

## MG3012 Serial Gateway



- 1\*10/100BASE-T(X) RJ45 port;
- 1\*RS-422/485 port and 1\*RS-232 port;
- Conforms to TCP, UDP, ModbusTCP, ModbusRTU, ModbusASCII, ARP, ICMP, HTTP, and TFTP client protocols;
- Supports RTU Master、ASCII Master mode, the maximum support of 16 TCP master connections in this mode;
- Supports RTU Slave、ASCII Slave mode, the maximum support of 32 TCP slave connections in this mode;
- Supports Slave ID mapping, the maximum support of 32 mapping in mapping function;
- Supports Log display for Modbus communication, the maximum support 120 records in Log display function;
- High strength IP30 shell and industrial-grade EMC design;
- Support 12~48VDC power input;
- Support DIN-Rail Mounting or wall Mounting;
- Operating temperature range: -40~85°C, suitable for industrial environment applications.

## Product Overview

The MG3012 serial gateway adopts high-strength IP30 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 10/100Base-T (x) RJ45 port, 1-channel RS-485/422 serial port and 1-channel RS-232 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、ModbusRTU and ModbusASCII 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°C 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 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 and 1-channel RS-232 serial port, provide TCP server, TCP client, UDP, ModbusTCP (RTU\_MASTER) 、ModbusTCP (RTU\_SLAVE)、ModbusTCP (ASCII\_MASTER) and ModbusTCP (ASCII\_SLAVE)seven serial transmission mode, 110~115200bps line speed non-blocking communication;
- Supports Slave ID mapping, the maximum support of 32 mapping in mapping function;
- Supports Log display for Modbus communication, the maximum support 120 records in Log display function;
- Conforms to TCP, UDP, ModbusTCP, ModbusRTU, ModbusASCII, ARP, ICMP, HTTP, and TFTP client protocols;
- Supports RTU Master、ASCII Master mode, the maximum support of 16 TCP master connections in this mode;
- Supports RTU Slave、ASCII Slave mode, the maximum support of 32 TCP slave connections in this 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 IP30 and high-level EMC protection
- Support wide range voltage 12~48V DC power input and over-current protection function;
- Work in -40~85°C 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-232 supports RXD, TXD, GND full duplex working mode; RS-485/422/232 Communication rate support 110~115200bps optional; Built-in Modbus TCP and Modbus RTU and Modbus ASCII protocol, support Modbus Slave mode, Slave mode to maximize the support of 16 TCP master connection, support Modbus Master mode, Master mode to maximize the support of 32 TCP slave connection; supports Slave ID mapping, the maximum support of 32 mapping in mapping function; supports Log display for Modbus communication, the maximum support 120 records in Log display function; communication rate supports 300~115200bps optional.

### Ethernet Attribute

- Standard: 10Base-T, 100Base-TX;
- Protocol: Supports TCP, UDP, APR and ICMP protocol;
- Signal: Rx-, Rx+, Tx-, Tx+;
- Rate: 10M/100Mbps;
- Duplex mode: Half duplex or Full duplex;
- Interface cache: Maximum support for 1Mbits cache;
- Interface form: RJ45.

### Serial Port Attribute

- Standard: RS-485/422/232;
- RS-422 signal: TX+, TX-, RX+, RX-, GND;
- RS-485 signal: A, B, GND;
- RS-232 signal: TXD, RXD, GND;

- Check digit: None, Even, Odd, Mark, Space;
- 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 and adopts 5-bit 5.08mm spacing terminal, RS-232 and adopts DB9-M interface;

### Indicator Lamp

- Power indicator: PWR;
- System running indicator: RUN;
- RS-232 Serial port data status indicator: RS-232;
- RS-485/422 Serial port data status indicator: RS-485/422.

### Power Supply

- Input: Wide DC power input 12~48VDC (12V/24V/48V typical) with 7.62mm industrial power terminal;
- Consumption: < 1.44W (@24VDC).

### Mechanical Properties

- Dimension(W×H×D): 32mm×103mm×83mm;
- Net weight: 200g;
- Housing: Metal, IP30 protection;
- Installation: DIN rail mounting.

### Operating Environment

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

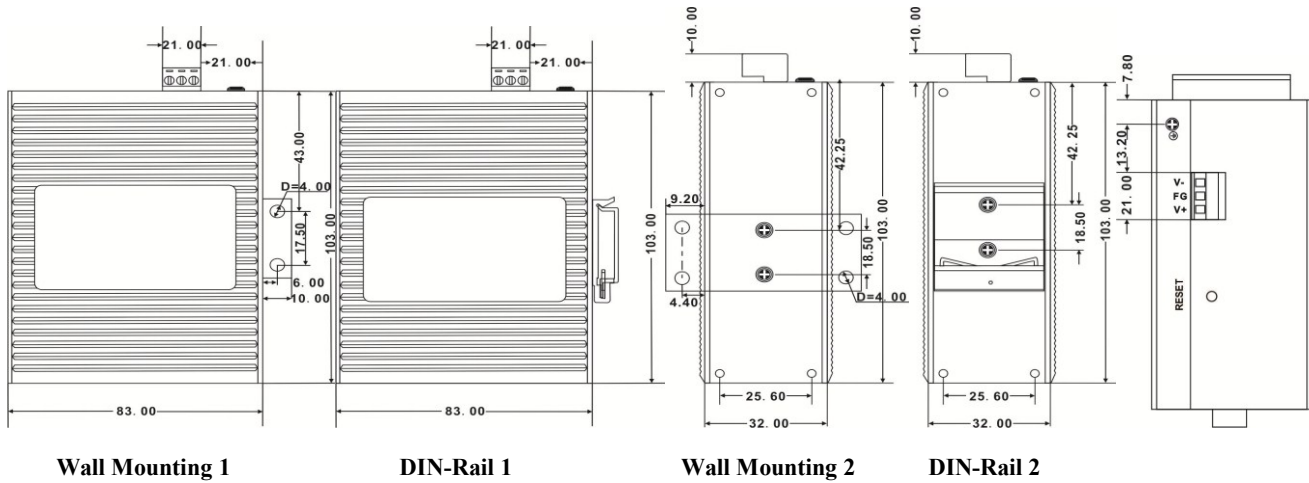
### Warranty

- Warranty: 5 years.

## Standards and Certifications

- IEC61000-4-2(ESD): Power:±8KV Contact, ±15KV Air, Data Cable ±6KV Contact, ±8KV Air
- IEC61000-4-3(RS): 10V/M(80-1000MHZ)
- IEC61000-4-4(EFT): Power ±2KV, Ethernet Data Cable ±2KV
- IEC61000-4-5(Surge): Power ±2KV CM/ ±1KV DM, Ethernet Data Cable±4KV 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
MG3012	MG3012 serial port gateway, 1*10/100Base-T(X) RJ45 port, 1-channel RS-485/422 serial port and 1-channel RS-232 serial port, -40°C~85°C.

## Package List

- MG3012 Serial Gateway (with industrial terminals, equipment for power supply and serial port connection)
- Product Manual
- Product Warranty