



Date: 7/21/2025

Job #: 390070

System Type: FAS

**Customer:** \_\_\_\_\_

BURKE ELECTRIC  
 12605 44TH PL S  
 TUKWILA, WA 98178

**Project:** \_\_\_\_\_

CENTERIS DDC (DATA CENTER) LEVEL 3  
 1023 39TH AVENUE SE  
 PUYALLUP, WA 98374

**Material List of Data Sheets**

Item	Manufacture	Model	Description
1	Notifier	FSP-951	Intelligent Photoelectric Smoke Detector: White
		FSP-951R	Intelligent Photoelectric Smoke Detector for DNR Duct Smoke Housing
2	Notifier	B300-6	Intelligent Detector Base: White
3	Notifier	DNR	Duct Detector Housing
4	System Sensor	RTS-151	Duct Detector Remote Indicator w/ Test Switch

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# FSP-951 Series

## Intelligent Plug-In Photoelectric Smoke Detectors



Intelligent/Addressable Devices

### General

The NOTIFIER FSP-951 Series intelligent plug-in smoke detectors are designed for both performance and aesthetics. A new modern, sleek, contemporary design and enhanced optical sensing chamber is engineered to sense smoke produced by a wide range of combustion sources in accordance with more stringent code standards. The FSP-951 Series detector sensitivity can be programmed in the control panel software. Sensitivity is continuously monitored and reported to the panel. Point ID capability allows each detector's address to be set with rotary, decimal address switches, providing exact detector location for selective maintenance when chamber contamination reaches an unacceptable level. Dual electronic thermistors add 135°F (57°C) fixed temperature thermal sensing on the FSP-951T. The FSP-951R is a remote test capable detector for use with DNR Series duct detector housings. FSP-951 series detectors are available for both FlashScan® and CLIP applications as designated.

### Features

- New modern profile for improved aesthetics.
- Designed to meet UL268 7th Edition.
- Stable communication technique with noise immunity.
- Low standby current.
- Two-wire SLC connection.
- Compatible with FlashScan® and CLIP protocol systems.
- Rotary, decimal addressing (1-99 on CLIP systems, 1-159 on FlashScan systems).
- Optional remote, single-gang LED accessory.
- Dual LED design provides 360° viewing angle.
- Visible bi-color LEDs blink green every time the detector is addressed, and illuminate steady red on alarm (*FlashScan systems only*).
- Remote test feature from the panel.
- Walk test with address display (an address on 121 will blink the detector LED: 12-[pause]-1 (*FlashScan systems only*)).
- Built-in functional test switch activated by external magnet.
- Built-in tamper-resistant feature.
- Sealed against back pressure.
- Expanded color options.
- SEMS screws for wiring of the separate base.
- Optional relay, isolator, and sounder bases.

### Specifications

#### Sensitivity:

- UL Applications: 0.5% to 4.0% per foot obscuration.
- ULC Applications: 0.5% to 3.5% per foot obscuration.

**Size:** 2.0" (5.3 cm) high; base determines diameter.

- B300-6: 6.1" (15.6 cm) diameter.
- B501: 4" (10.2 cm) diameter.

For a complete list of detector bases see DN-60981.

**Shipping weight:** 3.4oz (96.4g)

#### Operating Temperature range:

- FSP-951, 0°C to 50°C (32°F to 122°F).
- FSP-951T, 0°C to 38°C (32°F to 100°F).



FSP-951 in B300-6 Base

- FSP-951R installed in a DNR/DNRW, -20°C to 70°C (-4°F to 158°F).

**UL/ULC Listed Velocity Range:** 0-4000 ft/min. (1219.2 m/min.), suitable for installation in ducts.

**Relative Humidity:** 10%-93% noncondensing.

**Thermal Ratings:** Fixed-temperature setpoint 135°F (57°C).

#### DETECTOR SPACING AND APPLICATIONS

NOTIFIER recommends spacing detectors in compliance with NFPA 72. In low airflow applications with smooth ceiling, space detectors 30 feet (9.1m). For specific information regarding detector spacing, placement, and special applications refer to NFPA 72. *System Smoke Detector Application Guide*, document A05-1003, is available at [systemsensor.com](http://systemsensor.com)

#### ELECTRICAL SPECIFICATIONS

**Voltage Range:** 15-32 volts DC peak.

**Standby Current (max. avg.):** 200µA @ 24VDC (one communication every five seconds with LED enabled).

**LED Current (max.):** 4.5mA @ 24 VDC ("ON").

### Installation

FSP-951 series plug-in detectors use a separate base to simplify installation, service, and maintenance.

