# NFC LED DRIVER
# CONFIGURATION SOFTWARE
# V4.2.11

# NFC SOFTWARE
# TECHNICAL APPLICATION GUIDE
# VOSSLOH-SCHWABE

## CONTENT

# 1 GENERAL INFORMATION

The NFC configuration software and NFC technology from Vossloh-Schwabe enable quick and easy configuration of operating parameters as well as contactless data transmission (programming) to the LED driver, which must be in a de-energized state.

Based on RFID technology, NFC, short for Near Field Communication, is a global transmission standard for contactless data exchange (reading and writing) by means of energy transmission over short distances of a few centimeters. The limited range serves as a security function and almost completely prevents unwanted connections. The technology and the resulting safety benefits are ideal for LED driver programming.

The system setup consists of a computer infrastructure with the VS NFC configuration software and a FEIG NFC programming device and, of course, a Vossloh-Schwabe LED driver with NFC interface (see “Schema NFC configuration system setup”).

The operating parameters such as output current (mA), CLO, DC level or configuration lock are configured using the NFC configuration software from Vossloh-Schwabe. The configuration data created can be sent wirelessly to the NFC tag of the LED driver, where it is stored permanently. Programming is carried out by holding the NFC programming device close to the NFC antenna of the LED driver during the entire programming process.

With the NFC driver configuration software, LED drivers can be configured and programmed without the need to wire the LED drivers, which helps to configure drivers with multiple functions while enabling short production times. The ability to save multiple configuration profiles also enables a high degree of flexibility, allowing luminaire manufacturers to respond quickly to customer requirements.

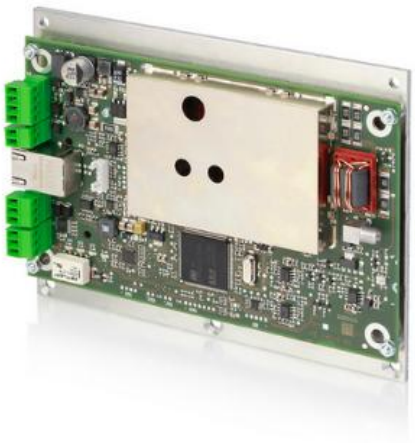
## 1.1 TECHNICAL DATA – NFC PROGRAMMING DEVICES

This chapter provides you a comprehensive overview of the compatible NFC programming devices from FEIG. We will introduce you to the various models and give you an overview of the technical data.

### 1.1.1 FEIG NFC PROGRAMMER

| Feig Programmer | HF Handheld Reader ID ISC.PRH101-USB |
|---|---|
| Casing | ABS plastic |
| Dimensions (L x W x H) | 230 x 100 x 80 mm |
| Colour | RAL 9002 / RAL 7044 |
| Function | Programming of host applications |
| Weight | 320 g (without batteries) |
| Temperature range | 0 °C up to +50 °C (operation) |
| Voltage supply | 5 V DC ± 0.2 V regulated |
| Optical displays | 1 LED (multi-coloured) |
| Accoustic display | buzzer |
| Antenna | Integrated antenna |
| Operating frequency | 13.56 MHz |
| RF interface | ISO-15693 |
| Standards | EN 300 330, FCC 47 CFR Part 15 (USA), IC RSS-GEN, RSS-210 (Kanada), EN 301 489 (EMV), EN 60950 (elektr. Sicherheit), EN 50364 (Human Exposure), EN 60068-2-6 (Vibration), EN 60068-2-27 (Schock) |

## 1.1.2 FEIG NFC ANTENNA



| Feig NFC Antenna | HF Loop Antenna ID ISC.ANT310/310 |
|---|---|
| Casing | ABS plastic |
| Dimensions (L x W x H) | 318 x 388 x 30 mm |
| Colour | white |
| Weight | 700 g |
| Temperature range | –25 °C up to +55 °C (operation) |
| Voltage supply | 5 V DC ± 0.2 V regulated |
| Current consumption | max. 500 mA |
| Antenna connection | 1 x SMA plug (50 Ω) |
| Antenna connection cable | RG58, 50 Ω, length approx. 3.6 m |
| Operating frequency | 13.56 MHz |
| RF transmission output | 8 W |
| Standards | EN 300 330 (EMC), FCC 47 CFR Part 15 (USA), EN 301 489 (EMV), |
| Feig NFC Antenna | EN 300 330 (EMC), FCC 47 CFR Part 15 (USA), EN 301 489 (EMV), EN 60950 (Niederspannung), EN 50364 (Human Exposure) |

| Feig NFC Module | ISO15693 Long Range Reader Module, Standard |
|---|---|
| Casing | Aluminium |
| Dimensions (L x W x H) | 120 x 160 x 35 mm |
| Voltage supply | 24 V DC |
| IP: | 54 |
| Maximum power consumption [W]: | 16 |
| Transmission power [W] | 1-5 |
| Output | 1 Relay (24 V, 1 A) |
| Input | 1 Optocoupler (24 V DC) |
| Interfaces | Ethernet (TCP/IP), USB, RS232Indicators, optical 4 LEDs for diagnosis |

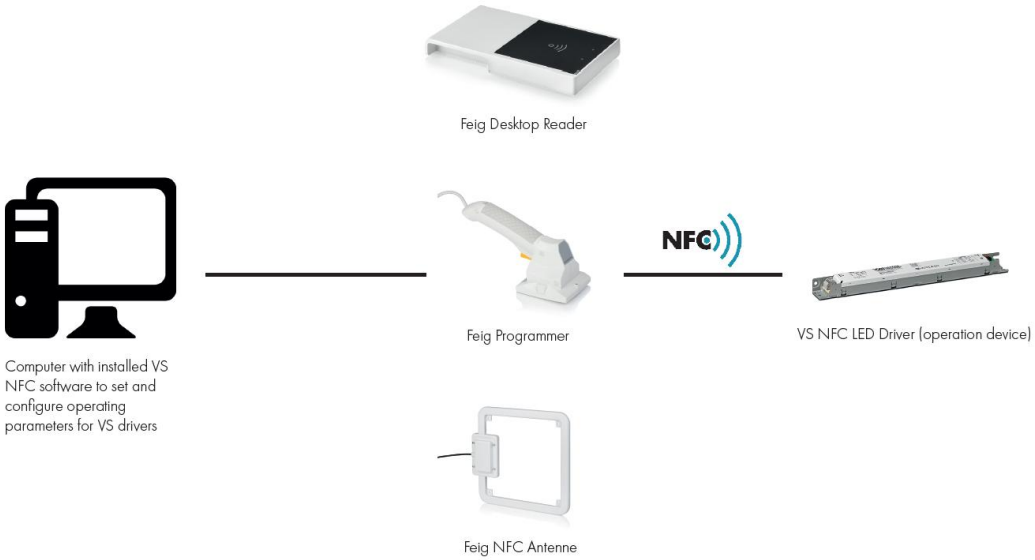
## 1.1.3 FEIG NFC DESKTOP READER

| Feig NFC Desktop reader | ISO14443/ISO15693 Desktop reader |
|---|---|
| Dimensions (L x W x H) | 144 x 84 x 18 mm |
| Antenna | Integrated antenna |
| Voltage supply | 5 V, USB Bus powered |
| Interfaces | USB 2.0 |

## 1.1.4 FEIG NFC BLUETOOTH READER

| Feig NFC Bluetooth reader | ISO15693 Bluetooth reader (ID ECCO Smart HF-BLE) |
|---|---|
| Dimensions (W x H x D) | 87 mm x 48 mm x 26 mm |
| Weight | approx. 98 g |
| Housing | double-walled, rubberized protection |
| Color | black, red |
| Protection class | IP54 |
| RF operating frequency | 13.56 MHz |
| RF transmission power | 1.5 W HF Reader IC |
| Supported transponders | ISO 15693 |
| Interfaces | USB Serial, Bluetooth LE V4.2 & V5.0 |
| Battery | 1300 mAh Lithium Polymer battery; 3.7 V |
| Operating time | up to 16 h* |
| Optical indicators | 4 LEDs (red, green, yellow, blue) |
| Other indicators | Buzzer, vibration feedback |
| Keyboard | 4 buttons (ON / OFF, trigger 2x configurable) |
| Processor | Dual-core processor |
| Memory | 256 KB RAM / 1 MB Flash |
| Supported operating systems | USB: Win 10 (32 and 64 Bit) BLE: iOS from V13.3.1 & Android from V9.0 |
| Bluetooth interface | Zhaga Book 25 Services and Protocol |
| Bluetooth LE GATT profile | FEIG Data Services and FEIG Standard Protocol |
| Shock resistance | 1.6 m on concrete surface |
| Operating temperature range | –20 °C to +55 °C |
| Storage temperature range | –20 °C to +60 °C |
| Battery charging temperature range | 0 °C to +45 °C |
| Relative humidity | 5% to 95% (non-condensing) |
| Certifications | RoHS, WEEE, CE, FCC, IC |

## 1.2 NFC CONFIGURATION – SYSTEM SETUP



# 2 INTRODUCTION

This chapter provides you an overview of the various configurable parameters and functions, as well as an introduction to the general user interface.

## 2.1 NFC CONFIGURATION SOFTWARE – PROGRAMMABLE FUNCTIONS

### 2.1.1 OUTPUT CURRENT

Individual configuration of the output current in mA.

### 2.1.2 CLO – CONSTANT LUMEN OUTPUT

The luminous flux of LED modules decreases in a stepwise manner up to the end of the modules' service life. To guarantee constant luminous flux, the output of the control gear must be gradually increased over its service life.

### 2.1.3 DC LEVEL – EMERGENCY LIGHTING

Many LED drivers feature emergency lighting functions. The percentile light or output value can be set for emergency operation (DC operation) via the software.

### 2.1.4 NTC – NEGATIVE TEMPERATURE COEFFICIENT

The NTC interface ensures thermal protection of LED modules by reducing current upon attaining critical temperatures. The reduction of temperature can be configured via an external NTC resistor that is connected to the driver.

### 2.1.5 CONTROL PHASE

In the event of applying a voltage (mains voltage 230 V) to the controlphase terminal $L_{ST}$, the driver can either dim up (power increase) or dim down (power reduction).

### 2.1.6 ACTIVE POWER SUPPLY

This function enables the integrated "Active Power Supply" to be switched on and off for the power supply of other DALI devices.

### 2.1.7 DALI CONFIGURATION

This function allows changing and reading out all DALI parameters via NFC.

