

IOT9031BD(SV) Guide Rail Type RS485 to TCP_IP Serial Port Gateway Server

I. Product Overview

This product is an RS485-to-TCP/IP serial port server with an integrated TCP/IP protocol stack that can realize two-way transparent transmission of network data packets and serial port data, data protocol conversion and other functions. It can facilitate the connection of serial port devices to the Ethernet Internet and realize network upgrade and communication of serial port devices. Supporting bidirectional transmission of MODBUS protocol, the serial port device can immediately have TCP/IP network interface function, connect to the network for data communication, and extend the communication distance of the serial port device. It can be easily configured through the WEB terminal, which is convenient and fast. Products are widely used in industrial automation control systems, access control systems, attendance systems, credit card systems, POS systems, building automation systems, power systems, monitoring systems, data collection systems and bank self-service systems, etc.

II. Function Parameters

- RS485 baud rate: supports 300bps-921600bps (default: 9600bps).
- Data bits: support 7, 8 (default: 8).
- Check digit: supports None, Odd, Even (default: None).
- Stop bit: supports 1, 1.5, 2 (default: 1).
- Support Modbus TCP to Modbus RTU and Modbus ASCII, support data transparent transmission and other functions.
- RS485 can connect 32 devices.
- IP acquisition method: static IP, DHCP.
- Network connection type: wired TCP/IP connection (TCP, UDP, DHCP, DNS, HTTP).
- Network data upload method: MQTT.
- The number of concurrent clients that can be connected in TCP Server mode is 1-15.
- Supports registration package + heartbeat package/data package length 1-2048 bytes.
- Support Alibaba Cloud IoT platform.
- Support Modbus gateway and cross-network communication.
- Supports web configuration, AT command configuration, and product firmware supports remote and local upgrades.
- Supports 10/100M, full-duplex/half-duplex adaptive Ethernet interface, compatible with 802.3 protocol.
- Electrostatic protection: $\pm 8KV$, IEC61000-4-2 contact discharge; $\pm 15KV$, IEC61000-4-2 air gap discharge.
- RS485 surge protection: 600W.
- Button function: long press the button before powering on and release it for 5 seconds to restore the factory settings; short press the button after powering on to restart the system.

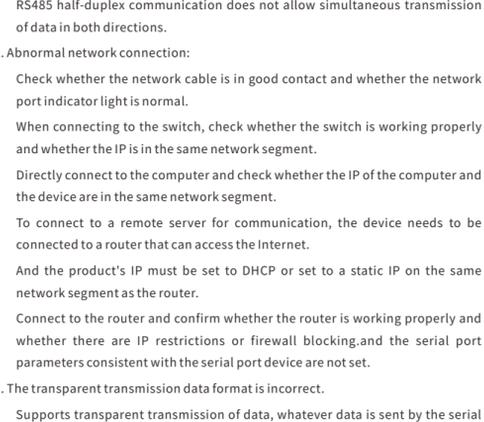
III. Product Factory Default Parameters

- Serial communication baud rate: 9600bps
- Product working mode: TCP Server
- Connect IP address: 192.168.1.200
- Default port: 2000

IV. Interface Description

NO.	Name	Introduction
①	GND	GND interface
②	RS485-B	RS485-B interface
③	RS485-A	RS485-A interface
④	VCC-	Negative power supply interface
⑤	VCC+	Positive power supply interface
⑥	Reset	Reset/Restore Factory Settings
⑦	LAN	Network port
⑧	Power	Power indicator light
⑨	TX	Data sending indicator light
⑩	RX	Data receiving indicator light
⑪	LINK	Network communication indicator light

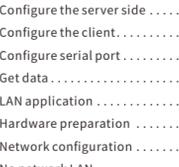
V. Product Connection Diagram



VI. Scenario Application

Agricultural Internet of Things

In agricultural production, there are many environmental monitoring and automation equipment that use serial communication, such as weather stations in greenhouses (used to monitor parameters such as temperature, humidity, light, etc.) and irrigation control systems. The serial port server can connect these devices to the farm's IoT network. Farmers can remotely view greenhouse environmental data in the office or through their mobile phones, and automatically or manually control the irrigation system based on the data to achieve precision agricultural management.



VII. Product Accessories

- One product
- Two terminal blocks

IX. Product Accessories

- The LAN interface wiring method is T568B.
- The RS485 interface requires A to A and B to B.
- The voltage of the power interface must be between 5-40V.
- The devices connected to the LAN port need to be in the same IP network segment.

X. Things To Note

- Basic testing FAQ
- The serial port wiring is wrong. You need to check the serial port pin wiring according to the instruction manual. RS485 serial port wiring A-A, B-B.
 - The connection cannot be established in TCP server mode, the firewall is not turned off, and other network cards are disabled.
 - The data is garbled, the serial port baud rate is set incorrectly, and the serial port parameters consistent with the serial port device are not set.

