

Four Port Network Communication Interface for Remote Power Monitoring, Reporting and Control U.S. Patents 8,566,651 / 9,098,390





Features and Functions

Monitoring and reporting **FLEX**P○WER® systems for

- 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 twenty four individual outputs* (*requires M8 module)
- · 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 temp alert
- Remote power cycling control of external equipment
- Time/Date stamp log reports last 1000 events

Email notification on

- · AC and system fault conditions
- · Aging or drained battery, 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

| Ordering | | Mechanical Information |
|----------|-----------------------|--|
| NL4 | 4 port network module | Size: 4" x 2.5" x 1.5" Weight: .25 lb. |

Cables and mounting hardware provided

Description

The LIFESAFETY POWER NETLINK™ module is part of FLEXPOWER's patented power management system for security and life safety applications.

NL4 is a four data port network module that communicates and controls power status over a local or wide area network. The NL4 provides four SPI ports for connection to FlexPower devices that enables monitoring and control of the power system. Typical data gathered and reported includes operational fault status, power supply output voltage, battery charging voltage, battery charging current, and fire alarm input status.

Automated reports may be generated on any detected fault condition, battery aging, fire alarm interface activation, and event activation, or on a time base for scheduled confirmation of proper operation. A time and date stamped log of the past 1000 events is kept as history in a buffer and may be accessed as a scheduled report, or immediately on an alert or occurrence. The buffer is updated once per hour with all parameters in normal range.

In addition to four SPI connections, the NL4 provides two current sensor inputs, a remote temperature sensor input, a volt meter input, and a contact monitor input. The current, voltage, and temperature sensors may be given upper and lower limits to trigger an alert if the measured value goes out of range. The contact monitor input may be programmed to respond to either a normally open or normally closed contact or voltage presence or loss. Two outputs are also provided for use in power cycling external equipment with RB relay modules or interfacing to the C4. C8. or M8 modules.









| Electrical Ratings | Specification | |
|------------------------------|-------------------------------|--|
| Input Operating Voltage | 9 to 30 VDC | |
| Input Operating Current | 60 mA nominal | |
| Network Data Rate | 10/100 Mbps | |
| Voltage Measurement Range | 1 to 30 VDC ±5% | |
| Current Measurement Range | 0 to 20A ±0.1A +5% of reading | |
| Event Input | 9 to 32 VDC | |
| Output 1, 2 Max Sink Current | 50 mA nominal | |
| | | |

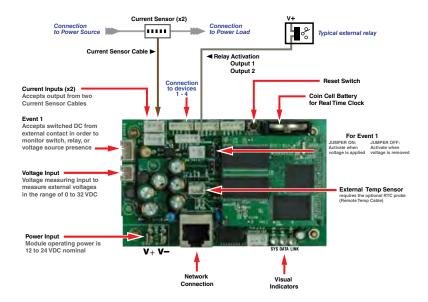
Agency Listings UL2044, UL294, UL60950-1

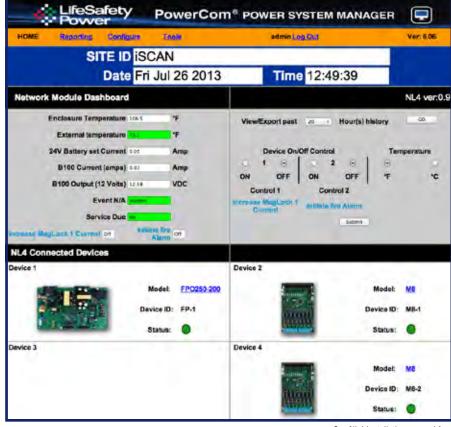
Lifetime Warranty

Monitoring / Reporting / Test / and Control Functions

| Monitored Parameters | Programmable Functions | Event-triggered Email Alerts & Reports |
|--|--|---|
| Power Supply Output Voltage | AC Fault Delay | AC or System Fault Occurrence |
| AC Fault Status | System Fault Delay | FAI Activation Occurence |
| System Fault Status | System Install Date | Low Battery Occurrence |
| Fire Alarm Input Status | Reset Fault Counters | Battery Load Test Completed |
| Battery Voltage and Charge Current | Optimal Battery Charge Current | General System Status Report |
| Battery Age | Reset Battery Age Counter | Scheduled System Service Due Alert |
| External Room Temperature | Battery Replacement Period | Battery Replacement Due Alert |
| Total Number of System Faults | Temperature, Current, Voltage Trigger Parameters | External Temperature Sensor Alert |
| Total Number of AC Faults | | Event Activation Alert (user specified) |
| DC Load Current (system or battery) | Control Functions | Test Functions |
| DC Output Voltage (system and battery) | Output 1 (on or off) | Battery run time capacity |
| Event 1 (user specified) | Output 2 (on or off) | Battery state of charge |

Module Connections





See NL4 installation manual for comprehensive guide to features

NL4 Browser Home Screen

Network Dashboard

- Internal / external temperature sensors
- · Current sensor reading
- Voltage sensor reading
- · Event activation condition
- Service due report
- · System log report
- · Device on/off control

NL4 connected devices

- Two power supplies and 16 managed outputs
- One power supply and 24 managed outputs
- · 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

Programming Screen

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

Tools Screen

- Upgrade software
- System reboot
- · System activity log

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Specifications subject to change without notice.

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