AirLink™ Fixture Controller
enabled by Lutron®

Catalog #: ALC___ T
Part ___ 624087/6___

The ALC/ALCE ___ controller is a radio-frequenc___ ___ controls the 0–10V ⎓ or Lu___ ___ ronic fluorescent ballas___ (depending on mod___ Lutron Clear Conne___ on RF input from a w___ sensor or wired input ___ controller mounts to a ___ e or junction box and can be ___ ory-installed with fixture sensors: occupan___ (ALOS), vacancy (ALVS).

Applications

🪑 Small offices   💬 Conference rooms   🍎 Classrooms   🍸 Lounges

Features

These products are compatible with the wireless hub which enables simple setup using a standard web browser on any Wi-Fi enabled phone, tablet or computer. The hub also enables control and monitoring of all wireless devices.

- Minimum Light Level Setting (optional). Applications, such as hallways, may require that the lights never turn off. For these areas, select the minimum light level option and the load will lower to programed low-end level

- Daylighting dims lights down to OFF. Occupancy sensor must go unoccupied (vacant) for the lights to turn off

- Occupied light level can be changed via the ceiling-mounted wireless occupancy sensor or via the wireless hub web app when connected to an AirLink system

- Favorite light level can be set using an ALWS

- Power failure memory: If power is interrupted, connected loads will return to the previous level

- Low-end trim adjustment (default is 1V or ballasts/drivers minimum for Lutron EcoSystem ballasts/ drivers). High-end trim adjustment (default is 10V or 100% for Lutron EcoSystem ballasts/drivers)

- Integrated power measurement circuit provides data to the hub with +/− 2% accuracy or 0.5W whichever is higher

Specifications

Regulatory Approvals

- FCC, CE, NOM certified. Complies with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rule

- Enables compliance with lighting control requirements in ASHRAE 90.1 and IECC

- Complies with requirements for use in a compartment handling environmental air (plenum) per NEC® 2011 300.22(C)(3)

- cULus Listed

- California Title 20/24 compliant (section 110.9)

Power and Performance

- Operating voltage: 120−277V ⊝ 50/60 Hz

- Operating temperature: 32°F to 104°F (0°C to 40°C), 0%−90% humidity, non-condensing; indoor use only

- 1 A switching maximum, electronic ballast or LED driver for 0−10V ⎓ load

Certifications & Affiliations

c(UL)us LISTED   FC   C E   TITLE 24 CA Compliant   NOM
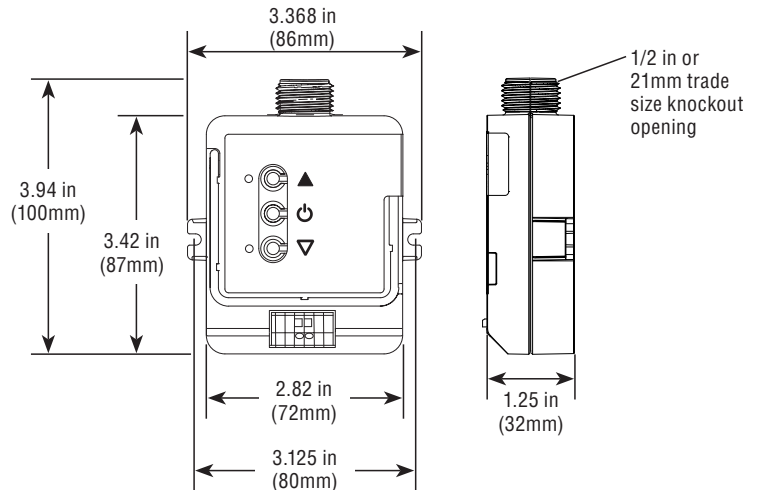

Specifications Continued

Power and Performance

- Standby power consumption < 1W ALC (0−10V ⎓)

- Controls up to 6 mA of 0−10V ⎓ controlled fixtures. Controls up to 3 ballasts or drivers (IEC 60929 Annex E.2 requires the ballast or driver to limit the current draw 2.0 mA maximum). 0−10V ⎓ control link on ALC automatically sources or sinks to third-party fixtures (Lutron EcoSystem)

- Controls up to 3 Lutron EcoSystem LED drivers or ballasts. Multiple ballasts or drivers control only one combined zone of lighting

- Control wires can be run as Class 1 or Class 2

- ALC: gray and violet wires
  Lutron EcoSystem: violet wires

- Frequency 431.0 − 437.0 MHz (U.S.A., Canada)

Other

- Range: wireless sensors and controls must be within 60ft (18m) line of sight, or 30ft (9m), through walls, of the associated control module

- Utilizes Lutron Clear Connect RF Technology

- Mounting: wireless fixture control comes factory-installed for your convenience

- Warranty: limited 5-year warranty

Dimensions

3.368 in (86mm)
3.94 in (100mm)
3.42 in (87mm)
2.82 in (72mm)
3.125 in (80mm)
1.25 in (32mm)
1/2 in or 21mm trade size knockout opening

Range Diagram

NOTE: Wireless sensors and controls must be located within 60ft (18m) line of sight, or 30ft (9m), through walls, of the associated control module.

