

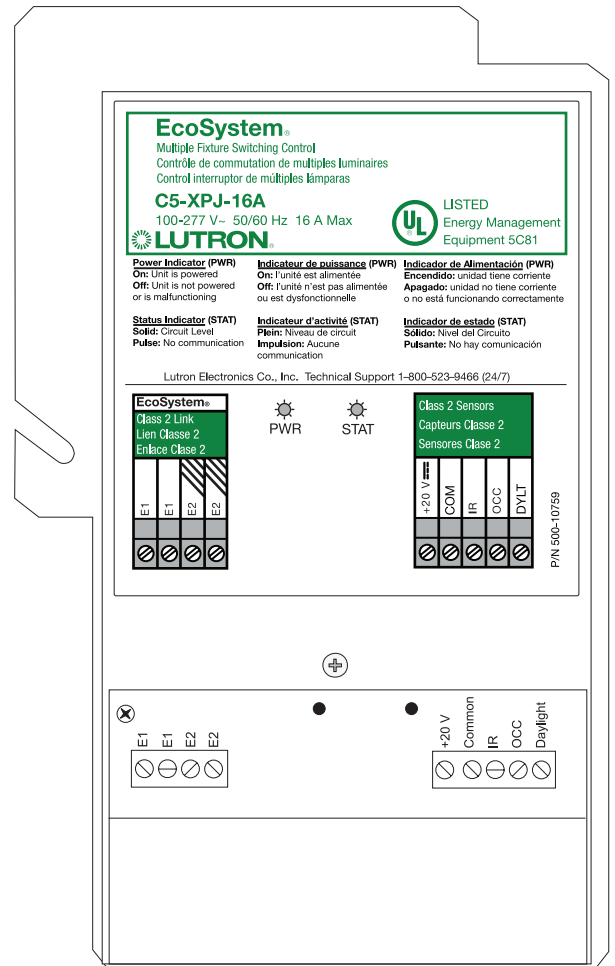
## EcoSystem Switching Power Module for Non-Dim Loads

Lutron EcoSystem Switching Power Module allows integration of non-dim loads into a Lutron EcoSystem Bus. The Power Module combines digital commands and sensor data to control the load.

