

# V-Series Switch

## Product Highlights:

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



CONTURA III



CONTURA II



CONTURA V



CONTURA VII

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



**Carling Technologies®**

Innovative Designs. Powerful Solutions.

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# V-Series Switch

## DESIGN FEATURES

### MAXIMUM DESIGN OPTIONS WITH MINIMUM INVENTORIES

Panel redesign is a snap, requiring no tooling change, with our removable interchangeable actuators. A unique balance between aesthetics and functionality.

### SEALS OUT WATER, DUST AND DEBRIS

Dual seal protection locks out elements. Certified to IP66/IP68 for front panel components.

### CLEAN CONNECTIONS

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

### SILVER PLATED BUTT

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

### WITHSTANDS EXTREME TEMPERATURES

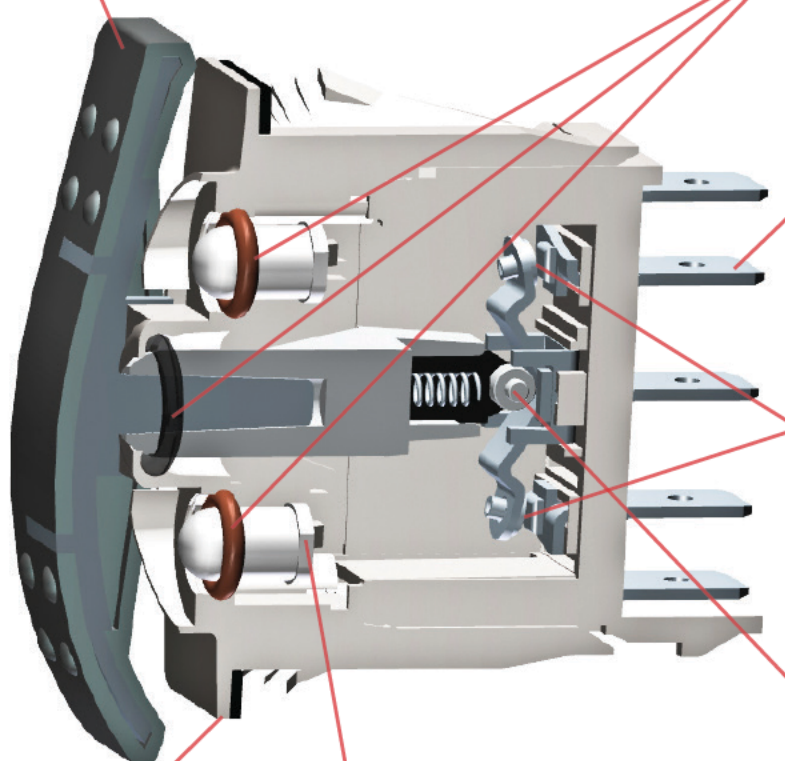
Roller pin mechanism eliminates the need for lubricants. Enables switch to withstand -40°C to +85°C temperatures.

### MULTIPLE LIGHTING OPTIONS

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

### OPTIONAL PANEL SEAL

Prevents water/dust egress behind panel.





**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.



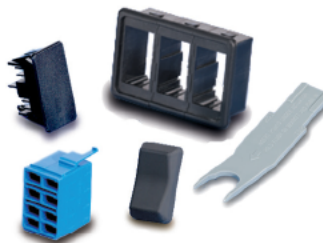
**Illuminated Indicator**

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



**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.



**V-Series Accessories/Options**

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

## Electrical

|                            |  |
|----------------------------|--|
| Contact Rating             | 4VA @ 28VDC (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                       | 50,000- 100,000 cycles circuit 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   |

## Mechanical

|           |  |
|-----------|--|
| Endurance | 150,000 cycles minimum circuit dependent |
|-----------|--|

## Physical

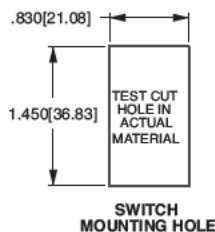
|                                      |   |
|--------------------------------------|---|
| Lighted                              | Incandescent - rated 10,000 hours<br>Neon - rated 25,000 hours<br>LED - rated 100,000 hours 1/2 life (LED is internally ballasted for voltages to 24VDC)  |
| Seals                                | Internal  |
| Base                                 | Optional external gasket panel seal Polyester blend rated to 125°C with a UL flammability rating of 94V0.   |
| Contura II, III, IV, V, VI Actuator  | Hard Surface: Basic actuator structure molded of thermoplastic polycarbonate with a hard Nylon 66 thermoplastic surface overlay.<br>Soft Surface: Basic actuator structure molded of thermoplastic polycarbonate with an elastomer overlay. |
| Contura X, XI, XII Actuator, VP Lens | Nylon 66 Reinforced rated to 105°C<br>Polycarbonate rated at 100°C  |

## Actuator Travel (Angular Displacement)

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

## Mounting Specifications

|   |  |
|---|--|
| Panel Thickness Range   |  |
| <b># of gaskets</b>   | <b>Acceptable Panel Thickness</b>                            |
| 0   | .030 to .250 (.76mm 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



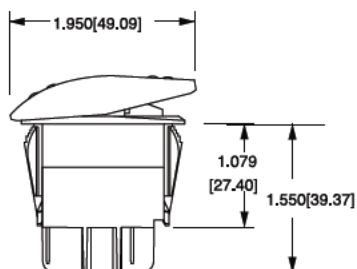
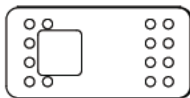
## Environmental

|                       |   |
|-----------------------|---|
| Environmental         | Sealed version: IP68, in accordance with IEC 60529, BS 5490, DIN 40050 & NFC 20 010. This rating applies to front panel components of the actual switch only, and signifies protection against dust and the prolonged effects of immersion under pressure. The standard test for immersion under pressure requires submersion under one meter of water for 30 minutes. The V-Series switch has exceeded these parameters, having been actuated and illuminated during submersion. |
| Corrosion             | Flowing Mixed Gas (FMG) Class III 3 year accelerated exposure per ASTM B-827, B-845 Silver and gold contacts  |
| Operating Temperature | -40°C to + 85°C   |
| Vibration 1           | Per Mil-Std 202F, Method 204D Test Condition A 0.06 DA or 10G's 10-500 Hz. Tested with VCH connector. Test criteria - No loss of circuit during test and pre and post test contact resistance.  |
| Vibration 2           | Resonance search<br>24-50 Hz 0.40 DA<br>50-2000 ±10 G's peak<br>Results Horizontal Axis 3-5 G's max. Random<br>24 Hz 0.06 PSD-Gsq/Hz<br>60 Hz 0.50<br>100 Hz 0.50<br>200 Hz 0.025<br>2000 Hz 0.025<br>No loss of circuit during test; <10µ 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, 48 Hrs. Sealed version only.   |
| Dust                  | Per Mil-Std 810C, Method 510.2 Air Velocity 300 ±200 Feet/Min, Test Duration 16 Hrs.  |
| 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.   |

## Dimensional Specifications: in. [mm]

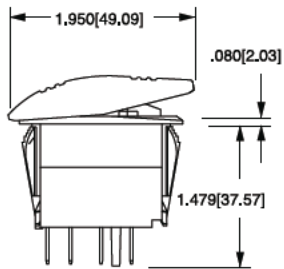
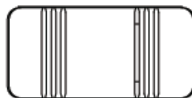
### CONTURA II STYLE

SHOWN WITH  
SQUARE LENS



**8 TERMINAL BASE  
W/BARRIERS**

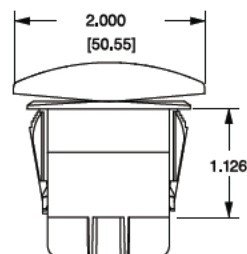
### CONTURA III STYLE



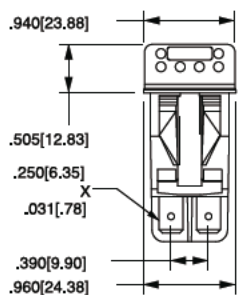
**8 TERMINAL BASE  
W/O BARRIERS**

### CONTURA IV STYLE

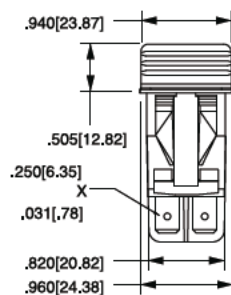
SHOWN WITH  
BAR LENS



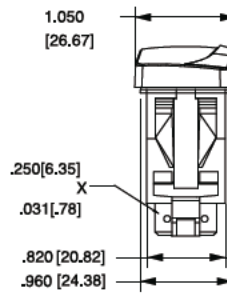
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W/BARRIERS**



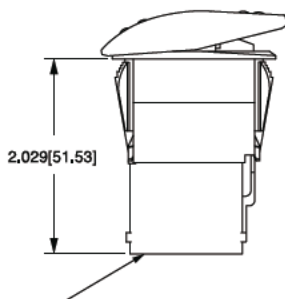
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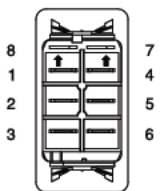
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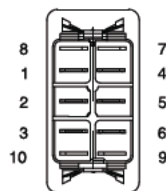
**10 TERMINAL BASE  
W/O BARRIERS**



**SWITCH SHOWN WITH  
VCH CONNECTOR 8  
TERMINAL**



**BOTTOM VIEW  
TERMINAL  
ARRANGEMENT  
8 TERMINAL BASE**



**BOTTOM VIEW  
TERMINAL  
ARRANGEMENT  
10 TERMINAL BASE**

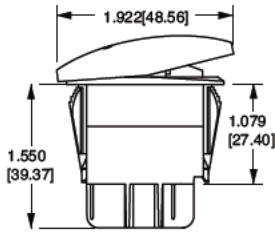


**SWITCH SHOWN WITH  
VC1 CONNECTOR 10  
TERMINAL**

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

**CONTURA V**

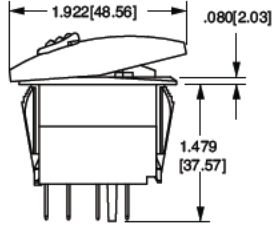
SHOWN WITH  
BAR LENS



**8 TERMINAL BASE  
W/BARRIERS**

**CONTURA V**

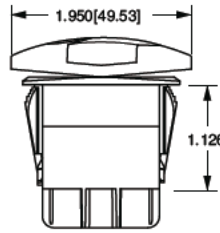
SHOWN WITH  
LOW PROFILE LOCK



**8 TERMINAL BASE  
W/O BARRIERS**

**CONTURA VI**

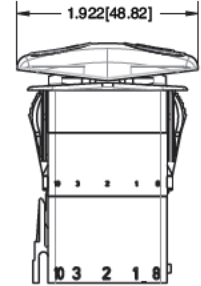
SHOWN WITH OVAL  
LENS



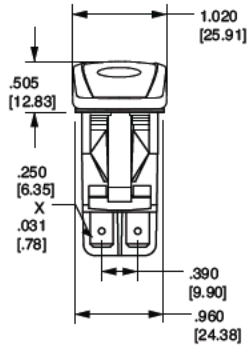
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W/BARRIER AND  
LAMP TERMINAL**

