



Planning officer's guide: smoke detectors in the public spaces of residential buildings

According to the Rescue Act (379/2011, section 17), apartments must be equipped with a sufficient number of smoke detectors or other equipment that will detect a fire and alert those in the apartment. The purpose of a smoke detector is to only warn people present in the same apartment of a fire, not people in another fire compartment such as a neighbouring apartment or the stairwell. (Rescue Act 379/2011, section 17)

Evacuation safety in residential buildings

In residential buildings, evacuation safety is usually realised through each apartment forming its own fire compartment. With this arrangement, a fire in one apartment is confined to that apartment and does not usually spread to fire compartments adjacent to or above the apartment, such as neighbouring apartments or the stairwell. Any people present in a burning apartment must usually evacuate the apartment for safety. The occupants of other apartments are still safe in their apartments and generally do not need to leave their apartments or the building.

During a fire in a stairwell, it may be life-threatening to enter the stairwell, in which case the safest course of action is to stay protected inside the apartment. When triggered, a smoke detector placed in the stairwell may lead occupants to mistakenly leave their apartments and enter the smoky stairwell.

The Rescue Department's perspective

Apartments must be equipped with smoke detectors (section 17 of the Rescue Act 379/2011 and section 38 of the Decree of the Ministry of the Environment on the Fire Safety of Buildings 848/2017). The installation of smoke detectors in residential building spaces (public spaces) other than apartments is not required, nor is it necessary for the operating principle of the smoke detector or the evacuation safety of the residential building. Additionally, smoke detectors in public spaces create a need for instructions and training for occupants, and they increase the number of operation and maintenance measures required.

The increased number of smoke detectors in the public spaces of residential buildings has led to an increase in false alarms by these detectors, prompting occupants to call the emergency services. In addition to the resources of the emergency response centre, responding to false alarms takes up resources from the Rescue Department, which has to drive to the site, investigate the cause of the alarm on site and often wait for someone from the building maintenance company to arrive, e.g. to open doors or clear the alarm.

False alarms caused by smoke detectors in public spaces and any faults thereof are the responsibility of the building owner. The occupants of a residential building usually have no way of locating a smoke detector that is sounding an alarm in a public space or determining the cause of the alarm. In practice, any false alarms caused by and faults occurring in smoke detectors are therefore the responsibility of the building maintenance company. However, it has been found that despite the instructions issued, occupants tend to call the emergency response centre first regarding alarms sounded by a smoke detector.



If the planners decide to equip spaces other than apartments with smoke detectors, the following must be taken into account in the planning, construction and use:

1. The smoke detectors should be address-specific and connected to a smoke detector control centre through which individual detectors or the whole system can be muted and disconnected.
2. Smoke detectors must not be grouped in such a way that a single detector triggers several alarms.
3. Each smoke detector should alarm individually so that the alarming detector can be located. The alarm of a smoke detector in one apartment must not extend to smoke detectors in public spaces or other apartments.
4. The operating terminal (control centre) of the smoke detector system should be located in an easily accessible place, such as a locked cabinet in the stairwell (openable with a fire alarm key, for example).
5. The smoke detector control centre must feature location diagrams, including a description of the operation of the equipment.
6. The location of the smoke detector centre must be indicated with signs all the way from the outside. The route is to be marked with signs ('SMOKE DETECTOR CONTROL CENTRE') from the street-side entrance of the stairwell.
7. A completed information card regarding the smoke detector system must be placed on the ground floor in the building's stairwells. The information card must indicate the system's operating principle, location information and instructions for occupants on what to do in the event of an alarm in a public space.
8. Occupants must be adequately informed of how the system works. They must be instructed to report any false alarms (no signs of a fire) in public spaces to the maintenance company, not the emergency response centre. Information about the smoke detector system must also be included in the building's evacuation plan, with a description of how the system works.
9. Fire and fault notifications are to be connected to a continuously manned control room.
10. Due to the smoke detector systems of public spaces, no key deposit of the Rescue Department is to be installed in residential buildings.
11. If apartment-specific smoke detector mute buttons have been installed in the apartments, clear instructions regarding them and their use must be provided both near the buttons and in the occupant folder. Example of such instructions: "The mute button will mute the smoke detector alarm X times for X minutes. After X times, the smoke detector alarm can no longer be muted."



