3onedata
Make network communication more reliable

GW1108 Series
Modbus Gateway
Quick Installation Guide

Industrial Ethernet Switch
Device Networking Product
Embedded Module
Industrial Wireless Product
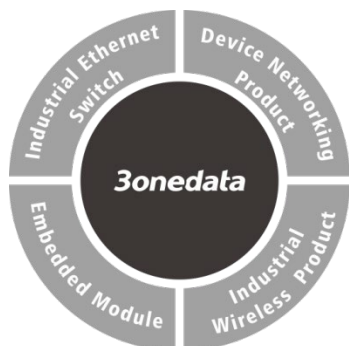
3onedata

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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 × 1	2	Quick installation guide
3	CD	4	Lugs
5.	Power adapter	6	Certification
7	Warranty card		

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

【Product Overview】

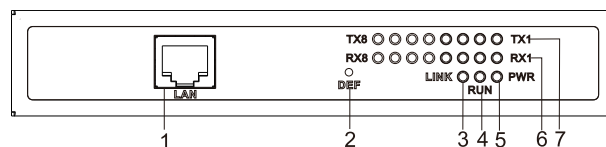The series products are MODBUS gateway devices. Models are as follows:

Model I   GW1108-8D(RS-232) (8 RS-232 serial ports + 1 100M copper port)

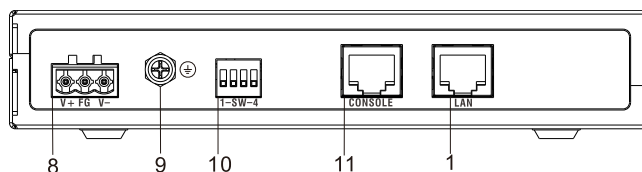Model II   GW1108-8D(3IN1) (8 RS-485/422/232 serial ports + 1 100M copper port)

Model III   GW1108-8DI(RS-485) (8 RS-485/422 serial ports with isolation + 1 100M copper port)
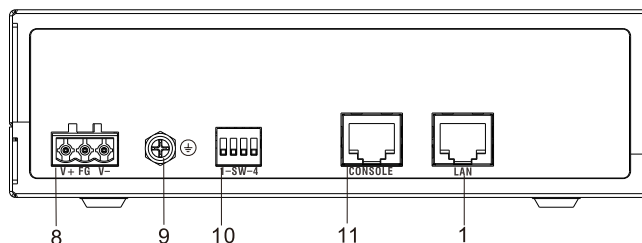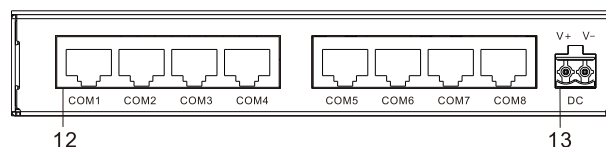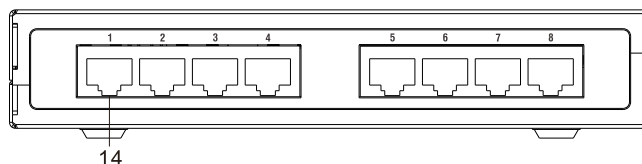
【Panel Design】

➢ **Front View**

TX8 ○○○○○○○○ TX1
RX8 ○○○○○○○○ RX1
DEF ○ LINK ○○○ PWR   RUN
LAN

1   2   3 4 5   6 7

Model I

V+ FG V–   ⊕   1–SW–4   CONSOLE   LAN

8   9   10   11   1

Model II

V+ FG V–   ⊕   1–SW–4   CONSOLE   LAN

8   9   10   11   1

Model III

➢ **Rear View**

COM1 COM2 COM3 COM4   COM5 COM6 COM7 COM8   V+ V–   DC

12   13

Model I

1   2   3   4   5   6   7   8

14

Model II

5   6   7   8
1   2   3   4

15

Model III

➢ **Top view**

LAN2   LAN1   CONSOLE   4–SW–1   V– FG V+

TX RX
7 ─ PWR   ○ ○ PORT1
6 ─ RUN   ○ ○ PORT2
           ○ ○ PORT3
5 ─ LINK   ○ ○ PORT4
           ○ ○ PORT5
           ○ ○ PORT6
           ○ ○ PORT7
3 ─   ○ ○ PORT8
4 ─

