

Project		Catalog #		Type	
Prepared by		Notes		Date	



WaveLinx

Networked Relay Panel (PLE-*)

Connected Relay Panel with 0-10V dimming

Typical Applications

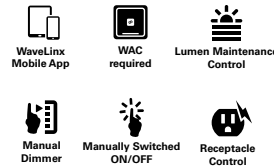
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Product Features



Compatibility



Overview

The WaveLinx Networked Relay Panel from Cooper Lighting Solutions consist of Relays and 0-10V dimming modules that is connected to the WaveLinx Area Controller through an Ethernet switch. The WaveLinx Networked Relay Panels are available in various enclosure sizes including emergency options, with capacity up to 64 latching relays and 64 dimming 0-10V channels.

Product Features & Benefits

- Factory assembled - Ready to be installed by the electrical contractor with minimal wiring and eliminating on-site panel assembly and wire termination work
- Built-in screen with buttons - Local Panel override and status view
- Up to 3 Pole 40A Relay with options - Control up to 480V Lighting
- Emergency UL924 option - Multi Phase monitoring
- Remote 0-10V dimming option - Eliminate the need to home run multiple 0-10V channels
- Commissioning - Use existing WaveLinx mobile application to commission and control
- Scheduling - Use WaveLinx Area Controller
- Wallstation control - Use PRO and CAT wallstations
- Occupancy/Vacancy control - Use PRO and CAT sensors
- Daylight Harvesting - Use PRO and CAT sensors

Order Information

Panel

SAMPLE ORDER NUMBER: **PLE-30E-347-4X-R1-10-R2-01-R3-02-PDM-P-06**

(WaveLinx Relay Panel Enclosure - 30 Relays with Emergency, 347, NEMA 4X, 1 Pole Relay - qty 10, 2 Pole Relay - qty 1, 3 Pole Relay - qty 2, Dimming Module - qty 6)

Enclosure	Capacity	Voltage	Type	1 Pole Relay	Quantity	2 Pole Relay	Quantity	3 Pole Relay	Quantity	Dimming Module	Quantity
PLE = WaveLinx Panel Enclosure	04 = 04 relay capacity 08 = 08 relay capacity 16 = 16 relay capacity 24 = 24 relay capacity 32 = 32 relay capacity 40 = 40 relay capacity 48 = 48 relay capacity 56 = 56 relay capacity 64 = 64 relay capacity 08E = 08 relay capacity with emergency 14E = 14 relay capacity with emergency 24E = 24 relay capacity with emergency 30E = 30 relay capacity with emergency 40E = 40 relay capacity with emergency 46E = 46 relay capacity with emergency 56E = 56 relay capacity with emergency 62E = 62 relay capacity with emergency	[Blank] = 120-277V 347 = 347V	[Blank] = NEMA 1 4X* = NEMA 4X *Not available with Emergency enclosure	R1 = 1 Pole, 120-277V/347V	enter quantity for 1 Pole Relay	R2 = 2 Pole, 120-277V/347V	enter quantity for 2 Pole Relay	R3 = 3 Pole, 120-277V/347V	enter quantity for 3 Pole Relay	PDM-P = Panel Mount (use power supply for more than 6 modules) See table below for Remote Dimming Module option	enter quantity for Dimming Module
Note See table below for MAXIMUM allowed quantities of Relays (R1, R2, R3) and Dimming Modules (PDM-P, PDM-R) per Panel Enclosure											

Remote Dimming Module (optional)

Dimming module has 4 outputs and are ordered separately.

Dimming Module	Mount
PDM = WaveLinx Panel Dimming Module	R = Remote mount (Use Power supply for more than 6 modules)

Dimmer Module Power Supply (optional)

Dimmer Module Power Supply is optional and ordered separately.

Catalog Number	Description
WLSPSR-P	Panel mount power supply for 120/277VAC
WLSPSR-P-347	Panel mount power supply for 120/347VAC
WLSPSR-R-347	Remote mount power supply for 120/347VAC
WPSR4-R	Remote Junction Box Mount power supply for 120/277 VAC

Flush Trim Ring (optional)

Flush Trim Rings are designed to provide a clean appearance for flush mounted controllers with a two inch border that matches the door. Simply fit the trim ring over the controller mounted in the rough opening and fasten to the wall with the stainless steel hardware included.* Flush Trim Ring is optional and ordered separately.

