



Figure 1

Introduction

In this document you will find information about the SSDC2-4W, see figure 1.
The SSDC2-4W is an RS-232 to RS-485 interface converter with the following features:

- ?? The RS-232 side is isolated from the RS-485 side
- ?? Maximum data rate is 115 Kbit/sec.
- ?? The RS-485 side can be configured to operate in 2-wire (half-duplex) or 4-wire (full-duplex) mode
- ?? Termination resistors for the RS-485 interface can be activated by installing jumpers
- ?? The RS-485 interface is equipped with surge protectors
- ?? Wide supply voltage range (8 to 30 VDC)
- ?? Diagnostic LED's show the status of Rx, Tx and power supply voltage
- ?? *The converter will work in 2-wire mode without the need of switching the RTS signal.*

Connector Layout 9-Pole Sub-D (RS-232)

On the SSDC2-4W you will find a female 9-pole Sub-D connector for the RS-232 interface. The SSDC2-4W acts as a DCE so a one-to-one cable is needed if the converter is to be connected to a PC.

The connector layout is as follows:

Pin Number	Signal Name	Remark	Direction
1		Not used	
2	RxD	Data received by the converter (from the RS-485 interface)	To the computer
3	TxD	Data to be transmitted by the converter (to the RS-485 interface)	From the computer
4	DTR	Internally connected to pin 6	From the computer
5	Signal Ground		
6	DSR	Internally connected to pin 4	To the computer
7	RTS	Internally connected to pin 8	From the computer
8	CTS	Internally connected to pin 7	To the computer
9		Not used	

Connector Layout RS-485 Side

Pin Number	Signal Name		Remark
	2-way	4-way	
1	Tx+	Rx+	
2	Tx-	Rx-	
3		Tx+	
4		Tx-	
5	Common		Common RS-485 side
6	+VCC		Supply voltage 8-30 VDC
7	Ground		Ground power supply

Pin 1 is located nearest the Red and Green LED.

Configuring the SSDC2-4W

Depending on the type of connection and number of converters, the unit needs to be configured. This is done by placing jumpers which are located inside the converter. To get access to these jumpers you have to open the unit by removing 4 screws on the RS-232 side of the converter. See figure 2. This also makes it possible to remove the mounting brackets if you don't need them.



Figure 2

Location of the jumpers.

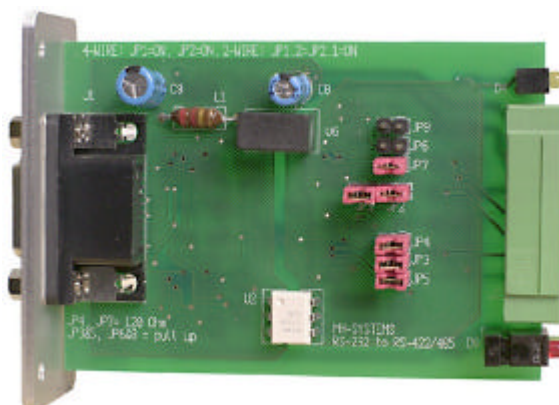


Figure 3

Figure 4 shows the function for the various jumpers.

Jumper	Function
JP3	Pull down for the RX- line
JP4	Terminator Rx lines
JP5	Pull Up for the RX+ line
JP6	Pull down for the TX- line
JP7	Terminator TX lines
JP8	Pull Up for the TX+ line

