

QUICKTRONIC® PROStart® T5HO UNIVERSAL High Ambient Temp.

<10% THD Electronic T5HO Fluorescent Programmed Rapid Start Ballasts

Professional Series

Normal Light Output

Lamp/Ballast Guide

54W T5 - PENTRON® HO
1 or 2 lamp
QTP2x54T5HO/UNV PSN HT
QTP4x54T5HO/UNV PSN HT W

3 or 4 lamp
QTP4x54T5HO/UNV PSN HT W

Also operates:
FT55DL, FPC55, L58

Four lamp switchable model can be wired for four, three, two or one lamp operation.

Two lamp fixed output model can be wired for one lamp operation.

SYLVANIA QUICKTRONIC HIGH AMBIENT (HT) PHO operates PENTRON HO, PENTRON HO Circline, and DULUX® L T5 lamps with full lumen output and optimal system performance.

SYSTEM PHO High Ambient Temperature ballasts are specifically designed for applications where the ballast is subjected to higher ambient temperatures, as in high bay industrial installations. The four lamp UNV (120-277V) ballast system provides 18,600 mean lumens, which, when factoring in lumen maintenance and typical T5HO fixture efficiency, can be considered as a direct replacement for standard 400W MH. As such, the family is ideally suited to replace 250W and 400W metal halide installations.

Unique to the family is the 120-277V 4-lamp "switching" ballast, designed to switch from 4- to 3-, 3- to 2-, 3- to 1- or 2- to 1-lamps. The switching feature can be accessed through a second input power terminal. This feature allows for a range of



Key System Features

- 90°C maximum case temp.
- Universal voltage (120-277)
- Low-profile (1.00" High)
- 100% Ballast factor
- QUICKSENSE ballast technology (end-of-lamp-life sensing)
- PROStart programmed start
- Occupancy sensor applications
- UL type CC rated
- **-20°F Starting**
- Operates at >40 KHz to reduce potential interference with infrared control systems
- High power factor
- Low harmonic distortion
- Lightweight
- UL, CSA, FCC

control interfaces, including an occupancy sensor, mounted inside a fixture.

SYSTEM PHO HT ballasts contain QUICKSENSE® ballast technology, a patented circuitry designed to shut down the system reliably and safely when lamps reach end-of-life.

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

SYSTEM PHO HT is available in four and two lamp models to cover a wide range of applications.

System Information

SYSTEM PHO HT operates on 120V through 277V, 50 or 60Hz current, eliminating "wrong voltage" wiring errors and reducing the number of ballast models in inventory by half.

System Type	Input Wattage	Initial Lumens	System LPW
F40T12 - E.S. Magnetic Ballast (4-lamp)	172	11590	67
F34T12 - E.S. Magnetic Ballast (4-lamp)	144	9500	66
F032T8/XP - QT4x32IS (4-lamp)	114	10800	95
FP54T5 - QTP2x54T5HO/UNV PSN HT (2-lamp)	121	10000	83
FP54T5 - QTP4x54T5HO/UNV PSN HTW (4-lamp)	241	20000	83

PROStart ballasts provide optimum starting conditions and 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 lamp glass wall, and uses dynamic end-of-lamp-life sensing to avoid

false shutdowns caused by some static sensing methods. QUICKSENSE ballast technology will auto reset when spent lamps are replaced with new ones.

The four lamp unit can be wired for four, three, two or one lamp operation. The two lamp unit can be wired for one lamp operation, allowing for an additional 50% reduction in inventory model numbers.

SYSTEM PHO HT has a 25.4H (mm) profile. PENTRON T5 lamps are designed to provide peak performance at 35°C fixture ambient, allowing for smaller and more innovative fixtures.

Application Information

SYLVANIA QUICKTRONIC PHO is ideally suited for:

- Industrial high-bay
- Commercial
- Retail
- Hospitality
- Institutional
- New construction
- Direct lighting
- Indirect lighting
- Surface mount
- Cove lighting

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PROStart® T5HO UNV HIGH TEMP. Fixed Output & Switchable

<10% THD Electronic T5 HO High Ambient Fluorescent Systems

Performance Guide

Item Number	Description	Input Voltage (VAC)	Input Current (AMPS)	Lamp ¹ Type	Rated ^{2,3} Lumens (lm)	No. of Lamps	Ballast ³ Factor (BF)	System ³ Lumens	Input ³ Power (Watts)	System Efficacy (lm/W)
QTP 2x54 T5HO Fixed Output BF 1.0										
49136 (49135)*	QTP 2x54T5HO/UNV PSN HT	120-277	1.00/0.43	FP54T5HO	5000	2	1.00	10000	121/118	83/85
						1	1.00	5000	61	82
QTP 4x54 T5HO Switchable Model										
49161 (49160)**	QTP 4x54T5HO/UNV PSN HTW	120-277	2.00/0.85	FP54T5HO	5000	4	1.00	20000	241/236	83/85
						3	1.00	15000	182/178	83/85
						2	1.00	10000	121/118	83/85
						1	1.00	5000	61	82

¹ Also compatible with other manufacturer's equivalent lamp types that meet ANSI standards.

