

SpaceLogic KNX

Device Firmware Update Tool

Software description

This document describes the Device Firmware Update Tool. This description contains information about the conditions and the execution as well as information about the diagnostic function.

MTN6705-0008 | MTN6805-0008 | MTN6710-0102 | MTN6810-0102 |
MTN6725-0101

2020/09



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Safety information

Read these instructions carefully and look at the equipment to become familiar with the device before trying to install, operate, service, or maintain it. The following special messages may appear throughout this manual or on the equipment to warn of potential hazards or to call attention to information that clarifies or simplifies a procedure



The addition of either symbol to a “Danger” or “Warning” safety label indicates that an electrical hazard exists which will result in personal injury if the instructions are not followed.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that accompany this symbol to avoid possible injury or death.



DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

Failure to follow these instructions will result in death or serious injury.



WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.



CAUTION

CAUTION indicates a hazardous situation which, if not avoided, could result in minor or moderate injury

NOTICE

NOTICE is used to address practices not related to physical injury.

Additional notes



The specified information must be followed, otherwise a program or data error may occur.



Your will find additional information here to make your work easier.

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For your safety



DANGER

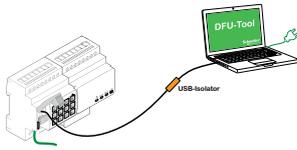
HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Safe electrical installation must be carried out only by skilled professionals. Skilled professionals must prove profound knowledge in the following areas:

- Connecting to installation networks
- Connecting several electrical devices
- Laying electric cables
- Connecting and establishing KNX networks
- Safety standards, local wiring rules and regulations

Failure to follow these instructions will result in death or serious injury.

1 The Device Firmware Update Tool - DFU Tool



Firmware updates are intended for security and functional updates to ensure that the devices are always up to date. With the Device Firmware Update Tool (hereafter referred to as **DFU Tool**) you can easily provide Schneider Electric KNX devices with the new firmware.

The DFU Tool supports the following SpaceLogic KNX devices:

- Switch/Blind Master and Switch/Blind Extension
- Universal Dimming Master, Universal Dimming Extension
- DALI Gateway Pro

The firmware update for a master and an extension is always initiated at the master device. First the master receives the latest firmware and then automatically the connected extensions.

1.1 Conditions

- Download the DFU Tool on your PC. It's available on the Schneider homepage. -> www.se.com
- Valid PIN code to authorize the firmware update. You can set the PIN code via the ETS application.
- Depending on the device, the connection SpaceLogic KNX device and PC/Notebook is established via
 - Micro USB B plug (Master devices)
 - RJ45 (DALI Gateway Pro)

- ① Install the DFU Tool on your PC by following the instruction in the installation setup.





1.2 Preparations of the Master devices

During normal operation, the service port of a master is protected against unauthorized access. To get access, you must authorize a firmware update in the ETS. To do this, you must first set up a PIN code in ETS that differs from the standard one.

- Enter a valid 4-digit PIN code in the extended settings. Weak PIN codes, such as 1234, 0000, 1111, ... are not accepted.

PIN Code for Firmware Update

Please enter PIN Code for Firmware Update
 (4 digits, 0...9)

✘ No valid PIN Code for Firmware Update!
 Please enter a valid PIN code before you download your configuration

- Connect the SpaceLogic KNX device with your PC/notebook by using a Micro USB B connection

NOTICE

Equipment may be damaged

KNX device and PCs may have different ground potentials.

