

Addressable Modules

F100LRU Loop Relay Board

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The **Loop Relay** responder extends the **Pertronic** F100A and F120A Analogue Addressable Automatic Fire Alarm systems by providing individually addressable and controllable relay outputs to be operated over an analogue loop. A typical use would be to supply outputs to mechanical services for any combination of events on the fire alarm system

Features:

- 🔗 Controls 4 relays, which may be individually selected as monitored or non-monitored
- 🔗 The power source for the relay board may be supplied from the analogue addressable loop, with current limitations, or from an isolated external power supply unit. An on-board switch is used to make the selection
- 🔗 External power supply presence monitoring (reported through 4th relay address)
- 🔗 External fault input to monitor eg: power supply fault
- 🔗 Up to 96 relays (24 x **Relay Responders**) may be connected to each analogue addressable loop, subject to power requirements and pulsing option
- 🔗 Connects to the standard 2-wire analogue addressable loop wiring
- 🔗 Loop protection is provided by an integral short circuit isolator, maintaining normal operation with a single loop break or short circuit
- 🔗 Direct dial decade address switches
- 🔗 Cabinet available to house one or two Loop Responders or Loop Relay boards



Specifications:

Dimensions:

- 🔗 **PCB:** H x W x D mm 96 x 165 x 23
- 🔗 **Cabinet:** H x W x D mm 254 x 310 x 70
- 🔗 **Power Supply:** Quiescent: 24Vdc, 6mA

- 🔗 The power supply for the **Relay Responder** may be sourced from either the analogue loop or an external, isolated power supply by inserting a 6-position link into the **LOOP** or **EXTERNAL POWER (J1)** connector
- 🔗 All relays on a particular board are powered from the selected source
- 🔗 The external power supply can vary within the range 5Vdc to 30Vdc
- 🔗 The presence of the external supply is monitored

- The maximum loop current available from the panel for each loop, to supply relays and other loop powered devices, is 350mA

Loop Powered: - any individual relay can supply 100mA maximum

Externally Powered: - any individual relay can supply 1A maximum

- Relay Outputs:** 4 relays, each has:

- a clean N/O or N/C (selectable) unmonitored contact, rated 2A @ 24Vdc
- a single N/O monitored contact to drive eg: warning system sounders

Pulsing Relays: A link (LK5) selects whether all the relays on that board may be pulsing (LK5 fitted) or non-pulsing

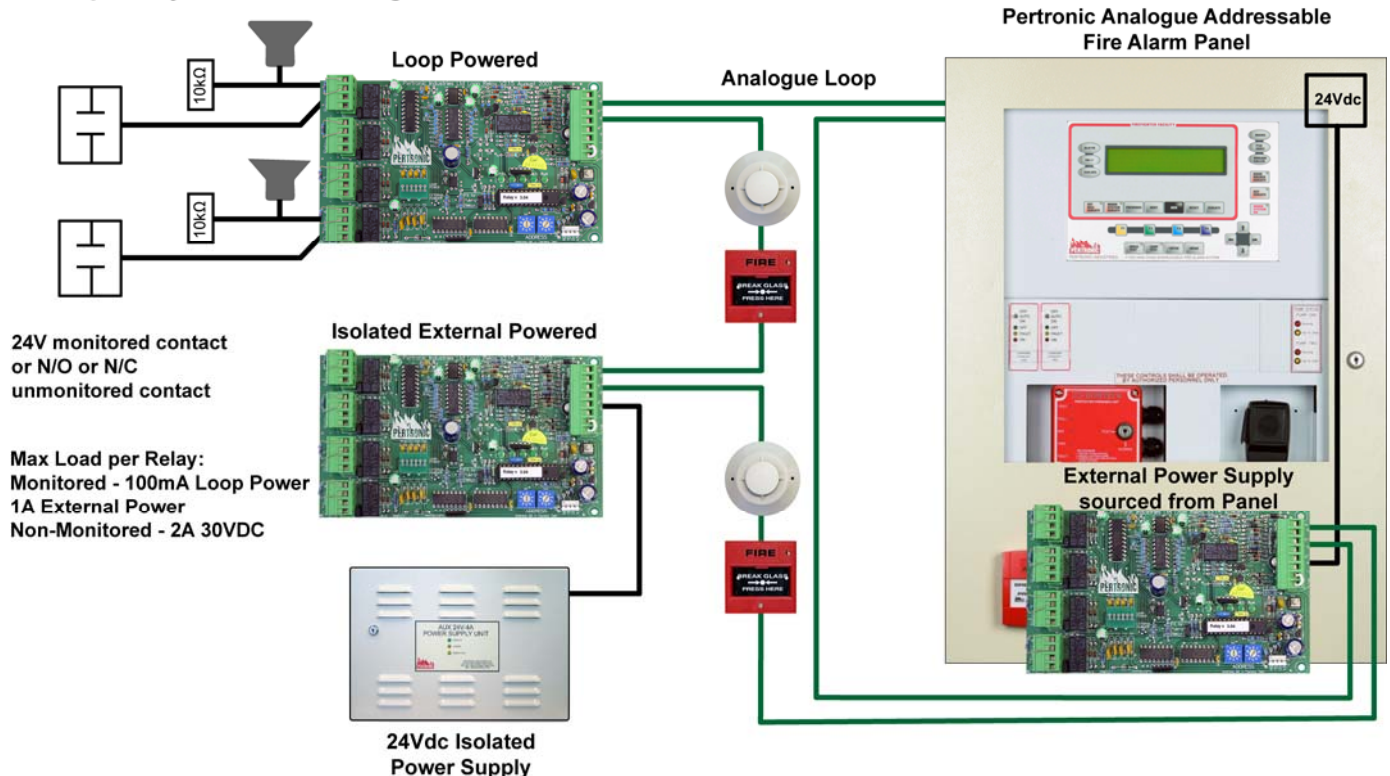
Addressing: Each Relay Responder uses 4 or 8 address spaces

- If LK5 is fitted for pulsing, 8 address spaces are used, a pair for each relay, otherwise only 4 are used
- With LK5 fitted, the 1st, 3rd, 5th and 7th addresses activate relays 1 to 4 respectively in pulsing mode (3.5s on, 12.5s off), whilst the 2nd, 4th, 6th and 8th addresses activate relays 1 to 4 in steady mode
- The address switches select the base or start address for the **Relay Responder**, and correspond to the address for Relay 1

Short Circuit Isolator: isolates the affected section of the analogue loop in the event of a short circuit

External Fault: an input is provided for external fault detection. This input should be normally-closed (N/C), via a clean relay or switch contact, and opens for a fault condition. The fault is reported to the panel via the 4th relay address

Loop Relay Connection Diagram:



Ordering Information:

Description

Loop Relay board : 4 Relays

F100A Loop Responder Case – houses two Loop Responder or Loop Relay boards

Part Number

F100LRU

F100LRC

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