P8 LR HC/HF

PRODUCT MANUAL

List of content

1   Intro

This material includes description of the Occupancy and light regulator structure, its cards and selected examples of settings.

2   State and control card

State and control card provides information on actual settings. Yellow or red notes provide information that the sensor does not include actual values and that refresh is needed. The refresh is done by click on the refresh button with two green arrows.

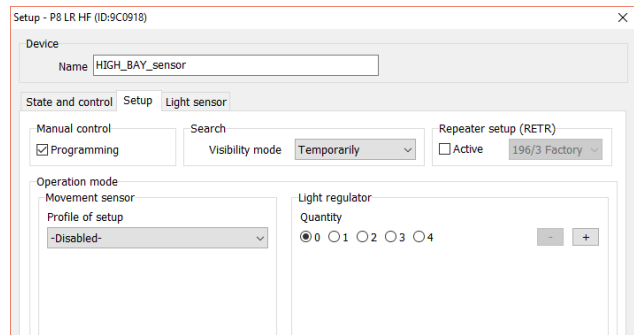State and control card for sensors at factory setting – only light sensor is active.
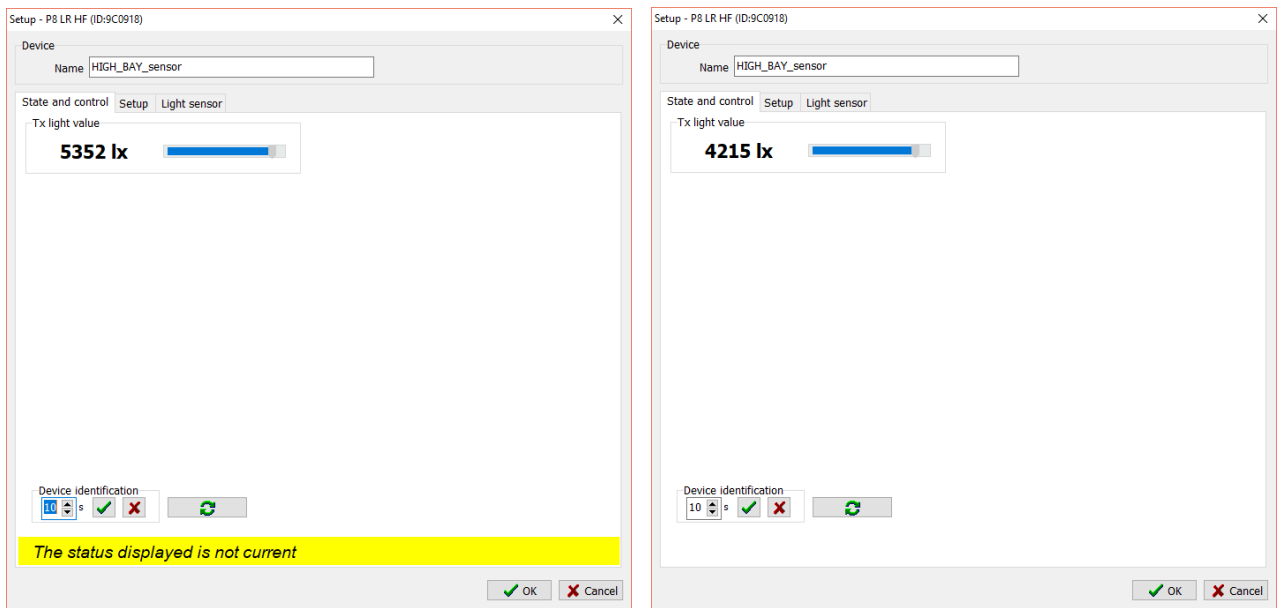
State and control card after activation of movement and light sensor (before and after refresh)
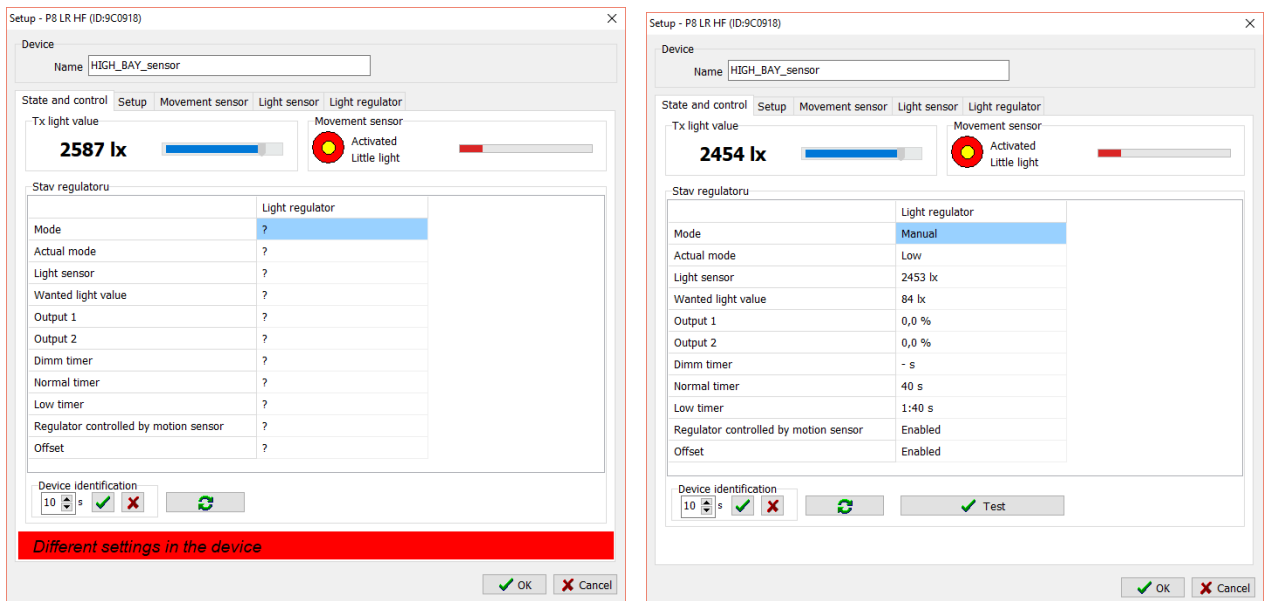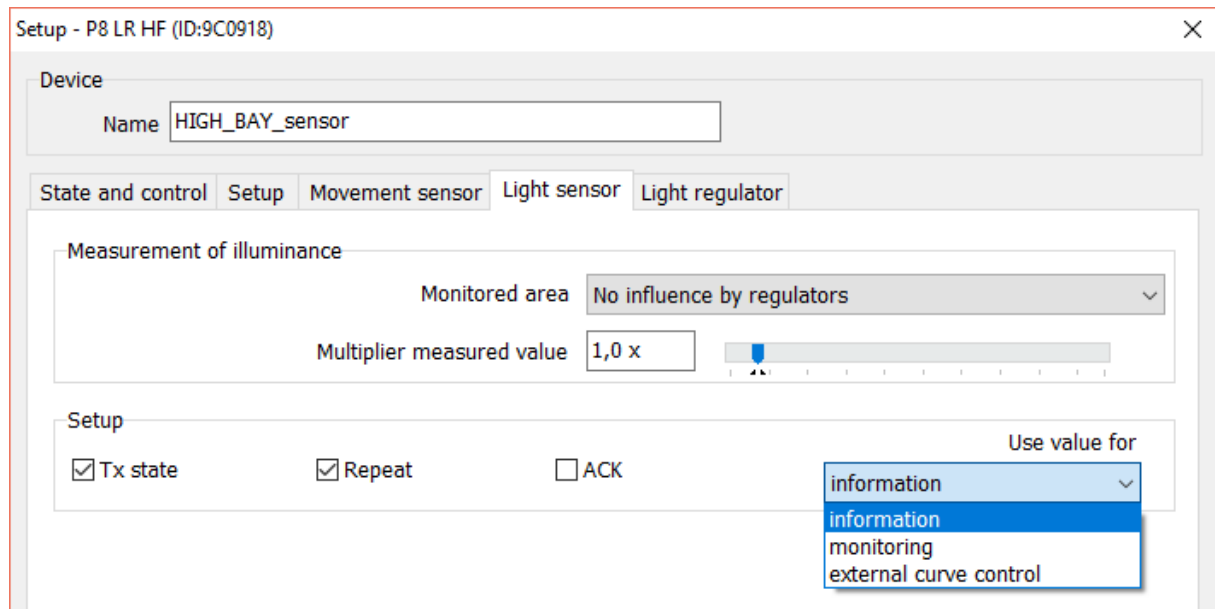
3   Set up card

