catalogue

1. Hardware physical picture

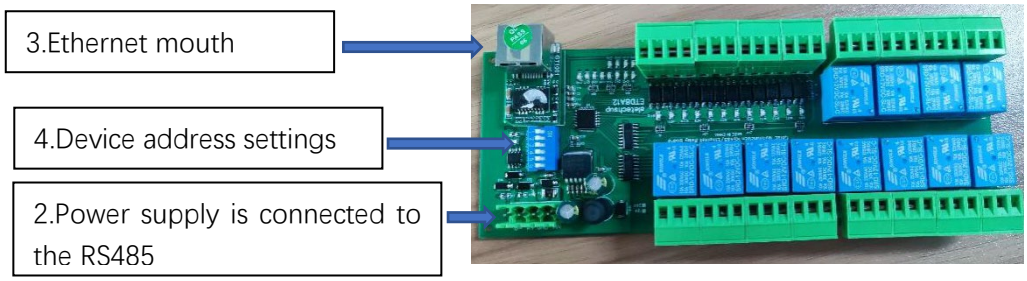

Figure 1. Physical diagram of the equipment

2. Power supply connection to RS485 (bottom left corner)

(1) Hardware description

a) The VIN is the power supply positive electrode
b) GND is the negative electrode
c) A + for RS485DATA +
d) B-for RS485DATA-

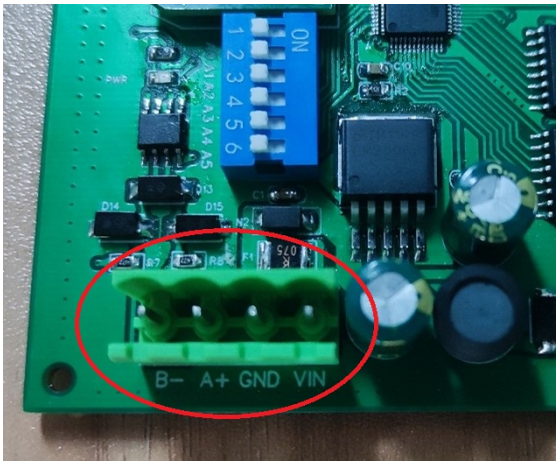

Figure 2. Interface of the power supply and RS485

(2) Correct power connection: the power indicator is on

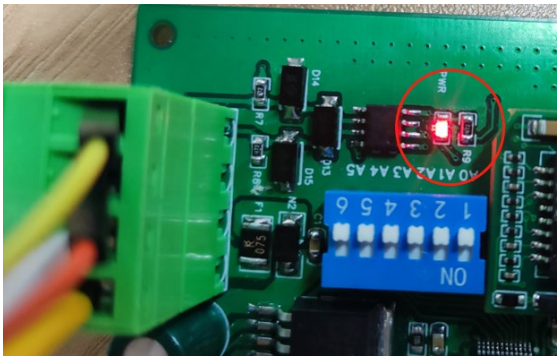

Figure 3. Power supply indicator lamp

3. Ethernet Port Connection (top left)

Figure 4: The Ethernet port

(1) Direct connection of equipment

a) Connect the device directly to the service side (for example, the computer)

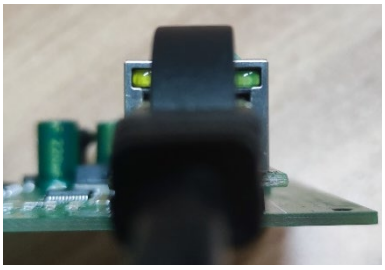

Figure 5. Device Ethernet port 1

Figure 6 Computer Ethernet port 1

b) Correct connection: Device Ethernet port is lit

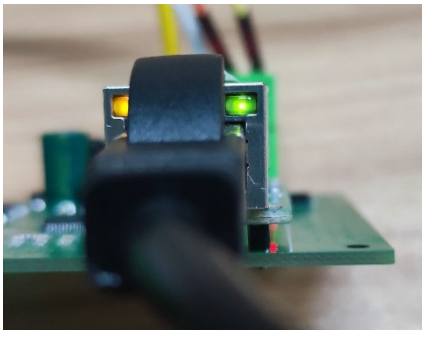

Figure 7 Ethernet port indicator lamp

(2) Router

a) Before connecting the device Ethernet port to the router LAN port, it should be set to the same network section as the router (refer to item 5)

b) The device Ethernet port is connected to the router LAN port

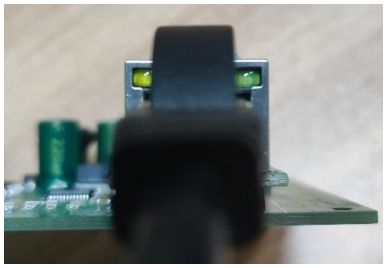

Figure 8 Device Ethernet port

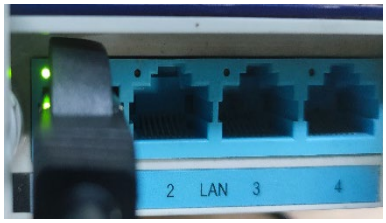

Figure. 9 Access Router LAN Port

c) Correct connection: Device Ethernet port is lit

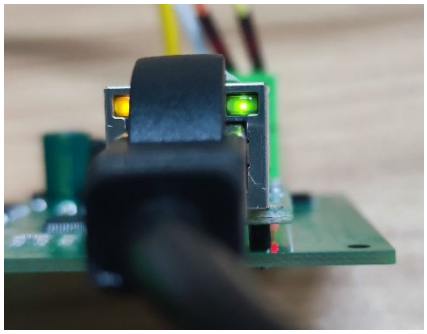

Figure 10 Device Ethernet port lit

d) Connect with the router completed

(3) switchboard

a) Device Ethernet port connects to the switch first (find any port access on the switch port)

