RESURGAM CITY OF PORTLAND, MAINE
Reviewed for Code Compliance
Inspections Division
Approved with Conditions
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'08 Series Notification Applia

MTH – Multi-tone Horn & Horn / Strobe Appliances

Application: Indoor / Outdoor

MTH-MC-W

MTH-15-115-R-WP

MTH-R

Product Overview

- Series MTH appliances have In / Out wiring terminations that accept (2) two #12 to #18 American Wire Gauge (AWG) wires at each terminal
  - Inputs are polarized for compatibility with standard reverse polarity-type supervision
- Strobes can be synchronized using the Siemens DSC sync modules, FS-250 panel, XLS panel, MXL panel, or PAD-3 power supply with built-in sync protocol
- MTH Strobe models are available with Siemens MC multi-Candela strobes with field-selectable Candela settings at: 15/30/75/110cd
- One alarm appliance with (8) eight selective signals to provide superior sound penetration for various ambient and wall conditions with two field-selectable, sound-output levels
- Audible and strobe can operate from a single NAC circuit or from separate NAC circuits with any of the (8) eight audible sounds
- No additional trim plate required for flush mounting
- Code-3 Horn and Tone meet ANSI / NFPA temporal pattern for standard, emergency-evacuation signaling
- ®UL Listed & ®ULC Listed; FM, CSFM & NYMEA Approved
- Complies with OSHA 29, Part 1910.165

Specifications

- Notification appliances shall be a Siemens Series MTH audible / visual appliance or equivalent
- Notification appliance shall be electronic and use solid state components
  - Electromechanical alternatives are not approved
- Each electronic appliance shall provide (8) eight field selectable alarm tones, consisting of:
  - Horn, Bell, March Time Horn, Code-3 Horn, Code-3 Tone, Slow Whoop, Siren and HI / LO
- Tone selection shall be by durable dip switch assembly and not clips or jumpers
- Multi-tone Audible appliance shall be ®UL Listed under Standard 464 for Audible Signal Appliances
- The audible and the strobe shall be able to operate from a single NAC circuit while producing any of these tones
- The appliance shall provide two output sound levels: Standard and High dBA Anechoic
- The HIGH dBA Anechoic setting shall provide a minimum 5 dBA Anechoic increase in sound output at nominal voltage
- HIGH anechoic dBA measurement at 10 feet at the alarm horn setting shall be 99 dBA minimum

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Specifications – (continued)

- All models shall have provisions for standard reverse polarity-type supervision and In / Out field wiring using terminals that accept #12 to #18 AWG wiring
- Combination audible/visual appliances shall incorporate a Xenon flashtube enclosed in a rugged Lexan® lens or equivalent with solid state circuitry
- Strobe portion of the appliance shall produce a flash rate of 1 flash per second over the Regulated Input Voltage Range
- The MTH strobe intensity shall be rated per ®UL Listed and under Standard 1971 for Signaling Devices for the Hearing Impaired for field selectable 15/30/75/110 candela settings
- Strobe models shall incorporate circuitry for synchronized strobe flash, and shall be designed for compatibility with the Siemens DSC sync modules, FS-250 panel, XLS panel, or PAD-3 power supply with built-in sync protocol
- The strobes shall not drift out of synchronization at any time during operation
- The strobes shall revert to a non-synchronized flash-rate, if the sync module or Power Supply should fail to operate (i.e. – contacts remain closed)
- Strobe activation shall be via independent input or from the same input circuit as the audible
- Combination of audible / visual appliances shall be installed indoors, and may be surface or flush mounted
- Combination of audible / visual appliances shall mount to standard electrical hardware requiring no additional trim plate or adapter
- Aesthetic appearance shall not have any mounting holes or screw heads visible when the installation is completed
- Appliance shall be finished in a textured red color
- All notification appliances shall 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

Mounting Diagram

(Shown In Inches)

Mounting Options

Mounting Options – (cont.'d)

