Appendix B

Ballast Cutsheets

Specifications

All Dimming Ballasts

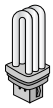
Performance

- Dimming Range: 100% to 1% measured relative light output (RLO)
- Lamp Starting: programmed rapid start
- Minimum Lamp Starting Temperature: 10°C (50°F)
- Ambient Temperature Operating Range: 10°C (50°F) to 60°C (140°F)
- Relative Humidity: maximum 90% non-condensing
- Operating Voltage: 120V or 277V at 60Hz
- Lamp Current Crest Factor: less than 1.7
- Lamp Flicker: none visible
- Light Output Variation: constant ±2% light output for line voltage variations of ±10%
- Lamp Life: average lamp life meets or exceeds rating of lamp manufacturer
- Ballast Factor: greater than .85 for T8 lamps, greater than .95 for T4 lamps, equal to 1.0 for T5-HO lamps
- Power Factor: greater than .95
- Total Harmonic Distortion (THD): less than 10%
- Maximum Inrush Current: 7 amps per ballast at 120V, 3 amps per ballast at 277V
- Sound Rating: Inaudible in a 27dBa ambient
- Maximum Ballast Case Temperature: 75°C (167°F)

Standards

- UL Listed (evaluated to the requirements of UL935)
- CSA certified (evaluated to the requirements of C22.2 No. 74)
- Class P thermally protected
- Meets ANSI C82.11 High Frequency Ballast Standard
- Meets FCC Part 18 Non-Consumer requirements for EMI/RFI emissions
- T4 and T5-HO ballasts are MIL Std. 461E compliant (meets the requirements of CE101, RE101 and RE102)
- Meets ANSI C62.41 Category A surge protection standards up to and including 6kV
- Manufacturing facilities employ ESD reduction practices that comply with the requirements of ANSI/ESD S20.20
- Lutron Quality Systems registered to ISO 9001.2000

Hi-lume Ballast Models

Lamp Type	Lamp Watts (length)	Lamps per ballast	Case Type	120 VOLTS Ballast Current (amps)	120 VOLTS **Hi-lume** Model Number [1]	277 VOLTS Ballast Current (amps)	277 VOLTS **Hi-lume** Model Number [1]
T4 triple-tube 4-pin  1/2" diameter	26W	1	A	.26	HL3-T426-120-1-S	.12	HL3-T426-277-1-S
	32W	1	A	.31	HL3-T432-120-1-S	.13	HL3-T432-277-1-S
T5-HO linear high output  5/8" diameter	24W (21.5")	1 2	C C	.26 .45	FDB-T524-120-1 FDB-T524-120-2	.13 .20	FDB-T524-277-1 FDB-T524-277-2
	39W (33.4")	1 2	C C	.38 .76	FDB-T539-120-1 FDB-T539-120-2	.17 .31	FDB-T539-277-1 FDB-T539-277-2
	54W (45.3")	1 2	C C	.58 1.1	FDB-T554-120-1 FDB-T554-120-2	.25 .45	FDB-T554-277-1 FDB-T554-277-2
T8 linear and U-bent  1" diameter	17W (24")	1 2 3	F F F	.19 .31 .43	FDB-2427-120-1 FDB-2427-120-2 FDB-2427-120-3	.08 .15 .20	FDB-2427-277-1 FDB-2427-277-2 FDB-2427-277-3
	25W (36")	1 2 3	F F F	.24 .43 .62	FDB-3627-120-1 FDB-3627-120-2 FDB-3627-120-3	.12 .19 .28	FDB-3627-277-1 FDB-3627-277-2 FDB-3627-277-3
	32W (48")	1 2 3	F F F	.30 .57 .82	FDB-4827-120-1 FDB-4827-120-2 FDB-4827-120-3	.14 .25 .35	FDB-4827-277-1 FDB-4827-277-2 FDB-4827-277-3
	40W (60")	1 2	F F	.36 .64	FDB-6027-120-1 FDB-6027-120-2	.16 .30	FDB-6027-277-1 FDB-6027-277-2
T12 linear HO (800ma)  1½" diameter	85W (72")	1	F	.75	FDB-7280-120-1	- -	- -
	95W (84")	1	F	.83	FDB-8480-120-1	- -	- -
	110W (96")	1	F	.88	FDB-9680-120-1	- -	- -

[1] Mounting studs standard for T4 ballasts. Delete suffix -S in the model number if mounting studs not needed.

(1) F32T8 @120V

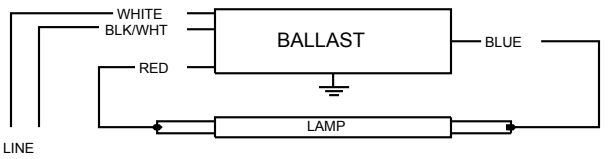
RCN-132-MC

Brand Name	CENTIUM MICRO CAN
Ballast Type	Electronic
Starting Method	Instant Start
Lamp Connection	Series
Input Voltage	120
Input Frequency	60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F21T5	1	21	50/10	0.22	27	1.10	10	0.98	1.7	4.07
F25T8	1	25	0/-18	0.21	25	0.98	10	0.98	1.7	3.92
F28T5	1	28	50/10	0.25	30	0.98	10	0.99	1.7	3.27
* F32T8	1	32	0/-18	0.25	30	0.98	10	0.98	1.7	3.27
F32T8/ES (30W)	1	30	60/16	0.24	28	0.98	10	0.98	1.7	3.50

Wiring Diagram



Diag. 63

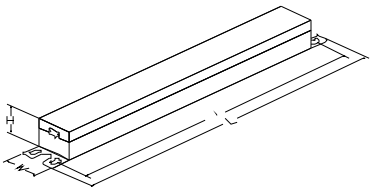
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.
Black		0
White	25L	63.5
Blue	31R	78.7
Red	37L	94
Yellow		0
Gray		0
Violet		0

	in.	cm.
Yellow/Blue		0
Blue/White		0
Brown		0
Orange		0
Orange/Black		0
Black/White	25L	63.5
Red/White		0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.08 "	1.05 "	8.91 "
9 1/2	1 2/25	1 1/20	8 91/100
24.1 cm	2.7 cm	2.7 cm	22.6 cm

Revised 07/23/2004

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

(1) F32T8 @277V

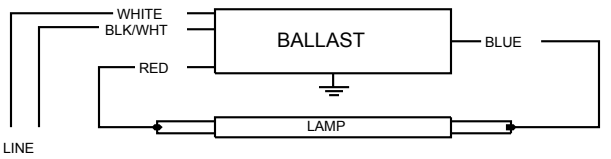
VCN-132-MC

Brand Name	CENTIUM MICRO CAN
Ballast Type	Electronic
Starting Method	Instant Start
Lamp Connection	Series
Input Voltage	277
Input Frequency	60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F21T5	1	21	50/10	0.10	27	1.10	10	0.98	1.7	4.07
F25T8	1	25	0/-18	0.09	25	0.98	10	0.98	1.7	3.92
F28T5	1	28	50/10	0.11	30	0.98	10	0.99	1.7	3.27
* F32T8	1	32	0/-18	0.11	30	0.98	10	0.98	1.7	3.27
F32T8/ES (30W)	1	30	60/16	0.10	28	0.98	10	0.98	1.7	3.50

Wiring Diagram



Diag. 63

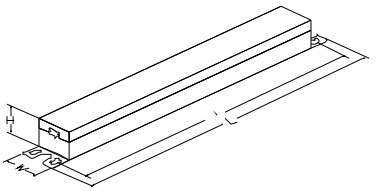
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.
Black		0
White	25L	63.5
Blue	31R	78.7
Red	37L	94
Yellow		0
Gray		0
Violet		0

	in.	cm.
Yellow/Blue		0
Blue/White		0
Brown		0
Orange		0
Orange/Black		0
Black/White	25L	63.5
Red/White		0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.08 "	1.05 "	8.91 "
9 1/2	1 2/25	1 1/20	8 91/100
24.1 cm	2.7 cm	2.7 cm	22.6 cm

Revised 07/23/2004

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

(2) F32T8 @120V

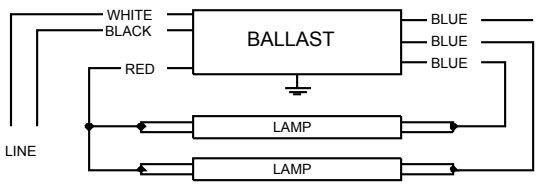
ROP-3P32-SC

Brand Name	OPTANIUM
Ballast Type	Electronic
Starting Method	Instant Start
Lamp Connection	Parallel
Input Voltage	120
Input Frequency	50/60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F32T8	1	32	0/-18	0.32	38	1.08	10	0.97	1.7	2.84
* F32T8	2	32	0/-18	0.53	63	0.94	10	0.99	1.7	1.49
F32T8	3	32	0/-18	0.70	83	0.88	10	0.99	1.7	1.06

