

PERTRONIC INDUSTRIES LTD

DATASHEET

1 Watt 100 Vrms Speaker with Analogue Addressable Base (PSSB501)

1 Watt 100 Vrms Speaker with Analogue Addressable Isolating Base (PSSB524IEFT)



Overview

The Pertronic PSSB501 and PSSB524IEFT are 100V Line Speakers (1.1 W max) which integrate a 1 W speaker, line transformer and dc blocking capacitor. When used in conjunction with the Pertronic 20W and 50W 100V line Amplifiers they provide a cost effective solution for speaker based building evacuation systems required to comply with NZS 4512:2010.

Pertronic PSSB524IEFT also features a short-circuit isolator. The PSSB524IEFT is designed to support a System Sensor B524IEFT Analogue Addressable base and detector.



Pertronic 1 Watt 100 V Line Speaker

Features

- » Plug-in base for an analogue addressable detector with speaker
- » Mounted in a plastic acoustic enclosure
- » The PSSB501 and PSSB524IEFT have mini-jumpers for selecting one of 0.2 W, 0.7 W, or 1.1 W power outputs.
- » At 1.1 W the speakers can reproduce the 'Evacuation' tone at a sound pressure level of 98 dBA at 1 metre, when used with Pertronic 100 Vrms amplifiers

Specifications

| | | PSSB501 | PSSB524IEFT |
|--------------------------------------|------------------------------------|---------------------|-------------|
| Height Below Ceiling | Recessed | 31 mm | 38 mm |
| | With Surface Mount Extension Cover | 66 mm | 73 mm |
| Height Above Ceiling (when recessed) | | 35 mm | |
| Diameter of Mounting Flange | | 122 mm | |
| Frequency Response | | 400 Hz – 10 kHz | |
| DC Blocking Capacitor | | 2.2 μ F Bipolar | |
| Maximum Line Voltage | | 100 Vrms | |
| Colour | | White | |

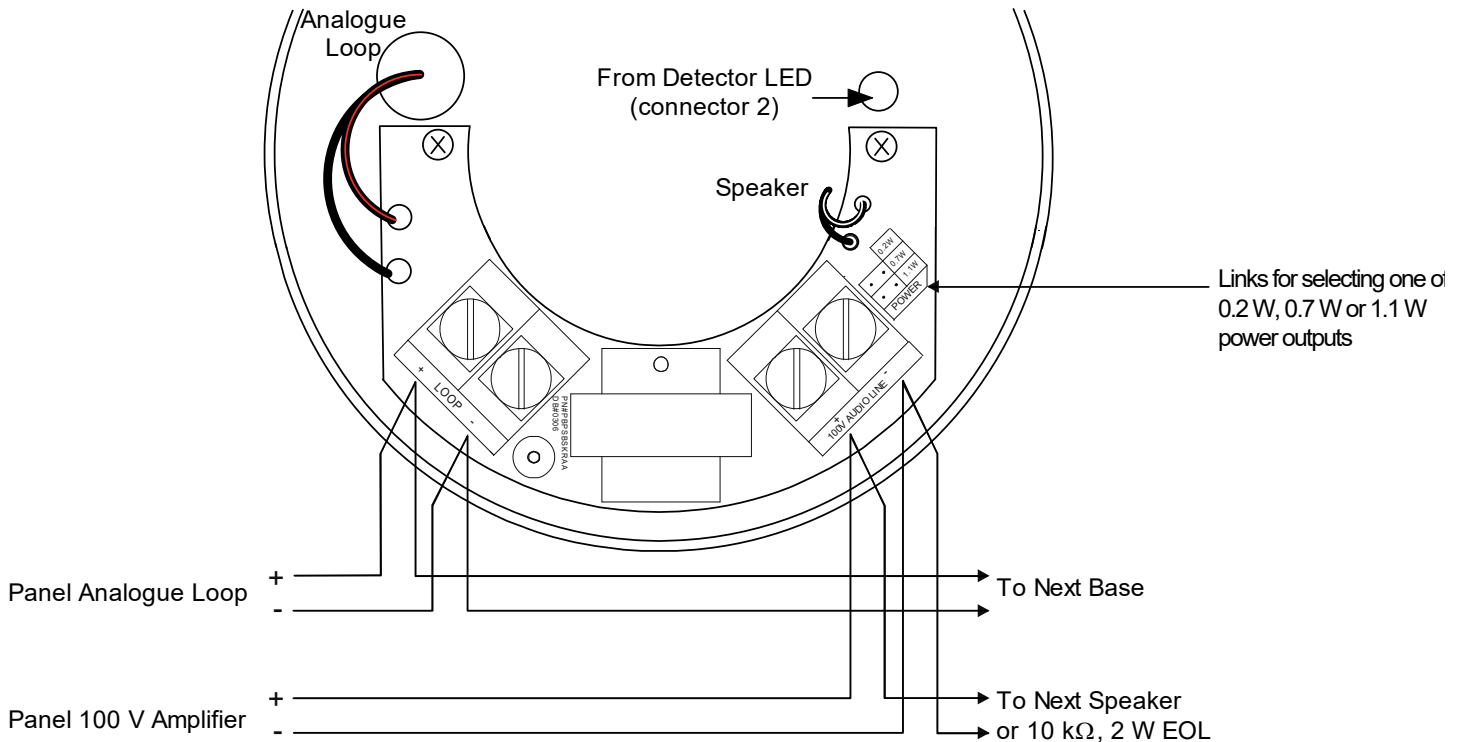
Sound Pressure Level at 1.1 W, 1 m (peak \pm 3 dB)

