

Overview

RS232 TO RS485 (B) is an industrial-grade rail-type active optoisolated RS232 to RS485 converter.

Feature

- Compatible with RS232/RS485 standard, converting the RS232 signal into balanced differential RS485 signal
- Stable transmission at the rate of 300~115200bps
- Onboard unibody power supply isolation, provides stable isolated voltage and needs no extra power supply for the isolated terminal
- Onboard unibody digital isolation, allows signal isolation, high reliability, strong anti-interference, low power consumption
- Onboard TVS (Transient Voltage Suppressor), effectively suppresses surge voltage and transient spike voltage in the circuit, lightning-proof & anti-electrostatic
- Onboard resettable fuse and protection diodes, ensures the current/voltage stable outputs, provide over-current/over-voltage protection, improve shock resistance
- Integrates optional RS485 output terminal 120R resistor, enabled/disabled via a switch
- The onboard screw terminal, allows 6V~36V DC wide-range input
- Industrial rail-mount abs case design, small in size, easy to install, and cost-effective

Parameters

Product Type	Active optoisolated RS232 to RS485 serial converter	
Power Supply Interface	Power Supply	6~36V DC
	Interface Protection	Anti-reverse

RS232 TO RS485

Metal case, wall mounted



RS485, RS232

RS232 TO RS485 (B)

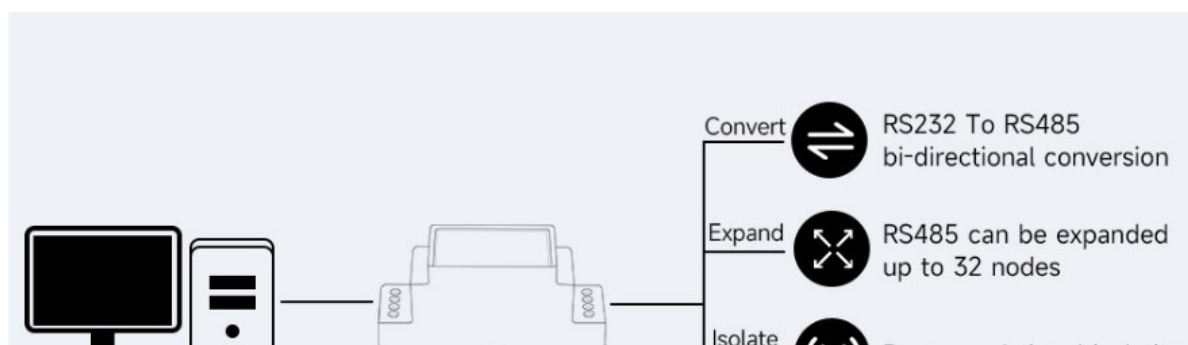
V0 flame-retardant case, DIN rail type



Reliable Communication Rate ^[1]	300~115200bps	
Device Interface	RS232/RS485-complaint	
RS232 Interface	Interface Form	Screw terminal
	Transmission Distance	About 15m
	Transfer Mode	Point to point
RS485 Interface	Interface Form	Screw terminal
	Orientation Control	The hardware automatically determines and controls the direction of data transmission
	Interface Protection	Provides 600W lightning protection, surge protection and 15KV electrostatic protection
	Terminal Resistor	120R, can be enabled by switching ^[2]
	Transmission Distance	About 1200 meters
	Transfer Mode	Point-to-multipoint (up to 32 nodes, repeaters are recommended for more than 16 nodes)
Product Appearance	Case	Rail abs case
	Dimensions	L × W × H: 91.6 × 23.3 × 58.7 mm

1. ↑ **Communication Rate**: The baud rate can reach 921600bps, and the reliable baud rate is the recommended, and the communication within this range is more stable and reliable.
2. ↑ **120R switch**: RS485 interface reserves a 120R for balancing resistance switch. Customers can consider whether to join according to the number of communications. It is recommended to join at the start-stop end, that is, add a 120Ω resistance to match with the host and the last device.

Application Diagram



host computer

- Power and signal isolation
- Relay
- Communication distance up to 1.2KM

Application Distance

- Connect to the host/PLC/other devices or hosts with RS232, and can expand external RS485 devices for point-to-point half-duplex communication.



