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 capabilities.

Features

- Approved for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations
- 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) **other three pipes disabled*
Total Pipe Length	1050 ft. (320 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	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

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FAAST
Fire Alarm Aspiration Sensing Technology®

FAAST aspirating smoke detectors deliver highly accurate Very Early Warning Fire Detection and extensive communications capabilities to provide maximum control over challenging environments.

Features

- Approved for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations
- 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
- Onboard Ethernet interface enables remote monitoring and e-mail status updates
- Monitoring and configuration via Modbus/TCP protocol over Ethernet
- 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

Agency Listings

SIGNALING UL LISTED S911 | 7259-1653:0215 | MSFM approved 2244 | FM APPROVED | ACTIVFIRE LISTED | KFI | ULC

Approved for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations

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, remotely through a web browser when the detector is connected to a network, or by Modbus/TCP protocol over Ethernet. When connected to a mail server, FAAST can also email status updates to appropriate personnel. The detector can also 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.

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

FAAST 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. (800 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% Obs/ft to 6.25% Obs/ft (0.0015% Obs/m to 20.5% Obs/m)
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, Modbus/TCP
Shipping Weight	11.6 lbs (5.26kg), 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.

Ordering Information

Part No.	Description
8100	System Sensor Conventional FAAST Fire Alarm Aspiration Sensing Technology
Accessories	
CMKT00100	FAAST Information Kit – Includes Comprehensive Instruction Manual
F-A3384-000	Replacement Air Filter Assembly
Various†	Language Card
Various†	UL-Approved Pipe and Fittings

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

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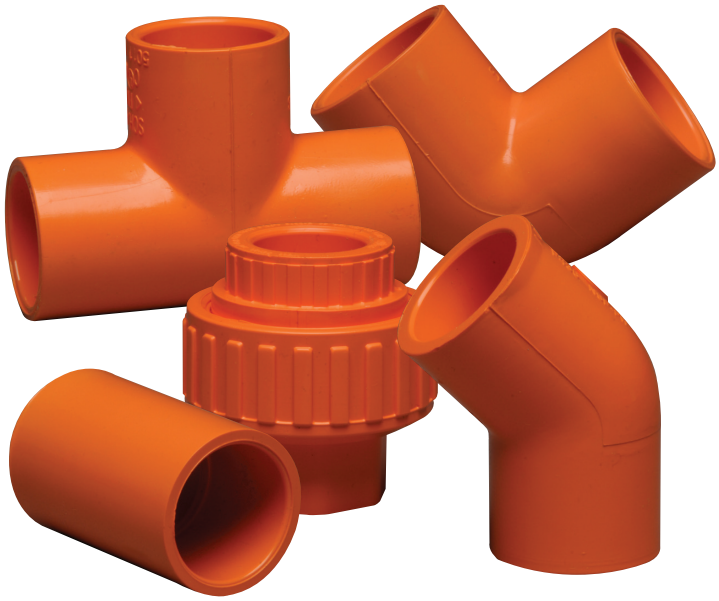
Aspiration Accessories

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



Available Accessories

- F-A3384-000 Replacement 8000 Series Air Filter
- P-COUPLING Coupling
- P-ELB-45 45° CPVC Elbow
- P-ELB-90 90° CPVC Elbow
- P-ENDCAP CPVC End Cap
- P-LABEL-P Sampling Point Labels
- P-LABEL-T Pipe Labels
- P-PIPE-210 CPVC Pipe
- P-SAMP-KT Sampling Point Kit
- P-TEE CPVC Tee Fitting
- P-UNION CPVC Union

Agency Listings (Fittings)

c UL us LISTED

FM APPROVED

LPCB FIRE PREVENTION CERTIFICATION BOARD

CPVC FIRE SPRINKLER FITTING
7TA2

Agency Listings (Pipes)

c UL us LISTED

S911

NOTE: P-PIPE-210 piping products have been investigated by Underwriters Laboratories (C-UL-US) for listings in the United States and Canada, per the requirements of UL1887, complies with the combustibility requirements for thermoplastic sprinkler pipe as described in the Standard for Installation of Air Conditioning and Ventilating Systems, ULC/ORD-C119P-2002, "Combustible Piping for Sprinkler Systems," and meets NFPA 90A and various model mechanical codes.

When installing the FAAST aspirating smoke detector, the accessories listed on this sheet include all the pipe, fittings† and related elements required to complete pipe networks designed in the FAAST PipeIQ™ software.

The **P-PIPE-210** consists of 14 lengths of 15-foot CPVC piping ideal for meeting UL-listed pipe network specifications. Fittings, including **P-COUPLING, P-ELB-45, P-ELB-90, P-ENDCAP, P-TEE** and **P-UNION**, are all ¾" nominal Schedule 40 CPVC fittings to make necessary pipe network connections, turns and terminations. Fittings are rated for continuous service of 175 psi (1,270 kPa) at 150°F (65°C).

