

F120A Features and Facilities

- **Loop Characteristics:** max Length 1km.
- **Cable Size/Type:** 1mm² to 2.5mm², twisted-pair. **Loop Resistance:** (max) 38 .
- **Battery requirements:** 2 x 12V SLA batteries (see Pertronic web site for battery size calculator)
- **Serial RS-232 Port:** for panel configuration via PC. **Serial RS-485 Ports:** for ancillary equipment.
- **Mimic Connections:** up to 32 devices: LCD Mimics, LED Mimics, Amplifiers or Network Cards, may be connected to the RS485 port.
- **LCD Mimics:** supports up to 8 Full LCD or 29 Mini LCD Mimics with full polled controls, the balance being unpolled mimics without monitoring.
- **LED Mimics:** supports up to 8 monitored LED Mimics, each capable of driving 512 LEDs.
- **Isolate switches:** individually isolate all ACF, Warning System, External Bell and Door Holder outputs.
- **Configurable 'Local MCP' input:** monitored and latching.
- **General purpose Brigade interface:** 'Fire', 'Fault' and 'Battery Fault' for ASE.
- **Walk Test:** one man walk test with automatic reset.
- **Door micro switch:** Door Interlock and External Fault loops.
- **Panel configurable outputs:** eight (8) x Open- Drain FET: - switch to 0v
- **System Test:** automatic 24-Hour test of all Detectors & Battery or individually tested on demand.
- **Fan Control Block:** software control for 300 x AS1668 Fan relays with Duct Detector over-ride.
- **Programmable Attributes:** detectors can be individually configured for: Warn System, ACF, Brigade Calling, Latching, Brigade Latch, General Purpose Relay, Door Holder Relay, Buzzer on Alarm, Alarm Verification Facility (AVF), Sensitivity selection and Zone assignment.
- **Configurable detectors and modules:** can be directly configured to any system output via 'Alarm', 'Pre-Alarm' or 'Fault'.
- **Configurable Software Groups:** 200 groups, each with 15 outputs which can be configured to any system output.
- **Configurable Zones:** 255 zones, each with 8 outputs, which can activate any system output. Each Zone has a Timer with outputs on 'Start' and 'Stop' period. Automatic Timer override on second detector activation.
- **Alarm Acknowledge Facility:** support for AS4428.1, ammendment 1, 2005 Alarm Acknowledge Facility
- **System Events:** 32 events can be configured to control any system output: e.g. Common Fire, Fault, Pre-Alarm, etc.
- **Logic Block Functions:** 200 logic functions (OR, AND, ANY2) can be interconnected to perform complex logic functions.
- **Time of Day Logic Input:** allows an event to be configured on a daily basis with independent Start Time and Duration.
- **Configurable Timers:** 50 independent Timers, each with a 1 second to 12 hour configurable time period. 3 Timer types are available - 'One Shot', 'Continuous' and 'Latching'.
- **Dual sensitivity:** each detector can be switched between two sensitivities automatically or manually (day / night mode).
- **Status Reporting:** available for individual detectors and modules.
- **Daylight saving:** automatic Clock adjustment for Daylight Saving.
- **Test Mode:** individual test function for detectors and modules.



Mechanical Specifications

Construction	1.2mm Mild Steel
Colour	RAL9001 (BS4800:10B15) Powder Coated
Dimensions	
600mm cabinet	450mm (w) x 600mm (h) x 130mm (d)
16U 19" cabinet	550mm (w) x 800mm (h) x 185mm (d)
28U 19" rack	575mm (w) x 1330mm (h) x 380mm (d)
40U 19" rack	575mm (w) x 1865mm (h) x 380mm (d)

Technical Specifications

Power Supply

Mains Supply	230V
Output Voltage	27.6V
Output Current	4A or 12A
Panel Quiescent Current	165mA (2 loop panel)
Battery Capacity	up to 17Ah or 80Ah

Outputs

External Bell (monitored)	Voltage reversal 3A @ 24V d.c
Warning System (monitored)	Voltage reversal 3A @ 24V d.c
Fire (Normally de-energised)	C/O 1.25A @ 24V d.c
Fault (Normally energised)	C/O 1.25A @ 24V d.c
ACF Relay (monitored)	2A @ 30V d.c
Battery Fault (non monitored)	C/O 1.25A @ 30V d.c
General Purpose Relay	2 x C/O's 1.25A @ 30V d.c
Door Holder Relay	C/O 5A @ 24V d.c
Auxiliary Outputs	eight open drain FET's switch to 0V