HELSINKI CITY RESCUE DEPARTMENT SMOKE DETECTORS IN THE PUBLIC SPACES OF RESIDENTIAL BUILDINGS

INSTRUCTIONS FOR FILLING OUT THE SMOKE DETECTOR SYSTEM INFORMATION FORM:

FIELDS THAT MUST BE FILLED OUT TO MATCH THE DETAILS OF THE BUILDING ARE MARKED WITH YELLOW. THESE FIELDS ALSO CONTAIN EXAMPLES; PLEASE DELETE THE EXAMPLES. THE INFORMATION CARD IS TO BE PRINTED AND POSTED ON THE NOTICE BOARD OF THE BUILDING. NOTE: CONTAINS TWO PAGES.



SMOKE DETECTOR SYSTEM

A smoke detector system is a system used in the public spaces of a residential building through a central unit.

The smoke detector system does not automatically alert the emergency response centre. In the event of a fire, call the national emergency number 112!

Housing company / real estate company XXXXX

Address of the building: XXXXX

The apartments of this building feature: individual battery-powered smoke detectors / smoke detectors connected to the power grid / a smoke detector system

This building features a smoke detector system in the public spaces.

The smoke detector system covers the following areas: XXXXX (e.g. attic, basement, stairwell, waste bin shelter, bicycle storage)

The exact location of the central unit of the smoke detector system: XXXXX (e.g. stairwell A, basement, third door on the left?)

The smoke detector system is maintained by: XXXXX, tel. XXXXX

If the smoke detector system sounds an alarm, the alarm can be cleared via: XXXXX (e.g. the central unit, the triggered detector???)

The building owner is responsible for maintaining the system. The location of the central unit in the building must be indicated with signs so that occupants and, if necessary, rescue operators can access the central unit without assistance. There should be unobstructed access to the central unit (note any locks). Instructions for using the device can be found near the central unit. The sirens are usually installed in the stairwell so that any alarms can be heard in the apartments. Occupants should know how to guide the rescue operators to the central unit. With that in mind, discuss with all members of the household what they are supposed to do when an alarm is sounded.

WHAT TO DO IN THE EVENT OF A SMOKE DETECTOR SYSTEM ALARM

1. DO WHAT YOU WOULD DO WHEN A SMOKE DETECTOR SOUNDS AN ALARM IN YOUR HOME
2. CHECK WHERE THE ALARM IS COMING FROM (which smoke detector is triggered / which room the alarm is coming from)
3. IF YOU SEE SMOKE, A FIRE OR OTHER ACCIDENT , **CALL 112**
DO NOT GO INTO A SMOKY STAIRWELL FROM YOUR APARTMENT
4. IF IT IS CONFIRMED THAT THE ALARM IS FALSE:
 - a. CALL XXXXX (e.g. maintenance company, security??) TEL. XXX
 - b. OR CLEAR THE ALARM YOURSELF BY FOLLOWING THE INSTRUCTIONS FOUND NEAR THE CENTRAL UNIT

What to do when the smoke detector system sounds an alarm

(Note any property-specific instructions!)



If you hear a smoke detector sounding an alarm in the public spaces, try to find out what triggered it. **If there is smoke in the stairwell: Do not leave the apartment; call 112 immediately!**



DO NOT USE THE LIFT




If you notice smoke or other signs of a fire after leaving your apartment

Extinguish the fire if you can.



Evacuate to a safe place. Note that this may mean returning to your apartment. **Do not walk through smoke!**



Close all doors behind you.




If you do not see any smoke or other signs of a fire, go to the central unit of the smoke detector system. Location: XXXXXX

Use the central unit to see which detector has been triggered and establish its location.



Check what caused the alarm. If you have fire extinguishing equipment available, bring it with you just in case.

If you are unable to reach the triggered smoke detector, call XXXX to check the cause of the alarm.




Call the emergency number 112

Our address is: XXXXX

Follow the instructions provided to you. Guide the rescue operators to the scene from the street or through a window if you are in your apartment. If smoke is seeping into the apartment through the doorway, seal the door. If there is smoke in your apartment, go onto the balcony or stand by an open window.

If the alarm is false, mute it according to the instructions located by the central unit. **Always ascertain the cause of an alarm before muting it!**

Call the maintenance company to report any false alarms so that the condition of the equipment can be checked if necessary.


