

**CONVENIENCE,  
VERSATILITY &  
RELIABILITY of**



# FLUORESCENT BALLAST FAMILIES OPERATING DOZENS AND DOZENS OF LAMP TYPES IN HUNDREDS OF COMBINATIONS

Fluorescent ballasts are the fundamental product programs upon which Fulham's reputation and identity were established more than 30 Years ago. Our products were so well engineered that many remain as relevant today as when introduced. They've been known industry-wide as the reliable "workhorses" that inspired our ongoing equestrian branding.

Jump to today, and Fulham has expanded the lines to include ESSENTIAL Refrigeration ballasts and Programmable Germicidal UV Ballasts, as well as Remote Mount, CFL, and small form factor varieties for numerous field replacement and factory installation scenarios.



## Fluorescent Ballasts



Universal Voltage (120-277V)			
Model Number	Dimensions (L x W x H)	Input Current	Master Carton Qty.
WH41-UNV-L*	9.48" x 1.41" x 1.02"	0.496A	25
WH43-UNV-L	9.48" x 1.41" x 1.02"	0.88A	25
WH44-UNV-L	9.48" x 1.41" x 1.02"	0.496A	25

\*Made to order.



### Dedicated Voltage (120, 230, and 277V)

Series	Model Number	Input Voltage (V)	Max Power (W)	Max Current (Amp)	Dimensions (L x W x H)	Configuration	Case Qty.
WORKHORSE 1	WH1-120-L	120	28	.10	5.92" x 0.94" x .76"	Linear case, side leads	90
	WH2-120-L	120		.33	5.52" x 1.25" x 1.02"	Linear case, side leads	50
WORKHORSE 2	WH2-120-C	120	35	.33	3.36" x 1.84" x 1.01"	Compact case, side leads	50
	WH2-277-L	277		.15	5.52" x 1.25" x 0.99"	Linear case, side leads	50
	WH2-277-C	277		.15	3.37" x 2.32" x 1"	Compact case, side leads	50
WORKHORSE 22	WH22-120-L	120	35	.25	5.52" x 1.25" x 1.02"	Linear case, side leads	50
	WH22-120-C	120		.25	3.36" x 1.84" x 1.01"	Compact case, side leads	50
	WH3-120-L	120		.56	6.48" x 1.50" x 1.02"	Linear case, side leads	50
WORKHORSE 3	WH3-120-C	120	64	.56	3.8" x 2.5" x 1.01"	Compact case, side leads	60
	WH3-230-L*	230		.29	6.45" x 1.5" x 1"	Linear case, side leads	50
	WH3-277-L	277		.24	6.48" x 1.5" x 1.02"	Linear case, side leads	50
WORKHORSE 3	WH3-277-C	277	60	.24	3.83" x 3.11" x 1.01"	Compact case, side leads	60
	WH33-120-L	120		.53	6.48" x 1.5" x 1.02"	Linear case, side leads	50
WORKHORSE 33	WH33-120-C	120	64	.53	3.64" x 3.12" x 1.01"	Compact case, side leads	60
	WH4-120-L	120		70	.56	6.48" x 1.5" x 1.02"	Linear case, side leads
WORKHORSE 4	WH5-120-L	120	128	1.15	8.5" x 1.73" x 1.01"	Linear case, side leads	50
	WH5-230-L	230		0.57	9.5" x 1.73" x 1.01"	Linear case, side leads	50
WORKHORSE 5	WH5-277-L	277	140	0.48	9.5" x 1.73" x 1.01"	Linear case, side leads	50
	WH6-120-L	120		1.04	8.5" x 1.73" x 1.01"	Linear case, side leads	50
WORKHORSE 6	WH6-277-L	277	220	0.50	9.5" x 1.73" x 1.01"	Linear case, side leads	50
	WH7-120-L	120		1.82	19.24" x 1.72" x 1.03"	Linear case, side leads	25
WORKHORSE 7	WH7-120-H	120	16	1.82	11.73" x 3.23" x 1.23"	H can w/ magnetic footprint	16
	WH7-230-L	230		1.10	19.24" x 1.72" x 1.03"	Linear case, side leads	25
WORKHORSE 8	WH8-120-L	120	25	1.8	19.24" x 1.72" x 1.03"	Linear case, side leads	25
	WH8-230-L*	230		0.79			

\*Made to order.