Mount base (all base types) on an electrical backbox which is at least 1.5" (3.81 cm) deep. For a chart of compatible junction boxes, see DN-60981.

**NOTE:** 1) Because of inherent supervision provided by the SLC loop, end-of-line resistors are not required. Wiring "T-taps" or branches are permitted for Style 4 (Class "B") wiring. 2) When using relay or sounder bases, consult the ISO-X(A) installation sheet I56-1380 for device limitations between isolator modules and isolator bases.

## Agency Listings and Approvals

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

- UL/ULC Listed: S911
- FM Approved
- CSFM: 7272-0028:0503

## Product Line Information

### NOTE:

- Detectors must be mounted to one of the Intelligent Bases listed below.
- "A" suffix indicates ULC Listed model.
- "IV" suffix indicates FlashScan® and CLIP device.

**FSP-951:** White, low-profile intelligent photoelectric sensor, FlashScan only.

**FSP-951A:** Same as FSP-951 but with ULC listing.

**FSP-951-IV:** Ivory, low-profile intelligent photoelectric sensor.

**FSP-951A-IV:** Same as FSP-951-IV but with ULC listing.

**FSP-951T:** White, same as FSP-951 but includes a built-in 135°F (57°C) fixed-temperature thermal device. FlashScan only.

**FSP-951TA:** Same as FSP-951T but with ULC listing.

**FSP-951T-IV:** Ivory, same as FSP-951T but includes a built-in 135°F (57°C) fixed-temperature thermal device.

**FSP-951TA-IV:** Same as FSP-951T-IV but with ULC listing.

**FSP-951R:** White, low-profile intelligent photoelectric sensor, remote test capable. For use with DNR/DNRW. FlashScan only.

**FSP-951RA:** Same as FSP-951R but with ULC listing. For use with DNRA.

**FSP-951R-IV:** Ivory, low-profile intelligent photoelectric sensor, remote test capable. For use with DNR/DNRW.

**FSP-951RA-IV:** Same as FSP-951R-IV but with ULC listing. For use with DNRA.

### INTELLIGENT BASES

**NOTE:** For details on intelligent bases, see DN-60981

**B300-6:** White, 6" base, standard flanged low-profile mounting base.

**B300-6-IV:** Ivory, 6" base, standard flanged low-profile mounting base.

**B300A-6:** Same as B300-6, ULC listed.

**B300A-6-IV:** Ivory, 6" standard flanged low-profile mounting base, ULC listed.

**B300-6-BP:** Bulk pack of B300-6, package contains 10

**B501-WHITE:** White, 4" standard European flangeless mounting base. UL/ULC listed.

**B501-BL:** Black, 4" standard European flangeless mounting base. UL/ULC listed.

**B501-IV:** Ivory color, 4" standard European flangeless mounting base. UL/ULC listed.

**B501-WHITE-BP:** Bulk pack of B501-WHITE contains 10.

**B224RB-WH:** White, relay base.

**B224RB-IV:** Ivory, relay base.

**B224RBA-WH:** White, relay base, ULC listing.

**B224RBA-IV:** Ivory, relay base, ULC listing.

**B224BI-WH:** White, *isolator* detector base.

**B224BI-IV:** Ivory *isolator* detector base.

**B224BIA-WH:** White, *isolator* detector base, ULC listing.

**B224BIA-IV:** Ivory *isolator* detector base, ULC listing.

**B200S-WH:** White, Intelligent addressable sounder base capable of producing sound output in high or low volume with ANSI Temporal 3, ANSI Temporal 4, continuous tone, marching tone, and custom tone. Uses FlashScan protocol.

**B200S-IV:** Ivory, Intelligent addressable sounder base capable of producing sound output in high or low volume with ANSI Temporal 3, ANSI Temporal 4, continuous tone, marching tone, and custom tone. Uses FlashScan protocol.

**B200SA-WH:** Same as B200S-WH, ULC listing.

**B200SA-IV:** Same as B200S-IV, ULC listing.

**B200SCOA-WH:** White, Intelligent, programmable sounder base in English/French (required in Canada for ULC applications with SO Series detector applications).

