PROTECTION SYSTEMS FROM firefly

Firefly Thermal Monitoring

A new layer of insight within Firefly Prediction™



Continuous thermal monitoring for smarter industrial safety and process reliability.

What thermal monitoring does?

Temperature is often the first indication that something is changing.

A bearing running hotter, increasing friction or an electrical component developing abnormal heat can indicate a problem long before it becomes visible through conventional inspections.

Firefly Thermal Monitoring uses industrial FLIR thermal imaging technology to continuously monitor critical equipment and processes without physical contact or interrupting production.

By observing temperature patterns over time, Firefly helps identify abnormal conditions earlier, providing valuable insight into equipment health, process reliability and potential ignition risks.

Firefly Thermal Monitoring makes these changes visible

Using industrial FLIR thermal imaging, Firefly monitors critical equipment and processes continuously, without contact. It is a first step towards a more predictive approach to fire safety and process reliability.

Fire protection often starts once a fire has developed. Firefly Prediction starts earlier. It goes a step further, monitoring the conditions that can lead to ignition and revealing abnormal temperature patterns before they become problems.



Everything looks normal. *A temperature change is developing.*

Typical examples include

- Excessive friction
- Mechanical wear
- Misalignment
- Material build-up
- Overheating electrical components
- Developing hot spots

A thermal camera does not replace conventional fire prevention or protection, such as spark or flame detection, but it adds another layer of visibility and insight into process health.

Continuous monitoring without stopping production

Thermal cameras provide a non-contact way to monitor equipment and processes continuously. Unlike periodic inspections, thermal monitoring can observe critical areas 24/7 and identify changes over time.

This can support

Maintenance
Identify abnormal heat development and investigate potential equipment problems earlier.

Operations
See changes in process conditions that may not be visible to the human eye.

Production
Monitor critical equipment and material flows without interrupting production.

Fire safety
Identify abnormal heat conditions that could potentially develop into an ignition source.

The result is better visibility of what is happening with the process.

Where can thermal Monitoring add value?

Fixed thermal cameras can continuously monitor critical equipment in risk areas such as:

- Bearings
- Motors
- Gearboxes
- Fans
- Drives
- Hydraulic systems
- Electrical installations
- Material storage



Temperature trends reveal developing problems

An increasing temperature trend can indicate that something has changed, even when the temperature remains within normal operating limits. Monitoring trends over time helps identify deviations that may otherwise go unnoticed.

Thermal monitoring can also be used to monitor materials on conveyor belts where surface temperature provides valuable information. It can reveal unusual heat patterns across slow-moving material, notifying operators before it escalates into a higher-risk event. Thermal data can be critical to preventing potential disasters on conveyors.

FLIR brings advanced thermal imaging technology. Firefly brings the industrial application knowledge

Together, we combine thermal imaging with decades of experience in industrial fire prevention, process safety and equipment protection.

FLIR provides advanced thermal imaging technology. Firefly provides the industrial fire safety and process knowledge needed to understand where thermal monitoring can create value.

For more than 50 years, Firefly has worked with industrial processes where heat, friction, mechanical failure and process disturbances can become serious safety or production risks.

That experience helps us look beyond the camera. Because every customer application is unique, our engineers work every day helping customers to identify the most suitable combination of technologies based on the actual risk profile and operational requirements. Whether the solution requires thermal imaging, temperature sensors, hot particle detection, flame detection, gas monitoring, or a combination of technologies, Firefly acts as a long-term safety partner rather than simply a hardware supplier.

A new component into Firefly Prediction Concept

Firefly Prediction is our direction towards a more proactive approach to industrial fire and process safety. Thermal monitoring is one of the building blocks. Today, Firefly Thermal Monitoring provides a powerful new measurement source:



The first step is to monitor temperature over time. The next steps are to understand the patterns, connect them with other process information, and turn data into increasingly useful insights.

The Firefly Prediction concept is a growing toolbox designed to evolve with customer needs. Future releases will introduce additional sensor technologies, enhanced analytics and new predictive capabilities.

A Natural Upgrade for Existing Firefly Customers

For customers already using the Firefly EXIMIO™ platform, thermal monitoring is a natural extension. The Prediction architecture has been designed to support additional monitoring technologies and future functionality. Existing systems can be easily expanded with new thermal monitoring and as the Firefly Prediction concept develops, thermal data can become part of a broader picture together with additional process information.

Firefly, your complete safety partner

From thermal monitoring and temperature sensors to spark detection, flame detection, and suppression, Firefly combines 50 years of experience and engineering know-how to be your safety partner, providing not just the best system but also support, service, and training throughout the system lifecycle. .

Want to explore what your process could reveal?

Talk to Firefly about critical equipment, process areas or applications where temperature monitoring could provide an earlier indication of change.

Click here to read more online





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Firefly Thermal Monitoring Leaflet 1.0 EN
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