FiberPatrol® FP1400
Multi-Zone Intrusion Detection System

Description

The FiberPatrol FP1400 is a scalable, easily configurable, multi-zone fiber-optic intrusion system providing high performance and cost-effective monitoring for medium-sized fenced perimeters. The FP1400 delivers industry leading state-of-the art features including: software configurable virtual zones, cut immunity, and simple, convenient installation.

FP1400 follows in the highly acclaimed FiberPatrol family of Optellios products - now engineered for the Zone market - offering superior detection sensitivity and environmental compensation in an easily integrated, multi-zone architecture.

Installation requirements for the FP1400 provide the easiest and simplest methods for a cost effective solution. Unlike typical zone-based intrusion detection systems, the cable installation for FP1400 is straightforward; cable is installed in the middle of the fence, in a straight line, without junction boxes or connections, along the entire perimeter. Zones are defined in the unit's software and may be revised without changes to the physical sensor layout along the perimeter. This greatly simplifies the design architecture, installation, configuration and maintenance, and significantly reduces deployment cost.

The FP1400 is available in scalable zone configurations supporting as few as 8 and as many as 28 zones, with a single centrally located system controller. Like all FiberPatrol systems, the controller may be remotely located, as the system requires no electric power or alarm communications along the perimeter. Using the same standard single-mode cable as other FiberPatrol systems, the sensor is available with extra fibers; usable for video or other communications infrastructure, eliminating the need for additional cabling around the perimeter.

The passive, all-optical sensor deployed along the perimeter fence monitors the complete perimeter with no supporting infrastructure: Simple, Convenient, Secure. The inert cable system is immune to all forms of electromagnetic energy "up to and including lightning" and fully complies with intrinsic safety requirements for oil and gas facilities. The cable, a rugged outdoor COTS (commercial, off-the-shelf) sensor cable, is impervious to the elements and will provide decades of maintenance-free operation.

Like all products in the FiberPatrol family, the FP1400 comes with a selection of convenient integration options: TCP/IP for network-based integration, RS-232 for local hardware integration, and zone relay contacts for a basic alarm interface. No proprietary elements are necessary for communicating with the system controller. The FP1400 is natively supported by the FiberPatrol Remote Alarm Management System (FPRAMS) and can also report to a variety of 3rd-party alarm management, video management, and physical security information management (PSIM) systems.

Features

> Cut Immunity
  - Remains Operational After Cable Cut

> 8 - 28 Virtual Detection Zones
  (Software Configurable)

> Industry Leading Environmental Rejection

> Multiple Simultaneous Alarm Detection

> Multiple I/O Options for Integration

> Convenient Camera Interface

> EMI / RFI & Lightning Immunity

> Requires No Electrical Power in the Field

> Cost-Effective, Simple Installation

> Can Be Installed on a Variety Of Fences

Specifications

System

Sensor Technology:	Software-defined virtual zones
Sensor Installation:	Single cable installed in a straight-line configuration
Max Sensor Length:	8200 ft. (2500 m)
Max. Lead-in Length:	Lead-in + Sensor ≤ 8200 ft. (2500 m)
Min. Zone Length:	100 ft. (30 m)
Max. Zone Length:	Unlimited
Min. Number of Zones:	8
Max. Number of Zones:	28 (in 4-Zone increments)
Installation Application:	Direct attachment to fence
Cut Immunity:	Yes

Sensor Cable

Cable Type:	Gel-filled loose tubes
Rating:	Outdoor aerial and duct
Fiber Count:	12 - 72
Optical Loss:	< 0.40 dB/mi (0.25 dB/km) @ 1550nm
Sensing Fiber Type:	Single mode, Corning SMF-28e+ or equivalent
Outer Diameter:	0.44" (1.1 cm)
Weight:	330 lbs/mi. (93.7 kg/km)
Compliances & Cert.:	ANSI/ICEA, IEC, RUS, Telcordia GR-20

Installation

Fence Type & Construction:	Direct attachment to fence

Electrical Power

Consumption / Field:	None
Consumption / Head End:	400 Watts maximum
Requirements / Head End:	100 - 240 Volts, 50 / 60 Hz

Sensor Controller / Optical

Laser Classification:	Class 1
Laser Wavelength:	1550 nm
Connector Type:	FC/APC

Alarm Processor / Software

CPU*:	1.86 GHz Intel Nehalem
RAM*:	6 GB DDR3
HDD*:	2x500 GB RAID array
Networking*:	Dual Gigabit NIC
Operating System*:	Windows 7 Pro 64bit
Default Alarm Interface:	XML over TCP/IP
Optional Alarm Interfaces:	RS232, relay contacts

* Similar or better configuration may be substituted

Head End Mechanical

Combined Dimensions:	19" x 19" x 16" (48 x 48 x 41 cm)
Combined Rack Space:	19" (48 cm), 9 RU
Rack Clearance:	2" (5 cm) [front], 6" (15 cm) [back]
Combined Weight:	125 lbs (56.7 kg)

* Includes a Sensor Controller and an Alarm Processor

Environmental

Op. Temp / Head End:	+50°F..+95°F (+10°C..+35°C)
Op. Temp / Field:	-40°F..+158°F (-40°C..+70°C)
Humidity / Head End:	20%..80%, non-condensing
Humidity / Field:	No restriction

Certifications and Compliance

Electromagnetic Compatibility:	FCC Part 15 Class A EC EMC Directive 2004/108/EC
Safety:	EC Low Voltage Directive 2006/95/EC

Made in the U.S.A.

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