Dear customer,

these instructions apply in addition to the Lights Operating Manual. Observe in particular the safety instructions stated in the operating manual!

The operating manual informs of additional setting options on lights with PULSE PIR control and column operating panel MFT. The here described functions go beyond the general operation possibilities on the light and are usually rarely required.

Please observe that the instructions may also describe functions, which are not available on each light.
Operating panels

Column operating panel “MFT”
Fig. 1

Sensor operating panel “PULSE PIR”
Fig. 2

Menu structure “PULSE PIR - Vers. IV with MFT”

<table>
<thead>
<tr>
<th>Functions</th>
<th>Level 1</th>
<th>Level 2</th>
<th>Level 3</th>
<th>Level 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>ON/OFF</td>
<td>Background light</td>
<td>Sensitivity high</td>
<td>Follow-up time (5, 10, 15, 20, 25, 30 min)</td>
<td>Presence sensor range (10, 20, 40, 60, 80, 100%)</td>
</tr>
<tr>
<td>Change light level</td>
<td>External switching</td>
<td>Switch-on automatic</td>
<td>Presence control</td>
<td></td>
</tr>
<tr>
<td>Change light level</td>
<td>Burn-in function</td>
<td>Dual sensors</td>
<td>Parameter setting protection</td>
<td></td>
</tr>
<tr>
<td>Change parameterisation</td>
<td>Write protection</td>
<td>Sensor LED</td>
<td>Special function</td>
<td></td>
</tr>
<tr>
<td>functions</td>
<td>Light control</td>
<td>Continuous operation</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Demo mode</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The functions written in blue are not available.
Safety instructions
Make sure to read the instructions for use before putting the light into operation!
Please make sure to observe the safety instructions of the light operation instructions!

Abbreviations and symbols:
- LED lit permanently
- LED flashing
- LED light bar lit permanently
- LED light bar flashing
- Logo off
- Logo flashing
- Logo lit permanently

The manufacturer cannot be held liable for damage caused by using the unit for purposes contrary to the designated use or by ignoring safety instructions and warnings.
Operating Manual  Light Control  “PULSE PIR - Vers. IV with MFT”

In-factory setting
The lights are set in-factory so that initially they can be operated without changing the settings. To adapt the light to your individual needs, the parameterisation functions (see page 8-23) can be changed accordingly.

Operation

Restoring the in-factory setting
To restore the default settings, press one of the two keys [I or II] while the power supply is switched on.

The following functions are restored:
- Parameterisation functions are set to standard setting.
- All control parameters are set to standard setting.
- All control and follow-up times are set to standard setting.
- The burn-in time is deleted (function “OFF”)

Operating and display elements
All operating and setting functions can be carried out from the column operating panel (Fig. 3) as well as from the sensor operating panel (Fig.4).

The functions and settings for the column operating panel are displayed via the light bar, the logo background light and the LEDs [I and II].

The functions and settings of the sensor operating panel are displayed via both LEDs.

Note: If a column operating panel is available, the LED display in the sensor is automatically suppressed.

Fig.3 (Column operating panel)

Fig. 4 (Sensor operating panel)
## Operating general

### Operating elements

Via the two keys [I and II] different functions can be activated, depending on which key is pressed:

- Switch-on and switch-off
- Change the light level
- Change the light level
- Change basic settings

### Display

The selected light level is displayed via LED [I or II] in the pushbutton [I or II]:

- LED I lit Level I
- LED II lit Level II

The light bar shows the set intensity.

When changing the settings, the background lit logo flashes.
Operation Main functions

**Switching on**
Press the switch I - the light changes to light level I.

Press the switch II - the light changes to light level II.

**Switching off**
Briefly press the key on which the LED is lit - this will switch off the light.

**Change light level**
Briefly press the key on which the LED is not lit - this will switch the light to the other light level.

To change the light level
Press the switch (level I) or the switch (level II) and keep it pressed. The appertaining LED [I or II] and the logo start flashing after approx. 2 seconds. The light changes its intensity.

