

A WORLDWIDE INNOVATION

***Now
available!***

Earliest Possible Fire Detection with
TITANUS *MICRO-SENS*[®]



Photos of the Duchess Anna Amalia Library, Weimar, September 2004

Nobody ever thinks that they are going to have a fire in their premises, yet in Germany alone a fire breaks out every two seconds. As a result, the operating capacity of companies affected may be greatly impaired.

Everyone should be aware just how long it takes to replace lost assets/goods and resume business operations – if that is possible.

Cultural assets are just as important and all-embracing fire protection is essential: 50,000 valuable books

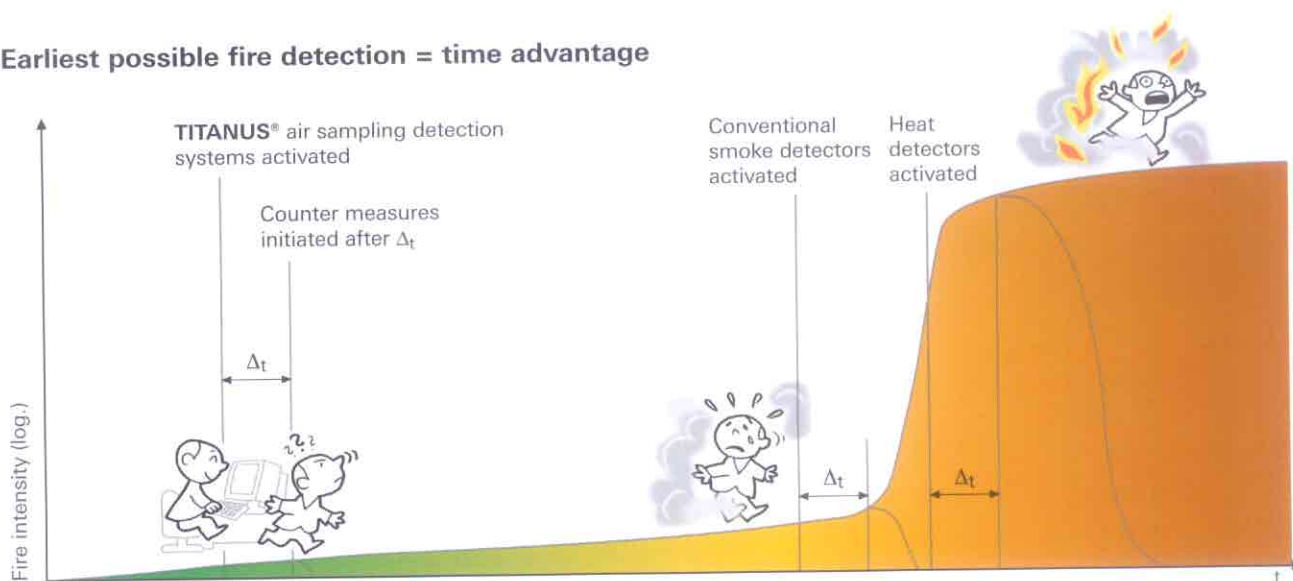
and manuscripts as well as historical buildings were destroyed in Weimar in the autumn of 2004. This disaster occurred because the attic was a fire hazard due to a poor fire prevention system. The devastating fire could have been prevented with an all-encompassing, self-contained concept. An essential part of such a concept must be earliest possible fire detection – providing a valuable safety margin.

It goes without saying that such a concept is essential for world heritage sites and business alike. Yet too

Why?

often this importance is overlooked. Reliable, state-of-the-art early fire detection systems must be utilized. The sooner a fire is detected with a **TITANUS®** air sampling detection system, the quicker effective counter measures are initiated and damage minimised.

Earliest possible fire detection = time advantage



With conventional smoke detectors fires are often detected too late.

TITANUS® air sampling detection systems activate the alarm at the earliest stage of a fire.