Wiring Diagram



Diag. 70

Insulate unused blue lead for 1000V

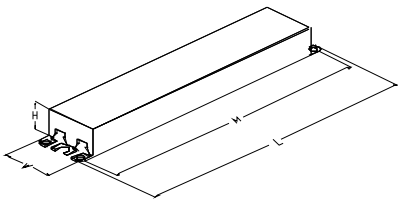
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.
Black	25L	63.5
White	25L	63.5
Blue	31R	78.7
Red	37L	94
Yellow	0	0
Gray	0	0
Violet	0	0

	in.	cm.
Yellow/Blue	0	0
Blue/White	0	0
Brown	0	0
Orange	0	0
Orange/Black	0	0
Black/White	0	0
Red/White		0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm

Revised 07/20/2004

Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

(2) F32T8 @277V

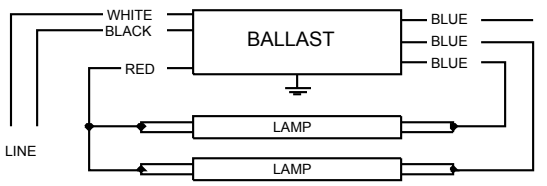
VOP-3P32-SC

Brand Name	OPTANIUM
Ballast Type	Electronic
Starting Method	Instant Start
Lamp Connection	Parallel
Input Voltage	277
Input Frequency	50/60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F32T8	1	32	0/-18	0.14	37	1.08	20	0.94	1.7	2.92
* F32T8	2	32	0/-18	0.23	62	0.94	10	0.98	1.7	1.52
F32T8	3	32	0/-18	0.30	82	0.88	10	0.99	1.7	1.07

Wiring Diagram



Diag. 70

Insulate unused blue lead for 1000V

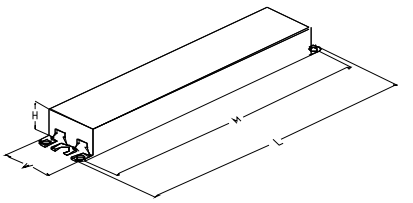
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.
Black	25L	63.5
White	25L	63.5
Blue	31R	78.7
Red	37L	94
Yellow	0	0
Gray	0	0
Violet	0	0

	in.	cm.
Yellow/Blue	0	0
Blue/White	0	0
Brown	0	0
Orange	0	0
Orange/Black	0	0
Black/White	0	0
Red/White	0	0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm

Revised 06/09/2003

Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

(3),(4) F32T8 @277V

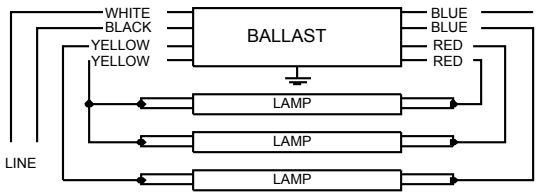
VOP-4P32-SC

Brand Name	OPTANIUM
Ballast Type	Electronic
Starting Method	Instant Start
Lamp Connection	Parallel
Input Voltage	277
Input Frequency	50/60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F32T8	2	32	0/-18	0.25	66	1.04	15	0.97	1.7	1.58
* F32T8	3	32	0/-18	0.33	89	0.92	10	0.99	1.7	1.03
F32T8	4	32	0/-18	0.39	107	0.88	10	0.99	1.7	0.82

Wiring Diagram



Diag. 71

Insulate unused blue lead for 1000V

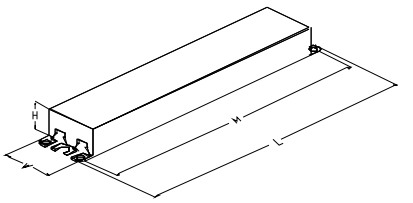
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.
Black	25L	63.5
White	25L	63.5
Blue	31R	78.7
Red	31R	78.7
Yellow	39L	99.1
Gray		0
Violet		0

	in.	cm.
Yellow/Blue		0
Blue/White		0
Brown		0
Orange		0
Orange/Black		0
Black/White		0
Red/White		0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm

Revised 04/28/2005

Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

(1) F17T8 @120V

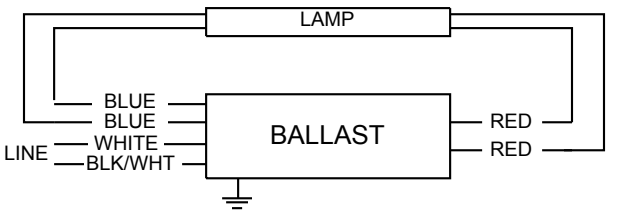
RCN-1S32-SC

Brand Name	CENTIUM
Ballast Type	Electronic
Starting Method	Programmed Start
Lamp Connection	Series
Input Voltage	120
Input Frequency	60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
* F17T8	1	17	32/00	0.19	22	1.00	10	0.97	1.7	4.55
F25T8	1	25	32/00	0.24	28	0.95	10	0.98	1.7	3.39
F32T8	1	32	32/00	0.29	34	0.90	10	0.98	1.7	2.65

Wiring Diagram



Diag. 20

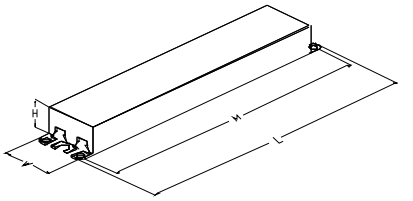
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.
Black		0
White	22L	55.9
Blue	36L	91.4
Red	26R	66
Yellow		0
Gray		0
Violet		0

	in.	cm.
Yellow/Blue		0
Blue/White		0
Brown		0
Orange		0
Orange/Black		0
Black/White	22L	55.9
Red/White		0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm

Revised 11/13/2001

Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

(1) F17T8 @277V

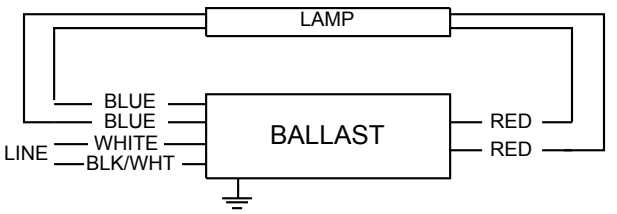
VCN-1S32-SC

Brand Name	CENTIUM
Ballast Type	Electronic
Starting Method	Programmed Start
Lamp Connection	Series
Input Voltage	277
Input Frequency	60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
* F17T8	1	17	32/00	0.08	22	1.00	10	0.97	1.7	4.55
F25T8	1	25	32/00	0.10	28	0.95	10	0.98	1.7	3.39
F32T8	1	32	32/00	0.13	34	0.90	10	0.98	1.7	2.65

Wiring Diagram



Diag. 20

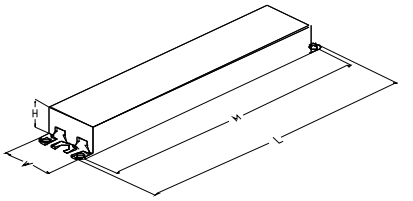
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.
Black		0
White	22L	55.9
Blue	36L	91.4
Red	26R	66
Yellow		0
Gray		0
Violet		0

	in.	cm.
Yellow/Blue		0
Blue/White		0
Brown		0
Orange		0
Orange/Black		0
Black/White	22L	55.9
Red/White		0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm

Revised 11/13/2001

Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

(4) F17T8 @277V

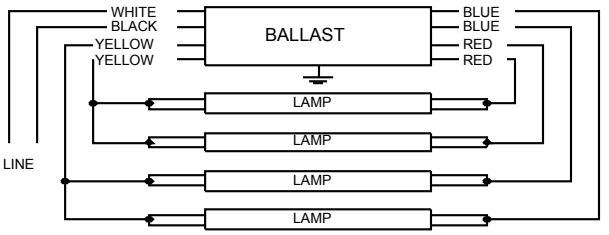
VCN-4P32-SC

Brand Name	CENTIUM
Ballast Type	Electronic
Starting Method	Instant Start
Lamp Connection	Parallel
Input Voltage	277
Input Frequency	60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
* F17T8	4	17	0/-18	0.22	61	0.96	10	0.99	1.7	1.57
F25T8	3	25	0/-18	0.27	74	1.04	10	0.99	1.7	1.41
F25T8	4	25	0/-18	0.32	89	0.94	10	0.99	1.7	1.06
F32T8	3	32	0/-18	0.34	94	1.00	10	0.99	1.7	1.06
F32T8	4	32	0/-18	0.41	112	0.88	10	0.99	1.7	0.79
F32T8/ES (30W)	3	30	60/16	0.32	87	1.00	10	0.99	1.7	1.15
F32T8/ES (30W)	4	30	60/16	0.38	104	0.88	10	0.99	1.7	0.85

