



Carling Technologies®  
/// NOW PART OF



Littelfuse®

# V-Series

## Contura® IV, V & VII

Sealed Rocker Switches

**PRODUCT WEBPAGE**

*request sample, configure part, watch video*



### Contura® IP66/68 Snap-In Mounted Switches

The V-Series switches are well known for their cutting edge design, high quality, maximum performance and unmatched reliability. These snap-in rocker switches offer countless options for ratings, circuits, colors, illuminations and symbols. These single or double pole switches feature removable actuators in a choice of actuator styles and colors, which may be purchased and stocked separately. An optional plug-in terminal connector enables pre-wiring of wire harness.

**1-2**

Poles

**.4-20**

Amps

**125-250**

VAC

**12-24**

VDC

## Typical Applications

- On/Off-Highway
- Armoured Vehicles
- Any Application Requiring Sealing Protection
- Marine
- Mining Machinery

# Design Features

## INTERCHANGEABLE ACTUATORS

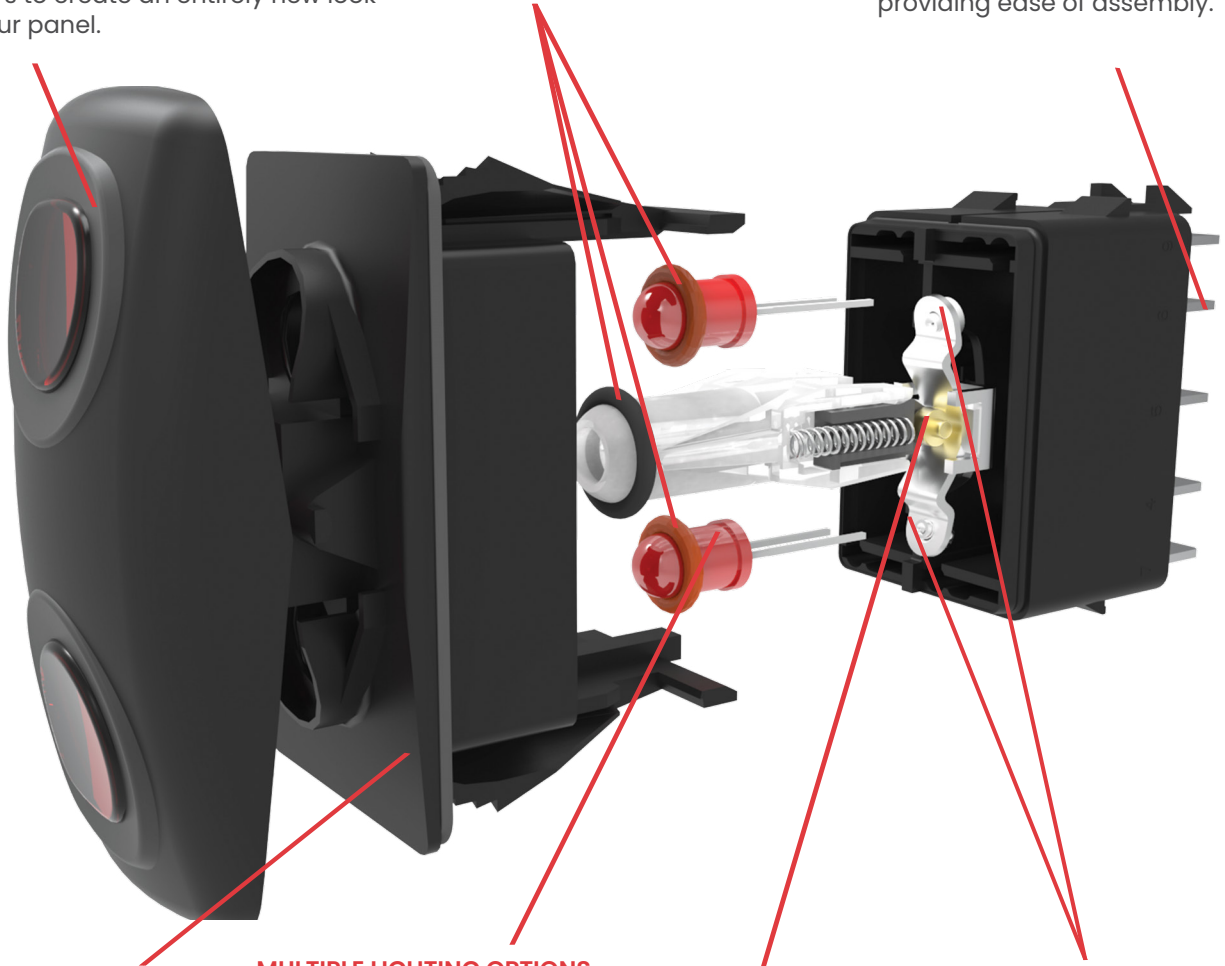
Panel redesign is a snap with our wide range of rocker styles. Achieve maximum design variety with minimum inventory. Simply swap rockers to create an entirely new look for your panel.

## 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  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$  temperatures.

## SILVER PLATED BUTT CONTACT MECHANISM

Providing 50k to 100k electrical cycles, circuit and load dependent

# Actuator Options & Accessories

## 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 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 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 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 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 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 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 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.



## 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.



## 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



# Tech Specs

## Electrical

|                            |                                                                                                                                                              |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Contact Rating             | 4VA @ 24VDC (MAX) resistive<br>15 amps, 125VAC<br>10 amps, 250VAC<br>1/2 HP 125-250VAC<br>20 amps, 4-14VDC<br>15 amps, 15-28VDC<br>10A, 14VT<br>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<br>1/4" (6.3mm) Quick Connect terminations standard. Solder lug, Wire Lead                                                      |

## Physical

|                                          |                                                                                                                                                                                                                                                           |
|------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Lighted                                  | Incandescent - rated 10,000 hours<br>Neon - rated 25,000 hours<br>LED - rated 100,000 hours 1/2 life (LED is internally ballasted for voltages to 24VDC)                                                                                                  |
| Seals                                    | Internal<br>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, VII Actuator | <b>Hard Surface:</b> Basic actuator structure molded of thermoplastic polycarbonate with a hard Nylon 66 thermoplastic surface overlay.<br><b>Soft Surface:</b> 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                                                                                                                                                                                                                              |
| Contura XIV                              | Polycarbonate lens/sub-rocker with ABS shell                                                                                                                                                                                                              |