Troubleshooting FAQs

- The serial port cannot transmit data:
 - Check the serial port wiring. RS485 requires A to A and B to B.
 - Check whether the serial port line is in good contact. You can use a multimeter to measure whether there is continuity.
 - RS485 half-duplex communication does not allow simultaneous transmission of data in both directions.
- Abnormal network connection:
 - Check whether the network cable is in good contact and whether the network port indicator light is normal.
 - When connecting to the switch, check whether the switch is working properly and whether the IP is in the same network segment.
 - Directly connect to the computer and check whether the IP of the computer and the device are in the same network segment.
 - To connect to a remote server for communication, the device needs to be connected to a router that can access the Internet.
 - And the product's IP must be set to DHCP or set to a static IP on the same network segment as the router.
 - Connect to the router and confirm whether the router is working properly and whether there are IP restrictions or firewall blocking, and the serial port parameters consistent with the serial port device are not set.
- The transparent transmission data format is incorrect.
 - Supports transparent transmission of data, whatever data is sent by the serial port will be received by the network.
 - Supports Modbus gateway function, the serial port only recognizes Modbus RTU and Modbus ASCII format data,
 - The network only recognizes ModbusTCP format data, and the device converts it internally.
 - The amount of data sent each time should be set appropriately based on the packaging time, packaging length, and baud rate.
 - The serial port parameters must be set consistent with the connected serial port terminal parameters. Including baud rate, data bits, stop bits, and parity bits.
- Modbus gateway function has no data
 - The ModbusTCP function needs to be enabled, and the host computer software should set a reasonable collection command time interval, not too fast.
 - recognizes ModbusTCP format data, and the device converts it internally.

XI. Operation Guide

IOT9031BD(SV) Operation Instructions

Table of contents

IOT9031BD(SV) Operating Instructions	5
Test environment preparation	6
Hardware test environment	6
Software testing environment	6
Default parameter test	6
Network test environment	6
Application in TCP Server mode	6
Friendly serial port debugging assistant test	6
Product Settings Modbus TCP to Modbus RTU	7
The product uses sensors in Modbus TCP to Modbus RTU mode	8-9
Product Settings Modbus TCP to Modbus ASCII	10
Application in TCP Client mode	11
Product settings transparent transmission mode	11
Product Settings Modbus TCP to Modbus RTU	11
Server/Client application under a group of products	13
Configure hardware	13
Configure the server side	13
Configure the client	14
Configure serial port	14
Get data	15
LAN application	15
Hardware preparation	15
Network configuration	15
No network LAN	16
There is a network LAN	17
Common problems and solutions	17

Test environment preparation

Hardware test environment

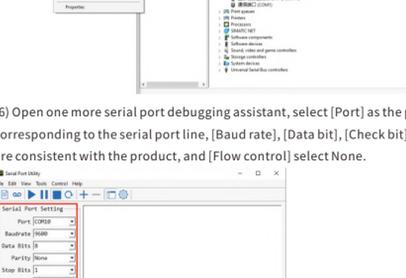
- Before starting, please connect the product to the power supply and connect the product's network port to the computer with a network cable.



- Use a serial cable to connect the serial interface of the product and the USB end of the computer.

Software testing environment

Prepare the debugging software as follows:



Default parameter test

Factory default parameters	
Project	Content
Working mode	TCP Server
Device IP	192.168.1.200
Subnet mask	255.255.255.0
Default gateway	192.168.1.1
Network port	2000
Baud rate	9600
Data bits	8
Stop bit	1
Check digit	None
Transmission method	Data transparent
Web login address	192.168.1.200
Web login account name	admin
Web login password	admin

Network test environment

In order to prevent users from problems such as being unable to search, unable to ping, and unable to open web pages in the application. After the hardware is connected and before use, check the computer for the following contents.

- Turn off the computer's firewall and anti-virus software (usually in the control panel).
- Turn off the network card irrelevant to this test and keep only one local connection.
- The computer's IP must be set to a static IP in the same network segment as the IOT9031BD(SV)'s IP, for example: 192.168.1.201.

Application in TCP Server mode

Friendly serial port debugging assistant test

- Open the friendly serial port debugging assistant and select the port as [TCP/UDP].

- Fill in the device IP and network port of the TCP Server in the figure into the [HOST] and [Port] of the debugging assistant.

- Click [Start], and the green text Connection is established will appear, indicating that the connection is successful.

- Open the device manager and check the port number of the serial port cable.

- Open one more serial port debugging assistant, select [Port] as the port number corresponding to the serial port line, [Baud rate], [Data bit], [Check bit], [Stop bit] are consistent with the product, and [Flow control] select None.

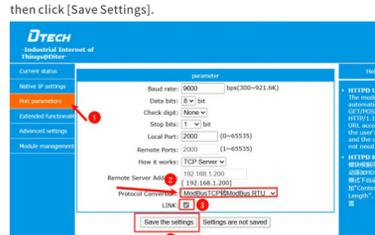
- Click [Start], and green text COM10 OPENED, 9600, 8, NONE, 1, and OFF will appear, indicating that the serial port is open.

- In both debugging assistants, enter data and click Send to achieve transparent transmission of data.

