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1. INSTALLATION & SETUP

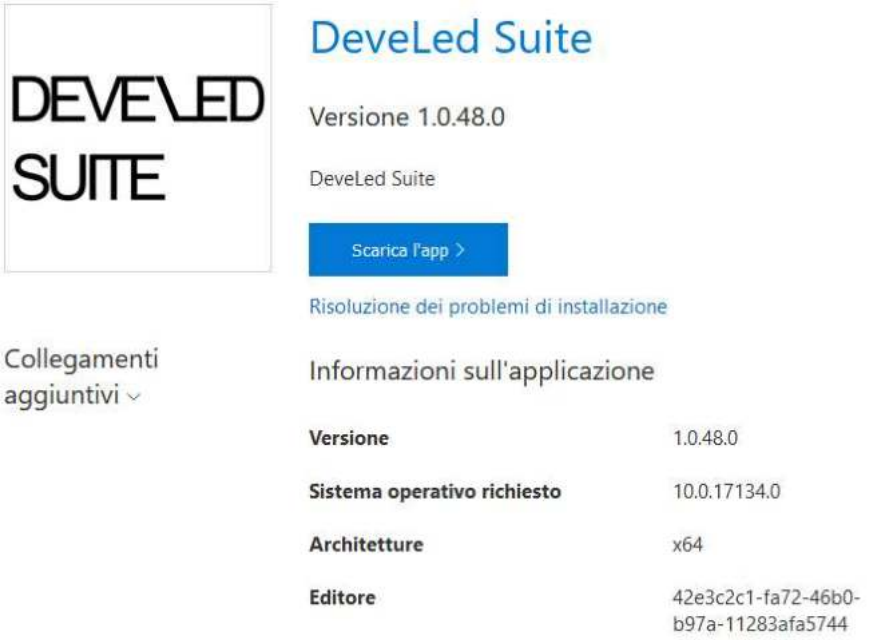
Requirement:

- Windows 10 Operating system, minimum version 1803;
- Windows app installation program must be present on the computer;
  if not present (usually by default) you can download it for free from here:
  https://www.microsoft.com/store/productId/9NBLGGH4NNS1

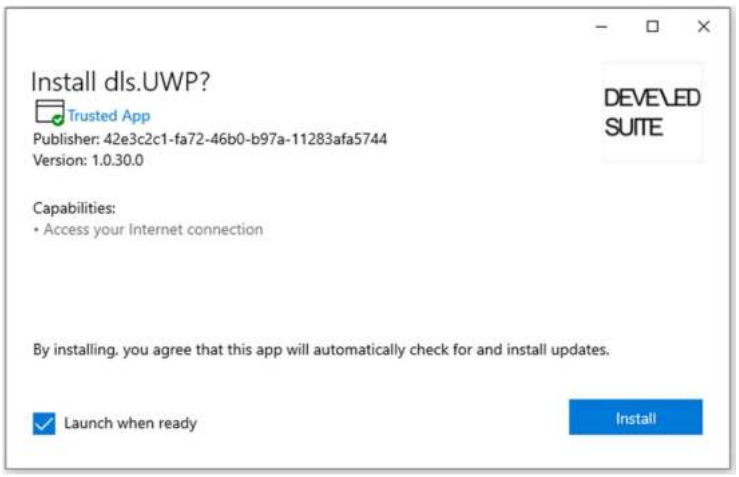
1- Click on the link:

https://rs3.mac-italia.com/uwpupdates/dls/

2- Click on “Download the App” Button:



3- Follow the wizard instruction for completing the installation:



4- Connect the Led Driver device to the interface.

5- Connect the power-supply (24V or 48V depending on the Led Driver to be programmed) to the DLS interface and turn it on.

6- Connect the USB port of the DLS-interface to the computer.

It may require drivers installation. The driver can be downloaded from this link:

https://rs3.mac-italia.com/uwpupdates/dls/driver.zip

UNZIP the Folder and follow the route:

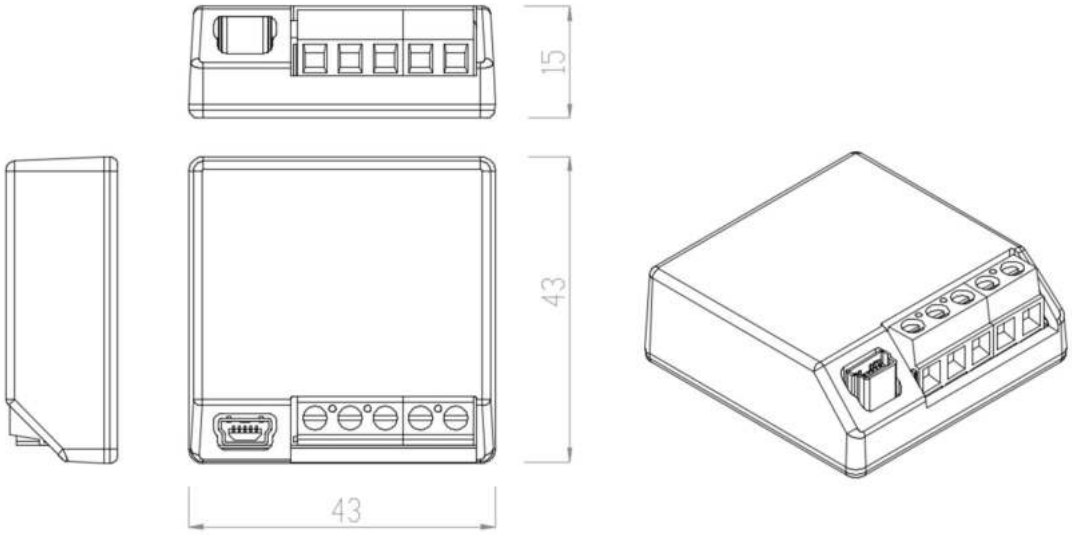
- driver
    - interface
        - official
            - CP210xVCPInstaller_x64 (or "_x86" depending on your OS)

Select "Device Manager" menu from start.

