GE Security

DD205RF/TX-2411-03-1 Detector Installation Sheet

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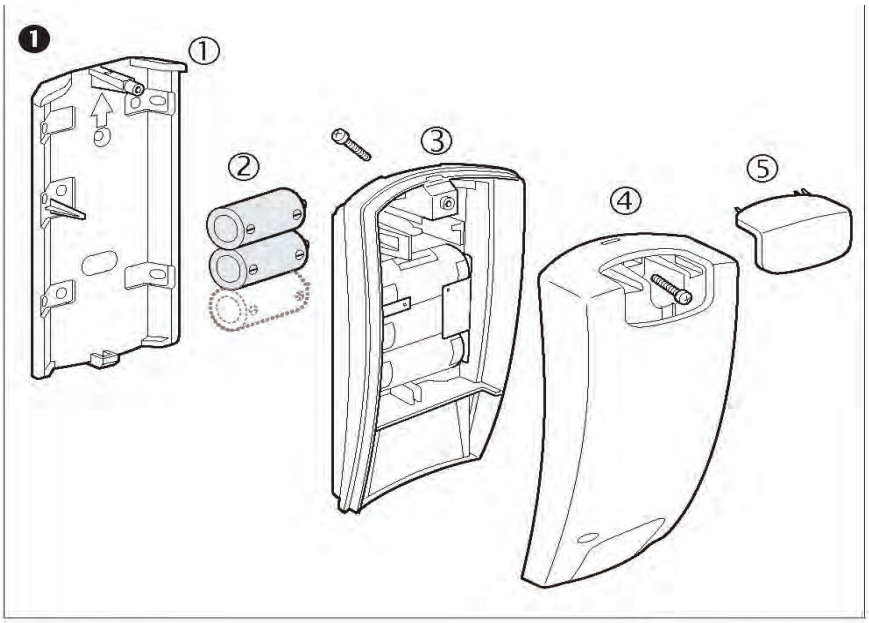

