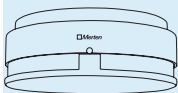


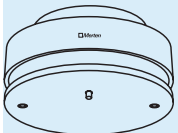
ARGUS SMOKE DETECTORS

ARGUS smoke detector Connect



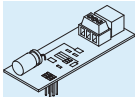
Colour	Art. no.
polar white	663419
aluminium	663460
dark brazil	663415

ARGUS glass smoke detector Connect



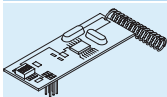
Colour	Art. no.
polar white	663719
aluminium	663760

Relay module for ARGUS smoke detector



Art. no.
663490

Radio module for ARGUS smoke detector



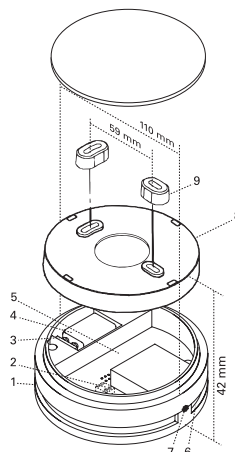
Art. no.
663491

The modular smoke detector system

The visual smoke detector detects smouldering fires as well as open fires with smoke development in good time. It operates according to the proven scattered light principle. Light transmitter and receiver are arranged in the measuring chamber in such a way, that the transmitter's light beam cannot hit the receiver directly. Only after the light has been diffused by airborne particles (Tyndall effect), does it reach the receiver where it is converted to an electrical signal. Because of this construction, it does not need any radioactive compound. Smouldering fires in particular are detected quickly and reported. If smoke enters the measuring chamber, the built-in signal pulse is triggered.

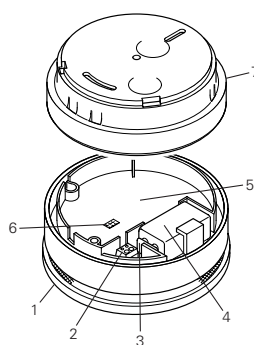
- Battery-powered basic unit with integrated interface for functional extension.
- Automatic self-test of the smoke evaluation, thereby exceptionally reliable and extremely trouble-free.
- Battery replacement indicator (LED and short signal tone) indicates that a battery is getting low for typically 30 days.
- Dirt/malfunction display with LED and a short signal tone every minute.
- Integrated test button. By pressing the test button, a warning sound can be heard, if the smoke detection is operating correctly. All wired or radio-networked devices are addressed.
- Loud pulsating warning sound if smoke is detected, approx. 85 db(A).
- Plug-in extension modules allow the unit to be extended to form a complete smoke detection system.
- With the network terminal integrated in the device, up to 40 smoke detectors can be connected to each other easily, using a two-wire cable, to form a system. If a smoke detector detects a fire, an alarm will be set off by all smoke detectors.
- The plug-in relay module, art. no. 663490, is equipped with a floating changeover contact. With this contact, the smoke detection system can be connected to external signalling devices, alarm systems, fire reporting systems or the INSTABUS EIB building system technology. (Closed-circuit protection)
- With the plug-in radio module, art. no. 663491, several smoke detectors can be combined into a wireless networking system. The module operates in the frequency range of 868 MHz.
- It is possible to combine wired smoke detectors with radio-networked smoke detectors.
- If a smoke detector within the networking system detects a fire, then all smoke detectors connected via the extension modules set off the alarm.
- A Merten smoke detector system with radio or relay modules (art. no. 663394 with 663390 or 663391) that is already installed can be integrated in this system.

Installation



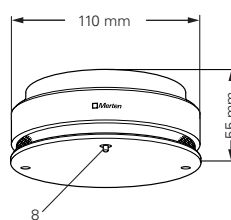
Smoke detector Connect components

- 1 Smoke detector
- 2 Network terminal
- 3 Battery unit
- 4 Battery
- 5 Slot for radio or relay module
- 6 LED in the housing
- 7 Test button
- 8 Base for ceiling mounting
- 9 Spacer



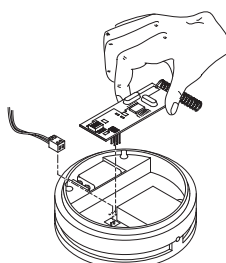
Glass smoke detector Connect components

- 1 Smoke detector
- 2 Network terminal
- 3 Battery unit
- 4 Battery
- 5 Space for radio or relay module
- 6 Slot for radio or relay module
- 7 Base
- 8 Test button and integrated LED

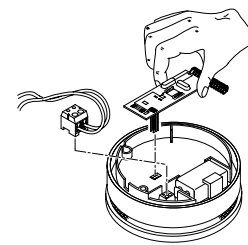


Installation of the modules and connection of the wired network

When installing the modules, pay attention to the notes and instructions in the operating instructions for the smoke detector and module.