TITANUS *MICRO-SENS*®

Aimed at solutions, small and compact



Reliable detection
and localisation
of a fire source

It was a significant breakthrough when the High-Power-Light-Source uperseded laser technology, and the TITANUS *MICRO-SENS*® continues to lead the way in this development, even for smaller areas and equipment protection. A fire can be exactly pinpointed. Leadership and development of this high-

ly sensitive and forward-looking innovative technology is the result of 25 years of experience in fire protection. The clear message of TITANUS *MICRO-SENS*® is to protect important areas which are overlooked by too many companies – and to do it cost effectively in both initial outlay and servicing.

'As sensitive as necessary' is the principle embodied in **TITANUS MICRO-SENS®**. It is aimed at meeting specific customer requirements on site. The new smoke detection system can even be adapted to altered environmental conditions and operating procedures. Smoke detection and elimination of fire/smoke-like phenomena is ensured. Compared to conventional alarms the **TITANUS MICRO-SENS®** functions reliably under difficult conditions.

The detector module with High-Power-Light-Source and the intelligent signal processing, **LOGIC-SENS**, responsible for fault-free alarms, are distinguishing features of **TITANUS MICRO-SENS®**.

The innovations **ROOM-IDENT** and **PIPE-GUARD** point the way; Plug and Play documents the progress – it's as simple as that.

When small proves big.

TITANUS MICRO-SENS®

small,
compact,
aimed at solutions.

The highly sensitive air sampling detection system is particularly well

suited for small and average sized rooms and equipment protection. **TITANUS MICRO-SENS®** is distinguished by localising a fire source and individual room detection of protected areas up to 400 square metres and up to five adjacent rooms.

With **TITANUS MICRO-SENS®**, for the first time architects can plan smoke detection systems in areas where the fire department demands precise localisation.

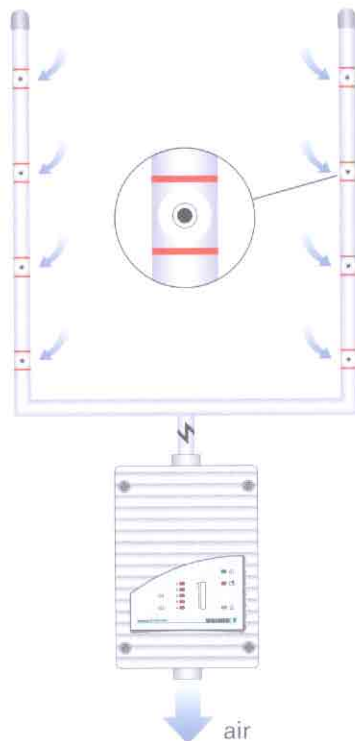
TITANUS MICRO-SENS® offers convincing advantages – for offices, hotel rooms, ship cabins, hospital rooms, prison cells, train compartments or special applications such as wind power plants or power transformers.

Design and Function

TITANUS MICRO-SENS®, as all air sampling detection systems of the **TITANUS®** family, comprises a detection unit and a connected pipe system.

Detection unit

The alarm with High-Power-Light-Source provides the time advantage required for fire detection. Fire/smoke-like phenomena are clearly detected and false alarms are prevented with the intelligent signal processing, **LOGIC-SENS**. A long-life fan maintains a constant under-pressure in the pipe system. The aspirated air is analysed in the measuring chamber of the detection unit.



Pipe system

Air samples are constantly taken via defined air sampling points. **PIPE-GUARD** monitors the pipe system for breaks and blockages.

TITANUS *MICRO-SENS*® —

knowing what counts

ROOM-IDENT

Fire detection with localisation for single rooms

High-Power-Light-Source

Maximises the time advantage for earliest possible fire detection with High-Power-Light-Source

LOGIC-SENS

Reliable false alarm protection with intelligent signal analysis basing on latest micro control technology to eliminate fire/smoke-like phenomena

PIPE-GUARD

Extensive safety package to monitor the pipe system with algorithms for accurate detection of pipe faults and sabotage

Plug & Play

Minimised start-up times and service times for the installer

Performance Features

- | Smoke detection system for small and average sized rooms and equipment
- | Equal response reaction to every scenario of fire
- | Maximum of eight sampling points per system is possible in a protected area up to 400 square metres
- | Response sensitivity up to 0.05% light obscuration/m
- | Redundancy fan for special safety measures
- | Optional: ten digit smoke level display
- | Potential-free relay contacts



ROOM-IDENT ...