- You will find the interface "CP2102N USB to UART Bridge Controller" highlighted
- Then you should update the driver (with the right click of your mouse) by selecting it from the path of the folder you have already downloaded.

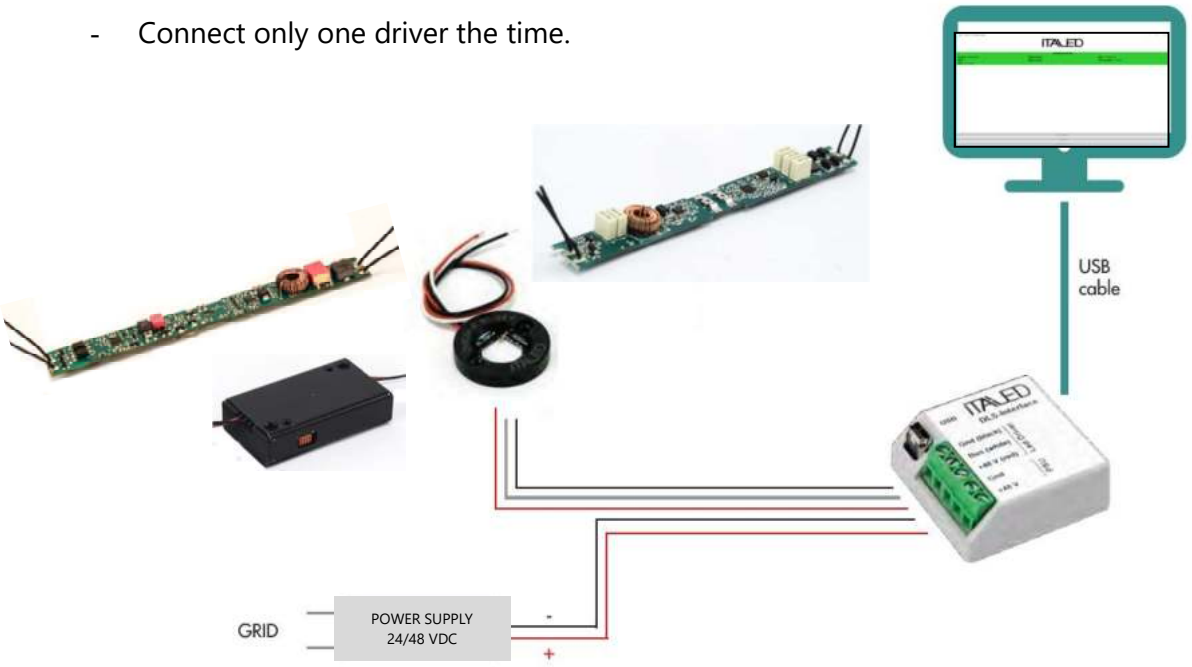
2. DLS INTERFACE - DIMENSIONS

Dimensions: 15mm x 43mm x 43mm (inch: 0,59 x 1,69 x1,69)



3. DLS INTERFACE - CONNECTIVITY

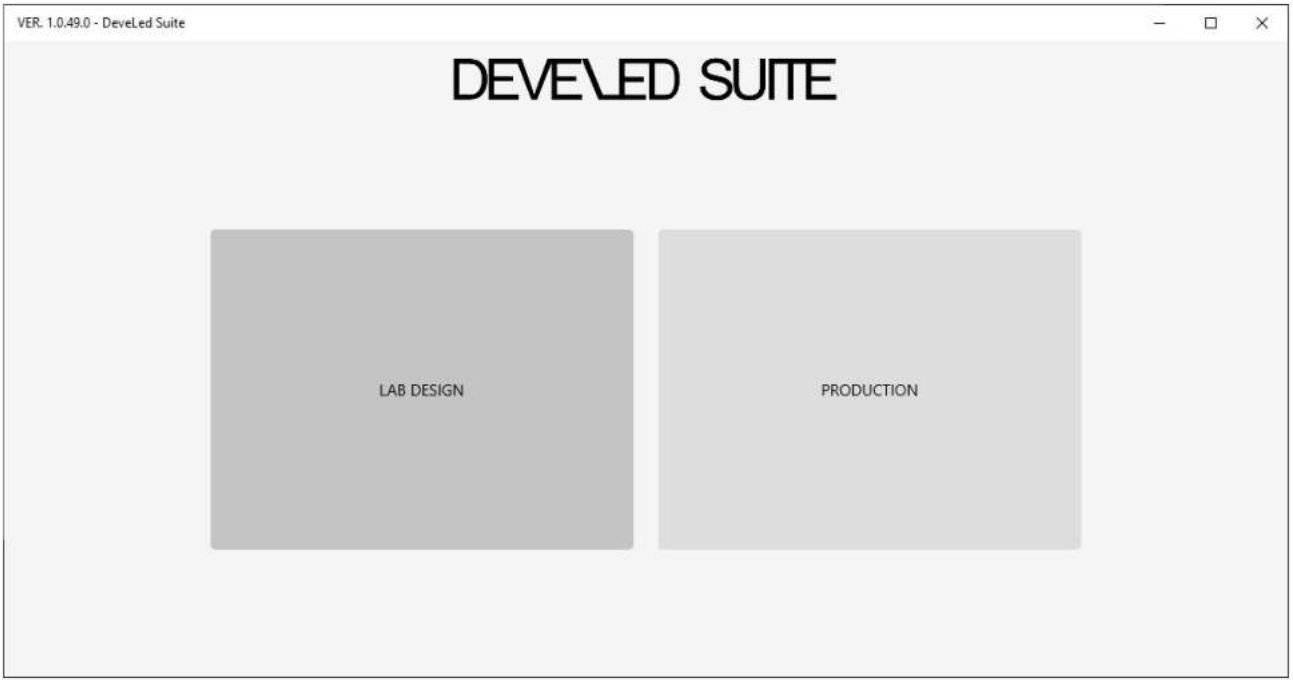
- Use Mini B Connector USB Cable.
- Connect only one driver the time.



