT (circuit 1, 4; A & D only)
F 10A 14V, 6A 14VT (circuit 6 only)
M .4VA/30A 12V
N .4VA/15A 24V

4 TERMINATION/BASE STYLE
8 term 10 term 8 term 10 term
Jumper
T 2 250 TAB (QC) no barriers No
A B 250 TAB (QC) with barriers No
J K 250 TAB (QC) with barriers Yes T2 to 5
3 4 Solder Lug no barriers No
C D Solder Lug No
5 6 Wire Leads no barriers No
E F Wire Leads No

5 ILLUMINATION & SWITCH SEALING
Lamp #1 above terminals 1 & 4 end of switch.; Lamp #2 above terminals 3 & 6 end of switch. Positive (+) and negative (-) symbols apply to LED lamps only.

Sealed Unsealed Lamp when illuminated Acting Lens position Lamp wired to
A B 1 #1 Independent 8-7
2 #2 Down 3+7
3 #3 Up 3+7
4 #4 Down 3+7
E 5 #1 & #2 Up 3+7
F 6 #1 & #2 Down 1-7
G 7 #1 & #2 Independent 8-7
H 8 #1 & #2 Independent 8-7
U 9 #1 & #2 Independent 8-7
J 8 #1 & #2 Independent 8-7
K 8 #1 & #2 Independent 8-7
L 9 #1 & #2 Independent 8-7
M R 1 #1 & #2 Down 3+8
N T #1 & #2 Down 3+6
P V #1 & #2 Up 3+6

6,7 LAMP (same coding for both selections)
Selection 6: above terminals 1 & 4; Selection 7: above terminals 3 & 6
No lamp 0 125VAC 250VAC 6 12V 7 18V 8 24V
Incandescent 4 3V 5 6V superbright superbright
5 6V superbright superbright
2VDC A L F R
6VDC B M G S
12VDC C N H T
24VDC D P J V
* Consult factory for “daylight bright” LED options. Typical current draw for LED is 20mA.

8 FLUSH BRACKET COLOR, PANEL SEAL
Black B White G Gray Y

9 ACTUATOR COLOR
White C Bright Nickel Plated N
Black B Bright Chrome Plated S
Gray R Satin Chrome Painted T
White Y Satin Nickel Plated W

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

12 ACTUATOR COLOR
Black B C Satin Chrome Painted T
White Y W Satin Nickel Plated W

13 INSERT COLOR
Gray R N Bright Nickel Plated
Black B Bright Chrome Plated S
White Y W Satin Chrome Painted T

14 ACTUATOR LENS OR BODY LEGENDS
00 - No Legend this location/No actuator
11 ON 12 OFF 13 14 O

15 LEGEND ORIENTATION
0 No legend (used with codes 11-18 in selection 12)
1 Orientation 1
2 Orientation 2
3 Orientation 3
4 Orientation 4

16 ACTUATOR LENS LEGEND
00 - No legend this location / no actuator
(used with codes 11-18 in selection 12) Selection 14 required when switch requires two legends. If the two legends consist of one lens and one body legend, lens legend must be specified in selection 12; body legend specified in selection 14.
For legend options & codes, see pages 54-65 of the Carling Transportation catalog

Notes:
Consult factory to verify horsepower rating for your particular circuit choice.
1 Custom colors are available. Consult factory.
2 White imprinting is standard on black actuators; Black imprinting is standard on white, red and gray actuators; Custom colors are available, consult factory.
3 Additional ratings available. See page 19.
### V-Series Contura X, XI & XII Sealed Rocker Switches

#### 1 SERIES

**V**

#### 2 CIRCUIT

Terminal Connections as viewed ( ) - momentarily from bottom of switch:
- 6 terminal 10 terminal SP - single pole - uses terminals 1, 2, 3, 4, 5, 6 & 8
- 8 - 7 1 - 4 3 - 6 10 - 9

**Position:**
- 1
- 2
- 3
- 4
- 5
- 6
- 7

**Top Special Circuits**
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

**Top Special Circuits**
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

**2.5 Special Circuits**
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8

**Note:** Jumper between terminals 2 & 6 for circuits H, G, M specified in selection 4. External jumper between terminals 2 & 4 for circuit E provided by customer. Circuit E may be used for OFF-ON-OFF circuit.

