PE-SPK, PE-SPST Series

Speakers and Speaker Strobes

Features

- High intelligibility at minimum wattage across a frequency range of 300 to 8000 Hz
- LED Technology for Energy Efficiency
- 6 field selectable candela settings:
  - Wall 15 cd - 185 cd / ceiling 15 cd - 177 cd
- Field selectable speaker settings: 1/8 W up to 2 W
- Strobe synchronization with Potter fire alarm control panels and power supplies. Ability to mix xenon and LED strobes in the same field of view.
- 5 year warranty



FM APPROVED

Description

The Potter speakers feature high fidelity sound output, and speaker strobe models include advanced power saving LED technology with a full range of candela settings for indoor wall and ceiling mount applications. With a wide frequency range of 300 to 8000 Hz, the PE-SPK and PE-SPST feature leading technology with crisp, clear voice messages and tone signaling, ideal for emergency communications, mass notification, voice evacuation, and fire alarm.

High Efficiency, LED Technology

The PE series of LED strobes utilize LED technology and optical design to improve efficiency and reduce overall power consumption. Strobe models offer six candela settings (15, 30, 75, 110, 135, 185 cd for wall models and 15, 30, 75, 110, 150, 177 cd for ceiling models).

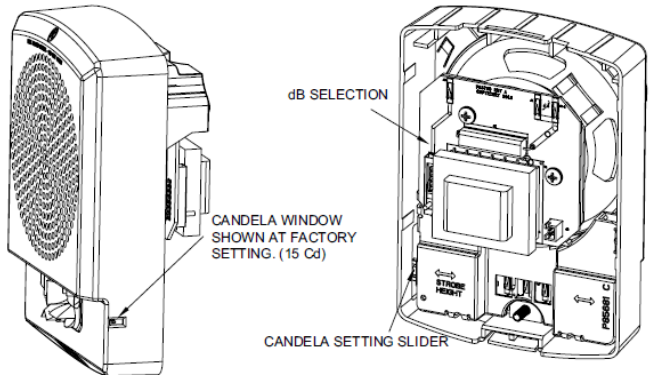
Product Listing:

- UL Listed
- FM Approved
- CSFM

Technical Specifications

Mounting Options (Indoor Only)	Wall Mount: • PE-SPKBB backboxes • 4” square backboxes Ceiling Mount: • PE-SPKBB-C backboxes • 4” square backboxes
Wire Gauge	# 12 through # 18 AWG
Operating Temp	32°F to 122°F (0°C to 50°C) maximum humidity 93%
Dimensions	PE-SPK: 6.35”H x 4.56”W x 1.54”D PE-SPST: 6.35”H x 4.56”W x 1.54”D PE-SPSTC: 6.27” Diameter x 2.29”Depth
Operating Voltage	25/70 VRMS; Strobe: 24VDC/24VFWR
Strobe Output Rating	UL 1971, UL 1638 Wall Selectable candela output: 15, 30, 75, 110, 135, 185. Ceiling Selectable candela output:15, 30, 75, 110, 150, 177.
Weight	Wall and ceiling speaker strobe: 1.54 lbs (700g)
Synchronization Models	Strobes can be synchronized with Potter fire alarm control panels and power supplies using Wheelock® sync protocol.
Frequency Range	300 Hz to 8000 Hz

