# VCMS2-GM1-MOD1 to MOD6 8 II VCMS2-GM1-CTRL1

# 8 Input/8 Ground Output Module With Molex Connectors



#### **Key Features**

- Small Size, L-bracket mounting
- Eight Ground Out 1.0 Amp Sinking Outputs
- Eight Digital Inputs
- Modular/Expandable Design
- · Remote Networked Operation
- Programmable Control Logic Functions

#### Related Products

- VCMS2-SM-4 thru SM-12 Switch Modules
- VCMS2-PM1-MOD1 to MOD6 and CTRL1 Power Out Modules
- VCMS2-PM2-MOD7 and CTRL1 Power Out Modules w/Voltage Sense

### **Technical Description**

The Model VCMS2-GM1-MODn and CTRL1 Ground Out Modules are components of the InPower's second generation Vehicle Control Module System (VCMS2) - a modular, programmable system used for ground enabled functions on vehicles such as controlling Relay coils.

All VCMS2 I/O modules and switch panels connect via an 8 pin Molex-150 sealed system connector for networking modules together as a system. The Inputs, Outputs, 12V Battery, and Ground connections utilize the 20 pin Molex-150 sealed I/O connector on the module.

This Ground Out module has 8 Discrete Voltage inputs and 8 Ground outputs, connected through a 20 pin Molex-150 sealed I/O connector. The outputs are rated at 1 amp each for sinking current.

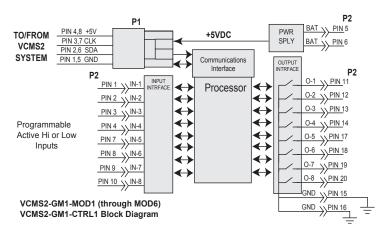
The digital inputs enable decisions to be made based on 12VDC or Ground signals available on the vehicle (Ignition Doors, Lights, Outrigger Position, etc). These can be programmed to respond to either Ground or 12VDC as TRUE. The Module can also receive requests from the VCMS2 Switch module(s). There are a wide variety of logical functions available, such as logical AND's, OR's, Filters, Registers, and Timer's for Delays or Sequencing of outputs.

In systems containing Switch Module(s), the system can have anywhere from 1 to 6 I/O Power Modules. The compliment of other modules can be of PM1-MOD*n* or GM1-MOD*n* Modules (or with a MOD7 Voltage Sense if needed).

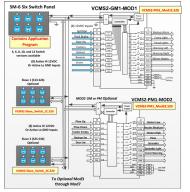
If switch panels are not needed in the system, a VCMS2-GM1-CTRL1 may serve as the Master module containing the Application Program. Alternately, this may be a VCMS2-PM1-CTRL1 is desired. If additional Inputs and or Outputs are needed, up to 6 total modules made up of PM1s or GM1s may make up a system. If Voltage sensing is required in a Standalone system without Switch Module(s), Please refer to the VCMS2-PM2-CTRL1 information.

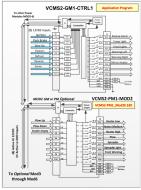
Modules may be ordered as VCMS2-GM1-MOD1 to MOD6 for switch module systems, or as a VCMS2-GM1-CTRL1 for Standalone Applications.

### **System Diagram**



#### System Diagrams SM and CTRL1





## VCMS2-GM1-MOD1 to MOD6 VCMS2-GM1-CTRL1

# 8 Input/8 Ground Output Module With Molex Connectors

### **Specifications**

Dimensions: Mounting Surface: 1.065 inches by 3.865 inches. 1.765 inches tall.

Case Material: Anodized aluminum Designed For: IP67 Compliance

Temperature Range: -40°C to +85°C (-40°F to +185°F) Operating; -50 to +100C Storage Temperature.

Mounting: Two #6-32 or #8-32 Mounting Screws through L bracket to a flat surface.

Mating Connectors: One 20 pin A key Molex-150 (part # 33472-2001): inputs, outputs and power

One 8 pin A key Molex 150 (part # 33472-0806): ground and data between modules

Outputs: Eight Low-side drivers rated for Ground Outputs at 1.0 Amps Sink

Inputs: 8 Digital programmable to pull up for ground true actuation or to pull down for +12 volt

true actuation (ActiveHigh ActiveLow) (27Vdc Continuous Max, 41Vdc Pulsed Max

500mS)

Standby Current 2.5 ma Typical

ESD Protection Data and Inter-module Power Interfaces (30kV)
Electrostatic Discharge Detection (2kV Human Body Model)

Orderable Configurations: VCMS2-GM1-CTRL1 (for Standalone systems (application)), VCMS2-GM1-MOD1,

VCMS2-GM1-MOD2, VCMS2-GM1-MOD3, VCMS2-GM1-MOD4, VCMS2-GM1-MOD5,

or VCMS2-GM1-MOD6.

Related Products: VCMS2-SM4, VCMS2-SM6, VCMS2-SM8, VCMS2-SM10, VCMS2-SM12 switch mod-

ules, and VCMS2-PM1-CTRL1, VCMS2-PM1-MOD1, VCMS2-PM1-MOD2, VCMS2-PM1-

MOD3, VCMS2-PM1-MOD4, VCMS2-PM1-MOD5, and VCMS2-PM1-MOD6.

### **Mechanical Drawing**

