

# ISD-420-EM-B

## SELF DIAGNOSTIC FLUORESCENT EMERGENCY BALLAST



MODEL NO: \_\_\_\_\_  
 TYPE: \_\_\_\_\_  
 PROJECT: \_\_\_\_\_  
 COMMENTS: \_\_\_\_\_

### LAMPS OPERATED\*

**10W-70W 4-pin Rapid Start Compacts including Twin Tube, Triple Tube, Quad, 2D & Straight**

\*Refer to Lumen Reference Chart for list of compatible lamps

### DESCRIPTION:

The **ISD-420-EM-B** from IOTA Engineering is a UL Listed self-diagnostic fluorescent emergency ballast that allows the same fixture to be used for both normal and emergency operation. In the event of a power failure, the **ISD-420-EM-B** switches to the emergency mode and operates **one or two** of the existing lamps for **90 minutes**. The **ISD-420-EM-B** will self-test for thirty seconds monthly and for ninety minutes annually and will diagnose potential problems within the light fixture. If problems are encountered, the unit will specify failure of the battery, charge, lamp, or inverter by means of an audible beep and flashing red indicator. The dual color LED indicator is lit red when charging and lit green when ready. The unit contains a battery, charger, and inverter circuit in a single can and is designed for installation in the wireway. The **ISD-420-EM-B** can be used with 10W to 70W 4-pin compact fluorescent lamps, providing an initial output of up to **1300 lumens** for one or two lamps, and features lamp selector leads for optimizing the light output for designated lamp types.

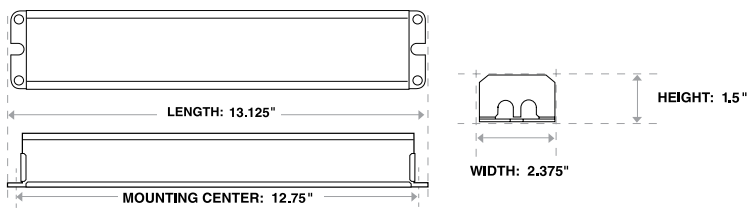
### TECHNICAL SPECIFICATIONS

Input Voltage .....	110-277V, 50-60Hz
Input Wattage .....	3.5 Watts
Lamps Operated .....	10W-70W <b>4-pin</b> Rapid Start Compact Lamps including Twin, Triple, Quad Tube, 2D & Straight
Emergency Operation .....	(1) 10W-70W or (2) 10W-32W 90 minutes
Initial Illumination .....	1300 lumens (2) lamps 650 lumens each lamp
Operating Temp .....	0° to 55° C
Battery .....	24 Hour Recharge 7-10 Year Life Expectancy
Weight .....	3.6 lbs.
Approval .....	UL and CUL Listed



### CASE DIMENSIONS

13.125" x 2.375" x 1.5" (mounting center 12.75")



### PRODUCT ADVANTAGES

**Automatically conducts required monthly and annual testing**

**Internal self-diagnostic circuitry tests lamp frequency, battery charge and discharge current**

**Time Delay feature for compatibility with End-of-Lamp-Life circuitry**

**Open Circuit Isolation protects unit when load is absent**

**Universal Voltage 110-277V, 50-60Hz**

### FEATURES

Will cold start and operate all specified lamps

Long life high temperature recyclable Ni-Cad battery

Galvanized steel case

Includes one-piece test switch and dual color charge indicator (LPTS)

For use with switched or unswitched fixtures

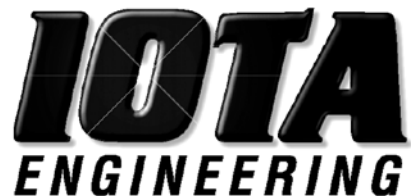
**5-Year Warranty.** See Warranty Page for details.

**DL Model suitable for use in enclosed and gasketed fixtures**

Selectable lamp leads optimize light output for desired lamp type

Meets or exceeds all National Electrical Code and Life Safety Code Emergency Lighting Requirements

Damp Location models available



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# ISD-420-EM-B

FLUORESCENT EMERGENCY BALLAST

## OPTIONS

### TEST CONFIGURATION

LPTS

### SPECIALTY

DL - SUITABLE FOR USE IN DAMP LOCATIONS AND ENCLOSED AND GASKETED FIXTURES.

### VOLTAGE RATINGS

UNIVERSAL VOLTAGE 110-277V, 50-60HZ

## AVERAGE LUMEN RATINGS

LAMP	1 LAMP	2 LAMPS
13W PL CF 4-PIN	600	675
18W PL CF QUAD 4-PIN	600	950
26W PL CF QUAD 4-PIN	725	1200
32W PL CF QUAD 4-PIN	1050	1250
42W PL CF QUAD 4-PIN	1300	
57W PL CF QUAD 4 PIN	1160	
70W PL CF QUAD 4-PIN	1200	
F282 D/42 4-PIN	800	850
F382 D/42 4-PIN	850	1125

## DIAGNOSTIC CODES

LED IS RED WHEN CHARGING, GREEN WHEN READY			FAILURE CODES OCCUR ONCE EVERY 15 SECONDS WITH 1 SECOND DELAY BETWEEN CODES IN INSTANCES OF MULTIPLE FAILURE
CHARGE FAILURE	1 BEEP	1 FLASH	
BATTERY FAILURE	2 BEEPS	2 FLASHES	
LAMP FAILURE*	3 BEEPS	3 FLASHES	
INVERTER FAILURE*	4 BEEPS	4 FLASHES	

\*IF FAILURE, REPLACE LAMP AND RETEST

## ISD-420-EM-B SAMPLE SPECIFICATION

Emergency lighting shall be provided by using a standard fluorescent fixture equipped with an **IOTA ISD-420-EM-B** self-diagnostic fluorescent emergency battery pack. The **ISD-420-EM-B** shall be designed to automatically test the emergency lighting capability for no less than 30 seconds monthly and 90 minutes annually, and shall monitor lamp frequency, battery charge and battery discharge current. An audible alarm and light-emitting LED shall be provided to indicate test results and charge status. The **ISD-420-EM-B** shall consist of a high temperature, maintenance-free nickel cadmium battery, charger board and an electronic circuit enclosed in a 13.125" x 2.375" x 1.5" vandal-resistant galvanized steel case for installation either inside the wireway or on top of the fixture. A combination one piece test switch and long-life LED charge indicator light for monitoring charger, inverter, battery, and fault conditions shall be included. The fluorescent EM pack shall operate one 10w-70w or two 10w-32w 4-pin rapid start compact fluorescent lamps. The **ISD-420-EM-B** shall provide reduced illumination for a minimum of 90 minutes in the emergency mode with a total initial output of 1300 lumens and will feature lamp selector leads for optimizing light output for the designated lamp type. The **ISD-420-EM-B** shall have 4 watts of input power and a battery capacity of 24 watt hours. The **ISD-420-EM-B** is U.L. Listed and meets or exceeds all NEC and Life Safety Code Emergency Lighting Requirements. The **ISD-420-EM-B** is warranted for a full five (5) years from the date of purchase.

## REMOTE MOUNTING

When battery packs are remote mounted, the remote distance can not exceed  $\frac{1}{2}$  of the distance from ballast to lamp specified by the A.C. ballast manufacturer. For example, if the A.C. ballast manufacturer recommends no more than 25' remote distance, then the battery pack should not exceed  $12\frac{1}{2}'$ . The maximum allowable remote mounting distance is 50' from the lamp.