



June 9, 2000

DN-2243 • H-300

ISO-X Fault Isolator Module

Section: Intelligent/Addressable Devices

GENERAL

The NOTIFIER ISO-X Fault Isolator Module is used with the AM2020, AFP1010, AFC-600, AFP-400, AFP-300, AFP-200, AFP-100 and System 5000 (equipped with an AIM-200 module) to protect the system against wire-to-wire short circuits on the SLC loops.

FEATURES

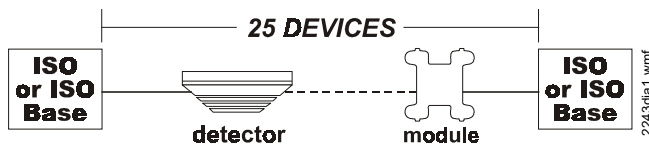
- Powered by SLC loop directly, no external power required.
- Mount in standard 4" (10.16 cm) square (2-1/8" [5.3975 cm] deep) junction boxes.
- Integral LED blinks to indicate normal condition. Illuminates steady when short circuit condition is detected.
- High noise (EMF/RFI) immunity.
- Wide viewing angle of LED.
- SEMS screws with clamping plates for ease of wiring.
- Opens SLC loop automatically on detection of short, preventing the short from causing failure of the entire loop.
- Automatically resets on correction of short.
- Supports Style 4, 6, or 7 wiring.

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 ISO-X supports a maximum of 25 devices in-between isolators, except when using relay bases or IPX multi-sensors.

NOTE ON LOADS PER RELAY BASE AND IPX-751 DETECTORS/SOLATORS/SOLATOR BASES:

The maximum number of addressable devices between isolators (or B224BI isolator bases) is 25 devices.



B224 relay bases and IPX-751 multi-sensors draw more current than other intelligent devices. *When calculating the 25-device maximum:*

- **B224RB** represents **2.5 DEVICES**.
- **IPX-751** in **standard base** represents **12 DEVICES**.
- **IPX-751** in **relay base** represents **14.5 DEVICES**.

See examples on page 2.

NOTE ON MAXIMUM NUMBER OF DEVICES: Up to 100 ISO-X modules and/or bases can be used per Signaling Line Circuit (SLC) without loss of additional module addresses due to current limitations. Each module or base added beyond 100 units reduces the capacity of an SLC by two address positions. All SLC field de-



LISTED
S635



CS699
CS118/CS733
(model ISO-XA)



California
State Fire
Marshal

7165-0028:141
7165-0028:164
7165-0028:181
7165-0028:203
7170-0028:153
7170-0028:182
7170-0028:204

BSA

578-81-SA



Approved

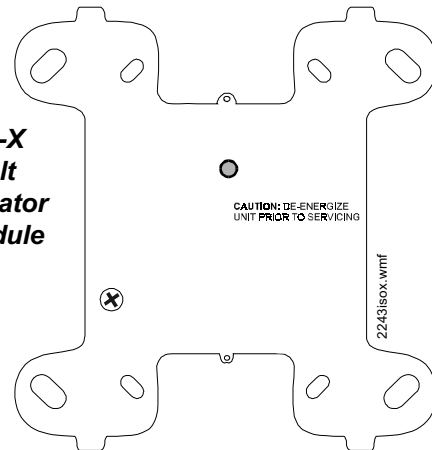
MEA

17-96-E
104-93-E
290-91-E Vol. V

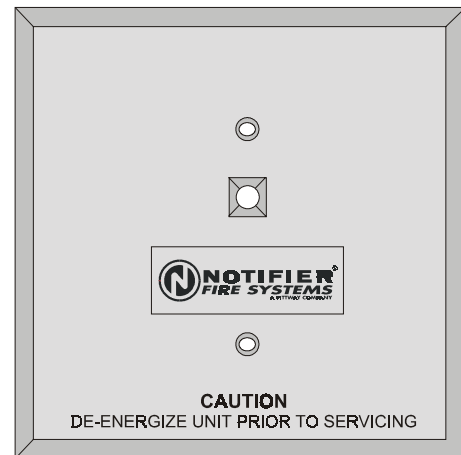
US Coast Guard

161•002/23/1 (AFP-200)
161•002/27/1
(AFP1010, AM2020)

**ISO-X
Fault
Isolator
Module**



**Face
Plate**



vices 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).

