Aspirating
Smoke Detection
PRODUCTS

SYSTEM SENSOR®

FAAST
FIRE ALARM ASPIRATION SENSING TECHNOLOGY®

Accessories
Piping
Conventional and
Intelligent Detectors

ASPIRATION AV BEAM CO HVAC SPOT SPRINKLER MODULES RELAYS

ASPIRATION

FAAST
FIRE ALARM ASPIRATION SENSING TECHNOLOGY®

High Sensitivity. Simple Communications. Nuisance Immunity.

FAAST Fire Alarm Aspiration Sensing Technology® from System Sensor – the world leader in smoke detection technology – is an ultra sensitive highly effective aspirating smoke detector which provides Very Early Warning type smoke detection in diverse applications ranging from mission critical to harsh environments.

FAAST aspirating smoke detectors use a pipe network and a fan to draw air from a protected space in to the detection chamber. This pipe network allows for smoke detection in hard-to-reach or difficult-to-access areas, including areas with temperature extremes, and allows for ease of testing and maintenance.

All FAAST detectors provide simple access to communications. Each FAAST model is equipped with an on board Ethernet port which enables access for remote configuration and monitoring, as well as the option to send email notifications to up to 6 recipients. All models also come with ready-to-use Modbus, eliminating the need for additional hardware. FAAST is available in conventional models and intelligent models for a variety of major fire alarm control panels.

FAAST XT
4-Port Aspirating Smoke Detector

FAAST Networking and Connectivity

The FAAST series of aspirating smoke detectors are equipped with an onboard Ethernet port for network connectivity. This interface permits a number of remote monitoring possibilities, including the ability to receive alarm and fault notifications via email. The detector has been designed to operate with common network technologies, including Modbus.

For more information on how FAAST can connect to your network, visit systemsensor.com/faast.

FAAST Technology

High Sensitivity

FAAST's highly specialized chamber uses Dual Vision technology to detect extremely low concentrations of smoke while maintaining a high level of immunity to non-smoke particulate – enabling Very Early Warning type smoke detection in harsh and difficult environments.

The chamber, which utilizes a blue LED and an infrared laser to analyze the air sample, has a configurable range of 0.00029% - 6.25%/ft (0.00095% - 20.5%/m) obscuration and has been specifically designed to provide high sensitivity and stability. This sensitivity range can meet and exceed the requirements of Very Early Warning smoke detection, making FAAST highly customizable to meet site-specific requirements.

FAAST provides multiple levels of alarm, allowing for the implementation of strategic response plans and ample time to address a smoke event before it escalates into an actual fire and causes damage and downtime.

Easy Communications

FAAST provides easy access to its wealth of data in several ways, many of them standard on all models:

Ethernet – All FAAST models come equipped with an onboard Ethernet connection. This connection allows the FAAST device to be added to an existing LAN or WAN, and allows the device to be viewed remotely via a Web Browser or viewed and configured remotely via PipeIQ – FAAST's design, configuration, and monitoring software. Once connected to a LAN, FAAST's integrated e-mail client can send event-triggered messages to as many as 6 different e-mail addresses.

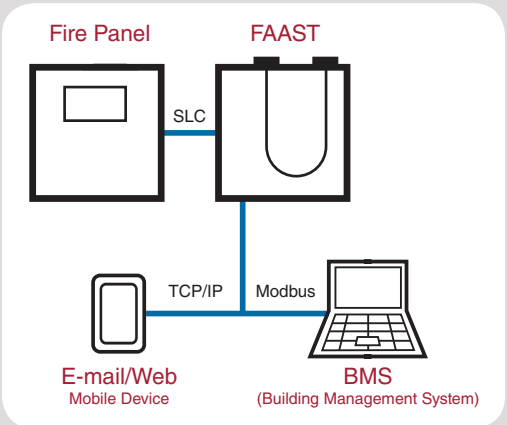
USB - For a quick plug-and-play connectivity (uploading or downloading configurations, monitoring, etc) FAAST XS and XT have been equipped with a USB interface. This provides an easy in-situ connection whenever required.

