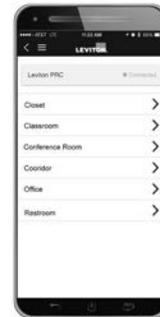


# Provolt™ 0-10V Dimming Room Controllers (PRC) Easy-to-Install Self-Contained Lighting Control Solution



Light Pipe



Easy Multi-Room Application



PRC Daylighting Screen

## DESCRIPTION

The Leviton exclusive Provolt™ Room Controllers (PRC) offer high performance, code compliant, advanced room configuration in one easy-to-install device. Installers can download the Provolt Bluetooth Mobile App for quick-and-easy room configuration and testing with any iOS or Android device.

The PRC's features meet advanced design requirements for single room/area dimming applications offering easy configuration and operational testing for single 0-10V manual dimming zone, occupancy sensing, plug load control, partial-ON, partial-OFF, two daylight harvesting zones, area control and demand response.

## AUTOMATIC ROOM CONFIGURATION (ARC)

The industry-exclusive enhanced automation feature optimizes lighting by monitoring and adjusting to new technology introduced to a room while preventing interferences to the PRCs signal during the life of the product.

- Initial power-up automatically starts room specific calibration
  - Automatic Daylight Harvesting Calibration (AutoCal)
- Continual room optimization
  - Room behavior and trending data adjusts automatic OFF timer
  - Ultrasonic (U/S) sensor sensitivity adjustments to reduce false ONs and false OFFs
  - U/S processing keeps room lighting operational by detecting other U/S sources and adjusting or shutting lights OFF as required
- Uploading and downloading room configuration templates reduces errors, speeds installation and testing and troubleshooting

## FEATURES

- Meets energy code requirements for ASHRAE 90.1 2013, CA Title 24 2013 and 2015 IECC
  - Continuous 0-10V dimming control
  - Area control (ON, dim-up,dim-down, OFF) manually dimmable
  - Occupancy sensing auto-ON/auto-OFF
  - Partial-ON
  - Partial-OFF
  - Demand response
- Available in 450 to 2,000 square foot field-of-view units
- Uses U/S (Doppler shift) motion detection gives maximum sensitivity and PIR motion detection and prevents false triggers
- Manual area control available for 3-way/multi-way applications with the Provolt (PLVSW) keypads (must all be same style)
- Manual control for single area dimming (dim both primary and secondary daylighting zones up and down simultaneously)
- AutoCal feature—Digital Daylighting Level (DDL) automatically calibrates photocell to specified lighting design
- Simplified daylight harvesting control of primary and secondary daylighting zones with full range 0-10V dimming
  - Primary zone dimmed up and down from photocell
  - Secondary zone dimmed up and down with offset from primary zone
- Two light pipes are included for both open (angled) and closed loop (flat and angled) daylight harvesting
  - The angled light pipe provides directional fine tuning and alignment to natural light source for closed loop applications
- Ladderless Commissioning™ and programming through Bluetooth-enabled iOS or Android smart devices
- Visual RGB LED indicator for status and troubleshooting

Provolt™ 0-10V Dimming Room Controllers



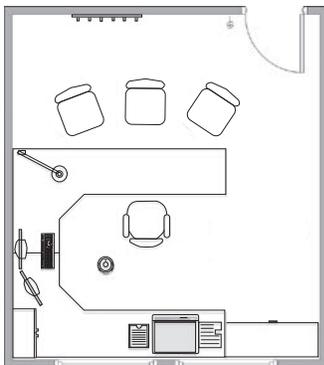
### FEATURES, Continued

- Easily test room configuration using a smart device as a calibration, measurement and testing tool
- Connect a OPP20 power pack to a two circuit room controller for a plug load control solution
- Industry-exclusive H.I.S. (High Inrush Stability) technology
  - Tested to 1.2 million switching cycles under standard loads
  - Zero-crossing circuitry for extended life of the relay
  - Latching relay provides dependability and robust performance for all load types