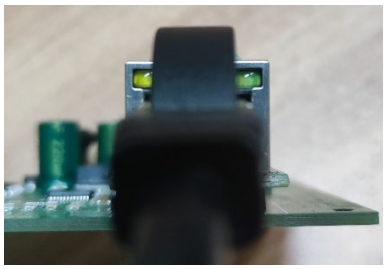

Figure 11 Equipment Ethernet port

Figure 12. Switch connection to the equipment

b) The switch connects to the service side (for example, the computer)

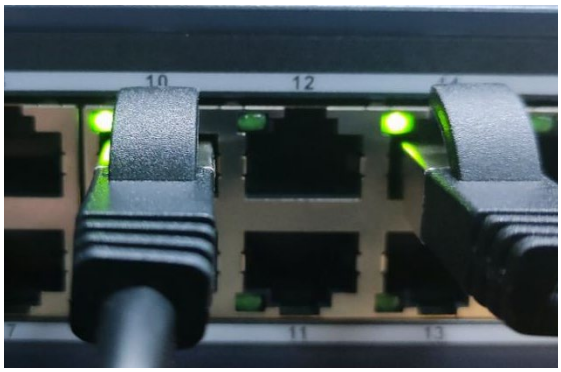

Figure 13 Switch and service end

Figure 14 Switch and service end connection

c) The device is connected

4. Device address setting (middle left)

a) No dial switch to see item 9

b) Convert to decimal device address by binary according to the location of the dial switch (refer to item 9)

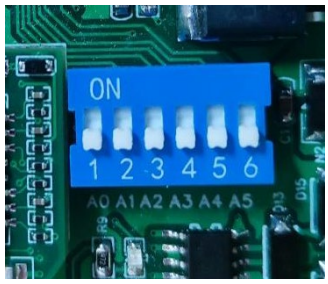

Figure 15 Equipment code dialing switch

c) Near the value is 0 and the number 1 is the binary lowest bit

5. Configure the modbus network port

(1) Connect to the web configuration page

a) Click Start or press the win key on the keyboard to open the control panel

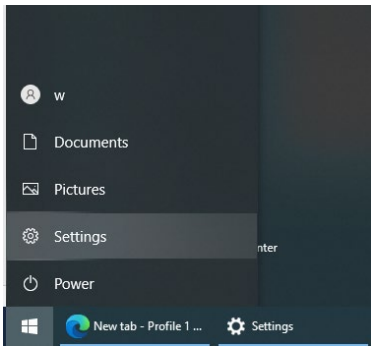

Figure 16 Start menu

b) Open the network configuration

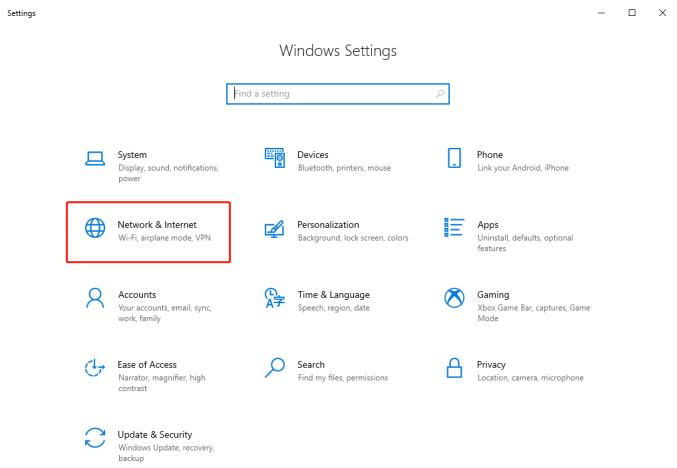

Figure 17, the control panel

c) Scroll to the bottom and click on the Change Adapter

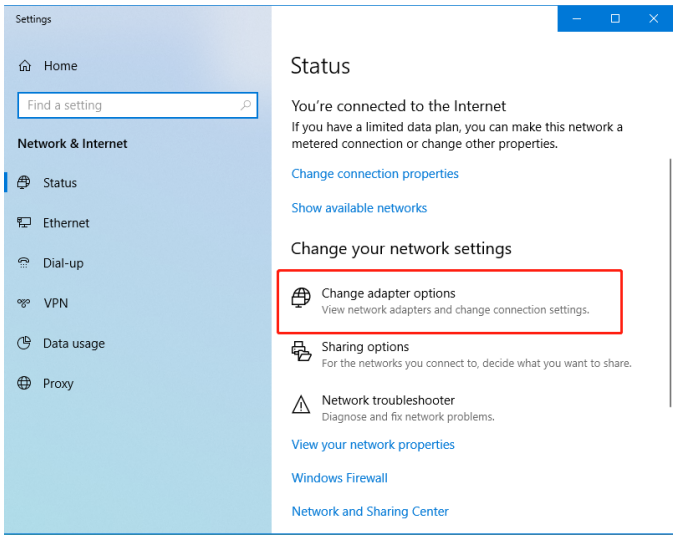

Figure 18 Network and Internet

d) Double-click on the Ethernet icon (select WLAN if it is a router connection)

