



FIBER OPTIC LINEAR HEAT DETECTION (LHD)

for Special Hazard
Applications

**FIRE
DETECTION**

Your Trusted Partner

for Fire Detection

AP Sensing is your **global solution provider for Linear Heat Detection (LHD) in special hazard applications**. Based on a proven track record, our Distributed Temperature Sensing (DTS) solution ensures reliable asset protection even in the most challenging environments.

Our product **quality and reliability are unsurpassed**, bringing you peace of mind and a lower cost of ownership.



Quality



Reliability



Performance



The Perfect Fit for You

Our Expertise

The heart of our DTS solution is based on **key technologies developed by HP (Hewlett-Packard)**, the world leader in optical testing and measurement for over 40 years.

Building on HP's processes and knowledge, we have established ourselves as **the leading solution provider for Linear Heat Detection in a wide range of applications.**

We understand your fire protection challenges, especially **when your facility is exposed to harsh environmental conditions.** AP Sensing's fiber optic LHD solution minimizes your operational costs and performs with maximum reliability. Safety systems demand highly reliable and quick fire detection.

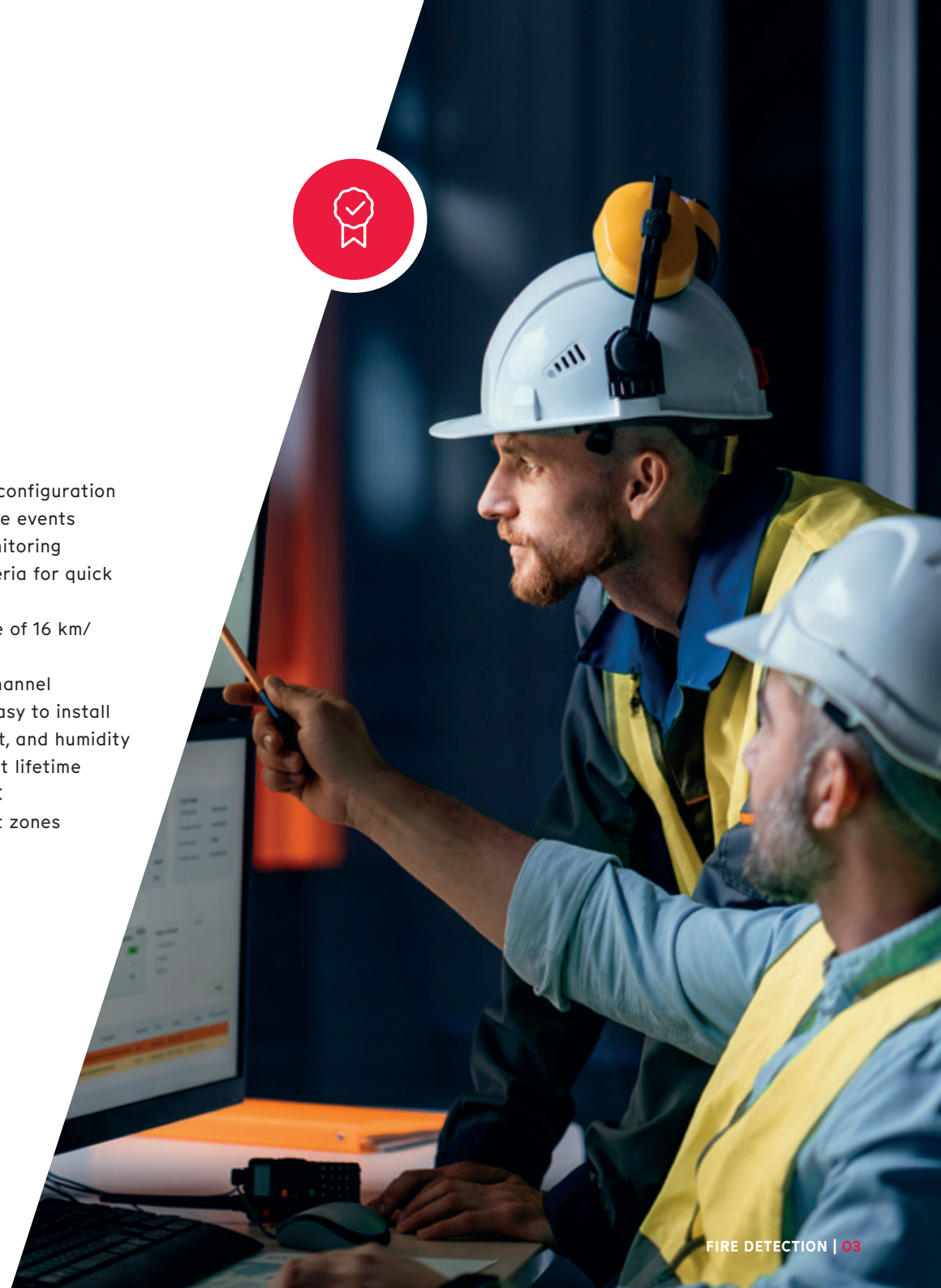
Larger facilities have challenging installation and commissioning requirements and higher maintenance efforts.

