V-Series
CONTURA SWITCHES

The V-Series Contura II & III snap-in rocker switches offer countless unique options including choices for ratings, circuits, colors, illuminations and symbols. These single or double pole switches feature removable actuators in a choice of actuator styles and colors, and can be illuminated with either square or bar shaped lenses. Actuators may be purchased and stocked separately. An optional plug-in terminal connector enables pre-wiring of wire harnesses.

The Contura switches with sealed option, are certified to IP66/68, signifying complete protection against dust and prolonged spray and submersion under pressure, and are recognized to UL1500 - Ignition Protection for Marine Products. These switches are vibration, shock, thermoshock, moisture and salt spray resistant. Temperature ratings range from -40°C to +85°C.

Product Highlights:
• Countless options for ratings, circuits, colors, illuminations and legends
• Sealed to IP66/68 for Above-Panel Components
• Vibration, shock, thermoshock, moisture and salt spray resistant
• Temperature range from -40°C to +85°C.

Typical Applications:
• On/Off Highway Equipment
• Marine
• Military Armored Vehicles
• Mining Machinery and Equipment
• Any application requiring environmental protection

Resources:
Configure a Complete Part
Download CAD & Sales Drawing
Watch Product Video

Carling Technologies, Inc.
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Application Support: team2@carlingtech.com
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www.carlingtech.com
V-Series Switch
DESIGN FEATURES

INTERCHANGEABLE ACTUATORS
Panel redesign is a snap with our wide range of rocker styles. Achieve maximum design variety with minimum inventory. Simply swap rockers to create an entirely new look for your panel.

DUAL SEAL PROTECTION
Seals out water, dust, debris, and sealed to IP66/68 for above-panel components.

CLEAN CONNECTIONS
Options for both eight and ten terminal base styles with AMP & Packard compatible connectors affords myriad circuit options while providing ease of assembly.

OPTIONAL PANEL SEAL
Helps prevent water/dust ingress behind panel.

MULTIPLE LIGHTING OPTIONS
In addition to Incandescent lamps, our LED illumination is offered in a wide array of light intensities, colors, as well as dual level, tri-color, and flashing options.

BRASS ROLLER PIN
Robust mechanism eliminates the need for lubricants. Enables switch to withstand -40°C to +85°C temperatures.

SILVER PLATED BUTT CONTACT MECHANISM
Providing 50k to 100k electrical cycles, circuit and load dependent.

*Manufacturer reserves the right to change product specification without prior notice.
Contura II & III
The Contura II & III actuators are constructed of thermoplastic polycarbonate and are offered with a hard nylon overlay or a “soft-touch” elastomer overlay. These models incorporate aesthetic designs on the top and bottom of the rocker featuring two rows of raised “bumps” on the Contura II and three “indented” lines on the Contura III.

Contura IV
The Contura IV’s “Shape to create a Shape” actuator works 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 VII
Contura VII featuring gently curved corners and edges assuring compatibility with most any panel design. Intuitive feel is maximized by the use of 2 embossed circular pads located at opposite ends of the rocker. Any combination of Bar or Oval style lenses can be located in the pads providing a truly unique look, exclusive to Contura VII.

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.

Contura XIV
The Contura XIV represents a sleek new crossover rocker design which should appeal to Trucks, Buses and Heavy Vehicles as well as the Marine Industry. Intuitive feel is provided by recessed ridges along with a Center Groove which effectively defines the boundary between top and bottom switch functions.

Illuminated Indicators & Accessories
Alert operator of systems functions or malfunctions, are offered with removable/replaceable lamps in Contura II, II, V or X styles. Accessories include connectors, mounting panels, hole plugs, panel seals, and actuator removal tools. Refer to accessories page for full details.
**Electrical**

- **Contact Rating**: .4VA @ 24VDC (MAX) resistive
  - 15 amps, 125VAC
  - 10 amps, 250VAC
  - 1/2 HP 125-250VAC
  - 20 amps, 4-14VDC
  - 15 amps, 15-28VDC
  - 10A, 14V
  - 6A, 125VAC L
- **Dielectric Strength**: 1500 Volts RMS
- **Insulation Resistance**: 50 Megohms
- **Initial Contact Resistance**: 10 milliohms max. @ 4VDC
- **Life**: Up to 100,000 cycles, circuit and load dependent
- **Contacts**: Silver alloy, silver tin-oxide, fine silver
- **Terminals**: Brass or copper/silver plate 1/4” (6.3mm) Quick Connect terminations standard. Solder lug, Wire Lead

