**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:
- FT50DL, FT55DL, FPC55, LS8

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

**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-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.

**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.**
**SPECIFICATION DATA**

<table>
<thead>
<tr>
<th>Catalog #</th>
<th>Date</th>
<th>Type</th>
</tr>
</thead>
</table>

**Project Prepared by**

**Comments**

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

#### Item Number | Description | Input Current (AMPS) | Lamp Type | Rated Lumens (lm) | No. of Lamps | Ballast Factor (BF) | System Lumens | Mean Lumens | Input Power (Watts) | System Efficacy (lm/W) | BEF³ |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>49136</td>
<td>QTP 2x54T5HO/UNV PSN HT</td>
<td>1.00/0.43</td>
<td>FP54T5HO</td>
<td>10000</td>
<td>5000</td>
<td>1.00</td>
<td>4650</td>
<td>392</td>
<td>121/118</td>
<td>83/85</td>
<td>0.85</td>
</tr>
<tr>
<td>49161</td>
<td>QTP 4x54T5HO/UNV PSN HT</td>
<td>2.00/0.85</td>
<td>FP54T5HO</td>
<td>20000</td>
<td>15000</td>
<td>1.00</td>
<td>182/178</td>
<td>78</td>
<td>121/118</td>
<td>83/85</td>
<td>0.56</td>
</tr>
</tbody>
</table>

1. At 35°C lamp ambient temperature.
2. Ballast Efficiency Factor (BEF) shown = (Ballast Factor x 100) divided by Input Power (Note: calculation based on lowest watt age value).
3. Data based on PENTRON HO lamp types for primary ballast application.

**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
  - Use 18AWG solid copper wire only
  - See page 66 for wiring diagram.

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

- Model QTP4x54 T5HO/UNV PSN HT 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
  - Use 18AWG solid copper wire only
  - See page 67 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)

**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.

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

**Specifications³**

- **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.
- **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**

**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 from ballast case to lampholder):**
    - up to 18 feet

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

**Switching:** Simultaneously disconnect all ungrounded line conductors. Install in accordance with National & Local Electric Code. Ground ballast case.
<10% THD Electronic 2 Lamp T5HO High Ambient Fluorescent Systems

Wiring diagram for 2-Lamp model

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

Specifications subject to change without notice.
Input wiring for occupancy sensors
(Install occupancy sensor switch between black & red line terminals)

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)