In the factory setting the OL regulator has all transmission functions OFF which is indicated by green flashing of the built-in LEDs approximately once a minute.

4   Light sensor

Light sensor card includes drop down menu to select the use of the values measure by light sensor. For feedback regulation use the information mode.

In the Measurement of illuminance section, it is possible to set adjustment of influence of the artificial light (light from the LED lamps resp. the reflected light by the floor) on the light sensor. For further info contact technical support at enika@enika.cz

5 Movement sensor

To activate the movement sensor, select one of the Profiles you intend to use for the movement sensor at the Setup card/Operation mode part. In case you want the movement sensor to control the internal light regulator select 1 at the Light regulator part. If you wish to adjust movement sensor settings go to Movement sensor card.
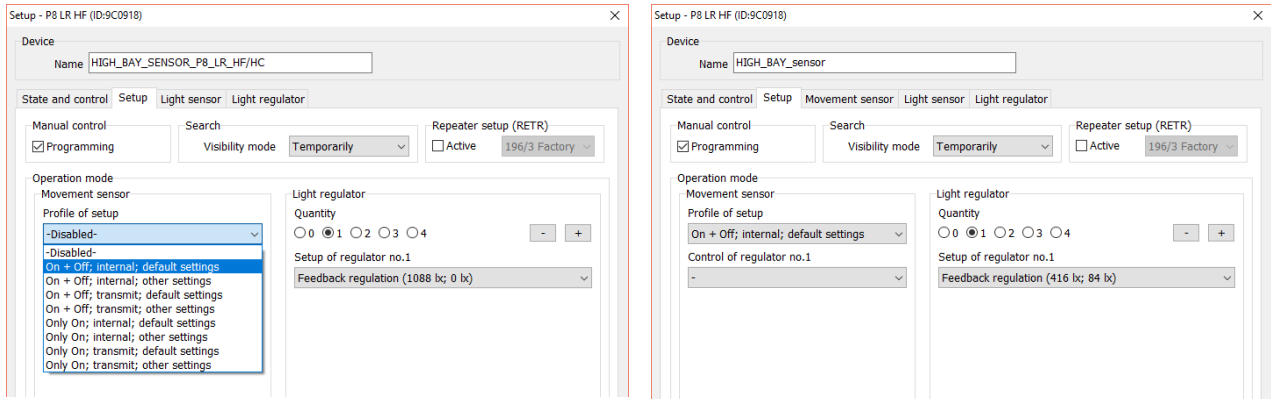
In case the device is used only as movement sensor, select appropriate mode of movement sensor ON + OFF or Only ON - see below and in the next chapter. Also for movement detection do not select any Light regulator as indicated below.
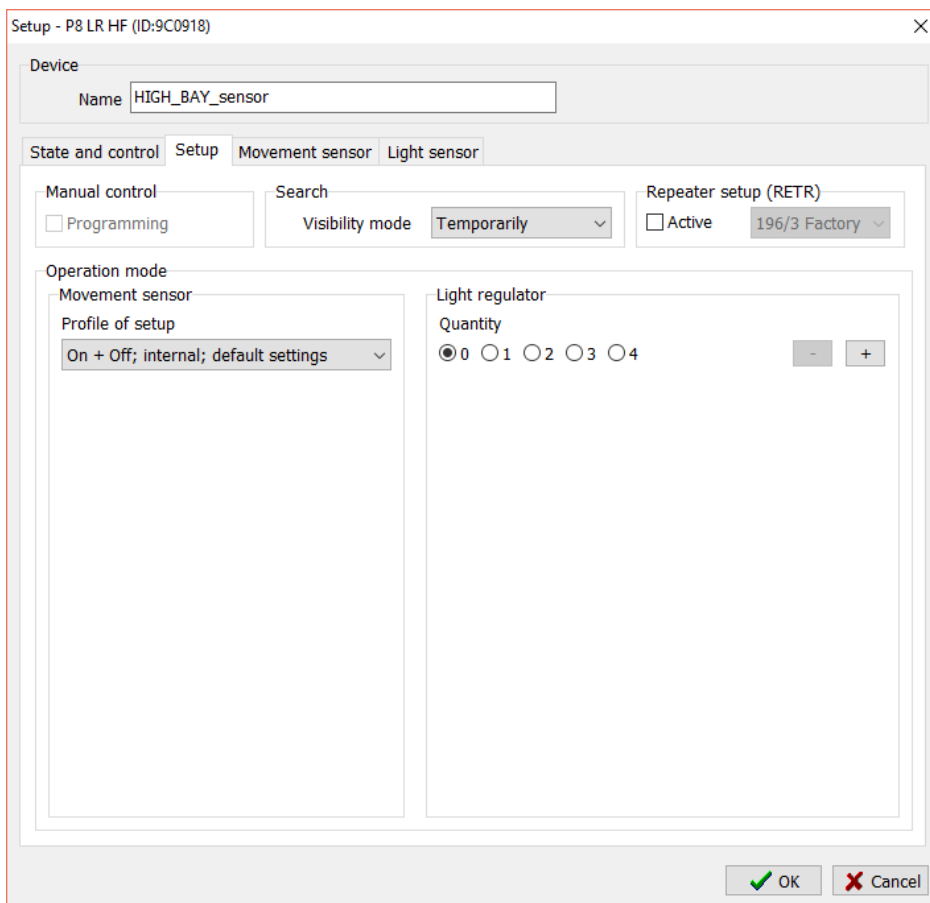
5.1 Setting of movement sensor Mode: ON + OFF

Mode ON + OFF: the movement sensor transmits two different signals to the connected receiver. The first one is the turn ON signal, the second one is the OFF signal. The turned ON state (closed state) lasts as long as the sensor senses movement plus for a period of time set as a Timer. The mode ON+OFF is suitable for applications, where the OL regulator controls just one receiver.

Mode	Control	Settings	Description
On + Off	internal	default	Movement sensor controls only internal light regulator and Option Activate after power on is **enabled.**
On + Off	internal	other	Movement sensor controls only internal light regulator Option Activate after power on is **disabled.**
On + Off	transmit	default	Movement sensor controls internal light regulator and also other connected devices, Option Activate after power on is **enabled.**
On + Off	transmit	other	Movement sensor controls only internal light regulator and also other connected devices, Option Activate after power on is **disabled.**

Mode: On+Off

Activate after power on is used for immediate activation of the connected lamps to the _Start value_ (at the card Light Regulator /Start value).

Lighting – the light level threshold. The movement sensor reacts only if the actual light level is below the set value. This value is displayed at the **State and control** rad in the _Movement sensor_ section by "Plenty of light/ Little light" message. _Corresponds to the LIGHT button on the device._

Timer - is used to set the time for the sensor to delay sending the switch OFF signal after there is no movement sensed.

