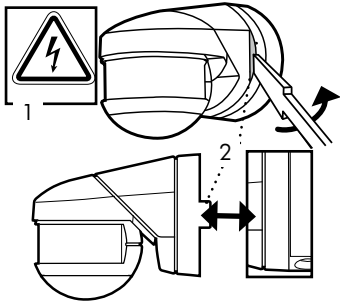# B.E.G. LUXOMAT® RC-plus next

## Operating and mounting instructions for motion detector LUXOMAT® RC-plus next

1. Mounting preparations

1) **Caution: have all work involving the 230 V mains supply carried out by a qualified electrician! Before starting disconnect the mains! Please be aware, that the LUXOMAT® RC-plus next is not suitable as an intrusion detector, since it is not equipped with a tamper contact.**
2) Socket base corner mounting
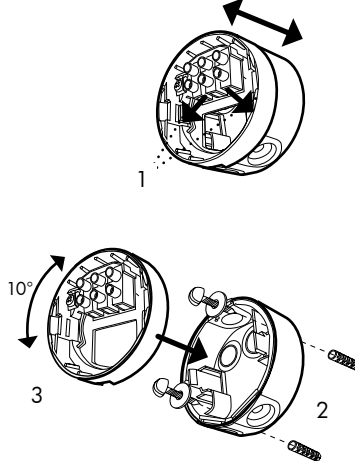3) In the case of mounting over the previous socket "RC-plus" use the extra cover that is provided.
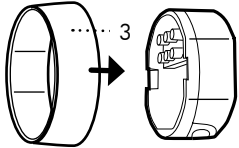
2. Mounting types
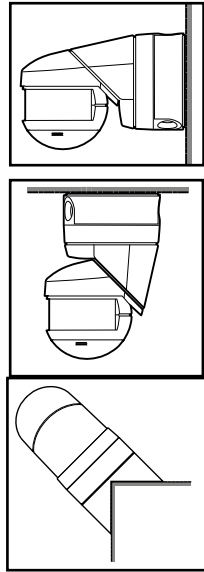
1) Wall mounting
2) Ceiling mounting
3) Outside corner mountable with plug-in socket (included with the RC-plus **next** 280, see point 20)

3. Plug-in socket

1) Press here for separation of terminal case and plug-in socket
2) Mount the plug-in socket with two screws and the enclosed seal rings on a firm base (Pay attention to inserting of the connection cable, see point 4)
3) Imprint the terminal case on plug-in socket. The terminal case on the plug-in socket is rotatable upto 10° for fine adjustment of the motion detector.

4. Inserting of the connection cable
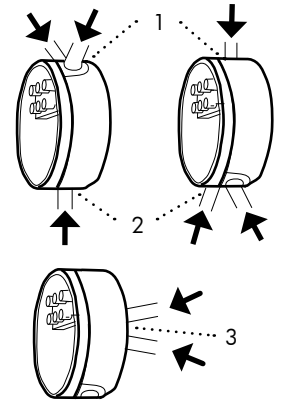
1) Connection cable from top down
2) Connection cable from below
3) Connection cable from behind
4) Terminal markings (Wiring diagrams see point 17)

L N L'
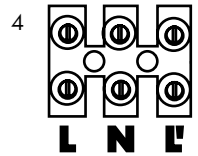
5. Putting into operation / Settings

Self test cycle

After mounting and connecting the 230 VAC supply voltage, the LED flashed for 1 min. to show a self testing unit. Then the unit is ready for operation and the settings can be made manually or with remote control (see point 11).
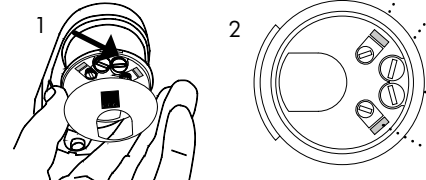
1) Remove the covering with slightly pressure
2) Adjust Range, follow-up accommodation and Lux value with screwdriver
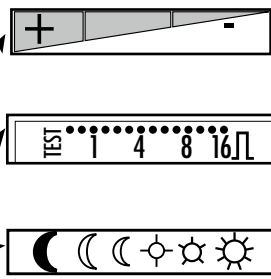
Mechanical range adjustment
+: e.g. 21 m, –: e.g. 5m (mounting height 2.50 m)
mounting height min. = 2.00 m
(RC-plus **next** 130: 1 zone; RC-plus **next** 230: 2 zones; RC-plus **next** 280: 3 zones, see point 8)

