

Notification Appliances

ZH & ZR – Strobes, Horns, & Horn / Strobes

Application: Indoor



Product Overview

- Strobes can be synchronized using the Siemens DSC sync modules, the Siemens 252-point and 504-point addressable fire alarm control panels (FACPs), as well as with:
 - FireFinder® XLS and MXL® FACPs
 - PAD-4™ NAC Extenders with built-in sync protocol
- Selectable Continuous Horn or Temporal (Code-3) Tones with 90 or 95 dBA selectable setting (Series 'ZH')
- Ceiling-mount models feature field-selectable Candela settings of 15/30/75/95cd and 115/177cd
- Wall-mount models feature field-selectable Candela settings of 15/30/75/110cd and 135/185cd
- Base plate is protected by a disposable cover, and the appliances can quickly snap onto the base after the walls are painted
- Strobes produce one (1) flash per second
- "Special Applications" listed with Siemens panels
- EZ Mount Universal Mounting Plate (Model ZB Series) — uses single plate for ceiling and wall mount installations
- EZ Mount design — with separate base plate — provides ability to pre-wire the base and test the circuit wiring before the walls are covered
- ©UL Listed & ©ULC Listed, FM (#3028994) Approved;
 - CSFM Approved (Series 'ZH': #7125-0067:0248 → Fire Alarm Devices For The Hearing Impaired)
 - CSFM Approved (Series 'ZR': #7125-0067:0252 → Fire Alarm Devices For The Hearing Impaired)
- ADA / NFPA compliant

Specifications

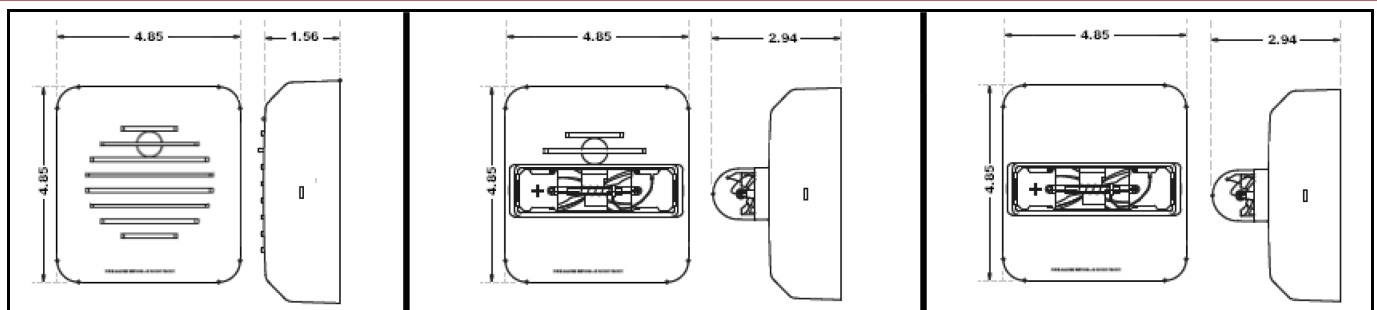
- **General**
 - Audible/Visual notification appliances are listed for indoor use only
 - Appliances are listed under CAN / ©ULC-S526-07 (Visible Signal Devices for Fire Alarm Systems), ©UL Standard 1971 (Standard for Safety Signaling Devices for Hearing Impaired), and CAN / ©ULC-S525-07 (Audible Signal Devices for Fire Alarm Systems) and ©UL Standard 464 (Fire Protective Signaling)
 - Appliances use a universal back plate, which allows mounting to a single-gang, double-gang, 4-inch-square (10.2 cm.), 4"-octal (10.2 cm.), or a 3-1/2" (8.9 cm.) octal backbox
 - Two-wire configurations allows capability for directly connecting appliances to the mounting back plate
 - Continuity check will occur for entire Signaling (NAC) circuit prior to attaching any audible / visual-notification appliances
 - A cover fits over the mounting plate for protection to dust and other outside elements
 - Cover is easily removed when the appliance is installed over the back plate
 - Removal of an appliance will result in a *Trouble* condition by the Siemens Fire Alarm Control Panel (FACP)

'Z' Series Notification Appliances **2584C**

Specifications – (continued)