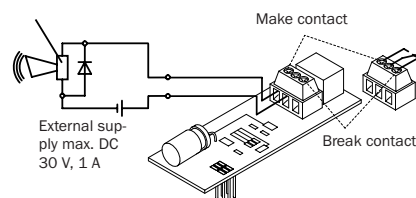
ARGUS smoke detector Connect



ARGUS glass smoke detector Connect

Contacts on the relay module

External alarm signalling device



The connection to the INSTABUS EIB is carried out with an integrated relay module, art. no. 663490 and binary input-flush-mounted/4x10, art. no. 639898.

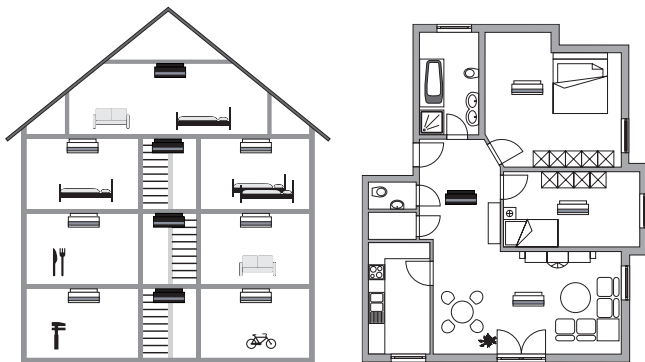
Installation sites

Minimum protection

- One smoke detector is fitted in the corridor between the living and sleeping areas.
- In the case of long corridors, several detectors may be necessary. The distance between the detectors should be no greater than 8 m.
- In the case of several separate sleeping quarters, one detector should be installed in front of each area.
- For multi-storey buildings, one detector should be fitted in the hall of each floor.

Increased protection

- In addition to the minimum protection, one smoke detector is installed in each room. One detector can monitor rooms up to max. 60 m² and 6 m in height. The detector should be installed in the ceiling in the centre of the room. If this is not possible, the distance from the walls should be at least 50 cm.



Suggested installations

Therefore install:

- unconditionally a smoke detector in the corridor area (monitoring of escape route) between the living and sleeping areas.
 - for optimum protection, one smoke detector in each living and sleeping area
 - in multi-storey buildings, at least one smoke detector in the corridor/hall of each floor
 - if there is an attic extension, a smoke detector above the staircase
- Installation on boats or in caravans is also possible under the ceiling. When you are travelling, just take the smoke detector with you to your hotel room.

Unsuitable installation sites

- Places where larger temperature fluctuations than the operating temperature range (0°C - 50°C) are to be expected.
- Places where draughts can keep the smoke away from the detector (e.g. next to windows, doors or air shafts).
- Places in which false alarms may be set off by steam, increased humidity or exhaust fumes.
- If the detector is installed in the kitchen, the place where it is fitted must therefore be as far away as possible from the cooking area so as to avoid false alarms due to steam.
- Places in which the functionality of the detector may be adversely affected by being exposed to large quantities of dust and dirt.
- In the direct vicinity of lighting fixtures and ballast devices. Maintain a distance of at least 1 m from them.
- Directly in a rooftop. A distance of at least 30 cm is to be maintained from the top of the roof.
- Near hearths or open fireplaces.

Basic unit not networked

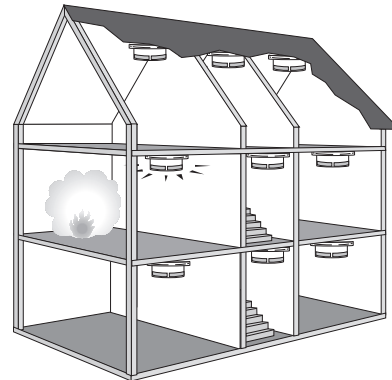
ARGUS smoke detector Connect

Art. no. 6634..

