

PS1 Sounder

(AS2220 Sounder)

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ISO 9001: 2008

International Standards
Certifications
QAC/R64/0012

Product Overview:

The Pertronic PS1 Sounder:

- ▶ Generates the Evacuation and Alert Tones to NZS4512:1997, as specified by AS2220
- ▶ Generates an Alert signal compliant with NZS4512:1997, by generating an Evacuation tone sweep every 15 seconds.
- ▶ 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.
- ▶ The **PS1** Evacuation tone does NOT comply with NZS4512:2010 or NZS4512:2003 for general Evacuation purposes, because it has no voice component.

Features:

- ▶ Evacuation and Alert Tones as specified by AS2220
- ▶ 95dBA @ 1m output sound level with 20dB adjustable volume control.
- ▶ Available in two colours : Red or White

Specifications:

Dimensions:	117 x 74 x 12mm (H x W x D - depth above flush box) Designed to fit into a standard, single flush box.	
Sound Level Output:	Alert, Evacuation 12 Volt: High Volume	- 95dBA ± 3dBA at 1 metre
	Alert, Evacuation 24 Volt: High Volume	- 98dBA ± 3dBA at 1 metre
Power Requirements:	9.5 to 30 Vdc	
Operating Voltage	0.2µA @ 12Vdc 0.4µA @ 24Vdc	
Quiescent Current: Non-Alarm	8mA average, 12mA peak @ 12Vdc	
Operating Current: Alarm State	14mA average, 22mA peak @ 24Vdc	
Controls:	Third wire for Alert tone - connected to 0V for Alert tone 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 PS1 '+' terminal and a positive voltage to the PS1 '-' 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 PS1 '+' terminal and a negative voltage to the PS1 '-' terminal, triggering the PS1 to operate.

The Evacuation tone will be generated if the Alert terminal is open.

The Alert tone is generated by connecting the Alert terminal of the PS1 to 0V (negative).

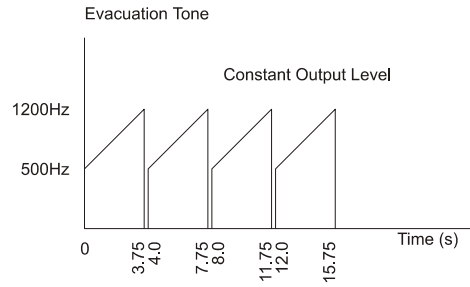
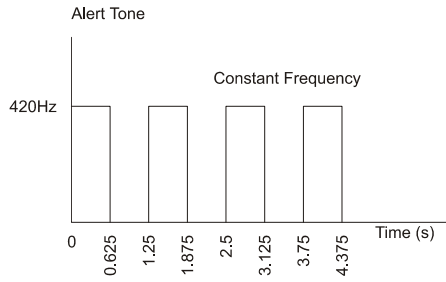


Some Bell driver circuits can provide a pulsed signal to the tone.
The sequence (repeated) is:

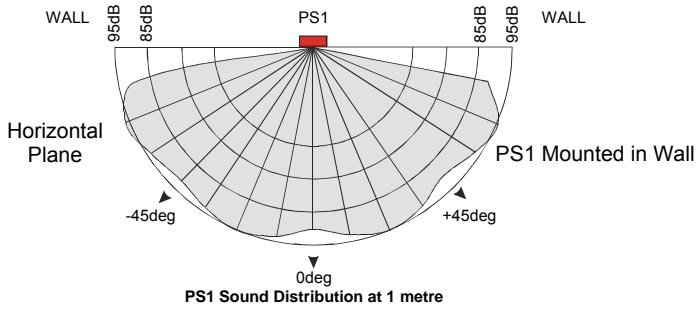
3.5 secs – evacuation tone (one cycle), 12 secs – silence

This alternative Alert signal complies with NZ4512:1997, Amendment 2.

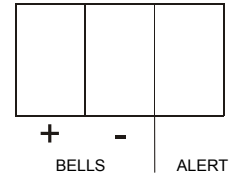
AS2220 Tone characteristics:



Sound Pressure Distribution



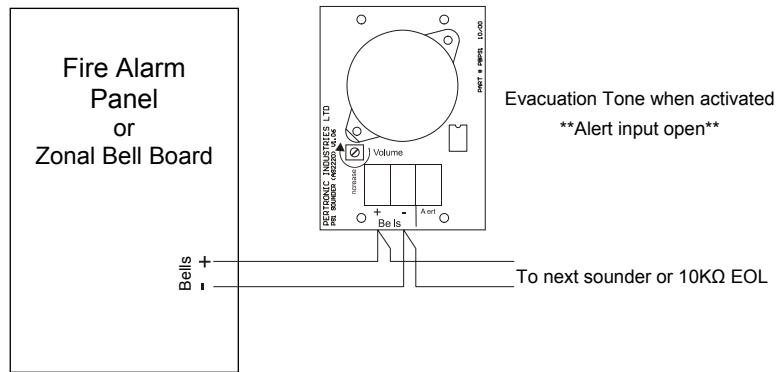
Terminal Layout



Connection Diagrams:

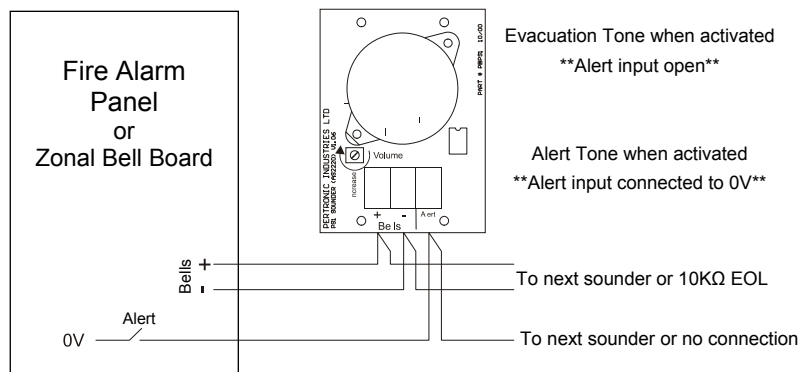
a) Basic Connection:

Evacuation only on Bell Circuit reversal



b) Three-Wire Connection:

Evacuation or Alert on Bell Circuit reversal



Product Codes:

NZS Code	Description	NZFPA Listing No
PS1-R	Pertronic Sounder AS2220 Flush : Red	PI/406
PS1-W	Pertronic Sounder AS2220 Flush : White	PI/406

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