



Indoor Selectable-Output Low Frequency Sounders and Low Frequency Sounder Strobes

System Sensor L-Series audible visible notification products are rich with features guaranteed to maximize profits with lower current draw and modern aesthetics.

Features

- 520 Hz \pm 10% square wave tone, NFPA compliance
- Full candela range plus High/Low tone options to optimize current draw for a wide variety of applications
- Compact, standard, and round ceiling options
- Field-selectable candela settings. Wall units: 15, 30, 75, 95, 110, 135, and 185. Ceiling units: 15, 30, 75, 95, 115, 150, and 177
- Rotary switch for High/Low, Temp3, Temp4, and Continuous settings. Sounder-only models also offer a Coded setting.
- Plug-in design with minimal intrusion into the back box
- Mounting plate shorting spring checks wiring continuity before device installation
- Electrically compatible with legacy SpectrAlert and SpectrAlert Advance devices (Direct replacement for HW/R-LF and P2R/WH-LF)
- Compatible with MDL3 sync module
- Wall and ceiling mount options available
- Updated modern aesthetics

Agency Listings



The L-Series offers the most versatile and easy-to-use line of low frequency sounder and low frequency sounder strobes in the industry. With white and red plastic housings, listed for wall and ceiling mounting, L-Series Low Frequency can meet virtually any application requirement.

The low frequency sounder and low frequency sounder strobes were designed to address the NFPA 72 sleeping space requirements that require a low frequency notification appliance that operates within frequency range of 520 Hz \pm 10% and is of a square wave tone. Like the entire L-Series product line they include a variety of features that increase their application versatility while simplifying installation. All devices feature plug-in designs with minimal intrusion into the back box, making installations fast and foolproof while virtually eliminating costly and time-consuming ground faults.

To further simplify installation and protect devices from construction damage, L-Series uses a universal mounting plate with an onboard shorting spring, so installers can test wiring continuity before the device is installed.

Installers can also easily adapt devices to a suit a wide range of application requirements using field-selectable candela settings, 24-volt operation, and a rotary switch for 520 Hz low frequency sounder tones.

L-Series Specifications

Architect/Engineer Specifications

General

L-Series low frequency sounder and low frequency sounder strobes shall mount to a standard 4 x 4 x 1½-inch back box, 4-inch octagon back box, or double-gang back box. Two-wire products shall also mount to a single-gang 2 x 4 x 1⅞-inch back box. A universal mounting plate shall be used for mounting products. The notification appliance circuit wiring shall terminate at the universal mounting plate. Also, L-Series products, when used with the Sync•Circuit™ Module accessory, shall be powered from a non-coded notification appliance circuit output and shall operate on a nominal 12 or 24 volts. When used with the Sync•Circuit Module, 24-volt-rated notification appliance circuit outputs shall operate between 16.5 and 33 volts. Indoor L-Series products shall operate between 32 and 120 degrees Fahrenheit (0°C to 49°C) from a regulated DC or full-wave rectified unfiltered power supply. Low Frequency Sounder strobes shall have field-selectable candela settings. Wall units: 15, 30, 75, 95, 110, 135, and 185. Ceiling units: 15, 30, 75, 95, 115, 150, and 177. The field selectable tones will sound within the frequency range of 520 Hz ±10% square wave tone and have a permanent marking on the housing that reads "520 Hz".

Low Frequency Sounder

The low frequency sounder shall be a System Sensor L-Series Model _____ listed to UL 464 and shall be approved for fire protective service. The low frequency sounder and the Sync•Circuit™ MDL3 Module accessory, if used, shall be powered from a notification appliance circuit output and shall operate on a nominal 24 volts (includes fire alarm panels with built-in sync). When used with the Sync•Circuit Module MDL3, 24-volt rated notification appliance circuit outputs shall operate between 16.5 to 33 volts. If the notification appliances are not UL 9th edition listed with the corresponding panel or power supply being used, then refer to the compatibility listing of the panel to determine maximum devices on a circuit. The low frequency sounder has an option to switch between temporal three or temporal four pattern, non-temporal (continuous) pattern and coded supply within the frequency range of 520 Hz ± 10% square wave tone. The low frequency sounder shall operate on a coded or non-coded power supply with high and low volume settings.

