Cport3101R-232

1×RS232 Port DIN Rail Serial to Ethernet Converter



- 1 x RS232 port to 1 × 10/100 Mbps Ethernet port
- Support UDP, TCP, Modbus, HTTPD, WebSocket, MQTT, and virtual COM communication
- Support Modbus RTU to Modbus TCP protocol conversion
- Support DC 5~36V power input
- Made of PC+ABS, portable, V0 flame-retardant for enhanced safety, IP30-rated protection
- -40 ℃ ~ +85 ℃ working temperature range

Product Description

Cport3101R-232 is a compact DIN-rail serial-to-Ethernet converter designed to enable transparent and reliable data transmission between RS232 serial devices and Ethernet networks. Powered by an ARM Cortex-M0 processor and equipped with an integrated TCP/IP protocol stack, it delivers high performance, low power consumption, and stable operation for industrial communication applications.

Supporting 1 × RS232 serial port and 1 × 10/100 Mbps RJ45 Ethernet port, this serial server allows seamless bidirectional data transmission between serial and network interfaces. It supports baud rates ranging from 600 bps to 460,800 bps and multiple working modes, including TCP Server, TCP Client, UDP Server, and UDP Client, as well as Modbus RTU to Modbus TCP conversion.

Cport3101R-232 can be configured via web interface, software tool, or AT commands, offering convenient setup and monitoring. It supports up to 8 simultaneous TCP client connections in server mode, customizable heartbeat and registration packets, and automatic reconnection mechanisms for reliable long-term operation. Network and serial buffers are optimized to reduce latency, achieving an average transmission delay of less than 10 ms.

Built to industrial standards, the converter features a wide voltage input range of DC 5~36 V, electromagnetic isolation up to 1.5 KV, and an operating temperature range of -40 ℃ to +85 ℃. The IP30-rated metal enclosure and DIN-rail mounting design make it ideal for installation in control cabinets and other space-constrained environments.

This COME-STAR serial server provides a robust and cost-effective solution for integrating legacy serial devices into modern Ethernet networks. It is widely used in industrial automation, energy monitoring, transportation systems, and environmental data acquisition, where stable and efficient communication between field equipment and network systems is essential.

Product Features

- Adopt a 32-bit ARM Cortex-M0 processor featuring low power consumption, high performance, and stable operation
- Support 1 × RS232 serial port and 1 × 10/100 Mbps RJ45 Ethernet port with auto MDI/MDIX
- Built-in 15KV ESD protection and 1.5KV electromagnetic isolation for enhanced system reliability and anti-interference capability
- Support baud rates from 600 bps to 460,800 bps with flexible configuration of data bits, parity, and stop bits
- Support multiple communication modes, including TCP Server, TCP Client, UDP Server, UDP Client, Modbus RTU to Modbus TCP, and HTTPD Client
- Support simultaneous connections of up to 8 TCP clients in TCP Server mode, with user-defined connection control and real-time monitoring
- Support DHCP for automatic IP assignment, static IP for fixed addressing, and DNS for domain name resolution
- Support self-defined heartbeat packets and registration packets to maintain long-term connection stability
- Support automatic reconnection and timeout restart functions to ensure continuous operation under unstable networks
- Support data buffering and intelligent packet framing based on time or length for reliable and efficient data transmission
- Achieve average transmission delay of less than 10 ms for real-time industrial communication
- Support configuration via web interface, setup software, and AT commands, with support for firmware upgrade and virtual COM (VCOM) operation
- Support built-in webserver for remote configuration, status monitoring, and device management through standard browsers
- Support global unique MAC address with user-defined option for easy device identification and network management
- Support wide voltage input range of DC 5~36 V with reverse polarity protection and industrial-grade power stability
- Operate reliably in harsh environments with working temperature from -40°C to +85°C
- Compact IP30-rated metal enclosure with robust design for enhanced durability in industrial environments

