

Athena Wireless Node

The Athena wireless node is a radio frequency (RF) device that enables simple, digital control of individual light fixtures in an Athena control system. The small size and compatibility with a wide variety of drivers allow for seamless integration with common commercial lighting fixtures from any manufacturer.

The Athena wireless node works with the following LED driver types:

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|------------------------------|--|
| Tunable-White Control | <ul style="list-style-type: none"> • Athena digital LED drivers (coming soon) • DALI-2 certified Type 8 LED drivers |
| Static-White Control | <ul style="list-style-type: none"> • Athena digital LED drivers (coming soon) • DALI-2 certified LED drivers • ANSI C137.1 compliant 0–10 V\Rightarrow LED drivers |

The Clear Connect gateway – Type X is required to operate an Athena wireless node in an Athena control system via a simple setup process using an iOS® or Android® compatible app. This enables these fixtures to be controllable by other Lutron wall controls, keypads, sensors, Pico remote controls, etc.

Models

| Model Number | Description |
|-----------------------------|--|
| A-WN-D01-RF-WH | Athena wireless node (RF only) (White) |
| A-WN-D01-RF-BL | Athena wireless node (RF only) (Black) |
| DFC-OEM-DBI | Fixture control digital link interface |
| Sensor (coming soon) | |
| A-WN-D01-OCC-WH | Athena wireless node with sensor (White) |
| A-WN-D01-OCC-BL | Athena wireless node with sensor (Black) |

Features

- Enables individual, wireless control of each fixture in an Athena control system. Accommodates zone and control changes without rewiring.
- Typically installed at OEM factory – no wiring required on-site. Fixture is ready to communicate wirelessly once power is connected.
- Pairs with Athena digital LED drivers (coming soon) for either Tunable White or Static White control.
- DALI-2 and ANSI C137.1 compatible for simple interoperability with third-party LED drivers.
- All drivers on the link are controlled as a single zone.



Athena Wireless Node RF Only (White)



Athena Wireless Node Sensor (White) - Coming Soon



Athena Wireless Node RF Only (Black)



Athena Wireless Node Sensor (Black) - Coming Soon

- **A-WN-D01-RF**
 - Plenum rated and can be installed above the ceiling for wireless control of a fixture without any impact on fixture aesthetics.
- **DFC-OEM-DBI**
 - Can be used in-fixture to power the Athena wireless node when used with DALI-2 and ANSI C137.1 drivers without integrated power supplies.
- **A-WN-D01-OCC (coming soon)**
 - Provides wireless control of the fixture and includes a passive infrared (PIR) sensor for occupancy and a daylight sensor.

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Specifications

A-WN-D01 Features

Regulatory Approvals

- cULus Listed (UL916)
- Complies with requirements for use in other spaces used for environmental air (plenums) per NEC® 2014 300.22(C)(3)
- FCC compliant with the limits for a Class B digital device
- IC (Industry Canada)
- ANSI C137.1 0–10 V_{AC} Electronic Off
- D4i certified
- Supports DALI-2 Type 8 tunable-white color temperature (T_C) applications - IEC 62386-209 ed.1 *

Power/Load

- IEC SELV/NEC® Class 2
- Operating voltage: 9.5–28.8 V_{AC}
- Operating current: 46 mA max

Colors

- Available in white and black flange only

Environmental

- Ambient operating temperature (immediate vicinity of Athena wireless node): 32 °F to 131 °F (0 °C to 55 °C), 0% to 90% humidity, non-condensing; indoor use only

Warranty

- 5 Year Limited Warranty.
For additional Warranty information, please visit: www.lutron.com/AthenaWarranty_EN

Wiring

- 4-position screw terminal for 26 AWG to 18 AWG (0.20 mm² to 0.75 mm²) wire
- For Athena digital LED drivers (coming soon) and D4i/DALI-2 drivers, only (2) wires are required
- For 0–10 V_{AC} drivers, all (4) wires are required
- See pages 8 and 9 for complete wiring diagrams

Mounting

- Mounts to a lighting fixture
- Fits in a hole 0.865 in to 0.890 in (22.0 mm to 22.6 mm) in diameter
- Compatible with fixture wall thicknesses of 0.016 in to 0.060 in (0.4 mm to 1.5 mm)

Radio Frequency for Wireless Communication

- 2.4 GHz

Range

- Reference Clear Connect gateway – Type X specification for system details (www.lutron.com/TechnicalDocumentLibrary/3691144_ENG.pdf)
- Each Athena wireless node should be installed within 25 ft (7.62 m) of two or more Athena wireless nodes or other Clear Connect – Type X devices.

