PERTRONIC INDUSTRIES LTD

FIREBITS

F100 Panel Used In Dunedin Courthouse Upgrade

The fire protection systems for Dunedin Courthouse were recently completely re-engineered, and a Pertronic F100A analogue addressable system was installed throughout as part of the redesign. A key feature of the installation was the use of System Sensor laser photoelectric detectors (Pinnacle) in the return air supply ducts for the holding cells. Pinnacle laser detectors are 100 times more sensitive than normal point detectors and see smoke at the very earliest stages of combustion - down as low as 0.02% per foot obscuration.

The Pertronic F100A panel has a unique feature called "Virtual Laser." The panel takes the actual address of the Pinnacle detector on the data loop, and then uses the next three addresses to create virtual addresses for the same detector, giving a total of four addresses for the one detector head. Four different output, or response, scenarios are then programmed off the one detector, depending on the level of smoke detected.

PERTRONIC   SYSTEM SENSOR®   VESDA   FIRETRONIX

Seasons Greetings !

Once again it seems like the year has gone by in a flash, as the buoyant construction industry and the changes to the fire alarm Standard has kept everyone very busy. From all of us at Pertronic Industries, thank you again for your ongoing support during the year. We continue to enjoy working with the different sectors of the fire protection industry and look forward to further developing these relationships in 2005. 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 Thursday 23rd December and reopen on Monday 10th January 2005, although some warehouse operations will resume with reduced staffing on Wednesday 5th January. A limited emergency supply service will also be available between 23rd December and 5th January, although fire alarm servicing companies are encouraged to order stocks of spare parts in advance.

Sound / Speech Options On Pertronic Amplifiers

As stated in September Firebits, we now produce three amplifiers - two 20 watt versions (12 volt or 24 volt) that generate the AS2220 Evac tone with speech message; and a 50 watt, 24 volt amplifier that generates the AS2220 Evac tone with speech, AS2220 Alert tone with speech, and four customised tones. In some cases, these amplifiers are being fitted into existing installations, or extensions, where the evacuation system already uses the AS2220 Evac tone but with no speech component. To correctly match in with the existing part of the installation, Pertronic amplifiers can be supplied with the speech component removed, if required, with a surcharge applied to the amplifier price for this modification.

Correction to Firebits September Article

In the article "NZS4512:2003 - More Questions Answered," on the section relating to flow switch interfaces, we stated that a 10k resistor should be installed in series with the flow switch to decrease resistance on the circuit (but not give a short circuit) when the flow switch closes. There was a typing error, and a 1k resistor, not a 10k resistor, should be used for this purpose (in the same manner as shown on the adjacent diagram for Protectowire). We continue to use 10k resistors for end-of-line monitoring. Our apologies for any confusion this typing error may have caused.

Cabinet and Mimic Sizes

An often asked question is, how many LED's can I fit on a mimic? The chart below provides a guide, as well as indicating the dimensions of fire alarm control panel cabinets:

Cabinet Type	Dimensions	LED's per row	No. of rows
F16 / F16E mini panel & mimic	410h x 450w x 130d	16	1
F16 / F16E large panel & mimic F100A standard panel & mimic	600h x 450w x 130d	32	1
F16 / F16E tall panel & mimic F100A tall panel & mimic F120 standard panel & mimic	900h x 450w x 130d	56	1
Slimline mimic cabinet only - small Slimline mimic cabinet only - large	426h x 450w x 48d 616h x 450w x 48d	16 32	2 2
Slimline mimic cabinet only - extra large	650h x 630w x 48d	Not specified (recommend 32)	As required
Double panel & mimic	900h x 800w x 130d	56	As required

Note that with F100A front service panels, the LCD display window restricts the area for text against the first four zonal LED's. The same applies for the first eight zonal LED's on the F120 front service panel.

Protectowire Linear Heat Detector

Now part of the System Sensor range of products, Protectowire linear heat detection cable has many applications, such as the protection of cable tunnels, cable trays, external structures and can be used in difficult environments.

Protectowire is a proprietary cable that detects heat conditions anywhere along its length. The sensor cable is comprised of two steel conductors individually insulated with a heat sensitive polymer. These insulated conductors are twisted together to impose a spring pressure between them, then wrapped with a protective tape and finished with an outer jacket suitable for the environment in which the detector will be installed.

Protectowire is a fixed temperature sensor and will initiate a alarm once its rated activation temperature is reached. At this temperature, the heat-sensitive polymer insulation yields to the pressure between the conductors, permitting contact between them and creating an alarm signal. A specific length of cable does not have to be heated to initiate an alarm. Different cables are available for alarm generation at $68^{o}C$, $88^{o}C$, $138^{o}C$ or $180^{o}C$.