Insensitivity – set the sensitivity of the sensor. A higher value means lower sensor sensitivity, i.e. grea-ter resistance to false presence indications (e.g. insect, small animals, etc.).

5.2 Setting of movement sensor Only On

Mode Only On: In Only ON mode the movement sensor transmits only the ON signal. Timer is set at the connected receivers. The Only ON mode is suitable for applications with more OL regulators which control one receiver. The connecting link between the OL regulator and the receiver must be set as TIMER.

Mode	Control	Settings	Description
Only On	internal	default	Movement sensor controls only internal light regulator and Option Activate after power on is **enabled.**
Only On	internal	other	Movement sensor controls only internal light regulator Option Activate after power on is **disabled.**
Only On	transmit	default	Movement sensor controls internal light regulator and also other connected devices, Option Activate after power on is **enabled.**
Only On	transmit	other	Movement sensor controls only internal light regulator and also other connected devices, Option Activate after power on is **disabled.**

Mode: *Only On*

Activate after power on is used for immediate activation of the connected lamps to the Start value (at the card Light Regulator /Start value).

Lighting – set the light level threshold. The movement sensor reacts only if the actual light is below the threshold. This value is displayed at the **State and control** window in the Movement sensor section by "Plenty of light/ Little light" message. *Corresponds to the LIGHT button on the device.*

Minimal Tx Period for *Only On Mo*de is used to set the min. time for the sensor to send the information about presence.

Note: Always set this time to be shorter then the Normal timer and Low timer in the *Automatic regulation mode*.

Timer - for *On/Off* mode is used to set the time for the sensor to activate the off mode set in the *Light regulation control* section in the *No movement* part. Corresponds to TIME button on the device.

Insensitivity – set the sensitivity of the sensor. A higher value means lower sensor sensitivity, i.e. greater resistance to false presence indications (e.g. insect, small animals, etc.).

6   Light regulator – Set up Card

To activate the light regulator for the feedback daylight regulation, select 1 at the Quantity menu at the section Light regulator. If you wish to adjust movement sensor settings go to Light regulation card.

In case you do not wish to use the movement sensor select "Disabled" at the Movement sensor section.

In case you wish to use movement sensor to control the Light regulator use following settings of the Set up card.

6.1 Setting of Light regulator

Wanted light value – set the light value to which connected lamps should be regulated.

Dimmer – set the level of output and the Timer for the lights controlled by the Light regulator in the Auto mode to stay at dimmer mode

Normal – set the light value for regulation to the requested level and the Normal Timer

Low – set the value for regulation to the requested low light level and the Low Timer

Auto mode setup – set the regulator behaviour in *Auto mode* after both the *Normal and Low timers* expire. Options:

Full functionality – the regulator stays in the automatic mode and sets the output signal to the value 0 %.

Keep normal level – the regulator will remain in low level mode. Keep low

level – the regulator will remain in low level mode. Disables auto mode – both the regulation and automatic mode will turn off.

Regulation parameters – use the Hysteresis and Change period values to set the optimal ratio of sensitivity and speed of light regulation and at the same time to prevent any fluttering of connected lamps.

State after power failure – select the regulator behaviour in case power is restored after a previous failure. Off – regulation will not start. Low – the regulation on the Low light level will start. Normal – the regulation on the Normal light level will start. Dimmer – the dimmer mode will be started. Restore – the system will return to the state prior the power failure to the *Mode* and *Wanted light value* (Normal and Low). Auto – the system will return to Auto mode. The option Auto allows to select which timers shall be activated after the powers supply is on.

Dimmer mode setup – set the speed of the dimming.

Rise/Decay – set the speed of change of light power output from 0 to 100%/ 100 to 0% for the ON/ OFF function.

Manual – set the speed of change for manual control (when the transmitter button is kept pushed). The speed is the same when increasing or decreasing the light intensity.

Regulation output parameters

Maximum level – set the maximum level of output to which the light can be dimmed by the light regulator

Minimum level – set the minimum level of output to which the light can be dimmed by the light regulator. Note: Use this option to prevent unpleasant switching ON/OFF of the connected lights in case a changeable weather (very fast changes of light levels – e.g. cloudy weather).

> Insensitivity time – set the time for lights to stay at the Minimum level.

> Off (lx) - if the set the lux level is lower than the actual ambient lux level then the connected lights will stay in the minimum level. If the actual ambient lux level (Light sensor value at the State and control card) is higher for more than the Insensitivity time the lights will switch OFF.

Offset – use this option to regulate the second output to the different level (in %) compared to the first output. The offset function provides the possibility to use one OL regulator to control two groups of lamps to two different light levels, e.g. one line of lamps close to the windows and the second line close to the wall.

Start value – Set the value at which the light will be dimmed before starting the daylight regulation.

TX state – this option enables the transmission of information from the Light regulator to be used by other components of the POSEIDON® system.

Repeat – select this option to send information repeatedly, even if no changes have been registered. Set the time using the Tx repeat period at the movement sensor card.