Low Frequency Sounder Strobe Combination

The low frequency sounder strobe shall be a System Sensor L-Series Model _____ listed to UL 1971 and UL 464 and shall be approved for fire protective service. The low frequency sounder strobe shall be wired as a primary-signaling notification appliance and comply with the Americans with Disabilities Act requirements for visible signaling appliances, flashing at 1 Hz over the strobe's entire operating voltage range. The strobe light shall consist of a xenon flash tube and associated lens/reflector system. The sounder shall have an option to switch between a temporal three or temporal four pattern and a non-temporal (continuous) pattern. These options are set by a multiple position switch. The low frequency sounder on low frequency sounder strobe models shall operate on a non-coded power supply with high and low volume settings. The field selectable tones will sound within the frequency range of 520 Hz ±10% square wave tone.

Synchronization Module

The module shall be a System Sensor Sync•Circuit model MDL3 listed to UL 464 and shall be approved for fire protective service. The module shall synchronize SpectrAlert strobes at 1 Hz and low frequency sounder at temporal three. Also, while operating the strobes, the module shall silence the low frequency sounder on low frequency sounder strobe models over a single pair of wires. The module shall mount to a 4^{11/16} x 4^{11/16} x 2^{1/8}-inch back box. The module shall also control two Class B circuits or one Class A circuit. The module shall synchronize multiple zones. Daisy chaining two or more synchronization modules together will synchronize all the zones they control. The module shall not operate on a coded power supply.

Physical/Electrical Specifications

| | |
|---|-----------------------------------|
| Standard Operating Temperature | 32°F to 120°F (0°C to 49°C) |
| Humidity Range | 10 to 93% non-condensing |
| Frequency Range | 520 Hz ± 10% |
| Strobe Flash Rate | 1 flash per second |
| Nominal Voltage Low Frequency Sounder | Regulated 24 DC/FWR ¹ |
| Nominal Voltage Range Low Frequency Sounder Strobe | Regulated 24 VDC/FWR ¹ |
| Operating Voltage Range | 16 to 33 V (24 V nominal) |
| Operating Voltage Range MDL3 Sync Module | 16.5 to 33 V (24 V nominal) |
| Input Terminal Wire Gauge | 12 to 18 AWG |

Dimensions

| | |
|--|--|
| Wall Sounder Strobe (including lens) | 5.6" L x 4.7" W x 1.9" D (142 mm L x 119 mm W x 49 mm D) |
| Ceiling Sounder Strobe (including lens) | 6.8" diameter x 2.47" high (173mm diameter x 62.7 mm D) |
| Standard Wall Sounder | 5.6" L x 4.7" W x 1.5" D (142 mm L x 119 mm W x 38 mm D) |
| Compact Wall Sounder | 5.25" L x 3.46" W x 1.5" D (133mm L x 88mm W x 38mm D) |
| Ceiling Sounder | 6.8" diameter x 1.4" high (173mm diameter x 36mm high) |
| Standard Wall Sounder with SBBRL/SBBWL Surface Mount Back Box | 5.70" L x 4.8" W x 3.3" D (145 mm L x 120 mm W x 87 mm D) |
| Compact Wall Sounder with SBBGRL/SBBGWL Surface Mount Back Box | 5.4" L x 3.6" W x 3.0" D (137 mmL x 91mm W x 76 mm D) |
| Low Frequency Ceiling Sounder with SBBCRL/SBBCWL Surface Mount Back Box | 6.9" diameter x 3.9" high (175mm diameter x 99mm high) |

Notes:

1. Full Wave Rectified (FWR) voltage is a non-regulated, time-varying power source that is used on some power supply and panel outputs.