4. DEVELED SUITE SOFTWARE

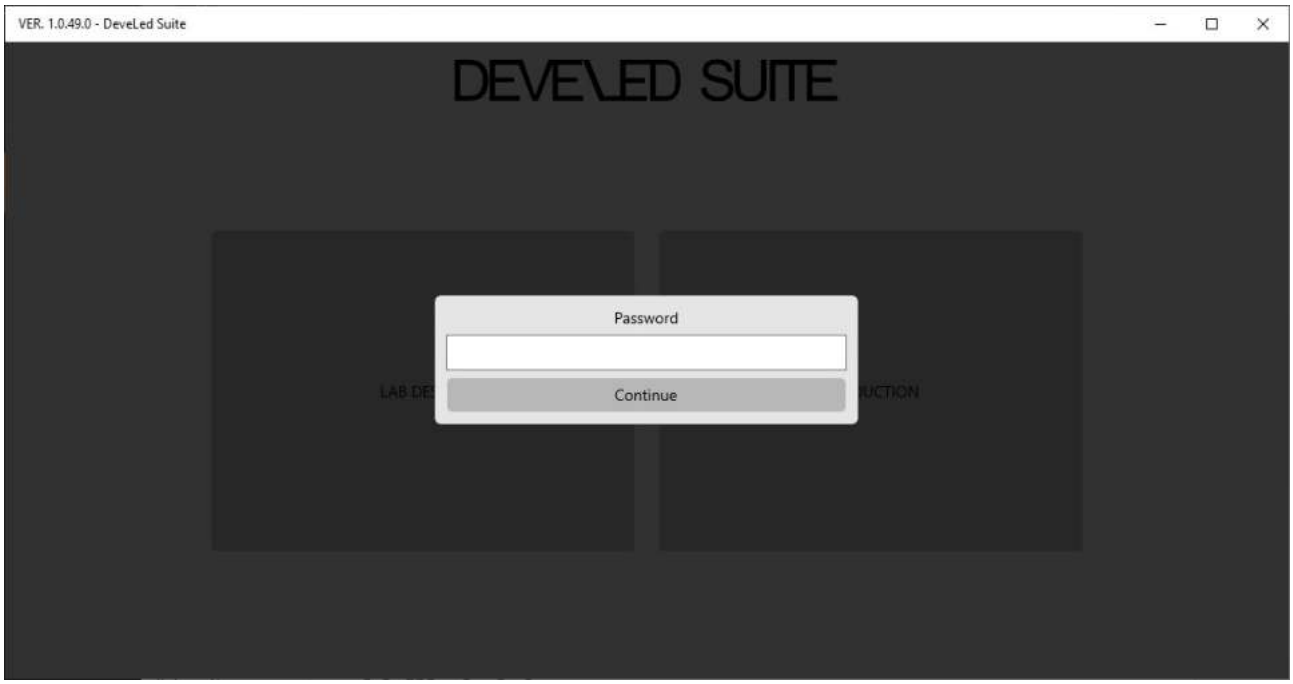
- Run the DEVELED Suite APP

- This is the initial Brand Page and room selection.

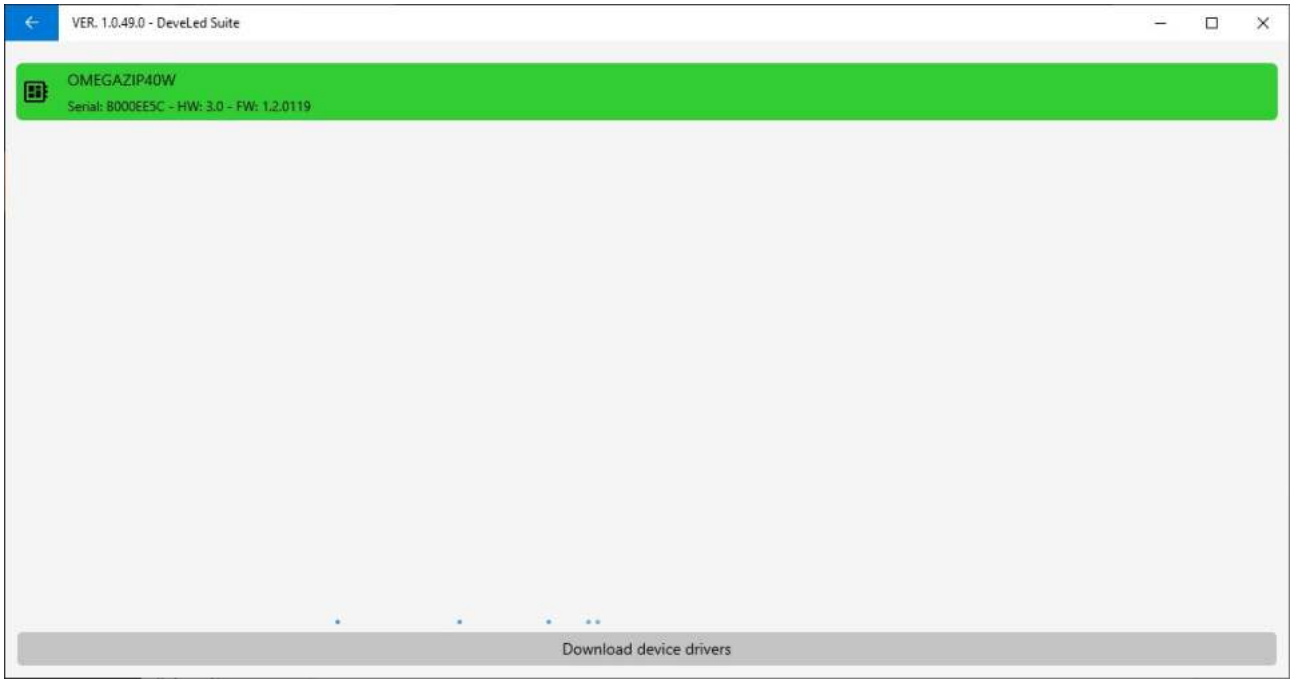


5. LAB DESIGN SECTION

- If you select LAB DESIGN section, a password is required.
- Ask your commercial account for the password.