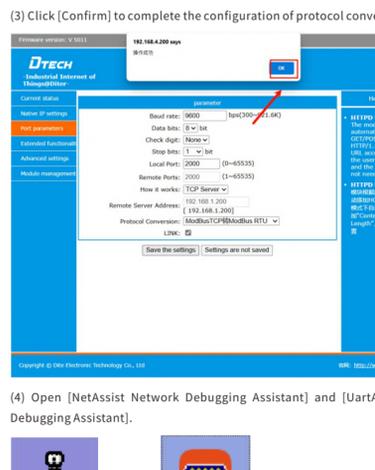
Product Settings ModBus TCP to ModBus RTU

(1) Enter [192.168.1.200] in the browser address bar, and then click the [Enter] key to enter the Web configuration page;

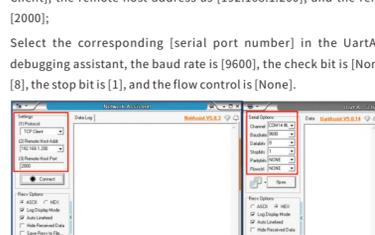
Enter the default user name [admin] and default password [admin] on the login interface, and click [Confirm].



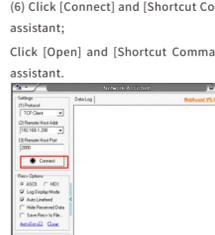
(2) Successfully enter the configuration page, click [Port Parameters], select [ModBus TCP to ModBus RTU] in the protocol conversion, check [] for LINK, and then click [Save Settings].



(3) Click [Confirm] to complete the configuration of protocol conversion.

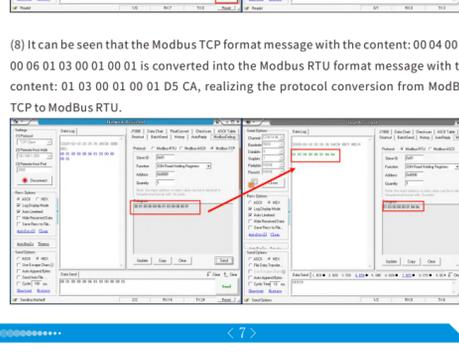


(4) Open [NetAssist Network Debugging Assistant] and [UartAssist Serial Port Debugging Assistant].

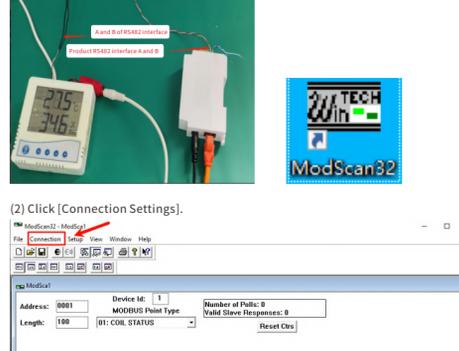


(5) In the NetAssist network debugging assistant, select the protocol type as [TCP Client], the remote host address as [192.168.1.200], and the remote host port as [2000];

Select the corresponding [serial port number] in the UartAssist serial port debugging assistant, the baud rate is [9600], the check bit is [None], the data bit is [8], the stop bit is [1], and the flow control is [None].

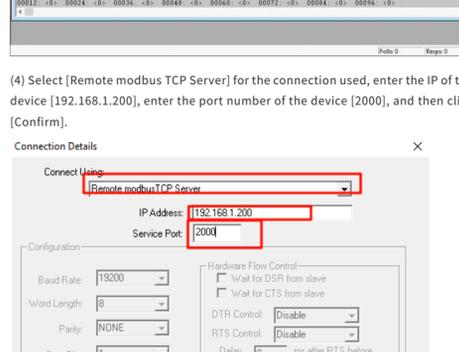


(6) Click [Connect] and [Shortcut Commands] in the NetAssist network debugging assistant; Click [Open] and [Shortcut Commands] in the UartAssist serial port debugging assistant.

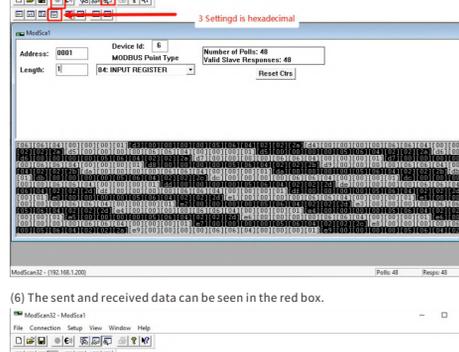


(7) Click [Modbus Command] in the NetAssist network debugging assistant, select [Modbus-TCP] as the protocol, select the slave device ID number as [0x01], select the function number as [03H: Read Holding Register], the register address is [0x0001], and the number of registers is [1];

Click [Modbus Command] in the UartAssist serial port debugging assistant, select [Modbus-RTU] as the protocol, select the slave device ID number as [0x01], select the function number as [03: Read holding register], the register address is [0x0001], and the read data length is [1]. Click [Send] in the NetAssist network debugging assistant.