Follow-up time
Test operation, 15 sec. … 16 min., Pulse operation
(Test operation: range testing, detector switches on/off the lighting at any recognized movement)

Lux value
Night operation…Dusk…Day operation
(Day operation: light sensor inactive, switching at any brightness value)

LED Functional display
Display of movements and operating states
(Switchable with remote control **LUXOMAT® IR-RC**, see point 11)

6. Factory settings

On delivery the potentiometers are adjusted in position "TEST" and "SUN" symbol (daytime operation). With this adjustments the following regular values are active:

Follow-up accommodation: 3 min.
Lux value: approx. 20 Lux

Reset: The adjusting into "Factory settings" from any other position causes a "Reset" of the device. That means all parameters are resetted into factory settings (fast LED-flashing).
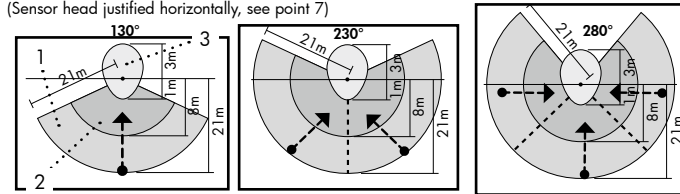
7. Sensor head optics
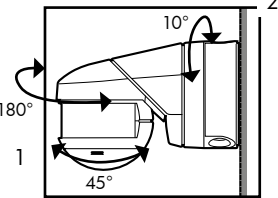
1) Change range or sensitivity adjustments by swivelling of the sensor head vertically or horizontally (Sensor head horizontally = max. range)
2) Fine adjustment of sensor axis

8. Sensitivity adjustment (mounting height 2.50 m); mounting height min. = 2.00 m
(Sensor head justified horizontally, see point 7)

1) Range walking across: approx. 21m
2) Range walking towards: approx. 7 - 8 m
3) Anti-creep: approx. 1 - 3 m

max •—•—• min
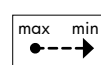
Mechanical range adjustment possible for every zone separately (see point 5)

9. Exclude sources of interference
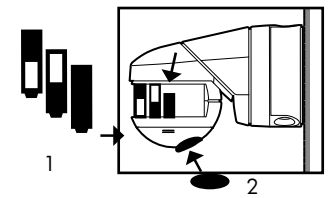
1) Push in cover-up clips on marked place (blind out distant range/close-up range/both)
2) Cover-up stickers

10. Mounting place
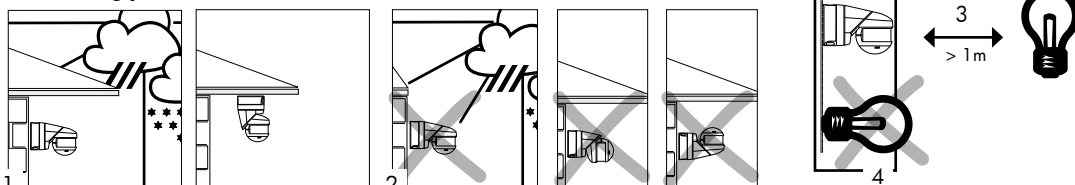
1) If possible mount unit on a safe place (wall or ceiling mount).
2) Influence of weather reduces the lifetime of the unit. Please take care to mount correctly.
3) Minimum distance to switched lighting, frontally or laterally to device: 1 m
4) Never mount the connected lights below the motion detector!

11. Settings of remote control
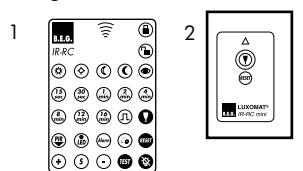
1) **LUXOMAT® IR-RC** (accessory, see point 20)
2) **LUXOMAT® IR-RC-Mini** (accessory, see point 20)

Caution: Settings with remote control subscribe the settings by courtesy of potentiometers (see point 5) (for description see point 12).

12. Functions of LUXOMAT® IR-RC

Unlocking device

Lux value: Day operation
light sensor inactive, switching at any brightness value

Lux value: approx. 100 Lux
Onset of dusk

Lux value: approx. 25 Lux
Advanced dusk

Lux value: approx. 2 Lux
Darkness

Automatic reading in the current light value
Individual light value
2 - 2500 Lux

Follow-up time
15 sec. upto 16 min.

