



PLS Sounder/LED Alarm (AS2220 Sounder)

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ISO 9001: 2008

International Standards
Certifications
QAC/R64/0012

Product Overview:

The **Pertronic PLS Sounder/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 AS2220.1-1989.
- ▶ The audible output has a maximum sound level of 98dBA - the sound level may be adjusted by a volume control
- ▶ The light output is generated from a matrix of 6 red LED emitters in one housing
- ▶ If desired, the sounder and LED can be wired separately for applications where the Sounder or LED may be required to work independently of each other
- ▶ 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:

- ▶ Maximum sound level of 98dBA
- ▶ Light output of 30mcd maximum, 120° viewing angle
- ▶ Available in two colours : Red or White

Specifications:

Dimensions:

117 x 74 x 12mm (H x W x D - LED Dome height above flush box)
Designed to fit into a standard, single flush or surface-mount box.

Sound Level Output:

Sound pressure level at 1m (peak \pm 3dBA)
Alert, Evacuation: 95dBA @ 12Vdc 98dBA @ 24Vdc

Light Level Output:

30mcd maximum, 120° viewing angle

Power Requirements:

Operating Voltage

9.5 to 30Vdc

Quiescent Current: Non-Alarm

0.2 μ A @ 12Vdc

0.4 μ A @ 24Vdc

Operating Current: Alarm State

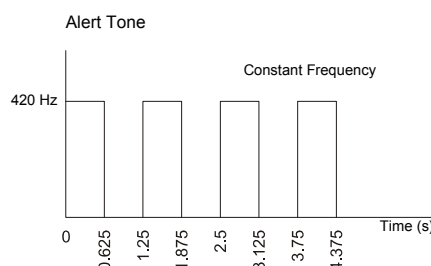
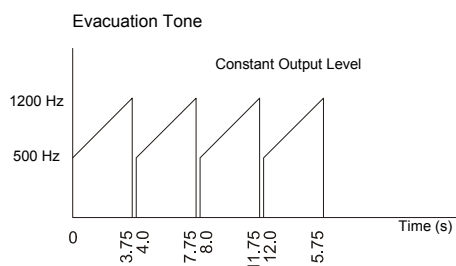
12mA average, 20mA peak @ 12Vdc

24mA average, 30mA peak @ 24Vdc

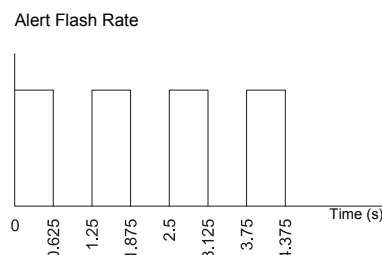
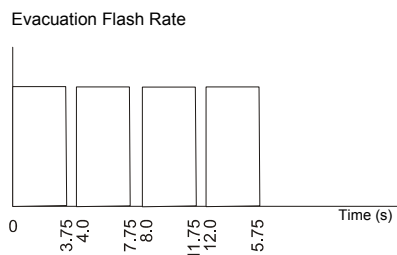
Controls:

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

AS2220 Tone Characteristics:



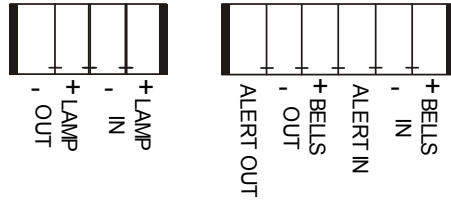
AS2220 Flash Rates:



Product Codes:

NZS Code	Description	NZFPA Listing No
PLS-R	Lamp Sounder, AS2220, Flush Mount, Red Frontplate	
PLS-W	Lamp Sounder, AS2220, Flush Mount, White Frontplate	

Terminal Layout:



Standard (Visual and Audible) Operation:

The PLS is usually connected to the panel Bells circuit with the Lamp inputs disconnected. In this mode both Sounder and Lamp activate in the event of bell reversal.

When the panel Bell circuit is inactive (OFF), the status of the Bell circuit is monitored by applying a negative voltage to the PLS BELL '+' terminal and a positive voltage to the PLS BELL '-' terminal and reading the current for presence of the 10kΩ EOL resistor. The quiescent current drawn by the **PLS** under this condition is less than 0.4μA.