Modbus – All FAAST conventional and intelligent models come equipped with a Modbus interface which can be used to connect FAAST to building management systems. This Modbus interface does not require any additional hardware or software to connect. FAAST XM detectors utilize TCP Modbus via the Ethernet port. FAAST XT detectors offer Modbus via the Ethernet connection as well as a serial interface. The FAAST Modbus User Guide, which includes all of the information a user needs to connect FAAST to a Modbus system, is available at systemsensor.com/faast.

Conventional FACP Connectivity – Conventional FAAST can be connected to a Fire Alarm Control Panel (FACP) using the onboard relays and monitor modules, and can also be monitored using the Ethernet and Modbus options.

Direct connection to the SLC

FAAST can connect directly to the signaling line circuit (SLC) of many major Fire Alarm Control Panels, using the same two wires as other detection devices. Contact your panel manufacturer for more information.

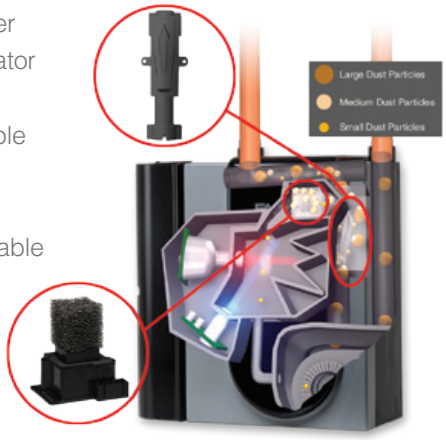


Intelligent FACP Connectivity – FAAST is also available in intelligent models for many major fire alarm control panels (FACP). Intelligent FAAST communicates directly with the FACP using the communication protocol native to the panel, just like any other detection device on the loop. Using the protocol native to the FACP, FAAST can directly communicate with the FACP without the need for any additional hardware or software. This intelligent communication can also be combined with the Ethernet and Modbus communication options, making FAAST's information easily accessible. Contact your panel manufacturer for Intelligent FAAST information and availability.

Nuisance Immunity

FAAST employs three stages of filtration to ensure high sensitivity to smoke while effectively eliminating nuisance alarms. These filtration methods allow FAAST to be deployed in harsh, particulate-heavy environments while maintaining its high sensitivity. FAAST's filtration includes:

Particle Separator – FAAST's particle separator forces a change in direction of the air flow coming through the device. This change in direction is impossible for heavier particulate, which would not be associated with products of combustion, and those heavy particles are immediately eliminated from the device by bypassing the chamber and being exhausted via the fan. This particle separator not only ensures nuisance particles do not enter the chamber, but it also prolongs the life of the replaceable filter and extends the life of the FAAST unit.



Filter – FAAST also utilizes a 30-micron field-replaceable filter, which is easily accessible from the front of the device for service and maintenance. This harsh filter protects the chamber from other non-fire particulate which may have passed through the particle separator. The filter is highly monitored and will only issue a service warning when it needs to be changed – not before – and lasts several years in clean environments.

Dual Vision Smoke Chamber – FAAST uses a unique dual wavelength / dual angle sensing technology. Infrared laser as well as blue LED detect extremely low concentrations of smoke from a wide variety of fires. Combining information from both of the light sources, advanced algorithms interpret the signals and react to smoke while ignoring nuisance particles. Also, the shape of FAAST's unique chamber is specifically designed to resist nuisance particulate build-up.

PipeIQ®

Design. Configure. Monitor.

PipeIQ is FAAST's design, configuration, and monitoring software. PipeIQ uses an intuitive drawing interface to build and customize a pipe network to meet site-specific requirements. It also offers a pipe wizard to build a pipe network for standard square and rectangular rooms in just a few easy steps.

Once installed, PipeIQ enables ongoing configuration and system monitoring from anywhere in the world via the internet using FAAST's onboard Ethernet connection.

