B.E.G. LUXOMAT® PD3N-1C Micro

## 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!

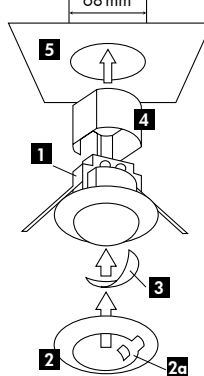The device is not suited for safe disconnection of the mains supply.

2a. Installation of the LUXOMAT® PD3N-1C-SM Micro
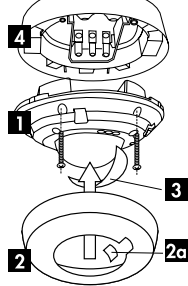
1) Sensor inset
2) Cover ring pluggable incl. cover for LEDs (2a)
3) Blind
4) SM-Socket

The detector must be installed on a solid and level surface. There is no need for frames.

2b. Installation of the LUXOMAT® PD3N-1C-FC Micro

1) Sensor inset
2) Cover ring pluggable incl. cover for LEDs (2a)
3) Blind
4) Protection cover
5) Ceiling (drill hole Ø 68 mm)

2c. Self test cycle

D – LED red noise detection
A – LED red
B – LED green
C – LED white
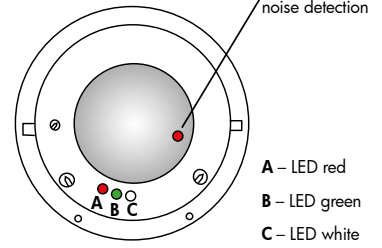
The product enters an initial 60-second self-test cycle, when the supply is first connected. The occupancy detector is ready for operation (see LED-functional indicators point 9).

3. Putting into operation / Settings

Follow-up time "Min/Sec"
The time can be set infinitely variably at between 30 seconds and 30 minutes.
Symbol ⊓: impulse < 1 sec.
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 regardless of the level of brightness)

Determining the current brightness
Set potentiometer to the "Test" setting. The green LED lights up permanently as soon as the value set at the potentiometer "Lux" dropps below the current measured brightness.
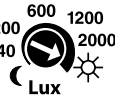
Twilight-switch "Lux"
The switch-on value for the light can be set at between 5 and 2000 Lux. Using the rotary control, the luminance set points can be set as desired.
Symbol ☼: Day operation, light sensor is inactive, it switches on/off regardless the light level
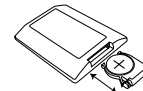
Sound
Max: highest sensitivity
Min: microphone switched off
Intermediate values to be adjusted accordingly to local conditions. Lighting of the LED means the noisedetector is functioning and triggers the timer again. The microphone is active for 9 seconds after the last movement and time delay completed.

4. Settings carried out using remote control (optional)

Remote control LUXOMAT® IR-PD3N

1. Check Battery:
open battery compartment by pressing the plastic springs together and removing the battery-holder.

2. Hardware Reset
Reset: The setting of "factory-setting" from any other position causes a "Reset" of the device. That means all operating modes activated at that time are reset to the factory setting (fast flashing of all LEDs for 5 seconds).

Caution:
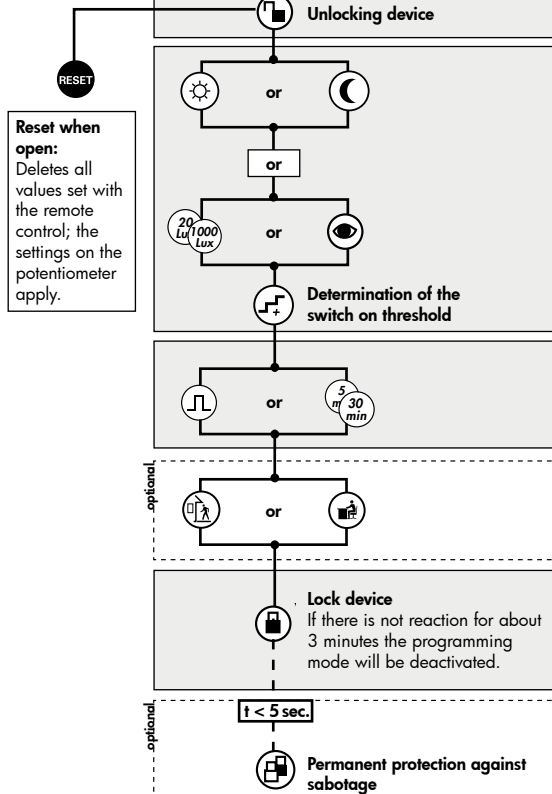Settings with remote control supersede the settings by courtesy of potentiometers.

Option:

IR-PD3N

Wall bracket for remote control IR-PD3N

IR-PD-Mini

Settings with remote control

Settings Relay Channel 1:

Unlocking device

Reset when open:
Deletes all values set with the remote control; the settings on the potentiometer apply.