UL Current Draw and Sound Output Data

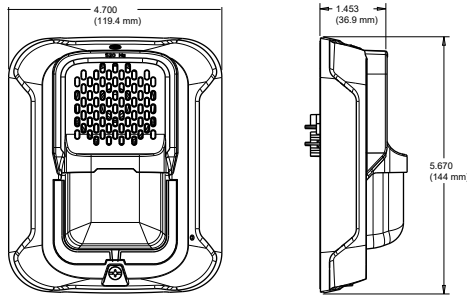
| Low Frequency Sounder Strobe Current Draw (mA) and Sound Output (dBA) | | | | | | | | | | | | | | | | | | |
|---|------------|----------------|-------------------|------|------|------|-------|-------|-------|-----------|------|------|------|-------|-------|-------|--------------------|-----|
| Wall Sounder Strobe | | | Current Draw (mA) | | | | | | | | | | | | | | Sound Output (dBA) | |
| Pos | Tone | Volume Setting | 16-33 VDC | | | | | | | 16-33 FWR | | | | | | | 16-33 V | |
| | | | 15cd | 30cd | 75cd | 95cd | 110cd | 135cd | 185cd | 15cd | 30cd | 75cd | 95cd | 110cd | 135cd | 185cd | DC | FWR |
| 1 | Temporal 3 | High | 98 | 115 | 158 | 173 | 182 | 212 | 266 | 136 | 153 | 188 | 206 | 228 | 258 | 304 | 80 | 80 |
| 2 | Temporal 3 | Low | 98 | 102 | 141 | 162 | 173 | 202 | 255 | 150 | 150 | 176 | 194 | 216 | 242 | 280 | 76 | 76 |
| 3 | Temporal 4 | High | 98 | 108 | 137 | 151 | 178 | 202 | 252 | 200 | 198 | 169 | 188 | 212 | 242 | 290 | 80 | 80 |
| 4 | Temporal 4 | Low | 102 | 104 | 122 | 136 | 163 | 187 | 237 | 176 | 174 | 154 | 173 | 197 | 227 | 275 | 76 | 76 |
| 5 | Continuous | High | 141 | 158 | 198 | 216 | 234 | 264 | 305 | 190 | 207 | 249 | 268 | 289 | 321 | 368 | 80 | 80 |
| 6 | Continuous | Low | 120 | 128 | 179 | 196 | 215 | 244 | 285 | 165 | 182 | 226 | 244 | 266 | 297 | 342 | 76 | 76 |

| Ceiling Sounder Strobe | | | | | | | | | | | | | | | | | | |
|------------------------|------------|----------------|-------------------|------|------|------|-------|-------|-------|-----------|------|------|------|-------|-------|-------|--------------------|-----|
| Ceiling Sounder Strobe | | | Current Draw (mA) | | | | | | | | | | | | | | Sound Output (dBA) | |
| Pos | Tone | Volume Setting | 16-33 VDC | | | | | | | 16-33 FWR | | | | | | | 16-33 V | |
| | | | 15cd | 30cd | 75cd | 95cd | 110cd | 135cd | 185cd | 15cd | 30cd | 75cd | 95cd | 110cd | 135cd | 185cd | DC | FWR |
| 1 | Temporal 3 | High | 98 | 115 | 158 | 173 | 197 | 236 | 259 | 136 | 153 | 188 | 206 | 238 | 287 | 291 | 80 | 80 |
| 2 | Temporal 3 | Low | 98 | 102 | 141 | 162 | 181 | 224 | 244 | 150 | 150 | 176 | 194 | 226 | 269 | 269 | 76 | 76 |
| 3 | Temporal 4 | High | 98 | 108 | 145 | 161 | 186 | 224 | 249 | 200 | 198 | 169 | 189 | 222 | 269 | 277 | 80 | 80 |
| 4 | Temporal 4 | Low | 102 | 104 | 122 | 136 | 170 | 208 | 227 | 176 | 174 | 154 | 173 | 206 | 252 | 263 | 76 | 76 |
| 5 | Continuous | High | 141 | 158 | 198 | 216 | 245 | 293 | 295 | 190 | 207 | 249 | 268 | 302 | 357 | 357 | 80 | 80 |
| 6 | Continuous | Low | 120 | 128 | 179 | 196 | 225 | 271 | 273 | 165 | 182 | 226 | 244 | 278 | 330 | 330 | 76 | 76 |

