bodine

Emergency Ballast

Linear fluorescent

B50

AC/DC for T5 or T8 Lamps
One or Two-lamp Operation
Low-profile case (1.18" H)
Universal Input (120V through 277V)

Product order number: B50 (galvanized metal case)

Specifications

UL Listed for US and Canada
Factory or Field Installation
(Indoor and Damp)

Illumination Time
90 Minutes

Initial Light Output
Up to 1600 Lumens

Full Warranty
5 Years (NOT pro-rata)

Universal Input Voltage
120 Through 277 VAC, 50 or 60 Hz

AC Input Current
60 mA

AC Input Power Rating
5.0 Watts

Test Switch
2W-ITS (2-wire Illuminated Test Switch)

Battery
High-Temperature, Maintenance-Free
Nickel-Cadmium Battery
7- to 10-Year Life Expectancy

Battery Charging Current
180 mA

Recharge Time
24 Hours

Charging Indicator Light
LED

Temperature Rating (Ambient)
0°C to +50°C (32°F to 122°F)

Dimensions
13.31" x 2.2" x 1.18"
(338.1 mm x 55.88 mm x 29.97 mm)
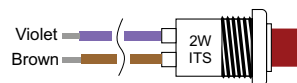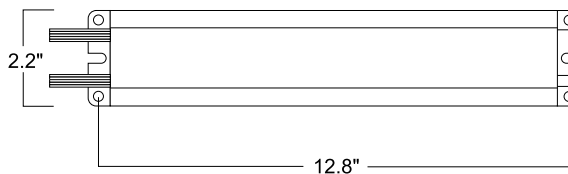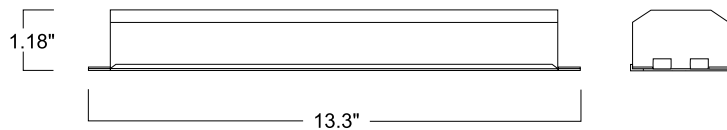Mounting Center 12.8" (325 mm)

Weight
2.7 lbs. (1.26 kg)

Benefits:

- AC or DC output
- Low profile case
- Emergency mode lumen output up to 1600 lumens
- Universal input (120 through 277 VAC 50/60 Hz)
- One or Two-lamp operation
- End-of-Lamp-Life Compatible
- Compatible with TLED lamps (see Table 1 on page 2)
- 2-Wire Illuminated test switch

Dimensions

13.3" x 2.2" x 1.18" (mounting center - 12.8")

An illuminated test switch/charging indicator light is provided.

B50-CAN Fluorescent emergency ballast, AC/DC output, universal input

Application

The B50 emergency ballast works in conjunction with an AC ballast to convert new or existing fluorescent fixtures into emergency lighting. The emergency ballast handles a wide range of input voltages and frequencies and consists of a high-temperature nickel-cadmium battery, charger and electronic circuitry in one compact galvanized metal case. The B50 can be used with one or two T8,T9,T10,T12 fluorescent lamps. It operates one 22 – 55 W (2' – 4') T5 lamp, and also including standard, energy saving, HO, VHO, circline, U-shaped and rapid-start (4-pin) long compact fluorescent lamps. Also operates one 8.5 – 16.5W Philips LED T8 InstantFit lamp: 9290002840, 9290002841, 9290002842, 9290002862, 9290002880, 9290002881, 9290002882, 9290002883, 9290011183, 9290011184, 9290011185, 9290011186, 9290011179, 9290011180, 9290011181, 9290011182. One- or two-lamp operation may be selected (see Table 1). It is also compatible with most single- and multi-lamp electronic and dimming AC ballasts. If used in an emergency-only fixture, no AC ballast is necessary. The B50 is suitable for indoor and damp locations and for sealed & gasketed fixtures, including fixtures rated for wet locations. It is not suitable for air handling heated air outlets or wet or hazardous locations. For information about specific lamp and ballast compatibility, please call the factory. Recommended applications include: international line voltages from 120 through 277 VAC (50 or 60 Hz); drilling rigs where generators are the primary source of power; and other applications requiring higher tolerance of line voltage variation or harmonic distortion.

Operation

When AC power fails, the B50 immediately switches to the emergency mode, operating either one or two lamps at a reduced lumen output for a minimum of 90 minutes. When the AC power is restored, the emergency ballast automatically returns to the charging mode and, using a patented circuit, delays AC ballast operation for approximately three seconds to prevent false tripping of the AC ballast end-of-lamp-life shutdown circuits.

