

PERTRONIC INDUSTRIES LTD

DATASHEET
PS1 Sounder



Overview

The Pertronic PS1 Sounder is a fire alarm sounder that connects to the bell output of a fire panel. When supplied with dc power of the correct voltage and polarity, the PS1 generates the evacuation and alert tones as specified in AS 2220.

The PS1 can also be used to generate an alert signal compliant with NZS 4512:1997.

The PS1 fits standard single-gang flush or surface mount electrical back-boxes.



The Pertronic PS1 Sounder is available in red or white

Features

- » AS2220 evacuation and alert tones
- » 95 dBA @ 1 m output sound level with 20 dB adjustable volume control
- » May be mounted in standard single-gang flush or surface-mount electrical fittings
- » Supplied with a protective plastic cover for installation during building construction
- » Available in red or white
- » Control input for optional remote tone selection (Evacuation or Alert)

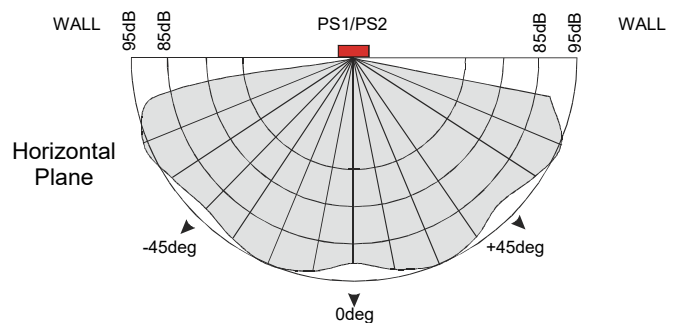
Some bell driver circuits can provide a pulsed signal to give an alternative Alert signal using the Evacuation tone.

The sequence (repeated) is 3.5 seconds – Evacuation tone (one cycle), 12 seconds – silence. This alternative Alert signal complies with NZ4512:1997.

Specification

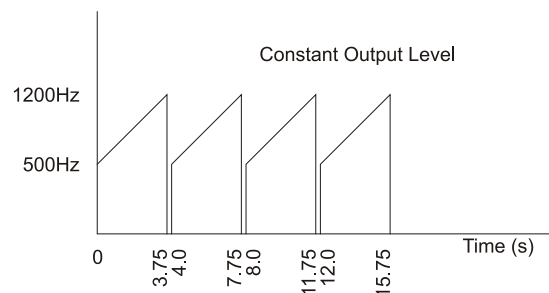
Dimensions (H x W x D)	117 x 74 x 12 mm (excluding flush box)
Sound Level (High Volume) Alert, Evacuation 12 V Alert, Evacuation 24 V	95 dBA ± 3 dBA at 1 m 98 dBA ± 3 dBA at 1 m
Operating Voltage	9.5 to 30 Vdc
Quiescent Current	0.2 µA @ 12 Vdc 0.4 µA @ 24 Vdc
Alarm Current (average)	8 mA @ 12 Vdc 14 mA @ 24 Vdc
Alarm Current (peak)	12 mA @ 12 Vdc 22 mA @ 24 Vdc

Sound Pressure Distribution

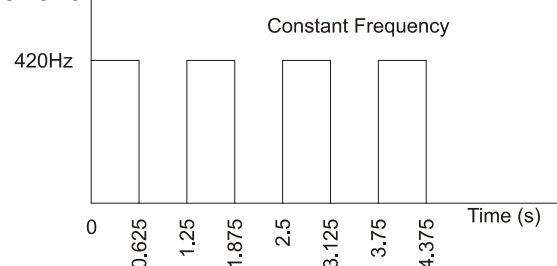


AS 2220 Tone Patterns

Evacuation Tone



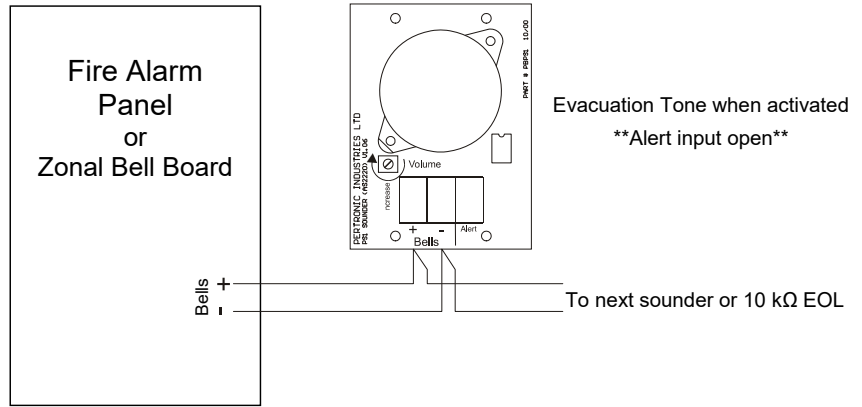
Alert Tone



PS1 Connection Diagrams

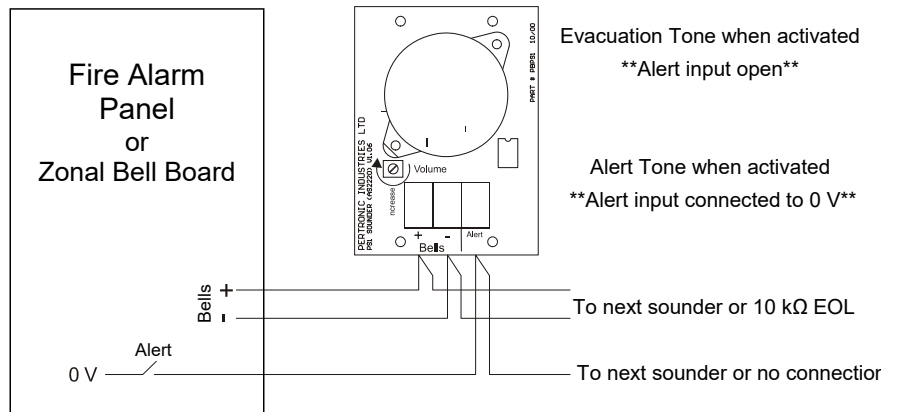
Basic Connection

Evacuation Only on Bell Circuit
Activation



Three-Wire Connection

Evacuation or Alert on Bell
Circuit Activation



PS1 Controls

- » Third wire for 'Alert' / 'Evacuation' tone control
- » 0V for the 'Alert' tone
- » Volume Control: Potentiometer to adjust sound output level – range = 20 dB

PS1 Operation

Panel Bell Circuit	Alert Terminal	Tone Generated
Monitor Mode	N/A	None
Active	Open	Evacuate
Active	0 V	Alert

PS1 Operation

When the panel Bell circuit is inactive (OFF), the Bell circuit is supervised for defects 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).

Ordering Information

Product Code	Description	NZFPA Listing
PS1-R	Pertronic Sounder Flush, Red	PI/406
PS1-W	Pertronic Sounder Flush, White	PI/406

NOTE: The PS1's evacuation and alert tones do not comply with NZS4512:2010 for general evacuation, because they have no voice component.

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.

All information in this document is subject to change. Please consult Pertronic Industries or visit our web site for up to date information.

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