

IR camera systems for early fire detection

Detection of hot spots and incipient fires in difficult environmental conditions at an early stage



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Suitable infrared camera systems for every application

When storing large fire loads such as high-calorific recycled materials, waste wood, paper and various bulk materials in closed bunkers and in open areas, reliable systems for detecting and fighting fires are required.

Spontaneous combustion of stored materials or external entry of hot substances can cause fires that pose a high risk to operators and the environment.

An early fire detection system based on an infrared camera incl. evaluation of the thermal images by means of an algorithm offers effective prevention.



Hotspot detection

The early detection of the source of danger takes place even before ignition or fire.

A thermal image is generated, which requires the verification of a potential danger by humans.

The observation area can be divided into up to 6 zones per transducer with control PC. Ideal solution if there are no sources of temperature interference and a final decision by an employee is possible and desired.



Special design in stainless steel

Autonomous surveillance - 24 hours, 7 days a week!

The system reliably detects false alarms and only alerts when there is actually a fire.

The reflection of the sun, a hot exhaust, smoke traps or even a stuck brake of a vehicle are **recognised as a hotspot, but not declared as a fire.**

Our algorithm decides completely autonomously, within less than 60 seconds, on the basis of raw infrared data, whether it is a real fire. The system can be easily integrated into existing fire detection and extinguishing systems. The observation area is divided into 3 zones as standard.

Neither visualization nor monitoring by employees is required.

This enables us to achieve the highest degree of decision-making reliability.

Overview of possible areas of application



Wood material



Waste wood recycling



Biomass / Pellet



Waste bunker



Recycling outdoor area



Recycling indoor

Overview of the systems

	1A	5A
Fire detection	✓	autonomous *
Deception alarm safe	-	✓
Hotspot detection	✓ **	✓
Visualization	✓	not necessary, but possible
Max. distance	100 m ***	500 m
Control of extinguishing device	✓	✓

* based on EN54-10, ** based on VdS 3189, *** in combination with reference radiator

Advantages

	1A	5A
Distinction fire / non-hazardous heat sources	-	✓
Visualization	✓	not necessary, but possible
Final decision by a member of staff	✓	autonomous
Applicable in aggressive environmental conditions (e.g. dust, aerosols...)	✓	✓
Cooling for extreme heat exposure	✓	✓
Highest reliability	✓	✓
Easy maintenance	✓	✓
Continuous monitoring	✓	✓

FIRE PROTECTION

MADE IN GERMANY

Our Products – Your Safety



VdS-certified water spray extinguishing systems

Water spray extinguishing systems are used in areas where there is a risk of rapidly spreading fires and act on the object to be protected quickly and extensively with extinguishing water.



Infrared Early Fire Detection Systems (VdS 3189)

Camera system for area-wide detection of embers and smoldering fires at long range.



Fire alarm systems (DIN 14675)

Fire alarm systems are permanently installed manual or automatic systems for early fire detection, warning of the persons concerned and rapid transmission of the fire alarm to a service provider.



VdS-certified spark extinguishing system

Fully automatic system that detects the smallest ignition potentials in transport systems and extinguishes them in the range of milliseconds.



Argon extinguishing system (VdS 2380 / 3445)

Fully automatic extinguishing system in which the formation of fire is detected and eliminated by oxygen displacement.



Customer-specific protection concepts

As a VdS-approved installer, T&B will work closely with you to create a comprehensive protection concept tailored to your requirements.

You have questions or would like to get advice? Just get in touch with us:

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