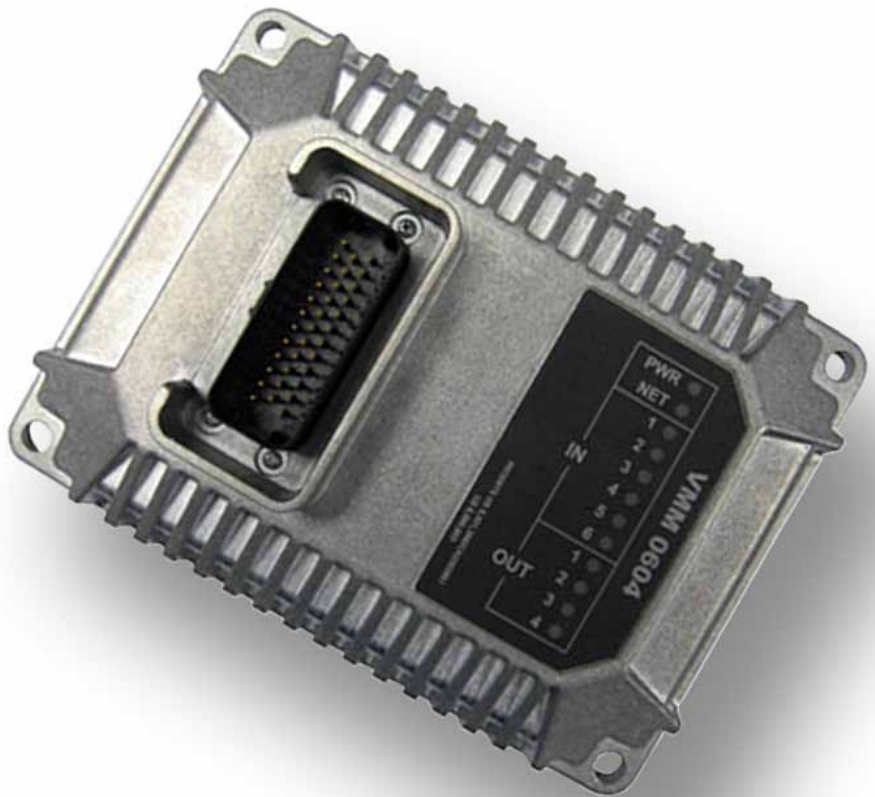




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VMM0604 Controllers

Catalog HY33-5003/US



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Application

The VMM0604 is a general purpose controller for vehicle and other applications with a steady voltage of less than or equal to 32 Vdc. The unit has 6 inputs and 8 outputs as well as a CAN/J1939 communication port. This module is 100% compatible with other Parker Vansco multiplexing modules.

Properties

Features

The VMM0604 has 6 general purpose inputs capable of being configured for active high or active low signals. Additionally they may be used for reading analog voltages, or as 6 frequency inputs (2 AC coupled and 4 DC coupled). The VMM0604 has 4 high-side outputs with a max PWM frequency of 500 Hz, and 4 low-side outputs capable of current sensing. Outputs can drive any type of vehicle load including relays, solenoids, fans, etc.

Built to meet stringent SAE J1455/EP455 environmental standards, the system advances multiplexing technology through enhanced diagnostics and Windows-based ladder logic programming. The unit can be used alone or with other multiplexing modules. The multiplexing system was designed to simplify and reduce electrical system troubleshooting, maintenance, and file management time. The modules are self-programming and have status LEDs that indicate the condition of inputs, outputs, power, and network activity.

Reliability

The VMM0604 monitors its 8 outputs continuously for fault information. Detected faults include short circuits (to ground or power), over currents and open load. The VMM0604 allows systems to reduce the number of fuses by allowing the outputs to protect themselves electronically. In the event of a fault, the unit will disable the output(s) that are faulted. The VMM0604 has 12 red diagnostic LEDs that can be used to indicate the status of inputs, outputs, power and the Controller Area Network (CAN).

On-board diagnostics facilitate easier troubleshooting, and modules that can be auto-programmed relieve time and maintenance costs by keeping module and program inventory to a minimum. VMM users appreciate the module's robust design as well as its adherence to stringent industry environmental requirements and communications (SAE J1939) standards. All of these features make the controller easy to integrate into any on-highway or off-highway vehicle.

