Manual

Smart Controller

CE

EN - v2.3 / 06-2024

ORIGINAL INSTRUCTIONS

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1. Introduction

This manual is intended for the installer of electric and mechanical appliances. This document contains instructions to use and maintain the Smart Controller. It is imperative to read the instructions in this document with care, to install the appliances functionally and safely. It is paramount that this document is read thoroughly before installing the appliance. Keep this document saved for quick reference if needed.

1.1. Symbols used in this manual

WARNING! Indicates a possibly dangerous situation that may lead to death, severe injury, or product damage.

CAUTION! Indicates a possibly dangerous situation that may lead to injury or product damage.

PAY ATTENTION! Provides important information which is not directly related to safety issues.

1.2. Warranty

PAY ATTENTION! Using, installing, or maintaining this Smart Controller in a different manner than this manual indicates, may lead to product damages which cause the warranty to become void.

CAUTION! When the safety instructions described in this manual are disregarded, damage to the heat pump or the installation may incur and the warranty will become void.

1.3. Reporting malfunctions

If the product is defective and cannot be used, please contact your installer and provide the following information:

- Information on the rating plate of the product (model, article number, and version numbers of the hardware and software).
- Nature of the malfunction (specify the situations before and after the occurrence of the error).

1.4. Disclaimer

All illustrations and information in the manual are exclusively for reference, product innovations and improvements shall be continuously implemented without further notice.

2. Safety instructions

2.1. Installation by qualified personnel

WARNING! This appliance has to be installed, operated, and maintained by qualified personnel who have followed the specific training required. It is of the utmost importance that all safety precautions mentioned on the labels, the user manual, and other documentation are followed with due diligence when operating this appliance.

WARNING! This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning the use of the appliance by a person responsible for their safety. Children should be supervised to ensure that they do not play with the appliance.

2.2. Service and inspection

WARNING! This product is subjected to strict inspections and operational tests prior to leaving the factory. It is very important to refrain from disassembling the product by yourself, to prevent possible damage being incurred by incorrect disassembly and inspection. Instead, consult our designated dealer or local service centre for professional support.

WARNING! The appliance is intended for usage in dry environments and has an IP 20 classification.

	Read the user manual before using the appliance.

