



V-Series

Sealed Rocker Switches

PRODUCT WEBPAGE

request sample, configure part, watch video





Contura® IP66/68 Snap-In Mounted Switches

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 510.1, UL 1500, ISO 8846, IEC 60529 and BS 5490 among others, making them one of the most rugged and reliable switches ever manufactured.







Typical Applications

- On/Off-Highway
- Marine

- Armoured Vehicles
- Mining Machinery

 Any Application Requiring **Sealing Protection**

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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

Actuator Options & Accessories



Contura II & III

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



Contura X

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



Contura IV

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



Contura XI

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



Contura V

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

Contura 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 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.



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

3.

Tech Specs

Electrical

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
10 milliohms max. @ 4VDC
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 terminations standard. Solder lug, Wire Lead

Physical

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

Environmental

Sealing	IP66/68, for above-panel components of actual switch only.
Corrosion	Mixed Flowing Gas (MFG) Class III 3 year accelerated exposure per ASTM B-827, B-845 Silver and gold contacts
Operating Temp	-40°C to +85°C
Vibration 1	Per Mil-Std 202F, Method 204D Test Condition A 0.06 DA or 10G's 10-500 Hz. Tested with VCH connector. Test criteria - No loss of circuit during test, pre and post test contact esistance.
Vibration 2	Resonance search24-50 Hz 0.40 DA50-2000 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.
Shock	Per Mil-Std 202F, Method 213B, Test Condition K @ 30G's. Tested with VCH connector. Test criteria - No loss of circuit during test, pre and post test contact resistance.
Salt Spray	Per Mil-Std 202F, Method 101D, Test Condition A, 96 Hrs. Sealed version only.
Dust	Mil STD 810, Method 510.2 Air Velocity 300 Ft/Min Duration 16Hr
Thermal Shock	Per Mil-Std 202F, Method 107F, Test Cond. A, -55°C to +85°C. Test criteria -pre and post test contact resistance
Moisture Resistance	Per Mil-Std 202F, Method 106F, Test Criteria - pre and post test contact resistance
Ignition Protection	All Contura switches with sealed construction meet the requirements of UL1500/ISO8846 for ignition protection, in addition to conformance with EC directive 94/25/EC for marine products.

Mounting Specifications

Actuator Travel (Angular Displacement)

2 position	18°
3 positions	9º from center

Panel Thic	kness Range	
Gaskets	Acceptable Panel Thickness	≜
0	.030 to .250 (.76 to 6.35mm)	
1	.030 to .109 & .147 to .157	1.450 [36.83]
	(.76 to 2.77mm & 3.73 to 3.98mm)	[00.00]
Recomme	ended: No gasket with panel thickness	Ļ
of .032, .06	62, .093, .125,.187 or .250	<u> </u>

.830 [21.08]

TEST CUT HOLE IN ACTUAL MATERIAL

SWITCH MOUNTING HOLE



1. SERIES

V-Series v

2. CIRCUIT

vitch: SP - sing al DP - dou	gle pole: terminals 1, 2 & Jble pole: terminals 1, 2, 3	, 4, 5 & 6.
	•	2
	2	3
2&3,5&6	Connected Terminals	1&2,4&5
ÓN	NONE	ÓFF
		OFF
		(OFF)
ON	NONE	ON
ON	NONE	(ON)
		ON
		(ON)
(ON)	OFF	(ON)
· · /		. ,
2 & 3	2 & 3 5 & 4	5&4
		OFF
		1&2
(2&3,5&6)	2&3	OFF
(2 & 3 5 & 6)	2&3	2&1
5&6	5 6 3	5ãi
	ritch: SP - sing ol DP - dou Terminc 1 2 & 3, 5 & 6 ON ON ON ON ON ON ON ON ON ON	1 2 2 & 3, 5 & 6 Connected Terminals ON NONE (ON) NONE ON NONE ON NONE ON NONE ON NONE ON NONE ON OFF ON OFF ON OFF QN OFF QN OFF QN OFF QX 3, 5 & 6 2 & 3 2 & 3, 5 & 6 2 & 3 2 & 3, 5 & 6 2 & 3 2 & 3, 5 & 6 2 & 3 2 & 3, 5 & 6 2 & 3 2 & 3, 5 & 6 2 & 3 2 & 3, 5 & 6 2 & 3 2 & 3, 5 & 6 2 & 3 2 & 3, 5 & 6 2 & 3

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 3

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

I A J 3 C 5 E Note: Co lubrican	1 2 A B J K 3 4 C D 5 6 E F Note: Codes J & K foolubricants to reduce	12.250 TAB (QC) no barriersAB.250 TAB (QC) with barriersJK.250 TAB (QC) no barriers34Solder Lug no barriersCDSolder Lug56Wire Leads no barriers

5. ILLUMINATION

Lamp #1:abo terminals 3 &	ve terminals 6 end of swit	l & 4 end of switch. ch. Positive (+) and	; Lamp #2 above d negative (-) symbols Lamp wired to Terminals
Sealed Unse	ealed Lamps	Illumination Type	Lamp wired to Terminals
A B C D	0 NONE 1 1 2 1 3 2 4 1 2	– INDEPENDENT DOWN UP DOWN DOWN	- 8 (+) 7 (-) 3 (+) 7 (-) 3 (+) 7 (-) 3 (+) 7 (-) 1 (+) 7 (-)
E	5 1 2 6 1	UP UP	1(+)7(-)
F			3 (+) 7 (-) 8 (+) 7 (-) 3 (+) 6 (-) 8 (+) 7 (-) 3 (+) 7 (-) 8 (+) 7 (-)
G	7 1 2 Z 2 Y 1	INDEPENDENT UP	8 (+) 7 (-) 3 (+) 7 (-)
U	2	INDEPENDENT INDEPENDENT INDEPENDENT	8 (+) 7 (-) 8 (+) 7 (-) 10 (+) 9 (-)
SINGLE POLE	SWITCHES ON		
J	8 1	DOWN INDEPENDENT	3 (+) 8 (-) 6 (+) 7 (-)
	N 1 2	INDEPENDENT INDEPENDENT	8 (+) 7 (-) 6 (+) 7 (-)
	SWITCHES OF		
	9 1 R 1	DOWN UP	3 (+) 6 (-) 3 (+) 6 (-) 3 (+) 6 (-)
N	Ť i	DOWN	3 (+) 6 (-)
	2	DOWN	1(+)'4(-)'
P	V 1 2	UP UP	1 (+) 4 (-) 3 (+) 6 (-)

6,7. LAMP (SAME CODING FOR BOTH SELECTIONS)

	ove termir	nals 1 & 4; Se	lection 7: abov	ve terminals 3 & 6
No lamp Neon Incandescent LED*		2 250VAC 5 6V	6 12V superbright	7 18V 8 24V superbright
	Red	Amber	Green	Red
2VDC 6VDC	B	M	F G	к S
12VDC	č	N	Ĥ	Ť
24VDC	D	Р	J	V
* Consult fast	on for "day	uliabt bright	" LED options	Typical current

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

8. FLUSH BRACKET COLOR, PANEL SEAL

One Seal C Y H	No Seal One Seal	Black B C	White W Y	Gray G H
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9. ACTUATOR

0 A, B C, D	No Actuator Contura II Contura III		$\left(\right)$
Actua	tor thick end over	terminals:	3,6 1,4

10. LENS 1

0 - No A Clear			Lens Green	Pod	Blue	
1	6	8	G	M	T	
2	7	č	Ĥ	N	i.	
2	8	D D	1	D	v	
Sauare	lens op	tions or	nlv avai	lable	for Contura II.	
4	9	E	ĸ	R	W	
5	Α	F	L	S	Y	
Lens col Green o	or for L r blue l	EDs mu enses c	st be cl ire not i	ear, w ecom	hite, or match mended with	i color of LED. Neon lamps.

11. ACTUATOR COLOR AND TEXTURE

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

12. ACTUATOR LENS OR BODY LEGENDS 2

11	ON OFF	12 OFF ON	13 O	14 O 	\Box
15	0 0 F N F	16 0 0 N F F	17 OI	18 C	
	For addit	ional leger	nd option	s & codes	, visit us at www.carlingtech.com

13. LEGENDS ORIENTATION

0 1 2 3 4	No legend (used) Orientation 1 Orientation 3 Orientation 4	with codes II-	18 in selectio	on 12)	1

14. ACTUATOR LENS LEGENDS

60 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. Body legends not available on Soft surface actuators; White imprinting is

- standard on black actuators; Black imprinting is standard on white, red and gray actuators. Custom colors are available, consult factory. Additional ratings available, see V-Series Switch Accessories page. Contura II available with two square lenses. Consult factory for details.