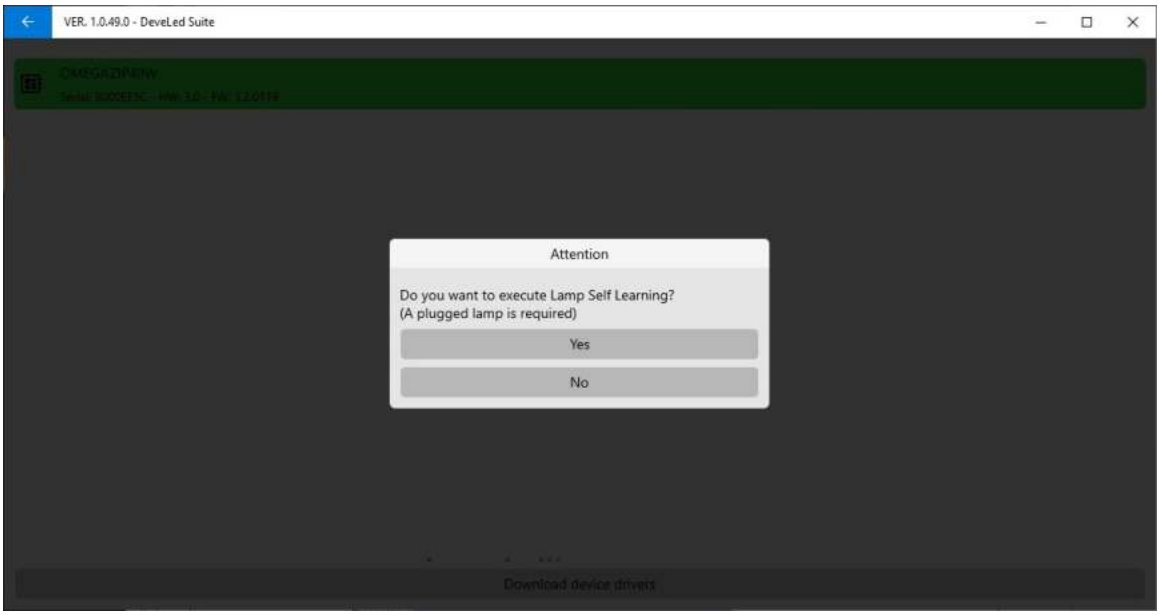
- The SW will search automatically the connected driver.



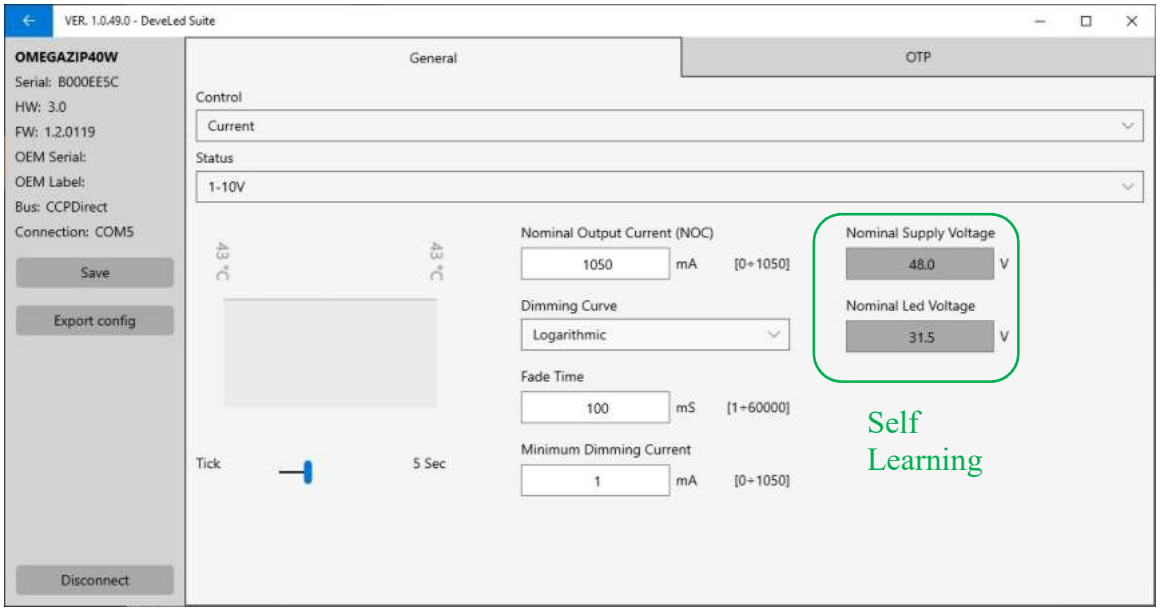
The main info showed for a short time before opening the setting parameters page are:

- Name/Model
- Serial Number
- HW Version
- FW Version

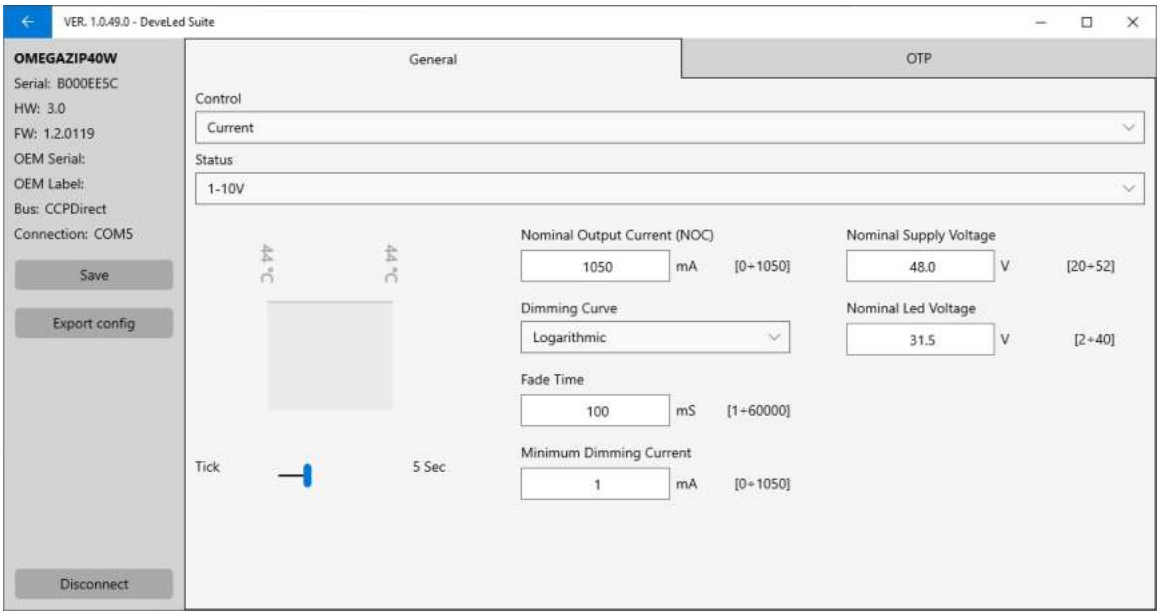
NOTE:
If you have the LED DRIVER installed in the fixtures with the LED load already connected and the Power Supply, you can select the self learning mode.



The self-learning mode, will read the Nominal Supply Voltage and the Nominal Led Voltage that fits the best with plugged lamp.



- The Main Page will appear with all the customizable parameters.
- The values are corresponding to the last configuration of the selected driver.
- There are two pages: General and OTP (Over temperature Protection)



Note: The list of the configurable parameters can be different according to the model of connected led driver and the control mode selected (Current/Voltage).

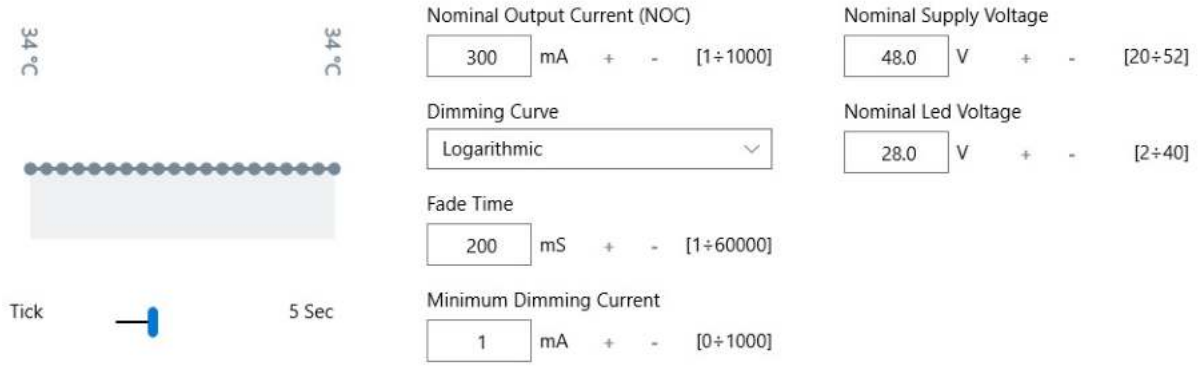
6. LAB DESIGN SECTION – FUNCTIONALITY

- **Control**

  The Led Driver output can be configured in two modes:

  - Constant Current Output
  - Constant Voltage Output

Constant Current Page:



Constant Voltage Page:

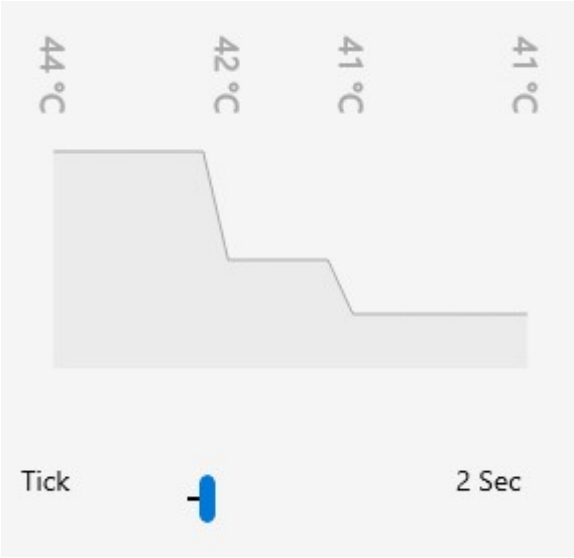
- **Status**

  The driver could be configured in the following four different configurations:

  - **1-10V:** for connecting a 100k potentiometer
  - **Digital:** For connecting digital interface
  - **0-10V:** for connecting an analogic control system
  - **Push DIM:** for connecting a normally opened push button

- **Driver Temperature**

  The graph shows the Led Driver Device Internal Tc temperature with real-time updating. Tick is the sampling time.



