

SMOKE ALARM WITH 10 YEAR LONG LIFE BATTERY

RA170Q



1116

Declaration of Performance: RA170Q-DoP-001
1116-CPR-181-3
EN 14604:2005 + AC:2008
Purpose: fire protection (smoke detector)
SMOKE ALARM RA170Q

Declaration of Performance according to CPR
available at www.indexa.de



Extended test according
to vdfb 14-01

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Subject to change, 2024/03/18

User and Installation Manual

Please read this manual completely - it contains important information on the function, installation, placement and maintenance of this product. Please keep this manual and hand it out to third persons, if necessary. If this unit is installed by an installer, this manual must be handed out to the owner of the apartment after installation. Owners or residents are responsible for maintaining the smoke alarm.

Installation site: Date of initial operation:

Proper use

This smoke alarm detects smoke from smoldering fires at an early stage and warns with a loud pulsating alarm (85 dBA/3 m). It is designed for the use in private households and habitable recreational vehicles and is not approved for public, industrial or commercial buildings. The fields of operation of smoke alarms are described in DIN 14676. In the case of fire, smoke alarms can only give alarm, if the smoke reaches them. Everything that prevents the smoke from entering the smoke alarm's housing may delay or even prevent the alarm. A fire in another room, floor, or area of the home will only be reported when the smoke reaches the smoke alarm. For this reason, you should install a smoke alarm in every room - at least one on each floor, observe the minimum protection according to your local legislation. Smoke alarms are no substitute for a property or life insurance. Appropriate coverage is your responsibility. This smoke alarm is not suitable for deaf persons.

Contamination of the smoke alarm by dust or dirt may lead to false alarms. If the dirt cannot be removed from outside as described in the chapter "Maintenance/Cleaning", the unit has to be replaced by a new one. There is no warranty for dirty units. This smoke alarm is equipped with a built-in non-exchangeable battery and has to be replaced after 10 years of operation at the latest. A reliable early warning of fire and smoke is only given, if this smoke alarm is used according to these instructions.

Unless there is a statutory obligation, the manufacturer is not responsible for further claims, including personal or material damages, arising from the use of the product or from nonfunction or malfunction of the product.

Technical data

Operating voltage:	3V DC
Power supply:	1pc. 3V built-in lithium battery
Battery lifetime:	10 years*
Battery warning:	up to 30 days, one beep approx. every 40 seconds
Smoke sensor:	photoelectric
Warning sound:	piezo-electric, 85dB(A) at 3m
Operation indication:	status indicator flashes weakly approx. every 40 seconds
Alarm silencing indication:	status indicator flashes weakly approx. every 5 seconds
Test button:	to test electronics, battery and warning sound
Temperature range:	0° to +55° C
Air humidity:	20% to 80 %
Tests:	according to DIN EN 14604 and vdfb 14-01, produced in certified production site according to ISO 9001

* calculated life expectancy in normal use, at 21° C, without alarm triggering

Package contents

- Smoke alarm with built-in battery and mounting plate
- 2 x screws and 2 x plugs
- 3M adhesive pad
- User and installation manual

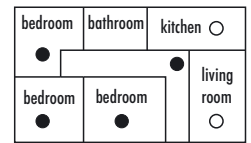
⚠ Safety instructions

- Do not damage any gas, electricity, water or telecommunication lines during drilling and fixing work. Otherwise there are dangers of fire, personal and fatal injury.
- Ensure that the alarm siren is not activated next to somebody's ear. Otherwise there is a danger of hearing damage!
- Do not paint or paste the smoke alarm, and do not cover it, otherwise its function will be impaired.
- Avoid touching leaking or damaged batteries! Use suitable safety gloves and clothing! Otherwise you may risk injury by caustic acid!
- Do not short-out batteries, and do not recharge them. Otherwise you may risk death by explosion!
- Do not try to open them, and do not burn them! Otherwise there is danger of explosion!