To change the dimming direction, briefly (< 1 sec) release the key and press it again.

Upon reaching the upper or lower limit, the LED and the logo flash more slowly and the intensity changes direction.

The presently reached dimming level is stored when you release the switch.
Changing basic settings - Part 1

**Change to parameterisation mode**

Keep both switches [I and II] pressed simultaneously for 10 seconds.

- The operating panel changes to the parameterisation mode (first to setting level 1).
- The background lit logo flashes (once per second). The LEDs valid for the level are lit on the light bar:
  - LED 1 Level 1
  - LED 1+2 Level 2
  - LED 1+2+3 Level 3
  - LED 1+2+3+4 Level 4

**Change setting level**

If both keys [I and II] are pressed repeatedly within 5 seconds, the next level is called.

- Level 2 is reached when the logo stops flashing. LEDs 1+2 are lit on the light bar.
- Level 3 is reached when the logo starts flashing again. LEDs 1+2+3 are lit on the light bar.
- Level 4 is reached when the logo stops flashing again. LEDs 1+2+3+4 are lit on the light bar.

**Change function**

When the desired setting level is reached, the setting of the first function (x.1) is displayed on the light bar (LED 1 is lit or LED flashing dark green).

By pressing key II, it is now possible to switch between functions.

- The LED valid for the level is lit or flashes on the light bar:
  - LED 1 Function x.1
  - LED 2 Function x.2
  - LED 3 Function x.3
  - LED 4 Function x.4
  - LED 5 Function x.5
  - LED 6 Function x.6
  - LED 5+6 Function x.7
Changing basic settings - Part 2

**Fig. 3**

**Change setting**
The LED on the light bar indicates whether a function is active (ON) or inactive (OFF) by permanent lighting or flashing, e.g.:
- LED permanently lit: function is active (ON)
- LED flashing: function is inactive (OFF)
The function can be activated or deactivated by using the key I.

**Leave parameterisation mode**
The parameterisation mode is left if no switch has been pressed for 10 seconds. The settings are stored.

**Fig. 6**
The following functions can be selected:

The bold-printed values are the in-factory defaults

<table>
<thead>
<tr>
<th>Level</th>
<th>Function</th>
<th>Light bar (fig. 6)</th>
<th>Designation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Function 1.1:</td>
<td>LED 1 (dark green);</td>
<td>Background light ON/OFF</td>
</tr>
<tr>
<td>1</td>
<td>Function 1.2:</td>
<td>LED 2 (light green)</td>
<td>External activation ON/OFF</td>
</tr>
<tr>
<td>1</td>
<td>Function 1.3:</td>
<td>LED 3 (yellow)</td>
<td>Burn-In function ON/OFF</td>
</tr>
<tr>
<td>1</td>
<td>Function 1.4:</td>
<td>LED 4 (orange)</td>
<td>Write protection ON/OFF</td>
</tr>
<tr>
<td>1</td>
<td>Function 1.5:</td>
<td>LED 5 (light red)</td>
<td>Light control ON/OFF</td>
</tr>
<tr>
<td>1</td>
<td>Function 1.6:</td>
<td>LED 6 (dark red)</td>
<td>Presence control ON/OFF</td>
</tr>
<tr>
<td>1</td>
<td>Function 1.7:</td>
<td>LED 6+5</td>
<td>Demo mode ON/OFF</td>
</tr>
<tr>
<td>2</td>
<td>Function 2.1:</td>
<td>LED 1 (dark green)</td>
<td>Sensitivity high ON/OFF</td>
</tr>
<tr>
<td>2</td>
<td>Function 2.2:</td>
<td>LED 2 (light green)</td>
<td>Switch-on automatic ON/OFF</td>
</tr>
<tr>
<td>2</td>
<td>Function 2.3:</td>
<td>LED 3 (yellow)</td>
<td>Dual sensors ON/OFF</td>
</tr>
<tr>
<td>2</td>
<td>Function 2.4:</td>
<td>LED 4 (orange)</td>
<td>Sensor LED ON/OFF</td>
</tr>
<tr>
<td>2</td>
<td>Function 2.5:</td>
<td>LED 5 (light red)</td>
<td>Continuous operation ON/OFF</td>
</tr>
<tr>
<td>2</td>
<td>Function 2.6:</td>
<td>LED 6 (dark red)</td>
<td>Parameter setting protection ON/OFF</td>
</tr>
<tr>
<td>2</td>
<td>Function 2.7:</td>
<td>LED 6+5</td>
<td>Special function ON/OFF</td>
</tr>
<tr>
<td>3</td>
<td>Function 3.1 - 3.6:</td>
<td>LED 1-6</td>
<td>Follow-up time 5, 10, 15, 20, 25, 30 min</td>
</tr>
<tr>
<td>4</td>
<td>Function 4.1 - 4.6:</td>
<td>LED 1-6</td>
<td>Range 10, 20, 40, 60, 80, 100 %</td>
</tr>
</tbody>
</table>