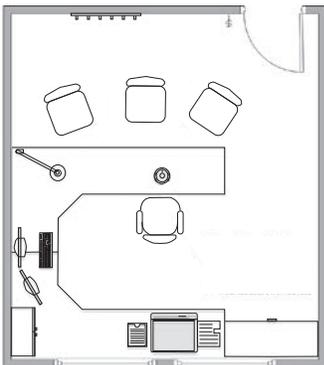
### APP FEATURES

- Easily download the Provolt Bluetooth Mobile App to an iOS or Android smart device and pair to the PRC using Bluetooth technology.
- Create custom templates for easy multi-room replication of room controller settings
  - Select between auto-ON and auto-OFF, partial-ON and partial-OFF
  - Set occupancy sensor time-out
  - Set the offset of the secondary daylight zone based off the primary daylight zone
  - Set vacancy timeouts between 30s-30mins
  - Initiate field-of-view walk test
  - Single-tech and multi-tech selection for either PIR, U/S or Multi-Tech solutions
    - Set PIR or U/S sensitivity independently
  - Monitor status of all inputs
    - Integrated occupancy sensor(s)
    - Integrated photocell
    - Local wall keypad
    - Demand response
  - Enable 24 hour automatic daylight harvesting calibration
  - Daylight harvesting adjustments: open loop, closed loop, increase/decrease DDL, fade rate, dim to min, dim to OFF
  - Manually adjust DDL set point to fine tune for room type after auto-configuration
  - Over-the-Air (OTA) updates: allows user to update PRC firmware in the field via the App
  - Reset to factory defaults

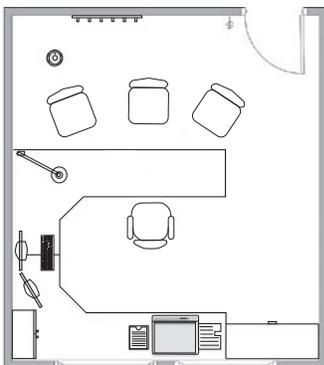
### PLACEMENT DIAGRAMS



- Open Loop Mode**
- Angled light pipe
  - Mounted within 4 feet of window



- Closed Loop Mode**
- Flat light pipe
  - Mounted 6-8 feet from window or within the primary daylight zone
  - Mounted above work surface

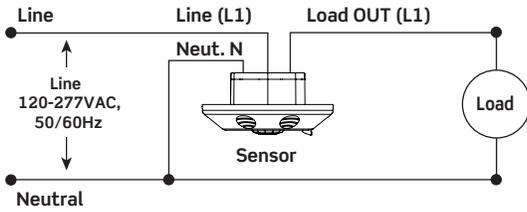


- Closed Loop Mode**
- Angled light pipe angled toward work surface
  - Mounted 12 feet of window
  - Mounted in location optimized to prevent false occupancy triggers

## WIRING DIAGRAMS

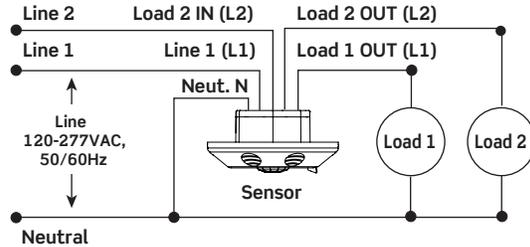
Single Room Single Daylighting Control

Line Voltage



Single Room Multiple Daylighting Control

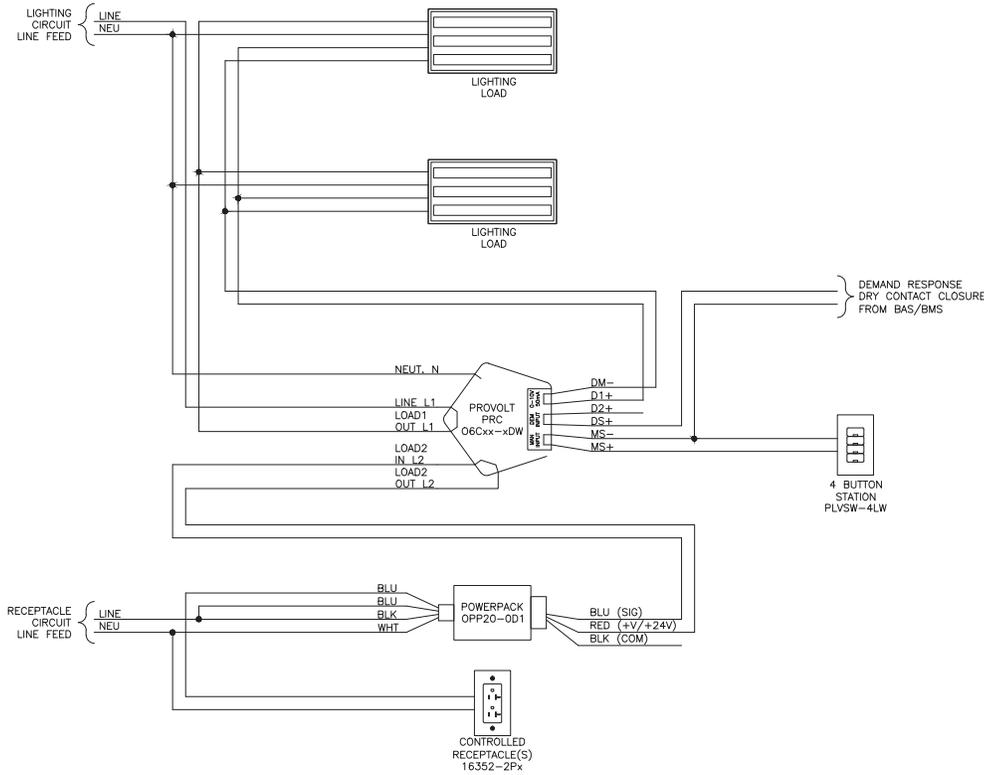
Line Voltage (both lines MUST be fed from the same phase)



