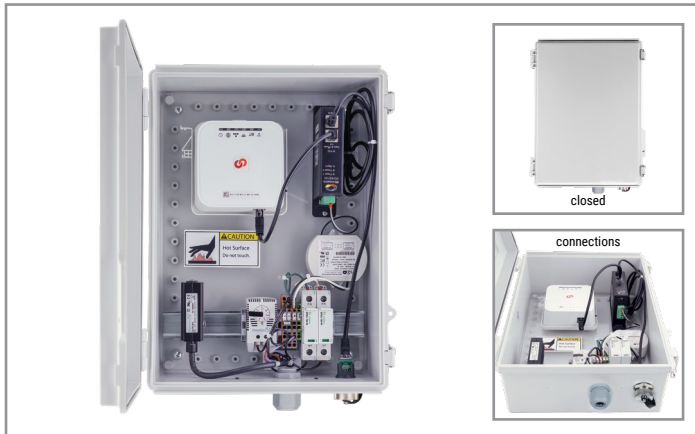


Project		Catalog #		Type	
Prepared by		Notes		Date	



WaveLinx

WaveLinx Area Controller with IP66-Outdoor Rated Enclosure (WAC2-POE-OUT-EN)

Controls and manages communications between WaveLinx PRO wireless, Low-Voltage, network devices and the intuitive mobile application

Typical Applications
Office • Education • Healthcare • Hospitality • Retail
Industrial • Manufacturing

Interactive Menu

- Order Information page 2
- Additional Resources page 3
- Connected Systems page 5
- Product Warranty

Product Certification*



- Complies with the following electromagnetic requirements: FCC part 15 Sub Part B UL/IEC 62368-1

Product Features



Compatibility



Overview

The WaveLinx Area Controller (WAC) is the main component of the WaveLinx connected lighting (WCL) system. WaveLinx PRO eliminates the cost and complexity of typical wireless control system commissioning while providing a flexible and reconfigurable topology for on the fly space adjustments. The WaveLinx PRO system meets modern code and utility requirements, delivers energy and cost savings, while enabling buildings to become smart buildings.

The WAC coordinates between the WaveLinx PRO smart and connected Mobile App and various WaveLinx PRO devices to create communications and a building ecosystem that provides out-of-the-box functionality and leverages Cooper Lighting Solutions patent pending automatic code commissioning features. Using standard-based wireless mesh compliant topology the WAC communicates to various WaveLinx PRO standard-based devices to provide area, lighting zone configuration, monitoring, and control.

The WAC provides centralized coordination of multiple areas for partial ON/partial OFF scheduling, demand response (CORE application required), lighting, occupancy and daylight settings and scene control. A single WAC can be connected to the building Local Area Network (LAN) to coordinate 49 user-defined and one construction area, or multiple WAC's can exist on a building LAN to scale the system to hundreds of areas all accessible for setup, configuration and control through the WaveLinx Mobile App.

Product Features & Benefits

- Central to the WaveLinx connected lighting system
- WAC installed in IP66-rated outdoor enclosure includes heating element for installations in cooler climates
- Supports up to 200 devices (150 best practices) for up to 50 areas (49 user-defined + 1 construction area) and 200 zones
- Built-in WiFi provides secure WPA2 connectivity with the WaveLinx Mobile Application (available for both iOS and Android operating systems)
- Built-in Ethernet 10/100 Mbps port for PoE power and connection to local area networks
- Independently IEC 62443-2 cyber-security certified and DLC QPL Listed

*T24 and RoHS are self-tested by Cooper Lighting Solutions. Not a third party certification.

Order Information

All WaveLinx connected lighting (WCL) system accessories require at least one WaveLinx Area Controller (WAC) for communications.

Catalog Number

Catalog Number	Description
WAC2-POE-OUT-EN	WaveLinx Area Controller G2 with 120VAC to PoE Injector with Enclosure

Product Specifications

Key Features

- Lockable WaveLinx Area Controller with IP66-rated enclosure for exterior installation
- Includes PoE injector for connection to 120VAC power sources
- Controls up to 200 (150 best practice) WCL devices (light fixtures, relay switchpacks, wallstations, sensors, etc.)
- Supports 49 user-defined and one construction area with multiple lighting zones, occupancy sets, and daylight sets per area
- Drag and drop programming of lighting zones and areas via WaveLinx Mobile App
- Connects to building LAN for access (via CORE) to BMS and OpenADR interfaces

Mechanical

Size: 15.75" x 11.81" x 5.90" (400mm x 300mm x 150mm)

Weight: 9 lbs. (4 kg.)