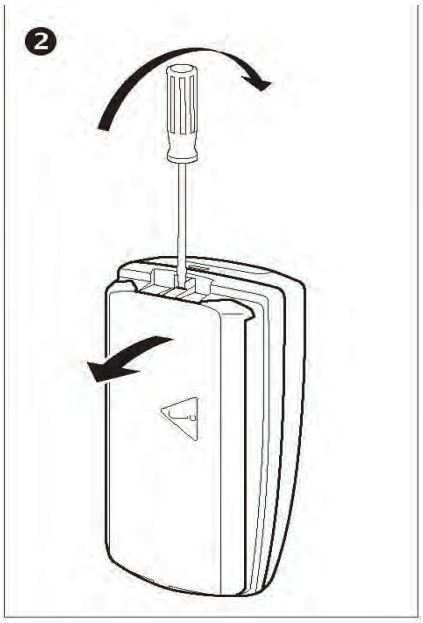

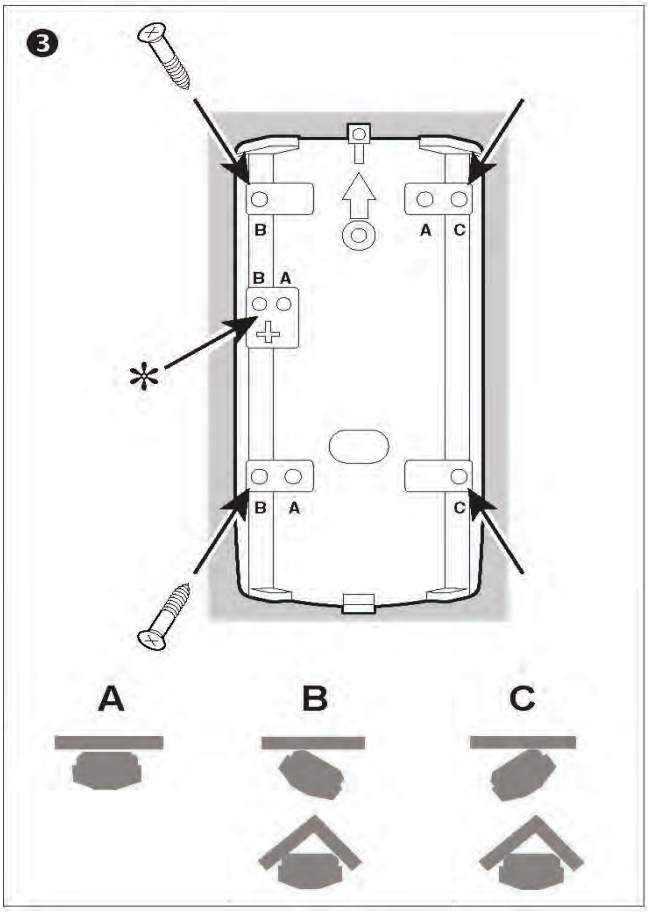

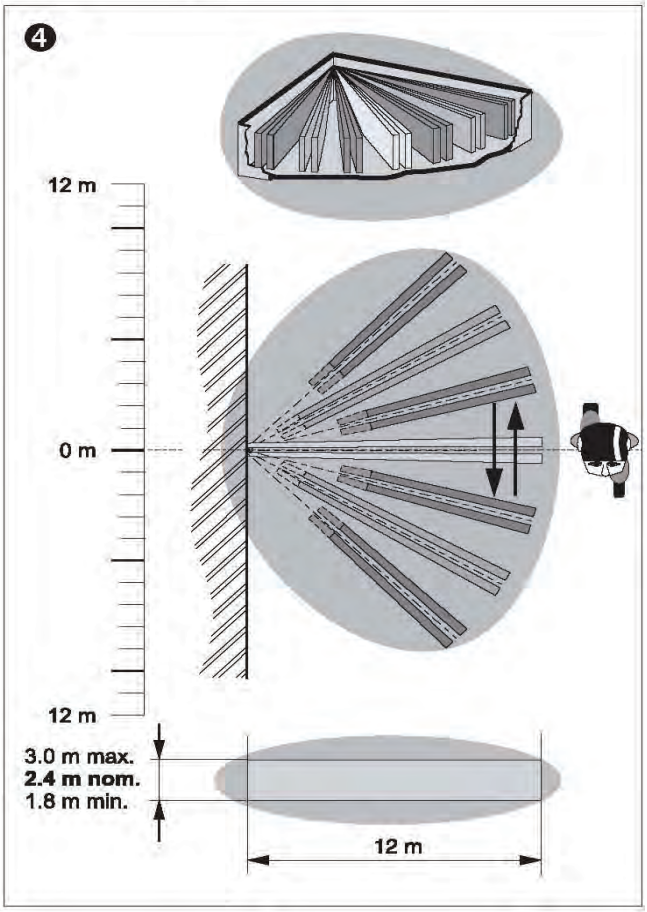

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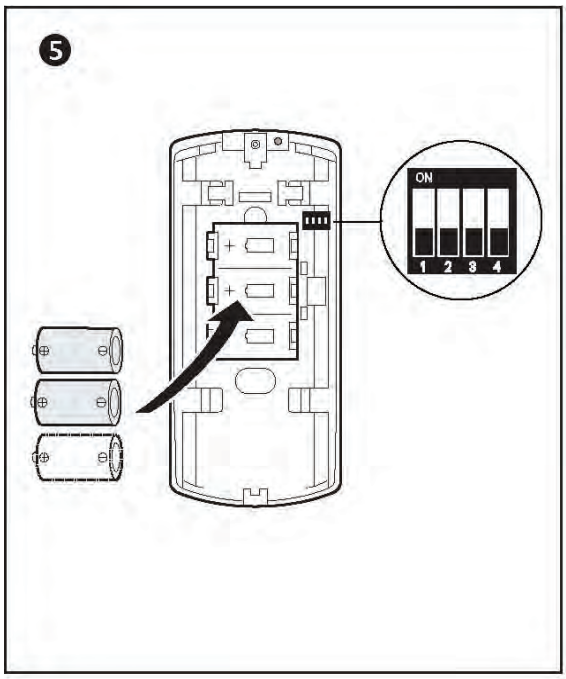