Wiring Diagram



Diag. 66

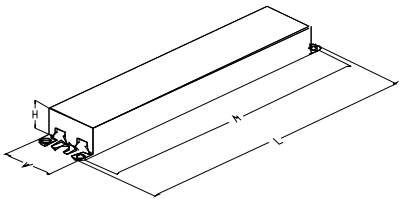
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.
Black	25L	63.5
White	25L	63.5
Blue	31R	78.7
Red	31R	78.7
Yellow	39L	99.1
Gray		0
Violet		0

	in.	cm.
Yellow/Blue		0
Blue/White		0
Brown		0
Orange		0
Orange/Black		0
Black/White		0
Red/White		0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm

Revised 08/26/2002

Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

(2) F17T8 @120V

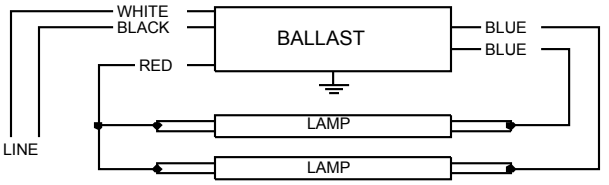
ROP-2P32-SC

Brand Name	OPTANIUM
Ballast Type	Electronic
Starting Method	Instant Start
Lamp Connection	Parallel
Input Voltage	120
Input Frequency	50/60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
* F17T8	2	17	0/-18	0.26	31	0.90	10	0.97	1.7	2.90

Wiring Diagram



Diag. 64

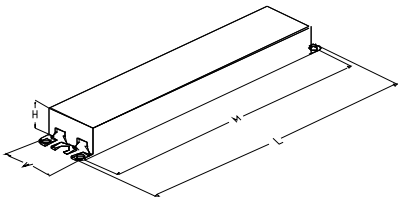
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.
Black	25L	63.5
White	25L	63.5
Blue	31R	78.7
Red	37L	94
Yellow	0	0
Gray	0	0
Violet	0	0

	in.	cm.
Yellow/Blue	0	0
Blue/White	0	0
Brown	0	0
Orange	0	0
Orange/Black	0	0
Black/White	0	0
Red/White	0	0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm

Revised 07/20/2004

Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

(4) F17T8 @120V

ADVANCE™

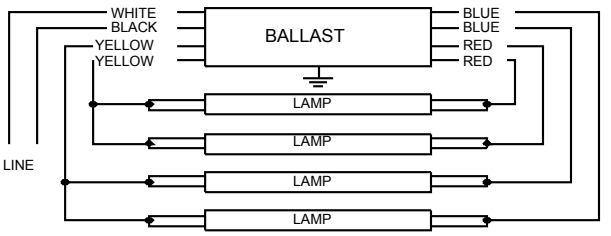
ROP-4P32-SC

Brand Name	OPTANIUM
Ballast Type	Electronic
Starting Method	Instant Start
Lamp Connection	Parallel
Input Voltage	120
Input Frequency	50/60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F17T8	2	17	0/-18	0.32	37	1.02	15	0.96	1.7	2.76
F17T8	3	17	0/-18	0.41	49	0.95	15	0.98	1.7	1.94
* F17T8	4	17	0/-18	0.49	58	0.90	10	0.98	1.7	1.55

Wiring Diagram



Diag. 66

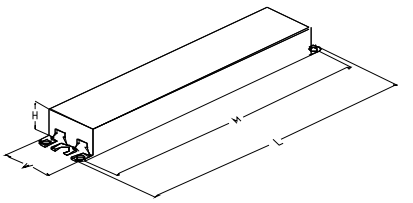
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.
Black	25L	63.5
White	25L	63.5
Blue	31R	78.7
Red	31R	78.7
Yellow	39L	99.1
Gray	0	0
Violet	0	0

	in.	cm.
Yellow/Blue	0	0
Blue/White	0	0
Brown	0	0
Orange	0	0
Orange/Black	0	0
Black/White	0	0
Red/White	0	0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm

Revised 04/28/2005

Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

(1) F40BX @277V

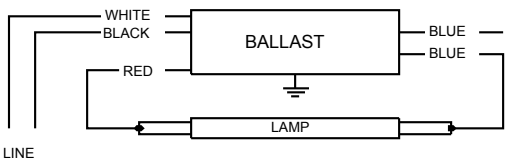
VOP-2P32-SC

Brand Name	OPTANIUM
Ballast Type	Electronic
Starting Method	Instant Start
Lamp Connection	Parallel
Input Voltage	277
Input Frequency	50/60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F17T8	1	17	0/-18	0.08	19	1.02	15	0.95	1.7	5.37
F17T8	2	17	0/-18	0.11	31	0.90	15	0.97	1.7	2.90
F25T8	1	25	0/-18	0.10	27	1.02	15	0.97	1.7	3.78
F25T8	2	25	0/-18	0.16	43	0.88	10	0.99	1.7	2.05
F32T8	1	32	0/-18	0.13	35	1.01	15	0.98	1.7	2.89
F32T8	2	32	0/-18	0.20	55	0.88	10	0.99	1.7	1.60
F32T8/ES (30W)	1	30	60/16	0.12	33	1.01	15	0.97	1.7	3.06
F32T8/ES (30W)	2	30	60/16	0.19	52	0.88	10	0.99	1.7	1.69
* F40T8	1	40	32/00	0.15	41	1.01	15	0.99	1.7	2.46
F40T8	2	40	32/00	0.24	67	0.88	10	0.99	1.7	1.31

Wiring Diagram



Diag. 68

Insulate unused blue lead for 1000V

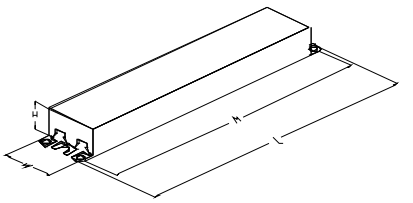
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.
Black	25L	63.5
White	25L	63.5
Blue	31R	78.7
Red	37L	94
Yellow	0	0
Gray	0	0
Violet	0	0

	in.	cm.
Yellow/Blue	0	0
Blue/White	0	0
Brown	0	0
Orange	0	0
Orange/Black	0	0
Black/White	0	0
Red/White	0	0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm

Revised 06/09/2003

Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

(2) F40BX @277V

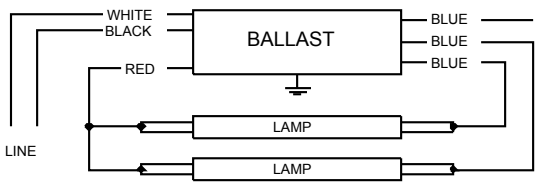
VOP-3P32-SC

Brand Name	OPTANIUM
Ballast Type	Electronic
Starting Method	Instant Start
Lamp Connection	Parallel
Input Voltage	277
Input Frequency	50/60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F40T8	1	40	32/00	0.17	44	1.06	15	0.95	1.7	2.41
* F40T8	2	40	32/00	0.27	74	0.95	10	0.98	1.7	1.28
F40T8	3	40	32/00	0.37	101	0.88	10	0.99	1.7	0.87

Wiring Diagram



Diag. 70

Insulate unused blue lead for 1000V

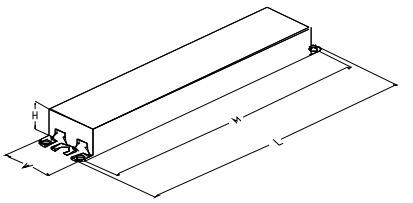
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.
Black	25L	63.5
White	25L	63.5
Blue	31R	78.7
Red	37L	94
Yellow	0	0
Gray	0	0
Violet	0	0

	in.	cm.
Yellow/Blue	0	0
Blue/White	0	0
Brown	0	0
Orange	0	0
Orange/Black	0	0
Black/White	0	0
Red/White	0	0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm

Revised 06/09/2003

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

(3) F40BX @277V

ADVANCE™

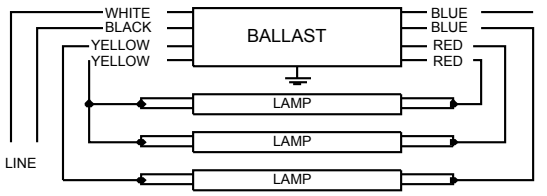
VOP-4P32-SC

Brand Name	OPTANIUM
Ballast Type	Electronic
Starting Method	Instant Start
Lamp Connection	Parallel
Input Voltage	277
Input Frequency	50/60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F40T8	2	40	32/00	0.30	81	1.03	10	0.98	1.7	1.27
* F40T8	3	40	32/00	0.38	108	0.93	10	0.98	1.7	0.86

Wiring Diagram



Diag. 71

Insulate unused blue lead for 1000V

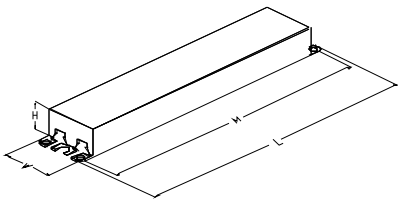
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.
Black	25L	63.5
White	25L	63.5
Blue	31R	78.7
Red	31R	78.7
Yellow	39L	99.1
Gray		0
Violet		0

	in.	cm.
Yellow/Blue		0
Blue/White		0
Brown		0
Orange		0
Orange/Black		0
Black/White		0
Red/White		0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm

Revised 04/28/2005

Data is based upon tests performed by Advance Transformer in a controlled environment and representative of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice. All specifications are nominal unless otherwise noted.

