Installer Manual

tebis touch panel

1. ABOUT THIS MANUAL

This manual describes the operation and configuration of your *tebis touch panel* for the purposes of start-up. It is composed of 3 parts:

- A general presentation of the product.
- A chapter dealing with a concrete example illustrating a typical home. This part will enable you to quickly configure your device with the description of the functions most frequently used.
- A general description dealing with all of the appliance's functions.

In addition, an annex is provided to help you through the various stages of configuration of your product.

2. INTRODUCTION

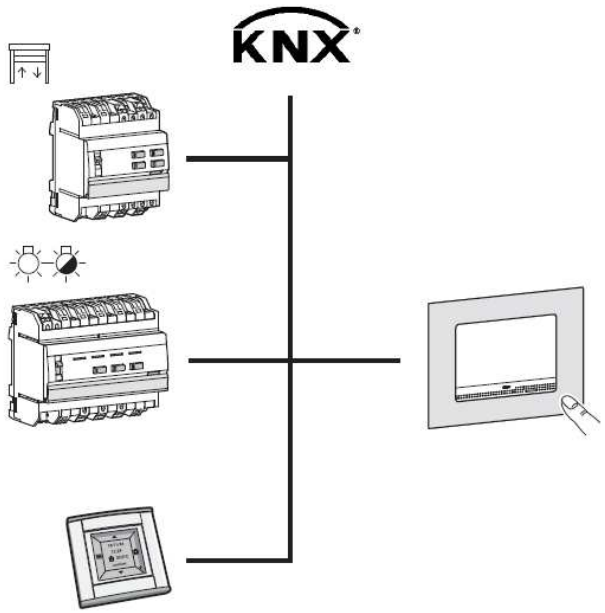
2.1 General

A Tebis system is an electrical system in which products communicate with each other via a hardwired or radio bus to send or receive commands.

A Tebis system incorporates various types of products:

- Input products: these transmit commands (push buttons, switches, presence detector, etc.).
- Output products: these receive commands and activate the applications connected (lighting, roller shutters, etc.).
- Systems products: these are necessary for the system to operate correctly: bus power supply, hardwired bus / radio bus media coupler, etc.

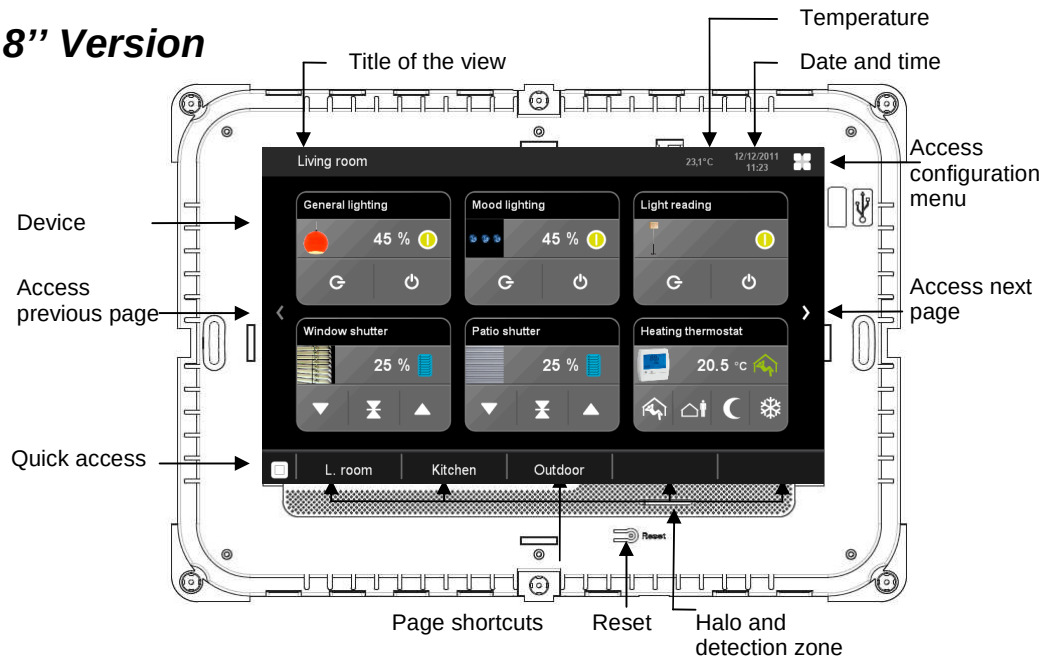
The ***tebis touch panel*** is a wall-mounted touch screen. It is used to control all of your ***tebis*** appliances from the same interface.



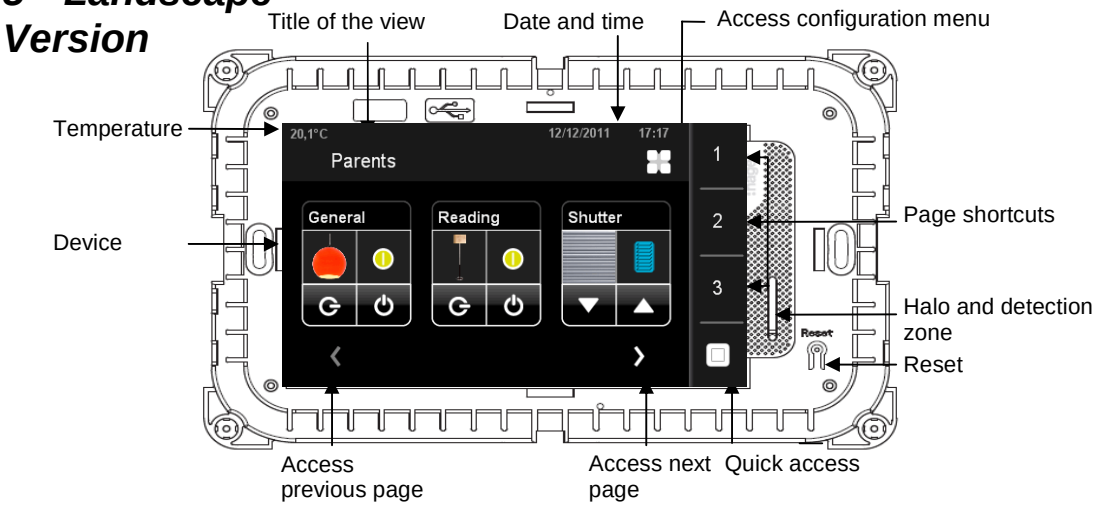
2.2 Presentation

2.2.1 The graphic interface

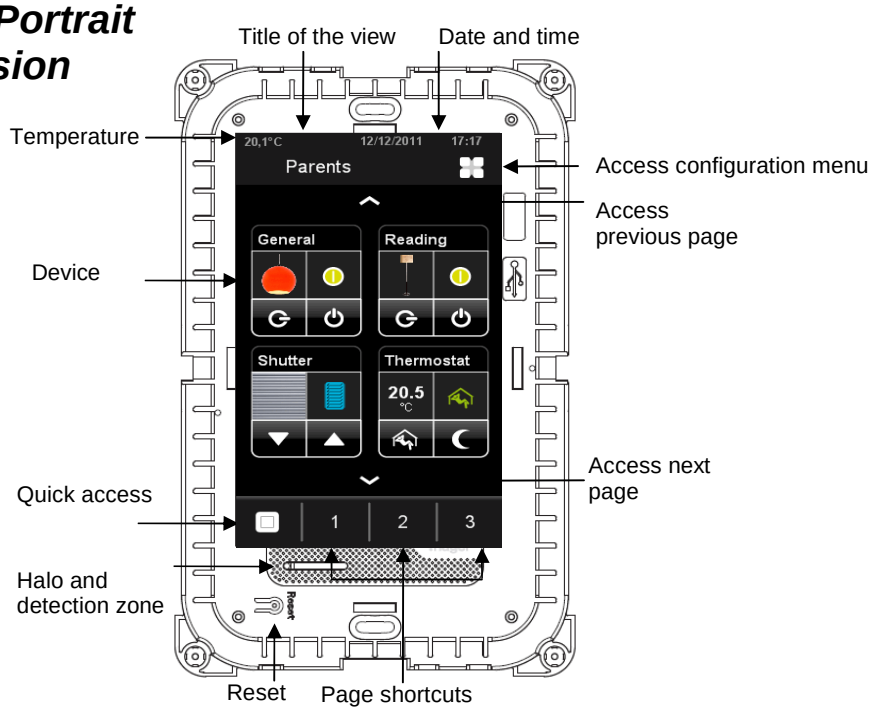
8'' Version



5'' Landscape Version



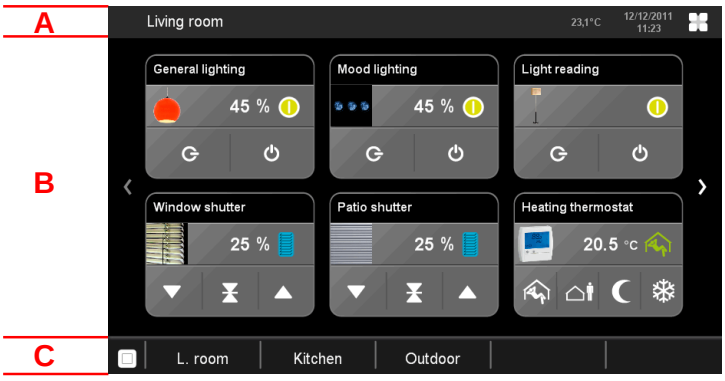
5'' Portrait Version



The touch screen has a touch-sensitive surface. The device is controlled by touching the screen with your fingers and allows you to make your choice by simply pressing the desired function.

2.2.2 Structure of the screen

The appearance and the number of devices depend on your individual system and are therefore different for each configuration. The various components of a screen page are used to navigate between the various views, represent your system, give orders and access the configuration menu.



A: Main zone: used to display the main information (name of the view, date and time) and the configuration menu.

B: Command zone: used to give orders with the display of the information in your system.

C: Links zone: used to switch quickly from one view to another and use quick access if it is programmed.

Two means of configuration are possible:

- Either by the product itself
- Or with the help of the ETS program.

2.2.3 Navigation principle

The touch screen has a touch-sensitive surface. The device is controlled by touching the screen with your fingers and allows you to make your choice by simply pressing the desired function.

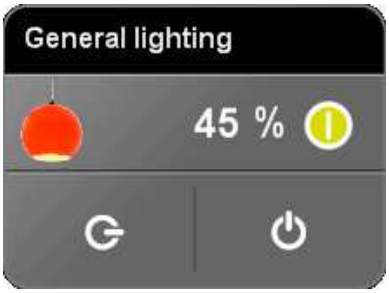
In general, an application contains several views composed of various devices:

To navigate from one view to another, you have 2 options:

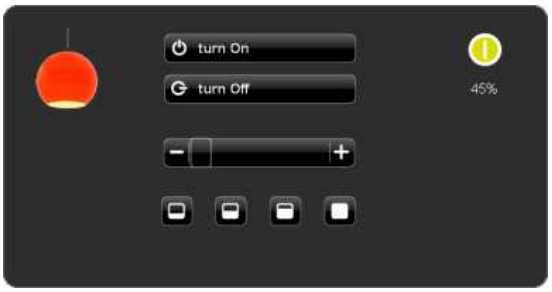
- Either with the help of the ‹ or › symbols to switch to the next or previous view.
- Or with the help of the shortcut keys at the bottom of the screen to switch directly to the desired view.

You also have the option of calling up a detailed view of a device by clicking on its image.

General representation:



Detailed representation:



The ⊞ symbol is used to access the parameters and configuration menu.

The ▢ symbol is used for programmable quick access from a device (see chapter 4.2.2.3).

2.2.4 Giving a command

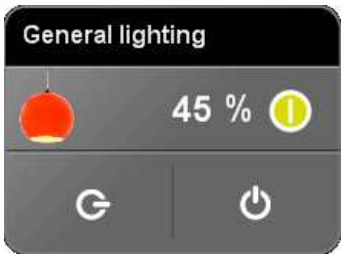
The devices are commanded by various symbols, each representing a particular function. The table below shows the commands available:

Object	Description	Object	Description
	Turn On		Comfort mode (heating)
	Turn Off		Standby mode (heating)
	Up		Night mode (heating)
	Down		Frost Protection mode (heating)
	Stop		Heating mode (Air conditioning)
	Up (step by step)		Cooling mode (Air conditioning)
	Down (step by step)		Confirm scene
	Increase the angle (blind)		Learn a scene
	Reduce the angle (blind)		Priority start-up
			Cancellation priority

2.2.5 Display of a device

The LIGHTING – DIMMER device, for example:

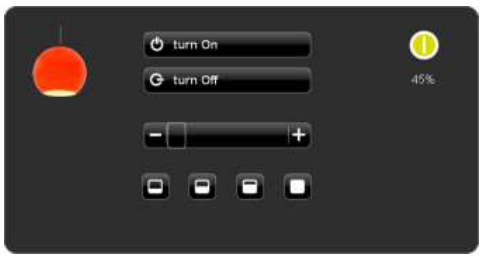
General representation:



For the lighting, it is possible to display the status and intensity of the light.

The lower section of the display is used for the On/Off command

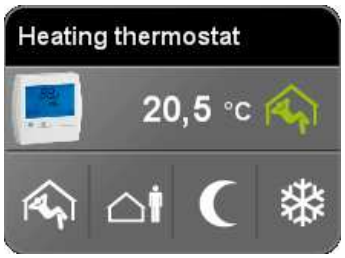
Detailed representation:



For the detailed view, it is also possible to adjust the intensity of the lighting.

A HEATING – HEATING device, for example:

General representation:



For the heating, it is possible to display the heating mode and the room temperature.

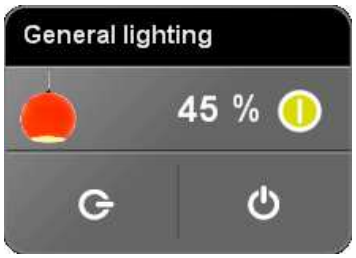
The lower section of the display is used to control the heating mode.

Detailed representation:

For the detailed view, it is also possible to display and adjust the set point temperature.

Comments:

- To switch from the general representation to the detailed representation of a device, simply click on the image.
- When starting up the ***tebis touch panel***, the status of certain devices may be unknown.



The undefined status will therefore be shown as follows:

- **?** (question mark): indicates an unknown status.
- **---** (three dashes): indicates an unknown value.

2.3 Start-up

2.3.1 Safety instruction

The device must be installed only by a qualified electrician in accordance with the installation standards in force in your country. Do not install this module outside the building.

Do not use sharp or pointed objects (such as pencils, pens, etc.) to control the device. This may damage the touch surface.

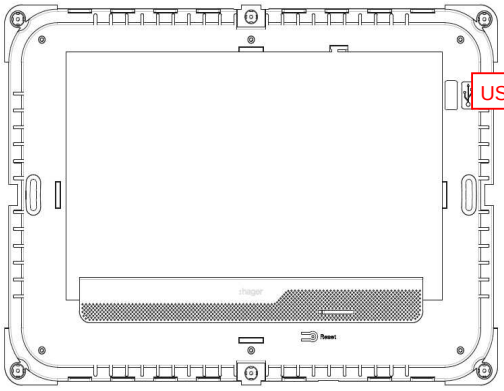
Do not use sharp objects, acid products or solvents for cleaning. This may damage the device.

Use only a clean, soft, dry cloth for cleaning the touch screen (see chapter 4.1.1).

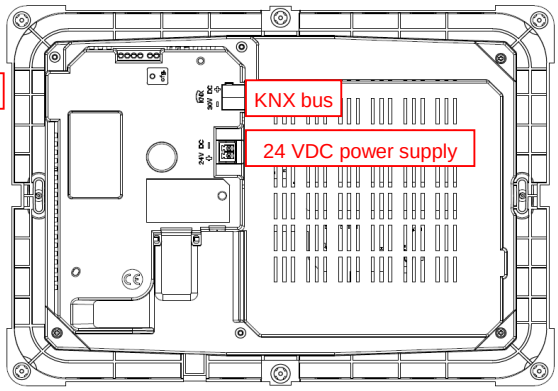
Only removable storage devices are supported by the connector on the front of the unit.

2.3.2 Mechanical and electrical installation

Front 8''



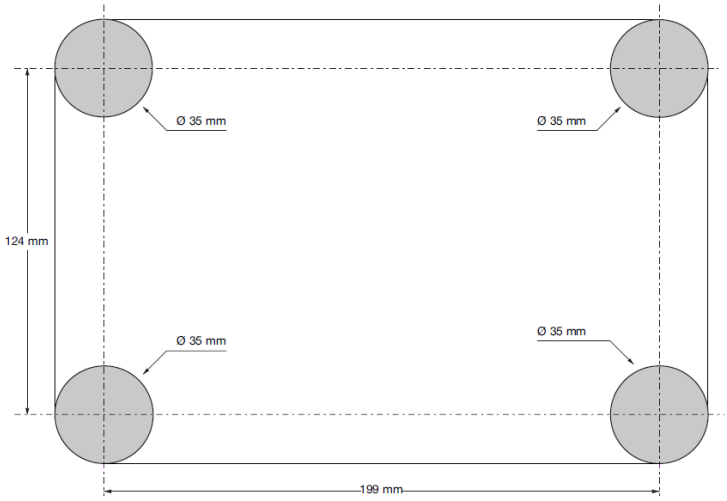
Back 8''



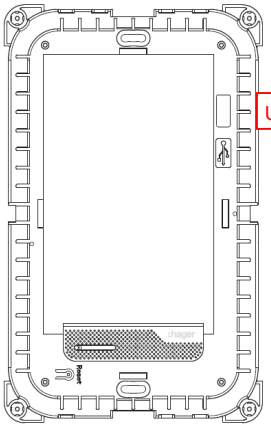
Dimensions in mm	With frame	Without frame	Flush-mounted box
Length	268	245.5	233.2
Width	195	174	164.2
External depth	12.3	9.8	x
Internal depth	26	26	51

Thickness of the frame: 4 mm

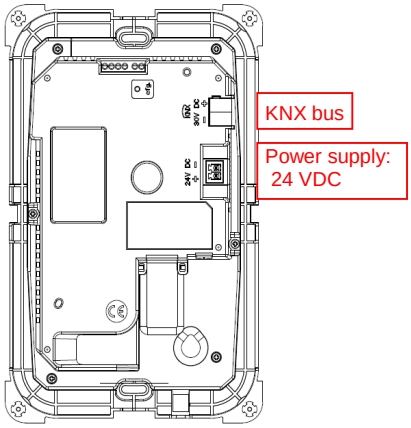
Drilling template



Front 5''



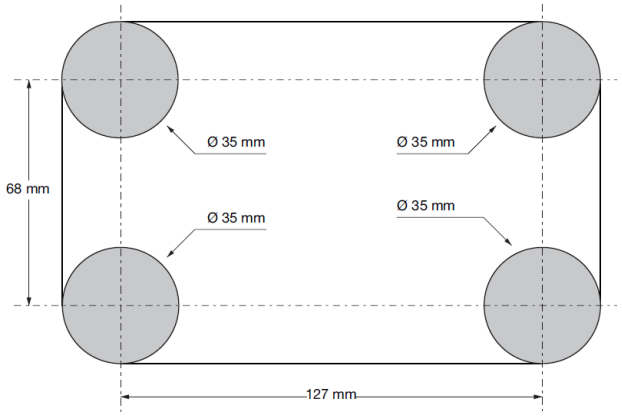
Back 5''



Dimensions in mm	With frame	Without frame	Flush-mounted box
Length	192.5	176.3	170.2
Width	127.5	112	111.2
External depth	10	6	x
Internal depth	26	26	51

Thickness of the frame: 4 mm

Drilling template



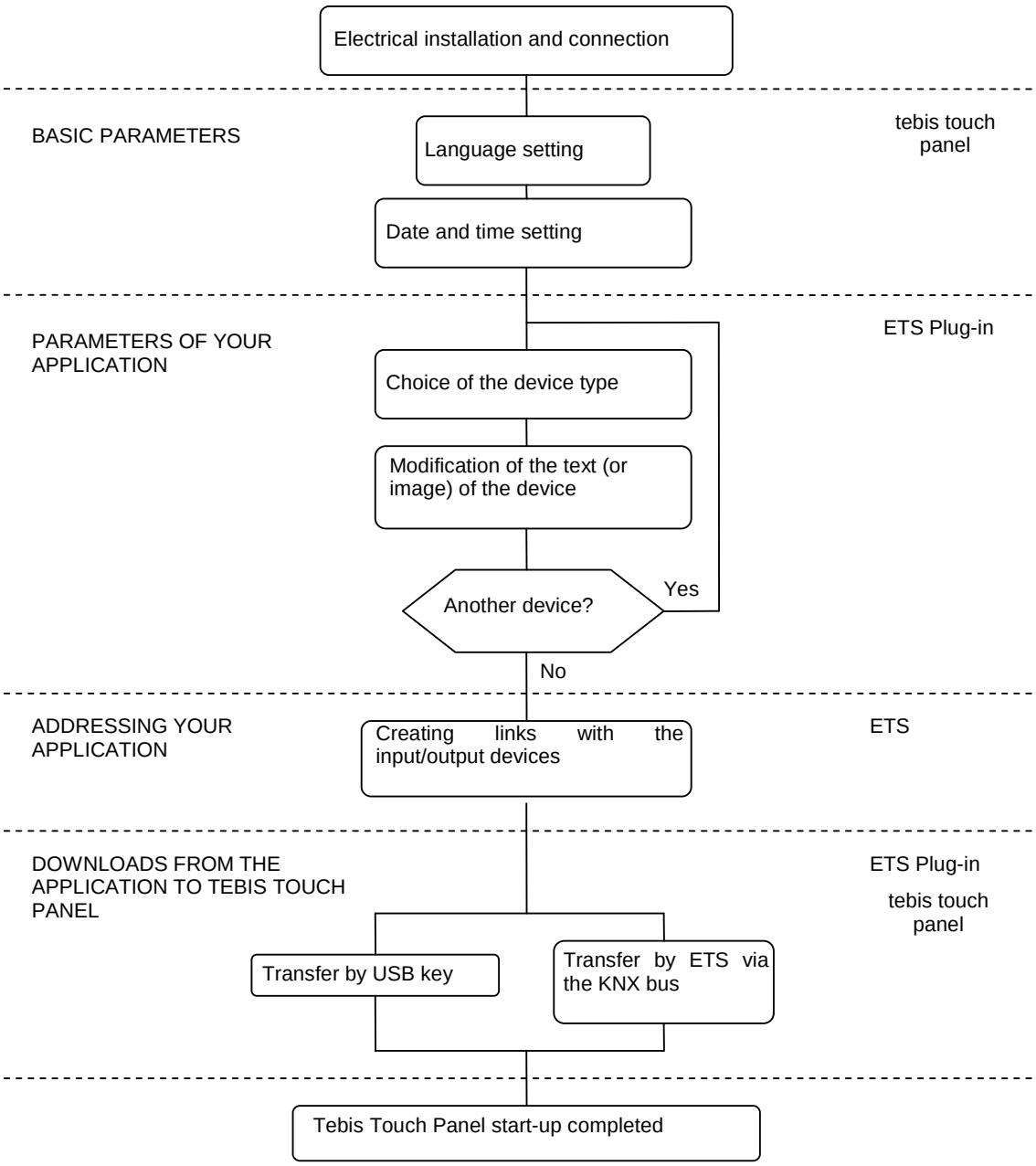
2.3.3 Technical Data

Power supply:	24V DC
Recommended power supply	TGA200
Maximum power supply consumption	11 W
Power supply connection cross section	0.75 - 2.5 mm²
Network communication	KNX bus
Operating T°	0℃ -> +35℃
Storage T°	-20℃ -> +70℃
Protection rating	IP20

3. EXAMPLE FOR QUICK START-UP

3.1 Principle

The configuration of a new system comprises the following stages:



3.2 Example for 8-inch format

3.2.1 Setting the parameters for the tebis touch panel

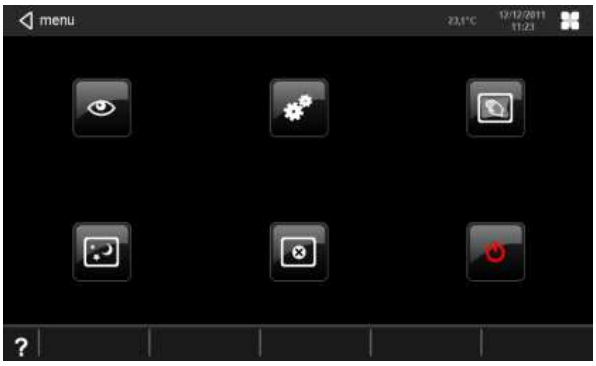
When starting up the system for the first time, a blank screen will appear as shown below:

The screen is divided into three parts:

- The top strip showing the title of the view, the room temperature, the date, the time and the symbol for accessing the parameters and configuration menu.
- The central section used to give commands and access from one view to another with the help of the arrows.
- The bottom strip used for quick access to the views.

