# V-Series CONTURA SWITCHES

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

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









# **Resources:**

**Configure a Complete Part** 

Download CAD & Sales Drawing >

Watch Product Video



# **Product Highlights:**

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

# **Typical Applications:**

- · On/Off Highway Equipment
- Marine
- · Military Armored Vehicles
- · Mining Machinery and Equipment
- Any application requiring environmental protection



# **V-Series Switch DESIGN FEATURES**

# **INTERCHANGEABLE ACTUATORS**

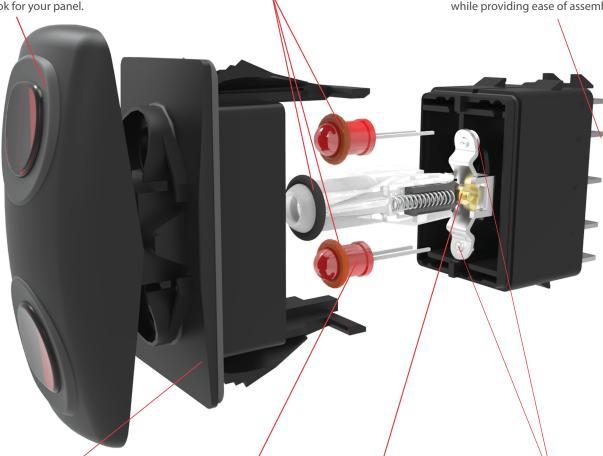
Panel redesign is a snap with our wide range of rocker styles. Achieve maximum design variety with minimum inventory. Simply swap rockers to create an entirely new look for your panel.

# **DUAL SEAL PROTECTION**

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

# **CLEAN CONNECTIONS**

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



# **OPTIONAL PANEL SEAL**

Helps prevent water/dust ingress behind panel.

# **MULTIPLE LIGHTING OPTIONS**

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

# **BRASS ROLLER PIN**

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

# **SILVER PLATED BUTT CONTACT MECHANISM**

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

\*Manufacturer reserves the right to change product specification without prior notice



# Contura II & III

The Contura II & III actuators are constructed of thermoplastic polycarbonate and are offered with a hard nylon overlay or a "soft-touch" elastomer overlay. These models incorporate aesthetic designs on the top and bottom of the rocker featuring two rows of raised "bumps" on the Contura II and three "indented" lines on the Contura III.



# Contura X

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



# Contura IV

The Contura IV's "Shape to create a Shape" actuator works with the curves, contours & advanced styling of the latest panel designs, flowing with these advanced curves & radii. This actuator style fits on the Contura flush bracket/bezel.



# Contura XI

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



# Contura V

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



# Contura XII

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



# Contura VI (WAVE)

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



# Contura XIV

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



# Contura VII

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



# **Illuminated Indicators** & Accessories

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

# **Electrical**

Contact Rating .4VA @ 24VDC (MAX) resistive

15 amps, 125VAC 10 amps. 250VAC 1/2 HP 125-250VAC 20 amps, 4-14VDC 15 amps, 15-28VDC

10A, 14VT 6A, 125VAC L 1500 Volts RMS 50 Megohms

Insulation Resistance Initial Contact Resistance 10 milliohms max. @ 4VDC

Life

Dielectric Strength

Contacts

**Terminals** 

**Physical** Lighted

Seals

Base

Contura II, III, IV, V, VI. VII Actuator

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

Lens Contura XIV

**Actuator Travel (Angular Displacement)** 2 position

3 positions 9° from center

**Mounting Specifications** 

Panel Thickness Range

Gaskets Acceptable Panel Thickness .030 to .250 (.76 to 6.35mm) 0 1

.030 to .109 & .147 to .157 (.76 to 2.77mm & 3.73 to 3.98mm)

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

# **Agency Certifications**



# **Environmental**

Sealing

Corrosion

Up to 100,000 cycles, circuit and load dependent

Silver alloy, silver tin-oxide, fine silver

Brass or copper/silver plate 1/4" (6.3mm) Quick Connect

Incandescent - rated 10.000

(LED is internally ballasted for

voltages to 24VDC)

hours Neon - rated 25,000 hours

LED - rated 100,000 hours 1/2 life

Optional external gasket panel seal

Polyester blend rated to 125°C with

a UL flammability rating of 94V0.

structure molded of thermoplastic

polycarbonate with a hard Nylon 66

Soft Surface: Basic actuator structure

molded of thermoplastic polycarbonate

Polycarbonate lens/sub-rocker with

Hard Surface: Basic actuator

thermoplastic surface overlay.

Polycarbonate rated at 100°C

with an elastomer overlay.

terminations standard. Solder lug,

Wire Lead

Internal

ABS shell

IP66/68, for above-panel components of actual switch only.

