

Electronic T8 Fluorescent Controllable Lighting Systems

QUICKTRONIC® POWERSENSE™ T8 DIMMING UNIVERSAL VOLTAGE

High Efficiency Series

Lamp/Ballast Guide

32W T8 - SYLVANIA OCTRON®

- 1-lamp QTP1x32T8/UNV DIM
- 2-lamp QTP2x32T8/UNV DIM
- 3-lamp QTP3x32T8/UNV DIM
- 4-lamp QTP4x32T8/UNV DIM

Primary Lamp Types
FO32, FBO32

Also operates:
FO25, FO17

Key System Features

- **POWERSENSE compatibility with low voltage and power line dimmers**
- **High Efficiency**
- Lamp Detection Technology
- Universal voltage (120-277)
- 100 - 5% Dimming Range
- PROStart programmed start
- Anti-flash circuitry - turns on in dimmed mode
- Lightweight and low profile
- Operates at >42kHz
- QUICK 60+ ballast and lamp warranty

Application Information

SYLVANIA QUICKTRONIC POWERSENSE

is ideally suited for:

- Occupancy sensors
- Daylight harvesting
- Energy management
- Load shedding
- Commercial
- Retail
- Hospitality
- Institutional
- Schools
- New construction
- Retrofit

SYLVANIA QUICKTRONIC

POWERSENSE ballasts operate linear fluorescent T8 lamps over a wide (100 - 5%) dimming range and provide true versatility in controls selection.

QUICKTRONIC POWERSENSE ballasts feature micro-controller technology to offer the industry's most adaptable dimming ballast. Compatibility with low voltage controls, power line dimmers and any line voltage from 120V to 277V, provides the flexibility to greatly simplify the specification, purchasing and installation process.

Patented lamp detection technology delivers unmatched performance. Variations in brightness from lamp-to-lamp are virtually eliminated, providing uniform lighting throughout the 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.

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 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



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.

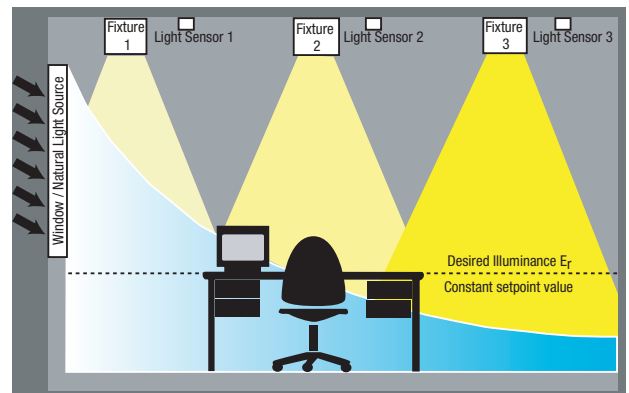
All SYLVANIA Professional Series (QTP) electronic ballasts

feature high power quality (<10% THD), lightweight, low profile designs.

Setting the standard for quality, QUICKTRONIC POWERSENSE is covered by our QUICK 60+® warranty, the first and most comprehensive lamp & ballast system warranty in the industry.

controlled by it's own photo-sensor; 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 models 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.



POWERSENSE™ T8 DIMMING UNIVERSAL

High Efficiency Electronic T8 Fluorescent Controllable Lighting Systems

Item* Number	Description*	Input Voltage (VAC)	Input Current (AMPS)	Lamp Type	Rated Lumens (lm)	No. of Lamps	Ballast Factor (BF)	System Lumens	Input Power (Watts)	System Efficacy (lm/W)
50705	QTP 1x32T8/UNV DIM-TC	120-277	0.27/0.12	F032XP	3000	1	0.88 0.05	2640 150	30 8	88
50707	QTP 2x32T8/UNV DIM-TC	120-277	0.54/0.24	F032XP	3000	2	0.88 0.05	5280 300	60/58 15	88/91
50714	QTP 3x32T8/UNV DIM-TCL	120-277	0.73/0.30	F032XP	3000	3	0.88 0.05	7920 450	87/84 20	91/94
50716	QTP 4x32T8/UNV DIM-TCL	120-277	0.96/0.40	F032XP	3000	4	0.88 0.05	10560 600	114/110 27	92/96

* POWERSENSE T8 replaces former Helios T8 dimming products.

