



The right combination

Philips Advance's instant start, low-profile Centium® T8 ballasts for standard and energy saving lamps

Reliable and energy-efficient, Philips Advance's broad line of Centium high frequency electronic ballasts for T8 fluorescent lamps offers all of the energy-saving properties of our standard electronic line plus the added benefits of lamp striation reduction technology making these ballasts compatible with all energy saving T8 lamps. This provides your customers with a more sustainable lighting solution over standard T8 or T12 fixtures.

Our 1 and 2 lamp models have been designed in a new more compact ballast measuring just 9.5"L x 1.3"W x 1.0"H while weighing just 0.678 lbs. making it even more ideal for today's low profile designer fixtures. The 3 and 4 lamp models are featured in our industry standard small housing 9.5"L x 1.7"W x 1.18"H.

Our Centium ballasts are an optimal choice for a broad range of new construction and retrofit applications within the commercial sector including general office lighting, conference, meeting, and board room applications, indirect and decorative lighting, and new fixture designs requiring smaller ballasts.

Lamp Striation Reduction Technology

- Allows for additional energy saving opportunities by being compatible with all energy saving T8 lamps

IntelliVolt® Technology

- Enhances accuracy and ease of ordering while reducing stocking/SKU requirements

0°F Starting Capability*

- Suitable for cold temperature applications

NEMA Premium® Designated Ballasts**

- Meets the energy-efficiency standards set by NEMA for T8 ballasts

* When operating standard (non-Energy Saving) lamps

** 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.

**PHILIPS
ADVANCE**

No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Input Power ANSI (Watts)	Ballast Factor	Max. THD %	Line Current (Amps)	Min. Starting Temp. (°F /°C)	Dim.	Wiring Diag.*
F17T8, FB016T8 (17W)											
1	120-277	IS	Centium	ICN-1P32-N	18	0.93	10	0.15 - 0.07	0/-18	D	63
				ICN-2P32-N	21	1.08	10	0.17 - 0.05		D	64
2	120-277	IS	Centium	ICN-2P32-N	32	0.90	10	0.26 - 0.11	0/-18	D	64
				ICN-3P32-SC	38	1.07	15	0.32 - 0.14		B	65
3	120-277	IS	Centium	ICN-3P32-SC	48	0.92	15	0.39 - 0.17	0/-18	B	65
				ICN-4P32-SC	53	1.04	15	0.45 - 0.20			66
4	120-277	IS	Centium	ICN-4P32-SC	64	0.93	10	0.54 - 0.23	0/-18	B	66
F25T8, FB024T8 (25W - 36")											
1	120-277	IS	Centium	ICN-1P32-N	18	0.93	10	0.15 - 0.07	0/-18	D	63
				ICN-2P32-N	21	1.08	10	0.17 - 0.05		D	64
2	120-277	IS	Centium	ICN-2P32-N	32	0.90	10	0.26 - 0.11	0/-18	D	64
				ICN-3P32-SC	38	1.07	15	0.32 - 0.14		B	65
3	120-277	IS	Centium	ICN-3P32-SC	48	0.92	15	0.39 - 0.17	0/-18	B	65
				ICN-4P32-SC	53	1.04	15	0.45 - 0.20			66
4	120-277	IS	Centium	ICN-4P32-SC	64	0.93	10	0.54 - 0.23	0/-18	B	66
F25T8/ES (25W - 48")											
1	120-277	IS	Centium	ICN-1P32-N	25	0.90	10	0.11 - 0.10	60/16	D	63
2	120-277	IS	Centium	ICN-2P32-N	46 - 45	0.88	10	0.38 - 0.16	60/16	D	64
				ICN-3P32-SC	51 - 50	1.00	10	0.42 - 0.18		B	65
3	120-277	IS	Centium	ICN-3P32-SC	68 - 67	0.88	10	0.56 - 0.24	60/16	B	65
				ICN-4P32-SC	76 - 75	1.00	10	0.64 - 0.27			66A
4	120-277	IS	Centium	ICN-4P32-SC	92 - 91	0.88	10	0.77 - 0.33	60/16	B	66
F28T8/ES (28W - 48")											
1	120-277	IS	Centium	ICN-1P32-N	27	0.92	10	0.22 - 0.10	60/16	D	63
2	120-277	IS	Centium	ICN-2P32-N	49 - 48	0.88	10	0.41 - 0.17	60/16	D	64
				ICN-3P32-SC	55 - 54	1.00	10	0.46 - 0.20		B	65
3	120-277	IS	Centium	ICN-3P32-SC	73 - 72	0.88	10	0.61 - 0.29	60/16	B	65
				ICN-4P32-SC	82 - 81	1.00	10	0.69 - 0.29			66
4	120-277	IS	Centium	ICN-4P32-SC	100 - 98	0.88	10	0.84 - 0.35	60/16	B	66

