1-channel RS-485/422 Serial Gateway

■ 1~4*10/100BASE-T(X) RJ45 ports;
■ 1*RS-422/485 ports;
■ Conforms to TCP, IP, UDP, ModbusTCP, ModbusRTU, ARP, ICMP, HTTP, and TFTP client protocols;
■ Supports Modbus Slave mode, the maximum support of 4 TCP master connections in Slave mode;
■ High strength IP40 shell and industrial-grade EMC design;
■ Support 12~48VDC power input;
■ Support DIN-Rail Mounting;
■ Operating temperature range: -40~85℃, suitable for industrial environment applications.

Product Overview

The 1-channel RS-485/422 serial gateway adopts high-strength IP40 protective casing, industrial-grade EMC design, support Auto-Negotiation Adaptive Technology, provide a comprehensive LED status indicator, support voltage 12~48V DC power input to increase the reliability of the communication network. Provide 1~4 10/100Base-T (x) RJ45 port and 1-channel RS-485/422 serial port, can disperse the serial equipment, the host and so on through the network simple, convenient centralized management, the communication rate support 110~115200bps optional. Built-in ModbusTCP and ModbusRTU protocol, the user can easily realize Modbus Ethernet device and Modbus serial device connection. Based on industrial installation requirements, the installation mode of DIN35 guideway is provided. This product adopts the industry's excellent network program, -40~85℃ working temperature range, can satisfy all kinds of industrial site requirements, provide convenient serial port communication solutions.

Features

- Conform to IEEE802.3/802.3u standard, store and forward Exchange Mode;
- Provide 1~4 10/100Base-T (x) RJ45 Ethernet interface, support Auto-Negotiation technology, automatic negotiation work rate (10M/100M) and duplex mode (half duplex/ full duplex), MDI/MDI-X Adaptive;
- Provide 1 channel RS-485/422 serial port, provide TCP server, TCP client, UDP and Modbus TCP(RTU) four serial transmission mode, 110~115200bps line speed non-blocking communication;
- Conforms to TCP, IP, UDP, ModbusTCP, ModbusRTU, ARP, ICMP, HTTP, and TFTP client protocols;
- Supports Modbus Slave mode, the maximum support of 4 TCP master connections in Slave mode;
- Support Web management;
- Support serial port settings, can be connected through the network two serial devices for serial data transmission;
- Supports gateway, cross-routing communication;
- low-power consumption design;
- Metal housing with IP40 and high level EMC protection
- Support wide range voltage 12~48V DC power input and over-current protection function;
- Work in -40~85℃ wide temperature.

Specification

Technical Standard

- Protocol: IEEE802.3,IEEE802.3u

Interfaces

- RJ45 port: 10/100BASE-T(X) auto-Negotiation speed, auto duplex mode and MDI/MDI-X connection;
- Serial port: RS-422 support RX-, RX+, TX-, TX+ full duplex working mode; RS-485 supports A and B half-duplex working mode; RS-485/422 Communication rate support 110~115200bps optional; Built-in ModbusTCP and ModbusRTU protocol, support Modbus Slave mode, Slave mode to maximize the support of 4 TCP master Connection; communication rate supports 300~115200bps

optional.

Exchange Property

- Ten trillion forwarding speed:14881pps;
- Fast forwarding speed:148810pps;
- Transmission way:store-and-forward;
- Switching bandwidth:0.8Gbps;
- Buffer memory size:1Mbits;
- MAC address table:1K.

Serial Port Attribute

- Standard: RS-485/422;
- RS-422 signal: TX+, TX-, RX+, RX-, GND;
- RS-485 signal: D+, D-, GND;
- Check digit: None, Even, ODD;
- Data bits: 5bit, 6bit, 7bit, 8bit;
- Stop bit: 1bit, 2bit;
- Baud rate: 110~115200bps;
- Directional control: RS-485 adopts data flow control technology;
- Load capacity: RS-485/422 side supports 32 point polling environment (customizable 128 points);
- Interface form: RS-485/422 end adopts 5-bit 5.08mm spacing terminal;

- Interface protection: 1000V surge protection.

Indicator Lamp

- Power indicator: PWR;
- System running indicator: SYS;
- Serial port data status indicator: COM.

Power Supply

- Input: Wide DC power input 12~48VDC (12V/24V/48V typical) with 7.62mm industrial power terminal;
- No-load Consumption:< 1.2W (@24VDC)；
- Full-load Consumption:< 1.68W (@24VDC).

Mechanical Properties

- Dimension(W×H×D): 40mm×128mm×102mm;
- Net weight: 300g;
- Housing: Metal, IP40 protection;
- Installation: DIN rail mounting.