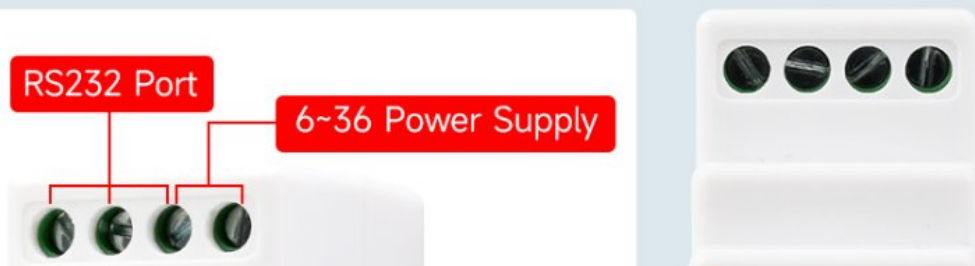
- Connect to the host/PLC/other devices or hosts with RS232, and can expand and cascade multiple RS485 devices for point-to-point half-duplex communication.

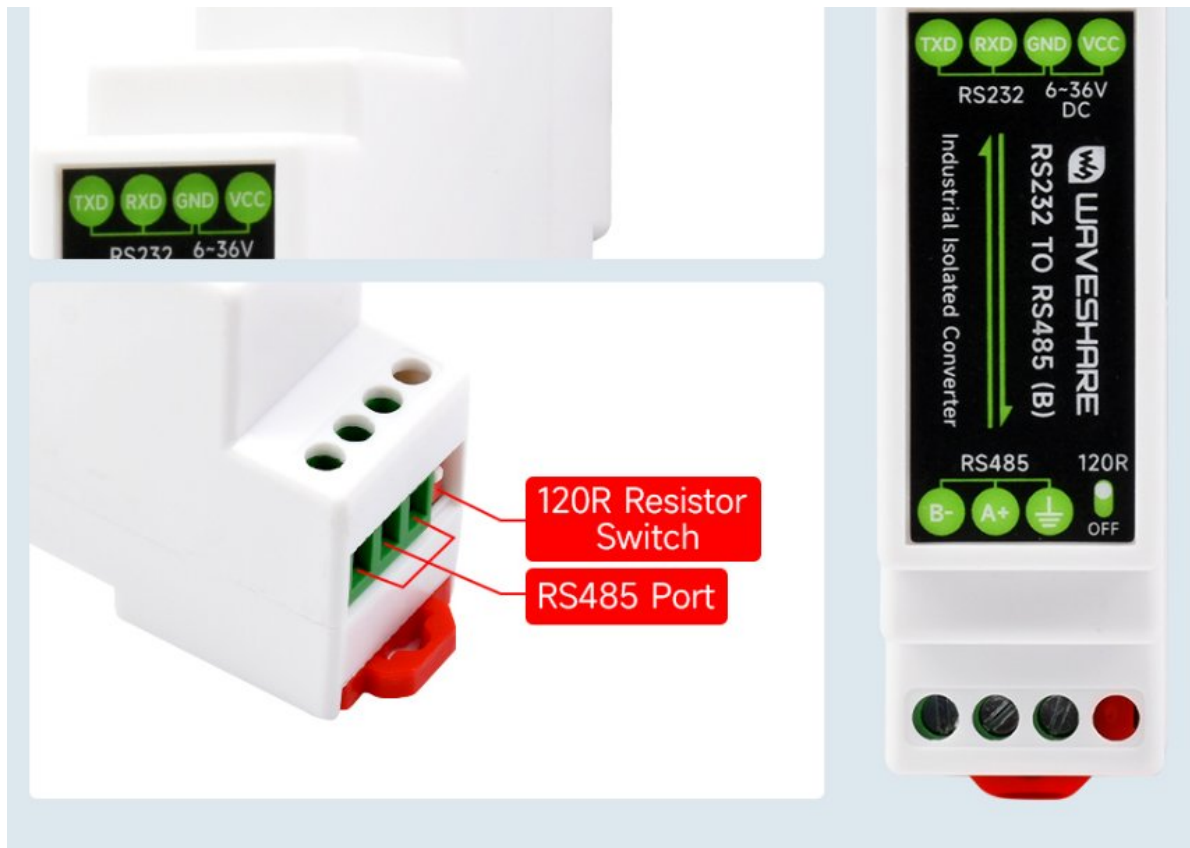


Interface Introduction

RS232 Port

