



**TRILUX**  
SIMPLIFY YOUR LIGHT.

**LIVELINK**

**SWARMSSENS**



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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 SwarmSens 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 SwarmSens is a simple light management system that allows radio-controlled luminaires (identified by "+DMM" or "+DMR") to be networked and controlled in a mesh wireless network.

The LiveLink SwarmSens system offers the option of manual configuration directly on the luminaire or configuration via the SwarmSens app (for iOS or Android).

LiveLink SwarmSens enables configuration of luminaire groups, sen-

sor functions, basic light, cluster function and push-buttons.

The groups can be individually divided via app or directly on the luminaire. They consist of at least one sensor luminaire and the associated receiver luminaires. Furthermore, a wireless push-button can be added to the group, allowing manual or motion-dependent control.

### 1.3 SYSTEM OVERVIEW

TRILUX light management LiveLink SwarmSens is a simple light management system that allows radio-controlled luminaires (identified by "+DMM" or "+DMR") to be networked and controlled in a mesh wireless network.

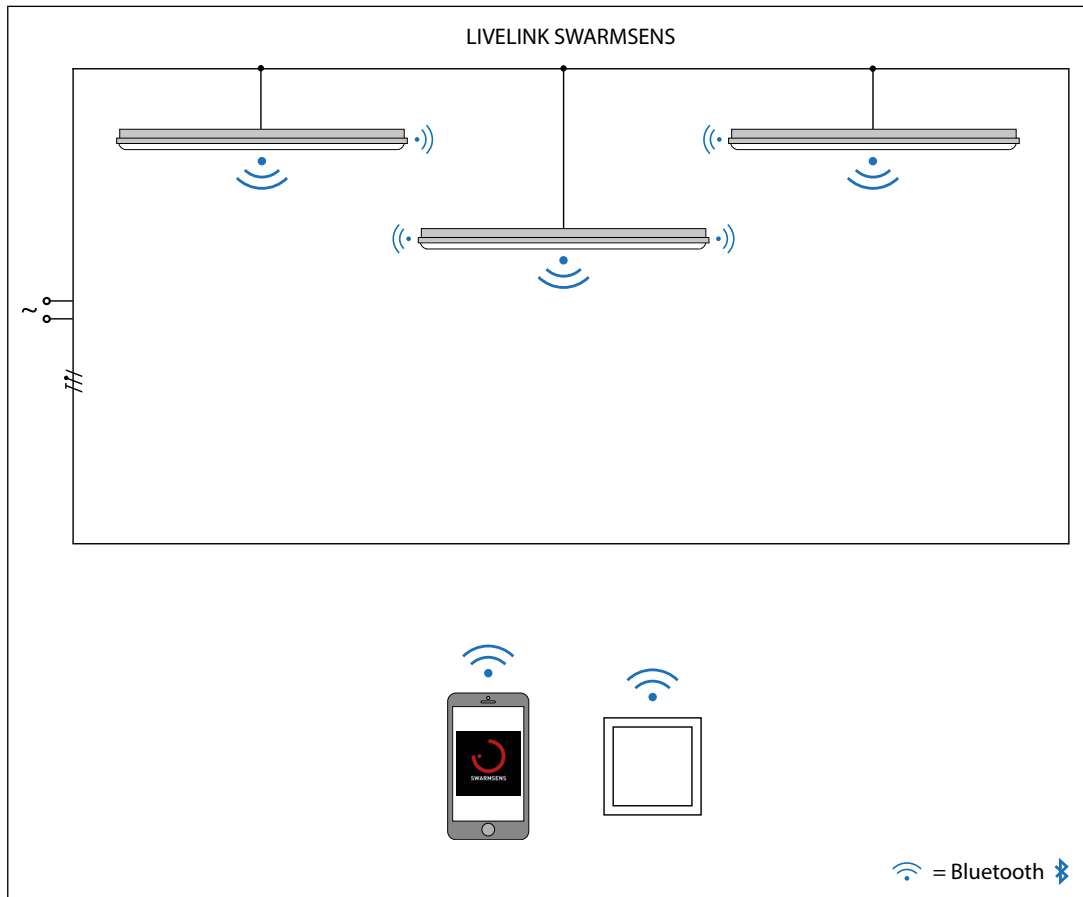
The radio luminaires require a power supply to establish a mesh network. The configuration is possible via app or via the DIP switches. Manual configuration on the DIP switches can be performed before installing the luminaire and thus before voltage connection.

To create a network, at least one sensor luminaire ("DMM") and one receiver luminaire ("DMR") are required. These are networked ei-

ther via a DIP switch on the respective luminaires or via the LiveLink SwarmSens app. In addition, a push-button can be integrated for manual control. Up to 4096 devices can be integrated in a LiveLink SwarmSens network.

The manual settings already made can be subsequently customised in the LiveLink SwarmSens app.

If settings are to be made via app, a Bluetooth-enabled end device is required.



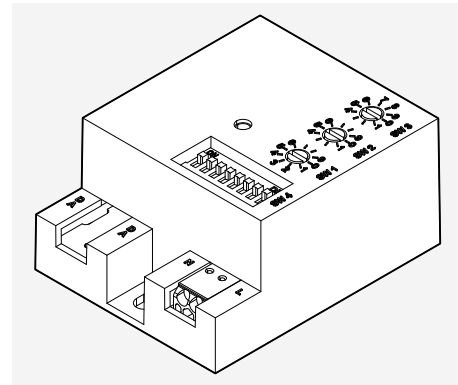
# 2 SYSTEM COMPONENTS

## 2.1 CONTROLLER

The controller is available in a master and receiver variant. An HF sensor with the following detection range\* is integrated in the master variant of the controller: For moving persons / vehicles: approx. 5 m x 4 m at 2 m mounting height; approx. 7.5 m x 6 m at 3 m mounting height; approx. 10 m x 8 m at 4 m mounting height.

\*Please note that the detection range is always dependent on the environment as well as the installation of the controller in the luminaire.

Swarmsens luminaires are supplied with integrated controller. Master luminaires can be recognised by the designation "+DMM", receiver luminaires by the designation "+DMR". Technical data such as IP protection and impact resistance are then determined in each case by the luminaire.



