IDEAL FIRE DETECTION FOR ALMOST ANY APPLICATION

TITANUS® aspirating smoke detectors
Reliable fire detection with maximum immunity to false alarms even in the most challenging application areas

WAGNER®

GAIN TIME, SAVE LIVES, SAFEGUARD PROCESSES

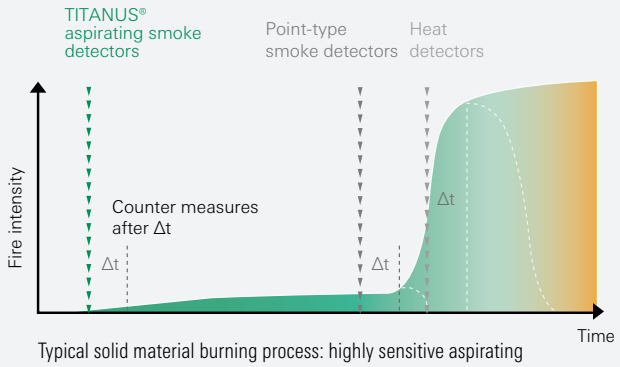
Act before the flames have an effect: TITANUS® aspirating smoke detectors make it possible to detect fires when they are still in the early development stages. Thanks to this added time it is possible to minimize direct and consequential damage caused by fire, guarantee the highest levels of personal protection and safeguard from interrupting operating process.

Constant threat

Fire hazards are a high corporate risk factor. Increasing concentrations of value, high demands to availability and having to rely on IT infrastructure are factors to illustrate how any fires that are detected too late would have very serious consequences. In this process, fire detection processes benefit from the fact that fire causing damage is mostly caused by extended phases of smouldering. In these scenarios fire detection equipment geared towards the corresponding application is able to detect fires many minutes earlier than conventional smoke detectors.

Crucial time-factor advantage

Highly sensitive aspirating smoke detectors enable ideal use of the time-factor advantage as part of fire detection. They detect fires at such an early stage that the system must merely fight the cause of the fire – for instance by cutting the power supply – and there is no need for extinguishing it. In this process, the finer details lie in detecting fires at an early stage while particularly guaranteeing high levels of immunity to false alarms and sensitivity – two paramount factors of highly effective fire pattern recognition.



Typical solid material burning process: highly sensitive aspirating smoke detectors compared with conventional smoke detectors.

For many applications
Thanks to their outstanding reliability, sensitivity and false alarm immunity, TITANUS® aspirating smoke detectors have been the tried and tested system of choice for many years in a wide variety of applications. These include:

- Warehousing and logistics facilities
- Deep-freeze warehouses
- IT and telecommunications
- Archives and libraries
- Industrial and recycling systems
- Wind energy systems and transformer stations
- Power plants and high-voltage systems
- Server and control cabinets
- Hotel rooms and hospitals
- Historic and modern architecture
- Ships and yachts

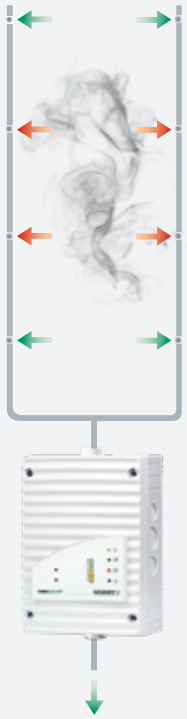
TRIED AND TESTED FIRE PROTECTION AT THE EARLIEST POSSIBLE STAGE

Nowadays aspirating smoke detectors are standard in many challenging applications.

Active air sampling
Aspirating smoke detectors consist of a basic device connected to a pipe system. The pipe system is usually installed under a ceiling with defined openings that would each replace a point-type smoke detector. A fan in the basic device generates the required vacuum to continuously take air samples from the monitoring areas. In this process, the airflow of each connected pipe system is monitored individually for fractures or blockages. Up to two detector modules per basic device determine the opacity of the air sample to assess the probability of a fire, providing they feature adequate fire pattern recognition like TITANUS®.

