



«So fire risks can leave you cold.»

SecuriFire – the redundant modular fire detection system with SpiderNet technology

Securiton AG, Alarm and Security Systems
www.securiton.com, info@securiton.com

Securiton d.o.o., Serbia
www.securiton.rs, info@securiton.rs

Securiton Kft., Hungary
www.securiton.hu, info@securiton.hu

Securiton (M) Sdn Bhd. Malaysia
www.securiton.com, asia@securiton.com.my

Securiton RUS, Russia
www.securiton.ru, info@securiton.ru

Securiton Slovakia s.r.o.
www.securitonslovakia.sk, info@securitonslovakia.sk

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«Twice the design, twice as safe.»

A fire at a company destroys far more than just property: it also puts human life at risk and can threaten the economic existence of any business. So the quicker it is detected, the less chance it has of triggering a sequence of disastrous events. The aim, then, is to counter the fire risk with an adversary that is as intelligent as it is effective. An adversary who is ready at all times, and who watches over your safety even when circumstances do not obey normal rules.

With SecuriFire from Securiton you have at your service a fire detection system that frankly leaves all previous

systems standing when it comes to high-tech intelligence and reliability. SecuriFire boasts an innovation that is certainly causing a stir. Its fully redundant system architecture provides twice the safety, and that means that a complete system failure can, in all probability, be excluded. All the hardware and software components have been duplicated, operating in parallel in two separate autonomous systems. If the active system fails, the secondary system takes over full operations – seamlessly. This guarantees maximum availability, and any incipient fire is detected in a flash – even if the fire detection system is damaged due to several breaks in its wiring.

«Preventing economic lows with technological highs.»

SecuriFire helps you gain those crucial seconds that can make all the difference between a minor incident and total devastation when a fire breaks out. The intelligent early warning system is equipped with the best technologies available today. Their smooth interplay means that a fire does not have the slightest chance. And the modular, decentralised system structure gives you maximum freedom when it comes to planning. Up to 16 autonomous control units can be interconnected, without an overriding central computer, to create a homogenous overall system. Each of these redundantly connected control units can accommodate up to 14 ring circuits with 128 elements each, elements such as fire detectors or manual call points.

While SecuriFire reliably goes about its main task, i.e. detecting fires instantly, the system communicates with the outside at several levels. They include interfaces for transmission and alarm units, relay outputs and monitored inputs and outputs. Fire brigade maps and optical indicator boards are connected via an external equipment bus, and serial interfaces provide the contact with superordinate systems. SecuriFire is easy and intuitive to plan, program and operate.

SecuriFire – making sure you benefit from peak performances:

- [lightning-fast detection of incipient fires](#)
- [fully redundant hardware and software design](#)
- [modular and decentralised architecture](#)
- [up to 16 ring circuits with 3500 elements per control unit](#)
- [data interfaces to the outside and to superordinate systems](#)
- [simple planning, programming and operation](#)
- [highest security standards](#)



«For a safety map that leaves no blanks.»

SecuriFire literally grows along with the tasks you set the system. Indeed the fire detection system is simple to expand or to reduce. Once you have defined your needs, the system topology is adapted accordingly. And thanks to SecuriFire's unique flexibility you obtain exactly the level of protection you need for each area of your building: no more, but – more importantly – no less. For instance one control unit can be used for each floor or for each part of the building. Up to 16 ring circuits then run from the control unit through the individual rooms. Depending on the risk potential of each room or part of the

building the ring circuits are equipped with the appropriate number of fire detectors and other elements. If required by the building's circumstances, stub lines can also be installed without a problem.

The inner workings of the control units are revolutionarily simple and clearly structured. Plug-in connectors are used exclusively; there is no direct wiring to the assembly units. This means the individual assembly units are easily replaced or removed. All it takes is a few simple operations and the control unit is always up to date.

«Intelligence is all about controlling something complex by simple means.»