Mixed Flowing Gas (MFG) Class III 3 year accelerated exposure per

ASTM B-827, B-845 Silver and gold contacts

-40°C to +85°C Operating Temp. Vibration 1

Per Mil-Std 202F, Method 204D Test Condition A 0.06 DA or 10G's 10-500 Hz. Tested with VCH connector. Test criteria - No loss of circuit during

test, pre and post test contact

resistance.

Vibration 2 Resonance search 24-50 Hz 0.40 DA

50-2000 Hz ±10 G's peak Horizontal Axis 3-5 G's max.

Random

24 Hz 0.06 PSD-Gsq/Hz

60 Hz 0.50 100 Hz 0.50 200 Hz 0.025 2000 Hz 0.025

No loss of circuit during test; <10µ

seconds chatter.

Per Mil-Std 202F. Method 213B. Test Shock

Condition K @ 30G's. Tested with VCH connector. Test criteria - No loss of circuit during test, pre and post

test contact resistance.

Per Mil-Std 202F, Method 101D, Test Salt Spray Condition A, 96 Hrs. Sealed version only. Dust Mil STD 810, Method 510.2 Air Velocity

300 Ft/Min Duration 16Hr

Per Mil-Std 202F, Method 107F, Test Thermal Shock Cond. A, -55°C to +85°C. Test criteria -

pre and post test contact resistance Per Mil-Std 202F, Method 106F, Test Criteria - pre and post test contact

resistance

**Ignition Protection** 

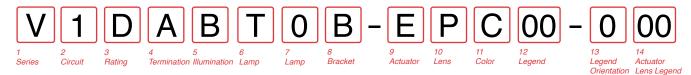
Moisture Resistance

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.

.830[21.08] TEST CUT HOLE IN ACTUAL MATERIAL 1.450[36.83] SWITCH MOUNTING HOLE

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



1 SERIES

```
2 CIRCUIT
Terminal Connections as viewed
                                                         ( ) - momentary
from bottom of switch:
                                   SP - single pole - uses terminals 1, 2 & 3.
                                  DP - double pole uses terminals 1, 2, 3, 4, 5 & 6. Terminals 7, 8, 9 & 10 for lamp circuit only.
8 terminal 10 terminal
  8 - - 7
                   8 -
       - 5
  3 - - 6
                   3 - - 6
                 10 - - 9
Position:
                        2 & 3, 5 & 6
ON
(ON)
ON
                                                                               1 & 2, 4 & 5
OFF
OFF
       DP
                                             Connected Terminals
NONE
       В
                                                        NONE
234567
       Š
                               ON
                                                        NONE
                               ON
ON
                               ŎN
8 L
SPECIAL CIRCUITS
                              (ON)
                                                         OFF
                             2 & 3
                                                    2 & 3, 5 & 4
                        2 & 3, 5 & 6
2 & 3, 5 & 6
2 & 3, 5 & 6
(2 & 3, 5 & 6)
(2 & 3, 5 & 6)
G*
S*
M*
                                                        2 & 3
2 & 3
2 & 3
2 & 3
                                                                                     OFF
1 & 2
OFF
                                                         5 & 3
                             5 & 6
```

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

```
3 RATING <sup>4</sup>
1 .4VA @ 28VDC Resistive
B .15A 24V
C .20A 18V
D .20A 12V
BCDEF
          20A 14V, 10A 14VT (circuit 1, 4 , A & D only)
10A 14V, 6A 14VT (circuit G only)
.4VA/20A 12V
           .4VA/15A 24V
```

4 TERMINATION / **BASE STYLE** Termination

.250 TAB (QC) no barriers

.250 TAB (QC) with barriers

.250 TAB (QC) no barriers 10 Term <u>Jumper</u> B K Yes T2 to 5 Solder Lug no barriers Solder Lug Wire Leads no barriers No No 6 No Wire Leads No

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

5 ILLUMINATION & SWITCH SEALING
Lamp #1:above terminals 1 & 4 end of switch.; Lamp #2 above terminals 3 & 6 end of switch. Positive (+) and negative (-) symbols apply to LED lamps only
Sealed Unsealed Lamps
NONE

Illumination Type Lamps Lamp wired to Terminals 8 (+) 7 (-) 3 (+) 7 (-) 3 (+) 7 (-) 1 (+) 7 (-) 1 (+) 7 (-) 3 (+) 7 (-) 3 (+) 7 (-) 3 (+) 7 (-) 3 (+) 7 (-) 4 (+) 7 (-) (+) 7 (-) (+) 7 (-) (+) 7 (-) INDEPENDENT 1 BCD DOWN UP 34 DOWN DOWN UP Ε 5 F 6 INDEPENDENT 1 2 1 2 1 7 INDEPENDENT G INDEPENDENT INDEPENDENT SINGLE POLE SWITCHES ONLY DOWN INDEPENDENT INDEPENDENT INDEPENDENT Κ W DOUBLE POLE SWITCHES ONLY DOWN UP 3 3 1 6 6 4 4 DOWN Ν т Р ٧

