

LightLEEDer Connectivity Advantages

LightLEEDer has the capability to connect up to 255 panels and 16,575 devices in a single network. Each standard panel is provided with an on-board USB, and can also be provided with an optional TCP/IP interface. LightLEEDer has a full line of optional BMS/EMS connectivity interfaces for all of the popular serial protocols available in a panel or gateway device for status and control.

Data Line:

Using ILC's LightSync data line, you can connect panels and devices with standard CAT-5 cable and RJ45 connectors to create a seamless lighting network. The LightSync data line is a solid, reliable, and economical solution for system communications. We keep it simple with proven technologies, which eliminates complicated commissioning and problems in the future.

Internet:

With the TCP/IP option and LightLEEDer Pro software, you can access the LightLEEDer system across the internet. This allows users to monitor lighting loads, update operating schedules, and monitor system status from their remote location. This can significantly reduce the complexity, cost, and maintenance requirements of having to provide onsite programming.

BMS Interface:

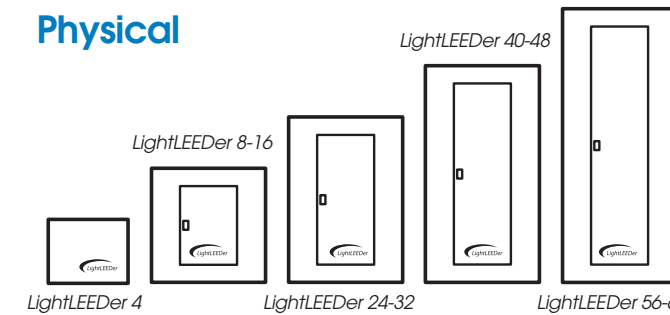
The LightLEEDer system using the optional Serial Interface Module provides control from any building automation system using BACnet IP, BACnet MSTP, Modbus RTU, Modbus ASCII, Modbus TCP, LonWorks, Metasys N2, or ILC serial open protocol. With the panel module, commands can be sent to the panel to force relays On and OFF, monitor relay status, monitor input status, and enable/disable inputs. A single point gateway is available for control and status of relays, groups, and presets across the network.

LightLEEDer Upgrade Path

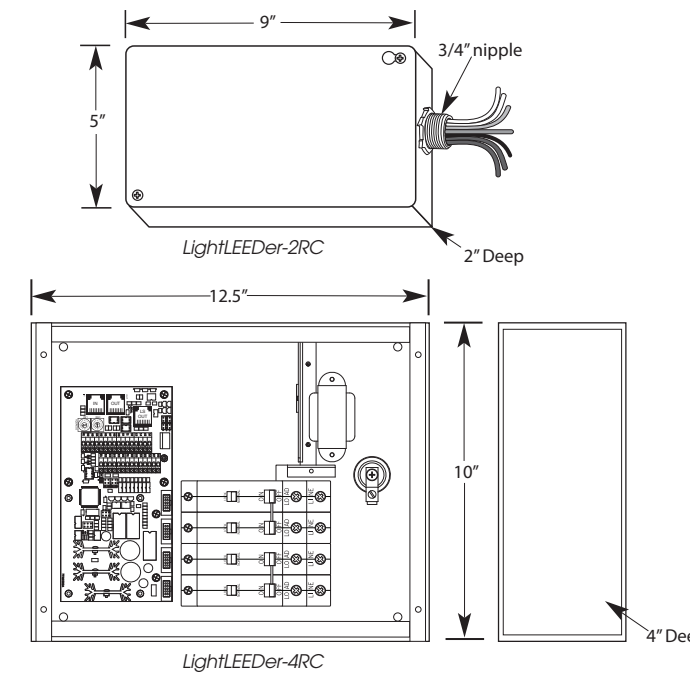
Do you have an outdated lighting controller that needs to be upgraded or retrofitted? ILC has a multitude of options for upgrading your system regardless of what is installed at your facility. All of the enhanced features of the LightLEEDer system will be available with our retrofit system, from LightSync switches to BAS control. Upgrades can vary from totally gutting the panel's electronics and relays, to just replacing the controller itself.



