



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 2517	17-Jun-2011	Number 10	Issue date 28-Jun-2019	30-Apr-2020

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Product designation

Fireray, Model 5000, optical beam smoke detector

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

Agent/distributor

Ampac Pty Ltd
7 Ledger Road, BALCATTA, WA, AUSTRALIA, 6021

Registrant

Ampac Pty Ltd
7 Ledger Road, BALCATTA, WA, AUSTRALIA, 6021

Producer

Ffe Limited
9 Hunting Gate, Wilbury Way, HITCHIN, HERTFORDSHIRE, UNITED KINGDOM, SG4 0TJ

Conformance criteria and evaluation

The Fireray, Model 5000, optical beam smoke detector has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. Australian Standard AS 7240.12-2007, 'Fire detection and alarm systems - Part 12: Line type smoke detectors using a transmitted optical beam'.

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. 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



Schedule to Certificate of Conformity

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Producer's description

The Fireray, Model 5000, optical beam smoke detector auto aligning infrared optical beam smoke detector

This equipment combines an infrared transmitter and receiver in the same discrete unit and operated by projecting a well-defined beam to a reflective prism, which returns the beam to the receiver for analysis. Smoke in the beam path causes a drop in power, which, if below a pre-determined level, results in an alarm signal.

Once the detector head is connected, using the Easyfit First Fix system, an integral LASER can be activated. This allows the reflective prism to be sighted quickly and with confidence. Once the LASER has been used to coarsely align the beam, Auto-Align takes over and automatically steers the beam into optimum position.

The Fireray, Model 5000, optical beam smoke detector and system controller has 4 wire external connections with voltage free relay contacts for Fire and Fault.

Technical specification

The following details are a representative extract of the technical specification for the Fireray, Model 5000, optical beam smoke detector and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Parameter	Min.	Typ.	Max.	Unit
Operating voltage (to System Controller)	14	-	28	VDC
Operating Current – low current mode	8	10	24	mA
Operating Current – high current mode	48	50	52	mA
Response Threshold/ Sensitivity (Default 35%)	0.45 10	- -	3.98 60	dB %
Delay to Alarm – user settable (Default 10 sec)	2	-	30	sec
Delay to Fault – user settable (Default 10 sec)	2	-	30	sec
Operating distance (separation) *	8	-	100	m
Maximum angular misalignment of Detector from optical axis	-	-	± 0.3	Deg
Maximum angular misalignment of Reflector from optical axis	-	-	± 5	Deg
Maximum angular alignment	-	-	± 3.5	Deg
Optical wavelength		850		nm
Fault level/ Rapid Obscuration ($\Delta \leq 2$ sec)	-	-	87	%
Operating temperature	-10	-	+55	°C
Storage temperature	-40	-	+85	°C
Relative humidity	-	-	93	%
IP rating		54		-
Contact voltage – Fire & Fault relays (DPCO)	0.1		36	VDC
Contact Current – Fire & Fault relays (DPCO)	0.1		100	mA
Cable length – System controller to Detector (2 core screened fire resistant)	-	-	100	m
Cable gauge	24 0.5	-	14 1.5	AWG mm