B.E.G. LUXOMAT® PD4-M-3C-TRIO

GB

Installation and Operating Instruction for B.E.G.-Occupancy detectors PD4-M-3C-TRIO-SM/-FC

1. Mounting preparations

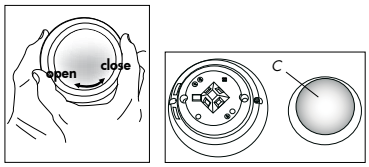
Work on the 230 V mains supply may only be carried out by qualified professionals or by instructed persons under the direction and supervision of qualified skilled electrical personnel in accordance with electrotechnical regulations.

Disconnect supply before installing!

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

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

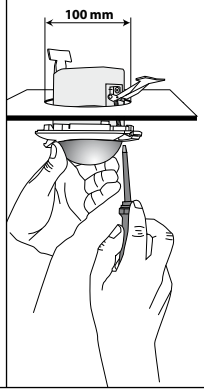
2a. Installation of the LUXOMAT® PD4-M-3C-TRIO-SM



The detector must be installed on a solid and level surface. The circular cover ring must be removed prior to assembly. To do this, twist the lens (C) anticlockwise by approximately 5° and lift off.

Having connected up the wires in accordance with regulations, secure the detector with 2 screws. After installation replace the lens and lock (turn clockwise). Mains to be connected.

2b. Installation of the LUXOMAT® PD4-M-3C-TRIO-FC

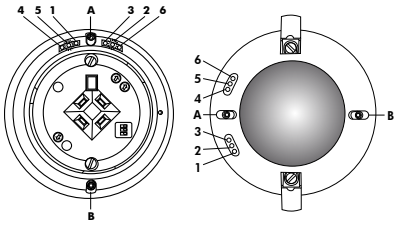


A circular opening of diameter 100 mm must be produced in the ceiling.

Having connected up the cables in accordance with regulations, the detector is inserted into the opening as shown and fixed into position with the retaining bracket using screws.

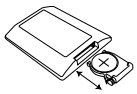
3. Hardware configuration

Position of light sensors and LEDs



A Light sensor 1 / B light sensor 2
1 LED red OFF function
2 LED green too light/too dark CDS 1
3 LED white semi-automatic switching channel 1
4 LED white semi-automatic switching channel 2
5 LED green too light/too dark CDS 2
6 LED red motion indicator/walking test

4. Putting into operation of the remote control IR-PD4-TRIO SWI (optional)



Check Battery:
Open battery compartment by pressing the plastic springs together and removing the battery-holder.
Caution: Settings with remote control supersede the settings by potentiometers.

5. Light measuring

In order to calculate a switching threshold, there is a five-minute light measurement. For his the detector switches off all channels and turns them on for five minutes afterward.

This measurement is made if:

- a new brightness value is changed with the potentiometer
- a new nominal value is set by use of the remote control (finish setting up with CLOSE switch)

The measurement is not done during the activated test function.
Unlocking the device interrupts the light measuring.

6. Putting into operation / Settings

Self test cycle
After an initial 60-second self-test cycle (initialization), the **LUXOMAT®** PD4-M-3C-TRIO is ready for operation.

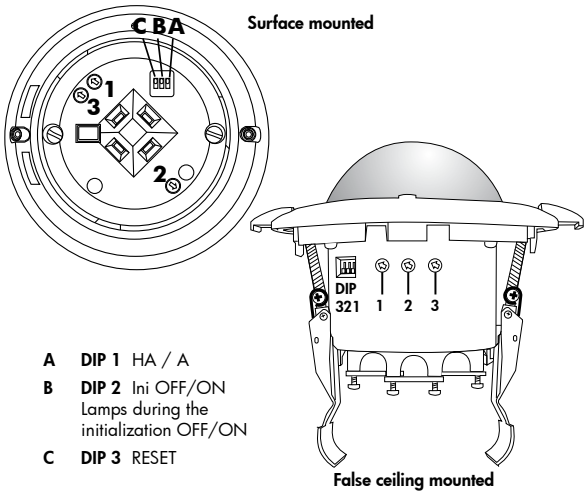
Follow-up time for light control 3 (see point 7)
The time can be set infinitely variably at between 1 and 60 minutes. The time-setting is valid for all 3 channels of the PD4-M-3C-TRIO.
Symbol **TEST**: Test mode
Every movement switches on the light for a period of 2 seconds, switching it off for a period of 2 seconds after that regardless of the level of brightness.

