Fiber SenSys

AN OPTEX GROUP COMPANY

Fiber Defender® FD7104™

Four-zone Fiber-optic Intrusion Detection System

The **Fiber Defender FD7104™** is a four-zone, fiber-optic intrusion detection sensor optimized for perimeter protection. It delivers a high Probability of Detection (PD), low Nuisance Alarm Rate (NAR), and ease of installation and operation. This Alarm Processing Unit (APU) can be mounted indoors or placed in a weather-proof enclosure and mounted outdoors. Each zone can drive over three miles (5Km) of combined insensitive/sensing cable providing flexible system configuration options.   A common configuration is to remote mount all processors inside; thus, no active components are located in the field.

Key Features:
- **Next generation algorithm**
- **Embedded web interface**
- **Power over Ethernet (PoE)**
- **Built-in tuning and calibration software and manual**
- **Four zones**
- **Remote mount capable**

The **FD7104** utilizes our next generation algorithm – a product of Fiber SenSys's more than 30 years of leadership in fiber-optic perimeter sensors. The APU captures intrusions while rejecting nuisances such as wind and traffic.

The **FD7104**'s intuitive user interface allows site-specific data and characteristics to be incorporated into the algorithm to ensure quicker, consistent, and repeatable tuning results for critical applications.

With the FD7104's browser-based embedded interface, no additional software is needed. The interface can be accessed either through the USB or Ethernet IP port, allowing local or remote access to the processor. Functions available include cable configuration, sensor tuning, network communications, and the installation manual. An alarm history log tracks the last 100 alarms for each zone. The history includes the spectral signal utilized in the built-in graphical modeler to optimize processor tuning and performance. The **Fiber Defender FD7104**'s firmware is easily field-upgradable and automatically updates the embedded user/operations manual.
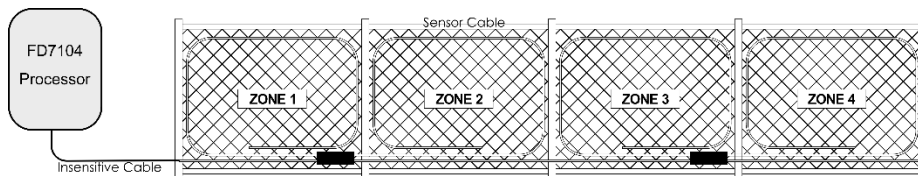
Applications:
- **Government and military**
- **Electrical substations**
- **Solar power generation facilities**
- **Oil and gas processing sites**

Higher security by design

For more information, contact us at:
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Multi-zone Protection

The FD7104 is uniquely suited to remotely monitor and protect multiple zones from a single stand-alone APU.

Basic Configuration Example

FD7104 PRODUCT SPECIFICATIONS	
Application	Perimeter fence
Sensor Configuration	Single run with end of line termination
Number of Zones per APU	Four fully independent zones
Alarm Inputs	One auxiliary input for an external sensor
	One tamper input
Sensing Fiber	Multimode fiber, custom manufactured to Fiber SenSys specifications
Insensitive Lead-in Fiber	Single-mode fiber
Sensing Cable / Zone Lengths	For each zone, sensing fiber plus insensitive lead-in cable ≤ 5.8Km
	Sensing fiber length per zone ≤ 800 meters
	Zone length ≤ 500 meters
Standard, External Power Supply	12-24-volt DC or PoE
Peak power consumption	7 watts
Front-panel Display	Zone LED indicator: Secure, Alarm, Fault, Inactive for each zone
Communications	USB type B: Configuration and tuning
	RJ45 Ethernet: Configuration, tuning with remote monitoring
Relay Contact Ratings	500mA @ 24V
Alarm Relay Default	Form C: Normally open, and normally closed
Fault Relay	Form C: Normally open, and normally closed
Operating temperature range	-40˚C to +70˚C
Humidity	95% non-condensing
Dimensions	7.71 x 6.6 x 1.77 (inches) 19.58 x 16.76 x 4.50 (cm)

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