**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
- **Base**: Optional external gasket panel seal
- **Contura II,III,IV, V, VI, VII Actuator**: Contura X,XI,XII Actuator, VP Nylon 66 Reinforced rated to 105°C
- **Lens**: Polycarbonate rated at 105°C
- **Contura XIV**: Polycarbonate lens/sub-rocker with ABS shell

**Actuator Travel (Angular Displacement)**

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

**Mounting Specifications**

- **Panel Thickness Range**:
  - 0: .030 to .250 (.76 to 6.35mm)
  - 1: .030 to .109 & .147 to .157 (.76 to 2.77mm & 3.73 to 3.98mm)

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

**Agency Certifications**

**Environmental**

- **Sealing**: IP66/68, for above-panel components of actual switch only.
- **Corrosion**: Mixed Flowing Gas (MFG) Class III
  - 3 year accelerated exposure per ASTM B-827, B-845 Silver and gold contacts
- **Operating Temp.**: -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, pre and post test contact resistance.
- **Vibration 2**: Resonance search
  - 24-50 Hz 0.40 DA
  - 50-2000 Hz ±10 G’s peak
  - Horizontal Axis 3-5 G’s max.
  - No loss of circuit during test; <10μ seconds 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, 96 Hrs. Sealed version only.
  - Mil STD 810, Method 510.2 Air Velocity 300 Ft/Min Duration 16hr
- **Thermal Shock**: Per Mil-Std 202F, Method 107F, Test Cond. A, -55°C to +85°C. Test criteria - pre and post test contact resistance
  - Per Mil-Std 202F, Method 106F, Test Criteria - pre and post test contact resistance
- **Moisture Resistance**: Per Mil-Std 202F, Method 106F, 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.
### V-Series Contura Sealed Rocker Switches - Contura II & III - Ordering Scheme

**1 SERIES**

- V

**2 CIRCUIT**

<table>
<thead>
<tr>
<th>Terminal Connections as viewed</th>
<th>( ) - momentary</th>
</tr>
</thead>
<tbody>
<tr>
<td>from bottom of switch: SP - single pole - uses terminals 1, 2 &amp; 3.</td>
<td></td>
</tr>
<tr>
<td>8 terminal 10 terminal</td>
<td>DP - double pole uses terminals 1, 2, 3, 4, 5 &amp; 6.</td>
</tr>
<tr>
<td>8 - 7</td>
<td>8 - 7</td>
</tr>
<tr>
<td>1 - 4</td>
<td>1 - 4</td>
</tr>
<tr>
<td>2 - 5</td>
<td>2 - 5</td>
</tr>
<tr>
<td>3 - 6</td>
<td>3 - 6</td>
</tr>
<tr>
<td>10 - 9</td>
<td>10 - 9</td>
</tr>
</tbody>
</table>

**Position:**

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10

### 3 RATING

- 1 .4VA @ 28VDC Resistive
- 2 15A 24V
- 3 20A 12V
- 4 20A 12V
- 5 20A 14V
- 6 1A 14V
- 7 1A 14V
- 8 6A 14VT (circuit G only)
- 9 20A 12V
- 10 20A 12V

**TERMINATION / BASE STYLE**

- 0 Noactuator
- 1 B
- 2 W
- 3 G
- 4 R
- 5 W
- 6 B
- 7 G
- 8 R
- 9 W
- 10 B
- 11 G
- 12 R
- 13 W

### 4 TERMINATION / BASE STYLE

<table>
<thead>
<tr>
<th>8 terminal 10 terminal</th>
<th>Jumper</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 2</td>
<td>.250 TAB (QC) no barriers</td>
</tr>
<tr>
<td>1 2</td>
<td>.250 TAB (QC) with barriers</td>
</tr>
<tr>
<td>3 5</td>
<td>Solder Lug no barriers</td>
</tr>
<tr>
<td>3 5</td>
<td>Solder Lug no barriers</td>
</tr>
<tr>
<td>5 6</td>
<td>Wire Leads no barriers</td>
</tr>
<tr>
<td>5 6</td>
<td>Wire Leads no barriers</td>
</tr>
</tbody>
</table>

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

**5 ILLUMINATION**

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.