Before programming the specific functions of your application, certain parameters must be configured.

To switch to the parameters and configuration menu, press the symbol located at the top right of the screen.

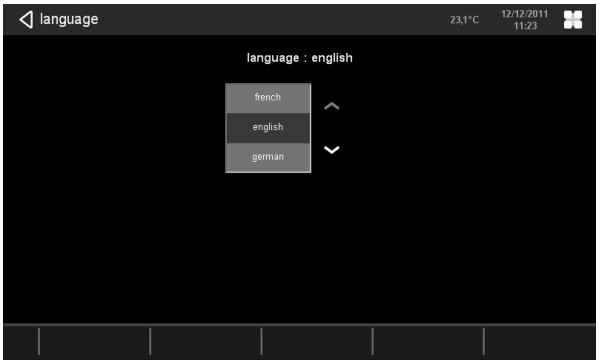


Then press the symbol to go to the parameters menu:

- Language
- Wallpaper
- Screensaver
- Halo
- Date/time
- Shortcuts
- Quick access (optional)

3.2.1.1 Language setting

- Parameters menu: **Language** .
- Select your language with the help of the symbols.

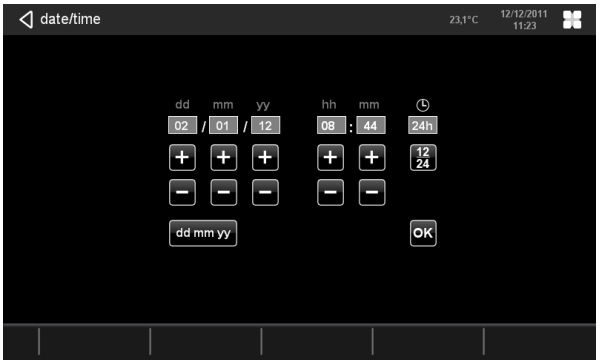


- After the selection, the system returns automatically to the parameters menu.

Comment: To exit the parameters menu without making a selection, press .

3.2.1.2 Date and time setting

- Parameters menu: **Date/time**.
- Set the date and time with the help of the and symbols.
- Set the 12h/24h mode with the help of the symbol.



- Click on to confirm your setting.

Comment: To exit the parameters menu without making a selection, press .

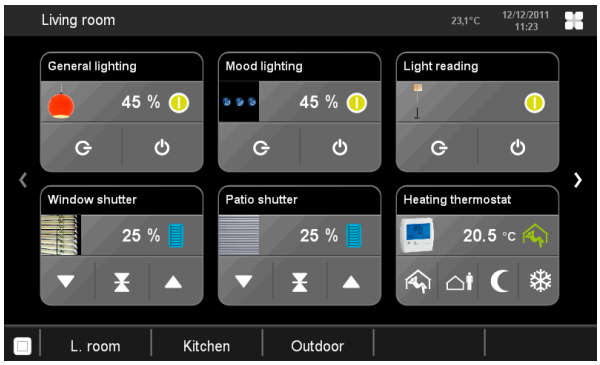
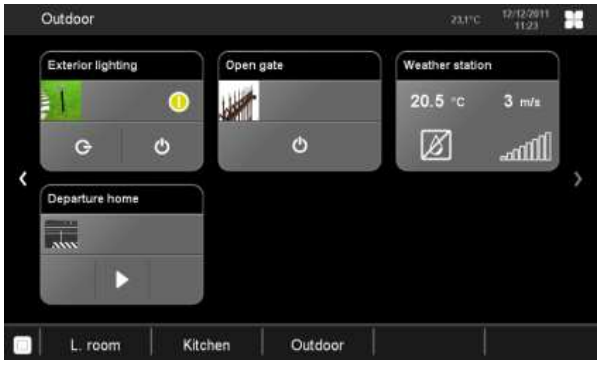
For the wallpaper, the screensaver and the halo, refer to chapters 4.2.2 to 4.2.4.

3.2.2 Setting the parameters for the *tebis touch panel* with ETS

In order to makes things easier to understand, we will deal with a concrete representative example in this chapter.

Example of a home with various applications:

- Living room (lighting on/off, raise/lower shutters, thermostat setting).
- Kitchen (lighting on/off, raise/lower shutters, thermostat setting, smoke detection, ventilation on/off).
- Outdoor passage (lighting on/off, open/close gate, weather station, departure home).

	Function type: General lighting: Lighting-Dimming Mood lighting: Lighting-Dimming Reading light: Lighting-Simple Window shutter: Shutter-Position Patio shutter: Shutter-Position Heating thermostat: Command-Thermostat
	Function type: General lighting: Lighting-Dimming Mood lighting: Lighting-Dimming Smoke detector: Binary sensor Window shutter: Shutter-Position Patio shutter: Shutter-Position Ventilation: Various-Start/Stop
	Function type: Exterior lighting: Lighting-Simple Open gate: Various-Pulse Weather station: Weather sensor Departure home: Various-Scene

3.2.2.1 Installation of the plug-in on ETS

Configuration of the system can be done from the tebis touch panel itself or from ETS. In this example, we will cover the general scenario with ETS.

- Install the plug-in from the HAGER products ETS database.

  (Download the database file from your HAGER internet site.)

- Declare the *tebis touch panel* in your project topology.

- Set the Physical Address:

  - Put the *tebis touch panel* in addressing mode. There are 2 options:

    - With the ‘’Cfg’’ button found on the back of the product. Using a pen, press the button until the halo is illuminated.

    - With the ‘**physical address**' menu

      To do this, press the symbol located at the top right of the screen to access the menu, followed by to access the configuration menu.

      Click on and select ‘**physical address**’.

      Click on to activate the physical address.

  - In the topology for your project, select your *tebis touch panel.*

  - By right-clicking on the mouse, select **Download** followed by **Program Individ. Address**.

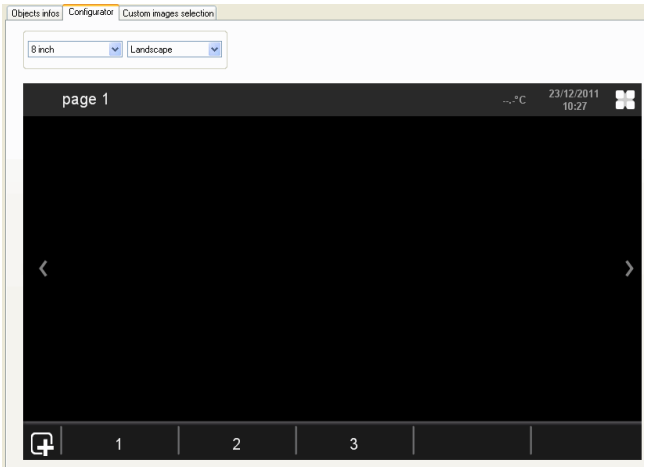
Programming is finished when the light on the back of the product goes off or when the ***tebis touch panel*** displays the new physical address.

Comment: After programming the new physical address, the addressing mode is automatically deactivated.

3.2.2.2 Setting the views parameters

In ETS, select the *tebis touch panel* in your project topology.

Right-click on the mouse and select '**Edit the parameters**'; a Plug-in starts up:



Choice of screen type:

You can choose from three different sizes, depending on the product you are using:

- 8'' in landscape mode
- 5'' in landscape mode
- 5'' in portrait mode

When the Plug-in starts up, the program starts automatically in programming mode, ready for installation of the various devices.

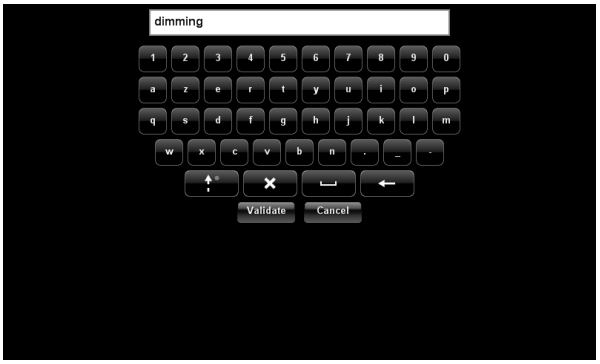
3.2.2.2.1 Setting the parameters for the Living Room view

This chapter describes the procedure for the 'General Lighting' device in detail. The principle is identical for every other device.

- **Step 1: Creating the device**
  - Click on the  symbol to add a device.
- **Step 2: Selecting the function**

o Select **LIGHTING** and then **DIMMING.**

- **Step 3: Editing the name of the device**
  - o Changing the text:
    - Click on the abc symbol to input the text.



    - Input the text with the help of the on-screen keyboard (press SHIFT for capital letters – See chapter 5.2 for special characters).
    - Click on 'VALIDATE' to confirm the input.
    - Click on the symbol to go back to the main view.

- Repeat the operation for the 'Mood Lighting' device, selecting **LIGHTING** and then **DIMMING.**
- Repeat the operation for the 'Reading Light' device, selecting **LIGHTING** and then **SIMPLE.**
- Repeat the operation for the 'Window Shutter' device, selecting **SHUTTER** and then **POSITION.**
- Repeat the operation for the 'Patio Shutter' device, selecting **SHUTTER** and then **POSITION.**
- Repeat the operation for the 'Heating Thermostat' device, selecting **HEATING** and then **HEATING.**

Comment: To modify the image used for the devices, refer to chapter 3.3.2.2.4.

3.2.2.2.2 Setting the parameters for the Kitchen view

- Repeat the operation in chapter 3.2.2.2.1 for the 'General Lighting' device, selecting **LIGHTING** and then **DIMMING.**
- Repeat the operation for the 'Workbench Lighting' device, selecting **LIGHTING** and then **SIMPLE.**
- Repeat the operation for the 'Smoke Detector' device, selecting **SENSOR** and then **BINARY.**
- Repeat the operation for the 'Window Shutter' device, selecting **SHUTTER** and then **POSITION.**
- Repeat the operation for the 'Patio Shutter' device, selecting **SHUTTER** and then **POSITION.**
- Repeat the operation for the 'Ventilation' device, selecting **VARIOUS** and then **START/STOP.**

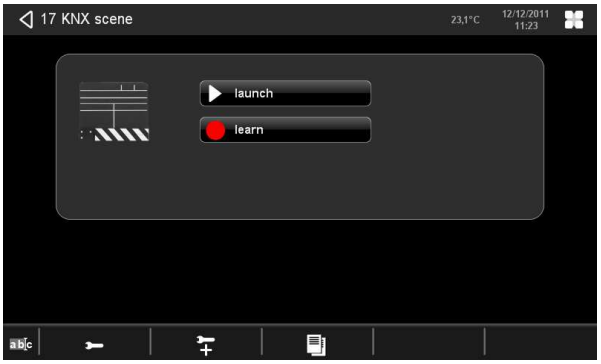
Comment: To modify the image used for the devices, refer to chapter 3.3.2.2.4.

3.2.2.2.3 Setting the parameters for the Outdoor Passage view

- Repeat the operation in chapter 3.2.2.2.1 for the 'Exterior Lighting' device, selecting **LIGHTING** and then **SIMPLE.**
- Repeat the operation for the 'Open Gate' device, selecting **VARIOUS** and then **PULSE.**
- Repeat the operation for the 'Weather Station' device, selecting **SENSOR** and then **WEATHER.**
- Repeat the operation for the 'Departure Home' device, selecting **VARIOUS** and then **SCENE.**

The scene allows you, for example, to create a mood of your choice, i.e. to set various light sources automatically to different brightness values in one or more rooms.

In addition, it is possible to lower a roller shutter or a blind. You can thus easily create individual lighting situations for every occasion, for mealtimes, for example, or for reading or when you leave or return home.



In terms of the parameters set for this device, you have the option of programming the scene number from 1 to 32. To do this, click on the symbol and then on in the **'Scene Number'** line.

Input the desired scene number.

By clicking on the symbol, you can run the scene previously programmed.

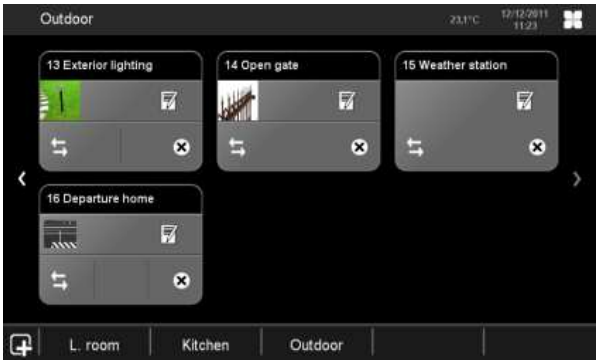
You also have the option of programming a scene by clicking on the symbol.

The various devices in your system have been assigned to a scene.

To learn a scene, proceed as follows:

- Set the devices to the desired status (light 50%, lower shutter, raise blind).
- Click on the '**Learn**' key in the scene device and wait a few seconds until learning is completed. If the learning procedure has worked correctly, the devices concerned confirm learning (On/Off for a lighting unit, up/down for a blind, etc.).
- Check that the scene is operating by clicking on 'Read'.

Comment: To modify the image used for the devices, refer to chapter 3.3.2.2.4.

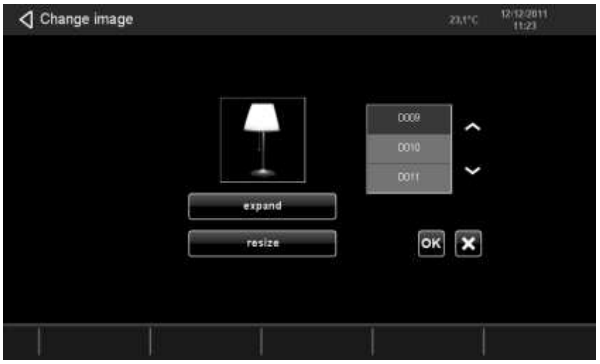


3.2.2.2.4 Modifying the image in a device

This procedure is applicable to all devices. For this example, we will take a SIMPLE LIGHTING device.

Select the item to be modified by pressing the device. The following view appears:

- Click on the symbol and then on .
- The following view appears:



- Select the desired image from the list (see table in annex).
- If necessary, click on 'Expand' or 'Resize' to adjust the image.
- Click on the OK symbol to confirm or on to go back to the previous image.

3.2.2.2.5 Setting up quick access

This function is used to give a single command from all views in one click. There are 2 ways to activate this command:

By clicking on the symbol or touching the screen once when it is in screensaver mode.

This command can be used, for example, to control the lighting in the room where the *tebis touch panel* is installed. When you enter the room, simply touch the screen to turn on the light.

Screen wake-up activation zone:

In screensaver mode, you have 2 wake-up options depending on which zone you touch on the screen:

- To display the menu, click on the zone shown in black.

- To activate the QAC command, if programmed, click on the white zone.

To set the parameters for this command, select the item to be modified by pressing the device. The following view appears:

- Click on the symbol.
- Choose quick access with and select '**toggle switch'** to activate.
- To go back to the menu, press .

The statuses available for quick access are:

- **'Toggle switch'** for a lighting unit.
- **'Open'** or **'close'** for a shutter or blind.
- **'Read'** for a scene.

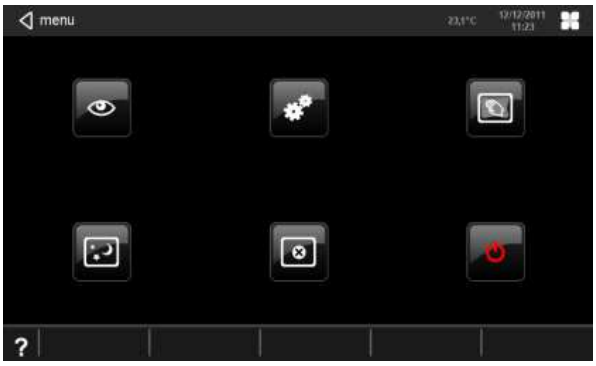
For quick access with a shutter or blind, operation is not the same as for a lighting unit (ON/OFF) or a scene (Read). Indeed, when you press the first time, the command 'OPEN' or 'CLOSE' will be performed according to the parameter settings. When you press a second time, you will dispatch the command 'STOP' and not the opposite command to the current operation.

NB: Quick access can be simply activated or deactivated from the parameters menu (see chapter 4.2.7). The parameters can be set only one at a time for a single quick access per system.

3.2.2.2.6 Modifying the title of the view

This procedure is applicable to all views.

To switch to the parameters and configuration menu, press the symbol located at the top right of the screen.



Press the symbol to go to the parameters menu and then **Shortcuts**.

The following view appears:

- Select the shortcut (tab) to be modified (1, 2, 3, etc.) from the strip.
- Choose the text to be modified:
  - **Text**: For the title of the view.
  - **Shortcut text**: For the title on the strip**.**
- Input the text with the help of the on-screen keyboard (press SHIFT for capital letters – See chapter 5.2 for special characters).
- Click on 'VALIDATE' to confirm the input.
- Input your text and **Validate.**
- Click on the OK symbol to confirm the modification.
- To go back to the menu, press .

3.2.2.3 Creating links in ETS

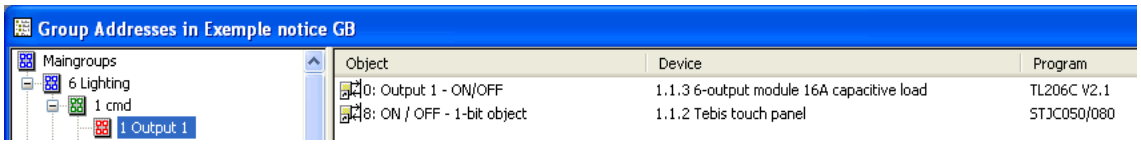
This section is used to make links between the devices you have declared and the various items in your system.

Once the parameters have been set, exit the plug-in by going to **File** and then **Exit** or by clicking on .

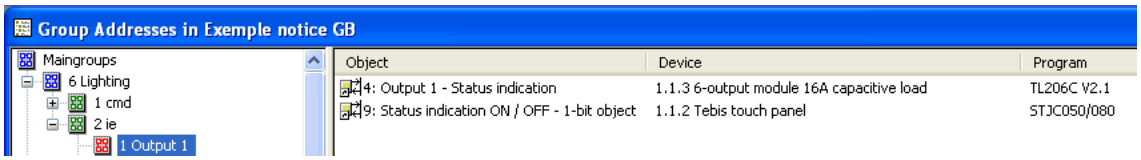
Then create links with the other items in your system with the group addresses.

Let's take the example of Simple Lighting and a TXA206D output module.

Make the link between the ON/OFF input on the *tebis touch panel* and the ON/OFF output on the TXA206D with the group address 6.1.1. , for example, for the command.



Make the link between the ON/OFF status indication on the *tebis touch panel* and the status indication on the TXA206D with the group address 6.2.1, for example.



Proceed in the same way for your application, creating the link with the various output modules (example: TXA206D, TXA213, TXA224, etc.).

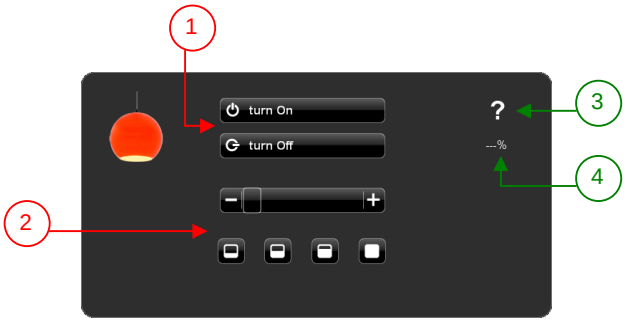
Below is the description of the items as they appear in ETS and their links with the device view.