- Depending on the power supply connections of the devices, you must use an USB isolator. -> see table „Required USB connection“

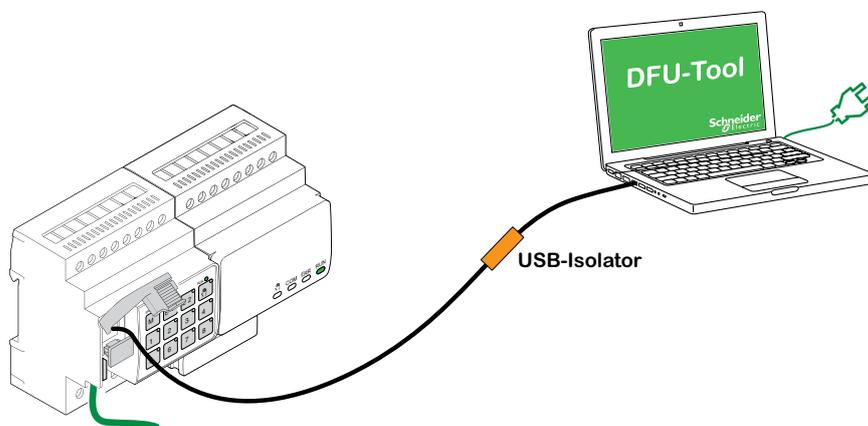
The USB isolator galvanically separates the connected devices and thus protects against compensating currents due to potential differences.

Failure to follow this instruction can damage the equipment.

Tab. 1 Required USB connection

PC/Notebook	Master	Connection
	without KNX power	USB connection with micro USB B plug
without main power / only battery powered	with KNX power	USB connection with micro USB B plug
with main power	with KNX power	USB connection with Micro USB B plug and USB isolator

USB-Connection with Micro USB B plug and USB isolator:



⇒ The Master detects the USB port, the PC recognizes a new COM port.



1.3 Preparations of the DALI Gateway Pro

The DALI Gateway Pro provides a web server for configuration. During the firmware update with the DFU tool, a connection to the web server is established via the IP network. To get access to the web server you have to define some settings in ETS.

- ① Enter a valid 4-digit PIN code in the register of special functions. Weak PIN codes, such as 1234, 0000, 1111, ... are not accepted.

Firmware Update	
PIN Code Firmware Update	<input type="text" value="1234"/>
<i>i</i> This PIN Code is requested during update procedure	

- ② Configure the IP Network

- Enable access to the web server
- Configure IP address: Either enter a fixed IP address or, if there is a DHCP server on the network, get the IP address automatically



Before the IP interface can be used, an ETS configuration and download must be performed once.



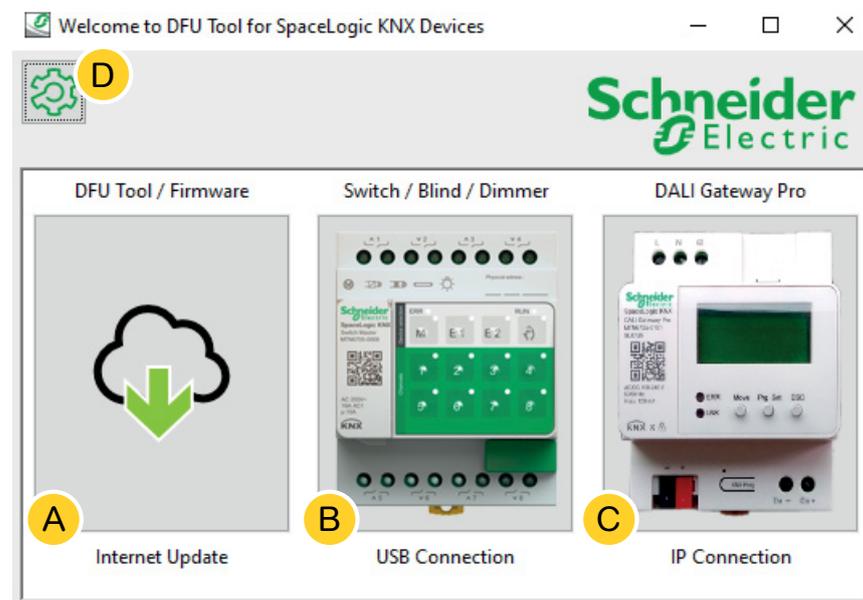
Login data can be reset in the ETS or changed in the web server

2 Start the DFU Tool

- ① The preparations have been completed, start the *Device Firmware Update Tool*