Learn more about PipeIQ on page 10 of this brochure.
PipeIQ is available to download free for Windows 7 and 8 at **systemsensor.com/pipeiq**

FAAST Applications

Mission Critical

Mission critical applications are defined as those where even a single minute of downtime in productivity or being operational, would mean a substantial loss of revenue. Traditionally, these are spaces like server rooms and data centers, telecommunication facilities, and hi-tech manufacturing. Mission critical spaces generally create high airflow environments, which cause smoke to disperse and dilute. While the earliest possible smoke detection is key to mission critical sites, they may equally suffer when a false alarm occurs. FAAST nuisance immunity is thus as valuable to such sites as being able to detect smoke in the incipient stages of a fire.

Why FAAST?

- High sensitivity – up to 0.00029%/ft – provides Very Early Warning Smoke Detection, allowing time to deal with the issue and preserve uptime.
- Active detection – FAAST's pipe network actively transports air through its pipe network, ensuring it enters the chamber in high air flow environments.
- Nuisance immunity – FAAST's technology provides greater nuisance immunity, meaning no time lost due to false alarms.
- Connectivity – FAAST connects directly to many major fire alarm control panels, and can connect to Modbus BMS systems and IP networks without any additional hardware or software.
- Filter life notification – FAAST's filter is intelligently monitored and will give notification when it must be changed. In clean areas, such as hi-tech manufacturing, FAAST's filter will last several years.

Extreme Environments

Dusty or polluted environments, areas with temperature extremes, condensation prone spaces, and areas that could give rise to an explosive environment, all pose challenges to traditional smoke detection devices. Often, these environments cannot use smoke detection and rely on conventional or linear heat detectors instead. FAAST's technology enables effective smoke detection in a variety of challenging environments.

Why FAAST?

- Nuisance immunity – FAAST's patented particle separator, 30-micron filter, and Dual Vision technology enable high sensitivity smoke detection in areas with high amounts of airborne non-fire particulate. Examples: livestock protection, food manufacturing, recycling plants, elevator shafts, pharmaceutical manufacturing.
- Class I, Division 2 Listing – FAAST is UL listed for Class I, Division 2 hazardous environments – or areas that could possibly give rise to an explosive environment. FAAST can safely be deployed in these environments which require special certification. Examples: distilleries, oil & gas production, aircraft hangers.

- Wide temperature range – FAAST can be mounted in temperatures of 32˚ to 100˚F (0˚C to 38˚), and sample air of -4˚ to 140˚F (-20˚C to 60˚C). If the air is outside of the sampling range, the pipe network can be used to condition the air and remove any condensation, providing protection for the most extreme temperature areas. Examples: cold stores and blast chillers, industrial dryers.

Large Open Spaces

From airports and subways to warehouses and atriums, large open spaces present many challenges to traditional smoke detection, such as stratification and high air flows.

Why FAAST?

- Pipe network – FAAST's pipe network is extremely flexible, allowing deployment to cover wide open spaces while enabling sampling points at different levels and stratification barriers.
- Ease of Maintenance – For remote testing, FAAST can be mounted at an accessible location with a pipe network running to the ceiling. With a remote test port at an accessible location, all of the testing and maintenance can be completed without a lift and at a single point for up to 28,800 sq. ft. (2,676 sq. m.) with FAAST XT.
- Nuisance immunity – Large open spaces often have higher amounts of airborne non-fire particulate. FAAST's particle separation and dual vision technology allow for smoke detection in dirty environments.

Aesthetic

Museums, galleries, churches, and historical buildings, as well as high value homes, often contain valuable content that requires sophisticated smoke detection systems as well as a system that's visually un-intrusive to the space.

Why FAAST?

- Discreet sampling – FAAST's pipe network can be placed above the ceiling with discreet sampling points dropped into the space. These sampling points provide nearly invisible smoke detection.
- High sensitivity – Providing Very Early Warning smoke detection, FAAST is ideal for areas with valuable contents such as museums and art galleries.