ARGUS glass smoke detector Connect

Art. no. 6637 ..

- Only local alarm signal
- An external alarm signal via relay module is available as an option.



Smoke detector system wired to a network using network terminals

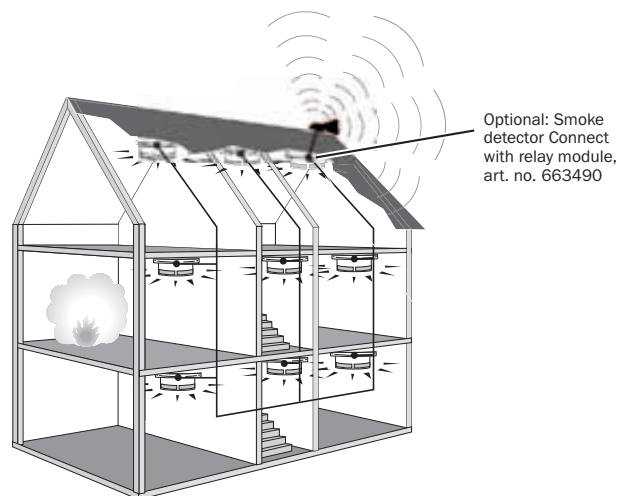
ARGUS smoke detector Connect

Art. no. 6634..

ARGUS glass smoke detector Connect

Art. no. 6637 ..

- Local and central alarm signal (wired)
- Network with max. 40 smoke detectors.
- An external alarm signal via relay module is available as an option.



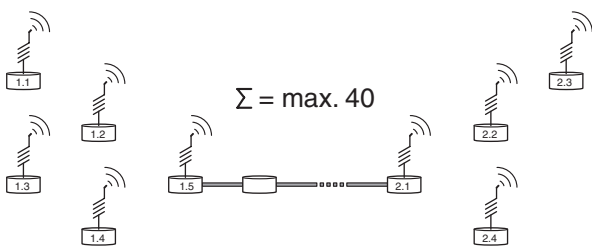
Radio module for ARGUS smoke detector Connect /ARGUS glass smoke detector Connect

ARGUS smoke detectors can be connected to one another either wired using the integrated network terminal or wirelessly by retrofitting the optionally available radio module, art. no. 663491. With the radio module, you have the option of assigning various transmitter identification numbers (ID). These are set on the radio module's board using four switches. So you have 16 different IDs at your disposal. By assigning different IDs you can e.g. make sure that your smoke detector or other smoke detectors in the neighbourhood are not triggered by accident. When a smoke detector is activated, the radio module transmits its signal. All other smoke detectors with radio modules, that have the same ID and are within the transmission range, receive the signal and trigger the warning sound. These radio modules cannot pass on the signal, because they cannot be receiver **and** transmitter at the same time.

ARGUS SMOKE DETECTORS

Number of smoke detectors in the system

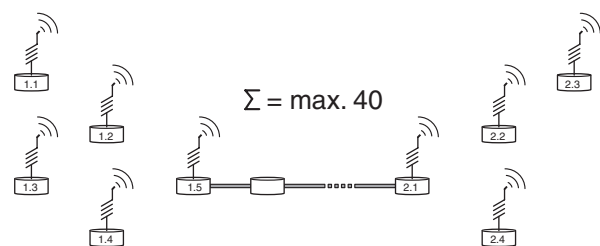
As a rule, several smoke detectors are combined to form a system. However, more than 40 smoke detectors should never be networked. It is of no importance, whether the connections are wireless or wired. If more radio detectors are combined to form a network, then the time required until the last detector has reacted will be too long to guarantee a reliable fire alarm.



Network a maximum of 40 smoke detectors

Number of smoke detectors in one radio cell

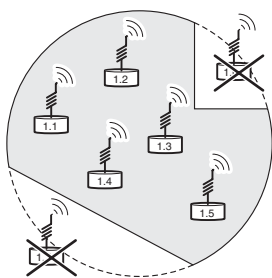
The maximum range of 30 m, that the radio modules have, means that devices have a radio cell around them with a diameter of 30 m. Maximum 10 radio smoke detectors may be connected to one another within this type of radio cell.