Installation

The B50 does not affect normal fixture operation and may be used with either a switched or unswitched fixture. If a switched fixture is used, an unswitched hot lead must be connected to the emergency ballast. The emergency ballast must be fed from the same branch circuit as the AC ballast. The B50 may be installed inside, on top of or remote from the fixture. The emergency ballast may be remotely installed up to half the distance the AC ballast manufacturer recommends remoting the AC ballast from the lamp or up to 50 feet, whichever is less. Installation is not recommended with fixtures where the ambient temperature may fall below 5°C.

Emergency Illumination

Depending on the number (one or two), wattage and type of lamps selected, the B50 produces up to 1600 lumens initial emergency light output (see Table 2). If two-lamp operation is selected, light output is evenly divided between the lamps for better distribution of emergency illumination.

Specification

Emergency lighting shall be provided by using a standard fluorescent fixture equipped with a Bodine B50 emergency ballast. This emergency ballast shall consist of a high-temperature, maintenance-free nickel-cadmium battery, charger and electronic circuitry contained in one 13.31" x 2.2" x 1.18" galvanized metal case. A solid-state charging indicator light to monitor the charger and battery, a 2-wire illuminated test switch and installation hardware shall be provided. The emergency ballast, using a patented circuit, shall delay AC ballast operation for approximately three seconds to prevent false tripping of AC ballast endof- lamp-life shutdown circuits. The emergency ballast shall be capable of operating [one or two] _____ fluorescent lamp(s) (see Table 1) at _____lumens (see Table 2) initial light output in the emergency mode for a minimum of 90 minutes. It shall be suitable for indoor and damp locations and for sealed & gasketed fixtures, including fixtures rated for wet locations. The B50 shall operate at any line voltage from 120 through 277 VAC at frequencies of 50 or 60 Hz. The B50 shall have 5.0 Watts of input power and a 28.8 Watt-hour battery capacity and shall exceed emergency standards set forth by the current NEC and CEC. The emergency ballast shall be UL Listed for installation inside, on top of or remote from the fixture.

Warranty

Model B50 is warranted for five (5) full years from date of purchase. Please see detailed warranty information on our web site.

Table 1 Lamp Compatibility

LAMP DIAMETER (T5, T8, T9, T10, T12)	BASE	WATTAGE (Length)	NO. of LAMPS (EMERGENCY)	BROWN CONNECTOR	VIOLET CONNECTOR
1", 1¼", 1½" (T8, T9, T10, T12)	Single or Bipin	17 - 40 W (2' - 4')	1	CLOSED	OPEN
			2	OPEN	CLOSED
		40 - 215 W (5' -8')	1	OPEN	CLOSED
Long Compact	4-PIN (2G11)	18 - 39 W	1	CLOSED	OPEN
		40 - 55 W	1	CLOSED	OPEN
Twin/Quad/Triple Twin-Tube Compact	4-PIN (G24q, GX24q)	13 - 42 W	1	CLOSED	OPEN
T5 & T5 HO	Mini Bipin	14 - 54 W (2'-4')	1	CLOSED	OPEN
	HO Circline	22 - 55 W	1	CLOSED	OPEN
2D	4-PIN (GR10q)	16 - 55 W	1	CLOSED	OPEN
Philips LED T8 InstantFit	Bipin	8.5 - 16 .5 W	1	CLOSED	OPEN

Table 2 Initial Lumen Output

LAMP	LUMENS	
	1 Lamp	2 Lamp
F14T5/HE	839	
F21T5/HE	1245	
F28T5/HE	1582	
F35T5/HE	873	
F39T5/HO	1395	
F54T5/HO	1401	
TL5C22W/840 Circline	812	
TL5C40W Circline	1194	
FC12T5 55W Circline	1183	
F17T8	511	792
F25T8	903	1223
F32T8	1069	1460
F40T8	762	
F96T12/D/HO-O 110W	1100	
PL-L 24W	762	
PL-L 36W	1100	
PL-L 40W	1174	
PL-L 55W	1430	
PL-T 26W	858	
PL-T 32W	877	
PL-T 42W	991	
Philips LED T8InstantFit 14.5 W	892	
Philips LED T8InstantFit 16.5 W	1053	

Test results at 25°C, lamp-loads are new fresh model lamps.

Signify