### 6.7 LAMP (SAME CODING FOR BOTH SELECTIONS)

- Selection 6: above terminals 1 & 4; Selection 7: above terminals 3 & 6
- No lamp
- Neon
- Incandescent
- Red Amber Green Red
- 2VDC
- 6VDC
- 12VDC
- 24VDC
- Consider factory for “daylight bright” LED options. Typical current draw for LED is 20mA.

### 8 FLUSH BRACKET COLOR

- 1 PANEL SEAL
- 2 Black
- 3 Blue
- 4 Gray
- 5 Red

### 9 ACTUATOR COLOR

- 1 PANEL SEAL
- 2 Black
- 3 Blue
- 4 Gray
- 5 Red

### 10 LENS

- 0 No actuator
- 1 Clear White
- 2 Amber
- 3 Green
- 4 Red
- 5 Blue

**11 ACTUATOR COLOR AND TEXTURE**

- 0 - No Actuator
- 1 Black
- 2 Gray
- 3 Red
- 4 White

**12 ACTUATOR LENS OR BODY LEGENDS**

- 0 - No Lens
- 1 Black
- 2 Gray
- 3 Red
- 4 White

**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**

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

Notes:

- Consult factory to verify horsepower rating for your particular circuit choice.
- Custom colors are available. Consult factory.
- Body legends not available on soft surface actuators. White imprinting is standard on black actuators. Black imprinting is standard on white, red and gray actuators.
- Custom colors are available. Consult factory.
- Additional ratings available. See V-Series Switch Accessories page.
- Contura II available with two square lenses. Consult factory for details.

Email: sales@carlingtech.com  Application Support: team2@carlingtech.com
Phone: (860) 793–9281  Fax: (860) 793–9231  www.carlingtech.com
**V-Series Contura Sealed Rocker Switches - Contura II & III Locking - Ordering Scheme**

**1 SERIES**

| V |

**2 CIRCUIT**

Terminal Connections as viewed ( ) - momentary

<table>
<thead>
<tr>
<th>SP: DP</th>
<th>2 &amp; 3, 5 &amp; 6</th>
<th>Connected Terminals 1 &amp; 2, 4 &amp; 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 A</td>
<td>ON</td>
<td>NONE</td>
</tr>
<tr>
<td>2 D</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>6 J</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>7 K</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>8 L</td>
<td>ON</td>
<td>OFF</td>
</tr>
<tr>
<td>9 N</td>
<td>OFF</td>
<td>NONE</td>
</tr>
</tbody>
</table>

**SPECIAL CIRCUITS**

<table>
<thead>
<tr>
<th>H*</th>
<th>2 &amp; 3, 5 &amp; 6</th>
<th>2 &amp; 3, 5 &amp; 4</th>
<th>5 &amp; 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>H*</td>
<td>2 &amp; 3, 5 &amp; 6</td>
<td>2 &amp; 3</td>
<td>OFF</td>
</tr>
<tr>
<td>S*</td>
<td>2 &amp; 3, 5 &amp; 6</td>
<td>2 &amp; 3</td>
<td>OFF</td>
</tr>
<tr>
<td>R*</td>
<td>2 &amp; 3, 5 &amp; 6</td>
<td>2 &amp; 3</td>
<td>2 &amp; 1</td>
</tr>
<tr>
<td>E*</td>
<td>5 &amp; 3, 6</td>
<td>5 &amp; 3, 6</td>
<td>5 &amp; 1</td>
</tr>
</tbody>
</table>

*Jumper between terminals 2 & 5 for circuits H, G, M, R & S 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**

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

**4 TERMINATION / BASE STYLE**

<table>
<thead>
<tr>
<th>6 Term 10 Term</th>
<th>Terminal</th>
<th>Jumper</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 A 250 TAB QC</td>
<td>250 TAB QC</td>
<td>No</td>
</tr>
<tr>
<td>B 250 TAB QC</td>
<td>250 TAB QC with barriers</td>
<td>Yes T2 to 5</td>
</tr>
<tr>
<td>J K 250 TAB QC</td>
<td>250 TAB QC with barriers</td>
<td>Yes T2 to 5</td>
</tr>
<tr>
<td>3 C D Solder Lug no barriers</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>5 E F Wire Leads no barriers</td>
<td>No</td>
<td></td>
</tr>
<tr>
<td>6 E F Wire Leads no barriers</td>
<td>No</td>
<td></td>
</tr>
</tbody>
</table>

Notes: Codes J & K for circuits H, G & M. Do not use silicone based lubricants to reduce terminal insertion forces during connector assembly, as it is detrimental to function and performance.

