**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**

- Can be used to comply with IECC, ASHRAE 90.1, and 2016 Title 24, Part 6
  - Occupancy/vacancy sensing
  - 0-10V dimming
  - Daylight harvesting
  - Partial-ON, partial-OFF
  - Demand response
  - Receptacle control requirements
- 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
**PRODUCT DATA**

**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
- Industry-exclusive “fail safe” circuitry: in the event of product failure, return-to-close feature causes the relay to default ON which eliminates life safety concerns

**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/Auto-OFF and Manual-ON/Auto-OFF
- Enable/disable partial-ON and partial-OFF and set the partial-ON and partial-OFF levels
- Set occupancy sensor time-out
- Set secondary timer for partial-OFF to full-OFF state (infinity by default)
- Set vacancy and secondary timeouts between 30s-30mins
- Enable/disable receptacle/HVAC control for secondary relay
- Set the offset of the secondary daylight zone based off the primary daylight zone
- 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

**WIRING DIAGRAMS**

**Single Room Single Daylighting Control**
- **Line Voltage**
  - Line (L1) Load OUT (L1)
  - Neut. N
  - Load
  - Sensor

- **Wiring Diagram**
  - Line 120-277VAC, 50/60Hz
  - Neutral

**Single Room Multiple Daylighting Control**
- **Line Voltage** (both lines MUST be fed from the same phase)
  - Line 1 Load 1 OUT (L1)
  - Line 2 Load 2 OUT (L2)
  - Neut. N

- **Wiring Diagram**
  - Line 120-277VAC, 50/60Hz
  - Neutral

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

**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
FIELD OF VIEWS

APPLICATION DIAGRAM*

*See the PRC Application Cookbook for additional wiring diagrams.
**PRODUCT DATA**

**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.

**DIMENSIONS**

- 4” x 4” Cosmetic Adapter
- Screw Guides
- Angled light pipe
- Flat light pipe

**PRC LOW VOLTAGE KEYPADS**

Provolt™ 0-10V Dimming Room Controllers

- Provolt Low Voltage Keypads are available in 1, 2, and 4 button options. See ordering information or the Provolt Low Voltage Keypads Data Sheet for more information.
### Specifications

#### Electrical

<table>
<thead>
<tr>
<th></th>
<th>120V 50/60Hz</th>
<th>277V 50/60Hz</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Input Voltage</strong></td>
<td>120V 50/60Hz</td>
<td>277V 50/60Hz</td>
</tr>
<tr>
<td><strong>Current Consumption</strong></td>
<td>8A, Electronic Ballast/LED Driver, 800 W (VA), Tungsten, Ballast, 1/4 HP</td>
<td>5A, Electronic Ballast/LED Driver, 1200W (VA), Ballast, 1/3 HP</td>
</tr>
<tr>
<td><strong>Low Voltage Wiring</strong></td>
<td>Class 2 0-10V Wiring</td>
<td>Class 2 0-10V Wiring</td>
</tr>
<tr>
<td></td>
<td>18 gauge stranded recommended, 0-10V sinking 50mA max</td>
<td>18 gauge stranded recommended, maximum wiring: 500 feet total system, 0-28VDC, 2mA-50mA</td>
</tr>
</tbody>
</table>

#### General

<table>
<thead>
<tr>
<th><strong>Daylighting Zones</strong></th>
<th>Single and dual zone daylighting available</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimming Area Control</strong></td>
<td>Single area control (keypad simultaneously controls primary and secondary daylighting zones)</td>
</tr>
<tr>
<td><strong>Field of View</strong></td>
<td>PIR U/S</td>
</tr>
<tr>
<td></td>
<td>450 sqft or 1,500 sqft with included lenses</td>
</tr>
<tr>
<td></td>
<td>2,000 sqft</td>
</tr>
<tr>
<td><strong>Ultrasound Frequency</strong></td>
<td>40 Khz</td>
</tr>
<tr>
<td><strong>Photocell</strong></td>
<td>0-200FC (0-2,000 LUX)</td>
</tr>
</tbody>
</table>

#### 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

| **Listings** | Can be used to comply with IECC, ASHRAE 90.1, and 2016 Title 24, Part 6 occupancy/vacancy sensing, 0-10V dimming, daylight harvesting, partial-ON, partial-OFF, demand response and receptacle control requirements, UL 773A (Occupancy Standard), UL 924 (Emergency Equipment), cUL Listed, CE Compliant, NOM Certified, RoHS Compliant, NY LLC48 Compliant |
| **Warranty** | Limited 5-year warranty |
## PRODUCT DATA

### PROVOLT 0-10V DIMMING ROOM CONTROLLERS

<table>
<thead>
<tr>
<th>CAT. NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>O5C20-MDW</td>
<td>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)</td>
</tr>
<tr>
<td>O6C20-MDW</td>
<td>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)</td>
</tr>
<tr>
<td>O5C04-IDW</td>
<td>Provolt Room Controller, primary daylighting control, ceiling mount, PIR, 450-1,500sqft, 0-10V DC sinking signal for dimming ballast or LED driver, 120-277V (both lenses included)</td>
</tr>
<tr>
<td>O6C04-IDW</td>
<td>Provolt Room Controller, primary and secondary daylighting control, ceiling mount, PIR, 450-1,500sqft, 0-10V DC sinking signal for dimming ballast or LED driver, 120-277V (both lenses included)</td>
</tr>
</tbody>
</table>

**Provolt Mobile App** Download for free from Google Play or the Apple App Store

### PROVOLT LOW VOLTAGE KEYPADS

<table>
<thead>
<tr>
<th>CAT. NO.</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>PLVSW-1LW</td>
<td>Provolt Keypads, 1-button ON/OFF controller for use with Provolt Room Controllers</td>
</tr>
<tr>
<td>PLVSW-2LW</td>
<td>Provolt Keypads, 2-button ON/OFF controller for use with Provolt Room Controllers</td>
</tr>
<tr>
<td>PLVSW-4LW</td>
<td>Provolt Keypads, 4-button ON/OFF controller for use with Provolt Room Controllers</td>
</tr>
<tr>
<td>RDGSW-1Ex*</td>
<td>1-button Color Change Kit (blank)</td>
</tr>
<tr>
<td>RDGSW-2Ex*</td>
<td>2-button Color Change Kit (blank)</td>
</tr>
<tr>
<td>RDGSW-4Ex*</td>
<td>4-button Color Change Kit (blank)</td>
</tr>
<tr>
<td>RDGSW-1Fx*</td>
<td>1-button Custom Engraved Color Change Kit</td>
</tr>
<tr>
<td>RDGSW-2Fx*</td>
<td>2-button Custom Engraved Color Change Kit</td>
</tr>
<tr>
<td>RDGSW-4Fx*</td>
<td>4-button Custom Engraved Color Change Kit</td>
</tr>
</tbody>
</table>

*Replace x to indicate color: White (W), Ivory (I), Light Almond (T), Gray (G), Black (E) and Red (R). Color change kits are blank and available for custom engraving for button markings.*