



# Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
<b>afp - 1683</b>	29-Mar-2004	Number 15 (Provisional)	Issue date 1-May-2020	30-Apr-2021

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## Product designation

**EST, Model SIGA-IPHSa Intelligent 4D, nom. sens. (S)=10% obs./m, multi-sensor smoke detector**  
(Refer to the Schedule/enclosures for further specified details)

## Agent/distributor

Kidde Australia  
Unit 3, Ground Floor, 10 Ferntree Place, NOTTING HILL, VIC, AUSTRALIA, 3168

## Registrant

Kidde Australia  
Unit 3, Ground Floor, 10 Ferntree Place, NOTTING HILL, VIC, AUSTRALIA, 3168

## Producer

Edwards  
8985 Town Center Parkway, BRADENTON, FL, UNITED STATES, 34202

## Conformance criteria and evaluation

The EST, Model SIGA-IPHSa Intelligent 4D, nom. sens. (S)=10% obs./m, multi-sensor 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' 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. The sensitivity setting of the smoke detector is "1.0 %/ft": "Most sensitive" (equivalent to a nominal sensitivity value of 10 % Obs/m.).
- ii. The smoke detector is to be used in conjunction with a compatible panel, such as the EST2 with signature loop controller (SLC) firmware version 2.10, or equivalent.
- iii. 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 EST, Model SIGA-IPHSa Intelligent 4D, nom. sens. (S)=10% obs./m, multi-sensor smoke detector incorporates three separate sensors that are located within a sensing chamber arrangement. The sensors include an ionization smoke sensor (Americium 241 radioactive source, 0.14 microcuries), a photoelectric smoke sensor (infra-red emitter and photodiode) and a fixed temperature heat sensor (negative temperature coefficient thermistor).

The sensing chamber arrangement is attached to one side of the printed circuit board (PCB). An insect screen on the sensing chamber prevents excessive entry of foreign matter. An outer plastic moulding and base moulding permit the PCB and attached sensing chamber to be securely contained and form the basis of the physical construction of the multisensor. The outer plastic moulding permits the entry of smoke and heat into the chamber. The base moulding contains contact pins, which connect with corresponding clips on the pcb and enable connection to the attached base.

The EST, Model SIGA-IPHSa Intelligent 4D, nom. sens. (S)=10% obs./m, multi-sensor smoke detector has two integral LEDs. A green LED, which flashes regularly to indicate normal quiescent state operation and a red LED which, flashes regularly when the multisensor is in the alarm state. When the multisensor enters into an alarm state, acknowledgment of the alarm state and resetting of the CIE is required to return the multisensor to its quiescent state.

The EST, Model SIGA-SB base assembly is a plain base assembly (it does not incorporate any electronic components) providing a mounting facility for the detector and a means of connection between the detector and the Fire Indicator Panel FIP.

## Technical specification

The following details are a representative extract of the technical specification for the EST, Model SIGA-IPHSa Intelligent 4D, nom. sens. (S)=10% obs./m, multi-sensor smoke detector and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

### Detector:

<b>Operating voltage range:</b>	15.2 - 19.95 Vdc
<b>Normal operating current:</b>	45 $\mu$ A
<b>Alarm current:</b>	45 $\mu$ A
<b>Standalone alarm current:</b>	18 mA
<b>Alarm point temperature range:</b>	33 - 38 °C above ambient
<b>Ionization source:</b>	Americium 241, 0.14 $\mu$ Ci
<b>Air velocity range:</b>	0 - 2.54 m/s
<b>Operating temperature range:</b>	0 - 38 °C
<b>Operating humidity range:</b>	0 to 93 % RH, non-condensating
<b>Storage temperature range:</b>	-20° to 60°C
<b>Construction &amp; finish:</b>	high impact engineering polymer, white
<b>Maximum distance from ceiling:</b>	305 mm (for wall mounted position)

### LEDs:

Normal:	green LED flashes
Alarm:	red LED flashes
Standalone alarm:	green and red LEDs glow continuously

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## EST, Model SIGA-SB base assembly:

The EST, Model SIGA-SB base assembly is a plain base assembly (it does not incorporate any electronic components) providing a mounting facility for the detector and a means of connection between the detector and the Control and Indicating Equipment (CIE). Permanent wiring connections to the base consist of the power/communications line and remote indicator facility. The base is approximately 110 mm in diameter and has a height of approximately 19 mm.

<b>Operating temperature range:</b>	0 to 49 °C
<b>Operating humidity range:</b>	0 to 93 % RH.
<b>Storage temperature range:</b>	-20 to 60 °C.
<b>Construction &amp; finish:</b>	High impact engineering polymer, white.
<b>Wiring:</b>	#12 AWG, #14 AWG, #16 AWG and #18AWG.

Tested base designation	Base + detector circuit type
EST, Model SIGA-SB	Analogue Addressable