QUICKTRONIC® POWERSENSE® T8
Universal Voltage Dimming Systems

High Efficiency Series

Sylvania Quicktronic High Efficiency

POWERSENSE T8 electronic ballasts offer several advantages:

- Wide Dimming Range: operate linear fluorescent T8 lamps over a 100-5% dimming range and provide true versatility in controls selection.
- Industry’s Most Adaptable Dimming Ballast: ballasts feature micro-controller technology for compatibility with:
  - low voltage controls
  - power line fluorescent dimmers
  - any line voltage from 120V to 277V
- Unmatched Performance: patented lamp detection technology that virtually eliminates variations in brightness from lamp-to-lamp and provides uniform light output throughout the entire dimming range. At light levels of >75% unnecessary lamp-coil power is turned off, delivering energy efficiencies comparable to non-dimming Instant Start electronic ballast. This technology also eases installation and troubleshooting by recognizing failed lamps, faulty wiring or loose connections, and shutting down. When the problem is corrected, the system restarts automatically.
- NEMA Premium Electronic Ballast Program compliant. This program promotes the use of high efficiency T8 electronic ballasts by meeting or exceeding the Ballast Efficiency Factors (BEF) established by the CEE, (Consortium for Energy Efficiency). For additional information on this program go to: www.cee1.org or www.nema.org

These ballasts are RoHS compliant and feature lead-free solder and manufacturing process. Setting the standard for quality, QUICKTRONIC POWERSENSE ballasts are covered by the QUICK 60+® warranty, the first and most comprehensive lamp & ballast system warranty in the industry.

Application Information

Sylvania Quicktronic Powersonse ballasts are ideally suited for:
- Occupancy sensors
- Daylight harvesting
- Energy management
- Load shedding
- New construction
- Retrofit

System Information

QUICKTRONIC POWERSENSE ballasts operate from standard low voltage (0-10VDC) fluorescent controllers or compatible 2-wire power line fluorescent dimmers, making them ideal for individual office lighting or automated building applications, both in new construction and retrofit projects.

For the individual office or conference room, installation can be streamlined by using a 2-wire power line fluorescent dimmer, eliminating the need for additional control wires.

For more advanced systems, such as daylight harvesting or building automation applications, standard low voltage devices (0-10VDC, Class 1 or 2) are used to control the lighting system. In this daylight harvesting example, each lighting fixture (or fixture row) is controlled by its own photosensor; regulating the light output to compensate for changes in natural daylight. Depending upon the specific application, energy savings of up to 60% compared to fixed output T8 electronic systems can be realized.

All QUICKTRONIC POWERSENSE ballasts include a line voltage protection circuit, which protects the ballast in the event that line voltage is inadvertently applied to the low voltage control inputs.

* Savings per Year@ = Cost of operation (100% Light Level) - Cost of operation (@Light Level)
* Based on 4000 hrs/yr , $0.11/kWh,  and 120V operation
* Savings per Year (@Light Level) = Cost of operation (0% Light Level) - Cost of operation (@Light Level)
QUICKTRONIC® POWERSENSE® Dimming UNV - Dimming Control Wiring Examples

Industry's 1st Ballast That Allows POWERLINE Fluorescent Control AND 0-10Vdc Control Input Simultaneously

2-wire Powerline AND 0-10Vdc Control with POWERSENSE Ballasts

Wallbox Style 2-wire Powerline Control Wiring Example

2-wire Powerline Control with POWERSENSE Ballasts

CAUTION: For 2-wire Powerline wiring, individually insulate (cap-off) all unused Violet & Gray leads as shown.

Wallbox Style 0-10V Control with Power Switch Switch Wiring Example

0-10V DC Control with POWERSENSE Ballasts

Examples: Lithonia model ISD BC or Leviton IP 710 Series (These 0-10V dc, 120/277V models can be wired for single pole application shown; these models can also be wired for 3-way applications.)

Photo Sensor 0-10V Wiring Example

0-10V DC Control with POWERSENSE Ballasts

Powerline Control Spec:
Specification-grade controls are available for 120V or 277V operation of controllable analog electronic fluorescent ballasts. Controls must be suitably rated for both the type (e.g. Fluorescent Phase-control) and size (e.g. 600W of the connected load.)

Examples:
Leviton IPX series operate as single pole or 3-way models. Available in 120V and 277V models. Leviton 6668-1W (white) 120V single pole fluorescent dimmer.

Lithonia model ISD BC or Leviton IP 710 Series (These 0-10V dc, 120/277V models can be wired for single pole application shown; these models can also be wired for 3-way applications.)