Note: The functions written in blue are not available. Please observe the explanations of the functions on the following pages.
### Change basic settings - Change setting level

#### Fig. 3

- **LED I**
- **Key I**
- **Logo**
- **Light bar**
- **Key II**
- **LED II**

#### Fig. 6

- **LED 1**
- **LED 2**
- **LED 3**
- **LED 4**
- **LED 5**
- **LED 6**

<table>
<thead>
<tr>
<th>Activation</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activate setting level 1</strong></td>
<td>Press both keys for at least 10 seconds</td>
</tr>
<tr>
<td><strong>Activate setting level 2</strong></td>
<td>Press both keys again for 5 seconds *</td>
</tr>
<tr>
<td><strong>Activate setting level 3</strong></td>
<td>Press both keys again for 5 seconds *</td>
</tr>
<tr>
<td><strong>Activate setting level 4</strong></td>
<td>Press both keys again for 5 seconds *</td>
</tr>
<tr>
<td><strong>Leave parameterisation mode</strong></td>
<td>Do not actuate any key for at least 10 seconds</td>
</tr>
</tbody>
</table>

* Within 10 seconds, a change from one level to the next one is possible.
Change basic settings - Setting level 1

**Activate setting level 1**

Press both keys for at least 10 seconds

Display

Logo flashes white

Light bar LED 1

**Function 1**

**Background light ON/OFF**

Release both keys

Display

Logo flashes white

Bar display dark green (LED 1)

**Change function**

From ON to OFF or vice versa

Press key I

LED changes from constant to flashing or vice versa:

- constant = Function ON
- flashing = Function OFF

**Note:** To change the following functions from ON to OFF or vice versa, the following key actuations and displays, as described here, apply.

**Note:** The functions written in blue are not available.

---

**Fig. 3**

LED I

Key I

Logo

Light bar

Key II

LED II

**Fig. 6**

LED 1 2 3 4 5 6
### Change basic settings - Setting level 1 (continued)

<table>
<thead>
<tr>
<th>Function</th>
<th>Actuation</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.2 External switching ON/OFF</td>
<td>Press key II once</td>
<td>Logo flashes white, Bar display light green (LED 2)</td>
</tr>
<tr>
<td>1.3 Burn-In function ON/OFF</td>
<td>Press key II twice</td>
<td>Logo flashes white, Bar display yellow (LED 3)</td>
</tr>
<tr>
<td>1.4 Write protection ON/OFF</td>
<td>Press key II 3 times</td>
<td>Logo flashes white, Bar display orange (LED 4)</td>
</tr>
<tr>
<td>1.5 Light control ON/OFF</td>
<td>Press key II 4 times</td>
<td>Logo flashes white, Bar display lightred (LED 5)</td>
</tr>
<tr>
<td>1.6 Presence control ON/OFF</td>
<td>Press key II 5 times</td>
<td>Logo flashes white, Bar display dark red (LED 6)</td>
</tr>
<tr>
<td>1.7 Demo mode ON/OFF</td>
<td>Press key II 6 times</td>
<td>Logo flashes white, Bar display LED 6+5</td>
</tr>
</tbody>
</table>
## Change basic settings - Setting level 2

