

2-Port RS232/485/422 Wall Mount Serial Device Server

Model No:MT-3102G



Features

- Support 1 RS485/422 and 1 RS232 serial port to 1x100M copper port
- Support UDP, TCP, Modbus, HTTPD, WebSocket Support protocol conversion between Modbus-RTU/ASCII and Modbus-TCP, virtual serial port
- Support Modbus RTU/ASCII Over TCP transparent transmission
- Features an external, independent hardware watchdog design to prevent system crashes
- Industrial-grade DC9-36V power input, offering reverse polarity protection
- High strength metal shell, IP40 protection
- -40°C to +85°C working temperature

Product Description

MT-3102 is a 2* RS232/485/422 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 1*RS422/485 serial port, 1*RS232 and 1*100M Cooper 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 RS232/485/422 serial devices can be easily, flexibly and quickly connected to Ethernet, making industrial communication more smooth, more reliable, faster and meet the needs of customers to improve value-added applications.

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, new energy industries, to help user conduct field data collection, remote monitoring, field control, etc.. It is an essential industrial communication product for the development of industrial Internet of Things.

More Features And Benefits

- Adopt 32-bit ARM Cortex-M7 core CPU, up to 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, fast and efficient
- 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, easy to operate
- Support Modbus RTU/ASCII Master/Slave mode, realize Modbus TCP and Modbus RTU/ASCII protocol conversion
- Support Modbus from the machine pre-read, 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 WebSocket server
- Support Modbus virtual ID, mapping Modbus slave real ID to virtual ID for data communication, to avoid slave ID duplication
- Supports multiple sub-packaging mechanisms, 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

Technical Specifications

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
Weight	About 1.15kg (excluding antenna)
Operating Temp	-40°C~+75°C
Storage Temp	-40°C~+85°C

Serial Port Packaging 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 Keep alive mechanism, customize heartbeat packet content
Registration Package	Customize the content heartbeat packet content
RFC2217	Support
HTTPD Client	Support
WebSocket Client	Support
Transmission Delay	<10ms
Supporting Software	Network management configuration tool, Vitalcom software, MixView, MaxView

Interface	
100M Copper	1*10/100 Base-T(X)(RJ45 auto-sensing connector) interface, full/half-duplex, auto MDI/MDI-X
Serial Port	Port type: 1*RS485/422 and 1*RS232 Connector: 5-position 5.08mm pitch terminal block Baud rate: 600bps~460800bps Data bit: 7bit, 8bit Stop bit: 1bit, 2bit Parity bit: None, Odd, Even
Power Supply	
Input Voltage	DC9-36V
Power Consumption	<0.5W@DC12V
Connection	2-pin 5.08mm pitch terminal blocks or Φ 2.5mm DC round head
Physical Characteristic	
Dimensions	96*90*26mm (Including mounting brackets)
Installations	Wall-mounted
IP Code	IP40

Working Environment

Operating Temp	-40°C~+85°C
Storage Temp	-40°C~+85°C
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

