ADVANCE

ELECTRONIC FLUORESCENT

Centium®

Instant Start Ballast for Energy Efficiency T5 & T8 Lamps

Micro 1.0 Electronic Ballast

PRODUCT OVERVIEW:

Advance announces the enhancement of its popular line of Centium® Instant Start micro-can electronic ballasts. Advance's Centium (MC) ballasts with leads now feature Advance's exclusive IntelliVolt® multiple-voltage technology, enabling their operation at any input voltage from 120 to 277 volts, 50/60Hz. In addition, the ballasts, which previously operated one or two 32-watt T8, 25-watt T8, 28-watt T5 or 21-watt T5 fluorescent lamps, will now also run both 17-watt T8 lamps as well as 14-watt T5 lamps.

Lightweight and compact enough to fit into the sleekest new fixture designs, Advance's Centium (MC) ballasts are ideal in such applications as decorative/cove lighting, general and indirect lighting, and in any fixture where space restrictions require smaller ballasts. As with all Centium (MC) electronic ballasts, the ballasts operate at 0°F/-18°C and feature total harmonic distortion less than 10% and instant start technology, insuring energy-efficient lighting operation.

DESIGN HIGHLIGHTS:

- IntelliVolt® technology (120-277V, 50/60Hz)
  - ❍ Ensures shipment of correct voltage ballast or fixture for each application
  - ❍ Reduces SKU's required in inventory
- Low profile housing
  - ❍ Only 1.00" high ballast provides flexibility in new generation fixture designs
- Operates above 40 kHz
  - ❍ Eliminates interference with Infrared Control Systems
- 0°F starting capability
  - ❍ Suitable for cold temperature applications
- <10% THD (>0.99 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
- Instant Start lamp ignition
  - ❍ Consumes less energy than Rapid Start ballasts
- Lamp EOL protection circuit
  - ❍ Safely removes power from the lamp at end-of-life
  - ❍ Prevents lamp overheating
- Microprocessor technology
  - ❍ Provided optimal operation of lamps

APPLICATIONS:

- ***Decorative Lighting***
- ***Cove Lighting***
- ***Indirect Lighting***
- ***General Lighting***

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Lamp Data		Min. Start Temp. (F/C)	Input Volts	Catalog Number	Certifications		Line Current (Amps)	Input Power ANSI (Watts)	Ballast Factor	Max. THD %	Power Factor %	Dim.	Wiring Diagram
No.	Watts												
F14T5													
1	14	32/-0	120	ICN-132-MC	UL	CSA	0.15	19	1.05	10	0.98	A	1
			230				0.08						
			277				0.07			20			
2	14	32/-0	120	ICN-2M32-MC	UL	CSA	0.30	36	1.05	10	0.98	A	2
			230				0.16						
			277				0.13			20			
F21T5													
1	21	32/-0	120	RCN-132-MC	UL	CSA	0.22	27	1.10	10	0.99	A	1
			277	VCN-132-MC			0.10						
			120	ICN-132-MC			0.21	26	1.05	10	0.98		
			230				0.11			15			
			277				0.09						
2	21	32/-0	120	RCN-2M32-MC	UL	CSA	0.42	50	1.10	10	0.99	A	2
			277	VCN-2M32-MC			0.18						
			120	ICN-2M32-MC			0.42	50	1.05	10	0.98		
			230				0.22			15			
			277				0.18						
F28T5													
1	28	32/-0	120	RCN-132-MC	UL	CSA	0.25	30	0.98	10	0.98	A	1
			277	VCN-132-MC			0.11						
			120	ICN-132-MC			0.28	34	1.05	10	0.98		
			230				0.14			15			
			277				0.12						
2	28	32/-0	120	RCN-2M32-MC	UL	CSA	0.50	60	0.98	10	0.99	A	2
			277	VCN-2M32-MC			0.22						
			120	ICN-2M32-MC			0.57	68	1.05	10	0.98		
			230				0.30			15			
			277				0.25						

Wiring Diagrams / Dimensions

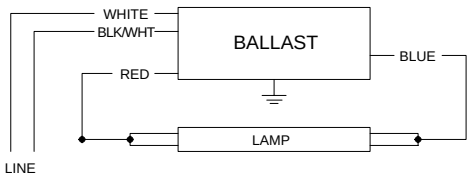


Diagram 1

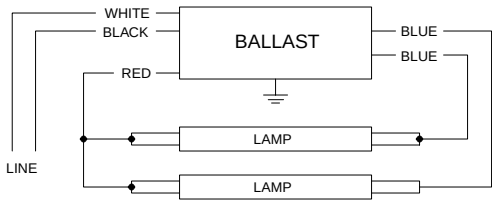
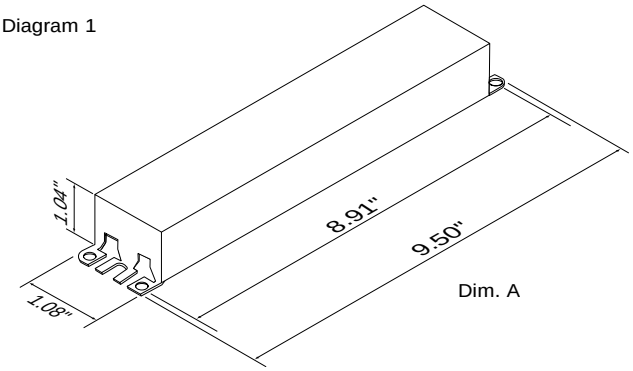


