Lighting Control Panels

Interior and exterior lighting can account for 40% of all energy costs on a property. Recover as much as 25-50% of that cost in the first six months of implementing HBA's LX networked lighting control system. LX is a network of expandable and modular relay panels, sensors and switches. Take control of your lighting near or far with its intuitive programming interface, touchscreen tablet and remote access via LAN and Internet.

Connect to any point on the topology-free, polarity-insensitive, 2-wire LON communication network with our LonMark® certified architecture. Install sensors and switches "plug-and-play" for endless possibilities in control and savings.

SAVE TIME

LX control panels are simple to install and use. The LX series utilizes LonMark® certified architecture so sensors and switches can be installed plug-and-play by connecting to any point on the topology-free, polarity-insensitive 2-wire communication network.

FLEXIBILITY

The LX networked lighting controls use a hand-held touchscreen GUI interface that keeps up with the constant progression of lighting control systems.

IMPROVE THE EASE OF LIGHTING CONTROL

- Unique hand-held touchscreen GUI
- Robust and reliable 20Amp mechanically-latching relays
- Multiple size enclosures available (4, 8, 16, 32, and 48 relays)
- Powered, topology-free, polarity-insensitive, 2-wire communication
- LonMark® certified
- Seamless integration with major building protocols, such as LON, BACnet® and MODBUS®
- Feature-rich scheduling functions
- 365-day time clock
- Automatic daylight savings time and leap year compensation
- Built-in astronomical time clock for sunrise and sunset programming

LX Lighting Control Panels

LX SERIES NETWORKED LIGHTING CONTROLS

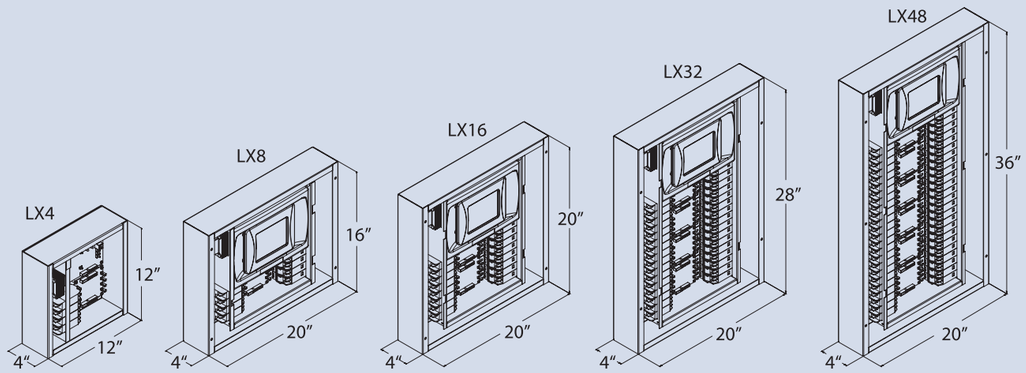
CALIFORNIA TITLE 24 CEC COMPLIANT · LONMARK · 120 347 VAC

LX Networked Lighting Controls

The LX Series Network Lighting Control Panels are the core of the LX system providing programmable switching control of the project's lighting circuits. Multiple panels are equal peers on the network and can have relays controlled individually or in groups by any input, schedule, preset or Building Automation System.

PRODUCT FEATURES

- Unique hand-held touchscreen graphical user interface (GUI) (Order Separately)
- Robust and reliable 20 Amp mechanically latching relays
- Multiple size enclosures available (4, 8, 16, 32, and 48 relays)
- Topology-free, polarity-insensitive, 2-wire communication
- LonMark ® certified
- Feature-rich scheduling functions
- 365-day time clock
- Automatic Daylight Savings Time and leap year compensation
- Built-in astronomical time clock for sunrise and sunset programming
- Five-year limited warranty



General Specifications

Programming and Configuration	Programmable via the LX Touch Tablet or LX JENEsys™
Physical	NEMA 1 enclosure, surface or recessed Pre-drilled mounting holes for easy mounting either to the uni-strut framing or directly to wall, KO's provided on top and bottom Removable interior assembly 4, 8, 16, 32, and 48 relay enclosures with hinged locking door
Electrical	120/277/347VAC multi-tap transformer 120, 277, and 347VAC 20 Amp Single Pole Relays 208, 240, and 480VAC 20 Amp Double Pole Relays
Operating Environment	Location: interior space Operating temperature: 0° to 50°C (32° to 112°F) Relative humidity (non-condensing): 10%–90%
Certifications	UL and cUL listed (UL 508, 916 and UL 924) LonMark 3.3 Certified
Warranty	Five-year limited

Ordering Information

LXIN			
MODEL	RELAY CAPACITY	NUMBER OF SINGLE POLE RELAYS	NUMBER OF DOUBLE POLE RELAYS
LXIN LX Relay Panel Interiors	**4** **8** **16** **32** **48**	**00-48** (Depending on Size)	**00-24** (Depending on Size)

LXEN		
MODEL	SIZE	TRIM
LXEN LX Relay Panel Enclosure	**4** **8** **16** **32** **48**	**F** Flush **S** Surface

*NOTE: Number of poles cannot exceed the relay panel size.
Example: A LX Series Relay Panel is comprised of 2 separate part numbers, 1 for the interior and 1 for the enclosure — they must be the same size.

Example:
32 Relay Interior with 4 Single Pole Relays and 4 Double Pole Relays: LXIN32 04 04
Enclosure to complete specifications - LXEN325

LX Relays

LX SERIES NETWORKED LIGHTING CONTROLS

UL LISTED | 120 347 VAC | 480 VAC

LX Networked Lighting Controls

LXRL1

LXRL2

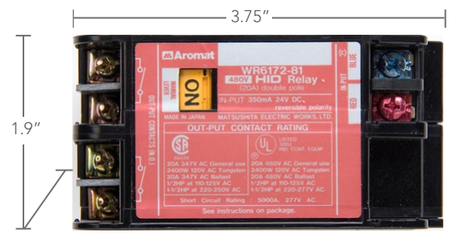
The heart of any lighting control system is the relay. With today's new high in-rush lighting loads and demanding inductive switching requirements, only the most robust relays are capable of keeping up with the demands placed upon them.

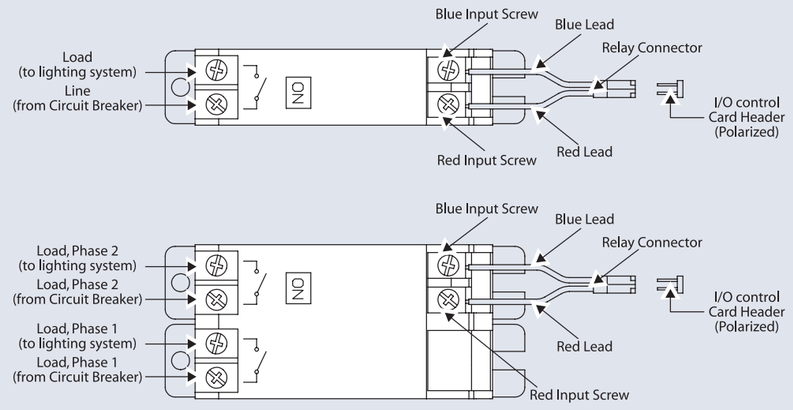
LX Relays are recognized as the industry's most robust and reliable relays on the market today. With a 2,000 Amp in-rush current and 14,000 Amp short circuit current, our relays are built to last.

NETWORK

PRODUCT FEATURES

- Robust and reliable mechanically latching relay
- Suitable for high in-rush loads up to 2,000 Amps
- 14,000 Amp SCCR @277VAC
- 120, 277 & 347VAC Single Pole
- 208, 240 & 480VAC Double Pole
- Built-in manual override lever & ON/OFF indicator
- UL Listed
- Five-year limited warranty





General Specifications

Physical	Mechanically-held latching relay Mounts in LX panel to supplied mounting bracket Built-in manual override lever & ON/OFF indicator on each relay Tool-less insertion and removal of relay
Electrical	UL Endurance Test 60k Operations at 20A, 300VAC 14,000 Amp short circuit current @277VAC* 20 Amp Single Pole – 120, 277 & 347VAC 20 Amp Double Pole – 208, 240 & 480VAC ½HP@110-125VAC, 1 ½HP@220-277VAC
Operating Environment	Location: Interior space Operating temperature: 0° to 50°C (32° to 122°F) Relative Humidity: 10% to 90% non-condensing
Dimensions	Single Pole: 3.75″L x 0.9″W x 2.3″D Double Pole: 3.75″L x 1.9″W x 2.3″D
Certifications	UL & cUL Listed (UL 508)
Warranty	Five-year limited

*Applicable to Single Pole Relay only.

Ordering Information

LXRL1	LX Relay, Single Pole, 120/277/347VAC
LXRL2	LX Relay, Double Pole, 120/277/347VAC

LXBC Breaker Control Panels

LX SERIES NETWORKED LIGHTING CONTROLS

CALIFORNIA TITLE 24 COMPLIANT | LONMARK | 120 277 VAC | 480 VAC

LX Networked Lighting Controls

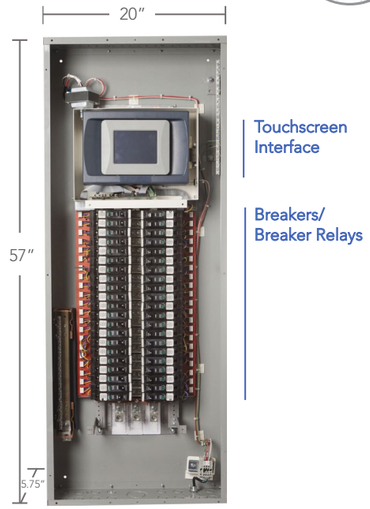
NOTE: Touch Screen Graphic User Interface (GUI) not included. Order Separately.

The LXBC Breaker Control Panel provides the opportunity to combine controlled and non-controlled loads into a single, fully functional branch circuit panel board. The LXBC integrates seamlessly into the LX Lighting Control Network and can be used as a stand-alone LX control panel or combined in a network with other LX and/or LXBC panels.

PRODUCT FEATURES

- Unique, hand-held touch screen graphical user interface (GUI) (Order Separately)
- Robust and reliable 20 and 30 Amp mechanically latching circuit breaker/relays
- Multiple size enclosures available (12, 18, 30, and 42 spaces)
- 100 AMP, 225 AMP or 400 AMP bussing Main Lugs or Main Circuit Breaker
- 120/208V, 3PH, 4W or 277/480V, 3PH, 4W
- Topology-free, polarity-insensitive, 2-wire communication
- LonMark ® certified
- Feature-rich scheduling functions
- 365-day time clock
- Automatic Daylight Savings Time and leap year compensation
- Built-in astronomical time clock for sunrise and sunset programming
- Five-year warranty

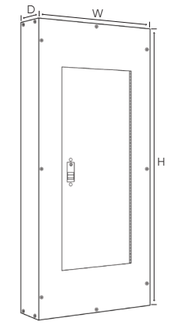
NETWORK



General Specifications

Programming and Configuration	Programmable via the LX Touch Tablet
Physical	NEMA 1 enclosure, surface or flush mount NEMA 3 enclosure, surface or flush mount KOs provided on top and bottom 12, 18, 30, and 42 space enclosures with hinged locking door
Electrical	120VAC input control voltage at terminal block 15 Amp, 20 Amp and 30 Amp 1-pole and 2-pole Circuit Breaker/Relays Non-Control circuit breakers 15A – 100A, 1,2, and 3-pole 100 AMP, 225 AMP or 400 AMP Lugs Only or Main Circuit Breaker, CU/AL Lugs Bottom Feed only, Top Feed is not available. 120/208V, 3PH, 4W or 277/480V, 3PH, 4W system voltage, 14KAIC @277/480V, 65KAIC Series Rated with main CB
Operating Environment for NEMA 1 Rated Equipment	Location: interior space Operating temperature: 0° to 50° C (32° to 112° F) Relative humidity (non-condensing): 10% to 90%
Certifications	UL listed (UL 916) LonMark 3.3 Certified
Warranty	Five-year limited
Dimensions	