Cumulative effect
The air sampling points have been designed so that approximately the same amount of air is taken in at each point. In this process, each individual air sampling point must at minimum comply with the same detection demands as a point-type smoke detector. The smoke density in the detection chamber increases with the number of sampling points through which smoke is aspirated, resulting in earlier alarming.

Safety in all circumstances
Even in harsh environments, aspirating smoke detectors can provide early fire detection and



Cumulative effect, sample illustration

TITANUS® aspirating smoke detectors offer active air sampling and thus comply with particularly stringent fire detection demands.

increased false alarm immunity at the same time, depending on the detector's features.
Consequently, active air sampling provides the option to use air filters for dust precipitation. In this process, an ample filter portfolio forms the basis for ideal adaptation to the corresponding ambient conditions. This ensures protection from false alarms and prolongs a detector's service life. In contrast to locally installed smoke detectors, aspirating smoke detectors enable a high, central computing output for highly efficient fire pattern recognition ((LOGIC·*SENS*®/ drift compensation; see page 10).

Early fire detection offers a decisive time advantage

Earliest possible fire detection
High sensitivity for early intervention to prevent unnecessary fire and fire-related damage

High false alarm immunity
Highly effective fire pattern recognition to eliminate false alarms, even at high sensitivities

Robust und temperature resistent
Optimal fire detection in any environment

Economical
High modularity allows optimal individual configuration and easy retrofitting or conversion

Aesthetic and discreet
Discreet early fire detection even in special architecture, not a target for vandalism

Easy and quick to use
Time savings from project planning to commissioning, maintenance and service

Can be networked
With the Ethernet connectivity to the building management system available for some detectors, users can always keep an eye on things

Everything from a single source
Our comprehensive range of accessories ensures a smooth and efficient implementation

BETTER SOLUTIONS FROM THE TECHNOLOGY LEADER

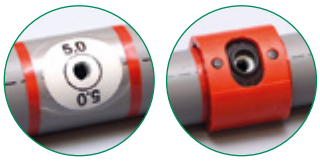
TITANUS® air sampling smoke detectors have proven their worth in a host of different applications. Especially in areas with particular aesthetic demands and difficult environmental conditions, these flexible and durable systems have shown impressive technological leadership.

Detection for special demands
Use, for example, with large ceiling heights, in hard-to-reach areas, in strong air streams or if the fire alarm technology must be particularly low key.

Pipe system
The easy-to-install pipe system routes the air samples taken at air sampling points in the protected area into the detection chambers of the aspirating smoke detector.

Fire Alarm Control Panel
This is where all fire detection system messages are gathered. TITANUS® aspirating smoke detectors are connected using direct bus connections or dry contacts.

TITANUS® aspirating smoke detectors
Central detection unit to take air samples and analyze them for smoke particles.



Sampling points
Easy-to-read aspiration reduction foils for defined sampling. Special clips optionally available to purge the pipe system in case of clogging due to dirt or in case of icing.

Ceiling lead-throughs
Capillary tubes provide for an almost invisible installation, e.g. in ceiling voids or if the architectural, aesthetic appeal must not be disturbed.

Multifilter concept
In dusty environments the detector can be protected using a filter concept certified as per EN 54-20. Various filters can be inserted into the pipe system to protect them from false alarms and prolong their service intervals.

Easy-to-service
Good accessibility for maintenance and service due to central installation at an easily accessible height.

Effective monitoring
TITANUS® devices can be used to protect rooms and cabinets according to the respective detection requirements.

TITANUS *RACK·SENS*®
The aspirating smoke detectors suitable for installation in server and control cabinets are up to 400 times more sensitive than conventional smoke detectors plus they detect directly where the risk of fire is at its highest.

INCOMPARABLE FIRE DETECTION

Innovative TITANUS® aspirating smoke detectors offer crucial benefits to match your special requirements.

