



# SW485WA

## Industrial Opto-Isolated RS-232 to RS-485 Converter

### Introduction:

The SW485WA is an industrial grade bi-directional port-powered 2500V opto-isolated RS232 to RS485 converter in a 9 pin format. It can convert any standard full duplex RS232C port to any two-wire balanced half duplex RS485 port. In simple terms, it will convert any RS232 signal to a RS485 signal and vice versa. The unit is powered from the RS232 data lines. It also supports data direction auto-turnaround. Therefore, no external power or flow control is required. The data direction auto-turnaround automatically enables the RS485 driver when data is present on the RS232 side making the device plug-and-play, requiring no software drivers. The SW485WA has a DB9 female connector on the RS232 side and either a DB9 male connector or 3 bit terminal block on the RS485 side.

### Packing List:

SW485WA is shipped with following items.

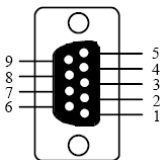
1. SW485WA × 1
2. Separate terminal block(DB9F to 3 bit) × 1
3. User manual × 1

### Features:

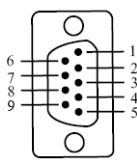
1. Optical isolation effectively protects RS-232/RS-485 devices from transient surges, ground loop, and remote lightning
2. Plug-and-Play (Device is hot-pluggable, Data format Auto-sensing & Self-adjusting)
3. Maximum baud rate 38400bps, 1200m (9600bps)
4. Port-powered, no external power or TXD, RTS, DTR required
5. Data direction auto-turnaround, no flow control is required
6. 2500V isolation, no power supply needed

## Pinout Configuration:

RS-485 port adopt DB9M (DB9F to 3 bit terminal block), RS-232 port adopt DB9F (Female), no power supply Input.



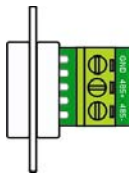
DB9F (Female/hole)



DB9M (Male)

<b>RS-232 (DB9F)</b>	2	TXD
	3	RXD
	5	GND
<b>RS-485 (DB9M)</b>	1	485-(D-)
	2	485+(D+)
	5	GND

**\*There are label on the 3 bit terminal block**



## Specifications:

Standards: EIA RS-232C, RS-485, RS-422 standard

RS-232 signal: TX, RX, GND

RS-485 signal: D+, D-, GND

Working mode: Asynchronism, point to point or multi point, 2 wire half-duplex

Baud rate: 300~115200bps, auto test serial signal rate detect signal speed automatically, zero delay time

Flow control: Data direction auto-turnaround, no flow control is required

Transfer distance: RS-485 side: 1.2Km, 9600bps

RS-232 side: no less than 5m

Max number of drops: 128 nodes

Optical isolation: 2500V

Port protect: 1500W surge protection, 15KV ESD protection

Connector: RS-232 side DB9 female

RS-485 side DB9M( DB9F to 3 bit terminal block)

## Power

Power input: No power supply need, powered from TXD, RTS,DTR

Consumption: Static less than 10mA, dynamic less than 40mA

## Environment

Operating temperature: -10°C to 60°C

Storage temperature: -40°C to 85°C

Humidity: 5% to 95%(no condensation)

## Appearance

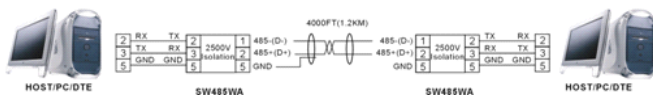
Dimensions: 95.0mm×33.0mm×16.5mm

Material: Plastic(shell)

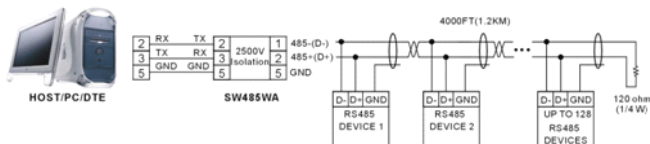
Weight: 50g

**Warranty: 5 years**

## Applications:



**Figure 1: Extending RS232 data distance with 2500V isolation**



**Figure 2: Master/Slave multi-drop configuration with 2500V isolation**

## Certifications:



# 3onedata

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