* Athena wireless node does not support tunable-white color temperature applications via DALI Type 6 or 0–10 V_{AC}

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| Job Number: <input style="width: 150px; height: 20px;" type="text"/> | <input style="width: 300px; height: 20px;" type="text"/> | <input style="width: 300px; height: 20px;" type="text"/> |

Specifications *(continued)*

Default Behavior Prior to Programming

- Light Level: 100%
- Color Temperature
 - Tunable White: 4000 K (or closest fixture color temperature limit)
 - Static White: Default color temperature of fixture
- **Note:** Athena wireless node performs an unprogrammed startup sequence on every power up until the device is added to an Athena system

Digital Features

- Enables individual fixture addressing, control, and configuration in an Athena system
- Simple programming using mobile device running an iOS® or Android® compatible app

Wireless Features

- Simplify installation and save materials – no control wire is required to install fixtures
- Simplify design – flexible zoning allows you to re-zone without re-wiring as space needs change

Fixture Level Settings (via Lutron Designer)

- Low-end and high-end trim adjustment
- Minimum light level setting (optional): Certain 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 programmed low-end level
- Create preset color temperature and intensity settings of tunable white fixtures

Emergency Support/Override & Lockout

- Compatible with LUT-SHUNT-FM. For additional details, reference Lutron Application Note 106 (P/N 048106 at lutron.com)

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Specifications *(continued)*

DFC-OEM-DBI Features

Regulatory Approvals

- cULus Recognized (UL8750 - listing E332445)
- NOM
- CE
- DALI compliant

Power/Load

- Operating voltage: 120–277 V~ 50/60 Hz
- Output: 18 V== 60 mA max

Environmental

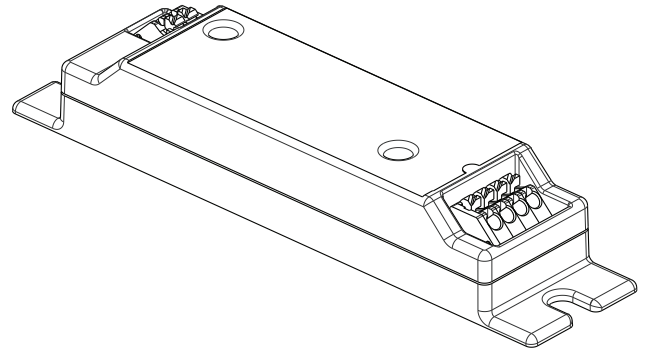
- Ambient operating temperature: 32 °F to 140 °F (0 °C to 60 °C), 0%–90% humidity, non-condensing; indoor use only
- Maximum rated temperature @ (T_C) for Warranty: 70 °C (158 °F)

Warranty

- 5 Year Limited Warranty. For additional Warranty information, please visit www.lutron.com/AthenaWarranty_EN

Mounting

- Fixture control digital link interface must be mounted inside a fixture (it must not be used for external/remote mounting)
- Only one Athena wireless node can be used per DFC-OEM-DBI



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Compatible Drivers *

Athena wireless node is compatible with a wide variety of LED Drivers to maximize design flexibility for lighting designers, engineers, contractors, and lighting manufacturers.

Note: Not for use with fluorescent fixtures.

For Tunable-White Fixtures

- Premier tunable-white control with Athena digital LED drivers (P2Q Models [coming soon])
- Supports DALI-2 Type 8 tunable-white color temperature (T_c) applications - IEC 62386-209

For Static-White Fixtures

- Premier static-white control with Athena digital LED drivers (P2Q Models [coming soon])
- Supports DALI-2 static-white applications - IEC 62386-207
- Compatible with ANSI C137.1 compliant 0–10 V_{DC} drivers with electronic off
 - 0–10 V_{DC} max. sink current: 10 mA
 - Controls up to 5 drivers (IEC 60929 Annex E.2 requires the driver to limit current to 2.0 mA maximum)

Power Supply Requirements

DALI

- D4i certified LED drivers
- DALI-2 certified LED drivers with an integrated bus supply
- Maximum supply current: 250 mA
 - Athena wireless node supports 1 to 5 DALI drivers depending on the driver's supply current. The sum of bus supply currents of all attached LED drivers should not exceed 250 mA.