**CONTURA VII**

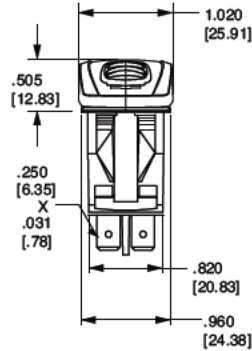
SHOWN WITH LARGE LENS  
AND BAR LENS



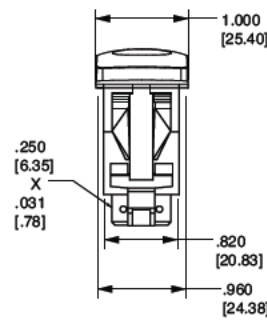
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W/O BARRIERS**



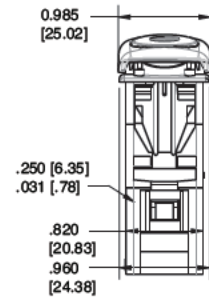
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W/BARRIERS**



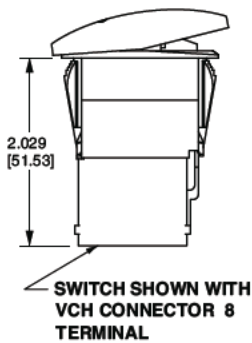
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W/O BARRIERS**



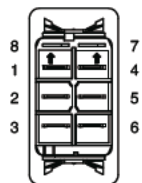
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W/O BARRIERS**



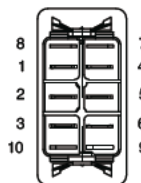
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W/O BARRIERS**



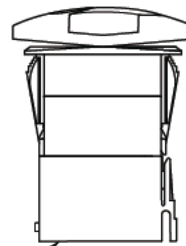
SWITCH SHOWN WITH  
VCH CONNECTOR 8  
TERMINAL



**BOTTOM VIEW  
TERMINAL  
ARRANGEMENT  
8 TERMINAL BASE**



**BOTTOM VIEW  
TERMINAL  
ARRANGEMENT  
10 TERMINAL BASE**



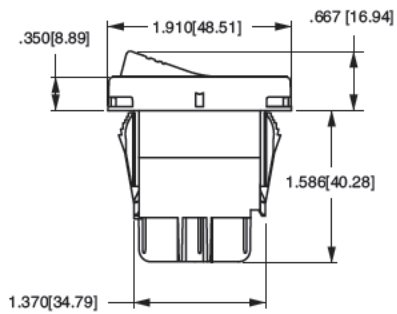
SWITCH SHOWN WITH  
VC1 CONNECTOR 10  
TERMINAL



SWITCH SHOWN WITH VC1  
CONNECTOR 10  
TERMINAL

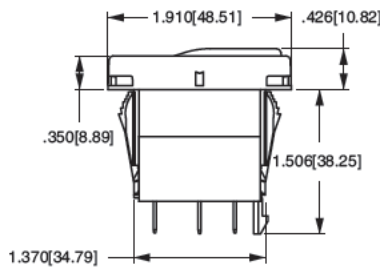
## Dimensional Specifications: in. [mm]

**CONTURA STOLE**  
CONTURA STOLE



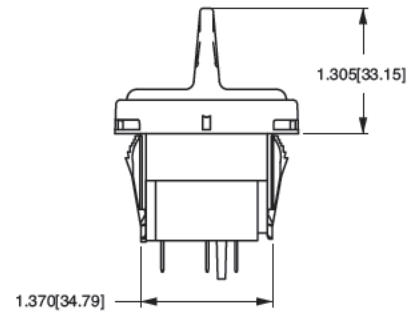
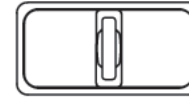
**8 TERMINAL BASE  
W/BARRIERS**

**CONTURA STOLE**  
CONTURA STOLE

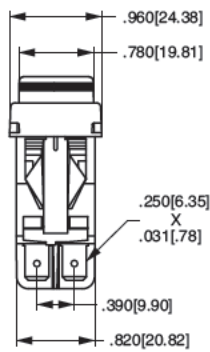


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W/O BARRIERS**

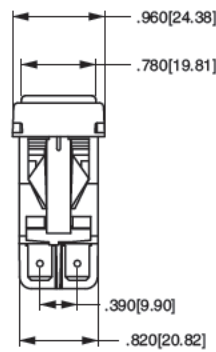
**CONTURA STOLE**  
CONTURA STOLE



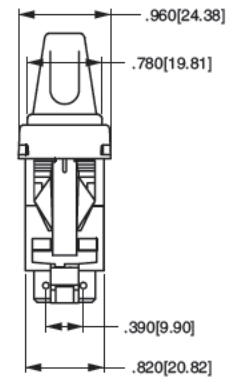
**8 TERMINAL BASE  
W/O BARRIERS**



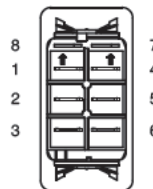
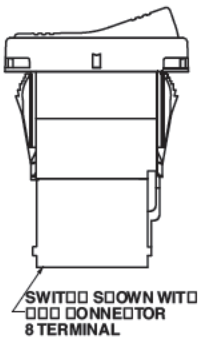
**8 TERMINAL BASE  
W/BARRIERS**



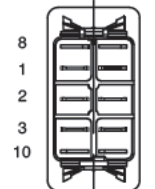
**10 TERMINAL BASE  
W/BARRIERS**



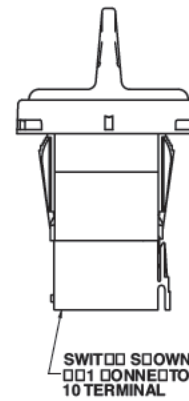
**10 TERMINAL  
BASE  
W/O BARRIERS**



**BOTTOM VIEW  
TERMINAL  
ARRANGEMENT  
8 TERMINAL BASE**



**BOTTOM VIEW  
TERMINAL  
ARRANGEMENT  
10 TERMINAL BASE**



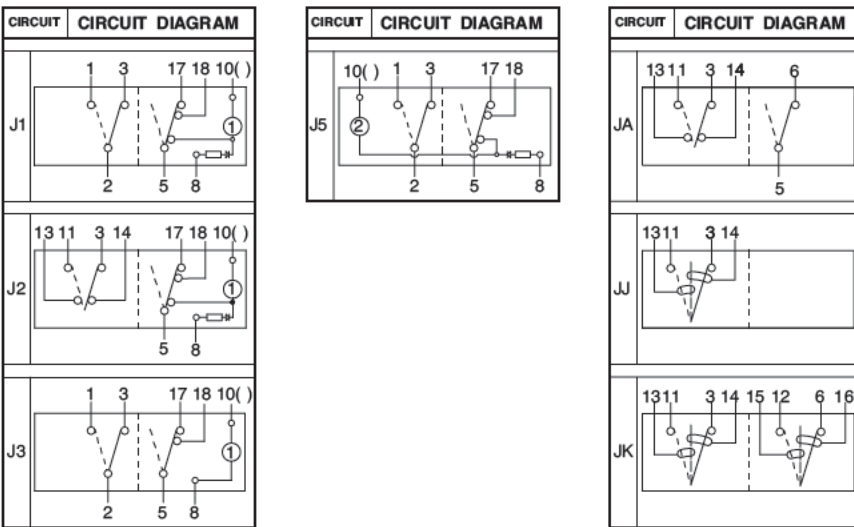
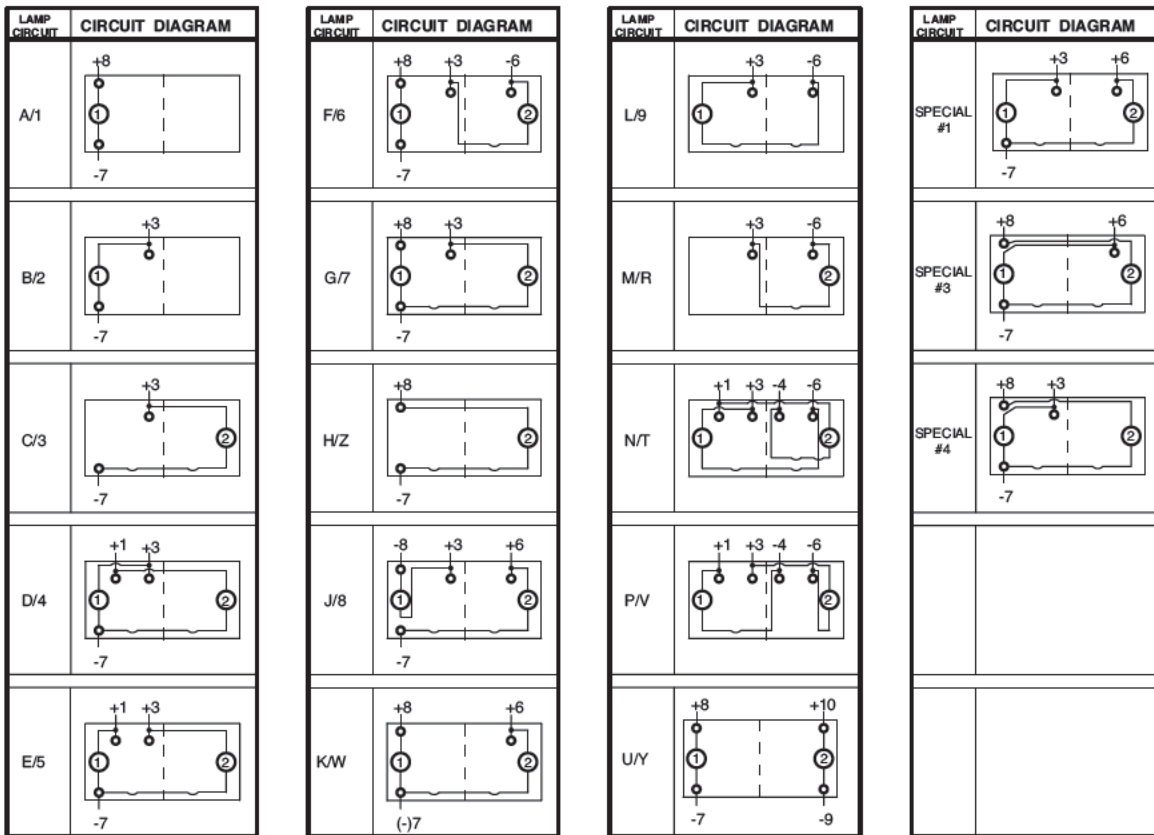
| CIRCUIT | CIRCUIT DIAGRAM |
|---------|-----------------|
| 1       |                 |
| 2       |                 |
| 3       |                 |
| 4       |                 |
| 5       |                 |
| 6       |                 |
| 7       |                 |
| 8       |                 |