**B200SCOA-IV:** Ivory Intelligent, programmable sounder base in English/French (required in Canada for ULC applications with SO Series detector applications, ULC listing).

**B200S-LF-WH:** White, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement.

**B200S-LF-IV:** Ivory, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement.

**B200SR-WH:** White, Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Intended for retrofit applications.

**B200SR-IV:** Ivory, Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Intended for retrofit applications.

**B200SRA-WH:** Same as B200SR-WH with, ULC listing.

**B200SRA-IV:** Same as B200SR-IV in Ivory color, ULC listing.

**B200SR-LF-WH:** White, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. Intended for retrofit applications.

**B200SR-LF-IV:** Ivory, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. Intended for retrofit applications.

### MOUNTING KITS AND ACCESSORIES

**TR300:** White, replacement flange for B210LP(A) base.

**TR300-IV:** Ivory, replacement flange for B210LP(A) base.

**RA100Z(A):** Remote LED annunciator. 3 – 32 VDC. Mounts to a U.S. single-gang electrical box. For use with B501(A) and B300(A)-6.

**M02-04-00:** Test magnet.

**M02-09-00:** Test magnet with telescoping handle.

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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.  
All specifications are subject to change without notice.

For more information, contact Notifier. Phone: (800) 627-3473, FAX: (203) 484-7118.  
[www.notifier.com](http://www.notifier.com)

# Intelligent Bases Standard, Relay, Isolator, Sounder, and Low-Frequency Sounder Bases

## General

To meet local code and application requirements, NOTIFIER® offers standard 4" and 6" bases, as well as, specialty base designs including relay, isolator, sounder and low frequency sounder options for the new 900 Series of addressable detectors as well as previous generations.

The standard 4" and 6" bases offer a plug-in detector base intended for use in intelligent systems, with screw terminals identified with a (+ and -). The 4" base offers a compact design while the 6" base provides compatibility with a wider range of junction boxes.

The specialty bases support application driven requirements. These bases employ a separate mounting plate that installs on various junction box sizes to eliminate unsightly surface-mount boxes. The mounting plate enables pre-wiring of all connections to speed and simplify installation.

Relay bases provide one form-C contact relay for control of auxiliary functions, such as door closure and elevator recall. The relay can operate in two different modes (short and long delay). The activation time for the short delay is 60-100 milliseconds, while the activation time for the long delay is 6-10 seconds. A shunt with pin headers, located on the base PC board, is used to set the delay timing.

Isolator bases allow the Signaling Line Circuit (SLC) loop to operate under fault conditions created from a short circuit preventing an entire communication loop from being disabled. The base isolates the section of the loop containing the short circuit from the remainder of the circuit and automatically restores when the fault is corrected.

Sounder and low frequency sounder bases are designed for new and existing dwelling unit applications. They offer maximum flexibility in installation, configuration, and operation to meet or exceed UL 268 and UL 464 requirements. The low frequency sounder bases are designed to meet the NFPA 72 sleeping space requirement to produce a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent. Studies show that a lower frequency, centered around 520 Hz, is the most ideal to wake sleeping occupants, even those with mild to severe hearing loss.

The B200SR sounder and -LF sounder bases (B200SR-WH/B200SR-IV/B200SR-LF-WH/B200SR-LF-IV) are fully compatible with existing B501BH Series sounder base installations. The device enables users to select one of two B501-supported tones (ANSI Temporal 3 or Continuous) through a jumper.

The B200S sounder and -LF sounder bases (B200S-WH/B200S-IV/B200S-LF-WH/B200S-LF-IV) adopt the same address as the detector, but use a unique device type on the loop. The Fire Alarm Control Panel (FACP) can use that address to command an individual sounder — or a group of sounders — to activate. The command set from the FACP can be tailored to multiple event-driven tone outputs allowing selection of volume (75 or 85 dBA), tone (ANSI Temporal 3, ANSI Temporal 4, or March Time) and group. In addition, some FACP's will enable custom tone patterns. The B200S series sounder bases recognize the System Sensor synchronization protocol. This enables them to be used as a component of the general evacuation signal — along with other System Sensor AV appliances — when connected to a power supply or FACP output capable of generating the System Sensor synchronization pulses.