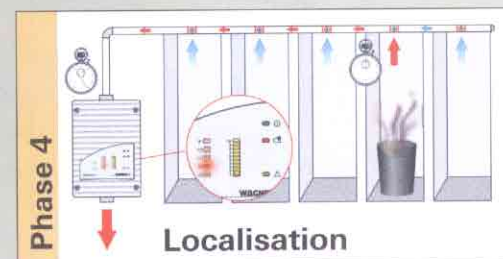
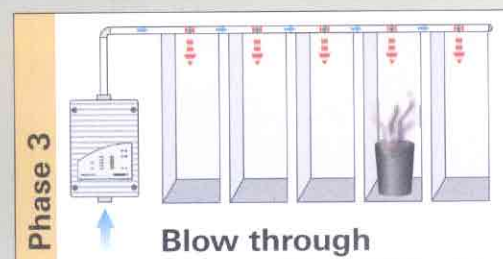
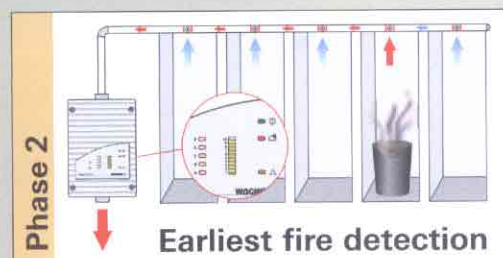
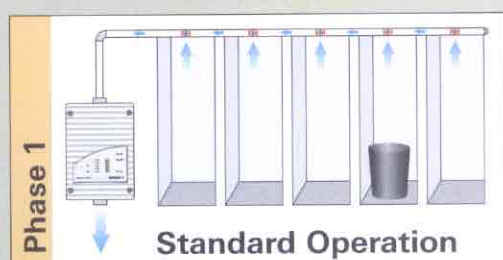
... ensures that fires are not only detected at the earliest stage but also indicates their precise location. Up to five rooms can be protected with only one detection unit. The operating principle of ROOM-IDENT, which is unique in the world, incorporates four phases:

Phase 1

During operating conditions air samples are taken from the pipes covering the various rooms. The samples are taken via fan to the detector module and analysed for possible smoke particles.

Phase 2

TITANUS MICRO-SENS® aspirates and detects developing smoke. The alarm is given immediately and early countermeasures can be taken.