| Power Tap | 0.2 W | 0.7 W | 1.1 W |
|------------|----------|----------|----------|
| Evacuation | 77.8 dBA | 98.7 dBA | 98.9 dBA |
| Alert | 64 dBA | 83.5 dBA | 85.3 dBA |

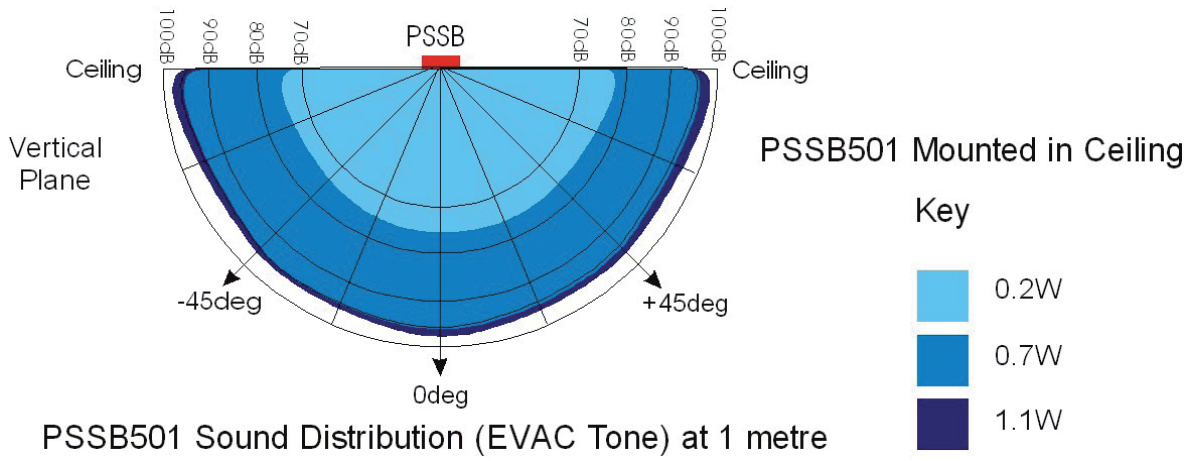
Operation

- » The PSSB501 and PSSB524IEFT have separate input terminals for the analogue addressable loop, and the 100 Vrms audio line
- » The PSSB524IEFT provides terminals for LED output connections
- » The Loop '+' and '-' terminals are connected to the corresponding PSSB501 or PSSB524IEFT Loop '+' and '-' terminals
- » Similarly, the amplifier's line terminals '+' and '-' are connected to the corresponding PSSB501 or PSSB524IEFT Line '+' and '-' terminals
- » If the amplifier is not active, the 100 Vrms line is monitored by the application of an inverted dc voltage to the PSSB501 or PSSB524IEFT Line '+' terminal
- » The PSSB501 consumes no power in monitor mode.
