



# Loop Responder

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ISO 9001: 2000

International Standards  
Certifications  
QAC/R61/0051

## Product Overview:

The **Loop Responder** extends the **Pertronic** Analogue Addressable Automatic Fire Alarm system by providing an interface to conventional detector circuits.

It is used primarily in Conventional Circuit 'Smoke' mode to interface zones of conventional detectors into Pertronic analogue addressable fire alarm systems, but may alternatively be used in 'Switch' mode to monitor interference switches of sprinkler valves, reading the fault and alarm status from VESDA systems, or receiving commands from a SCADA system.

## Features:

- Controls eight 2-wire detector circuits.
  - May be configured to operate in conventional circuit 'Smoke' mode or 'Switch' mode.
  - Each 'Smoke' mode circuit may contain up to 40 System Sensor™ conventional detectors plus an unlimited number of **Pertronic** indicating Manual Call-Points and indicating Heat detectors.
  - Provides one non-monitored change-over (NC-C-NO) relay.
  - Using multiple **Loop Responders**, up to 64 conventional circuits may be installed on a single analogue loop.
  - Firmware is available to support both NZS4512:2003 and NZS4512:1997
    - NZS4512:2003 Conventional devices on a NZS4512:2003 Analogue Addressable panel
    - NZS4512:1997 Conventional devices on a NZS4512:2003 Analogue Addressable panel
    - NZS4512:1997 Conventional devices on a NZS4512:1997 Analogue Addressable panel
- Note: an open or short-circuit on a NZS4512:2003 Loop Responder produces a Defect, not an Alarm

## Connection and Loop Isolation:

- Connects into the standard 2-wire addressable loop wiring.
- Loop protection is provided by an isolation relay in the responder.
- The loop can maintain normal operation with a single loop break, or with a single short circuit.

## Configuration Facilities:

- The analogue addressable panel, **F100A** or **F120A** provides diagnostic and configuration facilities at the panel using an LCD display and keypad.



## Specifications:

### Dimensions:

<b>PCB:</b>	H x W mm	96 x 165
<b>Cabinet:</b>	H x W x D mm	254 x 310 x 70
	Weight	2.2kg

<b>Material:</b>	1.2mm mild steel, powder coated off-white (other colours optional).
<b>Power Supply:</b>	Quiescent: 24Vdc, 20mA - with no detectors
	add 1mA for each group of 10 detectors (10mA for 100 detectors).
	- may be supplied from the analogue loop (350mA maximum) or from a separate isolated power supply

### Circuits per Responder:

**Relay:** 8 conventional circuits per responder

one non-monitored change-over contact rated at 30Vdc@2A

**Maximum Loading:** 40 smoke detectors per circuit

- plus unlimited indicating Call-Points and indicating Heat detectors

**Number of Loop Responders:** 8 maximum for a total of 64 Conventional circuits

**Addressing:** Each Loop Responder uses 9 address spaces

- the first 8 addresses are allocated to circuits 1 to 8 respectively, the ninth (9<sup>th</sup>) address space is to address the output relay
- the address switches select the base or start address for the Loop Responder, and correspond to the address for Circuit 1

