PERTRONIC INDUSTRIES LTD

FIREBITS

December 2002

Pertronic Systems In New Retirement Villages

Caring for the elderly continues to be a growth industry in New Zealand. Ryman Healthcare is a company at the forefront of this growth, building modern retirement and care facilities throughout the country, with many of these facilities protected by Pertronic analogue addressable fire alarm systems. Ryman's latest development is the Grace Joel Retirement Village in Auckland's eastern suburb of St. Heliers. Formerly the Seventh Day Adventist hospital, the buildings have undergone extensive renovations and extensions to meet the high standard required. The complex now incorporates a two-level hospital wing in addition to self-contained studios and communal recreational areas.

A Pertronic F120 analogue addressable system, using 6 data loops and over 300 devices, was installed throughout the village. Loop relay boards were used to control the zonal evacuation requirements, in addition to supervising the sounders and strobes throughout the complex to operate independently of each other. LCD "mini mimics" have been used extensively at nurse call stations, to give staff full information (in plain English text) on any alarm events. The fire alarm panel is also interconnected to the nurse-call system via a high-level interface developed by Pertronic Industries' engineers.

Seasons Greetings !

Another busy year has passed very quickly, with the construction industry in an upswing throughout most of the country, and once again the festive season is almost upon us. From everyone at Pertronic Industries, thank you very much for your ongoing support during 2002. We have enjoyed working with the different sectors of the fire protection industry during the year and look forward to further developing these relationships in 2003. Please accept our warmest wishes for you and your families to have an enjoyable and safe Christmas and New Year.

Christmas - New Year Business Hours

Pertronic Industries will close for the Christmas break on Friday 20 December and reopen on Monday 13 January 2003, although some warehouse operations will resume with reduced staffing on Monday 6 January. A limited emergency supply service will be available between 20 December and 6 January, although fire alarm servicing companies are encouraged to order stocks of spare parts in advance, to give coverage over this holiday period.

The Importance Of Being Isolated

Zone isolators, or short-circuit isolators, are an important part of any analogue addressable installation, yet they are sometimes left out. The reasons for their omission vary - usually they have been overlooked, or the installation is an enhancement that does not need to strictly comply to NZS4512.

Leaving zone isolators out can seriously disrupt the performance of the fire alarm system and create expensive time delays in finding the fault/s. Zone isolators should be fitted to the data loop as it leaves one zone and enters the next. If a short circuit occurs anywhere on the loop, only that section of the loop between the two zone isolators is affected, and communications are lost only to the devices in that section, or zone. Communications are still intact with all other devices in the other zones on the system. Not fitting zone isolators means that a short circuit anywhere on the data loop will interfere with communications to all devices on that loop, and make it much harder - and longer - to identify in which section of the loop the short circuit has occurred.

Fitting zone isolators to analogue addressable systems is a requirement under NZS4512, to ensure that a short circuit in any one zone does not affect other zones. It is strongly recommended that zone isolators are also used in systems that do not need to comply with the Standard, for the reasons outlined above.

With Pertronic F100 and F120 analogue addressable systems, the loop relay and loop responder boards have built-in zone isolators. These boards can often be strategically placed on the data loop to eliminate the need for a separate isolator module at the exit point of a particular zone. Additionally, the loop driver boards in the fire alarm panels themselves contain short circuit isolators, so there is no need for an isolator module on the data loop at the end of the final zone on the loop's return to the panel.

The analogue addressable detector base, code no. B5241EFT, also contains a zone isolator in its base. The data loop can often be run to position a smoke, or heat, detector as the last device in a zone. This base is a very cost-effective way of adding in the zone isolator, costing much less than a separate isolator module.

Product Returns

We would like to again emphasise the need to properly care for unused product if it is being returned for a credit. We receive product returns that are poorly packaged and suffer transit damage, making a refund difficult. In particular, printed circuit boards (eg. loop relay and responder boards) need to be handled very carefully, as they can also be damaged by static electricity. These boards should ideally be kept in the anti-static bags they are supplied in, and then protected by additional packaging as necessary.

Pertronic Industries Takes NZ Technology To China

A prototype fire alarm panel developed by Pertronic Industries' engineers specifically for the Chinese market was promoted at the **China Fire** trade show in Beijing during October. **China Fire** is a huge event, with over 300 exhibitors from 14 countries occupying 14,000 square metres of exhibition space, and attracting more than 40,000 trade visitors over four days.

