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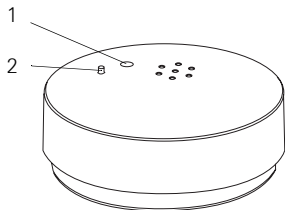
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## Product features

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- Battery-operated smoke detector with photoelectric scattered-light principle
- Automatic self-test of the smoke development
- Loud pulsing alarm sound approx. 85 dB(A)
- Battery replacment display (1)
- Soiling/Fault display (1)
- Test button for function test (2)
- Battery compartment check: If no battery is inserted in the smoke detector, it cannot be latched into the base
- Polarity reversal protection: Device destruction through incorrect battery connection impossible
- VdS approval: Certified and approved by the German "Verband der Sachversicherer (VdS)"



## Functional principle

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The smoke detector recognises fire early on due to the smoke development. It operates on the scattered-light principle. Light transmitters and receivers are positioned in the measuring chamber so that the emitted light signal of the transmitter cannot impact the receiver (photo cell) directly. If smoke enters the smoke chamber, the light signal is scattered by the floating particles contained in the smoke. The scattered light rays impact the photo cell where they are converted into electrical signals which trigger the alarm. The function of the smoke evaluation is checked constantly. Any faults are indicated by a fault signal (signal sound and LED).

## Safety instructions

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- Do not paint over the smoke detector.
- Smoke detectors only recognise the smoke of a fire, not the flame itself.
- Smoke detectors do not extinguish a fire. In case of an alarm search for the source of the fire and, if necessary call the fire brigade (also refer to "Correct behaviour in case of fire" on Page 5).
- Do not use rechargeable batteries (accumulators) or power supply units as the voltage supply source. They can cause malfunctions or a premature failure of the device.
- The smoke detector generates a very loud and shrill sound which can damage your hearing. Therefore stay at least 50 cm away from it during a function test.
- The smoke detector only monitors a defined area around the mounting site. Install a sufficient number of detectors to cover the entire living area and to provide optimal protection.
- Persons under the influence of alcohol or drugs might not be woken up by the signal sound.

## **Correct behaviour in case of fire**

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### **Giving an alarm**

Notify the fire brigade immediately. Remain calm and answer the questions you are asked clearly:

Where is it burning?

What is burning?

How many persons are injured?

Who is calling?

Be ready to respond to any further questions of the fire brigade.

### **Rescuing**

Rescue yourself and endangered persons from the danger area.

In case of strong smoke formation keep close to the floor and press a moist cloth against your mouth and nose.

Do not use any lifts.

Close the doors and windows of burning rooms in order to prevent the fire and smoke from spreading.

If it is not possible to flee out of the building, find a safe room, close the door and draw attention to yourself at a window. Seal any gaps at the door with wet sheets or towels in order to prevent the smoke from entering the room

### **Extinguishing**

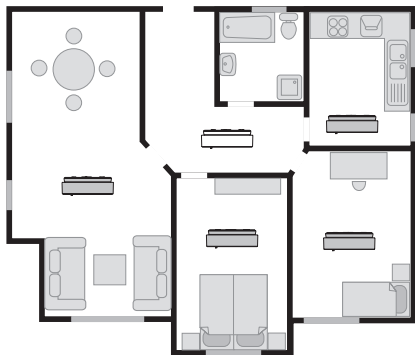
Try to extinguish an emerging fire with an available extinguisher. Small fires can often be suffocated with a blanket. Never extinguish a fat fryer with water. Cover the fire with a lid.

**If your attempts at extinguishing are not immediately successful, leave the burning room.**

## Mounting site

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### Example of a home



Minimum protection,  
one smoke detector in  
the corridor or stairwell  
of each floor



Optimum protection,  
one smoke detector in  
each bed- and living  
room

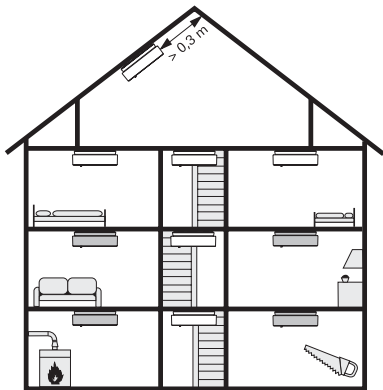
Preferably install the smoke detectors before or in the bedrooms so that the occupants are woken by the smoke alarm during the night.

Mount the smoke detector in the middle of the room under the ceiling to achieve optimum detection characteristics. If this is not possible, observe a minimum distance of 50 cm to the wall.

A smoke detector can monitor a room with a maximum of 60 m<sup>2</sup> area and up to a maximum room height of 6 m.

Install the smoke detector in the kitchen as far away as possible from the cooking zone in order to avoid false alarms through water vapour.

## Example of a residential building



Minimum protection,  
one smoke detector in  
the corridor or stairwell  
of each floor



Optimum protection,  
one smoke detector in  
each bed- and living  
room or cellar room

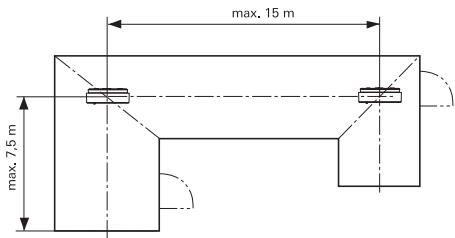
In buildings with several storeys mount at least one smoke detector in each storey corridor.



