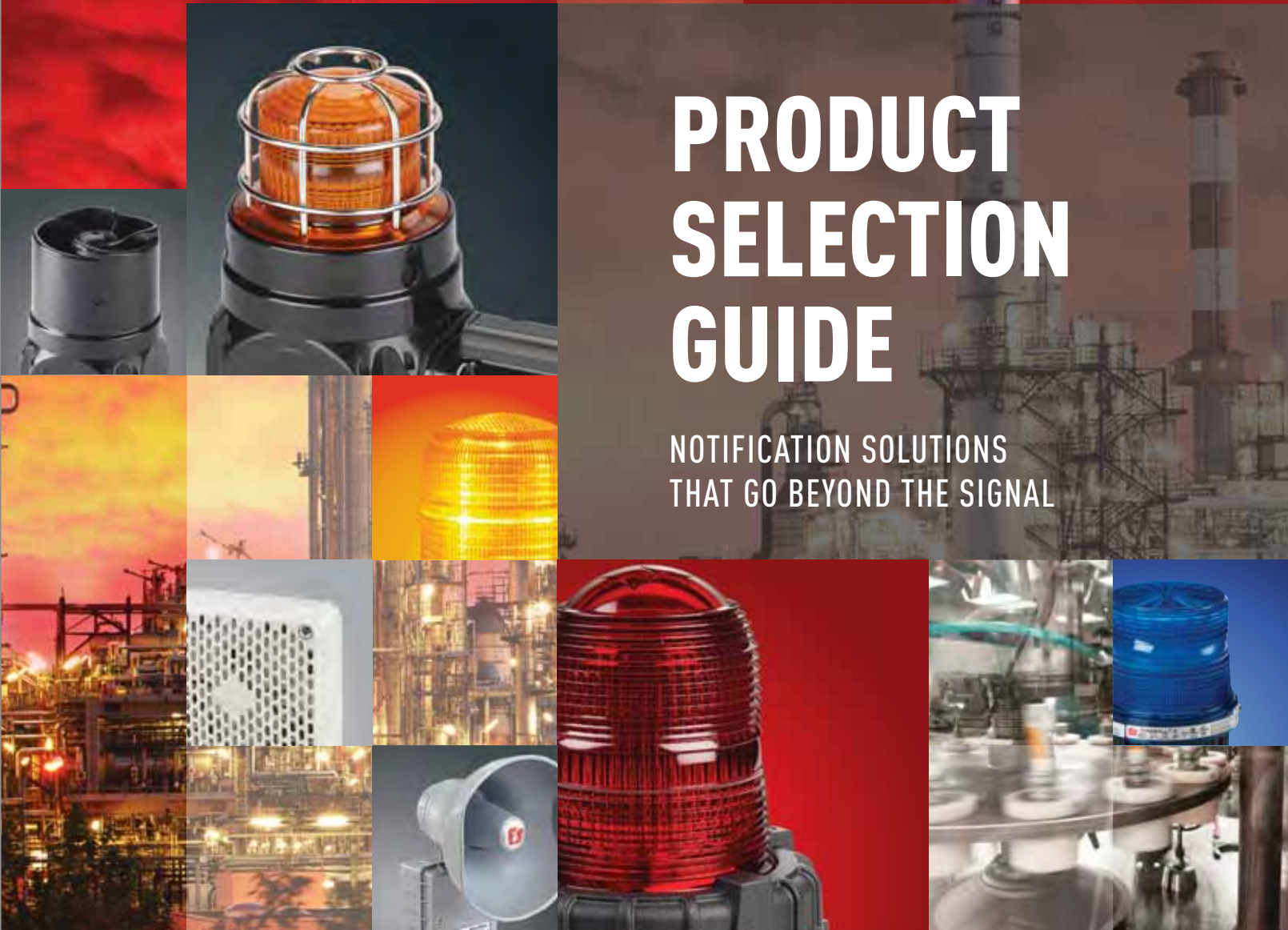




PRODUCT SELECTION GUIDE

NOTIFICATION SOLUTIONS
THAT GO BEYOND THE SIGNAL



- Visual Signals
- Audible Signals
- Outdoor Warning Systems
- Intercoms
- Public Address
- Telephony
- Initiating Systems
- Fire Alarm



Visual Signals



Intercoms



Audible Signals



Telephony

NOTIFICATION SOLUTIONS THAT GO BEYOND THE SIGNAL

Federal Signal designs and manufacturers products that provide clear communications and deliver critical process notification in order to make an environment safer and compliant with safety standards.



Public Address



Initiating System



Outdoor
Warning Systems



Fire Alarm



Visual Signals

Global Series® Signaling Platform

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- G-MS-C* 12-17
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■ Hazardous location models

* Global Series UL certified is hazardous location; Global Series ATEX certified is explosion proof

** Model for vehicular use

¹ Status indicators have an audible option except for model USIX





Ex d Surface Mount Ex d Trunion Mount Ex de Surface Mount



► Model G-STR

Global Series® Signaling Strobe Platform

Federal Signal's patented Global Series® 15 joule and 21 joule strobes feature a high-intensity xenon strobe tube. The housing is made from non-metallic materials designed to serve the demanding needs of offshore marine and land-based industrial applications, and can dramatically reduce the cost of long-term maintenance.

The flameproof "Ex d" versions come standard with two (2) M20 entries. The increased safety "Ex de" versions include a separate terminal chamber for quick field termination or pass-through wiring, and include three (3) M20 entries in a standard configuration.

The Global Series Strobe can be combined with all other Global Series audible and visual products in several custom configurations. Custom configurations can be ordered directly from the factory. Optional coupling kits, which allow limited field fixturing, are available.

FEATURES

- Available in 24VDC, 120VAC and 220-240VAC 50/60Hz
- Optional 316 stainless steel ratchet adjustable mounting U-bracket (field installation required)
- Non-metallic corrosion resistant design
- 24VDC models contain a supervisory diode and four wire terminal block
- For use in alarm control panel applications
- Dome guard included
- M20 entries standard
- Optional indicator rings are available in six colors: Black, Blue, Green, Magenta, Red and Yellow
- Field customizable legend plates available¹
- Type 4X, IP66 enclosure
- IP69K compliant
- Zone 1, 21 Rated, IECEx, ATEX, Ex d IIC, Ex de IIC and Ex tb IIIC
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III
- UL and cUL Listed for Class I, Zone 1 AEx db IIC T3: Zone 21, AEx tb IIIC T200°C, excludes increase safety versions (Ex de)
- UL Fire Listed (24VDC, Clear 21J Strobe and Sounder only)

MODEL	OPERATING VOLTAGE	NOMINAL OPERATING CURRENT		LIGHT OUTPUT		FLASH RATE	
		15 J	21 J	15 J	21 J	15 J	21 J
G-STR	24VDC	0.83 amps	1.5 amps	300 cd	500 cd	60	60
	120VAC 50/60Hz	0.33 amps	0.45 amps	300 cd	500 cd	60	60
	220-240VAC 50/60Hz	0.19 amps	0.34 amps	300 cd	500 cd	60	60

UL/cUL HAZARDOUS LOCATION RATING

TEMPERATURE CODE AT 70°C

Class I, Division 2, Groups A, B, C, D	T1
Class II, Division 2, Groups F, G	T4A
Class III	T4A

ATEX/IECEx HAZARDOUS LOCATION RATING

TEMPERATURE CODE AT 70°C

15J	21J
T4	T3

UL/cUL HAZARDOUS LOCATION CLASS/ZONE

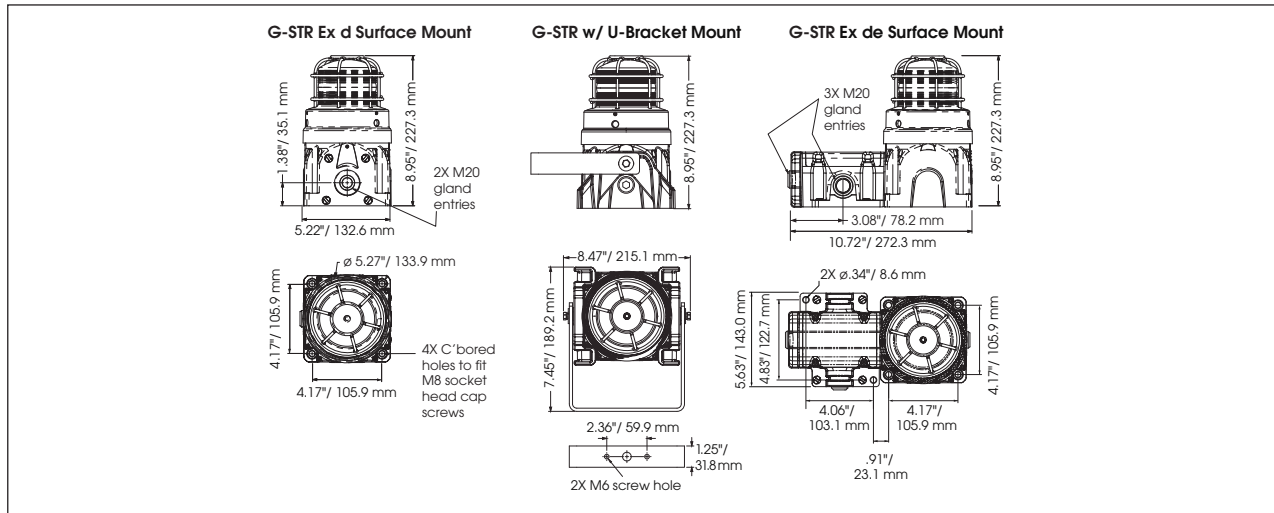
TEMPERATURE CODE AT 70°C

T3

¹ Recommended labels: BRADY #B-855 Toughwash labels or ULIN#S-16643 weather resistant



Global Series® Signaling Strobe Platform (G-STR)



SPECIFICATIONS

Lamp Life:	10,000 Hours
Light Source:	Strobe
Operating Temperature Range:	-67°F to 158°F -55°C to 70°C
15J ATEX/IECEx Certification Marking:	
II 2GD Ex d IIC Gb, Ex tb IIIC Db IP66.	T4 @ 70°C
II 2GD Ex de IIC Gb, Ex tb IIIC Db IP66.	T4 @ 70°C
	ATEX: Baseefa15ATEX0154X
	IECEx: IECEx BAS 15.0103X
21J ATEX/IECEx Certification Marking:	
II 2GD Ex d IIC Gb, Ex tb IIIC Db IP66.	T3 @ 70°C
II 2GD Ex de IIC Gb, Ex tb IIIC Db IP66.	T3 @ 70°C
	ATEX: Baseefa15ATEX0154X
	IECEx: IECEx BAS 15.0103X
Guard and External Fasteners:	316 stainless steel
Terminals:	Ex d: 6 way block (3 in, 3 out) Ex de: 3-pole, 4 position quad pole terminal blocks
Cable Entries:	Ex d: 2 entries - M20 x 1.5 Ex de: 3 entries - M20 x 1.5
UL and cUL Certification Marking:	
Class I, Division 2, Groups A, B, C, D	T1 @ 70°C
Class II, Division 2, Groups F, G	T4A @ 70°C
Class III	T4A @ 70°C
Net Product Weight	
Ex d Surface Mount:	7.17 lbs 3.25 kg
Ex d U-Bracket Mount:	9.15 lbs 4.15 kg
Ex de Surface Mount:	9.99 lbs 4.53 kg

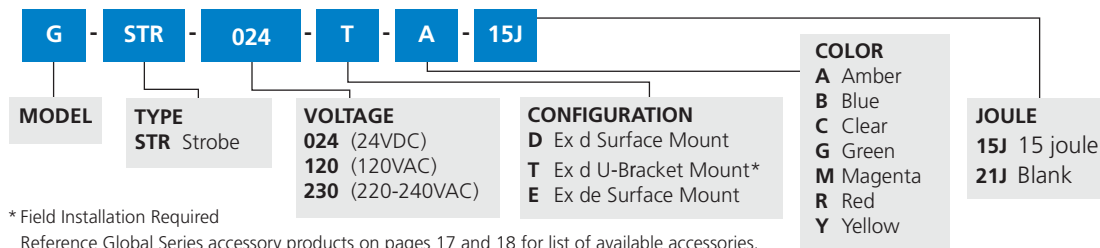
REPLACEMENT PARTS

Description	Part Number
Lens Guard	K859500821-01
Lens, Amber	K859500814
Lens, Blue	K859500814-01
Lens, Clear	K859500814-02
Lens, Green	K859500814-03
Lens, Red	K859500814-04
Lens, Magenta	K859500814-05
Lens, Yellow	K859500814-06
Strobe Tube Only	K8107177A
Strobe Tube, 15J, PCBA 24VDC Kit	K859501402-024-15J
Strobe Tube, 15J, PCBA 120VAC Kit	K859501402-120-15J
Strobe Tube, 15J, PCBA 240VAC Kit	K859501402-230-15J
Strobe Tube, 21J, PCBA 24VDC Kit	K859501402-024
Strobe Tube, 21J, PCBA 120VAC Kit	K859501402-120
Strobe Tube, 21J, PCBA 240VAC Kit	K859501402-230

ACCESSORIES

E-Box Endcap with M20 Opening	K859500805-02
E-Box Endcap with M25 Opening	K859500805-01
E-Box Cover Assembly (Includes two terminal blocks, mounting plate, retention hardware)	K859501414
Adapter, M20 Male to 1/2" Female NPT	K231246A
Adapter, M20 Male to 3/4" Female NPT	K231247

HOW TO ORDER



* Field Installation Required

Reference Global Series accessory products on pages 17 and 18 for list of available accessories.



Ex d Surface Mount

Ex d Trunnion Mount

Ex de Surface Mount



Model G-LED

Global Series® Signaling Platform – LED

Federal Signal's patented Global Series® LED Beacons feature a long-life LED light source with the ability to set one of eight (8) flash patterns (user-configurable). The device is rated to the latest protection concept, "Ex op is" (inherently safe optical radiation). The housing is made from GRP (Glass Reinforced Polyester) designed to serve the demanding needs of offshore marine and land-based industrial applications.

The Global Series LED Beacons flameproof "Ex d" versions come standard with two (2) M20 entries. The increased safety "Ex de" versions include a separate terminal chamber for quick field termination or pass-through wiring, and includes three (3) M20 entries in a standard configuration.

The Global Series LED Beacons can be combined with all other Global Series audible and visual products in several custom configurations. Custom configurations can be ordered directly from the factory. Optional coupling kits, which allow limited field fixturing, are available. For use in alarm control panel applications.

FEATURES

- Available in 24VDC and 120-240VAC 50/60Hz
- Optional 316 stainless steel ratchet adjustable mounting U-bracket (field installation required)
- GRP (Glass Reinforced Polyester) Non-metallic corrosion resistant design
- Dome guard included
- 24VDC models contain a supervisory diode and four wire terminal block
- M20 entries standard (M25 option available)
- LED has 8 on-board flash patterns, factory default is flashing at 60 FPM
- "Auto-sync" available for AC flashing pattern products²
- Optional indicator rings are available in six colors: Black, Blue, Green, Magenta, Red and Yellow
- Field customizable legend plates available¹
- Type 4X, IP66 enclosure
- IP69K compliant
- Zone 1, 21 Rated, IECEx, ATEX, Ex d IIC, Ex de IIC and Ex tb IIIC
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III
- UL and cUL Listed for Class I, Zone 1 AEx db IIC and Zone 21, AEx op is tb IIIC T200°C, excludes increase safety versions (Ex de)

MODEL	OPERATING VOLTAGE	OPERATING CURRENT	LIGHT OUTPUT
G-LED	24VDC	0.300 amps	175 cd
	120-240VAC 50/60Hz	0.12-0.07 amps	175 cd

UL/cUL HAZARDOUS LOCATION RATING

TEMPERATURE CODE AT 70°C

Class I, Division 2, Groups A, B, C, D	T4
Class II, Division 2, Groups F, G	T6
Class III	T6

ATEX/IECEx HAZARDOUS LOCATION RATING

TEMPERATURE CODE AT 70°C/58°C

T5/T6

UL/cUL HAZARDOUS LOCATION CLASS/ZONE

TEMPERATURE CODE AT 70°C

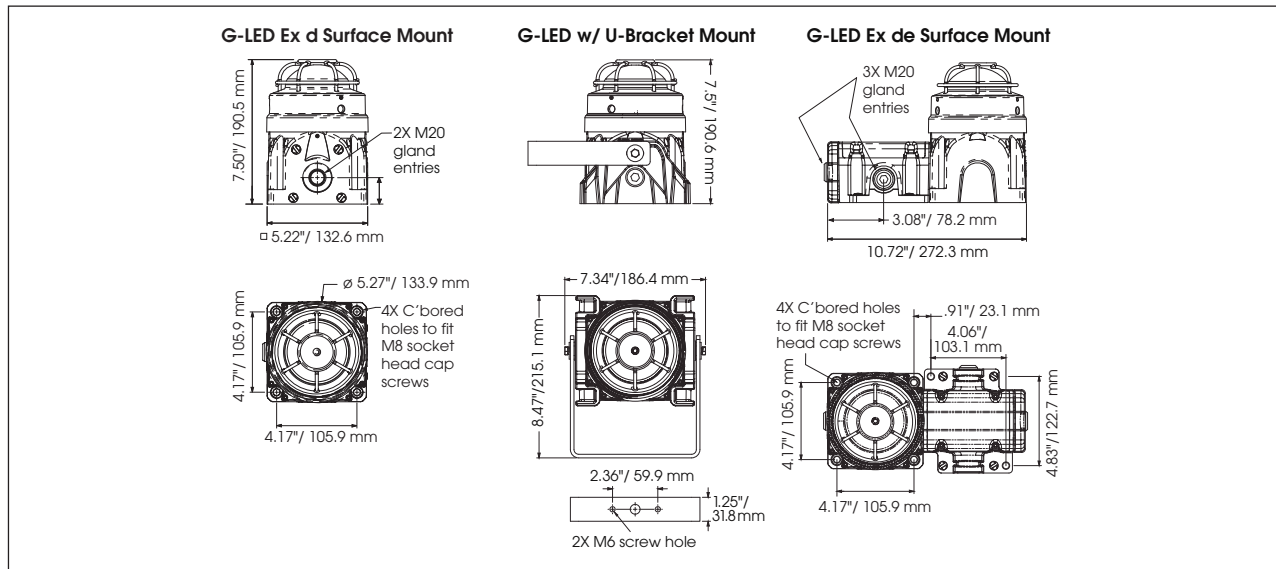
T3

¹ Recommended labels: BRADY #B-855 Toughwash labels or ULINE #5-16643 weather resistant

² Consult our Technical Support team for details



Global Series® Signaling Platform – LED (G-LED)



SPECIFICATIONS

Lamp Life:	50,000 Hours
Light Source:	LED
Nominal Operating Temperature Range:	-67°F to 158°F -55°C to 70°C
ATEX/IECEx Certification Marking:	
II 2GD Ex db e op is IIC Gb, Ex tb IIIC Db IP66.	T6 @ 58°C;
T5 @ 70°C	
II 2GD Ex de IIC Gb, Ex tb IIIC Db IP66.	T6 @ 58°C; T5 @ 70°C
	ATEX: Baseefa15ATEX0153X
	IECEx: IECEx BAS 15.0102X
Guard and External Fasteners:	316 stainless steel
Terminals:	Ex d: 6 way block (3 in, 3 out) Ex de: 3-pole, 4 position quad pole terminal blocks
Cable Entries:	Ex d: 2 entries - M20 x 1.5 Ex de: 3 entries - M20 x 1.5
UL and cUL Certification Marking:	
Class I, Division 2, Groups A, B, C, D	T4 @ 70°C
Class II, Division 2, Groups F, G	T6 @ 70°C
Class III	T6 @ 70°C
	UL and cUL E207119
Net Product Weight	
Ex d Surface Mount:	6.17 lbs 2.80 kg
Ex d U-Bracket Mount:	8.15 lbs 3.70 kg
Ex de Surface Mount:	8.99 lbs 4.08 kg

REPLACEMENT PARTS

Description	Part Number
Lens Guard	K859500821-02
Lens, Amber	K859500815
Lens, Blue	K859500815-01
Lens, Clear	K859500815-02
Lens, Green	K859500815-03
Lens, Red	K859500815-04
Lens, Magenta	K859500815-05
Lens, Yellow	K859500815-06

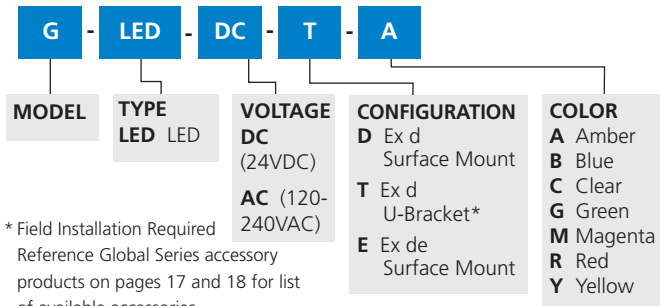
DC LED (24VDC) Internal Sub-Assembly Kits

(Include PCBA, bracket, LED light head and mounting screw)	
LED/PCB DC Sub-Assy, Amber	K859501400-A
LED/PCB DC Sub-Assy, Blue	K859501400-B
LED/PCB DC Sub-Assy, White**	K859501400-W
LED/PCB DC Sub-Assy, Green	K859501400-G
LED/PCB DC Sub-Assy, Magenta**	K859501400-W
LED/PCB DC Sub-Assy, Red	K859501400-R
LED/PCB DC Sub-Assy, Yellow**	K859501400-W

AC LED (120-240VAC) Internal Sub-Assembly Kit

(Includes PCBAs, bracket, LED light head and mounting screw)	
LED/PCB AC Sub-Assy, Amber	K859501401-A
LED/PCB AC Sub-Assy, Blue	K859501401-B
LED/PCB AC Sub-Assy, White**	K859501401-W
LED/PCB AC Sub-Assy, Green	K859501401-G
LED/PCB AC Sub-Assy, Magenta**	K859501401-W
LED/PCB AC Sub-Assy, Red	K859501401-R
LED/PCB AC Sub-Assy, Yellow**	K859501401-W

HOW TO ORDER



ACCESSORIES

E-Box Endcap with M20 Opening	K859500805-02
E-Box Endcap with M25 Opening	K859500805-01
E-Box Cover Assembly (Includes two terminal blocks, mounting plate, retention hardware)	K859501414
Adapter, M20 Male to 1/2" Female NPT	K231246A
Adapter, M20 Male to 3/4" Female NPT	K231247

**Order white LED board for clear, magenta or yellow product assemblies.



► Model G-MS-C-2

Global Series® Dual Signal

Federal Signal's patented Global Series® models were designed with modularity in mind. While they are completely functional as stand-alone devices in both flameproof "Ex d" and increased safety "Ex de" assemblies, 2-module configurations are also available to serve applications requiring more than one signal. Global Series devices are designed with a non-metallic housing construction.

The Dual Signal assembly allows two audible or visual Global Series devices to be combined as one complete assembly, with a common increased safety "Ex de" field wiring chamber which greatly simplifies the installation and wiring of two signals. The dual signal can be surface mounted or mounted with an optional ratchet adjustable stainless steel mounting U-bracket.

Either of the devices can be wired to function independently or in tandem¹. Two like devices can also be combined to support a redundant alerting system, simplifying installation of A/B redundant systems.

Refer to individual Global Series data sheets for additional information.



Sounder and Strobe Dual Ex de Surface Mount
(shown with optional Indicator Ring and Legend Plate Kit)



Sounder and LED Dual Ex de U-Bracket Mount
(shown with optional Indicator Ring and Legend Plate Kit)



Dual Loudspeaker Ex de Surface Mount

FEATURES

- GRP (Glass Reinforced Polyester) Non-metallic corrosion resistant design
- Optional 316 stainless steel ratchet adjustable mounting U-bracket (field assembly required)
- 316 stainless steel dome guard included on visual signals
- Standard M20 cable entries; 1/2" NPT and 3/4" NPT adapters available; M25 cable entry option
- LED has 8 field selectable flash patterns
- High-output strobe available in 15J or 21J
- Sounder has 15 field selectable tones
- Optional indicator rings are available in six colors: Black, Blue, Green, Magenta, Red and Yellow
- Field customizable legend plates available²
- IP66 enclosure
- G-LED and G-STR units are IP69K compliant
- Zone 1, 21 Rated, IECEx, ATEX, Ex d IIC, Ex de IIC and Ex tb IIIC
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III
- Audible devices: UL and cUL Listed for Class I, Zone 1 AEx db IIC T4: Zone 21, AEx tb IIIC T4//135°C, excludes increase safety versions (Ex de)
- Visual devices: UL and cUL Listed for Class I, Zone 1 AEx db IIC T3: Zone 21, AEx tb IIIC T200°C, excludes increase safety versions (Ex de)
- UL Fire Listed (24VDC, Clear 21J Strobe and Sounder only)

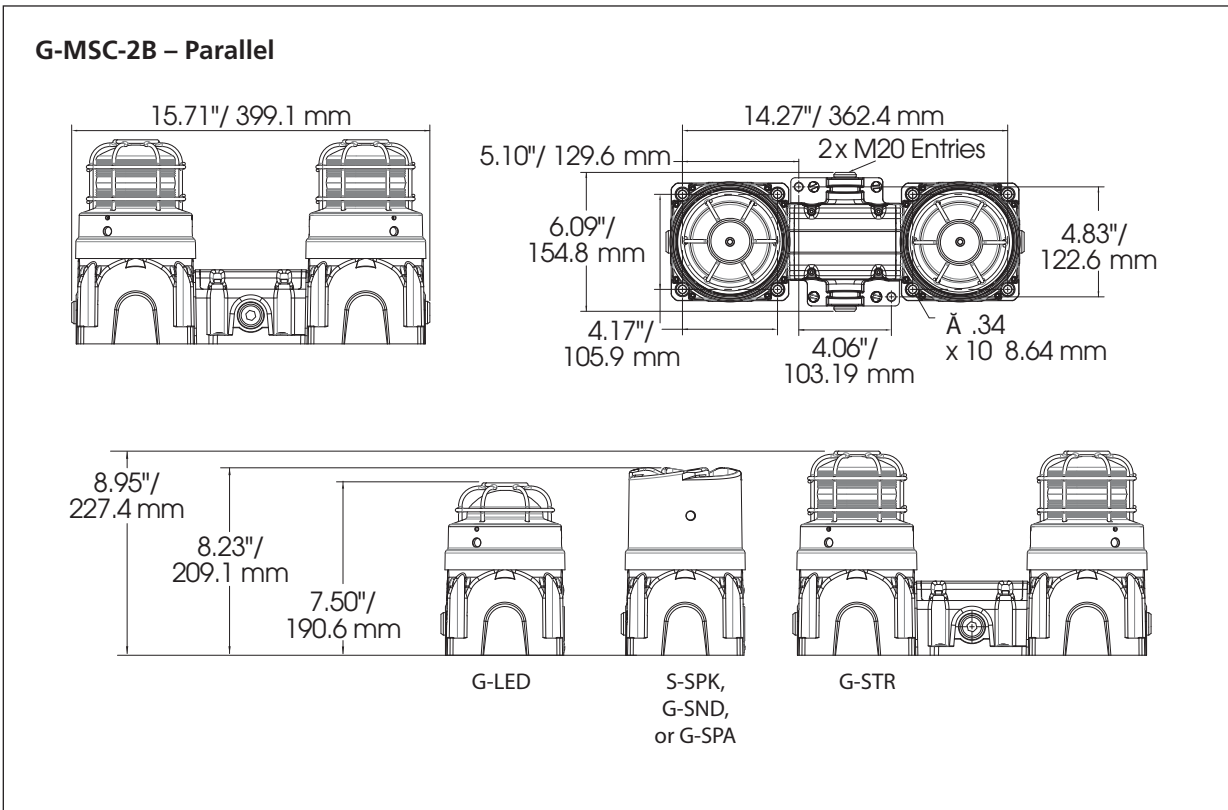
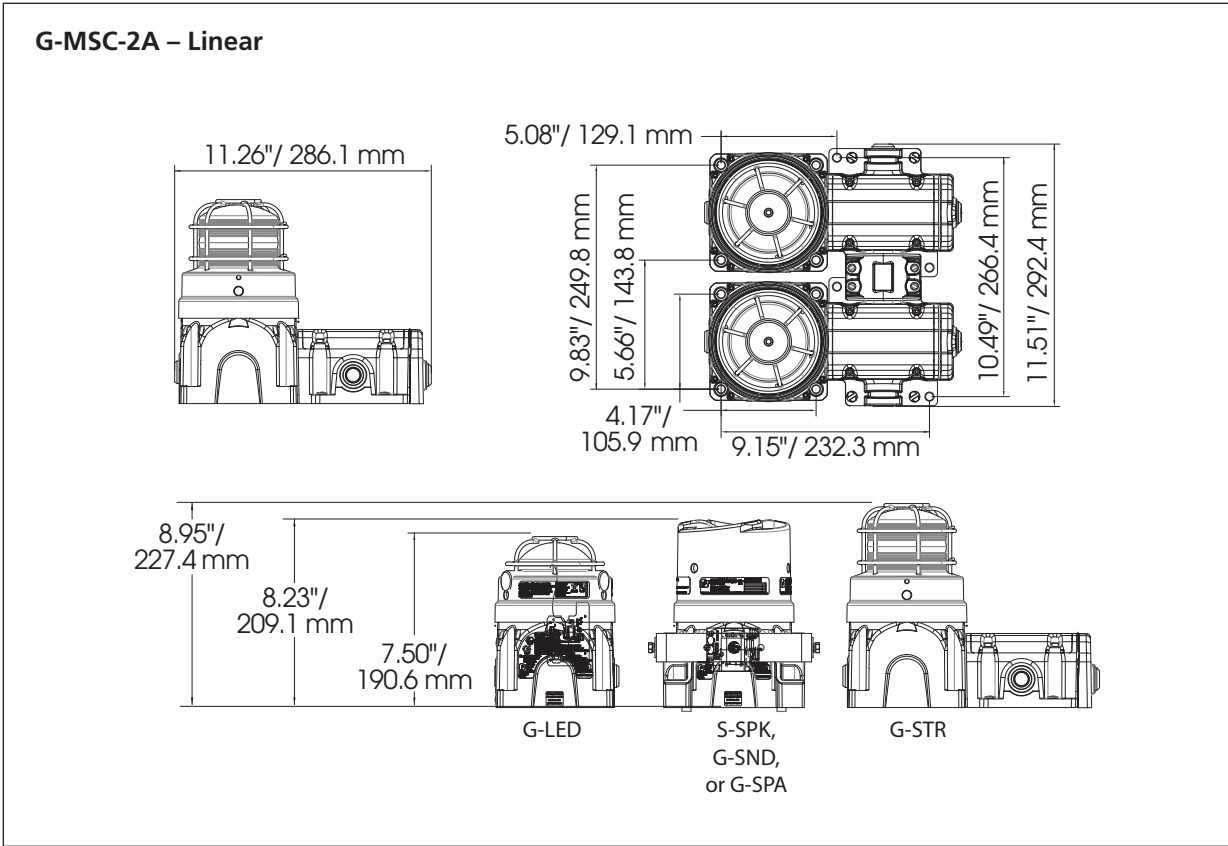
¹ Refer to application guide for specific wiring details

² Recommended labels: BRADY #B-855 Toughwash labels or ULINE #S-16643 weather resistant



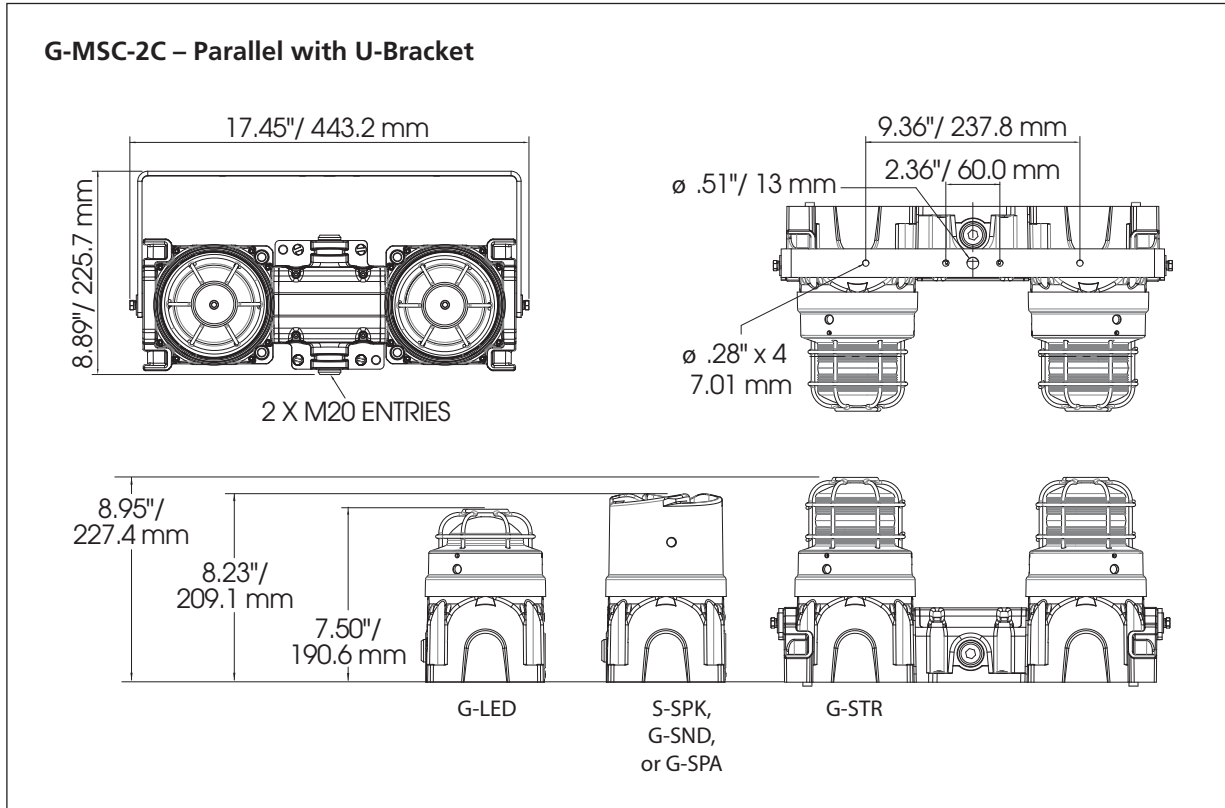
Patent No. 9,886,832 B2

Global Series® Signaling Platform – Dual Signal (Model G-MSC-2)





Global Series® Signaling Platform – Dual Signal (Model G-MSC-2)



S P E C I F I C A T I O N S

Operating Temperature Range: 67°F to 158°F 55°C to 70°C
 Certification Marking: Ex db IIC Gb, Ex tb IIIC Db IP66
 Ex db e IIC Gb, Ex tb IIIC Db IP66
 LED Models: ATEX: Baseefa15ATEX0153X
 IECEx: IECEx BAS 15.0102X
 Strobe Models: ATEX: Baseefa15ATEX0154X
 IECEx: IECEx BAS 15.0103X
 Audible Models: ATEX: Baseefa15ATEX0155X
 IECEx: IECEx BAS 15.0104X
Refer to individual data sheets for additional information.
 Guard and External Fasteners: 316 stainless steel
 Terminals: Ex d: 6 way block (3 in, 3 out)
 Ex de: 2x3 position quad pole terminal block
 Cable Entries: Ex d: 2 entries - M20 x 1.5
 Ex de: 3 entries - M20 x 1.5

Net Weight:

Step 1 - For dual models, add the net weight of each product being ordered:

Model S-STR – Strobe	7.17 lbs	3.25 kg
Model G-LED – LED	6.17 lbs	2.80 kg
Model G-SND – Sounder	9.61 lbs	4.36 kg
Model G-SPA – Amplified Speaker	9.65 lbs	4.38 kg
Model G-SPK – Loudspeaker	9.20 lbs	4.17 kg

Step 2 - Add one of the following mounting options to calculate over all model weight

Dual Device U-Bracket Option (2 side mounts, hardware, long bracket)	2.63 lbs	1.19 kg
Dual Device Surface Mount (line bushing, not including end cap)	2.47 lbs	1.12 kg

Global Series® Signaling Platform – Dual Signal (Model G-MSC-2)

HOW TO ORDER

G	-	MSC	-	2A	-	120	-	DEVICE AND COLOR CODE	
MODEL		TYPE MSC		CONFIGURATION		VOLTAGE		1	2
				2A 2 Device Linear		024 (24VDC)		L	R
				2B 2 Device Parallel		120 (120VAC)		L	G
				2C 2 Device Parallel w/ U-Bracket		230 (220-240VAC)			
								DEVICE	
								COLOR	
								AN Amplified Speaker – 0.8/2.8Vrms	A Amber
								A2N Amplified Speaker – 25Vrms	B Blue
								L LED	C Clear
								K7N Loudspeaker – 70V	G Green
								K1N Loudspeaker – 100V	M Magenta
								NN Sounder	R Red
								S1 Strobe – 15J	Y Yellow
								S Strobe – 21J	BLANK Audible

OPTIONAL ACCESSORIES

Cable Entry Options and Adapters

Description	Part Number
E-Box Endcap with M20 Opening	K859500805-02
E-Box Endcap with M25 Opening	K859500805-01
E-Box Cover Assembly ¹	K859501414
Adapter, M20 Male to 1/2" Female NPT	K231246A
Adapter, M20 Male to 3/4" Female NPT	K231247

¹ Includes two terminal blocks, mounting plate and retention hardware

Indicator Ring and Legend Plate Kit

Kit includes one (1) indicator ring, one (1) legend plate², and associated hardware

Description	Part Number
Black	G-KIT-RP-BK
Blue	G-KIT-RP-B
Green	G-KIT-RP-G
Magenta	G-KIT-RP-M
Red	G-KIT-RP-R
Yellow	G-KIT-RP-Y



² Recommended labels: BRADY #B-855 Toughwash labels or ULINE #S-16643 weather resistant

Patent No. 9,886,832 B2



▶ Global Series® Custom Configured Fixtures

Quick and easy inter-connecting modular products are the best way to describe the Global Series® product line.

All Global Series fixtures start with the increased safety “Ex de” models and can be combined into a multitude of configurations using two to six devices. The patented connecting system greatly simplifies a user’s installation and wiring experience by requiring only a single explosion-proof wiring gland external to the devices.

Two standard configurations are available pre-assembled from the factory: Linear and Parallel. Other custom configurations are available to meet unique project requirements. Some restrictions apply; contact our Technical Support team or your local sales representative for more options.

Refer to individual Global Series data sheets for additional information.



Parallel configuration

Linear configuration

FEATURES

- Fully factory assembled
- Non-metallic corrosion resistant GRP housings
- Optional 316 stainless steel ratchet adjustable mounting U-bracket for G-MSC-2B only (field assembly required)
- 316 stainless steel dome guard included on visual signals
- Standard M20 cable entries; 1/2" NPT and 3/4" NPT adapters available; M25 cable entry option
- No mounting orientation limitations
- LED has 8 field selectable flash patterns, default setting to “Flashing at 60 FPM”
- High-output strobe available in 15J or 21J
- Sounder has 15 field selectable tones, default setting to “C” 1kHz tone
- Includes all connector kits/hardware and standard single activation or audio wiring with flying leads. Customer wiring and activations are available, contact factory for assistance
- Optional indicator rings are available in six colors: Black, Blue, Green, Magenta, Red and Yellow
- Field customizable legend plates available¹
- Additional custom configurations are available contact Technical Support or a local sales agent for information
- IP66 enclosure
- G-LED and G-STR units are IP69K compliant
- Zone 1, 21 Rated, IECEx, ATEX, Ex d IIC, Ex de IIC and Ex tb IIC
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III
- Audible devices: UL and cUL Listed for Class I, Zone 1 AEx db IIC T4: Zone 21, AEx tb IIC T4//135°C, excludes increase safety versions (Ex de)
- Visual devices: UL and cUL Listed for Class I, Zone 1 AEx db IIC T3: Zone 21, AEx tb IIC T200°C, excludes increase safety versions (Ex de)
- UL Fire Listed (24VDC, Clear 21J Strobe and Sounder only)

¹ Recommended labels: BRADY #B-855 Toughwash labels or ULINE #S-16643 weather resistant



Patent No. 9,886,832 B2

Global Series[®] Custom Configured Fixtures

G-MSC Linear Configurations

Available from 2 to 6 devices in a linear configuration. Devices positions start bottom to top. Position #1 determined by proximity to junction box.



G-MSC Parallel Configurations

Available from 2 to 6 devices in a stacked parallel configuration. Device positions start bottom left, proceed left to right, then bottom to top.



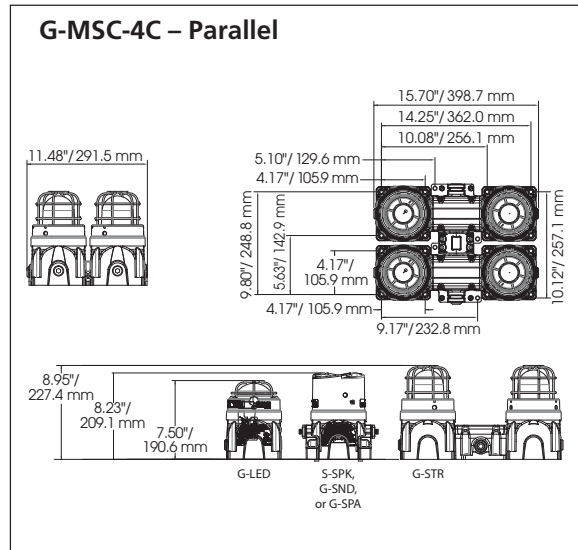
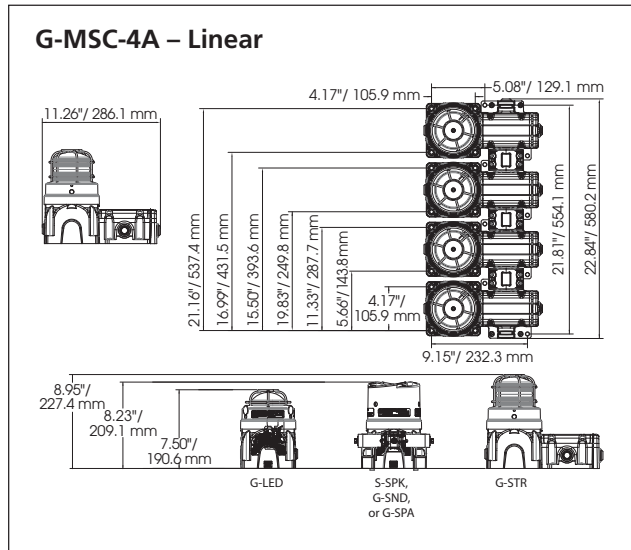
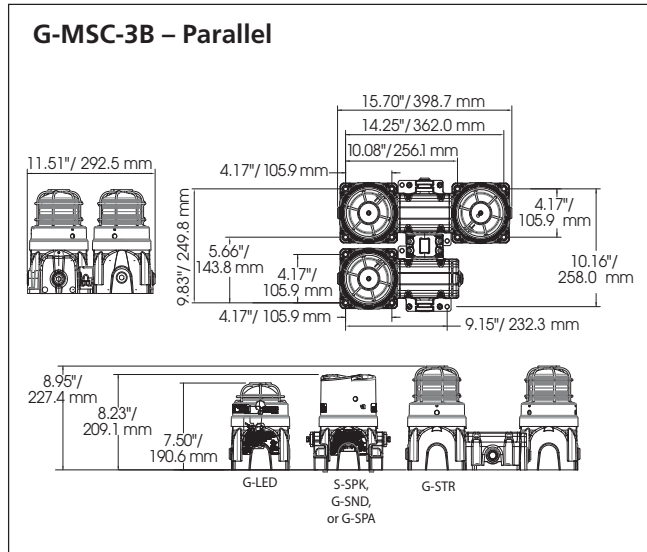
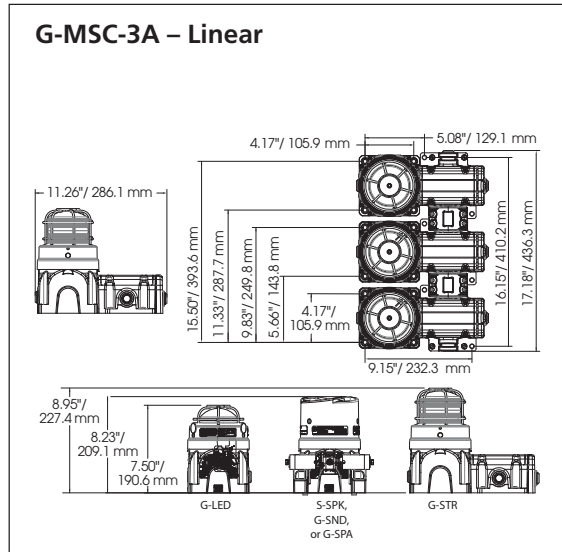
Audible Device Restrictions

- 1) Fixtures are limited to two audible devices in any configuration. Audible devices must be located in Position #1 or #2. Position #1 is designated by the first device connected to the junction box (user supplied).
- 2) In a parallel configuration, if Position #1 is a G-SPA, Position #2 cannot be a G-SPA or G-SPK.
- 3) In a parallel configuration, if Position #1 is a G-SPK, Position #2 cannot be a G-SPA.



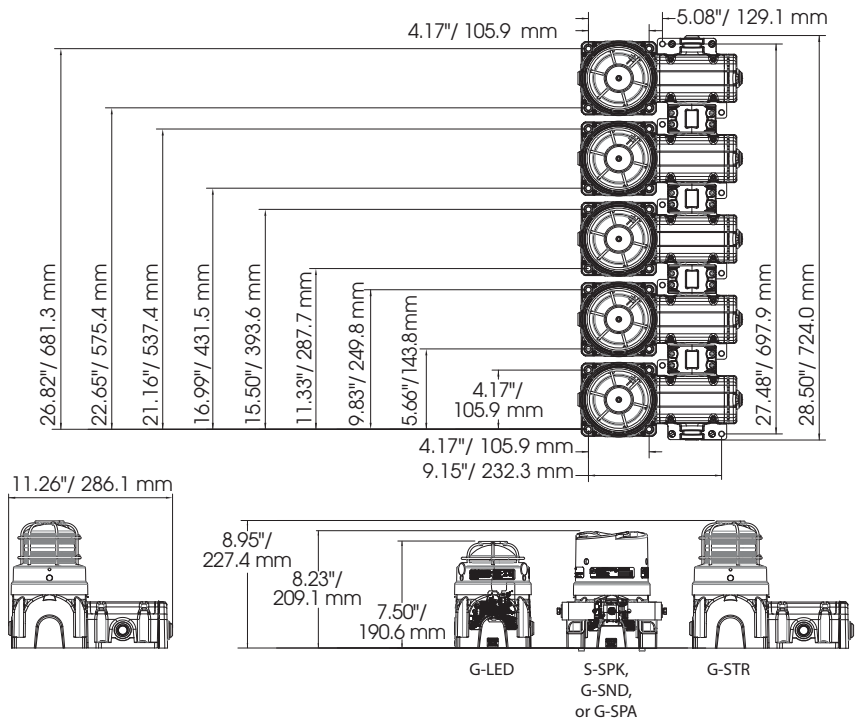
Global Series® Custom Configured Fixtures

Refer to the Global Series G-MSC-2 Dual Signal cut sheet for G-MSC-2A, G-MSC-2BA and G-MSC-2C drawings.

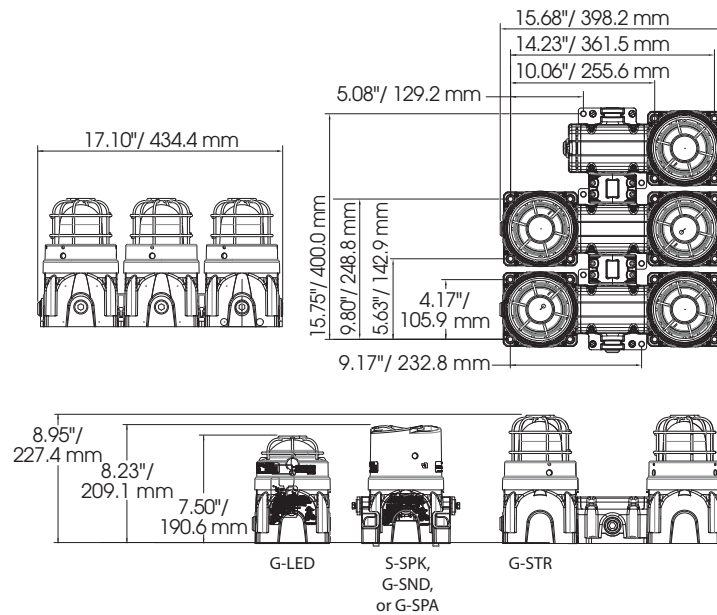


Global Series® Custom Configured Fixtures

G-MSC-5A – Linear

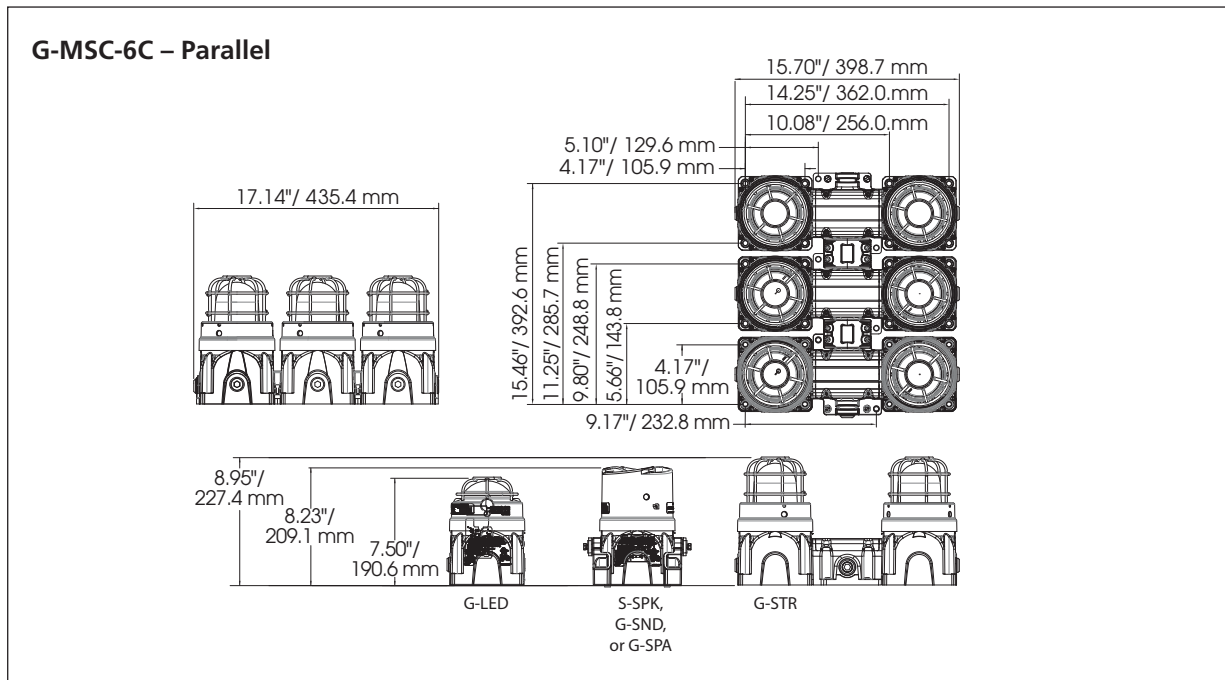
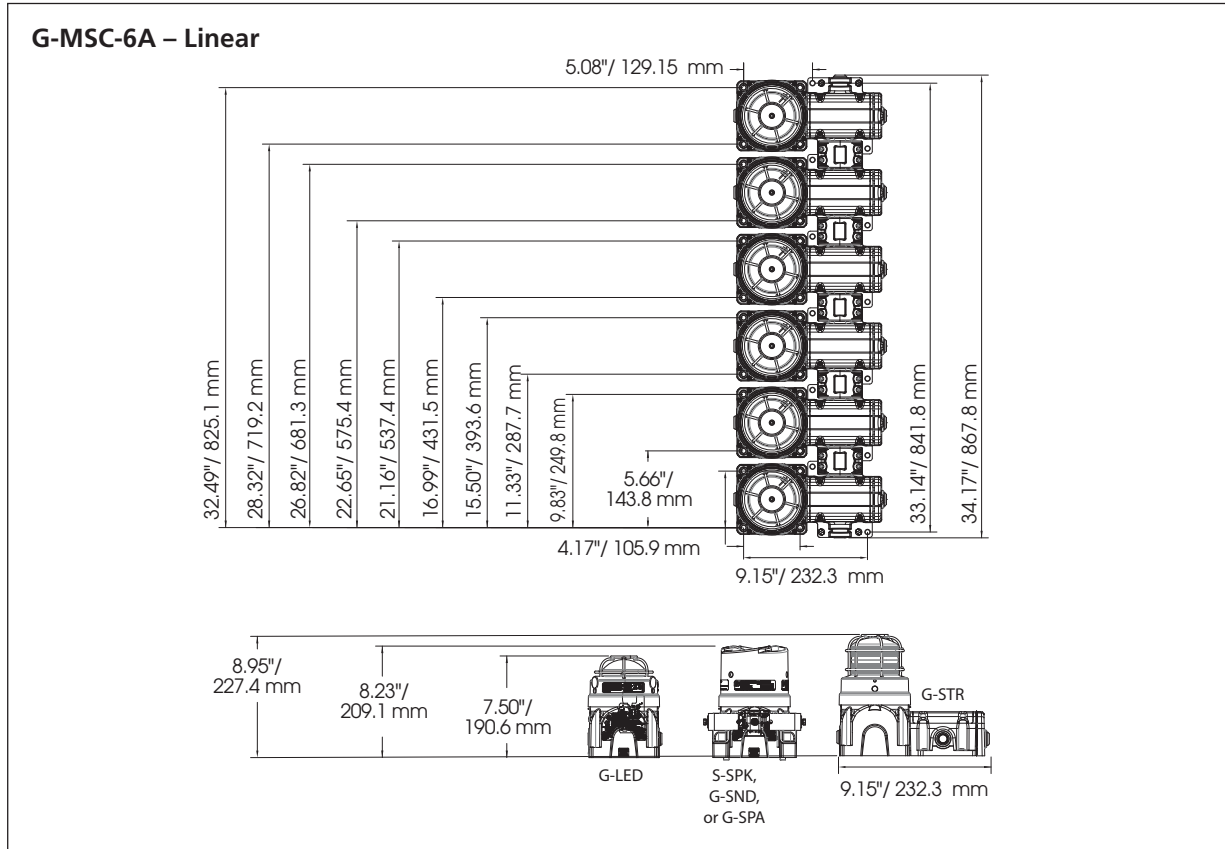


G-MSC-5C – Parallel



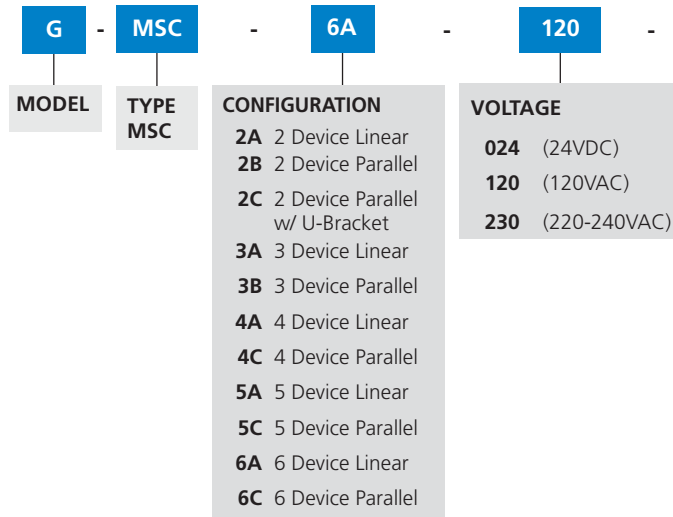


Global Series® Custom Configured Fixtures



Global Series® Custom Configured Fixtures

HOW TO ORDER



DEVICE AND COLOR CODE (Up to 6 Devices)

1	2	3	4	5	6
NN	K7N	LB	SR	SG	LY
DEVICE			COLOR		
AN Amplified Speaker – 0.8/2.8Vrms A2N Amplified Speaker – 25Vrms L LED K7N Loudspeaker – 70V K1N Loudspeaker – 100V NN Sounder S1 Strobe – 15J S Strobe – 21J			A Amber B Blue C Clear G Green M Magenta R Red Y Yellow Blank Audible		

OPTIONAL ACCESSORIES

Cable Entry Options and Adapters

Description	Part Number
E-Box Endcap with M20 Opening	K859500805-02
E-Box Endcap with M25 Opening	K859500805-01
E-Box Cover Assembly ¹	K859501414
Adapter, M20 Male to 1/2" Female NPT	K231246A
Adapter, M20 Male to 3/4" Female NPT	K231247

¹ Includes two terminal blocks, mounting plate and retention hardware

Indicator Ring and Legend Plate Kit

Kit includes one (1) indicator ring, one (1) legend plate², and associated hardware

Description	Part Number
Black	G-KIT-RP-BK
Blue	G-KIT-RP-B
Green	G-KIT-RP-G
Magenta	G-KIT-RP-M
Red	G-KIT-RP-R
Yellow	G-KIT-RP-Y



² Recommended labels: BRADY #B-855 Toughwash labels or ULINE #S-16643 weather resistant

Patent No. 9,886,832 B2



▶ Global Series® Accessories

Indicator Ring and Legend Plate Kit

Kit includes one (1) indicator ring, one (1) legend plate¹, and associated hardware

Description	Part Number
Black	G-KIT-RP-BK
Blue	G-KIT-RP-B
Green	G-KIT-RP-G
Magenta	G-KIT-RP-M
Red	G-KIT-RP-R
Yellow	G-KIT-RP-Y

¹ Recommended labels: BRADY #B-855 Toughwash labels or ULINE #S-16643 weather resistant



Single Mount U-Bracket Kit

Kit includes one (1) single U-Bracket, two (2) U-Bracket side mounts and associated hardware. It is compatible with all "Ex d" units.

Part Number
G-KIT-ST



Dual Mount U-Bracket Kit

Kit includes one (1) dual U-Bracket, two (2) U-Bracket side mounts and associated hardware. It is compatible with any standard dual unit.

Part Number
G-KIT-DT



Patent No. 9,886,832 B2

Global Series® Coupling Kits

The accessories below allow single unit Global Series® “Ex de” models to be coupled to other Global Series “Ex de” models. These kits allow installers in the field to create multi-unit configurations. Note: multi-unit configurations can be ordered pre-assembled according to a customer specification. The benefit of pre-assembled configurations is reduced on-site wiring and installation.



90° e-Box to e-Box Endcap Coupling Kit

Kit includes one (1) flanged e-Box coupler endcap, one (1) coupler, one (1) gasket and four (4) mounting bolts

Part Number
G-KIT-EC90



In-Line e-Box to e-Box Endcap Coupling Kit

Kit includes two (2) flanged e-Box coupler endcaps, one (1) coupler, one (1) gasket and four (4) mounting bolts

Part Number
G-KIT-EC180



Side Mount e-Box to e-Box Coupling Kit

Kit includes one (1) coupler, one (1) gasket, and four (4) mounting bolts

Part Number
G-KIT-ECSM



Extension Box Kit

Kit includes e-Box without terminal blocks and two (2) M20 Plugs

*Cannot be field assembled to “Ex d” models.

Part Number
G-KIT-EXTB*

Patent No. 9,886,832 B2



Radiant Stack Light

Configurable to fit every need

The Radiant modular stack light allows for up to 7 light modules; 6 light modules and 1 sound module (1 channel/tone); or 5 light modules and 1 sound module (2 channels/tones).

How to Configure Your Stack Light

Follow the to configure a **steady** stack light.

Follow the to configure a **flashing** stack light with flashing controls in the light module. **This allows the user to select a different flash pattern for each light module.**

Follow the to configure a **flashing** stack light with flashing controls in the wiring module. **This option requires all light modules to have the same flash pattern.**



Step 5:
TOP CAP
Included with Wiring and Sound Module

Step 4:
Select a SOUND MODULE (Optional)

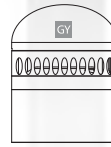
Step 3:
Select a LIGHT MODULE

Step 2:
Select a WIRING MODULE

Step 1:
Select a MOUNTING BASE



TOP CAP
Included with wiring and sound module



RSL-SM
Piezoelectric sound module (2 tones) includes attached top cap



RSL-SMM
Piezoelectric sound module (16 tones) includes attached top cap



RSL-LMS
LED light module



RSL-LMB
Bright LED light module



RSL-LMM
Multi-pattern superbright LED light module (4 light effects)



RSL-WML
Wiring module 12-24VAC/DC



RSL-WMLM
Multi-pattern wiring module 12-24VAC/DC (4 light effects)



RSL-WMH
Wiring module 120-240VAC



RSL-WMHM
Multi-pattern wiring module 120-240VAC (4 light effects)



RSL-BF
Flat Base



RSL-BW
Wall Base



RSL-BP
Pipe Mount



RSL-BE
Extended Base



RSL-BT
Tube Base (4 lengths)

For additional configuration information, reference "How to Order" section on individual product pages.
Note: top cap provided with each wiring module.

Model RSL-B

Radiant Mounting Options

Five base options allow for mounting flexibility

Flat Base – Designed for flat surface mounting when cabling from the bottom of the device and a compact design is needed.


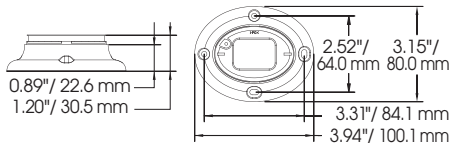

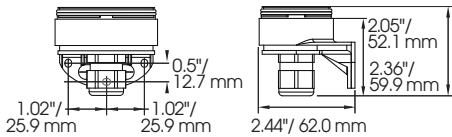
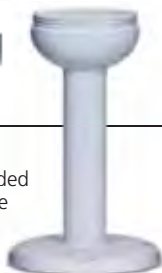
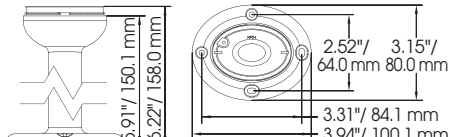

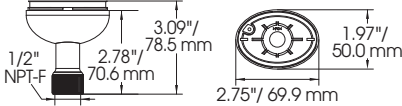
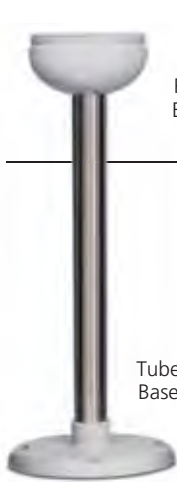
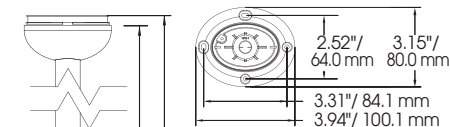
Wall Base – Designed for lateral or wall mounting.

Extended Base – Designed for mounting on a flat surface. Allows for an additional lift of 3.94" (100 mm).

Pipe Base – Designed for installation on a 1/2" NPT pipe.

Tube Base – Designed for flat surface mounting, featuring a stainless steel extension tube when a higher profile design is needed. Lengths available: 5.55" (141mm), 9.49" (241mm), 13.43" (341mm) and 17.36" (441mm).

HOW TO ORDER

	Model Number	Base Color	Weight	
 <p>Flat Base</p>	RSL-BF-GY	Gray	1.76 oz 0.05 kg	
	RSL-BF-BK	Black		
 <p>Wall Base</p>	RSL-BW-GY	Gray	2.12 oz 0.06 kg	
	RSL-BW-BK	Black		
 <p>Extended Base</p>	RSL-BE-GY	Gray	2.50 oz 0.07 kg	
	RSL-BE-BK	Black		
 <p>Pipe Base</p>	RSL-BP-GY	Gray	2.82 oz 0.08 kg	
	RSL-BP-BK	Black		
 <p>Tube Base</p>	RSL-BT1-GY 5.55" / 141.0 mm	Gray	3.53 oz 0.10 kg	
	RSL-BT2-GY 9.49" / 241.0 mm		4.94 oz 0.14 kg	
	RSL-BT3-GY 13.43" / 341.1 mm		6.35 oz 0.18 kg	
	RSL-BT4-GY 17.36" / 440.9 mm		7.76 oz 0.22 kg	



Shown with included top cap



► Model RSL-WM Radiant Wiring Modules

RSL-WML and RSL-WMH steady light effect models offer 7 electrical contacts, allowing for up to 7 light modules: 6 light modules + 1 sound module (1 channel) or 5 light modules + 1 sound module (2 channels).

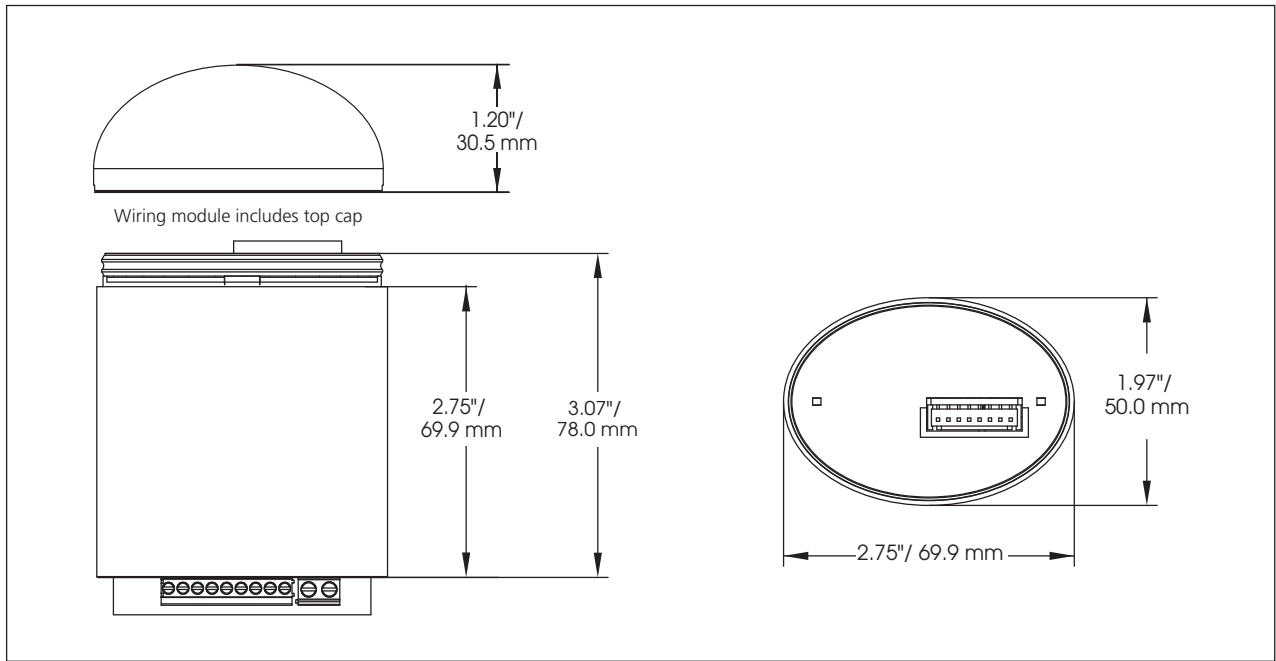
RSL-WMLM and RSL-WMHM share the same features as the RSL-WML and RSL-WMH with the added benefit of the ability to generate a flashing sequence in any of the individual modules via electrical contacts or PLC. The RSL-WMLM and RSL-WMHM have four integrated light effects: single flash, double flash, triple flash and simulated strobe.

A top cap is provided with each wiring module.

F E A T U R E S

- Modular design allows up to 7 light modules; 6 light modules + 1 sound module (1 channel) or 5 light modules + 1 sound module (2 channels)
- Steady effect for models WML or WMH
- Four flash patterns available in models WMLM or WMHM
- Available in 12-24VAC/DC or 120-240VAC
- Available in gray or black housings
- Indoor/outdoor use
- Type 4X, IP65 enclosure when installed with both gaskets included with each module
- IP69K compliant when installed with both gaskets included on each module
- CE Certified
- UL and cUL Listed

Radiant Wiring Modules (RSL-WM)



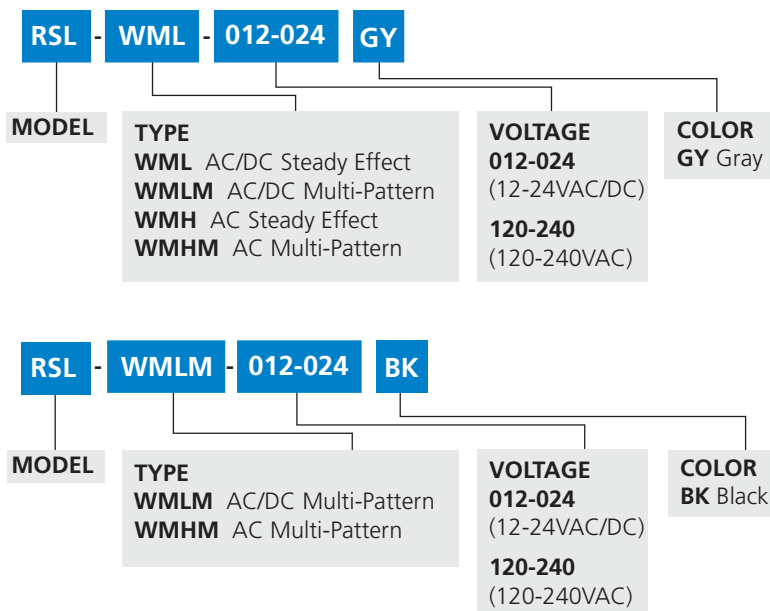
SPECIFICATIONS

Operating Temperature:	-22°F to 122°F	-30°C to 50°C
Net Weight:	5.64 oz	0.16 kg
Shipping Weight:	7.10 oz	0.20 kg
Wiring Module:		
Height*	2.75"	69.9 mm
Width	2.75"	69.9 mm
Depth	1.97"	50.0 mm

Top Cap:		
Height*	1.20"	30.5 mm
Width	2.75"	69.9 mm
Depth	1.97"	50.0 mm

*Height dependent on complete configuration.

HOW TO ORDER



Stack Light Configuration Steps:

- 1: Select your mounting base
- 2: Select your wiring module based on:
 - A: Voltage
 - B: Steady or flashing effects
- 3: Select your light module(s) based on:
 - A: Color
 - B: Brightness
 - C: Lens type
 - D: Steady or flashing effects
- 4: Select your sound module (optional)



► Model RSL-LMS
Radiant Steady Light Module



RSL-LMS offers a steady LED light with high optical performance. Its modular design and simple functionality are the right choice for a basic stack light application.

RSL-LMS-F consists of a colored fresnel lens with a colored light source. The use of a colored lens with the same colored LED allows optimization of the emission frequency, producing a rich intense light output.

RSL-LMS-O consists of an opaque colored lens with a colored LED. The opaque characteristic allows an optimally diffused light without disturbing the operator.

F E A T U R E S

- Modular design allows up to 7 light modules: 6 light modules & 1 sound module (1 channel) or 5 light modules & 1 sound module (2 channels)
- Steady light effect with 6 LEDs
- Two lens types: Fresnel and Opaque
- Compatible with 12-24VAC/DC or 120-240VAC*
- PLC compatible
- Indoor/outdoor use
- Type 4X, IP65 enclosure when installed with both gaskets included with each module
- IP69K compliant when installed with both gaskets included on each module
- CE Certified
- UL and cUL Listed

*Voltage dependent on selected wiring module

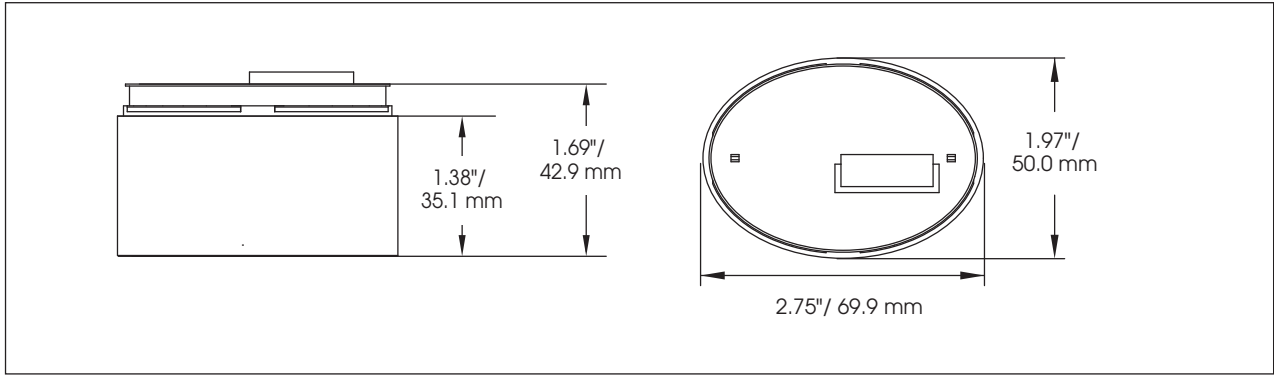


Wiring Modules

MODEL	MAXIMUM OPERATING CURRENT* (mA)			
	24VDC	24VAC	120VAC	240VAC
RSL-WML/RSL-WMH	35	75	30	25
RSL-WMLM/RSL-WMHM	50	110	30	25

*Maximum operating current listed is for one module. For multiple modules the current will have to be added together throughout the configuration to get the total maximum operating current.

Radiant Steady Light Module (RSL-LMS)

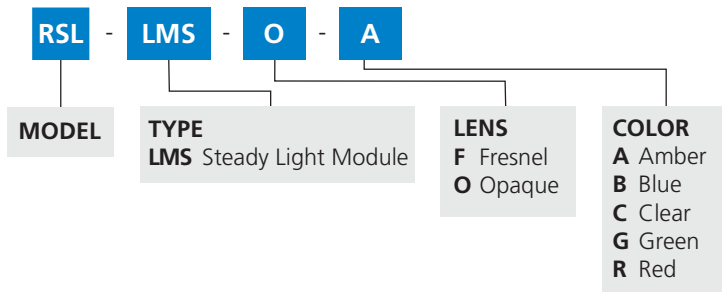


SPECIFICATIONS

Lamp Life:	50,000 Hours	Wiring Module:		
Light Source:	LED	Height*	1.38"	35.1 mm
Operating Temperature:	-22°F to 122°F -30°C to 50°C	Width	2.75"	69.9 mm
Net Weight:	1.41 oz 0.04 kg	Depth	1.97"	50.0 mm
Shipping Weight:	7.10 oz 0.20 kg			

*Height dependent on complete configuration.

HOW TO ORDER



Stack Light Configuration Steps:

- 1: Select your mounting base
- 2: Select your wiring module based on:
 - A: Voltage
 - B: Steady or flashing effects
- 3: Select your light module(s) based on:
 - A: Color
 - B: Brightness
 - C: Lens type
 - D: Steady or flashing effects
- 4: Select your sound module (optional)

Order Example for a Steady Radiant Stack Light

Example of what is needed to order a model with 120VAC, Steady, Red, Amber and Green LEDs, Fresnel Lens, Flat Surface Mount, Gray Housing

QTY	MODEL	DESCRIPTION
1	RSL-BF-GY	Flat Base, Gray
1	RSL-WMH-120-240GY	120-240VAC Standard Wiring Module, Gray
1	RSL-LMS-F-R	Steady Light Module, Fresnel Lens, Red
1	RSL-LMS-F-A	Steady Light Module, Fresnel Lens, Amber
1	RSL-LMS-F-G	Steady Light Module, Fresnel Lens, Green



► Model RSL-LMB

Radiant Steady, Bright Light Module



RSL-LMB offers a bright, steady LED light with high optical performance. Its modular design and simple functionality combined with bright LED's, make this stack light option the right choice for an advanced application.

RSL-LMB-F consists of a colored fresnel lens with a colored LED. The use of a colored lens with the same colored light source allows for optimization of the emission frequency, producing a rich intense light output.

RSL-LMB-C consists of a clear fresnel lens with colored LED for use in very bright environments or outdoor applications.

FEATURES

- Modular design allows for up to 7 light modules: 6 light modules & 1 sound module (1 channel) or 5 light modules & 1 sound module (2 channels)
- Steady light effect with 6 bright LEDs
- Two lens types: Clear and Colored
- Compatible with 12-24VAC/DC or 120-240VAC*
- PLC compatible
- Indoor/outdoor use
- Type 4X, IP65 enclosure when installed with both gaskets included with each module
- IP69K compliant when installed with both gaskets included on each module
- CE Certified
- UL and cUL Listed

*Voltage dependent on selected wiring module

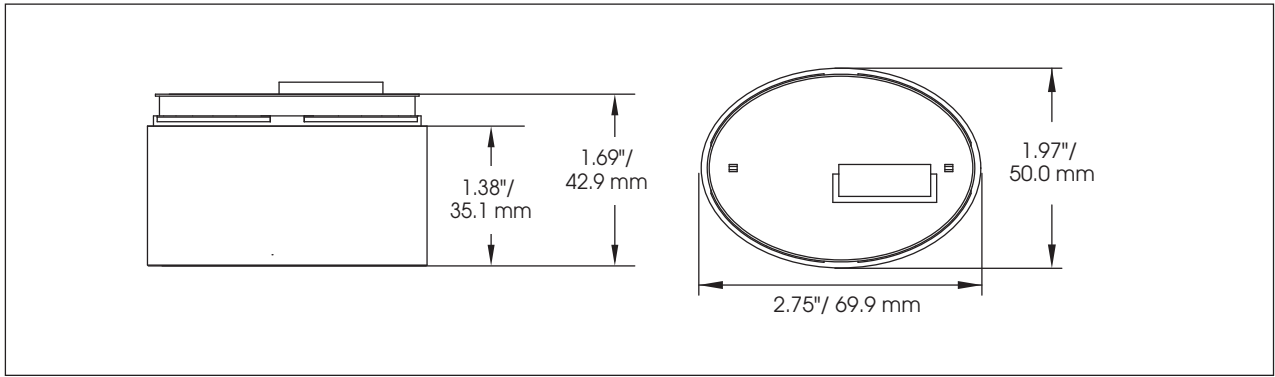


Wiring Modules

MODEL RSL-LMB	MAXIMUM OPERATING CURRENT* (mA)			
	24VDC	24VAC	120VAC	240VAC
RSL-WML/RSL-WMH	50	60	35	25
RSL-WMLM/RSL-WMHM	70	100	35	25

* Maximum operating current listed is for one module. For multiple modules the current will have to be added together throughout the configuration to get the total maximum operating current.

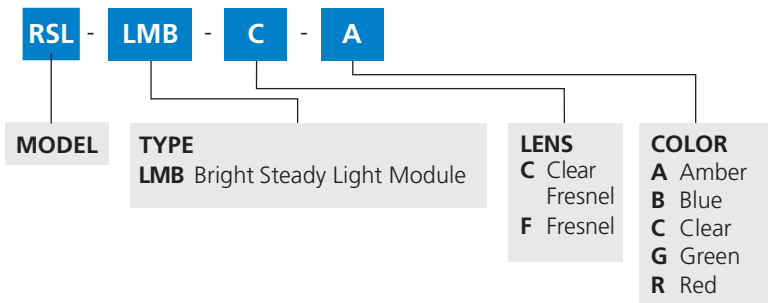
Radiant Steady, Bright Light Module (RSL-LMB)



SPECIFICATIONS

Lamp Life:	50,000 Hours	Wiring Module:		
Light Source:	LED	Height*	1.38"	35.1 mm
Operating Temperature:	-22°F to 122°F -30°C to 50°C	Width	2.75"	69.9 mm
Net Weight:	1.41 oz 0.04 kg	Depth	1.97"	50.0 mm
Shipping Weight:	1.60 oz 0.05 kg	*Height dependent on complete configuration.		

HOW TO ORDER



Stack Light Configuration Steps:

- 1: Select your mounting base
- 2: Select your wiring module based on:
 - A: Voltage
 - B: Steady or flashing effects
- 3: Select your light module(s) based on:
 - A: Color
 - B: Brightness
 - C: Lens type
 - D: Steady or flashing effects
- 4: Select your sound module (optional)

Order Example for a Flashing Radiant Stack Light with Flash Pattern Selection in the Wiring Module

Example of what is needed to order a model with 12VDC, Flashing, Amber and Red LEDs, Clear Lens, Wall Mount, Sixteen-Tone Sound Module, Black Housing

QTY	MODEL	DESCRIPTION
1	RSL-BW-BK	Wall Base, Black
1	RSL-WMLM-012-024BK	12-24VAC/DC Multi-Pattern Wiring Module, Black
1	RSL-LMB-C-R	Steady Light Module, Clear Lens, Red
1	RSL-LMB-C-A	Steady Light Module, Clear Lens, Amber
1	RSL-SMM-BK	Sixteen-Tone Sound Module, Black



► Model RSL-LMM
Radiant Multi-Pattern Light Module



RSL-LMM offers a multi-pattern LED light with high optical performance. Its modular design and compound functionality make this module ideal for applications where gaining attention is required.

RSL-LMM is capable of producing four integrated light effects: double flash, triple flash, strobe effect and random. The random pattern consists of an uneven flashing pattern, increasing the ability to catch attention.

Pattern selection in the individual light modules allows each light module in your configuration to activate a different flash pattern.

F E A T U R E S

- Modular design allows for up to 7 light modules: 6 light modules & 1 sound module (1 channel) or 5 light modules & 1 sound module (2 channels)
- Four integrated flash patterns selectable via DIP switch
- Compatible with 12-24VAC/DC or 120-240VAC*
- PLC compatible
- Indoor/outdoor use
- Type 4X, IP65 enclosure when installed with both gaskets included with each module
- IP69K compliant when installed with both gaskets included on each module
- CE Certified
- UL and cUL Listed

*Voltage dependent on selected wiring module

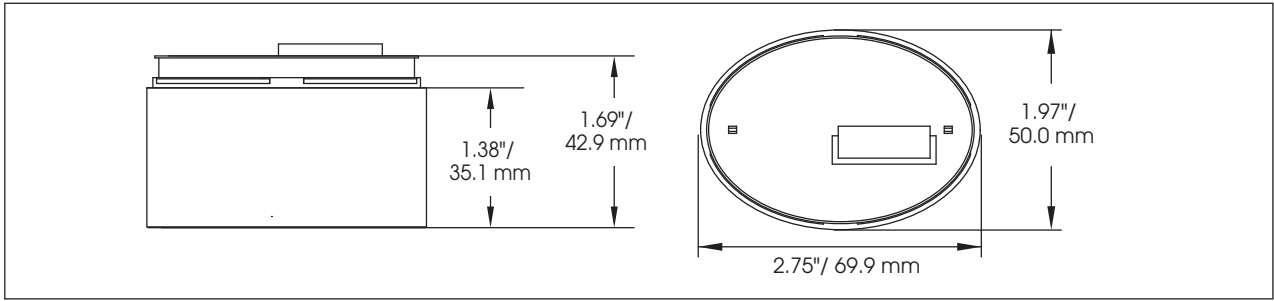


Wiring Modules

MODEL	MAXIMUM OPERATING CURRENT* (mA)			
	24VDC	24VAC	120VAC	240VAC
RSL-LMM				
RSL-WML/RSL-WMH	60	100	35	25

* Maximum operating current is for one module. For multiple modules the current will have to be added throughout the configuration to get the total maximum operating current.

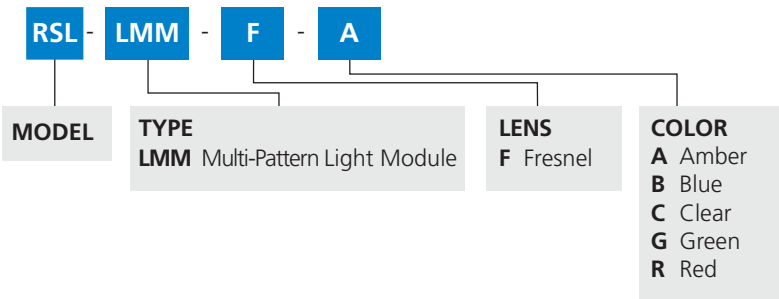
Radiant Multi-Pattern Light Module (RSL-LMM)



SPECIFICATIONS

Lamp Life:	50,000 Hours	Wiring Module:		
Light Source:	LED	Height*	1.38"	35.1 mm
Operating Temperature:	-22°F to 122°F -30°C to 50°C	Width	2.75"	69.9 mm
Net Weight:	1.41 oz 0.04 kg	Depth	1.97"	50.0 mm
Shipping Weight:	1.60 oz 0.05 kg	*Height dependent on complete configuration.		

HOW TO ORDER



Stack Light Configuration Steps:

- 1: Select your mounting base
- 2: Select your wiring module based on:
 - A: Voltage
 - B: Steady or flashing effects
- 3: Select your light module(s) based on:
 - A: Color
 - B: Brightness
 - C: Lens type
 - D: Steady or flashing effects
- 4: Select your sound module (optional)

Order Example for a Flashing Radiant Stack Light with Flash Pattern Selection in Light Modules

Example of what is needed to order a model with 24VDC, Flashing, Green and Red LEDs, Fresnel Lens, Pipe Mount, Two-Tone Sound Module, Gray Housing

QTY	MODEL	DESCRIPTION
1	RSL-BP-GY	Pipe Mount Base, Gray
1	RSL-WML-012-024GY	12-24VAC/DC Standard Wiring Module, Gray
1	RSL-LMM-F-G	Multi-Pattern Light Module, Fresnel Lens, Green
1	RSL-LMM-F-R	Multi-Pattern Light Module, Fresnel Lens, Red
1	RSL-SM-GY	Two-Tone Sound Module, Gray

Order Example for a Steady & Flashing Combination Radiant Stack Light

Example of what is needed to order a model with 240VAC, Red Flashing, Amber Flashing, Green Steady, Fresnel Lens, Extended Mount, Gray Housing

QTY	MODEL	DESCRIPTION
1	RSL-BE-GY	Extended Mount Base, Gray
1	RSL-WMH-120-240GY	120-240VAC Standard Wiring Module, Gray
1	RSL-LMM-F-R	Multi-Pattern Light Module, Fresnel Lens, Red
1	RSL-LMM-F-A	Multi-Pattern Light Module, Fresnel Lens, Amber
1	RSL-LMS-F-G	Steady Light Module, Fresnel Lens, Green



Radiant sound modules come complete with top cap installed.

► Models RSL-SM and RSL-SMM

Radiant Sound Modules

Radiant sound modules add an audible alert to a visual stack light application. Depending on the application need, there are two possible solutions:

RSL-SM contains 2 tones (intermittent and continuous) over 2 channels. It allows for use of both channels, by connecting 2 of the 7 available contacts of the wiring module.

RSL-SMM contains 16 tones (mixed types) over 2 channels. It allows for use of both channels, by connecting 2 of the 7 available contacts of the wiring module. For each channel it is possible to select the sound via DIP switch prior to assembling the unit.

FEATURES

- Modular design offers up to 7 light modules: 6 light modules & 1 sound module (1 channel) or 5 light modules & 1 sound module (2 channels)
- RSL-SM contains 2 tones, RSL-SMM contains 16 tones
- Volume control in model RSL-SMM
- Compatible with 12-24VAC/DC or 120-240VAC*
- Indoor/outdoor use
- PLC compatible
- Type 4X, IP65 enclosure when installed with both gaskets included on each module
- IP69K compliant when installed with both gaskets included with each module
- CE Certified
- UL and cUL Listed

*Voltage dependent on selected wiring module



Wiring Modules

MODEL RSL-SM	DECIBELS @ 1M		MAXIMUM OPERATING CURRENT* (mA)			
	MIN.	MAX.	24VDC	24VAC	120VAC	240VAC
RSL-WML/RSL-WMH	N/A**	87	50	120	30	25
RSL-WMLM/RSL-WMHM	N/A**	87	65	130	30	25

*Maximum operating current is for one module. For multiple modules, the current will have to be added throughout the configuration to get the total maximum operating current.

**Model RSL-SM does not offer volume control

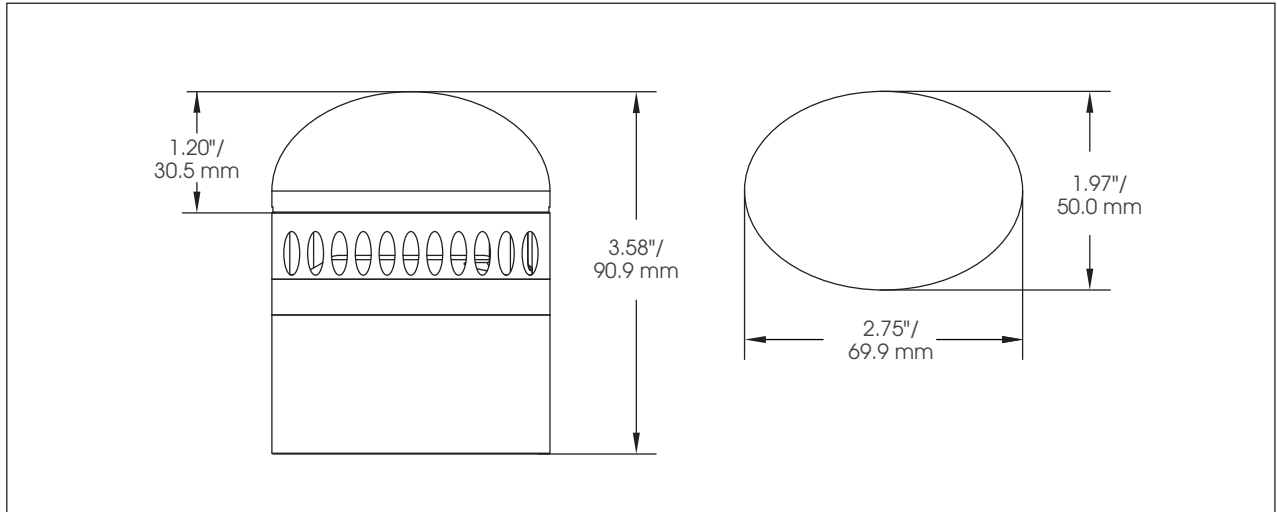


Wiring Modules

MODEL RSL-SMM	DECIBELS @ 1M		MAXIMUM OPERATING CURRENT* (mA)			
	MIN.	MAX.	24VDC	24VAC	120VAC	240VAC
RSL-WML/RSL-WMH	60	90	200	450	100	50
RSL-WMLM/RSL-WMHM	60	90	200	450	100	50

*Maximum operating current is for one module. For multiple modules, the current will have to be added throughout the configuration to get the total maximum operating current.

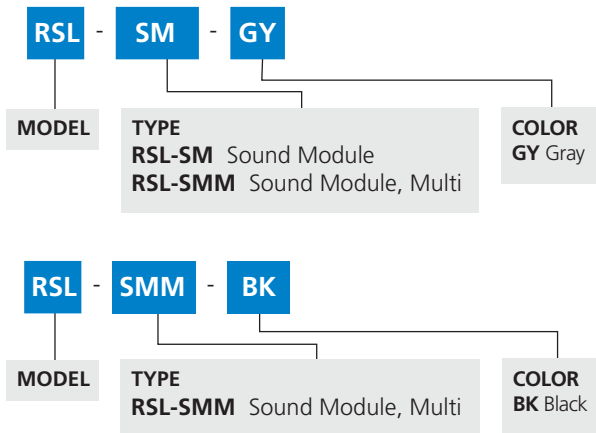
Radiant Sound Modules (RSL-SM and RSL-SMM)



SPECIFICATIONS

Operating Temperature:	-22°F to 122°F	-30°C to 50°C	Top Cap:		
Net Weight:			Height*	1.20"	30.5 mm
RSL-SM	2.82 oz	0.08 kg	Width	2.75"	69.9 mm
RSL-SMM	3.17 oz	0.09 kg	Depth	1.97"	50.0 mm
Shipping Weight:	4.00 oz	0.11 kg	*Height dependent on complete configuration.		
Wiring Module:					
Height*	2.38"	60.4 mm			
Width	2.75"	69.9 mm			
Depth	1.97"	50.0 mm			

HOW TO ORDER



Stack Light Configuration Steps:

- 1: Select your mounting base
- 2: Select your wiring module based on:
 - A: Voltage
 - B: Steady or flashing effects
- 3: Select your light module(s) based on:
 - A: Color
 - B: Brightness
 - C: Lens type
 - D: Steady or flashing effects
- 4: Select your sound module (optional)



► Models SCB and SCC

SemiStat® Status Indicators

Federal Signal's SemiStat® Status Indicators are designed to meet the needs of the OEM market.

The snap fit ABS housing cover and a standard terminal block make installation and wiring of the SemiStat a quick job.

SemiStat LED light modules utilize extremely bright light emitting diodes for the greatest attention-getting effect. The Tri-Color SemiStat features Red, Amber and Green light modules, and the Quad-Color SemiStat features Red, Amber, Green and Blue light modules. The sequence of the LED light modules can be easily changed to suit the application – just pop off the housing cover, disconnect the modules and reconnect in the desired order.

For further utility, each SemiStat is equipped with an integrated piezo sounder. SemiStat sounders produce 60 dBA at ten feet. A selection of two beep patterns is offered.

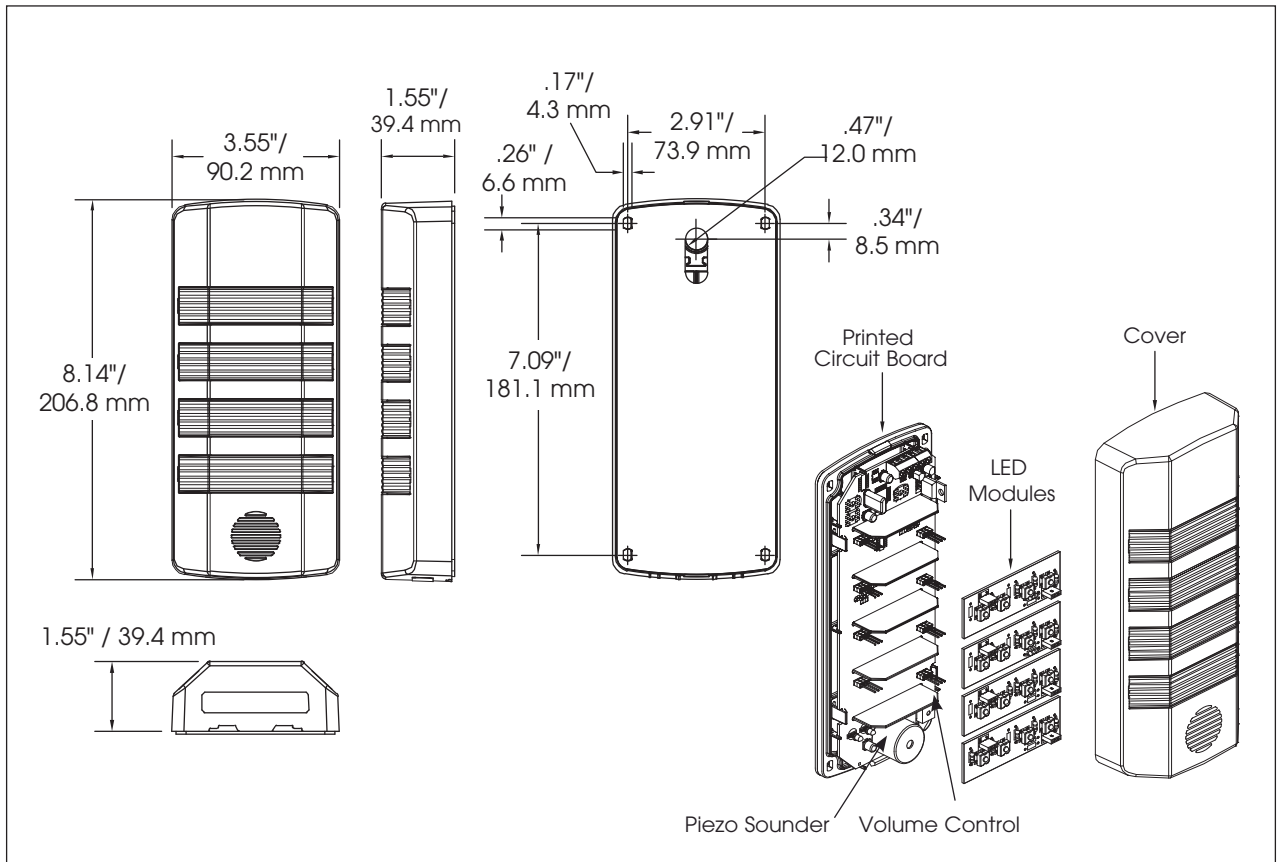
FEATURES

- Available in 24VAC/DC
- Tri- or quad-color models
- Available in chrome or white finish
- 50,000 hour vibration-resistant LED lamps
- Flashing or steady light effects
- Integrated volume control
- Integrated sounder, 60 dBA @ 10', 2 selectable tones
- Surface mount
- Indoor use only
- PLC compatible

MODEL	DESCRIPTION	VOLTAGE	OPERATING CURRENT	DECIBELS		MOUNT
				10'	1M	
SCB-024TC	Tri-color, white finish	24VAC/DC	150 mA*	60	70	Surface
SCB-024QC	Quad-color, white finish	24VAC/DC	175 mA*	60	70	Surface
SCC-024TC	Tri-color, chrome finish	24VAC/DC	150 mA*	60	70	Surface
SCC-024QC	Quad-color, chrome finish	24VAC/DC	175 mA*	60	70	Surface

*Amp draw measured with all colors and sounder activated simultaneously.

SemiStat® Status Indicators (SCB and SCC)



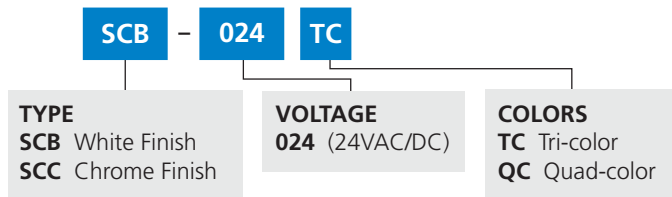
SPECIFICATIONS

Lamp Life:		50,000 Hours
Light Source:		LED
Operating Temperature:	32°F to 140°F	0°C to 60°C
Net Weight:	0.7 lbs	0.32 kg
Shipping Weight:	1.0 lbs	0.45 kg
Height:	8.14"	206.8 mm
Width:	3.55"	90.2 mm
Depth:	1.55"	39.4 mm

REPLACEMENT PARTS

Description	Part Number
LED Module, Amber	K2001925A-01
LED Module, Blue	K2001925A-02
LED Module, Red	K2001925A
LED Module, Green	K2001925A-03

HOW TO ORDER





► Models USI and USIS

UniStat® LED Status Indicators

The UniStat® is a LED, multi-color, single-high status indicator.

This status indicator can produce either three colors (Amber, Green and Red) or four colors (Amber, Blue, Green and Red) from a single light source.

The UniStat offers a choice of four integrated flash patterns – steady burn, slow flash, strobe flash and SimuStrobe®. SimuStrobe simulates the attention-getting flash rate of a strobe light but with a much more color-rich output. The user can choose a total of 12 possible flash/color combinations in the tri-color models and 16 in the quad-color models.

When the application calls for an increased sense of urgency, specify model USIS with an integrated piezo sounder. Producing 60 dBa @ 10 feet, the USIS is the ideal attention getter in process control applications.

Each model arrives pre-assembled and ready to surface mount or 3/4-inch NPT pipe mount. Options for the UniStat include pipe mount extensions (4", 16", and 32"), a wall mount bracket and a tulip mount base.

FEATURES

- Available in 24VDC and 120VAC
- Tri- or quad-color models
- 50,000 hour, vibration-resistant LED light source
- Available with built-in sounder
- Surface mount and integrated 3/4-inch NPT pipe mount
- PLC compatible
- Indoor use only
- Type 4X, IP66 enclosure
- Type 1 with sounder, 60 dBa @ 10'
- UL and cUL Listed

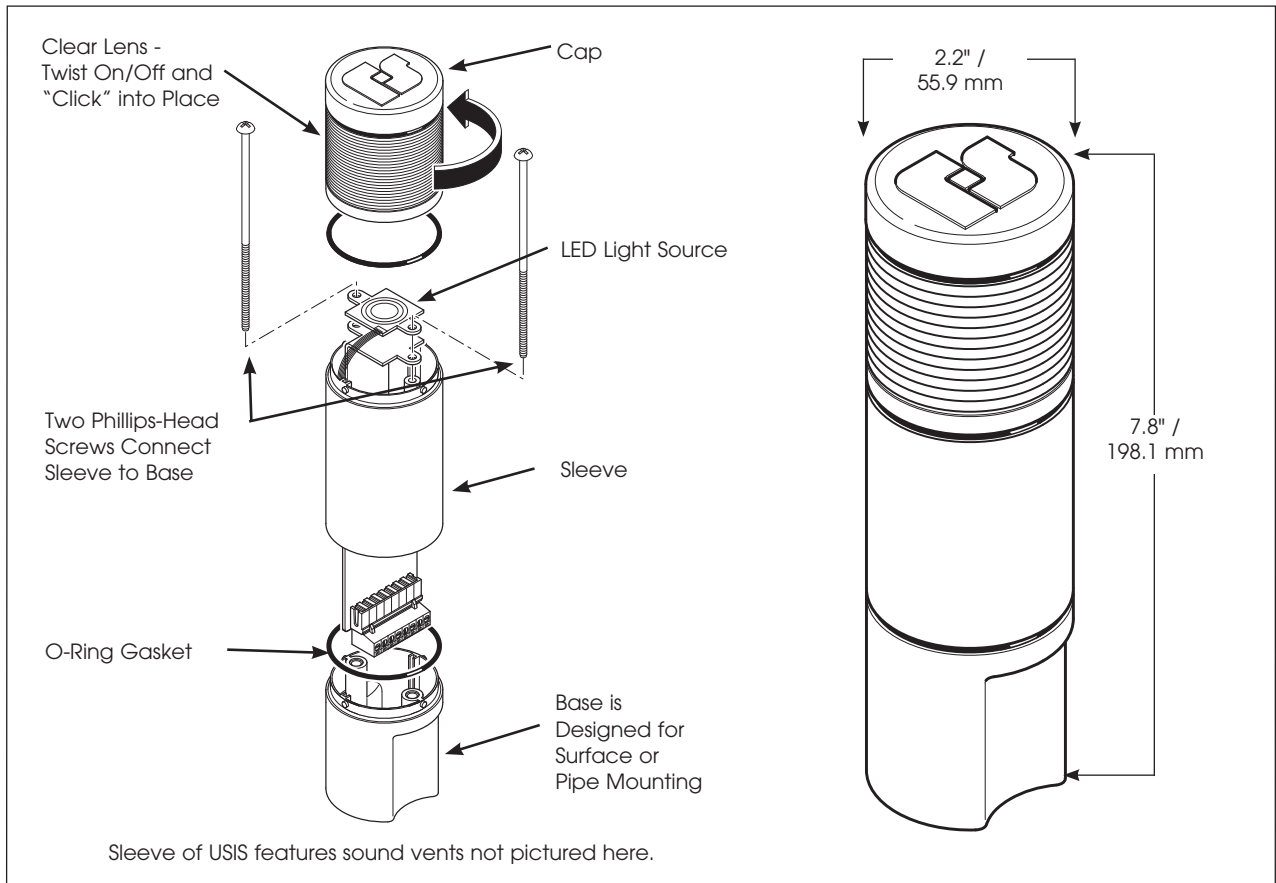
MODEL	DESCRIPTION	VOLTAGE	OPERATING CURRENT	MOUNT	DECIBELS	
					10'	1 M
USI/USIS-024TC¹	Tri-color	24VDC	100 mA ²	3/4" NPT or Surface	60*	70
USI/USIS-120TC¹	Tri-color	120VAC	60 mA ²	3/4" NPT or Surface	60*	70
USI/USIS-024QC¹	Quad-color	24VDC	100 mA ²	3/4" NPT or Surface	60*	70
USI/USIS-120QC¹	Quad-color	120VAC	60 mA ²	3/4" NPT or Surface	60*	70

¹ USIS indicates built-in sounder

² Sounder draws 100 mA on all models

* dBa is only for the USIS model

UniStat® LED Status Indicators (USI and USIS)



SPECIFICATIONS

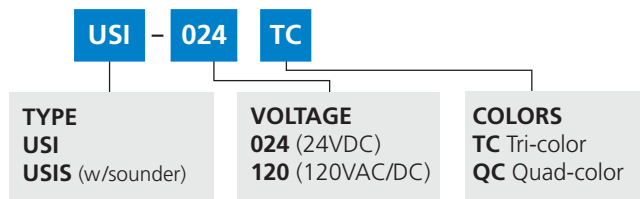
Lamp Life:	50,000 Hours	
Light Source:	LED	
Operating Temperature:	32°F to 104°F	0°C to 40°C
Net Weight:	0.4 lbs	0.18 kg
Shipping Weight:	0.7 lbs	0.32 kg
Height:	7.8"	198.1 mm
Diameter:	2.2"	55.9 mm

REPLACEMENT PARTS

Description	Part Number
MicroStat–UniStat Hardware Kit ¹	K844700351A
LED Array, Tri-color	K2005328A
LED Array, Quad-color	K2005328A-01

¹ Includes 1 clear lens, cap, o-ring, and light barrier

HOW TO ORDER



Mounting options are available. Reference pages 40 and 41 for details.



► Model USIX

UniStat® Hazardous Location LED Status Indicator

The UniStat® is a LED based, multi-color, single-high status indicator.

Using the latest LED technology, this status indicator can produce three colors (Amber, Green and Red) or four colors (Amber, Blue, Green and Red) from a single light source.

The UniStat offers a choice of four integrated flash patterns – steady burn, slow flash, strobe flash and SimuStrobe™. SimuStrobe simulates the attention-getting flash rate of a strobe light but with a much more color-rich output. The user can choose a total of 12 possible flash/color combinations in the tri-color models and 16 in the quad-color models.

The USIX is protected in a durable polycarbonate housing utilizing 4-3/4-inch knockout conduit openings in the surface mount base. The outer glass globe is protected by a polycarbonate dome guard (included). Each model arrives pre-assembled and ready to surface mount.

FEATURES

- Available in 24VDC and 120VAC
- Tri or quad-color models
- 50,000 hours, vibration-resistant LED light source
- Surface mount
- PLC compatible
- Type 4X, IP66 enclosure
- IP69K compliant
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III

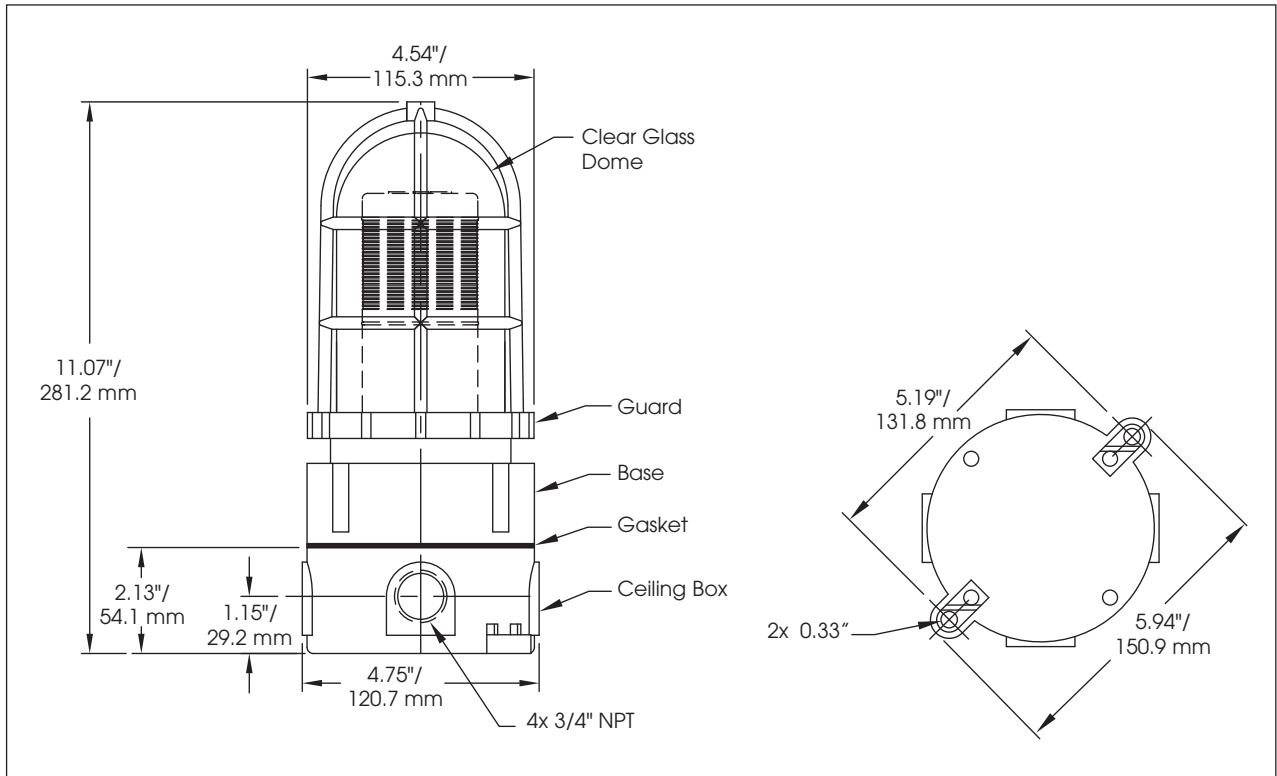
MODEL	DESCRIPTION	VOLTAGE	OPERATING CURRENT	MOUNT
USIX-024TC	Tri-color	24VDC	0.087 amps	Surface
USIX-120TC	Tri-color	120VAC	0.058 amps	Surface
USIX-024QC	Quad-color	24VDC	0.087 amps	Surface
USIX-120QC	Quad-color	120VAC	0.058 amps	Surface

HAZARDOUS LOCATION RATING: USIX

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C	66°C
Class I, Division 2, Groups A, B, C, D	T6	T5
Class II, Division 2, Groups F, G	T6	T6
Class III	T6	T6

UniStat® Hazardous Location LED Status Indicator (USIX)



SPECIFICATIONS

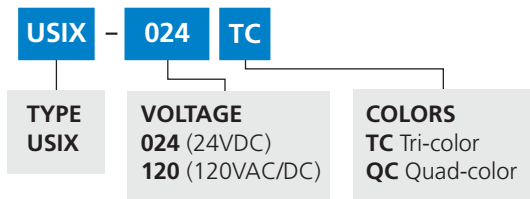
Lamp Life:	50,000 Hours	
Light Source:	LED	
Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	2.49 lbs	1.13 kg
Shipping Weight:	2.53 lbs	1.15 kg
Height:	11.07"	281.2 mm
Diameter:	4.75"	120.7 mm

REPLACEMENT PARTS

Description	Part Number
MicroStat UniStat Hardware Kit ¹	K844700351A
LED Tri-color	K2005328A
LED Quad-color	K2005328A-01

¹ Includes 1 lens of each color, cap, o-ring, and MicroStat light barrier

HOW TO ORDER





► Model MSL

MicroStat® Status Indicator

Federal Signal's MicroStat® is a compact, Type 4X status indicator, Type 1 with optional sounder. Ideal for OEM applications, the MicroStat comes pre-assembled as 1-, 2-, 3-, 4-, or 5-high light units. The user selects combinations from five colors: Amber, Blue, Clear, Green and Red. O-rings between each segment provide a water-tight and dust-tight seal. The base of each light can be surface or pipe mounted (3/4-inch NPT).

