

Modbus RTU to Modbus TCP module, RS232/485 to WiFi module, WJ105

(Multi functional and cost-effective serial server module)



W external antenna N internal antenna

X suction cup antenna

Figure 1 Appearance of WJ105 module

Product features:

- Modbus RTU protocol automatically converted to Mobus TCP protocol
- Supports polling slave data as a Modbus RTU master and reporting via MQTT
- Easily set WiFi passwords and configuration parameters on mobile phones
- •RS232/485 baud rate can be set from 300 to 256000
- •The working mode can be selected as TCP Server or TCP Client,
- •UDP working mode, MODBUS protocol conversion mode;
- •Support MQTT protocol, data can be reported to the cloud
- Support virtual serial port working mode
- Can cross gateways, switches, and routers
- It can work on the LAN or the Internet (extranet)
- Work port, target IP address, and port can be easily set
- •Flexible serial data framing settings to meet users' various subcontracting needs

Typical applications:

- Serial port to industrial Ethernet
- Used for communication with the Internet of Things, real-time monitoring networks, and on-site devices
- •Intelligent building control, security engineering and other application systems
- •Ethernet industrial automation control system
- •Industrial site signal isolation and long-distance transmission
- Equipment operation monitoring and control
- Conversion and transmission of sensor signals
- Acquisition and conversion of industrial field data
- IoT signal to RS232/485 conversion

Product Overview:

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WJ105 is an industrial grade RS232/485 and WiFi protocol converter developed by Weijunrui Technology. This serial server is used to transparently transmit TCP network packets or UDP packets with RS232 or RS485 interface data. The serial server can easily connect serial devices to Ethernet and the Internet, achieving networked management of serial devices. Compared with similar products, its significant feature is stability, which allows for full duplex and uninterrupted transmission of large amounts of data without losing a single byte.



Figure 2 Internal Block Diagram of WJ105 Module

The WJ105 series products include power conditioning, analog switch switching, RS232 interface communication, RS485 interface communication, and WiFi network interface communication. It is an embedded Ethernet serial port data conversion device that integrates the TCP/IP protocol stack. Users can easily complete the network functions of embedded devices using it. It is equipped with a 32-bit processor, with a maximum frequency of 160MHz, fast speed, fast response, and high stability. Integrated WiFi interface, with a maximum baud rate of up to 1Mbps for serial communication. It has working modes such as TCP Server, TCP Client, UDP, and MODBUS protocol conversion, and can be set up through mobile networking.

Product model:



232/485: Supports RS232 interface or RS485 interface, can be selected through the webpage

WJ105 General Parameters:

(Typical @+25 °C, Vs is 24VDC) Transmission distance: RS232-15 meters, RS485 to 1000 meters, WiFi built-in antenna - about 20 meters, WiFi external antenna - approximately 100 meters CPU: 32-bit CPU;

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WiFi security: WEP/WPA-PSK/WPA2-PSK; WiFi frequency: 2.4-2.48GHz Web page: Supports web access module and web page setting module parameters. Communication: Transparent transmission from serial port to Ethernet It can also be set to MODBUS RTU to MODBUS TCP communication protocol. Protection: Built in TVS overvoltage protection; Interface: WiFi network interface; RS232 interface or RS485 interface Working power supply:+8~32VDC wide power supply range, with internal anti reverse and overvoltage protection circuits Power consumption: less than 1W Working temperature: -20~+70 °C Working humidity: 10~90% (no condensation) Storage temperature: -45~+80 °C Storage humidity: 10~95% (no condensation) Isolation voltage resistance: non isolated Dimensions: 79 mm x 69.5mm x 25mm

Pin definition and wiring:

Pin	name	Description	Pin	name	Description
one	PW+	Positive end of power supply	five	INIT	Restore factory settings
two	GND	Negative terminal of power supply, signal common ground	six	GND	232 data GND
three	485-A	485 data interface A	seven	RXD	232 data receiving RXD
four	485-B	485 data interface B	eight	TXD	232 data transmission TXD