6,7 LAMP (SA Selection 6: ab No lamp	ove terminal: <b>0</b>	s 1 & 4; Se	lection 7: abov	NS) re terminals 3	8 & 6
Neon	<b>1</b> 125VAC	<b>2</b> 250VA0	2		
Incandescent	4 3V	<b>5</b> 6V	6 12V	<b>7</b> 18V	8 24V
LED*			superbright	superbright	-
	Red	Amber	Green	Red	
2VDC	A	L	F	R	
6VDC	В	M	Ġ	S	
12VDC	Ċ	Ñ	Ĥ	Ť	
24VDC	Ď	P	ĴV	•	
* Consult facto	ry for "dayligl	nt briaht" L		nical current	draw for
LED is 20ma.	.,				

On	e Seai	C	Y	н	
0 E T F R	Contura Contura Contura	uator a IV, lef a IV, lef a IV, rig a IV, rig	t orientation t orientation ht orientatic ht orientatic n over termi	, laser etched on on, laser etched	1,4 () () () 3,6

Gray

Ģ

8 FLUSH BRACKET COLOR 1, PANEL SEAL

W

White

Black

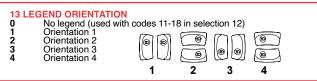
В

No Seal

10 LENS 0 - No Actuator Clear White Amber 1 6 8 2 7 C 3 8 D 4 9 E 5 A F Lens color for LEDs	Green Red G M H N J P K R L S	Blue T U V W Y	(1) (1) (1) (1) (1) (2) (3) (4) (5) (7) (7)
Green or blue lenses	are not recom	mended	l with Neon lamps.

11 ACTUAT				Cross		Dad	_
No Actuator	U	Black		Gray	н	Red	s
White	Υ	Nickel	D	Pewter	Ε		





14 ACTUATOR LENS LEGEND

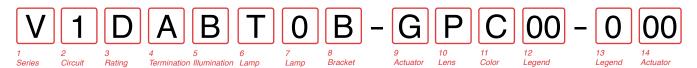
No legend this location / no actuator
(used with codes 11-18 in selection 12) Selection 14 required when switch requires two legends. If the two legends consist of one lens and one body legend, lens legend must be specified in selection 12; body legend specified in selection 14.

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

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

- Custom colors are available. Consult factory.

  White imprinting is standard on black actuators; Black imprinting is standard on white,
- red and gray actuators. Custom colors are available, consult factory. Gloss brow is on left side of E actuator and right side of F actuator. Additional ratings available. See V-Series Switch Accessories page.
- 5 Laser etched rocker only available with lens code Z & actuator colors black,
- 6 Pewter and nickel colors only available with laser etched actuator



1 SERIES

### 2 CIRCUIT ( ) - momentary Terminal Connections as viewed SP - single pole - uses terminals 1, 2 & 3. from bottom of switch: 8 terminal 10 terminal DP - double pole uses terminals 1, 2, 3, 4, 5 & 6. Terminals 7, 8, 9 & 10 for lamp circuit only. 8 - - 7 1 - - 4 1 - - 4 2 - - 5 2 - - 5 3 - - 6 3 - - 6 10 - - 9 **2** Connected Terminals NONE NONE 2 & 3, 5 & 6 ON (ON) 1 & 2, 4 & 5 OFF OFF В 3 4 5 6 7 ON ON ON NONE OFF OFF (ON) ON (ON) 8 L SPECIAL CIRCUITS 2 & 3 2 & 3, 5 & 6 2 & 3, 5 & 6 (2 & 3, 5 & 6) (2 & 3, 5 & 6) 5 & 6 2 & 3, 5 & 4 2 & 3 2 & 3 2 & 3 2 & 3 G\* S\* M\* OFF 1 & 2 OFF

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

2 & 3 5 & 3

2 & 1 5 & 1

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

as it is detrimental to function and performance.

8 term 10 Te 1 2	.250 TAB (QC) no barriers	<u>Jumper</u> No
A B	.250 TAB (QC) with barriers	No
J K 3 5	.250 TAB (QC) no barriers	Yes T2 to 5
3 5	Solder Lug no barriers	No
C D	Solder Lug	No
5 6	Wire Leads no barriers	No
É É	Wire Leads	No
Note: Codes J	& K for circuits H, G & M. Do not us	se silicone based
	duce terminal insertion forces durin	

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 Illumination Type Lamp wired to Terminals 8 (+) 7 (-) 3 (+) 7 (-) 3 (+) 7 (-) 1 (+) 7 (-) 1 (+) 7 (-) 8 (+) 7 (-) 8 (+) 7 (-) 8 (+) 7 (-) 8 (+) 7 (-) 8 (+) 7 (-) 8 (+) 7 (-) 9 (-) 9 (-) INDEPENDENT A B C D DOWN UP DOWN 3 4 DOWN UP UP 2 1 2 Ε 5 F 6 INDEPENDENT G 7 **INDEPENDENT** SINGLE POLE SWITCHES ONLY
J 8 1 **INDEPENDENT** DOWN INDEPENDENT INDEPENDENT INDEPENDENT Κ w DOUBLE POLE SWITCHES ONLY DOWN 3 (+) 6 3 (+) 6 1 (+) 4 1 (+) 4 3 (+) 6 M N R ΙIΡ DOWN 1 2 1 2 Ρ ٧