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

(4) F40BX @277V

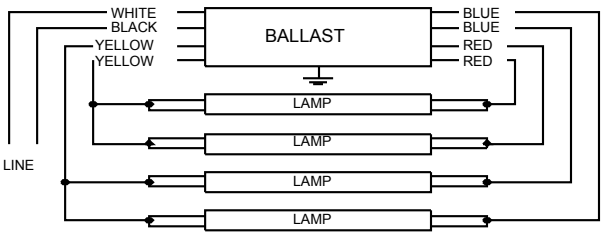
VOP-4P32-LW-SC

Brand Name	OPTANIUM
Ballast Type	Electronic
Starting Method	Instant Start
Lamp Connection	Parallel
Input Voltage	277
Input Frequency	50/60 HZ
Status	Active

Electrical Specifications

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F40T8	1	40	32/00	0.16	42	1.00	20	0.96	1.7	2.38
F40T8	2	40	32/00	0.26	71	0.90	10	0.98	1.7	1.27
F40T8	3	40	32/00	0.35	95	0.82	10	0.99	1.7	0.86
* F40T8	4	40	32/00	0.41	116	0.89	10	0.99	1.7	0.77

Wiring Diagram



Diag. 66

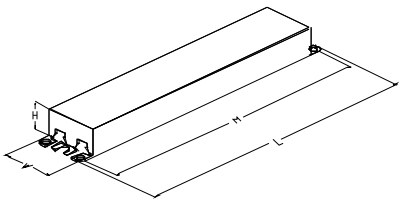
The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.
Black	25L	63.5
White	25L	63.5
Blue	31R	78.7
Red	31R	78.7
Yellow	39L	99.1
Gray		0
Violet		0

	in.	cm.
Yellow/Blue		0
Blue/White		0
Brown		0
Orange		0
Orange/Black		0
Black/White		0
Red/White		0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm

Revised 06/05/2003

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

C2642UNV*xxx*

(1) CFL26WTRT @277V,
(1) CFL32WTRT @277V,
(1),(2) CFL26WQ @277V

APPLICATION and PERFORMANCE SPECIFICATION

Description: Electronic compact fluorescent ballast(s) for (1) CFM42W/GX24q or (1) CFTR32W/GX24q or (2/1) CFQ/TR26W/GX24q or (2/1) FT24W/2G11 or (1) CFS28W/GR10q (2D) 4-pin lamps or (1) FC9T5-22W or (1) FC12T5-40W or (1) CFS38W/GR10q or (1) CFM36W/2G10

- Line Voltage: 120vac to 277vac, ±10%, 50-60Hz
- High Power Factor
- Programmed Rapid Start
- Series Lamp Connection

Model	Line Volts	Lamp Type	Lamp #	Input Watts*	Nominal Line Amps	Ballast Factor	Power Factor	THD	Crest Factor
C2642UNV	120	CFQ/TR26W	2	56	0.47	.98	> 0.98	< 10%	<1.5
	277	CFQ/TR26W	2	56	0.21	.98	> 0.98	< 10%	<1.5
C2642UNV	120	CFQ/TR26W	1	28	0.25	1.02	> 0.98	< 10%	<1.5
	277	CFQ/TR26W	1	28	0.11	1.02	> 0.98	< 10%	<1.5
C2642UNV	120	CFM42W	1	48	0.41	.98	> 0.98	< 10%	<1.5
	277	CFM42W	1	48	0.18	.98	> 0.98	< 10%	<1.5
C2642UNV	120	CFTR32W	1	36	0.30	1.00	> 0.98	< 10%	<1.5
	277	CFTR32W	1	36	0.13	1.00	> 0.98	< 10%	<1.5
C2642UNV	120	FT24W/2G11	2	52	0.45	.85	> 0.95	< 10%	<1.6
	277	FT24W/2G11	2	52	0.20	.85	> 0.95	< 10%	<1.6
C2642UNV	120	FT24W/2G11	1	30	0.26	.90	> 0.95	< 10%	<1.6
	277	FT24W/2G11	1	30	0.11	.90	> 0.95	< 10%	<1.6
C2642UNV	120	CFS28W/GR10q	1	31	0.27	.95	> 0.95	< 10%	<1.6
	277	CFS28W/GR10q	1	31	0.12	.95	> 0.95	< 10%	<1.6
C2642UNV	120	FC9T5-22W	1	25	0.21	1.00	> 0.98	< 10%	<1.5
	277	FC9T5-22W	1	25	0.10	1.00	> 0.98	< 10%	<1.5
C2642UNV	120	FC12T5-40W	1	42	0.35	.98	> 0.98	< 10%	<1.5
	277	FC12T5-40W	1	42	0.16	.98	> 0.98	< 10%	<1.5
C2642UNV	120	CFS38W/GR10q	1	33	0.27	.80	> 0.95	< 10%	<1.6
	277	CFS38W/GR10q	1	33	0.12	.80	> 0.95	< 10%	<1.6
C2642UNV	120	CFM36W/2G10	1	32	0.27	.98	> 0.98	< 10%	<1.7
	277	CFM36W/2G10	1	32	0.12	.98	> 0.98	< 10%	<1.7

* ANSI measured wattage; 25°C ambient; benchtop; lamps base up

Application and Performance Specification Information Subject to Change without Notification.

Performance:

- Meets ANSI Standard C82.11
- Meets FCC Part 18 (Non-Consumer), Limits for EMI/RFI
- Operating Frequency Range: Above 60 kHz
- **Auto-Reset Shutdown Circuit** per NEMA Recommendations
  - Both lamps should be replaced at end of life
  - Lamp relights upon insertion in socket
- Suitable for use in air handling spaces when NEC wiring guidelines are followed
- ME version: Input Terminals L N G intended for one supply connection only

Safety:

- No PCB's
- UL listed (Class P)
  Type 1 Outdoor, Type CC, Type HL
- CSA Certified

Application:

- Minimum Starting Temperature: 0° F, -18° C
- Maximum Ambient Temperature: 122° F, 50° C
- Maximum Case Temperature (@ t_c): 167° F, 75° C
- Sound Rated: A
- Lead configuration:
  - ***xxx =*** SE - Side Exit (Also available with socket)
  - *or* BE - Bottom Exit
  - *or* BES - Bottom Exit with Studs (2" on center)
  - *or* ME - Multi-Exit Replacement Kit for Distribution
- Remote Mounting 12 feet
- Also operates on 125VDC input, (+)L (-)N

Physical Parameters

Overall Length:	4.94"
Width:	2.31"
Mounting:	4.61"
Height:	1.00"
Weight:	0.57 lbs
Qty/Carton:	20
Color:	SE-White BE/BES-Black ME-White
Can Material:	Metal

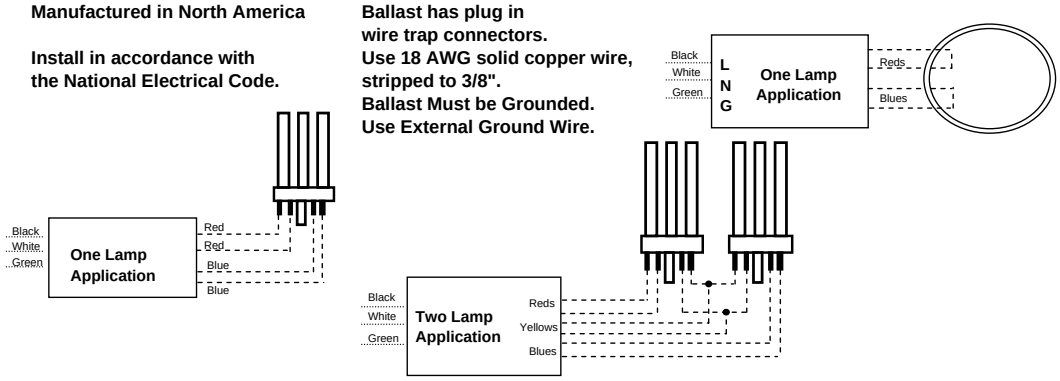
Warranty:

Universal Lighting Technologies warrants to the purchaser that each electronic ballast will be free from defects in material or workmanship for a period of 5 years from date of manufacture when properly installed and under normal conditions of use. Call **1-800-BALLASTx800** for technical assistance.