#### 3 RATING

<table>
<thead>
<tr>
<th>Ampere</th>
<th>Voltage</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 A</td>
<td>50 V</td>
</tr>
<tr>
<td>2 A</td>
<td>100 V</td>
</tr>
<tr>
<td>3 A</td>
<td>150 V</td>
</tr>
<tr>
<td>4 A</td>
<td>200 V</td>
</tr>
</tbody>
</table>

**Note:** Custom colors are available. Consult factory.

#### 4 TERMINATION/BASE STYLE

<table>
<thead>
<tr>
<th>Term</th>
<th>Orientation</th>
<th>Jumper</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Codes J & K for circuits H, G, M.

#### 5 ILLUMINATION & SWITCH SEALING

<table>
<thead>
<tr>
<th>Lamp Style</th>
<th>Sealed</th>
<th>Unsealed</th>
<th>Lamps When Illuminated</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>B</td>
<td>2</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>C</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>D</td>
<td>4</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>E</td>
<td>5</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>F</td>
<td>6</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>G</td>
<td>7</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>H</td>
<td>8</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>I</td>
<td>9</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>J</td>
<td>10</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>K</td>
<td>11</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>L</td>
<td>12</td>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>

**Legend Options & Codes:**
- For additional legend options & codes, see pages 54-65 of the Carling Transportation catalog.

**Legend Options & Codes:**
- For legend options & codes, see pages 54-65 of the Carling Transportation catalog.
### V-Series Contura X Locking Sealed Rocker Switches

#### 1 SERIES

**V**

#### 2 CIRCUIT

Terminal Connections as viewed from bottom of switch:
- 8 terminal 10 terminal
- 8 - 7 B - 7
- 1 - 4 B - 4
- 2 - 5 B - 5
- 3 - 6 B - 6
- 2 - 11 B - 11

Position:
- **SP** Connected Terminals
- **DP** 3 & 5 & 6

#### 3 RATING

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>.4VA @ 28VDC Resistive</td>
<td></td>
</tr>
<tr>
<td>B</td>
<td>15A 24V</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>20A 18V</td>
<td></td>
</tr>
<tr>
<td>D</td>
<td>20A 12V</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>10A 14V, 10A 14V</td>
<td>(circuit 1, 4, A &amp; D only)</td>
</tr>
<tr>
<td>F</td>
<td>10A 14V, 6A 14V</td>
<td>(circuit 6 only)</td>
</tr>
<tr>
<td>M</td>
<td>.4VA/20A 12V</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>.4VA/15A 24V</td>
<td></td>
</tr>
</tbody>
</table>

#### 4 TERMINATION/BASE STYLE

<table>
<thead>
<tr>
<th>Term</th>
<th>6 Term</th>
<th>10 Term</th>
<th>Termination</th>
<th>Jumper</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
<td>.250 TAB (C) no barriers</td>
<td>No</td>
</tr>
<tr>
<td>A</td>
<td>B</td>
<td>.250 TAB (Q) with barriers</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>J</td>
<td>K</td>
<td>.250 TAB (Q) no barriers</td>
<td>Yes T2 to 5</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>Solder lug no barriers</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>C</td>
<td>D</td>
<td>Solder lug</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>Wire leads no barriers</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>E</td>
<td>F</td>
<td>Wire leads</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

