

PERTRONIC INDUSTRIES LTD

DATASHEET

1 Watt, 100 Vrms Speaker with Conventional Base (PSSB401)



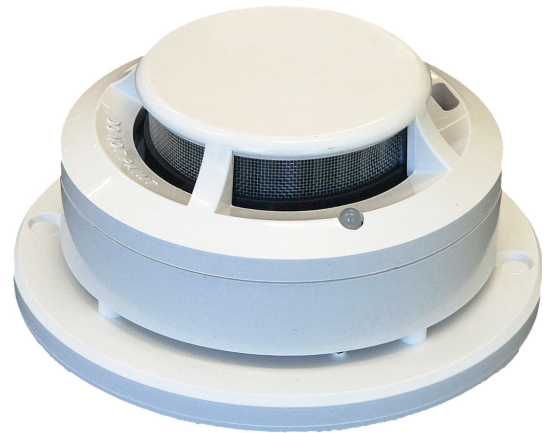
Overview

Pertronic PSSB401 is a 100V Line Speakers (1.1 W max) which integrates a 1 W speaker, line transformer and dc blocking capacitor. The enclosure is designed to support a System Sensor B401 Conventional base and detector. When used in conjunction with the Pertronic 20W and 50W 100V line amplifiers it provides a cost effective solution for speaker based building evacuation systems that comply with NZS 4512:2010.

The PSSB401 has links for selecting the 0.2W, the 0.7W, or the 1.1 W power output. At 1.1 W and with Pertronic's 100 V amplifiers, the PSSB B401 can reproduce the evacuation tone at a sound pressure level of 97 dBA at 1 metre.

Operation

- » The panel loop output and amplifier line output are connected to the PSSB401 Speaker as shown in Figure 1.
- » Terminals are provided on the speaker PCB for the 100 Vrms line connections. The amplifier's line terminals '+' and '-' terminals are connected to the corresponding PSSB401 Line '+' and '-' terminals.
- » Terminals for the detection circuit connections are on the B401 base.
 - » The circuit 'IN+' and 'OUT+' lines are connected to B401 Base Terminal 4
 - » The 'IN M-' line is connected to B401 Base Terminal 2
 - » The 'OUT M-' line is connected to B401 Base Terminal 3
- » If the amplifier is not active, the 100 Vrms line is monitored by the application of an inverted DC voltage to the PSSB401 Line '+' terminal.
- » The PSSB401 consumes no power in monitor mode.
- » A 10 kΩ, 1 W monitor resistor is placed at the last PSSB401.
- » When the amplifier is active, the monitoring dc voltage is removed from the line output and the 100 Vrms signal is applied, causing the PSSB401 to operate.

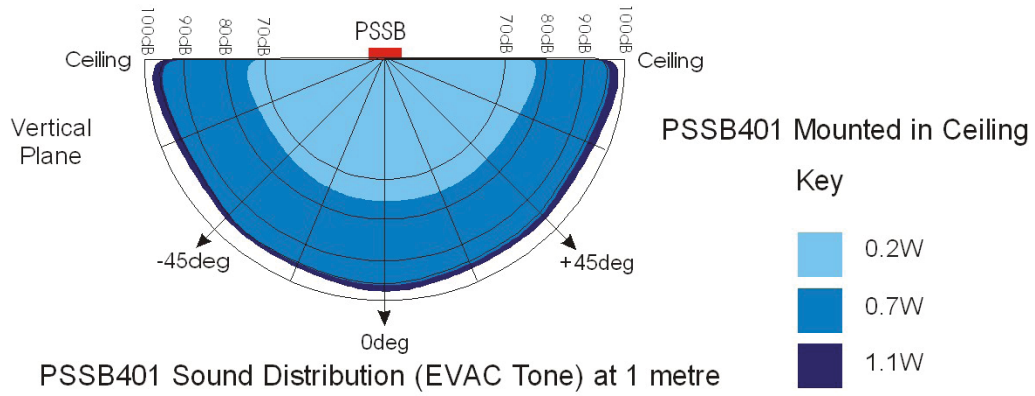


Pertronic Speaker with B401 Conventional Base

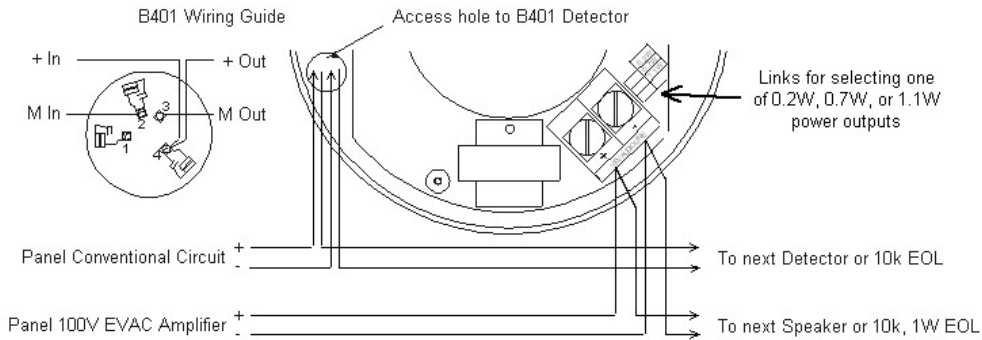
Specifications

Height	Below Ceiling (when recessed)	31 mm (including B501 base)		
	Above Ceiling (when recessed)	35 mm		
	With Surface Mount Extension Cover	66 mm		
Diameter of Mounting Flange		122 mm		
Sound Pressure Level at 1.1 W, 1 m (peak ± 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
Frequency Response		400 Hz – 10 kHz		
Input Capacitor		2μF, 100 V Bipolar Electrolytic ELCO		
Maximum Line Voltage		100 Vrms		
Colour		White		

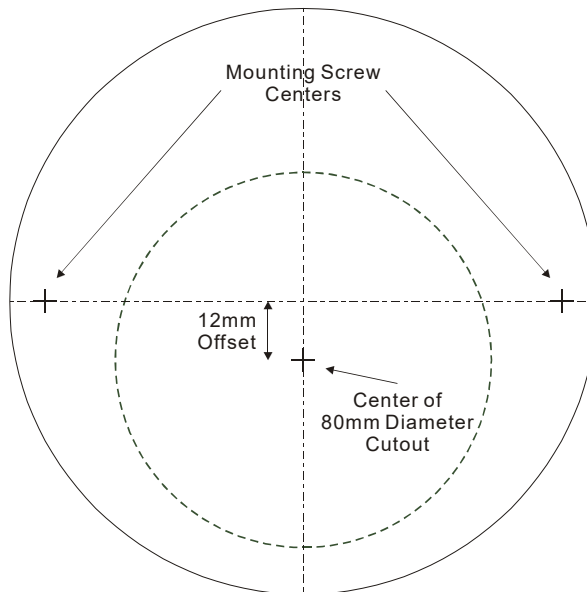
Sound Distribution Diagram



Connection Diagram



PSSB Drilling Template



Ordering Information & Notes

Product Code	Description
PSSB401	Pertronic Speaker with B401 Conventional 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.

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