

RS – 485 to RS – 422 repeater

Model: MWE485 – Y

◆ Brief introduction

The MWE485-Y can convert the 2 wires RS-485 signal to 2 wires RS-485 signal or 4 wires RS-422 signal with port isolation and extend the communication distance.

◆ Main function

- Opto-isolation of high rate between RS-485/422;
- Intelligent module design, automatically transmit with no delay, no need CTS flow control;
- Industry level design, excellent import element chosen, all surface adhibit technics.

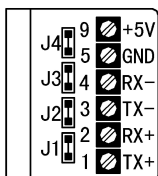
◆ Capability parameter

Power Supply	External power supply, DC5V
Working current	<15mA
Baud rate	300~115.2Kbps
Communication distance	Extending distance more than 1.2Km(9.6Kbps)
Max node	128 nodes
Isolation protection	15Kv static protecting and 600W/ms lightning protecting
Weight	38g(with the terminal block)
Dimension	107mm×33mm×17mm(with the terminal block)
Working temperature	-40℃~85℃

◆ PIN Setting

The RS-485/422 end is DB9 pin, the pin definition is as below :

PIN	1	2	3	4	5	9	6	7	8	4
Short circuit	J2(ON/OFF)		J3(ON/OFF)				J1(ON/OFF)		J4(ON)	
RS-485	A+(J2 ON)		B-(J3 ON)		GND	5V	J1 (ON)		Short circuit (ON) 120Ω	
	(J2 OFF)		(J3 OFF)							
RS-422	TX+	RX+	TX-	RX-	GND	5V	J1 (OFF)			



● Do not connection any external power between 5V and GND ports, parameters is only for information;

● A 120Ω resistor can be added in between the A+ and B- by plugging on the jumper marked as 120.

◆ Application

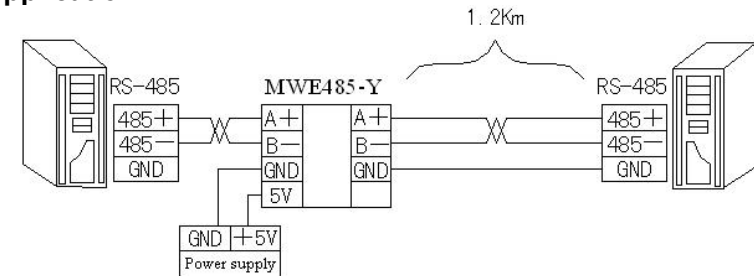


Chart 1 : Half duplex RS485 extend communication distance

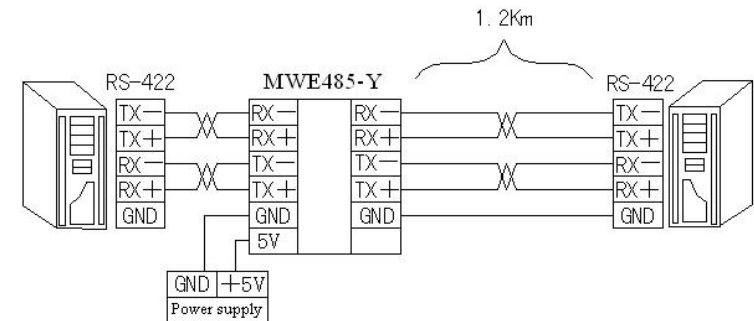


Chart 2 : Full duplex RS422 extend communication distance

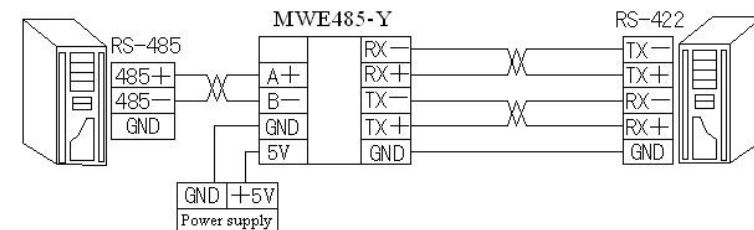


Chart 3 : Signal communication between half duplex RS485 and full duplex RS422 application

◆ 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 1 years for the quality problem.
2. We guarantee to keep the product in good repair for 5 years.