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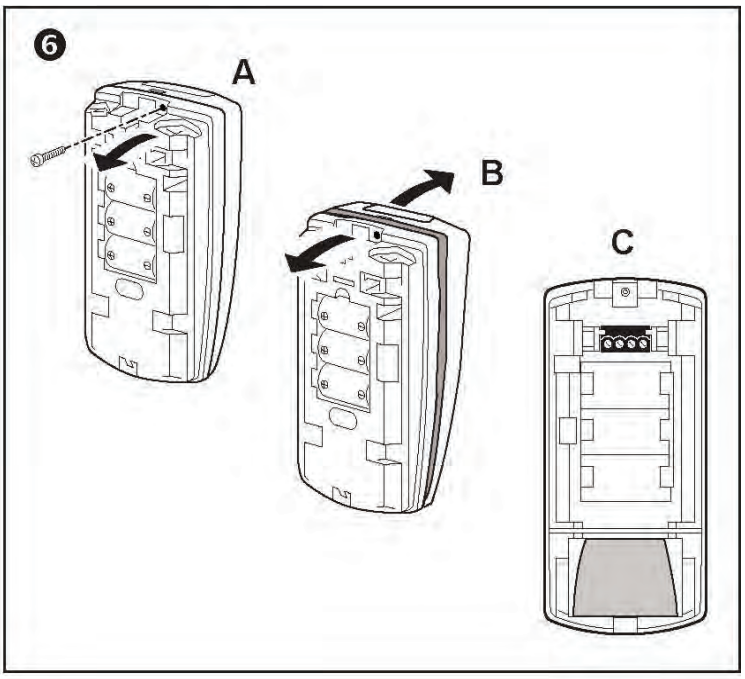
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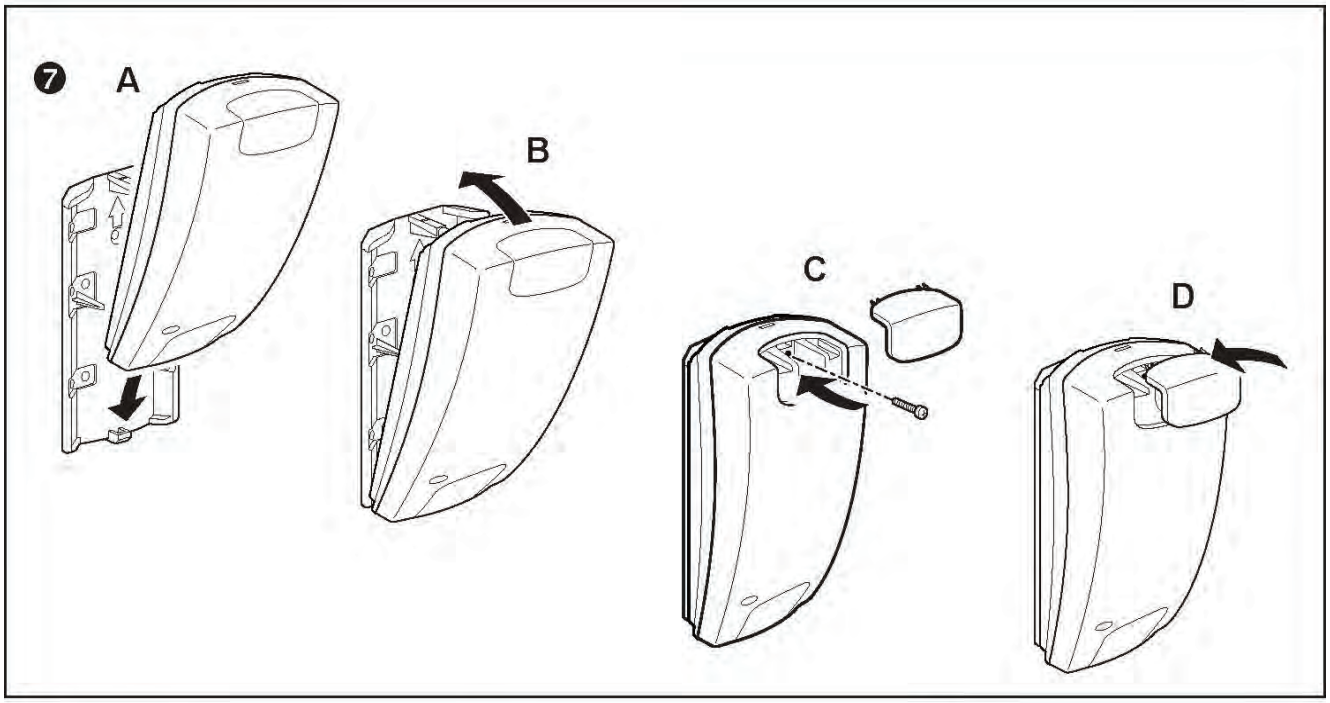
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