Optanium® Step Dim

AmbiStar™

Mark 10® *Powerline*

Mark 7® *0-10V*

EssentiLine™ 0-10V

ROVR™

ELECTRONIC FLUORESCENT CONTROLLABLE BALLASTS

Contents

Select the control you need for your application from a list of manufacturers that offer compatible controls for the Mark 7 *0-10V* and Mark 10 *Powerline* electronic dimming ballasts, as well as, ROVR digital addressable ballasts. The manufacturers that offer Mark 10 *Powerline* controls have built the control according to our specifications to assure the system is compatible. Part numbers and/or brands are listed along with the manufacturer's phone number.

Note: Refer to pages 9-15 to 9-19 for ballast specifications.

Corporate Offices
(800) 322-2086

Customer Support/Technical Service
(800) 372-3331 • (+) 1 847 390-5000 (International)

Visit our web site at www.philips.com/advance

ELECTRONIC FLUORESCENT CONTROLLABLE BALLASTS

Fluorescent Ballasts - Electronic - Optanium® Step-Dim

High Efficiency Electronic Ballast with Step-Dim Capability for T5 Fluorescent Lamps.

Philips Advance Optanium ballasts with step-dim capability for T5 fluorescent lamps represent an affordable, energy-efficient, and versatile lighting solution designed to meet California's Title 24 requirements by allowing the end-user the option to dim the lights by up to 50%, thus reducing power consumption by up to 50%.

Operating from any line voltage switching device, the ballast's programmed-start circuitry provides extended lamp life in frequent switching applications like those associated with the use of occupancy sensors making this product the sustainable choice for many commercial applications.

Title 24 Energy Efficiency Standards for Residential and Non-residential Buildings
Meets California's Title 24 by allowing the end-user the option to dim the lights by 50%

Light levels are adjustable — 100% power, 50% power, and off
Dims all the lamps together providing equal burn hours on all lamps reducing uneven lifetimes as experienced with on-off switching systems

IntelliVolt multiple-voltage technology enables operation from 120 to 277V, 50/60 Hz
Allows for greater design flexibility while reducing SKU requirements

Lamp End-Of-Life (EOL) protection circuit
Removes power to the lamps upon lamp failure

For 28W Lamps

HIGH POWER FACTOR SOUND RATED A

Optanium Step-Dim Ballast

No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Max/Min		Full Light Output		Min. Starting Temp. (°F/°C)	Dim.	Wiring Dia.
					Input Power ANSI (Watts)	Ballast Factor	THD %	Line Current (Amps)			
F28T5 (28W)											
2	120-277	PS	Optanium	IOP-2S28-95-SC-SD	58/28	0.95/0.35	10	0.50	32/0	B	173
				IOP-2S28-115-SC-SD	71/35	1.15/0.48		0.60			

For fixed output version see page 1-37

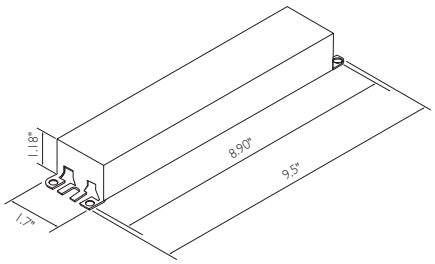
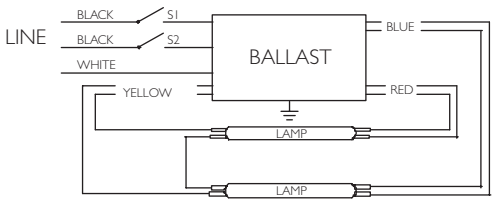


Fig. B



Diag. 173
Line (black) inputs must be connected to the same phase of the line voltage

Power Output	Position	
	S1	S2
100%	On	On
50%	On	Off
50%	Off	On
0%	Off	Off

Refer to pages 9-24 to 9-28 for lead lengths and shipping data

ELECTRONIC FLUORESCENT CONTROLLABLE BALLASTS

Electronic Fluorescent Ballasts - Dimming - AmbiStar™

Controllable Electronic Ballasts for 4-pin Compact Fluorescent Lamps

Today's fluorescent fixtures offer the opportunity for greater flexibility and energy savings for residential and hospitality settings than ever before by using Philips Advance AmbiStar electronic ballasts. These electronic ballasts for dimmable compact fluorescent lamps deliver warm, comfortable, and cost-effective solutions for such applications as downlighting, task, ambient, hallway, and staircase lighting.

AmbiStar dimming ballasts are designed to work with most incandescent dimmers,* so they are easy to install with new or existing dimming systems. Now you can create any ambiance with dimmable lighting and still enjoy the energy saving benefits of fluorescent lighting.

A single model operates one and two-lamp 26W models, one-lamp 32W models, and one-lamp 42W 4-pin compact fluorescent lamps.

* Consult control manufacturer for compatibility

Class B FCC EMI Rating
Requirement for EPA ENERGY STAR residential lighting fixtures

Title 24 Energy Efficiency Standards for Residential and Non-residential Buildings
For use in high frequency residential fixtures as stated in California's Title 24 requirements

Electronic circuitry
Enables ballasts to run cooler and operate quieter than magnetic alternatives

Dimming from 100% down to 15% of relative light output
Offers a large variety of end-user options

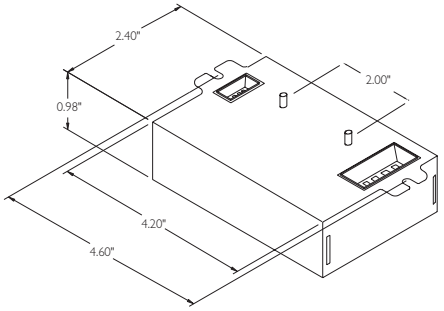
For 18 - 42W Lamps

HIGH POWER FACTOR SOUND RATED A

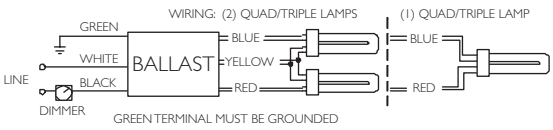
AmbiStar Electronic Dimming Ballast

No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Max/Min		Full Light Output		Min. Starting Temp. (°F/°C)	Dim.	Wiring Dia.
					Input Power ANSI (Watts)	Ballast Factor	THD %	Line Current (Amps)			
CFQ26W/G24q - 26W CFL Quad Tube Lamp (PL-C26W/4P, F26DBX/4P, CF26DD/E) CFTR26W/GX24q - 26W CFL Triple Tube Lamp (PL-T26W, F26TBX/4P, CF26DT/E)											
1	120	RS	AmbiStar	REB-2S26-M1-BS-DIM	27/9	0.85/0.15	150	0.23	50/10	Size 1	138
				REB-2S26-M1-LS-DIM							
2	120			REB-2S26-M1-BS-DIM	52/17			0.45			
				REB-2S26-M1-LS-DIM							
CFTR32W/GX24q - 32W CFL Triple Tube Lamp (PL-T32W, F32TBX/4P, CF32DT/E)											
1	120	RS	AmbiStar	REB-2S26-M1-BS-DIM	35/10	0.85/0.15	150	0.30	50/10	Size 1	138
				REB-2S26-M1-LS-DIM							
CFTR42W/GX24q - 42W CFL Triple Tube Lamp (PL-T42W, F42TBX/4P, CF42DT/E)											
1	120	RS	AmbiStar	REB-2S26-M1-BS-DIM	47/11	0.85/0.15	150	0.40	50/10	Size 1	138
				REB-2S26-M1-LS-DIM							

Some lamp manufacturers recommend burning in new lamps 100 hours at full light output before dimming. Consult lamp manufacturer.
Ballasts utilizing poke-in connectors can accept wire gauges from AWG 16 - 20.
Ballast dimmable from many incandescent or Mark 10 *Powerline* dimmers. Consult control manufacturer for compatibility.



Size 1 Enclosure
Studs for -BS models only



Diag. 138

ONLY USE 4-PIN RAPID-START SOCKETS

Refer to pages 1-13 & 1-14 for information on remote/tandem wiring and lead length extension
Refer to pages 9-24 to 9-28 for lead lengths and shipping data

ELECTRONIC FLUORESCENT CONTROLLABLE BALLASTS

Fluorescent Ballasts – Electronic - EssentiaLine™

EssentiaLine Electronic Dimming Ballasts for Linear Fluorescent T8 Lamps

The Philips Advance EssentiaLine *0-10V* dimmable ballasts are an alternative-feature set ballast for 0-10V dimming systems. With lower up-front costs than other 0-10V systems, it provides the same energy savings as these solutions over the life of the system. These ballasts optimize the benefits of such popular sustainable lighting techniques as daylight harvesting, occupancy sensors, and load shedding to satisfy the need for a more affordable and flexible controllable lighting solution.

These ballasts offer separate control leads for use with a wide array of controllers, including occupancy sensors, daylight harvesting controls, and building management systems from more than 30 control manufacturers. In addition, the 0 -10V operation of the ballast reduces the number of controls required and allows for a single control to operate across multiple branch circuits.

These ballasts are ideal to optimize energy savings in such applications as offices, conference rooms, educational facilities, hotels, and retail as well as other new construction or retrofit installations. For a complete list of compatible controls, visit www.philips.com/advance.

