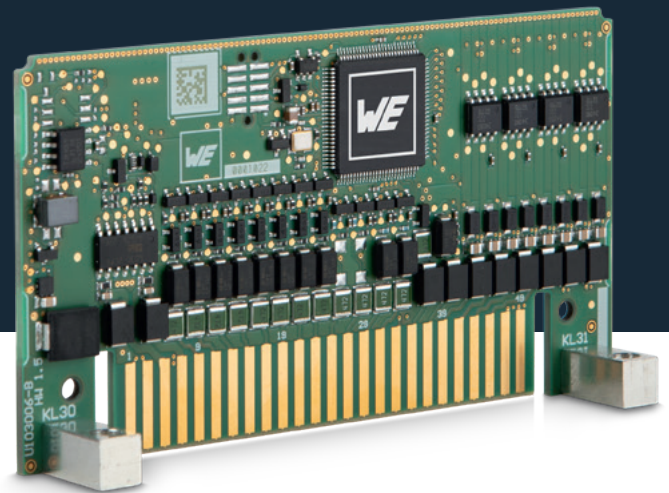


# CDM-A16

Control & Diagnostic Module



The CDM-A16 is a pluggable controller for power distribution units of vehicles and extends them with control and diagnostic functions. The module provides up to 16 channels for fuse status monitoring and relay activation. The peak-and-hold function allows to reduce heat generation within the system. Via two CAN ports, the controller can communicate with multiple buses and enables advanced filter/gateway functions.

### Technical Specification

- 16 digital low side outputs 300 mA with peak-and-hold
- 4 digital high side outputs 2 A (PWM)
- 16 digital inputs for fuse status monitoring
- 8 analog inputs for analog sensors
- 5 V supply for sensor supply
- 2 x CAN bus high speed

### Functions

- Fuse status monitoring and relay control with peak-and-hold function
- CAN communication with multiple buses, enabling gateway functionality (J1939, RAW CAN bus protocols)
- Logic processing of vehicle functions, programmed with WEcontrol Designer, an IEC61131-3 programming environment (FBD, ST, SFC, etc.)
- Sensor management (current, temperature, etc.) with 5 V supply and sensor acquisition via 8 analog inputs
- Direct load control through 4 digital outputs (2 A / PWM)

### Technical Data

General information	
Operating temperature	-30 °C to +85 °C
Operating range	9 to 32 V
Processor	NXP S 32K Cortex M4 32 bit
Clock frequency	80 MHz
Flash memory	2 MB
RAM	256 kB
FRAM	2 kB

### Features and Benefits

- Integrated into the power distribution system, the module offers **diagnostic options and efficient relay management**.
- Vertical design of the controller **reduces the required installation space** and thus enables the integration of additional relays and fuses into the power distribution system.
- Peak-and-hold function **reduces heat generation** in the relay coil and thus extends its possible operating life.
- The controller can be integrated in our **REDline Power Boxes Twin and M Plus**.

### Build your own system!

1. Provide us with your specific schematic and software requirements.
2. We propose you the perfect integration match within our REDline Power Boxes platform or develop a customised power distribution system for you.
3. Together with you we integrate the controller and system diagnostic features into your schematic.
4. Receive your customised smart power distribution solution with CAN diagnostic functions.
5. **Monitor your system!**



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