Note: The pins with the same name are internally connected





Figure 3 Wiring diagram of WJ105 module

Firstly, configure the WJ105 module through your mobile phone

・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・・	 1. Put the module into AP mode (1) Short circuit the 5th pin (Initiat) and 6th pin (GND) of the module, and then turn on the power. (2) Open the wireless LAN on your phone or Go to "Settings → WLAN" and find the WiFi name "wifi8" to connect.
加工 10:57 10:57 輸入"wifi840:F5:20:07:79:00"的密码 取消 輸入密码 加入 密码 您也可以将iPhone 靠近任何已接入此网络且已添加您为 联系人的iPhone、iPad或Mac,来访问此无线局域网。	The factory password for this module is: 12345678, then "Join".
09:28 II 56 ■ 192.168.4.1 wifi8 ✓ 登录 取消 配置模块参数 Websocket在线测试 Json批量配置	2. Enter the module webpage. After connecting to the WiFi of the module, wait a few seconds and it will automatically redirect to the built-in webpage of the module, as shown in the left figure. If the phone cannot automatically redirect, you can also open the mobile browser and enter the website 192.168.4.1 to log in. Click on the configuration module parameter link to enter the configuration interface

<

192.2084.1 WHG 2x	09:43	II 5G 🔲	3. Enter the settings interface
主体工具体 1) Main station function selection 主体功能选择 Optional: transparent transmission mode and Model RTU master station Modbus RTU主始 0 从始令时间间隔(ms) 0 0 (1) Main station function selection Akkovka (1) Main station function selection Modbus RTU主始 (1) Main station function selection Modbus RTU主始 (2) Slave parameter settings for Modbus RT Main station function selection (2) Slave parameter settings for Modbus RT Makoondachymer Result (2) Slave parameter settings for Modbus RT Makoondachymer Result (2) Slave parameter settings for Modbus RT Makoondachymer Result (2) Slave parameter settings for Modbus RT Makoondachymer Result (2) Slave parameter settings for Modbus RT Makoondachymer Result (2) Slave parameter settings for Modbus RT Makoondachymer Result (2) Slave parameter settings for Modbus RT Makoondachymer Result (2) Slave parameter settings for Modbus RT Makoondachymer Result (2) Slave parameter settings for Modbus RT Makoondachymer Result (2) Slave parameter settings for Modbus RT Makoondachymer Result (2) Slave parameter settings for Modbus RT Makoondachymer Result <td>192.168.4.1 wifi8 양국</td> <td>取消</td> <td>Please modify the following parameters according to actual needs:</td>	192.168.4.1 wifi8 양국	取消	Please modify the following parameters according to actual needs:
thubite RTU主始 Modbus RTU主始 从始今数 5 从始参数设置 	主站设置		(1) Main station function selection Optional: transparent transmission mode and Modbus
Modbus RTU生站 C 从站个数 S 人站参数设置	主站功能选择		RTU master station
从始今数 5 从站参数设置 	Modbus RTU主站	\$	
5 从站参数设置 •	从站个数		
Aukie参数设置 主机命令时间间隔(ms) ①	5		
・请选择 まれ命令时间间隔(ms) ① ・・ ・ ・	从站参数设置		
主机命令时间间隔(ms) 0	请选择	\$	
0 从站O地址 01 从站O对应的寄存器地址 40001 从站O数据格式 无符号整数16位 次站O字符串key值(json上报 {key:value}) K0 从站O对应的bf值(y=kx+b) 1 从站O对应的bf值(y=kx+b) 0	主机命令时间间隔(ms)		
从站O地址 01 从站O对应的寄存器地址 40001 从站O数据格式 无符号整数16位 从站O字符串key(值(json上报 {key:value}) K0 从站O对应的k值(y=kx+b) 1 人站O对应的b值(y=kx+b) 0	0		
关闭 保存	从站0地址 01 从站0对应的寄存器地址 40001 从站0数据格式 无符号整数16位 从站0字符串key值(json上报 {key:value}) K0 从站0对应的k值(y=kx+b) 1 人站0对应的b值(y=kx+b) 0 关闭 <u>关</u> 闭		(2) Slave parameter settings for Modbus RTU master mode Slave parameter settings for Modbus RTU master mode