Fixture Controller
30ft (9m) Maximum
TM
Sensor (ALOS/ALVS)
Switch (ALWS)
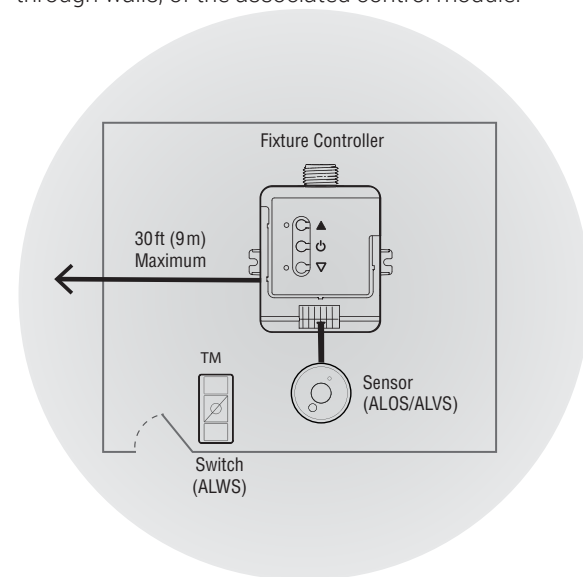
Ordering Information

Part #	Catalog #	Description
624087	ALC	AirLink Lutron − Fixture Controller (0−10V Dimming)
634480	ALCE	AirLink Lutron − Fixture Controller (Lutron EcoSystem)

AirLink™ Fixture Controller
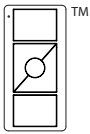enabled by Lutron®

Wiring

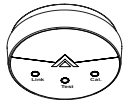The following can be used per each wireless fixture control:

Wired

Maximum of one (1) fixture sensor (occupancy, vacancy or daylight) **NOTE:** Only one wireless fixture controller can be used per fixture sensor, and vise versa. Grouping more than one sensor to control a group of controllers requires adding a wireless hub
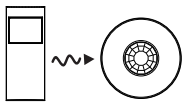
Wireless

Maximum of ten (10) wireless switches

Maximum of one (1) ceiling-mounted wireless daylight sensor

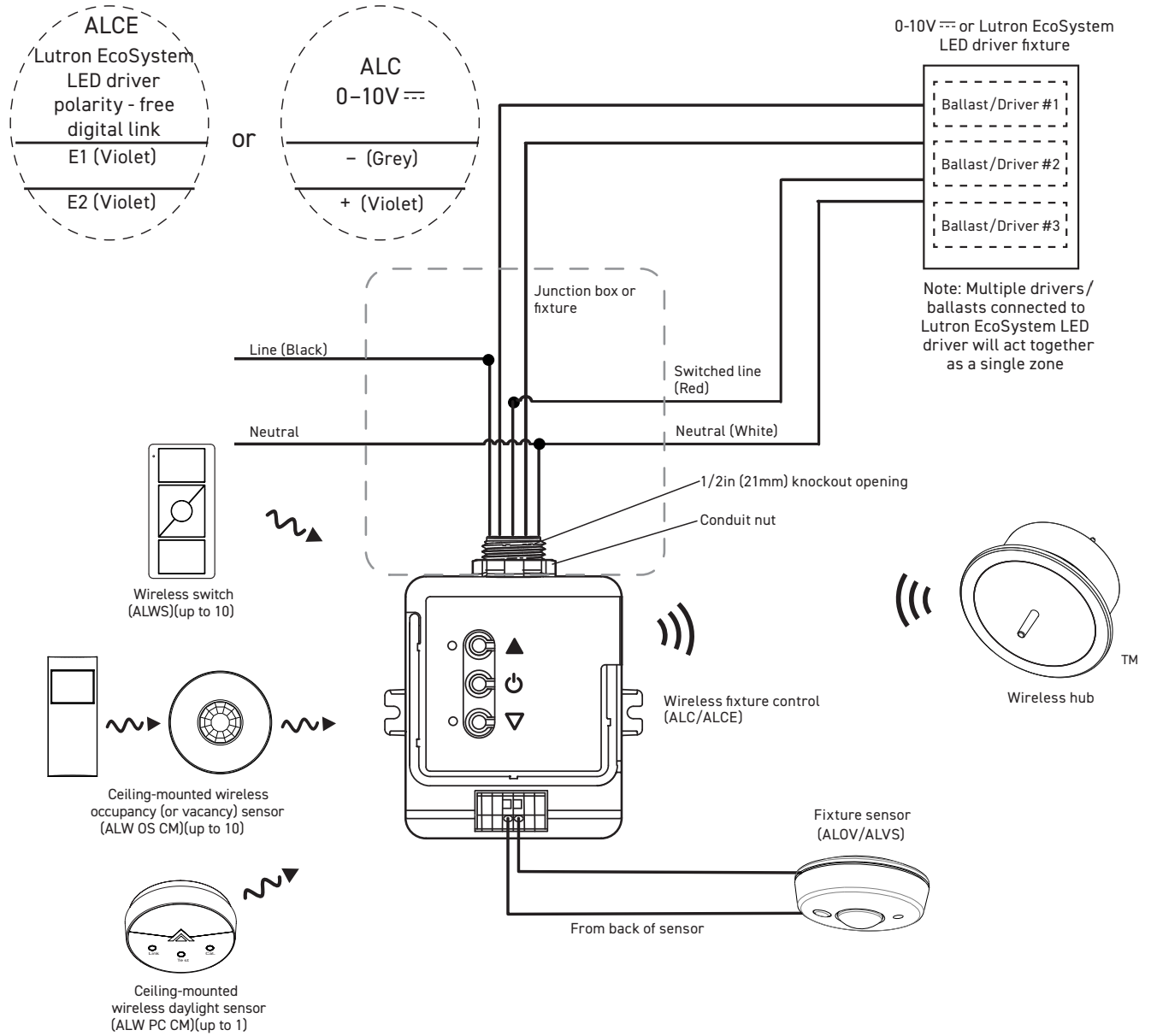Maximum of ten (10) ceiling-mounted wireless occupancy sensors