AP Sensing addresses these problems using a standard fiber optic cable as a precise, distributed heat sensor. Our technology measures **an accurate temperature profile every few seconds along a fiber optic cable, up to several thousand meters.**



Advantages

- Flexible zone and alarm configuration
- Precise location of all fire events
- Fire size and spread monitoring
- Five different alarm criteria for quick detection
- Longest measuring range of 16 km/channel on the market
- 2000 alarm zones per channel
- A single passive cable, easy to install
- Immune to EMC, dirt, dust, and humidity
- Low maintenance, longest lifetime
- Functional even at 750°C
- Usable in Ex environment zones 0 and 20



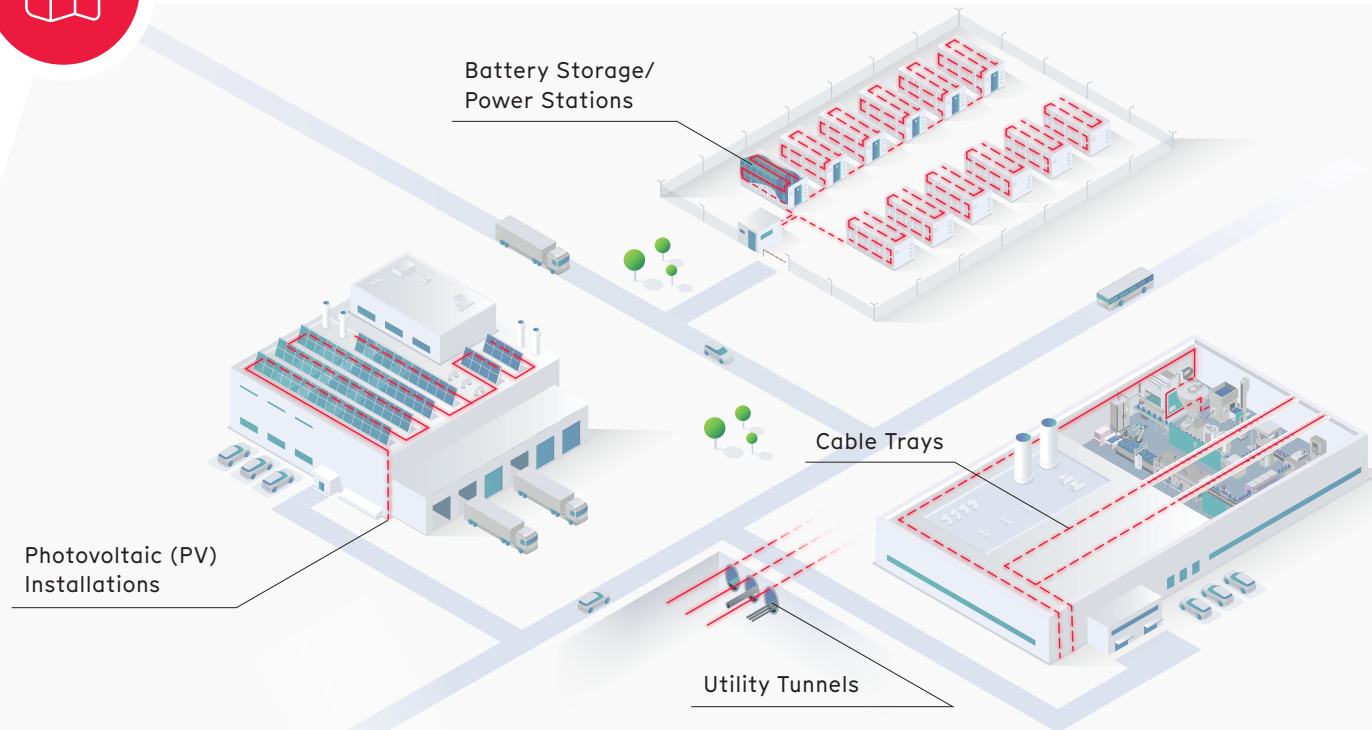
Where to Use DTS Solutions

Buildings, Traffic and Industry



Applications

- Tunnels, Metros, Car Parks
- Conveyor Belts
- Cable Trays and Transformers
- Photovoltaic (PV) Installations
- Battery Storage Power Stations
- Tank Farms, Coal Storage
- Production Areas
- Food Industry
- Power Plants Including NPP
- Refineries and Chemical Plants
- Warehouses and Freezers
- Container Ships and Ferries



Maximum Safety and Protection

for Your Assets

A fire in a special hazards area can have devastating consequences: risk to human life, damaged infrastructure, and long downtimes. Our technology goes far beyond conventional fire detection systems. A fiber optic-based LHD solution detects fires quickly and precisely identifies their location.

Fire detection is unaffected by air currents and accurately determines the size and direction of a spreading fire. **No other fire detection system can withstand temperatures up to 750°C (1400°F)** without losing monitoring capability. With AP Sensing's LHD solution, firefighting countermeasures can be used effectively before and throughout the fire event.



