LIGHTLOC®

The Leader in Underground Pathway Protection

Express Processor

Express Overview

LightLOC Express is a cost-effective fiber-optic intrusion detection device in the LightLOC family of products. It is a zoned-based, modular version of the LightLOC Network System and is capable of monitoring any of the LightLOC sensing devices over miles of fiber including manholes, grates, gates, detection cable and denial cable. It is ideal for discrete points, small systems, and zones since it does not provide breach location capability.

Express operates by monitoring the power level of optical energy being transmitted and received through a zone. It is an adaptable device which learns the secure state of its zone and immediately detects an event exceeding the unit's threshold. Additionally, Express can differentiate between a sensor breach and a fiber break and is rated for indoor or outdoor use.

As outputs from the device, relays are provided on a rear terminal block in addition to indicator LEDs at the front of the module. Four (4) normally open and normally closed contacts provide communication between Express and an existing site security system. Relays include one each for a Momentary Breach Alarm, Momentary Break Alarm, Latched Breach Alarm, and Latched Break Alarm. In addition to providing relays, the rear terminal block provides access for remote module control. This includes the abilities to test the module remotely, set the secure state of the system, and acknowledge an alarm. Local control switches are available on the front of the module.

The system example on the following page illustrates the capability of the Express to monitor a unique combination of sensors.

Standard Features

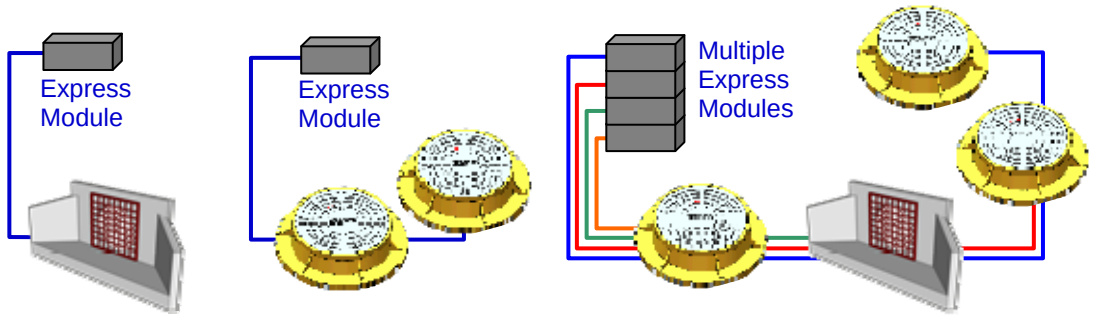
- Cost-Effective Fiber Intrusion Detection System
- Low False Alarm Rates
- Long-Range Monitoring to 25km Standard
- Low Power: 5VDC, <0.5A
- Indoor or Outdoor Use
- -40C to 70C Operating Temperature Range Available
- 1550nm Laser: -5dBm Typical, 0dBm Maximum Output Per Port
- Operation with Standard Single Mode Fiber
- Quick Alarm Detection
- Configurable to Adapt to Monitored System
- Differentiates Between a Breach and Break Alarm
- Momentary and Latched Relay Outputs for Breach and Break Alarms
- Self-Test Capability
- Remote Control Capabilities
- Optimized for Use With the LightLOC Sensors
- Stand-Alone or Rack-Mountable in 2U Chassis
- Low Maintenance

Express Security System:

Your Fiber-Optic Monitoring Solution

For additional information on the LightLOC® system, please contact Doug Piper at 864.963-5131 or dpiper@lightloc.com

Typical System Examples



Technical Details

Module Size	8 1/4" x 3 1/2" x 1 7/8"
Rack-Mount Chassis Size	2U
Input Voltage	5V typical, 4.5V to 5.5V acceptable
Input Power	2W typical, 3W Maximum
Fiber Type	Single mode
Monitored Wavelength	1550nm typically, 1310nm available
Dynamic Range	30 dB Minimum
Breach Alarm Threshold	2.9dB standard, 0.4dB to 3.5dB available
Break Alarm Threshold	-42 dBm
Time to Detect Alarm	<1 Second
Operating Temperature	0C to 40C (Indoor Units), -40C to 70C (Outdoor Units)
Storage Temperature	-40C to 80C
Device Life	10 Years In Controlled Environment
Outputs	Four NO and NC Relay Contacts, Momentary and Latched Breach and Break Outputs

Ordering Information

Stand Alone Express Module
Part Number 8X00052-001, Add –RC for RoHS Compliant

Rack Mount Express Chassis with n number of Express modules (n≤7)
Part Number 8X00054-00n, Add –RC for RoHS Compliant

LightLOC Overview

LightLOC is a patented, fiber-optic based security system providing the optimum in perimeter and access security. The system provides monitoring of remote access points and perimeters using a family of sensors and cables developed and made by LightLOC. Monitored items can include manholes, gates, doors, culverts, perimeter vehicle detection and vehicle denial cable systems, and custom applications. Monitoring is possible at distances of up to 25km without the need for electrical power at the monitored locations. The robustness of the system eliminates false alarms commonly seen with other fiber-based security systems, and LightLOC systems are inherently tamper resistant since altering or destroying optical components triggers alarms automatically.

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