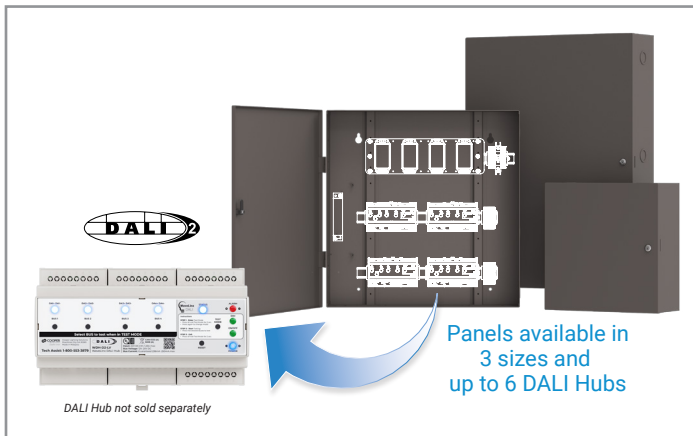


Project		Catalog #		Type	
Prepared by		Notes		Date	



WaveLinx

DALI Panel (WDP-D2-*-*)

WaveLinx DALI Hubs to control DALI fixtures and peripherals

Typical Applications

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

Interactive Menu

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- Product Warranty



Product Features



Compatibility



Overview

The WaveLinx DALI solution from Cooper Lighting Solutions incorporates DALI-2 certified drivers and peripherals into the WaveLinx system. It connects to the WaveLinx Area Controller through an Ethernet switch. Designed for scalability, ease of installation, and rich features, the DALI Hub modules within the panel ensure code compliance and support individually addressable lighting. Available in three enclosure sizes and up to 6 DALI hub options, the DALI system is commissioned and controlled via the WaveLinx Mobile app.

Depending upon the size of the job and the limitations of the electrical closet and/or equipment room spaces, the WaveLinx DALI comes in 3 different Panel sizes. Each Panel comes with a Network switch for IP connection with WaveLinx Area Controller.

Product Features & Benefits

- Individual addressable lighting application and scalable from medium to large size projects
- DALI-2 certified Hub to control DALI certified drivers including DT8, wallstations and sensors
- Factory assembled and pre-wired module ready to be installed by the electrical contractor with minimal wiring and eliminating non-value added on-site panel assembly and wire termination work
- LED diagnostics indicators and built-in override buttons to easily test, commission and troubleshoot the system
- Works with WaveLinx Area Controller and CORE

Order Information

SAMPLE ORDER NUMBER: **WDP-D2-S1= WaveLinx DALI Panel with 1 DALI Hub**

All WaveLinx DALI Panels requires at least one WaveLinx Area Controller (WAC2) for communications. Ensure the bill of material includes one of the following components.

Catalog Number

Product Type	Downstream Communication	Size	Voltage
WDP = WaveLinx DALI Panel	D2 = DALI-2	S1 = 1 DALI Hub (4 Buses) S2 = 2 DALI Hubs (8 Buses) M3 = 3 DALI Hubs (12 Buses) M4 = 4 DALI Hubs (16 Buses) L5 = 5 DALI Hubs (20 Buses) L6 = 6 DALI Hubs (24 Buses)	[BLANK] = 122/277 VAC 347 = 347 VAC
		Notes Field upgrades to higher-tier configurations are not supported. For example, the S1 model cannot be upgraded to S2 in the field	