#### 5 ILLUMINATION & SWITCH SEALING

Lamp above terminals 3 & 6 end of switch:
- **LED**
- **Superbright**

#### 6 LOCK

Lock above terminals 1 & 4 end of switch.
- **W** lock

#### 7 LAMP

Lamp above terminals 3 & 6 end of switch:
- No lamp
- Neon
- Incandescent
- LED*

#### 8 RAISED BRACKET COLOR, PANEL SEAL (EXTERNAL FOAM GASKET)

- No Gasket
- One Gasket

#### 9 HARD SURFACE ACTUATOR

- Contura X

#### 10 LENS - ABOVE LAMP #2 TERMINALS 3,6

- Z - No Lens
- Clear White
- Amber
- Green
- Red
- Blue

#### 11 ACTUATOR LOCK FUNCTION AND COLOR

- Lock Color
- Up
- Down
- Up & Down

#### 12 ACTUATOR LENS OR BODY LEGEND

- 00 - No Legend
- 0 - No Legend (used with codes 11-18 in selection 12)
- Orientation 1
- Orientation 2
- Orientation 3
- Orientation 4

#### 13 LEGEND ORIENTATION

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>No Legend</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Orientation 1</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Orientation 2</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Orientation 3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Orientation 4</td>
<td></td>
</tr>
</tbody>
</table>

* Additional ratings and options are available. See page 19.
* Jumper between terminals 2 & 4 for circuits H, G & M are specified in selection 4.
* External jumper between terminals 2 & 4 for circuit E are provided by customer. Circuit E may be used for SP OFF-ON/ON circuit.
* Codes J, E, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
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* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 3 J, 18 for circuits H, G & M.
* Code J, E, K, 5 C, 18 for circuits H, G & M.
Reduce inventory levels and cost by stocking actuators and base switches separately.


Contura II, III, IV, V Actuator only: VV with code A or C for selection 9, & with selections 10-14 in the ordering schemes.

Panel Seal: VPS

Contura II, III, IV, V Actuator only: VV with code A, C, E, G or P for selection 9 & with selections 10-14 in the ordering schemes.

Contura X, XI, XII actuators with lenses separately: VV with code selections 9-14 in the ordering schemes.

### Contura X & XI actuators without lenses separately:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VVR</td>
<td>Actuator Separately</td>
</tr>
<tr>
<td>6</td>
<td>Actuator Style/Color</td>
</tr>
<tr>
<td>1</td>
<td>Lens Opening</td>
</tr>
<tr>
<td>00</td>
<td>Legend</td>
</tr>
<tr>
<td>1</td>
<td>Orientation</td>
</tr>
</tbody>
</table>

### Contura XII actuators without lenses separately:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VVP</td>
<td>Actuator Separately</td>
</tr>
<tr>
<td>J</td>
<td>Actuator Style &amp; Color</td>
</tr>
<tr>
<td>1</td>
<td>Lens Opening</td>
</tr>
<tr>
<td>Z</td>
<td>Lens Opening</td>
</tr>
<tr>
<td>21</td>
<td>Legend</td>
</tr>
<tr>
<td>1</td>
<td>Legend</td>
</tr>
<tr>
<td>00</td>
<td>Legend</td>
</tr>
</tbody>
</table>

### Contura X, XI & XII actuator lens assembly separately:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VVL</td>
<td>Lens Separately</td>
</tr>
<tr>
<td>2</td>
<td>Lens Style</td>
</tr>
<tr>
<td>1</td>
<td>Lens Color</td>
</tr>
<tr>
<td>00</td>
<td>Legend</td>
</tr>
<tr>
<td>0</td>
<td>Legend Orientation</td>
</tr>
</tbody>
</table>

### Contura X, XI & XII top piece of 2-piece lens separately:

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>VVT</td>
<td>Lens Separately</td>
</tr>
<tr>
<td>1</td>
<td>Color</td>
</tr>
</tbody>
</table>

### Contura X, XI & XII actuator lens assembly:

1 piece lens/bar lens are positioned the same as bottom lens for assembly, minus the top lens.

- Lenses snap in from bottom.
- Notes:
  1. If actuator lens opening for 2 bar or 2 square lenses, legend orientation 0,1, or 2 must be chosen.
  2. Center of actuator marking not available for Contura XII.
  3. Legend is not available for bar style lens.
  4. Not recommended with neon lamps.
  5. Must also order top piece of 2 piece square lens separately.