2.1 The welcome screen



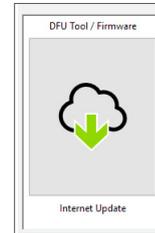
- Ⓐ The *Web Auto Update Tool*. Here you get the latest versions of the DFU Tool and the firmware files.
- Ⓑ Click here to start the firmware update of SpaceLogic KNX Master and Extension devices. The devices are connected to the PC/notebook via a service port (USB B plug).
- Ⓒ Click here to start the firmware update of SpaceLogic KNX DALI Gateway Pro. The device is connected to the PC/notebook via IP network (RJ45).
- Ⓓ Additional information will be found at Ⓓ, such as:
- Software version, license
 - Software libraries

2.2 Download DFU Tool update and firmware

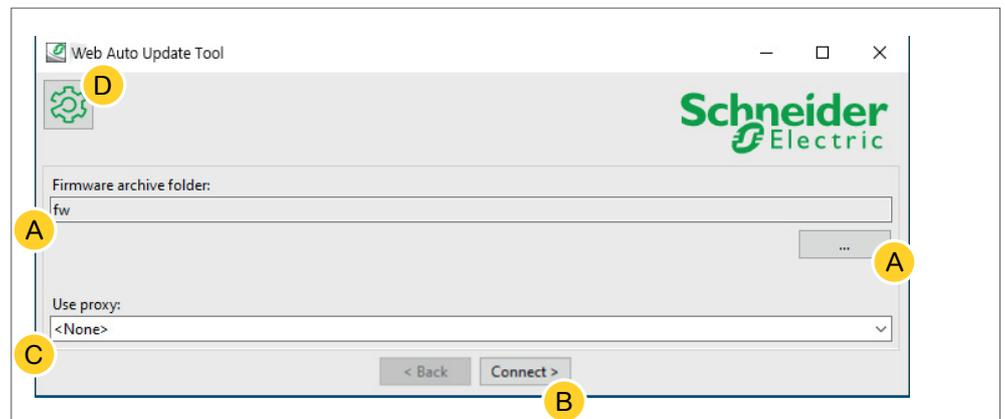
Before you perform a firmware update on a device, make sure you have the latest version of the DFU-Tool and download the latest firmware.

The so-called *Web Auto Update Tool* automatically leads you to the latest updates from Schneider Electric.

- ① Start the *Web Auto Update Tool*



- ② Everything is pre-defined and you only need to connect to the Internet ②.

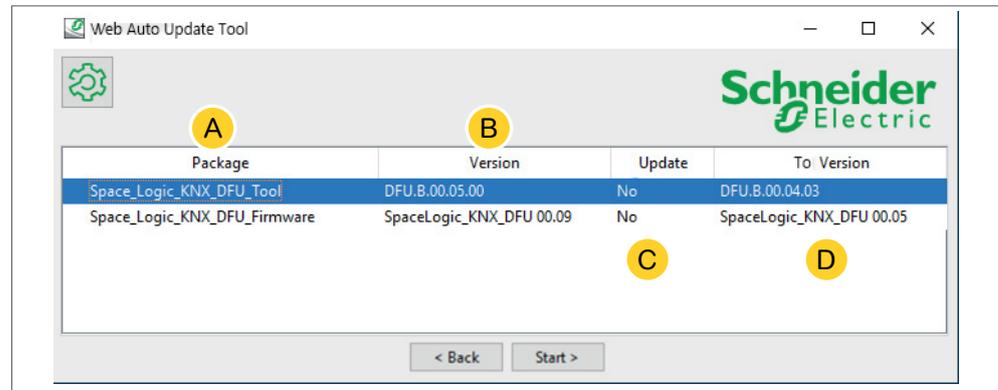


In case you have another configuration:

- ① If necessary, browse and enter a direct path leading to the latest firmware archive.
- ② Click here to connect.
- ③ You may have to use a proxy server in order to connect to the internet. Enter the address here.
- ④ Additional information will be found at ④, such as:
 - Software version, license
 - Software libraries
 - Help files

2.3 The Web Auto Update Tool

The information screen of the *Web Auto Update Tool* shows the latest available versions.



