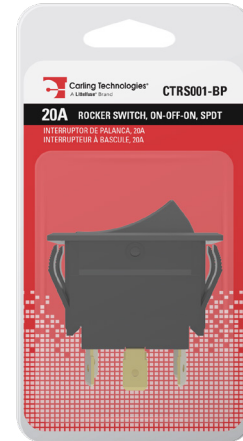


Carling Retail Rocker Switches

15A and 20A



CTVS001-BP
(V Series)



CTRS001-BP
(TIG Series)

Description

Introducing the V Series Contura® and Tippette® Series IP66/68 Snap-In Mounted switches, these high performance rocker switches cater to a diverse range of applications.

The V Series Contura® switches are renowned for their cutting-edge design, exceptional quality, and maximum reliability. With customizable options for ratings, circuits, colors, illuminations, and symbols, these single or double pole switches boast versatility. Removable actuators in various styles and colors, along with an optional plug-in terminal connector for pre-wiring, make them ideal for applications ranging from On/Off-Highway and Marine to Armored Vehicles, and Industrial Automation.

The Tippette® TIG Series, featuring a traditionally styled design and available in sealed or unsealed versions, is well-suited for general purpose applications, providing flexibility with 1-3 poles, 10-20 amps, and accommodating voltage levels of 12-24V DC and 125-250V AC.

Web Resources

Download 2D print, installation guide and technical resources at: littelfuse.com/Carling-Retail-Rocker-Switches

Features and Benefits

- Offering 1-3 poles configurations and customizable options for ratings, colors, illuminations, and symbols
- The V-Series Contura® switches offer reliable power handling with 1-2 poles and 0.4-20 amps at 12-24V DC and 125-250V AC
- The Tippette® Series supports amperage ranging from 10 to 20 amps and voltage levels of 12-24V DC and 125-250V AC
- Available in sealed or unsealed versions, providing users with the option for environmental protection.
- Many switches featuring removable actuators in various styles and colors, allowing for easy customization.
- An optional plug-in terminal connector facilitates pre-wiring of wire harnesses, streamlining the installation process.

Applications

- On/Off-Highway
- Marine
- Armored Vehicles
- Industrial Automation
- Commercial Food
- Medical Equipment
- Any Application Requiring Sealing Protection

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Ordering Information

Carling V Series

- 20A at 12V DC
- Fits Panels 0.03" - 0.25" [0.76 - 6.35mm] Thick
- 0.83" x 1.45" [21.08 x 36.83mm] Panel Cutout
- 1/4" [6.35mm] Tab Terminals
- 3 Rocker Options Included



PART NUMBER	ACTUATOR 1 DESCRIPTION	ACTUATOR 2 DESCRIPTION	ACTUATOR 3 DESCRIPTION	DESCRIPTION
CTVS001-BP	(C II) Black Actuator, 1 Red Bar Lens	(C III) White Actuator, 1 Red Bar Lens	(C V) Black Actuator, 1 Red Bar Lens	ON-OFF, SPST (Single Pole, Single Throw)
CTVS002-BP	(C II) Black Actuator, Red Square & Bar Lens	(C III) White Actuator, 2 Red Bar Lens	(C V) Black Actuator, 2 Blue Oval Lens	ON-OFF, SPST (Single Pole, Single Throw)
CTVS003-BP	(C II) Black Actuator, No Lens	(C III) Black Actuator, No Lens	(C V) Black Actuator, No Lens	(ON)-OFF, SPST (Single Pole, Single Throw)
CTVS004-BP	(C II) Black Actuator, Red Square & Bar Lens	(C III) White Actuator, 2 Red Bar Lens	(C V) Black Actuator, 2 Blue Oval Lens	ON-OFF-ON, SPDT (Single Pole, Double Throw)
CTVS005-BP	(C II) Black Actuator, No Lens	(C III) Black Actuator, No Lens	(C V) Black Actuator, No Lens	(ON)-OFF-(ON), SPDT (Single Pole, Double Throw)
CTVS006-BP	(C II) Black Actuator, 1 Red Bar Lens	(C III) White Actuator, 1 Red Bar Lens	(C V) Black Actuator, 1 Red Bar Lens	ON-OFF-ON, DPDT (Double Pole, Double Throw)
CTVS007-BP	(C II) Black Actuator, Red Square & Bar Lens	(C III) White Actuator, 2 Red Bar Lens	(C V) Black Actuator, 2 Blue Oval Lens	ON-OFF-ON, DPDT (Double Pole, Double Throw)
CTVS008-BP	(C II) Black Actuator, Blue Square & Bar Lens	(C II) Black Actuator, White Square & Bar Lens	(C V) Black Actuator, 2 Blue Oval Lens	ON-OFF, SPST (Single Pole, Single Throw)
CTVS009-BP	(C II) Black Actuator, 1 Blue Bar Lens	(C II) Black Actuator, White Square & Bar Lens	(C V) Black Actuator, 1 Blue Bar Lens	(ON)-OFF, SPST (Single Pole, Single Throw)
CTVS010-BP	(C II) Black Actuator, Blue Square & Bar Lens	(C II) Black Actuator, White Square & Bar Lens	(C V) Black Actuator, 2 Blue Oval Lens	ON-OFF-ON, DPDT (Double Pole, Double Throw)
CTVS011-BP	(C II) Black Actuator, Red Square & Bar Lens	(C III) White Actuator, 2 Red Bar Lens	(C V) Black Actuator, 2 Red Oval Lens	ON-OFF, SPST (Single Pole, Single Throw)
CTVS012-BP	(C II) Black Actuator, Red Square & Bar Lens	(C III) White Actuator, 2 Red Bar Lens	(C V) Black Actuator, 2 Red Oval Lens	ON-OFF-ON, SPDT (Single Pole, Double Throw)
CTVS013-BP	(C II) Black Actuator, 1 Red Bar Lens	(C III) White Actuator, 1 Red Bar Lens	(C V) Black Actuator, 1 Red Bar Lens	ON-OFF-ON, DPDT (Double Pole, Double Throw)
CTVS014-BP	(C II) Black Actuator, Red Square & Bar Lens	(C III) White Actuator, 2 Red Bar Lens	(C V) Black Actuator, 2 Red Oval Lens	ON-OFF-ON, DPDT (Double Pole, Double Throw)

