I300(A)

Fault Isolator Module

FIRE·LITE ALARMS by Honeywell

Addressable Devices

General

The **Fire•Lite I300(A) Fault Isolator Module** is used with Fire•Lite's addressable fire alarm control panels (FACPs) to protect the system against wire-to-wire short circuits on the SLC loop. The I300(A) should be placed between each device on the SLC loop to isolate a short-circuit problem between the modules. It is required for true Style 7 operation so that other devices can continue to operate normally in the event of a short-circuit on the SLC .

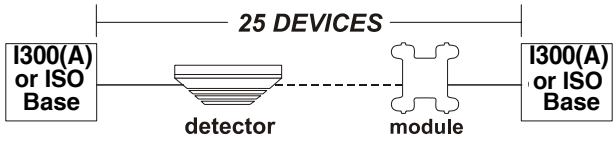
Features

- Powered by SLC loop directly, no external power required.
- Mounts in standard 4.0" (10.16 cm) square, 2.125" (5.398 cm) deep junction boxes.
- Integral LED blinks to indicate normal condition. Illuminates steady when short circuit condition is detected.
- High noise (EMF/RFI) immunity.

Applications

The Fault Isolator Modules should be spaced between groups of sensors in a loop to protect the rest of the loop. Use to isolate short circuit problems within a section of a loop so that other sections can continue to operate normally. The I300(A) supports a maximum of 25 devices in-between isolators, except when using relay bases.

NOTE: *LOADS PER RELAY BASE AND ISOLATORS/ISOLATOR BASES: The maximum number of addressable devices between isolators (or B224BI isolator bases) is 25 devices.*



B224RB relay bases draw more current than other intelligent devices. When calculating the 25-device maximum, B224RB represents 2.5 DEVICES; see example on page 2.

NOTE: *ON MAXIMUM NUMBER OF DEVICES: See the* SLC *Manual (51309) for information on loss of addresses due to current limitations. Each module or base added reduces the capacity of address positions in an* SLC*. All* SLC *field devices must have been purchased after February 1995 to meet the aforementioned requirements. If the* SLC *field devices were purchased prior to February 1995, each ISO-X used reduces the capacity of an* SLC *by two address positions. Requirements differ as applied to relay bases; see note above.*

Specifications

- **Operating voltage:** 15 – 28 VDC (peak).
- **Maximum current upon activation due to short circuit:** *refer to the manual for the main FACP.*
- **Standby current:** 450 µA maximum; I300(A) is not isolating – relay closed.
- **Temperature range:** 32°F to 120°F (0°C to 49°C).
- **Relative humidity:** 10% to 93%.
- **Weight:** 150 grams (5 oz).

I300(A)

Construction

The face plate is made of off-white plastic. Module includes yellow LED indicator that pulses when normal and illuminates steady when a short is detected.

Operation

Automatically opens circuit when the line voltage drops below four volts. Fault Isolator Modules should be spaced between groups of addressable devices (maximum 25, *see notes on page 1*) in a loop to protect the rest of the loop. If a short occurs between any two isolators, then both isolators immediately switch to an open circuit state and isolate the groups of sensors between them. The remaining units on the loop continue to fully operate.

In Style 4 loops, the I300(A) is generally used at each T-tap branch, to limit the effect of short circuits on a branch to the devices on that branch. The LED indicator is on continuously during a short circuit condition.

The I300(A) Fault Isolator Module automatically restores the shorted portion of the communications loop to normal.

Installation

- Mount on a standard 4" (10.16 cm) mounting junction box which is at least 2.125" (5.398 cm) deep.
- Terminal screws are provided for "in and out" wiring.
- Installation instructions are provided with each module.
- Surface-mount box is available as an option.

Engineering Specifications

Fault Isolator Modules shall be provided to automatically isolate wire-to-wire short circuits on an SLC loop. The Fault Isolator Module shall limit the number of modules or detectors that may be rendered inoperative by a short circuit fault on the SLC Loop. If a wire-to-wire short occurs, the Fault Isolator Module shall automatically open-circuit (disconnect) the SLC loop. When the short circuit condition is corrected, the Fault Isolator Module shall automatically reconnect the isolated section of the SLC loop. The Fault Isolator Module shall not require any address-setting, and its operations shall be totally automatic. It shall not be necessary to replace or reset an Fault Isolator Module after its normal operation. The Fault Isolator Module shall mount in a standard 4" (10.16 cm) deep electrical box, in a surface-mounted backbox, or in the Fire Alarm Control Panel. It shall provide a single LED which shall flash to indicate that the Isolator is operational and shall illuminate steadily to indicate that a short circuit condition has been detected and isolated.

Agency Approvals and Listings

These listings and approvals apply to the modules specified in this document. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in progress. Consult factory for listing details.

- **UL Listed:** S2424 - *I300 only*
- **ULC Listed:** S2424- *I300(A) only*
- **CSFM:** 7300-0075: 159
- **MEA:** 3-94-E
- **FM Approved**

Product Line Information

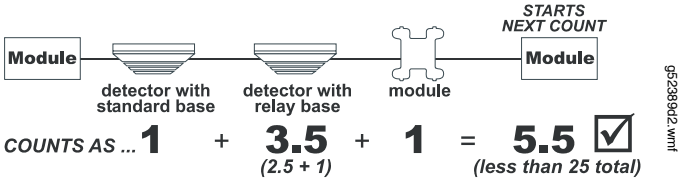
I300: Isolator module.

I300(A): Isolator module ULC-Listed.

SMB500: Optional surface-mount backbox.

Examples of Device Counts

(see notes under *Applications*)



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This document is not intended to be used for installation purposes.
We try to keep our product information up-to-date and accurate.
We cannot cover all specific applications or anticipate all requirements.
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