

mcPhilben®

emergency lighting

Job Name: _____
 Type: _____
 Voltage: _____

- Self-diagnostics/self-test
- Damp location listed.
- End-of-lamp-life compatible.
- One or two lamp operation



CODES AND STANDARDS

UL Listed in accordance with the standards set forth in UL924
 UL Listed for factory installation or field retrofit.
 Exceeds NEC Illumination Standard
 Life Safety Code NFPA101

APPLICATION

The DEB-8ST Series fluorescent emergency ballast works in conjunction with the AC ballast to convert new or existing fluorescent luminaires into unobtrusive emergency lighting. The emergency ballast consists of nickel cadmium battery, charger and electronic circuitry in one compact black case. This emergency ballast can be used in applications requiring flexible conduit for remote emergency ballast installation. One or two-lamp operation may be selected see table on next page. It is also compatible with most 1, 2, 3, and 4-lamp electronic, standard, energy saving, and dimming AC ballasts. If used in an emergency-only luminaire, no AC ballast is necessary.

OPERATION

When AC power fails, the DEB-8ST Series immediately switches to the emergency mode, keeping either one or two lamps illuminated at a reduced lumen output for a minimum of 90 minutes. The DEB-8ST Series operates one 13-42W twin, quad or triple-tube lamp, one 22-40W T5 circline or one 18-39W long compact fluorescent lamp, including low mercury and amalgam lamps. When AC

power is restored, the DEB-8ST Series automatically returns to the charging mode. The DEB-8ST uses a circuitry that delays AC ballast operation for approximately 3 seconds to prevent false tripping of the AC ballast end-of-lamp life shut down circuits.

SELF-DIAGNOSTICS

The ST model includes a diagnostic circuit that constantly monitors battery voltage and charging current. The ST model will perform automatic tests, which simulate an AC power failure, causing the emergency ballast to switch to emergency mode and conduct a discharge test to verify battery voltage and current. If the circuit detects a problem the status indicator lamp will flash until the fault is corrected. The self-test feature of the circuit is programmed to conduct the automatic discharge test every 30 days for 30 seconds and every 12 months for 90 minutes. This feature complies with NFPA 101 requirements for self-testing/self-diagnostics.

BATTERY

DEB-8ST Series uses a specially constructed, 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 122°F (50°C).

RESTRICTIONS

Suitable for indoor and damp locations. It is not suitable for air handling heated air outlets or wet or hazardous locations.

EMERGENCY ILLUMINATION

Depending on the number (1 or 2), wattage, and type of lamps selected, the DEB-8ST Series produces 700 to 1350 lumens initial emergency light output. If two-lamp operation is selected, light output is evenly divided between the lamps for better distribution of emergency illumination.

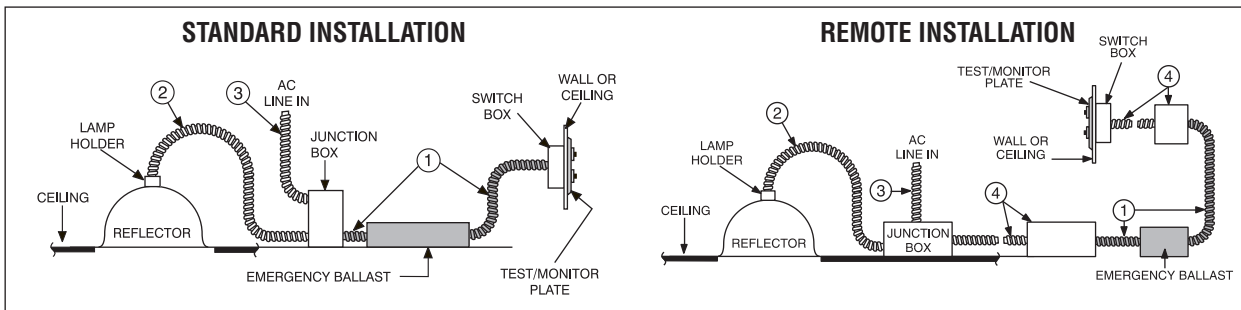
INSTALLATION

This emergency ballast does not affect normal luminaire operation and may be used with either a switched or unswitched luminaire. If a switched luminaire is used, an unswitched hot lead must be connected to the emergency ballast. The emergency ballast may be remotely installed up to half the distance the AC ballast manufacturer recommends removing the AC ballast from the lamp, or up to 50 feet, whichever is less. For simple visual inspection of the charging indicator light and easy operational testing, the test/monitor plate can be installed near the luminaire wall switch. It can also be installed in the ceiling near the luminaire to ensure an unobtrusive installation. Installation is not recommended with luminaires where the ambient temperature may fall below 0°C.

