

CHLORIDE

by  Signify

Exit/Emergency

DEB-5ST

Emergency ballast



Project:	
Location:	
Cat.No:	
Type:	
Lamps:	Qty:
Notes:	

Ordering Information

DEB-5ST – 1400 Lumen max output emergency ballast with damp location listing.

For field installation, order catalog number **DEB-5ST**

For factory installed **DEB-5ST** use suffix number **E5ST** on luminaire catalog number.

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 dry locations

application

- The DEB-5ST Series provides 90 minutes of emergency illumination by utilizing existing fluorescent lighting, and produces 1100–1400 lumens initial emergency light output. The DEB-5ST can be used with most 17W through 215W (2'–8') T8, T9, T10 or T12 fluorescent lamps without integral starters, including U-shaped, HO, VHO, circline, energy saving, and 4 pin twin quad, and triple twin tube compacts. One or two lamp operation may be selected. It is also compatible with standard, energy saving, dimming and electronic AC ballasts. The DEB-5ST Series 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-5ST Series senses when power is lost, an un-switched power source must be provided to the luminaire. If used in an emergency luminaire, no AC ballast is necessary.

operation

- Normal lamp lumen output is provided by the lamp when DEB-5ST Series is not in the emergency mode. When AC power fails, the DEB-5ST Series automatically switches to the emergency mode, keeping one or two lamps illuminated at reduced output for a minimum of 90 minutes. When factory installed it will be wired for two lamp emergency operation when possible. When AC power is restored, the DEB-5ST Series 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.

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 NFPA101 requirements for self-testing/self-diagnostics.

battery

- DEB-5ST 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) (Dry Location), 32°F (0°C) to 122°F (50°C) (Wet Location).

restrictions

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

emergency illumination

- The DEB-5ST Series produces a total of 1100 to 1400 lumens (depending on the type of lamp) initial emergency light output.

installation

- The DEB-5ST Series 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-5ST Series, make sure that the necessary branch circuit wiring is available. The DEB-5ST Series 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-5ST Series 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-5ST Series output leads (red and yellow), do not join the battery connector until installation is complete and AC power is supplied to the DEB-5ST Series.

suggested specifications

- Emergency lighting shall be provided by using a standard fluorescent luminaire equipped with a DEB-5ST emergency ballast. This emergency ballast shall consist of a high temperature, maintenance-free nickel cadmium battery, charger and electronic circuitry contained in one 13.4" x 2.4" x 1.5" black case. A solid state charging indicator light to monitor the charger and battery, a single-pole 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 end-of-lamp-life shutdown circuits. The emergency ballast shall be capable of operating (one or two) fluorescent lamps(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 locations. The DEB-5ST shall have 4 Watts of input power and a 24 Watt hour battery capacity and shall exceed emergency standards set forth by the current NEC. The emergency ballast shall be UL Listed for installations inside, on top of or remote from the fixture.



DEB-5ST Emergency ballast

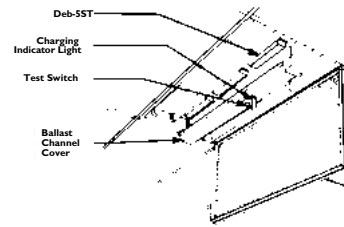
1100-1400 lumens, 1 or 2 lamp, dry location

electrical

- Dual input voltage 120/277
- Electrical rating – 4.0 Watts
- AC input current – 320 mA
- Recharge time – 24 hours
- Test switch provided
- Charging indicator light provided – LED
- Ballast case dimensions – 13.4"x2.4"x1.5"
- Battery charging current – 320mA
- Weigh – 3.6 lbs.

warranty

- Five year warranty on unit from date of purchase.



dimensions

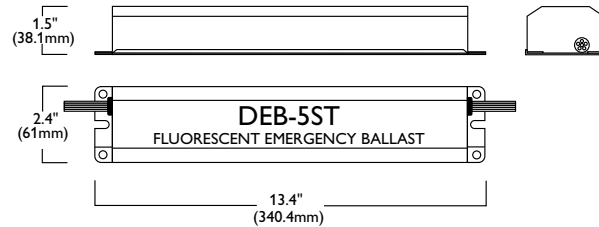


Table 1 – Lamp Compatibility

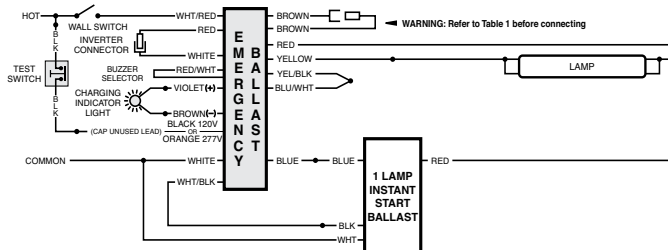
Lamp	Base	Wattage (Length)	No. of Lamps (Emergency)
T8, T9, T10, T12 (1", 1-1/4", 1-1/2")	Single or Bipin	17-40W (2'-4')	1
		40-215W (5'-8')	2
Long Compact	4-PIN (2G11)	18-39W	1
		40-55W	2
Compact	4-PIN (G24q, GX24q)	16-38W	1
		42W	2
2D	4-PIN (GR10q)	16-38W	1
		55W	2

Table 2 – Initial Lumen Output

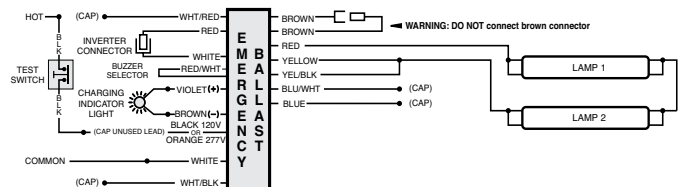
Lamp	Lumens	
	1 Lamp	2 Lamps
FO32, FBO31 T8	1350	1350
FO25, FBO24 T8	1250	1100
FO17, FBO16 T8	1050	950
FO96 T8	1400	
F40T12, F40/U	1100	1100
F48T12/HO	1200	
F96T12, HO, VHO	1100	
F40T12/ES (34W)	975	975
PL-L 50 W, F50BX/RS, DULUX L 55W	900	
PL-L 40 W, F40/30BX, DULUX L 40W	900	
PL-L 36 W, F39/36BX, DULUX L 36W	1100	1100
PL-L 24 W, F27/24BX/RS, DULUX L 27W		1000
F38 2D/4P	1000	1100
F28 2D/4P	1100	1100

wiring diagrams

Switched (Instant Start)



Unswitched



signify