

PERTRONIC INDUSTRIES LTD

FIREBITS

September 2010

Pertronic F100 System In Northland Events Centre



The development of new stadiums for Rugby World Cup 2011 is not limited to the major city centres. Whangarei's Okara Park, the home of Northland rugby, has been transformed with the development of the Northland Events Centre (NEC). Designed and developed as a multi-functional centre for corporate, private and sports-related events, the NEC has been short listed in the Sports Buildings section at the World Architectural Festival in Spain later this year, alongside stadiums from Sweden, Spain, South Africa, Ireland, Mexico and the USA .

The NEC is protected by a Pertronic F100 analogue addressable fire alarm system. Acclimate multi-criteria smoke detectors are installed in stairwells and throughout the hospitality rooms, with analogue heat detectors also used in other areas to complement the sprinkler system. An Isolate Timer Module (ITM) is installed to isolate the smoke detectors (and not heat detectors or manual call points) in the hospitality rooms during functions to prevent nuisance alarms. The isolation period is programmed for preset times up to a maximum of eight hours, and overcomes the risk of a manually operated isolate switch not being de-isolated at the end of a function. When the ITM times out it automatically sends a reset command to all isolated detectors in case they have gone into alarm from transient smoke while isolated.



VESDA



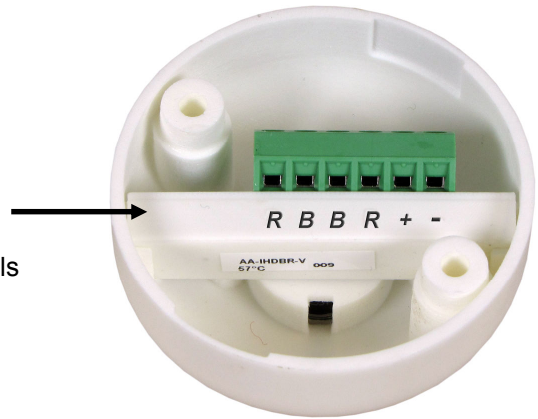
New Range Of Pertronic Heat Detectors Released

Pertronic conventional heat detectors have been completely redesigned - both indicating and non-indicating models. Key changes to the new heat detector range include:

- A rounder, more stylish shape to the body.
- The Fire LED protrudes slightly from the detector's body for improved visibility.
- The horizontally mounted circuit board in existing models is replaced with a vertically mounted circuit board and protective cover to improve the detector's moisture resistance (note, however, this is not designed to replace the use of encapsulated detectors in wet areas). For ease of identification, indicating models have a white protective cover, while non-indicating models have an orange cover.
- A recessed 'test' LED is fitted to all models - both indicating and non-indicating. When the detection circuit polarity is reversed in the fire control panel, the amber 'test' LED operates on all detectors connected to that circuit - a very useful fault finding and commissioning tool.



White cover for indicating models (remote indicating model shown)
Orange cover for non-indicating models



The new detectors have been tested and approved by Opus Laboratories for compliance to NZS4512 and updated data sheets are available from the Pertronic web site. Stock is available from the first week of October and supplies of existing detector models will be phased out as stocks are exhausted. Contractors installing existing models into current projects are asked to place orders for those projects as soon as possible to secure stocks of matching detector styles. The new "V" series detectors are available at the same price as the existing models and can be ordered on the following codes:

Description	Old code	New code
Indicating Heat Detectors (NZS4512:2003)		
Indicating Heat Detector, Blue 57C	IHDB-3	IHDB-V
Encapsulated Indicating Heat Detector, Blue, 57C	IHDBE-3	IHDBE-V
Indicating Heat Detector with Remote Output, Blue	IHDBR-3	IHDBR-V
Encapsulated Indicating Heat with Remote Output, Blue	N/A	IHDYRE-V
Indicating Heat Detector, Yellow, 77C	IHDY-3	IHDY-V
Encapsulated Indicating Heat Detector, Yellow, 77C	IHDYE-3	IHDYE-V
Indicating Heat Detector with Remote Output, Yellow	IHDYR-3	IHDYR-V
Encapsulated Ind. Heat with Remote Output, Yellow	N/A	IHDYRE-V
Encapsulated Ind. Heat Detector Kit, Black, 125C	IHDBKEK-3	IHDBLKEK-V
Non-Indicating Heat Detectors (NZS4512:1997)		
Heat Detector, Blue, 57C	HDB	HDB-V
Encapsulated Heat Detector, Blue, 57C	HDENCAPBLUE	HDBE-V
Heat Detector, Yellow, 77C	HDY	HDY-V
Encapsulated Heat Detector, Yellow, 77C	HDENCAPY	HDYE-V
Encapsulated heat Detector, Black, 125C	HDZENCAPBLK	HDBLK-V

For more information, please contact Pertronic Industries' Wellington or Auckland offices.