² Rated lamp lumens and performance data based on PENTRON® HO lamps.

³ At 35°C lamp ambient temperature.

*(49135) QTP 2x54T5HO/UNV PSN HT: same as 49136, with leads.

** (49160) QTP 4x54T5HO/UNV PSN HTW: same as 49161, with leads.

Installation Notes

Switching: Simultaneously disconnect all ungrounded line conductors.
Install in accordance with National & Local Electric Code. Ground ballast case.

Dimensions:

Model QTP2x54 T5HO/UNV PSN HT enclosure size:

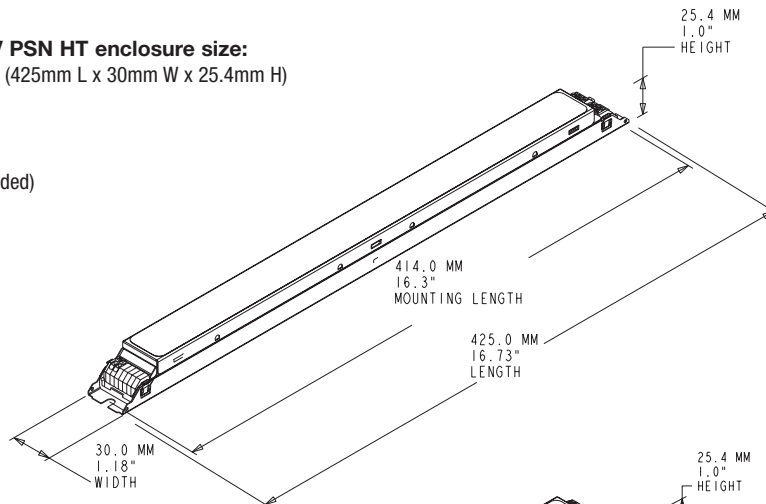
Overall: 16.73"L x 1.18"W x 1.0"H (425mm L x 30mm W x 25.4mm H)
Mounting: 16.34" (415mm)

Wiring:

Push-in connectors (no leads provided)
Use 18AWG solid copper wire only
See page 44 for wiring diagram.

Packaging:

Quantity: 20 (2-lamp)
Weight: 2L: 0.88 lbs each (approx)



Dimensions:

Model QTP4x54 T5HO/UNV PSN HT W enclosure size:

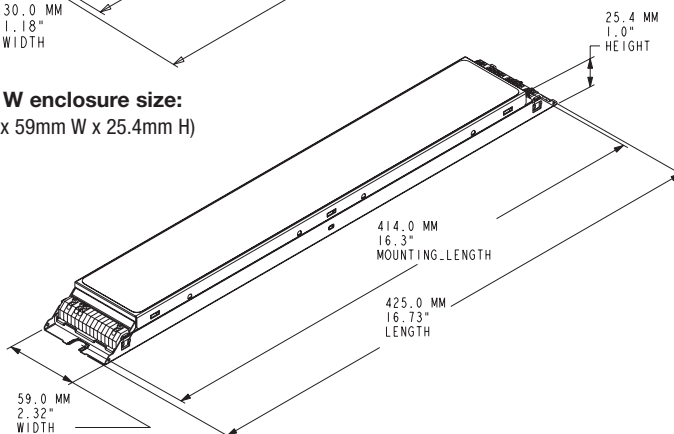
Overall: 16.73"L x 2.32"W x 1.0"H (425mm L x 59mm W x 25.4mm H)
Mounting: 16.34" (415mm)

Wiring:

Push-in connectors (no leads provided)
Use 18AWG solid copper wire only
See page 45 for wiring diagram.