Localisation in

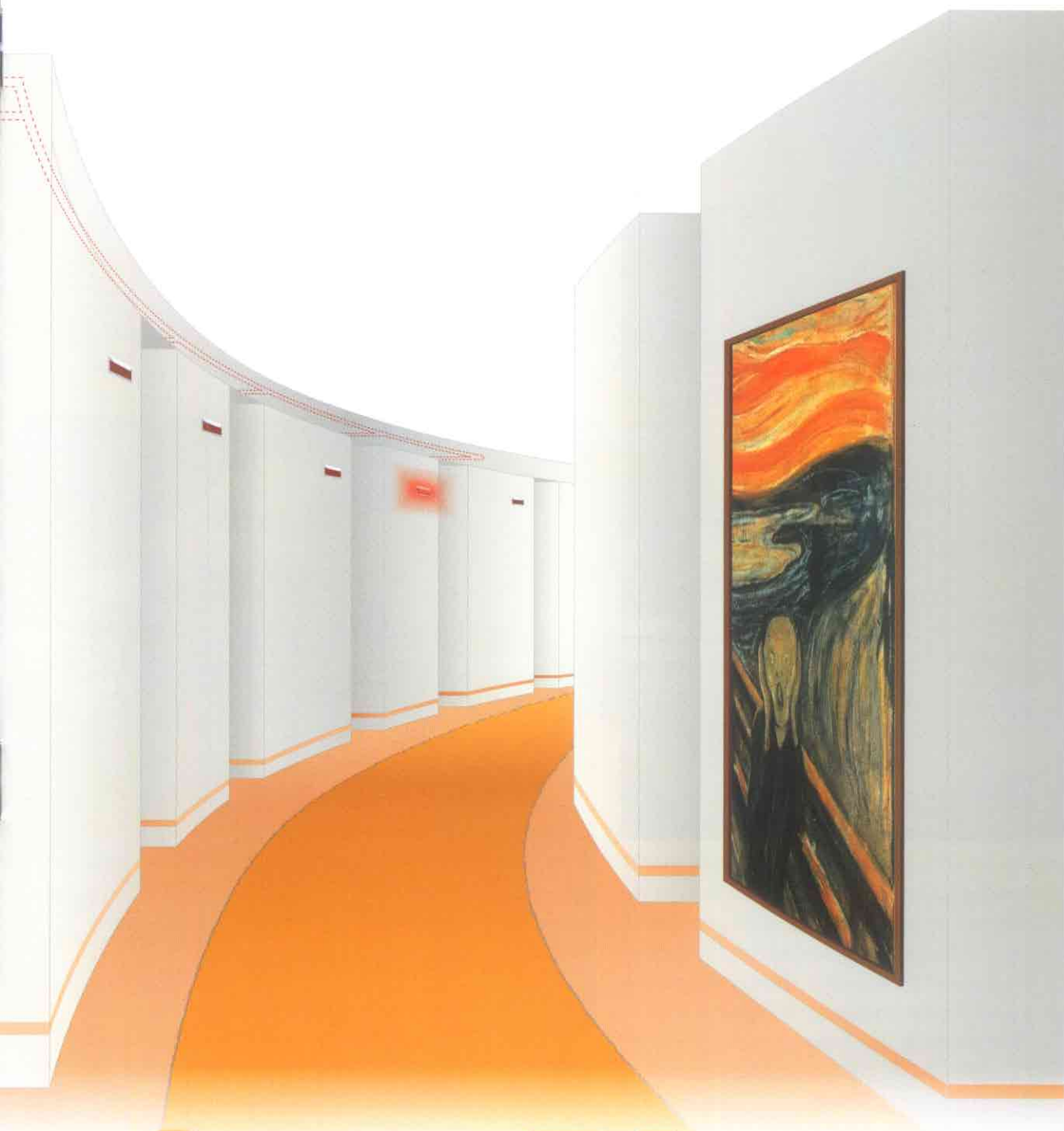
Phase 3

As soon as the alarm is activated, the aspiration fan is switched off and a second fan switched on, blowing out the smoke particles in the opposite direction. This provides the base for determining the location of the fire.

Phase 4

After the pipe system has been freed from smoke, the airflow is reversed once again and the time it takes for the smoke to reach the detector module is measured. With this time value the exact location of the smoke source is given and shows which room is affected.

The alarm is indicated on the detection unit itself, at the relevant room and the central fire panel.



n four Phases



TITANUS *MICRO-SENS*®

Knowing what safety means

Dust, humidity and waste fumes are no obstacle to the TITANUS *MICRO-SENS*®. Reliable, highly sensitive earliest possible fire prevention gives maximum customer satisfaction. Continuous operation of the smoke sampling system is assured without interruption of false alarms. Unlike conventional smoke alarms, sources of deceptive alarms do not immediately set off the alarm as the TITANUS® air sampling detection system filters these through the pipe system before it can reach the measuring chamber.




Rooms

**Safety and cost –
a cost effective solution**

The TITANUS *MICRO-SENS*® monitors small and average sized rooms up to 400 square metres. By using state of the art smoke detection technology crucial time is won which permits prompt counter measures in case of a fire.