Find WorkHorse and LongHorse wiring diagrams here: <https://www.fulham.com/contact-us/wiring-diagrams/>

Or scan this QR Code with your SmartPhone's camera >



## Fluorescent Specifier Grade Ballasts



### Specifier Grade T8 Specifications

Power Factor	98.5% Min.
ATHD	Less than 10%
EMI	FCC CFR Title 47 Part 18 non-consumer
Ballast Factor	>.87
Starting Method	Instant Start
Regulatory Approvals	UL & cULus Listed Type 1 or Type 2
Inherent Thermal Protection	Class P
Transient Protection	C62.41 Class A 7 strikes
Dimensions (L x W x H)	WHS2: 9.50" x 1.38" x 0.99" WHS3: 9.53" x 1.32" x 1.05" WHS4: 9.53" x 1.32" x 1.05"
Lamp CF	< 1.7
Min. Starting Temp.	0°F (-18°C)
Weight	1.5 lbs. (700g)



### Specifier Grade T8 Ballasts

Model Number	Input Voltage (VAC)	Input Power (W)	Max. Current (A)	Black/White Wires	Red Wires	Blue Wires	Yellow Wires	Case Qty (pcs.)
WHS2-UNV-T8-IS	120-277; 50/60Hz	59	.50	25"	46"	31"	N/A	25
WHS3-UNV-T8-IS	120-277; 50/60Hz	85	.71	25"	46"	31"	N/A	25
WHS4-UNV-T8-IS	120-277; 50/60Hz	112	.93	25"	46"	31"	46"	25



## Remote Mount Electronic Ballasts



### Specifications

Power Factor	>0.9
THD	<34.6%
EMI/RFI Compliance	FCC Part 18-A
Sound Rating	"A"
Ballast Type	Instant Start
Voltage Transients	ANSI C82.11 - 1993
Input / Protection	FUSE
Remote Mounting	20ft Max
Min. Operating Temp	-30°C (-20°F)
Max. Case Temp	70°C (158°F)
Approvals / Class	cULus Listed, Class "P", 1 or 2 Outdoor

- Operates up to 20ft. from lamp
- Versatile
- High Power Factor
- Energy Saving
- Lightweight
- Solid-State Electronics



### Fluorescent Low Temperature Electronic Ballasts

Model Number	Lamp Watts / Type	Lamps Operated	Input Watts	Line Current	Ballast Factor	Efficacy Factor
LH4-120L	F28T5	2	55	0.48	1.0	1.7



## Low Temperature Ballasts

that automatically adjust in cold temperatures to provide optimal light output.

MINIMUM STARTING TEMPERATURE  
**-30°C -22°F**  
 Operates T8, T10 & T12 Lamps



**Standard Molex® Connectors**  
 for Plug-n-Play commercial refrigeration applications

Molex is a registered trademark of Molex Incorporated.

Specifications	
Input Voltage	120V-277V; 50/60Hz
High Power Factor	> 0.98
ATHD	< 10%
Lamp Operation Mode	Programmed Start
Ignition Method	Programmed Pre-Heat Start
Min. Operating Temperature	-30°C (-22°F)
Case Qty. (pcs.)	25

Fluorescent Low Temperature Electronic Ballasts				Lamp Operation			
Model Number	Max. Current (A)	Max. Power (W)	Dimensions (L x W x H)	Weight (lbs)	Case Qty. (pcs.)	# of Lamps	Lamp Type / Designation
IH1-UNV-232-T8	.85	100	12.03" x 1.71" x 1"	1.4	25	1 or 2	F25 / F32 / F40 T8
IH2-UNV-270-T8	1.35	155		1.5	25	1 or 2	F58 / F70 T8
IH3-UNV-272T12HO	1.38	150		1.4	25	1 or 2	F48 / F60 T8HO, F48 / F60 T10VHO, F48 / F60 / F72 T12HO
						1	F72T8HO, F72T10VHO, F96T12VHO



