



CSIRO Verification Services Clayton, Victoria, Australia +61 13 0036 3400 https://activfire.csiro.au

Certificate of Conformity

| Certificate num. | Registration date | Version Number Issue date 12 4-Apr-2024 | | Valid until | |
|------------------|-------------------|---|--|---------------------|-------------------------------|
| afp - 2954 | 17-Sep-2014 | | | 30-Apr-2025 | Page 1 of 5 |
| | Product | designation | | This control the sc | ertification is issued within |

Ampac, Model FireFinder Plus, fire alarm control panel

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

Agent/distributor

Ampac Pty Limited

7 Ledgar Road, BALCATTA, WA, AUSTRALIA, 6021

Registrant

Ampac Pty Limited

7 Ledgar Road, BALCATTA, WA, AUSTRALIA, 6021

Producer

Ampac Pty Limited

7 Ledgar Road, BALCATTA, WA, AUSTRALIA, 6021

Conformance criteria and evaluation

The Ampac, Model FireFinder Plus, fire alarm control panel has been evaluated and verified as conforming with the relevant requirements of the following criteria.

- Australian Standard AS 7240.2-2004, 'Fire detection and alarm systems Part 2: Control and 1. indicating equipment (ISO 7240-2:2003, MOD)'.
- 2. Australian Standard AS 7240.4-2004, 'Fire detection and alarm systems - Part 4: Power supply equipment (ISO 7240-4:2003, MOD)'.
- Australian Standard AS 4428.3-2010, 'Fire detection, warning, control and intercom systems -3. Control and indicating equipment - Fire brigade panel'.

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.

- This equipment is installed in environmental conditions which are within the manufacturer's i. specified range.
- Compatibility of this equipment with new or existing actuating devices should be verified prior ii. to installation.

Issued by

Kaj Loh Executive Officer – ActivFire Scheme



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ithin 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.



Schedule to Certificate of Conformity

| Certificate num. | Registration date | Ve | ersion | Valid until | |
|------------------|-------------------|--------------|--------------------------|-------------|---------------------------|
| afp - 2954 | 17-Sep-2014 | Number 12 | Issue date 4-Apr-2024 | 30-Apr-2025 | Page 2 of 5 |
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Producer's description

The Ampac, Model FireFinder Plus, fire alarm control panel is an analogue / addressable and / or conventional fire alarm control panel capable of supporting:

- Apollo Discovery and XP95 Intelligent Detectors, Multisensor, Photoelectric, Ionisation, Thermal (heat) and CO detectors.
- Addressable Initiating Devices: Modules that monitor any conventional normally open contact such as supervisory switches and flow switches.
- Conventional two wire zone detector circuits
- Multiple input/outputs
- Agent Release
- Fan Control
- High Level Interfaces
- SmartGraphics
- Nurse Call
- SmartTerminal
- Remote LED mimics

This equipment consists of two boards collectively known as the Controller. These boards are the Main Board and the CPU Board. Combining these two boards with a front panel forms the basis for a FireFinder PLUS FACP. A single Controller without an expansion board has the capacity to interface to four (4) Slave CPU's modules. These Slave CPUs can be used for Loop Termination Boards.

The Main Board has the Slave CPU Board for the first Loop Termination Board and the provision for mounting of up to three additional Slave CPUs to interface to loops 2 - 4. The Slave CPU's all have the same software installed and the manner in which they operate is automatically determined by the type of termination or interface board onto which they connect.

If the system is to be expanded to have more than four Loops an Expansion Board is required. This board contains Slave CPU No. 5 and expansion sockets for three more to interface to loops 6 - 8. This configuration allows for a maximum number of 8 Slave CPU's that any one Controller can accommodate.

FireFinder PLUS has an internal RS485 communication bus that allows for various ancillary boards (add on modules) to be connect to the panel. These boards can be used to control and monitor field plant equipment or the addition of an agent release module.>

Technical specification

The following details are a representative extract of the technical specification for the Ampac, Model FireFinder Plus, fire alarm control panel and may be subject to change. Complete and current details should be determined from the designated producer's technical manual/data sheets.