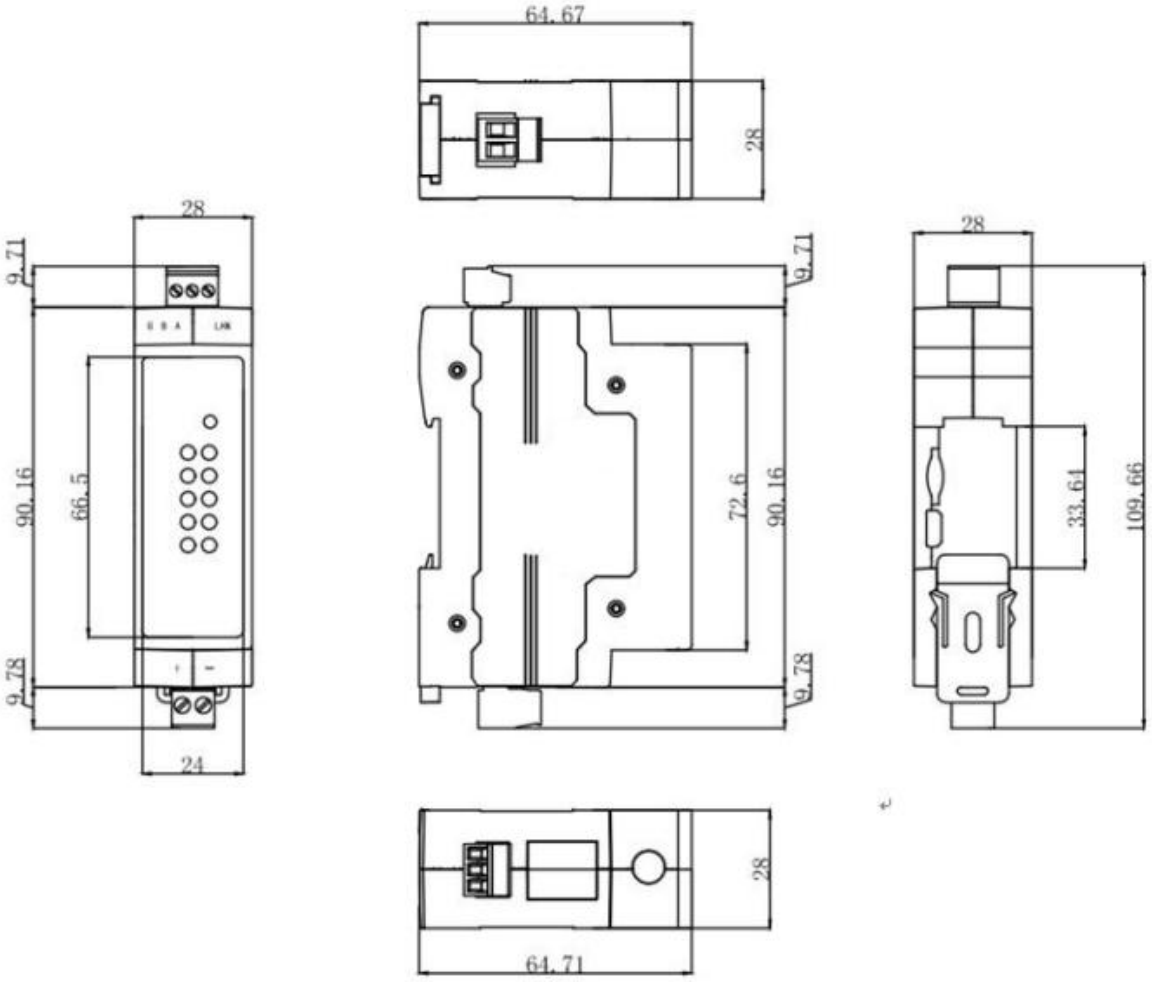
Technical Specifications

Software	
Network Protocol	TCP, UDP, IPv4, ARP, ICMP, DHCP, DNS/DDNS, HTTP
IP Obtaining Method	Static IP/DHCP
DDNS	Support
User Configuration	Web page configuration, setup software, or AT commands
Transparent Transmission	TCP Client, TCP Server, UDP Client, UDP Server, and HTTPD Client
Modbus	Modbus RTU to Modbus TCP
TCP Server Connection	Support to connect max 8 TCP clients
Network Buffer	Send: 16 Kbyte, Receive: 4 Kbyte
Packaging Mechanism	4 bytes package time, 1024 bytes package length
Serial Buffer	Receive: 1 Kbyte
Packaging mechanism	4 bytes packaging time, 1024 bytes packaging length
Average Delay	<10ms
Heartbeat Package	Support serial or network heartbeat, customizable content for maintaining connection.
Registration Package	Support customizable registration packet for device identification
Similar RFC2217	Support
HTTPD Client	Support
TCP	Support
Virtual COM	Support
Management Software	VCOM, TCP Test Tool
Firmware Upgrade	Support online firmware upgrade via web interface

Interface	
100M Copper Port	1 x 10/100 Base-T(X) RJ45 port, auto MDI/MDI-X
Serial Port	Serial Port: 1 × RS232 Connector: 3-pin terminal block Baud Rate: 600~460,800 bps Data Bits: 5, 6, 7, 8 Stop Bits: 1, 2 Parity: None, Even, Odd, Mark, Space
Power Supply	
Input Voltage	DC 5~36V
Working Current	130 mA @5V
Connection	2-pin terminal block
Physical Characteristic	
Dimensions	109×64.7×28 mm (including terminals and mounting brackets)
Installations	DIN-Rail
IP Code	IP30
Working Environment	
Operating Temp	-40℃~+85℃
Storage Temp	-40℃~+105℃
Relative Humidity	5%~95% (non-condensing)
Industrial Standard	
Protection	1.5KV electromagnetic isolation
Certification	CE/FCC/RoHs/WEEE

Dimensions

Unit: mm



Ordering Information

Standard Model	100M Copper Port	RS232	Input Voltage
Cport3101R-232	1	1	DC 5~36V

Contact Us

COME-STAR COMMUNICATION(WUHAN) CO., LTD.

Address: Puneng Industrial Park, Fenghuang Garden 1st Road, East Lake High-Tech Development Zone, Wuhan, China.

Tel: +86-027-59257958

Mail: sales@come-star.com

Official site: www.come-star.com

Copyright © Come-Star All rights reserved