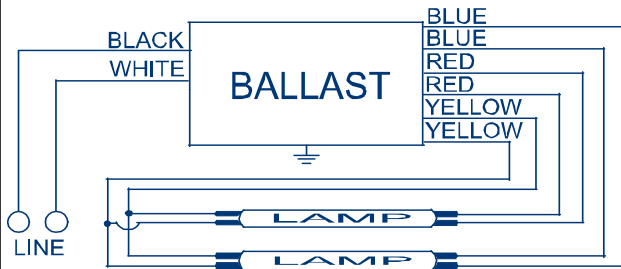


Electrical Specifications at 120V

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/°C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F48T12/HO	1	60	-20/-29	0.43	49	1.15	10	0.95	1.7	2.35
F48T12/HO	2	60	-20/-29	0.82	93	0.90	10	0.95	1.7	0.97
F60T12/HO	1	75	-20/-29	0.52	59	1.10	10	0.95	1.7	1.86
F60T12/HO	2	75	-20/-29	0.98	116	1.00	10	0.98	1.7	0.86
F72T12/HO	1	85	-20/-29	0.63	72	1.10	10	0.95	1.7	1.53
F72T12/HO	2	85	-20/-29	1.19	140	0.90	10	0.98	1.7	0.64
F96T12/HO	1	110	-20/-29	0.88	100	0.91	10	0.95	1.6	0.91
* F96T12/HO	2	110	-20/-29	1.57	189	0.89	10	1.00	1.6	0.47
F96T12/HO/ES	1	95	60/16	0.68	78	0.91	10	0.95	1.6	1.17
F96T12/HO/ES	2	95	60/16	1.27	152	0.85	10	1.00	1.6	0.56

Wiring Diagram

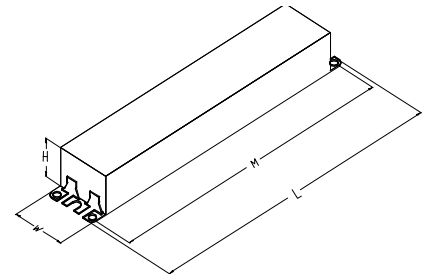


The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.		in.	cm.
Black	25	63.5	Yellow/Blue		0
White	25	63.5	Blue/White		0
Blue	46	116.8	Brown		0
Red	46	116.8	Orange		0
Yellow	79	200.7	Orange/Black		0
Gray		0	Black/White		0
Violet		0	Red/White		0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm



Revised 04/17/13

ICN-2S110-SC@120V	
Brand Name	CENTIUM
Ballast Type	Electronic
Starting Method	Rapid Start
Lamp Connection	Series
Input Voltage	120-277
Input Frequency	50/60 HZ
Status	Active

Electrical Specifications at 120V

Notes:

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

- 2.1 Ballast shall be _____ (Instant, Rapid or Programmed) 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 (except T8/HO ballast).
- 2.4 Ballast shall operate from 50/60 Hz input source of _____ (120V through 277V or 347V through 480V) with sustained variations of +/- 10% (voltage and frequency).
- 2.5 Ballast shall be high frequency electronic type and operate lamps at a frequency above 42 kHz to avoid interference with infrared devices and eliminate visible flicker.
- 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.
- 2.9 Ballast input current shall have Total Harmonic Distortion (THD) of less than 10% when operated at nominal line voltage with primary lamp.
- 2.10 Ballast shall have a Class A sound rating for all 4-foot lamps and smaller.
- 2.11 Ballast shall have a minimum starting temperature of _____ [-18C (0F) for standard T8 and Long Twin Tube lamps, 10C (50F) for standard T12 lamps, 0C (32F) for Slimline T8 lamps, -29C (-20F) for HO lamps,] for primary lamp application. Ballast shall have a minimum starting temperature of 16C (60F) for energy-saving lamps.
- 2.12 Ballast shall tolerate sustained open circuit and short circuit output conditions.
- 2.13 Ballast for T8 lamps shall provide lamp striation-reduction circuitry.
- 2.14 Ballast for FT5 lamps shall provide lamp EOL protection circuitry.

Section III - Regulatory

- 3.1 Ballast shall not contain any Polychlorinated Biphenyl (PCB).
- 3.2 Ballast shall be Underwriters Laboratories (UL) listed, Class P and Type 1 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 applicable requirements of the Federal Communications Commission (FCC) rules and regulations, Title 47 CFR part 18, for Non-Consumer equipment.
- 3.6 Ballast shall comply with NEMA 410 for in-rush current limits.
- 3.7 Ballast for T8 lamps shall meet NEMA Premium/CEE High Performance T8 Lighting System Specifications.
- 3.8 Ballast shall meet RoHS Compliance Standards

Section IV - Other

- 4.1 Ballast shall be manufactured in a factory certified to ISO 9001 Quality System Standards.
- 4.2 Ballast shall carry a five-year warranty from date of manufacture against defects in material or workmanship, including replacement, for operation at a maximum case temperature of 70C.
- 4.3 Manufacturer shall have a twenty-year history of producing electronic ballasts for the North American market.
- 4.4 Energy saving T8 lamps (25W, 28W or 30W) may experience lamp striations if operated on ballasts not rated for their use.