☼ or ☾
or
20 Lux/1000 Lux or 👁
Determination of the switch on threshold

⊓ or 5 min/30 min

(optional) 🔒 or 📱

Lock device
If there is not reaction for about 3 minutes the programming mode will be deactivated.

t < 5 sec.

Permanent protection against sabotage

Description of the button functions

Luminance set point (20 Lux/1000 Lux)

Day operation: light sensor is inactive, it switches on/off regardless the light level / **Night operation:** very low luminance set point of approx. 5 Lux for special applications

Automatic reading in the current light value as new luminance set point

Determination of the switch on threshold
Stepwise increasing of the actual luminance set point of 20 Lux every time you push the button (50 Lux from 100 Lux)

Follow-up time / Impulse function Channel 1 (5 min ⊓)

Sensitivity normal / Sensitivity high

Activation of test mode in locked position (TEST)
Deactivation: Press Reset

Resetting when closed (RESET)
Stop a running follow up timer and switch the relays off.

Permanent protection against sabotage
This function blocks the unit permanently (green LED is illuminated for motion display). This operating mode can only be activated during the period of 5 seconds after pressing the "lock" button (white LED is flashing). The procedure for leaving this mode is to implement a Reset (see point 4) or to act as follows:
1. Switch off the current
2. Apply current for 31 - 59 seconds
3. Switch on the current again
4. Apply current
5. Open detector

In the initialisation period 12 h Light ON/OFF (party function)
Activated by "Light" - push button
Deactivated by "Reset"- push button (default)

5. Manual Switching

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.
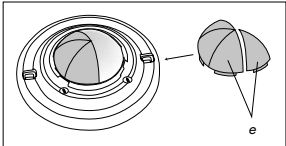
By pushing the button for more than 3 seconds the lighting will be switched on for 12 hours (Party program) and returns to full automatic mode after timeout.

6. Range
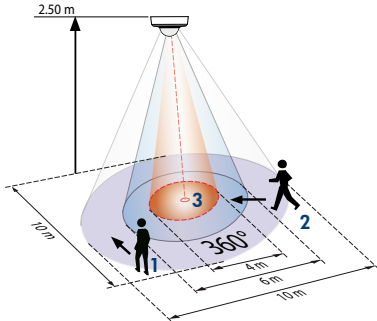
1	walking across
2	walking towards
3	smaller movements

7. Exclude sources of interference

In case the sensing area of the **LUXOMAT®** PD3N-1C is too large or areas are being covered that should not be monitored, the range can be reduced or limited by using the enclosed masking clips.

8. Article / Part no. / Accessory

Type	SM	FC	FM
PD3N-1C Micro	92219	92184	–

LUXOMAT® Remote control:
IR-PD3N (incl. wall bracket)	92105
IR-PD-Mini	92159

Accessory:
BSK Ball basket guard	92199

9. LED-functional indicators

| LED function indicators after each mains recovery (60 sec. initialisation period)		
Operating state	**LED function indicators**	
Double-locked	White and green shines for 5 sec. all 20 sec., after initialising notification	
	Indicator unprogrammed	Indicator programmed
Standard mode	Red flashes	Red flashes quickly
12 h ON/OFF active	Red and green flash	Red and green flash quickly

LED function indicators during operation	
Process	**LED function indicators**
Motion detection	Red flashes on each detected movement
Impulse mode active	Red and green flash one time all 4 sec.
12 h ON/OFF function active	Red and green flash alternately
IR command	White flashes once
IR command "Open" and sabotage active	White and green flash once slowly
Noise detection	Red flashes on each detected noise

10. Wiring diagrams

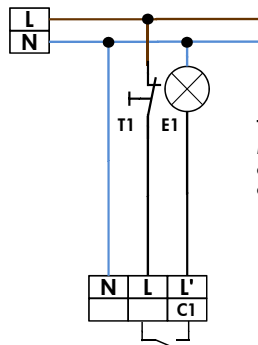**Standard mode with 1-channel motion detector**
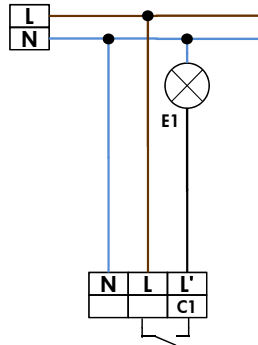
Standard mode with 1-channel motion detector with permanent light function
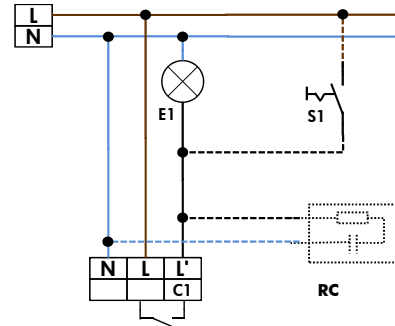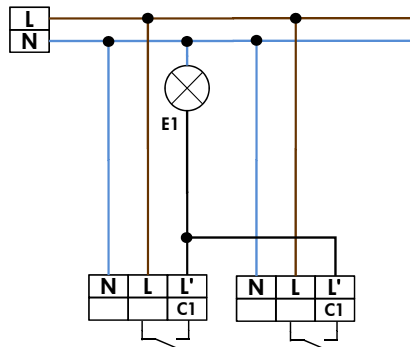
optional:
S1 = switch for permanent light
RC = RC-suppression kit if required