Diagram 2



Dim. A

Lamp Data		Min. Start Temp. (F/C)	Input Volts	Catalog Number	Certifications		Line Current (Amps)	Input Power ANSI (Watts)	Ballast Factor	Max. THD %	Power Factor %	Dim.	Wiring Diagram
No.	Watts												
F17T8													
1	17	0/-18	120	ICN-132-MC	UL	CSA	0.14	17	0.88	10	0.98	A	1
			230				0.07						
			277				0.06			20			
2	17	0/-18	120	ICN-2M32-MC	UL	CSA	0.26	31	0.88	10	0.98	A	2
			230				0.13						
			277				0.11			20			
F25T8, FBO24T8													
1	25	0/-18	120	RCN-132-MC	UL	CSA	0.21	25	0.98	10	0.98	A	1
			277	VCN-132-MC			0.09						
			120	ICN-132-MC			0.19	23	0.88	10	0.98		
			230				0.11			15			
			277				0.09						
2	25	0/-18	120	RCN-2M32-MC	UL	CSA	0.41	48	0.88	10	0.99	A	2
			277	VCN-2M32-MC			0.18						
			120	ICN-2M32-MC			0.37	44	0.88	10	0.98		
			230				0.19			15			
			277				0.16						
F32T8/ES (30W)													
1	30	60/15	120	RCN-132-MC	UL	CSA	0.24	28	0.98	10	0.98	A	1
			277	VCN-132-MC			0.10						
			120	ICN-132-MC			0.23	27	0.88	10	0.98		
			230				0.12						
			277				0.10						
2	30	60/15	120	RCN-2M32-MC	UL	CSA	0.45	54	0.88	10	0.99	A	2
			277	VCN-2M32-MC			0.20						
			120	ICN-2M32-MC			0.45	54	0.88	15	0.98		
			230				0.24						
			277				0.20						
F32T8, FBO31T8, F32T8/U6													
1	32	0/-18	120	RCN-132-MC	UL	CSA	0.25	29	0.98	10	0.98	A	1
			277	VCN-132-MC			0.11						
			120	ICN-132-MC			0.25	30	0.88	10	0.98		
			230				0.13						
			277				0.11						
2	32	0/-18	120	RCN-2M32-MC	UL	CSA	0.49	58	0.88	10	0.99	A	2
			277	VCN-2M32-MC			0.21						
			120	ICN-2M32-MC			0.50	59	0.88	15	0.98		
			230				0.25						
			277				0.21						

Centium

BALLAST SPECIFICATIONS

Section I - Physical Characteristics

1.1 Ballast shall be physically interchangeable with standard electromagnetic and standard electronic ballasts.

1.2 The electronic ballast shall have a maximum height of 1.04 in. and maximum weight of 0.75 lbs.

1.3 The electronic ballast shall be furnished with integral leads, color-coded to ANSI C82.11.

Section II - Performance Requirements

2.1 Ballast shall be Instant Start

2.2 Ballast shall contain auto restart circuitry in order to restart lamps without resetting power.

2.3 Ballast shall operate from 50/60 Hz input source of 120V or 277V with sustained variations of +/- 10% (voltage and frequency with no damage to the ballast. IntelliVolt models shall operate from 50/60 Hz input source of 120V through 277V with sustained variations of +/-10% (voltage and frequency) with no damage to ballast.

2.4 The electronic ballast output frequency to the lamps shall be above 42 kHz to minimize interference with infrared control systems and eliminate visible flicker.

2.5 Ballast shall have a Power Factor greater than 0.98 for primary lamp.

2.6 Ballast shall have a minimum ballast factor for primary lamp applications as follows; 0.75 for Low Watt, 0.85 for Normal Light Output, and 1.20 for High Light.

2.7 Ballast shall provide for a Lamp Current Crest Factor of 1.7 or less in accordance with lamp manufacturer recommendations.

2.8 Ballast input current shall have Total Harmonic Distortion (THD) of less than 20% for Standard models and THD of less than 10% for Centium models when operated at nominal line voltage with primary lamp.

2.9 Ballast shall have a Class A sound rating.

2.10 Ballast shall have a minimum starting temperature of -18°C (0°F) for standard T8 lamps and 16°C (60°F) for energy-saving T8 lamps.

2.11 Ballast shall provide Lamp EOL Protection Circuit.

2.12 Ballast shall tolerate sustained open circuit and short circuit output conditions without damage.

Section III - Regulatory Requirements

3.1 Ballast shall not contain any Polychlorinated Biphenyl (PCB).

3.2 Ballast shall be Underwriters Laboratories (UL) listed, Class P, Type CC and Type 1 Outdoor; and Canadian Standards Association (CSA) certified.

3.3 Ballast shall comply with ANSI C62.41 Category A for Transient protection.

3.4 Ballast shall comply win ANSI C82.11, where applicable.

3.5 Ballast shall comply with the requirements of the Federal Communications Commission (FCC) rules and regulations, Title 47 CFR part 18, Non-Consumer (Class A) for EMI/RFI (conducted and radiated).

Section IV - Other

4.1 The electronic ballast shall be produced in a factory certified to ISO 9002 Quality System Standards.

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 fifteen-year history of producing electronic ballasts for the North American market.

ADVANCE

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