ACK – acknowledgement function. Select this option for the device to require acknowledgement of receipt of the information transmitted.
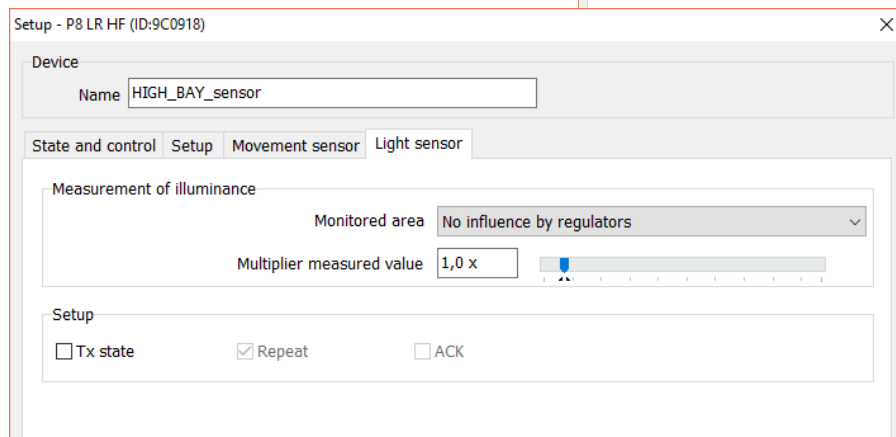
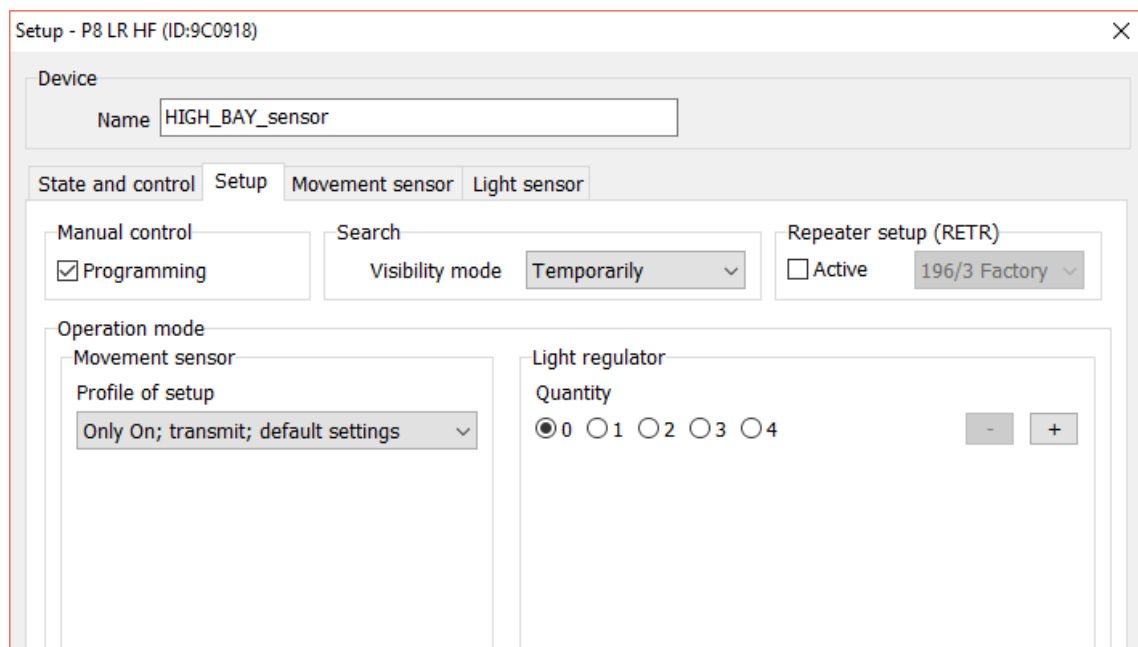# 7 Movement based control of lights

7.1 Mode: Only On – one sensor

State and Control card
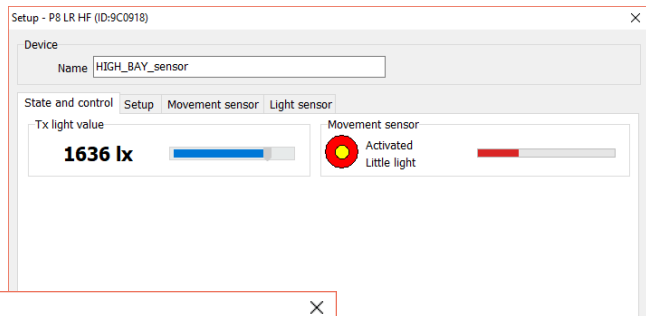
Setup - P8 LR HF (ID:9C0918)

Device

Name HIGH_BAY_sensor

State and control | Setup | Movement sensor | Light sensor

Tx light value

1636 lx

Movement sensor

Activated
Little light

Light sensor card

Setup - P8 LR HF (ID:9C0918)

Device

Name HIGH_BAY_sensor

State and control | Setup | Movement sensor | Light sensor

Measurement of illuminance

Monitored area   No influence by regulators

Multiplier measured value   1,0 x

Setup

☐ Tx state   ☑ Repeat   ☐ ACK

Setup card

Setup - P8 LR HF (ID:9C0918)

Device

Name HIGH_BAY_sensor

State and control | Setup | Movement sensor | Light sensor

Manual control
☑ Programming

Search
Visibility mode   Temporarily

Repeater setup (RETR)
☐ Active   196/3 Factory

Operation mode

Movement sensor
Profile of setup
Only On; transmit; default settings

Light regulator
Quantity
◉ 0 ○ 1 ○ 2 ○ 3 ○ 4   - +

Movement sensor Card

Links

Link between movement sensor and DALI receiver/New: Timer + select DALI channels + Set wanted light level.