RS232/485设置

RS232或RS485选择

RS232通讯	\$
波特率	
9600	
数据位	
8 bit	\$
校验位	
NONE	\$
停止位	
1 bit	\$

WiFi设置

WiFi账号
W
WiFi密码
••••••
工作方式
TCP Server 🗢
本地IP设置
手动设置IP ♀
IP地址
192.168.0.5
默认网关
192.168.0.1
子网掩码
255.255.255.0
本地端口
23
模块名称
B48A0AF2565D
MQTT设置
打开MQTT功能 ᅌ

(3) RS232/485 settings

Communication port selection: RS232 or RS485 And set parameters such as baud rate, data bits, parity bits, stop bits, etc. for the serial port

(4) WiFi settings

1. WiFi account

Connect to WiFi coverage in this area

2. WiFi password

Fill in the WiFi password. If it is already connected, do not enter it again.

3.operation mode

Select the working mode and fill in according to the actual application.

0:TCP Server

1:TCP Client

2:UDP

3:MODBUS TCP

4:Websocket

4.Local IP settings

Choice: Automatically obtain IP or manually set IP

5. IP Address: Remote Server IP

The IP address of the module must be in the current WiFi network segment and not the same as the IP address of other devices in the local area network.

For example, if the IP of the WiFi router is 192.168.0.1, the IP of the module can be set to 192.168.0.5

When the remote server IP is set to TCP Client and UDP working modes, it needs to be filled in. The default values for other working modes are sufficient.

6. Default gateway

Gateway of the module, fill in the IP address of the current



MQTT服务器地址
broker.emqx.io
MQTT Client ID
B48A0AF2565D
MQTT用户名
MQTT密码
MQTT端口
1883
MQTT发布主题
pub
MQTT发布时间间隔
10
MQTT订阅主题
sub

Signal Isolators & Conditioners WiFi router. For example, if the IP address of a WiFi router is 192.168.0.1, simply fill in this IP address 7.Subnet mask If the subnet mask of the module does not cross network segments, Fill in the default value of 255.255.255.0 8. Local and remote ports Fill in the local port number and remote port number according to the actual situation 9.Module Name Module Name **10.MQTT settings** If MQTT communication is used, the MQTT function needs to be turned on. **11.MOTT server address** Fill in the URL of the MQTT server, For example: brokere.emqx.io If the local server IP is 192.168.0.100, you can write 192.168.0.100 12.MQTT Client ID, username, password, port, publishing topic Subscription theme and other parameters Please fill in according to the requirements of the MQTT server. The QoS of MQTT is 0 and cannot be modified. **13.MOTT** publication interval The time interval in milliseconds for the module to automatically publish data to the MQTT server. Set to 0 to cancel the scheduled publishing function. 4. Save parameters After completing the parameter settings, click the save and

restart button, and the module will save the parameters and automatically restart.



-	11:10	. II 5	G ()	5.
		192.168.4.1 wifi8		Cl
<	>	登录	取消	in
		WebSocket		
		<u>Serial Wifi Config</u>		
		Connect to WebSocket		
	Wel	Socket is not connected		
		232 or 485 RS-232 >		
		Data bit 8 bit \$		
		Parity bit NONE >		
		Stop bit 1 bit >		
	□Se	end as HEX Add nothing \diamond		
	036	Send: Send		
	Se	nd count: 0 Reset		
	Re Re	cv count: 0 Reset		
	Re			
		Clear		

5. Websocket online testing

Click on the Websocket online testing link on the module's homepage to enter the data viewing interface. As shown in the left figure.