5

S В ΖΕ Α Sample А W () - ()Part Number

6

Selection

1. SERIES

V-Series v

1

2. CIRCUIT

8 terminal 10 termi 8 7 8 7 1 4 1 4 2 5 2 5 3 6 3 6 10 9	witch: SP - single nal DP - doubl	() - momentary pole: terminals 1, 2 & e pole: terminals 1, 2, 7, 8, 9 & 10 for lamp o	3, 4, 5 & 6. circuit only.
Position:	1	2	3
SP DP	2625660	onnected Terminals	•
1 A	ON	NONE	OFF
4 D	ON	NONE	ON
	ÓN	OFF	ÓN
6 J 7 K			
/ K	ON	OFF	(ON)
8 L	(ON)	OFF	(ON)
9 N	OFF	NONE	ON
SPECIAL CIRCUITS			
H*	2&3	2 & 3, 5 & 4	5&4
G*	2&3,5&6	2&3	OFF
S*	2&3,5&6	2&3	1&2
M*	(2&3,5&6)	2&3	OFF
R*	(2&3,5&6)	2&3	2 & 1
E*	5&6	5&3	5&1
-	500	000	5001
		rcuits H,G,M,R & S are sp	

2

3

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

3. RATING 4

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

4. TERMINATION / BASE STYLE

lubricant	ts to reduce	Termination .250 TAB (QC) no barriers .250 TAB (QC) with barriers .250 TAB (QC) with barriers Solder Lug no barriers Solder Lug Wire Leads no barriers Wire Leads or or circuits H, G & M. Do not use terminal insertion forces du etrimental to function and pe	ring connector
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5. ILLUMINATION & SWITCH SEALING

3 & 6 end LED lamp	d of switch. os only	Positive (+) and negative	(-) symbols apply to
Sealed	<u>Unséaled</u>	<u>Lamps</u>	Illumination Type	Lamp wired to Terminals
S	0	NONE		
С	3	2	UP	3 (+) 7 (–)
н	Z	2	INDEPENDENT	8 (+) 7 (–)
DOUBLE F	POLE SWITC	HES ONLY		
м	R	1	UP	3 (+) 6 (-)
		2	DOWN	$1(+)^{2}4(-)^{2}$
Р	v	1	UP	1(+)4(-)
		2	UP	3`(+) 6`(-)

6. LOCK

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

8 7. LAMP

Lamp above t No lamp Neon Incandescent LED*	0 1 125VAC	& 6 end of 2 250VAC 5 6V	switch 6 12V superbright	7 18V 8 2 superbright	4V
	Red	Amber	Green	Red	
2VDC	Α	L	F	R	
6VDC	В	М	G	S	
12VDC	С	N	Н	Т	
24VDC	D	P	J	V	
* Consult fact draw for LED is	ory for "da s 20ma.	ylight brigh	t" LED options	s. Typical currer	nt

11

12

8. FLUSH BRACKET COLOR, PANEL SEAL

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9

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

9. HARD SURFACE ACTUATOR 1

Contura II	Black A	Gray B	Red G	White H		\bigcirc
Contura III	с	D	E	F		\bigcirc
Actuator orier	ntation c	above te	erminal	s:	3,6	1,4

10. LENS

3

Z - No Lens Clear White Amber Green Red Blue -8 D Л Ρ v

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

11. ACTUATOR LOCK FUNCTION AND COLOR

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

12. ACTUATOR LENS OR BODY LEGENDS 2

	- No		end					
21		22		23		24		
	OFF		ON		0		L	
25	O F F	26	O N	27	0	28	I	
For	addi	tion	al leç	genc	lopt	ions &	со	des, visit us at www.carlingtech.com

13. LEGEND ORIENTATION

0 1 2 3 4	No legend (used w Orientation 1 Orientation 2 Orientation 3 Orientation 4	vith codes	21-28 in ∭≌ை ≣	select	tion 12) 	
		1	2	3	4	

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

- cuit 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. 2
- 3
- 4

🗟 Configure Complete Part Number > 🛛 🕲 Browse Standard Parts >



8

9

10

6

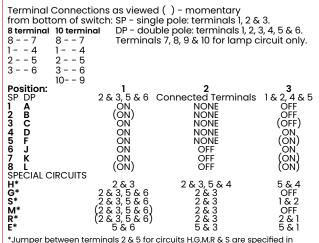
5

Selection

1. SERIES

V-Series v

2. CIRCUIT



2

3

4

selection 4. External jumper between terminals 2.4 for circuit E are provided by customer. Circuit E may be used for SP OFF-ON-ON circuit.

3. RATING 4

1 BC DE F M N	.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/15A 24V
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4. TERMINATION / BASE STYLE

8 term	<u>10 Term</u>	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: Coc	les J & K for ci	rcuits 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 S 0 NONE - A 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 3 (+) 7 (-) E 5 1 UP 3 (+) 7 (-) E 5 1 UP 1 (+) 7 (-) E 5 1 UP 3 (+) 7 (-) F 6 1 INDEPENDENT 8 (+) 7 (-) F 6 1 INDEPENDENT 8 (+) 7 (-) G 7 1 INDEPENDENT 8 (+) 7 (-) G 7 1 INDEPENDENT 8 (+) 7 (-) H Z 2 UP 3 (+) 7 (-) H Z 2 INDEPENDENT 8 (+) 7 (-) H	uppiy to LED lump	nd of swit	ch. Positive (+) an	d negative (-) symbols
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	<u>Sealed</u> <u>Unsealed</u>	<u>Lamps</u>	Illumination Type	Lamp wired to Terminals
B 2 1 DOWN 3 (+) 7 (-) C 3 2 UP 3 (+) 7 (-) D 4 1 DOWN 3 (+) 7 (-) 2 DOWN 3 (+) 7 (-) 2 2 UP 1 (+) 7 (-) 2 UP 3 (+) 7 (-) F 6 1 INDEPENDENT 3 (+) 7 (-) 2 UP 3 (+) 7 (-) 2 UP 6 1 INDEPENDENT 8 (+) 7 (-) 9 1 INDEPENDENT 8 (+) 7 (-) 1 UP 3 (+) 7 (-) 3 (+) 7 (-) 1 UP 3 (+) 7 (-) 1 1 UP 1 (+) 7 (-) 1 1 UP 1 (+) 7 (-) 1 1 UP 3 (+) 7 (-) 1 1 UP 1 (+) 7 (-) 1 1 UP 1 (+) 7 (-) 1 1 UP 1 (+) 7 (-) 1		NÔNE		-
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		ł		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		2		$3 + \frac{7}{7} - \frac{7}{7}$
E 2 $DOWN$ $1 (+) 7 (-)$ E 5 1 UP $1 (+) 7 (-)$ 2 UP $3 (+) 7 (-)$ F 6 1 INDEPENDENT 8 (+) 7 (-) 2 UP 3 (+) 6 (-) G 7 1 INDEPENDENT 8 (+) 7 (-) 2 UP 3 (+) 6 (-) 3 (+) 7 (-) H Z 2 INDEPENDENT 8 (+) 7 (-) U Y 1 INDEPENDENT 8 (+) 7 (-)		ī		3(+)/7(-)
F 6 1 INDEPENDENT 8 (+) 7 (-) G 1 INDEPENDENT 8 (+) 7 (-) G 7 1 INDEPENDENT 8 (+) 7 (-) G 7 1 INDEPENDENT 8 (+) 7 (-) H Z 2 INDEPENDENT 8 (+) 7 (-) U Y 1 INDEPENDENT 8 (+) 7 (-)		ż		ĩ (+) 7 (-)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	E 5	1		1(+)7(-)
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		2		3 (+) 7 (-)
U Y 1 INDEPENDENT $8(+),7(-)$	F 6	1		8 (+) 7 (-)
U Y 1 INDEPENDENT $8(+),7(-)$		2		3 (+) 6 (-)
U Y 1 INDEPENDENT $8(+),7(-)$	G /	2		
U Y 1 INDEPENDENT $8(+),7(-)$	н 7	2		$\frac{3}{8} + \frac{7}{7} - \frac{1}{7}$
		ī		
2 INDEPENDENT 10 (+) 9 (-)	•	ż	INDEPENDENT	10 (+) 9 (-)
SINGLE POLE SWITCHES ONLY	SINGLE POLE SWITC	CHES ONI	Y	
J 8 1 DOWN 3 (+) 8 (-)	J 8	1		3 (+) 8 (-)
2 INDEPENDENT 6 (+) 7 (-)		2		
K W 1 INDEPENDENT $8(+)7(-)$	K W	I		
2 INDEPENDENT 6 (+) 7 (-) DOUBLE POLE SWITCHES ONLY				6(+)/(-)
L 9 1 DOWN 3 (+) 6 (-)				3 (+) 6 (-)
		i		3 (+ (6)- (
M R 1 UP 3 (+) 6 (-) N T 1 DOWN 3 (+) 6 (-)		i		3(+)6(-)
2 DOWN 1 (`+)´ 4 (`-)´		2	DOWN	1 (`+)´ 4 (`-)´
P V 1 UP 1(+)4(-)	P V	1		1(+),4(-),
2 UP 3 (+) 6 (-)		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 1125VAC 2 250VAC 5 6V Neon Incandescent 43V LED* 6 12V 7 18V **8** 24V superbright superbright Green Red Red Amber L 2VDC A R 6VDC в S м G 12VDC N ň С 24VDC D P J V * Consult factory for "daylight bright" LED options. Typical current draw for LED is 20ma.