## Actuator Travel (Angular Displacement)

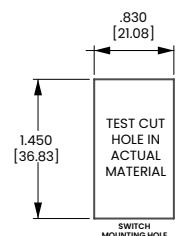
|             |                |
|-------------|----------------|
| 2 position  | 18°            |
| 3 positions | 9° from center |

## Environmental

|                     |                                                                                                                                                                                                                                            |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Sealing             | IP66/68, for above-panel components of actual switch only.                                                                                                                                                                                 |
| Corrosion           | Mixed Flowing Gas (MFG) Class III<br>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<br>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<br>0.40 DA 50-2000 Hz ±10 G's peak<br>Horizontal Axis 3-5 G's max.<br>Random 24 Hz 0.06 PSD-Gsq/Hz<br>60 Hz 0.50 100 Hz 0.50 200 Hz 0.025<br>2000 Hz 0.025 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.                                                                                                                                                              |
| Dust                | 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                                                                                                                           |
| 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.                                                  |

## Mounting Specifications

Panel Thickness Range  
Gaskets Acceptable Panel Thickness  
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



# Ordering Scheme

Contura IV

Sample  
Part Number

V 1 D A B T 0 B - E P C 00 - 0 00

Selection

1

2

3

4

5

6

7

8

9

10

11

12

13

14

## 1. SERIES

V V-Series

## 2. CIRCUIT

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

| Position:        | 1              | 2                   | 3            |
|------------------|----------------|---------------------|--------------|
| SP DP            | 2 & 3, 5 & 6   | Connected Terminals | 1 & 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               | OFF          |
| S*               | 2 & 3, 5 & 6   | 2 & 3               | 1 & 2        |
| M*               | (2 & 3, 5 & 6) | 2 & 3               | OFF          |
| R*               | (2 & 3, 5 & 6) | 2 & 3               | 2 & 1        |
| E*               | 5 & 6          | 5 & 3               | 5 & 1        |

\*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

4

|   |                                              |
|---|----------------------------------------------|
| 1 | .4VA @ 28VDC Resistive                       |
| B | 15A 24V                                      |
| C | 20A 18V                                      |
| D | 20A 12V                                      |
| E | 20A 14V, 10A 14VT (circuit 1, 4, A & D only) |
| F | 10A 14V, 6A 14VT (circuit G 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   | No          |
| A      | B       | 250 TAB (QC) with barriers | No          |
| J      | K       | 250 TAB (QC) no 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          |

Note: 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

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 | Lamps | Illumination Type | Lamp wired to Terminals |
|---------------------------|----------|-------|-------------------|-------------------------|
| S                         | 0        | NONE  | -                 | -                       |
| A                         | 1        | 1     | INDEPENDENT       | 8 (+) 7 (-)             |
| B                         | 2        | 1     | DOWN              | 3 (+) 7 (-)             |
| C                         | 3        | 2     | UP                | 3 (+) 7 (-)             |
| D                         | 4        | 1     | DOWN              | 3 (+) 7 (-)             |
|                           |          | 2     | DOWN              | 1 (+) 7 (-)             |
| E                         | 5        | 1     | UP                | 1 (+) 7 (-)             |
|                           |          | 2     | UP                | 3 (+) 7 (-)             |
| F                         | 6        | 1     | INDEPENDENT       | 8 (+) 7 (-)             |
|                           |          | 2     | UP                | 3 (+) 6 (-)             |
| G                         | 7        | 1     | INDEPENDENT       | 8 (+) 7 (-)             |
|                           |          | 2     | UP                | 3 (+) 7 (-)             |
| H                         | Z        | 2     | INDEPENDENT       | 8 (+) 7 (-)             |
| U                         | Y        | 1     | INDEPENDENT       | 8 (+) 7 (-)             |
|                           |          | 2     | INDEPENDENT       | 10 (+) 9 (-)            |
| SINGLE POLE SWITCHES ONLY |          |       |                   |                         |
| J                         | 8        | 1     | DOWN              | 3 (+) 8 (-)             |
|                           |          | 2     | INDEPENDENT       | 6 (+) 7 (-)             |
| K                         | W        | 1     | INDEPENDENT       | 8 (+) 7 (-)             |
|                           |          | 2     | INDEPENDENT       | 6 (+) 7 (-)             |
| DOUBLE POLE SWITCHES ONLY |          |       |                   |                         |
| L                         | 9        | 1     | DOWN              | 3 (+) 6 (-)             |
| M                         | R        | 1     | UP                | 3 (+) 6 (-)             |
| N                         | T        | 1     | DOWN              | 3 (+) 6 (-)             |
|                           |          | 2     | DOWN              | 1 (+) 4 (-)             |
| P                         | V        | 1     | UP                | 1 (+) 4 (-)             |
|                           |          | 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        |          |             |             |       |
| Neon         | 1 125VAC | 2 250VAC |             |             |       |
| Incandescent | 4 3V     | 5 6V     | 6 12V       | 7 18V       | 8 24V |
| LED*         |          |          | superbright | superbright |       |
|              | Red      | Amber    | Green       | Red         |       |
| 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

1

|          |       |       |      |
|----------|-------|-------|------|
| No Seal  | Black | White | Gray |
| One Seal | B     | W     | G    |
|          | C     | Y     | H    |

## 9. ACTUATOR

|   |                                             |
|---|---------------------------------------------|
| E | Contura IV, left orientation                |
| T | Contura IV, left orientation, laser etched  |
| F | Contura IV, right orientation               |
| R | Contura IV, right orientation, laser etched |

Actuator orientation over terminals:



## 10. LENS

| 0 - No Actuator |       | Z - No Lens |       |     |      |
|-----------------|-------|-------------|-------|-----|------|
| Clear           | White | Amber       | Green | Red | Blue |
| 1               | 6     | B           | G     | M   | T    |
| 2               | 7     | C           | H     | N   | U    |
| 3               | 8     | D           | J     | P   | V    |
| 4               | 9     | E           | K     | R   | W    |
| 5               | A     | F           | L     | S   | Y    |



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 COLOR

1, 5, 6

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

## 12. ACTUATOR LENS OR BODY LEGENDS

2

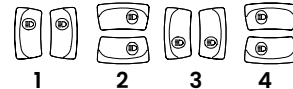
|    |     |    |     |    |     |    |     |
|----|-----|----|-----|----|-----|----|-----|
| 11 | ON  | 12 | OFF | 13 | I   | 14 | O   |
|    | OFF |    | ON  |    | O   |    | I   |
| 15 | O O | 16 | O O | 17 | O I | 18 | I O |
|    | F N |    | N F |    |     |    |     |
|    | F   |    | F   |    |     |    |     |



For additional legend options & codes, visit us at [www.carlingtech.com](http://www.carlingtech.com)

## 13. LEGENDS ORIENTATION

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



## 13. ACTUATOR LENS LEGENDS

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, visit us at [www.carlingtech.com](http://www.carlingtech.com).