Carling TIG Series Tippette®

- 15-20A at 12-28V DC
- 1/4" [6.35mm] Tab Terminals

PART NUMBER	BULK PART NUMBER	RATINGS	DESCRIPTION	NOTES
CTRS001-BP	CTRS001	20A at 12-28V DC	ON-OFF-ON, SPDT (Single Pole, Double Throw)	-
CTRS002-BP	CTRS002	20A at 12-28V DC	ON-ON, SPDT (Single Pole, Double Throw)	-
CTRS003-BP	CTRS003	15A at 12-28V DC	ON-ON-OFF, SPDT (Single Pole, Double Throw)	Progressive Circuit Parking & Running Lights
CTRS004-BP	CTRS004	15A at 12-28V DC	(ON)-ON-OFF, SPDT (Single Pole, Double Throw)	Progressive Circuit Starter Switch
CTRS005-BP	CTRS005	15A at 12-28V DC	ON-OFF-ON, DPDT (Double Pole, Double Throw)	Reversing Switch
CTRS006-BP	CTRS006	20A at 12-28V DC	ON-OFF, DPST (Double Pole, Single Throw)	-
CTRS007-BP	CTRS007	20A at 12-28V DC	ON-OFF, DPST (Double Pole, Single Throw)	-



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Performance Data

CTVS001 to CTVS014 (V Series)

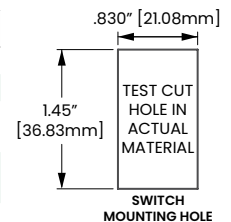
ELECTRICAL	
Contact Rating	4VA @ 24V DC (MAX) resistive 15A, 125V AC 10A, 250V AC ½ HP 125-250V AC 20A, 4-14V DC 15A, 15-28V DC 10A, 14VT 6A, 125V AC
Dielectric Strength	1500 Volts RMS
Insulation Resistance	50 Megohms
Initial Contact Resistance	10 milliohms max. @ 4V DC
Life	Up to 100,000 cycles, circuit and load dependent
Contacts	Silver alloy, silver tin-oxide, fine silver
Terminals	Brass or copper/silver plate ¼" (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 ½ life (LED is internally ballasted for voltages to 24V DC)
Seals	Internal optional external gasket panel seal
Base	Polyester blend rated to 125°C with a UL flammability rating of 94V0.
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.
Lens	Polycarbonate rated at 100°C

ACTUATOR TRAVEL (ANGULAR DISPLACEMENT)	
2 position	18°
3 position	9° from center

ENVIRONMENTAL	
Ingress Protection	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 Temperature	-40°C to +85°C
Vibration 1	Per Mil-Std 202F, Method 204D Test Condition A 0.06 DA or 10G's 10-500 Hz. Tested with VCH connector. Test criteria - No loss of circuit during test, 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.
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 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.
Ignition Protection	

MOUNTING (PANEL THICKNESS RANGES)	
Gaskets	Acceptable Panel Thickness
0	.030 to .250 (.76 to 6.35mm)
1	.030 to .109 and .147 to .157 (.76 to 2.77mm and 3.73 to 3.98mm)
Recommended: No gasket with panel thickness of .032, .062, .093, .125, .187 or .250	



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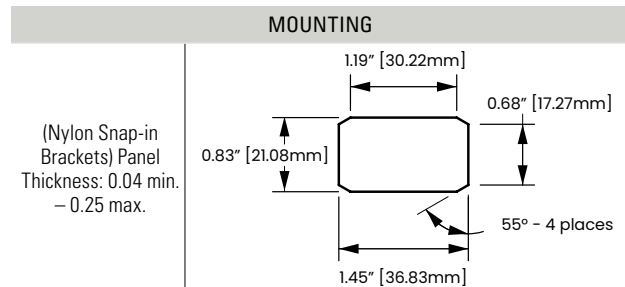
15A and 20A

Performance Data

CTRS001 to CTRS007 (TIG Series)

ELECTRICAL	
Contact Rating	15A, 125V AC 10A, 250V AC ¾ HP 125-250V AC 15A, 12-30V DC
Life	25,000 cycles circuit dependent 50,000 cycles circuit dependent consult factory for applicable circuits.
Contacts	Fine silver, silver cad-oxide
Terminals	Brass or copper/silver plate ¼" (6.3mm) Quick Connect terminations standard. Solder lug - Brass Tin Plated Wire Lead 16 gauge standard 105°C 600V AC Screw Terminals - Brass

MECHANICAL	
Lighted	Incandescent - rated 10,000 hours Neon - rated 25,000 hours
Seals	Bracket - Actuator WBL/MBL optional external gasket panel seal
Operating Temperature	Up to 85° C Consult Factory for Specific Applications



*Angled corners are suggested for optimum fit. Standard rectangular cutout is acceptable.