Schedule of variant designations

The following is a schedule of validated variant designations of the certified/listed equipment.

| Variant | | | |
|---------|-------------|--|---------------|
| Туре | Ident. | Dimensions | Num. of loops |
| Model | Metal SP1X | 505 mm (H) x 407 mm (W) x 150 mm (D) | 4 |
| Model | Metal SP8X | 845 mm (H) x 518.5 mm (W) x 173 mm (D) | 8 |
| Model | Metal SP16X | 1200 mm (H) x 625 mm (W) x 240 mm (D) | 16 |

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| Cer | tificate of | Conform | ity | |
| Certificate num. Registration da | ate Vers | sion | Valid u | ıntil |
| afp - 2954 17-Sep-2014 | Number 1 12 | Issue date 4-Apr-2024 | 30-Apr- | 2025 Page 3 o |
| hedule of properties/characteristics | | | | |
| e following schedule is an extract of physic | al and operational propertion | es/characteristics of the | certified/li | isted equipment. |
| с с с с с с с с с с с с с с с с с с с | Metal SP1X | Metal SP8x | | Metal SP16X |
| Mechanical | | | | |
| Cabinat dimensions: | 505 mm (H) x 407 mm (W) x | 845 mm (H) x 518.5 mm | (W) x | 1200 mm (H) x 625 mm (W) x |
| | 150 mm (D) 173 mm (D) 240 mm (D) Includes window outer door | | | 240 mm (D) |
| Material | | 1.2 mm Mild Ste | el | |
| Environmental | | | | |
| Temperature: | | -5º C to + 40º | C | |
| Humidity: | | 25% to 95% non cond | ensing | |
| Main Innut | | IPSU | | |
| Input Voltage: | | 195 – 264 Vac | | |
| Protection (Quick Acting Fuse): | | 100 101 100 | | |
| 5 AMP Supply | 2A 3AG Slow Blow | 2A 3AG Slow Blo | w | n/a |
| 18 AMP Supply | n/a | 5A 3AG Slow Blo | w | 5A 3AG Slow Blow |
| Minimum Cable Requirements: | | Not less than 0.75 | mm ² | |
| Power Supply | | | | |
| Operating Voltage Range: | | 20 – 28.2 Vdo | : | |
| Power Supply Ripple Voltage: | < 250 mV | | | |
| Power Supply Output Current: | 5.6 Amps | 5.6 Amps / 18 Am | ips | 18 Amps |
| Imax A | | 3 A | | |
| Protection | | Current Limitir | ησ | |
| Batteries / Battery | | current Einith | 15 | |
| Charger Float Voltage | | 26.6 – 28.2 Vdo | : | |
| (Temp compensated): | | (27.3 Vdc nom. @ | 20° C) | |
| Battery Type: | | 2x12 V Sealed Lead | d Acid | |
| Max Battery Capacity: | 18 AH | | | 40 AH |
| Max Charger Current Limited: | 1.25 A | | | 2 A |
| Battery Supply Current Limited: | | 3 A and 2 A PT | С | |
| Battery Low: | | < 23 VCC | | |
| May Battery Resistance | < 21 Vdc | | 0.43.0 | |
| Panel | 0.75 12 | 0.43 12 | | 0.43 12 |
| Quiescent Current (QI) 1 Loop | | 220 mA | | |
| Max Number of Zone LEDs: | 64 | 128 | | 128+ |
| Loops | | | | |
| Maximum number of Loops: | 4 | 8 | | 16 |
| Maximum Number of Zones: | | 128 | | |
| Maximum Number of Devices: | | 126 / loop | _ | |
| Cabling Requirements: | 500 mA / loop | | | |
| Fault supervision: | 0/C. S/C. over current | | | |
| Outputs | | 0, 0, 0, 0, 0 VCI CU | | |
| Supervised Alarm (Current Limited) | 24 \ | /dc @ 1 A Max O/C, S/C | 10K EOL | |
| Alarm / Fault Relay Contacts | ult Relay Contacts 24 Vdc @ 1 A | | | |
| Auxiliary VDC – Protected | 24 Vdc @ 2 A | | | |
| Cabling Requirements: | 2 | core 1 – 2.5 mm ² Max le | ength 1km | |
| Inputs | | - • • | | |
| Supervised | | O/C, S/C, 10K E | OL | |
| Cabling Requirements: | 2 | core 1 – 2.5 mm ⁻ Max le | ength 1km | |
| | | DC10E | | |
| External to FACP | | RS485 | | |
| | | D.0407 | | |

