



TRILUX
SIMPLIFY YOUR LIGHT.

LIVELINK

BASIC WIRELESS



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1 INTRODUCTION

1.1 SAFETY INFORMATION

- Commissioning (electrical side) may only be carried out by a qualified electrician.
- Work on electrical equipment may only be carried out while disconnected from the power supply.
- Applicable safety and accident prevention regulations must be observed.
- For installation, also observe the corresponding steps from the installation instructions of the components used.
- LiveLink Basic Wireless is not intended for applications other than those listed here. Other applications are considered improper. If LiveLink is used improperly, safe operation is not guaranteed.

1.2 BASIC FUNCTIONS

LiveLink Basic Wireless is a simple light management system that allows radio-controlled lights (identified by "+ETWD") to be networked and controlled. These can be grouped into light groups and configured via the LiveLink Basic Wireless Install App. When starting the app, a connection to a radio light ("ETWD") will be established via Bluetooth. Subsequently, the lights of a room are assigned to a light group.

In addition, a radio sensor or a radio switch can be assigned to each group. These enable manual or motion-dependent control of the lighting. In addition, a daylight-dependent control can be configured.

For individual control of a room, the room can be divided into further zones. Sensors or switches can be assigned either to a zone or to the entire light group. This enables individual, zone-based control or centralised, group-based control.

With the LiveLink Basic Wireless Control App, manual control of the lighting via a smartphone is also possible.

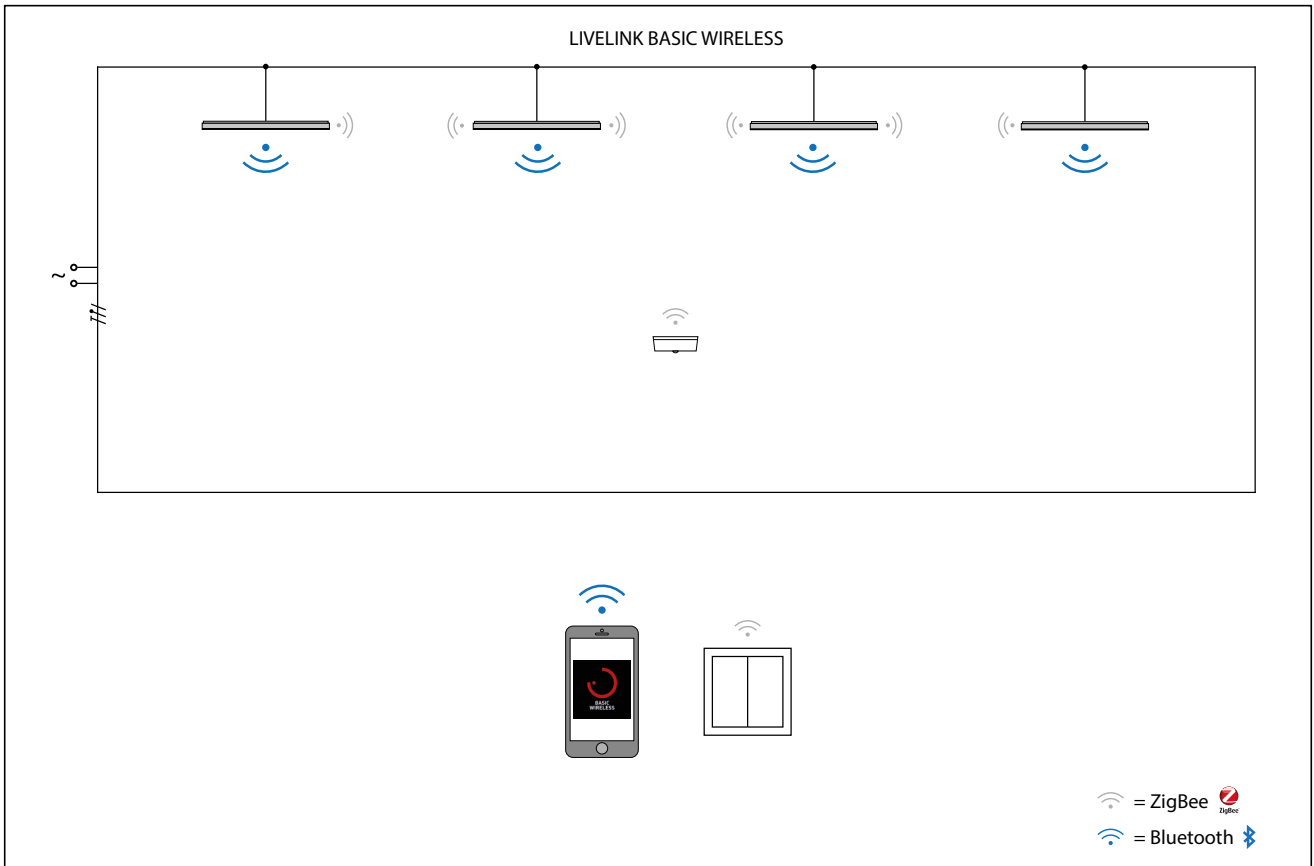
1.3 SYSTEM OVERVIEW

The TRILUX light management system LiveLink Basic Wireless is based on a mesh network that simply interconnects ZigBee lights, sensors and switches.

For the given installation, all radio components, which are combined in the ZigBee network, serve as control device. This allows flexible access via app, as there is no central control unit.

The radio lights require a power supply to establish a mesh network. Up to max. 50 devices can be integrated in such a network. In addition to ZigBee lights, control and operating elements such as radio switches and radio sensors can also be integrated here.

A Bluetooth-enabled tablet is required for commissioning.



2 SYSTEM AND FUNCTIONS

2.1 LIVELINK SYSTEM COMPONENTS

Convenient control via switch or smartphone

The lights or light groups can be controlled either with a radio switch or via a mobile app on a smartphone. The switch can be freely assigned – meaning controlling light groups and accessing light scenes is also possible manually. The configuration is retained in the event of a power failure, therefore no reprogramming is necessary.

ZigBee interface for clever light management

The lights communicate with each other or with sensors and control switches of the lighting system via the internationally standardised Zig-Bee interface. Thus up to max. 50 radio devices can be networked.

2.1.1 LIGHTS

TRILUX twenty3 radio lights (“+ETWD”)

At the heart of the LiveLink Basic Wireless System are the twenty3 radio lights, recognisable by the additional designation “+ETWD” in their name. Thanks to their ZigBee-based radio networking, they enable an area-wide mesh network to which additional control elements can be added. The system can be freely configured using the LiveLink Basic Wireless app on a smartphone.

Note:

The technical data of the respective lights can be found in the corresponding data sheets.



Luminaire example for a LiveLink Basic Wireless system
2330 G3 M73 PW19 3600 - 840 ETWD



Luminaire example for a LiveLink Basic Wireless system
2350 G3 D2 PW19 4000 - 840 ETWD

2.1.2 PUSH-BUTTON

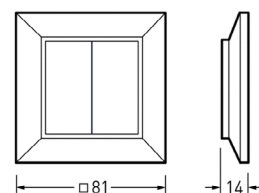
TRILUX twenty3 push-button as wireless control unit

The LiveLink Basic Wireless push-buttons can be integrated into the network via app.

Technical data	
Input voltage	Maintenance-free, electrodynamic energy generator
Ambient temperature	-25°C–+65°C
Radio range:	10 m
Protection rating	IP20
Net length	82 mm
Net width	82 mm
Net height	15 mm



Push-button example for a LiveLink Basic Wireless system
EasyAir 4B Switch



2.1.3 SENSOR

The independent all-rounder

The LiveLink BW Sensor Easy Air Occu DL ZGP infrared presence detector is ideal for office, conference and meeting rooms as well as classrooms due to its design and detection range. Its high-resolution capture is ideal for sedentary activities.

Equipment and functions:

- Battery operation enables a voltage-independent supply
- Simple planning with square detection area
- Quick setting possible via app
- 5.4 m x 3.6 m presence detection, 7.2 m x 5.4 m motion detection
- Suitable for ceiling heights from 2.5 m up to max. 4 m
- Optimum constant light control at 0.7 m x ceiling height from the light source
- Flexible shading possible due to integrated plastic shield
- Status LED

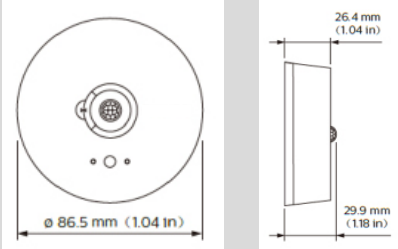
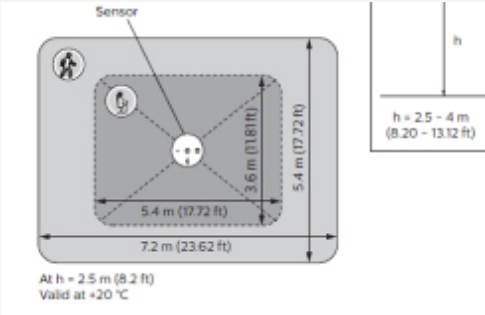


LiveLink BW Sensor Easy Air Occu DL ZGP
TOC: 7918300

Status LED

LED colour	Flashing	Meaning
Green LED	flashes every 10 seconds	Ready for commissioning or for inclusion in a radio network
Green LED	flashes every 2 seconds	Integration into network in progress
Green LED	flashes twice	Network integration successful
Red LED	flashes twice	Network integration failed
Green and red LED	flash twice	Reset from radio network successful
Red LED	flashes once	Movement detected (Test Mode)
Green LED	flashes 6 times	Movement detected
Red LED	flashes 3 times	Movement detected and battery low

Technical data

Technical data	
Type	LiveLink BW Sensor Easy Air Occu DL ZGP
Attribute	Mains-independent sensor powered by battery
Function	Motion detection Daylight control
Sensor type	Passive Infrared (PIR)
Dimension	
Place of operation	individual and open-plan offices, conference and meeting and classrooms
Sensors	highly sensitive pyro sensors with a detection range of 360°
Input voltage	battery operation (service life up to 8 years)
Radio range	10 m
Light value setting	1–2000 lx
Protection rating	IP42
Protection class	II
Ambient temperature t_a	-5°C–+45°C
Installation height (ceiling mounting)	max. 4 m
Detection angle/square	max. 38 m ²
Detection range	

2.2 USE AND OPERATION

LiveLink Basic Wireless light controls can basically be operated in operation using radio switches or app on a smartphone or tablet connected via Bluetooth (iOS or Android).

For the **group switch** the selection of lights to be operated can consist of several lighting zones, in turn defined during commissioning. A short push of the button activates the switching function. The switch-on luminous flux level is defined individually for each light group. If parts of the affected light selection are switched on and others are switched off when the button is briefly pushed, their switching state is synchronised initially. The lights can then be switched in combination. Dimming down is activated when the off button is pushed for a longer time. Dimming up is activated when the on button is pushed for a longer time.

With a **Zone switch** a created zone can be controlled. A zone is a defined area of lights with light control.

A **light scene switch** accesses a light level configured during commissioning. All lights not included in the light scene remain unaffected. Different light scenes can be assigned to the zones or groups that have been set up. Different light levels can be assigned to the lights within a zone.

The assignment of the switches to the light scenes or switching and dimming groups is carried out during commissioning.

All set-up lights can be switched and dimmed individually with the app. All configured light scenes can be accessed.

In addition to manual operation, the operation of the lighting is controlled by **automated functions** of the system:

- **daylight-dependent** control of the light groups,
- **presence-dependent** switching on of the light groups,
- switching off of the light groups **with absence detection**,

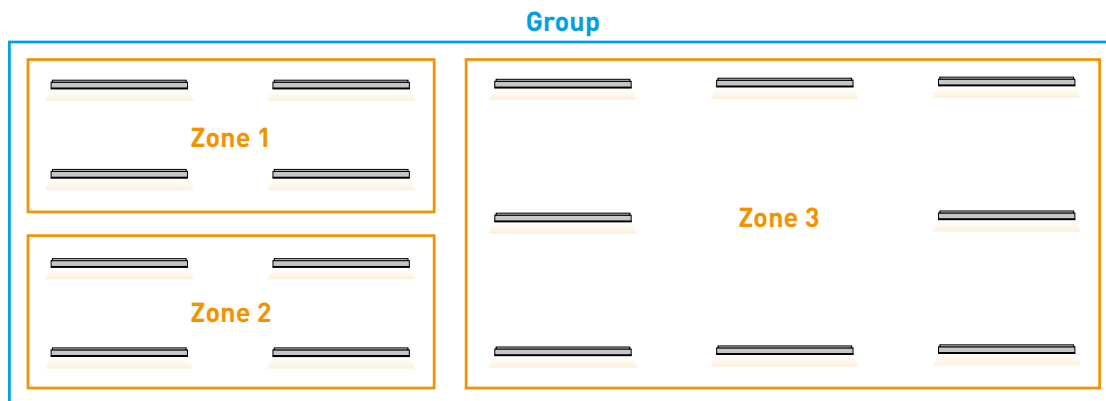
The automated functions are based on the detection of movement or the evaluation of the detected daylight. These functions as well as the assignment of sensors to zones or groups can be freely configured using the aforementioned app.

Practical tips:

For light scene switches, labelling often proves necessary in practice. Labelling can also be helpful for group switches if a spatial assignment of the light groups to be operated to the position of the installed switch is not clear.

Very obstacle between the radio components, depending on spatial conditions, worsens the radio wave propagation. The radio waves are weakened by reflection, attenuation, diffraction and interference. Therefore, an optimal installation location of the radio components is decisive for an optimal radio connection, bearing in mind the maximum radio range of the radio components.

Radio waves penetrate relatively well through simple glass (not metalised), dry wood, chipboard, plastic, plasterboard etc. Very poorly penetrated are e.g. all metal parts, metal walls, concrete with steel reinforcement, shielding fabric or shielding materials. Above all, enclosing and shading the radio components with metal parts should be avoided.



Schematic diagram: Groups and zones

2.3 SYSTEM

The LiveLink Basic Wireless System allows through its ZigBee interface to generate a mesh network in which groups of lights, sensors and switches communicate with each other. Via the ZigBee interface the system can be accessed from any point, allowing decentralised control. This control system enables fully or semi-automatic operation by use

of sensors and controls. The system can be configured via app, with the smartphone acting as a gateway.

All settings can be uploaded to the cloud via app, where they are stored as backup and restore copy.