Flexible Configuration | Examples for Tunnels



One spur, single-ended measurement



Two spur, full redundancy



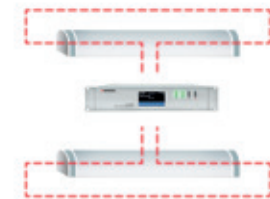
One spur, single-ended measurement



Two spur, full redundancy



Two spur, single-ended measurement



Loop, cable redundancy only

»When you do business with AP Sensing, you get the feeling that you are working together as partners, because they listen to you and understand the challenges of your day-to-day operations.

Communication with AP Sensing is always professional and it's obvious that they have the experience and technical know-how to answer our queries.«

Marcin Cichy, Honeywell



INDUSTRY'S
FASTEST FIRE
DETECTION

For Large-Scale Infrastructures

The Ideal Standard

In large-scale infrastructures, the sensor cable typically runs through different areas under various temperature conditions. The fiber optic LHD solution lets you configure the appropriate alarm criteria in hundreds of zones along the same cable run, regardless of how long your sensor cable actually is. **The industry's fastest fire detection and lowest false alarm rate** are in balance even under challenging conditions, regardless of the application. The system is **immune to dirt, dust, corrosive environments, organic vapors, extreme temperatures, or radiation**.

AP Sensing's solutions include **certified sensor cables** for cost-sensitive, standard, or specialized applications. All cables have an expected lifespan of 30 years and are low maintenance.