			H	W	D
12 Breaker Panel	100 amp	Main Lugs Only	33"	20"	5.75"
		Main Breaker	36"	20"	5.75"
18 Breaker Panel	100 amp	Main Lugs Only	36"	20"	5.75"
		Main Breaker	42"	20"	5.75"
30 Breaker Panel	100 amp	Main Lugs Only	42"	20"	5.75"
		Main Breaker	48"	20"	5.75"
	225 amp	Main Lugs Only	45"	20"	5.75"
		Main Breaker	51"	20"	5.75"
42 Breaker Panel	225 amp	Main Lugs Only	51"	20"	5.75"
		Main Breaker	57"	20"	5.75"
	400 amp	Main Lugs Only	57"	20"	5.75"
		Main Breaker	69"	20"	5.75"



Ordering Information

LXBC			B		H	
MODEL	SYSTEM VOLTAGE	MAINS	FEED	RELAY SPACES	COMMUNICATIONS	ENCLOSURE
LXBC LX Breaker Control Panel	**1** 120/208, 3 Phase, 4 Wire **2** 277/480, 3 Phase, 4 Wire	**IL** 100 Amp Main Lugs Only **IC** 100 Amp Main Circuit Breaker **2L** 225 Amp Main Lugs Only **2C** 225 Amp Main Circuit Breaker **4L** 400 Amp Main Lugs Only **4C** 400 Amp Main Circuit Breaker	**B** Bottom Feed Only (Top Feed is not available)	**12** 12 Spaces **18** 18 Spaces **30** 30 Spaces **42** 42 Spaces NOTE: 42 space is available in 225A and 400A main size only.	**H** HBA LX-Lon	**1S** NEMA 1 Surface **1F** NEMA 1 Flush **3S** NEMA 3 Surface **3F** NEMA 3 Flush

Example: Panel, Controlled Circuit Breaker/Relays, and Non-Controlled Breakers must be ordered as separate line items:

1 ea	LXBC11CB30H1S 100A Main Circuit Breaker, 120/208V, 3 Phase, 4 wire, 30 Space, NEMA 1 Surface, Bottom Feed, CU/AL Lugs
18 ea	LXBR120C – 20A, 1P, Controlled Circuit Breaker/Relays (18 ea)
12 ea	LXBR120N – 20A, 1P, Non-Controlled Circuit breakers (12 ea)

LXBR Circuit Relays and Circuit Breakers

LX SERIES NETWORKED LIGHTING CONTROLS

CALIFORNIA TITLE 24 CEC COMPLIANT

120 277 VAC

480 VAC

LX Networked Lighting Controls

1-Pole

3-Pole

Non-controlled Circuit Breakers

The LXBR Circuit Breaker/Relays and Circuit Breakers are the heart of the LX Breaker Control Panel Series. The use of a combination LXBC Lighting control panel can save space by providing controlled and non-controlled loads in any combination.

LXBR Circuit Breaker/Relays communicate seamlessly with the LX Lighting Control System to provide both control and branch circuit protection for the project's lighting loads.

PRODUCT FEATURES

- Robust and reliable 20 and 30 Amp mechanically- latching Circuit Breaker/Relays
- Circuit Breaker/Relays are available in 1-pole, 120/277V and 2-pole, 480V
- Non-controlled Circuit Breakers are available in 1-pole to 120/277V and 2-pole or 3-pole, 480V
- All devices are rated for switching duty (SWD)
- 14,000 Amp interrupting capacity (AIC)
- Built-in ON/OFF indicator lever
- Five-year limited warranty

NETWORK

Controlled Circuit Breaker/Relay
1-Pole shown (2-Pole also available)

General Specifications

Physical	Mechanically-held latching circuit breaker/relay or non-controlled circuit breaker Mounts in LXBC panel bus with bolt into pre-drilled and tapped hole Built-in ON/OFF indicator lever on each circuit breaker/relay Power to panel must be disconnected for insertion and removal of devices
Electrical	600VAC 20 Amp and 30 Amp Single and Double Pole Circuit Breaker/Relays Non-Control circuit breakers 15A – 100A, 1,2, and 3-pole 14KAIC @277/480V, 65KAIC Series Rated with main CB Circuit Breaker Relays – Maximum duty cycle of 6 Open/Close cycles per minute
Operating Environment for NEMA 1 Rated Equipment	Location: interior space Operating temperature: 0° to 50° C (32° to 112° F) Relative humidity (non-condensing): 10% to 90%
Certifications	UL listed (UL 489)
Warranty	Five-year limited

Ordering Information

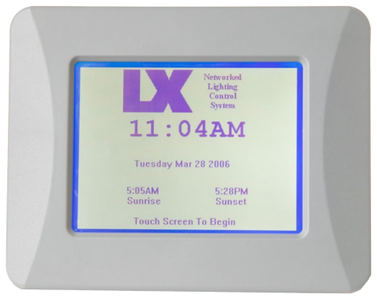
LXBR | ____ | ____ | ____

MODEL	NO. OF POLES	AMP RATING	CONTROL
LXBR LX Breaker Relay or Breaker	**1** 1-Pole	**15** 15 Amp	**C** Controlled
	2 2-Pole	**20** 20 Amp	**N** Non-Controlled
	3 3-Pole	**30** 30 Amp	
		40 40 Amp	
		50 50 Amp	
		60 60 Amp	
		70 70 Amp	
		90 90 Amp	
		100 100 Amp	

NOTE: Controlled Breaker/Relays are available in 15A, 20A and 30A 1-Pole and 2-Pole ONLY.

CALIFORNIA TITLE 24 COMPLIANT CEC

LX Networked Lighting Controls



LXTB

The LXTB Touch Tablet Graphical User Interface provides easy-to-use intuitive access to the LX System programming. The Tablet allows the user to program the system, view status of devices and relays, and make changes to the system while connected.

The LXTB is not required to be connected to the LX System for all functionality to occur, rather it only displays activity such as clock time to the user. The LX system program allows for user access to be define in the tablet, or facility managers can simply control access to the tablet for system security.

NETWORK

PRODUCT FEATURES

- Portable hand-held touch screen
- Graphical user interface (GUI)
- Context-sensitive help
- Quarter VGA display (320 x 240 pixels)
- High-contrast backlit LCD screen
- Programmable security codes
- Five-year limited warranty

General Specifications

Programming and Configuration	Device used to program the functionality of other LX lighting control system devices Can program security codes
Physical	Hand-held device Quarter VGA display (320 x 240 pixels)
Electrical	5VDC power—supplied from the LX panel
Operating Environment	Location: interior space Operating temperature: 0° to 50°C (32° to 122°F) Relative humidity (non-condensing): 10% to 90%
Dimensions	7.5"W x 6"H x 1"D
Warranty	Five-year limited

Ordering Information

LXTB

MODEL

LXTB LX Touch Screen Tablet

CALIFORNIA TITLE 24 COMPLIANT CEC

LX Networked Lighting Controls

LXTERMINATOR

Hubbell Building Automation's LX Terminator ensures the correct operation of the LX Series' free topology (FT), twisted-pair communication networks. On an FT network, each LX Series network segment needs to correctly terminate so that network signals do not reflect back to the segment.

The LX Terminator absorbs these network signals and provides a low-cost solution for terminating network segments. The LX Terminator is not required for link power (LP) networks.

NETWORK

PRODUCT FEATURES

- LX network segment terminator
- DIN Rail Mounting
- Five-year limited warranty

General Specifications

Network Interface	Screw terminal connector
Operating Environment	32°to 140°F (0° to 60°C) Relative humidity (non-condensing): 5% to 95%
Warranty	Five-year limited

Ordering Information

LXTERMINATOR

MODEL

LXTERMINATOR LX Free Topology Bus Terminator

LXBASM Building Automation ProtoNode

LX SERIES NETWORKED LIGHTING CONTROLS

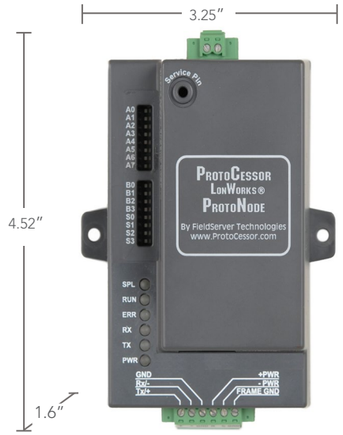
Networked Lighting Controls

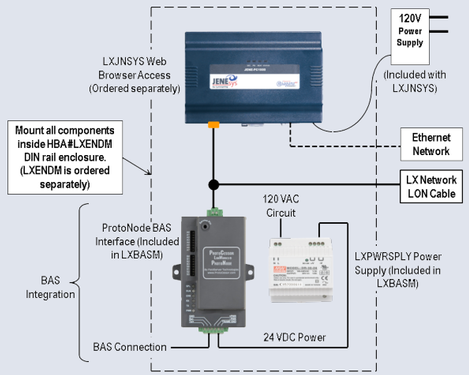
The Hubbell Building Automation ProtoNode is an external, high performance, low cost Building Automation multi-protocol gateway for providing control and access to Hubbell Building Automation's LX Network Lighting Control Panel system. The device provides protocol translation between LX systems and BAS/BMS services using BACnet®, Metasys® N2 by JCI, and Modbus.

ProtoNode is designed to be used in facilities that need to quickly and easily enable their LX Lighting Control Panels and Devices to interface with other protocols. The ProtoNode device is pre-configured with LX system protocol interface and allows the user to field select BAS system protocols including Modbus RTU, Modbus TCP, BACnet/IP, BACnet MS/TP or JCI Metasys N2OPEN.

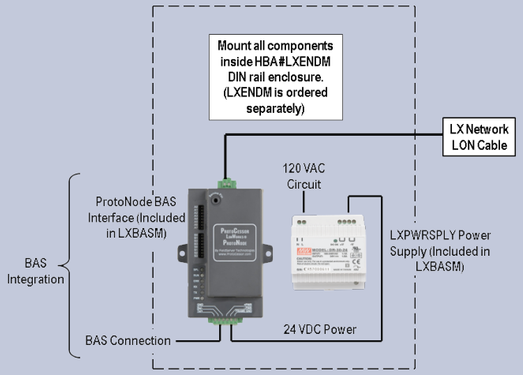
PRODUCT FEATURES

- Web browser based integration programming
- Device is field selectable for specific BAS protocol
- Sophisticated user account/password manager
- Integrates LX lighting control systems and Building Automation Systems (BAS)
- Supports BACnet®, Metasys® N2 by JCI, Modbus™ and LonWorks® protocols
- Automatically generates all required control points and documentation for integration with the selected protocol
- Five-year limited warranty





LXBASM for Building Automation Interface with LXJNSYS for Web Browser Access



LXBASM for Building Automation Interface

General Specifications

Supported Serial (RS-485) Protocols	BACnet MS/TP Modbus RTU
Supported Ethernet Protocols	BACnet IP Modbus TCP/IP JCI Metasys® N2OPEN
Supported Electrical Connections	(1) 6 pin Phoenix Connector (1) RS-485 +/- Ground port Power +/- Frame Ground port (1) Ethernet -10/100 Ethernet port (1) FTT-10 LonWorks® port (LonWorks® Version)
Power Requirements	9-30 VDC or 12-24VAC Current draw @ 12V = 240 mA
Operating Environment	Indoor use only -40°C to 75°C (-40°F to 167°F) Relative humidity (non-condensing): 5% to 90%
Dimensions	4.52"L x 3.25"W x 1.60"H
Approvals	BACnet Testing Labs (BTL) B-ASC LonMark 3.4 Certified TUV approved to UL 916 standard and CSA C22-2 RoHS Compliant OPC Self Certified to Compliance CE Mark
Warranty	Five-year limited

Ordering Information

LXBASM

MODEL

LXBASM	LX Building Automation Interface, Universal Control with Power Supply

LX JENEsys™

LX SERIES NETWORKED LIGHTING CONTROLS

CALIFORNIA TITLE 24 COMPLIANT

LONMARK

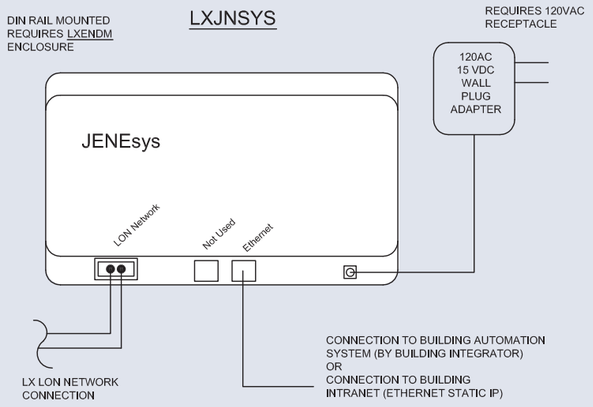
LX Networked Lighting Controls

LXJNSYS

LX JENEsys provides a simple and easy-to-use interface to the LX Networked Lighting Control System via Personal Computer. The LX JENEsys allows any PC with an Internet Explorer compatible browser to interface with the LX JENEsys lighting control system through a built-in web server. The LX JENEsys provides an easy-to-use and highly intuitive graphical user interface (GUI). System users can easily program, monitor, and control (locally or remotely) all the functions of the LX lighting controls system conveniently from their PC—all without installing software.