General

Weight	895 g
Temperature range	
Operating, ambient	-40 to +85 °C
Storage, ambient	-55 to +125 °C
Protection	EP455
Voltage supply	7 - 32 Vdc
Current (sleep mode)	<1 mA

Communication

SAE J1939	1
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Outputs

Digital out high	4
Type	high side switch
Max load	3.0 A
Max PWM frequency	500 Hz
Digital out low	4
Type	low side switch
Max load	3.0 A

Inputs

Voltage inputs	up to 6
Signal range	0 - 32 Vdc
Resolution @ 5 Vdc	5 mV
Frequency inputs	up to 6
Signal range	0 - 10000 Hz
Digital inputs	up to 6
Signal high	3.4 Vdc - V _{BAT}
Signal low	0 - 1.3 Vdc

Regulated supply

5 Vdc (Vref)	100 mA@14 Vdc
	50 mA@24 Vdc
	30 mA@32 Vdc

Ordering part numbers

VMM0604	ECD0836001
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Environmental protection

EMI

EP455 (Feb 2003) Section 5.10.3, Reverse polarity
 EP455 (Feb 2003) Section 5.10.4, Short circuit
 ISO7637-2 (Jun 2004)/EP455 (Feb 2003) Section 5.11.X, Electrical transients
 J1455 (Feb 2003) Section 5.16.3, EMC emissions
 J1455 (Feb 2003) Section 5.16.1, EMC susceptibility

ESD

EP455 (Feb 2003)/ISO10605 (Jul 2008)/J1113-13 (Nov 2004), ESD

Mechanical environment

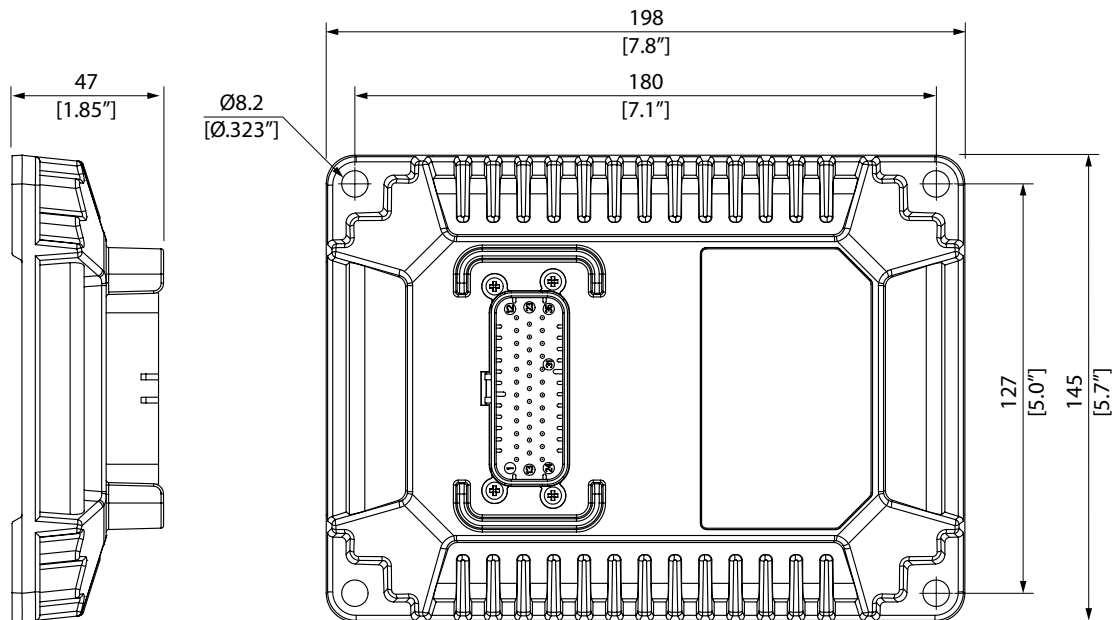
J1455 (Jun 2006) Section 4.10.4.2, Random vibration
 EP455 (Feb 2003) Section 5.14.1, Mechanical shock
 J1455 (Jun 2006) Section 4.10.3.1, Handling drop test

Climate environment

EP455 (Feb 2003) Section 5.6, Pressure Wash
 EP455 (Feb 2003) Section 5.13.1, Humidity cycle
 EP455 (Feb 2003) Section 5.13.2, Humidity soak
 EP455 (Feb 2003) Section 5.1.1, Thermal cycle
 J1455 (Jun 2006) Section 4.1.3.2, Thermal shock

Chemical environment

Mil STD 202G (Feb 2002) Method 101E, Salt mist



WARNING - USER RESPONSIBILITY

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

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