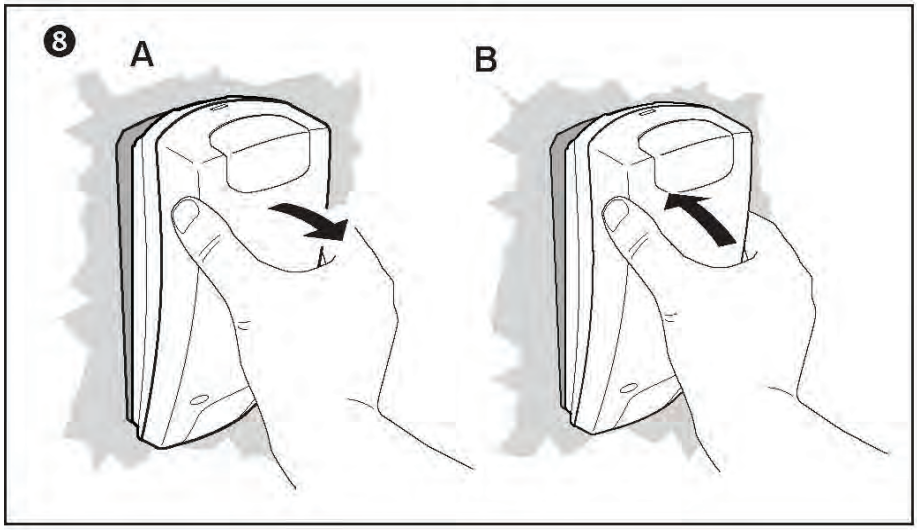
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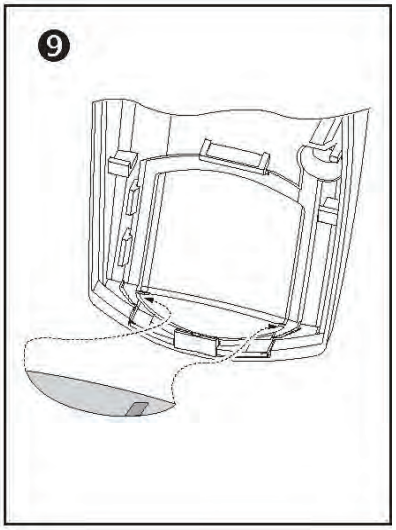
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EN: Installation Instructions