Manufactured in North America

Install in accordance with the National Electrical Code.

Ballast has plug in wire trap connectors.
Use 18 AWG solid copper wire, stripped to 3/8".
Ballast Must be Grounded.
Use External Ground Wire.



(2) CFL32WTRT @277V,
(1) CFL42WTRT @277V

C242UNVxxx

APPLICATION and PERFORMANCE SPECIFICATION

Description: Electronic compact fluorescent ballast(s) for (2/1)CFM42W/GX24q, (2)FC12T5-40W, (2/1)CFM36W/2G10, (2)CFTR32W/GX24q, (2)CFS28W/GR10q, (2)CFQ/TR26W/GX24q, (2)FT24W/G11, (2)FC9T5-22W, (1)FT55W/2G11, (1) CFS55W/GRY10q-3 (1&1)FC9T5-22W & FC12T5-40W, (1)CFM57W/GX24q 4-pin lamps, (1)FC12T5-55W, (1)CFM70W/Gx24q, (2/1) FT36W/2G11

- Line Voltage: 120vac to 277vac, ±10%, 50-60Hz
- High Power Factor
- Programmed Rapid Start
- Series Lamp Connection

Model	Line Volts	Lamp Type	Lamp #	Input Watts*	Line Amps	Ballast Factor	Power Factor	THD	Crest Factor
C242UNVxxx	120	CFM42W	2	91	0.76	.98	> 0.98	< 10%	<1.6
	277		2	90	0.32	.98	> 0.98	< 10%	<1.6
C242UNVxxx	120	CFM42W	1	45	0.40	1.00	> 0.93	< 10%	<1.6
	277		1	45	0.18	1.00	> 0.93	< 10%	<1.6
C242UNVxxx	120	CFM57W	1	58	0.52	1.00	> 0.98	< 10%	<1.6
	277		1	57	0.23	1.00	> 0.98	< 10%	<1.6
C242UNVxxx	120	CFM70W	1	73	0.61	1.00	> 0.98	< 10%	<1.6
	277		1	72	0.27	1.00	> 0.95	< 10%	<1.6
C242UNVxxx	120	FC12T5-40W	2	80	0.65	.98	> 0.98	< 10%	<1.6
	277		2	79	0.30	.98	> 0.98	< 10%	<1.6
C242UNVxxx	120	CFM36W/2G10	2	68	0.52	.90	> 0.95	< 10%	<1.7
	277		2	67	0.23	.90	> 0.95	< 10%	<1.7
C242UNVxxx	120	CFM36W/2G10	1	33	0.28	.98	> 0.99	< 15%	<1.7
	277		1	33	0.14	.98	> 0.90	< 15%	<1.7
C242UNVxxx	120	CFTR32W	2	69	0.58	1.00	> 0.98	< 10%	<1.6
	277		2	67	0.26	1.00	> 0.98	< 10%	<1.6
C242UNVxxx	120	CFS28W	2	64	0.54	1.00	> 0.97	< 10%	<1.6
	277		2	63	0.24	1.00	> 0.97	< 10%	<1.6
C242UNVxxx	120	CFQ/TR26W	2	56	0.46	1.02	> 0.95	< 10%	<1.6
	277		2	55	0.22	1.02	> 0.95	< 10%	<1.6
C242UNVxxx	120	FT36W/2G11	2	64	0.57	.83	> 0.99	< 10%	<1.7
	277		2	64	0.25	.83	> 0.97	< 10%	<1.7
C242UNVxxx	120	FT24W/2G11	2	51	0.43	1.02	> 0.95	< 10%	<1.7
	277		2	50	0.19	1.02	> 0.95	< 10%	<1.7
C242UNVxxx	120	FT55W/2G11	1	46	0.38	.83	> 0.99	< 10%	<1.7
	277		1	46	0.17	.83	> 0.95	< 10%	<1.7
C242UNVxxx	120	FC9T5-22W	2	50	0.42	1.05	> 0.95	< 10%	<1.7
	277		2	50	0.19	1.05	> 0.95	< 10%	<1.7
C242UNVxxx	120	FC9T5-22W & FC12T5-40W	1 & 1	66	0.54	.98	> 0.97	< 10%	<1.7
	277			64	0.24	.98	> 0.97	< 10%	<1.7
C242UNVxxx	120	FC12T5-55W	1	44	0.37	.83	> 0.99	< 10%	<1.7
	277		1	43	0.17	.83	> 0.93	< 10%	<1.7
C242UNVxxx	120	FT36W/2G11	1	34	0.29	.88	> 0.99	< 10%	<1.7
	277		1	34	0.14	.88	> 0.90	< 20%	<1.7
C242UNVxxx	120	CFS55W/GRY10q-3	1	34	0.28	.55	> 0.99	< 10%	<1.7
	277		1	34	0.14	.55	> 0.90	< 20%	<1.7

* ANSI measured wattage; 25°C ambient; benchtop; lamps base up

Application and Performance Specification Information Subject to Change without Notification

Performance:
- Meets ANSI Standard C82.11
- Meets FCC Part 18 (Non-Consumer), Limits for EMI/RFI
- Operating Frequency Range: 40-50 kHz
- **Auto-Reset Shutdown Circuit** per NEMA Recommendations
  - Both lamps should be replaced at end of life
  - Lamps relight upon insertion in socket
- Suitable for use in air handling spaces when NEC wiring guidelines are followed

Safety:
- No PCB's
- UL listed (Class P)
  - Type 1 Outdoor, Type CC, Type HL
- CSA Certified

Application:
- Minimum Starting Temperature: 0° F, -18° C
- Maximum Ambient Temperature: 122° F, 50° C
- Maximum Case Temperature (@ t_c): 167° F, 75° C
- Sound Rated: A
- Lead configuration:
  - ***xxx =*** SE - Side Exit
  - *or* BE - Bottom Exit
  - *or* BES - Bottom Exit with Studs (2" on center)
- Remote Mounting 12 feet
- 42W applications also operate on 125VDC input, (+)L (-)N

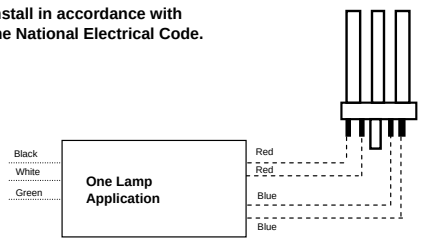
Physical Parameters

Overall Length:	4.94"
Width:	2.98"
Mounting:	4.61"
Height:	1.00"
Weight:	0.9 lbs.
Qty/Carton:	20
Color:	SE-White BE/BES-Black
Can Material:	Metal

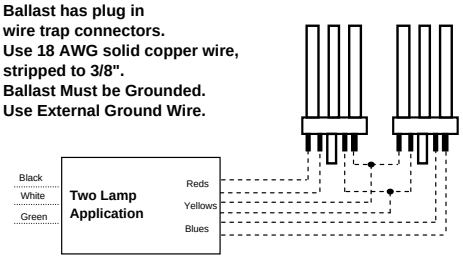
Warranty:
Universal Lighting Technologies warrants to the purchaser that each electronic ballast will be free from defects in material or workmanship for a period of 5 years from date of manufacture when properly installed and under normal conditions of use. Call **1-800-BALLASTx800** for technical assistance.

Manufactured in North America

Install in accordance with the National Electrical Code.



Ballast has plug in wire trap connectors. Use 18 AWG solid copper wire, stripped to 3/8". Ballast Must be Grounded. Use External Ground Wire.



(1),(2) CFL13WQ @277V

Universal Lighting Technologies

CT213UNVSE

APPLICATION and PERFORMANCE SPECIFICATION

Description: Electronic compact fluorescent ballast for (2/1) CFT13W/2GX7 4-pin Twin T4 lamps

- Line Voltage: 120vac to 277vac, ±10%, 50-60Hz
- High Power Factor
- Programmed Rapid Start
- Series Lamp Connection

Model	Line Volts	Lamp Type	Lamp #	Input Watts	Nominal Line Amps	Ballast Factor	Power Factor	THD	Crest Factor
CT213UNV	120	CFT13W	2	26	0.22	.98	> .98	< 10%	<1.6
	277	CFT13W	2	26	0.10	.98	> .98	< 10%	<1.6
CT213UNV	120	CFT13W	1	15	0.12	.98	> .98	< 10%	<1.6
	277	CFT13W	1	15	0.06	.98	> .97	< 12%	<1.6

Application and Performance Specification Information Subject to Change without Notification

Performance:
- Meets ANSI Standard C82.11
- Meets FCC Part 18 (Non-Consumer), Limits for EMI/RFI
- **Auto-Reset Shutdown Circuit** per NEMA Recommendations
  - Both lamps should be replaced at end of life
  - Lamp relights upon insertion in socket
- Suitable for use in air handling spaces when NEC wiring guidelines are followed