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

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

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





NO E  
J circuits are available on  
all non-locking V-Series  
styles Consult factory or  
p/n details

| SYMBOL LEGEND |                                   |
|---------------|-----------------------------------|
| SYM.          | DEFINITION                        |
| ○             | DESIGNATES TERMINALS AND CONTACTS |
| ○             | DESIGNATES LAMP LOCATION          |
| ○             | DESIGNATES TWO POSITION CIRCUIT   |

| CIRCUIT        | CONNECTOR PART # |
|----------------|------------------|
| JA, JJ, JK     | JC1-01           |
| J1, J3, J4, J5 | JC2-01           |
| J2             | JC3-01           |

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

1 Series 2 Circuit 3 Rating 4 Termination Illumination Lamp 5 Lamp 6 Bracket 7 Lamp 8 Bracket 9 Actuator 10 Lens 11 Color 12 Legend 13 Legend Orientation 14 Actuator Lens Legend

**1 SERIES**  
V

**2 CIRCUIT**  
Terminal Connections as viewed from bottom of switch

| 8 terminal | 10 terminal | SP - single pole - uses terminals 1, 2 & 3 | DP - double pole uses terminals 1, 2, 3, 4, 5 & 6 |
|------------|-------------|--|---|
| 1 - -7     | 1 - -4      |  |   |
| 2 - -5     | 2 - -5      |  |   |
| 3 - -6     | 3 - -6      |  |   |
|            | 10 - -9     |  |   |

( ) - momentary

**Position:**

| Position        | 1              | 2                   | 3            |
|-----------------|----------------|---------------------|--------------|
| SP              | 2 & 3, 5 & 6   | Connected terminals | 1 & 2, 4 & 5 |
| 1               | ON             | NONE                | O            |
| 2               | (ON)           | NONE                | (O )         |
| 3               | ON             | NONE                | (ON)         |
| 4               | ON             | NONE                | (ON)         |
| 5               | ON             | NONE                | (ON)         |
| 6               | ON             | NONE                | (ON)         |
| 7               | ON             | O                   | (ON)         |
| 8               | (ON)           | O                   | (ON)         |
| SPEC AL C RCU S |                |                     |              |
| H*              | 2 & 3          | 2 & 3, 5 & 4        | 5 & 4        |
| G*              | 2 & 3, 5 & 6   | 2 & 3               | O            |
| S               | 2 & 3, 5 & 6   | 2 & 3               | 1 & 2        |
| M*              | (2 & 3, 5 & 6) | 2 & 3               | O            |
| E*              | (2 & 3, 5 & 6) | 2 & 3               | 1 & 2        |
|                 | 5 & 6          | 5 & 3               | 5 & 1        |

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

**3 RATING<sup>3</sup>**

|   |   |
|---|---|
| 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 AB (QC) no barriers   | No         |
| A      | B       | 250 AB (QC) with barriers | No         |
| J      | K       | 250 AB (QC) no barriers   | Yes 2 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 or circuits H, G & M

**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 | Actuator Lens position when illuminated | Lamp wired to terminals |
|--------|----------|-------|---|-------------------------|
| S      | 0        | NONE  |   |                         |
| A      | 1        | #1    | ndependent                              | 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    | ndependent                              | 8+ 7-                   |
|        |          | &#2   | Up                                      | 3+ 6-                   |
| G      | 7        | #1    | ndependent                              | 8+ 7-                   |
|        |          | &#2   | Up                                      | 3+ 7-                   |
| H      | Z        | #2    | ndependent                              | 8+ 7-                   |
| U      | Y        | #1    | ndependent                              | 8+ 7-                   |
|        |          | &#2   | ndependent                              | 10+ 9-                  |

Selections or Single Pole Switches Only

|   |   |     |            |       |
|---|---|-----|------------|-------|
| J | 8 | #1  | Down       | 3+ 8- |
|   |   | &#2 | ndependent | 6+ 7- |
| K | W | #1  | ndependent | 8+ 7- |
|   |   | &#2 | ndependent | 6+ 7- |

Selections or Double Pole Switches Only

|   |   |     |      |       |
|---|---|-----|------|-------|
| L | 9 | #1  | Down | 3+ 6- |
| M | R | #2  | 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 superbright | 7 18V superbright | 8 24V superbright |
| LED*         |          |          | Green             | Red               |                   |
| 2VDC         | A        | L        | F                 | R                 |                   |
| 6VDC         | B        | M        | G                 | S                 |                   |
| 12VDC        | C        | N        | H                 | T                 |                   |
| 24VDC        | D        | P        | J                 | V                 |                   |

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

**8 FLUSH BRACKET COLOR<sup>1</sup>, PANEL SEAL**

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

**9 ACTUATOR**

|             |   |   |   |
|-------------|---|---|---|
| No Actuator | 0 |   |   |
| Contura     | A |  |  |
| Contura     | B |  |  |
|             | C |  |  |
|             | D |  |  |

Actuator orientation above terminals 3,6 1,4

**10 LENS**

|               |           |       |     |      |
|---------------|-----------|-------|-----|------|
| 0 No Actuator | Z No Lens | Green | Red | Blue |
| Clear         | White     | Amber |     |      |
| 1 6           | B         | G     | M   | T    |
| 2 7           | C         | H     | N   | U    |
| 3 8           | D         | J     | P   | V    |

Square lens options available only on Contura

|     |   |   |   |   |
|-----|---|---|---|---|
| 4 9 | E | K | R | W |
| 5 A | F | L | S | Y |

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

**11 ACTUATOR COLOR<sup>1</sup> AND TEXTURE**

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

**12 ACTUATOR LENS OR BODY LEGENDS<sup>2</sup>**

|       |       |       |       |
|-------|-------|-------|-------|
| 11 ON | 12 O  | 13 I  | 14 O  |
|       | O     | ON    | O I   |
| 15 OO | 16 OO | 17 OI | 18 IO |
|       | N     | N     |       |

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

**13 LEGEND ORIENTATION**

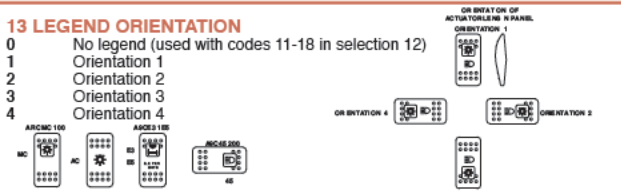
0 No legend (used with codes 11-18 in selection 12)

1 Orientation 1

2 Orientation 2

3 Orientation 3

4 Orientation 4



**14 ACTUATOR LENS LEGEND**

00 No legend this location / no actuator (used with codes 11-18 in selection 12) Selection 14 required when switch requires two legends. 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 or 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 page 20
  - Contura available with two square lenses. Consult factory for details.

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

1 Series    2 Circuit    3 Rating    4 Termination Illumination Lock    5 Lamp    6 Bracket    7 Actuator    8 Lens    9 Function    10 Legend    11 Legend    12 Legend    13 Legend Orientation

**1 SERIES**  
V

**2 CIRCUIT**  
Terminal Connections as viewed from bottom of switch

| 8 terminal | 10 terminal | Termination                                       | ( ) - momentary                             |
|------------|-------------|---|---|
| 8 - -7     | 8 - -7      | SP - single pole - uses terminals 1, 2 & 3        |   |
| 1 - -4     | 1 - -4      | DP - double pole uses terminals 1, 2, 3, 4, 5 & 6 |   |
| 2 - -5     | 2 - -5      |   | terminals 7, 8, 9 & 10 or lamp circuit only |
| 3 - -6     | 3 - -6      |   |   |
|            | 10 - -9     |   |   |

**Position:**

| Position        | 1            | 2                   | 3            |
|-----------------|--------------|---------------------|--------------|
| SP              | 2 & 3, 5 & 6 | Connected terminals | 1 & 2, 4 & 5 |
| 1               | ON           | NONE                | O            |
| 2               | (ON)         | NONE                | O            |
| 3               | ON           | NONE                | (O )         |
| 4               | ON           | NONE                | (ON)         |
| 5               | ON           | NONE                | (ON)         |
| 6               | ON           | NONE                | (ON)         |
| 7               | ON           | O                   | (ON)         |
| 8               | (ON)         | O                   | (ON)         |
| SPEC AL C RCU S | (ON)         | O                   | (ON)         |

H\* 2 & 3    2 & 3, 5 & 6    2 & 3, 5 & 4    5 & 4  
 G\* 2 & 3, 5 & 6    2 & 3    O  
 S\* 2 & 3, 5 & 6    2 & 3    1 & 2  
 M\* (2 & 3, 5 & 6)    2 & 3    O  
 R\* (2 & 3, 5 & 6)    2 & 3    1 & 2  
 E\* 5 & 6    5 & 3    5 & 1

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

**3 RATING<sup>4</sup>**

|   |   |
|---|---|
| 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 AB (QC) no barriers   | No         |
| A      | B       | 250 AB (QC) with barriers | No         |
| J      | K       | 250 AB (QC) no barriers   | Yes 2 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 or circuits H, G & M

**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 | Actuator Lens position when illuminated | Lamp wired to terminals |
|--------|----------|-------|---|-------------------------|
| S      | 0        | NONE  |   |                         |
| C      | 3        | #2    | Up                                      | 3+ 7-                   |
| H      | Z        | #2    | Independent                             | 8+ 7-                   |