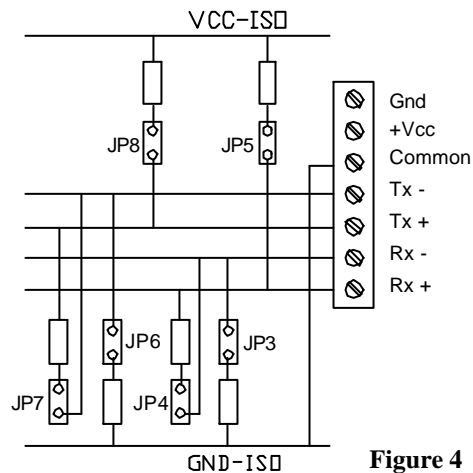
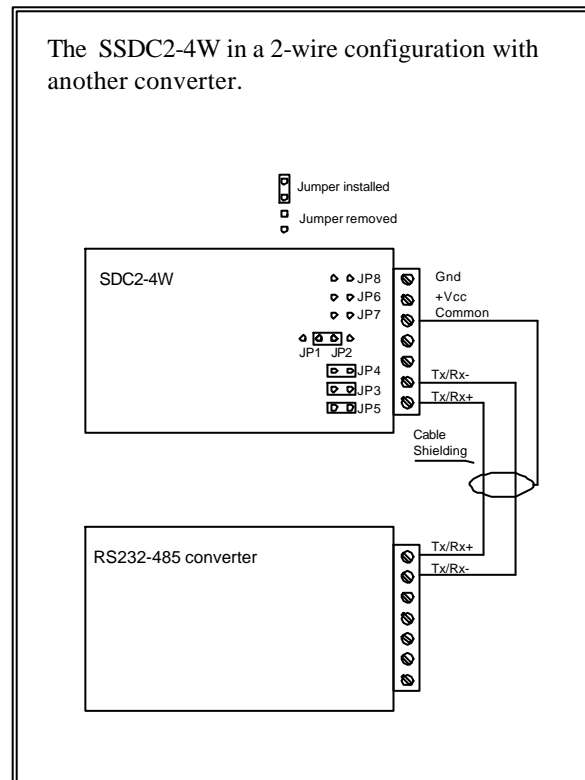