2.4 HARDWARE RESET

2.4.1 RESET – LIGHT

When re-addressing the light without the original commissioning device, a hardware reset is necessary. To perform a hardware reset, the light must be **switched on for longer than 15 s**. The following combination of on and off switching pattern must then be performed:

- **Switch off light for 10–15 s**
(Switch off the power supply to the light)
- **Switch on light for 2–10 s**

This process must be carried out a total of **5 times!** The light must then remain switched on after the fifth time.

The devices are now in Safe Mode. To remove the devices from Safe Mode again, the "Device maintenance" option must be selected and re-set in the app menu. (See page 42).

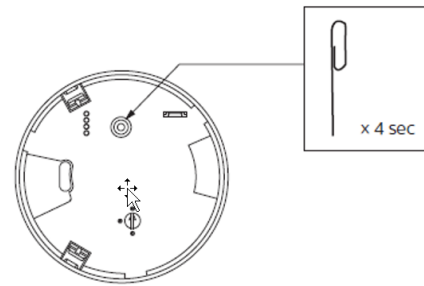
2.4.2 RESET – SENSOR

When re-addressing the sensor without the original commissioning device, a hardware reset is necessary. To perform a hardware reset, the button on the back of the sensor must be pressed for four seconds. If the reset was performed successfully the red and green LEDs will flash twice.

The sensor can then be integrated into the new system.

Note:

It is recommended to press the reset button with a pointed object (e.g. a paper clip).



2.5 SAFETY

2.5.1 BLUETOOTH LOW ENERGY (BLE) SAFETY

When the app connects to the BLE device, it creates a network ID key (for each group), and at the same time an exchange of BLE security

data takes place. If further devices are added to a group, these devices are also assigned the same network ID and key.

2.5.2 ZIGBEE SAFETY

The commissioning enables networking of the radio devices with each other to form a mesh network. This mesh network is based on the Zig-

Bee 3.0 standard. This ZigBee standard is secured by over-the-air AES 128 CCM encryption.

3 COMMISSIONING

3.1 USER REGISTRATION

After downloading the LiveLink Basic Wireless Install App, it must first be launched. Subsequently, entering an e-mail address is required in order to receive a verification code. Once the code has been confirmed, a project can be created.

Note:
A network connection is required to download and set up the app.

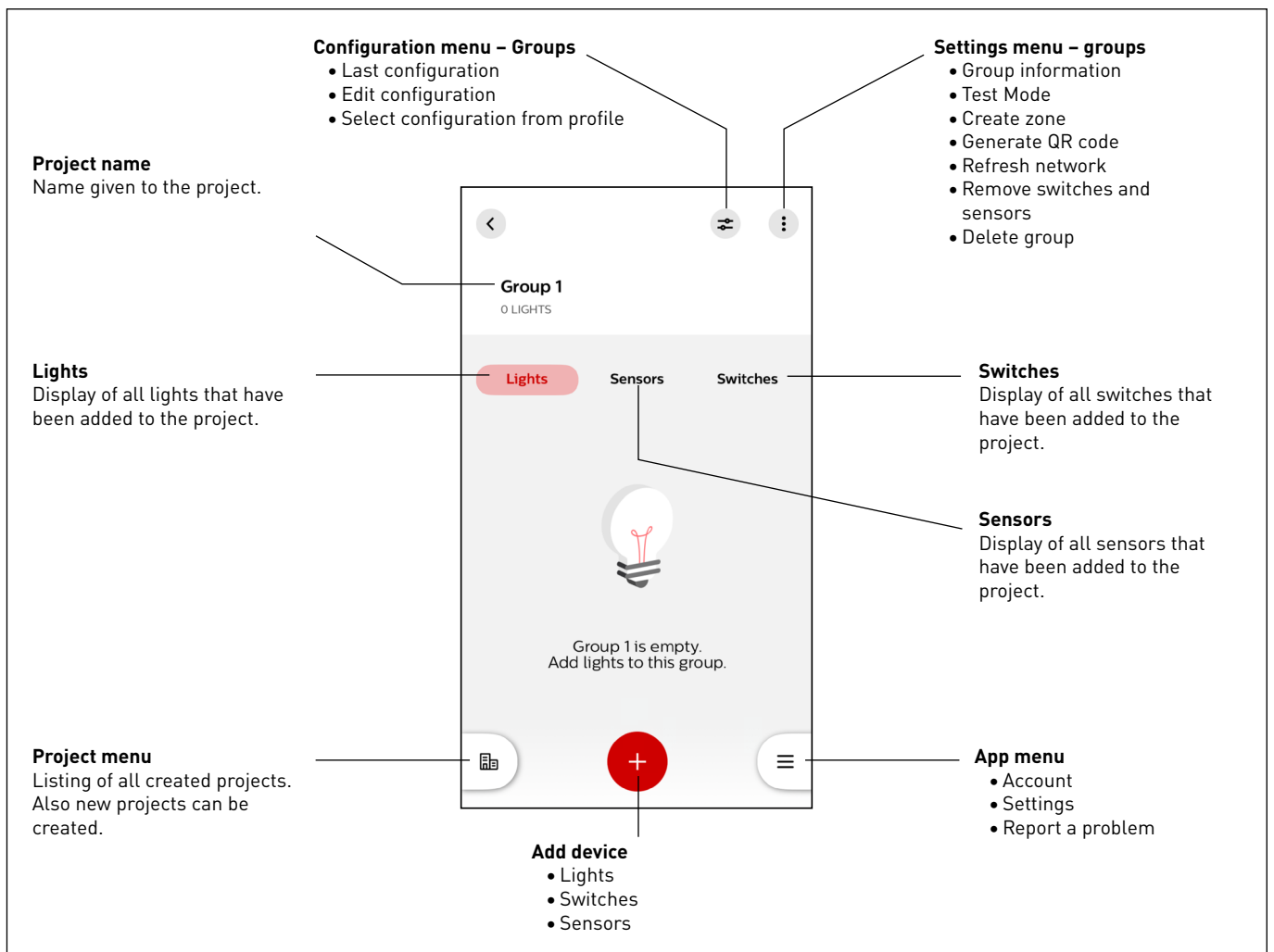
3.2 APP USE – LIVELINK BASIC WIRELESS INSTALL

3.2.1 OVERVIEW

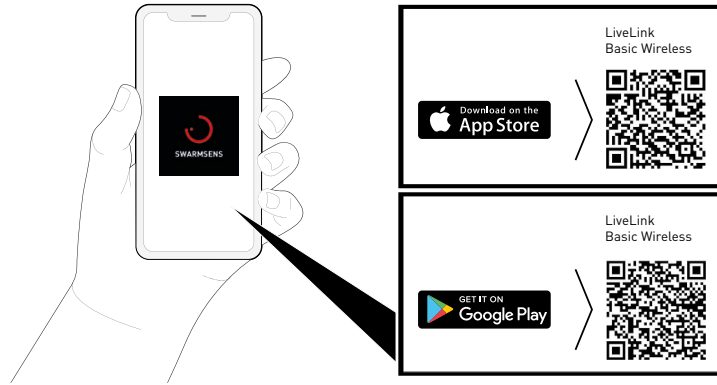
The LiveLink Basic Wireless Install App is used for commissioning, it is used to group all lights into groups and zones. In addition, switches and sensors are added to the network, configured and assigned to groups and zones via the app.

Before starting the app, make sure that there is an Internet connection. Furthermore, Bluetooth should be activated.
















Note:



3.2.2 QR CODE



3.2.3 LEGEND ICONS

-  Add device (lights, switches, sensors)
-  Information
-  App menu
-  deactivated
-  Project menu
-  activated
-  Configuration menu
-  Lights
-  Settings menu
-  Switches
-  Close
-  Sensors
-  Back to the previous screen
-  Daylight area
-  Refresh

3.2.4 APPLICATION

The following describes how to use the app. The recommended process shown below should be followed when using the app – from starting the app to completing the project.

3.2.4.1 LOGIN

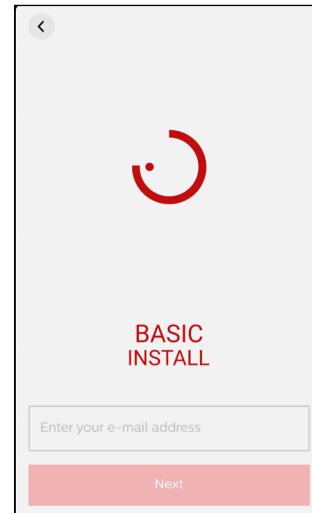
Launching the “LiveLink Basic Wireless Install” app

Tapping the app symbol starts the LiveLink Basic Wireless Install App.



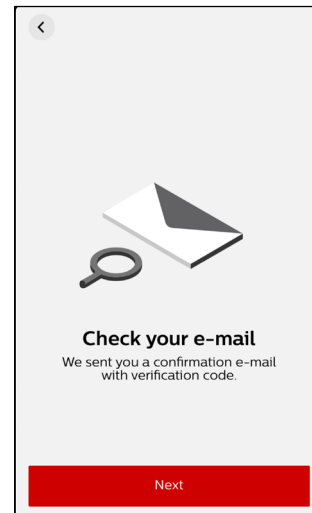
LiveLink login

After starting the app, you must first enter an e-mail address and confirm the entry with "Next".



Verification by e-mail

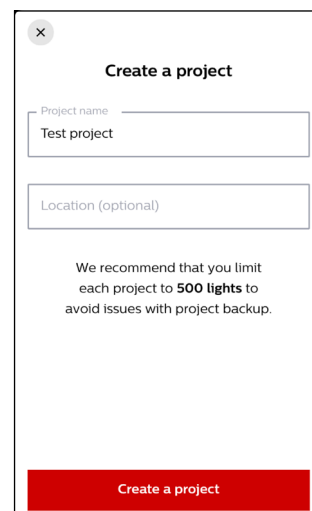
As soon as the e-mail address has been deposited, an e-mail with a confirmation code is automatically sent to this e-mail address. After receiving the confirmation code, it must be entered and confirmed.



3.2.4.2 PROJECT CREATION

Creating a project

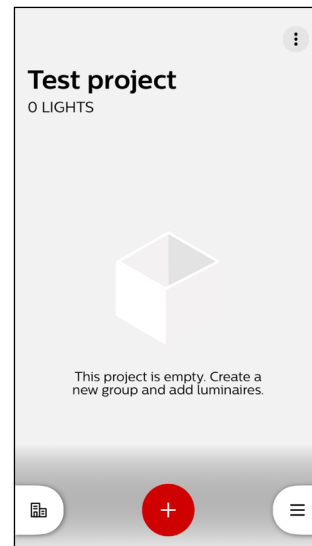
After successful registration in the system cloud, a window opens in which a project name must be entered. Optionally, a location ("Ort") can be selected. Afterwards, the entry must be confirmed by tapping the button "Create a project".



New project

An overview menu for this project then opens. The following selections are available in this menu:

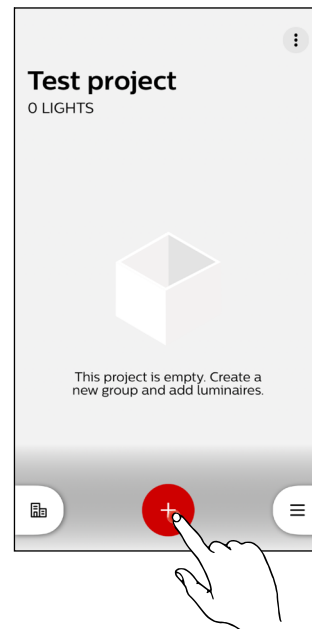
- Settings (on the upper right)
- Project overview (bottom left)
- Create new group (bottom centre)
- Menu (at the bottom right)



3.2.4.3 CREATING GROUPS

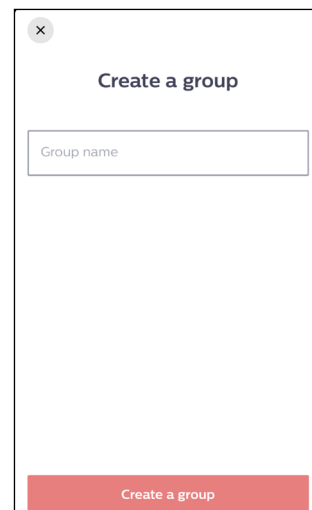
Create a new group

Tapping the "+" button in the project menu creates a new group and opens the group menu.



Name new group

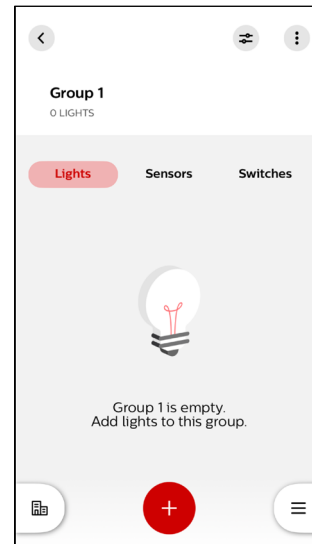
To create the group, it must first be named. The entry of the group name must then be confirmed by tapping the button "Create a group".



New group

The desired devices can now be added and managed in the new group:

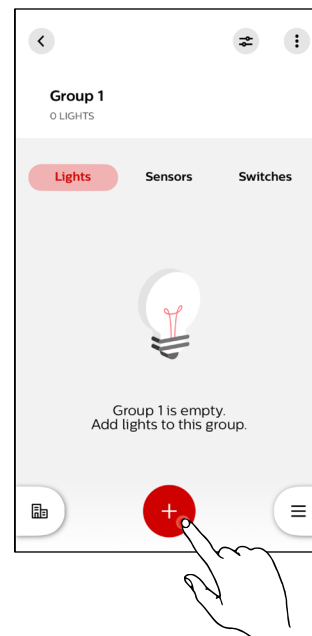
- Lights
- Sensors
- Switches



3.2.4.4 ADD DEVICES - LIGHTS

Add new group devices

By tapping the "+" button, a new group device can be added.

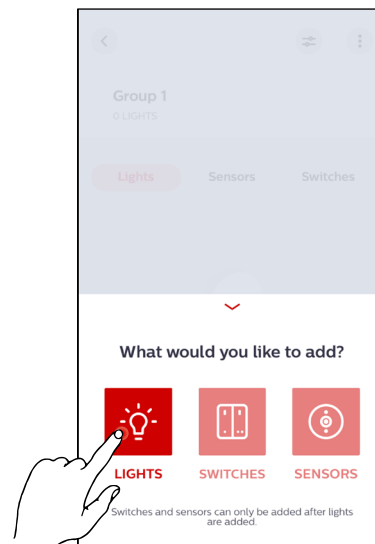


Group device selection

A new window opens for adding new group device (here lights). Tapping the desired device adds it to the group.

