



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 2412	12-Mar-2010	Number 11	Issue date 26-Apr-2019	30-Apr-2020

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Product designation

Project Fire Products, Gemini®, dual sensing fire sprinkler heads

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

Agent/distributor

FireSense Pty Ltd
18-20 Brookhollow Avenue, BAULKHAM HILLS, NSW, AUSTRALIA, 2153

Registrant

Project Fire Products Limited
Pasturefields Lane Industrial Estate, HIXON, STAFFORDSHIRE, UNITED KINGDOM, ST15 8RR

Producer

Minimax GMBH
Industriestrasse 10-12, BAD OLDESLOE, GERMANY, D-23840

Conformance criteria and evaluation

The Project Fire Products, Gemini®, dual sensing fire sprinkler heads has been evaluated and verified as conforming with the relevant requirements of the following criteria.

1. LPCB Schedule TS1281a, 'Technical Schedule'.
2. Loss Prevention Council - Evaluation, surveillance and approval, 'LPC approval'.

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. Fire sprinkler equipment, system design and installation should be determined and verified in accordance with the performance and prescribed requirements of the regulations, standards and criteria as specified by the building code and authorities having jurisdiction. Due considerations include the occupancy fire loading, sprinkler location, coverage, response, hydraulic characteristics and other specified requirements relevant to the conformance and effectiveness of the equipment and installed system.
- ii. Specific or special requirements in relation to this product must be considered and included in the system design and installation.

Issued by

David Whittaker
Executive Officer – ActivFire Scheme



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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.

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Producer's description

The Project Fire Products, Gemini®, dual sensing fire sprinkler heads operate in such a way that the first head to operate is a detector and will signal an alarm condition, and the second integral head is will operate as a normal quick response sprinkler head and discharge water on activation of the bulb.

The functional principle

1. On release of the right sprinkler, the floater is no longer supported by the spring-loaded spacer piece and will drop down to operate a switch contact. The Gemini® sprinkler still remains closed against the pipe system and no water will be discharged.
2. On release of the left sprinkler the top sealing cone and the distance pipe are no longer supported by the glass bulb. The water enters the Gemini® sprinkler and causes the floater to move up, thus operating the switch contact. At the same time the bottom sealing cone of the distance pipe closes so that no water can be discharged. In both cases, the switching contact transmits a signal which is evaluated and indicated at the sprinkler monitoring system DSZ 3000 or by a connected fire detection control panel. The trouble signal can also be transmitted to any remote or external location.
3. On release of both sprinklers the water is discharged through the left sprinkler of the system. An alarm signal is transmitted to a continuously manned post - e.g. an external fire station, and also by the alarm pressure switch of the existing wet pipe alarm valve set.

Technical specification

The following details are a representative extract of the technical specification for the Project Fire Products, Gemini®, dual sensing fire sprinkler heads and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Type of sprinkler:	Spray sprinkler, 15 NS (½")
Weight:	2.0 kg
Dimensions:	170 mm x 350 mm
Installation clearance:	> 300 mm
Thread connection:	R1-DIN 2999
Release temperature:	68 °C
K-factor:	5.7 K(metric)
RTI:	35-50 m ^½ s ^½
Protection area:	9 m ²
Static. operating pressure;	300 kPa to 1000 kPa
Monitoring system DSZ 3000	
Weight:	approx 1 kg
Dimensions:	185 mm x 125 mm x 65 mm
Electrical specifications	
Sprinkler head DS2	
Load on switching contacts:	10 W / 12 VA / 0.5 A / 150 V Make
Monitoring system DSZ 3000	
Supply:	230 V / 50 cycles
Operating voltage:	12 Vdc, 24 Vdc
Power available externally:	10W max
Quiescent current:	1mA
Load on relay (making contact):	10W / 12VA / 1.5A / 150V
Contacts:	1 change-over, voltage free
Ambient temperature:	0°C - 40°C
IP rating:	IP 50

Part designation	Part code
Sprinkler Head DS 1	GE 001
Interconnect & 4 Mts Cable c/w term.plugs	GE 003
End-of-line cable	GE 004
Pre-wired Monitoring Panel & 8 Mts Cable	GE 005

References:

LPCB Certificate: 060b, 9-Feb-2006

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Technical data sheet: Project Fire Products, GE-E-TS, 22-Aug-2008