0–10 V_{DC}

- ANSI C137.1 0–10 V_{DC} drivers with integrated power supply
- Auxiliary output voltage range: 12 V_{DC} to 24 V_{DC}
- Minimum output power: 750 mW

Note: For DALI-2 and 0–10 V_{DC} drivers that do not have an integrated power supply, or one that does not meet the above specifications, the Lutron DFC-OEM-DBI can be used to power the Athena wireless node.

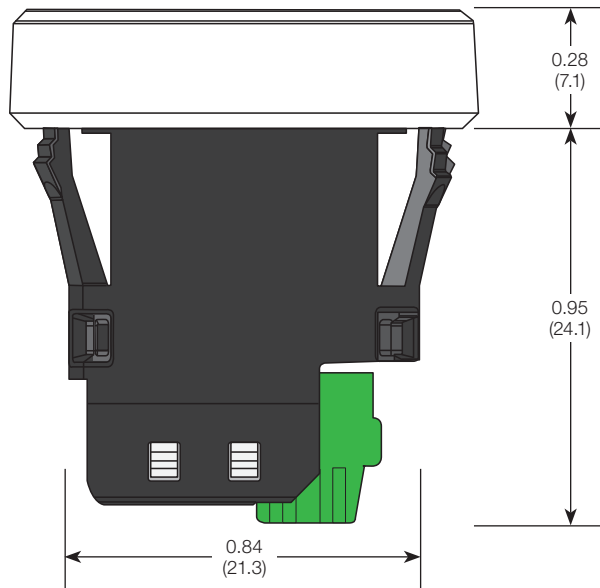
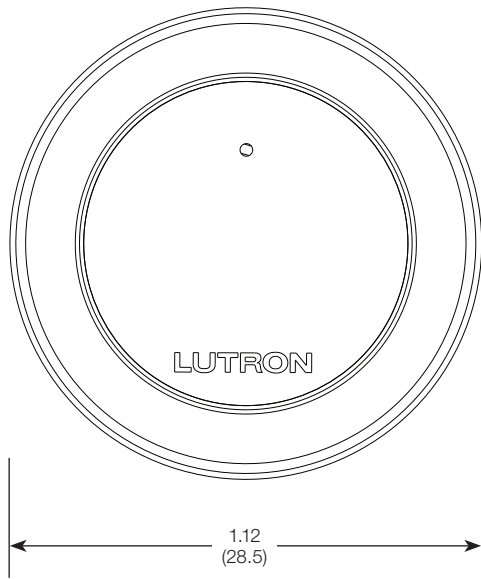
* Lutron does not evaluate performance or quality of third-party drivers. Lutron recommends that the customer evaluate the entire system (driver, light engine, fixture, etc.) together with actual samples to determine if dimming and other performance metrics of the driver meets the customer's needs.

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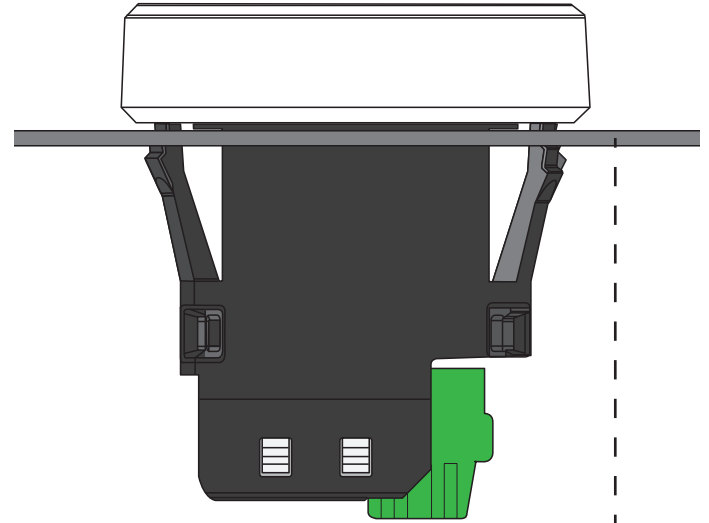
Dimensions