The lenses lock together and snap apart with a simple twisting motion, allowing for easy lamp changes and quick lens resequencing. A rugged vibration-resistant, thick-filament wedge lamp fills each lens with light, providing excellent optical performance.

Wire connections are made through a 2-piece terminal block. The MicroStat is designed to work with PLC outputs including "Triacs".

An optional sound module can be installed in the top position of any MicroStat as one of the 5 units. The Sound Module Kit (MSS—See page 40 for details) consists of a slotted grille and board-mounted piezoelectric horn. The sounder plugs directly into the wedge socket.

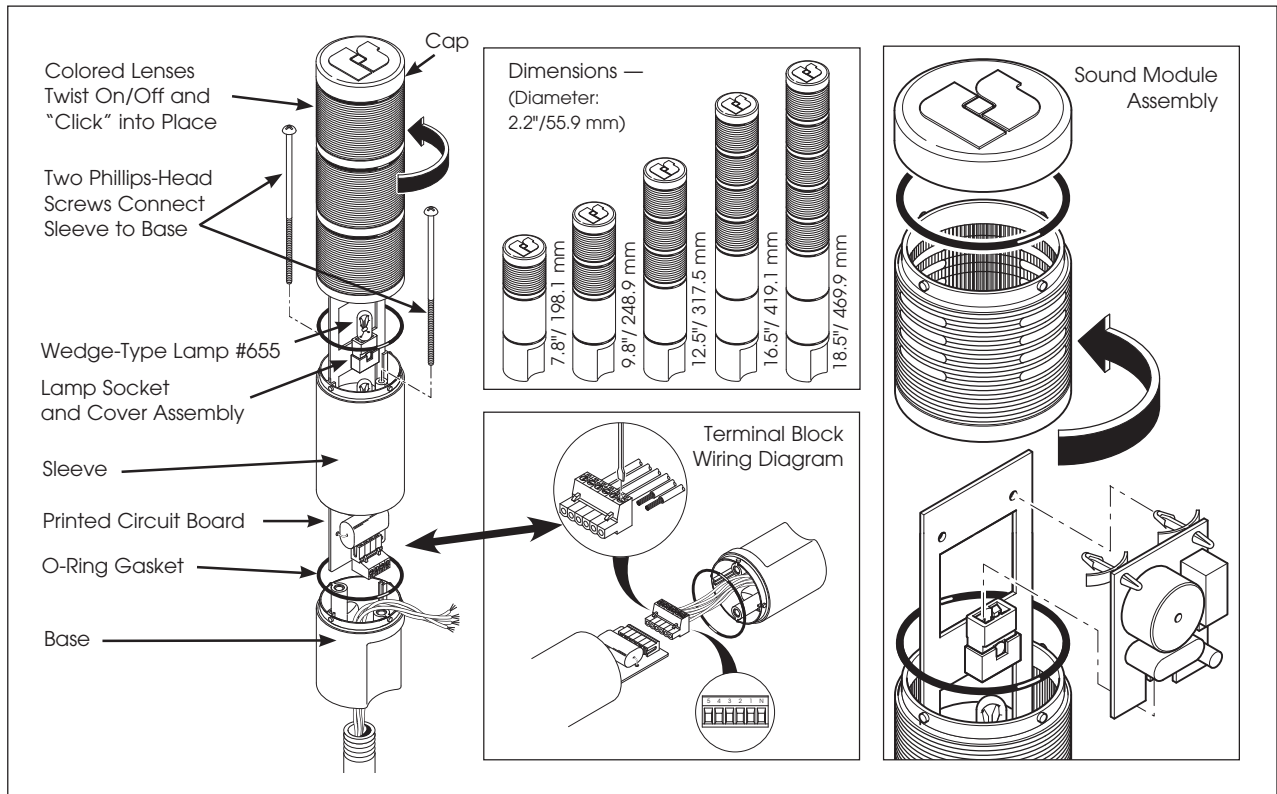
FEATURES

- Available in 24VAC/DC or 120VAC
- Factory assembled
- Small footprint – only 2.2" diameter (55.9 mm)
- Surface mount and integrated 3/4-inch NPT pipe mount
- Five lens colors: Amber, Blue, Clear, Green and Red
- Optional 50,000-hour LED lamp
- Optional sound module (MSS), pipe mount base and flasher
- Sounder produces 93-95 dBa @ 1m (83-85 dBa@ 10')
- PLC compatible
- Indoor use only
- Type 4X enclosure¹
- UL and cUL Listed

MODEL	DESCRIPTION	VOLTAGE	OPERATING CURRENT
MSL1	One status segment	24VAC/DC, 120VAC	0.2 amps
MSL2	Two status segments	24VAC/DC, 120VAC	0.4 amps
MSL3	Three status segments	24VAC/DC, 120VAC	0.6 amps
MSL4	Four status segments	24VAC/DC, 120VAC	0.8 amps
MSL5	Five status segments	24VAC/DC, 120VAC	1.0 amps

¹ MSL with optional sounder rated NEMA Type 1

MicroStat® Status Indicator (MSL)



SPECIFICATIONS

Lamp Life:	7,000 Hours		
Light Source:	Wedge-Type Lamp #655		
Operating Temperature:	32°F to 104°F	0°C to 40°C	
Net Weight:	1-high	0.4 lbs	0.18 kg
	2-high	0.55 lbs	0.25 kg
	3-high	0.65 lbs	0.29 kg
	4-high	0.85 lbs	0.39 kg
	5-high	1.0 lbs	0.45 kg
Shipping Weight:	1-high	0.7 lbs	0.32 kg
	2-high	0.85 lbs	0.39 kg
	3-high	1.3 lbs	0.59 kg
	4-high	1.5 lbs	0.68 kg
	5-high	1.65 lbs	0.75 kg

REPLACEMENT PARTS

Description	Part Number
MicroStat – UniStat Hardware Kit ¹	K844700351A
MicroStat – UniStat Connector Kit ²	K140373A-03
Wedge Lamp (#655), 28V	K8107185A
MSLED Lamp	Please refer to page 32

¹ Includes 1 lens of each color, cap, o-ring, and MicroStat light barrier

² Includes 1 of each terminal block (3, 4 and 6 position)

HOW TO ORDER

MSL **1** - **024** **A**

TYPE MSL	SEGMENTS Number 1 up to 5	VOLTAGE 024 (24VAC/DC) 120 (120VAC)	COLORS (FOR MSL1 & MSL2)* A Amber B Blue C Clear G Green R Red
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*MSL3, MSL4 and MSL5 are packaged with one each of the colored lenses
MSL1 24VAC/DC not offered in clear

- Determine number of status segments required; one for each light segment and one additional for a sounder (maximum of 5 total)
- Specify Model MSL1, MSL2, MSL3, MSL4, MSL5
- Specify voltage
- Specify colors for MSL1 and MSL2 (MSL3, MSL4 and MSL5 are packaged with one each of the colored lenses)
- Specify accessories from pages 40 and 41



► Models MSLBRCKT, MSLED, MSP, MSS, MSTB

MicroStat® and UniStat® Status Indicator Optional Accessories

A variety of optional equipment is available for the MicroStat® and UniStat® Status Indicators.

MSLBRCKT

Wall mounting the MicroStat or UniStat is simple with this basic bracket.

MSLED

Five plug-in LED's are available for the MicroStat; Amber, Blue, Clear, Green, or Red. The MSLED replaces the lamp in any MSL light module. MSLED modules are UL Listed.

MSP

Some applications require that the status indicators be raised above the machine surface. Using powder coated steel helps improve the visibility of the MicroStat or UniStat. Three different lengths are available; they measure 4-inches (MSP-4), 16-inches (MSP-16) and 32-inches (MSP-32).

MSS

Adding sound to the MicroStat is simple with the plug-in Sound Module. The Sound Module produces 83-85 dBa @ 10 feet. This compact piezo device replaces the lamp in the top position of any MicroStat. A slotted opaque lens protects the sound module circuit and permits the sound to be heard at maximum levels. Adding the sound module to the MicroStat changes the Type rating from 4X to Type 1. Sound modules are available in 24VDC and 120VAC operating voltages.

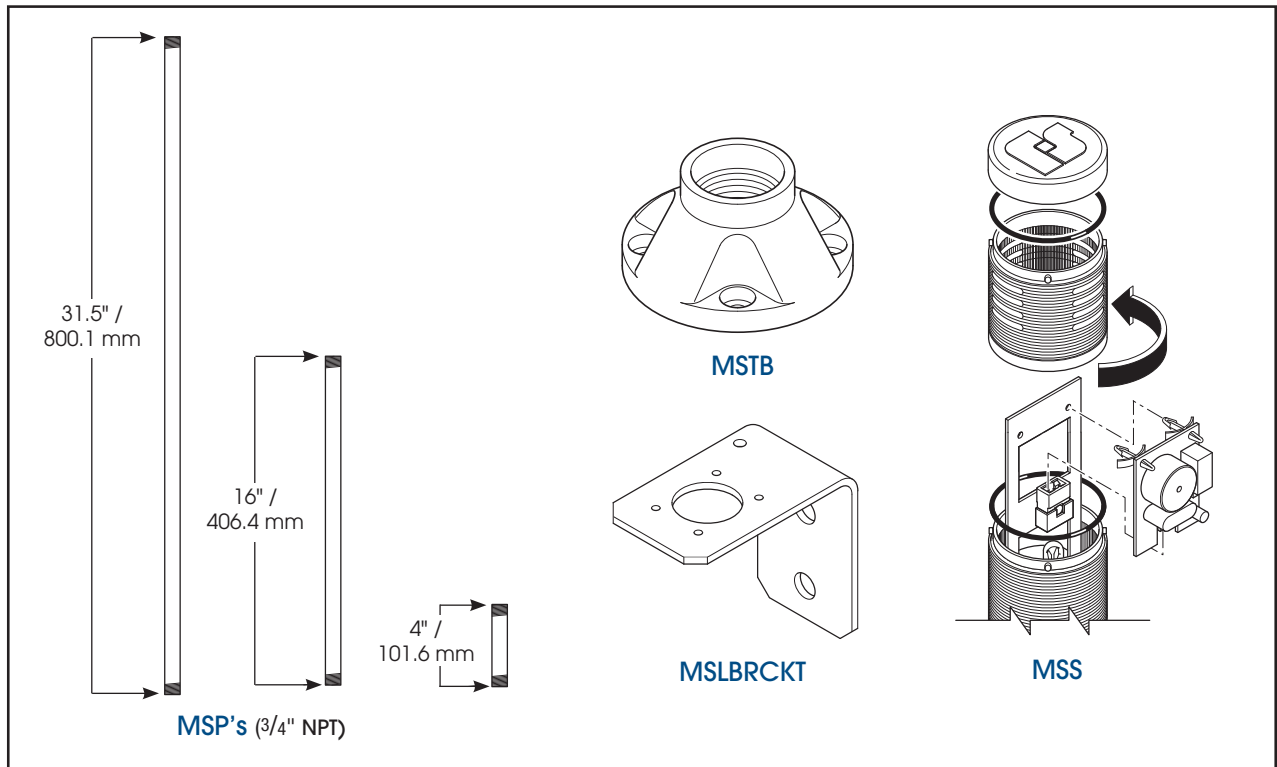
MSTB

The MicroStat or UniStat base can be pipe-mounted or surface-mounted. When using the pipe extensions, the tulip base is required for a true surface mount.

FLASHERS

Flashers for the MicroStat are available in 24VDC and 120VAC. Each flash at 75 FPM.

MicroStat® and UniStat® Status Indicator Optional Accessories



SPECIFICATIONS

MSS

Operating Current:	24VDC	0.03 amps
	120VAC	0.04 amps
dBa Output:	83-85 @ 10'	93-95 @ 1m
Net Weight:	0.25 lbs	0.11 kg
Shipping Weight:	0.75 lbs	0.34 kg
Height:	2.0"	50.8 mm
Diameter:	2.2"	55.9 mm

MSLED

Operating Current:	24VDC	0.095 amps
	120VAC	0.095 amps
Net Weight:	0.05 lbs	0.02 kg
Shipping Weight:	0.55 lbs	0.25 kg
Height:	1.75"	44.45 mm
Width:	1.5"	38.1 mm

MSLBRCKT

Net Weight:	0.4 lbs	0.18 kg
Shipping Weight:	0.9 lbs	0.41 kg
Height:	3.45"	87.63 mm
Width:	2.0"	50.8 mm

MSTB

Net Weight:	0.3 lbs	0.14 kg
Shipping Weight:	0.8 lbs	0.36 kg
Height:	1.5"	38.1 mm
Diameter:	2.75"	68.6 mm

HOW TO ORDER

Description

Wall mounting	MSLBRCKT
LED Lamp, Amber	MSLED-A
LED Lamp, Blue	MSLED-B
LED Lamp, Clear	MSLED-C
LED Lamp, Green	MSLED-G
LED Lamp, Red	MSLED-R
3/4" NPT Pipe Extension	
4"	MSP-4
16"	MSP-16
32"	MSP-32
Sound Module	
24VDC	MSS-024
120VAC	MSS-120
Pipe/Surface Mount Base	MSTB

REPLACEMENT PARTS

Description

Flasher, 24VDC	K8285237A
Flasher, 120VAC	K8285239A



► Model LSL

Litestak® Incandescent Status Indicator

Federal Signal's Litestak® status indicator may include up to five light modules (Model LSL) available in Amber, Blue, Clear, Green and Red; or four light modules plus an optional sound module (Model LSH) to create a dual purpose audible/visual status indicator. The sound module always occupies the top position of a Litestak unit.

Litestak's lensing provides a 360° visual signal. Individual light modules may be set to either flash or steady. The flasher is included with the 120VAC LSB model and sold separately for 24VDC. Each light module consists of two impact-resistant polycarbonate lens halves that snap apart to provide easy maintenance and interchangeability of colors.

Litestak units can be installed on a 3/4-inch NPT pipe mount or surface mounted with the Model LSB Base. If low profile surface mounting is required, Model LSBS is available. All Litestak models should be mounted base down.

Multiple lens colors can communicate machine shutdown, shortage of materials, supervisor attention, etc. Ideal applications for the Litestak include assembly lines, instrument panels, workcells, etc. Federal Signal's Litestak is an economical device for increasing productivity in any manufacturing environment.

FEATURES

- Available in 24VDC and 120VAC
- Five lens colors: Amber, Blue, Clear, Green and Red
- Surface mount and integrated 3/4-inch NPT pipe mount
- Indoor use only
- Type 1 enclosure
- Optional sounders available (see pages 46-47)
- CSA Certified
- UL and cUL Listed

MODEL	DESCRIPTION	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT	MOUNT
LSB-024-240¹	Base	24-240VAC/DC	N/A	N/A	N/A	3/4" NPT Pipe/Surface
LSB-120¹	Base	120VAC 50/60Hz	N/A	70	N/A	3/4" NPT Pipe/Surface
LSBS¹	Base	24-240VAC/DC	N/A	N/A	N/A	Low Profile Surface
LSL-024^{2*}	Light Module	24VDC	0.76 amps**	N/A	123 cd	N/A
LSL-120^{2*}	Light Module	120VAC 50/60Hz	0.13 amps**	N/A	123 cd	N/A

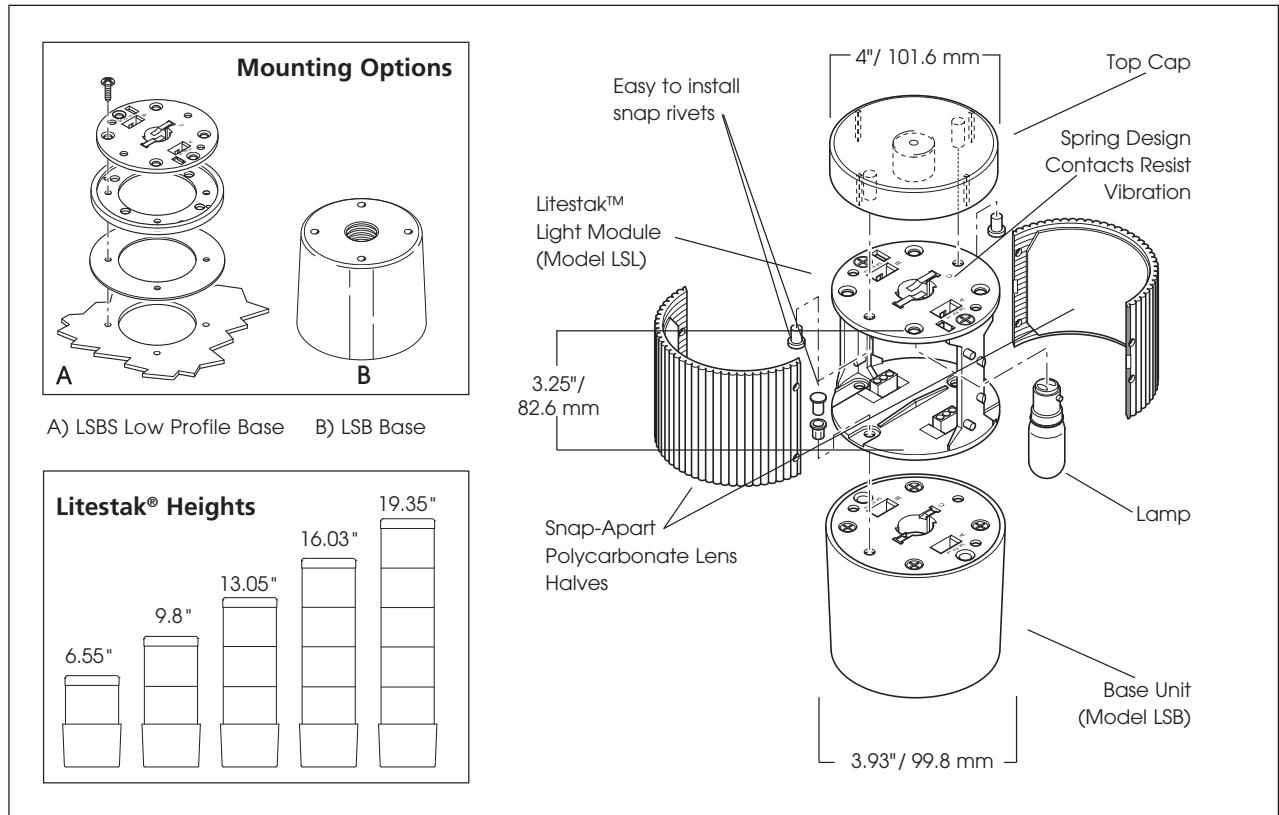
¹ Cap kit included

² Model LSL includes lens, lamp and light module

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

** Operating current listed is for one module. For multiple modules, the current will have to be added together throughout the configuration to get the total operating current.

Litestak® Incandescent Status Indicator (LSL)



SPECIFICATIONS

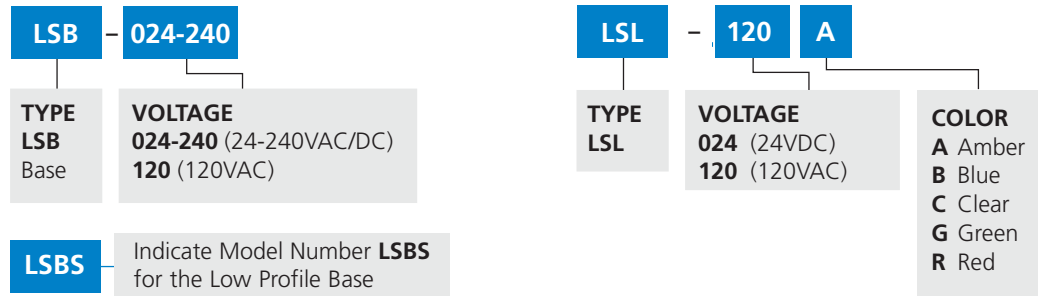
Lamp Life:		2,500 Hours
Light Source:		Incandescent
Operating Temperature:	0°F to 120°F	-18°C to 49°C
Net Weight:	LSL	0.5 lbs / 0.2 kg
	LSB	0.75 lbs / 0.3 kg
Shipping Weight:	LSL	0.8 lbs / 0.4 kg
	LSB	1.0 lbs / 0.4 kg
Height:	LSL	3.25" / 82.6 mm
	LSB	3.25" / 82.6 mm
	LSBS	3.30" / 83.82 mm
Diameter:	LSL	3.93" / 99.8 mm
	LSB	3.93" / 99.8 mm
	LSBS	3.93" / 99.8 mm

REPLACEMENT PARTS

Description	Part Number
Litestak Lens Kit ¹	K844700352A
Lamp, 24VDC	K8107210A
Lamp, 120VAC	K8107194A
Lamp, 240VAC	K8107A149A
Flasher, 24VDC	K8285237A
Flasher, 120VAC	K8285239A

¹ Includes 1 of each lens: Amber, Blue, Clear, Green and Red (does not include blackout 1/2 lens), snap rivets and cap

HOW TO ORDER





► Model LSLD

Litestak® LED Status Indicator

Federal Signal's Litestak® Model LSLD modular indicator light system allows the user to combine up to five interchangeable lamp units with a base power unit. Modules are sold separately for a truly customized indicator.

LED light output coordinates with the module's impact-resistant polycarbonate lensing. LED lamps consume less power, operate at a lower temperature, and are remarkably resistant to vibration, which makes them perfect for use in heavy-duty, high vibration applications.

An optional Sound Module (Model LSH on page 46 and 47) can be added to the top of the Litestak column to create a dual purpose audible/visual status indicating signal. In applications where a single loud tone is all that is necessary, the LSH piezo-electric horn is a perfect audible addition.

Litestak is a versatile system that allows the user to select either steady burn or flash. A flasher is included on the 120VAC LSB unit only but can be purchased separately for 24VDC models. The Litestak base unit can be either surface mount or 3/4-inch NPT pipe mount. All Litestak models should be mounted base down.

FEATURES

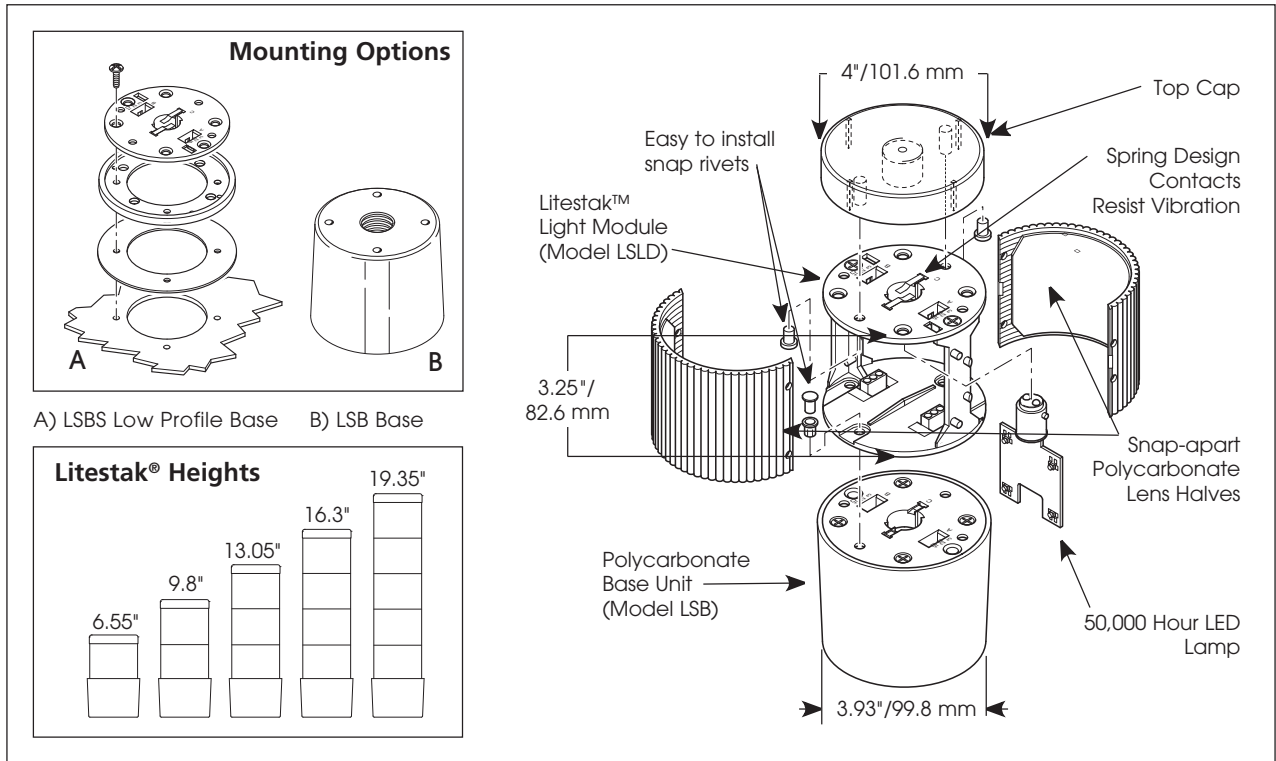
- Available in 24VDC and 120VAC
- 50,000 hour, vibration-resistant LED lamp
- Surface mount and integrated 3/4-inch NPT pipe mount
- Five lens colors: Amber, Blue, Clear, Green and Red
- Indoor use only
- Type 1 enclosure
- CSA Certified
- UL and cUL Listed

MODEL	DESCRIPTION	VOLTAGE	OPERATING CURRENT	MOUNT
LSB-024-240¹	Base	24-240VAC/DC	N/A	3/4" NPT Pipe/Surface
LSB-120¹	Base	120VAC 50/60Hz	N/A	3/4" NPT Pipe/Surface
LSBS¹	Base	24-240VAC/DC	N/A	Surface
LSLD-024^{2*}	Light Module	24VDC	80 mA**	N/A
LSLD-120^{2*}	Light Module	120VAC 50/60Hz	45 mA**	N/A

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

** Operating current listed is for one module. For multiple modules, the current will have to be added together throughout the configuration to get the total operating current.

Litestak® LED Status Indicator (LSLD)



SPECIFICATIONS

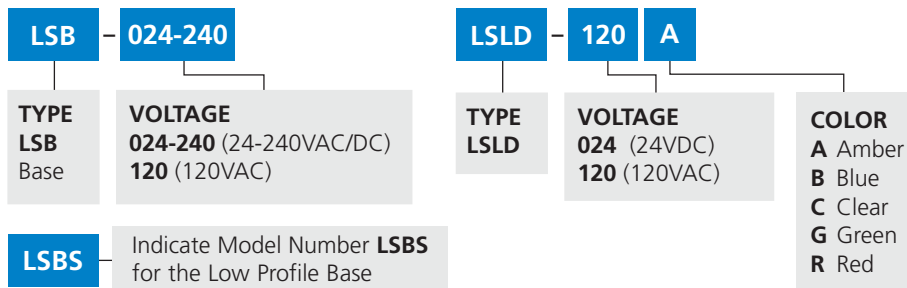
Lamp Life:		50,000 Hours
Light Source:		LED
Operating Temperature:	0°F to 120°F	-18°C to 49°C
Net Weight	LSLD:	0.45 lbs / 0.2 kg
	LSB:	0.75 lbs / 0.3 kg
Shipping Weight	LSLD:	0.7 lbs / 0.32 kg
	LSB:	1.0 lbs / 0.4 kg
Height:	LSLD	3.25" / 82.6 mm
	LSB	3.25" / 82.6 mm
Diameter:	LSLD	3.93" / 99.82 mm
	LSB	3.93" / 99.82 mm

REPLACEMENT PARTS

Description	Part Number
Litestak Lens Kit ¹	K844700352A
Flasher, 24VDC	K8285237A
Flasher, 120VAC	K8285239A
LED Lamp 24VDC, Amber	K8107199A
LED Lamp 24VDC, Blue	K8107199A-03
LED Lamp 24VDC, Clear	K8107199A-04
LED Lamp 24VDC, Green	K8107199A-02
LED Lamp 24VDC, Red	K8107199A-01
LED Lamp 120VAC, Amber	K8107200A
LED Lamp 120VAC, Blue	K8107200A-03
LED Lamp 120VAC, Clear	K8107200A-04
LED Lamp 120VAC, Green	K8107200A-02
LED Lamp 120VAC, Red	K8107200A-01

¹ Includes 1 each of lens: Amber, Blue, Clear, Green and Red (Does not include blackout 1/2 lens, snap rivets and cap)

HOW TO ORDER





Model LSH

► Model LSH

Litestak[®] Piezoelectric Horn

The Litestak[®] LSH Horn is a piezoelectric unit that employs a ceramic element which expands or bends when voltage is applied, generating a single tone. Model LSH can be used as a stand-alone audible device (with the LSB pipe/surface mount base or LSBS surface mount base) or combined with the Federal Signal Litestak light modules to create a combination audible/visual signal.

The LSH Horn is a modular unit which mounts directly onto the top of any Litestak light or base (sound units must be positioned at the top module of the status indicator). A black speaker grille cover protects the horn. The volume can be adjusted by removing the grille covers and adjusting the volume control below the horn mechanism. All Litestak models should be mounted base down.

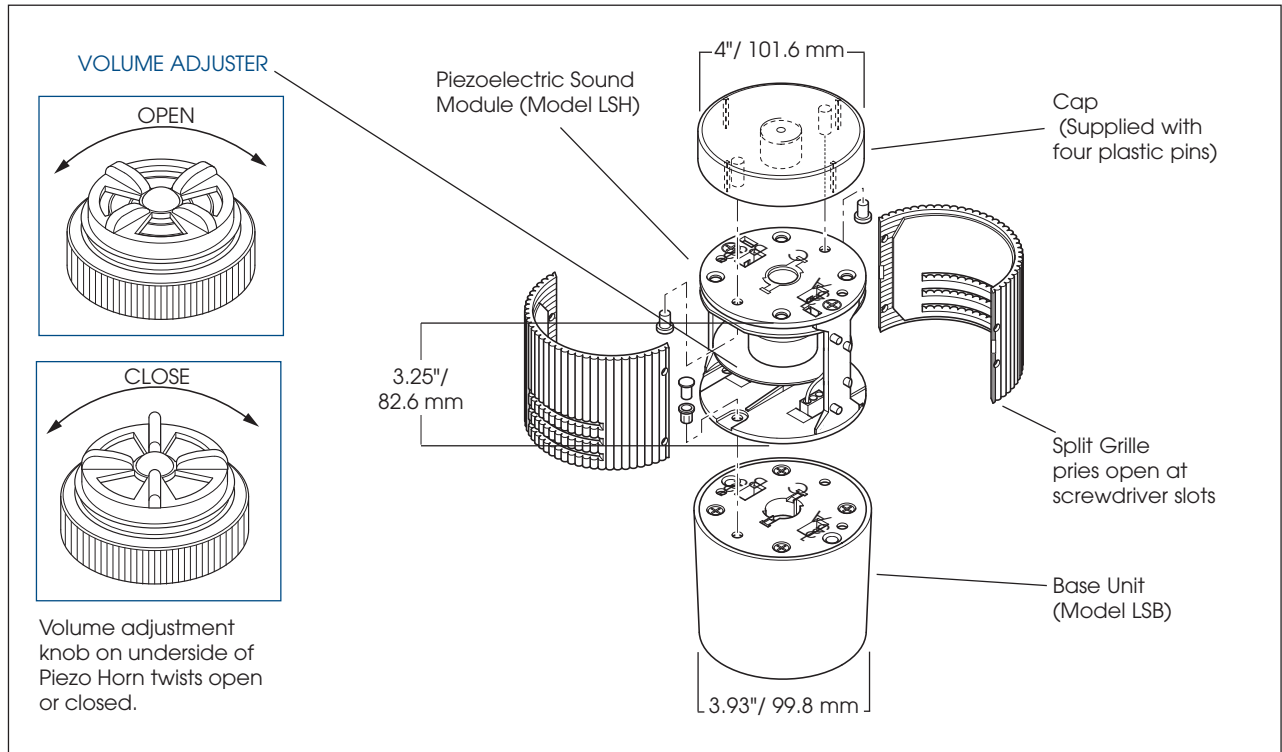
Ideal applications for Litestak audible/visual status indicators include assembly lines, conveyor systems, automated lines, instrument panels, workshops, etc.

FEATURES

- Available in 24VDC
- Adjustable volume
- Capable of producing 75-77 dBa @ 10' (85-87 dBa @ 1m)
- Indoor use only
- Type 1 enclosure
- CSA Certified
- UL Listed

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS	
			10'	1M
LSH-024	24VDC	70 mA	75	85

Litestak® Piezoelectric Horn (LSH)



SPECIFICATIONS

Operating Temperature:	32°F to 120°F	0°C to 49°C
Net Weight:	0.45 lbs	0.2 kg
Shipping Weight:	0.65 lbs	0.3 kg
Height:	3.25"	82.6 mm
Diameter:	3.93"	99.8 mm

HOW TO ORDER

LSH - **024**

TYPE
LSH

VOLTAGE
024 (24VDC)



Models SLM1400 and SLM1450 shown with mounting base options (ordered separately)



► Models SLM1400 and SLM1450

StreamLine® Modular Multicolor Multifunctional Low Profile LED Beacons

Models SLM1400 and SLM1450 are multicolor multifunctional LED beacons engineered to satisfy the most demanding applications. Developed with a multichannel technology, these models allow three separate levels of alarm controllable via independent electric contacts. For each channel, users can select from eight different colors (Amber, Blue, Clear, Cyan, Green, Magenta, Red, Yellow) and five light effects (steady, 1x flash, 2x flash, 4x flash and random).

Model SLM1400 includes an opaque lens for signaling in close proximities. Model SLM1450 includes a fresnel lens for farther distance signaling. The body material is a self-extinguishing polycarbonate material with high impact and UV resistance suitable for outdoor applications.

FEATURES

- Compatible with 12-24VAC/DC or 120-240VAC*
- PLC compatible with PNP or NPN connections*
- Choice of eight colors and five flash patterns per channel
- 50,000 hour LED
- Seven mounting base options
- Type 4X, IP66 enclosure
- IP69K** compliant
- CE Certified and RoHS
- UL and cUL listed

*Voltage and PLC connections are dependent on selected base.
**IP69K with select bases SLMB5, SLMBD, SLMBP and SLM-RR accessory

MODEL	VOLTAGE	LENS	FLASH RATE/ MINUTE (1x FLASH)	FLASH RATE/ MINUTE (2x FLASH)	FLASH RATE/ MINUTE (4x FLASH)
SLM1400	12-24VAC/DC or 120-240VAC	Opaque	120 (+/-10)	36 (+/-10)	60 (+/-10)
SLM1450	12-24VAC/DC or 120-240VAC	Fresnel	120 (+/-10)	36 (+/-10)	60 (+/-10)

MAXIMUM OPERATING CURRENT (mA)					
12 VDC	24 VDC	12 VAC	24 VAC	120 VAC	240 VAC
310	180	310	180	65	55

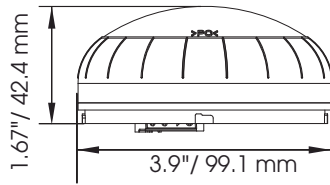
Weight (unit(s) + base = total weight)

SLM1400 SLM1450	VOLTAGE	SHALLOW BASE	DEEP BASE	WALL MOUNT	PIPE MOUNT	TWIN WALL MOUNT	2-STACK DOCK BASE	3-STACK DOCK BASE
2.12 oz 0.06 kg	12-24VAC/DC	2.12 oz 0.06 kg	4.23 oz 0.12 kg	6.70 oz 0.19 kg	5.29 oz 0.15 kg	9.17 oz 0.26 kg	14.46 oz 0.41 kg	21.16 oz 0.60 kg
	120-240 VAC	-	6.0 oz 0.17 kg	8.47 oz 0.24 kg	6.70 oz 0.19 kg	12.35 oz 0.35 kg	16.58 oz 0.47 kg	24.69 oz 0.70 kg

StreamLine® Modular Multicolor Multifunctional Low Profile LED Beacons (SLM1400 and SLM1450)

SPECIFICATIONS

Lamp Life: 50,000 Hours
 Light Source: LED
 Operating Temperature: -22°F to 122°F -30°C to 50°C



HOW TO ORDER

- Specify model number SLM1400 (Opaque Lens) SLM1450 (Fresnel Lens)
- Specify required mounting base (see chart)
- Optional dome guard
 For shallow mounting base (SLMDG0)
 For deep mounting base (SLMDG1)
- Accessories for Twin and Wall Mount Bases
 Cable Gland, M20, Gray, 2 Pack (K77700416)
 Cable Gland, M20, Red, 2 Pack (K77700416-01)
- Accessories for Pipe Mount Base
 1" NPT Adapter (SLMNPT1)
 1/2" NPT Adapter (SLMNPT2)
- Accessories for Dock Base
 Wall Mount Bracket (SLMB23W)
 1/2" NPT Adaptor (SLMB23N)
 Retaining Ring (SLM-RR)
 Light Visor (SLMB23V)

MOUNTING BASE OPTIONS

	Model Number	Base Color	Voltage	
Shallow Base	SLMBS-012-024GY	Gray	12-24VAC/DC	
	SLMBS-012-024R	Red	12-24VAC/DC	
Deep Base	SLMBD-012-024GY	Gray	12-24VAC/DC	
	SLMBD-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBD-012-024R	Red	12-24VAC/DC	
	SLMBD-120-240GY	Gray	120-240VAC	
Wall Mount	SLMBW-012-024GY	Gray	12-24VAC/DC	
	SLMBW-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBW-120-240GY	Gray	120-240VAC	
Pipe Mount	SLMBP-012-024GY	Gray	12-24VAC/DC	
	SLMBP-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBP-120-240GY	Gray	120-240VAC	
Twin Wall Mount	SLMBT-012-024GY	Gray	12-24VAC/DC	
	SLMBT-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBT-120-240GY	Gray	120-240VAC	
2-Stack Dock Base 3-Stack Dock Base	SLMB2-024GY	Gray	24VAC/DC	
	SLMB2-120-240GY	Gray	120-240VAC	
	SLMB3-024GY	Gray	24VAC/DC	
	SLMB3-120-240GY	Gray	120-240VAC	
Note: Dock bases allow one function per position and include visors.				



► Models PMLMP and PMLST

Panel Mount Multifunctional LED Beacons

Model PMLST allows for a single steady light effect, while model PMLMP offers three different light effects (steady, flashing or simulated strobe) controllable via independent electric contacts.

These models offer a self-extinguishing PC body that protects against vibrations, dust and atmospheric elements. The device can be panel mounted through a 1.18" hole and secured with the provided locking ring.

FEATURES

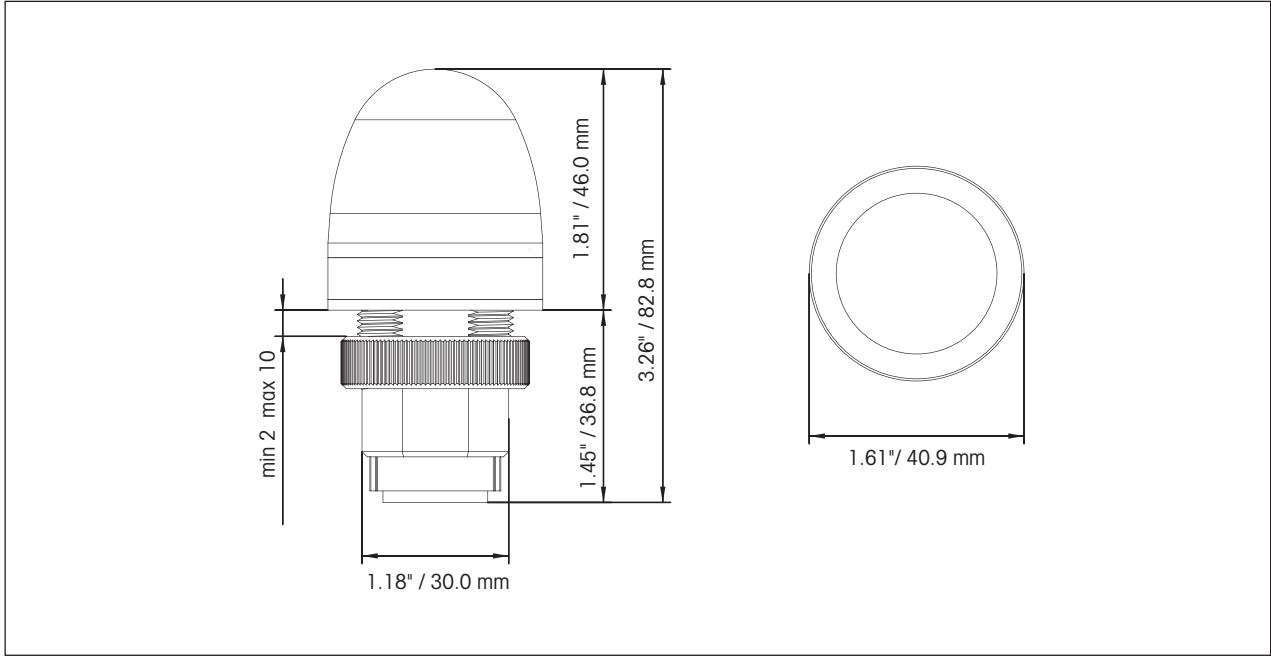
- Models available in 12-24VAC/DC or 48-240VAC
- Available in steady (PMLST) or multi-pattern (PMLMP)
- PMLMP contains steady, flashing & simulated strobe effects
- 50,000 hour LED
- 360 degrees light-diffusing design
- Type 4X, IP66 enclosure
- IP69K compliant
- CE Certified
- UL and cUL listed

MODEL	VOLTAGE	FLASH RATE/MINUTE (FLASH MODE)	FLASH RATE/MINUTE (STROBE MODE)
PMLMP-012-024 *	12-24VAC/DC	150 (+/-10)	70 (+/-10)
PMLMP-048-240 *	48-240VAC	150 (+/-10)	70 (+/-10)
PMLST-012-024 *	12-24VAC/DC	N/A Steady	N/A Steady
PMLST-048-240 *	48-240VAC	N/A Steady	N/A Steady

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green, (R) Red or (Y) Yellow

MODEL	MAXIMUM OPERATING CURRENT (mA)					
	12VDC	24VDC	12VAC	24VAC	48VAC	240VAC
PMLMP	60	45	110	130	40	25
PMLST	25	25	30	45	20	35

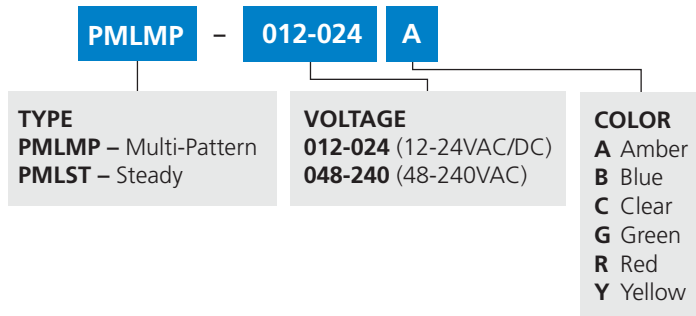
Panel Mount Multifunctional LED Beacons (PMLMP and PMLST)



SPECIFICATIONS

Lamp Life:	50,000 Hours	
Light Source:	LED	
Operating Temperature:	-22°F to 140°F	-30°C to 60°C
Net Weight:	1.44 oz	0.04 kg
Shipping Weight:	5.44 oz	0.15 kg
Height:	3.26"	82.8 mm
Height – above surface:	1.81"	46.0 mm
Diameter:	1.61"	40.9 mm

HOW TO ORDER





► Models PMMFL and PMMST

Panel Mount Multicolor LED Beacons

Models PMMFL and PMMST were developed with a multichannel technology, that allows three different colors (Amber, Green and Red) controllable via independent electric contacts. Model PMMFL produces a flashing light effect, while model PMMST has a steady light effect.

These models offer a self-extinguishing PC body that protects against vibrations, dust and atmospheric elements. The device can be panel mounted through a 1.18" hole and secured with the provided locking ring.

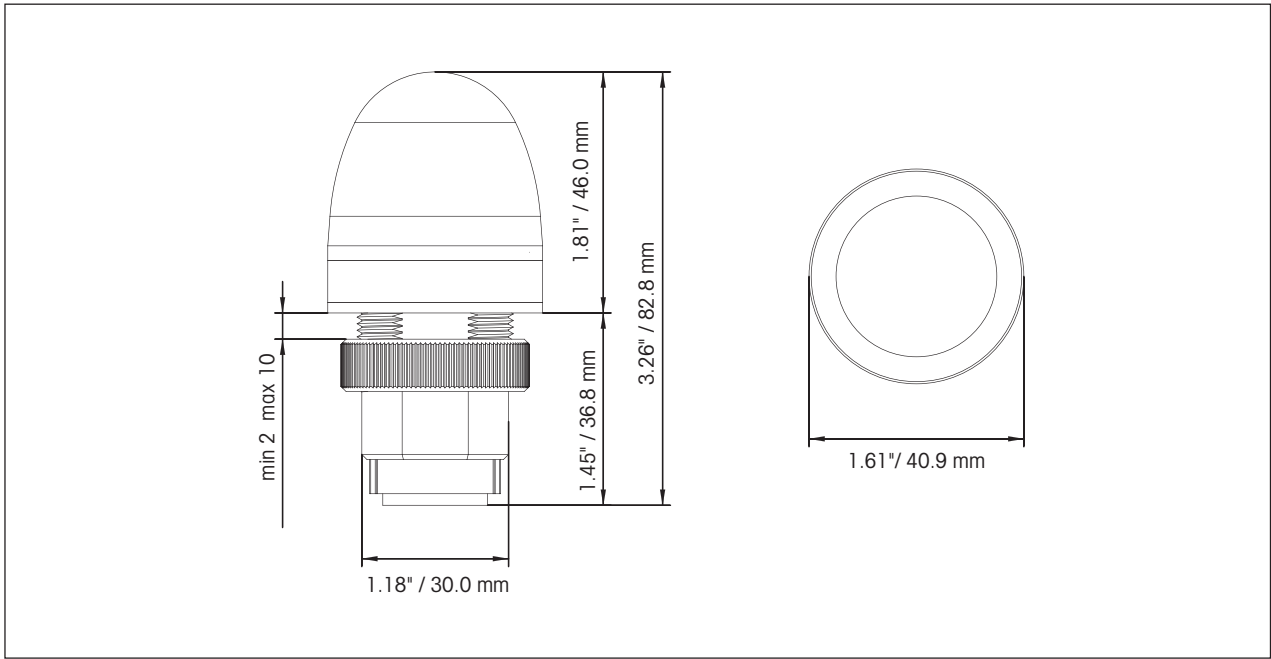
FEATURES

- Available in 12-24VAC/DC or 48-240VAC
- Multicolor LED produces Amber, Green and Red
- Available in flashing (PMMFL) or steady (PMMST)
- 50,000 hour LED
- Opaque lens
- Type 4X, IP66 enclosure
- IP69K compliant
- CE Certified
- UL and cUL listed

MODEL	VOLTAGE	FLASH RATE/MINUTE
PMMFL-012-024	12-24VAC/DC	150
PMMFL-048-240	48-240VAC	150
PMMST-012-024	12-24VAC/DC	N/A Steady
PMMST-048-240	48-240VAC	N/A Steady

MAXIMUM OPERATING CURRENT (mA)					
12VDC	24VDC	12VAC	24VAC	48VAC	240VAC
50	40	110	115	40	20

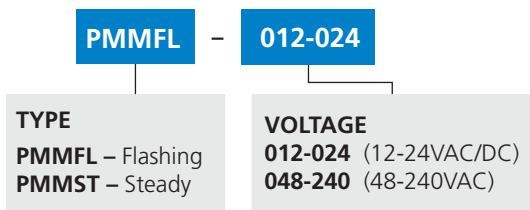
Panel Mount Multicolor LED Beacons (PMMFL and PMMST)



SPECIFICATIONS

Lamp Life:	50,000 Hours	
Light Source:	LED	
Operating Temperature:	-22°F to 140°F	-30°C to 60°C
Net Weight:	1.44 oz	0.04 kg
Shipping Weight:	5.44 oz	0.15 kg
Height:	3.26"	82.8 mm
Height – above surface:	1.81"	46.0 mm
Diameter:	1.61"	40.9 mm

HOW TO ORDER





► Model PMC

Panel Mount Multifunctional LED Combination Audible/Visual Signal

Model PMC was developed with a multichannel technology. The device allows three levels of alarm (alert, pre-alarm and alarm) controllable via independent electric contacts.

PMC offers three independent electrical channels. Channel 1 includes a flashing light only. Channel 2 adds an intermittent sound to the flashing light. Channel 3 includes a steady light combined with a continuous sound.

PMC has a self-extinguishing PC body that protects against vibrations, dust and atmospheric elements. The device can be panel mounted through a 1.18" hole and secured with the provided locking ring.

FEATURES

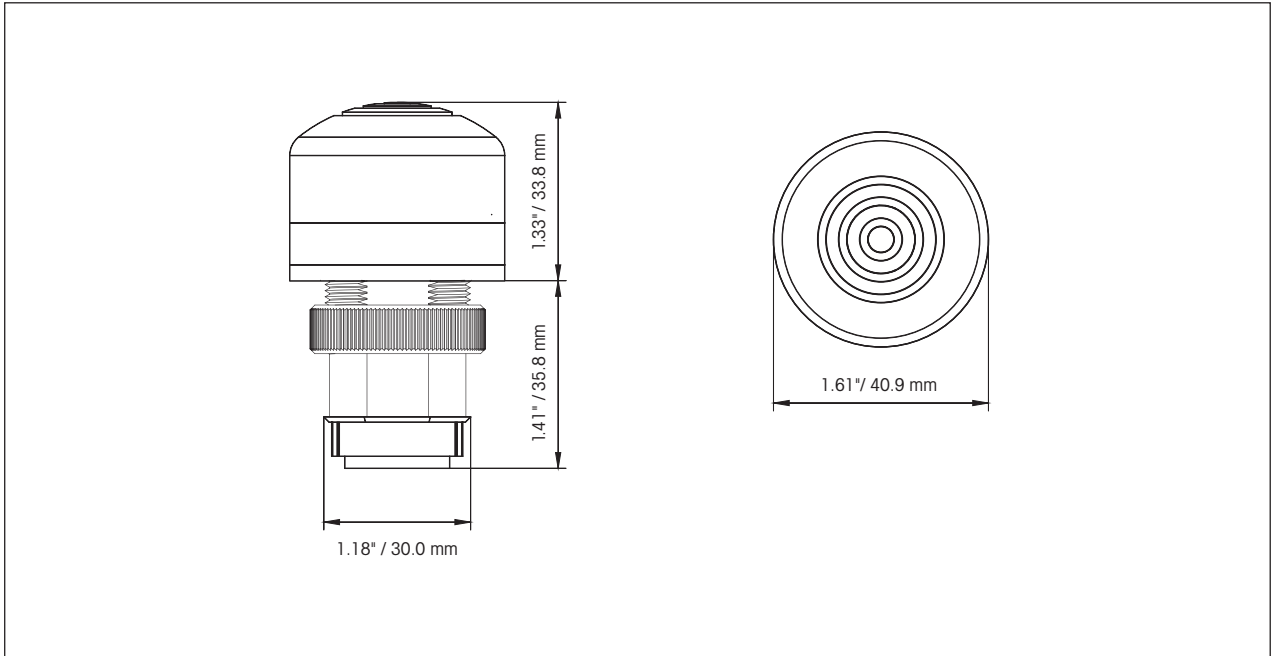
- Available in 12-24VAC/DC or 48-240VAC
- 3 channels included:
 - 1: flashing light
 - 2: flashing light & intermittent sound
 - 3: steady light & continuous sound
- 50,000 hour LED
- Transparent polycarbonate lens
- Type 3R, IP65 enclosure
- IP69K compliant
- CE Certified
- UL and cUL listed

MODEL	VOLTAGE	FLASH RATE/MINUTE (FLASH MODE)	DECIBELS MAXIMUM	
			10'	1M
PMC-012-024*	12-24VAC/DC	150 (+/-10)	75	85
PMC-048-240*	48-240VAC	150 (+/-10)	75	85

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green, (R) Red or (Y) Yellow

MAXIMUM OPERATING CURRENT (mA)					
12VDC	24VDC	12VAC	24VAC	48VAC	240VAC
25	30	80	110	30	20

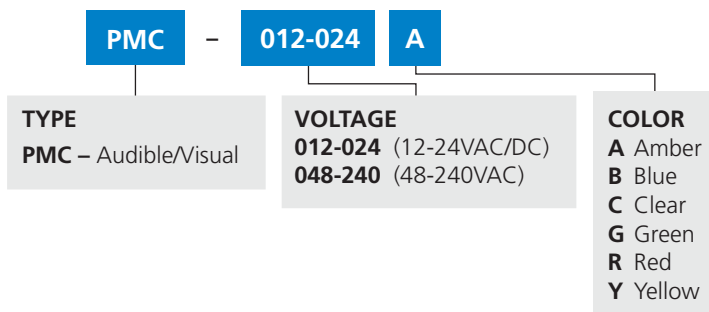
Panel Mount Multifunctional LED Combination Audible/Visual Signal (PMC)



SPECIFICATIONS

Lamp Life:		50,000 Hours
Light Source:		LED
Operating Temperature:	-22°F to 140°F	-30°C to 60°C
Net Weight	1.44 oz	0.04 kg
Shipping Weight:	5.44 oz	0.15 kg
Height:	2.74"	69.6 mm
Height – above surface:	1.33"	33.8 mm
Diameter:	1.61"	40.9 mm

HOW TO ORDER





► Model 121A

Vitalite® Rotating Light



Federal Signal's Vitalite® Model 121A is compact, rotating light featuring a parabolic reflector that rotates around an incandescent lamp, providing 60 flashes per minute in all directions. Model 121A is available in five dome colors (Amber, Blue, Clear, Green and Red).

The 121A rotating light is designed for in-plant applications. This unit can be surface mounted or mounted on a 1/2" NPT pipe with the integrated pipe mount. The 121A is available in 24VDC. Optional brackets simplify installation on walls or in corners (see pages 136-139). The enclosure is also rated Type 4X for a water-tight and dust-tight seal.

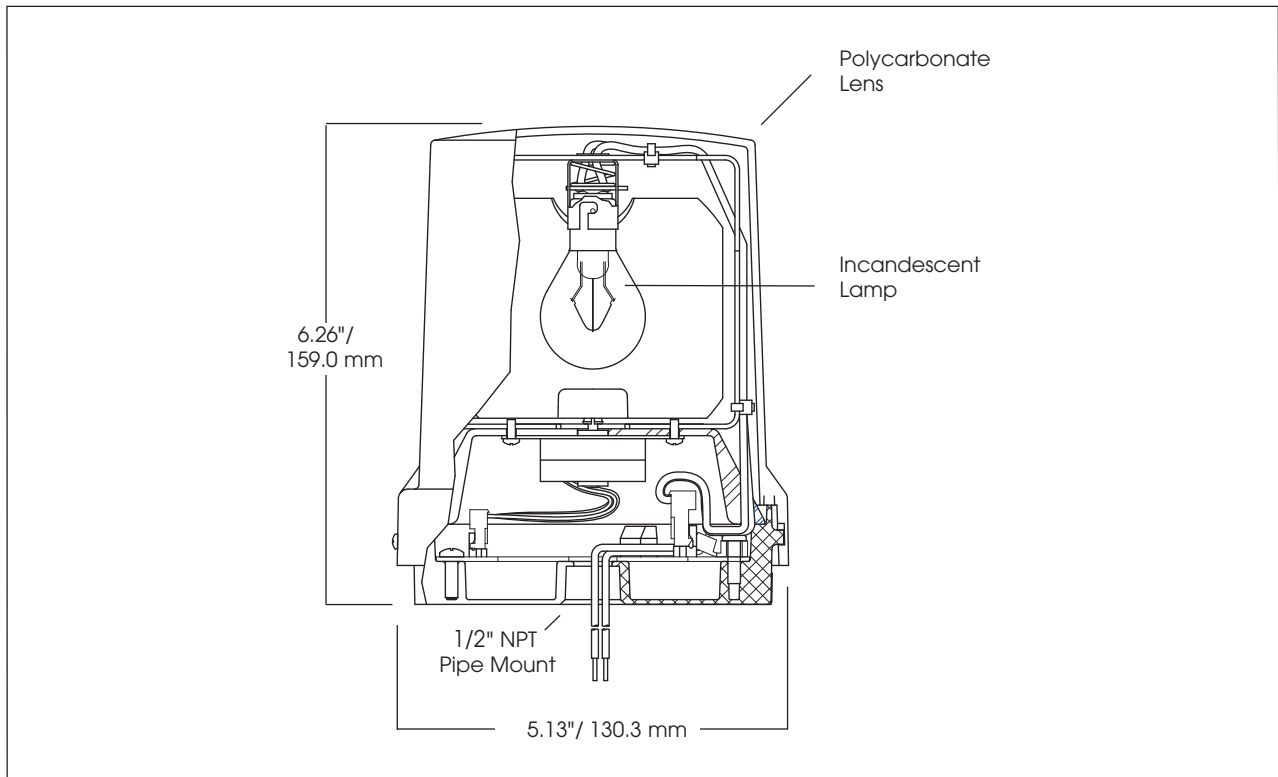
FEATURES

- Available in 24VDC
- Integrated pipe and surface mount
- Type 4X, IP66 enclosure
- IP69K compliant
- CSA Certified
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT	MOUNT
121A-024 *	24VDC	1.3 amps	60	4,000 cd	Pipe/Surface

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green, or (R) Red

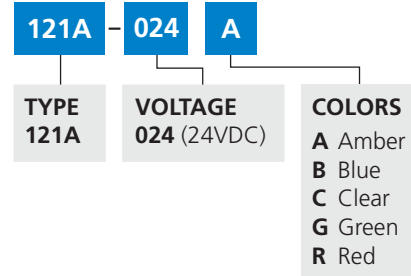
Vitalite® Rotating Light (121A)



SPECIFICATIONS

Lamp Life:	300 Hours	
Light Source:	Incandescent	
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	1.8 lbs	0.82 kg
Shipping Weight:	1.9 lbs	0.86 kg
Height:	6.26"	159.0 mm
Diameter:	5.13"	130.3 mm

HOW TO ORDER



REPLACEMENT PARTS

Description (Current Series)	Part Number
Lens, Amber, Series C	K8444357A-02
Lens, Blue, Series C	K8444357A-01
Lens, Clear, Series C	K8444357A
Lens, Green, Series C	K8444357A-04
Lens, Red, Series C	K8444357A-03
Incandescent Lamp, 24VDC	K8107236A

OPTIONAL ACCESSORIES

Description	Part Number
Corner Bracket	LCMB2*
Wall Bracket	LWMB2*
Hazardous Location Mounting Bracket	LHWB

* Type 3R rated

Mounting Brackets shown on pages 136-139



► Model 121S

Vitalite® Rotating Light



Federal Signal's Model 121S is a compact, rotating warning light designed for in-plant use. It features a parabolic reflector which rotates around an incandescent lamp, providing 60 flashes per minute in all directions.

Federal Signal's 121S comes ready to mount on a 1/2-inch NPT pipe or surface mount. Optional brackets simplify installation on walls or in corners (see pages 136-139). The enclosure is also rated Type 4X for a water-tight and dust-tight seal.

Model 121S features a twist and lock lens which allows for fast and easy access to inspect and change the lamp.

This light is ideal as a signaling or warning device in high ambient noise areas where it can supplement audible signaling devices.

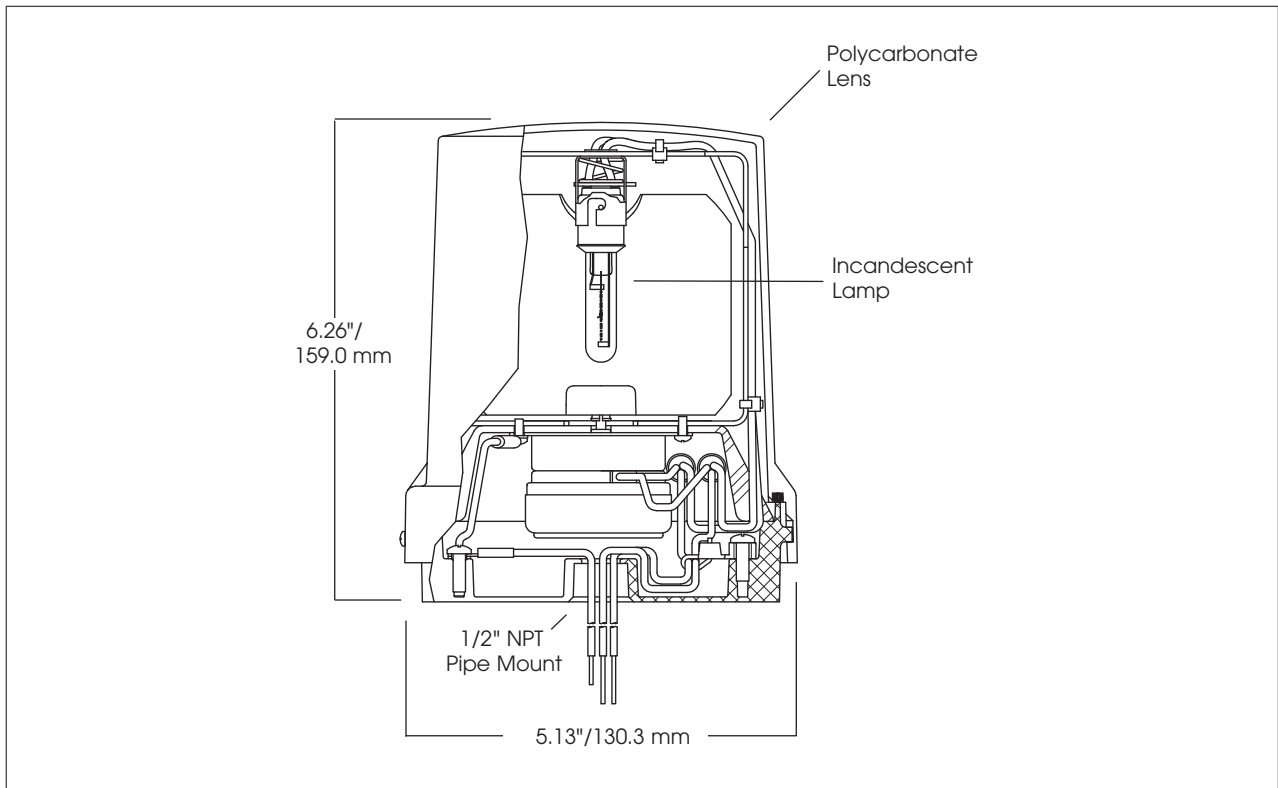
FEATURES

- Available in 120VAC
- 40 watt incandescent lamp
- Integrated 1/2-inch NPT pipe mount and surface mount
- Type 4X, IP66 enclosure
- IP69K compliant
- CSA Certified
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT	MOUNT
121S-120 *	120VAC 50/60Hz	0.36 amps	60	2,100 cd	Pipe/Surface

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

Vitalite® Rotating Light (121S)



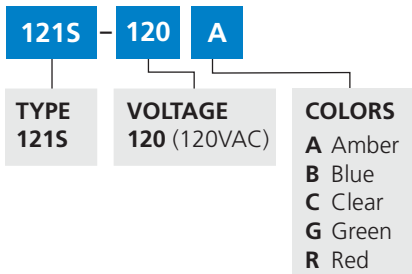
SPECIFICATIONS

Lamp Life:	3,000 Hours	
Light Source:	Incandescent	
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	2.0 lbs	0.95 kg
Shipping Weight:	2.1 lbs	0.96 kg
Height:	6.26"	159.0 mm
Diameter:	5.13"	130.3 mm

REPLACEMENT PARTS

Description	Part Number
Lens, Amber, Series C	K8444357A-02
Lens, Blue, Series C	K8444357A-01
Lens, Clear, Series C	K8444357A
Lens, Green, Series C	K8444357A-04
Lens, Red, Series C	K8444357A-03
Incandescent Lamp	
40W, 120V, Series C	K8107251A
25W, 120V, Series A and B	K8107181A

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
Corner Bracket	LCMB2*
Wall Bracket	LWMB2*
Hazardous Location Mounting Bracket	LHWB

* Type 3R rated
Mounting Brackets shown on pages 136-139



► Model 225

Electraray® Rotating Light



Electraray® Model 225 is a compact, rotating warning light designed for industrial uses.

Model 225 has a closed cell neoprene gasket that makes it water resistant. The injection molded reflector rotates around an incandescent lamp and produces 90 flashes per minute. It is available ready to mount on a 1/2-inch NPT pipe. Optional mounting brackets are available, simplifying installation on walls and in corners.

Federal Signal's Electraray rotating light is ideal for calling attention to emergency situations or process status changes.

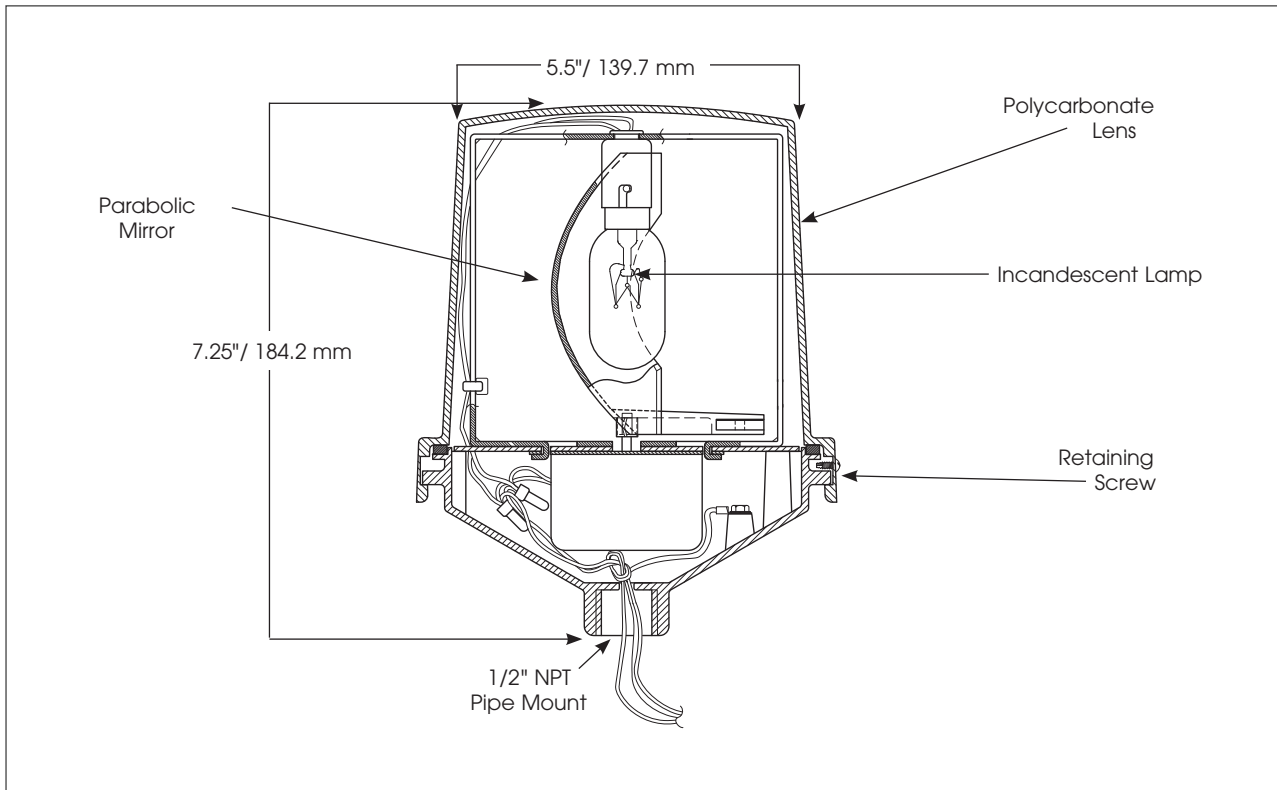
FEATURES

- Available in 120VAC
- 25 watt incandescent lamp
- Integrated 1/2-inch NPT pipe mount
- Indoor/outdoor use
- Type 4X, IP66 enclosure
- IP69K compliant
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT	MOUNT
225-120 *	120VAC 50/60HZ	0.22 amps	90	1,000 cd	1/2 " NPT Pipe

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

Electraray® Rotating Light (225)



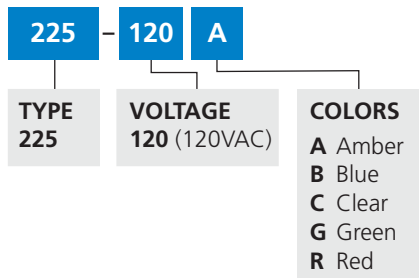
SPECIFICATIONS

Lamp Life:	1,000 Hours	
Light Source:	Incandescent	
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	2.0 lbs	0.9 kg
Shipping Weight:	2.7 lbs	1.2 kg
Height:	7.25"	184.2 mm
Diameter:	5.5"	139.7 mm

REPLACEMENT PARTS

Description	Part Number
Lens, Amber	K8444D219C-03
Lens, Blue	K8444D219C-01
Lens, Clear	K8444D219C-04
Lens, Green	K8444D219C-02
Lens, Red	K8444D219C
Lamp	K149123A

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
Corner Bracket	LCMB2*
Wall Bracket	LWMB2*
Hazardous Location Mounting Bracket	LHWB

* Type 3R rated
Mounting Brackets shown on pages 136-139



► Model 225X

Electraray® Hazardous Location Rotating Light



Federal Signal's Electraray® Model 225X is a compact, rotating warning light designed for a variety of industrial applications. This product's lens design allows quick and easy access for inspection and relamping.

Model 225X features a silicone rubber gasket that provides a water-resistant seal between the lens and the black poly-coated base. The injection molded reflector rotates around a 25 watt lamp producing 90 flashes per minute.

Federal Signal's Electraray rotating warning light is specifically designed for use where corrosive materials are present.

FEATURES

- Available in 120VAC
- 25 watt incandescent lamp
- 1/2-inch NPT pipe mount
- Indoor/outdoor use
- Type 4X, IP66 enclosure
- IP69K compliant
- UL and cUL Listed for Class I, Division 2, Group A, B, C and D; Class II, Division 2, Groups F and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT	MOUNT
225X-120 *	120VAC 50/60Hz	0.220 amps	90	1,000 cd	1/2" NPT Pipe

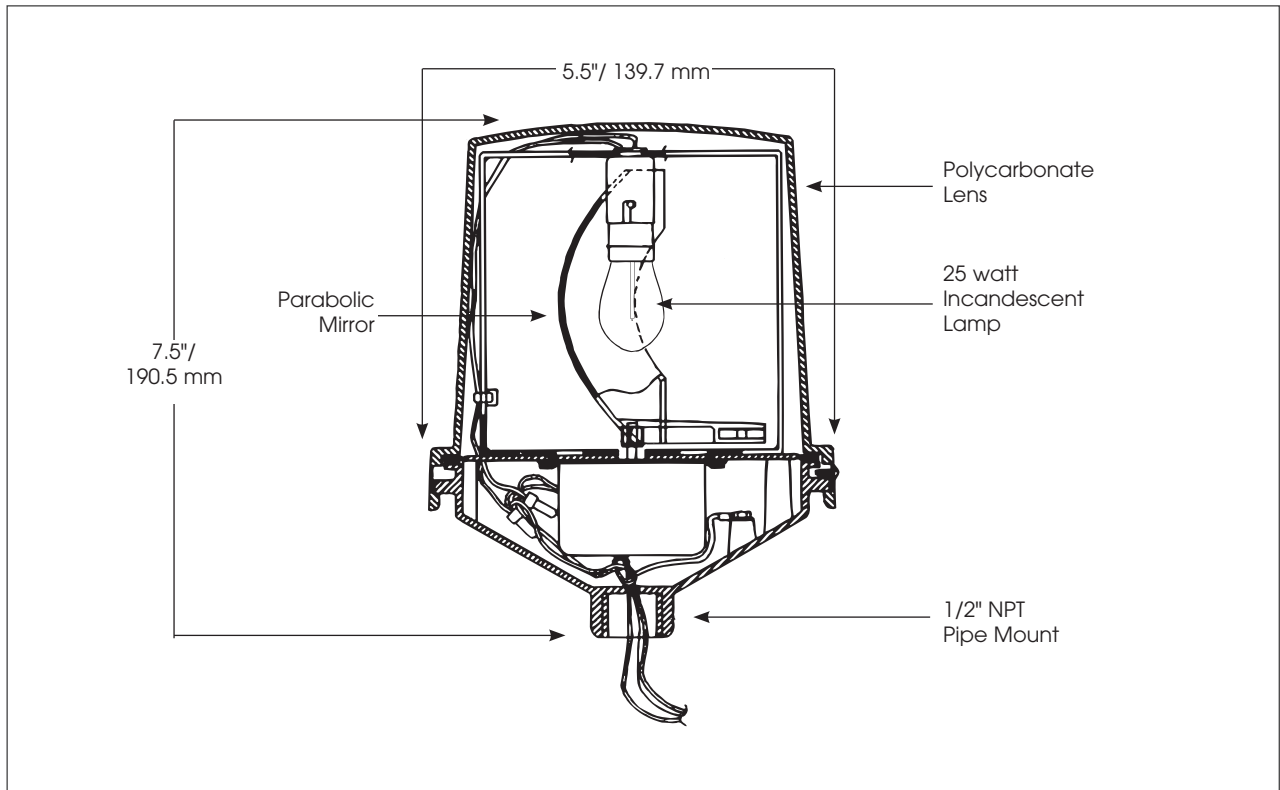
* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

HAZARDOUS LOCATION RATING: 225X

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C
Class I, Division 2, Groups A, B, C, D	T2B
Class II, Division 2, Groups F, G	T5
Class III	T5

Electrarray® Hazardous Location Rotating Light (225X)



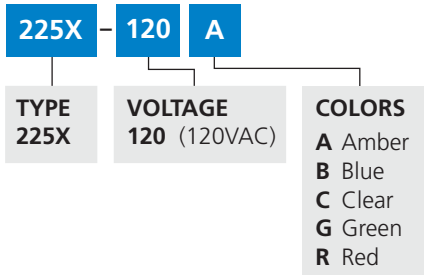
SPECIFICATIONS

Lamp Life:	1,000 Hours	
Light Source:	Incandescent	
Operating Temperature:	-40°F to 104°F	-40°C to 40°C
Net Weight:	2.0 lbs	0.9 kg
Shipping Weight:	2.7 lbs	1.2 kg
Height:	7.5"	190.5 mm
Diameter:	5.5"	139.7 mm

REPLACEMENT PARTS

Description	Part Number
Lens, Amber	K8444D219C-03
Lens, Blue	K8444D219C-01
Lens, Clear	K8444D219C-04
Lens, Green	K8444D219C-02
Lens, Red	K8444D219C
Lamp, 120VAC	K149123A

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
Hazardous Location Mounting Bracket	LHWB

Mounting Brackets shown on pages 136-139



► Model 371LED

Commander® LED Rotating Light



Model 371LED warning lights have an array of 12 powerful LEDs arranged below a reflector. The reflector focuses the light from the LEDs into a high intensity beam and rotates 360 degrees.

The LEDs, reflector and motor module are sealed under a polycarbonate dome which completes a water-tight, dust-tight enclosure.

The 371LED base features electrostatically applied black powder paint for greater corrosion resistance. Wiring can be routed through the pipe-mount opening in the bottom of the light or the two side knockouts can be used for side entry wiring. Installation can be surface or 1-inch NPT pipe mount. Optional wall and corner mount brackets are available.

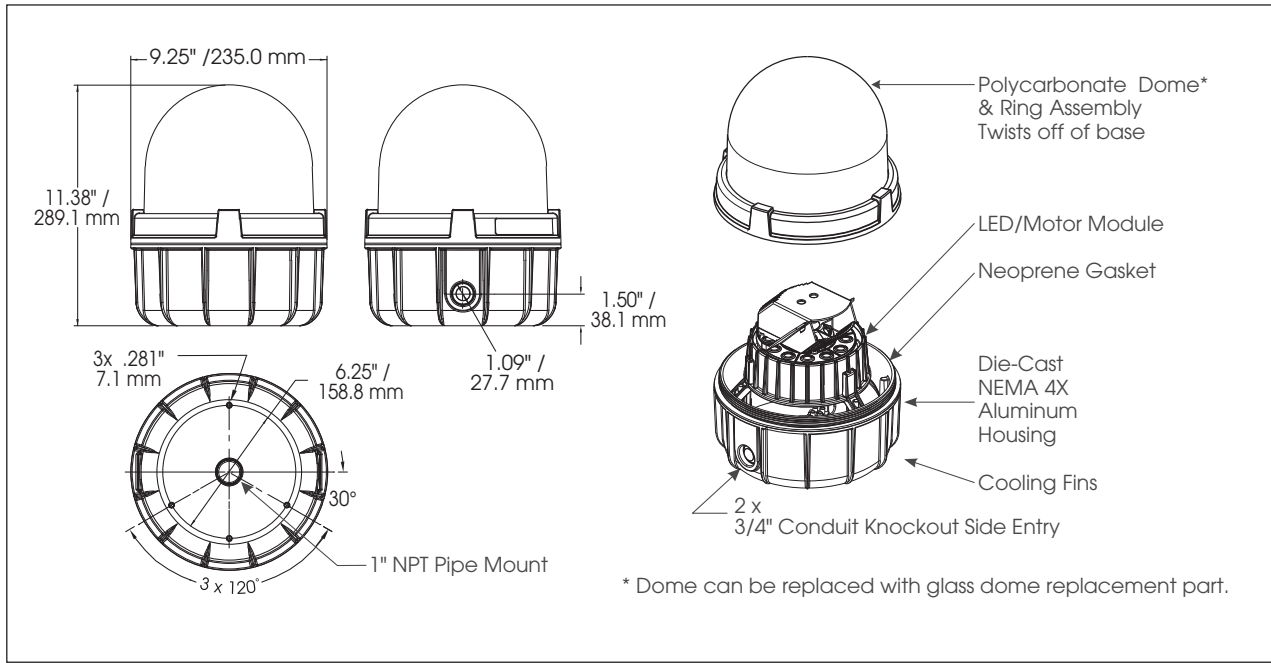
FEATURES

- Available in 120VAC
- 50,000 hour LED light source
- Surface mount and integrated 1-inch NPT pipe mount
- Type 4X, IP66 enclosure
- IP69K compliant
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT	MOUNT
371LED-120 *	120VAC 50/60Hz	320 mA	60	15,000 cd	1" NPT Pipe/Surface

*Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

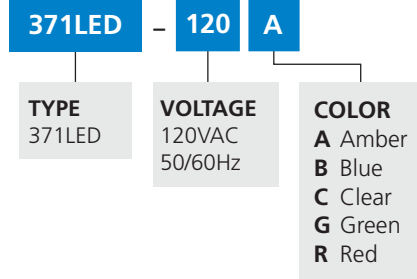
Commander® LED Rotating Light (371LED)



SPECIFICATIONS

Lamp Life:	50,000 Hours	
Light Source:	LED Array	
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	7.1 lbs	3.2 kg
Shipping Weight:	8.1 lbs	3.7 kg
Height:	11.38"	289.1 mm
Diameter:	9.25"	235.0 mm

HOW TO ORDER



REPLACEMENT PARTS

Description	Part Number
Series B Dome and Ring Assembly	
Amber Polycarbonate ¹	K8459125A
Blue Polycarbonate ¹	K8459125A-01
Clear Polycarbonate ¹	K8459125A-02
Green Polycarbonate ¹	K8459125A-03
Red Polycarbonate ¹	K8459125A-04
Gasket, Surface Mount	K8459127A
LED/Motor Module, Amber	K8459159A-A
LED/Motor Module, Blue	K8459159A-B
LED/Motor Module, White	K8459159A-W
LED/Motor Module, Green	K8459159A-G
LED/Motor Module, Red	K8459159A-R

¹ Includes 1 dome gasket

OPTIONAL ACCESSORIES

Description	Part Number
Corner Bracket	LCMB2*
Wall Bracket	LWMB2*
Solid Surface Mounting Bracket	371BRCKT
Shock Mount Kit	K8459A076C
3/4" Hub Kit	K8459138A
1" Plug Kit	K8459130A

* Type 3R rated

Corner and Wall Brackets shown on pages 136-137



► Model 371LEDX

Commander® Hazardous Location LED Rotating Light

Model 371LEDX hazardous location warning lights have an array of 12 powerful LEDs arranged below a reflector. The reflector focuses the light from the LEDs into a high-intensity beam and rotates 360-degrees.

The LEDs, reflector, and motor module are sealed under a polycarbonate dome which completes a water-tight, dust-tight enclosure. The dome and ring assembly simply screw on, providing access to the interior of the light.

The 371LEDX base is hard coat anodized and features electrostatically applied black powder paint for greater corrosion resistance. Wiring can be routed through the pipe-mount opening in the bottom of the light or the two side knockouts can be used for side entry wiring. Installation can be surface or 1-inch NPT pipe mounted.

FEATURES

- Available in 120VAC
- 50,000 hour LED light source
- Surface mount and integrated 1-inch NPT pipe mount
- Type 4X, IP66 enclosure
- IP69K compliant
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT	MOUNT
371LEDX-120*	120VAC 50/60Hz	0.32 amps	60	15,000 cd	1" NPT Pipe/Surface

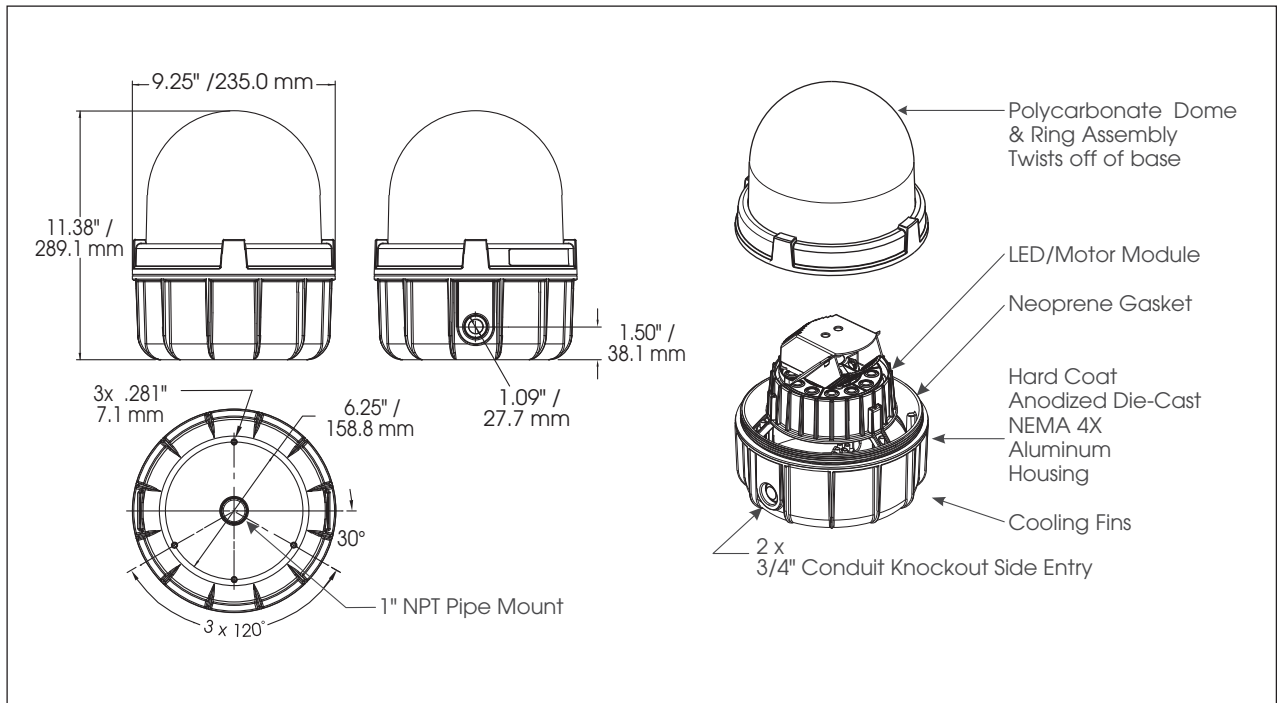
*Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

HAZARDOUS LOCATION RATING: 371LEDX

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C
Class I, Division 2, Groups A, B, C, D	T5
Class II, Division 2, Groups F, G	T6
Class III	T6

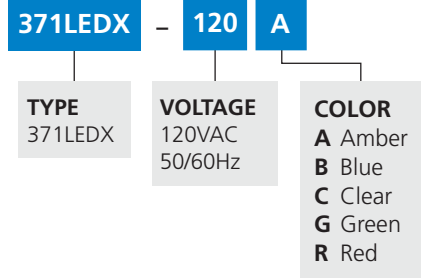
Commander® Hazardous Location LED Rotating Light (371LEDX)



SPECIFICATIONS

Lamp Life:	50,000 Hours	
Light Source:	LED	
Operating Temperature:	-31°F to 104°F	-35°C to 40°C
Net Weight:	7.1 lbs	3.2 kg
Shipping Weight:	8.1 lbs	3.7 kg
Height:	11.38"	289.1 mm
Diameter:	9.25"	235.0 mm

HOW TO ORDER



REPLACEMENT PARTS

Description	Part Number
Gasket, Surface Mount	K8459127A
LED/Motor Module, Amber	K8459159A-A
LED/Motor Module, Blue	K8459159A-B
LED/Motor Module, White	K8459159A-W
LED/Motor Module, Green	K8459159A-G
LED/Motor Module, Red	K8459159A-R

¹ Includes 1 dome gasket

OPTIONAL ACCESSORIES

Description	Part Number
Solid Surface Mounting Bracket	371BRCKT
Shock Mount Kit	K8459A076C
3/4" Hub Kit	K8459138A
1" Plug Kit	K8459130A



(Shown with pendant mount. See how to order for mounting options)



► Model 121X

Explosion-Proof Incandescent Rotating Light

Model 121X rotating light flashes 90 times per minute and produces a 360° visual signal. Model 121X covers an entire range of possible mounting configurations – including dome up.

This corrosion resistant unit's copper-free aluminum housing is finished with a powder coat.

The 121X uses a synchronous motor to drive a parabolic reflector around an incandescent lamp. This results in a 360° rotating beam which is concentrated in a horizontal plane.

The 121X features a spring clip-mounted lamp for quick access when inspecting or relamping. The 121X can be paired with a pendant, ceiling or wall mount. Installation is simple – with the mounting box in place, the fixture is threaded onto the mounting box, making the electrical connection.

Federal Signal's rugged 121X warning light is designed for explosion-proof applications and/or corrosive environments. It is ideal for use in indoor and outdoor areas such as oil rigs, mines, refineries, and chemical plants.

FEATURES

- Five lens colors: Amber, Blue, Clear, Green and Red
- Available in 24VDC
- 3/4" NPT pendant, ceiling and wall mount options available
- Approved for mounting in any manner-including dome up
- Optional dome guard
- Type 4X, IP66 enclosure
- IP69K compliant
- Marine Rated
- UL and cUL Listed for Class I, Division 1 and 2, Groups C and D; Class II, Division 1, Groups E, F and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT
121X-024 * -MOD ¹	24VDC	1.05 amps	90	2,350 cd

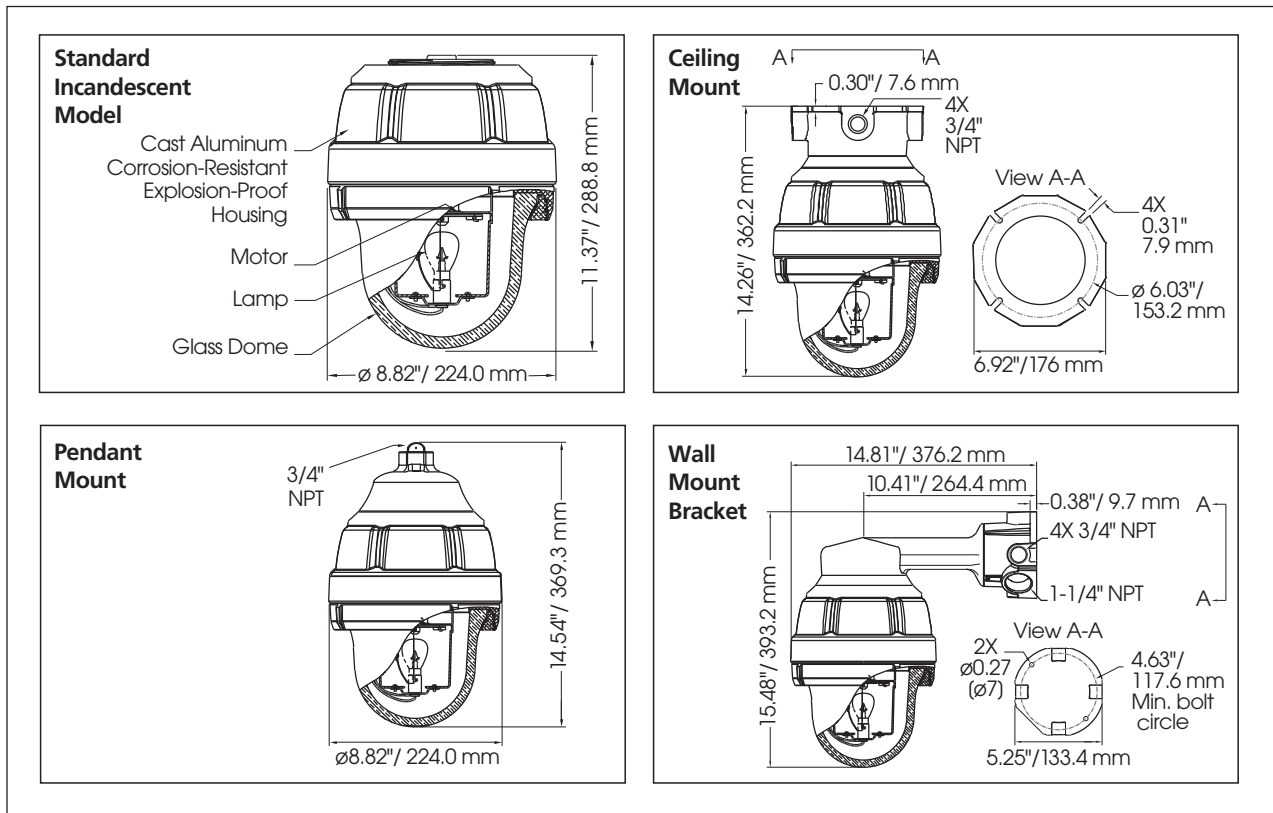
* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

¹ See "how to order" for mounting options

HAZARDOUS LOCATION RATING: 121X

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C	
Hazardous Location	40°C
Class I, Division 1, Groups C & D	T6
Class II, Division 1, Groups E, F & G	T5
Class III	T5

Explosion-Proof Incandescent Rotating Light (121X)



SPECIFICATIONS

Lamp Life:	800 Hours	
Light Source:	Incandescent	
Operating Temperature Range:	-67°F to 150°F	-55°C to 65°C
Net Product Weight		
Signal without Mounting:	13.9 lbs	6.3 kg
Ceiling Mount:	4.5 lbs	2.0 kg
Pendant Mount:	2.0 lbs	0.9 kg
Wall Mount:	5.9 lbs	2.7 kg
Shipping Weight		
Signal without Mounting:	14.7 lbs	6.7 kg
Ceiling Mount:	5.3 lbs	2.4 kg
Pendant Mount:	2.8 lbs	1.3 kg
Wall Mount:	6.7 lbs	3.0 kg

REPLACEMENT PARTS

Description	Part Number
Exterior Dome Assembly, Clear	K8436147A
Lamp, 24VDC	K8107A041
24VDC Mechanism and Amber Lens Kit	K8444269A
24VDC Mechanism and Blue Lens Kit	K8444269A-01
24VDC Mechanism and Clear Lens Kit	K8444269A-02
24VDC Mechanism and Green Lens Kit	K8444269A-03
24VDC Mechanism and Red Lens Kit	K8444269A-04

OPTIONAL ACCESSORIES

Description	Part Number
Dome Guard	DGXC-SB

HOW TO ORDER

121X - **024** **A** - **MOD**

TYPE
121X

VOLTAGE
024 24VDC

COLOR
A Amber
B Blue
C Clear
G Green
R Red

Specify Optional Mounting:*

Description	Part Number
Ceiling Mount	CMXC-SB
Pendant Mount	PMXC-SB
Wall Mount	WMXC-SB

* Mounting kit must be ordered with unit, sold separately



► Model LP22LED

StreamLine[®] Low Profile LED Light

Model LP22LED is a multi-pattern LED light ideal for applications requiring low profile signaling. The unit can be surface, panel or 1/2" NPT pipe mounted through the integrated pipe mount. The enclosure offers a self-extinguishing polycarbonate housing that protects against vibrations, dust, and atmospheric elements, and is rated Type 4X.

The LP22LED has four flash patterns (steady light, single flash, double flash and triple flash) selectable via DIP switch.

FEATURES

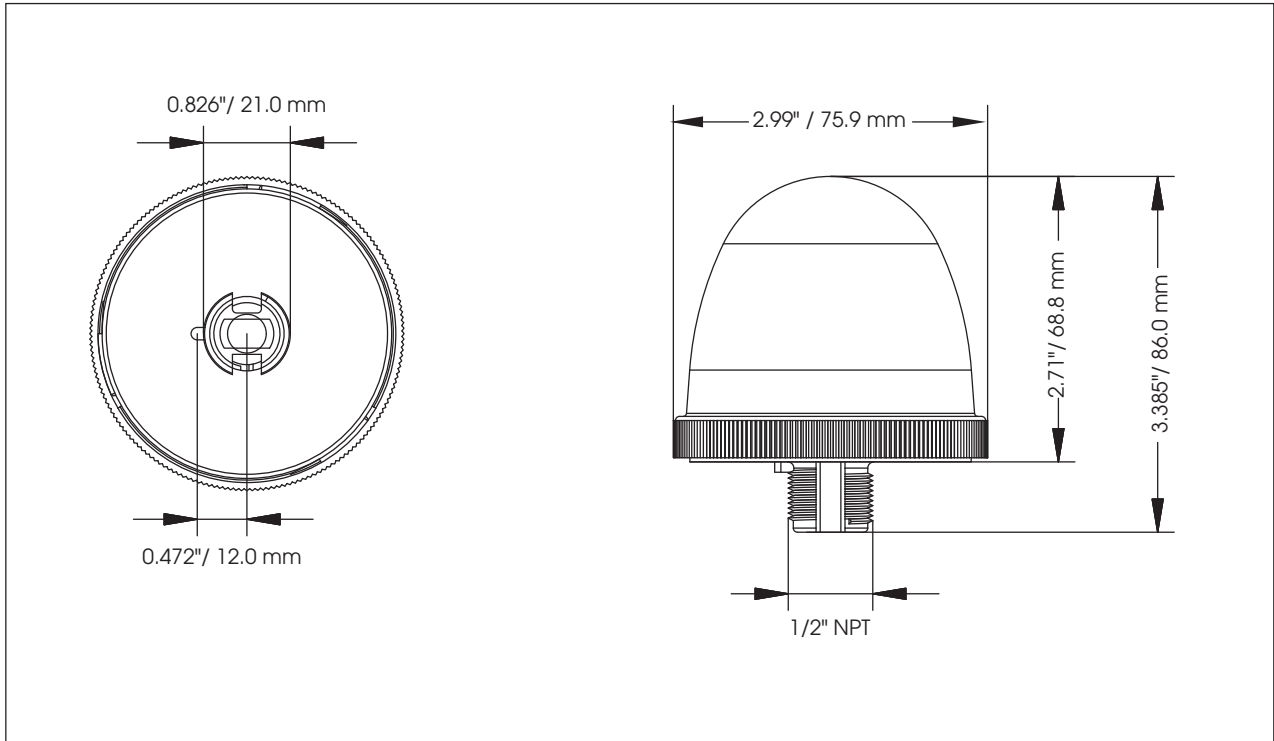
- Available in 12-24VAC/DC and 90-240VAC
- 1/2" NPT pipe, surface or panel mount
- Four flash patterns
- Five lamp/lens colors: Amber, Blue, Clear, Green and Red
- Self-extinguishing polycarbonate housing
- Type 4X, IP66 enclosure
- CE Certified
- UL and cUL Listed

MODEL	VOLTAGE	FLASH RATE/MINUTE			
		STEADY	SINGLE FLASH	DOUBLE FLASH	TRIPLE FLASH
LP22LED-012-024*	12-24VAC/DC	N/A	120 (+/-10)	90 (+/-10)	140 (+/-10)
LP22LED-090-240*	90-240VAC	N/A	120 (+/-10)	90 (+/-10)	140 (+/-10)

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

MODEL	MAXIMUM OPERATING CURRENT (mA)			
	12VAC/DC	24VAC/DC	90VAC	240VAC
LP22LED-012-024*	180	180	N/A	N/A
LP22LED-090-240*	N/A	N/A	40	40

StreamLine® Low Profile LED Light (LP22LED)



SPECIFICATIONS

Lamp Life:	50,000 Hours	
Light Source:	LED	
Operating Temperature Range:	-22°F to 122°F	-30°C to 50°C
Net Weight:	5.29 oz	0.15 kg
Shipping Weight:	1.13 lbs	0.51 kg
Height:	3.39"	86.0 mm
Height – above surface:	2.71"	68.8 mm
Diameter:	2.99"	75.9 mm

HOW TO ORDER

LP22LED - **012-024** **A**

TYPE
LP22LED

VOLTAGE
012-024 (12-24VAC/DC)
090-240 (90-240VAC)

COLOR
A Amber
B Blue
C Clear
G Green
R Red



► Model LP22LED RGB

StreamLine® Low Profile Multicolor LED Light

Model LP22LED RGB is a steady, multicolor LED light with an opaque lens ideal for applications requiring low profile, proximity signaling. This model is equipped with RGB LEDs that allow users to select 1 of 7 color options (Amber, Blue, Green, Magenta, Red, White, Yellow) under one unit.

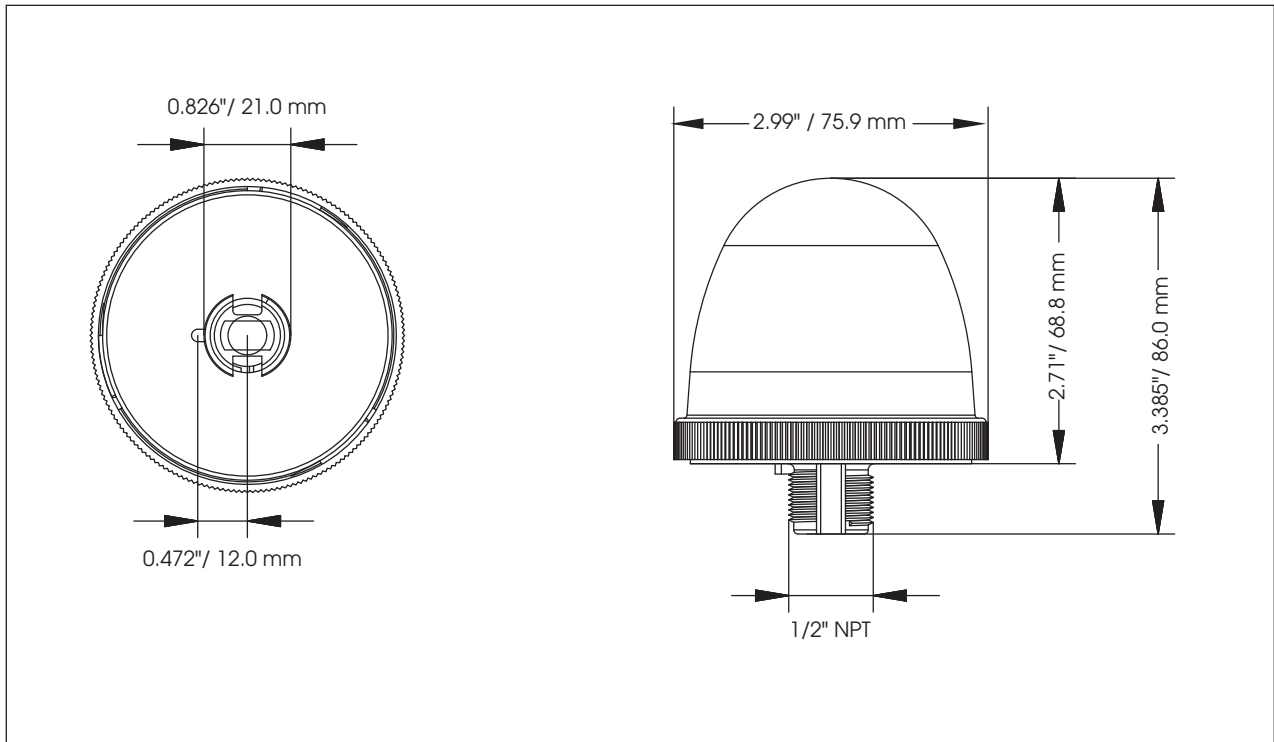
LP22LED RGB offers a self-extinguishing polycarbonate housing that protects against vibrations, dust, and atmospheric elements. It can be surface, panel, or 1/2" NPT pipe mounted through the integrated pipe mount.

FEATURES

- Available in 12-24VAC/DC and 90-240VAC
- Surface, panel, or 1/2" NPT pipe mount
- Steady light effect
- 7 color options in one unit: Amber, Blue, Green, Magenta, Red, White and Yellow
- Self-extinguishing polycarbonate housing
- Type 4X, IP65 enclosure
- CE Certified
- UL and cUL Listed

MODEL	MAXIMUM OPERATING CURRENT (mA)			
	12VAC/DC	24VAC/DC	90VAC	240VAC
LP22LED-012-024RGB	220	220	N/A	N/A
LP22LED-090-240RGB	N/A	N/A	40	40

StreamLine® Low Profile Multicolor LED Light (LP22LED RGB)



SPECIFICATIONS

Lamp Life:	50,000 Hours	
Light Source:	LED	
Operating Temperature Range:	-22°F to 122°F	-30°C to 50°C
Net Weight:	3.53 oz	0.1 kg
Shipping Weight:	1.02 lbs	0.46 kg
Height — above surface:	2.71 "	68.8 mm
Height:	3.39 "	86.0 mm
Diameter:	2.99 "	75.9 mm

HOW TO ORDER

LP22LED - **012-024** **RGB**

TYPE
LP22LED

VOLTAGE
012-024
(12-24VAC/DC)
090-240
(90-240VAC)



► Models LP3SL, LP3PL, LP3TL and LP3ML

StreamLine® Low Profile Steady Burning LED Lights



Model LP3L low profile LED light is offered in four mounting configurations: LP3PL with an integrated 1/2" NPT pipe mount, LP3ML features an integrated 1/2" NPT male pipe mount, LP3TL features a T formation base with 2 mounting holes for wall or flush mounting and the LP3SL features a three hole surface mounting configuration.

Models LP3ML, LP3SL, and LP3TL include a surface mount gasket to complete the Type 4X installation. An optional dome guard is available for use with the LP3ML, LP3SL and LP3TL when installed on a panel.

All models include the vibration resistant, double contact bayonet style 50,000 hour LED module.

Like all StreamLine® products, the LP3L is designed with OEM applications in mind.

FEATURES

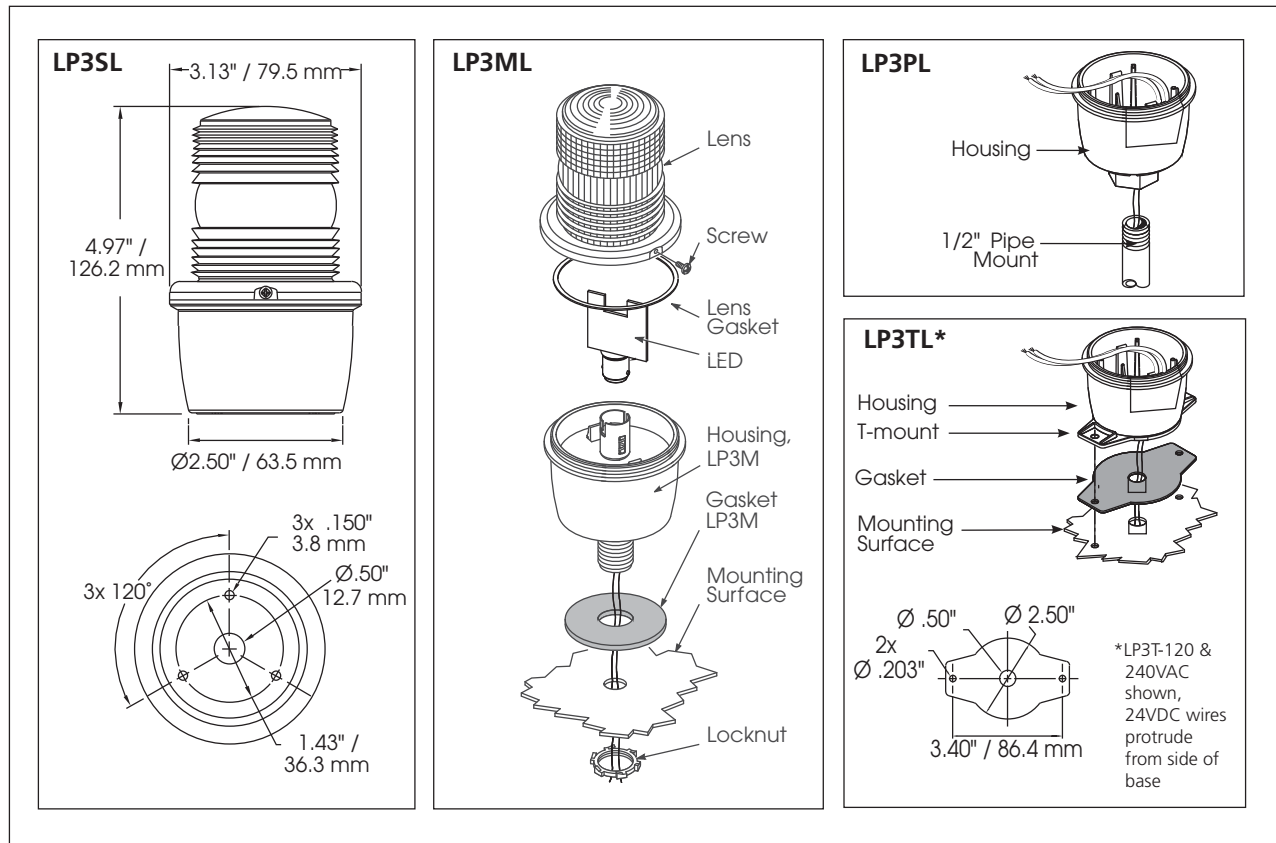
- Available in 24VDC and 120VAC
- T-mount (TL), integrated 1/2-inch NPT pipe mount (PL), 1/2-inch NPT male pipe mount (ML) or surface mount (SL)
- Five lamp/lens colors: Amber, Blue, Clear, Green and Red
- 50,000 Hour LED
- Screw on lens
- Indoor/outdoor use
- Type 4X, IP66 enclosure
Model LP3TL (T-Mount) is Type 4X, IP66 only
- IP69K compliant
- Optional wire lens guard
- PLC Compatible
- CSA Certified
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT
LP3 * L-024 **	24VDC	0.08 amps
LP3 * L-120 **	120VAC	0.13 amps

* Indicates Mounting Style: (S) Surface Mount, (P) Pipe Mount, (T) T-Mount, or (M) Male Pipe Mount

** Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

StreamLine® Low Profile Steady Burning LED Lights (LP3SL, LP3PL, LP3TL and LP3ML)



SPECIFICATIONS

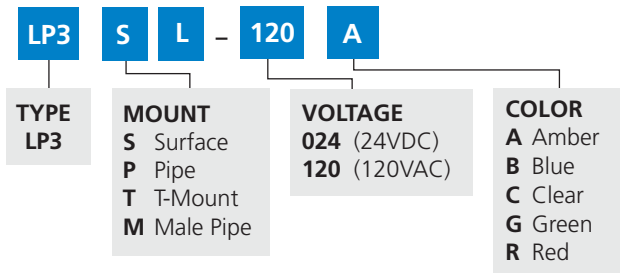
Lamp Life:	50,000 Hours	
Light Source:	LED	
Operating Temperature:	-31°F to 150°F	-35°C to 65°C
Net Weight:	0.46 lbs	0.21 kg
Shipping Weight:	0.53 lbs	0.24 kg
Diameter:	3.13"	79.5 mm
Height (from bottom):		
LP3PL	5.7"	144.8 mm
LP3ML	5.8"	147.3 mm
LP3TL	5.1"	129.5 mm
LP3SL	4.97"	126.2 mm

REPLACEMENT PARTS

Description	Part Number
Lens, Amber	K8589063A
Lens, Blue	K8589063A-01
Lens, Clear	K8589063A-02
Lens, Green	K8589063A-03
Lens, Red	K8589063A-04
Gasket Kit ¹	K858900353A
LED, 24V Amber	K8107199A
LED, 24V Blue	K8107199A-03
LED, 24V Clear	K8107199A-04
LED, 24V Green	K8107199A-02
LED, 24V Red	K8107199A-01
LED, 120V Amber	K8107200A
LED, 120V Blue	K8107200A-03
LED, 120V Clear	K8107200A-04
LED, 120V Green	K8107200A-02
LED, 120V Red	K8107200A-01


¹ Includes gasket for LP3SL and LP3TL

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
Wire guard (compatible with S, T, and M mounts only)	LP3G





Model SLM100 shown with mounting base options (ordered separately)

► Model SLM100

StreamLine® Modular Multifunctional LED Beacon



Model SLM100 offers a multifunctional LED beacon with high optical performance. Developed with a multiple input technology, Model SLM100 allows three separate light effects (steady, flashing or rotating) controllable via independent electric contacts.