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.
- Gloss brow is on left side of E actuator and right side of F actuator.
- Additional ratings available. See V-Series Switch Accessories page.
- 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.

Configure Complete Part Number >

Browse Standard Parts >

# Ordering Scheme

Contura V

Sample  
Part Number

V 1 D A B T O B - G P C 00 - 0 00

Selection

1

2

3

4

5

6

7

8

9

10

11

12

13

14

## 1. SERIES

V V-Series

## 2. CIRCUIT

Terminal Connections as viewed ( ) - momentary from bottom of switch: SP - single pole: terminals 1, 2 & 3.

8 terminal 10 terminal DP - double pole: terminals 1, 2, 3, 4, 5 & 6. Terminals 7, 8, 9 & 10 for lamp circuit only.

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

| Position: | 1            | 2                   | 3            |
|-----------|--------------|---------------------|--------------|
| SP DP     | 2 & 3, 5 & 6 | Connected Terminals | 1 & 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        | OFF   |
| S* | 2 & 3, 5 & 6   | 2 & 3        | 1 & 2 |
| M* | (2 & 3, 5 & 6) | 2 & 3        | OFF   |
| R* | (2 & 3, 5 & 6) | 2 & 3        | 2 & 1 |
| E* | 5 & 6          | 5 & 3        | 5 & 1 |

\*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

4

|   |                                              |
|---|----------------------------------------------|
| 1 | .4VA @ 28VDC Resistive                       |
| B | 15A 24V                                      |
| C | 20A 18V                                      |
| D | 20A 12V                                      |
| E | 20A 14V, 10A 14VT (circuit 1, 4, A & D only) |
| F | 10A 14V, 6A 14VT (circuit G 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   | No          |
| A      | B       | .250 TAB (QC) with barriers | No          |
| J      | K       | .250 TAB (QC) no 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          |

Note: 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

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 | Lamps | Illumination Type | Lamp wired to Terminals |
|---------------------------|----------|-------|-------------------|-------------------------|
| S                         | 0        | NONE  | -                 | -                       |
| A                         | 1        | 1     | INDEPENDENT       | 8 (+) 7 (-)             |
| B                         | 2        | 1     | DOWN              | 3 (+) 7 (-)             |
| C                         | 3        | 2     | UP                | 3 (+) 7 (-)             |
| D                         | 4        | 1     | DOWN              | 3 (+) 7 (-)             |
| E                         | 5        | 2     | DOWN              | 1 (+) 7 (-)             |
| F                         | 6        | 1     | UP                | 1 (+) 7 (-)             |
| G                         | 7        | 2     | UP                | 3 (+) 7 (-)             |
| H                         | Z        | 1     | INDEPENDENT       | 8 (+) 7 (-)             |
| U                         | Y        | 2     | UP                | 3 (+) 7 (-)             |
|                           |          | 2     | INDEPENDENT       | 8 (+) 7 (-)             |
|                           |          | 2     | INDEPENDENT       | 10 (+) 9 (-)            |
| SINGLE POLE SWITCHES ONLY |          |       |                   |                         |
| J                         | 8        | 1     | DOWN              | 3 (+) 8 (-)             |
| K                         | W        | 2     | INDEPENDENT       | 6 (+) 7 (-)             |
|                           |          | 1     | INDEPENDENT       | 8 (+) 7 (-)             |
|                           |          | 2     | INDEPENDENT       | 6 (+) 7 (-)             |
| DOUBLE POLE SWITCHES ONLY |          |       |                   |                         |
| L                         | 9        | 1     | DOWN              | 3 (+) 6 (-)             |
| M                         | R        | 1     | UP                | 3 (+) 6 (-)             |
| N                         | T        | 1     | DOWN              | 3 (+) 6 (-)             |
|                           |          | 2     | DOWN              | 1 (+) 4 (-)             |
| P                         | V        | 1     | UP                | 1 (+) 4 (-)             |
|                           |          | 2     | UP                | 3 (+) 6 (-)             |

## 6,7. LAMP

Selection 6: above terminals 1 & 4; Selection 7: above terminals 3 & 6

|              |   |          |          |             |             |       |
|--------------|---|----------|----------|-------------|-------------|-------|
| No lamp      | 0 | 1 125VAC | 2 250VAC | 6 12V       | 7 18V       | 8 24V |
| Neon         | 1 | 4 3V     | 5 6V     | superbright | superbright |       |
| Incandescent | 4 |          |          | Green       | Red         |       |
| LED*         |   | Red      | Amber    |             |             |       |
|              |   | A        | L        | F           | R           |       |
| 2VDC         |   | B        | M        | G           | S           |       |
| 6VDC         |   | C        | N        | H           | T           |       |
| 12VDC        |   | D        | P        | J           | V           |       |
| 24VDC        |   |          |          |             |             |       |

\* Consult factory for "daylight bright" LED options. Typical current draw for LED is 20ma.

## 8. FLUSH BRACKET COLOR, PANEL SEAL

1

|          |       |       |      |
|----------|-------|-------|------|
| No Seal  | Black | White | Gray |
| One Seal | B     | W     | G    |
|          | C     | Y     | H    |

## 9. ACTUATOR

|   |                         |
|---|-------------------------|
| 0 | No Actuator             |
| G | Contura V               |
| P | Contura V, laser etched |

## 10. LENS

0 - No Actuator Z - No Lens style & location: #1 / #2

| Clear | White | Amber | Green | Red | Blue |
|-------|-------|-------|-------|-----|------|
| 1     | 6     | B     | G     | M   | T    |
| 2     | 7     | C     | H     | N   | U    |
| 3     | 8     | D     | J     | P   | V    |
| 4     | 9     | E     | K     | R   | W    |
| 5     | A     | F     | L     | S   | Y    |