Shown as: in (mm)

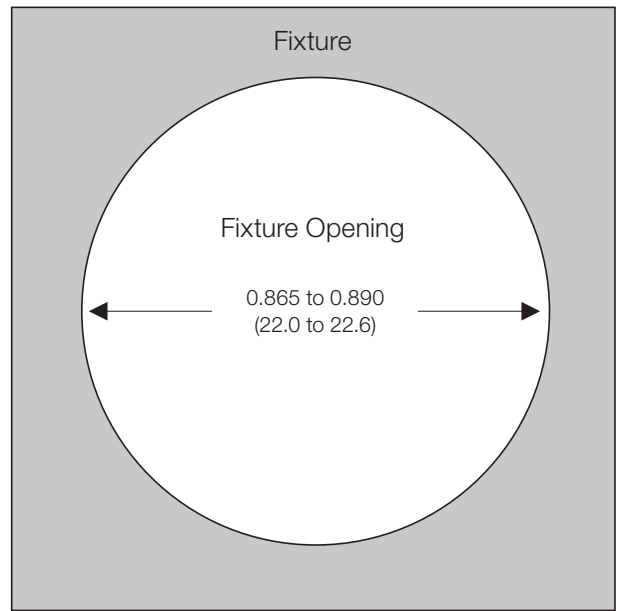
Athena Wireless Node (RF only)



Fixture Mounting Considerations



Fixture wall thickness range ← 0.016 in to 0.060 in (0.4 mm to 1.5 mm)

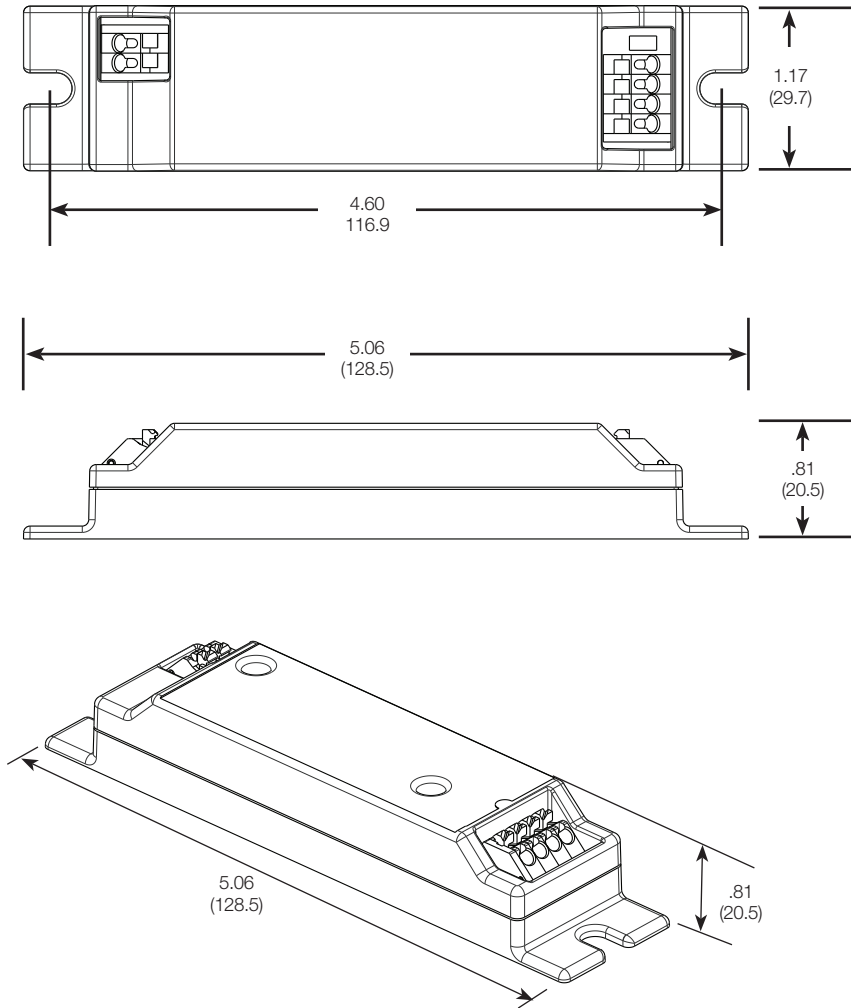


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Dimensions (continued)

