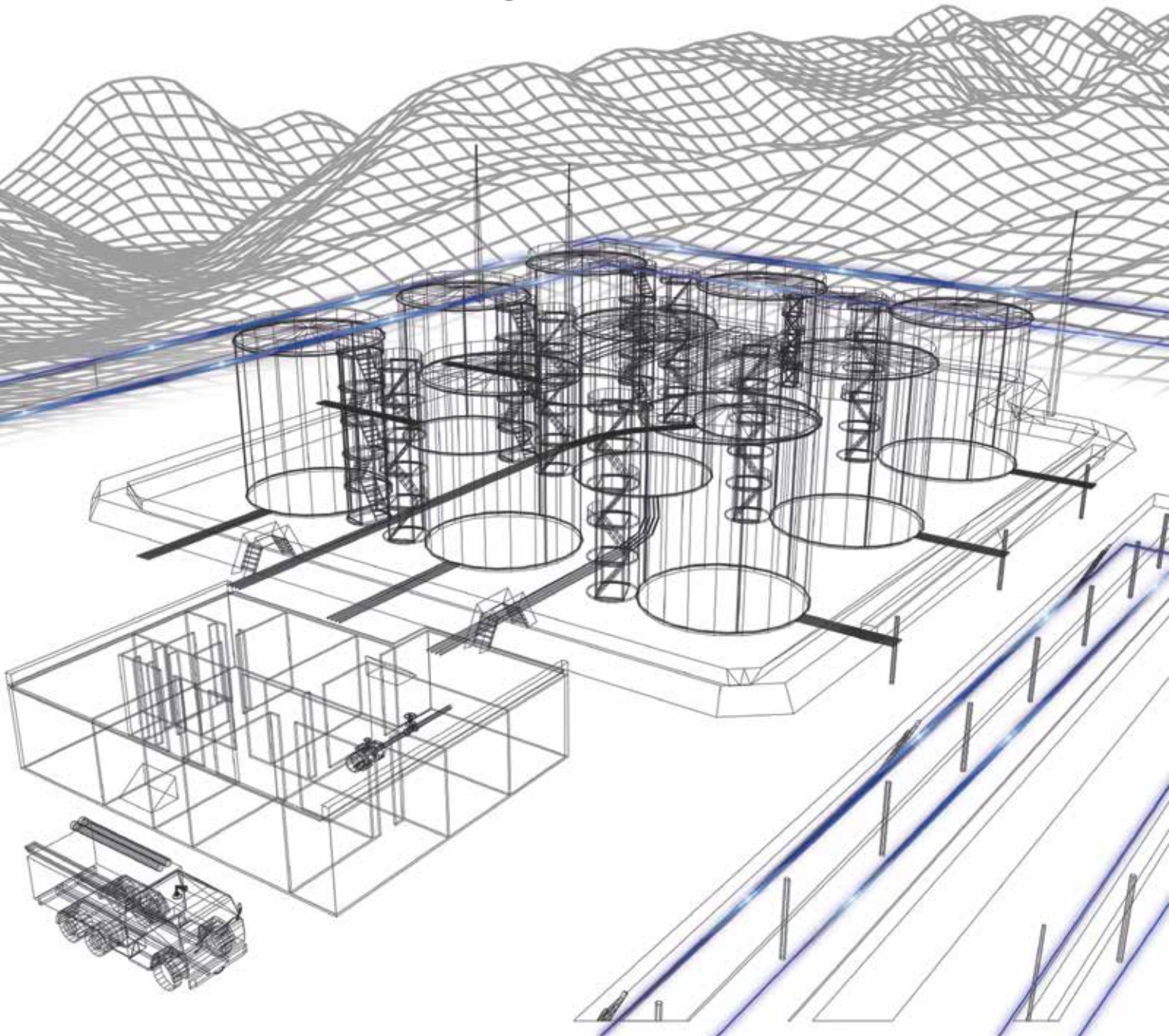


**OptaSense**<sup>®</sup>  
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# Perimeter Intrusion Detection and Security