3. Description of the Smart Controller

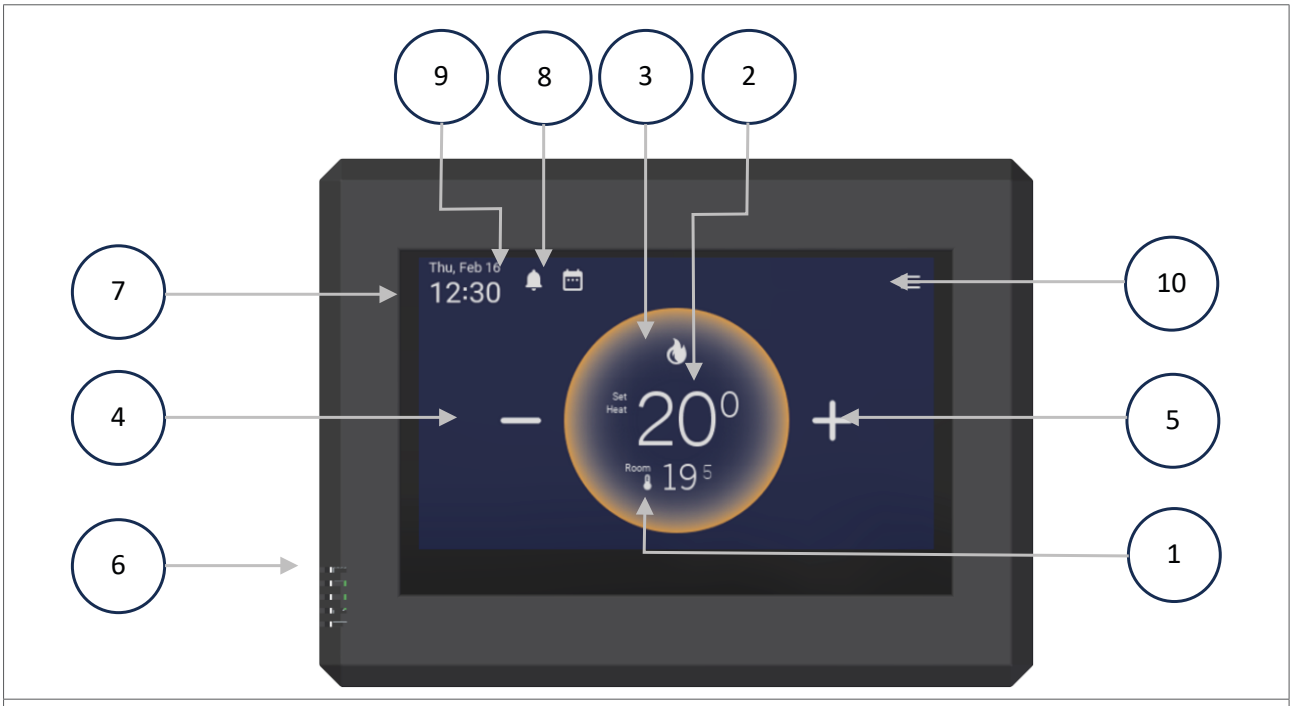

Figure 1 - Main parts of the Smart Controller

1) Room temperature
2) Requested temperature
3) Mode (heating, cooling, or ventilation)
4) Lowering the temperature
5) Increasing the temperature
6) Temperature sensor
7) Time and date
8) Calendar
9) Alarm
10) Menu

3.1. Technical specifications

Technical specification	Unit	Smart Controller
Power supply	V DC	24
Temperature range	°C	5 - 35
Temperature control	-	PID
Clock	-	10 programmable time blocks
Protection degree	-	IP20
Communication protocol	-	Modbus RTU

4. Installation and connection

4.1. Installation

- The Smart Controller is suitable for use in dry, not too dusty rooms.
- Install the thermostat in a room at a location where air can circulate freely. Pay attention to the low sun during winter, which might shine directly onto the thermostat. Installing the thermostat above or close to an appliance that generates heat is dissuaded.
- Avoid installation onto a cold outer wall. Install the thermostat onto an inner wall, free from draught.

All items above influence the right temperature measurement and the proper functioning of the thermostat.

By removing the screw at the bottom of the thermostat housing, the housing can be opened. The mounting plate with the connector can be mounted directly onto a universal built-in installation box or directly onto the wall.