Twilight-switch for light control (Channel 1) - potentiometer 1 (see point 7)
The switch-on value for the light can be set at between 40 and 1200 Lux. Using the rotary control, the luminance set points can be set as desired.
Symbol ☾: Night operation
Symbol ☼: Day/Night operation

Twilight-switch for light control (Channel 2) - potentiometer 3 (see point 7)
Settings identically equal to channel 1

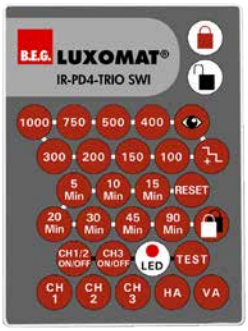
Pulse spacing PD-Slave
2 or 9 seconds can be set for the pause between 2 pulses sent to the Master. The setting can be made with activated (✹) or deactivated (○) LED indicator.
For devices with a separate Slave input, 2 sec. can be set.

7. Position of potentiometer and DIP switch



A **DIP 1** HA / A
B **DIP 2** Ini OFF/ON
Lamps during the initialization OFF/ON
C **DIP 3** RESET

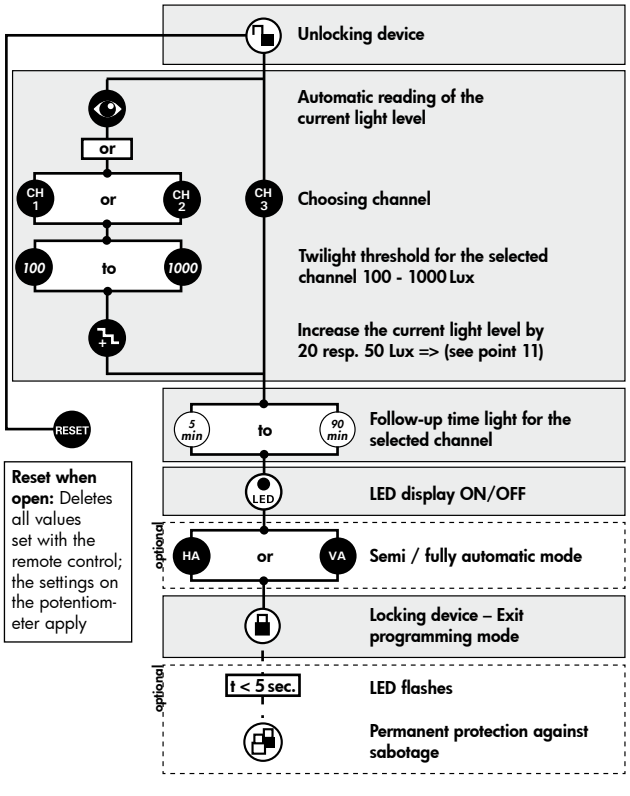
8. Option:



Part nr.: 92102

Wall bracket for remote control IR-PD4-TRIO SWI

9. Settings by remote control (Settings relay channel 1, 2, 3)



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

10. Explanation of the key functions

Lock device
5 sec. after locking, device can be locked twice (protection against sabotage)

Test function
Activation of the test function, Reset for deactivation

Resetting when locked
Reset – determine of all timers, switching off the channels

Permanent protection against sabotage
This function blocks the PD4-M-3C-TRIO permanently (all LED's are flashing).
t < 5 sec.
Proceed to exit this mode: reset the hardware using DIP switch 3.