Technical Data

Models	UL Listed Models and Ranges			ULC Listed Models and Ranges		
	Operating Voltage (Special Application) [Per UL 464] (VDC/VRMS)	Reverberant dBA [Per UL 464 @ 10 Ft.]	Strobe Candela (cd)	Voltage Range [Per ULC-S525-99] (VDC/VRMS)	Anechoic dBA [Per ULC-S525-99 @ 10 Ft.]	Strobe Candela (cd)
MTH*	16.0-33.0	76-94	N/A	20.0-31.0	85-100	N/A
MTH-MC*	16.0-33.0	76-94	15/30/75/110	20.0-31.0	85-100	15/30/75/110

*Available in red and white

Tone	UL Current Ratings for Multitone Audible Appliances				
	Description	Maximum RMS Current (AMPS) 24VDC		24VRMS	
		HI	STD	HI	STD
Horn	Broadband Horn (Continuous)	0.108	0.044	0.087	0.045
Bell	1560 Hz Modulated (0.07 Sec. ON/Repeat)	0.053	0.024	0.051	0.028
March Time Horn	Horn (0.25 Sec. ON/0.25 Sec. OFF/Repeat)	0.104	0.087	0.087	0.045
Code 3 Horn	Horn (ANSI S3.41 Temporal Pattern)	0.091	0.035	0.087	0.045
Code 3 Tone	500 Hz (ANSI S3.41 Temporal Pattern)	0.075	0.035	0.056	0.029
Slow Whoop	500-1200Hz Sweep (4.0 Sec. ON/0.5 Sec. OFF/Repeat)	0.098	0.037	0.092	0.042
Siren	600-1200Hz Sweep (1.0 Sec. ON/Repeat)	0.104	0.036	0.092	0.040
HI/LO	1000/800 Hz (0.25 Sec. ON/Alternate)	0.057	0.025	0.058	0.032

Tone	ULC Average Current Ratings for Audible Appliances			
	HI/LO Volume	24VDC Models		
		20VDC	24VDC	31VDC
Horn	HI	0.036	0.040	0.050
	STD	0.021	0.023	0.029
Bell	HI	0.013	0.014	0.018
	STD	0.011	0.012	0.015
March Time	HI	0.036	0.040	0.050
	STD	0.021	0.023	0.029
Code 3 Horn	HI	0.036	0.040	0.050
	STD	0.021	0.023	0.029
Code 3 Tone	HI	0.025	0.028	0.035
	STD	0.015	0.017	0.021
Slow Whoop	HI	0.043	0.048	0.060
	STD	0.023	0.026	0.033
Siren	HI	0.032	0.036	0.045
	STD	0.021	0.023	0.029
HI/LO	HI	0.018	0.020	0.025
	STD	0.013	0.014	0.018

Notes:
1. Strobe will produce 1 flash per second over the Input Voltage range.
2. This strobe / horn model meets the required light distribution patterns defined in UL 1971
3. This model is UL Listed for indoor use with a temperature range of +32°F to +120°F (0°C to +49°C) and maximum humidity of 93% + 2% RH. The effect of shipping and storage temperatures shall not adversely affect the performance of the appliance when it is stored in the original cartons and not subjected to misuse or abuse.
4. All models are UL / ULC Listed for indoor use with a temperature range of +32°F to +120°F (0°C to +49°C) and maximum humidity of 93%.
5. These notification appliances are UL Listed as "Special Application". They are intended to be used only with Siemens notification appliance circuits.

Technical Data – (continued)

Tone	HI/LO Volume	dBA Ratings: dBA Reverberant Ratings Per UL 464 [24VDC Models] 16V	24V	33V	dBA Anechoic Ratings Per ULC S525-99 [24VDC Models] 20V	24V	31V
Horn	HI	89	92	94	97	99	100
	STD	84	87	90	91	93	94
Bell	HI	83	86	88	90	92	93
	STD	76	80	83	85	87	88
March Time	HI	86	89	91	97	99	100
	STD	80	84	87	91	93	94
Code 3 Horn	HI	85	88	90	97	99	100
	STD	79	83	86	91	93	94
Code 3 Tone	HI	81	85	86	93	95	96
	STD	76	80	82	88	90	91
Slow Whoop	HI	87	90	92	97	99	100
	STD	81	85	87	92	94	95
Siren	HI	86	89	92	96	98	99
	STD	81	84	87	91	93	94
HI/LO	HI	83	86	89	91	93	94
	STD	77	81	84	86	88	89