Meets NEMA Premium® and CSA Energy Efficiency requirements
Helps your efforts to create a more sustainable workplace

Continuous dimming range from 100% light output down to 20%
Provides task appropriate comfort only where necessary to increase potential energy savings while supporting LEED performance standards

Programmed start operation
Potentially extends lamp life in frequent switching applications such as occupancy sensors and daylight

NEMA Premium

The following ballasts meet NEMA Premium®:
ILV-2S32-SC, ILV-4S32-G

As a licensee in the NEMA Premium Ballast Program, Philips Lighting Electronics has determined that these products meet the NEMA Premium specification for premium energy efficiency.

Note: Easy way to test dimming functionality is to 'short' together the violet and grey control wires. If the lamps go to full dim, then the ballast is dimming fine.

For 17 - 32W Lamps

EssentiaLine Electronic Dimming Ballast

No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Max/Min		Full Light Output		Min. Starting Temp. (°F/°C)	Dim.	Wiring Dia.
					Input Power ANSI (Watts)	Ballast Factor	THD %	Line Current (Amps)			
F17T8, FBO16T8 (17W)											
2	120-277	PS	EssentiaLine	ILV-2S32-SC	32/13	0.88/0.20	20	0.25 - 0.11	50/10	B	175A
F25T8, FBO24T8 (25W)											
2	120-277	PS	EssentiaLine	ILV-2S32-SC	44/15	0.88/0.20	20	0.37 - 0.16	50/10	B	175A
F32T8, FBO31T8, F32T8/U6 (32W)											
2	120-277	PS	EssentiaLine	ILV-2S32-SC	59/18	0.88/0.20	20	0.50 - 0.21	50/10	B	175A
4				ILV-4S32-G	116/40			1.00 - 0.43		G	176

Some lamp manufacturers recommend burning in new lamps 100 hours at full light output before dimming. Consult lamp manufacturer.

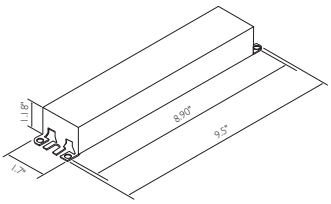


Fig. B

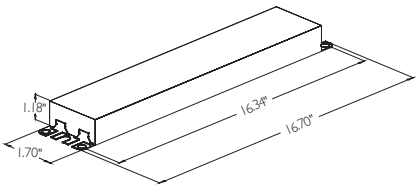
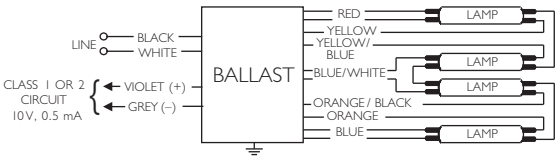


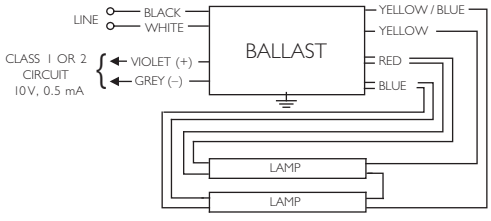
Fig. G



Diag. 176

EssentiaLine Ballast 0-10V DC Control Wiring (Grey and Violet)

Wire Size	Maximum Length (Ft.)
AWG-16	800
AWG-18	500
AWG-20	320
AWG-22	200
AWG-24	120



Diag. 175A

ONLY USE RAPID-START SOCKETS

Refer to pages 1-13 & 1-14 for information on remote/tandem wiring and lead length extension
Refer to pages 9-24 to 9-28 for lead lengths and shipping data

Fluorescent Ballasts - Dimming - Mark 10® *Powerline*

Mark 10® *Powerline* Electronic Dimming Ballasts for Linear Fluorescent and 4-Pin Compact Fluorescent Lamps

For companies looking to make their fixed-output linear T8, 4-pin CFL, and T5/HO fluorescent systems more cost effective and sustainable, Mark 10 *Powerline* ballasts provide an easy solution without the need for additional control leads. Simply, replace the ballast, replace the switch, dim the lights, that is all it takes.

It's that easy to bring the convenience and flexibility of fluorescent dimming to conference rooms, private offices, auditoriums, architectural cove lighting – anywhere dimming is required.

Available in linear T8, 4-pin CFL, and T5/HO models
Making this ideal for a variety of applications

Full range continuous dimming (100% light output down to 5% - T5/HO to 1%)
Provides task appropriate comfort only where necessary to increase potential energy savings while supporting LEED performance standards

Programmed start operation
Potentially extends lamp life in frequent switching applications such as occupancy sensors and daylight harvesting

Input voltage to dimmer	Control Voltage to Ballast (from Dimmer)	
	Max Light Output	Min Light Output
120V	120V	56V
277V	277V	129V

NEMA Premium®

The following ballasts meet NEMA Premium®:
REZ-132-SC, REZ-2S32-SC, REZ-3S32-SC,
VEZ-132-SC, VEZ-2S32-SC, VEZ-3S32-SC

As a licensee in the NEMA Premium Ballast Program, Philips Lighting Electronics has determined that these products meet the NEMA Premium specification for premium energy efficiency.

For 18 - 70W Lamps

HIGH POWER FACTOR SOUND RATED A

Mark 10 Powerline Electronic Dimming Ballast

No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Max/Min Input Power ANSI (Watts)	Max/Min Ballast Factor	Full Light Output THD %	Full Light Output Line Current (Amps)	Min. Starting Temp. (°F/°C)	Dim.	Wiring Dia.
CFQ18W/G24q - 18W CFL Quad Tube Lamp (PL-C18W/4P, F18DBX/4P, CF18DD/E) CFTR18W/GX24q - 18W CFL Triple Tube Lamp (PL-T18W, F18TBX/4P, CF18DT/E)											
1	120	PS	Mark 10 *Powerline*	REZ-1Q18-M2-BS REZ-1Q18-M2-LD	22/7	1.00/0.05	10	0.18	50/10	Size 2	138
	277			VEZ-1Q18-M2-BS VEZ-1Q18-M2-LD				0.07			
2	120			REZ-2Q18-M2-BS REZ-2Q18-M2-LD	43/14			0.36			138
	277			VEZ-2Q18-M2-BS VEZ-2Q18-M2-LD				0.16			
CFQ26W/G24q - 26W CFL Quad Tube Lamp (PL-C26W/4P, F26DBX/4P, CF26DD/E) CFTR26W/GX24q - 26W CFL Triple Tube Lamp (PL-T26W, F26TBX/4P, CF26DT/E)											
1	120	PS	Mark 10 *Powerline*	REZ-1T42-M2-BS REZ-1T42-M2-LD **REZ-1T42-M2-LD-K**	31/8	1.00/0.05	10	0.26	50/10	Size 2	138
	277			VEZ-1T42-M2-BS VEZ-1T42-M2-LD **VEZ-1T42-M2-LD-K**				0.11			
2	120			REZ-2Q26-M2-BS REZ-2Q26-M2-LD **REZ-2Q26-M2-LD-K**	58/16			0.48			138
	277			VEZ-2Q26-M2-BS VEZ-2Q26-M2-LD **VEZ-2Q26-M2-LD-K**				0.21			
CFTR32W/GX24q - 32W CFL Triple Tube Lamp (PL-T32W, F32TBX/4P, CF32DT/E)											
1	120	PS	Mark 10 *Powerline*	REZ-1T42-M2-BS REZ-1T42-M2-LD **REZ-1T42-M2-LD-K**	38/9	1.00/0.05	10	0.32	50/10	Size 2	138
	277			VEZ-1T42-M2-BS VEZ-1T42-M2-LD **VEZ-1T42-M2-LD-K**				0.14			
2	120			REZ-2T42-M3-BS REZ-2T42-M3-LD	76/20			0.64		Size 3	138
	277			VEZ-2T42-M3-BS VEZ-2T42-M3-LD				0.28			
CFTR42W/GX24q - 42W CFL Triple Tube Lamp (PL-T42W, F42TBX/4P, CF42DT/E)											
1	120	PS	Mark 10 *Powerline*	REZ-1T42-M2-BS REZ-1T42-M2-LD **REZ-1T42-M2-LD-K**	49/10	1.00/0.05	10	0.41	50/10	Size 2	138
	277			VEZ-1T42-M2-BS VEZ-1T42-M2-LD **VEZ-1T42-M2-LD-K**				0.18			
2	120			REZ-2T42-M3-BS REZ-2T42-M3-LD	98/20			0.82		Size 3	138
	277			VEZ-2T42-M3-BS VEZ-2T42-M3-LD				0.36			
CFTR57W/GX24q - 57W CFL Triple Tube Lamp (PL-T57W, F57QBX/4P, CF57DT/E)											
1	120	PS	Mark 10 *Powerline*	REZ-2T42-M3-BS REZ-2T42-M3-LD	66/18	1.00/0.05	10	0.55	50/10	Size 3	138
	277			VEZ-2T42-M3-BS VEZ-2T42-M3-LD				0.24			
CFTR70W/GX24q - 70W CFL Triple Tube Lamp (F70QBX/4P, CF70DT/E)											
1	120	PS	Mark 10 *Powerline*	REZ-2T42-M3-BS REZ-2T42-M3-LD	80/18	1.00/0.05	10	0.67	50/10	Size 3	138
	277			VEZ-2T42-M3-BS VEZ-2T42-M3-LD				0.29			

Refer to pages 1-13 & 1-14 for information on remote/tandem wiring and lead length extension
Refer to pages 2-10 for ballast dimensions and wiring diagram
Refer to pages 2-24 & 2-25 for compatible Mark 10 Powerline controls
Refer to pages 9-24 to 9-28 for lead lengths and shipping data

Note: Replacement/Retrofit Ballast Kits indicated by **Bold Type** with suffix **-K** are available to distributors only. Refer to page1-21 for details.
Some lamp manufacturers recommend burning in new lamps 100 hours at full light output before dimming. Consult lamp manufacturer.
Ballasts utilizing poke-in connectors can accept wire gauges from AWG 16 - 20.