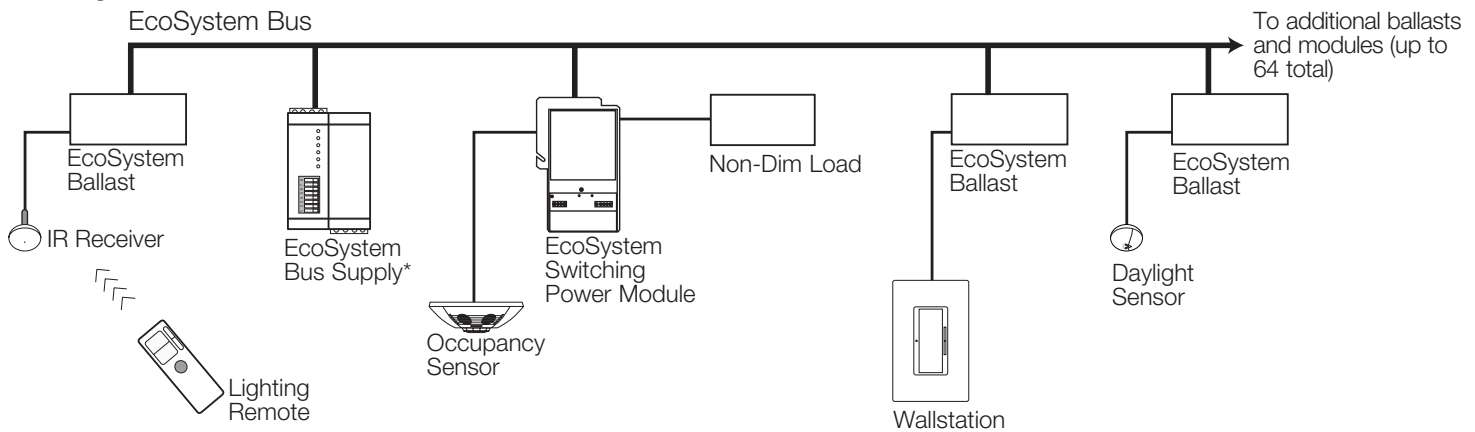
### Features

- Capable of switching 16 A of high in-rush lighting load (LED, magnetic fluorescent ballast, electronic fluorescent ballast, incandescent, magnetic low-voltage, electronic low-voltage, neon/cold cathode and motor loads)
- Provides 20 V<sub>DC</sub> power for and responds to one occupant sensor, one EcoSystem daylight sensor, and one EcoSystem personal control input (infrared receiver or wallstation)
- Communicates status and sensor levels over the EcoSystem Bus
- Universal voltage input: 100 to 277 V<sub>AC</sub> 50/60 Hz
- Non-volatile (EEPROM) memory stores specific system information for 10 years from power down to power restored
- 100% performance tested at factory

**Note:** Frequent switching of HID loads may affect the lifetime of the lamps or ballasts. Please contact the lamp or ballast manufacturers for more information about compatibility with HID loads, especially when used with occupancy sensors.



## EcoSystem One-Line



\* Does not count as one of the ballasts or modules on the EcoSystem Bus. The bus supply can be an Energi Savr Node unit or can be located in a Quantum hub.

<b>Job Name:</b>	<b>Model Numbers:</b>
<b>Job Number:</b>	

## Specifications

### Regulatory Approvals

- UL® 916 Listed and CSA 184 Certified
- Meets ANSI C62.41 Category A surge protection standards up to and including 6000 V~
- Manufacturing facilities employ ESD reduction practices that comply with the requirements of ANSI/ESD S20.20
- Lutron Quality Systems registered to ISO 9001.2000
- NOM
- Complies with requirements for use in other spaces used for environmental air (plenums) per NEC® 2014 300.22(C)(3)
- Meets the Canadian National Building Code plenum requirements for a concealed space used as a plenum within a floor or roof assembly
- For commercial use, Class A only

### Power

- Operating Voltage: 100 to 277 V~ 50/60 Hz
- Output Rating: 16 A Softswitch maximum non-dim load
- IEC PELV/NEC® Class 2 Sensor Power: 20 V== 50 mA maximum

### Switchable Load Types

- LED
- Magnetic fluorescent ballast
- Electronic fluorescent ballast
- Incandescent and Halogen
- Magnetic low-voltage transformer
- Electronic low-voltage transformer
- Neon or Cold Cathode
- Motor Loads
  - 1/4 HP at 100 to 120 V~
  - 1/2 HP at 200 to 277 V~

**Note:** Do not use to switch receptacles.

### Environment

- Ambient Temperature Operating Range: 32 °F to 104 °F (0 °C to 40 °C)
- Relative humidity: less than 90% non-condensing
- For indoor use only

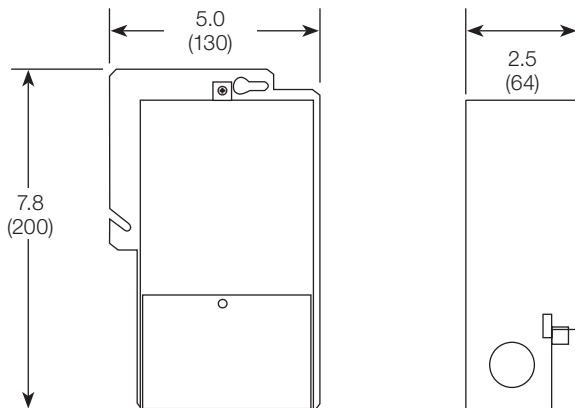
### Module Wiring (see **Wiring** pages for wiring diagrams)

- Terminal blocks accept wires of the following size:
  - EcoSystem Bus (E1, E2):
    - 22 AWG to 12 AWG (0.5 mm<sup>2</sup> to 2.5 mm<sup>2</sup>) solid wire
  - IEC PELV/NEC® Class 2 Sensors:
    - 22 AWG to 12 AWG (0.5 mm<sup>2</sup> to 2.5 mm<sup>2</sup>) solid wire
- Wiring between module and load is 3 conductors:
  - Switched Hot
  - Neutral
  - Ground
- Wiring between module and sensors shall not exceed manufacturer's specifications.

