



mootek®
TECHNOLOGIES PVT. LTD.

Industrial-Grade 8-Channel Analog 4-20Ma $\pm$ 10V Input Module Isolation 485 Communication Modbus RTU Collector

Model No: MT-420MA-485-8C



Features

- Supports standard Modbus RTU protocol.
- Analog inputs support 12-bit output resolution and 2% accuracy, and support 2-wire, 3-wire, and 4-wire sensor connections.
- Capable of collecting 8 analog input signals: 0-20mA, 4-20mA, 0-5V, and 0-10V. Modbus address, baud rate, default parameter restore, and query parameter settings are all configurable and editable, with power-down saving. A reset button allows for one-touch factory reset.
- Configurable parity and stop bits, communication operation indicator, communication flashing indicator, and analog input indicator.
- Dual watchdog timers ensure zero downtime.
- Provides supporting PC-side test software for easy debugging, parameter configuration, and modification.
- RS485 features 6kV lightning protection and 2.5kV optical isolation.
- The RS485 interface has three-level lightning protection, meeting GB/T17626.5 (IEC61000-4-5) standards: short-circuit current wave 10/700 μ s, open-circuit peak output voltage 6kV, and internal resistance 40 ohms.
- Supports a wide range of 9-50V AC and DC power inputs, and the power interface has 6kV lightning protection.
- The power supply supports overload protection and reverse polarity protection; and meets Industrial Level 4 electromagnetic compatibility requirements.
- Strong lightning protection: Protects against lightning strikes, inductive high voltage, and surges; Fanless, efficient heat dissipation reduces repair time;
- Easy installation: Mounts on standard C45 (35mm) universal rails or screws;
- Wide operating temperature: -40°C to +85°C; All models are 100% oven-tested;

Product Description

- The 8-channel analog acquisition module can collect 8 analog input signals of four types: 0-20mA, 4-20mA, 0-5V, and 0-10V.
- The collected analog signal data is output through the isolated RS485 interface and can be controlled through the isolated RS485 interface. The signal acquisition and RS485 communication electrical signals are isolated from each other, effectively suppressing all types of cross-mode and common-mode interference, ensuring data accuracy and reliable operation of the module.

Serial Interface

- Standard: EIA/TIA-485 RS485 (ISO/IEC 8284)
- Serial interface: RS-485 2 wires: A (for TX+) B (for TX-) GND
- Physical interface: 5.08mm pitch screw terminal

Current Analog

- Input and output range: 0~20mA (including 4~20mA)
- Resolution: 12 bits
- Sampling rate: 20K times/second
- Time delay: <0.1ms
- Maximum load capacity: 600Ω
- Input resistance: 125Ω
- Accuracy: 0.2% (normal temperature)

Voltage Analog

- Input and output range: 0~10V (including 0~5V)
- Resolution: 12 bits
- Sampling rate: 20K times/second
- Time delay: <1ms
- Maximum load capacity: 600Ω
- Input resistance: 100KΩ
- Accuracy: 0.2% (normal temperature)

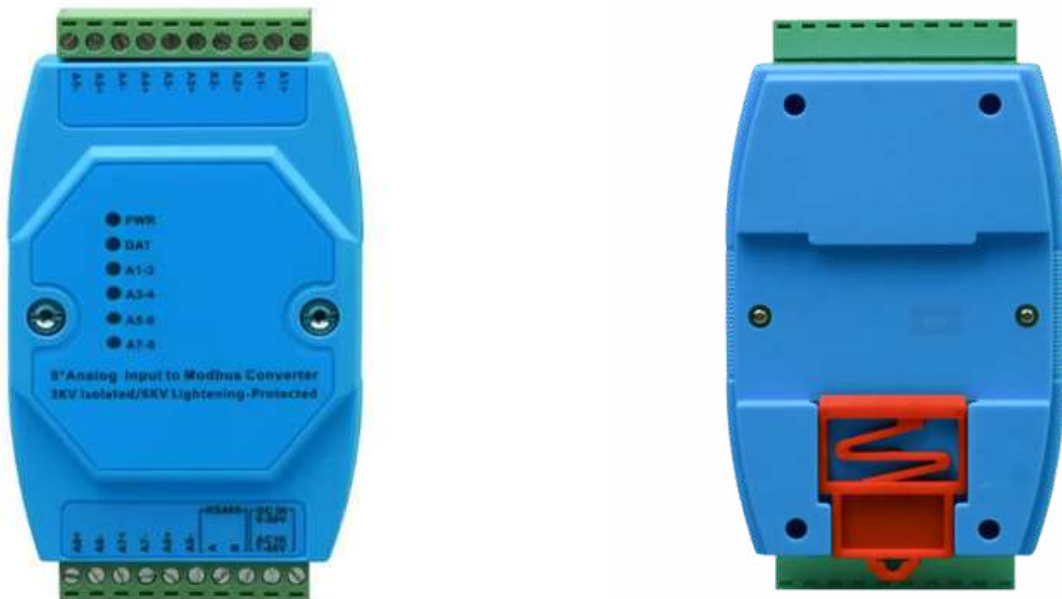
Working environment

- Working temperature: -40°C - +85°C
- Storage temperature: -40°C - +85°C
- Working humidity: 0% - 95% (no condensation)
- MTBF: >100,000 hours

Specification

Product number	MT-420MA-485-8C
Product function description	Industrial rail type 8-channel 0-20MA/4-20MA/0-10V/0-5V analog Modbus RTU collector
Service port description	1*isolated RS485 channel, 8*0-20MA/4-20MA/0-10V/0-5V interfaces
Power supply	Power input DC9-50V, power consumption <1W Overload protection: supported; Reverse connection protection: supported; Access terminal: 2-core 5.08mm pitch screw terminal
weight	0.133KG/PCS
Warranty	1 year

Images



Applications

