

Smoke detector modular/VdS
1141 ..

Gira
Giersiepen GmbH & Co. KG
Electrical installation
systems
P.O. Box 1220
42477 Radevormwald
Germany
Tel + 49 21 95 / 602 - 0
Fax + 49 21 95 / 602 - 119
www.gira.com
info@gira.com

41 05 49 45/08

GIRA

Product features

- Battery-operated smoke detector with photoelectric scattered-light principle
- Automatic self-test of the smoke development
- Up to 10 smoke detectors can be interconnected
- Loud pulsing alarm sound approx. 85 dB(A)
- Battery replacement display
- Soiling/Fault display
- Integrated test button for function test
- Battery compartment check: If no battery is inserted in the battery compartment, it cannot be latched into the base
- 1 slot for holding an optional module while simultaneously using the interconnect terminal
- Polarity reversal protection: Device destruction through incorrect battery connection impossible
- VdS approval: certified and approved by the German "Verband der Sachversicherer (VdS)"

Safety instructions

- 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".
- 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 an 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

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

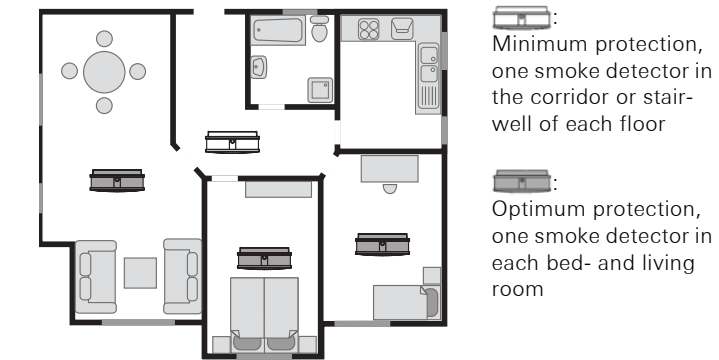
Extinguishing

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.

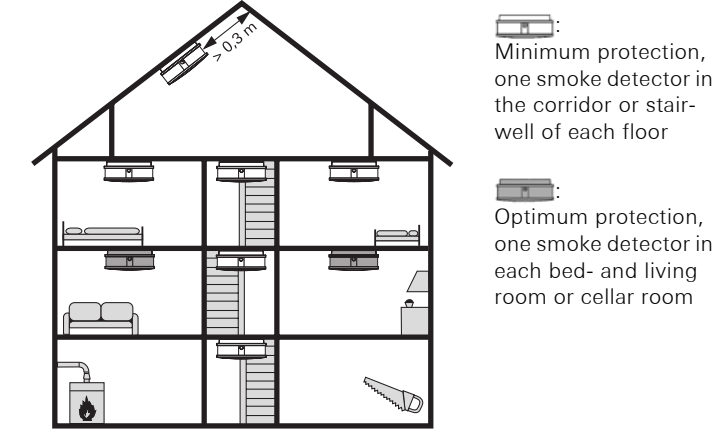
Mounting site

Example of a home



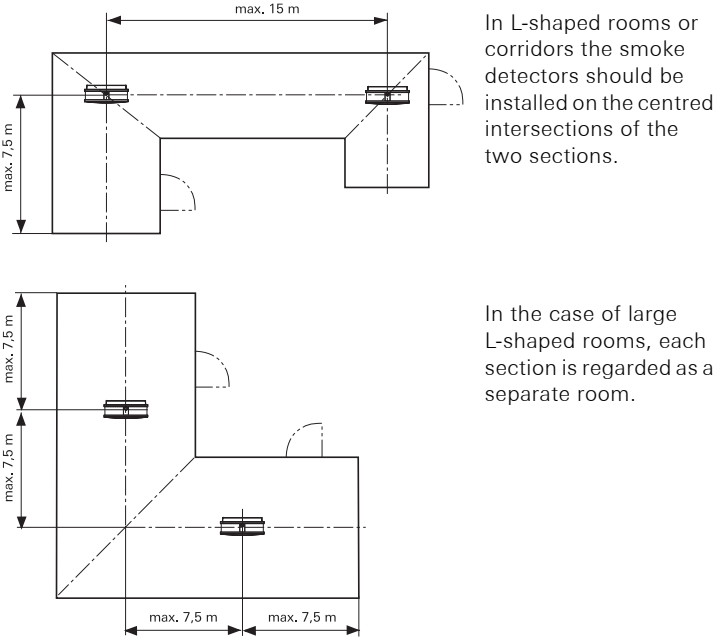
Preferably install the smoke detectors before or in the bedrooms so that the occupants are woken by the smoke alarm during the night. Mount the smoke detector in the middle of the room under the ceiling to achieve optimum detection characteristics. If this is not possible, observe a minimum distance of 50 cm to the wall. A smoke detector can monitor a room with a maximum of 60 m² 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




