

QUICKTRONIC® PROStart® T5HO

Universal High Ambient Temp. Systems



Type CC
Programmed Rapid Start
Normal Ballast Factor HT

High Efficiency Series

Lamp / Ballast Guide

54W T5HO - PENTRON® lamps
 1 or 2-lamp:
 QHE2x54T5HO/UNV PSN-HT
 4-lamp Switchable:
 QHE4x54T5HO/UNV PSN-HT-SCL [DOE]
 Also operates:
 FP54/SS, FT50DL, FT55DL, FPC55,
 L58T8
 1 or 2 lamps on 2L ballast
 1, 2, 3, or 4 lamps on 4L ballast

Key System Features

- High Efficiency Systems over 90% efficient
- 90°C maximum case temp.
- Universal voltage (120-277V)
- 1.0 ballast factor (see table)
- QUICKSENSE ballast technology (end-of-lamp-life sensing)
- PROStart programmed rapid start
- UL type CC rated
- Operates at >42 kHz to reduce potential interference with infrared control systems
- RoHS compliant
- Lead-free solder, printed circuit board and manufacturing process



Application Information

SYLVANIA QUICKTRONIC T5HO HT ballasts are ideally suited for:

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

SYLVANIA QUICKTRONIC High Efficiency (QHE) PROStart T5HO ballasts offers several advantages:

- High Ambient Temperature – specifically designed for those applications where the ballast is subject to high ambient temperatures as in high bay industrial installations.
- PROStart – programmed rapid lamp starting and operation to provide up to 100,000 switching cycles
- QUICKSENSE – patented circuitry designed to shut down the system reliably and safely when lamps reach end-of-life.
- UL Type CC Compliant



System Information

SYLVANIA QUICKTRONIC High Efficiency PROStart T5HO High Ambient System advantages:

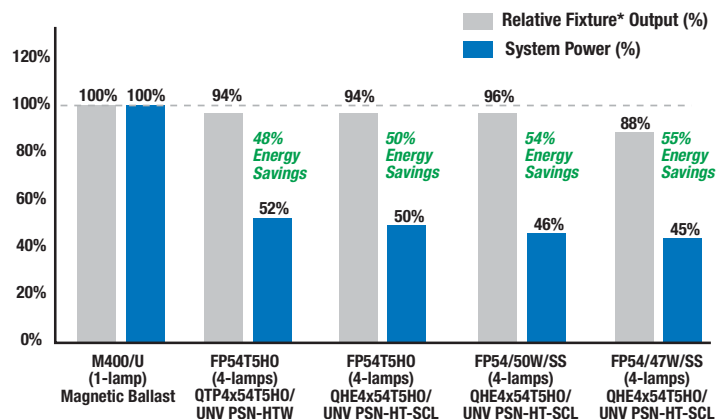
- Operate from 120V through 277V
 - Eliminates “wrong voltage” errors
 - Reduces inventory by 50%
- Utilizes Programmed Rapid Start operation for:
 - Highest System Efficacy
 - Longer Life
 - Over 100,000 switching cycles for occupancy sensor and building control systems applications

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 two lamp unit can be wired for two or one lamp operation. The four lamp “switching” ballast is designed to switch from 4 to 2-lamps, 3 to 2-lamps, 3 to 1-lamp or 2 to 1-lamp. The switching feature can be used with control interfaces, including occupancy sensors.

System Type	Input System Power (W)	Initial Fixture* LPW	Mean Fixture* Lumens	Relative Fixture* Output (%)	Energy Savings (%)
M400/U (1-lamp) Magnetic Ballast	452	61	17,784	Baseline	Baseline
FP54T5HO (4-lamps) QTP4x54T5HO/UNV PSN-HTW	236	76	16,740	94%	48%
FP54T5HO (4-lamps) QHE4x54T5HO/UNV PSN-HT-SCL [DOE]	225	83	15,568	88%	50%
FP54/50W/SS (4-lamps) QHE4x54T5HO/UNV PSN-HT-SCL [DOE]	209	93	16,238	91%	54%
FP54/47W/SS (4-lamps) QHE4x54T5HO/UNV PSN-HT-SCL [DOE]	204	101	17,309	97%	55%

*Based on Fixture Efficiency: 76% for M400 and 90% for FP54T5HO lamps
 *277V input voltage
 *Lumen output for T5HO @ 35°C/95°F



NEW

Normal Ballast Factor

T5HO PROStart®

High Efficiency

Performance Guide

Data based upon SYLVANIA PENTRON® HO lamps shown. QUICKTRONIC® T5HO HT ballasts are also compatible with other lamp manufacturers equivalent lamp types that meet ANSI specifications.

