IGW1111/IGW1112-3IN1-DB

DIN-Rail Mounting

1/2 RS-232/485/422 + 2 100M Ethernet Ports Modbus Gateway

- Support 1/2 3IN1 DB9 serial port to 2 10/100Base-T(X) self-adaptive Ethernet interfaces

- Support conversion between Modbus RTU/ASCII and Modbus TCP protocol

- Support RTU Master, RTU Slave, ASCII Master, ASCII Slave and other operating modes

- Support virtual and real ID mapping to achieve flexible access between Master and Slave devices

- Support network modes such as redundant mode, switching mode and dual IP mode to meet the needs of various network environments

- Support 12~48VDC power supply input

- Support -40~75℃ wide operating temperature range

Introduction

IGW1111/IGW1112-3IN1-DB Modbus gateway are designed for integrating Modbus RTU/ASCII and Modbus TCP; they can achieve the conversion between Modbus RTU/ASCII and Modbus TCP protocol. This series provide 2 types of products and support 1/2 3IN1 DB9 serial ports and 2 100M Ethernet copper port. They adopt DIN-rail mounting to meet the requirements of different application scenes.

Modbus gateway supports multiple network protocols, such as Modbus, TCP, IP, UDP, TELNET, ARP, ICMP, HTTP, HTTPS, SNMP, SSH，SMTP, SNTP，DNS and DHCP protocols. It possesses complete management function, and supports access control, rapid configuration, online upgrading, etc. RTU Master, RTU Slave, ASCII Master, ASCII Slave and other operating modes are supported; it supports up to 256 TCP client (master) accesses and connects up to 128 TCP server (slave) devices. TELNET, WEB and other access modes are also supported. It can provide users with good experience with friendly design of network management system interface, simple and convenient operation.

RESET button can achieve restore factory defaults. Hardware adopts fanless, low power consumption, wide temperature and voltage design and has passed rigorous industrial standard tests, which can suit for the industrial scene environment with harsh requirements for EMC. It can be widely used in PLC control and management, Building Automation System, Health Care Automation System, measuring instrument and environmental forces monitoring system.
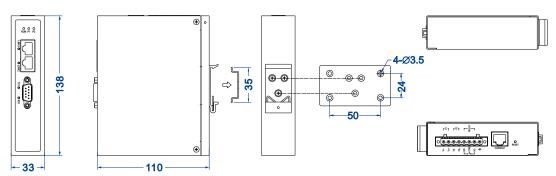
Features and Benefits

- Support 2 10/100Base-T(X) self-adaptive Ethernet interfaces and provide dual IP and MAC addresses to meet the requirements of multi-network management or network backups
- Support 110bps-115200bps line speed and non-blocking communication
- Support RTS/CTS, DTR/DSR and XON/XOFF flow control
- Support response timeout setting of characters
- Support RTU Master, RTU Slave, ASCII Master, ASCII Slave and other operating modes
- Support up to 256 TCP client (master) accesses and connect up to 128 TCP server (slave) devices
- Support virtual and real ID mapping to achieve flexible access between Master and Slave devices
- Support IP address and MAC address filtering, which can achieve accurate access control easily
- Support graded user management to implement humanized authority management
- Support serial port status and parameters monitoring, ensuring the communication status be easy to read

- ◉ Support multiple configuration forms like Windows configuration tool, TELNET, SSHD and WEB
- ◉ File management is convenient for the device rapid configuration and online upgrading
- ◉ SSHD and HTTPS can guarantee the access security of data
- ◉ Conduct network diagnosis and troubleshooting via Ping and Traceroute
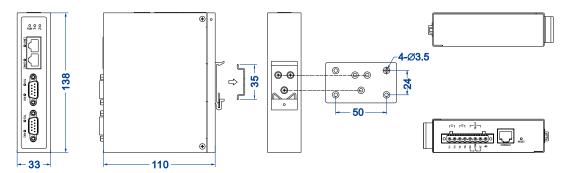- ◉ Support multiple alarm methods, including e-mail alarm, log alarm and SNMP Trap alarm

Dimension

Unit: mm

- ● IGW1111-1DI-(3IN1)-DB-2P(12~48VDC)

- ● IGW1112-2DI-(3IN1)-DB-2P(12~48VDC)

Specification

Ethernet	Standard: 10Base-T, 100Base-TX Protocol: Modbus TCP, TCP, IP, UDP, ARP, HTTP, TELNET, SNMP, ICMP, DHCP, DNS Rate: 10/100M Automatic Flow Control, MDI/MDI-X Autotunning Interface quantity: 2 Interface form: RJ45

	Duplex mode: Full/Half Duplex Mode Self-adaptive
Serial Port	Standard: EIA RS-232C, RS-485, RS-422 Protocol: Modbus RTU/ASCII Quantity of serial port: 1/2 3IN1 serial ports RS-232 signal: DSR, RTS, GND, TXD, RXD,CTS, DTR RS-485 signal: D+, D-, GND RS-422 signal: T+, T-, GND, R+, R- Baud rate: 110-115200bps Data bit: 7bit, 8bit Parity bit: None, Even, Odd, Space, Mark Stop bit: 1bit, 2bit Interface form: DB9 Flow control: RTS/CTS, DTR/DSR, XON/XOFF Directional control: RS-485 direction adopts Automatic Data Direction Control technology Pull high/low resistor for RS-485: 4.7kΩ Electromagnetic isolation strength: 3KVDC/2KVrms Operating mode: RTU Master, RTU Slave, ASCII Master and ASCII Slave Connection quantity: support up to 256 TCP client (master) accesses and connect up to 128 TCP sever (slave) devices
Configuration Method	WEB configuration management, TELNET configuration, Windows configuration tool, SSHD configuration
Security	User right classification, IP address filtering, MAC address filtering, SNMP/ Mail /System Log alarm, HTTP/HTTPS/SSHD/TELNET access control
Indicator	Power supply indicator, running indicator, Ethernet port indicator, serial port indicator
Power supply	12~48VDC, 8-pin 5.08mm pitch terminal blocks, power supply occupies 4 pins in the left Power supply nonpolarity, dual power supply redundancy
Power consumption	No-load: 1.8W@12VDC Full-load: 1.9W@12VDC
Working Environment	Operating temperature: -40~75℃ Storage temperature:-40~85℃ Relative humidity: 5%～95%（no condensation）
Physical Characteristic	Housing: IP40 protection, metal Installation: DIN-Rail mounting Dimension (W x H x D): 33mm×138mm×110mm

	Weight: 484g
Industrial Standard	IEC 61000-4-2 (ESD, electrostatic discharge), Level 3 • Air discharge: ±8kV • Contact discharge: ±6kV IEC 61000-4-4 (EFT, electrical fast transient pulses), Level 3 • Power supply: ±2kV • Signal: ±1kV IEC 61000-4-5 (Surge), Level 3 • Power supply: common mode±2kV, differential mode±1kV • Signal: common mode ±2kV, differential mode ±1kV Shock: IEC 60068-2-27 Free fall: IEC 60068-2-32 Vibration: IEC 60068-2-6
Authentication	CE, FCC, RoHS
Warranty	3 years

Ordering Information

Available Models	100M copper port	3IN1 (RS-232/485/422)	Power supply
IGW1111-1DI-(3IN1)-DB-2P(12~48VDC)	2	1	12~48VDC dual power supply
IGW1112-2DI-(3IN1)-DB-2P(12~48VDC)	2	2	