B300-6 Standard  
6" Base (White)



B200S-WH  
Sounder Base (White)



B501-WHITE Flangeless  
4" Base (White)



B501-BL Flangeless  
4" Base (Black)

## Specifications

**NOTE:** Specifications applies to all model variants "A", "-BL", "-LF", "-IV", "-WH", "-WHITE". See Product Line Information for detailed model description.

### Diameter

- B501-WHITE: 4" (10.16 cm) diameter.
- B300-6: 6.1" (15.49 cm) diameter.
- B224BI, B224RB: 6.2" (15.748 cm) diameter.
- B200S, B200SR, B200SCOA: 6.875" (17.46 cm) diameter.

### Wire gauge:

- B224BI, B224RB: 14 to 24 AWG.
- B300-6, B210LP, B501, B200S, B200SR, B200SCOA: 12 to 24 AWG

### Temperature range:

- B224BI, B224RB, B200S, B200SR, B200SCOA: 32°F to 120°F (0°C to 49°C).
- B300-6, B210LP, B501: -4°F to 150°F (-20°C to 66°C).

### Humidity range:

**Humidity range:** 10% to 93% RH, non-condensing.

**System temperature and humidity ranges:** This system meets NFPA requirements for operation at 0°C to 49°C (32°F to 120°F); and at a relative humidity (non-condensing) of 85% at 30°C (86°F) per NFPA, and 93% ± 2% at 32°C ± 2°C (89.6°F ± 1.1°F) per ULC. However, the useful life of the system's standby batteries and the electronic components may be adversely affected by extreme temperature ranges and humidity. Therefore, it is recommended that this system and all peripherals be installed in an environment with a nominal room temperature of 15°C to 27°C (60°F to 80°F).

## Electrical Ratings

### FOR B300-6 SERIES BASES:

**Operating voltage:** 15 to 32 VDC

**Standby current:** 170 µA maximum

### FOR B501 SERIES BASES:

**Operating voltage:** 15 to 32 VDC

**Standby current:** 150 µA maximum

### FOR B200 SERIES BASES:

**External supply voltage:** 16 to 33 VDC (FWR)

**Standby current:**

500 µA maximum.

**Alarm current:**

- B200S(A)(-IV)(-WH)
  - 35 mA maximum at high-volume setting
  - 15 mA maximum at low-volume setting
- B200S-LF(-IV)(-WH) High-volume setting:
  - 70 mA maximum @ 33.0 VDC
  - 90 mA maximum @ 24.0 VDC
  - 140 mA maximum @ 16.0 VDC
- B200S-LF(-IV)(-WH) Low-volume setting:
  - 15 mA maximum @ 33.0 VDC
  - 20 mA maximum @ 24.0 VDC
  - 25 mA maximum @ 16.0 VDC
- B200SR(A)(-IV)(-WH)
  - 35 mA maximum
- B200SR-LF(-IV)(-WH)
  - 65 mA maximum @ 33.0 VDC
  - 90 mA maximum @ 24.0 VDC
  - 125 mA maximum @ 16.0 VDC
- B200SCOA(-IV)(-WH)
  - 40mA Max (DC)
  - 70mA Max (FWR)

**SLC operating voltage:** 15 to 32 VDC

**SLC standby current:** See applicable sensor specification.

**Sound output:**

- B200S(A)(-LF)(-IV)(-WH), high-volume\*: Greater than 85 dBA minimum.
- B200S(A)(-LF)(-IV)(-WH), low-volume\*: Greater than 75 dBA minimum.
- B200SR(A)(-LF)(-IV)(-WH)\*: Greater than 85 dBA minimum.
- B200SCOA(-IV)(-WH), high-volume\*\*: Greater than 87 dBA minimum.
- B200SCOA(-IV)(-WH), low-volume\*\*\*: Greater than 85 dBA minimum

\*Measured in a UL reverberant room at 10 feet, 24 Volts (continuous tone)

\*\*Measured in a ULC anechoic room at 10 feet, 24 Volts continuous tone)

### FOR B224BI, B224RB (A) (-IV) (-WH):

**Operating voltage:** 15 to 32 VDC (powered by SLC)

**Standby ratings:** <450 µA maximum @ 24 VDC

**Set time (B224RB(A)(-IV)(-WH) only):** short delay 60-100 milliseconds; long delay 6-10 seconds

**Reset time (B224RB(A)(-IV)(-WH) only):** 20 milliseconds maximum

**Relay characteristics (B224RB(A)(-IV)(-WH) only):** two-coil latching relay; one Form-C contact; ratings (UL/CSA): 0.9 A @ 125 VAC, 0.9 A @ 110 VDC, and 3.0 A @ 30 VDC

