

Description

DTR is a high performance physical barrier combined with multiple high quality sensors.

Taut wire is considered the most reliable and robust solution for perimeter intrusion

detection. Its key advantages are that: it physically prevents intrusions by unauthorized personnel into high security sites; it has no environmental limitations and it delivers a very high and guaranteed Probability of Detection (PD) with minimal False and Nuisance Alarm Rates (FAR / NAR).

The technology of DTR incorporates an array of detectors each connected to a pair of barbed wires with multiple sensors per zone, making it a very redundant system with practically no single point of

failure. DTR is a very cost effective solution for wall-mounted applications where there is a moderate number of barbed wires.

The mechanical DTR sensor has a self-adjusting mechanism to compensate for soil movement, temperature changes, etc. It is an extremely robust sensor and unaffected by Electro-Magnetic Interference and Radio Frequency Interference (EMI / RFI), for example near transmission stations and power plants.

DTR is installed in hundreds of sites around the world in many types of climates, demonstrating unparalleled endurance and reliability. In fact, DTR systems have been operating in many sites for more than 30 years without the need for major refurbishment or upgrade.

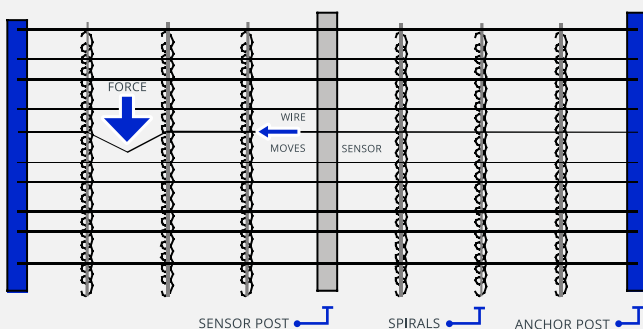
How it Works

DTR consists of multiple twisted barbed wires, typically separated in 9- 20 cm (3.5- 8 in.) intervals and stretched along a typical segment of 50 meters (164 ft.).

DTR sensors are mounted on sensor posts located halfway between adjacent anchor posts. An array of tensioned barbed wires is run between the anchor posts, supported and spaced by spirals.

Each sensor is clamped to two adjacent wires. A deflection or cutting of a wire causes an alarm. The wires are spaced sufficiently close together to make it impossible for an intruder to penetrate them without causing an alarm. For alarm reporting purposes, the sensors in each post are divided into a maximum of six (6) separate alarm groups, which allows isolation of the compromised section of the fence (bottom section, middle section, top section).

This capability, when analyzed properly, can distinguish climbing scenarios against other types of intrusions. It will also eliminate nuisance alarms caused by small animals and improve fault isolation.



Core Features

- Guaranteed high Probability of Detection (PD)
- Very low FAR / NAR
- Inherent self-adjusting mechanism
- Vertical resolution of detection within a given zone
- Low power consumption
- Low maintenance costs

Markets

DTR is an ideal solution for long perimeters with minimal infrastructure (such as borders or remote sites), as well as for harsh climate installations.

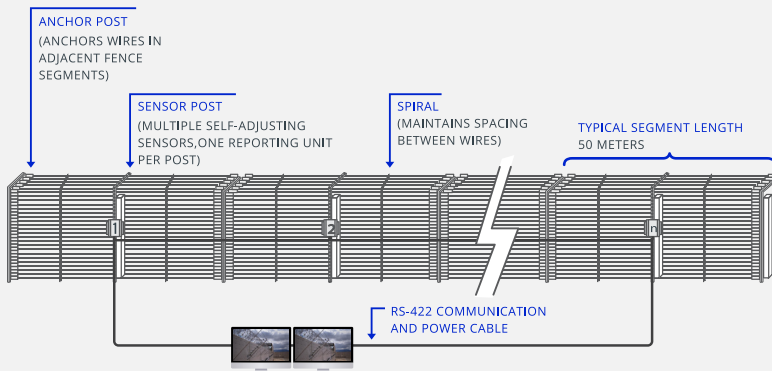
DTR is also well suited to high profile CIP (Critical Infrastructure Protection) such as nuclear facilities, military sites and other sensitive locations like airports, energy utilities and prisons.



Technical Specifications

Basic Layout

DTR offers complimentary parts to create a full system. Gates, cross corners and places where obstructions are a challenge, can be addressed through customization.



Typical Configuration

SPRU (Sensor Port Reporting Unit) is connected to all the sensors at each sensor post. The SPRU is connected to the control room by multi-drop proprietary RS-422 cable which also provides power to the system. The RS-422 communication has been optimized to support up to 127 processors on a single 5 Km (3 mile) cable.

Typical Configuration

GPRU (General Purpose Reporting Unit) is connected to several (usually eight) sensor posts, providing dry contact output for each sensor post to external systems. The GPRU comes in either an outdoor enclosure or can be installed in a third party or provided enclosure / cabinet.

COMMUNICATION 4 wires, multi-drop, proprietary RS-422.

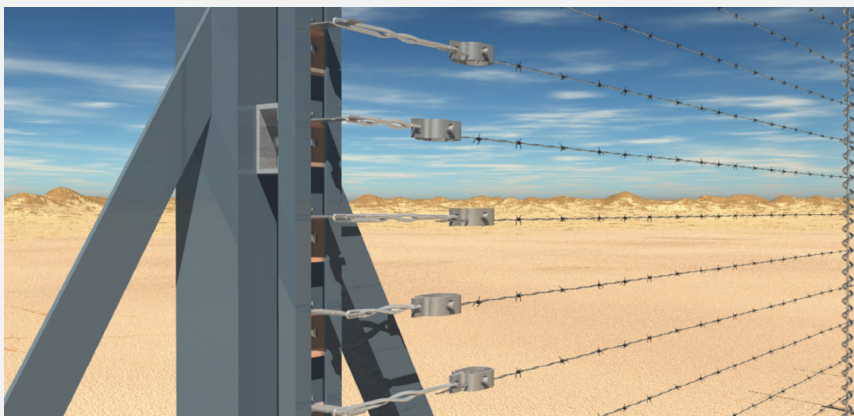
NUMBER OF SPRUs Up to 127 on a single cable with maximum 5 Km (3 miles).

Max length may expand using repeaters or several cable sections

NUMBER OF GPRUs Unlimited

POWER 12 to 30 VDC

CURRENT CONSUMPTION SPRU – 1.2 mA, GPRU – 100 mA max



Typical Configuration

A typical DTR installation consists of a 2m (6.6 ft.) vertical component with a 1 m (3.3 ft.) inclined outrigger. The vertical component houses 20 taut wires. The inclined outrigger houses 10 taut wires.

Physical

Sensitivity

Fixed and independent of climatic conditions

Detection Force

15-30 kg (33-66 lbs.) of force or more will activate an alarm

False Alarm Rate (FAR)

Less than 1 per 1 Km per 3 months

Environmental

Temperature Range: -40 °C to 72 °C (-40 °F to 160 °F)

Relative Humidity: Up to 95% non-condensing

Climatic

Unaffected by wind, temperature changes, rain, hail, snow, dust, UV radiation.

Trouble and maintenance-free in desert conditions, severe storms, tropical climates and sub-zero snow covered areas.

Corrosive Atmosphere

Suitable for almost all environments, special stainless steel version available for exceptional conditions.

Lightning And Electronic Transients

Suitable for almost all environments, special stainless steel version available for exceptional conditions. Suitable for almost all environments, special stainless steel version available for exceptional conditions.

EMI/RFI

Complies with MIL-STD-461/462

Specifications are subject to change without prior notice.