

VCMS2-PM1-MOD1 to MOD6 VCMS2-PM1-CTRL1 Data Sheet

8 Input/8 Output Power Module With Molex Connectors



Technical Description

The Model VCMS2-PM1-MOD n and CTRL1 +12V Power Out Modules are components of the InPower's second generation Vehicle Control Module System (VCMS2) - a modular, programmable system used for switching power in a vehicle environment.

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

This Power module has 8 Discrete Voltage inputs and 8 +12V Power outputs, connected through a 20 pin Molex-150 sealed I/O connector. The outputs are rated at 15 amps each (60 Amps per Module Total MAX) for sourcing current to the loads.

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

In a system with a Switch Module, the system can have anywhere from 1 to 6 I/O Power Modules. This compliment of up to 6 modules can be a mixture of PM1-MOD n and/or GM1-MOD n Modules (or with a MOD7 Voltage Sense if needed). In these systems the Application Program will reside in the first Switch Module.

If switch panels are not needed in the system, a VCMS2-PM1-CTRL1 may serve as the Standalone containing the Application Program. If additional Inputs and or Outputs are needed, up to 6 total modules made up of PM1s or GM1s may make up a system (MOD2 through MOD6). 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-PM1-MOD1 to MOD6 for both systems, or as a VCMS2-PM1-CTRL1 for the master Standalone Applications.

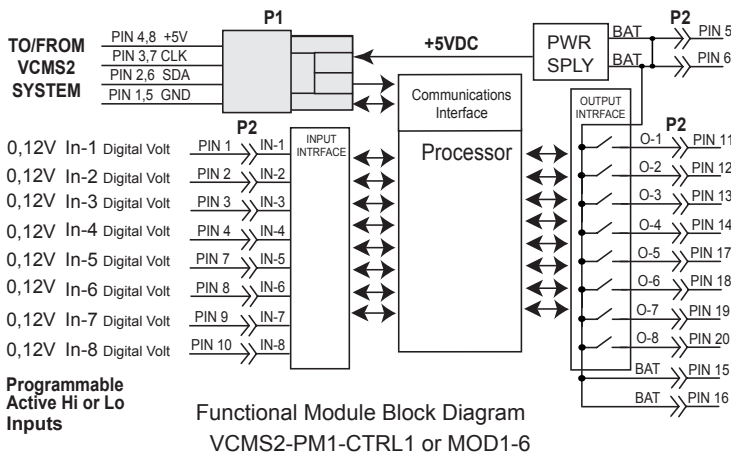
Key Features

- Small Size, L-bracket mounting
- Eight 12 Volt 15 Amp Power Outputs (60A max per module)
- Eight Digital Inputs
- Modular/Expandable Design
- Remote Networked Operation
- Programmable Control Logic Functions

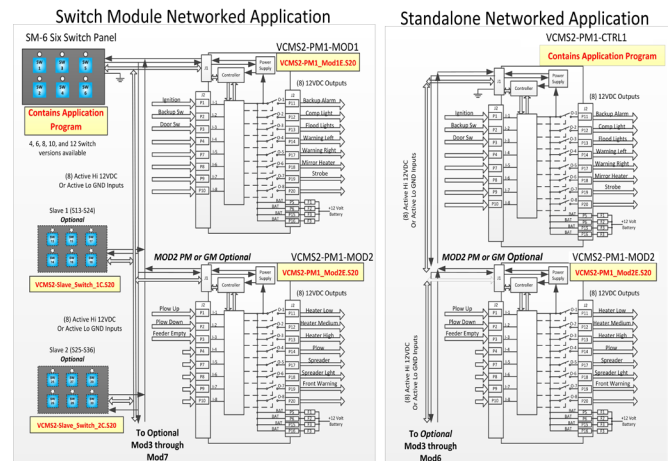
Related Products

- VCMS2-SM-4 thru SM-12 Switch Modules
- VCMS2-GM1-MOD and CTRL1 Ground Out
- VCMS2-PM2-MOD7 and CTRL1 +12Vdc Out w/Voltage Sense

VCMS2-PM1-MOD n -CTRL1 Block Diagram



Systems Drawings



VCMS2-PM1-MOD1 to MOD6 VCMS2-PM1-CTRL1 Data Sheet

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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 # 33472-4801): ground and data between modules
Outputs:	8 high-side drivers rated for +12 volts @ 15 amps; max 60 amps per module
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-PM1-CTRL1 (for Standalone systems (application)), VCMS2-PM1-MOD1 through MOD6.
Related Products:	VCMS2-SM4, VCMS2-SM6, VCMS2-SM8, VCMS2-SM10, VCMS2-SM12 switch modules, VCMS2-GM1-CTRL1, VCMS2-GM1-MOD1 through MOD6, VCMS2-PM2-MOD7, and VCMS2-PM2-CTRL1.

Load Considerations: Relays/Solenoids must incorporate Fly Back Suppression Diodes/Circuitry. These Relays/Solenoids (without suppression) can create large voltage and current spikes which damage electronics. Having inductive loads without suppression violates your unit's warranty and can damage your vehicle's electronics!

System Diagram