- Ⓐ All identified subjects are listed.
- Ⓑ Shows the latest version.
- Ⓒ If the available update packet contains a higher firmware version, the value *Yes* is automatically displayed. The value *No* indicates that the available update package contains an earlier version. But even in this case it may be interesting to perform an update because you want to re-update to the same version or perform a downgrade.

- ① Double click on the column for update and toggle the value of the update.
- ② *Start* the update

Version	Update	To Version
	No	10.3.0
	---	10.3.1
	---	10.3.1

Version	Update	To Version
	Toggle update	3.0
	Diagnostics	3.1
	---	10.3.1

Version	Update	To Version
	Yes	10.3.0
	---	10.3.1
	---	10.3.1

- Ⓓ This column shows the firmware version contained in the download package.
- ① Click on the subject you would like to update and start the download.
- ✓ You downloaded the latest firmware and updated the DFU tool if necessary. Return to the welcome screen and start the firmware update.

3 Perform firmware update for the Master devices



- ① Go to the welcome screen and start the Firmware update

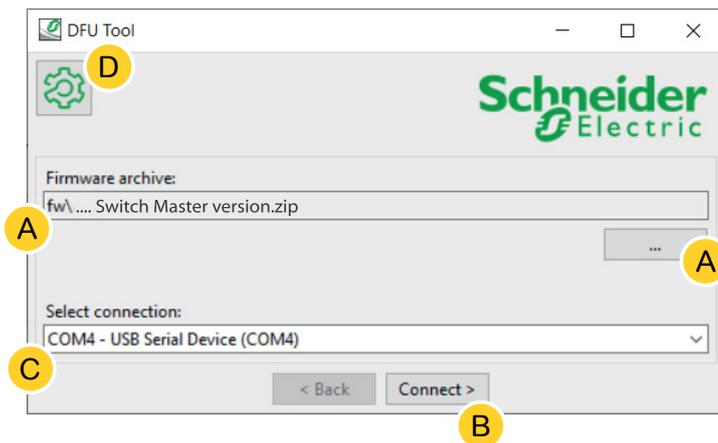


- ② Select the latest firmware archive. (A)

The shown firmware path should be valid. If necessary, change the path.

Skip this step when you want to use the DFU Tool diagnostic function.

- ③ Select the COM port connected to the master. (C)
- ④ Connect your PC with the device. (B)

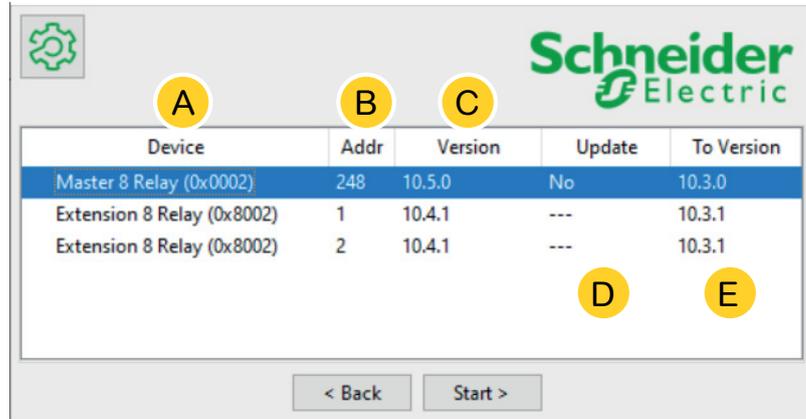


Additional information will be found at (D), such as:

Software version, license, Help files, Information about the listed items of the diagnostic report

3.1 The information screen

The connection and communication between PC and master is established. With the following screen you get detailed information about firmware update and diagnostics.