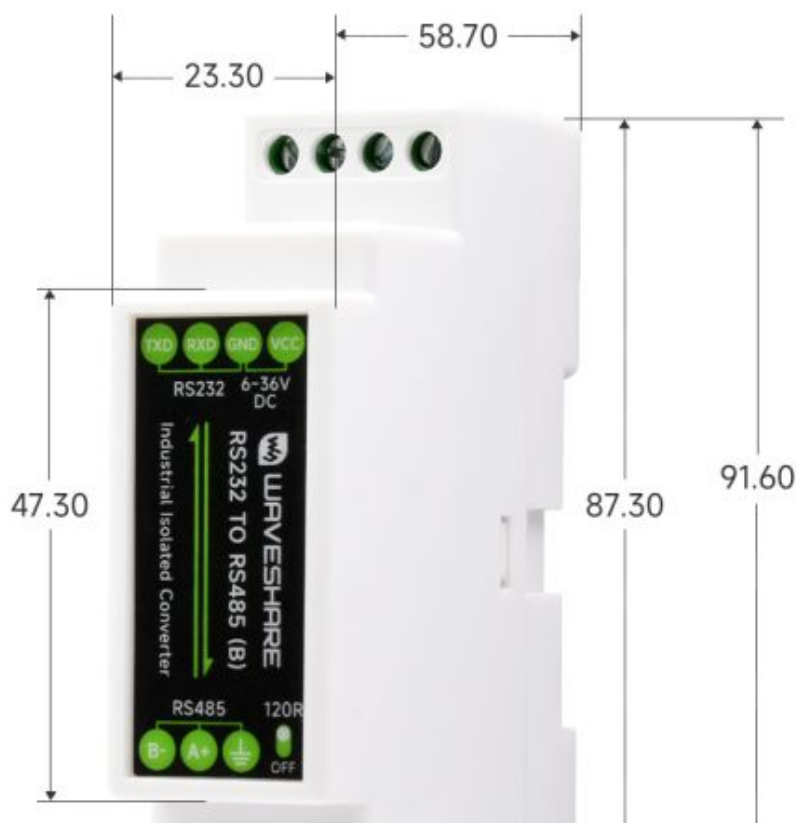
6~36 Power Supply

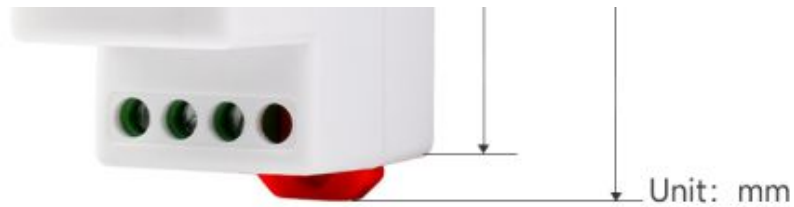




Description: RS485 interface, generally can only connect **A+** and **B-**, if you want the signals to isolate the ground, you should connect to the **ground icon**.

