

NIR - TAUT WIRE INTRUSION DETECTION SYSTEM



D-Fence NIR presents the latest technology in Taut Wire systems. Whilst NIR is considered as one of the top leading security perimeter systems, it not only provides a physical barrier against intruders but also a sophisticated electronic remote control system which indicates the precise location of any intrusion attempt.

NIR is installed around Airports, Prisons, Borders, Nuclear Plants, and other high sensitive facilities.

NIR is based on sensor posts, where each one contains an electronic processor unit, which converts analog signals, from the wire sensors installed on the post, into digital signals. The processor unit analyses the signals from the sensors and serves as a local signal processing and analyzing system at the level of the post. This electronic unit also communicates with the central computer at the control station, and controls a local dry multi-purpose contact. Any attempt of cutting through, switching off the wires, climbing on the taut wires or on the fence posts and corner posts, dismantling of any of the system's components, will immediately cause an alarm at the control unit, and will activate all connected external devices such as: CCTV, VMD, Lights, Sirens, GSM mobile, Pagers.

NIR can use any type of wire such as regular wire, double braided wire, barbed wire, aircraft wire, etc. It is possible to create two parallel taut wire screens without the need for additional posts.

Due to terror attacks and global warnings, **NIR** is installed nowadays around sites which had so far a passive fence only. A quick integration is required in order to connect the NIR with different existing fences such as palisade,

- Practically zero false alarms
- Long interval between field maintenance
- Easy installation
- Integration with all types of fences
- No anchor posts are installed
- Self adaption
- Withstands all environmental conditions



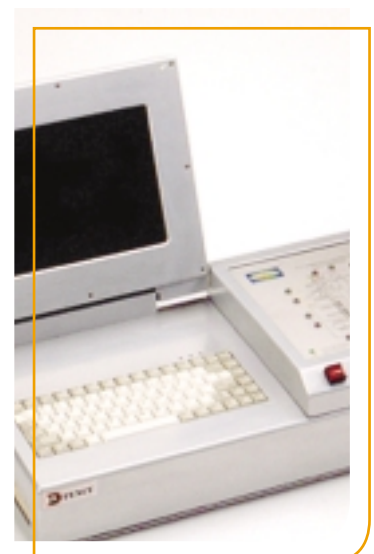
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welded mesh, chain-link, concertina, power fence, walls and more. Due to the system flexibility you can easily upgrade your perimeter system to enjoy the benefits and best protection of **NIR**.

NIR operates equally well in all weather conditions, from desert temperature rising above 72⁰C down to -25⁰C. NIR has a self adjustment processing unit which calculates the pressure on the system wires. Therefore, NIR has practically zero false alarm. The wide dynamic range of the **NIR** sensors allows for longer intervals between maintenance operations. The rugged sensor contains no electrical contacts, moving or rubber parts, therefore, system maintenance is very rare.

D-Fence Computerized Control Center (CCC) is based on industrial board spec PC104. High scalability and redundancy is achieved by using hard disc - flash disc, CCD display - tube screen, and dual communication ports for each transmission receiving line. Integrated in this unit is a geographic map of the protected site. This unique user friendly Control Unit allows to operate the entire system by using 3 push buttons only.

D-Fence CCC supports up to 60 sensor posts. The control unit displays the status of each post in the system and will indicate to its operator whether the systems is secured, alert or there is no communication. The CCC displays the state of the sensors on one post as selected by the operator. A number ranging from 0 to 255 shows the stress on each sensor and the state of the sensor, Secure or Alert. The control unit has an illuminated map which illustrates the perimeter system, divided into zones. Each zone has two designations: Secure or Alarm. The map is connected to the control unit through RS232. The control unit updates the map every 1/2 second. Other slave maps can be



added to the main map. The main map is operated with 3 buttons only:

Test, Alarm and Reset.

A printer can be connected to the system in order to print the status of the system. Also every event will be printed with indication of date, time & zone number, sensor number and direction.

Any attempt of cutting through, switching off the wires, climbing on the taut wires or on the fence posts and corner posts, dismantling of any of the system's components, will immediately cause an alarm at the control unit, and will activate all connected external devices



Physical Description

Fence Length	Practical limitation
Fence Height	According to customer specification
Length of system zone	Not exceeding 100 m

System Unit Processor

Unit dimensions	250x55x25 mm (L*W*H) 200 Gr. (weight)
Processing unit	Up to 32 sensors per processing unit, or up to 30 sensors with additional connector for a vibration sensor and a fiber optic cable
Deflection force	25 KG of force and above will activate alarm
Dry contact	N.O & N.C. 1A@48VDC
Power supply	12mA@48VDC
Communication Output	RS232

Environmental conditions

Temperature range of operation	+72°C to -25°C (162°F to-13°F)
Storage Temperature	+80°C to -32°C (176°F to-26°F)
Corrosion	All system parts received anti-corrosion treatment according with MIL T 152 all parts are S.S
Humidity	95%
Lightning & electronic trasients	MIL STD 9094
EMI & RFI	According with MIL STD 461, 462

Reliability and Maintainability

False Alarm Rate (FAR)	Less than one per km per three months maximum
MTBF sensor	4.7x10 ⁸ hours
MTTR	30 minutes
Warranty	10 years for the sensor