

# <10% THD Electronic T5 HO Fluorescent Controllable Lighting Systems QUICKTRONIC® HELIOS™ T5 HO Dimming (0-10V)

## Professional Series

### Lamp/Ballast Guide

54W T5 – PENTRON® HO  
1-lamp QT1x54PHO-DIM  
2-lamp QT2x54PHO-DIM

Also operates:  
FT55DL, FPC55

### Key System Features

- 100–1% Dimming range
- QUICKSENSE® ballast technology (end-of-lamp-life sensing)
- PROStart® programmed start ballast
- QUICK 60+® warranty
- 1–10V Control
- Anti-flash circuitry—turns on in dimmed mode
- High luminous efficacy
- Virtually eliminates lamp flicker
- High power factor
- Low harmonic distortion
- Lightweight
- UL, CSA, FCC

### Application Information

#### SYLVANIA QUICKTRONIC PHO-DIM

is ideally suited for:

- Commercial
- Retail
- Hospitality
- Institutional
- New Construction
- Direct Lighting
- Indirect Lighting
- Surface Mount
- Cove Lighting

**SYLVANIA QUICKTRONIC PHO-DIM** operates PENTRON HO, PENTRON HO Circline, and DULUX® L T5 lamps over a wide (100–1%) dimming range.

SYSTEM PHO-DIM provides nearly twice the light output (188%) of T8 systems, with the same number of lamps, allowing many new design options. One lamp fixtures can now be used in place of two lamp models.

SYSTEM PHO-DIM is appropriate for lighting control for aesthetic reasons as well as lighting management for energy conservation through daylight harvesting or building automation.

Setting the standard for quality, SYSTEM PHO-DIM is also covered by our QUICK 60+ warranty, the first and most comprehensive system warranty in the industry.

### System Information

PROStart ballasts provide optimum starting conditions to provide up to 100,000 switching cycles for use on occupancy sensors and building control systems.

QUICKSENSE ballast technology helps to protect against overheated bases and sockets, as well as cracking of the glass wall, and uses dynamic end-of-lamp-life sensing, over the entire dimming range, to avoid false shutdowns caused by some static sensing methods. QUICKSENSE ballast technology will auto-reset when the end-of-life lamps are replaced with new ones.

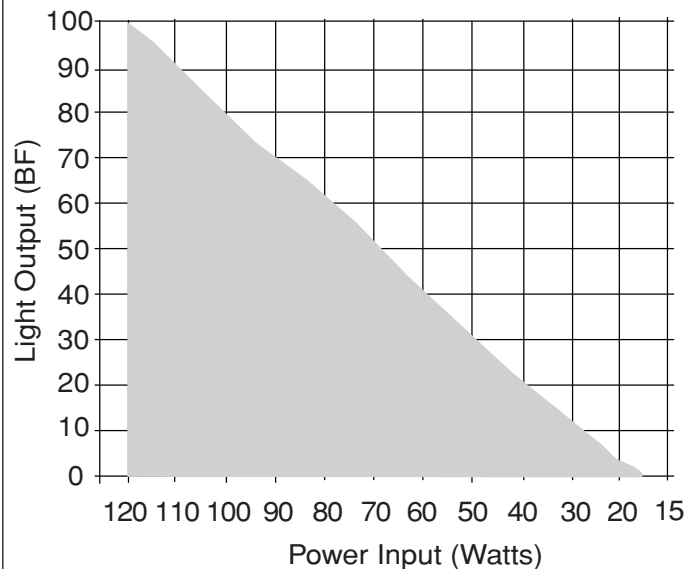
SYSTEM PHO-DIM comes in a 30 x 30 mm profile, and PENTRON lamps are designed to provide peak performance at 35°C fixture ambient, allowing for smaller and more innovative fixtures.

A complete OSRAM SYLVANIA System Performance Guide showing performance characteristics of lamps and ballasts is available upon request.



SYSTEM PHO-DIM is available in one and two lamp models in 120V and 277V to cover a wide range of applications.

QT2x54PHO-DIM



# (0-10V) PHO-DIM Normal Ballast Factor

## Performance Guide

### <10% THD Electronic T5 HO Fluorescent Dimming Systems

Item Number	Description	Input Voltage (VAC)	Input Current (AMPS)	Lamp <sup>1</sup> Type	Rated <sup>2,3</sup> Lumens (lm)	No. of Lamps	Ballast <sup>3</sup> Factor (BF)	System <sup>3</sup> Lumens	Input <sup>3</sup> Wattage (W)	System Efficacy (lm/W)
49671	QT1x54/120PHO-DIM	120	0.54	FP54T5HO	5000	1	1.00 0.01	5000 50	62 8	81
49672	QT1x54/277PHO-DIM	277	0.23	FP54T5HO	5000	1	1.00 0.01	5000 50	61 8	82
49673	QT2x54/120PHO-DIM	120	1.07	FP54T5HO	5000	2	1.00 0.01	10000 100	120 18	83
49674	QT2x54/277PHO-DIM	277	0.45	FP54T5HO	5000	2	1.00 0.01	10000 100	117 18	85

