



## Sinorix™ Engineered Fire Suppression Systems Agent-Release Signaling Appliances Models MTH-MC-R-AR (Horn / Strobe) & ST-MC-R-AR (Standalone Strobe)

### ARCHITECT AND ENGINEER SPECIFICATIONS

#### Model: MTH-MC-R-AR

- Device text reads: *Agent* over a **red** cover
- Series MTH appliances have IN / OUT wiring terminations that accept two #12 to #18 American Wire Gauge (AWG) wires at each terminal
  - Inputs are polarized for compatibility with standard reverse polarity type supervision
- One (1) alarm appliance with eight (8) selective signals to provide superior sound penetration for various ambient and wall conditions with two (2), field-selectable sound output levels
- Code-3 Horn and Tone meet ANSI / NFPA temporal pattern for standard emergency-evacuation signaling
- Audible and strobe can operate from a single NAC circuit or from separate NAC circuits with any of the eight (8) audible sounds
- MTH Strobe models are available with Siemens MC Multi-Candela strobes with field selectable candela settings at 15 / 30 / 75 / 110cd
- Synchronized using the Siemens DSC sync modules:
  - FS-250 panel
  - XLS panel, or
  - PAD-3 power supply with built-in sync protocol
- No additional trim plate required for flush mounting
- Designed to meet or exceed ADA / NFPA / UFC / ANSI Standards and Accessibility Guidelines
- Complies with OSHA 29, Part 1910.165
- UL Listed and ULC Listed;  
FM / CSFM Pending & NYMEA Approved





MTH-MC-R-AR  
(Horn / Strobe)



ST-MC-R-AR  
(Standalone Strobe)

#### Model: ST-MC-R-AR

- Device text reads: *Agent* over a **red** cover
- Provides four (4) selectable light-output intensities to one (1) unit
- Ceiling-mount, Multi-Candela models are available with field-selectable candela settings of 15 / 30 / 75 / 95cd or 115 / 177cd
  - [round or square]
- Strobes produce 1-flash-per-second over the regulated voltage range
- Xenon flashtube with solid-state circuitry enclosed in a polycarbonate lens is used to provide maximum visibility and reliability for effective visible signaling
- All inputs are polarized for compatibility
- Synchronized using the Siemens DSC sync modules:
  - FS-250 panel
  - XLS panel, or
  - PAD-3 power supply with built-in sync protocol
- Fast installation with IN / OUT screw terminals using #12 to #18 AWG wire
- Meets OSHA 29 Part 1910.165
- UL Listed and ULC Listed;  
FM / CSFM Pending & NYMEA Approved

## Product Overview





### Model MTH-MC

The Model MTH-MC series of strobes provides up to four (4) selectable candela settings (15, 30, 75 and 110). The Model MTH-MC series of strobes also provides a non-synchronized strobe appliance when connected directly to a fire-alarm control panel (FACP).

The Model MTH-MC series of strobes are listed for wall mount only, with the backboxes specified in these instructions.




(See: **Mounting Options** section of this document).

The Multi-tone Strobe Appliances use a Xenon flashtube with solid-state circuitry enclosed in a polycarbonate lens to provide maximum visibility and reliability for effective visible signaling.

The multi-tone strobe appliances are UL Listed under Standard 1971 for Signaling Devices for the Hearing Impaired and UL Standard 464 for Audible Signal Appliances. The Multi-tone Strobe Appliances are also ULC Listed under Standard CAN/ULC-S526-02 for Visual Signaling and under Standard CAN/ULC-S525-99 for Audible Signal Devices for Fire Alarm Systems.



### Model ST-MC


The Model ST-MC Strobe Appliances can provide a non-synchronized strobe appliance when connected directly to a Fire Alarm Control Panel (FACP), or provide a synchronized strobe appliance when connected to a notification appliance circuit running the Siemens sync protocol.

The Model ST-MC series of strobes are UL Listed under Standard 1971 (Signaling Devices for the Hearing Impaired) for indoor Fire Protection Service and ULC Listed under Standard CAN / ULC-S526-07 for indoor Fire Protective Service. The Multi-Candela Strobe provides four (4) selectable light-output intensities in one (1) unit. These strobes are listed for wall-mount only with the backboxes specified in these instructions.

(See: **Mounting Options** section of this document).