PRODUCT FEATURES

- Real-time programming and monitoring of the LX lighting control system through your PC
- No software required—built-in web server provides connection via any Internet Explorer®-compatible browser
- Graphical User Interface (GUI) makes programming both intuitive and simple
- Local or remote access via the local network or Internet
- Can connect multiple users at once
- Sophisticated user account/password manager
- Powered by the revolutionary NiagaraAX Framework®
- Five-year warranty



Ordering Information

MODEL

LXJNSYS	LX JENEsys Controller with Management Software, LON Network Module and Power Supply
LXJNSYS2LON	N LX JENEsys Controller with Management Software, LON Integration Support, LON Network Modules and Power Supply

LX Switch Station

LX SERIES NETWORKED LIGHTING CONTROLS

LonMark

LX Networked Lighting Controls

LXSW1 *LXSW2* *LXSW3*

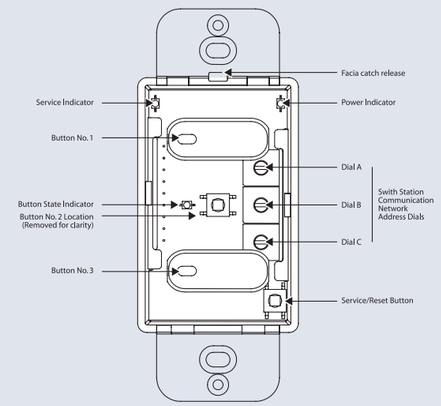
LXSW4 *LXSW5* *LXSW6*

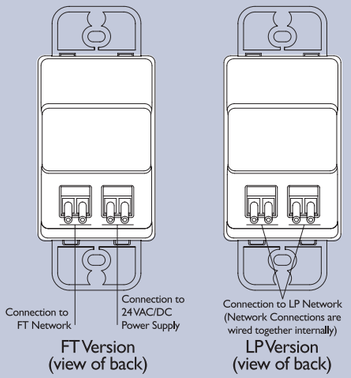
LX Switch Stations are designed for virtually any area. The soft contours of its architecturally-pleasing design fit easily into any décor. Each switch can be individually programmed to control a single relay, group of relays, or preset scene.

In addition to flexible switch functionality, LX Switch Stations can be programmed to be active only during a specific time window. This function allows the switch station to be automatically secured when they are not being used, which eliminates the need for lockout key switches and locking covers.

PRODUCT FEATURES

- Attractive, architecturally-pleasing design
- Flexible programming of switch functionality
- Programmable active and inactive times
- Topology-free, polarity-insensitive, 2-wire communication
- FT-10 and LPT-10 versions available
- LonMark ® certified
- 1–6 buttons with or without pilot
- Mounts to standard single-gang box
- Five-year limited warranty





General Specifications

Network Interface	FTT-10 or LPT-10
Programming and Configuration	Programmable over a network using the LX Touch Tablet or any other LX programming device
Physical	Injection-molded switch plate and switches Fits standard (Decorator style) wall switch plates (not included) Mounts to standard electrical gang box
Electrical	LPT-10 version: powered from Link Power Module FTT-10 version: 24 volts AC or DC; .5Amps required
Operating Environment	Location: interior space Operating temperature: 0° to 50°C (32° to 122°F) Relative humidity (non-condensing): 10% to 90%
Dimensions	4.13″H x 1.13″D x 1.13″W
Capacities	1–6 buttons
Certifications	LonMark 3.3 certified
Warranty	Five-year limited

Ordering Information

LXSW			
MODEL	NO. OF BUTTONS	NETWORK INTERFACE	COLOR
LXSW	**1**	**LP** Link Power LPT-10	**W** White
	2	**FT** FTT-10 24V AC or DC	**I** Ivory
	3		
	4		
	5		
	6		

EXAMPLE:
White 4 Button FT Switch Station: LXSW4FTW

Keyed Switch Station

LX SERIES NETWORKED LIGHTING CONTROLS

CALIFORNIA TITLE 24 CEC COMPLIANT

LONMARK

LX Networked Lighting Controls

LXKEY

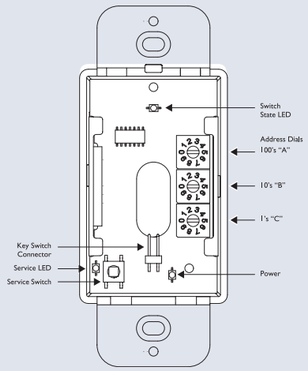
The LX Keyed Switch Station is designed for use in virtually any space that requires restricted access to switch functionality. The stainless steel faceplate and secure barrel-style locking mechanism provide significant tamper and vandal deterrence.

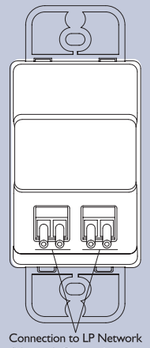
The switch can be individually programmed to control a single relay or group of relays. In addition to flexible programming of switch functionality, LX Keyed Switch Stations can be programmed to be active only during a specific time window, allowing the switch station to be automatically disabled when they are not required. This provides a second layer of access control.

PRODUCT FEATURES

- Stainless steel face plate with barrel-lock mechanism and pilot light
- Flexible programming of switch functionality
- Programmable Active & Inactive times
- Topology-Free, Polarity-Insensitive, 2-wire communication
- Mounts in standard single-gang box
- Five-year limited warranty

NETWORK





General Specifications

Network Interface	LPT-10
Programming and Configuration	Programmed over network using the LX Touch Tablet or any other LX programming device
Physical	Stainless steel faceplate Barrel-style locking switch mechanism Mounts to standard electrical gang box
Electrical	LPT-10: Powered from Link Power Module
Dimensions	Switch Station: 4.13″H x 1.13″W x 1.13″D Face Plate: 4.5″H x 2.75″W
Operating Environment	Location: Interior space Operating temperature: 0° to 50°C (32° to 122°F) Relative Humidity: 10% to 90% non-condensing
Warranty	Five-year limited

Ordering Information

LXKEY	LP	
MODEL	NETWORK INTERFACE	COLOR
LXKEY1	**LP**	**BLANK** Stainless Steel[2]

NOTES:
1. LXKEY is available with 1 keyswitch only and "LP" Link Power only.
2. LXKEY available in Stainless Steel only (not available in white or ivory).

LXOMNI™ Dual Technology Occupancy Sensor

LX SERIES NETWORKED LIGHTING CONTROLS

CALIFORNIA TITLE 24 CEC COMPLIANT | UL LISTED | LONMARK | LOW 24 VDC VOLTAGE

LX Networked Lighting Controls

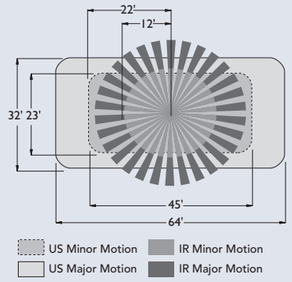
LXOMDT2000

The LX Occupancy Sensor is a LonMark ® certified device that represents the state-of-the-art in sensor technology, combining both ultrasonic (US) and passive infrared (PIR) technologies for unequaled occupancy detection and false trip immunity. Both FT-10 and LPT-10 versions are available.

The LX Occupancy Sensor features Hubbell Building Automation's patented IntelliDAPT technology, which makes all the sensor adjustments automatically. Throughout the product's lifespan, smart software analyzes the controlled area and makes digital adjustments to sensitivity and timer settings. Occupancy sensors with IntelliDAPT provide a maintenance-free install-and-forget operation.

PRODUCT FEATURES

- FT-10 and LPT-10 versions available
- Topology-free, polarity-insensitive, 2-wire communication
- IntelliDAPT self-adaptive technology - no manual adjustment required
- All-digital dual technology (ultrasonic [US] and passive infrared [PIR]) sensor
- Non-volatile memory for sensor settings
- 2,000 square-foot coverage area (depending on model)
- UL and cUL listed
- California Title 24 compliant
- LonMark® certified
- Five-year limited warranty



General Specifications

Network Interface	FTT-10 or LPT-10
IntelliDAPT Technology	Auto reset from test setting Self-adjusting timer Self-adjusting passive infrared thresholds Automatic false-on/false-off corrections
LED Lamp	Red- infrared motion Green- ultrasonic detection
Time Delay	Automatic mode: 8–30 min. (self-adjusts based on occupancy) Manual mode: 2-30 min. Test mode: 8 seconds (for an easy check at installation)
Ultrasonic (US) Output	32kHz
Passive Infrared (PIR)	Dual-element pyrometer and 12-element cylindrical rugged lens
Programming and Configuration	LX mode- programed over network using LX Touch Tabley, JENEsys™
Coverage	2,000 square feet
Power Requirements	LP Version requires 42VDC, (Provided by the LXLPM2) ; FT Version requires 24VDC, (Provided by the LXPWRSPLY)
Operating Environment	Indoor use only Operating temperature: 32° to 104°F (0° to 40°C) Relative humidity (non-condensing): 0% to 95%
Construction	Casing- rugged, high-impact, injection-molded plastic KJB ABS Cycolac (UL-945VA) flame class rating, UV inhibitors Color-coded leads are 6″ long
Dimensions	4.5″DIA x 1.5″H
Weight	5.0 oz
Color	Off-white
Mounting	Mounting base provided Recommended MAX mounting height: 8ft with a max mounting height of 12ft
Certifications	LonMark 3.3 certified UL and cUL listed
Warranty	Five-year limited

Ordering Information

LX	OMDT 2000	
MODEL	DEVICE TYPE	NETWORK INTERFACE
LX	OMDT 2000	LP FT

LX Photo Sensor and Control Module

LX SERIES NETWORKED LIGHTING CONTROLS

CALIFORNIA TITLE 24 CEC COMPLIANT

LONMARK

LX Networked Lighting Controls

LXPSCM

LXPSPCO

LXPSPCI

LXPCPCS

The LX Photo Sensor and Control Module provides a convenient method of turning lighting circuits on and off in response to natural light. With 6 individually programmable on and off set points, this device can control multiple lighting circuits to respond to different natural lighting levels. This eliminates the need for multiple photosensors.

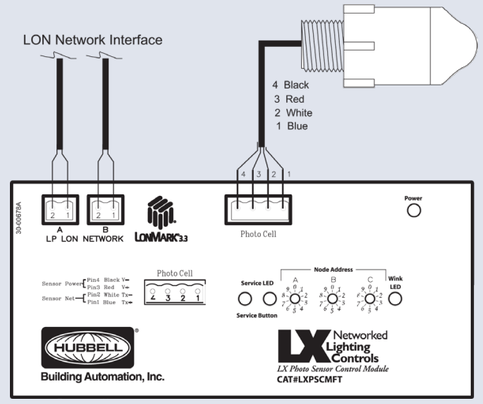
Real-time photometric information is transmitted over the LX network and displays on either the LX tablet (or another programming device connected to the network). Each of the 6 set points can be programmed to control a single relay, group of relays, or preset scene. For added control, the LX Photo Sensor Control Module can be programmed to be active or inactive during a specific time window.

