

RS232 to TTL/CMOS Converter

Installation Guide

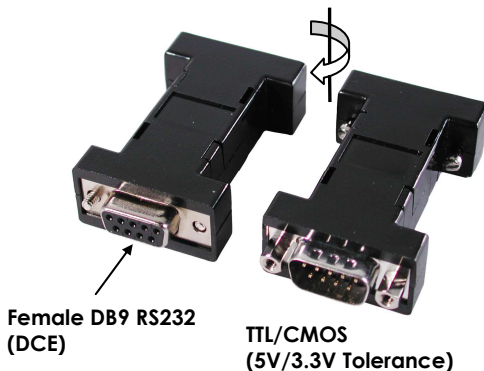
1. Introduction

Thank you for purchasing this RS232 to TTL/CMOS Converter. It is designed for your PC, workstation, thin client, or server to provide an instant conversion solution for the device that needs RS232 interface in TTL or CMOS voltage level. It provides a DB9 female connector (DCE, with standard RS232 signals, TXD, RXD, RTS, CTS and GND) that can be connected directly to your PC's RS232 port. The product is powered by the RS232 signals so it does not need any DC power from an external AC Power Adapter.

Features:

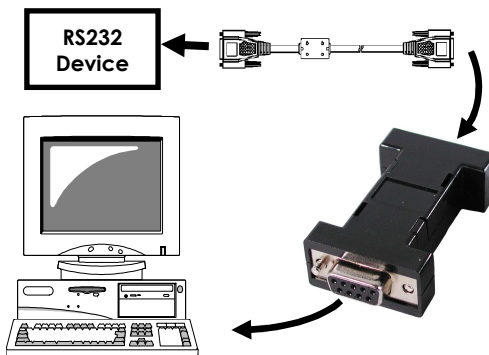
- ✓ Provides one RS232 to TTL/CMOS Adaption
- ✓ Supports 4-Signal RS232 Conversion: (TXD, RXD, RTS, CTS, GND)
- ✓ Supports DB9 Female (DCE) to DB9 Male (TTL/COMS) Connector Conversion
- ✓ Supports 5V and 3.3V Tolerance Signals
- ✓ Signal Levels are Inverted by the Converter Similar to Standard RS232 but in TTL/CMOS Swing Level
- ✓ Supports Baud Rate up to 115.2 Kbps
- ✓ Port-powered, no External Power Required
- ✓ No Driver Required for All Operating Systems

2. Layout: RS232 to TTL/CMOS Converter



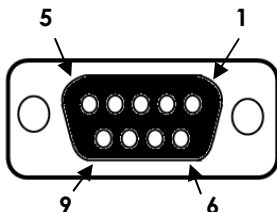
3. Installing the RS233 Isolator

- 1. Use static electricity discharge precautions.**
Remove possible static discharge potential from any objects that the converter may come in contact with before installation. This can be accomplished by touching a bare metal chassis rail after you have turned off the power.
- 2. Locate an unused PC's RS232 port (with DB9 male connector, configured as DTE), connect it to this Converter's DB9 female connector, connect the TTL/CMOS RS232 Device to the Converter's DB9 male connector (with a cable).**



4. RS232 Female DB9 Pin Assignments and Wiring

DB9-Female Pin Assignment:



<u>9 Pins</u>	<u>Signal</u>
1	NC
2	TXD
3	RXD
4	NC
5	GND
6	NC
7	CTS
8	RTS
9	NC

NC = No connection

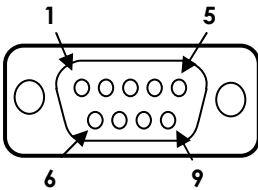
DB9(Male, Host PC) to DB9(Female, on this product) Wiring:

<u>DB9M(DTE,Host PC)</u>		<u>DB9F(DCE, this product)</u>	
1 DCD	←	1 DCD	
2 RXD	←	2 TXD	
3 TXD	→	3 RXD	
4 NC		4 NC	
5 GND	—	5 GND	
6 NC		6 NC	
7 RTS	→	7 CTS	
8 CTS	←	8 RTS	

RS232 (DB9 female)	Signals	Signals	TTL/CMOS (DB9 male)
3 (Input)	RXD	TXD-	3 (Output)
2 (Output)	TXD	RXD-	2 (Input)
7 (Input)	CTS	RTS-	7 (Output)
8 (Output)	RTS	CTS-	8 (Input)
5 (Signal GND)	GND	GND	5 (Signal GND)

5. TTL/CMOS Male DB9 Pin Assignments and Wiring

DB9-Male Pin Assignment:



<u>9 Pins</u>	<u>Signal</u>
1	NC
2	RXD-
3	TXD-
4	NC
5	GND
6	NC
7	RTS-
8	CTS-
9	NC

NC = No connection

DB9(Male, this product) to DB9(Female, RS232 Device) Wiring:

<u>DB9M(DTE, this product)</u>		<u>DB9F(DCE, RS232 Device)</u>
1 DCD		1 DCD
2 RXD	←	2 TXD
3 TXD	→	3 RXD
4 NC		4 NC
5 GND	→	5 GND
6 NC		6 NC
7 RTS	←	7 CTS
8 CTS	→	8 RTS

6. Specifications

Type	Specifications
Connectors	DB9 Female (DCE), DB9 Male (DTE, TTL/CMOS)
Number of Ports	1 RS232
RS232 Signals	TXD, RXD, RTS, CTS, GND
Baud Rate	Up to 921.6Kbps
Power Requirement	5V/5mA max.
Operating Temperature	0 to 60°C (32 to 140°F)
Operating Humidity	5 to 95% RH
Storage Temperature	-20 to 85°C (-4 to 185°F)

Electrical Characteristics

Parameters	Values
TTL/CMOS Input	
Low	< 0.8V
High	> 2.0V
TTL/CMOS Output	
Low	< 0.55V
High	> 2.4V
RS232 Input	
Low	< 0.2V
High	> 2.4V
RS232 Output	
Low	< -5V
High	> +5V