

PERTRONIC INDUSTRIES LTD

PS1400 Sounder - Installation Instructions



Overview:

The **PS1400** Sounder is one of a range of sounders manufactured by Pertronic Industries. The **PS1400** Sounder is a modified PS1 sounder and generates tones equivalent to the System Sensor PA400 sounder. The **PS1400 is NOT AS2220 compliant**.

The **PS1400** Sounders have a maximum sound pressure level of 83dBA. The sound level may be adjusted by a Volume control.

PS1400 Sounders are normally connected to the monitored Bell or sounder circuit of a Fire Alarm Panel and are activated when the sounder circuit voltage polarity is reversed in the 'Alarm' state.

The **PS1400 Sounders** may be mounted in a standard single-gang electrical flush-box fitting, and are supplied with a protective plastic cover for installation and building construction use.

Specification:

Dimensions: 117 x 74 x 12 H x W x D mm - depth above flush-box.
- designed to fit into a standard electrical flush-box fitting.

Colour Options: Red or White.

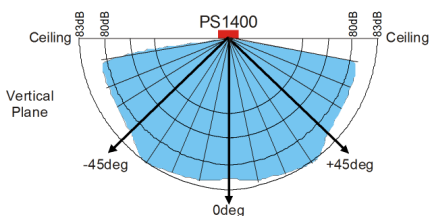
Sound Level Output: Sound pressure level at 1m (peak \pm 3dB)
Evacuation, Alert: 80dBA (@12Vdc)
83dBA (@24Vdc)

Power Requirements: **BELL IN** terminal (Supplied from the Bell circuit):
Operating Voltage 9.5Vdc to 30Vdc
Quiescent current (Non-Alarm state) 0.2 μ A (@12Vdc)
0.4 μ A (@24Vdc)
Operating current (Alarm state) 8mA average, 12mA peak (@12Vdc)
14mA average, 22mA peak (@24Vdc)

Controls: Third wire for 'Alert' / 'Evacuation' tone control.
- 0V for the 'Alert' tone.

Volume Control: Potentiometer to adjust sound output level – range = 20dB.

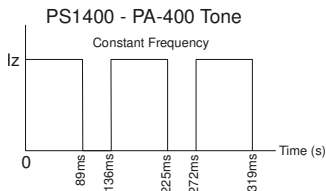
PS1400 Sound Distribution



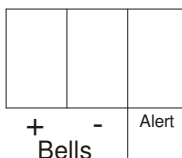
PS1400 Sound Distribution (Evac Tone) at 1 metre

PS1400 Distribution
200905

PS1400 Tone Characteristics



PS1400 Terminal: Connector Layout



Operation:

The panel Bell circuit connects to the **PS1400** Sounder as shown below.

Bell terminals '+' and '-' connect to the corresponding Sounder '+' and '-' terminals.

If the Bells are not active, the panel monitors the Bell circuit by applying a negative voltage to the **PS1400** '+' terminal. The quiescent current drawn by the **PS1400** under this condition is less than 0.4µA.

When the panel Bell circuit activates, the panel Bell circuit voltage reverses (applying positive voltage to the **PS1400** '+' terminal), sounding the **PS1400**. The 'Alert' terminal has no effect on a **PS1400**.

PS1400 Operation

Panel Bell Circuit	Alert Terminal	Tone Generated
Monitor mode	Don't care	None
Active	Open	Evacuate
Active	0V	Evacuate

Some bell driver circuits provide a pulsed signal to the **PS1400** to give an alternative 'Alert' signal using the 'Evacuation' tone.

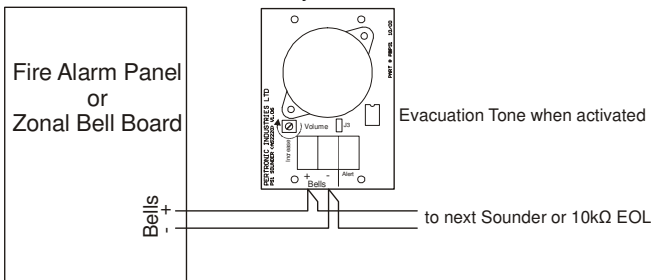
The sequence is:

- 3.75 seconds – Evacuation tone (one cycle)
- 12 seconds – silence
- 3.75 seconds – Evacuation tone
- 12 seconds – silence (repeated).

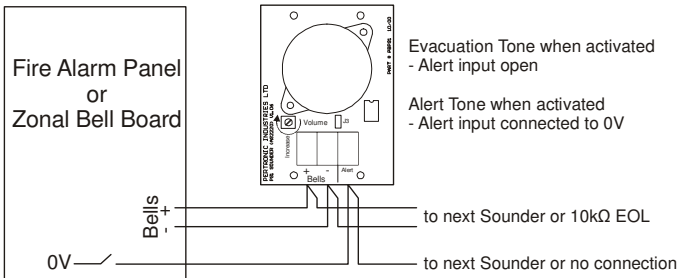
This alternative 'Alert' signal complies with NZS4512:1997 (Amendment Two).

Connection Diagrams:

Basic Connection: Evacuation only on Bell Circuit reversal



Three-Wire Connection: Evacuation or Alert on Bell Circuit reversal



Product Codes:

Description	Red	White
PS1400	PS1400-R	PS1400-W