The steady light option offers a conspicuous and consistent light signal. The flashing mode consists of a triple-flash strobe effect ideal for all applications where an immediate attention gain is mandatory. The rotating light offers a traditional rotating beacon effect without moving parts, which enhances product life.

Model SLM100 body material is a self extinguishing polycarbonate material with high impact and UV resistance suitable for outdoor applications.

FEATURES

- Compatible with 12-24VAC/DC or 120-240VAC*
 - PLC compatible with PNP or NPN connections*
 - Three separate inputs: steady, flashing or rotating
 - 50,000 hour LED
 - Five lamp/lens colors: Amber, Blue, Clear, Green and Red
 - Seven mounting base options
 - Type 4X, IP66 enclosure
 - IP69K** compliant
 - CE Certified
 - UL and cUL listed
- * Voltage and PLC connections are dependent on selected base
 **IP69K with select bases SLMBBS, SLMBD, SLMBP and SLM-RR accessory

MODEL	VOLTAGE	FLASH RATE/MINUTE	ROTATIONS PER MINUTE
SLM100*	12-24VAC/DC or 120-240VAC	85 (+/-10)	140 (+/-10)

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

MAXIMUM OPERATING CURRENT (mA)					
12VDC	24VDC	12VAC	24VAC	120VAC	240VAC
300	150	510	360	100	70

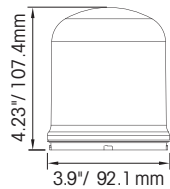
Weight (unit(s) + base = total weight)

SLM100	VOLTAGE	SHALLOW BASE	DEEP BASE	WALL MOUNT	PIPE MOUNT	TWIN WALL MOUNT	2-STACK DOCK BASE	3-STACK DOCK BASE
7.05 oz	12-24VAC/DC	2.12 oz 0.06 kg	4.23 oz 0.12 kg	6.70 oz 0.19 kg	5.29 oz 0.15 kg	9.17 oz 0.26 kg	14.46 oz 0.41 kg	21.16 oz 0.60 kg
0.20 kg	120-240 VAC	–	6.0 oz 0.17 kg	8.47 oz 0.24 kg	6.70 oz 0.19 kg	12.35 oz 0.35 kg	16.58 oz 0.47 kg	24.69 oz 0.70 kg

StreamLine® Modular Multifunctional LED Beacon (SLM100)

SPECIFICATIONS

Lamp Life: 50,000 Hours
 Light Source: LED
 Operating Temperature: -22°F to 122°F -30°C to 50°C



ACCESSORIES FOR DOCK BASE



SLMB23W



SLMB23N



SLM-RR










SLMB23V

HOW TO ORDER

- Specify model number SLM100 and color
- Specify required mounting base (see chart)
- Optional dome guard
 For shallow mounting base (SLMDG3)
 For deep mounting base (SLMDG4)
- Accessories for Twin and Wall Mount Bases
 Cable Gland, M20, Gray, 2 Pack (K77700416)
 Cable Gland, M20, Red, 2 Pack (K77700416-01)
- Accessories for Pipe Mount Base
 1" NPT Adapter (SLMNPT1)
 1/2" NPT Adapter (SLMNPT2)
- Accessories for Dock Base
 Wall Mount Bracket (SLMB23W)
 1/2" NPT Adaptor (SLMB23N)
 Retaining Ring (SLM-RR)
 Light Visor (SLMB23V)

MOUNTING BASE OPTIONS

Mounting Base	Model Number	Base Color	Voltage	Dimensions
 Shallow Base	SLMBS-012-024GY	Gray	12-24VAC/DC	
	SLMBS-012-024R	Red	12-24VAC/DC	
 Deep Base	SLMBD-012-024GY	Gray	12-24VAC/DC	
	SLMBD-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBD-012-024R	Red	12-24VAC/DC	
	SLMBD-120-240GY	Gray	120-240VAC	
	SLMBD-120-240R	Red	120-240VAC	
 Wall Mount	SLMBW-012-024GY	Gray	12-24VAC/DC	
	SLMBW-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBW-120-240GY	Gray	120-240VAC	
 Pipe Mount	SLMBP-012-024GY	Gray	12-24VAC/DC	
	SLMBP-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBP-120-240GY	Gray	120-240VAC	
 Twin Wall Mount	SLMBT-012-024GY	Gray	12-24VAC/DC	
	SLMBT-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBT-120-240GY	Gray	120-240VAC	
 2-Stack Dock Base  3-Stack Dock Base	SLMB2-024GY	Gray	24VAC/DC	
	SLMB2-120-240GY	Gray	120-240VAC	
	SLMB3-024GY	Gray	24VAC/DC	
	SLMB3-120-240GY	Gray	120-240VAC	

Note: Dock bases allow one function per position and include visors.



Model SLM200 shown with mounting base options (ordered separately)



► Model SLM200

StreamLine® Modular High Output Multifunctional LED Beacon

Model SLM200 offers a multifunctional LED beacon with high optical performance. Developed with a multiple input technology, Model SLM200 allows three separate light effects (flashing, simulated strobe or random) controllable via independent electric contacts.

The flashing light mode has a powerful effect ideal for attracting attention without alarming. If immediate attention is needed, the simulated strobe is the ideal option. The random light pattern is unique in its ability to irregularly flash while drawing attention.

Model SLM200 body material is a self extinguishing polycarbonate material with high impact and UV resistance suitable for outdoor applications.

FEATURES

- Compatible with 12-24VAC/DC or 120-240VAC*
 - PLC compatible with PNP or NPN connections*
 - Three separate inputs: flashing, simulated strobe and random
 - 50,000 hour LED
 - Five lamp/lens colors: Amber, Blue, Clear, Green and Red
 - Seven mounting base options
 - Type 4X, IP66 enclosure
 - IP69K** compliant
 - CE Certified
 - UL and cUL listed
- *Voltage and PLC connections are dependent on selected base
- **IP69K with select bases SLMBBS, SLMBDD, SLMBP and SLM-RR accessory

MODEL	VOLTAGE	FLASH RATE/MINUTE (FLASH MODE)	FLASH RATE/MINUTE (STROBE MODE)
SLM200 *	12-24VAC/DC or 120-240VAC	150 (+/-10)	72 (+/-10)

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

MAXIMUM OPERATING CURRENT (mA)					
12VDC	24VDC	12VAC	24VAC	120VAC	240VAC
300	150	510	360	100	70

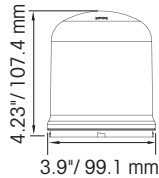
Weight (unit(s) + base = total weight)

SLM200	VOLTAGE	SHALLOW BASE	DEEP BASE	WALL MOUNT	PIPE MOUNT	TWIN WALL MOUNT	2-STACK DOCK BASE	3-STACK DOCK BASE
7.05 oz	12-24VAC/DC	2.12 oz 0.06 kg	4.23 oz 0.12 kg	6.70 oz 0.19 kg	5.29 oz 0.15 kg	9.17 oz 0.26 kg	14.46 oz 0.41 kg	21.16 oz 0.60 kg
0.20 kg	120-240 VAC	–	6.0 oz 0.17 kg	8.47 oz 0.24 kg	6.70 oz 0.19 kg	12.35 oz 0.35 kg	16.58 oz 0.47 kg	24.69 oz 0.70 kg

StreamLine® Modular High Output Multifunctional LED Beacon (SLM200)

SPECIFICATIONS

Lamp Life: 50,000 Hours
 Light Source: LED
 Operating Temperature: -22°F to 122°F -30°C to 50°C










ACCESSORIES FOR DOCK BASE

HOW TO ORDER

- Specify model number SLM200 and color
- Specify required mounting base (see chart)
- Optional dome guard
 For shallow mounting base (SLMDG3)
 For deep mounting base (SLMDG4)
- Accessories for Twin and Wall Mount Bases
 Cable Gland, M20, Gray, 2 Pack (K77700416)
 Cable Gland, M20, Red, 2 Pack (K77700416-01)
- Accessories for Pipe Mount Base
 1" NPT Adapter (SLMNPT1)
 1/2" NPT Adapter (SLMNPT2)
- Accessories for Dock Base
 Wall Mount Bracket (SLMB23W)
 1/2" NPT Adaptor (SLMB23N)
 Retaining Ring (SLM-RR)
 Light Visor (SLMB23V)

MOUNTING BASE OPTIONS

Mounting Base	Model Number	Base Color	Voltage	Dimensions
 Shallow Base	SLMBS-012-024GY	Gray	12-24VAC/DC	
	SLMBS-012-024R	Red	12-24VAC/DC	
 Deep Base	SLMBD-012-024GY	Gray	12-24VAC/DC	
	SLMBD-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBD-012-024R	Red	12-24VAC/DC	
	SLMBD-120-240GY	Gray	120-240VAC	
 Wall Mount	SLMBW-012-024GY	Gray	12-24VAC/DC	
	SLMBW-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBW-120-240GY	Gray	120-240VAC	
 Pipe Mount	SLMBP-012-024GY	Gray	12-24VAC/DC	Pipe Mount comes standard with 1/2" NPT Adapter
	SLMBP-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBP-120-240GY	Gray	120-240VAC	
 Twin Wall Mount	SLMBT-012-024GY	Gray	12-24VAC/DC	
	SLMBT-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBT-120-240GY	Gray	120-240VAC	
 2-Stack Dock Base  3-Stack Dock Base	SLMB2-024GY	Gray	24VAC/DC	
	SLMB2-120-240GY	Gray	120-240VAC	
	SLMB3-024GY	Gray	24VAC/DC	
	SLMB3-120-240GY	Gray	120-240VAC	

Note: Dock bases allow one function per position and include visors.



Model SLM300 and SLM350 shown with mounting base options (ordered separately)



► Models SLM300 and SLM350

StreamLine® Modular Multifunctional Low Profile LED Beacons

Models SLM300 and SLM350 offer a multifunctional LED beacon with high optical performance. Developed with a multiple input technology, these models offer three separate light effects (steady, flashing or simulated strobe) controllable via independent electric contacts. The steady light option offers a consistent light source. The flashing mode consists of a single-flash strobe effect, while the simulated strobe effect is a 5x flash.

Model SLM300 includes an opaque lens for signaling in close proximities. Model SLM350 includes a fresnel lens for long distance signaling. The body material is a self-extinguishing polycarbonate material with high impact and UV resistance suitable for outdoor applications.

FEATURES

- Compatible with 12-24VAC/DC or 120-240VAC*
 - PLC compatible with PNP or NPN connections*
 - Steady, flashing or simulated strobe
 - 50,000 hour LED
 - Five lamp/lens colors: Amber, Blue, Clear, Green and Red
 - Seven mounting base options
 - Type 4X, IP66 enclosure
 - IP69K** compliant
 - CE Certified
 - UL and cUL listed
- * Voltage and PLC connections are dependent on selected base.
 **IP69K with select bases SLMB5, SLMBD, SLMBP and SLM-RR accessory

MODEL	VOLTAGE	LENS	FLASH RATE/MINUTE (FLASH MODE)	FLASH RATE/MINUTE (STROBE MODE)
SLM300 *	12-24VAC/DC or 120-240VAC	Opaque	105 (+/-10)	72 (+/-10)
SLM350 *	12-24VAC/DC or 120-240VAC	Fresnel	105 (+/-10)	72 (+/-10)

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

MAXIMUM OPERATING CURRENT (mA)					
12VDC	24VDC	12VAC	24VAC	120VAC	240VAC
180	110	300	270	80	55

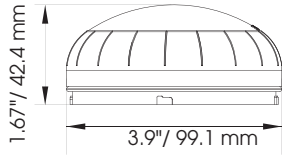
Weight (unit(s) + base = total weight)

SLM300/ SLM350	VOLTAGE	SHALLOW BASE	DEEP BASE	WALL MOUNT	PIPE MOUNT	TWIN WALL MOUNT	2-STACK DOCK BASE	3-STACK DOCK BASE
3.88 oz 0.11 kg	12-24VAC/DC	2.12 oz 0.06 kg	4.23 oz 0.12 kg	6.70 oz 0.19 kg	5.29 oz 0.15 kg	9.17 oz 0.26 kg	14.46 oz 0.41 kg	21.16 oz 0.60 kg
	120-240 VAC	–	6.0 oz 0.17 kg	8.47 oz 0.24 kg	6.70 oz 0.19 kg	12.35 oz 0.35 kg	16.58 oz 0.47 kg	24.69 oz 0.70 kg

StreamLine® Modular Multifunctional Low Profile LED Beacons (SLM300 and SLM350)

SPECIFICATIONS







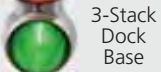
Lamp Life: 50,000 Hours
 Light Source: LED
 Operating Temperature: -22°F to 122°F -30°C to 50°C



HOW TO ORDER

- Specify model number SLM300 and color for Opaque Lens or SLM350 and color for Fresnel Lens
- Specify required mounting base (see chart)
- Optional dome guard
 For shallow mounting base (SLMDG0)
 For deep mounting base (SLMDG1)
- Accessories for Twin and Wall Mount Bases
 Cable Gland, M20, Gray, 2 Pack (K77700416)
 Cable Gland, M20, Red, 2 Pack (K77700416-01)
- Accessories for Pipe Mount Base
 1" NPT Adapter (SLMNPT1)
 1/2" NPT Adapter (SLMNPT2)
- Accessories for Dock Base
 Wall Mount Bracket (SLMB23W)
 1/2" NPT Adaptor (SLMB23N)
 Retaining Ring (SLM-RR)
 Light Visor (SLMB23V)

MOUNTING BASE OPTIONS

	Model Number	Base Color	Voltage	
 Shallow Base	SLMBS-012-024GY	Gray	12-24VAC/DC	
	SLMBS-012-024R	Red	12-24VAC/DC	
 Deep Base	SLMBD-012-024GY	Gray	12-24VAC/DC	
	SLMBD-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBD-012-024R	Red	12-24VAC/DC	
	SLMBD-120-240GY	Gray	120-240VAC	
 Wall Mount	SLMBW-012-024GY	Gray	12-24VAC/DC	
	SLMBW-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBW-120-240GY	Gray	120-240VAC	
 Pipe Mount	SLMBP-012-024GY	Gray	12-24VAC/DC	Pipe Mount comes standard with 1/2" NPT Adapter
	SLMBP-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBP-120-240GY	Gray	120-240VAC	
 Twin Wall Mount	SLMBT-012-024GY	Gray	12-24VAC/DC	
	SLMBT-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBT-120-240GY	Gray	120-240VAC	
 2-Stack Dock Base  3-Stack Dock Base	SLMB2-024GY	Gray	24VAC/DC	
	SLMB2-120-240GY	Gray	120-240VAC	
	SLMB3-024GY	Gray	24VAC/DC	
	SLMB3-120-240GY	Gray	120-240VAC	
Note: Dock bases allow one function per position and include visors.				



► Model FB2LED
**Fireball® LED
 Warning Light**

Model FB2LED is a multi-pattern LED available in five colors and features Federal Signal's patented Power Select™ technology. Power Select™ allows a user to select one of three flash patterns (60 FPM, 120 FPM or steady) without having to open the device. Units will come pre-set at 60 FPM, but users can select one of the other two flash patterns by following a sequence when power is applied to the unit.

FB2LED is available in 12-24VDC and 120-240VAC. The base features an integrated 1/2-inch NPT pipe mount as well as the three holes required for surface mount configurations.

The housing for FB2LED is designed to protect against corrosion, vibration, and water- and dust-ingress in harsh applications including industrial warning, process control, status indication, and food processing.

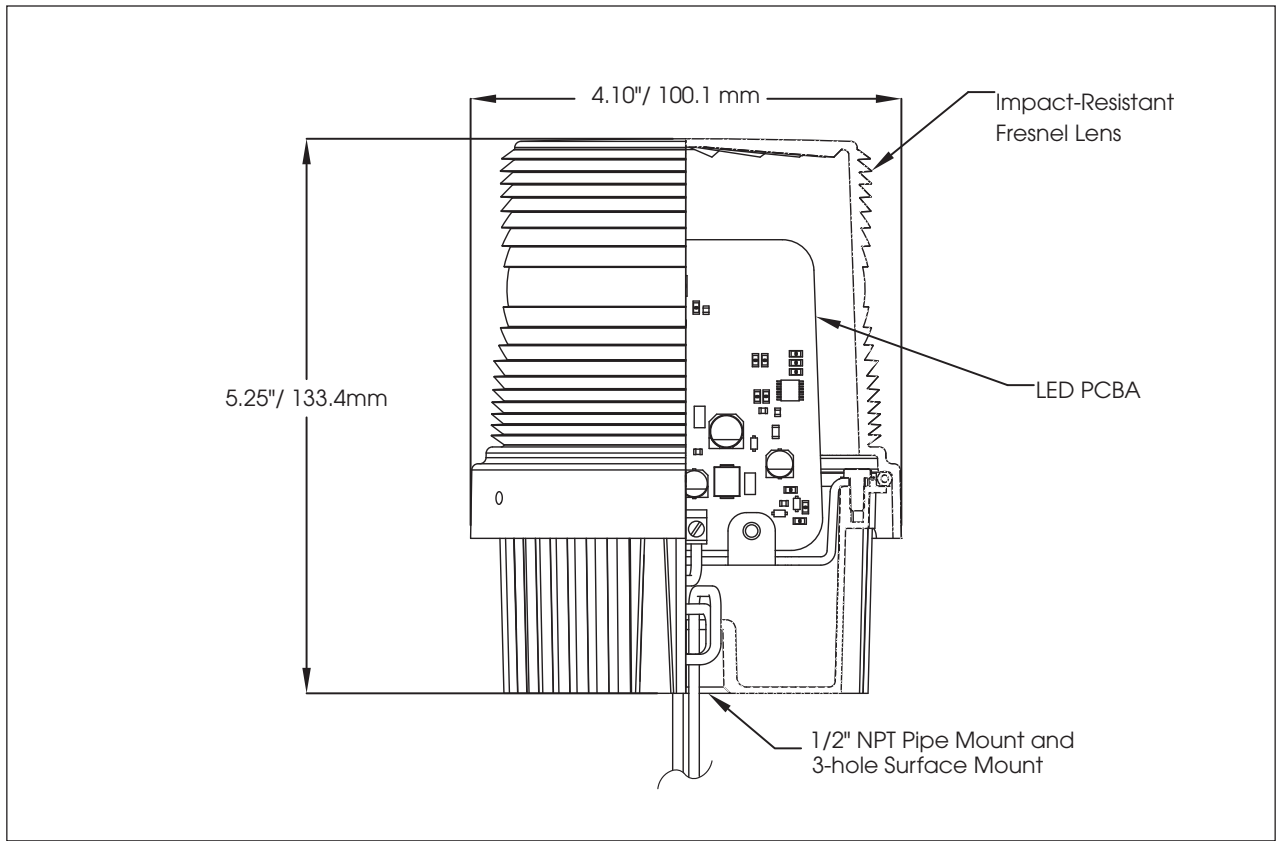
F E A T U R E S

- Available in 12-24VDC or 120-240VAC
- Five lens colors: Amber, Blue, Clear, Green, and Red
- 50,000 hour LED
- Patented Power Select™ technology
- Three flash pattern options: 60 FPM, 120 FPM and steady
- Integrated 1/2-inch NPT pipe and surface mount
- Indoor/outdoor use
- Conformal coated PCB
- Type 4X, IP66 enclosure
- IP69K compliant
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	LIGHT OUTPUT	MOUNT
FB2LED-012-024 *	12-24VDC	0.48-0.24 amps	300 cd	1/2" NPT Pipe/Surface
FB2LED-120-240 *	120-240VAC 50/60Hz	0.03 amps	300 cd	1/2" NPT Pipe/Surface

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green, or (R) Red

Fireball® LED Warning Light (FB2LED)



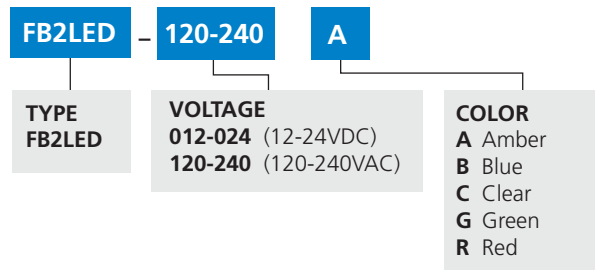
SPECIFICATIONS

Lamp Life:	50,000 Hours	
Light Source:	LED	
Operating Temperature:	-49°F to 151°F	-45°C to 66°C
Net Weight:	1.5 lbs	0.68 kg
Shipping Weight:	1.8 lbs	0.82 kg
Height:	5.25"	133.4 mm
Diameter:	4.10"	104.1 mm

REPLACEMENT PARTS

Description	Part Number
PCBA, 12-24VDC, for Amber, Green, or Red units	K20000401A
PCBA, 12-24VDC, for Blue or Clear units	K20000401A-01
PCBA, 120-240VAC, for Amber, Green, or Red units	K20000426A
PCBA, 120-240VAC, for Blue or Clear units	K20000426A-01

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
Corner Bracket	LCMB2*
Wall Bracket	LWMB2*

* Type 3R rated

Mounting Brackets shown on pages 136-137



► Model BPL26L

Battery Powered LED Light

Federal Signal's Model BPL26L is a portable, battery-powered LED warning light which flashes 50 times per minute. Its components are moisture-proof and reverse polarity protected to ensure extended battery life and trouble-free performance.

Model BPL26L dome is made of impact-resistant polycarbonate and the base is constructed from a high-density polyethylene. A flexible rubber seal covers the on/off switch to protect it from the elements. Two magnetic pads are included for simple, yet secure, temporary mounting. Power is supplied by two standard 6VDC, spring terminal lantern batteries (not included).

Model BPL26L is ideal for job sites requiring temporary warning lights or for any location where primary power is unavailable.

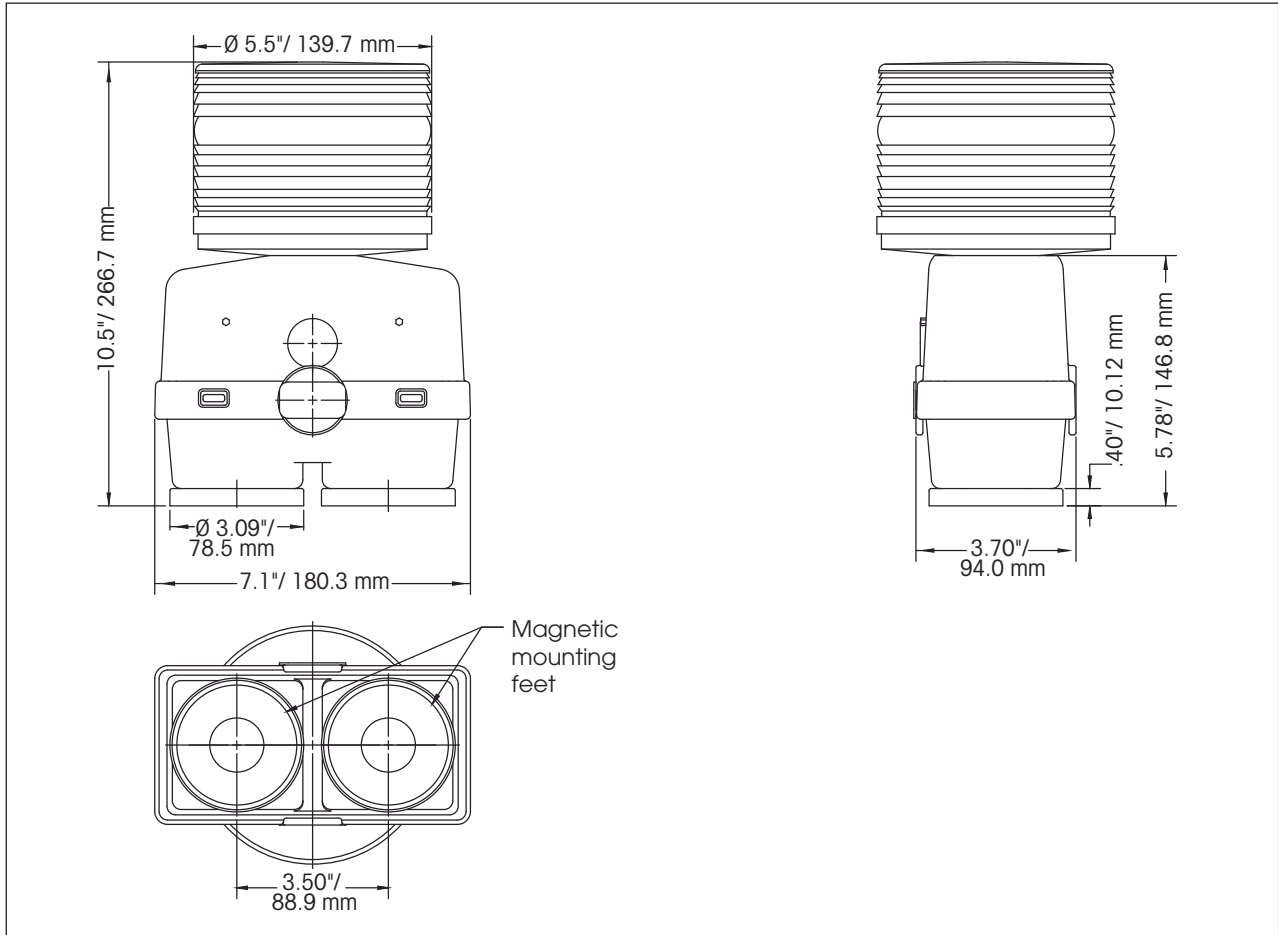
FEATURES

- 12VDC — uses two standard 6VDC lantern batteries (not included)
- 50,000 hour lamp life
- Outdoor weatherproof enclosure
- Five lens colors: Amber, Blue, Clear, Green and Red
- Magnetic mount

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	MOUNT
BPL26L-*	12VDC	0.58 amps	50	Magnetic

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

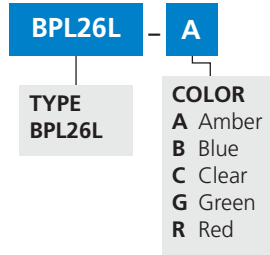
Battery Powered LED Light (BPL26L)



SPECIFICATIONS

Lamp Life:	50,000 Hours	
Light Source:	LED	
Operating Temperature:	-18°F to 105°F	-27°C to 40°C
Net Weight:	2.3 lbs	1.04 kg
Shipping Weight:	3.5 lbs	1.59 kg
Height:	10.5"	266.7 mm
Width:	7.1"	180.3 mm
Diameter of Dome:	5.5"	139.7 mm

HOW TO ORDER



Two standard 6VDC lantern batteries not included

REPLACEMENT PARTS

Description	Part Number
Lens, Amber	K8263079A
Lens, Blue	K8263079A-01
Lens, Clear	K8263079A-04
Lens, Red	K8263079A-02
Lens, Green	K8263079A-03



► Model 225XL

Electrarray® Hazardous Location LED Flashing Light



Model 225XL is a hazardous location flashing signal light that is available in 24VAC/DC and 120-240VAC self detecting voltage. Model 225XL comes standard in flashing mode and is field configurable to steady-burn mode for maximum functionality.

This hazardous location warning light has a black polyurethane-coated base and the inner fresnel lens. The clear polycarbonate outer dome can be quickly removed for access while changing the LED or inspecting the unit.

Model 225XL is ideal for wet, corrosive atmospheres like those found in food processing industries or anywhere a vibration-resistant visual signal is needed.

FEATURES

- Available in 24VAC/DC and 120–240VAC
- Five lamp/lens colors: Amber, Blue, Clear, Green and Red
- Flashing mode standard, configurable to steady-burn
- 50,000 hour, vibration-resistant LED lamp
- 1/2-inch NPT pipe mount
- Type 4X, IP66 enclosure
- IP69K compliant
- Marine Listed
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II Division 2, Groups F and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	IN-RUSH CURRENT	FLASH RATE/MINUTE	MOUNT
225XL-024 *	24VAC/DC	0.40 amps	1.75 amps, 5.0 mS	60	1/2" NPT Pipe
225XL-120-240 *	120-240VAC	0.21/0.13 amps	2.00 amps, 0.25 mS	60	1/2" NPT Pipe

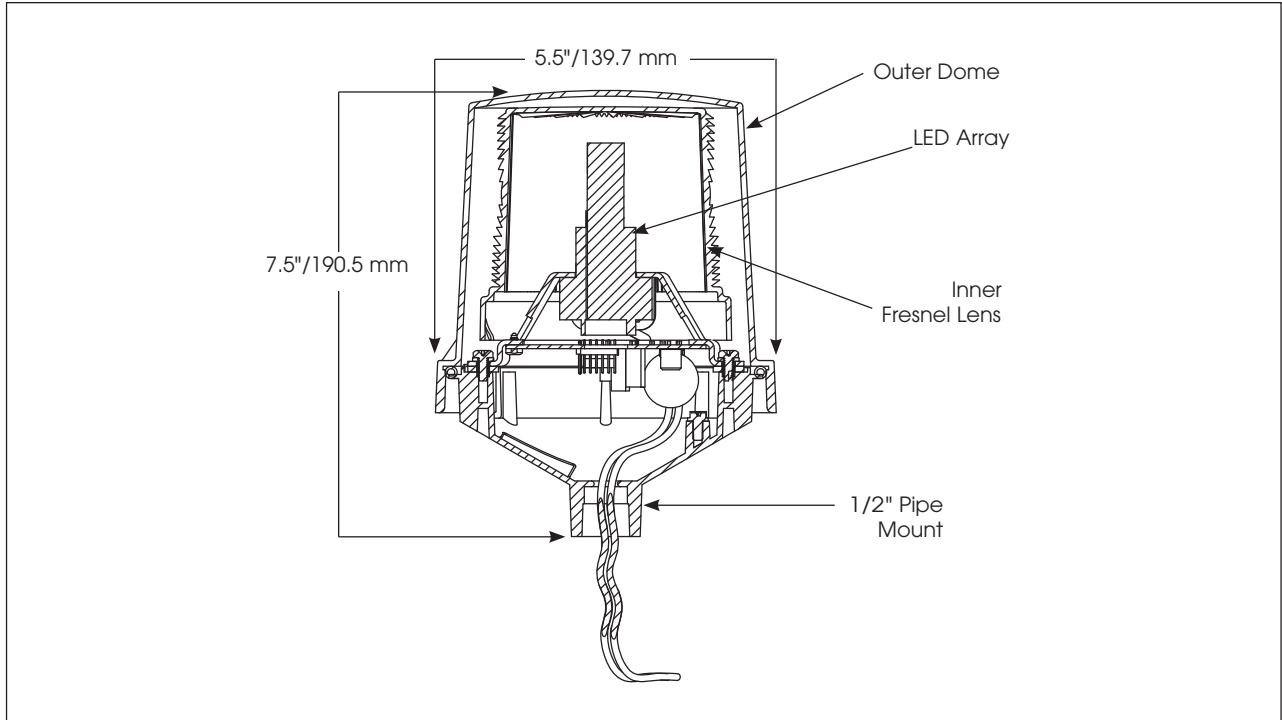
* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

HAZARDOUS LOCATION RATING: 225XL

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C		55°C		66°C	
	24VAC/DC	100-265VAC	24VAC/DC	100-265VAC	24VAC/DC	100-265VAC
Class I, Division 2, Groups A, B, C, D	T6	T6	T5	T5	T4A	T4A
Class II, Division 2, Groups F, G	T6	T6	T6	T6	T6	T6
Class III	T6	T6	T6	T6	T6	T6

Electrarray® Hazardous Location LED Light (225XL)



SPECIFICATIONS

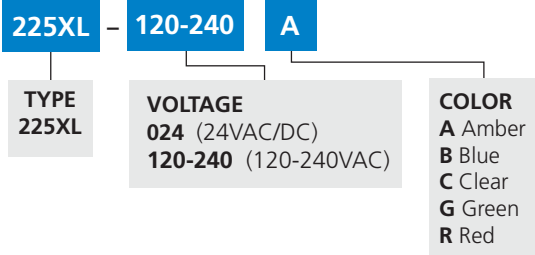
Lamp Life:	50,000 Hours	
Light Source:	LED	
Operating Temperature:	-58°F to 150°F	-50°C to 66°C
Net Weight:	3.2 lbs	1.5 kg
Shipping Weight:	4.0 lbs	1.8 kg
Height:	7.5"	190.5 mm
Diameter:	5.5"	139.7 mm

REPLACEMENT PARTS

Description	Part Number
PC Board Assembly, 24VAC/DC	K2005455A
PC Board Assembly, 120/240VAC	K2005416A
LED Lamp, Amber	K14700030A-A
LED Lamp, Blue	K14700030A-B
LED Lamp, Clear	K14700030A-W
LED Lamp, Green	K14700030A-G
LED Lamp, Red	K14700030A-R
Exterior Dome, Clear ¹	K8444D219C-04
Interior Lens Kit, Amber ¹	K8550292A-02
Interior Lens Kit, Blue ¹	K8550292A-01
Interior Lens Kit, Clear ¹	K8550292A
Interior Lens Kit, Green ¹	K8550292A-04
Interior Lens Kit, Red ¹	K8550292A-03

¹ Includes 1 dome gasket

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
Hazardous Location Mounting Bracket	LHWB

Mounting Brackets shown on pages 138-139



► Model 191XL

Hazardous Location Division Listed LED Light



Model 191XL is a hazardous location flashing signal light that comes standard in flashing mode and is field configurable to steady-burn mode for maximum functionality.

Federal Signal's super bright LED array used in the 191XL produces intense light output and 50,000 hours of service. Increased shock and vibration resistance add to this unit's rugged industrial portfolio of features.

FEATURES

- Available in 24VAC/DC, 120-240VAC and 277VAC
- Five lamp/lens colors: Amber, Blue, Clear, Green and Red
- Flashing mode standard, configurable to steady-burn
- 50,000 hours, vibration-resistant LED lamp
- Dome guard included
- Available in 3/4-inch NPT pipe mount or surface mount
- Type 4X, IP66 enclosure
- IP69K compliant
- Marine Listed
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 1, Groups E, F and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	IN-RUSH CURRENT	FLASH RATE/ MINUTE	MOUNT	LIGHT OUTPUT
191XL- * 024 **	24VAC/DC	0.40 amps	1.75 amps, 5.0 mS	60	3/4" NPT Pipe or Surface	200 cd***
191XL- * 120 240 **	120/240VAC	0.21/0.13 amps	2.0 amps, 0.25 mS	60	3/4" NPT Pipe or Surface	200 cd***
191XL-277 **	277VAC	0.13 amps	9.75 amps, 0.25mS	60	3/4" NPT Pipe	200 cd***

* Include (S) for Surface Mount Option (Example part number: 191XL-S120240R for surface mount option, 191XL-120-240R for pipe mount)

** Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

*** Tested with clear lens and flashing mode

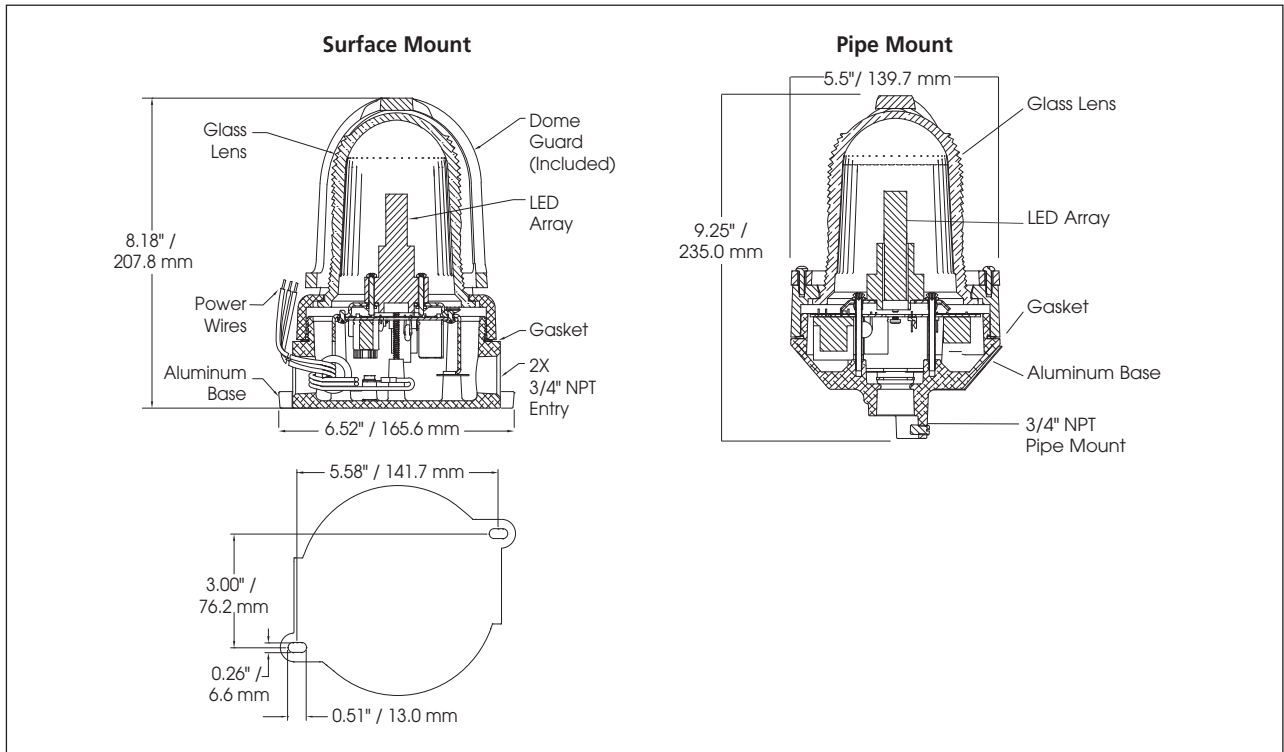
Note: When ordering the 120/240 voltage, use 120-240 for the pipe mount model and 120240 for the surface mount model

HAZARDOUS LOCATION RATING: 191XL

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C			55°C			66°C		
	24 VAC/DC	100-265 VAC	277 VAC	24 VAC/DC	100-265 VAC	277 VAC	24 VAC/DC	100-265 VAC	277 VAC
Class I, Division 2, Groups A, B, C, D	T6	T6	T5	T5	T5	T5	T4A	T4A	T5
Class II, Division 1, Groups E, F, G	T6	T6	T5	T6	T6	T5	T6	T6	T5
Class III	T6	T6	T5	T6	T6	T5	T6	T6	T5

Hazardous Location Division Listed LED Light (191XL)



SPECIFICATIONS

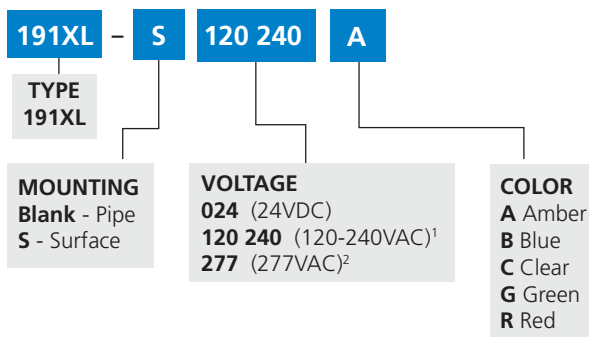
Lamp Life:	50,000 Hours	
Light Source:	LED	
Operating Temperature:	-58°F to 150°F	-50°C to 66°C
Net Weight:	4.0 lbs	1.81 kg
Shipping Weight:	4.25 lbs	1.93 kg
Pipe Mount		
Height (with Dome Guard):	9.25"	235.0 mm
Diameter:	5.5"	139.7 mm
Surface Mount		
Height	8.18"	207.8 mm
Diameter	6.52"	165.6 mm

REPLACEMENT PARTS

Description	Part Number
LED array, Amber	K14700030A-A
LED array, Blue	K14700030A-B
LED array, Clear	K14700030A-W
LED array, Green	K14700030A-G
LED array, Red	K14700030A-R
PC Board Assembly, 24VDC	K2005455A
PC Board Assembly, 120/240VAC	K2005416A
PC Board Assembly, 277VAC	K2005416A-01
Glass Lens/Ring Assembly, Amber ¹	K8449078C-01
Glass Lens/Ring Assembly, Blue ¹	K8449078C-06
Glass Lens/Ring Assembly, Clear ¹	K8449078C-04
Glass Lens/Ring Assembly, Green ¹	K8449078C-07
Glass Lens/Ring Assembly, Red ¹	K8449078C
Guard, Dome	K8449090B

¹Assembly includes a gasket

HOW TO ORDER



¹ When ordering the 120/240 voltage, use 120-240 for the pipe mount model and 120240 for the surface mount model

² 277VAC versions are available in pipe mount only

OPTIONAL ACCESSORIES

Description	Part Number
Hazardous Location Mounting Bracket	LHWB
Mounting Bracket shown on pages138-139	



► Model 191XL-CN

Hazardous Location Zone Listed LED Light



Model 191XL-CN is a hazardous location LED signal light that comes standard in flashing mode and is field configurable to steady-burn mode for maximum functionality.

Federal Signal's super bright LED array used in the 191XL-CN produces intense light output and 50,000 hours of service. Increased shock and vibration resistance add to this unit's rugged industrial portfolio of features.

FEATURES

- Available in 24VAC/DC and 120-240VAC
- Five lamp/lens colors: Amber, Blue, Clear, Green and Red
- Flashing mode standard, configurable to steady-burn
- 50,000 hours, vibration-resistant LED lamp
- Dome guard included
- Available in 3/4-inch NPT pipe mount or surface mount
- Type 4X, IP66 enclosure
- IP69K compliant
- Marine Listed
- UL and cUL Listed for Class I, Zone 2, AEx nA IIC Gc; Zone 22 AEx tc IIIC Dc

MODEL	VOLTAGE	OPERATING CURRENT	IN-RUSH CURRENT	FLASH RATE/ MINUTE	MOUNT	LIGHT OUTPUT
191XL-CN- * 024 **	24VAC/DC	0.40 amps	1.75 amps, 5.0 mS	60	3/4" NPT Pipe or Surface	200 cd***
191XL-CN * 120-240 **	120/240VAC	0.21/0.13 amps	2.0 amps, 0.25 mS	60	3/4" NPT Pipe or Surface	200 cd***

* Include (S) for Surface Mount Option (Example part number: 191XL-CN-S024R for surface mount option, 191XL-CN-024R for pipe mount)

** Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

*** Tested with clear lens and flashing mode

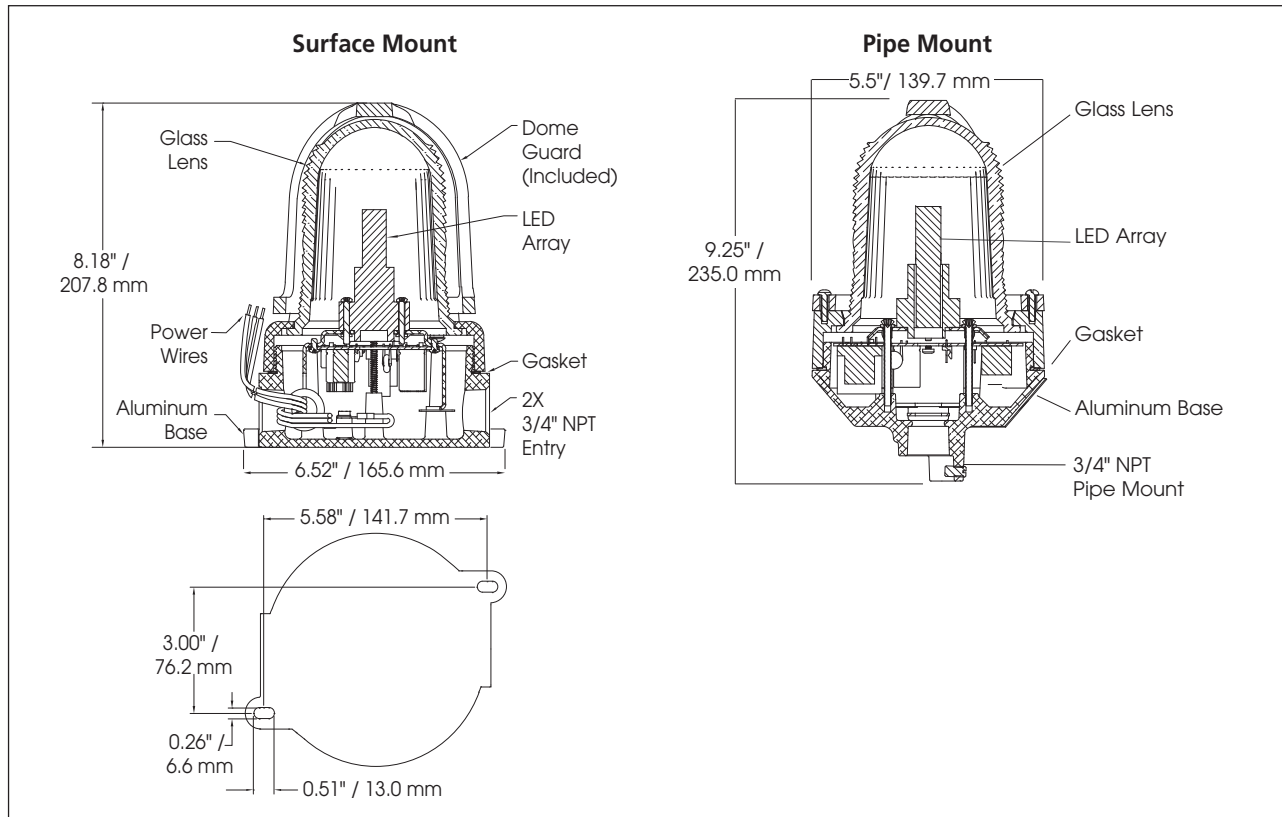
Note: When ordering the 120/240 voltage, use 120-240 for the pipe mount model and 120240 for the surface mount model

HAZARDOUS LOCATION RATING: 191XL-CN

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	66°C
	All Voltages
Class I, Zone 2	T4
Class II, Zone 22	T85

Hazardous Location Zone Listed LED Light (191XL-CN)



SPECIFICATIONS

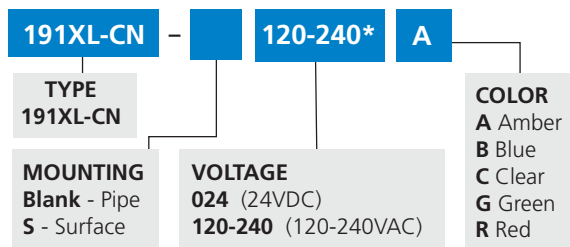
Lamp Life:	50,000 Hours	
Light Source:	LED	
Certified Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Electrical Operating Temperature:	-67°F to 150°F	-55°C to 66°C
Net Weight:	4.0 lbs	1.81 kg
Shipping Weight:	4.25 lbs	1.93 kg
Pipe Mount		
Height (with Dome Guard):	9.25"	235.0 mm
Diameter:	5.5"	139.7 mm
Surface Mount		
Height	8.18"	207.8 mm
Diameter	6.52"	165.6 mm

REPLACEMENT PARTS

Description	Part Number
LED array, Amber	K14700030A-A
LED array, Blue	K14700030A-B
LED array, Clear	K14700030A-W
LED array, Green	K14700030A-G
LED array, Red	K14700030A-R
PC Board Assembly, 24VDC	K2005455A
PC Board Assembly, 120/240VAC	K2005416A
Glass Lens/Ring Assembly, Amber ¹	K8449078C-01
Glass Lens/Ring Assembly, Blue ¹	K8449078C-06
Glass Lens/Ring Assembly, Clear ¹	K8449078C-04
Glass Lens/Ring Assembly, Green ¹	K8449078C-07
Glass Lens/Ring Assembly, Red ¹	K8449078C
Guard, Dome	K8449090B

¹Assembly includes a gasket

HOW TO ORDER



*Shown for ordering a pipe mount model. Use 120240 for surface mount.

OPTIONAL ACCESSORIES

Description	Part Number
Hazardous Location Mounting Bracket	LHWB
Mounting Bracket shown on pages 138-139	



(Shown with pendant mount. See how to order for mounting options)



► Model 27XL

Explosion-Proof LED Warning Light

Model 27XL explosion-proof LED light is unique to the market because it covers an entire range of possible mounting configurations – including dome up.

Configurable to either steady-burning or flashing mode, 27XL provides improved performance over standard LEDs and increased versatility while maintaining low power consumption and vibration resistance expected from LED devices.

The 27XL features a standard low in-rush circuitry design that provides greater compatibility with factory automation control systems and less electrical interference with in-rush sensitive devices. Corrosion resistance is achieved with a powder coat finish applied over the copper-free aluminum housing.

Because it is easy to install and requires very low maintenance, it is ideal for use in areas such as oil rigs, mines, refineries, and chemical plants.

FEATURES

- Approved for mounting in any manner – including dome up
- Available in 24VAC/DC and 120-240VAC
- 50,000 hour LED
- Six lamp/lens colors: Amber, Blue, Clear, Green, Magenta and Red
- 3/4" NPT pendant, ceiling and wall mount options available
- Flashing or steady-burn mode
- Dome guard optional
- Type 4X, IP66 enclosure
- IP69K compliant
- Marine Rated
- UL and cUL Listed for Class I, Division 1, Group C and D; Class I, Division 2, Groups A and B; Class II, Division 1, Groups E, F and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	IN-RUSH CURRENT	FLASH RATE/ MINUTE
27XL-024 * -MOD¹	24VAC/DC	400 mA	1.75 amps, 5.0 mS	60
27XL-120-240 * -MOD¹	120/240VAC	210/130 mA	2.00 amps, 0.25 mS	60

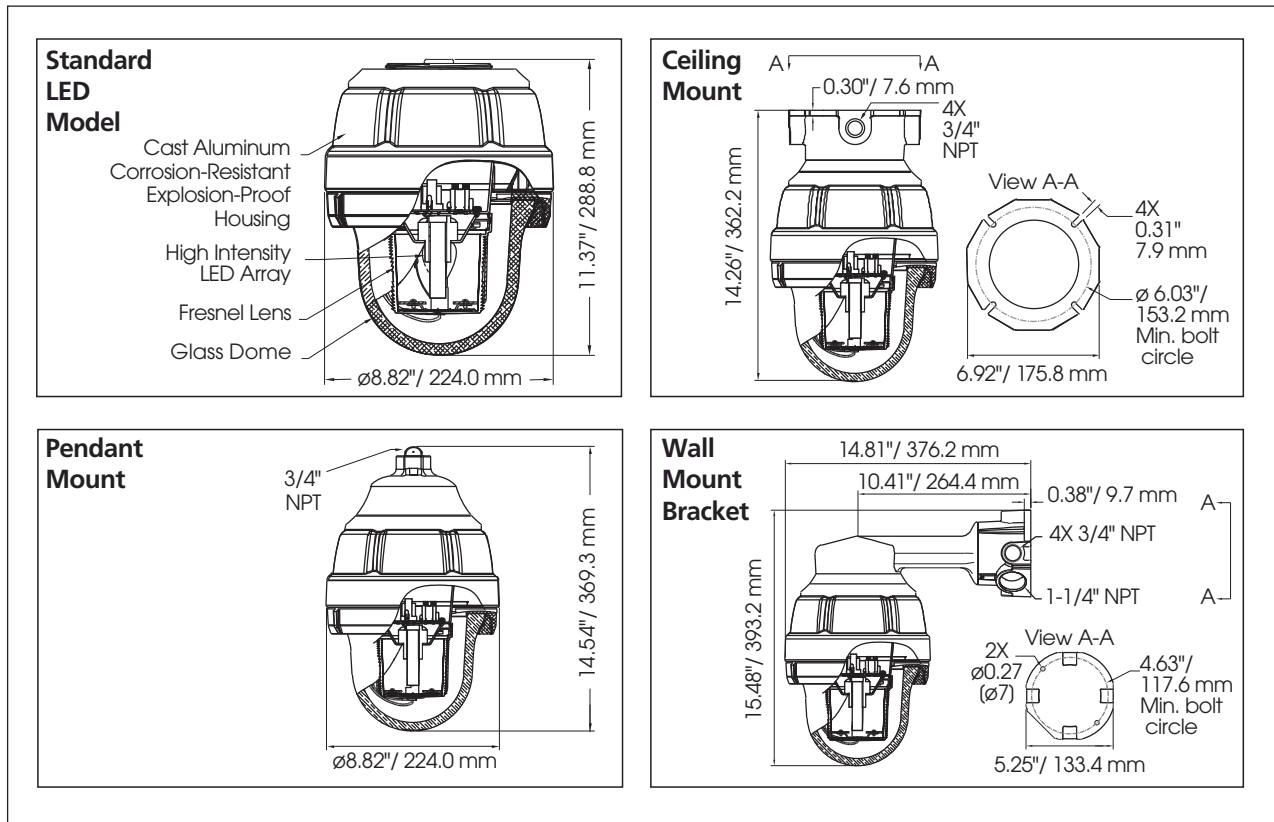
* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green, (M) Magenta or (R) Red

¹ See "how to order" for mounting options.

HAZARDOUS LOCATION RATING: 27XL

Hazardous Location	T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C					
	40°C		55°C		66°C	
	24VAC/DC	100-265VAC	24VAC/DC	100-265VAC	24VAC/DC	100-265VAC
Class I, Division 1, Groups C, D	T6	T6	T6	T6	T6	T6
Class I, Division 2, Groups A, B	T6	T6	T6	T5	T5	T4A
Class II, Division 1, Groups E, F, G	T6	T6	T6	T6	T4A	T4A
Class III	T6	T6	T6	T6	T6	T6

Explosion-Proof LED Warning Light (27XL)



SPECIFICATIONS

Lamp Life:	50,000 Hours	
Light Source:	LED	
Operating Temperature Range:	-67°F to 150°F -55°C to 66°C	
Net Product Weight		
Signal without Mounting:	13.9 lbs	6.3 kg
Ceiling Mount:	4.5 lbs	2.0 kg
Pendant Mount:	2.0 lbs	0.9 kg
Wall Mount:	5.9 lbs	2.7 kg

REPLACEMENT PARTS

Description	Part Number
Exterior Dome Assembly, Clear	K8436147A
Interior Lens Assembly, Amber	K8550292A-02
Interior Lens Assembly, Blue	K8550292A-01
Interior Lens Assembly, Clear	K8550292A
Interior Lens Assembly, Green	K8550292A-04
Interior Lens Assembly, Magenta*	K8550292A-05
Interior Lens Assembly, Red	K8550292A-03
PC board assembly, 24VAC/DC	K2005455A
PC board assembly, 120/240VAC	K2005416A
LED array, Amber	K14700030A-A
LED array, Blue	K14700030A-B
LED array, Clear*	K14700030A-W
LED array, Green	K14700030A-G
LED array, Red	K14700030A-R

*Order LED array, Clear with the Magenta Interior Lens Assembly.

HOW TO ORDER

27XL - **024** **A** - **MOD**

TYPE
27XL

VOLTAGE
024 (24VAC/DC)
120-240 (120-240VAC)

COLOR
A Amber
B Blue
C Clear
G Green
M Magenta
R Red

Specify Optional Mounting:*

Description	Part Number
Ceiling Mount	CMXC-SB
Pendant Mount	PMXC-SB
Wall Mount	WMXC-SB

* Mounting kit must be ordered with unit, sold separately

OPTIONAL ACCESSORIES

Description	Part Number
Dome Guard	DGXC-SB



► Model 2000 Series

Flameproof LED Light

The 2000 Series Model LED is a visual signal warning light for use in hazardous locations requiring ATEX approval. The beacon can produce three light patterns: steady-on, slow flash or rapid flash.

The 2000 Series LED beacon is sealed from dust and water by a nitrile rubber o-ring. All exterior cast aluminum surfaces are finished in powder coat paint and external hardware is manufactured from stainless steel to resist corrosion. Available signal colors are Amber, Blue, Clear, Green, Red and Yellow.

The 2000 Series LED beacon is externally powered by 24VDC or 110-240VAC source. All AC powered units feature a switch mode power supply that accommodates a wide input voltage range without requiring any additional configuration from the user. PLC initiation is compatible without the use of an external relay. Screw type terminal blocks are provided for field wiring on all units.

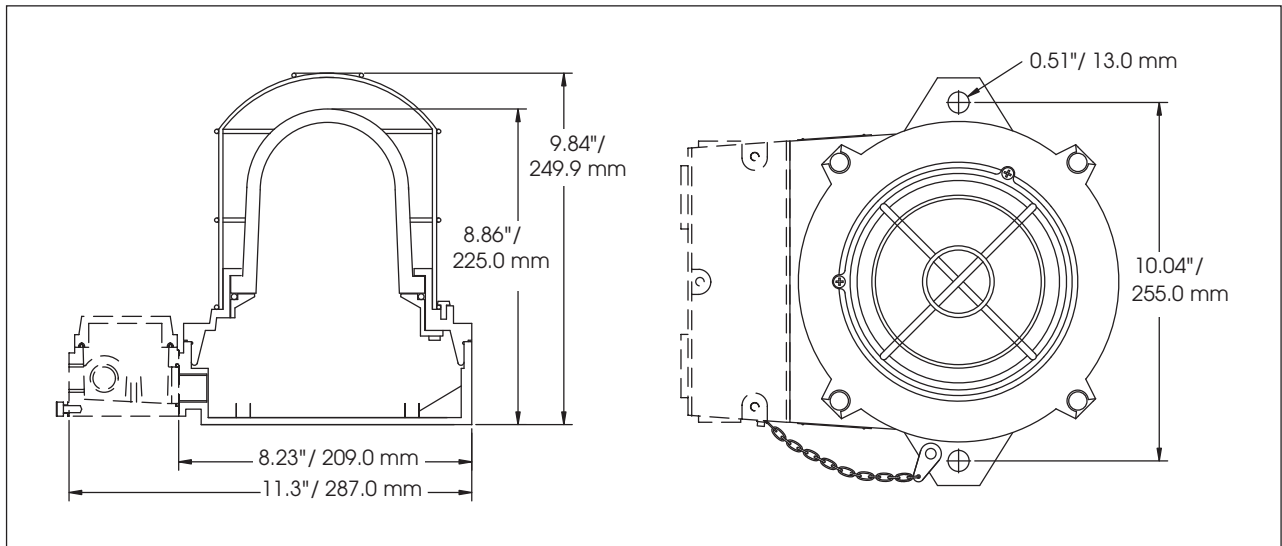
All variations of the 2000 Series LED beacon feature a four entry fixture to allow cable looping. These cable entries are metric (M20 X 1.5) but other configurations are available upon request.

FEATURES

- 3 remotely selectable flash patterns
- 50,000 hour lamp life
- Six lamp/lens colors: Amber, Blue, Clear, Green, Red and Yellow
- Ex 'e' terminal chamber available
- AC and DC voltage ranges
- Approved for use in Zone 1, 2, 21, 22 Atmospheres
- Corrosion resistant powder coat finish
- Stainless steel external hardware
- IP66 enclosure
- ATEX, IECEx and CE Certified

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	MAXIMUM IN-RUSH CURRENT
2000 Series LED	24VDC	0.50 amps	60-80	1.75A for 5.00mS
	110VAC	0.22 amps	60-80	2.00A for 0.25mS
	240VAC	0.13 amps	60-80	2.00A for 0.25mS

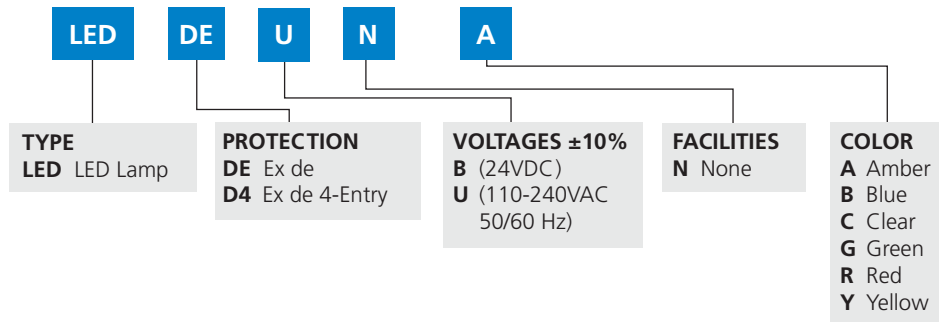
Flameproof LED Light (2000 Series LED)



SPECIFICATIONS

Lamp Life:	50,000 Hours	ATEX Certificate Number:	Baseefa 07ATEX0150
Light Source:	LED	IECEX Certificate Number:	IECEX BAS 07.0038
Light Output:		Certification Marking:	Ex d IIB T4 Ex tD A21 Ex de IIB T4 Ex tD A21
Amber	113 cd	Terminals:	
Blue	12 cd	Ex d:	4 way block mounted PCB
Clear	90 cd	Ex de:	12 way block in terminal chamber
Green	66 cd	Cable entries:	
Yellow	60 cd	Ex d:	4 entries - M20 x 1.5
Red	63 cd	Ex de:	4 entries - M20 x 1.5
Operating Temperature:	-40°F to 131°F -40°C to 55°C	Mounting:	Via fixed cast lugs at two mounting points
Net Weight:		Body:	Marine Grade Alloy painted Regal Red
Ex d:	13.23 lbs 6.0 kg	Exterior dome:	Toughened glass
Ex de:	15.43 lbs 7.0 kg	Guard:	316 stainless steel
Shipping Weight:	16.5 lbs 7.5 kg	Ingress Protection:	IP66
Height:	9.84" 249.9 mm		
Width:	10.04" 255.0 mm		
Length:	8.23" 209.0 mm		

HOW TO ORDER



#B50000777 Rev.A0



► Model COMFL1-B-IS

Blue Forklift LED Safety Light

Model COMFL1-B-IS is a Blue Forklift LED light designed to improve work area safety. This safety light alerts pedestrians and other vehicles with a steady blue signal warning that a forklift is approaching. COMFL1-B-IS contains (2) 5W Blue LEDs that projects an intense, steady beam onto the floor surface.

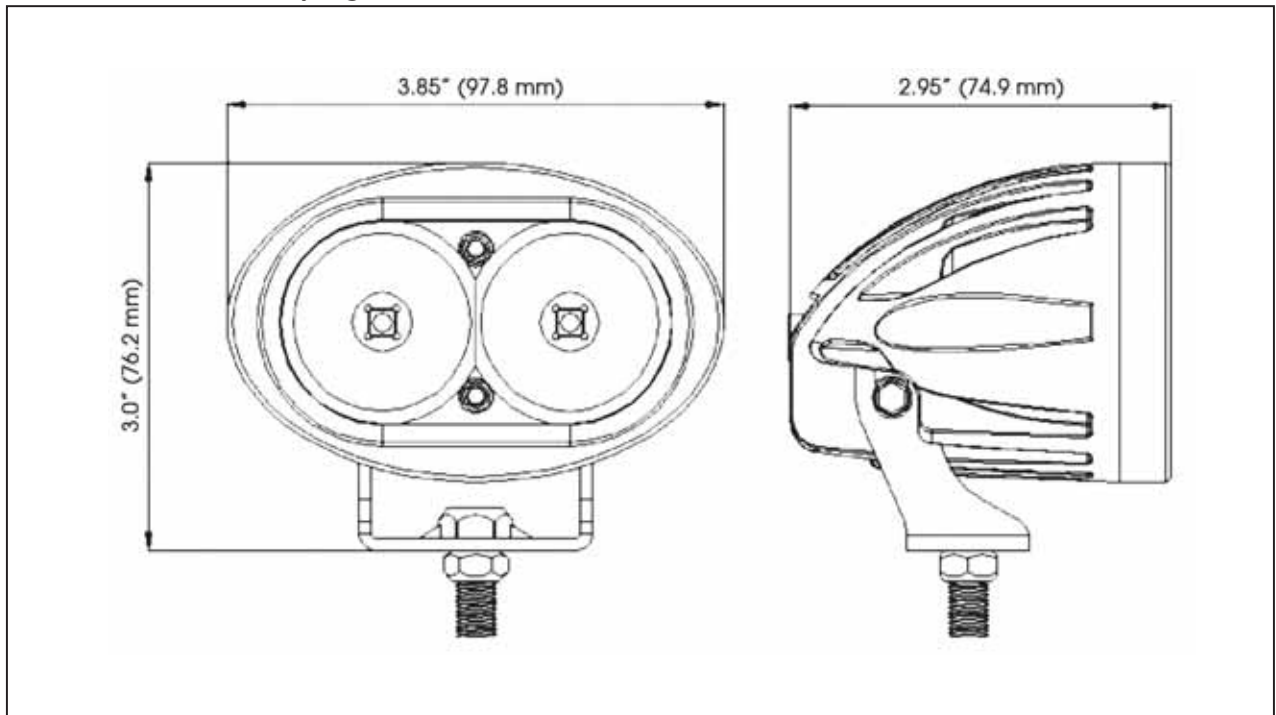
This safety light has a compact design that is approximately 3" deep and 3.8" wide. It also includes a U-bracket to accommodate front, back, or side mounting on a forklift. COMFL1-B-IS features a die-cast aluminum housing with polycarbonate lens and is available as a 10-80 VDC model.

FEATURES

- Ideal for alerting pedestrians and other vehicles that a forklift is approaching
- Die-cast aluminum housing with polycarbonate lens
- Two 5W Blue LEDs
- 10-80 VDC
- Projects an intense, steady blue beam onto floor surface
- Compact design—approximately 3" deep and 3.8" wide
- Comes with a U-bracket—can be mounted to a forklift or other moving vehicle
- Multiple lights can be mounted to the forklift or vehicle to alert to the front, back and/or sides
- IP67 enclosure

MODEL	OPERATING VOLTAGE	OPERATING CURRENT
COMFL1-B-IS	10-80VDC	0.5A @ 12.8VDC

Blue Forklift LED Safety Light (COMFL1-B-IS)



SPECIFICATIONS

Voltage:		10-80 VDC
Current Draw:		0.5 A @ 12.8 VDC
Operating Temperature:	-22°F to 176°F	-30° to 80°C
Net Weight	0.69 lbs	0.31 kg
Shipping Weight	1.0 lbs	0.45 kg
Height:	3.0"	76.2 mm
Width:	3.85"	97.8 mm
Depth:	2.95"	74.9 mm

HOW TO ORDER

Specify Model:
COMFL1-B-IS – Blue Forklift LED Safety Light



► Model VLBL

LED Vehicular Lightbar

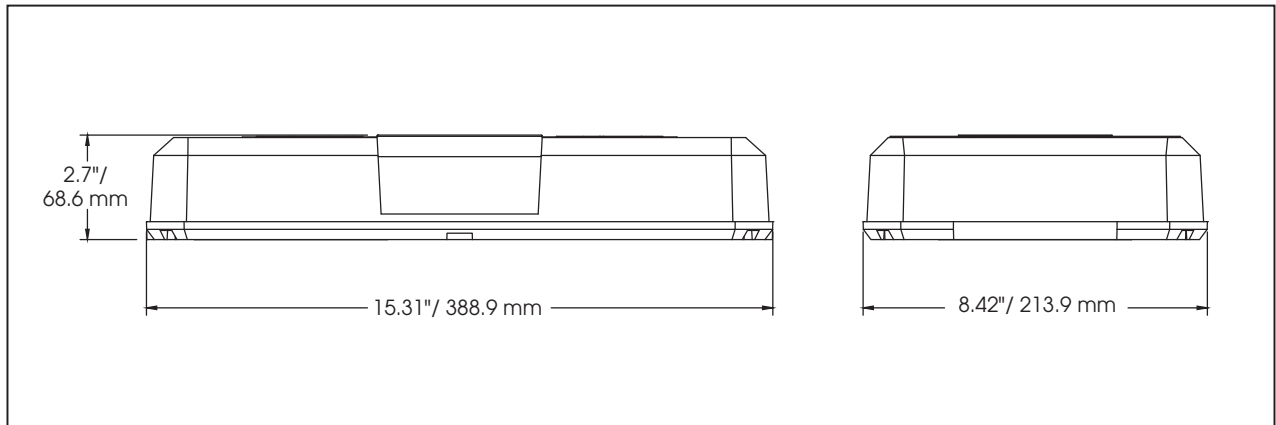
Model VLBL magnetic mount models include a cigarette lighter plug and built-in ON/OFF switch that makes it simple to install and just as simple to operate. Incorporated into the top of the dome is Federal Signal's innovative MagnetSelect™ feature (patent pending) that enables users to quickly, easily select from more than 23 user selectable flash patterns using a simple magnet (magnet not included).

FEATURES

- LED reflectors for 360-degree light distribution
- 23 user selectable flash patterns
- Pattern selection using MagnetSelect™ (magnet not included)
- Meets SAE J845, Class 1 approval

MODEL	OPERATING VOLTAGE	MOUNTING CONFIGURATION
VLBLM-012A	12VDC	Magnetic

LED Vehicular Lightbar (VLBL)



SPECIFICATIONS

Amp Draw:		Max 4A*
Flash Rate:		Various
LED Count:		26
LED Color:		Amber
Lens Color:		Amber
Length:	15.31"	388.9 mm
Width:	8.42"	213.9 mm
Height:	2.7"	68.6 mm
Shipping Weight	4.5 lbs	2.0 kg

*Total amp draw depends on flash pattern used

HOW TO ORDER

Specify Model:

VLBLM-012A – Low-profile lightbar, magnetic



► Model LP1

StreamLine® Low Profile Mini Strobe



Model LP1 low profile strobe light is a rectangular Type 4X strobe light that is available in five colors: Amber, Blue, Clear, Green and Red. The LP1 is designed to be flush mounted to control panels or other flat surfaces. Mounting is accomplished with two supplied 1-1/4" 8/32 slotted hex bolts. A neoprene gasket is supplied to create a water-tight and dust-tight seal. The gasket mounts between the base of the light and the mounting surface.

The LP1 is especially suited for use on control panels, machines, above entry ways, on walls, and along assembly lines. The 12 and 24VDC units are suitable in battery backup systems and vehicular applications such as forklifts and moving guided vehicles.

FEATURES

- Available in 12VDC, 24VDC, 120VAC and 240VAC
- Surface mount
- Five lens colors: Amber, Blue, Clear, Green and Red
- Low profile – Height 2.61" by Width 2.33" by Length 5.05"
- Conformal coated PCB
- Type 4X enclosure
- UL and cUL Listed

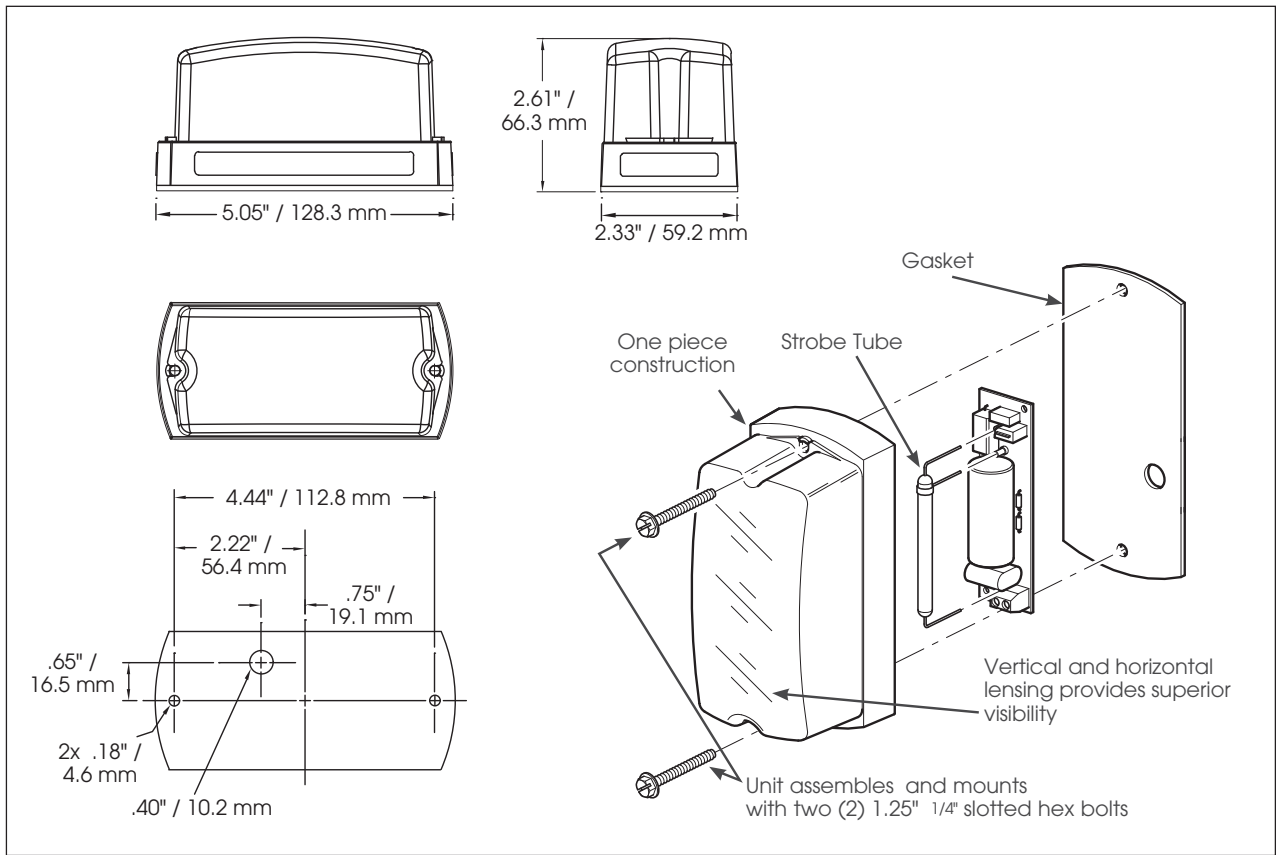
MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT		MOUNT
				PEAK ¹	ECP ²	
LP1-012 *	12VDC	0.18 amps	80	108,000 cd	30 cd	Surface
LP1-024 *	24VDC	0.08 amps	80	108,000 cd	30 cd	Surface
LP1-120 *	120VAC	0.06 amps	80	108,000 cd	30 cd	Surface
LP1-240 *	240VAC	0.03 amps	80	108,000 cd	30 cd	Surface

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

¹ Peak candela is the maximum light intensity generated by a flashing light during its light pulse

² ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

StreamLine® Low-Profile Mini Strobe (LP1)



SPECIFICATIONS

Lamp Life:	4,000 Hours	
Light Source:	Strobe tube	
Operating Temperature:	-31°F to 151°F	-35°C to 66°C
Net Weight:	0.23 lbs	0.1 kg
Shipping Weight:	0.6 lbs	0.27 kg
Height:	2.61"	66.3 mm
Width:	2.33"	59.2 mm
Length:	5.05"	128.3 mm

HOW TO ORDER

LP1	-	012	A
TYPE LP1		VOLTAGE 012 (12VDC) 024 (24VDC) 120 (120VAC) 240 (240VAC)	COLOR A Amber B Blue C Clear G Green R Red

REPLACEMENT PARTS

Description	Part Number
Replacement Strobe Tube	K149128A
Housing and Lens Assembly, Amber	K8435711A-02
Housing and Lens Assembly, Blue	K8435711A-03
Housing and Lens Assembly, Clear	K8435711A
Housing and Lens Assembly, Green	K8435711A-04
Housing and Lens Assembly, Red	K8435711A-01



► Models LP3E, LP3M, LP3P, LP3S and LP3T

StreamLine® Low Profile Strobe Light



Model LP3 is offered in five mounting configurations. The LP3S features a three-hole surface mount — ideal for control panels and other flat or flush surfaces. The LP3E features a standard A-19 medium Edison screw-in base. The LP3M features a 1/2" NPT male pipe mount and 18" wire leads. LP3P features an integrated 1/2-inch NPT pipe mount. The "T-mount" LP3T has a popular 2-hole design for wall or flush mounting.

Models LP3M, LP3S and LP3T include a surface gasket to complete the Type 4X installation. An optional dome guard is available for use with the LP3M, LP3S and LP3T when installed flush with a panel. All LP3 units feature a threaded screw-on lens to allow for tool free wiring and strobe tube replacement.

Like all StreamLine® products, the LP3 is designed with OEM applications in mind.

FEATURES

- Available in 12-48VDC, 120VAC and 240VAC; LP3E only available in 120VAC
- Edison mount (E), 1/2" NPT male pipe mount (M), Surface mount (S), T-mount (T), integrated 1/2-inch NPT pipe mount (P)
- Five lens colors: Amber, Blue, Clear, Green and Red
- Screw-on lens provides easy access
- Conformal coated PCB
- Models LP3M, LP3P and LP3S are Type 4X, IP66 enclosure
- IP69K compliant
- Models LP3E and LP3T are Type 4X, IP66 only
- PLC and triac compatible
- CSA Certified
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT PEAK ¹	ECP ²
LP3*-012-048**	12-48VDC	0.44-0.10 amps	80 (+/-15)	175,000 cd	51.5 cd
LP3*-120**	120VAC	0.10 amps	80 (+/-15)	175,000 cd	51.5 cd
LP3*-240**	240VAC	0.07 amps	80 (+/-15)	175,000 cd	51.5 cd

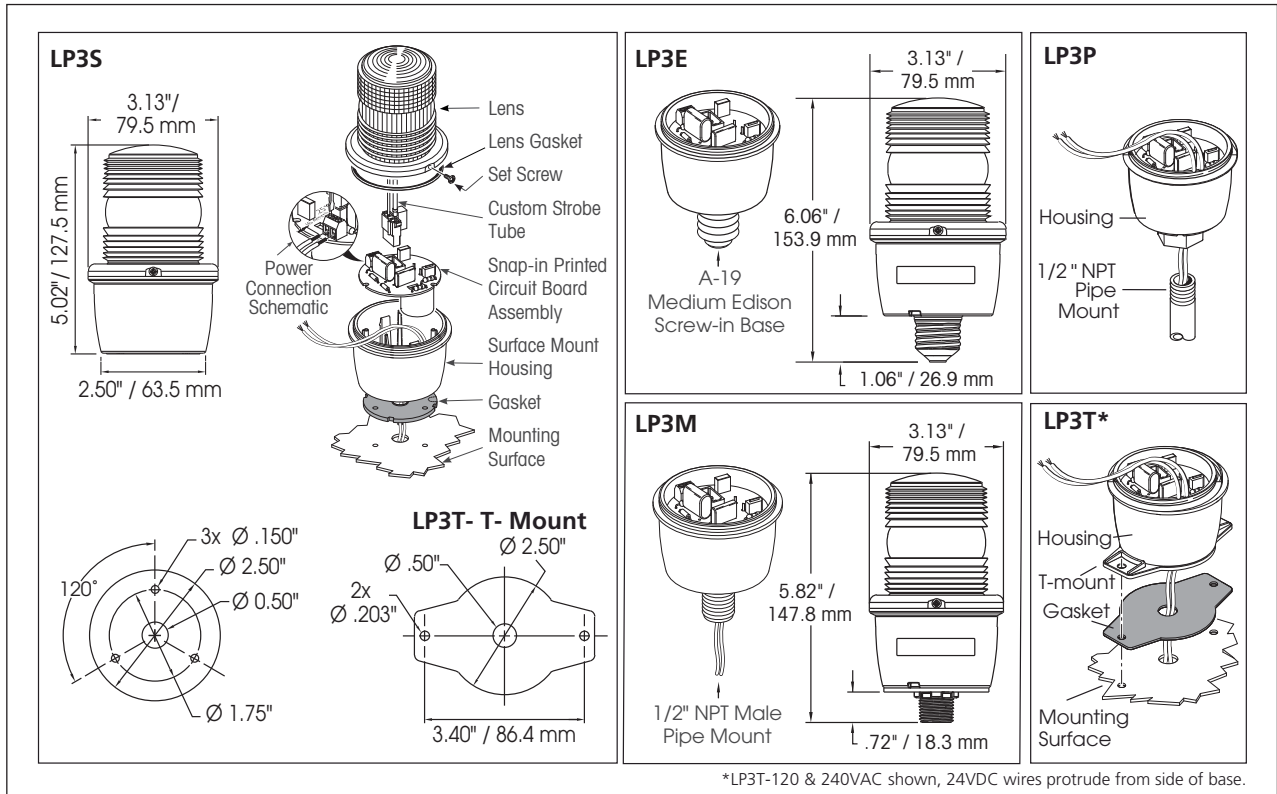
* Indicates Mounting Style: (E) Edison A-19 Screw-in Base, (M) Male Pipe Mount, (P) Pipe Mount, (S) Surface Mount, (T) T-Mount

** Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

¹ Peak candela is the maximum light intensity generated by a flashing light during its light pulse

² ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

StreamLine® Low Profile Strobe Lights (LP3E, LP3M, LP3P, LP3S and LP3T)



*LP3T-120 & 240VAC shown, 24VDC wires protrude from side of base.

SPECIFICATIONS

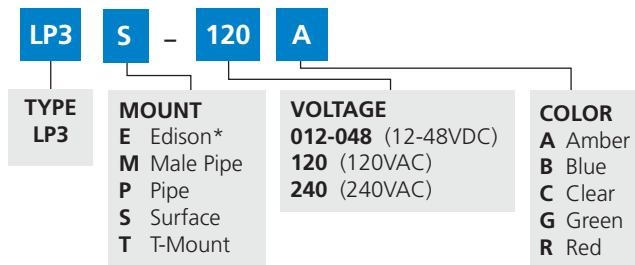
Lamp Life:	4,000 Hours	
Light Source:	Strobe tube	
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	7.3 oz	0.21 kg
Shipping Weight:	8.5 oz	0.24 kg
Diameter:	3.13"	79.5 mm
Height:		
LP3E	6.06"	153.9 mm
LP3M	5.82"	147.8 mm
LP3P	5.82"	147.8 mm
LP3S	5.02"	127.5 mm
LP3T	5.02"	127.5 mm

REPLACEMENT PARTS

Description	Part Number
Lens, Amber	K8589063A
Lens, Blue	K8589063A-01
Lens, Clear	K8589063A-02
Lens, Green	K8589063A-03
Lens, Red	K8589063A-04
Flash Tube Assembly	K149130A
Gasket Kit ¹	K858900353A

¹ Includes gasket for LP3S and LP3T

HOW TO ORDER



*LP3E only available in 120VAC

OPTIONAL ACCESSORIES

Description	Part Number
Wire Dome Guard for LP3M, LP3S and LP3T	LP3G





► Model VALS

Visalert® Strobe Light



Federal Signal's Visalert® is a three dimensional, triangular warning light designed to be mated with Federal Signal's Model 350 Vibratone® horn and Model 50GC SelecTone® amplified speaker. The Visalert can also be used as a stand alone device. Knockouts on the 50GC and 350 audible devices (sold separately) ensure easy installation. The units can be either independently or simultaneously wired with the audible device. The Visalert uses a linear strobe tube and all the circuitry is contained within the lens.

Visalert units are recommended for use in industrial applications and situations where effective visual warning is needed.

Federal Signal's Visalert strobe light is a low-maintenance strobe light in a compact size that is perfect for control panel applications.

FEATURES

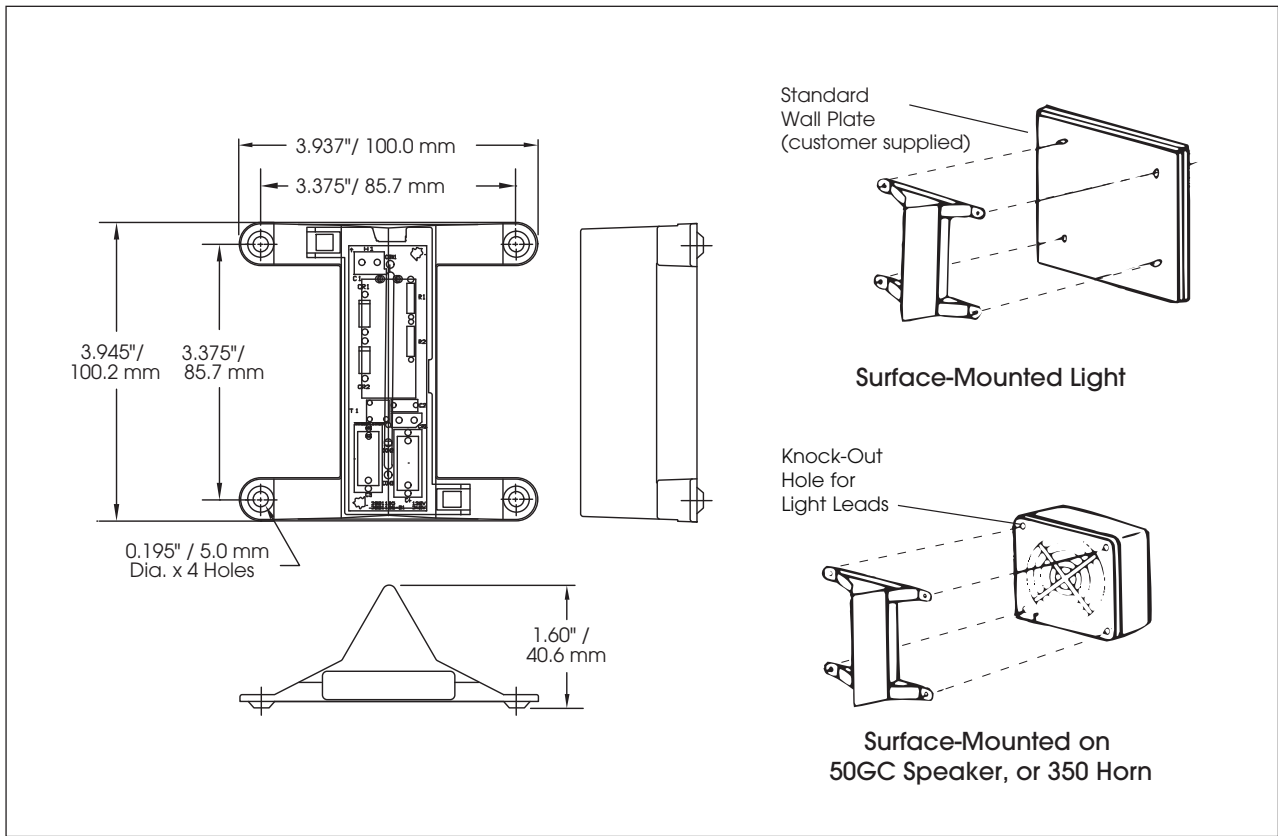
- Available in 24VDC, 120VAC and 240VAC
- Five lens colors: Amber, Blue, Clear, Green and Red
- 4,000 hour strobe tube
- Easy surface mount installation onto Federal Signal's 350 Vibratone® horn and Model 50GC SelecTone® amplified speaker (sold separately)
- Indoor/outdoor use
- Conformal coated PCB
- Type 3R enclosure
- CSA Certified
- UL Listed

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT PEAK ¹	MOUNT
VALS-024 *	24VDC	0.08 amps	80	108,000 cd	Surface
VALS-120 *	120VAC 50/60HZ	0.06 amps	80	108,000 cd	Surface
VALS-240 *	240VAC 50/60HZ	0.03 amps	80	108,000 cd	Surface

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

¹ Peak candela is the maximum light intensity generated by a flashing light during its light pulse

Visalert® Strobe Light (VALS)



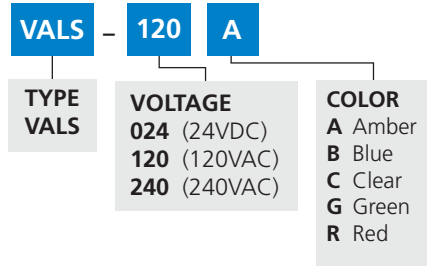
SPECIFICATIONS

Lamp Life:	4,000 Hours	
Light Source:	Strobe tube	
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	0.10 lbs	0.045 kg
Shipping Weight:	0.25 lbs	0.113 kg
Height:	3.945"	100.2 mm
Width:	3.937"	100.0 mm
Depth:	1.60"	40.6 mm

REPLACEMENT PARTS

Description	Part Number
Strobe Tube	K149128A

HOW TO ORDER



RELATED PRODUCTS

Description	Model Number
SelecTone® Amplified Speaker	50GC
Vibratone® Horns	350

For additional product information, reference page 222 for Model 50GC and page 164 for Model 350.



▶ Model LP6

StreamLine® Low Profile Mini Strobe

Model LP6 is a very compact, high power strobe light designed for applications where space is critical. At 3-5/8" high, this strobe light is ideal for forklift applications where head room is important. The LP6 also mounts easily to small control panels.

The LP6 features a two joule power supply that works in multiple voltages from 12-48VDC to 120VAC. Modular construction incorporates a powerful flash tube and vibration resistant circuit board.

The LP6 housing utilizes a unique screw-on lens for easy relamping and service. This economical light does not sacrifice power for price or size.

FEATURES

- Available in 12-48VDC and 120VAC
- Screw-on lens available in five colors: Amber, Blue, Clear, Green and Red
- Surface mount
- Conformal coated PCB
- Type 4X enclosure
- CSA Certified
- UL and cUL Listed

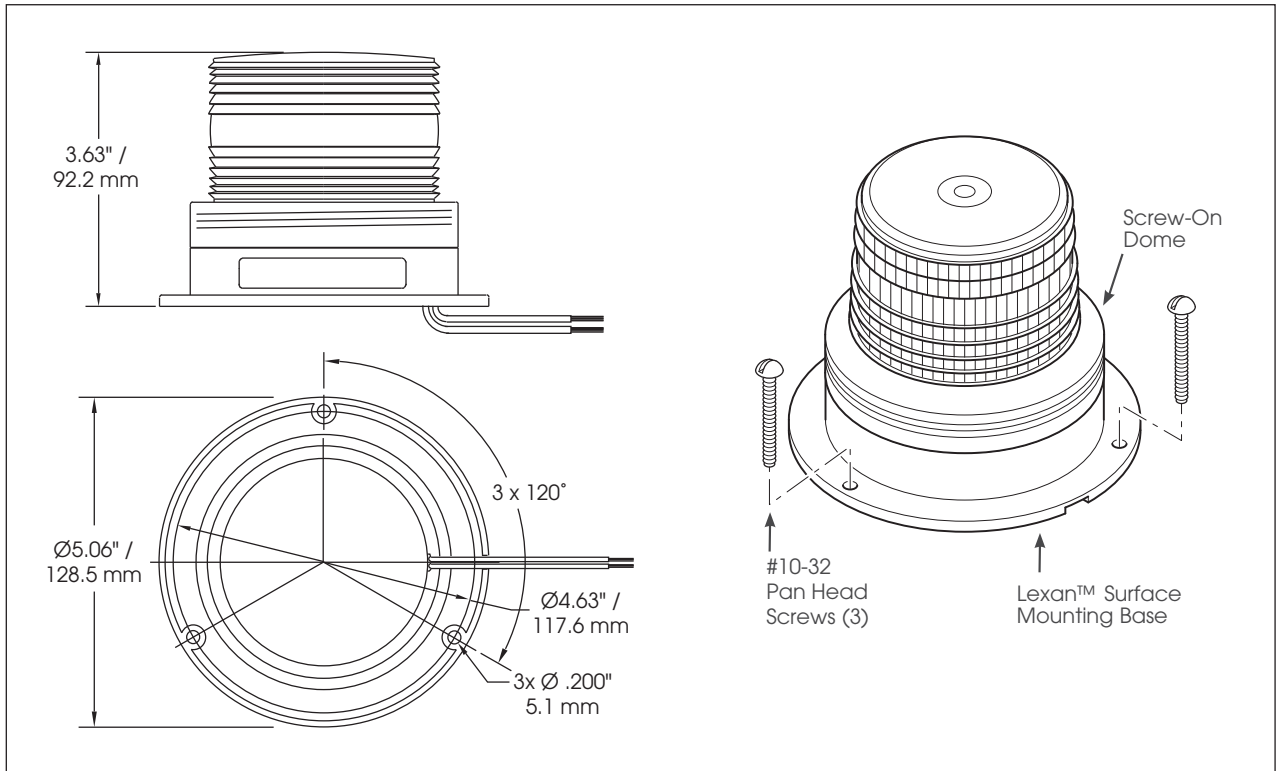
MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE / MINUTE	LIGHT OUTPUT	
				PEAK ¹	ECP ²
LP6-012-048 *	12-48VDC	0.44-0.10 amps	65-95	175,000 cd	51.5 cd
LP6-120 *	120VAC	0.10 amps	65-95	175,000 cd	51.5 cd

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

¹ Peak candela is the maximum light intensity generated by a flashing light during its light pulse

² ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

StreamLine® Low Profile Mini Strobe (LP6)



SPECIFICATIONS

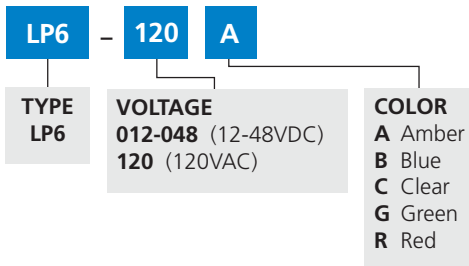
Lamp Life:	7,000 Hours	
Light Source:	Strobe tube	
Operating Temperature:	-31°F to 150°F	-35°C to 65°C
Net Weight:	0.65 lbs	0.29 kg
Shipping Weight:	0.85 lbs	0.39 kg
Height:	3.63"	92.2 mm
Diameter:	5.06"	128.5 mm

REPLACEMENT PARTS

Description	Part Number
Lens Kit, Amber ¹	K8589037A
Lens Kit, Blue ¹	K8589037A-01
Lens Kit, Clear ¹	K8589037A-02
Lens Kit, Green ¹	K8589037A-03
Lens Kit, Red ¹	K8589037A-04
Strobe Tube	K149130A

¹ Kit Includes the lens and a gasket

HOW TO ORDER





► Model 141ST

Electraflash® Strobe Light

Federal Signal's Electraflash® 141ST is a strobe light designed for a variety of industrial uses. This compact warning light is less than six inches tall and six inches in diameter.

Model 141ST includes a removable strobe mechanism. The 12VDC and 24VDC units have three holes for flat surface mounting. The 120VAC and 240VAC versions come ready to mount on a 1/2-inch NPT pipe. Optional wall mounting brackets (Model LWMB2) or corner mounting brackets (Model LCMB2) are available for the 120VAC and 240VAC units.

Federal Signal's Electraflash strobe lights are designed for both indoor and outdoor industrial environments. The unit's convenient size and intense light output make it ideal for use on maintenance vehicles, fork lifts, and other material handling equipment, effectively alerting hazardous conditions or dangerous areas.

FEATURES

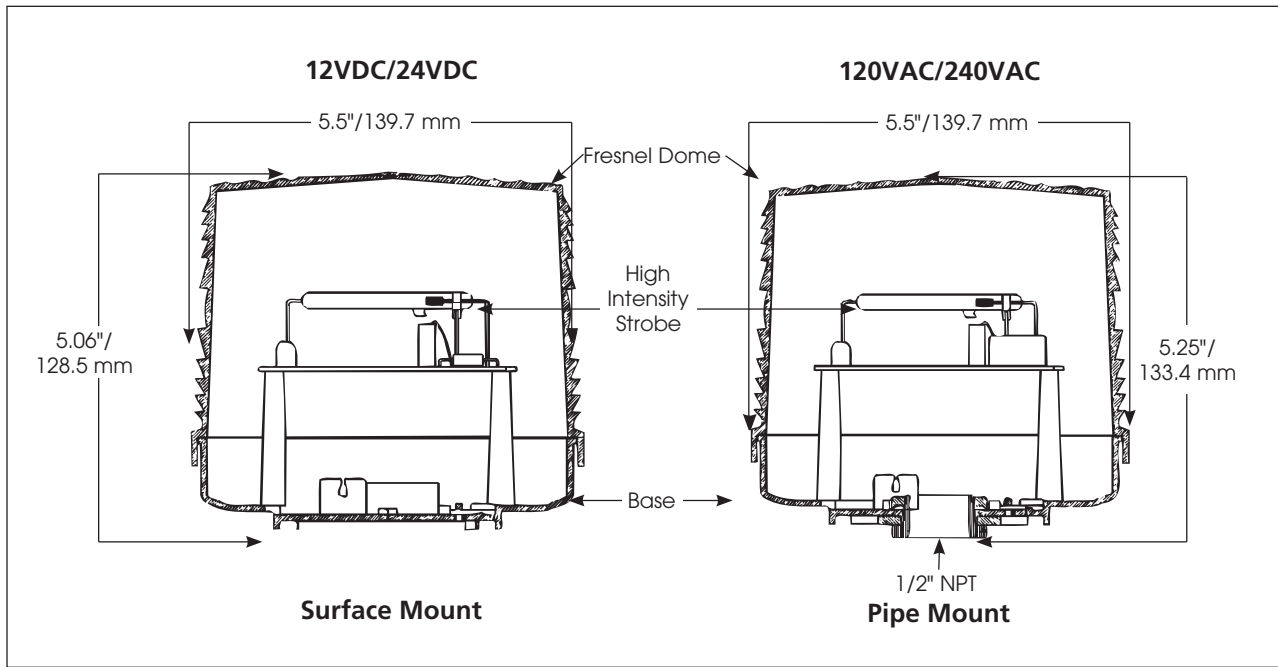
- Available in 12VDC, 24VDC, 120VAC and 240VAC
- Five lens colors: Amber, Blue, Clear, Green and Red
- 4,000 hour strobe tube
- Surface mount or integrated 1/2-inch NPT pipe mount models
- Indoor/outdoor use
- Conformal coated PCB
- Type 3R enclosure
- CSA Certified
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT PEAK ¹	MOUNT
141ST-012 *	12VDC	0.18 amps	80	100,000 cd	Surface
141ST-024 *	24VDC	0.08 amps	80	100,000 cd	Surface
141ST-120 *	120VAC 50/60HZ	0.06 amps	80	100,000 cd	1/2" NPT Pipe
141ST-240 *	240VAC 50/60HZ	0.03 amps	80	100,000 cd	1/2" NPT Pipe

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

¹ Peak candela is the maximum light intensity generated by a flashing light during its light pulse

Electraflash® Strobe Light (141ST)



SPECIFICATIONS

Lamp Life:		4,000 Hours
Light Source:		Strobe tube
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:		
DC Models	0.8 lbs	0.36 kg
AC Models	0.9 lbs	0.41 kg
Shipping Weight:		
DC Models	1.3 lbs	0.5 kg
AC Models	1.4 lbs	0.5 kg
Height:		
DC Models	5.06"	128.5 mm
AC Models	5.25"	133.4 mm
Diameter:		
DC Models	5.5"	139.7 mm
AC Models	5.5"	139.7 mm

REPLACEMENT PARTS

Description	Part Number
Lens, Amber	K8263079A
Lens, Blue	K8263079A-01
Lens, Clear	K8263079A-04
Lens, Green	K8263079A-03
Lens, Red	K8263079A-02
Strobe Tube	K149128A

OPTIONAL ACCESSORIES

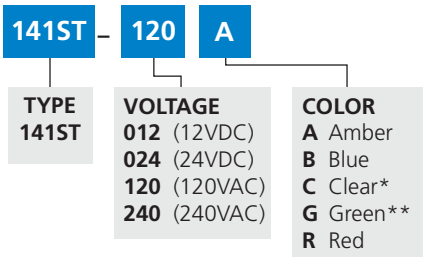
(120VAC/240VAC pipe mount models only)

Description	Part Number
Corner Bracket	LCMB2*
Wall Bracket	LWMB2*

* Type 3R rated

Mounting Brackets shown on pages 136-137

HOW TO ORDER



* Clear option only available in 240VAC
 ** Green option not available in 12VDC



► Models FB2PST and FB2PST-I

Fireball® Strobe Lights



Federal Signal's Fireball® strobe light is a solution to a wide variety of stationary and vehicular warning requirements.

The 24VDC Model FB2PST-I features a voltage in-rush limiting PCB design that provides greater compatibility with factory automation control systems and less electrical interference with in-rush sensitive devices.

The Fireball features a lens that twists off for quick lens and lamp replacements. The base features an integrated 1/2-inch NPT pipe mount base as well as the three holes required for surface mount configurations. The Fireball lens and base design provides a water-tight, dust-tight and corrosion resistant Type 4X rating.

The Fireball is especially effective in industrial hazard warning, process control, status indication and in areas with high ambient noise levels. It is ideal for industrial applications where a vibration-resistant light is required.

FEATURES

- Available in 12-24VDC, 24VDC, 120VAC and 240VAC
- Six lens colors: Amber, Blue, Clear, Green, Magenta and Red
- 10,000 hour strobe tube
- Integrated 1/2-inch NPT pipe and surface mount
- Indoor/outdoor use
- Conformal coated PCB
- Type 4X, IP66 enclosure
- IP69K compliant
- CSA Certified
- UL and cUL Listed

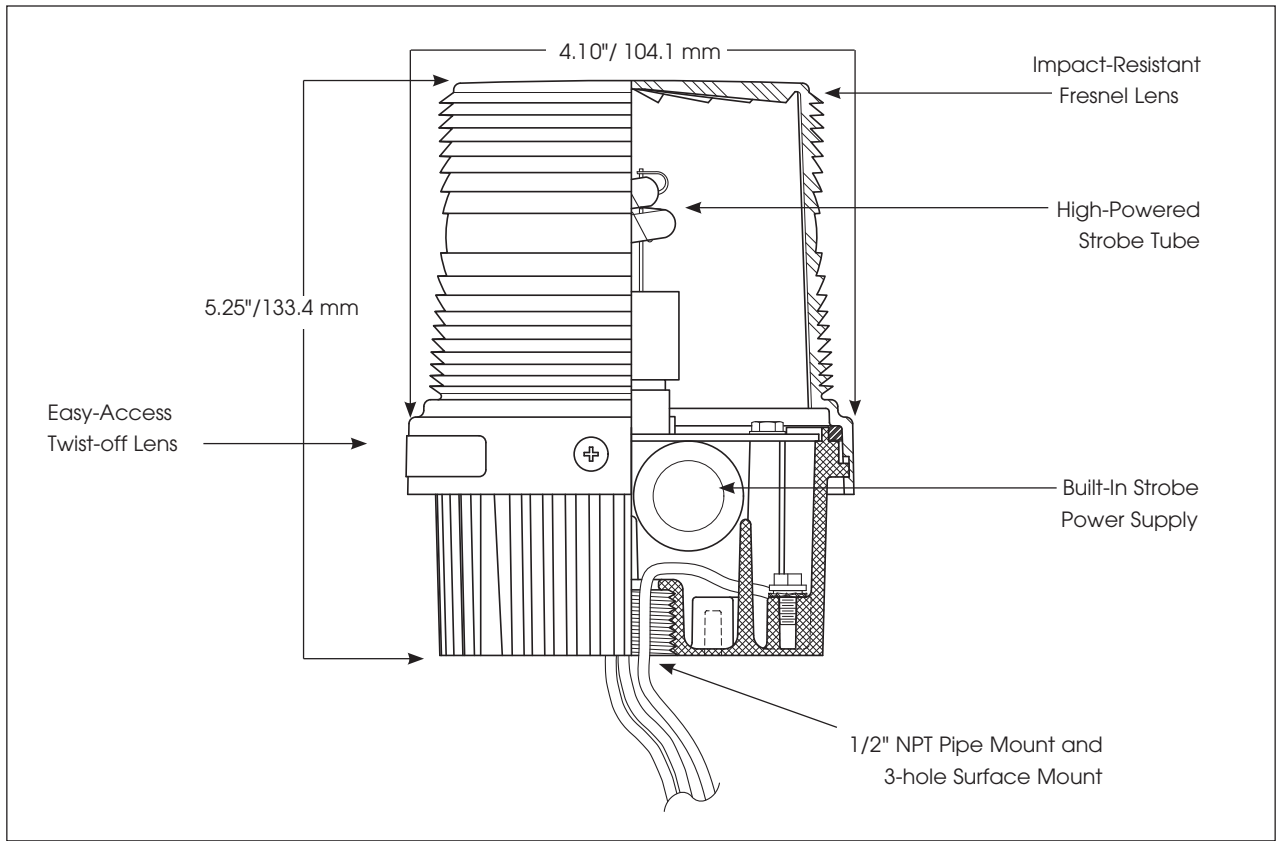
MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT		MOUNT
				PEAK ¹	ECP ²	
FB2PST-012-024 *	12-24VDC	1.70-0.70 amps	80	1,000,000 cd	300 cd	1/2" NPT Pipe/Surface
FB2PST-I-024 *	24VDC	0.70 amps (2.0 amp In-rush)	80	1,000,000 cd	300 cd	1/2" NPT Pipe/Surface
FB2PST-120 *	120VAC 50/60Hz	0.25 amps	80	1,000,000 cd	300 cd	1/2" NPT Pipe/Surface
FB2PST- 240 *	240VAC 50/60Hz	0.20 amps	80	1,000,000 cd	300 cd	1/2" NPT Pipe/Surface

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green, (M) Magenta or (R) Red

¹ Peak candela is the maximum light intensity generated by a flashing light during its light pulse

² ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

Fireball® Strobe Lights (FB2PST and FB2PST-I)



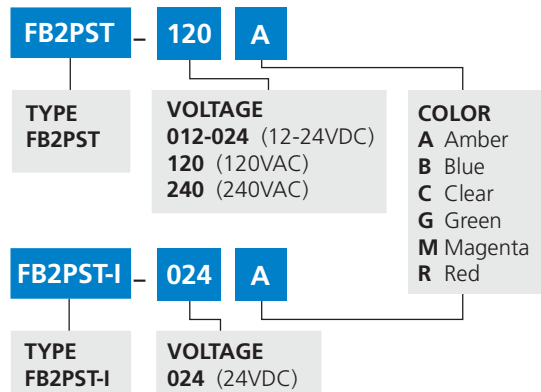
SPECIFICATIONS

Lamp Life:	10,000 Hours	
Light Source:	Strobe tube	
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	2.0 lbs	0.91 kg
Shipping Weight:	2.12 lbs	0.96 kg
Height:	5.25"	133.4 mm
Diameter:	4.10"	104.1 mm

REPLACEMENT PARTS

Description	Part Number
Lens, Amber	K8550320A
Lens, Blue	K8550320A-01
Lens, Clear	K8550320A-02
Lens, Green	K8550320A-03
Lens, Magenta	K8550320A-05
Lens, Red	K8550320A-04
PCB Assembly, 120VAC	K200D866G
PCB Assembly, 240VAC	K200D866G-01
Strobe Tube, Series A4, A5, B	K8107177A

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
Corner Bracket	LCMB2*
Wall Bracket	LWMB2*

* Type 3R rated
Mounting Brackets shown on pages 136-137



► Models 225XST and 225XST-I

Electraray® Hazardous Location Strobe Lights



Model 225XST is a hazardous location light with a black e-coated coated base and the inner fresnel lens is available in six colors. The clear polycarbonate outer dome can be quickly removed for easy access to inspect the unit or change the lamp.

The 24VDC 225XST-I features a voltage in-rush limiting PCB design that provides greater compatibility with factory automation control systems and less electrical interference with in-rush sensitive devices.

Model 225XST is ideal for wet, corrosive atmospheres like those found in food processing industries, or anywhere a visual signal is needed.

FEATURES

- 12-24VDC, 24VDC, 120VAC and 230-240VAC
- Six lens colors: Amber, Blue, Clear, Green, Magenta and Red
- 10,000 hour, high-intensity strobe tube
- 1/2-inch NPT pipe mount
- Indoor/outdoor use
- Type 4X, IP66 enclosure (Dome up orientation)
- IP69K compliant
- CSA Certified
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT		MOUNT
				PEAK ¹	ECP ²	
225XST-012-024 *	12-24VDC	1.70-0.70 amps	80	580,000 cd	240 cd	1/2" NPT Pipe
225XST-I-024 *	24VDC	0.70 amps (2.0 amp In-rush)	80	580,000 cd	240 cd	1/2" NPT Pipe
225XST-120 *	120VAC	0.25 amps	80	580,000 cd	240 cd	1/2" NPT Pipe
225XST-240 *	230-240VAC	0.20 amps	80	580,000 cd	240 cd	1/2" NPT Pipe

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green (M) Magenta or (R) Red

¹ Peak candela is the maximum light intensity generated by a flashing light during its light pulse

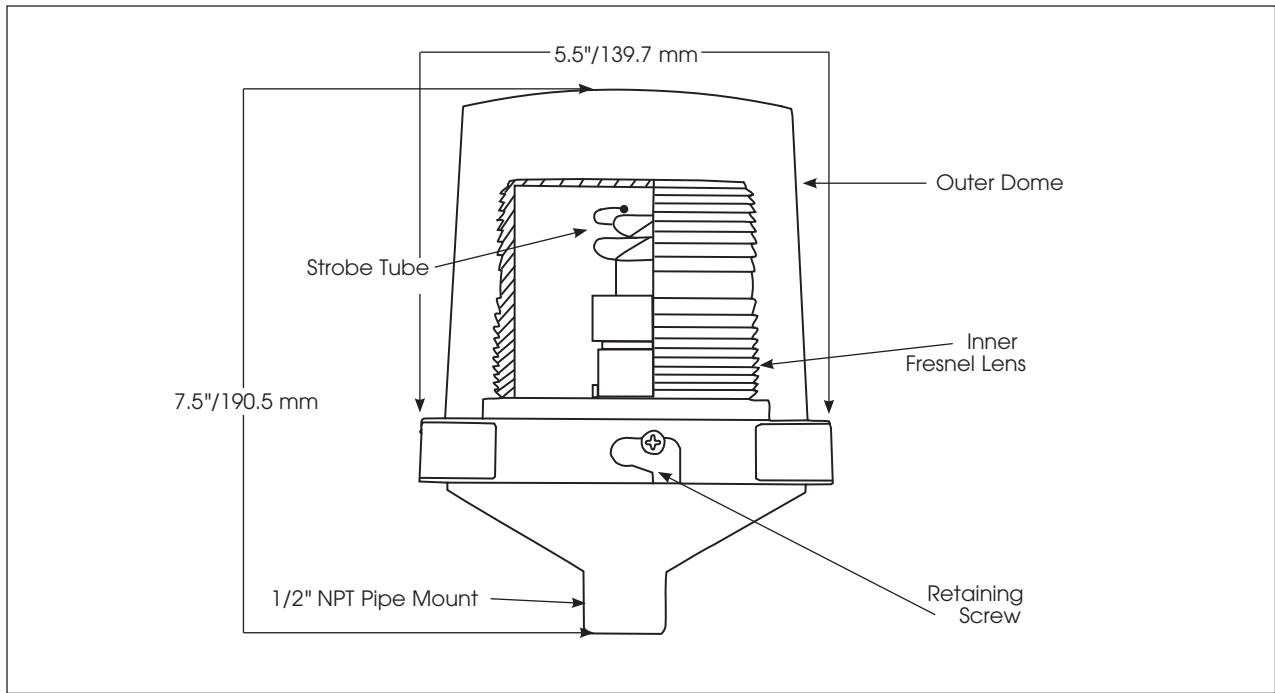
² ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

HAZARDOUS LOCATION RATING: 225XST and 225XST-I

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, 40°C

Hazardous Location	UL	CSA
Class I, Division 2, Groups A, B, C, D	T2A	T3A
Class II, Division 2, Groups F, G	T5	T6
Class III	T5	T6

Electraray® Hazardous Location Strobe Lights (225XST and 225XST-I)



SPECIFICATIONS

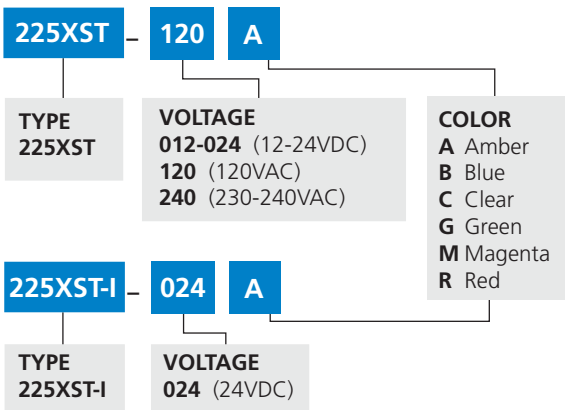
Lamp Life:	10,000 Hours	
Light Source:	Strobe tube	
Operating Temperature:	-40°F to 104°F	-40°C to 40°C
Net Weight:	1.5 lbs	0.68 kg
Shipping Weight:	2.0 lbs	0.91 kg
Height:	7.5"	190.5 mm
Diameter:	5.5"	139.7 mm

REPLACEMENT PARTS

Description	Part Number
Interior Lens, Amber	K8550C095A-02
Interior Lens, Blue	K8550C095A-01
Interior Lens, Clear	K8550C095A
Interior Lens, Green	K8550C095A-04
Interior Lens, Magenta	K8550C095A-07
Interior Lens, Red	K8550C095A-03
Exterior Dome, Clear*	K8444D219C-04
PCB Assembly, 120VAC	K2001905A
PCB Assembly, 240VAC	K2001905A-01
Strobe Tube	K8107177A

*Includes 1 dome gasket

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
Hazardous Location Mounting Bracket	LHWB

Mounting Brackets shown on pages 138-139



► Model 151XST

Hazardous Location Strobe Light



Model 151XST hazardous location strobe light provides 80 high-intensity flashes per minute. This hazardous location warning light has an aluminum base, coated for corrosion resistance, that can be ordered for mounting on a 3/4-inch NPT pipe or a surface. The dome guard (included) fits over the glass lens to protect it against accidental collision with moving equipment, such as forklifts.