PE-SPK and PE-SPST Switch Locations



PE-SPSTC Only Switch Locations

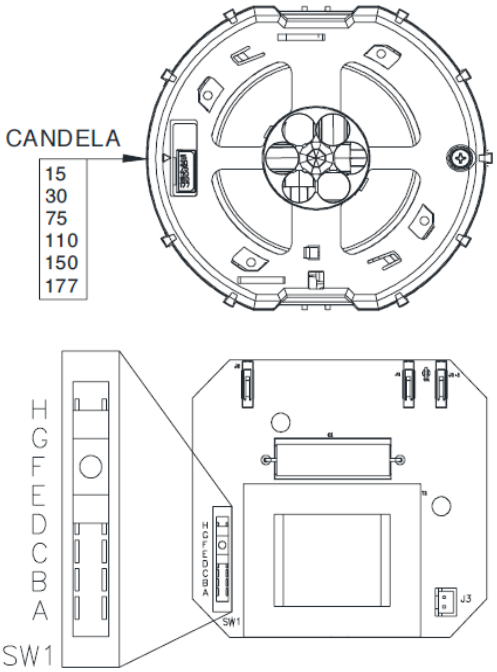
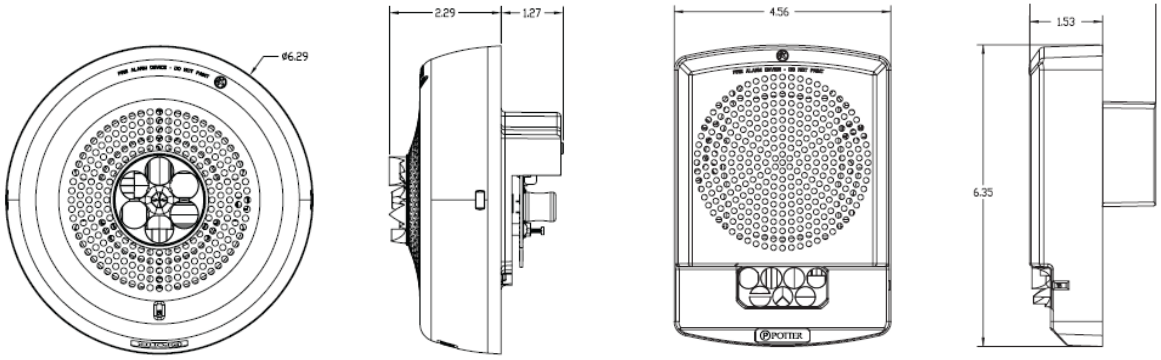


Table 4: Speaker Voltage and Wattage Chart		
Position	25V	70V
A	2W	
B	1W	
C	1/2W	
D	1/4W	5W
E	1/8W	1W
F		1/2W
G		1/4W
H		1/8W
Each Doubling of rated Watts increases sound output by 3dB		

Dimensions



Strobe Ratings - 24 VDC; Max Current

Model	Regulated Voltage Range (VDC)	15	30	75	110	135	150	177	185
PE-SPST	16.0 - 33.0	0.017	0.022	0.053	0.079	0.106			0.161
PE-SPSTC	16.0 - 33.0	0.017	0.023	0.053	0.079		0.110	0.161	

Speaker Ratings

UL Reverberant dBA 10 Feet					
Model	1/8 Watts	1/4 Watts	1/2 Watts	1 Watt	2 Watts (5W 70V)
PE-SPK	75	79	82	85	87
PE-SPST/ PE-SPSTC	74	77	80	83	85

General Notes

- Strobes are designed to flash at 1 flash per second minimum over their “Regulated Voltage Range”. Note that NFPA-72 specifies a flash rate of 1 to 2 flashes per second and ADA guidelines specify a flash rate of 1 to 3 flashes per second.
- All candela ratings represent minimum effective Strobe intensity based on UL 1971.

Specification & Ordering Information

Model Number	Part Number	Mounting	Strobe Candela		Red	White	Lettering
Speaker Strobes							
PE-SPSTR	4871018	Wall	15/30/75/110/135/185	Clear	X		FIRE
PE-SPSTW	4871019	Wall	15/30/75/110/135/185	Clear		X	FIRE
PE-SPSTR-AL	4871258	Wall	15/30/75/110/135/185	Clear	X		ALERT
PE-SPSTW-AL	4871132	Wall	15/30/75/110/135/185	Clear		X	ALERT
PE-SPSTR-N	4871133	Wall	15/30/75/110/135/185	Clear	X		No Lettering
PE-SPSTW-N	4871134	Wall	15/30/75/110/135/185	Clear		X	No Lettering
PE-SPSTR-NA	4871102	Wall	10/20/55/80/100/130	Amber	X		No Lettering
PE-SPSTW-NA	4871101	Wall	10/20/55/80/100/130	Amber		X	No Lettering
PE-SPSTR-NB	4871100	Wall	10/20/55/80/100/130	Blue	X		No Lettering
PE-SPSTRC	4871020	Ceiling	15/30/75/110/150/177	Clear	X		FIRE
PE-SPSTWC	4871021	Ceiling	15/30/75/110/150/177	Clear		X	FIRE
PE-SPSTRC-AL	4871257	Ceiling	15/30/75/110/150/177	Clear	X		ALERT
PE-SPSTWC-AL	4871256	Ceiling	15/30/75/110/150/177	Clear		X	ALERT
PE-SPSTRC-N	4871135	Ceiling	15/30/75/110/150/177	Clear	X		No Lettering
PE-SPSTWC-N	4871136	Ceiling	15/30/75/110/150/177	Clear		X	No Lettering
Speakers							
PE-SPKR	4871016	Wall			X		FIRE
PE-SPKW	4871017	Wall				X	FIRE
PE-SPKRC	4871146	Ceiling			X		FIRE
PE-SPKWC	4871099	Ceiling				X	FIRE

