

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

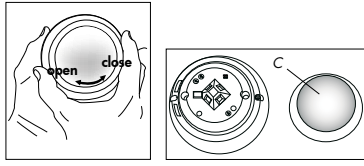
1. Mounting preparations

Work on the 230V 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.

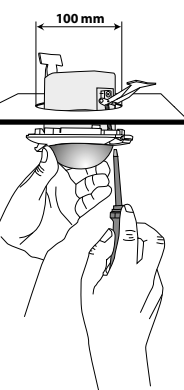
2a. Installation of the LUXOMAT® PD4-M-3C-TRIO-SM



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

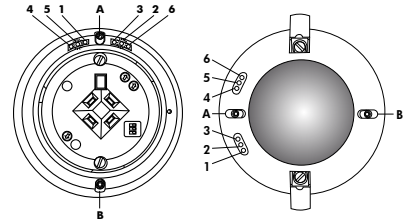


A circular opening of diameter 100mm must be produced in the ceiling.

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

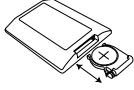


- A/B Light sensor 1 / light sensor 2
- 1 LED red OFF function
- 2 LED green too light/too dark CDS 1
- 3 LED white semi-automatic switching channel 1
- 4 LED white semi-automatic switching channel 2
- 5 LED green too light/too dark CDS 2
- 6 LED red motion indicator/walking test

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 this 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 poti
- 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, 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

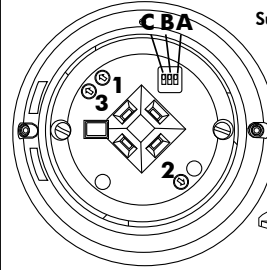
Symbol : Day/Night operation



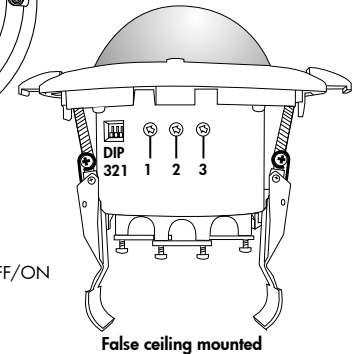
Twilight-switch for light control (Channel 2) - potentiometer 3 (see point 7)

Settings identically equal to channel 1

7. Position of potentiometer and DIP switch



Surface mounted



False ceiling mounted

- A DIP 1 HA / A
- B DIP 2 In OFF/ON Lamps at start-up OFF/ON
- C DIP 3 RESET

Option:

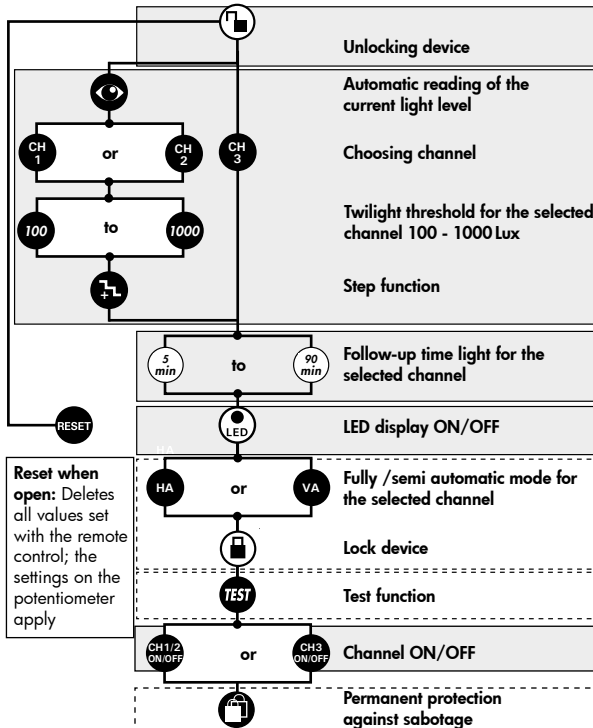


Part nr.: 92102



Wall bracket for remote control IR-PD4-TRIO SWI

8. 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

9. Explanation of the key functions

- Unlocking**
If device is unlocked, setting can be done for all channels. Directly after unlocking, channel 1 is always chosen at first
- Automatic reading of the actual light level channel 1+2**
 - Switching threshold, if light OFF
 - Shutdown threshold, if light ON
- Step function:** increase the current light level by 20 Lux
- Resetting when open**
The potentiometers are released for settings
- Semi automatic for the selected channel**
(Switching channel 1+2 can be activated only together)
- Fully automatic for the selected channel**
(Switching channel 1+2 can be activated only together)
- 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). Proceed to exit this mode: reset the hardware using DIP switch 3.
- Channel ON/OFF**
Switch ON or OFF channel 1+2 or channel 3
- Channel ON/OFF**
Switch ON or OFF channel 3

10. Fully / Semi automatic mode

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

Fully automatic operation

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.