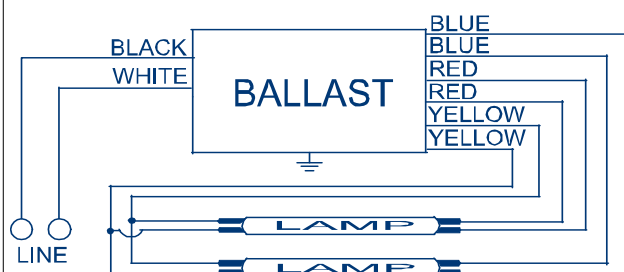


Revised 04/17/13

Electrical Specifications at 277V

Lamp Type	Num. of Lamps	Rated Lamp Watts	Min. Start Temp (°F/C)	Input Current (Amps)	Input Power (ANSI Watts)	Ballast Factor	MAX THD %	Power Factor	MAX Lamp Current Crest Factor	B.E.F.
F48T12/HO	1	60	-20/-29	0.19	49	1.15	10	0.95	1.7	2.35
F48T12/HO	2	60	-20/-29	0.35	92	0.90	10	0.95	1.7	0.98
F60T12/HO	1	75	-20/-29	0.22	59	1.10	10	0.95	1.7	1.86
F60T12/HO	2	75	-20/-29	0.42	114	1.00	10	0.98	1.7	0.88
F72T12/HO	1	85	-20/-29	0.27	72	1.10	10	0.95	1.7	1.53
F72T12/HO	2	85	-20/-29	0.51	138	0.90	10	0.98	1.7	0.65
F96T12/HO	1	110	-20/-29	0.35	92	0.91	10	0.95	1.6	0.99
* F96T12/HO	2	110	-20/-29	0.67	184	0.89	10	0.99	1.6	0.48
F96T12/HO/ES	1	95	60/16	0.29	77	0.91	10	0.95	1.6	1.18
F96T12/HO/ES	2	95	60/16	0.55	149	0.85	10	0.99	1.6	0.57

Wiring Diagram

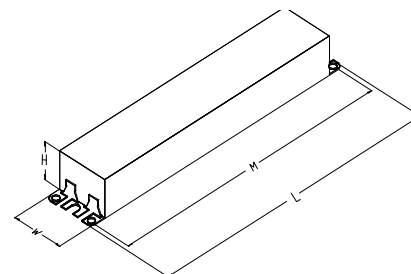


The wiring diagram that appears above is for the lamp type denoted by the asterisk (*)

Standard Lead Length (inches)

	in.	cm.		in.	cm.
Black	25	63.5	Yellow/Blue		0
White	25	63.5	Blue/White		0
Blue	46	116.8	Brown		0
Red	46	116.8	Orange		0
Yellow	79	200.7	Orange/Black		0
Gray		0	Black/White		0
Violet		0	Red/White		0

Enclosure



Enclosure Dimensions

OverAll (L)	Width (W)	Height (H)	Mounting (M)
9.50 "	1.7 "	1.18 "	8.90 "
9 1/2	1 7/10	1 9/50	8 9/10
24.1 cm	4.3 cm	3 cm	22.6 cm



Revised 02/19/13

ICN-2S110-SC@277V	
Brand Name	CENTIUM
Ballast Type	Electronic
Starting Method	Rapid Start
Lamp Connection	Series
Input Voltage	120-277
Input Frequency	50/60 HZ
Status	Active

Electrical Specifications at 277V

Notes:

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

- 2.1 Ballast shall be _____ (Instant, Rapid or Programmed) 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.
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- 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.
- 2.9 Ballast input current shall have Total Harmonic Distortion (THD) of less than 10% when operated at nominal line voltage with primary lamp.
- 2.10 Ballast shall have a Class A sound rating for all 4-foot lamps and smaller.
- 2.11 Ballast shall have a minimum starting temperature of _____ [-18C (0F) for standard T8 and Long Twin Tube lamps, 10C (50F) for standard T12 lamps, 0C (32F) for Slimline T8 lamps, -29C (-20F) for HO lamps,] for primary lamp application. Ballast shall have a minimum starting temperature of 16C (60F) for energy-saving lamps.
- 2.12 Ballast shall tolerate sustained open circuit and short circuit output conditions.
- 2.13 Ballast for T8 lamps shall provide lamp striation-reduction circuitry.
- 2.14 Ballast for FT5 lamps shall provide lamp EOL protection circuitry.

Section III - Regulatory

- 3.1 Ballast shall not contain any Polychlorinated Biphenyl (PCB).
- 3.2 Ballast shall be Underwriters Laboratories (UL) listed, Class P and Type 1 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 applicable requirements of the Federal Communications Commission (FCC) rules and regulations, Title 47 CFR part 18, for Non-Consumer equipment.
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Section IV - Other

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Revised 02/19/13

The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract.