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## Dimensions

All dimensions shown as in (mm)

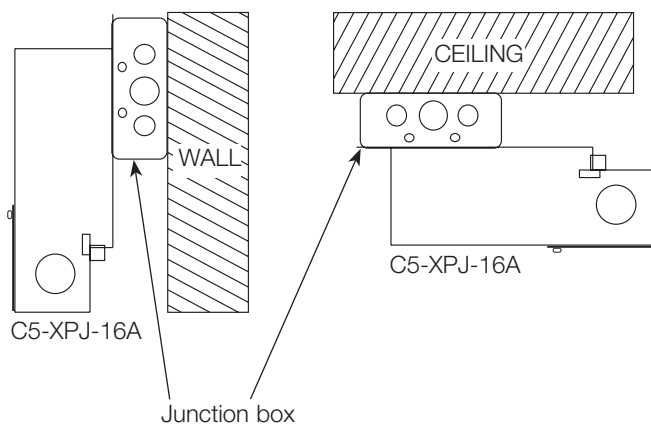


## Mounting

- Mount the EcoSystem Switching Module onto a 4 in x 4 in (102 mm x 102 mm) standard (1900) junction box (not included, but available; Lutron P/N 241496)
- Mount on a vertical or horizontal surface; all power wire connections will be made in the junction box; all EcoSystem bus wiring (NEC® Class 1 or IEC PELV/NEC® Class 2) and sensor wiring (IEC PELV/NEC® Class 2 only) connections will be made within the front cover of the unit
- Mount in a location where the PWR and STAT indicators are visible

## Electrical Contractors and Engineers

- All field-installed IEC PELV/NEC® Class 2 wiring must be separated from line voltage wiring by at least 0.25 in (6.4 mm)
- Some local electrical codes require IEC PELV/NEC® Class 2 wiring to be separately routed in a metal conduit



Job Name:

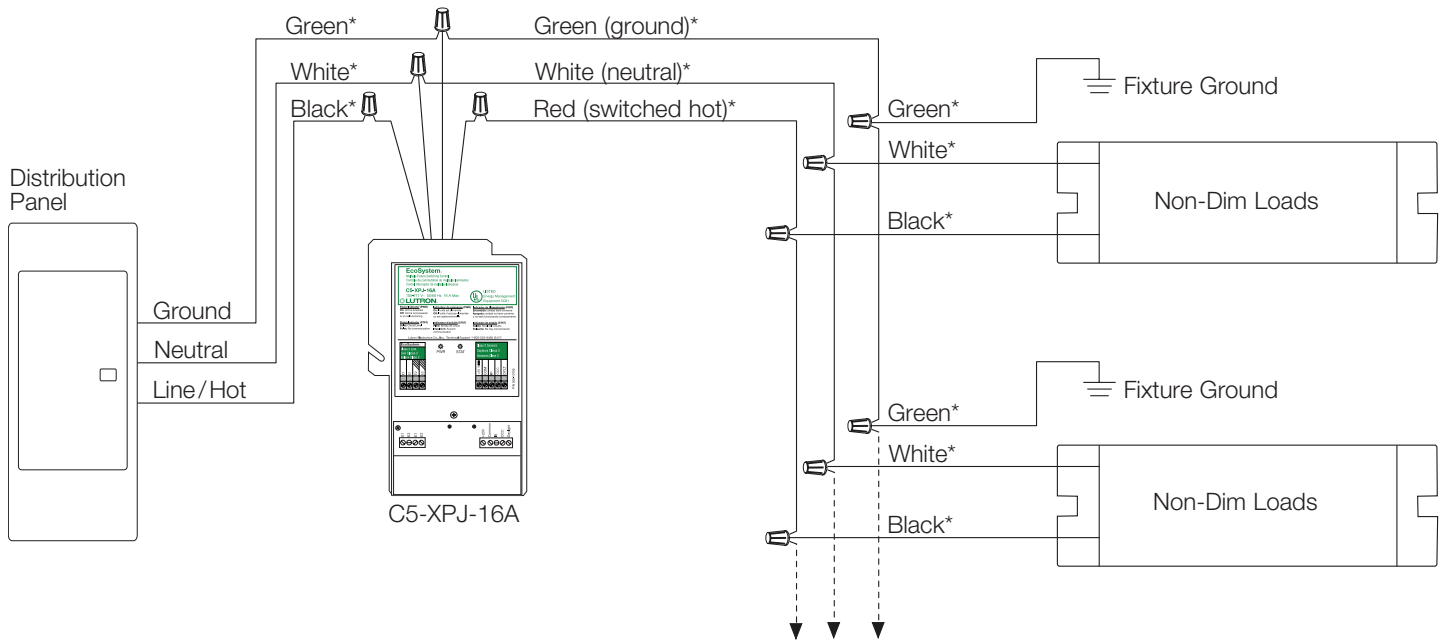
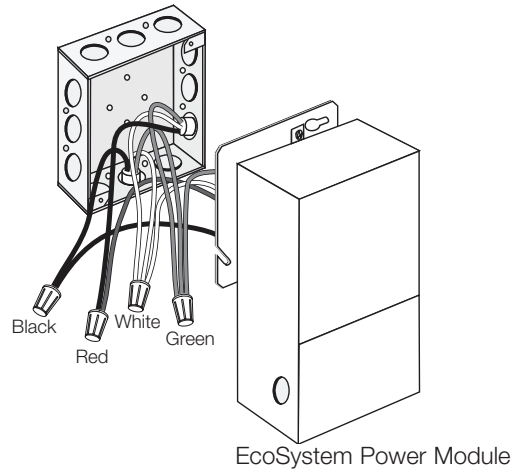
Model Numbers:

Job Number:

# Wiring

## EcoSystem Power Module Line Voltage Wiring

- Connect the input feed wires and the output load wires to the module as indicated in the wiring diagrams below



\* Colors indicate the module and Lutron ballast wire colors and/or Lutron ballast terminal colors

Job Name:	Model Numbers:
Job Number:	

Wiring (continued)

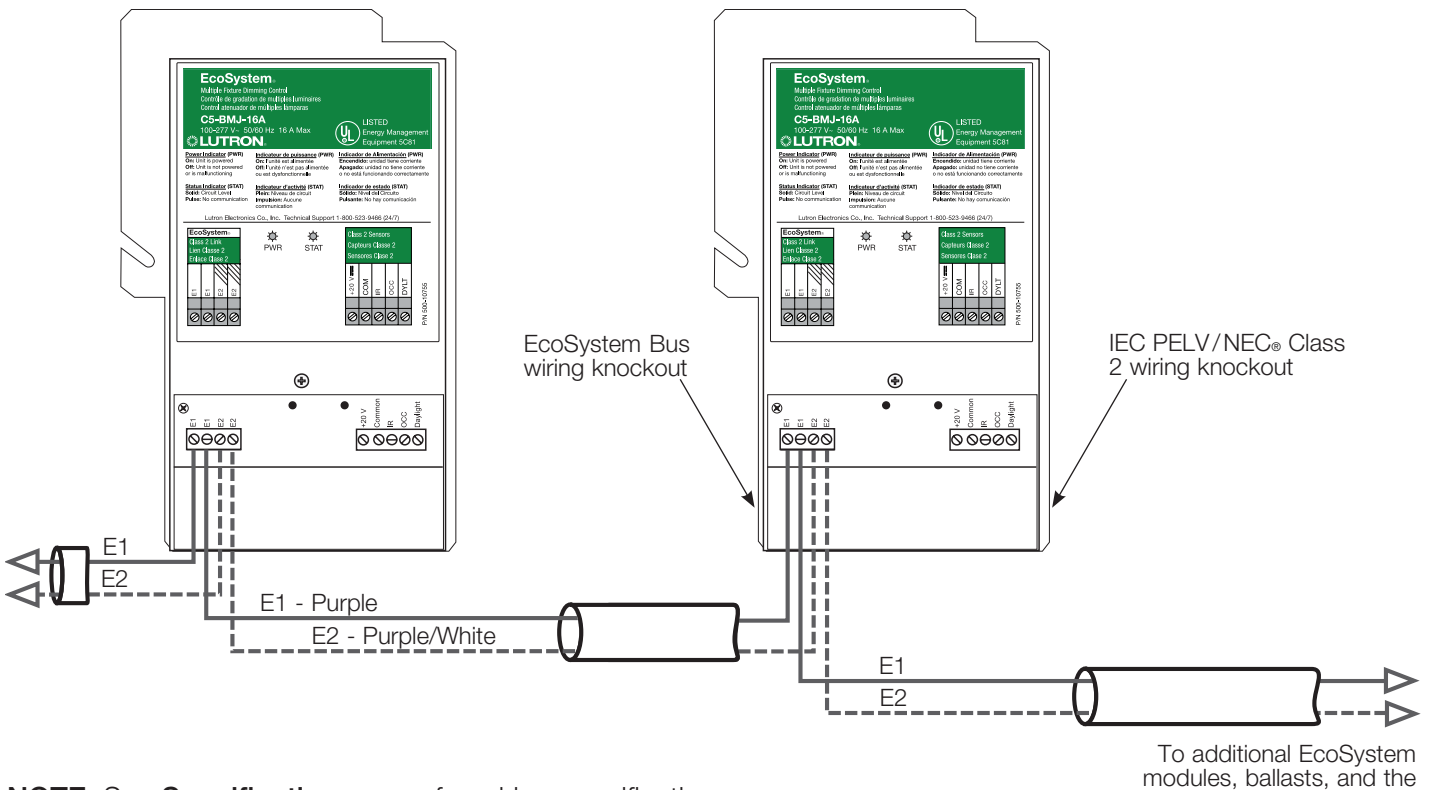
EcoSystem Bus Wiring

- Wire the EcoSystem Bus to the E1 and E2 terminals on the front of the module.
- When the EcoSystem Bus is wired as NEC® Class 1, the bus wiring must enter the left side knockout and maintain 0.25 in (6 mm) spacing from the IEC PELV/NEC® Class 2 sensor wiring.
