

# QUICKTRONIC® HELIOS™ CF UNV Dimming Systems



Compact Fluorescent  
Controllable Lighting Systems

## Professional Series

QTP CF DIM

### Lamp / Ballast Guide

#### Primary Systems

26W T4 - DULUX D/E, T/E  
1 or 2 lamp QTP2X26CF/UNV DIM-DM

#### Also operates:

13W T4 - DULUX D/E, T/E (1 or 2 lamps)  
18W T4 - DULUX D/E, T/E (1 or 2 lamps)  
32W T4 - DULUX T/E (1 lamp)  
42W T4 - DULUX T/E (1 lamp)

### Key System Features

- Universal input voltage (120-277V)
- Dual entry, color coded connectors
- PROStart® program rapid start ballast
- QUICKSENSE® ballast technology
- High power factor
- Low harmonic distortion
- Small size and lightweight
- Metal enclosure
- UL, CSA, FCC
- QUICK 60+ warranty
- 100%-3% dimming range
- 0-10V control
- Anti-flash circuitry - turns on in dimmed mode
- RoHS compliant
- Lead-free solder and manufacturing process

### Application Information

SYLVANIA QUICKTRONIC CF ballasts are ideally suited for:

- Recessed downlights
- Wall sconces
- Ceiling fixtures
- Commercial
- Retail, hospitality, institutional
- Occupancy sensors
- Daylight harvesting
- Energy management
- Load shedding

SYLVANIA QUICKTRONIC HELIOS CF dual entry dimming ballasts operate DULUX® D/E and T/E lamps with full lumen output and optimal system performance over a wide dimming range (100% to 3%).

This ballast features one mounting style of low profile, lightweight enclosures to provide simple assembly for any fixture application.

Universal input voltage (120–277V) and multi-lamp multi-watt capability allow for fewer SKUs to support a wide range of applications.

Dual entry, color coded, wire trap connectors located on the side and bottom allow for increased mounting flexibility with one ballast and also increased ease of installation.

QUICKTRONIC HELIOS CF ballasts are RoHS compliant and feature lead-free



solder and manufacturing process.

Setting the standard for quality, QUICKTRONIC HELIOS CF dual entry dimming systems are covered by the

QUICK 60+® warranty, the first and most comprehensive system warranty in the industry.

### System Information

QUICKTRONIC HELIOS ballasts operate standard low voltage (0-10VDC) controllers making them ideal for applications such as daylight harvesting or building automation applications where standard low voltage devices (0-10VDC, Class 1 or 2) are used to control the lighting system.

PROStart programmed rapid start is the optimum starting method, providing up to 100,000 switching cycles for use on occupancy sensors and building control systems.

QUICKSENSE® end-of-lamp-life sensing technology helps to protect against overheated bases and sockets, as well as cracking of the glass wall. QUICKSENSE ballast technology uses

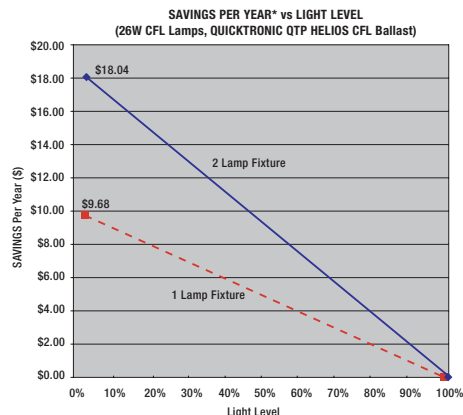
### QTP2x26CF/UNV DIM-DM Metal Case

Dual Entry Metal with Side & Bottom Mount Capabilities

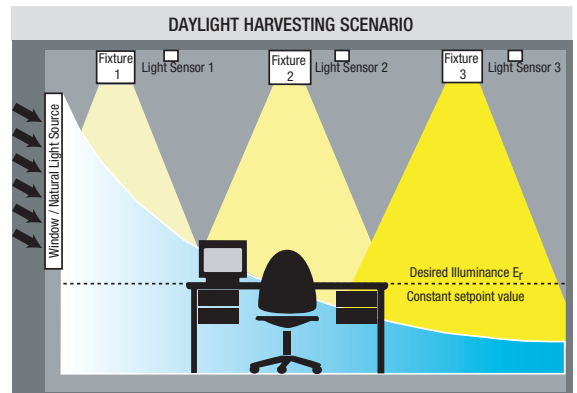
dynamic end-of-lamp-life sensing to avoid false shutdowns caused by some static sensing methods and will auto-reset when the end-of-life lamps are replaced with new ones.