In red: The commands

In green: The status indications

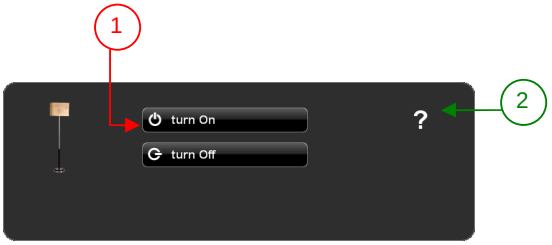
- Lighting dimming: General Lighting – Mood Lighting

	Name	Length	Description	Group Addresses
1	ON / OFF	1 bit	1 General lighting	6/1/11
2	Absolute dimming	1 Byte	1 General lighting	6/1/17
3	Status indication ON / OFF	1 bit	1 General lighting	6/2/11
4	Status indication dimming value	1 Byte	1 General lighting	6/2/14



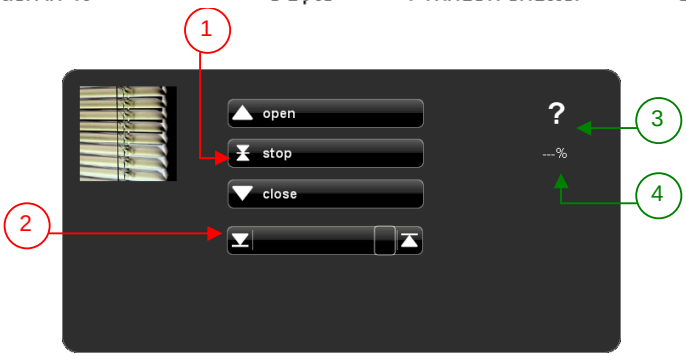
- Simple lighting: Reading light – Exterior Lighting

	Name	Length	Description	Group Addresses
1	ON / OFF	1 bit	3 Light reading	6/1/1
2	Status indication ON / OFF	1 bit	3 Light reading	6/2/1



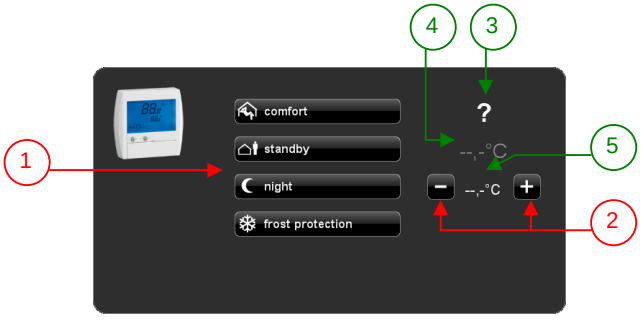
- Shutter position: Window shutter – Patio shutter

	Name	Length	Description	Group Addresses
1	Up / Down	1 bit	4 Window shutter	13/1/1
2	Slat angle / Stop	1 bit	4 Window shutter	13/2/1
1	Position in %	1 Byte	4 Window shutter	13/3/5
2	Position indication in %	1 Byte	4 Window shutter	13/3/5



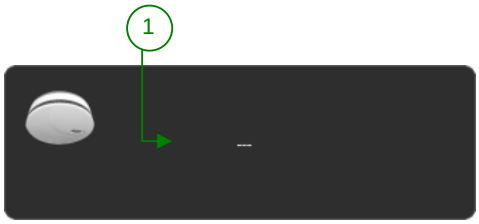
- Heating-Heating: Heating thermostat

	Name	Length	Description	Group Addresses
1	Heating mode selection	1 Byte	6 Heating thermostat	7/1/2
2	Comfort temperature set point	2 Byte	6 Heating thermostat	7/1/1
3	Status indication heating mode	1 Byte	6 Heating thermostat	7/2/2
4	Status indication ambient temperature	2 Byte	6 Heating thermostat	7/2/1
5	Comfort temperature set point	2 Byte	6 Heating thermostat	



- Binary sensor: Smoke detector

	Name	Length	Description	Group Addresses
1	Status indication ON / OFF	1 bit	9 Smoke detector	6/1/3

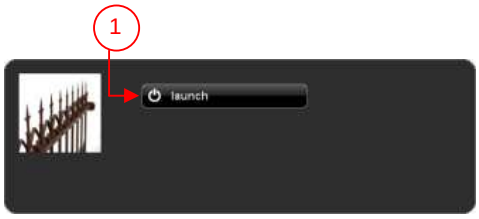


- Various Start/Stop: Ventilation

	Name	Length	Description	Group Addresses
1	ON / OFF	1 bit	12 Ventilation	6/1/4

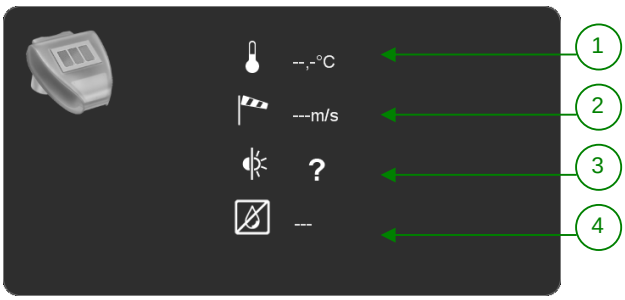
- Various Pulse: Open Gate

	Name	Length	Description	Group Addresses
1	ON / OFF	1 bit	14 Open gate	6/1/6

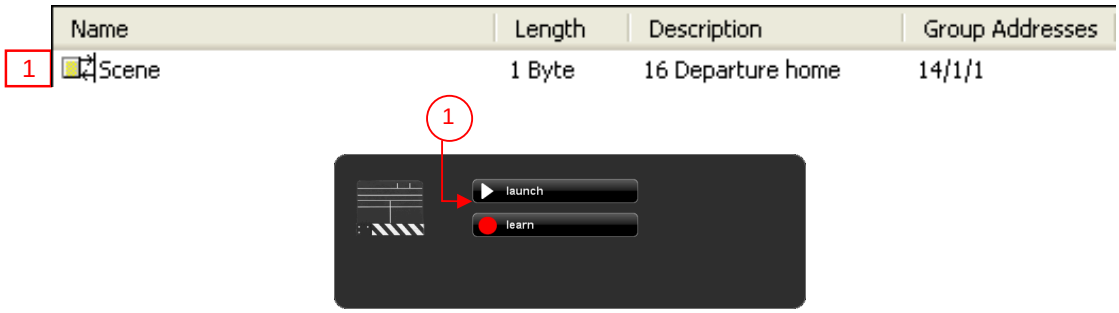


- Weather sensor: Weather station

	Name	Length	Description	Group Addresses
1	Status indication temperature	2 Byte	15 Weather station	10/1/1
2	Status indication wind speed	2 Byte	15 Weather station	10/1/2
3	Status indication Luminosity level	2 Byte	15 Weather station	10/1/3
4	Status indication rain	1 bit	15 Weather station	10/1/4



- Various Scene: Departure home



3.2.2.4 Downloading to the *tebis touch panel*

Once your parameter settings are complete, this configuration must then be transferred to the *tebis touch panel.* Two solutions are possible:

3.2.2.4.1 By USB key.

- In the topology for your project, select your *tebis touch panel.*
- Right-click on the mouse and select **Edit the parameters…** .
- In the plug-in, go to **File** and then **Save a project**.

The program will generate a KeyTouch.hg file containing all elements used to set the parameters for the *tebis touch panel* via a USB key.

- Insert the USB key into the front of the *tebis touch panel* and confirm upload of the configuration.

3.2.2.4.2 By ETS via the KNX bus

- In the topology for your project, select your *tebis touch panel.*
- Right-click on the mouse and select **Download** followed by **Downl.**. **Application program**.

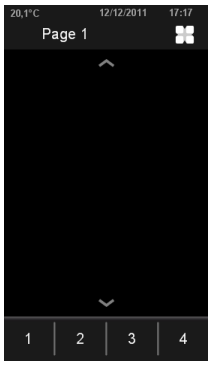
NB: A transfer by USB key is faster than a download from the bus.

BY THE END OF THIS CHAPTER, THE TEBIS TOUCH PANEL IS OPERATIONAL

3.3 Example for vertical 5-inch format

3.3.1 Setting the parameters for the *tebis touch panel*

When starting up the system for the first time, a blank screen will appear as shown below:

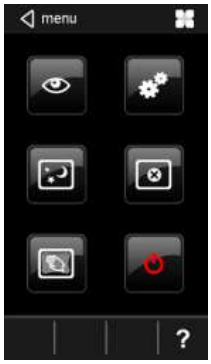


The screen is divided into three parts:

- The top strip showing the title of the view, the room temperature, the date, the time and the symbol for accessing the parameters and configuration menu.
- The central section used to give commands and access from one view to another with the help of the arrows.
- The bottom strip used for quick access to the views.

Before programming the specific functions of your application, certain parameters must be configured.

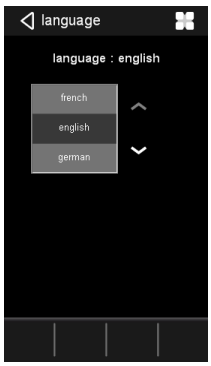
To switch to the parameters and configuration menu, press the symbol located at the top right of the screen.



Then press the symbol to go to the parameters menu:

- Language
- Wallpaper
- Screensaver
- Halo
- Date/time
- Shortcuts
- Quick access (optional)

3.3.1.1 Language setting



- Parameters menu: **Language**.
- Select your language with the help of the symbols.
- After the selection, the system returns automatically to the parameters menu.

NB: To exit the parameters menu without making a selection, press .

3.3.1.2 Date and time setting

- Parameters menu: **Date/time**.
- Set the date and time with the help of the − and + symbols.
- Set the 12h/24h mode with the help of the 12 24 symbol.
- Click on OK to confirm your setting.

NB: To exit the parameters menu without making a selection, press ◁.

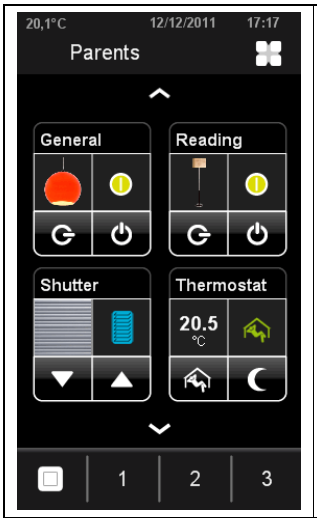
For the wallpaper, the screensaver and the halo, refer to chapters 4.2.2 to 4.2.4.

3.3.2 Setting the parameters for the *tebis touch panel* with ETS

In order to makes things easier to understand, we will deal with a concrete representative example in this chapter.

Example of a home with various applications:

- Parents' bedroom (lighting on/off, raise/lower shutters, thermostat setting).
- Scene (all lighting off, all shutters down).



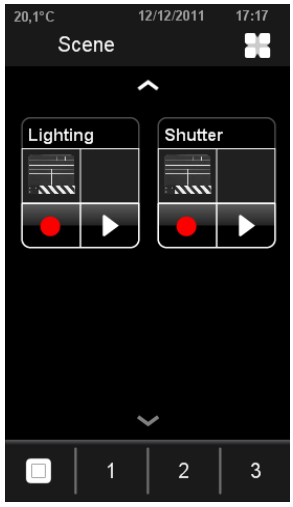
Function type:

General lighting: Lighting-Dimming

Reading light: Lighting-Simple

Window shutter: Shutter-Position

Heating thermostat: Command-Thermostat



Function type:

Lighting Off: Various-Scene

Close Shutter: Various-Scene

3.3.2.1 Installation of the plug-in on ETS

Configuration of the system can be done from the tebis touch panel itself or from ETS. In this example, we will cover the general scenario with ETS.

- Install the plug-in from the HAGER products ETS database.

  (Download the database file from your HAGER internet site.)
- Declare the *tebis touch panel* in your project topology.
- Set the Physical Address:

- Put the *tebis touch panel* in addressing mode. There are 2 options:
  - With the ''Cfg'' button found on the back of the product. Using a pen, press the button until the light is illuminated.
  - With the '**physical address**' menu

To do this, press the symbol located at the top right of the screen to access the menu, followed by to access the configuration menu.

Click on and select '**physical address**'.

Click on to activate the physical address.

- In the topology for your project, select your *tebis touch panel.*
- By right-clicking on the mouse, select **Download** followed by **Program Individ. Address**.

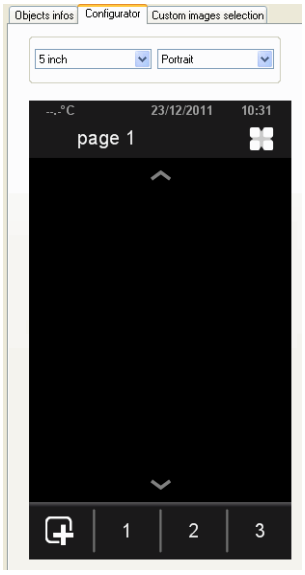
Programming is finished when the light on the back of the product goes off or when the ***tebis touch panel*** displays the new physical address.

NB: After programming the new physical address, the addressing mode is automatically deactivated.

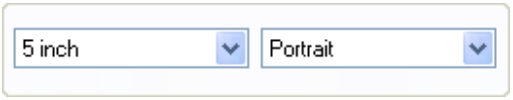
3.3.2.2 Setting the views parameters

In ETS, select the *tebis touch panel* in your project topology.

Right-click on the mouse and select '**Edit the parameters**'; a Plug-in starts up:



Choice of screen type:



You can choose from three different sizes, depending on the product you are using:

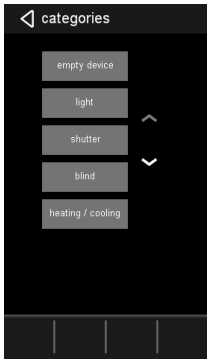
- 8'' in landscape mode
- 5'' in landscape mode
- 5'' in portrait mode

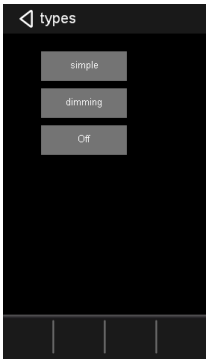
When the Plug-in starts up, the program starts automatically in programming mode, ready for installation of the various devices.

3.3.2.2.1 Setting the parameters for the Parents' Bedroom view

This chapter describes the procedure for the 'General Lighting' device in detail. The principle is identical for every other device.

- **Step 1: Creating the device**
  - Click on the symbol to add a device.
- **Step 2: Selecting the function**

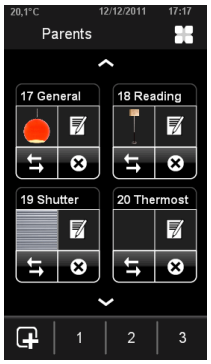




- Select **LIGHTING** and then **DIMMING.**

- **Step 3: Editing the name of the device**
  - Changing the text:

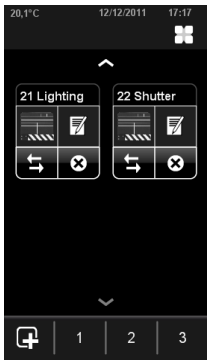
- Click on the symbol to input the text.
- Input the text with the help of the on-screen keyboard (press SHIFT for capital letters – See chapter 5.2 for special characters).
- Click on 'VALIDATE' to confirm the input.
- Click on the symbol to go back to the main view.



- Repeat the operation for the 'Reading' device, selecting **LIGHTING** and then **SIMPLE.**
- Repeat the operation for the 'Window Shutter' device, selecting **SHUTTER** and then **POSITION.**
- Repeat the operation for the 'Heating Thermostat' device, selecting **HEATING** and then **HEATING.**

Comment: To modify the image used for the devices, refer to chapter 3.3.2.2.3.

3.3.2.2.2 Setting the parameters for the Scene view



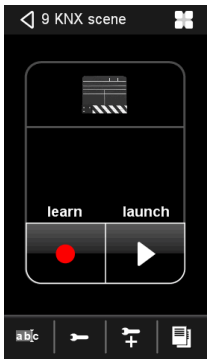
Repeat the operation in chapter 3.3.2.2.1 for the 'Lighting' device, selecting **VARIOUS** and then **SCENE.**

- Repeat the operation for the 'Shutter' device, selecting **VARIOUS** and then **SCENE.**

Comment: To modify the image used for the devices, refer to chapter 3.3.2.2.3.

The scene allows you, for example, to create a mood of your choice, i.e. to set various light sources automatically to different brightness values in one or more rooms.

In addition, it is possible to lower a roller shutter or a blind. You can thus easily create individual lighting situations for every occasion, for mealtimes, for example, or for reading or when you leave or return home.



Regarding the parameter settings for this device, you have the option of programming the scene number from 1 to 32.

To do this, click on the symbol and then on in the **'Scene Number'** line

Input the desired scene number.

By clicking on the symbol, you can run the scene previously programmed.

You also have the option of programming a scene by clicking on the symbol.

The various devices in your system have been assigned to a scene.

To learn a scene, proceed as follows:

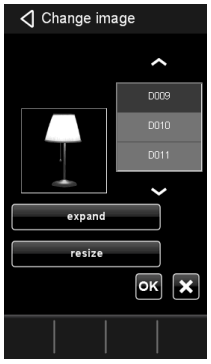
- Set the devices to the desired status (light 50%, lower shutter, raise blind).
- Click on the '**Learn**' key in the scene device and wait a few seconds until learning is completed. If the learning procedure has worked correctly, the devices concerned confirm learning (On/Off for a lighting unit, up/down for a blind, etc.).
- Check that the scene is operating by clicking on 'Read'.

3.3.2.2.3 Modifying the image in a device

This procedure is applicable to all devices. For this example, we will take a SIMPLE LIGHTING device.

Select the item to be modified by pressing the device. The following view appears:

- Click on the symbol and then on .



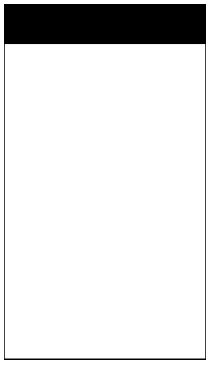
- The following view appears:
  - Select the desired image from the list (see table in annex).
  - If necessary, click on 'Expand' or 'Resize' to adjust the image.
- Click on the symbol to confirm or on to go back to the previous image.

3.3.2.2.4 Setting up quick access

This function is used to give a single command from all views in one click. There are 2 ways to activate this command:

By clicking on the symbol or touching the screen once when it is in screensaver mode.

This command can be used, for example, to control the lighting in the room where the *tebis touch panel* is installed. When you enter the room, simply touch the screen to turn on the light.



Screen wake-up activation zone:

In screensaver mode, you have 2 wake-up options depending on which zone you touch on the screen:

- To display the menu, click on the zone shown in black.
- To activate quick access, if programmed, click on the white zone.

To set the parameters for this command, select the item to be modified by pressing the device. The following view appears:

- Click on the symbol.

- Choose quick access with and select '**toggle switch'** to activate.

- To go back to the menu, press .

The statuses available for a quick access are:

- 'Toggle switch' for a lighting unit.

- 'Open' or **'close'** for a shutter or blind.

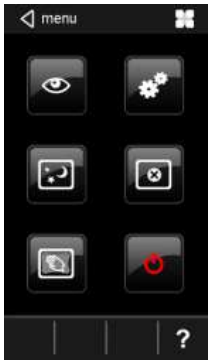
- 'Read' for a scene.

For quick access with a shutter or blind, operation is not the same as for a lighting unit (ON/OFF) or a scene (Read). Indeed, when you press the first time, the command 'OPEN' or 'CLOSE' will be performed according to the parameter settings. When you press a second time, you will dispatch the command 'STOP' and not the opposite command to the current operation.

NB: Quick access can be simply activated or deactivated from the parameters menu (see chapter 4.2.7). The parameters can be set only one at a time for a single quick access per system.

3.3.2.2.5 Modifying the title of the view

This procedure is applicable to all views.



To switch to the parameters and configuration menu, press the symbol located at the top right of the screen.

Press the symbol to go to the parameters menu and then **Shortcuts**.

The following view appears:

- Select the shortcut (tab) to be modified (1, 2, 3, etc.) from the strip.

- Choose the text to be modified:

- Text: For the title of the view.

- Shortcut text: For the title on the strip**.**

- Input the text with the help of the on-screen keyboard (press SHIFT for capital letters – See chapter 5.2 for special characters).

- Click on 'VALIDATE' to confirm the input.

- Input your text and **Validate.**

- Click on the OK symbol to confirm the modification.

To go back to the menu, press .

3.3.2.3 Creating links in ETS

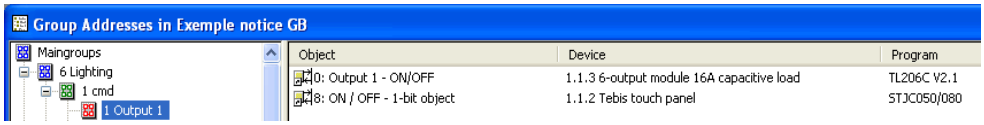
This section is used to make links between the devices you have declared and the various items in your system.

Once the parameters have been set, exit the plug-in by going to **File** and then **Exit** or by clicking on  .

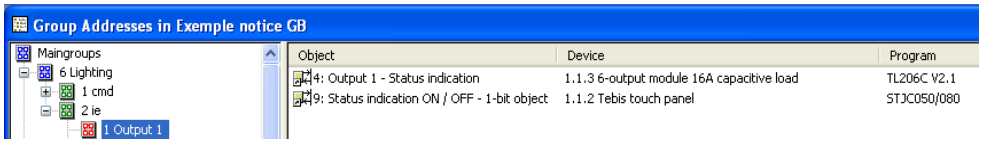
Then create links with the other items in your system with the group addresses.

Let's take the example of Simple Lighting and a TXA206D output module.

Make the link between the ON/OFF input on the *tebis touch panel* and the ON/OFF output on the TXA206D with the group address 6.1.1. , for example, for the command.



Make the link between the ON/OFF status indication on the *tebis touch panel* and the status indication on the TXA206D with the group address 6.2.1, for example.



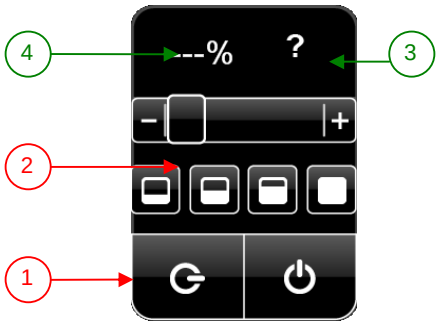
Proceed in the same way for your application, creating the link with the various output modules (example: TXA206D, TXA213, TXA224, etc.).

Below is the description of the items as they appear in ETS and their links with the device view.