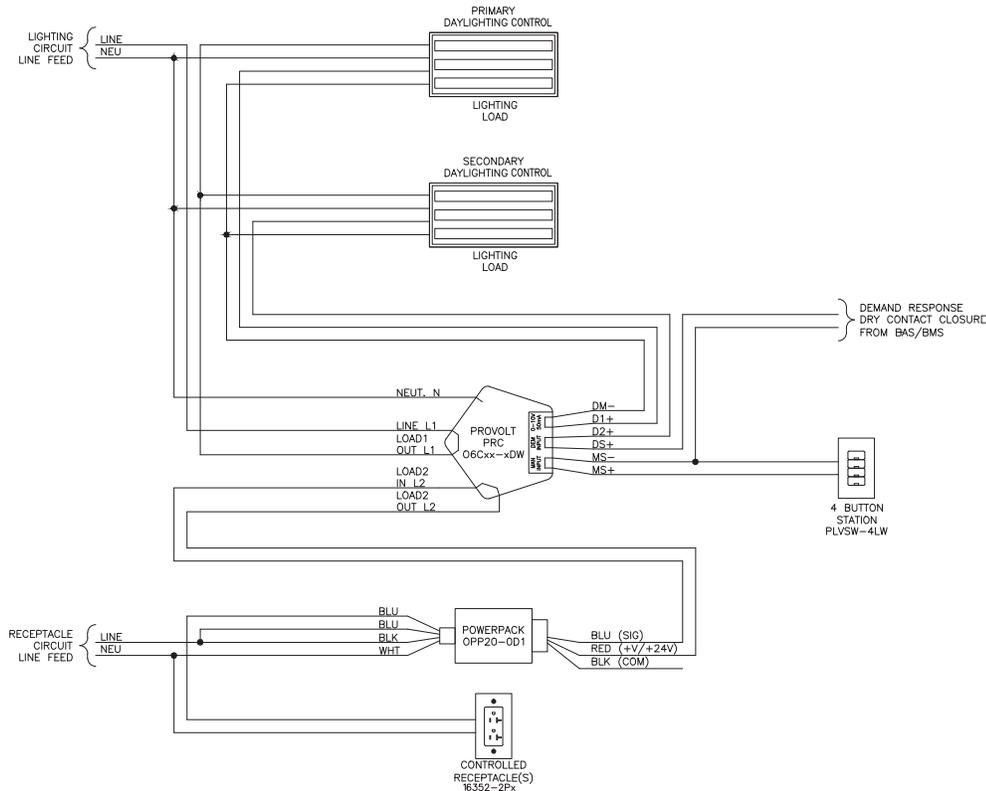
0-10V runs CLASS 1 or CLASS 2 per NEC standards