7.2 Mode: Only On – more sensors

Master sensor settings – see 5.1

Slave sensor settings

Movement sensor Card

Links

Movement sensor Slave to Master movement sensor

Lighting detector bypass – the Master sensor sends command to switch on lights when it receives information about movement from the Slave movement sensor even if the current Lighting level is lover than set at the Master movement sensor parameters.

Note: Make sure that the Timer set between the Master sensor is greater than the Minimal Tx period set on the slave movement sensor.

Master movement sensor to DALI

8 Daylight regulation

8.1 Daylight regulation started by button

Links

Button transmitter to light regulator

HIGH_BAY_sensor   ✕

4bnt transmitter

☑ Top left   ☐ Top right
☑ Bottom left   ☐ Bottom right

Action
- ○ ◉ Ragulation 1 btn
- ◉ ⬡ Regulation
- ○ ◉ Dimmer 1-btn
- ○ ⬡ Dimmer
- ○ ⬡ On + Off
- ○ ◉ On
- ○ ◉ Off
- ○ ◉ On/Off
- ○ 🗠 Value regulation
- ○ 🗠 Direct control
- ○ 🖼 Mode
- ○ ◉ Special function
- ○ ⬡ Special function
- ○ 🗠 Radio light sensor

Link output
☑ Light regulator   ☐ 2   ☐ 3   ☐ 4

On action setup
Mode | Normal ⌄
☐ New level use

Off action setup
Mode | Off ⌄
☐ New level use

Auto mode timers
Dimm timer	No change ⌄
Normal timer	Set from setup ⌄
Low timer	Set from setup ⌄

Auto mode timers
Dimm timer	No change ⌄
Normal timer	No change ⌄
Low timer	No change ⌄

Wanted levels

☐ Level setup enable

Link Setup
☑ Active   ☐ Locked   ☑ Security

✔ OK   ✗ Cancel

Light regulator to DALI

DALI receiver   ✕

HIGH_BAY_sensor - Light regulator

◉ Output 1   ○ Output 2   ○ Mode

| No conversion ⌄ |
| - ⌄ | - ⌄ |

Action
- ○ ◉ DIMM 1BTN
- ○ ⬡ DIMM 2BTN
- ○ ◉ ON
- ○ ◉ OFF
- ○ ◉ ON/OFF
- ○ ◉ TIMER
- ○ ◉ TIMER/OFF
- ○ ⬡ TIMER+OFF
- ○ ◉ ADDTIMER
- ○ ◉ ADDTIMER/LTOFF
- ○ ◉ ADDTIMER/OFF
- ◉ 🗠 DIRECT

Link output
☑ Channel 1 - DALI Group 0
☑ Channel 2 - DALI Group 1
☑ Channel 3 - DALI Group 2
☑ Channel 4 - DALI Group 3

Time setup
Timer | 0 | ⬍   Delay | 0 | ⬍

☐ Use Low level
Low level timer | - |

Slew rate
◉ From setup   Rise | 1 ⌄ |
○ Set :   Decay | 2 ⌄ |

Level wanted
Level [——————————●—]
0 %   **100,0 %**   100 %

Low level [●—————————]
0 %   **- %**   100 %

Link Setup
☑ Active   ☐ Locked   ☑ Security   ☑ ACK

✔ OK   ✗ Cancel

State and control card – daylight regulation controlled by button

after the regulation was started by button

the regulation was switched off by button

8.2 Daylight regulation controlled by movement sensor

Set up Card

Movement sensor Card

Light regulator card

State and control card - Daylight regulation controlled by movement sensor – ON by movement

State and control card - Daylight regulation controlled by movement sensor

Low Level – Low timer is running

Setup - P8 LR HF (ID:9C0918)	✕

Device

Name: HIGH_BAY_sensor

State and control | Setup | Movement sensor | Light sensor | Light regulator

Tx light value
133 lx

Movement sensor
Inactive
Little light

Stav regulatoru

	Light regulator
Mode	Auto
Actual mode	Low
Light sensor	132 lx
Wanted light value	400 lx
Output 1	100 %
Output 2	100 %
Dimm timer	- s
Normal timer	- s
Low timer	55 s
Regulator controlled by motion sensor	Enabled
Offset	Enabled

Manual control   ✔ M-Control

Device identification
10 ⬍ s ✔ ✖

🔄   ✔ OK   ✖ Cancel

OFF by no movement – Timers expired

Setup - P8 LR HF (ID:9C0918)	✕

Device

Name: HIGH_BAY_sensor

State and control | Setup | Movement sensor | Light sensor | Light regulator

Tx light value
124 lx

Movement sensor
Inactive
Little light

Stav regulatoru

	Light regulator
Mode	Auto
Actual mode	Off
Light sensor	124 lx
Wanted light value	-
Output 1	0,0 %
Output 2	0,0 %
Dimm timer	- s
Normal timer	- s
Low timer	- s
Regulator controlled by motion sensor	Enabled
Offset	Enabled

Manual control   ✔ M-Control

Device identification
10 ⬍ s ✔ ✖

🔄   ✔ OK   ✖ Cancel

8.3   Daylight regulation with temporary dimming override

At this setting the daylight regulation is activated by movement sensor and if needed the temporary dimmer mode can be used by pressing a button. After the dimmer mode Timer is expired the movement-based daylight regulation is activated.