SAMPLE ORDER NUMBER: **WLLFT-08/16**

(WaveLinx Relay Panel Enclosure 08/16 Flush Trim Ring)

Flush Trim Ring	Enclosure
WLLFT = WaveLinx Flush Trim Ring	08/16 = 08/16 Enclosure 24/32 = 24/32 Enclosure 40/48 = 40/48 Enclosure 56/64 = 56/64 Enclosure

High Voltage Divider (optional)

High Voltage divider is optional and ordered separately.

Catalog Number	Description
WLLHVD	High Voltage Divider

MAXIMUM Relays and Dimming Modules allowed per Panel Enclosure

Enclosure	Normal Panel Capacity				
	R1	R2	R3	PDM-P*	PDM-R*
PLE-04	4	2	1	1	1
PLE-08	8	4	2	2	2
PLE-16	16	8	3	4	4
PLE-24	24	12	6	6	6
PLE-32	32	16	8	8	8
PLE-40	40	20	10	10	10
PLE-48	48	24	12	12	12
PLE-56	56	28	14	14	14
PLE-64	64	32	16	16	16

Enclosure	Emergency Panel Capacity				
	R1	R2	R3	PDM-P*	PDM-R*
PLE-08E	8	4	2	2	2
PLE-14E	14	7	3	4	4
PLE-24E	24	12	6	6	6
PLE-30E	30	15	7	6	8
PLE-40E	40	20	10	10	10
PLE-46E	46	23	11	12	12
PLE-56E	56	28	14	14	14
PLE-62E	62	31	15	16	16

*Use power supply for more than 6 dimmer modules.

Product Specifications

Key Features

- UL listed to all relevant standards (UL-916, UL 508A, cULus)
- Supports various ballast/driver types controllable by 0-10V
- Supports up to 64 switched and dimming outputs (based on selected configuration)
- Heavy duty 40 A @ 120/277/347 VAC, 1-pole latching relay
- Heavy duty 40 A @ 208/240/480, 2 & 3-pole latching relay
- Normal and Emergency enclosure options
- Capable of mixed load voltages (120/208/277/480 VAC 50/60Hz) based on proper spacing and wire insulation.
- Panel systems solutions include both normal and emergency power sources based on proper spacing and wire insulation
- Ethernet connectivity to WaveLinx Area Controller (WAC)
- Emergency UL 924 bypass Relay Control to force output to Full ON/OFF/Hold
- 3 Phase monitoring System for Emergency options Panel
- Capable of meeting all latest energy codes (IECC, Title 24, ASHRAE) when connected to WaveLinx Area Controller (WAC)

Mechanical

Enclosure: NEMA 1, Surface Mount and Flush mount, lockable, NEMA 4X options

Enclosure Size:

- WaveLinx Relay Panel 4: 14" W X 12" H X 6" D (355.6mm x 304.8mm x 152.4mm)
- WaveLinx Relay Panel 8-16: 20" W X 20" H X 6" D (508mm x 508mm x 152.4mm)
- WaveLinx Relay Panel 24-32: 20" W X 29" H X 6" D (508mm x 736.6mm x 152.4mm)
- WaveLinx Relay Panel 40-48: 20" W X 38" H X 6" D (508mm x 965.2mm x 152.4mm)
- WaveLinx Relay Panel 56-64: 20" W X 48" H X 6" D (508mm x 1219.2mm x 152.4mm)

Weight:

- 4 Relays Panel: 18 lbs (8.2 kg)
- 8 Relays Panel: 41 lbs (18.6 kg)
- 16 Relays Panel: 45lbs (20.4 kg)
- 24 Relays Panel: 63lbs (28.6 kg)
- 32 Relays Panel: 66lbs (29.9 kg)
- 40 Relays Panel: 78lbs (35.4 kg)
- 48 Relay Panel: 85lbs (38.6 kg)
- 64 Relay Panel: 98lbs (44.5 kg)

Enclosure Capacity

- 4 Relays capacity
- 8-16 Relays capacity
- 24-32 Relays capacity
- 40-48 Relays capacity
- 56-64 Relays capacity

Environment:

- **Operating temperature:** 35°F to 122°F (0° C to +50° C)
- **Relative humidity operating:** 10% to 95% non-condensing
- For indoor use only