LiveLink SwarmSens Master Controller

### Technical data

Input voltage	100 – 240 V AC/DC
Rated frequency	0/50 – 60 Hz
Ambient temperature	-20°C–65°C
Radio range	max. 20 m

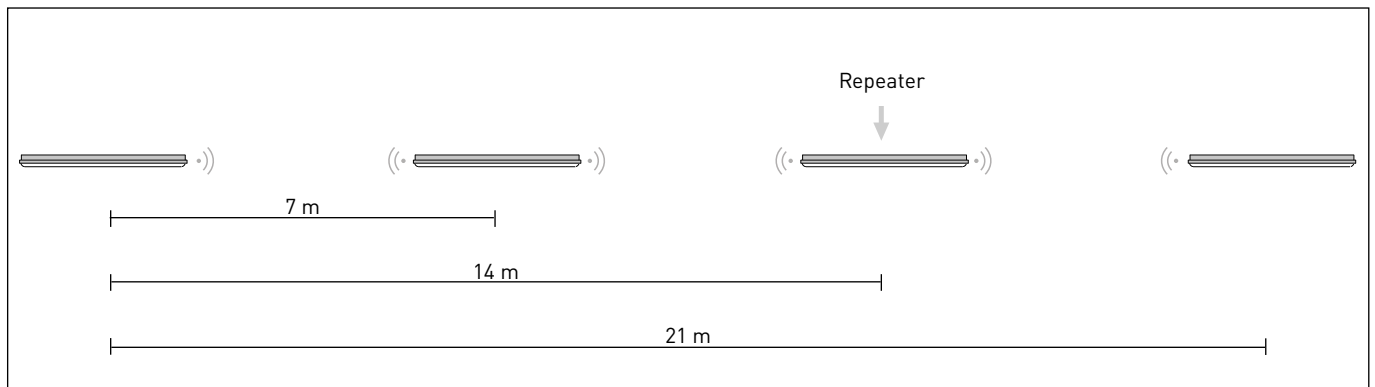
## 2.2 PRACTICAL TIPS FOR POSITIONING

Every 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 optimum installation location of the radio components is decisive for an optimum radio connection, bearing in mind the maximum radio range of the radio components.

Radio waves penetrate relatively well through simple glass (not metal-

ised), 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.

To ensure communication over the entire network, the **repeater function** of the luminaire should be activated approx. every 15–20 m (see chapter 3.2.8 REPEATER FUNCTION).



## 2.3 PUSH-BUTTON

Push-buttons compatible with the LiveLink SwarmSens system can be identified by their "EWSSB" marking. These are battery-free and wire-less push-buttons for controlling LiveLink SwarmSens luminaires. The radio push-buttons are integrated into the luminaire group via QR code scan – in the LiveLink SwarmSens app. One radio push-button can be integrated into a luminaire group for each sensor luminaire. Mounting is by means of an adhesive pad or screws.

### Technical data

Input voltage	Piezo element
Radio frequency	2403–2480 GHz
Ambient temperature	-25°C–65°C
Radio range	max. 10 m
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 SwarmSens system  
LIVELINK WP EASYFIT EWSSB

# 3 FUNCTIONS AND COMMISSIONING

## 3.1 COMMISSIONING OPTIONS

Basically, commissioning is possible by configuration directly at the DIP switches of the luminaire or via app. The function test after commis-

sioning can be simplified in both cases by using the “test mode” of the app (see chapter 3.2.10.6 TEST MODE).

### 3.1.1 CONFIGURATION ON THE LUMINAIRE

The LiveLink SwarmSens system is flexible in its configuration. It can be configured via DIP switch and rotary potentiometer on the luminaire or via app. For **manual configuration**, sensor and grouping settings can be made on a sensor luminaire, using the rotary potentiometers (SW1–SW3) and the DIP switch (SW4). Only the grouping can be set on the receiver luminaire. This can already be done without power supply as a precaution before installation.

The manual settings of the **rotary potentiometers** of a sensor luminaire include:

- the **threshold value (SW1)** below which the luminaires are switched on when motion is detected
- the **delay time (SW2)**, the time after which the luminaires should switch off
- the **sensitivity of the sensor**, from 10%–100%

In addition to manual operation of the rotary potentiometers, the following settings can be made with the **DIP switches** of the radio luminaires:

- the **repeater mode (1)**, for amplification of weak radio signals (recommendation: every 15 m–25 m for optimum data transmission)
- activation or deactivation of the **basic light (2) (ONLY possible with sensor luminaires!)** The setting will then apply to the entire associated group)
- the **group assignment (3–8)**, to the group 0–63 (binary coded)

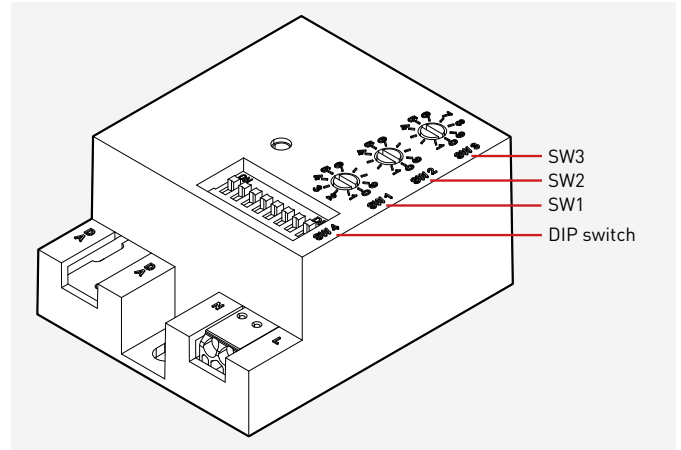
Note: A detailed description of the individual settings can be found in the respective chapters of the functions!

### 3.1.2 APP-BASED CONFIGURATION

**App-supported configuration** is possible with the LiveLink SwarmSens smartphone app (IOS/Android). This searches the environment for SwarmSens radio luminaires or can integrate the luminaires via QR code. The following configurations can be made with the app:

- Regroupings
- Basic light configuration
- Sensor configuration
- Cluster or neighbouring function
- Push-button integration

Note: A detailed description of the individual settings can be found in the respective chapters of the functions!



The LiveLink SwarmSens system enables lighting operation with **automatic functions**. These are:

- the **threshold-dependent control** of the luminaire groups
- the **presence-dependent switching on and off** of the luminaire groups
- the **presence-dependent lowering** of the luminaire groups light level to the basic light level

The interaction of all these functions enables optimum and safe lighting (e.g. by pre-running light).





















## 3.1.2.1 OVERVIEW

LiveLink SwarmSens serves for configuring luminaire groups, sensor functions, basic lighting, cluster function and push-buttons. The respective settings can be customised in the app.

Note:

Before opening the LiveLink SwarmSens app, make sure that the Bluetooth function is activated on the smartphone.

## 3.1.2.2 LEGEND ICONS

	Password menu		Settings sensor/receiver
	Updating the luminaire search results		Setting up a radio push-button
	Add luminaire via QR code		Update firmware
	Sensor luminaire ("DMM")		Movement detected
	Receiver luminaire ("DMR")		Exiting settings (all changes are discarded and not saved)
	Repeater mode marking enabled		Save settings as template
	Print QR code		"Einstellungen speichern": Save settings
	Test function		Note: base light is activated
	DIP switch settings activated		Note: Repeater mode is activated
	DIP switch settings disabled		Test mode

## 3.1.2.3 APPLICATION

### Launching the LiveLink "SwarmSens" app

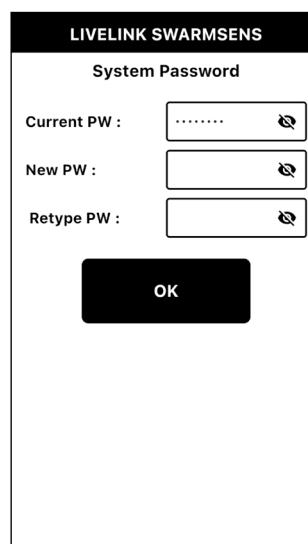
The LiveLink SwarmSens app is started by tapping the app icon.