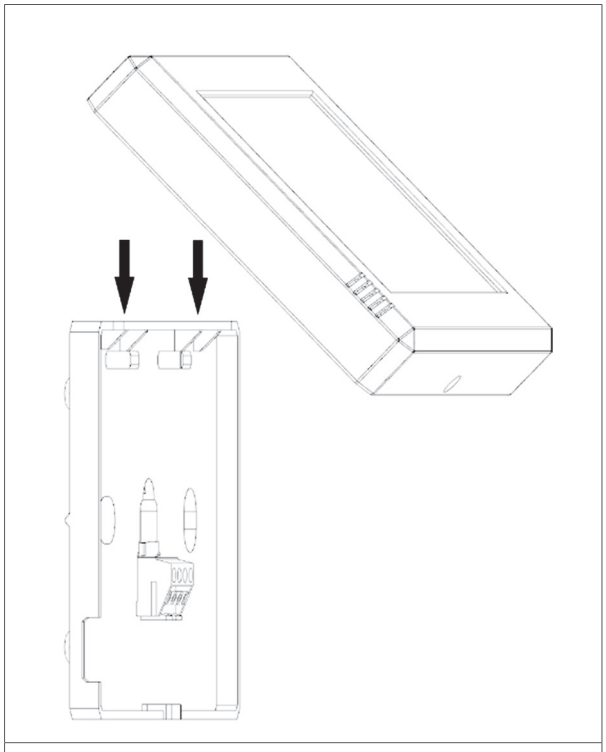

Figure 2 - Assembling the thermostat and the mounting plate step 1

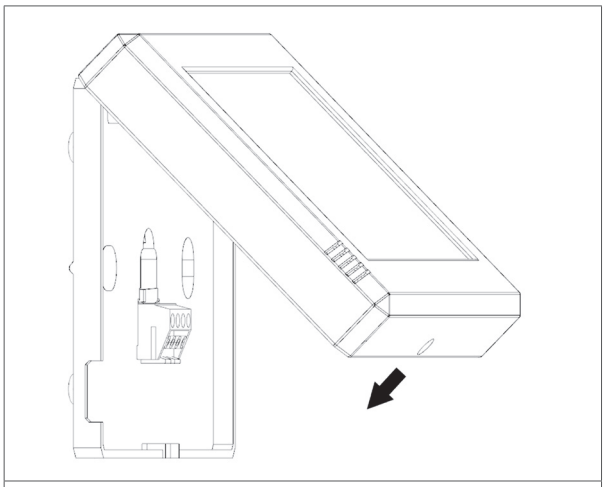

Figure 3 - Assembling the thermostat and the mounting plate step 2

PAY ATTENTION! Avoid installation of the thermostat close to communication networks. These emit signals which might influence the thermostat. This can lead to disruption of the thermostat. Keep a few metres distance.

PAY ATTENTION! Install the thermostat on a spot where the heaters are in sight. If an appliance is locked by an error and needs to be reset, the effect of this action needs to be visible.

4.2. Electrical connection

PAY ATTENTION! Before connecting the thermostat, make sure the connected appliance is de-energised. The thermostat is electrically supplied by the connected appliance.

- Use a signal cable with the following specifications to connect the thermostat:
  - Shielded
  - Minimum dimensions: 4 × Ø0.34 mm^2.
  - Maximum length: 200 m.

Connect de wires on the blue connector of the thermostat as follows:

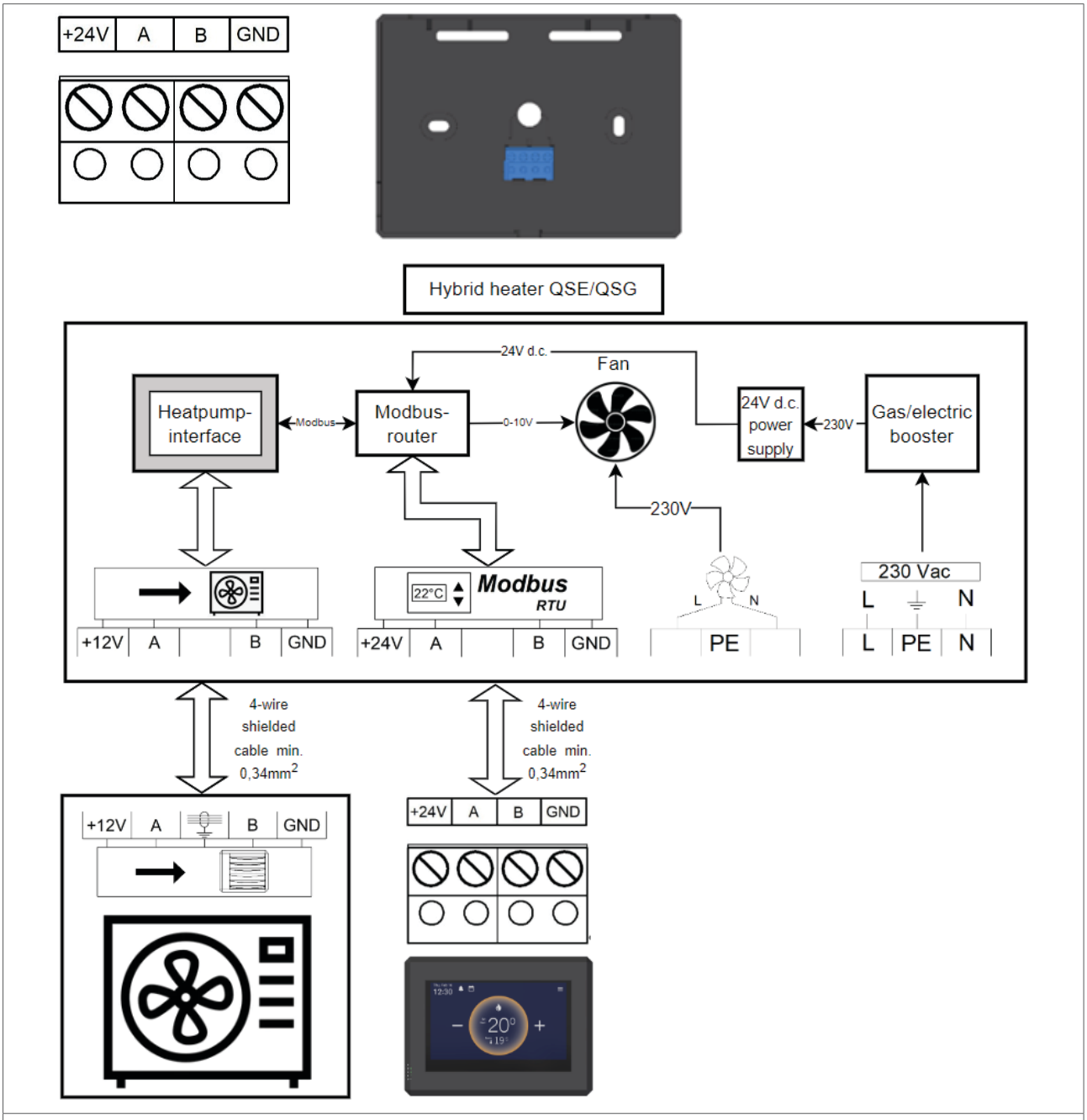

Figure 4 - Connections Smart Controller

4.3. More appliances controlled by a single Smart Controller

The Smart Controller supports the installation of multiple (hybrid) air heaters on one single Smart Controller.
Check chapters 6.1. and 6.2. for details.

5. Commissioning

Remove the foil underneath the battery by pulling the tab (see figure 5).

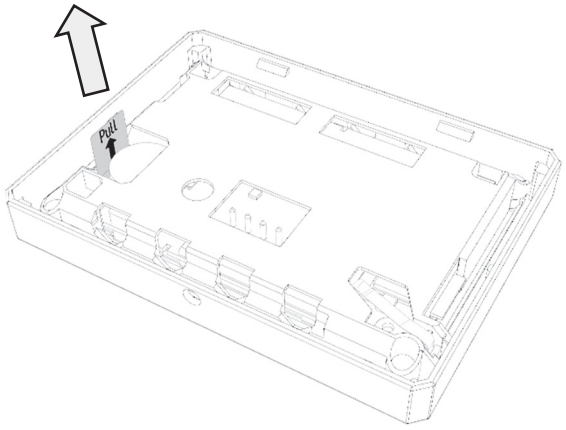

Figure 5 - Remove the foil

The Smart Controller is programmed to identify connected appliances automatically. After selecting the requested temperature(s), the appliance will be controlled by the Smart Controller.

5.1. First use

PAY ATTENTION! The heat pump has an automatic air removal programm, which will start automatically after powering-up and sending the first heating or cooling demand. This programm has a duration of 20 minutes. During this programm, the heat pump will not respond to heating or cooling requests.

6. Settings

1. By pressing the Menu button on the main screen, the following screen will appear.

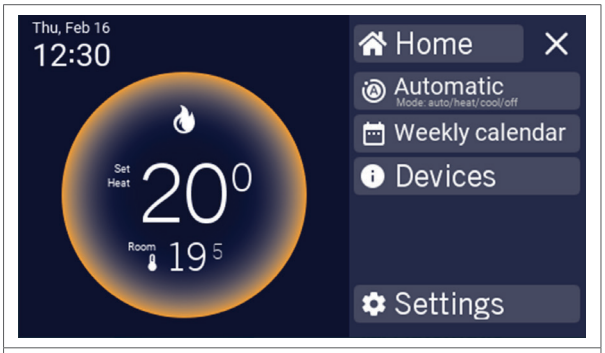

Figure 6 - Menu

2. Choose “Settings”.

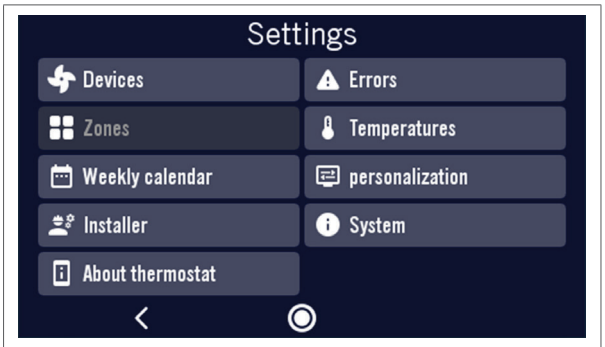

Figure 7 - Settings menu

6.1. Devices

This menu shows an overview of all connected appliances and offers the possibility to add additional appliances. For activating this feature, please contact your supplier.

