

guardwire®

Supplied By :

CENTRA SECURITY SYSTEMS (UK)
www.centrasecurity.co.uk

ALPHA

- 🔍 Designed to Protect Walls and Roofs of Buildings
- 🔍 Provides an Early Warning of Attack, Prior to Entry
- 🔍 Recommended by Police and Insurance Risk Assessors
- 🔍 Utilises the Proven GDALPHA Sensor Cable

The Proven Leader in Building Protection
for Over 20 Years

GEOQUIP



WORLDWIDE
The Leader in Perimeter
Protection Solutions



The Proven

For many years there have been designs and technologies developed, which have attempted to emulate the detection capability of the GDALPHA sensor cable. As Geoquip holds the patent for magnetic sensor cable design, all other systems have to use either co-axial or fibre-optic based sensor cable designs, both of which suffer from a limited frequency response. This means that either the physical vibrations caused by an attack, such as drilling or hammering, are undetected or the compensation required in the detection circuit to overcome these limitations leads to a dramatic increase in the false alarm rate.

These technologies, developed primarily for stable data transmission, quite simply cannot perform to the same level as purposely designed Alpha sensor cable. Such is Geoquip's conviction that their sensor cable can outperform the competition they offer a unique Performance Pledge.

Guardwire Building Protection System



The superior design of Guardwire system can be further demonstrated when viewed more closely and compared with these other technologies. Firstly, the two conductor wires of the Alpha sensor cable together with the detection electronics are in fact two pseudo detection systems. This technique is called Dual Channel Signal Processing (DCSP) and means that the two most common types of attack to building walls and roofs, i.e. impact attack such as hammering and sustained attack such as drilling, can be independently adjusted without compromising each other. This is a key limitation of other systems, where adjustment of one attack type detracts from the other, as they occur at different frequency ranges but on the same sensing circuit.

Secondly, the magnetic design of the sensor cable works on exactly the same electrical principles as a speaker, which enables self-verification of an alarm condition, via an audio output which is truly industry best.

Superior performance of the Guardwire system is achieved by utilising the GDALPHA sensor cable as a detection device. The sensor cable, designed for the sole purpose of intruder detection, is manufactured by Geoquip in its production facility, operating to BS EN ISO 9001. This ensures the quality of the finished product and support services you would expect from an industry leader.

The manufacturing process of the sensor cable involves extruding two continuous semi-circular magnets from a flexible magnetic polymer. Held between the two extrusions are two silicon lined tubes within which conductors are free to move. It is the vibration of these conductors during an attack to produce both the audio and alarm signals.

Detection is made by vibrations in the building wall or roof fabric, which cause a small electrical current to be induced from the effects of the conductors moving in a magnetic field. It is this signal which is detected and processed by the electronic analyser according to a combination of frequency and amplitude.

The two conductors are configured as a balanced closed loop which naturally cancels out any externally induced electrical interference. Additional protection from RFI is provided by a wrapping of aluminium foil, which acts as a screen.

A tough UV resistant black polyethylene outer sheath protects the sensor cable from moisture ingress and mechanical damage. Added physical protection can be offered by installing the sensor cable in a flexible armoured steel conduit or using the GDALPHA-TJ sensor which has a toughened PVC outer sheath making it suitable for direct fixing to walls.



Leader in Building Protection

GW500 Analysers

A very cost-effective system for remote and local detection of gross attack on building walls and roofs. This system exploits the concept of the building being the perimeter and is a perfect complement to traditional volumetric detectors such as infra-red, which only detect once the intruder has gained entry.

Entry via walls or roofs is disturbingly easy and the removal of merchandise does not always require the intruder to enter the premises. In this type of application, the Alpha sensor cable is attached to either:

- The building wall or cladding (detection area 1.5m either side of the sensor) to provide detection of attacks such as hammer blows, drilling etc.
- The roof, by clipping the sensor cable to the girders or roof supports or by laying it in the roof purlin.

The system can be configured in zones up to 1,000m, depending on the type of building fabric.

All electronic processing of intruder activity is made inside the building by the GW500 analyser, which incorporates individual adjustment settings for the two attack types along with timer and event settings, all of which significantly reduce the incidence of false and nuisance alarms.

The analyser provides relay contact outputs for both alarm and tamper, which can be easily integrated into most alarm or security systems. Where self verification is required via the audio signal, both local and remote annunciations can be provided. To meet these requirements a number of hardware options are available.



Defensor Performance Pledge

There are many claims made by the manufacturers of electronic perimeter intruder detection systems regarding the performance of their systems. Some purport to offer superior performance by utilising sophisticated electronic detection techniques, others may simply make claim to the fact that their's is best.

Geoquip believes that the ultimate endorsement is in the product's actual performance, side by side against any other manufacturer.

Such is our confidence in the superior performance of the Defensor system against any other manufacturer's fence-mounted cable sensor system, that if Defensor is outperformed on an agreed 'like for like' trial, Geoquip will purchase the other manufacturer's trial system on behalf of the end user.



Detection System Analyser Details



Power Requirements:	Voltage Range: 7 - 24 Volts dc
Current Drain:	90mA @ 12 Volts dc
Audio Output:	0dBm at 600ohms
Alarm Output:	Dry relay contact with link option to select normally open or normally closed contact configurations.
Tamper Output:	Dry relay contact with link option to select normally open or normally closed contact configurations.
Relay Contact Ratings:	Maximum switched voltage: 350V ac / dc Maximum switched current: 100mA ac / dc Maximum switched power: 600mW ac / dc
Lightning Protection:	By transformer isolation and semiconductor surge suppressors.
Internal Indicators:	Relay Indicators: Alarm relay status LED Tamper relay status LED Attack Indicators: Impact mode attack LED Continuous mode attack LED Supply fuse indicator: Fuse blown LED
Internal Controls:	Event Counter, Time Window, Impact Attack Sensitivity, Sustained Attack Sensitivity. All adjustments by 10 position rotary switches.
Warranty:	12 months from date of invoice

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