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3,6

14

11

8. FLUSH BRACKET COLOR, PANEL SEAL

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

9. ACTUATOR

E Contura IV, left orientation T Contura IV, left orientation, laser etched F Contura IV, right orientation R Contura IV, right orientation, laser etched Actuator orientation over terminals:

10. LENS

	0 - No Clear 1 2 3 4 5	Actuato White 6 7 8 9 A			Red M N P R S	Blue T U V W Y				
	Lens color for LEDs must be clear, white, or match color of LED. Green or blue lenses are not recommended with Neon lamps.									
1										
	II. AC	TUATC	OK COL	OR	l, 5, 6					
	No Act	uator 0	В	lack	с	Gray	н	Red	s	

Pewter E

ctuator Ÿ White

Nickel ACTUATOR LENS OR RODV LEGENDS 2

12.	ACIU				
11	ON OFF	12 OFF ON	13 I O	14 O I	\bigcap
15	O O F N F	16 0 0 N F F	17 OI	18 O	
For	additio	nal legenc	loptions	& codes,	visit us at www.carlingtech.com

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13. LEGENDS ORIENTTATION

2 Orientation 2 3 Orientation 3	
4 Orientation 4	
1 2 3 4	

13. ACTUATOR LENS LEGENDS

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

Notes:

- 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. consult factory.
- 3
- Gloss brow is on left side of E actuator and right side of F actuator. Additional ratings available. See V-Series Switch Accessories page. Laser etched rocker only available with lens code Z & actuator colors 5
- Pewter and nickel colors only available with laser etched actuator 6

Ordering Scheme contura V

Ρ B Sample G ()()) -К ()____ Part Number 5 2 3 Δ 6 7 8 10 9 11 12 13 14 Selection 1 1. SERIES 6,7. LAMP V-Series Selection 6: above terminals 1 & 4; Selection 7: above terminals 3 & 6 No lamp **0** v Nolamp Neon 1125VAC Incandescent 43V LED* 2 250VAC 5 6V 2. CIRCUIT 6 12V **7** 18V superbright superbright Green Red Red Amber 2VDC Δ R 6VDC 12VDC B м Ġ ŝ С Ν н т 8 - - 7 24VDC D P J V * Consult factory for "daylight bright" LED options. Typical current draw for LED is 20ma. 2 - - 5 3 - - 6 10--9 1 8. FLUSH BRACKET COLOR, PANEL SEAL

	White G W G Y H	Black B C	No Seal One Seal
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8 24V

9. ACTUATOR

0 No Actuator

Ğ Contura V Contura V, laser etched

10. LENS

	Actuato White			Red		& location: #1 / #2
1	6	8	G	М	т	
2	7	С	н	Ν	U	
3	8	D	J	Р	v	$\overline{\bullet}$
4	9	E	К	R	w	
5	Α	F	L	S	Y	$\overline{\bullet \bullet}$
Lens co Green	olor for L or blue	EDs mu lenses c	ist be c are not	lear, w recon	vhite, o nmeno	or match color of LED. ded with Neon lamps.

11. ACTUATOR COLOR 1, 3, 5

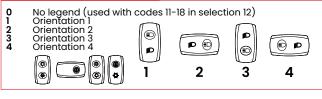
No Actuator White	0 Y	Black Nickel		Gray Pewter	H E	Red	S
----------------------	--------	-----------------	--	----------------	--------	-----	---

12. ACTUATOR LENS OR BODY LEGENDS 2,6

11 ON 12 OFF 13 I **14** O OFF ON 0 00 16 0 0 17 OI 18 I O 15 FΝ NF

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

12. LEGENDS ORIENTATION



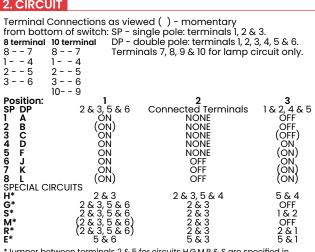
13. ACTUATOR LENS LEGEND

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

Notes

- Consult factory to verify horsepower rating for your particular circuit choice.
 Custom colors are available. Consult factory.
 White imprinting is standard on black actuators; Black imprinting is standard
- on white, red and gray actuators. Custom colors are available, consult factory. Laser Etched rocker only available with lens code Z & actuator colors black, 3
- nickel or pewter.
- 4
- Additional ratings available. See V-Series Switch Accessories page. Nickel and Pewter colors only available with laser etched actuator. Consult factory for laser etched lens callout. 56



*Jumper between terminals 2 & 5 for circuits H,G,M,R & S are specified in selection 4. External jumper between terminals 2.4 for circuit E are provided by customer. Circuit E may be used for SP OFF-ON-ON circuit.

3. RATING 4

 .4VA @ 28VDC Resistive I5A 24V 20A 18V 20A 12V E 20A 14V, 10A 14VT (circuit 1, 4, A & D only) F 10A 14V, 6A 14VT (circuit G only) M .4VA/20A 12V N .4VA/15A 24V 	
--	--

4. TERMINATION / BASE STYLE

8 term	<u>10 Term</u>	Termination	Jumper				
1	2	.250 TAB (QC) no barriers	No				
A	B	.250 TAB (QC) with barriers	No				
J	K	.250 TAB (QC) no barriers	Yes T2 to 5				
3	4	Solder Lug no barriers	No				
C	D	Solder Lug	No				
5	6	Wire Leads no barriers	No				
E	F	Wire Leads	No				
Note: Codes J & K for circuits H, G & M. Do not use silicone based							

terminal insertion forces during connector assembly, as it is detrimental to function and performance.

Lamp #1:above terminals 1 & 4 end of switch.; Lamp #2 above

5. ILLUMINATION & SWITCH SEALING

t	terminals 3 & 6 end of switch. Positive (+) and negative (-) symbols					
0	apply to LED lo	amps only		0 0 0		
	ealed Unseale		Illumination Type	Lamp wired to Terminals		
S		NONE	-			
	A 1	ļ	INDEPENDENT	8 (+) 7 (-) 3 (+) 7 (-) 3 (+) 7 (-)		
E		I	DOWN	3(+)7(-)		
		2	UP	3(+)/(-)		
L	b 4	I I	DOWN			
E	5	2	DOWN	! <u>}</u> + { <i>i</i> } - {		
	: 5	1	UP			
l F	- 6	2	UP INDEPENDENT	3 (+) 7 (-) 8 (+) 7 (-)		
1	Ű	2	UP	3 (+) 6 (-)		
6) 7	2	INDEPENDENT	8 (+) 7 (-)		
1	,	2	UP	8 (+) 7 (-) 3 (+) 7 (-)		
Ŀ	ł Z	2 2	INDEPENDENT	8 (+) 7 (-)		
lί		ī	INDEPENDENT	$\tilde{8}(+)/(-)$		
		2	INDEPENDENT	10(+)9(-)		
5	SINGLE POLE S	WITCHES OF	NLY			
J	I 8	1	DOWN	3 (+) 8 (-)		
		2	INDEPENDENT	6 (+) 7 (-)		
k	C W	1	INDEPENDENT	8 (+) 7 (-)		
		2	INDEPENDENT	6 (+) 7 (–)		
	DOUBLE POLE S	SWITCHES C		() () ()		
ļĻ		1	DOWN	3 (+) 6 (-)		
	VI R	ļ	UP	3 (+) 6 (-) 3 (+) 6 (-)		
r	N T	I	DOWN	3(+) 6(-)		
	> v	2	DOWN	{} [*] {} [*] {} [*]		
F	- V	1	UP UP	1(+) 4(-) 3(+) 6(-)		
		2	UF	3(1)0()		

Ordering Scheme Contura IV & V Locking

4

Sample S В F L . Part Number 7 2 3 5 6 8 9 11

1. SERIES

Selection

V V-Series

1

2. CIRCUIT 3

Terminal Connections as viewed () - momentary from bottom of switch: SP - single pole: terminals 1, 2 & 3. 8 terminal 10 terminal DP - double pole: terminals 1, 2, 3, 4, 5 & 6. 8 - 7 Terminals 7, 8, 9 & 10 for lamp circuit only. 1 - - 4 8 - - 7 1 - - 4 2 - - 5 2 - - 5 3 - - 6 3 - - 6 10--9 Position: 2 3 Connected Terminals 1&2,4&5 SP 1 4 6 7 2 & 3, 5 & 6 ON ON DP NONE A ÓFF ON ON ON (ON) OFF OFF ON (ON) к 89 Ĺ OFF (ON) NONE ÓN

3. RATING 4

- .4VA @ 28VDC Resistive 15A 24V 20A 18V 20A 12V
- в
- CDEF 20A 14V, 10A 14VT (circuit 1, 4, A & D only) 10A 14V, 6A 14VT (circuit G only) .4VA/20A 12V .4VA/26A 24V
- м N

4. TERMINATION / BASE STYLE

<u>8 term</u>	<u>10 Term</u>	Termination	<u>Jumper</u>
1	2	.250 TAB (QC) no barriers	No
Α	в	.250 TAB (QC) with barriers	No
J	К	.250 TAB (QC) no barriers	Yes T2 to 5
3	4	Solder Lug no barriers	No
С	D	Solder Luğ	No
5	6	Wire Leads no barriers	No
E	F	Wire Leads	No
1 · · · · ·			

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 gbove terminals 3 & 6 end of switch. Positive (+) and negative (-) symbols apply to LED lamps only **Sealed Unsealed Lamps Illumination Type Lamp wired to Terminals**

S 0	NONE	- "	
C 3	2	UP	3 (+) 7 (–)
H Z	2	INDEPENDENT	8(+)7(-)
DOUBLE POLE SWI	CHES (ONLY	
M R	1	UP	3 (+) 6 (–)

6. LOCK

LOCK (above terminals 1 & 4 end		
w	low profile lock	Y ⁶	high profile lock

Notes: Consult factory to verify horsepower rating for your particular Notes: Consult factory to verify horsepower rating for your particular circuit choice.
1 Custom colors are available. Consult factory.
2 White imprinting is standard on black actuators; Black imprinting is standard on white, red and gray actuators. Custom colors are available, consult factory.
3 Only available with 3 position circuits. Center OFF and special circuits only available with center position lock function.
4 Additional ratings available. See V-Series Switch Accessories page.
5 Located at T3-6 end of switch.
6 Contura V style only.