### Actuation | Display
---|---
Press both keys once for 10 seconds and once for 5 seconds | Logo is off. Lightbar LED 1+2

### Function 2.1 | Sensitivity high ON/OFF
---|---
Release both keys | Logo is off. Bar display dark green (LED 1)

### Change function | from ON to OFF or vice versa
---|---
Press key I | LED changes from constant to flashing or vice versa:
- constant = Function ON
- flashing = Function OFF

**Note:** To change the following functions from ON to OFF or vice versa, the following key actuations and displays, as described here, apply.

**Note:** The functions written in blue are not available.
## Change basic settings - Setting level 2 (continued)

### Fig. 3

- **LED I**
- **Key I**
- **Logo**
- **Light bar**
- **Key II**
- **LED II**

### Fig. 6

<table>
<thead>
<tr>
<th>Actuation</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Activate function 2.2</strong></td>
<td><strong>Switch-on automatic</strong></td>
</tr>
<tr>
<td><img src="light-green" alt="LED 1 on" /></td>
<td><strong>ON/OFF</strong></td>
</tr>
<tr>
<td>Press key II once</td>
<td>Logo is off</td>
</tr>
<tr>
<td></td>
<td>Bar display light green (LED 2)</td>
</tr>
<tr>
<td><strong>Activate function 2.3</strong></td>
<td><strong>Dual sensors</strong></td>
</tr>
<tr>
<td><img src="light-green" alt="LED 2 on" /></td>
<td><strong>ON/OFF</strong></td>
</tr>
<tr>
<td>Press key II twice</td>
<td>Logo is off</td>
</tr>
<tr>
<td></td>
<td>Bar display yellow (LED 3)</td>
</tr>
<tr>
<td><strong>Activate function 2.4</strong></td>
<td><strong>Sensor LED</strong></td>
</tr>
<tr>
<td><img src="yellow" alt="LED 3 on" /></td>
<td><strong>ON/OFF</strong></td>
</tr>
<tr>
<td>Press key II 3 times</td>
<td>Logo is off</td>
</tr>
<tr>
<td></td>
<td>Bar display orange (LED 4)</td>
</tr>
<tr>
<td><strong>Activate function 2.5</strong></td>
<td><strong>Continuous operation</strong></td>
</tr>
<tr>
<td><img src="light-red" alt="LED 4 on" /></td>
<td><strong>ON/OFF</strong></td>
</tr>
<tr>
<td>Press key II 4 times</td>
<td>Logo is off</td>
</tr>
<tr>
<td></td>
<td>Bar display lightred (LED 5)</td>
</tr>
<tr>
<td><strong>Activate function 2.6</strong></td>
<td><strong>Parameter setting protection</strong></td>
</tr>
<tr>
<td><img src="light-red" alt="LED 5 on" /></td>
<td><strong>ON/OFF</strong></td>
</tr>
<tr>
<td>Press key II 5 times</td>
<td>Logo is off</td>
</tr>
<tr>
<td></td>
<td>Bar display dark red (LED 6)</td>
</tr>
<tr>
<td><strong>Activate function 2.7</strong></td>
<td><strong>Special function</strong></td>
</tr>
<tr>
<td><img src="dark-red" alt="LED 6 on" /></td>
<td><strong>ON/OFF</strong></td>
</tr>
<tr>
<td>Press key II 6 times</td>
<td>Logo is off</td>
</tr>
<tr>
<td></td>
<td>Bar display LED 6+5</td>
</tr>
</tbody>
</table>
## Change basic settings - Setting level 3

### Fig. 3

<table>
<thead>
<tr>
<th>LED</th>
<th>Key</th>
<th>Logo</th>
<th>Light bar</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>I</td>
<td>W</td>
<td>I</td>
</tr>
<tr>
<td>II</td>
<td>II</td>
<td></td>
<td>II</td>
</tr>
</tbody>
</table>

### Fig. 6

<table>
<thead>
<tr>
<th>LED 1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
</tr>
</thead>
</table>

### Activate setting level 3 (function 3.1 - 3.6)

- **Actuation**: Press both keys once for 10 seconds and twice for 5 seconds.
- **Display**: Logo flashes white, Lightbar LED 1+2+3.