ONLY USE 4-PIN RAPID-START SOCKETS

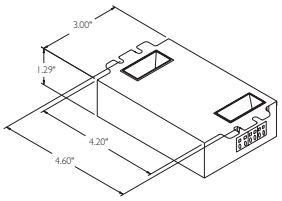
For 24 - 55W Lamps

HIGH POWER FACTOR SOUND RATED A

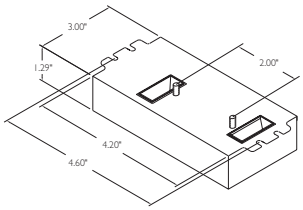
Mark 10 Powerline Electronic Dimming Ballast

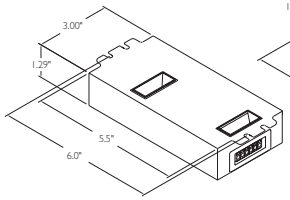
No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Max/Min Input Power ANSI (Watts)	Max/Min Ballast Factor	Full Light Output THD %	Full Light Output Line Current (Amps)	Min. Starting Temp. (°F/°C)	Dim.	Wiring Dia.
FT24W/2G11 - 24/27W Long Twin Tube Lamp (PL-L24W, F27BX/RS, FT24DL)											
2	120-277	PS	Mark 10 *Powerline*	IEZ-2S24-D	57/16	1.00/0.05	10	0.48-0.21	50/10	D	132
FT36W/2G11 - 36/39W Long Twin Tube Lamp (PL-L36W, F39BX/RS, FT36DL)											
1	120	PS	Mark 10 *Powerline*	REZ-1TTS40-SC	38/9	1.00/0.05	10	0.32	50/10	B	134
	277			VEZ-1TTS40-SC				0.14			
2	120			REZ-2TTS40-SC	75/16			0.64			132
	277			VEZ-2TTS40-SC				0.27			
FT40W/2G11/RS - 40W Long Twin Tube Lamp (PL-L40W, F40BX, FT40DL/RS)											
1	120	PS	Mark 10 *Powerline*	REZ-1TTS40-SC	41/10	1.00/0.05	10	0.32	50/10	B	134
	277			VEZ-1TTS40-SC				0.15			
2	120			REZ-2TTS40-SC	80/17			0.68			132
	277			VEZ-2TTS40-SC				0.30			
FT55W/2G11 - 55W Long Twin Tube Lamp (PL-L55W, F55BX, FT55DL)											
1	120	PS	Mark 10 *Powerline*	REZ-154	59/13	0.90/0.05	10	0.50	50/10	D	134
	277			VEZ-154				0.22			
2	120			REZ-2S54	114/24			0.96			132
	277			VEZ-2S54				0.42			

Burn in new lamps 100 hours at full light before dimming.
Ballasts utilizing poke-in connectors can accept wire gauge AWG 16-20.

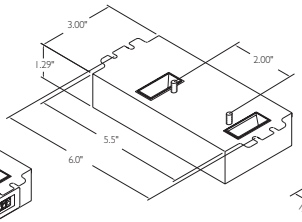


Size 2 Enclosure





Size 3 Enclosure
Dual connector for input only



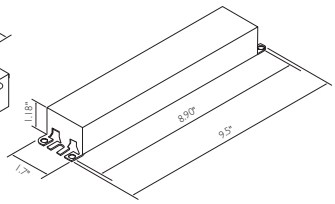
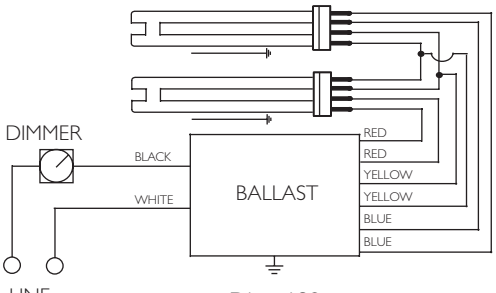
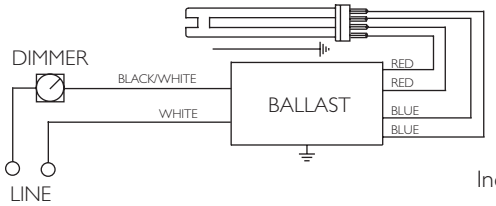


Fig. B



Diag. 132



Diag. 134

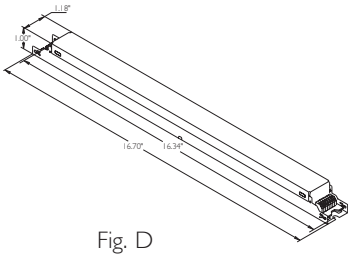
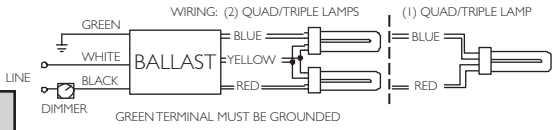


Fig. D
Includes connectors with no leads

ONLY USE RAPID-START SOCKETS

Refer to pages 1-13 & 1-14 for information on remote/tandem wiring and lead length extension
Refer to pages 2-24 & 2-25 for compatible Mark 10 Powerline controls
Refer to pages 9-24 to 9-28 for lead lengths and shipping data



Diag. 138

For 24 - 55W Lamps

HIGH POWER FACTOR SOUND RATED A

Mark 10 Powerline Electronic Dimming Ballast

No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Max/Min		Full Light Output		Min. Starting Temp. (°F/°C)	Dim.	Wiring Dia.
					Input Power ANSI (Watts)	Ballast Factor	THD %	Line Current (Amps)			
F24T5/HO (24W)											
2	120-277	PS	Mark 10 *Powerline*	IEZ-2S24-D	57/16	1.00/0.05	10	0.48-0.21	50/10	D	153
F54T5/HO/ES (49W)											
1	120	PS	Mark 10 *Powerline*	REZ-154	59/13	1.00/0.03	10	0.49	50/10	D	152
	277			VEZ-154				0.21			
2	120			REZ-2S54	117/24			0.98			153
	277			VEZ-2S54				0.42			
F54T5/HO (54W)											
1	120	PS	Mark 10 *Powerline*	REZ-154	63/13	1.00/0.03	10	0.53	50/10	D	152
	277			VEZ-154				0.23			
2	120			REZ-2S54	125/24			1.05			153
	277			VEZ-2S54				0.45			
FC12T5/HO (55W)											
1	120	PS	Mark 10 *Powerline*	REZ-154	59/13	0.90/0.03	10	0.50	50/10	D	152
	277			VEZ-154				0.22			
2	120			REZ-2S54	114/24			0.96			153
	277			VEZ-2S54				0.42			

Some lamp manufacturers recommend burning in new lamps 100 hours at full light output before dimming. Consult lamp manufacturer.
Ballasts utilizing poke-in connectors can accept wire gauge AWG 16-20.

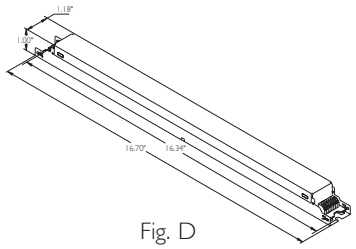
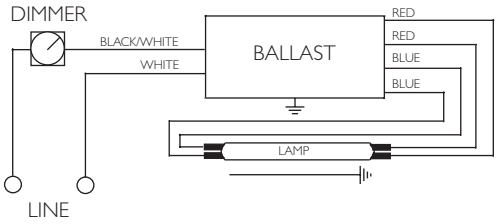
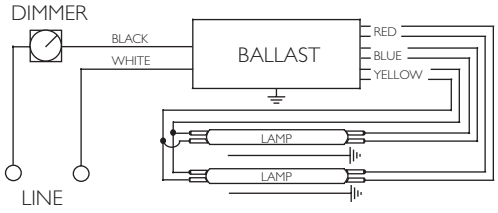


Fig. D
Includes connectors with no leads



Diag. 152



Diag. 153

ONLY USE RAPID-START SOCKETS

Refer to pages 1-13 & 1-14 for information on remote/tandem wiring and lead length extension
Refer to pages 2-24 & 2-25 for compatible Mark 10 Powerline controls
Refer to pages 9-24 to 9-28 for lead lengths and shipping data

For 17 - 32W Lamps

HIGH POWER FACTOR SOUND RATED A

Mark 10 Powerline *Electronic Dimming Ballast*

No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Max/Min Input Power ANSI (Watts)	Max/Min Ballast Factor	Full Light Output THD %	Full Light Output Line Current (Amps)	Min. Starting Temp. (°F/°C)	Dim.	Wiring Dia.
F17T8, FBO16T8 (17W)											
1	120	PS	Mark 10 *Powerline*	REZ-132-SC	24/7	1.05/0.05	10	0.20	50/10	B	152
	277			VEZ-132-SC				0.09			
2	120			REZ-2S32-SC	38/13			0.32			153
	277			VEZ-2S32-SC				0.14			
3	120			REZ-3S32-SC	56/18			0.47			155
	277			VEZ-3S32-SC				0.21			
F25T8, FBO24T8 (25W)											
1	120	PS	Mark 10 *Powerline*	REZ-132-SC	30/7	1.05/0.05	10	0.26	50/10	B	152
	277			VEZ-132-SC				0.11			
2	120			REZ-2S32-SC	55/13			0.46			153
	277			VEZ-2S32-SC				0.20			
3	120			REZ-3S32-SC	79/19			0.66			155
	277			VEZ-3S32-SC				0.29			
F32T8, FBO31T8, F32T8/U6 (32W)											
NEMA Premium 1	120	PS	Mark 10 *Powerline*	REZ-132-SC	35/9	1.00/0.05	10	0.29	50/10	B	152
	277			VEZ-132-SC				0.13			
NEMA Premium 2	120			REZ-2S32-SC	68/15			0.57			153
	277			VEZ-2S32-SC				0.25			
NEMA Premium 3	120			REZ-3S32-SC	100/20			0.86			155
	277			VEZ-3S32-SC				0.37			

Some lamp manufacturers recommend burning in new lamps 100 hours at full light output before dimming. Consult lamp manufacturer.

