

## Installation and Operating Instruction

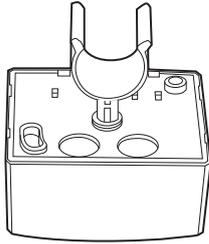
### 1. Mounting preparations

Work on the 230 V mains supply may only be carried out by qualified professionals or by instructed persons under the direction and supervision of qualified skilled electrical personnel in accordance with electrotechnical regulations.

Disconnect supply before installing!

When in Master/Slave mode of operation, the Master-appliance must always be installed at the location where there is least daylight.

### 2. Installation



The LUXOMAT® PD5-M-1C-Clip is supplied with a 90 cm long, 5 x 0.75, colour-coded cable and is pre-wired.

The detector has been specially developed for clipping onto fluorescent lamps of size T5+T8.

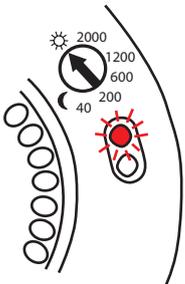
It is particularly suitable for use with suspended light-strips or for ceiling applications where holes caused by installation are to be avoided. Two clip sizes of the type required are enclosed. Carry out the clipping-on procedure as follows:

The height-adjustable clip can be inserted in the housing easily as long as the markings on the clip-shaft and the housing are in line with each other. Once the correct distance to the light has been established, lock the shaft by rotating through 90° in an anti-clockwise direction.

### 3. Detection area

Mounting height	Range (circular detection) T=18°C		
	seated	walking across	walking towards
2.00 m	r = 2.00 m	r = 4.00 m	r = 2.00 m
2.50 m	r = 2.50 m	r = 5.00 m	r = 3.00 m
3.00 m	r = 3.00 m	r = 6.00 m	r = 3.70 m
3.50 m	–	r = 7.00 m	r = 4.30 m
4.00 m	–	r = 8.00 m	r = 4.80 m
4.50 m	–	r = 9.00 m	r = 4.50 m
5.00 m	–	r = 10.00 m	r = 6.00 m

### 4. Self test cycle



The product enters an initial 60-second self-test cycle, when the supply is first connected. The occupancy detector is ready for operation.

### 5. Putting into operation / Settings



#### Follow-up time for light control

The time can be set infinitely variably at between 15 sec. and 16 min.

Symbol **TEST**: test mode (every movement switches on the light for a period of 1 second, switching it off for a period of 2 seconds after that regardless of the level of brightness)



#### Twilight-switch for light control (relay 1)

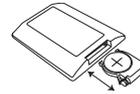
The switch-on value for the light can be set at between 10 and 2000 Lux. Using the rotary control, the luminance set points can be set as desired.

Symbol ☾: Night-time operation

Symbol ☀: Daytime/ Night-time operation

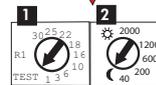
### 6. Settings carried out using remote control (optional)

#### Remote control LUXOMAT® IR-PD



#### 1. Check Battery:

open battery compartment by pressing the plastic springs together and removing the battery-holder.



#### 2. IMPORTANT

Please pay attention, that the setting is Potentiometer 1 at "TEST" and Potentiometer 2 **not** at "SUN". All values which have been programmed using the remote control will be deleted in the event of power failure in the position "TEST/SUN". Please switch Potentiometer 2 over to "MOON" or any other value.

#### Caution:

Settings with remote control supersedes the settings by courtesy of potentiometers.

### Option:



IR-PD



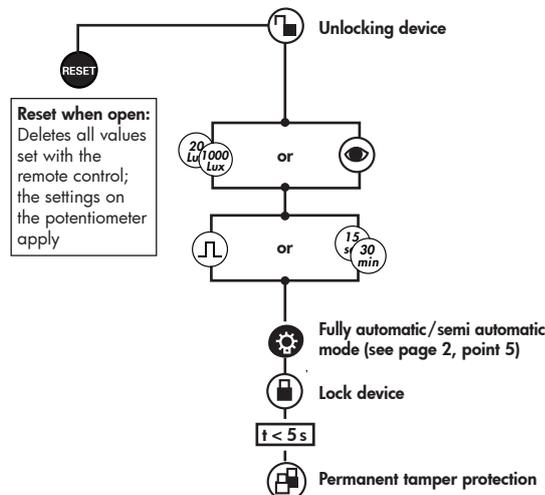
Wall bracket for remote control IR-PD



IR-PD-Mini

### Settings for master with remote control

#### Settings for relay Channel 1:



**Note:** The buttons for channel 2 (R2) have no function for the PD5-M-1C-Clip.

### Explanation of button functions



Target value for brightness



Automatic reading in of the current light value as a new target light value



Lag times for channel 1



Pulse function for channel 1, 1s every 9s on motion detection  
The pulse function can only be selected in fully automatic mode.