6,7 LAMP (SA Selection 6: ab No lamp	ME CODING bove terminal	FOR BOTH s 1 & 4; Sele	SELECTION ection 7: above	I <mark>S)</mark> e terminals	3 & 6
Neon '	1 125VAC	2 250VAC			
Incandescent	4 3V	5 6V	6 12V	<b>7</b> 18V	8 24V
I FD*		• • •	superbright	superbrigi	
LLD	Red	Amber	Green	Red	
2VDC	A	1	F	R	
6VDC	B	м	Ġ	S	
12VDC	č	N	g	¥	
	<u> </u>	N	7		
24VDC	υ,	. P	_J	. <b>V</b> .	
* Consult factor	ry for "dayligl	ht bright" LEI	D options. Typ	pical current	draw for
LED is 20ma.					

Orientation Lens Legend

On	e Seal	C	Y	н		
[ a A	CTUAT	OB				
ا مْرَ	No Ac					
Ğ	Contu					
P	Contu	ra V, las	ser etched			

Gray

G

8 FLUSH BRACKET COLOR 1, PANEL SEAL

W

White

Black

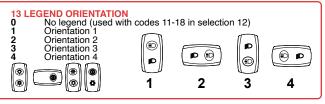
В

No Seal

(		Actuat	or Amber <b>8</b>	<b>Z</b> - No I Green		Blue	style & location: #1 / #2
	2	7	Ĉ	Н	N		
	_	<u>'</u>	•			U	
	3	8	D	J	Р	V	
	4	9	E	K	R	W	
	5	Α	F	L	S	Υ	••
	Lens Greer	color for	r LEDs r e lenses	nust be are not	clear, v recom	white, mende	or match color of LED. ed with Neon lamps.

11 ACTUAT	OR CO	DLOR 1,3,	5				
No Actuator White	0 Y	Black Nickel		Gray Pewter	Ħ	Red	S





14 ACTUATOR LENS LEGEND
00 No legend this location / no actuator
(used with codes 11-18 in selection 12) Selection 14 required when switch
requires two legends. If the two legends consist of one lens and one
body legend, lens legend must be specified in selection 12; body legend
specified in selection 14.
For legend options & codes, visit us at www.carlingtech.com.

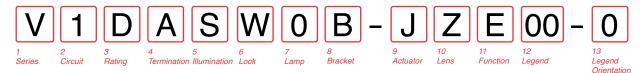
## Notes

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

1 Custom colors are available. Consult factory.

- White imprinting is standard on black actuators; Black imprinting is standard on white, red and gray actuators. Custom colors are available, consult factory.

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



# 1 SERIES V

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

8 terminal 10 terminal

DP - double pole uses terminals 1, 2, 3, 4, 5 & 6.
                    8 - - 7
   8 - - 7
                                     Terminals 7, 8, 9 & 10 for lamp circuit only.
                    2 - - 5
    2 - - 5
                    3 -
                         - 6
         - 6
                  10 -
                          - 9
  Position:
                                             2
Connected Terminals
NONE
Po:
SP
1
4
6
7
8
9
                          2 & 3, 5 & 6
ON
                                                                               1 & 2, 4 & 5
OFF
      ADJK.
                                                        NONE
OFF
OFF
                                                                                    ON
ON
(ON)
(ON)
                                ON
ON
ON
       L
                                                        NONE
```

