

# Early fire detection

PYROspy®

...and automatic extinguishing



PYROspy® -  
the intelligent infrared system



## 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

PYROspy – 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.

PYROspy 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

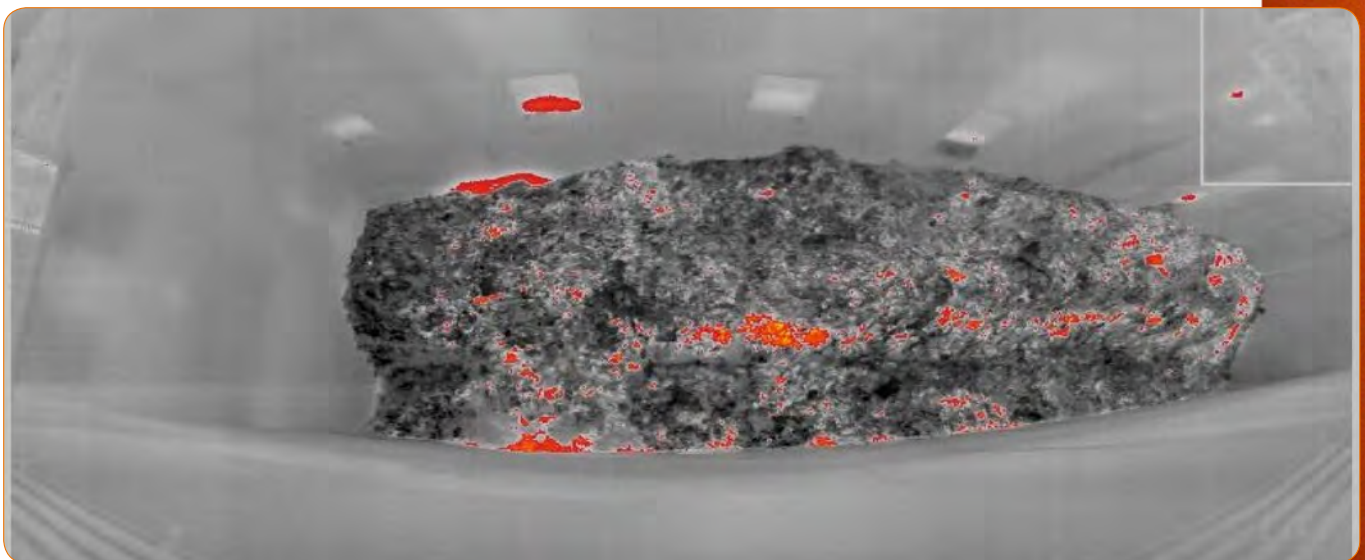
- In waste incineration plants (e.g. waste bunkers, RDF power plants)
- Recycling plants
- Outdoor depots (e.g. tyre stores)
- Fuel depots
- Container warehouses





## PYROspy® - 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 PYROspy 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

## PYROspy® extinguishes fires automatically

Together with our Austrian partner, we have expanded PYROspy to automatically support fire extinguishing.

Detecting fires and putting them out before the damage is done - that is what PYROspy is all about.



 **rosenbauer**

## PYROspy® - 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:	7.5µ- 13µ or 8µ - 14µ
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 -20°C to 120°C (with air flushing)
Casing protection class:	IP 67 (exception: IR/video/laser lens tube)
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 PYROspy system.

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