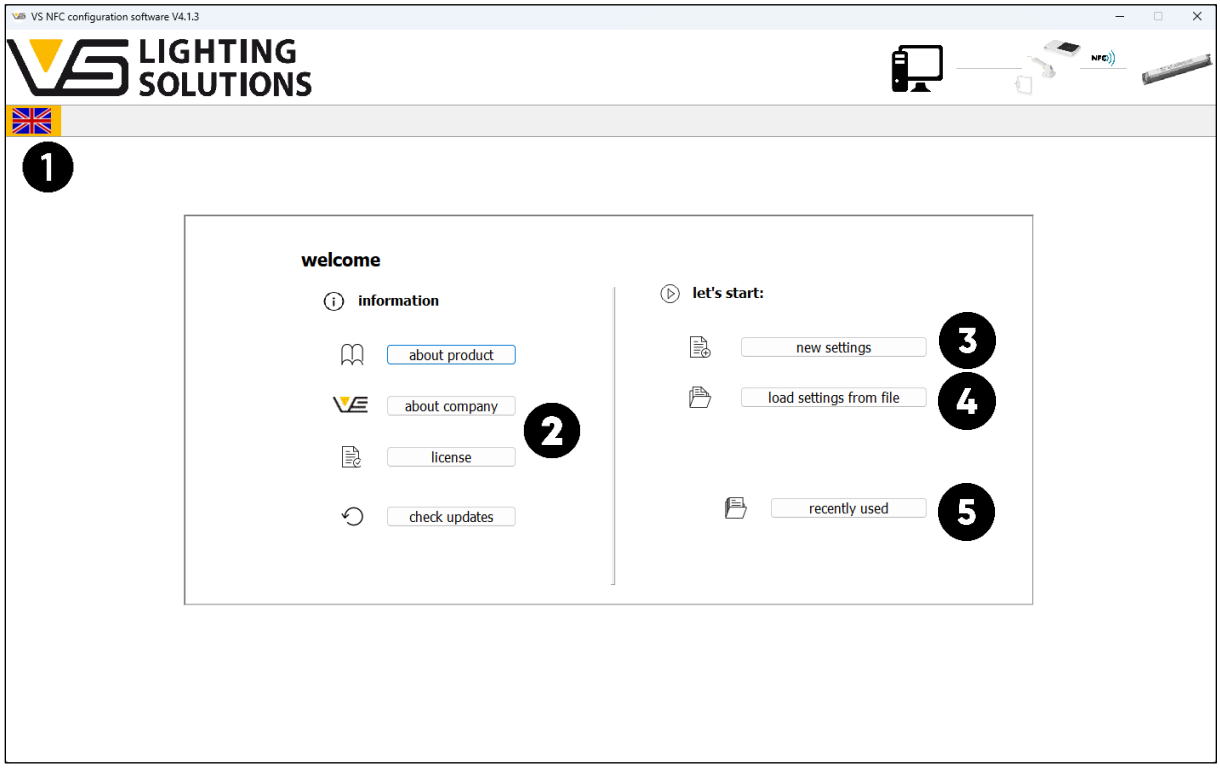
### 2.1.8 MIDNIGHT FUNCTION

This function enables the setting of a time-based dimming schedule for the night to increase the energy savings.

### 2.1.9 CONFIGURATION LOCK

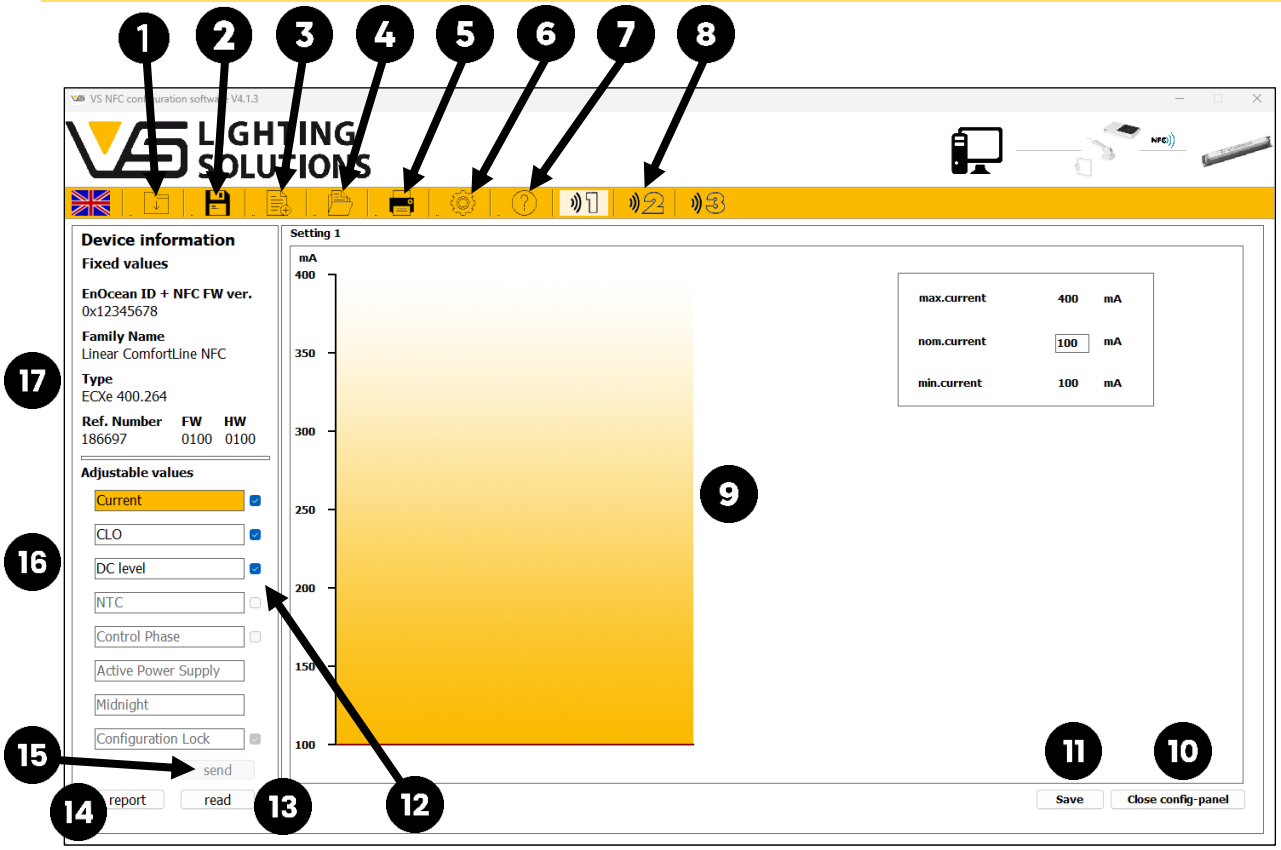
This function allows you to protect selected configured functions from unauthorized changes in the application area using a password. By activating this function, you can ensure that important settings can only be changed by authorized users. This provides additional security and prevents unintentional adjustments that could affect the performance of the device.

## 2.2 NFC CONFIGURATION SOFTWARE – START SCREEN




1) Change language
2) General information
3) Start new configuration
4) Open previously saved configurations
5) Open the recently used configurations

## 2.3 NFC CONFIGURATION SOFTWARE – USER INTERFACE




1) Save as
2) Save
3) New file
4) Load file
5) Print file
6) Settings
7) Help
8) Configuration profiles
9) Working field for configuration
10) Close configuration (display set values as a list)
11) Saving set values
12) Checkbox to send configurated functions
13) Reading LED driver configuration
14) Report regarding programmed LED drivers
15) Start programming process
16) Configurable Functions
17) LED driver information

# 3 NFC CONFIGURATION IN DETAIL

In this chapter, we take a detailed look at the NFC configuration and its various functions. The content is divided into four parts, from setting up the system structure to completing the configuration, to give you a clear and structured insight.

## 3.1 STEP 1 – SYSTEM SETUP

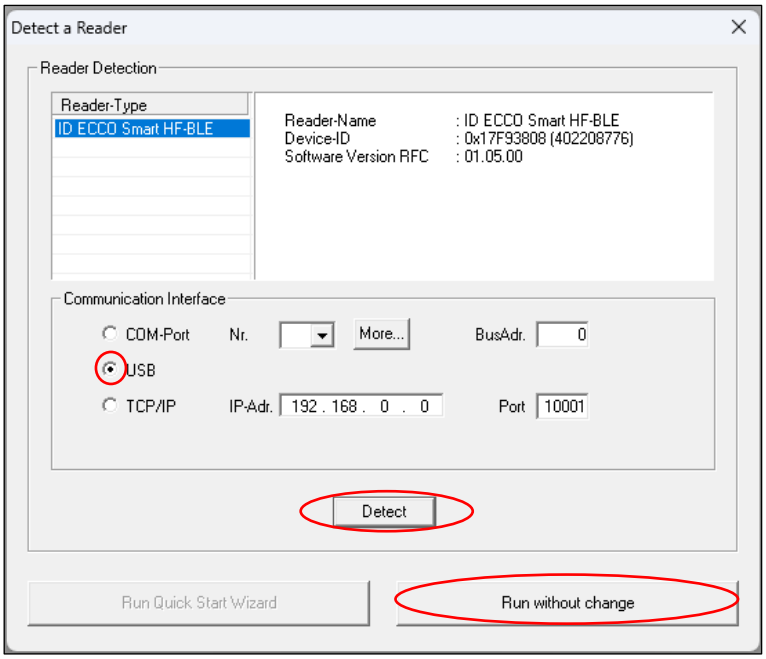
Once the software has been successfully downloaded and installed, the NFC system setup should be prepared for the NFC configuration. In addition to this software, a Feig programming device with a corresponding NFC antenna is required. The compatible NFC programming devices are listed in the first chapter of the operating manual. It is recommended to connect the programming device to the PC before starting the software. The safety instructions must be observed when using the NFC programming devices. As soon as these precautions have been taken, you can start the software.

Please be aware that if you use the FEIG ID ECCO Smart HF-BLE for the first time, you will need to set up the programming device. Therefore, it is recommended to follow the installation instructions of the manufacturer FEIG. Please find in the following instructions needed to set up the FEIG ID ECCO Smart HF-BLE programming device.

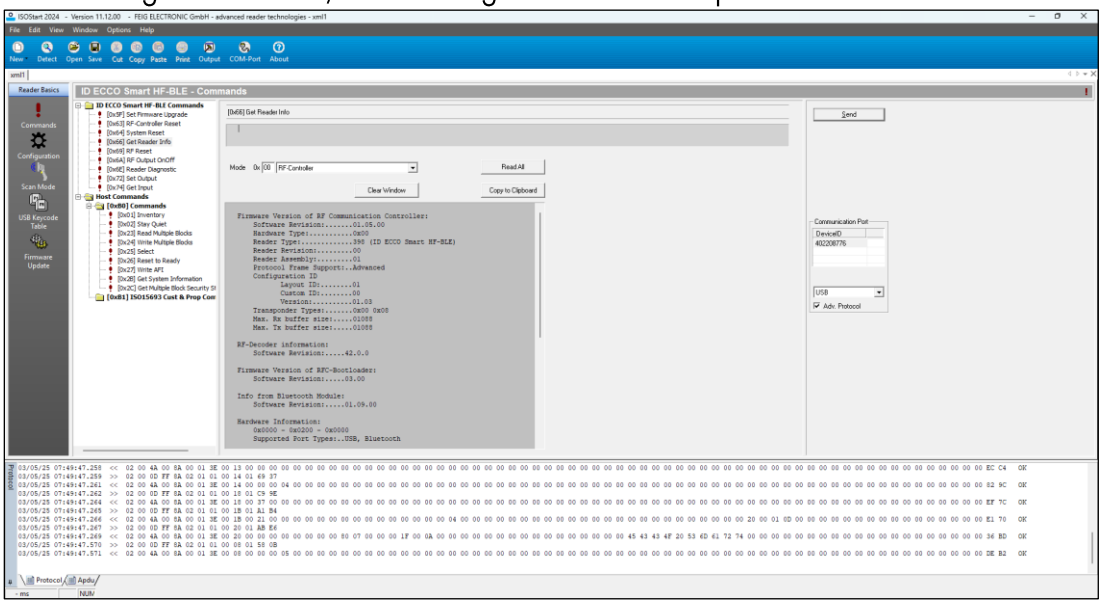
### 3.1.1 INSTALLATION INSTRUCTIONS FEIG ID ECCO SMART HF-BLE

1) First of all, open the website: www.feig.de/login.
2) Please login to download the operating manual, driver and software with the login details:
   Username eccosmart
   Password feig
3) When you have logged in successfully you need to open the "download area".
4) Please select the language in which you would like to download the files.
5) Below the language selection you will find a dropdown menu, please follow step by step the navigation though the dropdown menus to find the "ISOStart" tool that is mandatory to connect the FEIG ID ECCO Smart HF-BLE programming device:
   - IDENTIFICATION
   - Public download area for ID ECCO Smart
   - ECCO Smart HF-BLE
   - Software for ID ECCO Smart HF-BLE
   - Click on download link for the software "ISOStart Plus".
6) Install and start the "ISOStart Plus" application.
7) Turn ON the FEIG ID ECCO Smart HF-BLE programming device and connect it to the USB Interface of the computer.
8) Click on the "**Detect**" icon to detect connected programming device.