**5 ILLUMINATION & SWITCH SEALING**

<table>
<thead>
<tr>
<th>Lamp above terminals 1 &amp; 4 end of switch, Lamp #2 above terminals 3 &amp; 6 end of switch. Positive (+) and negative (-) symbols apply to LED lamps only.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sealed</td>
</tr>
<tr>
<td>-------</td>
</tr>
<tr>
<td>S</td>
</tr>
<tr>
<td>H</td>
</tr>
<tr>
<td>M</td>
</tr>
</tbody>
</table>

**6 LOCK**

Lock above terminals 1 & 4 end of switch

| W lock |

**7 LAMP**

Lamp above terminals 3 & 6 end of switch

<table>
<thead>
<tr>
<th>No lamp</th>
<th>Neon</th>
<th>Incandescent</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0</td>
<td>125VAC</td>
</tr>
<tr>
<td>250VAC</td>
<td>5.6V</td>
<td>12V</td>
</tr>
<tr>
<td>7.18V</td>
<td>8.24V</td>
<td>12V</td>
</tr>
</tbody>
</table>

**8 FLUSH BRACKET COLOR 1, PANEL SEAL**

<table>
<thead>
<tr>
<th>Black</th>
<th>White</th>
<th>Gray</th>
</tr>
</thead>
<tbody>
<tr>
<td>No Seal</td>
<td>B</td>
<td>W</td>
</tr>
<tr>
<td>One Seal</td>
<td>C</td>
<td>Y</td>
</tr>
</tbody>
</table>

**9 HARD SURFACE ACTUATOR 1**

<table>
<thead>
<tr>
<th>Active II</th>
<th>B</th>
<th>G</th>
<th>H</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contura III</td>
<td>C</td>
<td>D</td>
<td>E</td>
</tr>
</tbody>
</table>

Actuator orientation above terminals:

| 3, 6 | 1, 4 |

**10 LENS**

<table>
<thead>
<tr>
<th>Z - No Lens</th>
<th>Clear</th>
<th>Amber</th>
<th>Green</th>
<th>Red</th>
<th>Blue</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>B</td>
<td>J</td>
<td>S</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>8</td>
<td>D</td>
<td>P</td>
<td>V</td>
<td>5</td>
<td>1</td>
</tr>
</tbody>
</table>

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 1**

Match Actuator | A | H | R | 1 |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Black</td>
<td>B</td>
<td>J</td>
<td>S</td>
<td>2</td>
</tr>
<tr>
<td>White</td>
<td>C</td>
<td>K</td>
<td>T</td>
<td>3</td>
</tr>
<tr>
<td>Red</td>
<td>D</td>
<td>L</td>
<td>V</td>
<td>4</td>
</tr>
<tr>
<td>Safety Orange</td>
<td>E</td>
<td>M</td>
<td>W</td>
<td>5</td>
</tr>
</tbody>
</table>

**12 ACTUATOR LENS OR BODY LEGEND 2**

<table>
<thead>
<tr>
<th>0 - No Legend</th>
<th>21</th>
<th>22</th>
<th>23</th>
<th>24</th>
</tr>
</thead>
<tbody>
<tr>
<td>OFF</td>
<td>ON</td>
<td>O</td>
<td>I</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>25</th>
<th>26</th>
<th>27</th>
<th>28</th>
</tr>
</thead>
<tbody>
<tr>
<td>F</td>
<td>N</td>
<td>F</td>
<td>F</td>
</tr>
</tbody>
</table>

For additional legend options & codes, visit us at www.carlingtech.com.

**13 LEGEND ORIENTATION**

<table>
<thead>
<tr>
<th>0</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
</table>

Notes:

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. Only available with 3 position circuits. Center OFF and special circuits only available with center position lock function.