NETWORK

DAYLIGHT HARVESTING

PRODUCT FEATURES

- Turns lighting on and off based on available natural light
- Network-based photosensor control module
- Real-time foot-candle levels transmitted over a network on demand to a tablet
- 3 available sensor heads - Indoor, Outdoor, and Skylight/Atrium
- 0-1,000 foot-candle range with 1 foot-candle resolution
- 6 programmable on and off set points
- Programmable active and inactive times
- Topology-free, polarity-insensitive, 2-wire communication
- FT-10 and LPT-10 versions available
- LonMark ® certified
- Mounts to standard DIN Rail
- Five-year limited warranty



General Specifications

Network Interface	FTT-10 or LPT-10
Programmable Functionality	Each on and off set point can be programmed to control a single relay, group of relays, or preset scene Active and inactive times
Programming	Programmable over a network using the LX Touch Tablet
Capacities	6 programmable on and off set points with adjustable deadband
Photocell Ranges	0–1,000 foot-candle range with 1 foot-candle resolution
Electrical	LXPSCMLP: Powered from the Link Power network LXPSCMFT: 16–30 Volts AC or DC; .5 Amps required
Operating Environment	Indoor use only (Except LXPSPCO) Operating temperature: 32° to 104°F (0° to 40°C) Relative humidity (non-condensing): 0% to 95%
Dimensions	6.25″L x 3.75″H x 1.5″W
Weight	6.0 oz.
Color	Photo Sensor Control Module—black Photo Sensor Photocells—white
Mounting	Mounts to a 35mm DIN rail
Certifications	LonMark 3.3 certified
Warranty	Five-year limited

Ordering Information

Control Module

LXPS	CM	
MODEL	DEVICE TYPE	NETWORK INTERFACE
LXPS	CM	LP FT

NOTE:
1. LXPSCM Photo Sensor Control Module Support only one (1) Photo Sensor head.
Photo Sensor head is ordered separately.

Photo Sensor

LXPSP	
MODEL	DEVICE TYPE
LXPS	PCI PHOTOCELL INDOOR PCO PHOTOCELL OUTDOOR PCS PHOTOCELL SKYLIGHT / ATRIUM

LX Dry Contact Interface Module

LX SERIES NETWORKED LIGHTING CONTROLS

CALIFORNIA TITLE 24 CEC COMPLIANT

LONMARK

LX Networked Lighting Controls

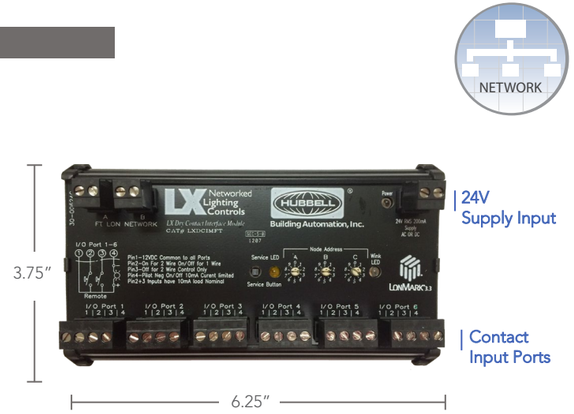
LXDCIMFT

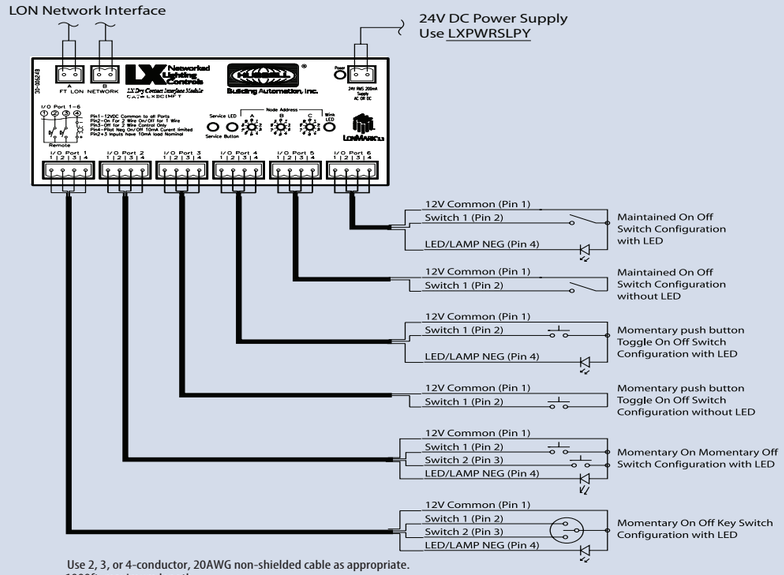
The LX Dry Contact Interface Module provides a simple method of incorporating standard dry contact inputs into the LX lighting control system. This device can incorporate dry contact closures from building automation, fire, and security alarm systems. It can also incorporate virtually any dry contact device (momentary or maintained).

Each of the 6 available inputs can be individually programmed to control a single relay, group of relays, or preset scene. For added control, the LX Dry Contact Input Module can be programmed to be active or inactive during specific time windows.

PRODUCT FEATURES

- Programmable interface for dry contact devices
- Flexible programming of switch functionality
- 6 individual dry contact inputs with or without pilots
- Accommodates 2- and 3-wire devices (momentary or maintained)
- Programmable active and inactive times
- Topology-free, polarity-insensitive, 2-wire communication
- LonMark ® certified
- Mounts to standard DIN rail
- Five-year limited warranty





General Specifications

Network Interface	FTT-10
Programmable Functionality	Maintained contact switch input: - toggle, on only, off only Momentary contact switch input: - push button toggle, on only, off only Preset Timed on
Programming	Programmable over a network using the LX Touch Tablet
Capacities	Maximum of 6 momentary or maintained switches (2- or 3-wire)
Electrical	16–30 Volts AC or DC; .5 Amps required
Operating Environment	Indoor use only Operating temperature: 32° to 104°F (0° to 40°C) Relative humidity (non-condensing): 0% to 95%
Dimensions	6.25″L x 3.75″H x 1.5″W
Weight	6.0 oz
Color	Black
Mounting	Mounts to a 35mm DIN rail
Certifications	LonMark 3.3 certified
Warranty	Five-year limited

Ordering Information

LX	DCIM	FT
MODEL	DEVICE TYPE	NETWORK INTERFACE
LX	DCIM[1]	FT

NOTE:
1. FT ONLY.

LX Line V Automatic Line Voltage Switches

LX SERIES NETWORKED LIGHTING CONTROLS

CALIFORNIA TITLE 24 CEC COMPLIANT | UL LISTED | 120 277 VAC

LX Networked Lighting Controls

LINEVAS1BUNVWH

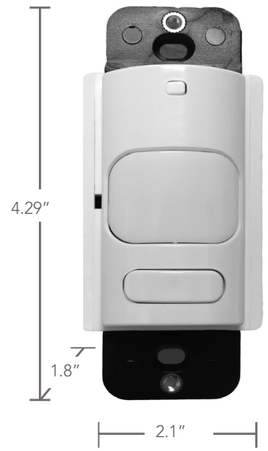
LINEVAS2BUNVWH

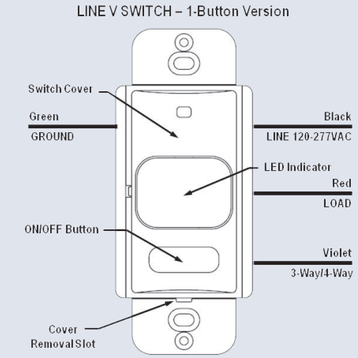
The Hubbell Building Automation Line V Automatic Line Voltage Switches provide feature cost effective lighting control for maximum energy savings. The switches operate based on timed blink patterns from the LX Panels to activate internal relays ON, OFF or override an impending OFF schedule for user selectable periods of 30, 60, 90, or 120 minutes. The LX Panels are designed to control the relay timed blinks to allow for a single relay to signal multiple Line V switches to perform the desired functions.

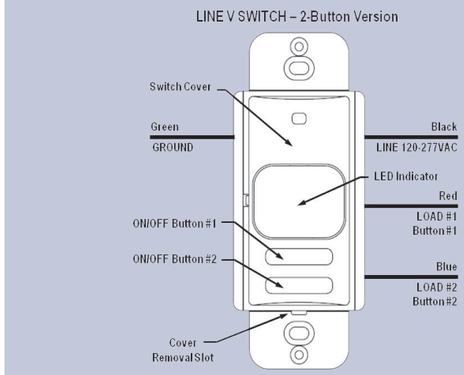
The 1-Relay version has standard capability to be wired to addition switches for 3-way and 4-way operation on a single zone. The 2-Relay version allows for bi-level switching within a single zone. Signal ON can be selected for 1 or 2 relays.

PRODUCT FEATURES

- Two switch configurations – 1-Relay and 2-relay
- 1-Relay model controls a single zone or can be connected for 3-way and 4-way operation
- 2-Relay model provides single circuit input for dual level area control
- Switches are controlled ON or OFF from the LX Panel using OFF intervals from a single relay
- Allows for retrofit of standard line voltage toggle switches for automatic schedule ON/OFF control
- Blink warning allows user to initiate override of 30, 60, 90, or 120 minutes and cancel OFF event
- Switches operate without the need for a neutral connection
- Dual 120/277VAC operation
- No minimum load requirement
- Zero Arc Point Switching
- ETL, UL, and cUL listed
- California Title 24 compliant
- Five-year limited warranty







General Specifications

Programming and Configuration	Programmable via DIP switches mounted on door All control functions are issued at the switch
Relays Configurations	1-Relay – Single Zone OR 3-Way/4-Way operation 2-Relays – Single circuit input for Bi-Level Control
Power Requirements	120/277VAC; 50/60Hz
Electrical Ratings	120VAC: 5.0 Amps Tungsten; 10.0 Amps Fluorescent; 1/3 HP 277VAC: 10.0 Amps Fluorescent; 1/6 HP
Load Requirements	None
Operating Environment	Indoor use only Operating temperature: 32°–104°F (0°–40°C) Relative humidity (non-condensing): 0%–95%
Construction	Casing—high-impact injection-molded plastic (UL-94-5V) Color-coded leads are 6″ long
Dimensions	4.2″H x 1.8″D x 2.1″W; .37″ extension
Weight	2.9 oz.
Color	White; Ivory; Light Almond; Gray; Black
Mounting	Single-gang NEMA-style switch box (average switch box) Decorator-style wall plate not included
Certifications	ETL, UL, and cUL listed
Warranty	Five-year limited

Ordering Information

MODEL/DESCRIPTION	
LINEVAS1BUNVBK	Line V 120-277VAC Automatic Switch, 1-Button, Single Relay, Single or 3-Way Black
LINEVAS1BUNVGY	Line V 120-277VAC Automatic Switch, 1-Button, Single Relay, Single or 3-Way Gray
LINEVAS1BUNVIV	Line V 120-277VAC Automatic Switch, 1-Button, Single Relay, Single or 3-Way Ivory
LINEVAS1BUNVLA	Line V 120-277VAC Automatic Switch, 1-Button, Single Relay, Single or 3-Way Light Almond
LINEVAS1BUNVWH	Line V 120-277VAC Automatic Switch, 1-Button, Single Relay, Single or 3-Way White
LINEVAS2BUNVBK	Line V 120-277VAC Automatic Switch, 2-Button, Dual Relay, Single Black
LINEVAS2BUNVGY	Line V 120-277VAC Automatic Switch, 2-Button, Dual Relay, Single Gray
LINEVAS2BUNVIV	Line V 120-277VAC Automatic Switch, 2-Button, Dual Relay, Single Ivory
LINEVAS2BUNVLA	Line V 120-277VAC Automatic Switch, 2-Button, Dual Relay, Single Light Almond
LINEVAS2BUNVWH	Line V 120-277VAC Automatic Switch, 2-Button, Dual Relay, Single White

LX Link Power Module

LX SERIES NETWORKED LIGHTING CONTROLS

CALIFORNIA TITLE 24 CEC COMPLIANT

LONMARK

120 VAC

LX Networked Lighting Controls

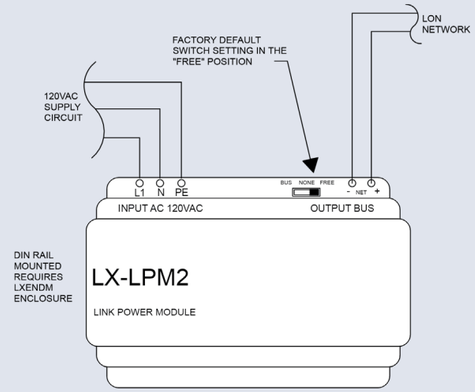
LXLPM2

Hubbell Building Automation's LX Link Power Module is a self-contained power supply that provides operating power to LX Series twisted-pair communication networks.