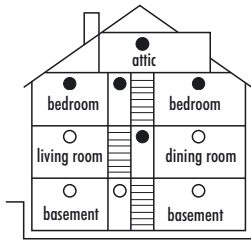
Where to locate

- For minimum protection, smoke alarms should be installed in every bedroom, children's room and hallway. In habitable attics, a smoke alarm should be installed above the stairs.
- The alarm sound must be loud enough to wake sleeping residents in the case of fire.
- In the case of open connections between floors, one smoke alarm should be installed on each level.
- Smoke alarms must be installed on the ceiling, as close to the center of the ceiling as possible. The minimum distance to walls, light fittings, electrical wirings and appliances, beams, and furniture must be 50cm.
- In rooms where the ceiling has a slope of $> 20^\circ$, "dead" air at the peak of the ceiling may prevent the smoke from rising. Therefore in these rooms, the smoke alarms must be installed min. 0.5 m and max. 1 m from the peak of the ceiling. Ceilings with an inclination of $\leq 20^\circ$ should be regarded as horizontal ceilings.

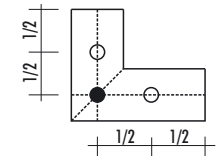
Example: apartment



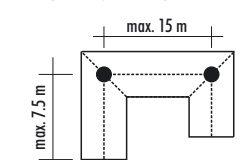
Example: multi-storey home



Example: L-shaped room



Example: large hallway



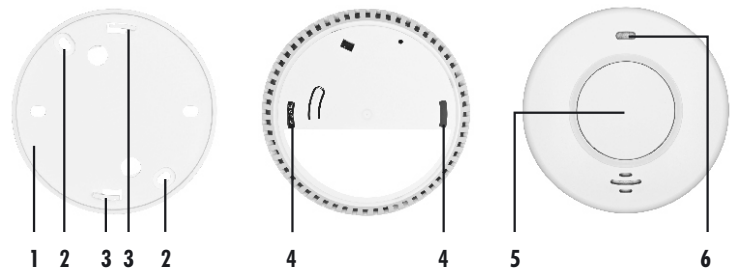
- smoke alarm: minimum protection
- smoke alarm: increased protection

- In L-shaped rooms, the smoke alarm should be installed at the mitre line (see diagram). In large L-shaped rooms, each side of the room should be regarded as a separate room.
- The maximum installation height of a smoke alarm should not exceed 6 m.
- Rooms that are separated by partition walls, beams, or furniture, should be protected by a smoke alarm in each part of the room.
- If the room is larger than 60m², the installation of additional smoke alarms is necessary.
- In hallways with a maximum breadth of 3m, the distance between two smoke alarms must not exceed 15m. The distance of a smoke alarm to the end wall must not exceed 7.5m. In each intersection, junction, and corner of a hallway, there must be one smoke alarm (mitre line).
- The smoke alarm should be easily accessible to carry out cleaning and testing.
- Further information about the location of smoke alarms can be found in the DIN 14676.
- If a building is too complicated or too large, please contact a security expert or the fire department.

⚠ Locations to Avoid:

- On the wall or near doors, windows, openings in the ceiling, fans etc., where drafts may blow away smoke or cause false alarms.
- In areas where the temperatures are regularly below 0° C or above 55° C.
- In high humidity areas (e.g. bathroom).
- In small or poorly ventilated garages or kitchens, where exhaust fumes or steam may cause false alarms.
- In insect-infected areas.
- In places where you cannot easily access the smoke alarm for testing and cleaning.
- In areas where air circulation may cause false alarms, e.g. in staircases outside the apartments (in apartment houses).
- Near light fittings or electrical wiring and appliances (minimum distance 50cm).
- Near extremely bright light sources or direct sunlight.
- In areas where dust or dirt may impair the function of the smoke alarm or cause false alarms (e.g. workshops or barns).
- In areas where heavy cigarette smoke can be expected.
- Near open fireplaces, ovens, stoves etc. (minimum distance 4m).