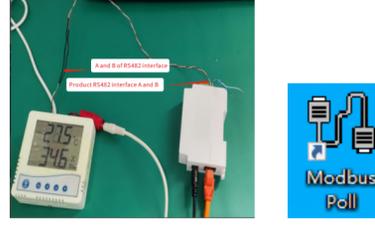
(8) It can be seen that the Modbus TCP format message with the content: 00 04 00 00 00 06 01 03 00 01 00 01 is converted into the Modbus RTU format message with the content: 01 03 00 01 00 01 D5 CA, realizing the protocol conversion from ModBus TCP to ModBus RTU.



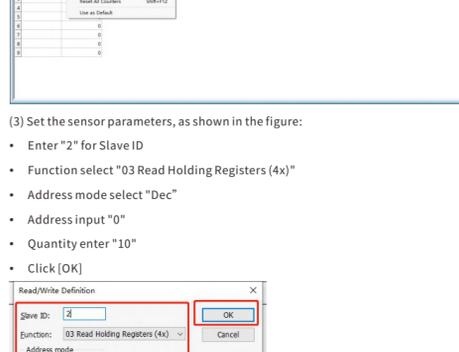
The product uses sensors in ModBus TCP to ModBus RTU mode

Use ModScan32 software to monitor temperature and humidity sensor data

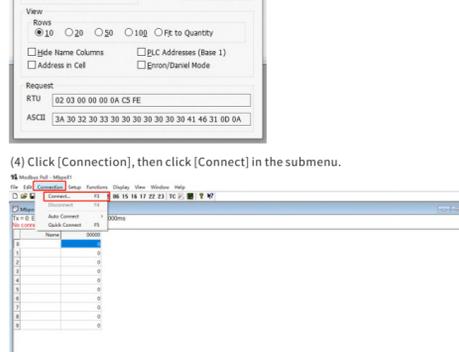
(1) Connect the sensor to the product, connect [A and B of the sensor 485 interface] to [A and B of the product 485 interface] respectively, [power on] the temperature and humidity sensor, and use ModScan32 software to monitor the temperature and humidity sensor data.



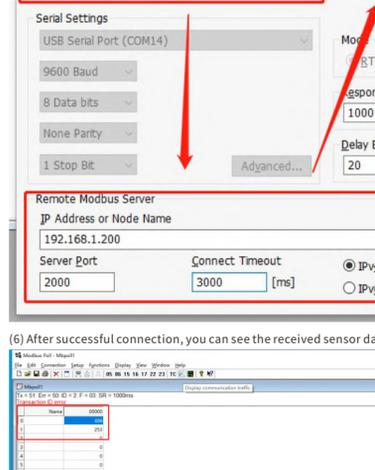
(2) Click [Connection Settings].



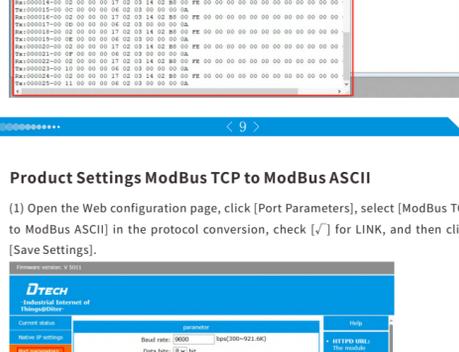
(3) Click [Connect].



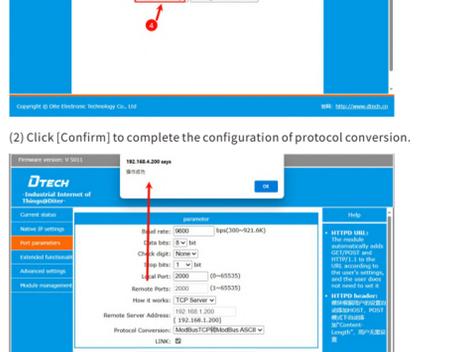
(4) Select [Remote modbus TCP Server] for the connection used, enter the IP of the device [192.168.1.200], enter the port number of the device [2000], and then click [Confirm].



(5) Click [Quick Connection], click [Show Flow], click [Hex], enter the sensor's register address [0001], enter the sensor's device ID [2], enter the length [1], and select [03: HOLDING REGISTER] for type.

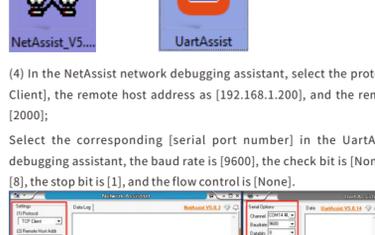


(6) The sent and received data can be seen in the red box.

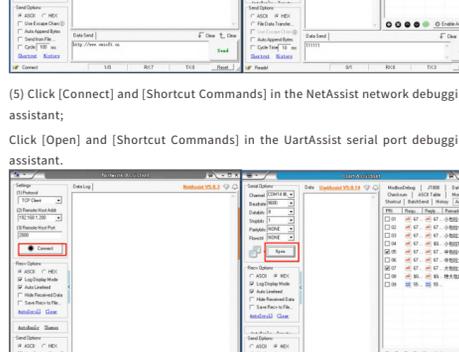


Use ModBus Poll software to monitor temperature and humidity sensor data

(1) Connect the sensor and product, and use ModBus Poll software to monitor the temperature and humidity sensor data.

