

Field Control Layer Device

EIMnet Analog I/O Expansion Module

EIM..M

【Description】

EIM..M series of analog I/O expansion module is a remote control unit follows the format of MODBUS RTU communication rule, the main purposes is increasing I/O points for AIRTEK DDC. It works with any controller which has an EIMnet port. EIM..M uses 32-bit microprocessor core, transmission rate up to 38,400 bps. Theirs analog input points have 12-bit resolution which provides high accuracy reading value. Theirs analog output points also have 12-bit resolution which can make a precise control. The physical points of EIM can be directly converted to DDC's AI / AO points. Therefore, setting or transfer of these I/O points is not required. The controller can use these points directly. EIM..M makes the arrangement of control points flexible, save money, and helps to control all related control points in a single program. It is absolutely the best product for your building.



【Features】

- An AIRTEK RS-485 communication interface works with any AIRTEK controller that has an EIMnet port.
- Analog Input (AI) has 12-bit resolution, can be jumper selectable to accept 3K Ω or 10K Ω NTC thermistor, 0~10VDC, or 4~20mA input signal.
- Analog Output (AO) has 12-bit resolution, EIM0402M can be DIP switch and software selected as 0~10VDC, or 4~20mA output signal, each point has a manual override/auto output control switch. AO of an EIM0004M are all 0~10VDC only.
- 8 MAC Address DIP switches for address 0~127.
- It makes the arrangement of control points flexible, save money, and helps to control all related control points in a single program.
- I/O point of EIM modules are preset in controller if it has an EIMnet port. Therefore, setting or transfer is not required. The controller can use these points directly. AI/AO of EIM will be AI/AO of the controller.
- Slide track design for space-saving and easy installation.
- Plug-in terminal blocks and LED Indicators of communication and status are convenient for system debug.

【Specification】

Model	AI Points	AO Points		24V DC Out	Max. Number of EIM module on each EIMnet port	
		0~10VDC	4~20mA	DSC...B	DAC.B/DSC.B Controller	WC/GC Controller
EIM0800M	8	0	0	Y	12	24
EIM0004M	0	4	0	N		
EIM0402M	4	2 (optional)		Y		

Power Supply : 24VAC/DC

Microprocessor : 32 bit high speed processor (MCU).

Analog Input : 12-bit resolution, jumper selectable to accept 3K Ω or 10K Ω NTC thermistor, 0~10VDC, or 4~20mA input signal.

Analog Output : 12-bit resolution, 0~10VDC or 4~20mA output (4~20mA is available on EIM0402M output only), attached a manual override/auto output control switch.

Minimum load of 0~10VDC output is 1000 ohms. The maximum load for 4~20mA is 500 ohms.

(Note: Only EIM0402M has 4~20mA output signal.)

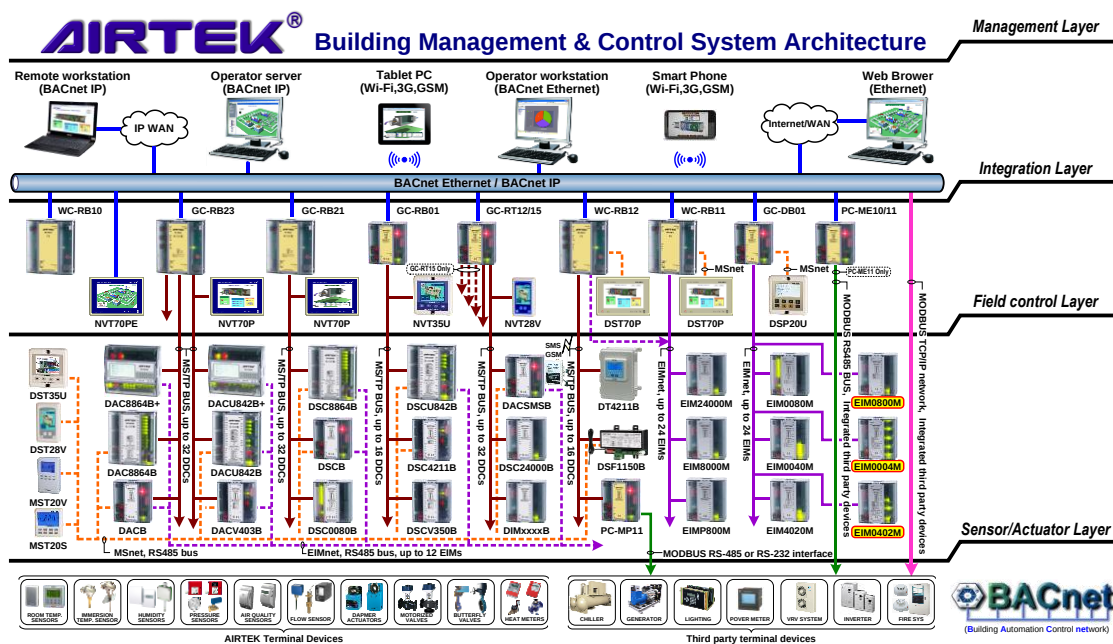
EIMnet Port : MODBUS RS-485 bus, communication speed 9,600/19,200/38,400 bps adjustable.

