ACTIVFIRE®
ACTIVE FIRE PROTECTION – PRODUCT CERTIFICATION

CSIRO Verification Services
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Certificate of Conformity

Certificate num.	Registration date	Version			Valid until	
		Number	Issue date			Page **1** of **3**
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Product designation

Notifier, Models FSB-200 and FSB-200S, beam type smoke detectors

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

Agent/distributor

Honeywell Security and Fire
9 Columbia Way, BAULKHAM HILLS, NSW, AUSTRALIA, 2153

Registrant

Honeywell Security and Fire
9 Columbia Way, BAULKHAM HILLS, NSW, AUSTRALIA, 2153

Producer

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

Conformance criteria and evaluation

The Notifier, Models FSB-200 and FSB-200S, beam type smoke detectors have been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS 1603.7-1996, 'Automatic fire detection and alarm systems - Optical beam smoke detectors' incl. Amdt 1 (11 December 2001).

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. Use with the manufacturer's recommended retro-reflector, suited to the separation distance of the installation.

ii. Compatibility of this fire detector with new or existing control and indicating equipment should be confirmed 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

Kai Loh
Executive Officer – ActivFire Scheme

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Producer's description

The Notifier, Models FSB-200 and FSB-200S, beam type smoke detectors are single ended reflected type projected beam smoke detectors designed to provide open area protection. They use addressable communications to suitable analog addressable control and indicating equipment (c.i.e.).

The beam type smoke detector consists of a combined transmitter/receiver unit and a separate reflector. Smoke entering the area between the transmitter/receiver and the reflector causes a reduction in the signal. When the obscuration reaches alarm thresholds, the detector generates an alarm signal. Three LEDs on the beam detector indicate the current status; a red LED for alarm, a yellow LED for trouble and a blinking green LED for standby operation. The status of the red and green LEDs is controlled by the fire indicator panel. The yellow LED is controlled by the detector, and will blink in specific patterns as a diagnostic aid during faults. A local reset button is accessible by removing the outer aesthetic ring.

The detectors includes a digital display (visible with the cover removed), which is used to indicate the signal strength of the beam when in the alignment mode. The same display also indicates the sensitivity setting of the detectors in percent obscuration.

An alarm condition is generated when the signal strength of the light beam is reduced, by the presence of smoke, to the preset sensitivity level of the detector. The detectors have four user selectable sensitivity levels, 25%, 30 %, 40% and 50 %, selected depending on the specific distance between the transmitter/receiver and the reflector. The detectors also include two "Acclimate" settings which automatically adjust sensitivity based on the operating environment (subject to connection to suitable control and indicating equipment).

Alignment of the detector is initially performed using the built in sighting device. Final alignment is achieved by vertical and horizontal adjustment of the lens body using the thumbwheels provided while monitoring the signal strength on the digital display. After adjustment, the lens body is locked in place with fastening screws.

A basic version and an 'S' version is manufactured. The two models have the same features and specifications, except that the 'S' version includes an integral sensitivity test feature consisting of a calibrated test filter attached to a servo motor inside the detector optics. When a test is initiated, the test filter is moved into the pathway of the light beam, and the detector determines if the proper level of signal reduction has occurred.

The manufacturer specifies the working voltage range for the detectors as 15 to 32 Vdc, with quiescent current of 2 mA and maximum stated alarm current of 8.5 mA. The 'S' version has an external 24Vdc supply input, used to power the sensitivity test feature on the 'S' versions. The detector is rated by the manufacturer for operation over the temperature range of -30 °C and +55 °C and 93 % R.H.

The Notifier beam detector is designed for use in conjunction with a retro-reflector. The size of the retro-reflector used is determined by the range to be covered by the detector.

5 to 70 m: Retro-reflector 200 x 200 mm, 1 piece.
70 to 100 m: Retro-reflector 400 x 400 mm (using BEAMLRK kit consisting of four standard retro-reflectors tiled together).

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Technical specification

The following details are a representative extract of the technical specification for the Notifier, Models FSB-200 and FSB-200S, beam type smoke detectors and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Range: 5 to 70m (70 to 100m using optional BEAMLRK)

Sensitivity: 25 to 50% Total Obscuration in 6 levels.

Fault Conditions: Beam Blockage (96% or more obscuration)
Improper initial alignment
Compensation limit reached

Indicators: Alarm – red
Fault – Yellow (blink pattern indicates fault type)
Normal Operation - Green

Environmental: Temperature -30°C to +55°C
Humidity 10% to 93% non-condensing

Mechanical: Shipping Weight – 1.77kg
Shipping Size – 381 x 267 x 165mm
Mounting – Wall, or ceiling with BEAMMMK

Reflector: Single reflector 200 x 200mm
(400 x 400mm using BEAMLRK)