## Login

After starting the app, a screen opens in which the password must be entered in the "Current PW" field. The password per factory setting is: livelink. If necessary, a new password can be stored. The entries must be confirmed by tapping the "OK" button.



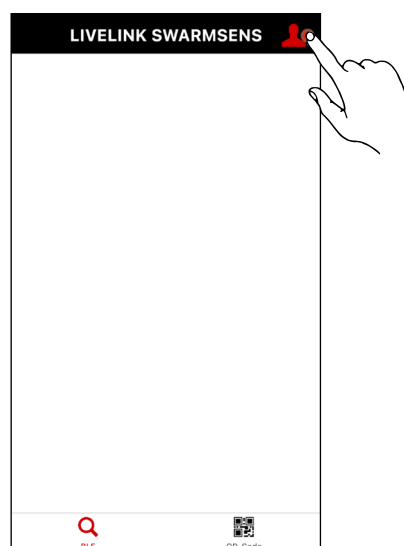
## Password change

By tapping the icon in the upper right corner, the previously shown login screen opens again. This way, the password can still be changed individually later on.

If the password is lost, the luminaires must be disconnected from the mains voltage for a short time. After switching on the mains voltage again, the password "livelink" can be used for 10 minutes. The password can be changed individually in the further procedure. This is recommended, otherwise the old (unknown) password will apply again.

Note:

The password refers to the respective luminaire, not to the entire network.



## Detected luminaires

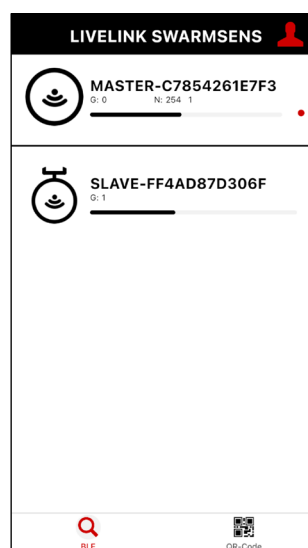
After successful login, all detected luminaires are displayed in the overview screen.

Tapping a luminaire opens the associated luminaire menu in which all settings can be made.

The app continuously searches for luminaires in the surrounding area in the background. To refresh the search results, the magnifying glass icon must be tapped. Alternatively, by tapping the QR code icon, the QR code of the respective luminaire can be scanned to find it. The QR code is located on the respective luminaire.

Note:

The indication "G" indicates in which group the luminaire is located. The indication "N" shows the associated neighbouring groups.



## Luminaire menu

By selecting one of the detected luminaires the luminaire menu opens, in which the following information and settings can be found:

- Base information
- Basic options
- Sensors
- Test brightness (my light)
- Test my groups (blink)

MASTER-C7854261E7F3  
GROUP: 0

Manufacturer LUMOBI  
Version 01.22  
Type Master

SETTINGS  
RADIO BUTTON  
UPDATE

**SENSORS**

Light Sensor 10887 lx  
Motion Sensor   
Motion Sensor Switch Off Time 30 sec.

**TEST BRIGHTNESS (MY LIGHT)**

Movement ON 100 %   
Swarm Neighbour ON 30 %   
Basic Light ON 10 %   
OFF 0 %

**TEST MY GROUPS (BLINK)**

My Group   
My Neighbour Groups

## Base information

This section lists the basic information about the luminaire. These include the manufacturer, firmware version, and type (sensor or receiver luminaire) of the luminaire. In addition, a check mark or cross on the DIP switch icon indicates whether the DIP switch or the app dominates the settings.

MASTER-C7854261E7F3  
GROUP: 0

Manufacturer LUMOBI  
Version 01.22  
Type Master

activated =   
deactivated =

## Basic options

This section lists the basic options. This includes the settings of the luminaire, the integration of wireless pushbuttons as well as the possibility to perform a firmware update.

Note:

The update option is only displayed if an update is available.

SETTINGS  
RADIO BUTTON  
UPDATE

## Sensors ("Sensoren")

The following information is given in the section "SENSOREN":

- Light sensor  
[Current lux value measured by the light sensor]
- Motion sensor  
[Person symbol is displayed as soon as movement is detected]
- Motion detector switch-off delay  
[the set delay time of the motion detector]

**SENSORS**

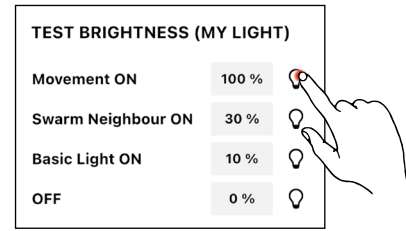
Light Sensor 10887 lx  
Motion Sensor   
Motion Sensor Switch Off Time 30 sec.

## Test brightness (“Helligkeit testen”)

In this area, the set dimming values for four different scenarios are indicated in percent:

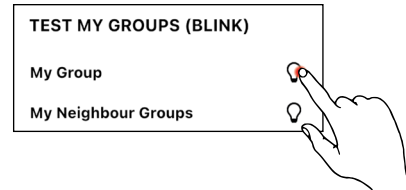
- Movement ON (light intensity of the luminaire group when motion is detected)
- Swarm Neighbour ON (light intensity of the neighbouring group)
- Basic Light ON (light intensity of basic lighting)
- OFF (light intensity when the system is switched off)

In addition, the respective scenario can be tested visually on the luminaire by tapping the luminaire symbol.



## Test my groups (“Meine Gruppen testen”)

In this area, by tapping the luminaire icon behind the “My Group” or “My Neighbour Groups” options, the respective option can be tested visually. During a test, the groups light up or flash.



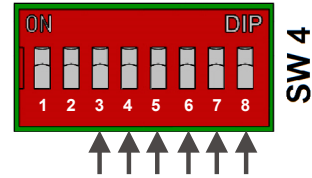
### 3.2 FUNCTIONS AND SETTINGS

#### 3.2.1 GROUPING OF LUMINAIRES

Grouping is used to determine which receiver luminaire respond to which sensor luminaire. All receiver luminaires that are in the same group as a sensor luminaire also switch on when motion is detected.

##### 3.2.1.1 SETTINGS ON THE LUMINAIRE

The group can be assigned via DIP switches 3–8 (binary-coded, see following table).