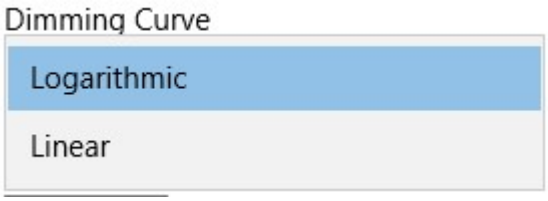
7. LAB DESIGN SECTION – CURRENT CONTROL

- **Current mode: Nominal Output Current**

  Set the nominal output current (@ 100% dim) of the Led Driver Device
  The allowed values are selected within the nominal Iout range of the selected driver

- **Dimming Curve**

  The driver could be configured in the following two different dimming curves of the 1-10V protocol:



  - ***Linear***: set the dimming curve with linear characteristic

  - *logarithmic:* set the dimming curve with logarithmic characteristic [as default]

- **Fade Time**

  Set the dimming variations fade time of the Led Driver device.
  The allowed values are between 1 ÷ 10000mSec.

- **Minimum Dimming Current**

  Set the minimum dimming current value of the Led Driver device.

- **Nominal Supply Voltage**

  Set the nominal supply voltage within the nominal range of the selected driver device. Typically 24 or 48Vdc.

- **Nominal Led Voltage**

  Set the nominal Led lamp voltage.

8. LAB DESIGN SECTION – VOLTAGE CONTROL

- **Nominal Supply Voltage**

  Set the nominal supply voltage within the nominal range of the selected driver Typically 24 or 48Vdc.

- **Minimum Dim % Voltage**

  Set the minimum percentage level for dimming.
  This value also depends on the electronic features of the led used.

- **Led Type**

  Set the kind of led lamp for voltage control.

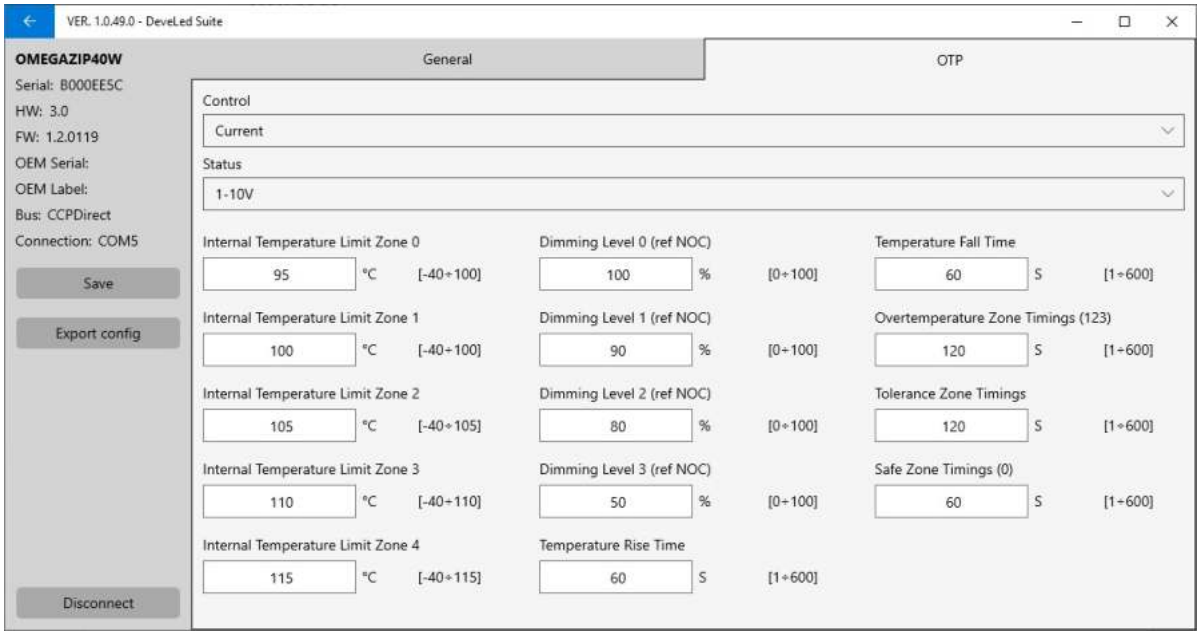
MR16 for connecting GU5.3 MR16 LED SPOT;

Strip 12V for connecting 12V strip led;

Strip 24V for connecting 24V strip led;

9. OVER TEMPERATURE PROTECTION

- **OTP page**

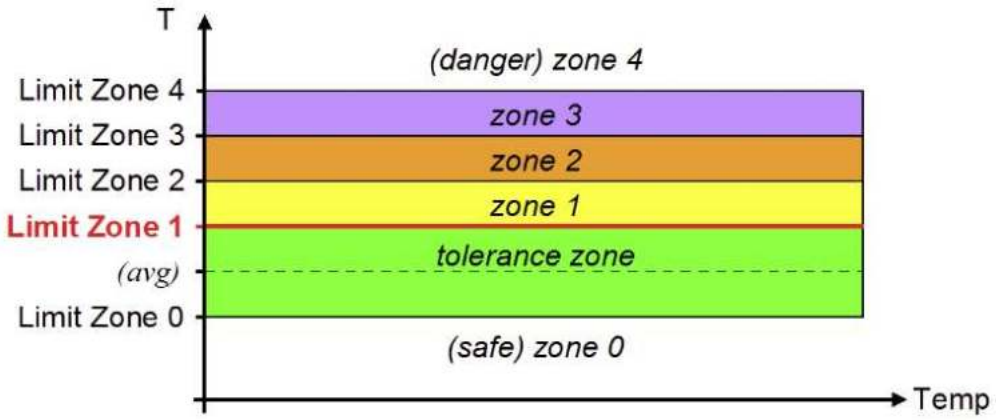


- This special Algorithm defines five zones of functionality.

- For each zone, it is defined as an operating Tc temperature and a Dimming level.

- When the Tc is out of the tolerance zone, this Algorithm can reduce the dimmer level to establish the tolerance zone.