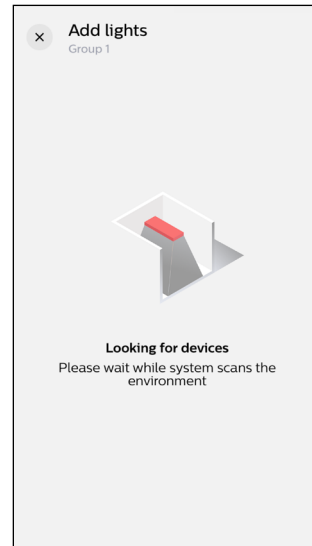
Note:

Switches and sensors can only be added after lights are added to the group.



Looking for lights

After adding lights has been selected, a new window appears. The environment is scanned for lights.

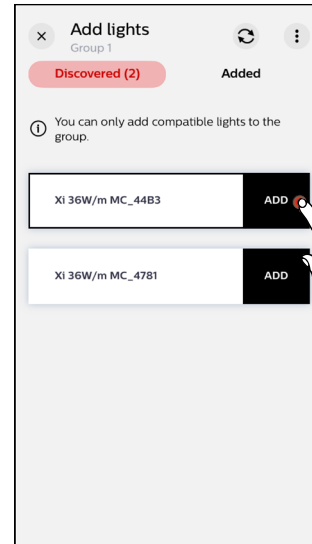


Add lights to group

As soon as the system has found lights in the vicinity, a new window opens (in the "Discovered" area) as well as all already added lights (in the "Added" area) are listed. If a found light is to be added to the group, the "ADD" button next to the respective light must be tapped.

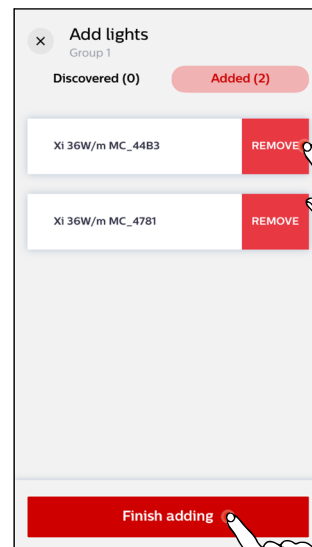
Note:

The lights found are displayed with the name of their driver, not with the respective designation of the light.



Removing lights from group

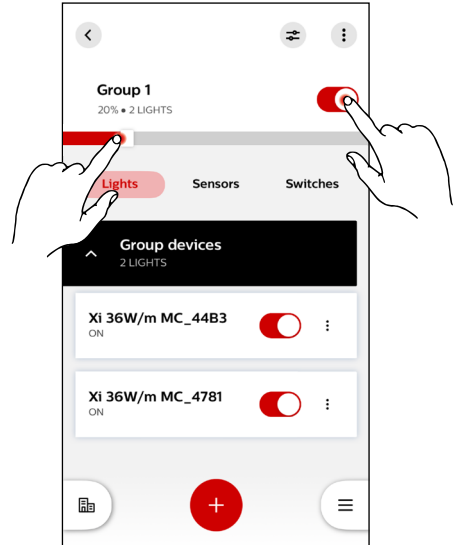
The added lights are listed in the "Added" area. To remove the added lights, simply tap the "REMOVE" button next to the respective light. As soon as all desired lights have been removed, the "Finish adding" button can be tapped to complete the process.



3.2.4.5 GROUP MENU – TEST MODE

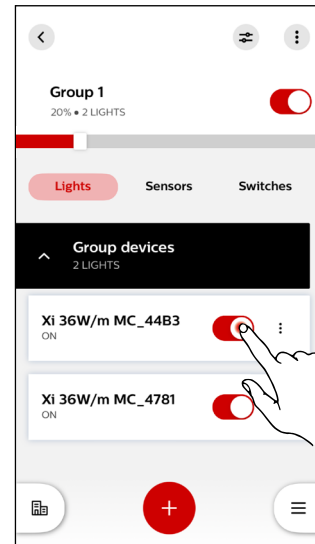
Group menu – Test Mode

After adding the lights, the group menu opens again with Test Mode activated. In this mode, the group can be activated or deactivated by pressing the button next to the group name. In addition, the dimming level of all lights in the group can be regulated using the slider below.



Group menu – Test Mode

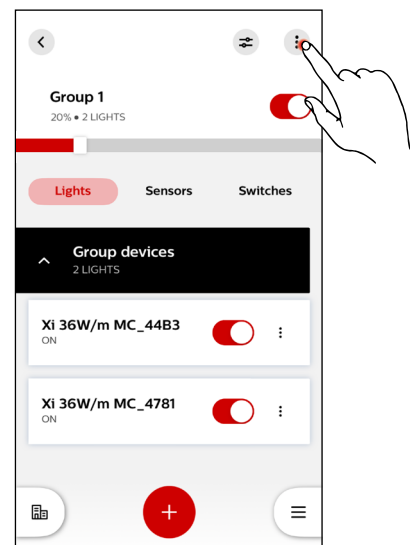
Furthermore, individual lights in the group can be switched on or off individually. To do this, simply press the switch next to the selected light.



3.2.4.6 CREATING ZONES

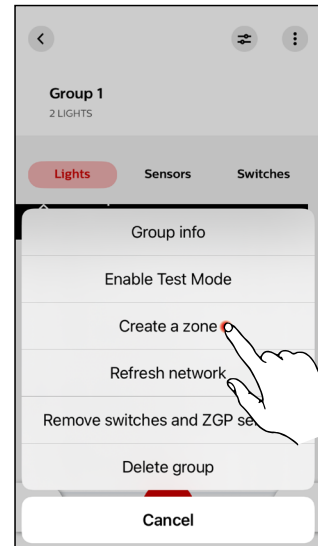
Access group settings

Tapping the group settings button in the top right-hand corner opens them.



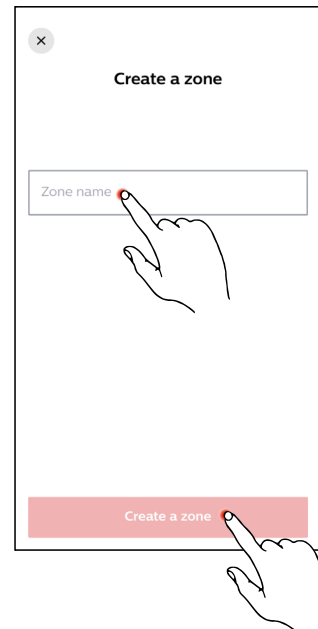
Group settings – Create a zone

By tapping the button “Create a zone”, a zone can be created. A group can contain several zones, these are used for further subdivision and structuring for optimum lighting control.



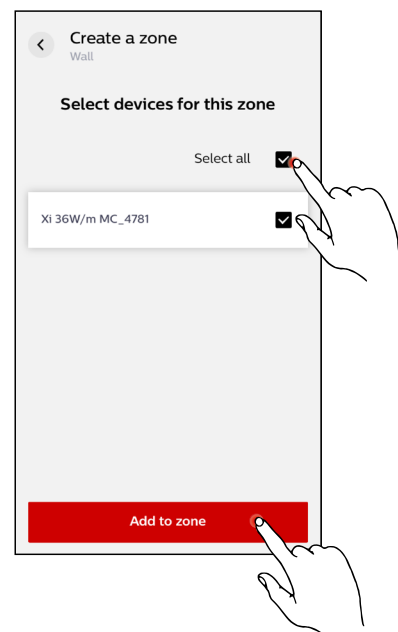
Create a zone

After the menu item “Create a zone” has been selected, the zone must be named. For this, the name of the zone must be entered in the text field. Afterwards, the entry must be confirmed by tapping the button “Create a zone”.



Select devices for this zone

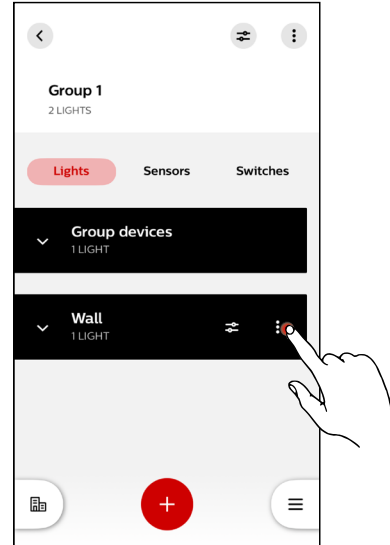
In the following menu, devices (here: lights) can be assigned to the zone. By tapping the box “Select all”, all devices are selected.



3.2.4.7 ZONE MENU - TEST MODE

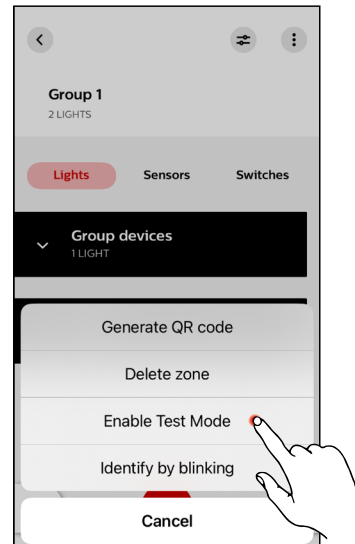
Zone settings

After a zone has been successfully created, it is indicated by a bar with a black background in the group menu. This contains the zone name and the number of devices stored in the zone. Tapping the group settings button in the top right-hand corner opens them.



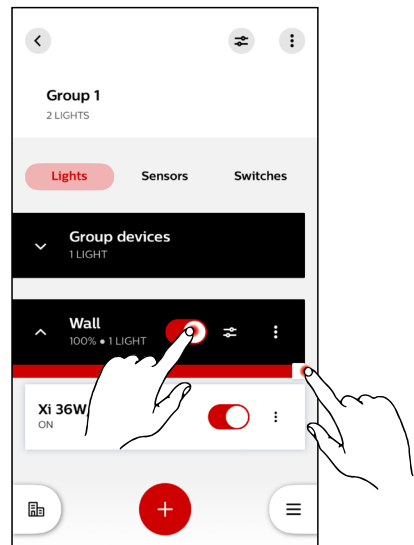
Zone Settings – Enable Test Mode

By tapping the button “Enable Test Mode”, the Test Mode can be activated or, if required, deactivated again afterwards.



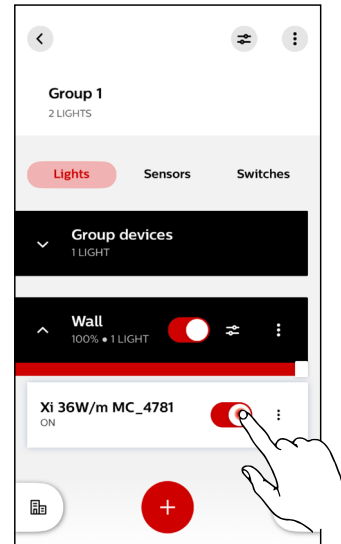
Zone Settings – Test Mode

In Test Mode, the zone can be activated or deactivated by pressing the button next to the zone name. In addition, the dimming level of all lights in the zone can be regulated using the slider below.



Zone Settings – Test Mode

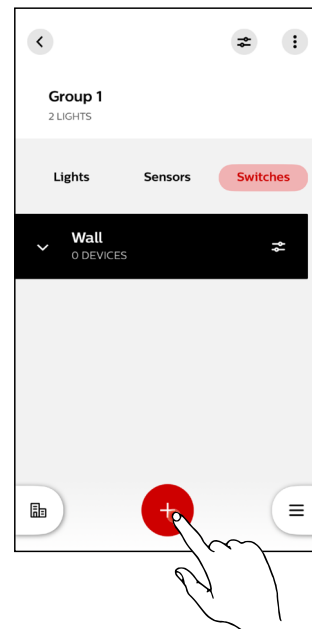
Furthermore, individual lights in the zone can be switched on or off individually. To do this, simply press the switch next to the selected light.



3.2.4.8 ADD DEVICES – SWITCHES

Add a new group device

By tapping the "+" button, new group devices can be added.

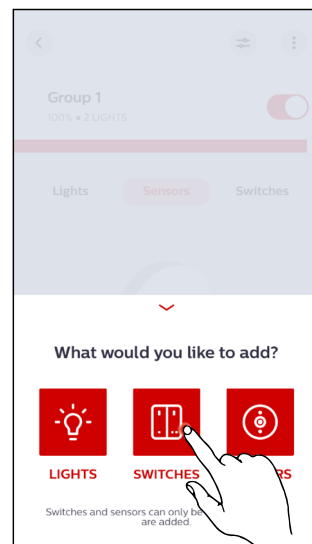


Group device selection

A new window opens for adding new group devices (here switches). Tapping the desired device adds it to the group.

Note:

Switches and sensors can only be added after lights are added to the group.

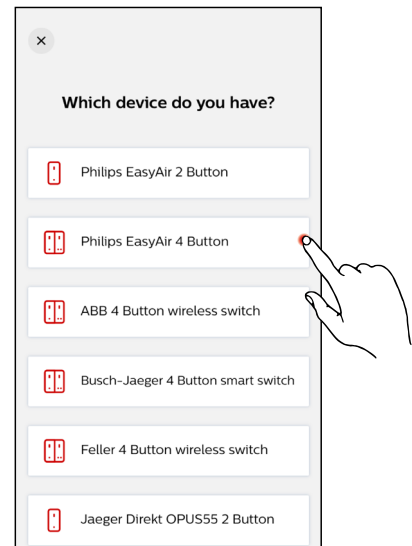


Switch model selection

Tapping on the desired switch model, it is selected.

Note:

The switch to be used is the Philips Easy Air 4 Button.

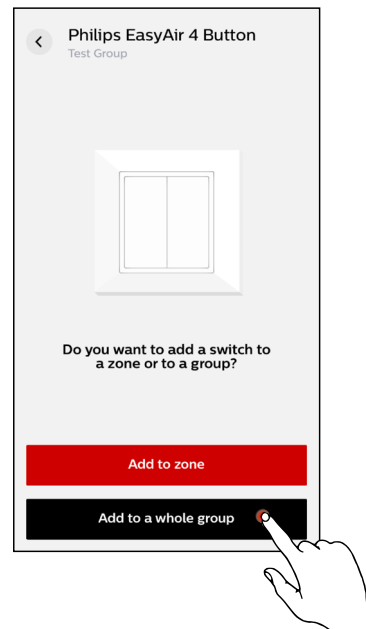


Search for switches

After the switch model has been selected, a new window appears. It can be selected whether the switch is to be added to a zone or a group.