Impulsfunction[1]
1 sec. ON, 9 sec. OFF

Anti-creep protection
Switching ON/OFF

Walk test
Switching ON/OFF

Alarm function
Switching ON/OFF,
(ON for 30 sec., OFF for 1 sec., then normal operation)

Vacation- and comfort function
Switching ON/OFF
On: By achieving the Lux value 1 hour daylight independent of mouvements, then normal operation (switching time changeable, see point 15)

Sensitivity adjustment
~ +15 %, ~ −30 %

Reset
Erasing of all of the values set using the remote control.
(Then potentiometer-settings activ, see point 5.)

Lock device (by pressing the button shortly)

Double lock devise (sabotage protection)
Keep the button pressed while LEDs flash. As soon as the LEDs are on permanently, the double-locking is active.

Test operation
Switches the light ON/OFF when movement is detected.

Light ON for 12 h / Light OFF for 12 h
By pressing once the party button, the light is switched on for a period of 12 hours. By pressing the party button twice, the light remains switche off until the next evening (see point 14).

Light OFF
Switches the light ON again when movement is detected.

Reset
Light OFF, then automatic mode

Caution: The infrared receiver of the RC-plus **next** is positioned in the anti-creep protection. For best reception target anti-creep with remote control.

13. Functions of LUXOMAT® IR-RC-Mini

Light ON for 12 h / Light OFF for 12 h
By pressing once the party button, the light is switched on for a period of 12 hours. By pressing the party button twice, the light remains switched off until the next evening (see point 14).

Reset
Light OFF, then automatic mode

14. Activation "Light OFF"

Because of the sabotage protection the function "Light off" is deactivated in the factory. When required it must be activated again:

1. Mains to be disconnected
2. Mains to be connected - a self test cycle of 60 sec. starts (the LED is flashing, see point 5).
3. Activation/deactivation of the function "Light Off" can be done only during the self testing cycle

For activation of the function "Light OFF" the button "Light OFF" must be pressed <u>during the self testing cycle</u> (the LED will flash quickly).

For deactivation "Light OFF" the button "Reset" must be pressed <u>during the self testing cycle</u> (the LED will flash slowly).

Caution: The implementation of "Reset" with potentiometers (see point 6) or with remote control (see point 12) does not influence the activation/deactivation of the function "Light OFF"

15. Vacation- and comfort function

The duration of the on-period can be adjusted:

1. "Unlock" unit with remote control
2. The button "Co" to be operated. The LED flashes for 10 sec.
3. During these 10 seconds the duration of the light-on period can be selected: from e.g. 15 sec. = 15 min. up to 16 min. = 16 hrs
4. The unit to be locked with the button "Lock".
5. "Vacancy/Comfort" is activ now (deactivation see point 12)

Caution: If the "Vacation- and comfort function" is active or with lower deviation of the Lux value the RC-plus **next** turns on the light again after a time delay of 60 sec.

16. Follow-up time savings

The energy saving and comfort by courtesy of follow-up accommodation of the motion detector RC-plus **next** is unique. That means: If the last detected movement is located in the anti-creep zone (for instance mounting over a doorway), the follow-up accomodation will be reduced to 1/4 of the original time = energy saving.

f.ex.: adjusted follow-up accommodation = 16 min.
a) Walking towards unit: effective follow-up accommodation = 4 min.
b) Removing from unit: effective follow-up accommodation = 16 min.

Caution: The "dynamic follow-up accommodation" will be activeted or deactivated on following conditions:

Follow-up accommodation "active":
> Unit is located in "factory settings" (see point 6)
> Settings of follow-up accommodation with remote control values 15 sec. - 16 min. (see point 12)

Follow-up accommodation "inactive":
> Settings of follow-up accommodation with potentiometers values 15 sec. - 16 min. (see point 5)

17. Measurement of daylight

The RC plus next constantly measures the ambient luminosity and compares the measured value with the set value. In case the lights are switched on by the RC plus next, they will be switched off after 90 minutes for a short time to allow for evaluation of the current ambient luminosity. If the measured value of ambient luminosity still is below the set value, the lights are switched on again.