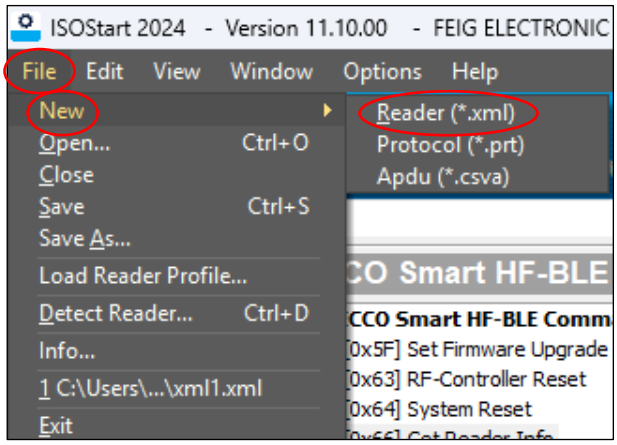
9) Activate the checkbox “USB” communication interface and press the “**Detect**” button. After successfully detecting the programming device, press the “**Run without change**” button.



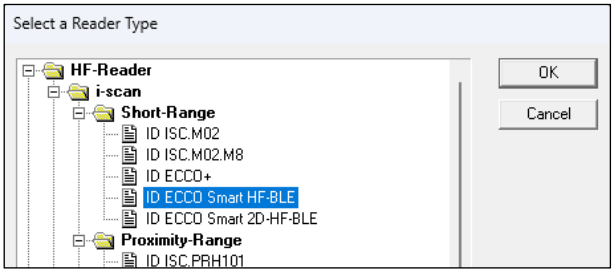

10) After clicking on the button, the following window will be opened.



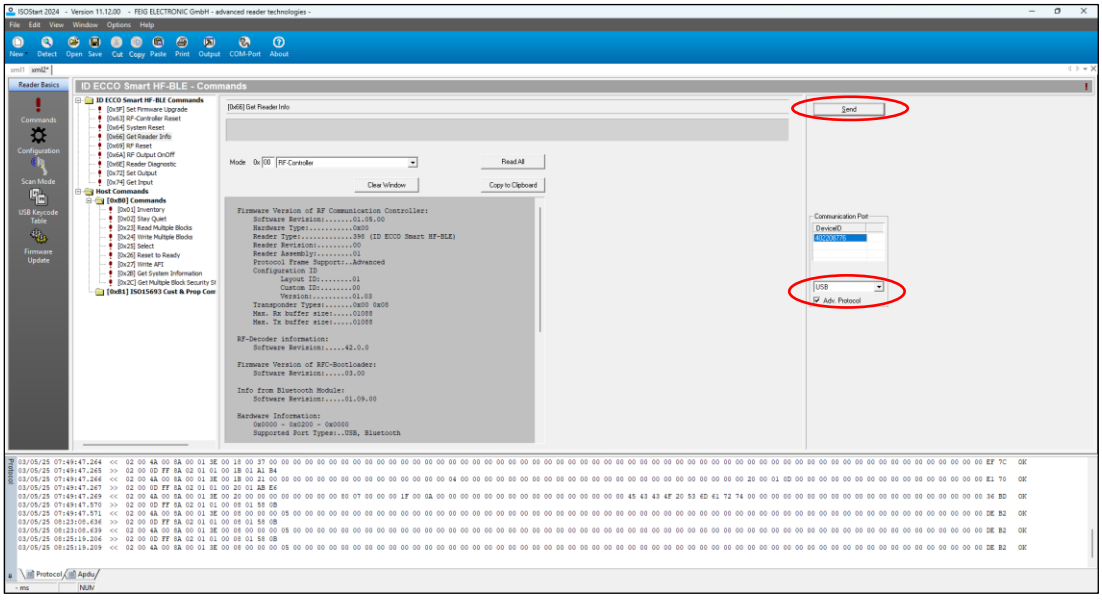
11) In the next step please open on the left top the drop-down menu "**File**", then open the submenu "**New**" and select "**Reader (*.xml)**".



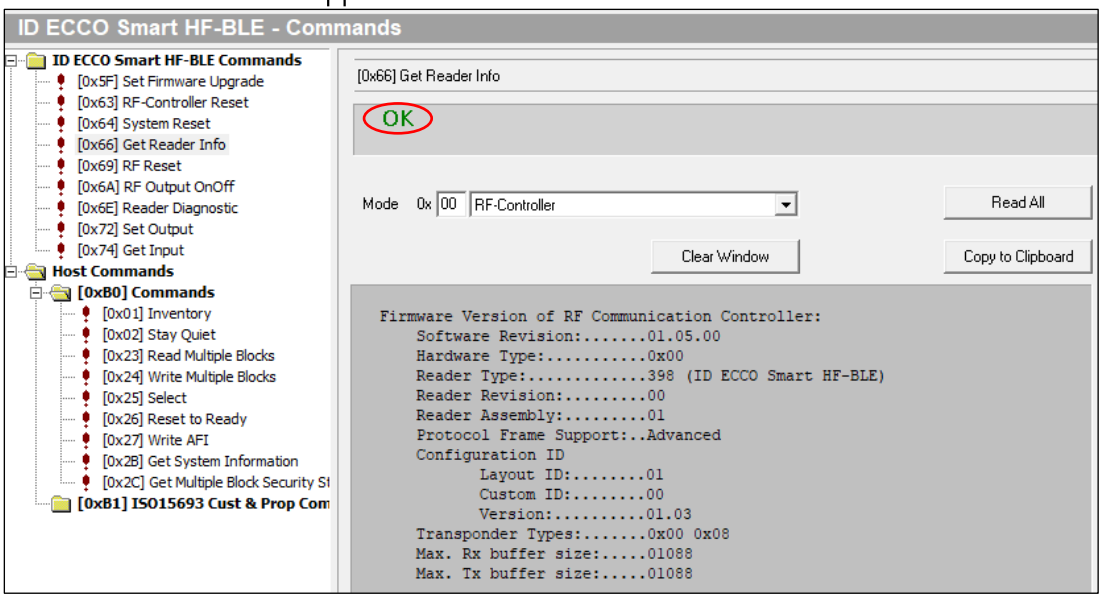

12) After clicking on "**Reader (*.xml)**" another window will open, where you will be asked to select the programming device in the drop-down list (Navigation path: HF-Reader > i-scan > Short-Range > ID ECCO Smart HF-BLE) and confirm by clicking the "**OK**" button.




13) After you have selected the programming device, please make sure that the communication protocol to "**USB**" is selected in the dropdown menu on the right side of the user interface and that the checkbox "**Adv. Protocol**" is activated. Afterwards please click on the "**Send**" button.



14) If the setup is successful, the message "**OK**" will appear in the user interface and you can close the "ISOStart Plus" application.

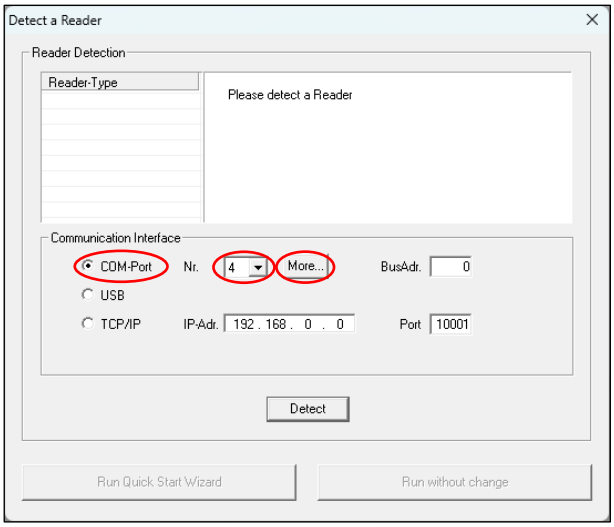



15) Now please disconnect the FEIG ID ECCO Smart HF-BLE programming device of the USB interface of the computer.

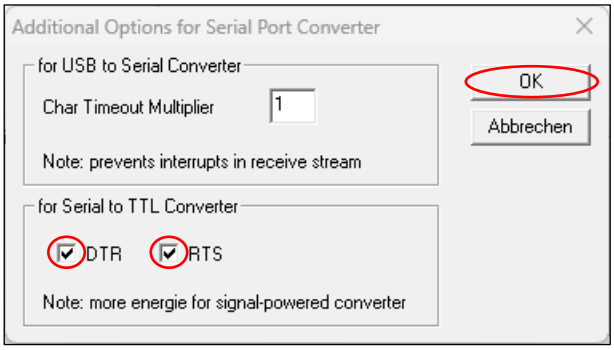
16) In the next step please plug in the FEIG ID BLE USB (USB dongle for Bluetooth communication between your computer and the programming device) into the USB interface of your computer.

17) Please open again the "ISOStart Plus" application and click on the "**Detect**" icon to detect connected programming device.

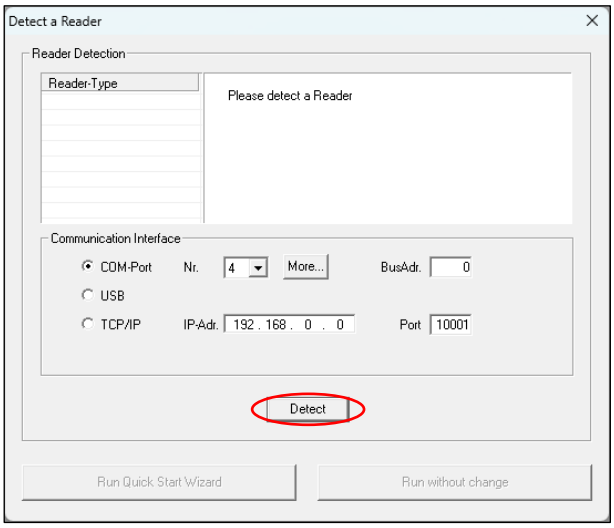

18) First, activate the checkbox for the COM-Port communication interface and select in the drop-down menu the COM port to which you have connected the FEIG ID BLE USB for example COM-Port 4 (this you can find out easily in the "device manager" of your computer).



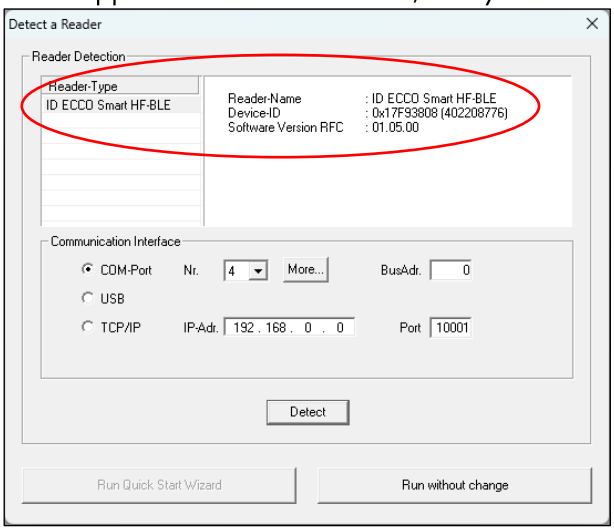
19) Please click on the "**More...**" button for further important settings. Therefore, another window will be opened. Make sure that the checkboxes for "**DTR**" and "**RTS**" are activated and click on the "**OK**" button to close this window again.