<sup>1</sup> Also compatible with other manufacturer's equivalent lamp types that meet ANSI standards.  
<sup>2</sup> Rated lamp lumens and performance data based on PENTRON® HO lamps.  
<sup>3</sup> At 35°C lamp ambient temperature

## Specifications<sup>1</sup>

**Starting Method:** Programmed Start

**Circuit Type:** Series

**Lamp Frequency:** > 40 KHz

**Lamp CCF:** Less than 1.7

**Starting Temp:** 50°F minimum

**Input Frequency:** 60 Hz

**Low THD:** < 10%

**Power Factor:** > 98%

**Voltage Range:** +/-10% of Rated Input

UL Listed Class P, Type 1 Outdoor  
 CSA Certified  
 70°C Max Case Temperature  
 FCC 47CFR Part 18 Non-Consumer  
 Class A Sound Rating  
 ANSI C62.41 Cat. A Transient Protection  
 Dynamic End-of-Lamp-Life Sensing  
 Remote Mounting up to 7 feet

<sup>1</sup> Data based on PENTRON HO lamp type. See the SYLVANIA QUICKTRONIC Electronic Ballast Technology and Specification Guide (ECS-ELECTRONIC) for other lamp combinations.

## Dimming Control Specifications<sup>2</sup>

**Dimming Control<sup>2</sup>:** 1-10Vdc two wire control (10V = full output, 1V = minimum output)

**Line Voltage Protection:** Ballast goes to 90% if line voltage is inadvertently applied to control leads. Ballast will source up to 0.5mA for control purposes. May be wired as Class 1 or Class 2 circuit.

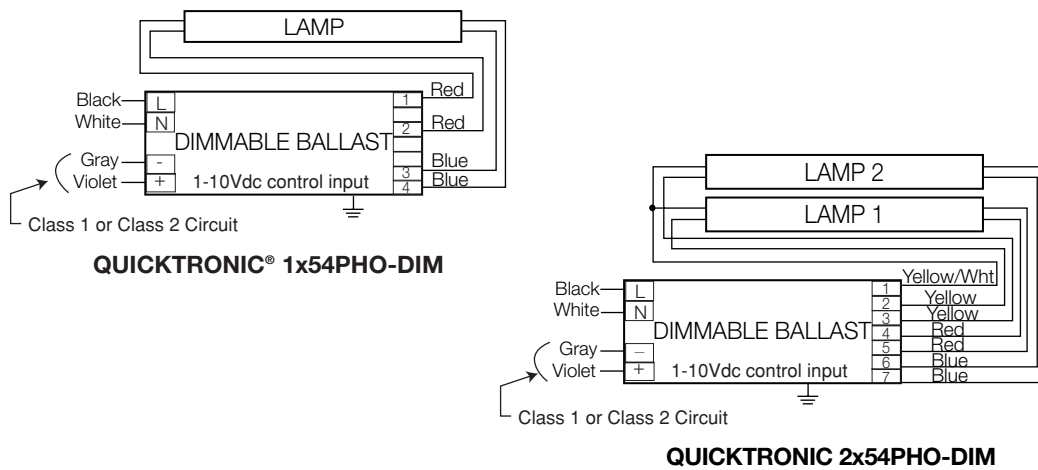
QUICKTRONIC HELIOS ballasts are compatible with a wide range of 0-10V controllers available from various manufacturers. A list of controls companies is on pages 64-65. (Controls list literature ordering code ECS041.)

## System Life / Warranty

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

## Ordering Guide

Specifications subject to change without notice.



A list of compatible controllers and wiring examples are on pages 64 & 65.

### Dimensions:

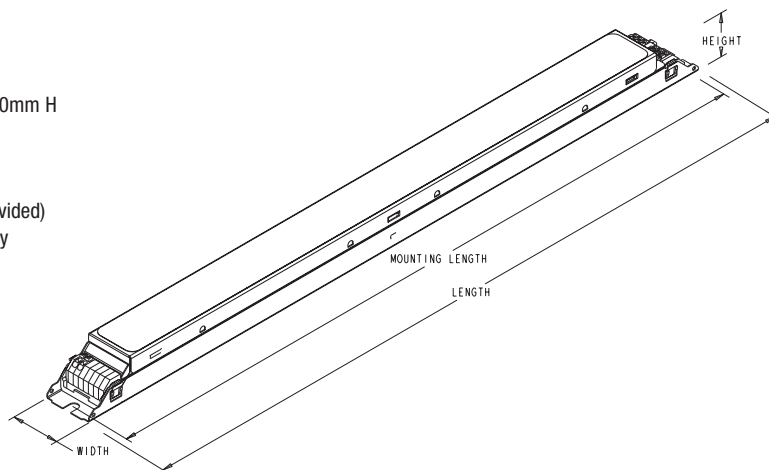
Overall: 425mm L x 30mm W x 30mm H  
 Mounting: 415 mm

### Wiring:

Push-in connectors (no leads provided)  
 Use 18AWG solid copper wire only

### Packaging:

Quantity: 20  
 Weight: 1.0 lbs ea. (approx)



Item Number ——— 49673 QT 2 x 54 / 120 PHO-DIM ——— System Type – PHO-DIM  
 QUICKTRONIC ——— Line Voltage  
 Number of Lamps (1, 2) ——— Primary Lamp Wattage