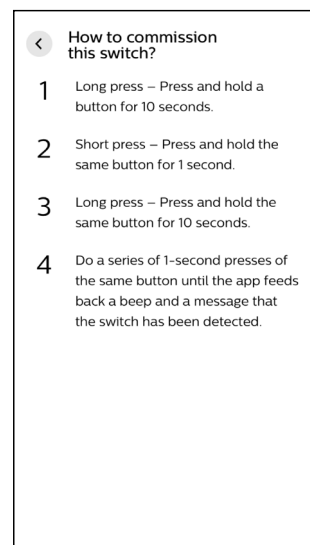
Note:

Adding a switch to a zone follows the same procedure as adding a switch to a group, but the zone must be selected first.



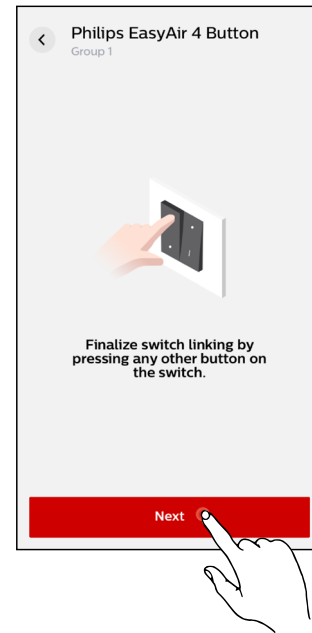
Switch commissioning

After adding the switch model to a group, the switch must be integrated with the help of the displayed operating instructions. As soon as the switch has been successfully detected, a notification appears in the app.



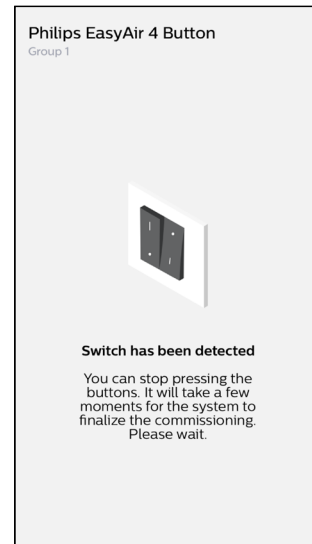
Finalise switch linking

By pressing the switch according to the manufacturer's information, the switch linking can be completed. The integration must then be confirmed by tapping the "Next" button.



Switch has been detected

As soon as the switch has been successfully detected, a confirmation is displayed in the app.

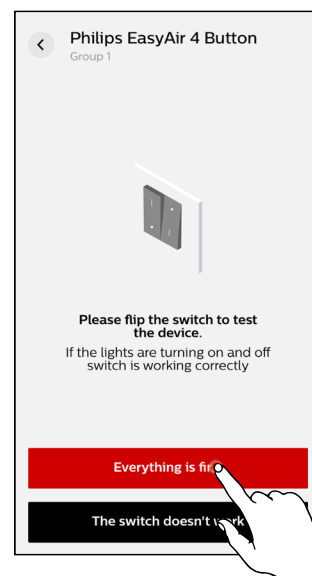


Switch function test

After the switch has been integrated into the group, its functionality must be checked. If the switch works correctly, the button "Everything is fine" must be tapped. If the switch does not work correctly, the button "My switch doesn't work" must be tapped. In this case, the previously performed steps must be carried out again.

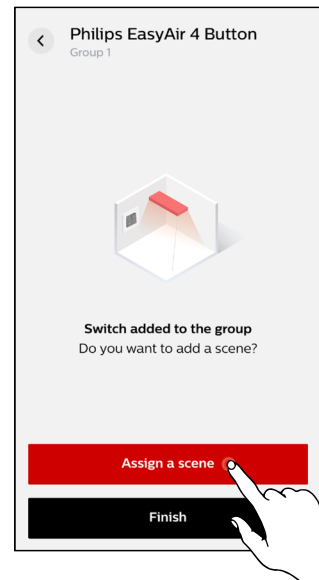
Correct button assignment:

- **top left:** short: on / long: dim up
- **bottom left:** short: off / long: dim down
- **top right:** no programming stored by the manufacturer
- **bottom right:** no programming stored by the manufacturer



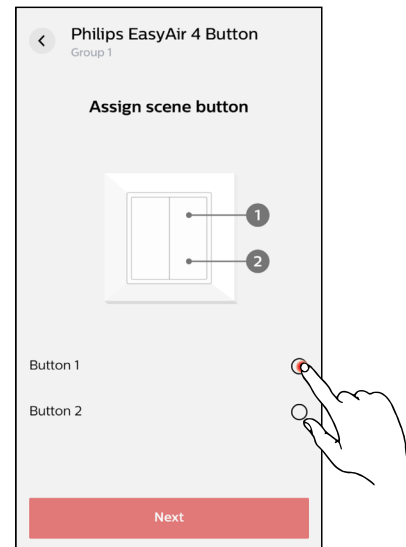
Assign a scene

After the 4 button has been successfully integrated, two scenes can be stored on it. To do this, the button "Assign a scene" must be tapped. Alternatively, without scene storing, the switch integration can be finalized by tapping the "Finish" button.



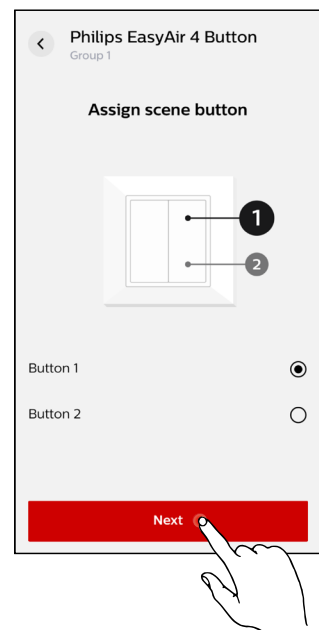
Assign scene button

To assign the scenes, a button that has not yet been defined must be selected by tapping on it. The right double rocker button (buttons 1 and 2) is available for selection.



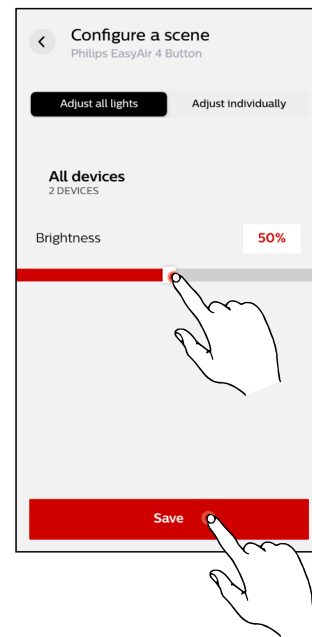
Confirmation of the switch assignment

The integration must then be confirmed by tapping the "Next" button.



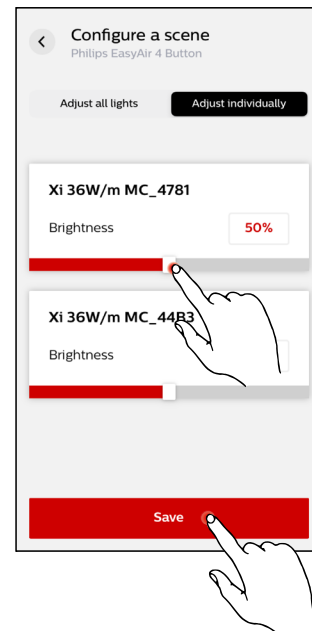
Configure a scene – Adjust all lights

After confirming the switch assignment, the configuration menu of the light group/zone opens. By default, the configuration menu opens in the “Adjust all lights” area. In this area, the brightness (in percent) can now be set by operating the slider. The setting can be saved by tapping the “Save” button.



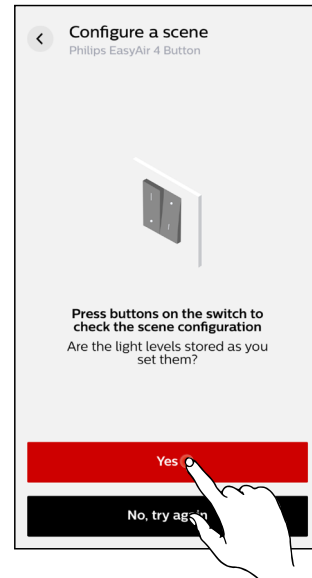
Configure a scene – Adjust individually

In addition, the “Adjust individually” area can be viewed in the configuration menu. In this area, the brightness (in percent) of individual lights can now be set by operating the slider. The setting can be saved by tapping the “Save” button.



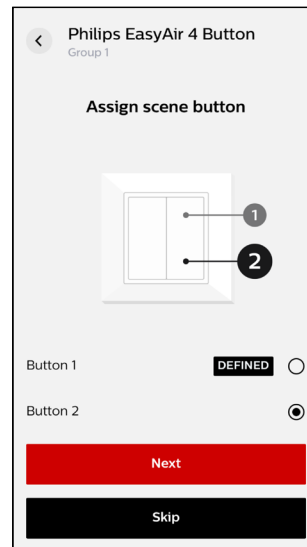
Scene function test

After the configuration of the scene has been completed, its functionality must be checked by means of a switch. If the switch works correctly, the button "Yes" must be tapped. If the switch does not work correctly, the button "No, try again" must be tapped. In this case, the previously performed steps must be carried out again.



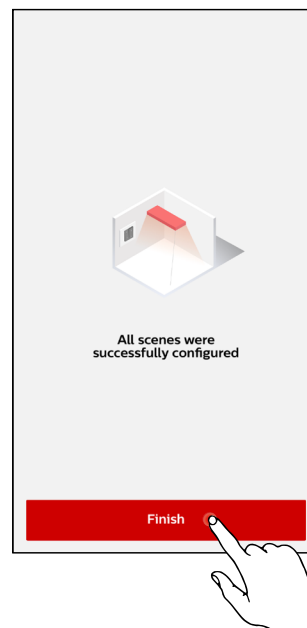
Assign scene button

After a button has been successfully assigned, it is marked with the annotation "DEFINED". The second button can then be assigned to another scene. The process here is identical to the process described before. The integration must then be confirmed by tapping the "Next" button. If the assignment of the second button is not desired, it can be skipped by tapping the "Skip" button.



Switch was added to the group

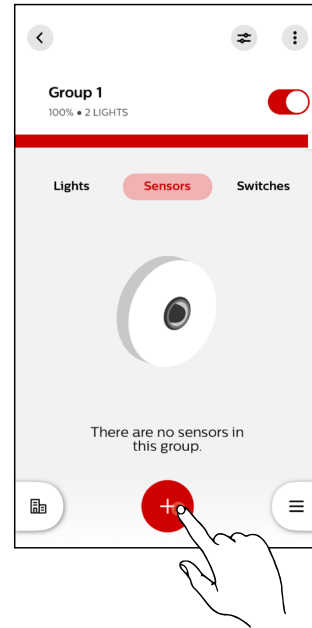
After the switch has been successfully added to the group, the process can be completed by tapping the "Finish" button.



3.2.4.9 ADD DEVICES – SENSOR

Add a new group device

By tapping the “+” button, new group devices can be added.

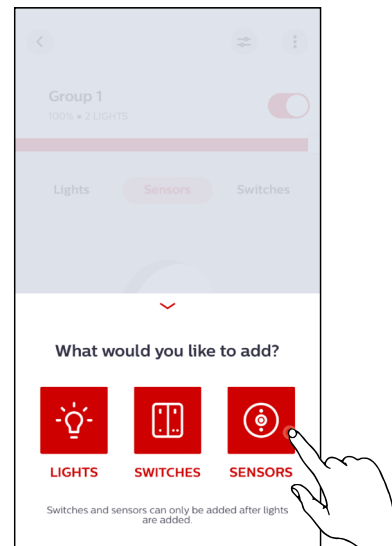


Group device selection

A new window opens for adding new group devices (here: sensors). Tapping the desired device adds it to the group.

Note:

Switches and sensors can only be added after lights are added to the group.

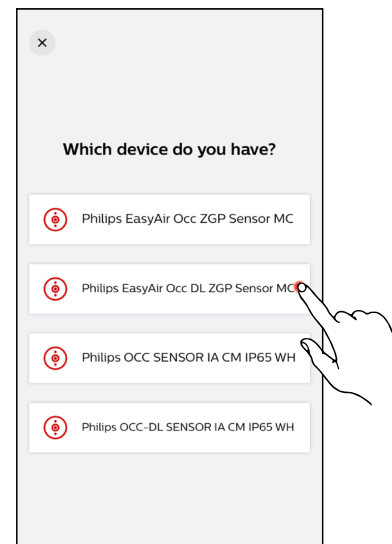


Sensor model selection

Tap and select the desired sensor model.

Note:

The LiveLink BW EasyAir OCCU-DL ZGP sensor offered by Trilux corresponds to the sensor selected on the right in the screenshot (Philips EasyAir Occ DL ZGP Sensor MC).

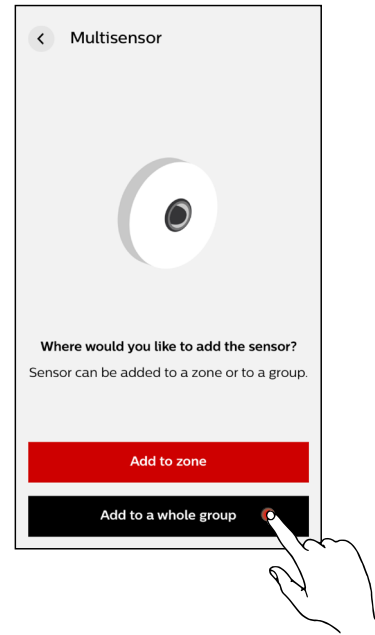


Add sensors

After the sensor model has been selected, a new window appears. It can be selected whether the sensor is to be added to a zone or a group.

Note:

Adding a sensors to a zone follows the same procedure as adding a sensors to a group, but the zone must be selected first.

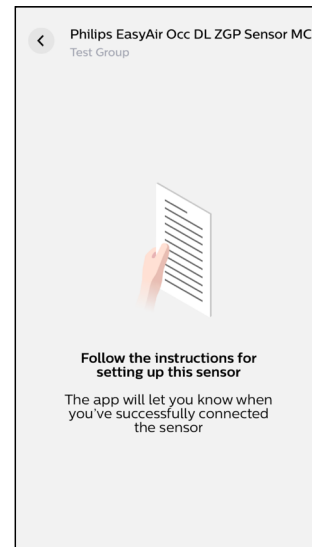


Sensor integration

After adding the sensor model to a group, the sensor must be integrated with the help of the displayed instructions. As soon as the sensor has been successfully connected, a notification appears in the app.