Indicators

Alarm	Red
Fault	Yellow
Isolate	Yellow
Ext Bell Isolate	Yellow
Warn System Isolate	Yellow
Mains	Green
PSU Fault	Yellow
Brigade Called	Red
Door Holder Isolate	Yellow
ACF Isolate	Yellow
Warn System On	Yellow
Walk Test	Yellow
Lamp Test	Yellow



F120A System Product Codes

Fire Control Panels

F120AAU0.6	F120A Panel, 2 Loop in 600mm Cabinet
F120A19	F120A Panel, 2 Loop in 16U Rack Cabinet
F120A19EA	F120A Panel, 2 Loop in 16U Rack with 50W amp
F120A-28U	F120A Panel, 2 Loop in 28U Rack Cabinet
F120A-40U	F120A Panel, 2 Loop in 40U Rack Cabinet

Expansion Board

F120P2LMB	F120 2 Loop Driver Mini Board
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Analogue Detectors and Bases

1251BPI	AA Ion Smoke Detector excl Base
2251BPI	AA Photo Smoke Detector excl Base
2251TMBPI	AA Accclimate Photo-Thermal Multi Sensor Det
2251TLE	AA Photo-Thermal-IR Multi Sensor excl Base
2251CTLE	AA CO-Photo-Thermal-IR Multi Sensor excl Base
5251BPI	AA 57C Heat Detector
5251RBPI	AA ROR Heat Detector excl Base
7251	AA Pinnacle Laser Smoke Detector
B501	AA B501 Base Analogue Addressable
B524IEFT-1	AA Short Circuit Isolator Base

Analogue Modules

M500KAC	AA Manual Call Point
F100LR	AA Loop Responder Board 8 I/P
F100LRU	AA Loop Relay Board 4 Relays
M500S	AA Relay Module with Monitored Output
M500R	AA Relay Module (Volt Free C/O Contacts)
M500M	AA Monitor / Input Module
M500DMR	AA Dual Input, Dual Output Module
M501M	AA Mini Monitor / Input Module
M503ME	AA Micro Monitor / Input Module with LED output
ISO524-1	AA Short Circuit Isolator Unit ISO524-1
M500X	AA Zone Isolator Module
M201E-240	AA Euro 240Vac Relay Module with isolator
M220E	AA Euro Dual Input Module
M221E	AA Euro Dual Input + Relay Module
ITM	Isolate Timer Module
AAM	Alarm Acknowledge Module

Networking

NETCARD	Network Card - F100/F120 Panels/LED Mimics
NETCD-NCU	Network Card for Network Control / Display Unit
NETCU-A	Network Control Unit LCD Display excl Net Card

Mimics

F120AMAUS	F120A LCD Full Function Mimic
MINIMIMIC	LCD Mini Mimic
LAC485	LED Address Controller Board

Pertronic Analogue Addressable Automatic Fire Systems



F120A Analogue Addressable Fire Alarm System AS4428.1:1998

Advanced Fire Detection System



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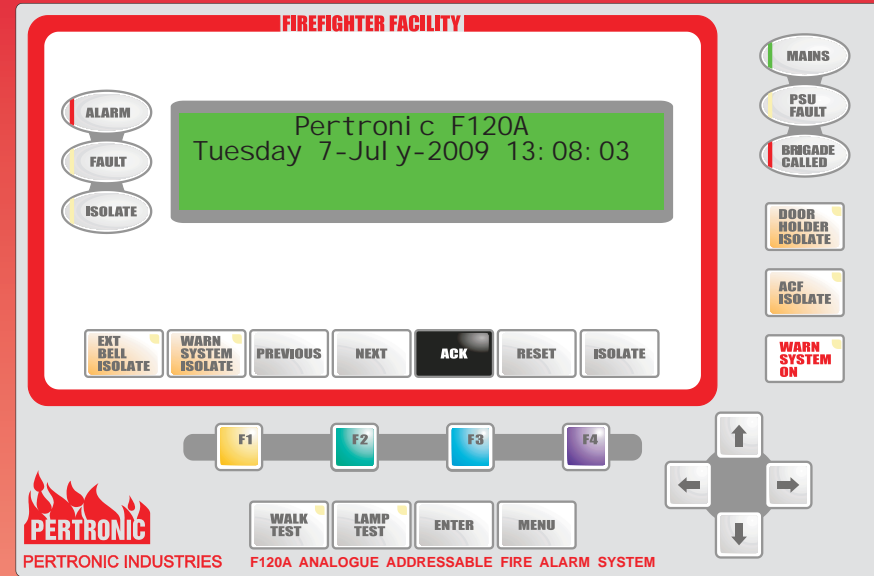
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F120A Analogue Addressable Fire Panel