11:10	.ıti 5G 🗩	6. Batch setting parameters
11:10 192.168.4.1 wifi8 全 登录 ************************************	.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	<pre>6. Batch setting parameters Click on the Json Batch Configuration link on the module's homepage to enter the Batch Settings interface. As shown in the left figure. The data must be in standard JSON format, and all parameters can be set or only some parameters can be set. If there are many products to be set up, batch setting can save time. After completing the filling, click the button Save Json data. Example 1: Only changing the WiFi account password can send: { "WifiSsid": "w", "WifiPassword": "12345678", "setIP": 1, "ipAddress": "192.168.0.5", "gateway": "192.168.0.1", "netmask": "255.255.255.0", } Example 2: Only modifying MQTT parameters can send: { "setMQTT": 1, "mqttHostUrl": "broker.emqx.io", "port": 1883, "clientId": "mqtt_test_001", "username": "", "passwd": "", "topic": "mqtt_topic_001", "pubTime": 2000,</pre>
		}
 € ○ Config ← → C □ ² ♥ _{& ht} 	× +	7. The module webpage can also be opened on
 ★ 收藏 ◆ □ 手机收藏夹		If the module is already connected to the local WiFi, you can enter the module IP in the computer or mobile browser, such as 192.168.0.5, to open the module webpage (provided that the computer IP or mobile IP is in the same network segment as the module, and the login operation should be based on the current module IP



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address), and then enter the internal webpage of the module. You can also configure modules or read module data, and the operation method is the same as the table above.

MODBUS RTU communication protocol to TCP Server

communication protocol

How to set MODBUS RTU communication protocol to MODBUS TCP communication protocol?

DS222/495沿罢	If you need to convert MODBUS TCP communication
R5252/465反直	protocol to MODBUS TCP communication protocol, you need to
RS232或RS485选择	set the working mode, local port, and baud rate.
RS232通讯 ~	Local port: 502
波特率	Baud rate: Set according to the communication baud rate of
9600	Modbus RTU on site Once modified, click on 'Save Settings'. Then restart the module.
数据位	
8 bit 🗸	
校验位	
NONE	
停止位	
1 bit 🗸	

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2. Example of converting MODBUS RTU communication protocol to MODBUS TCP communication protocol.

Open MODBUS testing software: ModScan32

Select Connection Connect from the menu

Set as follows in the pop-up window:

Rem	ote modbusTCP Ser	ver	•
	IP Address:	192.168.0.7	
	Service Port:	502	
nfiguration			
Baud Rate: 96	• 00	Hardware How Con	trol)SB from slave
ord Length 9		🖵 Wait for 0	CTS from slave
		DTR Control	DISABLE
Parity: NC	INE 💌	RTS Control	DISABLE
Stop Bits: 1	Y	Delay 0	ms after RTS before transmitting first characte
		Delay 0	ms after last character before releasing RTS

Figure 5: Settings for WJ105 using ModScan32 software

After completing the setup, the data uploaded from the existing device can be read. The figure is as follows:



= IodScal		
Address: 0001 Length: 8	Device Id: 1 MODBUS Point Type 03: HOLDING REGISTER 💌	Number of Polls: 2673 Valid Slave Responses: 106 Reset Ctrs
40001: <7FFAH> 40002: <7FFBH> 40003: <7FF9H> 40004: <7FFAH> 40005: <fff9h> 40006: <fff9h> 40006: <fff9h> 40007: <fff9h> 40008: <fff8h></fff8h></fff9h></fff9h></fff9h></fff9h>		

Figure 6: WJ105 using ModScan32 software to read existing device data

TCP Server working mode

How to set up the communication protocol for TCP Server to serial port?

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工作方式		If you need to use TCP Server we need to set the working mode, local port, a	orking mode, you and baud rate:
TCP Server	~	Working mode: 0 (representing TCP Ser	ver)
本地IP设置		Baud rate: Set according to the commun	ication baud rate
手动设置IP	~	Once modified, click on 'Save Settings'.	Then restart the
IP地址		module.	
192.168.0.5			
默认网关	28		
192.168.0.1			
子网掩码			
255.255.255.0			
本地端口			
23			

2. An instance of the communication protocol for converting TCP Server to serial port.

Open network testing software: Wayjun TCP and COM test

Serial port settings: Set according to the COM port and communication baud rate of the on-site serial port.