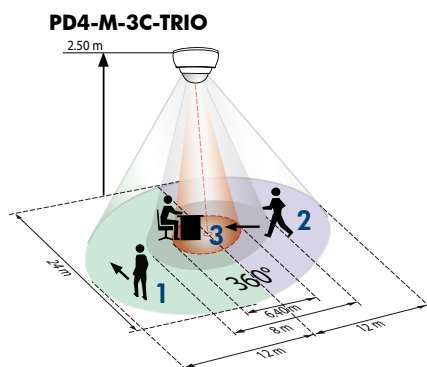
Semiautomatic operation

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!

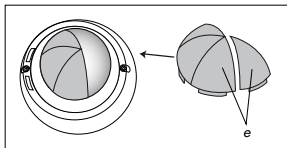
As many (closer-contact) buttons as desired can be wired in parallel on the "S" button input (ON/OFF).

11. Range of Coverage



- 1 Walking across
- 2 Walking towards
- 3 Seated

12. 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).

13. Article / Part nr. / Accessory

Typ	AP	DE	UP
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 92199
Wall bracket for remote control as replacement 92100

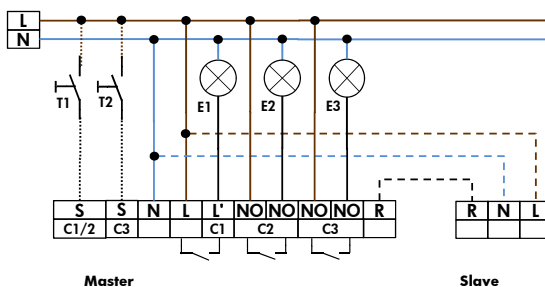
14. Fault-finding

Permanently flashing

Check whether DIP3 switch (RESET) is set to "ON"
Reset to "OFF" if necessary

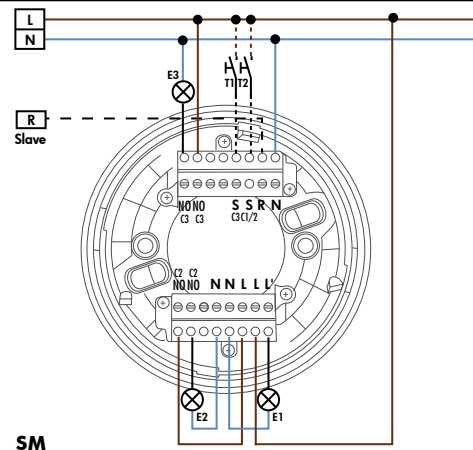
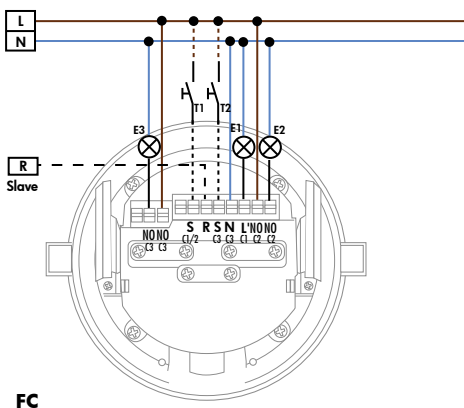
15. Wiring diagram

Terminal connection PD4-M-3C-TRIO-SM in Master-Slave-operation



Switching channel 1/2 S_{REL} - ON/OFF Press the button briefly
Switching channel 2 S_{HVC} - ON/OFF Press the button briefly

16. PD4-M-3C-TRIO - Connections



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

Sensor and power supply in one case

Power supply: 230V ~ ±10%

Power consumption: < 1W

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 - 1200 Lux

• Channel 1-3 for light-connection, light controlled

Type of contact: NOC/with pretravel tungsten contact

Contact load: 3000 W, cos φ=1 / 1150 VA

cos φ=0,5

Time-settings: 5 - 90 min. / Test with remote control

1 - 60 min. / Test with potentiometer

Dimensions H x Ø [mm] SM FC

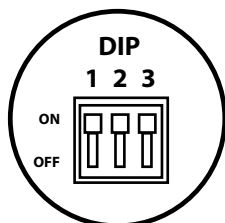
PD4-M-3C-TRIO 124 x 85 100 x 117

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

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

18. 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



19. LED function displays

LED	Colour	Function	Display
6	red	Display of movement	Flashes: 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.