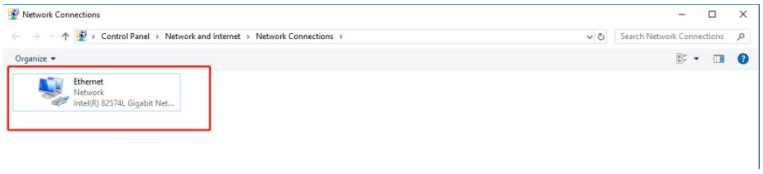

Figure 19 Network connection

e) Click on the property

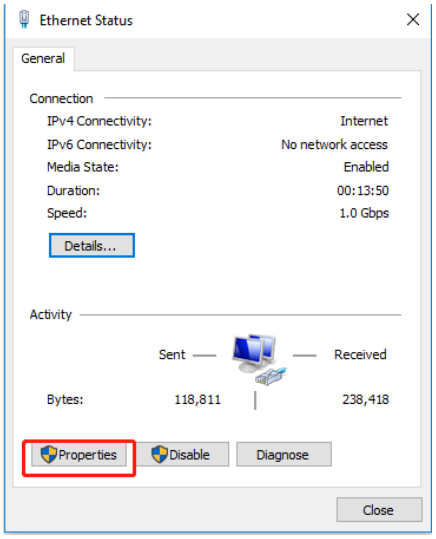

Figure 20. Ethernet status

f) double click IPv4

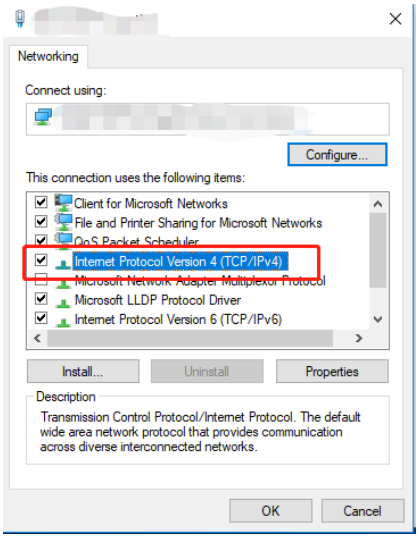

Figure 21 Ethernet properties

g) Modify to be the same network segment as the tcp

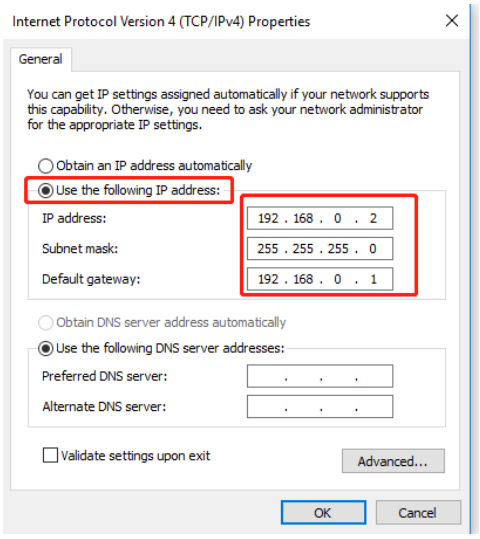

Figure 22 TCP / IPV4

h) The Computer Ethernet port is fully configured

6. Configure the tcp network port parameters

(1) Enter the ip address of the tcp (the ip default i p is 192.168.0.10) in the web browser

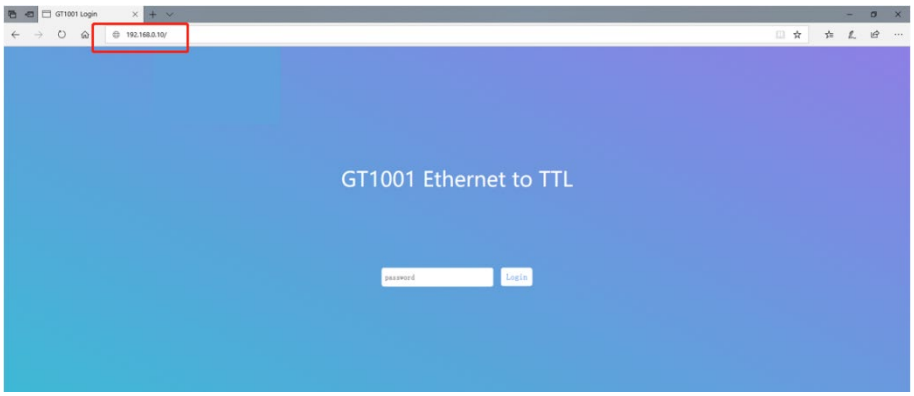

Figure 23 Go to the tcp configuration

(2) Go to the tcp configuration page with the default password: admin

Figure 24 tcp background password input

(3) Click on the left-hand side of the LAN

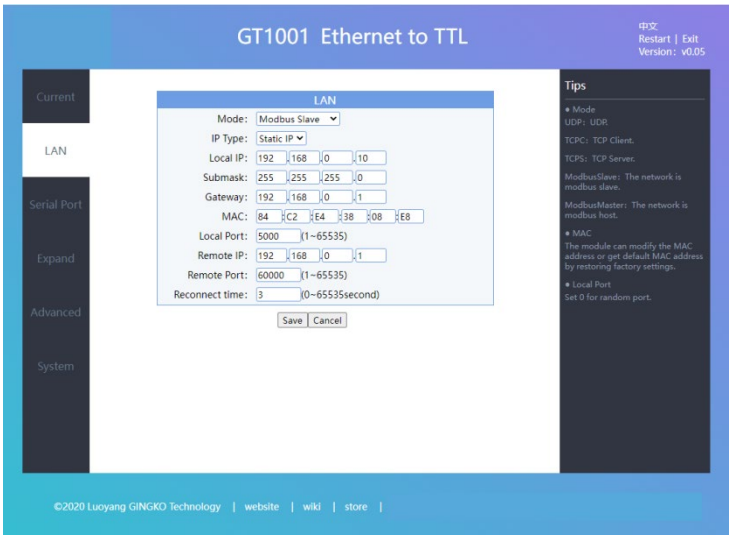

Figure 25 The TCP background enters the LAN interface

(4) Change Mode: to Modbus Slave, ip Type: to Static IP, Local IP is modified as required, and Gateway to coincide with the Ethernet port configuration

Figure 26. TCP background LAN port configuration

(5) Configure serial port information with a default Baud rate of 9600

Figure 27 The TCP background Serial Port configuration

7. Modbus Poll Control

(1) Configure the modbus poll

a) Open the Modbus Poll

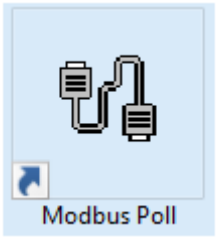

Figure 28. The Modbus Poll icon

b) Click on Setup and select the first option Read / Weite Definition...

