Field Control Layer Device

EIMnet Communication Protocol Module

EIMXM

【Description】

EIMXM is an integrated communication protocol module that conforms to the MODBUS RTU communication protocol format. It is an expansion module specially designed to match the WC, GC, DAC, DSC and other series of products produced by AIRTEK. It is often used as equipment manufactured by third parties. Or for system integration, such as inverters, multi-function meters, two-wire lighting systems, smart sensors and other equipment. EIMXM is manufactured with a 32-bit high-efficiency microprocessor, with independent operation and network communication capabilities. It is mounted under the EIMnet communication network, and can directly convert its own BI/AI/BO/AO/PI software points to the BI/AI/BO/AO/PI points of the upper DDC controller to achieve the same DDC Complete the effectiveness of the control program to ensure the reliability of the independent operation of the control system.

【Features】

- Built-in EIMnet communication interface, following the MODBUS RTU communication format, using RS-485 transmission, the line can extend up to 1,200 meters.
- Built-in RS-232 communication interface, through AD-Linker, with EIMXM exclusive editing program (EIMXM editor) to modify the communication parameters.
- With Address dial switch, the address range can be set from 1 to 24, but each DDC controller only allows one EIMXM module to be connected.
- With communication and equipment status indicator lights, it is convenient for on-site engineers to grasp the system operation status and troubleshooting in time.
- It can be used with AIRTEK WC, GC, DAC, and DSCB microcomputer programmable controllers, which can flexibly allocate points, reduce equipment costs and increase the integrity of the control program.
- The BI/A0/BO/AO software points on the EIM can be directly converted to the BI/A0/BO/AO points on the controller without complicated settings and conversions.
- The maximum number of points that can be converted is BI*32 or AI*32 or BO*16 or AO*16, which is the number of physical hardware points that can be connected to 4 EIM..M. All combinations are acceptable and convenient All kinds of applications, but the excess points will not be able to correspond, so please pay attention to use. And the number of EIM..M corresponding to EIMXM will take up the total number of EIMnet communication interface connections, so you must pay attention to it during application.
- It adopts sliding rail design to save space and easy to install. It adopts pluggable terminal design and has communication and equipment status indicators for easy troubleshooting.
- The reading and writing of analog point data can support multiple non-standard numerical forms such as floating-point numbers, double-precision floating-point numbers, long integers, and BCD codes.
- Each analog read and write command supports one addition/subtraction/multiplication/division operation for numerical offset or magnification adjustment.

【Specification】

Model	Max. Occupied EIMnet I/O Points				The maximum number of EIMs connected to the EIMnet port					
	BI	AI	BO	AO	DAC....B	DSCB	DACB	GC-DB11	WC-RB11/12	DAC....B
EIMXM	32	32	16	16	12	12	12	24	24	12

Power Supply：24VAC, 3VA.

Microprocessor：32-bit high performance MCU.

EIMnet Port：MODBUS RS-485 bus, communication speed 38,400 BPS.

TDnet Port：MODBUS RTU RS-485 interface, communication speed 9,800/19,200/ 38,400 bps

adjustable, max. distance 1,200 meters, can integrate MODBUS slave devices.

Environment：0～50℃, 5～95%RH.
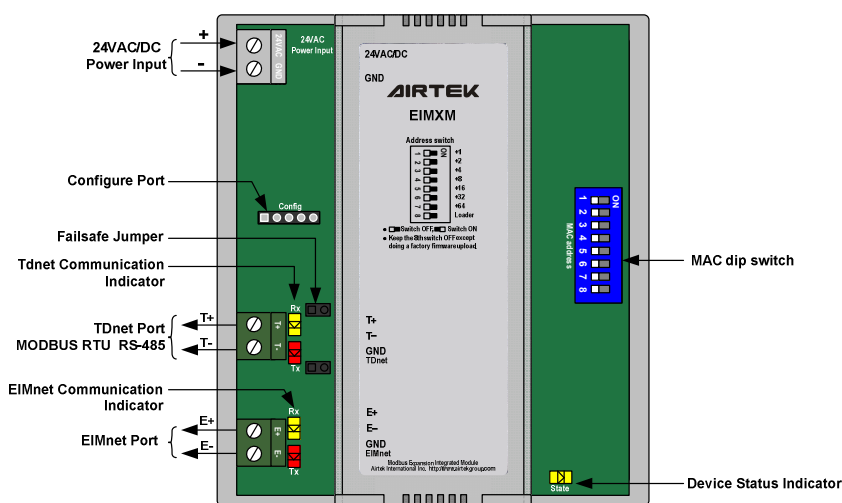
Certificate：RoHS

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【Installation】

- Please use a dedicated 24VAC or 24VDC power supply for power supply. Do not share the same power supply with other equipment.
- For the RS-485 communication network, please use the electromagnetic shielded twisted pair configuration with a wire diameter of AWG 18 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.

【Network Architecture】
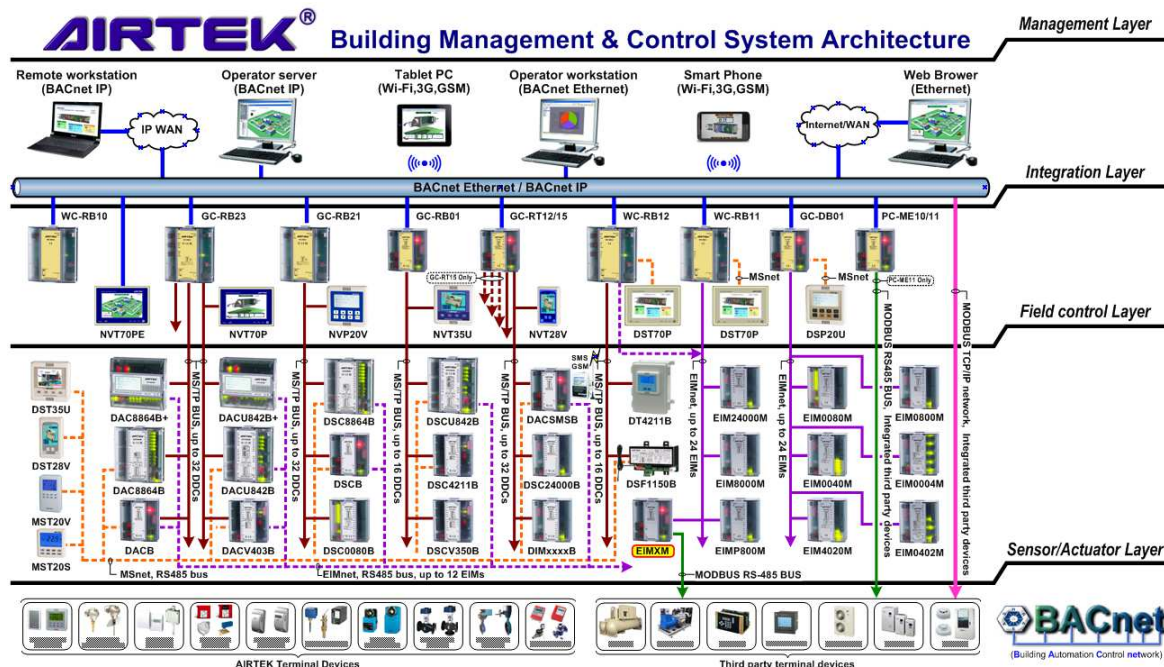
【Wiring Diagram】

【Dimension】 Unit：mm