20) In the next step click on the "**Detect**" button to search for the FEIG ID ECCO Smart HF-BLE programming device.



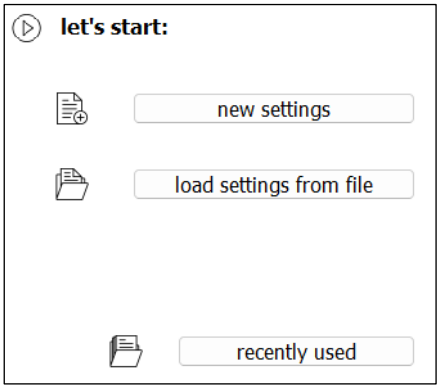

21) The "ISOStart Plus" application will now search for the FEIG ID ECCO Smart HF-BLE programming device. If the detection of the device is successful, the connected programming device information will appear in the user interface, and you can close the application.



## 3.1.2 START CONFIGURATION

There are two ways to start a configuration:

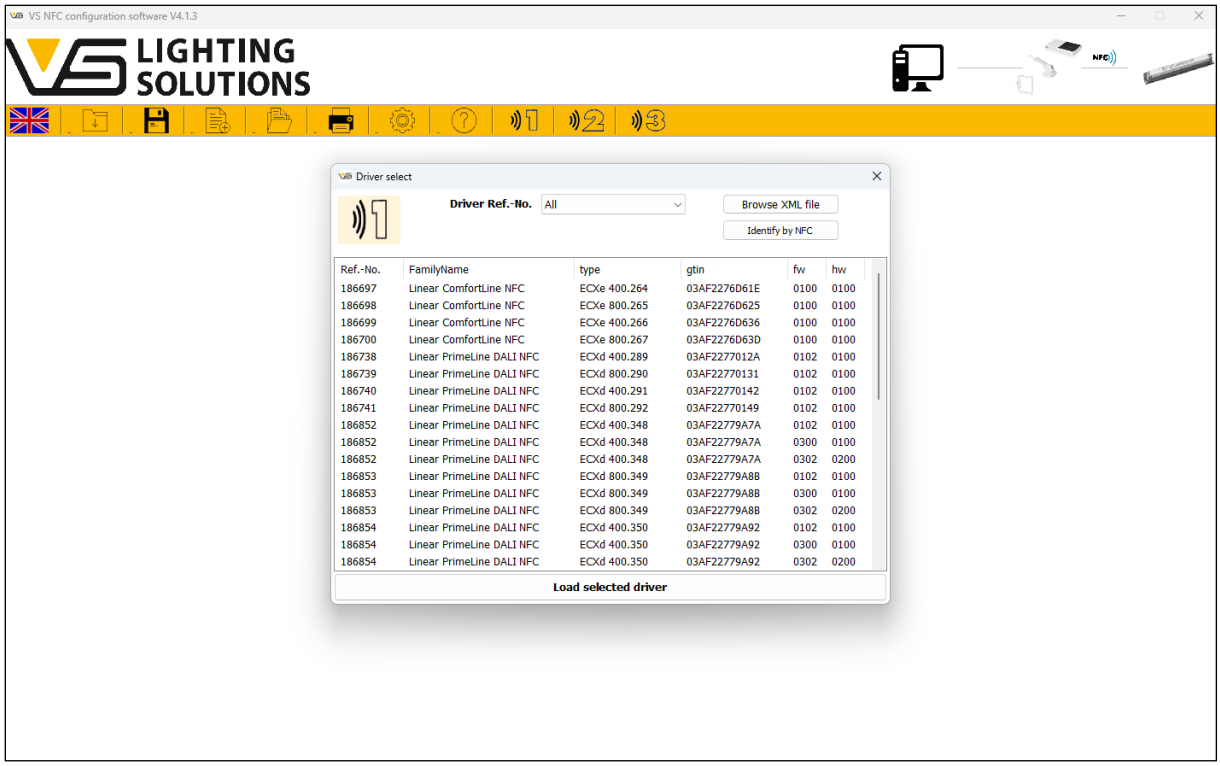
1) Create a new configuration file:
   Start with new settings ("New Settings")
2) Open existing configuration files:
   Previously created configuration files can be opened, or the last created configuration files settings used can be opened ("Load settings from file"/"Recently used").




## 3.1.3 LED DRIVER SELECTION

First, the driver to be programmed must be selected. This can be selected using the reference number or the "Identify by NFC" function.

All recognized drivers with the selected reference number are suggested in a list.



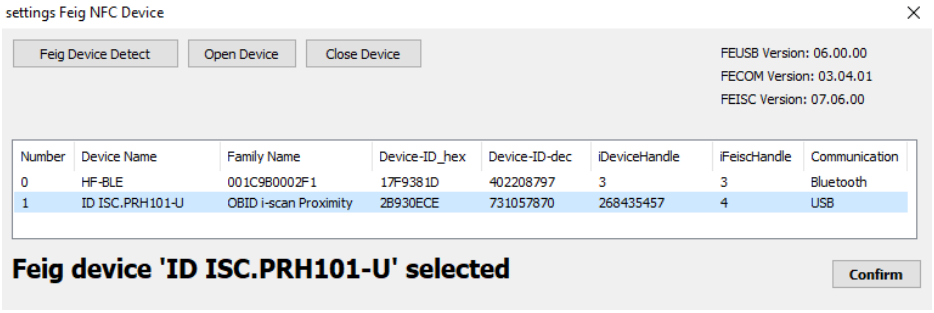

| Ref.-No. | FamilyName | type | gtin | fw | hw |
|---|---|---|---|---|---|
| 186697 | Linear ComfortLine NFC | ECXe 400.264 | 03AF2276D61E | 0100 | 0100 |
| 186698 | Linear ComfortLine NFC | ECXe 800.265 | 03AF2276D625 | 0100 | 0100 |
| 186699 | Linear ComfortLine NFC | ECXe 400.266 | 03AF2276D636 | 0100 | 0100 |
| 186700 | Linear ComfortLine NFC | ECXe 800.267 | 03AF2276D63D | 0100 | 0100 |
| 186738 | Linear PrimeLine DALI NFC | ECXd 400.289 | 03AF2277012A | 0102 | 0100 |
| 186739 | Linear PrimeLine DALI NFC | ECXd 800.290 | 03AF22770131 | 0102 | 0100 |
| 186740 | Linear PrimeLine DALI NFC | ECXd 400.291 | 03AF22770142 | 0102 | 0100 |
| 186741 | Linear PrimeLine DALI NFC | ECXd 800.292 | 03AF22770149 | 0102 | 0100 |
| 186852 | Linear PrimeLine DALI NFC | ECXd 400.348 | 03AF22779A7A | 0102 | 0100 |
| 186852 | Linear PrimeLine DALI NFC | ECXd 400.348 | 03AF22779A7A | 0300 | 0100 |
| 186852 | Linear PrimeLine DALI NFC | ECXd 400.348 | 03AF22779A7A | 0302 | 0200 |
| 186853 | Linear PrimeLine DALI NFC | ECXd 800.349 | 03AF22779A8B | 0102 | 0100 |
| 186853 | Linear PrimeLine DALI NFC | ECXd 800.349 | 03AF22779A8B | 0300 | 0100 |
| 186853 | Linear PrimeLine DALI NFC | ECXd 800.349 | 03AF22779A8B | 0302 | 0200 |
| 186854 | Linear PrimeLine DALI NFC | ECXd 400.350 | 03AF22779A92 | 0102 | 0100 |
| 186854 | Linear PrimeLine DALI NFC | ECXd 400.350 | 03AF22779A92 | 0300 | 0100 |
| 186854 | Linear PrimeLine DALI NFC | ECXd 400.350 | 03AF22779A92 | 0302 | 0200 |

### 3.1.4 LED DRIVER SELECTION VIA NFC

The driver to be programmed can also be selected using the "Identify by NFC" function. To do this, the NFC programming device must already be connected to the PC. Now click on the "Identify by NFC" button and then select your programming device. The programming device then goes into read mode and can identify your driver model and select it from the model list. If the programming device is already known to the software, it immediately switches to read mode.

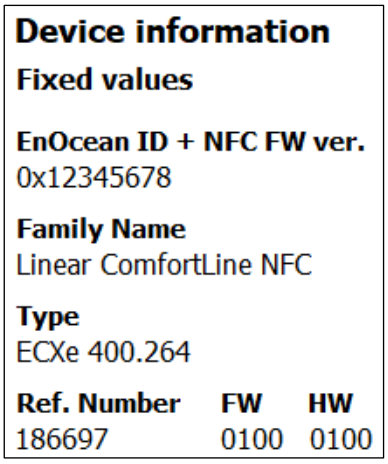
### 3.1.5 CONNECTION OF FEIG PROGRAMMING DEVICE

Select the Feig NFC programmer button and connect the Feig USB or Bluetooth device to the computer. Select the connected Feig device in the following window.

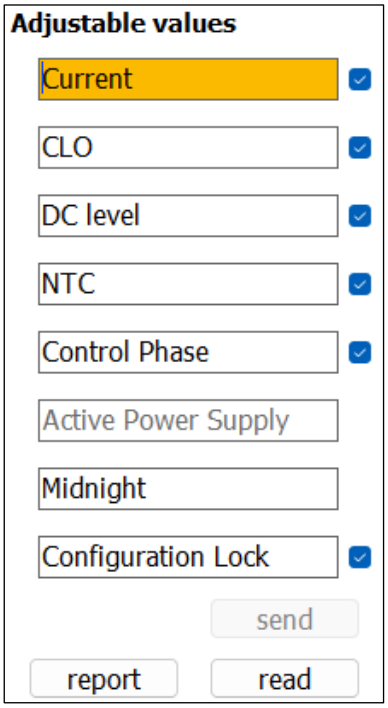



## 3.2 STEP 2 – CONFIGURATION OF THE FUNCTIONS

There are a total of 3 configuration profiles for each selected driver. Each driver has constant or unchangeable information (see image).



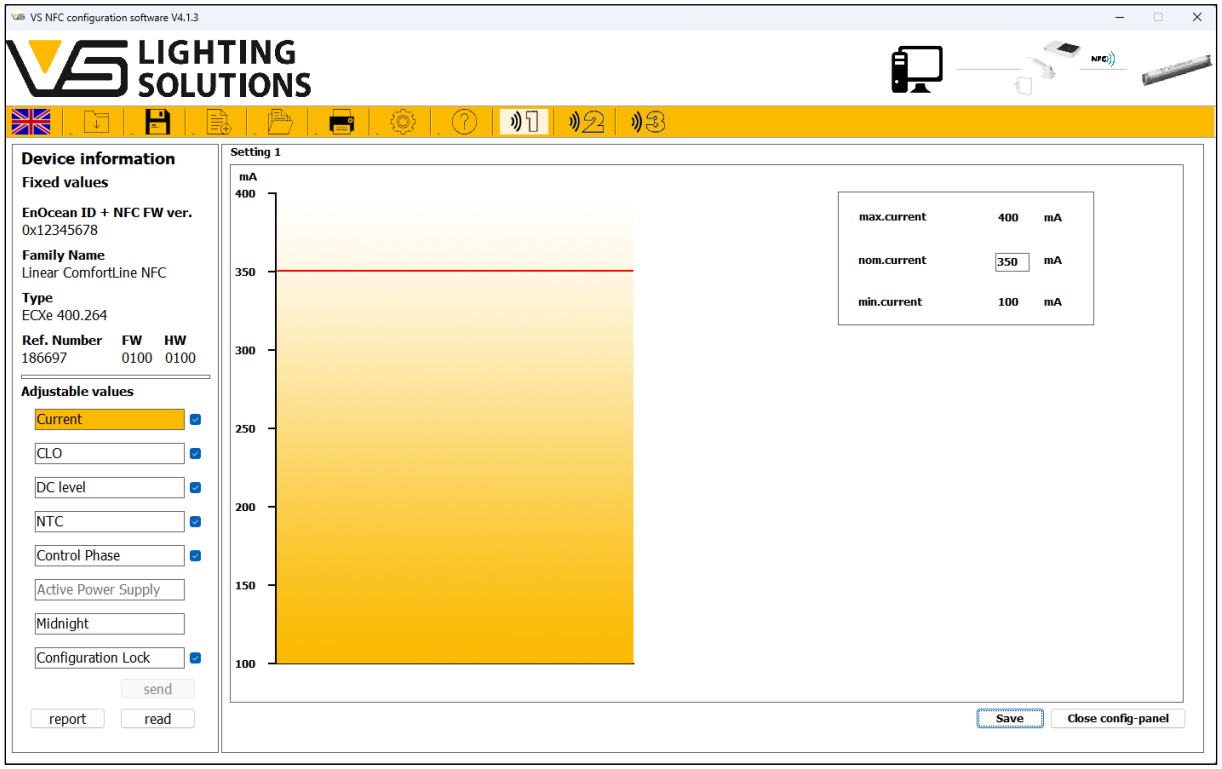

Parameters can be configured depending on the driver. The parameters are configured in the respective work field. Newly configured parameters must be activated using the checkbox, otherwise the previously programmed value remains. Greyed-out parameters are not supported by the selected LED driver and can therefore neither be selected nor configured.