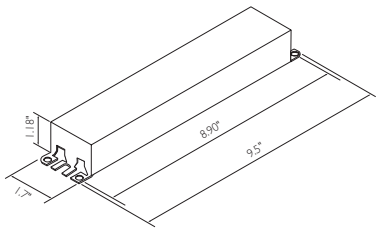
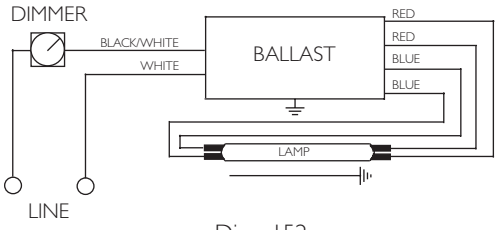
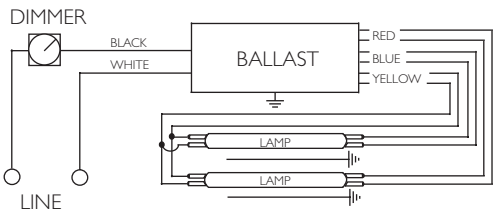


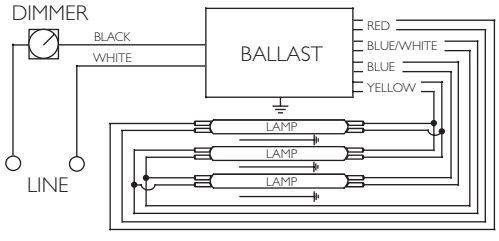
Fig. B



Diag. 152



Diag. 153



Diag. 155

ONLY USE RAPID-START SOCKETS

Refer to pages 1-13 & 1-14 for information on remote/tandem wiring and lead length extension
Refer to pages 2-24 & 2-25 for compatible Mark 10 Powerline controls
Refer to pages 9-24 to 9-28 for lead lengths and shipping data

Fluorescent Ballasts - Dimming - Mark 7® *0-10 V*

0-10V Electronic Dimming Ballasts for Linear Fluorescent and 4-Pin Compact Fluorescent Lamps

The Mark 7 *0–10V* series of dimmable electronic ballasts offer maximum versatility by incorporating separate control leads for use with a wide array of controllers, including occupancy sensors, daylight harvesting controls, and building management systems from more than 30 manufacturers.

When paired with linear fluorescent and 4-pin compact fluorescent lamps, Mark 7 *0–10V* ballasts optimize the benefits of such popular sustainable lighting techniques as daylight harvesting, occupancy sensors, and load shedding to satisfy the need for an affordable, flexible and versatile controllable lighting solution

Available in linear fluorescent and 4-pin compact fluorescent models
Making this ideal for a variety of applications

Full range continuous dimming (100% light output down to 5% - T5/HO to 1%)
Provides task appropriate comfort only where necessary to increase potential energy savings while supporting LEED performance standards

Programmed start operation
Potentially extends lamp life in frequent switching applications such as occupancy sensors and daylight harvesting

IntelliVolt® technology (120 - 277V, 50/60Hz)
Enhances accuracy and ease of ordering while reducing stocking/SKU requirements

NEMA Premium®

The following ballasts meet NEMA Premium®:
IZT-132-SC, IZT-2S32-SC, IZT-3S32-SC,
IZT-4S32, VZT-4S32-HL, VZT-4S32-G, VZT-4PSP32-G

As a licensee in the NEMA Premium Ballast Program, Philips Lighting Electronics has determined that these products meet the NEMA Premium specification for premium energy efficiency.

Note: Easy way to test dimming functionality is to 'short' together the violet and grey control wires. If the lamps go to full dim, then the ballast is dimming fine.

For 13 - 70W Lamps

HIGH POWER FACTOR SOUND RATED A

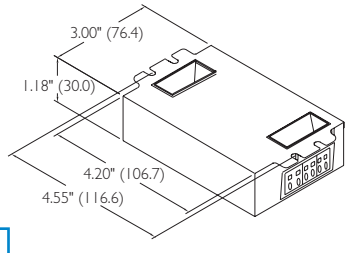
Mark 7 0-10V Electronic Dimming Ballast

No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Max/Min		Full Light Output		Min. Starting Temp. (°F/°C)	Dim.	Wiring Dia.
					Input Power ANSI (Watts)	Ballast Factor	THD %	Line Current (Amps)			
CFQ13W/G24q - 13W CFL Quad Tube Lamp (PL-C13W/4P, F13DBX/4P, CF13DD/E) CFTR13W/GX24q - 13W CFL Triple Tube Lamp (F13TBX/4P, CF13DT/E)											
1	120-277	PS	Mark 7 *0-10V*	IZT-2S26-M5-BS IZT-2S26-M5-LD	18/6	1.00/0.03	10	0.15-0.07	50/10	Size 5	166
2				IZT-2S26-M5-BS IZT-2S26-M5-LD	33/19			0.28-0.12			166
CFQ18W/G24q - 18W CFL Quad Tube Lamp (PL-C18W/4P, F18DBX/4P, CF18DD/E) CFTR18W/GX24q - 18W CFL Triple Tube Lamp (PL-T18W, F18TBX/4P, CF18DT/E)											
1	120-277	PS	Mark 7 *0-10V*	IZT-2S26-M5-BS IZT-2S26-M5-LD	23/7	1.00/0.03	10	0.19-0.09	50/10	Size 5	166
2				IZT-2S26-M5-BS IZT-2S26-M5-LD	41/11			0.34-0.15			166
CFQ26W/G24q - 26W CFL Quad Tube Lamp (PL-C26W/4P, F26DBX/4P, CF26DD/E) CFTR26W/GX24q - 26W CFL Triple Tube Lamp (PL-T26W, F26TBX/4P, CF26DT/E)											
1	120-277	PS	Mark 7 *0-10V*	IZT-2S26-M5-BS IZT-2S26-M5-LD	30/8	1.00/0.03	10	0.25-0.11	50/10	Size 5	166
2				IZT-2S26-M5-BS IZT-2S26-M5-LD	55/13			0.46-0.20			166
CFTR32W/GX24q - 32W CFL Triple Tube Lamp (PL-T32W, F32TBX/4P, CF32DT/E)											
1	120-277	PS	Mark 7 *0-10V*	IZT-2S26-M5-BS IZT-2S26-M5-LD	36/9	1.00/0.03	10	0.30-0.13	50/10	Size 5	166
2				IZT-2T42-M5-BS IZT-2T42-M5-LD	75/19			0.63-0.21			166
CFTR42W/GX24q - 42W CFL Triple Tube Lamp (PL-T42W, F42TBX/4P, CF42DT/E)											
1	120-277	PS	Mark 7 *0-10V*	IZT-2S26-M5-BS IZT-2S26-M5-LD	47/9	1.00/0.03	10	0.39-0.17	50/10	Size 5	166
2				IZT-2T42-M5-BS IZT-2T42-M5-LD	98/18			0.82-0.36			166
CFTR57W/GX24q - 57W CFL Triple Tube Lamp (PL-T57W, F57QBX/4P, CF57DT/E)											
1	120-277	PS	Mark 7 *0-10V*	IZT-2T42-M5-BS IZT-2T42-M5-LD	65/16	1.00/0.03	10	0.55-0.24	50/10	Size 5	166
CFTR70W/GX24q - 70W CFL Triple Tube Lamp (F70QBX/4P, CF70DT/E)											
1	120-277	PS	Mark 7 *0-10V*	IZT-2T42-M5-BS IZT-2T42-M5-LD	75/16	1.00/0.03	10	0.63-0.27	50/10	Size 5	166

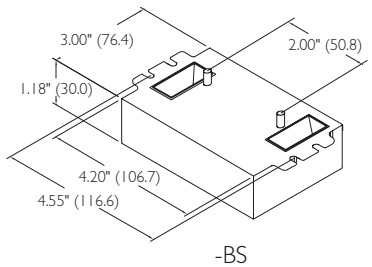
Some lamp manufacturers recommend burning in new lamps 100 hours at full light output before dimming. Consult lamp manufacturer.
Ballasts utilizing poke-in connectors can accept wire gauges from AWG 16 - 20.