🛿 Configure Complete Part Number > 👘 🖗 Browse Standard Parts >

7. LAMP

Lamp above ter	minals 3 & 6	end of swi	tch		
No lamp	0				
Neon	1125VAC	2 250VAC			
Incandescent	4 3V	5 6V	6 12V	7 18V	8 24V
LED*			superbright	t superbrid	aht
	Red	Amber	Green	Red	,
2VDC	Α	L	F	R	
6VDC	В	М	G	S	
12VDC	С	Ν	Н	т	
24VDC	D	Р	J	v	
* Consult factor draw for LED is 2	y for "daylig	ht bright" L	D options. T	ypical curi	rent
draw for LED is 2	'0ma. ')	5	•		

13

8. FLUSH BRACKET COLOR, PANEL SEAL

|--|

9. HARD SURFACE ACTUATOR

10

CONTURA IV: Orientation Left Right	Black J N	Gray K P	Red L R	White M S		
			Actuator	orientation over terminals:	3,6	1,4
CONTURA V:	Black U	Gray V	Red W	White Y		
			Actuator	orientation over terminals:	3,6	1,4

10. LENS 5

Z - No L Clear	ens White	Amber	Green	Red	Blue	•
	в	С		E		bar lens
G	н	J	К	L	м	oval lens

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

11. ACTUATOR LOCK FUNCTION AND COLOR

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

12. ACTUATOR LENS OR BODY LEGENDS 2

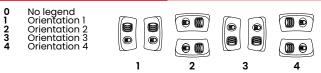
00 21		Legend 22	23		24	
	OFF	ON		0		I
25	O F	26 O N	27	0	28	I

e 88

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

13. LEGENDS ORIENTTATION



Ordering Scheme Contura VI Wave C B-AC 100 В Α Sample Part Number 7 2 3 4 5 6 8 9 10 11 12 13 14 15 16 Selection 1 1. SERIES 6.7. LAMP Lamp above terminals 3 & 6 end of switch No lamp 0 **V-Series** v 1125VAC 2250VAC 43V 56V Neon 6 12V 7 18V 8 24V 2. CIRCUIT Incandescent 4 3V LED* superbright superbright Green Red Red Amber Terminal Connections as viewed () - momentary 2VDC 6VDC R from bottom of switch: SP - single pole: terminals 1, 2 & 3. 8 terminal 10 terminal DP - double pole: terminals 1, 2, 3, 4, 5 & 6. 8 - - 7 8 - - 7 B - - 7 Terminals 7, 8, 9 & 10 for lamp circuit only. A B C Ġ м S 12VDC N 24VDC * Consult factory for "daylight bright" LED options. Typical current draw for LED is 20ma. 1 - - 4 1 - - 4 . 2 - - 5 2 - - 5 3 - - 6 3 - - 6 10 - - 98. FLUSH BRACKET COLOR, PANEL SEAL Position: 2 Connected Terminals 3 Positic SP DP 1 A 2 B 3 C 4 D 5 F 6 J 7 K 8 L 2 & 3, 5 & 6 ON (ON) 1 & 2, 4 & 5 OFF _____OFF Black White Gray NONE No Seal в w G H ē One Seal ON ON (OFF) NONE NONF ON ÕN NONE (ŎN) 9. ACTUATOR ON OFF OFF ON ON (ON) (ON) (ON) ۲ ۲ 0 No Actuator H High Insert L Low Insert OFF 8 L SPECIAL CIRCUITS H* G* S* M* M* (R* E* 2&3 2&3,5&4 5&4 2 & 3, 5 & 6 2 & 3, 5 & 6 (2 & 3, 5 & 6) (2 & 3, 5 & 6) (2 & 3, 5 & 6) 2 & 3 2 & 3 2 & 3 2 & 3 OFF 1 & 2 OFF 10,11. LENS 2&3 0 - No Actuator Z - No Lens 2&1 Clear White Amber Green Red Blue 5 & 6 5&3 5&1 С н Ν 7 υ Bar Lens Translucent *Jumper between terminals 2 & 5 for circuits H.G.M.R & S are specified inselec-3 Ρ v tion 4. External jumper between terminals 2 & 4 for circuit E are provided by D J Bar Lens Transparent customer. Circuit E may be used for SP OFF-ON-ON circuit. 4 _ R Ε к w Oval Lens Transparent Α F L S Υ **Oval Lens Translucent** 3. RATING 3 Lens color for LEDs must be clear, white, or match color of LED. Green or blue lenses are not recommended with Neon lamps. .4VA @ 28VDC Resistive 15A 24V 20A 18V B C D 12. ACTUATOR COLOR 20A 16V 20A 12V 20A 14V, 10A 14VT (circuit 1, 4, A & D only) 10A 14V, 6A 14VT (circuit G only) .4VA/20A 12V .4VA/15A 24V E F С Black H Gray S Red Y White M 13. INSERT COLOR В Black S Satin Chrome Plated Bright Chrome Plated Satin Chrome Painted 4. TERMINATION / BASE STYLE С Satin Nickel Plated Ď w White Termination .250 TAB (QC) no barriers .250 TAB (QC) with barrier .250 TAB (QC) no barriers <u>10 Term</u> 2 B <u>8 term</u> Jumper Bright Nickel Plated Ν no barriers with barriers Α No 14. ACTUATOR LENS OR BODY LEGEND 2 J 3 C 5 E K 4 D Yes T2 to 5 Solder Lug no barriers Solder Lug Wire Leads no barriers No - No Legend this location/No actuator 00 No 12 OFF 13 I 6 No 11 ON **14** O Wire Leads No 0 OFF ON 1 Note: Codes J & K for circuits H. G & M. Do not use silicone based 15 00 16 0 0 17 OI 18 I O lubricants to reduce terminal insertion forces during connector assembly, as it FN Ν is detrimental to function and performance. F For additional legend options & codes, visit us at www.carlingtech.com **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 **15. ACTUATOR ORIENTATION** No legend (used with codes 11-18 in selection 12) Orientation 1 to LED lamps only 0 Sealed Unsealed Lamps Illumination Type Lamp wired to Terminals 1 Orientation 2 s 0 NONE - + 7 (-) 8 (+) 7 (-) 3 (+) 7 (-) 3 (+) 7 (-) 3 (+) 7 (-) 1 (+) 7 (-) 1 (+) 7 (-) 3 (+) 7 (-) 8 (+) 7 (+) 7 (-) 8 (+) 7 (+) 7 (+) 7 (+) 8 (+) 7 (3 **Orientation 3** INDEPENDENT ١D Α ≣D) ()(∎⊃ Ā Orientation 4 B 2 DOWN UP 1D C D 3 2 1 ۲ ۲ ۲ 0 DOWN 4 ۲ DOWN UP 2 . 0 6 Ð 1 2 3 4 5 Е 2 ŪΡ F 6 INDEPENDENT **16. ACTUATOR LENS LEGEND** 2 UP **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. G 7 INDEPENDENT 2 I IP 2 INDEPENDENT н Z Ü INDEPENDENT 2 INDEPENDENT 10 9 SINGLE POLE SWITCHES ONLY DOWN 8 7 7 8 INDEPENDENT 6 2 Notes: Consult factory to verify horsepower rating for your Values: Consult activity to very 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. к w INDEPENDENT 8 INDEPENDENT DOUBLE POLE SWITCHES ONLY

10.