Selections or Double Pole Switches Only  
 M R #2 Up 3+ 6-

**6 LOCK**  
Lock above terminals 1 & 4 end of switch  
W lock

Notes  
 Consult actory to verify horsepower rating or your particular circuit choice  
 1 Custom colors are available Consult actory  
 2 White imprinting is standard on black actuators Black imprinting is standard on white, red and gray actuators Custom colors are available, consult actory  
 3 Only available with 3 position circuits Center O and special circuits only available with center position lock function  
 4 Additional ratings available See page 20

**7 LAMP**  
Lamp lamp terminals 3 & 6 end of switch

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

\* Consult actory or "daylight bright" LED options    Typical current draw or LED is 20ma

**8 FLUSH BRACKET COLOR<sup>1</sup>, PANEL SEAL**

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

**9 HARD SURFACE ACTUATOR<sup>1</sup>**

|         |       |      |     |       |
|---------|-------|------|-----|-------|
| Contura | Black | Grey | Red | White |
|         | A     | B    | G   | H     |
| Contura | C     | D    | E   | F     |




Actuator orientation above terminals    3,6    1,4

**10 LENS**  
Z No Lens

|       |       |       |       |     |      |
|-------|-------|-------|-------|-----|------|
| Clear | White | Amber | Green | Red | Blue |
| 3     | 8     | D     | J     | P   | V    |

Lens color or 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<sup>1</sup>**

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

**12 ACTUATOR LENS OR BODY LEGEND<sup>2</sup>**

00 - No Legend

|    |    |    |    |
|----|----|----|----|
| 21 | 22 | 23 | 24 |
| O  | ON | O  |    |
| 25 | O  | 26 | O  |
|    |    | 27 | O  |
|    |    |    | N  |

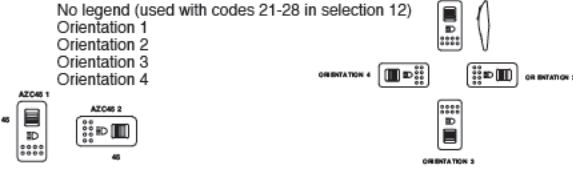


For additional legend options & codes, visit us at [www.carlingtech.com](http://www.carlingtech.com).

**13 LEGEND ORIENTATION**

0 No legend (used with codes 21-28 in selection 12)

|   |               |
|---|---------------|
| 1 | Orientation 1 |
| 2 | Orientation 2 |
| 3 | Orientation 3 |
| 4 | Orientation 4 |



|          |           |          |               |                |        |        |           |            |         |          |           |           |                         |             |    |
|----------|-----------|----------|---------------|----------------|--------|--------|-----------|------------|---------|----------|-----------|-----------|-------------------------|-------------|----|
| V        | 1         | D        | A             | B              | T      | 0      | B         | -          | E       | P        | C         | 00        | -                       | 0           | 00 |
| 1 Series | 2 Circuit | 3 Rating | 4 Termination | 5 Illumination | 6 Lamp | 7 Lamp | 8 Bracket | 9 Actuator | 10 Lens | 11 Color | 12 Legend | 13 Legend | 14 Actuator Orientation | Lens Legend |    |

**1 SERIES**  
V

**2 CIRCUIT**  
Terminal Connections as viewed from bottom of switch

|            |             |   |
|------------|-------------|---|
| 8 terminal | 10 terminal | SP - single pole - uses terminals 1, 2 & 3        |
| 8 - 7      | 8 - 7       | DP - double pole uses terminals 1, 2, 3, 4, 5 & 6 |
| 1 - 4      | 1 - 4       | Terminals 7, 8, 9 & 10 or lamp circuit only       |
| 2 - 5      | 2 - 5       |   |
| 3 - 6      | 3 - 6       |   |
|            | 10 - 9      |   |

( ) - momentary

**Position:**

| Position | DP | 1    | 2    | 3    |
|----------|----|------|------|------|
| 1        | A  | ON   | NONE | O    |
| 2        | B  | (ON) | NONE | O    |
| 3        | C  | ON   | NONE | (O ) |
| 4        | D  | ON   | NONE | ON   |
| 5        | F  | ON   | NONE | (ON) |
| 6        | J  | ON   | O    | ON   |
| 7        | K  | ON   | O    | (ON) |
| 8        | L  | (ON) | O    | (ON) |

SPECIAL CIRCUITS

|    |                |              |       |
|----|----------------|--------------|-------|
| H* | 2 & 3          | 2 & 3, 5 & 4 | 5 & 4 |
| G* | 2 & 3, 5 & 6   | 2 & 3        | O     |
| S  | 2 & 3, 5 & 6   | 2 & 3        | 1 & 2 |
| M* | (2 & 3, 5 & 6) | 2 & 3        | O     |
| R  | (2 & 3, 5 & 6) | 2 & 3        | 1 & 2 |
| E* | 5 & 6          | 5 & 3        | 5 & 1 |

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

**3 RATING<sup>4</sup>**

|   |   |
|---|---|
| 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 AB (QC) no barriers   | No         |
| A      | B       | 250 AB (QC) with barriers | No         |
| J      | K       | 250 AB (QC) no barriers   | Yes 2 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 or circuits H, G & M

**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 when Illuminated | Actuator Lens position | Lamp wired to terminals |
|--------|----------|------------------------|------------------------|-------------------------|
| S      | 0        | NONE                   |                        |                         |
| A      | 1        | #1                     | Independent            | 8+ 7-                   |
| B      | 1        | #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      | 6        | &#2                    | Up                     | 3+ 7-                   |
| H      | 7        | #1                     | Independent            | 8+ 7-                   |
| U      | 7        | &#2                    | Up                     | 3+ 7-                   |
| J      | 8        | #1                     | Down                   | 8+ 7-                   |
| K      | 8        | &#2                    | Independent            | 6+ 7-                   |
| L      | 9        | #1                     | Down                   | 8+ 7-                   |
| M      | 9        | #2                     | Up                     | 3+ 6-                   |
| N      | 9        | #1                     | Down                   | 3+ 6-                   |
| P      | 9        | &#2                    | Down                   | 1+ 4-                   |
|        |          | #1                     | Up                     | 1+ 4-                   |
|        |          | &#2                    | Up                     | 3+ 6-                   |

Selections or Single Pole Switches Only  
Selections or Double Pole Switches Only

**6,7 LAMP (same coding for both selections)**  
Selection 6 above terminals 1 & 4 Selection 7 above terminals 3 & 6

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

\* Consult actuary or "daylight bright" LED options typical current draw or LED is 20ma

**8 FLUSH BRACKET COLOR<sup>1</sup>, PANEL SEAL**

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

**9 ACTUATOR**

|  |   |     |
|--|---|-----|
| No Actuator                                | 0 | 1,4 |
| Contura V, left orientation                | E |     |
| Contura V, left orientation, laser etched  | T |     |
| Contura V, right orientation               | F |     |
| Contura V, right orientation, laser etched | R |     |

Actuator orientation above terminals

**10 LENS**

|               |           |       |     |      |
|---------------|-----------|-------|-----|------|
| 0 No Actuator | Z No Lens | Green | Red | Blue |
| Clear         | White     | Amber |     |      |
| 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 or LEDs must be clear, white, or match color of LED  
Green or blue lenses are not recommended with Neon lamps

**11 ACTUATOR COLOR<sup>1,5,6</sup>**

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

**12 ACTUATOR LENS OR BODY LEGENDS<sup>2</sup>**

|       |       |       |       |
|-------|-------|-------|-------|
| 11 ON | 12 O  | 13 I  | 14 O  |
|       | ON    | O     | I     |
| 15 OO | 16 OO | 17 OI | 18 IO |
|       | N     | N     |       |

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

**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**  
No legend this location / no actuator  
(used with codes 11-18 in selection 12) Selection 14 required when switch requires two legends 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 or legend options & codes, visit us at [www.carlingtech.com](http://www.carlingtech.com)

- Notes
- Consult actuary to verify horsepower rating or your particular circuit choice
  - Custom colors are available Consult actuary
  - White imprinting is standard on black actuators Black imprinting is standard on white, red and gray actuators Custom colors are available, consult actuary
  - Gloss brow is on left side of E actuator and right side of actuator
  - Additional ratings available See page 20
  - 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

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

1 Series 2 Circuit 3 Rating 4 Termination Illumination Lamp 5 Lamp 6 Lamp 7 Bracket 8 Bracket 9 Actuator 10 Lens 11 Color 12 Legend 13 Legend Orientation 14 Actuator Lens Legend

**1 SERIES**  
V

**2 CIRCUIT**  
Terminal Connections as viewed from bottom of switch ( ) - momentary  
8 terminal 10 terminal  
1 - 4 1 - 4  
2 - 5 2 - 5  
3 - 6 3 - 6  
10 - 9

SP - single pole - uses terminals 1, 2 & 3  
DP - double pole uses terminals 1, 2, 3, 4, 5 & 6  
terminals 7, 8, 9 & 10 or lamp circuit only

| Position: | 1            | 2                   | 3            |
|-----------|--------------|---------------------|--------------|
| DP        | 2 & 3, 5 & 6 | Connected terminals | 1 & 2, 4 & 5 |
| 1         | ON           | NONE                | O            |
| 2         | (ON)         | NONE                | O            |
| 3         | ON           | NONE                | (O )         |
| 4         | ON           | NONE                | ON           |
| 5         | ON           | NONE                | (ON)         |
| 6         | ON           | O                   | ON           |
| 7         | ON           | O                   | (ON)         |
| 8         | ON           | O                   | (ON)         |
| L         | (ON)         | O                   | (ON)         |

SPECIAL CIRCUITS

|    | 2 & 3 | 2 & 3, 5 & 6 | 5 & 6 |
|----|-------|--------------|-------|
| H* | 2 & 3 | 2 & 3, 5 & 6 | 5 & 6 |
| G* | 2 & 3 | 2 & 3, 5 & 6 | 5 & 6 |
| S  | 2 & 3 | 2 & 3, 5 & 6 | 5 & 6 |
| M* | 2 & 3 | 2 & 3, 5 & 6 | 5 & 6 |
| R  | 2 & 3 | 2 & 3, 5 & 6 | 5 & 6 |
| E* | 5 & 6 | 5 & 6        | 5 & 6 |

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

**3 RATING<sup>4</sup>**

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 or circuits H, G & M

**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 | Actuator Lens position when illuminated | 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        | #1    | independent                             | 8+ 7-                   |
|        |          | &#2   | independent                             | 10+ 9-                  |

