

USB-RS4X-1 SERIAL CONVERTER CABLE INSTALLATION GUIDE

Introduction

Thank you for purchasing this RS-422/RS-485 to USB serial adapter cable. It is an intelligent expansion module that connects to a PC or server via the Universal Serial Bus (USB), providing high-speed serial connectivity. The RS-485 port includes an Auto Transceiver Turn Around feature to automatically switch the half-duplex RS-485 transceiver between Transmit (Tx) mode and Receive (Rx) mode, removing the need for software or a separate RTS control signal from the host processor.

Features

- ✓ Provides one RS-422/RS-485 port over USB
- ✓ Supports 4-wire RS-422 and 2-wire RS-485 applications
- ✓ Supports RS-485 Auto Transceiver Turn Around via ATTA™ hardware
- ✓ Supports USB bus power
- ✓ RS-422/RS-485 baud rate up to 921.6 kbps
- ✓ USB1.1 and USB2.0 backward compatible
- ✓ DB9 male connector
- ✓ Hot swappable and Plug-and-Play features
- ✓ Compact size
- ✓ Supports Windows, Linux and macOS



1-800-633-0405

www.AutomationDirect.com

Switch Settings

DIP Switch Settings				
Switch	Description	Default	OFF	ON
1	485/422	485 (OFF)	2-wire RS-485 mode	4-wire RS-422 mode
2	Echo*	NO ECHO (ON)	Transmitted data will be echoed back	No echo
3	Termination	NO TERM (OFF)	Termination resistor disabled	Termination resistor enabled
4	None	NA	Reserved for future use	Reserved for future use

* The ECHO setting has no effect in RS-422 mode.
Echo allows an application program to detect RS-485 bus collisions. If the echoed data does not equal the transmitted data, then a collision occurred.

Connecting the Adapter Cable

1. Plug the USB Type-A connector of the cable into a USB host port on your PC or an available USB port on a USB hub.
2. Plug the RS-422/RS-485 serial device to the DB9 male connector at the other end of this adapter cable.
3. Proceed with "Installing Drivers" to install the virtual COM port drivers for your operating system.

Installing Drivers

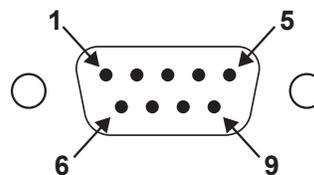
The RS-422/RS-485 adapter cable can be hot-plugged to the USB port of your computer. It supports Windows, Linux and macOS. Drivers for each operating system are provided in the zip archive downloadable from www.automationdirect.com.

- (32_64bit)Win_11
- (32_64bit)Win10_8x_7_2016_2012R2_2008R2
- (32_64bit)WinXP_Vista_2008_2003
- Linux x86_64
- Mac OS X
- Mac_OS_9_8
- Win98_ME
- Win2000

Specifications

Specifications	
Connectors	USB Type-A, DB9 male
Cable Length	1.8m [5.9ft]
Number of Ports	1 RS-422/RS-485
RS-422 Signals	TXD+, TXD-, RXD+, RXD-, GND
RS-485 Signals (2-wire)	DATA+, DATA-, GND
Baud Rate	300 bps to 921.6 kbps
Data Bits	7, 8
Stop Bits	1, 2
Parity	None, even, odd, mark, space
Power Requirement	5V/110 mA (USB bus powered)
Operating Temperature	0 to 55 °C [32 to 132 °F]
Operating Humidity	5-95% RH
Storage Temperature	-20 to +85 °C [-4 to +185 °F]

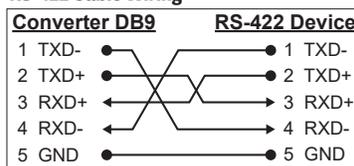
Male DB9 Pin Assignments and Cable Wiring



Pin Assignments		
Pin	4-wire RS-422	2-wire RS-485
1	TXD-	DATA-
2	TXD+	DATA+
3	RXD+	NC
4	RXD-	NC
5	GND	GND
6-9	NC	NC

* NC = No connection

RS-422 Cable Wiring



RS-485 Cable Wiring