Network settings: Protocol type: TCP Client

IP address: 192.169.3.7 Port 23

₩ #君瑞科技RS232/RS48	5与网络测试软件				
文件(F) 选项(O) 報助(H) 串口设置 串口号 COM4 ▼ 波特率 115200 ▼	」 串口数据接收 www.wayjun.cn		网络数据接收 WAYJUN		网络设置 (1)协议类型 TCP Client
校验位 NONE ▼ 数据位 8 bit ▼ 停止位 1 bit ▼					 (2)服务器IP地址 192.169.3.7 (3)服务器端口号 23
· 美闭 接收区设置					● ● 断开 ● 接收区设置
 □ 接收转向文件 □ 显示接收时间 □ 自动换行显示 □ 二 古立进制显示 					 □ 接收转向文件 □ 显示接收时间 □ 自动换行显示 □ 二 十→共制思示
□ 17(近前弦示) □ 暂停接收显示 <u>保存数据 清除显示</u>					□ 17/2003至77 □ 暂停接收显示 <u>保存数据</u> <u>清除显示</u>
「友送区设立 □ 「 启用文件数据源 □ 自动发送附加位 □ 发送完自动清空		2		200	反因でである。 □ 启用文件数据源 □ 自动发送附加位 □ 发送完自动清空
□ 按十六进制发送 □ 循环发送 200 ms 文件载入 清除输入	NUTAA MAIL	发送	本地王利: 192.169.3.3	5500 555	 □ 按十六进制发送 □ 循环发送 1000 ms ○ 件载入 清除输入
☞ 就绪!	发送: 284 接收: 1831	复位计数	🥑 就绪! 👘 😽	送:272	接收: 240 复位计数

Websocket working mode

How to set the communication protocol for converting Websocket to serial port?

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工作方式	If you need to use Websocket working mode, you need to set the working mode and haud rate:
Websocket 🗸	Working mode: 4 (representing Websocket)
本地IP设置	Baud rate: Set according to the communication baud rate on site
手动设置IP 🗸	Once modified, click on 'Save Settings'. Then restart the
IP地址	module.
192.168.0.5	
默认网关	
192.168.0.1	
子网掩码	
255.255.255.0	
本地端口	
23	

2. An example of a communication protocol for converting Websocket to serial port.

Open the browser, enter the IP address of the module, plus/w. For example, if the IP address of the module is 192.168.0.6, enter 192.168.0.6/w in the browser



You can open the built-in webpage of the module. As shown in the following figure:

← → C ▲ 不安全 | 192.168.0.6/w

WebSocket Serial Wifi Config
Connect to WebSocket WebSocket is not connected 232 or 485 RS-232 • Baud Rate 115200 Data bit © bit • Parity bit NONE • Stop bit 1 bit • Set Serial
Send as HEX Add nothing Send cyclic 1000 ms Stop Send: Send

Send count: 0 Reset	
Recv count: 0 Reset Receive : □ Receive as HEX	

Click the button to connect to

Connect to Websocket

Websocket is connected

Open network testing software: Wayjun TCP and COM test

Serial port settings: Set according to the COM port and communication baud rate of the on-site serial port. Then send data to each other for testing.



