

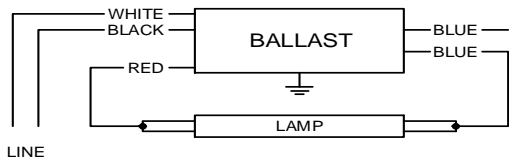


**Electrical Specifications**

| ICN-2P32-N @ 120V |                      |
|-------------------|----------------------|
| Brand Name        | <b>CENTIUM</b>       |
| Ballast Type      | <b>Electronic</b>    |
| Starting Method   | <b>Instant Start</b> |
| Lamp Connection   | <b>Parallel</b>      |
| Input Voltage     | <b>120-277</b>       |
| Input Frequency   | <b>50/60 HZ</b>      |
| Status            | <b>Active</b>        |

| 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. |
|----------------|---------------|------------------|-------------------------|----------------------|--------------------------|----------------|-----------|--------------|-------------------------------|--------|
| * F17T8        | 1             | 17               | 0/-18                   | 0.17                 | 21                       | 1.08           | 10        | 0.99         | 1.6                           | 5.14   |
| F17T8          | 2             | 17               | 0/-18                   | 0.26                 | 32                       | 0.90           | 10        | 0.99         | 1.6                           | 2.81   |
| F25T8          | 1             | 25               | 0/-18                   | 0.24                 | 29                       | 1.05           | 10        | 0.99         | 1.6                           | 3.62   |
| F25T8          | 2             | 25               | 0/-18                   | 0.38                 | 45                       | 0.89           | 10        | 0.99         | 1.6                           | 1.98   |
| F32T8          | 1             | 32               | 0/-18                   | 0.31                 | 37                       | 1.05           | 10        | 0.99         | 1.6                           | 2.84   |
| F32T8          | 2             | 32               | 0/-18                   | 0.49                 | 56                       | 0.89           | 10        | 0.99         | 1.6                           | 1.59   |
| F32T8/ES (25W) | 1             | 25               | 60/16                   | 0.24                 | 28                       | 1.05           | 10        | 0.99         | 1.6                           | 3.75   |
| F32T8/ES (25W) | 2             | 25               | 60/16                   | 0.38                 | 45                       | 0.92           | 10        | 0.99         | 1.6                           | 2.04   |
| F32T8/ES (28W) | 1             | 28               | 60/16                   | 0.24                 | 31                       | 1.03           | 10        | 0.99         | 1.6                           | 3.32   |
| F32T8/ES (28W) | 2             | 28               | 60/16                   | 0.41                 | 48                       | 0.89           | 10        | 0.99         | 1.6                           | 1.85   |
| F32T8/ES (30W) | 1             | 30               | 60/16                   | 0.28                 | 33                       | 1.03           | 10        | 0.98         | 1.6                           | 3.12   |
| F32T8/ES (30W) | 2             | 30               | 60/16                   | 0.45                 | 54                       | 0.89           | 10        | 0.99         | 1.6                           | 1.65   |
| F40T8          | 1             | 40               | 32/00                   | 0.35                 | 42                       | 1.00           | 10        | 0.98         | 1.6                           | 2.38   |

**Wiring Diagram**



**Diag. 68**

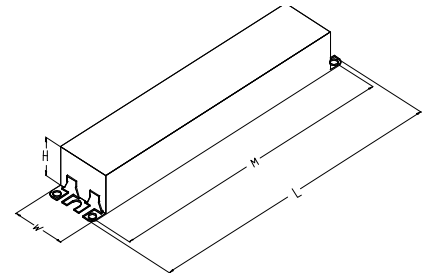
Insulate unused blue lead for 1000V

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

**Standard Lead Length (inches)**

|        | in. | cm.   |              | in. | cm. |
|--------|-----|-------|--------------|-----|-----|
| Black  | 24  | 61    | Yellow/Blue  |     | 0   |
| White  | 24  | 61    | Blue/White   |     | 0   |
| Blue   | 28  | 71.1  | Brown        |     | 0   |
| Red    | 45  | 114.3 | Orange       |     | 0   |
| Yellow |     | 0     | Orange/Black |     | 0   |
| Gray   |     | 0     | Black/White  |     | 0   |
| Violet |     | 0     | Red/White    |     | 0   |

**Enclosure**



**Enclosure Dimensions**

| OverAll (L) | Width (W) | Height (H) | Mounting (M) |
|-------------|-----------|------------|--------------|
| 9.5 "       | 1.3 "     | 1.0 "      | 8.9 "        |
| 9 1/2       | 1 3/10    | 1          | 8 9/10       |
| 24.1 cm     | 3.3 cm    | 2.5 cm     | 22.6 cm      |



Revised 01/30/12

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## Electrical Specifications

| ICN-2P32-N @ 120V |                      |
|-------------------|----------------------|
| Brand Name        | <b>CENTIUM</b>       |
| Ballast Type      | <b>Electronic</b>    |
| Starting Method   | <b>Instant Start</b> |
| Lamp Connection   | <b>Parallel</b>      |
| Input Voltage     | <b>120-277</b>       |
| Input Frequency   | <b>50/60 HZ</b>      |
| Status            | <b>Active</b>        |