The **P-SAMP-KT** is a sampling point kit with the components necessary to bring above-the-ceiling pipe networks down to drop ceilings, equipment, etc. Each kit includes 10 sets of ¾" x ¾" x ½" MNPT CPVC Tee fitting, ⅜" to ½" MNPT fitting, 14 feet of flexible capillary tubing (⅜" x ¼"), and sample point fittings with a 1/16" pre-drilled hole and "Air Sampling Point" label.

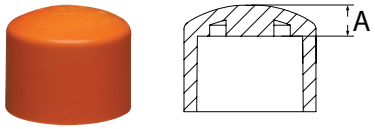
The **P-LABEL-P** and **P-LABEL-T** are rolls of 100 1" x 3" sampling point and pipe labels that caution trades from tampering with the pipe network. The P-LABEL-P is marked "Fire Detection System Sampling Point DO NOT PAINT." The P-LABEL-T is marked " SMOKE DETECTOR SAMPLING TUBE DO NOT DISTURB."

72 hours before the filter must be cleaned or replaced, the Series 8000 FAAST aspiration detector provides a minor fault. The filter, which resides under the language display card for easy access, can then be replaced by the **F-A3384-000** replacement air filter. This filter includes a 30 micron filter element and plastic housing in a single module to reduce service time and labor.

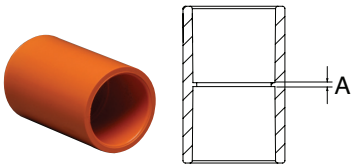
† *All pipe and fittings are post-chlorinated polyvinyl chloride (CPVC) made with BlazeMaster resin. BlazeMaster is a trademark of Lubrizol Advanced Materials, Inc.*

Specifications, Aspiration Accessories

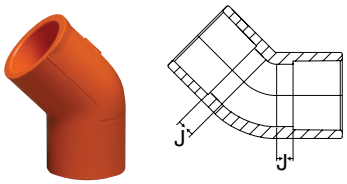
Part Number	Item	Nominal Dia	Approx Wt/ lbs	A Dim	B Dim	C Dim	J Dim	L Dim	Fitting	Carton Qty
P-ENDCAP	Endcap	¾"	0.04	0.31	—	—	—	—	S-Slip	25
P-COUPLING	Coupling	¾"	0.06	0.12	—	—	—	—	SXS	15
P-ELB-45	45° Elbow	¾"	0.06	—	—	—	0.32	—	SXS	10
P-ELB-90	90° Elbow	¾"	0.08	0.56	0.56	—	—	—	SXS	20
P-TEE	Tee Fitting	¾"	0.10	0.57	0.57	0.57	—	—	SXSXS	15
P-UNION	Union	¾"	0.27	2.46	—	—	—	0.43	SXS	10



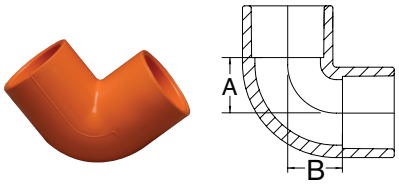
P-ENDCAP End Cap



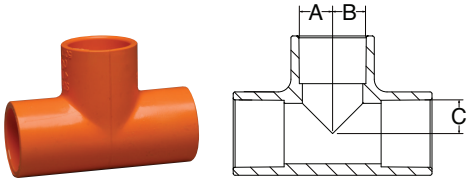
P-COUPLING Coupling



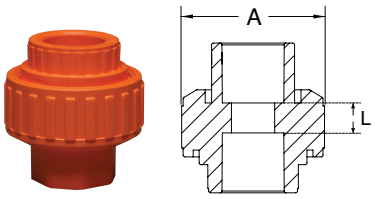
P-ELB-45 45 Degree Elbow



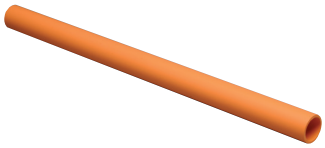
P-ELB-90 90 Degree Elbow



P-TEE Tee



P-UNION Union



P-PIPE-210 CPVC Pipe

P-LABEL-P Sampling Point Label

P-LABEL-T Pipe Label

F-A3384-000 Air Filter

P-SAMP-KT Sampling Kit

Ordering Information

Part No.	Description	Part No.	Description
Accessories			
P-PIPE-210	15 ft. lengths, ¾" Orange CPVC pipe, 14 pieces, 210 ft. Total Length	P-ENDCAP	CPVC End Cap, ¾", qty. 25
P-ELB-90	90 degree CPVC Elbow, ¾", Socket to Socket, qty. 20	P-LABEL-P	Sampling Point Labels, roll of 100
P-ELB-45	45 degree CPVC Elbow, ¾", Socket to Socket, qty. 10	P-LABEL-T	Pipe Labels, roll of 100
P-TEE	90 degree CPVC Tee, ¾", Socket to Socket, qty. 15	P-SAMP-KT	Sampling Kit
P-COUPLING	CPVC Coupling, ¾", Socket to Socket, qty. 15	F-A3384-000	Replacement 8000 Series Air Filter
P-UNION	CPVC Socket Union, ¾", qty. 10		

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