

Model:UT-2211

Mini RS-232 to RS-485 converter (built-in terminal block)

Datasheet

1. Overview

To facilitate remote data communication between computers, external devices or smart instruments equipped with different standard serial interfaces, it is necessary to convert the standard serial interfaces to each other. The converter is compatible with RS-232 and RS-485 standards and is capable of converting single-ended RS-232 signals to balanced differential RS-485 signals, and the converter can extend the RS-232 communication distance up to 1.2 km without external power supply. The unique I/O circuitry automatically controls the data flow direction without any handshaking signals (such as RTS, DTR, etc.), thus ensuring that programs written in RS-232 half-duplex mode can run in RS-485 mode without changes, ensuring that they fit existing operating software and interface hardware. The converter transmission rate is 300-115.2Kbps. It can be used to form a point-to-point or point-to-multipoint remote multi-computer communication network between the main controller, or between the main controller and microcontrollers or peripherals, to realize multi-computer answering communication. It is widely used in industrial automation control system, one-card, access control system, parking system, self-service banking system, bus fare collection system, dining hall vending system, company staff attendance management system, highway toll station system, etc.

2. Major Functions & Features

- Support RS-232 to RS-485 Converter

3. Technical Parameters

- Interface features: interface compatible with EIA/TIA RS-232C, RS485 standard
- Electrical interface: DB9 male type connector at RS-232 port, terminal block at RS-485 port
- Operating mode: asynchronous half-duplex differential transmission
- Transmission medium: twisted pair or shielded wire
- Transmission rate: 300bps-115.2Kbps
- Dimension: 58mm × 33mm × 19.5mm
- Operating temperature: -25~ 70°C
- Relative humidity: 5~ 95%
- Transmission distance: 1,200m (RS-485 port) 5m (RS-232 port)

4. PIN Definition

- RS-232C PIN Assignment

| DB9 Female(PIN) | RS-232C interface signal |
|-----------------|--------------------------|
| 1 | GND |
| 2 | Transmit data SOUT (TXD) |
| 3 | Receive data SIN (RXD) |
| 4 | DTR |
| 5 | GND |
| 6 | DSR |
| 7 | RTS |
| 8 | CTS |
| 9 | RI |

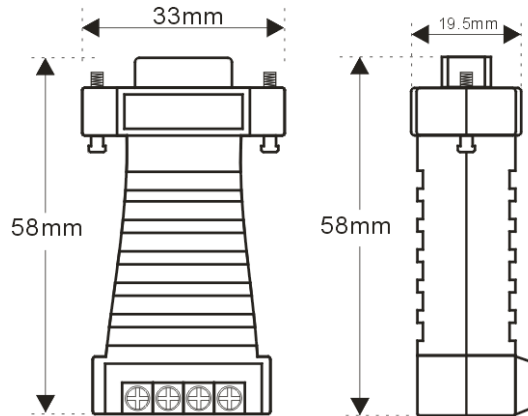
- RS-485 output signal and terminal pin assignment

| Terminal block | Output signal | RS-485 half-duplex wiring |
|----------------|---------------|---------------------------|
| 1 | T/R+ | RS-485(A+) |
| 2 | T/R- | RA-485(B-) |
| 3 | RXD+ | - |
| 4 | RXD- | - |
| 5 | GND | GND |
| 6 | VCC | +5V backup power input |

5. Product View (Appearance)



6. Structure Dimension



7. Ordering Information

ORDERING

| Model | Signal/Interface | | | Protection level | | Baud rate | Operating Environment | | | Power | |
|---------|------------------|----------------|--------|------------------|----------------------------|----------------------|-----------------------|----------|----------|---------------|----------------|
| | RS-232 | RS-485 | RS-422 | RS-232 | RS-485/422 | | Temperature | | Humidity | plug and play | External power |
| | DB9 Female | Terminal block | | | | | -25~70°C | -40~85°C | 5~95% | | |
| UT-2211 | √ | √ | | - | ±15KV ESD/600W Surge | 300bps-115.2k bps | √ | | √ | √ | |