Access Restricted

Restricted-access areas such as prisons or MRI rooms are ideal applications for FAAST. These areas require easily accessible smoke detection that provides a high level of information so technicians know exactly how to address any problem that may arise.

Why FAAST?

- Easy to access – FAAST pipe network allows the device itself to be mounted outside of the restricted space for ease of test and maintenance.
- Easy troubleshooting – FAAST devices are easy to troubleshoot because of the detailed fault information they provide, all available on the device's user interface.
- Connectivity - All device information is also available through FAAST's many connectivity options:
  - Over the internet when TCP/IP enabled
  - Through a Modbus BMS
  - At the fire alarm panel for intelligent models..

FIRE ALARM ASPIRATION SENSING TECHNOLOGY®

FAAST XT

Aspirating Smoke Detectors

The FAAST XT aspirating smoke detector combines dual source optical smoke detection with advanced particle separation to provide highly sensitive smoke detection, even in areas with high levels of non fire particulate. FAAST XT can cover up to 28,800 sq. ft. (2,676 sq. m.) through four pipe inlets which are each monitored by ultrasonics for air flow. The device is fully configurable, with 5 programmable sensitivity levels, 3 selectable fan speeds, and offers an LCD and USB for ease of programming and device interaction. FAAST XT is approved for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations.

FAAST Fire Alarm Aspiration Sensing Technology

9400X	Conventional FAAST XT 4-Pipe Inlet with Modbus/TCP protocol with a coverage area up to 28,800 sq. ft. (2,676 sq. m.)

*All models ship standard with Modbus connectivity.

FAAST XM

Aspirating Smoke Detectors

FAAST XM can provide protection to the mid-sized applications of up to 8,000 sq. ft (743 sq. m). It uses the same, state-of-the-art detection and nuisance alarm rejection technologies. FAAST XM also offers a TCP/IP and Modbus connectivity as well as 8 programmable form-C relays. With its 5 configurable sensitivity levels and the Acclimate™ mode, programmable delays, FAAST XM can be tailored to the most demanding fire-risk management scenarios. It is also approved for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations.

FAAST Fire Alarm Aspiration Sensing Technology

8100	Conventional FAAST Single Inlet with Modbus/TCP protocol with a coverage area up to 8.000 sq. ft. (743 sq. m.)
8251F	Intelligent FAAST Single Inlet with CLIP protocol* with a coverage area up to 8,000 sq. ft. (743 sq. m.)

*All models ship standard with Modbus connectivity.

FAAST XS

Aspirating Smoke Detectors

An installed FAAST XS device can protect up to 5,000 sq. ft. (464 sq. m) in standard coverage type applications and can be monitored in several different ways, including: Serial or TCP/Modbus, Ethernet over a LAN or a direct connection, and USB. When connected to a LAN, FAAST XS's email client can provide email event notification to appropriate personnel. FAAST XS also communicates alarm and notifications via form C relays. FAAST XS also communicates alarm and notifications via form C relays.

FAAST Fire Alarm Aspiration Sensing Technology

7100X	Conventional FAAST Single Inlet with Modbus/TCP protocol with a coverage area up to 5.000 sq. ft. (464 sq. m.)

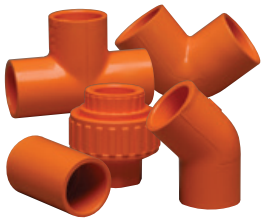
*All models ship standard with Modbus connectivity.

Aspiration Accessories

Complete aspiration pipe networks with CPVC pipe, fittings, and related accessories.