Environment:

- **Operating temperature:** -22°F to 104°F (-30°C to 40°C)
- **Storage temperature:** -22° F to 185° F (-30°C to 85°C)
- **Relative humidity operating:** 5% to 90% RH (non-condensing)
- water tight fitting for 3/4" conduit connection
- For outdoor use

Mounting: Exterior wall locations where NOT exposed to direct sunlight

Color: Off-White

Electrical Connection

Input Connections:

- External water-tight Ethernet connection for RJ45 Cat5 cable suitable for the environment

Input Power:

- 120VAC 50/60Hz
- 40W with heater on, 8W with heater off

Hardware Specifications

Status Indicators:

- LAN connectivity LED - green
- WAN connectivity LED - green
- Wi-Fi connectivity LED - blue
- BT reserved for future functionality - blue
- IEEE 802.15.4 connectivity LED - blue
- Power indication LED - blue

Software Specifications

Programming:

- Settings and Configuration stored in non-volatile flash memory
- Up to 200 total WCL devices (for best performance, connect up to 150 devices)
- 49 user defined areas + 1 construction area
- Up to 16 scenes per area
- Up to 16 zones per area - up to 200 total zones per WAC2
- Up to 6 occupancy sets per area
- Individual luminaire daylight sets (when using integrated sensors)

Wireless Specifications

Radio: 2.4GHz

Standard: IEEE 802.15.4 (802.11 wifi used for mobile app connection)

Transmitter Power:

- IEEE802.15.4: Max 16 dBm, Min 14 dBm
- WiFi: Max 14 dBm, Min 11 dBm

Range: 150ft (50m) LOS (best practice)

Note – consult outdoor sensor spec sheets for guidance when connecting to devices located outdoors

System Performance

Maximum number of Devices: 200 per WaveLinx Area Controller (best practice 150 devices)

Standards/Ratings*

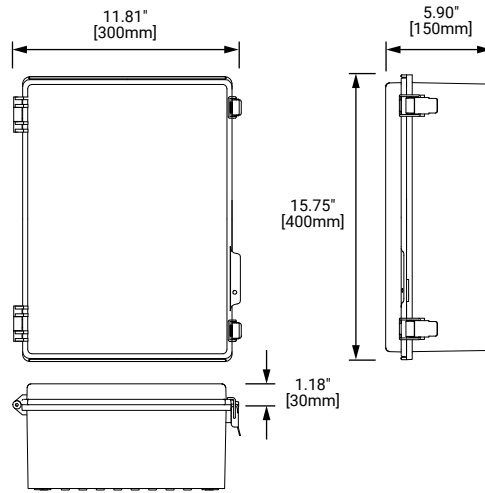
- FCC Part 15/ICES-003
- Complies with the following electromagnetic requirements:
 - FCC part 15 Sub Part B
 - IEC60950-1 (Impulse Test)
- IP66-Rated Outdoor Enclosure