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



\*Based on 4000 hrs/yr, \$0.11k/Wh, and 120V operation  
\*Savings per Year (@Light Level) = Cost of operation (100% Light Level) - Cost of operation (@Light Level)



**SPECIFICATION DATA**

|           |             |      |
|-----------|-------------|------|
| Catalog # | Date        | Type |
| Project   | Prepared by |      |
| Comments  |             |      |

HELIOS

Wiring Examples

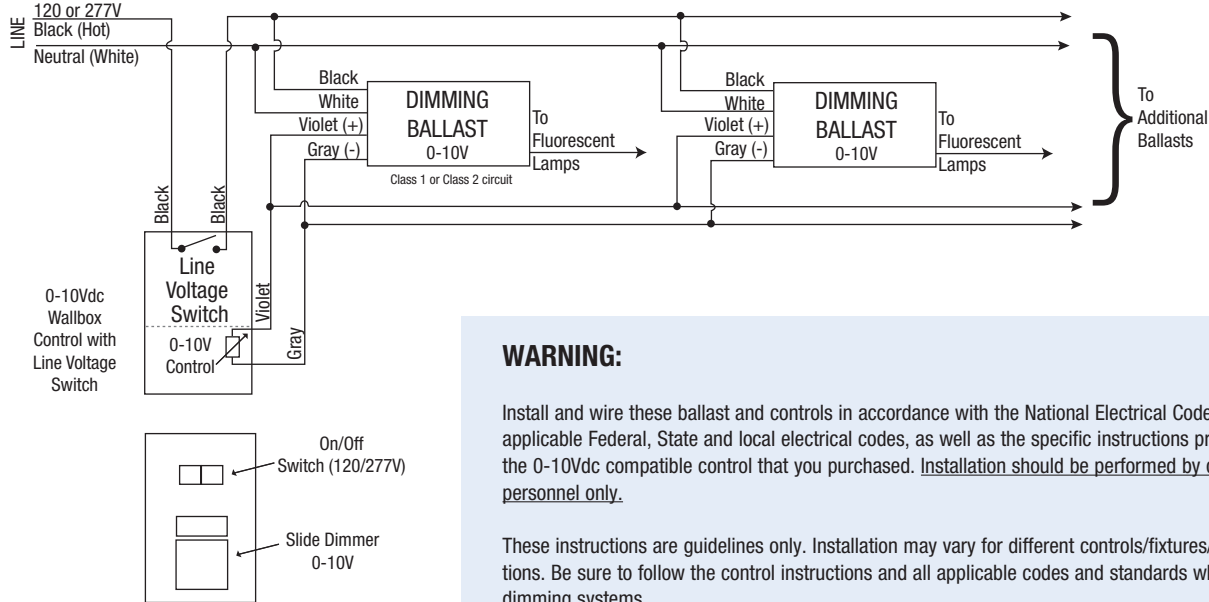


**0-10V Dimming Control Wiring for QUICKTRONIC® HELIOS™ Systems**

**Wallbox Style Control Wiring Example**

**0-10V Dimming Ballasts**

Wallbox Style Control Wiring Example



**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 0-10Vdc 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.

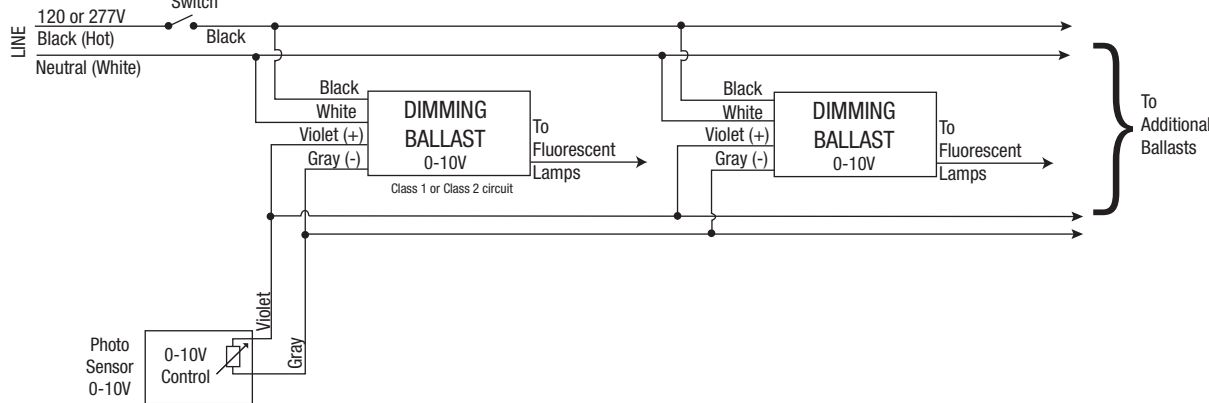
**Please contact controls manufacturer listed in the OSRAM SYLVANIA Inc. controls cross reference for compatible controls and instruction wiring**

**NOTE: HELIOS Dimming ballasts source < 0.5mA (0-10VDC control input)**

**Photo Sensor 0-10V Wiring Example**

**0-10V Dimming Ballasts**

Photo Sensor 0-10V Wiring Example



Specifications subject to change without notice.

