

USB to RS485 Converter User Manual

Description

Our range of USB to RS485 Converters comprises of three types – one where the two wire RS485 connections are electrically connected to the USB interface (non-isolated) and two others which have galvanic isolation (5kV) between the USB interface and the RS485 interface (isolated). The isolated types come in two models which can operate at maximum speeds of 500Kbps and 3Mbps.

The non-isolated USB to RS485 converter is ideal for most applications and environments such as office, laboratory, server rooms and non-commercial environments. We recommend the isolated versions for industrial and factory environments where one cannot take the chance of either damaging the PC or damaging the equipment which you are connecting to.



Drivers for our USB to RS485 converters are available for most versions of Windows including Windows 8 and the latest Windows Server version. Linux and Android drivers are also available. Once the drivers have been installed and the converter is connected to your computer's USB port, a virtual COM port will be created.

Specifications

- Drivers for Windows 8 32/64, Windows 7 32/64, Vista 32/64, XP 32/64, Server 2003/8R2 32/64, 2000, ME, 98Se, Mac, 8/9/X, Linux.
- WHQL compliant COM drivers included.
- USB port-powered, no external power needed.
- FTDI232 USB chip and Analogue Devices RS485 Drivers and Isolator.
- UART I/F Supports 7 / 8 Bit Data, 1 / 2 Stop Bits and Odd/Even/Mark/Space/No Parity.
- USB Plug and Play with Windows 7 and 8.
- Indication LED for TX and RX activity.
- Auto detection of data speed.
- USB 1.1 and USB 2.0 compatible.
- Screw terminal connections for wire 1.5mm² maximum.
- Automatic data direction control.
- Typical communications speed: maximum 115.2Kbps at 1,000m.
- Up to 32 nodes in network configuration.
- Operating temperature -10°C to 60°C.
- Internal link for 220Ω termination resistor if required.
- Dimensions 70 x 19 x 17 mm (L x W x H).
- Packaged dimensions 110 x 100 x 45 mm (W x D x H), weight 60g.
- Latest drivers and software are included on the CD or the very latest are available at:

<http://www.ftdichip.com/Drivers/VCP.htm>

<http://www.ftdichip.com/Support/Documents/InstallGuides.htm>

<http://www.ftdichip.com/Support/FTDocuments.htm>



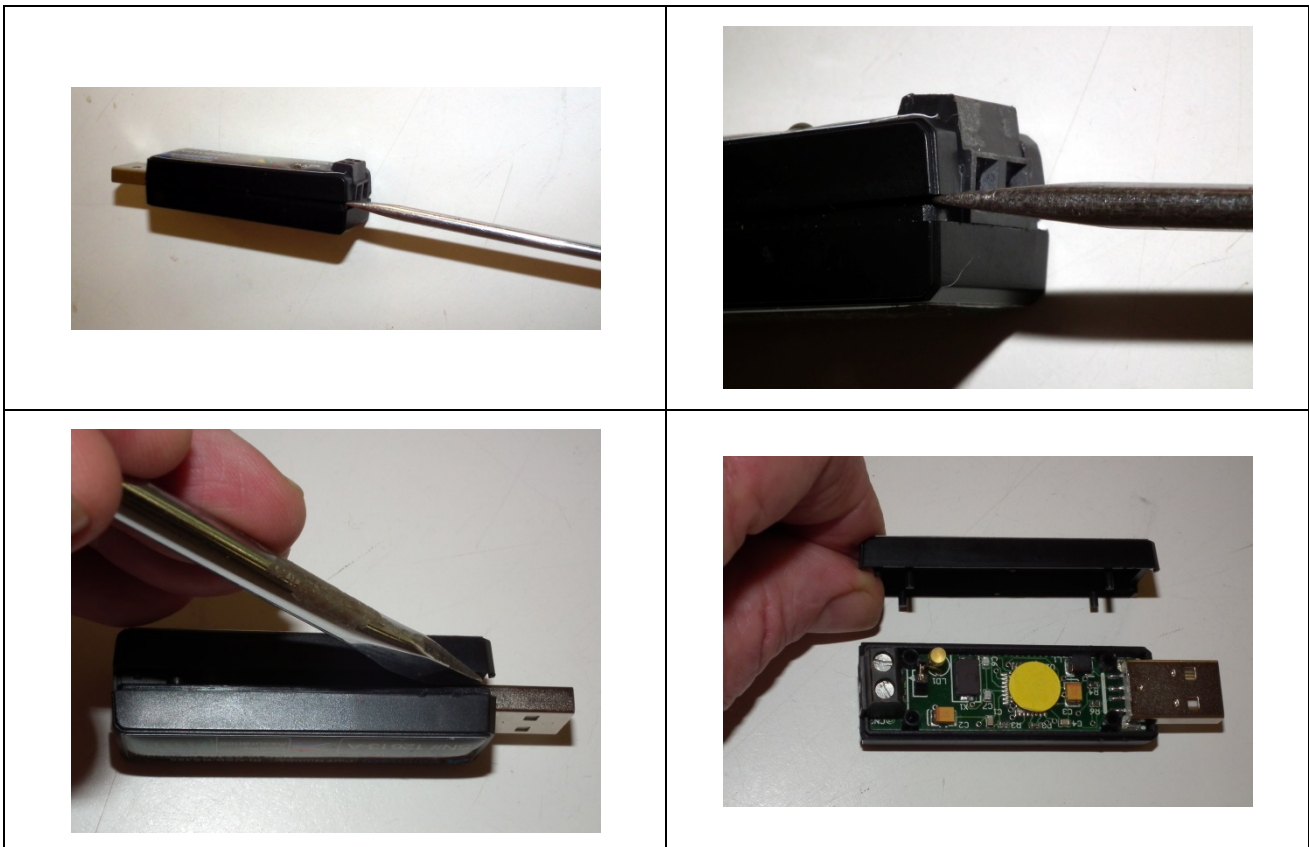
Installing the Termination Resistor Link