Dimensions:

1 & 2 lamp enclosure

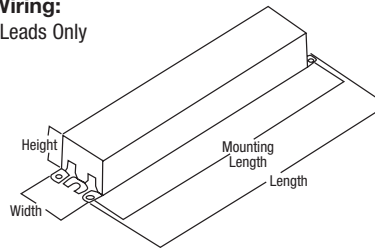
Overall: 9.5" L x 1.68" W x 1.0" H (241 x 43 x 25 mm)
Mounting: 8.90" (226 mm)
Weight: 1.1 lbs each (500 g)

3 & 4 lamp enclosure

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

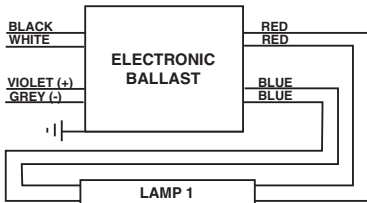
Wiring:

Leads Only

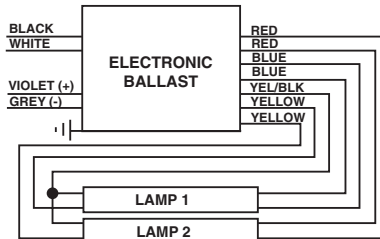


Output Wiring: Lamp wiring for dimming ballasts can differ significantly from non-dimming ballasts and from other manufacturers dimming ballasts. Take care to connect lamp lead wires as shown on the applicable ballast diagram.

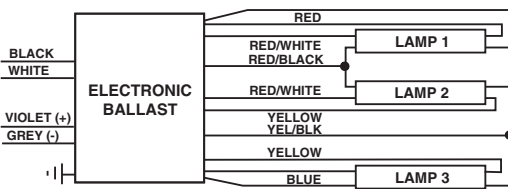
1 lamp



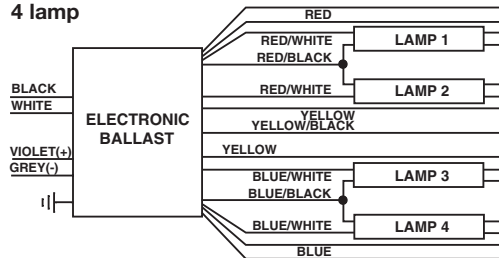
2 lamp



3 lamp

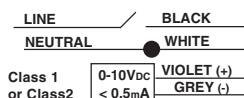


4 lamp

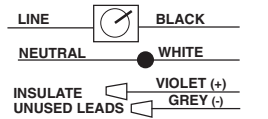


Input & Control Wiring Options:

LOW-VOLTAGE CONTROL



POWERLINE CONTROL



Performance Guide

Data shown based upon SYLVANIA OCTRON® F032/XP lamp(s). QUICKTRONIC® POWERSENSE™ ballasts are also compatible with other lamp manufacturers equivalent lamp types that meet ANSI specifications and SYLVANIA fluorescent dimming specifications. SUPERSAVER lamps are not suitable for dimming applications. These lamps are typically rated at 30W or 28W and marked as "SS" or "ES" T8 lamps.

Specifications

Starting Method: Programmed Rapid Start

Circuit Type: Series

Lamp Frequency: >40 KHz

Lamp CCF: Less than 1.7

Starting Temp: 50°F/10°C minimum

Input Voltage: 120-277V, +/-10%

Input Frequency: 50/60 Hz

THD: <10% @ full Output

Power Factor: >98% @ full Output

UL Listed Class P, Type 1 Outdoor
CSA or C/UL Certified
70°C Max Case Temperature
FCC 47CFR Part 18 Non-Consumer
Class A Sound Rating
ANSI C62.41 Cat. A Transient Protection
Remote Mounting up to 8 feet
Specifications subject to change without notice.

Control Information

QUICKTRONIC POWERSENSE ballasts are compatible with a wide range of low voltage (0-10VDC) and power line fluorescent controllers available from various manufacturers. Please see controls list on previous page or contact OSRAM SYLVANIA.