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. All specifications are subject to change without notice. For more information, contact NOTIFIER. Phone: (203) 484-7161 FAX: (203) 484-7118



NOTIFIER

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**ISO 9001
CERTIFIED**
ENGINEERING & MANUFACTURING

CONSTRUCTION

The face plate is made of off-white plastic. 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 ISO-X 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 ISO-X Fault Isolator Module automatically restores the shorted portion of the communications loop to normal condition when the short circuit condition is removed.

INSTALLATION

- Mount on a standard 4" (10.16 cm) mounting junction box which is at least 2-1/8" (5.3975 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.

SPECIFICATIONS

Operating voltage: 15-32 VDC (peak).

Current range: 5 mA for LED latched in alarm.

Standby current: 400 μ A maximum, plus supervision current.

Pulsing current: 30 mA for 15 mS (CMX-1).

Temperature range: 32°F to 120°F (0°C to 49°C).

Relative humidity: 10% to 93%.

Weight: 150 grams (5 oz.).

PRODUCT LINE INFORMATION

ISO-X Isolator Module.

ISO-XA Isolator Module. Canadian (ULC) version.

SMB500 Surface Mount Backbox.

ARCHITECTURAL/ ENGINEERING SPECIFICATIONS

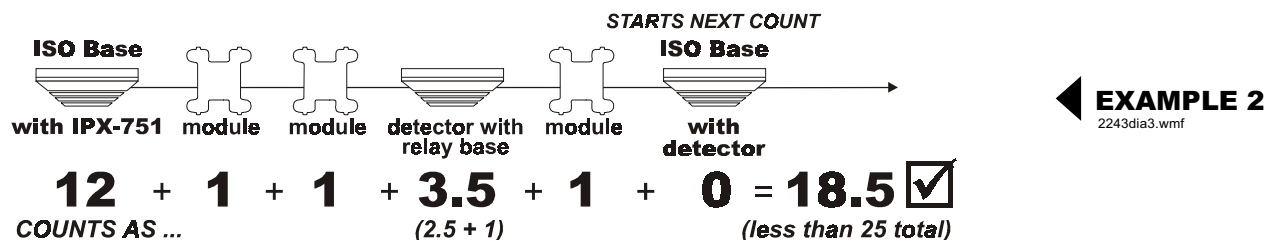
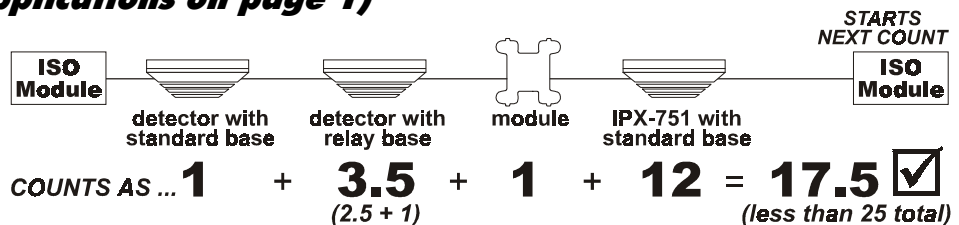
Fault Isolator Modules shall be provided to automatically isolate wire-to-wire short circuits on an SLC loop. The Fault Isolator Module shall limit the number of modules or detectors that may be rendered inoperative by a short circuit fault on the SLC Loop. If a wire-to-wire short occurs, the Fault Isolator 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.

EXAMPLES OF DEVICE COUNTS

(see notes under Applications on page 1)

EXAMPLE 1

2243dia2.wmf



EXAMPLE 3

2243dia4.wmf