```
.4VA @ 28VDC Resistive
15A 24V
20A 18V
20A 12V
BCD
        20A 14V, 10A 14VT (circuit 1, 4 , A & D only)
10A 14V, 6A 14VT (circuit G only)
.4VA/20A 12V
        .4VA/15A 24V
```



5 ILLUMINA Lamp #1:ab 3 & 6 end of lamps only	TION ove ter	& SWITCH minals 1 & . Positive	SEALING 4 end of switch.; La (+) and negative (-)	amp #2 above terminals symbols apply to LED
Sealed Uns	sealed	Lamps	Illumination Type	Lamp wired to Terminals
S	0	NONE	_	
Ċ	3	2	UP	3 (+) / (-)
H	<b>Z</b>	NITCHES.	INDEPENDENT	8 (+) / (-)
DOUBLE PO	JLE SI	WIICHES	UNLY	
M	R	1	UP	3 (+) 6 (–)

6 LOCK Lock above terminals 1 & 4 end or	f switch.	
W low profile lock	Υ 6	high profile lock

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

Custom colors are available. Consult factory.

White imprinting is standard on black actuators; Black imprinting is standard on white,

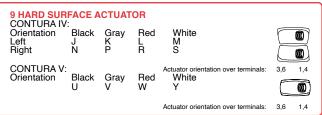
- red and gray actuators. Custom colors are available, consult factory.

  Only available with 3 position circuits. Center OFF and special circuits only available
- with center position lock function.
- Additional ratings available. See V-Series Switch Accessories page. Located at T3-6 end of switch.
- Contura V style only.

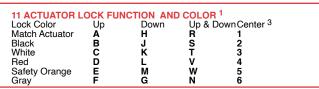
7 LAMP Lamp above terminals 3 & 6 end of switch No lamp 125VAC 2 250VAC 5 6V Neon 4 3V Incandescent 6 12V 7 18V 8 24V superbright Green superbright Red Amber Red 2VDC 6VDC AB L M 12VDC 24VDC D P J V

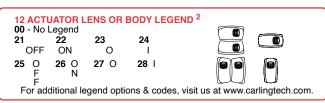
\* Consult factory for "daylight bright" LED options. Typical current draw for LED is 20ma.

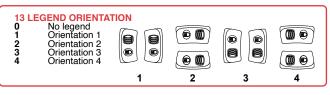


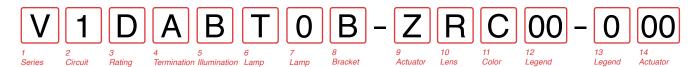


10 LE Z - No Clear A G	Lens	Amber C J	Green D K	Red E L	F	e bar lens oval lens
Lens of Green	color for or blue	LEDs m	nust be d are not r	clear, v	vhite	, or match color of LED. ded with Neon lamps.









# 1 SERIES V

