

## LineDetect Buried detection system

LineDetect is a new buried cable detection system for applications where covert perimeter protection is essential. It will reliably detect walking, running or crawling intruders along a facility's perimeter.

The system comprises an optical fibre cable that is buried along a facility's perimeter in soil, asphalt or concrete, a processing unit buried at one end of the cable and a computer nearby to analyse signals and generate intruder alerts.

LineDetect is a cost-effective system suitable for use in the field, in secure installations and for many other applications.



## Specification

- A laser beam propagates down the fibre optic cable and when the cable is disturbed this changes the characteristics of the light wave which is then measured. This measurement allows for decisions as to whether or not an intrusion has taken place.

## Capabilities

- A calibration walk is performed to optimize detection capabilities within the system and to adapt to local terrain. A sensitivity profile is generated across the protected area and the alarm threshold is set. When a target enters the detection field, the cable picks up the altered signal and transmits it to the processor. The processor analyses the signal and if the target exceeds the threshold, an alarm is declared.
- With a maximum coverage range of 1,000 meters per unit, Sensol LineDetect can discriminate legitimate intrusions from harmless disturbances caused by small animals or environmental factors such as wind, rain or snow. The system's high signal-to-noise ratio produces superior probability of detection and a very low false/nuisance alarm rate.

## Components

Hardware consists of a small laser, an optical fibre cable, a camera-like capture device, a computer for image processing and a computational platform for signal analysis. Information from the capture device is processed by the computer using specialised software. Computer system requirements:

- Windows 2000 or XP operating system with .NET 2.0
- 2.4 GHz Pentium 4 processor or higher
- 256 MB DDR memory
- 50+ MB HDD space (depends on number of events logged)
- Composite Video Input (USB Frame Grabbing Device or Graphics Adaptor).

Laser electronics, capture device and driver circuit are stored in a temperature stable waterproof enclosure.