



## DESCRIPTION

The **ISD420** from IOTA 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 **ISD420** switches to the emergency mode and operates **one** of the existing lamps for **90 minutes**. The **ISD420** 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 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. The **ISD420** can be used with 13W to 57W 4-pin compact fluorescent lamps, providing an initial output of up to **1100 lumens** for one or two lamps, and features lamp selector leads for optimizing the light output for designated lamp types. **The ISD420 utilizes AC output to ensure compatibility with new lamp technologies.** The **ISD420** is suitable for use in damp locations.

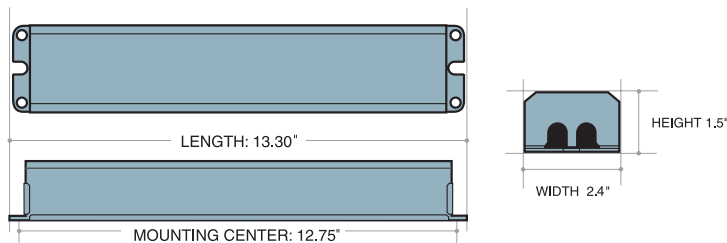
## SPECIFICATIONS

Input Voltage .....	110-277V, 50/60Hz
Input Wattage .....	5 Watts (max.)
Lamps Operated .....	13W-57W <b>4-pin</b> Rapid Start Compact Lamps including Twin, Triple, Quad Tube, 2D & Straight
Power Factor .....	≥ 0.9
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 (configuration) .....	5.6 lbs. (A) 3.6 lbs. (B)
Approval .....	UL and CUL Listed



## DIMENSIONS

13.3" x 2.4" x 1.5" (mounting center 12.75")

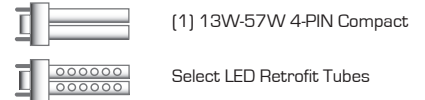


MODEL NO: \_\_\_\_\_  
 TYPE: \_\_\_\_\_  
 PROJECT: \_\_\_\_\_  
 COMMENTS: \_\_\_\_\_

## INITIAL LUMEN OUTPUT

1100 Lumens

## LAMPS OPERATED\*



\*Refer to Lumen Reference Chart and LED Retrofit Reference Chart for list of compatible lamps.

## 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
- Available in dual-flex or integral no-flex configuration
- Includes one-piece test switch and dual color charge indicator (LPTS)
- For use with switched or unswitched fixtures
- **5-Year Warranty**
- Lamp selector leads optimize light output for desired lamp type
- Rated for use in damp and plenum locations
- Meets or exceeds all NEC, IBC, and Life Safety Code Emergency Lighting Requirements
- RoHS Compliant

FLUORESCENT

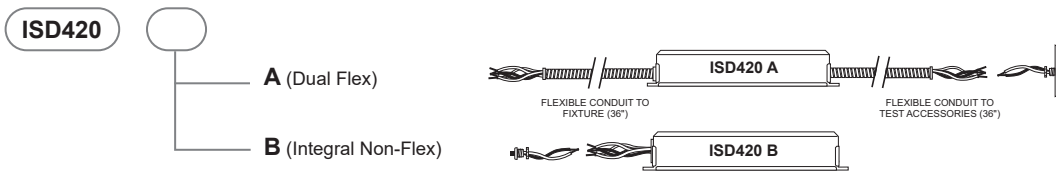
SELF-DIAGNOSTICS



# ISD420

SELF-DIAGNOSTIC FLUORESCENT EMERGENCY BALLAST

## CONFIGURATION



### ISD420 A SAMPLE SPECIFICATION

Emergency lighting shall be provided by using a standard fluorescent fixture equipped with an **IOTA ISD420 A** self-diagnostic fluorescent emergency battery pack. The **ISD420 A** 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 **ISD420 A** 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 on top of the fixture and shall provide 1/2" flexible conduit for wiring to the fixture and test switch. 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 lamp and **will operate the lamp with AC output**. The **ISD420 A** 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 **ISD420 A** shall have 5 watts maximum of input power and a battery capacity of 24 watt hours. The **ISD420 A** 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 **ISD420 A** is warranted for a full five (5) years from the date of purchase.

### ISD420 B SAMPLE SPECIFICATION

Emergency lighting shall be provided by using a standard fluorescent fixture equipped with an **IOTA ISD420 B** self-diagnostic fluorescent emergency battery pack. The **ISD420 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 **ISD420 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 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 **ISD420 B** shall have 5 watts maximum of input power and a battery capacity of 24 watt hours. The **ISD420 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 **ISD420 B** is warranted for a full five (5) years from the date of purchase.

### DIAGNOSTIC CODES

LED IS RED WHEN CHARGING, GREEN WHEN READY		
CHARGE FAILURE	1 FLASH	FAILURE CODES OCCUR ONCE EVERY 15 SECONDS WITH 1 SECOND DELAY BETWEEN CODES IN INSTANCES OF MULTIPLE FAILURE
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.

### REMOTE MOUNTING

When battery packs are remote mounted, consult Customer Service for the maximum allowable distance between the battery pack and lamp(s).

**Warranty:** 5-Year Limited Warranty

Complete warranty terms located at [www.acuitybrands.com/CustomerResources/Terms\\_and\\_conditions.aspx](http://www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx)

### INITIAL 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](http://www.iotaengineering.com/IOTA-LED-Retrofit.pdf)