```
2 CIRCUIT
Terminal Connections as viewed
                                                                              ( ) - 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 for lamp circuit only.
from bottom of switch:
8 terminal 10 terminal
   8 - - 7
    2 - - 5
                          2 - - 5
                          3 - - 6
   3 - - 6
                       10 - - 9
1
                                                                                                            3
1 & 2, 4 & 5
OFF
OFF
Position:
                             2 & 3, 5 & 6
ON
(ON)
ON
ON
ON
                                                            Connected Terminals
NONE
NONE
SP
          DP
           AB
345
678
          CDFJKL
                                                                            OFF
OFF
OFF
                                      ON
CON)
SPECIAL CIRCUITS
H* 2 & 3
G* 2 & 3, 5
S* 2 & 3, 5
M* (2 & 3, 5
                                                                    2 & 3, 5 & 4
2 & 3
2 & 3
2 & 3
2 & 3
                             2 & 3, 5 & 6
2 & 3, 5 & 6
(2 & 3, 5 & 6)
(2 & 3, 5 & 6)
E*
                                    5 & 6
                                                                           5 & 3
                                                                                                                  5 & 1
*Jumper between terminals 2 & 5 for circuits H,G,M,R & S are specified in selection 4. External jumper between terminals 2 & 4 for circuit E are provided by customer. Circuit E may be used for SP OFF-ON-ON circuit.
```

# ATING 4 .4VA @ 28VDC Resistive 15A 24V 20A 18V 20A 12V 20A 14V, 10A 14VT (circuit 1, 4, A & D only) 10A 14V, 6A 14VT (circuit G only) .4VA/20A 12V .4VA/21A 12V

4 TERMINATION / BASE STYLE						
8 term	<u>10 Term</u>	<u>Termination</u>	<u>Jumper</u>			
1	2	.250 TAB (QC) no barriers	No ·			
Α	В	.250 TAB (QC) with barriers	No			
J	K	.250 TAB (QC) no barriers	Yes T2 to 5			
3	5	Solder Lug no barriers	No			
С	D	Solder Lug	No			
5	6	Wire Leads no barriers	No			
E	F	Wire Leads	No			
Note: C	odes J & K	for circuits H. G & M. Do not us	e silicone based			

as it is detrimental to function and performance. 5 ILLUMINATION & SWITCH SEALING
Lamp #1.above terminals 1 & 4 end of switch.; Lamp #2 above terminals 2 & 4 end of switch.; Lamp #2 above terminals 1 & 4 end of switch.

lubricants to reduce terminal insertion forces during connector assembly,

3 & 6 end of switch. Positive (+) and negative (-) symbols apply to LED lamps only								
Sealed Ur		Lamps NONE	Illumination Type	Lamp wired to Terminals				
A	1	1	INDEPENDENT	8 (+) 7 (–) 3 (+) 7 (–)				
A B C D	2 3 4	2	DOWN UP	3 (+) 7 (-) 3 (+) 7 (-)				
Ď	4	2	DOWN	3 (+) <u>7</u> (–)				
E	5	2 1	DOWN UP	1 (+) 7 (-) 1 (+) 7 (-)				
	-		ŪP	. (.) . ( )				
F	6	1	INDEPENDENT UP	8 (+) 7 (-) 3 (+) 6 (-)				
G	7	2 1 2 1	INDEPENDENT	3 (+) 6 (-) 8 (+) 7 (-)				
	-	2	UP	3 (+) 7 (-) 8 (+) 7 (-) 3 (+) 6 (-) 8 (+) 7 (-) 3 (+) 7 (-)				
H U	Z Y	1	INDEPENDENT INDEPENDENT	8 (+) 7 (-) 8 (+) 7 (-)				
-	•	<u>.</u> 2	INDEPENDENT	10 (+) 9 (-)				
SINGLE P	OLE SWI	TICHES C	<i>DNLY</i> DOWN	2 ( . ) 2 ( . )				
J	0	2	INDEPENDENT	3 (+) 8 (–) 6 (+) 7 (–)				
K	W	ī	INDEPENDENT	8 (+) 7 (–)				
DOUBLE F	OU E CM	,, <u>,</u> 2	INDEPENDENT	6 (+) 7 (–)				
L	9 9	1	DOWN	3 (+) 6 (-)				
M	Ř	1	UP	3 (+) 6 (-)				