1 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 COLOR

1, 3, 5

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

## 12. ACTUATOR LENS OR BODY LEGENDS

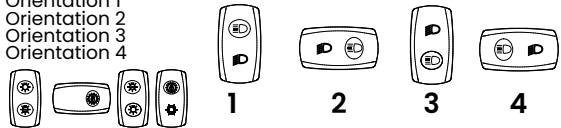
2, 6

|    |     |    |     |    |     |    |     |
|----|-----|----|-----|----|-----|----|-----|
| 11 | ON  | 12 | OFF | 13 | I   | 14 | O   |
|    | OFF |    | ON  |    | O   |    | I   |
| 15 | O O | 16 | O O | 17 | O I | 18 | I O |
|    | F N |    | N F |    |     |    |     |
|    | F   |    | F   |    |     |    |     |

For additional legend options & codes, visit us at [www.carlingtech.com](http://www.carlingtech.com)

## 12. LEGENDS ORIENTATION

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



## 13. 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, visit us at [www.carlingtech.com](http://www.carlingtech.com)

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.
- Laser Etched rocker only available with lens code Z & actuator colors black, nickel or pewter.
- Additional ratings available. See V-Series Switch Accessories page.
- Nickel and Pewter colors only available with laser etched actuator.
- Consult factory for laser etched lens callout.

Configure Complete Part Number >

Browse Standard Parts >

# Ordering Scheme

Contura IV & V Locking

Sample  
Part Number

V 1 D A S W O B - J Z E 00 - 0

Selection

1

2

3

4

5

6

7

8

9

10

11

12

13

## 1. SERIES

V V-Series

## 2. CIRCUIT 3

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

| Position: | 1            | 2                   | 3            |
|-----------|--------------|---------------------|--------------|
| SP        | 2 & 3, 5 & 6 | Connected Terminals | 1 & 2, 4 & 5 |
| DP        |              |                     |              |
| 1 A       | ON           | NONE                | OFF          |
| 4 D       | ON           | NONE                | ON           |
| 6 J       | ON           | OFF                 | ON           |
| 7 K       | ON           | OFF                 | (ON)         |
| 8 L       | (ON)         | OFF                 | (ON)         |
| 9 N       | OFF          | NONE                | ON           |

## 3. RATING 4

|   |                                             |
|---|---------------------------------------------|
| 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 G 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   | No          |
| A      | B       | .250 TAB (QC) with barriers | No          |
| J      | K       | .250 TAB (QC) no 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          |

Note: 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

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 | Lamps | Illumination Type | Lamp wired to Terminals |
|---------------------------|----------|-------|-------------------|-------------------------|
| S                         | 0        | NONE  | -                 | -                       |
| C                         | 3        | 2     | UP                | 3 (+) 7 (-)             |
| H                         | Z        | 2     | INDEPENDENT       | 8 (+) 7 (-)             |
| DOUBLE POLE SWITCHES ONLY |          |       |                   |                         |
| M                         | R        | 1     | UP                | 3 (+) 6 (-)             |

## 6. LOCK

Lock above terminals 1 & 4 end of switch.  
W low profile lock Y 6 high profile 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 V-Series Switch Accessories page.
- Located at T3-6 end of switch.
- Contura V style only.

## 7. LAMP

Lamp above terminals 3 & 6 end of switch

|              |   |          |          |             |             |       |
|--------------|---|----------|----------|-------------|-------------|-------|
| No lamp      | 0 | 1 125VAC | 2 250VAC | 6 12V       | 7 18V       | 8 24V |
| Neon         | 1 | 3V       | 6V       | superbright | superbright |       |
| Incandescent | 4 |          |          | Green       | Red         |       |
| LED*         |   | Red      | Amber    |             |             |       |
| 2VDC         | A | L        | F        |             |             |       |
| 6VDC         | B | M        | G        |             |             |       |
| 12VDC        | C | N        | H        |             |             |       |
| 24VDC        | D | P        | J        |             |             |       |

\* Consult factory for "daylight bright" LED options. Typical current draw for LED is 20ma.

## 8. FLUSH BRACKET COLOR, PANEL SEAL 1

|          |       |       |      |
|----------|-------|-------|------|
| No Seal  | Black | White | Gray |
| One Seal | B     | W     | G    |
|          | C     | Y     | H    |

## 9. HARD SURFACE ACTUATOR

CONTURA IV:

Orientation  
Left  
Right

|       |      |     |       |
|-------|------|-----|-------|
| Black | Gray | Red | White |
| J     | K    | L   | M     |
| N     | P    | R   | S     |

Actuator orientation over terminals: 3,6 1,4

CONTURA V:

|       |      |     |       |
|-------|------|-----|-------|
| Black | Gray | Red | White |
| U     | V    | W   | Y     |

Actuator orientation over terminals: 3,6 1,4



## 10. LENS 5

Z - No Lens

|       |       |       |       |     |      |
|-------|-------|-------|-------|-----|------|
| Clear | White | Amber | Green | Red | Blue |
| A     | B     | C     | D     | E   | F    |
| G     | H     | J     | K     | L   | M    |

bar lens

oval lens

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

| Lock Color     | Up | Down | Up & Down | Center 3 |
|----------------|----|------|-----------|----------|
| 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 LEGENDS 2

00 - No Legend

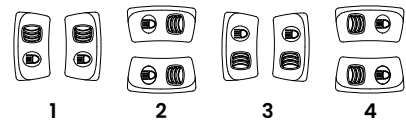
|     |    |    |    |
|-----|----|----|----|
| 21  | 22 | 23 | 24 |
| OFF | ON | O  | I  |
| 25  | 26 | 27 | 28 |
| O   | O  | O  | I  |
| F   | N  |    |    |



For additional legend options & codes, visit us at [www.carlingtech.com](http://www.carlingtech.com)

## 13. LEGENDS ORIENTATION

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



[Configure Complete Part Number >](#)

[Browse Standard Parts >](#)

# Ordering Scheme

Contura VII

Sample  
Part Number

V 1 D A B T O B - Z R C 00 - 0 00

Selection

1

2

3

4

5

6

7

8

9

10

11

12

13

14

## 1. SERIES

V V-Series

## 2. CIRCUIT

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

| Position:        | 1              | 2                   | 3            |
|------------------|----------------|---------------------|--------------|
| SP DP            | 2 & 3, 5 & 6   | Connected Terminals | 1 & 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               | OFF          |
| S*               | 2 & 3, 5 & 6   | 2 & 3               | 1 & 2        |
| M*               | (2 & 3, 5 & 6) | 2 & 3               | OFF          |
| R*               | (2 & 3, 5 & 6) | 2 & 3               | 2 & 1        |
| E*               | 5 & 6          | 5 & 3               | 5 & 1        |