Maximum 10 smoke detectors in one radio cell

Size of a radio cell

In practice, the size of a radio cell is reduced by many factors. Building conditions, such as walls, furniture etc. have an absorbing effect. A functional test must therefore be carried out at all costs before the final installation.



Reduced size of a radio cell

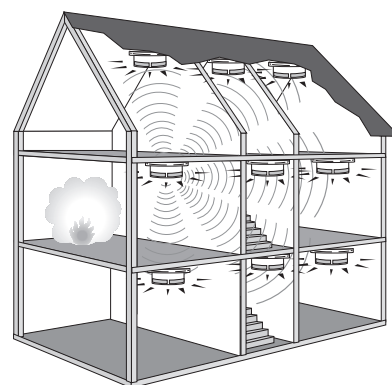
Radio-networked smoke detection system in the frequency range of 868 MHz

ARGUS smoke detector Connect Art. no. 6634..
ARGUS glass smoke detector Connect Art. no. 6637..
Radio module Art. no. 63491

- Local and central alarm (wireless)
- Transmission on the radio band of 868 MHz
- Bidirectional communication with integrated transmitter and receiver

! The same ID (16 are possible) must be set in all smoke detectors.

- Every smoke detector must be equipped with a radio module.



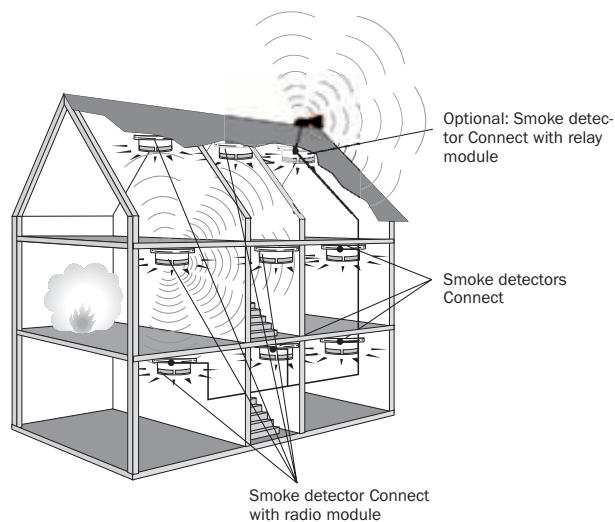
Radio modules 868 MHz in buildings

Combination of wired and radio-networked smoke detection system

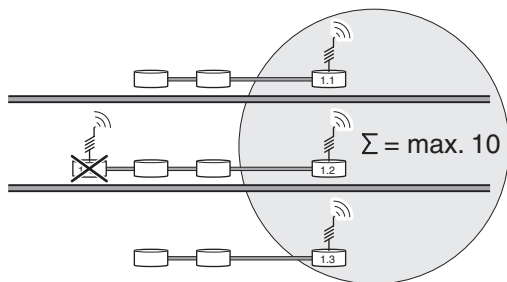
ARGUS smoke detector Connect Art. no. 6634..
ARGUS glass smoke detector Connect Art. no. 6637..
Radio module Art. no. 63491

- Local and central alarm signal (wireless and wired)
- An external alarm signal via relay module is optionally available.
- It is possible to combine wired smoke detectors with radio-networked smoke detectors.

! For all smoke detectors with radio modules within one smoke detection system, the same address must be set of the 16 possible addresses.



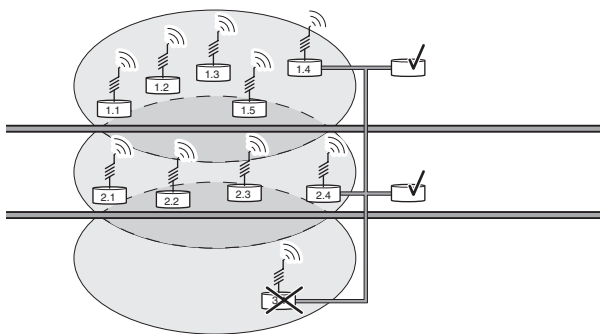
If there is only one radio module in wired lines, then up to 10 wired lines may be networked with each other via radio. The radio modules of these wired lines must all be in the same radio cell.



