Overview

Features

- Detection as precise as 0.0015 % obs/m
- 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 2000m²
- 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
- Integral Ethernet interface enables remote monitoring and e-mail status updates
- Fault indicators provide a broad spectrum of events
- Unique air flow pendulum graph verifies pipe network functionality
- Particulate graph displays subtle environmental changes for early problem indications

Description

The FAAST™ Aspirating smoke detector combines dual source (blue LED and infra-red laser) optical smoke detection with advanced algorithms to detect a wide range of fire types 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 in class A and Class B Fire Detection.

Every FAAST™ comes complete with PipelIQ™ to guide users through pipe layout, and provide intuitive control over system configuration and ongoing system monitoring. When installed FAAST™ 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 customisable 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.
**Physical Specification**

- **Height**: 33.7 cm
- **Width**: 33 cm
- **Depth**: 12.7 cm
- **Cable Access**: 2.54 cm cable entry holes on top and bottom of unit
- **Wire Gauge**: 12 AWG (2.0 mm) max. to 24 AWG (0.5 mm) min.
- **Maximum Single Pipe Length**: 120 m
- **Maximum Air Inlet Holes**:
  - 20 holes for Class A and B acc. to EN 54-20
  - 24 holes for Class C acc. to EN 54-20
  (Please consider local standards)
- **Maximum Total Branched Pipe Length**: 320 m
- **Maximum Air Inlet Holes**: 36 holes acc. to EN 54-20 for Class A, B and C.
  (Please consider local standards)
- **Network Outside Pipe Diameter**: 25 mm
- **Internal Pipe Diameter**: 15-21 mm
- **Sensitivity Range**: 0.0015 % obs/m – 20.5 % obs/m
- **Noise Level**: As low as 41 db(A)
- **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**: 5.26 kg, includes packing material

**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
- **Maximum Current Draw**: 650 mA Voltage at 18 VDC

**Environmental Specifications**

- **Operating Temperature**: 0°C to 38°C
- **Sampled Air Temperature**: -20°C to 60°C
- **Humidity Range**: 10 to 95% (non-condensing)
- **IP Rating**: IP30
- **Coverage Area**: Up to 2000 m²
- **Air Movement**: 0-1,219 m/min.

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**System Sensor Europe (Technical Services)**

System Sensor Europe
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RH13 5YZ, UK
Tel: +44 (0) 1403 226240
Fax: +44 (0) 1403 330695
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www.systemsensoreurope.com

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Installation information: in order to ensure full functionality, refer to the installation instructions as supplied.

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**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-colour Flow and Fault graph.

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**System Sensor Europe (Customer Services)**

Life Safety Distribution AG
Javatrasse 2,
8604 Hegnau
Switzerland
Tel.: 0041 44 943 4400
Email: orders@systemsensor.com
**General information**

Manufacturing Location: System Sensor
3825 Ohio Avenue
St. Charles IL 60174 USA

Model Numbers 8100E

Product Description: FAAST Aspirating Smoke Detector

Product Life Cycle: Life span expectancy of >7 years (assuming that environmental conditions have been taken into consideration). Replaceable filter life = 4 years.