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.

Ordering Guide

QUICKTRONIC products are covered by QUICK 60+®, a comprehensive lamp and ballast system warranty. For additional details, refer to the QUICK 60+ warranty bulletin.

Item Number — **50707 QTP 2 x 32T8 / UNV DIM-TC** — System Type - DIMMING/Case Size
QUICKTRONIC PROFESSIONAL — Line Voltage (120V to 277V)
Number of Lamps (1, 2, 3, 4) — Primary Lamp Wattage

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Control Options with POWERSENSE Ballasts

QUICKTRONIC® POWERSENSE™ T8 DIMMING UNV

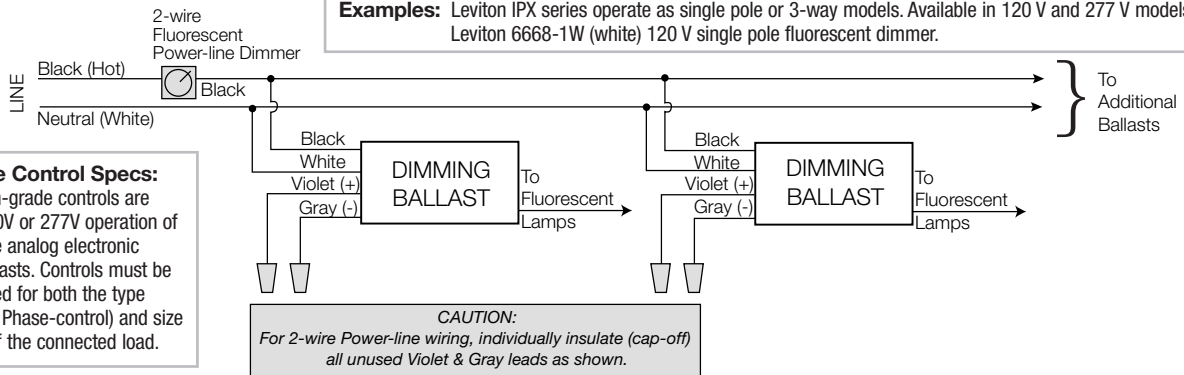
Dimming Control Wiring Examples

Wallbox Style 2-wire Power-line Control Wiring Example

2-wire Power-line Control with POWERSENSE Ballasts

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

Power Line Control Specs:
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.



