UBERLOGGER

QuickStart for logging

1. Starting the Uberlogger

1.1 Power Up

Connect the provided USB-C cable into the Uberlogger and plug the other end into your PC or a USB charger that provides 5V and at least 300 mA. Flip the power switch to 'on' and you should see a green LED light up. Switch the power switch to the 'on' state. The green LED should turn on.
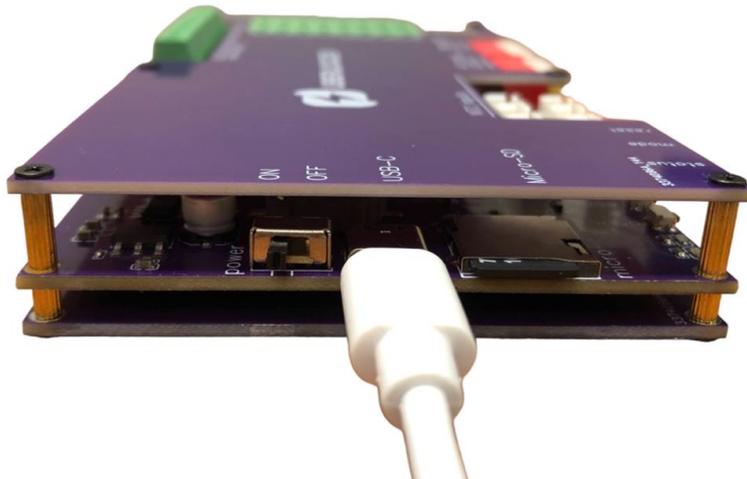

Figure 1: connecting the Uberlogger with the USB connector.

1.2 Connect to Wi-Fi & accessing the portal.

From your PC, connect to the Wi-Fi network that reads as "Uberlogger-XXXXXXXX," where 'XXXXXXXX' represents your unique Uberlogger ID.
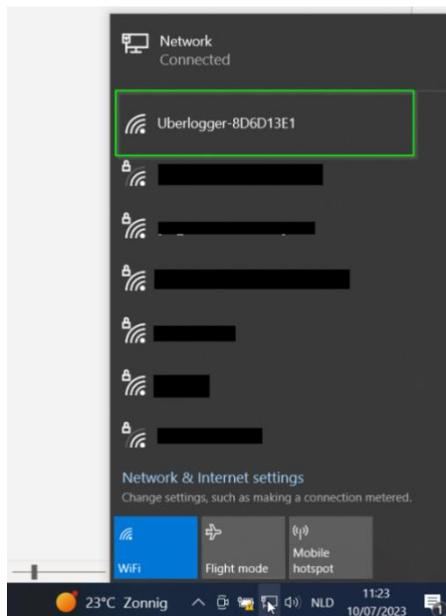

Figure 2: connecting with the Uberlogger over Wi-Fi. Note that you should see the network Uberlogger-XXXXXXXX with XXXXXXXX is unique for your Uberlogger.

Once connected, open your preferred browser, and navigate to http://192.168.4.1. You should now be viewing the Uberlogger live data page.

1.3   Configuring the Uberlogger

This quick manual briefly describes the most important settings you must set to start logging. In the user interface portal, you can configure the Uberlogger under the "Configuration" tab:

1.4   Analog channels

You can set the analog channel mode and voltage range under "Analog channels" as shown in Figure 3.

Analog channels

Select the mode used for the analog channels.

Important: ensure the hardware configuration (DIP-switch setting) is equal to the settings below.

Note: range select has no effect when the NTC temperature input is used.

Analog channel	Mode	Range
Channel 1	Analog in ▾	+/-10 V ▾
Channel 2	Analog in ▾	+/-10 V ▾

Figure 3: channel mode and voltage range

1.4.1   Channel mode

You can select the channel mode for analog channels as either "Analog in" or "NTC" (negative temperature coefficient) temperature sensors.

> **Important**: do not forget to set the red DIP switch on the Uberlogger for the channel mode when changing these settings. See 1.4.3.