- When the EcoSystem Bus is wired IEC PELV/NEC® Class 2, the bus wiring may enter either knockout on the low voltage wiring area.

EcoSystem Bus Details

- E1 and E2 wires are not polarity sensitive
- Bus length is limited by the wire gauge used for E1 and E2 as follows:

Wire Gauge (solid wire)	Bus Length (max)
12 AWG (4.0 mm <sup>2</sup> )	2200 ft (671 m)
14 AWG (2.5 mm <sup>2</sup> )	1400 ft (427 m)
16 AWG (1.5 mm <sup>2</sup> )	900 ft (274 m)
18 AWG (1.0 mm <sup>2</sup> )	570 ft (174 m)



**NOTE:** See **Specifications** page for wiring specifications

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Job Name:	Model Numbers:
Job Number:	

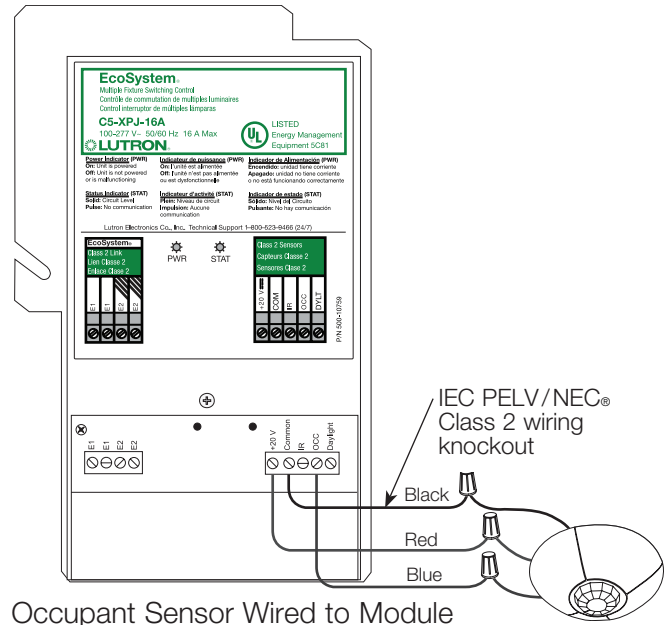
Wiring (continued)