Federal Signal's rugged 151XST strobe light is specifically designed for hazardous locations or corrosive environments where a very bright visual signal is required. This warning light can be used for plant evacuation or other communication needs.

FEATURES

- Available in 12-24VDC, 120VAC and 230-240VAC
- Five lens colors: Amber, Blue, Clear, Green and Red
- 10,000-hour high-intensity strobe
- Available in 3/4-inch NPT pipe mount or surface mount
- Dome guard included
- Indoor/outdoor use
- Conformal coated PCB
- Type 4X, IP66 enclosure
- IP69K compliant
- Marine rated
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 1, Groups E, F, and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT PEAK ¹	ECP ²
151XST-*012-024**	12-24VDC	1.3-0.60 amps	80	520,000 cd	165 cd
151XST-*120**	120VAC 50/60Hz	0.35 amps	80	520,000 cd	165 cd
151XST-*240**	230-240VAC 50/60Hz	0.18 amps	80	520,000 cd	165 cd

* Include (S) for Surface Mount Option (Example part number: 151XST-S120R for surface mount option, 151XST-120R for pipe mount)

** Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

¹ Peak candela is the maximum light intensity generated by a flashing light during its light pulse

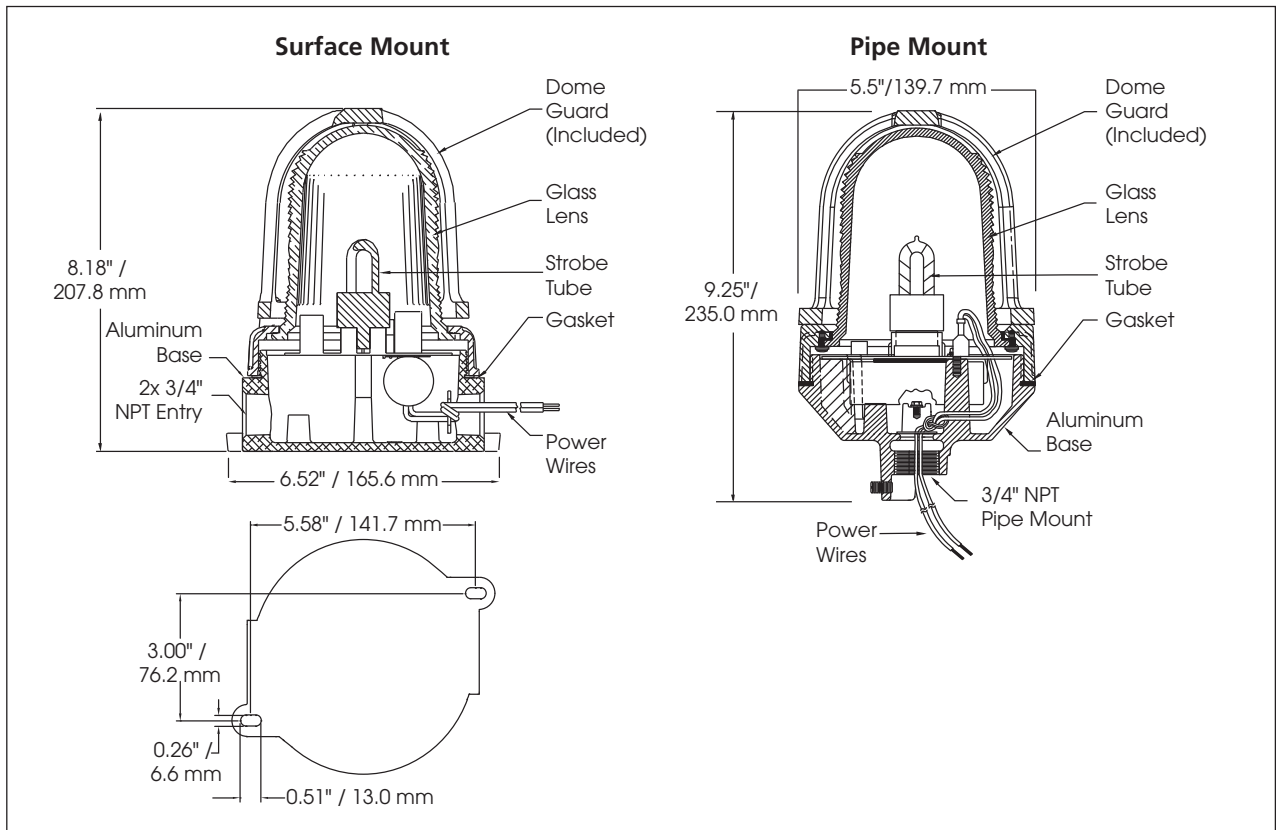
² ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

HAZARDOUS LOCATION RATING: 151XST

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C	66°C
Class I, Division 2, Groups A, B, C, D	T2	T1
Class II, Division 1, Groups E, F, G	T5	T5
Class III	T5	T5

Hazardous Location Strobe Light (151XST)



SPECIFICATIONS

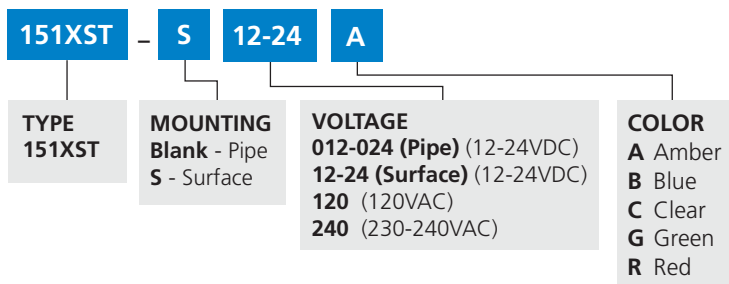
Lamp Life:	10,000 Hours	
Light Source:	Strobe tube	
Operating Temperature:	-67°F to 150°F	-55°C to 66°C
Net Weight:	3.8 lbs	1.7 kg
Shipping Weight:	4.5 lbs	2.0 kg
Pipe Mount		
Height:	9.25"	235.0 mm
Diameter:	5.5"	139.7 mm
Surface Mount		
Height:	8.18"	207.8 mm
Diameter:	6.52"	165.6 mm

REPLACEMENT PARTS

Description	Part Number
Series C Dome and Ring Assembly	
Lens & Ring Assembly, Amber ¹	K8449078C-01
Lens & Ring Assembly, Blue ¹	K8449078C-06
Lens & Ring Assembly, Clear ¹	K8449078C-04
Lens & Ring Assembly, Green ¹	K8449078C-07
Lens & Ring Assembly, Red ¹	K8449078C
PCB Assembly, 12-24VDC	K2001173C
PCB Assembly, 120VAC	K2001071B
PCB Assembly, 240VAC	K2001071B-01
Strobe Tube	K149122B
Dome Guard	K8449090B

¹ Includes dome gasket

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
Hazardous Location Mounting Bracket	LHWB
Mounting Brackets shown on pages 138-139	



► Models 131ST and 131DST

Starfire® Strobe Lights



Federal Signal's Starfire® strobe warning lights are available in single-flash (131ST) and double-flash (131DST) models.

The base of the light is made of corrosion resistant anodized aluminum. Each Starfire model comes with a standard 1/2-inch NPT pipe mount. An optional surface mount kit can be ordered.

Because of its convenient size and intense light output, the Starfire strobes can be used for multiple applications. Excellent for in-plant use, Models 131ST and 131DST warn of hazardous conditions, mark dangerous areas (either permanently or temporarily) and mount on lift trucks, cranes and other moving devices.

FEATURES

- Available in 12-24VDC, 120VAC and 240VAC
- Five lens colors: Amber, Blue, Clear, Green and Red
- 10,000 hour strobe tube
- Single or double flash strobe options
- 1/2-inch NPT pipe mount
- Indoor/outdoor use
- Conformal coated PCB
- Type 3 enclosure (dome up orientation)
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT		MOUNT ⁴
				PEAK ¹	ECP ²	
131ST-012-024 *	12-24VDC	2.75-1.25 amps	80	2,000,000 cd	1,000 cd	1/2" NPT Pipe
131ST-120 *	120VAC 50/60Hz	0.60 amps	80	2,000,000 cd	1,000 cd	1/2" NPT Pipe
131ST-240 *	240VAC	0.30 amps	80	2,000,000 cd	1,000 cd	1/2" NPT Pipe
131DST-012-024 *	12-24VDC	3.0-1.9 amps	80 ³	1,000,000 cd	1,200 cd	1/2" NPT Pipe
131DST-120 *	120VAC	0.60 amps	80 ³	1,000,000 cd	1,200 cd	1/2" NPT Pipe
131DST-240 *	240VAC	0.30 amps	80 ³	1,000,000 cd	1,200 cd	1/2" NPT Pipe

*Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

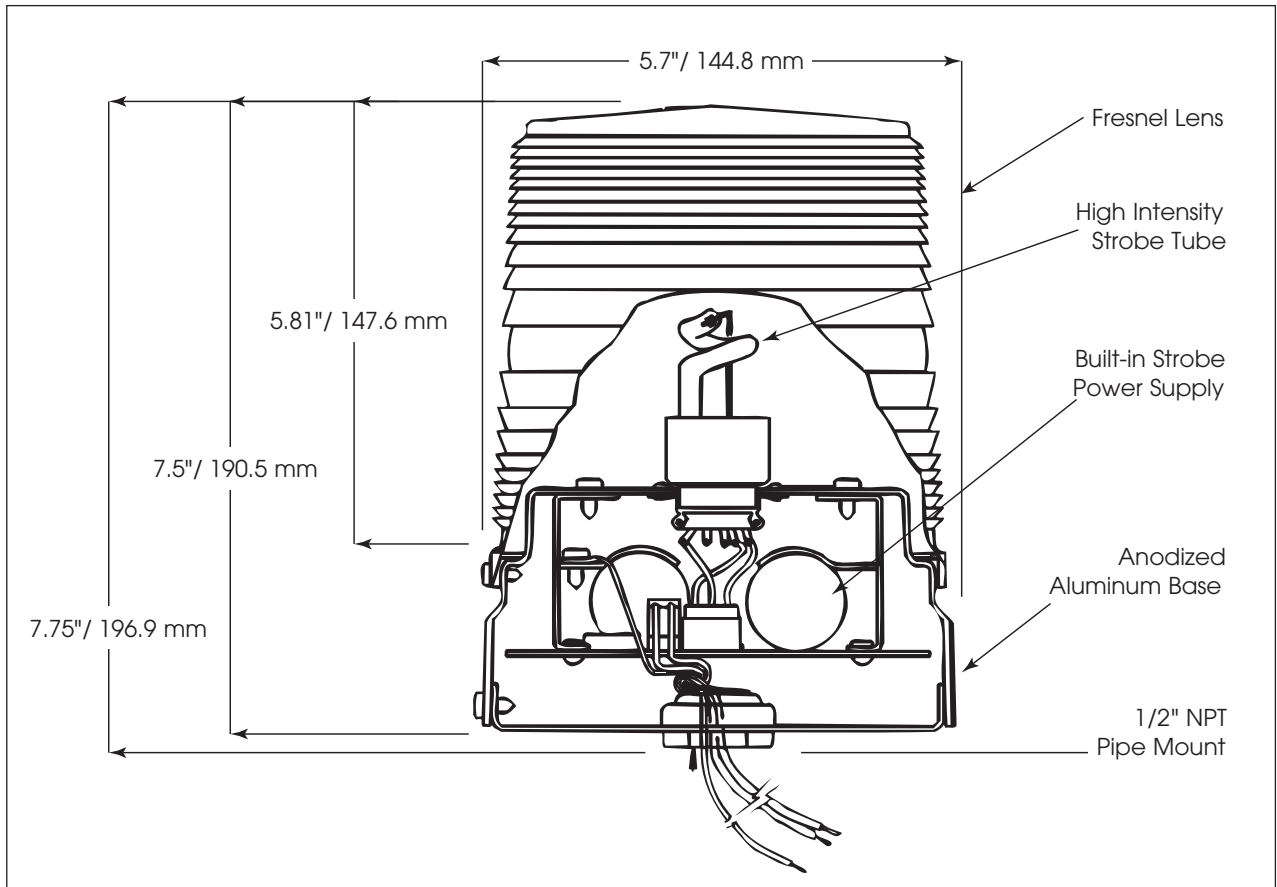
¹ Peak candela is the maximum light intensity generated by a flashing light during its light pulse

² ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

³ Double Flash

⁴ Surface mount kits available

Starfire® Strobe Lights (131ST and 131DST)



SPECIFICATIONS

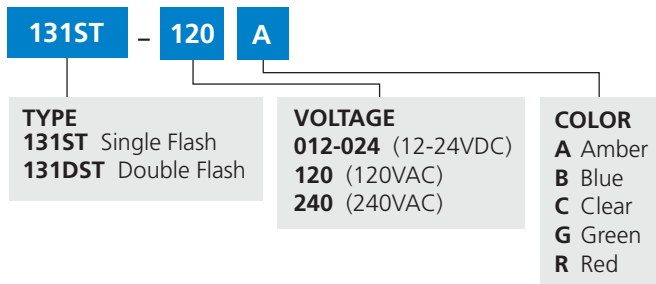
Lamp Life:	10,000 Hours	
Light Source:	Strobe tube	
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	2.0 lbs	0.91 kg
Shipping Weight:	3.4 lbs	1.54 kg
Height:	7.75"	196.9 mm
Width:	5.7"	144.8 mm

REPLACEMENT PARTS

Description	Part Number
Lens, Amber ¹	K8422B428A-01
Lens, Blue ¹	K8422B428A-02
Lens, Clear ¹	K8422B428A
Lens, Green ¹	K8422B428A-03
Lens, Red ¹	K8422B428A-04
Strobe Tube	K8107178A
Surface Mount Kit	K8444A211B

¹ Includes dome gasket

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
Corner Bracket	LCMB2*
Wall Bracket	LWMB2*
Surface Mount	K8444A211B

* Type 3R rated

Mounting Brackets shown on pages 138-139



► Model 371DST

Commander® Hazardous Location Double Strobe Light



Model 371DST is a double-flash strobe housed in a Type 4X enclosure. At 80 flashes per minute and 1,000 effective candela, the Commander® is the largest strobe signal in the Federal Signal product line.

The dome and ring assembly simply screws on, allowing for quick access to the strobe tube and printed circuit board. The base of the Commander features electrostatically applied black epoxy paint for greater corrosion resistance. The 371DST can be surface or 1" NPT pipe mounted. It is wired through the pipe mount opening on the bottom of the light or through side knockouts.

Optional wall and corner mount brackets are available. The LWMB2 wall mount bracket and the LCMB2 corner mount bracket can be used for all non-hazardous environments (shown on pages 138-139).

FEATURES

- Available in 12-24VDC, 120VAC and 240VAC
- Five dome colors: Amber, Blue, Clear, Green and Red
- Surface mount and integrated 1-inch NPT pipe mount
- Conformal coated PCB
- Type 4X, IP66 enclosure
- IP69K compliant
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	LIGHT OUTPUT		MOUNT
				PEAK ¹	ECP ²	
371DST-012-024 *	12-24VDC	3.00-1.90 amps	80 ³	750,000 cd	1,000 cd	1" NPT Pipe or Surface
371DST-120 *	120VAC 50/60Hz	0.60 amps	80 ³	750,000 cd	1,000 cd	1" NPT Pipe or Surface
371DST-240 *	240VAC 50/60Hz	0.30 amps	80 ³	750,000 cd	1,000 cd	1" NPT Pipe or Surface

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green, or (R) Red

¹ Peak candela is the maximum light intensity generated by a flashing light during its light pulse

² ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

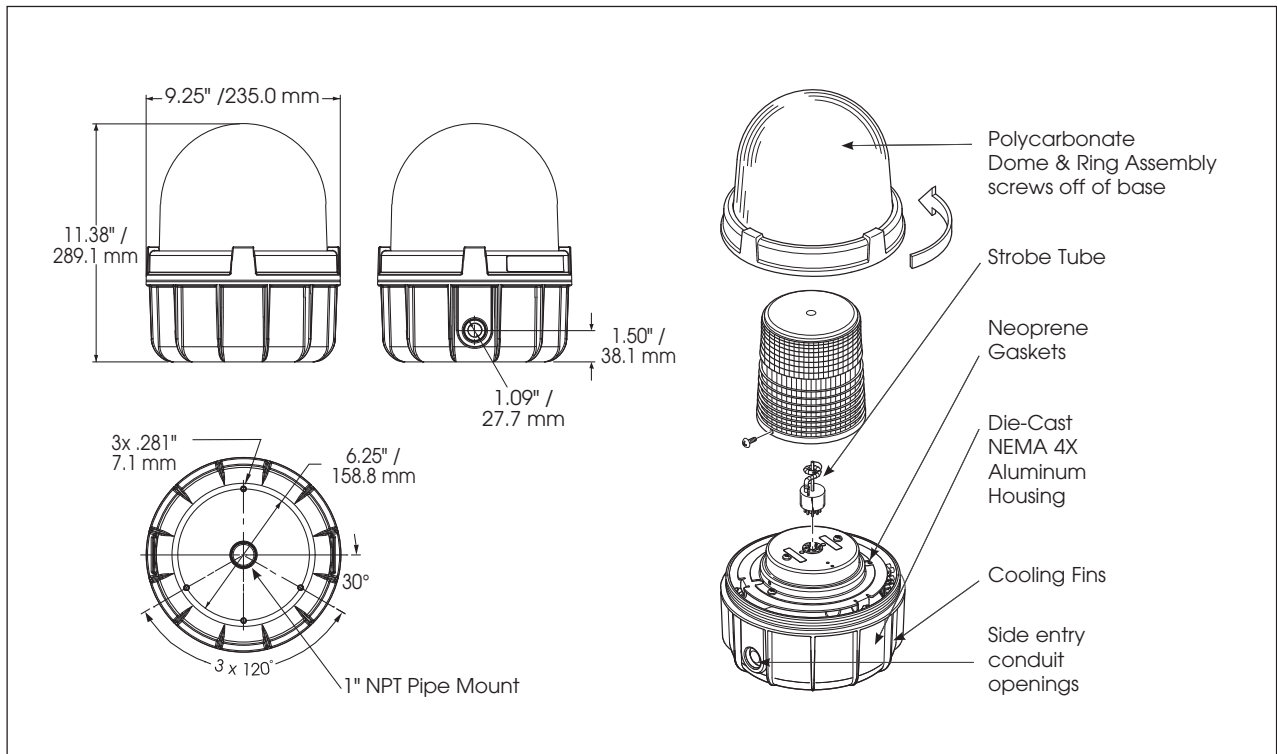
³ Double flash

HAZARDOUS LOCATION RATING: 371DST

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C
Class I, Division 2, Groups A, B, C, D	T2
Class II, Division 2, Groups F, G	T6
Class III	T6

Commander® Hazardous Location Double Strobe Light (371DST)



SPECIFICATIONS

Lamp Life:		10,000 Hours
Light Source:		Strobe Tube
Operating Temperature:	-31°F to 104°F	-35°C to 40°C
Net Weight:	6.23 lbs	2.83 kg
Shipping Weight:	8.3 lbs	3.76 kg
Height:	11.38"	289.1 mm
Diameter:	9.25"	235.0 mm

REPLACEMENT PARTS

Description	Part Number
Series B Dome and Ring Assembly	
Amber Polycarbonate	K8459125A
Blue Polycarbonate	K8459125A-01
Clear Polycarbonate	K8459125A-02
Green Polycarbonate	K8459125A-03
Red Polycarbonate	K8459125A-04
Clear, Inner Polycarbonate, Lens	K8422B428A
PCB Assembly 12-24VDC	K2001265D-01
PCB Assembly 120VAC	K200865G-02
Strobe Tube	K8107178A
Gasket, Surface Mount	K8459127A

HOW TO ORDER

371DST	-	120		A
TYPE		VOLTAGE		COLOR
371DST		012-024 (12-24VDC)		A Amber
		120 (120VAC 50/60Hz)		B Blue
		240 (240VAC 50/60Hz)		C Clear
				G Green
				R Red

OPTIONAL ACCESSORIES

Description	Part Number
Solid Surface Mounting Bracket	371BRCKT
Shock Mount Kit	K8459A076C
3/4" Hub Kit	K8459138A
1" Plug Kit	K8459130A
Hazardous Location Mounting Bracket	LHWB*

* Mounting Brackets shown on pages 138-139



(Shown with pendant mount. See how to order for mounting options)



► Model 27XST

Explosion-Proof Strobe Light



Federal Signal's Model 27XST explosion-proof strobe light features a voltage in-rush limiting PCB design that provides greater compatibility with factory automation control systems and less electrical interference with in-rush sensitive devices.

Three mounting options are available: pendant, ceiling or 90° wall mount. For easy installation, the mounting box is first installed and the fixture is then threaded onto the mounting box, making the electrical connection. Pre-install the mounting bracket and electrical continuity is made when five threads are engaged.

Federal Signal's Model 27XST is specifically designed for explosion-proof atmospheres and/or corrosive environments. Because it is easy to install and requires very low maintenance, it is ideal for use in areas such as oil rigs, mines, refineries, and chemical plants.

FEATURES

- Approved for mounting in any manner-including dome up
- Available in 24VDC, 120VAC and 240VAC
- Six lamp/lens colors: Amber, Blue, Clear, Green, Magenta and Red
- 10,000 hour strobe tube
- 3/4" NPT pendant, ceiling and wall mount options available
- Dome guard optional
- Conformal coated PCB
- Type 4X, IP66 enclosure
- IP69K compliant
- Marine Rated
- CSFM Approved
- UL and cUL Listed for Class I, Division 1 and 2, Groups C and D; Class I, Division 2, Groups A and B; Class II, Division 1, Groups E, F, and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE / MINUTE	LIGHT OUTPUT	
				PEAK ¹	ECP ²
27XST-024 * -MOD¹	24VDC	1.90 amps (3.0 amp In-rush)	80	2,000,000 cd	850 cd
27XST-120 * -MOD¹	120VAC 50/60Hz	1.14 amps	80	2,000,000 cd	850 cd
27XST-240 * -MOD¹	240VAC 50/60Hz	1.14 amps	80	2,000,000 cd	850 cd

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red (Magenta available in 120VAC and 240VAC models only)

¹ See "how to order" for mounting options

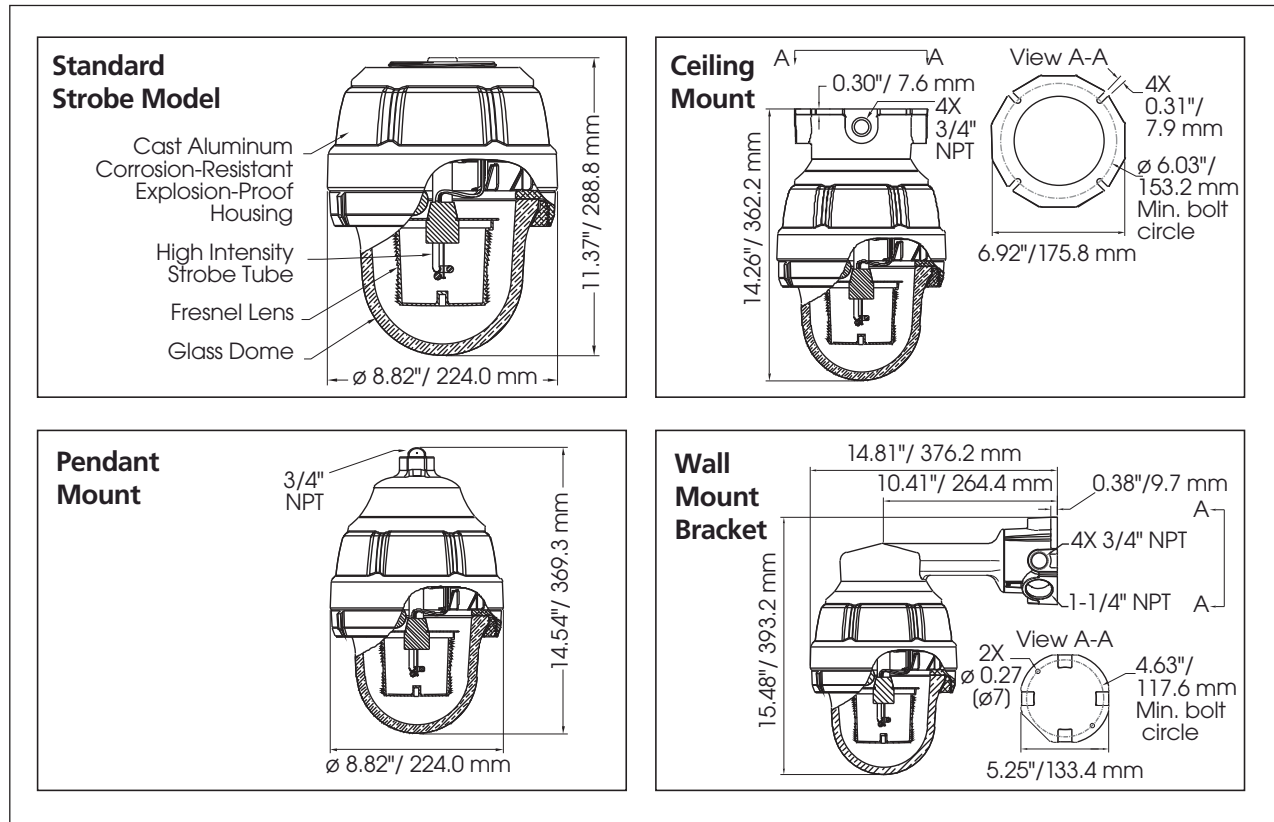
² Peak candela is the maximum light intensity generated by a flashing light during its light pulse

³ ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

HAZARDOUS LOCATION RATING: 27XST

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C		
Hazardous Location	40°C	65°C
Class I, Division 1 & 2, Groups C, D	T6	T4A
Class I, Division 2, Groups A, B	T2	T2
Class II, Division 1, Groups E, F, G	T6	T4A
Class III	T6	T4A

Explosion-Proof Strobe Light (27XST)



SPECIFICATIONS

Lamp Life:	10,000 Hours	
Light Source:	Strobe Tube	
Operating Temperature:	-67°F to 150°F	-55°C to 65°C
Net Product Weight		
Signal without Mounting:	13.9 lbs	6.3 kg
Ceiling Mount:	4.5 lbs	2.0 kg
Pendant Mount:	2.0 lbs	0.9 kg
Wall Mount:	5.9 lbs	2.7 kg
Shipping Weight		
Signal without Mounting:	14.7 lbs	6.67 kg
Ceiling Mount:	5.3 lbs	2.40 kg
Pendant Mount:	2.8 lbs	1.27 kg
Wall Mount:	6.7 lbs	3.03 kg

REPLACEMENT PARTS

Description	Part Number
Exterior Dome Assembly, Clear	K8436147A
Interior Lens Assembly, Amber	K8550C095A-02
Interior Lens Assembly, Blue	K8550C095A-01
Interior Lens Assembly, Clear	K8550C095A
Interior Lens Assembly, Green	K8550C095A-04
Interior Lens Assembly, Magenta	K8550C095A-07
Interior Lens Assembly, Red	K8550C095A-03
24VDC Mechanism	K8436107F-03
120VAC Mechanism	K8436107E-02
Strobe Tube	K8107159A

OPTIONAL ACCESSORIES

Description	Part Number
Dome Guard	DGXC-SB

HOW TO ORDER

27XST	-	024	A	-	MOD
TYPE 27XST		VOLTAGE 024 (24VDC) 120 (120VAC) 240 (240VAC)	COLOR A Amber B Blue C Clear G Green M Magenta R Red		

Specify Optional Mounting:*

Description	Part Number
Ceiling Mount	CMXC-SB
Pendant Mount	PMXC-SB
Wall Mount	WMXC-SB

* Mounting kit must be ordered with unit, sold separately



► Models WV450XD and WV450XE

Flameproof GRP Strobe Lights



Model WV450X flameproof single flash strobe signal provides three high intensity light outputs utilizing a 10,000 hour rated strobe tube. The housing is manufactured from GRP (glass-reinforced polyester) to reduce weight, improve corrosion resistance and eliminate regular inspection of the flame path.

Devices include 316 stainless steel hardware, mounting bracket and dome guard. The WV450X comes standard with metric cable entries in both the "d" explosion proof version and the "de" increase safety terminal chamber with 3x M20 entries. The increased safety design allows for quick field termination and pass-through wiring.

The WV450X is ideal for the demands of offshore marine and land based heavy industrial when ATEX & IECEx certifications are required.

FEATURES

- Available in 10, 15 and 21 joule units
- Seven lens colors: Amber, Blue, Clear, Green, Magenta, Red and Yellow
- 316 stainless steel mounting bracket included
- Available voltages ($\pm 15\%$):
24-48VDC – 15J units
110VAC – 10J/21J units
220VAC – 10J/21J units
- Corrosion resistant GRP (Glass Reinforced Polyester)
- Included dome guard
- M20 entries standard
- Strobe tube life of 10,000 hours
- IP66 enclosure
- Zone rated, IECEx, ATEX
Ex d IIB +H2 T3-T4
Ex de IIB +H2 T3-T4
- ATEX, IECEx, CE, GOST and INMETRO Certified

MODEL	OPERATING VOLTAGE	JOULE	MAXIMUM OPERATING CURRENT	TEMPERATURE CODE AT 55°C	FLASH RATE
WV450XD/WV450XE	24/48VDC	15J	940/480mA	T4	60
	110VAC	10/21J	270/750mA	T3	60
	220VAC	10/21J	230/500mA	T3	60

Flameproof GRP Strobe Lights (WV450XD and WV450XE)

SPECIFICATIONS

Light Output

	Effective Candela Peak	Average Effective Candela on HV	Peak Intensity Candela	Actual Output joules
10 joule	174	110	195,000	10.75
15 joule	312	195	298,000	16.3
21 joule	393	297	357,700	21.5

Glass Color Transmission

Amber	Blue	Green	Red	Yellow
<.48	<.12	<.52	<.81	<.85

Terminals: Ex d: (DC) 4 way block (2 in, 2 out)
(AC) 6 way block (3 in, 3 out)
Ex de: 3 position dual pole terminal block

Cable Entries: Ex d: 2 entries - M20 x 1.5
Ex de: 3 entries - M20 x 1.5

Operating Temperatures:
"d" version without terminal chamber
ATEX -55°C to 55°C (-67°F to 131°F)
IECEX -55°C to 55°C (-67°F to 131°F)

"de" version with terminal chamber
ATEX -20°C to 55°C (-4°F to 131°F)
IECEX -20°C to 55°C (-4°F to 131°F)

Mounting: Via 316 stainless steel bracket

Exterior Lens: Toughened glass

Guard and External Fasteners: 316 stainless steel

WV450XD Weight:
Net /Shipping 3.23 kg (7.1 lbs) /3.88 kg (8.6 lbs)

WV450XE Weight:
Net /Shipping 3.9 kg (8.6 lbs) /4.54 kg (10 lbs)

Shipping Dimensions: 19 x 22 x 47 cm (7.5 x 9 x 18.5 in.)

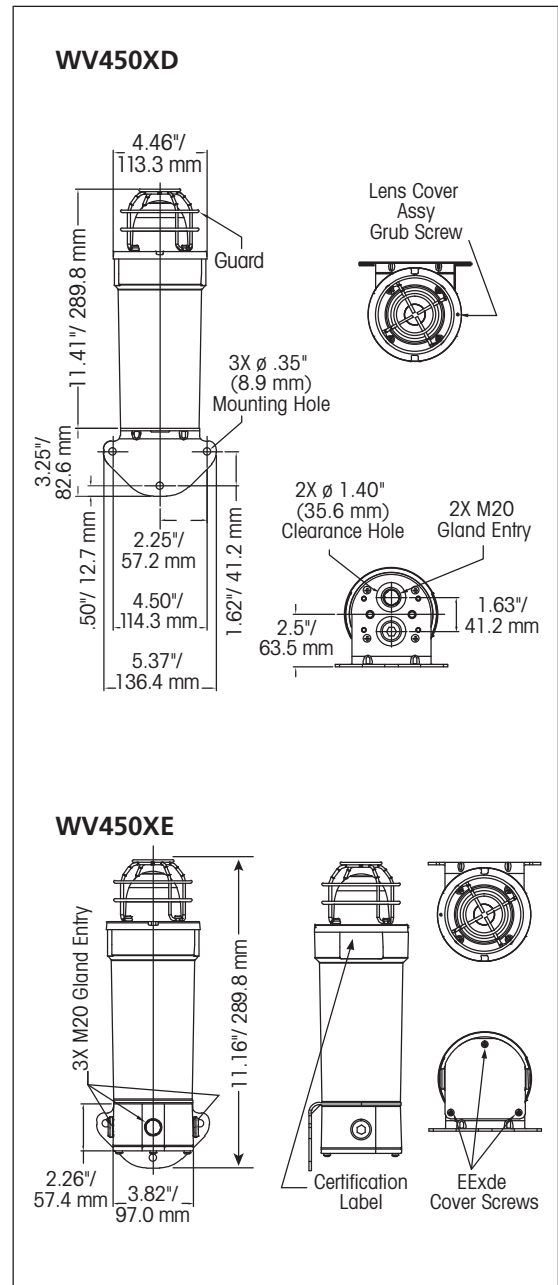
ATEX Certificate Number DEMKO 06 ATEX 0425693X

IECEX Certificate Number IECEX UL 06.0010X

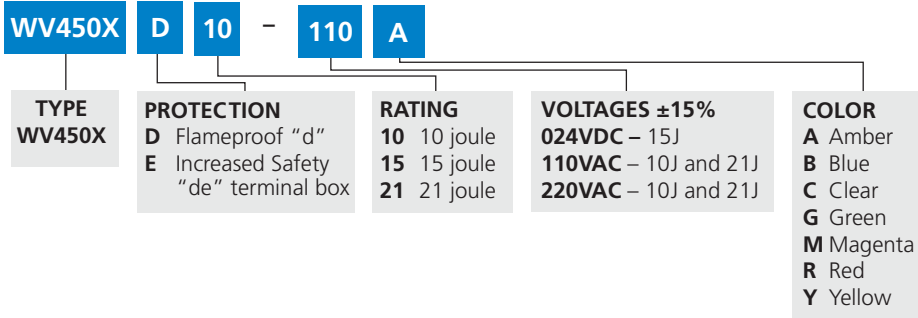
Certification Marking ("d" only version) Ex d IIB + H2 T3-T4 @
-55°C < Tamb < 55°C

Certification Marking ("de" version) Ex de IIB + H2 T3-T4 @
-20°C < Tamb < 55°C

Ingress Protection (IP) Rating IP66



HOW TO ORDER





► Models 2000 Series XEN1 and XEN4
Flameproof Strobe Lights

Federal Signal's 2000 Series Models XEN1 and XEN4 xenon beacons are visual warning lights for use that require ATEX approval. Model XEN1 is a strobe light that contains a single xenon flashing tube. This makes it ideally suited for use in indoor explosion-proof areas that require compliance to European electrical safety directives.

Model XEN4 is a strobe light that utilizes four strobe tubes, timed in a sequential manner, to simulate the operation of a mechanical rotating beacon. This four-strobe version is ideal in outdoor situations where a conventional beacon may not be adequate.

Flameproof strobe lights are sealed from dust and water by a nitrile rubber o-ring seal. All exterior cast aluminum surfaces are finished in powder coat paint and external hardware is manufactured from stainless steel to resist corrosion.

The 2000 Series beacon is externally powered by a DC or AC power source. Screw type terminal blocks are provided for field wiring on all units.

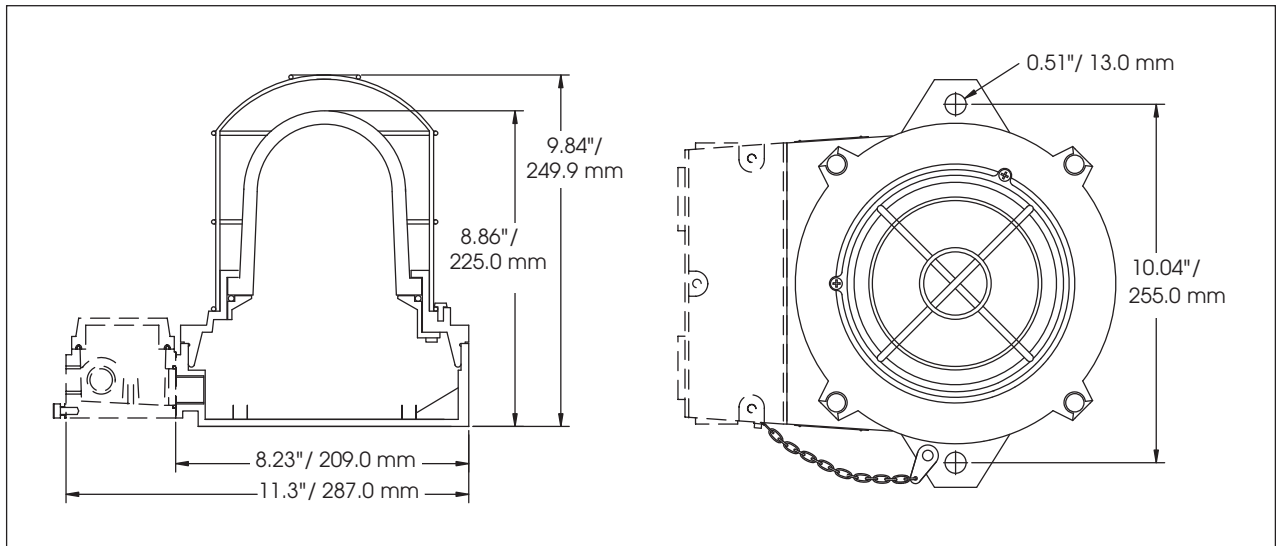
All variations of the 2000 Series beacon feature a four entry fixture to allow cable looping. These cable entries are metric (M20 X 1.5) but other configurations are available upon request.

F E A T U R E S

- Single and four strobe tube models
- Internal fresnel lens (sold separately)
- Six lens colors: Amber, Blue, Clear, Green, Red and Yellow
- Ex de terminal chamber available
- IP66 enclosure
- Approved for use in Zone 1, 2, 21, 22 Atmospheres
- Corrosion resistant powder coat finish
- Stainless steel external hardware
- ATEX, IECEx and CE Certified

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE
XEN1	24VDC	0.93 amps	80
	48VDC	0.81 amps	80
	110VDC	0.61 amps	80
	110VAC	0.48 amps	80
	240VAC	0.38 amps	80
XEN4	24VDC	1.90 amps	N/A
	48VDC	1.22 amps	N/A
	110VDC	0.92 amps	N/A
	110VAC	0.53 amps	N/A
	240VAC	0.41 amps	N/A

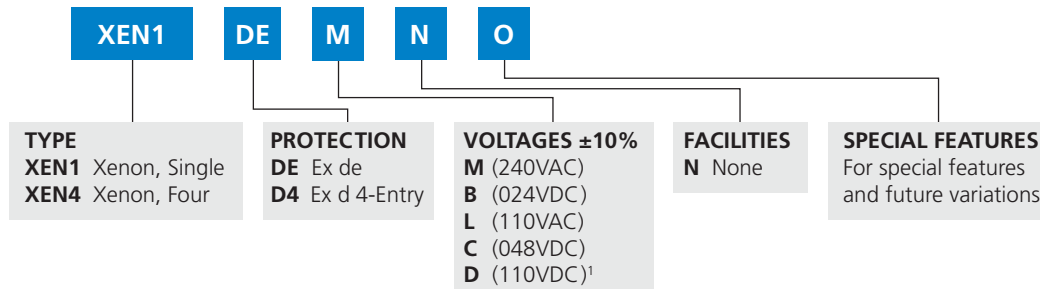
Flameproof Strobe Lights (2000 Series XEN1 and XEN4)



SPECIFICATIONS

Lamp Life:	5,000 Hours	Certification Marking:	Ex d IIB T4 Gb, Ex tb IIIB Db Ex de IIB T4 Gb, Ex tb IIIB Db
Light Source:	Strobe	Terminals:	Ex d: 4 way block mounted PCB Ex de: 12 way block in terminal chamber
Operating Temperature:		Cable entries:	Ex d: 4 entries - M20 x 1.5 Ex de: 4 entries - M20 x 1.5
Ex d and Ex de:	-40°C to 158°F -40°C to 70°C	Mounting:	Via fixed cast lugs at two mounting points
Net Weight:		Body:	Marine Grade Alloy painted Regal Red
Ex d:	13.23 lbs 6.0 kg	Exterior dome:	Toughened glass
Ex de:	15.43 lbs 7.0 kg	Guard:	316 stainless steel
Shipping Weight:	16.5 lbs 7.5 kg	Ingress Protection:	IP66
Height:	9.84" 249.9 mm		
Width:	10.04" 255.0 mm		
Length:	8.23" 209.0 mm		
ATEX Certificate Number:	Baseefa 07ATEX0150		
IECEx Certificate Number:	IECEx BAS 07.0038		

HOW TO ORDER



Colored Xenon Lens Sold Separately:

Description	Part Number
Amber	A1131S
Blue	A1111S
Clear	A2133S
Green	A1198S
Red	A1779S
Yellow	A3410S

¹ Range 100VDC to 135VDC with xenon beacons (inclusive of ±10%).

#85000776 Rev. A0



► Model AV1-LED

LED Flashing Combination Audible/Visual Signal

Model AV1-LED is a combination audible/visual signal. The AV1-LED features a 100% polycarbonate housing that is rated for Type 3R rain-tight applications.

All AV1-LED units feature a twist-and-lock lens design to allow for tool-free access to the LED. The fresnel lens provides superior visibility in all directions.

The integrated buzzer provides 85 dBa output @ 10 feet (95 dBa @ 1m). The unit is capable of independent flashing light and sounder operation. The LED can be field adjusted to two flash patterns, 60 FPM or 75 FPM, via a jumper on the PC board.

Each unit is factory assembled with two color-coded leads. If desired, the user can remove the leads and connect directly to the terminal block located in the base of the unit.

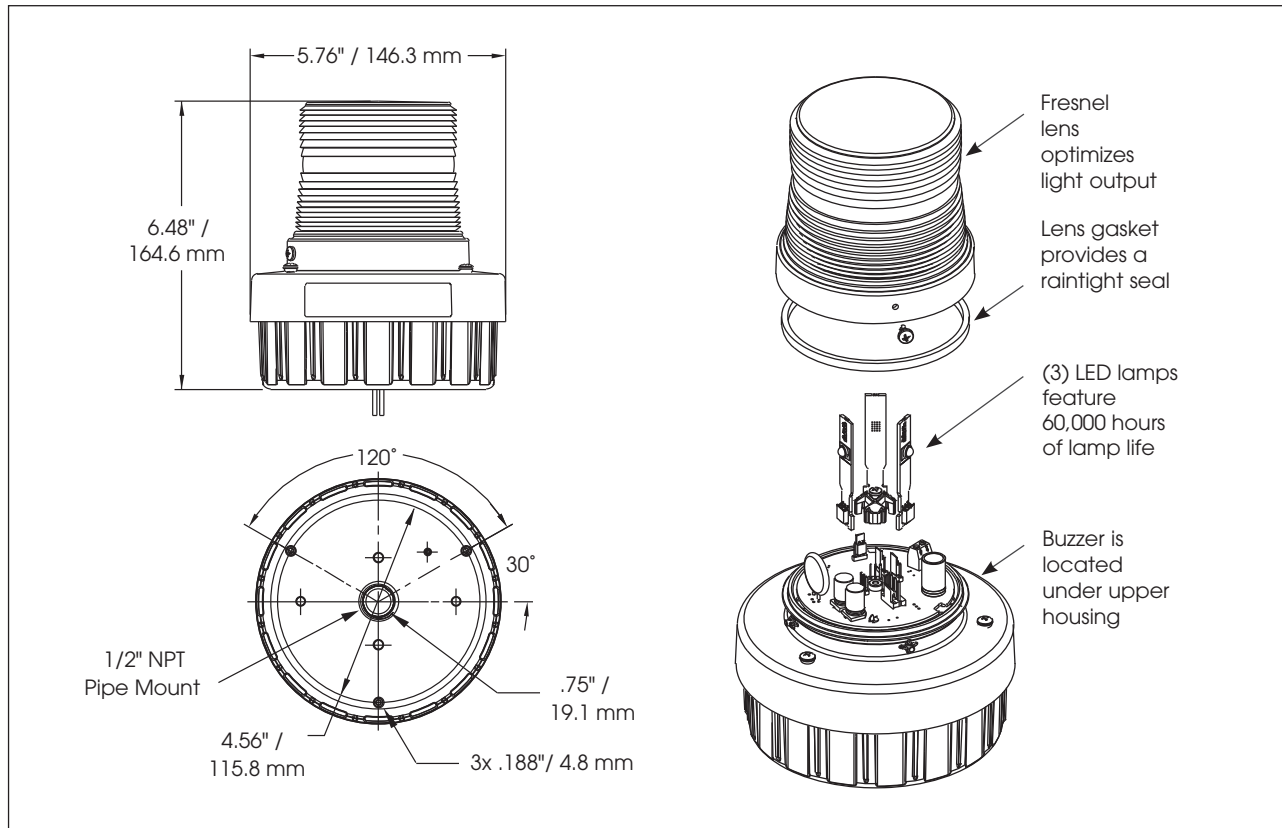
FEATURES

- Available in 24VDC and 120VAC
- 50,000 hour LED light source
- Surface mount, integrated 1/2-inch NPT pipe mount, and 4-inch electrical box mount
- Five lamp/lens colors: Amber, Blue, Clear, Green and Red
- Twist-off lens for easy access
- Internal buzzer produces 85 dBa at 10' (95 dBa @ 1m)
- PLC compatible
- Type 3R enclosure
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	DECIBELS		MOUNT
				10'	1M	
AV1-LED-024*	24VDC	0.27 amps	60/75	85	95	1/2" NPT Pipe/Surface
AV1-LED-120*	120VAC	0.03 amps	60/75	85	85	1/2" NPT Pipe/Surface

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

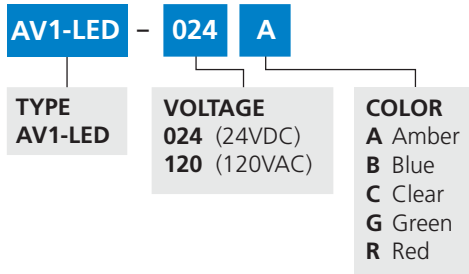
LED Flashing Combination Audible/Visual Signal (AV1-LED)



SPECIFICATIONS

Lamp Life:	50,000 Hours	
Light Source:	LED	
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	1.25 lbs	0.57 kg
Shipping Weight:	1.75 lbs	0.8 kg
Height:	6.48"	164.6 mm
Diameter:	5.76"	146.3 mm

HOW TO ORDER



REPLACEMENT PARTS

Description	Part Number
Lens Kit, Amber ¹	K8550292A-02
Lens Kit, Blue ¹	K8550292A-01
Lens Kit, Clear ¹	K8550292A
Lens Kit, Green ¹	K8550292A-04
Lens Kit, Red ¹	K8550292A-03
Buzzer, 24VDC	K8591002A-03
Buzzer, 120VAC	K8591002A
PCBA, Amber LED	K2005633A-A
PCBA, Blue LED	K2005633A-B
PCBA, Green LED	K2005633A-G
PCBA, Red LED	K2005633A-R
PCBA, White LED	K2005633A-W

¹ Includes 1 lens gasket and 1 surface mount gasket

OPTIONAL ACCESSORIES

Description	Part Number
Corner Bracket	LCMB2*
Wall Bracket	LWMB2*

* Type 3R rated

Mounting Brackets shown on pages 136-137



► Model AV1ST

Strobe Combination Audible/Visual Signal

Model AV1ST is a combination audible/visual signal. The AV1ST features a 100% polycarbonate housing that is rated for Type 3R rain-tight applications.

The AV1ST design provides three mounting configurations: 1/2-inch NPT pipe, a 4-inch octagonal electrical box or any flat surface. All AV1ST units feature a twist and lock lens design to allow for tool free access to the strobe tube. The fresnel lens provides superior visibility in all directions.

The integrated buzzer provides 85 dBa output @ 10 feet (95 dBa @ 1m).

The AV1ST comes in two voltage variations: 24VDC and 120VAC. Each unit is factory assembled with two color-coded leads. If desired, the user can remove the leads and connect directly to the terminal block located in the base of the unit.

FEATURES

- Available in 24VDC and 120VAC
- Surface mount, integrated 1/2-inch NPT pipe mount, and 4-inch electrical box mount
- Five lens colors: Amber, Blue, Clear, Green and Red
- Twist-off lens for easy access
- Internal buzzer produces 85 dBa @ 10' (95 dBa @ 1m)
- Conformal coated PCB
- Type 3R enclosure
- CSA Certified
- UL and cUL Listed

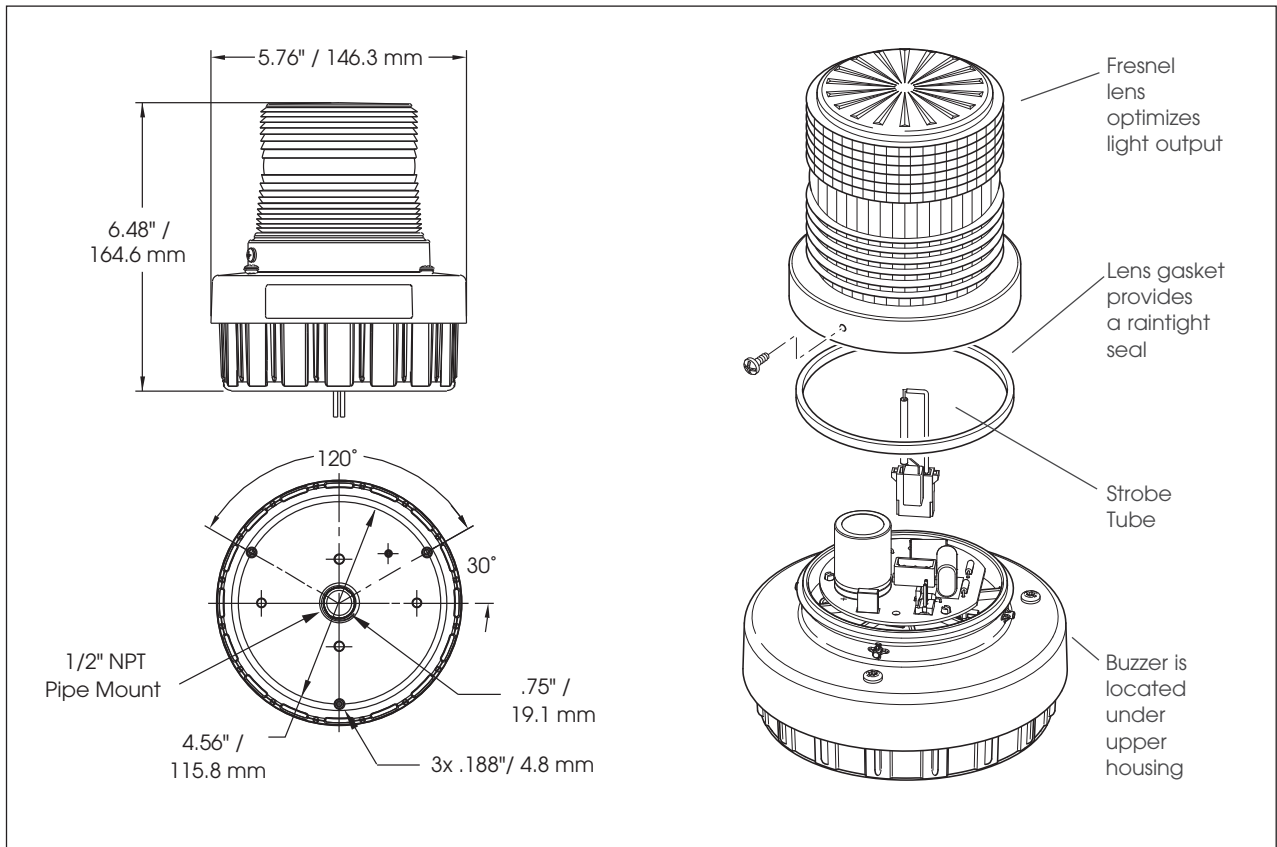
MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	CANDELA		DECIBELS		MOUNT
				PEAK ¹	ECP ²	10'	1M	
AV1ST-024 *	24VDC	0.39 amps	65-95	175,000	51.5	85	95	1/2" NPT Pipe/Surface
AV1ST-120 *	120VAC	0.15 amps	65-95	175,000	51.5	85	95	1/2" NPT Pipe/Surface

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

¹ Peak candela is the maximum light intensity generated by a flashing light during its light pulse

² ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

Strobe Combination Audible/Visual Signal (AV1ST)



SPECIFICATIONS

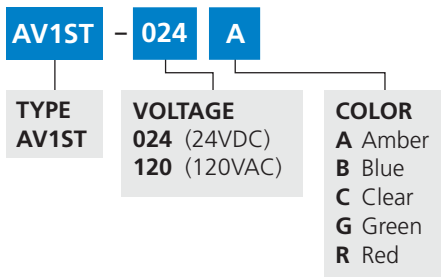
Lamp Life	7,000 Hours	
Light Source:	Strobe tube	
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	1.25 lbs	0.57 kg
Shipping Weight:	1.75 lbs	0.8 kg
Height:	6.48"	164.6 mm
Diameter:	5.76"	146.3 mm

REPLACEMENT PARTS

Description	Part Number
Lens Kit, Amber ¹	K8550292A-02
Lens Kit, Blue ¹	K8550292A-01
Lens Kit, Clear ¹	K8550292A
Lens Kit, Green ¹	K8550292A-04
Lens Kit, Red ¹	K8550292A-03
Strobe Tube	K149130A
Buzzer, 24VDC	K8591002A-02
Buzzer, 120VAC	K8591002A

¹ Includes 1 lens gasket

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
Corner Bracket	LCMB2*
Wall Bracket	LWMB2*

* Type 3R rated

Mounting Brackets shown on pages 136-137



► Model LP7

StreamLine® Low Profile Combination Sounder/Strobe



LP7 sounder/strobe combines the features of a mini sounder with a fully integrated xenon strobe circuit.

Operating voltage ranges from 18-28VDC with an average of only 68 mA current consumption.

The LP7 has two switchable tone patterns: "Sweeping" and "Continuous". The LP7 has a range of 82-100 dBa @ 10 feet (92-110 dBa @ 1m), dependent upon tone selected. Volume control is set by DIP switch, which allows for 20 dBa of adjustment.

The LP7 features a bright xenon strobe that produces 0.7 joules of flash energy with a flash frequency of 60 flashes per minute. The beacon will operate jointly with any tone selected.

The Federal Signal Model LP7 sounder/strobe is PLC compatible. It is ideal for wall or panel mount applications where low voltage is required.

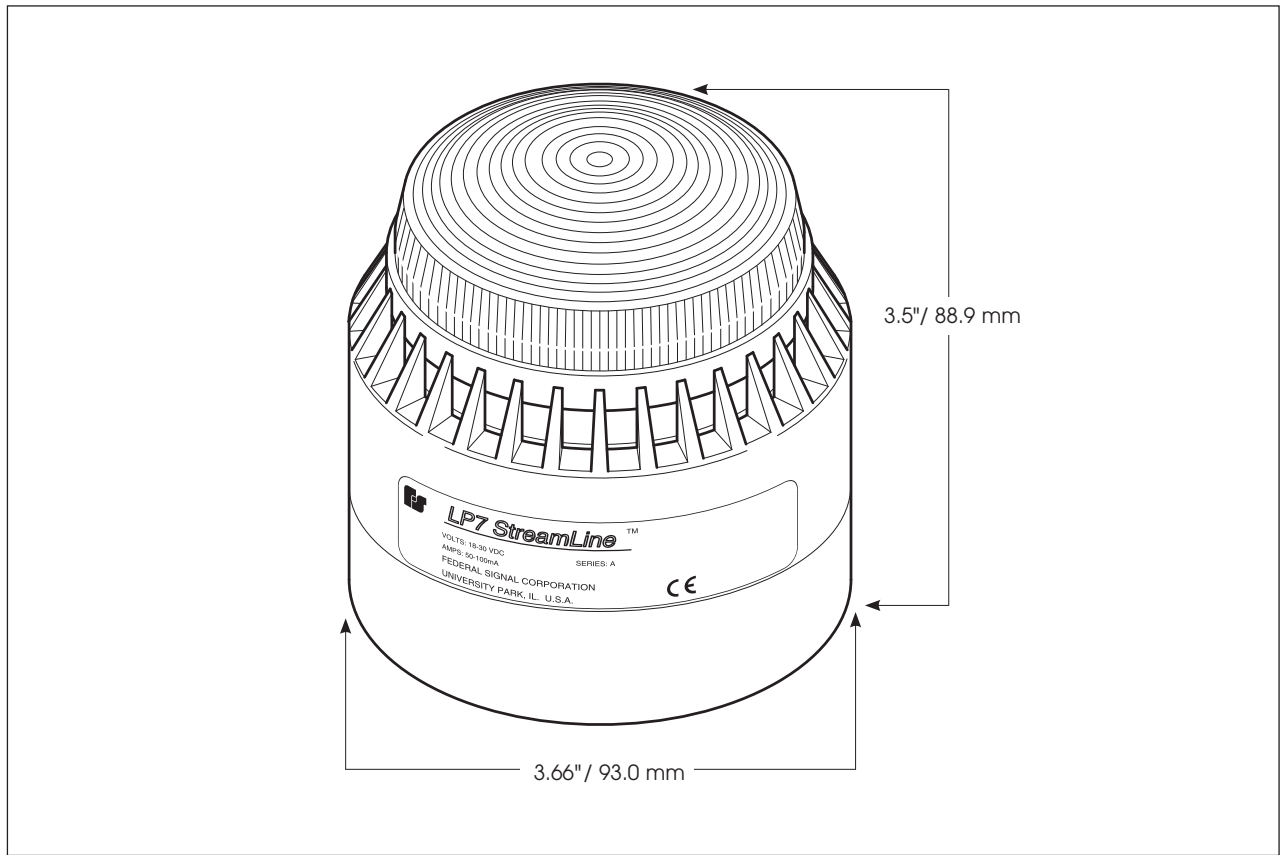
FEATURES

- Available in 18–28VDC
- Fully integrated xenon strobe circuit
- Four lens colors: Amber, Blue, Clear and Red
- Heavy duty ABS plastic body
- 82–100 dBa @ 10' (92–110 dBa @ 1m)
- IP54 (IP65 with optional deep base)
- CE Certified

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	JOULE OUTPUT	DECIBELS	
					10'	1M
LP7-18-30*	18-28VDC	0.068 amps	60	0.7	82-100	92-110

* Indicates color: (A) Amber, (B) Blue, (C) Clear or (R) Red

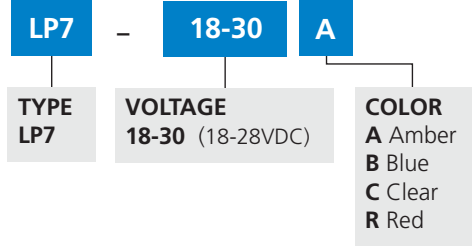
StreamLine® Low Profile Combination Sounder/Strobe (LP7)



SPECIFICATIONS

Lamp Life:	10,000 Hours	
Light Source:	Strobe tube	
Operating Temperature:	14°F to 131°F	-10°C to 55°C
Net Weight:	11.1 oz	0.31 kg
Shipping Weight:	13.5 oz	0.38 kg
Height:	3.5"	88.9 mm
Diameter:	3.66"	93.0 mm

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
Deep Base, White (1.88" D x 3.63" W)	DBLP



Model SLM500 shown with mounting base options (ordered separately)



► Model SLM500

StreamLine® Modular Multifunctional LED Combination Audible/Visual Signal

Model SLM500 is a multifunctional LED beacon and sounder combination developed with a multiple input technology that allows three separate levels of alarm (alert, pre-alarm, alarm) controllable via independent electric contacts.

Channel 1 includes a simulated strobe (triple flash) visual signal only. Channel 2 adds an audible tone, selectable from 32 tones via DIP switch, to the simulated strobe effect. Channel 3 includes a steady light and a second, unique tone selectable from 32 different tones, for a total of 64 unique tones.

The volume of a selected tone is adjustable (65-105 dBa) for the highest performing tone. Its enclosure is made from a self-extinguishing polycarbonate material with high impact and UV resistance.

FEATURES

- Compatible with 12-24VAC/DC or 120-240VAC*
- PLC compatible with PNP or NPN connections*
- 3 Channels included
 - 1: Simulated strobe
 - 2: Simulated strobe + tone 1
 - 3: Steady light + tone 2
- 50,000 hour LED
- Five lamp/lens colors: Amber, Blue, Clear, Green and Red
- Seven mounting base options
- Type 3R, IP65 enclosure
- CE Certified
- UL and cUL listed

*Voltage and PLC connections are dependent on selected base.

MODEL	VOLTAGE	FLASH RATE/MINUTE (FLASH MODE)	DECIBELS @ 1 M	
			MIN.	MAX.
SLM500 *	12-24VAC/DC or 120-240VAC	85 (+/-10)	65	105

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

MAXIMUM OPERATING CURRENT (mA)			
12VAC/DC	24VAC/DC	120VAC	240VAC
380	460	100	60

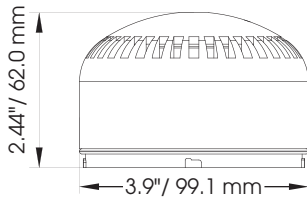
Weight (unit(s) + base = total weight)

SLM500	VOLTAGE	SHALLOW BASE	DEEP BASE	WALL MOUNT	PIPE MOUNT	TWIN WALL MOUNT	2-STACK DOCK BASE	3-STACK DOCK BASE
7.05 oz	12-24VAC/DC	2.12 oz 0.06 kg	4.23 oz 0.12 kg	6.70 oz 0.19 kg	5.29 oz 0.15 kg	9.17 oz 0.26 kg	14.46 oz 0.41 kg	21.16 oz 0.60 kg
0.20 kg	120-240 VAC	–	6.0 oz 0.17 kg	8.47 oz 0.24 kg	6.70 oz 0.19 kg	12.35 oz 0.35 kg	16.58 oz 0.47 kg	24.69 oz 0.70 kg

StreamLine® Modular Multifunctional LED Combination Audible/Visual Signal (SLM500)


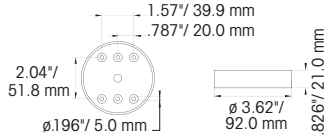

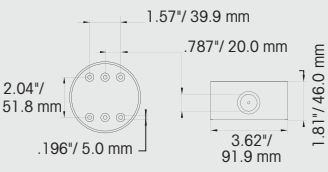

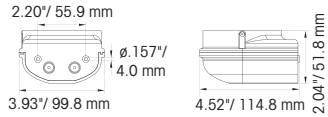

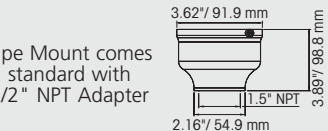

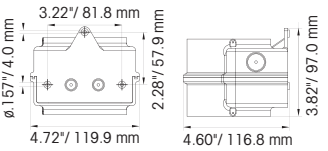


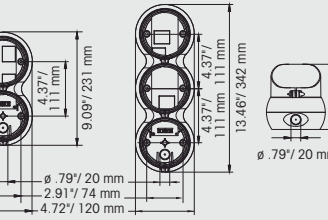
SPECIFICATIONS

Lamp Life: 50,000 Hours
 Light Source: LED
 Operating Temperature: -22°F to 122°F -30°C to 50°C



- Specify model number SLM500 and color
- Specify required mounting base (see chart)
- Optional dome guard
 For shallow mounting base (SLMDG0)
 For deep mounting base (SLMDG1)
- Accessories for Twin and Wall Mount Bases
 Cable Gland, M20, Gray, 2 Pack (K77700416)
 Cable Gland, M20, Red, 2 Pack (K77700416-01)
- Accessories for Pipe Mount Base
 1" NPT Adapter (SLMNPT1)
 1/2" NPT Adapter (SLMNPT2)
- Accessories for Dock Base
 Wall Mount Bracket (SLMB23W)
 1/2" NPT Adaptor (SLMB23N)
 Retaining Ring (SLM-RR)
 Light Visor (SLMB23V)

MOUNTING BASE OPTIONS

	Model Number	Base Color	Voltage	
 Shallow Base	SLMBS-012-024GY	Gray	12-24VAC/DC	
	SLMBS-012-024R	Red	12-24VAC/DC	
 Deep Base	SLMBD-012-024GY	Gray	12-24VAC/DC	
	SLMBD-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBD-012-024R	Red	12-24VAC/DC	
	SLMBD-120-240GY	Gray	120-240VAC	
 Wall Mount	SLMBW-012-024GY	Gray	12-24VAC/DC	
	SLMBW-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBW-120-240GY	Gray	120-240VAC	
 Pipe Mount	SLMBP-012-024GY	Gray	12-24VAC/DC	Pipe Mount comes standard with 1/2" NPT Adapter 
	SLMBP-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBP-120-240GY	Gray	120-240VAC	
 Twin Wall Mount	SLMBT-012-024GY	Gray	12-24VAC/DC	
	SLMBT-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBT-120-240GY	Gray	120-240VAC	
 2-Stack Dock Base  3-Stack Dock Base	SLMB2-024GY	Gray	24VAC/DC	
	SLMB2-120-240GY	Gray	120-240VAC	
	SLMB3-024GY	Gray	24VAC/DC	
	SLMB3-120-240GY	Gray	120-240VAC	

Note: Dock bases allow one function per position and include visors.



Model SLM600 shown with mounting base options (ordered separately)



► Model SLM600

StreamLine® Modular Multifunctional High Output LED Combination Audible/Visual Signal

Model SLM600 is a multifunctional LED beacon and sounder combination developed with a multiple input technology that allows three separate levels of alarm (alert, pre-alarm, alarm) controllable via independent electric contacts.

Channel 1 includes a simulated strobe (triple flash) visual signal only. Channel 2 adds an audible tone, selectable from 32 tones via DIP switch, to the simulated strobe effect. Channel 3 includes a steady light and a second, unique tone selectable from 32 different tones, for a total of 64 unique tones.

The volume of a selected tone is adjustable (65-115dBa) for the highest performing tone. Its enclosure is made from a self-extinguishing polycarbonate material with high impact and UV resistance.

FEATURES

- Compatible with 12-24VAC/DC or 120-240VAC*
- PLC compatible with PNP or NPN connections*
- 3 Channels included
 - 1: Simulated strobe
 - 2: Simulated strobe + tone 1
 - 3: Steady light + tone 2
- 50,000 hour LED
- Five lamp/lens colors: Amber, Blue, Clear, Green and Red
- Five mounting base options
- Type 3R, IP65 enclosure
- CE Certified
- UL and cUL listed

*Voltage and PLC connections are dependent on selected base.

MODEL	VOLTAGE	FLASH RATE/MINUTE (FLASH MODE)	DECIBELS @ 1M	
			MIN.	MAX.
SLM600 *	12-24VAC/DC	85 (+/-10)	65	115
	120-240VAC	85 (+/-10)	65	111

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

MAXIMUM OPERATING CURRENT (mA)			
12VAC/DC	24VAC/DC	120VAC	240VAC
380	460	100	60

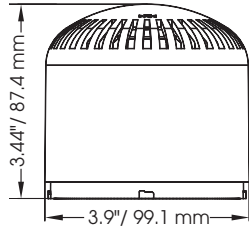
Weight (unit(s) + base = total weight)

SLM600	VOLTAGE	SHALLOW BASE	DEEP BASE	WALL MOUNT	PIPE MOUNT	TWIN WALL MOUNT
7.05 oz	12-24VAC/DC	2.12 oz 0.06 kg	4.23 oz 0.12 kg	6.70 oz 0.19 kg	5.29 oz 0.15 kg	9.17 oz 0.26 kg
0.20 kg	120-240 VAC	–	6.0 oz 0.17 kg	8.47 oz 0.24 kg	6.70 oz 0.19 kg	12.35 oz 0.35 kg

StreamLine® Modular Multifunctional High Output LED Combination Audible/Visual Signal (SLM600)

SPECIFICATIONS


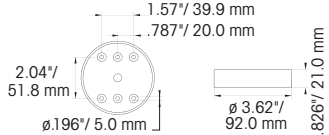

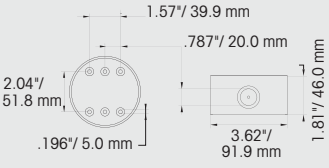

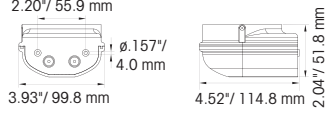

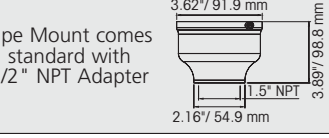

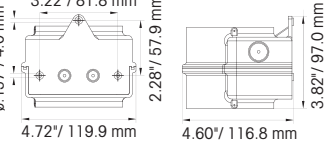
Lamp Life: 50,000 Hours
 Light Source: LED
 Operating Temperature: -22°F to 122°F -30°C to 50°C



HOW TO ORDER

- Specify model number SLM600 and color
- Specify required mounting base (see chart)
- Optional dome guard
 For shallow mounting base (SLMDG0)
 For deep mounting base (SLMDG1)
- Accessories for Twin and Wall Mount Bases
 Cable Gland, M20, Gray, 2 Pack (K77700416)
 Cable Gland, M20, Red, 2 Pack (K77700416-01)
- Accessories for Pipe Mount Base
 1" NPT Adapter (SLMNPT1)
 1/2" NPT Adapter (SLMNPT2)

MOUNTING BASE OPTIONS

	Model Number	Base Color	Voltage	
 Shallow Base	SLMBS-012-024GY	Gray	12-24VAC/DC	
	SLMBS-012-024R	Red	12-24VAC/DC	
 Deep Base	SLMBD-012-024GY	Gray	12-24VAC/DC	
	SLMBD-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBD-012-024R	Red	12-24VAC/DC	
	SLMBD-120-240GY	Gray	120-240VAC	
 Wall Mount	SLMBW-012-024GY	Gray	12-24VAC/DC	
	SLMBW-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBW-120-240GY	Gray	120-240VAC	
 Pipe Mount	SLMBP-012-024GY	Gray	12-24VAC/DC	Pipe Mount comes standard with 1/2" NPT Adapter 
	SLMBP-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBP-120-240GY	Gray	120-240VAC	
 Twin Wall Mount	SLMBT-012-024GY	Gray	12-24VAC/DC	
	SLMBT-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBT-120-240GY	Gray	120-240VAC	



► Models LWMB2 and LCMB2
Mounting Kits

Federal Signal's Models LWMB2 and LCMB2 mounting brackets are specifically designed for use with Federal Signal's warning lights to provide an easy and consistent means of mounting lights throughout a facility.

Models LWMB2 and LCMB2 are constructed of durable cast aluminum and sealed with gray powder coat paint. Easy to install, these units can be wired through the back of the bracket for electrical box mounting or through the threaded hole in the base for external 1/2-inch conduit connection. Each kit includes a bracket, plate and mounting screws.

Easy installation and a heavy-duty construction make the brackets suitable for use in commercial, institution and industrial environments.

These brackets are suitable for any Type 3R application in safe area applications.

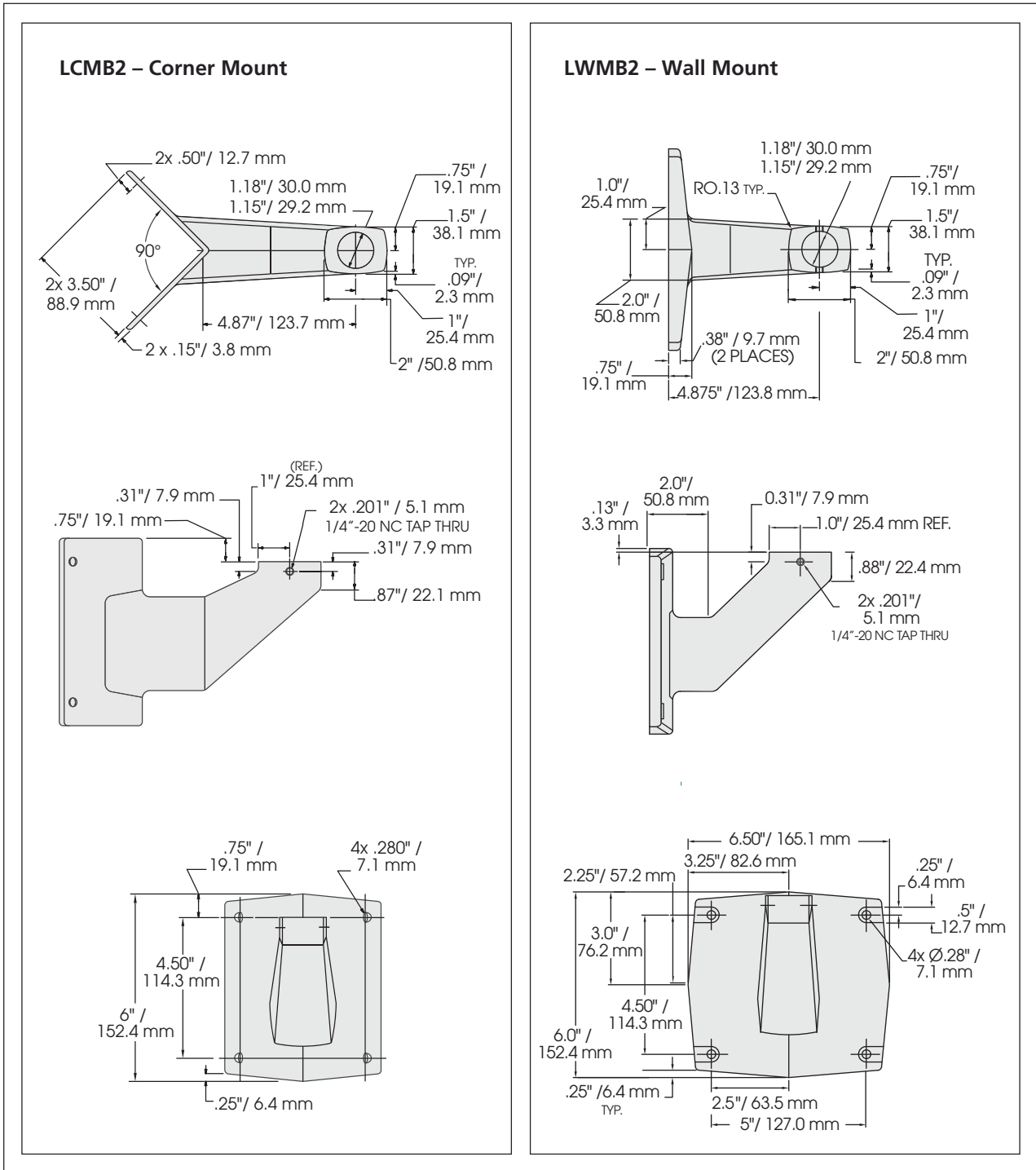
The LCMB2 and LWMB2 mounting kits may be used with the following Federal Signal models: 121A, 121S, 131ST, 131DST, 141ST, 225, 371, 371DST, 371LED, AV1ST, AV1LED, FB2PST, FB2LED and the FB24ST.

F E A T U R E S

- Heavy-duty construction
- Easy installation
- For walls and outside corners
- Replaces unsightly and hazardous makeshift supports
- 1/2-inch, 3/4-inch and 1-inch NPT pipe mount
- Indoor and outdoor use
- Type 3R rated

MODEL	HEIGHT	WIDTH	EXTENSION	NET WEIGHT	SHIPPING WEIGHT
LWMB2	6.0"	6.375"	5.875"	2.6 lbs	2.95 lbs
LCMB2	6.0"	5.000"	5.750"	2.3 lbs	2.50 lbs

Mounting Kits (LWMB2 and LCMB2)



HOW TO ORDER

Specify Model:

LCMB2 – Corner Bracket

LWMB2 – Wall Bracket

REPLACEMENT PARTS

Description

Bushing 1" x 3/4"

Bushing 1/2" x 3/4"

Part Number

K8459108A

K8459109B



► Model LHWB

Hazardous Location Light Mounting Kit



Federal Signal's Model LHWB Hazardous Location mounting bracket is specifically designed for use with Federal Signal's stationary warning lights to provide an easy and consistent means of securely mounting lights throughout a facility. The bracket features a 3/4-inch NPT male pipe connection. Optional bushings are available for 1/2-inch and 1 inch fixture mounting.

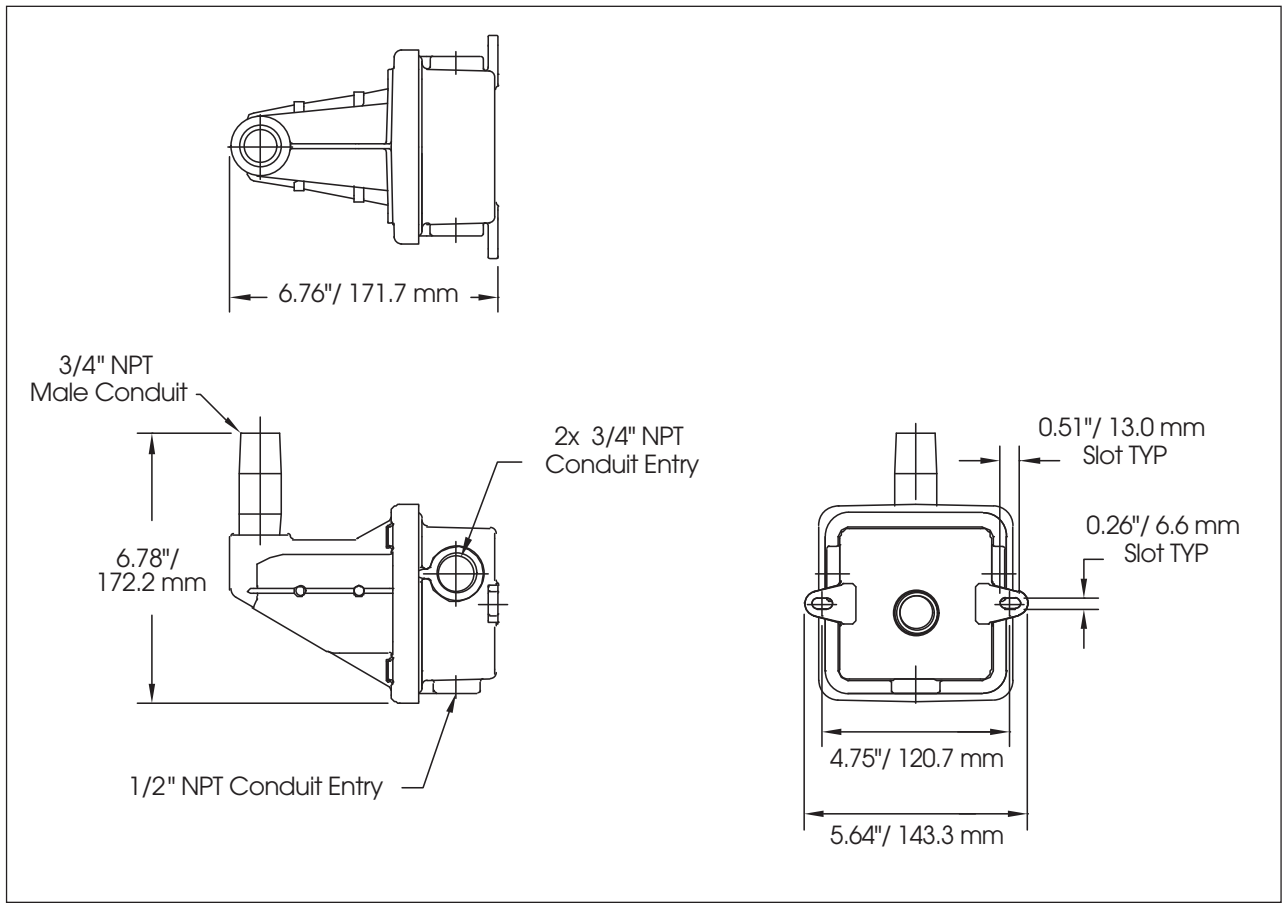
Model LHWB is constructed of durable cast aluminum and sealed with a durable black powder coat paint. Easy to install, these units can be wired through either the 1/2-inch or 3/4-inch conduit openings located in the weatherproof back box, included. Each kit includes a bracket, weatherproof back box and hardware kit. Easy installation, heavy-duty construction and a professional appearance make this bracket suitable for use in commercial, institution and industrial environments.

The LHWB mounting kit may be used with the following Federal Signal models: 121A, 121S, 225, 225X, 225XL, 191XL, 191XL-CN, 225XST, 151XST, and 371DST.

FEATURES

- Heavy-duty construction
- Easy installation
- For wall mount applications
- Replaces unsightly and hazardous makeshift supports
- Provides 3/4-inch NPT standard pipe mount
- Indoor and outdoor use
- Type 4X, IP66 enclosure
- UL and cUL listed for Class I, Division 2, Groups A, B, C and D; Class II Division 2, Groups F and G; Class III

Hazardous Location Light Mounting Kit (LHWB)



3/4" NPT
Male Conduit

6.78\"/>

1/2" NPT Conduit Entry

2x 3/4" NPT
Conduit Entry

0.51\"/>

0.26\"/>

4.75\"/>

5.64\"/>

SPECIFICATIONS

Operating Temperature:	-58°F to 150°F	-50°C to 66°C
Net Weight:	2.0 lbs	0.91 kg
Shipping Weight:	2.3 lbs	1.04 kg
Height:	6.78"	172.2 mm
Width:	5.64"	143.3 mm
Depth:	6.76"	171.7 mm

REPLACEMENT PARTS

Description	Part Number
Hardware Kit, LHWB	K2881358A*
* Hardware Kit includes:	
Steel Bushing 3/4" x 1/2"	
Steel Bushing 1" x 3/4"	
Rigid Conduit 1/2" NPT 3" Length	
Nylon Screw Collar	

HOW TO ORDER

Specify Model:

LHWB – Hazardous Location Light Mounting Kit

OPTIONAL ACCESSORIES

Description	Part Number
Terminal Block Kit (8 connector) for LHWB	KIT-WBTB



► Model SSM

Synchronous Strobe Module

The Model SSM, Synchronous Strobe Module, is an electronic timing mechanism designed to energize select Federal Signal low in-rush 24VDC strobe lights simultaneously, while maintaining the ability to remotely supervise the strobe light circuit. This module is designed to synchronize a special series of Federal Signal strobe lights, which meet the requirement for Private-Mode Fire Alarm use, while maintaining the agency approval and environmental rating of the strobe light. The SSM is only compatible with Federal Signal brand strobe lights. See compatible models on the “How to Order” page.

The SSM enables the customer to meet local building codes through a visually appealing “single-flash” created by the simultaneous control of strobe lights connected to it. Mixed signals are reduced to a minimum as reflection of many light pulses are now viewed as one single flash.

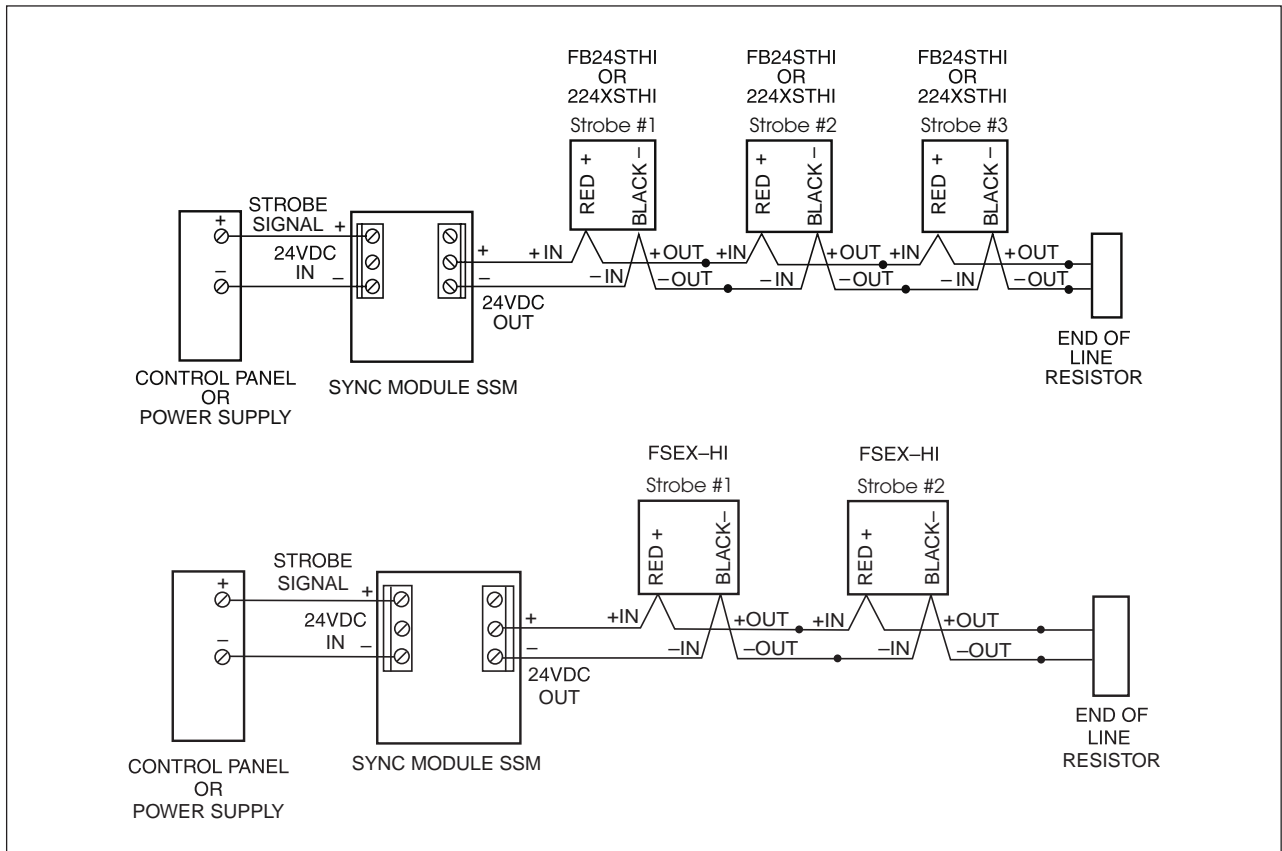
The SSM mounts to the plaster ring of a double-gang electrical box, and requires 24VDC at all times to operate the timing circuit. Screw terminals are provided for field termination of control wiring and a maximum of three non-explosion-proof strobe lights or two explosion-proof strobe lights may be connected to each SSM. Electrically, the SSM should be mounted in the middle of the circuit, with a maximum cable distance of 100' from the SSM to each strobe light. Supervision is accomplished the same as without the SSM, with a flash rate of 72 flashes per minute in lieu of the advertised flash rate for each strobe light. The SSM is capable of switching 6 amps of current. Please note: Not all strobe lights have the same in-rush current and therefore the SSM's circuit's switching potential may be reduced. Please see the application drawings on the second page.

FEATURES

- Synchronizes strobe lights to 72 flashes per minute
- Mounts on double-gang electrical box
- UL1971 Approved for hearing impaired applications
- Polarized design allows for remote supervision
- Compatible with select Federal Signal model strobe lights (see chart)

MODEL	VOLTAGE	OPERATING CURRENT
SSM	24VDC	0.95 amps

Synchronous Strobe Module (SSM)



SPECIFICATIONS

Operating Temperature:	32°F to 120°F	0°C to 49°C
Net Weight:	0.53 lbs	0.24 kg
Shipping Weight:	0.93 lbs	0.42 kg
Height:	4.5"	114.3 mm
Width:	4.5"	114.3 mm
Depth:	1.12"	28.4 mm

COMPATIBLE STROBE LIGHTS

224XST-024*	Series C	3 per circuit
225XST-I-024*	Series B	3 per circuit
FB2PST-I-024*	Series B	3 per circuit
FB24ST-024*	Series B	3 per circuit
FB24STHI-024C	Series C	3 per circuit
224XSTHI-024C	Series B	3 per circuit
FSEX-HI-MOD	Series D	2 per circuit
FSEX-24PM*-MOD	Series D	2 per circuit
27XST-024*-MOD	Series E	2 per circuit

*Compatible with any color offered per model

HOW TO ORDER

Specify Model:

SSM – Synchronous Strobe Module



Notes



Audible Signals

Global Series Signaling Platform

- G-SND* 144
- G-SPK* 146
- G-SPA* 148
- G-MSD-2* 150
- G-MSD* 154
- Accessories 160

Electro-Mechanical Horns

- 350 162
- 350TR 164
- 350WB 166
- 350WBX 168
- 31X, 41X 170
- 55, 56 172
- 3H, 6H 174
- 52 176

Electro-Mechanical Bells

- A4, A6, A10, 500, 600 178
- 504WB, 506WB 180

Electro-Mechanical Sirens

- A 182
- L 184

Electronic

- PMA and PMAMT 186
- 450E 188
- 450EWBX 190
- LP4 192
- SLM700 194
- SLM800 196
- eHorn 198
- eSiren 200
- SST3-MV 202
- SSTX3-MV 204
- SST3GCX-MV 206
- ES Series 208
- MS Series 210

SelecTone®

- SelecTone Overview 212
- UTM 214
- TM33-SD 216
- Connector Kits 218

Speakers/Amplifiers

- Extension Module EM3 220
- 50GC 222
- 50GCB 224
- 300 226
- 300GC 228
- 302GC 230
- 300GCX 232
- 300GCX-CN 234
- 300X 236
- 302GCX 238
- 302GCX-CN 240
- 302X 242

SelecTone® Controllers

- 300VSC-1 244
- 300VSC-1044SB 246
- 300SCW-1 248

Commcenter®

- 300MB 250
- 300FP 252

Power Supplies

- PS250/600/1000/1000-240 254

Back Up Alarms

- EPBA 256
- 252** 258
- 253** 260

■ Hazardous location models

* Global Series UL certified is hazardous location; Global Series ATEX certified is explosion proof

** Model for vehicular use.





► Model G-SND

Global Series® Signaling Platform – Sounder

Federal Signal Global Series® Sounders are available in explosion-proof Ex versions, increased safety Ex de wiring box versions and are certified for gas Group IIC environments.

The Global Series Sounder can be wired to perform two separate functions. A single tone can be selected via a rotary switch; once power is supplied, it will sound the selected tone. Alternatively, multiple tones can be selected remotely by choosing the appropriate combination of inputs.¹ This allows a unique sound to match a specific alarm condition or to be used to escalate an alarm condition.

The Global Series sounder can be combined with all other Global Series audible and visual products in several custom configurations. Custom configurations can be ordered directly from the factory. Optional coupling kits, which allow limited field fixturing, are available.

FEATURES

- Supports 3 operational voltages: 24VDC, 120VAC 50/60Hz, and 230VAC 50/60Hz
- Optional 316 stainless steel ratchet adjustable mounting U-bracket (field installation required)
- Gain control
- Non-metallic corrosion resistant design
- 15 watt design
- Field customizable legend plates available²
- Optional indicator rings are available in six colors: Black, Blue, Green, Magenta, Red and Yellow
- Two M20 entries standard on Ex d models, three M20 entries standard on Ex de models
- Type 4X, IP66 enclosure
- Zone 1, 21 Rated, IECEx, ATEX, Ex d IIC, Ex de IIC and Ex tb IIIC
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III
- UL and cUL Listed for Class I, Zone 1 AEx db IIC T4: Zone 21, AEx tb IIIC T4/135°C, excludes increase safety versions (Ex de)
- UL Fire Listed (24VDC operating voltage ONLY)

MODEL	OPERATING VOLTAGE	NOMINAL OPERATING CURRENT ³	DECIBELS ⁴	
			10'	1M
G-SND	24VDC	0.460 amps	98	108
	120/230VAC 50/60Hz	0.140/0.080 amps	98	108

¹ Refer to application guide for specific wiring details

² Recommended labels: BRADY #B-855 Toughwash labels or ULINE #S-16643 weather resistant

³ Operating current varies with frequency content and input power

⁴ Measured using on-board tone 9 at nominal input voltage

UL/cUL HAZARDOUS LOCATION RATING

TEMPERATURE CODE AT 70°C	
Class I, Division 2, Groups A, B, C, D	T4
Class II, Division 2, Groups F, G	T6
Class III	T6

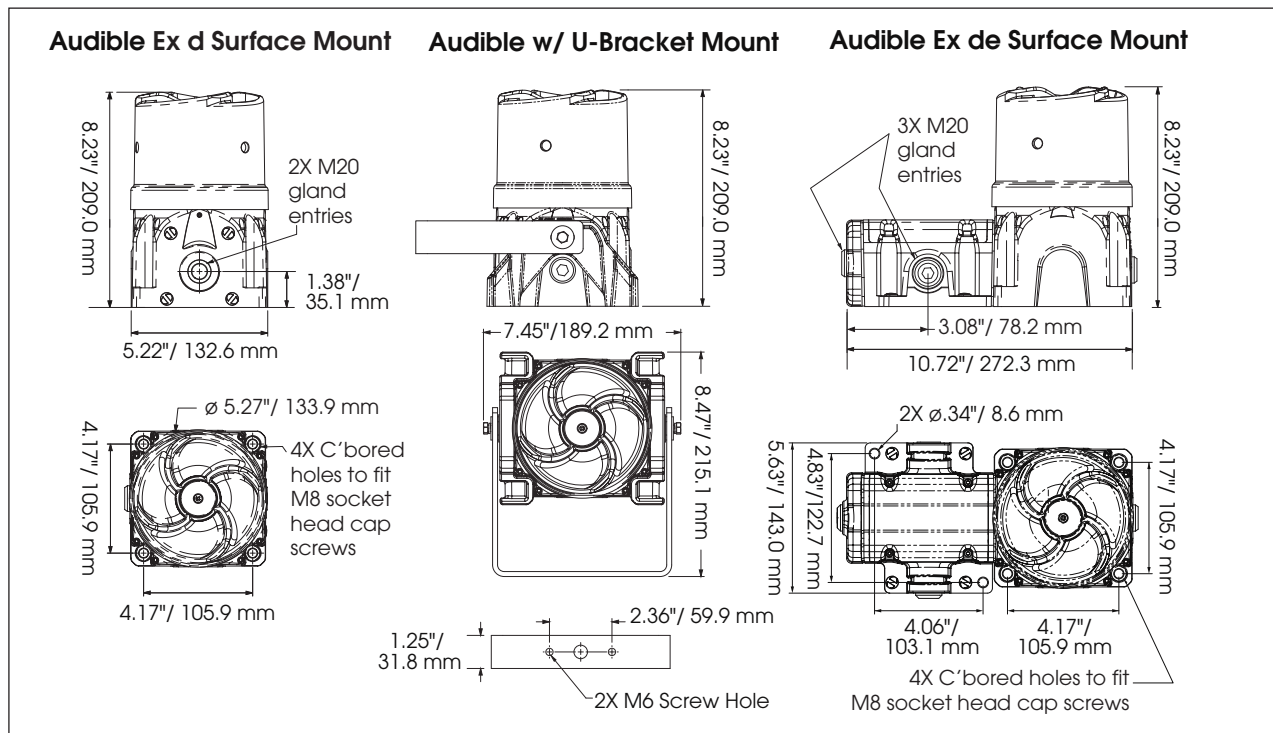
ATEX/IECEx HAZARDOUS LOCATION RATING

TEMPERATURE CODE	
AT 49°C	AT 70°C
T5 (in IIB)	T4 (in IIB)
T4 (in IIC)	T4 (in IIC)



Patent No. 9,886,832 B2

Global Series® Signaling Platform – Sounder (G-SND)



S P E C I F I C A T I O N S

Operating Temperature: -67°F to 158°F -55°C to 70°C
 ATEX/IECEx Certification Marking:
 Ex db IIB T5 Gb or Ex db e IIB T5 Gb
 Ex tb IIIC T100°C Db IP66
 Ex db IIC T4 Gb or Ex db e IIC T4 Gb
 Ex tb IIIC T135°C Db IP66
 ATEX: Baseefa15ATEX0155X
 IECEx: IECEx BAS 15.0104X

External Fasteners: 316 stainless steel
 Terminals: Ex d: 11 way block (3 in, 3 out with 4-tone selection terminals & select line)
 Ex de: 3-pole, 4 position quad pole terminal blocks
 Cable Entries: Ex d: 2 entries - M20 x 1.5
 Ex de: 3 entries - M20 x 1.5

UL and cUL Certification Marking:
 Class I, Division 2, Groups A,B,C,D T4 @ 70°C

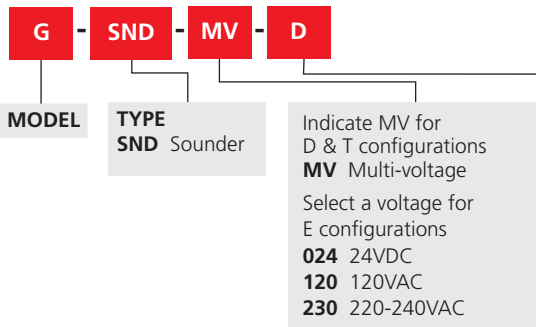
Class II, Division 2, Groups F,G T6 @ 70°C
 Class III T6 @ 70°C
 UL and cUL E12629

Net Product Weight:
 Ex d Surface Mount 9.61 lbs 4.36 kg
 Ex d U-Bracket Mount 11.59 lbs 5.26 kg
 Ex de Surface Mount 12.43 lbs 5.64 kg

R E P L A C E M E N T P A R T S

Description	Part Number
Multi-voltage G-SND Sounder Kit (Includes PCBAs, Bracket, Driver, & Mounting Screws)	K859501404
Accessories	
E-Box Endcap with M20 Opening	K859500805-02
E-Box Endcap with M25 Opening	K859500805-01
E-Box Cover Assembly (Includes two terminal blocks, mounting plate, retention hardware)	K859501414
Adapter, M20 Male to 1/2" Female NPT	K231246A
Adapter, M20 Male to 3/4" Female NPT	K231247

H O W T O O R D E R



CONFIGURATION
D Ex d Surface Mount
T Ex d U-Bracket Mount*
E Ex de Surface Mount

* Field Installation Required
 Reference Global Series accessory product page 160 for list of available accessories

#850000769 Rev. A0



► Model G-SPK

Global Series® Signaling Platform – Loudspeaker

Global Series® Loudspeakers utilize the latest techniques in non-metallic housing construction to improve corrosion resistance and reduce weight when compared to traditional metal housings. The Global Series Loudspeakers flameproof Ex d versions come standard with two (2) M20 entries. The increased safety Ex de versions include a separate terminal chamber for quick field termination or pass-through wiring, and includes three (3) M20 entries in a standard configuration.

Global Series Loudspeakers are available as 15 watt devices, and are designed to accept an audio input of either 70 Vrms or 100 Vrms (model-specific). Five (5) remotely selectable tap settings are available at each of the high and low volume settings (user configurable)¹.

The Global Series Loudspeaker can be combined with all other Global Series audible and visual products in several custom configurations. Custom configurations can be ordered directly from the factory. Optional coupling kits, which allow limited field fixturing, are available.

FEATURES

- Loudspeaker available in 70 Vrms or 100 Vrms
- Optional 316 stainless steel ratchet adjustable mounting U-bracket (field installation required)
- Non-metallic corrosion resistant design
- 15 watt design
- Field customizable legend plates available²
- Two M20 entries standard on Ex d models, three M20 entries standard on Ex de models
- Optional indicator rings are available in six colors: Black, Blue, Green, Magenta, Red and Yellow
- Type 4X, IP66 enclosure
- Zone 1, 21 Rated, IECEx, ATEX, Ex d IIC, Ex de IIC and Ex tb IIIC
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III
- UL and cUL Listed for Class I, Zone 1 AEx db IIC T4; Zone 21, AEx tb IIIC T4//135°C, excludes increase safety versions (Ex de)

MODEL	AUDIO LEVEL	MAX CURRENT DRAW	DECIBELS ³		VOLUME SETTING	AVAILABLE TAPS
			10'	1M		
G-SPK	70 Vrms	0.160 amps	96	106	High	15, 10, 7, 5, 2
	100 Vrms	0.110 amps	96	106	Low	1, 0.7, 0.5, 0.3, 0.1

¹ Refer to application guide for specific wiring details

² Recommended labels: BRADY #B-855 Toughwash labels or ULINE #S-16643 weather resistant

³ Measured using a reference frequency of 1.25 kHz at nominal input voltage

UL/cUL HAZARDOUS LOCATION RATING

TEMPERATURE CODE AT 70°C	
Class I, Division 2, Groups A, B, C, D	T3C
Class II, Division 2, Groups F, G	T6
Class III	T6

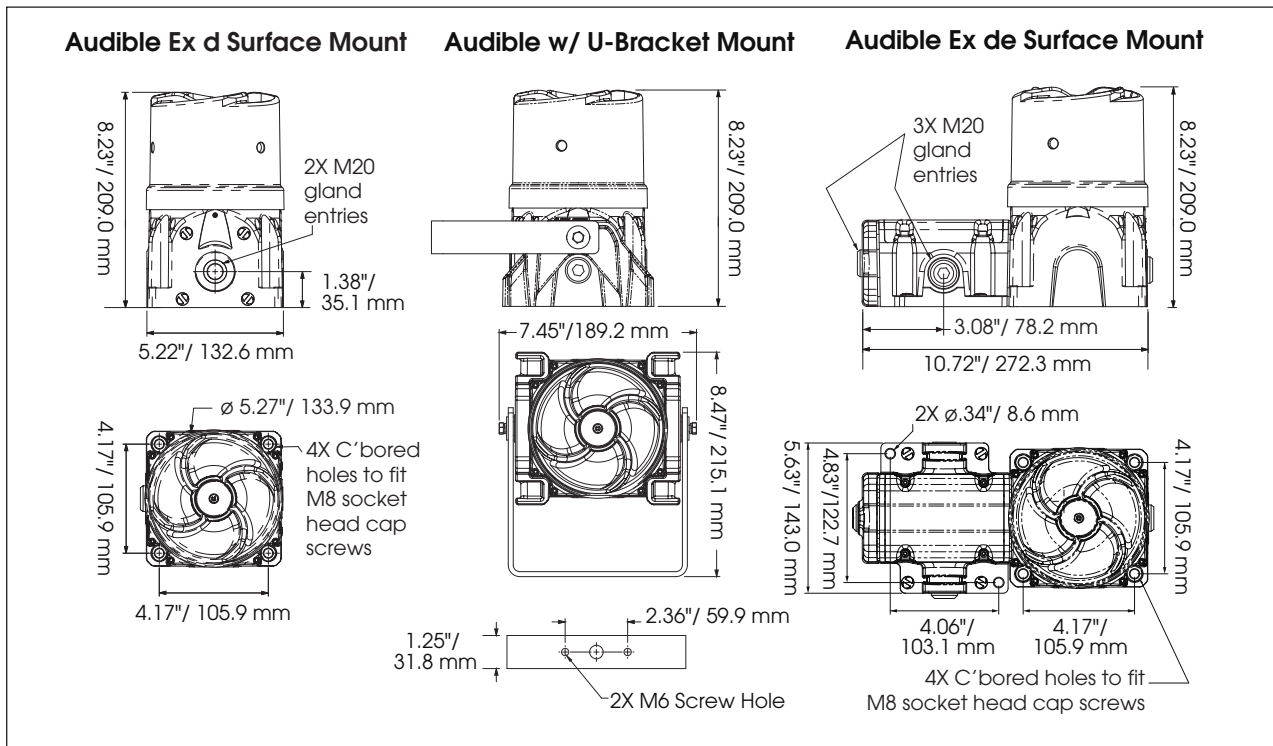
ATEX/IECEx HAZARDOUS LOCATION RATING

TEMPERATURE CODE	
AT 49°C	AT 70°C
T5 (in IIB)	T4 (in IIB)
T4 (in IIC)	T4 (in IIC)



Patent No. 9,886,832 B2

Global Series® Signaling Platform – Loudspeaker (G-SPK)



SPECIFICATIONS

Operating Temperature: -67°F to 158°F -55°C to 70°C

ATEX/IECEx Certification Marking:

- Ex db IIB T5 Gb or Ex db e IIB T5 Gb
- Ex tb IIIC T100°C Db IP66
- Ex db IIC T4 Gb or Ex db e IIC T4 Gb
- Ex tb IIIC T135°C Db IP66
- ATEX: Baseefa15ATEX0155X
- IECEx: IECEx BAS 15.0104X

External Fasteners: 316 stainless steel

Terminals: EX d: 10-way block (5 in, 5 out)

EX de: 3-pole, 4 position quad pole terminal blocks

Cable Entries: EX d: 2 entries - M20 x 1.5

EX de: 3 entries - M20 x 1.5

UL and cUL Certification Marking:

- Class I, Division 2, Groups A, B, C, D T3C @ 70°C
- Class II, Division 2, Groups F, G T6 @ 70°C
- Class III T6 @ 70°C
- UL and cUL E12629

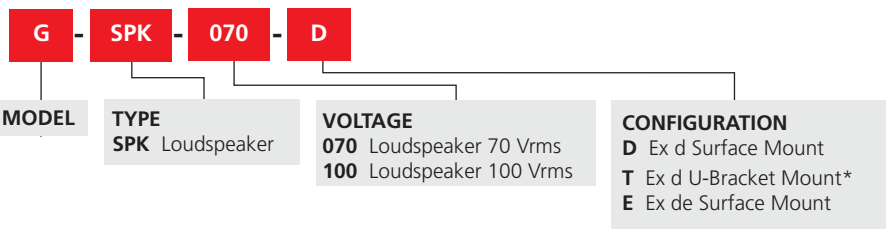
Net Product Weight:

Ex d Surface Mount	9.20 lbs	4.17 kg
Ex d U-Bracket Mount	11.18 lbs	5.07 kg
Ex de Surface Mount	12.02 lbs	5.45 kg

REPLACEMENT PARTS

Description	Part Number
70 Vrms, Loudspeaker Kit (Includes PCBAs, Bracket, Driver, & Mounting Screws)	K859501405-070
100 Vrms Loudspeaker Kit (Includes PCBAs, Bracket, Driver, & Mounting Screws)	K859501405-100
Accessories	
E-Box Endcap with M20 Opening	K859500805-02
E-Box Endcap with M25 Opening	K859500805-01
E-Box Cover Assembly (Includes two terminal blocks, mounting plate, retention hardware)	K859501414
Adapter, M20 Male to 1/2" Female NPT	K231246A
Adapter, M20 Male to 3/4" Female NPT	K231247

HOW TO ORDER



* Field Installation Required
Reference Global Series accessory product page 160 for list of available accessories

#850000770 Rev.A0



► Model G-SPA

Global Series® Signaling Platform – Amplified Speaker

Federal Signal Global Series® Amplified Speakers are designed for rugged industrial public address and general alarm applications. These models are available in explosion-proof Ex d versions and increased safety Ex de wiring box versions and are certified for gas Group IIC environments.

Global Series Amplified Speakers are capable of amplifying audio-level signals from either 0.8, 2.8, or 25 Vrms systems and reproducing it at 15 watt levels. Global Series Amplified Speakers work perfectly with ECHO Intercom systems, or with any application requiring audio amplification where ATEX or IECEx approval is required or desired.

The Global Series Amplified Speaker can be combined with all other Global Series audible and visual products in several custom configurations. Custom configurations can be ordered directly from the factory. Optional coupling kits, which allow limited field fixturing, are available.

