

USR-DR302 Datasheet

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1. Brief Introduction

USR-DR302 Modbus RS485 to Ethernet converter can realize bidirectional transparent transmission between RS485 and Ethernet. It carries ARM processor, low power, fast speed, high stability. Via web-page or software, rs485 to Ethernet Converter can realize serial data and TCP/IP data package transparent transmission.

2. Features

- ARM base on Cortex-M0 kernel, and reliable TCP/IP protocol stack
- Industrial working temperature range from -40C ~85C
- Modbus RTU to Modbus TCP, Modbus Polling
- Auto-MDI/MDIX, RJ45 port with 10/100Mbps
- Support TCP server, TCP client, UDP server, UDP client, HTTPD client and modbus TCP work mode
- Serial port baud rate can be set from 600bps to 460.8Kbps, parity: None, Odd, Even, Mark, Space
- Self-defined heartbeat package, keep the connection can never crash
- Supports self-defined registration package, check the station of the connection, which also can used as the self-defined package head. Users can use the MAC as the registration package.
- Under the TCP server mode, the number of the client connected to the server can be set from 1-8, default 4.
- The IP of the client connected can be display. Each connection calculates the data received/transmitted.
- Under the TCP server mode, if the number of the clients number is 8, kick the old one or not can be set.
- Configure the parameters via the webpage, AT command, serial protocol and net protocol
- Supports TCP client short connection, the disconnection interval can be set.
- Supports timeout restart(no data and restart), the restart time can be set.
- Before the TCP connection build, client the buffer data or not can be set
- Supports DHCP, obtain the IP automatically.
- The global unique MAC address bought from IEEE, also users can define MAC address
- Supports DNS function, and analyze the domain name. The DNS server address can be set.
- Upgrade firmware via network.
- Support USR-VCOM
- Supports hardware and software restore default settings
- Running across the gateway, converter and the router
- Running in LAN or in access the external net.

3. Basic Parameter

Classify	Parameter	Value
Hardware Parameters	Input Voltage	DC5~36V
	Working Current	130mA@5V
	Net interface format	RH45,10/1000Mbps
	Serial baud rate	600~460.8K(bps)
	Serial port	RS485*1
Software parameters	Net protocol	IPV4, TCP/UDP, ARP, ICMP, modbus
	IP access way	Static IP, DHCP
	DDNS	supports
	User Configuring	Software configuring and webpage configuring AT command
	Transmit way	TCP server, TCP client, UDP server, UDP client, modbus
	Similar RFC2217	support
	HTTPD client	support
	TCP server	At most support 8 TCP client to connection
	Net buffer	Send:16Kbyte; receive:4Kbyte
	Serial buffer	receive:1Kbyte
	Average delay	<10ms
	Related software	USR-VCOM, USR-cloud, set-up software
	Packaging mechanism	4 bytes packaging time, 1024 bytes packaging length.
Others	Certification	CE, FCC, ROHS
	Protection	1.5KV electromagnetic isolation
	Dimension	71.0*60.0*25.0mm(L*W*H)
	Operating Temp.	-40~+85°C
	Storage Temp	-40~105°C
	Operating Humidity	5~95%RH
	Storage Humidity	5~95%RH
	Packaging	Electrostatic bubble

4 . Hardware Parameters

