

Project		Catalog #		Type	
Prepared by		Notes		Date	



WaveLinux Pro

Universal Voltage Dimming Switchpack

20A relay switchpack with 0-10V control

Typical Applications

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

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Product Certification



- Meets latest ASHRAE Standard 90.1 requirements
- Meets latest IECC requirements
- Meets latest CEC Title 24 requirements
- Manufactured in an ISO 9001 certified factory

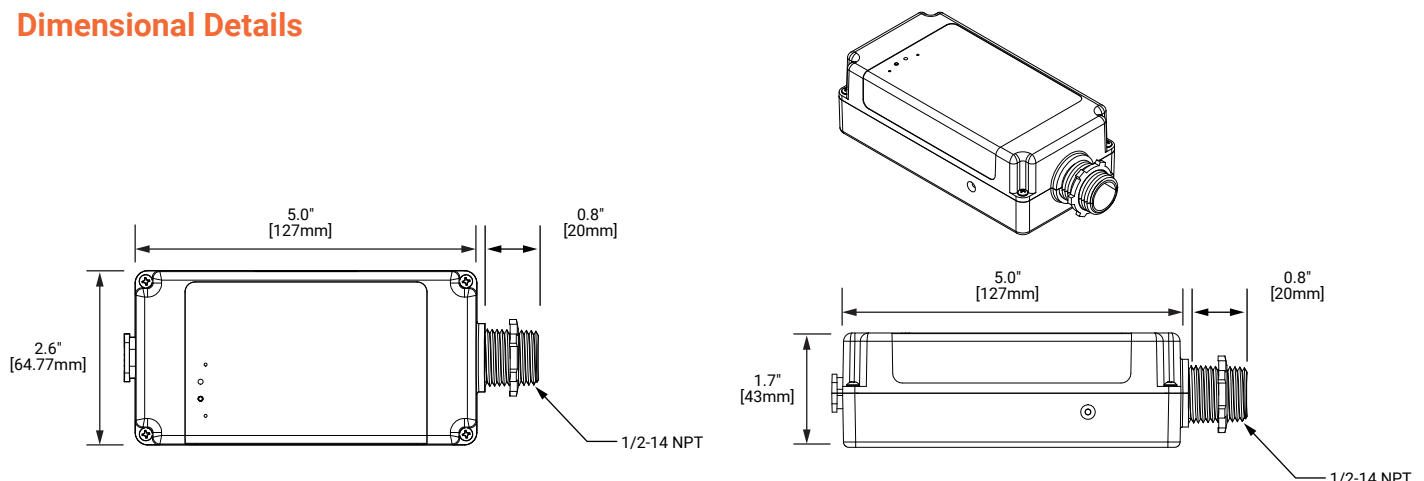
Product Features



Top Product Features

- Output control loads up to 20amps or 1.5 HP and 0-10V dimming control
- Plenum rated design with easy junction box mounting
- Universal voltage input (120V-347V, Single Phase)
- Fails safe to 70% if communications are lost
- Energy calculations available through Trellix

Dimensional Details



Order Information

The WaveLinx Pro Universal Voltage Dimming Switchpack is an accessory to the WaveLinx Pro connected lighting (WCL) system and requires a WaveLinx Pro Wireless Area Controller (WAC) for full functionality. The wireless relay is used to control plug loads or luminaires that do not include the wireless integrated sensor.

Catalog Number

Catalog Number	Description
WSP-UV-010 (replaces WSP-MV-010)	Wireless Universal Voltage Dimming Switchpack - 20 amp

Required Accessories

All WaveLinx Pro connected lighting (WCL) system accessories require at least one WaveLinx Pro Wireless Area Controller (WAC2) for communications. Ensure the bill of material includes one of the following components.

Catalog Number

Catalog Number	Description
WAC2-POE	Wireless Area Controller G2, PoE powered
WAC2-120	Wireless Area Controller G2 with 120VAC to PoE Injector

Optional Accessories

For connection to 120VAC outlets.

Catalog Number

Catalog Number	Description
WPOE2-120	120VAC to PoE Injector

Product Specifications

Key Features

- Output control for the following
 - 0-10V continuous dimmable luminaires
 - LED loads up to 20A
 - Receptacle loads up to 20A
 - Motor loads to 1.5 HP
- Plenum rated design with easy junction box mounting
- Device identification LED
- Universal voltage input (120V-347V)
- Designed with safety in mind, at loss of communications with Wireless Area Controller, the wireless relay switchpack will turn ON and set dimmer to 70% light level
- Energy calculations available through Trellix

Mechanical

Size: 1.7"H x 2.6"W x 6.1"L (43mm x 66mm x 155mm)

Environment:

- **Operating temperature:** 32°F to 104°F (0°C to 40°C)
- **Storage temperature:** 32°F to 158°F (0°C to 70°C)
- **Relative humidity operating:** 10% to 90% RH (non-condensing)
- For indoor use only

Mounting: Mounts to the side of a 4" (102mm) square box via ½" (13mm) knockout

Color: Matte White

Housing: Medium impact injection molded housing. ABS resin with 5VA flame rating. Plenum rated for external junction box mounting with Teflon coated leads.

