CSIRO Verification Services
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Certificate of Conformity

Certificate num.	Registration date	Version		Valid until	
afp - 1263	25-Jan-2000	Number 12	Issue date 1-May-2018	30-Apr-2019	Page **1** of **2**

Product designation

Simplex, Model 4098-9752, analogue addressable, duct sampling unit

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

Agent/distributor

Simplex Fire Products
47 Gilby Road, MOUNT WAVERLEY, VIC, AUSTRALIA, 3149

Registrant

Johnson Controls
17 Mary Muller Drive, HILLSBOROUGH, CHRISTCHURCH, NEW ZEALAND, 8022

Producer

Simplex Time Recorder Co.
Simplex Plaza, GARDNER, MA, UNITED STATES, 01441-0001

Conformance criteria and evaluation

The Simplex, Model 4098-9752, analogue addressable, duct sampling unit has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS 1603.13-1998, 'Automatic fire detection and alarm systems - Duct sampling units'.

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. Should be installed in a location of relatively non-turbulent air flow and within the intended operating velocity range 2 m/sec to 20 m/s.

ii. The FIP alarm threshold is set at 2.5% obs./ft, the duct air velocity shall be greater than 2 m/s and the minimum differential air pressure exceeds 2.4 Pa.

iii. The FIP alarm threshold is set at 0.5% obs./ft, the duct air velocity shall be greater than 1 m/s and the minimum differential air pressure exceeds 0.6 Pa.

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

Issued by

David Whittaker
Executive Officer – ActivFire Scheme

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.

Schedule to

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Producer's description

The Simplex, Model 4098-9752, analogue addressable, duct sampling unit is an integrated housing and detector for detecting smoke in air-conditioning ducts. The detection system consists of a photoelectric smoke detector and a separate PCB that combines trigger circuitry and field wiring termination.

The Simplex, Model 4098-9752, analogue addressable, duct sampling unit employs an air sampling method of detection whereby air is introduced into the duct housing by means of a sampling tube which is inserted with the sampling holes facing the air stream of the ventilation system. The sampling tube contains several holes which are equally spaced along the length of the tube. The open end of the sampling tube is plugged with a rubber stopper. The velocity of the air flow in the duct over the sampling and exhaust tubes creates a pressure difference so that air is drawn into the chamber by the sampling tube and discharged through the exhaust tube.
The Simplex 4098-9714 photoelectric smoke detector, mounted in the Simplex 4098-9752 duct housing, is an analogue photoelectric smoke detector that permits the output voltage from the sensing element to be compared against a designed reference alarm level. When the sensing output level exceeds the alarm level, the alarm LED is illuminated and an alarm is registered at the Fire Indicator Panel (FIP). When the sensing voltage falls below the alarm reference level, the alarm LED on the duct sampling unit can be extinguished.

Technical specification

The following details are a representative extract of the technical specification for the Simplex, Model 4098-9752, analogue addressable, duct sampling unit and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Input voltage: 18 to 32 Vdc
Alarm current: 32 mA maximum
Average supervisory current: 280 µA

Tested sensitivity: Simplex, Model 4100 FIP set at 3% obs./m
(Refer reference. XB0760/R1)

Average alarm obscuration: Tabulation of Average Alarm Obscuration Test measurements at various air velocities normalised for a 1 metre duct height.

	Velocity	Obs./m.	Differential pressure
Alarm Threshold 2.5% obs./ft	1 m/s	16 %	1 Pa
	2 m/s	7 %	3 Pa
	4 m/s	4 %	13 Pa
	8 m/s	4 %	53 Pa
Alarm Threshold 0.5% obs./ft	1 m/s	1.6 %	1 Pa
	2 m/s	0.3 %	3 Pa
	4 m/s	0.3 %	15 Pa
	8 m/s	0.4 %	57 Pa

Designation*	Base designation	Base + detector circuit type
Simplex, Model 4098-9714, Photoelectric Smoke Detector	Simplex, Model 4098-9789	Analogue Addressable

* Refer to separate listing for details of smoke detectors