Selections or Single Pole Switches Only

|   |   |     |             |       |
|---|---|-----|-------------|-------|
| J | 8 | #1  | Down        | 3+ 8- |
|   |   | &#2 | independent | 6+ 7- |
| K | W | #1  | independent | 8+ 7- |
|   |   | &#2 | independent | 6+ 7- |

Selections or Double Pole Switches Only

|   |   |     |      |       |
|---|---|-----|------|-------|
| L | 9 | #1  | Down | 3+ 6- |
| M | R | #2  | 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      | 1 125VAC | 2 250VAC | 6 12V superbright | 7 18V superbright | 8 24V superbright |
|--------------|----------|----------|-------------------|-------------------|-------------------|
| 0            | 1        | 2        | 6                 | 7                 | 8                 |
| Neon         | 125VAC   | 250VAC   | 12V               | 18V               | 24V               |
| incandescent | 4 3V     | 5 6V     | superbright       | superbright       | superbright       |
| LED*         |          |          | Green             | Red               | Red               |
| 2VDC         | Red      | Amber    | F                 | R                 | R                 |
| 6VDC         | A        | L        | G                 | S                 | S                 |
| 12VDC        | B        | M        | H                 | T                 | T                 |
| 24VDC        | C        | N        | J                 | V                 | V                 |
|              | D        | P        | K                 | W                 | W                 |
|              |          |          | L                 | X                 | X                 |
|              |          |          | M                 | Y                 | Y                 |
|              |          |          | N                 | Z                 | Z                 |
|              |          |          | O                 |                   |                   |
|              |          |          | P                 |                   |                   |
|              |          |          | Q                 |                   |                   |
|              |          |          | R                 |                   |                   |
|              |          |          | S                 |                   |                   |
|              |          |          | T                 |                   |                   |
|              |          |          | U                 |                   |                   |
|              |          |          | V                 |                   |                   |
|              |          |          | W                 |                   |                   |
|              |          |          | X                 |                   |                   |
|              |          |          | Y                 |                   |                   |
|              |          |          | Z                 |                   |                   |

\* Consult actuary or "daylight bright" LED options typical current draw or LED is 20ma

**8 FLUSH BRACKET COLOR<sup>1</sup>, PANEL SEAL**

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

**9 ACTUATOR**

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

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

Lens style & location #1/ #2  
T bar  
U bar/bar  
V oval  
W oval/bar  
X oval/oval  
Y oval/oval

**11 ACTUATOR COLOR<sup>1,3,3</sup>**

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

**12 ACTUATOR LENS OR BODY LEGENDS<sup>2,6</sup>**

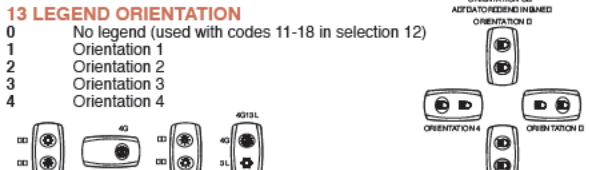
|        |        |        |        |
|--------|--------|--------|--------|
| 11 ON  | 12 O   | 13 I   | 14 O   |
| O      | ON     | O      | I      |
| 15 O O | 16 O O | 17 O I | 18 I O |
|        | N      | N      |        |



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

**13 LEGEND ORIENTATION**

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



**14 ACTUATOR LENS LEGEND**

00 No legend this location / no actuator  
(used with codes 11-18 in selection 12) Selection 14 required when switch requires two legends 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 or legend options & codes, visit us at [www.carlingtech.com](http://www.carlingtech.com)

**Notes**

- Consult actuary to verify horsepower rating or your particular circuit choice
- Custom colors are available Consult actuary
- White imprinting is standard on black actuators Black imprinting is standard on white, red and gray actuators Custom colors are available, consult actuary
- Laser Etched rocker only available with lens code Z & actuator colors black, nickel or pewter
- Additional ratings available See page 20
- Nickel and Pewter colors only available with laser etched actuator
- Consult actuary or laser etched lens callout

**V 1 D A S W O B — J Z E 00 — 0**

1 Series    2 Circuit    3 Rating    4 Termination Illumination Lock    5 Lamp    6 Bracket    7 Actuator    8 Lens    9 Function    10 Legend    11 Legend    12 Legend    13 Legend Orientation

**1 SERIES**  
V

**2 CIRCUIT<sup>3</sup>**  
Terminal Connections as viewed from bottom of switch

| 8 terminal | 10 terminal | Termination  | ( ) - momentary |
|------------|-------------|--|-----------------|
| 8 - -7     | 8 - -7      | SP - single pole - uses terminals 1, 2 & 3.                |                 |
| 1 - -4     | 1 - -4      | DP - double pole uses terminals 1, 2, 3, 4, 5 & 6.         |                 |
| 2 - -5     | 2 - -5      | Terminals 7 & 8 for lamp circuit only.                     |                 |
| 3 - -6     | 3 - -6      | Terminals 9 & 10 are not used with locking style switches. |                 |

**Position:**

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

**3 RATING<sup>4</sup>**

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 AB (QC) no barriers   | No         |
| A      | B       | 250 AB (QC) with barriers | No         |
| J      | K       | 250 AB (QC) no barriers   | Yes 2 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 or circuits H, G & M

**5 ILLUMINATION & SWITCH SEALING**

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

| Sealed                                  | Unsealed | Lamps | Actuator Lens position when illuminated | Lamp wired to terminals |
|---|----------|-------|---|-------------------------|
| S                                       | 0        | NONE  |   |                         |
| C                                       | 3        | #2    | Up                                      | 3+ 7-                   |
| H                                       | Z        | #2    | Independent                             | 8+ 7-                   |
| Selections or Double Pole Switches Only |          |       |   |                         |
| M                                       | R        | #2    | Up                                      | 3+ 6-                   |

**6 LOCK**

Lock above terminals 1 & 4 end o switch

W low profile lock    Y<sup>6</sup> high profile lock

- Notes
- Consult factory to verify horsepower rating or 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 O and special circuits only available with center position lock function
  - Additional ratings available See page 20
  - Located at 3-6 end o switch
  - Contura V style only

**7 LAMP**  
Lamp above terminals 3 & 6 end o switch

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

**8 FLUSH BRACKET COLOR<sup>1</sup>, PANEL SEAL**

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

**9 HARD SURFACE ACTUATOR**

CON URA V

| Orientation | Black | Grey | Red | White |
|-------------|-------|------|-----|-------|
| Left        | J     | K    | L   | M     |
| Right       | N     | P    | R   | S     |

Actuator orientation above terminals 3, 6 1, 4

| CON URA V | Black | Grey | Red | White |
|-----------|-------|------|-----|-------|
|           | U     | V    | W   | Y     |

Actuator orientation above terminals 3, 6 1, 4

**10 LENS<sup>5</sup>**

Z No Lens

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

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

F bar lens  
 M oval lens

**11 ACTUATOR LOCK FUNCTION AND COLOR<sup>1</sup>**

| Lock Color     | Up | Down | Up & Down | Center <sup>8</sup> |
|----------------|----|------|-----------|---------------------|
| Match Actuator | A  | H    | R         | 1                   |
| Black          | B  | J    | S         | 2                   |
| White          | C  | K    | T         | 3                   |
| Red            | D  | L    | V         | 4                   |
| Safety Orange  | E  | M    | W         | 5                   |
| Gray           | F  | G    | N         | 6                   |

**12 ACTUATOR LENS OR BODY LEGEND<sup>2</sup>**

00 - No Legend

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

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

**13 LEGEND ORIENTATION**

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

V 1 D B G N T B - H A 7 C B AC - 1 00

1 Series 2 Circuit 3 Rating 4 Termination Illumination Lamp 5 Lamp 6 Lamp 7 Bracket 8 Actuator 9 Lens 10 Lens 11 Color 12 Insert Color 13 Actuator Lens 14 Legend Orientation Lens Legend 15 Actuator Orientation Lens Legend

1 SERIES

V

2 CIRCUIT

Terminal Connections as viewed from bottom of switch  
 8 terminal 10 terminal  
 1 - -7 8 - -7  
 2 - -5 1 - -4  
 3 - -6 2 - -5  
 10 - -9 3 - -6

( ) - momentary  
 SP - single pole - uses terminals 1, 2 & 3  
 DP - double pole uses terminals 1, 2, 3, 4, 5 & 6  
 Terminals 7, 8, 9 & 10 or lamp circuit only

| Position:       | DP | 1              | 2                   | 3            |
|-----------------|----|----------------|---------------------|--------------|
| SP              |    | 2 & 3, 5 & 6   | Connected terminals | 1 & 2, 4 & 5 |
| 1               | A  | ON             | NONE                | O            |
| 2               | B  | (ON)           | NONE                | O            |
| 3               | C  | ON             | NONE                | (O )         |
| 4               | D  | ON             | NONE                | ON           |
| 5               | F  | ON             | NONE                | (ON)         |
| 6               | J  | ON             | O                   | ON           |
| 7               | K  | ON             | O                   | (ON)         |
| 8               | L  | (ON)           | O                   | (ON)         |
| SPEC AL C RCU S |    |                |                     |              |
| H*              |    | 2 & 3          | 2 & 3, 5 & 4        | 5 & 4        |
| G*              |    | 2 & 3, 5 & 6   | 2 & 3               | O            |
| S               |    | 2 & 3, 5 & 6   | 2 & 3               | 1 & 2        |
| M*              |    | (2 & 3, 5 & 6) | 2 & 3               | O            |
| R               |    | (2 & 3, 5 & 6) | 2 & 3               | 1 & 2        |
| E*              |    | 5 & 6          | 5 & 3               | 5 & 1        |

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

3 RATING<sup>3</sup>

- 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 AB (QC) no barriers   | No         |
| A      | B       | 250 AB (QC) with barriers | No         |
| J      | K       | 250 AB (QC) no barriers   | Yes 2 to 5 |
| 3      | 4       | Solder Lug no barriers    | No         |
| C      | D       | Solder Lug                | No         |
| 5      | 6       | Wire Leads no barriers    | No         |
| E      | F       | Wire Leads                | No         |