### Change function

- **Increase the follow-up time in stages**
  - Briefly press key I
  - The light bar shows the newly set follow-up time.
  - Each LED which does not flash means a follow-up time of 5 min:
    - Level 1: LED 1 - 5 min
    - Level 2: LED 1-2 - 10 min
    - Level 3: LED 1-3 - 15 min
    - Level 4: LED 1-4 - 20 min
    - Level 5: LED 1-5 - 25 min
    - Level 6: LED 1-6 - 30 min

- **Reduce follow-up time in stages**
  - Briefly press key II
  - The light bar shows the newly set follow-up time.
## Change basic settings - Setting level 4

<table>
<thead>
<tr>
<th>Actuation</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Press both keys once for 10 seconds and three times for 5 seconds</td>
<td>Logo is off Lightbar LED 1+2+3+4</td>
</tr>
</tbody>
</table>

### Change function

<table>
<thead>
<tr>
<th>Function</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase presence range</td>
<td>The light bar shows the newly set presence range.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Level</th>
<th>LED</th>
<th>Presence Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>10 %</td>
</tr>
<tr>
<td>2</td>
<td>1-2</td>
<td>20 %</td>
</tr>
<tr>
<td>3</td>
<td>1-3</td>
<td>40 %</td>
</tr>
<tr>
<td>4</td>
<td>1-4</td>
<td>60 %</td>
</tr>
<tr>
<td>5</td>
<td>1-5</td>
<td>80 %</td>
</tr>
<tr>
<td>6</td>
<td>1-6</td>
<td>100 %</td>
</tr>
</tbody>
</table>

### Change function

<table>
<thead>
<tr>
<th>Function</th>
<th>Display</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reduce presence range</td>
<td>The light bar shows the newly set presence range.</td>
</tr>
</tbody>
</table>

**Note:** The functions written in blue are not available.
Function 1.1  
**Background light**  
Function to switch the logo back-
ground light on and off.  
The function is basically set to  
"ON". The background lighting of 
the logo is always active as soon 
as the light is connected to the 
power supply.  
When you change the function, 
the logo lights only with the light 
switched on.  
The function can be changed on  
switchable lights XXX /2  
dimmable lights XXX /D  
lights with sensors XXX /R  
For lights without the column op-
erating panel MFT, the function is 
not available.

Function 1.2  
**External switching**  
Function to operate the light via 
external switching elements.  
The default setting of the function 
is „OFF“. When power is supplied 
from an external place, the light 
remains switched off.  
If the function is active, the light 
switches to the level which was set 
last as soon as the power supply 
is switched on (e.g. via a switched 
power outlet).  
The function can be changed on  
switchable lights XXX /2  
dimmable lights XXX /D  
lights with sensors XXX /R

Function 1.3  
**Burn-in function**  
Function for burning in the lamps  
By default, the function is set ex 
works to “OFF”. When the burn-in 
function is activated, the following 
functions are disabled:  
- Light control  
- Presence function  
- Dimming function  
After 100 operating hours, the 
function is automatically set to  
’OFF’ again, i.e., the light can now 
be operated without restrictions.  
The function can be changed on  
lights with sensors XXX /R

---

**Note:** The functions written in  
blue are not available.
Explaination of the functions (part 2)

**Function 1.4  
Write protection**

Function for admission or avoidance of setting variations.

The default setting of the function is "OFF" i.e., the set levels can be overwritten at any time.

