

Product information

Intelligent fire detector 9200 series

Performance data at a glance

Earliest fire detection due to

- Patented multisensor technology
- Decentralised intelligence (microprocessor in each device)

Optimum false-alarm protection

- Automatic adjustment of sensitivity in harsh environments
- Intelligent processing of individual signals in multisensor
- O²T technology identifying origin of aerosol particles

High reliability and low maintenance costs

- Continuous self-diagnosis and flexible maintenance tools
- Loop circuit architecture



Fire detectors with intelligence for every application

❖ The 9200 series detectors offer the highest level of reliability for a full range of fire detection applications: from low or medium to high-value concentrations. Detectors are available as optical smoke detectors, heat detectors, ionisation smoke detectors or multi-sensor detectors, combining one or more principles.

9200 series—safety without compromises

The 9200 series of intelligent fire detectors offers the best possible protection for medium to large buildings with very high value concentrations. Specially developed for the ring loop technology of our control panels, they offer maximum operating reliability, even in the event of short circuits and wire breaks.

Up to 127 intelligent fire detectors in a common ring loop can be wired in up to 127 individual detector zones. Furthermore, soft-addressing means each detector in the loop is addressed automatically by the fire control panel.

Automatically more safety

In the event of a fire, the triggering detector and its detector zone are identified immediately. The alarm itself will be reported automatically to emergency services, e.g. the fire brigade.

Ordering details

	Part No.
Ionisation smoke detector	801071
Fixed heat detector	801171
Rate-of-rise heat detector	801271
Optical smoke detector	801371
OT multisensor detector	801373
O ² T multisensor detector	801374
OTI multisensor analogue detector	801973

VdS approval

For all detectors



Detection of and distinction between fire, smoke development and smoke density

All sensor types to suit every application

... Depending on the application, there is a wide range to choose from: ionisation and optical smoke detectors, fixed-heat and rate-of-rise heat detectors, and multisensor detectors featuring a combination of two or three of these detection principles. The multisensor detectors, in particular, offer superior early fire detection, even under the most difficult conditions with unknown fire loads.

Easy to install and maintain

The 9000 series mounting base means the detector itself can be installed using a simple snap-in fixture. The use of these standard mounting bases makes for later flexibility if changes become necessary due to different room utilisation. The software provided makes initial set-up easy. The integrated intelligence of the 9200 series allows data from the internal alarm and operating data memory to also be displayed on a PC either directly or via remote access. In this way quick and focussed maintenance can be carried out.

Applications for multisensor detectors

The multisensor detector demonstrates its strengths in virtually every application area, not only protecting lives or valuable investments but cultural assets as well.

Multisensor detectors are highly recommended in the following application areas:

- High risk to human lives, such as in schools, hospitals, theatres, hotels, etc.
- Buildings containing high-value assets such as museums, sites of cultural interest, etc.
- Rooms with varying usages or unknown fire risks such as stores, laboratories, etc.
- Buildings under major threat from terrorist or arson attack such as military facilities or high-risk government establishments
- Changing background risks or critical operating conditions such as factory buildings
- Buildings containing separate ventilation/air-conditioning systems as found in computer and clean rooms
- High ceilings, as found in entertainment facilities, high-bay warehouses, etc.
- Buildings with special security requirements such as nuclear power plants, chemical plants, shipping facilities, etc.

Optical fire detectors

❖ In optical photoelectronic detectors a transmitting LED and a receiving diode are arranged at a specific angle to each other. When visible fire aerosol particles (smoke) penetrate the device, a section of the light beam is scattered and the signal is evaluated in the receiver.

Optical smoke detectors cannot detect invisible aerosol particles of the type produced by high-energy, free-burning fires. They are therefore unsuitable for general use where such fires can occur.

Heat

Fixed-temperature or rate-of-rise heat detectors register the temperature increase that occurs during combustion. They do not, however, detect the smoke and combustion gases produced by fires. The material composition of modern buildings and building contents encourage smouldering fires and excessive smoke formation before an open fire breaks out. In this case, heat detectors alone are not enough. They are suitable for areas in which, under normal operating conditions, smoke or similar aerosols may arise but where, in the event of a fire, an open, rapidly spreading flame can be expected.

Ionisation

In ionisation detectors, a low-strength radioactive source generates a steady stream of ions in the sensor chamber. The chamber forms an electric field and the effect of the ion stream on the field is monitored. When aerosols enter the chamber, the stream of ions is affected and the effect is measured in the chamber. Invisible and fine dark particles typical of high-energy and plastic fires affect the ion stream in particular. Ionisation detectors are best installed in areas with such risks.

Multisensor detectors

A multisensor detector combines two or more different detection principles: optical, heat or optical heat and ionisation. In this way a much wider range of fires can be detected earlier. A comparison of detectors shows that the three-way OTI multisensor offers reliable early detection of all types of fires. A multisensor therefore offers the system designer an all-purpose detector for all applications, satisfying today's complex and changing requirements.



High tech in miniature

A wide range of accessories

- Detector bases for the most varied of requirements
standard version*: 781590
with relay output: 781591
with open collector output: 781592
with isolator*: 801593
- Surface-mount adapter plate: 781495
- Detector lock: 781496
- Protective detector cage against unauthorised removal: 781550
- Flush-mount, drip-proof base adapter for mounting in ceilings (and false ceilings): 781497
- Surface-mount base adapter with PG cable entry/cable conduits: 781498
- Kit for suspended mounting: 781482
- Detector interface for visual display of sensor status on a PC: 769805

* Including terminals for remote LED indicator

Technical data

Detector version	I 9200	T(fh) ²⁾ 9200	T(ror) ³⁾ 9200	O 9200	OT 9200	OTI 9200
Type	801071	801171	801271	801371	801373	801973
Radioactive compound	Am 241/≤ 5 kBq	—	—	—	—	Am 241/≤ 5 kBq
Type approval	NW609/90	not required	not required	not required	not required	NW609/90
Individual indication	•	•	•	•	•	•
Alarm and operating data memory	•	•	•	•	•	•
Automatic sensitivity check ^{*1)}	•	•	•	•	•	•
Rated voltage UN	19 V	19 V	19 V	19 V	19 V	19 V
Typical quiescent current pulsing at UN	45 µA	45 µA	45 µA	45 µA	45 µA	45 µA
Typical emergency alarm current	18 mA	18 mA	18 mA	18 mA	18 mA	18 mA
Typical alarm current	9 mA, pulsed	9 mA, pulsed	9 mA, pulsed	9 mA, pulsed	9 mA, pulsed	9 mA, pulsed
Current consumption during communication	9 mA, pulsed	9 mA, pulsed	9 mA, pulsed	9 mA, pulsed	9 mA, pulsed	9 mA, pulsed
Ambient temperature	-20 to +60 °C	-20 to +72 °C	-20 to +72 °C	-20 to +72 °C	-20 to +72 °C	-20 to +72 °C
Storage temperature	-25 to +75 °C	-25 to +75 °C	-25 to +75 °C	-25 to +75 °C	-25 to +75 °C	-25 to +75 °C
VdS* No.	G 201007	G 201005	G 201006	G 201008	G 201009	G 201010

* Association of German Property Insurance Companies ¹⁾ With diagnostic compensation of environmental factors ²⁾ Heat detector (fixed-heat) ³⁾ Heat detector (rate-of-rise)

Dimensions, including base D = 90 mm, H = 72 mm

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