

ISD-420-EM-A

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

DESCRIPTION:

The **ISD-420-EM-A** 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-A** switches to the emergency mode and operates **one or two** of the existing lamps for **90 minutes**. The **ISD-420-EM-A** 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. The **ISD-420-EM-A** 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. The **ISD-420-EM-A** provides 3/8" flex for wiring to the fixture or ballast compartment and test accessory. The single-piece test switch and charge indicator is provided for installation in a standard switch box for mounting adjacent to the fixture.

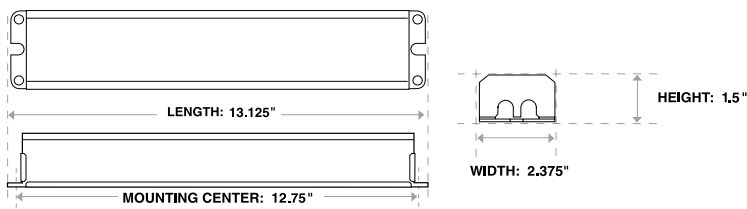
TECHNICAL SPECIFICATIONS

Input Voltage.....	110-277V, 50-60Hz
Input Wattage	3.5 Watts
Lamps Operated.....	10W-70W 4-pin 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	5.6 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.

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



P.O. BOX 11846 TUCSON, AZ 85734
 (520) 294-3292 • FAX (520) 741-2837

www.iotaengineering.com

ISD-420-EM-A

FLUORESCENT EMERGENCY BALLAST

OPTIONS

TEST CONFIGURATION

LPTS

SPECIALTY

DL - DAMP LOCATION

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-A SAMPLE SPECIFICATION

Emergency lighting shall be provided by using a standard fluorescent fixture equipped with an **IOTA ISD-420-EM-A** self-diagnostic fluorescent emergency battery pack. The **ISD-420-EM-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. An audible alarm and light-emitting LED shall be provided to indicate test results and charge status. The **ISD-420-EM-A** 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 on top of the fixture and shall provide 3/8" 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 10w-70w or two 10w-32w 4-pin rapid start compact fluorescent lamps. The **ISD-420-EM-A** 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-A** shall have 4 watts of input power and a battery capacity of 24 watt hours. The **ISD-420-EM-A** is U.L. Listed and meets or exceeds all NEC and Life Safety Code Emergency Lighting Requirements. The **ISD-420-EM-A** 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 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 1/2'. The maximum allowable remote mounting distance is 50' from the lamp.