Activate test mode when closed  
**To deactivate:** press reset



Resetting when closed  
The lighting relay is switched off, i.e. opened and the follow-up times reset.



**Permanent protection against sabotage**  
This function blocks the unit permanently (green LED is illuminated). This operating mode can only be activated during the period of 5 seconds after pressing the "lock" button. This status will only permit actuating the function "Light on/Light off". The procedure for leaving this mode is as follows:

1. Switch off the current
2. Apply current for 31 - 59 seconds (green LED flashes)
3. Switch of the current again
4. Apply current, wait for selftest cycle
5. Open detector



**Light on/off when closed**  
The light will remain switched on/off for as long as movements are detected in the areas of coverage. Once the last movement has been detected, the light will remain on for the duration of the follow-up time as per setting. The appliance will then return independently to the mode selected (Fully or Semi-automatic).

## 7. Switching between fully automatic and semi automatic mode when open

(for IR-PD functions see page 1)

### Fully automatic operation

In this operating mode, the lighting switches automatically on and off for increased comfort, depending on presence and brightness (red LED lights up for 1.5 sec.).

### Semiautomatic operation

**(Semiautomatic can only be activated via the remote control!)**

In this operating condition, in order to gain increased savings, the lighting is energized only after being manually switched on. Switch-off takes place automatically (red LED flashes quickly for 3 sec.).

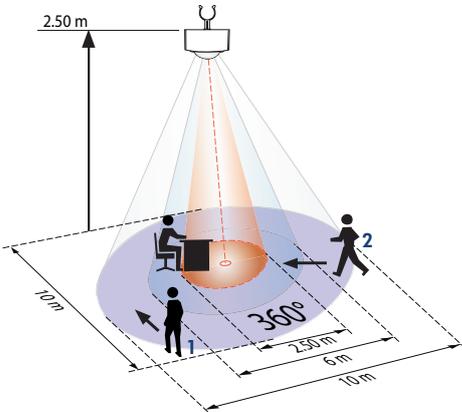
The semiautomatic mode basically behaves like the fully automatic one. However, the difference is that switching-on must always be carried out manually!

As many (closer-contact) buttons as desired can be wired in parallel on the "S" button input.

## 8. Manual switching when closed

You can switch the lighting on and off manually by pressing the pushbutton for a short time. It will stay on or off as long as people are detected plus the configured follow up time.

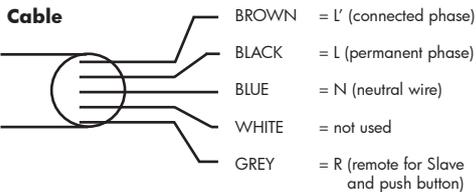
## 9. Range of Coverage



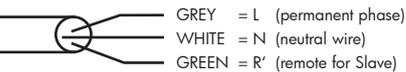
- 1 Walking across
- 2 Walking towards
- Seated

## 10. Colour-coding of pre-wired for PD5-Clip-M

### Cable

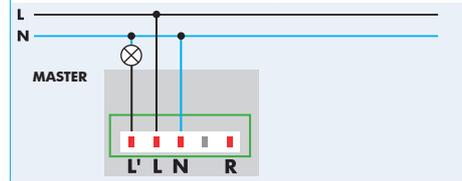


### Colour coding for pre-wired cable for PD5-S-Clip



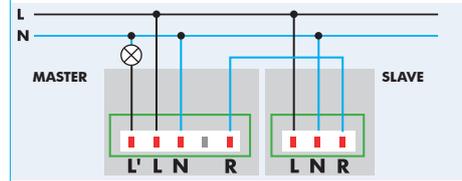
## 11. Wiring diagrams

### Terminal connection for standard operation



Presence and brightness-dependent light control with optional presence-dependent HVAC control

