ELECTRONIC FLUORESCENT CONTROLLABLE BALLASTS

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

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 N.A. has determined that these products meet the NEMA Premium specification for premium energy efficiency.

Note: Easy way to test dimming functionality of 0-10V dimming ballasts is to 'short' together the violet and grey control wires. If the lamps go to full dim, then the ballast is dimming fine.

For 14 - 28W T5 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)			
F14T5 (14W)											
1	120	PS	Mark 7 *0-10V*	IZT-128-D	19/6	1.00/0.03	10	0.15-0.07	50/10	D	55A
2	277			IZT-2S28-D	34/9			0.29-0.12			56A
F21T5 (21W)											
1	120	PS	Mark 7 *0-10V*	IZT-128-D	25/6	1.00/0.03	10	0.20-0.09	50/10	D	55A
2	277			IZT-2S28-D	49/10			0.42-0.18			56A
F28T5 (25W)											
1	120	PS	Mark 7 *0-10V*	IZT-128-D	30/7	1.00/0.03	10	0.25-0.11	50/10	D	55A
2	277			IZT-2S28-D	59/12			0.51-0.21			56A
F28T5 (28W)											
1	120	PS	Mark 7 *0-10V*	IZT-128-D	32/7	1.00/0.03	10	0.27-0.12	50/10	D	55A
2	277			IZT-2S28-D	63/12			0.57-0.22			56A

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

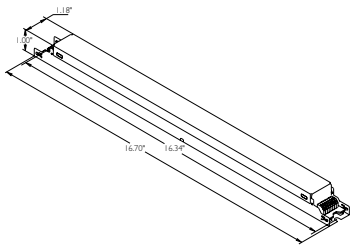
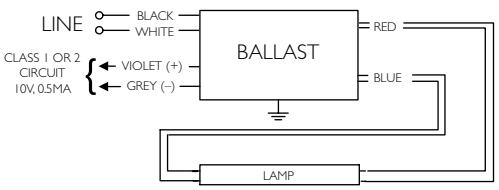


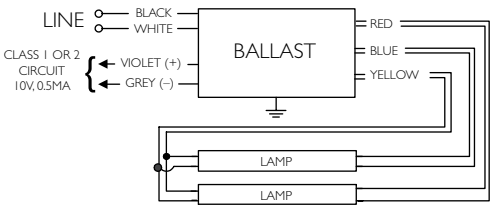
Fig. D
Includes connectors with no leads



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 1-15 to 1-19 for information on remote/tandem wiring and lead length extension
Refer to pages 2-32 & 2-33 for compatible low voltage controls
Refer to pages 9-23 to 9-27 for lead lengths and shipping data

Catalog Number Explanation

I	ZT	—	MH	—	—	100	—	A	—	BLS	—	ID

Additional Features:
Blank = None
ID = Integral 120V output to supply power to a 4-Wire Self Heating Thermal Protector (39W, 70W, 100W)

Lead Exit / Mounting Options:
BLS = Bottom Leads with Studs
LF = Leads (side exit) with mounting Feet
LFS = Leads (side exit, lead exit from same end) with mounting Feet (K metal case models only)
LS = Connector (side exit) with mounting Feet

Can Material / Size: (Dimensions include mounting feet)
A/B = Metal case with dim. 5.5" L x 3.6"W x 1.5" H
C = Metal case with dim. 8.0" L x 3.6"W x 1.5" H
D = Metal case with dim. 5.0" L x 3.0"W x 1.5" H
E = Metal case with dim. 5.5" L x 1.75"W x 1.2" H
G = Metal case with dim. 3.9" L x 3.0"W x 1.2" H
H = Metal case with dim. 6.4" L x 3.7"W x 1.5" H
K = Metal case with dim. 4.75" L x 1.3"W x 1.2" H
M = Plastic case with dim. 5.9" L x 2.6"W x 2.6" H
N = Plastic case with dim. 5.3" L x 2.6"W x 2.6" H
R = Metal case with dim. 8.2" L x 4.9"W x 2.2" H
T = Plastic case with dim. 6.3" L x 3.9"W x 2.4" H

Max Lamp Wattage:
G20 = 20W Lamp, ANSI C156/M156
20= 22 W Lamp^
39 = 39 W Lamp, ANSI C130/M130
P39 = 39W Lamp+
45 = 45W Lamp
50 = 50W Lamp
60 = 60W Lamp
70 = 70W Lamp
90 = 90W Lamp
100 = 100W Lamp
140 = 140W Lamp
150 = 150W Lamp
175 = 175W Lamp
210315 = 210 W or 315W Lamp
210 = 210W Elite Lamp
315 = 315W Elite Lamp

Number of Lamps: Blank = 1 Lamp Operation 2 = (2) Lamp Operation

Primary Lamp Type:
MH = Metal Halide
CW = CosmoPolis

Dimming Scheme: Blank = Fixed Light Output ZT = 0-10V Dimming D = Programmable DALI Interface

Input Voltage:
I = Intellivolt (accepts input of 120 thru 277V, 50/60 Hz nominal)‡ R = 120V, 50/60 Hz nominal

^ Philips 22W MiniMaster Color Lamp, ANSI C175/M175, with PGj5 base.
+ Philips 39W MiniMaster Color Lamp, ANSI C179/M179, with PGj5 base
‡ For some models, Intellivolt is limited to 208 thru 277V