

### The Optimal Choice for T8 Lighting Systems



#### Product Overview

Advance introduces its newest ballast addition to its Optanium™ family of Smart Solutions T8 system featuring IntelliVolt® technology.

Optanium is a high-efficiency electronic ballast family that combines maximized energy savings with the flexibility you need to create a T8 system matched to your requirements.

IntelliVolt, 120 through 277V operation at 50/60 Hz, guarantees shipment of correct voltage ballast and fixture for all applications. This feature, incorporated in a ballast that can operate (1) or (2) T8 lamps, minimizes SKU's required in inventory, resulting in significant cost savings.

High-efficiency programmed start Optanium ballasts are available to meet specific needs in two versions - a standard light output design (0.88 Ballast Factor) and a low-watt design. All have cold-start capability down to 0°F and a low-profile design optimized for today's fixture designs.

#### Applications

- General office lighting
- Retail stores
- Educational Facilities

#### Design Highlights

- Hi-efficiency
  - Ballast consumes less input watts than a standard efficiency electronic ballast
- IntelliVolt® Technology (120 through 277V - 50/60Hz)
  - SKU reduction and maximum versatility
- Programmed start lamp ignition
  - For frequent ON/OFF cycling applications
- Low-profile, lightweight housing
  - Physically interchangeable with standard electromagnetic and electronic ballasts
  - Facilitates shipping, handling and installation
  - Provides flexibility in new generation fixture designs
- Operates between 40 kHz and 54 kHz
  - Eliminates interference with Infrared Control Systems or commonly used Electronic Article Surveillance (EAS) systems
- 0°F starting capability
  - Suitable for cold temperature situations
- <10% THD, >0.98 PF
  - Meets most demanding power quality requirements
  - Perfect for applications where harmonics are a concern
- 20ft. remote mounting/tandem wiring capability
  - Provides maximum application flexibility
- Auto-restrike capability
  - Eliminates the need to reset power mains after failed lamps are replaced
- Operates F32T8, F32T8/ES, F25T8, F17T8 and F40T8 lamps
  - Provided maximum versatility
- UL Type CC rated
  - Provides anti-arcing protection on all output leads

# Ballast Specifications

# Selection Guide

## Section I - Physical Characteristics

- 1.1 The electronic ballast shall be physically interchangeable with standard electromagnetic and standard electronic ballasts.
- 1.2 The electronic ballast shall have a maximum height of 1.18 in. and maximum weight of 1.2 lbs.
- 1.3 The electronic ballast shall be furnished with integral leads, color-coded to ANSI C82.11.

## Section II - Performance Requirements

- 2.1 The electronic ballast shall operate from a nominal line voltage of 120-277V, 50/60Hz.
- 2.2 Ballast shall be classified "hi-efficiency" and shall provide a minimum 3 watt energy savings over comparable standard electronic ballasts.
- 2.3 The electronic ballast input current shall have Total Harmonic Distortion (THD) of less than 10% when used with primary lamp.
- 2.4 The electronic ballast shall have a Power Factor greater than 98% when used with primary lamp.
- 2.5 The electronic ballast shall withstand a sustained short to ground or open circuit of any output leads.
- 2.6 The electronic ballast shall be Sound Rated A.
- 2.7 The electronic ballast output frequency to the lamps shall be above 40 kHz to minimize interference with infrared control systems and eliminate visible flicker.
- 2.8 The electronic ballast shall meet ANSI C82.11.
- 2.9 The electronic ballast shall withstand transients specified in ANSI C62.41, Location Category A3.
- 2.10 The electronic ballast shall be programmed start.
- 2.11 The electronic ballast shall have a lamp current crest factor of <1.7.
- 2.12 Lamps may be remote or tandem mounted up to a maximum of 20 ft. overall lead length between ballasts and lamps.