- It is possible to set the Rise and Fall times and the tolerance timings for each zone.



- **Internal temperature Limit Zone**

  For Zone 0 (safe), Zone 1, Zone 2, Zone 3, and Zone 4 it is possible to set the upper-temperature limit.

- **Dimming Level**

  For Zone 0 (safe), Zone 1, Zone 2, and Zone 3, it is possible to set a max dimming level.

- **Temperature Rise & Temperature Fall**

  It is possible to set a hysteresis time after that it is detected the rise or fall of the temperature.

- **Overtemperature Zone Timings (123)**

  It is possible to set a hysteresis time after that it detects the Overtemperature in Zone 1, Zone 2, Zone 3.

- **Tolerance Zone Timings (123)**

  It is possible to set a max time for permanence in Zone 1, Zone 2, Zone 3.

- **Safe Zone Timings (0)**

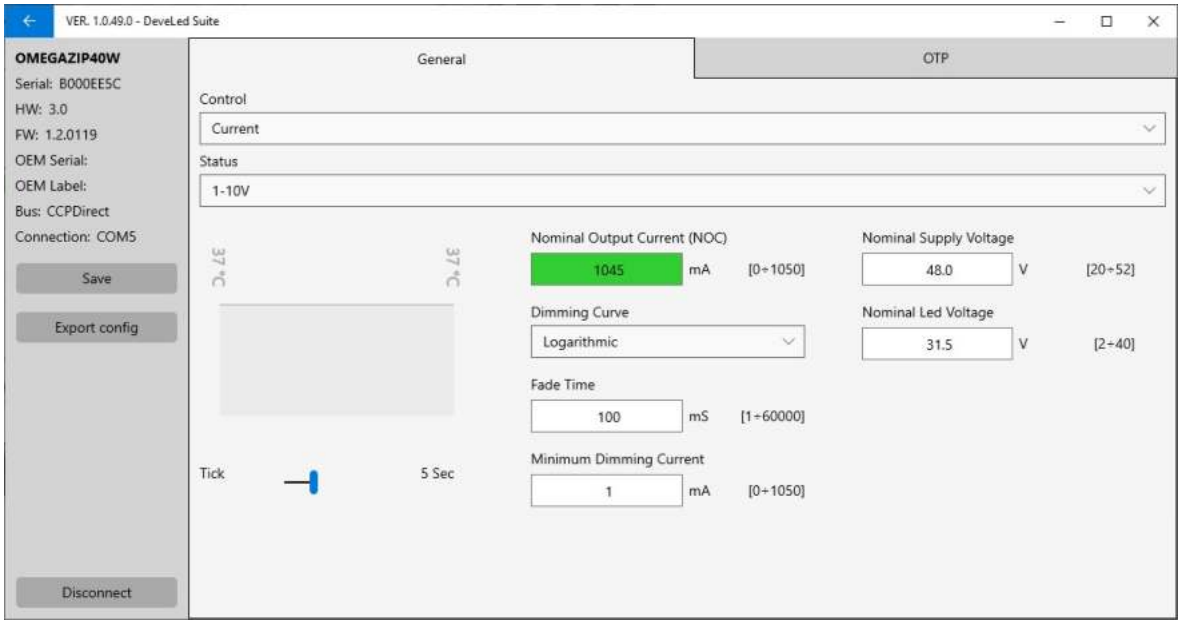
  It is possible to set a max time for permanence in Zone 0 (safe).

10. SAVE CONFIGURATIONS

- **Save Button**

  Download the configuration in the selected Led Driver.

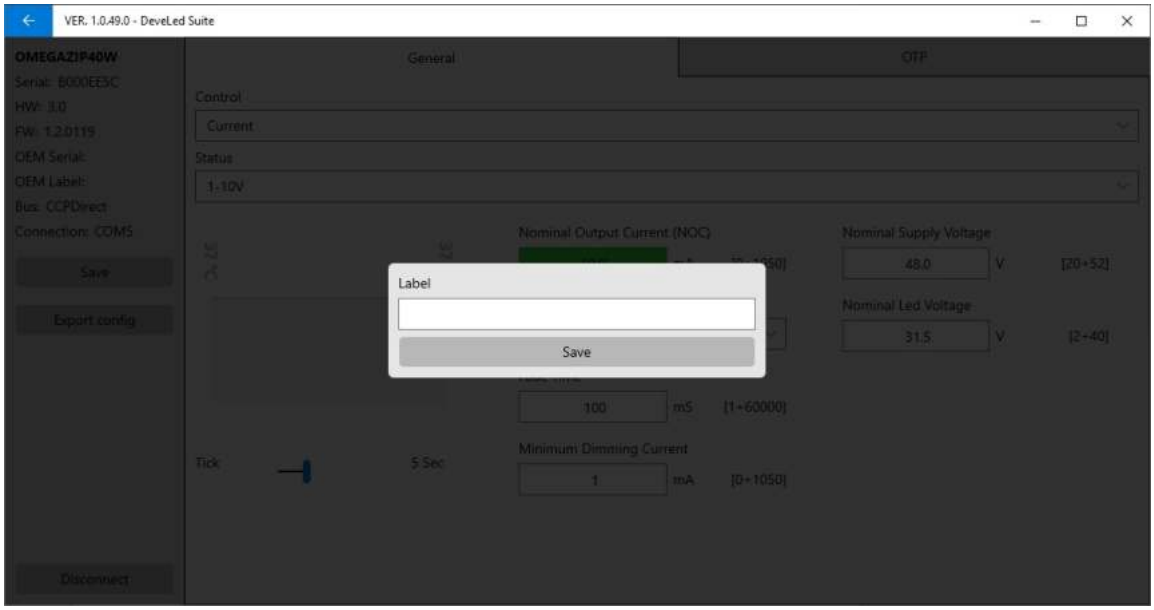
  After saving, the value modified will be green.