0-10V CONTROL WIRING

**SPECIFICATION DATA**

Catalog # \_\_\_\_\_ Date \_\_\_\_\_ Type \_\_\_\_\_

Project \_\_\_\_\_ Prepared by \_\_\_\_\_

Comments \_\_\_\_\_

**QUICKTRONIC® HELIOS™ 0-10V Controls Information**



| Controls Manufacturer                                  | 0-10 VDC Controls | Photo Cell | Occupancy Sensor | Building Management Systems |
|--|-------------------|------------|------------------|-----------------------------|
| Acuity Brand Controls<br>www.acuitybrandscontrols.com  | X                 | X          | X                | X                           |
| Blue Ridge Technologies<br>www.brtint.com              | X                 | X          | X                | X                           |
| Cooper Greengate<br>http://greengate.coopercontrol.com | X                 | X          | X                | X                           |
| Encelium<br>www.encelium.com                           | X                 | X          | X                | X                           |
| Hunt Dimming<br>www.huntdimming.com                    | X                 |            |                  | X                           |
| Lehigh Electric Products<br>www.lehighdim.com          | X                 |            |                  | X                           |
| Leviton<br>www.leviton.com                             | X                 | X          | X                |                             |
| Sensor Switch<br>www.sensorswitch.com                  |                   | X          | X                |                             |
| Siemens Building Technology<br>http://sbt.siemens.com  |                   |            |                  | X                           |
| Starfield Controls<br>www.starfieldcorp.com            | X                 | X          | X                | X                           |
| Watt Stopper<br>www.wattstopper.com                    | X                 | X          | X                | X                           |

Please contact controls manufacturers to order/specify controls. For the latest controls list go to [www.sylvania.com](http://www.sylvania.com)  
Also for more information, refer to the LCA (Lighting Controls Association) site: <http://lightingcontrolsassociation.org>

**0-10 Volt**

**Controls List**

**Controls Guide**



**0-10V CONTROLS**

These 0-10V controls listed to the left operate in conjunction with SYLVANIA QUICKTRONIC® PROFESSIONAL HELIOS™ Dimming Electronic Ballast:

**T5HO Dimming Ballast**  
49671 QT1x54/120PHO-DIM  
49672 QT1x54/277PHO-DIM  
49673 QT2x54/120PHO-DIM  
49674 QT2x54/277PHO-DIM

**CF Dimming Ballast**  
51836 QTP2x26CF/UNV DIM-DM

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



Control Specifications/model numbers may change.

Please consult manufacturers listed for their latest control models and to order their controls.

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

Specifications subject to change without notice.

**SPECIFICATION DATA**

|           |             |      |
|-----------|-------------|------|
| Catalog # | Date        | Type |
| Project   | Prepared by |      |
| Comments  |             |      |

**CF HELIOS™ (0-10V)**

**Professional Series**

**Performance Guide**

**HELIOS™ (0-10V) CF Fluorescent Dimming Systems, UNV (120-277V)**



| Item Number | OSRAM SYLVANIA Description     | Input Current (AMPS) | Lamp Type      | Rated Lumens (lm) | No. of Lamps | Ballast Factor (BF) | System Lumens | Mean Lumens | Input Power (W) | System <sup>1</sup> Efficacy (lm/W) | BEF <sup>2</sup> |
|-------------|--------------------------------|----------------------|----------------|-------------------|--------------|---------------------|---------------|-------------|-----------------|-------------------------------------|------------------|
| 51836       | QTP2x26CF/UNV DIM-DM (20-pack) | 0.44/0.19            | 26W DD/E, DT/E | 1800              | 2            | 1.00                | 3600          | 3095        | 53/53           | 68                                  | 1.89             |
|             |                                | 0.32/0.14            | 18W DD/E, DT/E | 1200              | 2            | 1.00                | 2400          | 2065        | 38/37           | 65                                  | 2.70             |
|             |                                | 0.26/0.11            | 13W DD/E, DT/E | 900               | 2            | 1.00                | 1800          | 1550        | 30/30           | 60                                  | 3.33             |
|             |                                | 0.39/0.17            | 42W DT/E       | 3200              | 1            | 1.00                | 3200          | 2750        | 46/46           | 70                                  | 2.17             |
|             |                                | 0.29/0.13            | 32W DT/E       | 2400              | 1            | 1.00                | 2400          | 2065        | 34/34           | 71                                  | 2.94             |
|             |                                | 0.24/0.11            | 26W DD/E, DT/E | 1800              | 1            | 1.00                | 1800          | 1550        | 29/29           | 62                                  | 3.45             |
|             |                                | 0.17/0.08            | 18W DD/E, DT/E | 1200              | 1            | 1.00                | 1200          | 1030        | 21/21           | 57                                  | 4.76             |
|             |                                | 0.14/0.07            | 13W DD/E, DT/E | 900               | 1            | 1.00                | 900           | 775         | 17/17           | 53                                  | 5.88             |

Data provided is based on testing done using SYLVANIA DULUX® T/E series 4 pin lamps shown. QUICKTRONIC CF HELIOS ballasts are compatible with other lamp manufacturers equivalent lamp types that meet ANSI standards.