Note:

To commission, the button on the sensor must be pressed and hold for 5 seconds. If commissioning performed successfully the green LED will flash twice. The red LED flashes twice to indicate failed commissioning.

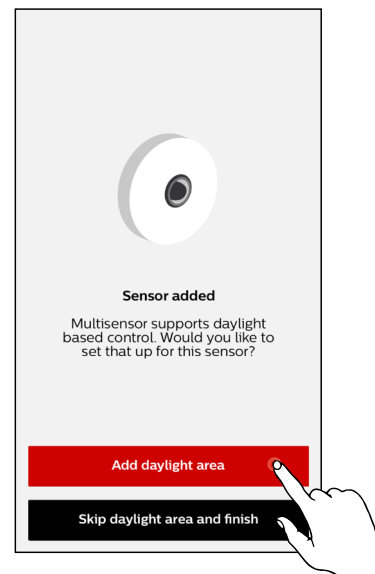


Add daylight area

After the successful integration of the sensor, a daylight area can be added. Furthermore, there is the option to skip daylight area and finish.

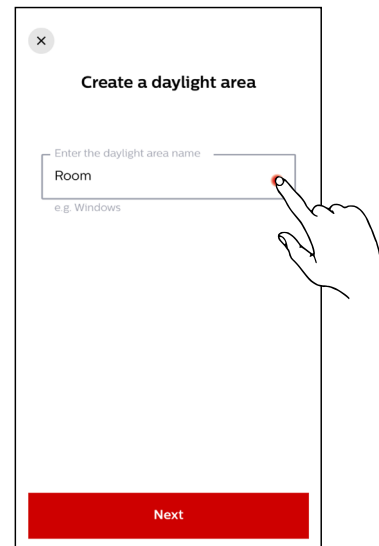
Note:

A daylight area includes a daylight-dependent control system. In this area, the sensor adjusts the light level to the natural light coming in from outside. This control generates a constant light level.



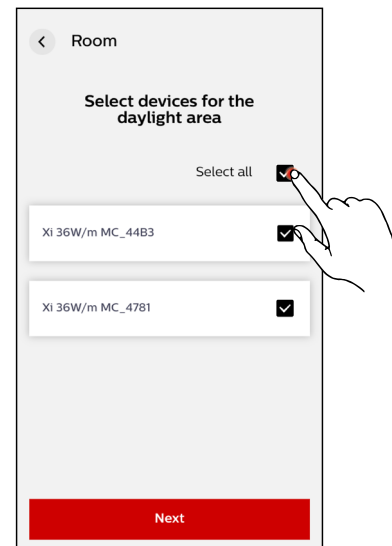
Creating a daylight area

To create a daylight area, first a name for it must be entered. Afterwards, the name must be confirmed by tapping the button "Next".



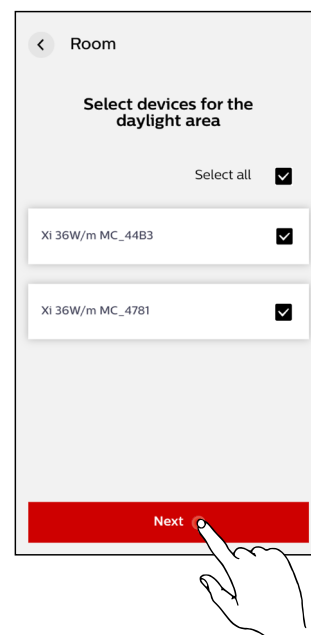
Assignment of selected lights to the sensor

In the following menu, lights that are to be controlled by the sensor with daylight control can be assigned to the sensor. By tapping the box "Select all", all lights that are assigned to the group are selected.



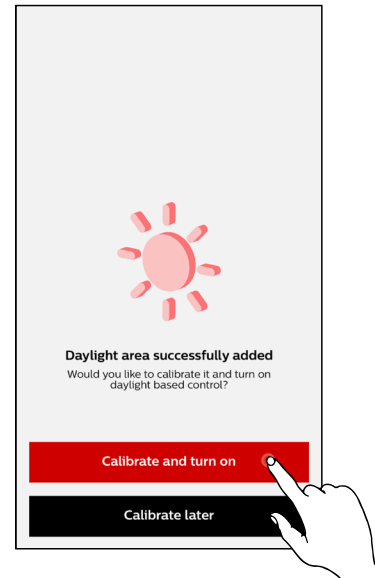
Confirming the assignment of selected lights to the sensor

The selection must then be confirmed by tapping the "Next" button.



Calibrate and turn on

After the lights have been added, the sensor can be calibrated and turned on by tapping the “Calibrate and turn on” button. Furthermore, there is the option to calibrate at a later time (“Calibrate later”).



Sensor calibration

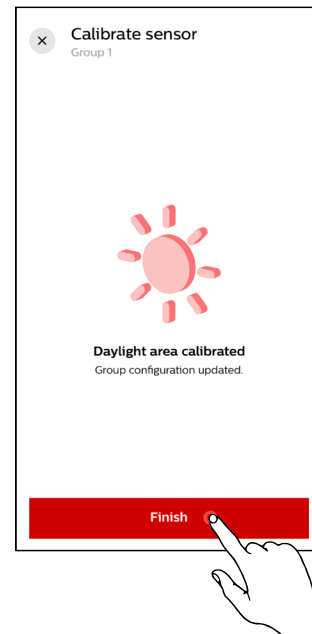
After tapping the option “Calibrate and turn on”, the sensor starts to calibrate itself. The successful calibration can then be completed by tapping the “Finish” button.

Note:

The calibration should be carried out in a room that is as dark as possible in order to achieve an optimal result. The duration is about 5–6 minutes. The system regulates to the set turn-on value. The sensor transmits the measured light value every two minutes during this time. Regulation only begins after the transmission of the second light value. The lights turn on and off during the process.

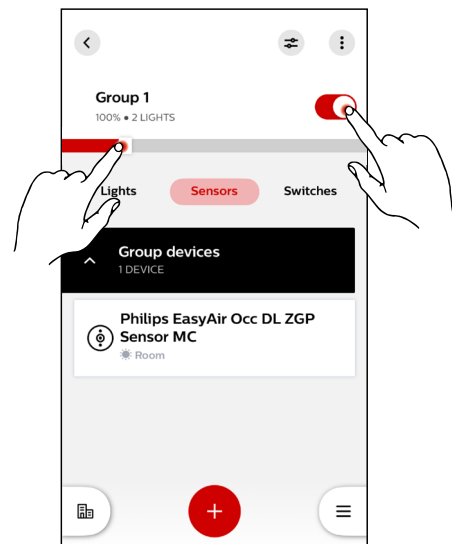
Set point adjustment:

- Place the luxmeter on the reference surface
- Enable Test Mode
- Dim the lighting to the desired lux value (and “remember”)
- Set the turn-on value to the dimmed value (see p. 31 Edit group configuration)
- Start calibration (duration approx. 5–6 minutes)
- Carry out sensor calibration in a darkened room



Group menu – Test Mode

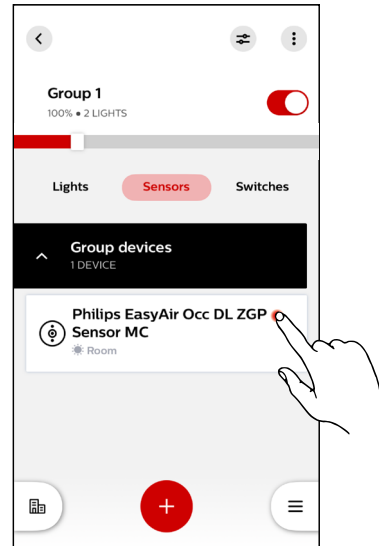
After adding sensor, the group menu opens again with Test Mode activated. In this mode, the group can be activated or deactivated by pressing the button next to the group name. In addition, the dimming level of all lights in the group can be regulated using the slider below.



3.2.4.10 REMOVE DAYLIGHT AREA

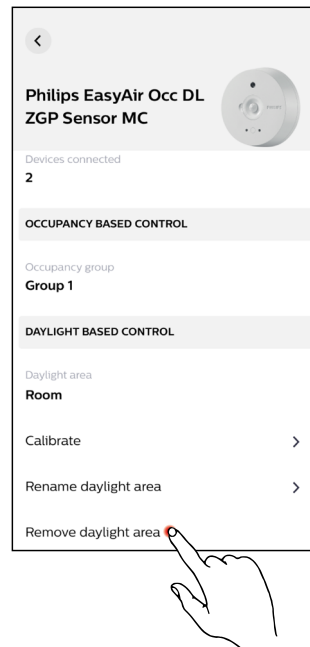
Access the sensor

In order to be able to remove the daylight area, the desired sensor in which the daylight area was created must first be selected. To do this, the sensor must first be selected from the sensor list in the overview menu.



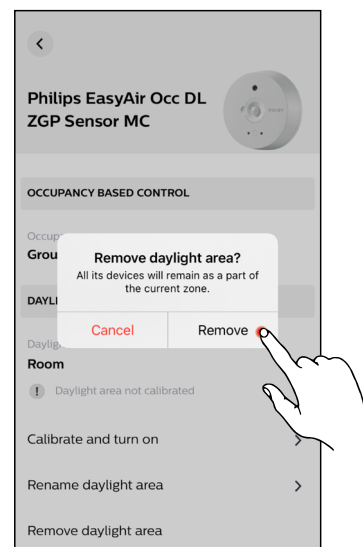
Remove daylight area

As soon as the desired sensor has been selected, its information menu opens. By tapping the button "Remove daylight area", this can be removed.



Confirm removal of the daylight area

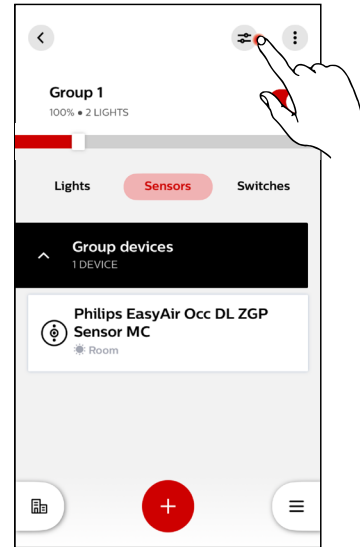
Tapping the "Remove" button confirms the removal of the daylight area.



3.2.4.11 CONFIGURATION MENU – GROUPS

Accessing the configuration menu – Groups

Tapping the button in the upper right corner in the group menu opens the group configuration menu.

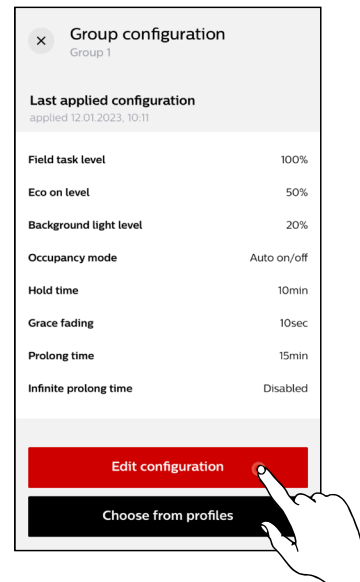


Group configuration

The group configuration menu shows the default configuration and contains the following information:

- Field task level
- Eco on level
- Background light level
- Occupancy mode
- Hold time
- Grace fading
- Prolong time
- Infinite prolong time

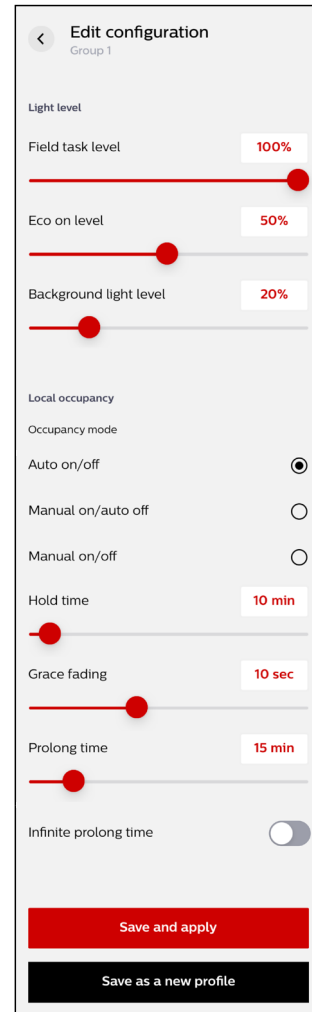
By tapping the button “Edit configuration”, the default configuration can be adjusted. Alternatively, the option “Choose from profiles” can be selected if a profile has already been saved. The profiles are stored on the commissioning device.



Edit group configuration

In the editing menu of the group configuration, the following areas can be adjusted:

- Light level
- Local occupancy



Light level

In the "Light level" area, the percentage value of the light level can be individually adjusted in the following areas by operating the slider:

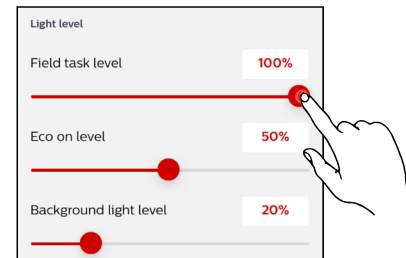
- Field task level
(Highest light level that the luminaire should emit)
- Eco on level
(Light level of the luminaire when it is switched on and to which the sensor calibration refers)
- Background light level
(basic light when no movement is detected)

Note:

To set the turn-on value, the desired lux value should be determined beforehand in the darkened room in test mode. To do this, the slider must be moved while the luxmeter measures the lux value live. For this purpose, the luxmeter should be placed on the table or on the reference surface. As soon as the luxmeter has reached the desired value, exactly this value must be set as the switch-on value. This value is used as the setpoint when the sensor is subsequently recalibrated.