Packaging:

Quantity: 2-Lamp: 20 (no leads)
10 (with leads)
4-Lamp: 10 (leaded and non-leaded)
Weight: 2L: 0.88 lbs, 0.40kg each (approx)
4L: 1.68 lbs, 0.76kg each (approx)



Specifications⁴

Starting Method: Programmed Start
Ballast Factor: 1.00
Circuit Type: Series
Lamp Frequency: > 40 KHz
Lamp CCF: Less than 1.6
Starting Temp: -20°F minimum⁵
Input Frequency: 50/60 Hz
Low THD: < 10%
Power Factor: > 98%
Voltage Range: +/-10% of Rated Input

UL Listed Class P, Type 1, Outdoor, Type CC
CSA Certified

High Ambient Applications:

90°C Max. Case Temp. (3 yr. warranty)

Standard Ambient Applications:

70°C Max. Case Temp. (5 yr. warranty)

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 18 feet⁵

⁴ Data based on PENTRON HO lamp types for primary ballast application.

⁵ Operation below 50°F may affect light output or lamp operation – see "Low Temp. Starting" definition. Remote red and brown leads up to 18 feet. Keep blue and yellow (for 4-lamp model only) leads <10 feet.

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.

Item Number ——— **49161 QTP 4 x 54 T5HO/UNV PSN HTW** ——— High Ambient Temperature (Case)
QUICKTRONIC PROFESSIONAL ——— Starting/Ballast Factor
Number of Lamps ——— Line Voltage (120-277V)
Primary Lamp Wattage

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2 LAMP T5HO UNV HT Fixed Output Ballast

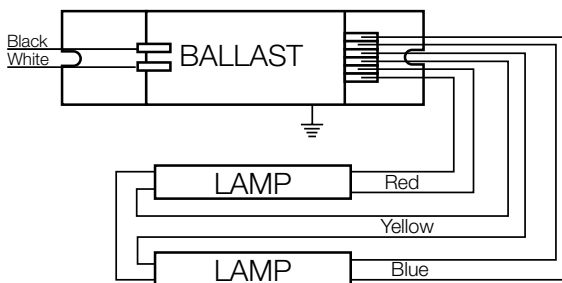
<10% THD Electronic 2 Lamp T5HO High Ambient Fluorescent Systems

Lamp/Ballast Guide



New high ambient model (90°C case temp.)
49136 QTP 2x54T5HO/UNV PSN HT

Wiring diagram for 2-Lamp model



2 LAMP

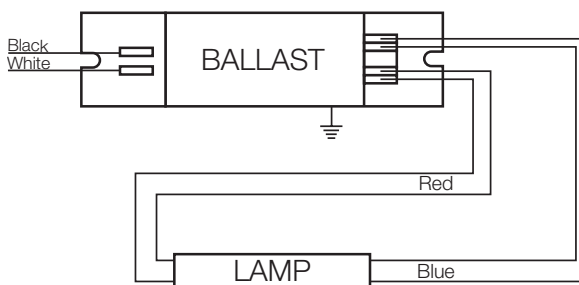
Installation Notes

- Install in accordance with National & Local Electric Code
- Ground ballast case
- Switching: Simultaneously disconnect all ungrounded line conductors

Specifications

Refer to the last page of this Product Information Bulletin for full detail specifications.

2-Lamp model can be wired for one lamp operation.



1 LAMP

Ordering Guide

Item Number ——— 49136 QTP 2 x 54 T5HO/UNV PSN HT ——— High Ambient Temperature
 QUICKTRONIC PROFESSIONAL ——— Starting/Ballast Factor
 Number of Lamps (1, 2) ——— Line Voltage (120-277V)
 ——— Primary Lamp Wattage

4 LAMP T5HO UNV HT Switchable Ballast

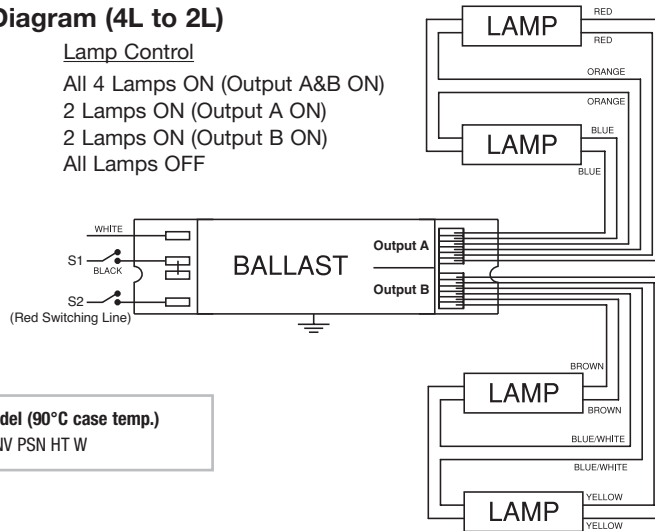
Switching Schematics



<10% THD Electronic 4 Lamp T5HO High Ambient Fluorescent Systems

4-Lamp Switching Wiring Diagram (4L to 2L)