Mark 7 *0-10V* Control Wiring (Grey and Violet)

Wire Size	Maximum Length (Ft.)
AWG-16	800
AWG-18	500
AWG-20	320



-LD



-BS

Size 5 Enclosure

ONLY USE 4-PIN RAPID-START SOCKETS

Refer to pages 1-13 & 1-14 for information on remote/tandem wiring and lead length extension
Refer to pages 2-15 for wiring diagrams
Refer to pages 9-24 to 9-28 for lead lengths and shipping data

For 36 - 80W Lamps

HIGH POWER FACTOR SOUND RATED A

Mark 7 0-10V Electronic Dimming Ballast

No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Max/Min		Full Light Output		Min. Starting Temp. (°F/°C)	Dim.	Wiring Dia.
					Input Power ANSI (Watts)	Ballast Factor	THD %	Line Current (Amps)			
FT36W/2G11 - 36/39W Long Twin Tube Lamp (PL-L36W, F39BX/RS, FT36DL)											
2	120-277	PS	Mark 7 *0-10V*	IZT-2TTS40-SC	75/16	1.00/0.03	10	0.64-0.27	50/10	B	59A
FT40W/2G11/RS - 40W Long Twin Tube Lamp (PL-L40W, F40BX, FT40DL/RS)											
2	120-277	PS	Mark 7 *0-10V*	IZT-2TTS40-SC	76/16	1.00/0.03	10	0.64-0.28	50/10	B	59A
FT55W/2G11 - 55W Long Twin Tube Lamp (PL-L55W, F55BX, FT55DL)											
1	120	PS	Mark 7 *0-10V*	RZT-154	59/13	0.90/0.03	10	0.50	50/10	D	58A
	277			VZT-154				0.22			
2	120			RZT-2S54	114/24			0.96			59A
	277			VZT-2S54				0.42			
FT80W/2G11 - 80W Long Twin Tube Lamp (PL-L80W, FT80DL)											
1	277	PS	Mark 7 *0-10V*	VZT-180	94/16	1.00/0.03	10	0.34	50/10	D	58A

Burn in new lamps 100 hours at full light output before dimming.
Ballasts utilizing poke-in connectors can accept wire gauge AWG 16-20.

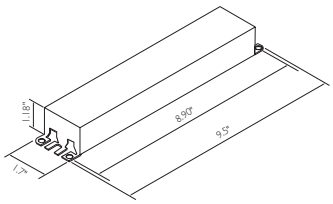


Fig. B

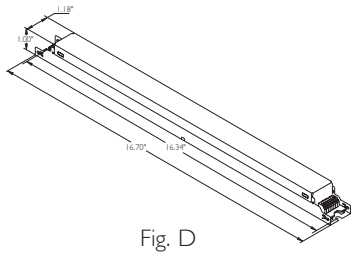
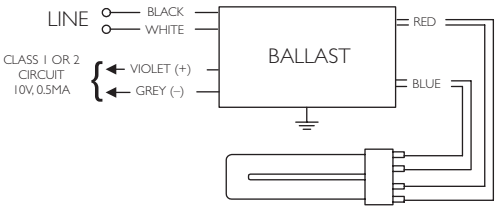
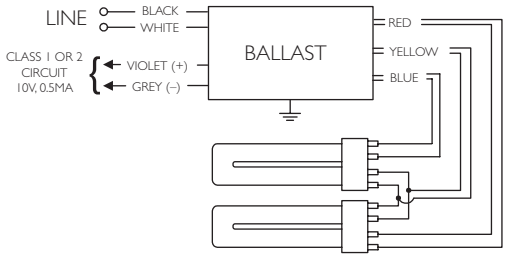


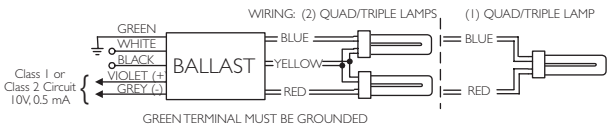
Fig. D
Includes connectors with no leads



Diag. 58A



Diag. 59A



Diag. 166

ONLY USE RAPID-START SOCKETS

Refer to pages 1-13 & 1-14 for information on remote/tandem wiring and lead length extension
Refer to pages 2-24 & 2-25 for compatible Mark 10 Powerline controls
Refer to pages 9-24 to 9-28 for lead lengths and shipping data

For 49 - 80W Lamps

HIGH POWER FACTOR SOUND RATED A

Mark 7 0-10V Electronic Dimming Ballast

No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Max/Min Input Power ANSI (Watts)	Max/Min Ballast Factor	Full Light Output THD %	Full Light Output Line Current (Amps)	Min. Starting Temp. (°F/°C)	Dim.	Wiring Dia.
F54T5/HO/ES (49W)											
1	120	PS	Mark 7 *0-10V*	RZT-154	59/13	1.00/0.03	10	0.49	50/10	D	55A
	277			VZT-154				0.21			
2	120			RZT-2S54	117/24			0.98			56A
	277			VZT-2S54				0.42			
F54T5/HO (54W)											
1	120	PS	Mark 7 *0-10V*	RZT-154	63/13	1.00/0.03	10	0.53	50/10	D	55A
	277			VZT-154				0.23			
2	120			RZT-2S54	125/24			1.05			56A
	277			VZT-2S54				0.45			
F80T5/HO (80W)											
1	277	PS	Mark 7 *0-10V*	VZT-180	94/18	1.00/0.03	10	0.34	50/10	D	55A
FC12T5/HO (55W)											
1	120	PS	Mark 7 *0-10V*	RZT-154	59/13	0.90/0.03	10	0.50	50/10	D	55A
	277			VZT-154				0.22			
2	120			RZT-2S54	114/24			0.96			56A
	277			VZT-2S54				0.42			

Some lamp manufacturers recommend burning in new lamps 100 hours at full light output before dimming. Consult lamp manufacturer.
Ballasts utilizing poke-in connectors can accept wire gauges from AWG 16 - 20.

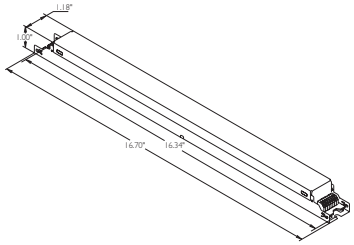
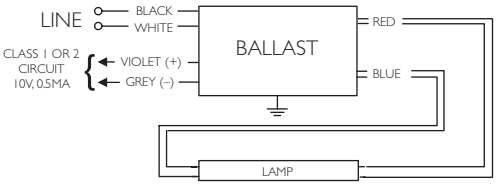


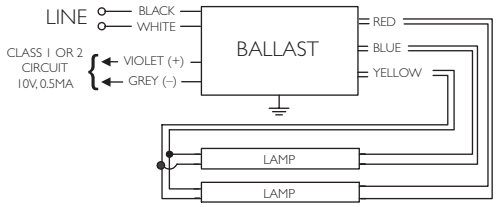
Fig. D
Includes connectors with no leads



Diag. 55A

Mark 7 0-10V Control Wiring (Grey and Violet)

Wire Size	Maximum Length (Ft.)
AWG-16	800
AWG-18	500
AWG-20	320



Diag. 56A

ONLY USE RAPID-START SOCKETS

Refer to pages 1-13 & 1-14 for information on remote/tandem wiring and lead length extension
Refer to pages 2-24 & 2-25 for compatible Mark 10 Powerline controls
Refer to pages 9-24 to 9-28 for lead lengths and shipping data

For 17 - 25W Lamps

Mark 7 0-10V Electronic Dimming Ballast

No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Max/Min		Full Light Output		Min. Starting Temp. (°F/°C)	Dim.	Wiring Dia.
					Input Power ANSI (Watts)	Ballast Factor	THD %	Line Current (Amps)			
F17T8, FBO16T8 (17W)											
1	120-277	PS	Mark 7 *0-10V*	IZT-132-SC	20/7	1.00/0.03	10	0.16-0.07	50/10	B	55A
2				IZT-2S32-SC	36/11			0.30-0.13			56A
3				IZT-3S32-SC	56/18			0.46-0.20			57A
F25T8, FBO24T8 (25W)											
1	120-277	PS	Mark 7 *0-10V*	IZT-132-SC	28/8	1.00/0.03	10	0.24-0.11	50/10	B	55A
2				IZT-2S32-SC	52/12			0.43-0.19			56A
3				IZT-3S32-SC	79/19			0.65-0.28			57A
4				IZT-4S32	96/22	0.88/0.03		0.77-0.35		D	16A

Some lamp manufacturers recommend burning in new lamps 100 hours at full light output before dimming. Consult lamp manufacturer.
Ballasts utilizing poke-in connectors can accept wire gauges from AWG 16 - 20.

