FLEXPOWER NETLINK NLX

Expanded Network Communication Interface

Monitors 24 Total Devices | (8) SPI and (16) RS485 | Distributed Power Monitoring

Overview

LifeSafety Power® NetLink NLX module is part of the FlexPower® modular power management system for security and life safety applications.

NLX is an eight data port network module that communicates and controls power status over a local or wide area network. NLX also features an RS485 port to allow monitoring of up to 16 additional local or remote LSP devices through Distributed Power Monitoring.

Parameters Monitored

NLX monitors the following parameters. Most parameters also have programmable upper and lower thresholds for custom alerting.

- Power Supply AC Input Voltage
- Power Supply Output Voltage
- Power Supply Output Current
- Battery Charge Current
- Battery Voltage
- Battery Standby Time Measurement / Alert
- Power Supply Faults
- Lock Output Voltage
- Lock Output Current
- Impending lock failure
- Lock cycle count
- Tamper Switch
- External Temperature
- External Voltage
- External Current (x4)

Ordering

Model	Output	Dimensions	Weight
NLX	8 port/RS485 network module includes eight (8) RSMOD boards	6"H x 4"W x .75"D	.4 lb

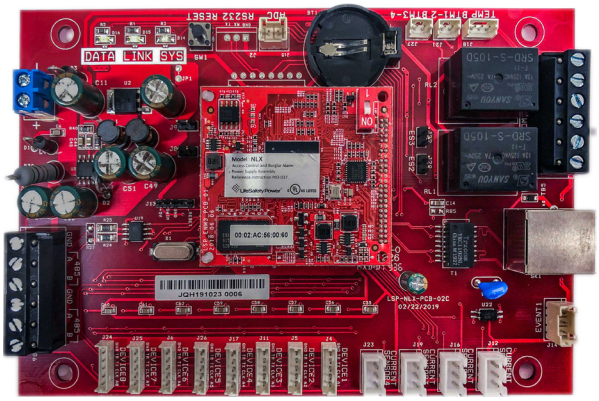
Provided with cables and mounting hardware.

Agency Listings

Domestic and International Certifications
UL294, UL1076, UL603, ULC S318, ULC S319, CSA C22.2 #205

Lifetime Warranty

FLEXPOWER UNIFIED POWER SOLUTIONS



Features

Monitoring and Reporting

- System Integrity
- Battery Health
- Output Condition
- 1000 Event Buffer

Remote Diagnostics and Service Features

- Monitor health and status of host power supply, battery set, and up to 192 individual outputs (requires Gen2 M8 modules)
- Auto-schedule, test, and report battery standby time
- Remote supervision of battery's state of charge
- Monitoring internal cabinet temperature
- Monitoring external room temperature with over/under temp alert
- Remote power cycling control of external equipment
- Time/Date stamp log reports last 1000 events

Email or SNMP Notification

- AC and system fault conditions
- Aging or drained battery, not meeting standby specification
- Fire Alarm Interface (FAI) activation
- External room temperature outside preset limit
- External Event activation
- Output condition (requires M8 module)
  - Over voltage or over current | voltage loss | output power cycled

SNMP Set and Trap Notification

- Version 1, 2, or 3

Hardened Cybersecurity

- Encrypted password, user and certificate logging

Contact factory for full feature list.

Distributed Power Monitoring (DPM) Features

- Monitor up to 96 doors plus the power supplies and batteries through a single network drop
- Reduces network drop installation costs & maintenance fees
- Reduces Cost Per Door by up to 20%
- Maximum distance of 2000 feet
- Monitor up to 24 LifeSafety Power devices across multiple enclosures

Distributed Power Monitoring Architecture

The NLX introduces Distributed Power Monitoring (DPM), allowing the lowest cost per door in multi-enclosure network managed applications.

Using DPM, the first enclosure contains a single NLX, which can monitor up to 24 LSP devices within multiple enclosures throughout a building (up to 2000 feet) through a single network drop, saving hardware, installation, and maintenance costs.