This module powers a multitude of device types, such as LX switch stations, LX occupancy sensors, and LX photosensor control modules. The device's versatility enables it to support a variety of network topologies, including Star and T-configurations.

PRODUCT FEATURES

- Power supply for LX Series Link Power-based devices
- Short-circuit and overcurrent monitoring
- Bus termination by switch
- DIN rail mount
- Five-year limited warranty



General Specifications

Power Supply	Rated input voltage: 120VAC (85-132V) Rated frequency: 50/60 Hz Rated input current: 0.7A
Output to Bus	Output voltage: 41.5V; +/-2.2% Residual ripple: <80mV at 10 kHz (200mV at f>200kHz) Output current: 1A (supports approximately 56 LX Series devices) (For larger networks, an additional LX Link Power Module and LX Router/Repeater Module can be added to expand the LX network) Overload protection: typical at 1.6A; permanent short circuit proof with pulsing "try of restart"
Connectors	Screw terminal
Operating Environment	Indoor use only Operating temperature: 32° to 104°F (0° to 40°C) Relative humidity (non-condensing): 0% to 95%
EMC	Emission: EN61,000-6-3; class B; EN50090-2-2 Immunity: EN61,000-4-2/3/4/5/6; class A
Dimensions	4.96"L x 2.28"W x 3.54"H
Warranty	Five-year limited

Ordering Information

LXLPM2

MODEL

LXLPM2	LX LINK POWER MODULE

LX Router/Repeater Module

LX SERIES NETWORKED LIGHTING CONTROLS

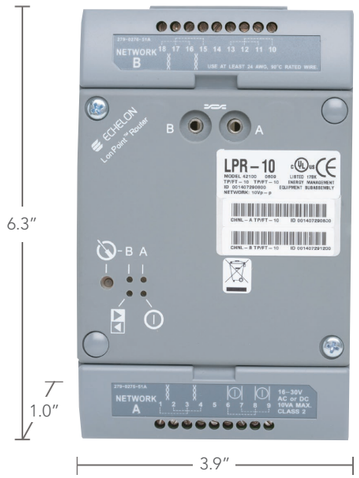
LXRRM

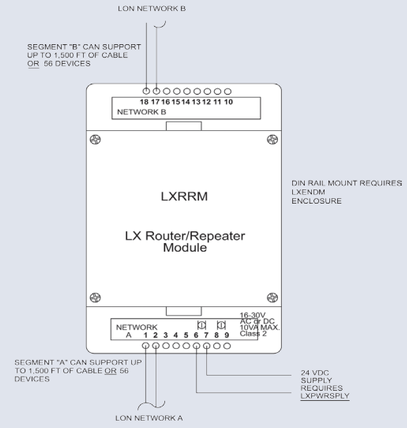
Hubbell Building Automation's LX Router/Repeater Module interconnects multiple LX Series communication-network segments and refreshes the network signal from one segment to the next thus increasing the maximum transmission distance.

This module is required for networks where either the network wire length exceeds the maximum limit (1,500 feet) or there are more than 56 devices per segment. With the LX Router/Repeater Module, two independently-powered network segments can share their information while maintaining each segment's power system separately.

PRODUCT FEATURES

- Repeater for LX Series networks
- Screw terminal wiring connections
- 16–30VAC or VDC operation
- LonMark™ certified
- UL listed
- Five-year limited warranty





General Specifications

Processor	2 Neuron 3150® Chips; 10MHz
Service Function	Recessed service switch and service (wink) LED. Dual tear-off bar code Neuron ID self-adhesive tag
Channel Type	TP/FT-10 to TP/FT-10
Input Power	16–30VAC or DC @ 24VA Requires a separate power supply (the LXPWRSPLY)
Mounting	DIN Rail
Operating Environment	-40° to 185°F (-40° to 85°C) Relative humidity (non-condensing): 10% to 95%
Dimensions	3.9″L x 6.3″H x 1.0″W
Certifications	UL 916; FCC A; CE Mark
Warranty	Five-year limited

Ordering Information

LXRRM

MODEL

LXRRM LX Repeater

LX Power Supply

LX SERIES NETWORKED LIGHTING CONTROLS

UL LISTED | 120 VAC | LOW 24 VDC VOLTAGE

LX Networked Lighting Controls

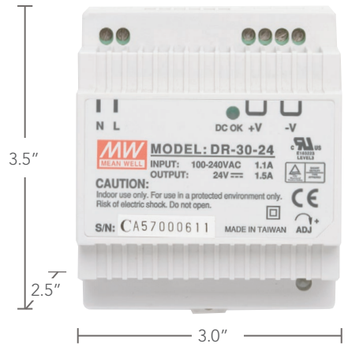
LXPWRSPLY

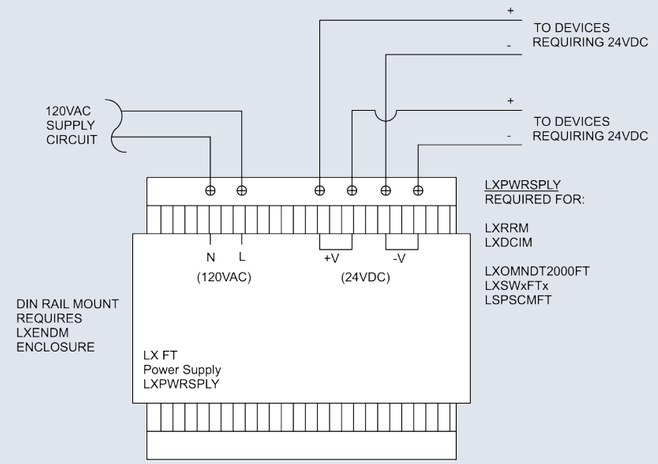
Hubbell Building Automation's LX Power Supply provides power to free topology(FT)-based LX Series devices. The 30W, single-output, Class 2, DIN rail power supply can power LX switch stations, LX occupancy sensors, LX photosensor control modules, and LX dry contact interface modules.

This power supply also features an LED indicator for power-on status and short-circuit, overload, and overvoltage protection support.

PRODUCT FEATURES

- Universal AC input 120VAC (100–240V); line and neutral single phase only
- DIN rail mountable: TS35/7.5; TS35/15
- Protection: short circuit, overload, and over-voltage
- LED indicator for power on
- UL listed
- Five-year limited warranty





General Specifications

AC Input Voltage Range	120VAC (100–240V), 50-60HZ Line and Neutral Single Phase only
Output	24V; 0–1.5A
Tolerance	+/-1%
Efficiency	83%
DC Adjustment Range	Rated output voltage: +/-10%
Overload Protection	105% to 160% constant current limiting; auto-recovery
Over-voltage Protection	Rated output voltage: 115% to 135%
Setup; Rise; Hold-up Time	100ms, 70ms, 100ms at full load and 132VAC
Withstand Voltage	I/P-O/P:3KVAC
Connection	I/P: 2 poles O/P: 4 poles screw DIN terminal
Dimensions	3.0″L x 3.5″H x 2.5″W
Operating Environment	-4° to 22°F (-20°to 50°C) @100% load 140° F (60° C) @ 80% load
Certifications	UL60950-1; TUV EN60950-1
EMC	EN55022 class B; EN61,000-3-2,3; EN61,000-6-2; EN61,000-4-2,3,4,5,6,8,11; ENV50204; EN61204-3
Warranty	Five-year limited

Ordering Information

LXPWRSPLY

MODEL

LXPWRSPLY LX Power Supply

LX Enclosure for DIN Rail Modules

LXENDM

Hubbell Building Automation's LX Enclosure for DIN Rail Modules is designed to enclose our DIN rail-mountable devices and power supplies. The surface-mount metal enclosure is NEMA 1 rated and is suitable for dry indoor locations, such as electrical rooms and closets. The enclosure also comes with a screw-mount cover and 2 DIN rails that can be mounted in multiple ways.

PRODUCT FEATURES

- NEMA 1 rated metal enclosure
- Screw-mount cover
- Includes 2 DIN rails

General Specifications

Dimensions	12"H x 15"L x 4"W
Weight	11 lbs.
NEMA 1 Rated	Provides a degree of protection for people against contact with the enclosed devices Provides a degree of protection for the enclosed devices against falling dirt
Warranty	Five-year limited

Ordering Information

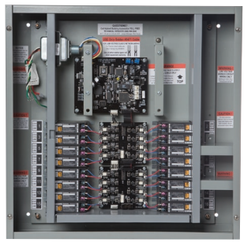
LXENDM

MODEL

LXENDM	LX Enclosure for DIN Rail Device Modules

Panel Wire Way Divider Accessory Kit

Hubbell Building Automation's LXWRDV Panel Wire Way Divider Accessory Kit provides the ability to place a physical barrier in the line voltage wire's way to separate different voltages or sources. This accessory is field-installed and ordered separately. Each kit includes two code-gauge steel divider plates and mounting hard-ware. Dividers are easily installed between relays and therefore
do not consume any relay spaces.



PRODUCT FEATURES

- Provides physical code-gauge steel separation between different voltages or sources that share the same relay panel
- Field-installed
- Can be mounted at any location
- Fits between relates – no loss of relay spaces
- For use with LX Series Lighting Control Panels (Except 4 relay LX panels)

General Specifications

Each Kit Includes:	2 ea - Wire Way Divider Plates 2 ea - Stainless Steel mounting Screws Installation Instructions
Operating Environment	Indoor use only
Dimensions	4.25"W x 3.25"L
Weight	3.0 oz.
Color	ANSI 61 Gray Polyester Powder Coat
Certifications	For use with LX Series UL and cUL Listed LXIN and LXEN network lighting control panels (except LXEN04)
Warranty	Five-year limited

Ordering Information

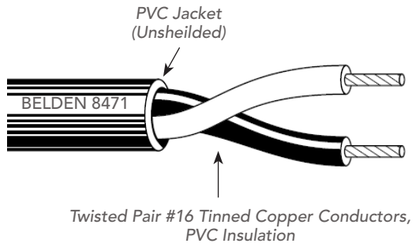
LXWRDV

MODEL

LXWRDV	Wire Way Divider Kit for LX Series Relay Panels

Riser Rated Belden 8471 Cable

LX SERIES NETWORKED LIGHTING CONTROLS



Hubbell Building Automation's LX network cable is used to interconnect LX Panels, LX Devices and LX Accessories for a complete communications network. All devices that communicate on the LX Network are connected with the same type of twisted pair cable. Both power and data are carried over the same two wires. The LX System is wired as a topology-free, polarity-insensitive network. HBA supplied LX Network Cables assure proper network communications and should be specified and installed on all LX System projects.

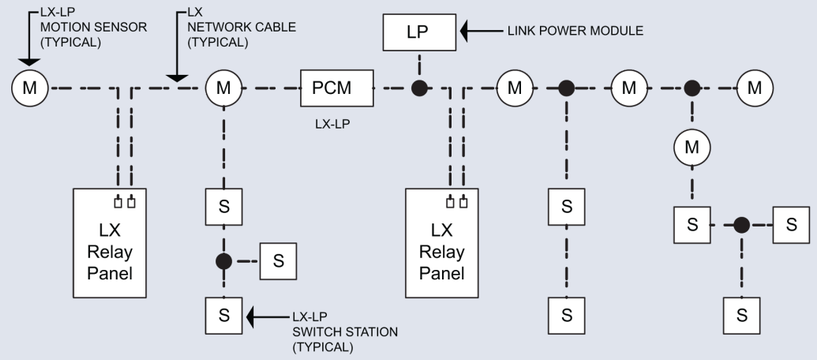
PRODUCT FEATURES

- Interconnects LX Lighting Control Panels and LX network devices
- Cable carries both power and data in a single twisted pair
- Belden #8471 - twisted pair #16 tinned copper
- Single cable type connects to all types of LX network devices
- Echelon Guideline Compliant for LON networks
- Available in 100 ft and 500 ft reels
- Riser Rated
- Connects to terminal blocks or with twist on connectors
- UL and cUL Listed
- One-year limited warranty

LX SYSTEM NETWORK CABLE REQUIREMENTS

Hubbell Building Automation's LX Lighting Control System requires the use of Belden #8471 cable for Riser Rated applications OR Windy City Wire #104500 for Plenum Rated applications. These are the ONLY cables that can be used for network wiring with the LX System.