Safety:
- No PCB's
- UL listed (Class P)
  - Type 1 Outdoor, Type CC, Type HL
- CSA Certified

Application:

• Minimum Starting Temperature:	0° F, -18° C
• Maximum Ambient Temperature:	122° F, 50° C
• Maximum Case Temperature (@ tc):	167° F, 75° C
• Sound Rated:	A
• Lead configuration:	SE - Side Exit
• Remote Mounting:	12 feet
• Also operates on 125VDC input, (+)L (-)N	

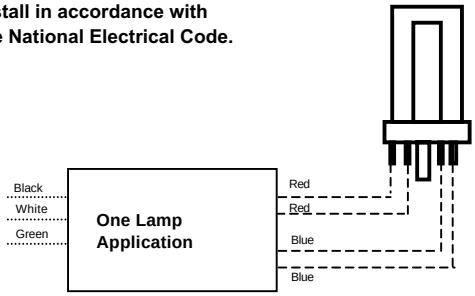
Physical Parameters

Length:	4.94"
Width:	2.31"
Mounting:	4.61"
Height:	1.00"
Weight:	0.57 lbs
Qty/Carton:	20
Color:	White
Can Material:	Metal

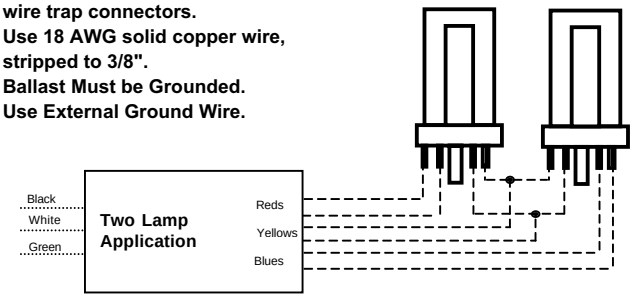
Warranty:
Universal Lighting Technologies warrants to the purchaser that each electronic ballast will be free from defects in material or workmanship for a period of 5 years from date of manufacture when properly installed and under normal conditions of use. Call **1-800-BALLASTx800** for technical assistance.

Manufactured in North America

Install in accordance with the National Electrical Code.



Ballast has plug in wire trap connectors.
Use 18 AWG solid copper wire, stripped to 3/8".
Ballast Must be Grounded.
Use External Ground Wire.



(2) CFL18WQ @277V

<10% THD Electronic T4 Compact Fluorescent Systems

QUICKTRONIC® CF – UNIVERSAL

Professional Series

Lamp/Ballast Guide

Primary Systems

13W T4 – DULUX D/E, T/E
1-lamp or 2-lamp
QTP1/2x13CF/UNV

18W T4 – DULUX D/E, T/E
1-lamp or 2-lamp
QTP1/2x18CF/UNV

26W T4 – DULUX D/E, T/E
1-lamp QTP2x26CF/UNV
QTP1/2xCF/UNV
2-lamp QTP2x26CF/UNV
QTP1/2xCF/UNV

32 or 42W T4 – DULUX T/E
1-lamp QTP2x26CF/UNV
QTP1/2xCF/UNV
2-lamp QTP2x26/32/42CF/UNV

57W or 70W T4 – DULUX T/E
1-lamp QTP1x57CF/UNV

For other lamp types, refer to the Performance Guide section on the next page.

Key System Features

- Universal Input Voltage
- PROStart® Ballasts
- QUICKSENSE® Ballast Technlgy.
- High Power Factor
- Low Harmonic Distortion
- Small size and lightweight
- Metal or plastic enclosure
- Four mounting styles
- UL, CSA, FCC
- QUICK 60+ warranty

Application Information

SYLVANIA QUICKTRONIC CF is ideally suited for:

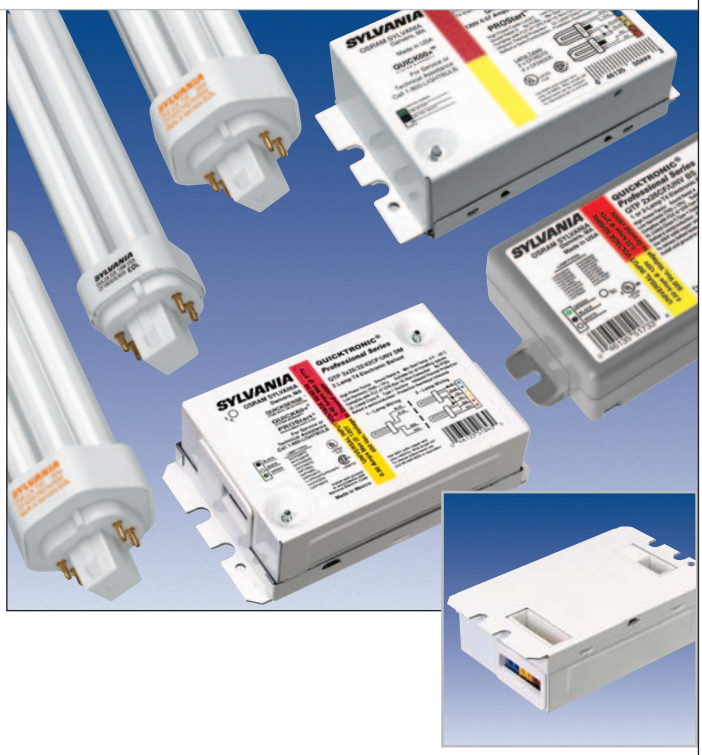
- Recessed Downlights
- Wall Sconces
- Ceiling Fixtures
- Commercial
- Retail, Hospitality, Institutional

SYLVANIA QUICKTRONIC CF operates DULUX® D/E and T/E lamps with full lumen output and optimal system performance.

QUICKTRONIC CF features four mounting styles of low profile, lightweight enclosures to provide simple assembly for any fixture application. Quick Mount, our distinctive snap-and-lock design, speeds assembly by eliminating the use of mounting screws.

Universal Input Voltage (120–277V) and multi-lamp multi-watt capability allow for fewer SKUs to support a wide range of applications.

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



System Information

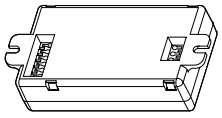
PROStart® programmed rapid start is the optimum starting method, providing up to 100,000 switching cycles for use on occupancy sensors and building control systems.

QUICKSENSE® end of lamp life sensing technology helps to protect against overheated bases and sockets, as well as cracking of the glass wall. QUICKSENSE ballast technology uses dynamic end-of-lamp-life sensing to avoid false shutdowns caused by some static sensing methods and will auto-reset when the end-of-life lamps are replaced with new ones.

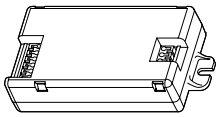
QUICKTRONIC CF comes with wire-trap connectors for quick and easy installation.

A complete OSRAM SYLVANIA System Performance Guide showing performance characteristics of lamps and ballasts is available upon request.

Plastic Enclosure Styles (S)

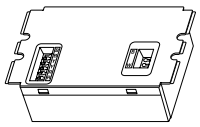


BS = Bottom Mount for recessed downlight fixtures

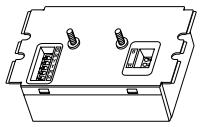


TS = Top Mount for ceiling and wall sconce installation

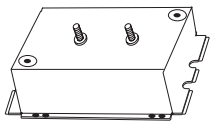
Metal Enclosure Styles (M)



BM = Bottom Mount for recessed downlight fixtures



PM = Bottom Mount with PEM studs for recessed downlight fixtures



TM = Top Mount with PEM studs for ceiling and wall sconce installation

CF UNIVERSAL
Normal Ballast Factor

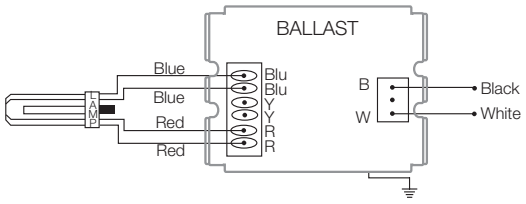
<10% THD Electronic T4 Compact Fluorescent Systems