Specifications⁵

Starting Method: Programmed Rapid Start
 Ballast Factor: see table
 Circuit Type: Series
 Lamp Frequency: >42 kHz
 Lamp CCF: Less than 1.6
 Starting Temp: -20°F (-29°C)⁶
 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
 RoHS Compliant⁷
 ANSI C62.41 Cat. A Transient Protection
 QUICKSENSE® Dynamic End-of-Lamp-Life Sensing
 Remote Mounting (Max. wire length from ballast case to lampholder): up to 18 feet. (Red leads to 18', keep Blue lead <10 feet.)

⁵ Data based on PENTRON HO lamp types for primary ballast application.
⁶ Operation below 50°F (10°C) may affect light output or lamp operation – see "Low Temp. Starting" definition.
⁷ Complies with European Union Restriction of Hazardous Substances Directive (Directive 2002/95/EC).

System Life / Warranty

QUICKTRONIC products are covered by the QUICK 60+® or QUICK 7XL+™ warranty, a comprehensive lamp and ballast system warranty.

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

SPECIFICATION DATA

Catalog #	Date	Type
Project	Prepared by	
Comments		

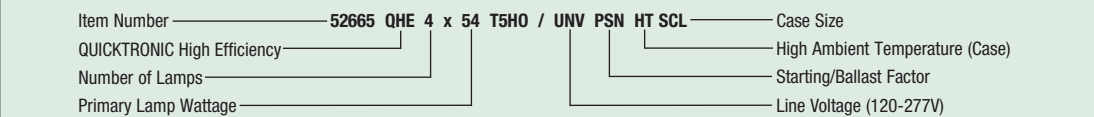
High Efficiency, Type CC, High Ambient, Universal Voltage (120-277V)



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 Efficacy (lm/W)	BEF ²
									120V	277V		
QHE 2x54T5HO Fixed Output												
51476 (51475)	QHE2x54T5HO/UNV PSN-HT 20-pack (without leads)	1.00/0.43	FP54T5HO	5000	2	1.00	10,000	9300	119	116	86	0.86
		0.94/0.40	FP54/50W/SS	5000	2	1.02	10,200	9485	112	109	94	0.94
	0.89/0.38	FP54/47W/SS	4575	2	1.02	9375	8720	105	103	91	0.99	
	0.88/0.37	FT55DL	4800	2	0.86	8255	7680	106	105	79	0.82	
	0.99/0.42	FT50DL	4300	2	1.04	8945	8320	110	108	83	0.96	
	0.92/0.39	L58	5200	2	0.85	8840	8220	111	108	82	0.79	
	0.82/0.35	FPC55	4000	2	0.80	6400	5950	96	94	68	0.85	
	0.53/0.23	FP54T5HO	5000	1	1.05	5250	4885	62	61	86	1.72	
	0.49/0.21	FP54/50W/SS	5000	1	1.05	5250	4885	58	58	91	1.81	
	0.45/0.20	FP54/47W/SS	4575	1	1.03	4690	4365	53	53	88	1.94	
	0.49/0.21	FT55DL	4800	1	0.92	4415	4105	56	55	80	1.67	
	0.51/0.22	FT50DL	4300	1	1.09	4685	4360	57	57	82	1.91	
0.48/0.21	L58	5200	1	0.87	4525	4205	57	57	79	1.53		
0.45/0.20	FPC55	4000	1	0.81	3240	3015	49	49	66	1.65		