Installation



1. Mounting plate
2. Holes for screws
3. Brackets
4. Openings
5. Button
6. Status indicator

1. Turn the mounting plate [1] counterclockwise and remove it from the smoke alarm.
2. Write down the date of commissioning on the nameplate and on the front of the user manual.
3. **For the installation with screws**, proceed as follows:
 - a) Hold the mounting plate in the chosen location, and mark through the screw holes [2], using a pencil.
 - b) - On wooden ceilings, use a 2.5 mm drill and drill a hole of approx. 20 mm depth. Fix the mounting plate with the screws supplied.
 - On concrete ceilings, use a 4 mm drill and drill a hole of approx. 20 mm depth and insert the plugs supplied so that they are flush. Make sure the plugs are securely fixed in the screw holes. If not, choose another installation site or use more suitable plugs. Fix the mounting plate with the screws supplied.

Alternatively, for the installation on a smooth surface, use the adhesive pad supplied. Make sure the surface is free from dust and grease. Pull one of the protective foils from the pad and stick the pad centrally to the outside of the mounting plate. Press it firmly for 10 seconds. Pull the other protective foil from the pad and stick the mounting plate to the desired location. Press the mounting plate firmly to the ceiling for 10 seconds.

4. Place the smoke alarm onto the mounting plate with the brackets [3] in the openings [4], and turn it clockwise until it locks. This will activate the functioning of the smoke alarm.
5. Test the function of the unit (see following chapter).

For caravans, installation with the adhesive pad is recommended. Otherwise, it must be ensured that the body structure is not damaged by drilling.

Since the bottom of the mounting plate is not smooth, mounting with magnetic fastening is not suitable.

⚠ If this smoke alarm is installed in a new building or during renovation, it should be mounted after all building and decorating works are finished, because it must not be exposed to dust.

⚠ During subsequent construction and renovation activities which could produce dust, the smoke alarm should also be temporarily removed.

Testing

In normal operation, the status indicator [6] flashes weakly once approx. every 40 seconds. To test the smoke alarm's functioning, press the button [5]. The alarm sounds in the form of three consecutive beeps. Do not test the smoke alarm with an open flame! The smoke alarm should be tested regularly, e.g. when cleaning.

The smoke alarm should also be tested after longer periods of absence, e.g. after vacation and at least once a year. If the maintenance is carried out by professionals, according to DIN 14676, a test at least once a year (± 3 months) is required.

If the status indicator does not flash or the smoke alarm does not react to pressing the button [5], check the following:

- Is the smoke alarm damaged?
- Is the smoke alarm fixed correctly to the mounting plate?

Alarm

If the smoke alarm detects smoke, a loud pulsating alarm will sound and the status indicator [6] will flash once every second. In the case of an alarm, always check whether it is due to an actual fire. If you are in doubt, always assume that there is an actual fire and act accordingly (see "What to do in the case of fire"). After an alarm, the unit is ready for operation again.

False alarms

This smoke alarm is highly sensitive. Due to the detection system, an alarm may be triggered by an influence other than smoke from fires, especially by cigarette smoke, steam, dust or small insects. See the locations to avoid in the chapter "Where to locate", and, if necessary, choose another location for the smoke alarm. When a smoke alarm has been used for a long time, its sensing chamber will be contaminated inside. This leads to an increased tendency to trigger false alarms. In this case, try to clean the closed smoke alarm using a vacuum cleaner. If the contamination cannot be removed, replace the smoke alarm with a new one.

Silencing the alarm

If an alarm has been triggered e.g. due to cooking fumes, the alarm may be silenced for approx. 9 minutes by pressing the button [5]. The status indicator will continue to flash once per second as long as the device is in alarm status. After that, the silencing is indicated by a weak flashing of the status indicator every 5 seconds. In the case of an alarm, always check whether it is due to an actual fire, before you silence the alarm. If you are in doubt, always assume that there is an actual fire and act accordingly (see "What to do in the case of fire?").

Warning signals

Weak flashing of the status indicator [6] approx. every 5 seconds indicates an alarm silencing, this will end after 9 minutes.