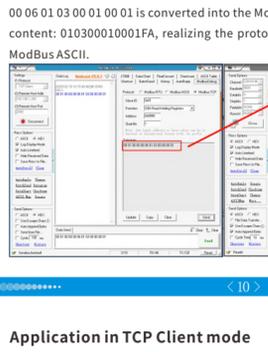


(2) Click [Setup], then click [Read/Write Definition].

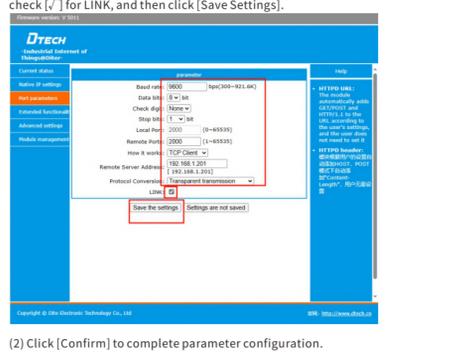


(3) Set the sensor parameters, as shown in the figure:

- Enter "2" for slave ID
- Function select "03 Read Holding Registers (4x)"
- Address mode select "Dec"
- Address input "0"
- Quantity enter "10"
- Click [OK]

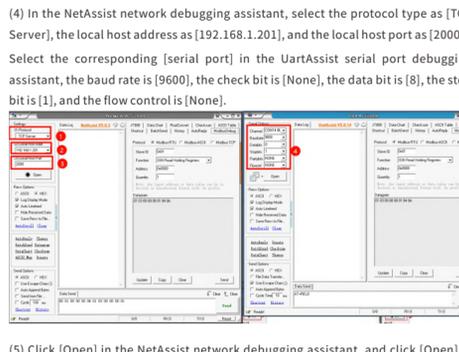


(4) Click [Connection], then click [Connect] in the submenu.

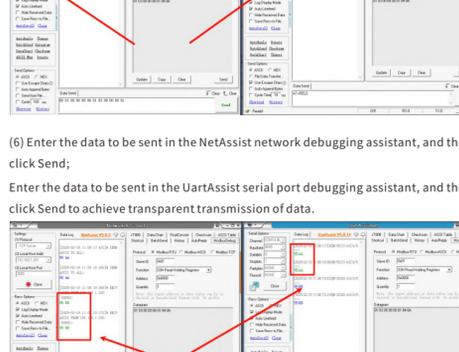


(5) Configure the connection parameters, as shown in the figure:

- Connection select "Modbus TCP/IP"
- Enter IP Address or Node Name "192.168.1.200"
- Enter "2000" for Server Port
- Click [OK]



(6) After successful connection, you can see the received sensor data.



(7) Click the [Display communication traffic] icon button to view the sending and receiving data.

Product Settings ModBus TCP to ModBus ASCII

(1) Open the Web configuration page, click [Port Parameters], select [ModBus TCP to ModBus ASCII] in the protocol conversion, check [] for LINK, and then click [Save Settings].

(2) Click [Confirm] to complete the configuration of protocol conversion.

(3) Open [NetAssist Network Debugging Assistant] and [UartAssist Serial Port Debugging Assistant].

(4) In the NetAssist network debugging assistant, select the protocol type as [TCP Client], the remote host address as [192.168.1.200], and the remote host port as [2000];

Select the corresponding [serial port number] in the UartAssist serial port debugging assistant, the baud rate is [9600], the check bit is [None], the data bit is [8], the stop bit is [1], and the flow control is [None].

(5) Click [Connect] and [Shortcut Commands] in the NetAssist network debugging assistant; Click [Open] and [Shortcut Commands] in the UartAssist serial port debugging assistant.

(6) Click [Modbus Command] in the NetAssist network debugging assistant, select [Modbus-TCP] as the protocol, select the slave device ID number as [0x01], select the function number as [03H: Read Holding Register], the register address is [0x0001], and the number of registers is [1];

Click [Modbus command] in the UartAssist serial port debugging assistant, select [Modbus-ASCII] as the protocol type, select the slave device ID number as [0x01], select the function number as [03: Read holding register], the register address as [0x0001], and the read data length as [1], and click [Send] in the NetAssist network debugging assistant.

(7) It can be seen that the Modbus TCP format message with the content: 00 05 00 00 00 06 01 03 00 01 00 01 is converted into the Modbus ASCII format message with the content: 010300010001FA, realizing the protocol conversion from ModBus TCP to ModBus ASCII.

Application in TCP Client mode

Product settings transparent transmission mode

(1) Enter the Web configuration page, click [Port Parameters], set the local port to [2000], set the remote port to [2000], select [TCP Client] for the working mode, the address of the remote server refers to the address of the TCP SERVER, enter [192.168.1.201], select [Transparent Transmission] in the protocol conversion, check [] for LINK, and then click [Save Settings].

(2) Click [Confirm] to complete parameter configuration.

(3) Open [NetAssist Network Debugging Assistant] and [UartAssist Serial Port Debugging Assistant].