Electrical

Supply: 120/277 VAC @ 1 A, or optional 120/347 VAC

Maximum Load:

- **Switching Load:** 40 A @ 120, 277 and 347 VAC, 1-pole, 40 A @ 208/240/480, 2 & 3-pole
- **Plug Load compatible 0-10V Load:** Sink up to 100mA per channel
- **120, 277 or 347 VAC per pole** (controls 208/240/480 loads)
 - 40 A HID and ballast loads
 - 40 A resistive loads
 - 16 A electronic ballast loads (UL's limit)
 - 1.5 Hp @120VAC motor loads
 - 18,000 Symmetrical Amp SCCR @347 VAC
 - Plug-load compatible

Protection Internal:

- 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

Normal and Emergency enclosure options

0-10V Wiring: 24-16AWG (depending on distance)

Power Loss: 0-10v dimming reverts to 100%

Normal Panel Standards/Ratings

- cULus Listed - Energy Management Equipment (UL916)
- Meets ASHRAE Standard 90.1 requirements
- Meets IECC 2015 requirements
- Meets CEC Title 24 requirements

Environmental Regulations:

- NEMA 1 Type 1
- NEMA 4X (UL508)

Emergency Panel Standards/Ratings

- UL 924, 916
- cULus Listed
- FCC Part 15
- FCC Part 68
- Title 24
- ASHRAE compliant

Warranty

Five year warranty standard

Refer to installation sheets for normal and emergency panel installation instructions

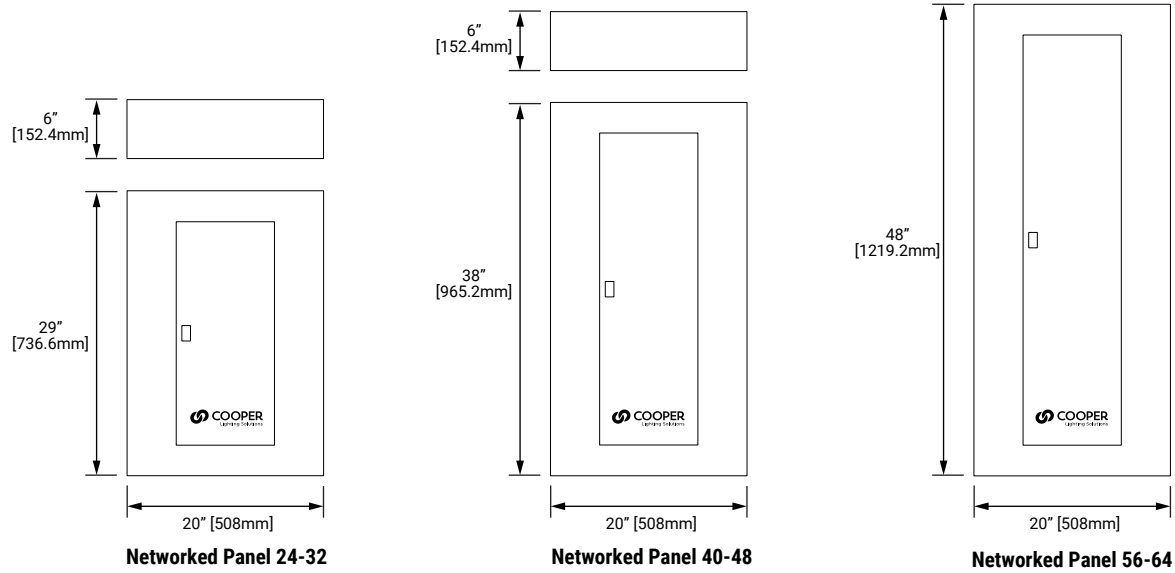
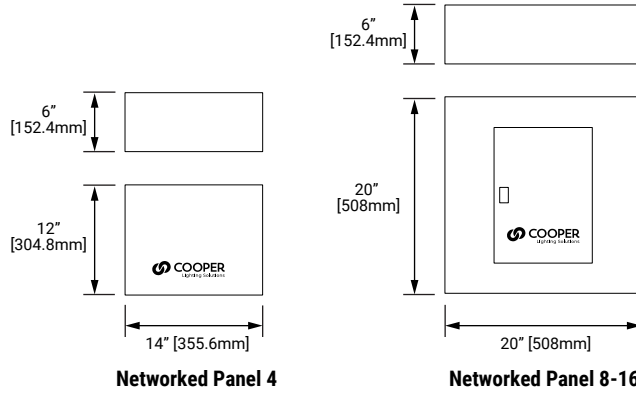


