

# RS-232 to RS-485/422 Opto-Isolation Converter

Model: MWE485 – D

## ◆ Brief introduction

The MWE485-D can convert a RS-232 serial port signal to a two wires semiduplex RS-485 signal or a four wires fullduplex RS-422 signal,with 2500V photoelectricity isolation.It need a +5V DC power supply.

## ◆ Main function

- Photoelectricity isolation between the RS-232 and RS-485/422 signal;
- Particular protecting circuit for the serial port,plus-and-play supported;
- Automatically transmit with no delay,no need CTS flow control.

## ◆ Capability parameter

Power Supply	DC5V.
Working Current	<15mA
Baud rate	300~38.4Kbps
Distance	RS-485/ RS – 422 1.2Km(19.2Kbps)
Max node	128 nodes
Isolation protection	15Kv static and 600W/ms lightning protecting, 2500V optic isolation
Weight	38g(with the terminal block)
Dimension	87mm×33mm×17mm(with the terminal block)
Working temperature	-40℃~85℃

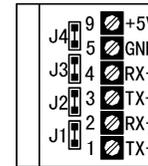
## ◆ PIN Setting

The RS-232 end is DB9 female,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/RS-422 end is DB9 male,the pin male definition is as below:

PIN	1	2	3	4	5	6	7	8	4
Define	J2(ON、 OFF)		J3(ON、 OFF)		GND	J1(ON、 OFF)		J4(ON)	
RS-485	A+(J2 ON)		B-(J3 ON)			J1 (ON)		Short circuit(ON) 120Ω	
RS-422	(J2 OFF)		(J3 OFF)			J1 (OFF)			
	TX+	RX+	TX-	RX-					



- Connect an DC5V external power between the block +5V and GND;
- A 120Ωresistor will be added in between the A+ and B- by plugging on the jumper J4.

## ◆ Application

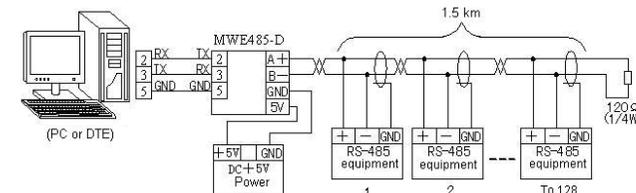


Chart 1 : Master-Slave and half duplex communication

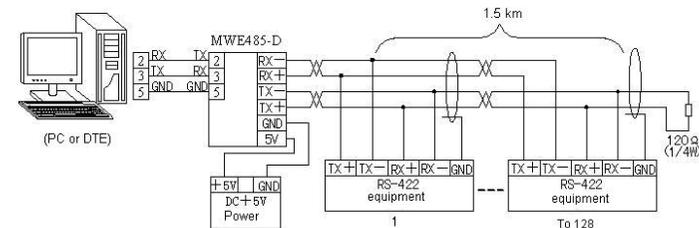


Chart 2 : Master-Slave and half duplex communication

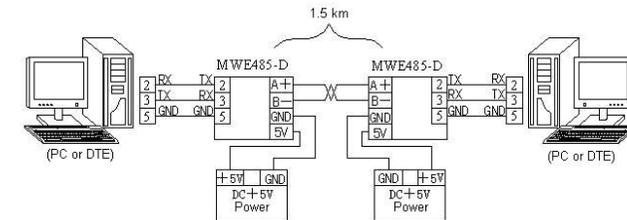


Chart 3 : Extend RS232 communication distance

## ◆ 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.