\*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

4

|   |                                              |
|---|----------------------------------------------|
| 1 | .4VA @ 28VDC Resistive                       |
| B | 15A 24V                                      |
| C | 20A 18V                                      |
| D | 20A 12V                                      |
| E | 20A 14V, 10A 14VT (circuit 1, 4, A & D only) |
| F | 10A 14V, 6A 14VT (circuit G 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   | No          |
| A      | B       | .250 TAB (QC) with barriers | No          |
| J      | K       | .250 TAB (QC) no 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          |

Note: 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

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 | Lamps | Termination | illumination Type | Lamp wired to Terminals |
|---------------------------|----------|-------|-------------|-------------------|-------------------------|
| 0                         | 0        | NONE  | -           | -                 | -                       |
| A                         | 1        | 1     | INDEPENDENT | 8 (+) 7 (-)       |                         |
| B                         | 2        | 1     | DOWN        | 3 (+) 7 (-)       |                         |
| C                         | 3        | 2     | UP          | 3 (+) 7 (-)       |                         |
| D                         | 4        | 1     | DOWN        | 3 (+) 7 (-)       |                         |
|                           |          | 2     | DOWN        | 1 (+) 7 (-)       |                         |
| E                         | 5        | 1     | UP          | 1 (+) 7 (-)       |                         |
|                           |          | 2     | UP          | 3 (+) 7 (-)       |                         |
| F                         | 6        | 1     | INDEPENDENT | 8 (+) 7 (-)       |                         |
|                           |          | 2     | UP          | 3 (+) 6 (-)       |                         |
| G                         | 7        | 1     | INDEPENDENT | 8 (+) 7 (-)       |                         |
|                           |          | 2     | UP          | 3 (+) 7 (-)       |                         |
| H                         | Z        | 2     | INDEPENDENT | 8 (+) 7 (-)       |                         |
| U                         | Y        | 1     | INDEPENDENT | 8 (+) 7 (-)       |                         |
|                           |          | 2     | INDEPENDENT | 10 (+) 9 (-)      |                         |
| SINGLE POLE SWITCHES ONLY |          |       |             |                   |                         |
| J                         | 8        | 1     | DOWN        | 3 (+) 8 (-)       |                         |
|                           |          | 2     | INDEPENDENT | 6 (+) 7 (-)       |                         |
| K                         | W        | 1     | INDEPENDENT | 8 (+) 7 (-)       |                         |
|                           |          | 2     | INDEPENDENT | 6 (+) 7 (-)       |                         |
| DOUBLE POLE SWITCHES ONLY |          |       |             |                   |                         |
| L                         | 9        | 1     | DOWN        | 3 (+) 6 (-)       |                         |
| M                         | R        | 1     | UP          | 3 (+) 6 (-)       |                         |
| N                         | T        | 1     | DOWN        | 3 (+) 6 (-)       |                         |
|                           |          | 2     | DOWN        | 1 (+) 4 (-)       |                         |
| P                         | V        | 1     | UP          | 1 (+) 4 (-)       |                         |
|                           |          | 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  
Neon 1 125VAC 2 250VAC  
Incandescent 4 3V 5 6V 6 12V 7 18V 8 24V  
LED\* Red Amber Green superbright Red  
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

1

|          |       |       |      |
|----------|-------|-------|------|
| No Seal  | Black | White | Gray |
| One Seal | B     | W     | G    |
|          | C     | Y     | H    |

## 9. ACTUATOR

0 No Actuator  
Z Contura VII

Actuator orientation over terminals:



3,6 1,4

## 10. LENS

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 | White | Amber | Green | Red | Blue | Lens style & location |
|-----------------|-------------|-------|-------|-------|-----|------|-----------------------|
| 6               | B           | G     | M     | T     |     |      |                       |
| 7               | C           | H     | N     | U     |     |      |                       |
| 8               | D           | J     | P     | V     |     |      |                       |
| 9               | E           | K     | R     | W     |     |      |                       |
| A               | F           | L     | S     | Y     |     |      |                       |
| 1               | 2           | 3     | 4     | 5     |     |      |                       |

## 11. ACTUATOR COLOR / THUMB PRINT COLOR

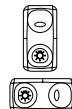
1

|   |                   |   |             |
|---|-------------------|---|-------------|
| O | N/A - No Actuator | C | Black/Black |
| H | Grey/Black        | S | Red/Black   |
| Y | White/Black       |   |             |

## 12. ACTUATOR LENS OR BODY LEGENDS

2

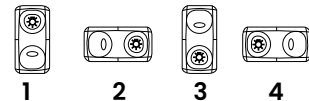
|    |     |    |     |    |     |    |     |
|----|-----|----|-----|----|-----|----|-----|
| 11 | ON  | 12 | OFF | 13 | I   | 14 | O   |
|    | OFF |    | ON  |    | O   |    | I   |
| 15 | O O | 16 | O O | 17 | O I | 18 | I O |
|    | F N |    | N F |    | F   |    |     |



For additional legend options & codes, visit us at [www.carlingtech.com](http://www.carlingtech.com)

## 13. ACTUATOR LENS OR BODY LEGENDS

|   |                                                   |
|---|---------------------------------------------------|
| 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, visit us at [www.carlingtech.com](http://www.carlingtech.com).

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.
- Additional ratings available. See V-Series Switch Accessories page.
- Legends available for lighted oval lens version only

Configure Complete Part Number >

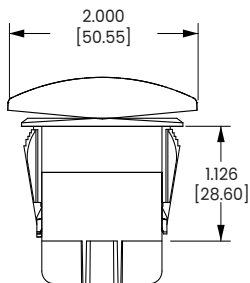
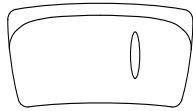
Browse Standard Parts >

# Dimensional Specs

inches [millimeters]

## CONTURA IV

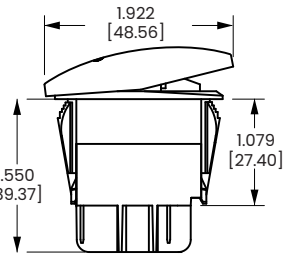
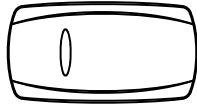
SHOWN WITH  
BAR LENS