Electrical

Power:

- 120-347VAC (+/- 10%) 50/60Hz (Single Phase)
- 120 / 277 / 347VAC

Output Information:

- 20amp 120-347VAC General Purpose (Single Phase)
- 16amp 120-347VAC electronic ballast (LED load) (Single Phase)
- Single class 2 0-10V dimming output (IEC 60929 Annex E) sinks up to 120mA per (40 µA max per circuit leakage to line)
- 0-10V output supports up to 60 ballasts/drivers that draw a standard 2mA each

Wireless Specifications

Radio: 2.4GHz

Standard: IEEE 802.15.4

Transmitter Power: + 10dBm

Range: 150ft (46m) LOS

50ft (15m) through standard walls when mounted outside junction box

of Walls: 2 interior walls standard construction

System Performance

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

Standards/Ratings

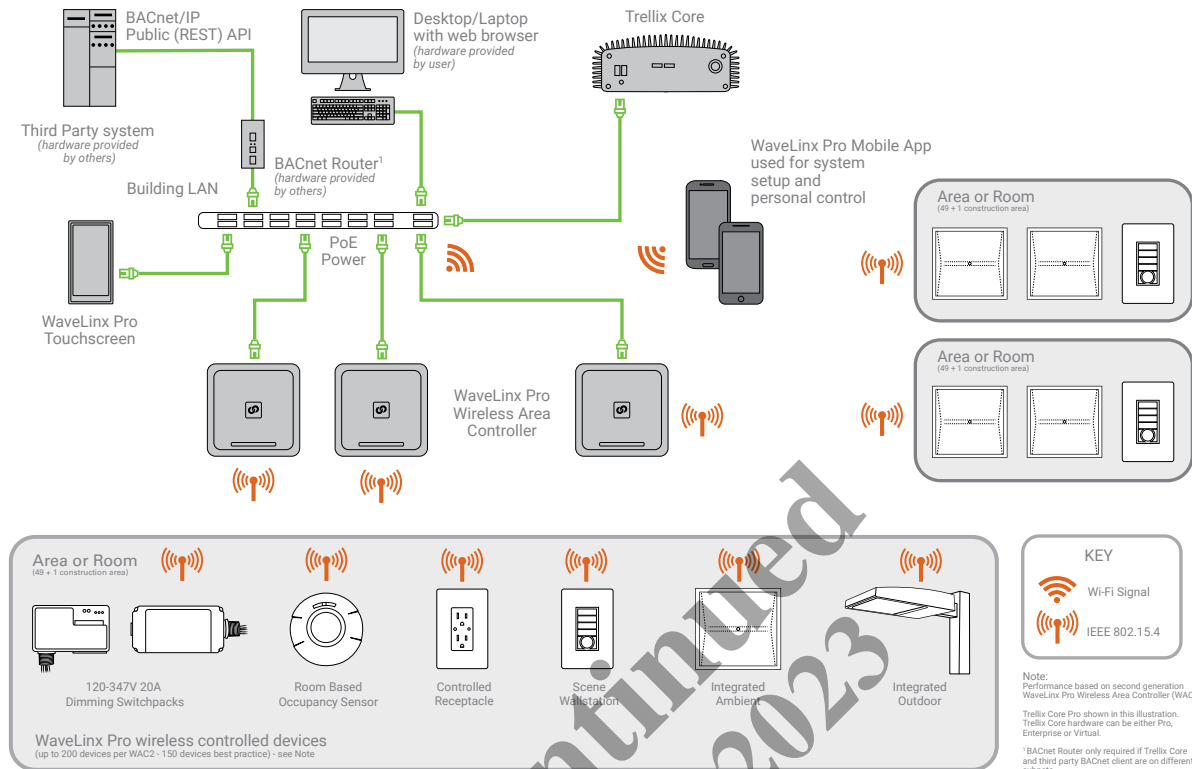
- cULus Listed - Energy Management Equipment (UL916)
- UL924 / C22.2 No. 141 Listed (-EM model only)
- FCC part 15 Sub Part B
- Manufactured in an ISO 9001 certified factory
- Meets latest ASHRAE Standard 90.1 requirements
- Meets latest IECC requirements
- Meets latest CEC Title 24 requirements

Warranty

Five year warranty standard

System Architecture

This diagram shows the main components of the WaveLinX Pro connected lighting (WCL) system. The WCL system communicates using wireless mesh technology based on the 802.15.4 standard. A POE LAN connection for each Wireless Area Controller (WAC) is required for power and data access to the building wireless network. System setup is achieved through a simple mobile application via wireless communication to the system.