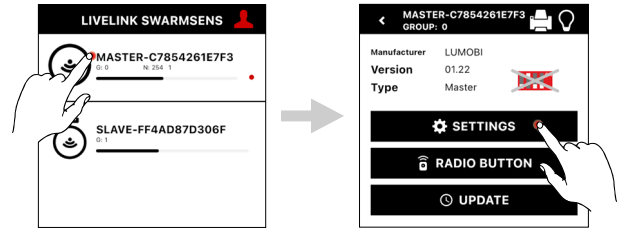
Group listing - binary coding:

GROUP	DIP SWITCH					
	3	4	5	6	7	8
G0*	OFF	OFF	OFF	OFF	OFF	OFF
G1	OFF	OFF	OFF	OFF	OFF	ON
G2	OFF	OFF	OFF	OFF	ON	OFF
G3	OFF	OFF	OFF	OFF	ON	ON
G4	OFF	OFF	OFF	ON	OFF	OFF
G5	OFF	OFF	OFF	ON	OFF	ON
G6	OFF	OFF	OFF	ON	ON	OFF
G7	OFF	OFF	OFF	ON	ON	ON
G8	OFF	OFF	ON	OFF	OFF	OFF
G9	OFF	OFF	ON	OFF	OFF	ON
G10	OFF	OFF	ON	OFF	ON	OFF
G11	OFF	OFF	ON	OFF	ON	ON
G12	OFF	OFF	ON	ON	OFF	OFF
G13	OFF	OFF	ON	ON	OFF	ON
G14	OFF	OFF	ON	ON	ON	OFF
G15	OFF	OFF	ON	ON	ON	ON
G16	OFF	ON	OFF	OFF	OFF	OFF
G17	OFF	ON	OFF	OFF	ON	OFF
G18	OFF	ON	OFF	OFF	ON	OFF
G19	OFF	ON	OFF	OFF	ON	ON
G20	OFF	ON	OFF	ON	OFF	OFF
G21	OFF	ON	OFF	ON	OFF	ON
G22	OFF	ON	OFF	ON	ON	OFF
G23	OFF	ON	OFF	ON	ON	ON
G24	OFF	ON	ON	OFF	OFF	OFF
G25	OFF	ON	ON	OFF	OFF	ON
G26	OFF	ON	ON	OFF	ON	OFF
G27	OFF	ON	ON	OFF	ON	ON
G28	OFF	ON	ON	ON	OFF	OFF
G29	OFF	ON	ON	ON	OFF	ON
G30	OFF	ON	ON	ON	ON	OFF
G31	OFF	ON	ON	ON	ON	ON

GROUP	DIP SWITCH					
	3	4	5	6	7	8
G32	ON	OFF	OFF	OFF	OFF	OFF
G33	ON	OFF	OFF	OFF	OFF	ON
G34	ON	OFF	OFF	OFF	ON	OFF
G35	ON	OFF	OFF	OFF	ON	ON
G36	ON	OFF	OFF	ON	OFF	OFF
G37	ON	OFF	OFF	ON	OFF	ON
G38	ON	OFF	OFF	ON	ON	OFF
G39	ON	OFF	OFF	ON	ON	ON
G40	ON	OFF	ON	OFF	OFF	OFF
G41	ON	OFF	ON	OFF	OFF	ON
G42	ON	OFF	ON	OFF	ON	OFF
G43	ON	OFF	ON	OFF	ON	ON
G44	ON	OFF	ON	ON	OFF	OFF
G45	ON	OFF	ON	ON	OFF	ON
G46	ON	OFF	ON	ON	ON	OFF
G47	ON	OFF	ON	ON	ON	ON
G48	ON	ON	OFF	OFF	OFF	OFF
G49	ON	ON	OFF	OFF	OFF	ON
G50	ON	ON	OFF	OFF	ON	OFF
G51	ON	ON	OFF	OFF	ON	ON
G52	ON	ON	OFF	ON	OFF	OFF
G53	ON	ON	OFF	ON	OFF	ON
G54	ON	ON	OFF	ON	ON	OFF
G55	ON	ON	OFF	ON	ON	ON
G56	ON	ON	ON	OFF	OFF	OFF
G57	ON	ON	ON	OFF	OFF	ON
G58	ON	ON	ON	OFF	ON	OFF
G59	ON	ON	ON	OFF	ON	ON
G60	ON	ON	ON	ON	OFF	OFF
G61	ON	ON	ON	ON	OFF	ON
G62	ON	ON	ON	ON	ON	OFF
G63	ON	ON	ON	ON	ON	ON

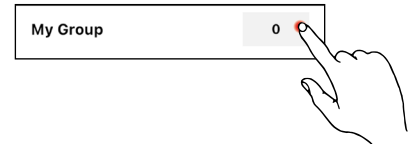
## 3.2.1.2 SETTINGS IN THE APP

The group can be assigned in the settings menu ("EINSTELLUNGEN") of the luminaire.



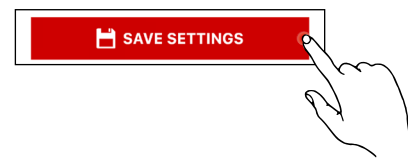
### My group

By tapping the grey field in the "My Group" area, the luminaire can be assigned to a group by selecting the desired group number from the pop-up list (up to 255 groups).



### Save settings

By tapping the "Save settings" button, the settings made can be saved. If the button is not pressed, the changed settings will not be saved.

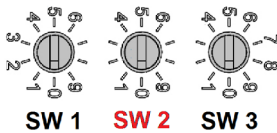


## 3.2.2 SETTING THE DELAY TIME

The delay time defines how long the luminaire remains switched on after a movement has been detected.

### 3.2.2.1 SETTINGS ON THE LUMINAIRE

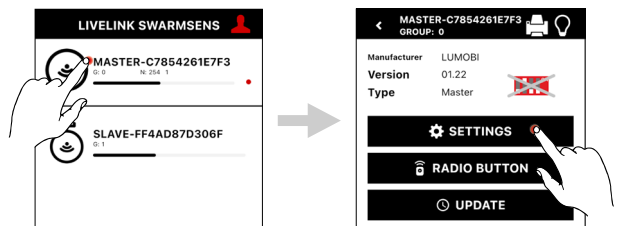
Rotary potentiometer SW2 sets the delay time after which the luminaire switches off after last sensor detection.



Delay time – rotary potentiometer SW2	
0 (default value)	30 sec
1	3 min
2	5 min
3	10 min
4	15 min
5	20 min
6	25 min
7	30 min
8	45 min
9	60 min

### 3.2.2.2 SETTINGS IN THE APP

In the SENSOR area in the settings menu of the luminaire, the delay time can be set under the "" item.