For additional legend options & codes, see pages 54-65 of the Carling Transportation catalog.
Easily integrate Contura products into your system, with Contura Accessories

Contura Connectors

<table>
<thead>
<tr>
<th>COMPANY SERIES</th>
<th>PART NO</th>
<th>WIRE RANGE</th>
<th>MM² (REF)</th>
<th>ORIENTATION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PACKARD 58 SERIES</td>
<td>02095580</td>
<td>12</td>
<td>3.0</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>02095471</td>
<td>(2)16-14</td>
<td>(2)1.0-2.0</td>
<td></td>
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<tr>
<td></td>
<td>12010061</td>
<td>16-14</td>
<td>1.0-2.0</td>
<td></td>
</tr>
<tr>
<td>PACKARD METRI-PACK 630 SERIES</td>
<td>02095469</td>
<td>20-18</td>
<td>.5-.8</td>
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<tr>
<td></td>
<td>02095469</td>
<td>12</td>
<td>3.0</td>
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<tr>
<td></td>
<td>02095470</td>
<td>(2)16-14</td>
<td>(2)1.0-2.0</td>
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<tr>
<td>AMP 250 SERIES FAST-FASTEN</td>
<td>12015832</td>
<td>10</td>
<td>5.0</td>
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</tr>
<tr>
<td></td>
<td>12015869</td>
<td>20-18</td>
<td>.5-.8</td>
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<td></td>
<td>12032224</td>
<td>16-12</td>
<td>1.3-3</td>
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<td></td>
<td>12032035</td>
<td>(2)16-14</td>
<td>(2)1.3</td>
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</table>

NOTE: Consult Delphi Packard and/or Amp on actual part numbers and availability. AMP is a registered trademark of AMP Inc. Harrisburg, PA. Delphi Packard is a registered trademark of Delphi-Packard Electrical Systems Warren, OH.

Contura X Boot (P/N VB1-01)

Contura II, III, IV & V Actuator Removal Tool (P/N VRT)

Additional V-Series Ratings

1. 4VA @ 28VDC Resistive
2. 10A 250VAC 1/2 HP, 15A 125 VAC 1/2 HP. No Agency Listings
3. 5A 250VAC 1/2 HP, 15A 125 VAC 1/2 HP. UL Recognized, CSA Certified
4. 6A 15A 125 VAC 1/2 HP, 12(2)A 125 VAC μ T85
5. 10A 15A 125 VAC 1/2 HP, 12(6)A 125 VAC T85
6. 10A 15A 250 VAC, 15A 125VAC, 1/2 HP 125-250VAC, 12(2)A 250 VAC μ T85
7. 10A 125 VAC 1/2 HP, 250 VAC T85
8. 8* 10A 125 VAC, 15A 125VAC, 1/2 HP T85
9. 9* 10A 15A 250 VAC, 15A 125VAC, 1/2 HP 125-250VAC, 12(6)A 250 VAC T85

* Ratings 6 - 8 are UL, CSA & VDE certified, require terminations A or B for double pole circuits, & are not available with illumination circuits 4, 8, D, J, N, & T or with wire lead or solder lug terminations. Circuits 1, 4, A, D, H, M & E are not available with rating 6 & 8. Rating 7 & 9 only available with circuits 1, 4, A & D. Circuits 2, 3, 5, 7, 8, K, L are 1/2 HP 250VAC only with rating 8. Ratings 6 & 7 must specify lamp code 1 (125VAC neon). Ratings 8 & 9 must specify lamp code 2 (250VAC neon). Rating L available with circuits 1, 4, A & D only.

Consult factory to determine availability for individual circuits and their HP rating.

60 Johnson Avenue • Plainville, CT 06062–1177 • Phone: (860) 793–9281 • Fax: (860) 793–9231
Email: sales@carlingtech.com • www.carlingtech.com
Contura Mounting Panels
Dimensional Specifications: in. [mm]

Contura Hole Plug
Dimensional Specifications: in. [mm]