Overview

The WaveLinX Pro Universal Voltage Dimming Switchpack with 0-10V (WSP-UV-010) control is an integral part of the WaveLinX Pro connected lighting (WCL) system and offers 120-347VAC (Single Phase) 20amp zero crossing relay control and continuous 0-10V dimming control of LED and non LED loads. The relay switchpack with 0-10V control also supports 20amp plug load control. The WSP-UV-010 is powered by the 120-347VAC (Single Phase) circuit it is controlling and provides simple 1/2" knockout mounting. The relay switchpack with 0-10V control operates on a wireless mesh network based on IEEE 802.15.4 standards.

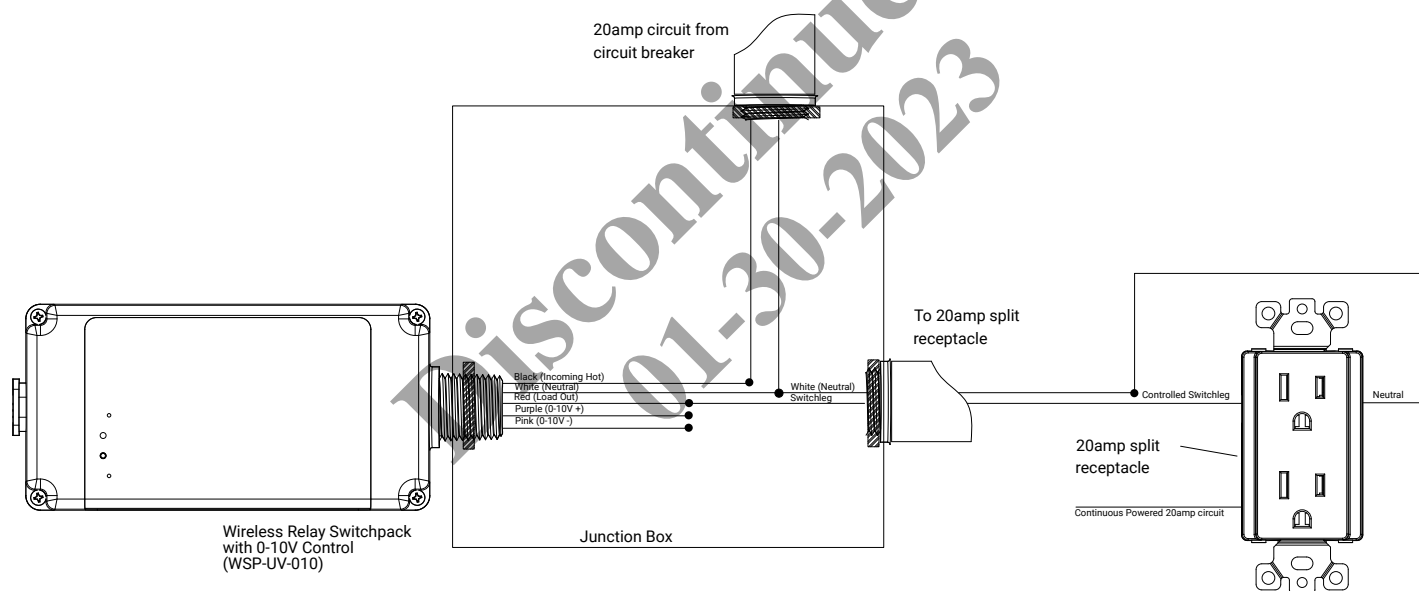
20amp circuit from circuit breaker*

Wireless Relay Switchpack with 0-10V Control (WSP-UV-010)

