



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 1392	15-Mar-2001	Number 6	Issue date 16-Dec-2012	30-Apr-2013

Product designation

System Sensor, 2100 Series, nom. sens. (S)=10% obs./m, photoelectric smoke detectors

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

Agent/distributor

Notifier Inertia
9 Columbia Way, Norwest Business Park, BAULKHAM HILLS, NSW, AUSTRALIA, 2153

Registrant

Notifier Inertia
9 Columbia Way, Norwest Business Park, BAULKHAM HILLS, NSW, AUSTRALIA, 2153

Producer

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

Conformance criteria and evaluation

The System Sensor, 2100 Series, nom. sens. (S)=10% obs./m, photoelectric smoke detectors have been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS 1603.2-1997, 'Automatic fire detection and alarm systems - Point type smoke detectors' incl. Amdt 1 (August 1998).

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. Compatibility of this fire detector and its base assembly 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, 2100 Series, nom. sens. (S)=10% obs./m, photoelectric smoke detectors are direct wire, re-settable conventional type photoelectric smoke detectors with an integral LED. The detectors may include additional operating functions such as a built-in temporal sounder, fixed temperature sensors, alarm contacts and n/o and n/c auxiliary relay contacts. The detectors operate on the photoelectric sensing principle, consisting of an infrared light emitting diode and a light sensing photodiode enclosed in a sensing chamber which is mounted onto the detector printed circuit board (PCB). An insect screen is located around the labyrinth of the sensing chamber.

The configuration of the 2100 Series detectors is tabled below:

Model	Functionality
2100S	2 Wire
2112/24S	4 Wire
2112/24TS	4 Wire, 57°C Thermistor
2112/24R	4 Wire, Auxiliary Contacts
2112/24TR	4 Wire, 57°C Thermistor, Auxiliary Contacts
2112/24ATR	4 Wire, 57°C Thermistor, Auxiliary Contacts, Temporal Sounder

The integral LED flashes red every ten seconds to indicate normal quiescent state operation. When the detector is in the alarm state, the built-in sounder will operate, the integral LED will be permanently in the ON state and the auxiliary and alarm relay contacts will change state. Momentary power interruption is required to return the detector to its quiescent state.

The smoke sensitivity response of the detector is set at the point of manufacture.

Technical specification

The following details are a representative extract of the technical specification for the System Sensor, 2100 Series, nom. sens. (S)=10% obs./m, photoelectric smoke detectors and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

	2100S	2112/24S	2112/24TS
System voltage range:	12 Vdc or 24 Vdc	12 Vdc or 24 Vdc	12 Vdc or 24 Vdc
minimum:	8.5 Vdc	8.5 Vdc	8.5 Vdc
maximum:	35 Vdc	35 Vdc	35 Vdc
Maximum ripple voltage:	30 % of nominal volt. p-p	30 % of nominal volt. p-p	30 % of nominal volt. p-p
Standby current:	50 µA maximum	100 µA maximum	100 µA maximum
Alarm current:	4.2 Vdc minimum @ 10 mA	21.5 mA maximum @ 8.5 Vdc	21.5 mA maximum @ 8.5 Vdc
	6.6 Vdc maximum @ 100 mA	25.5 mA maximum @ 35 Vdc	25.5 mA maximum @ 35 Vdc
Reset voltage:	2.5 Vdc minimum	0.8 Vdc minimum	0.8 Vdc minimum
Reset time:	0.3 S maximum	0.3 S maximum	0.3 S maximum
Start-up time:	30 S maximum (after 60 S reset)	30 S maximum (after 60 S reset)	30 S maximum (after 60 S reset)
Heat sensor:			57° Fixed temperature
Operating temperature:	0°C to 49°C	0°C to 49°C	0°C to 38°C
Humidity range:	10 - 93% RH (n.c.)	10 - 93% RH (n.c.)	10 - 93% RH (n.c.)
Diameter:	140 mm	140 mm	140 mm
Height:	48 mm	48 mm	48 mm
Weight:	150 g	150 g	150 g
EOL relay:		A77-716B, 12/24 Vdc	A77-716B, 12/24 Vdc
Contact ratings:			0.5 A @ 30 Vac/dc

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	2112/24R	2112/24TR	2112/24ATR
System voltage range:	12 Vdc or 24 Vdc	12 Vdc or 24 Vdc	12 Vdc or 24 Vdc
minimum:	10 Vdc	10 Vdc	8.5 Vdc
maximum	35 Vdc	35 Vdc	35 Vdc
Maximum ripple voltage:	30 % of nominal volt. p-p	30 % of nominal volt. p-p	30 % of nominal volt. p-p
Standby current:	100 µA maximum	100 µA maximum	100 µA maximum
Alarm current:			49 mA typical @ 12 Vdc
	41 mA maximum @ 10 Vdc	41 mA maximum @ 10 Vdc	23 mA maximum @ 10 Vdc
	53 mA maximum @ 35 Vdc	53 mA maximum @ 35 Vdc	53 mA maximum @ 35 Vdc
Reset voltage:	0.8 Vdc minimum	0.8 Vdc minimum	0.8 Vdc minimum
Reset time:	0.3 S maximum	0.3 S maximum	0.3 S maximum
Start-up time:	30 S maximum (after 60 S reset)	30 S maximum (after 60 S reset)	30 S maximum (after 60 S reset)
Heat sensor:		57° Fixed temperature	57° Fixed temperature
Audible signal:			85 dBA minimum
Operating temperature:	0°C to 49°C	0°C to 49°C	0°C to 38°C
Humidity range:	10 - 93% RH (n.c.)	10 - 93% RH (n.c.)	10 - 93% RH (n.c.)
Diameter:	140 mm	140 mm	140 mm
Height:	48 mm	48 mm	52 mm
Weight:	190 g	190 g	210 g
EOL relay:	A77-716B, 12/24 Vdc	A77-716B, 12/24 Vdc	A77-716B, 12/24 Vdc
Contact ratings:	1.0 A @ 30 Vac/dc	1.0 A @ 30 Vac/dc	1.0 A @ 30 Vac/dc

Tested base designation	Base + detector circuit type
System Sensor P/N A10-26-29 Mounting Plate (supplied with each detector)	Conventional