USB to RS-485/422 converter

Model: MD-USB2RS485-FT

Features

- Maximum baud rate 921600 bps
- Built-in termination and biasing resistors
- Automatic transmit and receive control for 2-wire RS-485 half-duplex mode
- Transmit, Receive and Power LEDs for easy port monitoring and diagnostic
- Powered by USB port (no external power adapter required)
- Easy plug and play installation and RS-422/RS-485 device connection
- Installed as standard Virtual Windows COM port

Description

The converter provides the conversion of USB bus signals into differential pairs of signals of the serial asynchronous 4-wires RS-422 or 2-wires RS-485 interface.

This converter is designed for easy connections to commercial and industrial equipment such as point-of-sale peripherals, scientific instrumentation, laboratory and medical equipment and other devices in conditions where voltage spikes, surges and others crosstalk may occur.
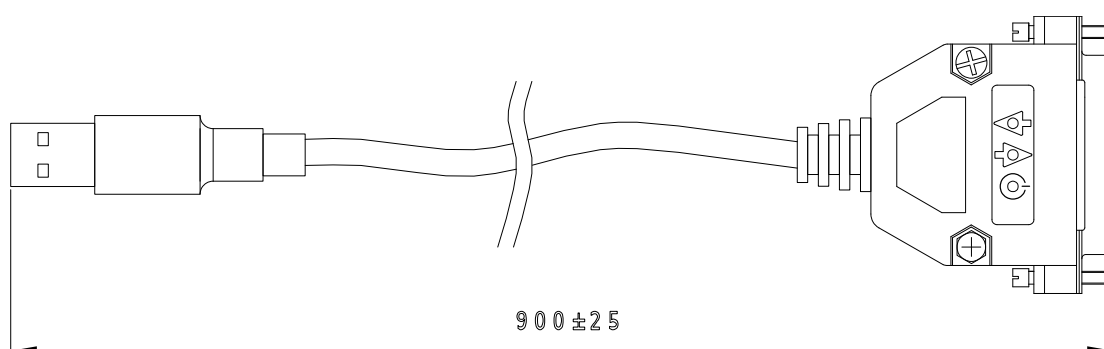
The converter is ideal for applications requiring long distance and/or multi-drop capabilities.

SPECIFICATION	
USB	USB 1.1 Compliant, 2.0, 3.0 Compatible
USB connector	Type A
Baud Rates	From 300 to 921600 bps
Receive Buffer	256 bytes
Transmit Buffer	128 bytes
RS-422/RS-485 connector	DB25 Male
Serial Interface	RS-485 2 wire half duplex RS-422 4-wire full duplex
Termination Resistor	120 Ohm between the R+ and R- receive lines
Bias	1 kOhm pull-up/pull-down resistors on the R+ and R- receive lines
Distance	Up to 1200 m at the rate of 9600 bps
Indication LEDs	Transmit, Receive and Power
Handshake/flow control	Automatic Send Data Control
RS-485 Control	Automatic transmit and receive control

SPECIFICATION

Power	Powered by USB port (no external power adapter required)
Current Consumption	< 100mA
Dimensions	DB25 case and 850 mm cable
Operating system	Windows XP, 7/8/8.1/10, Mac OS 8, OS 9, OS X 10.3 to 10.9 and above, Linux.
Chipset	FTDI FT232RQ
Software driver	Official FTDI Ltd driver
Operating Temperature	-40 °C...+85 °C

Mechanical diagram

900±25

Connector Pin Assignments (DB25 Male)

Pin	Type	Name	Description
2	input	R+ (A)	Receive positive
4	output	T+ (A)	Transmit positive
8, 25	ground	GND	Ground
9	input	R- (B)	Receive negative
11	output	T- (B)	Transmit negative

Connection examples

RS-422

USB to RS-485/422 Converter

PC USB

Name	Pin
R+	2
R-	9
T+	4
T-	11
GND	8, 25

Device

Name
T+
T-
R+
R-
GND

RS-485

USB to RS-485/422 Converter

PC USB

Name	Pin
T+	4
R+	2
T-	11
R-	9
GND	8, 25

Device

Name
T+
R+
T-
R-
GND