Protectowire is a "normally open" contact device, so to comply with NZS4512:2003 (where an open or short circuit cannot generate an alarm) it needs to be installed with a 1k resistor in series to the input at the panel - as shown below - and in this manner it can be interfaced to a conventional fire alarm panel or to an analogue addressable panel via a loop responder input.

System Sensor offers a full range of approved fasteners and splicing devices to facilitate installation in both standard and special applications. These fasteners are designed to lightly clamp the detector cable, allowing tension to be applied progressively throughout the cable length, preventing damage to the inner insulation and avoiding false alarms.

Being a specialised detection product, Protectowire is made available on an indent basis. For more detailed information, visit www.systemsensor.com or go through the link in our website at www.pertronic.co.nz.

Typical PROTECTOWIRE Installation:
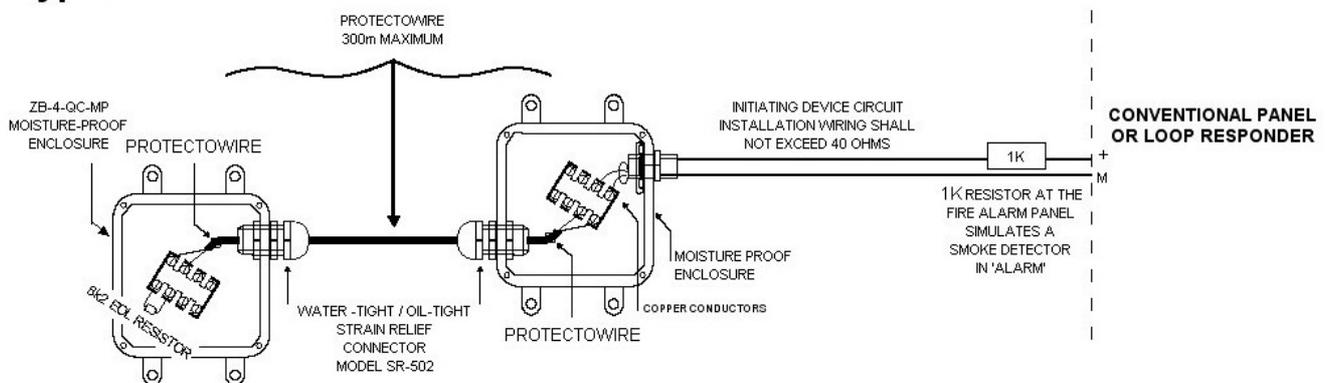
Care Required When Returning Product

It is very important that product being returned to our Wellington office - for whatever reason - is adequately packaged and protected for safe transportation. We often receive components back which may have developed a fault and require testing, but they cannot be accurately tested owing to the transit damage they have suffered. Or unused product is occasionally returned with our approval - but by the time the product reaches us it is damaged, cannot be resold and cannot then be credited to the customer's account.

Printed circuit boards (pcb's) and semiconductors need to placed individually inside anti-static bags and then inside other suitable protective packaging (eg bubble wrap), as damage from static electricity during transportation is as much of a problem as physical damage is.

And while on the subject of anti-static protection, a reminder of the importance of using anti-static straps when working with the pcb's inside fire alarm panels to prevent damage during installation.

Pertronic Fire Alarm Panels In Australia

Having been established in Australia for five years, Pertronic panels are now installed in many prestigious buildings and complexes, such as **Denham Court** (left), Australian headquarters of Jehovah's Witnesses. The complex sprawls over 20 acres in Sydney's southwest and is protected by a F120 analogue addressable panel, supporting over 1300 smoke detectors across 18 data loops.

The **Novote**l complex, at Sydney's Homebush Park, was completed just in time for the 2000 Olympic Games. The two combined hotels are protected by a F100A analogue addressable panel.

Wellington Office - Staff Directory

Product / service	Contact	Extension
Technical Support – all products	Brent Pells	806
	Geoff Tustin	807
If Brent or Geoff unavailable…		
All Products	Stuart McKenzie	818
F120 / F40 panels and accessories	Jeremy Evans	805
F100A panel and accessories	Simon Eatough	808
F16 / F4 / F1 panels	Bruce McNabb	804
	Albert Van Veen	809
Networking	Bruce McNabb	804
SGD's / DBA's	David Percy	801
Power Supplies	Shane Rempala	820
Amplifiers/sounders	Shane Rempala	820
Orders, deliveries, returns	Toni Edmondson	819
	Bruce Simpson	802
Panel assembly	Phil Jewel	803
Administration/accounts	Teresa Hargreaves	816
Managing Director	David Percy	801
Order office free fax	0800 737876	
Order office email	sales@pertronic.co.nz	