The levels cannot be changed if the write protection is active.

The function can be changed on lights with sensors XXX /R

---

**Function 1.5  
Light control**

Function for the automatic readjustment of the set brightness in case the ambient brightness changes.

The default setting of this function is "ON" i.e., the light control is active.

The light is dimmable with the light control switched off.

The function can be changed on lights with sensors XXX /R

---

**Function 1.6  
Presencecontrol**

Function to detect the presence of persons.

The default setting of this function is "ON" i.e., the presence control is active.

If the function is switched on, the light automatically switches off, if for a certain time no presence is detected.

If the presence control is switched off, the light functions as a light with light control or as dimmable light.

The function can be changed on lights with sensors XXX /R

---

**Note:** The functions written in blue are not available.
Explanation of the functions (part 3)

Function 1.7

Demo mode

Function to demonstrate and to test the light functions.

The default setting of this function is "OFF", i.e., the demo mode is inactive.

All control times are working in the seconds range if the demo mode is switched on.

Note: This mode is left automatically 10 minutes after the last key was pressed.

The function can be changed on lights with sensors XXX /R

Note: The functions written in blue are not available.
Explanation of the functions (part 4)

**Function 2.1**  
**Sensitivity high**  
Function to change the sensitivity of the presence control.  
The function is basically set to "OFF"  
The function can not be changed.

**Function 2.2**  
**Switch-on automatic**  
Function to admit or to suppress automatic switch-on with insufficient light or in case of presence (semi-automatic).  
The default setting of this function is "ON," i.e., the light is automatically switched on in case of presence or insufficient light.  
The light has to be switched on manually even in case presence was detected if the switch-on automatic is inactive.  
The function can be changed on lights with sensors XXX /R

**Function 2.3**  
**Dual sensors**  
Function for the adjustment of the operating mode when used with an additional presence sensor (optional accessories).  
The default setting of this function is "OFF," i.e., the switch-on automatic works when a presence is detected by one of the two sensors.  
Both sensors must detect a presence to turn on the light if this function is active.  
The function can be changed on lights with sensors XXX /R

*Note:* The functions written in blue are not available.
Explanation of the functions (part 5)

**Fig. 3**

- LED I
- Key I
- Logo
- Light bar
- Key II
- LED II

**Function 2.4**

**Sensor LED**

Function to switch both LEDs in the sensor operating panel on and off (see fig. 4).

The function is normally switched "OFF"; that is, the LEDs in the light head are switched off.

For lights without the column operating panel, the function is switched to "ON".

If the function is switched on, the LEDs in the light head light in addition to the light bar display.

The function can be changed on lights with sensors XXX/R if equipped with column operating panel (MFT).

**Fig. 4**

- LED II
- LED I
- Key I
- Key II
- Sensor

**Function 2.5**

**Continuous operation**

Setting function for continuous operation.

The default setting of the function is "OFF".

The light operates continuously if the function is switched on. Even if no presence is detected, the light lights at the lowest level.

The function can be changed on lights with sensors XXX/R.

**Function 2.6**

**Parameter setting protection**

Function for activating the parameter setting protection (required for final inspection).

By default, the function is set to "OFF".

When the function is switched on, a factory reset will not overwrite the set parameters. The parameter setting of the electronic ballast units will be carried out.

The function can be changed on lights with sensors XXX/R.
**Function 2.7**  
Special function  
The special function is not available.  
The function cannot be changed.

**Function 3.1 - 3.6**  
Follow-up time  
Function to adjust the time after which the light is to be switched off if no presence is detected.  
The default setting of the follow-up time is 10 min.  
6 different follow-up times from 5 to 30 min can be set.  
The function can be changed on lights with sensors XXX/R.

**Function 4.1 - 4.6**  
Presence range  
Function to set the detection range of the presence sensor.  
The default setting for the range of the presence sensor is 100%.  
The function cannot be changed.

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**Note:** The functions written in blue are not available.