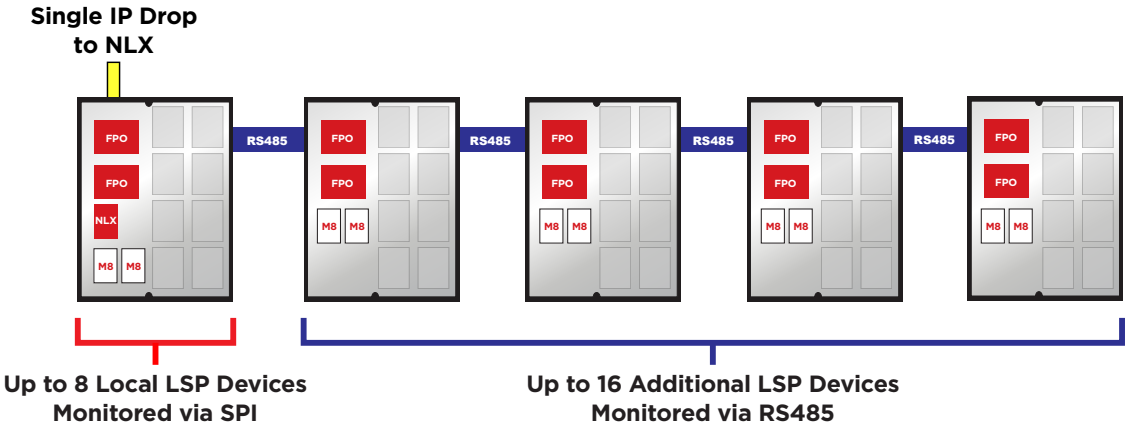
In the example scenario below, the first enclosure monitors the 16 door power system locally through the NLX SPI ports, while four additional 16 door systems are monitored through RS485 by the NLX within the first enclosure. This saves the cost of four additional NetLink devices plus four network drops and any recurring fees they may incur.

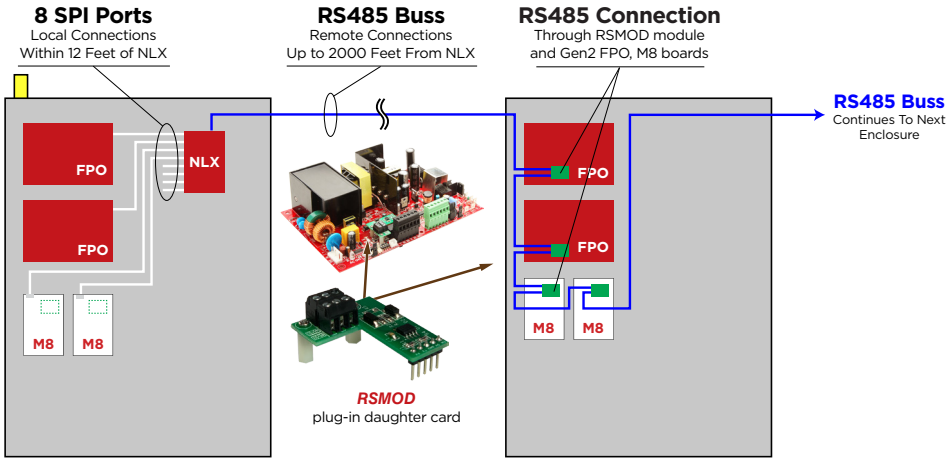
SPI Ports (Local Connections)

Eight SPI ports are provided for connection to LSP devices within the same enclosure as the NLX or in enclosures directly adjacent to the NLX (within 12 feet).

*RS485 (Remote Connections)

Up to 16 additional remote devices may be connected to the NLX through the on-board RS485 port. To connect these devices to the RS485 buss, the optional RSMOD daughter card needs to be installed on each FPO and M8 board in the RS485 loop. Eight RSMOD boards are included with the NLX - additional RSMOD boards may be ordered separately.





*RS485 Buss requires 2nd Generation FPO power supplies & M8 boards with the optional RSMOD daughter card plug in

NLX Module Details

NOTE: Please see the NetLink manual for full connection details.

Power Input—Easy terminal strip connection for NLX power

RS485 Port—Allows remote communication with up to sixteen LifeSafety Power devices for Distributed Power Monitoring

SPI Connections to Devices—Local connection for up to eight LifeSafety Power devices

Current Sensor Inputs—measures the current draw of a non-managed output, such as from a B100

Event 1 Input—Monitors the enclosure tamper switch or other switched DC sources

Network Connection—Communication to and from the local network to the NLX

Control Outputs—Dual Form-C relay outputs which can be controlled from the NLX interface. Useful for controlling or power cycling devices