## Section III - Regulatory Requirements

- 3.1 The electronic ballast shall meet the requirements of the Federal Communications Commission rules and regulations, Title 47 CFR part 18, for Non-Consumer equipment.
- 3.2 The electronic ballast shall comply with all applicable state and federal efficiency standards.
- 3.3 The electronic ballast shall be Underwrites Laboratories (UL) listed (Class P) and CSA certified.

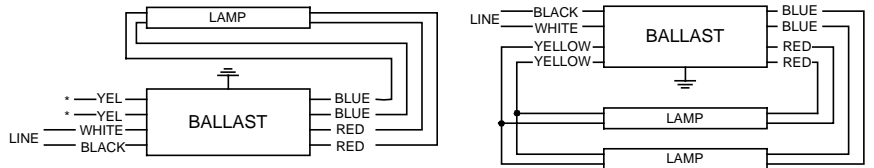
## Section IV - Other

- 4.1 The electronic ballast shall not contain Polychlorinated Biphenyl (PCB's).
- 4.2 The electronic ballast shall carry a five-year warranty from the date of manufacture. Warranty shall be valid for a maximum case temperature of 70°C.
- 4.3 The manufacturer shall have a ten-year history of producing electronic ballasts for the North American market.
- 4.4 The electronic ballasts shall be produced in a factory certified to ISO 9002 Quality System Standards.

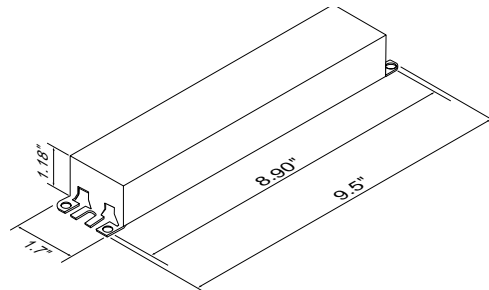
Lamp Data		Min. Starting Temp. (°F/°C)	Input Volts	Catalog Number	Line Current (Amps)	Input Power ANSI (Watts)	Ballast Factor	Max. THD %	Min. Power Factor
Number	Watts								
<b>F17T8, FBO16T8</b>									
1	17	0/-18	120	IOP-2S32-SC	0.14	17	0.97	20	0.94
			230		0.08				
			277		0.07				
2	17	0/-18	120	IOP-2S32-SC	0.24	29	0.90	15	0.98
			230		0.13				
			277		0.11				
<b>F25T8, FBO24T8</b>									
1	25	0/-18	120	IOP-2S32-SC	0.19	23	0.90	20	0.96
			230		0.10				
			277		0.09				
2	25	0/-18	120	IOP-2S32-SC	0.36	43	0.89	15	0.98
			230		0.19				
			277		0.16				
<b>F32T8/ES (30W)</b>									
1	30	60/15	120	IOP-2S32-SC	0.23	27	0.90	15	0.98
			230		0.12				
			277		0.10				
2	30	60/15	120	IOP-2S32-SC	0.44	52	0.88	20	0.98
			230		0.23				
			277		0.19				
<b>F32T8, FBO31T8, F32T8/U6</b>									
1	32	0/-18	120	IOP-2S32-SC	0.24	29	0.90	15	0.98
			230		0.13				
			277		0.11				
2	32	0/-18	120	IOP-2S32-SC	0.47	56	0.88	10	0.98
			230		0.24				
			277		0.20				
4	32	0/-18	120	IOP-4S32-SC*	0.91	109	0.88	10	0.98
			277		0.39	108			
<b>Low Watt F32T8, FBO31T8, F32T8/U6</b>									
2	32	0/-18	120	IOP-2S32-LW-SC*	0.38	47	0.71	10	0.98
			277		0.16	46			

\*Preliminary Data -- full family data available 2Q04

## Wiring Diagrams/Dimensions



\*FOR SINGLE LAMP OPERATION, INSULATE YELLOW LEADS INDIVIDUALLY FOR 600V



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