18. Wiring diagrams

Standard operation
(with optional arc extinctions kit)
Optional extension for switching of parallel inductors, rocker switches, fluorescent lamps etc.
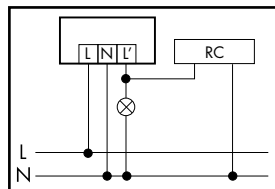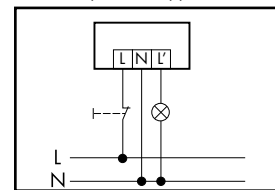

Terminal connection for parallel operation
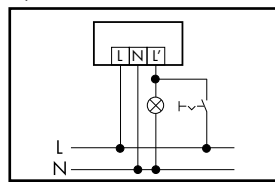We recommend max. 5 motion detectors.
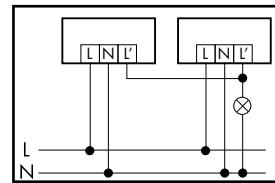
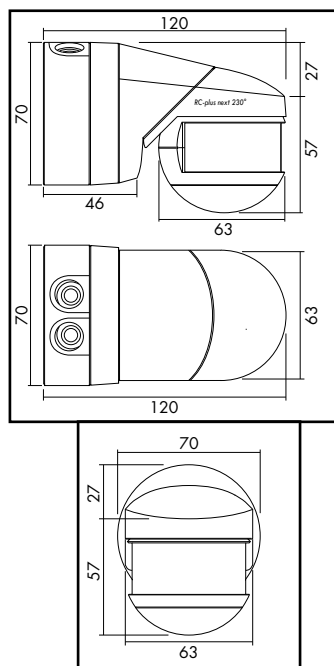**Permanent light operation with external push button**
Additionally manuel switching is possible. The NC-contact is to press for approx. 0.5 - 2 sec.

Permanent light operation with external switch
Switching is manually possible (permanent light operation). Caution: Light has to switched off manually.

19. Dimensions (mm)

20. Technical data

Power supply:	230 V~ ±10 %
Rated capacity:	16 A relay
Switching power:	33000 W, cosφ = 1
	1500 VA, cosφ = 0.5
Range:	approx. 20 m
Time settings:	Impuls, 15 sec. – 16 min.
Follow-up accommodation:	active with factory settings and with programming of remote control LUXOMAT® IR-RC (15 sec. - 16 min.)
Photo electric switch:	approx. 2 - 2000 Lux
Factory settings:	follow-up accommodation 3 min., photo electric switch approx. 20 Lux
Detection area:	130° / 230° / 280°, 360° anti-creep protection
Degree of protection/class: IP54 / II	
Dimensions:	L 121 x W 71 x H 85 mm
Material:	UV-stabilised Polycarbonate
Colours:	white / black / brown / silver (only RC-plus **next** 230)
Mounting types:	wall and ceiling mounting, RC-plus **next** 280: outside corner mountable with inclused plug-in socket
Inserting of the connection cable:	once or twice from top down, from below and from behind
Range adjustment:	> selective mechanical adjustment for every zone in the 130°, 230° and 280° unit
	> swivelling of the sensor head: vertically −10 upto +45°, horizontally + −90°, laterally ±10°
	> electronic +15 % up to 30 % with remote control LUXOMAT® IR-RC
	> With blank out clips (included)
Electrical adjustments:	in traditional manner with potentiometers valid for time and Lux value only, with infrared remote control.
LED-Display:	one LED per detection zone

21. Article / Part nr. / Accessory

LUXOMAT® Motion detector:

RC-plus **next** 130	white:	97001
	brown:	97011
	black:	97021
RC-plus **next** 230	white:	97002
	brown:	97012
	black:	97022
	silver:	97042
RC-plus **next** 280	white:	97003
	brown:	97013
	black:	97023

LUXOMAT® Remote control:

IR-RC (incl. wall bracket)	92000
IR-RC-Mini	92090

LUXOMAT® Socket base for corner mounting:

RC-plus **next** ES	white:	97004
RC-plus **next** ES	brown:	97014
RC-plus **next** ES	black:	97024
RC-plus **next** ES	silver:	97043

(With **LUXOMAT®** RC-plus **next** 280 included)

Accessory:

Arc extinction kit	10880
Wall bracket for IR-RC as replacement	92100

[1] As soon as the function "Chime/Impulse" is activated, the following functions will be blocked: Alarm function, Light ON for 12 hrs / Light OFF for 12 hrs, Vacation- and comfort function