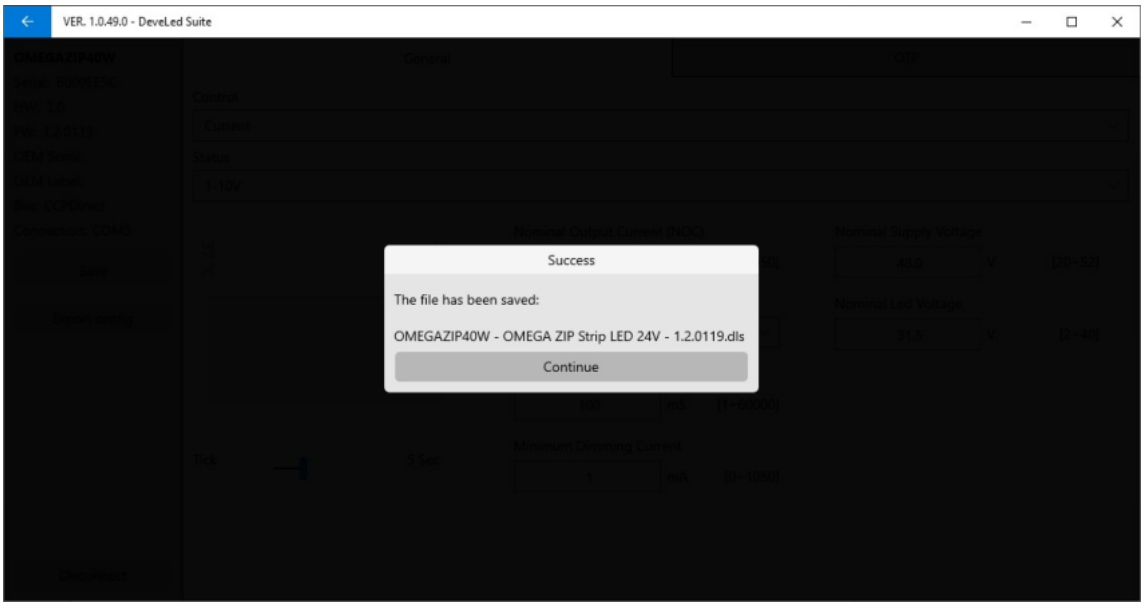


- **Export Config Button**
  - Download the configuration in the selected Led Driver

  - The export config button will save the current configuration on file; This file can be used in the production section to program several Led Drivers in batch mode.

  - The file needs to be labeled with a description.



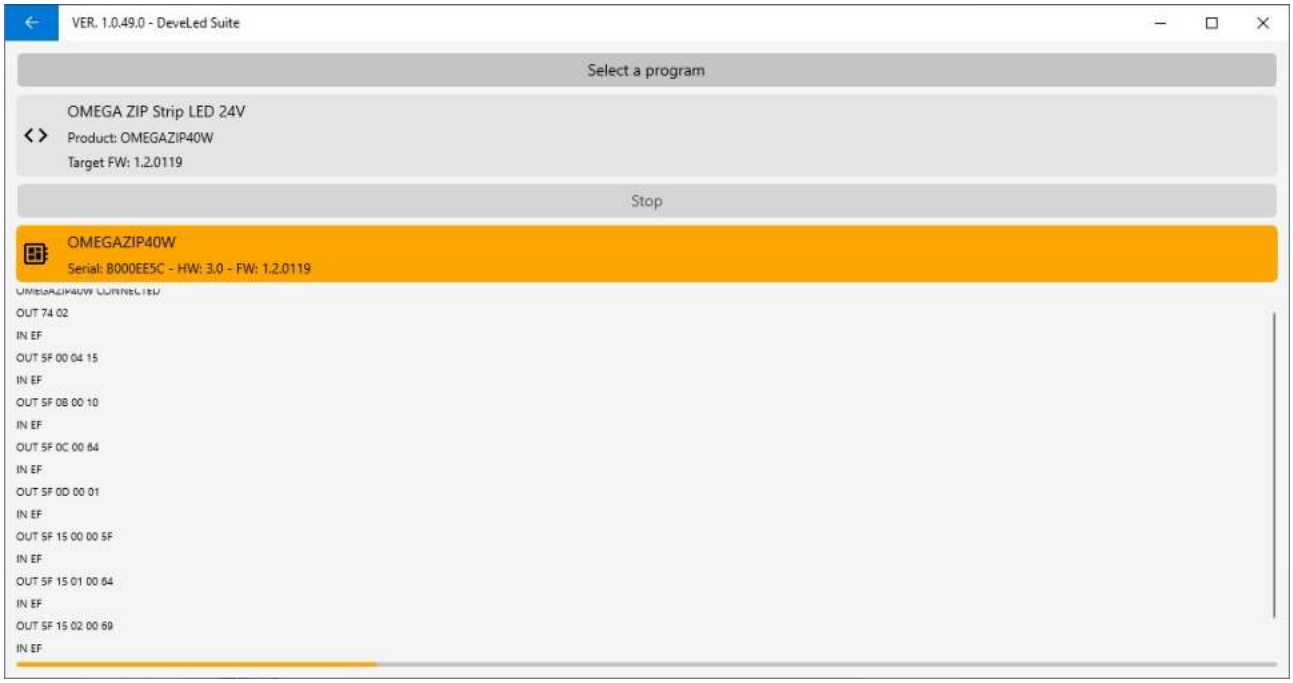


11. PRODUCTION SECTION

- You must select the configuration from the database, you have previously created.

- Select in your folder one of the .dls configuration files.

- Then push start.
- The App will search for a connected LED Driver and will run the program.



- NOTE: If the driver is not compatible with the loaded configuration, an alert will be displayed.
- At the end of the process, you have to unplug the driver and plug the next one.
- Then click continue to program the next driver.