Specifications subject to change without notice.
### SPECIFICATION DATA

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<tr>
<th>Catalog #</th>
<th>Date</th>
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### QUICKTRONIC® POWERSENSE® Controls Information

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<th>Controls Manufacturer</th>
<th>Fluorescent Powerline Controllers</th>
<th>0-10 VDC Controllers</th>
<th>Photo Cells</th>
<th>Occupancy Sensors</th>
<th>Building Management Systems</th>
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Please contact controls manufacturer to order/specify controls. For the latest controls list go to www.sylvania.com

Also, for more information, refer to the LCA (Lighting Controls Association) site: http://lightingcontrolsassociation.org

### Dimensions:

#### TC enclosure
- Overall: 9.5" L x 1.68" W x 1.0" H (241 x 43 x 25 mm)
- Mounting: 8.90" (226 mm)
- Weight: 1.1 lbs each (500 g)

#### Wiring:
- Leads Only

#### TCL enclosure
- Overall: 16.7" L x 1.68" W x 1.0" H (425mm x 43mm x 25mm)
- Mounting: 16.2" (411 mm)
- Weight: 2.1 lbs each (950 g)

#### Wiring:
- Leads Only

### WARNING:
- Install and wire these ballast and controls in accordance with the National Electrical Code (NEC), all applicable Federal, State and local electrical codes, as well as the specific instructions provided with the compatible control that you purchased.
- Installation should be performed by qualified personnel only.
- These instructions are guidelines only. Installation may vary for different controls/fixtures/applications. Be sure to follow the control instructions and all applicable codes and standards when installing dimming systems.
- Please contact controls manufacturer listed in the OSRAM SYLVANIA Inc. controls cross reference for compatible controls and instruction wiring

### NOTES:
1. Dimming ballasts source <0.5mA (0-10VDC control input).
2. Powerline controls must be rated for the type (e.g. Fluorescent Phase-control) and size (e.g. 600W, 1000W, 1500W & 2000W etc.) of the connected load.

Do NOT use incandescent powerline controls; incandescent dimmers are not rated for fluorescent loads and are NOT compatible with POWERSENSE ballasts.

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**OSRAM SYLVANIA**

National Customer Service and Sales Center
1-800-LIGHTBULB (1-800-544-4828) www.sylvania.com

Specifications subject to change without notice.
## High Efficiency, T8 Controllable Lighting Systems, UNV (120-277V)

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<th>Item Number</th>
<th>OSRAM SYLVANIA Description</th>
<th>Input Current (AMPS)</th>
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<th>Rated Lumens (lm)</th>
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<th>Ballast Factor (BF)</th>
<th>System Type - DIMMING/Case Size</th>
<th>Input Power (W)</th>
<th>System Efficiency (lm/W)</th>
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**Wiring Diagrams**

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<tr>
<td>POWERLINE CONTROL</td>
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**System Life / Warranty**

QUICKTRONIC® POWERSENSE® products are covered by the QUICK 60+ warranty. For additional details, refer to the QUICK 60+ warranty bulletin.

**Specifications**

- **Starting Method:** Programmed Rapid Start
- **Circuit Type:** Series
- **Lamp CCF:** Less than 1.7
- **Starting Temp:** 50°F/10°C minimum for OCTRON T8 lamps
- **Input Voltage:** 120-277V ±10%
- **Input Frequency:** 50/60 Hz
- **THD:** <10% @ Full Output
- **Power Factor:** >0.86 @ Full Output
- **UL Listed Class F, Type I Outdoor CSA or C/UL Certified**
- **Class A Sound Rating**
- **CSA or C/UL Certified**
- **70°C Case Temperature**
- **FCC 47CFR Part 18 Non-Consumer**
- **70°C Max Case Temperature**
- **RoHS compliant**

**Electrical Codes:**

- **Class 2 circuit-consult Local and National Electrical Codes.**
- **Low Voltage Control Specs:** Ballast will source up to 0.5mA for 0-10VDC control purposes. May be wired as a Class 1 or Class 2 circuit-consult Local and National Electrical Codes.
- **Power Line Control Specs:** Specification-grade fluorescent controls are available for 120V or 277V operation of controllable analog electronic fluorescent ballasts. Controls must be suitably rated for both the type (e.g. Fluorescent Phase control) and size (e.g. 600W) of the connected load.

**Low Voltage Control Spec:**

- **Type:** (e.g. Fluorescent Phase control)
- **Class 2:** circuit consult Local and National Electrical Codes.
- **Range:** 120-277V, ±10%
- **Input Voltage:**

**System Type:**

- **DIMMING/Case Size**
- **70°C Max Case Temperature**
- **RoHS compliant**
- **Complies with European Union Restriction of Hazardous Substances Directive (Directive EC 2002/95)**
- **Warranty Bulletin:**
- **Warranty Bulletin:**
- **Service and Sales Center:**

**Contact Information:**

- **OSRAM SYLVANIA National Customer Service and Sales Center**
- **1-800-LIGHTBULB**
- **(1-800-544-4828)**
- **www.sylvania.com**

**Data based on SYLVANIA OCTRON® lamps shown. QUICKTRONIC® POWERSENSE® ballasts are also compatible with other manufacturers equivalent lamp types that meet ANSI specifications, including F17, F25, F32, U-Bend equivalent lamps and SUPERSAVER lamps.**

**Quicktronic® PowerSense®**

- **OCTRON®:** the system solution.
- **SUPERSAVER®:** also compatible with other manufacturers equivalent lamp types that meet ANSI specifications, including F17, F25, F32, U-Bend equivalent lamps and SUPERSAVER lamps.
- **Quicktronic®® lamps**
- **PowerSense®:** also compatible with other manufacturers equivalent lamp types that meet ANSI specifications, including F17, F25, F32, U-Bend equivalent lamps and SUPERSAVER lamps.

**Specifications subject to change without notice.**