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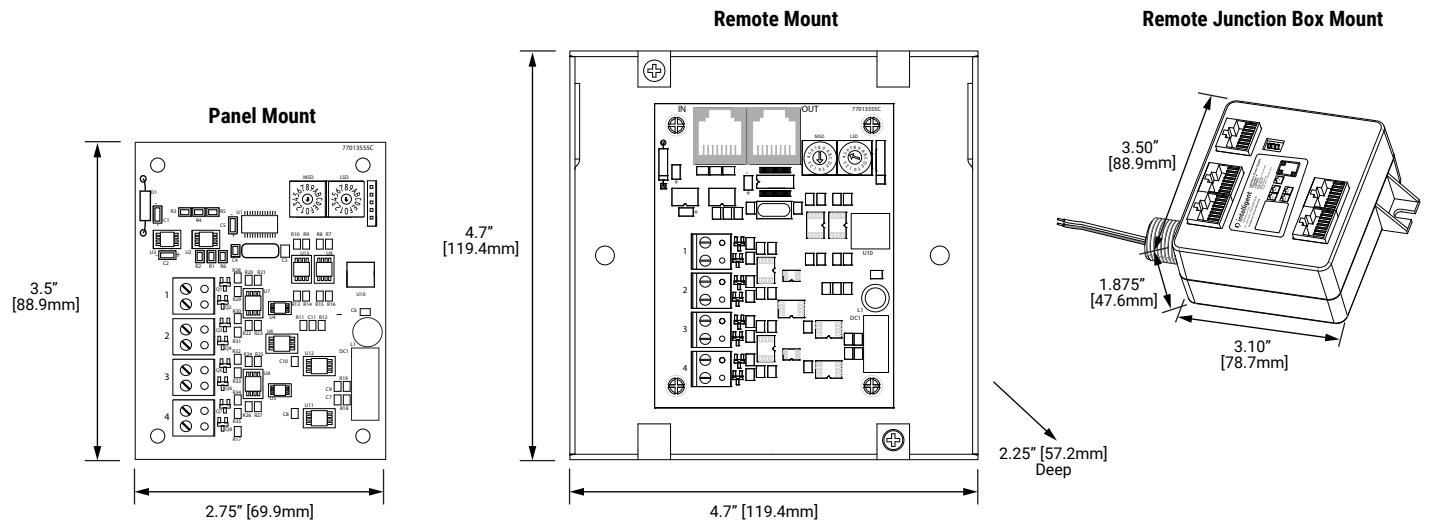
Dimensional Details - Networked Panel

Enclosure Size Options (NEMA Type 1 w/cover)				
Enclosure Type	Relays	Width	Height	Depth
Networked Panel 4	1 to 4	14"	12"	6"
Networked Panel 8-16	1 to 16	20"	20"	6"
Networked Panel 24-32	1 to 32	20"	29"	6"
Networked Panel 40-48	1 to 48	20"	38"	6"
Networked Panel 56-64	1 to 64	20"	48"	6"

Enclosure Size Options (NEMA 4X Panel w/cover)				
Enclosure Type	Relays	Width	Height	Depth
Networked Panel 8-16	1 to 16	20"	24"	8"
Networked Panel 24-32	1 to 32	24"	30"	8"
Networked Panel 40-48	1 to 48	30"	42"	8"
Networked Panel 56-64	1 to 64	36"	48"	8"