5 ILLUMINATION & SWITCH SEALING

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

| Sealed                                  | Unsealed | Lamps | Actuator/Lens position when illuminated | 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        | #1    | Down                                    | 1+ 7-                   |
| F                                       | 6        | #1    | Up                                      | 1+ 7-                   |
| G                                       | 7        | #1    | independent                             | 8+ 7-                   |
| H                                       | Z        | #2    | Up                                      | 3+ 6-                   |
| U                                       | Y        | #1    | independent                             | 8+ 7-                   |
|   |          | #2    | independent                             | 8+ 7-                   |
|   |          | #2    | independent                             | 10+ 9-                  |
| Selections or Single Pole Switches Only |          |       |   |                         |
| J                                       | 8        | #1    | Down                                    | 3+ 8-                   |
|   |          | #2    | independent                             | 6+ 7-                   |
| K                                       | W        | #1    | independent                             | 8+ 7-                   |
|   |          | #2    | independent                             | 6+ 7-                   |
| Selections or Double Pole Switches Only |          |       |   |                         |
| L                                       | 9        | #1    | Down                                    | 3+ 6-                   |
| M                                       | R        | #2    | 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 superbright 7 18V superbright 8 24V  
 LED\*  
 Red A Amber L Green F  
 2VDC B 12VDC M 24VDC C N H  
 \* Consult factory or \*daylight bright LED options typical current draw or LED is 20ma

8 FLUSH BRACKET COLOR<sup>1</sup>, PANEL SEAL

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

9 ACTUATOR

0 No Actuator H High insert L Low insert

10,11 LENS<sup>4</sup>

Lens color or LEDs must be clear, white, or match color of LED  
 Green or blue lenses are not recommended with Neon lamps  
 0 No Actuator Z No Lens  
 Clear White Amber Green Red Blue  
 C H N U  
 3 7 D J P V Bar Lens translucent  
 4 A E K R W Bar Lens transparent  
 F L S Y Oval Lens translucent

12 ACTUATOR COLOR

C Black H Gray S Red Y White

13 INSERT COLOR

B Black N Bright Nickel Plated  
 C Bright Chrome Plated S Satin Chrome Plated  
 D Satin Chrome Painted T Satin Nickel Plated  
 W White

14 ACTUATOR LENS OR BODY LEGENDS<sup>2</sup>

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

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

15 LEGEND ORIENTATION

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

16 ACTUATOR LENS LEGEND

00 No legend this location / no actuator  
 (used with codes 11-18 in selection 12) Selection 14 required when switch requires two legends 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 or legend options & codes, visit us at www.carlingtech.com

Notes

- 1 Consult factory to verify horsepower rating or your particular circuit choice
- 2 Custom colors are available Consult factory
- 3 White imprinting is standard on black actuators Black imprinting is standard on white, red and gray actuators Custom colors are available, consult factory
- 4 Additional ratings available See page 20

V 1 D A B T O B — Z R C 00 — 0 00

1 Series 2 Circuit 3 Rating 4 Termination Illumination Lamp 5 Lamp 6 Lamp 7 Lamp 8 Bracket 9 Actuator 10 Lens 11 Color 12 Legend 13 Legend Orientation 14 Actuator Lens Legend

**1 SERIES**  
V

**2 CIRCUIT**  
Terminal Connections as viewed from bottom of switch ( ) - momentary

8 terminal 10 terminal  
 SP - single pole - uses terminals 1, 2 & 3  
 DP - double pole uses terminals 1, 2, 3, 4, 5 & 6  
 terminals 7, 8, 9 & 10 or lamp circuit only

| Position: | DP | 1    | 2    | 3    |
|-----------|----|------|------|------|
| 1         | A  | ON   | NONE | O    |
| 2         | B  | (ON) | NONE | O    |
| 3         | C  | ON   | NONE | (O ) |
| 4         | D  | ON   | NONE | ON   |
| 5         | F  | ON   | NONE | (ON) |
| 6         | J  | ON   | O    | ON   |
| 7         | K  | ON   | O    | (ON) |
| 8         | L  | (ON) | O    | (ON) |

SPECIAL CIRCUITS

|    | 2 & 3          | 2 & 3, 5 & 4 | 5 & 4 |
|----|----------------|--------------|-------|
| H* | 2 & 3          | 2 & 3, 5 & 4 | O     |
| G* | 2 & 3, 5 & 6   | 2 & 3        | O     |
| S  | 2 & 3, 5 & 6   | 2 & 3        | 1 & 2 |
| M* | (2 & 3, 5 & 6) | 2 & 3        | O     |
| R  | (2 & 3, 5 & 6) | 2 & 3        | 1 & 2 |
| E* | 5 & 6          | 5 & 3        | 5 & 1 |

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

**3 RATING<sup>4</sup>**

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 AB (QC) no barriers   | No         |
| A      | B       | 250 AB (QC) with barriers | No         |
| J      | K       | 250 AB (QC) no barriers   | Yes 2 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 or circuits H, G & M

**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 | Actuator Lens position when illuminated | 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        | #1    | Up                                      | 1+ 7-                   |
| F      | 6        | #1    | Independent                             | 8+ 7-                   |
| G      | 7        | #1    | Up                                      | 3+ 6-                   |
| H      | Z        | #2    | Independent                             | 8+ 7-                   |
| U      | Y        | #1    | Independent                             | 8+ 7-                   |
|        |          | #2    | Independent                             | 10+ 9-                  |

Selections or Single Pole Switches Only

|   |   |    |             |       |
|---|---|----|-------------|-------|
| J | 8 | #1 | Down        | 3+ 8- |
|   |   | #2 | Independent | 6+ 7- |
| K | W | #1 | Independent | 8+ 7- |
|   |   | #2 | Independent | 6+ 7- |

Selections or Double Pole Switches Only

|   |   |    |      |       |
|---|---|----|------|-------|
| L | 9 | #1 | Down | 3+ 6- |
| M | R | #2 | 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     |                         |
| LED*         |   |        |          | 6 12V superbright Green |
|              |   |        |          | 7 18V superbright Red   |
| 2VDC         | A | Red    | L Amber  | F superbright Green     |
| 6VDC         | B |        | M        | G                       |
| 12VDC        | C |        | N        | H                       |
| 24VDC        | D |        | P        | J                       |

\* Consult factory or "daylight bright" LED options typical current draw or LED is 20ma

**8 FLUSH BRACKET COLOR<sup>1</sup>, PANEL SEAL**

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

**9 ACTUATOR**

|             |   |
|-------------|---|
| No Actuator | 0 |
| Contura V   | Z |

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

**11 ACTUATOR COLOR/THUMB PRINT COLOR<sup>1</sup>**

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

**12 ACTUATOR LENS LEGENDS<sup>2,4</sup>**

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

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

**13 LEGEND ORIENTATION**

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

**14 ACTUATOR LENS LEGEND**

00 No legend this location / no actuator  
 (used with codes 11-18 in selection 12) Selection 14 required when switch requires two legends 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 or legend options & codes, visit us at [www.carlingtech.com](http://www.carlingtech.com)

Notes  
 Consult factory to verify horsepower rating or your particular circuit choice

- 1 Custom colors are available Consult factory
- 2 White imprinting is standard on black actuators Black imprinting is standard on white, red and gray actuators Custom colors are available, consult factory
- 3 Additional ratings available See page 20
- 4 Legends available or lighted oval lens version only



V 1 D A B 6 0 1 - 6 P Z 00 - 0 00

1 Series 2 Circuit 3 Rating 4 Termination Illumination 5 Lamp 6 Lamp 7 Lamp 8 Bracket 9 Actuator 10 Lens 11 Lens 12 Legend 13 Legend Orientation 14 Actuator Lens Legend

**1 SERIES**  
V

**2 CIRCUIT**  
Terminal Connections as viewed from bottom of switch ( ) - momentary

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

SP - single pole - uses terminals 1, 2 & 3  
 DP - double pole uses terminals 1, 2, 3, 4, 5 & 6  
 Terminals 7, 8, 9 & 10 or lamp circuit only

**Position:**

|    | 1            | 2                   | 3            |
|----|--------------|---------------------|--------------|
| SP | 2 & 3, 5 & 6 | Connected terminals | 1 & 2, 4 & 5 |
| A  | ON           | NONE                | O            |
| B  | (ON)         | NONE                | O            |
| C  | ON           | NONE                | (O )         |
| D  | ON           | NONE                | ON           |
| F  | ON           | NONE                | (ON)         |
| J  | ON           | O                   | ON           |
| K  | (ON)         | O                   | (ON)         |
| L  | (ON)         | O                   | (ON)         |

SPECIAL CIRCUITS

|    | 2 & 3          | 2 & 3, 5 & 6 | 5 & 4 |
|----|----------------|--------------|-------|
| H* | 2 & 3          | 2 & 3        | O     |
| G* | 2 & 3, 5 & 6   | 2 & 3        | 1 & 2 |
| S  | 2 & 3, 5 & 6   | 2 & 3        | O     |
| M* | (2 & 3, 5 & 6) | 2 & 3        | 1 & 2 |
| R* | (2 & 3, 5 & 6) | 2 & 3        | 5 & 1 |
| E* | 5 & 6          | 5 & 3        | 5 & 1 |

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

**3 RATING<sup>4</sup>**

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 AB (QC) no barriers   | No         |
| A      | B       | 250 AB (QC) with barriers | No         |
| J      | K       | 250 AB (QC) no barriers   | Yes 2 to 5 |
| 3      | 4       | Solder Lug no barriers    | No         |
| C      | D       | Solder Lug no barriers    | No         |
| 5      | 6       | Wire Leads no barriers    | No         |
| E      | F       | Wire Leads                | No         |

Note Codes J & K or circuits H, G & M

**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 | Actuator Lens position when illuminated | 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        | #1    | Independent                             | 8+ 7-     |
|        |          | &#2   | Independent                             | 10+ 9-    |
| J      | 8        | #1    | Down                                    | 3+ 8-     |
|        |          | &#2   | Independent                             | 6+ 7-     |
| K      | W        | #1    | Independent                             | 8+ 7-     |
|        |          | &#2   | Independent                             | 6+ 7-     |
| L      | 9        | #1    | Down                                    | 3+ 6-     |
| M      | R        | #2    | 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<sup>5</sup> 1 125VAC 2 250VAC  
 Incandescent 4 3V 5 6V 6 12V superbright 7 18V superbright 8 24V  
 LED\*

|       |     |       |       |     |
|-------|-----|-------|-------|-----|
| 2VDC  | Red | Amber | Green | Red |
| 6VDC  | A   | L     | F     | R   |
| 12VDC | B   | M     | G     | S   |
| 24VDC | C   | N     | H     | T   |
|       | D   | P     | J     | V   |

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


**8 BRACKET COLOR<sup>1</sup>, PANEL SEAL (EXTERNAL FOAM GASKET)**

| # of gaskets | X & X w/ flush Bracket | 2 | X, X, X w/Raised Bracket | 0 | 1 |
|--------------|------------------------|---|--------------------------|---|---|
| Black        | B                      | C | D                        | 1 | 4 |
| White        | W                      | Y | Z                        | 2 | 5 |
| Gray         | G                      | H | J                        | 3 | 6 |

**9 ACTUATOR**

|             |   |       |      |       |     |
|-------------|---|-------|------|-------|-----|
| No Actuator | 0 |       |      |       |     |
| Contura X   | 1 | Black | Gray | White | Red |
| Contura X   | 6 | 1     | 2    | 3     | 4   |
| Contura X   | 7 | 7     | 8    | 8     | 9   |
| Contura X   | J | K     | N    | M     |     |

Actuator orientation above terminals



**10 LENS - ABOVE LAMP #1 TERMINALS<sup>1,4</sup>**  
**11 LENS - ABOVE LAMP #2 TERMINALS<sup>3,6</sup>**

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


Lens Style: Bar, One piece Square, Two piece Square\*  
 (w/ clear top protective lens)  
 (w/ smoke top protective lens)  
 (w/ white top protective lens)

\* All bottom lenses are molded of opaque material. Consult factory or other lens color. Lens color or LEDs must be clear, white, or match color of LED. Green or blue lenses are not recommended with Neon lamps.