(4) In the NetAssist network debugging assistant, select the protocol type as [TCP Server], the local host address as [192.168.1.201], and the local host port as [2000];

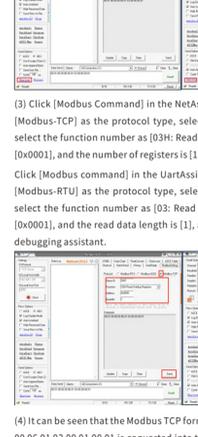
Select the corresponding [serial port] in the UartAssist serial port debugging assistant, the baud rate is [9600], the check bit is [None], the data bit is [8], the stop bit is [1], and the flow control is [None].

(5) Click [Open] in the NetAssist network debugging assistant, and click [Open] in the UartAssist serial port debugging assistant.

(6) Enter the data to be sent in the NetAssist network debugging assistant, and then click Send; Enter the data to be sent in the UartAssist serial port debugging assistant, and then click Send to achieve transparent transmission of data.

Product Settings ModBus TCP to ModBus RTU

(1) Enter the Web configuration page, click [Port Parameters], select [ModBus TCP to ModBus RTU] in the protocol conversion, check [✓] for LINK, and then click [Save Settings].

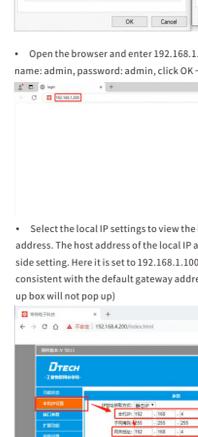


(2) Click [Connect] and [Shortcut Commands] in the NetAssist network debugging assistant; click [Open] and [Shortcut Commands] in the VartAssist serial port debugging assistant;

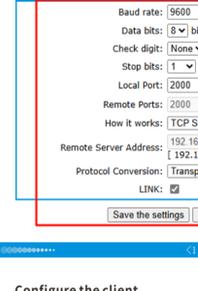


(3) Click [Modbus Command] in the NetAssist network debugging assistant, select [Modbus TCP] as the protocol type, select the slave device ID number as [0001], select the function number as [03H: Read Holding Register], the register address is [0X0001], and the number of registers is [1];

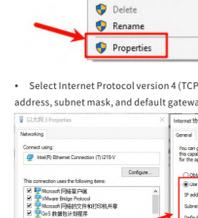
Click [Modbus command] in the VartAssist serial port debugging assistant, select [Modbus-RTU] as the protocol type, select the slave device ID number as [0001], select the function number as [03: Read holding register], the register address is [0X0001], and the read data length is [1], and click [Send] in the NetAssist network debugging assistant.



(4) It can be seen that the Modbus TCP format message with the content: 00 05 00 00 00 06 01 03 00 01 00 01 is converted into the Modbus RTU format message with the content: 01 03 00 01 00 01 05 CA, realizing the protocol conversion from Modbus TCP to Modbus RTU.

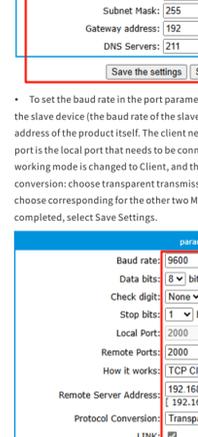


Server/Client application under a group of products

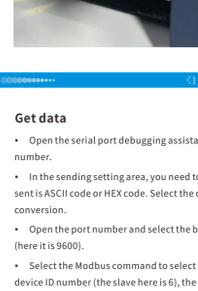


Configure hardware

(1) Connect the server-side product to the sensor. A and B of the sensor 485 interface are connected to [A] and [B] of the product 485 interface respectively to power the temperature and humidity sensor.

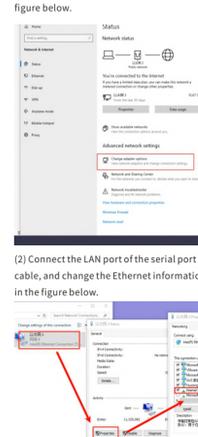


(2) One end of the product network port is connected to a network cable, and the other end of the network port is connected to the product that will be configured as a client. Plug in the product to power it.



Configure the server side

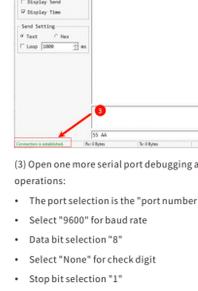
- The server side needs to connect to the slave product and power the sensor and product. Plug the network port into the network cable and connect it to the computer network port for configurations.
- Check the host's local address, open Control Panel→Network and Internet→Network Connection, select insert the corresponding network port, right-click and select Properties.



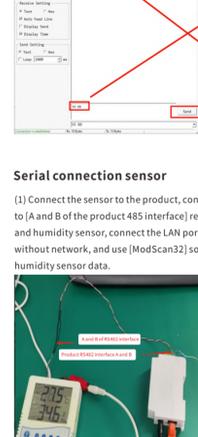
Select Internet Protocol version 4 (TCP/IPv4) in the properties and set the IP address, subnet mask, and default gateway.



Open the browser and enter 192.168.1.200 (default device IP). Enter the user name: admin, password: admin, click OK→enter the web management interface.