## UV Germicidal & Tanning Ballasts

for air and water purification purposes



Model Number	Operating Voltage (VAC)	Max. Input Current (A)	Factory Set Output Current Range (mA)	Default Output Current (mA)	# of Lamps	Max. Total Lamp Load	Certification	Dimming Type	Min. Operating Temp.	Max. Case Temp.	Dimensions (L x W x H)	
<b>Non-Dimming</b>												
SHS1-UNV-C-I	120-277	0.40A	-	400	1 or 2	45W	UL US CECB	-	-30°C	75°C	5.06" x 2.36" x 0.988"	
SHS5-024-C	24	2.59A	-	400	1 or 2	41W	UL US	-	0°C	75°C	3.64" x 3.12" x 1.01"	
SHS11-UNV-H	120-277	1.4A	680-1000	800	1 or 2	200W	UL US CECB	-	-20°C	70°C	10" x 2.55" x 1.26"	
SHS14-UNV-H	120-277	1.282A	400-600	425	1 or 2	160W	UL US CECB	-	-20°C	70°C	10" x 2.55" x 1.26"	
FEP-120-600-L	120	2.86A	-	600 - 800 per wire	1, 2, 3 or 4	320W	UL US	-	-18°C	70°C	19.25" x 3" x 1.25"	
FEP-230-600-L	230	1.50A	-	600 - 800 per wire	2, 3 or 4	320W	UL US	-	0°C	70°C	19.25" x 3" x 1.25"	
<b>Dimmable</b>												
SHD21-230-L-I	230	1.64A	-	2100	1	320W	UL US	0-10V***	0°C	70°C	16.69" x 1.72" x 1.18"	

Note: To order a specific factory set current other than the default set current add -XXXX after part number where XXXX is replace with the output current desired. For example if 500mA is required you would add -0500 after the part number to order this model. This would be a made to order model. Additional validation testing will be required and updates to any safety certifications will be required for any lamp combination not already listed with the ballast.



## Programmable Sunhorse Ballasts

for Germicidal UV applications and Tanning



Specifications	SHS15P-UNV-H	SHS4P-UNV-C
Output Current Range (+/-10%)	800-1050mA @310W 1060-1200mA @260W 800mA default	340-840mA 800mA default
Input Voltage	120-277V (UNV)	112W: 120-277V (UNV) 95W: 100V
Frequency Rating	50/60Hz	50/60Hz
Max Ballast Wattage	310W/260W	112/95W
Power Factor	>0.9	>0.9@≥60W load
Total Harmonic Distortion	See spec sheet	≤20%@≥60W load
Start Type	Programmed Rapid Start Type R.S	Programmed Rapid Start Type R.S
L x W x H (in)	10.00 x 2.80 x 1.79	6.77 x 3.02 x 1.27
L x W x H (mm)	254 x 71.1 x 45.4	172 x 76.7 x 32.2
Minimum Starting Temperature	-20°C (-4°F)	-20°C (-4°F)
CULUS and CE	Yes	Yes
PSE (for Japan)	-	Yes



## Fulham Handheld Programmurers: TPSB-100 & New Display SHS-DISP

The SunHorse Digital LCD Display SHS-DISP is a more robust device that expands user options. Attributes include:



- Remote ON/OFF Port Connection turns Output ON/OFF w/o removing input power to ballast
- NO/NC Relay
- Lamp Status 5VDC Digital Output
- Future I2C Sensor Implementation
- Multi-Ballast Monitoring/Control
- Audible buzzer alarm notifications
- Lamp failure and lamp hour end of life notifications
- 5VDC Digital Input for use with Smart and non-smart ballasts
- Can operate as a standalone lamp hour counter for non-smart ballasts
- Powered by SHS Ballast RJ12 connection (directly from the ballast), 24VDC Barrel Plug, 12VAC/24VAC, or USB-C
- Displays stored data about lamp manufacturer and part number from SunHorse ballast memory