The Chinese fire alarm panel (shown right) is a development of the NZ F120 analogue addressable panel, with redesigned controls and software to meet Chinese Standard's requirements. The panel features a 9-line LCD screen capable of displaying Chinese characters and will support up to 8 data loops. The panel and its interactive laptop software received a warm reception, confirming that NZ technology is highly competitive in the global market.
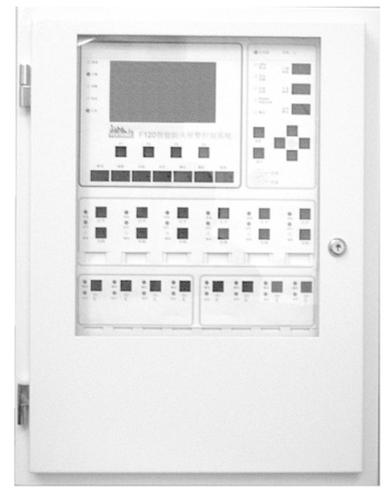
Which Detector Type Is Best?

This question is often raised by contractors, consultants, Fire Service personnel - in fact, from all sectors of the fire protection community. The following Detector Selection Guide for analogue addressable systems is extracted from a System Sensor (Europe) technical manual, and may provide some answers.

System Sensor Detector Selection Guide

Device	Application	Not suitable for:
Ionisation smoke detector (model # 1251)	Detection of smoke from fast flaming fires	Areas subject to smoke, steam, dust or dirt during normal use
Optical smoke detector (model # 2251)	Detection of smoke from slow smouldering fires	Areas subject to smoke, steam ,dust or dirt during normal use
Acclimate multi-criteria smoke and heat detector (model # 2251TM)	Detection of smoke and heat from all types of fire. Areas where the usage or occupancy level varies, i.e. the detection environment changes	Areas subject to smoke, steam, dust or dirt during normal use; areas subject to temperatures over $43^{o}C$
Laser smoke detector (model # 7251)	Ultra high sensitivity smoke detection - protection of valuable premises, processes or electronic equipment	Areas subject to smoke, steam, dust or dirt during normal use
Filtrex smoke detector (model # FTX-P1)	Smoke detection in harsh environments. Areas subject to dirt or dust in normal use	Areas subject to smoke during normal use
Beam smoke detector (model # 6200)	Large rooms or rooms with high ceilings	Areas subject to smoke, steam, dust or dirt during normal use
Rate-of-rise heat detector $58^{o}C$ (model # 5251REM)	Areas vulnerable to smoke, steam or dust in normal use	Areas subject to fast rates of rise in temperature
Fixed temperature $58^{o}C$ heat detector (model # 5251EM)	Areas vulnerable to smoke, steam, dust or fast rates of temperature rise in normal use	Areas subject to temperatures over $43^{o}C$
High temperature $80^{o}C$ heat detector (model # 5251HTEM)	Areas vulnerable to smoke, steam, dust or fast rates of temperature rise in normal use	Areas subject to temperatures over $70^{o}C$

New Series 300 Smoke Detectors a Hit at NZFPA Product Expo

System Sensor's new Series 300 smoke detectors received a very favourable response from consultants and contractors alike when the detectors were shown for the first time in New Zealand at the recent NZFPA Product Expo. The Product Expo was held in conjunction with the NZFPA's annual meeting and conference at the Ellerslie Convention Centre in Auckland. It provided an opportunity for all sectors of the fire protection industry to view new product developments and to talk directly with the manufacturers or distributors. Shown above - discussing the merits of the new detectors on the Pertronic stand at the Product Expo - are Philip Bush, Systems Sensor's Regional Manager for Australia and New Zealand (left), and Brent Pells, Pertronic Industries' Product Manager.

The new Series 300 detectors include a number of innovations for conventional detectors -

- The detectors incorporate "drift compensation" to maintain a consistent alarm sensitivity threshold between service intervals, reducing false alarms from over-sensitive detectors.
- A new detection chamber design further reduces the false alarm risk, and simplifies cleaning.
- A remote hand-held programmer is available to carry out a range of functions not previously available in conventional detectors. The functions include checking detectors' contamination levels, adjusting their sensitivity (high, normal or low), recording the last service date, or generating an alarm test with the detectors - valuable features when maintaining systems and at annual surveys.
- A hand-held laser test unit is also available to remotely trigger detectors into an alarm condition for test purposes - a simple idea that also saves time during commissioning and maintenance.

A brochure highlighting the full range of 300 detectors and their features is enclosed.