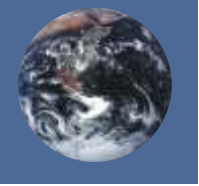


Defensor



World Beating Perimeter Protection - Proven



Perimeter security with Defensor

Perimeter fencing is an effective initial deterrent to intruders, with metal fences being the most common form of physical barrier. However, the determined intruder can breach any type of fence structure, often by cutting through or climbing over.

Many electronic security systems focus on detecting intruders after entry to property. This often alerts police or security too late to be able to prevent an intruder from achieving his objective. Intruders make the most of the time delay between entering the property and response by security staff or police following a subsequent alarm activation.



A well-designed perimeter fence will delay an invader, providing an early opportunity for electronic detection. Geoquip's Defensor system is designed to pick up vibrations as soon as any contact is made

with the fence. A security system which incorporates Defensor will alarm as soon as an attack starts. During the time taken to breach the fence, the area of attack can be located, security staff mobilised and CCTV, lights and sirens activated. This means that the control of the situation stays with the security service and the attack can often be prevented.

A further advantage of early detection is the potential for saving the fence from repairs which are costly, represent a security risk while awaiting repair and weaken the defences in further attacks.

By detecting the first contact made by an intruder, Defensor is a 'primary detection' system. Overall security can be enhanced by secondary detection systems, such as Infra Red and Microwave beams, which can track intruders inside the perimeter.

Alpha Sensor - The new generation sensor

The function of a sensor is to detect the broad spectrum of vibrations caused by an attack and convert them to electrical signals, which can be analysed to distinguish between friend or foe conditions. As the sensor is the most important component of any perimeter detection system, Geoquip's expert knowledge and experience have been focused on sensor cable technology to ensure Geoquip retains its international leadership position.

Alpha Sensor, designed by Geoquip's own research team, is a precision sensor cable, which is able to receive and convert all vibrations, providing a fail-safe means of detection - the sixth sense. Eclipsing the capabilities of previous generations of sensor cable, such as fibre optic and coaxial cables, Alpha sensor uses technology unique to Geoquip to give reliable detection even on the most rigid fence structures.

The Lubritube comprises two sensing wires sheathed in specially lubricated tubes along the length of the sensor. Any attack vibration is detected by the wires moving freely within the tubes. The precision wire and tube combination optimises the response of the sensor, maximising signals from hostile activities while minimising unwanted signals from non-hostile effects such as weather related activity.

Spirawire is unique to Alpha sensor. The sensor cable is twisted into a spiral to produce high immunity to electrical

RFI and EMI interference, virtually eliminating false alarms from these sources.

Detection methods

The process used to convert the sensor signal must optimise detection of attack and rejection of environmental vibration, and is therefore of crucial importance to the effectiveness of the detection system.

All sensor cables are analogue devices, producing a variable output signal. The Defensor system works directly on the electronic analogue signal generated by the Alpha sensor over two separate channels. Each channel can be separately adjusted for local attack conditions, a feature which contributes to a higher level of detection than has previously been achieved.

The analogue signal is a complex mixture of amplitude and frequency information. It contains intruder-generated signals together with unwanted components, such as those produced by strong wind or driving rain. Defensor easily discriminates between the extremes of these signals, without any need for conversion into a digital format for processing compensation or remote sensitivity adjustment by security staff. The result is excellent performance without compromise.



operational

Operational benefits

of the World beating, trial winning Alpha Sensor

- 24 hour intruder detection
- Intruders detected before entry is gained
- Fence protected from intruder damage
- Suitable for manned and unmanned sites
- Simple installation on large and small perimeters
- Highest intruder detection level for cut through, lift or climb over attack
- Lowest false alarm rate means user confidence maintained
- Long life expectancy and virtually maintenance free
- Effective and easy to use, with no need for complicated electronics
- Proven in Military and government trials
- Superior detection rate on weldmesh and rigid fencing