**Specifications**

**Starting Method:** Programmed Rapid Start  
**Circuit Type:** Series  
**Lamp Frequency:** >42 kHz  
**Lamp CCF:** Less than 1.7  
**Starting Temp:** 50°F/10°C min.<sup>3</sup>  
**Input Frequency:** 50/60 Hz  
**Low THD:** <10%  
**Power Factor:** >98%  
**Voltage Range:** ±10% of 120-277V

UL Listed Class P, Type 1 Outdoor  
 CSA or C/UL Certified  
 75°C Max Case Temp. (5 yr. warranty)  
 FCC 47CFR Part 18 Non-Consumer  
 Sound Rated A

ANSI C62.41 Cat. A Transient Protection  
 Dynamic End-of-Lamp-Life Sensing  
 Remote Mounting (max. wire length from ballast case to lampholder) up to 24 inches.  
 RoHS Compliant<sup>4</sup>

<sup>3</sup> Operation below 50°F (10°C) may affect light output or lamp operation – see Low Temperature Starting definition.

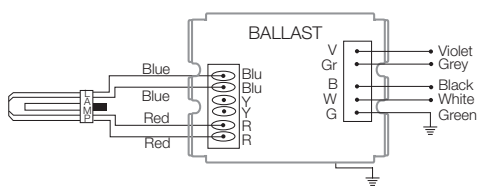
<sup>4</sup> Complies with European Union Restriction of Hazardous Substances Directive. (Directive 2002/95/EC)

<sup>1</sup> System Efficacy calculation based on lowest input power value.

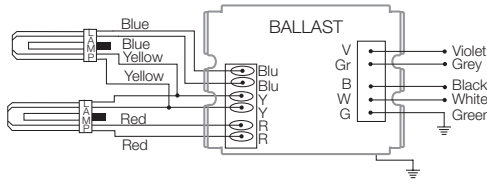
<sup>2</sup> Ballast Efficiency Factor (BEF) shown = (Ballast Factor x 100) divided by Input Power (Note: calculation based on lowest wattage value).

<sup>3</sup> Preliminary specification. Please contact OSRAM SYLVANIA.

**Metal M Case 1 Lamp**



**Metal M Case 2 Lamp**



**Dimensions:**

Metal case: 4.95" L x 2.93" W x 1.35" H (125mm L x 74mm W x 34mm H)  
 Mounting: Utilize flanges (4.57" L), or (2) #8-32 x 0.375" Long

**Wiring:**

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

**Packaging:**

Quantity: 20 pieces per case  
 Weight: 1.30 lbs ea. (metal case)

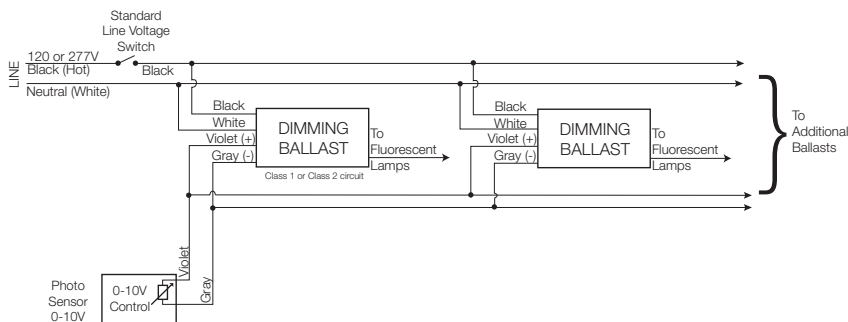
**Control Information**

**Dimming Control:** 0-10VDC two wire control (10V = full output, 0V = minimum output)

QUICKTRONIC HELIOS™ ballasts are compatible with a wide range of 0-10VDC controllers available from various manufacturers.

**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.

**Photo Sensor 0-10VDC Wiring Example**



Item Number **51836 QTP 2 x 26 CF / UNV DIM DM** System Type - Dimming/Dual Mount  
 QUICKTRONIC PROFESSIONAL Line Voltage (120-277V)  
 Number of Lamps (1, 2) Primary Lamp Wattage

**System Life / Warranty**

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

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