Operating Environment

- Working temperature:-40℃~85℃;
- Storage temperature: -40℃~85℃;
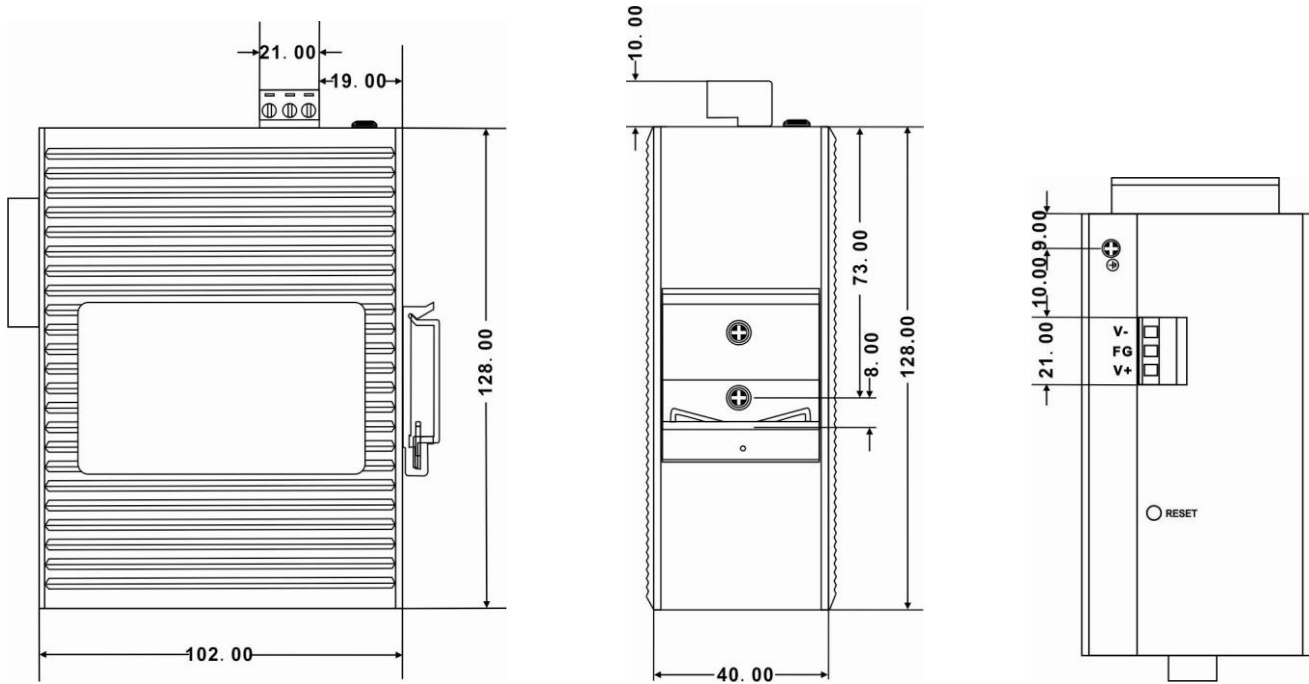- Relative humidity: 5% ~ 95% (no condensing) .

Warranty

- Warranty: 5 years.

Standards and Certifications

- IEC61000-4-2(ESD):±8KV Contact, ±15KV Air
- IEC61000-4-3(RS):10V/M(80-1000MHZ)
- IEC61000-4-4(EFT):Power ±4KV, Ethernet&Serial Data Cable ±2KV
- IEC61000-4-5(Surge):Power ±4KV CM/ ±1KV DM, Ethernet Data Cable±4KV CM,Serial Data Cable±1KV CM
- IEC61000-4-6(CS):3V (10KHZ-150KHZ), 10V

(150KHZ-80MHZ)
- IEC61000-4-16(MS):30V COUNT 300V, 1S
- IEC60068-2-6(Vibration)
- IEC60068-2-27(Shock)
- IEC60068-2-32(Free Fall)
- IEC61000-6-2(General Industrial Standard)

Dimensions(mm)

Models

Model	Description
MG5011	1-channel RS-485/422 serial port gateway,1*10/100Base-T(X) RJ45 port,1-channel RS-485/422 serial port,-40℃~85℃.
MG5041	1-channel RS-485/422 serial port gateway,4*10/100Base-T(X) RJ45 port,1-channel RS-485/422 serial port,-40℃~85℃.

Package List

- 1-channel RS-485/422 Serial Gateway
- Product Manual
- Product Warranty