## APPLICATION DIAGRAMS

Single Room/Daylighting Control with Plug Load Control

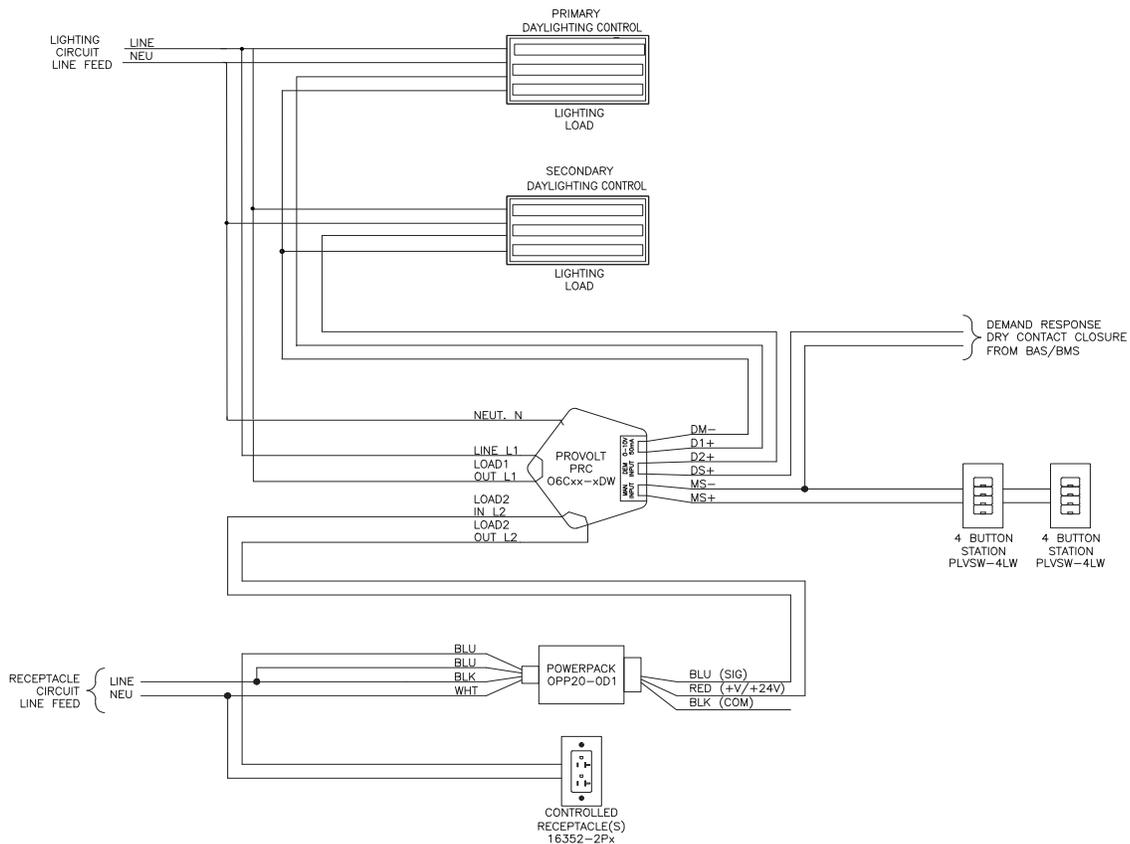


Single Room/Multiple Daylighting Control with Plug Load Control

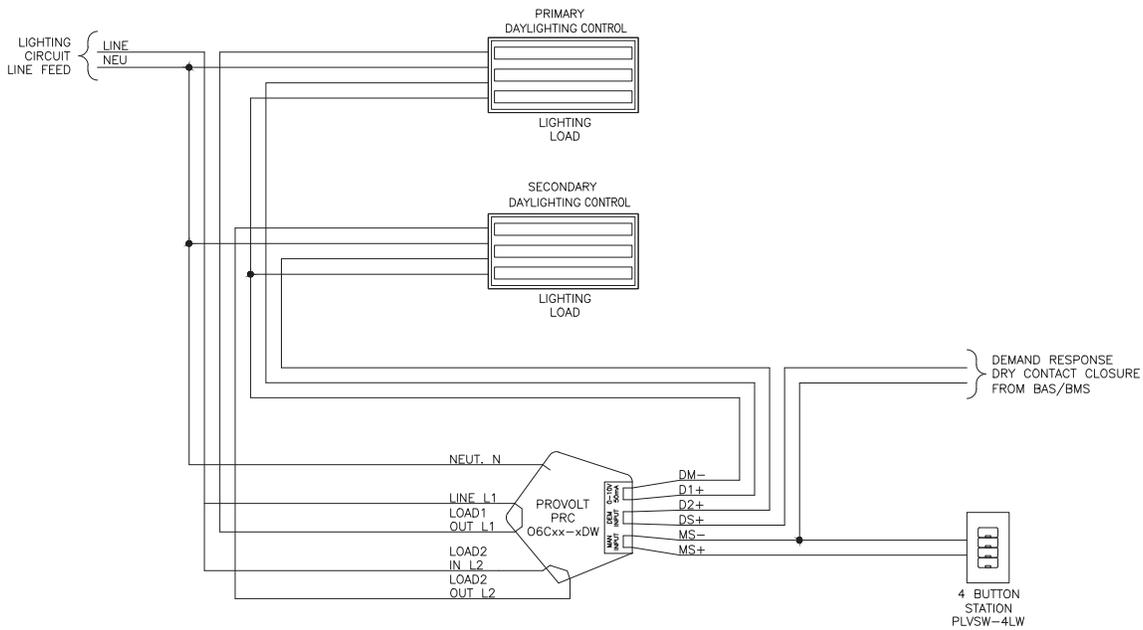


APPLICATION DIAGRAMS

Multi-Location, 3-Way Wall Keypads with Plug Load Control

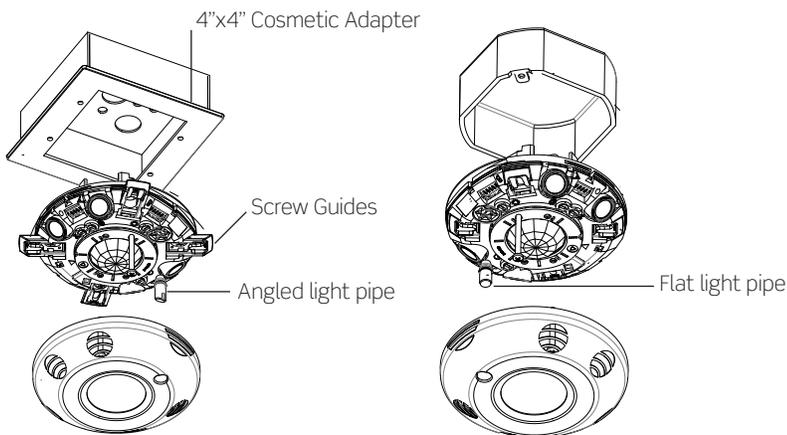


## Demand Response



## INSTALLATION

- Easy installation into junction boxes with Leviton-exclusive screw guides, coasters and terminal blocks
- Front cover snaps on and off for ease of installation