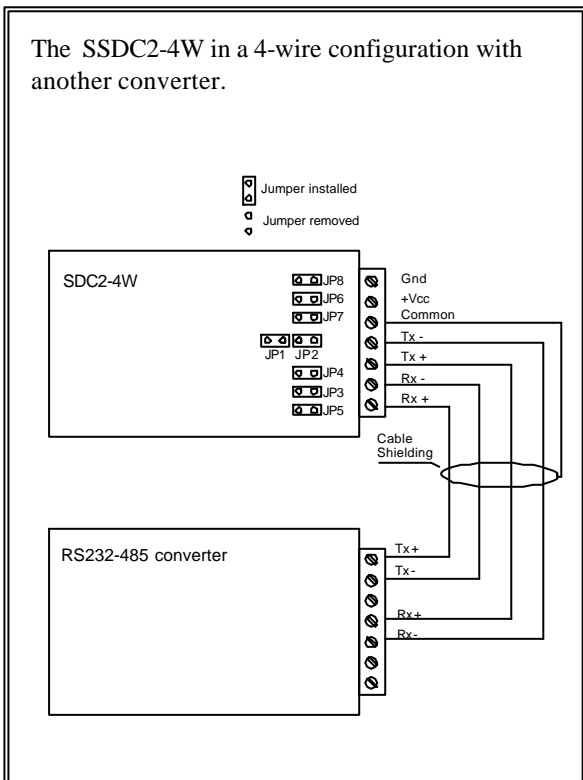
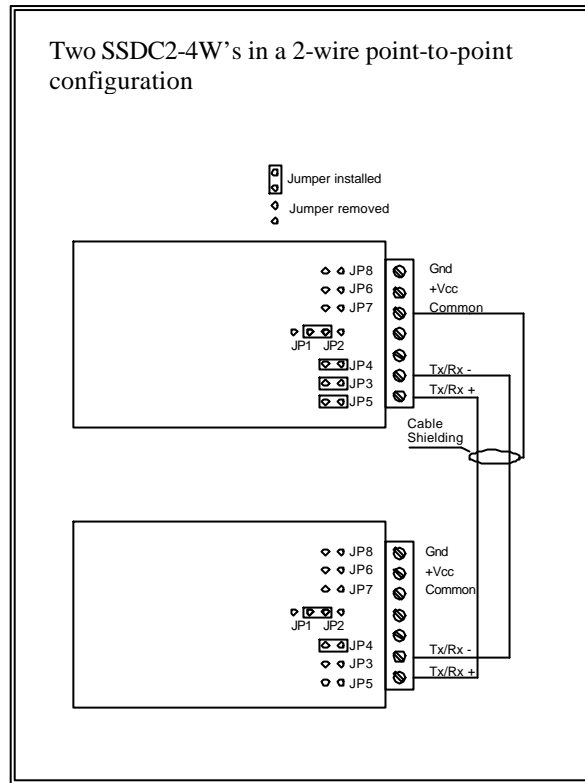