1.4.2   Voltage range

When selecting the mode "Analog in" you can also select the voltage range "+/- 10V" or "+/- 60V". Note that this is not possible when having "NTC" selected. Changing the range will give you a higher accuracy when choosing +/- 10V range or a broader range when selecting + / - 60V.

> **Important**: do not forget to set the red DIP switch on the Uberlogger for the voltage range when changing these settings. See 1.4.3.

1.4.3   Setting the channel type and voltage range switches

It is important to manually toggle the switch levers for the voltage range on the Uberlogger to the setting you set in the configuration, since this is not detected automatically. You can do this using the red DIP switches as shown in Figure 4. Set the DIP switches with the switches facing towards you:

- For NTC, put the lever of the corresponding channel of the left DIP switch UP. For analog input, put the channel of the left DIP switch DOWN (off).
- For –10V/+10V range put the lever of the corresponding channel of the right DIP switch UP (on) and for –60V/+60V set the switch DOWN (off)

To save all the settings for the channel configuration, click the "Save channel settings" button.

Up: NTC

DOWN: Analog in
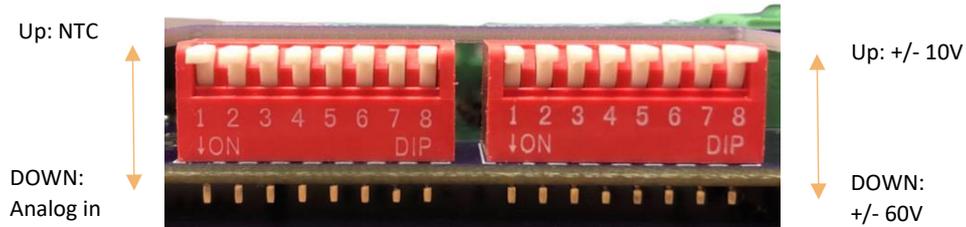
Up: +/- 10V

DOWN: +/- 60V

Figure 4: DIP switches to set the channel mode and voltage range. In this figure, all channels are set to NTC channels (left DIP switches all up) with a range of –10V/+10V (right switches all up)

Setting the sampling frequency and resolution

You can set the sample rate and resolution by going to "Channel configuration" and selecting the desired sample rate and resolution. To save the settings, click "Save all settings" or "Save channel settings".

Channel configuration

Sampling

Select the desired sample rate: [250 Samples/s ▾]

Select the desired analog resolution: [16 bits ▾]

Figure 5: selecting the sample rate and resolution.

1.5   Logger timestamp

The Uberlogger includes a time logging feature in the CSV data format. You can easily synchronize the Uberlogger's internal clock with the time of the PC or mobile phone you are using to access the interface. It is important to be aware that the recorded time is stored in Coordinated Universal Time (UTC) format, without accounting for daylight saving time adjustments. To synchronize the time press the "Synchronize to local time" button:

System time

To ensure recordings are indicating the correct time, you can synchronize the real time clock with the local time.

[Synchronize to local time]
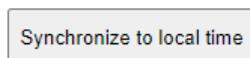
After this you should get a confirmation that the time is synchronized.

2   Connecting inputs

2.1   Analog inputs

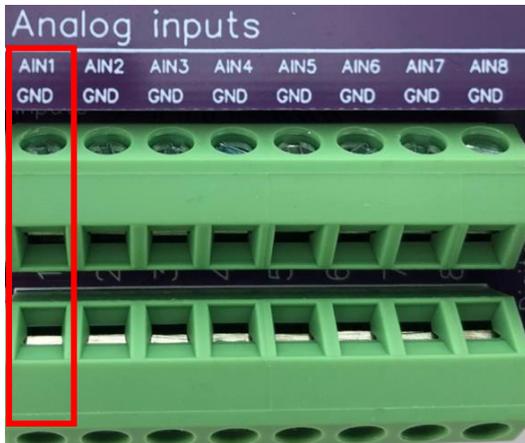For analog inputs, connect to AINx and its corresponding GND.

Figure 6: analog inputs. Each analog input has a ground signal indicated as GND opposite of the signal as indicated in the figure.