PORT1 PORT2 PORT3 PORT4   PORT5 PORT6 PORT7 PORT8

Model II

LAN2   LAN1   CONSOLE   4–SW–1   V– FG V+

TX RX
7 ─ PWR   ○ ○ PORT1
6 ─ RUN   ○ ○ PORT2
           ○ ○ PORT3
5 ─ LINK   ○ ○ PORT4
           ○ ○ PORT5
           ○ ○ PORT6
           ○ ○ PORT7
3 ─   ○ ○ PORT8
4 ─

PORT5   PORT6   PORT7   PORT8
PORT1   PORT2   PORT3   PORT4

Model III

➢ **Bottom View**
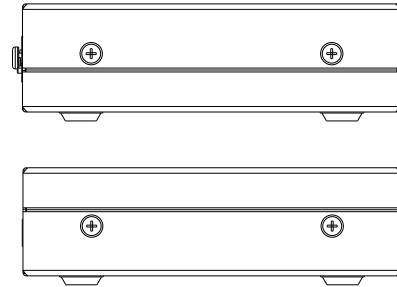
Model I
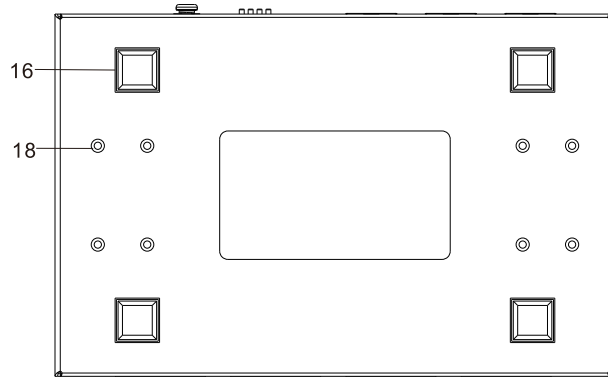
Model II   Model III

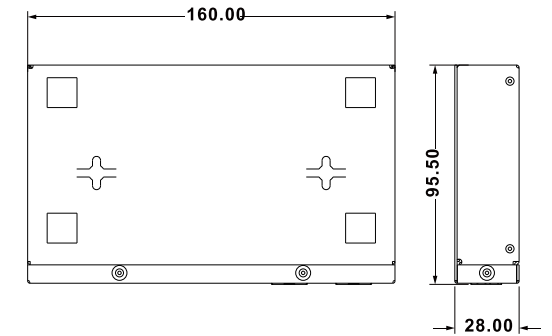> **Left view, right view**

18

18

Model I

160.00

95.50

28.00
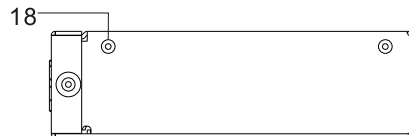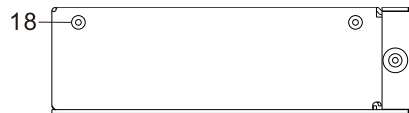
1. 10/100Base-T(X) Ethernet port
2. Restoring factory setting button
3. Copper port connection indicator
4. Running status indicator
5. Power indicator
6. Serial port receiving data indicators
7. Serial port transmission data indicators
8. Terminal block 1 for power input
9. Grounding screw
10. DIP switch
11. Console Port
12. RS-232 serial port
13. Terminal block 2 for power input
14. RS-485/422/232 serial port
15. RS-485/422 serial port
16. Foot pad
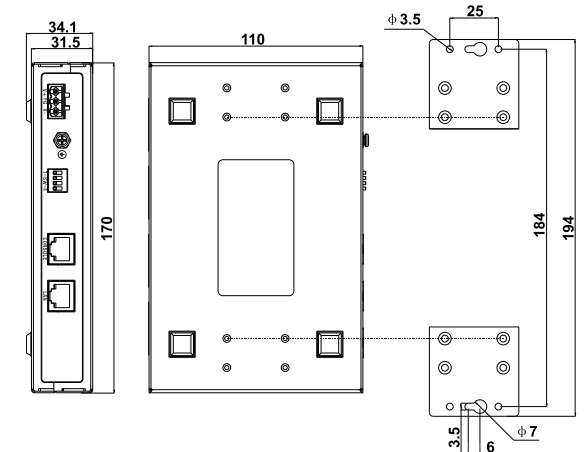17. Mounting
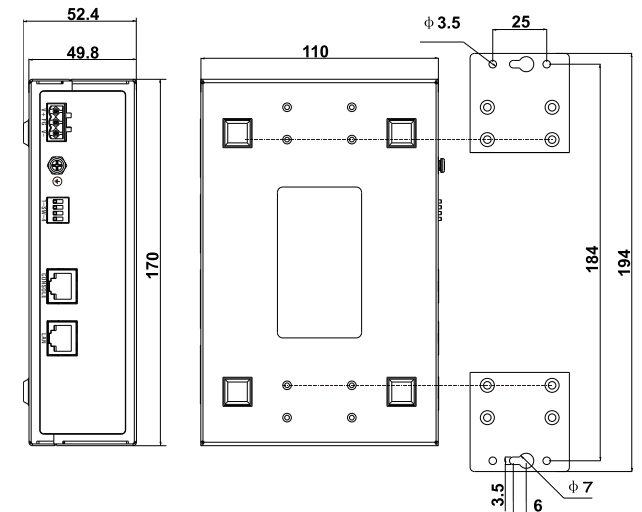18. Wall-mounting location hole

