



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 1088	6-May-1997	Number 9	Issue date 30-Apr-2015	30-Apr-2016

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Product designation

Hochiki, Model ATG-AS, Type B heat 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 ATG-AS, Type B heat detector has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS 1603.1-1990, 'Automatic fire detection and alarm systems - Heat detectors' incl. Amdt 1 (April 1995).

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. Must be controlled by a suitably programmed and compatible control and indicating equipment.
- ii. 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 ATG-AS, Type B heat detector has been developed to operate with a new transmission protocol. The heat sensors will not operate with a different protocol. Each heat detector is assigned an address, 1 to 127, which is programmed into the detector using a dedicated Hochiki programmer, model TCH-A100. The Hochiki, Model ATG-AS, Type B heat detector has a 4-bit microprocessor and can read transmission signals from the Fire Control Panel (FIP), including paging signals, fire test signals, and base alarm lamp turn-on signals. These transmission signals are transmitted as digital signals which change the power source voltage between 39.5 Vdc (high) and 31.0 Vdc (low). The Hochiki, Model ATG-AS, Type B heat detector detects heat by using a thermistor bead protruding from the upper enclosure. The thermistor is physically protected by the moulding in the upper case. In the normal installation, the heat sensor is polled from the FIP returns an analogue value corresponding to the detected temperature to the control panel. The analogue value that corresponds to the temperature is a digital signal which changes the current flowing into the transmission line between 22 mA (high) and 0 to 9 mA (low).

A microprocessor has been incorporated in the heat sensor to read the transmission signals from the FIP and act according to the information contained within the transmission. When the analogue sensor reads the A/D conversion signals (approximately every second) as distinguished from the normal poll, the heat detection voltage generated in the thermistor is subjected to A/D conversion. The Hochiki, Model ATG-AS, Type B heat detector applies a constant current to the thermistor and a voltage corresponding to the detected temperature is generated. The signal has an A/D conversion within the microprocessor. When the heat sensor is next polled by the FIP, the last analogue value will be transmitted to the FIP. The fire alarm threshold is sent from the FIP to the analogue type heat sensor when the FIP initialises the detector. When the detected temperature exceeds this level, the sensor sends a fire signal to the FIP. The Hochiki, Model ATG-AS, Type B heat detector alarm threshold level is set to comply with AS 1603.1-1990 for the heat sensor to operate between 60°C and approximately 80°C. Polling of the detectors ceases as the FIP performs the fire detection processing by priority.

The input circuit of the Hochiki, Model ATG-AS, Type B heat detector has a diode bridge which allows the smoke detector to be connected to the base assembly with either L or C terminals. Transient protection is provided by a zener diode across the supply lines. A rectifier circuit provides voltage stability within the smoke detector. The Hochiki, Model ATG-AS, Type B heat detector has two (2) alarm LEDs set 180° apart to provide 360° visibility in alarm. In the alarm state, the two (2) alarm LEDs are illuminated and remain latched on until a reset signal is received by the heat detector from the FIP.

Technical specification

The following details are a representative extract of the technical specification for the Hochiki, Model ATG-AS, Type B heat detector and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Operating voltage range:	Vhigh (Max) =41 Vdc Vlow =17V - 31 Vdc
Typical current consumption:	Typical 350 µA (when not called)
Low power mode:	Typical. 110 µA (at 0.75sec) Typical. 100 µA (at 1.Ssec) 2 mA (when called)
Sensing element	Thermistor
Measurement accuracy	± 3°C
Alarm indicator LED current:	8 mA (typical)
Operating temperature range:	-10° to +80°C
Installation temperature:	-10° to +50°C
Address setting:	1 to 127 by Address Programmer

Tested Base Designation	Base + Detector Circuit Type
Hochiki, Model YBN-R/2NA	Analogue Addressable

Supplementary information

The YBN-R/2NA base assembly is not addressable, has no electronic components, and only has terminals for interconnection with other base assemblies and remote LED. If the supply wires to the base assembly are reversed, a fault state will be generated at the control panel.