



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 347	30-Aug-1989	Number 12	Issue date 1-May-2018	30-Apr-2019

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Product designation

Thorn, Model S111, solar blind infra-red flame detector

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

Agent/distributor

Tyco Fire Protection Products
Level 3, 95 Coventry Street, SOUTHBANK, VIC, AUSTRALIA, 3006

Registrant

Johnson Controls
17 Mary Muller Drive, HILLSBOROUGH, CHRISTCHURCH, NEW ZEALAND, 8022

Producer

Thorn Security Limited
Security House, The Summit, Hanworth Road, SUNBURY-ON-THAMES, MIDDLESEX, UNITED KINGDOM, TW16 5DB

Conformance criteria and evaluation

The Thorn, Model S111, solar blind infra-red flame detector has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. SSL Major Report No. 184:June-1977, 'Comparative Performance of 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.

Specified limitations/conditions, determined from the evaluation for conformity, include the following.

- i. When the Thorn, Model S111, solar blind infra-red flame detector is used in potentially explosive atmospheres, a suitable intrinsically safe barrier must be employed.

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 Thorn, Model S111, solar blind infra-red flame detector is designed to detect flaming carbonaceous fires while rejecting spurious signals such as modulated sunlight. It achieves this by the use of optical filters with an infra-red sensor, giving narrow-band response at 4.4 microns. Low power electronics allow 2 wire operation and the unit is rugged and certified intrinsically safe. An indicator LED is provided on the front cover.

Technical specification

The following details are a representative extract of the technical specification for the Thorn, Model S111, solar blind 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.

Supply voltage:	16 to 23 Vdc
Current:	100 μ A
Alarm current:	60 mA
Alarm range:	40 m for a 0.4 square metre petrol fire
Viewing angle:	40° from direct line
Time to alarm:	3 to 10 s
Weight:	1.7 kg
Environmental:	-20°C to 70°C at 95% RH