

by Honeywell

Description

The Gamewell-FCI, Intelligent FAAST XT®, AAD-9400X aspirating smoke detectors deliver highly accurate Very Early Warning Fire Detection over a wide coverage area directly over the Signaling Line Circuit (SLC) to the fire alarm control panel via the Velociti protocol. This aspirating smoke detector combines advanced particle separation with a unique dual source optical smoke detection technology to provide highly sensitive Very Early Warning Fire Detection while providing enhanced immunity to false alarms. This technology enables FAAST to accurately detect incipient fire conditions as early as 60 minutes before a fire actually starts when set for Early Warning and Very Early Warning Fire Detection in applications ranging from mission critical to harsh and extreme environments.

An installed FAAST XT device can protect up to 28,800 sq. ft. (2,676 sq. m) in the standard coverage type applications. The Intelligent FAAST XT Detector can be wired to a new or pre-existing SLC that is used for transmitting communications directly to a fire alarm control panel, via the Velociti mode, without using extra hardware. In the Velociti mode, the AAD-9400X, FAAST XT will report back to the fire alarm control panel as an aspirating detector. By setting the sensitivity levels in PipelQ™, the fire alarm control panel will initiate pre-alarm and alarm conditions based on the feedback sent from the FAAST XT unit. Using the Velociti mode, up to 159 units can populate one SLC.

In addition to providing a direct connection on the SLC, the FAAST XT device can be monitored in several different ways, including the following:

- Serial or TCP Modbus®
- Direct PC connection
- Ethernet over a LAN
- FAAST's onboard USB

When the AAD-9400X is connected to a LAN, the FAAST's email server can email event notification to the appropriate personnel. FAAST also communicates alarm and fault conditions via Form C Relays.

PipelQ® is FAAST's intuitive design, configuration, and monitoring software. The all-in-one program can be used to do the following:

- Create a pipe network tailored to meet site specific requirements.
- Configure a FAAST device.
- Monitor an installed device including the following:
 - live trending
 - reading of historic reports

*A complimentary download of PipelQ is available at systemsensor.com/faat.

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 FAAST® is a registered trademark of System Sensor Inc.
 Modbus® is a registered trademark of Modbus Organization
 UL® is a registered trademark of Underwriter's Laboratories, Inc.

Intelligent Fire Alarm Aspiration Sensing Technology



AAD-9400X

Features

- Offers the SLC connectivity via the Velociti protocol.
- Supports 159 FAAST XT devices per loop.
- Provides Very Early Warning Fire Detection, as precise as 0.00046%/ft obscuration.
- Includes five alarm levels and two sensitivity modes to provide application flexibility.
- Has 3-fan speed settings that allow for maximum coverage area, and provide savings on current consumption.
- Delivers ultrasonic flow sensing for each pipe inlet and chamber airflow monitoring for precise system health information.
- A single device can cover up to 28,800 square feet.
- Combines a dual source optical detection chamber with enhanced algorithms to provide high sensitivity with greater immunity to nuisance conditions.
- Delivers a patented particle separator to remove large, non-fire particulate, ensuring chamber health and extending the life of the field-replaceable filter.
- Converts TCP and Serial modbus for easy integration with building management systems.
- Offers easy configuration via USB interface, no external power needed.
- Supports an onboard Ethernet interface that enables remote monitoring and email notification.
- Displays an LCD user interface that allows for detailed device information and interaction such as the following:
 - Active faults
 - Test/reset/isolate
 - Reset of airflow baseline
 - Precise airflow monitoring
- Produces configurable air flow fault thresholds.

SIGNALING



Specifications

Intelligent FFAST XT 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 | Fan High - 465mA, 11.2W; Fan Med - 340mA, 8.2W; Fan Low - 220mA, 5.3W |
| Alarm | Fan High - 493mA, 11.85W; Fan Med - 368mA, 8.85W; Fan Low - 248mA, 6W |
| 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); Factory Tested to 133°F (55°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 | 28,800 sq.ft. (2,676 sq.m) |
| Air Movement | 0-4,000 ft./min. (0-1,219 m/min.) |

Physical Specifications

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|---------------------|--|
| Height | 13.3 in (338 mm) |
| Width | 13.1 in (333 mm) |
| Depth | 7.5 in (191 mm) |
| Cable Access | 4 1-inch (2.54 cm) cable entry holes on top, bottom and back of the unit |
| Wire Gauge | 12 AWG (2.05 mm) max. to 24 AWG (0.5 mm) min. |

| | |
|--|--|
| Maximum Single Pipe Length | 400 ft. (123 m) |
| Total Pipe Length | 1050 ft. (320 m) (*all designs must be verified within PipeIQ software) |
| Multiple Pipe Network Network Outside Pipe Diameter | 262 ft. per pipe |

| | |
|-------------------------------|---|
| Internal Pipe Diameter | 1.050 inches, IPS (25 mm) |
| Sensitivity Range | 0.591 to 0.827 inches (15-21 mm) 0.00046%Obs/ft to 6.25% Obs/ft (0.0015% Obs/m to 20.5% Obs/m) |

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

Diagnostic Specifications

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|-----------------------|--|
| Event Log | 18,000 events stored |
| Trend Data Log | Configurable sampling period (1 minute to 1 day) |
| Service Log | 300 custom user entries |

Network Specifications

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|------------------------------|--|
| Communication Network | Ethernet monitoring 6 E-mail address alerts, TCP and Serial Modbus |
| Network Services | DHCP, SMTP, HTTP, MODBUS/ TCP, AutoIP, NetBIOS-NS, Serial MODBUS |
| Ethernet | 10/100Mbps, MDI-X |
| Modbus | TCP or Serial RS- |
| Email | 6 recipients, sel. notification |

Specifications (Continued)

Network Specifications (Continued)

| | |
|------------------|-------------------------------------|
| Webserver | Read Configuration, Live View, Logs |
|------------------|-------------------------------------|

Configuration Specifications

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|---------------|--------------------|
| PipeQ | USB or Ethernet |
| Modbus | Ethernet or RS-485 |

Figure 1 illustrates the FFAST XT user interface display.



Figure 1 - Intelligent FFAST XT User Interface Display

The User Interface consists of 5 Alarm levels:

- Alert
- Action 1
- Action 2
- Fire 1 and Fire 2, 10 Particulate levels and Flow and Fault graph

Ordering Information

| Part Number | Description |
|------------------|---|
| AAD-9400X | System Sensor Intelligent FFAST XT Fire Alarm Aspiration Sensing Technology |

Accessories

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|--------------------|---|
| CMKT00100 | FAAST Information Kit—Includes a Comprehensive Instruction Manual |
| F-A3384-000 | Replacement Air Filter Assembly |
| Various† | UL®-Approved Pipe and Fittings |

† Additional accessory information, including part numbers, can be accessed at systemsensor.com/faast.

GAMEWELL-FCI