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 Efficacy (lm/W)	BEF ²
									120V	277V		
QHE 4x54T5HO Switchable Model												
52665 ⁴	QHE4x54T5HO/UNV PSN-HT-SCL DOE	0.85	FP54T5HO	5000	4	1.02	20400	18972	233	216	88	0.4
		0.79	FP54/50W/SS	5000	4	1.01	20200	18786	216	216	94	0.51
		0.73	FP54/47W/SS	4575	4	1.02	18666	17360	197	197	95	0.55
		0.8	FT55DL	4800	4	0.91	17472	15081	222	222	79	0.41
		0.77	FPC55	4000	4	1.02	16320	14362	215	215	76	0.52
		0.66	FP54T5HO	5000	3	1.01	15150	14090	178	178	85	0.58
		0.62	FP54/50W/SS	5000	3	1.01	15150	14090	166	166	91	0.7
		0.56	FP54/47W/SS	4575	3	1.02	14000	13020	149	149	94	0.75
		0.6	FT55DL	4800	3	0.93	13392	11559	166	166	81	0.57
		0.6	FPC55	4000	3	1.02	12240	10771	162	162	76	0.68
		0.45	FP54T5HO	5000	2	1.02	10200	9486	119	119	86	0.83
		0.43	FP54/50W/SS	5000	2	1.01	10100	9393	112	112	90	1.04
		0.39	FP54/47W/SS	4575	2	1.02	9333	8680	100	100	93	1.13
		0.41	FT55DL	4800	2	0.91	8736	7540	111	111	79	0.83
		0.41	FPC55	4000	2	1.02	8160	7181	108	108	76	1.06
		0.27	FP54T5HO	5000	1	1.03	5150	4790	64	64	80	1.66
		0.26	FP54/50W/SS	5000	1	1.02	5100	4743	60	60	85	1.95
		0.24	FP54/47W/SS	4575	1	1.02	4667	4340	54	54	86	2.13
		0.25	FT55DL	4800	1	0.93	4464	3853	62	62	72	1.61
		0.25	FPC55	4000	1	1.02	4080	3590	60	60	68	1.76

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 wattage value).
³ System Efficacy calculation based on lowest input power value
⁴ Formerly: 51480 QHE 4x54T5HO/UNV PSN-HT-SCL



Specifications subject to change without notice.

QHE T5HO PSN HT



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Comments		

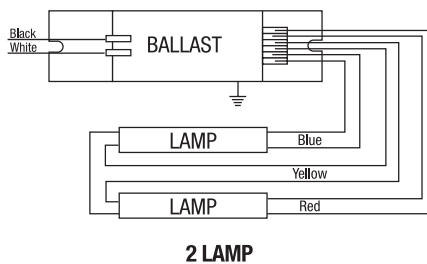
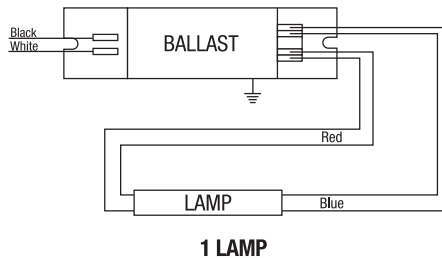
2 LAMP T5H0 UNV HT
Fixed Output Ballast
High Efficiency

Lamp / Ballast Guide

2 Lamp, High Efficiency, Type CC, High Ambient, Universal Voltage (120-277V)



Wiring Diagram



Installation Notes

- Install in accordance with National & Local Electric Code
- Ground ballast case
- Switching: Simultaneously disconnect all ungrounded line conductors
- Insulate unused leads for 600V

Dimensions:

Model QHE2x54T5H0/UNV PSN-HT enclosure size:

Overall: 16.73" L x 1.18" W x 1.00" H (425mm L x 30mm W x 25.4mm H)

Mounting: 16.34" (415mm)

Wiring:

51476: Push-in connectors

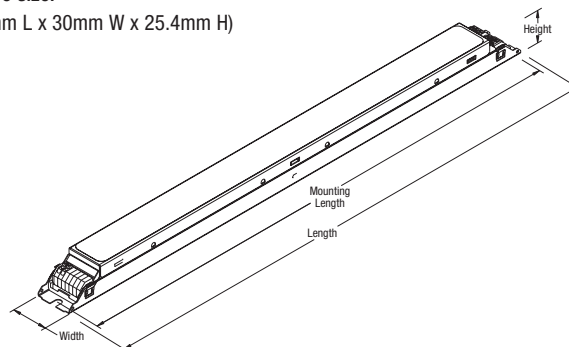
51475: Push-in connectors with leads

(Use 18AWG solid copper wire only)

Product Weight:

51476: 0.88 lb (0.40kg) each (approx.)

51475: 1.0 lb (0.45kg) each (approx.)



