The V-Series Contura Rotary Switch was designed for maximum performance and reliability leveraging the features of the widely popular V-Series Contura Rocker Switches. Available in maintained and momentary circuit options, the V-Series Rotary features a sturdy knob construction, up to three separate LEDs, and fits in an industry standard panel opening.

- **Poles**: 2
- **Amps**: .4–20
- **VDC**: 12–28
- **Above-Panel IP67 Sealing**

**Typical Applications**

- On/Off–Highway Equipment
- Marine
- Test & Measurement
- Instrumentation
- Speed Control
Design Features

**OPTIONAL PANEL SEAL**
Prevents water/dust ingress behind panel

**SEALS**
LED and stem seals provide IP67 protection above panel

**PC BOARD**
Supports LEDs and surface mount resistors

**TERMINALS**
Same pinout as V-Series Rocker Switches, requiring no harness change

**LEDS**
Up to three separate LEDs

**ROTARY & LINEAR ACTUATOR**
Patented mechanism that translates rotary to linear motion

**SECONDARY CAM**
Provides definitive detent positions with ball & spring located in rotary actuator
## Tech Specs

### Electrical

<table>
<thead>
<tr>
<th>Rating</th>
<th>Circuit</th>
<th>Voltage</th>
<th>Max Current Resistive</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 Position Maintain</td>
<td>12</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>2 Position Momentary</td>
<td>12</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>3 Position All</td>
<td>12</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>2 Position Maintain</td>
<td>24</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>2 Position Momentary</td>
<td>24</td>
<td>15</td>
<td></td>
</tr>
<tr>
<td>3 Position All</td>
<td>24</td>
<td>15</td>
<td></td>
</tr>
</tbody>
</table>

**Dielectric Strength** 1500 Volts RMS  
**Insulation Resistance** 50 Megohms  
**Initial Contact Resistance** 10 Milli Ohm max @ 4VDC  
**Life** 50,000 Cycles Two Position  
25,000 Cycles Two Position Momentary and All Three position

### Physical

**Function Circuits** Double Pole Single Throw, DPST  
Double Pole Double Throw, DPDT  
**Operation** Two and Three Position Maintained and Momentary  
**Knob Rotation** Two Position 60 Degrees  
Three Position 30 Degrees from Center  
**Illumination** LED; Red, Green, Amber, Yellow, White, Blue  
**Seals** LED O-ring(s) – Silicone, Bezel gasket – Neoprene, Knob seal – NBR  
**Flammability** Exceeds FVMSS 302 Requirements, Exterior Components, UL 94 V-2 or Better  
Interior Components, UL 94 HB or Better  
**Base** Polyester, PBT  
**Bracket** Nylon 66, PA  
**Knob** Polybutylene Terephthalate, PBT 6.5%GF  
**Lens** Polycarbonate, PC  
**Connector** Nylon 66, PA  
**Mounting** Front Panel Snap In, 1.450” (36.83mm) X 0.830” (21.08mm)  
Panel Thickness, 0.030” - 0.187” (0.76 – 4.75mm)

### Environmental

**Sealing** IP67, for above-panel components of actual switch only.

<table>
<thead>
<tr>
<th>Dust</th>
<th>Mil STD 810, Method 510.2 Air Velocity 300 Ft/Min Duration 16Hr</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrosion</td>
<td>IEC 68-2-60 Mixed Flowing Gas (MFG) 14 Days</td>
</tr>
<tr>
<td>Chemical Splash</td>
<td>Gasoline, Diesel, Motor Oil, Brake Fluid, Ammonia, Armour All</td>
</tr>
<tr>
<td>Salt Spray</td>
<td>Mil STD 202G, Method 101, Test Condition A 96 Hr</td>
</tr>
<tr>
<td>Vibration Random</td>
<td>Mil STD 202G, Method 214 test Condition C 10G’s RMS</td>
</tr>
<tr>
<td>Vibration Sinusoidal</td>
<td>Mil STD 202G, Method 204D, Test Condition A 0.06DA or 10G’s 10-500Hz</td>
</tr>
<tr>
<td>Shock</td>
<td>MIL-STD 202G, Method 213B Test Condition K, 30G’s</td>
</tr>
<tr>
<td>Handling Shock</td>
<td>1 Meter Drop onto Hard Surface</td>
</tr>
<tr>
<td>Thermal Shock</td>
<td>MIL-STD 202G, Method I07G Test Condition A –55 C to 85 C</td>
</tr>
<tr>
<td>Moisture Resistance</td>
<td>MIL-STD 202G, Method I06F I0, 25 C to 65 C Cycles 95% RH</td>
</tr>
<tr>
<td>Thermal Cycling</td>
<td>25 Cycles –40 C to 85 C</td>
</tr>
<tr>
<td>UV Protection</td>
<td>300 hr Xenon Arc, 1.4W/m2 wavelength 420 nm</td>
</tr>
<tr>
<td>ESD Human Static Discharge</td>
<td>+/- 15KV applied during normal operation Shipping/Handling, frequency range 200-2000 MHz applied voltage is +8KV to +15KV and -8KV to -15KV 3 discharge cycles</td>
</tr>
</tbody>
</table>