**Note:** After successfully setting a parameter, the values can be saved directly using the "Save button".

### 3.2.1 OUTPUT CURRENT

A diagram for the current setting (mA) of the driver appears in the work field. The limits (mA) of the selected LED driver are specified. The setting can be made using "drag and drop" the slider or input of the needed current output.



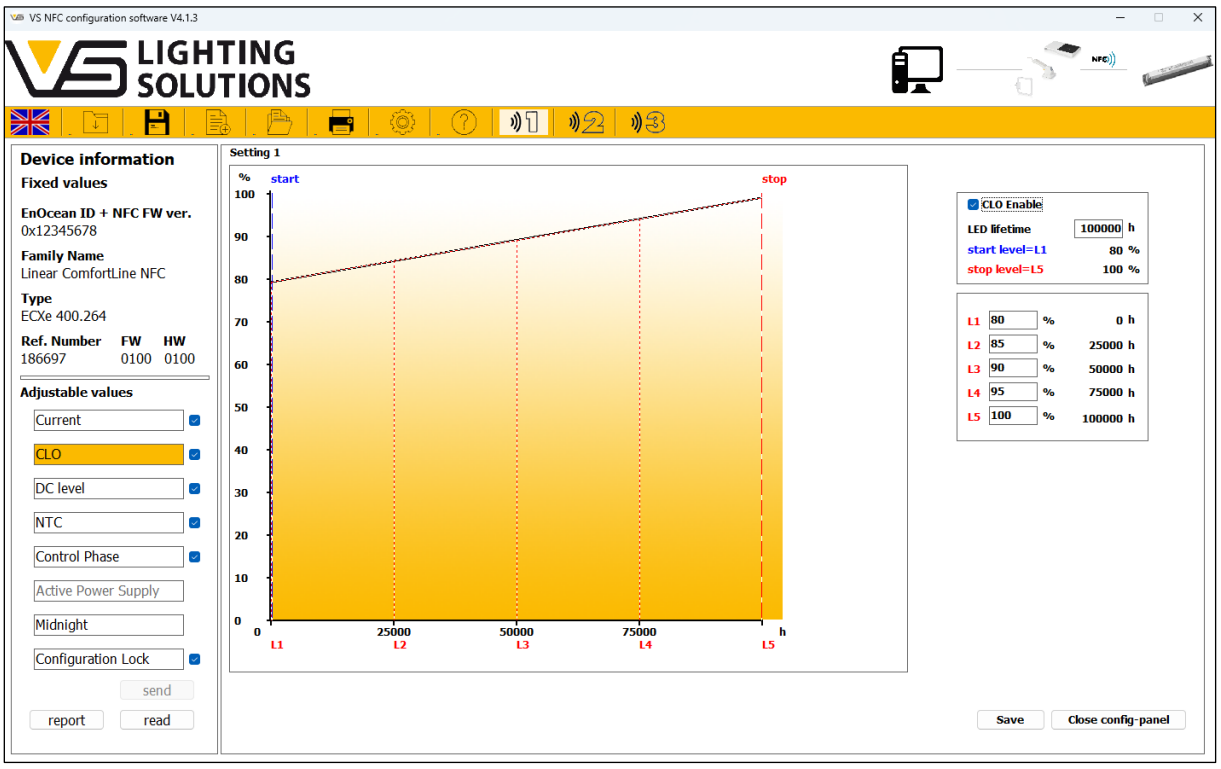
### 3.2.2 CLO – CONSTANT LUMEN OUTPUT

A diagram for setting the CLO function of the driver will appear in the working field. To this end, the defined LED module's service life will have to be entered.

A maximum of five light levels (in %) can be entered in the service life set for the LED module. In this regard, it must be noted that L1 represents the start and L5 the end values of the light levels (x% of the set current in mA).

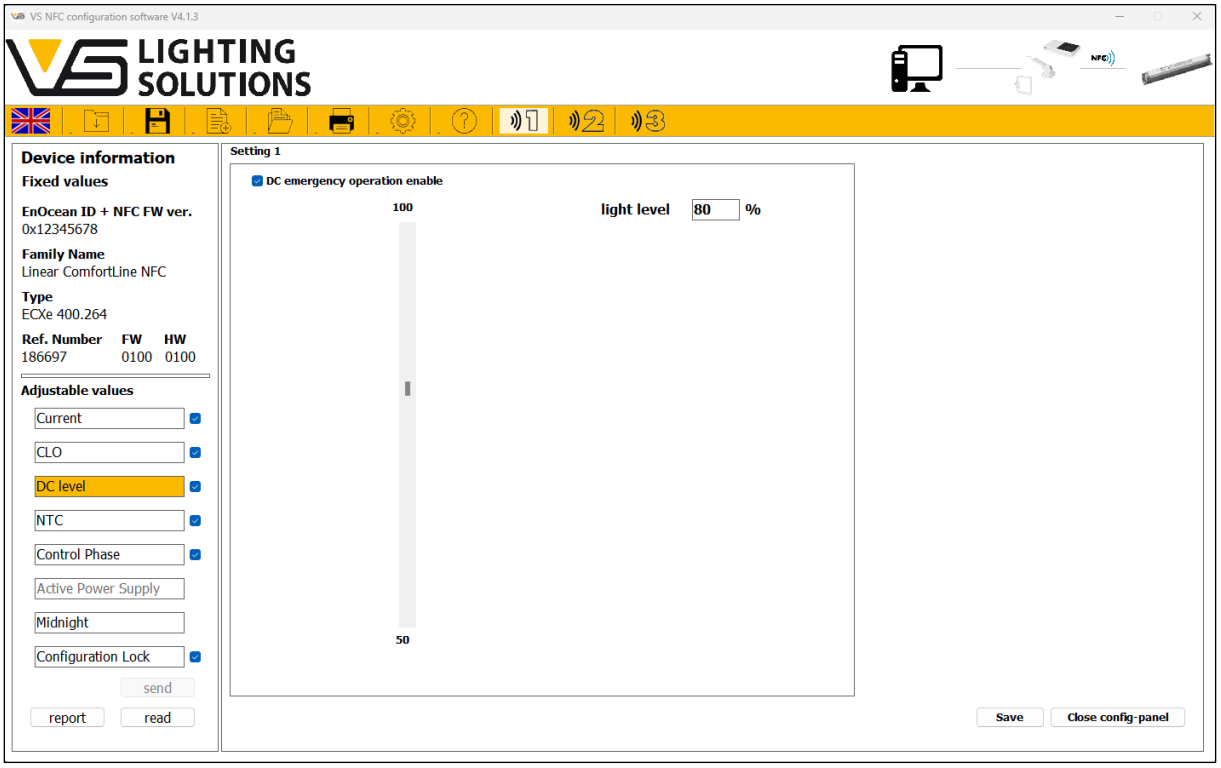
**For example:**

Current setting (mA): 500 mA
Start value of the light level L1: 90% = 450 mA
End value of the light level L5: 100% = 500 mA
L2–L4 are usually defined between these limits
(linear progression between L1 and L5).



### 3.2.3 DC LEVEL – EMERGENCY LIGHTING

The working field contains a slider for setting the light or output level during emergency power operation (DC operation) in percent. Manual entry can be effected between 50 and 100% as well as per drag and drop in the slider.




### 3.2.4 NTC – NEGATIVE TEMPERATURE COEFFICIENT

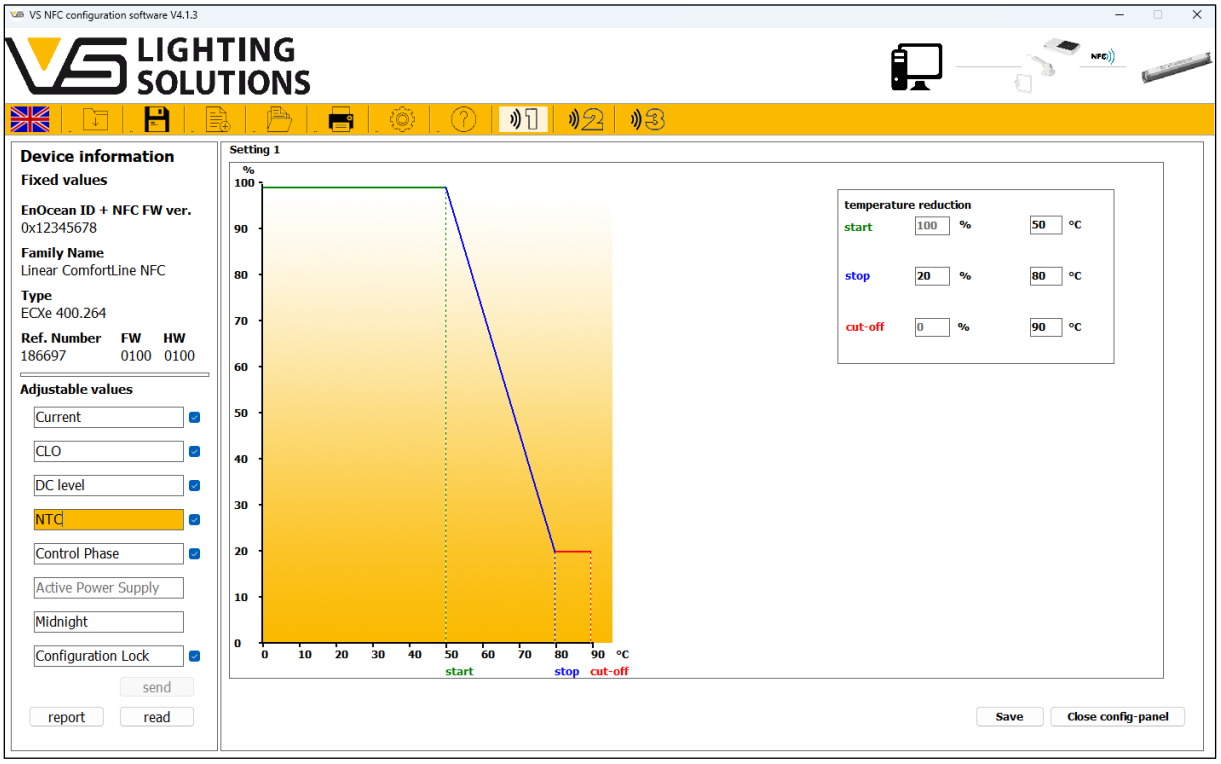
A diagram to set the driver's NTC function will appear in the working field. Here you can define temperature values (start, stop and cut-off) of the external NTC resistor with which the driver is equipped. Furthermore, a light level can be defined which will be dimmed once the "stop" temperature is exceeded.