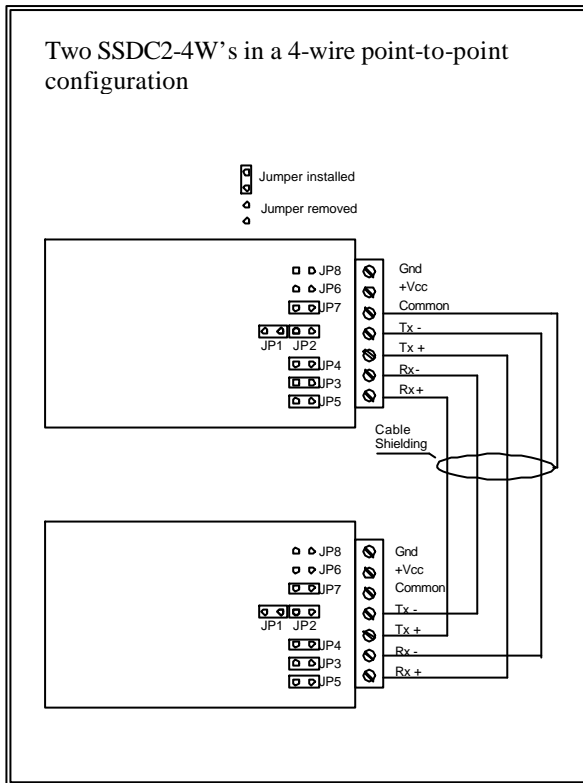
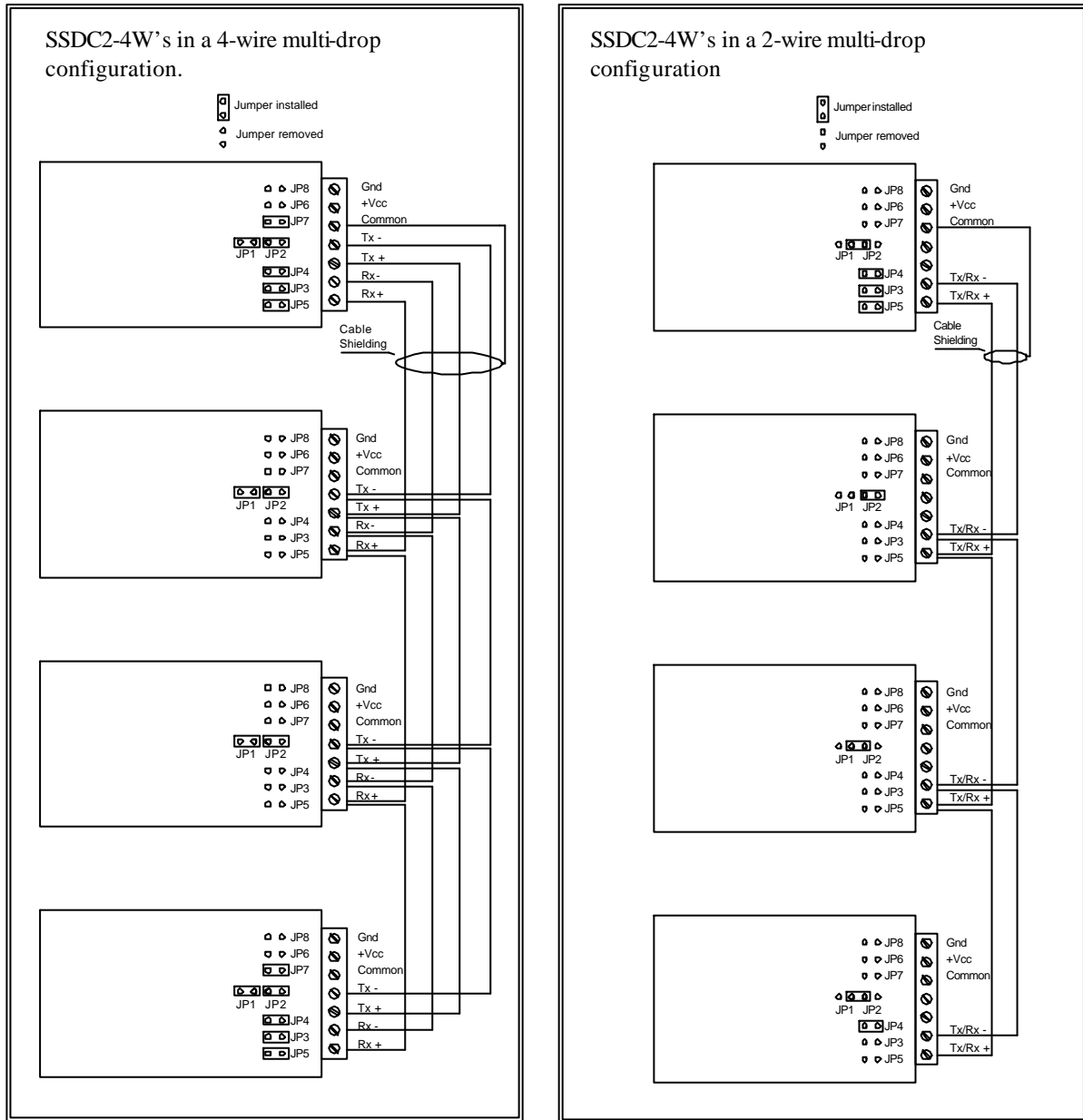