## Product Line Information

### INTELLIGENT BASES

**NOTE:** "A" suffix indicates ULC Listed model.

**NOTE:** "-IV" suffix indicates Ivory color model.

**NOTE:** "-BL" suffix indicates Black color model.

**NOTE:** "-WH" and "-WHITE" suffix indicates White color model.

**B210LP:** Flanged mounted base.

**B210LPA:** Same as B210LP; ULC listed.

**B210LPBP:** Bulk pack of B210LP, contains 10.

**B300-6:** White, 6" base, standard flanged low-profile mounting base.

**B300A-6:** Same as B300-6, ULC listed.

**B300-6-BP:** Bulk pack of B300-6, package contains 10;.

**B300-6-IV:** Ivory, 6" base, standard flanged low-profile mounting base.

**B300A-6-IV:** Ivory, 6" standard flanged low-profile mounting base, ULC listed.

**B501-WHITE:** White, 4" standard European flangeless mounting base. UL/ULC listed.

**B501-WHITE-BP:** Bulk pack of B501-WHITE contains 10.

**B501-BL:** Black, 4" standard European flangeless mounting base. UL/ULC listed.

**B501-IV:** Ivory color, 4" standard European flangeless mounting base. UL/ULC listed.

**B224RB-WH:** White, relay base.

**B224RB-IV:** Ivory, relay base.

**B224RBA-WH:** White, relay base, ULC listed.

**B224RBA-IV:** Ivory, relay base, ULC listed.

**B224BI-WH:** White, isolator detector base.

**B224BI-IV:** Ivory isolator detector base.

**B224BIA-WH:** White, isolator detector base, ULC listed.

**B224BIA-IV:** Ivory isolator detector base, ULC listed.

**B200S-WH:** White, Intelligent addressable sounder base capable of producing sound output in high or low volume with ANSI Temporal 3, ANSI Temporal 4, continuous tone, marching tone, and custom tone. Uses FlashScan® protocol.

**B200S-IV:** Ivory, Intelligent addressable sounder base capable of producing sound output in high or low volume with ANSI Temporal 3, ANSI Temporal 4, continuous tone, marching tone, and custom tone. Uses FlashScan® protocol.

**B200SA-WH:** Same as B200S-WH, ULC listed.

**B200SA-IV:** Same as B200S-IV, ULC listed.

**B200SCOA-WH:** White, Intelligent, programmable sounder base in English/French (required in Canada for ULC applications with SO Series detector applications).

**B200SCOA-IV:** Ivory Intelligent, programmable sounder base in English/French (required in Canada for ULC applications with SO Series detector applications, ULC listing).

**B200S-LF-WH:** White, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement.

**B200S-LF-IV:** Ivory, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement.

**B200SR-WH:** White, Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Intended for retrofit applications.

**B200SR-IV:** Ivory, Intelligent sounder base capable of producing sound output with ANSI Temporal 3 or continuous tone. Intended for retrofit applications.

**B200SRA-WH:** Same as B200SR-WH, ULC listed.

**B200SRA-IV:** Same as B200SR-IV in Ivory color, ULC listed.

**B200SR-LF-WH:** White, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. Intended for retrofit applications.

**B200SR-LF-IV:** Ivory, Low Frequency Intelligent, programmable sounder base. Produces a fundamental frequency of 520 Hz +/- 10% with a square wave or its equivalent; designed to meet the NFPA 72 sleeping space requirement. Intended for retrofit applications.

**MOUNTING KITS AND ACCESSORIES**

**TR300:** White, replacement flange for B210LP(A), B300(A)-6 bases.

**TR300-IV:** Ivory, replacement flange for B210LP(A), B300(A)-6-IV bases.

**RA100Z(A):** Remote LED annunciator. 3 – 32 VDC. Mounts to a U.S. single-gang electrical box. For use with B501(A) and B300(A)-6.