In red: The commands In green: The status indications

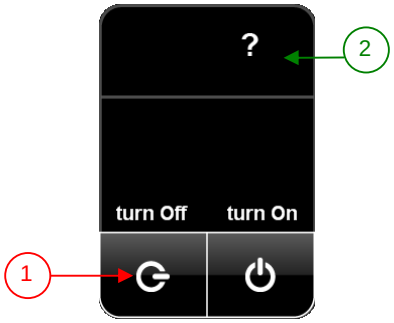
- Lighting dimming: General Lighting

	Name	Length	Description	Group Addresses
1	ON / OFF	1 bit	1 General lighting	6/1/11
2	Absolute dimming	1 Byte	1 General lighting	6/1/17
3	Status indication ON / OFF	1 bit	1 General lighting	6/2/11
4	Status indication dimming value	1 Byte	1 General lighting	6/2/14



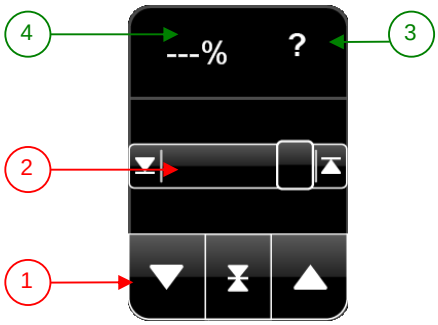
- Simple lighting: Reading light

	Name	Length	Description	Group Addresses
1	ON / OFF	1 bit	3 Light reading	6/1/1
2	Status indication ON / OFF	1 bit	3 Light reading	6/2/1



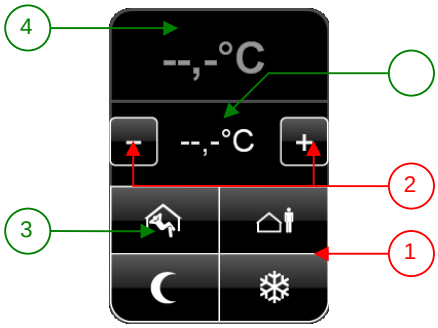
- Shutter position: Window shutter

	Name	Length	Description	Group Addresses
1	Up / Down	1 bit	4 Window shutter	13/1/1
2	Slat angle / Stop	1 bit	4 Window shutter	13/2/1
3	Position in %	1 Byte	4 Window shutter	13/3/5
4	Position indication in %	1 Byte	4 Window shutter	13/3/5

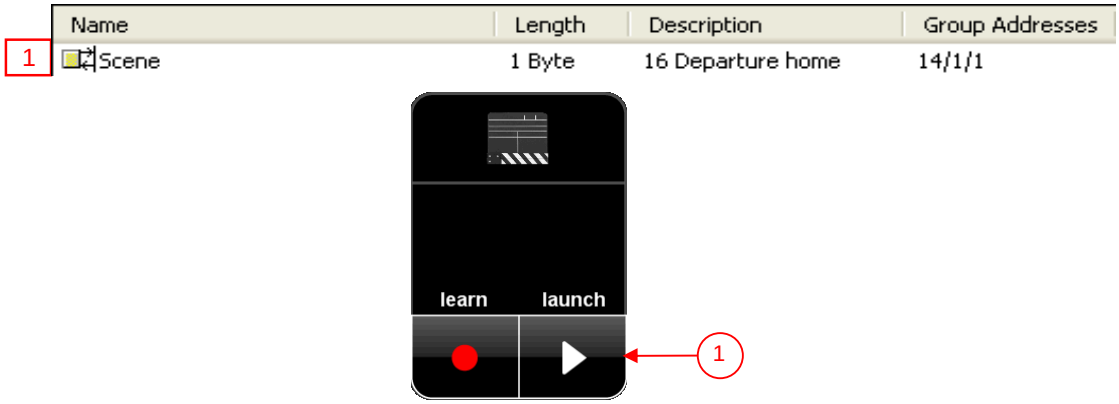


- Heating-Heating: Thermostat

	Name	Length	Description	Group Addresses
1	Heating mode selection	1 Byte	6 Heating thermostat	7/1/2
2	Comfort temperature set point	2 Byte	6 Heating thermostat	7/1/1
3	Status indication heating mode	1 Byte	6 Heating thermostat	7/2/2
4	Status indication ambient temperature	2 Byte	6 Heating thermostat	7/2/1
5	Comfort temperature set point	2 Byte	6 Heating thermostat	



- Various Scene: Turn off Light – Close Shutter



3.3.2.4 Downloading to the *tebis touch panel*

Once your parameter settings are complete, this configuration must then be transferred to the *tebis touch panel.* Two solutions are possible:

3.3.2.4.1 By USB key.

- In the topology for your project, select your *tebis touch panel.*
- Right-click on the mouse and select **Edit the parameters…** .
- In the plug-in, go to **File** and then **Save a project**.

The program will generate a KeyTouch.hg file containing all elements used to set the parameters for the *tebis touch panel* via a USB key.

- Insert the USB key into the front of the *tebis touch panel* and confirm upload of the configuration.

3.3.2.4.2 By ETS via the KNX bus

- In the topology for your project, select your *tebis touch panel.*
- Right-click on the mouse and select **Download** followed by **Downl.**. **Application program**.

NB: A transfer by USB key is faster than a download from the bus.

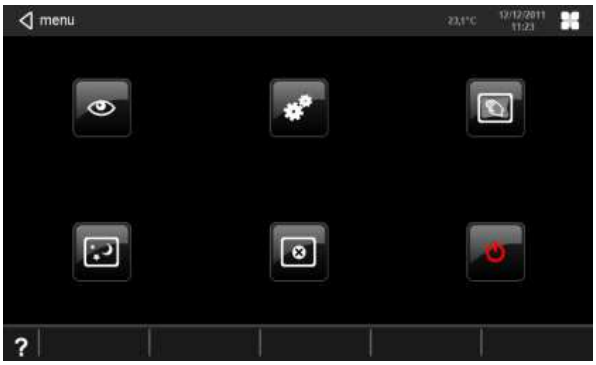
BY THE END OF THIS CHAPTER, THE TEBIS TOUCH PANEL IS OPERATIONAL

4. GENERAL DESCRIPTION

This chapter describes all functionalities and parameter settings possible with your *tebis touch panel* menu by menu.

4.1 General Menu

To go to the menu, press the symbol located at the top right of the screen.



Composition:

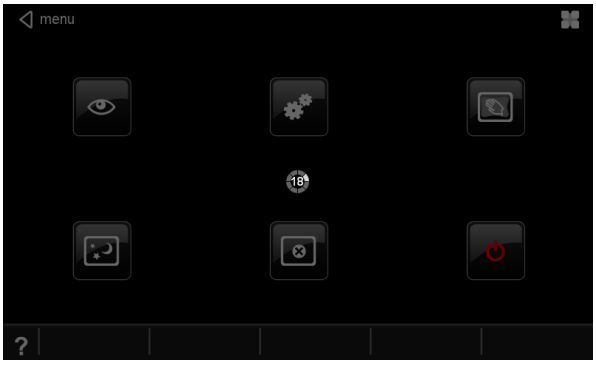
The parameters menu	The configuration menu	Cleaning function	Screensaver function	Standby function	Turn off the device
					

NB: The ‘parameter’ and ‘configuration’ menus will be covered in chapters 4.2 and 4.3.

4.1.1 Cleaning function

This function is used to disable the screen for 20 seconds for cleaning.

Press the  symbol to access the disable view function.



An hourglass appears in the middle of the screen indicating the number of seconds remaining until the screen is enabled again. After this timed period, the screen goes back to the menu.

NB: Do not use any products to clean the screen. Use only a clean, dry cloth.

4.1.2 Screensaver function

In this mode, the processor continues to run but the screen switches to minimised display.

Press the  symbol to start the function.

After 5 seconds, the system switches to screensaver, displaying the image selected from the configuration menu (fixed image or slide show).

Whenever the screen is pressed, the system again displays your view.

4.1.3 Standby function

In this mode, the processor and the screen switch to minimised operation.

Press the  symbol to start the function.

After 5 seconds, the system switches to standby mode and turns off the screen.

Whenever the screen is pressed, the system wakes up and again displays your view.

4.1.4 Turning off the *tebis touch panel*

This function is used to turn off the system.

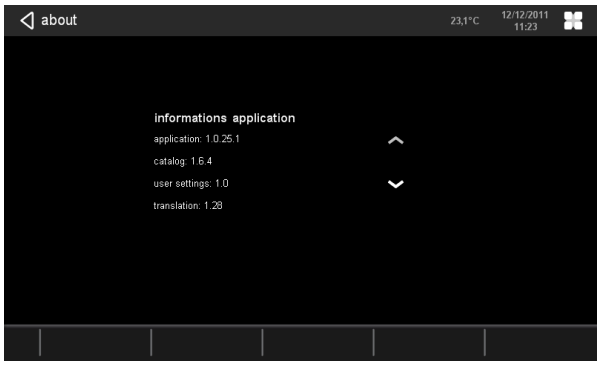
Press the  symbol to turn off the system.

To restart the system, press the reset button on the front.

4.1.5 Version

Used to view the version of the *tebis touch panel*.

Press the  symbol to display the information screen.



Using the  symbols, you can access 3 types of information:

- Application information (software version)
- Platform version (hardware version)
- KNX interface version.

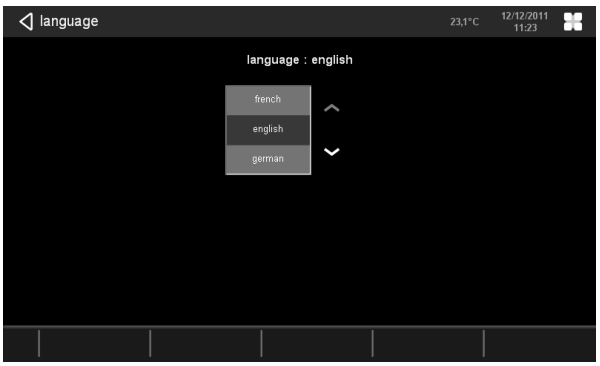
NB: To exit the menu, press  .

4.2 Parameter Menu

- Language
- Wallpaper
- Screensaver
- Halo
- Date/time
- Shortcuts
- Quick access (optional)

4.2.1 Language

- Parameters menu: **Language** .
- Select your language with the help of the symbols.

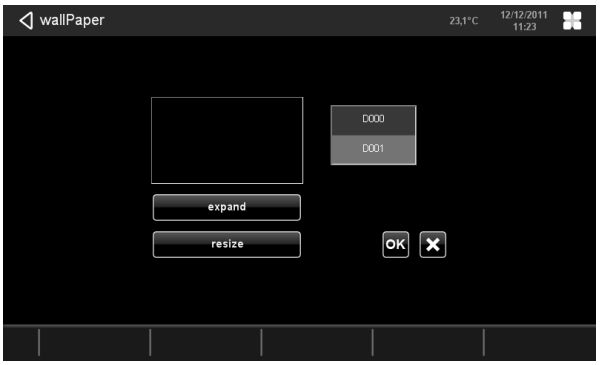


- After the selection, the system returns automatically to the parameters menu.

NB: To exit the parameters menu without making a selection, press .

4.2.2 Uploading the image for the Wallpaper

- Insert your USB key containing the image you wish to display in the front.
- Parameters menu: **Wallpaper**
- Select your image with the help of the symbols.



- If necessary, click on ‘Expand’ or ‘Resize’ to adjust the image.
- Click on the OK symbol to confirm or on ✖ to go back to the previous image.
- Remove your USB key.

NB: use images with a resolution of 800x480 pixels for an 8-inch screen and 480x272 pixels for a 5-inch screen to optimise the display.

4.2.3 Uploading images for the screensaver

- Insert your USB key containing the image you wish to display in the front.
- Parameters menu: **Screensaver**
- Select your image with the help of the ⌄ ⌃ symbols.

- If necessary, click on ‘Expand’ or ‘Resize’ to adjust the image.
- Click on the OK symbol to confirm or on ✖ to go back to the previous image.
- Remove your USB key.

Comment: use images with a resolution of 800x480 pixels for an 8-inch screen and 480x272 pixels for a 5-inch screen to optimise the display.

4.2.4 Halo

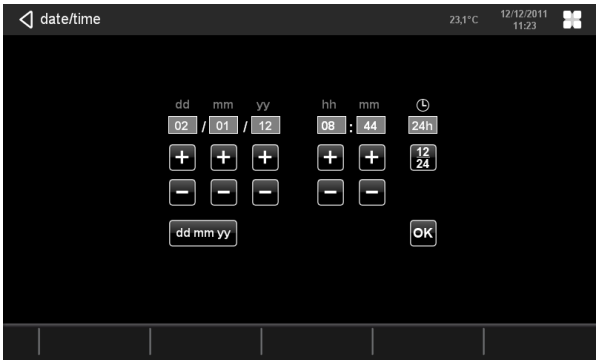
- Parameters menu: **Halo.**

- Click on the ✔ symbol to activate or ⊗ to deactivate.
- Click on the OK symbol to confirm.

Comment: When the 'Halo' is deactivated, the 'Flashing' line is deleted.

4.2.5 Date/time

- Parameters menu: **Date/time**.
- Set the date and time with the help of the − and + symbols.
- Set the 12h/24h mode with the help of the 12/24 symbol.



- Click on OK to confirm your setting.

4.2.6 Shortcuts (tabs)

This function is used to modify the text of the title, the text on the strip and the texts for each view.

- Parameters menu: **Shortcuts (tabs)**.

- Select the shortcut (tab) to be modified (1, 2, 3, etc.) from the strip.
- Choose the text to be modified: **- Text**: For the title of the view.
  - Shortcut text: For the title on the strip**.**
- Input the text with the help of the on-screen keyboard (press SHIFT for capital letters – See chapter 5.2 for special characters).
- Click on 'VALIDATE' to confirm the input.
- Click on the OK symbol to confirm the modification. To go back to the menu, press .

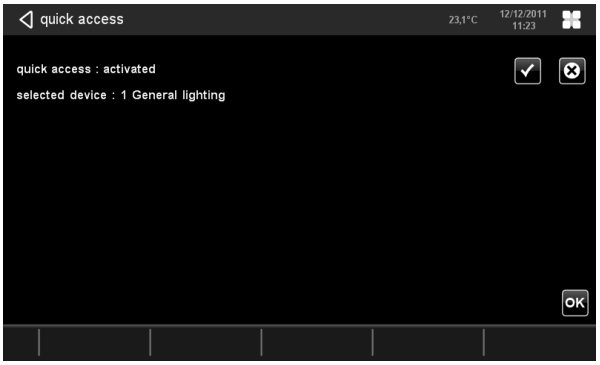
4.2.7 Quick access (optional)

This function is used to give a single command from all views in one click. There are 2 ways to activate this command:

By clicking on the symbol or touching the screen once when it is in screensaver mode.

The next menu is used to activate or deactivate this command. The choice of device associated with this command is made via the parameter settings for the device itself (see chapter 4.4.2.3).

- Parameters menu: **Quick access**



- Click on the symbol to activate or to deactivate.
- Click on the OK symbol to confirm.

The system will automatically select the last device on which quick access parameters have been set. Otherwise, it will display 'no device selected'.

4.3 Configuration Menu

- Sleep timer
- Presence sensor
- **Programming Mode**
- Back-light
- Password
- Delete my images
- System back-up
- Temperature
- Time zone
- Touch screen calibration
- Physical address
- Back to factory settings

Comment: The 'programming mode' menu will be dealt with in chapter 4.4.

4.3.1 Sleep timer

There are 2 operating modes:

Screensaver

In this mode, the processor continues to run but the screen switches to minimised display.

Whenever the screen is pressed, the system again displays your view (response time: less than a few milliseconds).

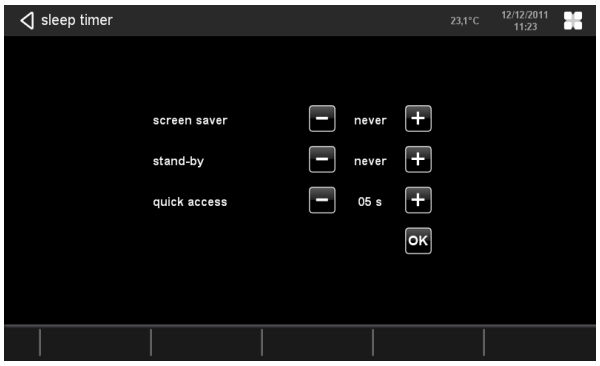
Standby mode

In this mode, the processor and the screen switch to minimised operation.

Whenever the screen is pressed, the system wakes up and again displays your view (response time: a few seconds).

The next menu is used to set the time lapse prior to switching to these 2 modes.

- Configuration menu: **Sleep timer**.
- Set the times with the − and + symbols.



- Set the time lapse before the **Screensaver** is activated.

- Set the time lapse before **Standby** is activated.
- Click on OK to confirm your setting.

4.3.2 Presence sensor

- Configuration menu: **Presence sensor**.
- Activate or deactivate with ✔ to activate or ✖ to deactivate.

- If the function is activated, you can set the detection thresholds for two zones. Six levels of detection are possible:

  1: Closest, 2: Closer, 3: Close, 4: Far, 5: Farther, 6: Farthest.
- Set the screensaver threshold (displays the screensaver) and the product wake-up threshold (displays the monitor screen).
- Click on OK to confirm your setting.

NB: The screensaver threshold must be higher than or equal to the product wake-up threshold. This rule is automatically managed in the *tebis touch panel*.

4.3.3 Back-light

Used to set the brightness of the screen, either fixed or depending on ambient brightness.

- Configuration menu: **Back-light**.
- Validate in automatic mode or not running with ✔ to activate or ✖ to deactivate.

- If automatic mode is activated, the system manages the brightness of the screen lighting itself according to the ambient brightness thanks to the integrated detector.
- If automatic mode is deactivated, you can set the brightness threshold from 5 to 100% (5% being the lowest threshold possible).
- Click on OK to confirm your setting.

4.3.4 Password

Used to create and modify password protection.

You can also choose which functions you want to protect with a password.

Three choices are possible:

The parameters menu	The configuration menu	Turn off the device
		

Until you create a password, the "Password" menu will only show a single button labelled "Creation". Once the password has been created, the menu will allow you to modify the password or secure the menus.

- Click on  to create the password.
- Input your password with the help of the on-screen keyboard or your computer keyboard if you are using the plug-in. The password must include at least 2 and up to 8 alphanumerical characters limited to those available on the virtual screen (no characters with accents or symbols).
- Validate to confirm and click on OK to exit the menu.

Once the password has been created, the menu will be displayed as shown below:

- Click on to modify the password and input your code as described above.
- Select the function that you want to protect by clicking on to activate or to deactivate.

Comment: In the plug-in you will not have to input the password to access the functionalities. The password menu operates in the same way as the tébis touch panel as regards creating and modifying the password.

There is no limit on the number of attempts to input the password.

When downloading the application by USB key, if the configuration menu is protected, the system will ask for the password to confirm.

4.3.5 Delete my images

Allows you to delete images not used in your configuration.

- Configuration menu: **Delete my images.**

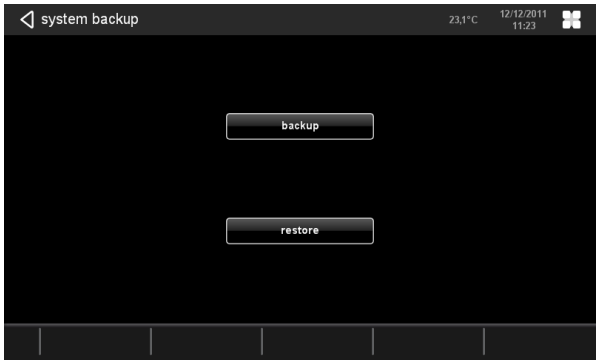
- Confirm the deletion of the images.

NB: At this level we only delete the images not used in your configuration. The wallpaper, the screensaver and the slide show remain in place.

4.3.6 System back-up and restore

Allows you to back up and restore the parameter settings specific to your home (the wallpaper, screensaver and slide show images are not affected).

- Configuration menu: **System back-up.**
- Insert the USB key into the front.



- Click on **Back-up** to copy the configuration to the key or **Restore** to read the configuration from the key. The file used will be named 'Keytouch.hg'.

Automatic loading: The system can be automatically restored from a USB key containing the 'Keytouch.hg' file.

- Remove the frame and insert the USB key into the front of the *tebis touch panel*. The device will automatically detect the presence of the file.
- Confirm loading of the configuration.
- When loading is finished, the system updates itself.
- Remove the USB key and put the frame back in place.

4.3.7 Temperature

- Configuration menu: **Temperature.**

- Select the measurement type: **Local** (internal thermostat) or **Temperature** if the parameters for a temperature device have been set in the application.
- Select the measurement unit: Degrees Celsius (℃) or degrees Fahrenheit (℉).
- Click on OK to confirm your setting.

Comment: This setting represents the display in the main zone.

4.3.8 Time zone

Is used to set the time zone and activate summer/winter mode.

- Configuration menu: **Time zone.**

- Select your time zone (GMT) with the help of the symbols.
- Validate the summer/winter time mode with to activate or to deactivate.

  This mode enables the automatic changeover from winter time to summer time and vice versa.
- Click on to confirm your setting.

4.3.9 Touch screen calibration

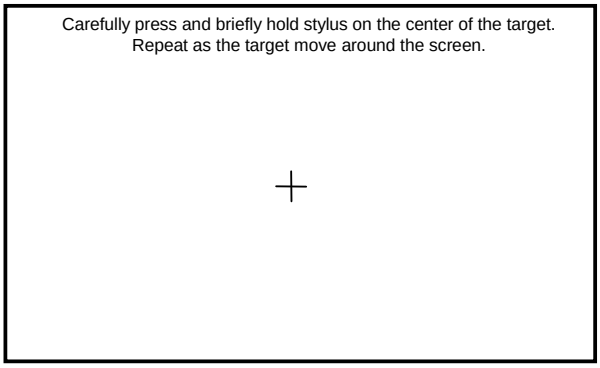
In general, it is not necessary to set the touch screen. You can, however, recalibrate the touch screen when you get the impression of often "being wide of the mark" when you touch the screen. To recalibrate the touch screen, proceed as follows:

- Configuration menu: **Touch screen calibration.**

A program is started, which invites you to calibrate the screen by clicking on the cross.

Message: Carefully press and briefly hold stylus on the centre of the target.

Repeat as the target moves around the screen.



After calibration, touch the screen to save the new configuration.

Otherwise, wait 30 seconds to keep the previous settings.

4.3.10 Physical address

Is used to activate the addressing mode to program the physical address of the ***tebis touch panel***.

- Configuration menu: **Physical address.**

- Click on ✓ to activate the physical address.
- From the ETS program, in the topology for your project, select your *tebis touch panel.*
- By right-clicking on the mouse, select **Download** followed by **Program Individ. Address**.

  Programming is complete when the ***tebis touch panel*** displays the new physical address.

  Comment: After programming the new physical address, the addressing mode is automatically deactivated.
- Click on OK to exit the menu.

4.3.11 Return to factory settings

Is used to reset the configuration of the ***tebis touch panel*** to restore the default parameters.

- Configuration menu: **Return to factory settings**
- Click on 'YES' to confirm your choice or 'NO' to go back to the menu.