In buildings with several storeys mount at least one smoke detector in each storey corridor. Use several interconnected smoke detectors in larger houses in order to cover the entire living area. If smoke is detected by a smoke detector, it triggers an alarm and activates all the connected smoke detectors which then also issue an alarm. This ensures, for example, that you are woken during the night in your bedroom by your interconnected smoke detector when the smoke detector in the cellar detects smoke.

Example for particular room geometries



Unsuitable mounting sites


- 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 +5 °C or above +45 °C.

**Avoid vertical mounting of the smoke detector**

The smoke detector should be mounted horizontally as far as possible in order to ensure fault-free functioning. Vertical mounting (for example on the wall) can cause malfunctions.

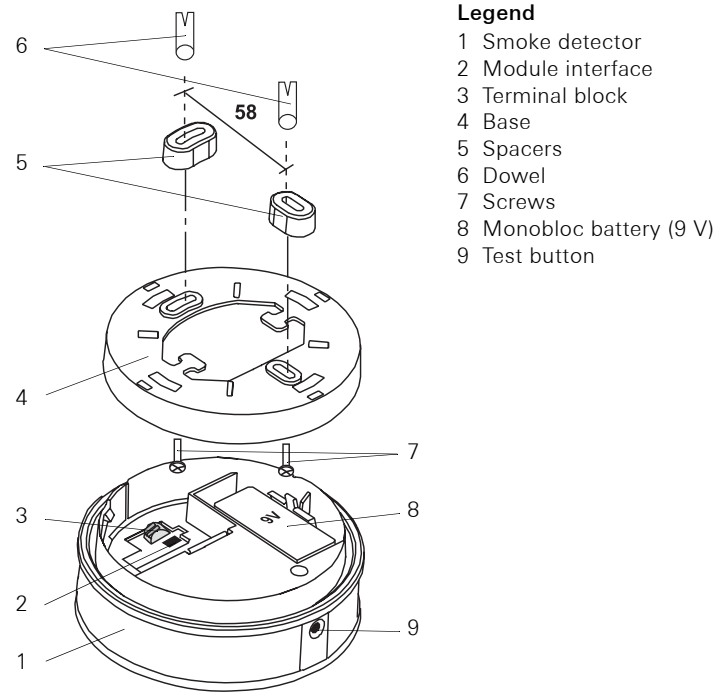
Installation and commissioning


1. Mount the base with the enclosed mounting material.
2. Use the spacers if the cable for interconnecting several smoke detectors has to be laid on the surface.
3. If necessary, carry out the corresponding steps for interconnecting several smoke detectors. For further information please refer to "Interconnecting smoke detectors".
4. If appropriate, insert a module.
5. Connect the 9 V monobloc battery to the battery connection and insert the battery into the battery compartment.
6. Insert the smoke detector into the base and latch it in by turning it slightly clockwise.

**Insert battery**

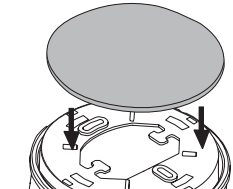
The smoke detector cannot be latched into the base without a battery.

7. Carry out a function test.



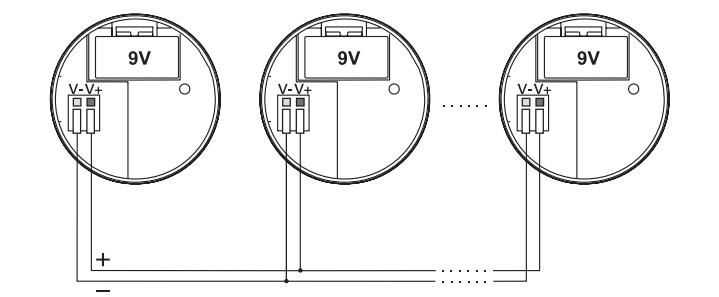
**Caution!**

The operation of the smoke alarm may be affected by air currents. When mounting the smoke alarm on cavity structures, use the seal!