Auxiliary Power : 24VDC, 200mA, for external sensors.

Environment : 0~50 $^{\circ}$ C , 20~90%RH non-condensing

Certification : CE, RoHS

【Network Architecture】



【Wiring Diagram】

- Please use 24VAC independent dedicated power supply, do not share the power supply with other equipment, so as to avoid the short circuit burnout caused by the difference in circuit design.
- For the RS-485 communication network, please use the electromagnetic shielded twisted pair configuration with a wire diameter of AWG18 or more, and wrap it with an EMT metal conduit. Please do not share it with the power line or power line to avoid interference.
- The RS-485 communication network route must be configured in a daisy-chain manner with one input and one output, and no divergence or star configuration is allowed. 120Ω terminal resistors should be installed at the front and back ends of the network, and the total length of the network cable should not exceed 1,200 meters.
- Please use shielded cable configuration above AWG22 for the analog input and output lines to obtain the best transmission and control quality.

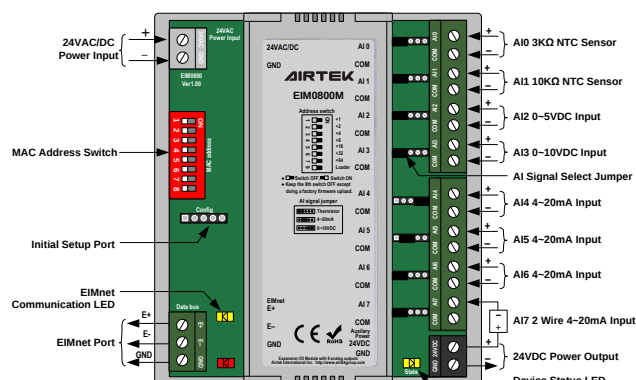


FIG. 1 EIM0800M

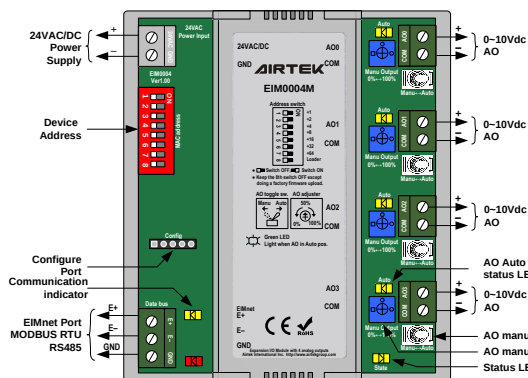


FIG. 2 EIM0004M

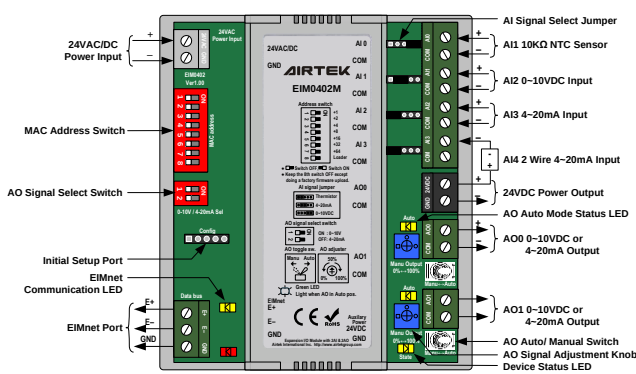


FIG. 3 EIM0402M

【Dimension】 Unit: mm

