NFD LTX Decoder

The **Pertronic NFD Decoder** decodes information from an LTX16 LIP (Local Indication Port) or LTX8 LIP adapter for local indication of Fire and Defect states of connected SGDs.

The indication is 'global' only – that is, any SGD reporting an alarm will activate the NFD **Decoder** fire relay and fire LED; and any SGD reporting a fault (or disconnected SGD) will de-energise the defect relay and illuminate the defect LED.

On power-up, SGDs connected and communicating with the LTX16 or LTX8 are considered to be 'online' or present by the **Decoder**, and any subsequent alarms or faults from these SGDs will be indicated by the **Decoder**. SGDs not communicating with the LTX16 or LTX8 on power-up are assumed to be 'off line' or permanently disconnected, these channels being subsequently ignored by the **Decoder**. A defect condition is not indicated by the **Decoder** at power-up when SGDs are disconnected. If an SGD is subsequently added to the LTX, the Decoder must be re-powered in order to accept the new SGD.

The defect relay is energised when no faults are present, and released in the event of a fault (or an SGD test/defect). The defect LED is flashed in the event of a fault condition.

The fire relay is energised when an alarm (or an SGD test/alarm) is present on any on-line SGD. The fire LED is flashed in the event of an alarm condition.

The fire and defect LEDs are illuminated continuously (instead of flashing) when the corresponding event has occurred if link **Function 1** is inserted on the **Decoder** PCB.

If communication with the LTX16 or LTX8 is lost for more than 10 seconds, the defect relay is released and the defect LED is illuminated.

The Decoder is powered from a local supply and at the indicated voltage (12 or 24V dc)

Decoder State Table:

|	Defect Relay	Fire Relay	Defect LED*	Fire LED*	Poll LED
All SGDs normal, or off-line at startup	energised	de-energised	OFF	OFF	Flashes as data received
Any SGD in fire (or test fire)		Energised		ON	" "
Any SGD in defect (or test defect), or the LTX has lost communication with the SGD	de-energised		ON		" "
Communication between the **Decoder** and the LTX LIP port lost	de-energised after 10 seconds		ON after 10 seconds		Stops flashing

* the LEDs flash unless link **Function 1** is inserted for steady illumination

Connection Diagram:
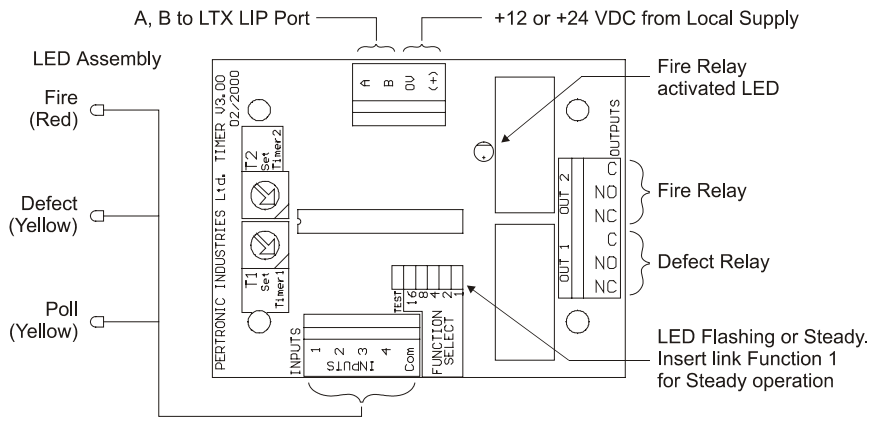
Ordering Codes:

Part Number	Description
NFD2-12	PCB only, 12V operation
NFD2-24	PCB only, 24V operation