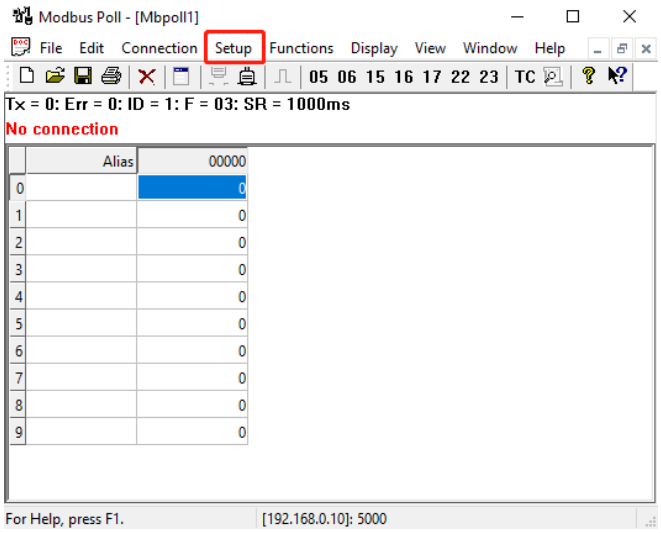

Figure 29 modbus settings

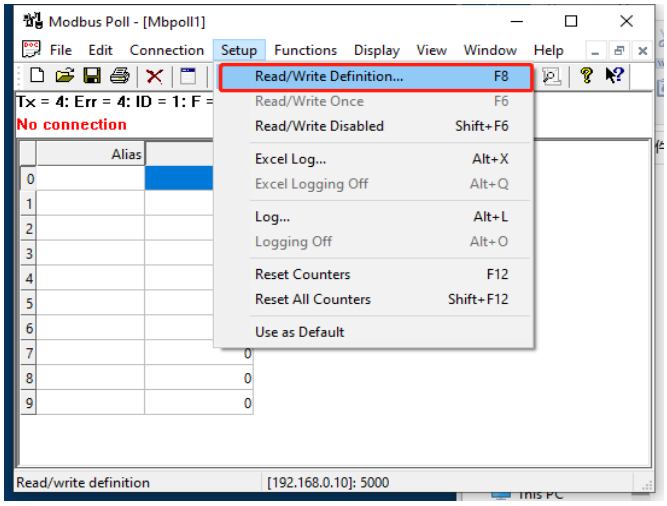

Figure 30 modbus settings

c) Change S l a v e and the I D to the modbus device address (unknown: see item 9)

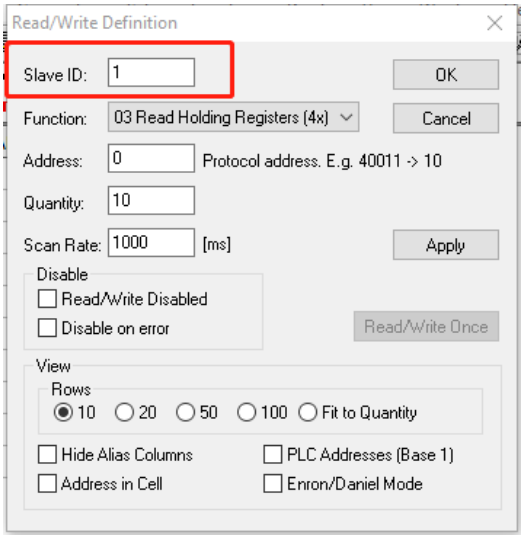

Figure 31 Device ID Settings

d) Modify the Function: Up to 03 Read Holdding Registers (4x)

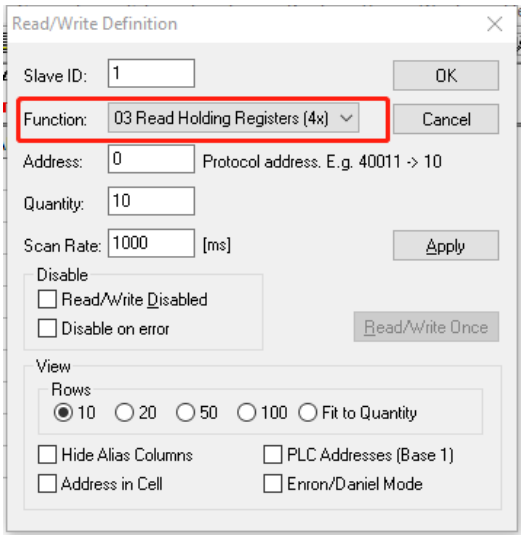

Figure 32 sets up the read-hold register

e) The Addres was modified to 0, and the Quantity corresponds to the number of relays