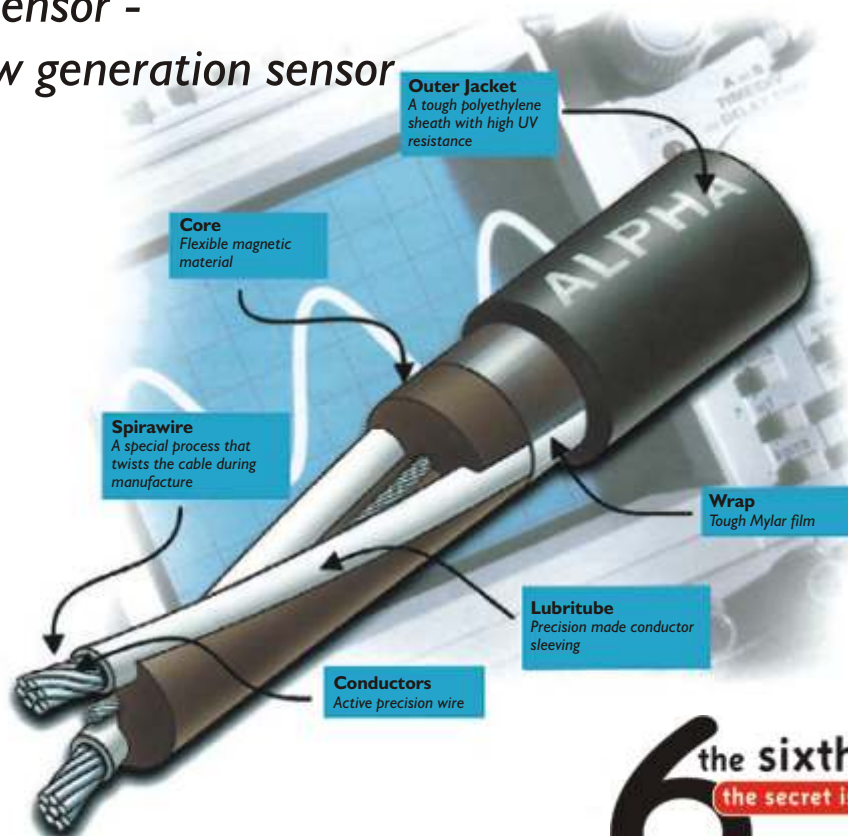
technical

Technical benefits

of Defensor

- Incorporates latest Alpha Sensor technology, optimising intruder detection
- Superior performance to fibre optic and co-axial cables
- Self verification of local or remote alarms using audio signal
- Integrates with secondary detection systems
- Activates CCTV positions, improving CCTV performance
- Immune to RFI and EMI interference
- Does not need conversion to digital format or remote sensitivity adjustment

Alpha Sensor - The new generation sensor



6 the sixth sense
the secret is the sensor

Comparative System Performance

- Alarm management

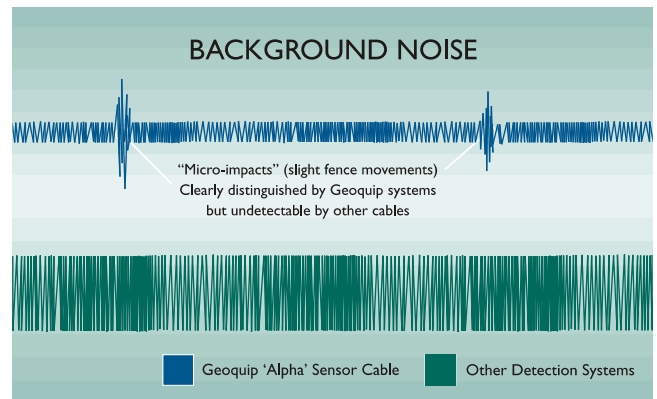
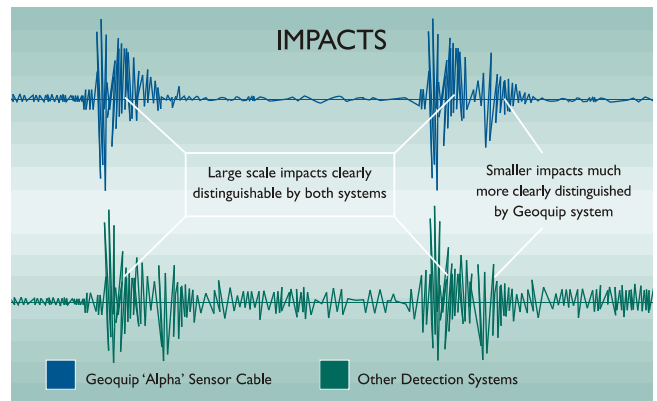
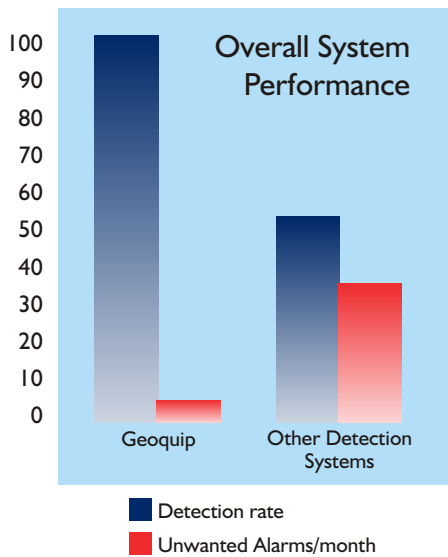
The Defensor system has been developed for both manned and remote sites. It functions equally well as a stand-alone or as part of an integrated security system, offering standard alarm, tamper and audio outputs which can be connected into most alarm management systems. The Defensor system also offers a wide range of ancillary alarm management equipment.

- Verification System

The Defensor system has built-in verification capability. The magnetic construction of the Alpha sensor gives unrivalled sound quality which makes it possible to identify intruder sounds by listening to activity on the fenceline.

- Gate control

Perimeter intruder detection should be operational 24 hours a day. To enable gate access during working hours, the Defensor system includes a range of gate control equipment to enable pedestrian and vehicular gate access without triggering an alarm.



Further information on Geoquip systems can be obtained from:

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