**M02-04-00:** Test magnet.

**M02-09-00:** Test magnet with telescoping handle.

**CK300:** White, detector color kit. Pack of 10.

**CK300-IR:** White, detector color kit for use with FPTI and FCO Series detectors. Pack of 10.

**CK300-IV:** Ivory, detector color kit. Pack of 10.

**CK300-IR-IV:** Ivory, detector color kit for use with FPTI and FCO Series detectors. Pack of 10.

**CK300-BL:** Black, detector color kit. Pack of 10.

**CK300-IR-BL:** Black, detector color kit for use with FPTI and FCO Series detectors. Pack of 10.

**Agency Listings and Approvals**

The listings and approvals below apply to intelligent bases as noted. In some cases, certain modules or applications may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL/ULC Listed:** S1115
- **FM Approved**
- **CSFM:** 7300-1653:0109, 7300-1653:0126, 7300-1653:0213, 7300-1653:0236

**Junction Box Selection Guide**

Base Models	Single Gang	Double Gang	3.5" Oct.	4.0" Oct.	4.0" Sq.	4.0" Sq. with 3.0" mud ring	50 mm	60 mm	70 mm	75 mm
B200S, B200SR, B200SCOA	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No
B501	No	No	Yes	No	No	Yes	Yes	Yes	Yes	No
B210LP, B300-6	Yes	No	Yes	Yes	Yes	Yes	No	No	No	No
B224BI, B224RB	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No

**NOTE:** Box depth contingent on base and wire size.

Refer to National Electric Code or applicable local codes for appropriate recommendations.

**NOTE:** Applies to all model variants "A", "-BL", "-LF", "-IV", "-WH", and "-WHITE". See Product Line Information for detailed model description.



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.

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# DNR(A) and DNRW Intelligent Photoelectric Duct Detectors

The Notifier DNR(A) intelligent non-relay photoelectric duct smoke detector and DNRW watertight non-relay photoelectric duct smoke detector feature a pivoting housing that fits both square and rectangular footprints capable of mounting to a round or rectangular duct.

The DNRW duct smoke detector, with its NEMA-4 rating, is listed as a watertight, UV resistant enclosure providing protection against falling dirt, rain, and windblown dust, splashing and hose directed water, allowing operators to use the detector in the most extreme environments.

These units sense smoke in the most challenging conditions, operating in airflow speeds of 100 to 4,000 feet per minute (0.5 – 20.32 m/s), temperatures of -4°F – 158°F (-20°C – 70°C), and a humidity range of 0 – 95 percent (non-condensing.)

An improved cover design isolates the sensor head, which allows for ease of maintenance. A cover tamper feature indicates a trouble signal for a removed or improperly installed sensor cover. The housing provides a 3/4-inch conduit knockout and ample space to facilitate easy wiring and mounting of a relay module.

The Notifier DNR(A) duct smoke detectors can be customized to meet local codes and specifications without additional wiring and are compatible with all previous models, including remote test accessories.

## Features

- Photoelectric, integrated low-flow technology
- Air velocity rating from 100 ft/min – 4,000 ft/min (0.5 m/s – 20.32 m/s)
- Versatile mounting options: square or rectangular configuration
- Broad ranges for operating temperature (-4°F – 158°F, -20°C – 70°C) and humidity (0% – 95% non-condensing)
- Patented sampling tube installs from front or back of the detector with no tools required
- Cover tamper signal
- Increased wiring space with a newly added 3/4" conduit knockout
- Available space within housing to accommodate mounting of a relay module
- Easily accessible code wheels on sensor head (sold separately)
- Clear cover for convenient visual inspection
- Remote testing capability
- Requires com line power only
- Accommodates an addressable relay module, sold separately, (FRM-1) for applications requiring a Form-C relay

## Specifications

**Size: (Rectangle)** 14.38 in (37 cm) Length; 5 in (12.7 cm) Width; 2.5 in (6.6 cm) Depth

**Size: (Square)** 7.75 in (19.7 cm) Length; 9 in (22.9 cm) Width; 2.5 in (6.35 cm) Depth

**Weight:** 1.6 lb (0.73 kg)

**Operating Temperature Range:** -4°F – 158°F (-20°C – 70°C)

**Storage Temperature Range:** -22°F – 158°F (-30°C – 70°C)

**Operating Humidity Range:** 0% – 95% relative humidity (non-condensing)

**Air Duct Velocity:** 100 – 4,000 ft/min (0.5 – 20.32 m/s)



## Accessories

Notifier provides system flexibility with a variety of accessories, including two remote test stations and different means of visible and audible system annunciation. As with our duct smoke detectors, all duct smoke detectors accessories are UL listed.