FEATURES

- Optional 316 stainless steel ratchet adjustable mounting U-bracket (field installation required)
- Non-metallic corrosion resistant design
- Gain control
- Supports 3 operational voltages: 24VDC, 120VAC 50/60 Hz, and 230VAC 50/60 Hz
- Field customizable legend plates available¹
- Two M20 entries standard on Ex d models, three M20 entries standard on Ex de models
- Type 4X, IP66 enclosure
- Zone 1, 21 Rated, IECEx, ATEX, Ex d IIC, Ex de IIC and Ex tb IIIC
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III
- UL and cUL Listed for Class I, Zone 1 AEx db IIC T4: Zone 21, AEx tb IIIC T4//135°C, excludes increase safety versions (Ex de)
- Optional indicator rings are available in six colors: Black, Blue, Green, Magenta, Red and Yellow

MODEL	OPERATING VOLTAGE	NOMINAL OPERATING CURRENT ²	AUDIO LEVELS LINE LEVEL/ECHO	DECIBELS ⁴	
				10'	1M
G-SPA	24VDC	0.370 amps	0.8/2.8 or 25 Vrms	96	106
	120/230VAC 50/60Hz	0.060/0.040 amps	0.8/2.8 or 25 Vrms	96	106

¹ Recommended labels: BRADY #B-855 Toughwash labels or ULINE #S-16643 weather resistant

² Operating current varies with frequency content and input power

³ Ships with 2.8 Vrms selected; field switchable

⁴ Measured using a reference frequency of 1.25 kHz at nominal operating voltage and audio level

UL/cUL HAZARDOUS LOCATION RATING

TEMPERATURE CODE AT 70°C

Class I, Division 2, Groups A, B, C, D	T3C
Class II, Division 2, Groups F, G	T6
Class III	T6

ATEX/IECEx HAZARDOUS LOCATION RATING

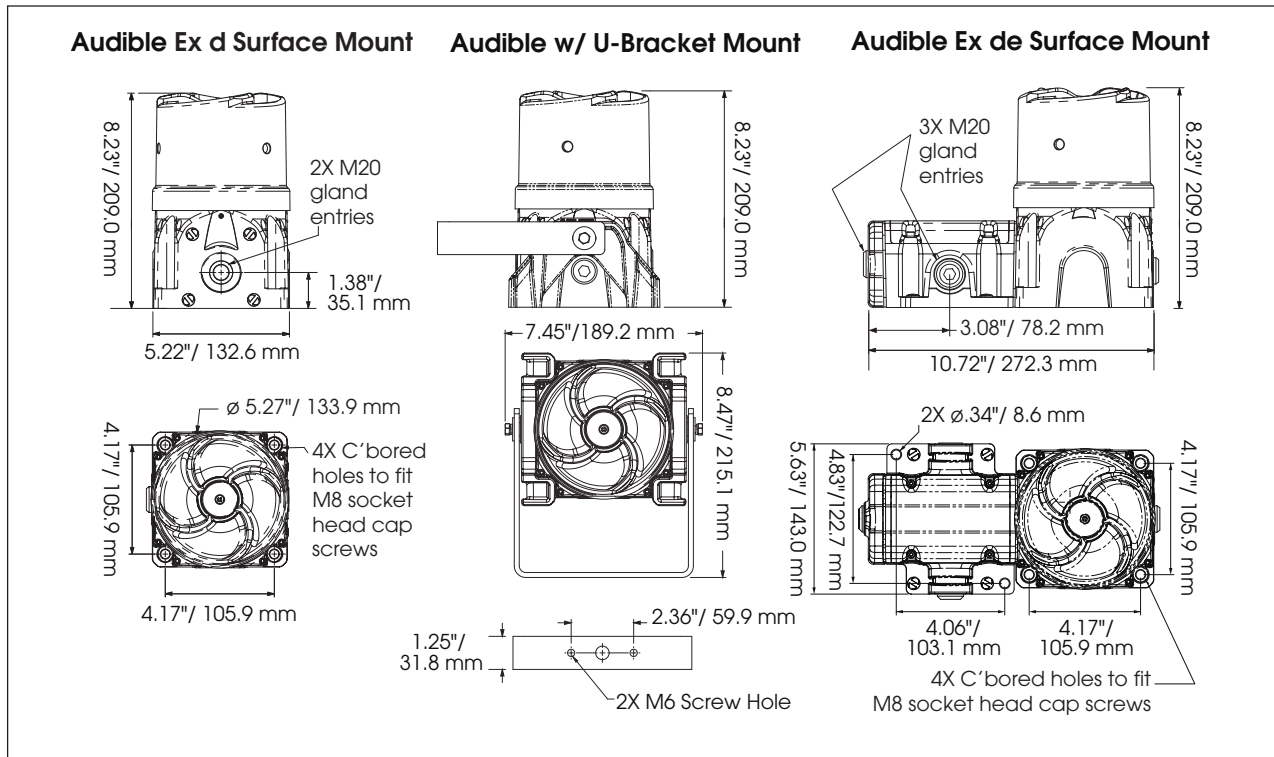
TEMPERATURE CODE

AT 49°C	AT 70°C
T5 (in IIB)	T4 (in IIB)
T4 (in IIC)	T4 (in IIC)



Patent No. 9,886,832 B2

Global Series® Signaling Platform – Amplified Speaker (G-SPA)



SPECIFICATIONS

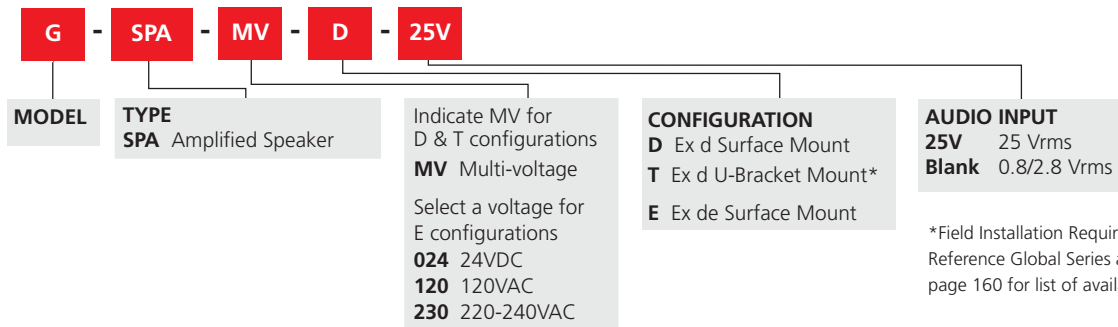
Operating Temperature: -67°F to 158°F -55°C to 70°C
 Certification Marking: Ex db IIB T5 Gb or Ex db e IIB T5 Gb
 Ex tb IIIC T100°C Db IP66
 Ex db IIC T4 Gb or Ex db e IIC T4 Gb
 Ex tb IIIC T135°C Db IP66
 ATEX: Baseefa15ATEX0155X
 IECEx: IECEx BAS 15.0104X
 External Fasteners: 316 stainless steel
 Terminals: Ex d: 10 way block (3 in, 3 out with audio input)
 Ex de: 3-pole, 4 position quad pole terminal blocks
 Cable Entries: Ex d: 2 entries - M20 x 1.5
 Ex de: 3 entries - M20 x 1.5
 UL and cUL Certification Marking:
 Class I, Division 2, Groups A, B,C, D T3 @ 70°C
 Class II, Division 2, Groups F, G T6 @ 70°C
 Class III T6 @ 70°C
 UL and cUL E12629

Net Product Weight		
Ex d Surface Mount	9.65 lbs	4.38 kg
Ex d U-Bracket Mount	11.63 lbs	5.28 kg
Ex de Surface Mount	12.47 lbs	5.66 kg

REPLACEMENT PARTS

Description	Part Number
Multi-Voltage G-GPA Speaker Kit (Includes PCBAs, Bracket, Driver, & Mounting Screws)	K859501403
Accessories	
E-Box Endcap with M20 Opening	K859500805-02
E-Box Endcap with M25 Opening	K859500805-01
E-Box Cover Assembly (Includes two terminal blocks, mounting plate, retention hardware)	K859501414
Adapter, M20 Male to 1/2" Female NPT	K231246A
Adapter, M20 Male to 3/4" Female NPT	K231247

HOW TO ORDER



#85000771 Rev. A0



► Model G-MS-C-2

Global Series® Signaling Platform Dual Signal

Federal Signal patented Global Series® models were designed with modularity in mind. While they are completely functional as stand-alone devices in both flameproof “Ex d” and increased safety “Ex de” assemblies, 2-module configurations are also available to serve applications requiring more than one signal. Global Series devices are designed with a non-metallic housing construction.

The Dual Signal assembly allows two audible or visual Global Series devices to be combined as one complete assembly, with a common increased safety “Ex de” field wiring chamber which greatly simplifies the installation and wiring of two signals. The dual signal can be surface mounted or mounted with an optional ratchet adjustable stainless steel mounting U-bracket.

Either of the devices can be wired to function independently or in tandem¹. Two like devices can also be combined to support a redundant alerting system, simplifying installation of A/B redundant systems.

Refer to individual Global Series data sheets for additional information.



Sounder and Strobe Dual Ex de Surface Mount
(shown with optional Indicator Ring and Legend Plate Kit)



Sounder and LED Dual Ex de U-Bracket Mount
(shown with optional Indicator Ring and Legend Plate Kit)



Dual Loudspeaker Ex de Surface Mount

FEATURES

- Non-metallic corrosion resistant GRP housing
- Optional 316 stainless steel ratchet adjustable mounting U-bracket (field assembly required)
- 316 stainless steel dome guard included on visual signals
- Standard M20 cable entries; 1/2" NPT and 3/4" NPT adapters available; M25 cable entry option
- LED has 8 field selectable flash patterns
- High-output strobe available in 15J or 21J
- Sounder has 15 field selectable tones
- Optional indicator rings are available in six colors: Black, Blue, Green, Magenta, Red and Yellow
- Field customizable legend plates available²
- IP66 enclosure
- G-LED and G-STR units are IP69K compliant
- Zone 1, 21 Rated, IECEx, ATEX, Ex d IIC, Ex de IIC and Ex tb IIC
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III
- Audible devices: UL and cUL Listed for Class I, Zone 1 AEx db IIC T4: Zone 21, AEx tb IIC T4//135°C, excludes increase safety versions (Ex de)
- Visual devices: UL and cUL Listed for Class I, Zone 1 AEx db IIC T3: Zone 21, AEx tb IIC T200°C, excludes increase safety versions (Ex de)
- UL Fire Listed (24VDC, Clear 21J Strobe and Sounder only)

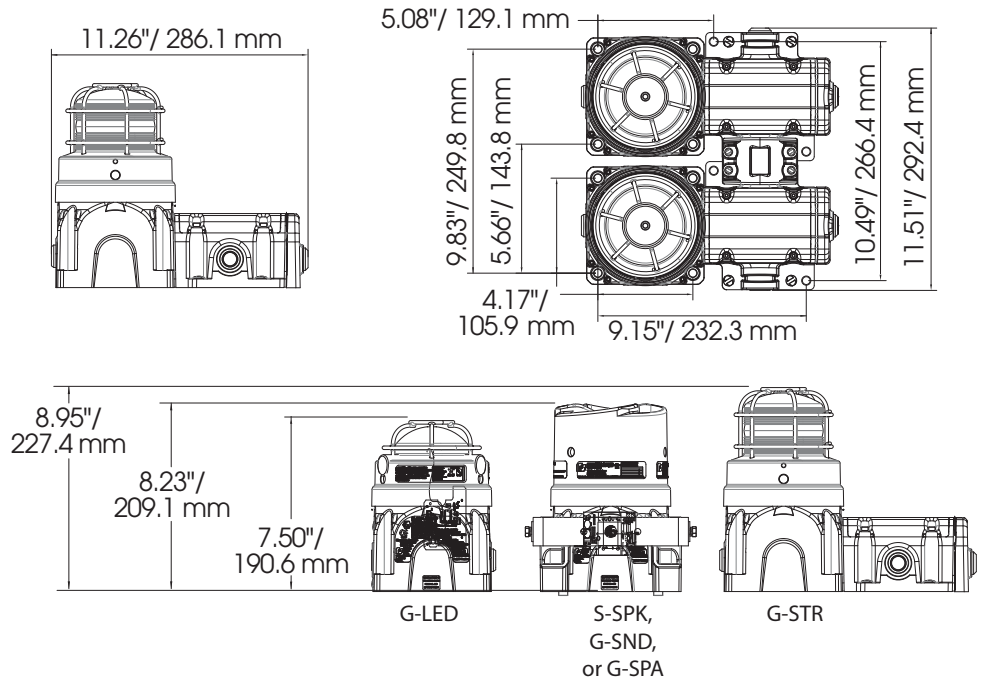
¹ Refer to application guide for specific wiring details

² Recommended labels: BRADY #B-855 Toughwash labels or ULINE #S-16643 weather resistant

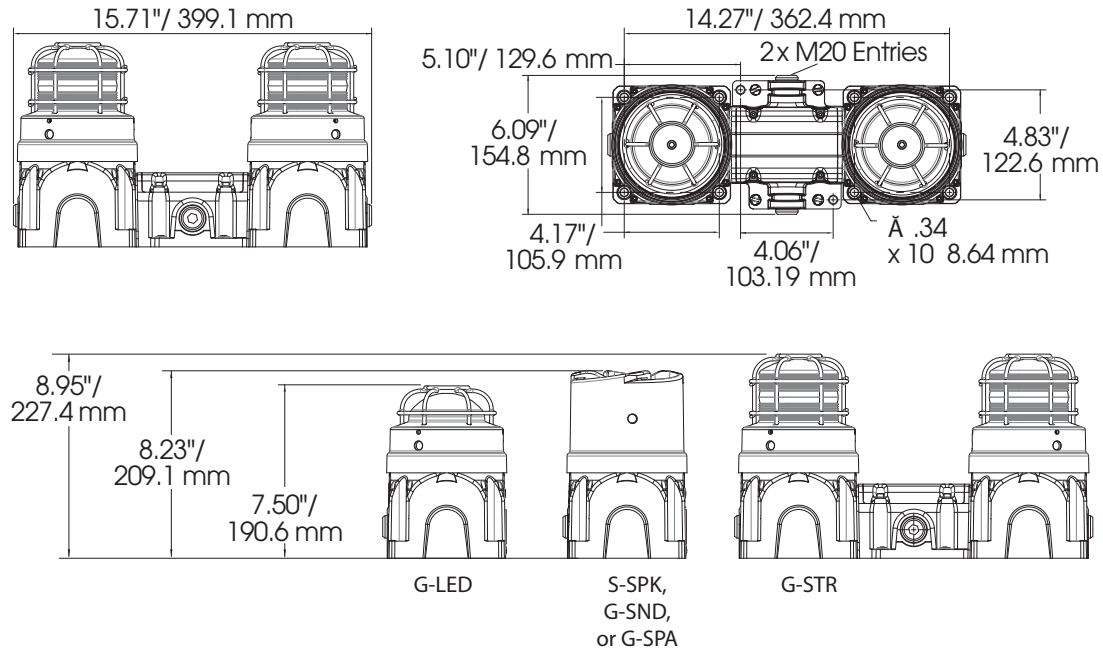


Global Series® Signaling Platform – Dual Signal (Model G-MSC-2)

G-MSC-2A – Linear

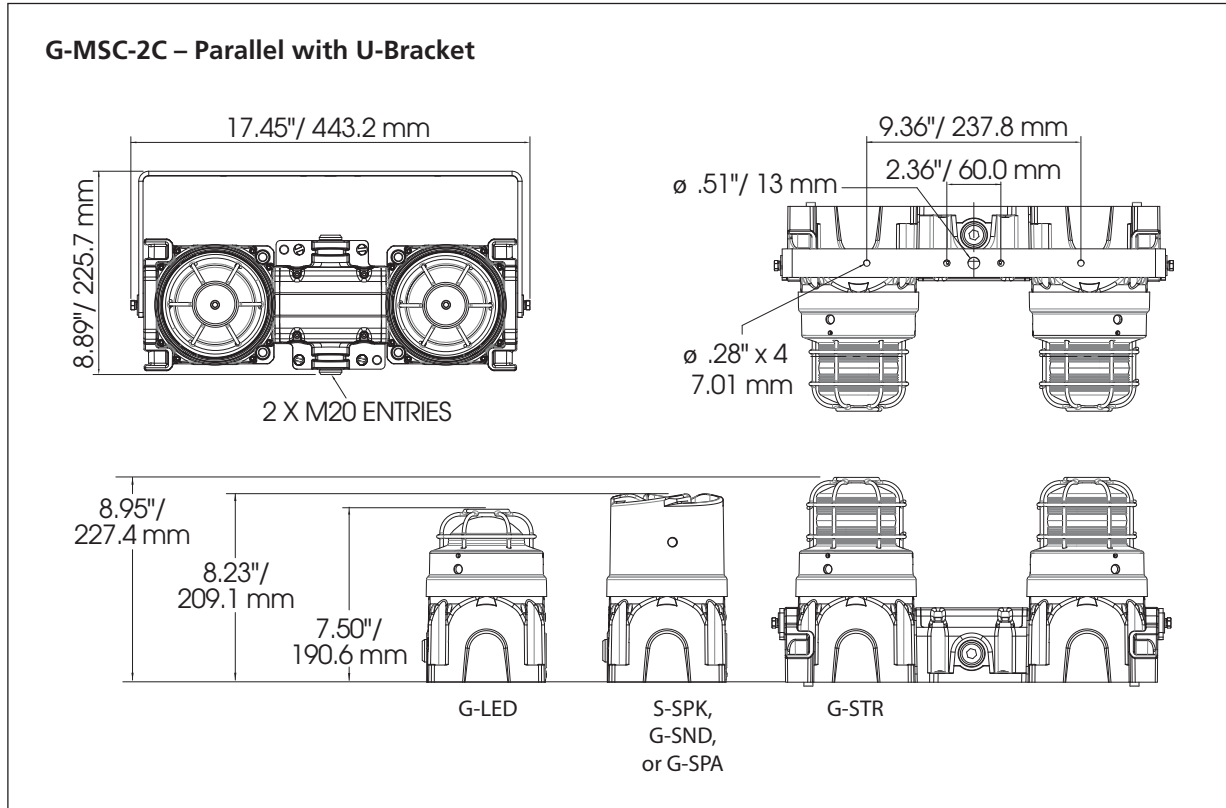


G-MSC-2B – Parallel





Global Series® Signaling Platform – Dual Signal (Model G-MSC-2)



S P E C I F I C A T I O N S

Operating Temperature Range: 67°F to 158°F 55°C to 70°C

Certification Marking: Ex db IIC Gb, Ex tb IIIC Db IP66
Ex db e IIC Gb, Ex tb IIIC Db IP66

LED Models: ATEX: Baseefa15ATEX0153X
IECEX: IECEX BAS 15.0102X

Strobe Models: ATEX: Baseefa15ATEX0154X
IECEX: IECEX BAS 15.0103X

Audible Models: ATEX: Baseefa15ATEX0155X
IECEX: IECEX BAS 15.0104X

Refer to individual data sheets for additional information.

Guard and External Fasteners: 316 stainless steel

Terminals: Ex d: 6 way block (3 in, 3 out)
Ex de: 2x3 position quad pole terminal block

Cable Entries: Ex d: 2 entries - M20 x 1.5
Ex de: 3 entries - M20 x 1.5

Net Weight:

Step 1 - For dual models, add the net weight of each product being ordered:

Model S-STR – Strobe	7.17 lbs	3.25 kg
Model G-LED – LED	6.17 lbs	2.80 kg
Model G-SND – Sounder	9.61 lbs	4.36 kg
Model G-SPA – Amplified Speaker	9.65 lbs	4.38 kg
Model G-SPK – Loudspeaker	9.20 lbs	4.17 kg

Step 2 - Add one of the following mounting options to calculate over all model weight

Dual Device U-Bracket Option (2 side mounts, hardware, long bracket)	2.63 lbs	1.19 kg
Dual Device Surface Mount (line bushing, not including end cap)	2.47 lbs	1.12 kg

Global Series® Signaling Platform – Dual Signal (Model G-MS-C-2)

HOW TO ORDER

G	-	MSC	-	2A	-	120	-	DEVICE AND COLOR CODE	
								1	2
L		R		L		G			
MODEL		TYPE MSC		CONFIGURATION		VOLTAGE		DEVICE	COLOR
				2A 2 Device Linear 2B 2 Device Parallel 2C 2 Device Parallel w/U-Bracket		024 (24VDC) 120 (120VAC) 230 (220-240VAC)		AN Amplified Speaker – 0.8/2.8Vrms A2N Amplified Speaker – 25Vrms L LED K7N Loudspeaker – 70V K1N Loudspeaker – 100V NN Sounder S1 Strobe – 15J S Strobe – 21J	A Amber B Blue C Clear G Green M Magenta R Red Y Yellow Blank Audible

OPTIONAL ACCESSORIES

Cable Entry Options and Adapters

Description	Part Number
E-Box Endcap with M20 Opening	K859500805-02
E-Box Endcap with M25 Opening	K859500805-01
E-Box Cover Assembly ¹	K859501414
Adapter, M20 Male to 1/2" Female NPT	K231246A
Adapter, M20 Male to 3/4" Female NPT	K231247
U-Bracket for Dual Configuration	G-KIT-DT

¹ Includes two terminal blocks, mounting plate and retention hardware

Indicator Ring and Legend Plate Kit

Kit includes one (1) indicator ring, one (1) legend plate², and associated hardware

Description	Part Number
Black	G-KIT-RP-BK
Blue	G-KIT-RP-B
Green	G-KIT-RP-G
Magenta	G-KIT-RP-M
Red	G-KIT-RP-R
Yellow	G-KIT-RP-Y



² Recommended labels: BRADY #B-855 Toughwash labels or ULINE #S-16643 weather resistant



▶ Global Series® Custom Configured Fixtures

Quick and easy inter-connecting modular products are the best way to describe the Global Series® product line.

All Global Series fixtures start with the increased safety “Ex de” models and can be combined into a multitude of configurations using two to six devices. The patented connecting system greatly simplifies a user’s installation and wiring experience by requiring only a single explosion-proof wiring gland external to the devices.

Two standard configurations are available pre-assembled from the factory: Linear and Parallel. Other custom configurations are available to meet unique project requirements. Some restrictions apply; contact our Technical Support team or your local sales representative for more options.

Refer to individual Global Series data sheets for additional information.



Parallel configuration

Linear configuration

FEATURES

- Fully factory assembled
- Non-metallic corrosion resistant GRP housings
- Optional 316 stainless steel ratchet adjustable mounting U-bracket for G-MSC-2B only (field assembly required)
- 316 stainless steel dome guard included on visual signals
- Standard M20 cable entries; 1/2" NPT and 3/4" NPT adapters available; M25 cable entry option
- No mounting orientation limitations
- LED has 8 field selectable flash patterns, default setting to “Flashing at 60 FPM”
- High-output strobe available in 15J or 21J
- Sounder has 15 field selectable tones, default setting to “C” 1kHz tone
- Includes all connector kits/hardware and standard single activation or audio wiring with flying leads. Customer wiring and activations are available, contact factory for assistance
- Optional indicator rings are available in six colors: Black, Blue, Green, Magenta, Red and Yellow
- Field customizable legend plates available¹
- Additional custom configurations are available contact Technical Support or a local sales agent for information
- IP66 enclosure
- G-LED and G-STR units are IP69K compliant
- Zone 1, 21 Rated, IECEx, ATEX, Ex d IIC, Ex de IIC and Ex tb IIC
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III
- Audible devices: UL and cUL Listed for Class I, Zone 1 AEx db IIC T4: Zone 21, AEx tb IIC T4//135°C, excludes increase safety versions (Ex de)
- Visual devices: UL and cUL Listed for Class I, Zone 1 AEx db IIC T3: Zone 21, AEx tb IIC T200°C, excludes increase safety versions (Ex de)
- UL Fire Listed (24VDC, Clear 21J Strobe and Sounder only)

¹ Recommended labels: BRADY #B-855 Toughwash labels or ULINE #S-16643 weather resistant



Global Series[®] Custom Configured Fixtures

G-MSC Linear Configurations

Available from 2 to 6 devices in a linear configuration. Devices positions start bottom to top. Position #1 determined by proximity to junction box.



G-MSC Parallel Configurations

Available from 2 to 6 devices in a stacked parallel configuration. Device positions start bottom left, proceed left to right, then bottom to top.



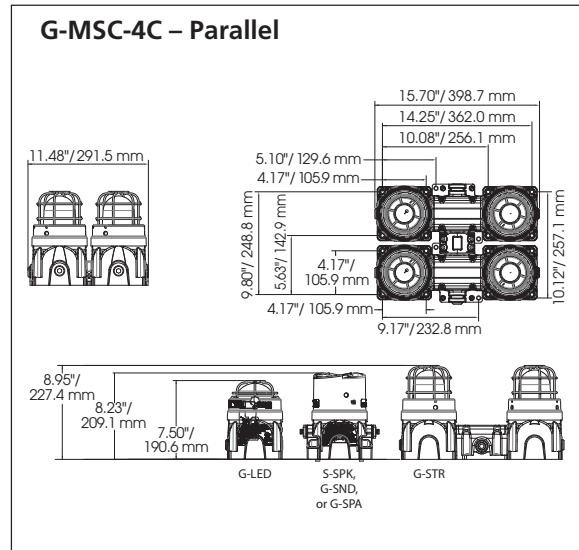
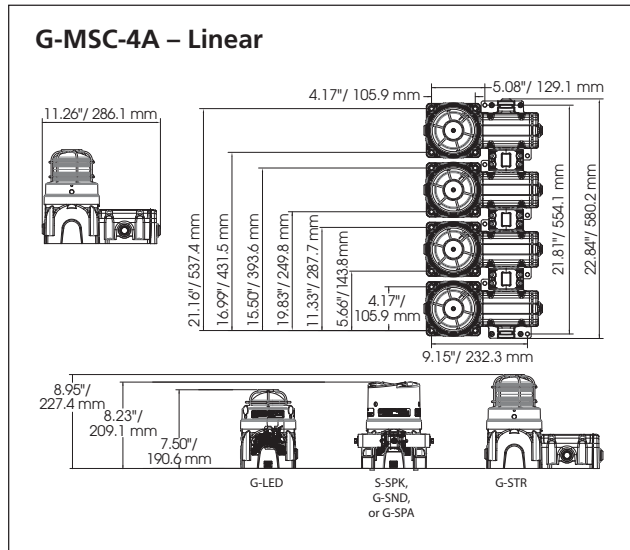
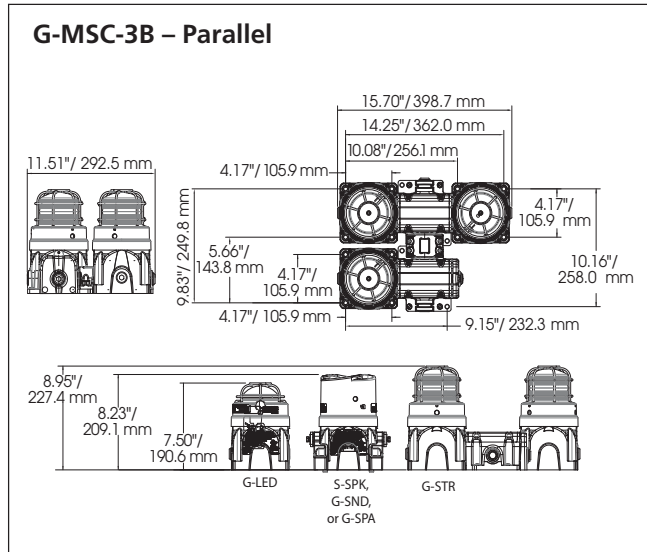
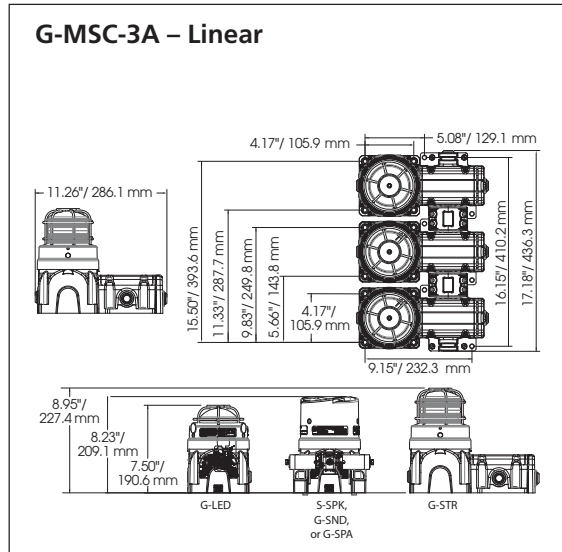
Audible Device Restrictions

- 1) Fixtures are limited to two audible devices in any configuration. Audible devices must be located in Position #1 or #2. Position #1 is designated by the first device connected to the junction box (user supplied).
- 2) In a parallel configuration, if Position #1 is a G-SPA, Position #2 cannot be a G-SPA or G-SPK.
- 3) In a parallel configuration, if Position #1 is a G-SPK, Position #2 cannot be a G-SPA.



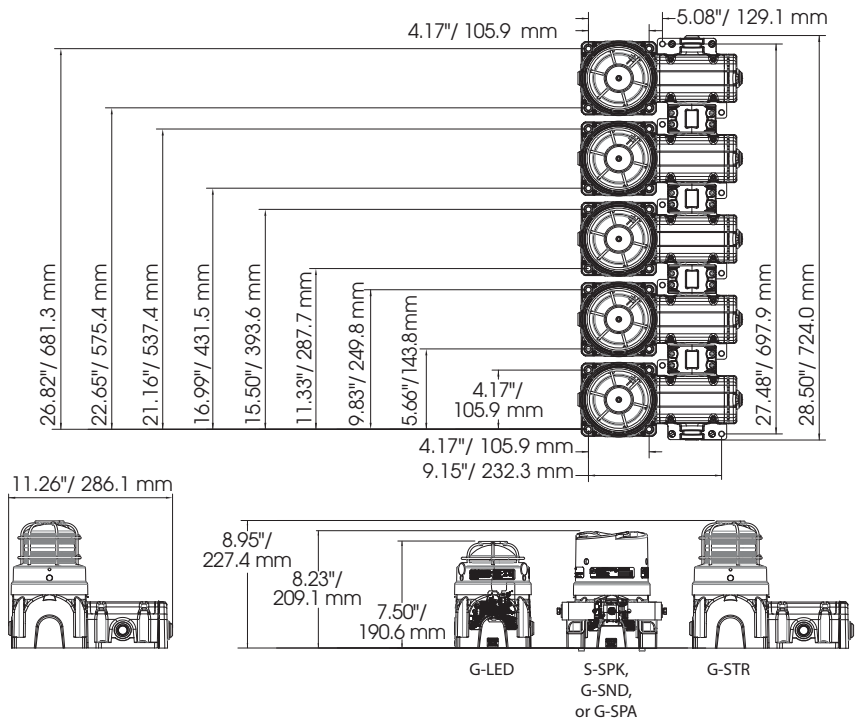
Global Series® Custom Configured Fixtures

Refer to the Global Series G-MSC-2 Dual Signal cut sheet for G-MSC-2A, G-MSC-2BA and G-MSC-2C drawings.

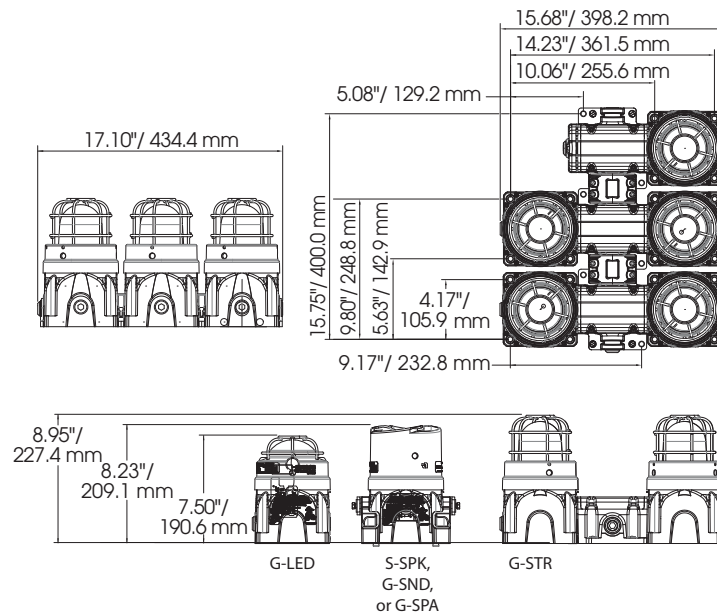


Global Series® Custom Configured Fixtures

G-MSC-5A – Linear

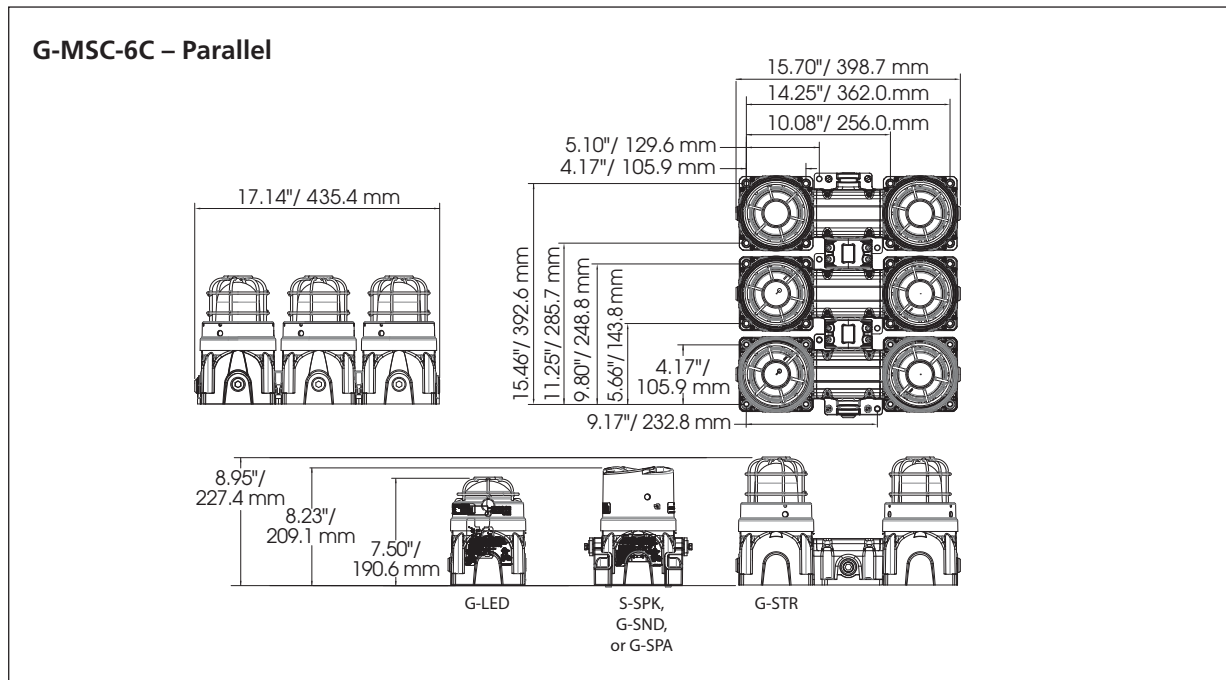
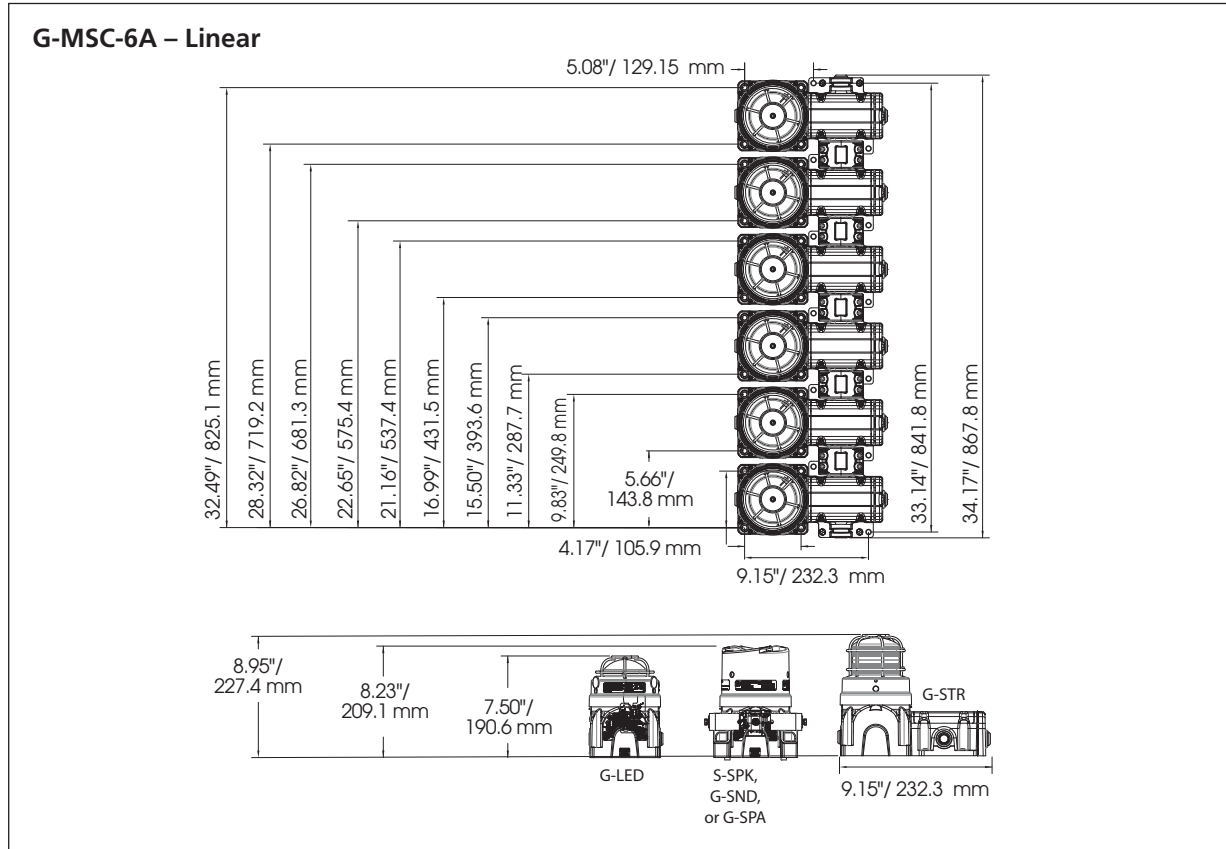


G-MSC-5C – Parallel





Global Series® Custom Configured Fixtures



Global Series® Custom Configured Fixtures

HOW TO ORDER

G	MSC	6A	120	DEVICE AND COLOR CODE (Up to 6 Devices)					
MODEL	TYPE MSC	CONFIGURATION	VOLTAGE	1	2	3	4	5	6
				NN	K7N	LB	SR	SG	LY
				DEVICE					
				AN Amplified Speaker – 0.8/2.8Vrms					
				A2N Amplified Speaker – 25Vrms					
				L LED					
				K7N Loudspeaker – 70V					
				K1N Loudspeaker – 100V					
				NN Sounder					
				S1 Strobe – 15J					
				S Strobe – 21J					
				COLOR					
				A Amber					
				B Blue					
				C Clear					
				G Green					
				M Magenta					
				R Red					
				Y Yellow					
				Blank Audible					

OPTIONAL ACCESSORIES

Cable Entry Options and Adapters

Description	Part Number
E-Box Endcap with M20 Opening	K859500805-02
E-Box Endcap with M25 Opening	K859500805-01
E-Box Cover Assembly ¹	K859501414
Adapter, M20 Male to 1/2" Female NPT	K231246A
Adapter, M20 Male to 3/4" Female NPT	K231247

¹ Includes two terminal blocks, mounting plate and retention hardware

Indicator Ring and Legend Plate Kit

Kit includes one (1) indicator ring, one (1) legend plate², and associated hardware

Description	Part Number
Black	G-KIT-RP-BK
Blue	G-KIT-RP-B
Green	G-KIT-RP-G
Magenta	G-KIT-RP-M
Red	G-KIT-RP-R
Yellow	G-KIT-RP-Y



² Recommended labels: BRADY #B-855 Toughwash labels or ULINE #S-16643 weather resistant

Patent No. 9,886,832 B2



▶ Global Series® Accessories

Indicator Ring and Legend Plate Kit

Kit includes one (1) indicator ring, one (1) legend plate¹, and associated hardware

Description	Part Number
Black	G-KIT-RP-BK
Blue	G-KIT-RP-B
Green	G-KIT-RP-G
Magenta	G-KIT-RP-M
Red	G-KIT-RP-R
Yellow	G-KIT-RP-Y

¹ Recommended labels: BRADY #B-855 Toughwash labels or ULINE #S-16643 weather resistant



Single Mount U-Bracket Kit

Kit includes one (1) single U-Bracket, two (2) U-Bracket side mounts and associated hardware. It is compatible with all "Ex d" units.

Part Number
G-KIT-ST



Dual Mount U-Bracket Kit

Kit includes one (1) dual U-Bracket, two (2) U-Bracket side mounts and associated hardware. It is compatible with any standard dual unit.

Part Number
G-KIT-DT



Patent No. 9,886,832 B2

Global Series® Coupling Kits

The accessories below allow single unit Global Series® “Ex de” models to be coupled to other Global Series “Ex de” models. These kits allow installers in the field to create multi-unit configurations. Note: multi-unit configurations can be ordered pre-assembled according to a customer specification. The benefit of pre-assembled configurations is reduced on-site wiring and installation.



90° e-Box to e-Box Endcap Coupling Kit

Kit includes one (1) flanged e-Box coupler endcap, one (1) coupler, one (1) gasket and four (4) mounting bolts

Part Number
G-KIT-EC90



In-Line e-Box to e-Box Endcap Coupling Kit

Kit includes two (2) flanged e-Box coupler endcaps, one (1) coupler, one (1) gasket and four (4) mounting bolts

Part Number
G-KIT-EC180



Side Mount e-Box to e-Box Coupling Kit

Kit includes one (1) coupler, one (1) gasket, and four (4) mounting bolts

Part Number
G-KIT-ECSM



Extension Box Kit

Kit includes e-Box without terminal blocks and two (2) M20 Plugs

*Cannot be field assembled to “Ex d” models.

Part Number
G-KIT-EXTB*

Patent No. 9,886,832 B2



► Model 350

Vibratone® Horn

Model 350 Vibratone® Horn produces a loud tone by the electro-mechanical vibration of a diaphragm. Its compact size, loud output and heavy-duty construction makes Model 350 ideal for industrial and institutional signaling applications. It's popularly used for general alarming, start and dismissal noticing, coded paging and process control in noisy areas.

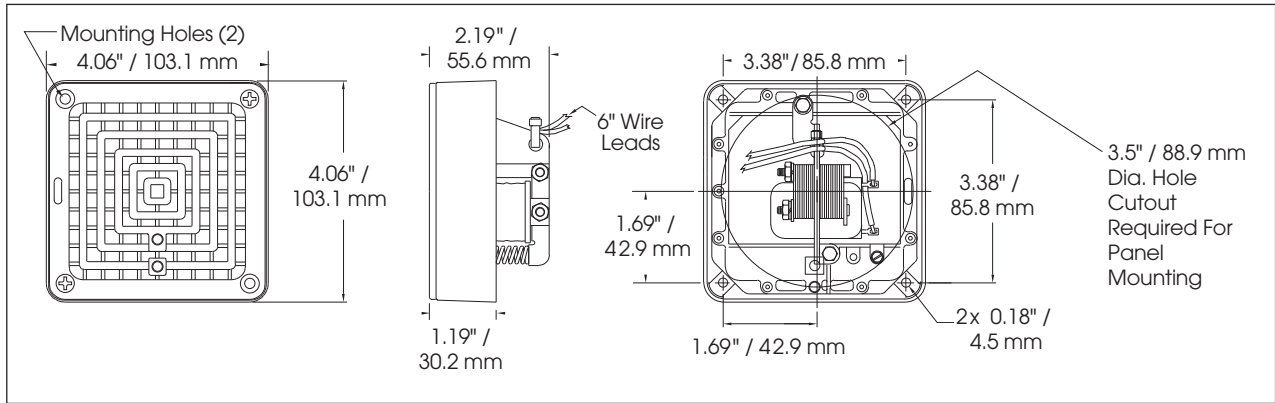
Model 350 is enclosed in a zinc die-cast housing and sealed with gray powder-coated paint with a stainless steel diaphragm.

FEATURES

- Available in 12VAC, 24VAC, 120VAC and 240VAC
- Coded or sustained tones
- Produces 100 dBa @ 10' (110 dBa @ 1m)
- Surface or flush mounting options
- Type 4X when installed with Panel Mount Gasket Kit; Type 4X enclosure, IP69K compliant when installed with optional Weatherproof Back Box (Model WB); Type 4X and Type 12 when installed with Surface Mount Trim Ring (Model TR)
- CSA Certified
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS	
			10'	1M
350-012-30	12VAC 50/60Hz	0.90 amps	94	104
350-024-30	24VAC 50/60Hz	0.90 amps	100	110
350-120-30	120VAC 50/60Hz	0.18 amps	100	110
350-240-30	240VAC 50/60Hz	0.09 amps	100	110

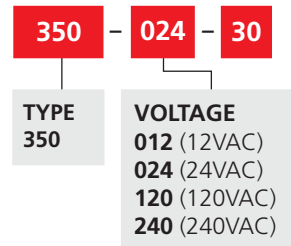
Vibratone® Horn (350)



SPECIFICATIONS

Operating Temperature:	-65°F to 150°F -54°C to 66°C	
Duty Cycle:	5 minutes ON/5 minutes OFF	
Net Weight:	1.4 lbs	0.6 kg
Shipping Weight:	1.5 lbs	0.7 kg
Height:	4.06"	103.1 mm
Width:	4.06"	103.1 mm
Depth:	2.19"	55.6 mm

HOW TO ORDER



REPLACEMENT PARTS

Description	Part Number
Panel Mount Gasket Kit	K8435666A
Volume Control Kit	K8435663B
Coil, 120VAC	KFC 1516C
Coil, 240VAC	KFC 1506C

Optional Accessories below:



OPTIONAL ACCESSORIES

Description	Part Number
Wall box for flush mounting stud, 4" block, or other shallow wall construction; 4-3/8" square box; 2-7/8" deep; shipping weight 2 lbs (0.91 kg)	FB
Same as FB, but 3-13/16" deep for 6" x 8" concrete block, cinder block or other deep wall construction; shipping weight 3 lbs (1.36 kg)	FBL
Flush grille which attaches to the basic unit and serves as the cover of the plastered-in FB flush box; 6" H x 6"W x 1/8" D; shipping weight 1 lb (0.45 kg)	FG
Non-metallic double projector directs sounds to both sides when attached to 350/450E models; ideal for use in hallways; 4" H x 11-1/2" W x 4" D; shipping weight 1 lb (0.45kg)	PR2-NM
Stamped surface plate used for installations on plastered-in 4" outlet switch boxes for semi-flush mountings; 6"H x 6" W x 1/2" D; shipping weight 1 lb (0.45 kg)	SF
Gasketed trim ring allowing surface mount installations of unit while maintaining Type 12 and Type 4X enclosure rating	TR
Optional Panel Mounting Gasket Kit includes a gasket and hardware for surface or flush mounting the horn for Type 4X applications	K8435666A
Cast aluminum neoprene-gasketed weatherproof housing for outside use, complete with mounting lugs; tapped for 1/2", 3/4" conduit; 4 3/8" square box; 2" deep mounting lugs on 4 1/2" centers; shipping weight 1 lb (0.45 kg)	WB



► Model 350TR

Vibratone® Horn with Weatherproof Trim Ring

Model 350TR Vibratone® Horn produces a loud tone by the electro-mechanical vibration of the diaphragm. Its compact size, loud output and heavy-duty construction makes Model 350TR ideal for industrial and institutional signaling applications. It's popularly used for general alarming, start and dismissal noticing, coded paging and process control in noisy areas.

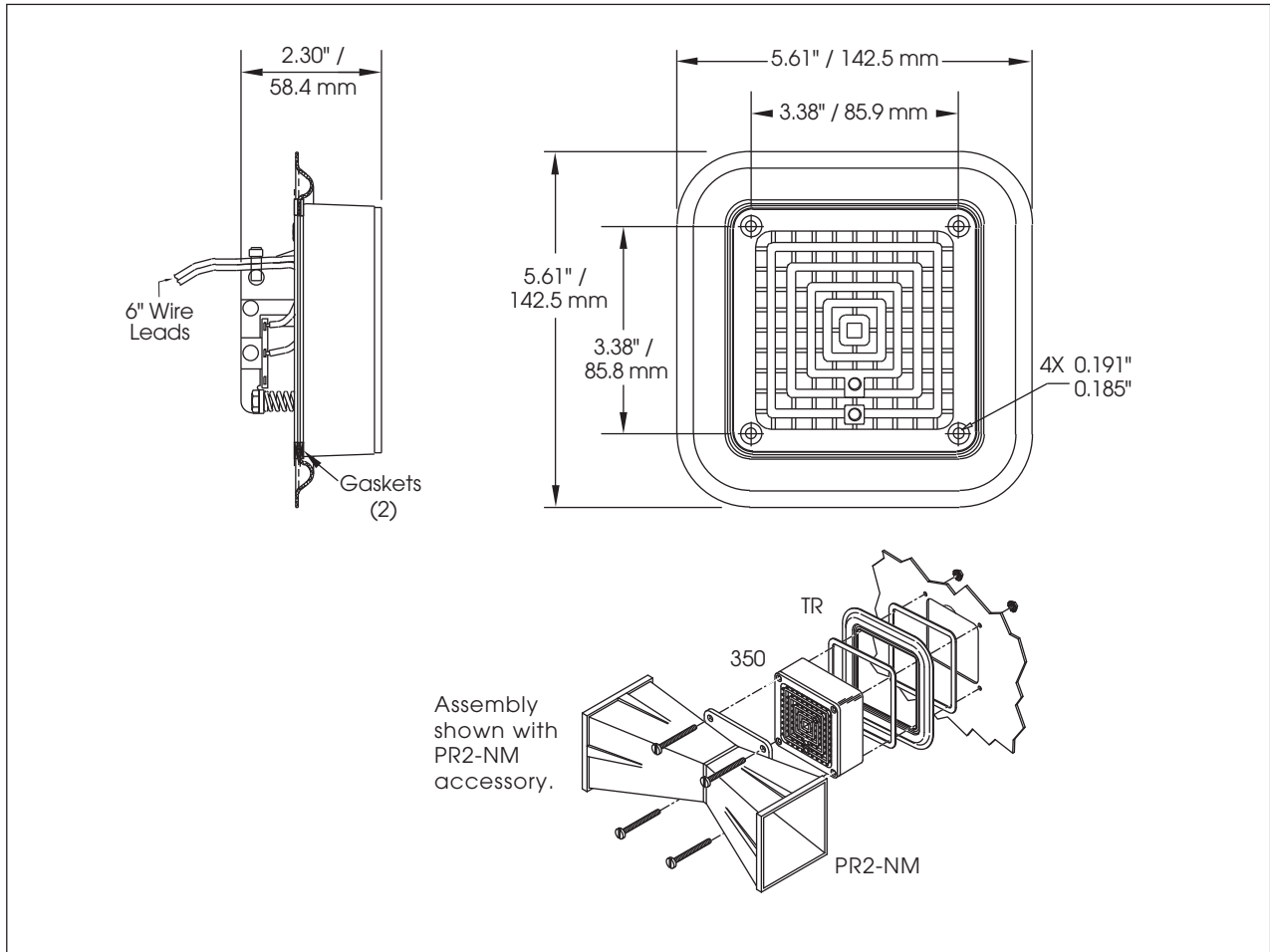
Model 350TR offers the benefits of quick and simple surface mount installation as each horn is supplied with a gasketed trim ring. Model 350TR is enclosed in a zinc die-cast housing and sealed with gray powder-coated paint with a stainless steel diaphragm.

FEATURES

- 24VAC and 120VAC
- Produces 100 dBa @ 10' (110 dBa @ 1m)
- Coded or sustained tones
- Surface or flush mount
- Type 4X and Type 12 enclosure
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS	
			10'	1M
350TR-024	24VAC 50/60Hz	0.90 amps	100	110
350TR-120	120VAC 50/60Hz	0.18 amps	100	110

Vibratone® Horn with Weatherproof Trim Ring (350TR)



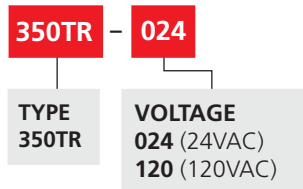
S P E C I F I C A T I O N S

Operating Temperature:	-65°F to 150°F	-54°C to 66°C
Duty Cycle:	5 minutes ON/5 minutes OFF	
Net Weight:	1.7 lbs	0.77 kg
Shipping Weight:	1.8 lbs	0.81 kg
Height:	5.61"	142.5 mm
Width:	5.61"	142.5 mm
Depth:	2.30"	58.4 mm

R E P L A C E M E N T P A R T S

Description	Part Number
Volume Control Kit	K8435663B
Coil, 120VAC	KFC1516C
Coil, 240VAC	KFC1506C

H O W T O O R D E R



O P T I O N A L A C C E S S O R I E S

Description	Part Number
Non-metallic double projector directs sounds to both sides when attached to 350/450E models; ideal for use in hallways; 4" H x 11-1/2" W x 4" D; shipping weight 1 lb (0.45kg)	PR2-NM





► Model 350WB

Vibratone® Horn with Weatherproof Back Box

Model 350WB Vibratone® horn produces sound by the electro-mechanical vibration of a stainless steel diaphragm. The horn mechanism with diaphragm is attached to the grille. Indoor or outdoor use is made possible by the water- and dust-tight back box.

Model 350WB features a die-cast aluminum rear housing sealed with a gray enamel finish. The rugged outer housing resists vandalism without reducing sound output. Model 350WB is fused and utilizes a terminal block connection.

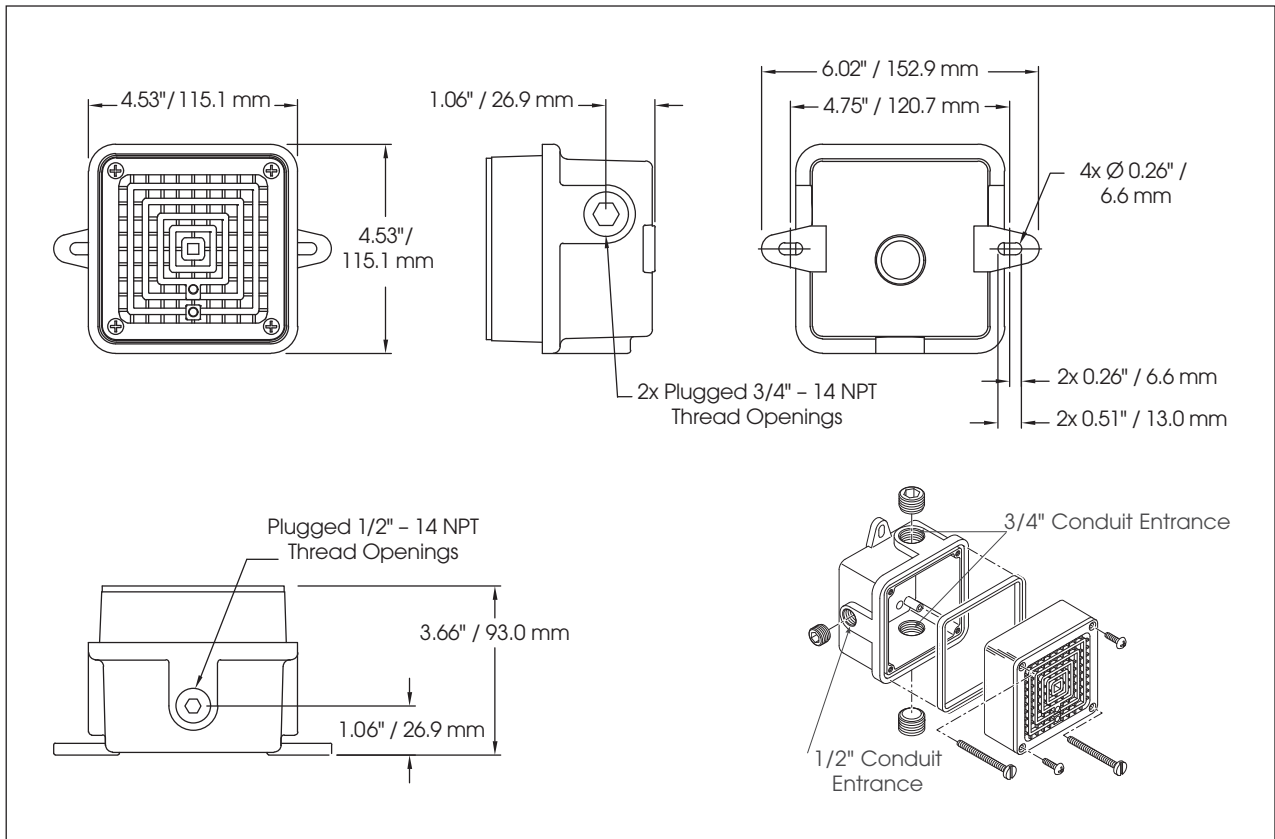
Vibratone horns are excellent for general alarm, start/dismissal, coded paging and process control signaling in areas where their sound output exceeds ambient noise levels. Compact size and various installation options make them ideal for institutional use.

FEATURES

- Available in 120VAC and 240VAC
- Coded or sustained tones
- Wall mount
- Produces 100 dBa @ 10' (110 dBa @ 1m)
- Fuse terminal block provided for field wiring
- Indoor/outdoor use
- Type 4X, IP65 enclosure
- IP69K compliant
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS	
			10'	1M
350WB-120	120VAC 50/60Hz	0.18 amps	100	110
350WB-240	240VAC 50/60Hz	0.09 amps	100	110

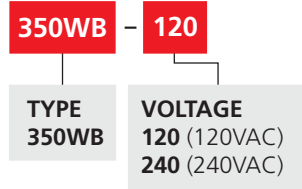
Vibratone® Horn with Weatherproof Back Box (350WB)



S P E C I F I C A T I O N S

Operating Temperature:	-65°F to 150°F	-54°C to 66°C
Duty Cycle:	5 minutes ON/5 minutes OFF	
Net Weight:	2.7 lbs	1.2 kg
Shipping Weight:	2.8 lbs	1.2 kg
Height:	4.53"	115.1 mm
Width:	4.53"	115.1 mm
Depth:	3.66"	93.0 mm

H O W T O O R D E R



R E P L A C E M E N T P A R T S

Description	Part Number
Volume Control Kit	K8435663B
Coil, 120VAC	KFC1516C
Coil, 240VAC	KFC1506C

O P T I O N A L A C C E S S O R I E S

Description	Part Number
Non-metallic double projector directs sounds to both sides when attached to 350/450E models; ideal for use in hallways; 4" H x 11-1/2" W x 4" D; shipping weight 1 lb (0.45kg)	PR2-NM





► Model 350WBX

Vibratone® Hazardous Location Horn with Back Box

Model 350WBX Vibratone® horn produces sound by electro-mechanical vibration of a stainless steel diaphragm. The horn mechanism with diaphragm is attached to the grille. The water- and dust-tight back box is ideal for indoor or outdoor use.

Model 350WBX features a die-cast zinc housing with a corrosion resistant polyurethane finish. The rugged outer grille resists vandalism without reducing sound output. The 350WBX is fused and utilizes a terminal block connection.

Vibratone horns are excellent for general alarm, start/dismissal, coded paging and process control signaling in areas where their sound output exceeds ambient noise levels. Compact size and a variety of installation options make them ideal for institutional use.

FEATURES

- Available in 120VAC and 240VAC
- Coded or sustained tones
- Produces 100 dBa @ 10' (110 dBa @ 1m)
- Fuse terminal block provided for field wiring
- Surface, flush or semi-flush mounting
- Indoor/outdoor use
- Type 4X, IP65 enclosure
- IP69K compliant
- CSA Certified
- UL and cUL Listed for Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups F and G; Class III

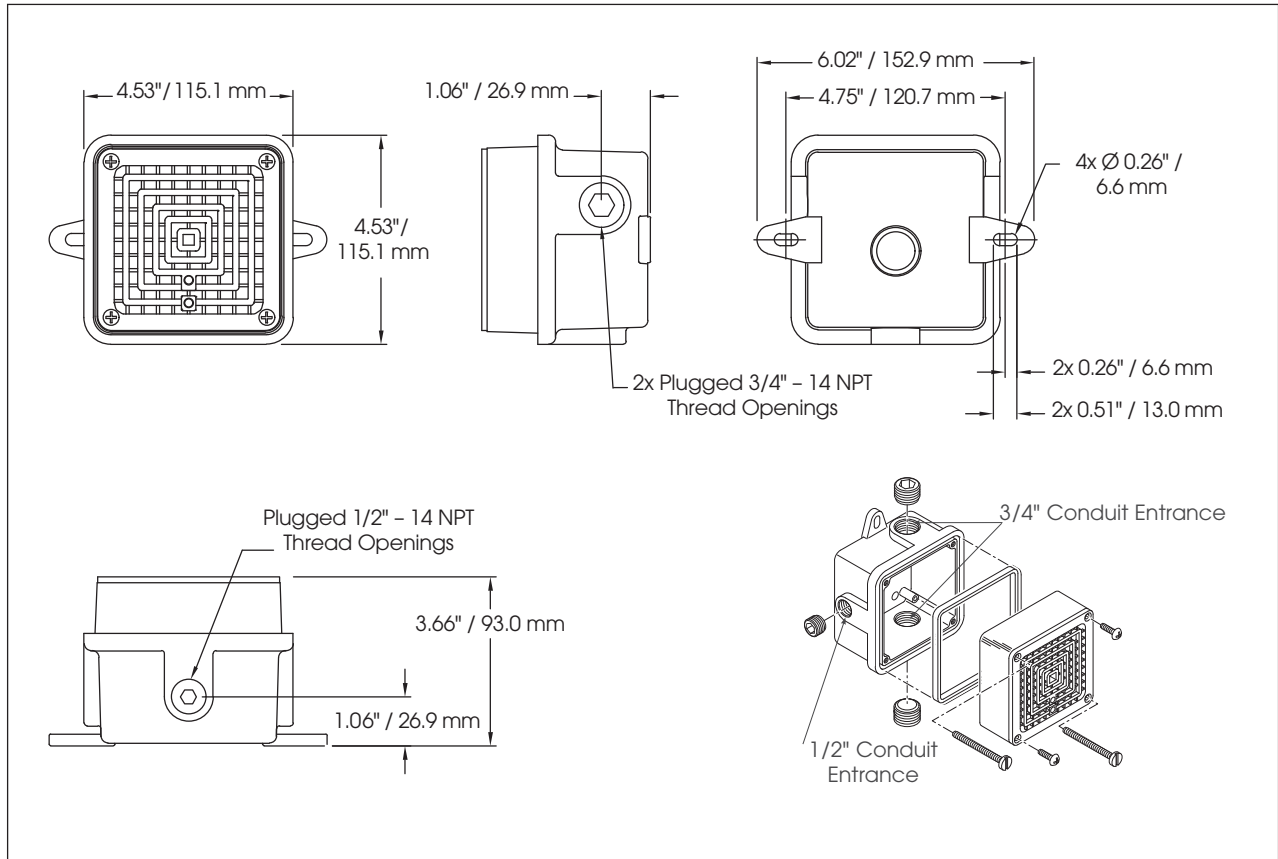
MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS	
			10'	1M
350WBX-120	120VAC 50/60Hz	0.18 amps	100	110
350WBX-240	240VAC 50/60Hz	0.09 amps	100	110

HAZARDOUS LOCATION RATING: 350WBX

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C
Class I, Division 2, Groups A, B, C, D	T4
Class II, Division 2, Groups F, G	T4
Class III	T4

Vibratone® Hazardous Location Horns with Back Box (350WBX)



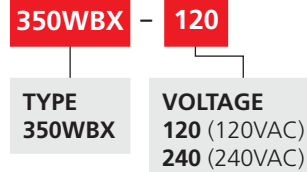
SPECIFICATIONS

Operating Temperature:	-65°F to 104°F	-54°C to 40°C
Duty Cycle:	5 minutes ON/5 minutes OFF	
Net Weight:	2.7 lbs	1.2 kg
Shipping Weight:	2.8 lbs	1.3 kg
Height:	4.53"	115.1 mm
Width:	4.53"	115.1 mm
Depth:	3.66"	93.0 mm

REPLACEMENT PARTS

Description	Part Number
Volume Control Kit	K8435663B
Coil, 120VAC	KFC1516C
Coil, 240VAC	KFC1506C

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
Non-metallic double projector directs sounds to both sides when attached to 350/450E models; ideal for use in hallways; 4" H x 11-1/2" W x 4" D; shipping weight 1 lb (0.45kg)	PR2-NM





► Models 31X and 41X

Explosion-Proof Vibrating Horns

Models 31X and 41X explosion-proof vibrating horns are constructed for safe use in hazardous environments. They are enclosed in heavy-duty copper-free cast aluminum housings tapped for 3/4-inch conduit.

Models 31X and 41X are corrosion resistant vibrating horns with stainless steel diaphragms. Model 41X is available in 24VDC. Model 31X is available in 120VAC and 240VAC and features an internal volume control. A five minute duty cycle applies to both models.

FEATURES

- 31X – 120VAC and 240VAC
- 41X – 24VDC
- Corrosion resistant cast aluminum housings
- Produces 100 dBa @ 10' (110 dBa @ 1m)
- 3/4" pipe or surface mount
- CSA Certified
- UL and cUL Listed for Class I, Division 1, Groups C and D; Class II, Division 1, Groups E, F, and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS	
			10'	1M
31X-120-3	120VAC 50/60Hz	0.20 amps	100	110
31X-240	240VAC 50/60Hz	0.10 amps	100	110
41X-024-1	24VDC	1.20 amps	100	110

HAZARDOUS LOCATION RATING: 31X and 41X

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

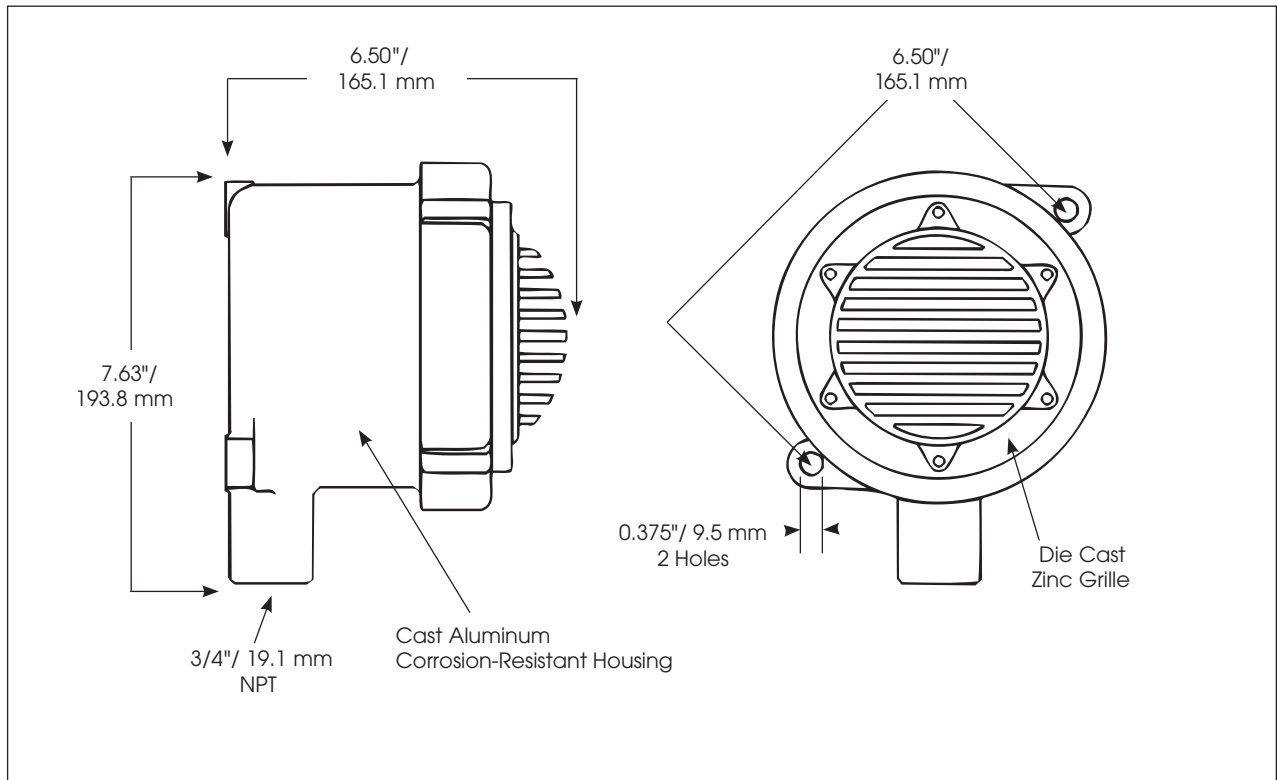
Hazardous Location **40°C**

Class I, Division 1, Groups C, D T6

Class II, Division 1, Groups E, F, G T6

Class III T6

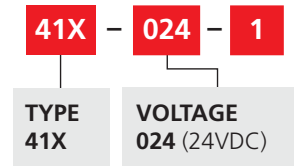
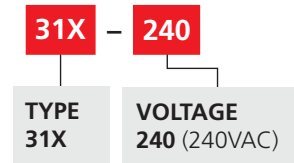
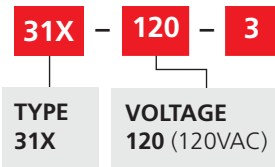
Explosion-Proof Vibrating Horns (31X and 41X)



SPECIFICATIONS

Operating Temperature:	-13°F to 104°F	-25°C to 40°C
Duty Cycle:	5 minutes ON/5 minutes OFF	
Net Weight:		
31X	7.5 lbs	3.4 kg
41X	9.0 lbs	4.1 kg
Shipping Weight:		
31X	8.1 lbs	3.7 kg
41X	10.3 lbs	4.7 kg
Height:	7.63"	193.7 mm
Depth:	6.5"	165.1 mm
Diameter:	6.5"	165.1 mm

HOW TO ORDER



REPLACEMENT PARTS

Description	Part Number
Cover Grille, Gray	KH6962J-01
Coil 31X, 120VAC	KFC1516C
Coil 31X, 240VAC	KFC1506C



► Models 55 and 56

Resonating Horns

Models 55 and 56 are resonating horns that produce sound by means of a diaphragm, which resonates a column of air. With greater output than a vibrating horn, the resonating horn can be used wherever a louder, more powerful alert is needed.

These projectors are designed to match the frequency of the vibrating diaphragm to produce a smooth tone. The housings are tapped for 1/2" conduit.

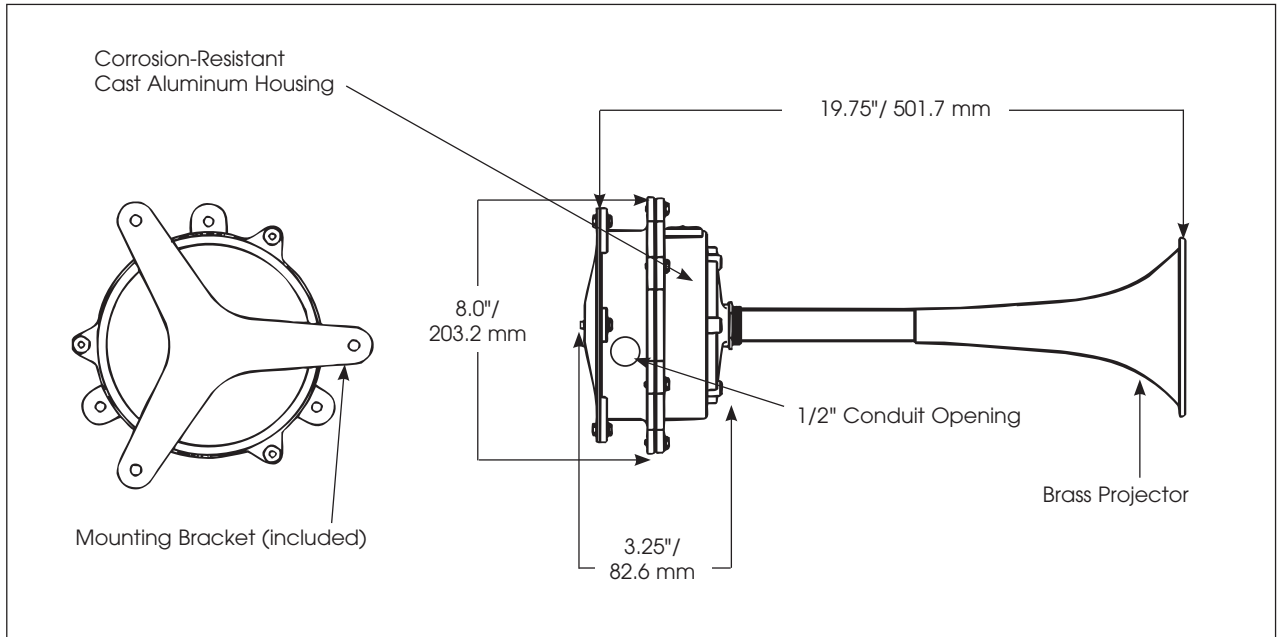
Models 55 and 56 have sufficient output to penetrate through high ambient noise levels and have a duty cycle of five minutes on, five minutes off.

FEATURES

- Model 55 - 24VAC and 120VAC
- Model 56 - 24VDC, 125VDC and 250VDC
- Model 55 produces 105 dBa @ 10' (115 dBa @ 1m)
- Model 56 produces 106 dBa @ 10' (116 dBa @ 1m)
- Corrosion resistant cast aluminum housing and spun brass projector
- Indoor/outdoor use
- Weatherproof, water- and dust-tight
- Swivel bracket included
- Type 3R enclosure
- Model 55-120-1 is UL Listed and CSA Certified

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS	
			10'	1M
55-024-1	24VAC 60Hz	3.00 amps	105	115
55-120-1	120VAC 60Hz	0.75 amps	105	115
56-024-1	24VDC	3.00 amps	106	116
56-125-1	125VDC	0.25 amps	106	116
56-250-1	250VDC	0.25 amps	106	116

Resonating Horns (55 and 56)



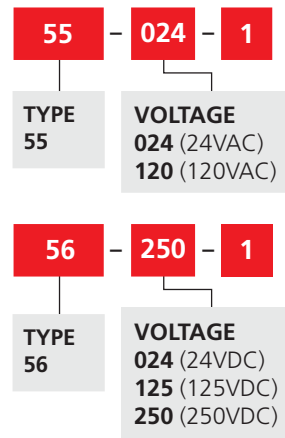
S P E C I F I C A T I O N S

Operating Temperature:	-35°F to 150°F	-37°C to 66°C
Duty Cycle:	5 minutes ON/5 minutes OFF	
Net Weight:	5.0 lbs	2.3 kg
Shipping Weight:	6.2 lbs	2.8 kg
Height:	8.0"	203.2 mm
Width:	8.0"	203.2 mm
Length:	19.75"	501.7 mm

R E P L A C E M E N T P A R T S

Description	Part Number
Projector	K8283C071-0G
Mounting Bracket and Bulk Head Accessory Kit	K8233A046-0G
Coil, 125VDC	KFC459
Coil, 250VDC	KFC458

H O W T O O R D E R





► Models 3H and 6H

Air Horns

Models 3H and 6H air horns offer the industrial market a variety of tones and sizes to meet a wide-range of needs. Our air horns feature corrosion resistant cast aluminum alloy housing and include long-lasting stainless steel diaphragms.

These precisely machined horns will yield peak performance at proper working air pressures. Model 3H has a threaded female pipe connection. Model 6H features flanges for additional support. The horn frequency (pitch) depends on both the diameter and length of the projector.

Models 3H and 6H air horns can be used indoors, outdoors, or anywhere compressed air can be provided. They also are the loudest audible signals offered for indoor applications. The horns require a 120VAC air valve (sold separately). Use Model EVS with the 3H and Model EVL with the 6H. They are not subject to sparking and are ideal for hazardous locations (valves need to be located in a non-hazardous location).

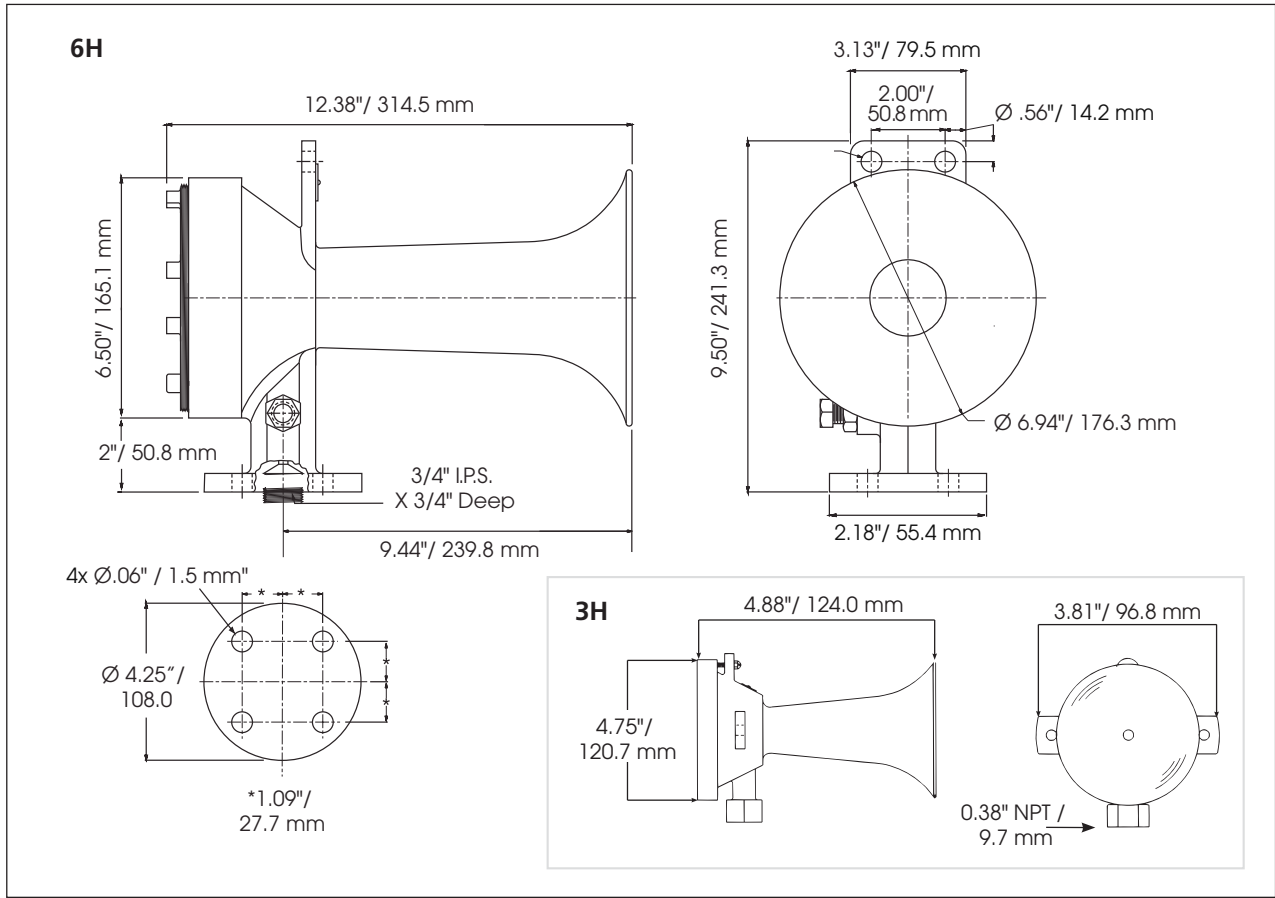
FEATURES

- Available in 120VAC
- Wide variety of tones and sizes
- For indoor/outdoor use
- Cast aluminum housing
- Stainless steel diaphragm
- Type 4X enclosure
- 20 to 150 psi
- Compressed air activation
- Tuned for 80 to 90 psi operation

MODEL	AIR CONSUMPTION CUBIC FT./SEC.	VALVE MODEL *	FREQUENCY	DECIBELS	
				10'	1M
3H	0.20	EVS-120	750Hz	112	122
6H	0.45	EVL-120	295Hz	122	132

*120VAC valves sold separately

Air Horns (3H and 6H)



SPECIFICATIONS

Net Weight:		
3H	1.6 lbs	0.7 kg
6H	9.7 lbs	4.4 kg
Shipping Weight:		
3H	2.1 lbs	1.0 kg
6H	11.4 lbs	5.2 kg
Height:		
3H	4.75"	120.7 mm
6H	9.5"	241.3 mm
Width:		
3H	4.75"	120.7 mm
6H	6.5"	165.1 mm
Length:		
3H	4.88"	124.0 mm
6H	12.38"	314.5 mm
Diaphragm Diameter:		
3H	3.0"	76.2 mm
6H	6.0"	127.0 mm
Pipe Size:		
3H	0.38"	9.7 mm
6H	0.75"	19.1 mm

HOW TO ORDER

Specify Model:

3H – Air Horn, 3", high pitch

6H – Air Horn, 6", high pitch

Specify Valve Model: (sold separately)

EVS-120 – Valve for 3H

EVL-120 – Valve for 6H



► Model 52

Resonating Horn



Model 52 resonating horn is ideal for penetrating high ambient noise levels. Being electrically-activated, Model 52 does not require an expensive air compressor for operation. It is able to withstand the shocks, vibrations, dust and atmospheric conditions encountered in off-road use.

Rubber gaskets and a power connector make Model 52 completely watertight. The projector and internal parts are made to resist corrosion; the exterior is sealed with gray enamel paint and the housing is die-cast aluminum. Model 52 has a duty cycle of five minutes on and five minutes off.

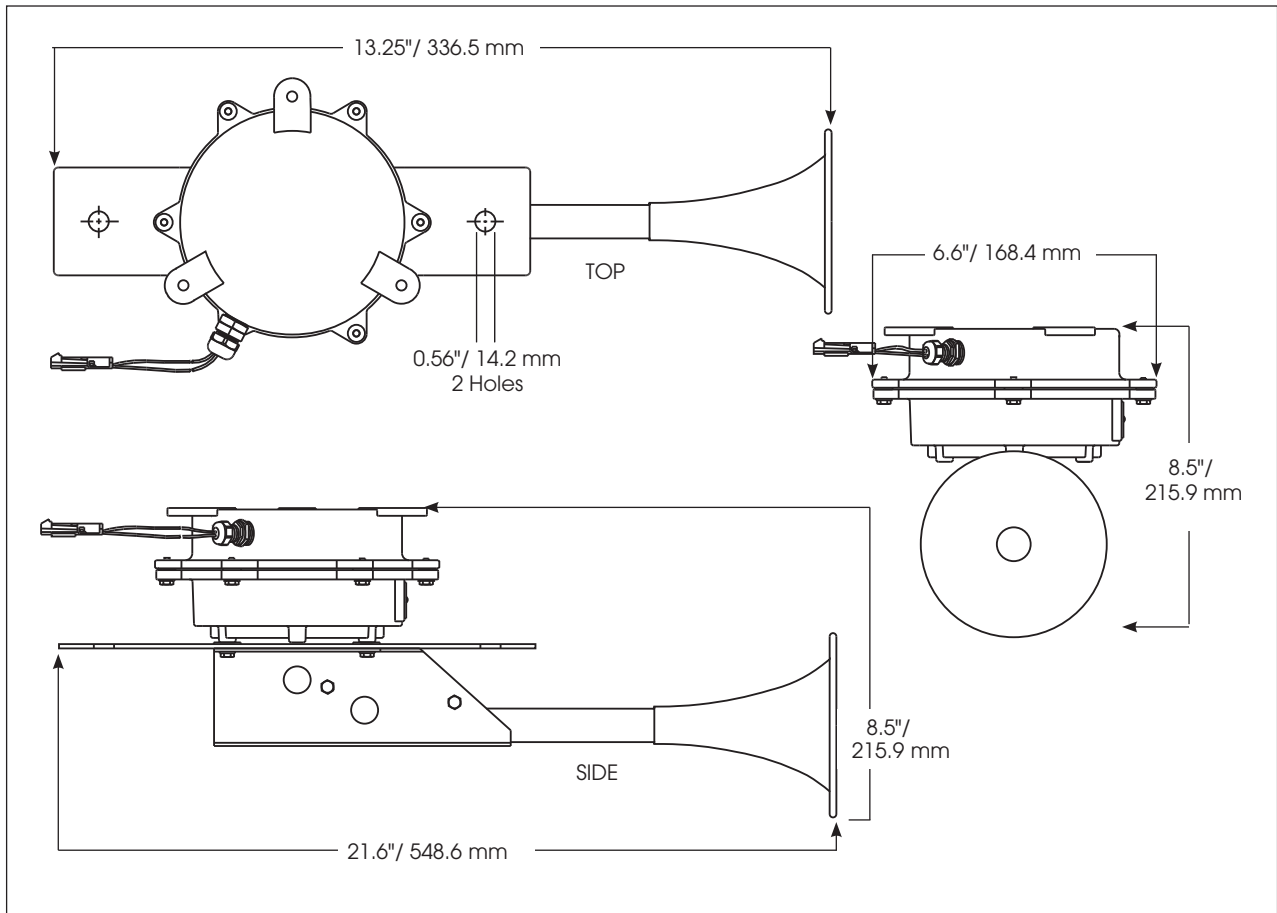
Used by many major manufacturers of construction equipment, Model 52 resonating horns suit the warning needs of any off-road vehicle working in a high noise environment.

FEATURES

- Available in 24VDC
- Withstands extreme outdoor conditions
- Produces 114 dBa @ 10' (124 dBa @ 1m) with 1,000 ft. range
- Shock and vibration tolerant
- Surface mount with flanges
- Type 3R enclosure

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS	
			10'	1M
52-024-1	24VDC	4.0 amps	114	124

Resonating Horn (52)



SPECIFICATIONS

Operating Temperature:	-40°F to 185°F	-40°C to 85°C
Duty Cycle:	5 minutes ON/5 minutes OFF	
Net Weight:	9.0 lbs	4.1 kg
Shipping Weight:	10.0 lbs	4.5 kg
Height:	8.5"	215.9 mm
Width:	6.6"	168.4 mm
Depth:	21.6"	548.6 mm

HOW TO ORDER

Specify Model:

52-024-1 – Resonating Horn, 24VDC



- ▶ Models A4, A6 and A10
Models 500 and 600

Vibratone® Bells

Vibratone® heavy duty bells allow for greater flexibility and selection by utilizing the modular approach to combine gongs and mechanisms.

Three gong sizes are available: Model A4 (4" dia.), Model A6 (6" dia.), and Model A10 (10" dia.). Each size larger gong produces a different tone and a higher dBa output. Vibrating bells produce a continuous ringing sound when voltage is applied.

Two vibrating mechanisms are available: Model 500 (available in 24VAC, 120VAC and 240VAC) and Model 600 (available in 12VDC, 24VDC and 125VDC).

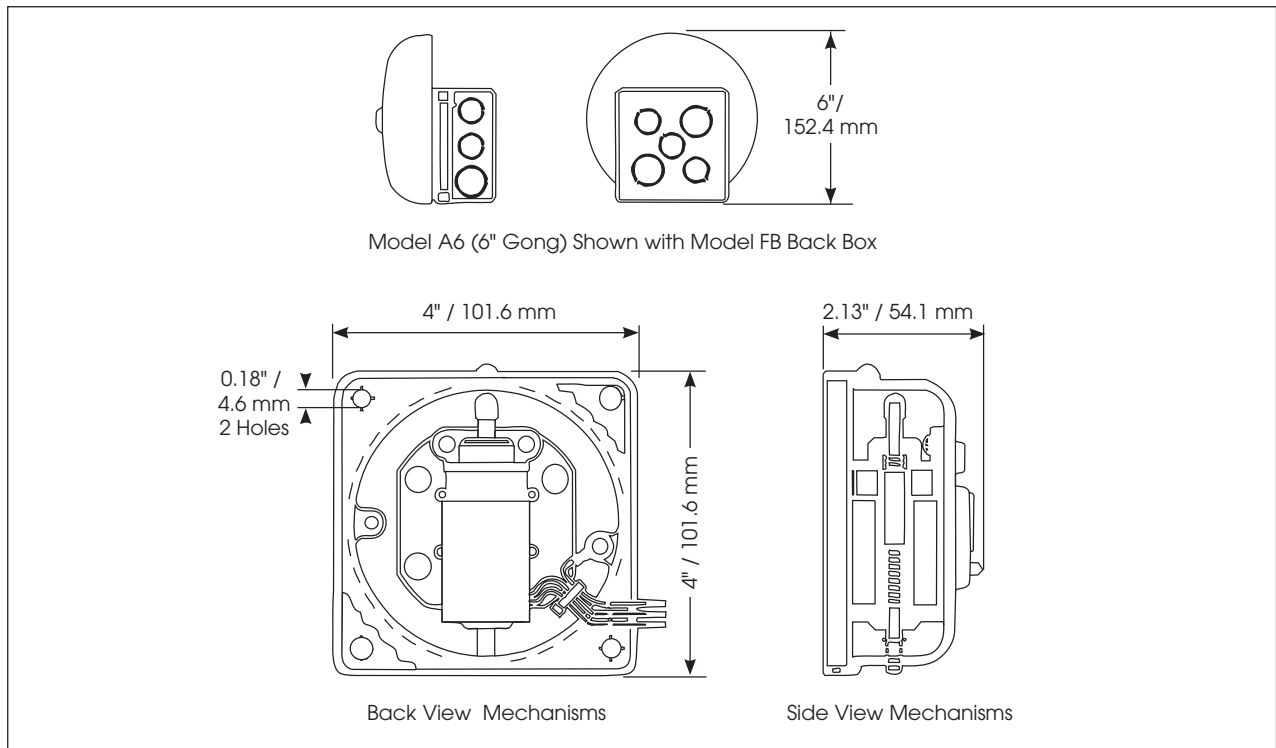
Vibratone® bells can be used in any industrial application, whether to signal danger or for start and dismissal. A variety of mounting accessories will accommodate almost any environment.

FEATURES

- Three gong sizes – four, six, or ten-inch
- Decibel output range dependent on gong:
98-102 dBa @ 10' (108-112 dBa @ 1m)
- Optional weatherproof back box (WB) provides Type 3R enclosure
- Models 500 and 600 are CSA Certified
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS	
			10'	1M
GONGS				
A4	–	–	98	108
A6	–	–	100	110
A10	–	–	102	112
VIBRATING MECHANISMS				
500-024-1	24VAC	0.4 amps	–	–
500-120-1	120VAC	0.08 amps	–	–
500-240-1	240VAC	0.04 amps	–	–
600-012-1	12VDC	0.8 amps	–	–
600-024-1	24VDC	0.4 amps	–	–
600-125-1	125VDC	0.08 amps	–	–

Vibratone® Bells (A4, A6, A10, 500 and 600)



SPECIFICATIONS

Duty Cycle: 5 minutes ON/5 minutes OFF

Model	Net Weight	Shipping Weight	Height	Width	Depth
500	1.0 lbs 0.45 kg	1.1 lbs 0.5 kg	4.0" 101.6 mm	4.0" 101.6 mm	2.13" 54.1 mm
600	1.0 lbs 0.45 kg	1.1 lbs 0.5 kg	4.0" 101.6 mm	4.0" 101.6 mm	2.13" 54.1 mm
A4	0.5 lbs 0.23 kg	0.7 lbs 0.32 kg	4.0" 101.6 mm	4.0" 101.6 mm	1.25" 31.8 mm
A6	1.0 lbs 0.45 kg	1.2 lbs 0.54 kg	6.0" 152.4 mm	6.0" 152.4 mm	1.75" 44.5 mm
A10	3.5 lbs 1.59 kg	4.0 lbs 1.8 kg	10.0" 254.0 mm	10.0" 254.0 mm	2.25" 57.2 mm

OPTIONAL ACCESSORIES

Description	Part Number
Deep backbox for flush mounting A4 gong with any mechanism	FB
Extra deep backbox for flush mounting A4 gong with any mechanism	FBL
Grille for flush mounting A4 gong and any mechanism in FB backbox	FG
Surface mounting plate for plastered-in 4" boxes	SF
Weatherproof backbox	WB

HOW TO ORDER

Step 1:

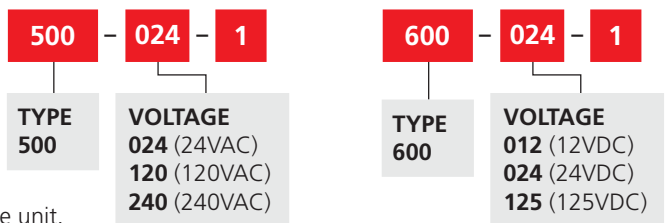
Specify Gong Models:

- A4** – Gong, 4"
- A6** – Gong, 6"
- A10** – Gong, 10"

Specify accessories from list above

Must order gong model and specify mechanism for complete unit.

Step 2: Specify Mechanism model number and voltage:





► Models 504WB and 506WB

Vibratone® Bell Assemblies



Vibratone® Bell Assembly Models 504WB and 506WB are completely assembled and include the gong, vibrating AC mechanism, and the gasketed back box. These assemblies feature heavy-duty, industrial grade housings and powder-coat paint treatments for added durability and performance.

Vibratone gongs are tempered to produce superior output and long-lasting durability.

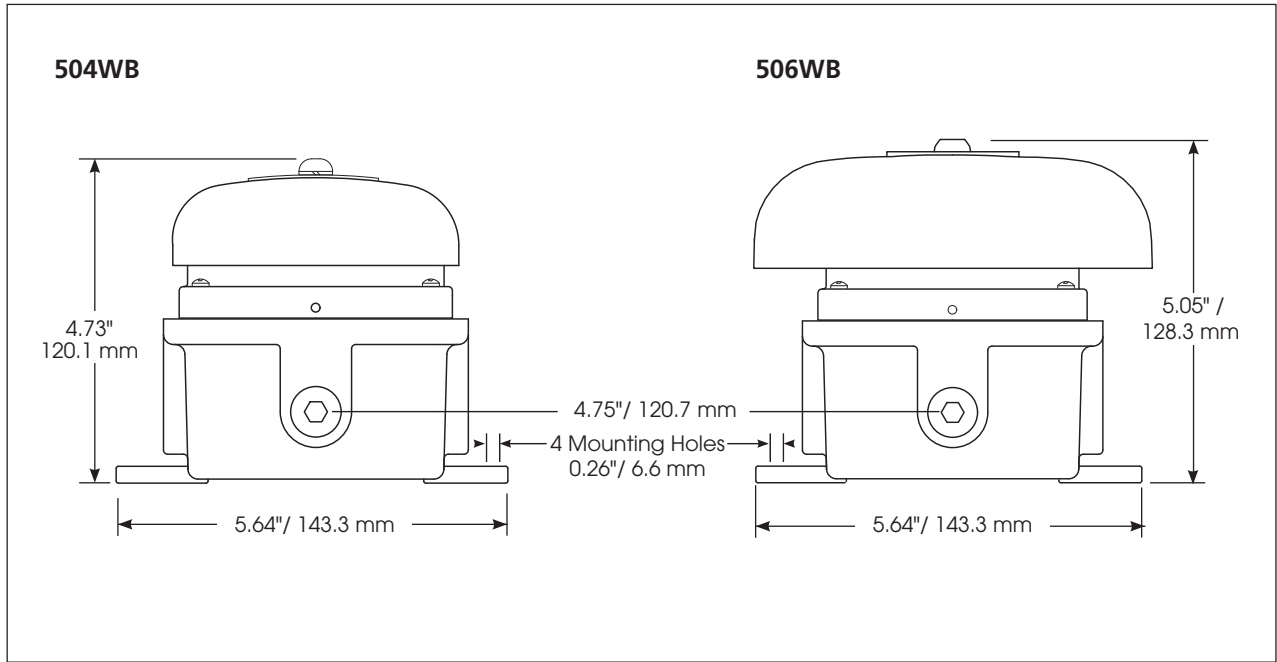
Both models contain internal terminal blocks which simplifies installation. This method also allows for an uninterrupted, single run of wiring.

FEATURES

- Available in 120VAC
- Four-inch or six-inch options
- Four-inch gong produces 98 dBa @ 10' (108 dBa @ 1m)
Six-inch gong produces 100 dBa @ 10' (110 dBa @ 1m)
- Type 3R enclosure
- CSA Certified
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS	
			10'	1M
504WB-120	120VAC	0.08 amps	98	108
506WB-120	120VAC	0.08 amps	100	110

Vibratone® Bell Assemblies (504WB and 506WB)



SPECIFICATIONS

Operating Temperature: -31°F to 150°F -35°C to 66°C
 Duty Cycle: 5 minutes ON/5 minutes OFF

Net Weight:
 Model 504 1.05 lbs 0.48 kg
 Model 506 2.5 lbs 1.13 kg

Shipping Weight:
 Model 504 1.65 lbs 0.75 kg
 Model 506 3.0 lbs 1.36 kg

Depth:
 Model 504 4.73" 120.1 mm
 Model 506 5.05" 128.3 mm

Width:
 Model 504 5.64" 143.3 mm
 Model 506 5.64" 143.3 mm

HOW TO ORDER

Specify Model:

504WB-120 – Vibrating bell, 4", 120VAC weatherproof back box

506WB-120 – Vibrating bell, 6", 120VAC weatherproof back box



► Model A

General Alarm Electro-Mechanical Siren

Model A is a general-purpose electro-mechanical siren that produces a distinctive sound and tonal quality for industrial applications. It has a high maximum pitch which provides excellent contrast to industrial ambient noise. Introduced in 1918, Model A is still used today in many rugged and extreme environments and applications.

The fractional horsepower motor on Model A drives a ported aluminum rotor within the specially designed stator to produce a unique sound. A small internal fan cools the motor during operation. The duty cycle is five minutes on/five minutes off.

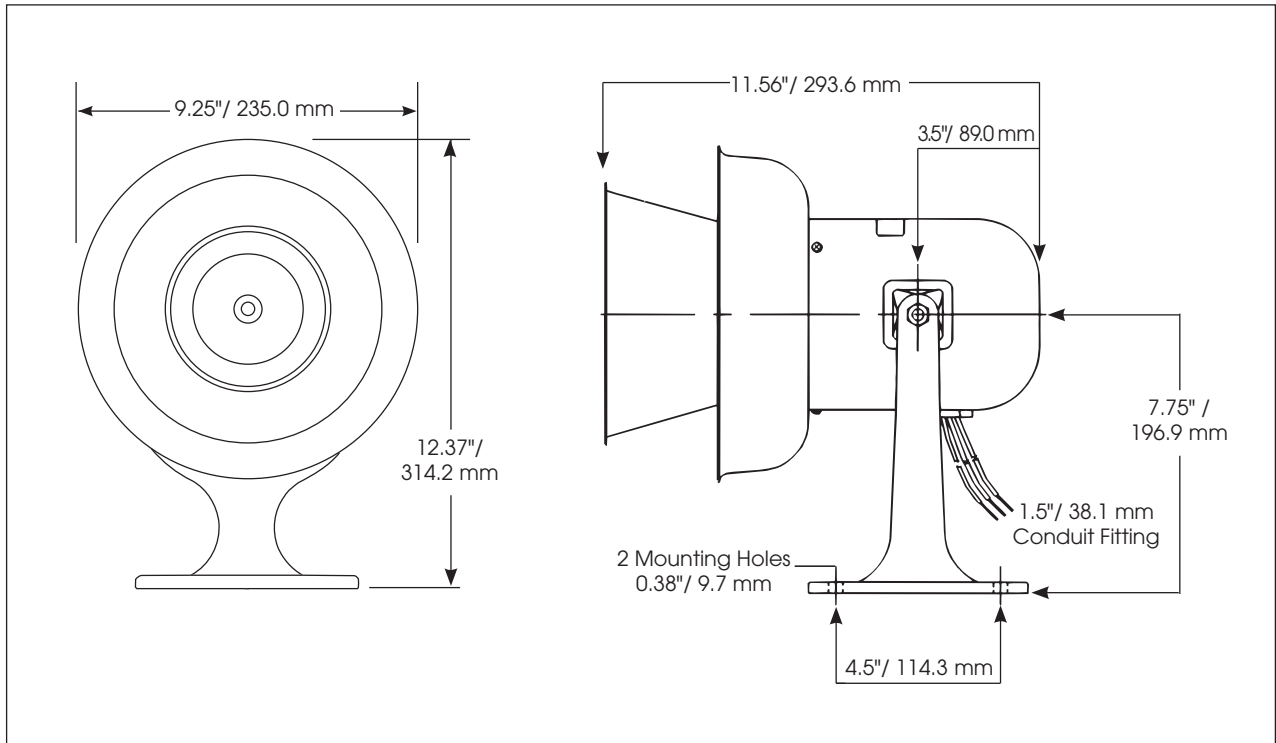
Model A's metal housing is sealed with red powder coat for an attractive appearance and superior corrosion-resistance. The swivel mount bracket accommodates wall and surface mount installations.

FEATURES

- Available with 120VAC/DC universal motor
- Rugged, durable and corrosion resistant
- Maintenance-free
- Produces 103 dBa @ 10' (113 dBa @ 1m)
- Type 3R enclosure
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS		FREQUENCY
			10'	1M	
A-120	120VAC/DC	1.9 amps	103	113	1060Hz

General Alarm Electro-Mechanical Siren (A)



S P E C I F I C A T I O N S

Duty Cycle:	5 minutes ON/5 minutes OFF	
Voltages:	120VAC/DC	
Motor:	Universal	
Net Weight:	9.0 lbs	4.1 kg
Shipping Weight:	11.6 lbs	5.3 kg
Width:	9.25"	235.0 mm
Length:	11.56"	293.6 mm
Height:	12.37"	314.2 mm

H O W T O O R D E R

Specify Model:

A-120 – Siren, 120VAC/DC, electro-mechanical

R E P L A C E M E N T P A R T S

Description	Part Number
Motor and Rotor Service Kit	K8118052A



► Model L

General Alarm Electro-Mechanical Siren

Model L is a general-purpose electro-mechanical siren that produces a distinctive sound and tonal quality for industrial applications. It has a low maximum pitch which provides excellent contrast to industrial ambient noise. Introduced in 1946, Model L is still used today in many rugged and extreme environments and applications.

The fractional horsepower motor on Model L drives a ported aluminum rotor within the specially designed stator to produce a unique sound.

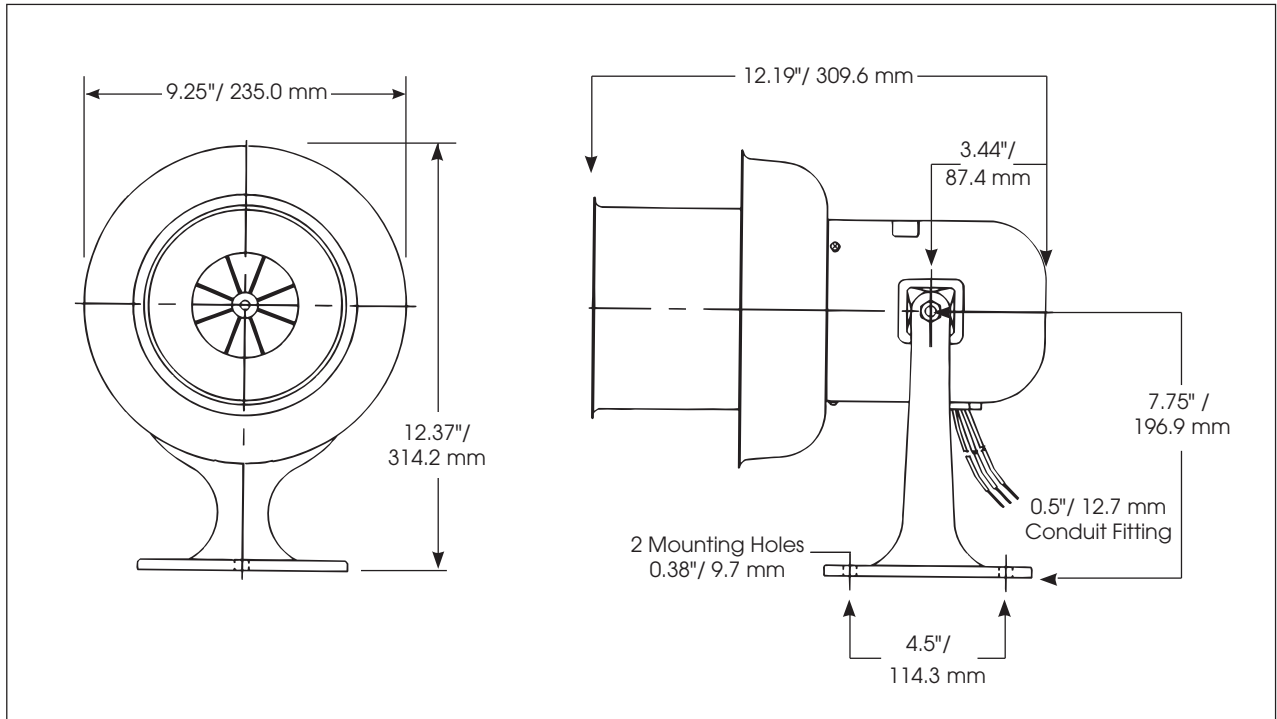
Model L's metal housing is sealed with red powder coat for an attractive appearance and superior corrosion-resistance. The swivel mount bracket accommodates wall and surface mount installations.

FEATURES

- Range of up to 200 feet
- Coded or sustained tones
- Available in – 120 and 240VAC/DC
- Produces 112 dBa @ 10' (122 dBa @ 1m)
- Type 3R enclosure
- Wall or surface mount via the integrated swivel bracket

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS		FREQUENCY
			10'	1M	
L-120	120VAC/DC	1.95 amps	112	122	700Hz
L-240	240VAC/DC	1.0 amps	112	122	700Hz

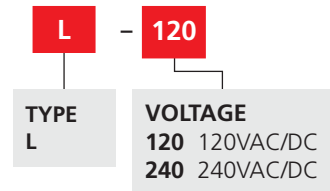
General Alarm Electro-Mechanical Siren (L)



S P E C I F I C A T I O N S

Duty Cycle:	5 minutes ON/5 minutes OFF	
Voltages:	120VAC/DC or 240VAC/DC	
Motor:	Universal	
Net Weight:	12.0 lbs	5.4 kg
Shipping Weight:	14.2 lbs	6.4 kg
Width:	9.25"	235.0 mm
Length:	12.19"	309.6 mm
Height:	12.37"	314.2 mm

H O W T O O R D E R



R E P L A C E M E N T P A R T S

Description	Part Number
Motor Service Kit – 120VAC/DC	K82831051A
Motor Service Kit – 240VAC/250VDC	K8283A700



► Model PMA and PMAMT

Panel Mount Electronic Sounder

Model PMA offers a single continuous tone, while model PMAMT allows for two different levels of alarm (continuous or intermittent) controllable via independent electric contacts.

These models offer a self-extinguishing PC body that protects against vibrations, dust and atmospheric elements. They can be panel mounted through a 1.18" / 30 mm hole and secured with the provided locking ring.

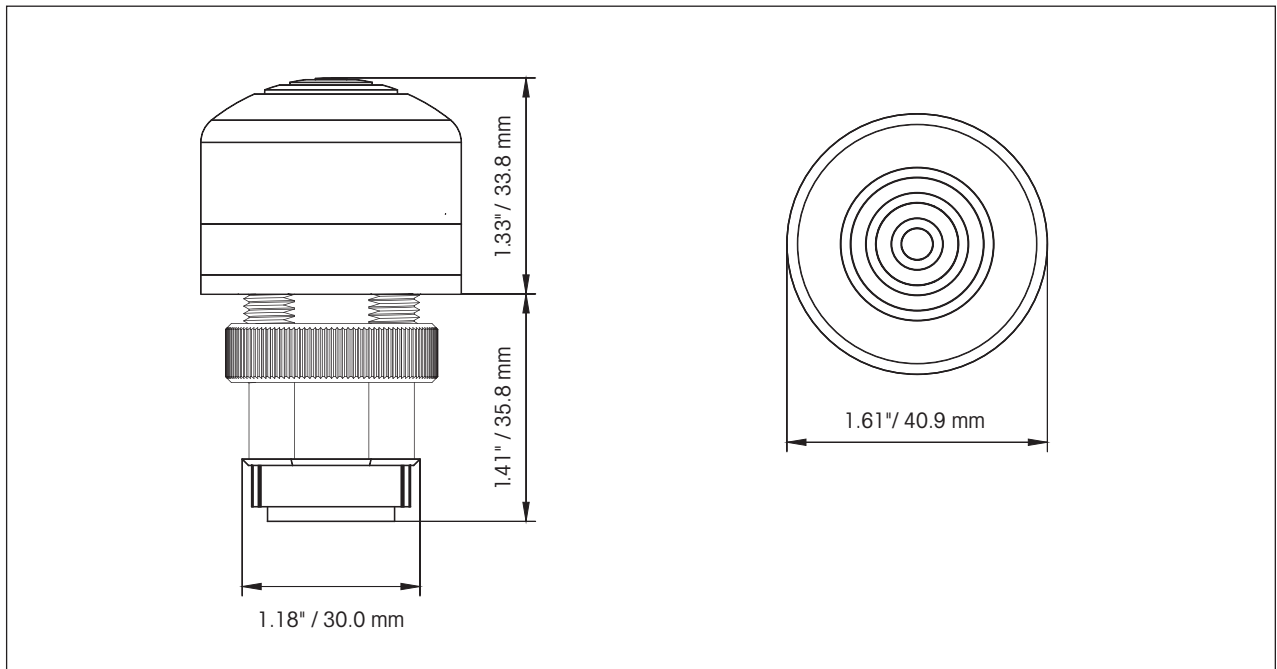
FEATURES

- Available in 12-24VAC/DC or 48-240VAC
- Available in continuous (PMA) or multi-tone (PMAMT)
- Model PMAMT provides an intermittent and continuous tone for two levels of alarm
- Type 3R, IP65 enclosure
- IP69K compliant
- CE Certified
- UL and cUL listed

MODEL	VOLTAGE	DECIBELS MAXIMUM	
		10'	1 M
PMA-012-024	12-24VAC/DC	60	70
PMA-048-240	48-240VAC	60	70
PMAMT-012-024	12-24VAC/DC	75	85
PMAMT-048-240	48-240VAC	75	85

MODEL	MAXIMUM OPERATING CURRENT (mA)					
	12 VDC	24 VDC	12 VAC	24 VAC	48 VAC	240 VAC
PMA	10	10	20	25	10	20
PMAMT	10	15	50	60	20	15

Panel Mount Electronic Sounder (PMA and PMAMT)



SPECIFICATIONS

Operating Temperature:	-22°F to 140°F	-30°C to 60°C
Net Weight:	1.44 oz	0.04 kg
Width:	1.61"	40.9 mm
Height:	1.33"	33.8 mm

HOW TO ORDER

PMAMT - **012-024**

TYPE

PMA Continuous
PMAMT Multi-Tone

VOLTAGE

012-024 (12-24VAC/DC)
048-240 (48-240VAC)



► Model 450E

Vibratone® Electronic Horn

Model 450E electronic horn offers a loud, clear and distinctive tone. It's often used for general alarming, start and dismissal noticing, coded paging and process control in noisy areas. Its 4-wire terminal block and supervisory diodes design make it ideal for fire alarm applications.