See:

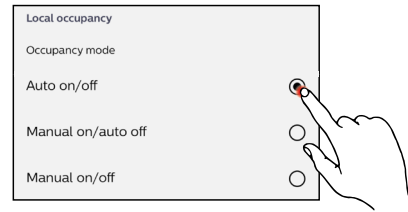
CALIBRATION OF THE LIGHT CONTROL – Calibrate sensor



Local occupancy

In the area of local motion detection, the motion control mode can be adjusted. The following options are available:

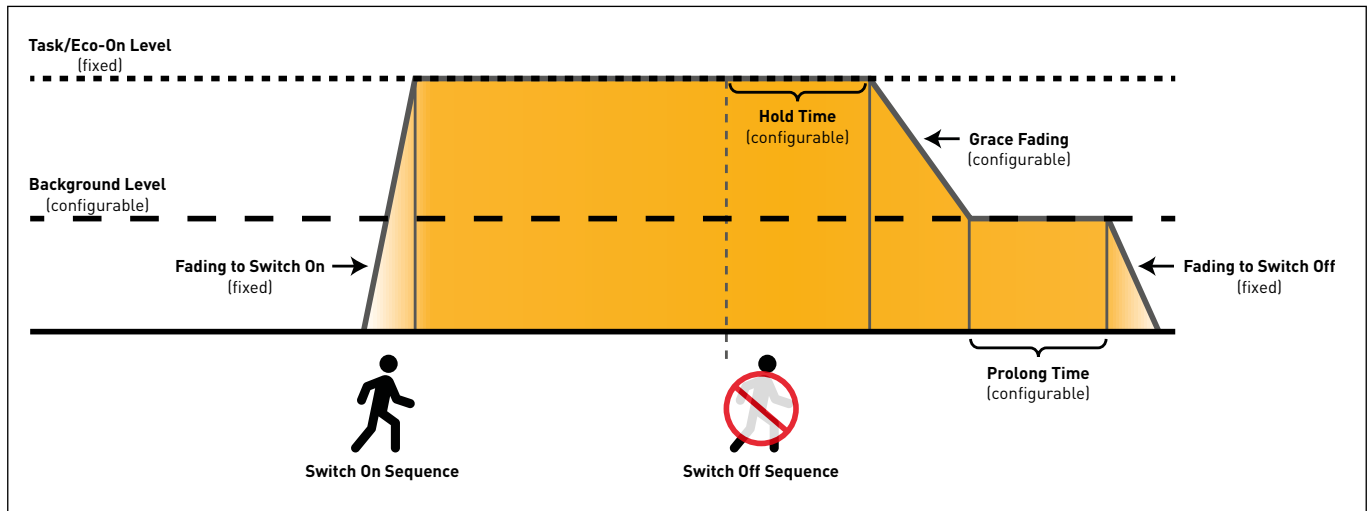
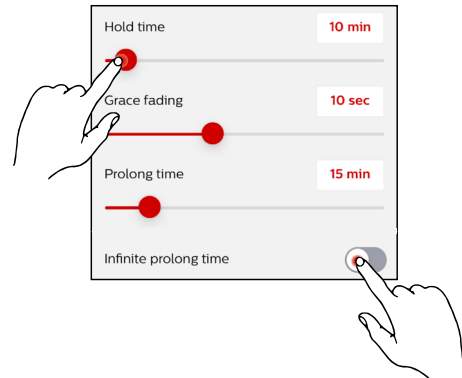
- Auto on/off
(Motion-dependent light control)
- Manual on/auto off
(Manual switch-on and motion-dependent switch-off)
- Manual on/off
(Manual light control)



Turn-off behaviour of the sensor

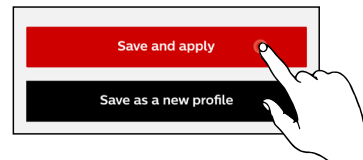
In the lower area of the local motion detection, the sensor switch-off behaviour can be set in the following areas by operating the sliders:

- Hold time
(Time span in which the lighting remains switched on after the last movement has been detected)
- Grace fading
(Transition of the light level to the basic light)
- Prolong time
(Time period in which the light level is in the basic light before it switches off completely)
- Infinite prolong time
(After the light level is lowered to the basic light, it remains in the basic light and does not switch off completely)



Save

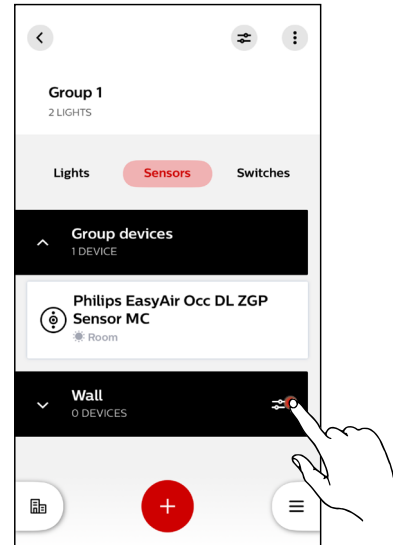
By tapping the "Save and apply" button, the settings made are saved and applied. Alternatively, the settings made can be saved as a new profile. The profiles are stored on the commissioning device.



3.2.4.12 CONFIGURATION MENU – ZONES

Accessing the configuration menu – Zones

Tapping the button to the right of the zone name in the group menu opens the zone configuration menu.

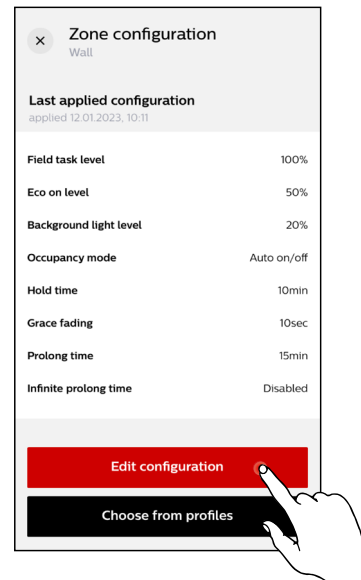


Zone configuration

The zone configuration menu shows the default configuration and contains the following information:

- Field task level
- Eco on level
- Background light level
- Occupancy mode
- Hold time
- Grace fading
- Prolong time
- Infinite prolong time

By tapping the button “Edit configuration”, the default configuration can be adjusted. Alternatively, the option “Choose from profiles” can be selected if a profile has already been saved.



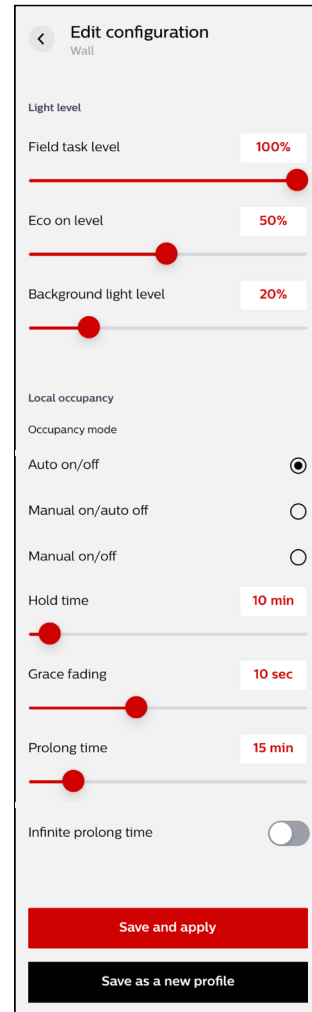
Edit zone configuration

In the editing menu of the zone configuration, the following areas can be adjusted:

- Light level
- Local occupancy

Note:

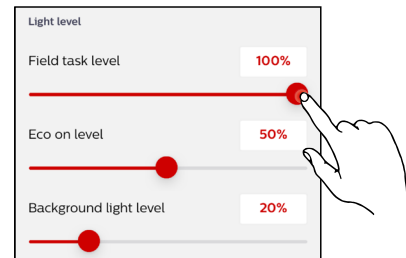
The configuration of the zones follows the same procedure as the configuration of the groups. (see group configuration)



Light level

In the "Light level" area, the percentage value of the light level can be individually adjusted in the following areas by operating the slider:

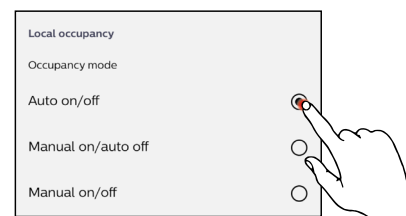
- Field task level
(Highest light level that the luminaire should emit)
- Eco on level
(Light level of the light when it is switched on)
- Background light level
(basic light when no movement is detected)



Local occupancy

In the area of local motion detection, the motion control mode can be adjusted. The following options are available:

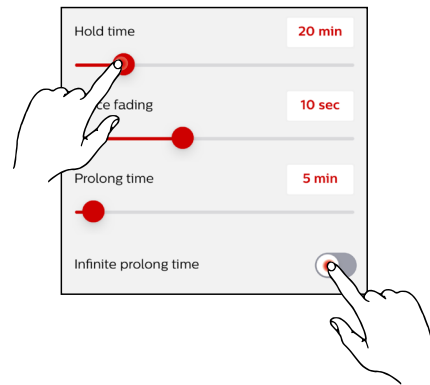
- Auto on/off
(Motion-dependent light control)
- Manual on/auto off
(Manual light switch-on, automatic light switch-off)
- Manual on/off
(Manual light control)



Turn-off behaviour of the sensor

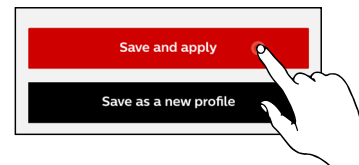
In the lower area of the local motion detection, the sensor behaviour can be set in the following areas by operating the sliders:

- Hold time
(time period in which the light level is kept at the level it is at when motion is detected)
- Grace fading
(Transition of the light level to the basic light)
- Prolong time
(Time period in which the light level is in the basic light before it switches off completely)
- Infinite prolong time
(After the light level is lowered to the basic light, it remains in the basic light and does not switch off completely)



Save

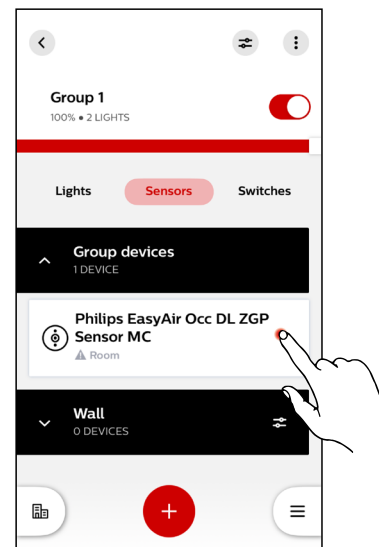
By tapping the “Save and apply” button, the settings made are saved and applied. Alternatively, the settings made can be saved as a new profile.



3.2.4.13 CALIBRATION OF LIGHT CONTROL

Sensor calibration

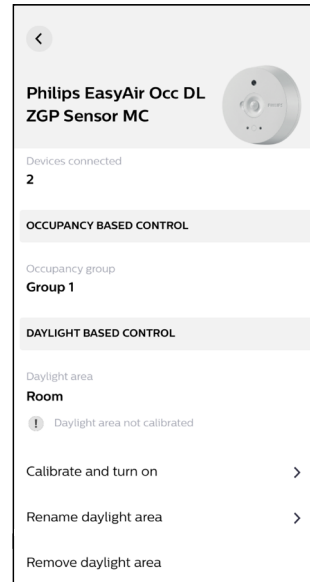
Tapping on the button of the desired sensor opens its calibration menu.



Calibration menu – Sensor

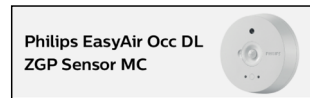
The calibration menu of the sensor lists the following information and setting options:

- Number of connected devices
- Occupancy based control
- Daylight based control
- Calibrate and turn on
- Rename daylight area
- Remove daylight area



Sensor name

In the upper area of the calibration menu, the complete sensor name and an image of the respective sensor are displayed.



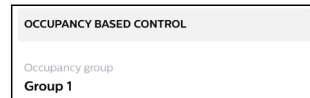
Number of connected devices

The number of lights connected to the sensor is displayed in the “Devices connected” area.



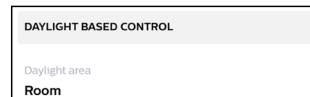
Occupancy based control

In the “Occupancy based control” area, the name of the motion-based controlled presence group is displayed.



Daylight based control

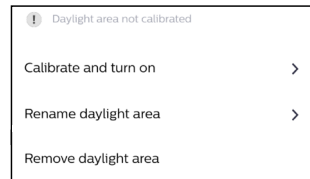
The name of the daylight area is displayed in the “Daylight based control” area.



Daylight area settings

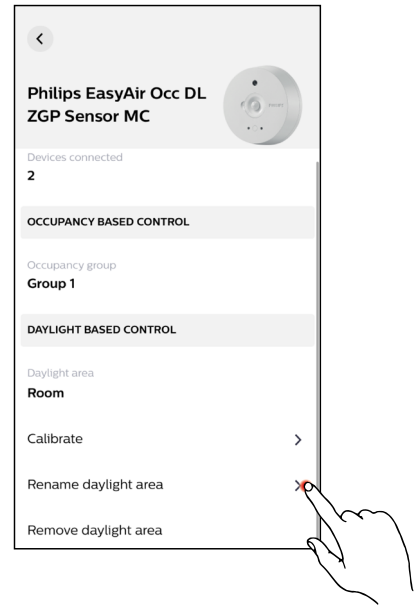
If the daylight area has not yet been calibrated, the information “Daylight area not calibrated” appears. In addition, the following settings can be made:

- Calibrate and turn on
- Rename daylight area
- Remove daylight area



Calibrate and turn on

By tapping the setting option "Calibrate and turn on", the sensor can be calibrated and then switched on.

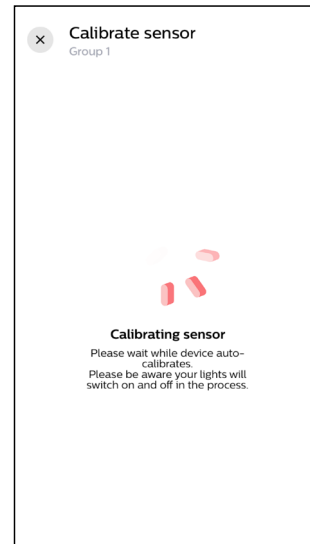


Calibrate sensor

As soon as the setting option "Calibrate and turn on" has been selected, an automatic calibration starts.

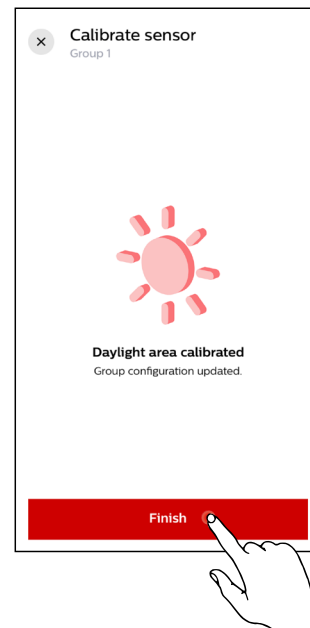
Note:

The calibration should be carried out in a room that is as dark as possible in order to achieve an optimal result. The duration is about 5–6 minutes. The system regulates to the set turn-on value. The sensor transmits the measured light value every two minutes during this time. Regulation only begins after the transmission of the second light value. The lights turn on and off during the process.