Dimensions:

Model QHE4x54T5H0/UNV PSN-HT-SCL enclosure size:

Overall: 16.73" L x 1.68" W x 1.18" H (425mm L x 43mm W x 30mm H)

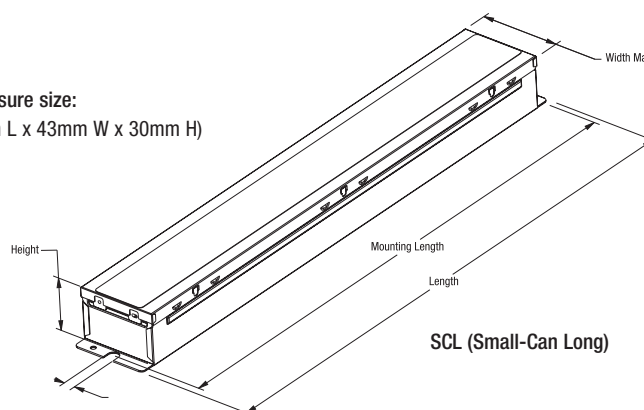
Mounting: 16.34" (415mm)

Wiring:

52665: Leads only (no connectors provided)

Product Weight:

52665: 2.4 lbs (1.08kg) each (approx.)



SCL (Small-Can Long)

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SPECIFICATION DATA

Catalog #	Date	Type
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Comments		

4 Lamp, High Efficiency, Type CC, High Ambient, Universal Voltage (120-277V)

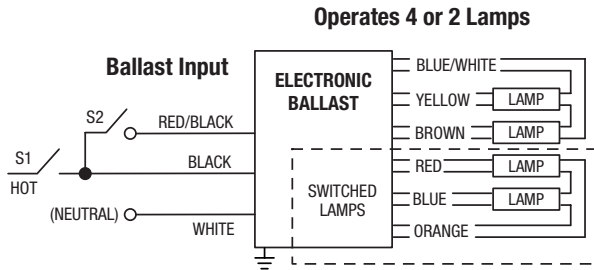


Wiring Diagram

High Ambient Switchable Model (90°C case temp.)
52665 QHE 4x54T5HO/UNV PSN-HT-SCL [DOE]

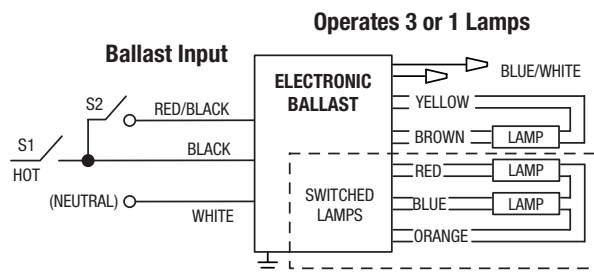
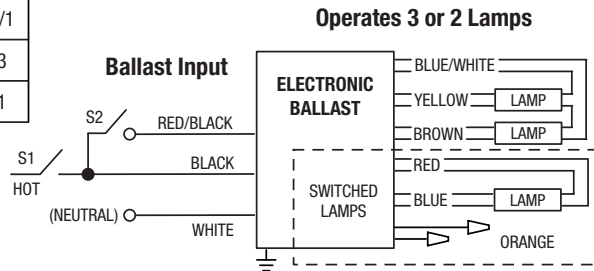
4-Lamp Switching Wiring Diagram (4L to 2L)

S1	S2	4/2
ON	ON	4
ON	OFF	2



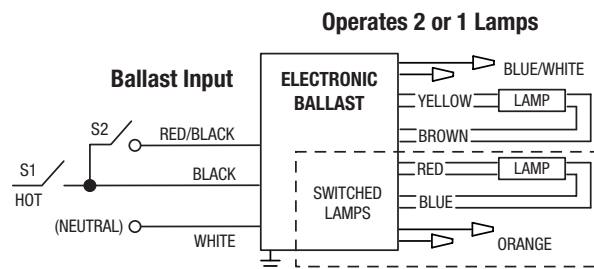
3-Lamp Switching Wiring Diagram (3L to 2L, 3L to 1L)

S1	S2	3/2	3/1
ON	ON	3	3
ON	OFF	2	1



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

S1	S2	2/1
ON	ON	2
ON	OFF	1



4 LAMP T5HO UNV HT
Switchable Ballast
High Efficiency

Switching Schematics

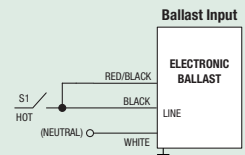


QHE T5HO PSN HT

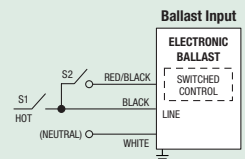
Installation Notes

- Install in accordance with National & Local Electric Code
- Ground ballast case
- 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
Connect Red/Black to Black Line for All Lamps ON (no S2)



Input wiring for occupancy sensors
(Install occupancy sensor/switch between Red/Black lead "S2" is the occupancy sensor)



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