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Serial Wifi Config			
Connect to Websocket Websocket is connected 232 or 485 RS-232 \rightarrow Baud Rate 9600 Data bit 8 bit \rightarrow Parity bit NONE \rightarrow Set Serfal Set Serfal Send as HEX Add nothing \rightarrow Stop Dit 1000 ms Stop	健智物料技内S232/R54 文体目 造成() 帮助任 #田母置 #田母置 #田母置 #田母置 和田母 1034 ▼ 教術位 1038 ▼ 教術位 1038 ▼ 教術位 1038 ▼ 御仕位 1 bit ▼ ● ☆ 余利 播収信号型件 日期時間文件 日期時間文件 日期時間文件 日時時間文件 日時時間文件	185与阿姆测试软件	
Send: Send Send: Send: Send Send: Send: Send Send: Send: Send: Send Send: Send: Send: Send: Send: Send Send: Send: Send: Send: Send: Send: Send: Send: Send Send: S	 □ ↑ ○○●□25小 □ 首保操設量示 □ 住田文件数据第… □ 自动发送附加位 □ 支送完自动清空 □ 技卡六进制发送 □ 循环发送 200 ms □ 文件载入 書段输入 	001 发送	
	(♂ 就绪!	友法:3 接收:10 <u>复位计</u> 数	<u>1</u>

Example of Modbus RTU Master Station

The following is an explanation of an 8-channel analog signal to RS-485 register, which can be connected to WJ105 to achieve the function of a Modbus RTU master station.

地址 4X (PLC)	地址 (PC, DCS)	数据内容	属性	数据说明
40001	0000	通道0的模拟量	只读	整数,通道 0~7 数据高 16 位
40002	0001	通道1的模拟量	只读	数据为2的补码方式
40003	0002	通道2的模拟量	只读	0x0000-0x7FFF 表示正数
40004	0003	通道3的模拟量	只读	0x8000-0xFFFF 表示负数
40005	0004	通道4的模拟量	只读	如果用不到负数, 读取到大于 0x7FFF 的
40006	0005	通道5的模拟量	只读	数据都换算成0即可。
40007	0006	通道6的模拟量	只读	
40008	0007	通道7的模拟量	只读	

寄存器说明:(普通应用中读取高16位的数据即可满足精度要求)

Set WJ105 as the Modbus RTU master and configure 8 registers.

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主站功能选择

Modbus RTU主站

从站个数

8

从站参数设置

----请选择----

主机命令时间间隔(ms)

1000

从站7地址

1

从站7对应的寄存器地址

40008

从站7数据格式

无符号整数16位

从站7字符串key值(json上报{key:value})

K7

从站7对应的k值(y=kx+b)

1

从站7对应的b值(y=kx+b)

0

Data can be read on the network end.



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┌网络数据接收	网络设置
{"devName": "B48A0AF34A7E", "time": "2024/3/6	(1)协议类型
10:15:12", "K0":32745, "K1":32753, "K2":32750, "K3":32759, "K4":32762, "K5":32757, "K6":32743, "K7":32751}	TCP Client
[["devName":"B48A0AF34A7E", "time":"2024/3/6 [10:15:13", "KO":32745, "K1":32753, "K2":32750, "K3":32759, "K4":32762, "K5":32757, "K6":32743, "K7":32751]	(2)服务器IP地址
{"devName": "B48A0AF34A7E", "time": "2024/3/6	192.168.0.5
10:15:13", "KO":32745, "K1":32753, "K2":32750, "K3":32759, "K4":32762, "K5":32757, "K6":32743, "K7":32763}	(3)服务器端口号
1 devName : B48AUAF34A7E , time : 2024/3/6 10:15:14", "KO":32745, "K1":32753, "K2":32750, "K3":32758, "K4":32762, "K5":32757, "K6":32743, "K7":32763}	23
["devName": "B48A0AF34A7E", "time": "2024/3/6 10:15:14", "K0":32745, "K1":32753, "K2":32750, "K3":32758, "K4":32762, "K5":32757, "K6":32743, "K7":32763]	● 连接
<pre>{"devName": "B48A0AF34A7E", "time": "2024/3/6 10:15:14", "K0":32745, "K1":32753, "K2":32750, "K3":32759, "K4":32762, "K5":32757, "K6":32743, "K7":32763}</pre>	接收区设置
{"devName": "B48A0AF34A7E", "time": "2024/3/6	□ 接收转向文件
10:15:15″, "K0″:32745, "K1″:32753, "K2″:32750, "K3″:32759, "K4″:32763, "K5″:32757, "K6″:32743, "K7″:32763}	□ 显示接收时间
1 devName : B46AUAF34A7E ; time : 2024/3/p 10:15:15", "KO":32621, "K1":32753, "K2":32750, "K3":32758, "K4":32763, "K5":32757, "K6":32743, "K7":32763} {"devName": "B48ADAF34A7E", "time": "2024/3/6	□ 自动换行显示 □ 十六进制显示
10:15:16", "KO":32621, "K1":32753, "K2":32750, "K3":32758, "K4":32763, "K5":32757, "K6":32743, "K7":32763} {"devName": "B48A0AF34A7E", "time": "2024/3/6	□ 暂停接收显示
10:15:16", "K0":32745, "K1":32753, "K2":32750, "K3":32758, "K4":32763, "K5":32757, "K6":32743, "K7":32763	1末任到墙 直际冗工
	发送区设置