The use of substitute cables based on similar physical characteristics is not allowed and will VOID any HBA warranty for the LX system or any LX component connected to the substitute cable.



TYPICAL SEGMENT = MAXIMUM 56 DEVICES OR MAXIMUM 1,500FT

General Specifications

Description	1 pair - 16 AWG stranded tinned copper conductors, PVC Insulation, unshielded twisted pair (UTP), PVC jacket
Shielding	Unshielded
Overall Nominal Diameter	0.274 inches
Plenum Rating	Not Plenum Rated
Operating Temperature Range	-20°C to +80°C (Indoor use only)
Maximum Pulling Tension	61 lbs
Minimum Bend Radius	5.1 inches
Color	Pair Color - Black/White, Outer Jacket - Gray
Certifications	NEC (UL) CMG, CEC/C (UL) CMG,
Flame Test	UL Flame Test – UL1685 FT4 Loading, C (UL) Flame Test FT4
Warranty	One-year limited

Ordering Information

MODEL

LX8471CBL100*	LX Cable Belden 8471 Riser Rated 100 ft Reel
LX8471CBL500*	LX Cable Belden 8471 Riser Rated 500 ft Reel

*All sales are final, no returns are allowed.

INSTALLATION NOTES

1. DO NOT exceed 1500 feet of cable OR connect more than 56 devices per network segment.
2. Each network segment using LP style devices requires an LXLPM2 Link Power Module for device power. Each additional segment requires an additional LXLPM2 Link Power Module and an LXRRM Repeater for data transmission between segments.
3. Each network segment existing of panels only or that use FT style devices only require termination with LXTERMINATOR instead of LXLPM2 Link Power Module.
4. Run cable and connect network with the shortest distances possible. The most efficient network is wired similar to branch circuit outlets.
5. When using twist-on wire connectors with network cable use no more than three wires per connector.
6. The use of T-taps to minimize cable length is encouraged. Daisy chain topology is allowed, but most often increases overall cable length.
7. DO NOT homerun all devices individually, or leave spare cable at ceiling mounted devices. If devices need to be relocated, cables can be extended with twist-on wire connectors.
8. DO NOT mix plenum and NON-plenum cables on the same segment.
9. Keep 12" minimum from line voltage, do nut run in the same raceway with line voltage.

Plenum Rated Windy City Wire 104500 Cable

LX SERIES NETWORKED LIGHTING CONTROLS

Hubbell Building Automation's LX network cable is used to interconnect LX Panels, LX Devices and LX Accessories for a complete communications network. All devices that communicate on the LX Network are connected with the same type of single twisted pair cable. Both power and data are carried over the same two wires. The LX System is wired as a topology-free, polarity-insensitive network. HBA supplied LX Network Cables assure proper network communications and should be specified and installed on all LX System projects.

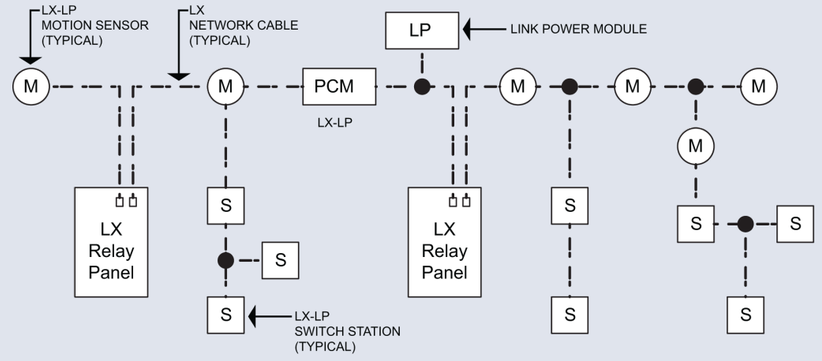
PRODUCT FEATURES

- Interconnects LX Lighting Control Panels and LX network devices
- Cable carries both power and data in a single twisted pair
- Windy City Wire #104500 - twisted pair #16 tinned copper
- Single cable type connects to all types of LX network devices
- Echelon Guideline Compliant for LON networks
- Available in 100 ft and 500 ft reels
- Plenum Rated
- Connects to terminal blocks or with twist on connectors
- UL and cUL Listed
- One-year limited warranty

LX SYSTEM NETWORK CABLE REQUIREMENTS

Hubbell Building Automation's LX Lighting Control System requires the use of **Belden #8471 cable for Riser Rated** applications **OR Windy City Wire #104500 for Plenum Rated** applications. These are the ONLY cables that can be used for network wiring with the LX System.

The use of substitute cables based on similar physical characteristics is not allowed and will **VOID any HBA warranty** for the LX system or any LX component connected to the substitute cable.



TYPICAL SEGMENT = MAXIMUM 56 DEVICES OR MAXIMUM 1,500FT

General Specifications

Description	1 pair - 16 AWG stranded tinned copper conductors, PVC Insulation, unshielded twisted pair (UTP), PVC jacket
Shielding	Unshielded
Overall Nominal Diameter	0.182 inches
Plenum Rating	Plenum Rated
Operating Temperature Range	0°C to +75°C (Indoor use only)
Maximum Pulling Tension	61 lbs
Minimum Bend Radius	5.1 inches
Color	Pair Color - Black/White, Outer Jacket - White
Certifications	NEC (UL) Subject 444 Type CL2P/CMP, CSA (cUL)
Flame Test	NFPA 262 Steiner Tunnel Test
Warranty	One-year limited

Ordering Information

MODEL

LX104500CBL100*	LX Cable Windy City 104500 Plenum Rated 100 ft Reel
LX104500CBL500*	LX Cable Windy City 104500 Plenum Rated 500 ft Reel

*All sales are final, no returns are allowed.

INSTALLATION NOTES

1. DO NOT exceed 1500 feet of cable OR connect more than 56 devices per network segment.
2. Each network segment using LP style devices requires an LXLPM2 Link Power Module for device power. Each additional segment requires an additional LXLPM2 Link Power Module and an LXRRM Repeater for data transmission between segments.
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7. DO NOT homerun all devices individually, or leave spare cable at ceiling mounted devices. If devices need to be relocated, cables can be extended with twist-on wire connectors.
8. DO NOT mix plenum and NON-plenum cables on the same segment.
9. Keep 12" minimum from line voltage, do nut run in the same raceway with line voltage.

CX Panels provide feature rich and cost effective lighting control for maximum energy savings. You can save up to 50% in labor and materials when used in place of conventional time clock and contactor combinations. The use of the Astronomical Clock in place of roof mounted photocells increases cost savings, lowers maintenance, and improves reliability.

SAVE TIME

- Compact single enclosure includes relays, control functions and input terminals for low voltage devices.
- All inputs are software assignable to any HBA low voltage input device including switches, motion sensors, and photocells.
- Low voltage devices connect directly to panel without any ancillary parts such as power packs.
- LCD user interface incorporates easy to follow intuitive programming tools.

SAVE ENERGY

- HBA CX Panels meet ASHRAE 90.1, IEEC and California (CEC) Title 24 energy codes.
- CX Panels contribute to LEED certification requirements.
- Allows multiple low voltage inputs from HBA switches, motion sensors, and photocells to enhance energy savings for scenarios such as manual switch ON and automatic motion sensor OFF control.

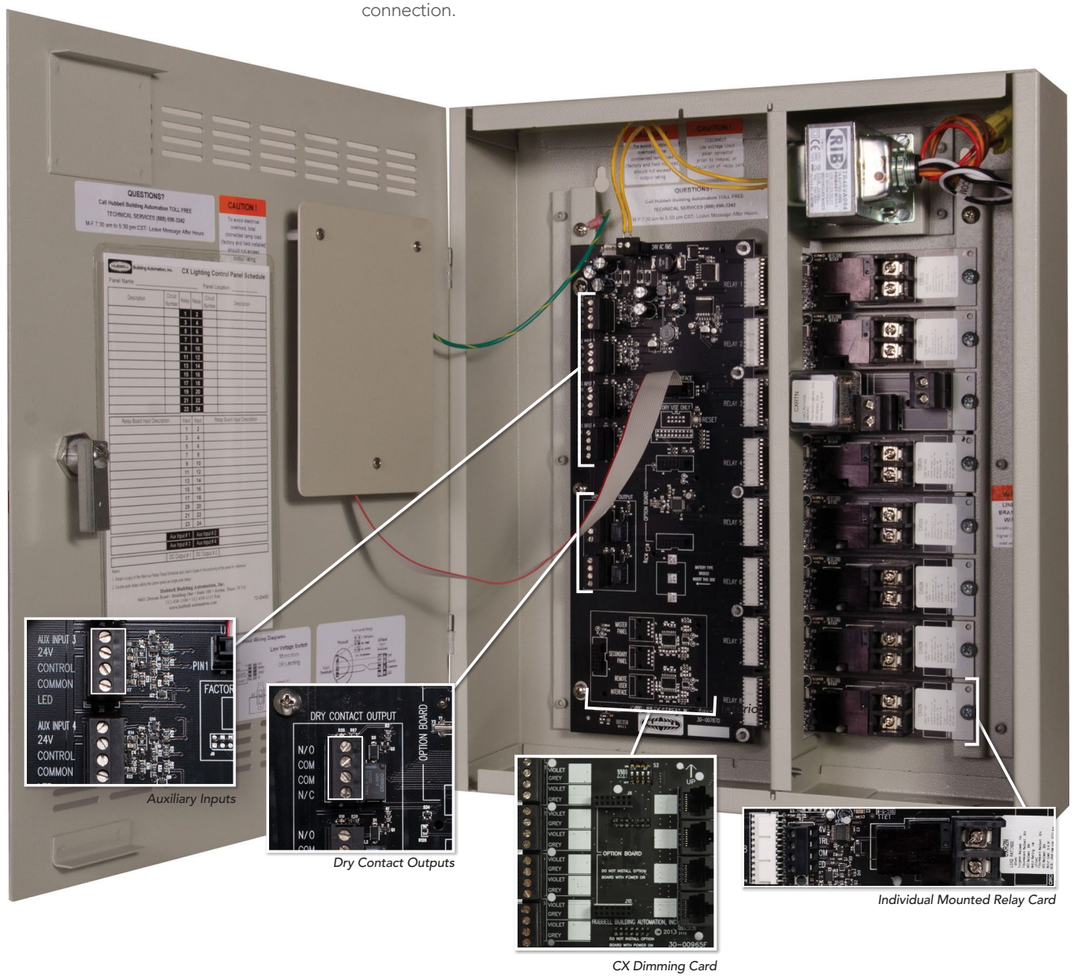
LOWER COST

- Can save up to 50% in parts and labor cost over conventional time clock and contactor systems.
- Lowers energy consumption with expanded programming options.
- Astronomical clock eliminates the need for roof mounted photocells.
- Pre-programmed scenarios offer a wide variety of options to maximize energy savings for each possible control zone.

INCREASE CONTROL

- Sunrise/sunset controls provided using internal astronomical clock.
- Scenarios offer many easy to use control combinations.
- Priorities and masking allow for personalized control solutions.
- Dimming option for most 0-10V ballasts and LED drivers

The CX Series panels are self-contained lighting control systems. All inputs are low voltage and hard-wired to terminal blocks in the panel. Input power supply is multi-tapped or universal for typical service voltages. Line voltage terminals are located with generous space for easy connection.



Auxiliary Inputs

Dry Contact Outputs

Individual Mounted Relay Card

CX Dimming Card

Auxiliary Input Features

- Provisions for multiple device control of a single relay or group.
- Scenarios program allows for easy mapping of auxiliary inputs.

Dry Contact Output Features

- Normally open or normally closed output.
- Momentary or maintained.
- Allows for interconnection to other building functions such as security, fire alarm, or building management system.

CX Dimming Card Features

- Full range dimming with preset dimming levels.
- Ramp Up, Fade Down, Minimum Dim Level.
- Max Dim Level (Demand Response System Settings)
- Operates with 0-10V dimmable ballasts.
- Provides manual and automatic control of dimming levels.
- 8 Dimming channels per card.
- Works with CAT5 switches.

