

Emergency Ballast

DEB-1W Fluorescent, 350-450 Lumens One Lamp, Damp Location



Specifier's Reference

Project
Type
Model No.
Comments

codes and standards

- UL Listed in accordance with the standards set forth in UL924
- NFPA 70 (National Electric Code)
- NFPA101 (Life Safety Code)
- UL Listed for Damp Locations

application

- The DEB-1W is capable of operating at reduced illumination in the emergency mode one 17W-40W (2'-4') T8, T10, T12 fluorescent lamp without integral starters, including U-shaped, HO, VHO, circline, energy saving, and 4 pin long compacts, for a minimum of 90 minutes. It is also compatible with standard, energy saving, dimming and electronic AC ballasts. The DEB-1W is a dual voltage device rated for use on 120 or 277 volt 60-Hertz circuits. The appropriate line lead (black for 120V or orange for 277V) will be selected and the unused lead will be capped. Since the DEB-1W senses when power is lost, an unswitched power source must be provided to the luminaire. If used in an emergency only luminaire, no AC ballast is necessary.

operation

- Normal lamp lumen output is provided by the lamp when DEB-1W is not in the emergency mode. When AC power fails, the DEB-1W automatically switches to the emergency mode, keeping one lamp illuminated at reduced output for a minimum of 90 minutes. When AC power is restored, the DEB-1W automatically returns to the charging mode and, using a patented circuit, delays AC ballast operation for approximately 3 seconds to prevent false tripping of the AC ballast end-of-lamp-life shutdown circuits.

battery

- DEB-1W uses a high temperature nickel-cadmium battery. This battery requires no maintenance and has a life expectancy of 7 to 10 years. The suggested operating temperature range is 32°F (0°C) to 131°F (55°C).

emergency illumination

- The DEB-1W produces a total of 350 to 450 lumens (depending on the type of lamp) initial emergency light output.

restrictions

- Suitable for indoor and damp locations and for sealed and gasketed fixtures including installation inside of fixtures rated for wet locations. It is not suitable for installation in wet locations, hazardous locations or for air handling air outlet applications.

installation

- The DEB-1W does not affect normal luminaire operation. It requires an unswitched source

of power; therefore, in switched luminaires, an unswitched source of power must be provided (see wiring diagram). Installation is not recommended in luminaires where the ambient ballast channel temperature may fall below 0°C (32°F) for extended periods. Before installing the DEB-1W, make sure that the necessary branch circuit wiring is available. The DEB-1W requires an unswitched source of power and must be fed from the same branch circuit as the AC ballast; therefore, in switched luminaires the DEB-1W must be connected ahead of any local switching (see wiring diagram). Installation instructions, including internal wiring diagrams for retrofit installation, are supplied with each ballast. To prevent high voltage from being present on the DEB-1W output leads (red and yellow), do not join the battery connector until installation is complete and AC power is supplied to the DEB-1W. The DEB-1W emergency ballast is approved for installation inside, on top of, or remote from the chosen luminaire.

suggested specifications

- Emergency lighting shall be provided by using a standard fluorescent luminaire equipped with a mcPhilben DEB-1W emergency ballast. This emergency ballast shall consist of a special high temperature nickel cadmium battery, charger and electronic circuitry contained in one compact case. A charging indicator light shall be provided to monitor the charger and battery. A test switch and installation hardware shall be provided. The DEB-1W shall be capable of operating at reduced illumination in the emergency mode one 20W-40W (2'-4') T8, T10, T12 lamp or one 4-pin (2G11) long compact fluorescent lamp for a minimum of 90 minutes. The DEB-1W shall produce 350 to 450 lumens initial emergency light output and be UL listed.

electrical

- Dual input voltage 120/277
- Electrical rating – 2.5 Watts
- AC input current – 280 mA
- Recharge time – 24 hours
- Test switch provided
- Charging indicator light provided – LED
- Ballast case dimensions – 9.4"x2.4"x1.5"
- Housing is constructed of 20 gauge steel with a high temperature powder coat paint finish.
- Battery charging current - 280mA
- Weight – 2.1 lbs.

warranty

- Three year warranty on unit from date of purchase.