- **Strobes and Audible Strobe Combinations**
 - Strobe appliances produce a minimum flash rate of 60 flashes per minute (one [1] flash per second) over the Regulated Input Voltage Range, and incorporate a Xenon flashtube enclosed in a rugged Lexan® lens
 - Strobes are available with two (2) or four (4) field-selectable settings in one (1) unit, and are rated – per UL CAN/ULC-S526 and UL 1971 – for up to:
 - 15/30/75/110cd for wall mounted
 - 135/185cd for wall mounted
 - 15/30/75/95cd for ceiling mounted
 - 115/177cd for ceiling mounted
 - Strobes operate over an extended temperature range of 0°C to 49°C (32°F to 120°F), and be listed for maximum humidity of 95% RH
 - Strobe inputs are polarized for compatibility with standard reverse-polarity supervision of circuit wiring by a Siemens FACP
- **Audible and Audible / Strobe Combinations**
 - Horns and horn / strobes are listed for Indoor use under CAN/ ULC -S525 and UL Standard 464
 - Horns are able to produce continuous synchronized output or a Temporal Code-3 synchronized output
 - Horns have at least two (2) sound-level settings of 90 and 95 dBA
- **Synchronization Modules**
 - The strobe portion, when synchronization is required, is compatible with the Siemens DSC sync modules; the Siemens 252-point and 504-point addressable FACPs, as well as with:
 - FireFinder® XLS and MXL® FACPs
 - PAD-4™ NAC Extenders with built-in sync protocol
 - The strobes will not drift out of synchronization at any time during operation
 - Audibles and strobes are able to synchronize on a two-wire circuit with the capability to silence the audible, if required
 - Strobes revert to a non-synchronized flash-rate, if the sync module or power supply should fail to operate (i.e. – contacts remain closed)
 - All signaling devices (notification appliances) are listed for Special Applications:
 - Strobes are designed to flash at 1-flash-per-second minimum over their “Regulated Input Voltage Range”
 - **Note:** 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 Standard 1971
 - Series ZH Strobe products are listed under UL CAN/ULC-S526 and CAN/ULC-S525 for indoor use with a temperature range of 0°C to 49°C (32°F to 120°F) and maximum humidity of 93% (\pm 2%)
 - Series ZH horns are listed under UL CAN/ULC-S525-07 for Audible Signal Devices for Fire Alarm Systems (Indoor use only)

Mounting Diagram



(Shown In Inches)

Mounting Diagram

Installation

**Removal
(SEE: STEP #8)**

- 1.) With the provided pan head screws, install mounting plate to a:
 - single-gang;
 - double-gang;
 - 4" (10.2 cm.) square;
 - 4" (10.2 cm.) octagon backbox
- 2.) Connect the field wiring.
- 3.) Address wires back into backbox.
- 4.) Place dust cover over mounting plate to protect the terminals while performing the wiring-continuity check.
- 5.) Remove dust cover before snapping or installing the appliance onto the mounting plate
- 6.) **Important:** Device only has one (1) mounting orientation. Match the top of the base to the top of the device.
- 7.) If it is desired to further secure the device to the base, then use the two (2) optional screws which are provided in the shipment. To install, punch out the screw holes located at the top and bottom of the device.
- 8.) To remove the appliance, push a small, flat-bladed screwdriver into the side opening. The screwdriver must clear the snap release opening by 1/4" (0.64cm.), in order for the appliance's snap to disengage.

Important: Do not pry off the housing with a screw driver.

Technical Data

ZH Horn: Wall and Ceiling Mount

| Operating Voltage (Special Application) | | | |
|---|-----------------|-------|-------|
| Per ©UL 464 | | | |
| | Input Voltage | Low* | High* |
| DC | 16.0 – 33.0VDC | 0.018 | 0.044 |
| FWR | 16.0 – 33.0VRMS | 0.045 | 0.075 |

* Current draw is the same for the Continuous Horn, Code 3 Horn, and March Time settings