If the smoke alarm beeps twice every 40 seconds, this is due to contamination of the measuring chamber, draughts or other technical faults e.g. from electromagnetic fields. Such malfunctions may be removed by cleaning or changing the position of the smoke alarm.

When the battery reaches the end of its life, a single beep will sound every 40 seconds. Replace the smoke alarm as soon as possible. For your safety, the battery warning will last for up to 30 days.

Maintenance / Cleaning

In rooms with excessive dust occurrence, the smoke alarm should be carefully cleaned with a vacuum cleaner every six weeks. In other rooms, cleaning the smoke alarm every six months will be enough. The lid may be wiped with a damp cloth. Do not use any aggressive cleaning fluids. Do not paint the smoke alarm. If the smoke alarm shows any damage, it needs to be replaced.

Troubleshooting

Fault	Cause	Remedy
2 beeps approx. every 40 seconds	Contamination or technical defect	Clean or replace the smoke alarm
1 beep approx. every 40 seconds	Weak battery	Replace the smoke alarm
No reaction to pressing the button [6]	Smoke alarm is switched off or battery is empty	Check that the smoke alarm is firmly fixed onto the mounting plate or replace the smoke alarm
Alarm is triggered for no apparent reason (false alarm)	Alarm is triggered by steam, dust, or insects	Clean or replace the smoke alarm
	Malfunction due to draught, light or electromagnetic sources	Change the placement of the smoke alarm

Develop a plan of escape

- Make a floor plan indicating at least two escape routes from each bedroom.
- Discuss your escape plan with all family members/residents. Children tend to hide themselves if they do not know how to react. Practice behaviour in the case of fire with all residents.
- Familiarize all family members with the sound of the smoke alarm. They should be prepared and know what to do in the case of fire.
- Determine a place outside your home as a meeting point. This way you can make sure everyone has left the building.
- Ask your local fire department about fire extinguishers and their use as well as how to best protect yourself.

What to do in the case of fire?

- Never extinguish grease fires with water, there is danger of explosion! Use an extinguishing device to suffocate the flames.
- Alert all residents.
- Stay calm and don't panic. Follow your escape plan. Your safe escape depends on you to think clearly and remember what you have practiced.
- Everybody must leave the building on the safest way as quickly as possible. Don't waste time getting dressed or picking up valuables. Do not use elevators.
- Close doors behind you to slow down the expansion of the fire.
- If you have to cross a smoke filled room, keep your head as low as possible. Hold a (preferably damp) cloth in front of your mouth.
- Feel doors first before opening them. If they are warm, they may be holding back the fire. In this case, try to find another escape route. If the door surface is cool, place your shoulder against it and open it slightly. Slam it shut, if heat and smoke rush in.
- Call the fire brigade, as soon as you have left the building. Give them your exact address, and wait for them on the street. Never return inside the building.

Replacing the smoke alarm

The smoke alarm must be replaced at the latest:

- 10 years after commissioning
- before the date printed on the product label
- if it shows no reaction to pressing the button
- if it is damaged
- if a low battery is indicated
- if contamination or false alarms occur frequently despite cleaning and relocation

Disposal



Packaging material, used batteries or electrical products must not be disposed of as household waste. Use your recycling system. Details are available from your local authority.

Warranty

In addition to the statutory warranty claims against the retailer, this smoke alarm is warranted for two years from the date of purchase (date of receipt), according to the following conditions. This warranty only applies to normal residential use in private households. This warranty only covers defects in material or workmanship and is limited to the replacement or repair of faulty units. The guarantee is always limited to the customary price of the product. This warranty does not apply to the battery. This warranty is valid only if the instructions on operation and maintenance of the product have been followed. This warranty does not cover malfunctions due to contamination by dust or dirt as well as damages resulting from misuse, negligent handling, external influences, water or abnormal environmental conditions. The warranty expires, if repairs or modifications are carried out by unauthorized persons. Warranties do not extend the guarantee period and do not start a new guarantee period. After expiry of the guarantee period, repairs cannot be carried out. The Q label does not affect the statutory warranty obligations or the warranty conditions mentioned above.