Email: sales@carlingtech.com Application Support: team2@carlingtech.com Phone: (860) 793–9281 Fax: (860) 793–9231 www.carlingtech.com
Dimensional Specifications: in. [mm]

CONTURA II
SHOWN WITH SQUARE LENS

8 TERMINAL BASE W/BARRIERS

CONTURA III

1.950 [49.99]

8 TERMINAL BASE W/O BARRIERS

1.950 [49.99]

0.80 [2.03]

1.55 [39.37]

1.079 [27.40]

0.79 [20.08]

0.96 [24.38]

0.390 [9.90]

0.505 [12.83]

0.250 [6.35]

0.031 [0.78]

0.940 [23.88]

0.940 [23.87]

V–Series Contura Sealed Rocker Switches - Contura II & III - Dimensional Specifications

Email: sales@carlingtech.com     Application Support: team2@carlingtech.com
Phone: (860) 793–9281     Fax: (860) 793–9231     www.carlingtech.com
### Circuit Diagrams:

<table>
<thead>
<tr>
<th>CIRCUIT CODE</th>
<th>CIRCUIT DIAGRAM</th>
<th>CIRCUIT CODE</th>
<th>CIRCUIT DIAGRAM</th>
<th>CIRCUIT CODE</th>
<th>CIRCUIT DIAGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td><img src="" alt="Diagram.png" /></td>
<td>A</td>
<td><img src="" alt="Diagram.png" /></td>
<td>J</td>
<td><img src="" alt="Diagram.png" /></td>
</tr>
<tr>
<td>2</td>
<td><img src="" alt="Diagram.png" /></td>
<td>B</td>
<td><img src="" alt="Diagram.png" /></td>
<td>K</td>
<td><img src="" alt="Diagram.png" /></td>
</tr>
<tr>
<td>3</td>
<td><img src="" alt="Diagram.png" /></td>
<td>C</td>
<td><img src="" alt="Diagram.png" /></td>
<td>L</td>
<td><img src="" alt="Diagram.png" /></td>
</tr>
<tr>
<td>4</td>
<td><img src="" alt="Diagram.png" /></td>
<td>D</td>
<td><img src="" alt="Diagram.png" /></td>
<td>M</td>
<td><img src="" alt="Diagram.png" /></td>
</tr>
<tr>
<td>5</td>
<td><img src="" alt="Diagram.png" /></td>
<td>E</td>
<td><img src="" alt="Diagram.png" /></td>
<td>R</td>
<td><img src="" alt="Diagram.png" /></td>
</tr>
<tr>
<td>6</td>
<td><img src="" alt="Diagram.png" /></td>
<td>F</td>
<td><img src="" alt="Diagram.png" /></td>
<td>S</td>
<td><img src="" alt="Diagram.png" /></td>
</tr>
<tr>
<td>7</td>
<td><img src="" alt="Diagram.png" /></td>
<td>G</td>
<td><img src="" alt="Diagram.png" /></td>
<td></td>
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</tr>
<tr>
<td>8</td>
<td><img src="" alt="Diagram.png" /></td>
<td>H</td>
<td><img src="" alt="Diagram.png" /></td>
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</tbody>
</table>

### SYMBOL LEGEND

<table>
<thead>
<tr>
<th>SYM.</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="symbol.png" alt="Symbol" /></td>
<td>DESIGNATES TERMINALS AND CONTACTS</td>
</tr>
<tr>
<td><img src="symbol.png" alt="Symbol" /></td>
<td>DESIGNATES MAINTAINED CIRCUITS</td>
</tr>
<tr>
<td><img src="symbol.png" alt="Symbol" /></td>
<td>DESIGNATES OTHER POSITION</td>
</tr>
<tr>
<td><img src="symbol.png" alt="Symbol" /></td>
<td>DESIGNATES MOMENTARY CIRCUITS</td>
</tr>
<tr>
<td><img src="symbol.png" alt="Symbol" /></td>
<td>DESIGNATES TWO POSITION CONNECTION</td>
</tr>
<tr>
<td><img src="symbol.png" alt="Symbol" /></td>
<td>DESIGNATES EXTERNAL JUMPER PROVIDED BY CUSTOMER</td>
</tr>
</tbody>
</table>
Lamp Circuit Diagrams:

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<table>
<thead>
<tr>
<th>LAMP CIRCUIT CODE</th>
<th>CIRCUIT DIAGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>A / 1</td>
<td>![Diagram A/1]</td>
</tr>
<tr>
<td>B / 2</td>
<td>![Diagram B/2]</td>
</tr>
<tr>
<td>C / 3</td>
<td>![Diagram C/3]</td>
</tr>
<tr>
<td>D / 4</td>
<td>![Diagram D/4]</td>
</tr>
<tr>
<td>E / 5</td>
<td>![Diagram E/5]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LAMP CIRCUIT CODE</th>
<th>CIRCUIT DIAGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>F / 6</td>
<td>![Diagram F/6]</td>
</tr>
<tr>
<td>G / 7</td>
<td>![Diagram G/7]</td>
</tr>
<tr>
<td>H / Z</td>
<td>![Diagram H/Z]</td>
</tr>
<tr>
<td>J / 8</td>
<td>![Diagram J/8]</td>
</tr>
<tr>
<td>K / W</td>
<td>![Diagram K/W]</td>
</tr>
<tr>
<td>L / 9</td>
<td>![Diagram L/9]</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>LAMP CIRCUIT CODE</th>
<th>CIRCUIT DIAGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECIAL #1</td>
<td>![Diagram SPECIAL #1]</td>
</tr>
<tr>
<td>SPECIAL #3</td>
<td>![Diagram SPECIAL #3]</td>
</tr>
<tr>
<td>SPECIAL #4</td>
<td>![Diagram SPECIAL #4]</td>
</tr>
</tbody>
</table>

J-Series Hazard Warning Circuit Diagrams:

```
<table>
<thead>
<tr>
<th>CIRCUIT CODE</th>
<th>CIRCUIT DIAGRAM</th>
</tr>
</thead>
<tbody>
<tr>
<td>J1</td>
<td>![Diagram J1]</td>
</tr>
<tr>
<td>J2</td>
<td>![Diagram J2]</td>
</tr>
<tr>
<td>J3</td>
<td>![Diagram J3]</td>
</tr>
<tr>
<td>J4</td>
<td>![Diagram J4]</td>
</tr>
<tr>
<td>J5</td>
<td>![Diagram J5]</td>
</tr>
<tr>
<td>JA</td>
<td>![Diagram JA]</td>
</tr>
<tr>
<td>JJ</td>
<td>![Diagram JJ]</td>
</tr>
</tbody>
</table>

NOTE: J circuits are available for all non-locking V-Series styles. Consult factory for part number details.

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>
</tbody>
</table>
```
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.
Contura VI Actuator with lenses and inserts only: VV with code selections 9-16
Contura X, XI, XII, XIV actuators with lenses separately: VV with code selections 9-14 in the ordering schemes.

Panel Seal: VPS

Contura X & XI actuators without lenses separately:

<table>
<thead>
<tr>
<th>VVR</th>
<th>6</th>
<th>1</th>
<th>00</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Actuator Separately</td>
<td>2</td>
<td>Actuator Style/Color</td>
<td>3</td>
</tr>
</tbody>
</table>

1 CONTURA X & XI ACTUATOR SEPARATELY

VVR

2 ACTUATOR STYLE & COLOR

<table>
<thead>
<tr>
<th>B</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>G</td>
<td>Gray</td>
</tr>
<tr>
<td>W</td>
<td>White</td>
</tr>
<tr>
<td>R</td>
<td>Red</td>
</tr>
</tbody>
</table>

Contura X 1 2 3 4 5
Contura XI 6 7 8 9

3 LENS OPENING FOR

1. One bar lens
2. One bar lenses
3. One square lens
4. Two square lenses

5 square lenses on top/
bar lens on bottom

(Contura X only)

4 ACTUATOR LENS OR BODY LEGEND

00 - No Legend this location
11 ON 12 OFF 13 I 14 O
OFF ON O I
15 O O 16 O O 17 I O 18 I O
F N N F

For additional legend options & codes, visit us at www.carlingtech.com.

5 LEGEND ORIENTATION

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

Contura X, XI & XII actuator lens assembly:

VVT 1

1 TOP OF LENS SEPARATELY

1 Lens Separately
2 Color

2 COLOR

1 Clear 2 Smoke 3 White

Contura X, XI & XII actuator lens assembly:

VVT 1

2 ACTUATOR STYLE & COLOR

<table>
<thead>
<tr>
<th>J</th>
<th>Black</th>
</tr>
</thead>
<tbody>
<tr>
<td>K</td>
<td>Gray</td>
</tr>
<tr>
<td>N</td>
<td>White</td>
</tr>
<tr>
<td>M</td>
<td>Red</td>
</tr>
</tbody>
</table>

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

VVT 1

1 TOP OF LENS SEPARATELY

1 Lens Separately
2 Color

2 COLOR

1 Clear 2 Smoke 3 White

Contura X, XI & XII actuator lens assembly:

VVT 1

2 ACTUATOR STYLE & COLOR

<table>
<thead>
<tr>
<th>G</th>
<th>Gray</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>White</td>
</tr>
<tr>
<td>M</td>
<td>Red</td>
</tr>
</tbody>
</table>

Contura XII actuators without lenses separately:

<table>
<thead>
<tr>
<th>VVP</th>
<th>J</th>
<th>1</th>
<th>Z</th>
<th>21</th>
<th>1</th>
<th>00</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Actuator</td>
<td>2</td>
<td>Style &amp; Color</td>
<td>3</td>
<td>Lens Opening</td>
<td>4</td>
</tr>
</tbody>
</table>

1 CONTURA XII ACTUATOR SEPARATELY

VVP

2 ACTUATOR STYLE & COLOR

<table>
<thead>
<tr>
<th>J</th>
<th>Black</th>
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</thead>
<tbody>
<tr>
<td>K</td>
<td>Gray</td>
</tr>
<tr>
<td>N</td>
<td>White</td>
</tr>
<tr>
<td>M</td>
<td>Red</td>
</tr>
</tbody>
</table>

3.4 LENS OPENING FOR

Z. No lens
1 Bar lens
2. Square lens

5. 7 LENS OR BODY LEGEND

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

For additional legend options & codes, visit us at www.carlingtech.com.

6 LEGEND ORIENTATION

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

Contura X, XI & XII actuator lens assembly separately:

VVL 2 1 00 0

1 Lens Separately
2 Lens Style
3 Lens Color
4 Legend
5 Legend Orientation

1 CONTURA X, XI & XII LENS SEPARATELY

VVL

2 LENS STYLE

1. Bar lens
2. One Piece Square lens
3. Bottom of Two-Piece Square lens

3 TRANSLUCENT LENS COLOR

1. Clear 2 White 3 Amber 4 Green 5 Red 6 Blue

4 LENS OR BODY LEGEND

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

For additional legend options & codes, visit us at www.carlingtech.com.

5 LEGEND ORIENTATION

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

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Phone: (860) 793–9281   Fax: (860) 793–9231   www.carlingtech.com
Easily integrate Contura products into your system, with Contura Accessories

Contura Connectors

Q.C. SELECTION GUIDE

<table>
<thead>
<tr>
<th>COMPANY SERIES</th>
<th>PART NO</th>
<th>WIRE RANGE</th>
<th>ORIENTATION</th>
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<tr>
<td></td>
<td>PLAIN BRASS</td>
<td>TIN PLATED BRASS</td>
<td>AWG</td>
</tr>
<tr>
<td>PACKARD 69 SERIES</td>
<td>02995580</td>
<td>02995471</td>
<td>02995470</td>
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<td></td>
<td>12010601</td>
<td>16-14</td>
<td>1.0-2.5</td>
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<tr>
<td>PACKARD 630 SERIES</td>
<td>12084560</td>
<td>12052224</td>
<td>12052222</td>
</tr>
<tr>
<td>AMP METRI-PACK 58 SERIES</td>
<td>60253-1</td>
<td>60253-2</td>
<td>42100-1</td>
</tr>
<tr>
<td>AMP, PACKARD 58 SERIES</td>
<td>3</td>
<td>3</td>
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</tr>
</tbody>
</table>

NOTE: Consult Delphi Packard and/or Amp on actual part numbers and availability.

Delphi Packard is a registered trademark of Delphi-Packard Electrical Systems Warren, Ohio

Additional V-Series Ratings

1. .4VA @ 28VDC Resistive
2. 10A 250VAC 1/2 HP, 15A 125 VAC 1/2 HP, No Agency Listings
3. 10A 250VAC 1/2 HP, 15A 125 VAC 1/2 HP, UL Recognized, CSA Certified
4. 15A 24V
5. 20A 18V
6. 20A 12V
7. 20A 14V, 10A 14VT (circuits 1, 4, A, & D only)
8. 10A 14V, 6A, 14VT (circuit G only)
9. 20A 6V
10. 20A 3V
11. 15A 125 VAC, 10A 250VAC, 1/2 HP 125-250 VAC; 6A 125 VAC L
12. .4VA/15A 24V (combi-contact)
13. .4VA/15A 24V (combi-contact)

Contura X Boot (P/N VB1-01)

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

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Contura Mounting Panels
Dimensional Specifications: in. [mm]

Contura Hole Plug
Dimensional Specifications: in. [mm]
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