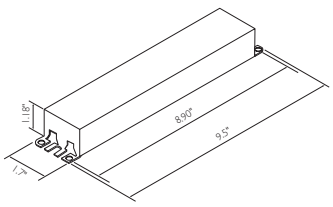


Fig. B

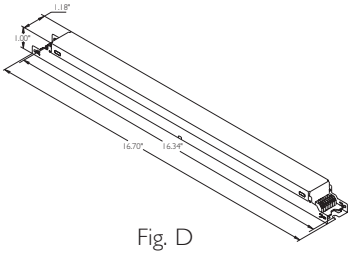


Fig. D
Includes connectors with no leads

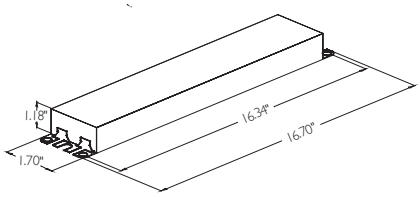


Fig. G

Mark 7 *0-10V* Control Wiring (Grey and Violet)

Wire Size	Maximum Length (Ft.)
AWG-16	800
AWG-18	500
AWG-20	320
AWG-22	200
AWG-24	120

ONLY USE RAPID-START SOCKETS

Refer to pages 1-13 & 1-14 for information on remote/tandem wiring and lead length extension
Refer to pages 2-18 for wiring diagrams
Refer to pages 2-24 & 2-25 for compatible low voltage controls
Refer to pages 9-24 to 9-28 for lead lengths and shipping data

For 32W Lamps

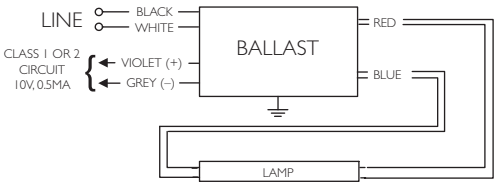
HIGH POWER FACTOR SOUND RATED A

Mark 7 0-10V Electronic Dimming Ballast

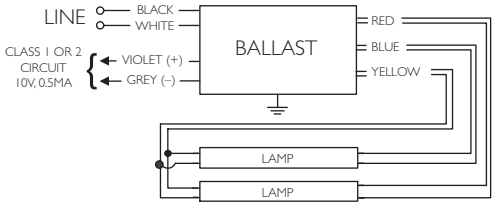
No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Max/Min		Full Light Output		Min. Starting Temp. (°F/°C)	Dim.	Wiring Dia.
					Input Power ANSI (Watts)	Ballast Factor	THD %	Line Current (Amps)			
F32T8, FBO31T8, F32T8/U6 (32W)											
1	120-277	PS	Mark 7 *0-10V*	IZT-132-SC	35/8	1.00/0.03	10	0.30-0.13	50/10	B	55A
2				IZT-2S32-SC	68/14			0.57-0.24			56A
3				IZT-3S32-SC	100/20			0.86-0.37			57A
4	277			VZT-4S32-G	116/25	0.88/0.05		0.42		G	16A
				VZT-4S32-HL	149/27	1.18/0.05		0.54			174
				VZT-4PSP32-G	112/27	0.88/0.10		0.41			
	120-277			IZT-4S32	116/25	0.88/0.03		0.98-0.42		D	16A

Some lamp manufacturers recommend burning in new lamps 100 hours at full light output before dimming. Consult lamp manufacturer.
Ballasts utilizing poke-in connectors can accept wire gauges from AWG 16 - 20.

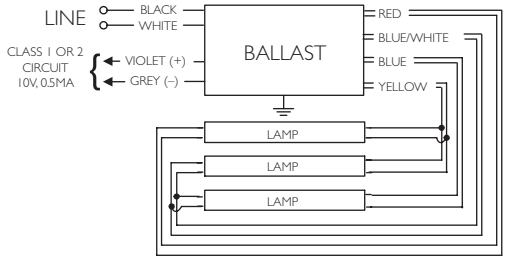
NEMA Premium



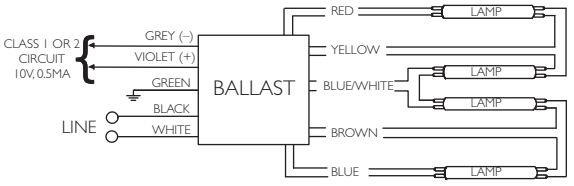
Diag. 55A



Diag. 56A



Diag. 57A

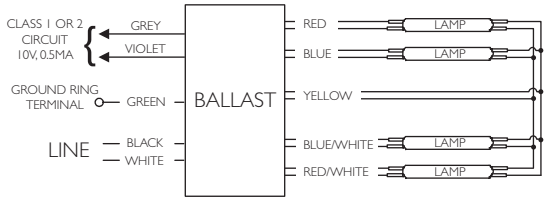


Diag. 16A

Mark 7 *0-10V* Control Wiring (Grey and Violet)

Wire Size	Maximum Length (Ft.)
AWG-16	800
AWG-18	500
AWG-20	320
AWG-22	200
AWG-24	120

ONLY USE RAPID-START SOCKETS



Diag. 174

Refer to pages 1-13 & 1-14 for information on remote/tandem wiring and lead length extension
Refer to pages 2-17 for ballast dimensions
Refer to pages 2-24 & 2-25 for compatible low voltage controls
Refer to pages 9-24 to 9-28 for lead lengths and shipping data

Fluorescent Ballasts - Dimming - ROVR™

Digital Addressable Ballasts for Linear Fluorescent and 4-Pin Compact Fluorescent Lamps

Philips Advance ROVR ballasts reflect the latest approach to controlling fluorescent lighting. Rather than simply responding to instructions from control components, ROVR ballasts enable two-way communication, allowing for virtually unlimited design flexibility.

This two-way communication is made possible through the industry-standard digital communication protocol known as DALI (Digital Addressable Lighting Interface).

This protocol allows ROVR ballasts to provide users with operational data while controlling the output of individual luminaires. This fully supports sustainable design principles such as daylight harvesting and occupancy sensors while enabling a proactive response to maintenance concerns.

Available in linear fluorescent and 4-pin compact fluorescent models
Making this ideal for a variety of applications

Full range continuous dimming (100% light output down to 3% - T5/HO to 1%)
Provides task appropriate comfort only where necessary to increase potential energy savings while supporting LEED performance standards

Programmed start operation
Potentially extends lamp life in frequent switching applications such as occupancy sensors and daylight

IntelliVolt Technology (120-277V, 50/60Hz)
Enhances accuracy and ease of ordering while reducing stocking/SKU requirements

NEMA Premium®

The following ballasts meet NEMA Premium®:
IDA-1I32-SC, IDA-2S32-SC, IDA-3S32-SC, IDA-4S32

As a licensee in the NEMA Premium Ballast Program, Philips Lighting Electronics has determined that these products meet the NEMA Premium specification for premium energy efficiency.

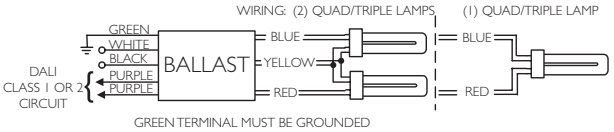
For 13 - 70W Lamps

HIGH POWER FACTOR SOUND RATED A

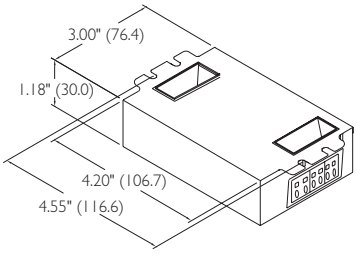
ROVR Digital Addressable Ballast

No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Max/Min		Full Light Output		Min. Starting Temp. (°F/°C)	Dim.	Wiring Dia.
					Input Power ANSI (Watts)	Ballast Factor	THD %	Line Current (Amps)			
CFQ13W/G24q - 13W CFL Quad Tube Lamp (PL-C13W/4P, F13DBX/4P, CF13DD/E) CFTR13W/GX24q - 13W CFL Triple Tube Lamp (F13TBX/4P, CF13DT/E)											
1	120-277	PS	ROVR	IDL-2S26-M5-BS IDL-2S26-M5-LD	18/6	1.00/0.03	10	0.15-0.07	50/10	Size 5	165
2				IDL-2S26-M5-BS IDL-2S26-M5-LD	33/19			0.28-0.12			165
CFQ18W/G24q - 18W CFL Quad Tube Lamp (PL-C18W/4P, F18DBX/4P, CF18DD/E) CFTR18W/GX24q - 18W CFL Triple Tube Lamp (PL-T18W, F18TBX/4P, CF18DT/E)											
1	120-277	PS	ROVR	IDL-2S26-M5-BS IDL-2S26-M5-LD	23/7	1.00/0.03	10	0.19-0.09	50/10	Size 5	165
2				IDL-2S26-M5-BS IDL-2S26-M5-LD	41/11			0.34-0.15			165
CFQ26W/G24q - 26W CFL Quad Tube Lamp (PL-C26W/4P, F26DBX/4P, CF26DD/E) CFTR26W/GX24q - 26W CFL Triple Tube Lamp (PL-T26W, F26TBX/4P, CF26DT/E)											
1	120-277	PS	ROVR	IDL-2S26-M5-BS IDL-2S26-M5-LD	30/8	1.00/0.03	10	0.25-0.11	50/10	Size 5	165
2				IDL-2S26-M5-BS IDL-2S26-M5-LD	55/13			0.46-0.20			165
CFTR32W/GX24q - 32W CFL Triple Tube Lamp (PL-T32W, F32TBX/4P, CF32DT/E)											
1	120-277	PS	ROVR	IDL-2S26-M5-BS IDL-2S26-M5-LD	36/9	1.00/0.03	10	0.30-0.13	50/10	Size 5	165
2				IDL-2T42-M5-BS IDL-2T42-M5-LD	75/19			0.63-0.21			165
CFTR42W/GX24q - 42W CFL Triple Tube Lamp (PL-T42W, F42TBX/4P, CF42DT/E)											
1	120-277	PS	ROVR	IDL-2S26-M5-BS IDL-2S26-M5-LD	47/9	1.00/0.03	10	0.39-0.17	50/10	Size 5	165
2				IDL-2T42-M5-BS IDL-2T42-M5-LD	98/18			0.82-0.36			165
CFTR57W/GX24q - 57W CFL Triple Tube Lamp (PL-T57W, F57QBX/4P, CF57DT/E)											
1	120-277	PS	ROVR	IDL-2T42-M5-BS IDL-2T42-M5-LD	65/16	1.00/0.03	10	0.55-0.24	50/10	Size 5	165
CFTR70W/GX24q - 70W CFL Triple Tube Lamp (F70QBX/4P, CF70DT/E)											
1	120-277	PS	ROVR	IDL-2T42-M5-BS IDL-2T42-M5-LD	75/16	1.00/0.03	10	0.63-0.27	50/10	Size 5	165

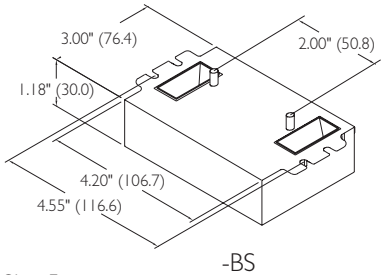
Some lamp manufacturers recommend burning in new lamps 100 hours at full light output before dimming. Consult lamp manufacturer.
Ballasts utilizing poke-in connectors can accept wire gauges from AWG 16 - 20.