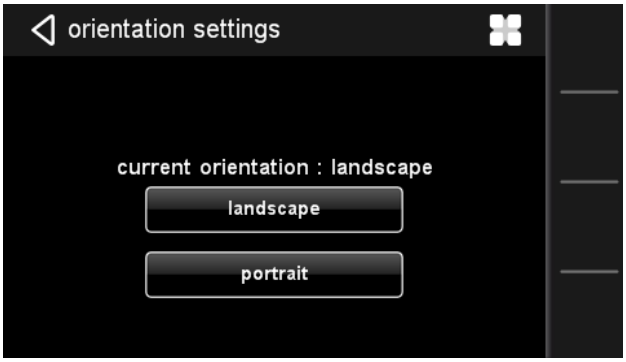
  The system will reload the ex works configuration and reboot.

  Comment: Your application and the password to access the parameters and configuration menus will be deleted.

4.3.12 Orientation settings (5'' screen only)

The 5'' version of the *tebis touch panel* can be installed horizontally or vertically. This function allows you to set the orientation according to installation mode.

- Configuration menu: **Orientation settings**.



- Choose the '**landscape**' format for horizontal installation or '**portrait**' for vertical installation.
- Confirm your choice by clicking on '**yes**'. The system will reboot automatically.

4.4 Programming Mode

This mode applies to the *tebis touch panel* and the plug-in in ETS.

To go to 'programming mode', press the symbol located at the top right of the screen to access the menu.

Then press the symbol to go to the configuration menu.

Select '**programming mode**' and '**yes**' to confirm.

4.4.1 Creating a device in the various views

To create a device, click on and select the type of device desired (e.g. 'Lighting' and 'Simple').

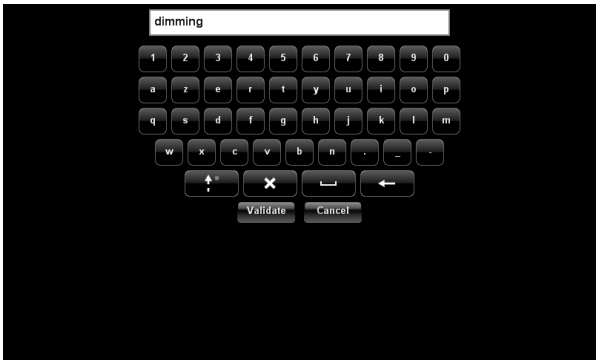
This procedure applies to all types of devices available in this product.

4.4.2 Modifying a device

From the parameter settings view, select the device that you want to modify.

4.4.2.1 Modifying the title of the device

- Click on the symbol to input the text.



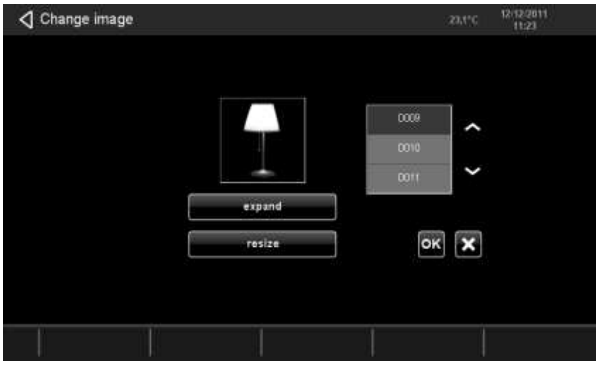
- Input the text with the help of the on-screen keyboard (press SHIFT for capital letters – See chapter 5.2 for special characters).
- Click on 'VALIDATE' to confirm the input.

4.4.2.2 Parameters: - Modifying the image for a device

At this level, you can modify the image for the device according to its use (Lighting, garage door, automatic sprinkler, etc.).

Select the item to be modified by pressing the device (e.g. 'LIGHTING SIMPLE').

- Click on the symbol and then on .
- The following view appears:



- Select the desired image from the list (see table in annex).
- If necessary, click on 'Expand' or 'Resize' to adjust the image.
- Click on the OK symbol to confirm or on to go back to the previous image.

4.4.2.3 Advanced parameters: – Screen Wake-up – Quick Access (Optional)

- **Screen Wake-up**

This function is used to exit standby mode when an event occurs in the installation (lighting turned on, shutter opened, etc.).

To set the parameters for this command, select the item to be modified by pressing the device. The following view appears:

- Click on the symbol.
- Confirm screen wake-up or otherwise with to activate or to deactivate.
- To go back to the menu, press .

- **Quick Access (optional)**

This function is used to give a single command from all views in one click. There are 2 ways to activate this command:

By clicking on the symbol or touching the screen once when it is in screensaver mode.

This command can be used, for example, to control the lighting in the room where the *tebis touch panel* is installed. When you enter the room, simply touch the screen to turn on the light.

If the screensaver selected is the date and time display and quick access is activated, the following screen will be displayed.

Screen wake-up activation zone:

In screensaver mode, you have 2 wake-up options depending on which zone you touch on the screen:

- To display the menu, click on the zone shown in black.

- To activate quick access, if programmed, click on the white zone.

To set the parameters for this command, select the item to be modified by pressing the device. The following view appears:

- Click on the symbol.
- Choose quick access with and select '**toggle switch'** to activate.
- To go back to the menu, press .

The statuses available for quick access are:

- **'Toggle switch'** for a lighting unit.
- **'Open'** or **'close'** for a shutter or blind.
- **'Read'** for a scene.

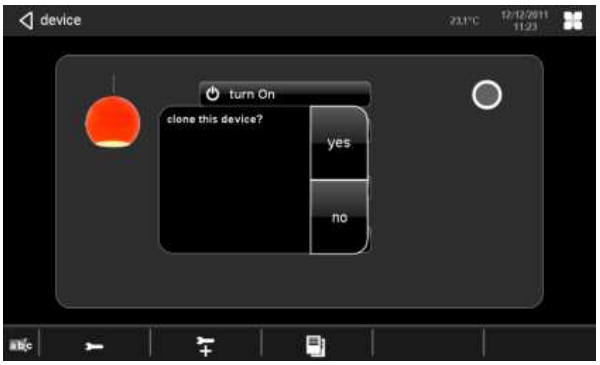
For quick access with a shutter or blind, operation is not the same as for a lighting unit (ON/OFF) or a scene (Read). Indeed, when you press the first time, the command 'OPEN' or 'CLOSE' will be performed according to the parameter settings. When you press a second time, you will dispatch the command 'STOP' and not the opposite command to the current operation.

Comment: Quick access can be simply activated or deactivated from the parameters menu (see chapter 4.2.7). The parameters can be set only one at a time for a single quick access per system.

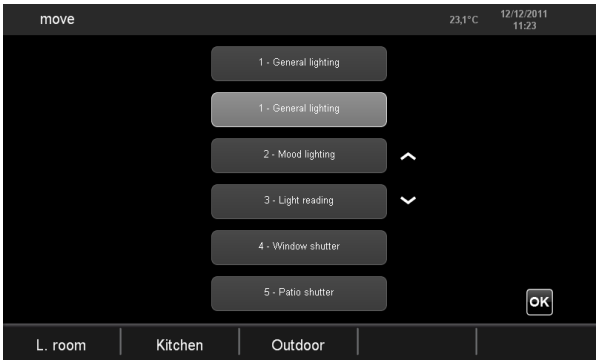
4.4.2.4 Cloning a device

Cloning allows you to reproduce a device identically with the same parameters and the same address in order to put it on another screen view. When you modify the parameters of this device, its clone will be automatically modified as well.

- In the device menu, click on to start cloning.



- Click on '**yes**' to confirm.
- Move the cloned device to the desired position with the help of the symbols.



- Click on OK to confirm your setting.

4.4.3 Moving a device

Is used to move the position of a device or view according to the configuration of your application.

In the parameter settings view, select the device that you want to move by clicking on the symbol.

- Move the device to the desired position with the help of the symbols.
- Click on the OK symbol to confirm or on to go back to the parameter settings view.

4.4.4 Deleting a device

In the parameter settings view, select the device that you want to delete by clicking on .

Confirm deletion with '**yes**'.

4.4.5 Parameter settings capacity

A ***tebis touch panel*** application is made up of devices and objects.

A device is a system used to command an appliance such as a lighting unit or a shutter and is limited to a maximum of **128** in number.

Each device is made up of one or more objects such as the ON/OFF command or the status indication and is limited to a maximum of **255** in number.

When one or other of these two limits is reached, you can no longer add any more devices.

Let's take an example:

A '**temperature**' device is made up of a single object. The maximum number will therefore be 128 devices of this type (maximum number of devices).

A '**heating**' device is made up of 5 objects. The maximum number will therefore be 51 devices of this type (51 x 5 = 255: maximum number of objects).

For the maximum display capacity per page, we have the following table:

Model: ***tebis touch panel***	Maximum number of devices per page
8-inch horizontal	6
5-inch horizontal (landscape)	3
5-inch vertical (portrait)	4

4.5 Running a scene or a priority

The scene

This allows you, for example, to create a mood of your choice, i.e. to set various light sources automatically to different brightness values in one or more rooms.

In addition, it is possible to lower a roller shutter or a blind. You can thus easily create individual lighting situations for every occasion, for mealtimes, for example, or for reading or when you leave or return home.

Regarding the parameter settings for this device, you have the option of programming the scene number from 1 to 32.

To do this, click on the symbol and then on in the **'Scene Number'** line

Input the desired scene number.

By clicking on the symbol, you can run the scene previously programmed.

You also have the option of programming a scene by clicking on the symbol.

The various appliances in your installation must be assigned to a scene.

To learn a scene, proceed as follows:

- Set the devices to the desired status (light 50%, lower shutter, raise blind).
- Click on the '**Learn**' key in the scene device and wait a few seconds until learning is completed. If the learning procedure has worked correctly, the devices concerned confirm learning (On/Off for a lighting unit, up/down for a blind, etc.).
- Check that the scene is running by clicking on 'Read'.

Priority

This allows you to order your appliances to override all other commands and to maintain the status of these appliances until cancellation of this mode.

The various appliances in your installation must be assigned to this command.

As regards the parameter settings for this device, you can input the text for the buttons and priority mode. To do this, click on the symbol.

To modify the text for the buttons, select the message by clicking on .

To modify the priority mode, click on in the line concerned.

Select **'On Down'** ('On' to turn on a lighting unit or 'Down' to close a shutter) or **'Off Up'** ('Off' to turn off a lighting unit or 'Up' to open a shutter).

When running, a click on the symbol will activate the priority. From this moment on, the system trips your appliances in the status that you have defined and remains unchanged. No other commands will be acted upon as long as you have not unlocked the system by clicking on the symbol.

In addition, the symbol will appear at the top of the screen indicating that the system is locked.

4.6 Installation of the plug-in on ETS

Configuration of the system can be done from the tebis touch panel itself or from ETS. In this example, we will cover the general scenario with ETS.

- Install the plug-in from the HAGER products ETS database.

  (Download the database file from your HAGER internet site.)

- Declare the *tebis touch panel* in your project topology.
- Set the Physical Address:

  - Put the *tebis touch panel* in addressing mode. There are 2 options:

    - With the ''Cfg'' button found on the back of the product. Using a pen, press the button until the light is illuminated.
    - With the '**physical address**' menu

      To do this, press the symbol located at the top right of the screen to access the menu, followed by to access the configuration menu.

      Click on and select '**physical address**'.

      Click on to activate the physical address.

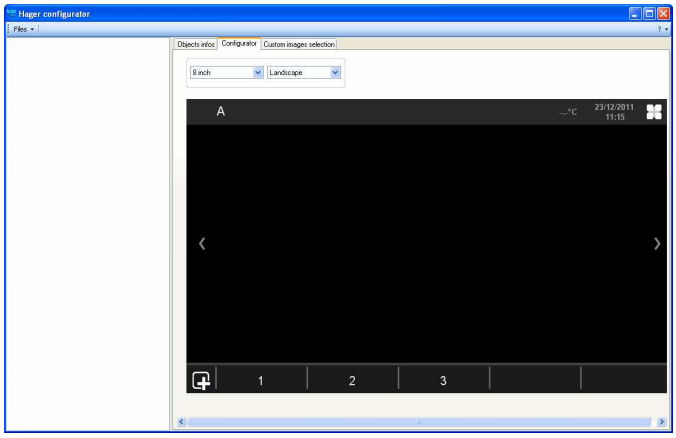
  - In the topology for your project, select your *tebis touch panel.*
  - By right-clicking on the mouse, select **Download** followed by **Program Individ. Address**.

Programming is finished when the light on the back of the product goes off or when the ***tebis touch panel*** displays the new physical address.

NB: After programming the new physical address, the addressing mode is automatically deactivated.

4.7 Using the plug-in on ETS

When the Plug-in starts up, the program starts automatically in programming mode, ready for installation of the various devices.

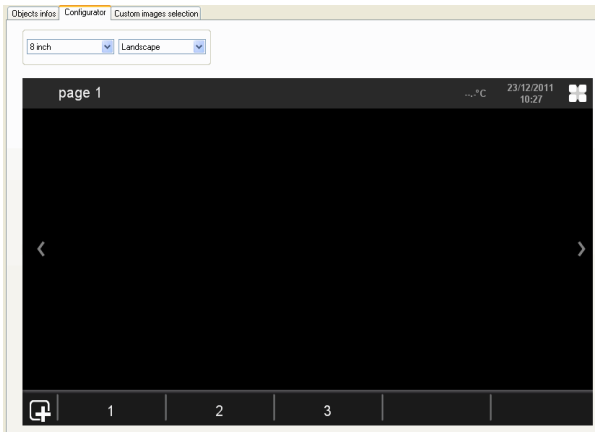


It has three tabs:

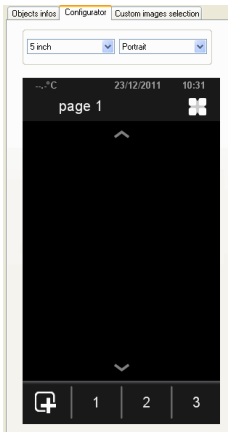
- **Configuration**:

  Used to set the parameters of your application. At this level, you can choose the format of the product you are using. Three formats are available:

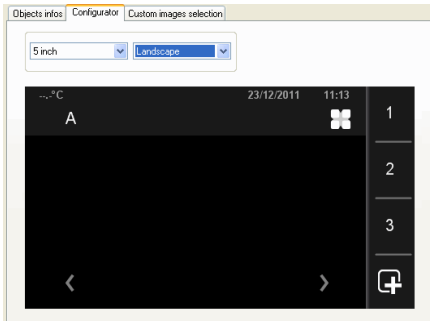
8-inch – Landscape Format



5-inch – Portrait Format



5-inch – Landscape Format



- **Custom images selection**:

Used to incorporate a series of images in the configuration needed for the wallpaper or the screensaver.

To add an image to the selection, click on **'New image'** and select the file concerned.

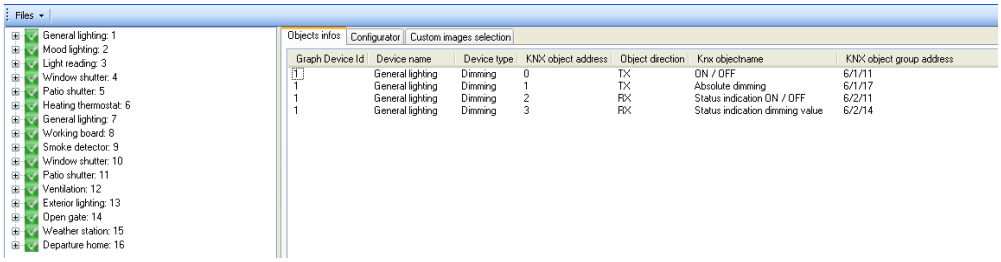
The types of format supported are PNG, JPG and JPEG.

You can adjust the display of the image by clicking on **'Stretched picture'** or **'Centred picture'** depending on the resolution. As a general rule, opt for an image resolution of 800x480 pixels for an 8-inch screen and 480x272 pixels for a 5-inch screen to optimise the display.

To delete an image from the selection, select the file from the list and hit the **'Del'** key.

- **Info Options**:

Used to display information on the various devices configured in your application.



The section to the left displays the list of all devices configured in the application, while the section to the right displays detailed information on a device, such as its name, the KNX group address, etc.

In addition, in the **'File'** menu, you can:

- Open a project in order to reload a configuration. This file will always have an *.hg extension.
- Save a project to transfer it to the *tebis touch panel*. The name of the saved file will always be 'keytouch.hg' for an automatic download by USB key. The images configured as wallpaper or screensaver will also be saved in the project file.
- Exit the Plug-in to go back to the ETS configuration menu.

4.8 Downloading to the *tebis touch panel*

Once your parameter settings are complete, this configuration must then be transferred to the *tebis touch panel.* Two solutions are possible:

4.8.1 By USB key.

- In the topology for your project, select your *tebis touch panel.*
- Right-click on the mouse and select **Edit the parameters…** .
- In the plug-in, go to **File** and then **Save a project**.

The program will generate a KeyTouch.hg file containing all elements used to set the parameters for the *tebis touch panel* via a USB key.

- Insert the USB key into the front of the *tebis touch panel* and confirm upload of the configuration.

4.8.2 By ETS via the KNX bus

- In the topology for your project, select your *tebis touch panel.*
- Right-click on the mouse and select **Download** followed by **Downl.**. **Application program**.

Comment: A transfer by USB key is faster than a download from the bus.

4.8.3 Managing the ‘Keytouch.hg’ configuration file

When saving a project, the program automatically generates a file called ‘Keytouch.hg’. This file must always have this name in order to be automatically recognised by the *tebis touch panel* for the download via the USB key.

If you want to save several projects, the ‘Keytouch.hg’ file must be renamed before being saved again.

4.8.4 Updating the application software

The ***tebis touch panel*** has application software used to manage the various appliances. The software version can be viewed on the information screen (see chapter 4.1.5). You can run an update of this software as follows:

- Retrieve the update file (*.CAB).
- On a USB key, create an ‘autorun’ folder and a ‘tebis’ subfolder.
- Copy the *.CAB file into this subfolder.
- Insert the USB key into the front of the ***tebis touch panel***. The system automatically detects the presence of the file.
- Confirm the download by clicking on ‘YES’.
- After a few minutes, the system confirms installation.
- Remove the USB key. The system reboots automatically.

NB: This update does not delete the parameter settings already in place.

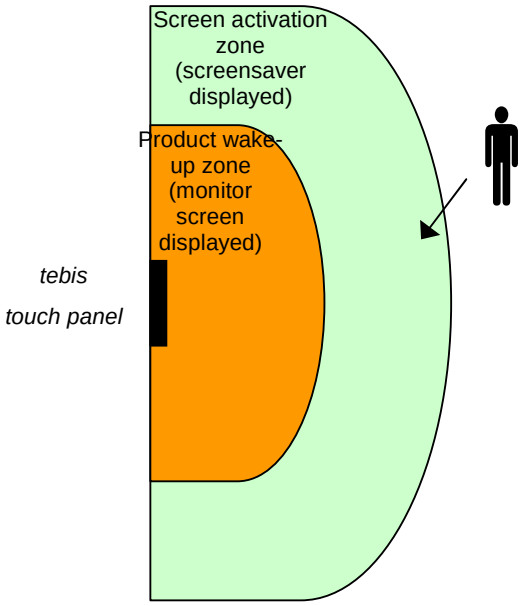
4.9 Operation of the presence sensor

Tebis touch panel has an automatic system that wakes up or activates the screen depending on one's physical proximity to it.

There are two distinct detection zones:

- Screen activation zone: If this threshold is crossed, the system displays the screensaver.
- Product wake-up zone: If this threshold is crossed, the system displays the monitor screen.

Below, the diagrammatic representation of operation:



When these zones are exited, the system will automatically return to standby.

To set the parameters for the extent of the zones, refer to chapter 4.3.2.

5. ANNEX

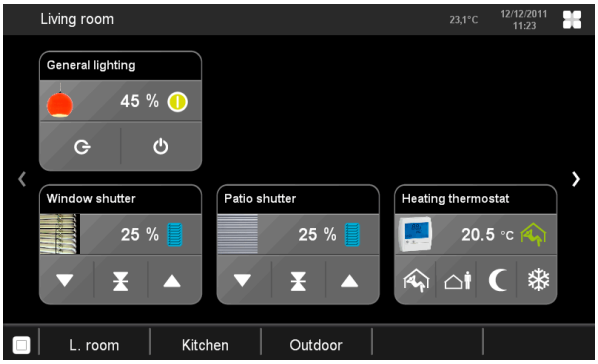
5.1 Description of the various devices

5.1.1 Appliance empty

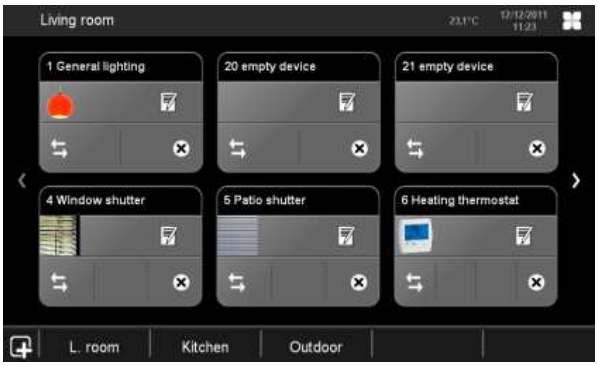
Appliance empty is used to organise the various views according to your home. It neither transmits nor receives commands and has no objects in ETS.

Example:

You want to obtain the following view:



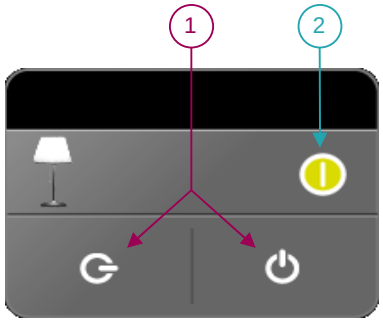
Under parameter settings, empty appliances will have to be positioned to obtain the desired layout.