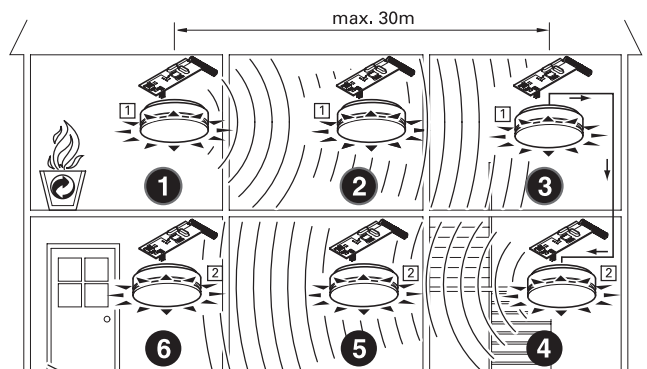
Maximum 10 wired lines can be networked via radio

Two radio modules on one wired system

When radio modules are wired to one another, they form a wired line. Within such a line, a maximum of 2 radio modules are allowed. Both of these radio modules must always be assigned to different IDs. Such a configuration is conceivable in a multiple family house, where two floors are connected to one another.



Maximum 2 radio modules in one wired line

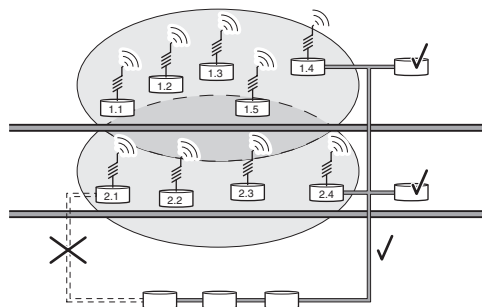


The smoke detector ① detects smoke and transmits the alarm signal with its set ID [1]. The smoke detectors ②, ③ receive the signal and issue an alarm. The smoke detector ④ passes the alarm signal via the wire to smoke detector ⑤. This device (with the set ID [2]) passes on the alarm signal to smoke detector ⑥, ⑥.

! Only the detector which issues the alarm (①) and the wired detector (④) transmit the alarm signal. All other detectors (②, ③, ⑤, ⑥) receive the alarm signal.

! If there are two radio modules on one wired line, then different IDs must be used.

If 2 radio modules already exist in the wired line, then no more wired lines may be connected to this system via radio. Here also, the reason is the running times for the signals, which would be too long in such a system. The time between activation of the first detector and the reaction of the last one would be too long to guarantee a reliable fire alarm.



Maximum 2 radio cells for every wired line

Notes on radio transmission

- The radio module operates using the radio frequency of 868 MHz, which reduces the risk of malfunctions considerably.
- The range in the building is up to approx. 30 m, so that two floors can be bridged.
- Aligning the smoke detectors optimises the range.
- In buildings the range depends heavily on conditions in the building (ceiling/wall materials).
- The reception properties can be impaired by
 - harmonic wave interferences by 433 MHz devices
 - overmodulation of the receiver by mobile phones in the immediate vicinity
 - sporadic interferences by transmitters using neighbouring channels (+/- 200kHz)
- In the case of an alarm the the horn of the device that has detected smoke is activated.
- If the alarm is longer than 5 seconds, the device that has detected smoke transmits the alarm signal for at least 60 seconds.
- The receivers of one radio line (same address) are activated by a self-test signal approx. every 50 seconds and check if there is an alarm signal from a detector.

In the case of an alarm, there is an interval of max. 50 seconds between the alarm being activated and the triggering of all smoke detectors on the radio line.

- The received alarm only stops, when the smoke detector that issued the alarm no longer transmits an alarm signal.

Radio repeater and ARGUS smoke detector Connect

- A "smoke alarm circuit" can be implemented in conjunction with the Merten radio repeater, art. no. 595959. The radio repeater converts smoke detector signals to switching telegrams. So when smoke develops, the light is switched on or the blinds are raised, for example.

! The radio repeater cannot amplify smoke detector signals, which means that it cannot activate other smoke detectors.