MoTeC

PDM15 - POWER DISTRIBUTION MODULE

MoTeC's 15 output Power Distribution Module is designed to provide electronically switched power to various electrical systems in the vehicle such as motors, lights, solenoids, and electronic devices such as ECUs and data acquisition systems.

The module replaces conventional relays, fuses and circuit breakers to simplify wiring and switch requirements, while increasing reliability.

▶ FEATURES

- Each output is over-current, short circuit and thermal overload protected.

- Outputs programmable in 1 A steps and controllable via a combination of switch inputs, CAN messages and logic functions.

- Performs up to 200 logic operations and functions that can be used to selectively turn off systems.

- Provides full diagnostic information via CAN.

▶ SPECIFICATIONS

For full details, see user manual at *www.motec.com/downloads*.

Inputs

- 16 x switch inputs: range 0 to 51 V, resolution 0.2 V

Outputs

- 8 x 20 A outputs: 20 A continuous, 115 A transient (typical)

- 7 x 8 A outputs: 8 A continuous, 60 A transient (typical)

Communications

- 1 x CAN

Operating Voltage

- 30 V max

Environmental Protection

- Conformal coating on PCB

Physical

- 1 x 34 and 1 x 26 pin waterproof connectors, 1 x M6 stud

- Case size 107.5 x 127.5 x 38.7 mm

- Weight 260 g

▶ COMPATIBILITY

MoTeC ECU Models

- M84, M400, M600, M800, M880, M1 Series (package dependant)

MoTeC Dash/Logger Models

- C125, C127, C185, C187, CDL3, SDL3, ADL3, ACL

- Discontinued: SDL, ADL2, ADL

▶ ACCESSORIES

MoTeC UTC #61059

⇨   UTC is required, not compatible with MoTeC CAN cable.

▶ SOFTWARE

Latest software can be found at *www.motec.com/downloads*.

PDM Manager software is used for:

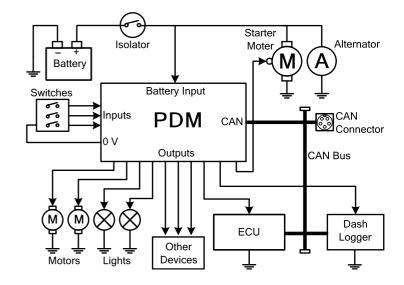- Configuring all inputs, outputs, CAN messages and conditions
- Monitoring all channel values
- Output testing
- Firmware updating.

▶ WIRING

➡ The PDM is wired onto the CAN bus. Please ensure wiring is according to CAN requirements and the CAN bus has at least one 100R terminating resistor. More information can be found in the user manual at *www.motec.com/downloads*.
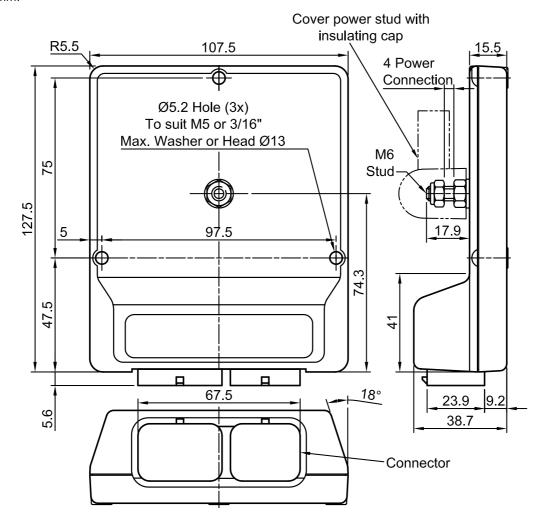
To communicate to the PC, a CAN connector must be wired into the CAN bus. To connect the PDM directly to the CAN connector, wire according to the following table.

PDM Pin	PDM Name	CAN Connector Pin	CAN Connector Wire
B25	CAN Lo	4	Green
B26	CAN Hi	5	White
A28	0 V	1	Black

▶ DIMENSIONS AND MOUNTING

Measurements in mm.

▶ PINOUT

Connector A

34 pin waterproof connector

Mating connector #65044

Pin	Name	Function
A1	OUT1	20 A Output 1 (with A10)
A2	OUT9	8 A Output 9
A3	OUT2	20 A Output 2 (with A12)
A4	OUT10	8 A Output 10
A5	OUT3	20 A Output 3 (with A14)
A6	OUT11	8 A Output 11
A7	OUT4	20 A Output 4 (with A16)
A8	OUT12	8 A Output 12
A9	OUT5	20 A Output 5 (with A17)
A10	OUT1	20 A Output 1 (with A1)
A11	OUT13	8 A Output 13
A12	OUT2	20 A Output 2 (with A3)
A13	OUT14	8 A Output 14
A14	OUT3	20 A Output 3 (with A5)
A15	OUT15	8 A Output 15
A16	OUT4	20 A Output 4 (with A7)
A17	OUT5	20 A Output 5 (with A9)
A18		Not used
A19	DIG2	Digital/Switch Input 2
A20		Not used
A21	DIG4	Digital/Switch Input 4
A22		Not used
A23	DIG7	Digital/Switch Input 7
A24		Not used
A25		Not used
A26	VBATT-	Battery Negative
A27	DIG1	Digital/Switch Input 1
A28	GND	0 V
A29	DIG3	Digital/Switch Input 3
A30	DIG5	Digital/Switch Input 5
A31	DIG6	Digital/Switch Input 6
A32	DIG8	Digital/Switch Input 8
A33	DIG9	Digital/Switch Input 9
A34	DIG10	Digital/Switch Input 10

Connector B

26 pin waterproof connector

Mating connector #65045

Pin	Name	Function
B1		Not used
B2		Not used
B3	OUT6	20 A Output 6 (with B9)
B4		Not used
B5	OUT7	20 A Output 7 (with B11)
B6		Not used
B7	OUT8	20 A Output 8 (with B13)
B8		Not used
B9	OUT6	20 A Output 6 (with B3)
B10		Not used
B11	OUT7	20 A Output 7 (with B5)
B12		Not used
B13	OUT8	20 A Output 8 (with B7)
B14		Not used
B15	DIG13	Digital/Switch Input 13
B16		Not used
B17	DIG15	Digital/Switch Input 15
B18	VBATT-	Battery Negative
B19		Not used
B20	DIG11	Digital/Switch Input 11
B21	DIG12	Digital/Switch Input 12
B22	GND	0 V
B23	DIG14	Digital/Switch Input 14
B24	DIG16	Digital/Switch Input 16
B25	CAN Lo	CAN Low
B26	CAN Hi	CAN High

Connector C

M6 stud

Mating: eyelet and M6 nut

Pin	Name	Function
C1	VBATT+	Battery Positive