

Mport3102-I

2-Port Isolated RS485/RS422 Wall Mount Serial Device Server



- Support 2*RS485/422 serial port to 1*10/100M copper Ethernet port
- Support serial port terminal device networking, Support UDP, TCP, Modbus, HTTPD, WebSocket, MQTT, DDP/DC
- Support protocol conversion between Modbus-RTU/ASCII and Modbus-TCP,
- Support Modbus RTU/ASCII Over TCP transparent transmission
- Feature an external, independent hardware watchdog design to prevent system crashes
- Industrial-grade DC power from DC9-36V, offering reverse polarity protection
- High strength aluminum alloy shell, IP40 protection
- -40°C to +85°C working temperature





Product Description

Mport3102-I is RS485/422 wall-mounted Ethernet serial server equipped with a 32-bit Arm Cortex-M7 core that operates at a high frequency of up to 400MHz. It features an external hardware watchdog design. The power supply, network port, and serial ports all have high-level ESD, surge, and EFT protection, making it highly resistant to interference. It is specifically designed to facilitate data transmission between multiple serial ports and Ethernet for industrial users. This product supports 2*RS422/485 serial port and 1*100M port. Each serial port can operate independently without affecting the others and can be configured with different operating modes and baud rates (600bps to 460800bps). It internally integrates a TCP/IP protocol stack, allowing RS485/422 serial devices can be easily, flexibly and quickly connected to Ethernet, making industrial communication more smooth, more reliable, faster.

Maiwe industrial-grade Ethernet serial servers support various network management functions through web configuration, including serial port/network operating modes, DNS, network logs, serial port reboot, system management, and more. They also support various conversion modes such as UDP/UDP Multicast, TCP Client/Server, Modbus RTU Master/Slave, Modbus ASCII Master/Slave, RealCOM_MCP/CCP/MW, Pair Connection Master/Slave, HTTPD Client, WebSocket Client, and others, enabling serial-to-Ethernet or Modbus TCP protocol conversion. In terms of core components, it is designed with industrial-grade components, featuring wide temperature and wide pressure range, lightning resistance, anti-electromagnetic interference, high reliability, high performance, suitable for operation in harsh field environment like industrial monitoring, traffic management, meteorology, water treatment, environmental monitoring, coal mine, oil, chemical and new energy industries, to help user conduct field data collection, remote monitoring, field control, etc.,



Features and Benefits

- Adopt 32-bit ARM Cortex-M7 core CPU, up to nearly 400MHz frequency
- Serial port support 600bps~460800bps baud rate
- Support UDP/UDP Multicast mode, through the UDP protocol to achieve point-to-point, point-to-multipoint, or multipoint-to-multipoint communication
- Supports TCP Client/Server mode, establishes session connection through TCP protocol, TCP Client supports up to 4 session connection, TCP Server supports up to 8 session connection, and support RFC2217 instructions to dynamically modify serial port rate and other communication parameters
- Support Pair Connection Master /Slave mode, devices can be used in pairs
- Support Modbus RTU/ASCII Master/Slave mode, realize Modbus TCP and Modbus RTU/ASCII protocol conversion
- Support Modbus from the machine readahead, single port automatic learning up to 32 RTU or 16ASCII instructions, to achieve quick response
- Support RealCOM _ MCP/CCP/MW mode, mapping network for local COM, seamless connection
- Support HTTPD Client mode and perform GET or POST operation with HTTPD server
- Support WebSocket Client mode for two-way communication with WebSocket server
- Support Modbus virtual ID, mapping Modbus slave real ID to virtual ID for data communication, to avoid slave ID duplication
- Supports multiple data packing mechanism, converts serial port data into Ethernet data packets according to data length or time, to meet the real-time needs of different networks
- Support for package registration and heartbeat packages to realize connection verification and connection status detection
- Support serial communication parameters, operating modes, sending and receiving frame statistics

Specification

Software	
Network Protocol	IP, TCP/UDP, ARP, ICMP, DHCP, DNS, HTTP, RFC2217
IP Obtaining Method	Static IP/DHCP
DNS	Support
User Configuration	Web page configuration
Simple Transparent Transmission	UDP/ UDP Multicast/ TCP Client/TCP Server/RealCOM/ Pair Connection
Modbus	Modbus RTU/ASCII to Modbus TCP
Serial Port Data Packing Mechanism	Time and length can be set, the maximum packing length is 1460 bytes
TCP Server	Each serial port can connect up to 8 TCP Client
Network Buffer	Send: 16Kbyte; Receive: 16Kbyte
Serial Buffer	Send:1.5Kbyte Receive:1.5Kbyte
Heartbeat Package	Support TCP Keepalive mechanism, customize heartbeat packet content
Registration Package	Customize the heartbeat packet
RFC2217	Support
HTTPD Client	Support
WebSocket Client	Support
RealCOM	Support Maiwe, Moxa and Kanghai working mode
Transmission Delay	<10ms
Supporting Software	Network management configuration tool, Virtualcom software, MixView, MaxView