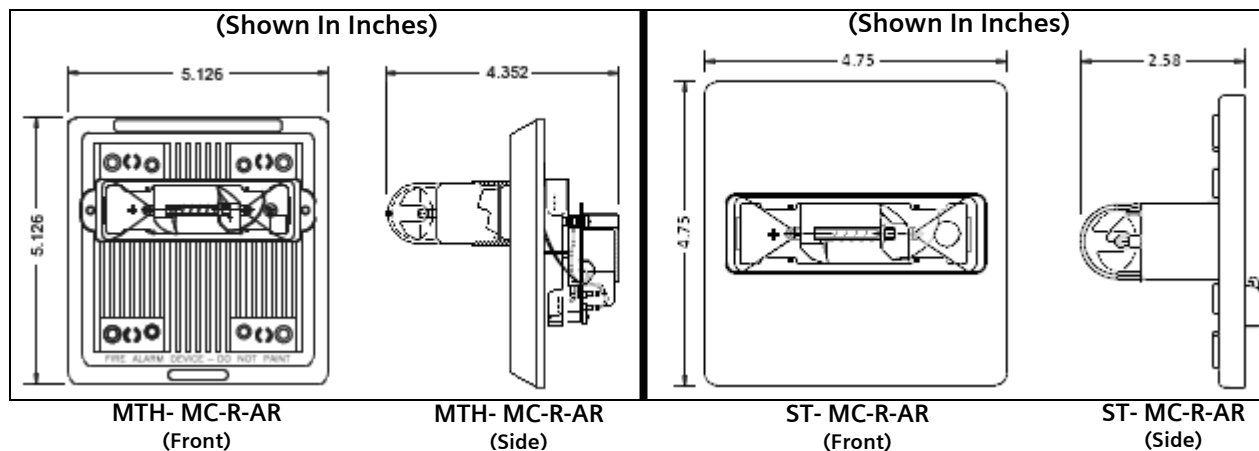
The Model ST-MC series of strobes have an integrated strobe mounting plate that can be mounted to a single-gang, double-gang, 4" backbox, 100mm European backbox or SHBBS surface backbox. The Model ST series of strobes use a Xenon flashtube with solid-state circuitry enclosed in a polycarbonate lens to provide maximum visibility and reliability for effective visible signaling. All inputs are polarized for compatibility with standard, reverse polarity supervision of circuit wiring by the FACP.

All Model ST-MC series of strobes are listed by UL and ULC 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 is not subjected to misuse or abuse.

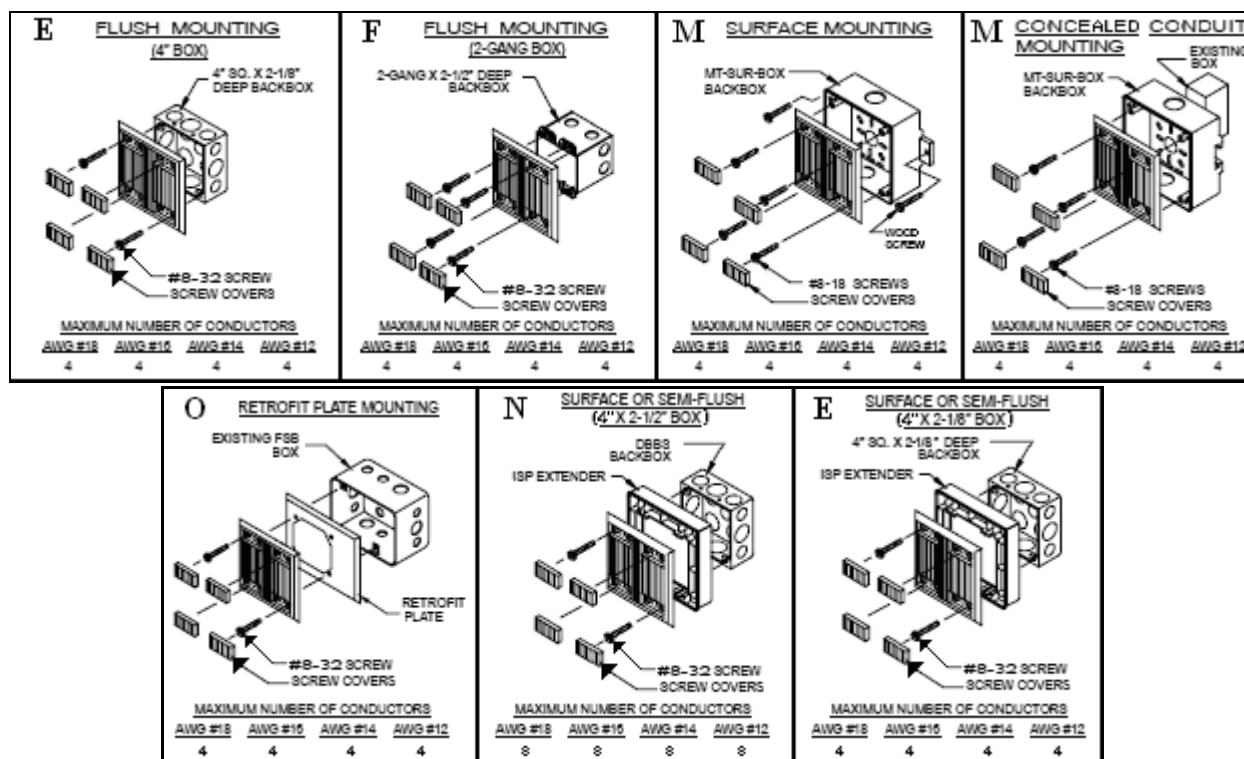
**Note:** All Canadian installations should be in accordance with the Canadian Standard for the Installation of Fire Alarm Systems - CAN / ULC-S524 and Canadian Electrical Code, Part 1. Final acceptance is subject to the authority having jurisdiction (AHJ).