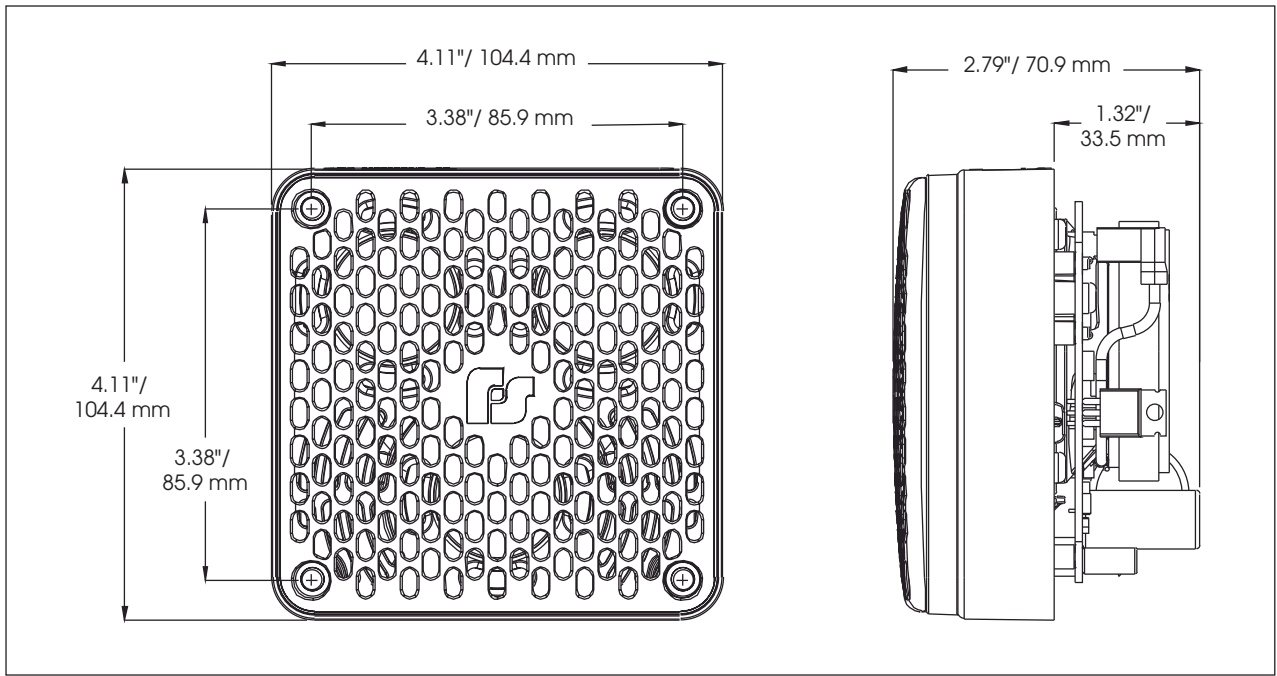
Model 450E's polycarbonate housing and polymeric speaker are corrosion resistant and weatherproof for improved durability in harsh industrial environments. It has no detectable RF emissions in a 30 MHz to 1000 MHz frequency range, which minimizes the potential for electrical device interference.

FEATURES

- Fire Regulated 16-33VDC
General Purpose Signal 12-24VDC
- Coded or sustained tones
- No duty cycle or interval limitations
- 99 dBa @ 10' on axis (109 dBa @ 1m on axis)
- Four wire terminal block and supervisory diode
- Type 4X when installed with Panel Mount Gasket (included) or optional Non-metallic Weatherproof Backbox (Model WB-NM)
- Marine Rated
- CSFM Approved
- UL and cUL Listed
- UL Fire Listed and ULC Canadian Fire Listed

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS UL 464		DECIBELS ON AXIS	
			10'	1M	10'	1M
450E-024	Fire Regulated 16-33VDC	0.25 amps	89	99	98	108
	General Purpose Signal 24VDC	0.22 amps	N/A	N/A	99	109
	General Purpose Signal 12VDC	0.12 amps	N/A	N/A	94	104

Vibratone® Electronic Horn (450E)



S P E C I F I C A T I O N S

Operating Temperature:	-65°F to 150°F	-54°C to 66°C
Housing:	Non-metallic Polycarbonate Light Gray (RAL 7035)	
Net Weight:	1.0 lbs	0.45 kg
Shipping Weight:	1.3 lbs	0.59 kg
Height:	4.11 "	104.4 mm
Width:	4.11 "	104.4 mm
Depth:	2.79 "	70.9 mm

H O W T O O R D E R

Specify Model:
450E-024 – Vibratone® Electronic Horn

O P T I O N A L A C C E S S O R I E S

Description	Part Number
Wall box for flush mounting the Vibratone® horn in stud, 4" block, or other shallow wall construction; 4-3/8" square box; 2-7/8" deep; shipping weight 2 lbs (0.91 kg)	FB
Same as FB, but 3-13/16" deep for 6" x 8" concrete block, cinder block or other deep wall construction; shipping weight 3 lbs (1.36 kg)	FBL
Flush grille which attaches to the basic unit and serves as the cover of the plastered-in FB flush box; 6" H x 6" W x 1/8" D; shipping weight. 1 lb (0.45 kg)	FG
Non-metallic double projector directs sounds to both sides when attached to 350/450E models; ideal for use in hallways; 4" H x 11-1/2" W x 4" D; shipping weight 1 lb (0.45kg)	PR2-NM
Molded thermoplastic neoprene-gasketed weatherproof housing for outside use, complete with mounting lugs; provided with (3) entrances for 1/2" conduit; 4-3/8" square box; 2-7/16" deep, offset mounting lugs on 5" centers; shipping weight 1 lb (0.45kg)	WB-NM





► Model 450EWBX

Vibratone® Hazardous Location Electronic Horn

Model 450EWBX hazardous location electronic horn offers a patented electronic design that produces a very loud, clear and distinctive electronic tone. The model is capable of producing sustained tones or coded blasts through push button or PLC control devices without a duty cycle or interval limitations.

The 450EWBX is ideal for general alarm, start and dismissal, coded paging and process control signaling in areas of high ambient noise levels.

FEATURES

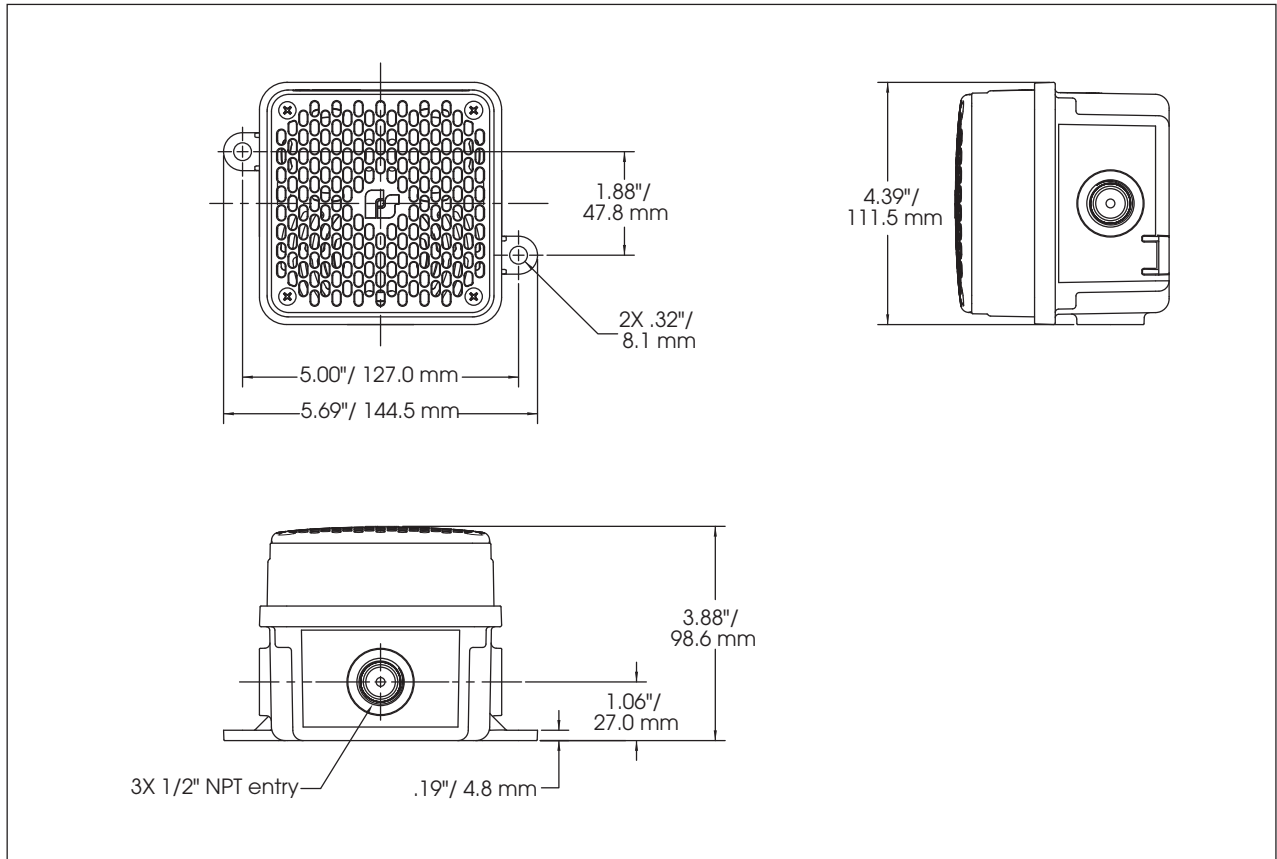
- No duty cycle
- Four wire terminal block and supervisory diode
- No detectable RF emissions in a 30-1000 MHz frequency range
- Type 4X enclosure
- IP69K compliant
- Marine Rated
- UL and cUL Listed for Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups F and G; Class III
- 450E horn is UL and ULC Canadian Listed for Fire Alarm use

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS UL 464		DECIBELS	
			10'	1M	10'	1M
450EWBX-024	24VDC	0.22 amps	90	100	99	109
	12VDC	0.12 amps	N/A	N/A	94	104

HAZARDOUS LOCATION RATING: 450EWBX

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C		
HAZARDOUS LOCATION	40 °C	70 °C
Class I, Division 2, Groups A, B, C & D	T4A	T3C
Class II, Division 2, Groups F & G	T5	T4A
Class III	T5	T4A

Vibratone® Hazardous Location Electronic Horn (450EWBX)



S P E C I F I C A T I O N S

Operating Temperature:	-65°F to 150°F	-54°C to 66°C
Housing:	Non-metallic Polycarbonate Light Gray (RAL 7035)	
Speaker Cone:	Polymeric	
Net Weight:	2.3 lbs	1.04 kg
Height:	4.39"	111.5 mm
Width:	5.69"	144.5 mm
Depth:	3.88"	98.6 mm

H O W T O O R D E R

Specify Model:
450EWBX-024 – Electronic Horn,
 Hazardous Location, 12/24VDC



► Model LP4

StreamLine® Low Profile Electronic Sounder

Model LP4 low profile, electronic piezo sounder is a compact multi-tone sounder ideal for OEM and general alarm applications. The low voltage LP4 provides users with the choice of 32 different tones, selectable during installation. Each electrical connection has two terminals for looping in and out, eliminating the need for a separate terminal block, making installation easier. A second tone is available if a third wire is installed and connected to the second tone terminals.

The rugged white ABS housing provides a high degree of strength and protection from the elements.

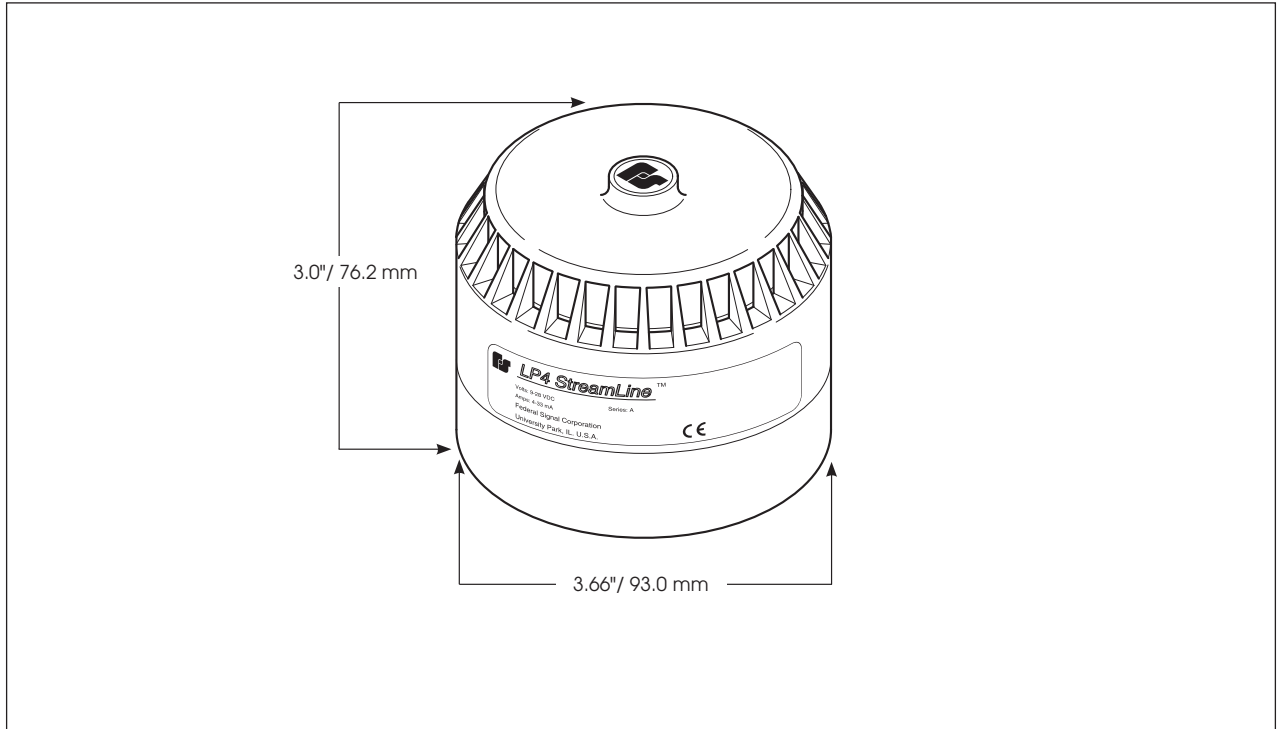
The shallow base provides for flush mount wiring, and features a unique twist assembly for easy installation. A deep base with knockouts is available as an option.

FEATURES

- Operates on 9–28VDC
- Choice of 32 tones
- Remote activation up to two tones
- Up to two remote selectable tones
- Produces 82-100 dBa @ 10' (92-110 dBa @ 1m) with 20 dBa of adjustment
- Panel or wall mount
- PLC compatible
- CE compliant
- IP54 enclosure (IP65 with optional deep base)

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS	
			10'	1M
LP4-09-028	9-28VDC	4-33 mA	82-100	92-110

StreamLine® Low Profile Electronic Sounder (LP4)



S P E C I F I C A T I O N S

Operating Temperature:	-13°F to 158°F	-25°C to 70°C
Net Weight:	10.0 oz	0.28 kg
Shipping Weight:	10.3 oz	0.29 kg
Height:	3.0"	76.2 mm
Diameter:	3.66"	93.0 mm

H O W T O O R D E R

Specify Model:

LP4-09-028 – Sounder, piezo, 9-28VDC

O P T I O N A L A C C E S S O R I E S

Description

Part Number

Deep Base, White (1.88" D x 3.63" W) DBLP



Model SLM700 shown with mounting base options (ordered separately)

► Model SLM700

StreamLine® Modular Electronic Sounder

Model SLM700 is a multifunctional electronic sounder developed with a multiple input technology that is capable of producing two different tones controllable via independent electric contacts.

Model SLM700 offers a high acoustic performance through 2 channels offering 64 tones, 32 tones per input selectable via DIP switch.

Model SLM700 body material is a self-extinguishing polycarbonate material with high impact and UV resistance suitable for outdoor applications.

FEATURES

- Compatible with 12-24VAC/DC or 120-240VAC*
- PLC compatible with PNP or NPN connections*
- Produces two tones
- Choice of 64 selectable tones
- Adjustable volume between 55 dBA to 95 dBA @10' (65-105 dBA @ 1m)

- Seven mounting base options
- Type 3R, IP65 enclosure
- CE Certified
- UL and cUL listed

*Voltage and PLC connections are dependent on selected base.

MODEL	VOLTAGE	DECIBELS MIN. - MAX.		MAXIMUM OPERATING CURRENT (mA)			
		10'	1M	12VAC/DC	24VAC/DC	120VAC	240VAC
SLM700 *	12-24VAC/DC or 120-240VAC	55-95	65-105	240	280	60	35

*For body color, indicate GY for Gray or R for Red.

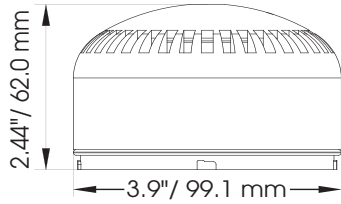
Weight (unit(s) + base = total weight)

SLM700	VOLTAGE	SHALLOW BASE	DEEP BASE	WALL MOUNT	PIPE MOUNT	TWIN WALL MOUNT	2-STACK DOCK BASE	3-STACK DOCK BASE
7.76 oz 0.22 kg	12-24VAC/DC	2.12 oz 0.06 kg	4.23 oz 0.12 kg	6.70 oz 0.19 kg	5.29 oz 0.15 kg	9.17 oz 0.26 kg	14.46 oz 0.41 kg	21.16 oz 0.60 kg
	120-240 VAC	–	6.0 oz 0.17 kg	8.47 oz 0.24 kg	6.70 oz 0.19 kg	12.35 oz 0.35 kg	16.58 oz 0.47 kg	24.69 oz 0.70 kg

StreamLine® Modular Electronic Sounder (SLM700)

SPECIFICATIONS


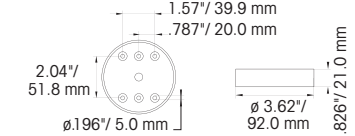

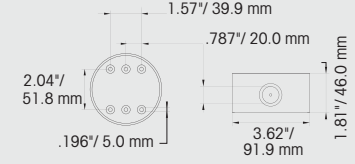

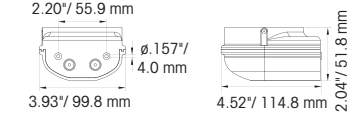

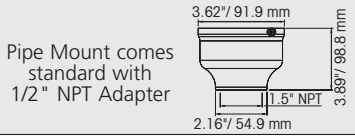

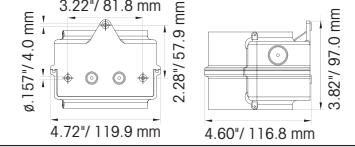

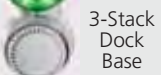
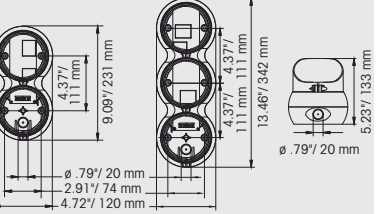
Operating Temperature: -22°F to 122°F -30°C to 50°C



HOW TO ORDER

- Specify model number:
SLM700GY - Gray body
SLM700R - Red body
- Specify required mounting base (see chart)
- Optional dome guard
For shallow mounting base (SLMDG1)
For deep mounting base (SLMDG2)
- Accessories for Twin and Wall Mount Bases
Cable Gland, M20, Gray, 2 Pack (K77700416)
Cable Gland, M20, Red, 2 Pack (K77700416-01)
- Accessories for Pipe Mount Base
1" NPT Adapter (SLMNPT1)
1/2" NPT Adapter (SLMNPT2)
- Accessories for Dock Base
Wall Mount Bracket (SLMB23W)
1/2" NPT Adaptor (SLMB23N)
Retaining Ring (SLM-RR)
Light Visor (SLMB23V)

MOUNTING BASE OPTIONS

	Model Number	Base Color	Voltage	
 Shallow Base	SLMBS-012-024GY	Gray	12-24VAC/DC	
	SLMBS-012-024R	Red	12-24VAC/DC	
 Deep Base	SLMBD-012-024GY	Gray	12-24VAC/DC	
	SLMBD-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBD-012-024R	Red	12-24VAC/DC	
	SLMBD-120-240GY	Gray	120-240VAC	
 Wall Mount	SLMBW-012-024GY	Gray	12-24VAC/DC	
	SLMBW-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBW-120-240GY	Gray	120-240VAC	
 Pipe Mount	SLMBP-012-024GY	Gray	12-24VAC/DC	
	SLMBP-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBP-120-240GY	Gray	120-240VAC	
 Twin Wall Mount	SLMBT-012-024GY	Gray	12-24VAC/DC	
	SLMBT-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBT-120-240GY	Gray	120-240VAC	
 2-Stack Dock Base  3-Stack Dock Base	SLMB2-024GY	Gray	24VAC/DC	
	SLMB2-120-240GY	Gray	120-240VAC	
	SLMB3-024GY	Gray	24VAC/DC	
	SLMB3-120-240GY	Gray	120-240VAC	

Note: Dock bases allow one function per position and include visors.



Model SLM800 shown with mounting base options (ordered separately)

► Model SLM800

StreamLine® Modular High-Output Electronic Sounder

Model SLM800 is a high-output multifunctional electronic sounder developed with a multiple input technology that is capable of producing two different tones (pre-alarm, alarm) controllable via independent electric contacts.

Model SLM800 offers a high acoustic performance through 2 channels offering 64 tones, 32 tones per input selectable via DIP switch.

Model SLM800 body material is a self-extinguishing polycarbonate material with high impact and UV resistance suitable for outdoor applications.

FEATURES

- Compatible with 12-24VAC/DC or 120-240VAC*
- PLC compatible with PNP or NPN connections*
- Produces two tones
- Choice of 64 selectable tones
- Adjustable volume between 55 dBa to 105 dBa @ 10' (65-115 dBa @ 1m)

- Five mounting base options
- Type 3R, IP65 enclosure
- CE Certified
- UL and cUL listed

* Voltage and PLC connections are dependent on selected base.

MODEL	VOLTAGE	DECIBELS MIN. - MAX.		MAXIMUM OPERATING CURRENT (mA)			
		10'	1M	12VAC/DC	24VAC/DC	120VAC	240VAC
SLM800 *	12-24VAC/DC	55-105	65-115	240	280	–	–
	120-240VAC	55-101	65-111	–	–	60	35

*For body color, indicate GY for Gray or R for Red.

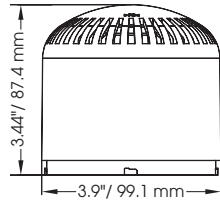
Weight (unit(s) + base = total weight)

SLM800	VOLTAGE	SHALLOW BASE	DEEP BASE	WALL MOUNT	PIPE MOUNT	TWIN WALL MOUNT
19.05 oz 0.54 kg	12-24VAC/DC	2.12 oz 0.06 kg	4.23 oz 0.12 kg	6.70 oz 0.19 kg	5.29 oz 0.15 kg	9.17 oz 0.26 kg
	120-240 VAC	–	6.0 oz 0.17 kg	8.47 oz 0.24 kg	6.70 oz 0.19 kg	12.35 oz 0.35 kg

StreamLine® Modular High-Output Electronic Sounder (SLM800)

SPECIFICATIONS






Operating Temperature: -22°F to 122°F -30°C to 50°C



HOW TO ORDER

- Specify model number:
SLM800GY - Gray body
SLM800R - Red body
- Specify required mounting base (see chart)
- Optional dome guard
For shallow mounting base (SLMDG1)
For deep mounting base (SLMDG2)
- Accessories for Twin and Wall Mount Bases
Cable Gland, M20, Gray, 2 Pack (K77700416)
Cable Gland, M20, Red, 2 Pack (K77700416-01)
- Accessories for Pipe Mount Base
1" NPT Adapter (SLMNPT1)
1/2" NPT Adapter (SLMNPT2)

MOUNTING BASE OPTIONS

	Model Number	Base Color	Voltage	
 Shallow Base	SLMBS-012-024GY	Gray	12-24VAC/DC	
	SLMBS-012-024R	Red	12-24VAC/DC	
 Deep Base	SLMBD-012-024GY	Gray	12-24VAC/DC	
	SLMBD-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBD-012-024R	Red	12-24VAC/DC	
	SLMBD-120-240GY	Gray	120-240VAC	
 Wall Mount	SLMBW-012-024GY	Gray	12-24VAC/DC	
	SLMBW-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBW-120-240GY	Gray	120-240VAC	
 Pipe Mount	SLMBP-012-024GY	Gray	12-24VAC/DC	Pipe Mount comes standard with 1/2" NPT Adapter
	SLMBP-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBP-120-240GY	Gray	120-240VAC	
 Twin Wall Mount	SLMBT-012-024GY	Gray	12-24VAC/DC	
	SLMBT-PNP-012-024GY	Gray	12-24VAC/DC	
	SLMBT-120-240GY	Gray	120-240VAC	



► Model eHorn

Electronic Horn

Model eHorn is an electronic horn capable of producing two high decibel horn tone outputs from the same unit through internal amplification and tone circuitry.

The Type 4X, IP66 housing is molded from glass reinforced polycarbonate plastic, making it resistant to ultra-violet light and ideal for indoor or outdoor use.

Model eHorn can be used as a stand-alone, high output, audible warning device in any application where voice paging is not required.

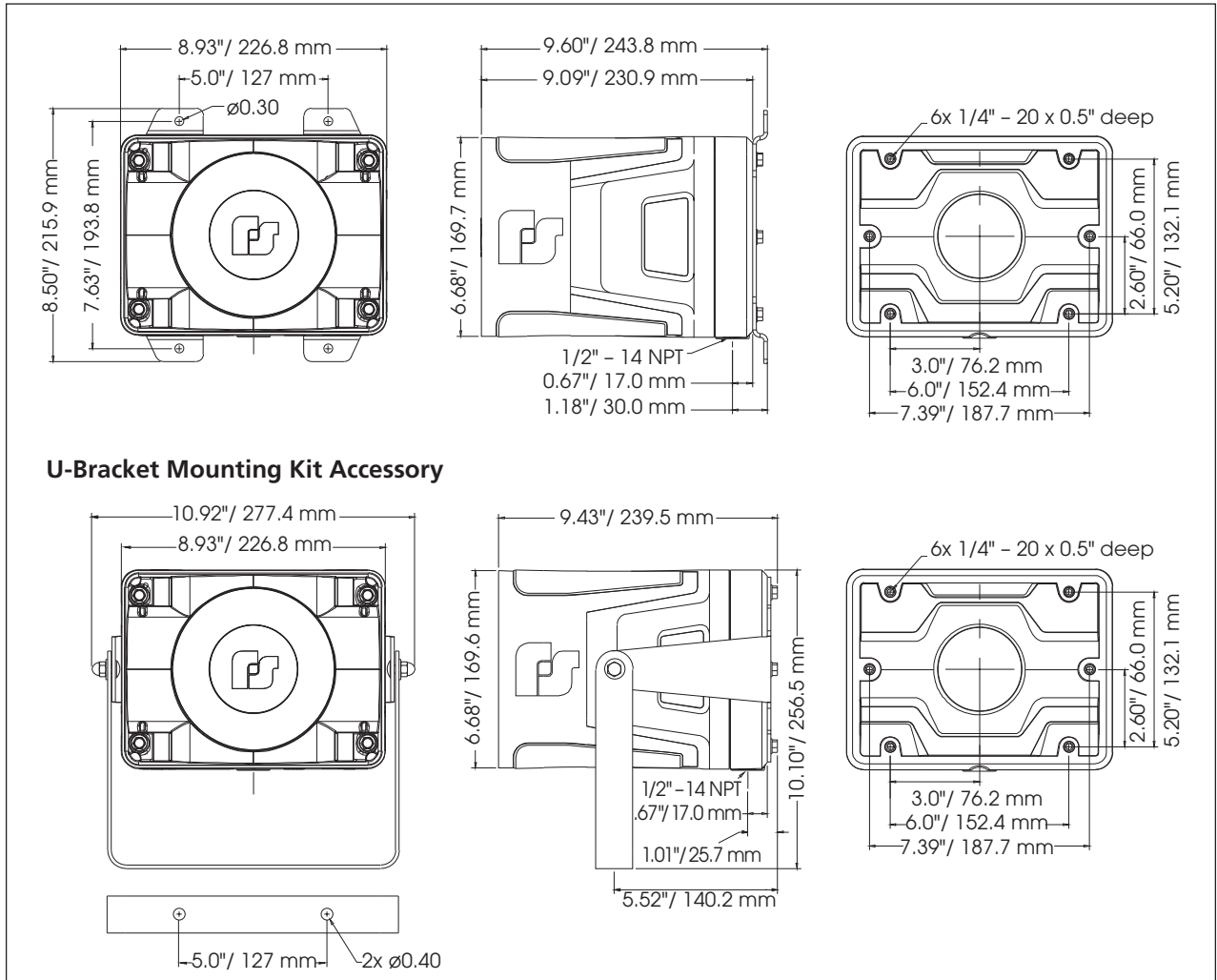
Typical applications include emergency warning, start and dismissal, general alarm and evacuation.

FEATURES

- Multiple operating voltages 24VDC or 120/240VAC
- Produces one of two tones at three SPL (sound pressure levels)
- Replicates Federal Signal 52 and 55/56 horn tones
- Surface mount standard, U-bracket mount sold separately
- Produces 96-117 dBa @ 10' (106-127 dBa @ 1m) depending on tone and voltage
- Type 4X, IP66 enclosure
- Marine Rated
- UL and cUL Listed

MODEL	VOLTAGE	52 HORN			55/56 HORN		
		OPERATING CURRENT	DECIBELS 10'	1M	OPERATING CURRENT	DECIBELS 10'	1M
eHorn-024	24VDC	0.4 - 3.0A	100 - 116	110 - 126	0.24 - 3.3A	96 - 117	106 - 127
eHorn-120-240	120VAC 50/60Hz	0.15 - 0.78A	101 - 114	111 - 124	0.10 - 0.76A	98 - 116	108 - 126
eHorn-120-240	240VAC 50/60Hz	0.03 - 0.40A	101 - 114	111 - 124	0.06 - 0.41A	98 - 116	108 - 126

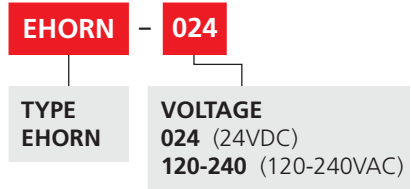
Electronic Horn (eHorn)



SPECIFICATIONS

Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Height:	8.50"	215.9 mm
Width:	8.93"	226.8 mm
Depth:	9.60"	243.8 mm
Shipping Weight:		
eHorn-024	13.8 lbs	6.3 kg
eHorn-120-240	15.8 lbs	7.2 kg
Net Weight:		
eHorn-024	11.7 lbs	5.3 kg
eHorn-120-240	13.7 lbs	6.2 kg

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
U-Bracket Mounting Kit	EHORN-TKIT





► Model eSiren

Electronic Siren

Model eSiren is an electronic siren capable of producing two high decibel siren tone outputs from the same unit by featuring internal amplification and patent pending tone generating circuitry.

The Type 4X, IP66 housing is molded from glass reinforced polycarbonate plastic, making it resistant to ultra-violet light and ideal for indoor or outdoor use.

Model eSiren can be used as a stand-alone, high output, audible warning device in any application where voice paging is not required.

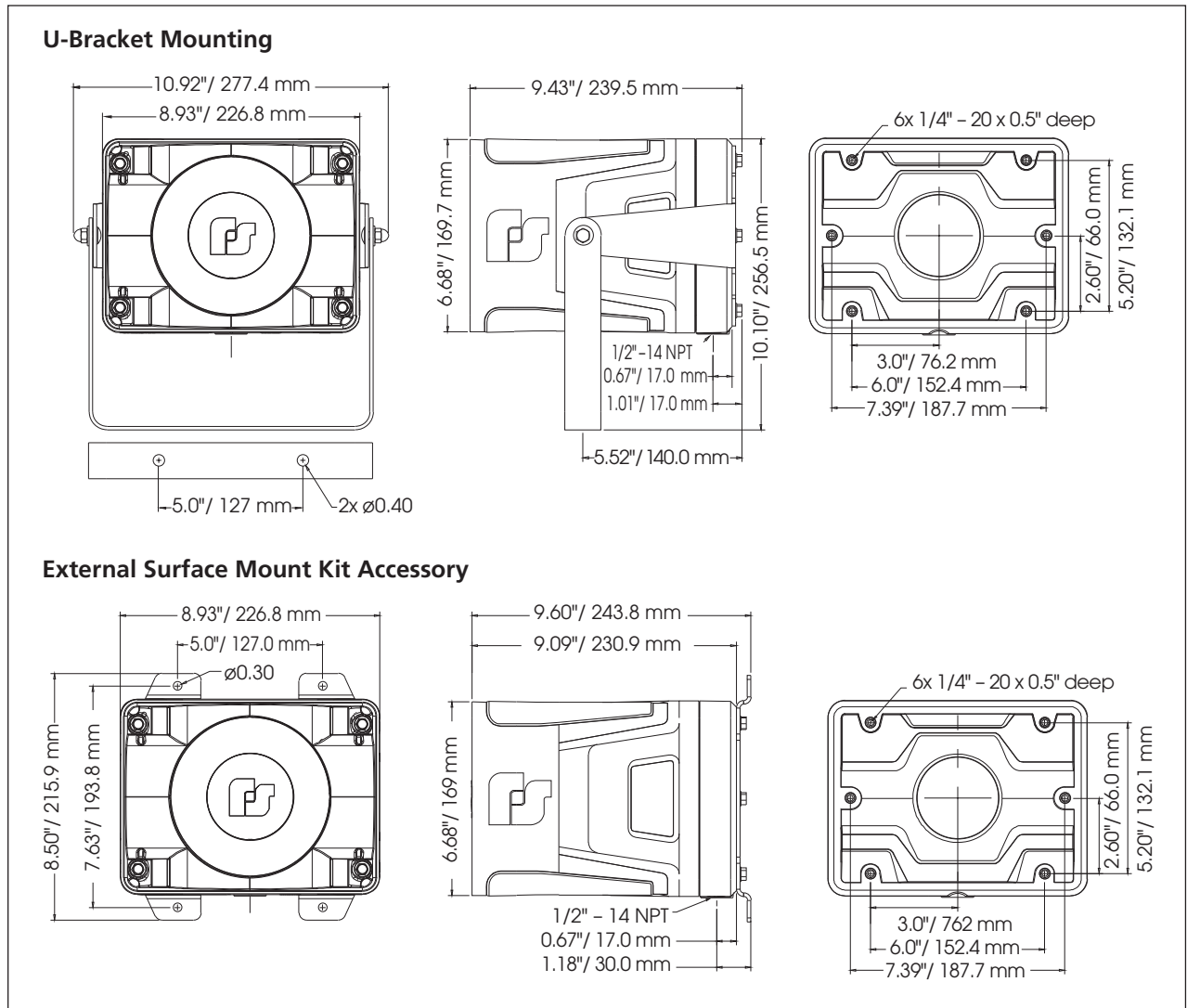
Typical applications include emergency warning, start and dismissal, general alarm and evacuation.

FEATURES

- Multi-voltage design accepts 120 or 240VAC
- Produces one of two tones at three SPL (sound pressure levels)
- Replicates Federal Signal Model A and Model L siren tones
- U-bracket or internal surface mount standard
- Produces 104 - 115 dBa @ 10' (114 - 125 dBa @ 1m) depending on tone selected
- Type 4X, IP66 enclosure
- Marine Rated
- UL and cUL Listed

MODEL	VOLTAGE	A SIREN			L SIREN		
		OPERATING CURRENT	DECIBELS 10'	1M	OPERATING CURRENT	DECIBELS 10'	1M
eSiren-120-240	120VAC	0.22 - 0.50A	105 - 115	115 - 125	0.024 - 0.53A	104 - 113	114 - 123
eSiren-120-240	240VAC	0.14 - 0.27A	105 - 115	115 - 125	0.15 - 0.26A	104 - 113	114 - 123

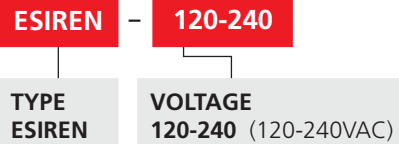
Electronic Siren (eSiren)



SPECIFICATIONS

Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Shipping Weight:	17.2 lbs	7.8 kg
Net Weight:	15.1 lbs	6.8 kg
Height:	10.10"	256.5 mm
Width:	10.92"	277.4 mm
Depth:	9.43"	239.5 mm

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
External Surface Mount Bracket Kit	ESIREN-SKIT





► Model SST3-MV

Remotely Selectable Electronic Siren

SST3-MV is an electronic siren capable of producing three different high decibel tones from the same unit.

Model SST3-MV features internal amplification and the circuitry required to produce three different tones. The user activates each tone (wail, yelp or horn) with dry contacts from a remote point.

The NEMA 3R housing is molded from impact resistant plastic, making it resistant to ultra-violet light and ideal for indoor or outdoor use.

The omni-directional swivel mount system allows the output to be pointed anywhere within a 180 degree half-sphere.

Model SST3-MV can be used as a stand-alone, high-output, audible warning device in any application where multiple tones are needed but voice paging is not required.

Typical applications include emergency warning, start and dismissal, fire alarm, general alarm and evacuation.

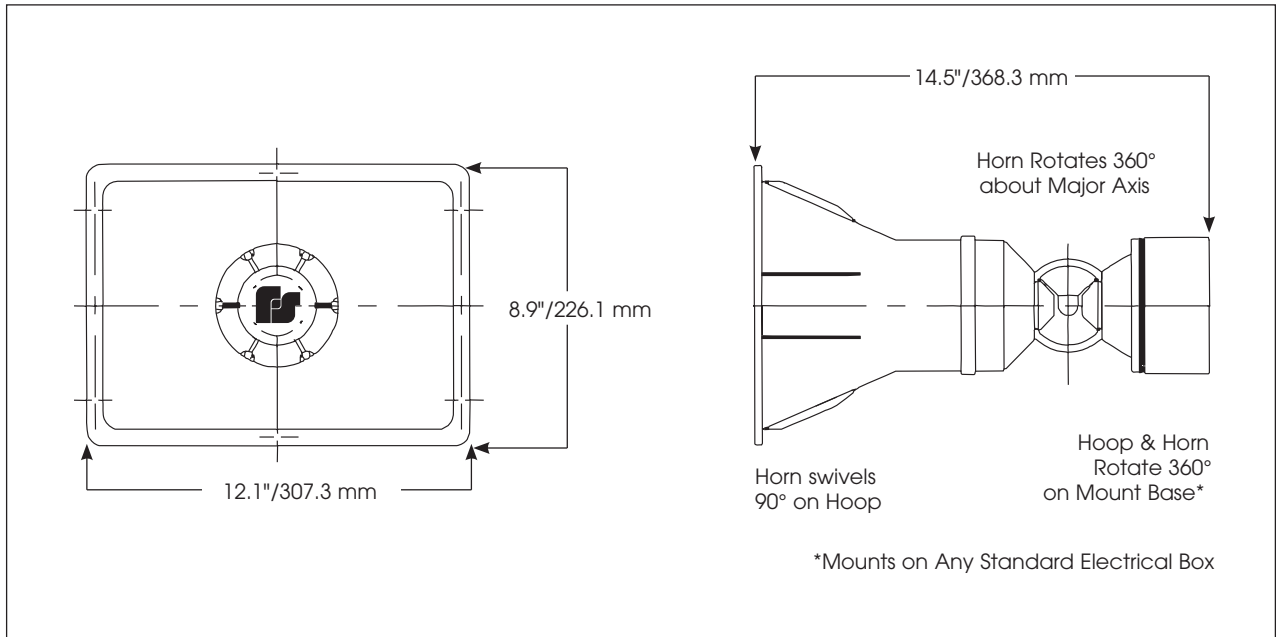
FEATURES

- Multi-voltage design accepts 24VDC and 120/240VAC
- Produces three tones: wail, yelp and horn
- Produces 107-111 dBa @ 10' (117-121 dBa @ 1m)
- Omni-directional swivel mount
- Indoor/outdoor use
- Type 3R enclosure (with model WB back box)
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT
SST3-MV	24VDC	600 mA
	120VAC	210 mA
	240VAC	120 mA

TONE	DECIBELS	
	10'	1M
Wail	109.5	119.5
Yelp	111.0	121.0
Horn	107.0	117.0

Remotely Selectable Electronic Siren (SST3-MV)



S P E C I F I C A T I O N S

Operating Temperature:	-31°F to 151°F	-35°C to 66°C
Maximum Contact Resistance:		1000 Ohms
Shipping Weight:	5.2 lbs	2.4 kg
Net Weight:	4.4 lbs	2.0 kg
Height:	8.9"	226.1 mm
Width:	12.1"	307.3 mm
Depth:	14.5"	368.3 mm

H O W T O O R D E R

Specify Model:

SST3-MV – Electronic multi-voltage siren

O P T I O N A L A C C E S S O R I E S

Description	Part Number
Weatherproof Back Box	WB

R E P L A C E M E N T P A R T S

Description	Part Number
Connector, 4-Position	K140340B
Adapter (Gray)	K8476121A-04
PC Board Assembly	K2005110A
Gasket	K8476122A
Speaker Assembly	K8504002A



► Model SSTX3-MV

Explosion-Proof Remotely Selectable Electronic Siren

SSTX3-MV is an explosion-proof electronic siren capable of producing three high decibel tones from the same unit. The integrated circuitry is contained in a rugged die-cast aluminum housing. The unique threaded rear access cover eliminates traditional time consuming bolting patterns. The access cover is also equipped with a braided cable lanyard securing it to the housing whenever the cover is open for installation or maintenance.

Model SSTX3-MV can be used as a stand-alone, full output, audible warning device in any explosion-proof environment where multiple tones are needed but voice paging is not required.

Typical uses include emergency warning, start and dismissal, general alarm and evacuation.

FEATURES

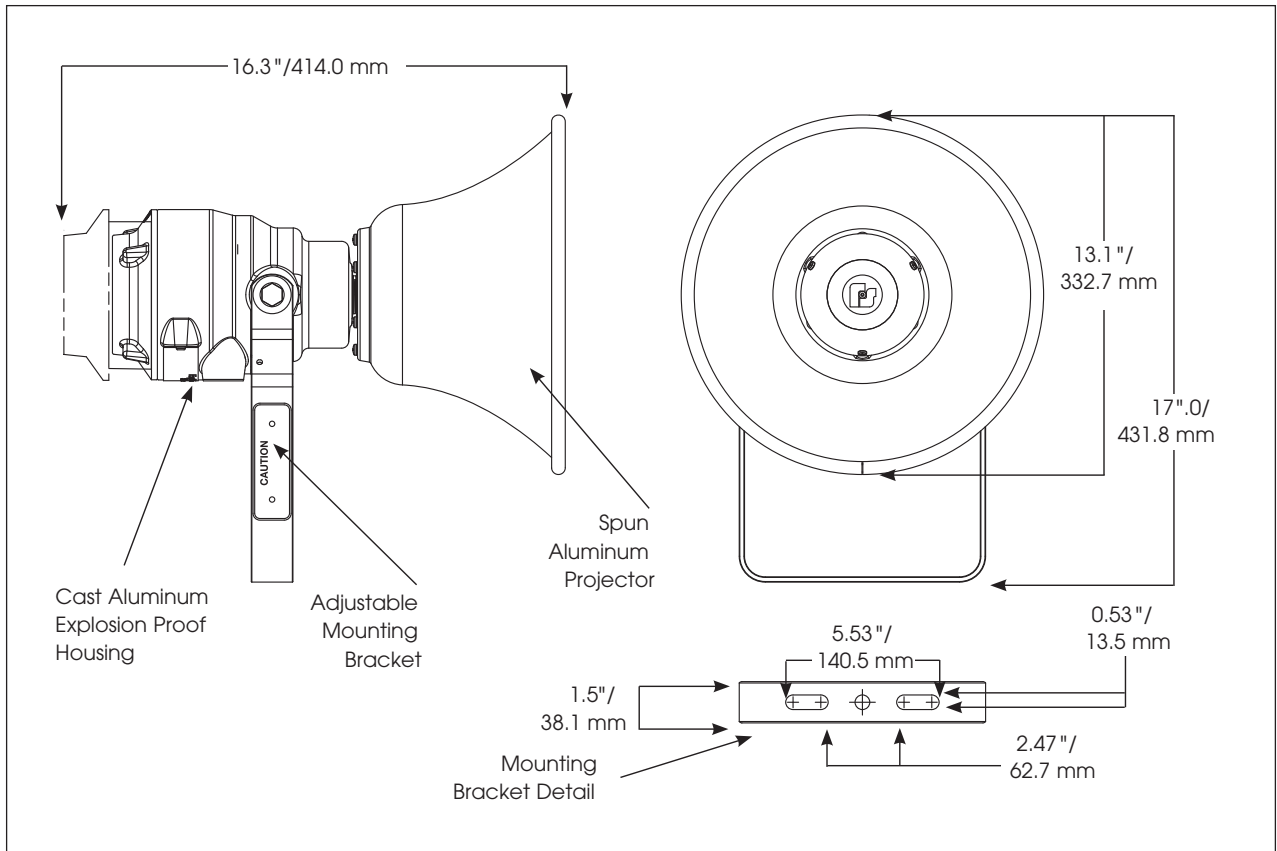
- Multi-voltage design – accepts 24VDC, 120VAC or 240VAC
- Produces three user activated tones – wail, yelp and horn
- Produces 101-108 dBa @ 10' (111-118 dBa @ 1m)
- Cast copper-free aluminum housing, spun aluminum projector
- Indoor/outdoor use
- Type 4X, IP66 enclosure
- UL and cUL Listed for Class I, Division 1, Groups B, C, and D; Class I, Division 2, Group A; Class II, Division 2, Groups F and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	TONE	DECIBELS	
				10'	1M
SSTX3-MV	24VDC	600 mA	Wail	108	118
	120VAC	210 mA	Yelp	108	118
	240VAC	120 mA	Horn	101	111

HAZARDOUS LOCATION RATING: SSTX3-MV

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C		
HAZARDOUS LOCATION	40 °C	66 °C
Class I, Division 1, Groups, B, C & D	T6	T6
Class I, Division 2, Group A	T3B	T3
Class II, Division 2, Groups F & G	T6	T6
Class III	T6	T6

Explosion-Proof Remotely Selectable Electronic Siren (SSTX3-MV)



S P E C I F I C A T I O N S

Operating Temperature:	-67°F to 151°F	-55°C to 66°C
Net Weight:	15.4 lbs	7.0 kg
Shipping Weight:	22.8 lbs	10.3 kg
Height:	17.0"	431.8 mm
Width:	13.1"	332.7 mm
Depth:	16.3"	414.0 mm

H O W T O O R D E R

Specify Model:

SSTX3-MV – Siren, electronic, remotely selectable, explosion-proof, multi-voltage

R E P L A C E M E N T P A R T S

Description	Part Number
Connector, 4-Position	K140340B
PC Board Assembly	K2005110A
Projector Assembly	K8593100A



► Model SST3GCX-MV

Hazardous Location Remotely Selectable Electronic Siren

Model SST3GCX-MV is an electronic siren capable of producing three different high decibel tones from the same unit.

This model can be used as a stand-alone, full output, audible warning device in any hazardous location environment where multiple tones are needed but voice paging is not required. The user activates each tone (wail, yelp or horn) with dry contacts from a remote point.

The rugged speaker cone and projector are constructed of spun aluminum and the integrated circuitry are contained in a housing constructed of die-cast aluminum. All surfaces are sealed with powder-coat paint. Dust- and moisture-proof gaskets provide Type 4X protection from the elements.

Typical applications include emergency warning, start and dismissal, general alarm and evacuation.

FEATURES

- Multi-voltage design accepts 24VDC or 120/240VAC
- Produces three tones – wail, yelp, and horn
- Produces up to 110.5 dBA at 10' (120.5 dBA at 1M)
- Type 4X, IP66 enclosure
- IP69K compliant
- External mounting tabs
- Indoor/outdoor use
- UL and cUL listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III

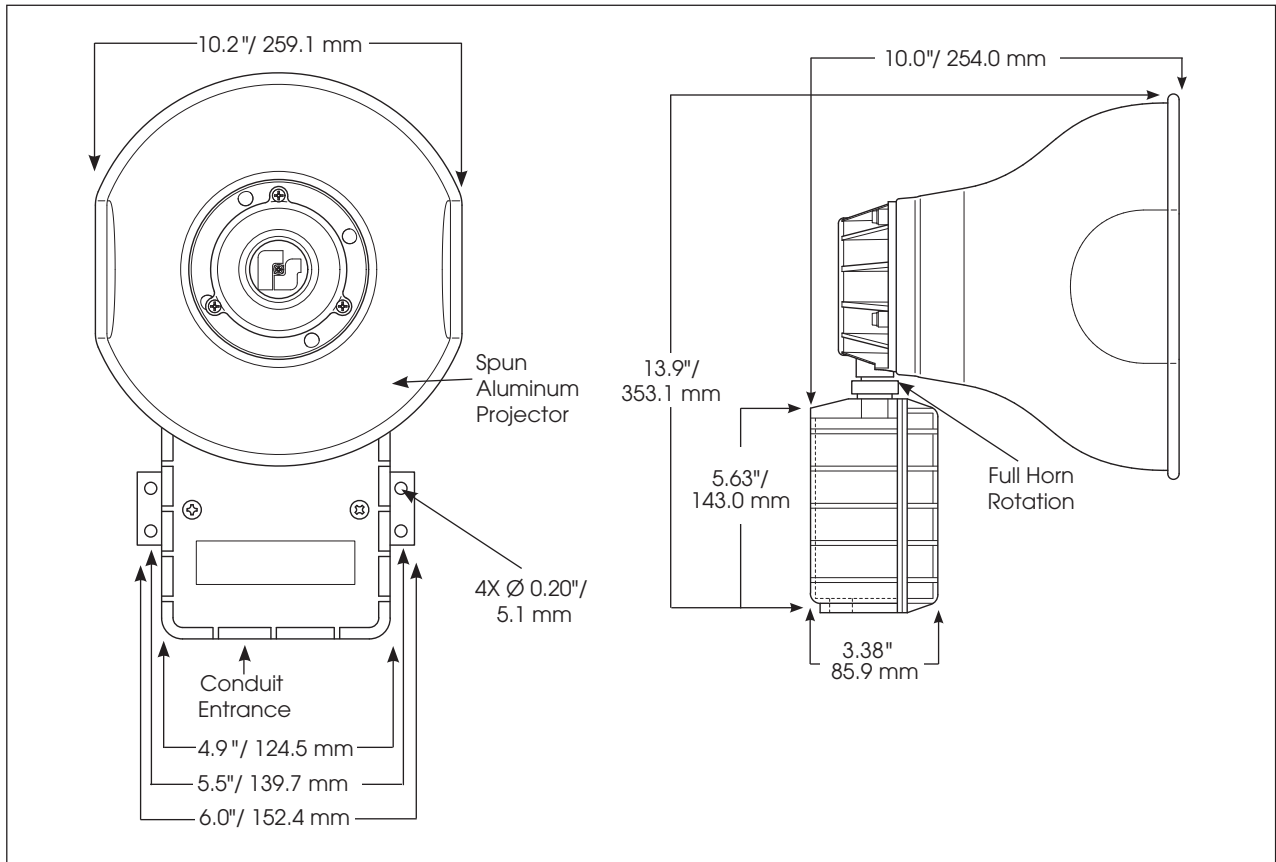
MODEL	VOLTAGE	OPERATING CURRENT	TONE	DECIBELS	
				10'	1M
SST3GCX-MV	24VDC	0.50 amps	Wail	107.5	117.5
	120VAC	0.21 amps	Yelp	110.5	120.5
	240VAC	0.12 amps	Horn	110.0	120.0

HAZARDOUS LOCATION RATING: SST3GCX-MV

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	66°C	40°C
Class I, Division 2, Groups A, B, C, D	T3C	T4
Class II, Division 2, Groups F, G	T5	T5
Class III	T5	T5

Hazardous Location Remotely Selectable Electronic Siren (SST3GCX-MV)



S P E C I F I C A T I O N S

Operating Temperature:	-67°F to 150°F	-55°C to 66°C
Maximum Contact Resistance:		1000 Ohms
Net Weight:	6.5 lbs	2.9 kg
Shipping Weight:	7.5 lbs	3.5 kg
Height:	13.9"	353.1 mm
Width:	10.2"	259.1 mm
Depth:	10.0"	254.0 mm

H O W T O O R D E R

Specify Model:

SST3GCX-MV – Siren, electronic, remotely selectable, hazardous location, multi-voltage

R E P L A C E M E N T P A R T S

Description	Part Number
Speaker Assembly	K8593103A
PCBA	K20000104A



► Model ES Series

Hazardous Location Sounders and Powered Loudspeakers

Federal Signal’s Model ES Series Sounders and Powered Loudspeakers are designed for rugged industrial applications where ATEX certification is required. The ES Series is comprised of two separate products that serve a variety of applications. First is a sounder that includes fifteen standard tones with a common power input that accepts an AC or DC power source. Once power is applied, a single tone may be selected through the use of a remote contact input, or all fifteen tones may be accessed independently by providing a binary string of information, specific to each tone. This allows a certain sound to match a specific alarm condition.

The second version of the ES Series is a powered loudspeaker. Once an AC or DC power source is applied, the powered loudspeaker is capable of amplifying a low-level audio signal, and reproducing it at 8, 15 or 25 watts, depending on the model selected. ES Series powered loudspeakers are the perfect option for ECHO Intercom systems, where ATEX approval is required.

Mounting is provided by a stainless-steel ratcheted mounting bracket that locks the sounder in position at a specific angle without slipping. The bottom surface of the mounting bracket also contains three mounting holes, to adapt to a variety of surfaces.

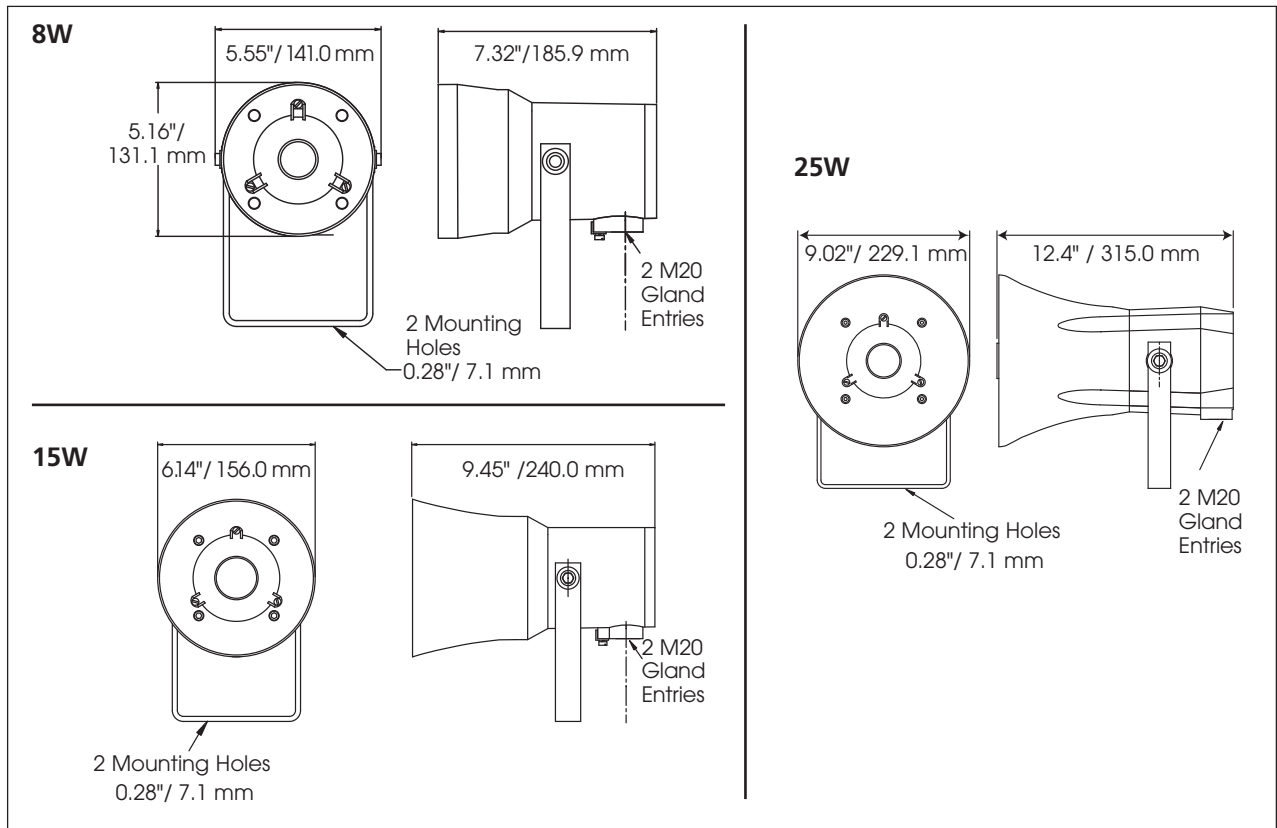
Model ES Series 8 watt and 15 watt are IP67 rated; the 25 watt model is rated for both IP66 and IP67. All exterior cast aluminum surfaces are finished in red powder coat paint and external hardware is manufactured from stainless steel to resist corrosion.

FEATURES

- 8 watt, 104 dBa @ 1m
- 15 watt, 107 dBa @ 1m
- 25 watt, 116 dBa @ 1m
- Remote tone selection
- Dual cable entries
- 15 tones on-board sounder
- Integrated DC and AC voltages
- Short horn version (8W)
- Approved for Zone 1 IIB and IIC
- IP66 or IP67 enclosure
- ES4-120 and ES5-120 versions are IECEx, INMETRO and EAC only
- ATEX, IEXCx, and CE Rated

MODEL	TYPE	VOLTAGE	OPERATING CURRENT	EQUIVALENT POWER
ES1-114-7MT	Sounder	24VDC/120VAC/240VAC	950 mA/210 mA/ 125 mA	8 watt IIB
ES1-114-2MT	Sounder	24VDC/120VAC/240VAC	950 mA/210 mA/ 125 mA	8 watt IIC
ES1-112-7MT	Sounder	24VDC/120VAC/240VAC	950 mA/210 mA/ 125 mA	15 watt IIB
ES1-112-2MT	Sounder	24VDC/120VAC/240VAC	950 mA/210 mA/ 125 mA	15 watt IIC
ES4-120-7MT	Sounder	24VDC/120VAC/240VAC	950 mA/210 mA/ 125 mA	25 watt IIB
ES1-114-74	Powered Loudspeaker	24VDC/120VAC/240VAC	500 mA/125 mA/90 mA	8 watt IIB
ES1-114-24	Powered Loudspeaker	24VDC/120VAC/240VAC	500 mA/125 mA/90 mA	8 watt IIC
ES1-112-74	Powered Loudspeaker	24VDC/120VAC/240VAC	500 mA/125 mA/90 mA	15 watt IIB
ES1-112-24	Powered Loudspeaker	24VDC/120VAC/240VAC	500 mA/125 mA/90 mA	15 watt IIC
ES5-120-73EB	Powered Loudspeaker	24VDC	1200 mA	25 watt IIB
ES5-120-73EL	Powered Loudspeaker	120VAC	400 mA	25 watt IIB
ES5-120-73EM	Powered Loudspeaker	240VAC	210 mA	25 watt IIB

Hazardous Location Sounders and Powered Loudspeakers (ES)



SPECIFICATIONS

Operating Voltages: 24VDC, 110/120VAC, 220/240VAC
 Factory Default Setting: 240VAC
 Type: 8/15 watt dual entry, 25 watt dual entry
 Material: Aluminum Alloy
 Color: Signal red
 Mounting: Stainless steel bracket (not painted)
 Output:
 8W Short Horn Series IIB 104 dBa @ 1m (1kHz)
 8W Short Horn Series IIC 100 dBa @ 1m (1kHz)
 15W Series IIB 107 dBa @ 1m (1kHz)
 15W Series IIC 103 dBa @ 1m (1kHz)
 25W Series 116 dBa @ 1m (1kHz)
 Cable Entries (bottom): 2 x M20
 (Supplied with 1 x EEx stopping plug)
 Operating Temperature: -4°F to 104°F -20°C to 40°C (T6)
 -4°F to 131°F -20°C to 55°C (T5)
 -4°F to 158°F -20°C to 70°C (T4)
 Termination: For 1.5mm² conductors

Net Weight:
 8W 7.1 lbs 3.2 kg
 15W 9.0 lbs 4.1 kg
 25W 14.1 lbs 6.4 kg
 Shipping Dimensions:
 8W/15W 11 x 11 x 11 in
 25W 12.13 x 11.19 x 13.56 in
 Certificate Number:
 Baseefa03ATEX0689X, II 2 G EExd IIC T4...T6
 Ingress Protection:
 8W/15W IP67
 25W IP66 and IP67
 Certificate Number:
 25W Nemko 05ATEX1036, II 2 G EExd IIB T4...T6

Notes: Audio input user selectable.
 Available inputs are 0.8V, 1.5V and 2.7V.

HOW TO ORDER

Contact factory for assistance



► Model MS Series

Marine/Industrial Sounders and Loudspeakers

Model MS Series Marine/Industrial Sounders and Loudspeakers are designed for rugged industrial applications where CE certification is required. MS Series is comprised of two separate products that serve a variety of applications. First is a sounder that includes fifteen standard tones with a common power input that accepts an AC or DC power source. Once power is applied, a single tone may be selected through the use of a remote contact input, or all fifteen tones may be accessed independently by providing a binary string of information, specific to each tone. This allows a certain sound to match a specific alarm condition.

The second version of the MS Series is a powered loudspeaker. Once an AC or DC power source is applied, the powered loudspeaker is capable of amplifying a low-level audio signal, and reproducing it at 8, 15 or 25 watts, depending on the model selected. MS Series Powered Loudspeakers are the perfect option for ECHO Intercom systems, where CE approval is required.

Mounting is provided by a stainless-steel ratcheted mounting bracket that locks the sounder in position at a specific angle without slipping. The bottom surface of the mounting bracket also contains three mounting holes, to adapt to a variety of surfaces.

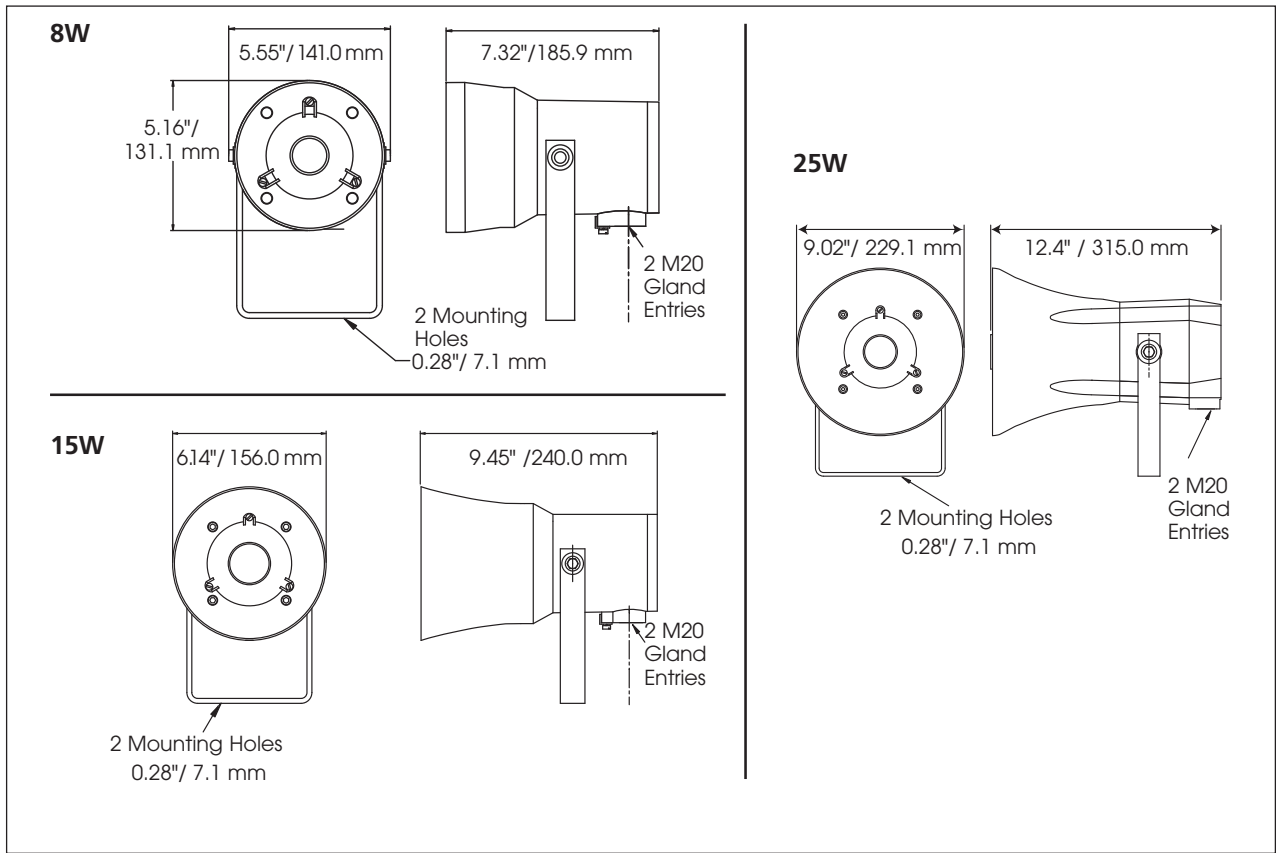
Model MS Series 8 watt and 15 watt are IP67 rated; the 25 watt model is rated for both IP66 and IP67. All exterior cast aluminum surfaces are finished in gray powder coat paint and external hardware is manufactured from stainless steel to resist corrosion.

FEATURES

- 8 watt, 114 dBa @ 1m
- 15 watt, 117 dBa @ 1m
- 25 watt, 123 dBa @ 1m
- On-board choice of 15 tones
- Remote tone selection
- Dual cable entries
- Integrated DC and AC voltages
- Short horn version (8W)
- IP66 or IP67 enclosure
- CE Certified

MODEL	TYPE	VOLTAGE	OPERATING CURRENT	EQUIVALENT POWER
MS1-114-1MT	Sounder	24VDC/120VAC/240VAC	950 mA /210 mA /125 mA	8 watt
MS1-112-1MT	Sounder	24VDC/120VAC/240VAC	950 mA /210 mA /125 mA	15 watt
MS4-120-1MT	Sounder	24VDC/120VAC/240VAC	950 mA /210 mA /125 mA	25 watt
MS1-114-14	Powered Loudspeaker	24VDC/120VAC/240VAC	500 mA /125 mA /90 mA	8 watt
MS1-112-14	Powered Loudspeaker	24VDC/120VAC/240VAC	500 mA /125 mA /90 mA	15 watt
MS5-120-13EB	Powered Loudspeaker	24VDC	1200 mA	25 watt
MS5-120-13EL	Powered Loudspeaker	110/120VAC	400 mA	25 watt
MS5-120-13EM	Powered Loudspeaker	220/240VAC	210 mA	25 watt

Marine/Industrial Sounders and Loudspeakers (MS)



SPECIFICATIONS

Operating Voltages: 24VDC, 110/120VAC, 220/240VAC
 Factory Default Setting: 240VAC
 Type: 8/15 watt dual entry, 25 watt dual entry
 Material: Aluminum Alloy
 Color: Gray to RAL7035 (epoxy powder coated semi-gloss)
 Mounting: Stainless steel bracket (not painted)
 Output:
 8W Short Horn Series 114 dBa @ 1m (1kHz)
 15W 117 dBa @ 1m (1kHz)
 25W 123 dBa @ 1m (1kHz)
 Cable Entries (bottom):
 2 x M20 (Supplied with 1 x EEx stopping plug)

Operating Temperature: -4°F to 158°F -20°C to 70°C
 Termination: For 1.5mm² conductors
 Net Weight:
 8W 6.6 lbs 3.0 kg
 15W 7.1 lbs 3.2 kg
 25W 14.1 lbs 6.4 kg
 Shipping Dimensions:
 8W/15W 11 x 11 x 11 in
 25W 12.13 x 11.19 x 13.56 in
 Ingress Protection:
 8W/15W IP67
 25W IP66 and IP67

Notes: Audio input user selectable.
 Available inputs are 0.8V, 1.5V and 2.7V.

HOW TO ORDER

Contact factory for assistance



OVERVIEW

SelecTone® Plant Wide Warning and PA Systems

SelecTone® systems cover the full range of industrial communication applications: start and dismissal, emergency evacuations, process control signaling, voice messages and public address. The SelecTone product family includes all the equipment necessary for a comprehensive industrial signaling and communications system; dependable, high-quality Command Units, weatherproof, dust-and watertight, hazardous location and Explosion-proof Speaker/Amplifiers, Tone Modules with pre-recorded digital voice messages, tones or melodies, and Connector Kits that make it all work together. Every model is designed with the greatest care for long life in harsh, industrial environments.

SelecTone Speaker/Amplifiers are self-amplified speakers designed to broadcast pre-recorded tones, voice messages, melodies and live public address. Because the communication signal is amplified by each device, rather than by costly central amplifiers, the expense of running high-powered audio lines in conduit is eliminated. Each Speaker/Amplifier is designed for long life in harsh industrial environments. Systems provide limitless expansion for future growth. A range of models with outputs from 88 dBA to 114 dBA are available to overcome industrial noise levels. Each has an integrated volume control. SelecTone Speaker/ Amplifiers can be used to expand existing public address systems without adding central amps. Systems are fault tolerant – if one devices fails, the others continue to operate. Each Speaker/Amplifier can also be used for stand-alone signaling applications.

SelecTone Command Units are the centerpiece of a total plant communication strategy. Each Command unit provides central control of four tones and public address. Each is equipped with local and remote microphone access and tone initiation. Auxiliary audio inputs support background music. Communication is prioritized with local microphone as highest, followed by tones 1 through 4, remote microphone, then auxiliary audio. An on-board amp supports a local speaker. Rack mount, wall mount and desktop models are available.

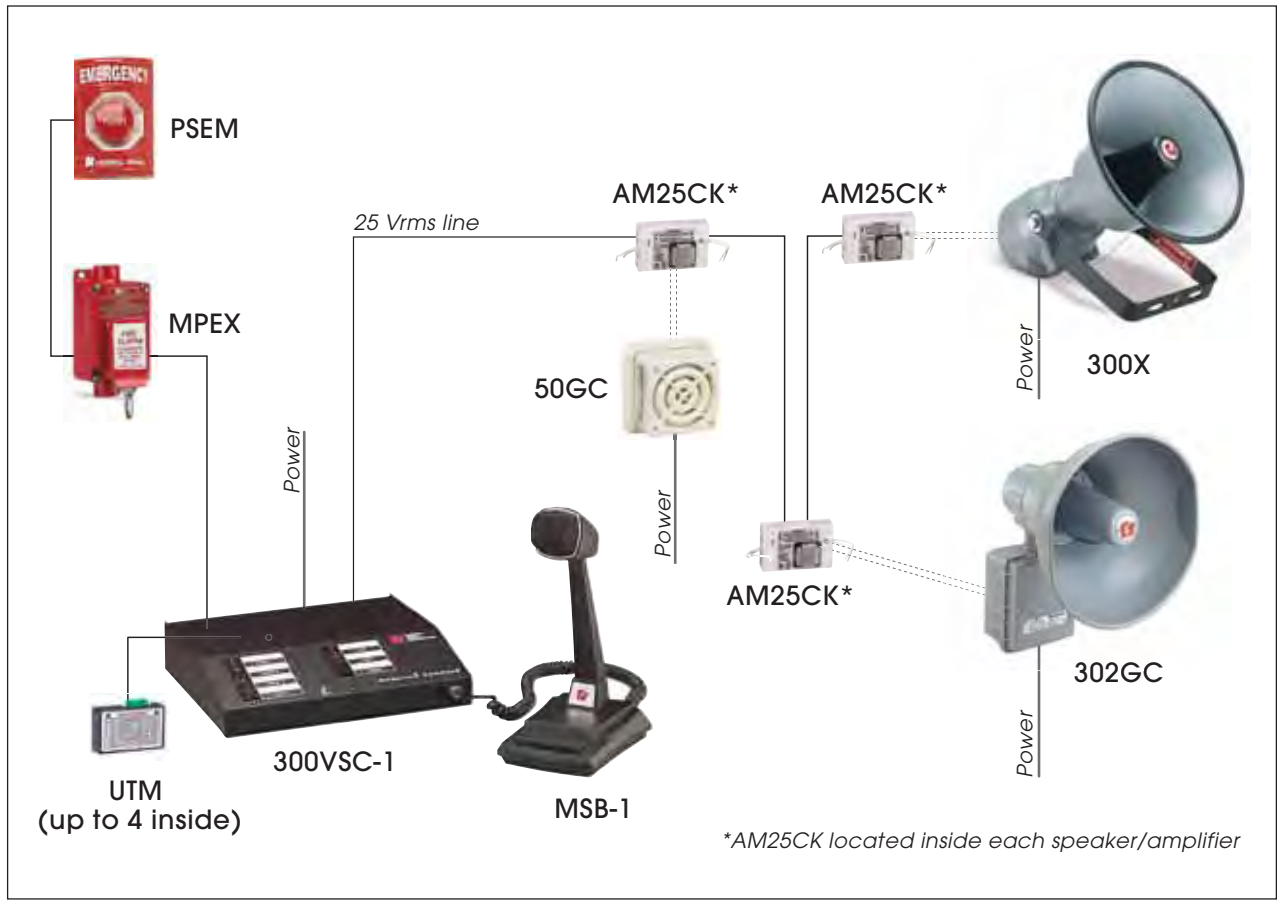
Connector Cards tie the SelecTone® system together. Installed in each Speaker/Amplifier, Connector Cards provide communication with the SelecTone Command Unit. They can also be used to add SelecTone Speaker/Amplifiers to existing centrally amplified public address systems. Each Connector Card is designed to create a balanced line audio system for superior noise suppression and clear communication.

Tone Modules offer tones, messages and melodies for every application, location and event. The Universal Tone Module (UTM) provides a selection of 32 distinct tones for use in plant-wide communication systems with a SelecTone Command Unit and a limitless number of Speaker/Amplifiers or for use in stand alone applications with a single Speaker/Amplifier. Tones are easily selected via DIP switches and the modules are designed for quick plug-in installation. When a custom voice message, tone or melody is the solution, Federal Signal offers the TM33-SD Custom Tone Module. Users can select from a library of thousands of messages and melodies or they can provide a tape, script or digital sound file for professional recording in any language.

FEATURES

- Available in 24VDC, 24VAC, 120VAC and 240VAC
- Command Units, Speaker/Amplifiers, Tone Cards and Connector Kits
- Indoor, outdoor, explosion-proof and hazardous location models
- CSA Certified
- UL and cUL Listed

SelecTone® Plant Wide Warning and PA Systems



SELECTONE® PRODUCTS

Product	Page
Universal Tone Module	214
Custom Tone Module	216
Connector Kits	218
Extension Module	220
Speaker/Amplifiers	221-245
Command Units	246-251



► Model UTM

SelecTone® Universal Tone Module

Model UTM is a microcontroller-based tone generator capable of producing 32 different tones. Model UTM is the key component of a SelecTone® System or a single SelecTone device. Tone selection is made by setting five DIP switches.

Housed in a plastic cover impregnated with stainless steel fibers, the circuitry is shielded from RFI (radio frequency interference) and EMI (electro-magnetic interference). The edge connector allows for quick and simple installation.

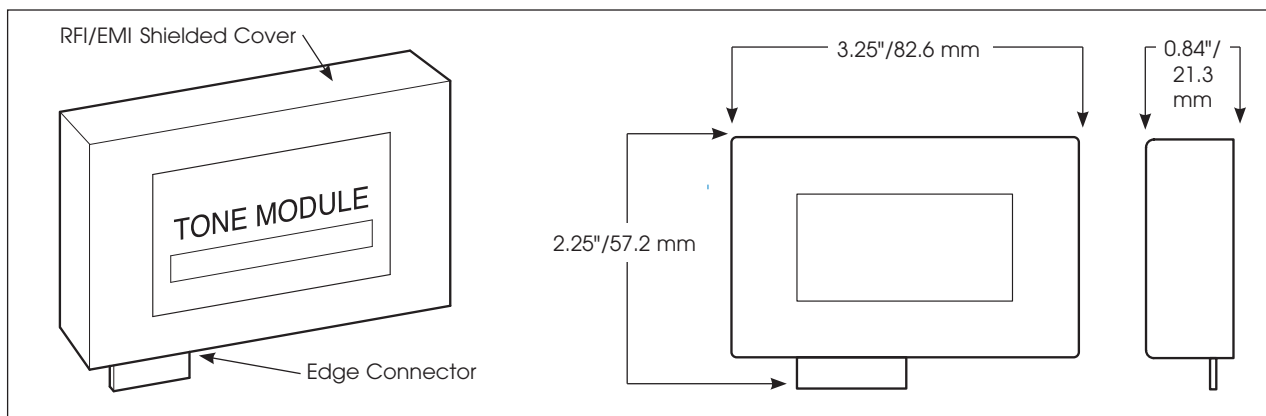
In addition to working with the entire SelecTone® line of amplified speaker products, Model UTM is compatible with the EM3 Extension Module, 300VSC-1 Command Unit, 300VSC-1044SB Command Unit and 300SCW-1 Command Unit. Model UTM provides crisp, clear digital signals that are easily distinguished from the ambient noise of commercial, institutional and industrial environments.

All tones can be reviewed under the resource section on www.fedsig.com.

F E A T U R E S

- 32 switchable tones
- Compatible with all SelecTone® equipment
- Plug-in installation
- RFI and EMI shielded
- CSFM Approved
- UL and cUL Listed

SelecTone® Universal Tone Module (UTM)



Dip Switch					Tone	Sound	Frequency	Repetition Rate	
1	2	3	4	5					
↑	↑	↑	↑	↑	TM1	Wail	Conventional Siren	560-1055Hz	11 cycles/minute
↑	↑	↑	↑	↓	TM2	Yelp	Rapid Siren	560-1055Hz	3.3 cycles/second
↑	↑	↑	↓	↑	TM3	High-Low	Alternating High and Low	561Hz and 760Hz	50 cycles/minute
↑	↑	↑	↓	↓	TM4	Bell	Bell, Struck Rapidly	801Hz	50 cycles/minute
↑	↑	↓	↑	↑	TM5	Yeow	Descending High to Low, Repeated	545Hz and 1296Hz	36 cycles/minute
↑	↑	↓	↑	↓	TM6	Horn	Steady Horn	470Hz	Continuous
↑	↑	↓	↓	↑	TM7	Beep	Slow Intermittent Horn	470Hz	50 cycles/minute
↑	↑	↓	↓	↓	TM8	Stutter	Rapid Intermittent Horn	470Hz	5 cycles/minute
↑	↓	↑	↑	↑	TM9	Slow Whoop	Slow Ascending Low to High, Repeated	424Hz and 1163Hz	15 cycles/minute
↑	↓	↑	↑	↓	TM10	Gradual Horn	Steady Horn, Gradually Increasing in Volume	514Hz	Continuous
↑	↓	↑	↓	↑	TM11	Temporal Slow Whoop	NFPA Coded Slow Whoop	424Hz and 774Hz	15 cycles/minute
↑	↓	↑	↓	↓	TM12	Westminster Chime	Westminster Chime	Musical Tone	1 cycle/8 tones
↑	↓	↓	↑	↑	TM13	Evac	Amplitude Modulated Siren	479Hz	4.3 cycles/second
↑	↓	↓	↑	↓	TM14	Air Horn	Steady Horn	400Hz and 800Hz	Continuous
↑	↓	↓	↓	↑	TM15	Chime	Single Strike Chime	Musical Tone	49 cycles/minute
↑	↓	↓	↓	↓	TM16	Phaser	Rapid Siren	600-1200Hz	15 cycles/second
↓	↑	↑	↑	↑	TM17	Alternating High and Low	Alternating High-to-Low	363Hz and 518Hz	60 cycles/minute
↓	↑	↑	↑	↓	TM18	Warble	Extremely Rapid Siren	560-1055Hz	6.3 cycles/second
↓	↑	↑	↓	↑	TM19	Alert	Slow Sweep Tone	400-1560Hz	Ascending
↓	↑	↑	↓	↓	TM20	Euro-Police	Alternating High and Low	969Hz and 800Hz	30 cycles/minute
↓	↑	↓	↑	↑	TM21	Euro-Fire	Sweep Tone	900-800Hz	Continuous
↓	↑	↓	↑	↓	TM22	Euro-Slow Whoop	Slow Sweep Tone	650-1290Hz	17 cycles/minute
↓	↑	↓	↓	↑	TM23	Euro-General	Intermittent Horn	969Hz	60 cycles/minute
↓	↑	↓	↓	↓	TM24	Euro-Toxic	Steady Horn	969Hz	Continuous
↓	↓	↑	↑	↑	TM25	Euro-Police II	Slow Alternating High and Low	554Hz and 440Hz	Alternating Slow
↓	↓	↑	↑	↓	TM26	Euro-Stutter	Intermittent Beep	2840Hz	252 ms/cycles
↓	↓	↑	↓	↑	TM27	Euro-Sweep	Sweep Tone	1163 - 397Hz	Descending
↓	↓	↑	↓	↓	TM28	Ringer	Continuous Ringing Tone	560Hz and 326Hz	Fast Alternating
↓	↓	↓	↑	↑	TM29	Buzzer	Buzzer Tone	1318Hz and 760Hz	Continuously Alternating
↓	↓	↓	↑	↓	TM30	Attention	Extremely Rapid Siren	Multiple Frequency	1 cycle, 8 tones
↓	↓	↓	↓	↑	TM31	Multi-Tone	Extremely Rapid Siren	Multiple Frequency	1 cycle, 8 tones
↓	↓	↓	↓	↓	TM32	Caution	Extremely Rapid Siren	Multiple Frequency	1 cycle, 8 tones

HOW TO ORDER

Specify Model:

UTM – Universal tone module



► Model TM33-SD

SelecTone® Custom Tone Module

Model TM33-SD Digital Tone Module provides audio input for any SelecTone® amplified speaker. The tone module holds a single pre-recorded voice message, tone or melody.

Each tone module contains the latest microprocessor based digital messaging system. This new PCBA module is capable of a 30 second playback of any custom tone or voice message. The tone or message can be reprogrammed at any time with the use of the 300FP field programmer, see page 254 for details. Model TM33 can either be set to play through once and stop or loop continuously.

This solid state digital device will work with Federal Signal amplified speakers (including 50GC, 50GCB, 300GC, 300GCX, 302GC, 302GCX, 300X, 302X, 304GC, 314GC, 304GCX, 314GCX, 304X, and 314X) and the 300VSC-1, 300SCW-1, 300VSC-1044SB SelecTone Command Panels*.

TM33-SD's digital messaging capabilities are ideal for emergency evacuation announcements. Clear, concise, pre-determined instructions or custom tones can be broadcast.

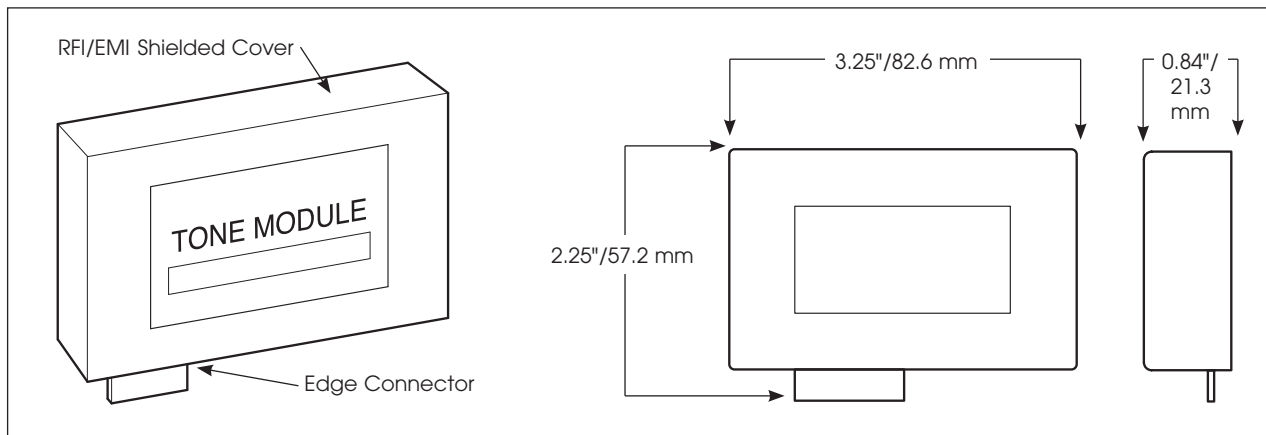
Manufacturing facilities often require an audible signal to indicate status (i.e. standby, shut down, operational, etc.). Simple pre-recorded melodies can indicate these situations, while voice messages can warn operators.

* Not compatible with the EM3 Extension Module

FEATURES

- Non-volatile memory
- Compatible with any SelecTone® unit
- Plug-in installation
- Customized digital message, in any language
- UL and cUL Listed

SelecTone® Custom Tone Module (TM33-SD)



Standard Library for TM33-SD and Commcenter® Chips

VOICE MESSAGES

- "An automatic guided vehicle is approaching. – Please step aside."
- "System is now in auto shutdown mode."
- "Lockout has been removed – system is coming on line."
- "Check status light for current system condition."
- "Auto shut down has begun. Raw materials must be replenished – and system reset."
- "You have entered a restricted area."
- "The automatic doors are closing – Please stand clear."
- "The overhead door is closing. – Please stand clear."
- "Safety glasses must be worn in this area at all times."
- "This is a hard hat area."
- "A forklift is approaching. – Please stand clear."
- "Attention! We will be testing the fire alarm system shortly. – This is only a test."
- "Attention! For the next thirty seconds a test will be conducted of the emergency evacuation system. – This is only a test."
- "Please evacuate the building. – This is not a test."
- "Warning, this machine is about to start up. – Please stand clear."
- TM3 followed by "Please take shelter immediately. – This is a severe weather alert."
- TM11 followed by "Please evacuate the building. – This is not a test."
- TM5 followed by "Tornado alert. – Report to your designated area."
- TM12 followed by "All clear. – Return to work area."

CLASSICAL MELODIES

- Bach – Fugue in "D" Minor
- Bach – Fugue in "A" Minor
- Beethoven – 5th Symphony
- Beethoven – Sonata Theme
- Chopin – Minuet Waltz
- Chopin – Polonaise in "A" Minor
- Greig – Dance Caprice
- Greig – Concerto in "A" Minor
- Rackoczy – March
- Strauss – Blue Danube
- Tchaikovsky – Concerto in "B" Flat Minor
- Rossini – William Tell Overture

FOLK MELODIES

- Coventry Carol
- Dance Macabre
- Lightly Row
- Go Tell Aunt Rhody
- Henry Martin
- Love's Complaint
- Oh Suzannah
- Prince Igor
- Watchman's Song
- Cradle Song
- Dixie Land
- London Bridge
- Greensleeves
- Home on the Range
- Morning Song
- Oh Wondrous Enchantment
- Suwanee River

ETHNIC MELODIES

- Irish Jig
- My Bonnie
- The Horn Pipe
- J'ai Du Bon Taboc
- Norwegian Dance
- PATRIOTIC MELODIES**
- Battle Hymn of the Republic
- My Country 'tis of Thee
- Taps

NOVELTY MELODIES

- Camp Town Races
- Doggie in the Window
- Maple Leaf Rag
- The Entertainer
- Worms Crawl In
- Saints Come Marching In
- La Cucaracha
- Merrily We Roll Along
- The Mulberry Bush

H O W T O O R D E R

Specify Model:

TM33-SD – Tone module, custom

Specify Message Source:

- a. Select from Standard Library above
- b. Send script to Federal Signal to be recorded in studio (additional charge incurred)
- c. Send field-recorded electronic file in .wav or .mps format to Federal Signal to be transferred to chip (additional charge incurred)

R E P L A C E M E N T P A R T S

Description	Part Number
Blank Message Module	RMB9999SD
Pre-recorded Message Module (Please specify message)	RM1SD



- ▶ Models AM25CK, AM70CK, 300CK, E-300CK and T-300CK

SelecTone® Connector Kits

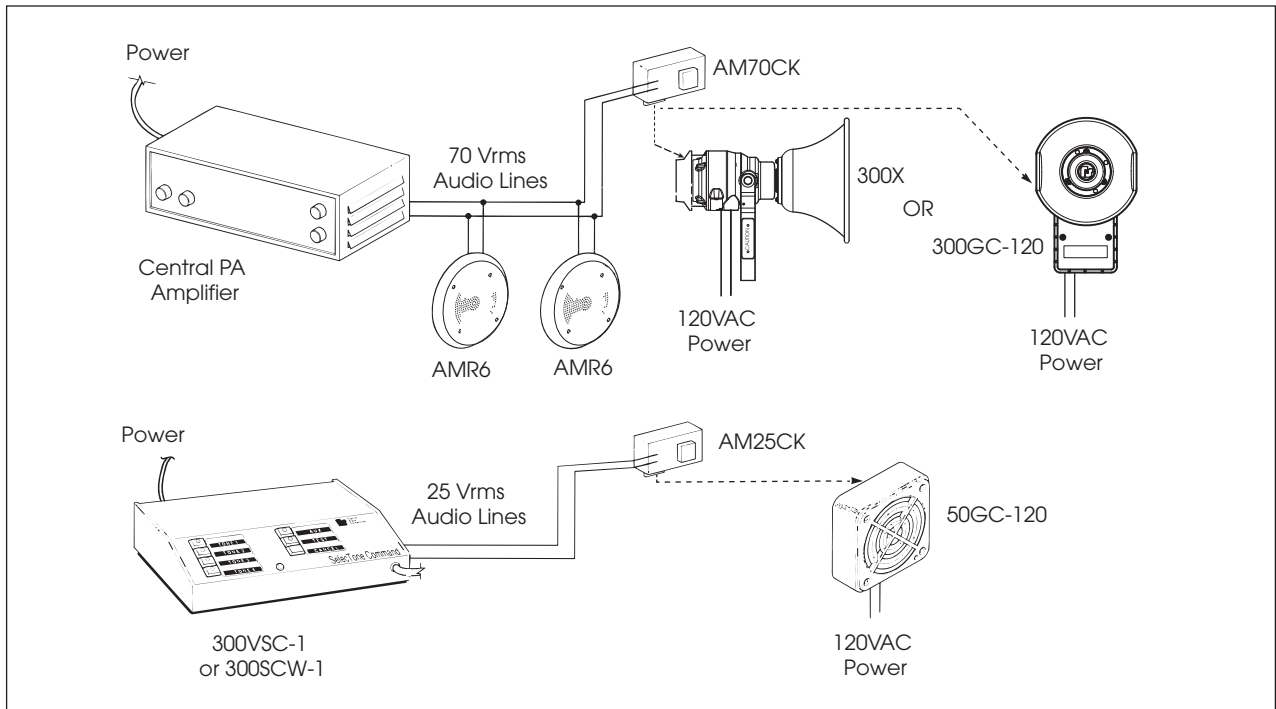
Our connector kits allow existing public address systems to be expanded through SelecTone® amplified speakers by converting and conditioning the incoming audio signal to the required input level for the amplifier within the speaker. There is no external power required as each kit plugs directly into a card edge connector in the speaker.

Note: Model T-300CK is compatible with ECHO models only.





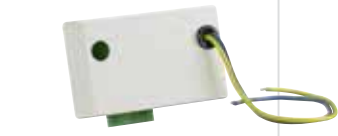
F E A T U R E S

- Interfaces SelecTone® amplified speakers with an existing paging system
- Works in 25 or 70 Vrms systems
- Creates a “balanced line” SelecTone® System
- Models AM25CK and AM70CK are CSFM Approved
- UL and cUL Listed

SelecTone® Connector Kits (AM25CK, AM70CK, 300CK, T-300CK, E-300CK)



H O W T O O R D E R

	Model Number	Audio Input	Audio Output
	AM25CK	25 Vrms	1 Vrms
	AM70CK	70 Vrms	1 Vrms
	300CK	10 Vrms	1 Vrms
	T-300CK	2.7 Vrms	1 Vrms
	E-300CK	1 Vrms	1 Vrms



► Model EM3

SelecTone® Extension Module

Model EM3 SelecTone® Extension Module is designed to add multi-tone capability to an individual SelecTone unit and can be used with Models 50GC, 300, 300GC, and 302GC.

The die-cast aluminum alloy housing has the same dimensions as the main amplifier housing of the above mentioned models and is sealed with gray enamel paint. Model EM3's internal components are protected from the elements by dust- and moisture-proof seals.

Its internal components are a wiring terminal strip, edge connector slots for three Model UTM tone modules and an interface to connect to a SelecTone 300, 300GC, or 302GC signaling device. Model EM3 is not compatible with the TM33-SD Tone Module.

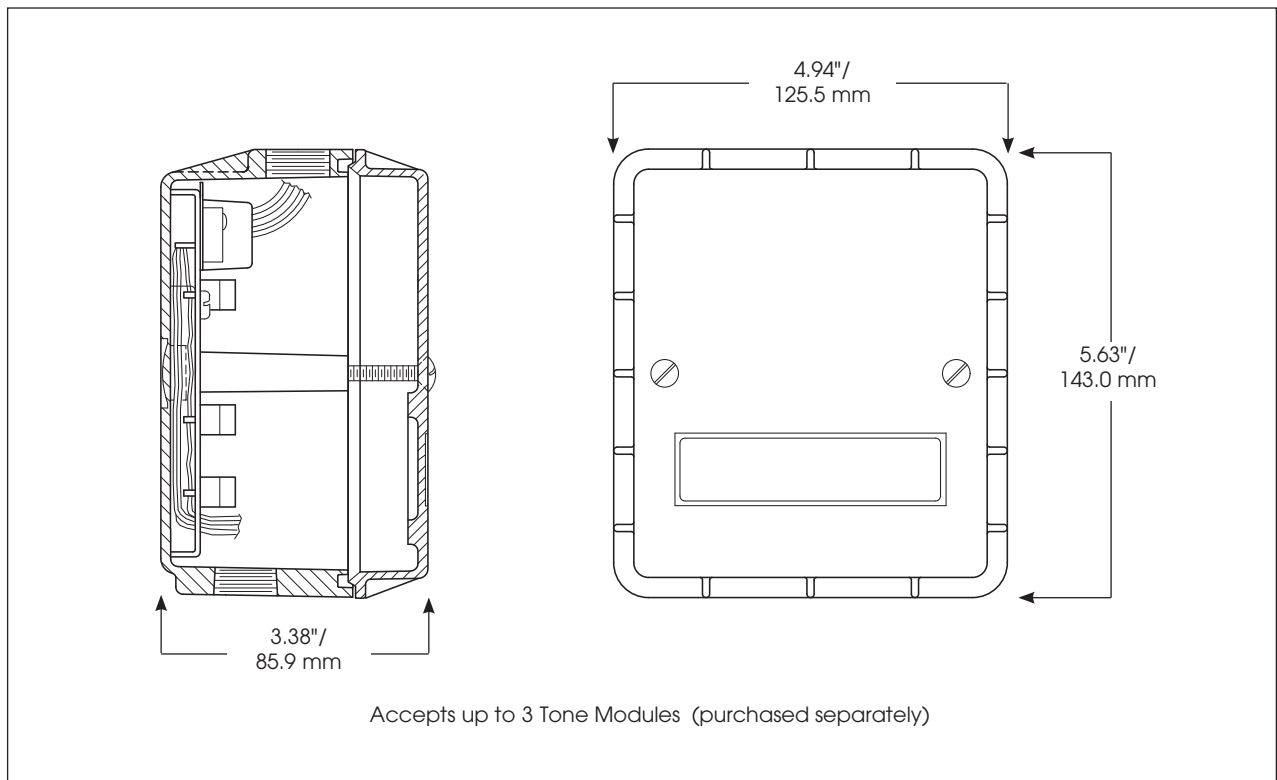
With model EM3, three functions can be simultaneously monitored rather than one. Tone activation and selection is accomplished by user-supplied, normally-open dry contacts.

Where voice communication is not necessary and the application requirements dictate up to three tone signals, model EM3 Extension Module allows a single SelecTone audible signal to fill those needs.

F E A T U R E S

- Reliable solid-state circuitry
- Indoor/outdoor use
- No separate power supply required
- Can be mounted up to 100 feet away
- Produces three tones with the same speaker/amplifier
- Type 3R enclosure
- UL and cUL Listed

SelecTone® Extension Module (EM3)



S P E C I F I C A T I O N S

Operating Temperature:	-31°F to 151°F	-35°C to 66°C
Net Weight:	1.0 lb	0.45 kg
Shipping Weight:	2.2 lbs	1.0 kg
Height:	5.63"	143.0 mm
Width:	4.94"	125.5 mm
Depth:	3.38"	85.9 mm

H O W T O O R D E R

Specify Model:

EM3 – Extension module, SelecTone®

Specify number of **UTM** – Universal Tone Modules, up to three

(Reference page 215 for a complete list of tones)



► Model 50GC

SelectTone® Amplified Speaker

Model 50GC SelectTone® Amplified Speaker is designed to produce crisp, clear tones, digital voice messages and live public address.

In Model 50GC a short, folded re-entrant horn is interposed between the diaphragm and surrounding air space. This design provides optimal dBa output and frequency response.

When installed with the WB Weatherproof Back Box, model 50GC is suitable for use outdoors.

SelectTone Amplified Speakers are used individually or as part of a plant-wide emergency notification system. Model UTM Universal Tone Module with 32 tones, or model TM33-SD Custom Tone Module is plugged into a single SelectTone Amplified Speaker for stand-alone use or into a SelectTone Command Unit for plant-wide signaling.

For plant-wide signaling, a Connector Kit is installed into each SelectTone Amplified Speaker and wired to a central controller. SelectTone Command Units and CommCenter® Digital Message Centers broadcast tones, voice messages, melodies and live public address to an unlimited number of SelectTone Amplified Speakers.

The compact size and attractive appearance of Model 50GC makes it ideal for use in offices, hallways, reception, and plant areas where ambient noise levels are not exceedingly high, and even sound dispersal is desired. Emergency signaling and paging are common applications.

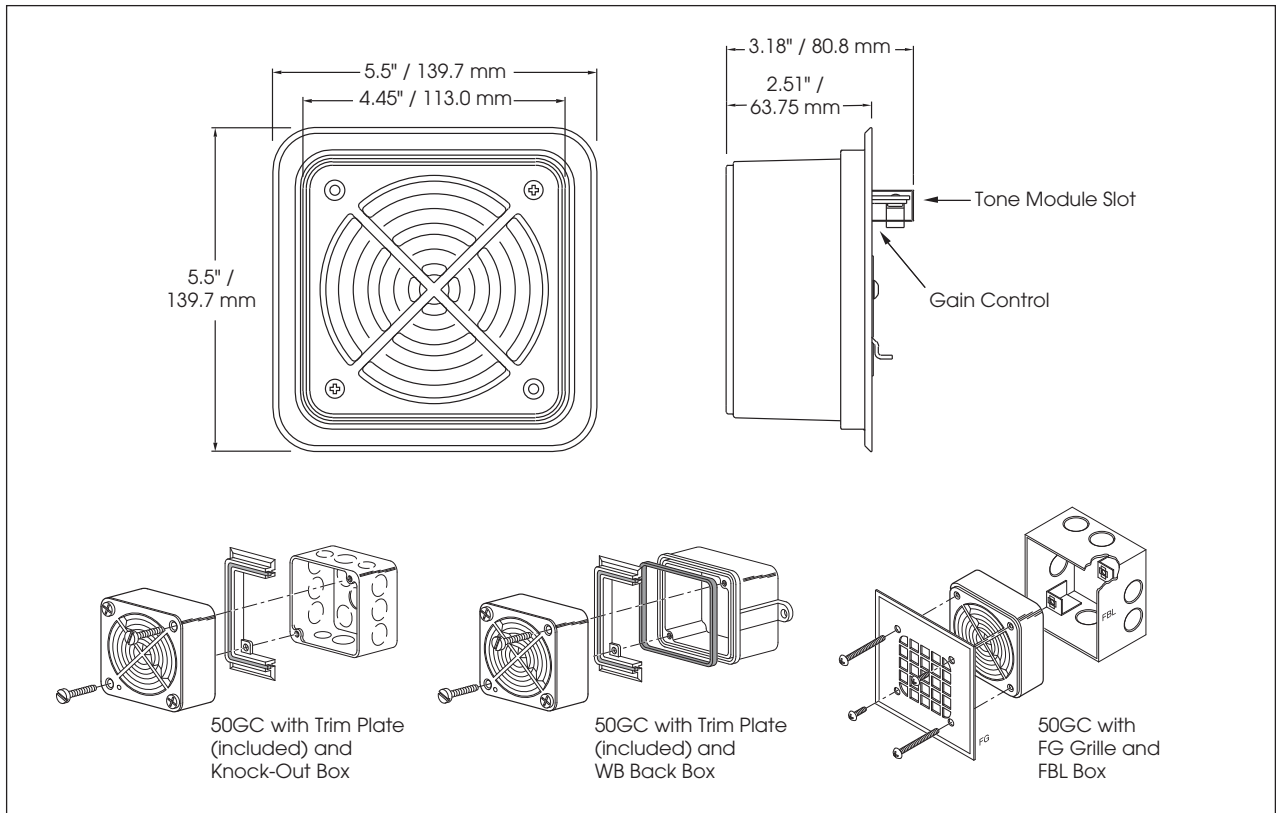
FEATURES

- Available in 24VAC/DC and 120VAC
- Solid-state circuitry
- Built-in gain control, adjustable between 64 dBa to 88 dBa @ 10' (74 dBa to 98 dBa @ 1m)
- Flush or surface mount
- Type 3R enclosure when used with the WB back box
- CSFM Approved
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT*	DECIBELS	
				10'	1M
50GC-024BG	24VDC	0.09 amps	0.037 amps	88	98
	24VAC 50/60Hz	0.29 amps	0.147 amps	88	98
50GC-120BG	120VAC 50/60Hz	0.04 amps	0.027 amps	88	98

*When used as a powered loud speaker

SelecTone® Amplified Speaker (50GC)



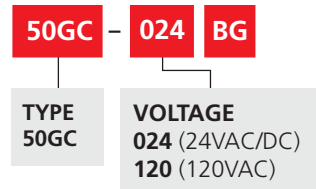
SPECIFICATIONS

Operating Temperature:	-31°F to 151°F	-35°C to 66°C
Net Weight:	1.7 lbs	0.8 kg
Shipping Weight:	2.2 lbs	1.0 kg
Height:	5.5"	139.7 mm
Width:	5.5"	139.7 mm
Depth:	3.18"	80.8 mm

OPTIONAL ACCESSORIES

Description	Part Number
Weatherproof Back Box	WB
Grille	FG
Flush Mount Back Box	FBL

HOW TO ORDER



1. Select Model
2. Select Required Accessory (sold separately)
 - A. For stand alone operation, select Tone Module:
 - UTM** – Universal Tone Module (Reference page 215 for list of tones)
 - TM33-SD** – Custom Tone Module (Reference page 217 for list of tones)
 - B. For use in systems*, select Connector Kit. (Reference page 218 for Connector Kits)
 - AM25CK** – 25 Vrms, 1 Vrms
 - AM70CK** – 70 Vrms, 1 Vrms
 - 300CK** – 10 Vrms, 1 Vrms
 - T-300CK** – 2.7 Vrms, 1 Vrms
 - E-300CK** – 1 Vrms, 1 Vrms

*Call factory for design assistance



► Model 50GCB

SelecTone® Ceiling Mount Amplified Speaker

Model 50GCB SelecTone® Amplified Speaker is designed to produce crisp, clear tones, digital voice messages and live public address. Designed to mount in ceilings, the 50GCB features a seven-inch white grille over a 4" speaker amplifier.

SelecTone Amplified Speakers are used individually or as part of a plant-wide emergency notification system. Model UTM Universal Tone Module with 32 tones, or TM33-SD Custom Tone Module is plugged into a single SelecTone Amplified Speaker for stand-alone use or into a SelecTone Command Unit for plant-wide signaling.

For plant-wide signaling, a Connector Kit is installed into each SelecTone Amplified Speaker and wired to a central controller, a SelecTone Command Unit or a CommCenter® Digital Message Center. SelecTone Command Units and CommCenter Digital Message Centers can broadcast tones, voice messages, melodies and live public address to an unlimited number of SelecTone Amplified Speakers.

Model 50GCB is designed for areas without high ambient noise levels, such as offices, hallways and receptions areas. The baffle allows the four-inch speaker to be installed easily in any suspended ceiling plenum with a Model R4NB back box. The white grille of the 50GCB is attractive in most decors.

Emergency signaling or paging are common applications for SelecTone.

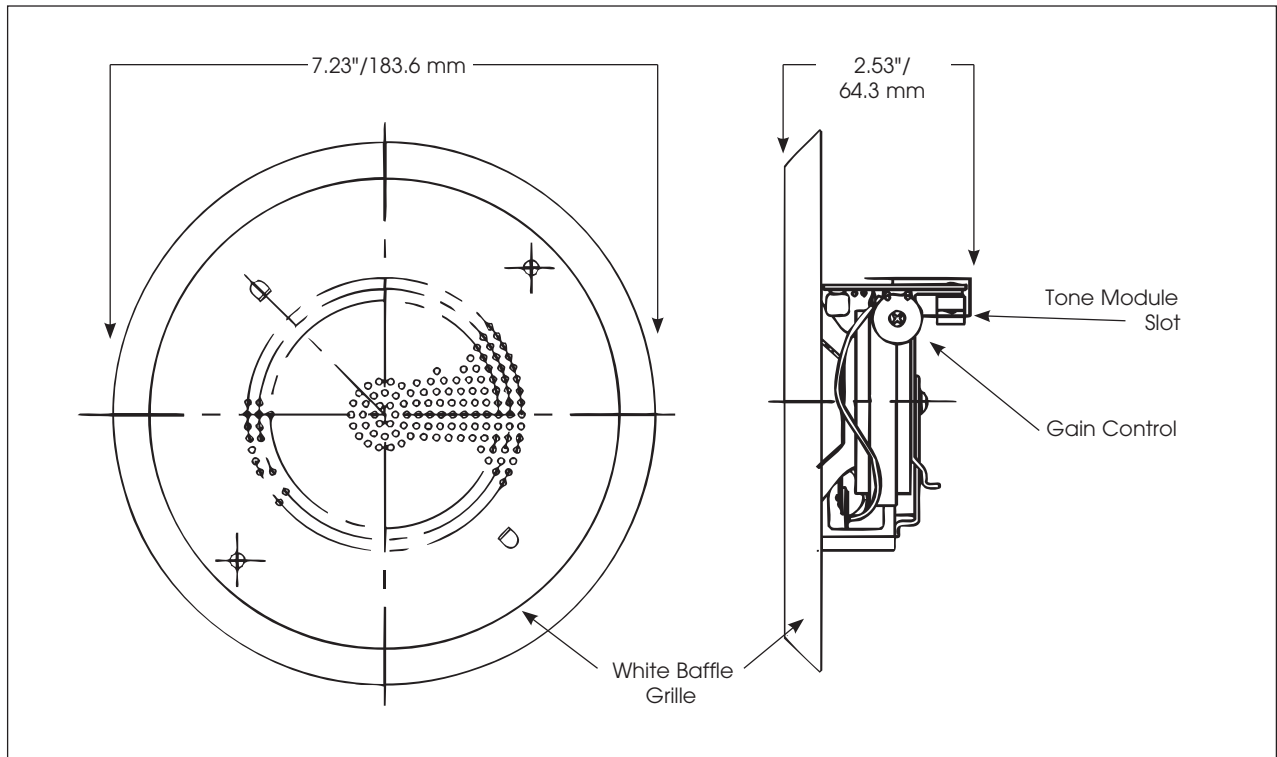
FEATURES

- Available in 24VAC/DC and 120VAC
- Attractive round ceiling grille
- Built-in gain control, adjustable between 64 dBa to 88 dBa @ 10' (74 dBa to 98 dBa @ 1m)
- Appropriate for office environments
- Type 1, IP41 enclosure
- CSFM Approved
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT*	DECIBELS	
				10'	1M
50GCB-024	24VDC	0.09 amps	0.025 amps	88	98
	24VAC 50/60Hz	0.29 amps	0.095 amps	88	98
50GCB-120	120VAC 50/60Hz	0.04 amps	0.027 amps	88	98

*When used as a powered loud speaker

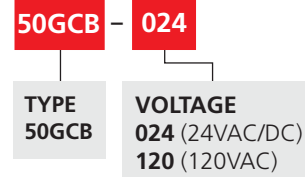
SelecTone® Ceiling Mount Amplified Speaker (50GCB)



SPECIFICATIONS

Operating Temperature:	-31°F to 151°F	-35°C to 66°C
Net Weight:	1.6 lbs	0.73 kg
Shipping Weight:	2.3 lbs	1.04 kg
Depth:	2.53"	64.3 mm
Diameter:	7.23"	183.6 mm

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
Back Box	R4NB

1. Select Model

2. Select Required Accessory (sold separately)

A. For stand alone operation, select Tone Module:

UTM – Universal Tone Module
(Reference page 215 for list of tones)

TM33-SD – Custom Tone Module
(Reference page 217 for list of tones)

B. For use in systems*, select Connector Kit. (Reference page 218 for Connector Kits)

AM25CK – 25 Vrms, 1 Vrms

AM70CK – 70 Vrms, 1 Vrms

300CK – 10 Vrms, 1 Vrms

T-300CK – 2.7 Vrms, 1 Vrms

E-300CK – 1 Vrms, 1 Vrms

*Call factory for design assistance



► Model 300

SelecTone® 15W Amplified Speaker

SelecTone® Model 300 is a lightweight and compact, solid-state amplified speaker designed to amplify a pre-selected tone over existing ambient noises. The speaker cone and projector are made of spun aluminum. The internal amplifier circuitry and tone module are contained in a housing of die-cast aluminum. Dust- and moisture-proof gasketing provides protection from the elements. All external components are sealed with powder-coat paint.