Dimensions





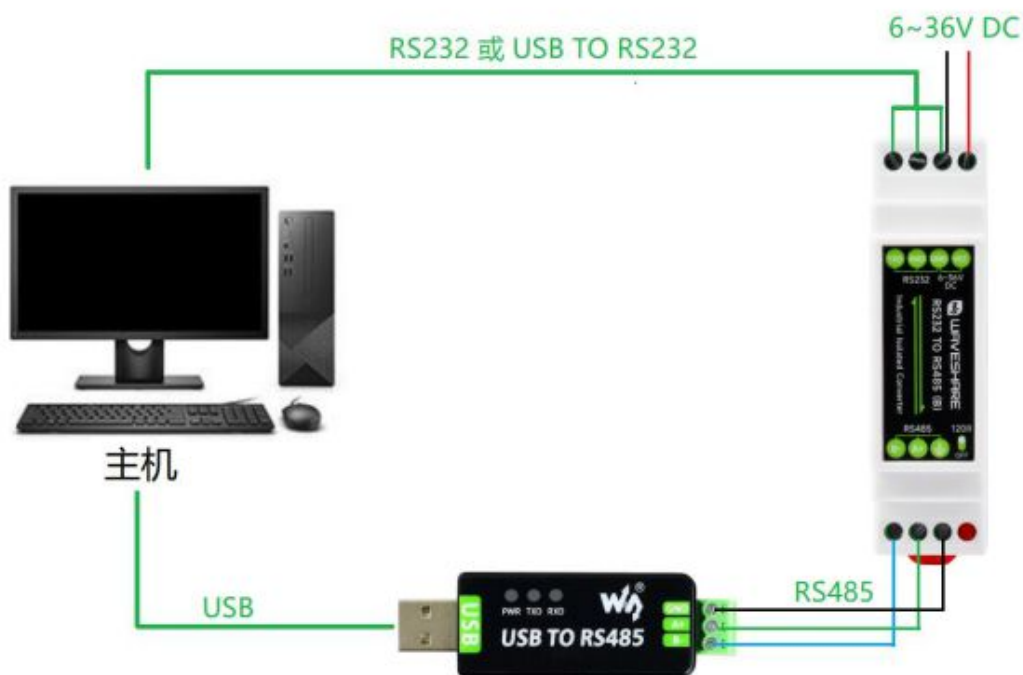
Hardware Test

Test Description

- Testing environment: PC (windows)
- Testing hardware:
 - RS232 TO RS485
 - USB TO RS485
 - PC (If there is no RS232 interface, you can choose USB TO RS232 (female socket) for adapting test.)

Hardware Connection Testing

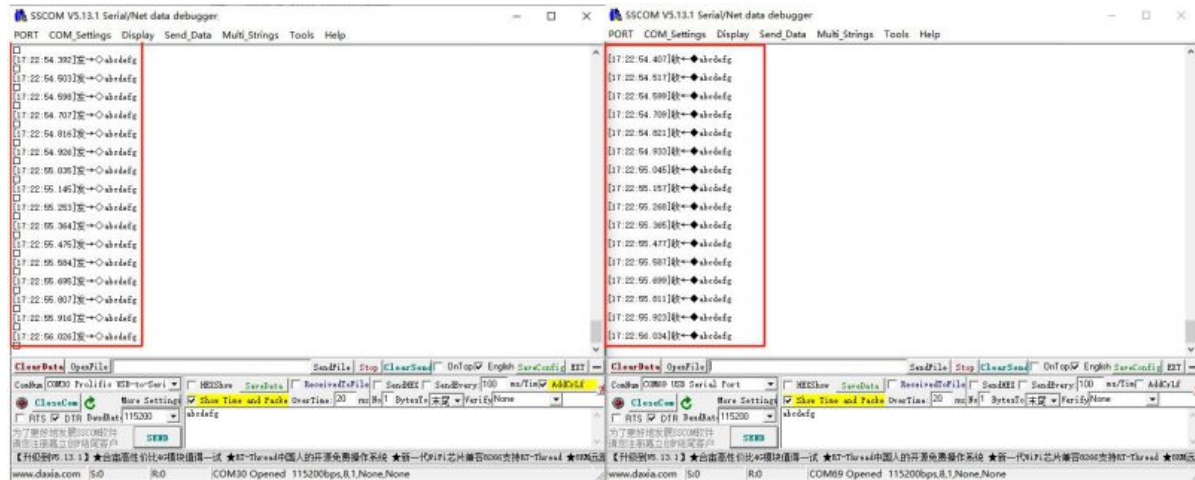
The RS232 interface of RS232 TO RS485 (B) connects to the PC with a serial extension cable or USB TO RS232 cable. The RS485 interface is connected to RS232 TO RS485 (B). The USB interface of USB TO RS485 connects to the same PC and automatically tests.



Description: RS485 interface, generally can only connect **A+** and **B-**, if you want

the signals to isolate the ground, you should connect to the **ground icon**.

On the PC, open two SSCOMs, open the corresponding port number, set the same baud rate, and click on the timing send, you can send and receive normally, the software test screenshot is as follows:



Note: RS485 is a half-duplex communication, which cannot be used for sending and receiving tests at the same time. You can test the receiving after sending.

Resource

Software

- [Sscom.7z](http://www.davia.com/SSCOM7z)

Technical Support

If you need technical support or have any feedback/review, please click the **Submit Now** button to submit a ticket, Our support team will check and reply to you within 1 to 2 working days. Please be patient as we make every effort to help you to resolve the issue.

Working Time: 9 AM - 6 AM GMT+8 (Monday to Friday)

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