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Communication Expert
of Industrial IOT

Serial To Wi-Fi and Ethernet Converter

USR-DR404



Introduction

The USR-DR404 is a device that can realize data communication between RS485 and Ethernet/Wi-Fi. The device supports Modbus RTU/TCP protocol conversion, through which the field serial port device can communicate with the remote SCADA system.

It integrates rich network protocols such as MQTT, TCP, UDP, SSL, etc., supports multiple networking modes, and is suitable for various scenarios. SSL encryption can protect the secure transmission of customers' data and avoid the risk of data leakage.

The device is compact and supports rail mounting, which can save installation space and reduce costs. It can be widely used in smart agriculture, smart medical treatment, factory monitoring and other scenarios.

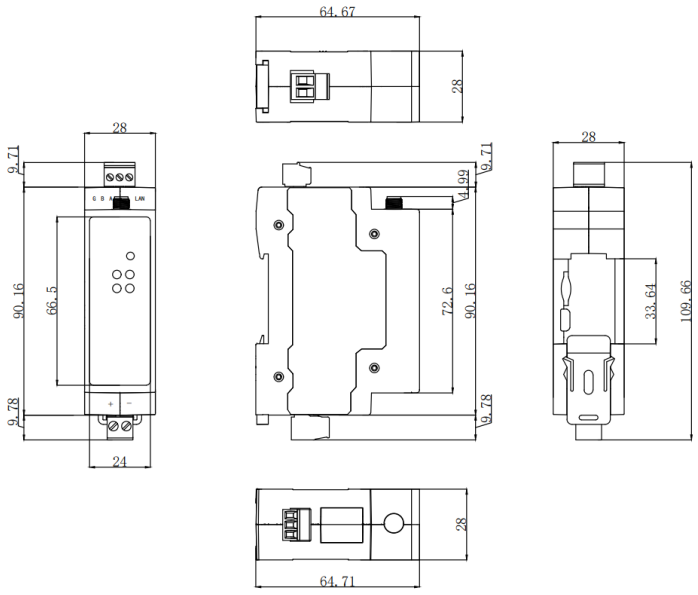
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Product Features

- WIFI@2.4GHz 802.11b/g/n wireless standards,
- Works as AP/STA/AP+STA, repeater, and bridge mode,
- Usrlink is supported,
- Supports TCP Server/TCP Client/UDP Server/UDP Client/HTTP Client/MQTT client mode,
- SSL/TLS encryption V1.2, compatible with lower version,
- Web socket function supported,
- 1 x RS232/485 serial port, 1 x 10/100M RJ45(WAN/LAN configurable),
- 1.5KV electrostatic protection for Ethernet port,
- Registration packet, heartbeat packet, and timeout reset is supported,
- Support Websocket and realize the timing communication for serial port and web page,
- Support one key (press the reload button for more than 5 seconds) to restore factory settings,
- Support Web Server, setup software, serial/network AT command to configure module,
- Rich indicator: power, link, RXD, TXD,
- Wide voltage DC 5~36V, 3-pin terminal block terminal,
- Add hardware watch dog, makes more stable,
- Remote firmware upgrading supported,
- Long distance communication: two serial server can transport for 150m(Test conditions: open line of sight, two WIFI serial servers self-networking, 57600 baud rate, no packet loss during transmission),
- Designed with guide rails for easy installation.

Dimensions

Unit: mm



Specifications

Power	
Power Supply	DC: 5.0 ~ 36.0 V, Connector: 2 pin terminal block
Working Current	127 ~ 289 mA @ 5V
Wi-Fi	
Standard	IEEE 802.11 b/g/n
Frequency Range	2.412GHz-2.484GHz
Power Output	802.11b: +19dBm(Max.@11Mbps)
	802.11g: +18dBm(Max.@54Mbps)
	802.11n: +17dBm(Max.@HT20,MCS7) +17dBm(Max.@HT40,MCS7)
Receive Sensitivity	802.11b: -89dBm（@11Mbps）
	802.11g: -81dBm（@54Mbps）
	802.11n: -73dBm（@HT20,MCS7） -71dBm（@HT40,MCS7）
Wi-Fi Antenna	SMA-female
Wi-Fi Security	WPA-PSK(TKIP)/ WPA2-PSK(TKIP)/ WPA-PSK(AES)/ WPA2-PSK(AES)
Ethernet	
Port Number	1 x RJ45, WAN/LAN configurable
Rate	10 /100 Mbps, auto MDI/MDX
Protection	1.5KV electromagnetic isolation
Serial Port	
Port Number	1 x RS485 RS485: 3-pin terminal block(A,B,G)
Baud rate	300, 600, 1200, 1800, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 230400, 345600, 460800
Data Bits	5, 6, 7, 8
Stop Bit(s)	1, 2
Parity Bit	None, Even, Odd
Serial Sending cache	4K Bytes
Serial Receiving cache	4K Bytes
Packeting mechanism	Default:
Physical Character	
Dimensions(mm)	28*64.71*109.66mm(L*W*H)
Operating Temperature	-40 ~ 85℃
Storage Temperature	-40~125℃
Operating Humility	5% ~ 95%（Non-condensing）
Storage Humility	5% ~ 95%（Non-condensing）
Installation	DIN rail mounting
Basic Features	
Network protocol	IP,TCP,UDP,HTTP,HTTPS,MQTT,SSL/TLS,ARP, DHCP
IP Assignment	Static/DHCP
DNS Service	√
Built-in Webpage	√
Config Method	Built-in Webpage, Config Software, AT Command
Work Mode	TCP Server/TCP client/UDP Server/UDP Client/HTTPD client

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MQTT	MQTT client, Standard MQTT protocol
Modbus Gateway	Modbus TCP/RTU protocol conversion Multi-host polling: up to 16 hosts
WebSocket	√
RF2217 Similar	√
Registration Packet	√
Heartbeat Packet	√
SSL Encryption	√
Ethernet receiving Cache	64K Bytes
Ethernet sending Cache	4K Bytes
Others	
Certificate	CE, FCC, RoHS, WEEE
Warranty	2 year

Purchase & Support

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