Figure 4

Configuration Examples





As you can see in the illustrations above, there is a difference in configuring the converters depending on the location in the link. In the converters located at the end of the network terminator resistors must be activated.

Default Jumper Setting

The converter is shipped with the jumpers placed as shown in figure 5.

This means configured for operating in a 2-wire mode and the terminator resistor activated.

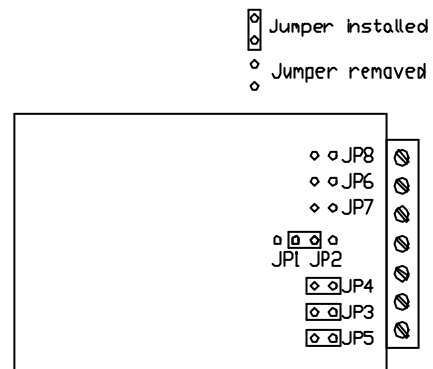
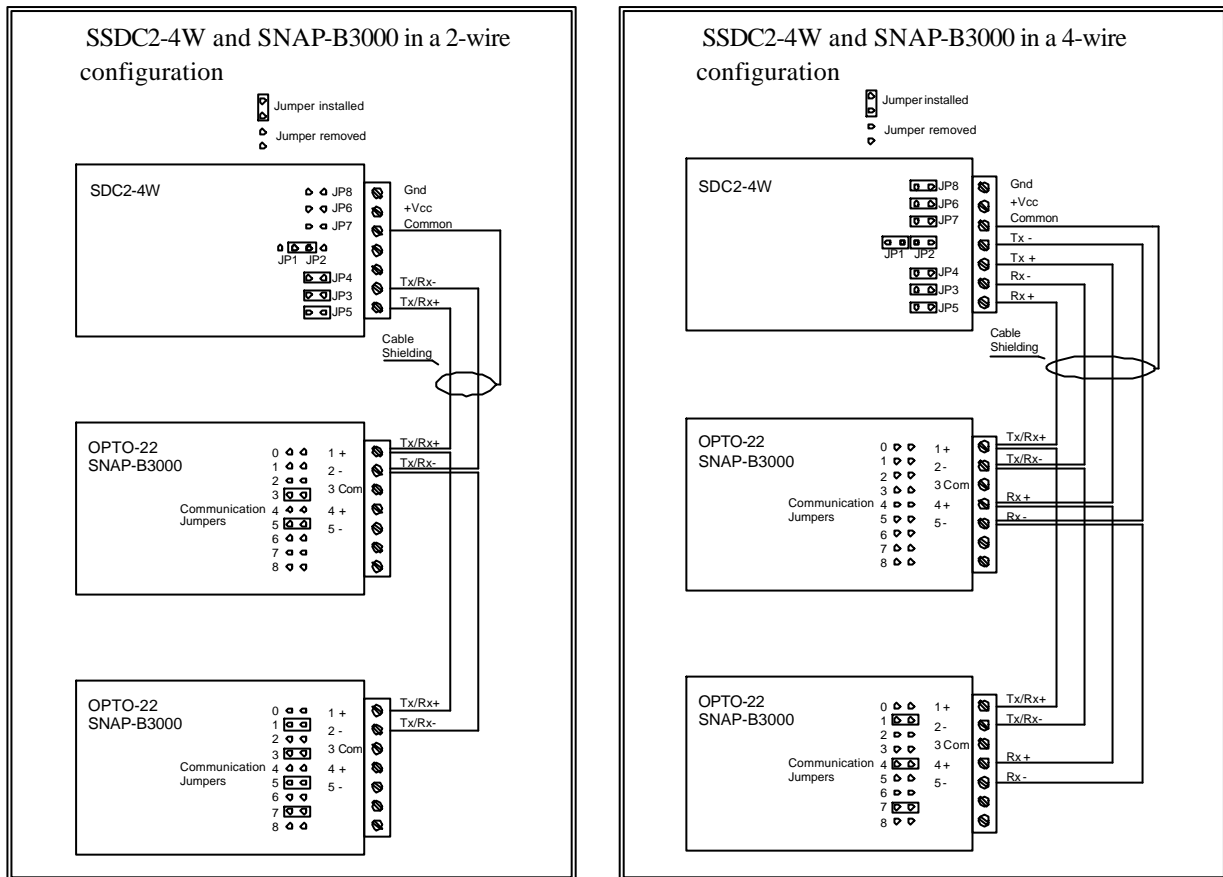


Figure 5

Configuration Examples Connecting Opto-22 SNAP-B3000



Function of the LED's

Led Color	Function
Yellow	Lights if the supply voltage is present
Red	Lights if data is received on the RS-485 interface
Green	Lights if data is send by the converter

Specifications

Power requirements	9-30VDC
Power consumption	55mA (12VDC)
Operating temperature range	0 – 50 °C
Optical Isolation	1000VDC between RS-232 and RS485/422 side
RS-232 interface	DB-9 female connector
RS-485 interface	MINI-COMBICON, MC1,5/7-STF-3.5, Phoenix part number 1847107
Baud Rate	Up to max. 115 Kb
Communications	RS485/422 full duplex (4-wire mode) RS485 half duplex (2-wire mode)
Dimensions	97x63x30 mm (LxWxH) (without mounting brackets) 97x95x30 mm (LxWxH) (with mounting brackets)
Enclosure	Metal, anodized aluminum.