LIGHTLOC® LIGHTSENTRY™ MONITORING SYSTEM

COST-EFFECTIVE AND RELIABLE PROTECTION

Large-scale site protection

Collins Aerospace LightLOC® LightSentry™ monitoring system is a cost-effective fiber-optic intrusion detection device in the LightLOC product family. It is designed for use with sizeable systems of LightLOC fiber optic Universal SmartSwitches and handles eight independently monitored fiber circuits in 3U of rack space. Each fiber circuit can have up to 25 sensors per line with splices or up to 50 sensors per line if the recommended fiber is pulled directly and no splices are required.

The system combines the optimum features of both our Express processor and our original Network OTDR-based monitoring system. The LightSentry system operates by constantly monitoring each of the eight fiber loops for a change in light flow. Once an issue is detected, the system isolates and automatically scans the particular fiber loop to identify the exact location of the detected intrusion. During an intrusion event, an alarm signal is triggered in less than one second, followed by a report of the specific intrusion location within 30 seconds or less.

The built-in display screen indicates which of the eight zones are in alarm along with the specific sensor location within the zone. The color-coded output provides the clear information needed for the security response to deploy if required or for a log to record date and time of anyone accessing the protected area via a manhole or portal.

KEY FEATURES AND BENEFITS

- Monitors up to 400 unique sensors
- Near zero false alarm rates
- Not sensitive to vibration or other environmental factors
- Eight independent fiber paths monitored
- Zone alarm detection in less than 1 second
- Unique alarm point display in less than 30 seconds
- Up to 25 sensors per fiber path with splices or 50 sensors per line without splices
- Standard 3U rack-mount chassis
- Long range monitoring to 30+ km standard
- Relay outputs connects to standard alarm panels
- Built-in test function
- Optimized for use with LightLOC fiber sensors

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SPECIFICATIONS

Unit dimensions	4.68"H x 17"W x 18"D
Optimal installation	3U Rack-mount in 19" rack; 3" Rear clearance required for connections
Input voltage & connection	12-24 VDC via terminal block
Monitored wavelengths	1550nm
Dynamic range	35+ dB Per Port
Number of fiber connections	8 circuits
Breach alarm threshold	2.9dB (+/- 15%)
Break alarm threshold	-60dBm (+/-15%)
Time to detect zone alarm	<1 second
Time to locate unique alarm point	<30 seconds
Operating temperature	0° C to 40° C
Automatic baseline	Standard
Test/control buttons	Pushbuttons (test breach, test break, baseline) *buttons control all ports simultaneously
Relay outputs	2 NO/NC dry contacts (momentary breach and break) per port
Device software	Firmware (no updates or licenses required)

LIGHTLOC OVERVIEW

Collins LightLOC is a patented, fiber-optic based security system for optimum perimeter and access security. The system provides monitoring of remote access points and perimeters using a family of sensors and cables. Monitored items can include manholes, gates, doors, underground pathways, perimeter vehicle detection systems, and custom applications. Monitoring is possible at distances of up to 30+ km without the need for electrical power at the monitored locations. The robust system eliminates false alarms commonly seen with other fiber-based security systems. Our system is inherently tamper resistant since altering or destroying optical components triggers an alarm automatically.

*Product is in development.
Specifications are subject to change without notice.

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