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Make network communication more reliable

IGW1111/IGW1112/IGW1114 Series Industrial Modbus Gateway Quick Installation Guide

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【Package Checklist】

Please check whether the package and accessories are intact while using the device for the first time.

1. Modbus Gateway
2. Straight-through cable
3. DIN-Rail mounting kit
4. Certificate
5. Warranty card

If any of these items are damaged or lost, please contact our company or dealers, we will solve it ASAP.

【Product Overview】

This series are managed DIN-Rail industrial Modbus gateways. The models are:

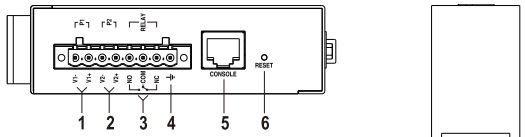
Model I. IGW1111-1DI(3IN1)-DB (2 100M copper ports + 1 3IN1 serial port + 2 12~48VDC power supplies)

Model II. IGW1112-2DI(3IN1)-DB (2 100M copper ports + 2 3IN1 serial ports + 2 12~48VDC power supplies)

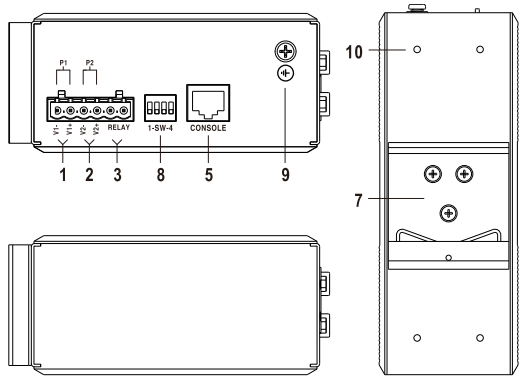
Model III. IGW1114-4DI(3IN1)-DB (2 100M copper ports + 4 3IN1 serial ports + 2 12~48VDC power supply)

【Panel Design】

➢ **Top view, bottom view and rear view**

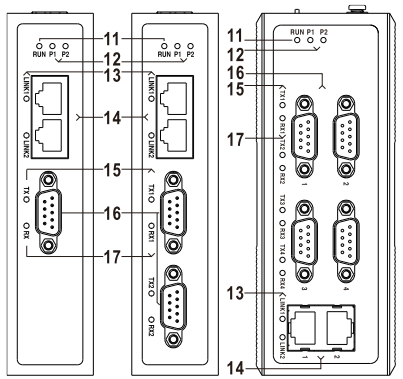


Model I, Model II



Model III

➢ **Front view**



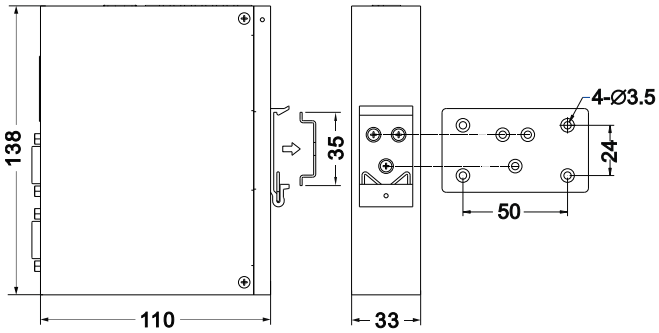
Model I Model II Model III

1. Power supply P1 input terminal blocks
2. Power supply P2 input terminal blocks
3. Terminal blocks for relay alarm output (Reserved)
4. Shell Ground terminal blocks
5. CONSOLE port
6. Restore default settings(RESET)
7. DIN-Rail mounting kit
8. DIP switch
9. Grounding screw
10. Wall-mounting location hole
11. Running indicator (RUN)
12. Power supply indicator (P1-P2)
13. Ethernet port indicator (LINK1-LINK2)
14. 10/100Base-T(X) 100M Ethernet port (LINK1-LINK2)
15. Serial port transmission data indicator (TX1-TX4)
16. RS-232/485/422 3IN1 serial port (1-4)
17. Serial port data receiving indicator: (RX1-RX4)

