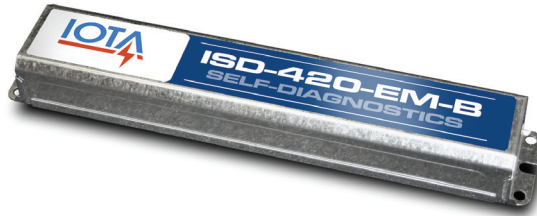


SELF-DIAGNOSTIC
AUTOMATIC TESTING OF LAMP,
BATTERY, AND CHARGER CIRCUIT



AC OUTPUT



MODEL NO: _____
TYPE: _____
PROJECT: _____
COMMENTS: _____

INITIAL LUMEN OUTPUT

1100 Lumens

LAMPS OPERATED*



(1) 13W-57W 4-PIN Compact



Select LED Retrofit Tubes

*Refer to Lumen Reference Chart and LED Retrofit 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** 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, charging circuit, lamp, or inverter by means of a 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 13W to 57W 4-pin compact fluorescent lamps, providing an initial output of up to **1100 lumens** for one lamp, and features lamp selector leads for optimizing the light output for designated lamp types. The **ISD-420-EM-B** is suitable for use in damp locations and enclosed and gasketed fixtures.

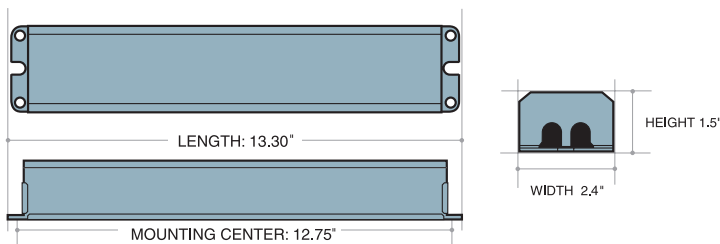
SPECIFICATIONS

Input Voltage	110-277V, 50/60Hz
Input Wattage	5 Watts (max.)
Power Factor	≥ 0.9
Lamps Operated	13W-57W 4-pin Rapid Start Compact Lamps including Twin, Triple, Quad Tube, 2D & Straight
Emergency Operation	(1) 13W-57W 90 minutes
Initial Illumination	1100 lumens
Operating Temp	0° to 55° C
THD	< 20%
Battery	24 Hour Recharge 7-10 Year Life Expectancy
Weight	3.6 lbs.
Approval	UL and CUL Listed



DIMENSIONS

13.3" x 2.4" 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**
- **AC output for compatibility with Low-Mercury Content Amalgam lamps**
- **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.
- Lamp selector leads optimize light output for desired lamp type
- Rated for use in damp locations, plenum, and enclosed and gasketed fixtures
- Meets or exceeds all NEC, IBC, and Life Safety Code Emergency Lighting Requirements
- RoHS Compliant



ISD-420-EM-B

SELF-DIAGNOSTIC FLUORESCENT EMERGENCY BALLAST

OPTIONS

TEST KIT CONFIGURATION

- LPTS

VOLTAGE RATINGS

- UNIVERSAL VOLTAGE 110-277V, 50/60HZ

AVERAGE LUMEN RATINGS

LAMP	1 LAMP
13W PL CF 4-PIN	740
18W PL CF QUAD 4-PIN	780
26W PL CF QUAD 4-PIN	1000
32W PL CF QUAD 4-PIN	1060
42W PL CF QUAD 4-PIN	1060
57W PL CF QUAD 4-PIN	1190

LED Retrofit Tube Options

This IOTA Emergency Ballast is UL Listed for emergency operation of select LED retrofit tube applications. For a complete list of acceptable LED retrofit tube options, refer to the **IOTA LED Retrofit Tube Reference Chart** at www.iotaengineering.com/IOTA-LED-Retrofit.pdf

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 FLASH	
BATTERY FAILURE	2 FLASHES	
LAMP FAILURE*	3 FLASHES	
INVERTER FAILURE*	4 FLASHES	

*IF FAILURE, REPLACE LAMP AND RESET UNIT BY DEPRESSING THE TEST SWITCH FOR 3 SECONDS, THEN 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. A 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 13.3" x 2.4" 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 13w-57w 4-pin rapid start compact fluorescent lamps and **will operate the lamp with AC output**. 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 1100 lumens and will feature lamp selector leads for optimizing light output for the designated lamp type. The **ISD-420-EM-B** shall have 5 watts maximum 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, and rated for use in damp locations. 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, consult Customer Service for the maximum allowable distance between the battery pack and lamp(s).