Item Number	Description[3]	Input Voltage (VAC)	Input Current (AMPS)	Lamp[1] Type	Rated[2] Lumens (lm)	No. of Lamps	Ballast Factor (BF)	System Lumens	Input Power (Watts)	System Efficacy (lm/W)
51718	QTP 1/2x13CF/UNV BS	120-277	0.25/0.11	13W DD/E,T/E	900	1	1.00	900	16	56
51748	QTP 1/2x13CF/UNV TS			13W DD/E,T/E	900	2	1.00	1800	29	62
51723	QTP 1/2x18CF/UNV BS	120-277	0.32/0.14	18W DD/E,T/E	1200	1	1.00	1200	20	60
51753	QTP 1/2x18CF/UNV TS			18W DD/E,T/E	1200	2	1.00	2400	38	63
51733	QTP 2x26CF/UNV BS	120-277	0.50/0.22	26W DD/E,T/E	1800	1	1.00	1800	28	64
51763	QTP 2x26CF/UNV TS			26W DD/E,T/E	1800	2	1.00	3600	54	67
				32W DT/E	2400	1	0.98	2350	35	67
				42W DT/E	3200	1	1.00	3200	45	71
51738	QTP 1/2xCF/UNV BM	120-277	0.57/0.25	26W DD/E,T/E	1800	1	1.02	1830	28	65
51798	QTP 1/2xCF/UNV PM			26W DD/E,T/E	1800	2	1.02	3670	57	64
51768	QTP 1/2xCF/UNV TM			32W DT/E	2400	1	0.97	2330	36	65
				42W DT/E	3200	1	1.00	3200	46	70
51743	QTP 2x26/32/42CF/UNV BM	120-277	0.90/0.40	26W DT/E	1800	2	1.02	3670	54	68
51803	QTP 2x26/32/42CF/UNV PM			32W DT/E	2400	2	0.96	4600	69	67
51773	QTP 2x26/32/42CF/UNV TM			42W DT/E	3200	2	0.95	6080	94	65
51740	QTP 1x57CF/UNV BM	120-277	0.53/0.23	57W DT/E	4300	1	1.00	4300	62	69
51800	QTP 1x57CF/UNV PM		0.57/0.25	70W DT/E	5200	1	0.92	4780	71	67

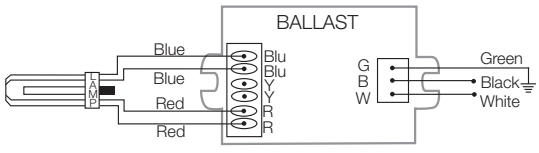
1 Also compatible with other manufacturers' equivalent 4 pin lamp types that meet ANSI standards.
2 Rated lamp lumens and performance data based on DULUX T/E series 4 pin lamps.
3 Data is for all three models within the brackets. The maximum input current is shown for maximum input power.
4 *Discontinued*: 51778 QTP 1/2x13CF/UNV QS, 51783 QTP 1/2x18CF/UNV QS, 51793 QTP 2x26CF/UNV QS

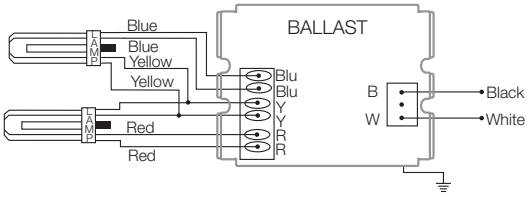
COMING ATTRACTIONS: Dual Entry: QTP2x26/32/42CF/UNV DM (51843), QTP2x26/32/42CF/UNV DM PEM (51863) and QTP2x57/CF/UNV DM (51745) , QTP2x57/CF/UNV DM PEM (51805) available Q1 2006.

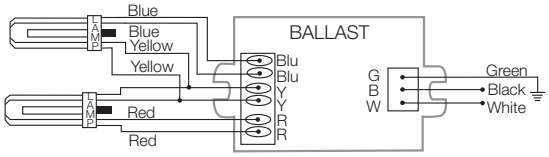
Metal "M" Case



Plastic "S" Case







Dimensions:
Metal "M" case: 4.95" L x 2.93" W x 1.35" H
Plastic "S" case: 4.95" L x 2.37" W x 1.10" H
Mounting: Utilize flanges (4.57" L), or (2) #8-32 x 0.375" Long PEM studs on 2" centers

Wiring:
Push-in connectors (no leads provided)
Use 18AWG solid copper wire only

Packaging:
Quantity: 20 pieces for -BS, -TS and -BM
18 pieces for -PM and -TM

Weight: 0.40 lbs ea. (Plastic "S" case)
0.90 lbs ea. (Metal "M" case)

* See the SYLVANIA QUICKTRONIC Electronic Ballast Technology & Specification Guide (ECS-ELECTRONIC) for additional information.
* See wiring diagrams for proper installation.
5 Operation below 50°F may affect light output or lamp operation – see Low Temperature Starting definition.
6 Typically 6 ft. with suitable ground plane, but varies by model and application – please contact ECS Application Engineering for information on longer applications.

Item Number ——— **51743 QTP 2 x 26/32/42 CF/UNV BM** ——— Case Type (Mounting Style)
QUICKTRONIC PROFESSIONAL ——— Line Voltage
Number of Lamps (1, 2) ——— Primary Lamp Wattage

Performance Guide

QTP 2x26CF/UNV models also operates:
1-lamp CF28/2D, CF38/2D, FPC40/T5, FT40DL

1- or 2-lamp FPC22/T5, FT24DL, FT24DF

2-lamp CF13DSE, FT18DL, FT18DF, CF21/2D

QTP 2x26/32/42CF/UNV models also operates:
2-lamp FT36DL, FT40DL, FPC40T5

1+1 FPC22/T5 / FPC40/T5

Specifications*

Starting Method: Programmed Rapid-Start
Circuit Type: Series
Lamp Frequency: > 40KHz
Lamp CCF: Less than 1.7
Starting Temp: –5°F/–20°C min.[5]
Input Frequency: 50/60 Hz
Low THD: < 10%
Power Factor: > 98%
Voltage Range: 108–305V
UL Listed Class P, Type 1 Outdoor
CSA or C/UL Certified
75°C Max Case Temp. (5 yr. warranty)
80°C Max Case Temp. (3 yr. warranty)
FCC 47CFR Part 18 Non-Consumer
Sound Rated A
ANSI C62.41 Cat. A Transient Protection
Dynamic End-of-Lamp-Life Sensing
Remote Mounting Capability[6]

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.

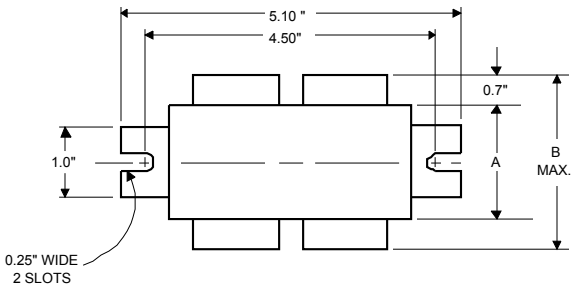
(1) 70W MH @120V

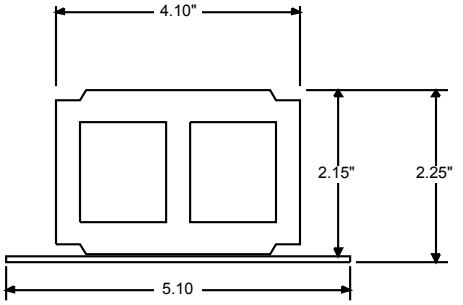
Metal Halide Lamp Ballast

Catalog Number 71A5205P
For 70W M98
60 Hz HX-PFC
Status: Active

DIMENSIONS AND DATA

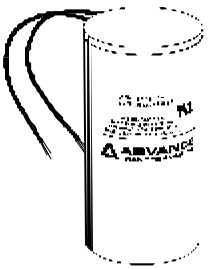
2 X 4 CORE





INPUT VOLTS		120					
CIRCUIT TYPE	HX-PFC						
POWER FACTOR (min)	87%						
REGULATION							
Line Volts	±5%						
Lamp Watts	±10%						
LINE CURRENT (Amps)							
Operating		0.85					
Open Circuit		1.40					
Starting		1.00					
UL TEMPERATURE RATINGS							
Insulation Class	H(180°C)						
Coil Temperature Code	1029	B					
MIN. AMBIENT STARTING TEMP.	-20°F or -30°C						
NOM. OPEN CIRCUIT VOLTAGE	255						
INPUT VOLTAGE AT LAMP DROPOUT		90					
INPUT WATTS	94						
RECOMMENDED FUSE (Amps)		4					
CORE and COIL							
Dimension (A)	1.50						
Dimension (B)	2.65						
Weight (lbs.)	3.5						
Lead Lengths	12"						
CAPACITOR REQUIREMENT							
Microfarads	36.0						
Volts (min.)	120						
Fault Current Withstand (amps)							
60 Hz TEST PROCEDURES (Refer to Advance Test Procedure for HID Ballasts - Form 1270)							
High Potential Test (Volts)							
1 minute	2000						
2 seconds	2500						
Open Circuit Voltage Test (Volts)	230-280						
Short-Circuit Current Test (Amps)							
Secondary Current							
Input Current	0.85-1.25	0.75 1.15	-	-	-	-	

Capacitor: 7C360M12



Capacitance: 36
Dia/Oval Dim: 1.75
Height: 3.75
Temp Rating: 105°C

Wiring Diagram:

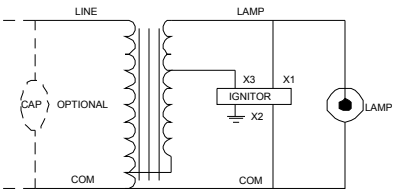
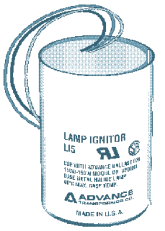


Fig. F

U.L. RECOGNIZED

Ignitor: LI533-H4



Ballast to Lamp Distance (BTL) = 10 feet
Temp Rating: 105°C

Ordering Information

Order Suffix	Description
500D.	Ballast With Ignitor and Dry Film Capacitor
500D.P	Thermally Protected Ballast, Ignitor and Dry Film Cap
510D.	Ballast w/Welded Bracket, Ignitor, & Dry Film Capacitor
510D.P	Thermally Protected Ballast w/ Welded Bracket, Ignitor and Dry Film Capacitor
600.	Ballast and Ignitor, No Capacitor
600.P	Thermally Protected Ballast with Ignitor, No Capacitor
610.	Ballast with Welded Bracket and Ignitor, No Capacitor
610.P	Thermally Protected Ballast w/Welded Bracket, Ignitor, No Capacitor

Data is based upon tests performed by Advance Transformer in a controlled environment and representitive of relative performance.
Actual performance can vary depending on operating conditions. Specifications are subject to change without notice.

