PERTRONIC INDUSTRIES LTD

DATASHEET

PL1 LED Alarm (AS2220)

Overview

The PL1 LED Alarm complements the PS range of sounders manufactured by Pertronic by providing a visual alarm. The PL1 flashes at a rate corresponding to the Evacuation and Alert tones specified by AS 2220.

Features

» Light output of 30 mcd maximum, 120° viewing angle
» Light output is generated from a matrix of 6 red LED emitters in one housing
» May be mounted in standard single-gang flush or surface-mount electrical fittings
» Supplied with a protective plastic cover for installation during building construction

Pertronic PL1 LED Alarm

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 10 kΩ 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 0 V (negative) and the LED flash rate will correspond to the alert tone pulse rate at approximately 0.8 Hz
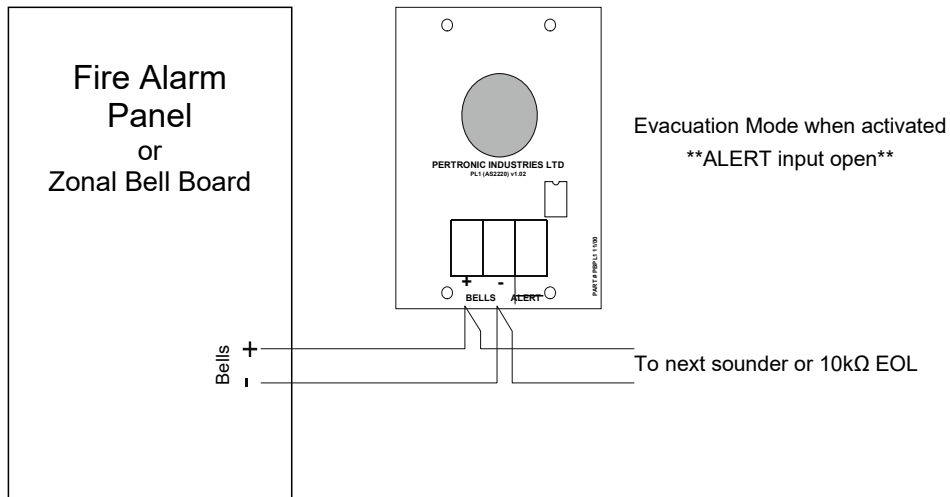
PL1 Operation

Panel Bell Circuit	Alert Terminal	Tone/LED
Inactive (Monitor Mode)	N/A	None
Active	Open	Evacuate
Active	0 V	Alert

Specification

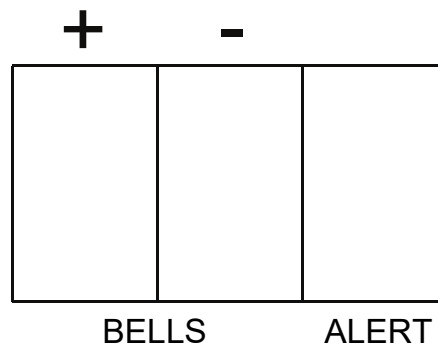| Operating Voltage		9.5 to 30 Vdc
Current	Quiescent	0.2 µA @ 12 Vdc 0.4 µA @ 24 Vdc
	Alarm State	7.5 mA average, 12 mA peak @ 12 Vdc 18 mA average, 22 mA peak @ 24 Vdc
Dimensions (H x W x D mm)		117 x 74 x 12 (D - LED dome height above flush box) Designed to fit into a standard, single flush or surface-mount box.
Light Level Output		30 mcd maximum, 120° viewing angle
Controls		Third wire for Alert mode - connected to 0 V for Alert operation.

Connection Diagrams

Evacuation Mode when activated
ALERT input open

To next sounder or 10kΩ EOL

Evacuation Only

Evacuation mode when activated
ALERT input open

Alert mode when activated
ALERT input connected to 0V

To next sounder or 10kΩ EOL

To next sounder or no connection
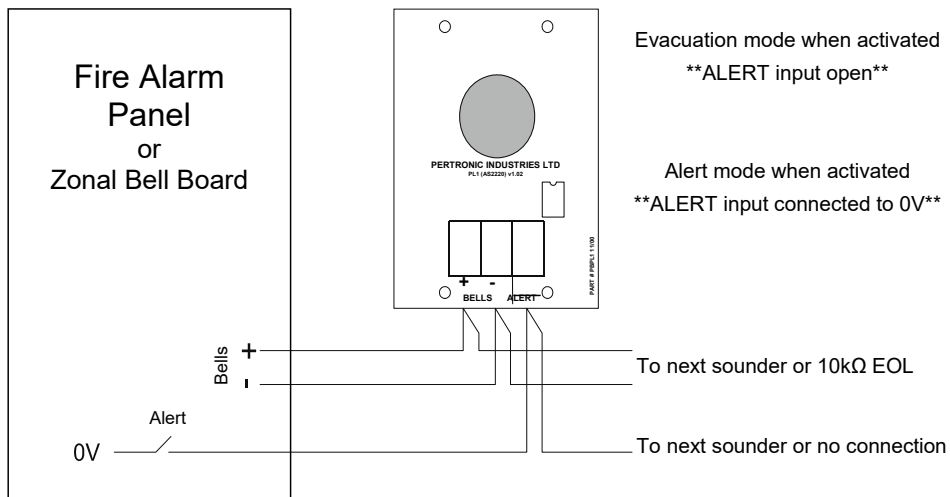
Evacuation or Alert

Terminal Layout

BELLS   ALERT

Ordering Information & Notes

Product Code	Description
PL1-W	Pertronic Lamp LED Unit with White Cover

The information in this document must not be treated as partial or complete instructions for the design, construction, installation, commissioning, or maintenance of fire detection, fire alarm, or building evacuation systems. Fire and evacuation systems must be designed and installed by properly qualified persons, in accordance with all regulatory requirements.

Unless explicitly stated otherwise, this document provides typical specifications and nominal dimensions. Actual product performance and dimensions may vary.

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