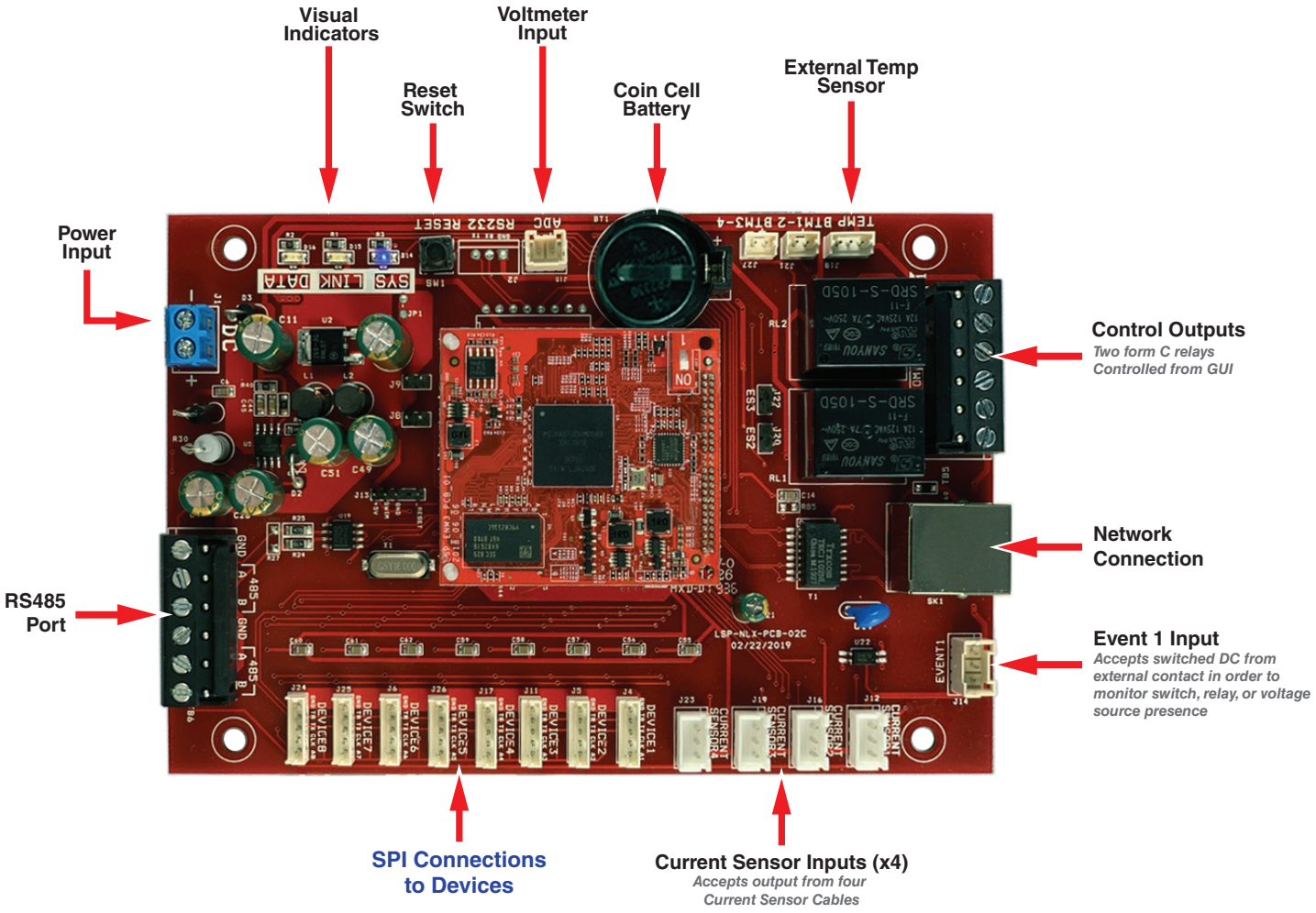
External Temperature Sensor—Measures the temperature of the IDF closet—programmable limits.

Coin Cell Battery—Backs up the real time clock in the event of a complete power failure

Voltmeter Input—measures the voltage of a non-managed output, such as from a B100