Accessories					
Model Number	**Part Number**	**Description**	**Mounting**	**Red**	**White**
PE-SPKBB-R	4871024	PE Series Backbox	Wall	X	
PE-SPKBB-W	4871025	PE Series Backbox	Wall		X
PE-SPKBB-CR	4871026	PE Series Backbox	Ceiling	X	
PE-SPKBB-CW	4871027	PE Series Backbox	Ceiling		X

Architect & Engineering Specifications

The LED high fidelity speaker appliances shall be the Potter PE-SPK speakers and PS-SPST speaker strobes for wall mount applications and the PE-SPSTC speaker strobes for ceiling mount applications or approved equals. Special lettering, including ALERT, CO, and no lettering (plain) shall be available. The speakers shall be UL Listed under UL 1480 for Fire Protective Service and speakers equipped with strobes shall be listed under UL 1971 for Emergency Devices for Hearing Impaired. In addition, the speaker strobes shall meet the requirements of FCC Part 15 and ICES-003. All inputs shall be compatible with standard reverse polarity supervision of circuit wiring by a Fire Alarm Control Panel (FACP) with the ability to operate from 16 to 33 VDC/FWR.

All speakers shall be designed for a field selectable input of either 25 or 70 VRMS, with selectable power taps from 1/8 watt to 2 watts (5 watts for 70V). All models shall have listed sound output of up to 87 dB at 10 feet and a listed frequency response of 300 to 8000 Hz.

All inputs shall employ terminals that accept #12 to #18 AWG wire sizes. The PE-SPST/PE-SPSTC speaker strobe appliances shall produce a flash rate of one (1) flash per second over the Regulated Voltage Range and shall incorporate a Light Emitting Diode (LED) as a light source with a rugged Lexan® lens. The LED strobe flash duration shall be 20 ms. Where Multi-Candela appliances are specified, the strobe intensity shall have 6 field selectable settings at 15, 30, 75, 110, 135, and 185 candela for wall mount applications and 15, 30, 75, 110, 150, and 177 for ceiling mount applications. The selector switch for selecting the candela shall be tamper resistant. Appliances with candela settings shall show the candela selection in a visible location at all times when installed.

The PE-SPK and PE-SPST series shall be designed for indoor surface or flush mounting and include a mounting plate. Mounting options shall include PE-SPKBB backboxes and 4” square, 2 1/8” deep backboxes for wall models and PE-SPKBB-C backboxes and 4” square, 2 1/8” deep backboxes for ceiling models. The speaker and speaker strobes shall incorporate a speaker mounting plate with a snap on grill cover and shall mount to standard electrical hardware requiring no additional trimplate or adapter. Removal of an appliance shall result in a supervision fault condition by the Fire Alarm Control Panel (FACP). All notification appliances shall be backwards compatible.

The PE-SPK wall model shall have a low profile measuring 6.35”H x 4.56”W x 1.54”D. The PE-SPST wall model shall have a low profile measuring 6.35”H x 4.56”W x 1.54”D. The PE-SPSTC ceiling models shall have a low profile measuring 6.27” diameter x 2.29” D. Finish shall be red or white. Special lettering shall be available.

When synchronization is required, the appliance shall be compatible with Potter fire alarm control panels and power supplies, with built-in Wheelock® sync protocol. The strobes shall not drift out of synchronization at any time during operation. If the sync protocol fails to operate, the strobe shall revert to a non-synchronized flash rate and still maintain one (1) flash per second over its Regulated Voltage Range.

The speaker shall be listed to low frequency requirements of UL 464 (520 Hz) to meet NFPA’s 520 Hz tone requirements for sleeping areas.