Low Voltage Wiring IEC PELV/NEC® Class 2 Sensors

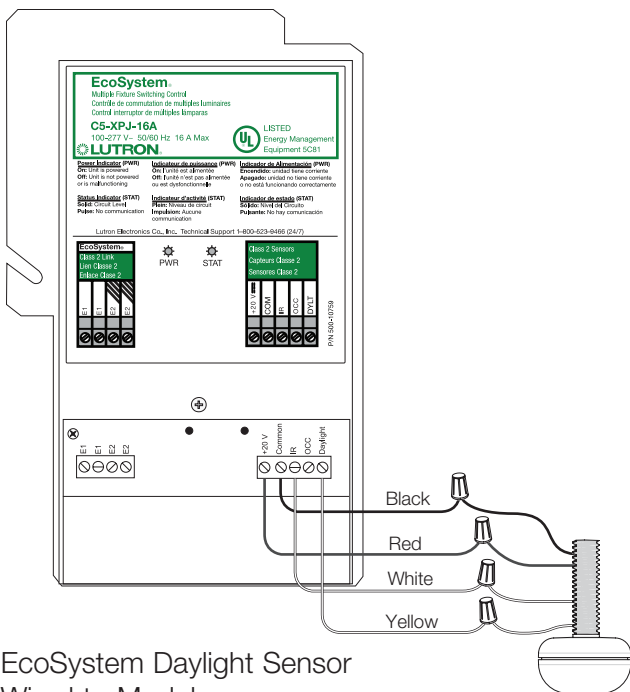
Wiring to IEC PELV/NEC® Class 2 Sensors

- Wire color designations of the IEC PELV/NEC® Class 2 Terminals:  
 Red = 20 V $\overline{=}$   
 Black = Common  
 White = IR (wallstation/IR receiver)  
 Blue = Occupancy Sensor  
 Yellow = Daylight Sensor Signal
- Wiring between module and sensors shall not exceed manufacturer’s specifications.
- Make sure that the supply breaker to the switching power module is OFF when wiring.

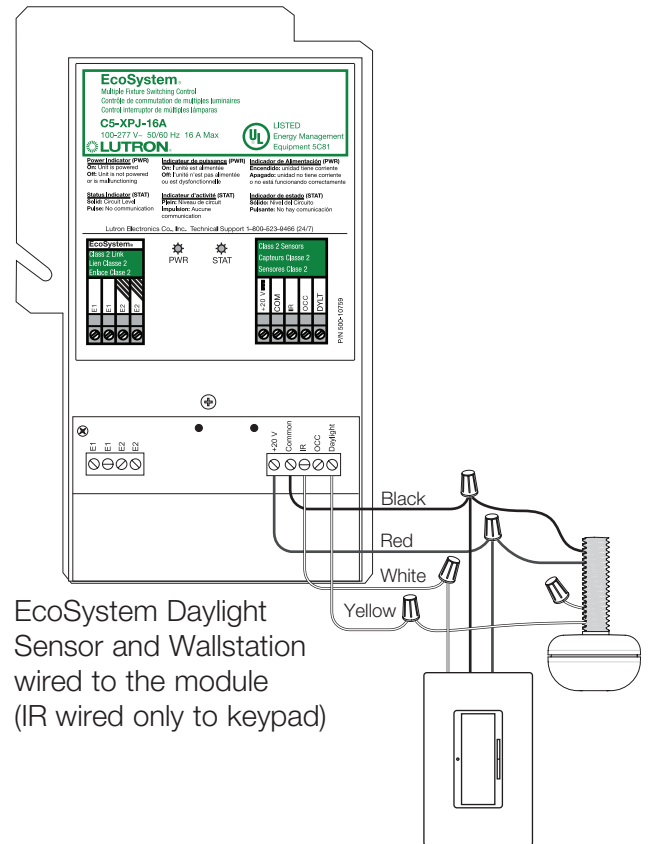
**Note:** The module accepts only one IR Input. Use of the IR output from the EcoSystem Daylight Sensor precludes the use of an IR receiver or wallstation with the module. When both a daylight sensor and wallstation/IR receiver are wired to the same module, the IR wire from the daylight sensor should not be connected.



Occupant Sensor Wired to Module



EcoSystem Daylight Sensor Wired to Module



EcoSystem Daylight Sensor and Wallstation wired to the module (IR wired only to keypad)

**NOTE:** See **Specifications** page for wiring specifications

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Job Number:	