### 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.



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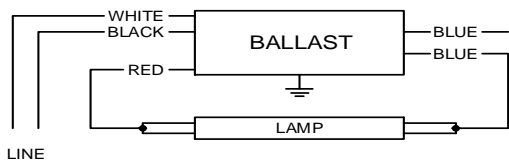


## Electrical Specifications

| ICN-2P32-N @ 277V |               |
|-------------------|---------------|
| Brand Name        | CENTIUM       |
| Ballast Type      | Electronic    |
| Starting Method   | Instant Start |
| Lamp Connection   | Parallel      |
| Input Voltage     | 120-277       |
| Input Frequency   | 50/60 HZ      |
| Status            | Active        |

| 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. |
|----------------|---------------|------------------|-------------------------|----------------------|--------------------------|----------------|-----------|--------------|-------------------------------|--------|
| * F17T8        | 1             | 17               | 0/-18                   | 0.08                 | 21                       | 1.07           | 10        | 0.97         | 1.6                           | 5.10   |
| F17T8          | 2             | 17               | 0/-18                   | 0.11                 | 31                       | 0.90           | 10        | 0.99         | 1.6                           | 2.90   |
| F25T8          | 1             | 25               | 0/-18                   | 0.11                 | 29                       | 1.05           | 10        | 0.98         | 1.6                           | 3.62   |
| F25T8          | 2             | 25               | 0/-18                   | 0.16                 | 45                       | 0.89           | 10        | 0.99         | 1.6                           | 1.98   |
| F32T8          | 1             | 32               | 0/-18                   | 0.13                 | 36                       | 1.05           | 10        | 0.99         | 1.6                           | 2.92   |
| F32T8          | 2             | 32               | 0/-18                   | 0.22                 | 56                       | 0.89           | 10        | 0.99         | 1.6                           | 1.59   |
| F32T8/ES (25W) | 1             | 25               | 60/16                   | 0.10                 | 27                       | 1.05           | 10        | 0.99         | 1.6                           | 3.89   |
| F32T8/ES (25W) | 2             | 25               | 60/16                   | 0.16                 | 46                       | 0.92           | 10        | 0.99         | 1.6                           | 2.00   |
| F32T8/ES (28W) | 1             | 28               | 60/16                   | 0.12                 | 30                       | 1.03           | 10        | 0.99         | 1.6                           | 3.43   |
| F32T8/ES (28W) | 2             | 28               | 60/16                   | 0.17                 | 47                       | 0.90           | 10        | 0.99         | 1.6                           | 1.92   |
| F32T8/ES (30W) | 1             | 30               | 60/16                   | 0.12                 | 33                       | 1.03           | 10        | 0.98         | 1.6                           | 3.12   |
| F32T8/ES (30W) | 2             | 30               | 60/16                   | 0.19                 | 52                       | 0.89           | 10        | 0.99         | 1.6                           | 1.71   |
| F40T8          | 1             | 40               | 32/00                   | 0.15                 | 42                       | 1.00           | 10        | 0.98         | 1.6                           | 2.38   |

### Wiring Diagram



Diag. 68

Insulate unused blue lead for 1000V

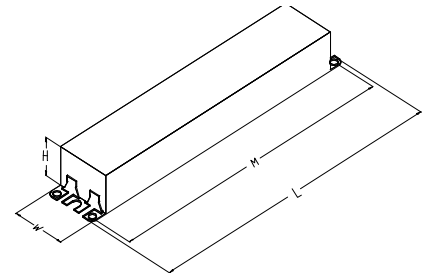
The wiring diagram that appears above is for the lamp type denoted by the asterisk (\*)

### Standard Lead Length (inches)

|        | in. | cm.   |
|--------|-----|-------|
| Black  | 28  | 71.1  |
| White  | 45  | 114.3 |
| Blue   | 24  | 61    |
| Red    | 24  | 61    |
| Yellow |     | 0     |
| Gray   |     | 0     |
| Violet |     | 0     |

|              | in. | cm. |
|--------------|-----|-----|
| Yellow/Blue  |     | 0   |
| Blue/White   |     | 0   |
| Brown        |     | 0   |
| Orange       |     | 0   |
| Orange/Black |     | 0   |
| Black/White  |     | 0   |
| Red/White    |     | 0   |

### Enclosure



### Enclosure Dimensions

| OverAll (L) | Width (W) | Height (H) | Mounting (M) |
|-------------|-----------|------------|--------------|
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| 9 1/2       | 1 3/10    | 1          | 8 9/10       |
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## Electrical Specifications

| ICN-2P32-N @ 277V |                      |
|-------------------|----------------------|
| Brand Name        | <b>CENTIUM</b>       |
| Ballast Type      | <b>Electronic</b>    |
| Starting Method   | <b>Instant Start</b> |
| Lamp Connection   | <b>Parallel</b>      |
| Input Voltage     | <b>120-277</b>       |
| Input Frequency   | <b>50/60 HZ</b>      |
| Status            | <b>Active</b>        |

### Notes:

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- 2.8 Ballast shall provide for a Lamp Current Crest Factor of 1.7 or less.
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#### Section III - Regulatory

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- 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.
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