Each hub can control 700 devices. 64 hubs can be networked together through an ethernet switch

NOTES

- When using an ceiling-mounted wireless daylight sensor in conjunction with both an wireless fixture control and fixture sensor, the ceiling-mounted wireless daylight sensor will provide the daylighting input to the control module, and the fixture sensor daylighting input will be ignored.

- When using an ceiling-mounted wireless occupancy sensor in conjunction with both an wireless fixture control and fixture sensor, occupancy data from both sensors is used; either one detecting occupancy will turn the lights on, and the lights turn off only when both sensors have gone vacant (no longer detect occupancy).

- Grouping enables an ceiling-mounted wireless occupancy sensor or ceiling-mounted wireless daylight sensor to group and control more than one fixture together.

- Ceiling-mounted wireless occupancy sensors can be used with the fixture sensor to add coverage area.

Wiring Continued

ALCE
Lutron EcoSystem LED driver polarity - free digital link

| E1 (Violet) |
| E2 (Violet) |

or

ALC
0−10V ---

| − (Grey) |
| + (Violet) |

0-10V --- or Lutron EcoSystem LED driver fixture

Ballast/Driver #1

Ballast/Driver #2

Ballast/Driver #3

Note: Multiple drivers/ballasts connected to Lutron EcoSystem LED driver will act together as a single zone

Junction box or fixture

Line (Black)

Switched line (Red)

Neutral

Neutral (White)

1/2in (21mm) knockout opening

Conduit nut

Wireless switch (ALWS)(up to 10)

Ceiling-mounted wireless occupancy (or vacancy) sensor (ALW OS CM)(up to 10)

Ceiling-mounted wireless daylight sensor (ALW PC CM)(up to 1)

Wireless fixture control (ALC/ALCE)

Wireless hub

Fixture sensor (ALOV/ALVS)

From back of sensor

AirLink™ Fixture Controller
enabled by Lutron®

The AirLink System

Wireless controls & sensors

Wireless remotes & switches

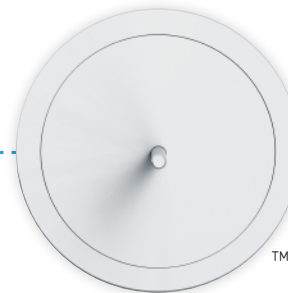Occupancy/Vacancy & Daylight sensors

AirLink-integrated Fixtures

AirLink-compatible Fixtures

Plug load controllers

LUTRON Clear Connect® Wireless

Centralized control & integration

Wireless hub™

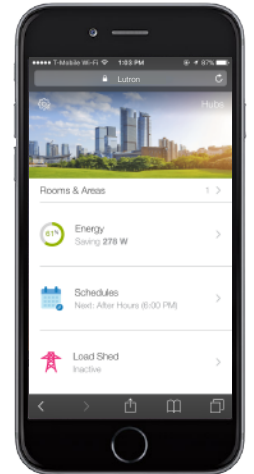Wired / Ethernet

ASHRAE **BACnet®**

Demand Response

BACnet integration

Simple-to-use software

Wi-Fi

Lighting control web app

Contact LSI Controls

Sales
controls.sales@lsi-industries.com

Support
controls.support@lsi-industries.com
1 (800) 436-7800 (support, option 8)

More information
For more information on AirLink, visit our website at **www.lsi-airlink.com/airlink**