

Quick Start Guide

9POP4

Optically Isolated RS-232 Repeater



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Information – Connectors

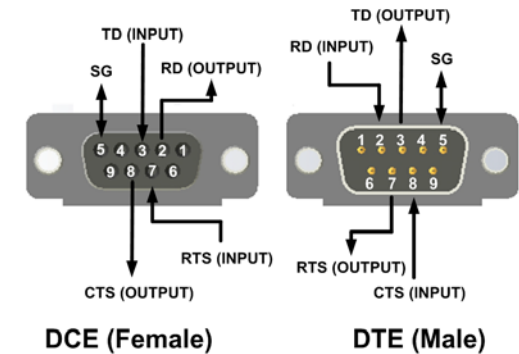


Connectors	
A	DB9 Female – Data Communications Equipment (DCE)
A	DB9 Male – Data Terminal Equipment (DTE)
C	Power – 12 VDC Jack, 2.5 mm Center Positive

Pin	Signal	DCE	DTE
1	DCD	Output	Input
2	RD	Output	Input
3	TD	Input	Output
4	DTR	Input	Output
5	GND	---	---
6	DSR	Output	Input
7	RTS	Input	Output
8	CTS	Output	Input
9	RI	Output	Input

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DB9 Pin-out



1. DTE stands for Data Terminal Equipment: these include Computers, PLC's, and most devices which are not used to extend communications. Think **COMPUTER** for DTE.
2. DCE stands for Data Communications Equipment: these includes devices intended to plug directly into a DTE port, Modems and devices that extend communications like a modem, such as RS-422, RS-485, or Fiber Optic converters or Radio Modems. Think **MODEM** for DCE.
3. On the DCE (female) side, Pins 1, 4, and 6 are tied together internally.
4. On the DTE (Male) side, Pins 4 and 6 are tied together internally.

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Check for All Required Hardware

- 9POP4 RS-232 Optical Isolator
- This Quick Start Guide
- 12VDC Wall Power Supply (sold separately).
- Recommended Power Supplies:
 - US – 232PS
 - UK – PS1UK-1000
 - EU – PS1EU-1000

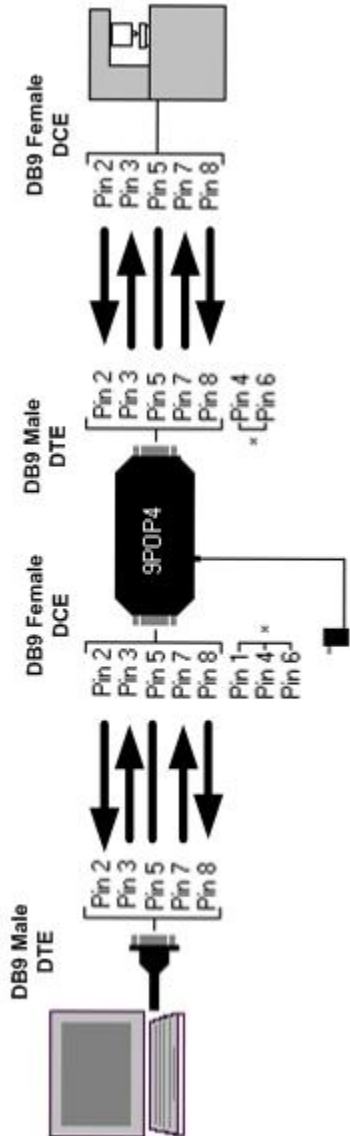
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Certifications

- FCC Class B
- CE
 - EN 55022: 2006 + A1:2007 Class A Emissions
 - EN 61000-6-1: 2007 Generic Standards for Residential, Commercial and Light-Industrial Environments
 - EN 61000-4-2: 2008 Electro-Static Discharge (ESD)
 - EN 61000-4-3: 2006 Radiated Field Immunity (RFI)
 - EN 61000-4-4: 2004 Electrical Fast Transients-Burst (EFT)
 - EN61000-4-5: Ed2, 2005 (Surge)
 - EN 61000-4-6: 2005 Conducted Immunity

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Wiring Example



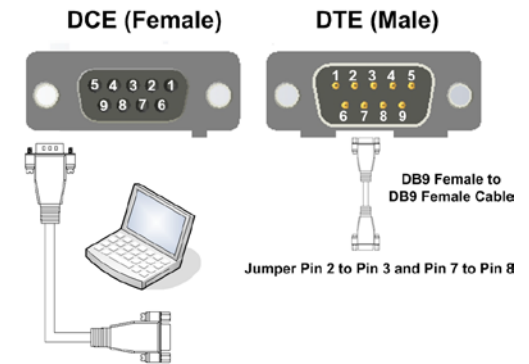
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Power

1. The two sides of the isolator are powered from a single +12VDC power supply and maintain isolation. This powering configuration allows the device to be run in any system with only a single supply, regardless of the power levels on the RS-232 ports.
2. In order to maintain the required isolation, use the recommended power supply. Using an unregulated power supply may negate the isolation.
3. Recommended Power Supplies:
 - a. US – 232PS
 - b. UK – PS1UK-1000
 - c. EU – PS1EU-1000

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Loopback Test



- Use a DB9 Female to DB9 Male cable to connect a PC to the DCE port.
- (Recommended) Connect a DB9 Female to DB9 Female cable to the DTE port.
- On the DTE Port, jumper pin 2 to 3 and pin 7 to 8 on the female end of the cable. This loops TD to RD and CTS to RTS.
- Using hyper terminal or similar program, connect to the appropriate COM port (remember to set the baud rate to 9600). Turn off hyper terminal local echo
- Transmit data. The same data should be returned.