Select the local IP settings to view the local IP, subnet mask and gateway address. The host address of the local IP address cannot be the same as the server-side setting. Here it is set to 192.168.1.100. The gateway address needs to be consistent with the default gateway address of the computer host. (Note: The pop-up box will not pop up)



Re-enter the newly configured 192.168.1.100 local IP address to enter: Enter the password to enter the Web management page.

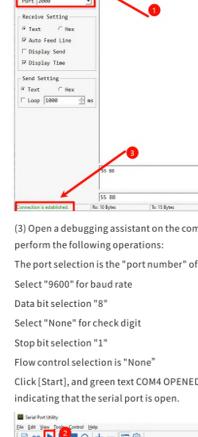
To set the baud rate in the port parameters, you need to obtain the baud rate of the slave device (the baud rate of the slave here is 9600). The local port is the IP address of the product itself. The client needs to set the remote port. The remote ports is the local port that needs to be connected to the server. Here it is 2000. The working mode is changed to Client, and there are three options for protocol conversion: choose transparent transmission without protocol conversion, and choose corresponding for the other two Modbus protocols. After the configuration is completed, select Save Settings.



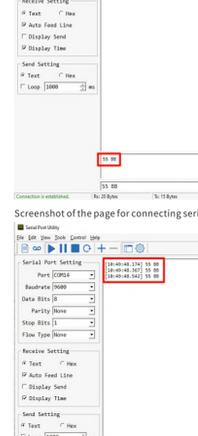
Configure the client

The Client side is connected to the configured Server side, and the network port is inserted into the network cable and connected to the computer host network port.

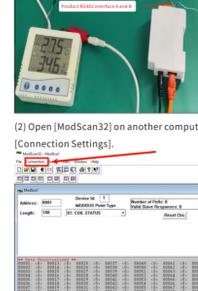
Check the host's local address, open Control Panel→Network and Internet→Network Connection, select insert the corresponding network port, right-click and select Properties.



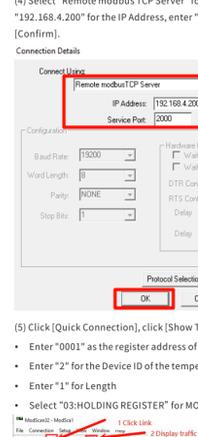
Select Internet Protocol version 4 (TCP/IPv4) in the properties and set the IP address, subnet mask, and default gateway.



Open the browser and enter 192.168.1.200 (default device IP). Enter the user name: admin, password: admin, click OK→enter the web management interface.



Select the local IP settings to view the local IP, subnet mask and gateway address. The host address of the local IP address cannot be the same as the server-side setting. Here it is set to 192.168.1.100. The gateway address needs to be consistent with the default gateway address of the computer host. (Note: The pop-up box will not pop up)



To set the baud rate in the port parameters, you need to obtain the baud rate of the slave device (the baud rate of the slave here is 9600). The local port is the IP address of the product itself. The client needs to set the remote port. The remote ports is the local port that needs to be connected to the server. Here it is 2000. The working mode is changed to Client, and there are three options for protocol conversion: choose transparent transmission without protocol conversion, and choose corresponding for the other two Modbus protocols. After the configuration is completed, select Save Settings.



Configure serial port

Connect to the 485 port of the product through the RS485 to 485 interface.



Get data

- Open the serial port debugging assistant and select the corresponding port number.
- In the sending setting area, you need to choose whether the data format to be sent is ASCII code or HEX code. Select the data format corresponding to the protocol conversion.
- Open the port number and select the baud rate you want to obtain from the slave (here it is 9600).
- Select the Modbus command to select the protocol type to be sent, the slave device ID number (the slave here is 6), the function number here is to select the function of reading the register, the read register address here to read the register with the address 0, and the register data length is 1.
- Transmitted and received data are displayed in the data log area. Here you can see that the Modbus-TCP format sent is successfully sent and the corresponding data is replied.

LAN Application

Hardware preparation

- switch/router
- Network cable
- USB to RS485/RS422/RS232 serial port conversion cable
- Two computer equipment

Network configuration

(1) Connect the switch/router to the computer, check and record the network IP address of the computer to which the serial port server is connected. For example, the IP address shown in the picture is 192.168.4.50. The steps are as shown in the figure below.

(2) Change the LAN port of the serial port server to the computer through a network cable, and connect the Ethernet interface in the computer. The steps are as shown in the figure below.

(3) Open the browser, enter [192.168.1.200] in the address bar (make sure the [192.168.1.200] IP address is not occupied), and enter the device Web configuration page. Follow the steps shown in the picture below.

(4) After saving, unplug the LAN port network cable of the serial server from the computer, then connect it to the switch/router, set the Ethernet IP address of the computer back to (obtain an IP address automatically), open the browser and enter [192.168.4.200] in the address bar to enter the configuration page, which means that the device and computer network have been configured successfully.

No network LAN

Serial port connection to computer

(1) Connect the serial port to the USB port of the computer through a conversion cable. If there is a network connection to the switch/router, unplug the network cable and perform a test without network.