CATALOG NUMBER

DEB-8ST - 1350 Lumen Max Output Emergency Ballast

- For field installation, order catalog number DEB-8ST
- For factory installed DEB-8ST use suffix number **-E8ST** on luminaire catalog number.



Emergency ballast

No Shading – Equipment supplied by others

mcPhilben is a Philips group brand

PHILIPS

DEB-8ST 4-Pin CFL Emergency Ballast 700 - 1350 Lumens

erb3170

DEB-8ST 4-Pin CFL Emergency Ballast 700 - 1350 Lumens

SUGGESTED SPECIFICATION

Emergency lighting shall be provided by using a standard fluorescent luminaire equipped with a DEB-8ST Series emergency ballast. This emergency ballast shall consist of a high-temperature, maintenance-free nickel cadmium battery, charger and electronic circuitry contained in one 12" x 2-3/8" x 1-1/2" black metal case with 2' of flexible conduit at each end. A test/monitor plate with and installation hardware shall be provided. The emergency ballast, using a patented circuit, shall delay AC ballast operation for approximately 3 seconds to prevent flase tripping of AC ballast end-of-lamp-life shutdown circuits. The emergency ballast shall be capable

of operating one _____ standard or low mercury flourescent lamp at _____ lumens (see Table 1) initial light output in the emergency made for a minimum of 90 minutes. It shall be suitable for indoor and damp locations. The DEB-8ST shall have 3.5 watts of input power and a 19.2 Watt-hour battery capacity and shall comply with emergency standards set forth by the current NEC. The emergency ballast shall be UL Listed for installation on top of or remote from the fixture.

ELECTRICAL & MECHANICAL

- Dual input voltage 120/277
- Electrical rating—4.0 watts
- AC input current—320mA
- Recharge time—24 hours
- Test switch provided—LED
- Charging indicator light provided—LED
- Ballast case dimensions—13-3/8" x 2-3/8" x 1-1/2"
- Battery is a high temperature nickel cadmium type requiring no maintenance and life expectancy of 7 to 10 years.
- Battery charging current—320mA
- Weight—4.6 lbs.

WARRANTY

Two year warranty on unit from date of purchase.

LAMP CHARTS

Table 1 - Lamp Compatibility

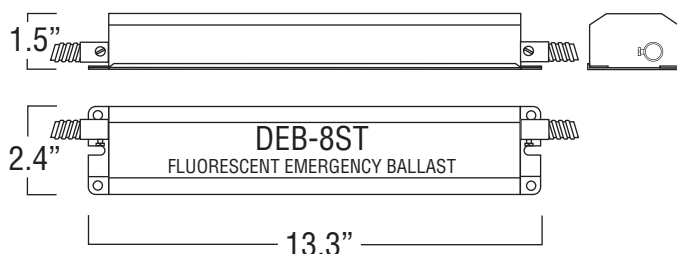
TABLE 1 LAMP (4-PIN)	LUMENS	
	1-LAMP	2-LAMP
F42QBx, DULUX T/E 42W	1250	
REDUCED MERCURY 42W/4p	850	
32W/4P, F32TBX, Dulux T/E 32W	1250	1250
REDUCED MERCURY 32W/4P	1100	1100
PL-T 26 W/4P, F26DBX, Dulux T/E 26W	700	700
PL-T 18 W/4P, F18DBX, Dulux T/E 18W	900	900
PL-L 36W, Philips	1100	1100
F39/38X, Dulux L 36W	1250	1250
PL-L 24W, F27/248X, Dulux L 27W	800	800
PL-L 18W, F188X Dulux L 18W	775	775
F32T8	1350	1350

Lamp (Diameter)	Base Type	Wattage (Length)	No. of Lamps (EMERGENCY)	Brown Connector
T8, T9, T10, T12 (1", 1-1/4", 1-1/2")	Single or Bipin	17-40W (2'-4')	1	CLOSED
			2	OPEN
		40-215W (5'-8')	1	OPEN
Long Compact	4-PIN (2G11)	18-39W	1	CLOSED
			2	OPEN
		40-55W	1	CLOSED
TWIN/QUAD/ TRIPLE TWIN/ QUADRUPLE TWIN-TUBE	4-PIN (G24q, GX24q)	16-38W	1	CLOSED
			2	OPEN
		42W	1	CLOSED
2D	4-PIN (GR10q)	16-38W	1	CLOSED
			2	OPEN
		55W	1	OPEN

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 temperature.
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