M N

Ρ

DOWN

DOWN

DOWN

UP

UP

2

9

R

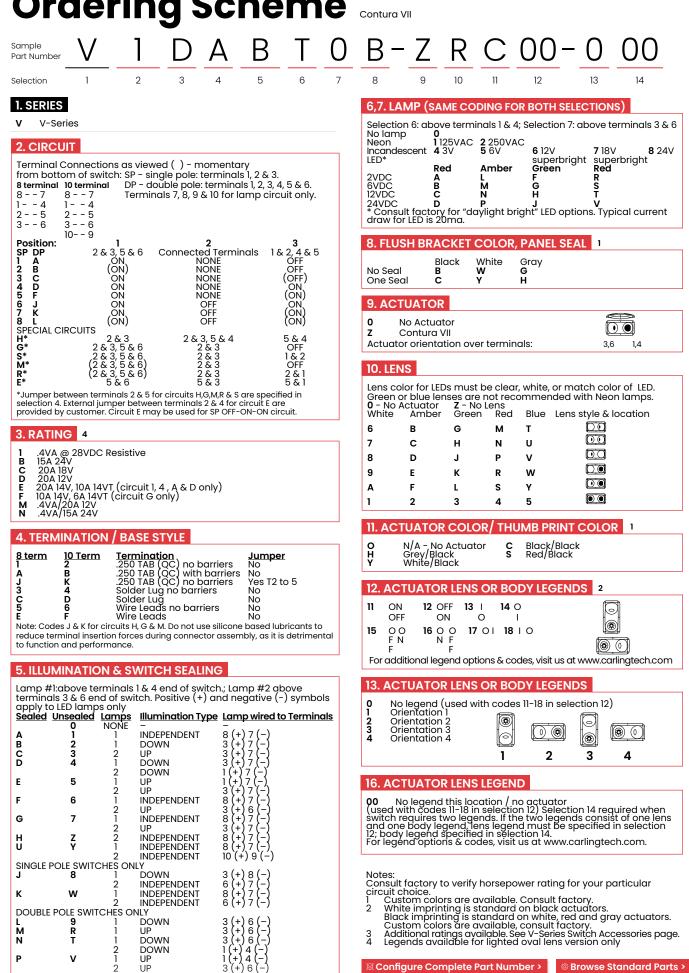
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6

6

3 6

🛿 Configure Complete Part Number > 🛛 🕲 Browse Standard Parts >



Ρ 7 ()() - ()Sample В 6 0 Part Number 2 3 5 6 7 8 9 10 14 11 12 13 Selection 6,7. LAMP (SAME CODING FOR BOTH SELECTIONS) 1. SERIES v V-Series Selection 6: above terminals 1 & 4; Selection 7: above terminals 3 & 6 0 1125VAC No lamp 2 250VAC 5 6V Neon 2. CIRCUIT Incandescent LED* **7** 18V **4** 3V 6 12V 8 24V superbright superbright Terminal Connections as viewed () - momentary Red Amber Green Red 2VDC 6VDC 12VDC from bottom of switch: SP - single pole: terminals 1, 2 & 3. R DP - double pole: terminals 1, 2, 3, 4, 5 & 6. Terminals 7, 8, 9 & 10 for lamp circuit only. BC 8 terminal 10 terminal м G H S N 8 - - 7 8 - - 7 1 - - 4 1 - - 4 241/00 D Р . v *Consult factory for "daylight bright" LED. Typical current draw for LED is 20ma 2 - - 5 2 - - 5 3 - - 6 3 - - 6 10--9 8. FLUSH BRACKET COLOR, PANEL SEAL Position: SP DP 3 X, XI, XII with Raised Bracket **1** ,5&6 2 Connected Terminals 1 & 2, 4 OFF OFF (OFF 2&3, 4&5 X & XI with Flush Bracket AB NONE 12345678 # of gaskets 0 B W D Z J Black ĉ 4 D F J K White 23 56 ÔN ON G NONE OFF Gray н ÖFF OFF
 b
 L
 (ON)

 SPECIAL CIRCUITS
 2 & 3

 H*
 2 & 3,5

 S*
 2 & 3,5

 M*
 (2 & 3,5

 M*
 (2 & 3,5

 M*
 (2 & 3,5

 E*
 (2 & 3,5
 9. ACTUATOR 2&3,5&4 5&4 No Actuator 2&3 2&3 2&3 -Gray **2** White 3 Red 4 9 Black Contura X 2&3 Contura XI Contura XII 6 8 Л 2&1 5&1 κ́ й Ň Actuator orientation over terminals: 3,6 1.4 *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. 10. LENS - ABOVE LAMP #1 TERMINALS 1.4 11. LENS – ABOVE LAMP #2 TERMINALS 3,6 3. RATING 4 0 - No Actuator Z - No Lens .4VA @ 28VDC Resistive 15A 24V 20A 18V Clear White Amber Green Red Blue Lens Style в 3 8 D Ρ v Bar .1 к R w С 4 9 Е One piece Square 20A 12V Ď Two piece Square* 5 S γ Α F L 20A 12V 20A 14V, 10A 14VT (circuit 1, 4, A & D only) 10A 14V, 6A 14VT (circuit G only) .4VA/20A 12V .4VA/15A 24V F (With clear top protective lens) 2 7 С н Ν U Ťwo piece Śquare* (With smoke top protective lens) Ν 1 6 R G м т Two piece Square* (With white top protective lens) 4. TERMINATION / BASE STYLE All bottom lenses are molded of opaque material. Consult factory for other lens colors. Lens color for LEDs must be clear, white, or match color of LED. Termination .250 TAB (QC) no barriers .250 TAB (QC) with barriers .250 TAB (QC) no barriers <u>8 term</u> <u>10 Term</u> Jumper Green or blue lenses are not recommended with Neon lamps. No В Α No 12. ACTUATOR LENS OR BODY LEGENDS 2 Yes T2 to 5 J 3 к 4 Solder Lug no barriers No 00 - No Legend this location / No actuator Solder Luğ C 5 D No 11 ON 12 OFF 13 I **14** O 6 Wire Leads no barriers No OFF ON 0 1 Wire Leads No Note: Codes J & K for circuits H, G & M. Do not use silicone based 15 00 **16** O O 17 01 18 10 lubricants to reduce terminal insertion forces during connector assembly, as it FΝ Ň Ē is detrimental to function and performance. F F 21 22 23 24 **5. ILLUMINATION & SWITCH SEALING** OFF ON 0 1 25 0 **26** O **27** O 28 I Lamp #1:above terminals 1 & 4 end of switch.; Lamp #2 above terminals 3 & 6 end of switch. Positive (+) and negative (-) symbols N apply to LED lamps only For additional legend options & codes, visit us at www.carlingtech.com Sealed S Unsealed Lamps NONE Illumination Type Lamp wired to Terminal (+) 7 (-) (+) 7 (-) (+) 7 (-) (+) 7 (-) (+) 7 (-) (+) 7 (-) (+) 7 (-) INDEPENDENT A B 8 3 3 13. ACTUATOR LENS OR BODY LEGENDS (3) 2 DOWN No legend (used with codes 11-18 in selection 12) Orientation 1 UP C D 3 2 0 4 DOWN 3 1 2 DOWN Orientation 2 [ID] ID ID ≣D ١D Е 5 UP ≣D 3 Orientation 3 ≣D Û (+)7 (+)7 2 **UP** 3 8 ž Orientation 4 Ð ID ID ≣D F 6 INDEPENDENT --2 3 (+)6 1 2 3 4 . (+)7 (+)7 (+)7 7 8 3 G INDEPENDENT 1 2 2 LIP INDEPENDENT 8 Z **16. ACTUATOR LENS LEGEND** INDEPENDENT INDEPENDENT U 1 8 9 00 No legend this location / no actuator (used with codes 11-18 in selection 12) Selection 14 required when SINGLE POLE SWITCHES ONLY .1 8 DOWN 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. INDEPENDENT 6 к w INDEPENDENT 8 INDEPENDENT For legend options & codes, visit us at www.carlingtech.com. DOUBLE POLE SWITCHES ONLY DOWN 9 6 Notes: Consult factory to verify horsepower rating for your particular circuit choice. R **LIP** 6 6 M 303 Custom colors are available. Consult factory. White imprinting is standard on black actuators; Black imprinting is standard on white, red & gray actuators. Custom colors are available, consult factory. With 2 square lenses, use selection 12 for lens above lamp 1, & selection 14 for lens above lamp 2. Additional ratings available. See V-Series Switch Accessories page. Not available with Contura XI rockers. DOWN 1 2 2 DOWN 4 Ρ v 1 UP 4 3 ż UP.

45

Image: Second Secon

12.

Ordering Scheme Contura X locking



1. SERIES

V-Series ν

2. CIRCUIT

from bott	om of switch: SP - 10 terminal DP - 8 7 Tern 1 4	ewed () - momentary single pole: terminals 1, 2 double pole: terminals 1, 2 ninals 7, 8, 9 & 10 for lamp	2, 3, 4, 5 & 6.
3 - - 6	3 6		
Position: SP DP 1 A 4 D 6 J 9 N SPECIAL C	109 2 & 3,5 & 6 ON ON OFF IRCUITS	2 Connected Terminals NONE NONE OFF NONE	3 1 & 2, 4 & 5 OFF ON ON ON
H* G* S* E*	2 & 3 2 & 3, 5 & 6 2 & 3, 5 & 6 5 & 6	2 & 3, 5 & 4 2 & 3 2 & 3 5 & 3	5 & 4 OFF 1 & 2 5 & 1
*Jumper be	etween terminals 2 &	5 for circuits H,G,M,R & S are s	pecified in

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

3. RATING 4

- BCDEF
- .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/15A 24V
- M N

4. TERMINATION / BASE STYLE

<u>8 term</u> 1 A J 3	<u>10 Term</u> 2 B K 4	Termination .250 TAB (QC) no barriers .250 TAB (QC) with barriers .250 TAB (QC) no barriers Solder Lug no barriers	Jumper No No Yes T2 to 5 No
J 3 C 5 E	6 F	Solder Luğ Wire Leads no barriers Wire Leads	No No No
		r circuits H, G & M. Do not use terminal insertion forces dur	

