



Firebits

Pertronic F120A Fire System for Panorama



The urban village of Doncaster Hill is one of the highest points in Melbourne's eastern suburbs. Doncaster's latest high-rise habitat is the thirteen-story Panorama Apartments, just across the road from Westfield Shopping Centre. Panorama has 221 apartments, three commercial tenancies and 257 car-parks.

Designed by Peddle Thorp architects, the building has a nine-storey atrium that floods the interior with sunlight and encourages cross-ventilation through the apartments. The atrium's clean, uncluttered appearance is an important feature of the building.

Panorama's fire system is based on a Pertronic F120A Fire Alarm Panel. The panel controls nine analogue addressable FFAST XS Dual Vision aspirating smoke detectors in the atrium. Eight of these detectors are connected to sampling pipes concealed within the balcony floors. The ninth FFAST XS unit draws air through a sampling pipe hidden against a purlin supporting the glass roof. The aspirating system eliminates the cost of accessing high-mounted point smoke detectors for routine maintenance.

The Pertronic F120A monitors the building's sprinkler system, together with 168 photo-electric smoke detectors in common areas, and analogue addressable manual call points strategically located throughout the building. The automatic fire detection system is supplemented by unmonitored smoke detectors in the apartments.

The F120A fire alarm panel also controls the building's smoke management system, and a 12 zone emergency warning and information system.



Pertronic Products on Display in Melbourne

Welcome to the Fire Australia & HazMat 2016 edition of Firebits.

This month we introduce a new AS 7240-compliant analogue addressable fire alarm system, the **Pertronic F220**.

The F220 reflects a wealth of knowledge and practical experience gained over the past sixteen years, working with fire system professionals throughout Australia. Our engineers kept the best features of our well-proven fire alarm panels, while leveraging the latest technology to develop new, market-leading capabilities.

The F220 is packed with new features that make it easier and more economical to configure, install, and use. We are proud of what our engineers have achieved.



Visit our stand at Fire Australia & HazMat 2016 in Melbourne (May 4 & 5, 2016) to see the **Pertronic F220**.

Also at Fire Australia & HazMat 2016, we showcase our **FAAST Dual-Vision** aspirating smoke detectors (page 3), which integrate into Pertronic analogue addressable systems. Aspirating smoke detectors solve many tricky smoke detection problems, such as the need for accurate but unobtrusive fire protection in hard to reach locations like the atrium of Melbourne's Panorama Apartments (front page). **FAAST Dual-Vision** detectors outperform the competition.

This month we release our new Audio Distribution Module (page 3). The ADM-4 allows multi-branch audio evacuation and notification systems to keep going even if one spur is shorted out.

On page 4 we profile one of our latest fire systems: the Waterview Tunnels. We are supplying a fire detection and suppression control system for this major roading project.

We look forward to meeting you in Melbourne.

Pertronic F220 Delivers Rapid Access to Critical Information

The new **Pertronic F220** Fire Alarm Panel goes far beyond the requirements of AS 7240.

Specifically designed for maximum readability, the F220 features a large colour display and a big, clearly labelled keyboard.

During a fire alarm incident the panel automatically displays the exact location of the alarm activation, in addition to the zone information which is mandatory under AS 7240. **Alarm** mode is clearly identified by the red status bar and large, easy-to-read text descriptors.

The big, finger-friendly keyboard gives rapid access to complete lists of alarms, faults, and disablements.

Colours on the display clearly identify the type of information, such as red for alarms and yellow for faults. The distinctive **Normal** screen features wide green bars top and bottom of the display.

Simpler Installation & Commissioning

The F220's USB interface allows large, complex panel configuration files to be uploaded or downloaded in less than ten seconds. The highly detailed fault and disablement screens make it easy to manage the installation and commissioning of complex systems that may include up to 20 Analogue Addressable Loops, more than 3000 detectors, and 1980 other input or output devices on a single F220 fire alarm system. The modular, expandable F220 is compatible with a wide range of analogue addressable peripherals, and is fully compatible with the Pertronic FireMap® PC Graphic system.

The F220 is available in a range of configurations and sizes to suit all projects from medium-sized buildings to the largest and most complex facilities.



New Dual-Vision Aspirating Detectors

The new FFAST XT and FFAST XS aspirating detectors expand the range of applications that are able to benefit from **FFAST Advanced Dual-Vision** sensing technology.

Designed for maximum sensitivity without compromising nuisance alarm immunity, the dual-vision aspirating smoke detectors from System Sensor USA feature a particle separator that removes large, non-fire particles, keeping the internal sensing chamber clean and extending the life of the replaceable filter. The software combines signals from two separate optical sensors (blue LED and infra-red laser) to reliably detect smoke density as low as 0.0015 % obscuration per metre.

This technology enables the top-of-the range FFAST XT to accurately detect incipient fire conditions as early as 60 minutes before a fire actually starts.

Information from our analogue addressable FFAST detectors is fully integrated into Pertronic analogue addressable fire alarm panels such as the **F220**.



FFAST Dual-Vision detectors are ideal for Early Warning (EWF) and Very Early Warning Fire Detection (VEWFD) and provide stable detection in harsh or extreme environments.