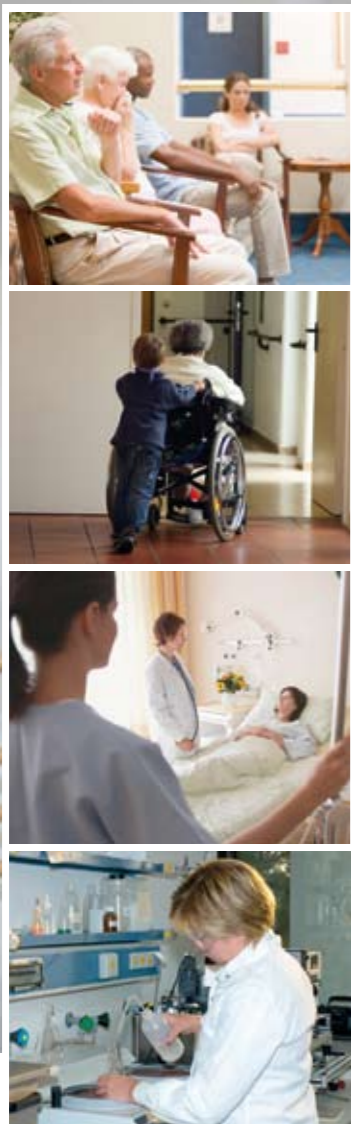
When a fire breaks out, every second you gain before you start tackling the fire is worth gold. The display and control panel has been designed so you're able to find your way quickly and respond in the right way, even in situations of stress. SecuriFire is so simple to operate that you are certain to gain those crucial seconds. It is operated using function keys and, as an innovation, the SecuriWheel, which lets you navigate through the menu on the 5.7 inch TFT colour display, intuitively and in a user-friendly way. The design of the front panel of the housing is just as straightforward: all it contains are

icons rather than labels. That means you're able to grasp the current situation at a single glance.

All the system states are indicated in plain text on the TFT colour display. The operator can select from four different languages even while the system is up and running. The device also has an interface for connecting a log printer and an expansion bus for connecting up to three additional control and display units. It is available as a built-in version (control unit) and as a detached version with its own housing.

SecuriFire – safety à la carte:

- maximum flexibility in system design
- expandable and modifiable as required
- up to 16 autonomous control units
- up to 16 ring circuits with a total of 3500 elements per control unit
- significantly reduced amount of wiring
- simple and intuitive operation using the SecuriWheel
- information available at a glance on the colour display



«Redundancy – so failures are a thing of the past.»

A fire detection system has to watch over your safety reliably and continuously. But after thousands and thousands of operating hours it is impossible to rule out the occurrence of a fault or damage to a cable or the failure of a processor. And yet that one time may prove to be the «one time too many». When it comes to protecting people's lives and their property Securiton simply refuses to compromise. So with its SecuriFire system it has gone for complete protection through redundancy.

«Better safe than sorry» is always a good principle, which is why all the microprocessors, components, parts and system structures in the fire alarm control pan-

els have been duplicated. The connections between the control units can likewise be duplicated to create a redundant design. So a second, fully identical system operates constantly in hot standby mode, in parallel with the active operating system. Any fault in the active system immediately triggers the uninterruptible switchover to the second system. All the functions of the fire detection system – detection, signalling, alarming, plain-text display, etc. – remain seamlessly operational. The system malfunction message is the only visible sign that the second system has taken over active operations. The result: guaranteed fail-safe reliability 31 536 000 seconds a year.

«Unlimited networking – thanks to SpiderNet technology.»

The SecuriFire LAN is the system's lifeline. It connects up to 16 control units together to form a giant, powerful fire detection system. The individual control units can be up to 1200 m apart when standard cables are used – or any distance at all when using fibre optic cables. Although the system is decentralised in design, it acts like a single fire alarm control panel. The status of any of the elements in the entire network is easily retrieved and operated from any control panel – down to an individual fire detector. And that in turn saves time and costs.

Security is also at the top of the list of priorities when it comes to data transmission via the SecuriFire LAN. That

is why all the LAN elements have a redundant design. The new SpiderNet technology means even greater availability: with SpiderNet the control units connected to the LAN are linked together not just in a ring shape but also diagonally. This creates a high-security fabric that is resistant even to multiple faults. The elements and sub-systems communicate with one another permanently via a specially developed digital data protocol. Automatic test cycles and test routines are constantly running in the background. Electromagnetic influences are filtered out in the SecuriFire LAN, eliminating potential communication faults.

SecuriFire – safe and redundantly networked:

- 100% identical secondary system in hot standby mode**
- maximum fail-safe design at all levels**
- secure data transmission via a redundant SecuriFire LAN**
- tightly meshed diagonal networking with SpiderNet technology**
- permanent automatic system checks**
- remote system diagnostics**
- device bus for connecting external display and control devices**



«Always rely on a secure line.»