**For example:**

Current setting (mA): 500 mA
Start temperature: 50 °C
Start dimming level: 100% (normal operation) – cannot be set

Stop temperature: 80 °C (at the NTC resistor)
Stop dimming level: 20% (will be dimmed upon reaching the stop temperature)

Cut-off temperature: 90 °C (at the NTC resistor)
Cut-off dimming level: 0% (switches off) – cannot be set




## 3.2.5 CONTROL PHASE

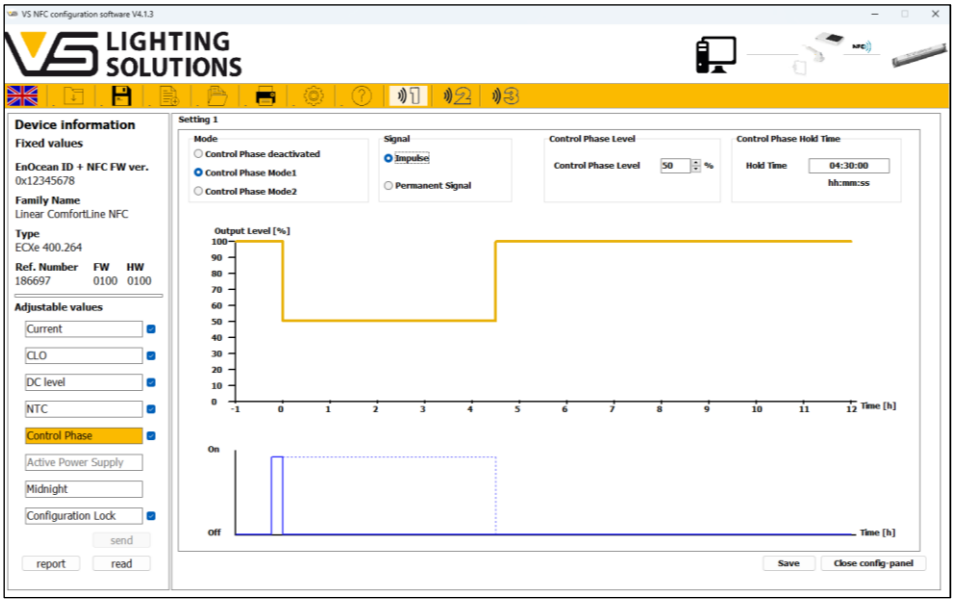
A slider in the operating field allows the power reduction to be set in 1% increments, while another slider allows the control phase duration to be set in 1-second increments.

By applying a voltage (mains voltage 230 V) to the $L_{ST}$ plug-in terminal, the device can either be dimmed up (power increase) or dimmed down (power reduction).

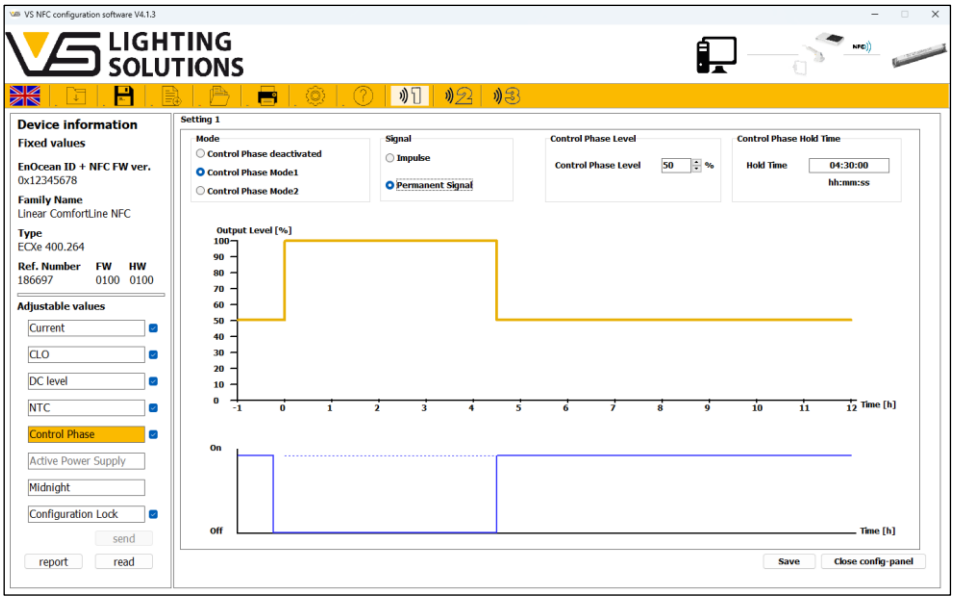
The following parameters can be set:

1) Control phase mode
   - Mode 0: Control phase deactivated
   - Mode 1: Control phase function activated
   - Mode 2: Control phase function activated, (inverted function of mode 1)
2) Signal
   - If "Pulses" is selected, control phase dimming is activated when a pulse signal is applied to the control phase interface.
   - If "Permanent signal" is selected, control phase dimming is activated when the permanent signal is removed from the control phase interface.
3) Control phase level ($L_{ST}$ Level)
   - The control phase level can be set from 0-100 % in 1 % increments.
4) Control phase duration ($L_{ST}$ Hold Time)
   - Control phase duration can be set from 0-18 hours in 1-second increments.

In the following screenshot you will see the control phase mode 1 with impulse as signal as trigger of the function, with the control phase level of 50% and control phase hold time of 4:30:00 (hh:mm:ss).




In the following screenshot you will see the control phase mode 1 with permanent signal as trigger signal for the function, with the control phase level of 50% and control phase hold time of 4:30:00 (hh:mm:ss).




The control phase mode 2 has the same logic like the control phase mode 1, just with an inverted dimming logic of the control phase function.

## 3.2.6 ACTIVE POWER SUPPLY

A drop-down list appears in the work field, in which the Active Power Supply can be switched "ON" and "OFF".

### DALI power supply - Blu2Light ready

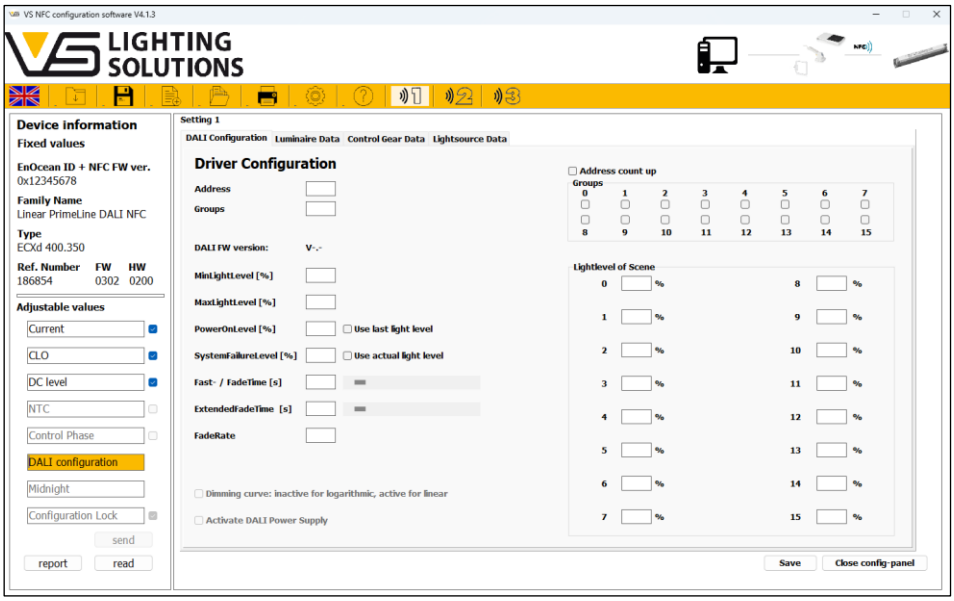
The DALI2-B2L interface has an integrated power supply for additional DALI devices, e.g. sensors. The DALI control system is connected via the da+/da- terminal pair. Pay attention to the polarity.

### DALI supply voltage

**Note:** In a parallel connection, the sum of the guaranteed current output is the basis for calculating additional DALI devices. Please refer to the relevant data sheet for the current consumption of active DALI devices (e.g. sensors). Passive DALI devices (e.g. drivers without DALI power supply) are assumed to have a current consumption of 2 mA.

**Note:** When connecting DALI power supplies in parallel, ensure that the sum of the maximum possible current output of all voltage sources on the DALI bus does not exceed 250 mA.

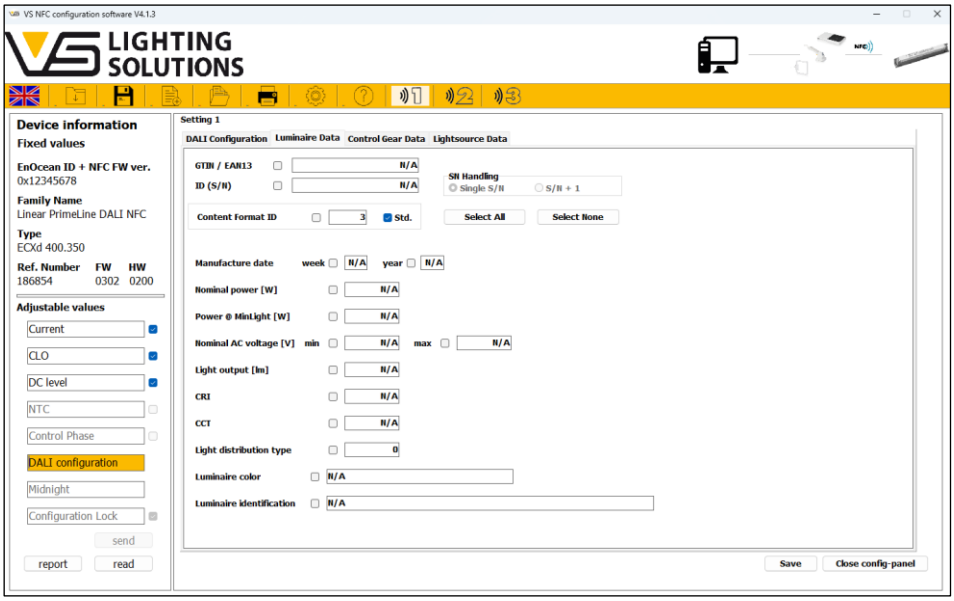
## 3.2.7 DALI CONFIGURATION




With some drivers, it is possible to configure the DALI parameters via NFC. A window with the tabs DALI Configuration, Luminaire Data, Control Gear Data and Lightsource Data appears in the work area.