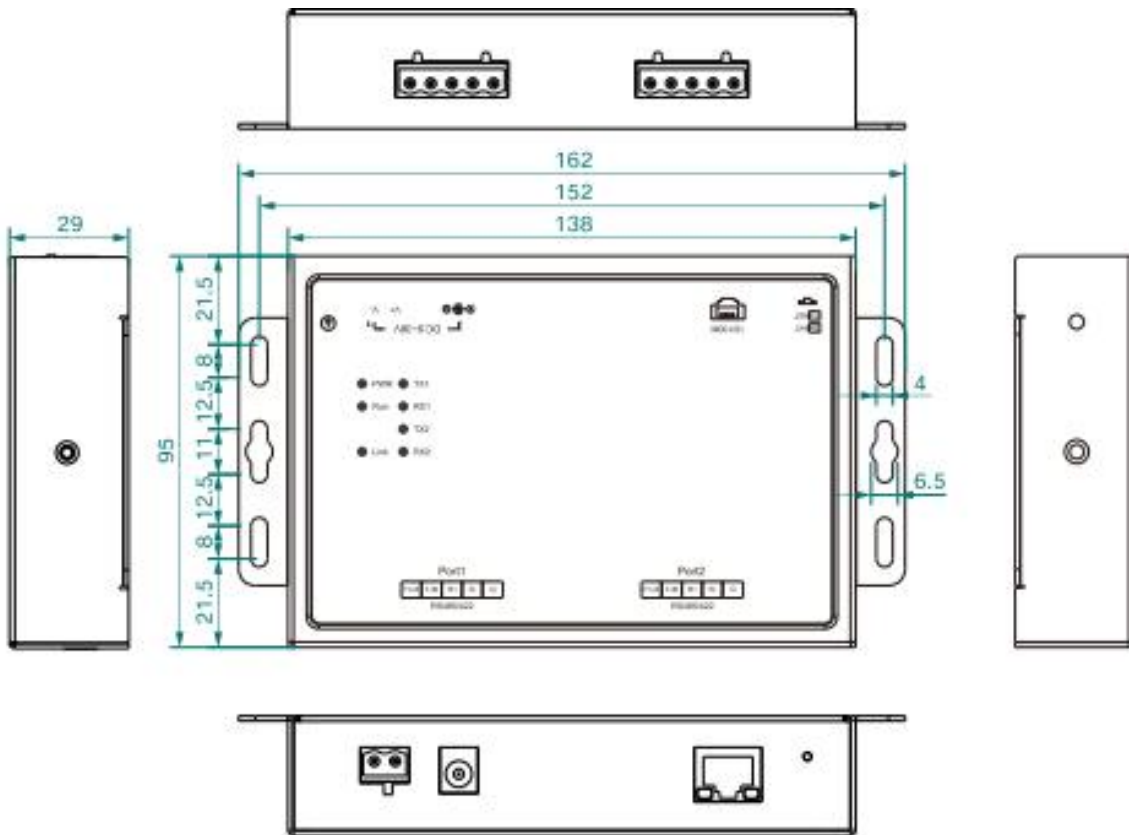
Specification

100M Copper	1*10/100Base-T(X) RJ45 auto-sensing connector, full/half-duplex, auto MDI/MDI-X
Serial Port	Port type: 2×RS485/422 Connector: 5-pin 5.08mm pitch terminal block Baud rate: 600bps~460800bps Data bit 7bit, 8bit Stop bit 1bit, 2bit Parity bit: None, Odd, Even
Button	One-click restart, factory reset
Status LEDs	Power supply indicator Running indicator, alarm Ethernet port indicator Serial port indicator
Power Supply	
Input Voltage	DC9-36V
Power Consumption	< 1W@DC12V
Connection	Two 5.08mm spacing wiring terminals or Φ 2.5mm DC round head
Physical Characteristic	
Dimensions	162*95*29mm (Mounting brackets excluded)
Installations	Wall-mounted
IP Code	IP40
Working Environment	
Operating Temp	-40℃~+85℃
Storage Temp	-40℃~+85℃
Relative Humidity	5%~95% (non-condensing)
Industrial Standard	
EMC	IEC 61000-4-2(ESD) IEC 61000-4-5(Surge) IEC 61000-4-4(EFT)
Certification	CE, FCC, RoHS



Dimensions

Unit: mm





Ordering information

Standard Model	100M Cooper port	RS485/422	Input Voltage
Mport3102-I	1	2	DC9-36V



Contact Us

Wuhan Maiwe Communication Co., Ltd

Address: No.52 Liufang Avenue, East lake High-tech Development Zone, Wuhan, China.

Tel: 027-87170217

Mail: enquiry@maiwe.com

Official site: www.maiwe.com

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