8.3.1   Settings

State and control card - after the dimmer mode is activated
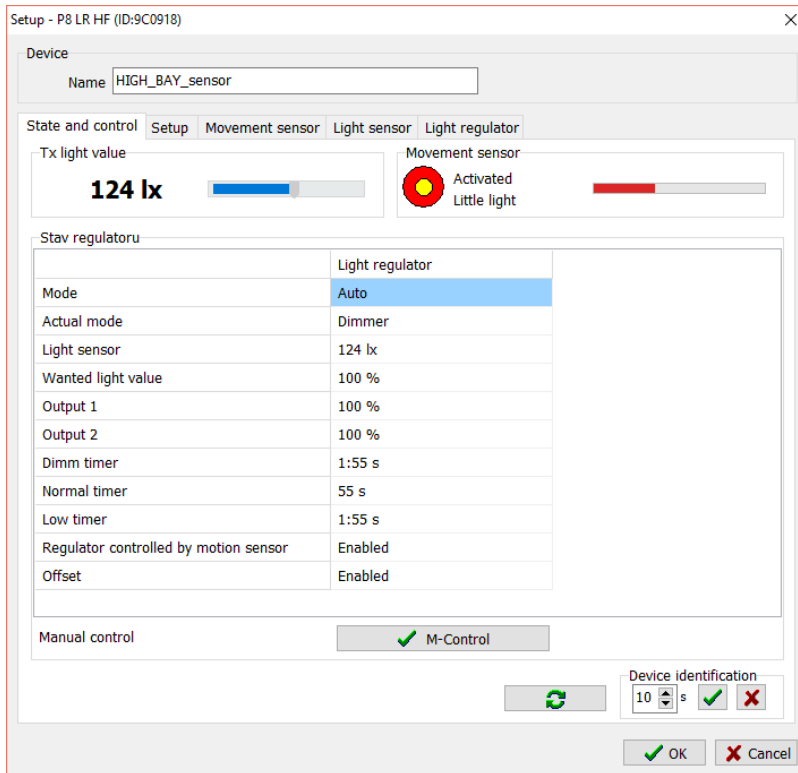
Set up Card
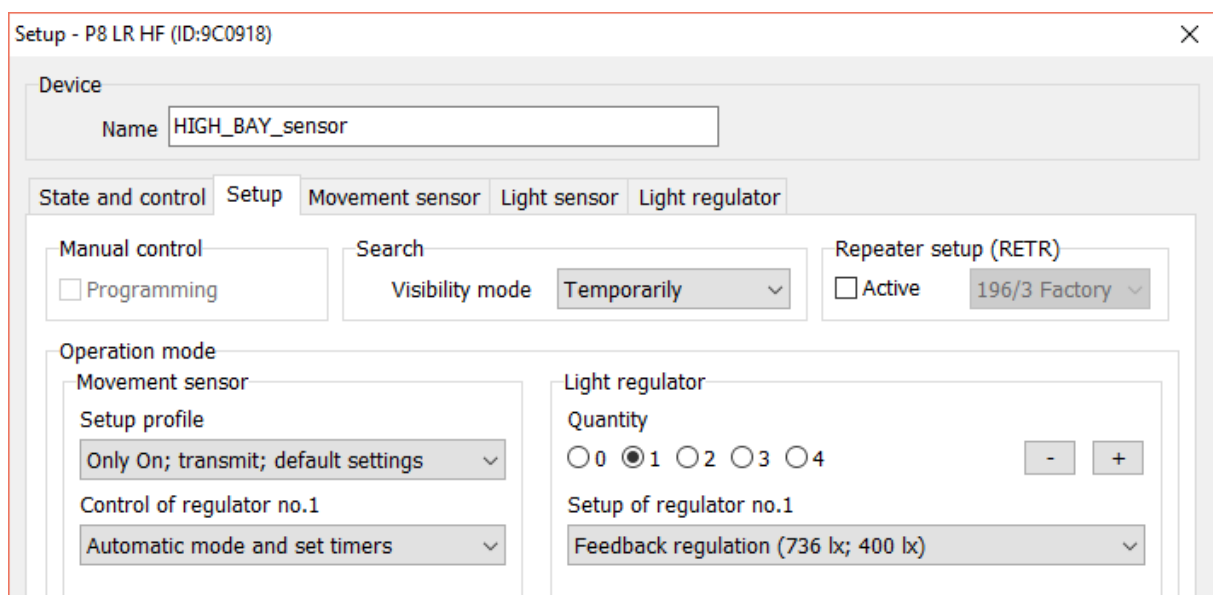
Movement sensor Card