NFPA 72 / ANSI 117.1 conforms to ADAAG Equivalent Facilitation Guidelines in using fewer, higher intensity strobes within the same protected area.

## Mounting Diagrams

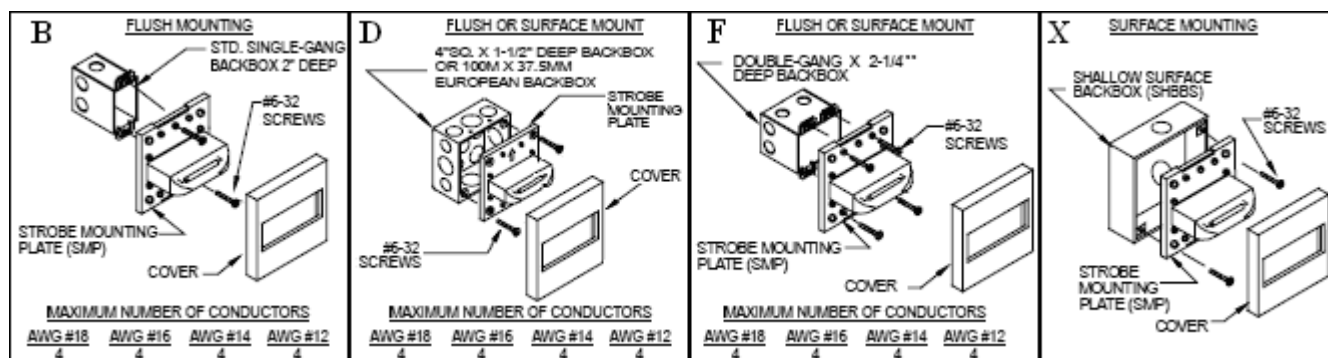


### Mounting Options — Model MTH-MC



**Note:** Refer to data sheet #: 2585 for detailed mounting options.

### Mounting Options — Model ST-MC series



**Note:** Refer to data sheet #: 2585 for detailed mounting options.

# Technical Data

## Model MTH-MC

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-MC	16.0-33.0	76-94	15/30/75/110	20.0-31.0	85-100	15/30/75/110

Tone	Description	UL Current Ratings for Multitone Audible Appliances			
		Maximum RMS 24VDC		Current (AMPS) 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	HI/LO Volume	ULC Average Current Ratings for Audible Appliances		
		24VDC Models		
		20VDC	24VDC	31VDC
Horn	HI	0.038	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	0.038	0.040	0.050
	STD	0.021	0.023	0.029
Code 3 Horn	HI	0.038	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. Model MTH-MC will produce 1 flash per second over the Input Voltage range.
  2. Model MTH-MC meets the required light distribution patterns defined in UL 1971
  3. Model MTH-MC 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.