- Ⓐ All identified devices are listed.
- Ⓑ Shows the internal device addresses given within the commissioning process.
- Ⓒ Shows the firmware version of each identified devices.
- Ⓓ This column automatically shows whether a newer update is available
 - If the available firmware version is higher than in the device, then the value *Yes* is automatically displayed.
 - If you want to perform a firmware update to the same version or a firmware downgrade:
 - a double click will toggle the status instantly (from *Yes* to *No* / *No* to *Yes*) or
 - a right-mouse click shows the options. Select the toggling.
 - If you want to execute diagnosis:
 - a right-mouse click shows the options. Select the diagnostic function.
- Ⓔ This column shows the firmware version contained in the download package.



3.2 Execute the firmware update

To perform the firmware update, the value *Yes* must be displayed in the *Update* column.

If the available update packet contains a higher firmware version, the value *Yes* is automatically displayed. The value *No* indicates that the available update package contains an earlier version. But even in this case it may be interesting to perform an update because you want to re-update to the same version or perform a down-grade.

- ① Double click on the column for update and toggle the value of the update.
- ② Start the update

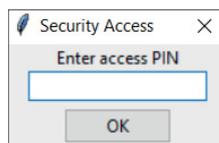
Version	Update	To Version
No		10.3.0
---		10.3.1
---		10.3.1

Version	Update	To Version
	Toggle update	10.3.0
	Diagnostics	10.3.1
---		10.3.1

Version	Update	To Version
Yes		10.3.0
---		10.3.1
---		10.3.1

You will be asked to enter the PIN code that you have previously defined in the ETS. [Preparations of the Master devices --> 6](#)

- ③ Enter your PIN code.

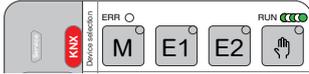


When the PIN code is valid, the firmware update process starts.

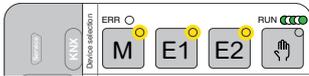


A major change in the firmware version may result in ETS incompatibility. In this case you will receive a message that the ETS configuration data will be lost. The ETS configuration must be reconfigured.

LED behavior on master and extension within the update



- The master's RUN LED flashes for 30-60 seconds
- The master's KNX LED lights up for 8-15 seconds
- The master restarts (takes several seconds)



- The master's M/E1/E2 LEDs light up until the update is finished.



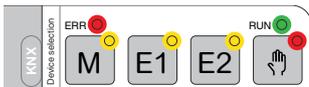
- The extension's update starts. COM LED and RUN LED blink.



- On both extensions the LEDs light up for several seconds.



- When all LEDs go off, the Extension restarts.



- When the application starts, all LEDs light up briefly, then the device goes into normal operation.



The behaviour of the Error LEDs depends on the KNX bus. If the KNX bus is not connected and the device is only powered via micro USB, all Error LEDs will light up (master and extensions). If power is supplied via the KNX bus, all error LEDs are off.



4 Perform firmware update for the DALI Gateway Pro

- ① Go to the welcome screen and start the firmware update



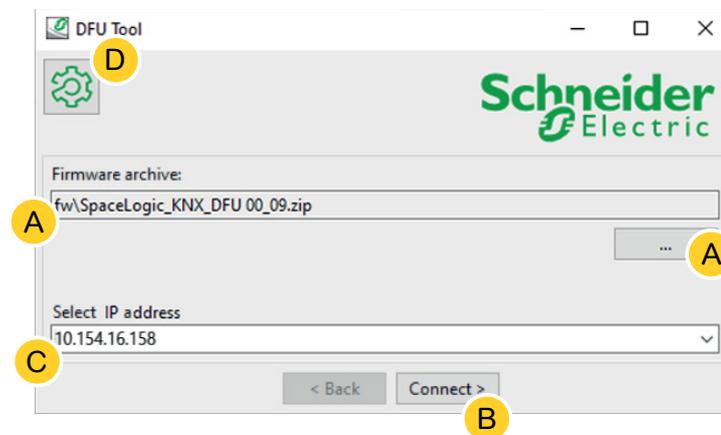
- ② Select the latest firmware archive. (A)

The shown firmware path should be valid. If necessary, change the path.
Skip this step when you want to use the DFU Tool diagnostic function.