Ordering Information

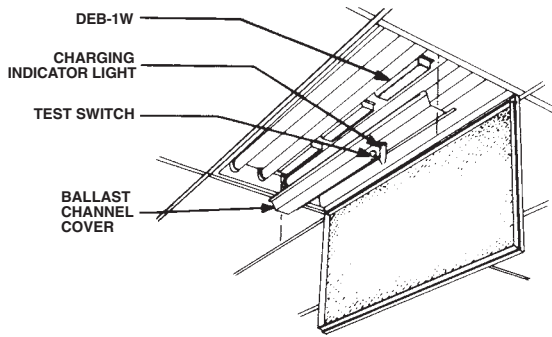
For retrofit field installation. Order catalog number **DEB-1W**.

For factory installed **DEB-1W** use a suffix number **-E1** with luminaire catalog number.

Accessories (Order Separately)

MCCAPS – Wire Cover Kit for External Mounting

PL-SP – Single Pole Remote Test Switch

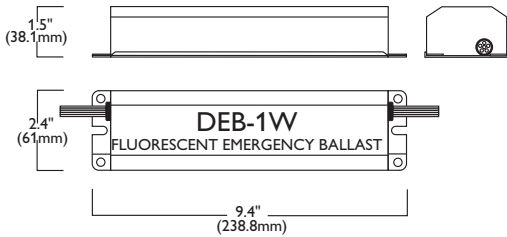


Lamp Type	Wattage	Base Type	Non-Emergency Max. Lumen Output	Emergency Op. Max. Lumen Output	Emergency Lamp Operation
F20T12	20	G13/Med Bi-Pin	1275	350-450	One
F30T12	30	G13/Med Bi-Pin	2350	350-450	One
F40T12	40	G13/Med Bi-Pin	2650	350-450	One
F48T10	110	R17D/Recessed	6200	350-450	One
F17T8	17	G13/Med Bi-Pin	1350	350-450	One
F25T8	25	G13/Med Bi-Pin	2150	350-450	One
F32T8	32	G13/Med Bi-Pin	2950	350-450	One
F40T8	40	G13/Med Bi-Pin	3725	350-450	One
FC6T9	30	G10Q/4-Pin	800	350-450	One
FC8T9	22	G10Q/4-Pin	1100	350-450	One
FC12T9	32	G10Q/4-Pin	1950	350-450	One
FC16T9	40	G10Q/4-Pin	2700	350-450	One
F39/36BX	39	2G11/4-Pin	2850	350-450	One
F40/30BX	40	2G11/4-Pin	3150	350-450	One

NOTES:

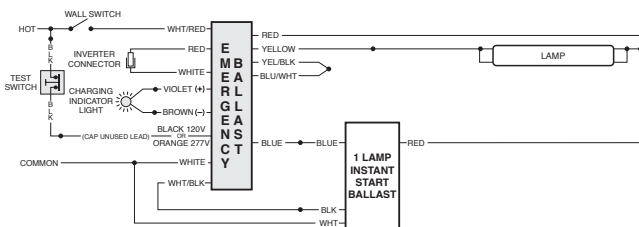
1. Maximum non-emergency lumen output can vary based on lamp manufacturer, ambient operating temperature, and ballast manufacturer.
2. Maximum emergency lumen output is based on total output of one or two lamps, and can vary based on lamp manufacturer and ambient operating temperatures.
3. Maximum emergency lumen output is supported for a full 90 minutes of operation.
4. Consult factory for compatibility, operation and performance of lamp types not listed.

dimensions

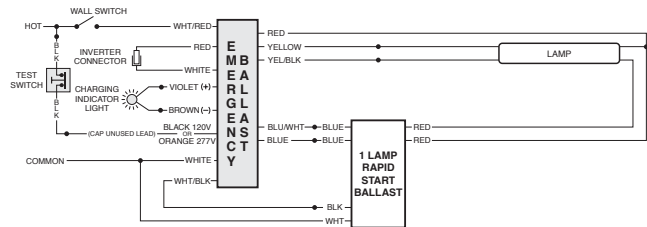


wiring diagrams

One (1) Lamp Instant Start Ballast



One (1) Lamp Rapid Start Ballast



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