**Note:** All DALI parameters can be adjusted here, and the active DALI power supply can also be switched off/on.

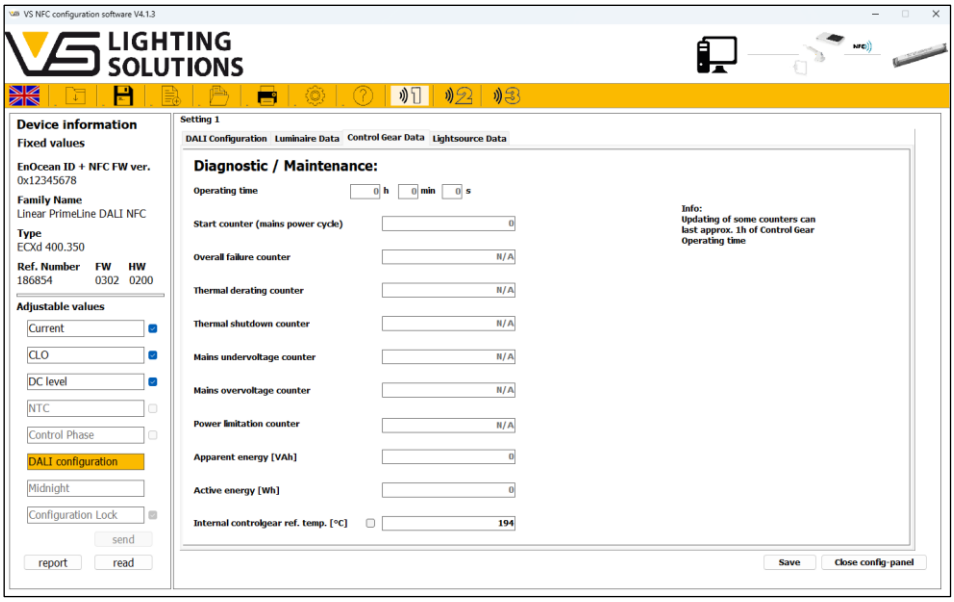
## Luminaire data




Here you can enter all the data about the luminaires and save the configuration by clicking on the Save button.

## Control gear data

A window with the heading "Diagnostic/Maintenance" appears in the work area where all the driver data (operating time, start counter, overall failure counter, etc.) can be viewed. The configuration can be saved using the Save button.




## Lightsource data

As with the Control Gear Data item, all values for the light source can be viewed in the work field.

## 3.2.8 MIDNIGHT FUNCTION

At the beginning of the configuration of the Midnight function, you have the option of selecting the astrologically based schedule with the "Astro-based" checkbox.

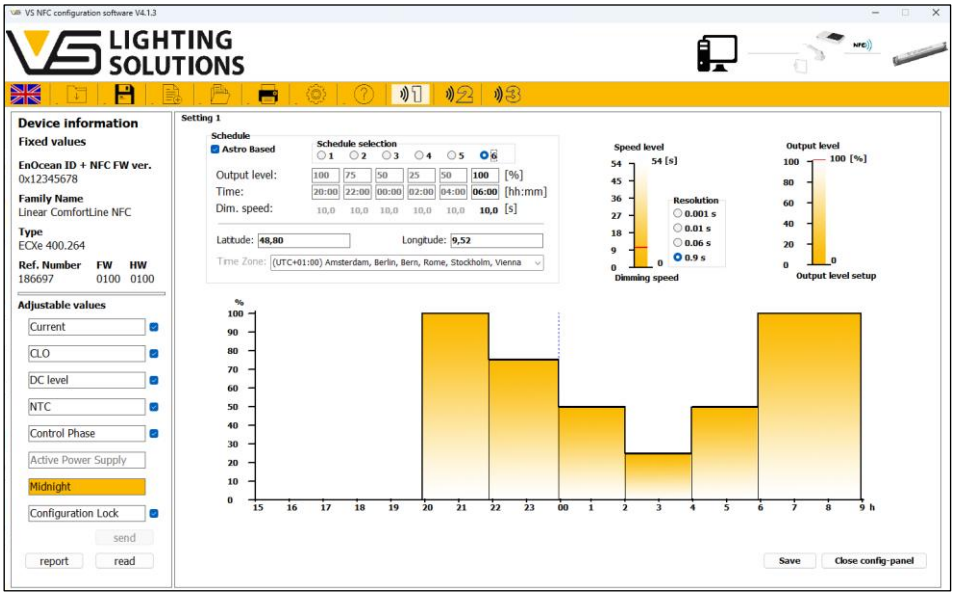
1) If the checkbox is activated, the longitude and latitude of the application location must be entered. You can easily find these on the Internet under the link https://www.latlong.net/. Simply search for the application location and you will receive the longitude and latitude. Please make sure to separate the coordinates for longitude and latitude with a comma.

   Example: Schorndorf, Germany
   Latitude: 48.80 and Longitude: 9.52

2) You must then select the time zone in which the application location is located.

3) If you do not activate the checkbox, the local time difference and seasonal influences of the brightness of the application location are not taken into account.

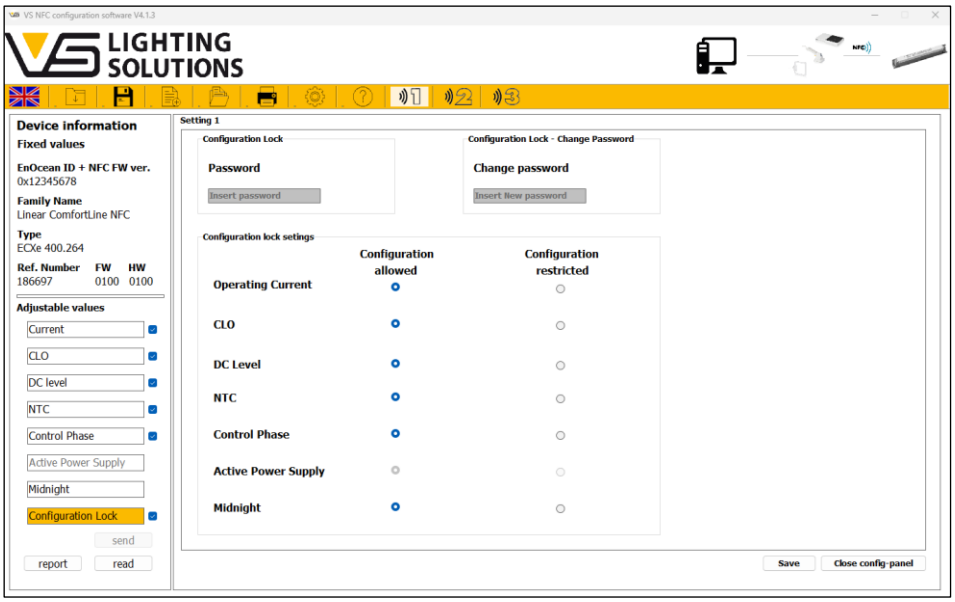
4) The next step is to configure the dimming schedule. Up to six dimming levels can be set for this. When configuring this function, it is important that you always enter the output level first, then the time and finally the so-called dimming speed before you want to configure the next dimming level. The output level can be entered either in the number field or using the slider on the right-hand side. The time can be entered in the number field. The input range for the time is limited to 15:00 to 09:00. The so-called dimming speed is set using the slider, with the option of selecting a resolution between 0.001 and 0.9 seconds.



## 3.2.9 CONFIGURATION LOCK

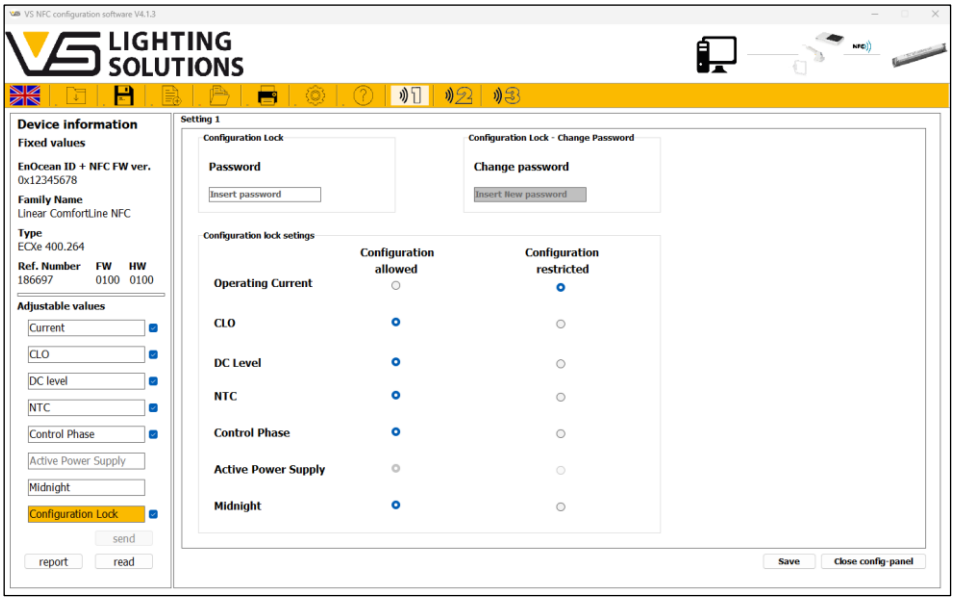
By activating this function, you can ensure that important settings can only be changed by authorized users. This provides additional security and prevents unintentional adjustments that could affect the performance of the device.

There is no active password protection for the configurable functions in the factory settings or when the LED Driver is delivered to the luminaire manufacturer.




### Create password protection

The "Configuration allowed" and "Configuration restricted" checkboxes can be used to select the functions for which password protection is to be set during configuration. As soon as one of the functions is selected in the "Configuration restricted" checkbox, the password protection function is activated, and the "insert password" input field opens.



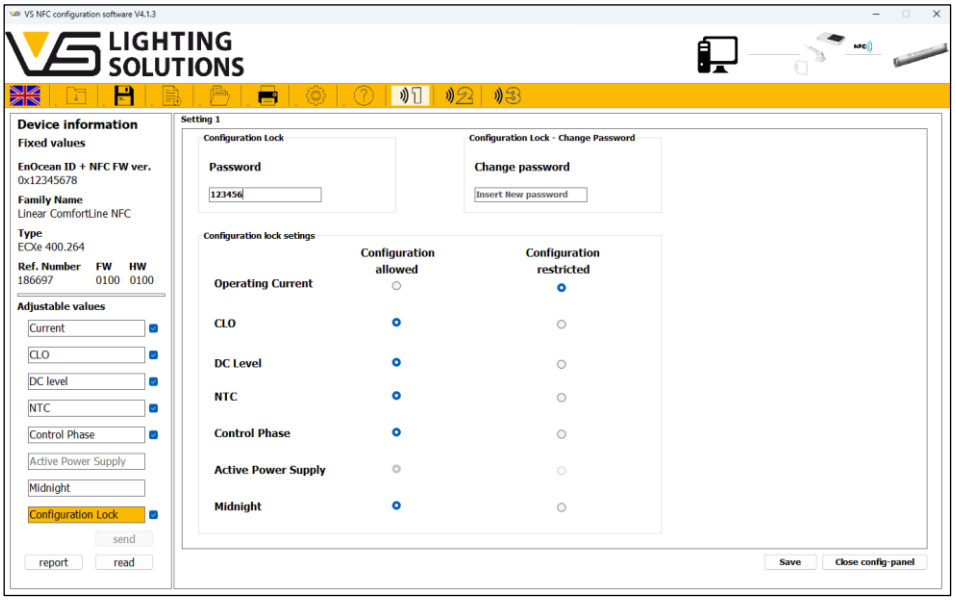
Now enter a new secure password in this field in the "insert password" field and press the "Enter" button to enter the password. Then press the "Save" button to save the password for the rest of the configuration process.

**Note:** Please make a note of the password and keep the note in a safe place. Do not share the password with unauthorized persons. If you have forgotten or lost the password, please contact Vossloh-Schwabe customer service and we will help you reset your password.

### Change password protection

If you want to change your password protection, you will need an LED driver and the password assigned during the previous configuration. Then you can either read the configuration from the LED driver using the VS NFC Configuration software.