Relay Card Features

- 1-pole and 2-pole relays fit in the same sized space.
- Relay self-identifies once installed.
- Available 20A/1P N/O, 20A/2P N/O or N/C and 30A/1P latching.
- 14K SCCR for 20A/1P N/O, 20A/2P N/O or N/C.
- 18K SCCR for 30A/1P latching.

CX Lighting Control Panels

CX COMMERCIAL LIGHTING CONTROL PANELS

CALIFORNIA TITLE 24 CEC COMPLIANT | UL LISTED | 120 277 VAC

CX Commercial Lighting Control Panels

CX16 and CX24
16- and 24-Relay Panels

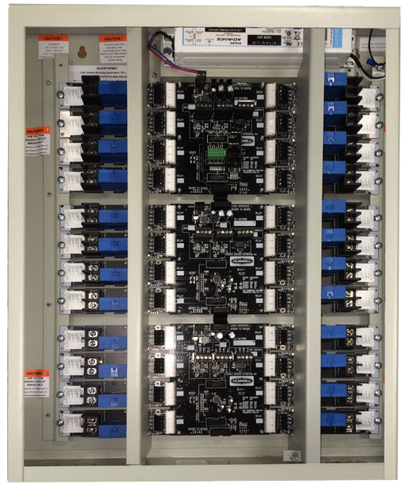
CX04 and CX08
4- and 8-Relay Panels

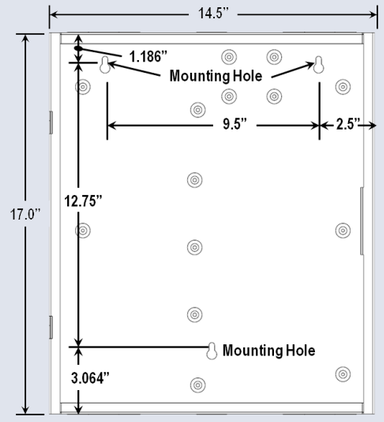
The Hubbell Building Automation CX Commercial Lighting Control Panels provide feature-rich and cost-effective lighting control for maximum energy savings. The LCD User interface is located in the door and utilizes simple and intuitive scrolling menus to program, check status or update the panel. The easy-to-use Pre-Programmed Scenarios Menu makes project commissioning simple and fast.

The CX Panels can save up to 50% in labor and materials when used in place of conventional time clock and contactor combinations. The use of the astronomical clock instead of roof-mounted photocells increases cost savings, lowers maintenance, and improves reliability.

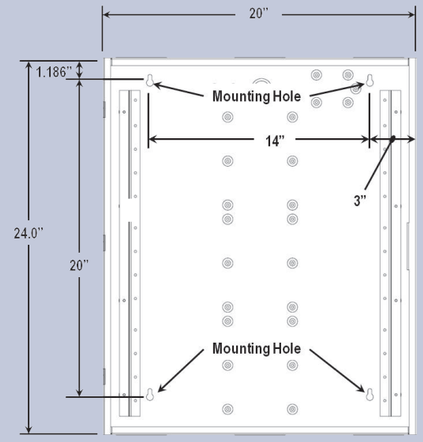
PRODUCT FEATURES

- Four Relay panel sizes – 4, 8, 16 and 24 relay spaces
- Relays – 20A/1P, N/O, 20A/2P, N/O (14K SSCR) and 30A/1P latching (18K SCCR)
- Optional 0-10V Dimming
- LCD user interface with keypad
- 365 day programming with 64 schedules
- Astronomical and real time clock
- 6 programmable dry contact inputs for 4 relay panel
  12 Programmable dry contact inputs for 8 relay panel
  20 Programmable dry contact inputs for 16 relay panel
  30 programmable dry contact inputs for 24 relay panel
- Selectable pre-programmed scenarios
- Programmable inputs accept low voltage switches, photocells, or motion sensors
- Two low voltage dry contact output relays on 8, 16 and 24 relay panel
- Program uploads via removable SD memory card
- Listed to UL916, UL924 and cUL
- Five -year limited warranty





CX04 and CX08 4- and 8-Relay Panels
14.5" W x 17"H x 4" D



CX16 and CX24 16- and 24-Relay Panels
20" W x 24"H x 4" D

General Specifications

Programming and Configuration	Programmable via user interface mounted on door Fully programmable by users with door closed and locked Stand Alone, Master, or Secondary Panels. One Master and one Secondary may be connected as a system
Physical	NEMA 1 surface enclosure Pre-drilled mounting holes for mounting to wall, KOs provided on top and bottom 4/8 relay and 16/24 relay enclosures with hinged locking door
Electrical Input	120/208/240/277VAC for 4/8 size 120-277VAC Universal for 16/24 size Standard 120/277/347 Optional
Operating Environment	Location: NEMA 1 interior space Operating temperature: 0° to 50°C (32° to 112°F) Relative humidity (non-condensing): 10% to 90%
Certifications	Listed to UL916, UL924 and cUL
Warranty	Five-years limited

Ordering Information

CX			S			
MODEL	SPACES	INPUT VOLTAGE	ENCLOSURE	RELAY QUANTITY	RELAY TYPE	OPTIONS
CX CX Lighting Control Panel	**04** 4 Relay Spaces **08** 8 Relay Spaces **16** 16 Relay Spaces **24** 24 Relay Spaces	**2** 120/277V Universal **3** 347/480V	**S** NEMA 1 Surface	**00** No Relays - Spaces Only **04** 4 Relays Installed **08** 8 Relays Installed **16** 16 Relays Installed **24** 24 Relays Installed	**SP** Space Only **2N** 20A Electrically Held N/O 120-277V **3L** Latching 120-277-347V **TN** 20A Electrically Held N/O 208-480V	**N** Stand Alone Panel **M** Master Panel **S** Secondary Panel (Note 4 & 5)

NOTES:
1. Required for CX04 Series Panels. Not Available for CX08, CX16, CX 24
2. Not available for CX04.
3. 2-Pole relays take the same amount of space as 1-Pole relays.
4. Installed relays must be all of the same type. Relay Type TC and 2C not available in fully populate panels
5. "00" option has no relays, all must be ordered separately and installed in the field.
6. Secondary panel includes (2) master/secondary panel interface cards.

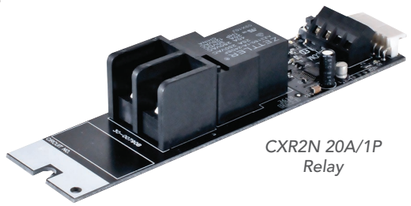
CXRTN & CXRTC
20A/2P Relays

The CX Panels have four types of available CXR relays. Each relay is individually board-mounted and can be installed in any combination in the panel. Relays are offered in a variety of types and ratings to meet any project requirements. Types include electrically-held normally open (N/O), electrically-held normally closed (N/C), and latching.

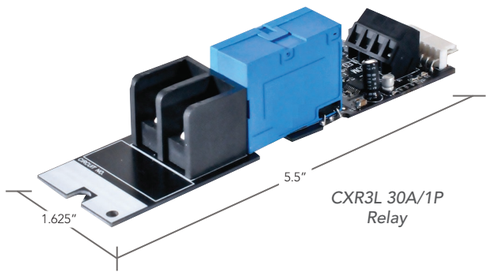
Ratings are 20A/1P 20A/2P, and 30A/1P. Pre-Configured Panels are available with relays of the same type. Combinations of any relay type must be ordered separately and field installed into Space Only standard panels.

PRODUCT FEATURES

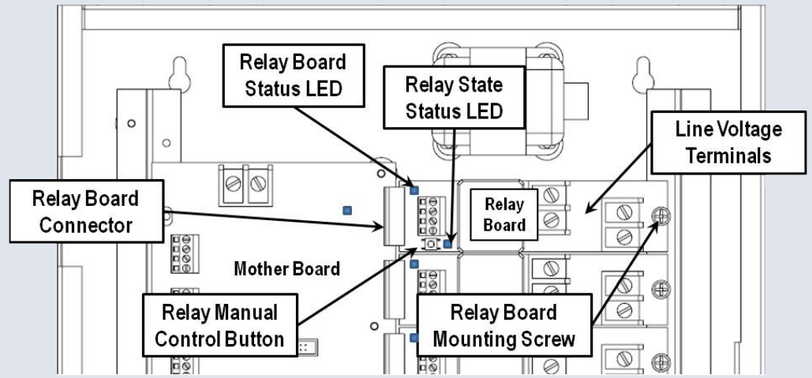
- Relays are mounted to individual relay cards
- Four types of relays – 20A/1P, N/O and 20A/2P, N/O, N/C (14K SCCR) and 30A 1P latching (18K SCCR)
- Smart Relay card self-identifies type automatically to panel
- Each relay includes 1 programmable input for low voltage switches, photocells, or motion sensors
- Panels are ordered fully populated with the same relay type or with space only for field installation of relay combinations
- Relay cards include a plugging connector to panel motherboard and a single screw to secure it to the panel enclosure
- Relay cards include a manual override control button and LED status indication
- Listed to UL916 standard, UL924 and Canadian cUL
- Five-year warranty



CXR2N 20A/1P
Relay



CXR3L 30A/1P
Relay



General Specifications

Physical	Mounts inside NEMA 1 surface panel enclosure Pre-drilled mounting hole for securing relay cards Individual relay cards – 1P and 2P are equal in size
Operating Environment	Location: interior space Operating temperature: 0°–50°C (32°–112°F) Relative humidity (non-condensing): 10%–90%
Certifications	Certified to UL 916, UL 924 and cUL
Warranty	Five-year limited

Relay Specifications

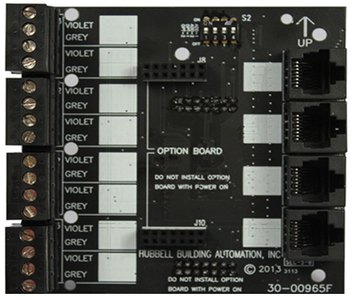
Characteristics			Load Ratings				SCCR Rating
Type	Poles	VAC	Tungsten	Flour. Ballast *	HID Ballast	Motor Rating	
CXR2N- Elec Held , N.O	1	120	15A	16A	20A	1 HP	14K Amps
		227	NA	16A	20A	3/4 HP	
CXR3L- Latching	1	120	20A	30A	30A	1 HP	18K Amps
		277	NA	30A	30A	NA	
		347	NA	20A	20A	NA	14K Amps
CXRTN - Elect Held, N.O.	2	480†	NA	20A	20A	2 HP	14K Amps
CXRTC - Elec Held, N.C.	2	480†	NA	20A	20A	2HP	

* Electronic Flourescent Ballast Rating is 16A
† Suitable for use at 208V, 240V and 480V

Ordering Information

CXR	
MODEL	RELAY TYPE
CXR	**2N** 20A 1-Pole Electrically Held N.O. 120-277V 14KSCCR @ 277VAC **3L** 30A 1-Pole Latching 120-277-347V 18KSCCR @ 277VAC, 14KSCCR @ 347VAC **TN** 20A 2-Pole Electrically Held N.O. 480V 14KSCCR @ 480VAC **TC** 20A 2-Pole Electrically Held N.C. 480V 14KSCCR @ 480VAC

CX Dimming Option Card



CXDIMCONTRBD

The CX Dimming Option Card provides 0-10V dimming through any HBA CX Lighting Control Panel. This provides a low cost solution for lighting control challenges such as more stringent energy codes, demand response requirements, and LEED qualification while providing additional energy saving capabilities through the use of full range dimming.

The CX Dimming Option Card provides 0-10V dimming control for LED electronic dimming drivers and fluorescent electronic dimming ballasts. The Dimming Channels may be configured to work in concert with Photo Cells, Occupancy Sensors and Schedules in addition to manual Raise Lower Switches.

