CSIRO Verification Services
Clayton, Victoria, Australia
+61 (0)3 9545 2777
http://www.activfire.gov.au/

Certificate of Conformity

Certificate num.	Registration date	Version Number	Version Issue date	Valid until	
afp - 2763	15-Jun-2012	10	1-May-2018	30-Apr-2019	Page **1** of **3**

Product designation

System Sensor FAAST™, Model 8100, aspirating smoke detection system

(Refer to the Schedule/enclosures for further specified details)

Agent/distributor

System Sensor
PO Box 105, GISBORNE, VIC, AUSTRALIA, 3437

Registrant

System Sensor, Ltd
3825 Ohio Avenue, ST CHARLES, IL, UNITED STATES, 60174

Producer

System Sensor, Ltd
3825 Ohio Avenue, ST CHARLES, IL, UNITED STATES, 60174

Conformance criteria and evaluation

The System Sensor FAAST™, Model 8100, aspirating smoke detection system has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS 1603.8-1996, 'Automatic fire detection and alarm systems - Multi-point aspirated smoke detectors'.

Limitations/conditions of conformance

Limitations/conditions of conformance, where identified on this certificate, are derived from qualifications from evaluation(s) for conformity and/or other related technical documentation. All details with respect to design, assembly and installation instructions and restrictions should be checked against the producer's current technical manual/data sheets and the requirements of the Authority having Jurisdiction.

Specified limitations/conditions, determined from the evaluation for conformity, include the following.

i. the Ethernet port shall be available for non-permanent connection for the purposes of programming, configuration or diagnostics, only; and

ii. the equipment is connected to a monitored input port of c.i.e.

iii. Compatibility of this fire detector with new or existing control and indicating equipment should be verified prior to installation.

This certification is issued within the scope of CSIRO Verification Services – Rules governing ActivFire Scheme and is valid only for the product(s) as submitted for evaluation and verification of conformity, subject to the following conditions.

- Reference to details, limitations and requirements, where documented as a schedule/enclosure with this certificate.
- The Registrant is responsible for their attestation of conformity and ensuring that on-going production complies with the conformance criteria defined in this certificate.
- This certificate will not be valid if any changes or modifications are made to the product which have not been notified and validated by CSIRO Verification Services.
- This certificate is subject to periodical re-validation upon verification that all requirements, as determined by the conformity assessment body, continue to be satisfactorily met by the Registrant.
- This certificate may only be reproduced in its published form, without modification and inclusive of all schedules/enclosures.
- Any changes, errors or omissions, must be submitted in writing and if necessary or requested, substantiated with relevant evidence.
- Any representations, such as advertising or other marketing related activities or articles shall reflect the correct contents of this certificate and conform with all relevant trade practices .and consumer protection legislation and regulations.
- Any terms or conditions of use as applicable to content and documentation as published or accessed through web sites administered by the CSIRO Verification Services.

Issued by

David Whittaker
Executive Officer – ActivFire Scheme

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Producer's description

The System Sensor FAAST™, Model 8100, aspirating smoke detection system is a highly sensitive smoke detector capable of providing Very Early Warning smoke detection. The equipment actively draws air through sampling points, placed along its network of pipes, into the sampling chamber using an integral fan. Dual vision technology, patented particle separation, and algorithms allow for nuisance discrimination, which reduces the potential for false alarms. By actively sampling air and discriminating against nuisance particles, this equipment is intended for use in a wide array of applications.

The equipment includes 5 alarm levels, 10 pre-alarm particulate levels, a 10 level airflow pendulum and a full range of fault indications. All of this information can be read quickly on the integral display of this equipment. Relays and wiring are accessible through the wiring cabinet door and the surface mounted filter allows for maintenance without having to open the detector. This equipment also features both top and bottom input and exhaust ports, allowing pipe connections when sampling at ceiling level or below the floor.

The PipeIQ™ software is an all-in-one program used to design the FAAST™ system pipe network and continually configure and monitor FAAST equipment. PipeIQ™ guides users through pipe network design and analyses the results to ensure pipe networks meet set detection standards.

Technical specification

The following details are a representative extract of the technical specification for the System Sensor FAAST™, Model 8100, aspirating smoke detection system and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Electrical Characteristics

External supply voltage	18 – 30 Vdc
Remote reset time	External monitor must be pulled low for a minimum of 100 msec.
Power reset	10 sec.
Average 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, 0.5A @ 125 Vac

Environmental Ratings

Operating temperature	-10 °C to 55 °C	14 °F to 130 °F
Sampled air temperature	-20 °C to 60 °C	-4 °F to 140 °F
Humidity	10 to 95% (non-condensing)	
IP rating	IP30	

Performance

Coverage area	Up to 1000 sq. m. approx	Up to 9290 sq. ft. approx
Air movement mechanical characteristics	0 – 1219.2 m/min.	0 – 4,000 ft./min.

Exterior Dimensions

Height	337 mm	13.25 in
Width	330 mm	13.0 in.
Depth	127 mm	5.0 in.
Cable access	4 x 2.54 cm cable entry holes on top and bottom of unit	4 x 1 in cable entry holes on top and bottom of unit
Wire gauge	3.3 mm^2 (max) to 0.2 mm^2 (min)	12 AWG max. to 24 AWG min.
Pipe network size	Up to 1000 sq. m. approx	Up to 9290 sq. ft. approx
Maximum single pipe length	80 m	262 ft.
Network outside pipe diameter	25 mm, IPS	1.050 in., IPS
Internal pipe diameter	15 - 21 mm	.591 to .827 in.

System design tool

Designation	Version

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PipeIQ	1.1.8

Supplementary information

Schedule of relevant articles

The following schedule is an extract of articles significant and/or related as evidence of conformity.

Reference		Title / description	Date issued (or date validated)	Source
Ident. type	**Ident.**			
Report	XF2616/R1	Evaluation for conformity of the System Sensor Model 8100 FAAST and Honeywell Model 8100HA FAAST, aspirating smoke detector to the requirements of AS 1603.8-1996	22-Mar-2012	CSIRO, Industrial Research Services, Fire Systems, AU
Manual	E56-3621-001 (SS-400-007)	COMPREHENSIVE INSTRUCTION MANUAL FAAST™ Fire Alarm Aspiration Sensing Technology®	13-Mar-2012	System Sensor, US