Junction Box

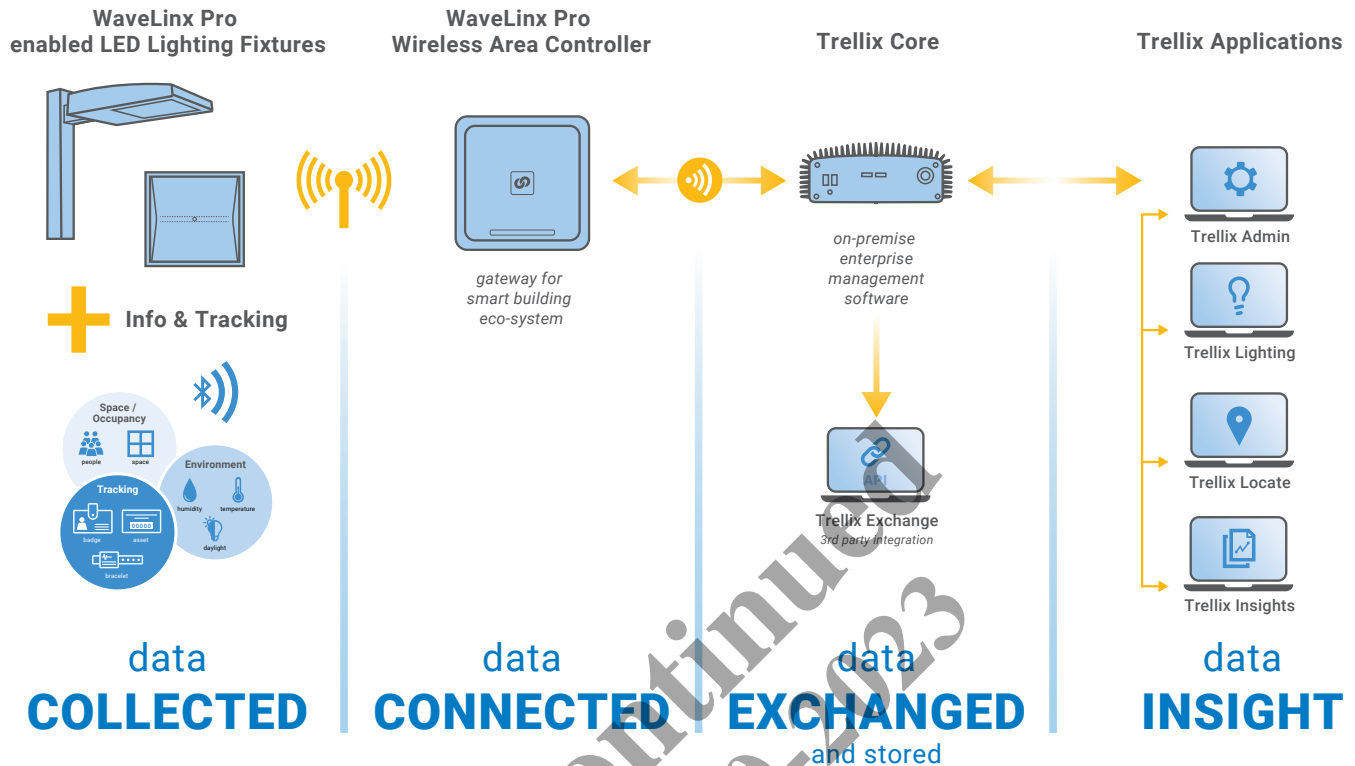
To 0-10V Continuous Dimming 20amp luminaires

The diagram shows a 20-amp circuit from a circuit breaker entering a junction box. The circuit consists of a Black (Incoming Hot) wire, a White (Neutral) wire, a Red (Load Out) wire, a Purple (0-10V +) wire, and a Pink (0-10V -) wire. The Black wire connects to the Black (Incoming Hot) terminal of the Wireless Relay Switchpack. The White (Neutral) wire connects to the White (Neutral) terminal of the switchpack. The Red (Load Out) wire connects to the White (Neutral) terminal of the junction box. The Purple (0-10V +) wire connects to the Purple (0-10V +) terminal of the switchpack. The Pink (0-10V -) wire connects to the Pink (0-10V -) terminal of the switchpack. The White (Neutral) wire of the junction box connects to the White (Neutral) terminal of the 0-10V Continuous Dimming 20amp luminaires. The Purple (0-10V +) wire of the junction box connects to the Purple (0-10V +) terminal of the luminaires. The Pink (0-10V -) wire of the junction box connects to the Pink (0-10V -) terminal of the luminaires.



Better Data. Better Decisions.

Trellix combined with our WaveLinx Pro connected lighting system is a distributed network of LED lighting fixtures with integrated sensing and beacon technology that captures real-time data; making your facility smarter so you can make smarter decisions. Trellix provides an open IoT platform and infrastructure that connects intelligent sensors leveraging the real-estate of the physical light fixture to solve higher complexity problems in a commercial building to deliver actionable insights through the aggregation of valuable data.



Control Systems

- Trellix
- WaveLinx Pro wireless