# QUICKTRONIC® PROStart® T5HO **Universal High Ambient Temp.**

# <10% THD Electronic T5H0 Fluorescent **Programmed Rapid Start Ballasts** Normal Ballast Factor HT

#### **Professional Series**

#### **Lamp / Ballast Guide**

54W T5 - PENTRON® HO 1 or 2 lamp QTP2x54T5H0/UNV PSN HT QTP4x54T5H0/UNV PSN HT W

3 or 4 lamp QTP4x54T5H0/UNV PSN HT W

Also operates:

FT50DL, 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.

#### **Key System Features**

- 90°C maximum case temp.
- Universal voltage (120-277V)
- Low-profile (1.00" High)
- 100% Ballast factor
- QUICKSENSE ballast technology (end-of-lamp-life sensing)
- PROStart programmed rapid start
- UL type CC rated
- -20°F (-29C) Min. Starting Temp.
- Operates at >40 kHz to reduce potential interference with infrared control systems
- · High power factor
- Low harmonic distortion
- Lightweight
- · UL, CSA, FCC



## **Application Information**

#### SYLVANIA QUICKTRONIC PHO HT

is ideally suited for:

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

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 installa-

Unique to the family is the 120-277V 4-lamp "switching" ballast, designed to switch from 4- to 2-, 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 control interfaces, including an occupancy sensor, mounted inside a fixture.

SYSTEM PHO HT ballasts contain QUICK-SENSE® 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+  $\!\!^{\otimes}$ 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.

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-oflamp-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.

System Type	Input Power (W)	Initial System Lumens	System Efficacy LPW	
Cyclom Typo	(**)	Lamono		
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	
FP54T5HO - QTP2x54T5HO/UNV PSN HT (2-lamp)	121	10000	83	
FP54T5HO - QTP4x54T5HO/UNV PSN HTW (4-lamp)	241	20000	83	

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.



#### SPECIFICATION DATA

Catalog # Date Type

Project Prepared by

Comments

#### **High Ambient Universal Voltage (120-277V)**

Item		Input Current	Lamp <sup>1</sup>	Rated <sup>1</sup> Lumens	No. of	Ballast <sup>1</sup> Factor	System <sup>1</sup>	Mean <sup>1</sup>	Input <sup>1</sup> Power	System Efficacy	
Number	Description	(AMPS)	Туре	(lm)	Lamps	(BF)	Lumens	Lumens	(Watts)	(lm/W)	BEF <sup>2</sup>
QTP 2x54	QTP 2x54 T5H0 Fixed Output BF 1.0										
49136 (49135)*	QTP 2x54T5H0/UNV PSN HT	1.00/0.43	FP54T5H0	5000	2 1	1.00 1.00	10000 5000	9300 4650	121/118 61	83/85 82	0.85 1.64
QTP 4x54 T5H0 Switchable Model											
49161 (49160)**	QTP 4x54T5H0/UNV PSN HTW	2.00/0.85	FP54T5H0	5000	4 3 2 1	1.00 1.00 1.00 1.00	20000 15000 10000 5000	18,600 13,950 9300 4650	241/236 182/178 121/118 61	83/85 83/85 83/85 82	0.42 0.56 0.85 1.64

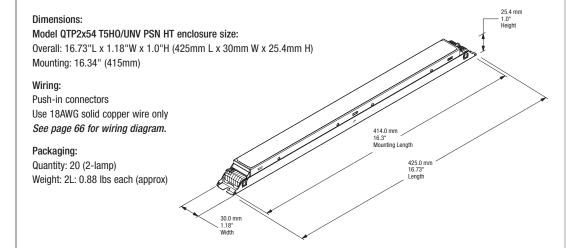
<sup>1:</sup> At 35°C lamp ambient temperature

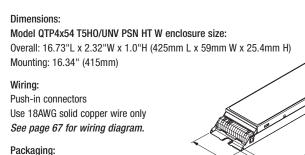
#### **Installation Notes**

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

414.0 mm

Mounting Length





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)



59 0 mm

# High Ambient Temp.

#### **T5H0** PR0Start®

# **Professional Series**

#### **Performance Guide**

Data based upon SYLVANIA PENTRON® HO lamps shown. QUICKTRONIC® PHO HT ballasts are also compatible with other lamp manufacturers equivalent lamp types that meet ANSI specifications.

