



December 16, 2005

DN-7086

CPX-751 and SDX-751

Low-Profile Intelligent Plug-in Smoke Detectors

Section: Intelligent/Addressable Devices

GENERAL

The NOTIFIER SDX-751 (photo) and CPX-751 (ion) are analog, addressable, low-profile (height measures only 1.66"/42.164 mm) smoke detectors designed for the NFS-3030, AM2020, AFP1010, NFS-640, AFP-400, AFP-300, AFP-200, and System 5000 (when equipped with an AIM-200 module).

Because the SDX-751 and CPX-751 are addressable, the control panel can provide fire fighters with a pinpoint description of where the fire is located. The SDX-751 and CPX-751 are also analog devices. The control panel is capable of not only knowing the detector's location but exactly how much smoke is in the chamber of the detector. The detector may be set for different sensitivity settings appropriate to the environment of its location.

Analog devices continually send obscuration values to the control panel. These values may be gathered so as to allow the control panel to determine if a detector has accumulated an excessive amount of dirt or dust. A "maintenance" required indication allows the installer to clean the smoke detector before an unwanted false alarm occurs.

The CPX-751 Intelligent Ionization Sensor incorporates a unique single-source chamber design to respond quickly and dependably to a broad range of fires.

The SDX-751 Intelligent Photoelectric Sensor's unique optical sensing chamber is designed with superior signal to noise ratio. The optical chamber is engineered to sense the presence of smoke produced by a wide range of combustion sources.

FEATURES

- Sleek, low-profile design (height only 1.66"/42.164 mm).
- Common base for both photo and ion detectors.
- Compatible with current SDX-551 and CPX-551.
- Addressable-analog communication.
- Stable communication technique with noise immunity.
- Low standby current.
- Rotary decade 01 to 99 address switches.
- Optional remote, single-gang LED accessory (RA400Z).
- Dual LED design provides 360° viewing angle.
- Visible LEDs blink every time the detector is addressed, and illuminate steady on alarm (LED blink is optional on the NFS-3030, AM2020, AFP1010, NFS-640, AFP-400, AFP-300 and AFP-200).
- Built-in functional test switch activated by external magnet.
- Optional relay, isolator, or sounder bases.
- Listed to UL 268.



BASES separately listed.
Contact factory.
Optional SMOKE GUARD is
UL listed with the SDX-751.

**SDX-751 with B710LP base****SDX-751 with B501 base**

SPECIFICATIONS

Size: 1.66" (42.164 mm) high x 4.1" (104.140 mm) dia.

Shipping weight: 3.6 oz. (104 g).

Operating temperature: 0°C to 49°C (32°F to 120°F).

UL listed velocity range: **ION:** 0 – 1500 fpm. **PHOTO:** 0 – 4000 fpm.

Relative humidity: 10% – 93% non-condensing.

ELECTRICAL SPECIFICATIONS:

Voltage range: 15 – 32 volts DC peak.

Standby current — ION: 200 µA @ 24 VDC (without communication); 300 µA @ 24 VDC (one communication every 5 seconds with LED enabled).

Standby current — PHOTO: 230 µA @ 24 VDC (without communication); 330 µA @ 24 VDC (one communication every 5 seconds with LED enabled).

LED current (maximum): 6.5 mA @ 24 VDC ("ON").

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



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BASES AVAILABLE:

B710LP: 6.2" (157.48 mm) diameter.

B501: 4.0" (101.6 mm) diameter.

B501BH: Sounder base assembly. Includes B501 base.

B224RB Relay Base: **Screw terminals:** up to 14 AWG (2.0 mm²). **Relay type:** Form-C. **Rating:** 2.0 A @ 30 VDC resistive; 0.3 A @ 110 VDC inductive; 1.0 A @ 30 VDC inductive. **Dimensions:** 6.2" (157.48 mm) x 1.2" (30.48 mm).

B524BI Isolator Base: **Dimensions:** 6.2" (157.48 mm) x 1.2" (30.48 mm). **Maximum:** 25 devices between isolator bases.

INSTALLATION

The CPX-751 and SDX-751 plug-in detectors use a separate base to simplify installation, service, and maintenance. A special tool allows maintenance personnel to plug in and remove detectors without using a ladder.

Mount base on a box which is at least 1.5" (38.1 mm) deep. Suitable mounting base boxes include:

- 4" (101.6 mm) square box.
- 3-1/2" (88.9 mm) or 4" (101.6 mm) octagonal box.
- Single-gang box (**except relay or isolator base**).

SMOKE GUARD

Cover: 16 gauge perforated steel (3/16" [4.7625 mm] dia. perforations on 1/4" [6.35 mm] staggered centers). 51% open. SDG-773 is 3" (76.2 mm) deep by 7" (177.8 mm) wide.

Frame: 3/4" x 3/4" (19.05 x 19.05 mm) angle, 14 gauge solid steel.

All guards are supplied with the following:

1) Guards fasten to mounting frame with No. 10/24 x 3/8" (9.525 mm) long Allen-head screws (10/24 *spanner-head screws and tool option at extra cost*).

2) Standard finish: "Cool Tan" baked enamel.

ORDERING INFORMATION

CPX-751 Low-profile intelligent **ionization** sensor. Must be mounted to one of the bases listed below.

SDX-751 Low-profile intelligent **photoelectronic** sensor. Must be mounted to one of the bases listed below.

BASES:

B710LP Standard U.S. Low-Profile base.

B501 Standard European flangeless base.

B501BH Sounder base, includes B501 base above.

B224RB Intelligent relay base.

B224BI Intelligent isolator base. Isolates SLC from loop shorts.

ACCESSORIES:

SDG-773 Smoke Detector Guard. *For use with SDX-751 only.*

F110 Retrofit replacement flange for BX-501 base.

RA400Z* Remote LED annunciator. 3 – 32 VDC. Fits U.S. single-gang electrical box.

MOD400R Detector sensitivity test tool. Use with most analog or digital multimeters. Satisfies requirement of NFPA 72 for sensitivity testing.

SMK400 Surface mounting kit provides for entry of surface wiring conduit. *For use with B501 base only.*

M02-04-01 Test magnet.

M02-09-00 Test magnet with telescope stick.

XR-2 Detector removal tool. Allows installation and/or removal of 700 Series detector heads from base in high ceiling installations.

XP-4 Extension pole for XR-2. Comes in three five-foot sections.

**Supported by B710LP and B501 bases only.*

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