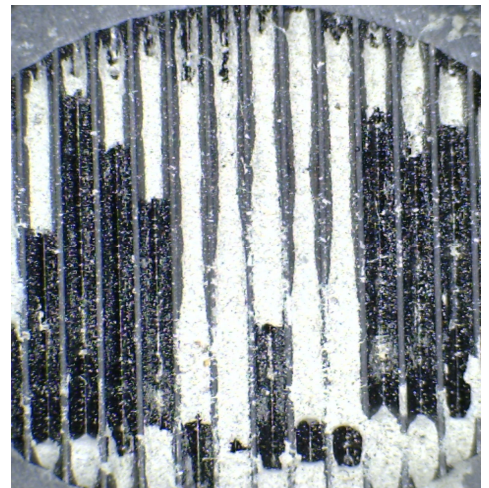
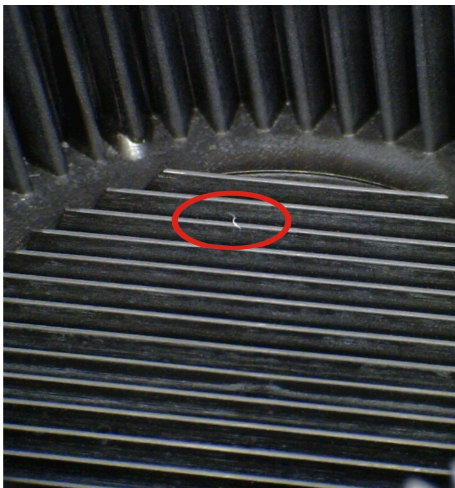
Pertronic Head Office Not Immune From False Alarms

Pertronic Industries Lower Hutt head office experienced a false alarm from a smoke detector at 3am one July morning. When the fire alarm operated – and called out the Fire Service – the building was completely empty (how often are we told this story by fire alarm companies?). The detector involved was in a carpeted office in part of the new factory extension (clue here – new carpet equals lots of loose fibres). The alarm occurred approximately one hour after the cleaners had vacuumed the office. When the detector was examined later that day under a digital microscope, a carpet fibre was found inside the chamber (lower left photo). These fibres can act like a ‘light tube,’ amplifying the LED light inside the detection chamber of a photoelectric detector. But we were puzzled as to how carpet fibres can get into ceiling mounted detectors.

It was identified that the cleaners, in common with cleaners the world over, use backpack-style vacuums, and this particular model has the exhaust venting upwards. Depending on the condition of the vacuum filter, a diverse range of fibres and other items get distributed under pressure towards the roof area where the smoke detectors are mounted. It is interesting that an hour passed from when the cleaners were creating disturbed (and contaminated) air movement to when the fibre in the detection chamber triggered an alarm .

False alarms tend to be more frequent in newer installations where there are higher levels of loose fibres and other by-products of new construction work still present in the building. It is our expectation that vertically venting vacuum cleaners may be responsible for a significant proportion of otherwise unexplained false alarms in these premises. Needless to say, our cleaner’s vacuum exhaust has now been fitted with a deflector to prevent air from being blown upwards.

We often have smoke detectors returned which are said to have gone into alarm for “no apparent reason.” There is always a reason, and we find that some degree of detection chamber contamination is the most common reason. Sometimes the contamination may be difficult to see with a human eye (as with the carpet fibre), and microscopic examination may be required to identify the contaminant. In other cases, the contamination is more readily apparent, as with the other two photos below. In the photo to the right there was a huge build up of plaster dust (we suspect from the construction stage), while the ant in the middle photo was very much alive and active at the time the photo was taken. A small bug like this moving around inside the detection chamber will almost always trigger an alarm. Or the bug may have exited the chamber but left some residue behind (eg. eggs or cobwebs) and this residue is equally as likely to trigger an alarm.



