



Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 2954	17-Sep-2014	Number 11	Issue date 23-Mar-2023	30-Apr-2024

Page 1 of 5

Product designation

Ampac, Model FireFinder Plus, fire alarm control panel

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

Agent/distributor

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

Registrant

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

Producer

Ampac Pty Limited
7 Ledger 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.

1. Australian Standard AS 7240.2-2004, 'Fire detection and alarm systems - Part 2: Control and 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)'.
3. Australian Standard AS 4428.3-2010, 'Fire detection, warning, control and intercom systems - 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.

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

Issued by

Kai Loh
Executive Officer – ActivFire Scheme



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.

Schedule to Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 2954	17-Sep-2014	Number 11	Issue date 23-Mar-2023	30-Apr-2024

Page 2 of 5

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		Dimensions	Num. of loops
Type	Ident.		
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

Schedule to Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 2954	17-Sep-2014	Number 11	Issue date 23-Mar-2023	30-Apr-2024

Schedule of properties/characteristics

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

	Metal SP1X	Metal SP8x	Metal SP16X
Mechanical			
Cabinet dimensions:	505 mm (H) x 407 mm (W) x 150 mm (D)	845 mm (H) x 518.5 mm (W) x 173 mm (D) Includes window outer door	1200 mm (H) x 625 mm (W) x 240 mm (D)
Material	1.2 mm Mild Steel		
Environmental			
Temperature:	-5° C to + 40° C		
Humidity:	25% to 95% non condensing		
IP rating	IP30		
Main Input			
Input Voltage:	195 – 264 Vac		
Protection (Quick Acting Fuse):			
5 AMP Supply	2A 3AG Slow Blow	2A 3AG Slow Blow	n/a
18 AMP Supply	n/a	5A 3AG Slow Blow	5A 3AG Slow Blow
Minimum Cable Requirements:	Not less than 0.75 mm ²		
Power Supply			
Operating Voltage Range:	20 – 28.2 Vdc		
Power Supply Ripple Voltage:	< 250 mV		
Power Supply Output Current:	5.6 Amps	5.6 Amps / 18 Amps	18 Amps
I _{max} A	3 A		
I _{max} B	5.5 A		
Protection	Current Limiting		
Batteries / Battery			
Charger Float Voltage (Temp compensated):	26.6 – 28.2 Vdc (27.3 Vdc nom. @ 20° C)		
Battery Type:	2x12 V Sealed Lead 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 PTC		
Battery Low:	< 23 Vdc		
Battery Discharged Cut-off Voltage:	< 21 Vdc		
Max Battery Resistance	0.75 Ω	0.43 Ω	0.43 Ω
Panel			
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		
Loop Current	500 mA / loop		
Cabling Requirements:	2 core 1.5 – 2.5 mm ² Max length 1km		
Fault supervision:	O/C, S/C, over current		
Outputs			
Supervised Alarm (Current Limited)	24 Vdc @ 1 A Max O/C, S/C, 10K EOL		
Alarm / Fault Relay Contacts	24 Vdc @ 1 A		
Auxiliary VDC – Protected	24 Vdc @ 2 A		
Cabling Requirements:	2 core 1 – 2.5 mm ² Max length 1km		
Inputs			
Supervised	O/C, S/C, 10K EOL		
Cabling Requirements:	2 core 1 – 2.5 mm ² Max length 1km		
Communications			
Add-on Module Internal to FACP	RS485		
External to FACP	RS485		

Schedule to Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 2954	17-Sep-2014	Number 11	Issue date 23-Mar-2023	30-Apr-2024
				Page 4 of 5

Schedule of optional functions with requirements

The following schedule of AS 7240.2–2004 optional (or optional-required) functions with requirements have been validated.

1. Indications:
a. Fault signals from points (Cl. 9.3)
b. Total loss of the power supply (Cl. 9.4)
2. Controls:
a. Delays to outputs (Cl. 7.11)
b. Dependency on more than one alarm signal (Cl. 7.12)
c. Disabled condition (Cl. 10)
d. Disablement of each addressable points (Cl. 10.5)
e. Test condition (Cl. 11)
f. Ancillary Control Function (ACF) (Annex ZA2 -> Item 3 -> Annex ZD)
3. Outputs:
a. Output to fire alarm devices (Cl. 7.8)
b. Control of fire alarm routing equipment (Cl. 7.9)
c. Output to fire protection equipment (Cl. 7.10)
d. Output to fault warning routing equipment (Cl. 9.9)
4. Operational
a. Impact (operational) (Annex ZA2 -> Cl. 16.6: not optional)
b. Vibration, sinusoidal (operational) (Annex ZA2 -> Cl. 16.7: not optional)
c. Alarm Acknowledgement Facility (Annex ZA2 -> Item 1 -> Annex ZB)
5. Marking requirements (Annex ZA2 -> Cl. 15: additional requirements)

The following schedule of AS 7240.4–2004 optional (or optional-required) functions with requirements have been validated.

1. Battery function check (Cl. 5.5)
2. Marking (Annex ZA2 -> Cl. 8 -> Annex ZB: additional requirements)
3. Impact (operational) (Annex ZA2 -> Cl. 9.7: not optional)
4. Vibration, sinusoidal (operational) (Annex ZA2 -> Cl. 9.8: not optional)
5. Vibration, sinusoidal (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	Base system
Main board	BRD86MBA4-A	
Main CPU	BRD86MCPUCPU	
Slave CPU board	BRD86SCB3-A	
Dual loop termination board	BRD86DLTB4-A	
Brigade and power supply control	BRD86BPSC4A	
Fan control board	BRD25FCB-A	System options/extensions
Fan termination board	BRD25FTB3-A	
Conventional zone board	BRD43EZC2-A	
General indicator board	BRD25GIB3	
32 Zone Alarm/Fault mimic card	BRD43ZAMC2-A	
8 way relay board	BRD25EWB4	
8-way sounder board	BRD25SOPB	
Agent release board	BRD25ARB6-A	
Agent termination board	BRD25ATB5-A	

Schedule to Certificate of Conformity

Certificate num.	Registration date	Version	Valid until	
afp - 2954	17-Sep-2014	Number 11	Issue date 23-Mar-2023	30-Apr-2024

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	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	