It is only quite rarely that you will need to install a termination resistor in the USB to RS485 adapter. More commonly the termination resistance is installed at the end of your communications line. If you are experiencing data loss (and know that your slave devices are working and addressed correctly) rather:

1. reduce the communications speed,
2. then add a termination resistance at the end of your line and
3. then try installing the termination resistor in the adapter.

The adaptors are delivered with the links open – no termination.



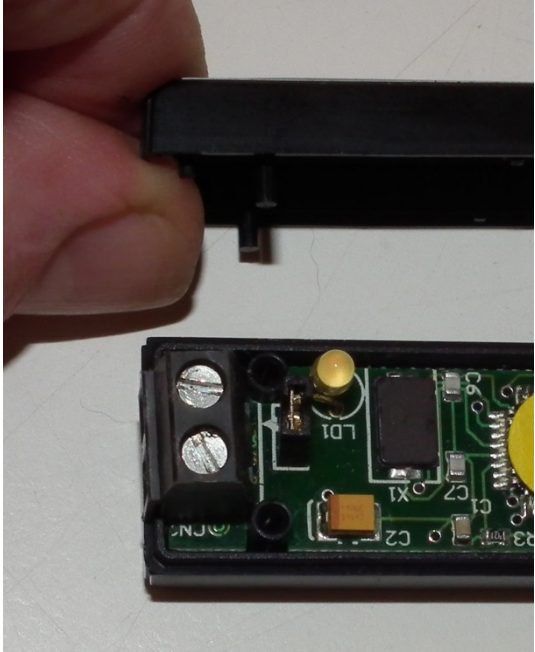
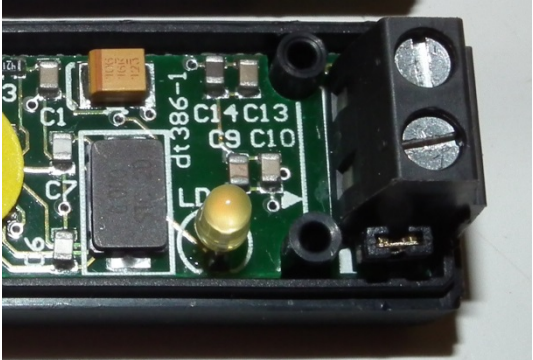
Prise open the unit carefully just a little using a small screwdriver at the corners of the unit. Use a larger screwdriver to avoid bruising the plastic housing:



Part Numbering

- | | |
|-----------------|--|
| PI-USB/RS485 | USB to RS485 Converter |
| PI-USB/RS485-I | USB to RS485 Converter – Isolated |
| PI-USB/RS485-IX | USB to RS485 Converter High Speed – Isolated |

The link for the non-isolated versions is located inside the unit and the isolated versions have the link in a small plastic packet inside the product packaging.

Non-Isolated Type	Isolated Type
 <p data-bbox="300 689 687 725">Link open – no termination</p>	 <p data-bbox="957 689 1345 725">Link open – no termination</p>
 <p data-bbox="256 1417 730 1453">Link installed – 220Ω termination</p>	 <p data-bbox="914 1272 1385 1308">Link installed – 220Ω termination</p>

To get the latest user manual please download from:

<http://danntech.com/usermanuals/USB to RS485 Converter User Manual.pdf>



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