- » A 10 kΩ, 2 W end of line (EOL) resistor is placed at the last PSSB501 or PSSB524IEFT
- » When the amplifier is active, the monitoring dc voltage is removed from the line output and the 100 Vrms signal is applied, causing the PSSB501 or PSSB524IEFT to operate
- » If the loop develops a short-circuit, the PSSB524IEFT isolator base opens the circuit allowing the loop analogue loop to operate under fault conditions and automatically restore when the fault is removed

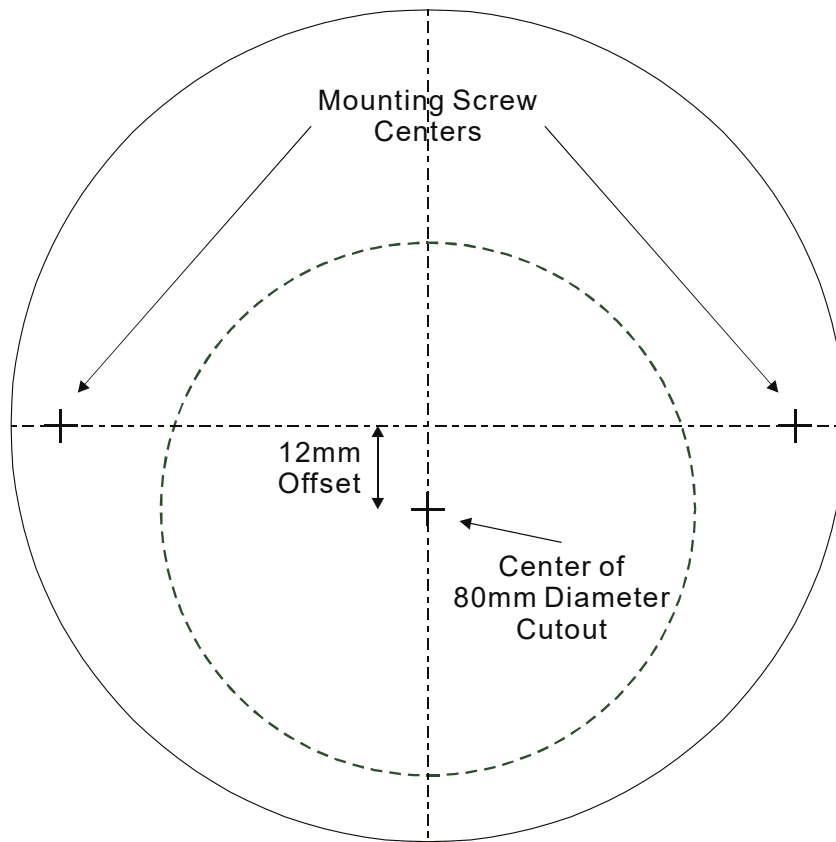
Connection Diagram



Sound Distribution Diagram



PSSB Drilling Template



Ordering Information & Notes

| Product Code | Description |
|--------------|---|
| PSSB501 | Pertronic Speaker with B501 AA Base |
| PSSB524IEFT | Pertronic Speaker with B524IEFT Isolator Base |

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.

PERTRONIC® is a registered trademark of Pertronic Industries Limited.