Channel ON/OFF

11. Luminance set point

Each time the push button is pressed, the device increases the current switch-on value in increments of 20 Lux for a current switch-on value of < 100 Lux and in increments of 50 Lux for a current switch-on value of > 100 Lux.

12. Fully / Semi automatic mode

(see DIP switch functions and IR-PD4-TRIO on page 1)

Fully automatic operation VA

In this operating mode, the lighting switches automatically on and off for increased comfort, depending on presence and brightness.

- Channel 3 switches on after movement, when one channel (1 or 2) "detects darkness"
- Channel 3 switches off, when both channels switches off because of brightness or when the follow-up time is over.

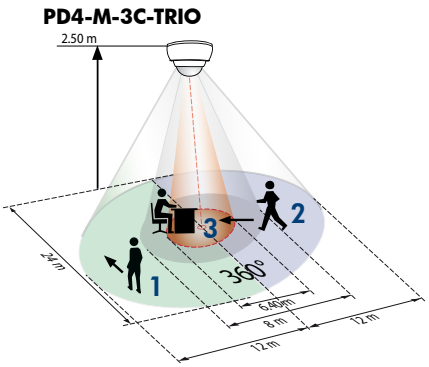
Semiautomatic operation HA

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 or manually.

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

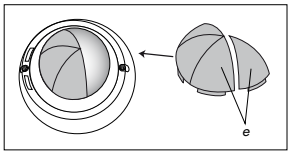
As many (closer-contact) buttons as desired can be wired in parallel on the "S" button input (ON/OFF).

13. Range of Coverage



1 Walking across
2 Walking towards
3 Seated

14. Exclude sources of interference



In case the sensing area of the **LUXOMAT®** PD4-M-3C-TRIO is too large or areas are being covered that should not be monitored, the range can be reduced or limited through use of the enclosed masking clips (e).

15. Article / Part nr. / Accessory

Type	SM	FC	FM
PD4-M-3C-TRIO (Master)	92740	92745	–
PD4-S (Slave)	92142	92254	92163

LUXOMAT® Remote control:

IR-PD4-TRIO-SWI (incl. wall bracket)	92102

Accessory:

SM-Socket IP44 for 92740	92386
Wire basket BSK for 92740	92467
Wire basket BSK for 92745	92199
Wall bracket for remote control as replacement	92100

16. Fault-finding

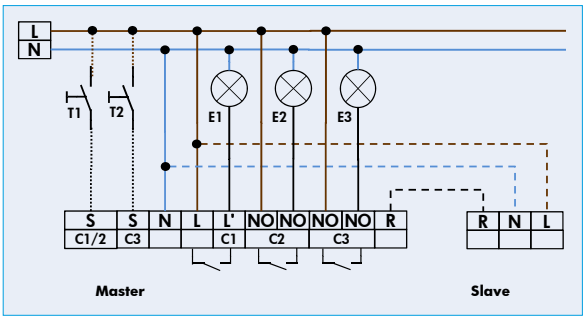
Permanently flashing

Check whether DIP3 switch (RESET) is set to "ON"