6.2. Zones

In the Zone menu, appliances can be added in four different zones. For activating this feature, please contact your supplier.

6.3. Week calendar

In the week calendar menu, up to four different time blocks can be programmed.

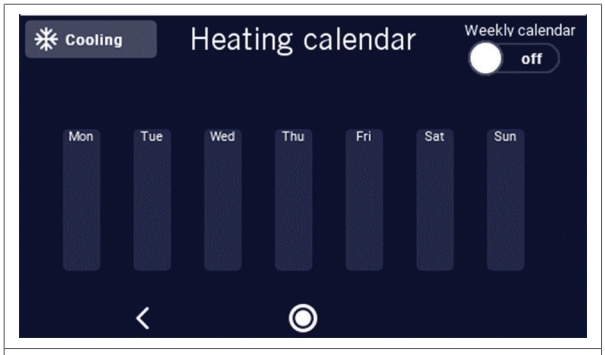

Figure 8 - Week calendar menu

6.4. Day overview

After selecting a day, time blocks can be added.

Figure 9 - Installer login menu

The access code is 7108.

After entering the correct code, the following screens will appear:

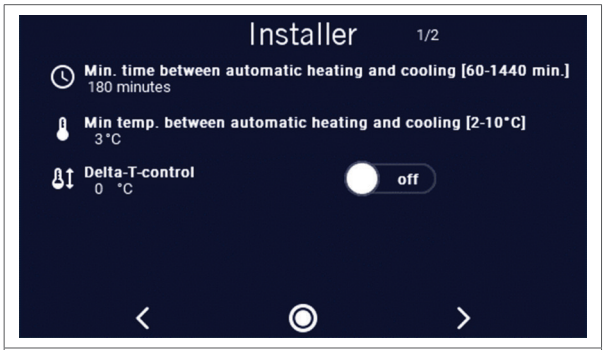

Figure 10 - Installer 1/2 menu

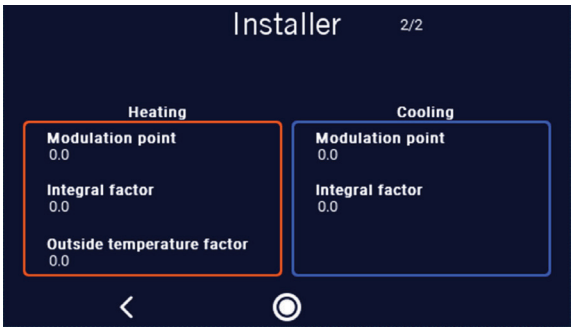

Figure 11 - Installer 2/2 menu

6.5. System

In the system menu, the system settings can be accessed.

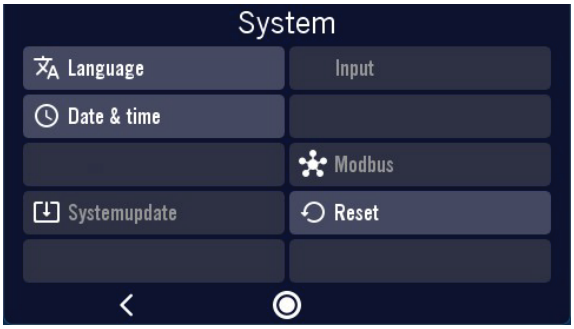

Figure 12 - System menu

6.6. Language

Different languages can be chosen in this menu.

6.7. Date and time

Figure 13 - Date and time menu

After setting the right date and time, these settings will become active immediately.

6.8. Error messages

After opening the error messages menu, the error codes of the (hybrid) heater or connected heat pump will appear. The last 16 error messages will be stored and displayed.

6.9. Temperatures

After selecting the desired setpoint, the temperature can be changed. When selecting “Calibration”, the Smart Control can be calibrated.

