



# PL1 LED Alarm (AS2220)

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ISO 9001: 2000

International Standards  
Certifications  
QAC/R61/0051

## Product Overview:

The Pertronic PL1 LED Alarm complements the PS range of Sounders by providing a visible alarm:

- Flashes at a rate corresponding to the Evacuation and Alert tones specified by AS2220.
- The light output is generated from a matrix of 6 red LED emitters in one housing.
- Is normally connected to the monitored Bell or Sounder output of a Fire Alarm panel and is activated when the output circuit voltage polarity is reversed to the Alarm state.
- May be mounted in standard single-gang flush or surface-mount electrical fittings and is supplied with a protective plastic cover for installation during building construction.

## Features:

- Light output of 30 mcd maximum, 120° viewing angle
- Available in two colours : Red or White

## Specifications:

**Dimensions:** 117 x 74 x 21mm (HxWxD) - LED Dome height above flush box  
Designed to fit into a standard, single flush or surface-mount box.

**Light Level Output:** 30mcd maximum, 120° viewing angle  
Alert, Evacuation 24 Volt: High Volume - 98dBA ± 3dBA at 1 metre

## Power Requirements:

<b>Operating Voltage</b>	9.5 to 30Vdc
<b>Quiescent Current: Non-Alarm</b>	0.2µA @ 12Vdc 0.4µA @ 24Vdc
<b>Operating Current: Alarm State</b>	7.5mA average, 12mA peak @ 12Vdc 18mA average, 22mA peak @ 24Vdc

**Controls:** Third wire for Alert mode - connected to 0V for Alert operation.

## Operation:

When the panel Bell circuit is inactive (OFF), the status of the Bell circuit is monitored by applying a negative voltage to the PL1 '+' terminal and a positive voltage to the PL1 '-' terminal and reading the current for presence of the 10kΩ EOL resistor.

When the panel Bell circuit is active (ON), the Bell circuit voltage reverses applying a positive voltage to the PL1 '+' terminal and a negative voltage to the PL1 '-' terminal, triggering the PL1 to operate.

The Evacuation mode will be generated if the Alert terminal is open and the LED flash rate will correspond to the Evacuation tone pulse rate.

The Alert mode is generated by connecting the Alert terminal of the PL1 to 0V (negative) and the LED flash rate will correspond to the Alert tone pulse rate at approximately 0.8Hz.

## PL1 Operation

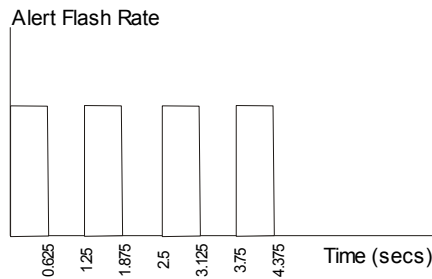
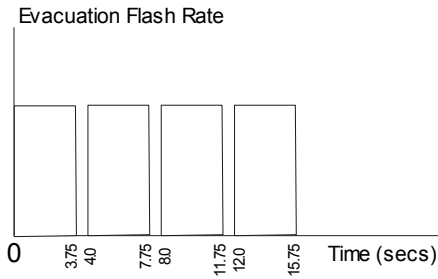
Panel Bell Circuit	Alert Terminal	Tone/LED Generated
Inactive (Monitor Mode)	Don't care	None
Active	Open	Evacuate
Active	0V	Alert

## Product Codes:

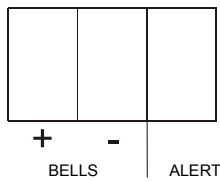
Description	Code
Pertronic Lamp Flasher PL1, Red	PL1-R
Pertronic Lamp Flasher PL1, White	PL1-W



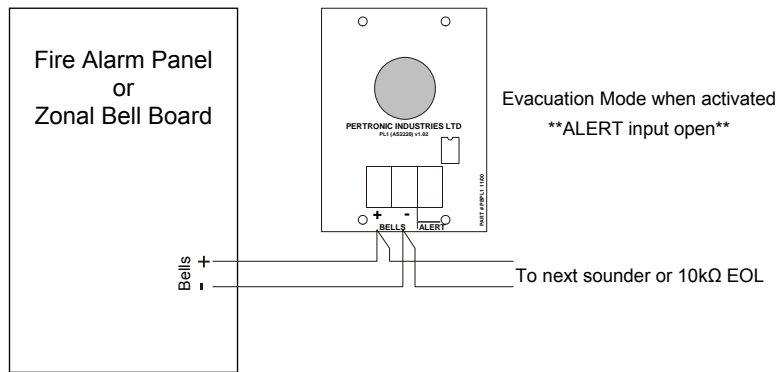
**Flash Rates (AS2220):**



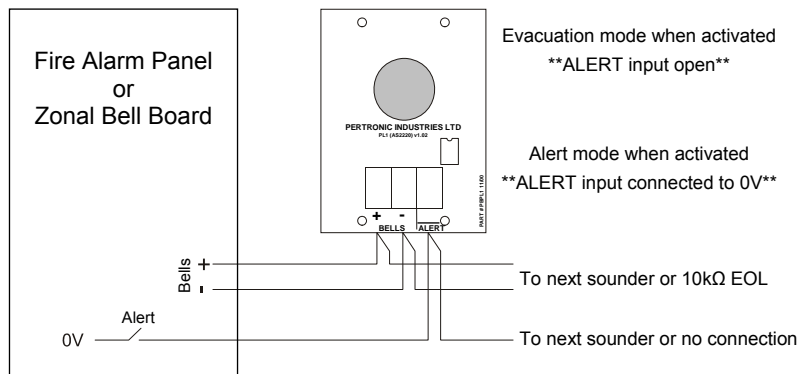
**Terminal Layout:**



**Connection Diagrams:**



**Evacuation Only**



**Evacuation or Alert**

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