

# SW485WA

## Port-powered RS-232 to RS-485 Converter

### 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



### 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.

### Specification

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**

**Approvals: FCC,CE,RoHS approvals**

### Packing List

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