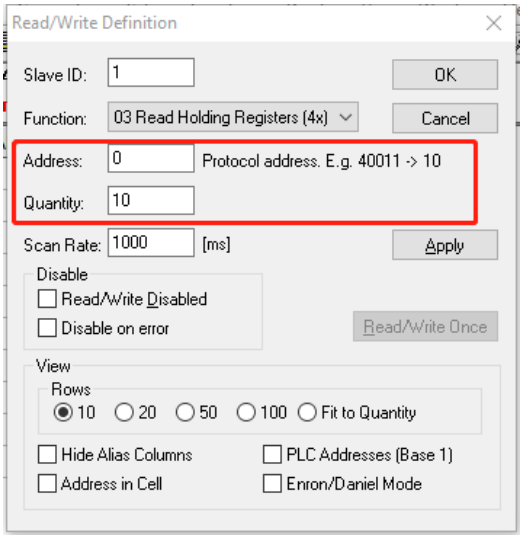

Figure 33 sets the register address and number of registers

f) click ok

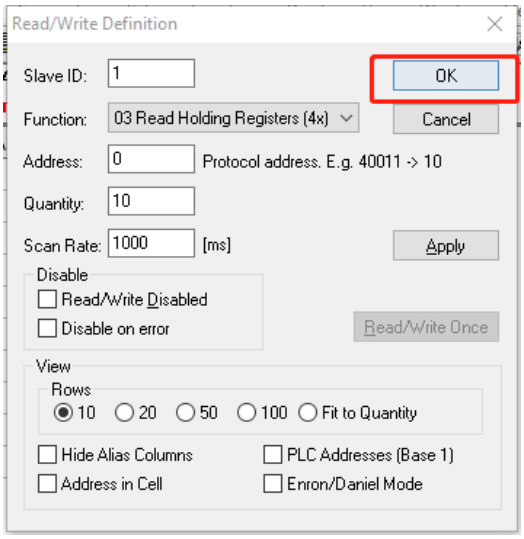

Figure 34, to confirm the operation

g) The Modbus initialization configuration is completed

(2) Connect to the TCP communication

a) Click Connection and then Connect

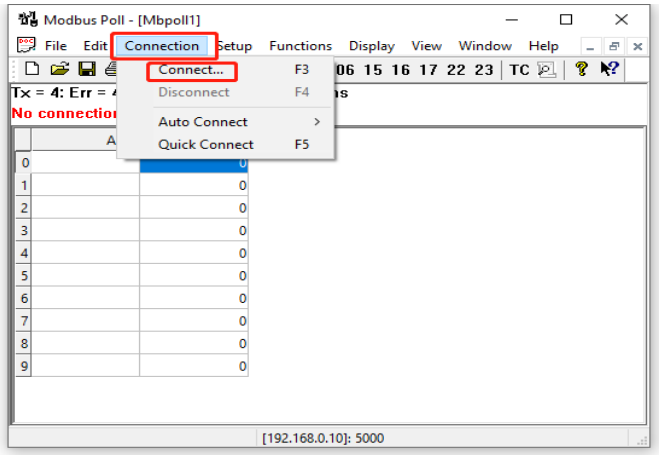

Figure 35 Setup the connection to the TCP cilent

b) Change the Connection to a Modbus TCP / IP

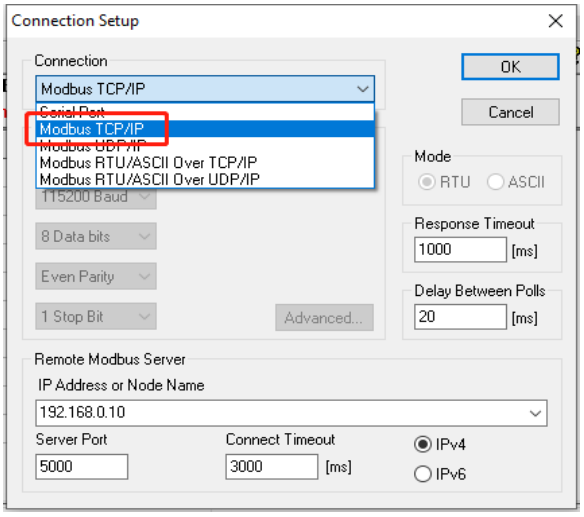

Figure 36 connection mode Select Modbus TCP/IP

c) Fill in the IP of the TCP device (the default ip is 192.168.0.10, and the Server Port is 5000)

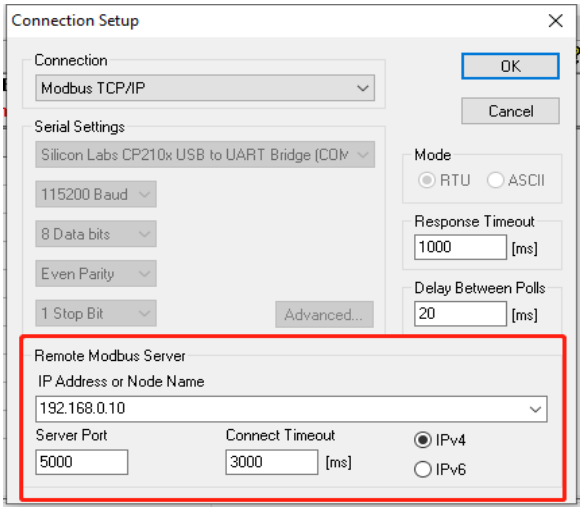

Figure 37 Setup the device IP address and the remote portr

d) Click OK

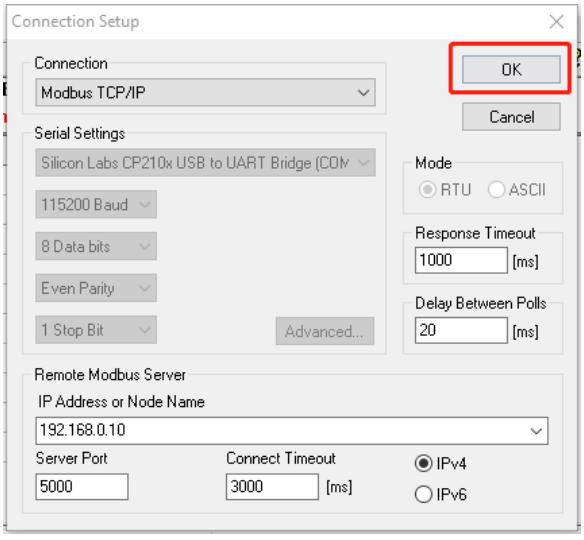

Figure 38, confirm the connection

e) Successful communication (with no red font)