Complete sensor calibration

After successful auto-calibration of the sensor, the information "Daylight area calibrated" appears. The process can be completed by tapping the "Finish" button.



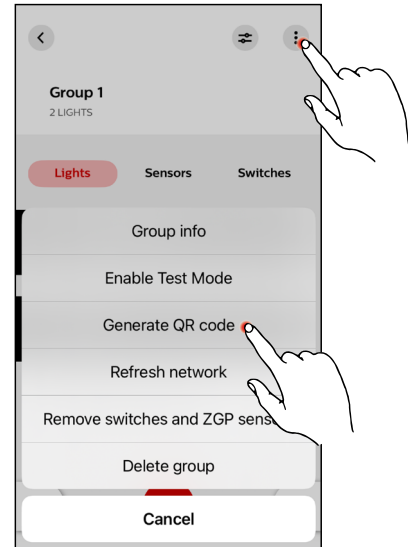
3.2.4.14 CREATING PROJECT QR CODE

Generate QR code

Tapping the settings menu opens an overview of the setting options. To generate a QR code, tap the #“QR Code generieren” button.

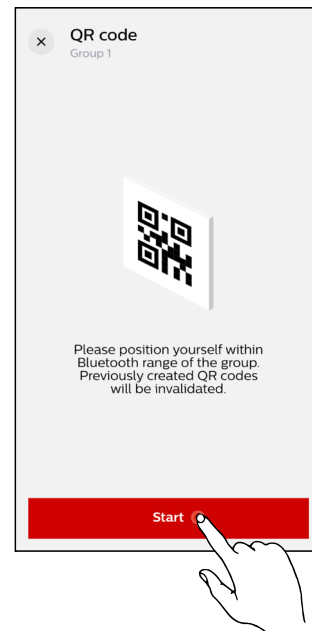
Note:

The QR code contains all the project settings that have been made. These can be called up with the Control App and are used exclusively for control by the user. Editing the setting is only possible in the Install App. The QR code is not updated automatically by the app, so the QR code must be regenerated manually after each change.



QR code

After tapping the “Create QR code” button, a screen opens with instructions on how to generate a QR code. The generation of the QR code is started by tapping the “Start” button.



Share QR code

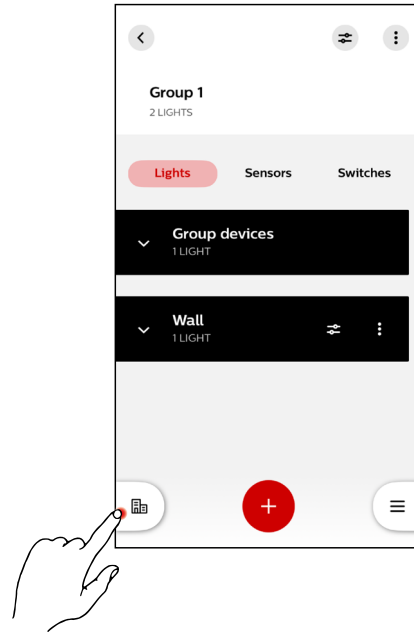
As soon as the generation of the QR code has been completed, it can be shared by tapping the “Share” button.



3.2.4.15 PROJECT MENU

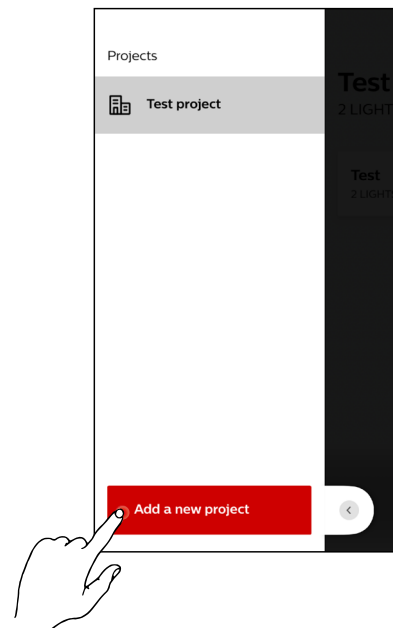
Opening the project menu

Tapping the project menu button opens the project menu.



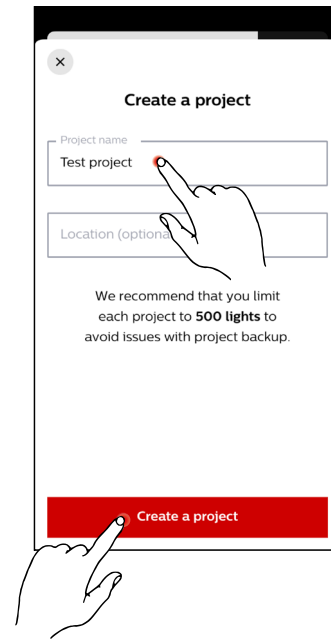
Project overview

All created projects are displayed in this area. In addition, new projects can be created by tapping the "Add a new project" button.



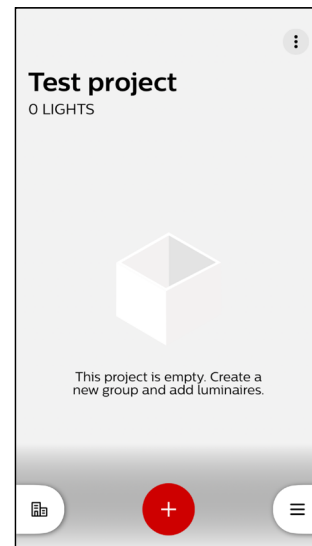
Create a project

To create a new project, first enter a project name. Optionally, a location can be added afterwards. After naming, the project can be created by tapping the "Create a project" button.



New project

As soon as the new project has been created, it opens. Groups and zones can then be created and devices added.



Settings menu – Project

Tapping the settings menu button opens the project settings menu. The following selections are available:

- Edit project (project data can be edited or deleted)
- Done (cancel operation)



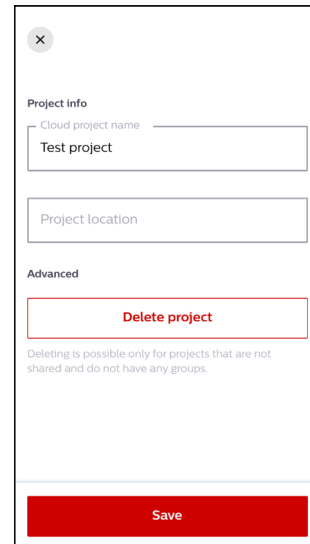
Edit project data

Selecting the menu item “Edit project” in the settings menu takes you to the project information. The name of the project and the project location can be changed here. In addition, the project can be deleted.

Note:

The project can only be deleted if it do not have any groups.

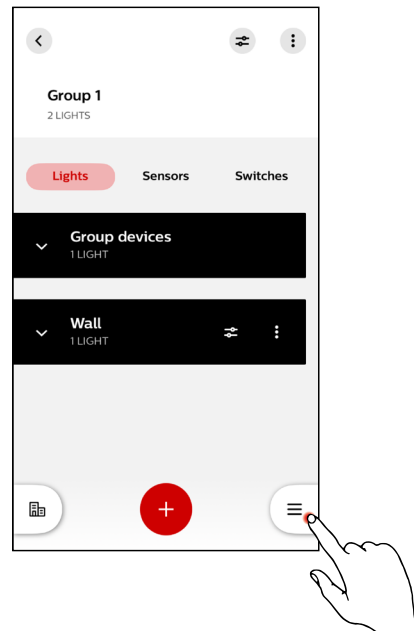
Existing projects can be made available to other users through a project backup (see p. 44).



3.2.4.16 APP MENU

Opening the app menu

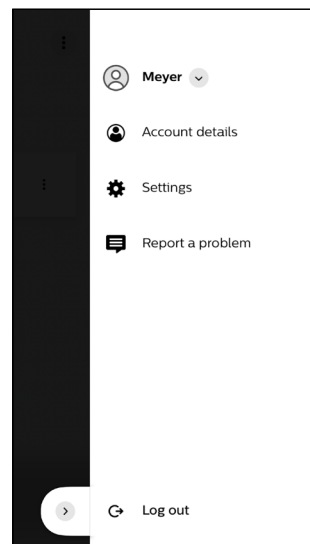
Tapping the app menu button opens the app menu.



App menu

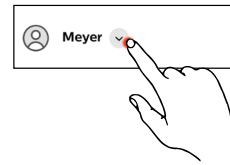
The following options can be managed in the app menu:

- Account
- Account details
- Settings
- Report a problem



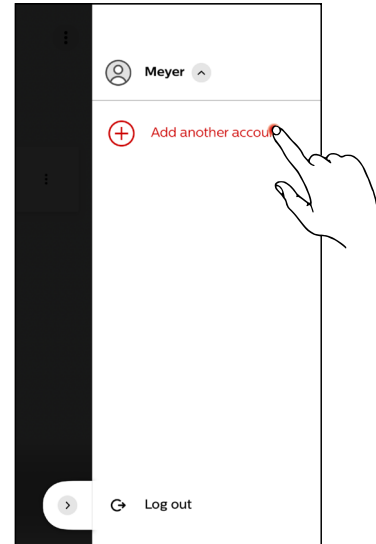
Account

Tapping the "Profile" option opens a list of the user profiles already created.



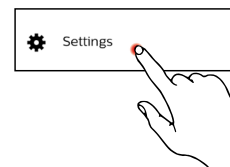
Add another account

In the list of already existing user profiles, further user accounts can be added by tapping the button "Add another account", with which settings can be made or the profiles or projects can be accessed.



Settings

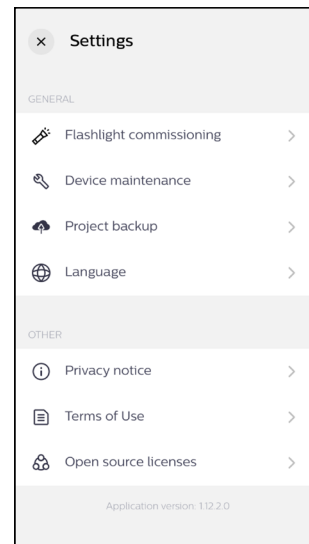
Tapping the "Settings" option opens the settings.



Manage settings

In the app menu, the following settings and permissions can be managed in the "Settings" area:

- Flashlight commissioning
- Device maintenance
- Project backup
- Language
- Privacy notice
- Terms of Use
- Open source licenses



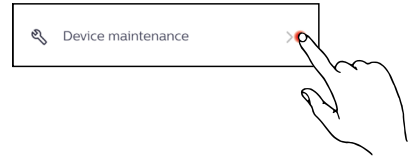
Flashlight commissioning

Flashlight commissioning is not supported by the sensors of the Live-Link Basic Wireless system.



Device maintenance

After a successful hardware reset, the devices that are in safe mode can be reset in the "Device maintenance" area.

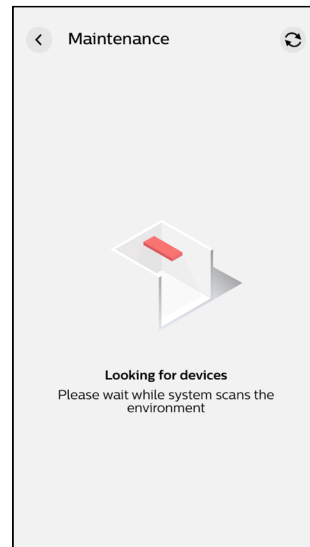


See:

2.4 RESET

Maintenance

As soon as the option "Device maintenance" has been tapped, a device search run for maintenance begins. This search looks for devices that are in safe mode.

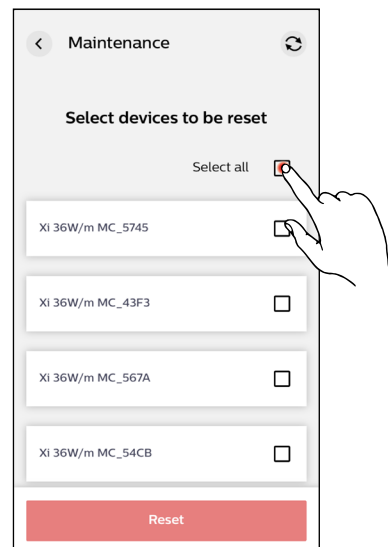


Resetting the devices in safe mode

After a successful search, all devices found that are in safe mode are displayed. Now the devices can either be selected individually or all at the same time by tapping the button "Select All". Tapping the "Reset" button resets the marked devices.

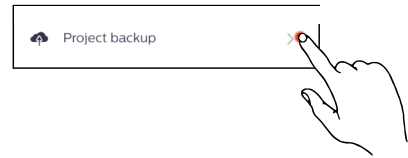
Note:

After a successful reset, the devices are no longer found in the maintenance search. They are now available again as normal devices and can be assigned to new groups.



Project backup

In the "Project backup" area, a link can be established with the system cloud.

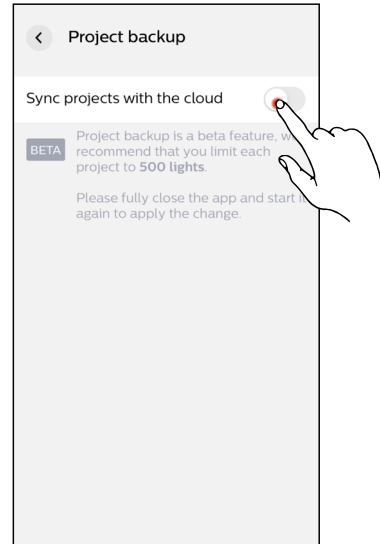


Synchronisation with the Cloud

After selecting the option "Project backup", synchronisation with the cloud can be started by pressing the button. This is used to transfer the saved settings to the cloud, which means that anyone with a project authorisation has access to the current status of the project. A successful synchronisation is confirmed by a notification.

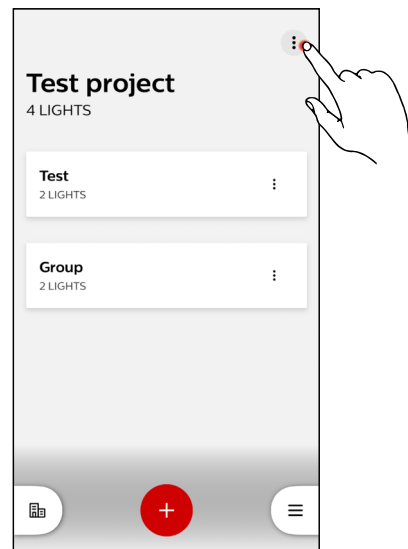
Note:

The synchronisation is done through the e-mail address of the account. The e-mail address can be used several times, the account name only once. When deleting or adding devices to a group, the project must always be synchronised with the cloud. This synchronisation must take place after each change!