SelecTone Amplified Speakers are used individually or as part of a plant-wide emergency notification system. Model UTM Universal Tone Module with 32 tones, or model TM33-SD Custom Tone Module is plugged into a single SelecTone Amplified Speaker for stand-alone use or into a SelecTone Command Unit for plant-wide signaling.

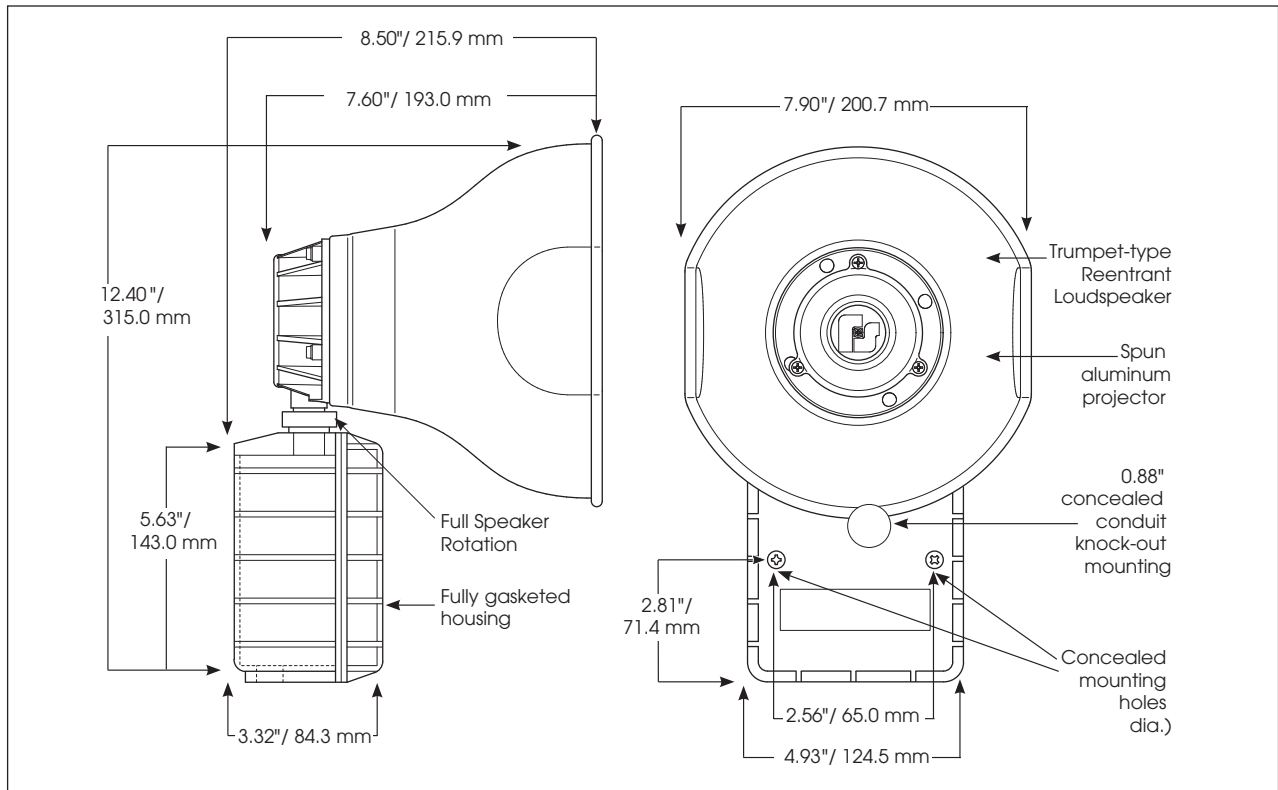
Model 300 speaker/amplifiers are ideally suited for full output tone signaling where voice paging is not a requirement. Typical applications include emergency warning, start and dismissal, general alarm, smelters and cranes.

FEATURES

- Available in 250VDC
- Compatible with model UTM (Universal Tone Module)
- Produces 110 dBa @ 10' (120 dBa @ 1m)
- Type 3R enclosure
- Indoor/outdoor use
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT	DECIBELS	
				10'	1M
300-250	250VDC	0.072 amps	N/A	110	120

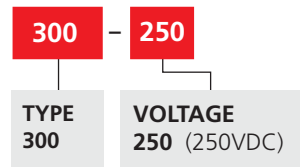
SelecTone® 15W Amplified Speaker (300)



S P E C I F I C A T I O N S

Operating Temperature:	-31°F to 151°F	-35°C to 66°C
Net Weight:	5.0 lbs	2.3 kg
Shipping Weight:	6.1 lbs	2.8 kg
Height:	12.40"	315.0 mm
Width:	7.90"	200.7 mm
Depth:	8.50"	215.9 mm

H O W T O O R D E R



R E P L A C E M E N T P A R T S

Description	Part Number
PCBA, 250VDC	K2001903B
Voice Coil, Series C	K8593035A
Speaker Assembly	K8593082A

1. Select Model
2. Select Required Accessory (sold separately)

A. For stand alone operation, select Tone Module:

UTM – Universal Tone Module
(Reference page 215 for list of tones)

TM33-SD – Custom Tone Module
(Reference page 217 for list of tones)

B. For use in systems*, select Connector Kit. (Reference page 218 for Connector Kits)

AM25CK – 25 Vrms, 1 Vrms

AM70CK – 70 Vrms, 1 Vrms

300CK – 10 Vrms, 1 Vrms

T-300CK – 2.7 Vrms, 1 Vrms

E-300CK – 1 Vrms, 1 Vrms

*Call factory for design assistance



► Model 300GC

SelecTone® 15W Amplified Speaker

Model 300GC SelecTone® Amplified Speaker is designed to produce crisp, clear tones, digital voice messages and live public address in harsh environments with high ambient noise levels.

The internal circuitry, tone module, and gain control are contained in a housing constructed of die-cast aluminum. All surfaces are sealed with powder-coat paint. Dust- and moisture-proof gaskets provide protection from the elements.

SelecTone Amplified Speakers are used individually or as part of a plant-wide emergency notification system. Model UTM Universal Tone Module with 32 tones, or model TM33-SD Custom Tone Module is plugged into a single SelecTone Amplified Speaker for stand-alone use or into a SelecTone Command Unit for plant-wide signaling.

For plant-wide signaling, a Connector Kit is installed into each SelecTone Amplified Speaker and wired to a central controller. SelecTone Command Units and CommCenter® Digital Message Centers broadcast tones, voice messages, melodies and live public address to an unlimited number of SelecTone Amplified Speakers.

Typical applications for SelecTone include emergency warning, plant evacuation, start and dismissal, public address, and process control signaling.

FEATURES

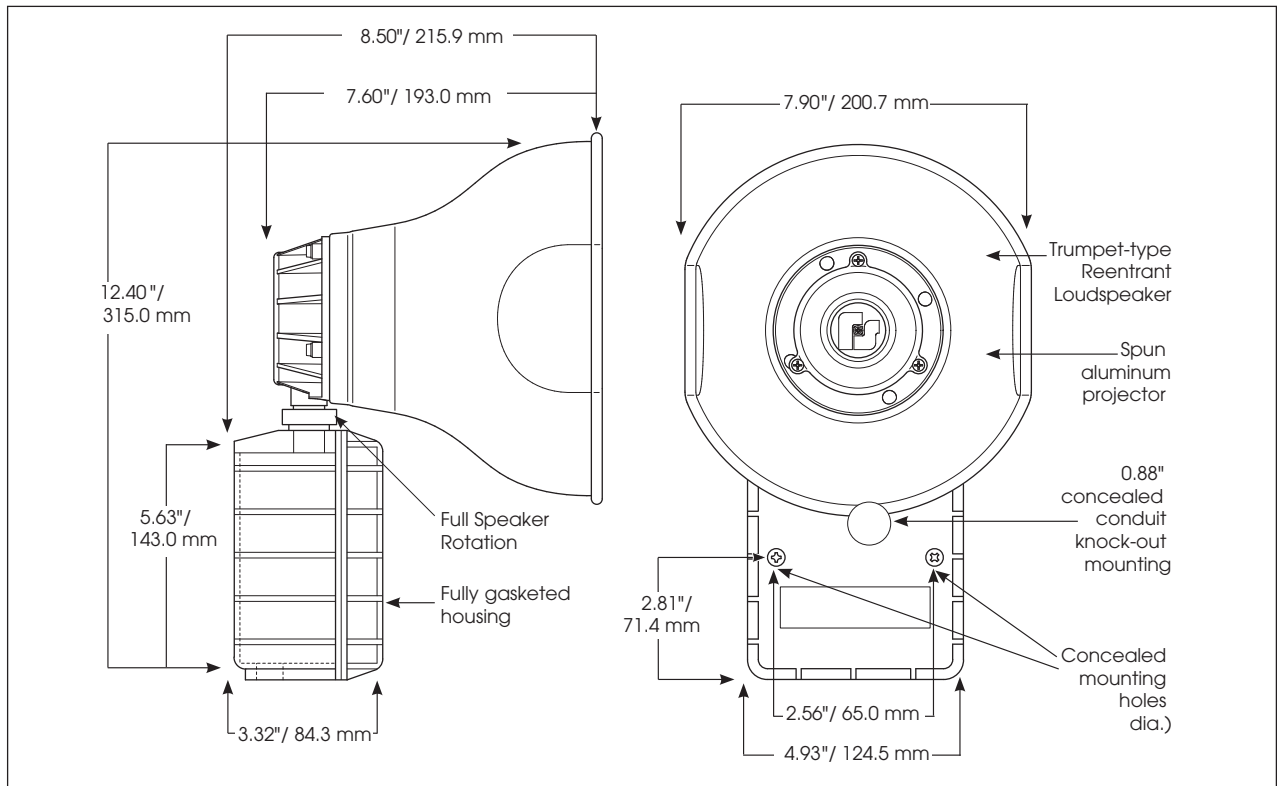
- Available in 24VAC/DC, 120VAC and 240VAC
- Built-in gain control, adjustable between 0 dBa to 110 dBa @ 10' (0 dBa to 120 dBa @ 1m)
- Cast copper free aluminum housing, spun aluminum projector
- Digital signal amplification
- Fused input and output
- Indoor/outdoor use
- Type 3R, IP54 enclosure
- CSFM Approved
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT **	DECIBELS	
				10'	1M
300GC-024-*	24VDC	1.0 amps	50 mA	110	120
	24VAC 50/60Hz	1.0 amps	100 mA	110	120
300GC-120-*	120VAC 50/60Hz	0.25 amps	30 mA	110	120
300GC-240-*	240VAC 50/60Hz	0.15 amps	15 mA	110	120

* Indicates housing color: (-B) for Black housing, leave blank for Gray

** When used as a powered loud speaker

SelecTone® 15W Amplified Speaker (300GC)



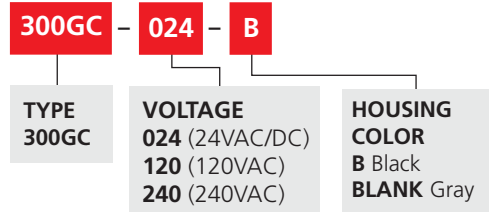
SPECIFICATIONS

Operating Temperature:	-67°F to 150°F	-55°C to 66°C
Rated Power:		15 watt
Net Weight:		
24VAC/DC	5.5 lbs	2.5 kg
120/240VAC	5.5 lbs	2.5 kg
Shipping Weight:		
24VAC/DC	6.7 lbs	3.0 kg
120/240VAC	6.7 lbs	3.0 kg
Height:	12.40"	315.0 mm
Width:	7.90"	200.7 mm
Depth:	8.50"	215.9 mm

REPLACEMENT PARTS

Description	Part Number
PCBA, 15W, 24VAC/DC	K2001961B-05
PCBA, 15W, 120/240VAC	K2001961B-04
XFMR, 15W, 120VAC, 1.3 AMP	K120857A
XFMR, 15W, 240VAC, 1.3 AMP	K120858A
Amplifier Assembly, 15W	K2005502A-04
Speaker Assembly, 15W	K8593082A
Voice Coil, 15W	K8593035A
Gasket	K288A043
Housing, 15W, Gray	K8473021A
Cover, Gray	K8473022A

HOW TO ORDER



1. Select Model
2. Select Required Accessory (sold separately)

A. For stand alone operation, select Tone Module:

UTM – Universal Tone Module
(Reference page 215 for list of tones)

TM33-SD – Custom Tone Module
(Reference page 217 for list of tones)

B. For use in systems*, select Connector Kit. (Reference page 218 for Connector Kits)

AM25CK – 25 Vrms, 1 Vrms

AM70CK – 70 Vrms, 1 Vrms

300CK – 10 Vrms, 1 Vrms

T-300CK – 2.7 Vrms, 1 Vrms

E-300CK – 1 Vrms, 1 Vrms

*Call factory for design assistance



► Model 302GC

SelecTone® 30W Amplified Speaker

Model 302GC SelecTone® Amplified Speaker is designed to produce crisp, clear tones, digital voice messages and live public address in harsh environments with high ambient noise levels.

The rugged speaker cone and projector are constructed of spun aluminum. The internal circuitry, tone module, and gain control are contained in a housing constructed of die-cast aluminum. All surfaces are sealed with powder-coat paint. Dust- and moisture-proof gaskets provide protection from the elements.

SelecTone Amplified Speakers are used individually or as part of a plant-wide emergency notification system. Model UTM Universal Tone Module with 32 tones, or model TM33-SD Custom Tone Module is plugged into a single SelecTone Amplified Speaker for stand-alone use or into a SelecTone Command Unit for plant-wide signaling.

For plant-wide signaling, a Connector Kit is installed into each SelecTone Amplified Speaker and wired to a central controller. SelecTone Command Units and CommCenter® Digital Message Centers broadcast tones, voice messages, melodies and live public address to an unlimited number of SelecTone Amplified Speakers.

Typical applications for SelecTone include emergency warning, plant evacuation, start and dismissal, public address, and process control signaling.

FEATURES

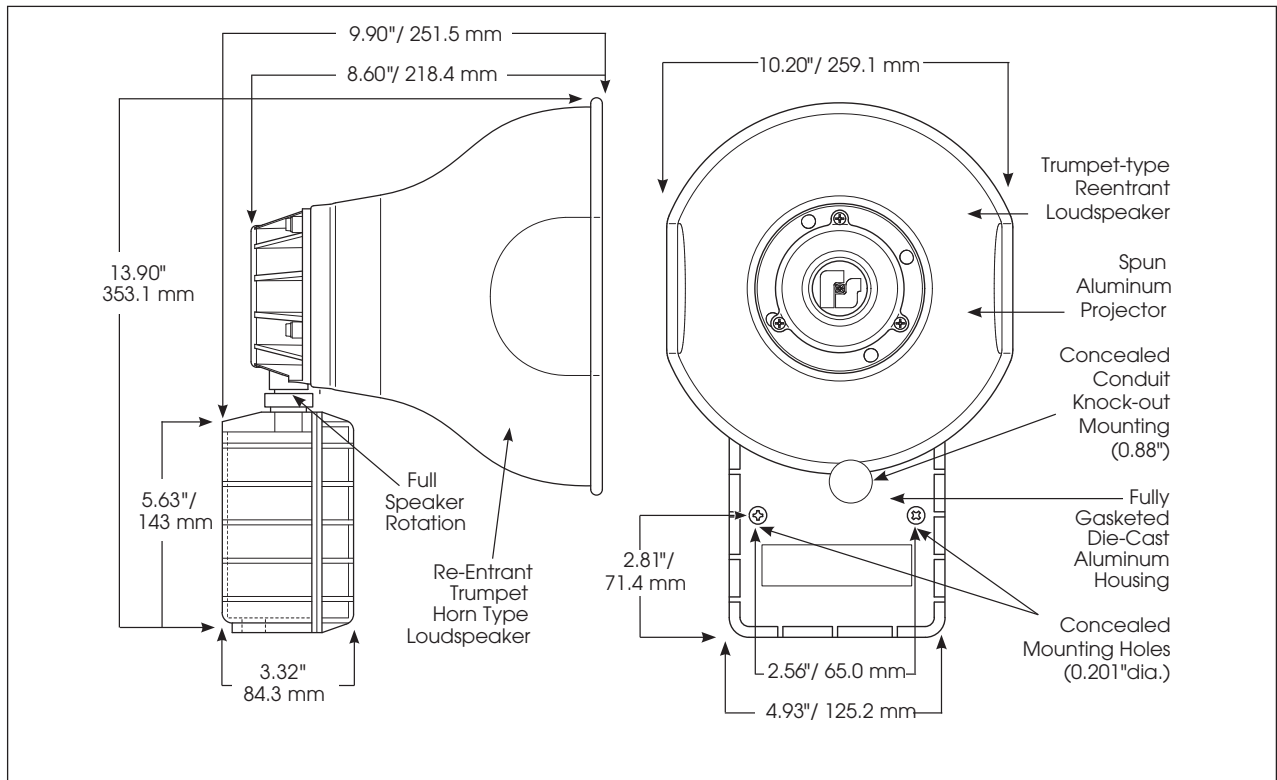
- Available in 24VAC/DC, 120VAC and 240VAC
- Built-in gain control, adjustable between 0 dBa to 114 dBa @ 10' (0 dBa to 124 dBa @ 1m)
- Digital signal amplification
- Fused input and output
- Indoor/outdoor use
- Type 3R, IP54 enclosure
- CSFM Approved
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT**	DECIBELS	
				10'	1M
302GC-024-*	24VDC	1.00 amps	50 mA	114	124
	24VAC 50/60Hz	1.40 amps	100 mA	114	124
302GC-120-*	120VAC 50/60Hz	0.30 amps	50 mA	114	124
302GC-240-*	240VAC 50/60Hz	0.15 amps	35 mA	114	124

* Indicates housing color: (-B) for Black housing, leave blank for Gray

**When used as a powered loud speaker

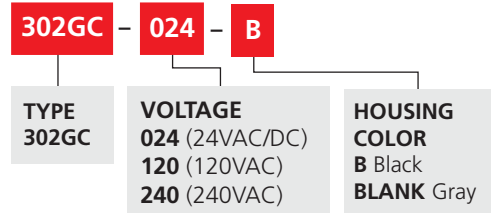
SelecTone® 30W Amplified Speaker (302GC)



SPECIFICATIONS

Operating Temperature:	-67°F to 150°F	-55°C to 66°C
Rated Power		30 watt
Net Weight:		
24VAC/DC	7.5 lbs	3.4 kg
120/240VAC	7.5 lbs	3.4 kg
Shipping Weight:		
24VAC/DC	8.9 lbs	4.0 kg
120/240VAC	8.9 lbs	4.0 kg
Height:	13.90"	353.1 mm
Width:	10.20"	259.1 mm
Depth:	9.90"	251.5 mm

HOW TO ORDER



1. Select Model
2. Select Required Accessory (sold separately)

A. For stand alone operation, select Tone Module:

UTM – Universal Tone Module
(Reference page 215 for list of tones)

TM33-SD – Custom Tone Module
(Reference page 217 for list of tones)

B. For use in systems*, select Connector Kit. (Reference page 218 for Connector Kits)

AM25CK – 25 Vrms, 1 Vrms

AM70CK – 70 Vrms, 1 Vrms

300CK – 10 Vrms, 1 Vrms

T-300CK – 2.7 Vrms, 1 Vrms

E-300CK – 1 Vrms, 1 Vrms

*Call factory for design assistance

REPLACEMENT PARTS

Description	Part Number
PCBA, 30W, 24VAC/DC	K2001961B-03
PCBA, 30W, 120/240VAC	K2001961B-02
XFMR, 30W, 120VAC, 1.8 AMP	K120846A
XFMR, 30W, 240VAC, 1.8 AMP	K120856A
Amplifier Assembly, 30W	K2005502A-02
Gasket, Diaphragm, 30W	K8590243A
Gasket, Housing, 30W	K288A043
Housing, 30W, Gray	K8473021A
Speaker Assembly, 30W	K8593103A
Voice Coil, 30W	K8590246A



► Model 300GCX

SelecTone® Hazardous Location 15W Amplified Speaker

Model 300GCX SelecTone® Amplified Speaker is designed to produce tones, digital voice messages and live public address in harsh environments with high ambient noise levels.

The rugged speaker cone and projector are constructed of spun aluminum. The amplification circuitry, tone module, and gain control are contained in a housing constructed of die-cast aluminum. All surfaces are sealed with powder-coat paint. Dust- and moisture-proof gaskets provide protection from the elements.

SelecTone Amplified Speakers are used individually or as part of a plant-wide emergency notification system. Model UTM Universal Tone Module with 32 tones, or model TM33-SD Custom Tone Module is plugged into a single SelecTone Amplified Speaker for stand-alone use or into a SelecTone Command Unit for plant-wide signaling.

For plant-wide signaling, a Connector Kit is installed into each SelecTone Amplified Speaker and wired to a central controller, SelecTone Command Unit or CommCenter® Digital Message Center. Command Units and CommCenters broadcast tones, voice messages, melodies and live public address to an unlimited number of SelecTone Amplified Speakers.

Applications for SelecTone include emergency warning, evacuation, start/dismissal, public address, and process control signaling.

FEATURES

- Available in 24VAC/DC, 120VAC and 240VAC
- Reliable, solid-state circuitry
- Digital signal amplification
- Fused input and output
- Built-in gain control, adjustable between 0 dBA to 110 dBA @ 10' (0 dBA to 120 dBA @ 1m)
- Cast copper free aluminum housing, spun aluminum projector
- Type 4X, IP66 enclosure
- IP69K compliant
- Indoor/outdoor use
- CSFM Approved
- UL and cUL Listed for Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups F and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT**	DECIBELS	
				10'	1M
300GCX-024-*	24VDC	0.67 amps	50 mA	110	120
	24VAC 50/60Hz	0.90 amps	100 mA	110	120
300GCX-120-*	120VAC 50/60Hz	0.20 amps	30 mA	110	120
300GCX-240-*	240VAC 50/60Hz	0.10 amps	15 mA	110	120

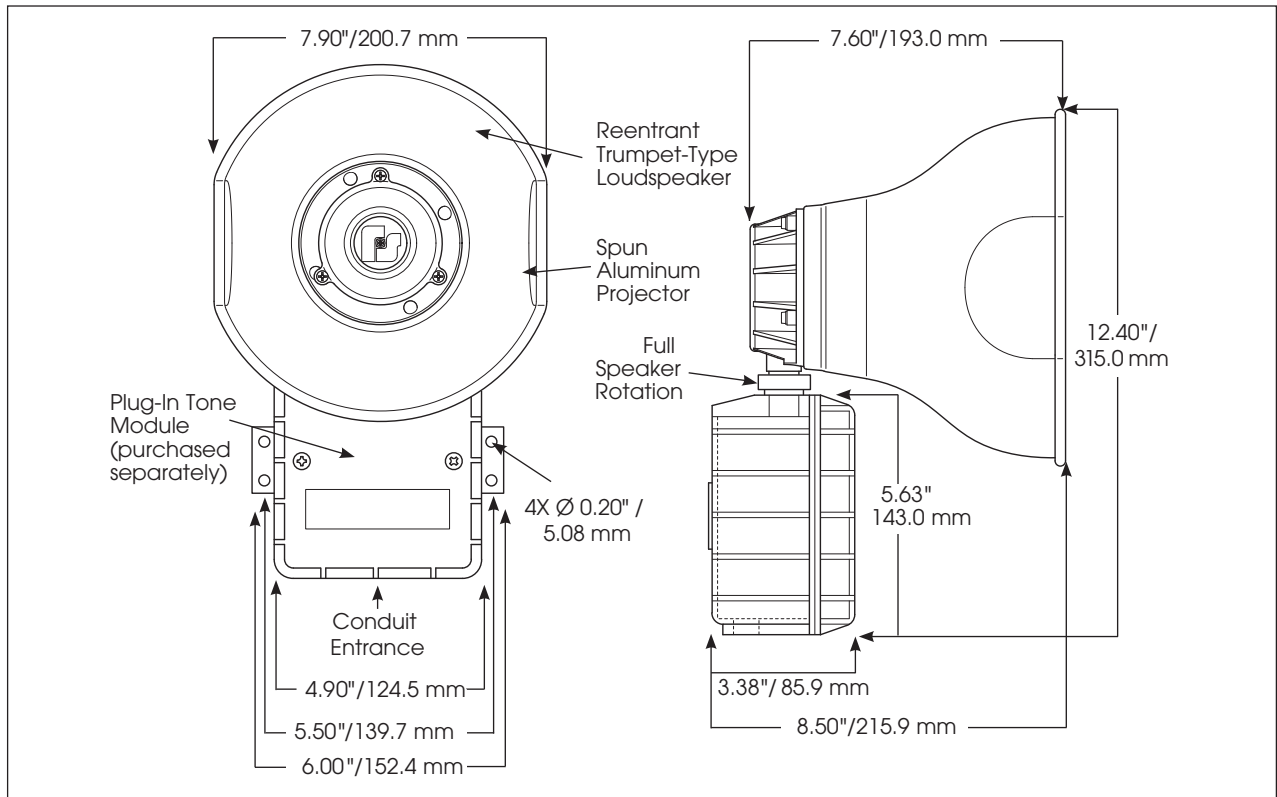
* Indicates housing color: (-B) for Black housing, leave blank for Gray
 **When used as a powered loud speaker

HAZARDOUS LOCATION RATING: 300GCX

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C	66°C
Class I, Division 2, Groups A, B, C, D	T3	T2C
Class II, Division 2, Groups F, G	T6	T6
Class III	T6	T6

SelecTone® Hazardous Location 15W Amplified Speaker (300GCX)



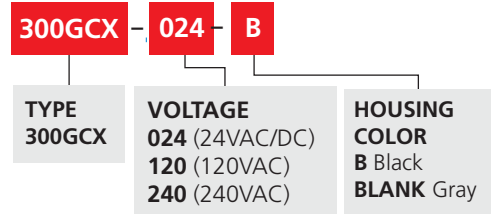
SPECIFICATIONS

Operating Temperature:	-67°F to 150°F	-55°C to 66°C
Rated Power		15 watt
Net Weight:		
24VAC/DC	5.5 lbs	2.5 kg
120/240VAC	5.5 lbs	2.5 kg
Shipping Weight:		
24VAC/DC	6.7 lbs	3.0 kg
120/240VAC	6.7 lbs	3.0 kg
Height:	12.40"	315.0 mm
Width:	7.90"	200.7 mm
Depth:	8.50"	215.9 mm

REPLACEMENT PARTS

Description	Part Number
PCBA, 15W, 24VAC/DC	K2001961B-05
PCBA, 15W, 120/240VAC	K2001961B-04
XFMR, 15W, 120VAC, 1.3 AMP	K120857A
XFMR, 15W, 240VAC, 1.3 AMP	K120858A
Amplifier Assembly, 15W	K2005502A-04
Speaker Assembly, 15W	K8593082A
Voice Coil, 15W	K8593035A
Gasket	K288A043

HOW TO ORDER



1. Select Model
2. Select Required Accessory (sold separately)

A. For stand alone operation, select Tone Module:

UTM – Universal Tone Module
(Reference page 215 for list of tones)

TM33-SD – Custom Tone Module
(Reference page 217 for list of tones)

B. For use in systems*, select Connector Kit. (Reference page 218 for Connector Kits)

AM25CK – 25 Vrms, 1 Vrms

AM70CK – 70 Vrms, 1 Vrms

300CK – 10 Vrms, 1 Vrms

T-300CK – 2.7 Vrms, 1 Vrms

E-300CK – 1 Vrms, 1 Vrms

*Call factory for design assistance



► Model 300GCX-CN

SelecTone® Hazardous Location Zone Listed 15W Amplified Speaker

Model 300GCX-CN SelecTone® Amplified Speaker is designed to produce tones, digital voice messages and live public address in harsh environments with high ambient noise levels.

The rugged speaker cone and projector are constructed of spun aluminum. The amplification circuitry, tone module, and gain control are contained in a housing constructed of die-cast aluminum. All surfaces are sealed with powder-coat paint. Dust- and moisture-proof gaskets provide protection from the elements.

SelecTone Amplified Speakers are used individually or as part of a plant-wide emergency notification system. Model UTM Universal Tone Module with 32 tones or model TM33-SD Custom Tone Module is plugged into a single SelecTone Amplified Speaker for stand-alone use or into a SelecTone Command Unit for plant-wide signaling.

For plant-wide signaling, a Connector Kit is installed into each SelecTone Amplified Speaker and wired to a central controller, SelecTone Command Unit or CommCenter® Digital Message Center. Command Units and CommCenters broadcast tones, voice messages, melodies and live public address to an unlimited number of SelecTone Amplified Speakers.

Applications for SelecTone include emergency warning, evacuation, start/dismissal, public address, and process control signaling.

FEATURES

- Available in 24VAC/DC, 120VAC and 240VAC
- Reliable, solid-state circuitry
- Digital signal amplification
- Fused input and output
- Built-in gain control, adjustable between 0 dBa to 110 dBa @ 10' (0 dBa to 120 dBa @ 1m)
- Cast copper-free aluminum housing, spun aluminum projector
- Type 4X, IP66 enclosure
- IP69K compliant
- Indoor/outdoor use
- UL and cUL Listed for Class I, Zone 2, AEx nA IIC Gc; Class II, Zone 22 AEx tc IIIC Dc

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT*	DECIBELS	
				10'	1M
300GCX-024-CN	24VAC/DC	1.0 amps	100 mA	110	120
300GCX-120-CN	120VAC 50/60Hz	0.20 amps	30 mA	110	120
300GCX-240-CN	240VAC 50/60Hz	0.15 amps	15 mA	110	120

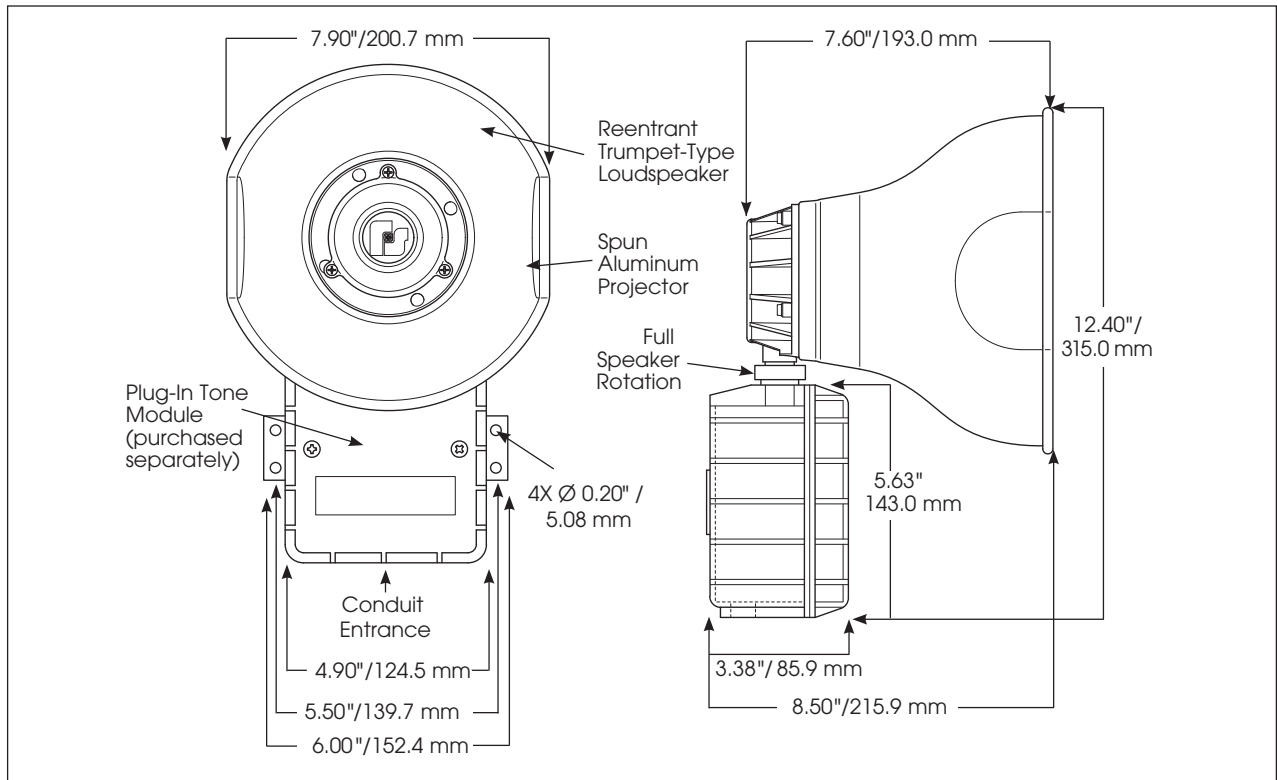
*When used as a powered loud speaker

HAZARDOUS LOCATION RATING: 300GCX-CN

T-CODE AT AMBIENT TEMPERATURE, °C

Hazardous Location	40°C
Class I, Zone 2	T3
Class II, Zone 22	T85

SelecTone® Hazardous Location Zone Listed 15W Amplified Speaker (300GCX-CN)



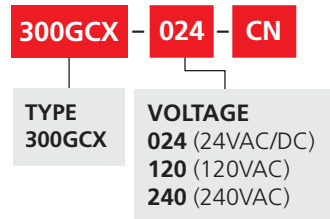
SPECIFICATIONS

Electrical Operating Temperature:	-67°F to 150°F	-55°C to 66°C
Certified Operating Temperature:	-22°F to 150°F	-30°C to 66°C
Rated Power:		15 watt
Net Weight:		
24VAC/DC	5.5 lbs	2.5 kg
120/240VAC	5.5 lbs	2.5 kg
Shipping Weight:		
24VAC/DC	6.7 lbs	3.0 kg
120/240VAC	6.7 lbs	3.0 kg
Height:	12.40"	315.0 mm
Width:	7.90"	200.7 mm
Depth:	8.50"	215.9 mm

REPLACEMENT PARTS

Description	Part Number
PCBA, 15W, 24VAC/DC	K2001961B-05
PCBA, 15W, 120/240VAC	K2001961B-04
XFMR, 15W, 120VAC, 1.3 AMP	K120857A
XFMR, 15W, 240VAC, 1.3 AMP	K120858A
Amplifier Assembly, 15W	K2005502A-04
Speaker Assembly, 15W	K8593082A
Voice Coil, 15W	K8593035A
Gasket	K288A043

HOW TO ORDER



1. Select Model
2. Select Required Accessory (sold separately)

A. For stand alone operation, select Tone Module:

- UTM** – Universal Tone Module (Reference page 215 for list of tones)
- TM33-SD** – Custom Tone Module (Reference page 217 for list of tones)

B. For use in systems*, select Connector Kit. (Reference page 218 for Connector Kits)

- AM25CK** – 25 Vrms, 1 Vrms
- AM70CK** – 70 Vrms, 1 Vrms
- 300CK** – 10 Vrms, 1 Vrms
- T-300CK** – 2.7 Vrms, 1 Vrms
- E-300CK** – 1 Vrms, 1 Vrms

*Call factory for design assistance



► Model 300X

SelecTone® Explosion-Proof 15W Amplified Speaker

Model 300X SelecTone® Amplified Speaker is designed to meet UL 1480 intelligibility requirements producing crisp, clear tones, digital voice messages and live public address in harsh environments with high ambient noise levels.

All surfaces are sealed with powder-coat paint and assembled with stainless steel hardware. Dust- and moisture-proof gaskets provide protection from the elements. This housing incorporates a tool-less rear cover design, eliminating the need for torque specific hardware and solves the problem of missing or lost fasteners.

SelecTone Amplified Speakers are used individually or as part of a plant-wide emergency notification system. Model UTM Universal Tone Module with 32 tones, or model TM33-SD Custom Tone Module is plugged into a single SelecTone Amplified Speaker for stand-alone use or into a SelecTone Command Unit for plant-wide signaling.

For plant-wide signaling, a Connector Kit is required for each SelecTone Amplified Speaker and wired to a central controller. SelecTone Command Units and CommCenter® Digital Message Centers broadcast tones, voice messages, melodies and live public address to an unlimited number of SelecTone Amplified Speakers.

Applications for SelecTone include emergency warning, plant evacuation, start and dismissal, public address, and process control.

FEATURES

- Available in 24VAC/DC and 120/240VAC
- Digital Signal Amplification
- Cast copper free aluminum housing, spun aluminum projector
- Built-in gain control, adjustable between 0 dBa to 110 dBa @ 10' (0 dBa to 120 dBa @ 1m)
- Fused input and output
- Indoor/outdoor use
- Type 4X, IP66 enclosure
- CSFM Approved
- UL and cUL listed for Class I, Division 1, Groups B, C, and D; Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups F and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT*	DECIBELS	
				10'	1M
300X-024	24VDC	0.76 amps	127 mA	110	120
	24VAC 50/60Hz	1.1 amps	305 mA	110	120
300X-120-240	120VAC 50/60Hz	0.22 amps	80 mA	110	120
	240VAC 50/60Hz	0.11 amps	40 mA	110	120

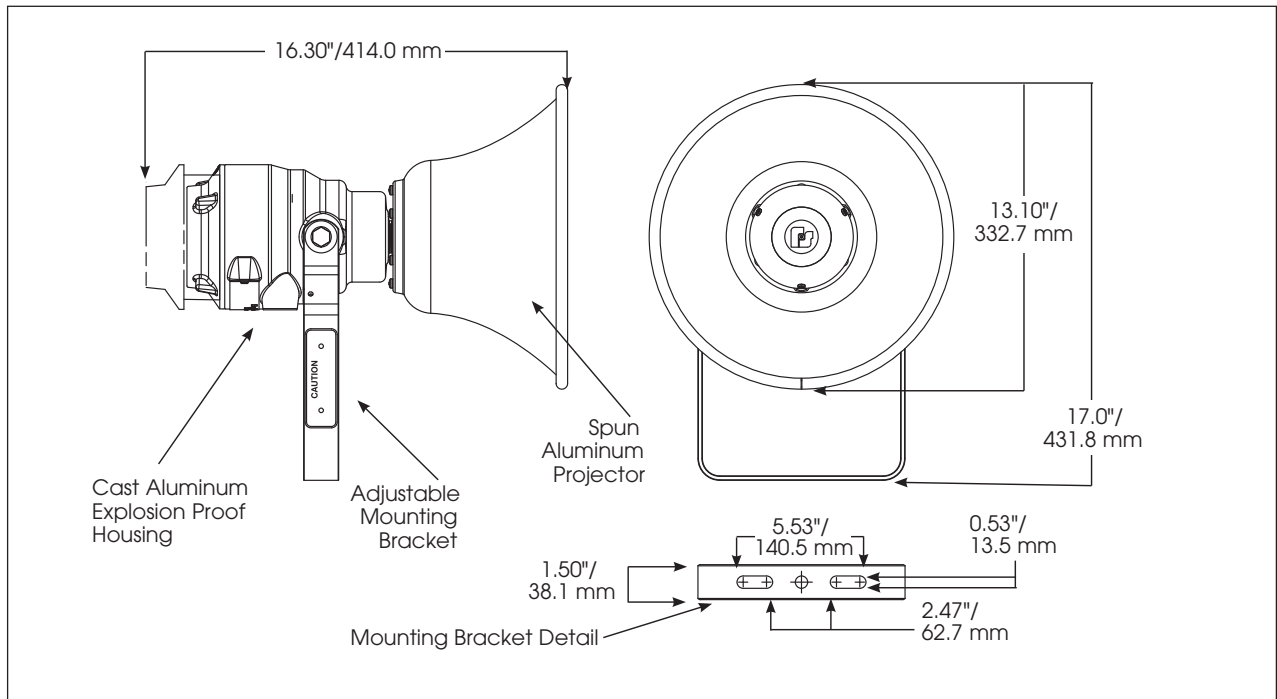
*When used as a powered loud speaker

HAZARDOUS LOCATION RATING: 300X

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C	66°C
Class I, Division 1, Groups B, C, D	T6	T6
Class I, Division 2, Group A	T5	T4A
Class II, Division 2, Groups F, G	T6	T6
Class III	T6	T6

SelecTone® Explosion-Proof 15W Amplified Speaker (300X)



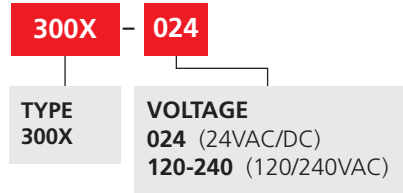
SPECIFICATIONS

Operating Temperature:	-67°F to 151°F	-55°C to 66°C
Rated Power:		15 watt
Net Weight:		
24VAC/DC	15.4 lbs	7.0 kg
120/240VAC	16.3 lbs	7.4 kg
Shipping Weight:		
24VAC/DC	22.8 lbs	10.4 kg
120/240VAC	23.8 lbs	10.8 kg
Height:	17.00"	431.8 mm
Width:	13.10"	332.7 mm
Depth:	16.30"	414.0 mm

REPLACEMENT PARTS

Description	Part Number
Amplifier Assembly, 24VAC/DC	K2005618A-03
Amplifier Assembly, 120/240VAC	K2005618A-05
Projector Assembly, Gray, 15W	K8593100A
Mounting Bracket Assembly	K8593071A
Gasket, Diaphragm	K8590243A

HOW TO ORDER



1. Select Model
2. Select Required Accessory (sold separately)

A. For stand alone operation, select Tone Module:

UTM – Universal Tone Module
(Reference page 215 for list of tones)

TM33-SD – Custom Tone Module
(Reference page 217 for list of tones)

B. For use in systems*, select Connector Kit. (Reference page 218 for Connector Kits)

AM25CK – 25 Vrms, 1 Vrms

AM70CK – 70 Vrms, 1 Vrms

300CK – 10 Vrms, 1 Vrms

T-300CK – 2.7 Vrms, 1 Vrms

E-300CK – 1 Vrms, 1 Vrms

*Call factory for design assistance



Model 302GCX

SelecTone® Hazardous Location 30W Amplified Speaker

Model 302GCX SelecTone® Amplified Speaker is designed to produce tones, digital voice messages and live public address in harsh environments with high ambient noise levels.

The rugged speaker cone and projector are constructed of spun aluminum. The amplification circuitry, tone module, and gain control are contained in a housing constructed of die-cast aluminum. All surfaces are sealed with powder-coat paint. Dust- and moisture-proof gaskets provide protection from the elements.

SelecTone Amplified Speakers are used individually or as part of a plant-wide emergency notification system. Model UTM Universal Tone Module with 32 tones, or model TM33-SD Custom Tone Module is plugged into a single SelecTone Amplified Speaker for stand-alone use or into a SelecTone Command Unit for plant-wide signaling.

For plant-wide signaling, a Connector Kit is installed into each SelecTone Amplified Speaker and wired to a central controller, SelecTone Command Unit or CommCenter® Digital Message Center. Command Units and CommCenters broadcast tones, voice messages, melodies and live public address to an unlimited number of SelecTone Amplified Speakers.

Applications for SelecTone include emergency warning, evacuation, start/dismissal, public address, and process control signaling.

FEATURES

- Available in 24VAC/DC, 120VAC and 240VAC
- Reliable, solid-state circuitry
- Digital signal amplification
- Fused input and output
- Built-in gain control, adjustable between 0 dBa to 114 dBa @ 10' (0 dBa to 124 dBa @ 1m)
- Type 4X, IP66 enclosure
- IP69K compliant
- External mounting tabs
- Indoor/outdoor use
- CSFM Approved
- UL and cUL Listed for Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups F and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT**	DECIBELS	
				10'	1M
302GCX-024-*	24VDC	1 amp	50 mA	114	124
	24VAC 50/60Hz	1.40 amps	100 mA	114	124
302GCX-120-*	120VAC 50/60Hz	0.30 amps	50 mA	114	124
302GCX-240-*	240VAC 50/60Hz	0.15 amps	35 mA	114	124

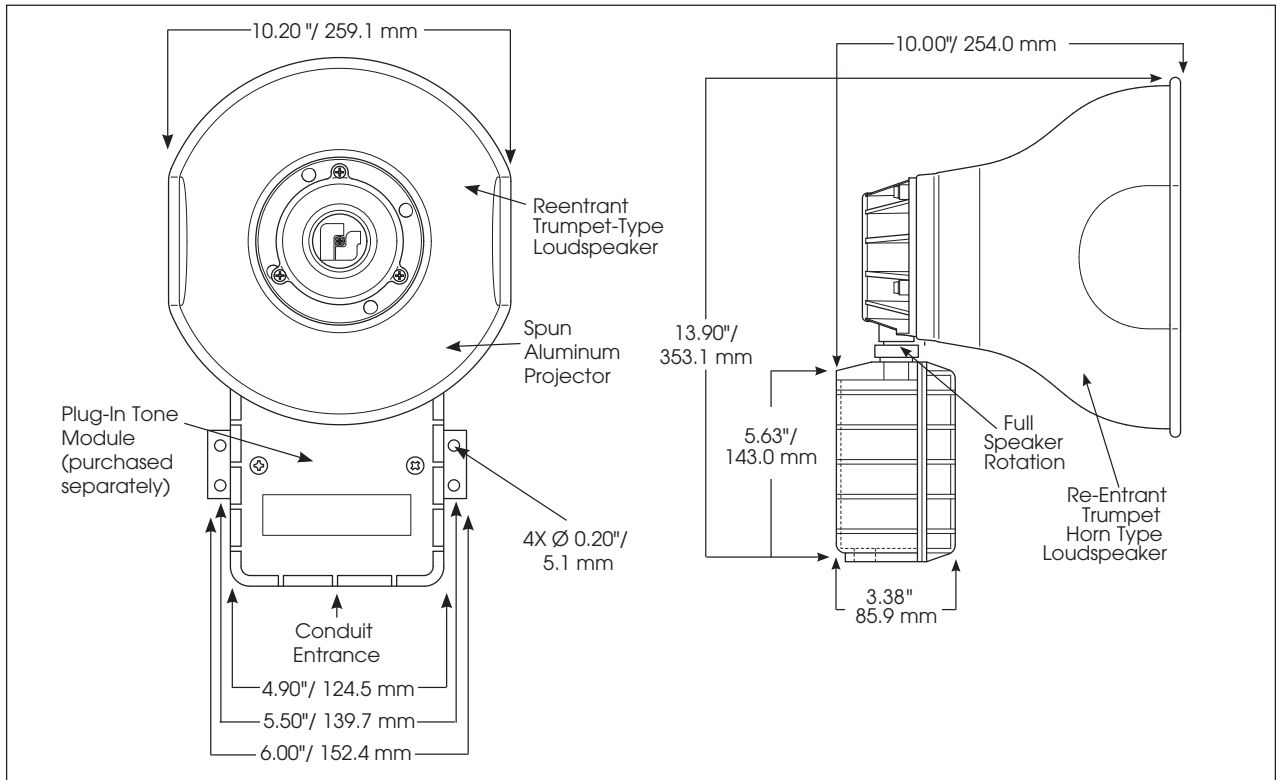
* Indicates housing color: (-B) for Black housing, leave blank for Gray
 **When used as a powered loud speaker

HAZARDOUS LOCATION RATING: 302GCX

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C	66°C
Class I, Division 2, Groups A, B, C, D	T3	T2C
Class II, Division 2, Groups F, G	T6	T6
Class III	T6	T6

SelecTone® Hazardous Location 30W Amplified Speaker (302GCX)



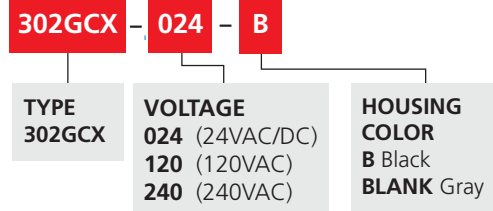
SPECIFICATIONS

Operating Temperature:	-67°F to 150°F	-55°C to 66°C
Rated Power		30 watt
Net Weight:		
24VAC/DC	5.5 lbs	2.5 kg
120/240VAC	5.5 lbs	2.5 kg
Shipping Weight:		
24VAC/DC	6.7 lbs	3.0 kg
120/240VAC	6.7 lbs	3.0 kg
Height:	13.90"	353.1 mm
Width:	10.20"	259.1 mm
Depth:	10.00"	254.0 mm

REPLACEMENT PARTS

Description	Part Number
PCBA, 30W, 24VAC/DC	K2001961B-03
PCBA, 30W, 120/240VAC	K2001961B-02
XFMR, 30W, 120VAC, 1.8 AMP	K120846A
XFMR, 30W, 240VAC, 1.8 AMP	K120856A
Amplifier Assembly, 30W	K2005502A-02
Gasket, Diaphragm, 30W	K8590243A
Gasket, Housing, 30W	K288A043
Speaker Assembly, 30W	K8593103A
Voice Coil, 30W	K8590246A

HOW TO ORDER



1. Select Model
2. Select Required Accessory (sold separately)
 - A. For stand alone operation, select Tone Module:
 - UTM** – Universal Tone Module (Reference page 215 for list of tones)
 - TM33-SD** – Custom Tone Module (Reference page 217 for list of tones)
 - B. For use in systems*, select Connector Kit. (Reference page 218 for Connector Kits)
 - AM25CK** – 25 Vrms, 1 Vrms
 - AM70CK** – 70 Vrms, 1 Vrms
 - 300CK** – 10 Vrms, 1 Vrms
 - T-300CK** – 2.7 Vrms, 1 Vrms
 - E-300CK** – 1 Vrms, 1 Vrms

*Call factory for design assistance



► Model 302GCX-CN

SelecTone® Hazardous Location Zone Listed 30W Amplified Speaker

Model 302GCX-CN SelecTone® Amplified Speaker is designed to produce tones, digital voice messages and live public address in harsh environments with high ambient noise levels.

The rugged speaker cone and projector are constructed of spun aluminum. The amplification circuitry, tone module, and gain control are contained in a housing constructed of die-cast aluminum. All surfaces are sealed with powder-coat paint. Dust- and moisture-proof gaskets provide protection from the elements.

SelecTone Amplified Speakers are used individually or as part of a plant-wide emergency notification system. Model UTM Universal Tone Module with 32 tones, or model TM33-SD Custom Tone Module is plugged into a single SelecTone Amplified Speaker for stand-alone use or into a SelecTone Command Unit for plant-wide signaling.

For plant-wide signaling, a Connector Kit is installed into each SelecTone Amplified Speaker and wired to a central controller, SelecTone Command Unit or CommCenter® Digital Message Center. Command Units and CommCenters broadcast tones, voice messages, melodies and live public address to an unlimited number of SelecTone Amplified Speakers.

Applications for SelecTone include emergency warning, evacuation, start/dismissal, public address, and process control signaling.

FEATURES

- Available in 24VAC/DC, 120VAC and 240VAC
- Reliable, solid-state circuitry
- Digital signal amplification
- Fused input and output
- Built-in gain control, adjustable between 0 dBa to 114 dBa @ 10' (0 dBa to 124 dBa @ 1m)
- Type 4X, IP66 enclosure
- IP69K compliant
- External mounting tabs
- Indoor/outdoor use
- UL and cUL Listed for Class I, Zone 2, AEx nA IIC Gc; Class II, Zone 22 AEx tc IIIC Dc

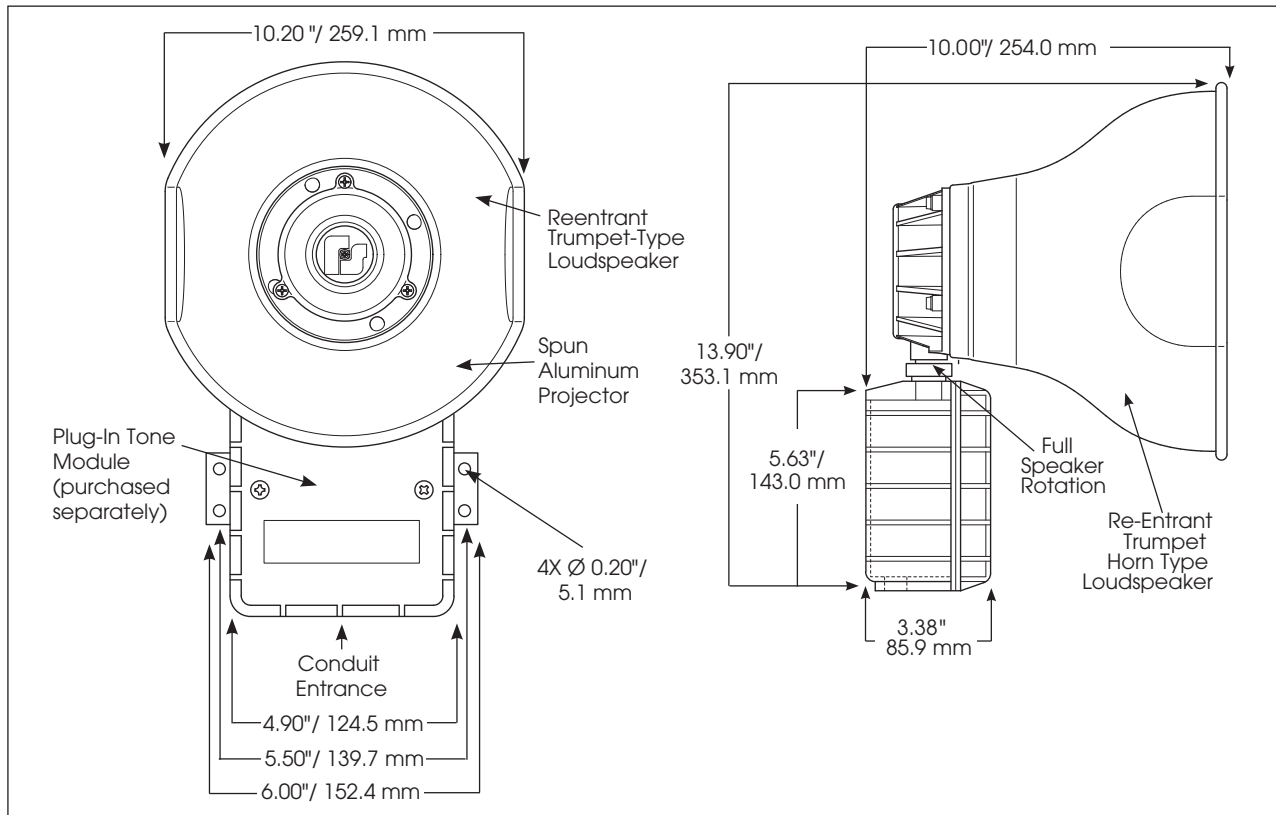
MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT	DECIBELS	
				10'	1 M
302GCX-024-CN	24VAC/DC	1.3 amps	100 mA	114	124
302GCX-120-CN	120VAC 50/60Hz	0.30 amps	50 mA	114	124
302GCX-240-CN	240VAC 50/60Hz	0.15 amps	35 mA	114	124

HAZARDOUS LOCATION RATING: 302GCX-CN

T-CODE AT AMBIENT TEMPERATURE, °C

Hazardous Location	40°C
Class I, Zone 2	T3
Class II, Zone 22	T85

SelecTone® Hazardous Location Zone Listed 30W Amplified Speaker (302GCX-CN)



SPECIFICATIONS

Electrical Operating Temperature:	-67°F to 150°F	-55°C to 66°C
Certified Operating Temperature:	-22°F to 150°F	-30°C to 66°C
Rated Power:		30 watt
Net Weight:		
24VAC/DC	5.5 lbs	2.5 kg
120/240VAC	5.5 lbs	2.5 kg
Shipping Weight:		
24VAC/DC	6.7 lbs	3.0 kg
120/240VAC	6.7 lbs	3.0 kg
Height:	13.90"	353.1 mm
Width:	10.20"	259.1 mm
Depth:	10.00"	254.0 mm

REPLACEMENT PARTS

Description	Part Number
PCBA, 30W, 24VAC/DC	K2001961B-03
PCBA, 30W, 120/240VAC	K2001961B-02
XFMR, 30W, 120VAC, 1.8 AMP	K120846A
XFMR, 30W, 240VAC, 1.8 AMP	K120856A
Amplifier Assembly, 30W	K2005502A-02
Gasket, Diaphragm, 30W	K8590243A
Gasket, Housing, 30W	K288A043
Speaker Assembly, 30W	K8593103A
Voice Coil, 30W	K8590246A

HOW TO ORDER

302GCX - 024 - CN

TYPE
302GCX

VOLTAGE
024 (24VAC/DC)
120 (120VAC)
240 (240VAC)

1. Select Model
2. Select Required Accessory (sold separately)

A. For stand alone operation, select Tone Module:

UTM – Universal Tone Module (Reference page 215 for list of tones)

TM33-SD – Custom Tone Module (Reference page 217 for list of tones)

B. For use in systems*, select Connector Kit. (Reference page 218 for Connector Kits)

AM25CK – 25 Vrms, 1 Vrms

AM70CK – 70 Vrms, 1 Vrms

300CK – 10 Vrms, 1 Vrms

T-300CK – 2.7 Vrms, 1 Vrms

E-300CK – 1 Vrms, 1 Vrms

*Call factory for design assistance



► Model 302X

SelecTone® Explosion-Proof 30W Amplified Speaker

Model 302X SelecTone® Amplified Speaker is designed to meet UL 1480 intelligibility requirements producing crisp, clear tones, digital voice messages and live public address in harsh environments with high ambient noise levels.

The rugged speaker cone and projector are constructed of spun aluminum. The all new internal circuitry, tone module, and gain control are contained in a housing constructed of cast aluminum. All surfaces are sealed with powder-coat paint and assembled with stainless steel hardware. Dust- and moisture-proof gaskets provide protection from the elements. This housing incorporates a tool-less rear cover design, eliminating the need for torque specific hardware and solves the problem of missing or lost fasteners.

SelecTone Amplified Speakers are used individually or as part of a plant-wide emergency notification system. Model UTM Universal Tone Module with 32 tones, or model TM33-SD Custom Tone Module is plugged into a single SelecTone Amplified Speaker for stand-alone use or into a SelecTone Command Unit for plant-wide signaling.

For plant-wide signaling, a Connector Kit is required for each SelecTone Amplified Speaker and wired to a central controller. SelecTone Command Units and CommCenter® Digital Message Centers broadcast tones, voice messages, melodies and live public address to an unlimited number of SelecTone Amplified Speakers.

Applications for SelecTone include emergency warning, plant evacuation, start and dismissal, public address, and process control.

FEATURES

- Available in 24VAC/DC and 120/240VAC
- Digital Signal Amplification
- Fused input and output
- Built-in gain control, adjustable between 0 dBa to 114 dBa @ 10' (0 dBa to 124 dBa @ 1m)
- Type 4X, IP65 enclosure
- CSFM Approved
- UL and cUL Listed for Class I, Division 1, Groups B, C, and D; Class I, Division 2, Group A; Class II, Division 2, Groups F and G; Class III

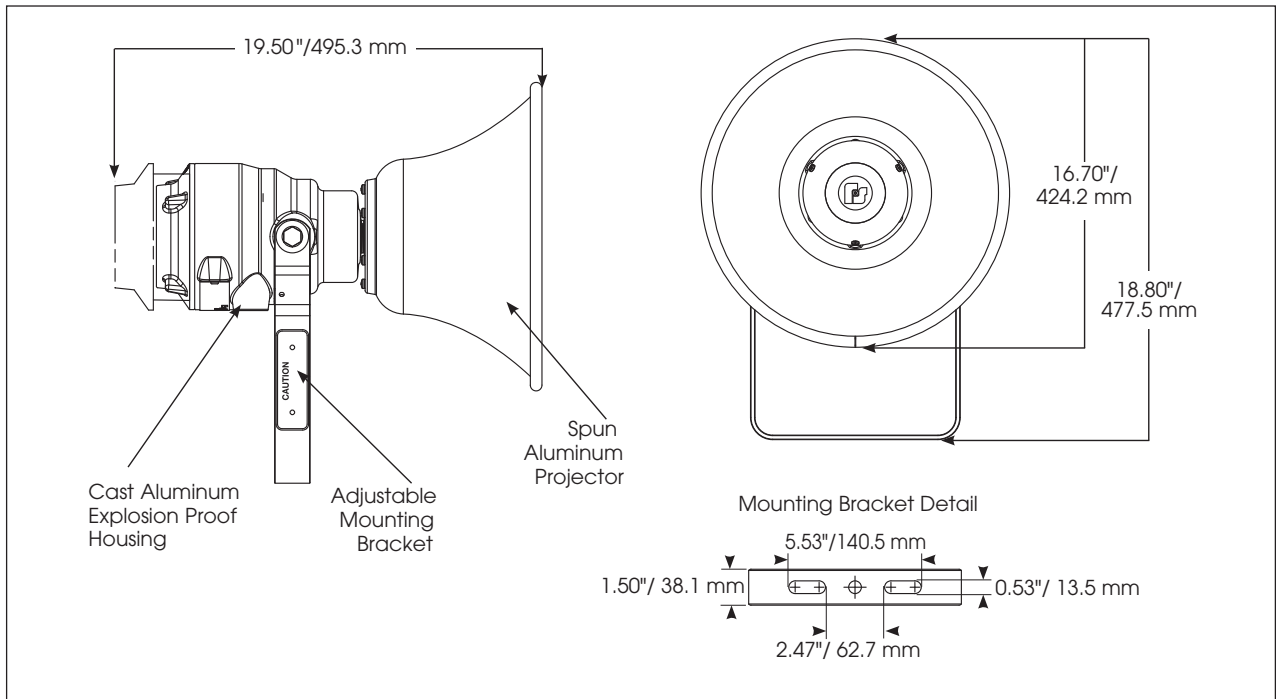
MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT	DECIBELS	
				10'	1M
302X-024	24VDC	1.35 amps	0.13 amps	114	124
	24VAC 50/60Hz	1.91 amps	0.31 amps	114	124
302X-120-240	120VAC 50/60Hz	0.43 amps	0.26 amps	114	124
	240VAC 50/60Hz	0.26 amps	0.13 amps	114	124

HAZARDOUS LOCATION RATING: 302X

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C	66°C
Class I, Division 1, Groups B, C, D	T6	T6
Class I, Division 2, Group A	T4A	T4
Class II, Division 2, Groups F, G	T6	T6
Class III	T6	T6

SelecTone® Explosion-Proof 30W Amplified Speaker (302X)



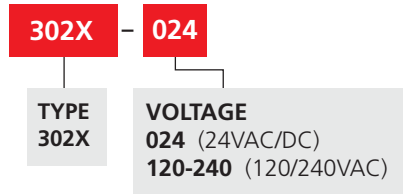
SPECIFICATIONS

Operating Temperature:	-67°F to 151°F	-55°C to 66°C
Rated Power:		30 watt
Net Weight:		
24VAC/DC	16.4 lbs	7.4 kg
120/240VAC	17.7 lbs	8.0 kg
Shipping Weight:		
24VAC/DC	32.4 lbs	14.7 kg
120/240VAC	33.7 lbs	15.3 kg
Height:	18.80"	477.5 mm
Width:	16.70"	424.2 mm
Depth:	19.50"	495.3 mm

REPLACEMENT PARTS

Description	Part Number
Amplifier Assembly, 24VAC/DC	K2005618A-03
Amplifier Assembly, 120/240VAC	K2005618A-05
Projector Assembly	K8593100A
Mounting Bracket Assembly	K8593071A
Gasket, Diaphragm	K8590243A

HOW TO ORDER



1. Select Model
2. Select Required Accessory (sold separately)

A. For stand alone operation, select Tone Module:

UTM – Universal Tone Module
(Reference page 215 for list of tones)

TM33-SD – Custom Tone Module
(Reference page 217 for list of tones)

B. For use in systems*, select Connector Kit. (Reference page 218 for Connector Kits)

AM25CK – 25 Vrms, 1 Vrms

AM70CK – 70 Vrms, 1 Vrms

300CK – 10 Vrms, 1 Vrms

T-300CK – 2.7 Vrms, 1 Vrms

E-300CK – 1 Vrms, 1 Vrms

*Call factory for design assistance



► Model 300VSC-1

SelecTone® Desktop Command Unit

Model 300VSC-1 SelecTone® Command Unit generates up to four tones or voice communications in a SelecTone System. Four tones, auxiliary, test and cancel are controlled via an illuminated keypad. Voice transmission is activated by keying the optional desktop or hand-held microphone.

Public address can be accessed from the local microphone or via the remote microphone input. Audio input allows background music to be played from any 1 volt-peak-to-peak source system. Public address has the highest priority followed by tones 1-4, remote microphone and auxiliary audio.

“Test” plays tones or voice messages through the monitor speaker only. “Cancel” interrupts any tone.

External switches can be wired into the command unit for automatic remote operation of the signal system.

Model 300VSC-1 SelecTone Command Unit is the basis for a simple, versatile general signaling system for weather warning, start and dismissal, general alarm, evacuation and paging.

FEATURES

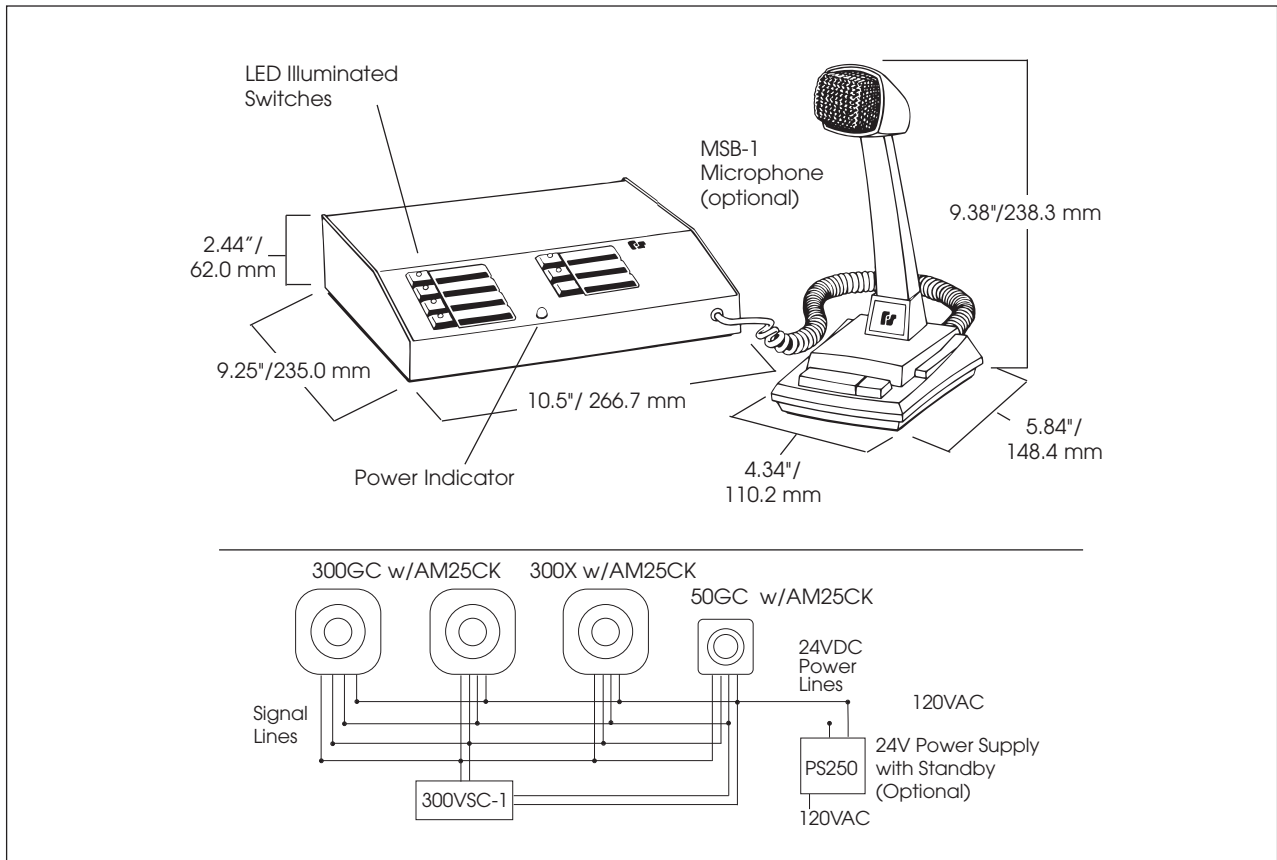
- Multi-voltage design accepts 24VDC or 120VAC
- Produces four prioritized tones and public address using UTM and/or TM33-SD
- Remote microphone input
- Desktop design
- Type 1 enclosure
- CSA Certified
- UL Listed

MODEL	VOLTAGE*	OPERATING CURRENT	STANDBY CURRENT
300VSC-1	24VDC** or	0.76 amps	0.09 amps
	120VAC	0.21 amps	0.03 amps

* 240VAC configuration available. Contact factory for details.

** Allows emergency power back-up using PS250, PS600 or PS1000. See page 234

SelecTone® Desktop Command Unit (300VSC-1)



SPECIFICATIONS

Tone Output Levels		
Unbalanced Signal Line:		10 Vrms (25 Ohm max.)
Balanced Signal Line: (Recommended)		25 Vrms (40 Ohm max./15 watt)
Signal to Noise Ratio		(<1.5% THD) Chip Input 67 dBa
Signal Frequency Response		250Hz to 4.5KHz (typical)
Net Weight:	3.1 lbs	1.4 kg
Shipping Weight:	4.2 lbs	1.9 kg
Height:	2.44"	62.0 mm
Width:	10.5"	266.7 mm
Depth:	9.25"	235.0 mm

REPLACEMENT PARTS

Description	Part Number
Tone Card Connector	K2001164A
Connectors, 17 Position	K140A332A-17
Connectors, 16 Position	K140A332A-16
Mother Board	K2001154E
Switch Board	K2001147A

HOW TO ORDER

- 1. Specify Model:**
300VSC-1 – SelecTone® Command Unit, desktop
- 2. Select Required Accessory** (sold separately)
 - A. For stand alone operation, select Tone Module:
 Specify number of **UTM** – Universal Tone Modules, up to four (Reference page 215 for a complete list of tones)
TM33-SD – Custom Tone Module (Reference page 217 for list of tones)

OPTIONAL ACCESSORIES

Description	Part Number
Handheld Microphone	MNC-1
Desktop Microphone	MSB-1



▶ Model 300VSC-1044SB

SelecTone® Rack-Mount Command Unit

Model 300VSC-1044SB SelecTone® Command Unit generates up to four tones or voice communications in a SelecTone system. The housing can be mounted in any standard 19" equipment rack. Four tones, auxiliary, test and cancel are controlled via an illuminated keypad. Voice transmission is activated by keying the optional desktop or hand-held microphone.

Public address can be accessed from the optional local microphone or the remote microphone input. Audio input allows background music to be played from any 1 volt peak-to-peak audio source. Public address has the highest priority, followed by tones 1-4, remote microphone and audio.

"Test" plays tones or voice messages through the monitor speaker only. "Cancel" interrupts any tone.

External dry contact closures can be wired into the command unit for automatic remote operation of the signal system.

Model 300VSC-1044SB SelecTone Command Unit is the basis for a simple, versatile general signaling system for weather warning, start and dismissal, general alarm, evacuation and paging.

FEATURES

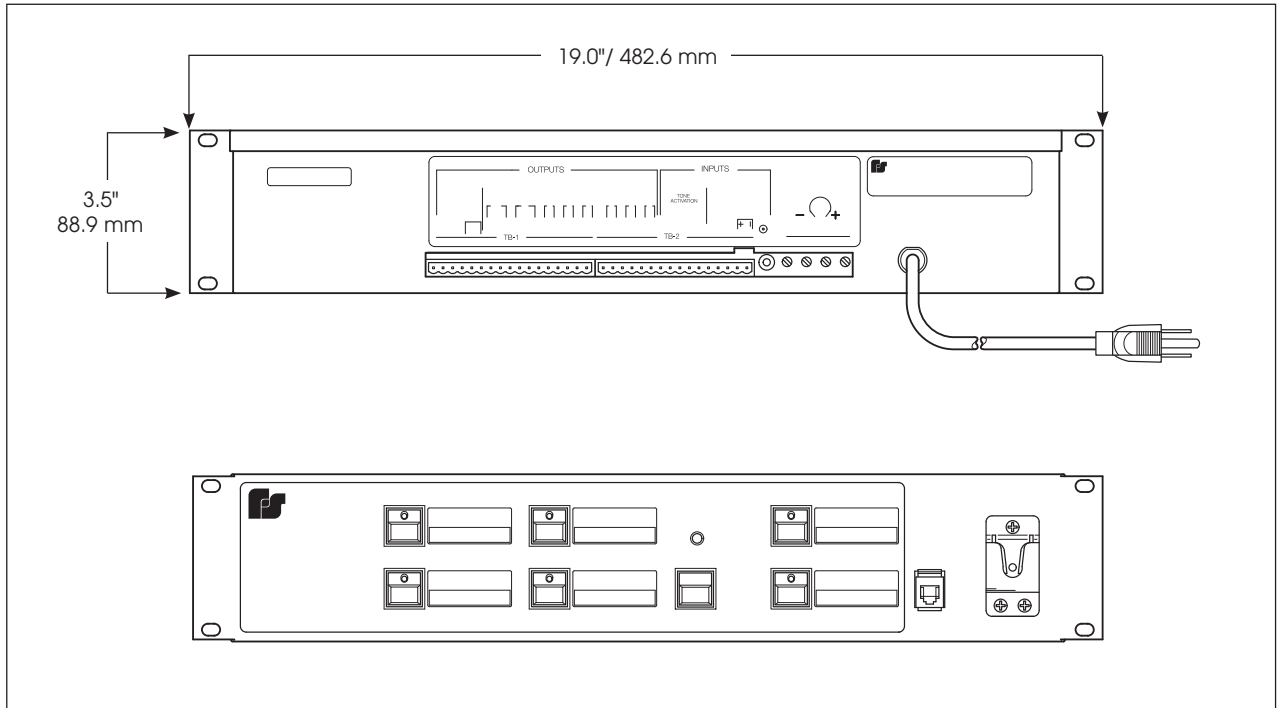
- Multi-voltage design accepts 24VDC or 120VAC
- Produces four prioritized tones and public address using UTM and/or TM33-SD
- Remote microphone input
- 19" rack mount
- Type 1 enclosure
- CSA Certified
- UL Listed

MODEL	VOLTAGE*	OPERATING CURRENT	STANDBY CURRENT
300VSC-1044SB	24VDC**	0.76 amps	0.09 amps
	120VAC	0.20 amps	0.03 amps

* 240VAC configuration available. Contact factory for details.

** Allows emergency power back-up using PS250, PS600 or PS1000. See page 234

SelecTone® Rack-Mount Command Unit (300VSC-10445B)



SPECIFICATIONS

Tone Output Levels

Unbalanced Signal Line 10 Vrms (25 Ohm max.)

Balanced Signal Line (Recommended) 25 Vrms (40 Ohm max./15 watt)

Signal to Noise Ratio (<1.5% THD) Chip Input 67 dBa

Signal Frequency Response 250Hz to 4.5KHz (typical)

Net Weight: 4.3 lbs 1.95 kg

Shipping Weight: 7.9 lbs 3.58 kg

Height: 3.5" 88.9 mm

Width: 19.0" 482.6 mm

Depth: 10.0" 254.0 mm

HOW TO ORDER

1. Specify Model:

300VSC-10445B – SelecTone® Command Unit, rack mount

2. Select Required Accessory (sold separately)

A. For stand alone operation, select Tone Module:

Specify number of **UTM** – Universal Tone Modules, up to four (Reference page 215 for a complete list of tones)

TM33-SD – Custom Tone Module (Reference page 217 for list of tones)

REPLACEMENT PARTS

Description	Part Number
Tone Card Connector	K2001164A
Connector, 17 Position	K140A332A-17
Connector, 16 Position	K140A332A-16
Mother Board	K2001154E
Switch Board	K2001147A

OPTIONAL ACCESSORIES

Description	Part Number
Handheld Microphone	MNC-1



► Model 300SCW-1

SelecTone® Wall Mount Command Unit



Model 300SCW-1 SelecTone® Command Unit generates up to four tones or voice communications through a SelecTone system.

Four tones, auxiliary, test and cancel are controlled via an illuminated keypad. Voice transmission is activated by keying the optional hand held microphone.

Public address can be accessed from the optional local microphone or via the remote microphone input. Public address has the highest priority, followed by tones 1-4, remote microphone and audio.

“Test” plays tones or voice messages through the monitor speaker only. “Cancel” interrupts any tone.

External dry contacts can be wired into the command unit for automatic remote operation of the signal system.

Model 300SCW-1 SelecTone Command Unit is the basis for a simple, versatile general signaling system for weather warning, start and dismissal, general alarm, evacuation and paging.

Model 300SCW-1 Command Unit allows up to four tones and public address capability to be prioritized and broadcast through a SelecTone system.

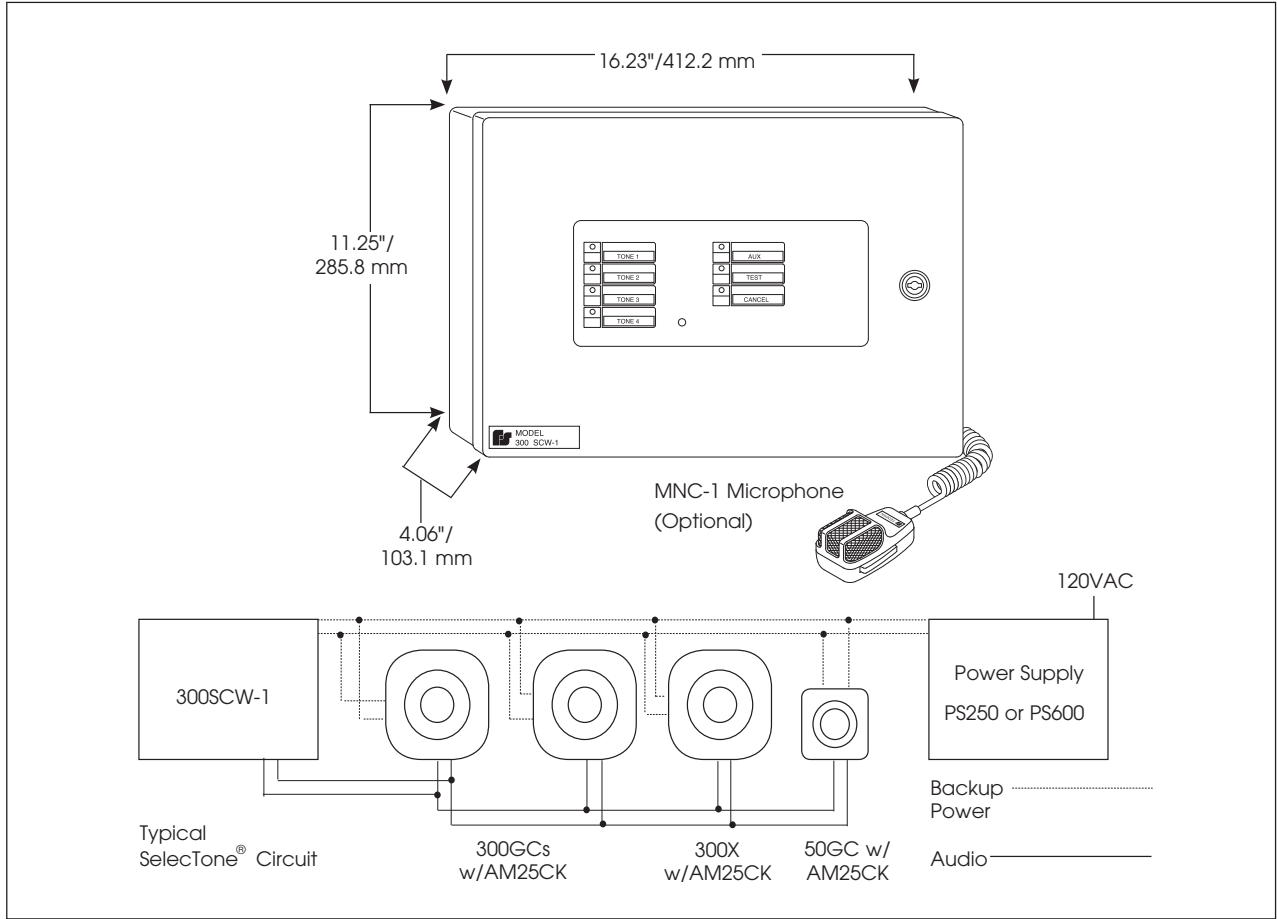
FEATURES

- Multi-voltage design operates on 24VDC, 120VAC and 240VAC
- Produces four prioritized tone signals and public address using UTM or TM33-SD tone modules
- Remote microphone input
- Wall mount
- Type 1 enclosure
- CSA Certified
- UL Listed

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT
300SCW-1	24VDC*	0.76 amps	0.09 amps
	120VAC 50/60Hz	0.2 amps	0.03 amps
	240VAC 50/60Hz	0.1 amps	0.02 amps

*Allows emergency power back-up using PS250, PS600 or PS1000. See page 256

SelecTone® Wall Mount Command Unit (300SCW-1)



SPECIFICATIONS

Tone Output Levels		
Unbalanced Signal Line		10 Vrms (25 Ohm max.)
Balanced Signal Line		25 Vrms (40 Ohm max./15 watt)
Signal to Noise Ratio		(<1.5% THD) Chip Input 67 dBa
Signal Frequency Response		250Hz to 4.5KHz (typical)
Net Weight:	13.4 lbs	6.1 kg
Shipping Weight:	15.0 lbs	6.8 kg
Height:	11.25"	285.8 mm
Width:	16.23"	412.2 mm
Depth:	4.06"	103.1 mm

HOW TO ORDER

- 1. Specify Model:**
300SCW-1 – SelecTone® Command Unit, wall mount
- 2. Select Required Accessory** (sold separately)
 - A. For stand alone operation, select Tone Module:
 Specify number of **UTM** – Universal Tone Modules, up to four (Reference page 215 for a complete list of tones)
TM33-SD – Custom Tone Module (Reference page 217 for list of tones)

REPLACEMENT PARTS

Description	Part Number
PC Board Assembly, Tone Card Connector	K2001164A
Connector, 17 Position	K140A332A-17
Connector, 16 Position	K140A332A-16

OPTIONAL ACCESSORIES

Description	Part Number
Handheld Microphone	MNC-1
Desktop Microphone	MSB-1



► Model 300MB

CommCenter® Digital Message Center

CommCenter® Model 300MB broadcasts pre-recorded voice messages, melodies, tones and signals over SelecTone® and public address systems. Model 300MB replaces outdated loop tape units with superior, high-quality audio playback. Model 300MB is remotely activated via contact closures.

Melodies, voice messages, tones and signals are available, including the pre-recorded CommCenter Standard Library and optional custom recorded messages. Units can be interconnected for greater message capacity.

CommCenter's digital messaging capability is ideal for emergency evacuation announcements. Clear, concise, pre-determined instructions can be broadcast over a SelecTone or public address system. The CommCenter's pre-recorded melodies can convey the status of a process or machine without interrupting the flow of production in surrounding areas. Voice messages in any language can alert operators to emergency situations.

The CommCenter offers quality and versatility to public address systems that broadcast repetitive, prerecorded messages.

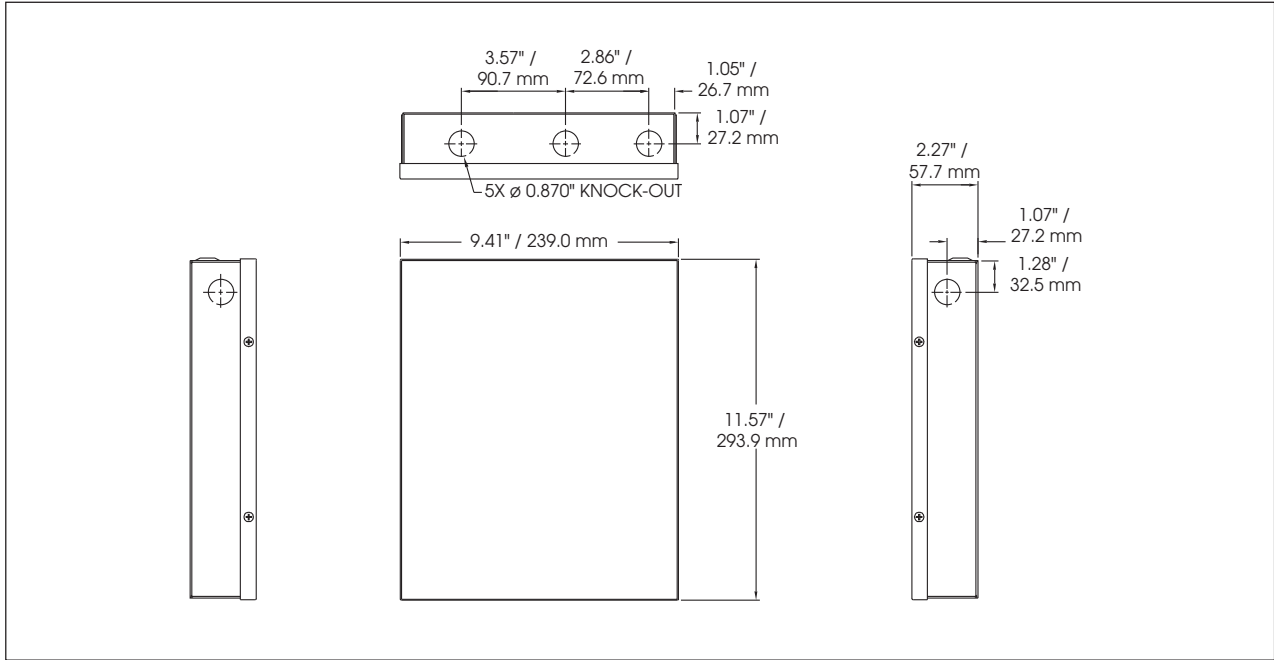
FEATURES

- Multi-voltage design accepts 24VDC, 120VAC or 240VAC
- High-quality, non-volatile playback
- Stores up to six voice messages, melodies, tones and signals
- Messages can be up to 30 seconds in length (180 second total capacity)
- Expandable and prioritized
- Type 1 enclosure
- UL Listed and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT
300MB*	24VDC	0.8 amps	0.09 amps
	120VAC 50/60Hz	0.2 amps	0.05 amps
	240VAC 50/60Hz	0.1 amps	0.02 amps

* Indicate number of messages up to six.

CommCenter® Digital Message Center (300MB)



SPECIFICATIONS

Ambient Operating Temperature:	32°F to 140°F	0°C to 60°C
Tone Output Levels Max. Load:		
Unbalanced Signal Line	10 Vrms (25 Ohm max)	
Balanced Signal Line	25 Vrms (40 Ohm max/15 watt)	
Audio Input:		
Input Impedance	5K Ohms	
Input Voltage	1V P-P (max)	
Signal to Noise Ratio (<1.5% THD):(chip input)	67 dBa	
Signal Frequency Response:	250Hz to 3.4KHz	
Net Weight:	5.5 lbs	2.5 kg
Shipping Weight:	6.6 lbs	3.0 kg
Height:	11.57"	293.9 mm
Width:	9.41"	239.0 mm
Depth:	2.27"	57.7 mm

HOW TO ORDER

- 1. Specify Model:**
300MB – CommCenter Digital Message Center
- 2. Select Tones:**
 Specify number of messages (up to six)
- 3. Choose message source(s):**
 - a. Select from Standard Library (Reference www.fedsig.com/resource-library)
 - b. Provide script to be recorded in studio (additional charge incurred)
 - c. Provide electronic file (additional charge incurred)
- 4. Specify the priority of the messages**

REPLACEMENT PARTS

Description	Part Number
Blank Message Module	RMB9999SD
Pre-recorded Message Module (Please specify message)	RM1SD



► Model 300FP

CommCenter® Field Programmer

Model 300FP Field Programmer is designed to transfer and program custom messages and tones on CommCenter message modules. The unit features an integrated playback speaker for review before the module is installed into any of the compatible devices, including 300MB or TM33-SD.

Lossless audio transfer is achieved through the use of proprietary file loading software supplied with the unit and/or downloadable from our website. Through user-friendly instructions, an end-user will simply program/transfer an audio file to the module. This is done by connecting a communications cable supplied with the unit between the PC and the 300FP Field Programmer. The end user then follows the on-screen instructions, selects a communications port on their PC and an audio file to be transferred. Once activated the software automatically programs the microprocessor. It's that easy. The transfer software is compatible with Windows XP, Vista and Windows 7.

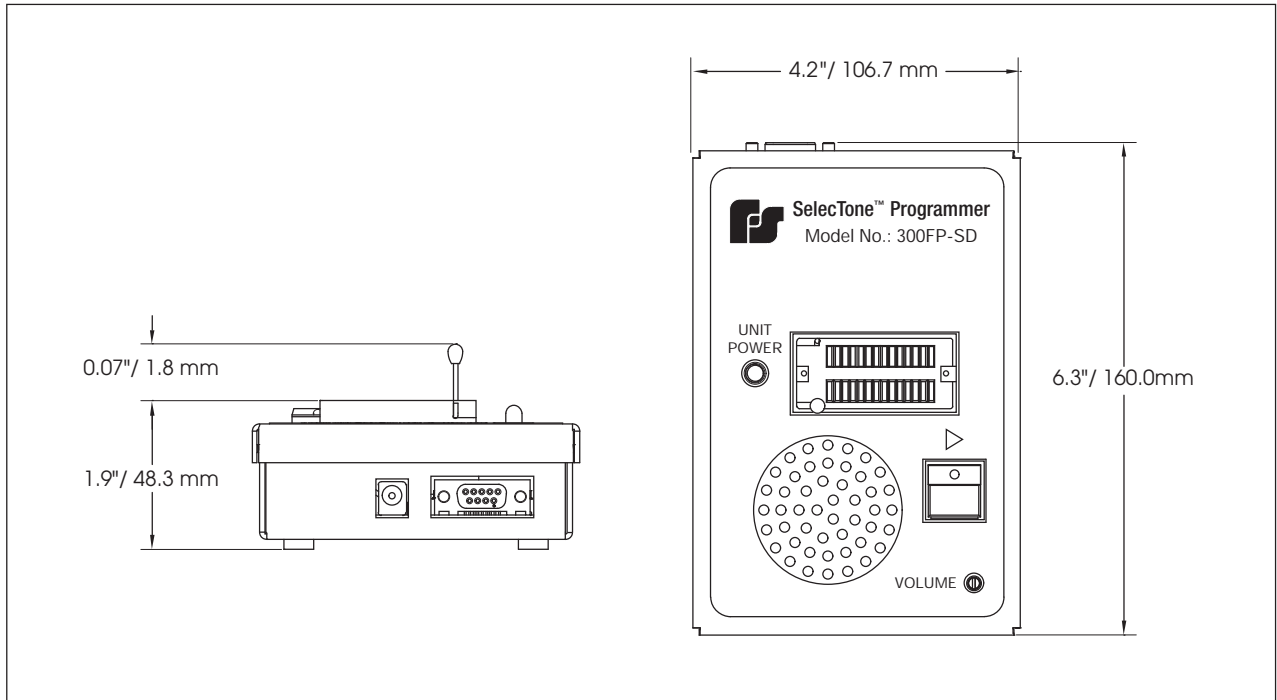
Custom tones or voice messages can be created by simply recording the message directly to a PC or via a digital recording device, then saving or formatting to the standard WAV or MP3 file format and following the instructions listed above.

The heavy-duty aluminum housing is finished in a black powder coat paint, easy-to-use push button and LED indicator light. The field programmer 300FP is ONLY compatible with the new PCB message module that is supplied with Series D products or the RMB9999SD and RM1SD.

F E A T U R E S

- On-site, on-demand digital file transferring
- WAV & MP3 file format compatible
- Zero loss digital audio transfer
- Download and playback
- Self contained playback speaker
- Software and cables included
- Compatible with Series D PCB message modules

CommCenter® Field Programmer (300FP)



S P E C I F I C A T I O N S

Operating voltage		120VAC
Net weight	0.875 lbs	0.39 kg
Shipping weight	1.75 lbs	0.79 kg
Height	6.3"	160.0 mm
Width	4.2"	106.7 mm
Depth	1.9"	48.3 mm

H O W T O O R D E R

Specify Model:
300FP-SD – Field Programmer

O P T I O N A L A C C E S S O R I E S

Description	Part Number
Blank Module	RMB9999SD



► Models PS250, PS600, PS1000 and PS1000-240

SelecTone® Standby Battery/Back-up Power Supplies

SelecTone® Power Supplies provide nominal 12VDC or 24VDC power that is switch selectable. Models PS250, PS600 and PS1000 are designed for use as standby battery back-up during a power outage.

The steel enclosure is designed to mount on a wall or substantial vertical surface (indoor only). A key lock is provided to discourage unauthorized access – simple lock installation is required.

The power supply sub-assembly, which recharges the batteries, includes solid-state circuitry that provides DC operating voltage to units in a SelecTone® system, while maintaining a charge level on the batteries.

All of the units can also be used as a primary 12V or 24V power source for other devices/systems.

Model PS250 – Designed to use two 7 amp-hr, sealed lead-acid, gelled electrolyte batteries connected in series – is rated for 2.5 ampere, and is UL listed.

Model PS600 – Designed to use two 12 amp-hr, sealed lead-acid, gelled electrolyte batteries connected in series – is rated for 6 ampere, and is UL listed.

Model PS1000 – Designed to use two 12 amp-hr, sealed lead-acid, gelled electrolyte batteries connected in series – is rated for 10 ampere, and is UL listed.

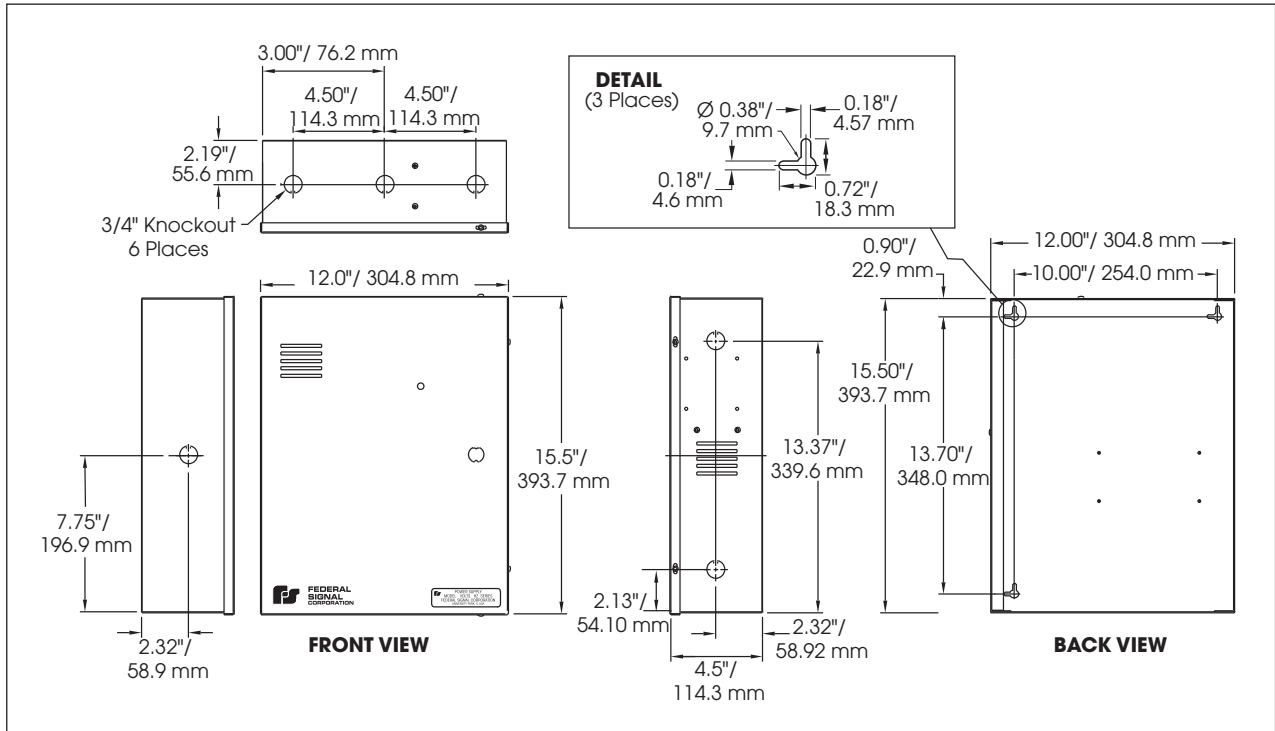
Model PS1000-240 – Designed to use two 12 amp-hr, lead-acid, gelled electrolyte batteries connected in series – is rated for 10 ampere.

FEATURES

- Supplies 12VDC or 24VDC
- Integrated battery charger
- Choice of 7 or 12 amp-hour capacity
- Meets NFPA standards
- Type 1 enclosure
- PS250, PS600, PS1000 are UL Listed
- Batteries ordered separately

MODEL	INPUT VOLTAGE	OUTPUT CURRENT	OUTPUT VOLTAGE
PS250	120/240VAC	2.50 amps	12/24VDC
PS600	120/240VAC	6.00 amps	12/24VDC
PS1000	120VAC	10 amps	24VDC
PS1000-240	240VAC	10 amps	24VDC

SelecTone® Standby Battery/Back-up Power Supplies (PS250, PS600, PS1000 and PS1000-240)



SPECIFICATIONS

Operating Temperature:	32°F to 120°F	0°C to 49°C
Net Weight:		
PS250	10.25 lbs	4.65 kg
PS600	12.65 lbs	5.74 kg
PS1000	12.65 lbs	5.74 kg
PS1000-240	12.65 lbs	5.74 kg
Shipping Weight:		
PS250	12.1 lbs	5.49 kg
PS600	14.5 lbs	6.58 kg
PS1000	14.5 lbs	6.58 kg
PS1000-240	14.5 lbs	6.58 kg
Height:	15.5"	393.7 mm
Width:	12.0"	304.8 mm
Depth:	4.5"	114.3 mm

HOW TO ORDER

Specify Model:

- PS250** – Standby power supply 24VDC battery, 2.5 amps, 120 or 240VAC input
- PS600** – Power supply, 24VDC battery, 6.0 amps, 120 or 240VAC input
- PS1000** – Power Supply, 24VDC battery, 10 amps, 120VAC input
- PS1000-240** – Power Supply, 24VDC battery, 10 amps, 240VAC input

REPLACEMENT PARTS

Description	Part Number
12V, 7 Amp-Hr battery (Model PS250)*	K155189A
12V, 12 Amp-Hr battery (Model PS600 and 1000)*	K155190A
PC Board (Model PS600)	K2001312A

*Each model requires two batteries



► Model EPBA

Vehicular Dual Tone Back-Up Alarm

Evacuator® back-up alarm offers superior reliability with exceptional warning power. Evacuator alarms utilize piezo-electric circuitry and solid-state components to minimize the effects of vibration and reduce amp draw. To seal out moisture and contaminants, the unique nickel-plated terminal inserts are hermetically sealed, and the housing is environmentally sealed.

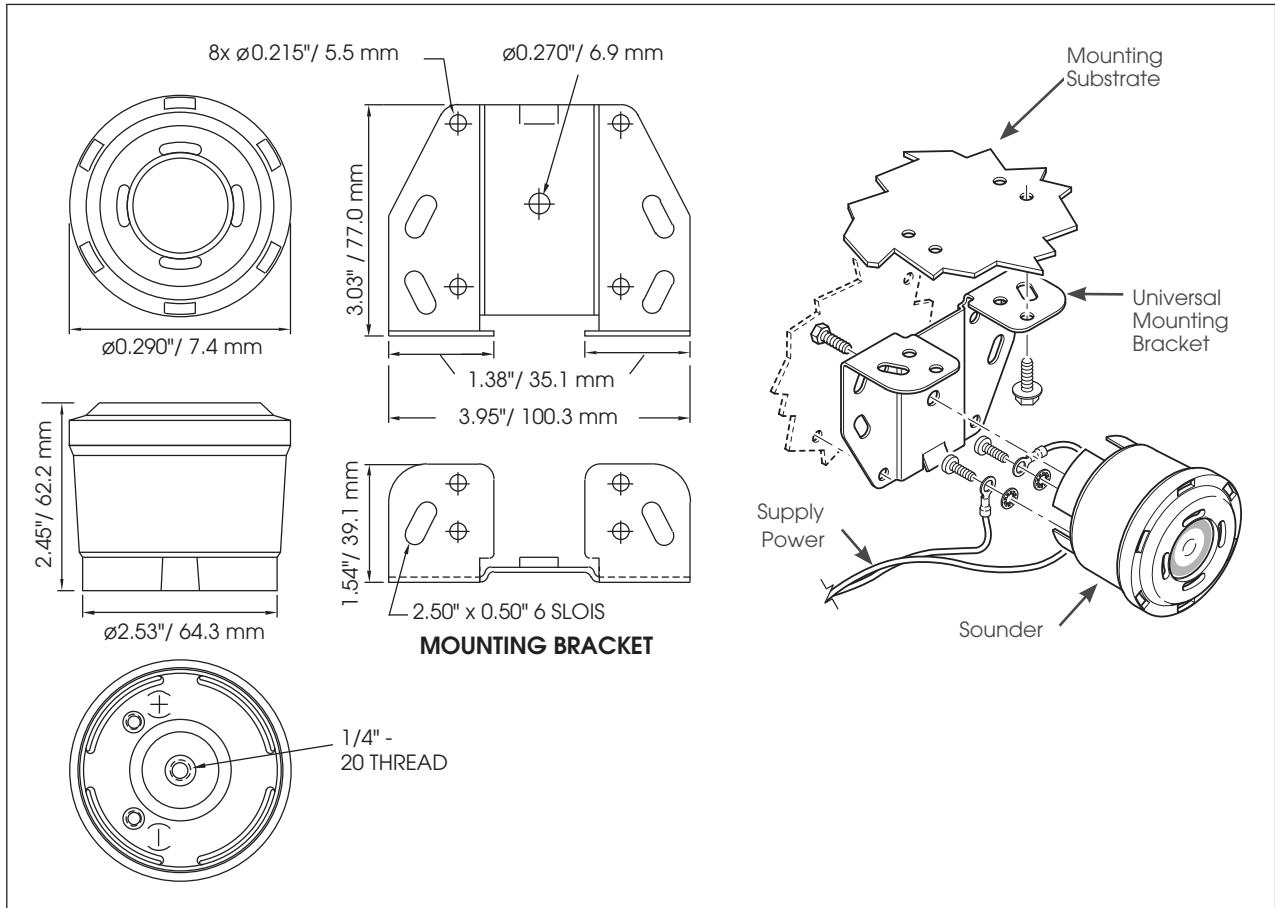
The Evacuator back-up alarm includes a dual function feature. The dual function feature allows the alarm to produce two distinctly different tones by reversing the polarity of the wiring. Normal polarity produces a “Pulsed” tone, which is an intermittent signal that is primarily use for back-up warning. Reversed polarity produces a “Constant-On” tone, which is a continuous signal that can be used to signal motion such as the lifting of a truck platform or gate.

FEATURES

- Dual function - two tones available
- Impact resistance housing
- Universal mounting bracket included
- Low amp draw
- Sealed against moisture and contaminants
- Protected against voltage spikes
- SAE J994, MSHA, and OSHA approved

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS 4'	SOUND FREQUENCY
EPBA	9-48VDC	0.015 amps	97 dBa	2.4kHz

Vehicular Dual Tone Back-Up Alarm (EPBA)



S P E C I F I C A T I O N S

Operating Temperature:	-40°F to 165°F	-40°C to 74°C
Weight:	0.6 lbs	0.3 kg
Shipping Weight:	0.6 lbs	0.3 kg
Length:	2.9"	73.7 mm
Width:	2.9"	73.7 mm
Height:	2.4"	61.0 mm

H O W T O O R D E R

Specify Model:

EPBA – Evacuator vehicular back-up alarm, dual tone, 12-48VDC



► Model 252

Vehicular Back-Up Alarm

Model 252 back-up alarm is a solid state audible warning device enclosed in a weatherproof housing. The alarm produces a horn tone of 97 dBa @ 4 feet and sounds at approximately 60 times per minute with equal on and off pulses. Model 252 conforms to SAE (Society of Automotive Engineers) J994 Sound Level Type C.

Federal Signal's Model 252 housing is constructed of black glass-reinforced plastic and comes equipped with universal mountings for easy installation. When properly installed, this unit is weatherproof, dust-proof and not adversely affected by the steam cleaning of vehicles.

Model 252 is designed for use in a wide variety of vehicles that operate in populated areas — both indoors and out. This alarm is ideal for use on forklifts, tractors, waste disposal vehicles, dump trucks, earth moving equipment or any other vehicle that operates near people.

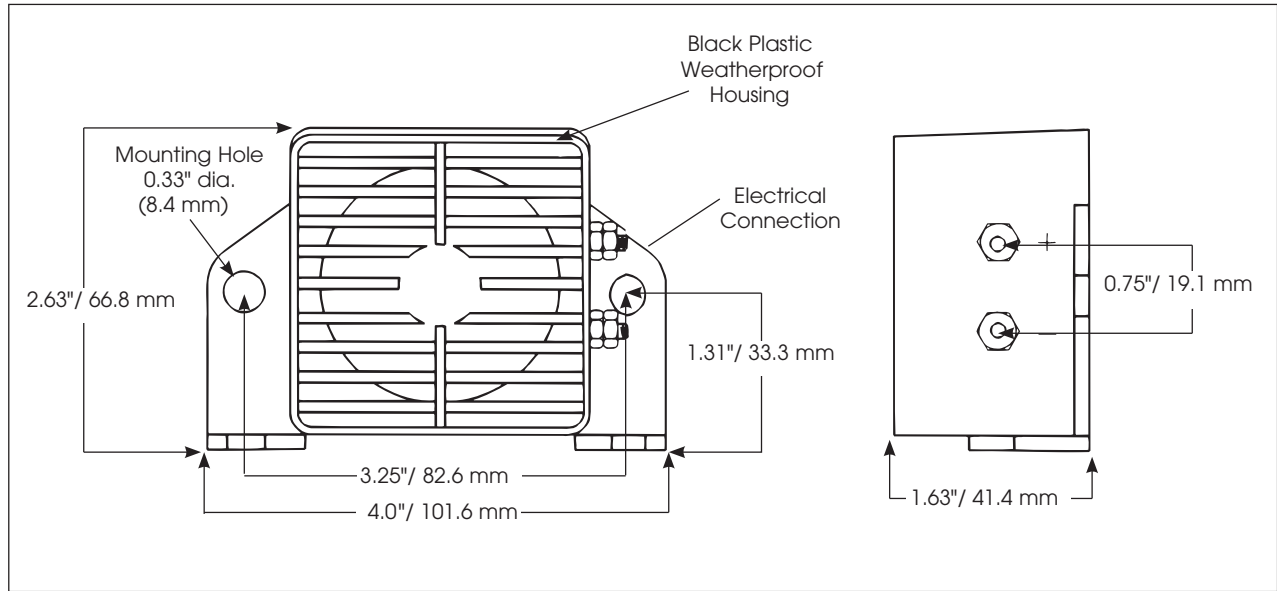
Federal Signal's Model 252 Vehicular Back-up Alarm is an economical life-safety device designed to prevent accidents.

FEATURES

- Operates within the 12-48VDC range used in most vehicles
- Produces 97 dBa @ 4'
- Rugged weather-proof housing
- Solid-state, epoxy-sealed electronics
- Universal mounting
- Type 4X enclosure
- Conforms to SAE J994 sound level Type C requirements

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS 4'
252-012-048	12-48VDC	0.20 amps	97 dBa

Vehicular Back-Up Alarm (252)



S P E C I F I C A T I O N S

Operating Temperature:	-40°F to 167°F	-40°C to 75°C
Net Weight:	0.3 lbs	0.14 kg
Shipping Weight:	0.4 lbs	0.18 kg
Height:	2.63"	66.8 mm
Width:	4.0"	101.6 mm
Depth:	1.63"	41.4 mm

H O W T O O R D E R

Specify Model:
252-012-048 – Back-up alarm, 12-48VDC



► Model 253

Vehicular Self-Adjusting Back-Up Alarm

Model 253 is a unique back-up alarm that samples the ambient noise levels surrounding the vehicle and adjusts its sound output automatically.

By "listening" to the surrounding sound levels, Model 253 will continuously adjust the output to provide 10 dBa (± 4) over ambient noise levels.

This self-adjusting vehicular alarm provides just the right level of audible signal required to warn employees of an approaching fork lift or tow motor.

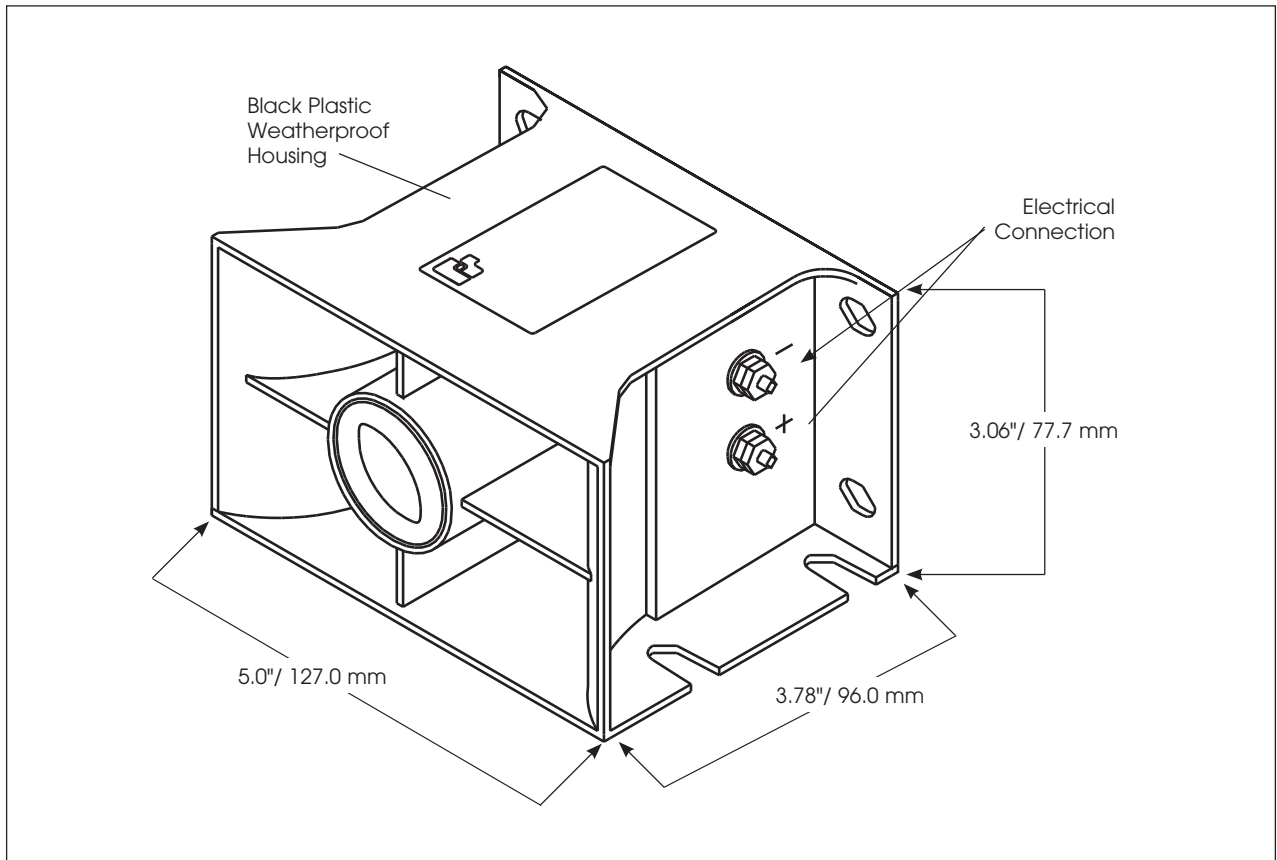
This solid state device operates on 12-48VDC vehicle system voltage. Model 253 emits sound at 80 pulses per minute. It is polarity protected and will not operate when incorrectly wired.