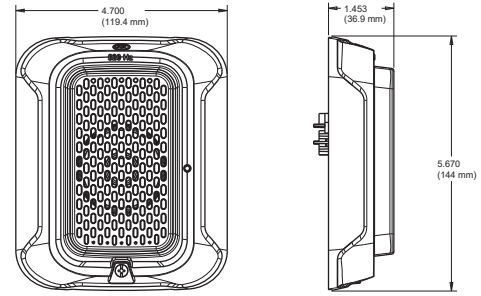
| UL Max. Low Frequency Sounder Current Draw (mA RMS) | | | | | | |
|---|------------|----------------|-------------------|-----|--------------------------------|-----|
| Wall and Ceiling Sounder | | | Current Draw (mA) | | Sound Output (dBA) Reverberant | |
| Pos | Tone | Volume Setting | 16-33 Volts | | 16-33 Volts | |
| | | | DC | FWR | DC | FWR |
| 1 | Temporal 3 | High | 108 | 150 | 80 | 80 |
| 2 | Temporal 3 | Low | 78 | 76 | 76 | 76 |
| 3 | Temporal 4 | High | 111 | 151 | 80 | 80 |
| 4 | Temporal 4 | Low | 80 | 76 | 76 | 76 |
| 5 | Continuous | High | 111 | 151 | 80 | 80 |
| 6 | Continuous | Low | 80 | 76 | 76 | 76 |
| 7 | Coded | High | 111 | 151 | 80 | 80 |
| 8 | Coded | Low | 80 | 76 | 76 | 76 |

*NOTE: For coded tones, temporal coding must be provided by the NAC. If the NAC voltage is held constant, the sounder output will remain constantly on. Coded ratings provided are for continuous voltage.

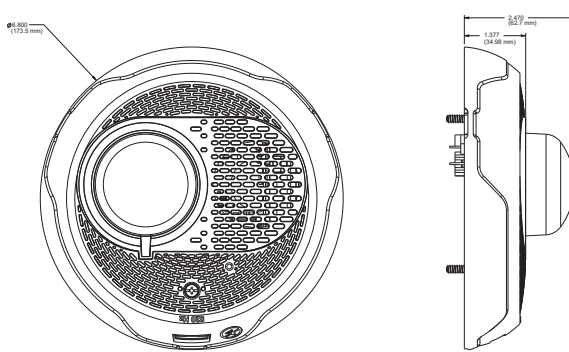
L-Series Dimensions



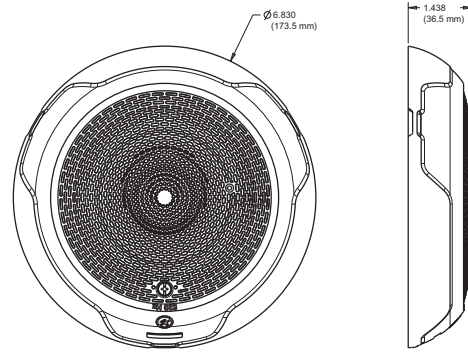
Wall LF Sounder Strobe



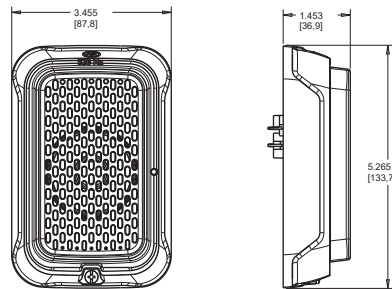
Wall LF Sounder



Ceiling/Wall LF Sounder Strobe



Ceiling/Wall LF Sounder



Compact Wall LF Sounder

| Part No. | | Description |
|--------------------------------------|----------|---------------------------------------|
| Red | White | |
| Low Frequency Sounder Strobes | | |
| P2RL-LF | P2WL-LF | LF Sounder Strobe, Wall |
| PC2RL-LF | PC2WL-LF | LF Sounder Strobe, Ceiling/Wall |
| Low Frequency Sounders | | |
| HRL-LF | HWL-LF | LF Sounder, Wall |
| HGRL-LF | HGWL-LF | Compact LF Sounder, Wall |
| HCRL-LF | HCWL-LF | LF Sounder, Ceiling/Wall |
| Accessories | | |
| MDL3R | MDL3W | Sync•Circuit™ Module, UL-listed |
| SBBRL | SBBWL | Surface Mount Back Box, Wall |
| SBBCRL | SBBCWL | Surface Mount Back Box, Ceiling |
| SBBGRL | SBBGWL | Surface Mount Back Box, Wall, Compact |

System Sensor® is a registered trademark and Sync•Circuit™ is a trademark of Honeywell International, Inc.



3825 Ohio Avenue • St. Charles, IL 60174
Phone: 800-SENSOR2 • Fax: 630-377-6495

©2020 System Sensor.
Product specifications subject to change without notice. Visit systemsensor.com for current product information, including the latest version of this data sheet.
AVDS910-01 • 9/15/2020