Physical



Enclosure Size Options (NEMA Type 1 w/cover)				
Enclosure Type	Relays	Width	Height	Depth
LightLEEDer 4	1 to 4	14 in.	11 in.	6 in.
LightLEEDer 8-16	1 to 16	20 in.	20 in.	6 in.
LightLEEDer 24-32	1 to 32	20 in.	29 in.	6 in.
LightLEEDer 40-48	1 to 48	20 in.	38 in.	6 in.
LightLEEDer 56-64	1 to 64	20 in.	48 in.	6 in.



Standard Panel Specifications

Physical:

- 8 - 64 relay panels have a double-sided construction for mounting directly to breaker box or stand alone
- Pre-drilled mounting holes for easy installation
- Provided with a removable hinged locking door for flush or surface mounting, dead front door for 4 size enclosure
- 8 - 64 relay panels' footprint matches typical breaker panels
- High-voltage barriers separate Normal/Emergency and Class 1/Class 2 wiring

Electrical:

- 120 or 277 VAC @ 1 Amp, 347 VAC optional

Capacities:

- Up to 64 single pole relays
- Up to 4 add-on modules

Relays:

- 40 Amps @ 120, 277 and 347 VAC
- 1, 2, or 3 pole configurations
- SCCR rated 18KA
- Latching relay
- Switch type override control
- Lockout feature disables control from panel

Safeguards:

- Power surge and spike suppression** up to 123 volts on the 24VAC power input
- Data Line surge and spike suppression** up to 8Kv and 15Kv through air
- Memory retention** for firmware and programming up to 200 years and electrostatic discharge to 4KV
- Real-Time-Clock time retention** 45 days or greater without power
- Internal memory backup** and restore

Operating Environment:

- Location: Interior environments
- Operating Temperature: 0° to 50° C (32° to 112° F)
- Humidity: 10% - 90% Non-condensing
- Atmosphere: Non-explosive/corrosive
- Vibration: Stationary

Room Controller Specifications

Physical:

- LL-2RC Enclosure: 5" x 9" x 2" NEMA 1 with screw cover, 3/4" nipple for mounting to an electrical box, 6" wire leads provided for high voltage connections
- LL-4RC Enclosure: 12.5" x 10" x 4" NEMA 1 with screw cover
- Provided with pre-drilled mounting holes
- High voltage barriers separate Class 2 wiring
- Ground connection included
- Clearly marked connections

Integrated Interfaces:

- 4 inputs for hard wired switches or occupancy sensors
- Power for occupancy sensors
- Dimming 0-10V outputs for controlling up to 4 zones
- Photocell controller for 2 heads or zones
- LightSync port for up to 2 data line switches

Electrical:

- 120/277VAC @.5 amps (120/347VAC Optional)
- Input: 24 VDC @ 200mA maximum draw
- Dimming: 100mA sink

Relays:

- Superior breaker style design
- 40 Amps ballast or resistive loads, de-rated to 30 amps for LL-2RC
- 1-pole relays only
- SCCR rated 18KA

Certifications and Approvals:

- UL
- CUL
- FCC Part 68
- Title 24
- FCC Part 15
- ASHRAE compliant



Intelligent Lighting Controls, Inc. • www.ilc-usa.com • 1-800-922-8004



Made in the USA
relays and hardware

A NEW STANDARD IN LIGHTING CONTROL PANELS



Conservation Through Efficiency

Reduce the cost and complexity of lighting control projects while maximizing energy savings.

INTELLIGENT LIGHTING CONTROLS, INC.
www.ilc-usa.com



Made in the USA

The Industry's Most Intelligent Lighting Solutions

For over 25 years, Intelligent Lighting Controls, Inc. has been a leader in the lighting control industry. We engineer and manufacture all of our products, including our specially designed relays. This allows us to maintain superior quality control every step of the way. At ILC, we're committed to constantly improving our products and services while providing the most innovative, reliable lighting control solutions available.

