

# RLTD FIBER SENSOR



## Lower cost protection for long perimeters.

BEI Security's new long range sensor system utilizes a newly developed *patent pending technology* called Reflected Light Time Differential (RLTD). RLTD offers a unique and easily deployed intrusion detection system utilizing a single mode fiber optic cable and a single head end controller. The system is capable of protecting perimeters up to 100 kilometers in length with a single fiber. With this break through in performance, the system offers major cost reduction over other fiber solutions.

The BEI RLTD terminates both ends of the fiber into the control sensor electronics at the head end. By doing so, we now have two complete paths to examine signals. Since we are looking at two signal paths, it eliminates false echoes and allows the system to make very precise time differential measurements as to the location of the disturbances (within  $\pm 10$  meters). By increasing the sampling frequency we can further zero in on the exact disturbance location.

When used for protection of long borders, or perimeters exceeding 100 kilometers, the RLTD single mode fiber optic cable is attached to an existing barrier or fence and looped back to the head end (as shown below) in 50 kilometer increments. The disturbance detection identification zones remain at the normal  $\pm 10$  meters for precise intrusion detections. Alternatively, the product can also be buried for invisible protection.



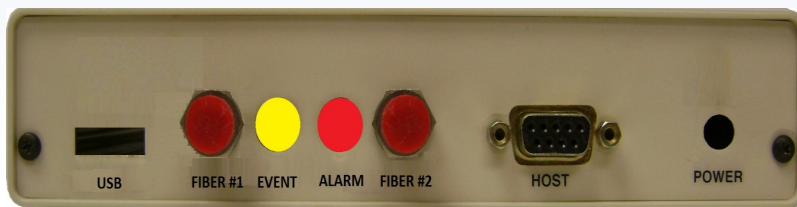
- The head end receives the laser signals and reacts to the variations in the infrared lasers return signal. The head end controller is connected to a PC via a USB or RS232 connection to receive and process the signal to determine if an intrusion event has taken place. The software that interfaces to the controller provides a graphical representation of the perimeter and denotes the location of the incursion.

### RLTD FIBER SENSOR Operational Characteristics:

- Derived from BEI's unique Fiber Sensor technology, the RLTD system extends the perimeter protected zone length up to 100 kilometers with a single fiber. It is easy to install and maintain.
- The RLTD fiber sensor controller is housed in a small enclosure powered by either low voltage AC or DC.
- The RLTD fiber sensor interfaces via either RS232 or USB to a PC for signal processing and alarm notification.
- With the RLTD fiber sensor unit there is no power required in the field for perimeters up to 100 kilometers.



RLTD Fiber Sensor can also be buried for invisible perimeter intrusion detections.



### RLTD FIBER SENSOR Specifications:

- ♦ Electrical – 12 to 24 VDC or 9 to 18 VAC @ 1 amp into a 2.1mm receptacle.
- ♦ Maximum loop distance is 100 kilometers with a single controller.
- ♦ Intrusion detection zones are  $\pm 10$  meters.
- ♦ 9/125 $\mu$ m Single mode fiber with ST fiber optic connectors
- ♦ Mechanical dimensions: L x W x H 8"x 6" x 1.5"
- ♦ Environmental: Temperature -3 to +55 degrees Centigrade
- ♦ Humidity 10-90% non-condensing

### Tactical Fiber Optic Cable Specification:

- ♦ Military Spec Tactical Fiber Optic Cable
- ♦ Diameter = 4.6 mm
- ♦ UV and Flame Retardant Outer Sheath
- ♦ Inner Sheath of Aramid Yarn
- ♦ Tension = 2,000 N

## Contact Us

Give us a call for more information about our services and products

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