Interconnecting smoke detectors

You can interconnect up to 10 Gira smoke detector. The detectors are connected in parallel with a two-conductor cable (e.g. phone cable: J-Y(St)Y 2 x 2 x 0.6 mm). The total cable length of the detector network may not exceed 450 m.



- Proceed as follows in order to interconnect the smoke detector:
1. Pull the terminal block from the smoke detector PCB.
 2. Connect the terminals with colour marking (green = plus; grey = minus) to the cable as shown in the figure.
To do so, insert the bared conductors into the opened snap-in terminals and close the terminals by pressing the levers downwards.
 3. Insert the terminal block back onto the PCB.

Caution!

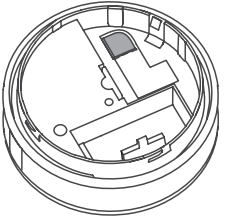
The operation of the smoke alarm may be affected by air currents. Make sure that the cable entry is locked in the cover range with a suitable sealing compound (silicone).

Inserting a module

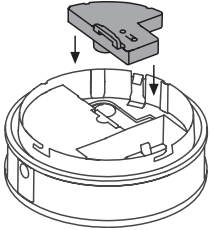
The optionally available modules can be used to extend the functional scope of the smoke detector modularly. Detailed information on the type and function of the modules can be found in the instructions of the respective modules.

In order to install a module please proceed as follows:

1. Remove the tab (greyed in the figure) by levering it out with a suitable tool (for example a screwdriver).



2. Insert the module into the slot.



Interconnection terminals remain active

The interconnection terminals of the smoke detector also remain active when the module is inserted and can continue to be used.

Operating and alarm signals

Signal sound	LED	Meaning
Loud interval sound	Flashes	Local smoke alarm
Loud interval sound	-	Smoke alarm at interconnected smoke detector
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

Battery check - Changing the battery

The smoke detector is supplied with voltage by a 9 V monobloc 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 monobloc 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.

Maintenance and care

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.

Function test

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 (Page 11):
If the signal sound is emitted, the smoke detector operated correctly. If no signal sound is emitted, replace the battery.
2. Then, carry out the function test again.
If a signal sound is still not emitted, the smoke detector is defective and has to be replaced.

If an function test is carried out at interconnected smoke detectors, all the connected smoke detectors emit an acoustic alarm. If they do not, check the batteries of all the smoke detectors as well as the connections and the state of all the interconnecting cables.

Operating test for radio-networked smoke detectors

Press and hold test button for 45 seconds

For smoke detectors which are interconnected via radio modules, it can take up to 45 seconds until the radio module receives the alarm telegram. For this reason, the test button of the triggering smoke detector must be pressed for up to 45 seconds when conducting an operating test with radio-networked smoke detectors.

To conduct the operating test on radio-networked smoke detectors, please proceed as follows:

1. Remove the smoke detector from which you want to transmit the test telegram from the base.
2. Activate the test function on the radio module of this smoke detector by briefly pressing the programming button.
The active test function is indicated by the programming LED flashing.
When the test function is active, the signal transmitter of this smoke detector is muted.
3. Press and hold the test button on the smoke detector (for a maximum of 45 seconds) until all assigned smoke detectors output an acoustic alarm.

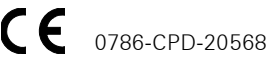
If one or several smoke detectors does/do not output an acoustic alarm, please check the batteries of all smoke detectors and the radio assignments.

Functional principle

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 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).

Technical data

Nominal voltage:	9 VDC
Battery:	Monobloc battery, IEC 6 LR 61, 9 V
Battery durability:	Approx. 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 3 m
Housing dimensions:	110 x 45 mm (Ø x H)
Plastic material:	PC
Operating temperature:	+5 °C to +45 °C
Storage temperature:	-5 °C to +60 °C
Weight (without battery):	Approx. 120 g
Protection type:	IP 42
VdS approval:	VdS G 208 129
Approval in accordance with:	DIN EN 14604:2005



Warranty

We provide a warranty as provided for by law. Please send the unit postage free with a description of the defect to our central customer service via your specialised dealer:

Gira
Giersiepen GmbH & Co. KG
Service Center
Dahlienstraße 12
D-42477 Radevormwald
Germany