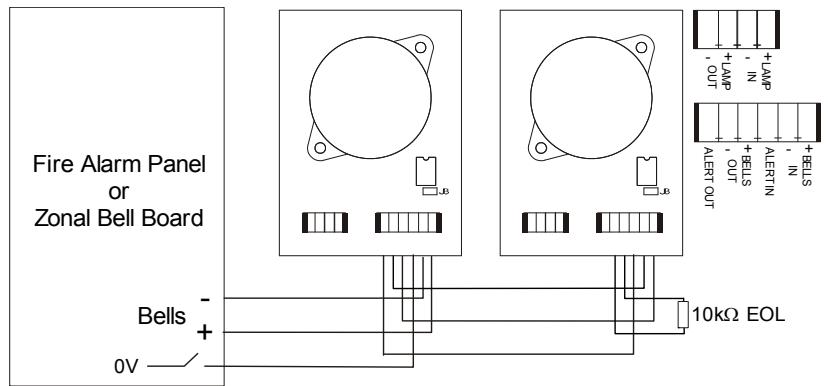
When the panel Bell circuit is active (ON), the Bell circuit voltage reverses applying a positive voltage to the PLS BELL '+' terminal and a negative voltage to the PLS BELL '-' terminal, triggering the PLS to operate.

The Evacuation mode is generated if the Alert terminal is open.

- the LED flashes at approximately 0.5Hz.
- The Alert mode is generated by connecting the Alert terminal of the PLS to 0V (negative).
- the LED flash rate corresponds to the Alert tone pulse rate at approximately 0.8Hz.

PLS Standard (Visual and Audible) Operation

Bell Input	Alert Terminal	Sound Generated	Flash Generated
Monitor Mode	Optional	None	None
Active	Open	Evacuate	Flash
Active	0V	Alert	Flash



Lamp Only (Visual) Operation:

The PSL Lamp can be operated separately by connecting the Panel Bells to the Lamp Input. Bell terminals '+' and '-' are connected to the corresponding Lamp '+' and '-' terminals.

When the panel Bell circuit is inactive (OFF), the status of the Bell circuit is monitored by applying a negative voltage to the PLS LAMP '+' terminal and a positive voltage to the PLS LAMP '-' terminal and reading the current for presence of the 10kΩ EOL resistor. The quiescent current drawn by the **PLS** under this condition is less than 0.4μA.

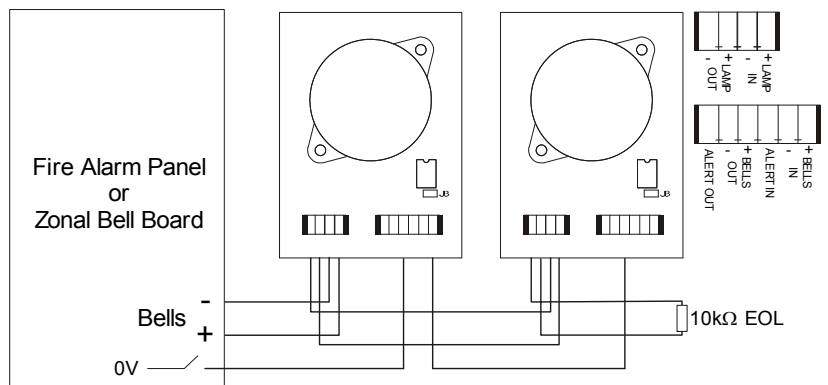
When the panel Bell circuit is active (ON), the panel Bell circuit voltage reverses applying a positive voltage to the PLS LAMP '+' terminal and a negative voltage to the PLS LAMP '-' terminal, triggering the PLS LAMP to flash at approximately 0.5Hz.

The Evacuation mode is generated if the Alert terminal is open

- the LED flashes at approximately 0.5Hz.
- The Alert mode is generated by connecting the Alert terminal of the PLS to 0V (negative).
- the LED flash rate corresponds to the Alert tone pulse rate at approximately 0.8Hz.

PLS Lamp Only Operation

Bell Input	Alert Terminal	Sound Generated	Flash Generated
Monitor Mode	Optional	None	None
Active	Optional	None	Flash



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