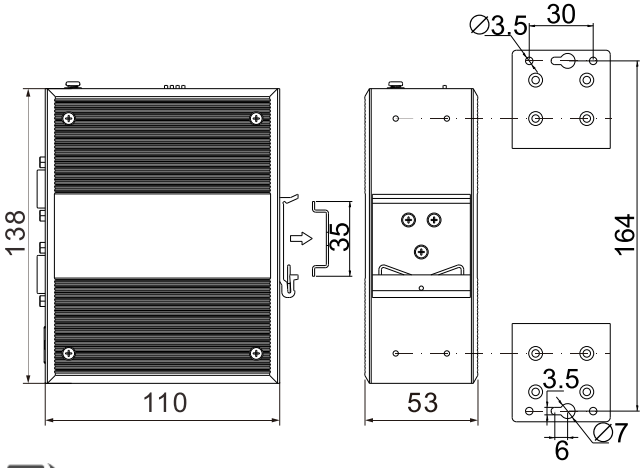
【Dimension】

Unit (mm)

➢ **Model I, Model II**



➢ **Model III**



Note:

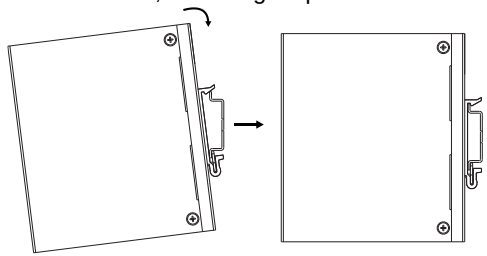
The mounting panel on the right of the dimension drawing is an optional accessory, not a standard one.

Notice Before Mounting:

- Don't place or install the device in area near water or moist, keep the relative humidity of the device surrounding between 5%~95% without condensation.
- Before power on, first confirm the supported power supply specification to avoid over-voltage damaging the device.
- The device surface temperature is high after running; please don't directly contact to avoid scalding.

【DIN-Rail Mounting】

Adopt 35mm standard DIN-Rail mounting which is suitable for most industrial scenes, mounting steps as follows:



Step 1 Check whether the DIN-Rail mounting kit that comes with the device is installed firmly.

Step 2 Insert the bottom of DIN-Rail mounting kit (one side with spring support) into DIN-Rail, then insert the top into DIN-Rail.

Tips:

Insert a little to the bottom, lift upward and then insert to the top.

Step 3 Check and confirm the product is firmly installed on DIN-Rail, then mounting ends.

【Disassembling DIN-Rail】

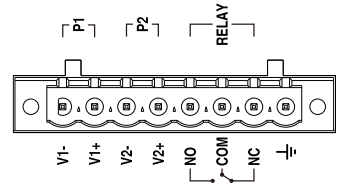
Step 1 Power off device.

Step 2 After lifting the device upward slightly, first shift out the top of DIN-Rail mounting kit, and then shift out the bottom of DIN-Rail, disassembling ends.

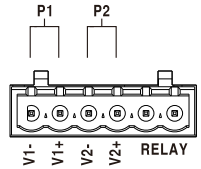
Notice before power on:

- Power ON operation: First insert the power supply terminal blocks into the device power supply interface, then plug the power supply plug contact and power on.
- Power OFF operation: First, remove the power plug, then remove the wiring section of terminal blocks. Please pay attention to the above operation sequence.

【Power Supply Connection】



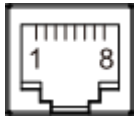
Model I, Model II, Model IV, Model V



Model III, Model VI

Provide 6 or 8-pin 5.08 pitch terminal blocks, power supply occupies 4 pins in the left. It supports two independent DC power supply systems, P1 and P2, which supports nonpolarity function, that the device can work normally after reverse connection. Voltage range: 12~48VDC. Relay is reserved and not enabled.

【Console Port Connection】



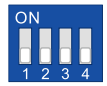
Provide 1 program debugging port based on serial port. The interface adopts RJ45 port which can conduct device CLI command management after connecting to PC.

Pin No.	2	3	5
Pin Definition	TXD	RXD	GND

【Reset Button Setting】

The Model I and Model II of this series provide 1 reset button, press the button for 4-5S then release it to restore factory defaults.