ZH Horn / Strobe Series: Wall Mount

| Current Ratings (AMPs) | | | | | | | |
|---|-----------------|-------|-------|-------|-------|-------|-------|
| MAXIMUM RMS Current – with High dBA Setting | | | | | | | |
| Input Voltage | | 15cd | 30cd | 75cd | 110cd | 135cd | 185cd |
| DC | 16.0 – 33.0VDC | 0.078 | 0.113 | 0.195 | 0.259 | 0.371 | 0.506 |
| FWR | 16.0 – 33.0VRMS | 0.141 | 0.200 | 0.302 | 0.406 | 0.521 | 0.722 |

| Current Ratings (AMPs) | | | | | | | |
|--|-----------------|-------|-------|-------|-------|-------|-------|
| MAXIMUM RMS Current – with Low dBA Setting | | | | | | | |
| Input Voltage | | 15cd | 30cd | 75cd | 95cd | 135cd | 185cd |
| DC | 16.0 – 33.0VDC | 0.070 | 0.107 | 0.188 | 0.246 | 0.324 | 0.455 |
| FWR | 16.0 – 33.0VRMS | 0.123 | 0.179 | 0.290 | 0.391 | 0.497 | 0.699 |

ZH Horn / Strobe Series: Ceiling Mount

| Current Ratings (AMPs) | | | | | | | |
|---|-----------------|-------|-------|-------|-------|-------|-------|
| MAXIMUM RMS Current – with High dBA Setting | | | | | | | |
| Input Voltage | | 15cd | 30cd | 75cd | 95cd | 115cd | 177cd |
| DC | 16.0 – 33.0VDC | 0.087 | 0.131 | 0.222 | 0.292 | 0.371 | 0.506 |
| FWR | 16.0 – 33.0VRMS | 0.149 | 0.216 | 0.331 | 0.436 | 0.521 | 0.722 |

| Current Ratings (AMPs) | | | | | | | |
|--|-----------------|-------|-------|-------|-------|-------|-------|
| MAXIMUM RMS Current – with Low dBA Setting | | | | | | | |
| Input Voltage | | 15cd | 30cd | 75cd | 95cd | 115cd | 177cd |
| DC | 16.0 – 33.0VDC | 0.075 | 0.121 | 0.213 | 0.277 | 0.324 | 0.455 |
| FWR | 16.0 – 33.0VRMS | 0.131 | 0.195 | 0.319 | 0.421 | 0.497 | 0.699 |

ZR Strobe Series: Wall Mount

| Current Ratings (AMPs) | | | | | | | |
|------------------------|-----------------|-------|-------|-------|-------|-------|-------|
| Strobe Setting – (cd) | | | | | | | |
| Input Voltage | | 15cd | 30cd | 75cd | 110cd | 135cd | 185cd |
| DC | 16.0 – 33.0VDC | 0.064 | 0.098 | 0.175 | 0.233 | 0.318 | 0.445 |
| FWR | 16.0 – 33.0VRMS | 0.108 | 0.164 | 0.268 | 0.368 | 0.482 | 0.684 |

ZR Strobe Series: Ceiling Mount

| Current Ratings (AMPs) | | | | | | | |
|------------------------|-----------------|-------|-------|-------|-------|-------|-------|
| Strobe Setting – (cd) | | | | | | | |
| Input Voltage | | 15cd | 30cd | 75cd | 95cd | 115cd | 177cd |
| DC | 16.0 – 33.0VDC | 0.069 | 0.111 | 0.200 | 0.264 | 0.318 | 0.445 |
| FWR | 16.0 – 33.0VRMS | 0.117 | 0.180 | 0.297 | 0.398 | 0.482 | 0.684 |

| ©ULC Directional Characteristics | |
|----------------------------------|-----------------------------------|
| -3 dBA | 35 degrees left; 40 degrees right |
| -6 dBA | 55 degrees left; 65 degrees right |