Input Voltage and dBA Sound Output Level Settings	
Input Voltage and Decibel Level	DP1 and SW1 Settings
24 VDC/HIGH	Set DP1 on 24; set SW1 POS 1 on 1 (Factory Setting)
24 VDC /STD	Set DP1 on 24; set SW1 POS 1 on 0

Current Ratings for MTH-MC (Strobe only) Maximum RMS Current (AMPS)			Settings			
	UL Voltage	ULC Voltage	15	30	75	110
DC	16-33VDC	20-31VDC	0.064	0.098	0.175	0.233
FWR	16-33VRMS	20-31VRMS	0.108	0.164	0.268	0.368

MTH-MC	ULC Directional Characteristics: Horizontal	Vertical
24VDC	-3dBA: 30 degrees left 40 degrees right	-3dBA: 20 degrees upward 80 degrees downward
	-6dBA: 50 degrees left 70 degrees right	-6dBA: 40 degrees upward 90+ degrees downward

Alarm Tones		SW1 Switch Settings		
Tone	Pattern Description	POS 2	POS 3	POS 4
Horn	Broadband Horn (Continuous)	1	1	1
Bell	1560 Hz Modulated (0.07 Sec. ON/Repeat)	1	0	1
March Time Horn	Horn (0.25 Sec. ON/0.25 Sec. OFF/Repeat)	0	0	1
Code 3 Horn	Horn (ANSI S3.41 Temporal Pattern)	1	1	0
Code 3 Tone	500 Hz (ANSI S3.41 Temporal Pattern)	0	1	1
Slow Whoop	500-1200 Hz Sweep (4.0 Sec. ON/0.5 Sec. OFF/Repeat)	0	1	0
Siren	600-1200 Hz Sweep (1.0 Sec.ON/Repeat)	1	0	0
HI/LO	1000/800 Hz (0.25 Sec. ON/Alternate)	0	0	0

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

Model Number	Part Number	Description	Mounting Options*	Agency Approvals: UL	ULC	FM	CSFM
MTH-R	500-636076	MTH Horn: Red	D,E,F,L,M,O,P,R	X	X	X	X
MTH-W	500-636077	MTH Horn: White	D,E,F,L,M,O,P,R	X	X	X	X
MTH-MC-R	500-636078	MTH Horn: Multi-Candela, Red	D,E,F,L,M,O,P,R	X	X	X	X
MTH-MC-R-AR	500-650226	MTH Horn: Multi-Candela (Agent Release), Red	D,E,F,L,M,O,P,R	X	X	X	X
MTH-MC-W	500-636079	MTH Horn: Multi-Candela, White	D,E,F,L,M,O,P,R	X	X	X	X
MTH-75-R-WP	500-636082	MTH Horn: 180CD, White	M	X	X	X	X
MTH-15-115-R-WP	500-636080	MTH Horn: 15CD / 115V, Red	D,E,J,K,N,O,R	X	X	X	X
MTH-HMC-CR-WP	500-636185	MTH Horn: Hi Multi-Candela Ceiling Weatherproof, Red	MT-SUR-BOX, MT-SUR-BOX + WPS-KIT, WFPS	X	X	X	X
MTH-HMC-CW-WP	500-636186	MTH Horn: Hi Multi-Candela Ceiling Weatherproof, White	MT-SUR-BOX, MT-SUR-BOX + WPS-KIT, WFPS	X	X	X	X
MTH-HMC-R-WP	500-636187	MTH Horn: Hi Multi-Candela Weatherproof, Red	MT-SUR-BOX, MT-SUR-BOX + WPS-KIT, WFPS	X	X	X	X
MTH-HMC-W-WP	500-636188	MTH Horn: Hi Multi-Candela Weatherproof, White	MT-SUR-BOX, MT-SUR-BOX + WPS-KIT, WFPS	X	X	X	X

X = listed / approved *= Refer to catalog sheet #: 2585 for detailed mounting options

Notice: This marketing catalog 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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