**Mechanical**

| Knob Impact | 50 Gram weight dropped from a height of 18 inches on Top & Sides |

*Manufacturer reserves the right to change product specification without prior notice.*
Ordering Scheme

Sample Part Number RV 21 D 2 B 6 0 0 B - K R C

Selection 1 2 3 4 5 6 7 8 9 10 11 12

1. SERIES
RV Rotary Contura

2. CIRCUIT
Terminal Connections as viewed ( ) - momentary
from bottom of switch:
8 - 7
1 - 4
2 - 5
3 - 6
10 - 9

Position: 1 2 3
DP 2 & 3, 5 & 6 Connected Terminals 1 & 2, 4 & 5
21 ON NONE OFF
22 (ON) OFF ON
23 ON NONE OFF
24 ON NONE ON
26 ON OFF ON
28 (ON) OFF ON

SPECIAL CIRCUITS
55 ON OFF ON
61 2 & 3, 5 & 6 2 & 3, 4 & 5 1 & 2, 4 & 5
62 2 & 3, 5 & 6 2 & 3 OFF
64 (2 & 3, 5 & 6) 2 & 3 OFF

3. RATING
1 .4VA 28VDC Resistive D 20A 12V
B 15A 24V

4. TERMINATION / BASE STYLE
8 Term 10 Term Termination Jumper
1 2 .250 TAB (QC) - no barriers No
A B .250 TAB (QC) - with barriers No
J 4, 5 .250 TAB (QC) - no barriers Yes (12 to 15)

5. ILLUMINATION
Sealed Lamps when illuminated Terminals
S # 1 Independent 8+ 7-
A # 1 Dependent 3+ 7-
B # 1 Independent 8+ 7-
C # 1 Dependent 3+ 7-
D & # 3 Independent 10+ 7-
E # 1 Dependent 1+ 7-
F & # 3 Independent 9+ 7-
G # 1 Dependent 3+ 7-
H # 2 Independent 8+ 7-
J # 2 Dependent 10+ 7-
K # 1 Dependent 3+ 7-
L # 2 Dependent 3+ 7-
M # 2 Independent 8+ 7-
N # 2 Dependent 3+ 7-
O # 2 Independent 3+ 7-
P # 2 Independent 10+ 7-
Q # 2 Dependent 1+ 7-
R # 3 Independent 8+ 7-
T # 3 Dependent 1+ 7-

6, 7, 8. LAMP #1, 2 AND OR LAMP #3
Selection 6: above terminal 7; Selection 8: above terminal 8
No lamp 0
LED 12VDC C N H E 6
24VDC D P J K 8