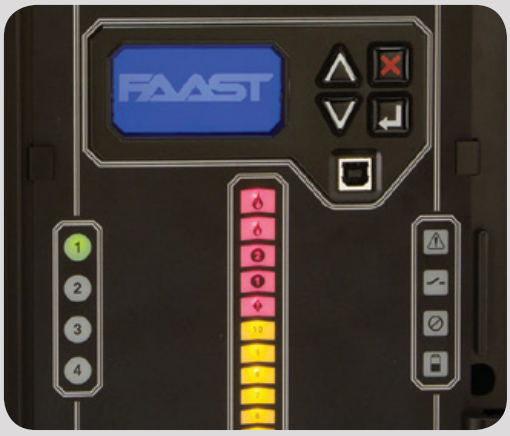
Accessories

P-PIPE-210	15 ft. lengths, ¾" Orange CPVC pipe, 14 pieces, 210 ft. Total Length
P-ELB-90	90 degree CPVC Elbow, ¾", Socket to Socket, qty. 20
P-ELB-45	45 degree CPVC Elbow, ¾", Socket to Socket, qty. 10
P-TEE	90 degree CPVC Tee, ¾", Socket to Socket, qty. 15
P-COUPLING	CPVC Socket Union, ¾", qty. 10
P-ENDCAP	CPVC End Cap, ¾", qty. 25
P-LABEL-P	Sampling Point Labels, roll of 100
P-LABEL-T	Pipe Labels, roll of 100
P-SAMP-KT	Sampling Kit
F-A3384-000	Replacement 8000 Series Air Filter
F-LCARD-SP	FAAST Spanish User Interface Card (5 pack)



FAAST XT LCD Display

FAAST XT's easy to use LCD interface allows easy reading of information such as faults, air flow, and device information. It also allows a user to easily access device functions such as test, reset, isolate, and reset airflow baselines.



PipeIQ® Design, Configure, Monitor

PipeIQ® Design, Configuration, and Monitoring Software

PipeIQ is FAAST's intuitive and easy to use all-in-one design, configure, and monitoring software, available free of charge at systemsensor.com/pipeiq.

Design – PipeIQ offers two modes for designing a pipe network: manual and a Pipe Wizard.

- Manually designing the pipe network utilizes an intuitive drawing interface, allowing the designer to visualize the pipe network and tailor-fit it to the application.
- Pipe Wizard is an automatic tool for building pipe networks for standard square or rectangular rooms. Simply tell the wizard the room dimensions and the category of detection required, along with a few other details, and it will automatically lay out a pipe network.

Configure – PipeIQ assists designers with FAAST configuration by allowing them to:

- Complete the pipe network layout.
- Verify sampling hole sizes, detection sensitivity, response time, and pressures
- Obtain a Bill of Material and Layout report.

Monitor – PipeIQ helps users monitor FAAST anytime, from anywhere.

- Enables ongoing system monitoring from anywhere in the world using FAAST's onboard Ethernet connection.
- Separate TCP ports allow simultaneous Modbus, email, PipeIQ, and web communications.

Specifications and Ratings

	FAAST XS	FAAST XM	FAAST XT
Model Number	7100X *Contact your panel manufacturer for intelligent model availability	8100 8251F* *Contact your panel manufacturer for intelligent model availability	9400X *Contact your panel manufacturer for intelligent model availability
Agency Listings (device model numbers and specifications differ between agency, contact your regional representative for more information)	UL, ULC, FM *Additional listings pending	UL, ULC, FM, CSIRO, ACTIVFIRE, CNTC, VdS, CE, KFI, CSFM	UL, ULC, FM *Additional listings pending
Coverage Area	5,000 sq.ft. (464 sq.m.)	8,000 sq.ft. (743 sq.m.)	28,800 sq.ft. (2,676 sq.m.)
Max Single Pipe Run	180 ft	262 ft	400 ft
Fan Speed	User configurable 3 speed fan	Automatic	User configurable 3 speed fan
Configuration Interface	Ethernet and USB	Ethernet	Ethernet and USB
Display	Intuitive user interface with alarm level, airflow readout, general fault indication, and LCD for detailed information.	Intuitive user interface with alarm level, airflow and fault readout	Intuitive user interface with alarm level, airflow readout, general fault indication, and LCD for detailed information.
Power Requirements (Standby)	**Fan High** 200mA, 4.8W **Fan Med** 151mA, 3.7W **Fan Low** 120mA, 2.1W	415mA	**Fan High** 465mA, 11.2W **Fan Med** 340mA, 8.2W **Fan Low** 220mA, 5.3W
Communications	Ethernet, TCP and Serial Modbus, Conventional and Intelligent models	Ethernet, TCP Modbus, Conventional and Intelligent Models	Ethernet, TCP and Serial Modbus, Conventional and Intelligent models
Design Software	PipeIQ	PipeIQ	PipeIQ