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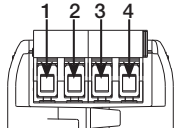
DFC-OEM-DBI



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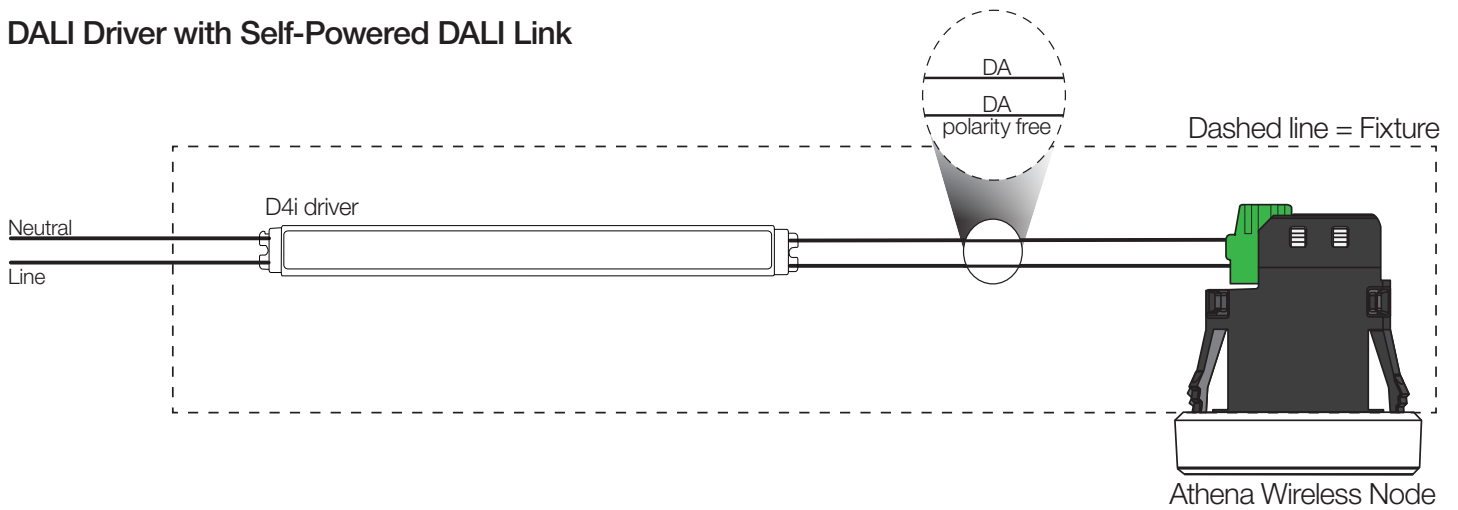
Wiring/System Diagram

