

# CVR-Series

Rheostat Switch

[PRODUCT WEBPAGE](#)

*request sample, configure part, product video*



The CVR-Series is a configurable three- or four-position rheostat switch designed for vehicle lighting control. Available for 12VDC and 24VDC systems, the CVR-Series automotive rheostat switch is made with durable thermoplastic materials and silver-plated brass terminals for reliable operation in commercial vehicles, such as work trucks, agricultural equipment, and construction equipment. The front panel-mount dimmer switch is available with or without white backlighting.

**12/24**  
VDC

**3 or 4**  
Detent Positions

**Snap-In**  
Mounting

## Typical Applications

- Commercial Vehicles
- Construction Equipment
- Agricultural Equipment
- Work Trucks

# Tech Specs

## Electrical

Operating Voltage	12VDC/24VDC systems
Dielectric Strength	1500V RMS (Terminal to Shell)
Insulation Resistance	50 Megohms
Terminals	.250" (6.3mm) Quick Connect
Electrical Endurance	Minimum 10,000 Operations (2,000 cycles at -40 °C, 6,000 cycles at ambient temperature, 2,000 cycles at +85 °C)

## Physical

Switch functions	3 or 4 wheel detents of rotation
Materials	Housing – PC Base – Nylon Top cover – PC Wheel – Nylon Terminal – Brass, Silver Plated
Weight	≈23.8g
Mating Connection	VC2 : AMP 250 series fastin-faston VC1 : Packard 630 and AMP 250 series fastin-faston
Mounting	Front panel mount

## Environmental

Operating Temperature	-40°C to +85°C
Thermal, Hot Soak	IEC 60068-2-2 Test Bb, 85°C for 96 hours
Thermal, Cold Soak	IEC 60068-2-1 Test Ab, -40°C for 96 hours
Thermal, Shock	MIL-STD-202G Condition A-1, 25 cycle, -55°C to +85°C
Humidity, Cyclic	IEC 60068-2-38 Test Z/AD, -10°C to 65°C, 10 cycle for temperature / humidity composite, 24h per cycle.
Thermal, Cycling Each	IEC 60068-2-14 Test Nb, -40°C to 85°C, 25 cycles of 10 hours
Solar Radiation	ASTM G155-05A 300hr, 1.5W/(m <sup>2</sup> *nm) at 420nm, 300hr,
Sealing Protection	IEC 60529; IP53, for above-panel components of the actual switch only
Shock	IEC 60068-2-27, 3 shocks in each direction of the 3 axes (18 total shocks) at 300 m/s <sup>2</sup> for 11 ms
Drop	EN 60068-2-31 Test Ec Free Fall – Procedure 1, drop in each direction of the 3 axes (6 total drops) from 1000 mm
Vibration, Sinus	MIL-STD-202G Method 204D, condition A, Sweep from 10Hz to 55Hz with +/-0.06inch, 55Hz to 500Hz with 10g. each axis 12time, total 36 time(9h)
Vibration, Random	MIL-STD-202G Method 214A Condition C, 50Hz to 2000Hz, 0.06PSD, 9.26Grms. each axis 8h, total 24h
Chemical Resistance	ISO 16750-5 Method II for Diesel fuel, Gasoline, Engine oil, Hydraulic fluid, Grease and Urea, interior cleaner .
Salt Spray	IEC 60068-2-11 Test Ka 5%NaCl, 96h.
ESD Contact Discharges	ISO 10605 Power off mode, +/- 15kV air discharges, +/-8kV
Symbol Abrasion Resistance	RCA, 175g, 200 cycles.
Strength	withstand a torque 2N*m for 10s
Panel Insertion Force	25N to 45N

# Ordering Scheme

Sample Part No. **CVR - B 2 A - 000**

Selection 1 2 3 4 5

## 1. SERIES

**CVR** Rheostat Switch

## 2. WHEEL DETENTS

**A** Three  
**B** Four

## 3. OUTPUT

### Voltage Divider

	System Voltage	Detent 0	Detent 1	Detent 2	Detent 3
<b>1</b>	12V	2.8V	5V	7.3V	9.5V
<b>2</b>	24V	5.5V	10V	14.5V	19V
<b>3</b>	12V	5V	7.3V	9.5V	
<b>4</b>	24V	10V	14.5V	19V	

### Shunt Resistor (Only for 3 Detents)

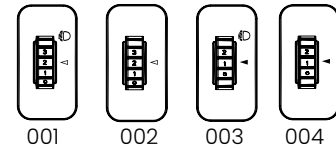
	System Voltage	Detent 0	Detent 1	Detent 2
<b>A</b>	12V or 24V	1.5K OHMS	4.2K OHMS	9.8K OHMS

## 4. BACKLIGHT COLOR

**Z** None  
**A** White

## 5. CAP AND WHEEL LEGEND

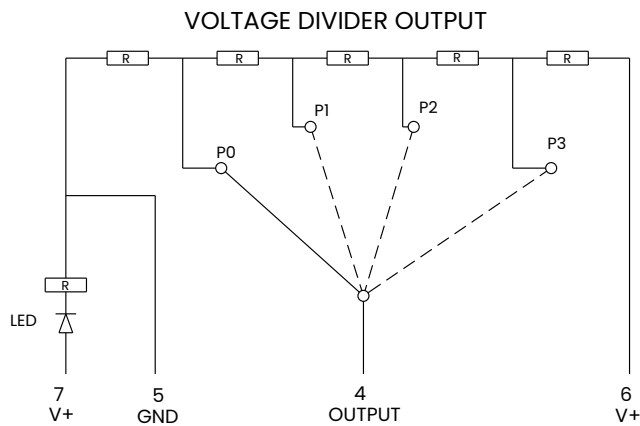
**000** No legend  
**001** Legend 1  
**002** Legend 2  
**003** Legend 3  
**004** Legend 4



