



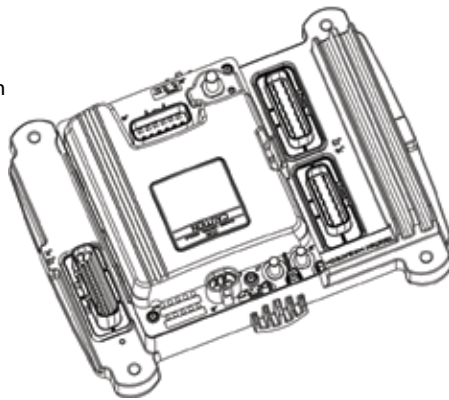
**INTELLIGENT
SOLUTIONS**

MULTIPLEX CONTROL MODULE WITH BUILT-IN FUSE BOX

Whether to speed up the design process, simplify complex architectures, or simply use equipment more efficiently, Megalink™ is the perfect platform with which to empower electronics with flexibility and control.

The MCM-F provides engineers with flexibility and freedom to design electronic control systems for vehicular applications. The unique enclosure of the MCM-F combines a fuse and relay center that knows and reports the status of all fuses and relays, numerous solid state input and outputs and a built-in battery guard controller that permanently monitors the battery and disconnect it if voltage drops below 12V (separate disconnect relay required). Its rugged design can withstand extreme off-road environments.

The MCM-F can also be combined with any other Megalink™ product (keypad, H-bridge module, digital rocker switch, display) to create a full scale front-end-cap-to-rear-end multiplex control system for virtually any type of on-road and off-road vehicle.



AT A GLANCE

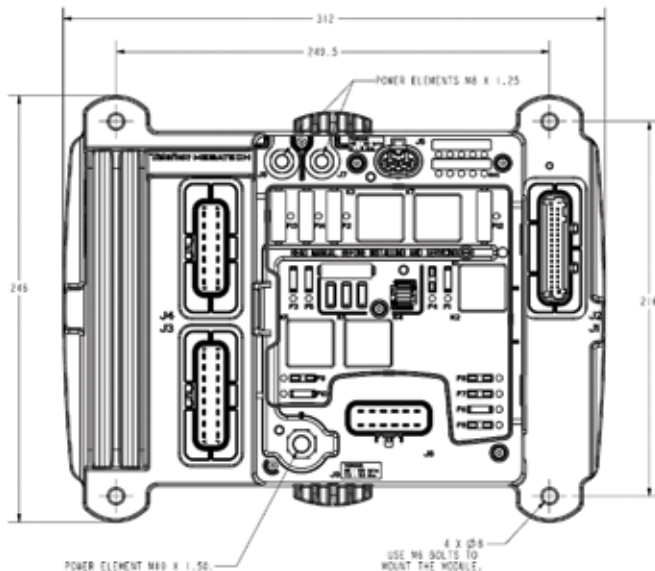
- Rugged multiplex control module for 12VDC vehicular applications
- Combination of solid state outputs plus fuses and relays
- Built-in battery guardian that monitors and protects the battery against discharges
- CAN bus (J1939 or RVC) to communicate with other MEGALINK modules
- LIN data bus to communicate with MEGALINK serial rocker switches
- Low side and high side digital inputs
- Analog inputs
- Frequency inputs
- 2, 7 and 10A solid state outputs
- 15 to 40A relay outputs
- 5 to 30A fused outputs
- PWM outputs
- 1 M10 stud for an easy battery connection with a single wire
- Maximum current of 125A @ 85°C

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PRODUCT SPECIFICATIONS



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

APPLICATIONS:

- Battery power distribution and control
- Battery disconnect relay control
- Exterior vehicle lighting (head lamps, fog lamps, markers, turn lamps etc.)
- Interior vehicle lighting with dimming capabilities (dome lamps, backlighting)
- Wiper/wash motor control including reading of wiper switches
- Horn control
- Liquid level reading and reporting (fuel, wash fluid, etc.)
- Air system control (pressure reading and reporting, air dump, air drying).
- Adjustable pedal control
- A/C system clutch control and pressure monitoring
- Engine starter control

INPUTS/OUTPUTS:

- 6 switch to battery digital inputs
- 6 switch to ground digital inputs
- 4 analog inputs
- 19 high side 10A solid state outputs
- 4 high side 7A solid state outputs
- 6 high side 2A solid state outputs
- 5 low side 2A solid state output
- 1 H-bridge 5A solid state output to control a battery disconnect relay
- 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 outputs 15A
- 1 CAN bus
- 1 LIN bus