Diag. 165



-LD



-BS

Size 5

Refer to pages 1-13 & 1-14 for information on remote/tandem wiring and lead length extension
Refer to pages 2-24 & 2-25 for compatible Mark 10 Powerline controls
Refer to pages 9-24 to 9-28 for lead lengths and shipping data

ONLY USE 4-PIN RAPID-START SOCKETS

For 55W Lamps

HIGH POWER FACTOR SOUND RATED A

ROVR Digital Addressable Ballast

No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Max/Min		Full Light Output		Min. Starting Temp. (°F/°C)	Dim.	Wiring Dia.
					Input Power ANSI (Watts)	Ballast Factor	THD %	Line Current (Amps)			
FT55W/2G11 - 55W Long Twin Tube Lamp (PL-L55W, F55BX, FT55DL)											
1	120-277	PS	ROVR	IDA-154	59/13	0.90/0.03	10	0.50-0.22	50/10	D	165
2				IDA-2S54	114/24			0.96-0.42			

Some lamp manufacturers recommend burning in new lamps 100 hours at full light output before dimming. Consult lamp manufacturer.
Ballasts utilizing poke-in connectors can accept wire gauges from AWG 16 - 20.

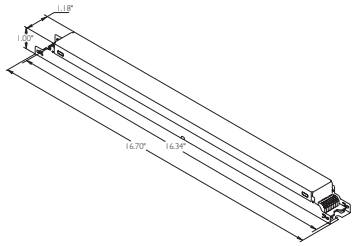
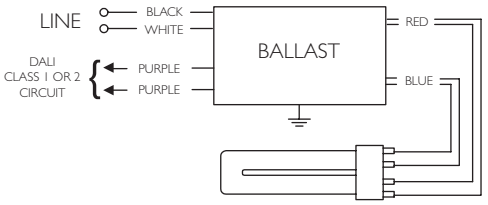
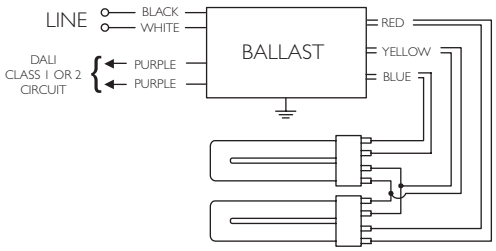


Fig. D
Includes connectors with no leads



Diag. 58B



Diag. 59B

ONLY USE RAPID-START SOCKETS

Refer to pages 1-13 & 1-14 for information on remote/tandem wiring and lead length extension
Refer to pages 2-24 & 2-25 for compatible Mark 10 Powerline controls
Refer to pages 9-24 to 9-28 for lead lengths and shipping data

For 49 - 55W Lamps

HIGH POWER FACTOR SOUND RATED A

ROVR Digital Addressable Ballast

No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Max/Min		Full Light Output		Min. Starting Temp. (°F/°C)	Dim.	Wiring Dia.
					Input Power ANSI (Watts)	Ballast Factor	THD %	Line Current (Amps)			
F54T5/HO/ES (49W)											
1	120-277	PS	ROVR	IDA-154	59/13	1.00/0.03	10	0.49-0.21	50/10	D	55B
2				IDA-2S54	117/24			0.98-0.42			56B
F54T5/HO (54W)											
1	120-277	PS	ROVR	IDA-154	63/13	1.00/0.03	10	0.53-0.23	50/10	D	55B
2				IDA-2S54	125/24			1.05-0.45			56B
FC12T5/HO (55W)											
1	120-277	PS	ROVR	IDA-154	59/13	0.90/0.03	10	0.50-0.22	50/10	D	55B
2				IDA-2S54	114/24			0.96-0.42			56B

Some lamp manufacturers recommend burning in new lamps 100 hours at full light output before dimming. Consult lamp manufacturer.
Ballasts utilizing poke-in connectors can accept wire gauges from AWG 16 - 20.

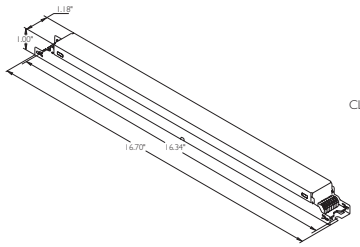
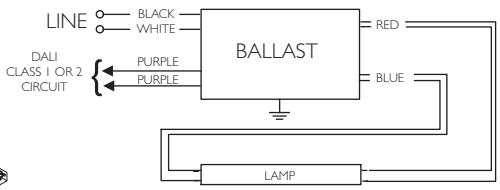
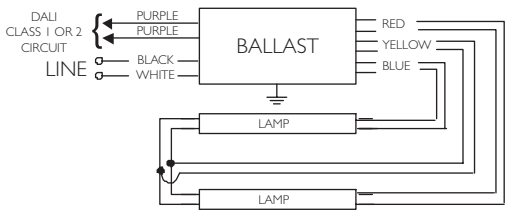


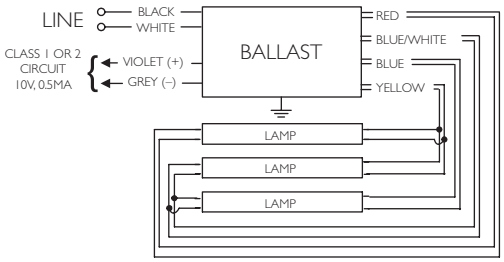
Fig. D
Includes connectors with no leads



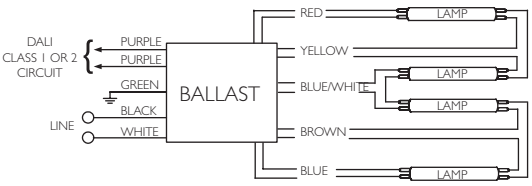
Diag. 55B



Diag. 56B



Diag. 57B



Diag. 167

ONLY USE RAPID-START SOCKETS

Refer to pages 1-13 & 1-14 for information on remote/tandem wiring and lead length extension
Refer to pages 2-24 & 2-25 for compatible Mark 10 Powerline controls
Refer to pages 9-24 to 9-28 for lead lengths and shipping data

For 17 - 32W Lamps

HIGH POWER FACTOR SOUND RATED A

ROVR Digital Addressable Ballast

No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Max/Min		Full Light Output		Min. Starting Temp. (°F/°C)	Dim.	Wiring Dia.
					Input Power ANSI (Watts)	Ballast Factor	THD %	Line Current (Amps)			
F17T8, FBO16T8 (17W)											
1	120-277	PS	ROVR	IDA-132-SC	20/7	1.00/0.03	10	0.16-0.07	50/10	B	55B
2				IDA-2S32-SC	36/11			0.30-0.13			56B
F25T8, FBO24T8 (25W)											
1	120-277	PS	ROVR	IDA-132-SC	28/8	1.00/0.03	10	0.24-0.11	50/10	B	55B
2				IDA-2S32-SC	52/12			0.43-0.19			56B
3				IDA-3S32-G	79/19			0.65-0.28		G	57B
4				IDA-4S32	96/22	0.88/0.03		0.77-0.35		D	167
F32T8, FBO31T8, F32T8/U6 (32W)											
1	120-277	PS	ROVR	IDA-132-SC	35/8	1.00/0.03	10	0.30-0.13	50/10	B	55B
2				IDA-2S32-SC	68/14			0.58-0.25			56B
3				IDA-3S32-G	100/20			0.86-0.37		G	57B
4				IDA-4S32	116/25	0.88/0.03		0.98-0.42		D	167

Some lamp manufacturers recommend burning in new lamps 100 hours at full light output before dimming. Consult lamp manufacturer.
Ballasts utilizing poke-in connectors can accept wire gauges from AWG 16 - 20.