10 TERMINAL BASE  
W/BARRIERS

## CONTURA V

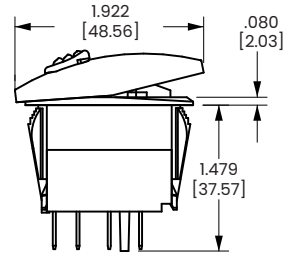
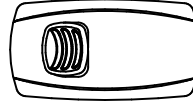
SHOWN WITH  
BAR LENS



8 TERMINAL BASE  
W/BARRIERS

## CONTURA V

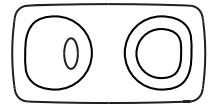
SHOWN WITH  
LOW PROFILE LOCK



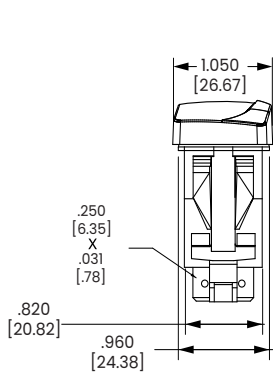
8 TERMINAL BASE  
W/O BARRIERS

## CONTURA VII

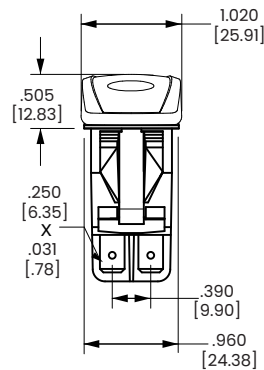
SHOWN WITH LARGE LENS  
AND BAR LENS



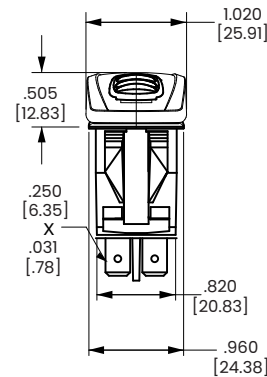
10 TERMINAL BASE  
W/O BARRIERS



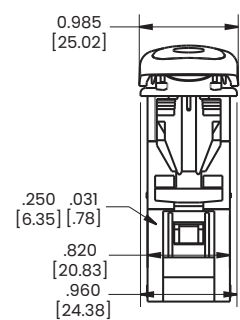
10 TERMINAL BASE  
W/O BARRIERS



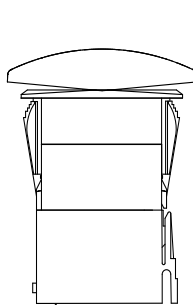
8 TERMINAL BASE  
W/BARRIERS



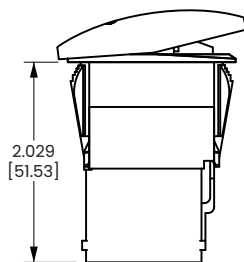
8 TERMINAL BASE  
W/O BARRIERS



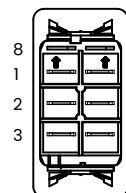
10 TERMINAL BASE  
W/O BARRIERS



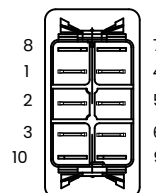
SWITCH SHOWN WITH  
VC1 CONNECTOR 10  
TERMINAL



SWITCH SHOWN WITH  
VCH CONNECTOR 8  
TERMINAL



BOTTOM VIEW  
TERMINAL  
ARRANGEMENT  
8 TERMINAL BASE



BOTTOM VIEW  
TERMINAL  
ARRANGEMENT  
10 TERMINAL BASE



SWITCH SHOWN  
WITH VC1  
CONNECTOR 10  
TERMINAL

# Circuit Diagrams:

| CIRCUIT CODE | CIRCUIT DIAGRAM |
|--------------|-----------------|
| 1            |                 |
| 2            |                 |
| 3            |                 |
| 4            |                 |
| 5            |                 |
| 6            |                 |
| 7            |                 |
| 8            |                 |

| CIRCUIT CODE | CIRCUIT DIAGRAM |
|--------------|-----------------|
| A            |                 |
| B            |                 |
| C            |                 |
| D            |                 |
| E            |                 |
| F            |                 |
| G            |                 |
| H            |                 |

| CIRCUIT CODE | CIRCUIT DIAGRAM |
|--------------|-----------------|
| J            |                 |
| K            |                 |
| L            |                 |
| M            |                 |
| R            |                 |
| S            |                 |

| SYMBOL LEGEND |                                                 |
|---------------|-------------------------------------------------|
| SYM.          | DEFINITION                                      |
| ○             | DESIGNATES TERMINALS AND CONTACTS               |
| —○—           | DESIGNATES MAINTAINED CIRCUITS                  |
| - - -         | DESIGNATES OTHER POSITION                       |
| —○—           | DESIGNATES MOMENTARY CIRCUITS                   |
| —○—           | DESIGNATES TWO POSITION CONNECTION              |
| —○—           | DESIGNATES EXTERNAL JUMPER PROVIDED BY CUSTOMER |

# Lamp Circuit Diagrams:

| LAMP CIRCUIT CODE | CIRCUIT DIAGRAM | LAMP CIRCUIT CODE | CIRCUIT DIAGRAM | LAMP CIRCUIT CODE | CIRCUIT DIAGRAM | LAMP CIRCUIT CODE | CIRCUIT DIAGRAM |
|-------------------|-----------------|-------------------|-----------------|-------------------|-----------------|-------------------|-----------------|
| A / 1             |                 | F / 6             |                 | L / 9             |                 | SPECIAL #1        |                 |
| B / 2             |                 | G / 7             |                 | M / R             |                 | SPECIAL #3        |                 |
| C / 3             |                 | H / Z             |                 | N / T             |                 | SPECIAL #4        |                 |
| D / 4             |                 | J / 8             |                 | P / V             |                 |                   |                 |
| E / 5             |                 | K / W             |                 | U / Y             |                 |                   |                 |

## J-Series Hazard Warning Circuit Diagrams:

| CIRCUIT CODE | CIRCUIT DIAGRAM | CIRCUIT CODE | CIRCUIT DIAGRAM |
|--------------|-----------------|--------------|-----------------|
| J1           |                 | J5           |                 |
| J2           |                 | JA           |                 |
| J3           |                 | JJ           |                 |
| J4           |                 | JK           |                 |

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

| SYMBOL LEGEND |                                   |
|---------------|-----------------------------------|
| SYM.          | DEFINITION                        |
|               | DESIGNATES TERMINALS AND CONTACTS |
|               | DESIGNATES LAMP LOCATION          |

# Stand-Alone Components

**Reduce inventory levels and cost by stocking actuators and base switches separately.**

**Contura II, III, IV, V, VI, VII, X, XI, XII, XIV Base switches separately:** specify V with code selections 2-8 in the ordering schemes.