Introduction

The DD205RF/TX-2411-03-1 is a dual motion sensor. It has a patented Range Controlled Radar technology. The sensor has been designed in accordance with TS50131-2-4, EN50131-1 & EN50131-5-3 security grade 2 and environmental class 2.

The TX-2411-03-1 has been tested and certified as a dual motion sensor to TS50131-2-4, EN50131-1 and EN50131-5-3 for security grade 2, environmental class 2, by the Dutch testing and certification body Telefication B.V.

The detector has five components (Fig. 1):

- Mounting plate
- Batteries (only 2 included)
- Base (screw included)
- Front cover (screw included)
- Custom insert

Positioning the detector (Fig. 4)

The detector can be mounted in a corner or on a flat wall. Use the following guidelines to determine the best location to install the detector:

- Mount the detector so the expected movement of an intruder is across the detection pattern (Fig. 4).
- Mount the detector at a stable surface at a height between 1.8 m and 3.0 m.
- Do not mount the detector within 0.5 m of metallic objects or within 1.5 m of fluorescent lights.
- Do not place objects in front of the detector that may prevent a clear line of sight.
- Avoid detectors facing each other.
- Mount detector at least 6 m apart, and use the short-range setting to avoid interference.

The dual technology processing of this detector is very resistant to false alarm hazards. Nevertheless avoid potential causes of false alarms, such as:

PIR hazards:

- Direct sunlight on the detector
- Heat sources within a field of view
- Strong air draughts on the detector
- Large animals in the field of view

Microwave hazards:

- Mounting surface susceptible to vibrations
- Metal surfaces reflecting microwave energy
- Water movement through plastic pipes
- Moving or vibrating objects like fans, heating or air-conditioning ducts

GE Security recommends that the detector is regularly walk tested and checked at the control panel.

Mounting instructions

1. Remove the mounting plate from the detector as shown (Fig. 2).
2. On the mounting plate, select the mounting holes for corner or flat-wall mounting. Make sure that the tamper screw * is correctly fitted for corner or wall mounting (Fig. 2).
3. Using the mounting plate as a template, mark the screw hole locations on the wall. Mount the detector at a height of 1.8 m to 3.0 m (Fig. 4).
4. Fasten the mounting plate to the wall (Fig. 3).
5. Insert the batteries in the battery compartment of the base (Fig. 5). The detector is shipped with 2 batteries but up to 3 can be inserted.

Caution: Do not insert any batteries in the battery compartment of the RF transmitter board.

6. Adjust the DIP switch settings on the base (Fig. 5). See the "Setting the range and lock-out time" instructions.
7. If you need to place the enclosed stickers onto the mirror in order to mask the mirror, unscrew the base from the front cover (Fig. 6A) to access the mirror (Fig. 6B & C). See the "Selecting the coverage pattern" section.

Caution: Removing the stickers can damage the mirror surface.

8. Replace the unit onto the mounting plate (Figs. 7A and B).
9. Carry out the remaining installation tasks (explained in the following sections):

   A. Setting the range and lock-out time

   B. Walk testing the detector

   C. Selecting the coverage pattern

   D. Setting up the transmitter
10. When all the installation tasks have been completed, screw the detector on the mounting plate by removing the custom insert and inserting the screw. Replace the custom insert (Figs. 7C & D).

Setting the range and lock-out time

Use the following table to determine the appropriate DIP switch settings.

(ex factory)

Switch	Function	ON	OFF
1	Microwave range*	12 ±0.5 m	7.5 ±0.5 m
2	PIR only/Dual mode	PIR only detector	Dual detector
3	PIR range*	12 m	8 m
4	Lock-out time	10 min	3 min

* According to EN50131-2-4 detection performance requirements.

Note: Range reduction will reduce PIR sensitivity in the undercrawl area.

Detector range:

The microwave and PIR ranges can be individually selected between 7.5 ±0.5 m and 12 ±0.5 m using DIP switches 1 and 3 respectively.

PIR only / Dual mode:

PIR-only mode: Consequently the microwave circuitry is switched off and the detector will only signal alarms caused by the PIR circuitry. *Dual mode:* In dual mode the detector will signal an alarm when both technologies (microwave and PIR) have identified a target moving in the protected area.

Lock-out time:

This is the detector's standby time. It occurs just after the detector has sent an alarm via the wireless link to the control panel. This lock-out time can be programmed as 3 minutes or 10 minutes. Selecting the 10-minute lock-out time will prolong the battery lifetime.

Note: The 3-minute lock-out time complies with EN50131-5-3 and EN50131-1.

Walk testing the detector (Fig. 8)

The sensor provides a walk test mode for testing the detector operation and coverage pattern. To walk test the detector, do the following:

1. Slightly remove the unit from the mounting plate (Fig. 8A).
2. Replace the unit back on the mounting plate (Fig. 8B). After 10 seconds the detector enters walk test mode for approximately 2 minutes. The generated alarms are signalled via the flashing of the LED, visible on the front cover, and transmitted via the wireless link to the panel.
3. Walk test the unit and verify the detection performance by monitoring the walk test LED on the unit and/or the received alarms on the panel.

Important:

- The walk test mode can be started once the start-up sequence has completely finished (LED flashes for 30 seconds).
- Once the unit is replaced onto the mounting plate, there is a 10 second interval before the walk test actually starts. This allows the detector to stabilise.
- Take a 5 second pause between walk tests to stabilise the detector.
- The walk test mode is only available for 2 minutes. After that time the walk test LED will no longer signal generated alarms. If not all walk tests have been completed within these 2 minutes, repeat step 1 and 2 to re-enter the walk test mode.
- After the walk test mode times out, the detector returns to normal operating mode. In normal operating mode, the DD205RF/TX-2411-03-1 will only signal alarms via the wireless link every 3 or 10 minutes (depending on the DIP switch setting) and the LED is disabled to reduce battery consumption.