【Mounting Dimension】

Unit: mm

> **Model I**

> **Model II**

34.1
31.5
110
φ3.5
25
170
184
194
3.5
6
φ7

> **Model III**

52.4
49.8
110
φ3.5
25
170
184
194
3.5
6
φ7

 Note 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.
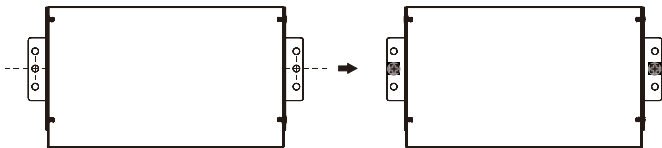
【Wall-mounted Device Mounting】

➢ **Model I**

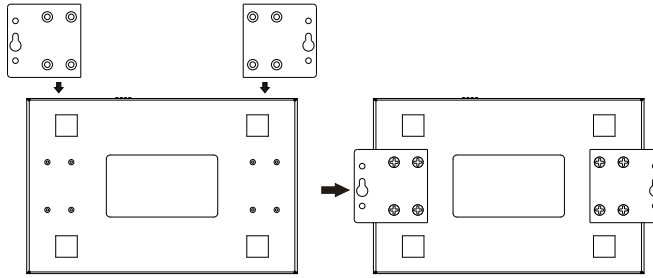Step 1 Adopt M3 screw to install the left/right mounting board on the device backboard.
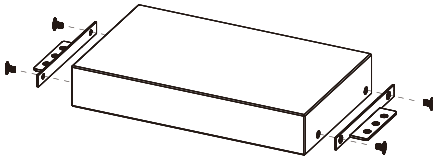
Step 2 Place the device on the wall as reference or reference installation dimension; mark 2 bolt positions on the wall.

Step 3 Attach the equipment to the marked wall and tighten it with M4 screws to the marked position. Mounting ends.

➢ **Model II   Model III**

Step 1 Adopt M3 screw to install the left/right mounting board on the device backboard.

Step 2 Place the device on the wall as reference or reference installation dimension; mark 2 bolt positions on the wall.

Step 3 Nail M4 screws on the wall and keep 2mm interspace reserved.

Step 4 Hang the device on two screws and slide downward, then tighten the screw to enhance stability, mounting ends.
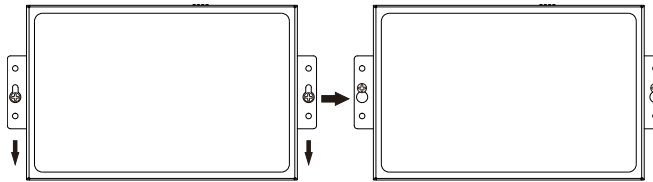
【Wall-mounted Device Disassembling】

Step 1 Device power off.

Step 2 Unscrew the screw on the wall about 2mm.

Step 3 Lift the device upward slightly; take out the device, disassembling ends.