**Material Content**

<table>
<thead>
<tr>
<th>Name of Part</th>
<th>Material</th>
<th>RoHS</th>
<th>Hazardous</th>
<th>Recycling Instruction (WEEE is out of scope)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Housing</td>
<td>PC/ABS, brass</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recycled, blend with virgin material</td>
</tr>
<tr>
<td>Front cover</td>
<td>PC/ABS</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recycled, blend with virgin material</td>
</tr>
<tr>
<td>Display door</td>
<td>PC</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recycled, blend with virgin material</td>
</tr>
<tr>
<td>Fan housing</td>
<td>ABS</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recycled, blend with virgin material</td>
</tr>
<tr>
<td>Fan cover</td>
<td>ABS</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recycled, blend with virgin material</td>
</tr>
<tr>
<td>Fan</td>
<td>metals, plastics, ceramics, Tin, brass</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recycled or Landfill</td>
</tr>
<tr>
<td>Wiring door</td>
<td>PC/ABS</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recycled, blend with virgin material</td>
</tr>
<tr>
<td>User interface card</td>
<td>PC</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Not Recyclable, Landfill</td>
</tr>
<tr>
<td>Chamber housing</td>
<td>PP, carbon</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Not Recyclable, Landfill</td>
</tr>
<tr>
<td>Chamber cover</td>
<td>PP, carbon, TPE, brass</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Not Recyclable, Landfill</td>
</tr>
<tr>
<td>Filter element</td>
<td>PU Foam</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Not Recyclable, Landfill</td>
</tr>
<tr>
<td>Filter cover</td>
<td>ABS</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recycled, blend with virgin material</td>
</tr>
<tr>
<td>IRED housing, LED housing.</td>
<td>PC</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recycled, blend with virgin material</td>
</tr>
<tr>
<td>Photo housing, Light trap.</td>
<td>PC</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recycled, blend with virgin material</td>
</tr>
<tr>
<td>Lens-IRED, Lens-LED, Lens-photo</td>
<td>PMMA</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recycled, blend with virgin material</td>
</tr>
<tr>
<td>Foam, gaskets</td>
<td>Neoprene, EPDM, SBR</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Not Recyclable, Landfill</td>
</tr>
<tr>
<td>SS shields (2)</td>
<td>304 SS, tin plated</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recyclable</td>
</tr>
<tr>
<td>Ferrite beads (5)</td>
<td>ferrite ceramic</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Not Recyclable, Landfill</td>
</tr>
<tr>
<td>Cables</td>
<td>Tn, Ni, PVC</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Not Recyclable, Landfill</td>
</tr>
<tr>
<td>Screws</td>
<td>steel, tin plated</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recyclable</td>
</tr>
<tr>
<td>Magnet</td>
<td>Neodymium, Ni</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recycled or Landfill</td>
</tr>
<tr>
<td>Tinerman nut</td>
<td>steel</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recyclable</td>
</tr>
<tr>
<td>Fan housing and cover</td>
<td>ABS</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recyclable</td>
</tr>
<tr>
<td>Particle separator</td>
<td>PPE, PS</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recyclable</td>
</tr>
<tr>
<td>Ultrasonic tube</td>
<td>ABS</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recyclable</td>
</tr>
<tr>
<td>Flow sens housing</td>
<td>ABS</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recyclable</td>
</tr>
<tr>
<td>O-rings</td>
<td>silicone</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Not Recyclable, Landfill</td>
</tr>
<tr>
<td>Printed circuit boards (7)</td>
<td>FR(epoxy, glass), SAC305(copper, solder), ENIG(copper, gold)</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recycled or Landfill</td>
</tr>
<tr>
<td>Printed circuit board components</td>
<td>metals, plastics, ceramics, Tin, brass</td>
<td>Yes</td>
<td>Non-Hazardous</td>
<td>Recycled or Landfill</td>
</tr>
<tr>
<td>Reflow process</td>
<td>leaded solder paste</td>
<td>No</td>
<td>Harazardous</td>
<td>Recycle or Reclaim</td>
</tr>
<tr>
<td>Wave solder process</td>
<td>leaded solder</td>
<td>No</td>
<td>Harazardous</td>
<td>Recycle or Reclaim</td>
</tr>
</tbody>
</table>

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**System Sensor Europe (Technical Services)**
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Installation information: in order to ensure full functionality, refer to the installation instructions as supplied.
Energy Consumption

Avg. Operating Current: 500 mA @ 24 VDC
Alarm: 650 mA – All relays active, all alarm levels displayed. Voltage @ 24 VDC

Packaging

Primary packaging Single count master box: Corrugated box, paper inserts and tape (polypropylene)
Transportation packaging Pallet (wooden platform), wrapping (polyethylene)

Additional Information

The purpose of this report is to provide information on the environmental aspects of the product, emphasis being on the material content and the energy consumption. The transportation emissions are not included.