Wiring Guide

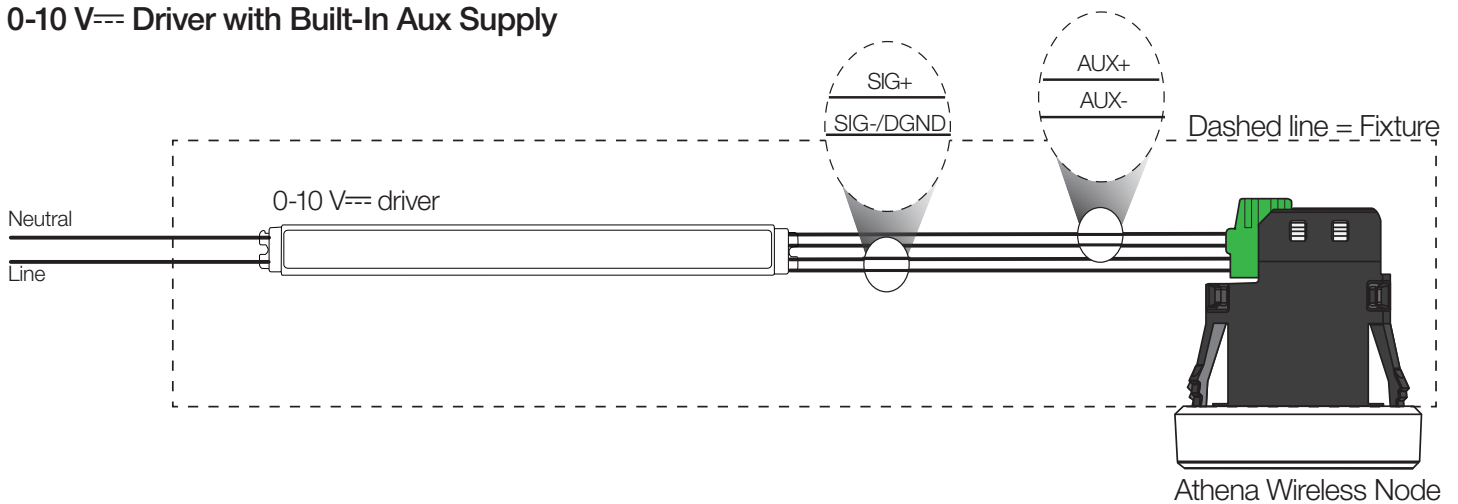


| Connector Position | DALI Function | 0-10 V Function |
|--------------------|---------------|-----------------|
| 1 | DA | AUX+ |
| 2 | DA | AUX- |
| 3 | N/C | SIG+ |
| 4 | N/C | SIG-/DGND |