Advantages

- Best detection performance due to patented code correlation
- Lowest false alarm rate thanks to a patented single receiver
- Low-power laser for safe use in hazardous areas
- Highest availability based on quality components and 40 years of experience
- Fire monitoring capabilities even at the highest temperatures (cable tested at 2 h and 750°C)
- Certified for maximum sensor cable length and spacing
- Market's most complete test reports and certifications (VdS, EN 54-22, UL, ULC, FM, KFI, SIL2, IECEx, ATEX)
- State-of-the-art IT security standards



Wallmount

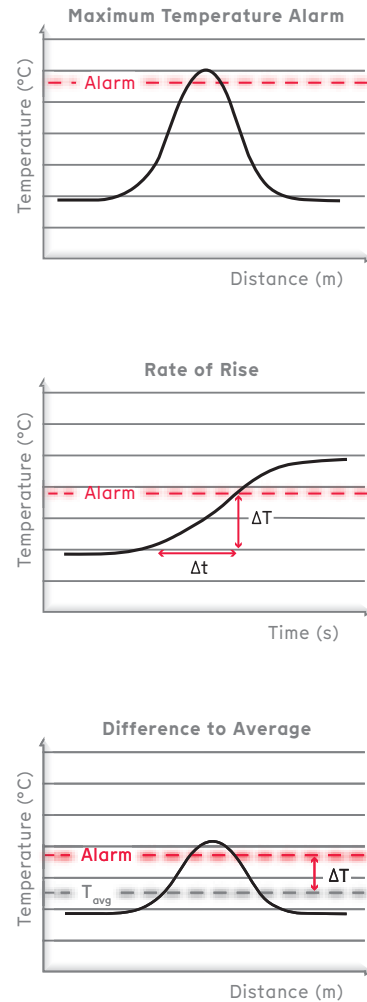
Rackmount

Easy Integration and Superb Insight

for Your Operators

Your personnel responsible for emergency situations need an immediate and accurate overview of the situation by looking at one screen. AP Sensing's SmartVision alarm management system offers exactly that. It provides schematic asset visualization for easy orientation and instant status of all configured linear heat detection instruments. This includes asset visualization with color-coded temperatures.

Our fiber optic LHD solution integrates easily into your existing management platform (SCADA systems) via dry contacts and/or communicating directly over Ethernet (TCP/IP), using standard protocols.



»AP Sensing's DTS is simply the best fit. We apply it together with ConveySafe in our coal power plants to protect our conveyors.

The systems are rugged and completely reliable, need very little power, and can be seamlessly integrated into customer SCADA environments. Best of all, you don't just buy a box from them and that's it – their post-sales support is outstanding.«

Harald Grzybeck, STEAG

Your Complete Solution Provider

Your Best Choice

AP Sensing is your long-term partner. **We listen to your challenges and strive to provide the best solution for your application.** Our comprehensive solutions meet your heat detection and monitoring demands and protect your valuable assets.

AP Sensing works together with expert regional partners to ensure complete and professional support services for you. Our experienced team of project engineers **delivers on-site services, hotline support, maintenance, and product training.** Take advantage of our complete offering and discover what we can do for you.



Our Mission

To Ensure Your Success



Why Choose AP Sensing?

- Industry-leading Linear Heat Detection technology
- Experienced, dedicated team for engineering and project management
- Range of certified sensor cables to fit every need
- Intelligent alarm management software: SmartVision
- Easy integration through flexible protocols and interfaces
- Industry's most comprehensive list of certifications and product tests
- Highest quality and longest product life
- World-class service, support and training
- Global presence with expert regional partners



Supportive



Global



Competent

WORKING
TOGETHER

AP Sensing

Who We Are

Drawing on our HP (Hewlett-Packard) heritage in optical testing, we have established ourselves as the **leading solution provider for Distributed Fiber Optic Sensing (DFOS)**.

We are committed to delivering **well-designed, comprehensive, solutions** to our customers. Our global team of **highly qualified employees and regional partners** is passionate in supporting our customers.

Our motto 'Thinking Ahead' expresses our **passion and willingness** to be prepared for **excellent project execution and smooth operation**.

At AP Sensing we recognize that we can only be successful when our customers and partners are successful. Therefore, we take a **respectful and proactive role** in all our commitments.

With the industry's most complete set of tests and certifications, **AP Sensing helps you comply with relevant security standards** and ensures environmental and employee safety.





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Partner



Passion for Plants.
For every unit sold, AP Sensing plants 100 trees.