 Note before powering on:

- Power ON operation: First insert the power supply terminal block into the device power supply interface, and then plug the power supply plug contact and power on.
- Power OFF operation: first unpin the power plug, then remove the power line, please note the operation order above.
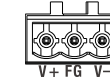
【Power Supply Connection】

➢ **9~48VDC power supply**
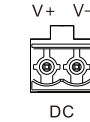
 Model I of this series provides 2-pin 5.08mm pitch terminal block, power supply range: 9~48VDC.

➢ **12~48VDC power supply**

 The model II and model III of this series provide 3-Pin 5.08mm pitch terminal blocks, in which V+ and V- are DC input, FG is the power grounding input; The power supply supports non-polarity, power supply range: 12~48VDC.

【DIP Switch Settings】

 The model II and model III of this series provide 4-bits DIP switch for function setting, where "ON" is enable valid terminal. The device needs to be powered on again to change the status of DIP switch.

DIP switches definition as follows:

DIP	Definition	Operation
1	Reserved	-
2	Restore factory defaults	Set the DIP switch to ON, power on the device again, it will restore to factory settings, then turn off the DIP switch.
3	Reserved	-
4	Reserved	-

【Serial Port Connection】

➢ **RS-232 Interface**
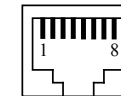
 The model I of this series provides RS-232 port, adopts RJ45 connector. The PIN definition as follows.

PIN	1	2	3	4	5.	6	7	8
RS-232	TXD	RXD	RTS	CTS	DSR	GND	DTR	DCD

➢ **3IN1 Interface**

 The model II of this series provides 3IN1 serial port, which supports RS232, RS485 and RS422

at the same time. The interface type is RJ45 and its pin definitions are as follows:
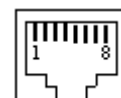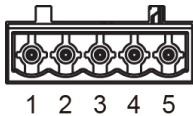
PIN	1	2	3	4	5.	6	7	8
RS-232	DSR	RTS	GND	TXD	RXD	DCD	CTS	DTR
RS-485	—	—	GND	—	—	D-	—	D+
RS-422	—	R-	GND	R+	—	T-	—	T+

➢ **RS-485/ 422 interface**

The model III of this series provides 5-Pin 5.08mm pitch terminal blocks. The serial port is isolated and its pin definitions are as follows:

1 2 3 4 5

PIN	1	2	3	4	5.
RS-485	D+	D-	GND	—	—
RS-422	T+	T-	GND	R+	R-

【Checking LED Indicator】

The device provides LED indicators to monitor the device working status with a comprehensive simplified troubleshooting; the function of each LED is described in the table as below:

LED	Indicate	Description
PWR	ON	PWR is connected and running normally
	OFF	PWR is disconnected and running abnormally
RUN	Blinking	System runs normally
	OFF	The system is not running or running abnormally
	ON	System is running abnormally
LINK	ON	Copper port has established an active network connection.
	Blinking	Copper port is in a network activity state.
	OFF	Copper port has not established an active network connection.

LED	Indicate	Description
TX(1-8)	OFF	No data or abnormal data is being transmitted through serial port.
	Blinking	Serial port is transmitting data.
RX(1-8)	OFF	Serial port is not receiving data or receiving data abnormally
	Blinking	Serial port is receiving data.

【Logging in to WEB Interface】

This device supports WEB management and configuration. Computer can access the device 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.

http://192.168.1.254/

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

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

Notes:

- The default IP address of the device Internet access is "192.168.1.254".
- 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
Serial Port	3IN1 RJ45 interface, RS-485/422 terminal blocks with isolation or RS-232 RJ45 interface
Indicator	Power indicator, Running indicator, Copper port connection indicator, Serial port transmission and receiving data indicator
Power supply	
Input power supply	9~48VDC or 12~48VDC
Access terminal block	2-Pin or 3-pin 5.08mm pitch terminal blocks
Power consumption	
No-load	3.16W@12VDC
Full-load	3.90W@12VDC
Working environment	

Model I, Model II	Operating temperature: -40~75℃
	Storage temperature:-40~85℃
Model III	Operating temperature: -40~70℃
	Storage temperature:-40~70℃
Working humidity	5%～95% (no condensation)
Protection grade	IP30(metal)