Maximum protection from false alarms
Patented LOGIC·*SENS*® fire pattern recognition has been tried and tested in many of the most challenging applications. Thus, TITANUS® has been able to demonstrate trouble-free operation hundreds of thousands of times to date.

Uncompromising, very early fire detection
WAGNER has clearly proven that fire detection at a very early stage can also be merged with protection from false alarms. By means of fire pattern recognition, filter technologies and drift compensation, the highest detection quality is ensured where other detectors have to be set insensitively, e.g. via self-learning algorithms. Consequently, TITANUS® gives you those crucial minutes that can make the difference between minor and total damage.

Globally unique immunity
Whether temperatures from -40 °C, condensing humidity, significant dust accumulation or radiation: there are hardly any applications that cannot be safely controlled with TITANUS®. Taking into account the current air pressure during commissioning also guarantees ideal protection from airflow faults within application areas susceptible to differences and fluctuations in air pressure.

British Library

Reliable fire detection in environments subject to high dust loads

Effective monitoring in situations with challenging accessibility situations

Safely monitoring the function
By not splitting the total airflow, it is ensured that TITANUS® always monitors the actual relevant airflow. This monitoring process is subject to temperature compensation with an interference threshold from a variation of +/- 10 %. Consequently, TITANUS® allows identical sampling as the requirement for secure, ideal detection.

Intervention instead of extinguishing
Depending on the system and project planning, TITANUS® allows compliance with the requirements of EN 54-20 even when the alarm is delayed by up to 150 seconds.

In consultation with experts, this time can be used, for example, to intervene and prevent automatic extinguishing measures and thus protect goods and infrastructure.

PERFECTLY ADAPTED TO AMBIENT CONDITIONS

Almost invisible and silent
TITANUS® can be integrated into modern as well as historic architecture without interfering with the aesthetic appeal of buildings. The system is generally only visible to experts. In this process, special detector variants generate noise levels from 23 dB(A), meaning they are no louder than human breathing at a distance of one meter.

Maintaining protection levels
Standard fire alarm threshold tracking (drift compensation) maintains nearly constant fire detection even in changing ambient conditions while ensuring the detection of slowly developing fires – even in situations in which