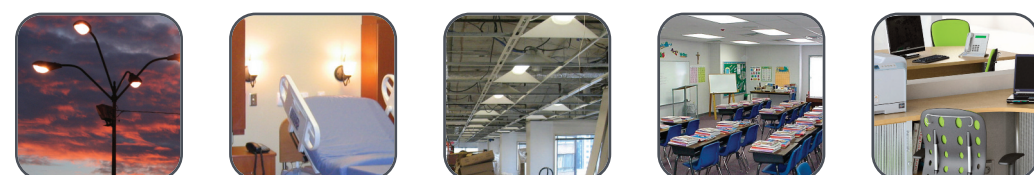
All ILC hardware and software products are developed locally. Final panel assemblies are completed and shipped from our Minneapolis location. We can proudly say that all of our products are **MADE IN THE USA!**

Lighting control is all we do, which allows us to focus our efforts on providing:

- User-friendly lighting control systems that deliver big energy savings
- Controllers that are easily network expandable
- Superior relay design
- Lighting control products that are practical for retrofit and new construction.
- Products that are specific to your individual needs, completely factory wired, tested, and fully documented
- Detailed and comprehensive submittal documentation
- Lighting control system that will help you achieve LEED certification

LightLEEDer — Maximum Performance. Minimum Effort.

LightLEEDer lighting controllers are equipped with high quality processors, with speed and advanced capabilities. They're a perfect fit for projects seeking LEED certification and are available in sizes ranging from our 2 and 4 relay room controllers that integrate dimming and photo control to a full size panel with 64 relays. Every LightLEEDer panel includes the robust Reliant40 Relay, featuring a true 40 amp load rating and a design that ensures the long life and dependable operation industry professionals have come to expect from ILC. LightLEEDer controllers feature a true distributed intelligence network. The LightLEEDer panel is flexible — excelling as a stand-alone controller, in a simple network or integrated into an extensive campus-wide networked system. In addition, LightLEEDer has a full line of accessories to complement the system which include; data line switches, occupancy sensors, photo sensors, touch screens, BAS interfaces and more for a complete and dependable lighting controller.



LightLEEDer Overview

Features

• Made in the USA relays and hardware	▶ Reliable, dependable materials for long life
• USB, modem and TCP/IP connectivity available	▶ Flexible access for programming and control
• Integrated surge suppression	▶ Built-in protection for panel electronics
• Built-in programming backup and restore	▶ Easily restore original programming
• Data Logging allows extractable data for trending	▶ Allows system analysis of efficiency and management and runtime monitoring
• LightSync Data Line Device Ready utilizing RJ45 connectors and standard CAT-5 cabling	▶ Easy to install and eliminates excessive wire
• Network Capability gives you the ability to connect up to 255 panels per network and 64 LightSync devices per panel, plus an additional 255 devices on the panel network for a total of 16,575 devices	▶ LightLEEDer offers an unparalleled capacity to effortlessly expand your network as needs change, protecting your investment
• Occupancy Sensor Input for direct interface with sensor power provided	▶ Allows direct interface without expensive power packs
• Dimming allows control of ballast or device that accepts line dimming or standard 0-10V control	▶ Decreases lighting loads saving energy
• Motor Control Module for interfacing louvers or shades	▶ Integrates lighting control and shade control in one system
• Serial Communications Modules can be added to each controller which include BACnet IP, BACnet MSTP, Modbus RTU, Modbus ASCII, N2, LonWorks, DMX512, DTMF telephone switching and modem	▶ Interface seamlessly with BAS, security, and theatrical systems
• Programming Options are performed with an integrated 4-line LCD keypad or using LightLEEDer Pro software via USB, modem and TCP/IP	▶ Access to powerful programming features available at the panel or remotely with free software
• Switching Inputs accepts virtually any type of switch input, momentary or maintained, 2- or 3-wire hard-wired switch inputs locally or remote	▶ Maximum flexibility to accept any type of switch
• Switch Input Flexibility is provided with time-of-day function change which can disable or change the switch control dependent on time. It also has "and/or" and "if/then" logic built in.	▶ Allows any switching priority logic for complicated scenarios
• Relay Groups can be comprised of any relay on the network and be assigned to any of the 256 groups available controlled by any timer, switch, or other external commands	▶ Simplifies programming and control
• Relay Presets can be programmed from any relay ON/OFF patterns and be assigned to any of the 256 presets available and controlled by any timer, switch, or other external commands	▶ Set lighting scenarios at the push of a button
• Timer Scheduling for 128 available timers that can turn relays ON or OFF for Time-of-Day, Astronomical times, and Open/Close hours	▶ Ample number of time schedule events.
• Clock Functions features Automatic Astronomical calculation of Sunrise and Sunset and Adjustable Daylight Saving Time and an enable/disable feature	▶ Once set, there is virtually no adjusting required

Benefits

LightLEEDer Accepts a Full Range of Control Devices

