FAAST XS®
AAD-7100X/7100X

Description

FAAST XS® aspirating smoke detectors from Gamewell-FCI deliver highly accurate Very Early Warning Fire Detection for the smaller applications and offer extensive communication capabilities. The FAAST XS combines advanced particle separation with 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 XS 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 applications.

The Intelligent FAAST XS Detector, AAD-7100X, can be wired without additional hardware to a new or pre-existing Signaling Line Circuit (SLC). The SLC is used for transmitting communications directly to an E3 Series® or S3 Series fire alarm control panel, utilizing the Velociti® mode. In the Velociti® mode, the Intelligent FAAST XS will report back to the fire alarm control panel as an aspirating detector. By setting the sensitivity levels in PipeIQ®, the fire alarm control panel will initiate pre-alarm and alarm conditions based on the feedback sent from the FAAST XS unit. Using the Velociti mode, up to 159 units can populate one SLC. A Conventional FAAST XS model is also available which communicates alarm and notifications via Form C relays.

FAAST XS can also be monitored by Serial or TCP Modbus, Ethernet over a LAN or a direct connection, or via FAAST XS's onboard USB. When connected to a LAN, FAAST XS's email server can provide email event notification to appropriate personnel..

PipeIQ® is FAAST XS's intuitive design, configuration, and monitoring software. The all-in-one program can be used to create a pipe network tailored to meet site specific requirements, configure a FAAST XS device, and monitor an installed device -- including live trending and reading of historic reports.

*A complimentary download of PipeIQ is available at systemsensor.com/faast.

FAAST XS Fire Alarm Aspiration Sensing Technology®

AAD-7100X

Features

- Provides Very Early Warning Fire Detection, as precise as 0.00029%/ft obscuration.
- Intelligent version (AAD-7100X) offers direct SLC connectivity to an E3 or S3 panel via the Velociti protocol, with up to 159 Intelligent FAAST XS devices per loop.
- Three alarm levels and three sensitivity modes provide application flexibility.
- User configurable 3-speed fan, allowing for maximum coverage area or minimizing on current consumption.
- Ultrasonic flow sensing and chamber airflow monitoring for precise system health information.
- A single device covers up to 5,000 square ft. (464 sq.m).
- Dual source optical detection chamber with enhanced algorithms provide high sensitivity with greater immunity to nuisance conditions.
- Patented particle separator removes large, non-fire particulate, ensuring chamber health and extending the life of the field replaceable filter.
- TCP and Serial modbus for easy integration with building management systems.
- Easy configuration via USB interface,no external power.
- Onboard Ethernet interface enables remote monitoring, configuration, web server and e-mail notifications.
- Multilingual LCD user interface allows for detailed device information and interaction such as: Active faults, precise airflow monitoring, reset of airflow baseline, test/reset/isolate, and more.
- Configurable air flow fault thresholds & verification period.
- Convenient wiring compartment.
- Status-at-a-glance provides immediate alarm, fault and airflow status.

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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.

Specifications

FAAST XS 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 - 200mA, 4.8W; Fan Med - 151mA, 3.7W; Fan Low - 120mA, 2.1W
Alarm	Fan High - 230mA, 5.6W; Fan Med - 172mA, 4.2W; Fan Low - 142mA, 3.5W
Relay Contact Ratings	3.0 A @ 30 VDC; 0.5 A @ 125 VAC; 3 (Int.) or 5 (Conv.) Form C, 3 AMP, programmable latching or non-latching.
Average SLC Operating Current:	700 µA

Operating Specifications

Operating Temperature	32°F (0°C) to 100°F (38°C); Factory Tested to 131°F (55°C)
Sampled Air Temperature	-4°F (-20°C) to 140°F (60°C)
Humidity Range	10 to 95% (non-condensing)
Sensitivity Range	0.00029% Obs/ft to 6.25% Obs/ft (0.000095% Obs/m to 20.5% Obs/m)
IP Rating	IP30
Coverage Area	5,000 ft. (464 sq.m)
Air Movement	0-4,000 ft./min. (0-1,219 m/min.)

Physical Specifications

Height	11.0 in (279 mm)
Width	9.0 in (229 mm)
Depth	6.25 in (159 mm)
Cable Access	3 1-inch (2.54 cm) cable entry holes on top, and back of the unit.
Wire Gauge	12 AWG (2.05 mm) max. to 24 AWG (0.5 mm) min.
Maximum Single Pipe Length	180 ft. (54.9)*
Total Aggregate Pipe Length	225 ft. (68.6 m)*

*All designs must be verified within PipeIQ software.

Outside Pipe Diameter	1,050 inches, IPS (25 mm)
Internal Pipe Diameter	0.591 to 0.827 inches (15-21 mm)
Relays	3 (Int.) or 5 (Conv.) Form C, 3 AMP, programmable latching or non-latching

Diagnostic Specifications

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

Networking Specifications

Communication Network	Ethernet monitoring, 6 E-mail address alerts, TCP and Serial Modbus

Specifications (Continued)

Network Services	DHCP, SMTP, HTTP, MODBUS/ TCP, AutoIP, NetBIOS-NS, Serial MODBUS
Ethernet	10/100Mbps, MDI-X
Modbus	TCP or Serial RS-485
Email	6 recipients, selectable notification
Webserver	Read Configuration Live View, Logs

Configuration Specifications

PipeIQ	USB or Ethernet
Modbus	Ethernet or RS-485

Figure 1 illustrates the FAAST XS user interface display.

Figure 1 - Intelligent FAAST XS User Interface Display

The User Interface consists of 3 Alarm levels:

- Alert
- Fire 1
- Fire 2
- 10 Particulate levels
- 10 Airflow indicators
- 4 Fault indicators, LCD

Ordering Information

Part Number	Description
AAD-7100X	Intelligent FAAST Fire Alarm Aspiration Sensing Technology (5,000 sq. foot unit)
7100X	Conventional FAAST Fire Alarm Aspiration Sensing Technology (5,000 sq. foot unit)

Accessories

Various†	UL®-Approved Pipe and Fittings

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