DRIFT COMPENSATION

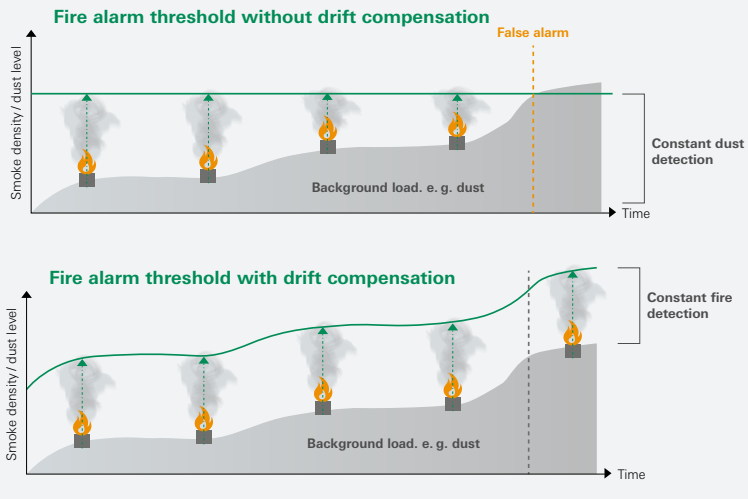
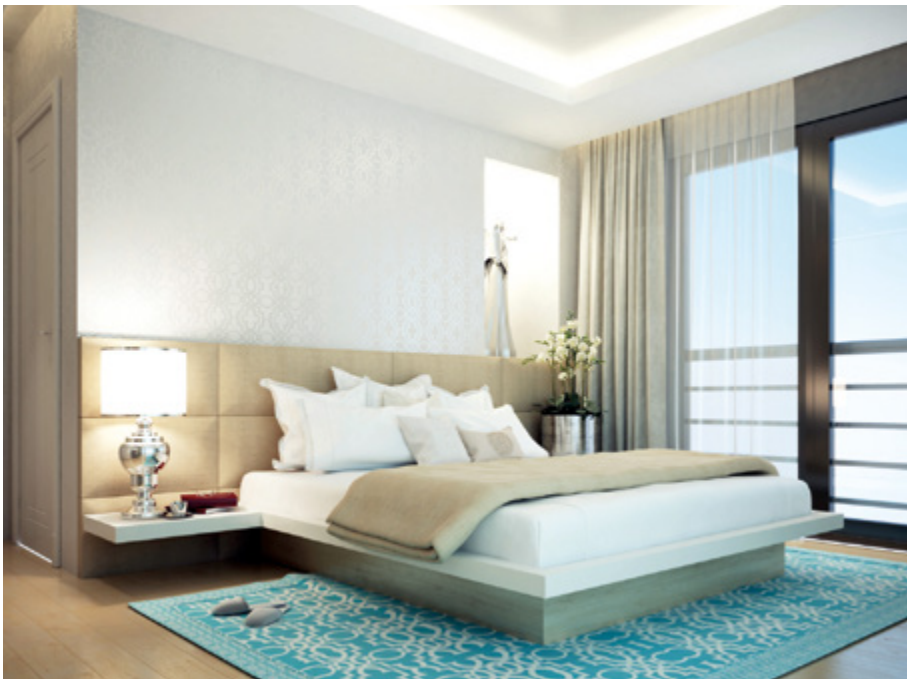


Image on the left: In hotels, several rooms can be efficiently monitored using ROOM·IDENT.

Image on the right: TITANUS® aspirating smoke detectors offer particularly unobtrusive and quiet monitoring.



detectors without tracking would have long since triggered a false alarm (see image on the left).

Knowing exactly where the fire is

With the ROOM·IDENT procedure you can locate the facility affected by fire in developments in which rooms are next to each other. Consequently, TITANUS *MICRO·SENS*® with ROOM·IDENT is able to monitor up to five small rooms on the basis of individual room localization via one air sampling pipe.

Never more than necessary

The modular TITANUS® concept allows a cost-effective configuration of performance characteristics that are actually required for application. For instance, instead of purchasing maximum sensitivity and having to automatically reduce it using autonomously learning algorithms, WAGNER can offer ideally configured sensitivity areas on the basis of specific requirements.

Self-determined procedures in the event of fire

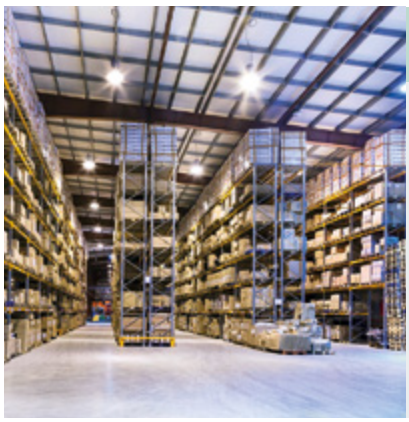
Using the SNMP protocol, the customer can independently integrate his TITANUS® systems into an existing management console. Consequently, procedures in the event of alarms or faults can be flexibly adapted to changed demands.

Time is money

Whether during project planning within seconds, during commissioning via "Plug & Play", during user-guided maintenance without interrupting operation or during tool-free module replacement: TITANUS® saves time and money everywhere

IDEAL FIRE DETECTION AT AN EARLY STAGE FOR ANY APPLICATION

TITANUS® allows ideal fire detection in conditions in which other systems reach their limits. In this process, the extensive TITANUS® product range allows cost-effective solutions and applications that have been accurately geared towards the intended purpose and customer, providing maximum protection from false alarms thanks to LOGIC·*SENS*® fire pattern recognition.