- Sensors conveniently mount to a standard 4" x 4" square or octagon electrical box per NEC standards. The square junction box requires a mud ring.
- Color matching via paintable front cover

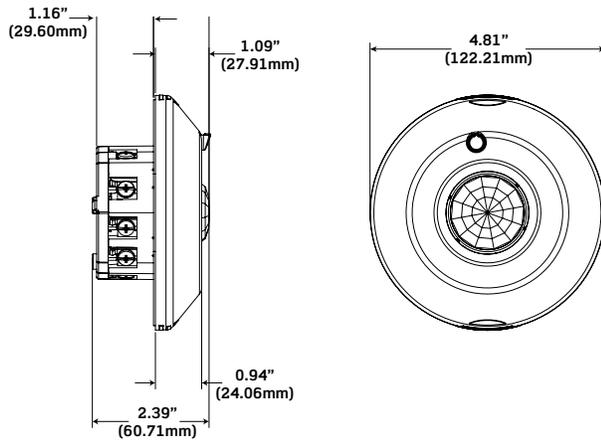


## Leviton Manufacturing Co., Inc. Global Headquarters

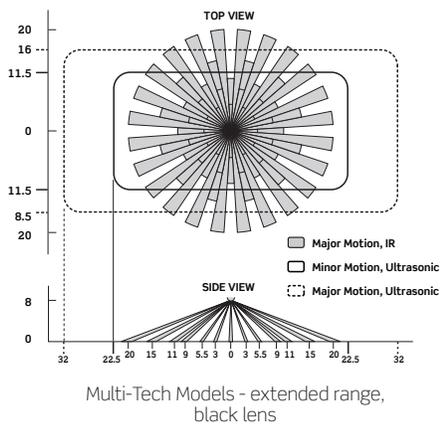
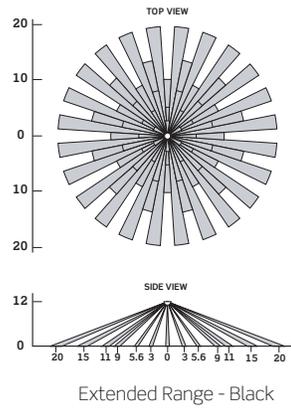
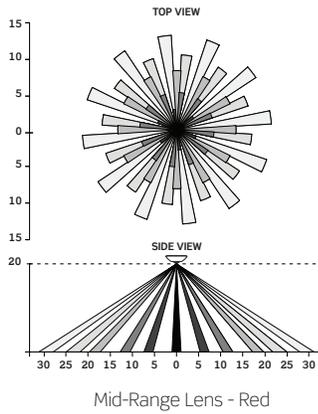
201 North Service Road, Melville, NY 11747-3138 **tech line** 800-824-3005 **fax** 800-832-9538

©2016 Leviton Manufacturing Co., Inc. All rights reserved. Subject to change without notice.