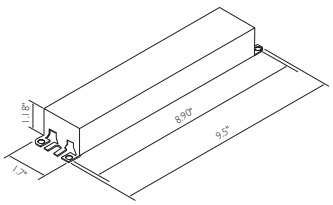


Fig. B

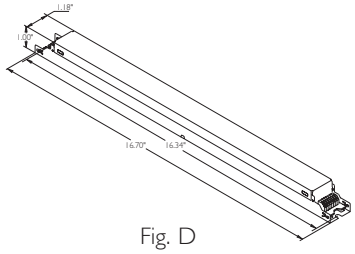


Fig. D
Includes connectors with no leads

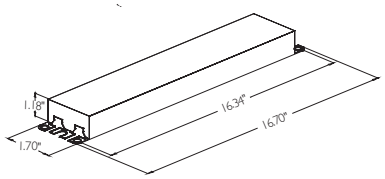


Fig. G

ONLY USE RAPID-START SOCKETS

Refer to pages 1-13 & 1-14 for information on remote/tandem wiring and lead length extension
Refer to pages 2-22 for wiring diagrams and ballast dimensions
Refer to pages 2-24 & 2-25 for compatible ROVR controls
Refer to pages 9-24 to 9-28 for lead lengths and shipping data

ELECTRONIC FLUORESCENT CONTROLLABLE BALLASTS

Control Manufacturers who have products compatible with Philips Advance Mark 7 *0-10V* Electronic Dimming Ballasts, Mark 10 *Powerline* Electronic Dimming Ballasts and ROVR Digital Addressable Ballasts as of February 2010

For a more detailed listing please visit http://www.advance.philips.com/documents/uploads/literature/EL-2100-AB-R03.pdf

MANUFACTURER	PHONE	MARK 7 *0-10V* (4-Wire Low Voltage)	MARK 10 *Powerline* (2-Wire Line Voltage)	ROVR (DALI)
AMX Corporation	800-222-0193	Radia RDM-DC, RDM-2DC and RDM-3DC	Radia RE-DM4 and RE-DM6 RDM-INC, RDM-2INC and RDM-INC50	
Anigmo	800-749-0518	SEM & SEZ	ST2-600LVE	
Automated Logic Corp.	770-429-3000	S Line, M Line	S Line, M Line	
Avab America	415-505-5515	PWR Series	PWR Series	
CentraLite System, Inc.	877-466-5483		StarLite, Elegance, LiteJet	
Colortran, Inc.	503-682-1941	Digital Ballast Controller	ENR, I Series, I Series E, and I Series Quad	
Cooper Controls	800-553-3879	Greengate, iLumin	Greengate, iLumin	iLumin
Cooper Wiring Devices	866-853-4293		SF8AP, DF8AP, 9568 Aspire	
Crestron Electronics	201-767-3400	CresLite™ Lighting System	CresLite™ Lighting System	
Digital Lighting Systems	305-969-8442	Protocol	Protocol	
DimOnOff	418-682-3636	Distributed Lighting Controls	Distributed Lighting Controls	
Douglas Lighting Controls	604-873-2797	MC6000, Dilor ALC3, WPC, WPN, WBC, WSP	MC6000, Dilor ALC3, ALC-DCM-12	
Eaton	877-386-2273	POW-R-Command System		
ETC (Electronic Theatre Controls)	608-831-4116	Unison Paradigm, Unison DRd, SmartLink	Unison Paradigm, Unison DRd, SmartPack, Sensor, SmartLink	Unison Paradigm, Unison DRd, SmartLink
Electronics Diversified, Inc.	503-645-5533	MVP System, Versa-Pak System, Mark 10 System Rack	MVP System, Versa-Pak System, Mark 10 System Rack	
Encelium	888-ENCELIUM	Encelium ECS Control System, DSC-500, MYC-RS-500		
Entertainment Technologies	800-223-9477	Tap Glide, IPS, Capio Plus, Oasis	Intelli Set Plus, Tap Glide, U-Set, IPS, Capio Plus	
Exergy	562-981-2127			XRG-200, XRG-300, XRG-400, XRG-1000
Hubbell Building Automation	888-698-3242	DLC-7, OMNI, Light Owl, Light Hawk, UVPP	OMNI, Light Owl, Light Hawk, WASP High Bay Sensor, LX Networked Lighting Controls, UVPP	
Hunt Dimming	970-484-9048	PS, FD and SSD Simplicity Series	PS, SC, FD and SSD Simplicity Series	PS Series
Intelligent Lighting Controls	800-922-8004	Light Master		
Johnson Controls	414-274-4000	Application Specific		
Leax Controls	970-927-4845	Consult Factory	Consult Factory	
Legrand/Pass and Seymour	315-468-6211	Slide-to-Off Titan, Preset Titan	Scene Director, Harmony, Slide-to-Off Titan, Preset Titan, LightSense	
Lehigh Electric Products Co.	610-395-3386	Sentry, Solitaire, DX2, Sunburst, ALX and DX with DCFL Interface	Solitaire, DX2, SlimDim Sunburst, ALX and DX with ACFL Interface	
Leprecon	810-231-9546		VX Series, MX Series, Lightscape	

The listed manufacturers have indicated that they manufacture products that are compatible with the Philips Advance Mark 7 *0-10V* electronic dimming ballasts, Philips Advance Mark 10 *Powerline* electronic dimming ballasts, or Philips Advance ROVR digital addressable ballasts. Philips Lighting Electronics provides this list as a service to our customers and control manufacturers. Philips Lighting Electronics does not support or recommend one manufacturer over another. Please refer to each manufacturer's catalog for a complete product description and performance specifications.

ELECTRONIC FLUORESCENT CONTROLLABLE BALLASTS

Control Manufacturers who have products compatible with Philips Advance Mark 7 *0-10V* Electronic Dimming Ballasts, Mark 10 *Powerline* Electronic Dimming Ballasts and ROVR Digital Addressable Ballasts as of February 2010

For a more detailed listing please visit http://www.advance.philips.com/documents/uploads/literature/EL-2100-AB-R03.pdf

MANUFACTURER	PHONE	MARK 7 *0-10V* (4-Wire Low Voltage)	MARK 10 *Powerline* (2-Wire Line Voltage)	ROVR (DALI)
Leviton Lighting Control Div.	800-824-3005	Centura, Wallbox: IllumaTech, PE300-D (Slave Pack). Occupancy Sensors: Multi-Tech, Wide View, High Bay, Ultrasonic. Systems: a-2000, MDS, D3200 MiniZ Daylight Control System MZD Series, Power Extenders PE Series, Z-MAX Relay System	Wallbox Dimmers: Monet, Renoir, Mural, TouchPoint, IllumaTech, SureSlide. Occupancy Sensors: Multi-Tech, Wide View, High Bay, Ultrasonic, PIR. Systems: a-2000, I series e, MDS, Power Master Station, Dimensions D3200, Power Extenders PE Series, Z-MAX Relay System	CD100 CD250
Lighting Control and Design (an Acuity Brands Controls company)	323-226-0000	GR4000	GR4000	
Lightolier Controls	800-526-2731	Sunrise Preset, Momentum Preset, Vega Slider, Lytemode module	MultiSet Pro, Sunrise Preset, Momentum Preset, Onset, Vega Slider, Lytemode module	
Lutron	800-523-9466	See www.lutron.com/advance	See www.lutron.com/advance	
Marlin Controls	800-788-5750	HERCULES, MATRIX, SMP, MXI, MXII, MXIV, EFD, Stellar	Starbright Dimming System, HERCULES, MATRIX, SMP, MXI, MXII, MXIV, Stellar	Stellar
NexLight	218-828-3700	WR, WRT, Glacier Series 5600	WR, WRT	EZ-DALI
Novar Controls	216-682-1600	FDI (Fluorescent Dimming Interface)		
Payne Sparkman Mfg., Inc.	812-944-4893	LTRD/4W Series	LTRD/2W Series	
PDM Electrical Products	514-342-6581	MC6000, Dilor ALC3, WPC, WPN, WBC, WSP	MC6000, Dilor ALC3 , ALC-DCM-12	
PLC Multipoint	425-353-7552	EDSAB and RCD Dial	EDSPR	
Philips Dynalite	800-372-3331	Dynet Load Controller	Dynet Load Controller	Dynet Load Controller
Philips Teletrol	603-645-6061	eBuilding	eBuilding	eBuilding
Sensor Switch, Inc. (an Acuity Brands Controls company)	800-727-7483	WV16/WVR16, WVPDT16/WVR, CM9/CMR9, CMPDT9/CMRPDT9, CM10/CMR10, CMPDT10/CMRPDT10, CMRB6, WSD/WSDPDT, CMADC, nLight Control System	WV16/WVR16, WVPDT16/WVR, CM9/CMR9, CMPDT9/CMRPDT9, CM10/CMR10, CMPDT10/CMRPDT10, CMRB6	
Starfield Controls	303-427-1661	TR217, CoreNet Digital Lighting Control System		TR217, CoreNet Digital Lighting Control System,
Sterner Controls	320-543-3595	BPM-SFL, BPM-DFL series	BPM-SN, BPM-DN series	
Strand Lighting	714-230-8200	Vision.net, Light Palette, A21 Dimming Series	Vision.net, Light Palette, Environ3 C21 Dimming Series (120V), A21 Dimming Series (120/277V)	
Synergy Lighting Controls (an Acuity Brands Controls company)	800-533-2719	Synergy, Sequel, ISD	DSD, Synergy, Sequel, ISD	Synergy
Touch-Plate Lighting	260-426-1565	CPD-8000D & MCP Series	MCD-4000 & CPD-4000	
Vantage Lighting Control	801-229-2800	SD4008-120, SD9008-277, LVOS	SD4008-120, SD9008-277, Scenepoint, Radiolink Scenepoint, Powerstation 110V, Powerstation 277V	
Watt Stopper, Inc.	408-988-5331	LS, IRT, W, WT, CI, CX, DT, IRC, LIGHTSAVER, PW,UW,DW,TS, CB,UT	WD 170, WD 180, WD270, and WD 280	ezDALI

The listed manufacturers have indicated that they manufacture products that are compatible with the Philips Advance Mark 7 *0-10V* electronic dimming ballasts, Philips Advance Mark 10 *Powerline* electronic dimming ballasts, or Philips Advance ROVR digital addressable ballasts. Philips Lighting Electronics provides this list as a service to our customers and control manufacturers. Philips Lighting Electronics does not support or recommend one manufacturer over another. Please refer to each manufacturer's catalog for a complete product description and performance specifications.