(2) Open the friendly serial port debugging assistant and perform the following operations:

- The port selection is "TCP/UDP".
- Mode is selected as "TCP Client".
- Fill in the set device IP and network port into the "Host" and "Port" of the debugging assistant.
- Click [Start], and the green text Connection is established will appear, indicating that the connection is successful.

(3) Open one more serial port debugging assistant and perform the following operations:

- The port selection is the "port number" of the corresponding serial port line.
- Select "9600" for baud rate
- Data bit selection "8"
- Select "none" for check digit
- Stop bit selection "1"
- Flow control selection is "None"
- Click [Start], and the green text COM4 OPENED, 9600, 8, NONE, 1, OFF will appear, indicating that the serial port is open.

(4) Enter the data in both debugging assistants, and then click [Send] to achieve transparent transmission of data and the test is successful.

Serial connection sensor

(1) Connect the sensor to the product, connect [A] and [B] of the sensor 485 interface to [A] and [B] of the product 485 interface respectively, [power on] the temperature and humidity sensor, connect the LAN port of the serial server to a switch/router without network, and use [ModScan32] software to monitor the temperature and humidity sensor data.

(2) Click [Connection Settings].

(3) Click [Connect].

(4) Select "Remote modbus TCP Server" for the connection used, enter "192.168.4.200" for the IP Address, enter "2000" for the service port, and click [Confirm].

(5) Click [Quick Connection], click [Show Traffic], click [Hex], and set the parameters:

- Enter "0001" as the register address of the temperature and humidity sensor.
- Enter "2" for the Device ID of the temperature sensor.
- Enter "1" for Length
- Select "03:HOLDING REGISTER" for MODBUS Point Type

(6) The red box is the data sent and received.

There is a network LAN

Serial port connection to computer

(1) Connect the serial port to the USB port of the computer through a conversion cable, connect the switch/router to the network, and perform a network test.

(2) Use another computer connected to the LAN, open the friendly serial port debugging assistant, and perform the following operations:

Port selection is "TCP/UDP"
Mode is selected as "TCP Client"

Fill in the set device IP and network port into the "Host" and "Port" of the debugging assistant

Click [Start], and the green text Connection is established will appear, indicating that the connection is successful.

(3) Open a debugging assistant on the computer connected to the serial port and perform the following operations:

- The port selection is the "port number" of the corresponding serial port line.
- Select "9600" for baud rate
- Data bit selection "8"
- Select "None" for check digit
- Stop bit selection "1"
- Flow control selection is "None"
- Click [Start], and the green text COM4 OPENED, 9600, 8, NONE, 1, OFF will appear, indicating that the serial port is open.

(4) Enter the data in the debugging assistants of both computers, and then click [Send] to achieve transparent transmission of data and the test is successful.

Screenshot of the page for connecting serial computer devices:

Serial connection sensor

(1) Connect the sensor to the product, connect [A] and [B] of the sensor 485 interface to [A] and [B] of the product 485 interface respectively, [power on] the temperature and humidity sensor, connect the LAN port of the serial server to a switch/router with a network, and use [ModScan32] software to monitor the temperature and humidity sensor data.

(2) Open [ModScan32] on another computer connected to the LAN and click [Connection Settings].

(3) Click [Connect].

(4) Select "Remote modbus TCP Server" for the connection used, enter "192.168.4.200" for the IP Address, enter "2000" for the service port, and click [Confirm].

(5) Click [Quick Connection], click [Show Traffic], click [Hex], and set the parameters:

- Enter "0001" as the register address of the temperature and humidity sensor.
- Enter "2" for the Device ID of the temperature sensor.
- Select "03:HOLDING REGISTER" for MODBUS Point Type.

(6) Another computer device in the LAN can also receive and receive data normally.

Common problems and solutions

Q: I forgot the IP address configured for the product and cannot enter the web management interface.
A: In this case, you need to restore the factory settings: without plugging in the power supply, press and hold the stuck pin Reset→plug in the power supply for five seconds to restore the product to factory settings. After restoring factory settings, the IP address of the product web management interface is: 192.168.1.200

Q: If there are no problems with the IP address and the gateway of the local computer and the local IP of the product configuration, the remote server address in Client mode, and the gateway, there will still be problems such as being unable to communicate.
A: The IP addresses that need to be assigned to the product and the local computer are unoccupied addresses. Replace the IP address and gateway with non-conflicting and unoccupied ones.

Q: Why can't ModbusTCP protocol be converted into Modbus RTU protocol?
A: Note that this situation occurs when configuring a group of products. The server at one end is connected to the slave machine and is configured in transparent transmission mode. The client side on the other end is connected to the computer serial port. Configure to Modbus TCP to Modbus RTU mode.

Product Warranty Card

Customer Information

Model:	
Date of purchase:	
User telephone:	
User address:	
Distributor:	
Agency address:	
User telephone:	Dealer stamp valid

Intenance Records

Repair times	Date	Fault	Treatment measures	Repair work NO.

Electronic products are guaranteed for one year, and other products are guaranteed for two years. Damage caused by human factors or product burnout caused by improper operation is not included in the scope of warranty.