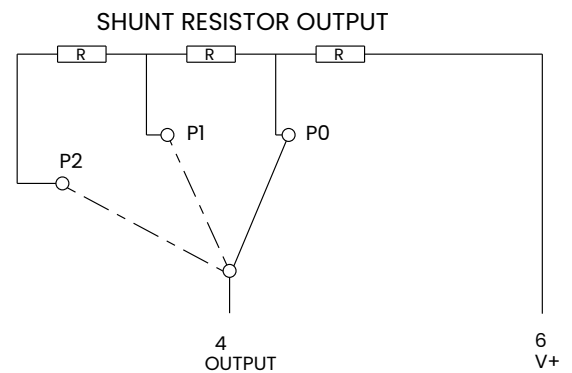
For additional legends, please consult factory

[Configure Complete Part Number >](#)

# Circuit Diagram

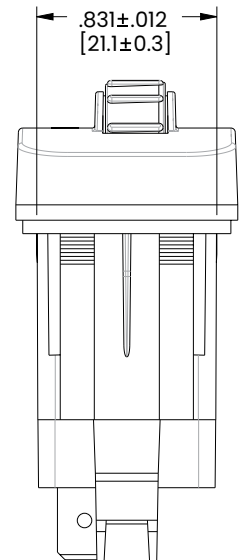
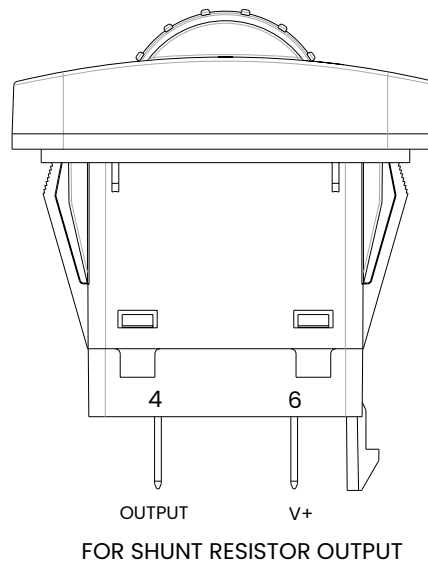
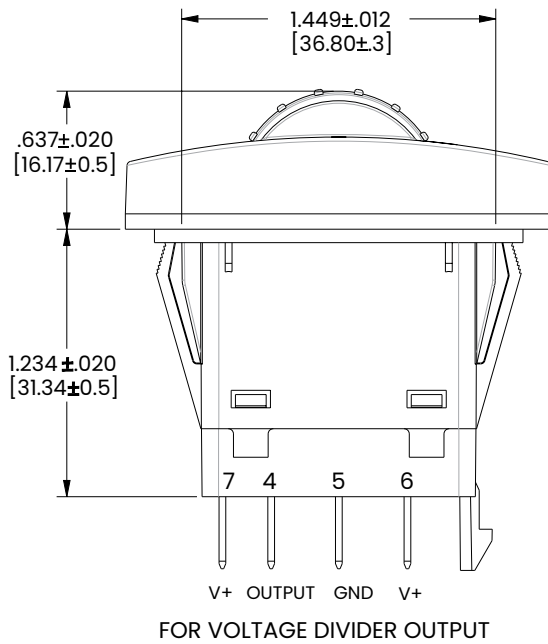
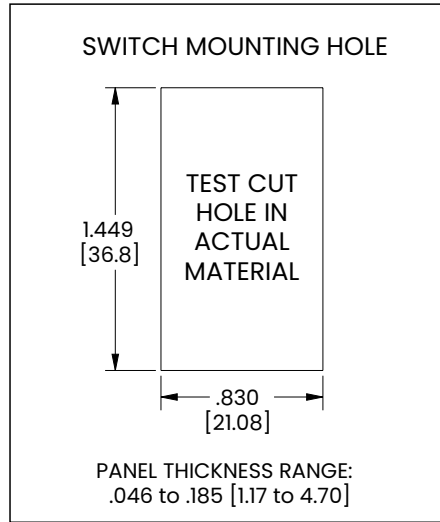
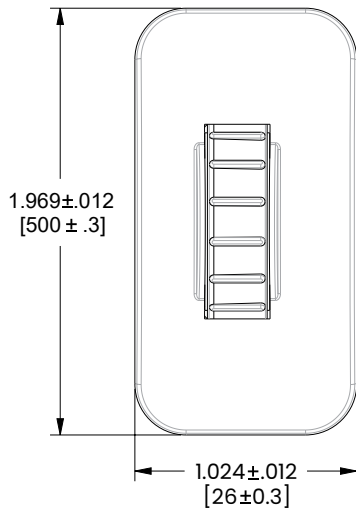


4 DETENTS AS SHOWN, NO P3 FOR 3 DETENTS



# Dimensional Specs

inches [millimeters]



MATING CONNECTOR:  
VC2: AMP 250 series fastin-faston  
VC1: Packard 630 and AMP 250 series fastin-faston