**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:** VT with code selections 9-16

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

**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

VVR 6 1 00 1

1 2 3 4 5

### 1. CONTURA X & XI ACTUATOR SEPARATELY

VVR

### 2. ACTUATOR STYLE & COLOR

|            | Black | Gray | White | Red |
|------------|-------|------|-------|-----|
| Contura X  | 1     | 2    | 3     | 4   |
| Contura XI | 6     | 7    | 8     | 9   |

### 3. LENS OPENING FOR 1

|   |                 |   |                                                               |
|---|-----------------|---|---------------------------------------------------------------|
| 1 | One bar lens    |   |                                                               |
| 2 | Two bar lenses  |   |                                                               |
| 3 | One square lens | 5 | square lens on top/<br>bar lens on bottom<br>(Contura X only) |
| 4 | Two square lens |   |                                                               |

### 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  | 16 O   | 17 O | 18 I | O |
|       | F N    | N F  |      | F |

For additional legend options & code, visit us at [www.carlingtech.com](http://www.carlingtech.com)

### 5. LEGEND ORIENTATION 1

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

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

VVT 1

1 2

### 1 TOP OF LENS SEPARATELY

VVT

### 2 COLOR

1 Clear 2 Smoke 3 White

## 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.

## Contura XII actuators without lenses separately

VVP J 1 Z 21 1 00

1 2 3 4 5 6 7

### 1 CONTURA XII ACTUATOR SEPARATELY

VVP

### 2. ACTUATOR STYLE & COLOR

J Black K Gray N White M Red

### 3,4 LENS OPENING FOR 1

Z No lens 1 Bar lens 2 Square lens

### 5, 7 LENS OR BODY LEGEND 2

|                |        |       |      |      |  |
|----------------|--------|-------|------|------|--|
| 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](http://www.carlingtech.com)

### 6 LEGEND ORIENTATION 3

|   |               |  |  |
|---|---------------|--|--|
| 0 | No legend     |  |  |
| 1 | Orientation 1 |  |  |
| 2 | Orientation 2 |  |  |

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

VVL 2 1 00 0

1 2 3 4 5

### 1 CONTURA X, XI & XII LENS SEPARATELY

VVL

### 2 LENS STYLE 3

1 Bar lens  
2 One Piece Square lens  
3 Bottom of Two-Piece Square lens<sup>5</sup>

### 3 TRANSLUCENT LENS COLOR

1 Clear 2 White 3 Amber 4 Green<sup>4</sup> 5 Red 6 Blue<sup>4</sup>

### 4 LENS OR BODY LEGEND 2

|                |        |       |      |      |  |
|----------------|--------|-------|------|------|--|
| 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](http://www.carlingtech.com)

### 5 LEGEND ORIENTATION 3

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

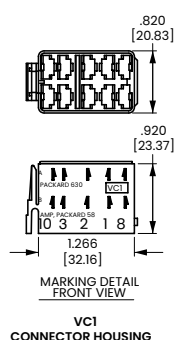
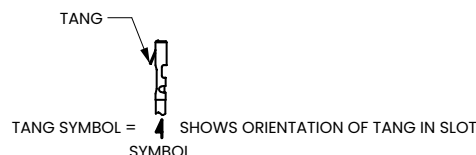
# Accessories

Easily integrate Contura products into your system, with Contura Accessories

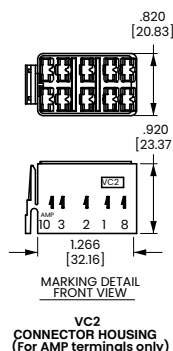
## Contura Connectors

| Q.C. SELECTION GUIDE          |             |                  |            |                       |             |
|-------------------------------|-------------|------------------|------------|-----------------------|-------------|
| COMPANY SERIES                | PART NO     |                  | WIRE RANGE |                       | ORIENTATION |
|                               | PLAIN BRASS | TIN PLATED BRASS | AWG        | MM <sup>2</sup> (REF) |             |
| PACKARD 58 SERIES             | 02965580    |                  | 12         | 3.0                   | B           |
|                               | 02965471    | 12010601         | (2)16-14   | (2)1.0-2.0            |             |
|                               | 02965470    |                  | 16-14      | 1.0-2.0               |             |
|                               | 02965469    | 06288318         | 20-18      | .5-.8                 |             |
| PACKARD METRI-PACK 630 SERIES |             | 12084590         | 105.0      |                       | A           |
|                               |             | 12052224         | 123.0      |                       |             |
|                               |             | 12015870         | 16-14      | 1.0-2.0               |             |
|                               |             | 12020035         | (2)22-18   | (2).5-.8              |             |
|                               | 12015832    | 12015869         | 20-18      | .5-.8                 |             |
|                               |             | 12052222         | 20-22      | .35-.5                |             |
| AMP 250 SERIES FASTIN-FASTON  | 60253-1     | 60253-2          | 16-12      | 1.3-3                 | B           |
|                               | 42100-1     | 42100-2          | 18-14      | .8-2                  |             |
|                               | 60295-1     | 60295-2          | 22-18      | .3-.9                 |             |
|                               |             |                  |            |                       |             |

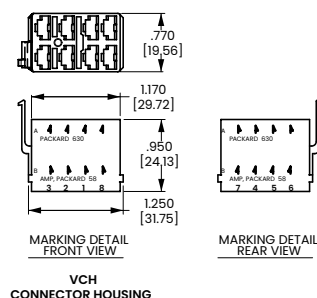
**NOTE:** Consult Delphi Packard and/or Amp on actual part numbers and availability.  
AMP is a registered trademark of AMP Inc. Harrisburg, PA  
Delphi Packard is a registered trademark of Delphi-Packard Electrical Systems Warr



VC1  
CONNECTOR HOUSING

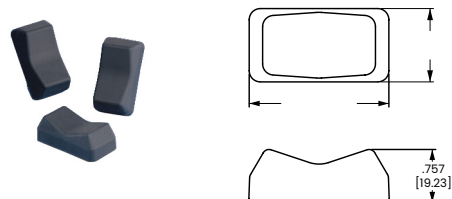


VC2  
CONNECTOR HOUSING  
(For AMP terminals only)

