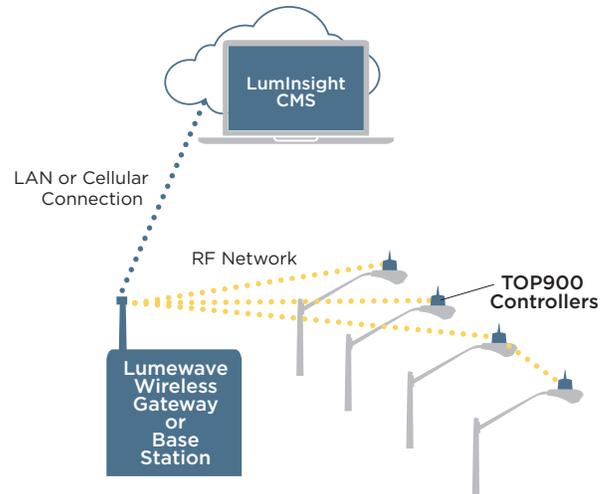


Wireless Outdoor Lighting Controller (TOP900 Series)



Typical smart city or campus RF communication network.

Product Description

Part of a *Lumewave by Echelon®* intelligent control system, the TOP900 Series is a wireless controller that installs directly to an exterior lighting fixture, providing remote monitoring and control. The TOP900TLX controller (pictured above) mounts to the NEMA standard ANSI C136.41-2013 twist-lock connector, typically installed by the fixture manufacturer. The TOP900TN has a threaded nipple and bare leads for use in some retrofits. The controller gathers data regarding the operational condition of lamps, energy usage, voltage, current, power factor, and fixture location that is transmitted over the *Lumewave by Echelon* control network and analyzed by the central management system (CMS) software.

Operation

With the controller, fixtures can be addressed and grouped for unified ON/OFF, high-low stepped dimming with OFF, or 0-10 volt continuous dimming operation. The TOP900 provides adjustable photocell thresholds as well as time of day and astronomical clock functionality. It can operate without a network connection, using onboard distributed intelligence, and it stores energy data for 31 days. The TOP900 supports peer to peer communications and over-the-air upgrades.

Features and Benefits

- Wireless communication for remote control and monitoring; supports adaptive lighting, flexible scheduling, maintenance reports, fault alerts and more
- Available for voltages from 120-480VAC
- Compatible with most lamp types, including LED, eHID, plasma, and induction
- Provides auxiliary power for sensors
- Interfaces to 0-10V dimming driver/ballast
- Provides ON/OFF, bi-level or full range dimming control with high end trim
- Power metering calibrated to 1% accuracy
- Built-in photocell
- Secure AES encryption
- Supports repeater functionality for optimal coverage
- Supports peer to peer communications
- Supports continuous status updates to the CMS

Project:

Date:

Detail:

Product Specifications

Control parameters

- Control profiles and interfaces
 - Power to fixture ON/OFF
 - Bi-level with OFF
 - Continuous dimming control with OFF
 - High end trim for enhanced energy savings
- Control events and schedules
 - Calendar based scheduling
 - Scheduled events based on time of day and/or astronomical time
 - Scheduled use of motion sensors and photocell
 - Real-time commands and overrides
- Photocell daytime override
- Data logging
- Failure detection and reporting
- Photocell thresholds synchronization
- Over the air flashing (program updates)

Electrical and operational specifications

Operating voltage: 100-480VAC, 50/60 Hz
 Power switching: 1000W
 Power consumption: <2W @ 120/277V; 3W @ 480V

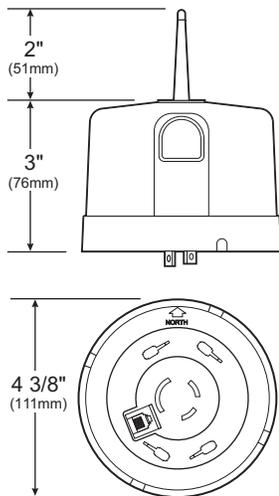
Operating temperature: -40°C to +70°C
 Surge protection: 6KV, 345J
 Relay protection: Zero crossing
 Failsafe: Power ON, lamp level high
 Wireless communication: IEEE 802.15.4; 902-928 MHz
 10 channel DSSS (Direct Sequence Spread Spectrum)
 RF power adjustable to +24 dBm (250 mW)
 Node to node range: TOP900 to TOP900, 1 mile+ (line of sight)
 Node to gateway range: 2-4 miles (line of sight)
 Range extender: TOP900 can be used as repeater
 Input/interface: Motion sensor
 Outputs/interfaces: 0-10V (sink) dimming
 12VDC (150mA)

Safety, compliance and warranty

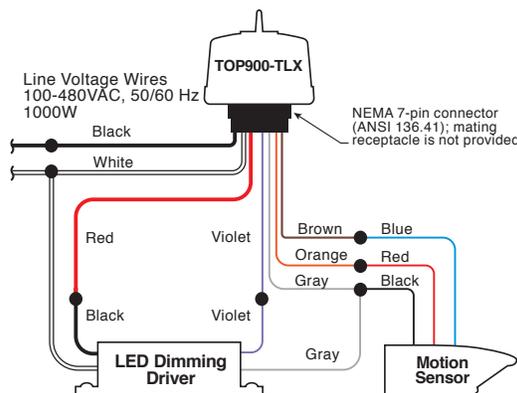
- IP66 certified
- FCC and IC approved
- UL 916/773 and Canadian C12.2 listed
- 5 year limited warranty*

*Subject to terms and conditions found at http://echelon.com/lp/warranty_five_year

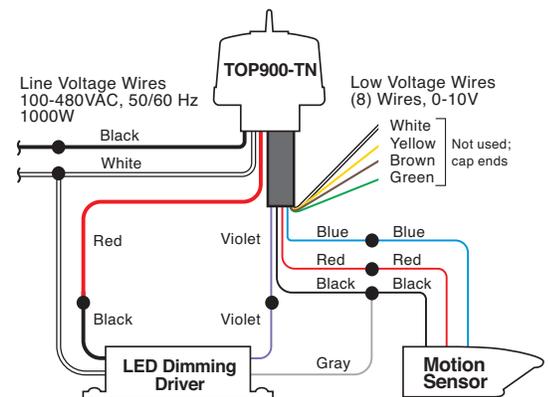
Dimensions and Wiring



Dimensions identical for all models (TOP900TLX shown here).



TOP900TLX wiring



TOP900TN wiring

| Ordering # | Product Name | Product Description |
|------------|-------------------|---|
| 100134 | TOP900TLX-480-GRY | Wireless controller, NEMA standard ANSI C136.41-2013, 120-480V, grey |
| 100135 | TOP900TLX-480-BLK | Wireless controller, NEMA standard ANSI C136.41-2013, 120-480V, with black slip cover |
| 100138 | TOP900TN-480-GRY | Wireless controller, 1/2" threaded nipple, 120-480V, grey |
| 100139 | TOP900TN-480-BLK | Wireless controller, 1/2" threaded nipple, 120-480V, with black slip cover |