DALI Driver with Self-Powered DALI Link



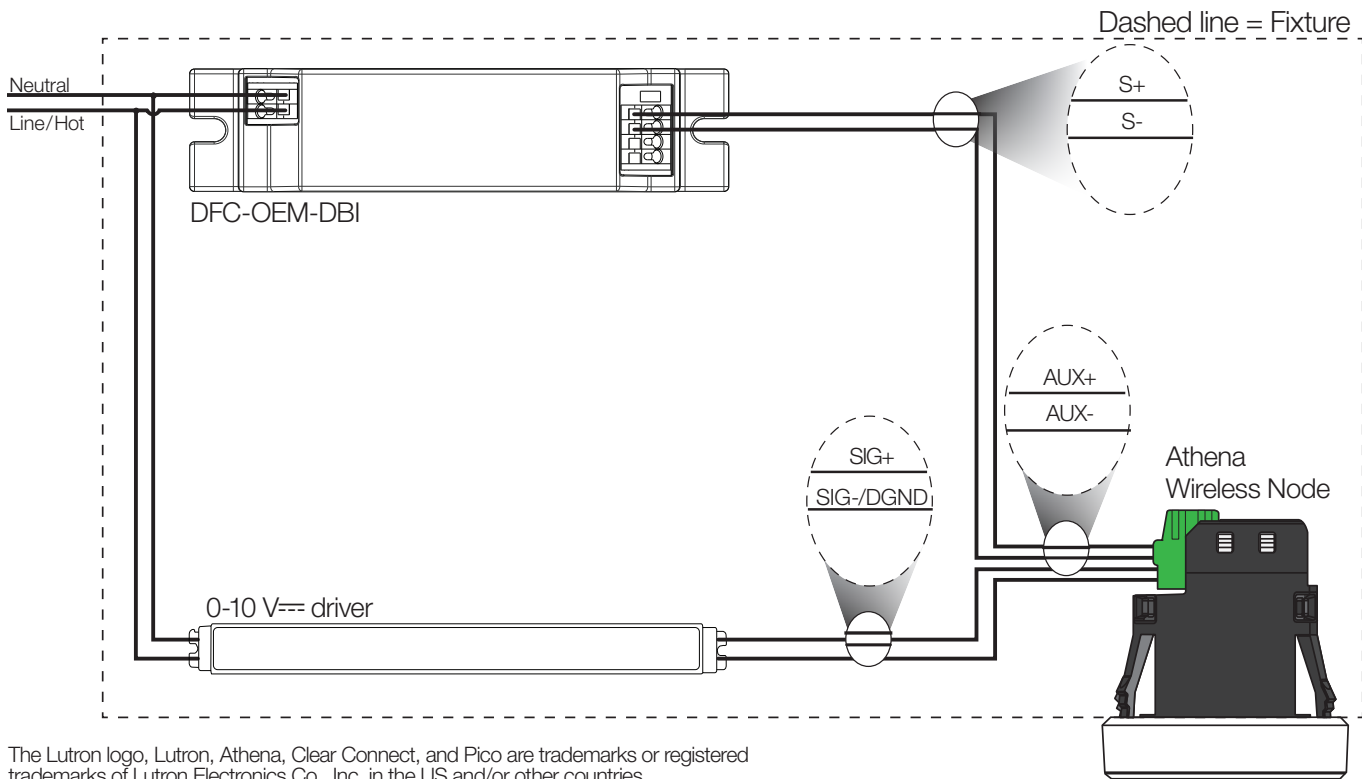
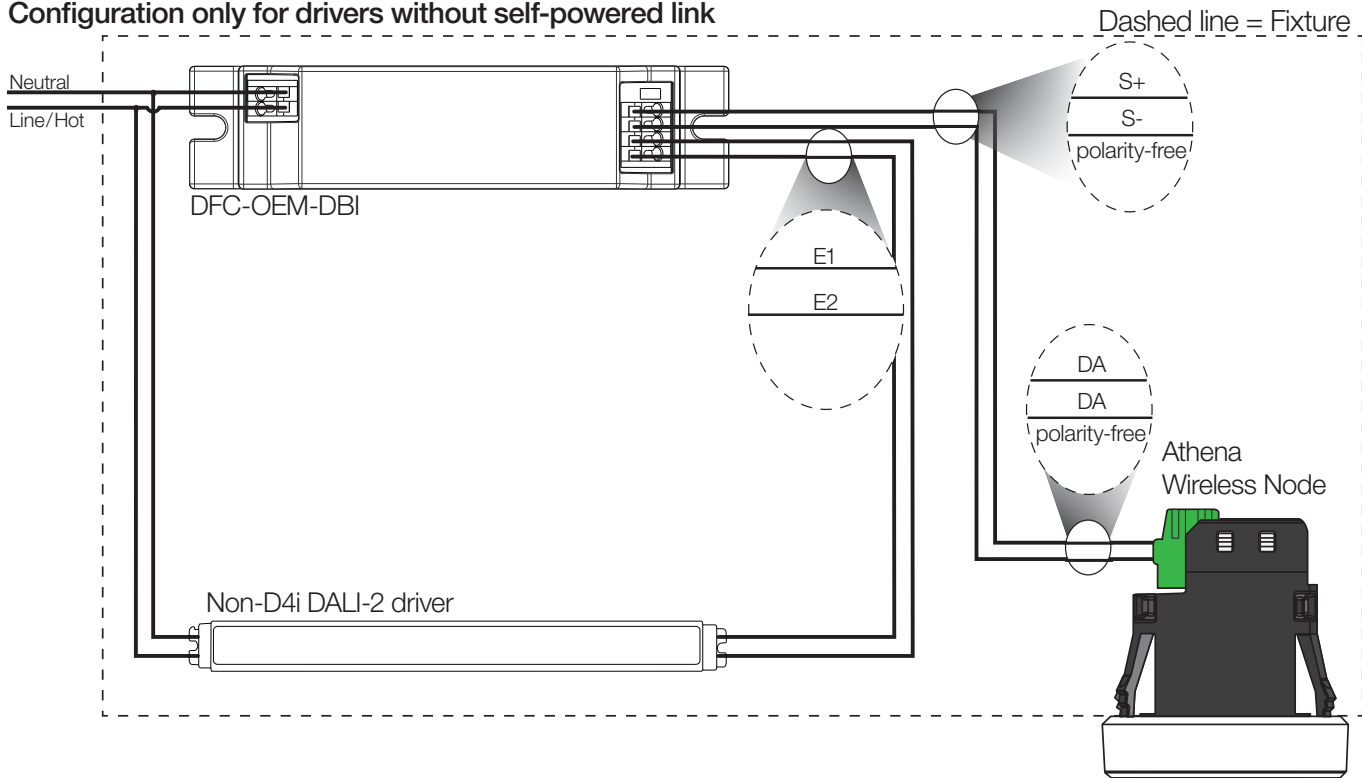
0-10 V^{DC} Driver with Built-In Aux Supply



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Wiring/System Diagram (continued)

Configuration only for drivers without self-powered link



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