- ③ Enter the IP address of DALI Gateway Pro, e.g. 10.154.16.158, or add the HTTPS port if necessary, e.g. 10.154.16.158:443. (C)

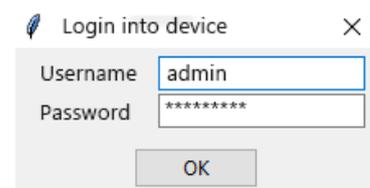
i If the DALI Gateway Pro gets the IP address from a DHCP server, the IP address is shown on the display of the gateway.

- ④ Connect your PC with the device. (B)



Additional information will be found at (D), such as:
Software version, license

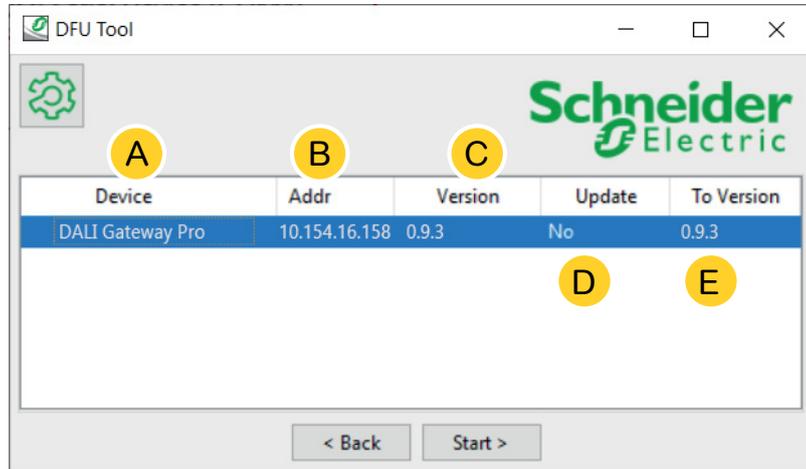
- ⑤ The connection to the web server is established. Enter the login data of the Dali Gateway Pro.



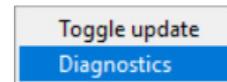
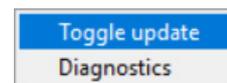
i The gateway allows only one admin sessions at any point in time. Please logout from the web server before attempting to connect with the DFU tool.

4.1 The information screen

The connection and communication between PC and DALI Gateway Pro is established. With the following screen you get detailed information about firmware update and diagnostics.



- Ⓐ All identified devices are listed.
- Ⓑ Shows the internal device addresses given within the commissioning process.
- Ⓒ Shows the firmware version of each identified devices.
- Ⓓ This column automatically shows whether a newer update is available
 - If the available firmware version is higher than in the device, then the value *Yes* is automatically displayed.
 - If you want to perform a firmware update to the same version or a firmware downgrade:
 - a double click will toggle the status instantly (from *Yes* to *No* / *No* to *Yes*) or
 - a right-mouse click shows the options. Select the toggling.
 - If you want to execute diagnosis:
 - a right-mouse click shows the options. Select the diagnostic function.
- Ⓔ This column shows the firmware version contained in the download package.



4.2 Execute the firmware update

To perform the firmware update, the value *Yes* must be displayed in the *Update* column.

If the available update packet contains a higher firmware version, the value *Yes* is automatically displayed. The value *No* indicates that the available update package contains an earlier version. But even in this case it may be interesting to perform an update because you want to re-update to the same version or perform a down-grade.

- ① Double click on the column for update and toggle the value of the update.
- ② Start the update

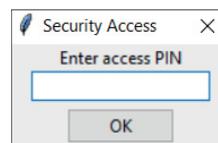
Version	Update	To Version
No		10.3.0
---		10.3.1
---		10.3.1

Version	Update	To Version
	Toggle update	10.3.0
	Diagnostics	10.3.1
---		10.3.1

Version	Update	To Version
Yes		10.3.0
---		10.3.1
---		10.3.1

You will be asked to enter the PIN code that you have previously defined in the ETS. [Preparations of the DALI Gateway Pro --> 7](#)

- ③ Enter your PIN code.