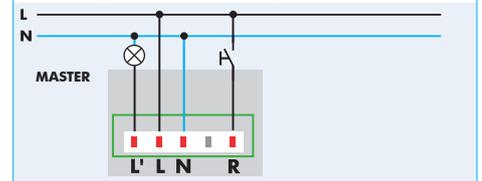
### Terminal connection for Master-/Slave-operation



### Master-/Slave-operation with one Master and several Slaves.

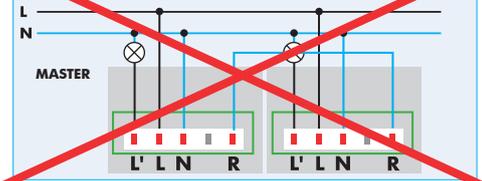
The Master is the only unit to read in the lux levels and to switch the connected loads. The Slave units will react on motion only, independently of the lux levels, by sending an impulse via the dry contact, to the Master. No further loads can be connected at this contact.

### Standard operation with external push button



A separate remote input (R) can be used to manually switch the light on and off as required.

### Terminal connection for parallel operation



The parallel operation is not allowed for Master units!

## 12. LED-functional indicators, fault-finding

The functional indicators in the case of the LUXOMAT® PD5-M-1C-Clip (red and green LED's)

**Red LED indicating self-checking mode (over a period of 60 seconds following mains'-supply lock-on)**

Flashing at intervals of 1 second  
EEPROM / memory empty

Flashing rapidly  
EEPROM / memory contains information

**Red LED as an indicator of status**

Flashing irregularly  
Movements are detected within the area of coverage

Flashing regularly  
Detector identifies bright, light off  
(dependent upon operating mode)

Not illuminated  
Detector identifies dark, light on (after switch-on delay)  
(dependent upon operating mode)

Flashing extremely rapidly  
Too bright / Too dark / Undefined

**Red LED as an acknowledgement of receipt for commands from the remote control**

Illuminated for 2 seconds and switching the relay  
Signal validly received

Illuminated for 0.5 seconds

Not-accepted command, detector blocked

**Green LED as an acknowledgement of receipt for commands from the remote control**

Lights up for 3 seconds

Semi automatic or user signal correctly received

**Green LED as an indicator of status for status "Permanent protection against sabotage"**

Flashing irregularly

Movements are detected within the area of coverage

Flashing regularly

Detector identifies bright, light off  
(dependent upon operating mode)

Not illuminated

Detector identifies dark, light on  
(dependent upon operating mode)

Illuminated for 2 seconds

Signal validly received

(only supported for "Light on/Light off" function)

## 13. Technical data

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#### Sensor and power supply in one case

**Power supply:** 230 V ~ ±10%

**Detection area:** Ø 360°

**Range max. [m]:** Ø radius

**Seated:** 2.50 1.25

**Walking across:** 10.00 5.00

**Walking towards:** 6.00 3.00

**Mounting height:** 2 - 3 m

**Power consumption:** < 1 W

**Channel 1 (Control the lighting)**

**Switching power:** 2300 W, cos φ = 1;

1150 W, cos φ = 0.5

**Time settings:** impulse or 15 sec. - 30 min.;

**Light sensor:** 10 - 2000 Lux

**Protection:** IP20 / Class II / C E

**Dimensions:** L 91.5 x W 60 x H 73 mm

**Housing:** UV- and shock-resistant

Polycarbonate

**Ambient temperature:** -25°C to +50°C

#### Technical data PD5-Slave-Clip

Electrical data same as above, but just one channel for signaling motion detection

**CE Declaration of Conformity:** The product complies with the low voltage recommendation 2006/95/EC and the EMV recommendation 2004/108/EC

## 14. Article / Part nr. / Accessory

Typ	Part nr.
PD5-M-1C-Clip (Master)	92315
PD5-S-Clip (Slave)	92316

#### LUXOMAT® Remote control:

IR-PD (incl. wall bracket)	92160
IR-PD-Mini	92159

#### Accessory:

Wall bracket for remote control as replacement	92100
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