DNR(W) housings with a date code of 0013 or higher do not require external 24VDC for remote test applications when used with a remote-test-capable detector.

### ACCESSORY CURRENT LOADS AT 24 VDC

Device	Standby	Alarm
RA100Z	0mA	12mA Max
RTS151/RTS151KEY	0mA	12mA Max

## Agency Listings and Approvals

Consult product manual for lists of compatible UL-Listed devices. In some cases, certain modules may not be listed by certain approval agencies, or listing may be in process. Consult factory for latest listing status.

- **UL:** S635, S3705
- **ULC:** S635
- **CSFM:** 3240-1653:0209
- **FM approved**

## Product Line Information

**NOTE:** "A suffix indicates ULC listed model.

**DNR(A):** Intelligent non-relay photoelectric low flow smoke detector housing. Requires photoelectric smoke detector (sold separately).

**DNRW:** Watertight intelligent non-relay photoelectric low flow duct smoke detector housing. Requires photoelectric smoke detector (sold separately). NEMA-4 rated.

**FSP-951R(A)-IV:** Remote test capable addressable low-profile photoelectric smoke detector; ivory; supports CLIP and FlashScan® protocols

**FSP-951R(A):** Remote test capable addressable low-profile photoelectric smoke detector; white; supports FlashScan protocol only

**FSP-951(A)-IV:** Addressable low-profile photoelectric smoke detector; ivory; supports CLIP and FlashScan protocols

**FSP-951R(A):** Addressable low-profile photoelectric smoke detector; white; supports FlashScan protocol only

**DCOIL:** Remote test coil. Required for older DNR(W) duct detector housing

**DUCTCOV:** Retrofit DNR cover for manufactured prior to April 2014

**DUCTCOVW:** Retrofit DNRW cover for manufactured prior to April 2014

**DST1(A):** Metal sampling tube duct width up to 1 ft (0.3m)

**DST1.5(A):** Metal sampling tube duct widths up to 1 ft – 2 ft (0.3 – 0.6 m)

**DST3(A):** Metal sampling tube duct widths up to 2 ft – 4 ft (0.6 – 1.2 m)

**DST5(A):** Metal sampling tube duct widths up to 4 ft – 8 ft (1.2 – 2.4 m)

**DST10(A):** Metal sampling tube duct widths up to 8 ft – 12 ft (2.4 – 3.7 m)

**DH400OE-1:** Weatherproof enclosure

**ETX:** Metal exhaust tube duct, width 1 ft (0.3 m)

**M02-04-00:** Test magnet

**P48-21-00:** End cap for metal sampling tubes

**RA100Z(A):** Remote annunciator alarm LED

**RTS151(A):** Remote test station

**RTS151KEY(A):** Remote test station with key lock

## Important Notes

- DNR(W) duct detector housings with a date code of 0013 or higher do not require a DCOIL or auxiliary 24 VDC for remote test applications when used with a remote test capable detector.
- DNR(W) duct detector housings with a date code of 0012 or earlier require a DCOIL and auxiliary 24 VDC power for remote test applications.



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.

## NOTIFIER

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Country of Origin: Mexico





# Duct Smoke Detector Accessories

Expand the versatility of the InnovairFlex™ line of duct smoke detectors with System Sensor notification and test accessories.



## Available Accessories

APA151	Piezo Annunciator
MHR	Mini-Horn, Red
MHW	Mini-Horn, White
RA100Z/RA100ZA	Remote Annunciator
RTS151	Remote Test Station
RTS151KEY	Remote Test Station with Key
RTS2	Multi-Signaling Accessory
AOS	Add-On Strobe
RTS2-AOS	Multi-Signaling Accessory

**Duct smoke detector accessories** add functionality to the duct smoke detection system by allowing quick, convenient inspections at eye level and effective audible and visible notification options. All System Sensor duct smoke detectors and accessories are UL listed.

The **APA151** piezo annunciator, which replaces the APA451 with a new, improved look, provides an audible alarm signal, a red LED to indicate alarm status, and a green LED to indicate power status. It is intended for use with System Sensor 4-wire conventional duct smoke detector applications without a system control panel, to comply with NFPA 90A.