Required Accessories

Catalog Number

Catalog Number	Description
WAC2-POE	WaveLinx Area Controller, PoE powered

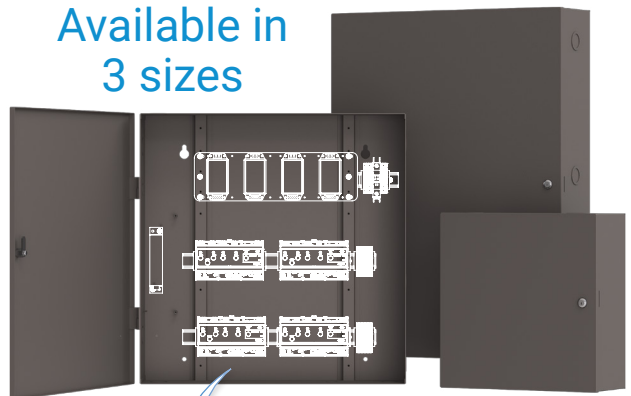
Optional Accessories

Catalog Number

Catalog Number	Description
GS308PP	WaveLinx Unmanaged Network Switch with 8 POE+ Ports



Available in
3 sizes



and
up to
6 DALI
Hubs



DALI Hub not sold separately

Product Specifications

Key Features

- **UL and cUL listed** - Ensures code compliance with the local electrical code
- **DALI-2 certified WaveLinx DALI Hub module** - Each DALI Hub module offers 4 wired local buses used to manage 64 drivers and 64 control devices per bus
- Supports DALI/DALI-2 drivers including DT8
- Supports up to 6 DALI Hubs (Based on panel size)
- Ethernet connectivity
- Capable of meeting all latest energy codes (IECC, Title 24, ASHRAE)

Mechanical

Enclosure: NEMA 1, Surface Mount, lockable, Size: See Dimensions

Enclosure Size:

- Small: 16"W x 16"H x 6.12"D (406.4mm x 406.4mm x 155.44mm)
- Medium: 25"W X 25"H X 6.12"D (635mm x 635mm x 155.44mm)
- Large: 25"W x 33"H x 6.12"D (635mm x 838.2mm x 155.44mm)

Weight:

- Small (2 hubs): 21.8 lbs (9.9kg)
- Medium (4 hubs): 45.9 lbs (20.8 kg)
- Large (6 hubs): 60 lbs (27.2 kg)

Environment:

- **Operating temperature:** 32°F to 104°F (0° C to 40° C)
- **Max Storage temperature:** 140°F (+60° C)
- **Relative humidity operating:** +5 to 95% non-condensing
- For indoor use only

Electrical

Supply: 122/277 VAC and 347 VAC ± 10% 50/60Hz, Small panel= 2A, Medium panel= 4A, and Large panel= 6A (maximum)

Maximum Load:

- **DALI-2 buses:** 238 mA (guaranteed bus current) per loop/bus (DALI Hub Module)

SCCR rating: 25kA

IP Network: CAT5e or higher

DALI-2 Bus Wiring: 18-14AWG (depending on distance)

Insulation between mains and DALI interface: Overvoltage Category (OVC) II

Standards/Ratings

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

Environmental Regulations:

- NEMA 1 Type 1

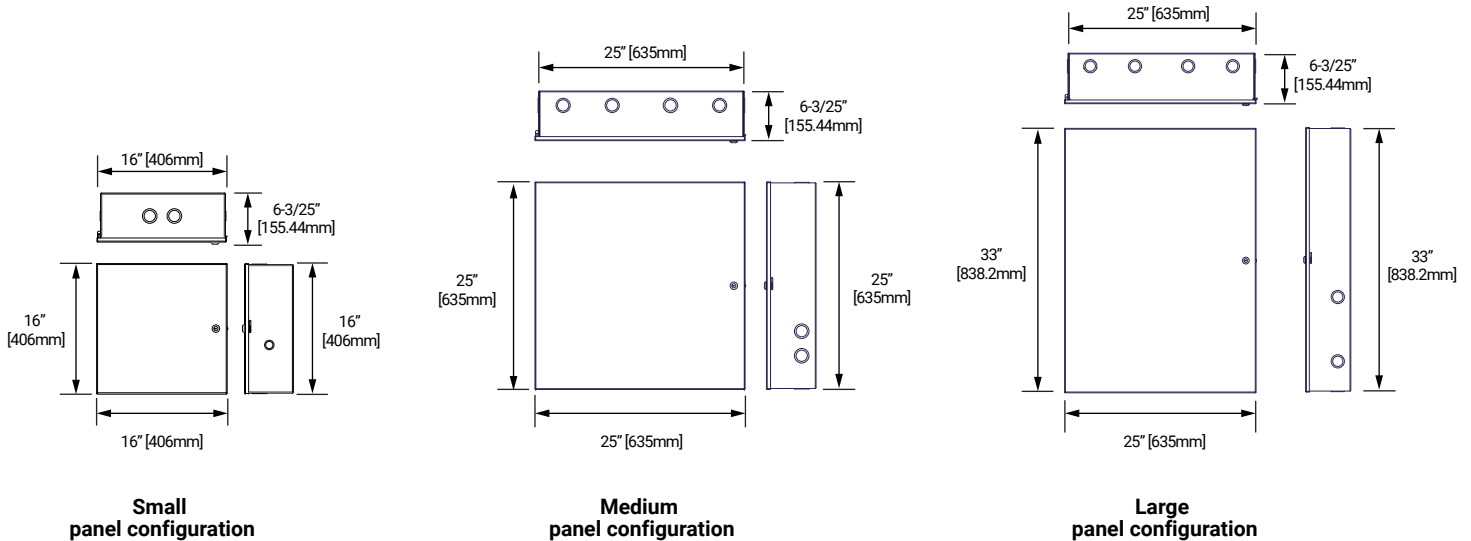
Warranty

Five year warranty standard



Download the WaveLinx Mobile App from either the Google Play or Apple Store®

Dimensional Details



WaveLinx DALI Hub (Mounted inside the DALI panel)

Top Product Features

- Provides four DALI-2 buses to address and control DALI devices (sensors, wallstations, relays, DACs, and fixtures)
- Mounts to standard Top Hat (TS 35) DIN rail
- 1 Dry contact Alarm input
- Works with WaveLinx Area Controller via IP connection
- 4 internal dedicated DALI-2 bus power supplies
- 2 different Test modes allows Installer to test the installation of all supported DALI devices
- The built in web interface supports bus override, device discovery, and test mode functionalities

Overview

The WaveLinx DALI Hub supports up to four DALI-2 buses to individually addressable and control DALI devices including DALI luminaires and other WaveLinx DALI devices. Cooper Lighting Solutions WaveLinx DALI-2 Wallstation, WaveLinx DALI-2 Ceiling Sensor, DALI Field Relay and DALI DAC's can be added to each bus creating a complete DALI solution. Each DALI bus can address up to 64 control devices and 64 control gears (depending upon the DALI bus load). The DALI Hub includes one dry contact input for Alarm mode.