* Insulate unused blue lead tp 600V

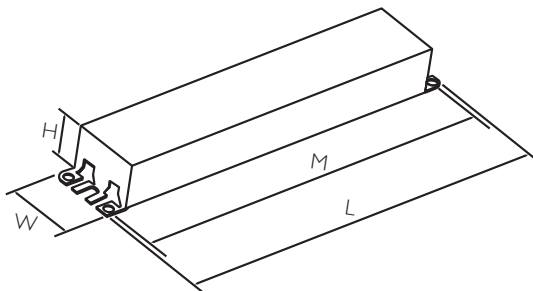


Fig. B
9.5"(L) x 1.7"(W) x 1.18"(H) x 8.9"(M)

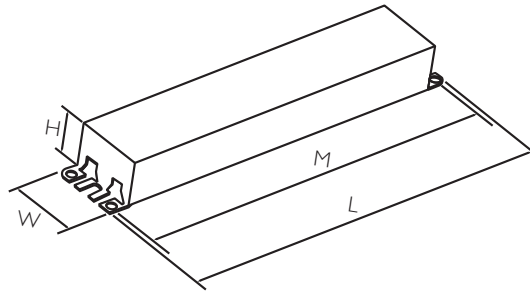
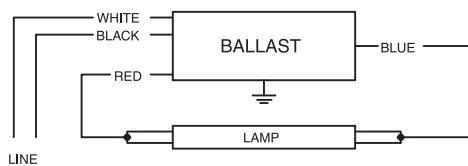


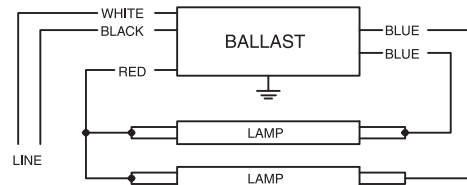
Fig. D
9.5"(L) x 1.3"(W) x 1.0"(H) x 8.9"(M)

No. of Lamps	Input Volts	Lamp Starting Method	Ballast Family	Catalog Number	Input Power ANSI (Watts)	Ballast Factor	Max. THD %	Line Current (Amps)	Min. Starting Temp. (°F /°C)	Dim.	Wiring Diag.
F32T8/ES (30W - 48")											
1	120-277	IS	Centium	ICN-1P32-N	26	0.92	10	0.22 - 0.10	60/16	B	63
				ICN-2P32-N	37 - 36	1.05	10	0.31 - 0.13			64
2	120-277	IS	Centium	ICN-2P32-N	59 - 58	0.89	10	0.49 - 0.22	60/16	B	64
				ICN-3P32-SC	61	1.01	10	0.51 - 0.22			65
3	120-277	IS	Centium	ICN-3P32-SC	79	0.88	10	0.66 - 0.29	60/16	B	65
				ICN-4P32-SC	87	1.00	10	0.73 - 0.32			66
4	120-277	IS	Centium	ICN-4P32-SC	105	0.88	10	0.88 - 0.38	60/16	B	66
F32T8, FB031T8, F32T8/U6 (32W)											
1	120-277	IS	Centium	ICN-1P32-N	31	0.90	10	0.26 - 0.12	0/-18	B	63
				ICN-2P32-N	36	1.03	15	0.30 - 0.14			64
2	120-277	IS	Centium	ICN-2P32-N	59	0.88	10	0.49 - 0.22	0/-18	B	64
				ICN-3P32-SC	65	1.01	10	0.54 - 0.24			65
3	120-277	IS	Centium	ICN-3P32-SC	85	0.88	10	0.71 - 0.31	0/-18	B	65
				ICN-4P32-SC	93	1.00	10	0.78 - 0.33			66
4	120-277	IS	Centium	ICN-4P32-SC	112	0.88	10	0.94 - 0.41	0/-18	B	66
F40T8 (40W)											
1	120-277	IS	Centium	ICN-2P32-SC	42	1.00	10	0.35 - 0.15	32/0	B	64
2	120-277	IS	Centium	ICN-3P32-SC	77	1.00	10	0.65 - 0.28	32/0	B	65
3	120-277	IS	Centium	ICN-4P32-SC	112	0.97	10	0.94 - 0.40	32/0	B	66