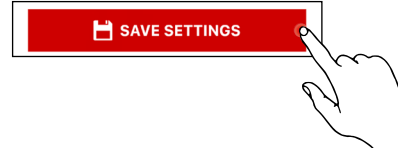
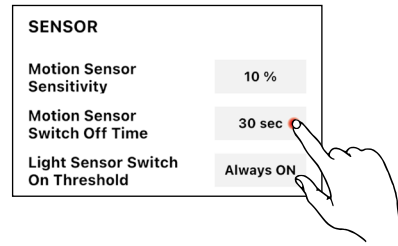
## Sensor

The delay time can be set in the "Sensor" area:

- **Motion Sensor Switch Off Time**

Sets the overrun time in the range of 30 sec up to 60 min, after which the light switches off after last sensor detection.

- Setting options:  
30 sec, 3 min, 5 min, 10 min, 15 min, 20 min, 25 min, 30 min, 45 min, 60 min



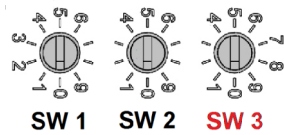
## Save settings

By tapping the "Save settings" button, the settings made can be saved. If the button is not pressed, the changed settings will not be saved.

## 3.2.3 SETTING THE MOTION DETECTION SENSITIVITY

### 3.2.3.1 SETTINGS ON THE LUMINAIRE

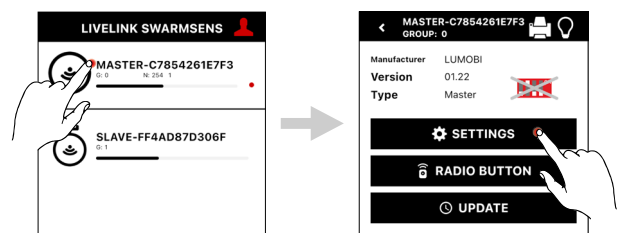
Rotary potentiometer SW3 is used to set the sensitivity of the sensor (in percent), this can be increased or decreased.



Sensitivity – rotary potentiometer SW3	
0 (default value)	10% [MIN]
1	20%
2	30%
3	40%
4	50%
5	60%
6	70%
7	80%
8	90%
9	100% [MAX]

### 3.2.3.2 SETTINGS IN THE APP

In the SENSOR area in the settings menu of the luminaire, the sensitivity can be set under the "Bewegungsmelder Empfindlichkeit" item.



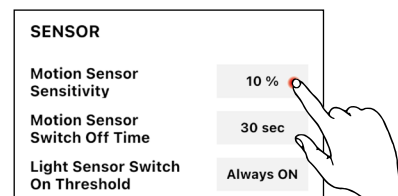
## Sensor

The sensitivity can be set in the "Sensor" area:

- **Motion Sensor Sensitivity**

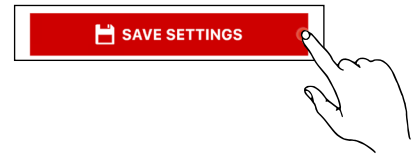
Used to set the sensitivity of the sensor (in percent). This setting can increase or decrease the sensitivity of the sensor in the range of 10%–100%.

- Setting options:  
10%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%



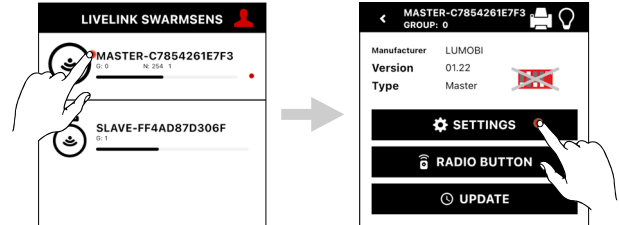
## Save settings

By tapping the “Save settings” button, the settings made can be saved. If the button is not pressed, the changed settings will not be saved.



## 3.2.4 SETTING THE LIGHT LEVEL WHEN MOTION IS DETECTED

This setting can only be made in the Swarmsens app. In the BRIGHTNESS area in the settings menu of the luminaire, the dimming level when motion is detected can be set under the “Motion Sensor ON” item.



### 3.2.4.1 SETTINGS IN THE APP

#### Brightness

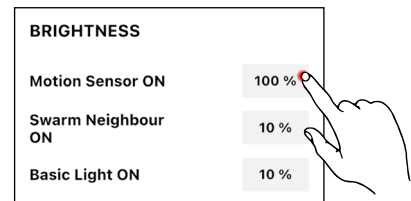
In the BRIGHTNESS area, the light level when motion is detected can be set:

- **Motion Sensor ON**

Used to set the turn-on value of the luminaire (in percent) in the range of 50–100% when motion is detected.

- Setting options:

50%, 60%, 70%, 80%, 90%, 100%



## Save settings

By tapping the “Save settings” button, the settings made can be saved. If the button is not pressed, the changed settings will not be saved.



## 3.2.5 BASIC LIGHT

For increasing safety and comfort, the lighting can also be combined with a base light function. This makes sure that the lighting is not switched off with absence but is dimmed down to a configured base light level. The basic light function can be used to avoid dark zones in confusing areas, for example. However, it also represents an additional safety function, as the lighting does not switch off after the sensor delay time has elapsed but is reduced to a basic lighting.

The basic light can be configured in the LiveLink SwarmSens system via two setting options:

- DIP switch (switch 2):

Activating the function, with a preset value of 10% (only for the sensor luminaires!)

- In the LiveLink SwarmSens app:

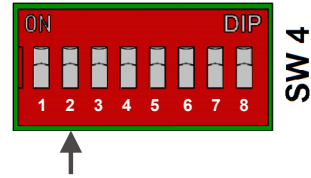
Individual configuration of the value in the range of 10–100%

If the basic lighting function is used at the same time as the threshold value function is activated, the lighting is switched off briefly after the delay time has elapsed in order to measure the ambient brightness. Only if this is not sufficient, the basic lighting is switched on. In the following, the lighting is briefly switched off every two hours to measure the ambient brightness again. The basic lighting is subsequently switched on again only if the ambient brightness is insufficient.

## 3.2.5.1 SETTINGS ON THE LUMINAIRE

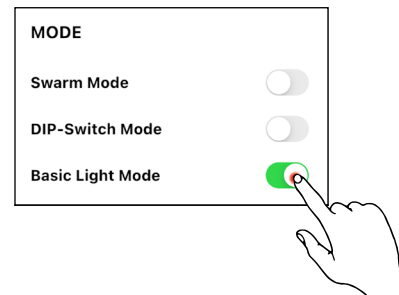
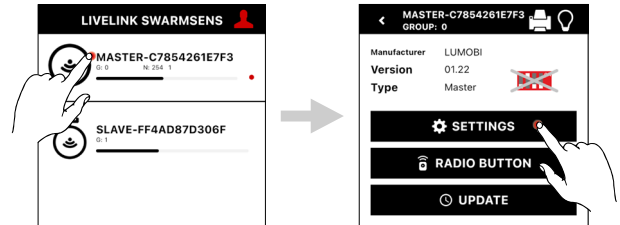
### DIP switch (switch 2)

Activating the function, with a preset value of 10% (only available for the sensor luminaires. The setting will then apply to the entire group!)



