

Installation and Operating Instruction for B.E.G. - Occupancy detectors PD4-M-DUO-SM/-FC/-FM

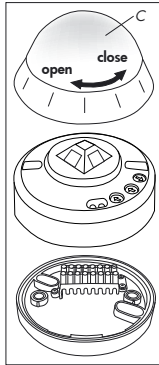
1. Mounting preparations

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.

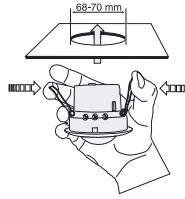
2a. Installation of the LUXOMAT® PD4-M-DUO-SM



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 through 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-DUO-FC

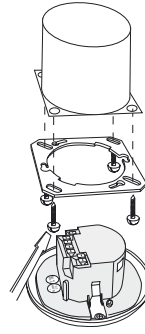


The detector has been designed and developed specifically for installation in suspended ceilings.

A circular opening of diameter 68 - 70 mm must first of all be produced in the ceiling.

Having connected up the cables in accordance with regulations, the detector is inserted into the opening as shown in the drawing opposite and fixed into position with the assistance of the spring clip.

2c. Installation of the LUXOMAT® PD4-M-DUO-FM

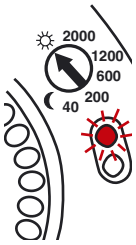


The detector can be installed in conventional inlet-sockets mounted on the ceiling.

The assembly plate enclosed must be stripped off prior to installation and secured to the ceiling using 4 screws and ensuring that it is not laterally transposed.

(Please refer to the connection diagrams on page 2 of the Operating Instructions when connecting up the wiring)

2d. 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.

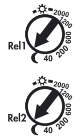
3. Putting into operation / Settings



Follow-up time for light control

The time can be set infinitely variably at between 1 minute and 16 minutes.

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 and 2)

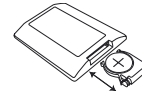
Each switch channel is allocated to a directed light sensor. The switch-on value for the light can be set at between 10 and 2000 Lux. Using the rotary control, the luminance set points can be set as desired.

Symbol ☾: Night-time operation

Symbol ☀️: Daytime/Night-time operation

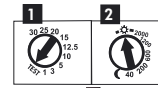
4. Settings carried out using remote control (optional)

Remote control LUXOMAT® IR-PD-DUO



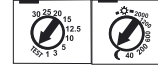
1. Check Battery:

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 supersede the settings by courtesy of potentiometers.

Option:



Unlocking device



Choose of the channel for the light value default



Mode measuring of the daylight or measuring of daylight and artificial light (mixed light)



Luminance set point



Automatic reading in the current light value as new luminance set point
Individual light value 20 - 1000 Lux



Follow-up time
5 min. up to 30 min.



Impulse function
1 sec. ON, 9 sec. OFF



Preset / user mode
Change the operation modes fully automatic / semi automatic mode => (see page 2, point 5)
Semi automatic: green LED,
Fully automatic: red LED on for ca. 3 sec.



Determination of the switch on threshold to attain a calculatory target value



Resetting when open
All values which have been programmed using the remote control IR-PD-DUO are deleted, and those values which have been set by potentiometer are activated.



Lock device



Lock device



Test mode
Reset to deactivate



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
3. Switch of the current again
4. Apply current
5. Open detector



Light on / off
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).

Wall bracket for remote control IR-PD-DUO



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5. Fully / Semi automatic mode

(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.

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.

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

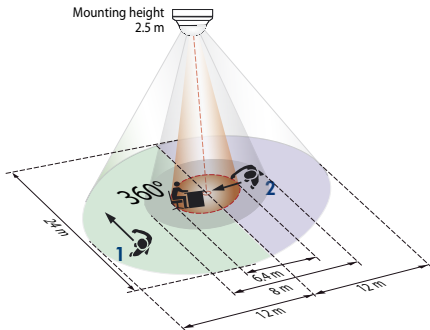
As many (closer-contact) buttons as desired can be wired in parallel on the "S" button input (ON/OFF).

6. 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.

7. Range of Coverage



- 1 walking across
- 2 walking towards
- seated

8. Article / Part-Nr. / Accessory

Type	SM	FC	FM
PD4-M-DUO (Master)	92158	92251	92252
PD4-S (Slave)	92142	92254	92163

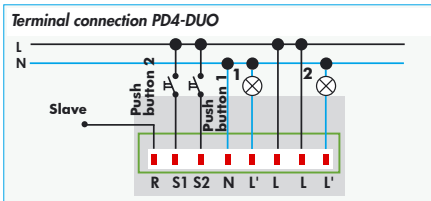
LUXOMAT® Remote control:

IR-PD-DUO (incl. wall bracket) 92092

Accessory:

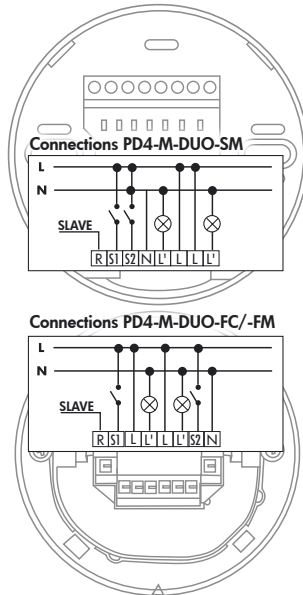
BSK Ball basket guard 92199
 Wall bracket for remote control as replacement 92100
 Occupancy detectors - Covering IP23 92206

9. Wiring diagrams



Separate reading of the lux levels for both channels and two switching channels!

10. PD4-M-DUO - Connections



11. Technical data PD4-M-DUO

Sensor and power supply in one case

Power supply: 230 V~ +6%/-10%

Power consumption: < 1 W

Ambient temperature: -25°C - +40°C

Degree of protection/class: SM IP54, FC and FM IP20 with accessory cover up IP23 / II

Settings: locally and by remote control

Light values-IR-PD-DUO: 20 - 1000 Lux

Parallel operation: Master/Slave

Area of coverage: circular 360°

Range of coverage Ø H 2.5 m / T=18°C:

seated 6.4 m / tangential 24 m / radial 12 m

Recommended height for mounting: 2 - 3 m

Light measurement: mixed light, daylight + artificial light

Lux values-Potentiometer: 10 - 2000 Lux

• **Channel 1 and 2 for light-connection**

Type of contact: NOC/with pretravel tungsten contact

Contact load: 2300 W, 230 V~, 10 A cos(φ)=1 / 1150 VA cos(φ)=0.5

Time-settings: 1 - 30 min. / Test

Max. no. of series-connected electronic ballasts:

depending on type and make, total connectable 140 µF.

Dimensions H x Ø [mm]

	SM	FC	FM
PD4-M-DUO	73 x 97	97 x 103	84 x 103

Visible portion when built into ceiling: 34 x 103 mm

Technical data PD4-Slave

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.

12. LED-functional indicators, fault-finding

The functional indicators in the case of the LUXOMAT® PD4-M-DUO (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 (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

Signal validly received

Illuminated for 0.5 seconds

Not-accepted command, detector blocked

Flashing extremely rapidly

Not-accepted command, occurs, for example, when an attempt is made to input twilight-value are too bright or too dark

Lights up for 3 seconds

Fully automatic mode

Flashing for 3 seconds

Semi automatic mode

Green LED as an indicator of status (only 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

(dependent upon operating mode)