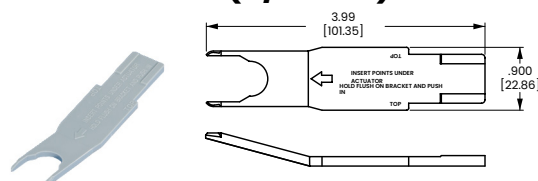


VCH  
CONNECTOR HOUSING

## Contura X Boot (P/N VB1-01)



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



## Additional V-Series Ratings

- 1 .4VA @ 28VDC Resistive
- 4 10A 250VAC 1/2 HP, 15A 125 VAC 1/2 HP, No Agency Listings
- 5<sup>1</sup> 10A 250VAC 1/2 HP, 15A 125 VAC 1/2 HP, UL Recognized, CSA Certified
- B 15A 24V
- C 20A 18V
- D 20A 12V
- E 20A 14V, 10A 14VT (circuits 1, 4, A, & D only)
- F 10A 14V, 6A, 14VT (circuit G only)
- G 20A 6V
- H 20A 3V
- L<sup>2</sup> 15A 125 VAC, 10A 250VAC, 1/2 HP 125-250 VAC; 6A 125 VAC L
- M .4VA/20A 12V (combi-contact)  
(combination gold/silver contacts for borderline dry circuit applications)
- N .4VA/15A 24V (combi-contact)  
(combination gold/silver contacts for borderline dry circuit applications)

### NOTES

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

1. Not available with Contura 7 or 14 rocker styles.
2. Rating L available with circuits 1, 4, A & D only.

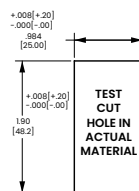
# Accessories

## Contura Mounting Panels Dimensional Specifications: in. [mm]

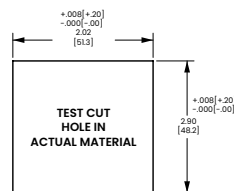
**MOUNTING PANEL**  
For additional units, add 1.03 [26.2] per unit. For more than 2 V-Series Switches, add middle section. Available in panel Thicknesses listed below. Consult factory.

### MOUNTING PANEL THICKNESS

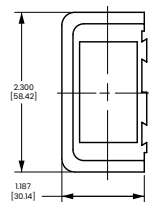
|        |        |
|--------|--------|
| .62    | .87    |
| [1.57] | [4.76] |
| .93    | .250   |
| [2.36] | [6.35] |
| .125   | .375   |
| [3.17] | [9.52] |



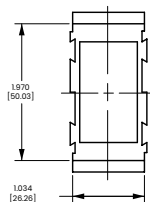
VMS MOUNTING PANEL HOLE



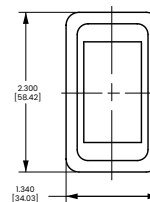
MOUNTING PANEL OPENING (2) UNITS



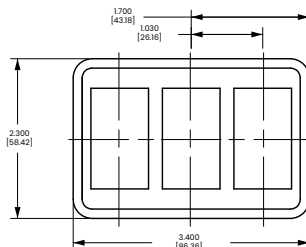
VME MOUNTING PANEL END



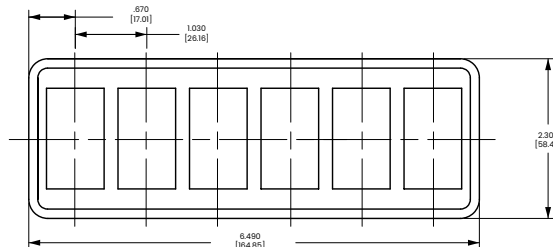
VMM MOUNTING PANEL MIDDLE



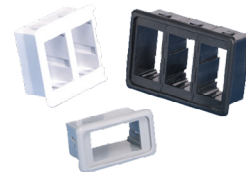
VMS MOUNTING PANEL



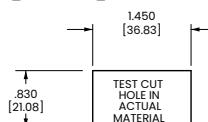
VM3 MOUNTING PANEL



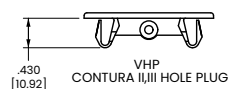
VM6 MOUNTING PANEL



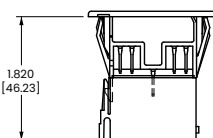
## Contura Hole Plug Dimensional Specifications: in. [mm]



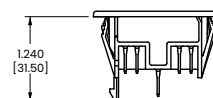
VHP CONTURA II, III HOLE PLUG



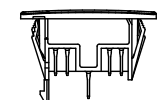
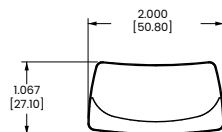
VHP CONTURA II, III HOLE PLUG



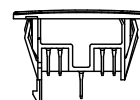
VH1 STANDARD HOLE PLUG (No wing serrations) (With VC1 connector attached)



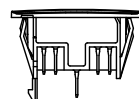
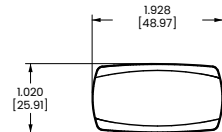
VH2 STANDARD HOLE PLUG (With wing serrations)



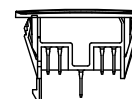
VH3 CONTURA IV HOLE PLUG (No wing serrations)



VH4 CONTURA IV HOLE PLUG (With wing serrations)



VH5 CONTURA V HOLE PLUG (No wing serrations)



VH6 CONTURA V HOLE PLUG (With wing serrations)



DETAIL VIEW VH1, VH3 & VH5 HOLE PLUGS (No wing serrations for ease of removal)



DETAIL VIEW VH2, VH4 & VH6 HOLE PLUGS (With wing serrations)



## Authorized Sales Representatives and Distributors

Click on a region of the map below to find your local representatives and distributors or visit [www.carlingtech.com/findarep](http://www.carlingtech.com/findarep).



## About Carling

Founded in 1920, Carling Technologies is a leading manufacturer of electrical and electronic switches and assemblies, circuit breakers, electronic controls, power distribution units, and multiplexed power distribution systems. With six ISO9001 and IATF16949 registered manufacturing facilities and technical sales offices worldwide, Carling Technologies Sales, Service and Engineering teams do much more than manufacture electrical components, they engineer powerful solutions! To learn more about Carling please visit [www.carlingtech.com/company-profile](http://www.carlingtech.com/company-profile).

To view all of Carling's environmental, quality, health & safety certifications please visit [www.carlingtech.com/environmental-certifications](http://www.carlingtech.com/environmental-certifications).