## 3.2.5.2 SETTINGS IN THE APP

The basic lighting function can be switched on and off in the settings menu of the luminaire and set to a light level between 10–100%.



### Brightness

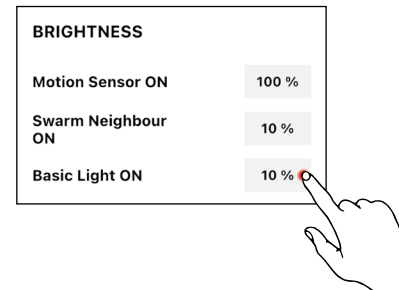
In the BRIGHTNESS area, the light level when motion is detected can be set:

- **Basic Light ON**

Used to set the turn-on value of Basic light (in percent) in the range of 1–50% when motion is detected.

- Setting options:

- 1%, 2%, 3%, 4%, 5%, 6%, 7%, 8%, 9%, 10%, 15%, 20%, 30%, 40%, 50%



### Save settings

By tapping the “Save settings” button, the settings made can be saved. If the button is not pressed, the changed settings will not be saved.



## 3.2.6 THRESHOLD VALUE FUNCTION

The threshold value function enables additional energy saving. When this function is activated, the sensor compares the ambient light with a set light threshold. If the ambient light is lower than the threshold, the lighting is switched on.

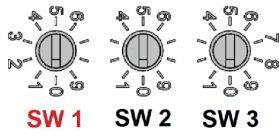
Note:

The exact values depend, among other things, on the optical properties of the luminaire cover, the mounting height of the luminaire, the colour of surfaces and the incidence angle of daylight.



## 3.2.6.1 SETTINGS ON THE LUMINAIRE

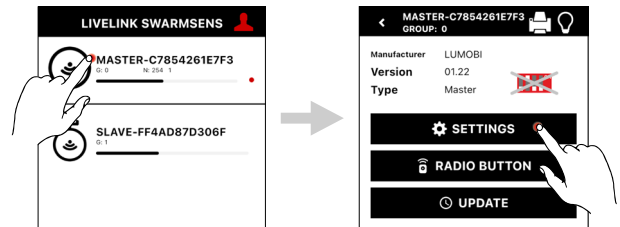
The **rotary potentiometer SW1** defines the threshold value or brightness value below which the lights are to be switched on when motion is detected.



Assignment threshold value – rotary potentiometer SW1	
0 (default value)	always ON
1	ON < 500lx
2	ON < 300lx
3	ON < 200lx
4	ON < 150lx
5	ON < 100lx
6	ON < 80lx
7	ON < 60lx
8	ON < 50lx
9	ON < 30lx

## 3.2.6.2 SETTINGS IN THE APP

In the SENSOR area in the settings menu of the luminaire, the threshold can be set under the “Lichtsensor Einschaltswellwert” item.



### Sensor

The threshold can be set in the SENSOR area:

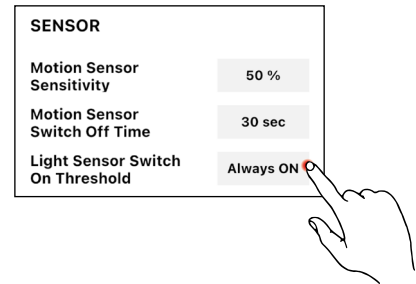
- **Light Sensor Switch On Threshold**

Serves as threshold switch. It can be used to set the brightness value at which the luminaire should be switched on.

- Setting options:

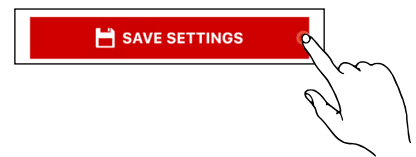
- Always ON, ON<500lx, ON<300lx, ON<200lx, ON<150lx, ON<100lx, ON<80lx, ON<60lx, ON<50lx, ON<30lx

Explanation: “Immer EIN” (Always ON) means that the light is always switched on when there is movement, regardless of the brightness



### Save settings

By tapping the “Save settings” button, the settings made can be saved. If the button is not pressed, the changed settings will not be saved.



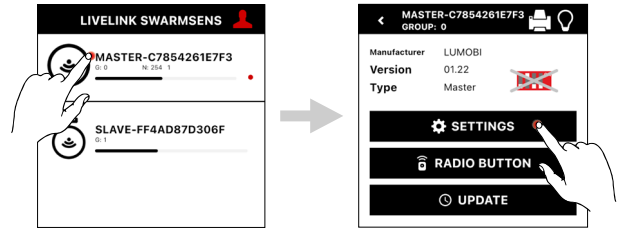
## 3.2.7 CLUSTER FUNCTION

**To increase the sense of security and to support orientation, there is the possibility to activate the cluster or neighbouring function.** The cluster function allows for pre-running light. By assigning up to four neighbouring groups to the luminaire group of the sensor luminaire via the LiveLink SwarmSens app, not only the luminaire groups of the sensor luminaire switch on when motion is detected, but also the assigned

neighbouring groups. These dim to a value previously set in the app. If one of the neighbouring groups itself detects a movement, it dims to the programmed switch-on value and its neighbouring groups are also switched on. After the set overrun time, the groups switch off again. This function can be used to illuminate the road or walkway ahead of the movement of vehicles or people.

## 3.2.7.1 SETTINGS IN THE APP

This setting can only be made in the settings menu ("EINSTELLUNGEN" of the luminaire in the Swarmsens app.



### Swarm Neighbour Group

By tapping the gray fields, up to four luminaire groups can be selected in the "Swarm Neighbour Group" area, which are assigned as cluster or neighbouring group.

Note:

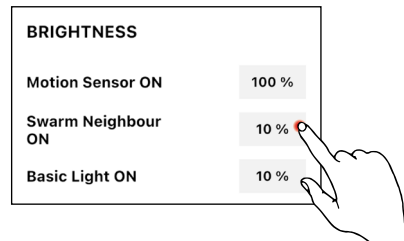
The light level on which the neighbouring groups are switched on can be set by specifying "Swarm Neighbour ON" in the BRIGHTNESS area



### Brightness

In the BRIGHTNESS area cluster neighbouring brightness can be set:

- Setting options:  
1%, 2%, 3%, 4%, 5%, 6%, 7%, 8%, 9%, 10%, 15%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, 100%



### Save settings

By tapping the "Einstellungen speichern" button, the settings made can be saved. If the button is not pressed, the changed settings will not be saved.



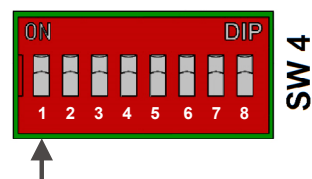
## 3.2.8 REPEATER FUNCTION

In case of radio transmission problems, both the sensor and receiver module can be used as repeaters. This function can be switched on or off via the DIP switch or the app. When the function is activated, radio signals are additionally sent to the radio network via the radio modules of the corresponding luminaires. It should be noted that this increases

es the number of radio signals in the network and thus slows down data transmission and response speed. To prevent this and get the best possible lighting result, a repeater should be used approximately every 15 m to 20 m.

