FAPT-851(A)

Acclimate Plus™ Multi-Sensor Low-Profile Intelligent Detector

NOTIFIER®
by Honeywell

General

The Notifier FAPT-851(A) Acclimate Plus™ detector is an intelligent, addressable, multi-sensing, low-profile detector designed for use with Notifier Onyx and CLIP series Fire Alarm Control Panels.

The Acclimate Plus™ detector uses a combination of photoelectric and thermal sensing technologies to increase immunity to false alarms. Unlike traditional intelligent detectors, the Acclimate Plus™ detector has a microprocessor in the detector head that processes alarm data. As a result, the Acclimate Plus™ detector adjusts its sensitivity automatically, without operator intervention or control panel programming.

Areas where the Acclimate Plus™ detector is especially useful include office complexes, schools, college campuses, manufacturing and industrial facilities, and anywhere else the use of a particular area may change. The Acclimate Plus™ detector automatically adjusts its sensitivity to the environment.

FlashScan (U.S. Patent 5,539,389) is a communication protocol developed to greatly enhance the speed of communication between analog intelligent devices and compatible systems. Intelligent devices communicate in a grouped fashion. If one of the devices within the group has new information, the panel's CPU stops the group poll and concentrates on single points. The net effect is response speed greater than five times that of earlier designs.

Features

- Automatically adjusts sensitivity levels without operator intervention or programming. Sensitivity increases with heat.
- Microprocessor-based, combination photo and thermal technology.
- FlashScan (NFS-320, NFS-640, NFS2-640, NFS-3030 and NFS2-3030) and CLIP system (AFP-100, AFP-200, AFP-300, AFP-400, AFP1010, and AM2020) compatible.
- Addressable-analog communication.
- Sleek, low-profile design.
- Two-wire SLC connection.
- Direct-Dial entry of address: (1 – 159 on FlashScan systems; 1 – 99 on CLIP systems).
- Addresses can be viewed and changed without electronic programmers.
- Dual bi-color LED design provides 360° viewing angle.
- LEDs lock red when in alarm. In FlashScan, LEDs flash green in standby for normal condition.
- Built-in tamper-resistant feature.
- Sealed against back pressure.
- Constructed of off-white Bayblend®, designed to commercial standards, and offers an attractive appearance.
- SEMS screws for wiring of the separate base.
- Several base options, including relay, isolator, and sounder.
- Built-in functional test switch activated by external magnet.
- Listed to UL 268.
- Capable of heat-only alarm mode, enabled by a special command from the panel. Smoke alarms are ignored.

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FAPT-851(A) in B710LP base

- Backwards-compatible on most panels.
- Low-temperature signal at 45°F +/– 10°F (7.22°C +/– 5.54°C).

Specifications

Sensitivity: *auto-adjusting levels*: 1 to 2%/ft. and 2 to 4%/ft. with classic CLIP systems; 1 to 2, 2 to 3, and 3 to 4%/ft. with FlashScan systems; *fixed-sensitivity levels:* 1, 2, and 4%/ft. with classic CLIP systems; 0.5, 1, 2, 3, and 4%/ft. with FlashScan systems.

Size: 2.0" (5.3 cm) high x 4.1" (10.4 cm) diameter installed in B501 base, 6.1" (15.5 cm) diameter installed in B710LP base.

Shipping weight: 5.2 oz. (147 g).

Operating temperature: 0°C to 38°C (32°F to 100°F).

Operating altitude: up to 10,000 feet.

UL-Listed velocity range: 0 – 4000 ft./min. (1219.2 m/min.), suitable for installation in ducts.

Relative humidity: 10% – 93% noncondensing.

Thermal sensing rating: fixed-temperature setpoint 135°F (57°C).

ELECTRICAL SPECIFICATIONS:

Voltage range: 15 – 32 volts DC peak.

Standby current (max. avg.): 300 µA.

Loop resistance: 50 ohms maximum; varies according to control panel used. Refer to panel installation manuals.

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

Installation

The FAPT-851(A) plug-in detector uses 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 an electrical backbox at least 1.5" (3.81 cm) deep. Suitable mounting base boxes include:

- 4.0" (10.16 cm) square box.
- 3.5" (8.89 cm) or 4.0" (10.16 cm) octagonal box.
- Single-gang box (except relay or isolator base).

APPLICATION NOTE: *The FAPT-851(A) detector has the unique ability to adjust sensitivity according to the environment, based on*

heat and smoke levels. Avoid installing these detectors in locations that are susceptible to rapid and high temperature changes. An example of an incorrect application would be near or in line with the output of a self-contained heater.

Agency Listings and Approvals

These listings and approvals apply to the modules specified in this. 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 Listed:** S1115
- **ULC Listed:** CS308
- **MEA Listed:** 225-02-E
- **FM Approved**
- **CSFM:** 7272-0028:206
- **U.S. Coast Guard:** 161.002/42/1 (NFS-640)
- **Lloyd's Register:** 02/60007 (NFS-640)
- **Maryland State Fire Marshal:** Permit # 2122

Ordering Information

NOTE: "A" suffix indicates ULC Listed model.

FAPT-851: Low-profile intelligent multi-sensor detector. Must be mounted to one of the bases listed below.

FAPT-851A: Same as FAPT-851 but with ULC Listing.

INTELLIGENT BASES

B501: Flangeless mounting base. 4.1" (10.4 cm) diameter.

B501A: Flangeless mounting base, ULC Listed.

B501BP: Flangeless mounting base, ULC Listed.

B710LP: Flanged mounting base. 6.1" (15.5 cm) diameter

B710LPA: Flanged mounting base, ULC Listed.

B710LPBP: Flanged mounting base.

B501BH-2: Plug-in System Sensor standard *sounder* detec-tor base, steady tone. Includes **B501** base.

B501BHT-2: Plug-in System Sensor *temporal tone* sounder base.

B501BHA: Plug-in System Sensor standard *sounder* detec-tor base, steady tone, with ULC Listing. Includes **B501** base.

B501BHTA: Plug-in System Sensor *temporal tone* sounder base, with ULC listing.

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" (15.748 cm) x 1.2" (3.048 cm)..

B224RBA: Relay base, ULC Listed.

B224BI: Isolator base. Dimensions: 6.2" (15.748 cm) x 1.2" (3.048 cm). Maximum: 25 devices between isolator bases.

B224BIA: Isolator base, ULC Listed.

ACCESSORIES:

F110: Retrofit replacement flange for older high profile bases. Converts bases for use with FlashScan® detectors.

RA400Z(A): Remote LED annunciator. 3 – 32 VDC. Fits U.S. single-gang electrical box. Supported by B710LPBP(A) and B501(A) bases only.

SMK400E: Surface mounting kit provides for entry of surface wiring conduit. For use with B501(A) base only.

RMK400: Recessed mounting kit. For use with B501(A) base only.

SMB600: Surface mounting kit for use with B710LPBP(A).

BCK-200B: Black detector covers, box of 10.

M02-04-00: Test magnet.

M02-09-00: Test magnet with telescope stick.

XR2B: Detector removal tool. Allows installation and/or removal of FlashScan® Series detector heads from base in high ceiling installations.

T55-127-010: Detector removal tool without pole.

XP-4: Extension pole for XR2B. Comes in three 5-ft. sections.

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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.

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