Reset to "OFF" if necessary

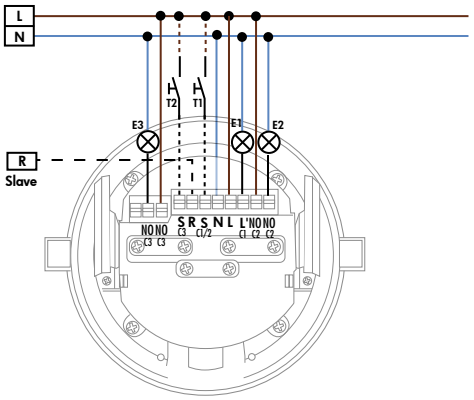
17. Wiring diagram

Standard mode with Master 3-channel TRIO occupancy detectors

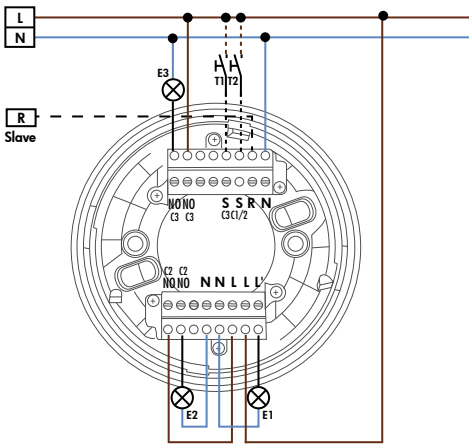


optional
T1&2 = NO button for semi-automatic mode
Slave for enlargement of detection area

18. PD4-M-3C-TRIO – Connections



PD4-M-3C-TRIO-FC



PD4-M-3C-TRIO-SM

19. Technical data PD4-M-3C-TRIO

Sensor and power supply in one case
Power supply: 230 V~ ±10 %
Power consumption: < 1 W
Ambient temperature: -25°C – +50°C
Degree of protection / class: IP20 / II
Settings: control dial, DIP switch and remote control
Light values-Remote control: 100 - 1000 Lux
Extension of the detection area: with Slaves
Area of coverage: circular 360°
Range of coverage Ø H 2.50 m / T=18°C:
seated 6.40 m / tangential 24 m / radial 8 m
Recommended height for mounting: 2 - 3 m
Mixed light measurement: daylight + artificial light measurement
Lux values-Potentiometer: 10 - 2000 Lux
• Channel 1-3 for light-connection, light controlled
Type of contact: NOC/with pretravel tungsten contact
Contact load: 3000 W, cos φ=1 / 1500 VA, cos φ=0.5, µ-Contact
Time-settings: 5 - 90 min. / Test with remote control
1 - 60 min. / Test with potentiometer

Dimensions H x Ø [mm]	SM	FC
PD4-M-3C-TRIO	124 x 85	100 x 117

Visible portion when built into ceiling: H 37 x Ø 117 mm

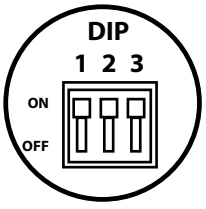
Technical data PD4-Slave

Power supply: 230 V~ ±10 %
Impulse output: Optocoupler max. 2 W
Impulse duration: 2 sec. or 9 sec.
Dimensions: see above

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

20. DIP switch functions

DIP switch	OFF	ON
1 (**A**)	Fully automatic channel 1, 2 and 3	Semi automatic channel 1, 2 and 3
2 (**B**)	Power supply ON / Light ON	Power supply ON / Light OFF
3 (**C**)		RESET



21. LED function displays

LED	Colour	Function	Display
6	red	Display of movement	Flashing: *motion is detected*
5	green	Display of light status channel 1	Flashes twice per second: *- bright enough (Light OFF/ too bright (Light ON)* Flashes once per second: *- power-up delay activated*
4	white	Semi automatic and automatic channel 1	Shines in semi-automatic mode
3	white	Semi automatic and automatic channel 2	Shines in semi-automatic mode
2	green	Display of light status channel 2	Flashes twice per second: *- bright enough (Light OFF/ too bright (Light ON)* Flashes once per second: *- power-up delay activated*
1	red	OFF function	Shines, when function is activated, that means that light is off in phase of initialisation
All LED's		Confirmation	Flash once per second: *- correct input* flashes twice per second: *- wrong input* flashes 3 times/once per second: *- Reset in closed mode* flashes twice/once per second: *- double closed*
LED2/LED5		Light measurement	Green LEDs flash by turns: *- light measuring and calculating cut-off threshold*
All LED's		Status	Flash once per second: *- Detector is double closed.*

B.E.G.