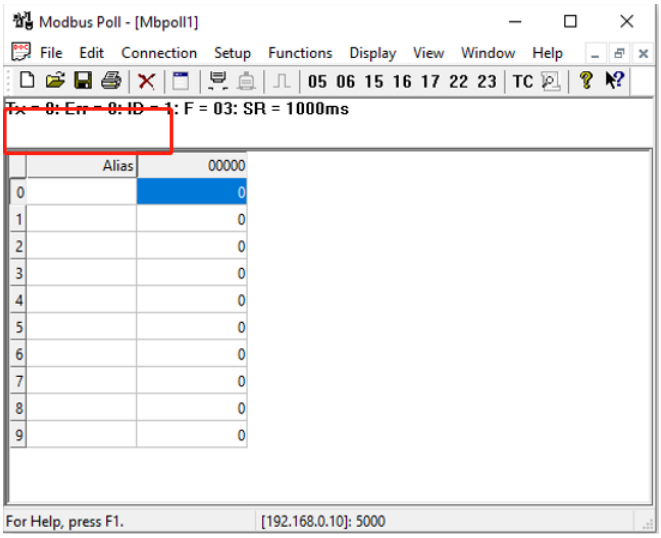

Figure 39. Confirm the equipment connection status

(3) Issue instructions

a) Click any box

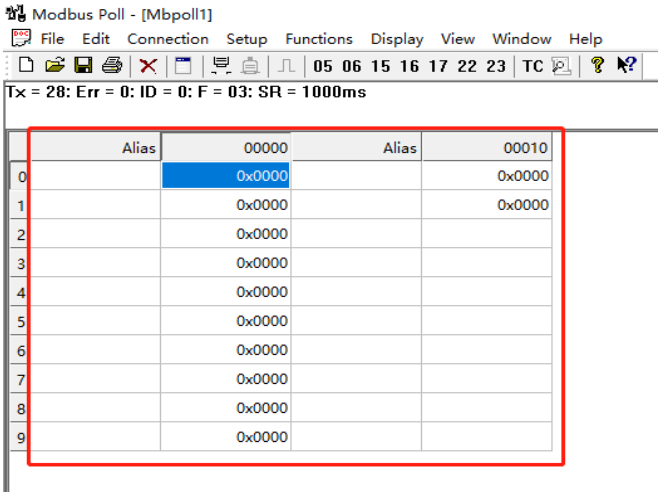

Figure 40 Modifies the display numerical format

b) CTRL+A check all

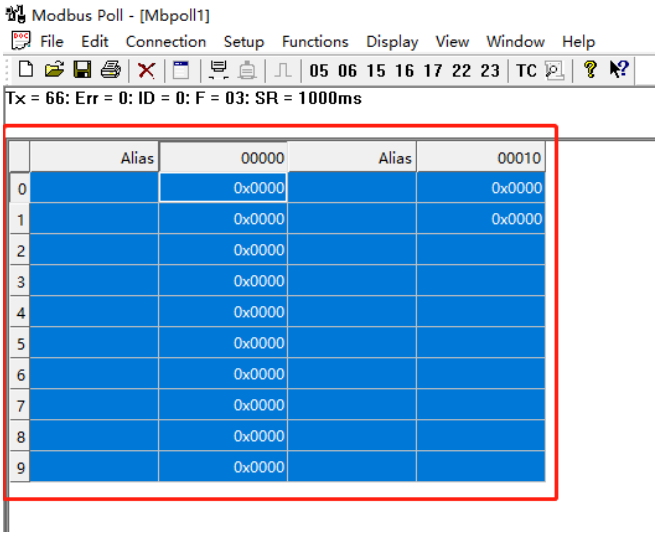

Figure 41 Modification of the display numberical format

c) Click on the toolbar Display and select Hex

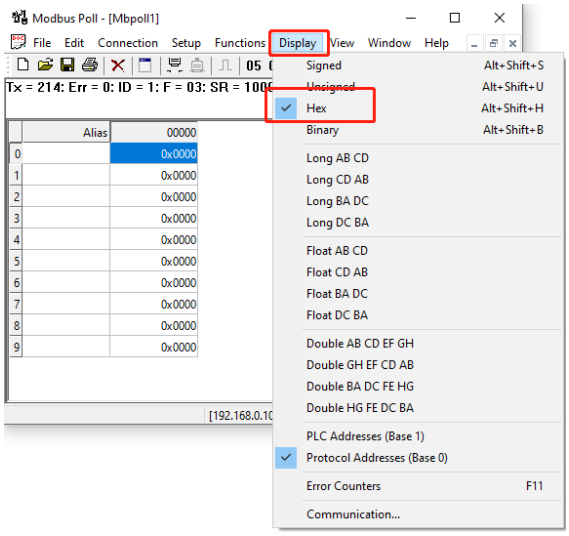

Figure 42 modification shows the numerical format of HEX

d) Double-click any register to pop up the write operation window

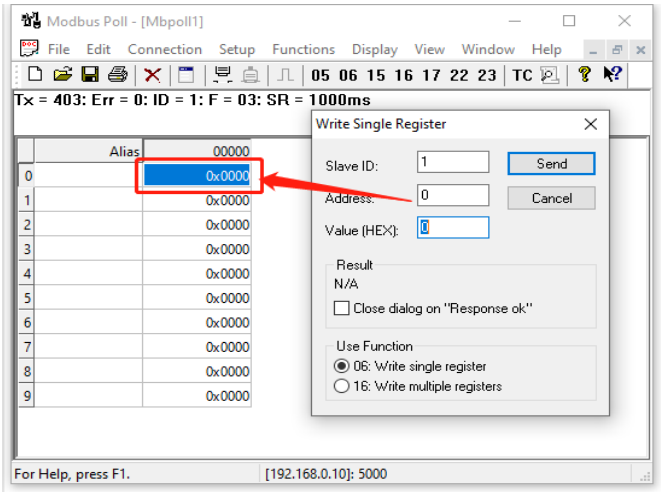

Figure 43 Operating the modbus register

e) Change the Value (HEX) to 0100 to open the first relay

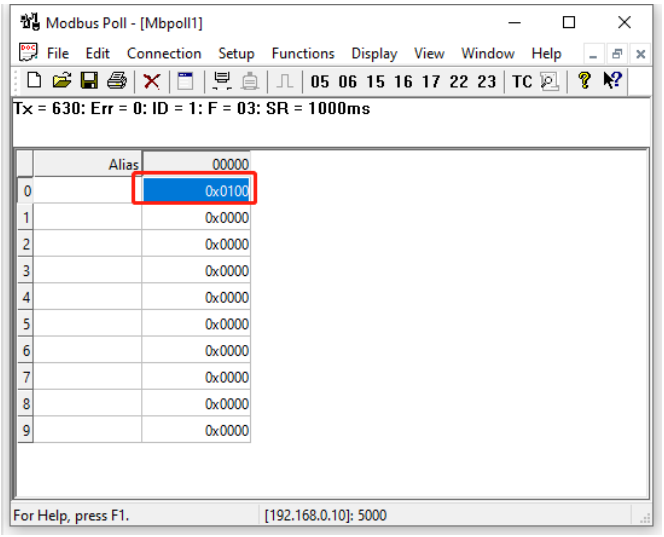

Figure 44 Issue 0X0100 to the 0th bit register

f) The 0~7 of the Address corresponds to the first to eighth relay of the 8-way relay

g) The TCP configuration and debugging are completed

8. Query the TCP device IP address

(1) The Windows instruction lookup

a) Connect the device separately to the computer network port, and turn the win + R key out of the operation window

