

RS-232/RS-485/422 high speed opto-isolation converter

Model: MWE485 – TD

◆ Brief introduction

The MWE485-TD is high speed opto-isolation. It can convert a RS232 serial port signal to two wires high speed semiduplex RS485 or a four wires fullduplex RS422 signal, with 2500V photoelectricity isolation.

◆ Main function

- Special industrial Din rail module of Makeway Company;
- Opto-isolation of high rate between RS-232 and RS-485/422;
- Intelligent module design, automatically transmit with no delay, no need CTS flow control.

◆ Capability parameter

| | |
|------------------------|---|
| Power Supply | External power supply, DC5V/DC9~30V |
| Working current | <30mA |
| Baud rate | 300~115.2Kbps |
| Communication distance | RS-485/ RS-422 1.5Km(9.6Kbps) |
| Max node | 128 nodes |
| Isolation protection | 15Kv static protecting and 600W/ms lightning protecting |
| Weight | 96g(with the terminal block, no include DIN-Rail) |
| Dimension | 117m×72mm×25mm |
| Working temperature | -40℃~85℃ |

◆ PIN Setting

The RS-232 end is DB9pin, the pin female definition is as below:

| | | | | | | | | |
|--------|---------------|---|---------------|---|----|----|-----|---|
| PIN | 1 | 4 | 6 | 7 | 8 | 2 | 3 | 5 |
| Define | short circuit | | short circuit | | TX | RX | GND | |

The RS-485/422 definition is as below:

| | | | | | | | | |
|--------|----|----|------|----|----|------|---------|------|
| PIN | 1 | 2 | 3 | 4 | 5 | 8 | 9 | 10 |
| RS-485 | A+ | B- | GND1 | | | DC5V | DC9~30V | GND2 |
| RS-422 | T+ | T- | | R+ | R- | | | |

◆ Application

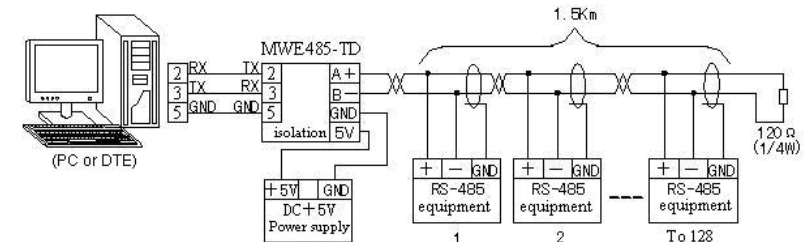


Chart 1 : Master-Slave and half duplex communication

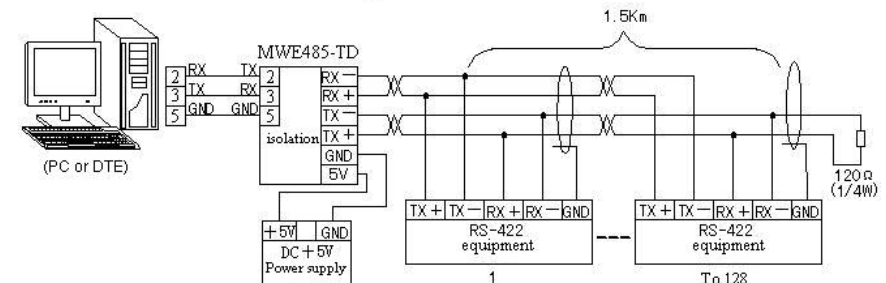


Chart 2 : Master-Slave and half duplex communication

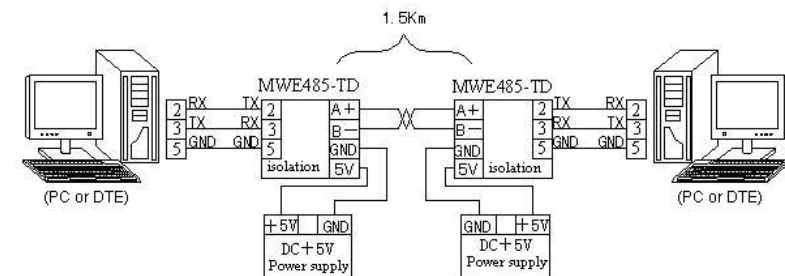


Chart 3 : Extend RS232 communication distance

◆ Attention

RS-485 matching resistance

The RS-485 is difference-signal. It is necessary to add a 120Ω matching resistor on the head and end of the communications circuit. When 120 short films(ON), The load ability will reduce when using the matching resistance. We suggest that it is necessary to use it only when the rate is above 19.2Kbps or the circuitry length is above 200m.

◆ Quality promises

- 1、 We can exchange the product in 2 years for the quality problem.
- 2、 We guarantee to keep the product in good repair for 5 years.