



ACTIVE FIRE PROTECTION-EQUIPMENT LISTING SCHEME

Commonwealth Scientific and Industrial Research Organisation, Australia
Ph.: 61 3 9252 6000 Fax: 61 3 9252 6011
Web site: <http://www.ActivFire.gov.au> E-mail: info@ActivFire.gov.au

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PRODUCT LISTING DATA SHEET **(Active Fire Protection Equipment)**

Product designation

Simplex, Model 4098-9601EA, nom. sens. (S)=6.0% obs./m, photoelectric smoke detector
(Refer to the Technical Specification section of this document for further specific detail)

Supplier

Simplex Fire Products

47 Gilby Road, MOUNT WAVERLEY, VIC, AUSTRALIA, 3149

Manufacturer

Simplex Time Recorder Co.

Simplex Plaza, GARDNER, MA, USA, 01441-0001

Supplier's description

The Simplex, Model 4098-9601EA, nominal sensitivity (S)=6.0% obs./m, photoelectric smoke detector is designated as a conventional type smoke detector that operates on the light scattering detection principle. The smoke detector consists of a light scattering chamber and labyrinth which incorporates a pulsing infra-red light emitting diode (LED) and a photo-diode as the sensing element. A prism is used to focus the LED strobe onto the photo-diode. A custom ASIC and micro-controller provide timing and sampling of smoke and enable conversion of ambient smoke density into analog values for processing. Under increasing smoke conditions, the smoke detector's analog output value will increase. An alarm condition will be initiated at the Control and Indicating Equipment (CIE) once the smoke detector's analog value reaches the pre-set alarm level.

The smoke detector is connected to the CIE via a compatible conventional base which provides power to the attached smoke detector. Once the smoke detector has entered into an alarm state, interruption of the power supply is required to reset the smoke detector to its quiescent state. The sensitivity of the smoke detector is fixed at the point of manufacture.

The Simplex model 4098-9601 smoke detector is approximately 103 mm in diameter and has a height of approximately 48 mm when connected to its base.

Conformance criteria and evaluation

The Simplex, Model 4098-9601EA, nom. sens. (S)=6.0% obs./m, photoelectric smoke detector complies with the requirements of Australian Standard AS 1603:Part 2-1997, incl. amendment No. 1, 'Automatic fire detection & alarm systems, Point type smoke detectors'.

Listing is subject to ActivFire Scheme terms and conditions as applicable to the designated registrant and supplier.



This product listing data sheet should be read in conjunction with the general requirements of the terms and conditions of listing under the ActivFire Scheme.

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Executive Officer

Limitations/conditions of conformance

Limitations/conditions of conformance, where identified on this Product Listing Data Sheet, are derived from qualifications within the report of the testing agency and/or other related technical documentation. It is recommended that all details with respect to design, assembly and installation restrictions should be checked against the designated supplier's/manufacturer's current technical manual/data sheets and the requirements of the Authority having Jurisdiction.

Compatibility of the detector and base with new or existing control and indicating equipment should be confirmed prior to installation.

Technical specification

The following details are a representative extract of the technical specification for the Simplex, Model 4098-9601EA, nom. sens. (S)=6.0% obs./m, photoelectric smoke detector and may be subject to change. Complete and current details should be determined from the designated supplier's/manufacturer's technical manual/data sheets.

Sensitivity (Nominal S Value):	6% obs./m
Operating voltages:	8.5 Vdc to 33.0 Vdc
Quiescent current/voltage:	50 µA @ 8.5 Vdc 120 µA @ 33.0 Vdc
Alarm current/voltage:	5 mA @ 4.7 Vdc 86 mA @ 10.8 Vdc (Must be externally limited)
Operating temperature range:	0°C to 50°C
Humidity range:	10% to 95%RH (non condensing over temperature range)
Reset time:	22 Seconds (maximum)

Tested Base Designation	Base + Detector Circuit Type
Simplex, Model 4098-9788EA	Conventional

Supplementary information

Simplex Base Assembly 4098-9788EA

Typical wiring connection to base assembly

Terminal	Connection
1 (+)	(+) Zone In Connection
2 (+)	(+) Zone Out Connection
3 (R)	Remote LED Connection
4 (-)	(-) Zone Connection