NEW

PDM15 & PDM30
POWER DISTRIBUTION MODULES

MoTeC's new **PDM15** and **PDM30 Power Distribution Modules** replace conventional relays, fuses and circuit breakers by providing electronically switched power to the various electrical systems in the vehicle, including motors, lights, solenoids and electronic devices such as ECUs and data systems. This simplifies wiring and switch requirements, while increasing reliability.

The **PDM15** has 15 outputs and the **PDM30** has 30 outputs. Each output is over-current protected and can be controlled via a combination of switch inputs, CAN messages and logic functions. In addition to performing simple functions such as flashing indicator lights, the logic functions can be used to selectively turn off systems during low battery voltage or engine starting, to reduce drain on the battery.

MoTeC **PDMs** also provide full diagnostic information, including output currents and error status that can be monitored on a PC or transmitted via CAN to a display or logging device.

PDM15 & PDM30 FEATURES

Outputs
- Number of 20 amp outputs
  - **PDM15**: 8
  - **PDM30**: 8
- Number of 8 amp outputs
  - **PDM15**: 7
  - **PDM30**: 22
- Outputs may be paralleled for higher current
- Programmable over-current shutdown with wire thermal modelling and allowance for in-rush current
- Short circuit protection
- Thermal overload protection
- Programmable auto retry on fault and master fault reset facility

Switch Inputs
- Number of inputs
  - **PDM15**: 16
  - **PDM30**: 16
- Programmable trigger levels and de-bounce times
- Low current through switches

Control
- Fully programmable output control using complex conditions based on input switch states, output states, output diagnostics and CAN messages
- Time qualification of conditions
- Functions include: Flash, Pulse, Set/Reset, Toggle, AND, OR, XOR

Communications/Diagnostics
- CAN Output including output currents, output voltages, diagnostic states and input states
- CAN Input from up to four sources

Protection
- Reverse battery and load dump protection for the PDM and all connected devices

Physical
- Magnesium case
- Very compact and lightweight
  - **PDM15**: 260g (0.57lbs)
  - **PDM30**: 270g (0.59lbs)

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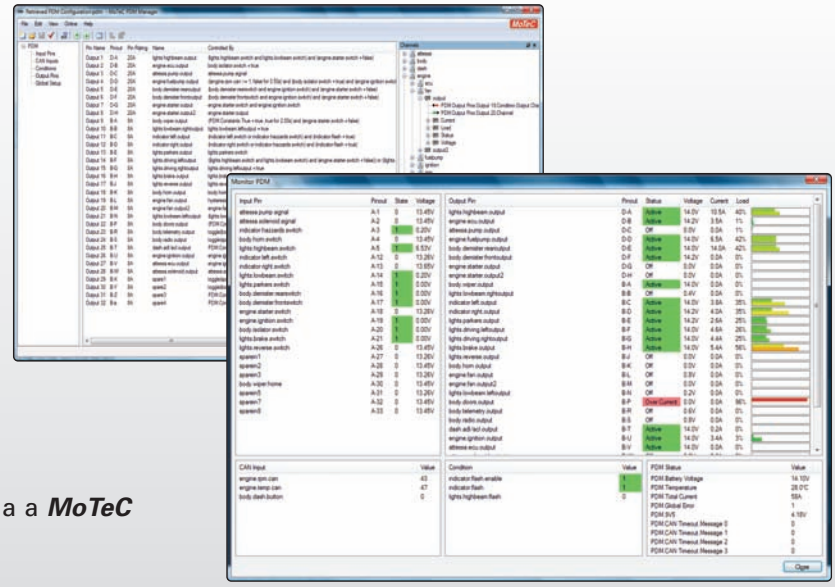
PDM SOFTWARE

***MoTeC* PDM Manager software** is included with the **PDM15** and **PDM30**. The software is used for:

- Configuration
- Monitoring of all channel values including: Input States and Voltages, Output States, Currents, Voltages and Diagnostics, Internal Temperature, Battery Voltage, Total Current
- Output testing
- Firmware updating

The PC is connected to the **PDM** via a ***MoTeC*** USB to CAN adaptor (UTC).



SPECIFICATIONS: PDM15 & PDM30 POWER DISTRIBUTION MODULES	
GENERAL	
Battery Voltage	30 V max, 6.5 V min
Current Consumption	35 mA typical operating, 5 mA typical standby
Total Output Current	**PDM15**: 100 A continuous **PDM30**: 120 A continuous
Reverse Battery Protection	Protection for PDM and all connected devices
Load Dump Transient Protection	Protection for PDM and all connected devices
Operating Temperature	120°C max internal
Weight	**PDM15**: 260g, 0.57lbs **PDM30**: 270g, 0.59lbs
Dimensions	**PDM15**: 107 x 127 x 39 mm **PDM30**: 107 x 127 x 39 mm
Case	Magnesium
Environmental Protection	Conformal coating on PCB
PC Communications	Via CAN using UTC
Firmware Updating	Via CAN using UTC
20 AMP OUTPUTS	
Number of 20 Amp Outputs	**PDM15**: 8 **PDM30**: 8
Output Current	20 A continuous, 115 A transient (typical)
Over-current shutdown	Programmable in steps of 1 A
Protection	Short circuit and thermal overload protection
8 AMP OUTPUTS	
Number of 8 Amp Outputs	**PDM15**: 7 **PDM30**: 22
Output Current	8 A continuous, 60 A transient (typical)
Over-current Shutdown	Programmable in steps of 1 A
Protection	Short circuit and thermal overload protection
SWITCH INPUTS	
Number of Inputs	**PDM15**: 16 **PDM30**: 16
Pull-up Resistor	10 k to Battery+
Measurement	Range of 0 to 51 V, Resolution 0.2 V (8 bits)
Calibration	High and Low Trigger Voltage, High and Low Trigger Times
CAN INPUTS	
Messages	4 messages, 8 bytes per message
Bit masking	Yes
CAN OUTPUTS	
Channels Transmitted	Output Current, Output Load, Output Voltage, Output Status, Input Voltages, Input State, Battery Voltage, Internal Temp, Total Current
LOGIC OPERATIONS	
Operation Types	Flash, Pulse, Set/Reset, Toggle, AND, OR, XOR, >, <, NEQ, EQ
Number of operations	200