Setup - P8 LR HF (ID:9C0918)   ✕

Device

Name HIGH_BAY_sensor

| State and control | Setup | Movement sensor | Light sensor | Light regulator |

Parameters

Mode Only On ⌄   ☑ Activate after power on

Lighting 704 ⌄ lx

Minimal Tx period 15,0 s ⌄ H:MM:SS

Insensivity 61 ⬍

Light regulation control

Light regulator

Movement detected

Mode Auto ⌄

Auto mode timers

Dimm timer No change ⌄

Normal timer Set from setup ⌄

Low timer Set from setup ⌄

Tx state setup
☑ Tx state   ☐ ACK

Daylight sensor settings Card

Setup - P8 LR HF (ID:9C0918)   ✕

Device

Name HIGH_BAY_sensor

| State and control | Setup | Movement sensor | Light sensor | Light regulator |

Measurement of illuminance

Monitored area No influence by regulators ⌄

Multiplier measured value 1,0 x

Setup

Use value for

☑ Tx state   ☑ Repeat   ☐ ACK

information ⌄

Daylight regulator Card

Setup - P8 LR HF (ID:9C0918)   ✕

Device

Name HIGH_BAY_sensor

| State and control | Setup | Movement sensor | Light sensor | Light regulator |

Setup profile Feedback regulation   ▾

Wanted light value

	Output control type	Wanted light value		Auto mode timers
Dimmer	Fixed output ▾	100 % ▾	⬤	2:00 ▾
Normal	Feedback controller ▾	736 lx ▾	⬤	1:00 ▾
Low	Feedback controller ▾	400 lx ▾	⬤	2:00 ▾

Auto mode setup

Full functionality   ▾

Dimmer mode setup

Rise/Decay 5 ▾ s

Manual 10 ▾ s

State after power failure

◯ Off   ⬤ Auto   ☑ + Dimm timer

◯ Low   ◯ Restore   ☐ + Normal timer

◯ Normal   ◯ Dimmer   ☐ + Low timer

Regulation parameters

Hysteresis 2,5 ▾ %

Change period 1 ▾ s

Source of illuminance

In device   ▾

Regulation output parameters

Maximum level		Minimum level	
100 % ▾	⬤	0,0 % ▾	⬤

Offset   Start value

| +0,0 % ▾ | ⬤ | 70,0 % ▾ | ⬤ |

Regulation Tx setup

☑ Tx state   ☑ Repeat   ☐ ACK

✓ OK   ✗ Cancel

8.3.2 Setting of links

Button transmitter activating temporary dimmer mode

HIGH_BAY_sensor

4bnt transmitter

- ☑ Top left
- ☑ Bottom left
- ☐ Top right
- ☐ Bottom right

Action
- ○ ◎ Ragulation 1 btn
- ◉ ⊞ Regulation
- ○ ◎ Dimmer 1-btn
- ○ ⊞ Dimmer
- ○ ⊞ On + Off
- ○ ◎ On
- ○ ◎ Off
- ○ ◎ On/Off
- ○ ⊞ Value regulation
- ○ ⊞ Direct control
- ○ ⊞ Mode
- ○ ◎ Special function
- ○ ⊞ Special function
- ○ ⊞ Radio light sensor

Link output
☑ Light regulator   ☐ 2   ☐ 3   ☐ 4

On action setup
- Mode: Auto
- ☐ New level use

Auto mode timers
- Dimm timer: Set from setup
- Normal timer: Set from setup
- Low timer: Set from setup

Off action setup
- Mode: Off
- ☐ New level use

Auto mode timers
- Dimm timer: No change
- Normal timer: No change
- Low timer: No change

Wanted levels
- ☐ Level setup enable

Link Setup
☑ Active   ☐ Locked   ☑ Security

[✓ OK] [✗ Cancel]

Light regulator to DALI receiver

DALI receiver

HIGH_BAY_sensor - Light regulator

- ◉ Output 1   ○ Output 2   ○ Mode
- No conversion
- -   -

Action
- ○ ◎ DIMM 1BTN
- ○ ⊞ DIMM 2BTN
- ○ ◎ ON
- ○ ◎ OFF
- ○ ◎ ON/OFF
- ○ ◎ TIMER
- ○ ◎ TIMER/OFF
- ○ ⊞ TIMER+OFF
- ○ ◎ ADDTIMER
- ○ ◎ ADDTIMER/LTOFF
- ○ ◎ ADDTIMER/OFF
- ◉ ⊞ DIRECT

Link output
- ☑ Channel 1 - DALI Group 0
- ☑ Channel 2 - DALI Group 1
- ☑ Channel 3 - DALI Group 2
- ☑ Channel 4 - DALI Group 3

Time setup
- Timer: 0   Delay: 0
- ☐ Use Low level
- Low level timer: -

Slew rate
- ◉ From setup   Rise: 1
- ○ Set :   Decay: 2

Level wanted
- Level
- 0 %   **100,0 %**   100 %
- Low level
- 0 %   **- %**   100 %

Link Setup
☑ Active   ☐ Locked   ☑ Security   ☑ ACK

[✓ OK] [✗ Cancel]

9 Contact

For the new software versions and product info visit our website www.enika.cz or use direct [link](#)

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