Full data sheets are available at systemsensor.com/faast

ASPIRATION

Additional Resources

Document Center

To access the full document library for FAAST and other products, visit the Document Center on systemsensor.com.

You will find brochures, data sheets, product manuals, engineering specs, FAQs, CAD drawings, application guides, case studies, and more.

Training Center

To access training, seminars, and webinars for FAAST and other products visit:

systemsensor.com/training

systemsensor.com/seminars

systemsensor.com/webinars

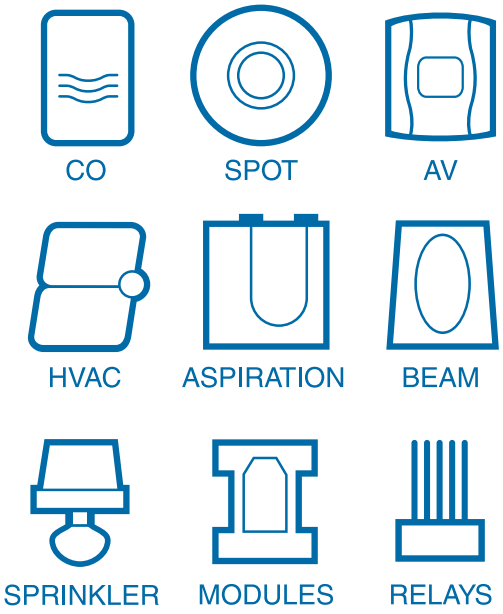
Video Library

To access product, training, and other videos, visit systemsensor.com/videos

Design Services

Want to have System Sensor's FAAST experts design your FAAST system? Go to **systemsensor.com/faastdesign** to submit your project information and receive a FAAST system layout and bill of materials for your project.

Need help? For technical notes on concerns and considerations for several different applications, download our application guide at systemsensor.com/faast.



Founded in 1984, System Sensor is a global manufacturer of fire and life safety devices, specializing in smoke detection, carbon monoxide detection, and notification technology. System Sensor develops products for real-world applications worldwide. With sales, service, and manufacturing facilities throughout the Americas, Europe, and Asia, System Sensor places a premium on research and development to provide the most reliable, innovative, and comprehensive line of products in the industry.

SYSTEM SENSOR®

www.systemsensor.com/**faast**

ASBR25206 • 07/15

URXG.S911
Smoke Detectors for Special Applications

Page Bottom

Smoke Detectors for Special Applications

See General Information for Smoke Detectors for Special Applications

SYSTEM SENSOR UNINCORPORATED, DIV OF HONEYWELL INTERNATIONAL INC S911

3825 Ohio Ave

Saint Charles, IL 60174-5467 USA

			Compatibility	Velocity Range (fpm)		Date of	Time of Manufacture	Firmware Version
Model	**Type**	**Sensitivity**	**Restrictions**	**Min**	**Max**	**Manufacture**	**Firmware Version**	**Update**
7100X (a) (f) (g) (h)	AS	-	None	0	300	-	-	-
8100 (a) (b) (c)	AS	-	None	300	4000	-	-	-
8251F (a) (b) (c)	AS	-	None	300	4000	-	-	-
9400X (a) (d) (e), JTY-GD-AS7800H (a) (d) (e), JTY-GD-9400S (a) (d) (e)								
	AS	-	None	0	300	-	-	-
9440X (a) (d) (e)	AS	-	None	0	4000	-	-	-
JTY-GD-8100S (a) (b) (c)	AS	-	None	300	4000	-	-	-
JTY-GD-9400S (a) (d) (e)	AS	-	None	0	300	-	-	-
JTY-GD-ASI6800H (a) (b) (c), JTY-GD-TC8800 (a) (b) (c)								
	AS	-	D2	0	300	-	-	-
JTY-GD-ASI7800H (a) (d) (e), JTY-GD-TC9800 (a) (d) (e)								
	AS	-	D2	0	300	-	-	-