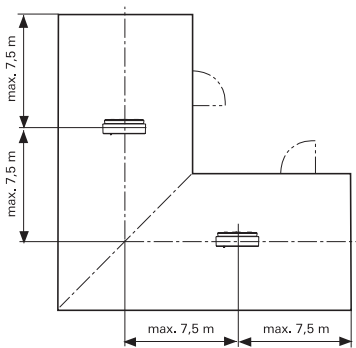
### Recommendation

Use several interconnected smoke detectors in larger houses in order to cover the entire living area.

## Example for particular room geometries



In L-shaped rooms or corridors the smoke detectors should be installed on the centred intersections of the two sections.



In the case of large L-shaped rooms, each section is regarded as a separate room.

## Unsuitable mounting sites

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In order to avoid false alarms, do not mount the smoke detector:

- In rooms in which strong water vapour, dust or smoke arise under normal conditions.
- Near fireplaces and open fires.
- Near ventilation shafts because the air stream may prevent the smoke from approaching the detector.
- Near fluorescent and energy-saving lamps, because the starter switch may trigger false alarms through the electrical fields arising when the lamp is switched on (minimum distance: 50 cm).
- In rooms which are higher than 6 m.
- Directly in the roof apex. Observe a minimum distance of 30 cm to the roof apex.
- In rooms with temperatures under +4 °C or above +40 °C.



## Installation and commissioning

1. Mount the base with the enclosed mounting material.
2. Connect the 9 V block battery to the battery connection and insert the battery into the battery compartment.
3. Insert the smoke detector into the base and latch it in by turning it slightly clockwise.



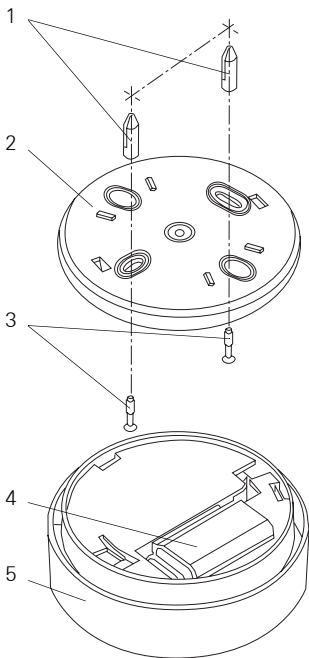
### Insert battery

The smoke detector cannot be latched into the base without a battery.

4. Carry out a function test (see Page 12).

### Legend

- 1 Dowel
- 2 Base
- 3 Screws
- 4 Battery (9 V)
- 5 Smoke detector



## Battery check - Changing the battery

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The smoke detector is supplied with voltage by a 9 V block battery. The battery test automatically checks the supply voltage in regular intervals. If the battery voltage drops below a defined point, the smoke detector signals for 30 days that the battery has to be replaced. The smoke detector is completely functional during this period.

Proceed as follows to replace the battery:

1. Remove the smoke detector from the base (turn counter-clockwise).
2. Remove the old battery from the compartment and disconnect the connector from the battery connection.
3. Connect the new 9 V block battery to the battery connection and insert the battery into the battery compartment.
4. Insert the smoke detector back into the base and latch it in by turning it slightly clockwise.



### **Insert battery**

The smoke detector cannot be latched into the base without a battery.

5. Carry out a function test (see Page 12).

## Function test

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### Caution: Hearing damage possible

The smoke detector generates a very loud and shrill sound which can damage your hearing. Therefore stay at least 50 cm away from it during an function test.

Carry out the function test once a month:

1. Press the test button for approx. 3-sec. If the signal sound is emitted, the smoke detector operated correctly. If no signal sound is emitted, replace the battery.
2. Carry out the function test again. If no signal sound is emitted again, the smoke detector is defective and has to be replaced with a new one.

## Operating and alarm signals

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Signal sound	LED	Meaning
Loud interval sound	Flashes	Local smoke alarm
Short signal sound in 45-sec. cycle	Flashes with delay to the signal sound	Fault/soiling
Short signal sound in 45-sec. cycle	Flashes parallel to the signal sound	Battery replacement display
-	Flashes in 45-sec. cycle	Automatic self-test, normal operating state
Loud interval sound	Flashes	Function test, triggered by pressing the test button

## Maintenance and care

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In order to ensure the functional reliability of the smoke detector for a longer period, you should carry out maintenance once a month (or when a fault message occurs):

1. Remove the smoke detector from the base (turn counter-clockwise) and remove the dust.
2. Wipe the smoke detector with a moist cloth.
3. Insert the smoke detector back into the base and turn it clockwise until it latches in.



### **Insert battery**

The smoke detector cannot be latched into the base without an inserted battery.

4. Check whether the automatic self-test is carried out (smoke detector flashes every 45 seconds).
5. Carry out a function test.



### **Replacing the smoke detector**

Replace the smoke detector at the date specified on the device label.

## Technical data

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Nominal voltage:	9 VDC
Battery:	Block battery, IEC 6 LR 61, 9 V
Battery durability:	At least 1 year
Battery failure signal:	45-sec. cycle, 30 days
Optical indication:	LED, red
Acoustic alarm indication:	
Piezo primary detector:	Intermittent
Volume:	Approx. 85 dB(A) at 3m
Housing dimensions:	110 x 40 mm (Ø x H)
Operating temperature:	+4 °C to +40 °C
Weight (without battery):	Approx. 120 g
VdS approval:	Refer to identification label on smoke detector