If you now open the "Configuration Lock" workspace, you must look up the password assigned during the previous configuration from your notes and enter it in the "insert password" field. If you have entered the correct password and confirmed with the "Enter" button, the "insert new password" field will open under the text "Change password" and you can only assign a new password there. Once you have entered the new password, please confirm it again by pressing the "Enter" button and save the configuration by pressing the "Save" button.




### Configuration with incorrect password

If you want to reconfigure a LED driver with password protection in the field, you must ensure that you have the correct password for changing the configuration. If the configuration is started based on a new or an already saved and imported configuration file without reading out the LED driver in advance, the LED driver may not accept the programming if the password of the configuration does not match the password saved in the LED driver. This means that although you can remove/set the password protection in the software and change the configuration, if the password programmed in does not match the with the configured password, the configuration will be discarded when LED driver is switched on after the configuration.

**Note:** It is therefore advisable to read out the existing configuration of the LED driver before reconfiguration and to cancel the password protection and to reactivate the password protection after reconfiguring the parameters. This way you can be sure that you have the correct password and that the LED driver accepts the new configuration. If you do not enter the correct password, you will notice this at this point, as you cannot cancel the password protection, or you will receive an error message until you have entered the correct password. After programming the new configuration, you can then be sure that the LED driver will not discard the new configuration after switching on for the first time.

## 3.3 STEP 3 – DATA TRANSFER VIA NFC

### 3.3.1 SEND DATA

Once the configuration is complete, the parameter values can be sent to the Feig programming device and then transferred to the respective driver via NFC.

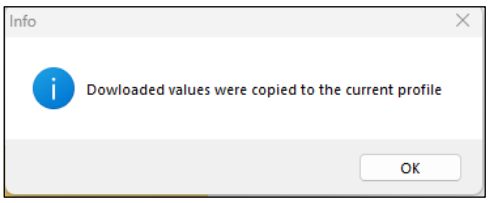
To send the parameter values to the NFC programming device, the "Send" field must be clicked. All activated parameters are then transmitted to the hand-held device and a message appears in the software.

If the transfer fails, please check the system setup.

### 3.3.2 READ DATA

The driver configuration can be read out using the "Read function".

After pressing the "Read" button, the following message appears in the software.

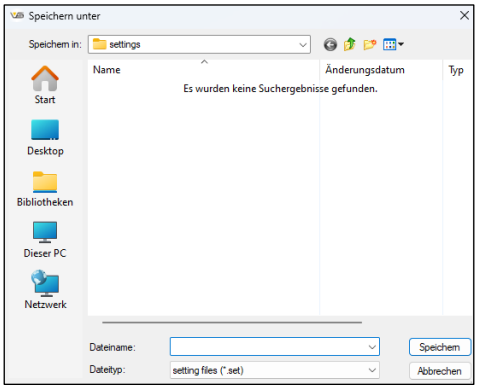



**Note:** The NFC programming device must be connected to the PC for the programming process until the parameterization is complete. Programming is carried out by holding the NFC programming device close to the NFC antenna of the LED driver.

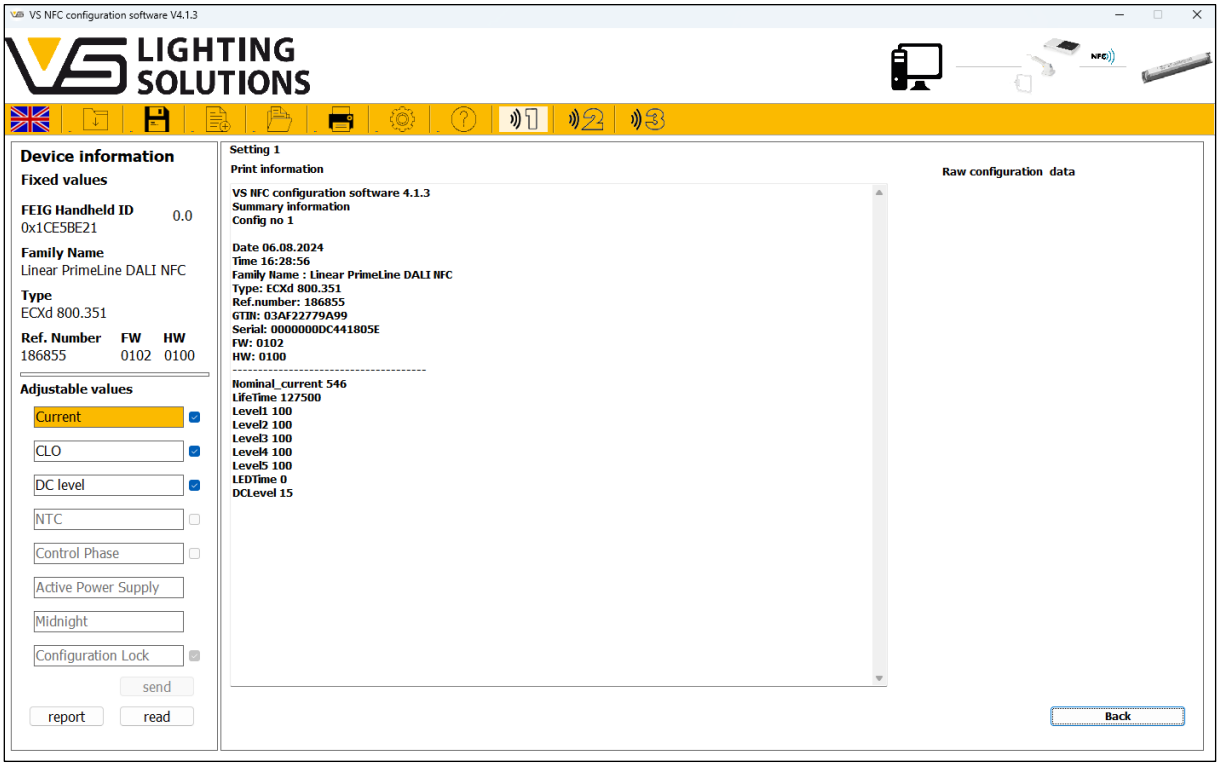
The NFC transmission then takes place automatically and is confirmed by a short signal tone.

If the transmission was faulty, a long signal tone sounds, and the driver programming must be repeated.

If programming is successful, the configuration profile can be saved under "Save" or "Save as".

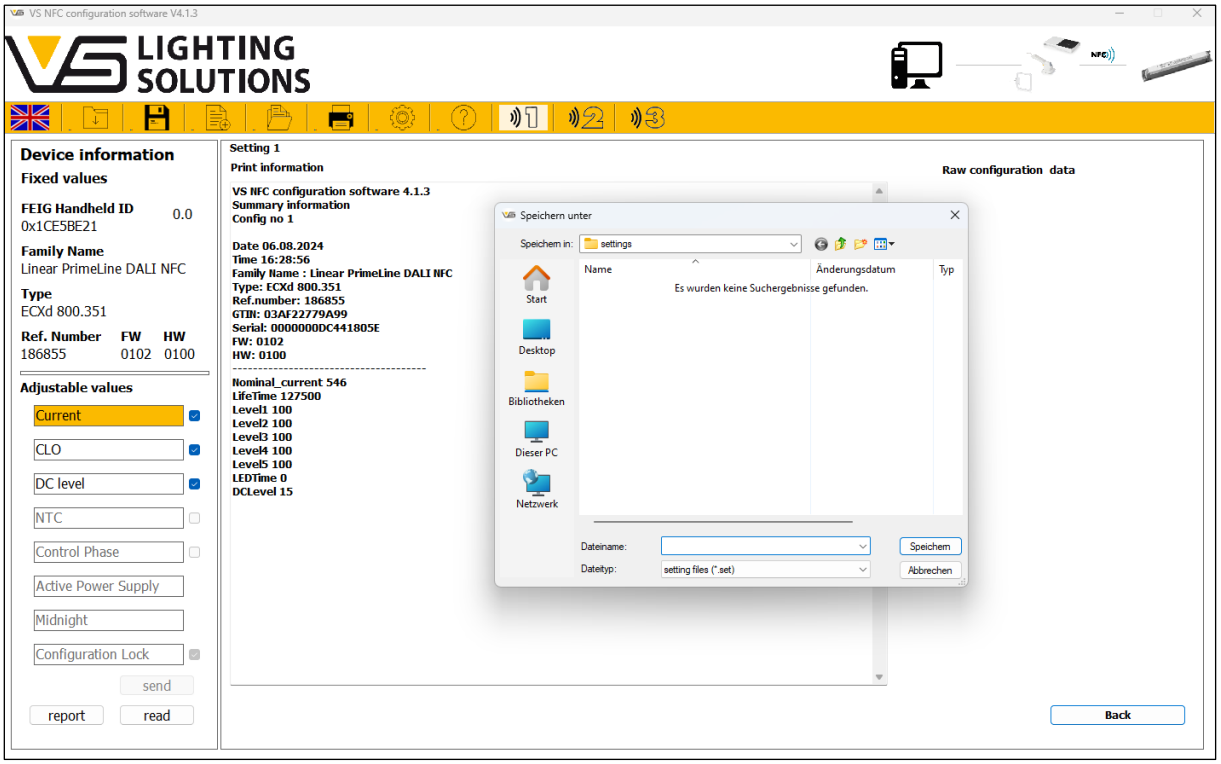



The configuration profile can be closed once it has been successfully saved.



## 3.4 STEP 4 – READING AND PRINTING

A file (.txt) can be created for printing configured parameters, which can be integrated and designed in external print programs (not included in the scope of delivery).




# 4 GENERAL SAFETY INSTRUCTIONS

When using the NFC configuration software for LED drivers and the associated NFC programming devices, it is important to observe certain safety guidelines to ensure safe and trouble-free operation.

By observing these safety measures, you can ensure the reliable and safe operation of your LED driver and the associated NFC configuration software and NFC programming devices. Please note that failure to comply with these guidelines may result in damage and configuration failure. Therefore, the following general safety instructions should be read carefully and followed.

## 4.1 CHECK COMPATIBILITY

Ensure that the LED drivers and NFC programming devices used are compatible with the NFC configuration software. Using unsupported devices can lead to malfunctions and damage.

## 4.2 USING UPDATED SOFTWARE

Always use the latest version of the NFC configuration software. Software updates contain important security improvements and bug fixes. The software is available on our website at: https://www.vossloh-schwabe.com/en/service-downloads/software

## 4.3 SECURE INSTALLATION

Only install the software from official and trustworthy sources. Make sure that your computer is free of malware to prevent unauthorized access to the software.

## 4.4 DEVICE CONNECTIONS

Make sure that the NFC connection between your programming device and the LED driver is stable during the programming process to avoid interruptions during configuration. Make sure that the NFC programming device is not disconnected during the programming process.

## 4.5 PROGRAMMING WITHOUT POWER

Make sure that the LED driver is only programmed via NFC when it is de-energized.

## 4.6 PASSWORD PROTECTION

Protect configured LED drivers with secure passwords in the "Configuration Lock" function. Make a note of the passwords you have assigned and keep them in a safe place. Only give the passwords you have assigned to authorized users, as unauthorized access and the resulting configuration adjustments can compromise security in the application area.

## 4.7 DATA INTEGRITY

Keep regular backup copies of your configuration settings. In the event of unforeseen changes or data loss, you can quickly access the backed-up data.

## 4.8 HANDLING THE DEVICE

Handle all devices and NFC-enabled components with care. Physical damage can impair functionality and pose safety risks.

## 4.9 ENVIRONMENTAL CONDITIONS

Ensure that the device is not exposed to extreme temperatures, high humidity or direct sunlight. Such conditions can impair the electronic equipment.

## 4.10 FOLLOW DOCUMENTATION

Read all documentation and manuals for the NFC configuration software, LED drivers and programming devices carefully before making any changes. This will ensure that all steps are carried out correctly and possible risks are minimized.