



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 3514	10-Nov-2020	Number 1	Issue date 11-Nov-2020	30-Apr-2022

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Product designation

thefirebeam™, Model thefirebeamXtra™, reflective optical beam smoke detector

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

Agent/distributor

Hochiki Australia Pty Ltd
391 Park Road, REGENTS PARK, NSW, AUSTRALIA, 2143

Registrant

Hochiki Australia Pty Ltd
391 Park Road, REGENTS PARK, NSW, AUSTRALIA, 2143

Producer

The Fire Beam Company
Unit 8, Thames Industrial Estate, High Street South, DUNSTABLE, BEDFORDSHIRE, UNITED KINGDOM,
LU6 3HL

Conformance criteria and evaluation

The thefirebeam™, thefirebeamXtra™, reflective 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 equipment with new or existing Fire Detection Control and Indication Equipment (FDCIE) 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 thefirebeam™, Model thefirebeamXtra™, reflective optical beam smoke detector uses a motorised sensor method which allows it to self-align to the centre of the reflector during commissioning. Once commissioned the detector monitors alignment and automatically realigns back to the centre of the reflector if any movement occurs. This equipment uses a separate controller unit for commissioning.

The range of the thefirebeam™, Model thefirebeamXtra™, reflective optical beam smoke detector is 70 m (mid-range) but may be increased to 160 m with the alternative (long-range) reflector kit.

This equipment interfaces through voltage-free fire and fault relay outputs, for connection to a conventional FDCIE zone interface or similar.

Technical specification

The following details are a representative extract of the technical specification for the thefirebeam™, Model thefirebeamXtra™, reflective 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.

Schedule of properties/characteristics

The following schedule is an extract of physical and operational properties/characteristics of the certified/listed equipment.

Electrical specifications		
Supply voltage		12 to 30 Vdc
Supply current		3.5 mA (constant current) in all operational states
Constant current		17 mA (constant current) in fast commissioning
Environmental specifications		
Temperature		-10°C to +55°C
Humidity		10 to 95% RH Non-condensing
Ingress protection index		IP65 when suitably mounted and terminated
Mechanical specifications		
Beam head H x W x D, Weight		180 mm x 155 mm x 137 mm, 1.1 kg
Controller H x W x D, Weight		185 mm x 120 mm x 62 mm, 0.55g
70KIT40 mid-range reflector H x W x D, Weight		293 mm x 293 mm x 5 mm, 0.8 kg
140KIT160 long-range reflector H x W x D, Weight		394 mm x 394 mm x 5 mm, 1.8 kg
Adapter (mounts the beam head onto unistrut) H x W D, Weight		270 mm x 250 mm x 5 mm, 0.6 g
Optical specifications		
Optical wavelength		870 nm
Maximum angular alignment		±5°
Maximum angular misalignment		Beam Head ±0.4°, Reflector ±2° (static not auto-aligning)
Operational specifications		
Protection Range	70KIT40	Mid-Range Reflector Kit 7 to 70 metres
	140KIT160	Long-Range Reflector Kit 140 to 160 metres

Schedule of components and/or assemblies

Verified designation	Detector circuit type
thefirebeam™, thefirebeamXtra™, reflective optical beam smoke detector	Conventional

The following is a schedule of validated components and/or assemblies of the certified/listed equipment.

Description	Part num.
Beam head	-
Controller	-
Mid-range reflector	70KIT40
Long-range reflector	140KIT160
Adapter (mounts the Beam Head onto unistrut)	-

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Supplementary information

Schedule of relevant articles

The following schedule is an extract of articles significant and/or related as evidence of conformity.

Reference		Title / description	Date issued (or date validated)	Source
Ident. Type	Ident.			
Report	XF3365/R1	Evaluation for Conformity of the thefirebeam™, Model thefirebeamXtra™, optical beam smoke detector to the requirements of AS 7240.12-2007	28-Feb-2020	CSIRO, Fire Systems Laboratory, AU
Issue	0025-10	thefirebeam™ protectionssystemXtra user guide	1-Oct-2019	The Fire Beam Company, UK