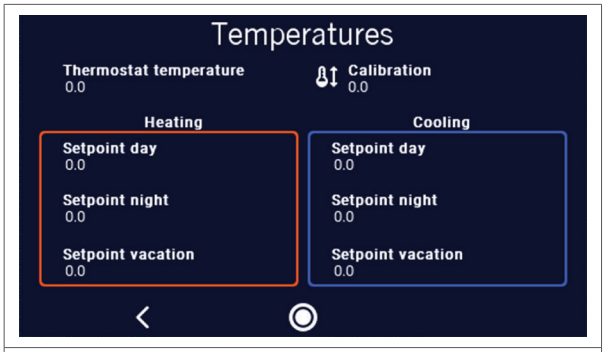

Figure 14 - Temperatures menu

6.10. Personalisation

In this menu, the brightness of the screen and other settings can be altered.

6.11. About thermostat

This screen displays the hardware and software versions.

7. Software update

7.1. Updating via micro SD-card

1. Create a folder on the micro SD Card with the name: “update_files”.

Figure 15 - "update_files" folder on the micro SD-card

2. Copy the file “SomThermostat” in the “update_files” folder:

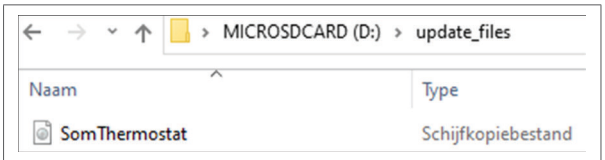

Figure 16 - "SomThermostat" file in the "update_files" folder

3. Slide the Micro SD Card into the slot on the rear side of the thermostat:

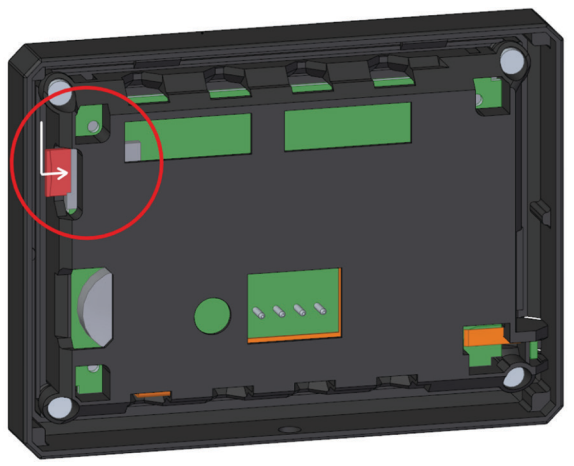

Figure 17 - Location of the micro SD-card slot

4. Make sure the micro SD Card enters the slot completely:

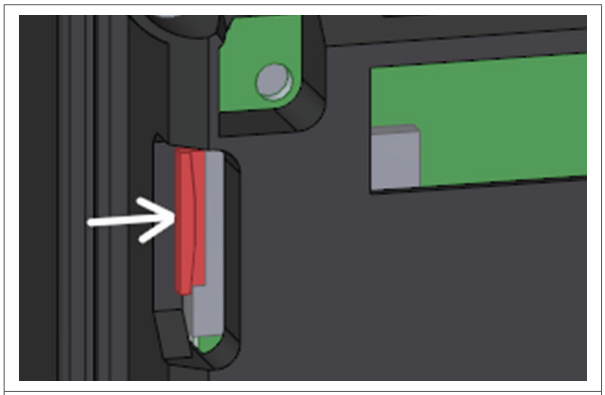

Figure 18 - A completely entered micro SD-card

5. Mount the Smart Controller back onto the mounting plate, as described in chapter 4.1. Wait until the update has finished and unmount the Smart Controller again to remove the micro SD Card.

7.2. Updating via wifi

Not implemented yet.

8. Disposal and recycling

	The meaning of the symbol on the material, its accessory or packaging indicates that this product shall not be treated as household waste. Please, dispose of this equipment at your applicable collection point for the recycling of electrical and electronic equipments waste. In the European Union and Other European countries which there are separate collection systems for used electrical and electronic product. By ensuring the correct disposal of this product, you will help prevent potential hazards to the environment and to human health, which could otherwise be caused by unsuitable waste handling of this product. The recycling of materials will help conserve natural resources. Please do not therefore dispose of your old electrical and electronic equipment with your household waste.