

# 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

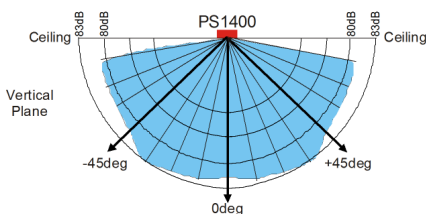
Quiescent current (Non-Alarm state) 0.2 $\mu$ A (@12Vdc)  
0.4 $\mu$ A (@24Vdc)

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

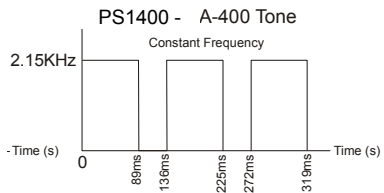
### PS1400 Sound Distribution



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	No effect	None
Active	No effect	Evacuate

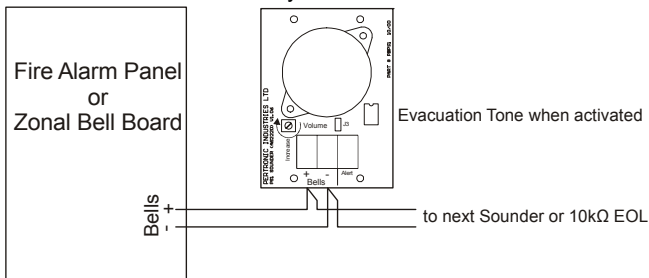
Some bell driver circuits provide a pulsed signal to the **PS1400** to give an alternative 'Alert' signal using the 'Evacuation' tone.

The sequence is:

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

## Connection Diagrams

**Basic Connection:** Evacuation only on Bell Circuit reversal



## Product Codes

Description	Red	White
<b>PS1400</b>	PS1400-R	PS1400-W