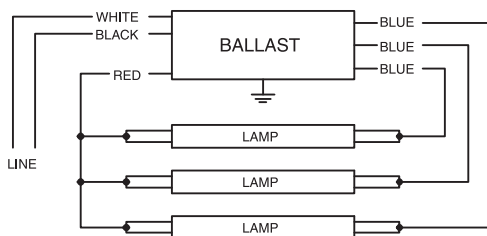
* Insulate unused blue lead tp 600V



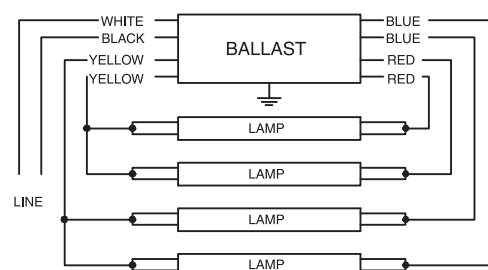
Diag. 63



Diag. 64



Diag. 65



Diag. 66

Ballast Specification

Section I - Physical Characteristics

- 1.1 Ballast shall be physically interchangeable with standard electromagnetic or standard electronic ballasts, where applicable.
- 1.2 Ballast shall be provided with integral leads color-coded per ANSI C82.11.

Section II - Performance Requirements

- 2.1 Ballast shall be Instant Start.
- 2.2 Ballast shall provide Independent Lamp Operation (ILO) for Instant Start ballasts allowing remaining lamp(s) to maintain full light output when one or more lamps fail.
- 2.3 Ballast shall contain auto restart circuitry in order to restart lamps without resetting power.
- 2.4 Ballast shall operate from 50/60 Hz input source of 120V through 277V with sustained variations of +/- 10% (voltage and frequency) with no damage to the ballast.
- 2.5 Ballast shall be high frequency electronic type and operate lamps at a frequency between 42 kHz and 52kHz to avoid interference with infrared devices, eliminate visible flicker and avoid Article Surveillance Systems, such as anti-theft devices.
- 2.6 Ballast shall have a Power Factor greater than 0.98 for primary lamp.
- 2.7 Ballast shall have a minimum ballast factor for primary lamp application as follows: 0.75 for Low Watt, 0.85 for Normal Light Output, and 1.20 for High Light.
- 2.8 Ballast shall provide for a Lamp Current Crest Factor of 1.7 or less in accordance with lamp manufacturer recommendations.
- 2.9 Ballast input current shall have Total Harmonic Distortion (THD) of less than 10% when operated at normal line voltage with primary lamp.
- 2.10 Ballast shall have a Class A sound rating.
- 2.11 Ballast shall have a minimum starting temperature of -18° C (0° F) for standard T8 lamps and 16° C (60° F) energy saving T8 lamps.
- 2.12 Ballast shall tolerate sustained open circuit and short circuit output conditions without damage.
- 2.13 Ballast shall contain an anti-striation circuit to reduce striation on energy-saving T8 lamps.

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 and Type I Outdoor; and Canadian Standards Association (CSA) certified where applicable.
- 3.3 Ballast shall comply with ANSI C62.41 Category A for Transient protection.
- 3.4 Ballast shall comply with 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 Ballast shall be manufactured in a factory certified to ISO 9002 Quality System Standards.
- 4.2 Ballast shall carry a _____ limited warranty from date of manufacture against defects in material or workmanship for operation at a maximum case temperature of _____ (Go to our web site for up-to-date warranty information: www.philips.com/advancewarranty).
- 4.3 Manufacturer shall have a twenty-year history of producing electronic ballasts for the North American market.
- 4.4 Ballast shall be Philips Advance part # _____ or approved equal.



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