ZH and ZH-MC Series: Wall and Ceiling Mount

| dBA Sound Output | | | | |
|-------------------------------|--------|-------------------------|----------|----------|
| Description | Volume | Reverberant Per ©UL 464 | | |
| | | 16.0 VDC | 24.0 VDC | 33.0 VDC |
| Continuous Horn | Low | 77 | 81 | 83 |
| | High | 83 | 87 | 90 |
| Code 3 Horn (or March Time)** | Low | 72 | 76 | 79 |
| | High | 79 | 82 | 86 |

| dBA Sound Output | | | | |
|-------------------------------|--------|------------------------------|----------|----------|
| Description | Volume | Reverberant Per ©ULC-S525-07 | | |
| | | 20.0 VDC | 24.0 VDC | 31.0 VDC |
| Continuous Horn | Low | 88 | 90 | 91 |
| | High | 93 | 95 | 96 |
| Code 3 Horn (or March Time)** | Low | 88 | 90 | 91 |
| | High | 93 | 95 | 96 |

** Available only in sync mode.

Technical Data – (continued)

- Notes:**
1. Strobes will produce 1 flash per second over the Input Voltage range.
 2. These horn/strobe models are ULC & UL Listed to operate over a Voltage Range Limit from 16.0VDC to 33.0VDC for 24VDC applications using filtered DC or unfiltered Full-Wave-Rectified (FWR) input voltage.
 3. All models are ULC & UL Listed for indoor ceiling use with a temperature range of +0°C to +49°C (+32°F to +120°F) and maximum humidity of 93% +/- 2% RH.
The effect of shipping and storage temperatures will not adversely affect the performance of the appliance when stored in original cartons, and is not subjected to either misuse or improper handling of shipment.

Details for Ordering – (Including Mounting Options & Agency Approvals)

Agency Approvals

| Model | Part Number | Description | Mounting Options* | UL | ULC | FM | CSFM |
|-------------|-------------|---|-------------------|----|-----|----|------|
| ZH-R | 500-636159 | Z Horn: Red | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZH-W | 500-636160 | Z Horn: White | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZH-MC-R-B | 500-636161C | Z Horn: Multi Candela (Wall), Red - Bilingual | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZH-MC-W-B | 500-636162C | Z Horn: Multi Candela (Wall), White - Bilingual | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZH-HMC-R-B | 500-636163C | Z Horn: Hi Multi Candela (Wall), Red - Bilingual | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZH-HMC-W-B | 500-636164C | Z Horn: Hi Multi Candela (Wall), White - Bilingual | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZH-MC-CR-B | 500-636165C | Z Horn: Multi Candela (Ceiling), Red - Bilingual | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZH-MC-CW-B | 500-636166C | Z Horn: Multi Candela (Ceiling), White - Bilingual | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZH-HMC-CR-B | 500-636167C | Z Horn: Hi Multi Candela (Ceiling), Red - Bilingual | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZH-HMC-CW-B | 500-636168C | Z Horn: Hi Multi Candela (Ceiling), White - Bilingual | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZR-MC-R-B | 500-636169C | Z Strobe: Multi Candela (Wall), Red - Bilingual | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZR-MC-W-B | 500-636170C | Z Strobe: Multi Candela (Wall), White - Bilingual | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZR-HMC-R-B | 500-636171C | Z Strobe: Hi Multi-Candela (Wall), Red - Bilingual | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZR-HMC-W-B | 500-636172C | Z Strobe: Hi Multi-Candela (Wall), White - Bilingual | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZR-MC-CR-B | 500-636173C | Z Strobe: Multi Candela (Ceiling), Red - Bilingual | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZR-MC-CW-B | 500-636174C | Z Strobe: Multi Candela (Ceiling), White - Bilingual | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZR-HMC-CR-B | 500-636175C | Z Strobe: Hi Multi Candela (Ceiling), Red - Bilingual | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZR-HMC-CW-B | 500-636176C | Z Strobe: Hi Multi Candela (Ceiling), White - Bilingual | B,D,E,F,X | ✓ | ✓ | ✓ | ✓ |
| ZB-R | 500-636193 | Accessory – (Includes base, dust cover, mounting screws and installation sheet) | | ✓ | ✓ | ✓ | ✓ |
| ZB-W | 500-636194 | Accessory – (Includes base, dust cover, mounting screws and installation sheet) | | ✓ | ✓ | ✓ | ✓ |

✓ = Listed / Approved

* = Refer to data sheet #2585 for detailed mounting options

Notice: This marketing data sheet is not intended to be used for system design or installation purposes. For the most up-to-date information, refer to each product's installation instructions.