

Description

The Autani Wireless Lighting Controller scheduling switch is ideal for commercial, office, and industrial applications, providing ZigBee wireless control of luminaires. The virtual on/off function improves lighting efficiency and reduces energy costs by up to 50%. The wireless smart switch enables fine control over multiple groups of sensor-connected, smart lights with 100 step variables.



Applications

Autani's Wireless Lighting Controller is suitable for renovation, upgrade, and new construction projects

- Private & Open Offices
- Corridors & Hallways
- Classrooms & Gymnasiums
- Warehouse Spaces & Manufacturing Areas
- Patient Care Rooms
- Transportation Terminals
- Retail & Grocery Stores

Features

- ZigBee wireless control of luminaires
- ZigBee HA Compliant
- +20dBm ZigBee transmit power
- ON/OFF and 0(1)-10V Analog Dimming Control, 100mA Sink
- Compatible with Electronic Ballasts & LED Drivers that comply with IEC60929 Annex E2, 1-10V Dimming
- ON/OFF AC switching up to 277VAC
- Stores last dim setting even when powered off
- Secure wireless communications with Autani EnergyCenter devices

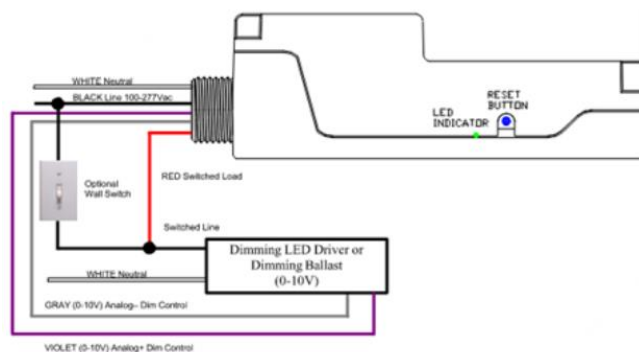
Electrical

- Input voltage range: 100-277VAC
- Frequency: 47 - 63Hz
- AC Relay Switched Current: <20A Resistive
- AC Zero Cross Switching
- Input Current Module Power: <0.05A for Units power use

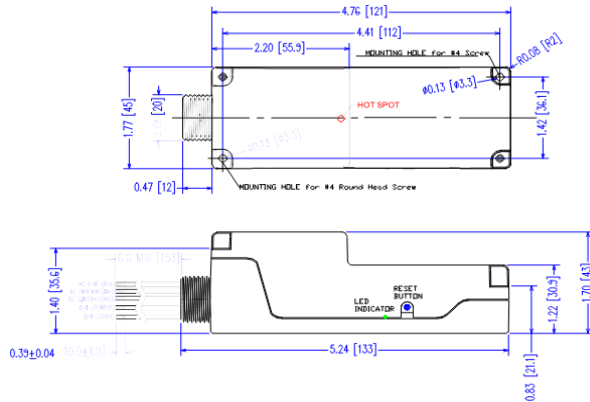
Environmental

- Operating Temperature: -20 to +50°C
- Storage Temperature Range: -40 to +80°C
- Humidity (non-condensing): 5% - 95%RH
- Cooling: Convection
- Vibration Frequency: 5-55Hz/2g, 30 minutes
- Impact Resistance: 1g/s

Wiring



Dimensions



INSTALLATION & MOUNTING INSTRUCTIONS

Case can be mounted using the 2 mount holes provided.
1 each #4 x 1-1/2" and 1 each #4 x 1" Round Head Screws or equivalent.

Ordering Information

| SKU | Description |
|----------|---|
| ARD20-ZB | ZigBee Indoor Lighting Controller with Dimming, 20A <i>Wireless relay for control of 20A Circuit; 100mA 0-10V dimming output</i> |

Environmental Specifications

| Parameter | Min. | Max. | Notes |
|----------------------------|--------|--------|--|
| Case Temperature (Tc) | --- | +72 °C | Measured at location specified on case |
| Operating Temperature (Ta) | -20 °C | +50 °C | Operating temperature range |
| Storage Temperature (Ts) | -40 °C | +85 °C | Non-operating temperature range |
| Operating Humidity | --- | 95% RH | Relative Humidity, non-condensing |
| Vibration | 5 Hz | 55 Hz | 2G, 10 minutes/1 cycle, period 30 minutes, each along X, Y, Z axis |

Input Specifications

| Parameter | Min. | Max. | Notes |
|-------------------------------|--------|---------|---|
| Input Voltage | 90 Vac | 277 VAC | 120, 230, 240, 277 VAC Nominal Values |
| Input Frequency | 47 Hz | 63 Hz | 50/60 Hz Nominal |
| ZigBee Control Transmit Power | --- | +20 dBm | ON/OFF and 0-10V dimming, Standard ZigBee |

Output Specifications

| Parameter | Min. | Max. | Notes/Conditions |
|---|--------|--------|---|
| AC Relay Switch ON/OFF (VAC) | 0 | 277VAC | Relay N/O Contacts, AC Zero Cross Switching |
| AC Relay Load @120VAC (W) | 0 | 1,920W | 16A, Fluorescent, LED Drivers, Incandescent & Inductive Loads |
| AC Relay Load @ 208-240Vac (W) | 0 | 1,920W | 8A, Fluorescent, LED Drivers, Incandescent & Inductive Loads |
| AC Relay Load @ 277Vac (W) | 0 | 2,216W | 8A, Fluorescent, LED Drivers, Incandescent & Inductive Loads |
| AC Relay Load Resistive @ 120-277VAC (A) | 0 | 20A | Pure Resistive Load |
| Relay Inrush Current (Peak) | --- | 250A | Measured at 120VAC/60Hz Input, 10% Ipeak duration ~2.1msec |
| | --- | 370A | Measured at 277VAC/60Hz Input, 10% Ipeak duration ~1.25msec |
| Sink Current on 0-10V (+) Purple Wire | 0mA | 100mA | IEC60929 Annex E2 |
| Absolute Voltage Range on 0-10V (+) Purple Wire | -20.0V | +20V | IEC60929 Annex E2 |
| Dimming Range | 0.3V | +10V | Ballast or Led Driver provides Dim Voltage & Current per IEC60929 Annex E2, 0(1)-10V Analog Dimming |

Safety & EMC Compliance

| Safety | Notes/Standards |
|------------------------------------|---|
| UL/cUL Listed | UL244A, UL508, CSA22.2 NO. 14-13, UL2043 Plenum Rated |
| CE | EN61347-1, EN61347-2-13 |
| Withstand Voltage Relay | Input to Output Across Relay Contacts: 700 Vac |
| Withstand Voltage AC In to Dim Out | Input to DIM: >1750 Vac |
| Dimming Circuit | UL & cUL Isolated Class 2, Dim+ Purple/Dim- Gray |
| FCC | Compliant Class B |
| EN 61000-4-5 | Part 4-5: Surge Immunity test, 2 kV L-N |