ıssembly, 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					
	Unsealed	Lamps	Illumination Type	Lamp wired to Ter-		
<u>minals</u> S	0	NONE	_	_		
č	3	2	UP	3 (+) 7 (-) 8 (+) 7 (-)		
н	Z	2	INDEPENDENT	8 (+) / (-)		
DOUBL	e pole swi	ICHES ON	ILY			
м	R	1	UP	3 (+) 6 (–)		

6. LOCKS

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

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

- Custom colors are available. Consult factory. White imprinting is standard on black actuators; Black imprinting is standard on white, red and gray actuators; Custom colors are available consult factor. 1 2 available, consult factory. Located over TI-4 end of switch. Additional ratings available. See V-Series Switch Accessories page. Located over T3-6 end of switch.
- 3 4 5

🗟 Configure Complete Part Number >

Browse Standard Parts >

6,7. LAMP (SAME CODING FOR BOTH SELECTIONS)

Selection 6: ab No lamp	ove termin	als 1 & 4; Se	lection 7: abov	e terminals 3 & 6
Neon	1125VAC	2 250VAC		
Incandescent	4 3V	5 6V	6 12V	7 18V 8 24V
LED*			superbright	
	Red	Amber	Green	Red
2VDC	Α	L	F	R
6VDC	В	М	G	S
12VDC	С	Ν	н	т
24VDC	D	Р	J	v
* Consult factory for "daylight bright" LED options. Typical current draw for LED is 20ma.				

8. FLUSH BRACKET COLOR, PANEL SEAL

|--|

9. HARD SURFACE ACTUATOR

Contura X	Black	Gray	Red	White	
	1	2 ′	3	4	
Actuator ori	entation	over ter	minals:		3,6 1,4

10. LENS - ABOVE LAMP #2 TERMINALS 5

	Z – No	Lens					
	Clear	White	Amber	Green	Red	Blue	Lens Style
	3	8	D	J	Ρ	v	Bar
	4	9	E	К	R	w	One piece Square
	5	Α	F	L	S	Y	Two piece Square*
							(with clear top protective lens)
	2	7	С	н	Ν	U	Two piece Square*
							(with smoke top protective lens)
	1	6	В	G	М	т	Two piece Square*
							(with white top protective lens)
Π.							

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

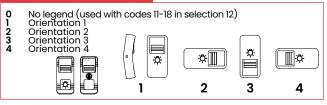
12. ACTUATOR LOCK FUNCTION 3

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	

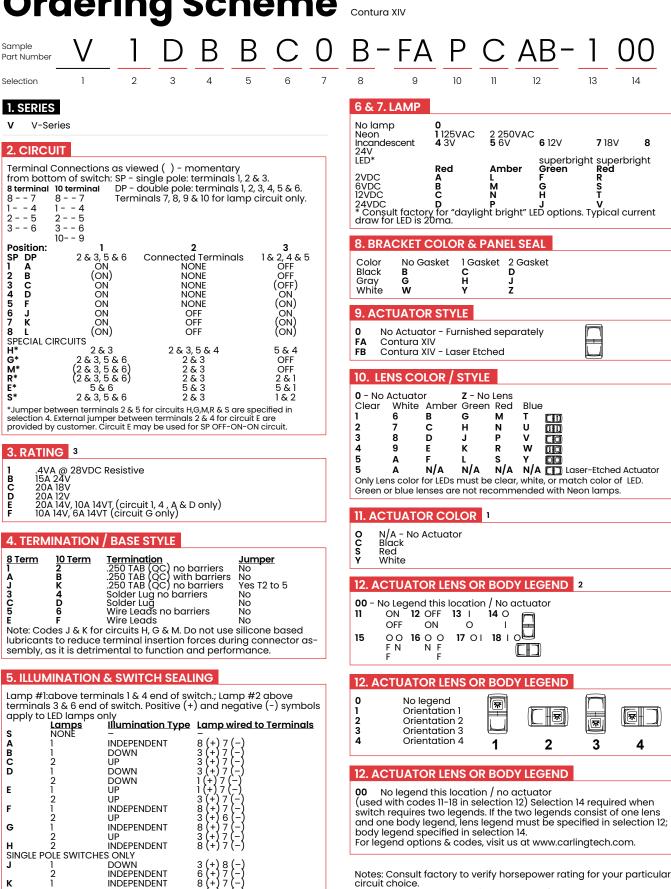
13. ACTUATOR LENS OR BODY LEGENDS 2



3 **14. LEGEND ORIENTATION**



Ordering Scheme



- Custom colors are available. Consult factory.
- 2
- White imprinting is standard on black actuators; Black imprinting is standard on white, red and gray actuators. Additional ratings available. See V-Series Switch Accessories page. 3

M

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Р

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INDEPENDENT

INDEPENDENT

INDEPENDENT

3 3 3

6

6

3 (+) 6 (1 (+) 4 (+) 1 (+) 4 (+) 3 (+) 6 (8 (+) 7 (

(+) 9 10

DOWN

DOWN

DOWN

UP

UP

I IP

DOUBLE POLE SWITCHES ONLY

2

2

1

2

Ordering Scheme Contura XIV Locking B Ζ В Sample . Part Number 6 1 2 3 4 5 7 8 9 10 11 12 13 Selection

1. SERIES

V V-Series

2. CIRCUIT

from bottom 8 terminal 10 to 8 7 8 - 1 4 1 - 2 5 2 - 3 6 3 -	of switch: SP - : erminal DP - - 7 Term - 4 - 5	ewed () - momentary single pole: terminals 1, 2 double pole: terminals 1, ninals 7, 8, 9 & 10 for lamp	2, 3, 4, 5 & 6. o circuit only.			
Position:	1	2	3			
	000 - 000	-	-			
SP DP	2 & 3, 5 & 6	Connected Terminals	1&2,4&5			
1 A	ON	NONE	OFF			
- B	(ON)	NONE	OFF			
4 D	ON	NONE	ON			
6 J	ON	OFF	, ON			
7 K	ON	OFF	(ON)			
8 L	(ON)	OFF	(ON)			
9 N	OFF	NONE	ON			
3 N	OFF	NONE	ON			
SPECIAL CIRCI	UITS					
H*	2&3	2 & 3, 5 & 4	5&4			
G*						
	2&3,5&6	2 & 3	OFF			
M*	(2 & 3, 5 & 6)	2&3	OFF			
R*	(2 & 3, 5 & 6)	2&3	2&1			
E*	5 & 6	5&3	5&1			
S*						
S * 2 & 3, 5 & 6 2 & 3 1 & 2						
selection 4. Exte	ernal jumper betw	5 for circuits H,G,M,R & S are s reen terminals 2 & 4 for circu	it E are			
provided by customer. Circuit E may be used for SP OFF-ON-ON circuit.						

3. RATING ³

- .4VA @ 28VDC Resistive 1
- 15A 24V В
- С 20A 18V D 20A 12V
- 20A 14V, 10A 14VT (circuit 1, 4 , A & D only) 10A 14V, 6A 14VT (circuit G only) Е F

4. TERMINATION / BASE STYLE

<u>8 Term 10 Term Termin</u>	tion Jumper
1 2 .250 TA	(QC) no barriers No (QC) with barriers No
A B .250 TA	(QC) with barriers No
J K .250 TA	(QC) no barriers Yes T2 to 5

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 Illumination Type Lamp wired to Terminals Lamps

S C H	NONE 2 2	UP INDEPENDENT	3 (+) 7 (-) 8 (+) 7 (-)

1 UP М

5. LOCK OPTION

w Low Profile Lock

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

3(+)6(-)

- Custom colors are available. Consult factory.
- White imprinting is standard on black actuators; Black 2
- imprinting is standard on white, red and gray actuators. Additional ratings available. See V-Series Switch Accessories page. 3

7. LAMP

No lamp Neon Incandescent LED*	0 1 125VAC 4 3V	2 250VA0 5 6V	6 12V	7 18V 8 24V ght superbright	
	Red	Amber	Green	Red	
2VDC	A		E	R	
	A	L	г	ĸ	
6VDC	В	м	G	S	
12VDC	С	N	н	Т	
24VDC	D	Р	J	V	
* Consult facto	ory for "daylic	ht bright"	LED options	s. Typical current	
draw for LED is		, 0		/1	

8. BRACKET COLOR & PANEL SEAL

Color	No Gasket	1 Gasket	2 Gasket
Black	B	C	D
Gray	G	H	J
White	W	Y	Z

9. ACTUATOR COLOR / STYLE

FC	Black - Standard Rocker
FD	Black - Laser Etched
FS	Red - Standard Rocker
FT	Red - Laser Etched

10. LENS COLOR / STYLE

11. ACTUATOR LOCK COLOR / FUNCTION

LOCK IN POSITION						
Lock Color	UP	DOWN	UP & DOWN	CENTER		
Match Actuator	Α	н	R	1		
Black	в	J	S	2		
White	С	к	т	3		
Red	D	L	v	4		
Orange	E	м	W	5		
Gray	F	G	N	6		

