SIEMENS

Data Sheet
Fire Safety Products

Notification Appliances

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

Application: Indoor



ZH Series



ZR Series



ZR & ZH (for mounting)

Product Overview

- Strobes can be synchronized using the Siemens DSC sync modules, the Siemens 50-point, 252-point and 504-point addressable fire alarm control panels (FACPs), as well as with:
  - FireFinder® XLS and MXL® FACPs
  - PAD-3 or 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 ®UL Standard 1971 (Standard for Safety Signaling Devices for Hearing Impaired) 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 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)

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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 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 32°F to 120°F (0°C to 49°C), 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 ®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 50-point, 252-point and 504-point addressable FACPs, as well as with:

- FireFinder® XLS and MXL® FACPs
- PAD-3 or PAD-4™ NAC Extenders with built-in sync protocol

– The strobes will not drift out of synchronization at any time during operation

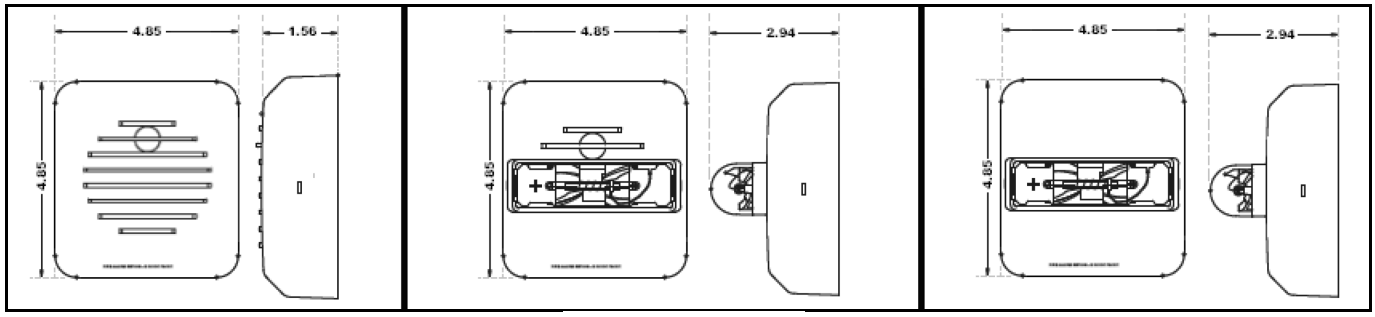
– Audibles and strobes are able to synchronize on a two-wire circuit with the capability to silence the audible, if required

– 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 notification appliances are listed for Special Applications:

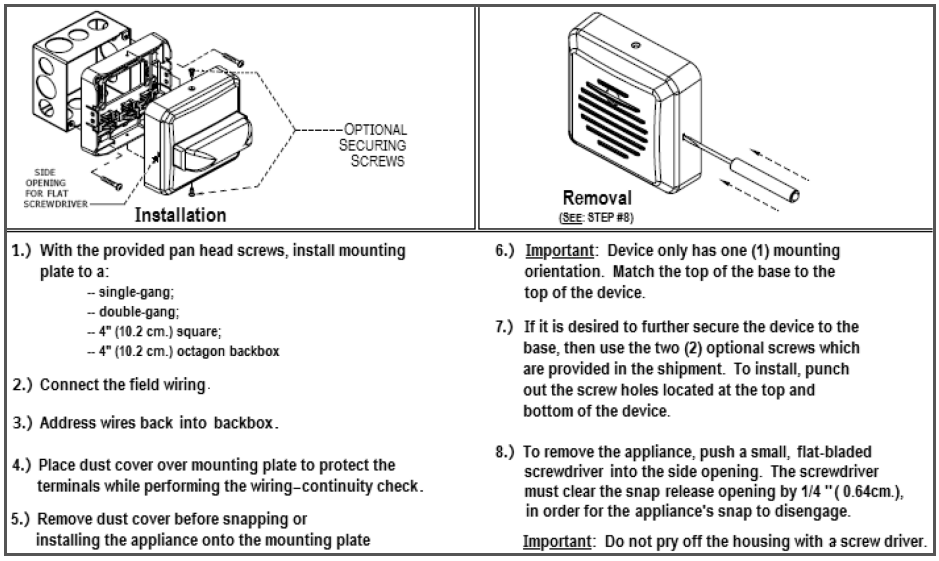
- Strobes are designed to flash at 1-flash-per-second minimum over their ``Regulated Input Voltage Range"
  - **Note:** NFPA-72 specifies a flash rate of 1-to-2 flashes per second, and ADA Guidelines specify a flash rate of 1-to-3 flashes per second
- All candela ratings represent minimum-effective Strobe intensity, based on ®UL Standard 1971
- Series ZH Strobe products are listed under ®UL Standards 1971 and 464 for indoor use with a temperature range of 32°F to 120°F (0°C to 49°C) and maximum humidity of 93% (± 2%)
- Series ZH horns are listed under ®UL Standard 464 for audible signal appliances (Indoor use only)

Mounting Diagram



(Shown In Inches)

Mounting Diagram



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-S525-99**		
		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 ®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 ®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	500-636161	Z Horn: Multi Candela (Wall), Red	B,D,E,F,X	✓	✓	✓	✓
ZH-MC-W	500-636162	Z Horn: Multi Candela (Wall), White	B,D,E,F,X	✓	✓	✓	✓
ZH-HMC-R	500-636163	Z Horn: Hi Multi Candela (Wall), Red	B,D,E,F,X	✓	✓	✓	✓
ZH-HMC-W	500-636164	Z Horn: Hi Multi Candela (Wall), White	B,D,E,F,X	✓	✓	✓	✓
ZH-MC-CR	500-636165	Z Horn: Multi Candela (Ceiling), Red	B,D,E,F,X	✓	✓	✓	✓
ZH-MC-CW	500-636166	Z Horn: Multi Candela (Ceiling), White	B,D,E,F,X	✓	✓	✓	✓
ZH-HMC-CR	500-636167	Z Horn: Hi Multi Candela (Ceiling), Red	B,D,E,F,X	✓	✓	✓	✓
ZH-HMC-CW	500-636168	Z Horn: Hi Multi Candela (Ceiling), White	B,D,E,F,X	✓	✓	✓	✓
ZR-MC-R	500-636169	Z Strobe: Multi Candela (Wall), Red	B,D,E,F,X	✓	✓	✓	✓
ZR-MC-W	500-636170	Z Strobe: Multi Candela (Wall), White	B,D,E,F,X	✓	✓	✓	✓
ZR-HMC-R	500-636171	Z Strobe: Hi Multi-Candela (Wall), Red	B,D,E,F,X	✓	✓	✓	✓
ZR-HMC-W	500-636172	Z Strobe: Hi Multi-Candela (Wall), White	B,D,E,F,X	✓	✓	✓	✓
ZR-MC-CR	500-636173	Z Strobe: Multi Candela (Ceiling), Red	B,D,E,F,X	✓	✓	✓	✓
ZR-MC-CW	500-636174	Z Strobe: Multi Candela (Ceiling), White	B,D,E,F,X	✓	✓	✓	✓
ZR-HMC-CR	500-636175	Z Strobe: Hi Multi Candela (Ceiling), Red	B,D,E,F,X	✓	✓	✓	✓
ZR-HMC-CW	500-636176	Z Strobe: Hi Multi Candela (Ceiling), White	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.

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