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| | Certificate num. | Registration date | Ver | sion | Valid until | | |
| | afp - 2954 | 17-Sep-2014 | Number 12 | Issue date 4-Apr-2024 | 30-Apr-2025 | Page 4 of 5 | |
| Sch | edule of optional fu | inctions with requireme | nts | | | | |
| The | following schedule of | AS 7240.2–2004 optional (o | or optional-require | d) functions with requ | uirements have been valid | ated. | |
| 1. | Indications: | | | | | | |
| | a. Fault signals fro | m points (Cl. 9.3) | | | | | |
| | b. Total loss of the | e power supply (Cl. 9.4) | | | | | |
| _2. | Controls: | | | | | | |
| | a. Delays to outpu | its (Cl. 7.11) | • • • • | | | | |
| | b. Dependency on | more than one alarm signa | II (Cl. 7.12) | | | | |
| | c. Disabled condit | ion (Cl. 10) | | | | | |
| | d. Disablement of | each addressable points (C | 1. 10.5) | | | | |
| | e. Test condition | (Cl. 11) | 2 > 1 + 2 > 2 > 2 > 2 > 2 > 2 > 2 > 2 > 2 > 2 | w 7D) | | | |
| 2 | Outputs: | DIFUNCTION (ACF) (ANNEX ZA | 12 -> item 3 -> Anne | | | | |
| 5. | a Outputs. | larm devices (CL 7.8) | | | | | |
| | h Control of fire a | larm routing equipment (C | 179) | | | | |
| | c Output to fire p | rotection equipment (CL 7 | 10) | | | | |
| | d Output to fault | warning routing equinment | · (CL 9 9) | | | | |
| 4. | Operational | warning routing equipment | (0.1.5.5) | | | | |
| | a. Impact (operati | onal) (Annex ZA2 -> Cl. 16.6: r | not optional) | | | | |
| | b. Vibration, sinus | oidal (operational) (Annex Z | A2 -> Cl. 16.7: not op | tional) | | | |
| | c. Alarm Acknowle | edgement Facility (Annex ZA | .2 -> Item 1 -> Annex | ZB) | | | |
| 5. | Marking requirement | nts (Annex ZA2 -> Cl. 15: addit | ional requirements) | | | | |
| The | following schedule of | AS 7240.4–2004 optional (| or optional-require | d) functions with requ | uirements have been valid | ated. | |
| 1. | Battery function che | eck (Cl. 5.5) | | | | | |
| 2. | Marking (Annex ZA2 | -> Cl. 8 -> Annex ZB: additional | requirements) | | | | |
| 3. | Impact (operational |) (Annex ZA2 -> Cl. 9.7: not op | tional) | | | | |
| 4. | 4. Vibration, sinusoidal (operational) (Annex ZA2 -> Cl. 9.8: not optional) | | | | | | |
| 5. | Vibration, sinusoida | I (endurance) (Annex ZA2 -> | Cl. 9.11: not optional |) | | | |

Schedule of components and/or assemblies

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

| Component/assembly description | Board/part num. | Build set | |
|----------------------------------|-----------------|---------------------------|--|
| Front panel board | BRD86FPB5 | | |
| Main board | BRD86MBA4-A | | |
| Main CPU | BRD86MCPU | | |
| Slave CPU board | BRD86SCB3-A | Base system | |
| Dual loop termination board | BRD86DLTB4-A | | |
| Brigade and power supply control | BRD86BPSC4A | | |
| Fan control board | BRD25FCB-A | | |
| Fan termination board | BRD25FTB3-A | | |
| Conventional zone board | BRD43EZC2-A | | |
| General indicator board | BRD25GIB3 | | |
| 32 Zone Alarm/Fault mimic card | BRD43ZAMC2-A | System options/extensions | |
| 8 way relay board | BRD25EWRB4 | | |
| 8-way sounder board | BRD25SOPB | | |
| Agent release board | BRD25ARB6-A | | |
| Agent termination board | BRD25ATB5-A | | |

Schedule to Certificate of Conformity

| Certificate num. | Registration date | Ve | ersion | Valid until | |
|------------------|-------------------|--------------|--------------------------|-------------|---------------------------|
| afp - 2954 | 17-Sep-2014 | Number 12 | Issue date 4-Apr-2024 | 30-Apr-2025 | Page 5 of 5 |
| | | | | | |

Supplementary information

Schedule of relevant articles

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

| Reference | | | Date issued | |
|-----------------------|-------------|---|------------------------|---------------------------------------|
| Ident. type | Ident. | Title / description | (or date validated) | Source |
| Report | XF2828/R1 | Evaluation for conformity of the Ampac, Model FireFinder Plus, fire indicator panel to the requirements of AS 4428.3-2010, AS 7240.2-2004, and AS 7240.4-2004 | 29-Aug-2014 | CSIRO, Fire Systems and Acoustics, AU |
| Report | MAN2994 | FireFinder Plus Fire Alarm Control Panel (AS7240-2/4 AS 4428.3) Installation, Commissioning and Operation Manual | 15-Nov-2014 | Ampac Technologies Pty Ltd, WA, AU |
| Test report number | TE248041 | Technical evaluation of the Ampac Technologies FireFinder 8681 range of analogue addressable control and indicating equipment to EN54 2:1997+A1:2006, EN54 4:1997+A1:2002+A2:2004, and EN50130 4:1996+A1:1998+A2:2003 | 7-Nov-2012 | BRE Global Ltd, UK |
| | TE248041-SW | Software Evaluation of the Ampac Group, FireFinder Plus of Control & Indicating Equipment to the requirements of Clause 13 in EN54-2 | 26-Sep-2012 | |