For very large areas and to monitor equipment

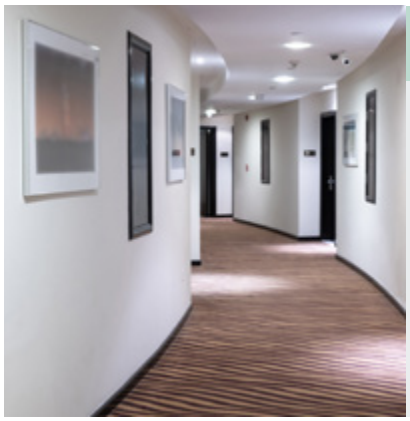
TITANUS *TOP·SENS*® and TITANUS *PRO·SENS*® (/net)

- 1 to 2 detector modules suitable for up to 3,000 m² area of coverage
- Response sensitivity from 0.0015 % obs/m within a temperature range from -40 °C to +60 °C depending on the variant
- Depending on the variant with bargraph smoke level display, up to 3 alarm levels, sound pressure level from 23 dB(A)
- Optionally with Ethernet connection and data logger

For medium-sized to large areas and for equipment monitoring

TITANUS *FUSION*®

- 1 to 2 detector modules suitable for up to 1,600 m² area of coverage
- Response sensitivity from 0.015 % obs/m within a temperature range between -30 °C to +60 °C
- Depending on the variant with sound pressure level from 23 dB(A)



For small to medium-sized areas and for equipment monitoring

TITANUS *MICRO·SENS*®

- Up to 400 m² area of coverage
- Depending on variant: response sensitivity frm 0.01 % obs/m
- Depending on variant: temperature range between -40 °C and +60 °C
- Optionally with bargraph smoke level display, 2 alarm levels; seat of fire determined using ROOM·IDENT, Ethernet connection and data logger

For monitoring up to 19" server and control cabinets

TITANUS *RACK·SENS*® 1 U

TITANUS *RACK·SENS*® 2 U

- In 1 U version with optional extinction actuation
- In 2 U version with integrated extinguishing cylinder for FK-5-1-12
- Response sensitivity from 0.01 % obs/m, with 2 alarm levels
- Optionally with bargraph smoke level display, Ethernet connection and data logger

THE APPROPRIATE SOLUTION FOR ANY SITUATION

The extensive TITANUS® product range offers an ideally adapted, cost-efficient solution for almost any application.

High-voltage systems

TITANUS® aspirating smoke detectors have proven themselves in numerous industries and applications for years. Early fire detection is essential, especially in critical infrastructures such as data centers, areas that are difficult to access, such as elevator shafts, and sensitive environments, such as clean rooms. The nearly invisible smoke detection is also successfully used in areas with high aesthetic requirements, such as in historic buildings.

Parking garages

EDP systems / control cabinets

Recycling plants

INTELLIGENT FIRE PREVENTION THROUGH INNOVATIVE STRENGTH

As technological leaders, we set standards with our innovative fire protection solutions.

Modern architecture

Industrial production

High-bay warehouses

Focusing on protecting you

WAGNER has been developing and producing technical fire protection systems since 1976. The company has established itself internationally as an innovative provider of solutions and systems. In this context, our expertise ranges from individual planning and application-specific development to installation and maintenance of your fire prevention systems. This always results in a protection scheme to match your security demands. Because it is about minimizing risks to guarantee your company's and your personal, economic success.

Fire protection as holistic solution. Trendsetting. Worldwide.

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Technology leadership in technical fire protection – by innovative solutions that protect lives and assets:

Fire Detection
Aspirating smoke detectors: TITANUS®

Fire Prevention
Oxygen reduction: OxyReduct®

Fire Extinguishing
Gas extinguishing technology: FirExting®

Hazard Management
Organization via: Visu*LAN*®

BETTER SOLUTIONS IN FIRE PROTECTION

WAGNER®