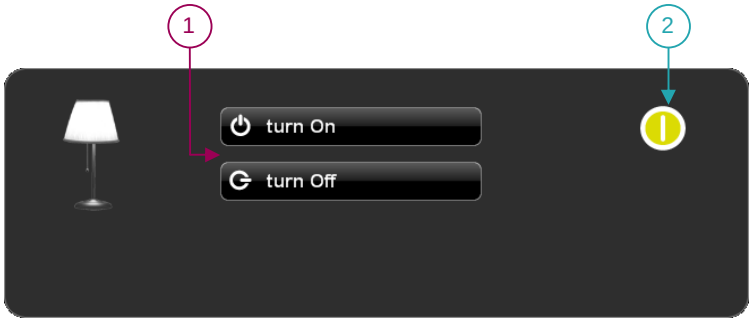
5.1.2 Lighting

5.1.2.1 Simple

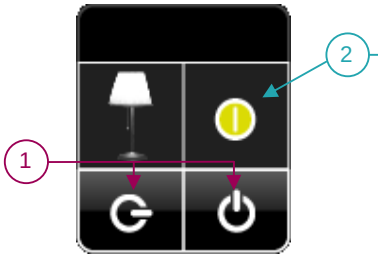
General representation 8-inch



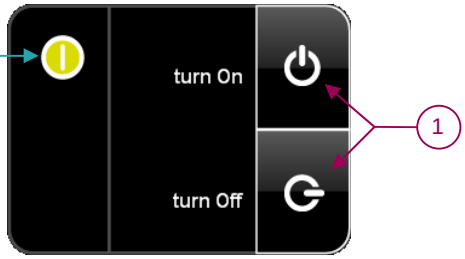
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

Name	Length	Description
ON / OFF	1 bit	1 simple: 0 ON / OFF
Status indication ON / OFF	1 bit	1 simple: 1 Status indication ON / OFF

Object	Type	Length	Description
ON / OFF	Input	1Bit	Output ON/OFF
Status indication ON/OFF	Output	1Bit	Output status display

Device parameter settings:

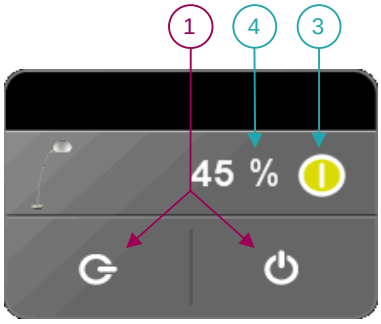
Parameters: Modification of the image: yes

Advanced parameters: Screen Wake-up: yes Quick access: yes

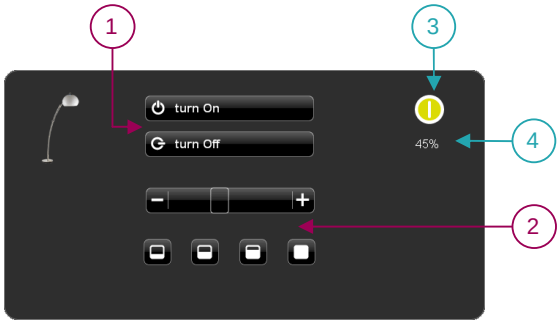
Application: Lighting control

5.1.2.2 Dimming

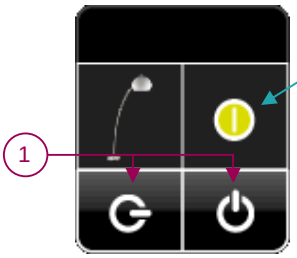
General representation 8-inch



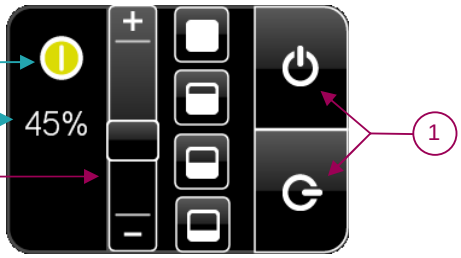
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	ON / OFF	1 bit	2 dimming: 2 ON / OFF
2	Absolute dimming	1 Byte	2 dimming: 3 Absolute dimming
3	Status indication ON / OFF	1 bit	2 dimming: 4 Status indication ON / OFF
4	Status indication dimming value	1 Byte	2 dimming: 5 Status indication dimming value

Object	Type	Length	Description
ON / OFF	Input	1Bit	Output ON/OFF
Absolute dimming	Input	1Byte	Brightness setting
Status indication ON/OFF	Output	1Bit	Output status display
Status indication dimming value	Output	1Byte	Brightness value

Device parameter settings:

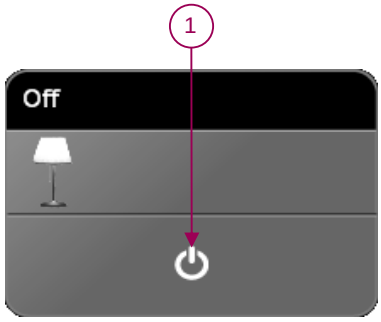
Parameters: Modification of the image: yes

Advanced parameters: Screen Wake-up: yes Quick access: yes

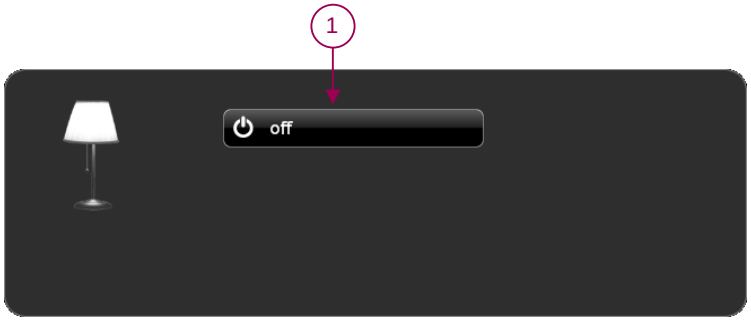
Application: Lighting command + brightness setting

5.1.2.3 Off

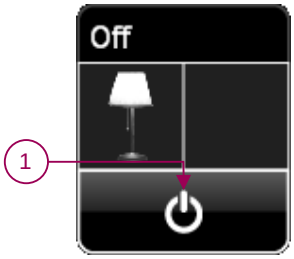
General representation 8-inch



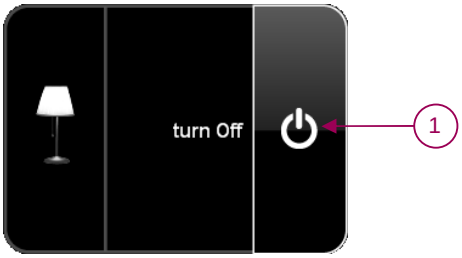
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	ON / OFF	1 bit	3 Off: 6 ON / OFF

Object	Type	Length	Description
ON / OFF	Input	1Bit	Output OFF

Device parameter settings:

Parameters: Modification of the image: yes

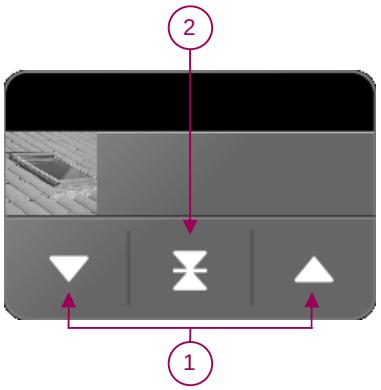
Advanced parameters: Screen Wake-up: yes Quick access: no

Application: All lighting turned off.

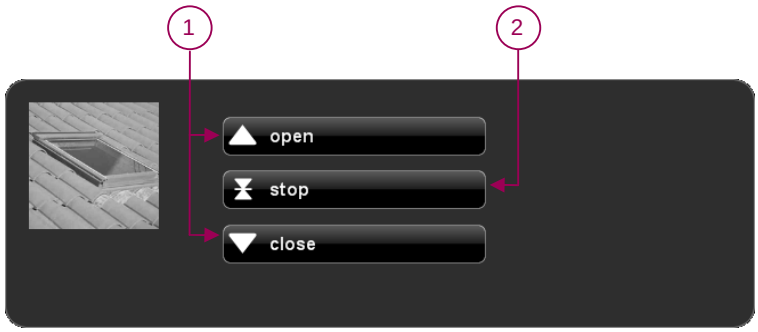
5.1.3 Shutter

5.1.3.1 Simple

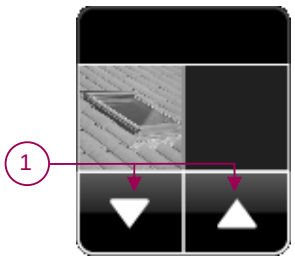
General representation 8-inch



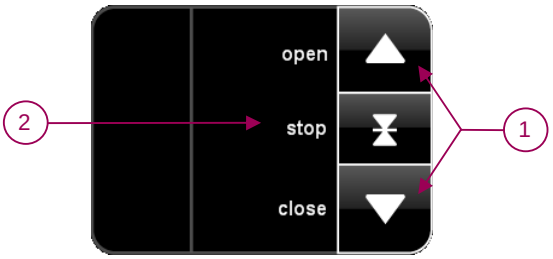
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Up / Down	1 bit	4 simple: 7 Up / Down
2	Slat angle / Stop	1 bit	4 simple: 8 Slat angle / Stop

Object	Type	Length	Description
Up / Down	Input	1Bit	Shutters up / down command
Slat angle / Stop	Input	1Bit	Stop shutter or slat angle command

Device parameter settings options:

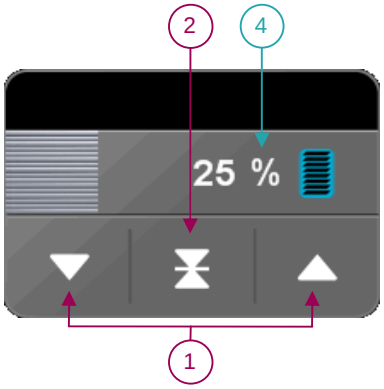
Parameters: Modification of the image: yes

Advanced parameters: Screen Wake-up: yes Quick access: yes

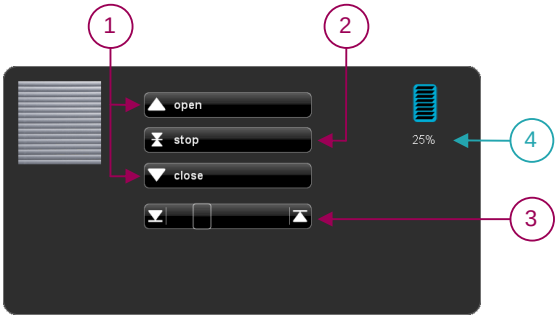
Application: Shutter command

5.1.3.2 Position

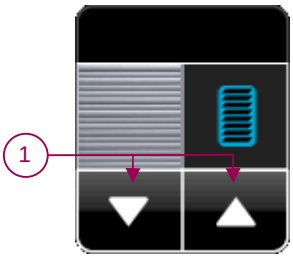
General representation 8-inch



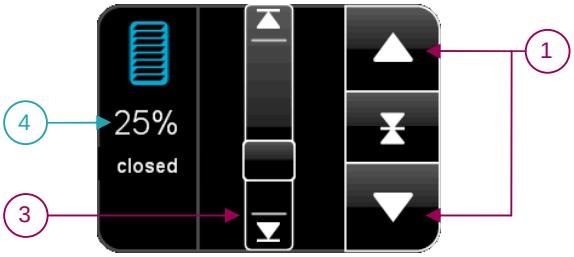
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Up / Down	1 bit	5 position: 9 Up / Down
2	Slat angle / Stop	1 bit	5 position: 10 Slat angle / Stop
3	Position in %	1 Byte	5 position: 11 Position in %
4	Position indication in %	1 Byte	5 position: 12 Position indication in %

Object	Type	Length	Description
Up / Down	Input	1Bit	Shutter up / down command
Slat angle / Stop	Input	1Bit	Stop shutter or slat angle command
Position as %	Input	1Byte	Shutter position command
Status indication position as %	Output	1Byte	Shutter position value

Device parameter settings options:

Parameters: Modification of the image: yes

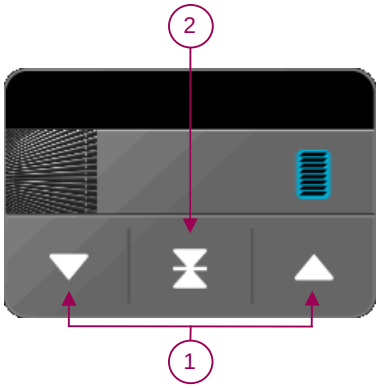
Advanced parameters: Screen Wake-up: yes Quick access: yes

Application: Shutter command + position setting.

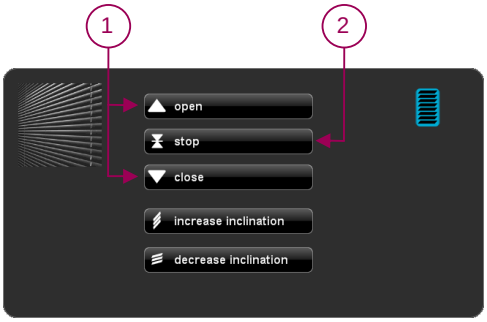
5.1.4 Blind

5.1.4.1 Simple

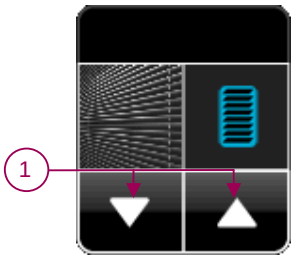
General representation 8-inch



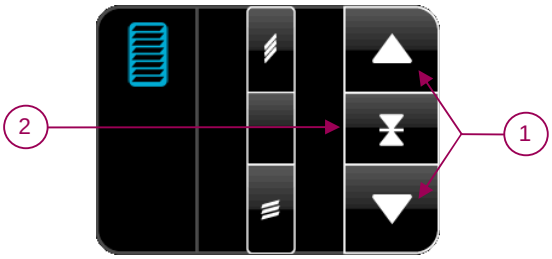
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Up / Down	1 bit	6 simple: 13 Up / Down
2	Slat angle / Stop	1 bit	6 simple: 14 Slat angle / Stop

Object	Type	Length	Description
Up / Down	Input	1Bit	Shutters up / down command
Slat angle / Stop	Input	1Bit	Stop shutter or slat angle command

Device parameter settings options:

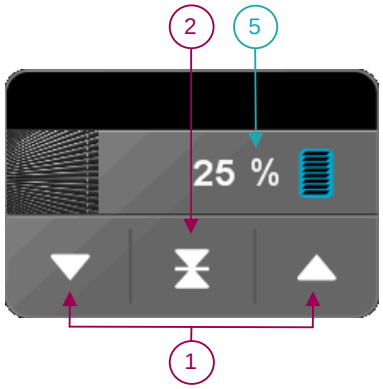
Parameters: Modification of the image: yes

Advanced parameters: Screen Wake-up: yes Quick access: yes

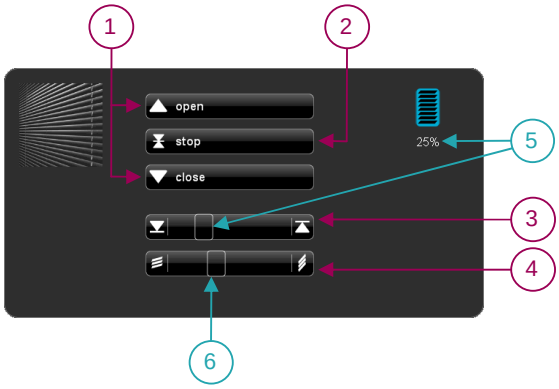
Application: Blind command with angle setting.

5.1.4.2 Position

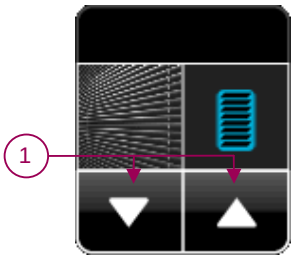
General representation 8-inch



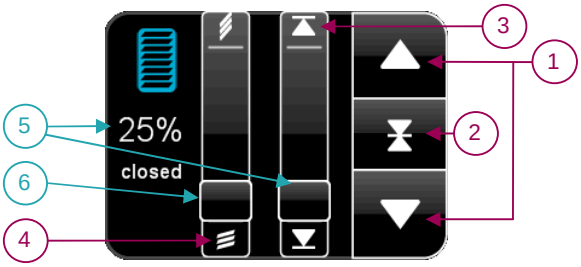
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Up / Down	1 bit	7 position: 15 Up / Down
2	Slat angle / Stop	1 bit	7 position: 16 Slat angle / Stop
3	Position in %	1 Byte	7 position: 17 Position in %
4	Slat angle in %	1 Byte	7 position: 18 Slat angle in %
5	Position indication in %	1 Byte	7 position: 19 Position indication in %
6	Slat angle indication in %	1 Byte	7 position: 20 Slat angle indication in %

Object	Type	Length	Description
Up / Down	Input	1Bit	Shutter up / down command
Slat angle / Stop	Input	1Bit	Stop shutter or slat angle command
Position as %	Input	1Byte	Shutter position command
Blind angle	Input	1Byte	Blind angle command
Status indication position as %	Output	1Byte	Shutter position value
Status indication angle as %	Output	1Byte	Blind angle value

Device parameter settings options:

Parameters: Modification of the image: yes

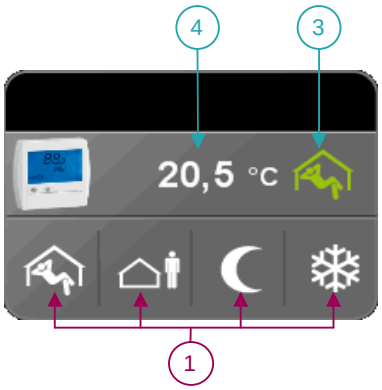
Advanced parameters: Screen Wake-up: yes Quick access: yes

Application: Blind command with angle setting + position setting.

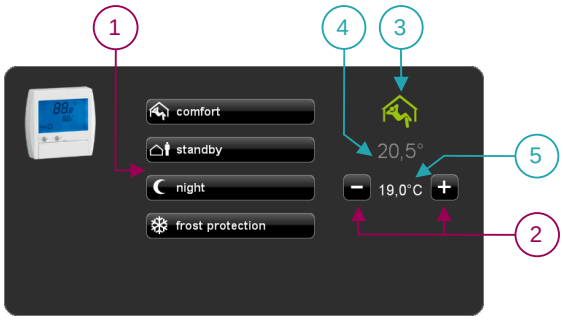
5.1.5 Heating

5.1.5.1 Heating

General representation 8-inch

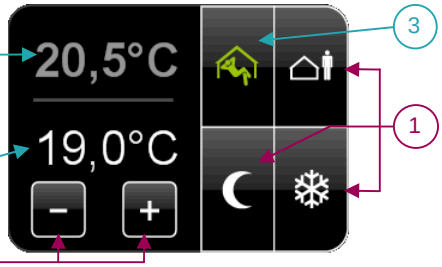


Detailed representation 8-inch



General representation 5-inch

Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Heating mode selection	1 Byte	8 heating: 21 Heating mode selection
2	Comfort temperature set point	2 Byte	8 heating: 22 Comfort temperature set point
3	Status indication heating mode	1 Byte	8 heating: 23 Status indication heating mode
4	Status indication ambient temperature	2 Byte	8 heating: 24 Status indication ambient temperature
5		2 Byte	8 heating: 25 Status indication comfort temperature set point Heating

Object	Type	Length	Description
Heating mode selection	Input	1Byte	Heating mode selection (comfort, standby, night, frost protection)
Comfort temperature set point	Input	2Byte	Temperature set point command
Status indication heating mode	Output	1Byte	Status indication heating mode
Status indication ambient temperature	Output	2Byte	Display of the ambient temperature
Status indication comfort set point heating	Output	2Byte	Display of the temperature set point

Device parameter settings options:

Parameters: Modification of the image: yes

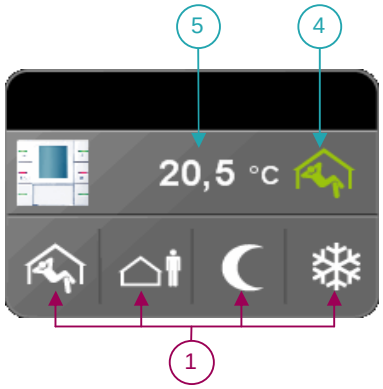
Temperature measurement unit selection: yes (°C or °F)

Advanced parameters: Screen Wake-up: yes Quick access: no

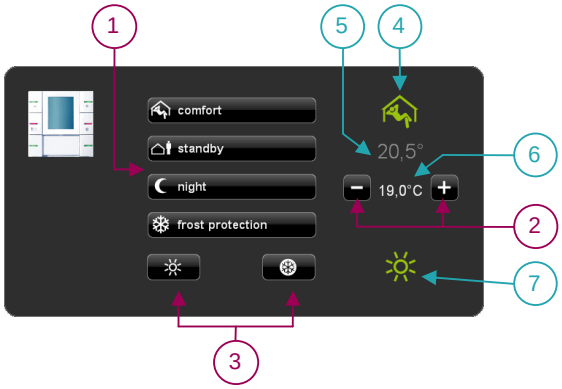
Application: Heating system command with temperature set point setting.

5.1.5.2 Heating/air-con

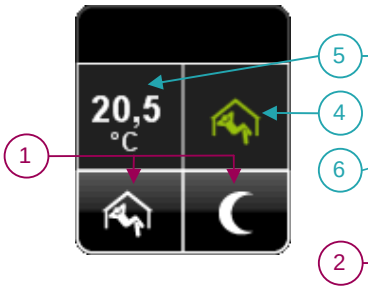
General representation 8-inch



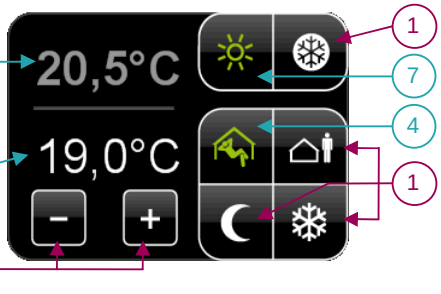
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Heating mode selection	1 Byte	9 heating / cooling: 26 Heating mode selection
2	Comfort temperature set point	2 Byte	9 heating / cooling: 27 Comfort temperature set point
3	Changeover Heating / Air-con	1 bit	9 heating / cooling: 28 Changeover Heating / Air-con
4	Status indication heating mode	1 Byte	9 heating / cooling: 29 Status indication heating mode
5	Status indication ambient temperature	2 Byte	9 heating / cooling: 30 Status indication ambient temperature
6		2 Byte	9 heating / cooling: 31 Status indication comfort temperature set poi...
7	Status indication heating / air-con	1 bit	9 heating / cooling: 32 Status indication heating / air-con
8		2 Byte	9 heating / cooling: 33 Status indication comfort temperature set poi...