FIRE-NZ Conference 3 & 4 November

This years FPA Conference and product expo will be held on 3 & 4 November in Christchurch’s Convention Centre and is an important annual event for our industry - an event made all the more important with the recent earthquake damage to the Canterbury region. Pertronic Industries will have its full product range represented, including some new and innovative technical developments. We look forward to seeing you at FIRE-NZ 2010 in Christchurch. Details are available from www.fireprotection.org.nz

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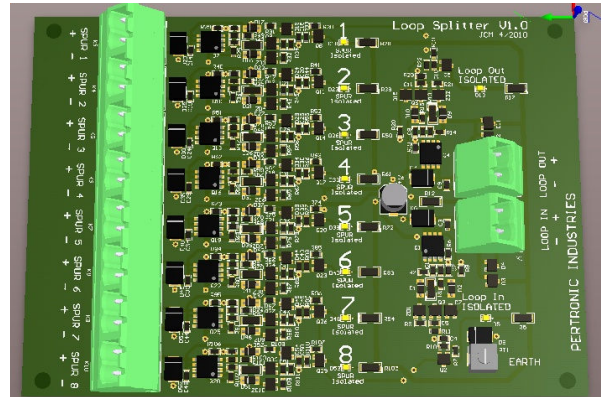
AUCKLAND OFFICE:

359 Onehunga Mall, Onehunga. PO Box 15-867, New Lynn, 0640. Phone (09) 633 0226, Fax (09) 633 0228

Converting Conventional Circuits To Analogue Simplified

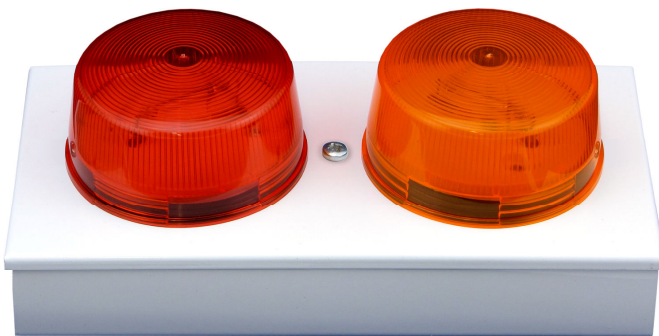
An increasing number of building upgrades involve replacing conventional detectors with analogue addressable devices, but still using the existing conventional circuit cabling. As these circuits all terminate back at the panel location, each circuit can be treated as an analogue 'spur' in the new installation off the main data loop. However, to ensure compliance with NZS4512, each spur must only cover one zone and must be separately short circuit isolated on the data loop.

To simplify this conversion process Pertronic have developed an 8 Spur AA Isolator Board. This board allows the connection of eight spurs of analogue detectors and modules onto an analogue addressable system. The board can be fitted inside the new panel or further out in the installation on the data loop. Each spur termination has short circuit isolation from other spurs and from the rest of the data loop. Any spur with a short circuit present is identified by an amber LED indicator on the board, and no termination is needed for unused inputs. Product code is 8SAAIB.



Dual Alert-Evac Strobe Developed

Pertronic have developed a Dual Alert-Evac Strobe to provide visual indication for evacuation systems where separate Evacuation or Alert visual warnings are required. The Dual Alert-Evac Strobe supports a 2, 3 or 4 wire connection to operate the amber or red strobe. In a 2-wire connection the selection of the coloured strobe is determined by the polarity of the DC voltage applied to the terminals. In a 3-wire connection (factory default setting), strobe selection is determined by voltage being applied to either the Evac or Alert terminal. In a 4-wire connection, two separate 2-wire sounder circuits are used for independent strobe control. The low profile two-part case enables the case to be easily mounted to walls or ceilings, and then accessed by the removal of one screw. Four knockouts are conveniently placed for ducted cabling.



Specifications:

Operating Voltage:	20Vdc to 30Vdc
Quiescent current:	0.2µA (at 24V)
Operating current:	50mA (at 24V)
Flash Rate:	1.1Hz (at 24V)
190 x 100 x 65	H x W x D mm
Product code:	DUALSTROBE

Contact Pertronic Industries' Wellington or Auckland offices for more information .

Pertronic Auckland Office Moves To New Premises

In August Pertronic Industries' Auckland office relocated from Avondale to new premises, which have an expanded training facility, at 359 Onehunga Mall, Onehunga. The new phone number is (09) 6330226 and new fax is (09) 6330228. The postal address remains the same - PO Box 15-867, New Lynn, Auckland 0640.