# Specifications<sup>3</sup>

Starting Method: Programmed Rapid Start

Ballast Factor: 1.00 Circuit Type: Series Lamp Frequency: >40 kHz Lamp CCF: Less than 1.6 Starting Temp: -20°F (-29°C) min.4 Input Frequency: 50/60 Hz

Low THD: <10% Power Factor: >98%

Voltage Range: ±10% of 120-277V

rated line (108-305V)

UL Listed Class P, Type 1, Outdoor, UL Type CC Rated

**CSA Certified** 

up to 18 feet4

#### **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 (Max. wire length

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

from ballast case to lampholder):

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

#### **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.

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

<sup>4(49135)</sup> QTP 2x54T5H0/UNV PSN HT: same as 49136, with leads

<sup>\*(49160)</sup> QTP 4x54T5H0/UNV PSN HTW: same as 49161, with leads

#### **SPECIFICATION DATA**

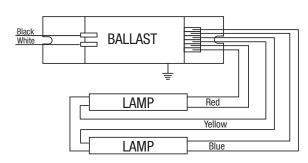
Catalog #	Date	Туре
Project	Prepared by	

Comments

# <10% THD Electronic 2 Lamp T5H0 High Ambient Fluorescent Systems

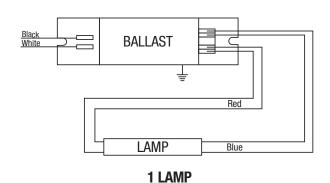
High ambient model (90°C case temp.) 49136 QTP 2x54T5H0/UNV PSN HT

Wiring diagram for 2-Lamp model



2 LAMP

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



Item Number — 49136 QTP 2 x 54 T5H0 / UNV PSN HT — High Ambient Temperature (Case)
QUICKTRONIC PROFESSIONAL — Starting/Ballast Factor
Line Voltage (120-277V)
— Primary Lamp Wattage

# 2 LAMP T5HO UNV HT Fixed Output Ballast

# **Professional Series**

**Lamp / Ballast Guide** 



### **Installation Notes**

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

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# <10% THD Electronic 4 Lamp T5H0 High Ambient Fluorescent Systems

Date

Prepared by

Type

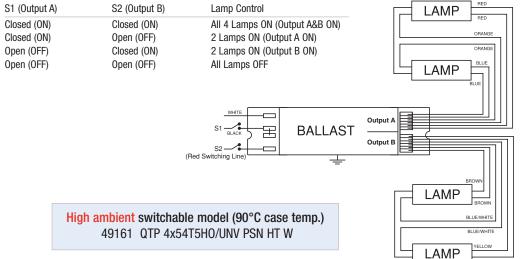
# 4-Lamp Switching Wiring Diagram (4L to 2L)

SPECIFICATION DATA

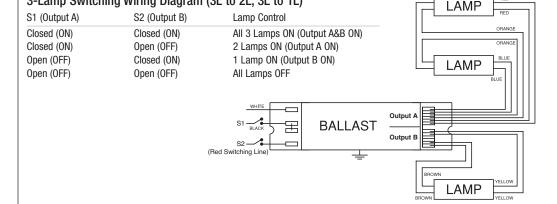
Catalog #

Comments

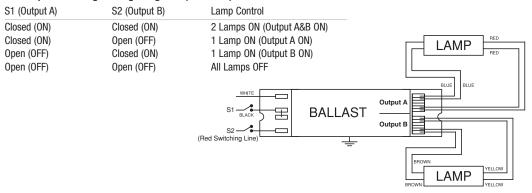
Project



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



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



Item Number — 49161 QTP 4 x 54 T5H0 / UNV PSN HTW — High Ambient Temperature (Case)

QUICKTRONIC PROFESSIONAL — Starting/Ballast Factor

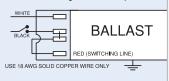
Number of Lamps — Line Voltage (120-277V)

— Primary Lamp Wattage

## **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)



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