

Electronic Systems

MULTIPLEX CONTROL MODULE WITH FUSE BOX & PROTOCOL GATEWAY - MCM-FG



AT A GLANCE

- Rugged multiplex control module for 12 VDC vehicular applications
- Combination of solid state outputs plus fuses and relays
- J1939 and J1850 data buses to communicate with power train modules like engine, ABS, transmission and cluster
- Second dedicated CAN bus (J1939 or RVC) to communicate with other MEGALINK modules
- LIN data bus
- MCM's can be combined in a master/slave configuration based on I/O requirements

Megalink™ is the perfect platform to empower your electronics with flexibility and control.

The MCM-FG provides engineers with the flexibility and freedom to design electronic control systems for vehicular applications. The unique enclosure of the MCM-FG combines a fuse and relay center that knows and reports the status of all fuses and relays and numerous solid state input and outputs. Its rugged design can withstand extreme off-road environments.

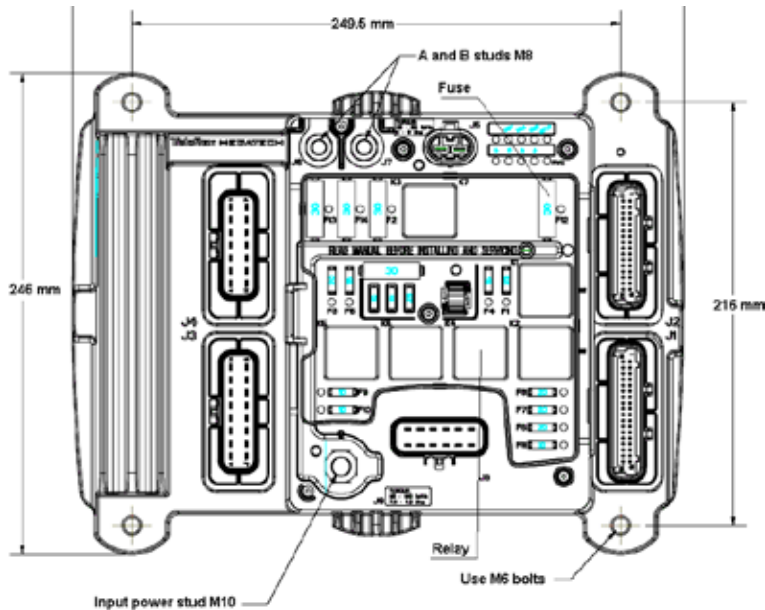
The MCM-FG with its J1939 and J1850 data buses, offers easy integration into most third party ABS, engine controllers, transmission controllers, clusters and displays. It can also be combined with any other Megalink™ product including keypads, H-bridge modules, digital rocker switches, displays, etc. to create a full scale front-end cab-to rear-end multiplex control system for virtually any type of on-road or off-road vehicle.

Typical applications for the MCM include: Battery power distribution and control, Interior / Exterior lighting with dimming and diagnostic capabilities, Engine starter control, Air System control and many other vehicle functions.



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PRODUCT SPECIFICATIONS - MOUNTING AND DIMENSIONAL INFORMATION



GENERAL SPECIFICATIONS & TECHNICAL DATA

- Operating voltage: 9 to 16VDC (5 to 16 VDC for engines with crank inputs)
- Operating temperature: -40° C to 85° C
- Maximum current: 125A continuous @ 85° C
- Standby current: < 4mA
- Immunity to radiated interferences: 100 V/m
- Water resistance: IP67, 1 meter under water (Logic section only)
- Electrical protection: Load Dump, 12V jump start & reverse polarity, ESD
- Diagnostics:
 - Blown fuse, defective relay, overload and open circuits
 - Diagnostic events stored in EEPROM
 - Field flashable
 - Windows™ based diagnostics software via CAN (CADET)
- Connectors:
 - Delphi Metripak GT280, 12, 14 and 16 pins
 - Delphi Metripak GT480, 2 pins
 - Delphi Metripak 100, 32 and 36 pins
 - 2 M8 fused output studs
 - 1 M10 battery connection stud

* Windows is a trademark of Microsoft, Inc.

AT A GLANCE:

- 12 switch to battery digital inputs
- 20 switch to ground digital inputs
- 6 analog inputs
- 19 high-side 10A solid state outputs
- 5 high-side 7A solid state outputs
- 12 high-side 2A solid state outputs
- 1 low-side 2A solid state output
- 1 H-bridge 5A solid state output
- 3 fused outputs 30A
- 3 fused outputs 20A
- 3 fused outputs 10A
- 1 relay output 40A
- 1 relay output 25A
- 1 relay output 20A
- 2 relay output 15A
- 2 CAN buses
- 1 J1850 (VPWM) bus
- 1 LIN bus
- PWM outputs
- M10 Stud for easy battery connection with a single wire
- Maximum current of 125A @ 85° C