The smoke detection system is barely visible. Due to the hidden installation, this ultra modern technology is unobtrusive even in rooms where aesthetics may be important.





Rooms Inline

**Localising a Fire –
knowing exactly where it burns**

TITANUS MICRO-SENS® monitors up to five adjacent rooms with only one smoke detection system. The precise location and exact information of the room where smoke was detected is indicated. The alarm is set off immediately. Among its many advantages, **TITANUS MICRO-SENS®** is especially suitable for adjacent rooms like hotel rooms, ship cabins, train compartments, prison cells or offices.



Equipment Protection

**Target Assured Process –
monitoring trouble spots**

TITANUS MICRO-SENS® ensures the monitoring of single or multiple installations. The highly sensitive smoke detection system can be adjusted so that even individual smouldering cables in a control panel or in the computer system will activate the alarm. Often a fire can be prevented immediately by automatically cutting power from the relevant equipment. Thus **TITANUS MICRO-SENS®** plays an important role in a co-coordinated fire protection concept.





Cost Effectiveness by Optimizing – Offer to Installation

Simple Project Planning

- | projection analogous to point-type smoke detectors
- | pre-engineered pipe system


Quick Startup

- | valid Plug & Play
- | automatic air flow adjustment
- | tools optimized for the installer

Optimal Service

- | easy access away from endangered areas
- | easy to use software
- | interactive service functions
- | IR interface for wireless data transfer
- | optional: automated inspection and start-up protocols for documentation
- | optional: remote diagnosis

TITANUS MICRO-SENS® requires only a minimum of training. The **TITANUS®** family is highly cost effective due to simple project planning, quick start-up, optimal service functions and uncomplicated training. Once in the know, always in command – that is **TITANUS®**.



Benefits

- | Cost effective, highly sensitive monitoring of small and average sized areas and equipment
- | Time advantage with earliest possible detection
- | Safe and early alarms
- | No restrictions of architectural design and aesthetic demands
- | Early detection and minimized false alarms, even in difficult environmental conditions such as dust, exhaust fumes, humidity etc
- | Reliable detection and localisation of fires
- | Simple start-up and good inspection accessibility minimizes expenses

TITANUS® – The New Generation in ASD-Technology



Applied and approved worldwide

We offer integrated fire protection systems individually tailored to each customer. It is an innovative programme based on all essential standards and certifications.

We see ourselves as over-all supplier in the fields of fire fighting, fire detection and fire prevention and have taken a decisive step forward with our extremely reliable technology. We offer our customers comprehensive fire protection.

In fire fighting we not only use nitrogen and Argon but also carbon dioxide and FM200™. This ensures that the best type of extinguishing agent is used for each application.

Innovative smoke sampling systems of the **TITANUS®** family ensure earliest possible fire detection and solutions for room and equipment protection. Time is gained and thus prevents greater damage: hightech to protect persons, valuables and business operations.

OxyReduct®, a system which reduces the oxygen content, has moved fire prevention forward: we create environments where fires cannot start while maintaining access to the protected areas.

In addition we offer **VisuLAN®**, a network-based management system linking individual, self-sufficient safety technology.

It is our aim to meet your specific requirements. We offer a better and more cost-effective solution. A complete state of the art technology – and to the point. We hope to be judged by this criteria.



**WAGNER Alarm- und
Sicherungssysteme GmbH**
Germany, Headquarters
(+49) 0511/97383-281

WAGNER in Austria
(+43) 02262/64262-0

WAGNER in Great Britain
(+44) 0870/3336116

WAGNER in The Netherlands
(+31) 030/2200264

WAGNER in U.A.E. (Dubai)
(+971) 04/3097901

WAGNER in Beijing
(+86) 10/65900300

WAGNER in Shenzhen
(+86) 755/82128062

info@wagner-worldwide.com
www.wagner-worldwide.com

WAGNER®