

The Modbus Display and Control with Auto Addressing



The Modbus Display & Control (MDC) is a device with two RS485 ports, a keypad for setting parameters and a display to view the status of the connected equipment. One port, the master RS485, communicates with ebm-papst Modbus enabled, electronically commutated fans with software version 5.0 or later using a two-wire plus ground RS485 connection. The second port, the slave RS485, communicates with a higher level third-party system such as a Building Management Systems (BMS), providing real-time monitoring and control data.

Part Number	Ambient Temperature °C	Supply Voltage (nominal) VDC	Max Humidity %RH	Width mm	Length mm	Height mm	Weight g
CN1116	-20 to 60	10 - 24V	90	123	132	27	204

The MDC provides auto-addressing for ease of installation and commissioning, and supports four different operating modes:

Monitor mode

- Display Modbus data from fans such as Speed, Power, Motor temperature, Electronics temperature, Setpoint %, Hours run, Warnings.

Monitor & Control mode

- Display as above plus control fan speed by one, or a combination of:
 - 0-10V control signal input
 - BMS system connected to the RS485 slave
 - MDC keypad

Constant Volume / Constant Pressure Control mode

- Display as above but requires an external 0-10V differential pressure sensor to maintain a constant volume / constant pressure. The setpoint is entered via keypad or RS485 slave port.

Modbus Relay mode

- Unique operating mode where the controller becomes a messenger between the fans and a BMS system thus allowing direct access to all Modbus registers on each fan.

