

■ INTRODUCTION

The CVT-232B-3 is an industrial grade (wide temperature range with surge & static protection) port-powered RS-232 isolator. The unit optically isolates seven (7) RS-232 lines (TX, RX, RTS, CTS, DTR, DSR and GND), which effectively protects your RS-232 devices from ground loops, transient surges and spikes. Optical isolation also eliminates ground loop and noise problems. The unit is powered from the RS-232 data line, and therefore, no external power or RTS, DTR is required.

■ FEATURES

- Industrial grade with wide temperature range, surge and static protection.
- Port-powered, no external power or RTS, DTR required.
- Optical isolation effectively protects your RS-232 devices from ground loops, transient surges and spikes.
- Optical isolation eliminates ground loop and noise problems.
- Plug and play (hot-pluggable, data format auto-sensing and self-adjusting).
- Built-in surge protection, static protection and circuit protection.
- Surface Mount Technology manufactured to ISO-9001 standards.
- CE certified.
- 5-year manufacturer's warranty.

■ SPECIFICATIONS

Compatibility:	EIA/TIA RS-232C standard
Power Source:	Port power from RS-232 data line
Current Consumption:	Less than 10mA
Optical Isolation:	2500Vrms (AC, 1 min)
Baud Rates:	300 to 19,200bps (auto-sensing and self-adjusting)
Distance:	RS-232: 16ft (5m)
Connector:	DB-9 female connector and DB-9 male connector
Surge Protection:	600W
Static Protection (ESD):	Up to 15KV
Dimensions (H x W x D):	0.63 x 1.3 x 2.5 in (16 x 32 x 63 mm)
Weight:	0.88 oz (25 g)
Operating Temperature:	-40°F to 185°F (-40°C to 85°C)
Operating Humidity:	Up to 90% RH (no condensation)

■ PIN ASSIGNMENT

DB-9 Female Connector:

Pin:	4	6	7	8	2	3	5
Function:	DSR	DTR	CTS	RTS	TX	RX	GND

DB-9 Male Connector:

Pin:	4	6	7	8	2	3	5
Function:	DTR	DSR	RTS	CTS	RX	TX	GND

■ CONNECTIONS

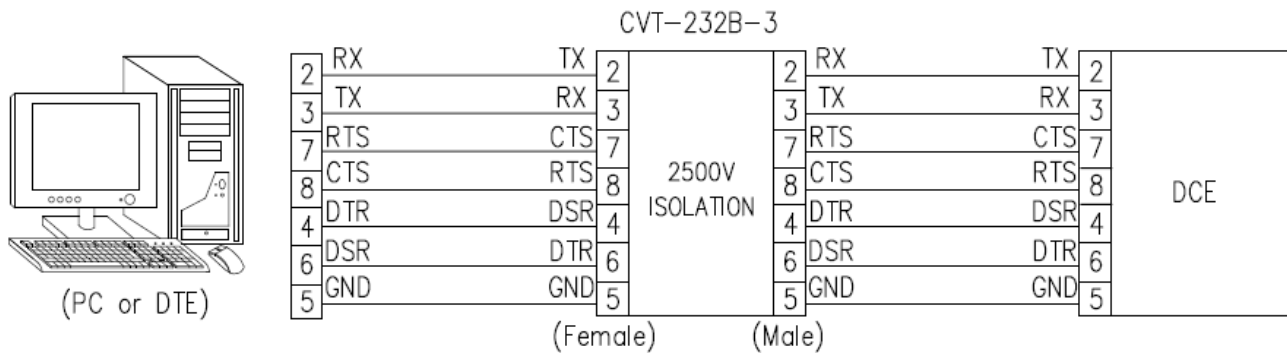


FIGURE 1: CVT-232B-3 CONNECTION DIAGRAM (DTE TO DCE)

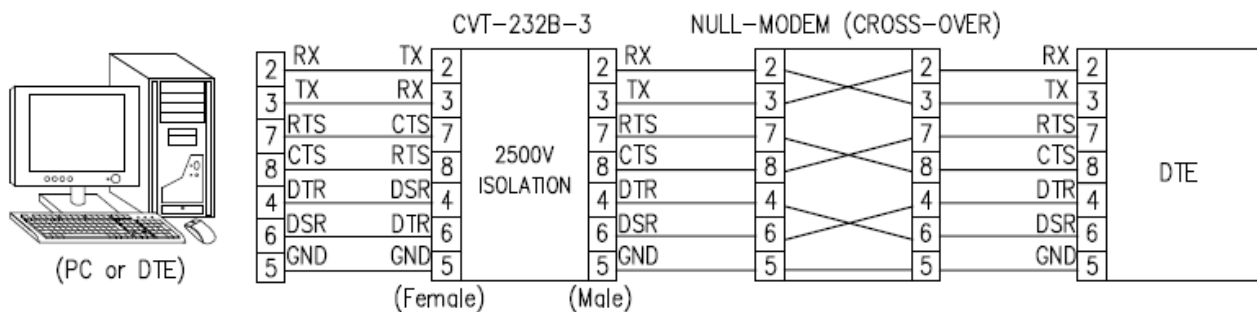


FIGURE 2: CVT-232B-3 CONNECTION DIAGRAM (DTE TO DTE)

■ DB-25 CONNECTIONS

CVT-232B-3 can also be used for DB-25 connectors; please refer to the DB-9 to DB-25 conversion table below:

DB-9 Pin Assignment:	1	2	3	4	5	6	7	8	9
DB-25 Pin Assignment:	8	3	2	20	7	6	4	5	22
Function:	DCD	RX	TX	DTR	GND	DSR	RTS	CTS	RI

■ TROUBLESHOOTING

- Measure the pin TX (pin 3 on DTE or pin 2 on DCE) and GND of the RS-232 devices to which the isolator is connected with a voltmeter, and be sure that the voltage is between -7V to -15V.
- Perform a loopback test by using CommFront's 232Analyzer software: Connect the female connector end of the isolator to your PC's COM port and connect the other end (male connector) to another of your PC's COM ports with a null-modem converter (or connect pin 2 to 3, pin 3 to 2, pin 4 to 6, pin 6 to 4, pin 7 to 8, pin 8 to 7, and pin 5 to 5). Then, run two instances of the 232Analyzer software on your PC. When you send commands or turn the DTR or RTS ON or OFF from one COM port, you should receive the same commands or respective signals from the other COM port (e.g. if you turn RTS ON from one COM port, the CTS LED on the other COM port should be ON). By performing a simple loopback test like this, you can test both the transmitter and receiver. This is very helpful when you are in doubt about the performance of your isolator.