Standard mode with 1-channel motion detector with NC pushbutton
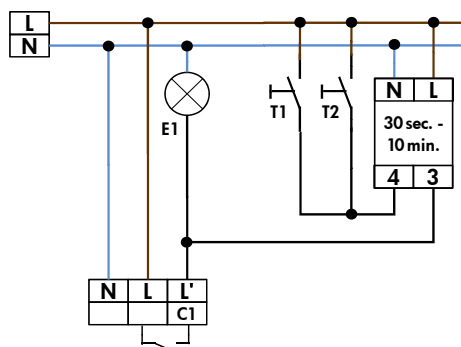
T1 = NC button
Manual switching additionally possible (press opener approx. 2 sec.).

Parallel connection with 1-channel motion detectors (max. 8 parallel)

Standard mode with 1-channel motion detector (f.ex. stairs)

11. Technical data PD3N-1C Micro

Sensor and power supply in one case

Power supply:	230 V~ ±10 %
Terminal clamps:	for single-wire conductor
Power consumption:	< 0.25 W
Ambient temperature:	-25°C – +50°C
Degree of protection/class:	SM = IP44; FC = IP23 /Class II
Settings:	via potentiometer or remote control
Area of coverage:	circular 360°

Range of coverage Ø H 2.5 m / T = 18°C:
smaller movements 4 m / tangential 10 m / radial 6 m

Recommended height for mounting:	2 - 3 m
Light measurement:	Mixed light, daylight + artificial light
Lux values:	5 - 2000 Lux

• Channel 1 for light-connection

Type of contact:	NOC/with pretravel tungsten contact and cero crossing circuit
Contact load:	2300 W cos φ = 1 / 1150 VA cos φ = 0.5, μ-Contact
Time-settings:	30 sec. - 30 min. / Test

Dimensions H x Ø [mm]	SM	FC
PD3N	53 x 106	81 x 83

Visible portion when built into ceiling: 34 x 106 mm

$C\epsilon$ **Declaration of Conformity:** The product complies with the low voltage recommendation 2006/95/EC and the EMV recommendation 2004/108/EC.

12. Trouble shooting

1. Lamp does not light up

Lamp may be defect:
Replace lamps

No mains connection/power:
Check connection and mains fuse by qualified electrician

Incorrect setting of CDS twilight threshold:
Correct setting of CDS threshold

Lens of sensor unit obstructed by dirt or other objects:
Clean lens, remove objects

2. Lamp turns ON too late or detection range too small

LUXOMAT® PD3 is mounted too high:
See table of mounting heights.
Correct mounting if required.
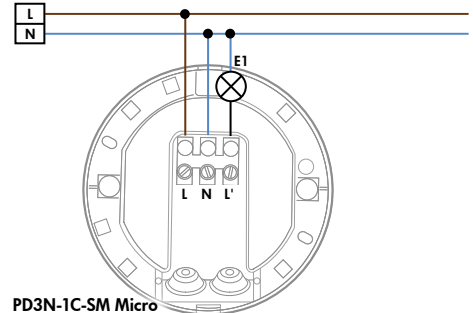
3. Lamp stays ON continuously

Continuous thermal activity detected ie fan, central heating ducts, animals within detection area:
Remove heatsource. Check proper function of **LUXOMAT®** *PD3N by covering the fresnel-lens. After expiry of delay timer, PD3N has to turn OFF lighting.*

LUXOMAT® PD3N connected in parallel to a manual override switch:
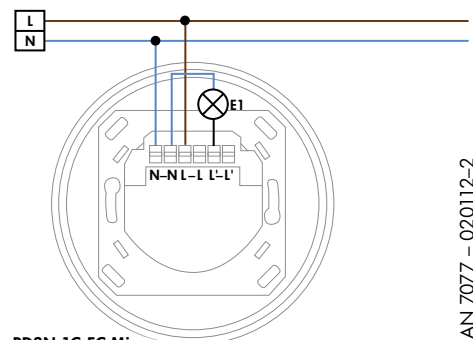*Connect switch correctly*

4. Unintended switching of light

Movement of heat source within detection area:
Check on presence of animals, fans or heaters

13. PD3N-1C-Connections

PD3N-1C-SM Micro

PD3N-1C-FC Micro