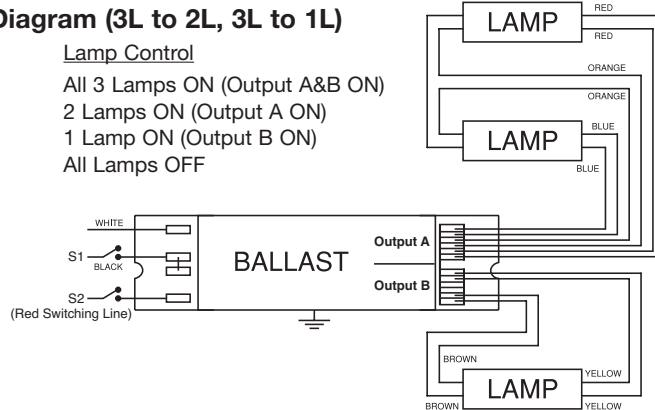
S1 (Output A)	S2 (Output B)	Lamp Control
Closed (ON)	Closed (ON)	All 4 Lamps ON (Output A&B ON)
Closed (ON)	Open (OFF)	2 Lamps ON (Output A ON)
Open (OFF)	Closed (ON)	2 Lamps ON (Output B ON)
Open (OFF)	Open (OFF)	All Lamps OFF



New high ambient switchable model (90°C case temp.)
49161 QTP 4x54T5HO/UNV PSN HT W

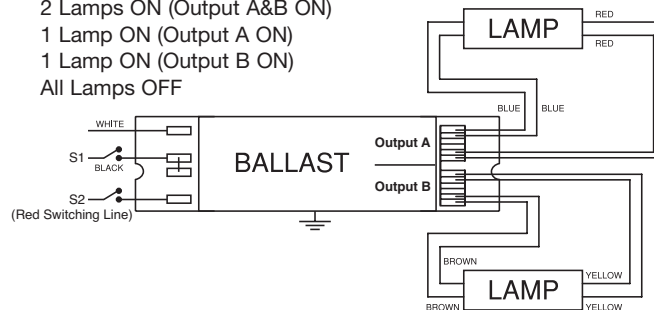
3-Lamp Switching Wiring Diagram (3L to 2L, 3L to 1L)

S1 (Output A)	S2 (Output B)	Lamp Control
Closed (ON)	Closed (ON)	All 3 Lamps ON (Output A&B ON)
Closed (ON)	Open (OFF)	2 Lamps ON (Output A ON)
Open (OFF)	Closed (ON)	1 Lamp ON (Output B ON)
Open (OFF)	Open (OFF)	All Lamps OFF



2-Lamp Switching Wiring Diagram (2L to 1L)

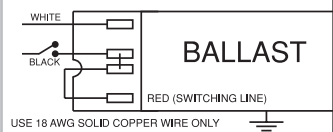
S1 (Output A)	S2 (Output B)	Lamp Control
Closed (ON)	Closed (ON)	2 Lamps ON (Output A&B ON)
Closed (ON)	Open (OFF)	1 Lamp ON (Output A ON)
Open (OFF)	Closed (ON)	1 Lamp ON (Output B ON)
Open (OFF)	Open (OFF)	All Lamps OFF



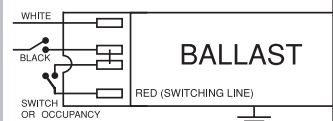
Installation Notes

- Install in accordance with National & Local Electric Code
- Ground ballast case
- Switching: Simultaneously disconnect all ungrounded line conductors
- The AC line inputs must be connected to the same phase of the line voltage
- DO NOT CONNECT two separate phases of line voltage to the input of the ballast

Input wiring for non-switching operation
(Install jumper between black & red switching line terminals)



Input wiring for occupancy sensors
(Install occupancy sensor/switch between black & red line terminals)



Item Number	49161 QTP 4 x 54 T5HO/UNV PSN HTW	High Ambient Temperature (Case)
QUICKTRONIC PROFESSIONAL		Starting/Ballast Factor
Number of Lamps		Line Voltage (120-277V)
		Primary Lamp Wattage