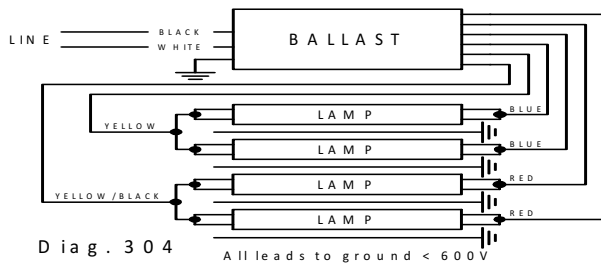


### Electrical Specifications at 120V

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.
* F120T12/HO	4	137	0/-18	2.88	337	0.61	10	0.99	1.7	0.18
F24T12/HO	4	35	-20/-29	0.71	83	0.68	10	0.98	1.7	0.82
F48T12/HO	4	60	-20/-29	1.24	148	0.65	10	0.99	1.7	0.44
F96T12/HO	4	110	-20/-29	2.28	272	0.63	10	0.99	1.7	0.23
F96T8/HO	4	86	-20/-29	2.70	321	0.88	10	0.99	1.7	0.27

### Wiring Diagram



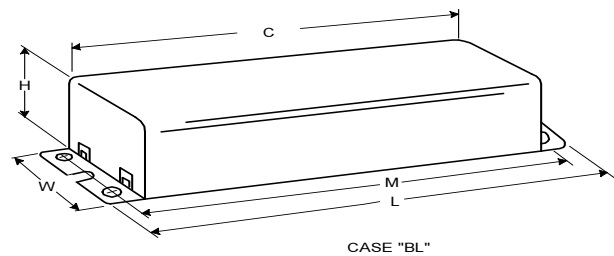
The wiring diagram that appears above is for the lamp type denoted by the asterisk (\*)

### Standard Lead Length (inches)

	in.	cm.
Black	24	61
White	24	61
Blue	120	304.8
Red	120	304.8
Yellow	120	304.8
Gray		0
Violet		0

	in.	cm.
Yellow/Blue	120	304.8
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)
14.3125 "	3.1875 "	2.625 "	13.75 "
14 5/16	3 3/16	2 5/8	13 3/4
36.4 cm	8.1 cm	6.7 cm	34.9 cm



Revised 09/25/14

ISB104014E@120V	
Brand Name	<b>SIGNPRO</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>

## Electrical Specifications at 120V

### Notes:

Electronic Sign Ballast Specifications

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 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).
- 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: 0.6 for T12HO, 0.8 for T8HO.
- 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.
- 2.11 Ballast shall have a minimum starting temperature of -29C (-20F) for HO lamps, for primary lamp application.
- 2.12 Ballast shall tolerate sustained open circuit and short circuit output conditions.

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 2 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 shall meet RoHS Compliance Standards.
- 3.8 Ballast shall comply requirements for ballast luminous efficiency (B.L.E.) per DOE November 14, 2014 rulemaking.

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 three-year warranty from date of manufacture against defects in material or workmanship, including replacement, for operation at a maximum case temperature of 90C.
- 4.3 Manufacturer shall have a twenty-year history of producing electronic ballasts for the North American market.

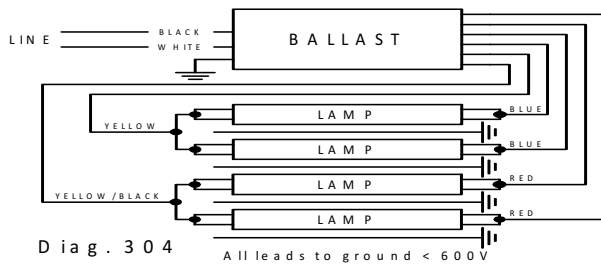


Revised 09/25/14

## 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.
* F120T12/HO	4	137	-20/-29	1.24	332	0.61	10	0.98	1.7	0.18
F24T12/HO	4	35	-20/-29	0.35	85	0.68	26	0.90	1.7	0.80
F48T12/HO	4	60	-20/-29	0.57	149	0.65	10	0.94	1.7	0.44
F96T12/HO	4	110	-20/-29	1.00	270	0.63	10	0.98	1.7	0.23
F96T8/HO	4	86	-20/-29	1.20	315	0.88	10	0.98	1.7	0.28

### Wiring Diagram



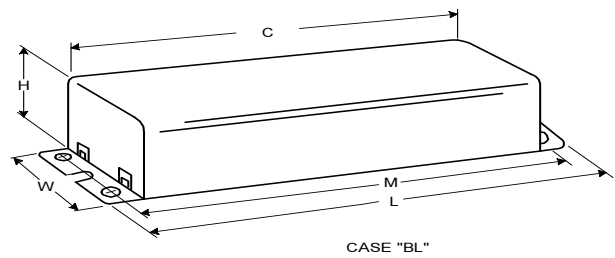
The wiring diagram that appears above is for the lamp type denoted by the asterisk (\*)

### Standard Lead Length (inches)

	in.	cm.
Black	24	61
White	24	61
Blue	120	304.8
Red	120	304.8
Yellow	120	304.8
Gray		0
Violet		0

	in.	cm.
Yellow/Blue	120	304.8
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)
14.3125 "	3.1875 "	2.625 "	13.75 "
14 5/16	3 3/16	2 5/8	13 3/4
36.4 cm	8.1 cm	6.7 cm	34.9 cm



Revised 09/25/14

ISB104014E@277V	
Brand Name	<b>SIGNPRO</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>

## Electrical Specifications at 277V

### Notes:

Electronic Sign Ballast Specifications

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 Start.
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- 3.4 Ballast shall comply with ANSI C82.11 where applicable.
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The information presented in this document is not intended as any commercial offer and does not form part of any quotation or contract.

