AAD-8100

Description

The Gamewell-FCI, Intelligent FAAST®, AAD-8100 Aspirating Smoke Detector combines dual source (blue LED and infrared laser), optical smoke detection with the fire alarm control panel connectivity, via the Velociti mode to provide high sensitivity to fire with intelligent reporting capabilities. In addition, the FAAST can provide enhanced immunity to a nuisance particulate. As a result, FAAST can deliver highly accurate Very Early Warning Fire Detection, directly over the Signaling Line Circuit (SLC) to a fire alarm control panel, via the Velociti protocol. This process enables maximum control over mission critical and challenging environments. Moreover, the FAAST can seamlessly integrate with an existing fire signaling circuit.

The Intelligent FAAST 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-8100, FAAST 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 unit. Using the Velociti mode, up to 159 units can populate one SLC.

For the initial system creation, FAAST's design, configuration and monitoring software, PipeIQ, guide users through pipe layout. An installed device can be monitored through its integral display by any of the following ways:
* from a computer connected to the device
* remotely through a web browser
When FAAST is connected to the Internet, it can also e-mail status updates to the appropriate personnel.

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

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UL® is a registered trademark of Underwriter's Laboratories, Inc.

Intelligent FAAST Fire Alarm Aspiration Sensing Technology

AAD-8100

Features

* Provides the SLC connectivity via the Velociti Protocol.
* Supports up to 159 FAAST devices per loop.
* Detection as precise as 0.00046%/ft obscuration.
* Includes five (5) alarm levels and two sensitivity modes provide application flexibility.
* Offers 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.
* Applies advanced detection algorithms to reject common nuisance conditions.
* Uses a Patented particle separator and a field-replaceable filter to remove contaminants from the system.
* Employs PipeIQ™ software that provides an intuitive system layout, configuration, and monitoring all in one package.
* Has an on-board Ethernet interface that enables remote monitoring and e-mail status updates.
* 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.

SIGNALING

LISTED
S1913   7259-1703:0177

Specifications

Intelligent 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
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
Shipping Weight	11.6 lbs. (5.3 kg), includes packing material

Figure 1 - Intelligent FAAST User Interface Display

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

Ordering Information

Part Number	Description
AAD-8100	System Sensor Intelligent FAAST Fire Alarm Aspiration Sensing Technology
Accessories	
CMKT00100	FAAST Information Kit–Includes a 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.