**12 ACTUATOR LENS OR BODY LEGEND<sup>2</sup>**

00 - No Legend this location/No actuator

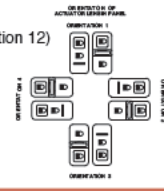
11 ON 12 O 13 O 14 O  
 O ON O O  
 15 O 16 O 17 O 18 O  
 N N  
 21 O 22 ON 23 O 24  
 25 O 26 O 27 O 28  
 N



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

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

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



**14 ACTUATOR LENS LEGEND**

00 No legend this location / no actuator  
 (used with codes 11-18 in selection 12) Selection 14 required when switch requires two legends. 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.  
 or legend options & codes, visit us at [www.carlingtech.com](http://www.carlingtech.com)

Notes Consult factory to verify horsepower rating or your particular circuit choice  
 1 Custom colors are available. Consult factory  
 2 White imprinting is standard on black actuators. Black imprinting is standard on white, red & gray actuators. Custom colors are available, consult factory  
 3 With 2 square lenses, use sel 12 or lens above lamp 1, & selection 14 or lens above lamp 2  
 4 Additional ratings available. See page 20  
 5 Not available with Contura X rockers

**V 1 D A S W 0 1 - 1 P B 00 - 0**

1 Series    2 Circuit    3 Rating    4 Termination Illumination Lock    5 Lamp    6 Bracket    7 Actuator    8 Lens    9 Function    10 Legend    11 Legend    12 Legend    13 Legend Orientation

**1 SERIES**  
V

**2 CIRCUIT**  
Terminal Connections as viewed from bottom of switch

| 8 terminal | 10 terminal | SP - single pole - uses terminals 1, 2 & 3        |
|------------|-------------|---|
| 8 - 7      | 8 - 7       | DP - double pole uses terminals 1, 2, 3, 4, 5 & 6 |
| 1 - 4      | 1 - 4       | Terminals 7, 8, 9 & 10 or lamp circuit only       |
| 2 - 5      | 2 - 5       |   |
| 3 - 6      | 3 - 6       |   |
|            | 10 - 9      |   |

( ) - momentary

**Position:**

| Position | DP | 1            | 2                   | 3            |
|----------|----|--------------|---------------------|--------------|
| 1        | A  | 2 & 3, 5 & 6 | Connected terminals | 1 & 2, 4 & 5 |
| 4        | D  | ON           | NONE                | O            |
| 6        | J  | ON           | NONE                | ON           |
| 9        | N  | ON           | NONE                | ON           |

SPECIAL CIRCUITS

| Code | Terminals    | Terminals    | Terminals |
|------|--------------|--------------|-----------|
| H*   | 2 & 3        | 2 & 3, 5 & 4 | 5 & 4     |
| G*   | 2 & 3, 5 & 6 | 2 & 3        | O         |
| S    | 2 & 3, 5 & 6 | 2 & 3        | 1 & 2     |
| E*   | 5 & 6        | 5 & 3        | 5 & 1     |

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

**3 RATING<sup>4</sup>**

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 AB (QC) no barriers   | No         |
| A      | B       | 250 AB (QC) with barriers | No         |
| J      | K       | 250 AB (QC) no barriers   | Yes 2 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 or circuits H, G & M

**5 ILLUMINATION & SWITCH SEALING**  
Lamp above terminals 3 & 6 end of switch  
Positive (+) and negative (-) symbols apply to LED lamps only

| Sealed                                  | Unsealed | Lamps | Actuator Lens position when illuminated | Lamp wired to terminals |
|---|----------|-------|---|-------------------------|
| S                                       | 0        | NONE  |   |                         |
| C                                       | 3        | #2    | Up                                      | 3+ 7-                   |
| H                                       | Z        | #2    | Independent                             | 8+ 7-                   |
| Selections or Double Pole Switches Only |          |       |   |                         |
| M                                       | R        | #2    | Up                                      | 3+ 6-                   |

**6 LOCK**  
Lock above terminals 1 & 4 end of switch  
W lock

Notes  
 Consult factory to verify horsepower rating or your particular circuit choice  
 1 Custom colors are available. Consult factory  
 2 White imprinting is standard on black actuators. Black imprinting is standard on white, red and gray actuators. Custom colors are available, consult factory  
 3 Located over 1-4 end of switch  
 4 Additional ratings available. See page 20

**7 LAMP**  
Lamp above terminals 3 & 6 end of switch

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

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

**8 RAISED BRACKET COLOR<sup>1</sup>, PANEL SEAL (EXTERNAL FOAM GASKET)**

|            |         |         |        |
|------------|---------|---------|--------|
| No Gasket  | Black 1 | White 2 | Gray 3 |
| One Gasket | 4       | 5       | 6      |

**9 HARD SURFACE ACTUATOR**

|           |         |        |       |         |
|-----------|---------|--------|-------|---------|
| Contura X | Black 1 | Grey 2 | Red 3 | White 4 |
|-----------|---------|--------|-------|---------|

Actuator orientation above terminals 3,6 1,4

**10 LENS - ABOVE LAMP #2 TERMINALS<sup>3,6</sup>**

| Z | Clear | White | Amber | Green | Red | Blue | Lens Style                     |
|---|-------|-------|-------|-------|-----|------|--------------------------------|
| 3 | 8     | D     | J     | P     | V   |      | Bar                            |
| 4 | 9     | E     | K     | R     | W   |      | One piece Square               |
| 5 | A     | F     | L     | S     | Y   |      | Two piece Square*              |
|   |       |       |       |       |     |      | (w/ clear top protective lens) |
| 2 | 7     | C     | H     | N     | U   |      | Two piece Square*              |
|   |       |       |       |       |     |      | (w/ smoke top protective lens) |
| 1 | 6     | B     | G     | M     | T   |      | Two piece Square*              |
|   |       |       |       |       |     |      | (w/ white top protective lens) |

\* All bottom lenses are molded of opaque material. Consult factory or other lens colors. Lens color or 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<sup>3</sup>**

|                |    |      |           |
|----------------|----|------|-----------|
| Lock Color     | Up | Down | Up & Down |
| Match Actuator | A  | H    | R         |
| Black          | B  | J    | S         |
| White          | C  | K    | T         |
| Red            | D  | L    | V         |
| Gray           | E  | M    | W         |
| Safety Orange  | F  | N    | Y         |

**12 ACTUATOR LENS OR BODY LEGEND<sup>2</sup>**

00 - No Legend

|    |    |    |    |
|----|----|----|----|
| 21 | 22 | 23 | 24 |
| O  | ON | O  |    |
| 25 | O  | 27 | 28 |
|    | N  |    |    |

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

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

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

1PM4F1, 4F, 18K4S2

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

**Contura II, III, IV, V, X, XI, XII 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.

**Panel Seal: VPS**

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

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

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

|                          |                           |                   |                      |                         |
|--------------------------|---------------------------|-------------------|----------------------|-------------------------|
| <b>VVR</b>               | <b>6</b>                  | <b>1</b>          | <b>00</b>            | <b>1</b>                |
| 1<br>Actuator Separately | 2<br>Actuator Style/Color | 3<br>Lens Opening | 4<br>Actuator Legend | 5<br>Legend Orientation |

**1 CONTURA X & XI ACTUATOR SEPARATELY**  
VVP

**2 ACTUATOR STYLE & COLOR**

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

**3 LENS OPENING FOR<sup>1</sup>**

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

**4 ACTUATOR LENS OR BODY LEGEND**

00 - No Legend this location

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

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

**5 LEGEND ORIENTATION<sup>1</sup>**

|   |               |
|---|---------------|
| 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:**

|                      |            |   |
|----------------------|------------|---|
| <b>VVT</b>           | <b>1</b>   | <b>1 TOP OF LENS SEPARATELY</b><br>VVT    |
| 1<br>Lens Separately | 2<br>Color | <b>2 COLOR</b><br>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 or assembly, minus the top lens  
Lenses snap in from bottom

- Notes
- 1 actuator lens opening or 2 bar or 2 square lenses, legend orientation 0,1, or 2 must be chosen
  - 2 Center o actuator marking not available or Contura X
  - 3 Legend is not available or bar style lens
  - 4 Not recommended with neon lamps
  - 5 Must also order top piece or 2 piece square lens separately

**Contura XII actuators without lenses separately:**

|               |                    |                   |                   |             |                         |                         |
|---------------|--------------------|-------------------|-------------------|-------------|-------------------------|-------------------------|
| <b>VVP</b>    | <b>J</b>           | <b>1</b>          | <b>Z</b>          | <b>21</b>   | <b>1</b>                | <b>00</b>               |
| 1<br>Actuator | 2<br>Style & Color | 3<br>Lens Opening | 4<br>Lens Opening | 5<br>Legend | 6<br>Legend Orientation | 7<br>Legend Orientation |