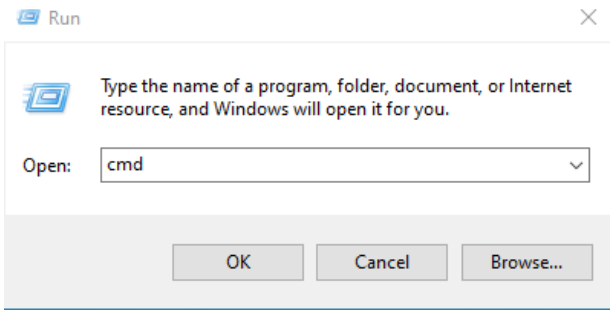

Figure 45 enters the windows command window

b) Enter cmd, click OK or go back

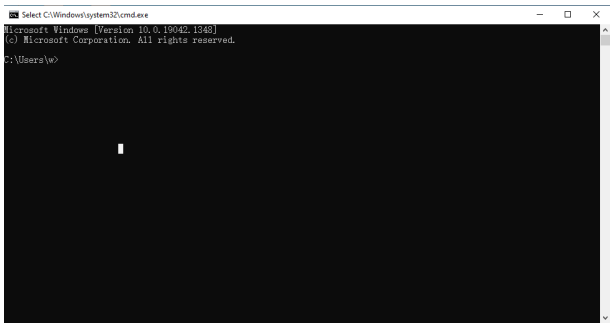

Figure 46 Windows command window

c) Enter "arp -a" and go back

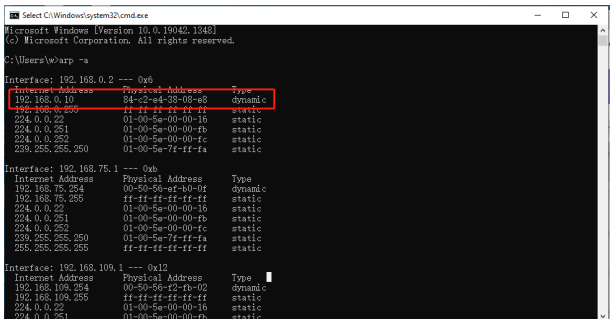

Figure 47 Query the IP records

(2) According to the network segment, you can find the corresponding device ip Router background search (requirement: the same network segment)

a) Find it in the connection device

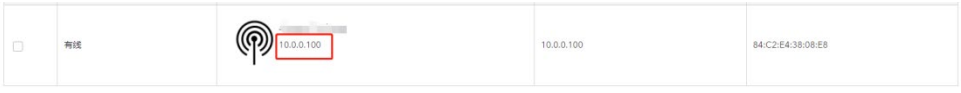

Figure 48 The router background

b) TCP IP unset

9. Device ID lookup

(1) Look up through Modbus Poll

a) Open Modbus Poll

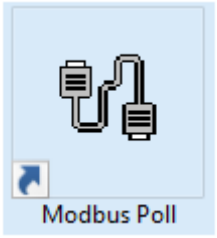

Figure 49. The Modbus Poll icon

b) Click on Setup in the toolbar to select the first item

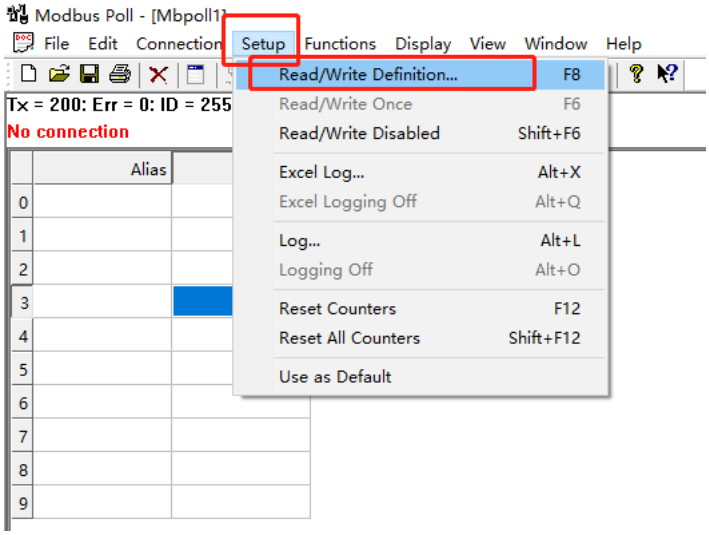

Figure 50 modbus settings

c) Change Slave IP: 255; Function: Select 03; Address: 253; Quantity: 1;

