

■ INTRODUCTION

The CVT-232A-3 is a compact, rugged, industrial-grade, port-powered, 3-wire RS-232 isolator. The unit optically isolates three (3) RS-232 lines (TX, RX and GND), which effectively protects your RS-232 devices from ground loops, noise problems, transient surges, remote lightning and spikes. The unit is powered from the RS-232 data line, and therefore, no external power, software drivers or flow control is required.

■ FEATURES

- Industrial grade enclosed in a rugged, rustless ABS housing.
- Port-powered, no external power, software drivers or flow control is required.
- 5000V optical isolation effectively protects your RS-232 devices from ground loops, transient surges, remote lightning and spikes.
- Optical isolation eliminates ground loop and noise problems.
- Plug and play (hot-pluggable, data format auto-sensing and self-adjusting).
- Operating temperature: -40°F to 185°F (-40°C to 85°C).
- Built-in 600W surge protection, 15kV static protection and circuit protection.
- Surface Mount Technology manufactured to RoHS and ISO-9001 standards.
- Safety: Strictly certified by TUV.
- 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: | 5000Vrms (AC, 1 min) |
| Baud Rates: | 300 to 38,400bps (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: | 0.83 oz (23.5 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: | 1 | 4 | 6 | 7 | 8 | 2 | 3 | 5 |
| Function/Internal Wiring: | tied together | | tied together | | TX | RX | GND | |

DB-9 Male Connector:

| | | | | | | | | |
|---------------------------|---------------|---|---------------|---|----|----|-----|---|
| Pin: | 1 | 4 | 6 | 7 | 8 | 2 | 3 | 5 |
| Function/Internal Wiring: | tied together | | tied together | | RX | TX | GND | |

■ CONNECTIONS

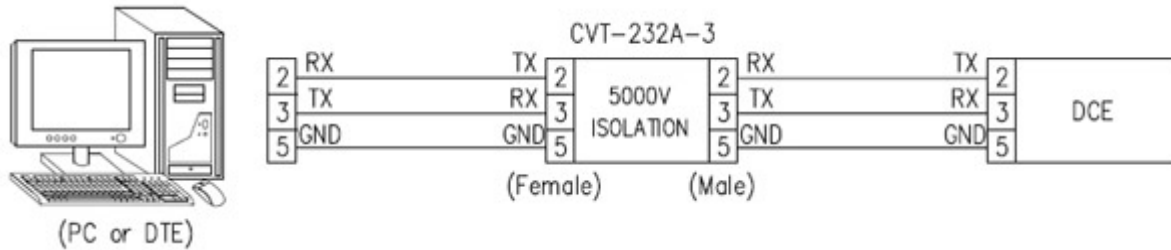


FIGURE 1: CVT-232A-3 CONNECTION DIAGRAM (DTE TO DCE)

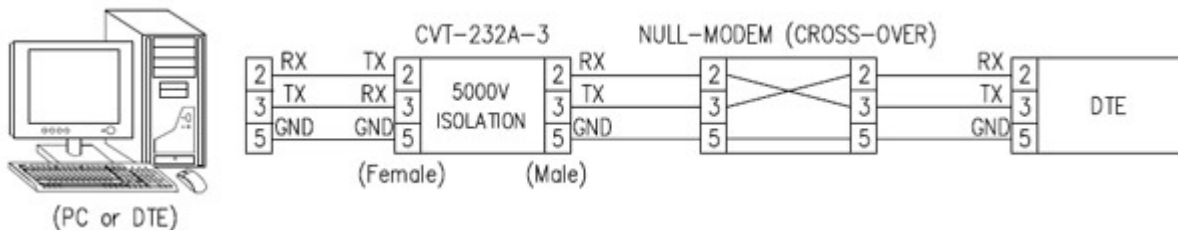


FIGURE 2: CVT-232A-3 CONNECTION DIAGRAM (DTE TO DTE)

■ DB-25 CONNECTIONS

CVT-232A-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

- 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, and pin 5 to 5). Then, run two instances of the 232Analyzer software on your PC. When you send commands from one COM port, you should receive the same commands from the other COM port. By performing a simple loopback test like this, you can test both the transmitter and receiver of your isolator. This is very helpful when you are in doubt about the performance of your isolator.