Tone	HI/LO Volume	dBA Ratings						Input Voltage and dBA Sound Output Level Settings			
		dBA Reverberant Ratings Per UL 464 [24VDC Models]			dBA Anechoic Ratings Per ULC S525-99 [24VDC Models]			Input Voltage and Decibel Level		DP1 and SW1 Settings	
		16V	24V	33V	20V	24V	31V	HIGH dBA:		Set DP1 on 24; set SW1 POS 1 on 1 (Factory Setting)	
Horn	HI	89	92	94	97	99	100	STD dBA:		Set DP1 on 24; set SW1 POS 1 on 0	
	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				

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	

ULC Directional Characteristics			
MTH-MC	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	

## Technical Data

### Model ST-MC

Model	UL and ULC Listed Ratings		
	Operating Voltage (Special Application) [Per UL 1971] (VDC/VRMS)	Voltage Range [Per ULC-S526-02] (VDC/VRMS)	Strobe Candela (cd)
ST-MC	16.0-33.0	16.0-33.0	15/30/75/110
ST-CMC	16.0-33.0	16.0-33.0	15/30/75/110
ST-MC-RETRO	16.0-33.0	16.0-33.0	15/30/75/110
ST-CMC-RETRO	16.0-33.0	16.0-33.0	15/30/75/110

Audibles/Speakers for ST-MC-RETRO Strobe/Plate	
Product	Series
Multitone Appliances	MTH, MTH-15-115
Horns	AH, ZH
Speakers	STSF/STFL, ST, SEF
Chimes	CH

Current Ratings Maximum RMS Current (AMPS)					
Voltage		15cd	30cd	75cd	110cd
DC	16-33VDC	0.064	0.098	0.175	0.233
FWR	16-33VRMS	0.108	0.164	0.268	0.368

UL Light Output - Horizontal Plane								
Horizontal Angle (in deg.)	15cd		30cd		75cd		110cd	
	UL Min.	Typ. 15cd	UL Min.	Typ. 30cd	UL Min.	Typ. 75cd	UL Min.	Typ. 110cd
0	15.0	22	30.0	44	75.0	110	110.0	158
5	13.5	22	27.0	42	67.5	114	99.0	162
10	13.5	23	27.0	42	67.5	110	99.0	166
15	13.5	22	27.0	41	67.5	110	99.0	163
20	13.5	21	27.0	40	67.5	108	99.0	163
25	13.5	20	27.0	38	67.5	102	99.0	139
30	11.3	20	22.5	38	56.3	103	82.5	142
35	11.3	18	22.5	36	56.3	97	82.5	135
40	11.3	18	22.5	35	56.3	93	82.5	130
45	11.3	20	22.5	39	56.3	103	82.5	143
50	8.3	19	16.5	37	41.3	93	60.5	133
55	6.8	14	13.5	27	33.8	71	49.5	98
60	6.0	15	12.0	30	30.0	73	44.0	102
65	5.3	15	10.5	28	26.3	71	38.5	97
70	5.3	14	10.5	25	26.3	64	38.5	88
75	4.5	12	9.0	23	22.5	54	33.0	76
80	4.5	10	9.0	17	22.5	47	33.0	64
85	3.8	5	7.5	10	18.8	25	27.5	33
90	3.8	7	7.5	15	18.8	39	27.5	52

UL Light Output - Vertical Plane								
Vertical Angle (in deg.)	15cd		30cd		75cd		110cd	
	UL Min.	Typ. 15cd	UL Min.	Typ. 30cd	UL Min.	Typ. 75cd	UL Min.	Typ. 110cd
0	15.0	23	30.0	45	75.0	113	110.0	160
5	13.5	24	27.0	48	67.5	119	99.0	166
10	13.5	21	27.0	39	67.5	101	99.0	143
15	13.5	19	27.0	39	67.5	102	99.0	136
20	13.5	19	27.0	37	67.5	98	99.0	122
25	13.5	18	27.0	35	67.5	88	99.0	122
30	13.5	15	27.0	31	67.5	80	99.0	106
35	9.8	17	19.5	31	48.8	84	71.5	112
40	6.9	13	13.8	24	34.5	62	50.6	86
45	5.1	7	10.2	12	25.5	33	37.4	44
50	4.1	6	8.1	11	20.3	29	29.7	41
55	3.3	6	6.6	11	16.5	28	24.2	38
60	2.7	5	5.4	10	13.5	27	19.8	37
65	2.4	5	4.8	10	12.0	27	17.6	37
70	2.3	6	4.5	10	11.3	27	16.5	37
75	2.0	5	3.9	10	9.8	26	14.3	36
80	1.8	5	3.6	9	9.0	25	13.2	33
85	1.8	5	3.6	9	9.0	24	13.2	33
90	1.8	2	3.6	5	9.0	12	13.2	17

## Details for Ordering

Model Number	Part Number	Mounting Options*	Description
MTH-MC-R-AR	500-650226	D,E,F,L,M,O,P,R	MTH Horn: Multi-Candela (Agent Release), Red
ST-MC-R-AR	500-650224	B,D,E,F,G,J,N,R,X	Strobe: Multi-Candela (Agent Release), Red

\* = 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.