Object	Type	Length	Description
Heating mode selection	Input	1Byte	Heating mode selection (comfort, standby, night, frost

			protection)
Comfort temperature set point	Input	2Byte	Temperature set point command
Changeover Heating / Air-con	Input	1Bit	Changeover between heating mode and cooling mode
Status indication heating mode	Output	1Byte	Status indication heating mode
Status indication ambient temperature	Output	2Byte	Display of the ambient temperature
Status indication comfort set point heating	Output	2Byte	Display of the comfort set point temperature in heating mode
Status indication heating air conditioning	Output	1Bit	Status indication changeover heating /cooling mode
Status indication comfort set point air conditioning	Output	2Byte	Display of the comfort set point temperature in cooling mode

Device parameter settings options:

Parameters: Modification of the image: yes

Temperature measurement unit selection: yes (℃ or ℉)

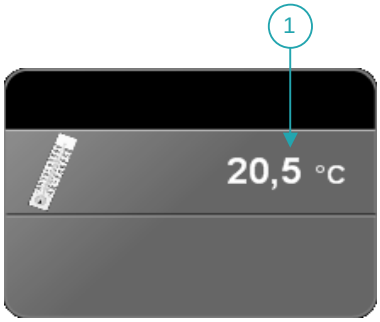
Advanced parameters: Screen Wake-up: yes Quick access: no

Application: Heating system command with temperature set point setting + air conditioning system command.

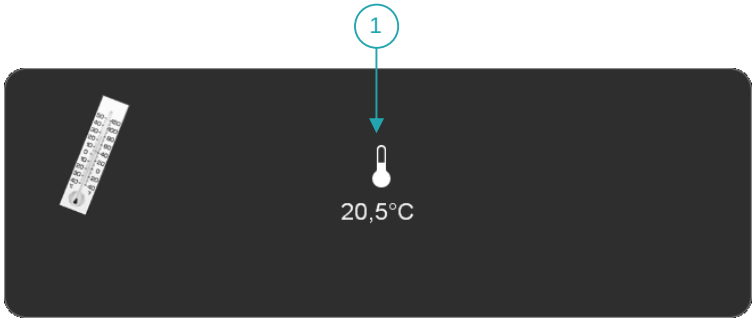
5.1.6 Sensors

5.1.6.1 Temperature

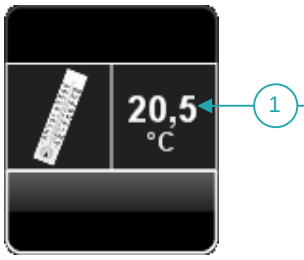
General representation 8-inch



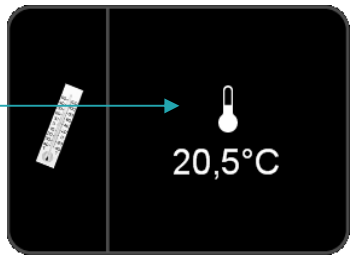
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Status indication temperature	2 Byte	10 temperature: 34 Status indication temperature

Object	Type	Length	Description
Status indication temperature	Output	2Byte	Temperature display (ambient, set point, etc.)

Device parameter settings options:

Parameters: Modification of the image: yes

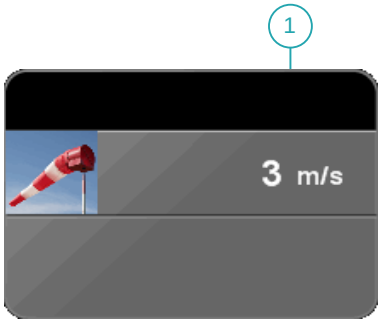
Temperature measurement unit selection: yes (℃ or ℉)

Advanced parameters: Screen Wake-up: yes Quick access: no

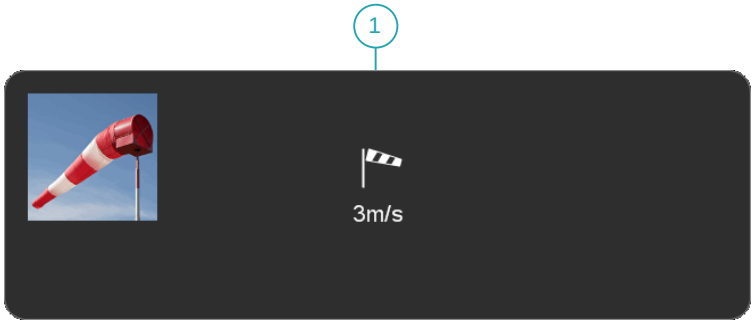
Application: Temperature display from a thermometer or a weather station connected to the KNX bus.

5.1.6.2 Anemometer

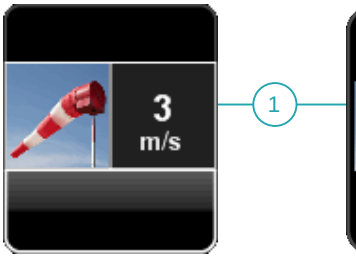
General representation 8-inch



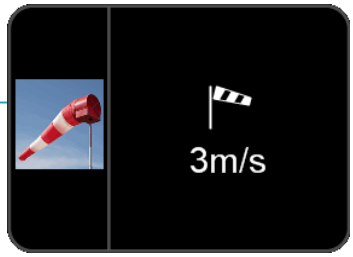
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Status indication wind speed	2 Byte	11 wind speed sensor; 35 Status indication wind speed

Object	Type	Length	Description
Status indication wind speed	Output	2Byte	Wind speed display

Device parameter settings options:

Parameters: Modification of the image: yes

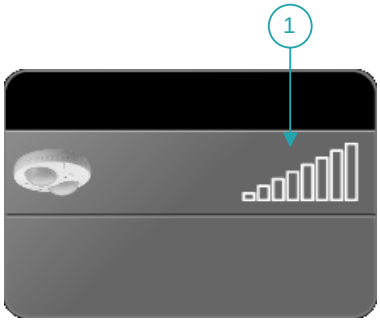
Speed measurement unit selection: yes (m/s, kph, mph)

Advanced parameters: Screen Wake-up: yes Quick access: no

Application: Display of the wind speed from an anemometer or a weather station connected to the KNX bus.

5.1.6.3 Luminosity

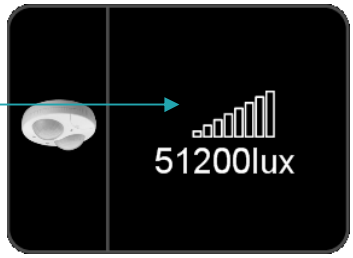
General representation 8-inch



Detailed representation 8-inch

General representation 5-inch

Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Status indication Luminosity level	2 Byte	12 luminosity: 36 Status indication Luminosity level

Object	Type	Length	Description
Status indication luminosity level	Output	2Byte	Display of the luminosity level (in lux…)

Device parameter settings options:

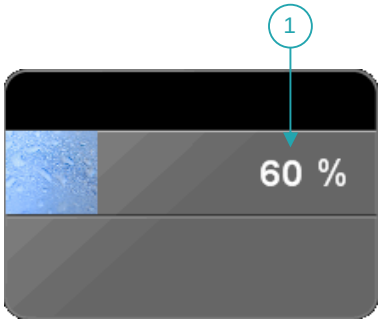
Parameters: Modification of the image: yes

Advanced parameters: Screen Wake-up: yes Quick access: no

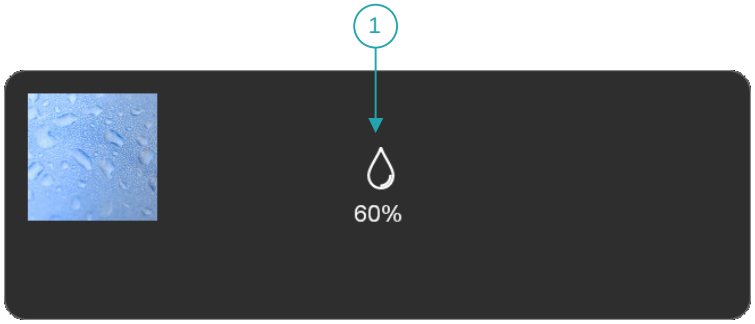
Application: Display of the brightness from a lux meter or a weather station connected to the KNX bus.

5.1.6.4 Humidity

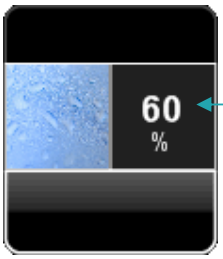
General representation 8-inch



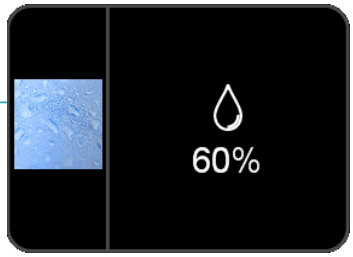
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Status indication humidity value	2 Byte	13 humidity: 37 Status indication humidity value

Object	Type	Length	Description
Status indication humidity value	Output	2Byte	Display of the humidity level (as %)

Device parameter settings options:

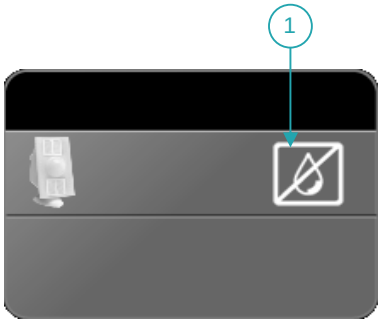
Parameters: Modification of the image: yes

Advanced parameters: Screen Wake-up: yes Quick access: no

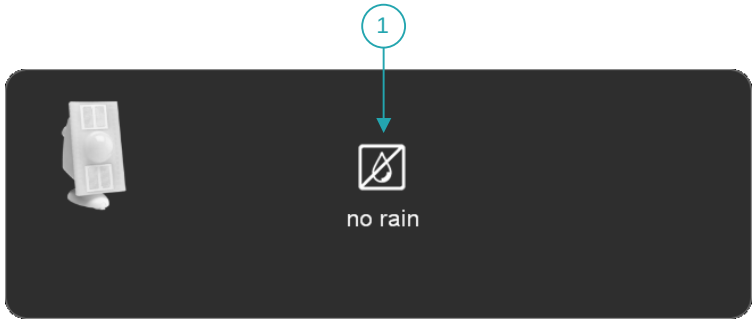
Application: Display of the air humidity level from a weather station connected to the KNX bus.

5.1.6.5 Rain sensor

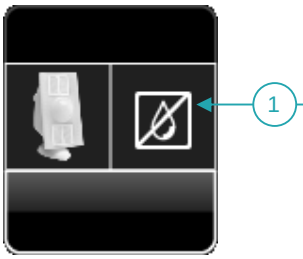
General representation 8-inch



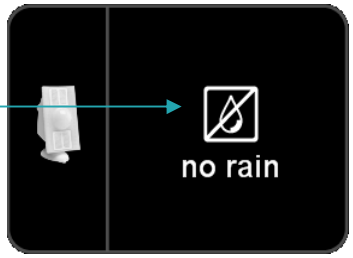
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Status indication rain	1 bit	14 rain: 38 Status indication rain

Object	Type	Length	Description
Status indication rain	Output	1Bit	Rain display

Device parameter settings options:

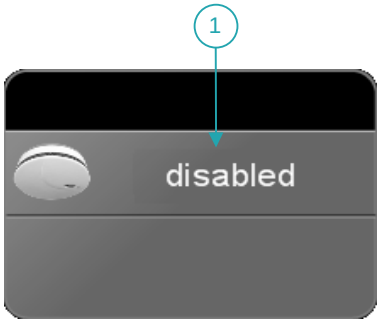
Parameters: Modification of the image: yes

Advanced parameters: Screen Wake-up: yes Quick access: no

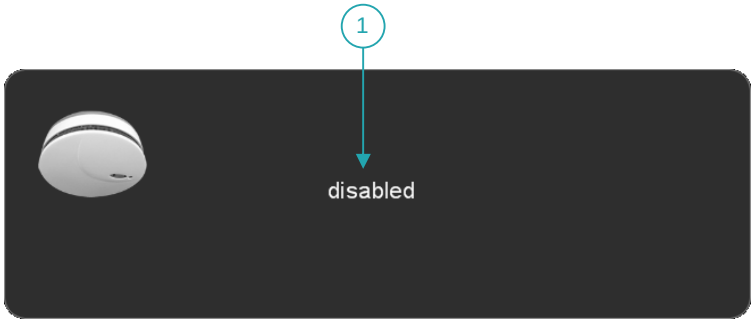
Application: Rainfall display from an input module or a weather station connected to the KNX bus.

5.1.6.6 Binary

General representation 8-inch

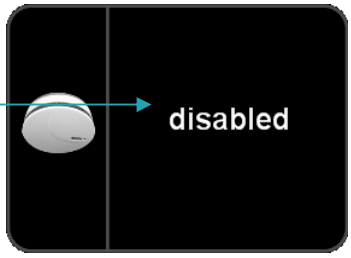


Detailed representation 8-inch



General representation 5-inch

Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Status indication ON / OFF	1 bit	15 binary: 39 Status indication ON / OFF

Object	Type	Length	Description
Status indication ON / OFF	Output	1Bit	Information display in bit format (choice of interpretation)

Device parameter settings options:

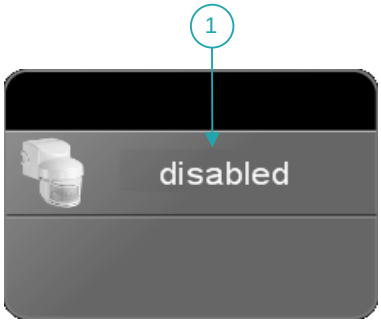
Parameters: Modification of the image: yes
Change message ON: yes
Change message OFF: yes
Trip mode: normal (1) or inverse (0)

Advanced parameters: Screen Wake-up: yes Quick access: no

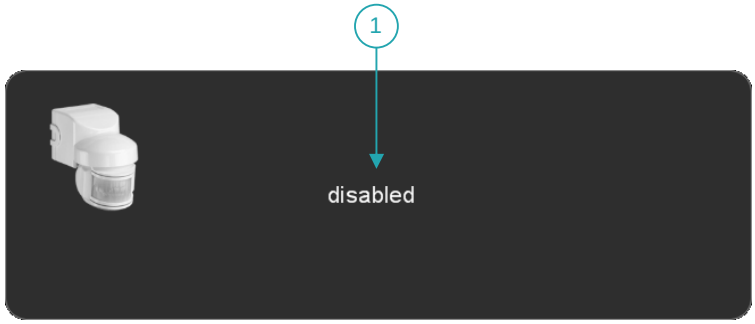
Application: Information display in bit format that can be interpreted in various ways. It may come from an input module or a detection device such as a presence sensor or a fire detection system.

5.1.6.7 Alarm

General representation 8-inch

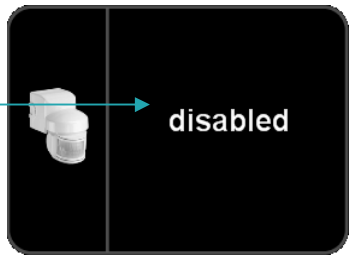


Detailed representation 8-inch



General representation 5-inch

Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Status indication ON / OFF	1 bit	16 alarm: 40 Status indication ON / OFF

Object	Type	Length	Description
Status indication ON/OFF	Output	1Bit	Alarm detection display

Device parameter settings options:

Parameters: Modification of the image: yes

Change message ON: yes

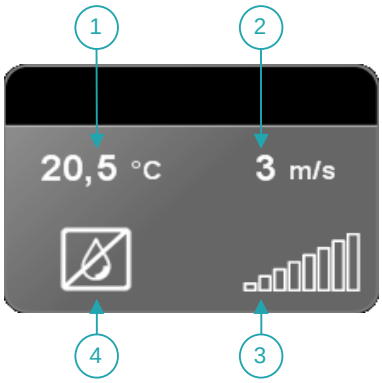
Change message OFF: yes

Advanced parameters: Screen Wake-up: yes Quick access: no

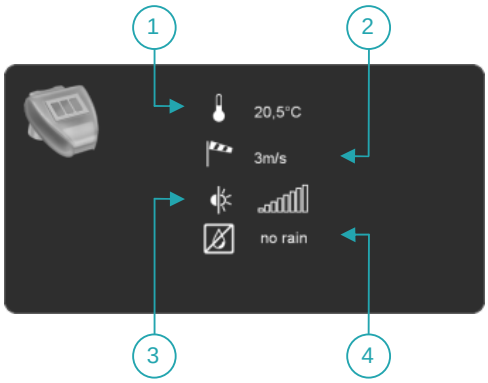
Application: Alarm information display from an input module or a detection device.

5.1.6.8 Weather

General representation 8-inch

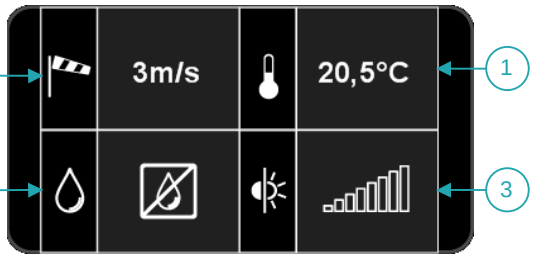


Detailed representation 8-inch



General representation 5-inch

Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Status indication temperature	2 Byte	17 weather station: 41 Status indication temperature
2	Status indication wind speed	2 Byte	17 weather station: 42 Status indication wind speed
3	Status indication Luminosity level	2 Byte	17 weather station: 43 Status indication Luminosity level
4	Status indication rain	1 bit	17 weather station: 44 Status indication rain

Object	Type	Length	Description
Status indication temperature	Output	2Byte	Temperature display (ambient, set point, etc.) in ℃ or ℉
Status indication wind speed	Output	2Byte	Wind speed display (in m/s, kph, mph)
Status indication luminosity level	Output	2Byte	Display of the luminosity level (in lux…)
Status indication rain	Output	1Bit	Rain display

Device parameter settings options:

Parameters: Modification of the image: yes

Temperature measurement unit selection: yes (℃ or ℉)

Speed measurement unit selection: yes (m/s, kph, mph)

Advanced parameters: Screen Wake-up: yes Quick access: no

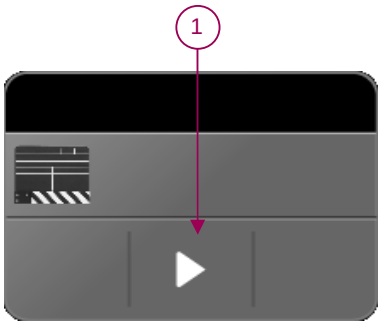
Application: Display of the temperature, the wind speed, the luminosity and the rain sensor from a weather station connected to the KNX bus.

5.1.7 Miscellaneous

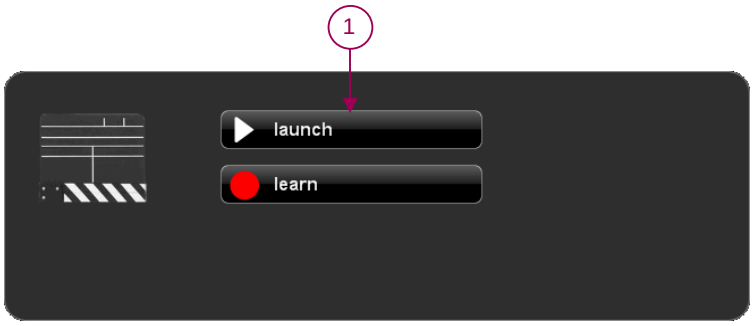
5.1.7.1 Scene

The scene allows you, for example, to create a mood of your choice, i.e. to set various light sources automatically to different brightness values in one or more rooms.

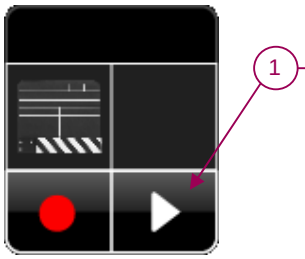
General representation 8-inch



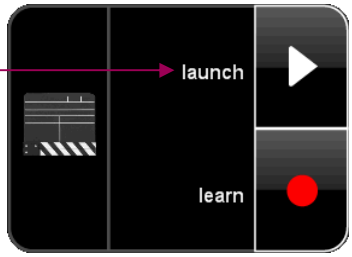
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Scene	1 Byte	18 KNX scene: 45 Scene

Object	Type	Length	Description
Scene command	Input	1Byte	Command for running a scene

Device parameter settings options:

Parameters: Modification of the image: yes

Scene number: yes

Advanced parameters: Screen Wake-up: yes Quick access: yes

Application: Run a programmed scene. Learn a scene.

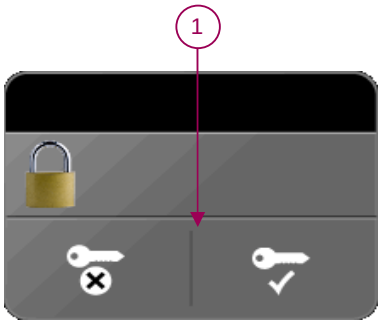
(See chapter 4.10 5 for running a scene)

5.1.7.2 Priority

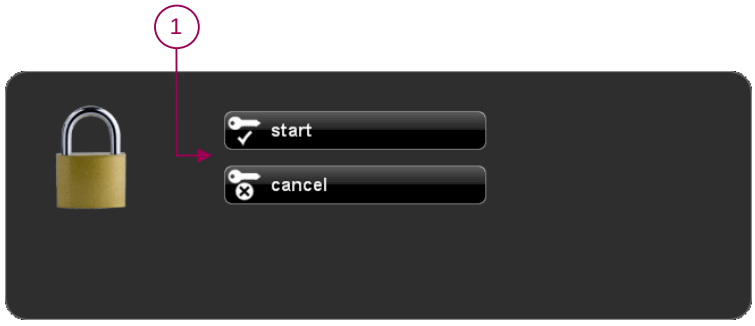
Priority allows you to order your appliances to override all other commands and to maintain the status of these appliances until cancellation of this mode.

The parameters for the various elements must be set in ETS with priority status.

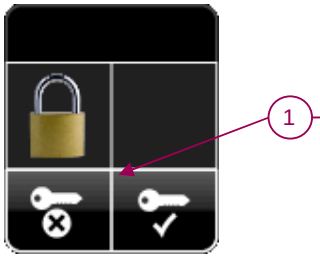
General representation 8-inch



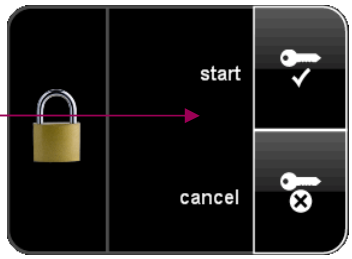
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Priority	2 bit	19 priority: 46 Priority

Object	Type	Length	Description
Priority command	Input	2Bit	Command for running a priority

Device parameter settings options:

Parameters: Modification of the image: yes

Change priority message: yes

Change priority OFF message: yes

Priority mode: ON High or OFF Low

Advanced parameters: Screen Wake-up: yes Quick access: no

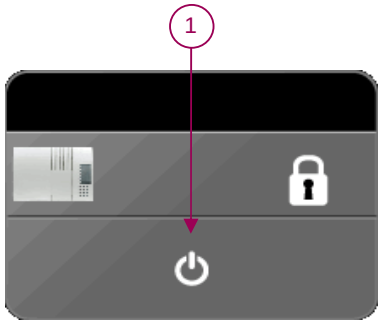
Application: Run priority.