Product Overview

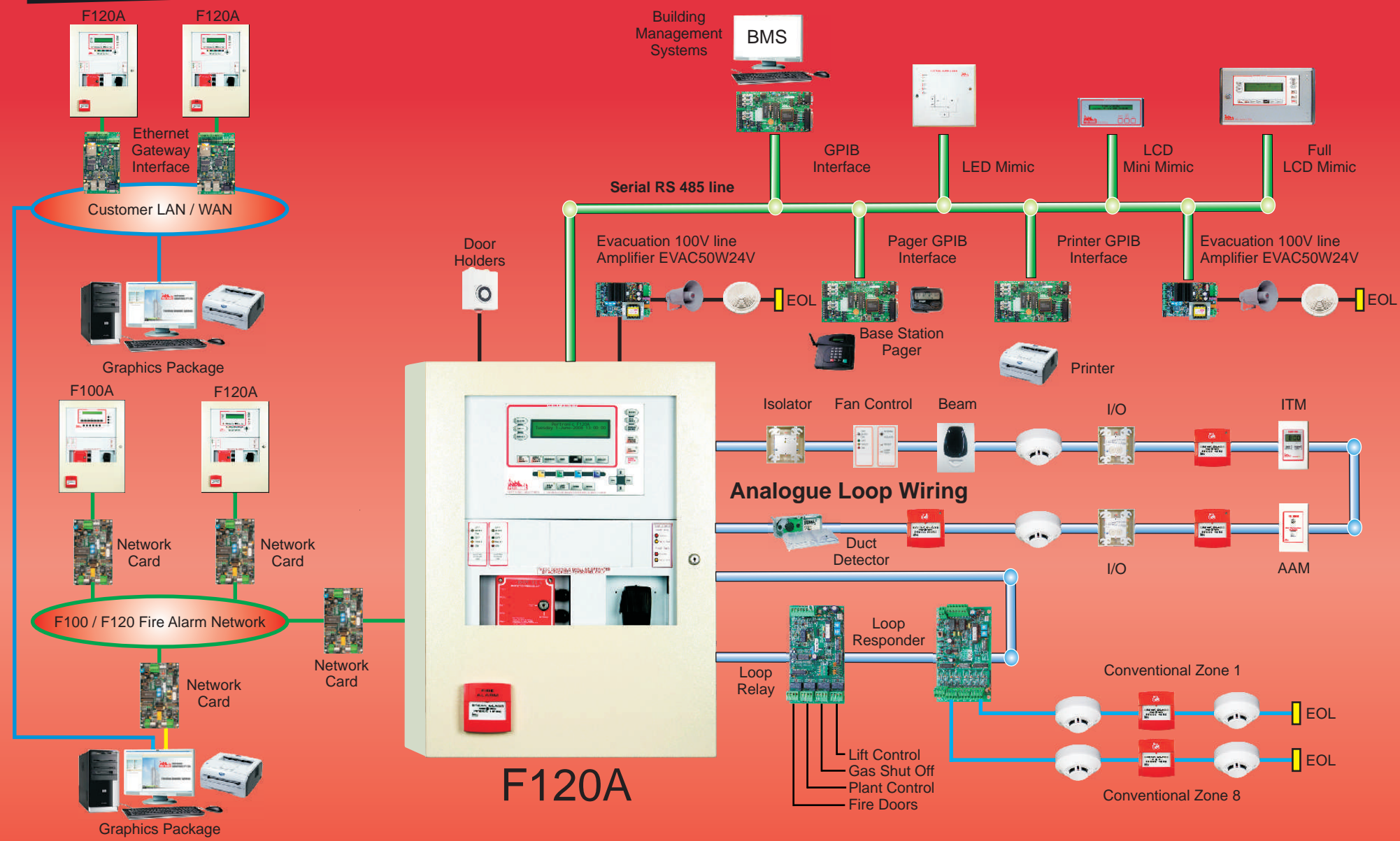
The F120A Analogue Addressable panel is a sophisticated and versatile Fire Alarm panel, designed for all installations that require flexible configuration and control functions. The F120A is ActivFire listed (afp1663) and is fully compliant with Australian Standard AS4428.1:1998 including Amendment 1:2005.