D2 - For connection to Listed control units with which compatibility was determined by test or a review of circuit parameters. Interconnection and compatible models indicated on installation wiring diagram for detector (base) and/or control unit.

AS - Air Sampling

Date of Manufacture identifies the manufacturing start date of all product models that will use the specific Time of Manufacture Firmware Version. The date of manufacture is noncoded and in the format YEAR (in 4 digits), MONTH (in letters), DAY (in 2 digits).

Time of Manufacture Firmware Version identifies a numerical and/or alphabetic series designation that is product and date-code specific and will only identify the Firmware Version at the time the product was manufactured. The numeric and/or alphabetic sequence is defined by the manufacturer.

Firmware Version Update is a numerical and/or alphabetic sequential identification that is product and date-code specific and sequentially identifies the Firmware Version Update from the previous version of firmware. The numerical and/or alphabetic sequence is defined by the manufacturer.

(a) - Note - 3/4" internal diameter CPVC piping, Listed for Fire Protection Service under the category of Chlorinated Polyvinyl Chloride Sprinkler Pipe and Fittings (VIWT/VIWT7). Listed for use in air plenums, complying with the requirements of the Standard for Fire Test of Plastic Sprinkler Pipe for Visible Flame and Smoke Characteristics, UL 1887.

(b) - Suitable for open area protection with limits as described in the installation instruction manual.

(c) - Suitable for installation inside air ducts with limits as described in the installation instruction manual.

(d) - Suitable for open area protection with limits as described in the installation instruction manual; for up to 8,000 square feet of open area coverage with air velocities up to 300 feet per minute and with only one pipe network connected to one of the detector's four air inlet ports with the other three air inlet ports on the detector capped such that no sampled air enters these other three air inlet ports, and with the detector's fire alarm threshold setting set not less sensitive than 0.56 %/ft.

(e) - Suitable for installation inside air ducts with limits as described in the installation instruction manual; with the detector's fire alarm threshold setting set not less sensitive than 0.58 %/ft and with only one pipe network connected to one of the detector's four air inlet ports with the other three air inlet ports on the detector capped such that no sampled air enters these other three air inlet ports, for air velocities up to 4,000 feet per minute with up to 328 feet of air sampling pipe, and for air velocities up to 3,000 feet per minute with up to 400 feet of air sampling pipe.

(f) - Suitable for open area protection with limits as described in the installation instruction manual; for up to 5,400 square feet of open area coverage with air velocities up to 300 feet per minute, and with the detector's fire alarm threshold setting set not less sensitive than 0.546 %/ft.

(g) - Suitable for installation inside air ducts with limits as described in the installation instruction manual; with the detector's fire alarm threshold setting set not less sensitive than 0.519 %/ft, for air velocities up to 4,000 feet per minute with up to 15 feet of air sampling pipe, and for air velocities up to 3,000 feet per minute with up to 280 feet of air sampling pipe.

(h) - Certification is only applicable for the High fan setting.

Last Updated on 2016-08-26

FAAST XT
Fire Alarm Aspiration Sensing Technology®

FAAST XT aspirating smoke detectors deliver highly accurate Very Early Warning Fire Detection over a wide coverage area and offer extensive communication capabilites.

