



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 1117	26-Sep-1997	Number 9	Issue date 30-Apr-2015	30-Apr-2016

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Product designation

Hochiki, Model SIJ-ASN, nom. sens. (S)=0.40 MIC X, ionisation smoke detector
(Refer to the Schedule/enclosures for further specified details)

Agent/distributor

Fire & Safety Products (A/Asia) Pty. Ltd.
41-45 Richmond Road, KESWICK, SA, AUSTRALIA, 5035

Registrant

Fire & Safety Products (A/Asia) Pty. Ltd.
41-45 Richmond Road, KESWICK, SA, AUSTRALIA, 5035

Producer

Hochiki Corporation
10 - 43, Kamiosaki 2-Chome, SHINAGAWA-KU, TOKYO, JAPAN, 141

Conformance criteria and evaluation

The Hochiki, Model SIJ-ASN, nom. sens. (S)=0.40 MIC X, ionisation smoke detector has 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'.

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



Schedule to Certificate of Conformity

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Producer's description

The Hochiki, Model SIJ-ASN, nom. sens. (S)=0.40 MIC X, ionisation smoke detector operates on the ionisation principle. The detector consists of an Americium 241 radioactive source mounted in an inner reference chamber which is contained within an outer sensing smoke chamber. Ions from the radioactive source enhance the current between the smoke chamber anode and cathode. When smoke particles enter the sensing chamber, ions adhere to the smoke particles reducing the current between the anode and cathode. A sensing electrode located between the inner reference chamber and outer sensing chamber monitors the reduced current flow, as a result of smoke, between these electrodes and converts the variations in current into voltage. Under increasing smoke conditions, the detector's comparator circuit will eventually cause an alarm condition.

The detector has two LEDs slotted in the cover moulding of the smoke alarm which are red in colour when the detector is in the alarm condition. Electrical connection of the detector is achieved through the mounting base. Once the detector is in the alarm state, interruption of the power supply is required to reset the detector.

The detector is rated for operation at a nominal voltage of 24 Vdc and has a working voltage range of 15 to 30 Vdc with a maximum alarm current rating of 80 mA.

Technical specification

The following details are a representative extract of the technical specification for the Hochiki, Model SIJ-ASN, nom. sens. (S)=0.40 MIC X, ionisation smoke detector and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Nominal sensitivity, S:	0.40 MIC X
Radioactive source:	Americium 241, 18.5 kBq
Line voltage to detector:	24.0 Vdc (rated voltage) 15.0 - 30.0 Vdc (working range) 42.0 Vdc (maximum allowable)
Alarm state current:	
Maximum:	80 mA @ 17.6 Vdc
Minimum:	17 mA @ 7.28 Vdc
Quiescent state current:	14.0 µA @ 15.0 Vdc 25.0 µA @ 24.0 Vdc 42.5 µA @ 30.0 Vdc 200 µA @ 24.0 Vdc (surge current)
Operating temperature range:	-10°C to +50°C
Size:	100 mm in diameter Height of approximately 47 mm when connected to base

Tested Base Designation	Base + Detector Circuit Type
Hochiki, Model YBN-R/4A	Conventional
Hochiki, Model YBO-R/4A	Conventional

Supplementary information

Compatible base assemblies:

The Hochiki model YBN-R/4A base is a conventional base which provides for separate IN/OUT terminations for the +ve and -ve supply lines and an earth connection.

The Hochiki model YBO-R/4A base is classified as a remote indicating base. In addition to providing separate IN/OUT terminations for the +ve and -ve supply lines and an earth connection, the base also incorporates electronic circuitry (for a remote indicating LED) which is activated when the attached detector enters into an alarm state.