## DIMENSIONS



## FIELD OF VIEWS



## SPECIFICATIONS

ELECTRICAL		
	120V	277V
Input Voltage	120V 50/60Hz	277V 50/60Hz
Current Consumption	8A, Electronic Ballast/LED Driver, 800 W (VA), Tungsten, Ballast, 1/4 HP	5A, Electronic Ballast/LED Driver, 1200W (VA), Ballast, 1/3 HP
Low Voltage Wiring	<b>Class 2 0-10V Wiring</b>	
	18 gauge stranded recommended, 0-10V sinking 50mA max	
	<b>Class 2 Low Voltage Wiring</b>	
	18 gauge stranded recommended, maximum wiring: 500 feet total system, 0-28VDC, 2mA-50mA	
GENERAL		
Daylighting Zones	Single and dual zone daylighting available	
Dimming Area Control	Single area control (keypad simultaneously controls primary and secondary daylighting zones)	
Field of View	<b>PIR</b>	<b>U/S</b>
	450 sqft or 1,500 sqft with included lenses	2,000 sqft
Ultrasonic Frequency	40 KHz	
Photocell	0-200FC (0-2,000 LUX)	
WIRELESS		
Bluetooth	2.4 Ghz, 30ft max	
ENVIRONMENTAL		
Operating Temperature	32 to 104°F (0 to 40°C)	
Storage Temperature	15 to 160°F (-26 to 71°C)	
Relative Humidity	0-90% non-condensing	
OTHER		
Warranty	Limited 5-year warranty	

**ORDERING INFORMATION**

<b>PROVOLT 0-10V DIMMING ROOM CONTROLLERS</b>	
<b>CAT. NO.</b>	<b>DESCRIPTION</b>
O5C20-MDW	Provolt Room Controller, primary daylighting control, ceiling mount, M/T, 2,000sqft, 0-10V DC sinking signal for dimming ballast or LED driver, 120-277V (both lenses included)
O6C20-MDW	Provolt Room Controller, primary and secondary daylighting control, ceiling mount, M/T, 2,000sqft, 0-10V DC sinking signal for dimming ballast or LED driver, 120-277V (both lenses included)
O5C04-IDW	Provolt Room Controller, primary daylighting control, ceiling mount, M/T, 450-1,500sqft, 0-10V DC sinking signal for dimming ballast or LED driver, 120-277V (both lenses included)
O6C04-IDW	Provolt Room Controller, primary and secondary daylighting control, ceiling mount, M/T, 450-1,500sqft, 0-10V DC sinking signal for dimming ballast or LED driver, 120-277V (both lenses included)
Provolt Mobile App	Download for free from Google Play or the Apple App Store

**Note:** For code compliant, manual wall station control use Provolt Low Voltage (PLVSW) 1,2 or 4 Button Keypads with the 0-10V Dimming Room Controllers

**Provolt™ 0-10V Dimming Room Controllers**

**Leviton Manufacturing Co., Inc. Global Headquarters**

201 North Service Road, Melville, NY 11747-3138 **tel** 800-323-8920 **fax** 800-832-9538 **tech line** (8:30AM-7:00PM ET Mon-Fri) 800-824-3005

**Leviton Manufacturing Co., Inc. Energy Management, Controls and Automation**

20497 SW Teton Avenue, Tualatin, OR 97062 **tel** 800-736-6682 **fax** 503-404-5594 **tech line** (6:00AM-4:00PM PT Mon-Fri) 800-959-6004

**Leviton Manufacturing of Canada, Ltd.**

165 Hymus Boulevard, Pointe Claire, Quebec H9R 1E9 **tel** 800-469-7890 **fax** 800-563-1853 **tech line** 1-800-405-5320

**Visit our Website at: [www.leviton.com/Provolt](http://www.leviton.com/Provolt)**

©2016 Leviton Manufacturing Co., Inc. All rights reserved. Subject to change without notice.