SecuriLine – SecuriFire’s ring circuit – is powerful, reliable and impressive in its dimensions. It runs from the control unit throughout the building over a length of up to 2000 m. Up to 128 elements act as a data highway and fault-free connection for SecuriLine, to and from the control units. And even if a device connected to the ring circuit fails, all the other elements continue to operate perfectly. That also applies to a short-circuit or wire break along the line. If a device does fail, its location is pinpointed instantly and displayed.

And it is not just alarm signals that run along the SecuriLine. The detection units also send status infor-

mation or self-test data to the control unit. The creation of logical detector zones is independent on whether or not they belong to the same SecuriLine – this means that detectors from different ring circuits can be grouped together, which in turn considerably reduces the amount of wiring involved. SecuriLine also accommodates detection units from older generations. So any investments you have made in the past are safeguarded, and you can upgrade your installation step by step without difficulty. In fact you will be surprised how simple it is to design, program and commission a SecuriLine. The user-friendly software gets you there in no time at all.

«The devices – an unbeatable team when it comes to combating fires.»

The devices connected to the SecuriLine have many tasks to fulfil: monitoring, signalling, alarming and controlling. They are all easy to program individually and are immune to electromagnetic interference. The choice, locations and programming of the individual devices are tailored precisely to your safety requirements – no SecuriLine is the same as any other. The MCD 573 multiple sensor detector is the device most frequently used. As an intelligent all-rounder it can be used as a smoke or temperature detector, depending on requirements – or as a combined detector. Electromagnetic influences are filtered out in the SecuriFire, eliminating potential communication faults or false alarms.

The LKM 531 ventilation duct detector is capable of reliably detecting smoke in locations with air flow speeds of up to 20 m/s. Special fire detectors like aspirating smoke detectors are integrated into the ring circuit using a SecuriLine interface. Other elements include loop sirens, loop flashing lights, manual call points and various modules with relays and inputs and outputs. They allow other devices to be connected, right down to radio detectors.

Rely on intelligent guards to watch over you:

secure data transport to and from detection devices via SecuriLine

safeguarded investments and step-by-step modernisation

the right detection device whatever your risk profile

one for all: cost-saving universal detector with smoke and heat sensors

each individual detection device is simple to program



«All under control at all times – with the SecuriFire Studio programming tool.»

What do you need to plan, program and commission your SecuriFire system? It is simple: a laptop computer. The SecuriFire Studio is an amazing piece of programming equipment. The tool guides you step by step until you have found exactly the right solution for your particular fire detection system. You are able intuitively to design the system topology, position the control units and SecuriLines within the building, and select the right detection and peripheral equipment. It goes without saying that you also have the full support of Securiton's own fire detection specialists. Even when you're redesigning or expanding your company, the programming tool helps

you save a lot of time and money. All you have to do is to download the planning data via a service interface to a control unit. The data is then distributed throughout the system using the SecuriFire LAN.

The event memory and log printer provide you with detailed information so you're constantly up to date while the system is running. This information contains all the changes that occur within the system, in plain text: events such as alarms, faults, device switch-on and switch-off, operator actions, servicing notes, etc.

«Gain the upper hand – with quick responses.»

When a situation becomes serious, SecuriFire summons help in a flash. In the event of a fire hazard the fire detection system immediately transmits the relevant messages – via its interfaces for transmission and alarm units. Or it notifies superordinate computer systems or fire detection control systems if it is connected to them via its serial interfaces. The emergency services on site gain valuable time: the display and control units and the optical indicator boards tell them at a glance where the fire is located.

Stationary fire extinguishing systems are even quicker at putting out any fire that has broken out. Here, too, SecuriFire plays a key role. Indeed the fire detection system automatically activates these fire extinguishing installations. This means that a fire is tackled automatically the moment it is detected – or after a programmed delay. Virtually all modern fire extinguishing systems can be coupled to SecuriFire: CO₂ high- and low-pressure extinguishing systems, inert gas and argon installations, spray and sprinkler systems, and chemical systems (Novec).

SecuriFire – always on the safe side:

overvoltage protection, mains filter and protective diodes

sheathed cables, earthed metal housing

tested and approved in accordance with EN 54, EN-12094-1, DIN, VDE, and many others

VdS device and system approvals, CPD approval