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

9. BRACKET COLOR & PANEL SEAL

10. ACTUATOR STYLE
K Rotary Knob (Standard)
ACTUATOR ORIENTATION ABOVE TERMINALS

11. LENS COLOR
No Lens Clear Z White 9
Amber E Green K Red P Blue W

12. KNOB COLOR
Black C Gray H Red S White Y

Configure Complete Part Number > Browse Standard Parts >

Notes:
1. Switch circuit uses terminals 1,2,3,4,5 & 6. Terminals 7,8,9 & 10 are for lamp circuit only.
2. Jumper between terminals 2 & 5 for Circuits 61, 62, & 64 to be specified in the Termination & Jumper selection.
3. Circuit 61 may be used for SP, OFF-ON-ON circuit.
4. Base will not have terminal insulating barriers when connector and/or jumpers are used.
5. Code JK are optional for circuits 62 and 64. Customer may provide externally wired jumper to connect terminals 2 and 5.
6. Lamp #1 located at top end of switch, above terminal 4.
7. Lamp #2 located at top end of switch between terminals 1 & 4.
8. Lamp #3 located at top end of switch, above terminal 3.
9. Positive (+) and negative (-) symbols apply to L.E.D. lamps only.
10. Mounting hole size is 1.420" (36.13mm) by 0.830" (20.88mm). To mount multiple switches in single panel cut-out order optional interlocking mounting panels.
11. Lens color for L.E.D.s must be clear, white, or match color of L.E.D.
12. Manufacturer reserves the right to change product specification without prior notice.
Dimensional Specs

inches [millimeters]

10 TERMINAL BASE W/BARRIERS

10 TERMINAL BASE W/O BARRIERS

BOTTOM VIEW TERMINAL ARRANGEMENT 10 TERMINAL BASE

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**Circuits Diagrams**

<table>
<thead>
<tr>
<th>CIRCUIT CODE</th>
<th>CIRCUIT DIAGRAM</th>
<th>KNOB POSITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td><img src="image" alt="Circuit Diagram" /></td>
<td>1 3</td>
</tr>
<tr>
<td>22</td>
<td><img src="image" alt="Circuit Diagram" /></td>
<td>1 3</td>
</tr>
<tr>
<td>23</td>
<td><img src="image" alt="Circuit Diagram" /></td>
<td>1 3</td>
</tr>
<tr>
<td>24</td>
<td><img src="image" alt="Circuit Diagram" /></td>
<td>1 3</td>
</tr>
<tr>
<td>26</td>
<td><img src="image" alt="Circuit Diagram" /></td>
<td>1 2 3</td>
</tr>
<tr>
<td>28</td>
<td><img src="image" alt="Circuit Diagram" /></td>
<td>1 2 3</td>
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<tr>
<td>55</td>
<td><img src="image" alt="Circuit Diagram" /></td>
<td>1 2 3</td>
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<tr>
<td>61</td>
<td><img src="image" alt="Circuit Diagram" /></td>
<td>1 2 3</td>
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<tr>
<td>62</td>
<td><img src="image" alt="Circuit Diagram" /></td>
<td>1 2 3</td>
</tr>
<tr>
<td>64</td>
<td><img src="image" alt="Circuit Diagram" /></td>
<td>1 2 3</td>
</tr>
</tbody>
</table>

**LEGEND**

<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>DEFINITION</th>
</tr>
</thead>
<tbody>
<tr>
<td>δ</td>
<td>TERMINAL LOCATION</td>
</tr>
<tr>
<td>—</td>
<td>MAINTAINED CIRCUIT</td>
</tr>
<tr>
<td>—</td>
<td>MOMENTARY CIRCUIT</td>
</tr>
<tr>
<td>—</td>
<td>INTERNAL CONNECTION (JUMPER TERMINAL)</td>
</tr>
<tr>
<td>—</td>
<td>2 POSITION CONNECTION</td>
</tr>
<tr>
<td><img src="image" alt="Symbol" /></td>
<td>2 POSITION</td>
</tr>
<tr>
<td><img src="image" alt="Symbol" /></td>
<td>3 POSITION</td>
</tr>
</tbody>
</table>

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# Lamp Circuit Diagrams

<table>
<thead>
<tr>
<th>LAMP CIRCUIT CODE</th>
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</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>![A Diagram]</td>
<td>L</td>
<td>![L Diagram]</td>
</tr>
<tr>
<td>B</td>
<td>![B Diagram]</td>
<td>M</td>
<td>![M Diagram]</td>
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<tr>
<td>C</td>
<td>![C Diagram]</td>
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<td>G</td>
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<td>H</td>
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<tr>
<td>J</td>
<td>![J Diagram]</td>
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<tr>
<td>K</td>
<td>![K Diagram]</td>
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