

Early fire detection

...and automatic extinguishing



PYROsmart® -
the intelligent infrared system

Orglmeister
Infrarot-Systeme

**“EVERY SOLUTION FOR YOUR SPECIAL
HAZARD PROBLEMS”**

Unit 1, 251 Ferntree Gully Road Mt
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1300 742 296
www.fire-protection.com.au

A revolution in the world of preventative early fire detection



Potential danger

Every year, German companies are affected by over 200 fire-related, large-scale emergencies. As a result of such incidents, approx. 70 per cent of the companies affected are additionally caught unawares by drastic, existential consequences.

According to fire insurance companies, 70 per cent of companies affected by such incidents go bankrupt immediately or within the following year.

Your fire protection

The focus of companies is very much on ongoing and future business which means that, even when circumstances and conditions change, fire prevention is often not modified or updated accordingly.

This is why it is a good idea to compare the costs caused by production losses or partial operational shut-down due to fire with the cost of optimising the early fire detection system.

Our expertise

We focus on the critical indicators of where a fire might start and plan a reliable system which recognises potential fire risks early on before a fire breaks out and effectively prevents this from happening.

Our know-how is based on many years of practical experience in the area of developing and planning infrared systems.

Protect your facilities from fire and prevent disruptions to operations

PYROsmart – is an intelligent early fire detection system which has proven itself in practice under demanding conditions.

Areas of application

Wherever conventional fire alarm systems, for example,

- smoke detectors
- smoke aspiration systems
- thermal differential wires

do not detect a fire or are too late in doing so.

PYROsmart is a specially developed camera and software system which very precisely detects temperature irregularities in real time.

The system consists of a highly sensitive infrared thermal imaging camera and a video camera in an enclosed casing. Using a specially developed pan and tilt drive, the system constantly scans radiometric high-resolution data of the area being monitored.

All the recorded data is assimilated to an accurately detailed thermographic panoramic image using our patented software (abiroVision®).

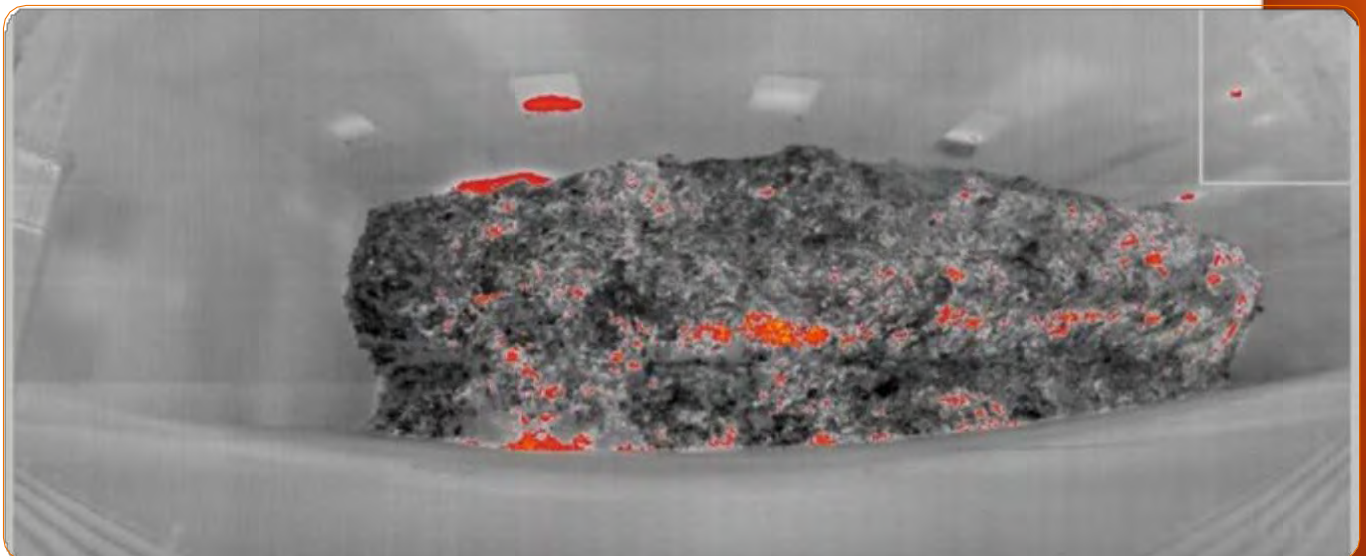
Applications in industry

- In waste incineration plants (e.g. waste bunkers, RDF power plants)
- Recycling plants
- Outdoor depots (e.g. tyre stores)
- Fuel depots
- Container warehouses