PRODUCT FEATURES

- Full range dimming with Preset dimming levels
- Ramp Up, Fade Down, Minimum Dim Level
- Max Dim Level (Demand Response System Settings)
- Operates with 0-10V drivers and dimmable ballasts
- Provides manual and automatic control of dimming levels
- Upgrade option to Existing and New CX Panels
- 8 Dimming Channels per card
- Works with Zone5 Switches
- Five-year warranty

General Specifications

Power Requirements	Low Voltage via CX Panel Option Port
Output (Low Voltage Sensors)	Eight 0-10V Dimming Channels 0-10V Screw terminals. #16 solid or stranded copper wire. 0-10V output 30mA per channel Four RJ45 Connections for discrete RJ45 Zone 5 Switches
Panel Dimming Option Card Capacity	CX04/CX08 1 CX Dimming Option Card CX16 Up to 2 CX Dimming Options Cards CX24 Up to 3 CX Dimming Option Cards
User Interface	LCD Color Display via CX Panel Supports Zone 5 RJ45 Switches
Warranty	Five-year limited

Ordering Information

CXDIMCONTRBD
MODEL
CXDIMCONTRBD — CX Panel 8-Channel Dimming Controller Option Board

CX Low Voltage Switches

LVSM1NP *LVSM1PL*

Hubbell Building Automation's CX Low Voltage Wall Switches are designed for virtually any area. The soft contours of its architecturally pleasing design fit easily into any décor. Switches are available in both momentary and latching versions and feature multiple button configurations making them the perfect switch solution for use with HBA's CX Commercial Lighting Control Panels.

PRODUCT FEATURES

- Attractive, architecturally pleasing design
- Momentary and latching versions available
- 1-4 buttons with or without LED
- Mounts to standard single-gang box
- Title 24 compliant when used as part of compliant system
- Five-year limited warranty

General Specifications

Electrical Ratings	Each switch: 100mA @ 30VDC Max Each pilot LED: 18-30VDC, internal 2.2kohm, ½ Watt resistor
Configurations	1 - 4 buttons, with or without pilot LED Momentary or latching (sustained)
Operating Environment	Indoor use only Operating temperature: 32° to 122°F (0° to 50°C) Relative humidity (non-condensing): 10% to 90%
Construction	Housing – Rugged, high-impact, injection-molded plastic Color-coded leads
Dimensions	1.88"W x 4.25"H x 1.56"D
Weight	3.0 oz
Color	White, Ivory, Light Almond, Gray
Mounting	Single-gang NEMA-style switch box (average switch box) Decorator-style wall plate not included
Warranty	Five-year limited

Ordering Information

LVS				
MODEL	SWITCH TYPE	NUMBER OF BUTTONS	PILOT	COLOR
LVS	M Momentary L Latching	1 2 3 4	PL w/ Pilot LEDS NP No Pilot	WH White IV Ivory LA Light Almond G Gray

CX Light Sensor

CX LIGHTING CONTROL PANELS

CALIFORNIA TITLE 24 CEC COMPLIANT

UL LISTED

LOW 24 VDC VOLTAGE

CX Commercial Lighting Control Panels

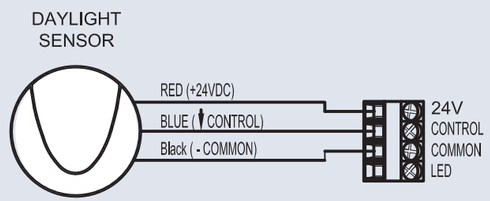
LUXSTATLS

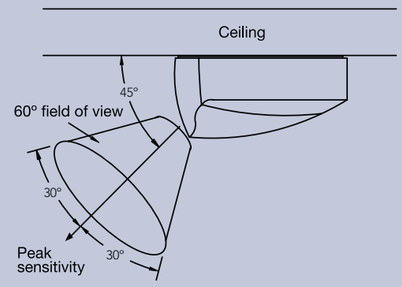
The CX Light Sensor by Servodan provides the necessary daylight-level information to the CX Panel System. Using a photodiode element, this sensor continuously measures daylight levels and sends the information to the selected Luxstat daylight harvesting control module. In order to operate as a true Open Loop controller, the sensor must be positioned to see only daylight (no artificial light). You select the applicable foot-candle range by using a jumper beneath the front cover.

DAYLIGHT HARVESTING

PRODUCT FEATURES

- Daylight sensor for CX Panel Systems
- Architecturally attractive design
- Indoor and outdoor versions
- Open loop operation
- Foot-candle range: 3-6,000 fc
- Mounts vertically or horizontally
- UL and cUL listed
- California Title 24 Compliant
- Five-year limited warranty





General Specifications

Electrical	Four jumper-selectable foot-candle ranges: .03-30FC; 3-300FC; 30-3,000FC; 60-6,000FC 24VDC Low Votage Class 2 Device 3-conductor 22 AWG twisted cable—equal to Belden 8443
Construction	Protective hard plastic cover and housing
Dimension	2″DIA x 1.2″H
Weight	0.5 oz
Certifications	UL and cUL listed
Warranty	Five-year limited

Ordering Information

MODEL	
LUXSTATLS	Luxstat Light Sensor - Indoor
LUXSTATLSO	Luxstat Light Sensor - Outdoor

CX Line V Automatic Line Voltage Switches

CX LIGHTING CONTROL PANELS

CALIFORNIA TITLE 24 COMPLIANT CEC | UL LISTED | 120 277 VAC

CX Commercial Lighting Control Panels

LINEVAS1BUNVWH

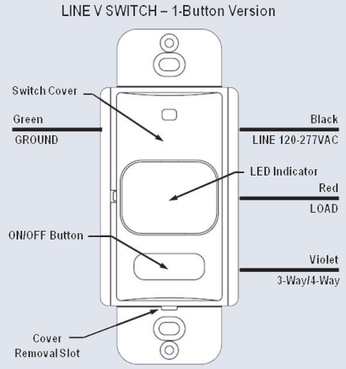
LINEVAS2BUNVWH

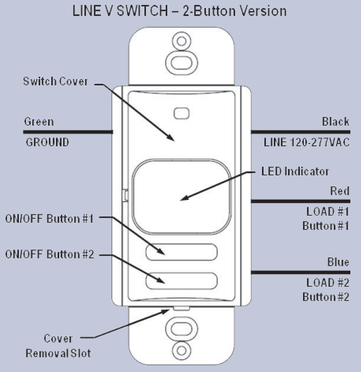
The Hubbell Building Automation Line V Automatic Line Voltage Switches provide feature cost effective lighting control for maximum energy savings. The switches operate based on timed blink patterns from the CX or LX Panels to activate internal relays ON, OFF or override an impending OFF schedule for user selectable periods of 30, 60, 90, or 120 minutes. The CX or LX Panels are designed to control the relay timed blinks to allow for a single relay to signal multiple Line V switches to perform the desired functions.

The 1-Relay version has standard capability to be wired to addition switches for 3-way and 4-way operation on a single zone. The 2-Relay version allows for bi-level switching within a single zone. Signal ON can be selected for 1 or 2 relays.

PRODUCT FEATURES

- Two switch configurations – 1-Relay and 2-relay
- 1-Relay model controls a single zone or can be connected for 3-way and 4-way operation
- 2-Relay model provides single circuit input for dual level area control
- Switches are controlled ON or OFF from the CX Panel using OFF intervals from a single relay
- Allows for retrofit of standard line voltage toggle switches for automatic schedule ON/OFF control
- Blink warning allows user to initiate override of 30, 60, 90, or 120 minutes and cancel OFF event
- Switches operate without the need for a neutral connection
- Dual 120/277VAC operation
- No minimum load requirement
- Zero Arc Point Switching
- ETL, UL, and cUL listed
- California Title 24 compliant
- Five-year limited warranty





General Specifications

Programming and Configuration	Programmable via DIP switches mounted on door All control functions are issued at the switch
Relays Configurations	1-Relay – Single Zone OR 3-Way/4-Way operation 2-Relays – Single circuit input for Bi-Level Control
Power Requirements	120/277VAC; 50/60Hz
Electrical Ratings	120VAC: 5.0 Amps Tungsten; 10.0 Amps Fluoresent; 1/3 HP 277VAC: 10.0 Amps Fluorescent; 1/6 HP
Load Requirements	None
Operating Environment	Indoor use only Operating temperature: 32°–104°F (0°–40°C) Relative humidity (non-condensing): 0%–95%
Construction	Casing—high-impact injection-molded plastic (UL-94-5V) Color-coded leads are 6″ long
Dimensions	4.2″L x 1.8″D x 2.1″W; .37″ extension
Weight	2.9 oz.
Color	White; Ivory; Light Almond; Gray; Black
Mounting	Single-gang NEMA-style switch box (average switch box) Decorator-style wall plate not included
Certifications	ETL, UL, and cUL listed
Warranty	Five-year limited

Ordering Information

MODEL/DESCRIPTION	
LINEVAS1BUNVBK	Line V 120-277VAC Automatic Switch, 1-Button, Single Relay, Single or 3-Way Black
LINEVAS1BUNVGY	Line V 120-277VAC Automatic Switch, 1-Button, Single Relay, Single or 3-Way Gray
LINEVAS1BUNVIV	Line V 120-277VAC Automatic Switch, 1-Button, Single Relay, Single or 3-Way Ivory
LINEVAS1BUNVLA	Line V 120-277VAC Automatic Switch, 1-Button, Single Relay, Single or 3-Way Light Almond
LINEVAS1BUNVWH	Line V 120-277VAC Automatic Switch, 1-Button, Single Relay, Single or 3-Way White
LINEVAS2BUNVBK	Line V 120-277VAC Automatic Switch, 2-Button, Dual Relay, Single Black
LINEVAS2BUNVGY	Line V 120-277VAC Automatic Switch, 2-Button, Dual Relay, Single Gray
LINEVAS2BUNVIV	Line V 120-277VAC Automatic Switch, 2-Button, Dual Relay, Single Ivory
LINEVAS2BUNVLA	Line V 120-277VAC Automatic Switch, 2-Button, Dual Relay, Single Light Almond
LINEVAS2BUNVWH	Line V 120-277VAC Automatic Switch, 2-Button, Dual Relay, Single White

OMNIDT2000

The OMNI line of occupancy and vacancy sensors are available in Ultrasonic, Infrared and Multi-Tech (combines ultrasonic (US) and passive infrared (PIR)) to turn lighting on and off based on occupancy. This family of sensor features Hubbell Building Automation's patented IntelliDAPT technology, which makes all the sensor adjustments automatically.

Throughout the product's lifespan, IntelliDAPT software analyzes the controlled area and makes digital adjustments to sensitivity and timer settings. Occupancy sensors with IntelliDAPT provide a maintenance-free install-and-forget operation.

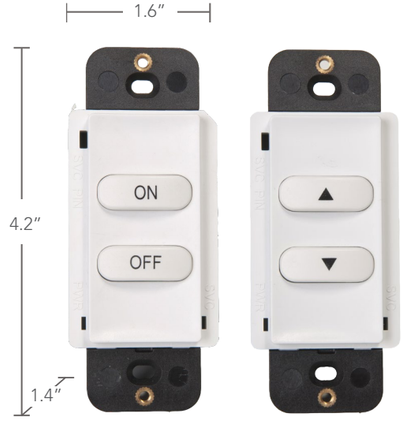
The LightOWL™ Dual Technology Ultrasonic and Passive Infrared Sensor combines ultrasonic (US) and passive infrared (PIR) technologies to turn lighting on and off based on occupancy. Designed specifically for areas where ceiling sensors are not appropriate, this sensor features Hubbell Building Automation's patented IntelliDAPT technology, which makes all the sensor adjustments automatically.

Throughout the product's lifespan, IntelliDAPT software analyzes the controlled area and makes digital adjustments to sensitivity and timer settings. Occupancy sensors with IntelliDAPT provide a maintenance-free install-and-forget operation.

LODT

ORDERING INFORMATION

Consult the Occupancy/Vacancy Section for detailed specifications, application guidelines and product ordering.



Z5-SW-MC

The HBA CX Lighting Control Switches provide manual control. The system consists of two types of switches – a Dimming Control Switch and a Master On/ Off Control Switch.

The Dimmning Control switches enables users to raise and lowers light levels. The Master/Row Control switches turn all lighting ON or OFF.

PRODUCT FEATURES

- Attractive, architecturally pleasing design
- Raise/ Lower Dimming control
- Master ON/OFF control
- Mount to standard single or multi-gang wall boxes
- Five-year warranty

Ordering Information

LIGHTING CONTROL SWITCHES AND CABLES	
Z5-SW-AVD	CX Dimming Switch, White
Z5-SW-MC	CX Master On/Off Switch, White