Features

- Provides Very Early Warning Fire Detection, as precise as 0.00046%/ft obscuration
- Five 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 for each pipe inlet and chamber airflow monitoring for precise system health information
- A single device covers up to 28,800 square feet
- 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-replacable filter
- TCP and Serial modbus for easy integration with building management systems
- Easy configuration via USB interface, no external power needed
- 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 and verification period
- Convenient wiring compartment
- Status-at-a-glance provides immediate alarm, fault and airflow status

Agency Listings

SIGNALING
UL LISTED
S911

FM APPROVED

ULC

The FAAST XT aspirating smoke detector 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 XT 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 standard coverage type applications and can be monitored in several different ways, including: Serial or TCP Modbus, Ethernet over a LAN or a direct connection, or via FAAST XT's onboard USB. When connected to a LAN, FAAST XT's email server can provide email event notification to appropriate personnel. FAAST XT also communicates alarm and notifications via form C relays.

PipeIQ® is FAAST XT'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 XT 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
Fire Alarm Aspiration Sensing Technology®

FAAST 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.
Operating Current	Fan High - 465mA, 11.2W; Fan Med - 340mA, 8.2W; Fan Low - 220mA, 5.3W
Alarm Current	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 8 form C, 3 AMP, programmable latching or non-latching
Operating Specifications	
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)
Sensitivity Range	0.00046% Obs/ft to 6.25% Obs/ft (0.0015% Obs/m to 20.5% Obs/m)
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	
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)
Multiple Pipe Network	262 ft. per pipe (80 m)
Network Outside Pipe Diameter	1.050 inches, IPS (25 mm)
Internal Pipe Diameter	0.591 to 0.827 inches (15-21 mm)
Relays	8 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 email 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-485
Email	6 recipients, selectable notifications
Webserver	Read Configuration, Live View, Logs
Configuration Specifications	
PipeIQ	USB or Ethernet
Modbus	Ethernet or RS-485

FAAST 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, 10 Bi-color Flow and Fault graph.

Ordering Information

Part No.	Description
9400X	System Sensor Conventional FAAST Fire Alarm Aspiration Sensing Technology
Accessories	
Various†	UL-Approved Pipe and Fittings

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

SYSTEM SENSOR®

3825 Ohio Avenue • St. Charles, IL 60174
Phone: 800-SENSOR2 • Fax: 630-377-6495
www.systemsensor.com

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FAAST™

Fire Alarm Aspiration Sensing Technology

NOTIFIER® by Honeywell

Conventional Smoke Detector

General

The FAAST 8100 aspirating smoke detector combines dual source (blue LED and infra-red laser) optical smoke detection with advanced algorithms to detect a wide range of fires while maintaining enhanced immunity to nuisance particulates. This enables FAAST 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. 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 via its Ethernet port. When Internet-connected, FAAST can also e-mail status updates to appropriate personnel. The detector can communicate alarm levels, urgent and minor faults, and isolate inputs via eight form C relays. To enable a full detection strategy, FAAST combines its advanced communications capabilities with an extensive range of customizable settings. The detector provides five alarm levels that can be programmed for latching or non-latching relays. To accommodate specific codes or environments, alarm delays can be set anywhere between 0 to 60 seconds. FAAST also 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.

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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.
- Fault indictors 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
- 5 programmable alarm levels for latching or non-latching as well as a 0 to 60 second delay to best accommodate local codes or environments
- At startup FAAST 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 5 alarm levels, 10 particulate levels, air flow, power and a wide range of faults to quickly identify the problem for prompt correction.

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)

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

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

Event Log: 18,000 events stored

Communication Network: Ethernet monitoring, 6 E-mail address alerts

Shipping Weight: 8.5 lbs. (3.8 kg), includes packing material

FAAST User Interface Display - The User Interface consists of 5 Alarm levels - Alert, Action 1, Action 2, Fire 1, and Fire 2, 10 Particulate levels, 10 Bi-color Flow and Fault graph.

Agency Listings and Approvals

The listings and approvals below apply to 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 (8100A)
- **FM** approved
- **CSFM:** 7259-1653:0215
- **Maryland State Fire Marsha**l: Permit # 2244

Product Line Information

8100: FAAST Conventional Fire Alarm Aspiration Sensing Technology

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

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.

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