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

0-10V DC Control with POWERSENSE Ballasts

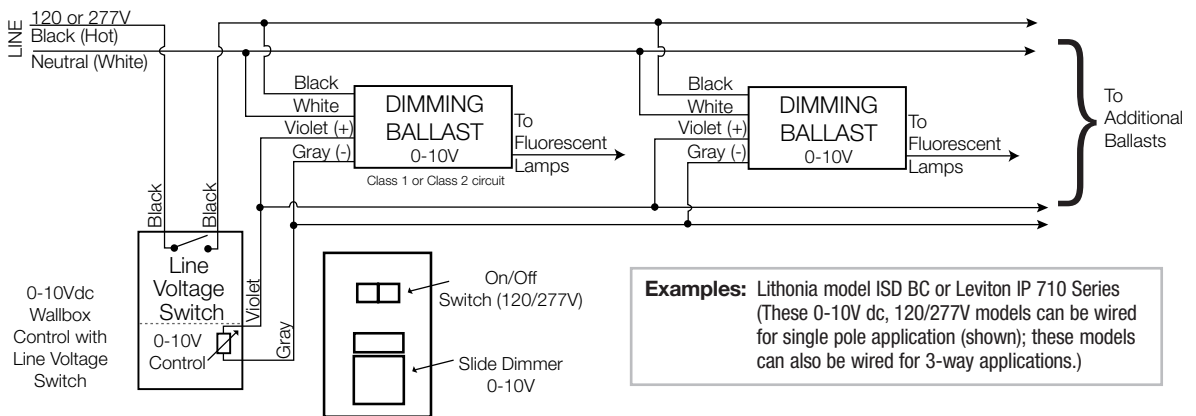
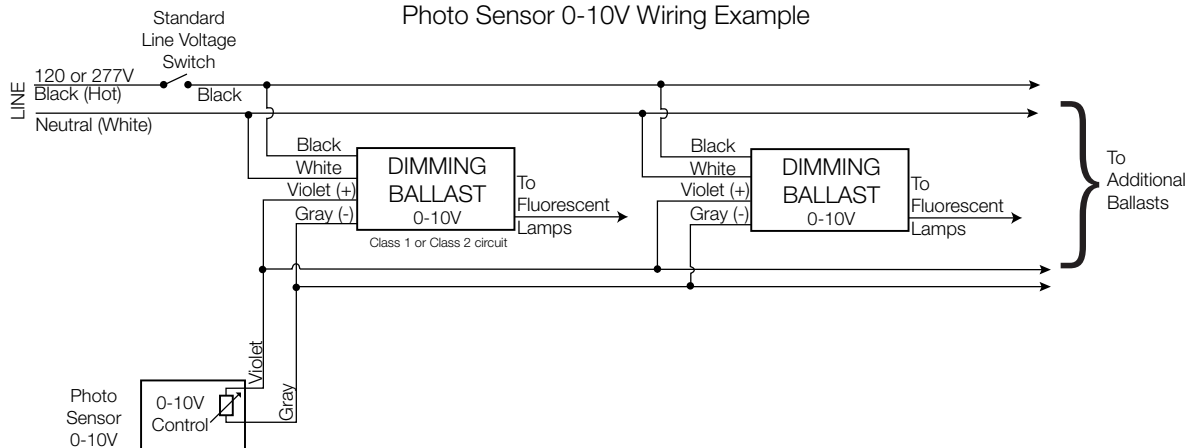


Photo Sensor 0-10V Wiring Example

0-10V DC Control with POWERSENSE Ballasts

Photo Sensor 0-10V Wiring Example



QUICKTRONIC® POWERSENSE™ CONTROLS INFO.

Controls Manufacturer	Fluorescent Power-line Controllers	0-10 VDC Controllers	Photo Cells	Occupancy Sensors	Building Management Systems
Digital Lighting Systems 305-264-8391 www.digitallighting.com	X	X			
Hunt Dimming 970-484-9048 www.huntdimming.com	X	X	X	X	X
Lehigh Electronic Products 610-395-3386 www.lehighdim.com	X	X	X	X	X
Leviton Lighting Controls 800-824-3005 www.leviton.com	X	X	X	X	
Lightolier Controls 800-526-2731 www.lolcontrols.com	X	X	X	X	X
Lithonia Controls 800-533-2719 www.lithonia.com	X	X	X	X	X
Lumisys 800-241-9173 www.lumisys1.com	X	X			X
PCI 800-767-3674 www.pcilightingcontrols.com		X	X		
Sensorswitch 1-800-PASSIVE www.sensorswitch.com			X	X	
Siemens Energy & Automation 800-427-2256 www.sea.siemens.com					X
Starfield Controls 303-427-1661 www.starfieldcontrols.com		X	X	X	X
The Watt Stopper, Inc 800-879-8585 www.wattstopper.com			X	X	

Please contact controls manufacturers to order/specify controls. For the latest controls list go to www.sylvania.com
Also for more information, check out the LCA (Lighting Controls Association) site: www.aboutlightingcontrols.org

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. Power-line 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 power-line controls; incandescent dimmers are not rated for fluorescent loads and are NOT compatible with POWERSENSE ballasts.

Control Specifications/model numbers may change. Please consult manufacturers listed for their latest control models and to order their controls.

POWERSENSE CONTROLS INFO.

Controls Guide



Contact the companies listed for their 2-wire Fluorescent/Power-line controls and/or 0-10V controls information.

T8 POWERSENSE™ Dimming Ballast

- 50705 QTP 1x32T8/UNV DIM-TC
- 50707 QTP 2x32T8/UNV DIM-TC
- 50714 QTP 3x32T8/UNV DIM-TCL
- 50716 QTP 4x32T8/UNV DIM-TCL

Footnotes