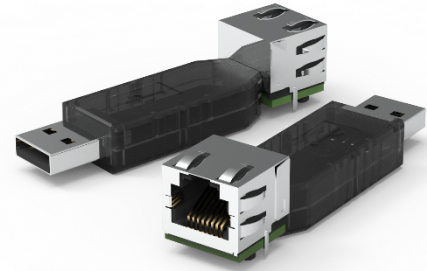# USB to Serial Adapter

Creates a virtual serial port on linux and windows PCs allowing the computer to communicate with all Serial sensors of generation Zero that support RS422 Serial communication.
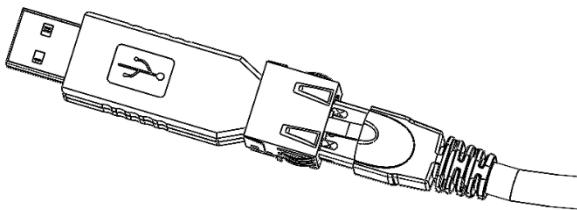
Suitable for the following products

▶ Serial Gen Zero

Configurations

Ordering number	Description
ACC-USB-PROG	USB to Serial adapter RS422/RS485

Technical specification

The adapter provides power to the sensor and communication with the PC through a virtual serial port. The driver should be installed automatically when plugging the device, otherwise it can be downloaded from VCP Drivers - FTDI. The adapter has a green and red led to indicate traffic.

It can be used with the app.botasys.com to configure the sensor parameters.

LED	Function
Green	Receiving data from sensor
Red	Transmitting data to sensor

⚠️ **WARNING** The virtual serial port driver can provide data with minimum 1 ms latency. It can be used with higher update frequency devices than 1 Khz but the latency will remain 1ms. For update rates higher than 1 Khz over USB communication we recommend using Bota Systems' latest products, Gen Aletschhorn. On Windows Operating systems the device needs configuration. See below

⚠️ **IMPORTANT** To maximize the performance of the device, navigate to Device manager, locate the USB to serial adapter (usually named USB Serial Port), right click on it and click properties, on the tab port settings click advanced and on the lower left corner select 1ms in the Latency Timers (msec) drop down menu. Click OK on both windows.

Technical data

Property	Value		
General		**Electrical**	
Application	Configuration	Power consumption with sensor	0.2A @5V
Degree of protection	No protection		100 MOhm
Mechanical mating cycles	≥ 100	IEC standard	IPC-A-620
length	68.89 mm	Rated voltage	60V dc
Width	18.00 mm	**Certification**	
height	17.41 mm	RoHS	Yes
Ambient temperature (operation)	–25 ºC – 80 ºC	CE	Yes

Below the dimension and pinout of the adapter can be found. The adapter is designed to work with all sensor cable connected to all Serial sensors of Generation Zero.
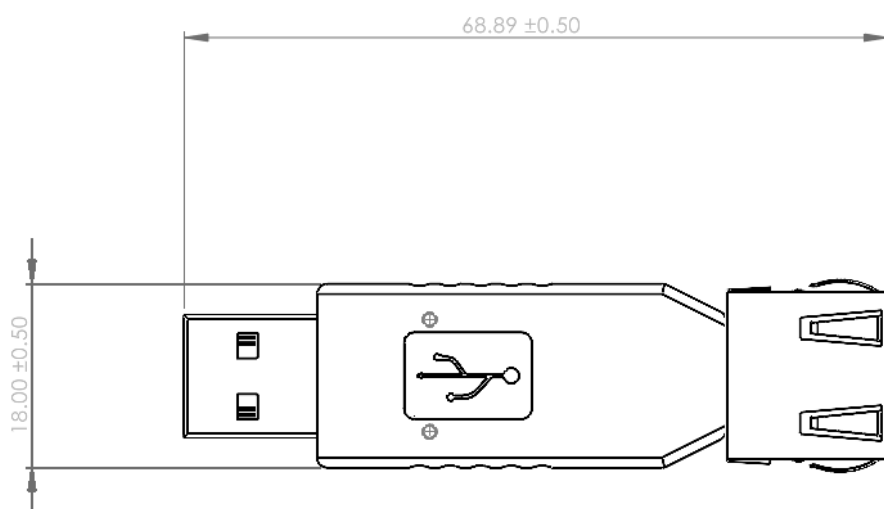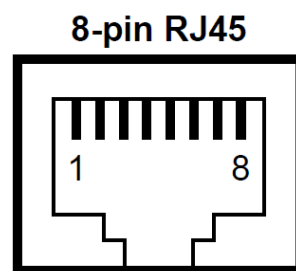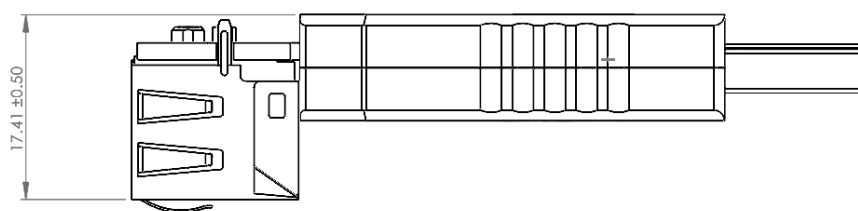

FIGURE 2

FIGURE 1

FIGURE 3

Adapter function	P2
RS422 RX+	1
RS422 RX-	2
RS422 TX+	3
RS422 Tx-	6
5V	7
5V	8
GND	5
GND	4
Shield	S