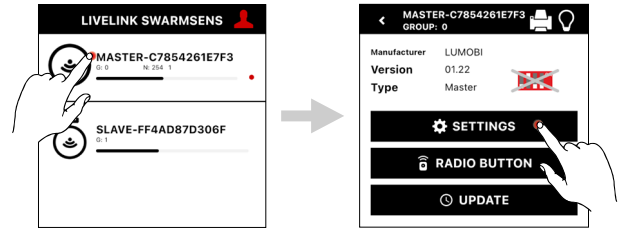
### 3.2.8.1 SETTINGS ON THE LUMINAIRE

DIP switch (switch 1):  
Activate the function



## 3.2.8.2 SETTINGS IN THE APP

The Repeater Function can be activated in the settings menu of the luminaire.



### Repeater activation

By tapping the slider in the Repeater area, the repeater function can be activated or deactivated again.



### Save settings

By tapping the "Save settings" button, the settings made can be saved. If the button is not pressed, the changed settings will not be saved.



## 3.2.9 RESET

If a Bluetooth connection to a luminaire is no longer possible or there are communication problems within the mesh network, the affected luminaire or group can be reset.

(This process must be performed a **total of 4 times** . Finally, **after the fourth time** , it must be switched off again for at least 5 seconds)

A reset is performed by a sequence of switch-off and switch-on pulses:

- **switch off for at least 5 s & switch on for a maximum of 3 s**

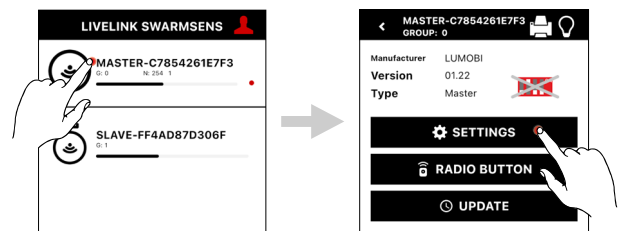
The lighting can then be switched on again.

## 3.2.10 FURTHER SETTING OPTIONS IN THE APP

The following settings and functions are available exclusively in the app

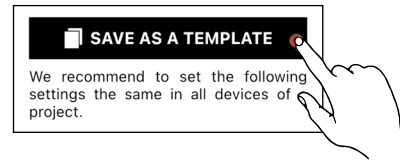
### 3.2.10.1 SAVE TEMPLATE

This function can be configured in the settings menu of the luminaire in the LiveLink SwarmSens app.



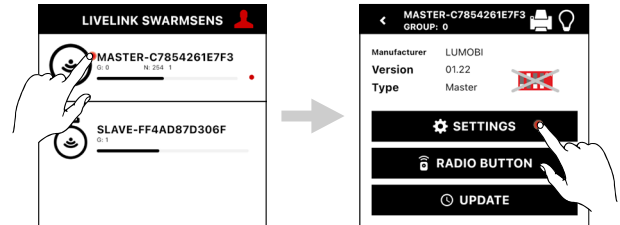
## Save as a template

By tapping the "Save as a template" button, the settings made can be saved as template. If a template is created, the overview menu of the luminaires opens and the luminaires that should have the same settings can be selected. This assignment can be done either by Bluetooth list or by QR code scan.



## 3.2.10.2 DIP SWITCH MODE

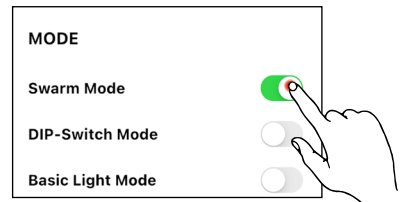
This function can be configured in the settings menu of the luminaire in the LiveLink SwarmSens app.



## Mode

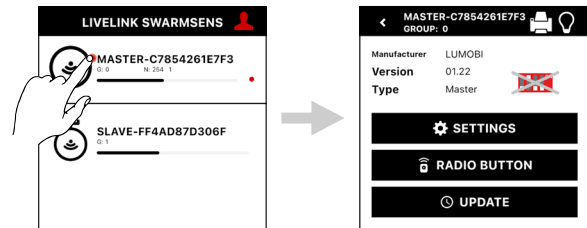
In the MODE area, the following modes can be activated or deactivated by pressing the respective slider:

- Swarm Mode (cluster function)
- DIP-Switch Mode (DIP switch settings dominate)
- Basic Light Mode (basic light)



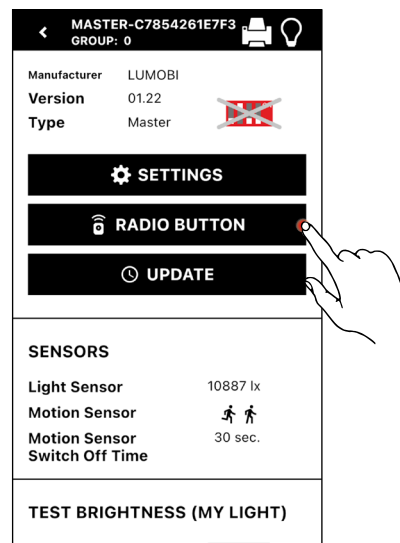
## 3.2.10.3 RADIO PUSH-BUTTON

This function can be configured in the settings menu in the LiveLink SwarmSens app.



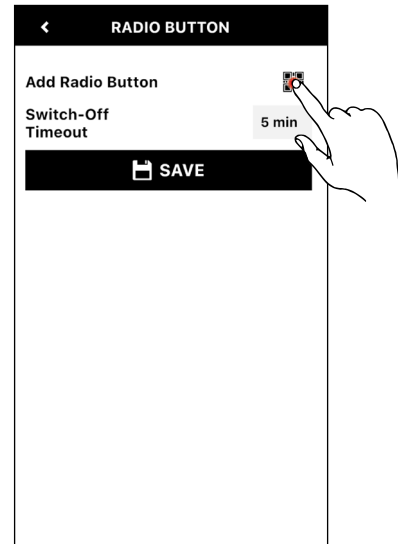
## Integrate radio push-button

By tapping the RADIO BUTTON button in the luminaire menu, a radio push-button can be added to the luminaire or luminaire group.



## Add radio push-button

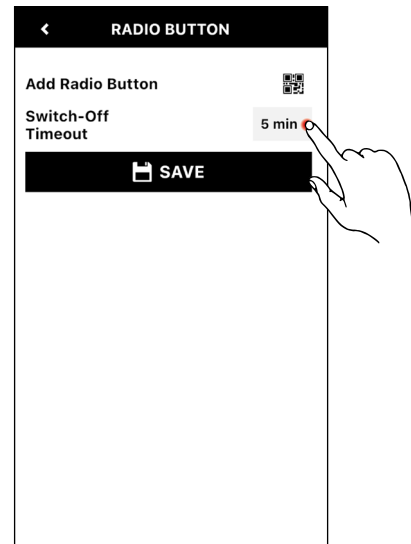
By tapping the QR code symbol in the “Add Radio Button” area, the camera opens and the QR code on the back of the desired radio push-button can be scanned.