PYROsmart® - outstanding performance

- Panoramic thermal imaging
Seamless, radiometric close-ups are possible for the first time.
- Patented technology
abiroVision® - seamlessly combines individual thermal images to create a constantly updated panoramic thermal image for a complete surveillance area.
- High measurement accuracy
Thanks to thermal images with a resolution of up to 16,500 x 9,600 pixels.
- Details at a glance
An integrated zoomable video camera - enabling quick 360° diagnosis with visual and infrared images on one user interface.
- Easy operation
The touch-screen functions and displays have been reduced to the essentials so that the operator can concentrate on the tasks relevant to safety (see next page).
- Universal use
The system can be operated outdoors and in dusty environments without any difficulties thanks to the integrated heating and cooling system and a cleaning device for the optical equipment.
- Practically maintenance-free
Precise, high-quality drive for continuous operation and special interior cables for pan and tilt drives.
- Compatible with central fire alarm systems
Integrated fire alarm outputs for all current fire alarm systems.
- Central control
Trouble-free operation of several PYROsmart systems with just one operating terminal.
- Optional extinguishing operation
Targeted control of one or more fire-fighting monitors to extinguish hot spots entirely automatically.
- Modular expansion
The system can be expanded at any time with further cameras and workstations.
- Simple maintenance
Technical expertise is not required to replace the devices. Simply unscrew the four fixing screws, disconnect the power supply and network cable: job done. Following replacement, the system restarts and applies all settings automatically.



Panoramic thermal imaging: View of a waste bunker with patented abiroVision® software

PYROsmart® extinguishes fires automatically

Together with our national and international partners, we have expanded PYROsmart to automatically support fire extinguishing. Detecting fires and putting them out before the damage is done - that is what PYROsmart is all about.

PYROsmart® - technical data (Summary)

Image performance

Angle range:	10° - 360° horizontally, 10° - 320° vertically
Thermal sensitivity:	0.05°C at 30°C (depending on version)
Spectral range:	7,5 µm - 13 µm
Detector:	uncooled microbolometer (VOX technology)
Maximum resolution of the thermal image:	16,500 x 9,600 pixels
Autofocus system:	to offset deviations in distance



Measurement

Temperature range:	-20°C to 350°C (optional 1200°C)
Accuracy:	+/- 2°C or +/- 2% of measured value
Measuring functions:	automatic fire detection with intelligent differentiation analysis to mask process-based disturbance variables
Correction of atmospheric effects:	automatic

Power supply

Wide range input:	15 - 30 volts / 45 VA
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Physical characteristics

Operating temperature range:	-20°C - 50°C
Casing protection class:	-20°C to 120°C (with air flushing)
Weight:	7.6 kg
Dimensions:	approx. 430 mm x 350 mm x 400 mm (W x D x H)

Interfaces

Data transmission:	Gbit network (IP67)
Industrial plug-in connector:	for power supply and central fire alarm signals (IP67)
Air connection:	1/4" plug nipples for quick hose coupling



IR panorama image of a waste bunker and touch-screen operating panel

We look forward to hearing from you:

It is very important to us that we understand your individual situation and requirements so that we can provide high-quality planning and a bespoke quotation.

We would be very happy to advise you on site when planning or expanding your fire alarm system and to give you a live demonstration to show off the advantages of the PYROsmart system.

Contact: +49 (0)6123 - 68912-0, vertrieb@orglmeister.de

Your authorised specialist installer:



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PRODUCTS:

Gaseous Suppression



Inert Gas (IG-01, IG-55, IG-100, IG-541)
Novec 1230™ Fluid (FK-5-1-12)
FM-200® (HFC-227ea.)
Carbon Dioxide (CO₂)
Hybrid Systems (N₂ / Water)
Pressure Relief Vents
Enclosure Integrity Testing Equipment
Pipe & Fittings

Water Suppression



Water Mist - High Pressure
Water Mist - Intermediate Pressure
Water Mist - Low Pressure
Hybrid Systems (Water / N₂)
Monitors & Delivery Systems
High Speed Deluge

Foam Suppression



Foam Concentrates
Foam Proportioning
Foam Delivery Systems
Compressed Air Foam
Foam Concentrate Testing

Explosion Protection



Explosion Suppression
Explosion Isolation
Explosion Vents & Pressure Relief
Spark Suppression
Explosibility Testing

Fire Detection



Linear Heat Detection - Digital
Linear Heat Detection - Fibre Optic
Linear Heat Detection - Micro Chip
Flame Detection
Video Imaging Detection
Spark Detection
Control & Indicating Equipment
Thermal Imaging Detection
Aspirating Smoke Detection

Military & Defence



Military Vehicles
Naval Vessels

Special Applications



Micro Environment
Oxygen Reduction
Kitchen Protection Systems
Dry Chemical
Vehicle Systems
Marine & Offshore
Vapour Mitigation
Li-Ion Fire Systems

Support Services



Design / Engineering
Technical Support
Services & Testing

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