Protecting critical infrastructure and assets

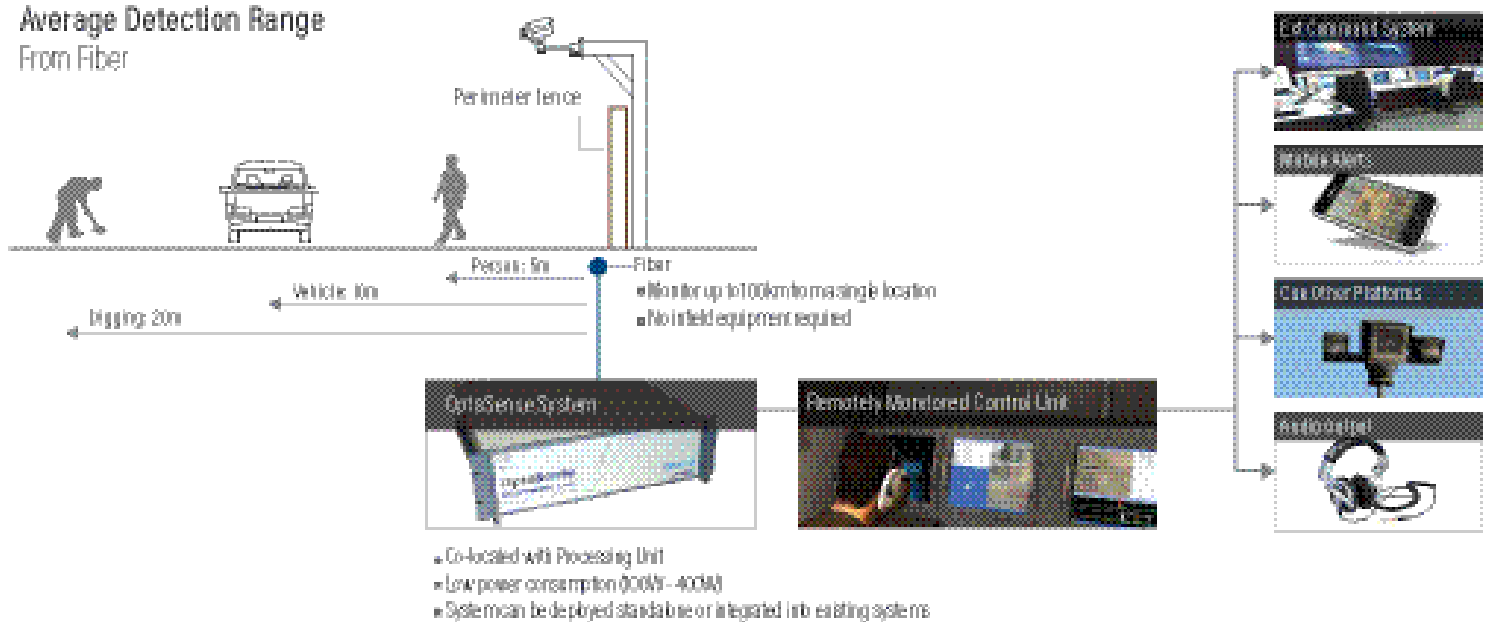


# Perimeter security is your first line of defense.

But many systems can be easily bypassed or fail to provide rapid, reliable alerts—leaving your assets vulnerable to infiltration.

The OptaSense Perimeter Intrusion Detection and Security system (PIDS) safeguards your infrastructure and assets using advanced distributed acoustic sensing (DAS) technology capable of identifying and locating multiple threats in real time, with point-locating capabilities to 10m.

## Average Detection Range From Fiber



# Ensure threats are predicted and averted with reliable, covert, real-time protection.

## Reliable Alarms

Instead of simply providing a tamper alert, OptaSense DAS technology can detect, classify and precisely locate a number of activities, including people, vehicle movement, low flying aircrafts, manual and mechanical digging, gunfire and many others.

Unlike conventional buried sensors, the PIDS system significantly reduces nuisance alarms using reliable algorithms that decipher and classify the type of intrusion in real time. Users can be notified of alarms via text or email, and by leveraging GPS coordinates, the system can pinpoint the location of a security breach within seconds.

With this information, asset owners can increase the effectiveness of response mechanisms, such as patrols and helicopter reconnaissance, by ensuring manual inspection is focused on areas of real activity.

## Seamless Installation

In addition to simplifying the installation process, the PIDS system can be customized to meet the demands of the perimeter it is protecting.

The system offers three types of installation: fence, buried or hybrid. A hybrid installation provides additional design flexibility and added security on fence and buried systems, as well as some water applications utilizing the same processor. The system can also be run in stealth mode for high security areas.

Installation is a simple process. After having the fiber buried or attached to a fence using a third-party, our experts are at your service to install the required hardware and calibrate the system to its environment. No certification is required for installation, and no hardware or power is required in the field. All electronics are indoors in a controlled environment—protecting equipment from EMI, RFI and other hazardous environmental conditions.

The system is software based, allowing easy alterations to perimeter adjustments and/or changes to the number of zones being monitored. The system is also easily integrated with other systems and sensors, such as CCTV cameras and VMSS, for a more robust security management solution.

## Proven Technology

OptaSense DAS technology is protecting some of the world's most valuable assets. In critical infrastructure and security sectors, it is providing real-time monitoring of long assets, such as pipelines and borders. In fact, we are currently monitoring more than 15,000 km of critical infrastructure by providing leak detection and third party intrusion detection for pipeline and transport networks.

The PIDS system has also proven valuable protecting critical assets in other market sectors, including utilities, industrial, transportation, commercial, and residential.

## How It Works

The PIDS system utilizes one strand of a single mode standard telecommunications fiber, installed along the perimeter of an asset, to monitor and detect unwanted activity.

For measurement, the system utilizes a Coherent Optical Time Domain Reflectometer, or Interrogator Unit (IU), located alongside the processing unit. After injecting laser pulses down the length of the fiber, the IU reconstructs acoustic signals detected from the backscattered light along the cable.

Signal processing software is used to analyze these signal in real time, with a 10m location accuracy.

## Benefits

- Detects, locates and classifies multiple threats
- Identifies vehicles, personnel, digging and fence breach
- Offers passive and undetectable protection
- Provides continuous coverage
- Installed on standard fiber optic telecoms cable
- Delivers superior results compared to traditional sensors
- Connects to other sensors (CCTV, C2)
- Reduces nuisance alarms
- Provides exceptional wind noise rejection
- Delivers a scalable and expandable system
- Eliminates infield maintenance requirements

## Applications

- Buried, fence mounted or hybrid installations
- Borders and military
- Utilities (water / energy / communications)
- Industrial (chemical / petrochemical / refinery)
- Transportation (roads / rail / ports / airports)
- Commercial (data centers / distribution facilities)
- VIP residences / golf courses / resorts

To ensure threats to your most valuable assets are predicted and averted, rely on the innovative PIDS system from OptaSense. For more information, contact your local representative or visit us online at [www.optasense.com](http://www.optasense.com).

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