



Intelligent FFAST Fire Alarm Aspiration Sensing Technology®

Intelligent FFAST aspirating smoke detectors deliver highly accurate Very Early Warning Fire Detection directly over the signaling line circuit (SLC) to a fire alarm control panel via CLIP protocol, enabling maximum control over mission-critical and challenging environments.



Features

- Approved for use in Class I, Division 2, Groups A, B, C, and D Hazardous Locations
- SLC connectivity via CLIP Protocol
- Up to 99 FFAST devices per loop
- 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
- Monitoring and configuration via 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

Agency Listings

SIGNALING



S911



7259-1653:0215

MSFM
approved

2244



APPROVED

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

The Intelligent FFAST 8251F aspirating smoke detector

combines dual source (blue LED and infrared laser) optical smoke detection with fire alarm control panel connectivity via CLIP mode to provide high sensitivity to fire with intelligent reporting capabilities; all while providing enhanced immunity to nuisance particulate. As a result, FFAST can provide Early Warning and Very Early Warning Fire Detection while seamlessly integrating with an existing fire signalling circuit.

The intelligent FFAST detector can be wired to a new or pre-existing SLC for communications directly to a fire alarm control panel via CLIP mode without extra hardware. In CLIP mode, the 8251F FFAST will report back to the fire alarm control panel as an ACCLIMATE™ detector. By setting sensitivity levels in PipeIQ equivalent to pre-alarm and alarm sensitivity settings in the panel, the fire alarm control panel will initiate pre-alarm (if pre-alarm exists in the panel) and alarm conditions based on feedback from the FFAST unit. Using CLIP, up to 99 units can populate one SLC.

For initial system creation, FFAST's design, configuration, and monitoring software, PipeIQ*, guides users through pipe layout. An installed device can be monitored through its integral display, from a computer connected to the device, or remotely through a web browser. When Internet-connected, FFAST can also e-mail status updates to appropriate personnel.

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

Intelligent FFAST 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
Average SLC Current	700uA
SLC Voltage Range	15 to 32 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	6 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. (5.3 kg), includes packing material



Intelligent FFAST 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
8251F	System Sensor Intelligent FFAST 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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