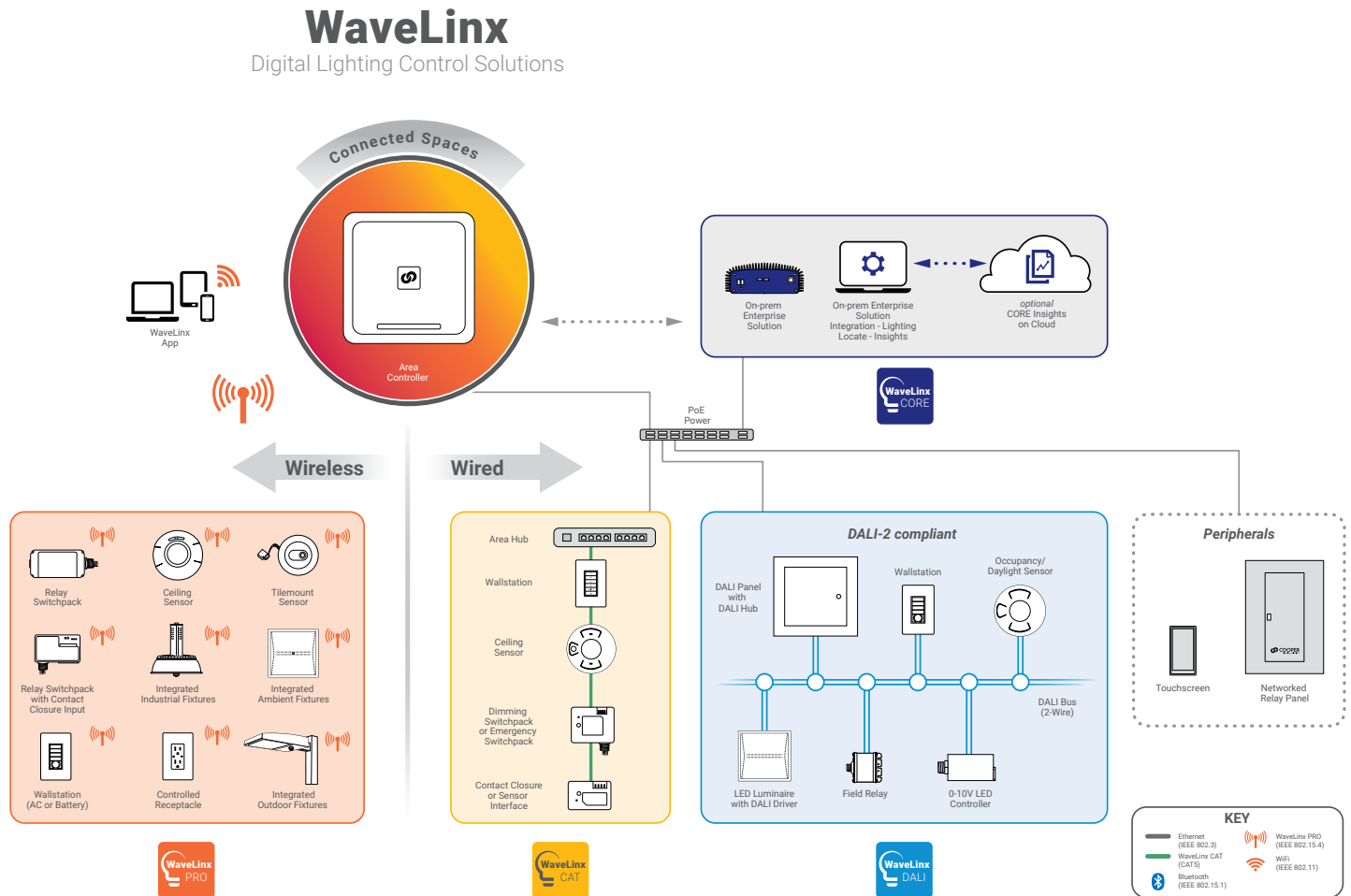
Dimensional Details - Dimming Module



System Diagram:

This diagram shows the main components of the WaveLinx connected lighting system with WaveLinx DALI, CAT and PRO devices. The PRO devices communicate using wireless mesh technology based on the IEEE 802.15.4 standard. A PoE LAN connection for each WaveLinx Area Controller (WAC) is required for power and data access to the building lighting network. The CAT devices communicate over the category 5 based communication bus and control the light fixtures using a relay (on/off) and 0-10V output (dim/raise). WaveLinx DALI devices communicate via a DALI bus (2 wires), which connects various components including DALI fixtures, a DALI DAC (DALI to 0-10V converter), DALI field relays, DALI wallstations, and DALI occupancy sensors. WaveLinx Area Controllers (WAC) communicate with WaveLinx CORE Apps over the Ethernet network.

[View WaveLinx Network and IT Guidance Technical Guide](#)



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