	FFAST XS	FFAST XM	FFAST XT
Addressable	7200BPI	8251BPI	9251BPI
Conventional	7100X	8100	9400X
Coverage	600 m ²	1,000 m ²	2,650 m ² *
Pipe Inlets	One	One	Four
Fan Speeds	Three	One	Three

FFAST Dual-Vision products.

* AS1670.1-2004 restricts the zone area to 2000m² or less, depending on site details.

Audio Distribution Module Enables Fault-Tolerant Warning Systems

Audio evacuation warning systems are vulnerable to short-circuits caused by overheated insulation. If heat from a fire melts the 100 Volt line insulation, the resulting short-circuit will silence every speaker on the shorted cable.

People in the affected area may have no warning until it's too late to get out safely.

The **Pertronic Audio Distribution Module (ADM-4)** provides a highly effective solution. This new module splits the output from a single amplifier into multiple independently controlled and monitored 100 Volt audio channels. A system built with ADM-4 modules will keep going even if one or more channels develops a short-circuit. The module's monitoring system automatically disconnects the shorted channel, and allows distribution to continue over the unaffected channels.

Several ADM-4 modules may be connected to a single amplifier, providing four switchable audio channels per ADM-4. This simplifies audio system installations by allowing multiple spurs from a single 100 Volt audio line without compromising the defect monitoring system. Any spur can be further subdivided using additional ADM-4 modules.

A single ADM-4 module can switch up to 80 Watts per channel, or a total of 250 Watts per module. ADM-4 modules may be connected in parallel.

The ADM-4 is compatible with Pertronic evacuation amplifiers and any third-party amplifier that is controlled by a **Pertronic Evacuation Generator (EVACGEN-EA)**.



Pertronic Fire Protection System for Auckland Motorway Tunnels

Fire system specialists Argus Fire Protection have won the fire detection contract for a pair of three-lane motorway tunnels on Auckland's Waterview Connection project, using 23 Pertronic F120A panels.

The five-kilometre, \$1.25 billion section of motorway is part of a 48-kilometre ring route bypassing Auckland's central business district and harbour bridge. Running beneath the suburbs of Avondale and Waterview, the three-lane tunnels were excavated by a 3200-tonne boring machine custom-designed for Auckland's difficult geology by German company Herrenknecht. It was the largest diameter tunnel-boring machine ever used in the Southern Hemisphere, and the tenth-biggest in the world.

Construction began in November 2013 with the excavation of the southbound tunnel. All excavation work is now finished, with the last of the 16 cross-passages between the tunnels completed in December 2015.

The Pertronic fire detection and suppression control system is based on a network of Pertronic F120A fire alarm panels. The system architecture is specifically designed to achieve a high level of redundancy, with panels in key locations such as the cross passages and ventilation buildings, and large mimic displays at each portal.

The Pertronic system controls an automatic water deluge system in the tunnels, and gas flood systems in the ventilation buildings. Cameras installed throughout the tunnels allow operations staff to see what's happening. If necessary, they will be able to speed up or slow down fire suppression system operation.

A powerful jet fan ventilation system will maintain air quality inside the tunnels. In the event of a fire, this ventilation system can be used for smoke management.

The Waterview Connection is Auckland's largest road construction contract. Pertronic Industries are pleased to be involved in this challenging project.

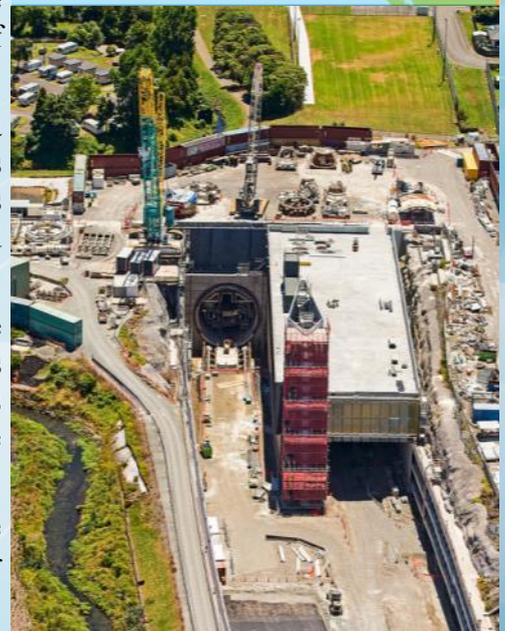
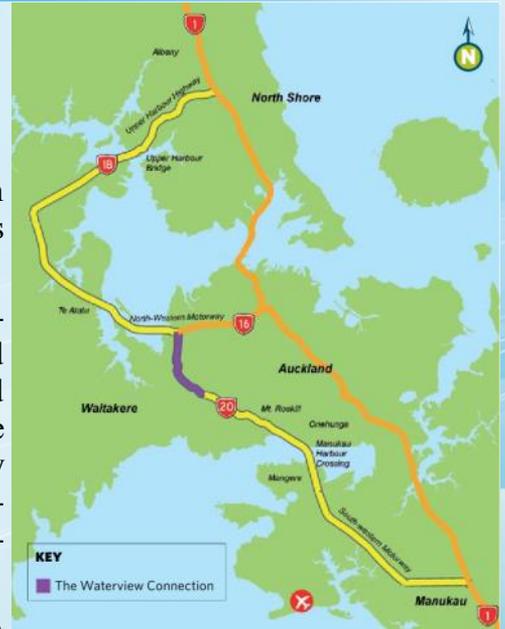


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