Operations and settings on web pages

Enter module IP: 192.168.0.5 in the browser to open the module webpage (provided that the computer IP is in the same network segment as the module, login to the webpage should be based on the current module IP address)



-

主站设置

主站功能选择

透传模式

RS232/485设置

RS232通讯	~
波特率	63
9600	
数据位	
8 bit	~
校验位	
NONE	~
停止位	
1 bit	~

Common problems with WJ105

1, How to determine the status of a module based on lighting



Signal Isolators & Conditioners

The **light** is on **twice** for **1 second**: the module is waiting for the configured AP mode and can be connected to the module's WiFi 8 network settings parameters using a mobile phone.

The **light** is on **once** every **1** second: the module is currently connected to WiFi. If it cannot be connected for a long time, please reset the WiFi parameters of the module.

The light is on once every 5 seconds: the module has been connected to WiFi and is working normally.

2. Cross network segment issues

If the IP of the device and the communicating PC are not in the same network segment and are directly connected via Ethernet or under the same sub router, then the two cannot communicate at all.

give an example:

Device IP: 192.168.0.7

Subnet mask: 255.255.255.0

PC's IP: 192.168.1.100

Subnet mask: 255.255.255.0

Due to the device's IP being 192.168.0.7, it is unable to log in to the device's webpage or ping it on the PC.

If you want the two to communicate, you need to set the subnet mask of the device and PC, as well as the subnet mask on the router, to 255.255.0.0, so that you can log in to the module webpage.

3. The device can ping, but the webpage cannot be opened

There may be several reasons for this:

1) The device has set a static IP address that conflicts with the IP addresses of existing devices in the network

2) The HTTP server port has been modified (default should be 80)

3) Other reasons

Solution: Reset the device to an unused IP address; Restore factory settings or enter the correct port when opening the browser.

4. Every once in a while, there is a disconnection and reconnection

Every once in a while, there will be a phenomenon of disconnection and reconnection Reason: There is an issue of IP address conflict between the serial server and other devices

5. Communication is abnormal, network connection cannot be established, or search cannot be found

The firewall of the current computer needs to be turned off (in the Windows firewall settings)

Three local ports must not conflict, meaning they must be set to different values. Default values are 23, 26, and 29 Having illegal MAC addresses, such as full FF MAC addresses, may result in inability to connect to the target IP address or duplicate MAC addresses.

Illegal IP addresses, such as network segments that are not in the same network segment as the router, may not be able to access the external network.

6. Hardware problem search

Poor power supply from the power adapter or poor contact of the plug If the power light and network port light are not on, it means there is no power supply or the hardware is broken

7. MODBUS TCP connection cannot be established

The working mode should be set to Modbus TCP, and the port number can only be 502, not any other numerical value.



Dimensions: (Unit: mm)



Can be installed on standard DIN35 rails

guarantee:

Within two years from the date of sale, if the user complies with the storage, transportation, and usage requirements and the product quality is lower than the technical specifications, it can be returned to the factory for free repair. If damage is caused due to violation of operating regulations and requirements, device fees and maintenance fees shall be paid.

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Version number: V1.5

Date: February 2024