The **MHR and MHW** SpectrAlert® Advance mini-horns feature temporal or continuous tones at high and low volume settings. Their small footprint allows mounting to single-gang back boxes for applications where a small device is desired.

The **RA100Z and RA100ZA** remote annunciators are designed for both conventional and intelligent applications. Their red LED provides visual indication of an alarm condition.

The **RTS151 and RTS151KEY** remote test stations are automatic fire detector accessories designed to test duct smoke detectors from a convenient location. For 4-wire detectors, the RTS151KEY test station features a multi-colored LED that alternates between steady green and red. For 2-wire detectors, the LED illuminates red for alarm.

The **RTS2 and RTS2-AOS** multi-signaling accessories are designed to work with InnovairFlex 4-wire conventional duct smoke detectors. These accessories include a key switch that can be used to select one of two connected sensors to be tested, reset, or both by a push button switch. They also enable sensitivity measurements using the SENS-RDR sensitivity reader (sold separately). The AOS (Add-On Strobe) is an optional accessory included with the RTS2-AOS model.

## Agency Listings



## Specifications, Duct Smoke Detector Accessories

APA151 Piezo Annunciator	
Voltage	Regulated 24 VDC
Operating Voltage	16 to 33 VDC
Maximum Alarm Current	30 mA
Temperature Range	0°C to 49°C (32°F to 120°F)
Relative Humidity	10 to 93% non-condensing
Wire Gauge	12 to 18 AWG
Dimensions	4.6" H x 2.9" W x .45" D
MHR/MHW SpectrAlert® Advance Mini-Horns	
Voltage	Regulated 12 DC or FWR (Full Wave Rectified) or Regulated 24 VDC or FWR
Sounder Current Draw	22 mA RMS max. at 8 to 17.5 Volts DC 29 mA RMS max. at 16 to 33 Volts DC
Temperature Range	0°C to 49°C (32°F to 120°F)
Humidity Range	10 to 93% non-condensing
Nominal Sounder Frequency	3 kHz
Wire Gauge	12 to 18 AWG
Dimensions	4.6" H x 2.9" W x 0.45" D
RA100Z/RA100ZA Remote Annunciator	
Voltage Range	Conventional System: 3.1 to 32 VDC Intelligent System: 18 to 32 VDC
Maximum Alarm Current	10 mA
Dimensions	4.6" H x 2.8" W x 1.3" D

RTS151 Remote Test Station	
Power Requirements	Alarm LED: 2.8 to 32 VDC, 12 mA max. Total Current: 105 mA max.
Test Switch	10 VA @ 32 VDC
Reset Switch	10 VA @ 32 VDC
Alarm Response Time	40 seconds max.
Temperature Range	-10°C to 60°C (14°F to 140°F)
Relative Humidity	95% non-condensing
Wire Gauge	14 to 18 AWG
Dimensions	4.8" H x 2.90" W x 1.4" D
RTS151KEY Remote Test Station with Key	
Power Requirements	Power LED (Green): 14 to 35 VDC, 12 mA max. Alarm LED (Red): 2.8 to 32 VDC, 12 mA max. Total Current: 105 mA max.
Alarm Response Time	40 seconds max.
Temperature Range	-10°C to 60°C (14°F to 140°F)
Relative Humidity	95% non-condensing
Wire Gauge	14 to 18 AWG
Dimensions	4.6" H x 2.75" W x 1.8" D
RTS2 and RTS2-AOS Multi-signaling Accessory	
Voltage	20 to 29 VDC
Power Requirements	Standby: 3.0 mA max. Trouble: 16.0 mA max. Alarm without strobe: 30 mA max. Alarm with strobe: 55 mA max.
Sounder	85 dBA at ten feet
Temperature Range	-10°C to 60°C (14°F to 140°F)
Relative Humidity	95% non-condensing
Wire Gauge	14 to 22 AWG
Dimensions	4.8" W x 5.3" H x 1.6" D

For the very latest product specifications and listing information, please visit the System Sensor Web site at [www.systemsensor.com](http://www.systemsensor.com).



RTS151 UL S4011



RTS151KEY UL S2522



APA151 UL S4011



RTS2-AOS UL S2522



RA100Z UL S2522



MHW UL S4011



MHR UL S4011



AOS



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