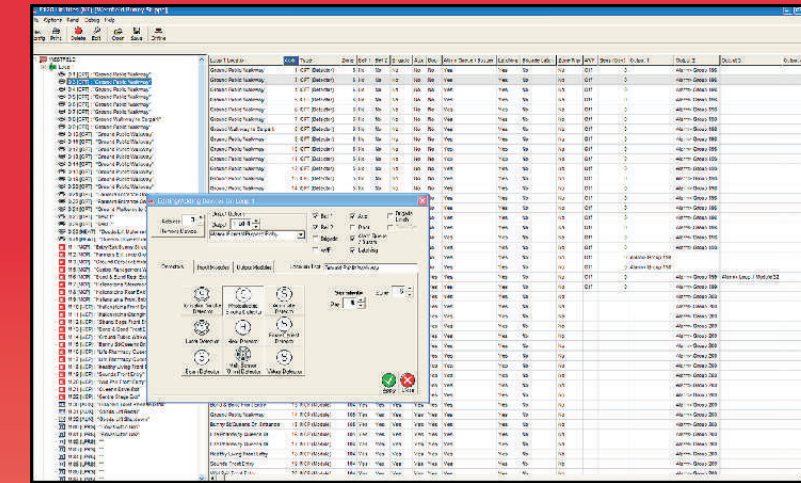
F120A Features and Facilities

- **Display:** Large 4 x 40 character back-lit alphanumeric LCD Display. This gives a 31 character user-definable English language text descriptor for precise identification of the Fire location.
- **Zone Indication:** Up to 256 physical zones each with a user-definable text descriptor.
- **Protocol:** Supports the **System Sensor 159** intelligent clip protocol.
- **Loop Capacity:** 2 to 20 analogue addressable loops support 159 Detectors and 99 Modules per loop. Provides a maximum 3180 Detectors and 1980 Modules.
- **Loop input devices:** Detectors, Call-Points, Loop Responders, Relay Responders and Modules.
- **Loop outputs devices:** Warning System relays, ACF relays, Door Holder relays etc.
- **Networking:** The Pertronic network supports 99 nodes with panels having up to 64 outputs to the network and 128 inputs from the network. Each Network Card is connected to an F120A or F100A panel via the serial RS485 port.
- **Pre-Alarm:** Automatic 'Pre-Alarm' warnings. Pre-Alarm level is set at 80% of the Fire threshold.
- **24 Hour test:** Automatic 24-Hour 'System Test' of all Detectors and standby Battery.
- **Isolation:** User Isolation of Detectors, Call-Points, Modules, Zones, Groups, Logic Gates and Timers is available via user friendly panel menus and controls..
- **Historic Log:** This provides a downloadable and searchable 1999 event historical Log.
- **Configuration & Control:** Configuration data may be entered through the front panel menu controls or via the sophisticated graphical configuration and monitoring PC Utility.
- **Virtual Panel Display:** Provides complete control and graphical representation of the panel's LCD, front panel switches and indications locally or at a remote location.
- **Remote Monitoring:** Pertronic configuration utility can be used via Internet or modem.

F120A System Diagram



F120A PC Utilities



User friendly Panel Configuration Utility for programming and retrieving panel status and configuration

FireMap Graphics System



Easy to use and configure graphical representation of building Fire Alarm System

Advanced Systems - Advanced Solutions
Pertronic Industries Pty Ltd