

# ROLINE USB to RS-422/485 Serial Adapter

12.02.1174

## Quick Installation Guide

### Introduction

This adapter transforms your Universal Serial Bus (USB) port into asynchronous RS-422/485 serial ports for communication with serial devices. The adapter is compatible with both USB 2.0 and 1.1 specifications and provides serial ports with transfer speeds up to 921.6 Kbps. It provides a quick, simple and cost-effective way to bring the advantages of data accessibility and mobile solutions for any kinds of commercial and industrial automation applications.

### Features

- Expands 1 or 4 independent RS-422/485 serial ports through USB interface.
- Supports Universal Serial Bus Plug-n-Play and Hot-Swapping.
- No IRQ, DMA, I/O address resource required.
- Supports USB 2.0 and USB 1.1
- Serial port provides transmission rates up to 921.6 Kbps.
- Built-in ± 15KV ESD protection for all serial signals.
- Compact Size and low power consumption.
- Supports USB bus power without additional external power.
- Supports Microsoft Windows and Linux.

### Package Checklist

Please check if the following items are present and in good condition upon opening the package. Contact your vendor if any item is damaged or missing.

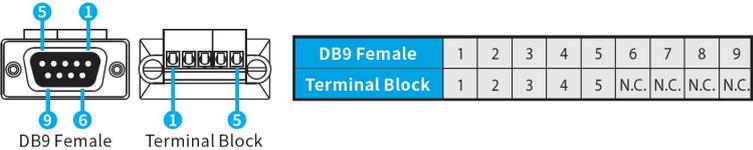
- USB to RS-422/485 Adapter, cable 120 cm
- DB9 Female to 5-pin Terminal Block Adapter
- Quick Installation Guide

### Pin Assignment

USB to Serial Adapter



DB9 Female to 5-pin Terminal Block Adapter



## Specification

### USB Communication

Interface	Universal Serial Bus (USB)
Controller	Prolific PL2303GC
Performance	USB 1.1 full speed 12Mbps USB 2.0/3.0/3.1 compatible
Receptacle	USB Type-A with cable

### USB Communication

Interface	RS-422/485
No. of Ports	1
FIFO	1024-byte bi-directional data FIFO buffers Receive 768 Byte Buffer Hardware Transmit 256 Byte Buffer Hardware
Signal	RS-422: TxD+, TxD-, RxD+, RxD-, GND RS-485: Data+, Data-, GND
Baud rate	50 - 921.6 Kbps
Stop bit	1, 1.5, 2
Parity	even, odd, none, mark, space
Flow Control	XON/XOFF
Protection	±15KV ESD protection for each signal Human Body Model ±15KV IEC61000-4-2 Air Gap Discharge ±8KV IEC61000-4-2 Contact Discharge
Receptacle	DB9 Male with Screw nuts

### Driver Communication

Windows Client	7 / 8.x / 10 (X86/X64) / 11
Windows Server	Server 2008 / 2008R2 / 2012 / 2012R2 / 2016 / 2019(X64)
Linux	Linux 2.6.x or later
Mac	OS 10.9 - 11

## Driver Installation/Verify

### Microsoft Windows

In order to ensure the proper operation of your USB to serial adapter, please follow the instructions below:

- (1) Please refer to your vendor for the latest driver download.
- (2) Click the Setup.exe from your driver.
- (3) Follow the onscreen installation step.
- (4) After finishing the installation, please connect the USB Serial Adapter to your PC.
- (5) Please check to see if it is installed properly in Device Manager.



Start > Controller Panel > System > Device Manager



### Apple macOS

Please download the driver for macOS, which includes driver and installation guide.

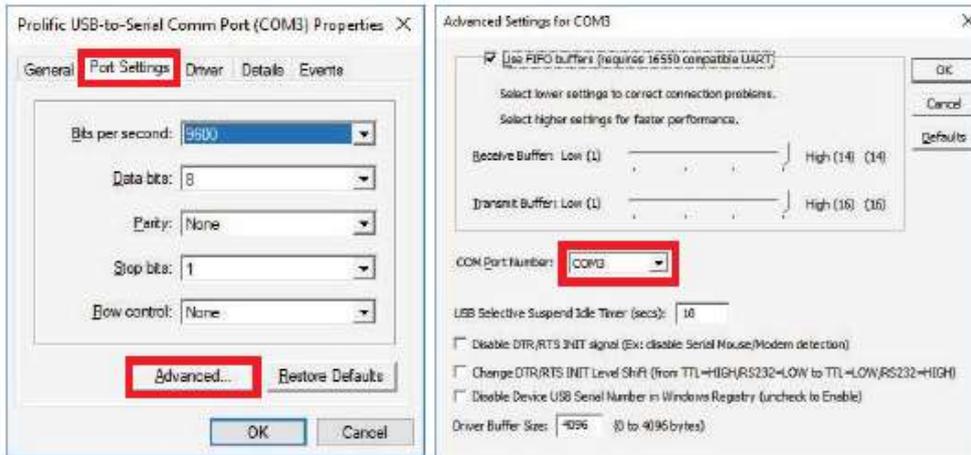
### Linux

- (1) Please refer to your vendor for the latest driver download.
- (2) Please find the nearest Linux kernel version first.
- (3) make all // make a new driver.
- (4) sudo rmmod pl2303.ko // remove driver
- (5) sudo insmod pl2303.ko // add\_1 a new driver
- (6) sudo cp pl2303.ko /lib/modules/\$(uname r)/kernel/drivers/usb/serial // add\_2 a new driver

## Port Setting

After installing the USB to Serial Adapter successfully, you can modify the setting for each port in the Device Manager.

- (1) Right click on COM port and select Properties.
- (2) Select the Port Setting page to modify the COM the port setting.
- (3) Select the Advanced icon to modify the COM port number and FIFO.



- (4) When the serial device requires setting to a specific COM number, confirm that the port number matches the required settings for your serial device.

## Uninstalling Driver

After installing the USB to Serial Adapter successfully, you can modify the setting for each port in the Device Manager.

- (1) Right click on COM port and select Properties.



- (2) Please select Driver.
- (3) Please select Uninstall in the Driver setting.
- (4) Select Delete the driver software for this device to finish the uninstallation.

## Troubleshooting

After installing the USB to Serial Adapter successfully, you can modify the setting for each port in the Device Manager.

**Question 1:** The USB to Serial Adapter does NOT communicate with my serial device.

**Answer 1:** It may be caused by following issues:

- Please verify that the USB to Serial Adapter is installed correctly.
- Confirm that the port settings match the required settings for your serial device.
- If the serial device requires software, make sure it is installed properly.
- Make sure that the number of ports is matching the number of USB to Serial Adapter COM ports.
- USB to Serial Adapter does NOT support serial mouse.
- The latest driver is not installed.

**Question 2:** Why is the COM port number different?

**Answer 2:** The COM port number is assigned by the USB slot that is used for the connection to the computer. If you change the USB slot, the port number changes. Please always install the USB adapter in the same USB slot. If changing the USB slot, the port number will change.