VMC

Vehicle Monitor Corporation

VMCs 16-Channel Serial Digital I/O board is a CPU-controlled remote data acquisition and control device, manufactured to facilitate high speed serial communication, easy mounting, and optical high-voltage isolation from sources or loads. Single installation boards can communicate via RS-232, or up to 64 boards may be daisy-chained via RS-485. Communication rates up to 230kBaud are supported. Addressing and baud selection are jumper-configured for reliable operation. Transmit and receive data status and CPU operational status are indicated by LEDs.

VMC provides the most compact footprint available for sixteen standard I/O modules. Chassis mounting may be facilitated directly by six ¼-inch high (6.5mm) or taller standoffs or, by insertion into DIN "boat" frames to be snapped onto standard DIN rail. Wire connections are quick and secure using spring-lock terminals soldered to the board. Each terminal can accept a wide range of wire sizes as required by the connected circuit.

Each board is powered by a single DC power supply (8-30)V, protected by a 1A self-resetting polyfuse, and has an on-board 5V, 3A power supply to provide power to installed I/O modules. An LED provides power indication.

Each circuit board supports up to 16 separate input or output signal lines. Each signal line has an LED status indicator and an in-line protection fuse. Standard 5V 0.6 Inch SSR type modules such as OAC5, IAC5, ODC5, IDC5, DRY5, WDT5 and others are easily plugged into the board, and secured by their captive screws, providing a wide variety

of drive and receive circuit options. G4 and G5 modules also may be used. SM and M type modules may also be inserted to the standard footprint connections, but do not provide screw-down security. Any of these modules may provide UL, CSA, and/or CE approved interfaces to external circuitry as required (refer to specific module data). The sixteen lines are jumper-configurable for input or output signaling to match the installed module type.

Physical:
Dimmensions: 4.5"W x 11.5"L x 1-5/8"H(min)
(11.4cm x 29.2cm x 4.13cm min)
(Minimum height measured with IDC5 and ¼" standoff mount.)
Weight: 15.6oz (443g) w/o modules.
Mounting Holes: 4" x 5.5" & 11" centers
(10.16cm x 13.97cm & 27.94cm)
Centered on PCB.

Power:
Input: (8-30) Vdc
(45mA @12V / 30mA @ 24V)
Output: +5Vdc, 3A
(shared with installed modules)

Indicators:
One RED LED each for Power, CPU operating, Transmit Data, Receive Data plus one each per I/O channel (16 each) indicating active signal.

I/O Signal:
Dependant upon installed module. May be input or output per channel up to 16 channels per board. Jumper configurable I/O logic settings for Input / Output.
Supports 5V standard SSR type 0.6 Inch Modules, G4 Modules, G5 Modules, SM Modules, M Modules having standard 0.6 Inch socket footprint.
Modules can provide high-voltage opto-isolated AC, DC, Dry Contact, Watchdog, or specialty functions. Specific module installed, may be UL, CSA, and / or CE approved.

Serial Communications:
Up to 230.4 kBaud serial communications.
Jumper-configurable address & baud.
RS-232 to single board.
RS-485 to (1-64) daisy-chained boards.
Half-Duplex 2-Wire
Full-Duplex 4-wire.

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