

APPLICATION NOTE



SAFETY

VGA THERMAL IMAGING CAMERA WITH EARLY FIRE DETECTION SYSTEM

AUTONOMOUS MONITORING – 24 HOURS, 7 DAYS A WEEK!



24/7
Monitoring



Fire
prevention



Industry and
utilities

Customer requests

In waste disposal facilities and warehouses, the risk of a fire breaking out is very high. Smoldering and incipient fires should be detected early to avoid enormous financial damage and unnecessary pollution of the environment.

Unfortunately, conventional fire monitoring systems quickly reach their limits in waste disposal facilities or in large warehouses and open areas.

Existing environmental conditions make early fire detection difficult, or hotspots are incorrectly declared as fires and false alarms are triggered.



Assembly work of a GROMA Series 5A system in a recycling plant
(Image: GROMA 247 / Tech2B)

GROMA 247 solution with Optris infrared cameras

In order to detect (real) fires at an early stage, GROMA 247 has developed an early fire detection system with infrared cameras from Optris. Based on EN 54-10, the optris **PI 640i** VGA thermal imaging camera delivers highly accurate temperature values in real time.

This is integrated into the GROMA Series 5A – the Infrared Sequential Analysis Detector (ISAD). An algorithm decides within less than 60 seconds based on the raw infrared data if there is a real fire.

- Camera resolution: 640 x 480 pixels
- Spectral range: 8 to 14 μm
- available with 110.016 or 307.200 measuring points
- Radiometric video capture at up to 125 Hz
- Industry standard aluminum housing (stainless steel optional)
- Autonomous: no visualization (DSGVO compliant) or monitoring required
- housing options: Compressed air purge, curtain, cooling, ex protection
- Continuous 24/7 monitoring
- temperature range: -20°C to $+40^{\circ}\text{C}$ (optional -30°C to $+80^{\circ}\text{C}$)
- Differentiation of fire and heat sources
- thermal sensitivity: 40 mK



The GROMA Series 5A detects on the basis of infrared data if there is a real fire
(Image: GROMA 247 / Optris)

Further advantages

False alarms are reliably detected: the algorithm only triggers an alarm if there is actually a fire. In fact of that, the system can be easily integrated into existing fire alarm and extinguishing systems.

The 5A series – equipped with the optris PI 640i infrared camera – is ideally suited for monitoring outdoor storage areas, high halls, industrial sites, hazardous areas at cable cars, waste disposal facilities as well as bulk material storage facilities and many more.



Optimal for use in the application field of fire prevention

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