N	Т	1	DOWN DOWN	3 (+) 6 (-)				
Р	V	2 1	UP UP	1 (+) 4 (–) 1 (+) 4 (–)				
		ż	ŬP	3 (+) 6 (-)				

6,7 LAMP (sa Selection 6: at No lamp	me coding fo bove terminal 0	or both seles s 1 & 4; Sele	ctions) ection 7: above	e terminals	3 & 6
Neon <sup>'</sup>	1 125VAC	2 250VAC			
Incandescent	<b>4</b> 3V	<b>5</b> 6V	<b>6</b> 12V	<b>7</b> 18V	<b>8</b> 24V
LED*			superbright	superbrig	ht
	Red	Amber	Green	Red	
2VDC	Α	L	F	R	
6VDC	В	M	G	S	
12VDC	С	N	Н	T	
24VDC	D	P	J	V	
* Consult facto LED is 20ma.	ory for "daylig	ht bright" LE	D options. Typ	oical current	t draw for

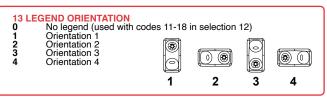
Orientation Lens Legend

No Seal One Seal	Black B C	White W Y	Gray G H	
Z Contu	tuator Ira VII	over termir	nals:	3,6 1,4

10 LENS Lens color for LEDs must be clear, white, or match color of LED. Green or blue lenses are not recommended with Neon lamps. 0 - No Actuator Z - No Lens							
			Red	Blue	Lens style & location		
6	В	G	M	Т			
7	С	Н	N	U			
8	D	J	Р	٧			
9	E	K	R	W			
Α	F	L	S	Υ			
1	2	3	4	5			







14 ACTUATOR LENS LEGEND
00 No legend this location / no actuator
(used with codes 11-18 in selection 12) Selection 14 required when switch requires two legends. If the two legends consist of one lens and one body legend, lens legend must be specified in selection 12; body legend specified in selection 14.
For legend options & codes, visit us at www.carlingtech.com.

## Notes:

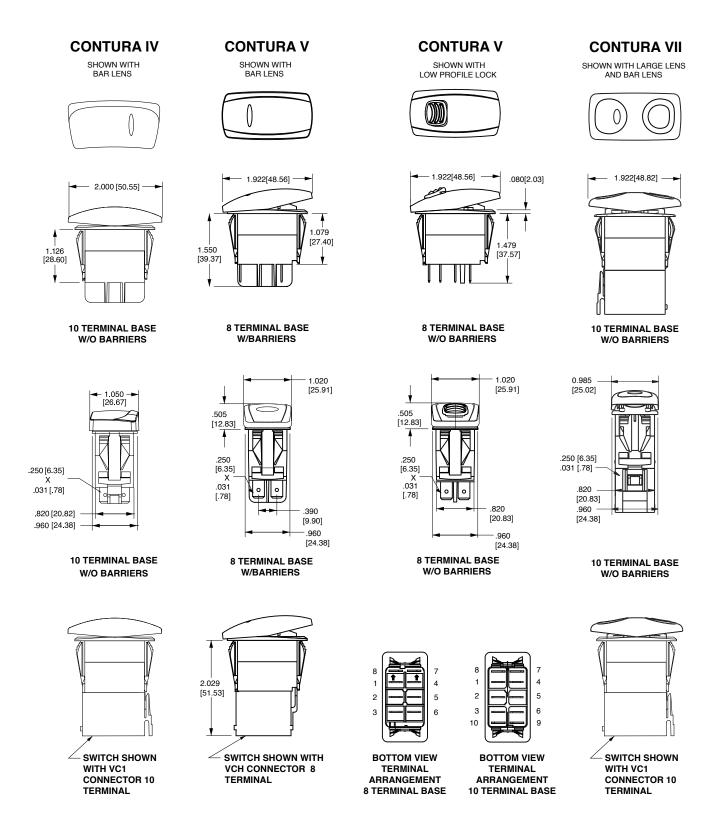
- Consult factory to verify horsepower rating for your particular circuit choice.

  Custom colors are available. Consult factory.

  White imprinting is standard on black actuators. Black imprinting is standard on white, red and gray actuators. Custom colors are available, consult factory.

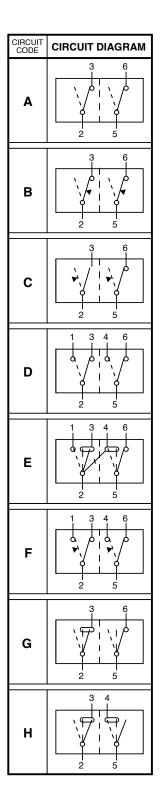
  Additional ratings available. See V-Series Switch Accessories page.
- Legends available for lighted oval lens version only

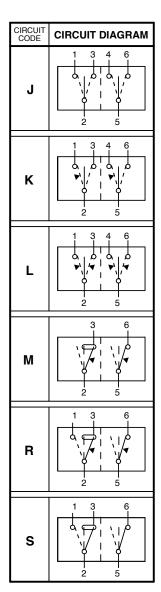
# **Dimensional Specifications: in. [mm]**



# **Circuit Diagrams:**

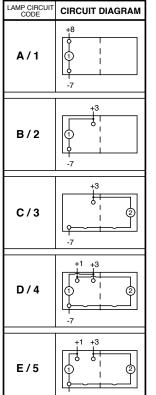
CIRCUIT CODE	CIRCUIT DIAGRAM
1	3
2	3
3	3 V 1 2
4	1 3
5	1 3
6	1 3
7	
8	1 3 Q P V V V V V V V V V V V V V V V V V V



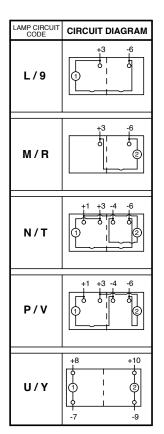


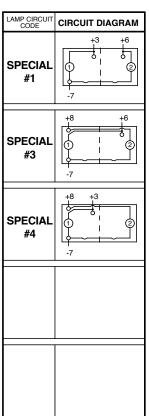
	SYMBOL LEGEND				
SYM.	DEFINITION				
0	DESIGNATES TERMINALS AND CONTACTS				
<b>~</b>	DESIGNATES MAINTAINED CIRCUITS				
	DESIGNATES OTHER POSITION				
<b>○▼</b> ○	DESIGNATES MOMENTARY CIRCUITS				
	DESIGNATES TWO POSITION CONNECTION				
	DESIGNATES EXTERNAL JUMPER PROVIDED BY CUSTOMER				

# **Lamp Circuit Diagrams:**

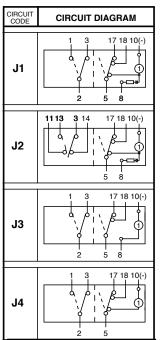


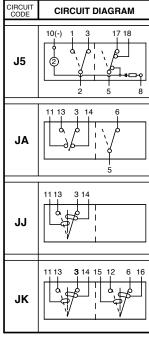
LAMB OIDOUIT	
LAMP CIRCUIT CODE	CIRCUIT DIAGRAM
F/6	1 2
G/7	+8 +3 1   2
H/Z	+8   (2)   -7
J/8	-7
K/W	+8 +6





# J-Series Hazard Warning Circuit Diagrams:





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

SYMBOL LEGEND				
SYM.	DEFINITION			
0	DESIGNATES TERMINALS AND CONTACTS			
0	DESIGNATES LAMP LOCATION			

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

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

Contura VI Actuator with lenses and inserts only: VV with code selections 9-16

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

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

Panel Seal: VPS

# Contura X & XI actuators without lenses separately:



# 1 CONTURA X & XI ACTUATOR SEPARATELY



3 L	ENS OPENING FOR 1	