Warranty

Two year warranty

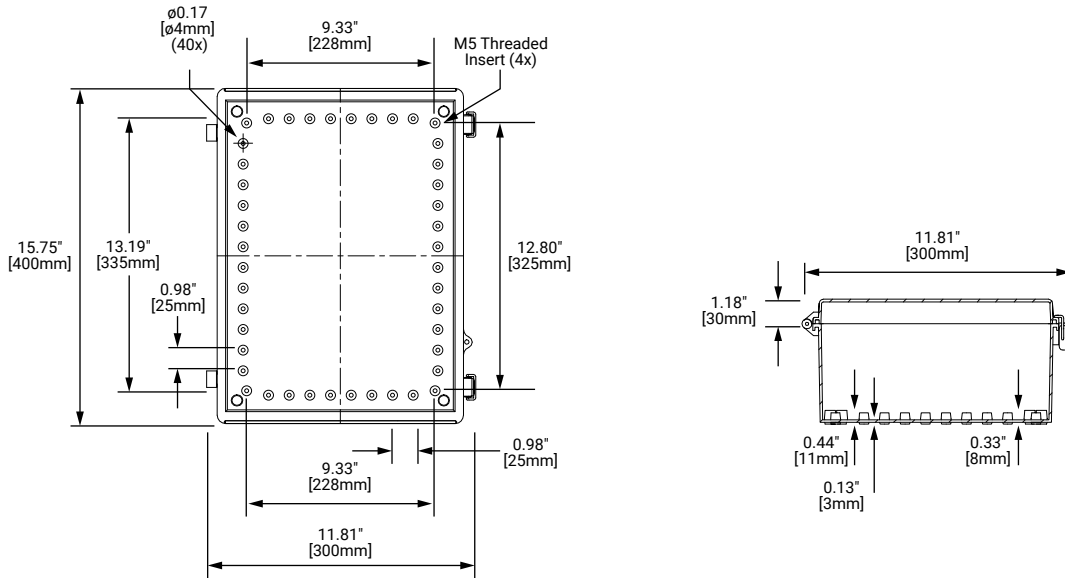
*T24 and RoHS are self-tested by Cooper Lighting Solutions. Not a third party certification.

Dimensional Details

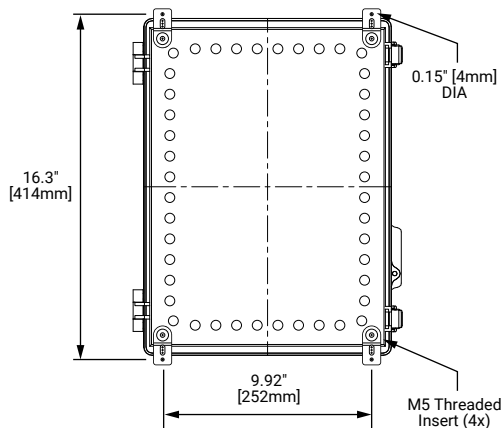


Additional Diagrams

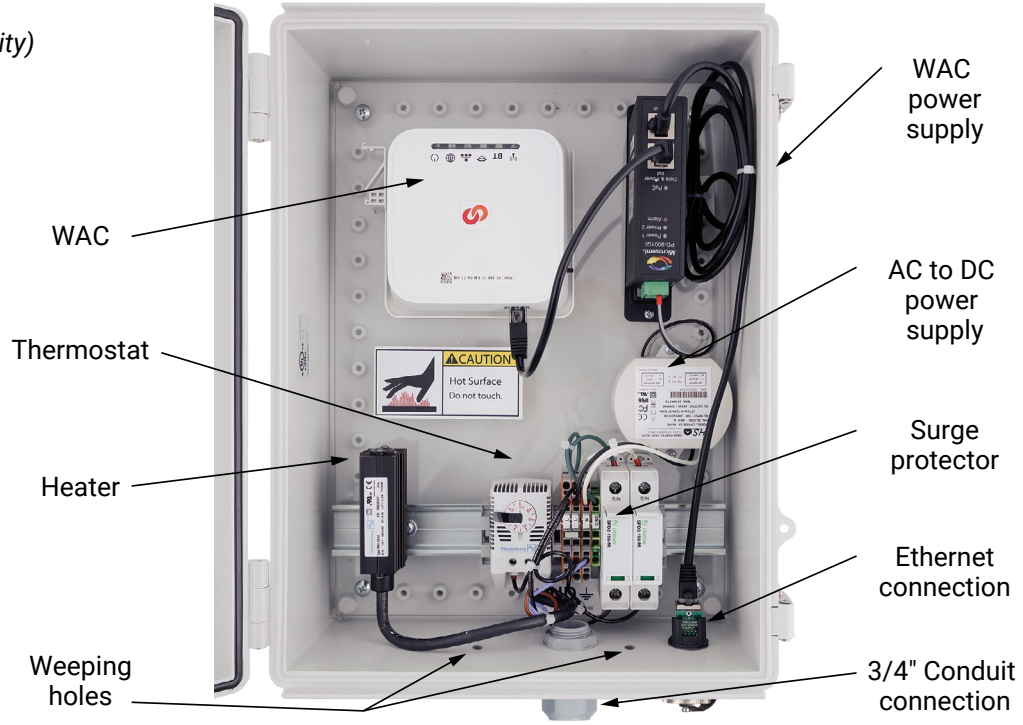
Inside view of body
with cover removed



Mounting



Front view
(door hidden for clarity)