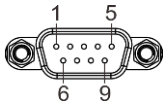
【DIP Switch Settings】



The model III provide 4-bits DIP switch for function setting, where "ON" is enable valid terminal. The definitions of DIP switch are as follows:

DIP	Definition	Operation
1	Reserved	—
2	Restore Factory Settings	Set the switch to ON and power on again, then set it back.
3	Reserved	—
4	Reserved	—

【Serial Port Connection】



Provide 3IN1 serial port, which supports RS-232, RS-485 or RS-422 (optional). The interface type is DB9 male and its pin definitions are as follows:

PIN	RS-232	RS-422	RS-485
1	DCD	T-	—
2	RXD	T+	—
3	TXD	R+	D+
4	DTR	R-	D-
5	GND	GND	GND
6	DSR	—	—
7	RTS	—	—
8	CTS	—	—
9	—	—	—

【Checking LED Indicator】

The LED indicators on the front panel of this series device monitor the device working status, which has simplified the overall troubleshooting process. The function of each LED is described in the table as below:

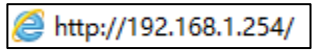
LED	Indicate	Description
P1-P2	ON	PWR is connected and running normally
	OFF	PWR is disconnected or running abnormally
RUN	Blinking	The system is running normally
	OFF	The system is not running or running abnormally
	ON	The system is running abnormally
LINK (1-2)	ON	LAN port has established valid network connection
	Blinking	LAN port is in an active network status
	OFF	LAN port hasn't established valid network connection
TX (1-4)	OFF	Serial port is not transmitting data or transmitting data abnormally
	Blinking	Serial port is transmitting data.
RX (1-4)	OFF	Serial port is not receiving data or receiving data abnormally
	Blinking	Serial port is receiving data.

【Logging in to WEB Interface】

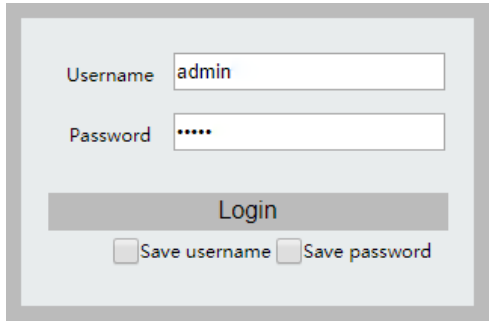
Support WEB management and configuration. Computer can access the device LAN1 via Ethernet interface. The way of logging in to device's configuration interface via IE browser is shown as below:

Step 1 Configure the IP addresses of computer and the device to the same network segment, and the network between them can be mutually accessed

Step 2 Enter device's IP address in the address bar of the computer browser.



Step 3 Enter device's username and password in the login window as shown below.



Step 4 Click "Login" button to login to the WEB interface of the device.

Note:

- In the Dual IP mode, the default IP address of LAN1 is "192.168.1.254", the default IP address of LAN2 is "192.168.8.254".
- The default user name and password of the device are "admin".
- If the username or password is lost, user can restore it to factory settings via device DIP switch or management software; all modified configurations will be cleared after restoring to factory settings, so please backup configuration file in advance.
- Please refer to user manual for specific configuration method of logging in to WEB interface and other configurations about network management function.

【Specification】

Panel	
100M copper port	10/100Base-T(X) self-adapting RJ45 port
RS-232/485/422 3IN1 serial port	DB9M interface
Console port	CLI command management port (RS-232), RJ45
Indicator	Power indicator, Running status indicator, Network Link/Act indicator, Serial port transmission/receiving state indicator
Power Supply	
Input power supply	12~48VDC, dual power supply redundancy, support non-polarity
Access terminal blocks	6-pin or 8-pin 5.08mm pitch terminal blocks, power supply occupies 4 pins in the left
Power Consumption	
Model I	No-load: 1.3W@12VDC (high temperature) Full-load: 1.6W@12VDC (high temperature)

Model II	No-load: 1.7W@12VDC (high temperature) Full-load: 2.0W@12VDC (high temperature)
Model III	No-load: 1.9W@12VDC (high temperature) Full-load: 2.4W@12VDC (high temperature)
Working Environment	
Working temperature	-40~75℃
Storage temperature	-40~85℃
Working humidity	5%～95%(no condensation)
Protection grade	IP40 (metal shell)

【Disposal of Waste Electrical and Electronic Equipment (WEEE 2012/19/EU)】

(Applicable in the EU-member states)



The crossed-out wheeled bin symbol on the equipment or its packaging indicates that the product, at the end of its service life, shall not be mixed with unsorted municipal waste but should be collected separately, in accordance with local laws and regulations.

A proper separate collection of end-of-life equipment for the subsequent recycling, treatment and environmentally compatible disposal, will help prevent potential damage to the environment and human health, facilitating the reuse, recycling and/or recovery of its component materials.

Private users should contact their vendor or municipal waste management service and ask for disposal information.

Professional users should contact their suppliers and check the terms of their selling agreement.

This product must not be disposed of with other commercial waste.

Users' cooperation in the correct disposal of this product will contribute to saving valuable resources and protecting the environment.