FSA-8000(A)

Intelligent FAAST Fire Alarm Aspiration Sensing Technology®

NOTIFIER®
by Honeywell

Intelligent/Addressable Devices

General

The Intelligent FAAST FSA-8000(A) aspirating smoke detector combines dual-source optical smoke detection (blue LED and infrared laser) with advanced algorithms to detect a wide range of fires while maintaining enhanced immunity to nuisance particulates. This enables the FSA-8000 to accurately detect incipient fire conditions as early as 30 to 60 minutes before a fire actually starts for Early Warning Fire Detection and Very Early Warning Fire Detection.

The FSA-8000 connects to the SLC loop of compatible intelligent panels using FlashScan® protocol to communicate five levels of events for display and use in control-by-event system programming. Using the SLC connection, the system operator can also review real-time information on percent of alarm, drift compensation percent, and temperature. The system operator can also put an Intelligent FAAST detector into service mode, or reset airflow baselines from the main fire alarm control panel.

The FSA-8000 supports two sensitivity modes. In Acclimate™ mode, the detector automatically adjusts itself to current environmental conditions to reduce nuisance alarms. Day/Night/Weekend mode enables technicians to preset alarm thresholds based on routine changes in the environment.

For initial system creation, the PipeIQ® software guides users through pipe layout. The software also provides intuitive control over system configuration and ongoing system monitoring. An installed device can be monitored through its integral display, from a computer connected to the device, or remotely through a computer browser or mobile device when the detector is connected to the Internet, or by Modbus/TCP Protocol over Ethernet. When Internet-connected, the FSA-8000 can also e-mail status updates to appropriate personnel.

Features

- Detection as precise as 0.00046%/ft obscuration.
- Five alarm levels and two sensitivity modes provide application flexibility.
- Dual flow detection including both ultrasonic and electronic sensing for pipe and chamber air flow measurement.
- A single device protects up to 8,000 square feet.
- Advanced detection algorithms reject common nuisance conditions.
- Patented particle separator and field-replaceable filter remove contaminants from the system.
- PipeIQ software provides intuitive system layout, configuration, and monitoring all in one package.
- Using the onboard Ethernet interface, you can monitor the detector from any Internet browser, smart phone or mobile device with VPN capability. You can also configure the detector to e-mail status updates to appropriate personnel.
- Monitoring and configuration can also be accomplished using Modbus/TCP protocol over Ethernet.
- Fault indicators exhibit a broad spectrum of events.
- Unique air flow pendulum graph verifies pipe network functionality.
- Particulate graph displays subtle environmental changes for early problem indications.

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- At startup FSA-8000 self-adapts to its environment in just 24 hours, not weeks. The exclusive Acclimate mode automatically adjusts within your specified parameters to reduce nuisance alarms and adjust to current conditions.
- Comprehensive, simple and intuitive display has real-time, quick-read information at the device including five alarm levels, ten particulate levels, air flow, power and a wide range of faults to quickly identify the problem for prompt correction.

FlashScan Capabilities

- Connects to Signaling Line Circuit (SLC) loop of compatible ONYX™ series using FlashScan protocol. The FSA-8000 is compatible with the NFS-320, NFS2-640, and NFS2-3030 panels operating with firmware version 20.0 or higher.
- Uses 5 SLC addresses, which support up to 5 event thresholds individually programmed for descriptive labels, and control by event logic. (Sensitivity for all event thresholds are programmed via the PipeIQ utility.)
- Detector trouble reporting at panel.
- Individual CBE activation of the 5 event relays on the Intelligent FAAST (relays also turn on based on the associated event level threshold).
- Supports setting one device as an Aspiration Reference for other Intelligent FAAST sensors on the same SLC loop (NFS2-3030 only).
- Panel Alter/Status level can be used to:
  - Display the real-time read status of percent of alarm, drift compensation percentage, and temperature by point.
  - Put Intelligent FAAST detectors into Service Mode, shutting the device down for maintenance.
  - Reset airflow baselines for an Intelligent FAAST detector.

Specifications

ELECTRICAL SPECIFICATIONS

External Supply Voltage: 18-30 VDC.

Remote Reset Time: External monitor must be pulled low for a minimum of 100 ms.

Power Reset: 1 sec.

Avg. Operating Current: 500 mA @ 24 VDC.

Alarm: 650 mA – All relays active, all alarm levels displayed. Voltage @ 24 VDC.

Relay Contact Ratings: 3.0 A @ 30 VDC, 0.5 A @ 125 VAC.

ENVIRONMENTAL RATINGS

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

Sampled Air Temperature: -4°F (-20°C) to 140°F (60°C).

Humidity Range: 10 to 95% (non-condensing).

IP Rating: IP30.

Coverage Area: 8,000 sq. ft. (743 sq. m).

Air Movement: 0-4,000 ft./min (0-1,219 m/min).

PHYSICAL SPECIFICATIONS

Height: 13.25 inches (33.7 cm).

Width: 13.0 inches (33 cm).

Depth: 5.0 inches (12.7 cm).

SLC Connection: Standard SLC connections. Class B (formerly Style 4) or Class A (formerly Style 6/7).

Relays: 8 Form C, 3 AMP, programmable latching or non-latching.

Communication Network: Ethernet monitoring, 6 E-mail address alerts, Modbus/TCP.

Cable Access: 4 1-inch (2.54 cm) cable entry holes on top and bottom of unit.

Wire Gauge: 12 AWG (2.05 mm) max. to 24 AWG (0.5 mm) min.

Maximum Single Pipe Length: 262 ft. (80 m).

Maximum Branched (2) Pipe Length: 165 ft. (50 m) each branch.

Maximum Air Inlet Holes: 40 holes.

Network Outside Pipe Diameter: 1.050 inches, IPS (25 mm).

Internal Pipe Diameter: 0.591 to 0.827 inches (15-21 mm).

Sensitivity Range: 0.00046%/ft. obs – 4.0%/ft. obs.

Event Log: 18,000 events stored.

Shipping Weight: 11.6 lbs. (5.26 kg), includes packing material.

User Interface Display:

- Five alarm levels (Alert, Action 1, Action 2, Fire 1, & Fire 2).
- Ten particulate levels.
- Ten bi-color flow.
- Fault graph.

Agency Listings and Approvals

The listings and approvals below apply to Intelligent FAAST Series components. 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:** S911.
- **ULC Listed:** S911.
- **FM** approved.
- **Maryland State Fire Marshal**: Permit # 2244.

Product Line Information

FSA-8000 Intelligent FAAST: Intelligent aspirating smoke detector. For Canadian applications, order FSA-8000A.

F-A3384-000: Replacement Air Filter.

F-LCARD-SP: Language Card - Spanish.

P-PIPE-210: CPVC Pipe (210 feet total).

P-COUPLING: Coupling (15 each).

P-ELB-45: 45° Elbow (10 each).

P-ELB-90: 90° Elbow (20 each).

P-ENDCAP: End Cap (25 each).

P-TEE: Tee (15 each).

P-UNION: Union (10 each).

P-LABEL-P: Pipe Label (100 each).

P-LABEL-T: Sampling Point Labels (100 each).

P-SAMP-KT: Sampling Point Kit (10 sets).

HP300ULX: Power Supply, 12/24VDC, 2.4 A DC.

User Interface Display

ISO 9001
CERTIFIED
ENGINEERING & MANUFACTURING
QUALITY SYSTEMS

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.

Made in the U.S. A.

For more information, contact Notifier. Phone: (203) 484-7161, FAX: (203) 484-7118.
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