(See chapter 4.5 for running a priority scene)

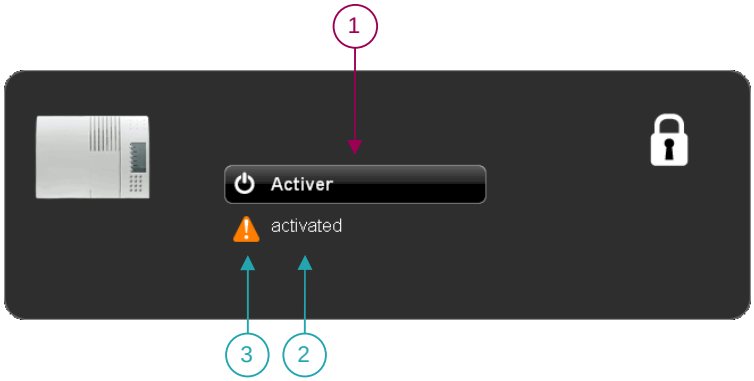
5.1.7.3 Alarm

This device is used for the problem-free start-up of your alarm system with a status indication and a reset to system default. It cannot be used to turn off the alarm. This must be done by using the shut-off device for your alarm system (keycode, remote control, etc.).

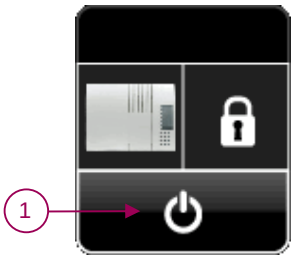
General representation 8-inch



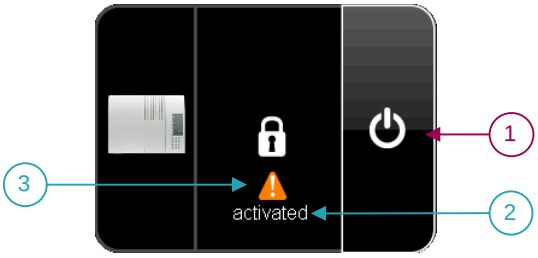
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	ON intrusion alarm	1 bit	20 alarm: 47 ON intrusion alarm
2	Status indication alarm	1 bit	20 alarm: 48 Status indication alarm
3	Alarm reporting	1 bit	20 alarm: 49 Alarm reporting

Object	Type	Length	Description
ON intrusion alarm	Input	1Bit	Activation alarm system
Status indication alarm	Output	1Bit	Alarm system activation display
Alarm reporting	Output	1Bit	Default alarm system display

Device parameter settings options:

Parameters: Modification of the image: yes

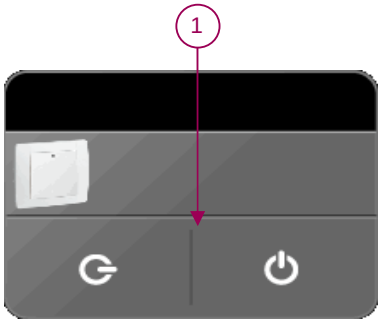
Change message ON: yes

Advanced parameters: Screen Wake-up: yes Quick access: no

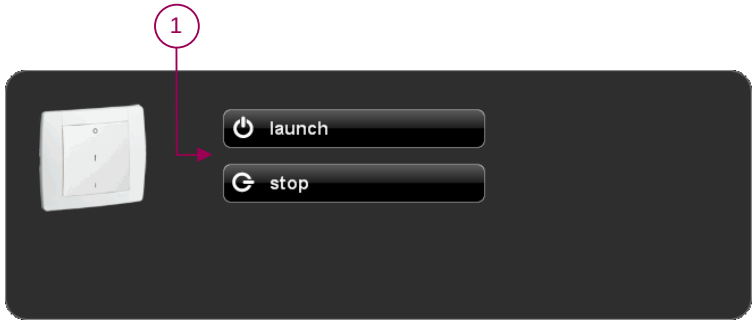
Application: Activation of the alarm system.

5.1.7.4 Start/stop

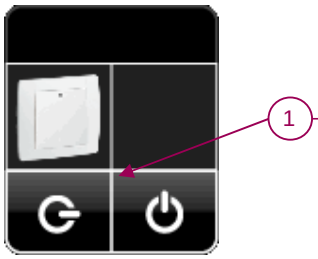
General representation 8-inch



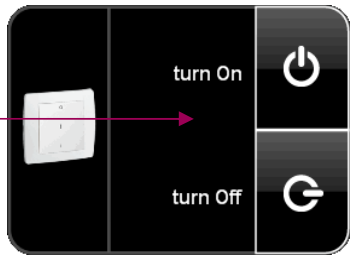
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	ON / OFF	1 bit	21 start / stop: 50 ON / OFF

Object	Type	Length	Description
ON / OFF various	Input	1Bit	ON/OFF/ON various devices

Device parameter settings options:

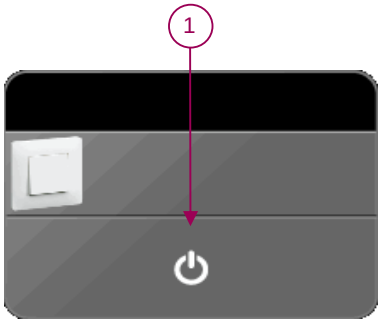
Parameters: Modification of the image: yes

Advanced parameters: Screen Wake-up: yes Quick access: no

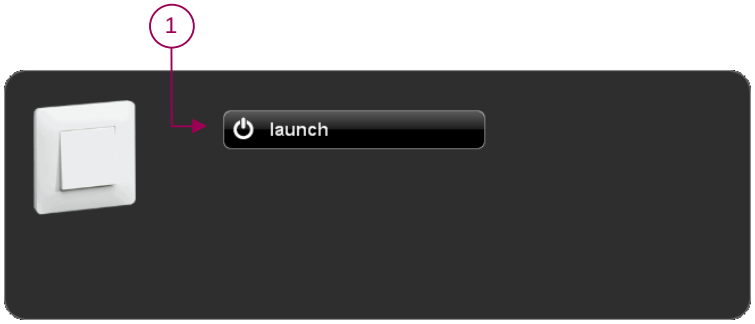
Application: Start/stop/start for a non-standard device such as a lighting unit or a shutter. This device can be used for a ventilation command, for example.

5.1.7.5 Pulse

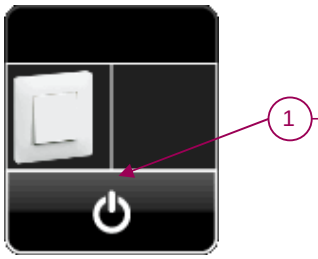
General representation 8-inch



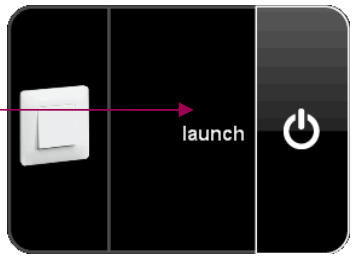
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	ON / OFF	1 bit	22 pulse: 51 ON / OFF

Object	Type	Length	Description
Pulse command ON / OFF	Input	1Bit	Timed pulse for various commands

Device parameter settings options:

Parameters: Modification of the image: yes

Pulse time: yes

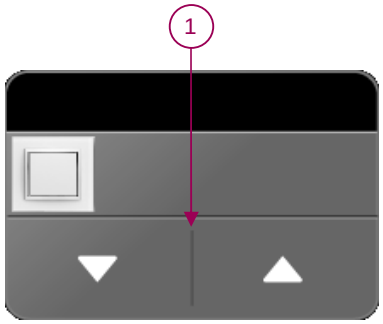
Change pulse message: yes

Advanced parameters: Screen Wake-up: yes Quick access: no

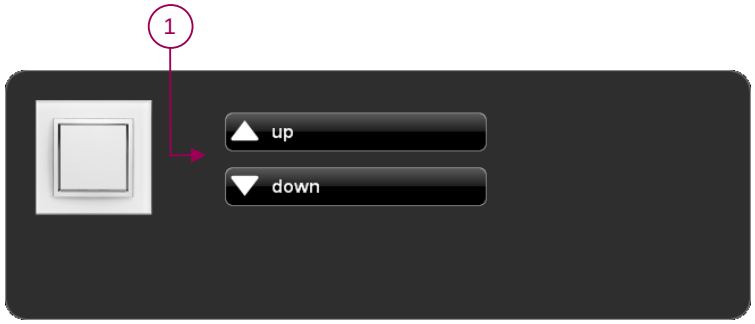
Application: Pulse command for a device like opening a gate or garage.

5.1.7.6 Dead-man contact

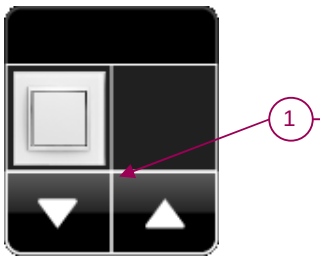
General representation 8-inch



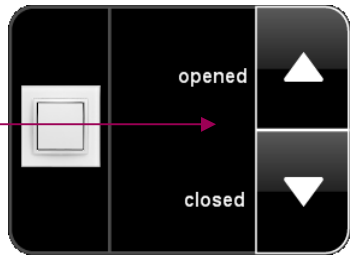
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Up / Down	1 bit	23 dead man: 52 Up / Down
2	Slat angle / Stop	1 bit	23 dead man: 53 Slat angle / Stop

Object	Type	Length	Description
Dead-man contact Up	Input	1Bit	Dead-man contact Up
Dead-man contact Down	Input	1Bit	Dead-man contact Down

Device parameter settings options:

Parameters: Modification of the image: yes

Change message ON: yes

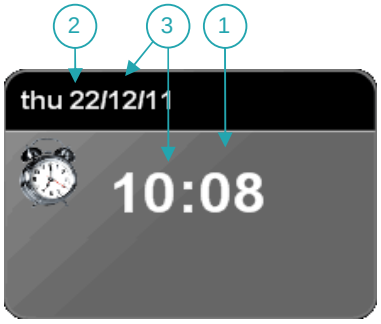
Change message OFF: yes

Advanced parameters: Screen Wake-up: yes Quick access: no

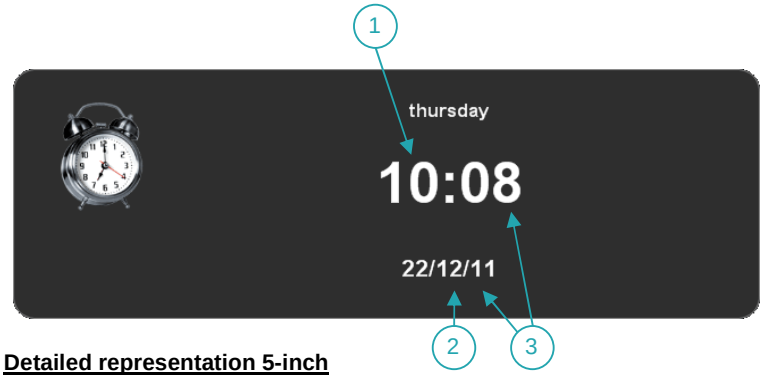
Application: Dead-man contact for a device like a swimming pool cover.

5.1.7.7 Date and time

General representation 8-inch

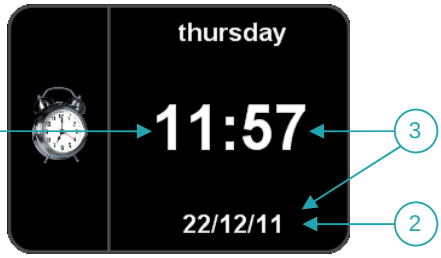


Detailed representation 8-inch



General representation 5-inch

Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Hour	3 Byte	24 date and time: 54 Hour
2	Date	3 Byte	24 date and time: 55 Date
3	Date + Hour	8 Byte	24 date and time: 56 Date + Hour

Object	Type	Length	Description
Hour	Input	3Byte	Time display
Date	Output	3Byte	Date display
- Date + Hour	Output	8Byte	Date and time display

Device parameter settings options:

Parameters: Modification of the image: yes

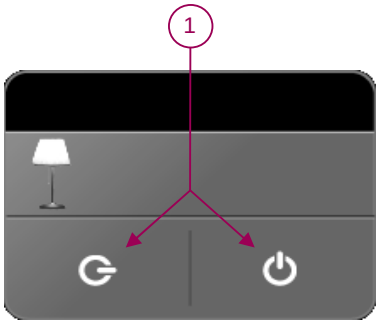
Advanced parameters: Screen Wake-up: yes Quick access: no

Application: Display of the date and time from an external source connected to the KNX bus. If the link is not made by ETS, the time and date displayed will be that of the *tebis touch panel*.

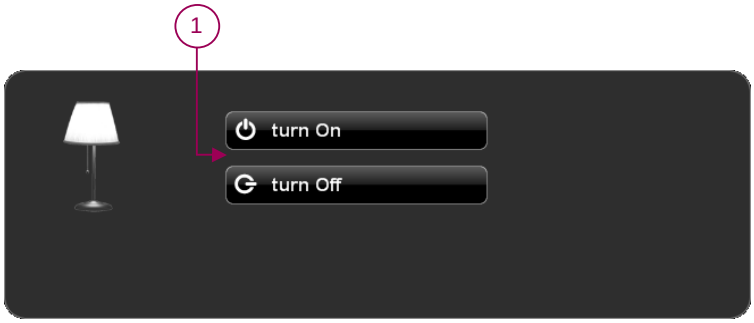
5.1.8 Grp command

5.1.8.1 Lighting

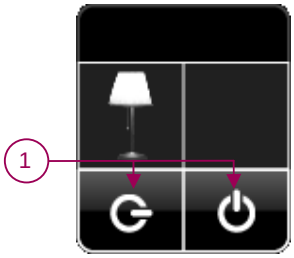
General representation 8-inch



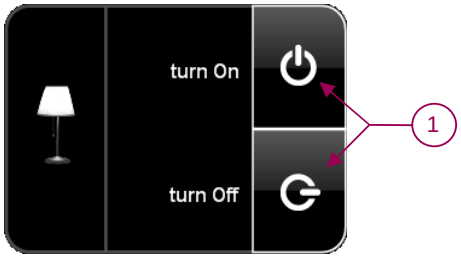
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	ON / OFF	1 bit	25 light: 57 ON / OFF

Object	Type	Length	Description
ON / OFF	Input	1Bit	Output ON/OFF

Device parameter settings options:

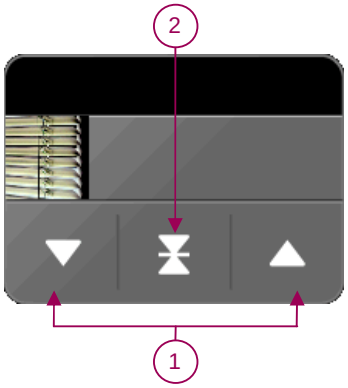
Parameters: Modification of the image: yes

Advanced parameters: Screen Wake-up: yes Quick access: yes

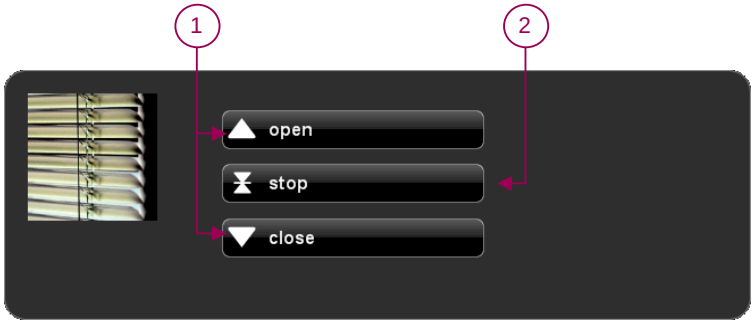
Application: Command for a group of lighting units. This system does not have a status indicator as it is designed to command several outputs at once.

5.1.8.2 Shutter

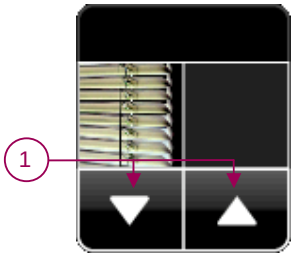
General representation 8-inch



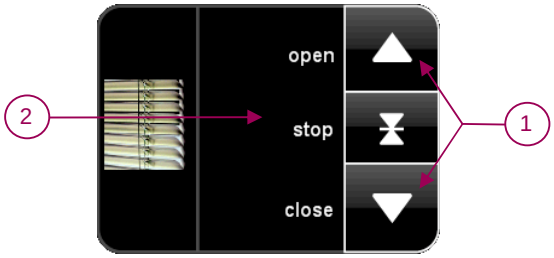
Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch



ETS command

	Name	Length	Description
1	Up / Down	1 bit	26 shutter: 58 Up / Down
2	Slat angle / Stop	1 bit	26 shutter: 59 Slat angle / Stop

Object	Type	Length	Description
Up / Down	Input	1Bit	Shutters up / down command
Slat angle / Stop	Input	1Bit	Shutter stop command

Device parameter settings options:

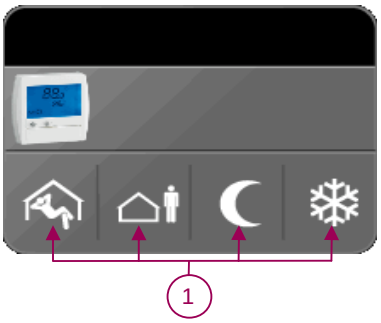
Parameters: Modification of the image: yes

Advanced parameters: Screen Wake-up: yes Quick access: yes

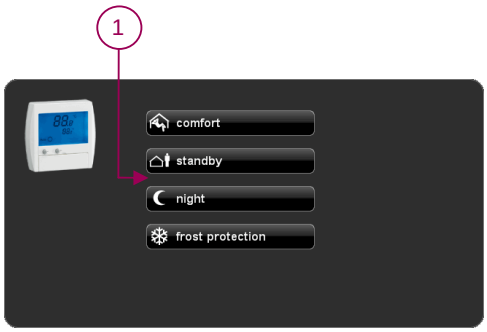
Application: Command for a group of shutters. This system does not have a status indicator as it is designed to command several outputs at once.

5.1.8.3 Heating

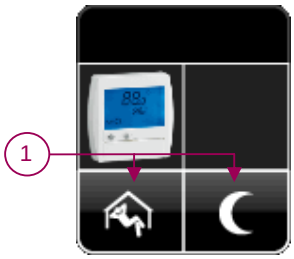
General representation 8-inch



Detailed representation 8-inch



General representation 5-inch



Detailed representation 5-inch

ETS command

	Name	Length	Description
1	Heating mode selection	1 Byte	27 heating: 60 Heating mode selection

Object	Type	Length	Description
Heating mode selection	Input	1Byte	Heating mode selection (comfort, standby, night, frost protection)

Device parameter settings options:

Parameters: Modification of the image: yes

Advanced parameters: Screen Wake-up: yes Quick access: no

Application: General heating mode command.

5.2 Special characters

Below, the table of special characters available when inputting text:

Input is possible from the keyboard by using the ALT key + ASCII code input on the numeric keypad on the PC (e.g.: ALT + 33 corresponds to the character '!')

32		64	@	96	`	128	€	160		192	À	224	À
33	!	65	A	97	a	129		161	¡	193	Á	225	Á
34	"	66	B	98	b	130	,	162	¢	194	Â	226	Â
35	#	67	C	99	c			163	£	195	Ã	227	Ã
36	$	68	D	100	d			164	¤	196	Ä	228	Ä
37	%	69	E	101	e			165	¥	197	Å	229	Å
38	&	70	F	102	f			166	¦	198	Æ	230	Æ
39	'	71	G	103	g			167	§	199	Ç	231	Ç
40	(	72	H	104	h			168	¨	200	È	232	È
41	)	73	I	105	i			169	©	201	É	233	É
42	*	74	J	106	j	138	Š	170	ª	202	Ê	234	Ê
43	+	75	K	107	k			171	«	203	Ë	235	Ë
44	,	76	L	108	l	140	Œ	172	¬	204	Ì	236	Ì
45	-	77	M	109	m	141				205	Í	237	Í
46	.	78	N	110	n	142	Ž	174	®	206	Î	238	Î
47	/	79	O	111	o	143		175	¯	207	Ï	239	Ï
48	0	80	P	112	p	144		176	°	208	Đ	240	Đ
49	1	81	Q	113	q	145	‘	177	±	209	Ñ	241	Ñ
50	2	82	R	114	r	146	’	178	²	210	Ò	242	Ò
51	3	83	S	115	s	147	“	179	³	211	Ó	243	Ó
52	4	84	T	116	t	148	”	180	´	212	Ô	244	Ô
53	5	85	U	117	u			181	µ	213	Õ	245	Õ
54	6	86	V	118	v			182	¶	214	Ö	246	Ö
55	7	87	W	119	w			183	·	215	×	247	÷
56	8	88	X	120	x			184	¸	216	Ø	248	Ø
57	9	89	Y	121	y			185	¹	217	Ù	249	Ù
58	:	90	Z	122	z	154	š	186	º	218	Ú	250	Ú
59	;	91	[	123	{	155	›	187	»	219	Û	251	Û
60	<	92	\	124	|	156	œ	188	¼	220	Ü	252	Ü
61	=	93	]	125	}	157		189	½	221	Ý	253	Ý
62	>	94	^	126	~	158	ž	190	¾	222	Þ	254	Þ
63	?	95	_	127		159	Ÿ	191	¿	223	ß	255	Ÿ

5.3 Table of images available

Below, the table of images available when creating or modifying a device.

									
D000	D001	D002	D003	D004	D005	D006	D007	D008	D009
									
D010	D011	D012	D013	D014	D015	D016	D017	D018	D019
									
D020	D021	D022	D023	D024	D025	D026	D027	D028	D029
									
D030	D031	D032	D033	D034	D035	D036	D037	D038	D039
									
D040	D041	D042	D043	D044	D045	D046	D047	D048	D049
									
D050	D051	D052	D053	D054	D055	D056	D057	D058	D059
									
D060	D061	D062	D063	D064	D065	D066	D067	D068	D069
									
D070	D071	D072	D073	D074	D075	D076	D077	D078	D079
									
D080	D081	D082	D083	D084	D085	D086	D087	D088	D089
									
D090	D091	D092	D093	D094	D095	D096	D097	D098	D099

									
D100	D101	D102	D103	D104	D105	D106	D107	D108	D109
									
D110	D111								