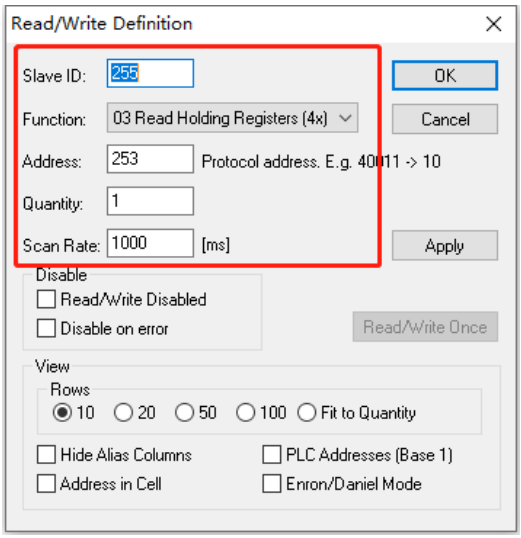

Figure 51 modbus register setting

d) Select Connection in the toolbar and click on item

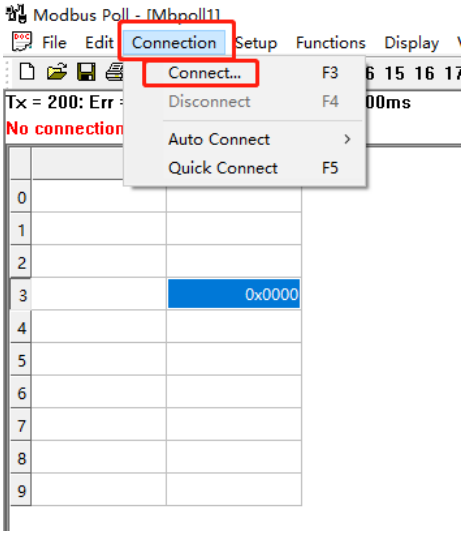

Figure 52 Setup the Connect TCP client

e) Modify Connection：Modbus TCP/IP；IP Address or Node Name:（equipment ip）; Server Port:5000

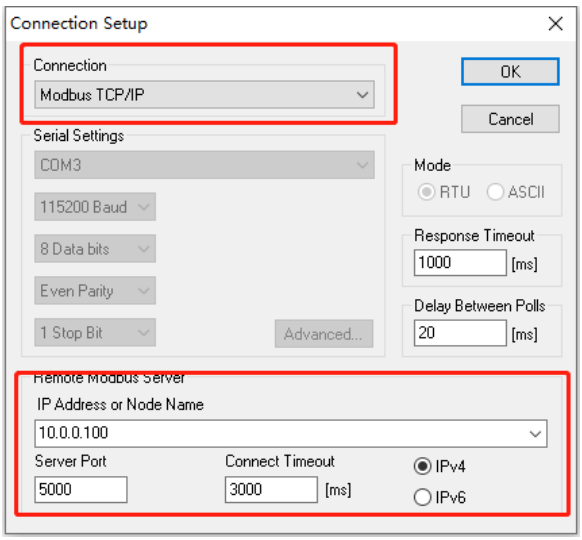

Figure 53 Set up the TCP connection mode and the device IP address

f) The value in the red box is the device address

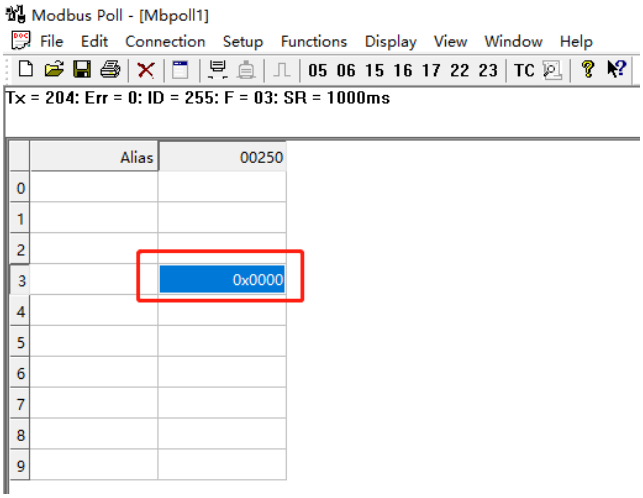

Figure 54 Obtaining the equipment addres

g) Device address query is completed

10. Multi-device connection

(1) Hardware connection

a) Consistent with the single-device connection mode

b) Direct device connection: When there is only one Ethernet port on the service side, it can only use multi-device through a router or switc

c) Unified LAN port for router and equipment interface

d) The device connects with the switch

(2) Modbus TCP communication

a) The multiple devices need to open multiple Modbus Poll s when using Modbus TCP communication

b) The fourth paragraph at the end of the device IP address needs to be modified to be different(Reference 5)

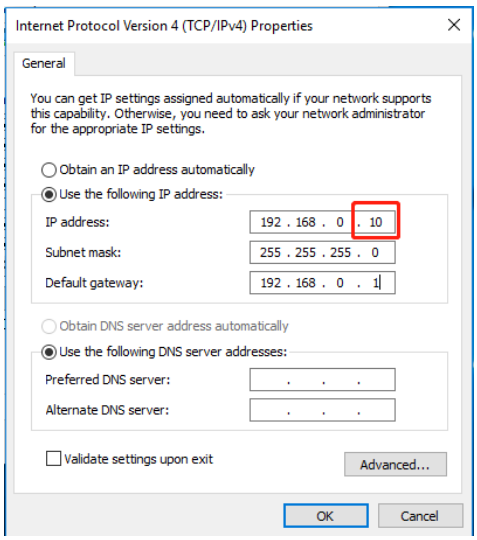

Figure 55 More than Five Equipment IP Settings

c) Device address also needs to be different (Reference 7-c)

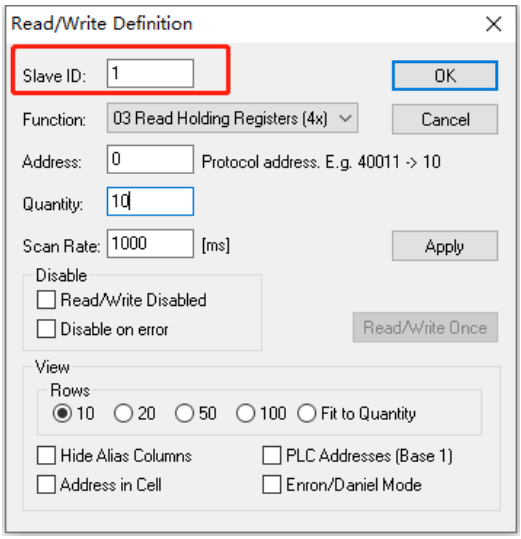

Figure 56 + Equipment "Device IP" settings

(3) No dial switch

a) RS485 serial port modification

(4) There is a dial switch

a) Modified by dialing the dial switch (Reference 4-c)

(5) Debug equipment

a) Reference (7)

11. Wireless mode

a) The service side can connect to the same network segment WIFI

12. The document reading is over

a) Thank you for watching!

2021/12/14