Product Specifications

Mechanical

Weight: 0.35kg/0.77lbs

Operating temperature: 0°C to 40°C

Note: All enclosures must be adequately ventilated

Max storage temperature: +60°C

Humidity: +5 to 95% non-condensing

Environmental protection: IP20

Electrical

Supply: 24V DC 1.25A

Ethernet Port: Up to 100mbps full duplex, CAT5e or higher

DALI-2 Bus: Max wire size 16AWG

DALI-2 Bus Voltage & Current: 16V nominal

- Guaranteed Supply Current: 238mA
- Maximum Supply Current: 250mA

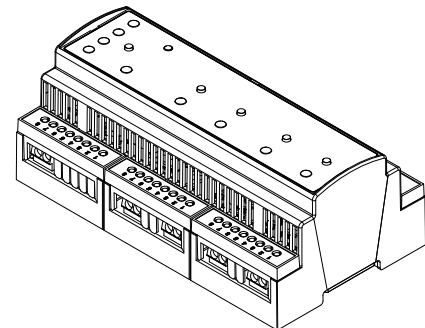
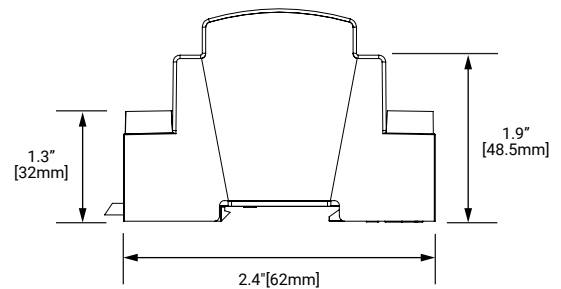
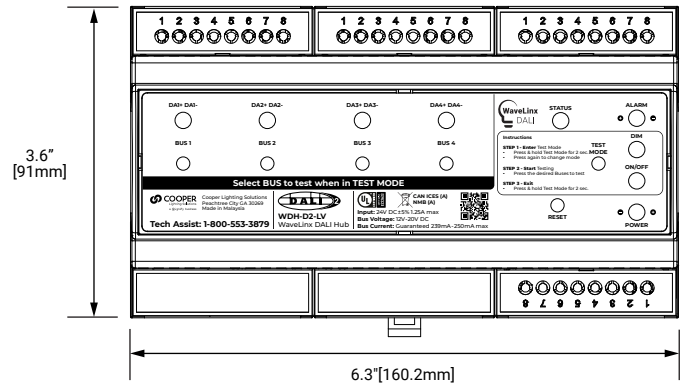
Maximum number of control gear (per bus and DALI-2 standard*): 64

Maximum number of control devices (per bus and DALI-2 standard*): 64

DALI bus short protection: Shutdown mechanism implemented with 3s retry time and 12s restart period

* Load the DALI bus based on the current draw of the DALI device type and keep in mind the maximum number based on the device type. For example, if a DALI-2 driver has DALI current draw of 2 mA, maximum number of drivers is 64 (even though the calculation reveals 119 drivers can be connected).

Dimensions



Standards/Ratings

- cULus Listed - Energy Management Equipment (UL916)
- Manufactured in an ISO 9001 certified factory
- Meets ASHRAE Standard 90.1 requirements
- Meets IECC requirements
- Meets CEC Title 24 requirements
- DALI-2 Certified Part 101, 103

Environmental Regulations:

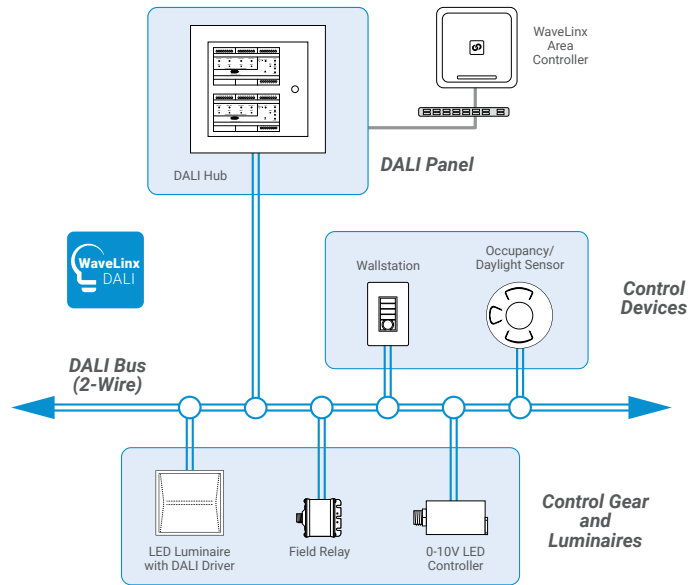
- RoHS Directive 2011/65/EU
- GTIN: DALI Hub: 080083457595

Warranty

Five year warranty standard

System Diagram:

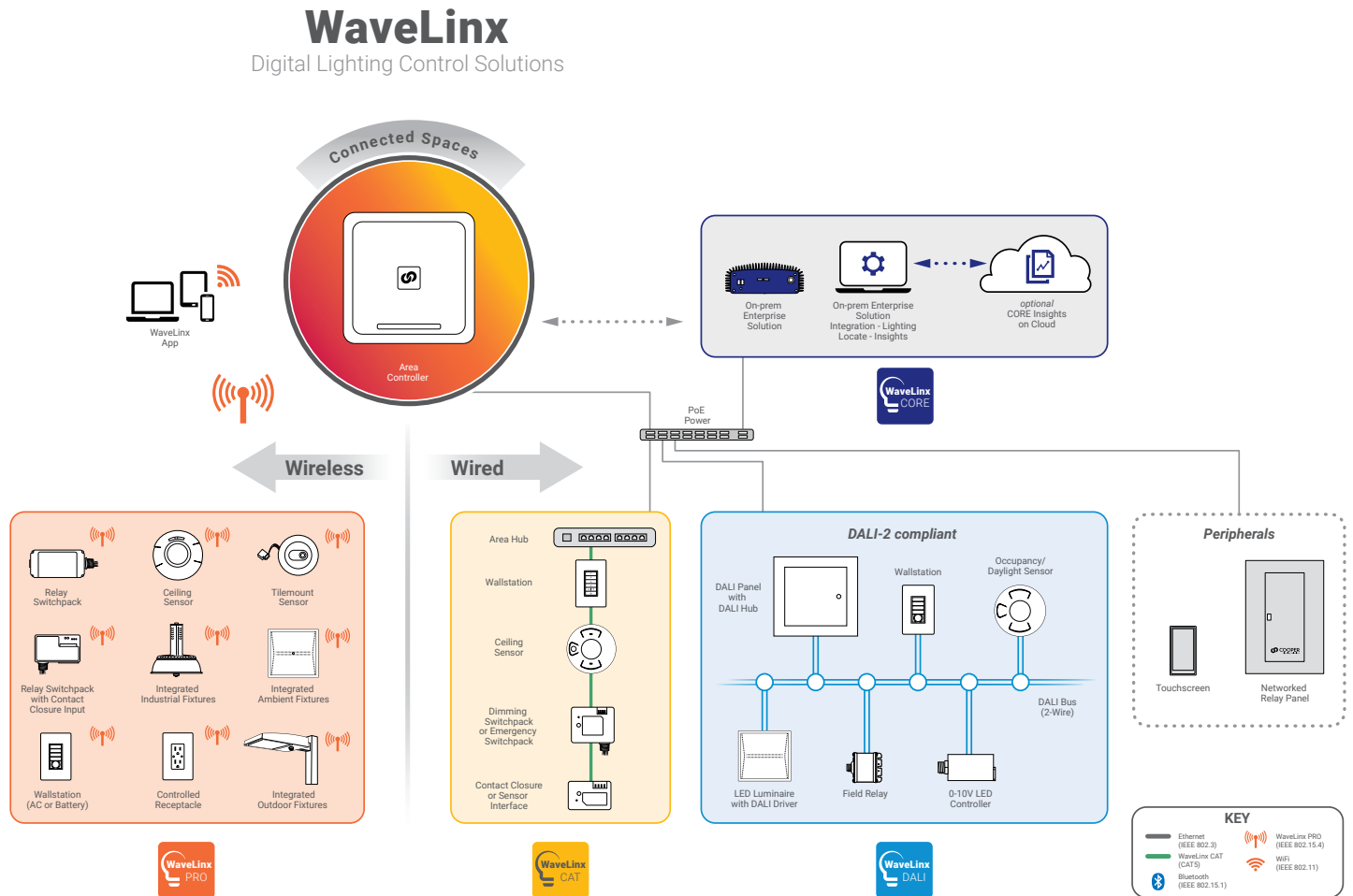
This diagram shows the the main components and topology of the WaveLinx system with DALI devices. The WaveLinx DALI devices use DALI-2 wires for device to device communications while connected to a WaveLinx Area Controller. The WaveLinx DALI enables DALI certified luminaries/drivers and peripherals to function with other WaveLinx devices.



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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