

Wireless Relay Controller WRC

Wireless Lighting Control

Description

The Autani WRC Wireless Relay Controller is a wirelessly managed 120/277VAC Plenum Rated area controller that supports dimming and daylight harvesting. The WRC provides managed control of up to two independent switched circuits, supporting the second circuit via an external power pack.

Autani's *WRC* line of wireless controllers is designed to support the 2013 Title 24 requirements, providing multiple circuits of switching, dimming and daylight harvesting, time switching, and support for both occupancy and vacancy controls.

The *WRC* is designed to replace a standard power pack in lighting control circuits and can be operated in stand-alone mode (as a standard switched power pack) or as part of an *EnergyCenter* Integrated Lighting Management System using the *autaniNet* wireless mesh network.

As a network device, the *WRC* is controlled by an Autani *Manager* appliance running *EnergyCenter* software, which manages lighting circuits based upon time schedules, local control, occupancy, demand response curtailments, light level, and door openings or closures.

Applications

WRC wireless lighting controllers are suitable for renovation, upgrade, and new construction projects where individual fixture control and/or monitoring is desired.

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



Features

- Multi-Voltage Compatible, 120 to 277VAC
- Dimming and daylight harvesting (which support Title 24 requirements)
- Provides two 0-10V dimming control outputs
- Plenum Rated device promotes an efficient, distributed control strategy
- autaniNet secure wireless 802.15.4, 2.4GHz communications with other network devices
- Compatible with wireless switches and sensors, Autani's MINI wired occupancy sensors, 3rd party low voltage occupancy sensors, and door/ window contacts
- Local control via standard light switches and contact closures; 3-way and 4-way switching configurations are supported
- Connected sensors and switches function locally if network communications are lost
- Enhanced zero-crossing circuitry and control
- Configurable for momentary or maintained switch inputs
- UL Listed & Plenum Rated
- Designed & Made in the USA





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Specifications

ELECTRICAL

• Operating Voltage: 100 to 277VAC

• Operating Current: 100mA max. @ 120VAC

DC Output (25°C): 24VDC typ., 100mA (Class 2)

Switching Capacity: 20A Nominal/30A max. (resistive load)

• Designed to comply with IEC 60929 (Annex E) standard

INTERNAL RELAY (25°C)

• Max. Switching Power: 8310VA

• Max. Switching Voltage: 277VAC

• Max. Switching Current: 30A (resistive load)

• 120VAC: 30A max. Ballast 3600W, 15A max. Tungsten 1800W

• 250VAC: 2HP max.

• 277VAC: 30A max. Ballast 8310W (resistive load)

EXTERNAL RELAY

See third party manufacturers' documentation
 I/O PORTS

- Total power budget for all I/O ports is 120mA
- Power Pack
- DC Output: 24VDC typ., 100mA
- Contact: 24VDC typ., 100mA
- Sensor: 3.0VDC for Autani Sensor, 24VDC for 3rd party
- 0-10V input channel for photocell
- (2) 0-10V output channels: Up to 20mA source current
- Option to add receiver for wireless EnOcean switches

LOCAL CONTROL INPUTS

- Wall Switch: (2) dry contact closures
- Sensor: Up to (10) Autani MINI Wired Sensors

RADIO NETWORK (autaniNet)

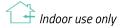
- IEEE 802.15.4-2003 2.4GHz ISM
- Range: Approx. 600' LOS transmit/ receive

REGULATORY APPROVALS

- UL 916 / CSA C22.2 No. 205 / UL 2043 Plenum Rated
- 2.4GHz: FCC ID: V8NWAT1000153 / IC: 7737A-WAT1000153
- 902MHz: FCC ID: SZV-TCM320U / IC: 5713A-TCM320U

ENVIRONMENTAL TEMPERATURES

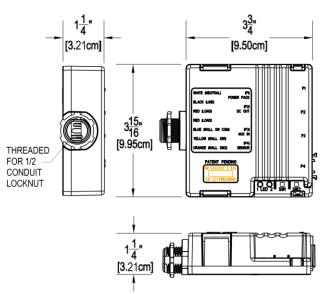
- Operating: 0° to 60°C/Storage: -25° to 80°C
 PHYSICAL
- Dimensions (HxWxD): 3.75 x 3.93 x 1.19in
- · Color: White
- Weight/ Shipping Weight: <10 oz/ <1lb



Ordering Information

| SKU | Description |
|----------------|--|
| A02-01-1160-01 | WRC, 2 Wall Switch |
| A02-01-1160-02 | WRC, 2 Wall Switch, Conformal Coated |
| A02-01-1160-03 | WRC, 2 Wall Switch, w/902MHz Module |
| A02-01-1160-04 | WRC, 2 Wall Switch, w/902MHz Module, Conformal Coated |

Dimensions



Wiring Information

- Line Voltage Wiring for WRC AC-Load (Class 1): 14 gauge recommended
- Line Voltage Wiring for WRC AC-Feed (Class 1): 14-18 gauge recommended
- Low Voltage & 0-10V Wiring (Class 2): 18-20 gauge recommended