When the PIN code is valid, the firmware update process starts.



A major change in the firmware version may result in ETS incompatibilities. In this case you will receive a message that the ETS configuration data will be lost. The ETS configuration must be reconfigured, potentially by using a newer/matching ETS version.

5 Start diagnostics

Perform the diagnostic process to identify the type of error.



No PIN code is required to start the diagnostic process.



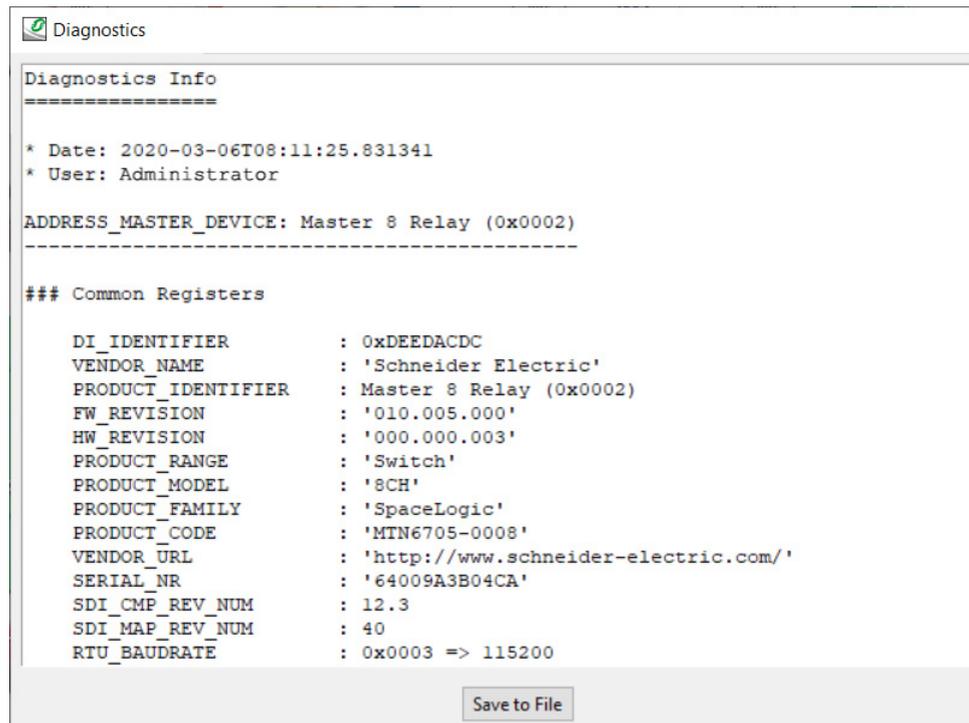
If the error LED is on: This indicates that the KNX bus is not connected and the device is only powered via micro USB. No action is required.

- ① Select the device at which the diagnosis should be executed.
- ② Right click on the *Update* column
- ③ Choose the diagnostic function
- ④ Start the process

Device	Addr	Version	Update	To Ver
Master 8 Relay (0x0002)	248	10.5.0	Toggle update	0.3.0
Extension 8 Relay (0x8002)	1	10.4.1	Diagnostics	0.3.1
Extension 8 Relay (0x8002)	2	10.4.1	---	10.3.1

Device	Addr	Version	Update	To Ver
Master 8 Relay (0x0002)	248	10.5.0	No	10.3.0
Extension 8 Relay (0x8002)	1	10.4.1	Toggle update	
Extension 8 Relay (0x8002)	2	10.4.1	Diagnostics	

The diagnostic report will be created:



You can now save the file as *.txt on your PC.

In the additional information  you will find detailed information about the listed items of the diagnostic report.



Schneider Electric Industries SAS

If you have technical questions, please contact the
Customer Care Centre in your country.

se.com/contact

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