Reset Switch—Manually resets the user name and/or IP address to default

Visual Indicators—Display the status of the NLX and the network connection



NetLink Browser Home Screen

Network Dashboard

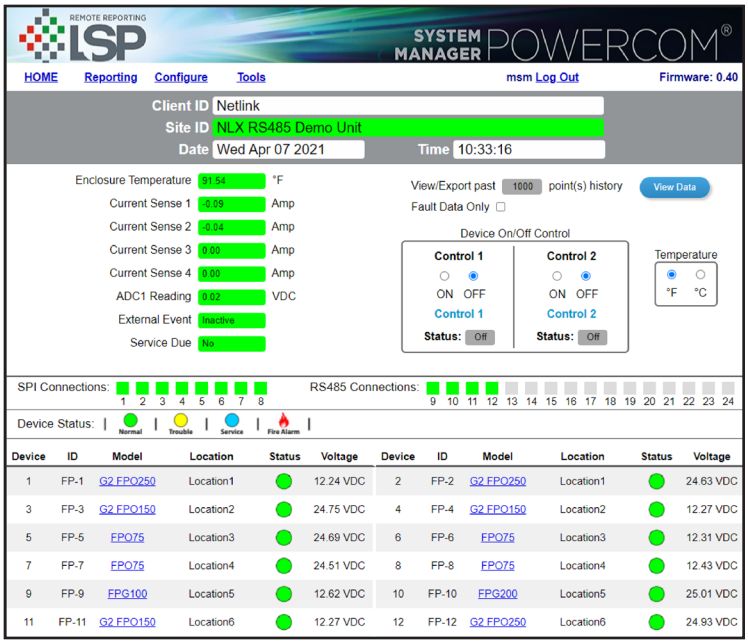
- Internal/External Temperature Sensors
- Current Sensor Reading
- Voltage Sensor Reading
- Event Activation Condition
- Service Due Report
- System Fault Log Report
- Device On/Off Control

NetLink Connected Devices

- Up to 8 power supplies
- Up to 24 M8 boards
- Up to 24 total devices
- Visual status of device condition

Report Screen

- Set up screen
- What to report, when to report



Configure Screen

- Network, email, SNMP settings
- Current sensor calibration
- Battery life/capacity setting

Power Supply Screen

- Set FPO battery charge current
- Set fault report delays
- Reset timer for new battery install
- Reset fault counters

Tools Screen

- Upgrade software
- System reboot
- System activity log

Monitoring/Reporting/ Test/Control Functions

Monitored Parameters

- Power Supply Output Voltage
- AC Fault Status
- System Fault Status
- Fire Alarm Input Status
- Battery Voltage and Charge Current
- Battery Age
- External Room Temperature
- Total Number of System Faults
- Total Number of AC Faults
- DC Load Current (system or battery)
- DC Output Voltage (system and battery)
- Event 1 (user specified)

Programmable Functions

- AC Fault Delay
- System Fault Delay
- System Install Date
- Reset Fault Counters
- Optimal Battery Charge Current
- Reset Battery Age Counter
- Battery Replacement Period
- Temperature, Current, Voltage Trigger Parameters

Control Functions

- Relay 1 (on or off)
- Relay 2 (on or off)

Event-Triggered Email Alerts & Reports

- AC or System Fault Occurrence
- FAI Activation Occurence
- Low Battery Occurrence
- Battery Load Test Completed
- General System Status Report
- Scheduled System Service Due
- Battery Replacement Due
- External Temperature Sensor
- Event Activation Alert (user specified)

Test Functions

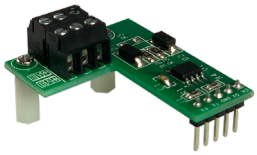
- Battery run time capacity
- Battery state of charge

Ordering

Model	Output	Dimensions	Weight
NLX	8 port/RS485 network module includes eight (8) RSMOD boards	6"H x 4"W x .75"D	.4 lb
RSMOD	RS485 module for Gen2 FPO/M8	1.5"H x 1.3"W x .9"D	.1 lb
RSMOD-QTY-8	Quantity 8 RSMOD for Gen	1.5"H x 1.3"W x .9"D	.1 lb/ea

Provided with cables and mounting hardware. Eight RSMOD boards provided

NOTE: Note: Remote monitoring of 16 devices through RS485 requires Gen2 FPO and M8 modules with the optional RSMOD daughter card plug-on. Eight RSMOD boards are included with each NLX.



RSMOD daughter card for RS485 communication.

Specifications

Parameter	Rating
Input Operating Voltage	8 to 30 VDC
Input Operating Current	120 mA nominal
Network Data Rate	10/100 Mbps
Voltage Measurement Range	0 to 30 VDC ±3% (10-30V)
Current Measurement Range	0 to 20A ±0.1A +5% of reading
Event Input	8 to 30 VDC
Output 1, 2 (relay contacts)	5A Maximum

Application Example — FPO150/150-6M8NLXE4

A large higher-education facility constructing a new residence hall had the requirement of monitoring over 200 new door openings in the smallest possible footprint.

By utilizing multiple FPO150/150-6M8NLXE4 power systems, they were able to manage 48 openings within each 24x20 enclosure.

The NLX monitors all 48 outputs as well as power supply status, battery condition, AC line voltage and other critical features—all from a single network drop.

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