12. ACTUATOR LENS OR BODY LEGENDS 2

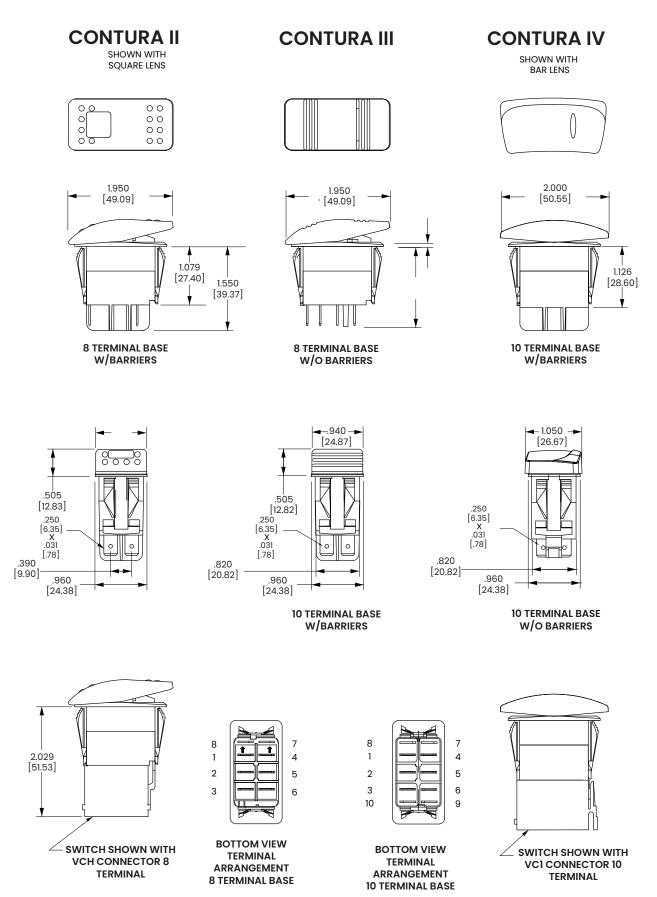
00 - No Legend 21 22 23 P 24 OFF ON 0 I Ú, 25 0 **26** O **27** O 28 I F Ν F

13. LEGEND ORIENTATION



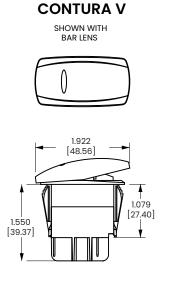
Dimensional Specs

inches [millimeters]

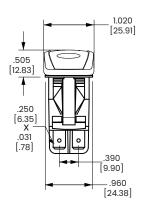


Dimensional Specs

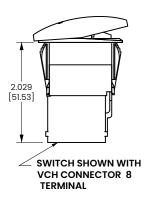
inches [millimeters]



8 TERMINAL BASE W/BARRIERS



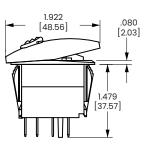
8 TERMINAL BASE W/BARRIERS



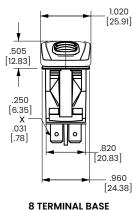
CONTURA V SHOWN WITH

LOW PROFILE LOCK





8 TERMINAL BASE W/O BARRIERS



8 TERMINAL BASE W/O BARRIERS

7

4

5

6

8

1

2

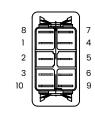
3

BOTTOM VIEW

TERMINAL

ARRANGEMENT

8 TERMINAL BASE

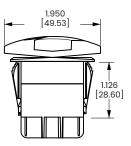


BOTTOM VIEW TERMINAL ARRANGEMENT 10 TERMINAL BASE

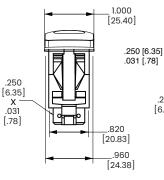
CONTURA VI

SHOWN WITH OVAL LENS

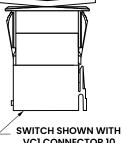




10 TERMINAL BASE W/BARRIER AND LAMP TERMINAL



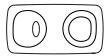
10 TERMINAL BASE W/O BARRIERS



SWITCH SHOWN WITH VCI CONNECTOR 10 TERMINAL

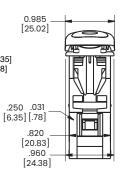
CONTURA VII

SHOWN WITH LARGE LENS AND BAR LENS





10 TERMINAL BASE W/O BARRIERS



10 TERMINAL BASE W/O BARRIERS

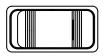


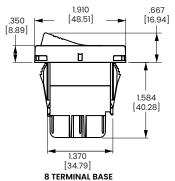
SWITCH SHOWN WITH VC1 CONNECTOR 10 TERMINAL

Dimensional Specs

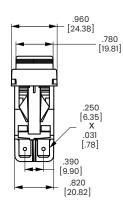
inches [millimeters]

CONTURA X SHOWN WITH RAISED BRACKET

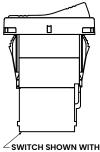




3 TERMINAL BASI W/BARRIERS



8 TERMINAL BASE W/BARRIERS



8 1

2

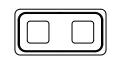
3

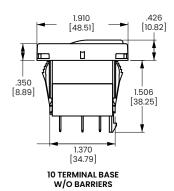
BOTTOM WITH TERMINAL

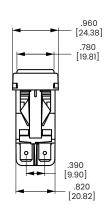
ARRANGEMENT 8 TERMINAL BASE

VCH CONNECTOR 8 TERMINAL

CONTURA XI SHOWN WITH RAISED BRACKET AND TWO SQUARE LENSES





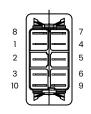


10 TERMINAL BASE W/O BARRIERS

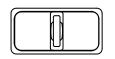
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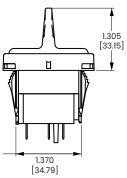
5

6

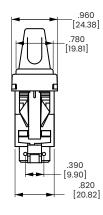


BOTTOM WITH TERMINAL ARRANGEMENT 10 TERMINAL BASE CONTURA XII SHOWN WITH PADDLE ACTUATOR





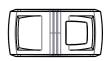
8 TERMINAL BASE W/O BARRIERS

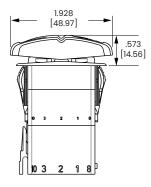


10 TERMINAL BASE W/O BARRIERS

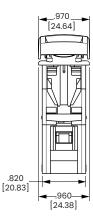
CONTURA XIV

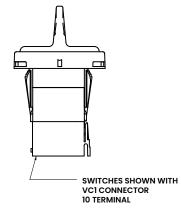






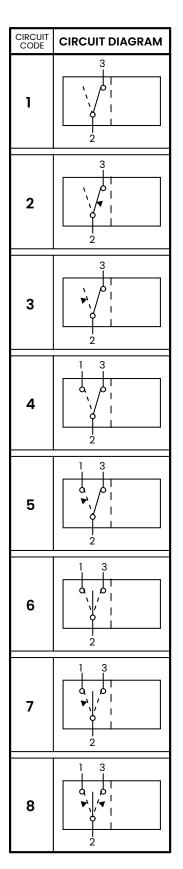
10 TERMINAL BASE W/O BARRIERS

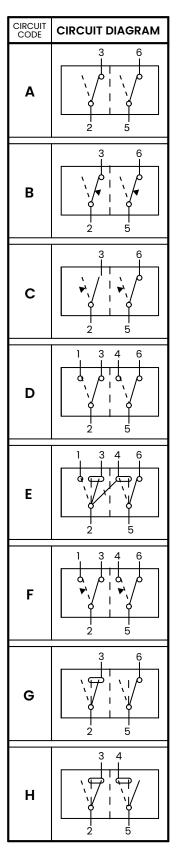


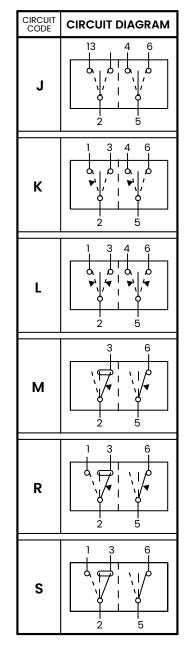




Circuit Diagrams:

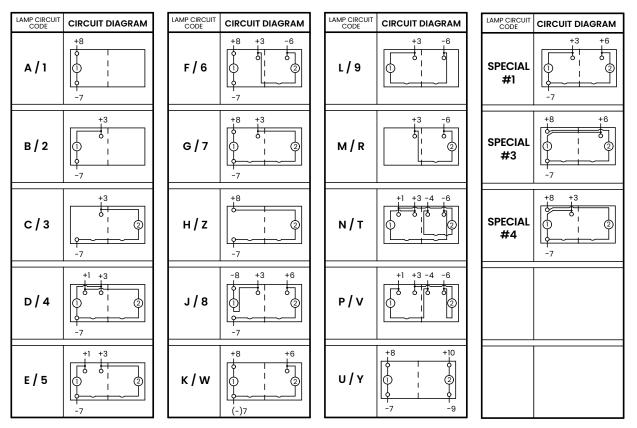




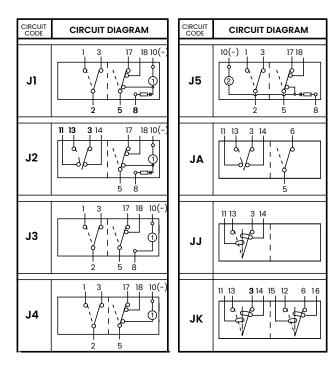


SYMBOL LEGEND			
SYM.	DEFINITION		
0	DESIGNATES TERMINALS AND CONTACTS		
 0	DESIGNATES MAINTAINED CIRCUITS		
	DESIGNATES OTHER POSITION		
₀₩₀	DESIGNATES MOMENTARY CIRCUITS		
0	DESIGNATES TWO POSITION CONNECTION		
	DESIGNATES EXTERNAL JUMPER PROVIDED BY CUSTOMER		