You can connect the analog channel to AINx and its corresponding GND, which is opposite of the positive terminal as indicated above in red. The GND and AINx terminal can handle voltages up to −60V and +60V, respectively. You can insert the wire in the screw terminal by first screwing the terminal open, inserting the wire and then screwing it tight.
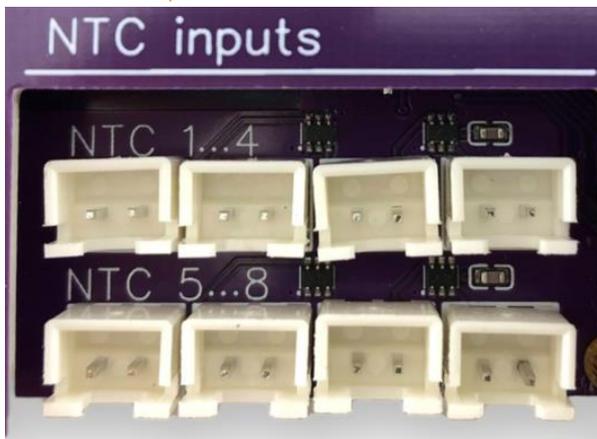
2.2   NTC inputs

Figure 7: NTC inputs. The top ones are NTC1 till NTC4. Bottom row NTC4 till NTC7

In case you want to use the NTC, you can plug it directly into the socket you want to. The top 4 connectors are connected to channel 1 to 4 and the bottom 4 connectors to channel 5 to 8, respectively.
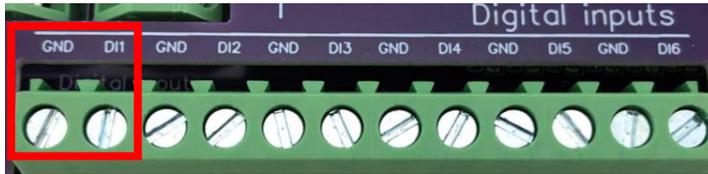
2.3   Digital inputs

Figure 8: digital inputs have the ground to the left of its digital channel.

One digital channel terminal pair is shown above, where the GND of DIx is left of the positive terminal. Note that the digital inputs can handle voltages of maximal +/- 60V.

2.4   Starting and stopping logging

Put an SD card formatted as FAT partition into the SD card slot on your Uberlogger.

> ℹ️   Currently only SD cards up to 32GB and FAT is supported.

- **Start logging** Start the logger by either:
    1.1. Pressing the "mode" button on the side of the Uberlogger for about 1 second to start logging.
    1.2. Pressing "Start logging" on the top right corner of the user interface:

   1.3. Going to the "Logging" tab inside the and click on "Start logging":
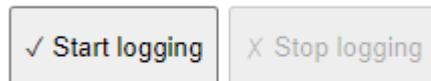
    The green LED on the Uberlogger should blink at an interval of around 1 second to indicate it is logging.

- **Stop Logging**: When you are done, you can stop logging by:
    1.4. Pressing the mode button for 1 second
    1.5. Pressing the stop logging button in the top right corner:
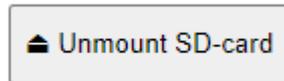

    1.6. Clicking "Stop logging" under the "Logging" tab:
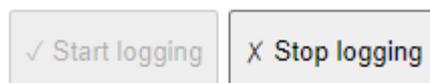
2.5   Retrieve your data

Your logged data can be retrieved in the following way.

    1.1. **Ejecting the SD card:** before you can eject your SD card, you need to unmount the SD card by hitting the "eject" button at the top of the page or by pressing "unmount" on the "Logging tab." . You can only unmount while not logging.

After this you can insert the SD card into a PC and retrieve the data from there.

> **Important**: do not manually eject the SD-card while the SD-card is mounted and/or while logging. Failing to do so may corrupt your data!

After this you can insert the SD card into a PC and retrieve the data from there.

1.2. **Using the file browser:** you can download the csv from the file browser which can be found under the "Logging" tab.

If you need more information, please read the full manual which can be found on www.uberlogger.com or contact customer support.