Selecting the coverage pattern

The coverage pattern can be changed to fit specific requirements by using the mirror stickers (enclosed). It is recommended to blind unused curtains that are looking at walls or windows located very close to the detector.

Window mask (fig. 9)

A window mask is provided. Fit it to the inside of the detector window in order to mask objects that are close to (within 1.5 m) or directly under the detector. This disables the part of the curtains looking at an object whose closeness might otherwise cause a false alarm. Remove this mask to detect undercrawl.

Setting up the transmitter

The sensor contains a built-in transmitter that is used in conjunction with a compatible receiver. To set up the transmitter for wireless operation, create a tamper alarm by removing the unit from the mounting plate (Figs. 8 A-B).

Maintaining the detector

When installed and used properly, the DD205RF/TX-2411-03-1 will provide years of service with minimal maintenance. You should walk test the detector annually as described in *Walk testing the detector* to ensure proper operation.

1. Clean the inside of the detector with a soft bristled brush or compressed air.
2. Clean the cover with a damp (water) cloth as needed to keep it free of dust and dirt.

Note: Always test the detector after cleaning.

Replacing the batteries

When the system indicates that the detector batteries are low, replace the batteries as soon as possible.

1. Remove the unit from the mounting plate (Fig. 8A).
2. Pull the ribbon in the battery compartment of the base to remove the batteries (Fig. 5).
3. Place the ribbon underneath the batteries to facilitate battery replacement.
4. Observing the polarity markings that are engraved inside the battery compartment, insert each battery into the battery compartment of the base (Fig. 5).
5. Walk test the detector to ensure correct operation and coverage. See *"Walk testing the detector"*.
6. If the control panel indicates "Low battery", measure the battery voltage. If any battery is less than 3 VDC, replace the battery and repeat steps 1 and 5.

Important: Once the battery is installed, the DD205RF/TX-2411-03-1 requires 3 minutes to initialise before it will operate.

Important: You must remove all the batteries to reset the low battery signal before installing a new battery. To prevent a low battery condition, you must install the battery exactly as described in the "Installing the batteries" instructions.

Caution: Batteries can explode or cause burns when recharged, incorrectly (dis)assembled, or exposed to fire or high temperatures. Replace the batteries with: Duracell DL123A or equivalent. Dispose of used battery according to battery directive instructions and/or as required by local laws. Keep away from children. Do not insert any batteries in the battery compartment of the RF transmitter board.

Specifications

Recommended battery	DL123 A

Battery life (typical): *	
1 battery	1.5 years
2 batteries	3 years
3 batteries	4.5 years
Battery lock-out time	3 min. ex-factory (10 min. setting extends life of the battery)
Current consumption	
DD205RFW8	105 µA (typical)
TX-2411-03-1	91 µA (typical), 24 mA (max.)
DD205RFi4	95 µA (typical)
Transmitter frequency	
DD205RFW8	868 MHz
TX-2411-03-1	868 MHz GEN2
DD205RFi4	433 MHz
Microwave frequency	5.8 GHz
Max microwave output at 1 m	0.003 µW/cm²
Supervisory	
DD205RFW8	Every 15 min.
TX-2411-03-1	Every 20 min.
DD205RFi4	Every 64 min.
Transmit condition	Alarm, Tamper, Low battery
Target speed range	min. 0.2 m/s - max. 3.0 m/s
Mounting height	1.8 to 3 m
Open air; typical range from wireless link	400 m
Obstructed range (typical)	30 m
Operating temperature	-10 to 55°C
Detection range (selectable)	Min.: 7.5 ±0.5 m** Max.: 12 ±0.5 m**
No. of curtains	7
Relative humidity	0 to 95% non-condensing
Size	150 x 70 x 57 mm
Weight	175 g
Colour	White
Viewing angle	86°
IP/IK rating	IP30 IK02

* Assumption: During a 24-hour cycle there are 8 hours with alarm activiation and 16 hours without alarm activation.

** According to EN50131-2-4 detection performance requirements.