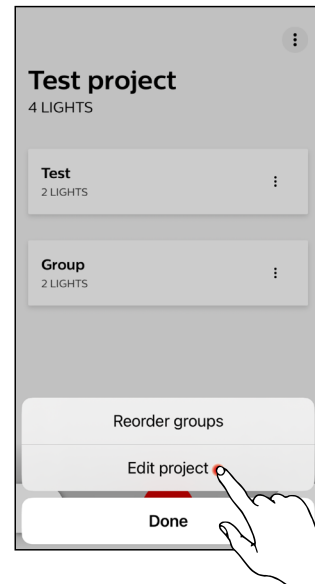
Load Project Backup

After the project backup has been activated, the app must be closed once. The settings made are then automatically saved and uploaded as a project backup. When you relaunch the app, the screen on the right opens. Tapping the settings menu opens an overview of the setting options.



Edit Project Backup

By tapping the "Edit" button in the settings menu, the project-specific settings can be edited.

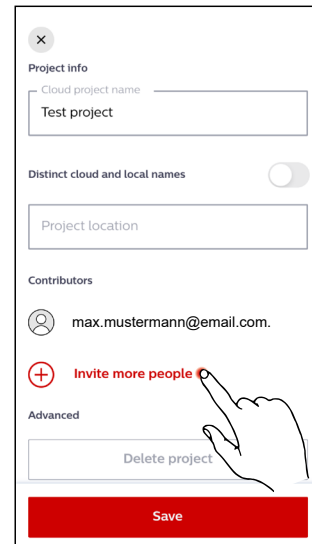


Edit project settings

The following settings can be made in the project settings:

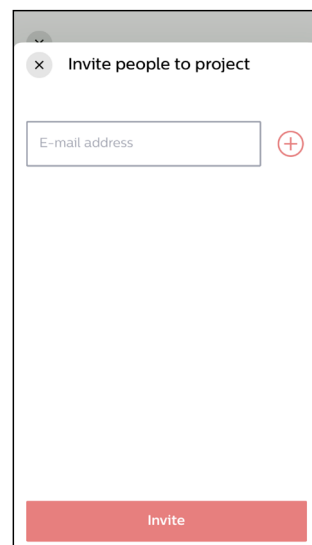
- "Cloud project name" (edit)
- "Distinct cloud and local names" (activate or deactivate)
- Project location (add)
- "Contributors" (select or invite other contributors)
- "Advanced (Delete project)"

By tapping the option "Invite more people", further users can be added to the project.



"Invite people to project"

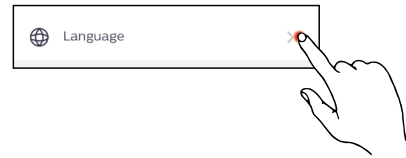
To add further users to the project, the respective e-mail addresses must be entered. The entry must then be completed by pressing the adjacent "+". The integration must then be confirmed by tapping the "Invite" button. All participants added to the project can access and manage the project.



Language

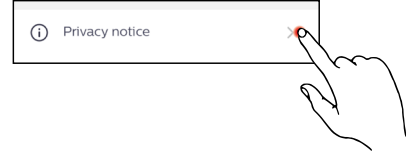
The language of the app can be set in the “Language” area. The following languages are available:

- German
- English
- French



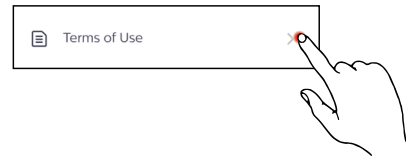
Privacy notice

The privacy policy can be viewed in the “Privacy notice” section.



Terms of Use

The terms of use can be viewed in the “Terms of Use” section.



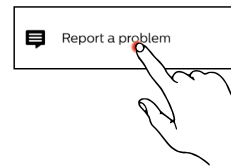
Open source licenses

The open source licenses can be viewed in the “Open source licenses” section.



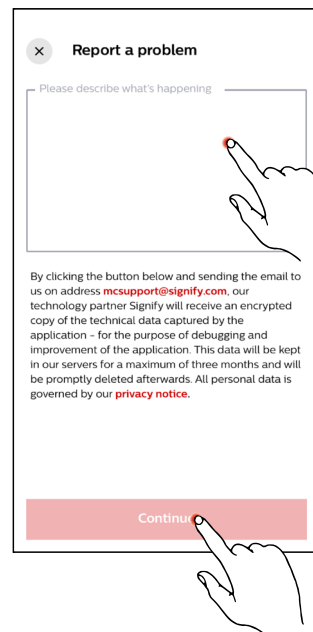
Report a problem

Tapping the option “Report a problem” opens a window in which errors can be detailed.



Reporting a problem

After selecting the option “Report a problem”, a comment field appears in which the problem is to be described in detail. The error message is confirmed by tapping the “Continue” button and forwarded to the support team by e-mail.



3.3 APP USE – LIVELINK BASIC WIRELESS CONTROL

3.3.1 OVERVIEW

The LiveLink Basic Wireless Control App can be used to control the previously created group or zone. It is used to regulate the brightness and to call up the scenes. In addition, the group can be switched on or off. A project QR code is required to access the lighting.

Note:

Before starting the app, make sure that there is an internet connection in order to be able to call up the project settings using the project QR code. Furthermore, Bluetooth should be activated.

Group / zone name
Name of the selected group or zone.

Scenes
Listing of all created scenes of the group or zone. Tapping the respective scene calls it up.

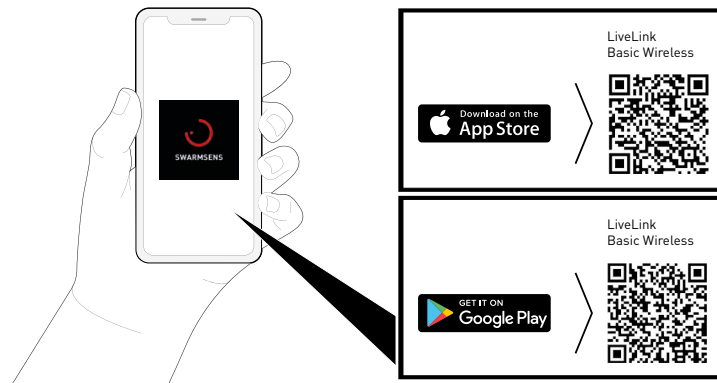
Settings menu

- Rename group
- Change language
- About app

Power Button
In this area, the group can be switched on or off.

Brightness
The brightness of the group can be regulated with the help of the slider.

3.3.2 QR CODE



3.3.3 LEGEND ICONS



Group switched on



Group switched off



Switching the flash on or off



Settings menu



Close



Back to the previous screen



Refresh

3.3.4 APPLICATION

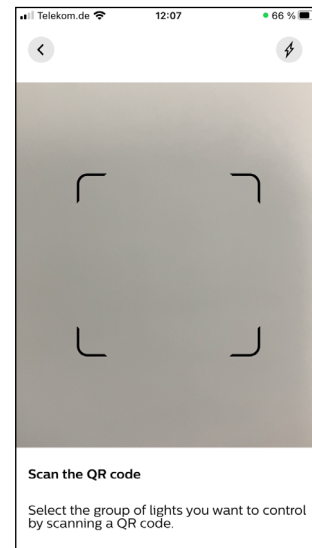
Launching the "LiveLink Basic Wireless Control" app

Tapping the app symbol opens the "LiveLink Basic Wireless Control" app.



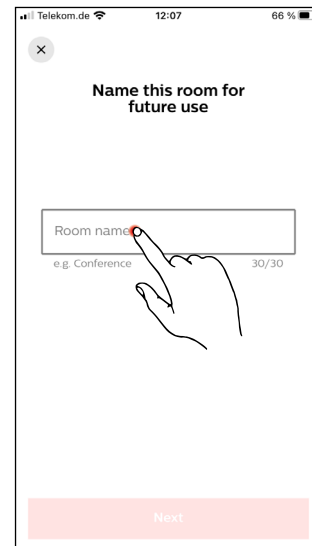
Scan QR code

After opening the app, a scan screen appears where you can scan the QR code previously created in the "LiveLink Basic Wireless Install" app. By scanning the QR code, the respective group or zone of lights can be selected for control.



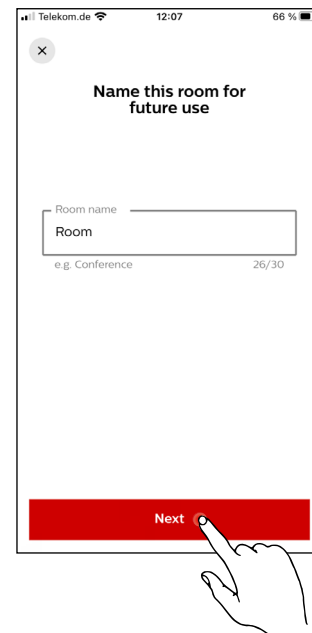
Room naming

After the QR code has been scanned, the room must be named for future use.



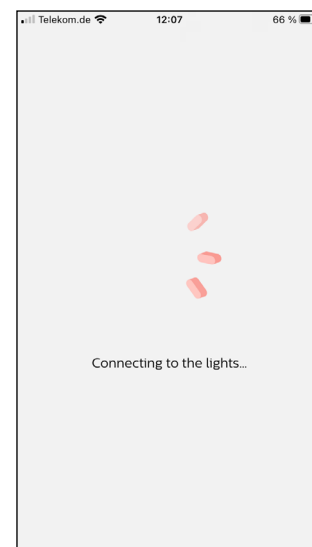
Confirm room naming

After entering the room name, the name entered must be confirmed by tapping the "Next" button.



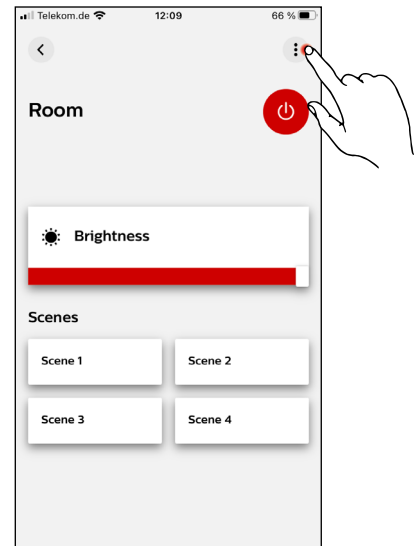
Connecting to lights

After confirming the room name, a connection to the lights is established.



Control menu

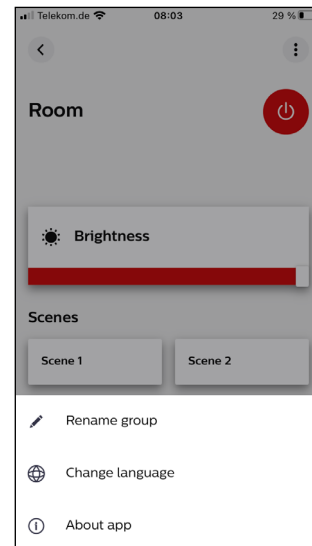
As soon as the lights are connected, the control menu opens. In this menu, the user can switch the group or zone on or off, dim it or call up the configured scenes. Tapping the settings menu button opens the settings.



Settings menu

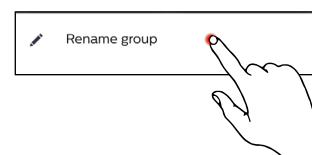
The settings menu offers the following options:

- Rename group
- Change language
- About app



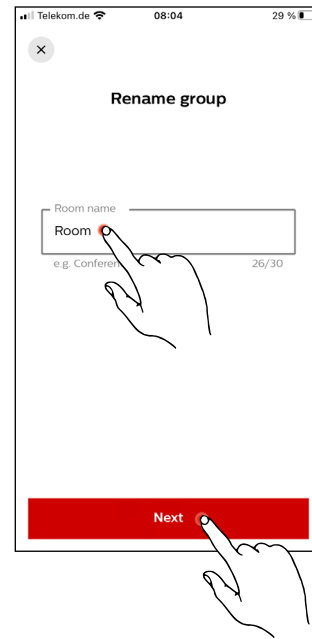
Rename group

By tapping the option "Rename group", the group can be renamed.



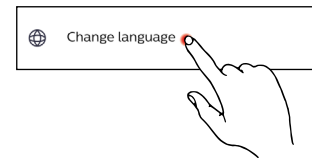
Group renaming

After the option "Rename group" has been selected, the room name can then be changed in the text field provided. The changed Room name then can be confirmed by tapping the "Next" button.



Change language

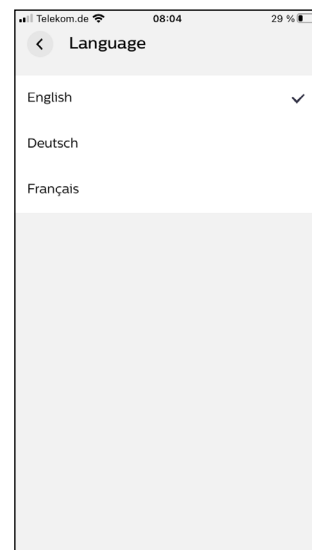
By tapping the option "Change language", the language can be changed.



Language change

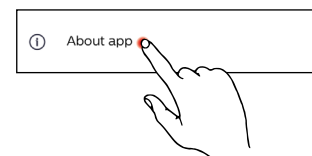
After the option "Change language" has been selected, the language can be changed. The following options are available:

- English
- German
- French



About app

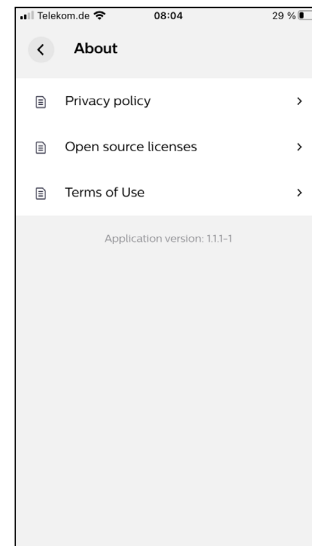
By tapping on the option "About app", further information about the app can be viewed.



About app

After selecting the option "About app", the following documents can be viewed:

- Privacy policy
- Open source licenses
- Terms of Use



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