## Switch-off time

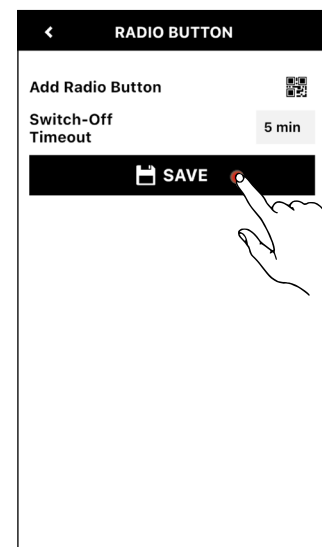
By tapping on the time in the gray box in the “Switch-Off Timeout” area, a pop-up list opens in which the desired switch-off time can be selected. If the button has been pressed, the system will switch off after the selected time has elapsed, provided that no movement has been detected. The following setting options are available:

- 5 min
- 10 min
- 15 min
- 30 min
- 45 min
- 60 min



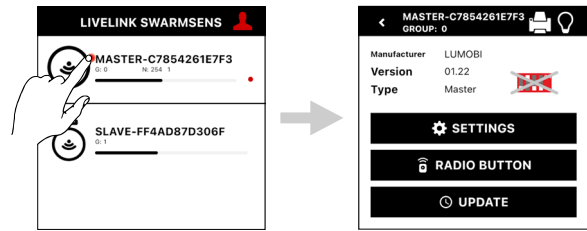
## Save

By tapping the “Save” button, adjustments made can be saved. If the button is not pressed, the changed settings will not be saved.



## 3.2.10.4 UPDATE

This function can be configured in the settings menu in the LiveLink SwarmSens app.

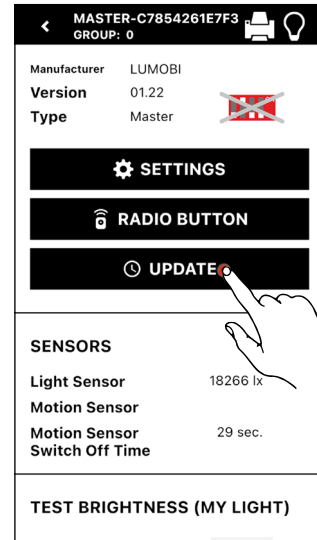


### Update

Tapping the UPDATE button takes you to the firmware menu.

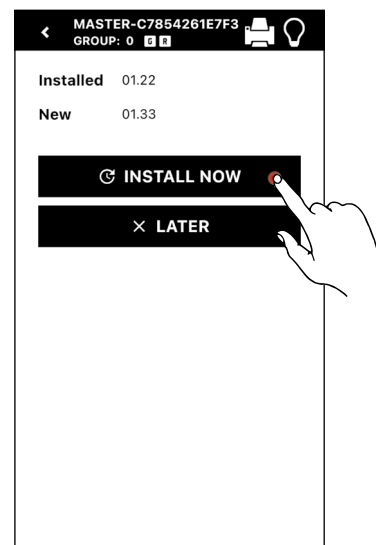
Note:

If the latest firmware version is already installed, the UPDATE button is not displayed!



### Install now

The firmware menu displays both the installed version and the new version of the firmware. By tapping the "INSTALL NOW" button, the new version can be installed. Alternatively, you can tap the "LATER" button to cancel the process and return to the luminaire menu.



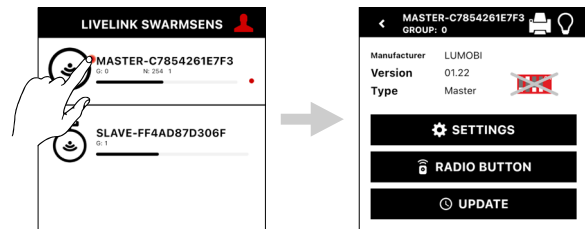
## Complete update

Once the update is 100% complete, the process can be finished by tapping the "OK" button.



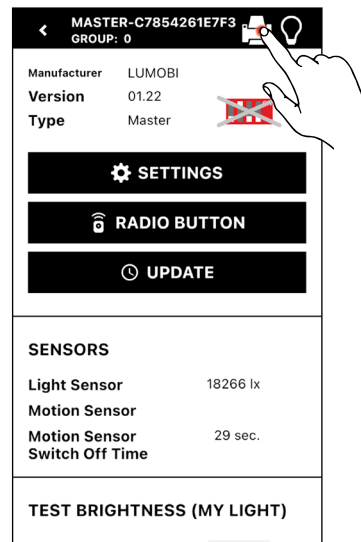
## 3.2.10.5 QR CODE

This function can be configured in the settings menu in the LiveLink SwarmSens app.



## Generate QR code for a luminaire

By tapping the printer icon in the luminaire menu, a QR code can be generated for the respective luminaire. Afterwards, the QR code can be used to connect directly to the luminaire via scan in the overview screen.



## Print QR code

By tapping the "Print" button, the generated QR code can be printed.

Note:

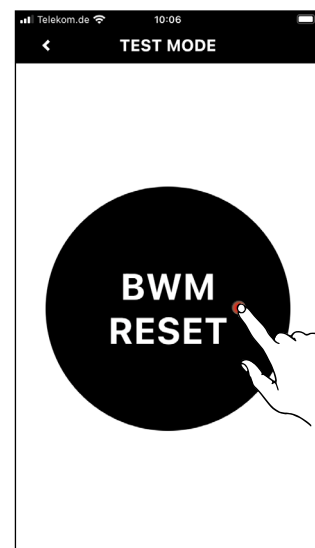
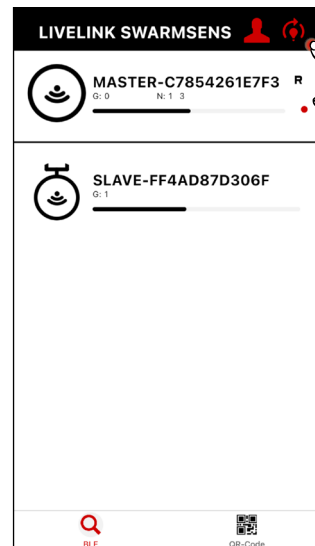
Supported printers are:

- Brother QL-820NWB
- Brother Print Service Plugin



## 3.2.10.6 TEST MODE

The Test Mode can be helpful during commissioning. By pressing the BWM Reset button, all detected movements are reset and the luminaires are switched off. However, the sensor reacts immediately to new movements. This can be used, for example, to identify the reception area of the sensors. The Test Mode can also be used to check the correct group assignment of the luminaires as well as the general function of the system.





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