**1 CONTURA XII ACTUATOR SEPARATELY**  
VVP

**2 ACTUATOR STYLE & COLOR**

|   |       |   |      |   |       |   |     |
|---|-------|---|------|---|-------|---|-----|
| J | Black | K | Gray | N | White | M | Red |
|---|-------|---|------|---|-------|---|-----|

**3,4 LENS OPENING FOR**

|   |         |   |          |   |             |
|---|---------|---|----------|---|-------------|
| Z | No lens | 1 | Bar lens | 2 | Square lens |
|---|---------|---|----------|---|-------------|

**5, 7 LENS OR BODY LEGEND<sup>2</sup>**

|    |           |    |    |    |    |
|----|-----------|----|----|----|----|
| 00 | No Legend | 21 | 22 | 23 | 24 |
|    |           | O  | ON | O  |    |
|    |           | 25 | O  | 26 | O  |
|    |           |    | N  | 27 | O  |
|    |           |    |    | 28 |    |

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

**6 LEGEND ORIENTATION<sup>3</sup>**

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

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

|                      |                 |                 |             |                         |
|----------------------|-----------------|-----------------|-------------|-------------------------|
| <b>VVL</b>           | <b>2</b>        | <b>1</b>        | <b>00</b>   | <b>0</b>                |
| 1<br>Lens Separately | 2<br>Lens Style | 3<br>Lens Color | 4<br>Legend | 5<br>Legend Orientation |

**1 CONTURA X, XI & XII LENS SEPARATELY**  
VVL

**2 LENS STYLE<sup>4</sup>**

|   |          |   |                       |   |  |
|---|----------|---|-----------------------|---|--|
| 1 | Bar lens | 2 | One Piece Square lens | 3 | Bottom o wo-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<sup>2</sup>**

|    |           |    |    |    |    |
|----|-----------|----|----|----|----|
| 00 | No Legend | 21 | 22 | 23 | 24 |
|    |           | O  | ON | O  |    |
|    |           | 25 | O  | 26 | O  |
|    |           |    | N  | 27 | O  |
|    |           |    |    | 28 |    |

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

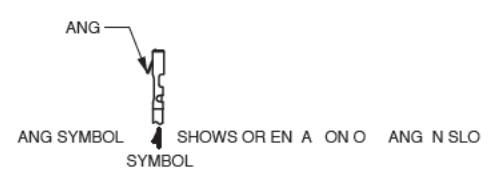
**5 LEGEND ORIENTATION<sup>1</sup>**

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

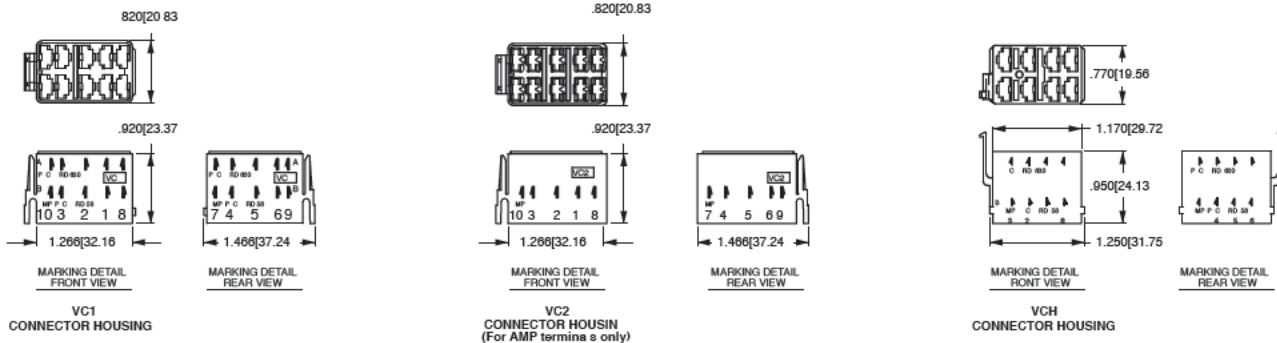
Easily integrate Contura products into your system, with Contura Accessories

Contura Connectors

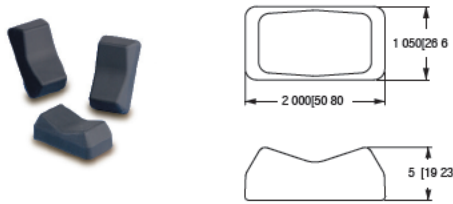
| Q.C. SELECTION GUIDE         |             |                  |            |                       |             |
|------------------------------|-------------|------------------|------------|-----------------------|-------------|
| COMPANY SERIES               | PART NO     |                  | WIRE RANGE |                       | ORIENTATION |
|                              | PLAIN BRASS | TIN PLATED BRASS | AWG        | MM <sup>2</sup> (REF) |             |
| PACKARD 58 SERIES            | 02965580    |                  | 1          | 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 METR-PACK 630 SERIES |             | 2084590          | 0          | 5.0                   | A           |
|                              |             | 1205222          | 12         | 3.0                   |             |
|                              |             | 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 FAST-N-FASTON | 60253-1     | 60253-2          | 16-12      | 1-3-3                 | B           |
|                              | 100-1       | 2100-2           | 18-1       | 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 Corporation, PA. Delphi Packard is a registered trademark of Delphi-Packard Electrical Systems Warren, Ohio.



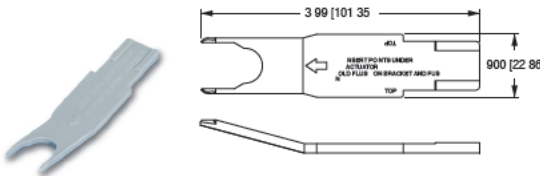
Contura X Boot (P/N VB1-01)



Additional V-Series Ratings

- 1 .4VA @ 28VDC Resistive
- 4 10A 250VAC 1/2 HP, 15A 125 VAC 1/2 HP, No Agency Listings
- 5 10A 250VAC 1/2 HP, 15A 125 VAC 1/2 HP, UL Recognized, CSA Certified
- 6\* 15A 125VAC 1/2 HP, 12(2)A 125 VAC  $\mu$  T85
- 7\* 15A 125VAC 1/2 HP, 12(6)A 125 VAC T85
- 8\* 10A 250VAC, 15A 125VAC, 1/2 HP 125-250VAC, 12(2)A 250 VAC  $\mu$  T85
- 9\* 10A 250VAC, 15A 125VAC, 1/2 HP 125-250VAC, 12(6)A 250 VAC T85
- 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 15A 125 VAC, 10A 250VAC, 1/2 HP 125-250 VAC; 6A 125 VAC L
- M .4VA/20A 12V (comb-contact)
- (comb nat on go/d/s ver contacts for borderline dry circuit applications)
- N .4VA/15A 24V (comb-contact)
- (comb nat on go/d/s ver contacts for borderline dry circuit applications)

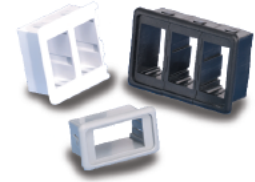
Contura II, III, IV & V Actuator Removal Tool (P/N VRT)



NOTES

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

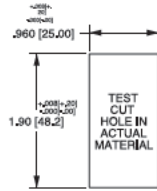
## Contura Mounting Panels Dimensional Specifications: in. [mm]



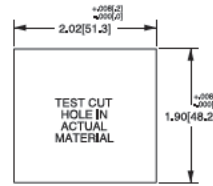
**MOUNTING PANEL**  
For additional units, add 1.03[26.2] per unit.  
For more than 2 V-Series Switches, add middle section. Available in Panel Thicknesses listed below. Consult factory.

**MOUNTING PANEL THICKNESS**

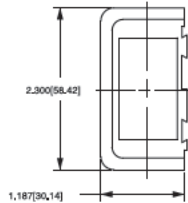
|            |            |
|------------|------------|
| .062[1.57] | .187[4.75] |
| .093[2.36] | .250[6.35] |
| .125[3.17] | .375[9.52] |



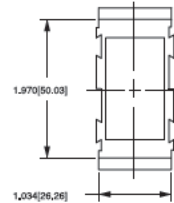
VMS MOUNTING PANEL HOLE



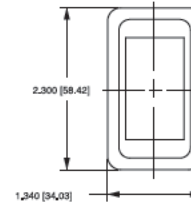
MOUNTING PANEL OPENING (2) UNITS



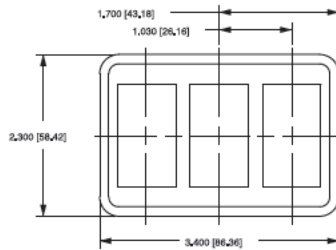
VME MOUNTING PANEL END



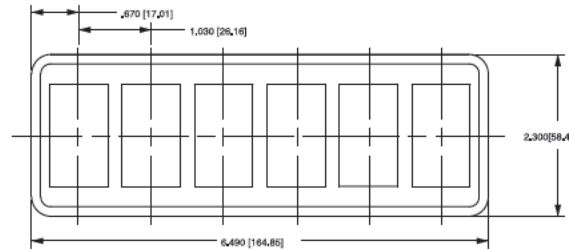
VMM MOUNTING PANEL MIDDLE



VMS MOUNTING PANEL

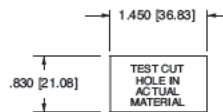


VM3 MOUNTING PANEL



VM6 MOUNTING PANEL

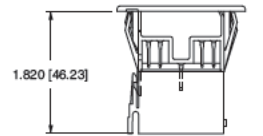
## Contura Hole Plug Dimensional Specifications: in. [mm]



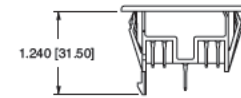
VHP CONTURA II, III HOLE PLUG



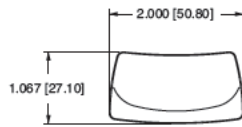
VHP CONTURA II, III HOLE PLUG



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



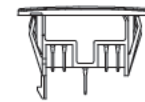
VH2 STANDARD HOLE PLUG (With wing serrations)



(TYP. FOR VH3 & VH4)



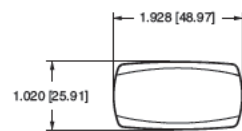
VH3 CONTURA IV HOLE PLUG (No wing serrations)



VH4 CONTURA IV HOLE PLUG (With wing serrations)



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



(TYP. FOR VH5 & VH6)



VH5 CONTURA V HOLE PLUG (No wing serrations)



VH6 CONTURA V HOLE PLUG (With wing serrations)



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

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\* Intentionally left blank

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