



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 1309	28-Mar-2000	Number 13	Issue date 26-Apr-2019	30-Apr-2020

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Product designation

Det-Tronics Protect•ir, Model X3300, multispectrum, flameproof, very high sensitivity, infra-red flame 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

Detector Electronics Corporation
6901 West 110th Street, MINNEAPOLIS, MINNESOTA, UNITED STATES, 55438

Conformance criteria and evaluation

The Det-Tronics Protect•ir, Model X3300, multispectrum, flameproof, very high sensitivity, infra-red flame detector has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. SSL Test Specification FTS-126, Version 1.0, 'Infra-red and ultraviolet type flame 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.

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 Det-Tronics Protect•ir, Model X3300, multispectrum, flameproof, very high sensitivity, infra-red flame detector is an infrared flame detector that is designed to detect the infrared radiation that is emitted by flaming carbonaceous type fires. The flame detector / controller eeprom incorporates two sensitivity algorithm programs. The Sensitivity setting is programmed into the detector by the manufacturer. The Det-Tronics Protect•ir, Model X3300, multispectrum, flameproof, very high sensitivity, infra-red flame detector, containing three infra-red sensors, signal -processing circuitry, and fire and fault relays in an explosion proof / flame-proof enclosure. A tricolour LED on the detector faceplate indicates normal, fire, and fault conditions. Factory configurable options include:

- Automatic or Manual Optical Integrity (o_i)
- Fire and Fault Relay Operation
 - normally open (NO) or normally closed (NC) contacts
 - normally energized or normally de-energized (fire relay)
 - Latching or non-latching
 - Optional 4 to 20 mA output.

Heated optics enable optimal performance in adverse environments. Automatic optical integrity (o_i) check on each sensor ensures proper detector performance. The detector incorporates a manual o_i feature that provides the same test as the automatic o_i with the addition of Alarm relay operation for a complete system test.

The Det-Tronics Protect•ir, Model X3300, multispectrum, flameproof, very high sensitivity, infra-red flame detector is available in aluminium or stainless steel and features multiple mounting options, including:

- integral EEx de-aiming swivel (for use with GRP EEx certified junction box)
- direct to flexible conduit with the use of a Q9001 swivel mount
- direct to junction box
- direct to conduit elbow mount.

Technical specification

The following details are a representative extract of the technical specification for the Det-Tronics Protect•ir, Model X3300, multispectrum, flameproof, very high sensitivity, infra-red flame detector and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Tricolour LED:	normal (green), alarm (red) or fault (yellow)
Power up time:	0.5 seconds
Operating voltage:	24 Vdc
	Operating range is 18 to 32 Vdc
Power consumption:	9.0 watts maximum during all operating conditions.
Relays:	contacts rated 5 amperes at 30 Vdc
Temperature range:	
operating:	-40°C to 75°C
storage:	-55°C to 85°C
Humidity range:	0 to 95 % relative humidity, can withstand 100 % condensing humidity short periods of time.
Field of view:	90 ° horizontal cone of vision (± 45 ° off centre), with the highest sensitivity lying along the central axis. The X3300 provides full coverage at 70 %, on average, of the maximum detection distance. 75° vertical cone of vision (+ 45°, -30° off centre).
Wiring:	14 AWG to 22 AWG (shielded cable)
4 to 20 mA:	0 mA: Open circuit
Output feature:	1 mA: General fault
	2 mA: O _i fault
	3 mA: Hi background IR
	4 mA: Normal operation
	20 mA: Alarm
Ingress protection:	IP66 NEMA Type 4X.

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Response Distance:

Fuel	Size	Distance, (m)	90 ° distance for coverage, (m)
Gasoline	1 x 1 foot	64*	46
Diesel	1 x 1 foot	46	30
Methanol	1 x 1 foot	46	33
Methane	30 inch plume	30	24
JP-5	2 x 2 foot	64*	54

Note: * denotes outdoor test condition

Enclosure material: copper-free aluminium or 316 stainless steel.

Conduit entry size: Male, 3/4 inch NPT or 25 mm.

Mounting options: direct, swivel or integral aiming adapter.

Explosion-proof/flame proof housing (meets FM, CSA and CENELEC) certification requirements.

Supplementary information

Maintenance

Special procedures apply for cleaning the sensing window / sensors of the Det-Tronics Protect•ir, Model X3300, multispectrum, flameproof, very high sensitivity, infra-red flame detector.

The Det-Tronics Protect•ir, Model X3300, multispectrum, flameproof, very high sensitivity, infra-red flame detector is available in varying combinations of features. The chart shown below details model numbers and features when ordered.

When ordering, refer to the following structure:

X3300 a,b,c,d,e,f,g,h where:

a = Enclosure materials:

- A Aluminium
- S Stainless steel

b = Type and number of threaded locations:

- 1 One shank, Male (detector only)
- 2 Two ports, Straight through (Ex e box only)
- 3 Two ports, "L" (Ex e box only)
- 4 Three ports, "T" (Ex e box only)
- 5 Five ports (Ex e box only)
- 6 Two ports (Integral Ex e box only)

c = Thread type:

- D M25
- S Cylindrical joint

d = Output relay:

- 1 Relay
- 2 4 - 20 mA
- 3 Lon (Quantum)
- 4 Pulse output
- 5 RS485

e = Mounting hardware options:

- A Adaptor
- D 90 degree swivel with adaptor
- S Swivel mounting with adaptor
- N None

f = Relay configuration:

- 1R Normally open relays, Very High Sensitivity
- 2R Normally closed relays, Very High Sensitivity

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g = Approval type:

- 1 Explosion proof
- 4 Increased safety
- 5 Explosion proof with increased safety wiring compartment

h = Approval agency:

K SAA / Australia

Note: The K descriptor for approval agency denotes SIMTARS and SSL marking.