1	One bar lens	

- One bar lenses
- 5 square lens on top/ bar lens on bottom One square lens (Contura X only) two square lens

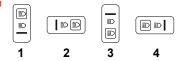
## **ACTUATOR LENS OR BODY LEGEND** 00 - No Legend this location

11 ON **12** OFF 13 I OFF ON 0 15 00 **16** O O 17 OI 18 I O F N NF

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

## 5 LEGEND ORIENTATION 1

No legend Orientation 1 Orientation 2 3 Orientation 3 Orientation 4



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



# Contura X, XI & XII actuator lens assembly:



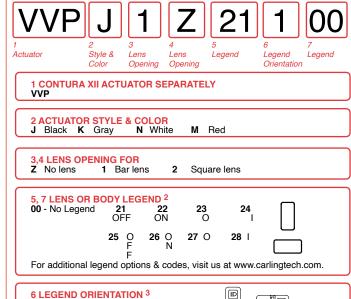
1 piece lens/bar lens are positioned the same as bottom lens for assembly,

## Notes:

- If actuator lens opening for 2 bar or 2 square lenses, legend orientation  $0,1,\,\mathrm{or}\,2$ must be chosen.

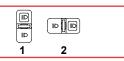
  Center of actuator marking not available for Contura XII.
- Legend is not available for bar style lens. Not recommended with neon lamps.
- Must also order top piece of 2 piece square lens separately

# Contura XII actuators without lenses separately:



# Orientation 2

- 0 No legend Orientation 1



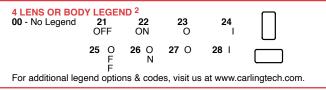
# Contura X, XI & XII actuator lens assembly separately:

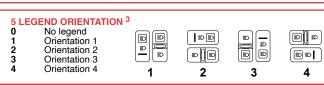


## 1 CONTURA X, XI & XII LENS SEPARATELY VVL

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

### 3 TRANSLUCENT LENS COLOR 1 Clear 2 White 3 Amber 4 Green 4 6 Blue 4 3 Amber 5 Red

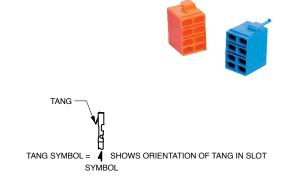




# Easily integrate Contura products into your system, with Contura Accessories

# **Contura Connectors**

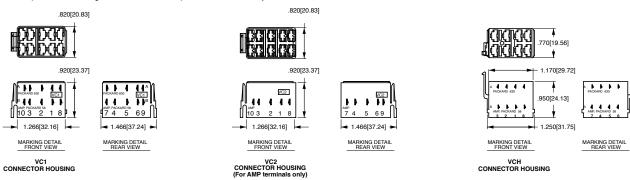
Q.C. SELECTION GUIDE						
	PART	NO	W RA			
COMPANY SERIES	PLAIN BRASS	TIN PLATED BRASS	AWG	MM <sup>2</sup> (REF)	ORIEN- TATION	
	02965580		12	3.0		
	02965471	12010601	(2)16-14	(2)1.0-2.0	1	
PACKARD 58 SERIES	02965470		16-14	1.0-2.0	В	
00 0211120	02965469	06288318	20-18	.58		
		12084590	10	5.0		
		12052224	12	3.0		
PACKARD		12015870	16-14	1.0-2.0		
METRI-PACK		12020035	(2)22-18	(2).58	Α	
630 SERIES	12015832	12015869	20-18	.58	1	
		12052222	20-22	.355		
	60253-1	60253-2	16-12	1.3-3		
AMP 250 SERIES	00233-1	00233-2	(2) 16	(2) 1.3		
FASTIN-FASTON	42100-1	42100-2	18-14	.8-2	В	
	60295-1	60295-2	22-18	.39		



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

AMP is a registered trademark of AMP Inc. Harrisburg, PA

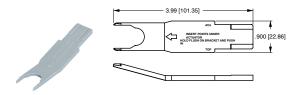
Delphi Packard is a registered trademark of Delphi-Packard Electrical Systems Warren, Ohio



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



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



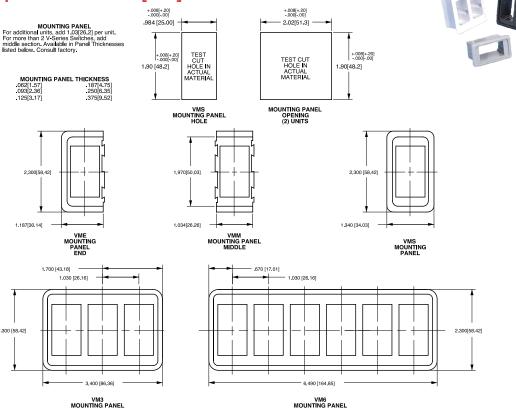
# Additional V-Series Ratings

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

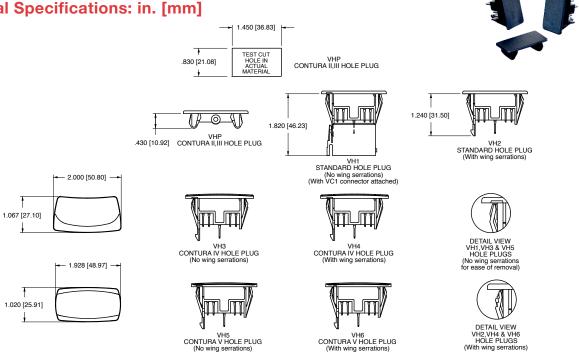
Consult factory to determine availability for individual circuits and their HP rating.

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

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



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



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555 JS-68 JS-6-B JS-91 JS-94 22-211.011 9001KXSDC 92-458.500 SAPT654133 2PA3 STKLBU STKLWH SW53AA2 302561 3E
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