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

06/22/00

(1) 70W MH @277V

ADVANCE™

Metal Halide Lamp Ballast

Catalog Number 71A5237J
For 70W M98/M143
60 Hz R-HPF
Status: Active

DIMENSIONS AND DATA

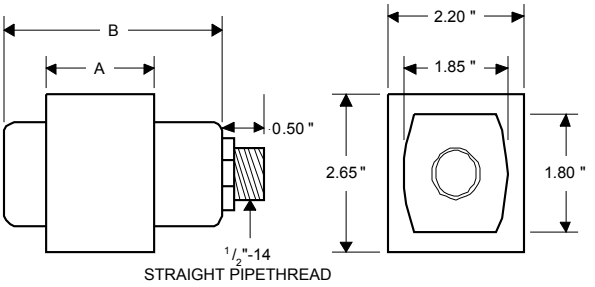
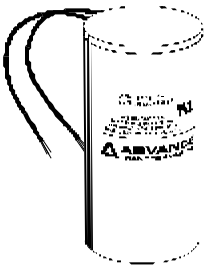


Fig. 11
J-Box Ballast

INPUT VOLTS		277					
CIRCUIT TYPE	R-HPF						
POWER FACTOR (min)	90%						
REGULATION							
Line Volts	±5%						
Lamp Watts	±10%						
LINE CURRENT (Amps)							
Operating		0.32					
Open Circuit		0.80					
Starting		0.50					
UL TEMPERATURE RATINGS							
Insulation Class	H(180°C)						
Coil Temperature Code	1029	C					
MIN. AMBIENT STARTING TEMP.	-20°F or -30°C						
NOM. OPEN CIRCUIT VOLTAGE	277						
INPUT VOLTAGE AT LAMP DROPOUT		190					
INPUT WATTS	85						
RECOMMENDED FUSE (Amps)		2					
CORE and COIL							
Dimension (A)	1.50						
Dimension (B)	3.50						
Weight (lbs.)	3.2						
Lead Lengths	12"						
CAPACITOR REQUIREMENT							
Microfarads							
Volts (min.)	8.0						
Fault Current Withstand (amps)	280						
60 Hz TEST PROCEDURES (Refer to Advance Test Procedure for HID Ballasts - Form 1270)							
High Potential Test (Volts)							
1 minute	2000						
2 seconds	2500						
Open Circuit Voltage Test (Volts)	260-290						
Short-Circuit Current Test (Amps)							
Secondary Current							
Input Current	0.85-1.25	0.20 0.45	-	-	-	-	

Capacitor: 7C080L33-R



Capacitance: 8
Dia/Oval Dim: 1.25
Height: 2.9
Temp Rating: 105°C

Wiring Diagram:

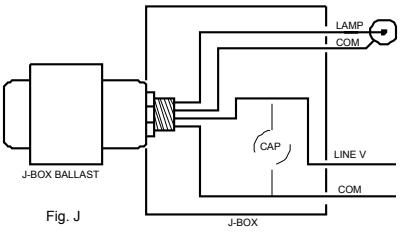


Fig. J

U.L. RECOGNIZED

Ignitor: INTEGRAL

An ignitor integral to the core and coil assembly is used to start the lamp.

Ballast to Lamp Distance (BTL) = 2 feet
Temp Rating: 125°C

Ordering Information

Order Suffix	Description
500DB	Ballast With Integral Igniter and Dry Film Capacitor
510DB	Ballast w/Welded Bracket, Integral Igniter & Dry Film Cap.
600B	Ballast and Integral Igniter, No Capacitor
610B	Ballast w/Welded Bracket and Integral Igniter, No Capacitor

Data is based upon tests performed by Advance Transformer in a controlled environment and representitive of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice.

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

09/27/01

(1) 100W MH @277V

Metal Halide Lamp Ballast

Catalog Number 71A5337J
For 100W M90/M140
60 Hz R-HPF
Status: Active

DIMENSIONS AND DATA

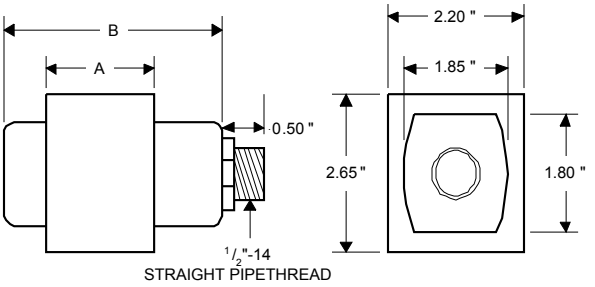
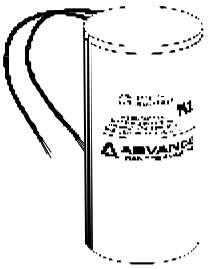


Fig. 11
J-Box Ballast

INPUT VOLTS		277					
CIRCUIT TYPE	R-HPF						
POWER FACTOR (min)	90%						
REGULATION							
Line Volts	±5%						
Lamp Watts	±10%						
LINE CURRENT (Amps)							
Operating		0.45					
Open Circuit		1.05					
Starting		0.70					
UL TEMPERATURE RATINGS							
Insulation Class	H(180°C)						
Coil Temperature Code	1029	C					
MIN. AMBIENT STARTING TEMP.	-20°F or -30°C						
NOM. OPEN CIRCUIT VOLTAGE	277						
INPUT VOLTAGE AT LAMP DROPOUT		190					
INPUT WATTS	118						
RECOMMENDED FUSE (Amps)		3					
CORE and COIL							
Dimension (A)	1.80						
Dimension (B)	3.90						
Weight (lbs.)	3.5						
Lead Lengths	12"						
CAPACITOR REQUIREMENT							
Microfarads							
Volts (min.)	10.0						
Fault Current Withstand (amps)	280						
60 Hz TEST PROCEDURES (Refer to Advance Test Procedure for HID Ballasts - Form 1270)							
High Potential Test (Volts)							
1 minute							
2 seconds	2000						
Open Circuit Voltage Test (Volts)	2500						
Short-Circuit Current Test (Amps)	260-290						
Secondary Current							
Input Current	1.05-1.55	0.25 0.35	-	-	-	-	

Capacitor: 7C100M33-R



Capacitance: 10
Dia/Oval Dim: 1.5
Height: 2.9
Temp Rating: 105°C

Ignitor: INTEGRAL

An ignitor integral to the core and coil assembly is used to start the lamp.

Ballast to Lamp Distance (BTL) = 2 feet
Temp Rating: 125°C

Wiring Diagram:

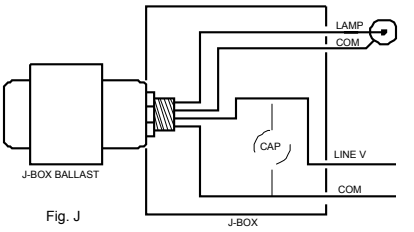


Fig. J

U.L. RECOGNIZED

Ordering Information

Order Suffix	Description
500DB	Ballast With Integral Igniter and Dry Film Capacitor
600B	Ballast and Integral Igniter, No Capacitor

Data is based upon tests performed by Advance Transformer in a controlled environment and representitive of relative performance. Actual performance can vary depending on operating conditions. Specifications are subject to change without notice.

ADVANCE TRANSFORMER CO.
O'HARE INTERNATIONAL CENTER · 10275 WEST HIGGINS ROAD · ROSEMONT, IL 60018
Customer Support/Technical Service: Phone: 800-372-3331 · Fax: 630-307-3071
Corporate Offices: Phone: 800-322-2086

08/12/04