

# MODULE M1010



## FEATURES

- 10 OUTPUTS AND 10 INPUTS  
(all of them PWM ports)
- USB update
- Complies with International standards homologation

## INPUTS

All multipurpose inputs can be runtime configured as analog inputs, negative digital inputs, positive digital inputs or temperature sensor inputs.

## OUTPUTS

All outputs can be runtime configured as analog inputs, configurable as PWM or digital (1 frequency setting/group), have precision load current measuring (12 bits, no multiplexing) and are protected against short circuit events.

The two half-bridge outputs can be externally combined to form a full H-bridge and support high frequency switching (up to 20 KHz)

## CONFIGURATION

The node can be fully programmable and debugged through a configuration tool (parameters, diagnostics, logics).

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## TECHNICAL DATA

| Electrical Properties       |   |
|-----------------------------|---|
| Current Consumption         | 100 mA @ 28 V   |
| Loads total current limit   | 45 A (with 8 AWG minimum nominal section cable)   |
| Supply voltage range        | 9 V to 36 V   |
| Interfaces                  |   |
| CAN 2.0B                    | 2 (primary, secondary optional)   |
| RS 485                      | 1 (optional)  |
| Inputs                      | 10 (9x multipurpose inputs, 1x pulsed wave input)   |
| Outputs                     | 10 (8x highside 5 A, 2x half-bridge 20 A)   |
| Mechanical Properties       |   |
| Maximum External Dimensions | Length x Width x Height (L x W x H)<br>178 x 200 x 50 mm  |
| Housing Type                | All structure parts are aluminum with 1060, except for screws and electronic components for mounting  |
| Environment                 |   |
| Operating Temperature       | -40 °C to 70 °C   |
| Standards                   |   |
| ISO 16750                   | Yes (storage and operation temperatures, vibration, mechanical and thermal shock, thermal and humidity cycle, salt spray, electrical loads, IP31) |
| ISO 3795                    | Yes (flammability)  |
| ISO 7637                    | Yes (electrical transients)   |
| CISPR25                     | Yes (irradiated and conducted disturbances)   |
| ISO 11452                   | Yes (irradiated and conducted immunity)   |
| ISO 10605                   | Yes (electrostatic discharge)   |
| SAE J1939                   | Yes (CAN)   |