## Compact Fluorescent (CFL) Electronic Ballasts



Specifications	
Operating Voltage	120V-277V; 50/60Hz
ATHD	< 10%
Over Current	Fuse
Transient Protection	C62.41 Class A 7 strikes
Regulatory Approvals	UL & cULus Listed Type 1 Outdoor
EMI	FCC CFR Title 47 Part 18 non-consumer
High Power Factor	> .98
Ballast Maximum Case Temp.	167°F (75°C) - 5 Year Warranty
Ballast Maximum Case Temp.	194°F (90°C) - 3 Year Warranty
Lamp Starting Mode	Programmed Start
Inherent Thermal Protection	Class P



CFL Ballasts & Kits					
Model Number	Max Load	Max. Current	Dimensions (L x W x H)	Weight	Case Quantity
RHA-UNV-226-C	57W	.52 A	5.1" x 2.4" x 1" (4.3" L case)	5.2 oz.	<b>C Models:</b> 50 pcs/ case <b>Kits (K):</b> 60 pcs/ case



## T5HO & T5HE Fluorescent Electronic Ballasts



T5HO & T5HE Fluorescent Ballasts					
Model Number	Max. Load (W)	Max. Current (A)	Dimensions (L x W x H)	Connector Type	Case Qty (pcs.)
RHA-UNV-254-LT5	120W	1.0 A	9.53" x 1.32" x 1.05"	Leads	25
RHA-UNV-454-LT5†	240W	2.0 A	16.88" x 1.69" x 1.18"	Leads	20

† Made to order. Minimum order quantity applies.



## Pony Electronic Ballasts



Pony Electronic Ballasts			
Model	Model Number	Operates Lamps	Dimensions (Inches)
Pony for CFL	NPY-120-118-CFL*	1 x 13CFT/E, 18CFQ/E, 18CFTR/E	H 1.03", W 1.76", L 3.36"
	NPY-120-126-CFL	1 x 18CFT/E, 24/27CFT/E, 26CFQ/E, 26CFQ/E, 26CFTR/E, 32CFTR/E, 22CRT9	H 1.02", W 2.39", L 3.36"
	NPY-120-218-CFL	2 x 13CFT/E, 18CFQ/E, 18CFTR/E	H 1.02", W 2.39", L 3.36"

\*Made to order.



## SugarCube Ballasts



SugarCube Electronic Ballasts			
Model	Model Number	Operates Lamps	Dimensions (Inches)
For T5 / T8 / T12	SC-120-108-LT5	1 x F4T5, F6T5, F8T5	H 4.76", W 1.05", L .76"
	SC-120-213-LT5	1 x F21T5, F8T5 + F13T5; 2 x F13T5, F14T5, F15T8	H 5.53", W 1.27", L 1.01"
	SC-120-115-CT8†	1 x F14T8, F15T8, F17T8, F14T12, F15T12, F20T12, CFQ13W	H 3.09", W 1.45", L 1"
	SC-120-132-T8XL*	1 x F15T8, F17T8, F25T8, F32T8	H 6.3", W 1.08", L 1.01"
For CFL & Circle	SC-120-113-CFL	1 x 13CFQ/E, F15T8, F17T8, 13W Spiral	H 3.09", W 1.45", L 1"
	SC-120-287-CUV	1 x 180mm T5 UV, 287mm T5 UV	H 3.07", W 1.46", L 1"
For UV Lamps	SC-230-287-CUV	1 x 180mm T5 UV, 287mm T5 UV	H 3.07", W 1.46", L 1"
	For 230V	SC-230-113-CFL*	1 x 13CFQ/E, 13FTR/E

\* Made to Order

† These models are UL listed, not cULus.

# FULHAM QUALITY INNOVATION

Fulham has a rich history of developing innovative, award-winning lighting solutions. From Fulham's U.S. Headquarters near Los Angeles, California, Fulham Product Managers, Engineers, Salespeople and Marketers team up to develop innovative, new product ideas that are then researched, designed and manufactured by Fulham's own factories abroad. This all occurs under Fulham's direct supervision as a Prime Manufacturer, thus guaranteeing the extremely high quality upon which Fulham has built its reputation for over three decades.

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