System Diagram:

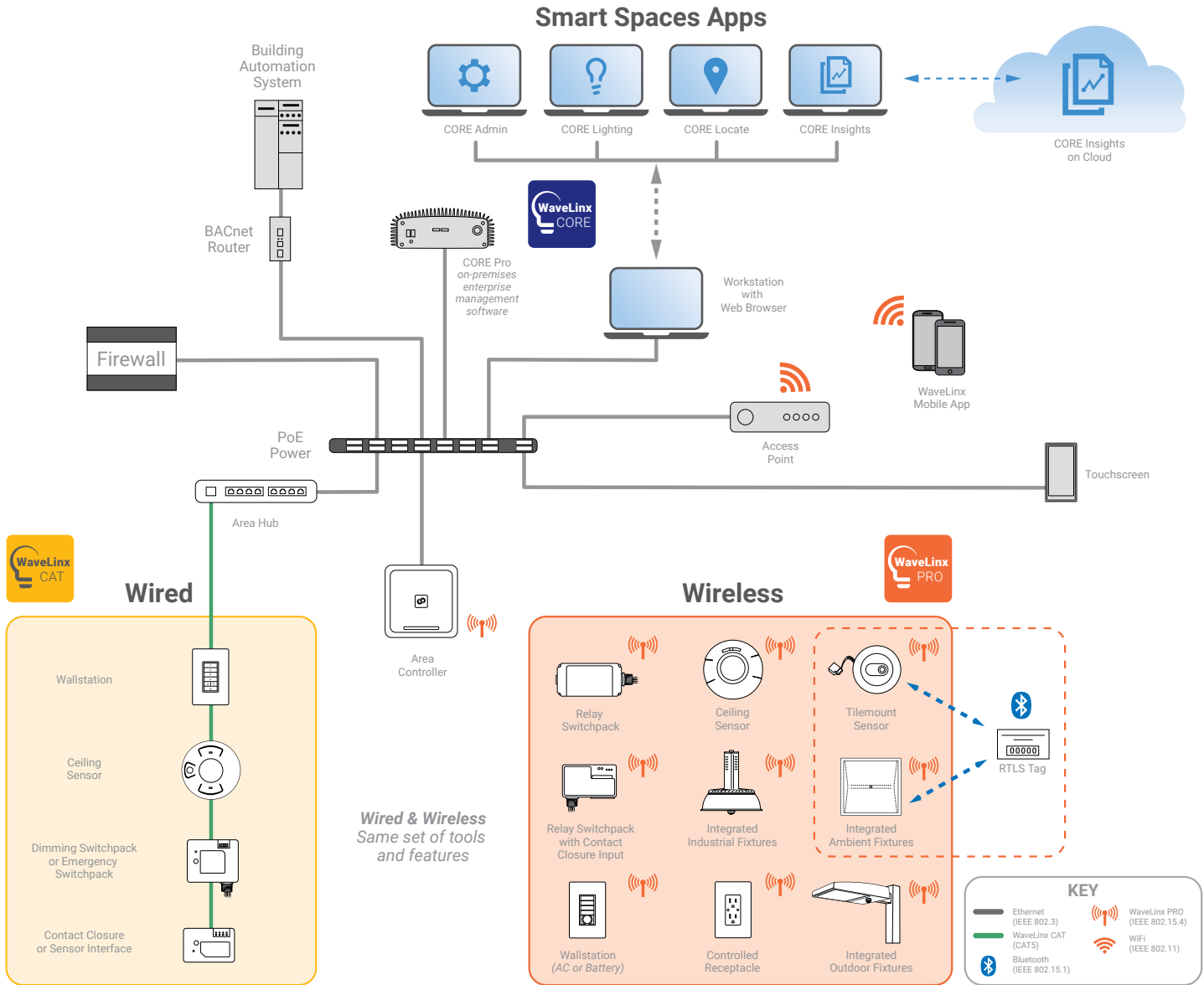
This diagram shows the main components of the WaveLinX connected lighting system with CAT and PRO devices.

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 Area Controllers (WAC) communicate with WaveLinX CORE Apps over the Ethernet network.

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



Control Systems
• WaveLinX