Lamp Circuit Diagrams:



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	
DESIGNATES TERMINALS AND CONTACTS		
\Box	DESIGNATES LAMP LOCATION	

Stand-Alone Components

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

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

Contura II, III, IV, V, VII Actuator only: VV with code A, C, E, G, P or Z for selection 9 & with selections 10-14 in the ordering schemes. Contura X, XI, XII, XIV actuators with lenses separately: VV with code selections 9-14 in the ordering schemes. Panel Seal: VPS

Contura X & XI actuators without lenses separately	Contura XII actuators without lenses separately
VVR 6 1 00 1	VVP J 1 Z 21 1 00
1 2 3 4 5	1 2 3 4 5 6 7
1. CONTURA X & XI ACTUATOR SEPARATELY	1 CONTURA XII ACTUATOR SEPARATELY
VVR	VVP
2. ACTUATOR STYLE & COLOR	2. ACTUATOR STYLE & COLOR
Black Gray White Red Contura X 1 2 3 4 Contura XI 6 7 8 9	J Black K Gray N White M Red
	3,4 LENS OPENING FOR 1
3. LENS OPENING FOR 1 1 One bar lens	Z No lens 1 Bar lens 2 Square lens
2 Two bar lenses 5 square lens on top/ 3 One square lens bar lens on bottom	5, 7 LENS OR BODY LEGEND 2
4 Two square lens (Contura X only)	00 - No Legend 21 22 23 24 OFF ON O I
4. ACTUATOR LENS OR BODY LEGEND	
00 - No Legend this location	F N F
OFF ON O I	For additional legend options & codes, visit us at www.carlingtech.com
15 00 16 00 17 01 18 10 <u>FNNF</u>	6 LEGEND ORIENTATION 3
F F F F F F F F F F F F F F F F F F F	0 No legend 1 Orientation 1 2 Orientation 2 □ □
	2 Orientation 2
5. LEGEND ORIENTATION 1 0 No legend	
0 No legend 1 Orientation 1 2 Orientation 2 3 Orientation 2	Contura X, XI & XII actuator lens assembly separately
3 Orientation 3 4 Orientation 4 1 2 3 4	VVL 2 1 00 0
	$\begin{array}{c c} \hline \\ \hline $
Contura X, XI & XII top piece of 2-piece lens separately	1 CONTURA X, XI & XII LENS SEPARATELY
VVT 1	VVL
	2 LENS STYLE 3
1 TOP OF LENS SEPARATELY	1 Bar lens
VVT	 One Piece Square lens Bottom of Two-Piece Square lens ⁵
2 COLOR	3 TRANSLUCENT LENS COLOR
1 Clear 2 Smoke 3 White	1 Clear 2 White 3 Amber 4 Green ⁴ 5 Red 6 Blue ⁴
	4 LENS OR BODY LEGEND 2
Contura X, XI & XII actuator lens assembly:	00 - No Legend 21 22 23 24 OFF ON O I
	25 0 26 0 27 0 28 1
actuator stem top lens	F N F
posts mount toward actuator stem	For additional legend options & codes, visit us at www.carlingtech.com.
l piece lens/bar lens are positioned the same as bottom lens for assembly, minus the top lens. Lenses snap in from bottom.	5 LEGEND ORIENTATION 3
Notes:	
If actuator lens opening for 2 bar or 2 square lenses, legend orientation 0,1, or 2 must be chosen. Center of actuator marking not available for Contura XII.	2 Orientation 2 3 Orientation 3 4 Orientation 4 1 2 3 4
2 Center of actuator marking not available for Contara XII. 3 Legend is not available for bar style lens. 4 Not recommended with neon lamps. 5 Must also order top piece of 2 piece square lens separately.	4 Orientation 4 I Z 3 4

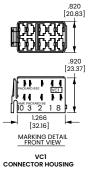
Accessories

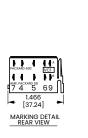
Easily integrate Contura products into your system, with Contura Accessories

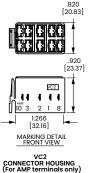
Contura Connectors

Q.C. SELECTION GUIDE					
	PART NO		WIRE RANGE		
COMPANY SERIES	PLAIN BRASS	TIN PLATED BRASS	AWG	MM ² (REF)	ORIEN- TATION
	02965580		12	3.0	
	02965471	12010601	(2)16-14	(2)1.0-2.0	
PACKARD 58 SERIES	02965470		16-14	1.0-2.0	в
SO SERIES	02965469	06288318	20-18	.58	
		12084590	105.0		
		12052224	123.0		
PACKARD		12015870	16-14	1.0-2.0	
METRI-PACK		12020035	(2)22-18	(2).58	А
630 SERIES	12015832	12015869	20-18	.58	
		12052222	20-22	.355	
	60253-1	53-1 60253-2	16-12	1.3-3	
AMP 250 SERIES	00203-1		(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 Warr





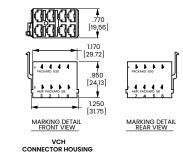




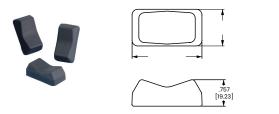




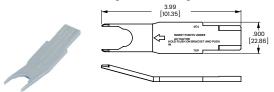
TANG



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 51
- В 15A 24V С 20A 18V

1 4

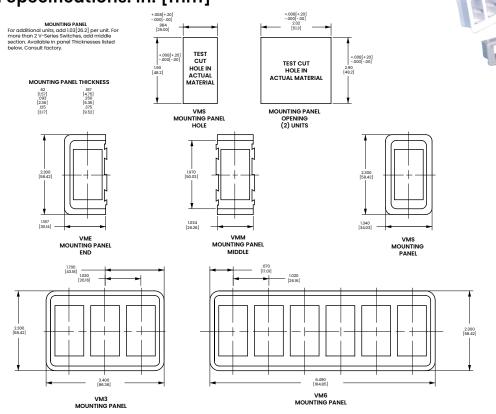
- 20A 12V
- D Е
- 20A 12V 20A 14V, 10A 14VT (circuits 1, 4, A, & D only) 10A 14V, 6A, 14VT (circuit G only) F
- G 20A 6V
- H L² 20A 3V
- 15A 125 VAC, 10A 250VAC, 1/2 HP 125-250 VAC; 6A 125 VAC L .4VA/20A 12V (combi-contact) М
 - (combination gold/silver contacts for borderline dry circuit applications)
- Ν .4VA/15A 24V (combi-contact) (combination gold/silver contacts for borderline dry circuit applications)

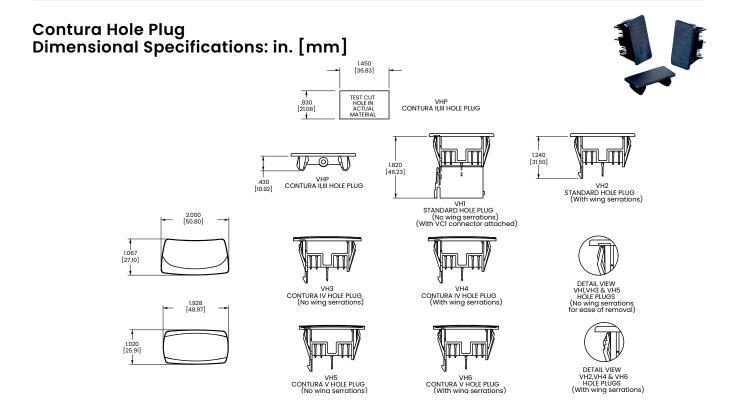
NOTES

- Consult factory to determine availability for individual circuits and their HP rating.
- Not available with Contura 7 or 14 rocker styles. 1.
- 2. Rating L available with circuits 1, 4, A & D only.

Accessories

Contura Mounting Panels Dimensional Specifications: in. [mm]





Authorized Sales Representatives and Distributors

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About Carling

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

To view all of Carling's environmental, quality, health & safety certifications please visit **www.carlingtech.com/environmental-certifications.**

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 630155
 635401
 6PA113
 6PA147-E6
 6PA148-E6
 6PA32
 6PA9
 700109

 700303A56
 700C1GRY
 700C2GRN
 704-6001
 704.960.9
 704.965.2
 704.965.6
 704.966.0
 7089-3
 710082-B11
 71M1048
 757200264

 764300000
 MHU35
 MHU37
 807039-1
 825.003.011
 825.005.011
 825.055.011
 826.000.071
 827.020.011
 827.400.021

 835.900.023
 MML52C10C
 MML52E10C
 MML92HGH
 MML93K
 84211M02CNNS
 84217A8.0LNOS
 842.500.011

 843.000.011
 843187-000
 843487-000
 84-901
 84211M02CNNS
 84212M02CNNS
 84217A8.0LNOS
 842.500.011