



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 374	30-Aug-1989	Number 12	Issue date 1-May-2018	30-Apr-2019

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Product designation

Thorn, Model S131, 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 S131, 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. Intrinsically safe for hazardous areas only when used with a suitable intrinsically safe barrier.

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 S131, solar blind, infra-red flame detector uses the same optical and electronic module as the S111 and S121 model detectors. The flame detector is completely blind to solar radiation whether direct, reflected or modulated.

To meet the demands of arduous environments, such as chemical plants and off-shore oil and gas platforms, the Thorn, Model S131 detector has been packaged in a tough GRP housing with abrasion resistant sapphire windows and an ingress protection rating of IP67.

Operation in the Infra-red spectrum around 4.4 microns is designed to ensure the detector will not be blinded by thick smoke and will be tolerant to dirty environments.

Technical specification

The following details are a representative extract of the technical specification for the Thorn, Model S131, 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.

Mechanical

Material:	G.R.P.
Dimensions:	160 mm W x 160 mm L x 90 mm D
Weight (including bracket):	2.85 kg
Gland entry:	2 x 20 mm

Electrical

Supply voltage:	15.5 to 25.5 Vdc
Quiescent current:	100 µA max.
Alarm current:	60 mA max.
Alarm indicator:	Red LED
Connections:	Two 4 way 2.5 mm heavy duty terminals blocks

Environmental

Operating temperature range:	-30° (-40°C with reduced range) to +70°C
Storage temperature:	-40°C to +80°C
Relative humidity:	95% (100% intermittent)
Enclosure to:	IP67
Hazardous area:	Intrinsically safe when used with suitable I.S. barrier

Mounting bracket

Material:	Stainless Steel 316
Weight:	1.1 kg
Axial rotation:	50°
Elevation:	70°
Fixing details:	M8 bolts (as per provided location template)