FEATURES

- Operates on 12-48VDC power
- Universal mounting
- Ambient noise adjustment technology
- 80 pulses per minute
- Produces 82-107 dBa @ 4'
- Type 4X enclosure
- UL Listed

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS 4'
253-012-048	12VDC-48VDC	0.25 amps	82-107

Vehicular Self-Adjusting Back-Up Alarm (253)



S P E C I F I C A T I O N S

Operating Temperature:	-40°F to 185°F	-40°C to 85°C
Net Weight:	1.44 lbs	0.65 kg
Shipping Weight:	1.54 lbs	0.7 kg
Height:	3.06"	77.7 mm
Width:	5.0"	127.0 mm
Depth:	3.78"	96.0 mm

H O W T O O R D E R

Specify Model:
253-012-048 – Back-up alarm, self adjusting volume, 12-48VDC



Notes



Warning & Mass Notification Systems

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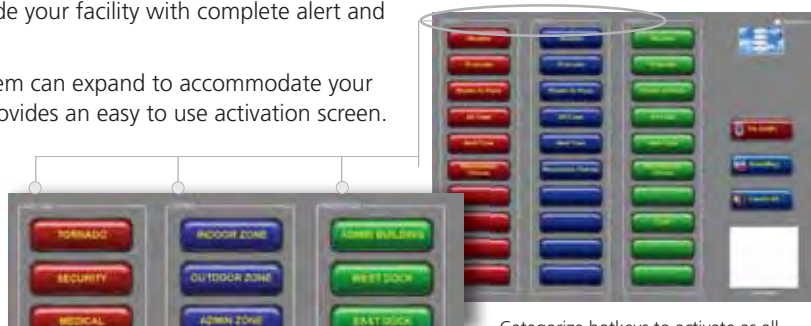
► Commander® On-Premises

Siren Control and Messaging System

The Commander siren control system offers both secure activation and status monitoring of any alert and notification system. From Giant Voice to Mechanical and Intelligent siren systems, Commander is designed to control, monitor, and link your warning system.

Federal Signal Commander continues to evolve to meet the challenging demands of customers throughout the world to provide a system unmatched in its features and ease of use. Commander offers Emergency Managers and system operators complete, secure activation and status monitoring of any siren system. From siren activation to in-building alerting, this system is designed to provide your facility with complete alert and notification capability.

From controlling 1 siren to 511, the system can expand to accommodate your changing needs. Federal Commander provides an easy to use activation screen. Administrators can program 50 Hotkeys to activate all sirens, zones, or individual sirens. Each Hotkey can be programmed to include a text, email, or voice message. A single Hotkey can activate sirens and send informational messages simultaneously.



Categorize hotkeys to activate all sirens, zones, or individual sirens.

FEATURES

- Control of municipal, county and state siren systems
- Control of Giant Voice systems
- Control of Intelligent Systems
- PC or Server based system
- Controls up to 511 sirens
- Support for analog, digital (P25/Tetra), IP, cellular, satellite and landline communications
- Modbus compatible
- App and web based control using optional CommanderOne
- Secure communications with 128 & AES 256 encryption and time-based encryption
- Custom user interface for your specific application

Commander can be integrated as a fully compliant APCO Project 25 (P25) two-way communications outdoor/indoor warning system.

Commander has integrated networking and messaging capabilities.

- Networking allows the system to operate radio systems and IP systems simultaneously.
- Messaging provides personalized alerts to devices such as cell phone, computer, pager, handheld radio, etc. Messaging provides additional information to key personnel or to citizens.

Activation of sirens based on polygons from National Weather Service is provided using the CommanderOne web based control. CommanderOne integrates automatically with your local siren activation system to provide “anywhere” activation, control and monitoring.

Siren Controllers are available for both electronic sirens, speakers, and electromechanical sirens. These controllers come equipped with over-the-air programmability via secure digital technology.

Commander® On-Premise Siren Control and Messaging System (SFCD)



SPECIFICATIONS

- RTU Capacity:** Up to 511 siren RTU's
- Communications:** Analog, Digital, P25 radio systems
Cellular, satellite, IP networks, Landline communications
- Security:** Time based encryption, 128 bit/256 bit AES encryption. User, password and role based security.
- Hardware Activation:** SS2000+ local activation point.
Siren activations using Intelligent System Informers
- RTU types:** Mechanical, Ultravoice giant voice systems, and Intelligent Systems using Informer product line
- Giant Voice:** Live PA, Text-to-speech and WAV file broadcasts
- Intelligent Systems:** Informer product line Desk / Wall / Rack / Outdoor Systems Two-way Intercom and recording Custom and specialized alert and notification systems
- Zoning:** Unlimited zone creation
- System:** Alarm logging and reporting of siren activation and monitoring using customized maps
- Language:** English default with optional multi-language support
- System Backup:** Create and restore system back up files

HOW TO ORDER

Description	Part Number
Windows application software:	
for up to 10 sites	SFCD10
for up to 25 sites	SFCD25
for up to 255 sites	SFCD255
for up to 511 sites	SFCD512

OPTIONAL ACCESSORIES

Description	Part Number
Warranty, up to 10 users	SFCD-W10
Warranty, up to 25 users	SFCD-W25
Warranty, up to 255 users	SFCD-W255
Warranty, up to 511 users	SFCD-W511
Upgrade, to 25 sites	SFCDUPI
Upgrade, to 255 sites	SFCDUPII
Upgrade, to 511 sites	SFCDUPIII
TCP/ IP client software (5 seats)	SFCDCLNT
Client software extended one-year warranty	SFCDCLNT-W
Modem	MODEM-MSK
Server with Windows®, 22" flat screen monitor	X-PCS-22
120V Uninterruptible Power Supply	X-UPS
Desktop Controller	SS2000+

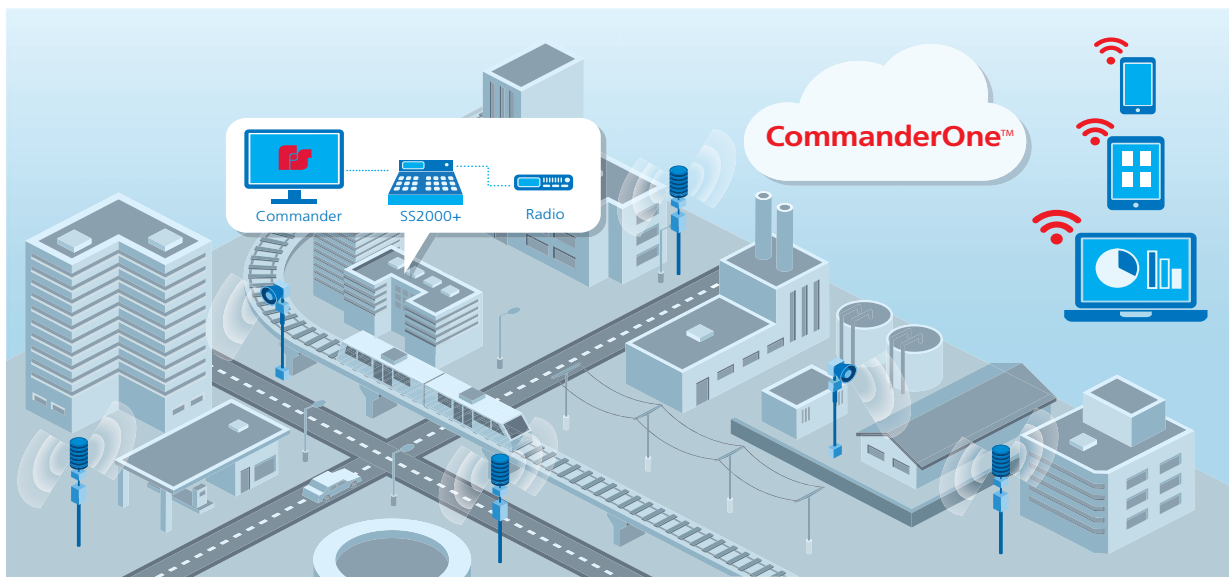


► CommanderOne®

Cloud-Based Control for Warning Systems

CommanderOne® is the latest innovation that allows you to connect with your most critical asset anytime, anywhere. The CommanderOne cloud-based platform enables you to monitor and control your warning sirens from any desktop or mobile device. It offers real-time data with actionable insights, enabling you to make important decisions quickly.

We understand that replacing a legacy infrastructure with new smart devices may be cost prohibitive, therefore, CommanderOne leverages your existing Federal Signal warning system and makes it smarter. With its simple dashboard and intuitive interface, CommanderOne is designed to make your mission successful in critical moments. CommanderOne is easily integrated with your existing Commander On-premise system. CommanderOne communicates with your system through a secure network communications interface. As changes occur with the On-Premise system those changes are mirrored on the cloud-based control system. Siren activation and monitoring can occur from anywhere from virtually any device. The map interface provides status indications with manual activations or user-defined polygons. Automatic or prompted weather based polygons siren activation is available for all CommanderOne users.



User Experience – The Intuitive Interface is simple to set up, always up-to-date, and connects to your on-premise Commander control system.

Map-based Activation – Location of sirens and their status is critical. Use the geo-intelligent interface to see an overview of your system.

Desktop Freedom – Access your system from any computer connected to the internet.

Mobile – A user-friendly app for iOS and Android. It has a web-based console with a mobile responsive GUI.

Security – We understand that security is your top priority. CommanderOne utilizes IPSEC over SSL with a multi-layered authentication mechanism.

Weather Activation – All CommanderOne systems will have access to activate sirens based on weather-based polygons.

Auto-Sync Hotkeys – No need to keep multiple locations synchronized, your Hotkey activation settings are automatically created in CommanderOne.

Messaging – Keep in contact with employees and first responders via email, SMS, and voice. Create on the fly messages or templates to streamline your workflow.

Scalability – CommanderOne platform is scalable from a few devices to hundreds of devices. It leverages a global network of data centers to maintain availability while securing your data.

CommanderOne® Cloud-Based Control for Your Warning Systems

Desktop and Mobile

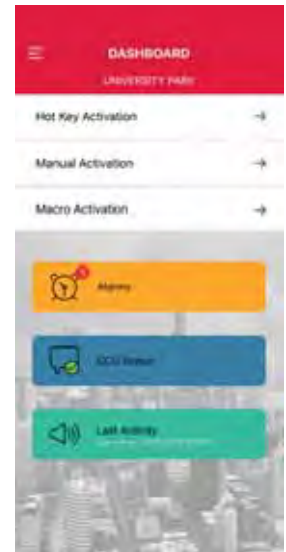
Desktop

The dashboard is designed to give you the status of the system in seconds. It utilizes Bing Maps, and its responsive design enables colored icons to reflect the status of each site and control point. Each status monitor is color-coded to quickly gain insight about your system.



Mobile

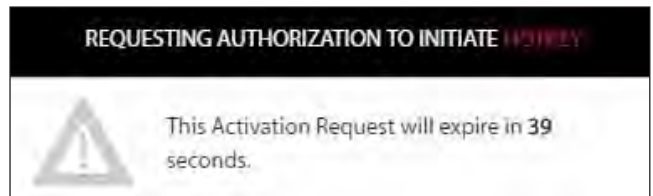
Native iOS and Android apps let you control and monitor your system from virtually anywhere. It shows all the alarms by a single click. Just like other apps, the system can be refreshed with a slide of a finger.



Security

CommanderOne is secure by design. We use One Time Passwords, Token-Based Security and industry standard SSL to secure your communications.

Our new Multi-User Authentication takes security to the next level by allowing you to configure Hotkeys, Macros or Functions with an authorization level, which require varying levels of authorization: from simple passwords to app-based authentication. This means that you can set-up CommanderOne so that no one activates a function without another person verifying that activation, like two people needing their keys turned at the same time to open a locked door.



Weather

CommanderOne Accuweather® brings automatic and prompted activation based on weather events. Using a simple 'if this then that' interface, you choose them from events, such as a 911 telephone outage to a Winter Weather Advisory and the actions associated with them. From the Accuweather interface, you can send a simple message to your staff when watches are posted in surrounding counties, or activate the sirens when National Weather Service posts a Tornado Warning.





CommanderOne® Cloud-Based Control for Your Warning Systems

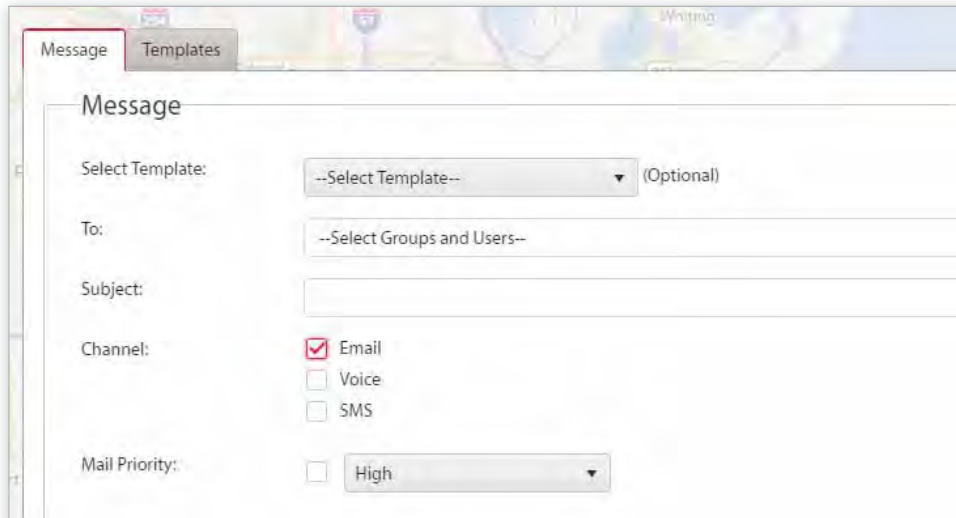
Messaging

CommanderOne Messaging is a new addition to the CommanderOne Cloud-Based Control system. Messaging adds the ability to quickly and easily contact your employees using our CommanderOne activation systems, either via the web or mobile app, on your smartphone.

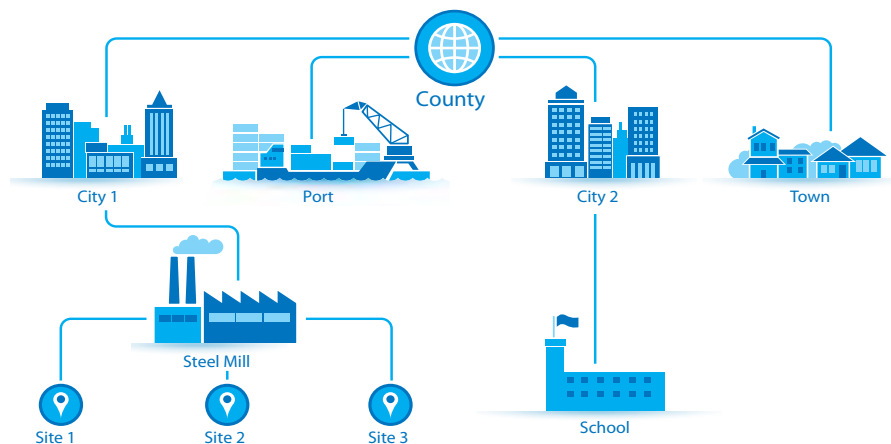
Messaging allows users to create templates, ad-hoc messages and even dynamically add phone numbers or emails at the time of message creation. Utilizing CommanderOne macros, you can activate a siren Hotkey and at the same time, a messaging template. Templates allow for operators to create scenarios ahead of time, adding all users and information in a ready-to-go, one-button activation.

Messaging add-on is designed around you and your first responders, by keeping it simple and easy for you to message your crew while activating the sirens. With simple, easy to understand plans, administrators can add messaging to their existing CommanderOne systems or simply purchase a new CommanderOne plan with Messaging.

Messaging builds upon the strengths of the CommanderOne platform and can allow administrators to send out operational alerts and automated messages the moment NOAA issues alerts.



Scalable Centralized Command and Control



CommanderOne is designed for a centralized command and control by managing disparate systems. Whether you have one site or multiple sites, you need a single dashboard to monitor and manage your network.

CommanderOne® Cloud-Based Control for Your Warning Systems

Select CommanderOne with Messaging Model for Annual Subscription

	Standard	Professional	Enterprise
Model Number*	COMMANDER1-SM	COMMANDER1-PM	COMMANDER1-EM
Messaging Included	Yes	Yes	Yes
Number of Seats	5	20	Per quote
Number of Organizations	1	2-5	5+
Messaging Users	200	500	1,000
Messages Per Month	2,500	5,000	10,000
Accuweather included	Yes	Yes	Yes
In Release Commander Upgrade	Yes	Yes	Yes

*Includes Remote Implementation Support. For on-site support and training, contact your Federal Signal representative for a quote.

Select CommanderOne Model for Annual Subscription

	Standard	Professional	Enterprise
Model Number*	COMMANDER1-S	COMMANDER1-P	COMMANDER1-E
Number of Seats	5	20	Per quote
Number of Organizations	1	2-5	5+
Accuweather included	Yes	Yes	Yes
In Release Commander Upgrade	Yes	Yes	Yes

*Includes Remote Implementation Support. For on-site support and training, contact your Federal Signal representative for a quote.

*CommanderOne is a registered trademark of Federal Signal Corporation.
Accuweather is a registered trademark of AccuWeather, Inc.*



► CommanderAssist®

Mass Notification Dynamic Messaging Software



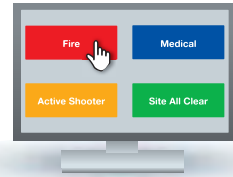
Dynamic Messaging
with series of decisions



Simplifies implementation
of your Emergency
Response Plan



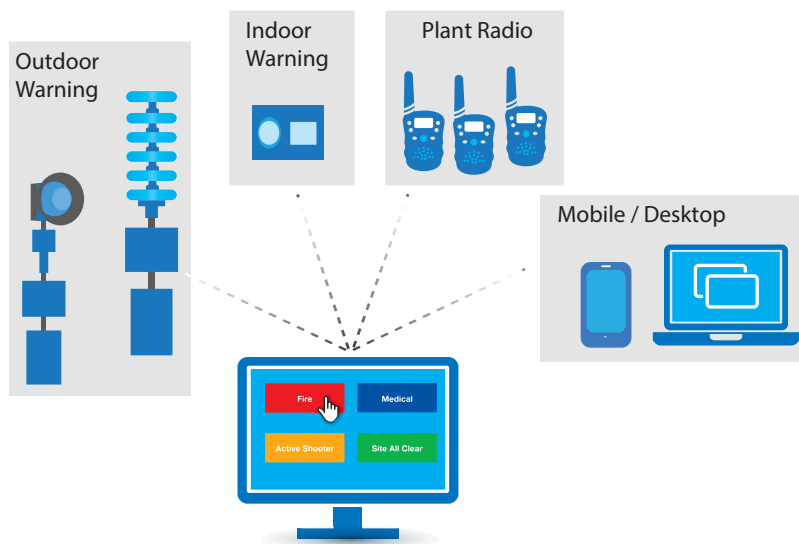
"1-click" activation
screens with Hotkeys



CommanderAssist® is designed to take a complicated emergency situation and make it simple to manage. CommanderAssist expands Federal Signal Commander On-Premise Siren Control and Messaging System to a customized scenario-based interface.

Federal Signal works with you and your staff to create a custom menu to guide the user thru incident-based decisions. Messages are pre-recorded in precise segments such as "Fire In" and "Admin Area"; and the custom menu guides the user thru pre-determined areas, such as plant areas or counties to deliver a clear, consistent alert.

In combination with a voice-capable speaker, CommanderAssist becomes a powerful tool in your emergency plan. Pre-recorded messages and tones are deployed over Giant Voice speaker systems including Federal Signal's Modulator siren, Informer tone-alert devices, indoor speakers, and handheld plant radios for mass notification. Messages can also be delivered over via e-mail and text messaging.



CommanderAssist® Mass Notification Dynamic Messaging Software

Scenario



Emergency Manager...a fire broke out in Dock Area 1, and there is a strong wind today from the west. I need to alert all employees of the fire and tell everyone who is downwind that they need to evacuate.

1 Select the incident

2 Select the Affected Area

3 Choose Wind Direction

4 Select the Action

5 Deploy the Alert



CommanderAssist® Mass Notification Dynamic Messaging Software

CommanderAssist Functions and Capabilities:



Custom Screen Design

Federal Signal helps you design your user interface around your emergency action plan with a custom screen design. You decide how you want to alert your employees and we work with you to make your plan a reality.



Commander

CommanderAssist runs on the Commander platform, the command and control software that is used to control Federal Signal sirens.



Customized Alerting

CommanderAssist can send alerts to who you want, when you want. Send outdoor or indoor alerts, radio alerts, or any combination. You can create the scenario and who gets alerted and we design the solution.



Radio

Add the optional I-IPSIU to play the same tones and messages to all employees over the handhelds that they already carry. Cables for many popular radio models and technologies allow easy connection.



Desktop Alerting

CommanderAssist can also distribute pop-up messages on connected Windows client computers. Your PCs can become a crucial tool in distributing messages to your entire plant. Responses show you who clicked an alert.



Email and SMS

Email and Text messages are an important channel to deliver emergency messages. CommanderAssist has the capability to deliver messages utilizing your current IT infrastructure.

CommanderAssist® Mass Notification Dynamic Messaging Software

HOW TO ORDER

Description	Part Number
Windows application software:	
for up to 10 sites	SFCD10
for up to 25 sites	SFCD25
for up to 255 sites	SFCD255
for up to 511 sites	SFCD512
CommanderAssist	SFCD-A
<i>See your Sales Representative for a quote</i>	

PC Requirements

Operating	Server Requirements	Client Requirements
System	Windows® Server 2008 Release 2 Service Pack 1	Windows® 7 Service Pack 1 or newer
Software	Microsoft® NET Framework version 4 Microsoft® Visual C++ 2010 x86 Redistributable Package	Microsoft® NET Framework version 4 Microsoft® Visual C++ 2010 x86 Redistributable Package
CPU Speed	3.0 GHz or higher	2.6 GHz or higher
CPU Processor	Intel® Xeon Processor or higher	Intel®Core Duo, Xeon Processor or higher
Memory	8 GB or higher	4 GB or more
Disk Space	40 GB or higher	100 MB or more
Network Adapter	100/1000 MB TCP/IP IPv4 network card	100/1000 MB TCP/IP IPv4 network card
Sound Card	Simple stereo sound card	Simple stereo sound card
Serial Port	RS 232	232
USB	1 USB	1 USB

CommanderAssist Options

Model #	Description	Notes
I-IPSIUB	Sensor/Radio Interface Unit	19-in rack mount device that allows messages to Land Mobile Radios
X-PCS-22T	Desktop Server with 22" Flat Panel Touch Monitor	A server with a touch screen monitor improves the user's experience when activating CommanderAssist.




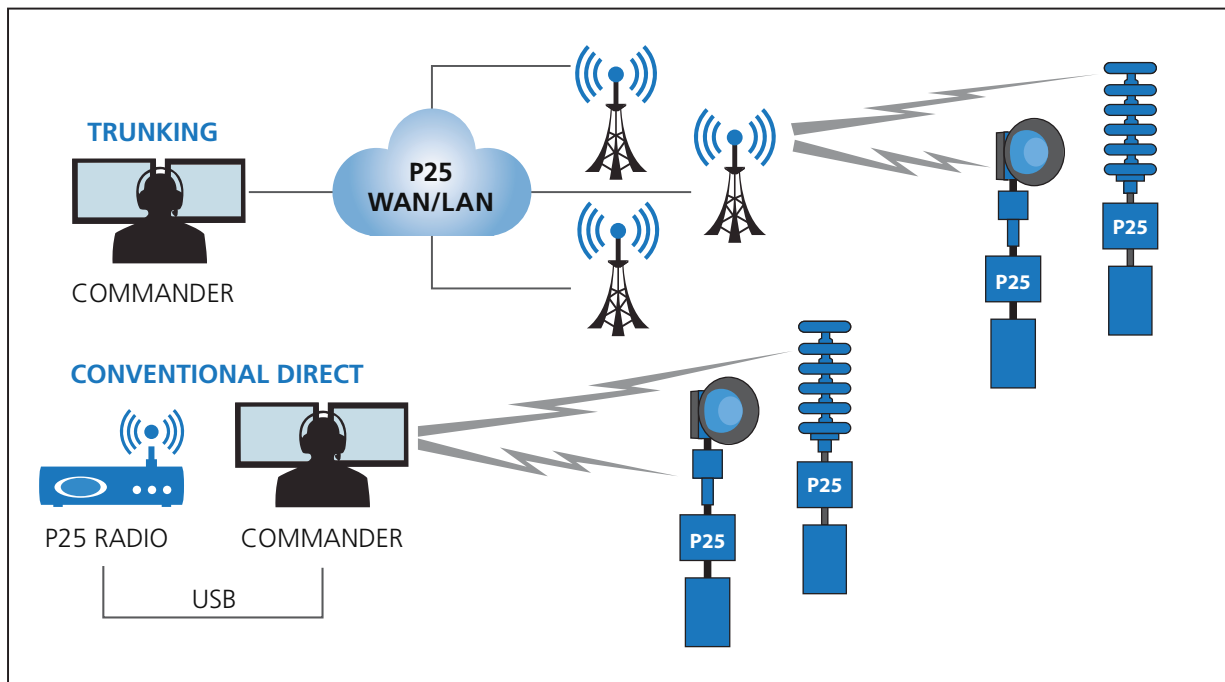
► Commander® P25

P25 Compliant Warning System

Federal Signal offers a Warning System that is fully compliant with P25 two-way communication systems. By utilizing this technology, users can eliminate the cost to maintain a legacy communications system or additional 3rd party hardware to become compatible with a P25 network, enabling Federal Signal Outdoor/Indoor Warning users to utilize their P25 Land Mobile Radio system with the siren network.

Federal Signal P25 Compliance Matrix

	P25 Phase 1	✓
	P25 Phase 2	✓
	Conventional Direct Mode	✓
	Trunk Mode	✓



Control Point computers hosting the Commander software can now connect to a P25 trunked land mobile radio interface via an Ethernet connection. Control points utilize a broadcast functionality to quickly and efficiently communicate with all remote controllers for All Call and Group activations. IP unicast to individual remote sites is used for individual activation and polling requests to minimize radio traffic in a multi-site system.

For customers that need P25 direct mode communication with remote siren site controllers, Commander software is USB plug-and-play compatible to P25 capable radios, enabling direct radio to radio communications without the need for trunking infrastructure.

P25 Compliant Warning System (Commander® P25)

One Integrated Communication Platform

Our total communications solutions span virtually every aspect of safety, security and productivity for your business while providing the latest in innovation, technology and the reliability you have come to trust.

Commander Software continues to evolve in order to meet customer's changing needs and provide a system unmatched in features and ease of use. From satellite to cellular to P25, let us provide you with a single, seamless, fully integrated solution.

HOW TO ORDER

Description	Part Number
Specify Model, Command and Control System:	
P25 IP Software key	SFCD-IP
Base station P25 radios (not required for trunked P25)	BSP/BSPE¹
Federal Signal Commander software version 14.5 or greater required for P25 support	
Specify Model, FC Remote Terminal Units:	
FC controller P25 radio upgrade kits ²	Q-FCTBDP-RADIO/Q-FCTBDE-RADIO¹
FC Controller P25 APX Radio Interface kit ³	Q-APX-FCIK
FC RTU firmware version 3.2.0.5 (FCM+)/7.6.0.3 (UV) or greater needed for P25 support	
Specify Model, UV Remote Terminal Units:	
UV controller P25 radio upgrade kits ²	Q-UVP-RADIO/Q-UVPE-RADIO¹
UV Controller P25 APX Radio Interface kit ³	Q-APX-IK
UV RTU firmware version 2.4.0.1 (UV+)/5.3 (FCM) or greater needed for P25 support	

¹ E = Encryption capable APX Radio

² Radio upgrade kits include RTU controller P25 APX Radio Interface Kit

³ P25 APX Radio Interface Kit needed to connect RTU controllers to P25 radios

Commander is a registered trademark of Federal Signal Corporation.



► SS2000+ Series C

Local Hardware Activation Point

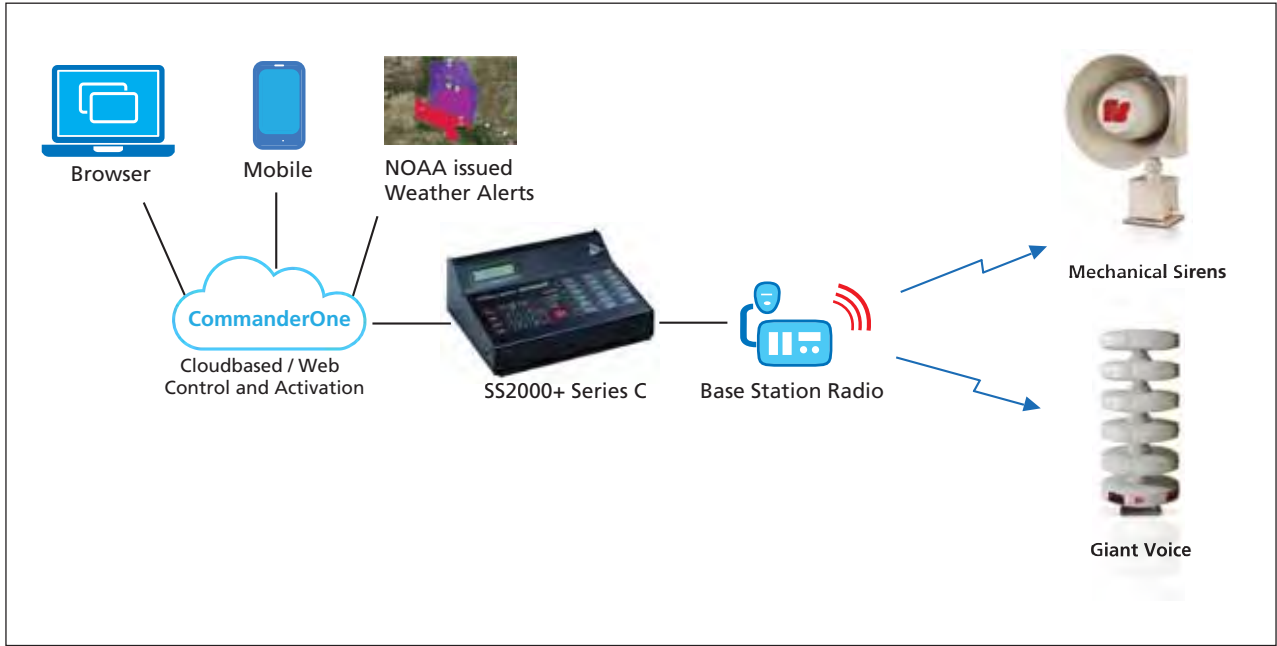
The SS2000+ Series C web enabled controller is Federal Signal's most advanced stand-alone control unit. The SS2000+ typically interfaces to an analog or digital radio system to provide radio activation of sirens across a county, municipal, campus or industrial facility. The SS2000+ has 24 programmable activation button "hotkeys" secured with a keylock switch and 20 contact closure inputs for interfacing with remote control systems. The hotkeys can provide specific types of warnings or test activations to notify residents, employees or students. The 24 Hotkeys are now accessible from a variety of interfaces using a new web interface. The new web interface can provide improved redundancy allowing multiple SS2000+ units to be used as on-line back-ups. Advanced networking features enable the SS2000+ to be connected to Federal Signal's Commander® control and status monitoring software. In addition, the SS2000+ can now connect directly to Federal Signal's CommanderOne® cloud service for secure web access to hotkeys, messaging and automated activation from NOAA EAS events.

The SS2000+ can be used to as an encoder for one-way siren control. Previously using a SS2000+ allowed activation only from the front panel hotkeys, the physical interfaces or from a connected PC. The SS2000+ now provides siren activation from CommanderOne NOAA® EAS events/polygons, from a mobile app or from a web browser over the Internet.

FEATURES

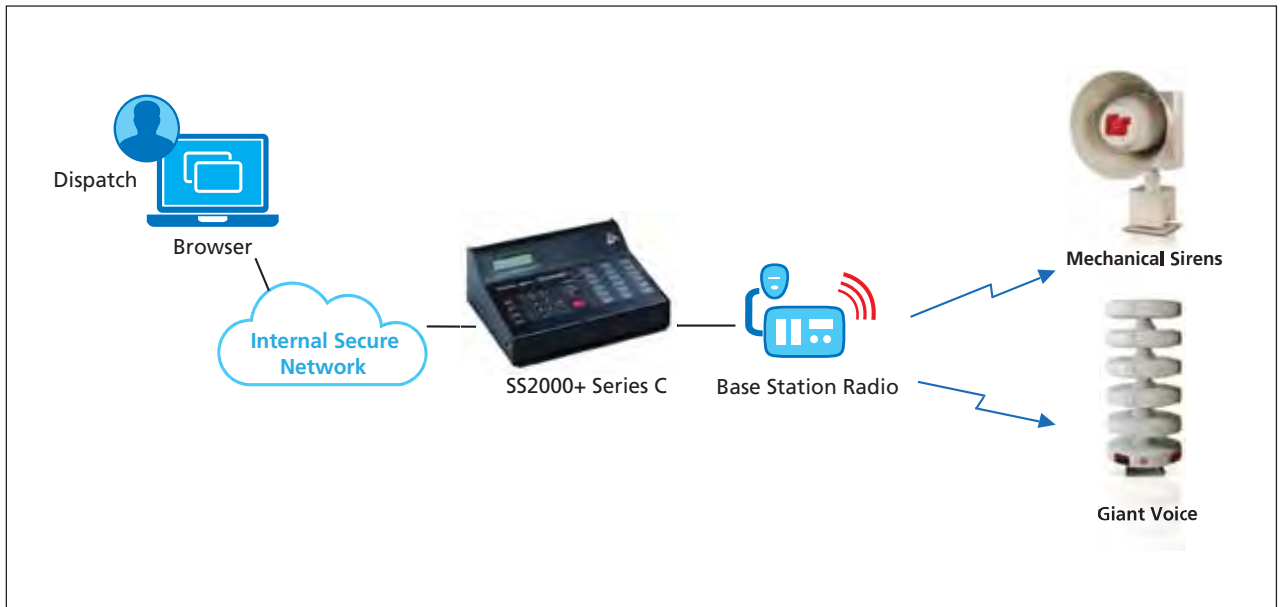
- 24 command function hot keys with key-lock protection
- 20 remote activation inputs
- Dispatch console interface via URL
- Ethernet port for control over inter-company or intra-company LAN
- Interface to CommanderOne® web service for polygon and mobile activations
- MODBUS TCP Industrial Control Interface
- Microphone interface for Live PA
- Redundant source of command and control
- User Access Security with Digest Authentication
- Remote firmware update capability over LAN
- Computer Access Whitelist Feature
- SSL and AES data Encryption
- Compatible with radio two-tone EAS and DTMF, AFSK encoding
- Configurable relay outputs
- Streams WAV files from Commander® PC
- Built-in communication monitor speaker
- Radio level indicators simplify field adjustments
- Battery backed real time clock
- Back-lit LCD Display
- Desk and 19" rack mount versions available
- Offered in 120 and 240VAC, with EU or UK versions available

Local Hardware Activation Point (SS2000+ Series C)



PC Freedom

Typical siren control systems rely on dedicated PC's or servers for activation. PC's can be difficult to maintain with updates and security concerns. Now you can have many of the features provided from a PC without the need to have a PC dedicated to activating your siren system. In addition, PC's can be a single point of failure within your siren control system. The SS2000+ can now interface to our CommanderOne control system and eliminate the need for a dedicated PC for siren control.

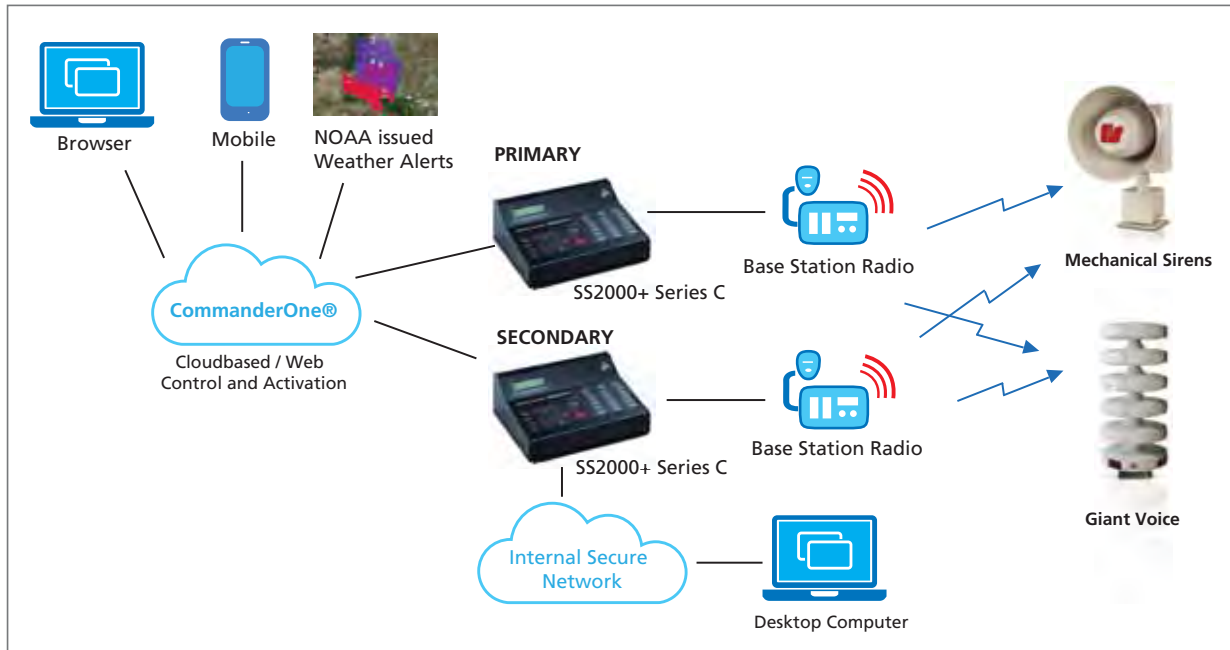


ACCESS VIA URL

Dispatch consoles can now access the SS2000+ from a new built-in web server that allows the SS2000+ to be controlled and configured over a LAN using standard web browsers. This interface can provide users within a secure company network to access the SS2000+ Hotkeys from standard web browsers (Chrome, Edge or Firefox) on the company local area network.

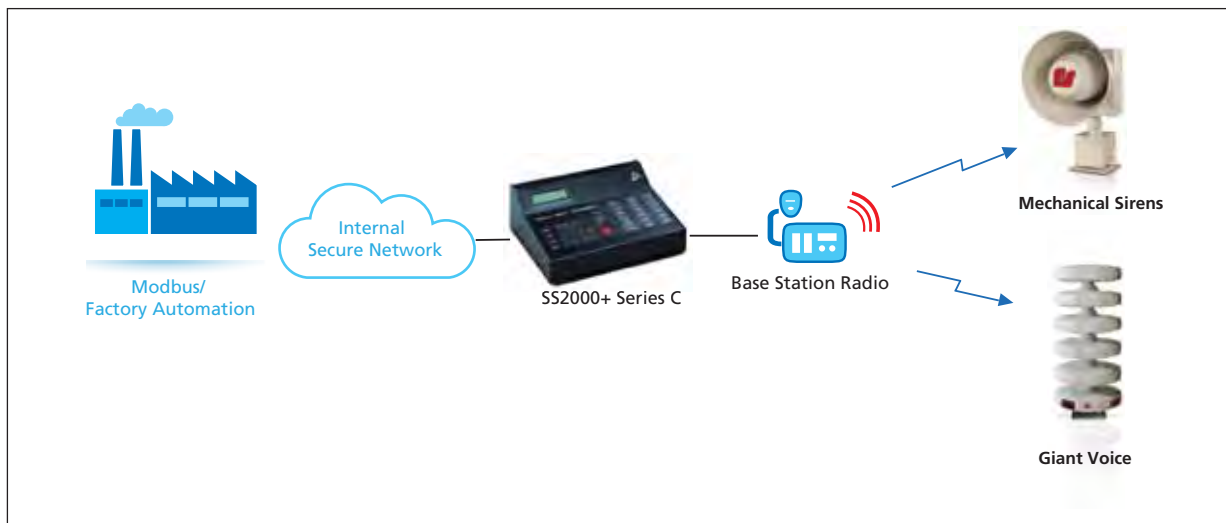


Local Hardware Activation Point (SS2000+ Series C)



Web Enable Radio Controlled Sirens

The SS2000+ can be used as an encoder for one-way siren control. Previously using a SS2000+ allowed activation only from the front panel hotkeys, the physical interfaces or from a connected PC. The SS2000+ now provides siren activation from CommanderOne NOAA EAS events / polygons, from a mobile app or from a web browser over the Internet.



MODBUS Control

The SS2000+ has a MODBUS interface to easily interface with Industrial Control Systems. MODBUS TCP is used to provide activations into an SS2000+ for specific warning announcements across an industrial plant. Users can activate the system using the SS2000+ or industrial control systems can activate the hotkeys.

Local Hardware Activation Point (SS2000+ Series C)

SPECIFICATIONS

Operating Temperature:	32° F to 140°F	0° to 60°C
Line Input	120/240VAC* wall transformer power supply	
Power Supply Input Voltage:	12-30VDC (12VDC min.)	
Input Current	300 mA (Standby 700 mA max.)	
Distortion	< 3.0%	
Ethernet	RJ-45 port, TCP/IP	
Microphone:		
Input Level	10mV - 150mV p-p	
Input Impedance	10k Ohms	
Input Jack	XLR Male	
Type	Dynamic	
Speaker:		
Power	1 watt	
Impedance	8 Ohms	
Audio Interface:		
Audio Output	Balanced 600 Ohms	
Audio Input	Balanced 600 Ohms	
Decode Sensitivity	< 8-10 dBc S/N or 12 dBc SINAD	
Relay Outputs	2A at 30VDC / 0.5 at 120VAC	
Dimensions H x W x D:		
Desk Mount	3.59" x 11.59" x 9.53" 91.8 mm x 294.4 mm x 242.1 mm	
3U Rack Mount	5.19" x 19" x 10.10" 131.8 mm x 482.6 mm x 256.5 mm	
Shipping Weight: Desk Mount	6 lbs	3 kg
Shipping Weight: Rack Mount	8 lbs	4 kg

* The SS2000+ Power Supply can be ordered with a US 120VAC or UK/EU 240VAC Power Cables, see description models.

HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Considerations for system configuration:

Description	Part Number
Desk mount Local Activation Point, US	SS2000+
Rack Mount Local Activation Point, US	SS2000+R
Desk Mount Local hardware activation point,	EU SS2000+EU
Desk Mount Local hardware activation point,	UK SS2000+UK
Noise Canceling Microphone	MNC-MNS 1
CommanderOne Cloud Service	Commander1LE

REPLACEMENT PARTS

Description	Part Number
SS2000+ Power Supply with US Cable	Q-SSPWR
UK 240VAC Power Cable ²	Q17501252A
EU 240VAC Power Cable ²	Q17501253A
SS2000+ Kenwood Radio Cable	Q17500863-01

¹ Noise canceling microphone model MNC-MNS replaces the microphone on early revision models of SS2000+. Model MNC-MNS is supervised for compatibility with UL2572.

² While there are no EU/UK rack mount models, the rack mount SS2000+R can be ordered with the appropriate replacement power cable, if needed.



Model I-IP15

▶ 15W IP-enabled Speaker

The Informer15 Speaker is a 15-watt, IP-enabled indoor and outdoor speaker. The Informer15 can be used as a warning and alert device with both audible and visual indicators. The audible capabilities include locally stored high-quality, high-powered tones and voice messages. The visual indicators include the use of message board/scrolling display sign support, strobes, lights, and beacons. The Informer15 can be equipped with up to four local initiation devices (switches) to activate the unit locally and to the Commander® controller for mass notification communications.

The Informer15 Speaker has an internal 15-watt amplifier/driver to deliver tone warnings and intelligible voice messages from Informer15 stored memory. The Informer15 also has several unique capabilities when working with the Federal Signal Commander software. Using Commander software, the Informer15 can play text-to-speech, stream WAV files or can broadcast live PA. In addition, Commander software can perform a talk/listen to individual Informer15's to allow call box type communications. The Informer15 also has remote volume control for optimizing sound levels across your alerting area. The remote volume control also includes an ambient-noise-monitoring capability to automatically adjust volume depending on external noise levels.

The Informer15 allows connection of up to four external switches to activate predefined alert events. The Informer15 can be programmed and configured as a standalone device to only use the inputs to activate the Informer15. This may be useful if the location has no network connectivity, but where voice and tone alerts from locally activated inputs is required. The Informer15 can be networked later and the activations can be brought into the Commander system for full system capability. When the Informer15 is networked using the Commander software, alerts initiated at the Informer15 can be used to activate other devices. The Commander software system can also alert emergency personnel via email, SMS, and hand-held radios using optional messaging software.

The Informer15 includes one output to control the visual indicator and output to activate external relay, which can be used to control external devices. The Informer15 has two 1/2-inch NPT opening on the bottom of the speaker for simple installation of pipe-mount devices. The openings allow access to LAN, open collector output, and activation inputs. The Commander system allows multiple configurations for activation of the open collector output or visual indicator during alerts.

The Informer15 is designed for outdoor use and large indoor structures. It is powered from the local switch through PoE+ (802.3 at) All wiring interfaces are accessible via internal connectors and built-in NPT entrances for quick and easy installation.

A P P L I C A T I O N S

- Indoor/outdoor locations
- Loud industrial facilities
- Muster or call stations
- Weather alerting
- Campus or school alerting
- Food processing locations
- For use with video security systems
- Plant wide alerting System
- Plant wide Live-PA announcements
- Modbus TCP Enabled



Scan to download the Informer15 Application Note

15W IP-enabled Speaker (I-IP15)



FEATURES

- Outdoor or indoor IP-enabled speaker for audible and visual alerts
- Speaker rated at 112 dB for tones and 107 dB for pink noise at 10 feet
- Seven standard built-in warning signals: Wail, Steady, Alternate Wail, Alternate Steady, Pulsed Wail, Pulsed Steady, Auxiliary Chime
- Broadcasts live voice, text-to-speech, and pre-recorded voice or tone files
- Deliver intelligible voice messages from locally pre-recorded files
- Pre-recorded files: up to 4000 messages with 17 hours of recording time
- Ambient-noise-level monitoring with automatic volume control
- Alerts can be sent to single devices, groups or zones, or all devices
- Wall mount
- Four local alarm initiation inputs to activate unit locally or stand alone operation Momentary mode: contact closure sounds alarm for programmed duration. Continuous mode: sounds alarm for duration of closure.
- One open collector output paired with 24VDC for controlling an external relay
- High-intensity LED light that can be activated independently or with messages
- Models available with white, red, amber, blue, and green LEDs
- Wide variety of flash patterns
- Power over Ethernet using 802.3at PoE+ 25.5 W
- Wide operating temperature range
- US/Canadian ETL Listed to UL Std 60065
- Complies with FCC Title 47, Part 15

ADDITIONAL

Network Commander only Features:

- Each device can be remotely configured for volume and noise-level adjustments
- Speaker as microphone for talk-back feature
- Federal Signal Commander software provides activation, full two-way control, and status monitoring
- Allows remote software upgrades

SPECIFICATIONS

- Input Voltage: Power over Ethernet (PoE+ 802.3at)
- Input Current Draw: PoE+ 25.5 W
- Alarm initiating inputs: Four optically Isolated Inputs
- Audio Storage: Prerecorded files – up to 4000 messages with up to 17 hours of recording time
- Operating temperature range: -22°F to +149°F
-30°C to +65°C
- Dimensions: 13.9" x 10.2" x 10.0"
35.3 cm x 25.9 cm x 25.4 cm
- Shipping Weight: Desk Mount 6.19 lbs 2.81 kg

HOW TO ORDER

Description	Part Number
15W IP-enabled speaker with White LED	I-IP15-W
15W IP-enabled speaker with Red LED	I-IP15-R
15W IP-enabled speaker with Blue LED	I-IP15-B
15W IP-enabled speaker with Amber LED	I-IP15-A
15W IP-enabled speaker with Green LED	I-IP15-G

Commander is a registered trademark of Federal Signal Corporation.



Model I-IP15X

► Informer15 IP-enabled 15 W Hazardous Location Speaker

The Informer15 Speaker is a 15-watt, IP-enabled indoor and outdoor speaker. The Informer15 can be used as a warning and alert device with both audible and visual indicators in hazardous locations. The audible capabilities include locally stored high-quality, high-powered tones and voice messages. The visual indicators include the use of external devices* such as: message board/scrolling display sign support, strobes, lights, and beacons. The Informer15 can be equipped with up to four local initiation devices (external switches*) to activate the unit locally and to the Commander® controller for mass notification communications.

The Informer15 Speaker has an internal 15-watt amplifier/driver to deliver tone warnings and intelligible voice messages from Informer15 stored memory. The Informer15 also has several unique capabilities when working with the Federal Signal Commander software. Using Commander software, the Informer15 can play text-to-speech, stream WAV files or can broadcast live PA. In addition, Commander software can perform a talk/listen to individual Informer15's to allow call box type communications. The Informer15 also has remote volume control for optimizing sound levels across your alerting area. The remote volume control also includes an ambient-noise-monitoring capability to automatically adjust the volume depending on external noise levels.

The Informer15 allows connection of up to four external switches to activate predefined alert events. The Informer15 can be programmed and configured as a standalone device to only use the inputs to activate the Informer15. This may be useful if the location has no network connectivity, but where voice and tone alerts from locally activated inputs is required. The Informer15 can be networked later and the activations can be brought into the Commander system for full system capability. When the Informer15 is networked using the Commander software, alerts initiated at the Informer15 can be used to activate other devices. The Commander software system can also alert emergency personnel via email, SMS, and hand-held radios using optional messaging software.

A P P L I C A T I O N S

- Indoor/outdoor locations
- Loud industrial facilities
- Muster or call stations
- Weather alerting
- Industrial hazardous locations
- Food processing locations
- For use with video security systems
- Plant wide alerting System
- Plant wide Live-PA announcements
- Modbus TCP enabled

HAZARDOUS LOCATION RATING: I-IP15X

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C	65°C	
Hazardous Location	Constant on	5 min. Duty Cycle
Class I, Division 2, Groups A, B, C, D	T2B	T3A
Class II, Division 2, Groups F, G	T6	T6
Class III	T6	T6



Scan to download the Informer15 Application Note

Informer15 IP-enabled 15 W Hazardous Location Speaker (I-IP15X)



FEATURES

- Outdoor or indoor IP-enabled speaker for audible and visual alerts
- Speaker rated at 112 dB for tones and 107 dB for pink noise at 10 feet
- Seven standard built-in warning signals: Wail, Steady, Alternate Wail, Alternate Steady, Pulsed Wail, Pulsed Steady, Auxiliary Chime
- Broadcasts live voice, text-to-speech, and pre-recorded voice or tone files
- Deliver intelligible voice messages from locally pre-recorded files
- Pre-recorded files: up to 4000 messages with 17 hours of recording time
- Ambient-noise-level monitoring with automatic volume control
- Each device can be remotely configured for volume and noise-level adjustments
- Speaker as microphone for talk-back feature
- Alerts can be sent to single devices, groups or zones, or all devices
- Wall mount
- Four local alarm initiation inputs to activate unit locally or standalone operation
- Momentary mode: contact closure sounds alarm for programmed duration. Continuous mode: sounds alarm for duration of closure
- One open collector output paired with 24VDC for controlling an external relay
- High-intensity LED light that can be activated independently or with messages
- Models available with white, red, amber, blue, and green LEDs
- Wide variety of flash patterns
- Power over Ethernet using 802.3at PoE+ 25.5 W
- Wide operating temperature range
- Federal Signal Commander software provides activation, full two-way control, and status monitoring
- Allows remote software upgrades
- NEMA 4x enclosure
- UL and cUL listed for class1, Division 2; Class II, Division 2; Class III locations
- Complies with FCC Title 47, Part 15

SPECIFICATIONS

- Input Voltage: Power over Ethernet (PoE+ 802.3at) requires 25.5W
- Input Current Draw: PoE+ 25.5 W
- Alarm initiating inputs: Four optically Isolated Inputs
- Audio Storage: Prerecorded files – up to 4000 messages with up to 17 hours of recording time
- Operating temperature range: -22°F to +149°F
-30°C to +65°C
- Dimensions: 13.9" x 10.2" x 10.0"
35.3 cm x 25.9 cm x 25.4 cm
- Shipping Weight: Desk Mount 6.19 lbs 2.81 kg

* External devices must be rated for use in hazardous locations.

HOW TO ORDER

Description	Part Number
15W IP-enabled speaker with White LED	I-IP15X-W
15W IP-enabled speaker with Red LED	I-IP15X-R
15W IP-enabled speaker with Blue LED	I-IP15X-B
15W IP-enabled speaker with Amber LED	I-IP15X-A
15W IP-enabled speaker with Green LED	I-IP15X-G

Commander is a registered trademark of Federal Signal Corporation.



► Model I-IP-IO and I-IPW Series B

Informer-IP, Two-Way IP-enabled Intercom and Alarm Initiation Point

Federal Signal's long-standing Informer is now IP-enabled. The Informer-IP Series B can be used as a warning device, a two-way intercom and an alarm initiation point that connects to the Commander® On-Premise System. The B model of the Informer-IP removes support of the key fob and adds the ability to store pre-recorded messages on a removable micro SD card.

The Informer-IP's internal speaker microphone provide clear two-way intercom voice communications. Incoming warnings and alerts can be live voice, pre-recorded messages or tone files. Two different predefined alert events can be triggered from the Informer-IP Series B. Alert messages initiated from the Informer-IP Series B can be sent to emergency personnel via e-mail, text messages, phone, handheld radios; and can also be used to activate other Informer units and sirens.

The Informer-IP Series B features an audio output for connecting public address systems, two relay outputs for controlling strobes or other devices, and an RS232 port for driving a scrolling message display in order for the same message that is heard over the speaker to simultaneously be viewed on the display. The Informer-IP provides the same tone and voice alerts available with Federal Signal's UltraVoice™ outdoor siren controllers for seamless indoor and outdoor mass notification.

The Informer-IP I-IP-IO model is designed for desktop use. Power options include an external AC transformer or PoE (Power over Ethernet). All wiring runs to accessible connectors on the back of the unit for quick and easy installation.

Also available is the Informer-IPW, which is designed to be wall mounted or recessed into the wall. All wiring is contained within an aluminum case and five pre-punched, easy-to-remove conduit holes are available to facilitate wiring connections into and out of the unit. The case has top mounting holes and is pre-wired for the LP1 strobe option.

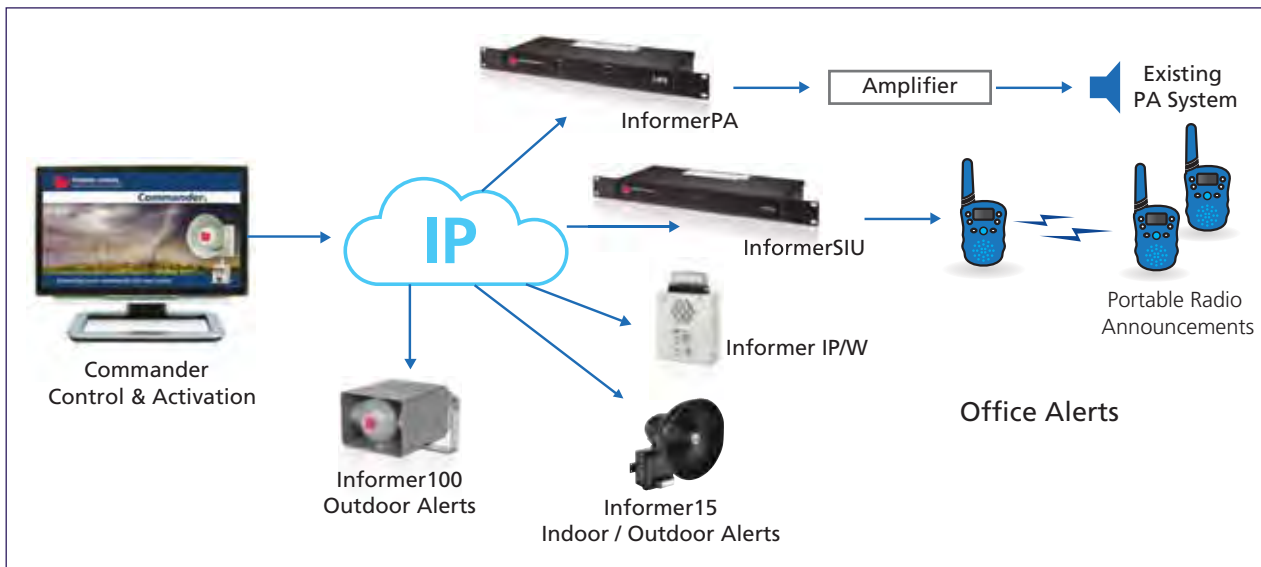
Schools, hospitals, police and fire stations, government facilities and industrial plants will find that the Informer-IP provides an unmatched value for their indoor alerting and notification needs.

F E A T U R E S

- Two-way alerting and intercom capabilities
- Power over Ethernet (PoE) or AC powered
- Internal speaker rated at 80 dB @ 10-ft
- Receives live voice, text-to-speech and prerecorded voice or tone files
- Up to 4000 tone/voice messages via removable micro SD card
- Can be used as activation device
- Desk or wall mount models
- Panic button alarm
- US ETL Listed to UL Std 60065
- Canadian ETL Listed to UL Std 60065 for I-IPWB only

*Support for the I-Keyfob has been discontinued.

Informer-IP, Two-Way IP-enabled Intercom and Alarm Initiation Point (I-IP-IO and I-IPW Series B)



SPECIFICATIONS

- Tone and voice compatible with Federal Signal UltraVoice controllers
- Up to 4000 tone and/or voice messages via removable micro SD card
- Wired Ethernet, can be powered via PoE
- Input: 115 to 230VAC, 50/60Hz, 350mA maximum (I-IPWB) nominal 120VAC 60Hz (I-IP-IO)
- 80 dB speaker with adjustable volume control
- Speaker provides audio and microphone for two-way communications
- RS232 port for driving an optional Scrolling Message Display
- Two programmable relay outputs for controlling strobe lights or other devices (pre-wired for LP1 Strobe, I-IPWB)
- 600 Ohm audio output ties into existing PA, or external speaker
- Works with redundant Commander networking for reliable fail safe operation
- Complies with FCC Title 47, Part 15 and UL 60065
- I-IPWB complies with CAN/CSA-C22.2 No. 60065
- Commander software provides control and status monitoring of the Informer-IP.



A flush mount kit is included for recessed applications as shown.

HOW TO ORDER

Description	Part Number
Informer-IP Desk Mount	I-IP-IO
Informer-IP Wall Mount	I-IPW
Informer-IP requires Federal Signal Commander application software	
There is a programming fee associated with Informer-IPs programmed at the factory. Contact your local representative for a quotation.	

OPTIONAL ACCESSORIES

Description	Part Number
Informer-IP Setup Wizard Software & Cable	I-IP-SW
Yellow Station with Momentary Contact – “EVACUATION”	PSEV-YM
Yellow Station with Momentary Contact and Sounder Cover – “EVACUATION”	PSEVSC-YM
Red Station with Momentary Contact – “EMERGENCY”	PSEM-RM
Red Station with Momentary Contact and Sounder Cover – “EMERGENCY”	PSEMSC-RM
12VDC Strobe (can be powered by internal power supply for I-IPWB)	LP1-012*

* (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red (I-IPW only)

Commander is a registered trademark of Federal Signal Corporation.



▶ Model I-IP2 Series B

Dual Rack Mount Informer-PA for Public Address Interface

Federal Signal's Intelligent Systems now includes an interface to public address systems. Model I-IP2 Series B provides two Informer-PA modules in a single rack unit (1RU) enclosure for interfacing with public address systems. The Informer-PA creates the same alert communications provided over the outdoor systems. Informer-PA, when paired with the Commander® control system, offers the same level of security available with all Federal Signal control systems.

The Model I-IP2 Series B has two independent Informer-PA interfaces with 600 Ohm adjustable audio output. Informer-PA can store up to 4,000 messages / 17 hours of pre-recorded tone/voice alerts. In addition, each Informer-PA provides dual relay output for control of external devices; such as, zones for PA systems, or visual indicators. Additionally, I-IP2 has an RS-232 port to drive message boards for scrolling message displays.

The I-IP2 Informer-PA is a compact 19" 1RU rack mount, wall or desk mount unit. Power is supplied via PoE for each Informer-PA interface. Optional power can be supplied via wall transformer. Power indicators on the faceplate are provided for status monitoring. All wiring is via connectors on the rear of the unit for quick and easy installation.

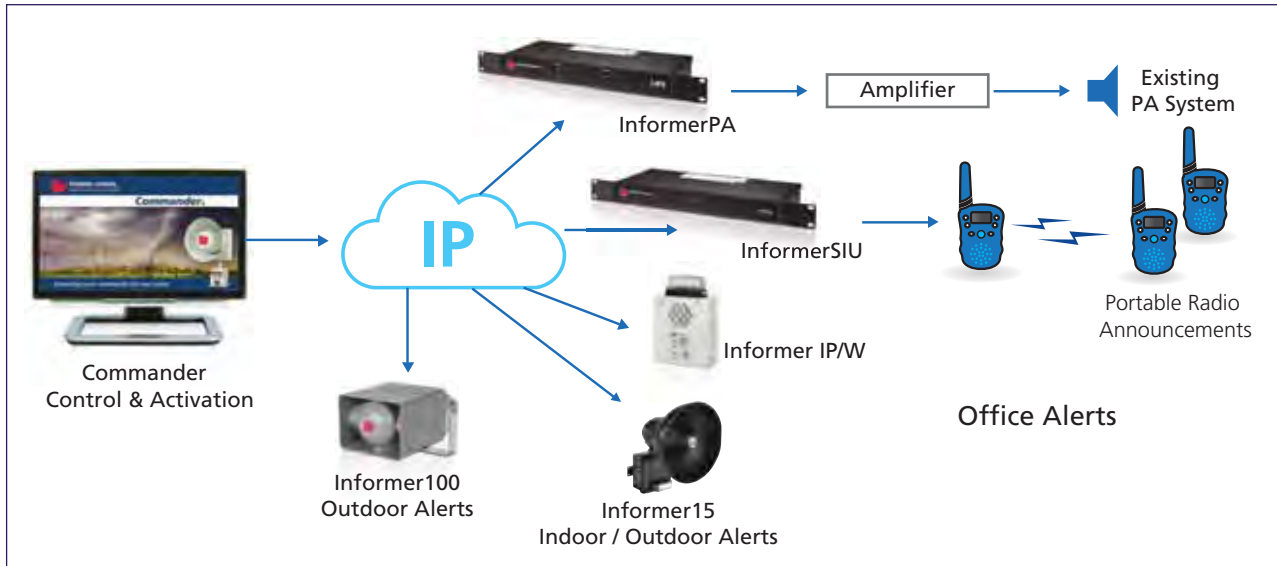
The Informer-PA communicates with the Federal Signal Commander® system for control of warning messages, live PA and pre-recorded messages. The device can be paired with outdoor and indoor units to create a wide area notification system.

This unit is ideal for schools, hospitals, commercial buildings, police and fire stations, government facilities, ports and industrial plants intelligent system applications.

FEATURES

- Dual Public Address Interface
- Multi-functional communication capabilities featuring live voice, text to speech, and prerecorded voice or tone files
- Integrated with Federal Signal's Indoor/Outdoor Alerting Systems
- Up to 4,000 tone/voice messages via removable micro SD card
- Web or mobile based activation with CommanderOne
- 19" rack mount
- Rack, wall or desk mount
- US and Canadian ETL Listed to UL Std 60065
- CAN/CSA-C22.2 No. 60065

Dual Rack Mount Informer-PA for Public Address Interface (I-IP2 Series B)



SPECIFICATIONS

- Tone and voice compatible with Federal Signal UltraVoice controllers
- Small size with rugged construction
- Wired Ethernet, powered via PoE (can also be powered with 120VAC 60Hz wall transformer)
- Up to 4,000 tones/voice messages via removable micro SD card
- LED status indicators for Power
- Input for amplifier fault alarm
- RS232 port for driving an optional Scrolling Message Display
- Two programmable relays for control of external devices
- Two Relay Outputs rated at 5 Amps @ 30VDC.
- 600 Ohm audio output ties into existing PA, or external speaker
- IP addressable, can be activated individually or zoned in groups or all-call
- Requires minimal network bandwidth and uses TCP/IP protocol
- Works with redundant network servers for reliable failsafe operation
- US and Canadian ETL Listed to UL Std 60065
- CAN/CSA-C22.2 No. 60065
- Federal Commander software provides full two-way control and status monitoring of the Informer-PA
- Shipping Weight: 4.0 lbs 1.8 kg

HOW TO ORDER

Description	Part Number
Dual Rack/Wall/Desk Mount Informer PA	I-IP2
Intelligent Systems Products	
Note: Informer-I-IP2 requires Federal Signal's Commander software. Other products for an intelligent system include:	
Informer-IP Desk Mount	I-IP-IO
Informer-IP Wall Mount	I-IPW
Informer100 24VDC 100-watt speaker	I-IP100DC
Informer100 120/240VAC 100-watt speaker	I-IP100AC

ACCESSORIES

Description	Part Number
Scrolling Message Display	I-SMD2-36
Rack Mount Amplifier (2 channel 120-watt/ch)	X-SPA2120
Ceiling Speaker, 6" round, 24/70V, includes tile bridge and back box	AMR6-2570K
Wall Speaker, 30 watt, swivel mount	AM300

Commander is a registered trademark of Federal Signal Corporation.



► Model I-IPSIU Series B

Informer Sensor Interface Unit

The Informer I-IPSIU Series B provides multiple input/output interfaces to Federal Signal's alert and notification system. It can also interface to radio systems for voice message broadcast. The I-IPSIU Series B is a network device with a 10/100 LAN interface, local digital voice messages, relay outputs and inputs for initiating devices; additionally, it stores local digital messages and programming information managed by Federal Signal Commander® control software. The new B models of the Informer SIU adds the ability to store pre-recorded messages on a removable micro-SD card.

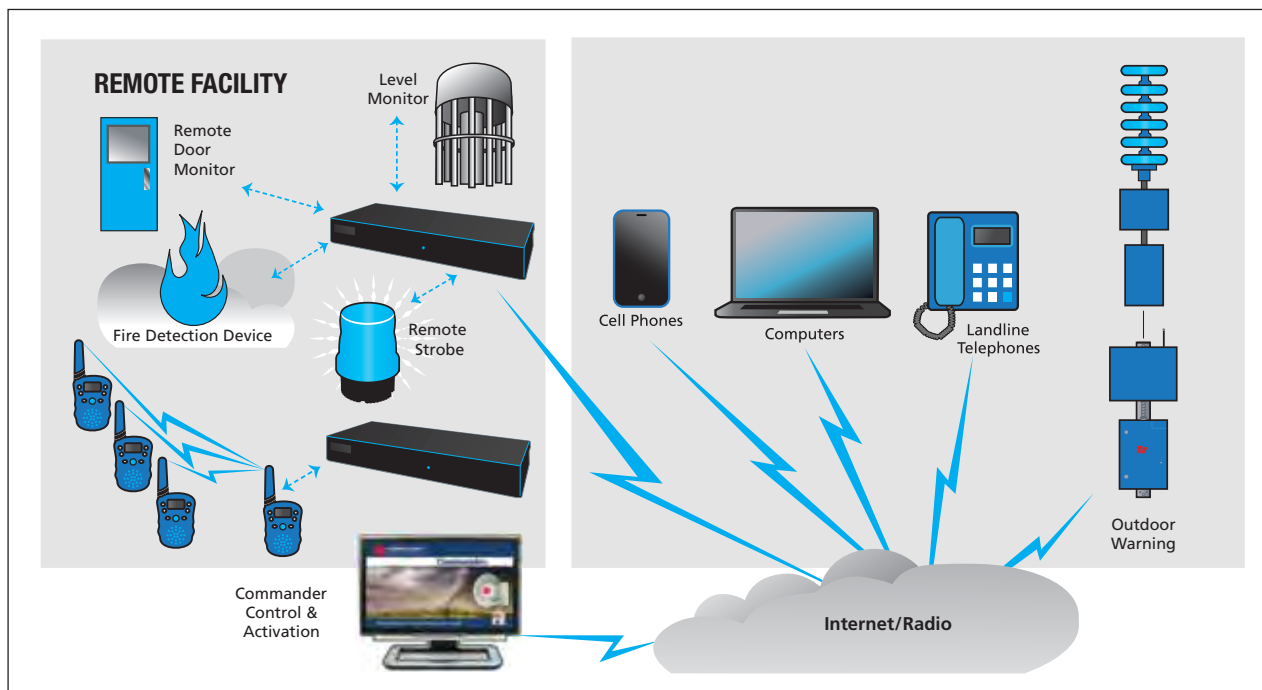
An Informer I-IPSIU Series B can interface initiating devices to activate pre-determined messages or alerts within a mass notification system. The Informer I-IPSIU Series B can also interface to radio systems to push digital voice messages over radio systems. This allows the same digital voice messages sent over giant voice systems to also be played over radio systems. The Informer I-IPSIU Series B provides status monitoring and alarm information. Each Informer I-IPSIU Series B has four independent relays with normally open and normally closed contacts to control external devices such as access control systems, strobes, lights, sounders. An RS232 interface allows interface of digital message displays. The Informer I-IPSIU Series B also has 16 inputs which can be used to activate a broad range of capabilities.

The Informer I-IPSIU Series B is an ideal solution for large industrial complexes, healthcare facilities, schools, university campuses, office buildings, municipal facilities and other intelligent system applications.

FEATURES

- Ability to add external I/O interfaces to a Federal Signal Intelligent system or alerting and notification system
- 16 inputs to allow activation of messages or pre-programmed alerts or notifications
- Four output relays to control access controls systems, locks, lights, flashers, speakers, sirens, evacuation systems, etc.
- Power over Ethernet (PoE) or AC Powered
- Radio interface for digital voice messages-to-radio communications (radio sold separately)
- 19" rack mount, wall or desk mount
- Compact size supports ease of deployment
- Tone and voice alerts compatible with Federal Signal UltraVoice controllers
- Small size with rugged construction
- Wired Ethernet, can be powered via PoE
- LED status indicator for power and connectivity
- RS232 port for driving an optional Scrolling Message Display
- Units are IP addressable individually, in groups or all at once
- Requires minimal network bandwidth and uses TCP/IP protocol
- Works with redundant Commander networks for reliable fail-safe operation
- Federal Commander software provides full two-way control and status monitoring of the Informer-IP. Commander is Windows 7®, Windows® Server 2012 and Windows® Server 2016 compatible
- UL and cUL Listed

Informer Sensor Interface Unit (I-IPSIU Series B)



SPECIFICATIONS

Output: 4 N.O./N.C relays with Maximum Voltage 250VAC/30VDC maximum current 10A
Wire size 16-26 AWG

Input: 16 – surge protected, optically-isolated inputs
Wire size 16-24 AWG

Physical Dimensions: 1.7" (H) x 14.0" (W) x 6.4" (D)
43.5mm x 355.6mm x 163.6mm

Weight: 2.5 lbs / 1.1 kg

Shipping Weight: 4 lbs / 1.8 kg

Operating Temperature: -22°F to +140°F / -30°C to +60°C

Humidity: 0 – 95%, non-condensing

HOW TO ORDER

Description	Part Number
I-IPSIU Sensor Interface Unit (Includes 19" rack mount and wall mounting)	I-IPSIU

OPTIONAL ACCESSORIES

Description	Part Number
Informer-IP Setup Wizard Software & Cable	I-IP-SW
Yellow Station with Momentary Contact – "EVACUATION"	PSEV-YM
Yellow Station with Momentary Contact and Sounder Cover – "EVACUATION"	PSEVSC-YM
Red Station with Momentary Contact – "EMERGENCY"	PSEM-RM
Red Station with Momentary Contact and Sounder Cover – "EMERGENCY"	PSEMSC-RM

Description

Vertex VX-4500/2100 cable goes directly to the I-IPSIUB without the need for a Universal Adapter Cable (17501574A)

Part Number

17501602A
17501574A

Available radio interface cable options (one per radio required)

I-IPSIUB Universal Adapter Cable	17501574A
Motorola XTN/CP200/BPR40	864700073A
Motorola HT 1000, XTS 5000	864700074A
Kenwood (TK2170, TK2302V, NX-240V, NX-340U)	864700075A
BENDIX KING	864700076A
Motorola HT 1250 & Compatible	864700077A
Icom F11S	864700078A
Motorola CDM 750/1550/CM200/CM300 LS/PM400	864700080A
Motorola Turbo XPR6550, APX7000 & Compatible	864700081A
Motorola XPR 4550, ALL XPR Mobile	864700082A
Motorola MCS 2000 DB25 Rear Connector	864700083A
MACOM M7100	864700084A
MACOM M7300	864700085A
Kenwood TK-480, TK-5320	864700086A
MACOM P7100 SERIES, MC-1527 PRYME	864700087A
Kenwood TK5810	864700103A
Kenwood TK790	864700104A
Motorola Astro XTL 1500, 2500, 5000, APX7500	864700105A
Hirose Plate Assy. w/male female extension	864700136A

Commander is a registered trademark of Federal Signal Corporation.



► Model I-IP100AC and I-IP100DC

Informer100 Speaker

Federal Signal's Informer product line now includes an IP-enabled high-powered outdoor speaker. The Informer100 Speaker can be used as a notification device using tones and/or voice. Pair this model with a Federal Signal Commander® system for additional capabilities; for instance, it can be equipped with up to four local alarm initiation devices to activate the unit locally and to activate the Commander controller for mass notification communications.

The Informer100 Speaker has an internal 100 watt amplifier and driver to deliver intelligible voice messages from pre-recorded files or from the Federal Signal Commander VOIP network system. Ambient Level Monitor enables speaker to automatically adjust speaker volume in relationship to ambient noise level. It also has remote volume control for optimizing sound levels across your alerting area.

Notifications and alerts can be live voice, text-to-speech, pre-recorded messages and/or tone files. When used with optional notification software, alert messages initiated from the Informer100 Speaker can be sent to emergency personnel via email, SMS, hand-held radios; and can also be used to activate other Informer units and sirens.

Informer100 Speaker includes two relay outputs for controlling strobes or other devices. It's designed for outdoor use or large indoor structures; and available in 24VDC or 120/240VAC. All wiring interfaces accessible via internal connectors for quick and easy installation.

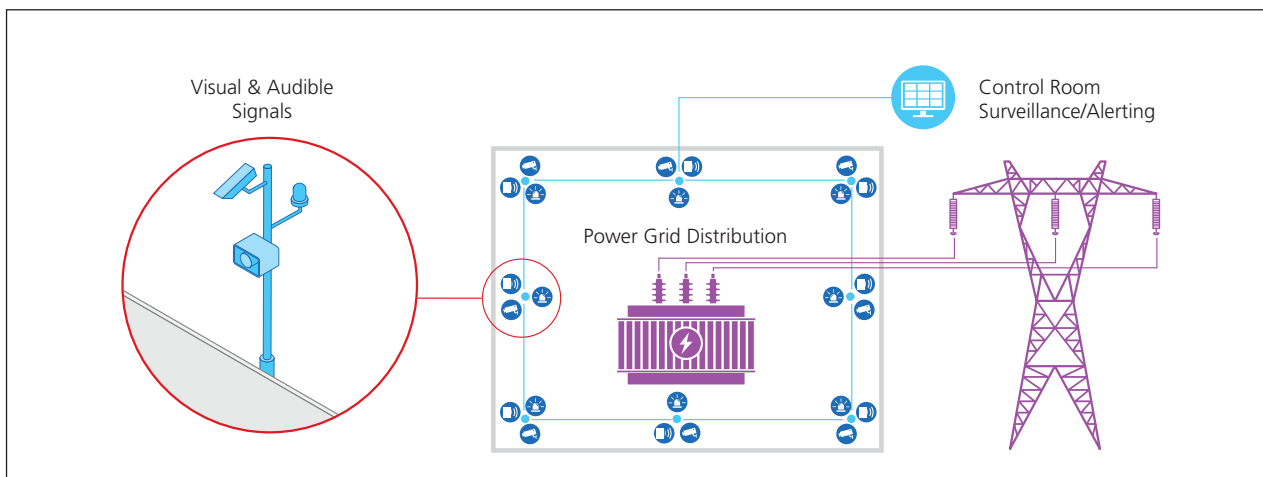
The Informer100 Speaker is an ideal solution for existing notification systems where lack of coverage exists and the unit can be used as a call station where emergency alert buttons are required.

FEATURES

- Indoor/Outdoor IP enabled speaker with high powered voice and tone
- Available in 24VDC or 120/240VAC
- Ambient SPL monitor with automatic volume control
- Remote volume control
- Broadcasts live voice, text-to-speech and prerecorded voice or tone files
- Integral 100 watt amplifier and Ethernet interface simplifies installation
- Optional scrolling message display
- Remote firmware updates over Ethernet
- 15 minute audio storage, with up to 250 .WAV files
- Fully supervised using Commander software
- Wall or pole mount available
- Four initiation inputs, i.e. Panic button alarm or non-networked stand alone mode
- Optional visual LED or strobe alerting devices available*
- NEMA 4X outdoor rated
- UL and cUL Listed
- UL Marine Rated

* Must use visual device rated 2A or less

Informer100 Speaker (I-IP100AC and I-IP100DC)



SPECIFICATIONS

- Operating Temperature: -40°F to 104°F / (-40°C to 40°C)
- Two Relay Outputs rated at 8A @ 240VAC. Relay outputs can be programmed to cycle on and off, or come on continuously with the on time, off time, and total-time being programmable. They can also be programmed to control strobe lights or other devices
- Tone and voice compatible with Federal Signal Commander and UltraVoice controllers (Requires Commander version 14.8.x or higher)
- Small size with rugged construction
7" x 9" x 10" (178 mm x 229 mm x 254 mm)
- Input: 24VDC, 5.15A maximum 120/240VAC, 50/60Hz, 1.5A/.78A maximum
- Maximum Sound Pressure Level 120 dB (± 2 dB) @ 1' (130 dB (± 2 dB) @ 1 m)
- Wired Ethernet
- Adjustable volume control and ambient noise monitoring with auto-level adjustment
- Wall or pole mount options
- Up to four direct wire input for customer supplied panic button alarm
- Requires minimal network bandwidth and uses TCP/IP protocol
- Works with redundant Commander network servers for reliable fail-safe operation
- Federal Signal Commander software provides full two-way control and status monitoring of the Informer100
- I-IP100DC Net Weight: 16.2 lbs 7.35 kg
- I-IP100AC Net Weight: 19.2 lbs 8.71 kg

HOW TO ORDER

Description	Part Number
24VDC 100 watt wall mount	I-IP100DC
120/240VAC 100 watt wall mount	I-IP100AC
Small (6" or less) Pole Mount Bracket	I-IP100-PM
Large (over 6") Pole Mount Bracket	I-IP100-PMW
Omni Directional Option for IP Speaker	I-IP100-OMNI
Informer100 Speaker requires Federal Signal Commander application software (sold separately)	
Informer100 Speaker can be field configured or factory pre-configured to customer requirements. Contact your local representative for a quotation.	

OPTIONAL ACCESSORIES

Description	Part Number
Indoor Yellow Station – Push & Turn Reset Button "EVACUATION"	PSEV-Y
Indoor Yellow Station – Push & Turn Reset Button "EVACUATION"; with Sounder Cover	PSEVSC-Y
Indoor Red Station – Push & Turn Reset button "EMERGENCY"	PSEM-R
Indoor Red Station – Push & Turn Reset button "EMERGENCY"; with Sounder Cover	PSEMSC-R
4-button push station (Indoor)	PBS-4
Hazardous Location LED Light 24VDC	225XL-024X^{1,2}
Hazardous Location LED Light 120-240VAC	225XL-120-240X^{1,2}

¹ "X" Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green, and (R) Red

² The light is powered from the same source as the speaker

SERVICE PARTS

Description	Part Number
IP Controller Service Part	Q-20000314
AC Speaker Service Part	Q-IP100AC
DC Speaker Service Part	Q-IP100DC

Commander is a registered trademark of Federal Signal Corporation.



► Model I-IP100ACX and I-IP100DCX

Hazardous Location Informer100 Speaker

Federal Signal's Informer product line now includes an IP-enabled high-powered outdoor speaker. The Informer100 Speaker can be used as a notification device using tones and/or voice. Pair this model with a Federal Signal Commander® system for additional capabilities; for instance, it can be equipped with up to four local alarm initiation devices to activate the unit locally and to activate the Commander controller for mass notification communications.

The Informer100 Speaker has an internal 100 watt amplifier and driver to deliver intelligible voice messages from pre-recorded files or from the Federal Signal Commander VOIP network system. Ambient Level Monitor enables speaker to automatically adjust speaker volume in relationship to ambient noise level. It also has remote volume control for optimizing sound levels across your alerting area.

Notifications and alerts can be live voice, pre-recorded messages and/or tone files. When used with optional notification software, alert messages initiated from the Informer100 Speaker can be sent to emergency personnel via email, SMS, hand-held radios; and can also be used to activate other Informer units and sirens.

Informer100 Speaker includes two relay outputs for controlling strobes or other devices. It's designed for outdoor use or large indoor structures; and available in 24VDC or 120/240VAC. All wiring interfaces accessible via internal connectors for quick and easy installation.

The Informer100 Speaker is an ideal solution for existing notification systems where lack of coverage exists and the unit can be used as a call station where emergency alert buttons are required. The AX models include an updated NIC to improve connection time, device password management and network set-up.

FEATURES

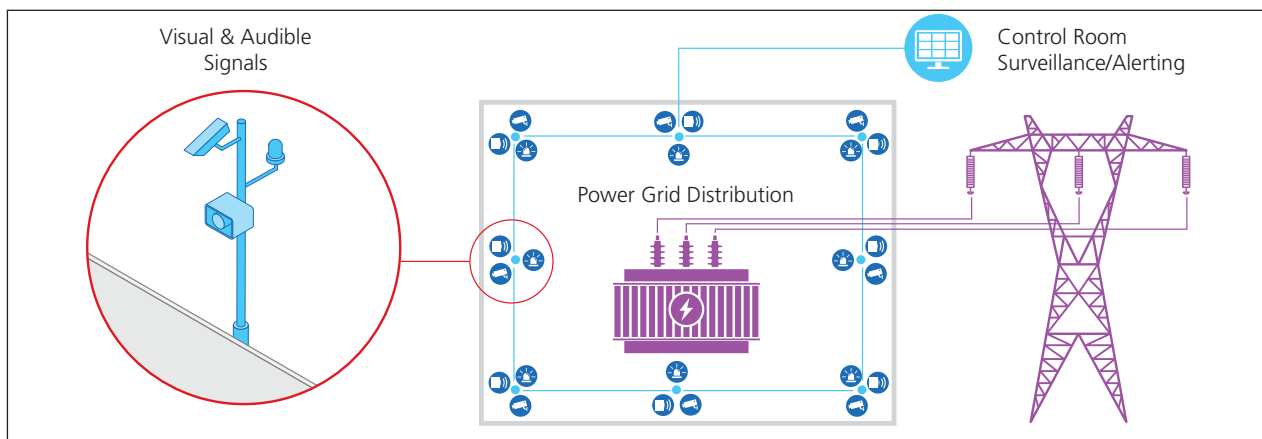
- Indoor/Outdoor IP enabled speaker with high-powered voice and tone
- Available in 24VDC or 120/240VAC
- Ambient SPL monitor with automatic volume control
- Remote volume control
- Broadcasts live voice, text-to-speech and prerecorded voice or tone files
- Integral 100-watt amplifier and Ethernet interface simplifies installation
- Optional scrolling message display
- Remote firmware updates over Ethernet
- 15 minute audio storage, with up to 250 .WAV files
- Fully supervised using Commander software
- Wall or pole mount available
- Four initiation inputs, i.e. Panic button alarm or Non-Networked stand alone mode
- Optional visual LED or strobe alerting devices available*
- NEMA 4X outdoor rated
- UL and cUL Listed for Class I, Division 2; Class II, Division 2; Class III
- UL Marine Rated

* Must use visual device rated 2A or less, and must be rated for use in a Hazardous Location

HAZARDOUS LOCATION RATING: I-IP100ACAX and I-IP100DCAX

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C	
Hazardous Location	40°C
Class I, Division 2, Groups A, B, C, D	T5
Class II, Division 2, Groups F, G	T6
Class III	T6

Hazardous Location Informer100 Speaker (I-IP100ACX, I-IP100DCX)



SPECIFICATIONS

- Operating Temperature: -40°F to 104°F / (-40°C to 40°C)
- Two Relay Outputs rated at 8A @ 240VAC. Relay outputs can be programmed to cycle on and off, or come on continuously with the on time, off time, and total-time being programmable. They can also be programmed to control strobe lights or other devices
- Tone and voice compatible with Federal Signal Commander and UltraVoice controllers (Requires Commander version 14.8.x or higher)
- Small size with rugged construction
7" x 9" x 10" (178 mm x 229 mm x 254 mm)
- Input: 24VDC, 5.15A maximum 120/240VAC, 50/60Hz, 1.5A/.78A maximum
- Maximum Sound Pressure Level 120 dB (± 2 dB) @ 10' (130 dB (± 2 dB) @ 1 m)
- Wired Ethernet
- Adjustable volume control and ambient noise monitoring with auto-level adjustment
- Wall or pole mount options
- Up to four direct wire input for customer supplied panic button alarm
- Requires minimal network bandwidth and uses TCP/IP protocol
- Works with redundant Commander network servers for reliable fail-safe operation
- Federal Signal Commander software provides full two-way control and status monitoring of the Informer100
- I-IP100DCX Net Weight: 16.2 lbs 7.35 kg
- I-IP100ACX Net Weight: 19.2 lbs 8.71 kg

HOW TO ORDER

Description	Part Number
24VDC 100 watt wall mount	I-IP100DCX
120/240VAC 100 watt wall mount	I-IP100ACX
Small (6" or less) Pole Mount Bracket	I-IP100-PM
Large (over 6") Pole Mount Bracket	I-IP100-PMW
Omni Directional Option for IP Speaker	I-IP100-OMNI

Informer100 Speaker requires Federal Signal Commander application software (sold separately)

Informer100 Speaker can be field configured or factory pre-configured to customer requirements. Contact your local representative for a quotation.

OPTIONAL ACCESSORIES

Description	Part Number
Hazardous Location LED light 24VDC	225XL-024X^{1,2}
Hazardous Location LED light 120-240VAC	225XL-120-240X^{1,2}

¹ "X" Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green, and (R) Red

² The light is powered from the same source as the speaker

SERVICE PARTS

Description	Part Number
IP Controller Service Part	Q-20000314
AC Speaker Service Part	Q-IP100AC
DC Speaker Service Part	Q-IP100DC

Commander is a registered trademark of Federal Signal Corporation.



Shown with optional QuadraFlare lights

► Model MOD Series

Modulator® High Powered Omni Speaker

Federal Signal's Modulator® High Powered Speaker Array offers the same proven technology as the original Modulator with the exception of a smaller compact chassis. Modulator provides a flat frequency response up to 2000Hz producing intense warning signals and digital voice messaging over a large area. The Modulator design enables the siren to produce a high sound level and intelligible voice communications.

The innovative omni-directional electronic Modulator speaker array consists of modules that utilize four 100 watt drivers. It also provides clear voice communication and offers warning signals which are produced by Federal Signal's UltraVoice™ electronic controller and amplifier system. Custom tones and professionally recorded voice messages for the UltraVoice controller are available and can be purchased upon request.

The Modulator High Powered Speaker Array combined with the UltraVoice controller is ideal for community/municipal, industrial and military applications where immediate instruction is necessary.

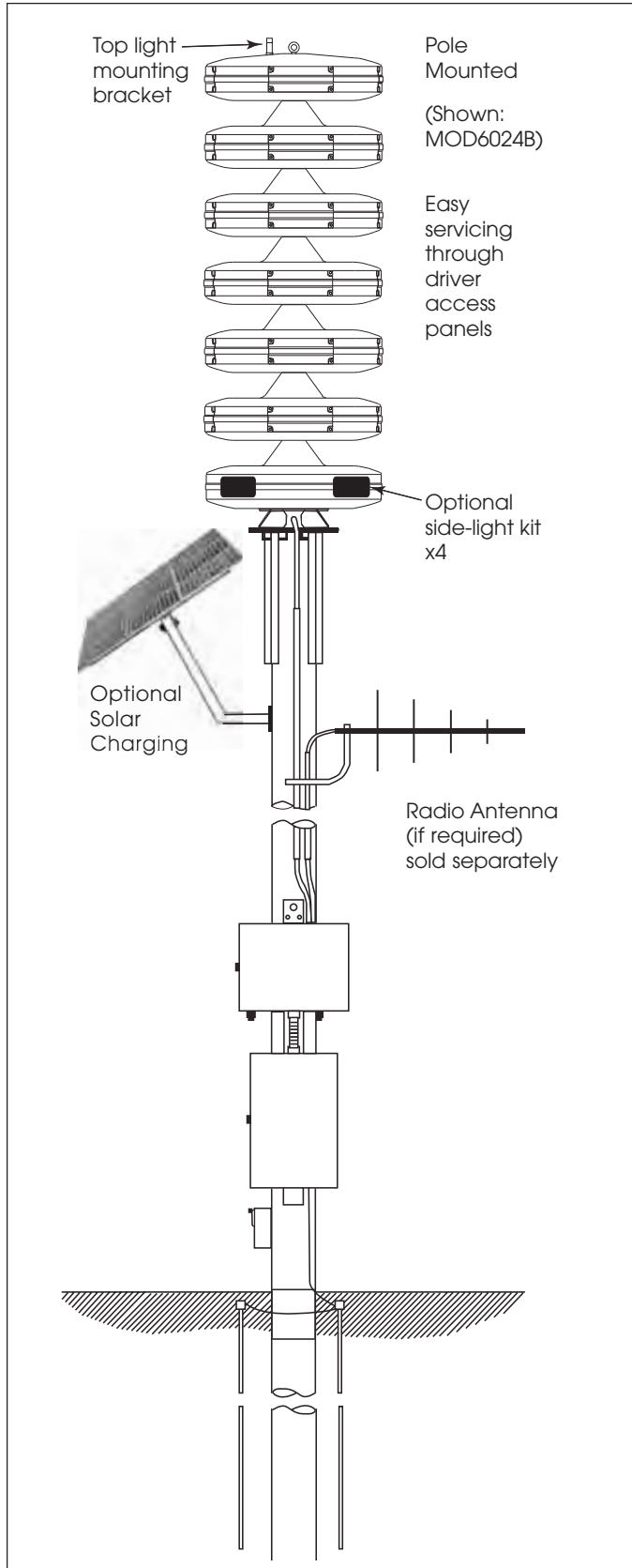
The Modulator and UltraVoice controller can be networked via radio, IP, landline, cellular and/or satellite communications. Powering is available in AC, DC, or solar. The system typically operates from batteries which are charged from either AC or Solar. Federal Signal can also provide customized solutions to fit your special applications.

FEATURES

- Light-weight, compact design
- Utilizes Federal Signal Ultravoicē™ for control and amplification
- Excellent frequency response for clear voice reproduction
- 360° coverage without sound variation in horizontal planes
- Easy servicing through convenient access panels
- Anechoic chamber-certified

MODEL	ACTIVE MODULES	TOTAL WATT	DECIBELS @ 100' 1	EFFECTIVE RANGE @ 70 dBc	HEIGHT IN	MM	NET WEIGHT LBS	KG	SHIPPING WT LBS	KG
MOD1004B	1	400	106 dBc	1,200'	28"	71	125	56.8	264	120
MOD2008B	2	800	112 dBc	1,800'	43"	109.2	190	86.4	294	133.6
MOD3012B	3	1200	115 dBc	2,200'	57"	144.7	255	115.9	444	201.8
MOD4016B	4	1600	118 dBc	2,800'	72"	182.8	320	145.5	544	247.3
MOD5020B	5	2000	120 dBc	3,100'	86"	218.4	385	175	744	338.2
MOD6024B	6	2400	121 dBc	3,400'	101"	256.5	450	204.5	960	436.4
MOD8032B	8	3200	124 dBc	4,200'	130"	330.2	580	263.6	1392	632.7

Modulator® High Powered Omni Speaker (MOD Series)



SPECIFICATIONS

Frequency Response:	200-2000Hz
Color	Off-White
Paint Type	TGIC-polyester powder coat
Modulator Horn Type	Hyperbolic flare
Horizontal Coverage	360° +/- 1 dB(C)
Diameter	35"/88.9cm
Wind Loading @ 110mph wind velocity ¹ :	
MOD1004B	251 lbs
MOD2008B	377 lbs
MOD3012B	503 lbs
MOD4016B	629 lbs
MOD5020B	755 lbs
MOD6024B	881 lbs
MOD8032B	1133 lbs

¹ Wind loading is the calculated force of wind at 110mph (shoreline), exposure D (flat, unobstructed coastal areas) on frontal area 4.64 ft. per American National Standards Institute A58.1 "Minimum design loads for buildings and other structures."

HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Specify speaker array model number – each speaker array model must be ordered with a specific corresponding UV and Amplifier.

Speaker	Controller ¹
MOD1004B	UV + 1 UV400
MOD2008B	UV + 2 UV400
MOD3012B	UV + 3 UV400
MOD4016B	UV + 4 UV400
MOD5020B	UV + 5 UV400
MOD6024B	UV + 6 UV400
MOD8032B	UV + 8 UV400

¹ Controllers available in Radio, IP, and Landline.

Note: 40 feet of cable is supplied with siren. Extension cable in 10 foot increments is also available. Mounting the UV controller further than 100 feet is not recommended (further mounting may decrease power output).

ACCESSORIES

Description	Part Number
Flashing light for top of MOD	191XL-024*
Red Quadraflare 4 light kit	MOD-QF-KIT
Blue Quadraflare 4 light kit	MOD-QF-KIT-B

* Indicates color:
(A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

REPLACEMENT PART

Description	Part Number
Driver, 100 watt	K8570063A

UltraVoice is a registered trademark of Federal Signal Corporation.



► Model MOD6032B

Modulator[®] High Powered Omni Speaker

The MOD6032B is a 3200 watt version of the MOD6024B siren. The two middle modules utilize a dual driver for a smaller compact siren design.

Federal Signal's Modulator[®] High Powered Speaker Array offers the same proven technology as the original Modulator with the exception of a smaller compact chassis. Modulator sirens provides a flat frequency response up to 2000Hz producing intense warning signals and digital voice messaging over a large area. The Modulator design enables the siren to produce a high sound level and intelligible voice communications.

The innovative omni-directional electronic Modulator speaker array consists of modules that utilize 100 watt drivers. It also provides clear voice communication and offers warning signals which are produced by Federal Signal's UltraVoice[™] electronic controller and amplifier system. Custom tones and professionally recorded voice messages for the UltraVoice controller are available and can be purchased upon request.

The Modulator High Powered Speaker Array combined with the UltraVoice controller is ideal for community/municipal, industrial and military applications where immediate instruction is necessary.

The Modulator and UltraVoice controller can be networked via radio, IP, landline, cellular and/or satellite communications. Powering is available in AC, DC, or solar. The system typically operates from batteries which are charged from either AC or Solar. Federal Signal can also provide customized solutions to fit your special applications.

FEATURES

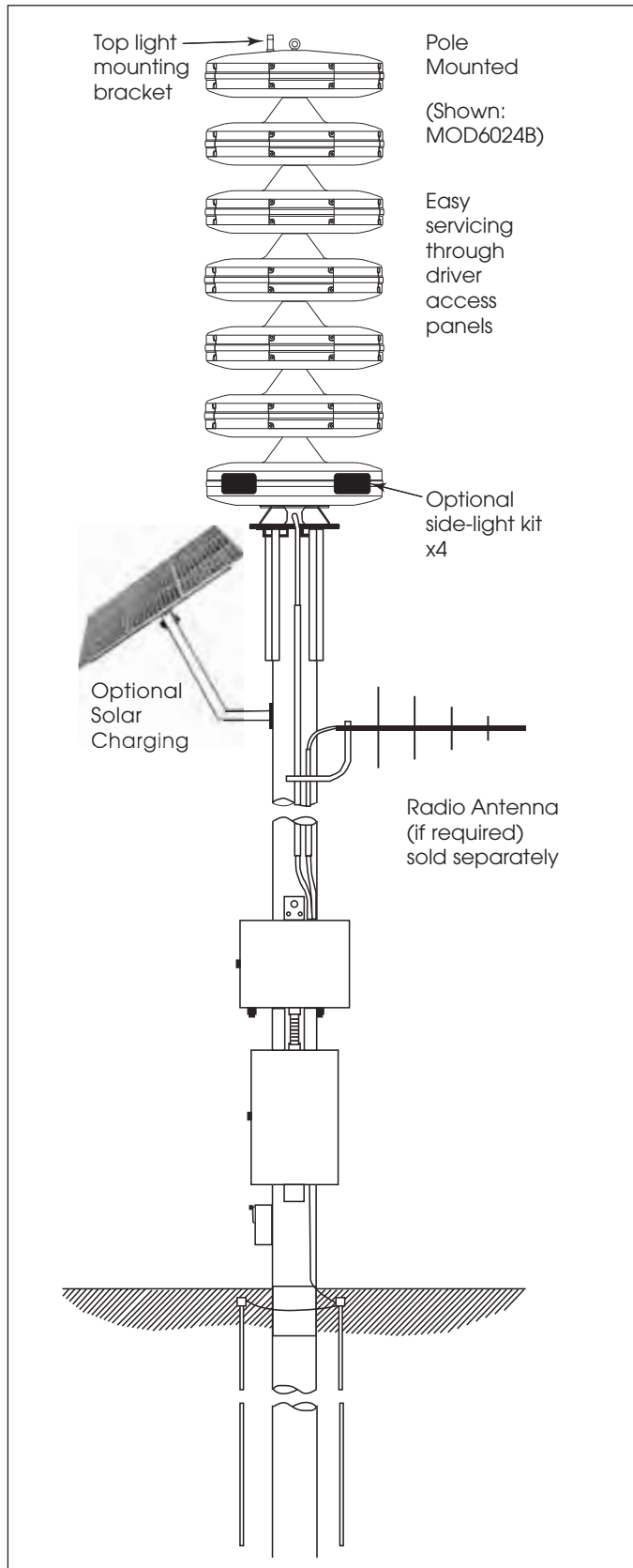
- Light-weight, compact design
- Utilizes Federal Signal Ultravoice[™] for control and amplification
- Excellent frequency response for clear voice reproduction
- Optional visual indicators
- 360° coverage without sound variation in horizontal planes
- Easy servicing through convenient access panels
- Anechoic chamber-certified

MODEL	ACTIVE MODULES	TOTAL WATT	DECIBELS @ 100' ¹	EFFECTIVE RANGE @ 70 dBc	HEIGHT		NET WEIGHT		SHIPPING WT	
					IN	MM	LBS	KG	LBS	KG
MOD6032B	6	3200	123 dBc	4,000'	101"	256.5	480	218	990	450

¹Based on farfield measurements

*Photo shown with optional visual indicators

Modulator® High Powered Omni Speaker (MOD6032B)



SPECIFICATIONS

Frequency Response:	200-2000Hz
Color	Off-White
Paint Type	TGIC-polyester powder coat
Modulator Horn Type	Hyperbolic flare
Horizontal Coverage	360° +/- 1 dB(C)
Diameter	35"/88.9cm
Wind Loading @ 110mph wind velocity ² :	
MOD6032B	881 lbs

² Wind loading is the calculated force of wind at 110mph (shoreline), exposure D (flat, unobstructed coastal areas) on frontal area 4.64 ft. per American National Standards Institute A58.1 "Minimum design loads for buildings and other structures."

HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Specify speaker array model number – each speaker array model must be ordered with a specific corresponding UV and Amplifier.

Speaker	Controller³
MOD6032B	UV + 8 UV400

³ Controllers available in Radio, IP, and Landline.

Note: 40 feet of cable is supplied with siren. Extension cable in 10 foot increments is also available. Mounting the UV controller further than 100 feet is not recommended (further mounting may decrease power output).

REPLACEMENT PART

Description	Part Number
Driver, 100 watt	K8570063A



► Model DSA

Directional Speaker Array

Federal Signal's Model DSA Directional Speaker Array provides excellent voice and tone reproduction and is ideal for overcoming high levels of industrial noise.

Design flexibility allows the user to combine up to four speaker arrays; each array will hold from two to six re-entrant speakers. Speakers have a 70° horizontal angle of dispersion, accommodating specific sound output patterns. (When vertical stacks are placed 90° apart, a 180° horizontal coverage is possible.)

The Model DSA mounting kits allow for multiple speaker arrays to be mounted on the same pole at 90° increments. The downward tilt can be adjusted by 15°. The mounting flexibility of this system allows the speakers to be pointed directly at a targeted area for more concentrated sound output.

A DSA consists of a corrosion resistant aluminum frame with fiberglass projectors and stainless steel mounting hardware. Each speaker contains a high-efficiency 100 watt driver. DSA speakers are equipped with 50' UL rated PVC shielded wire. The DSAX-1 speakers are equipped with 100' of UL rated PVC shielded wire.

Amplification, tone generation and signal timing are provided by the Model UV controller, purchased separately.

Ideal for outdoor industrial plant warning, the Model DSA speaker array allows sound coverage to be customized to each site, preventing wasted sound in and around the plant. The Model DSA provides better speech intelligibility within a coverage zone than omni-directional speaker arrays.

FEATURES

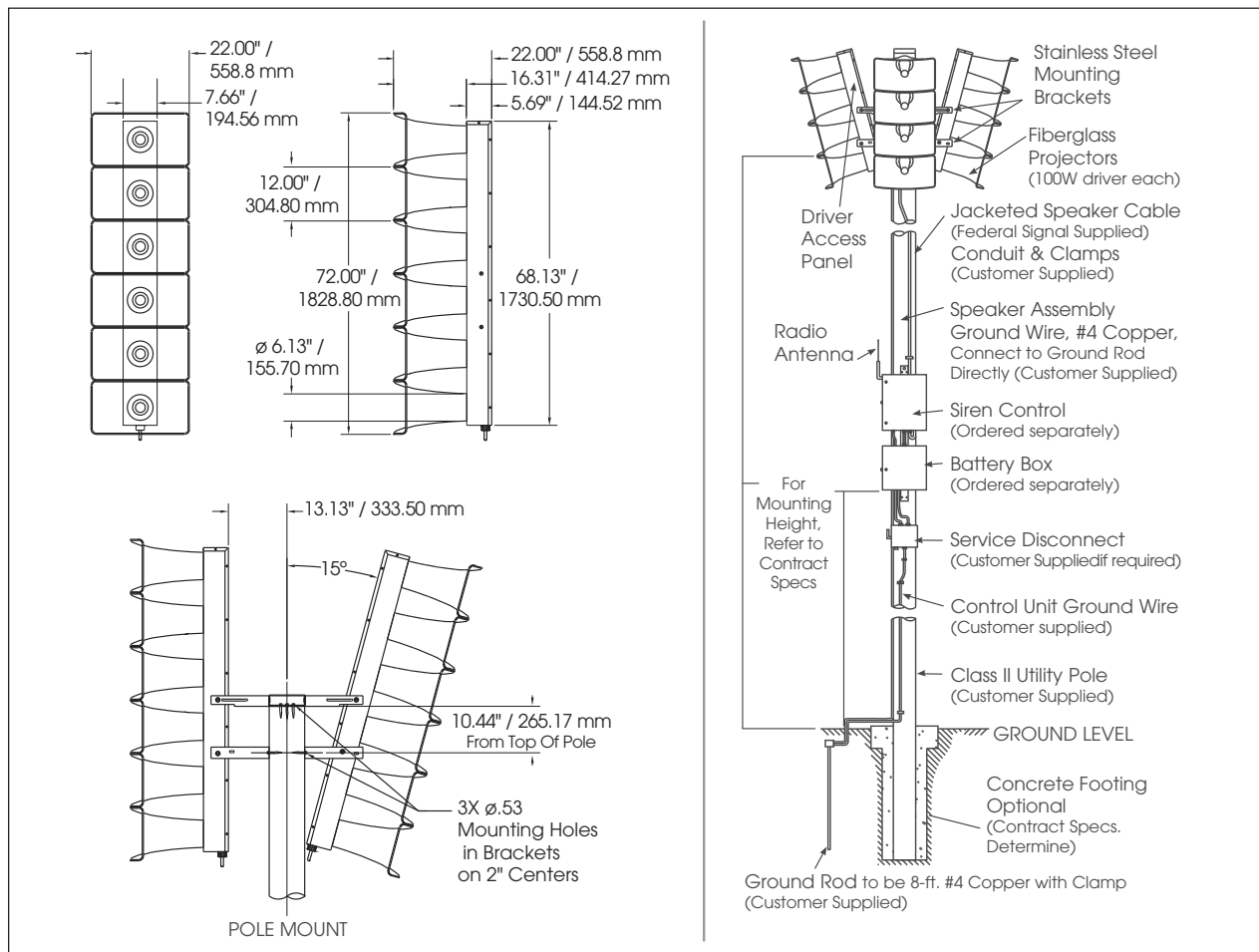
- Overcomes ambient noise of industrial environments
- Provides maximum speech recognition and tone reproduction
- Produces 111 dBc to 121 dBc @ 100'
- Two mounting kits available
- UL and cUL Listed
- Standard models include 45' of cable tail, DSAX-1 models include 94' cable tail

MODEL	NO. OF 100W SPEAKERS	TOTAL WATT	DECIBELS 100' ²	EFFECTIVE RANGE	HEIGHT		NET WEIGHT		SHIPPING WT	
					IN	MM	LBS	KG	LBS	KG
DSA2	2	200	111 dBc	1,700'	25	635	43	19.5	127	57.6
DSA3¹	3	300	115 dBc	2,200'	46	1168.4	80	36.2	130	59
DSA4	4	400	117 dBc	2,600'	48	1219.2	95	43.1	175	79.3
DSA5¹	5	500	119 dBc	3,000'	70	1778	110	49.9	220	99.7
DSA6	6	600	121 dBc	3,400'	72	1828.8	125	56.7	230	104.3

¹ Special order, consult factory

² Based on far field measurements.

Directional Speaker Array (DSA)



SPECIFICATIONS

Color: Black projectors with Off-White Housing
 Paint: TGIC – Polyester Powder Coat, highly corrosion resistant
 Frequency Response: 200-2000Hz

REPLACEMENT PARTS

Description	Part Number
Driver, 100 watt	K8570063A

- Considerations for system configuration:
- The DSA speaker array is used in conjunction with the UV controller. The UV houses the amplifiers that drive the DSA speaker array. Each DSA is made up of individual 100 watt speakers. FOR EXAMPLE: A DSA4 has four 100 watt speakers.
 - Multiple DSA arrays can be controlled by a single UV as long as the total wattage meets or exceeds the total wattage required by the DSAs. The total watt required is the sum of all 100 watt speakers from each DSA.

HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Description	Part Number
2 speaker assembly	DSA2 ¹
3 speaker assembly (Special order, consult factory)	DSA3 ¹
4 speaker assembly	DSA4 ¹
5 speaker assembly (Special order, consult factory)	DSA5 ¹
6 speaker assembly	DSA6 ¹
Mounting Kit:	
Wall mount for one vertical support	DSAMK1
Mounting kit for one to four vertical stack(s) 90° or 180° apart	DSAMK4
Mounting kit for steel poles, one vertical stack	DSAMKSP
4.5" mounting brackets for steel pole, bracket for one vertical stack	DSAMKSPB45
2.375" mounting brackets for steel pole, bracket for one vertical stack	DSAMKSPB23

¹ Includes 45' cable tail. Order -1 after the part number for 94' cable tail.
 Controller and Communications – See price list for controller and powering options.
 Batteries not included.



► Model UVIC-B

UltraVoice® Indoor Controller

The Federal Signal UltraVoice® Integrated Controller, Model UVIC-B, is a Mass Notification panel designed to deliver clean, clear, amplified audio to a network of speakers (sold separately). The UltraVoice Integrated Controller can be used in a standalone application or networked with an outdoor Mass Notification system. The controller provides high quality broadcast of live or pre-recorded voice and tones. The UVIC-B continuously monitors speaker circuits with automatic notification of system failures.

The UVIC-B is housed in an indoor NEMA1 style cabinet, with provisions for up to two 400 watt amplifiers (UV400 sold separately). Each controller requires 120 or 240 VAC and contains two sealed lead-acid batteries, providing over 30 minutes of operation in the event power has been lost. The UVIC-B can be activated via radio (UHF/VHF/P25, cellular or IP (fiber/networked) from a remote location and can also interface a UVLOC-B for remote activation. This indoor controller has up to 8 preset activation functions, and Live PA broadcasts with the addition of a Local microphone (sold separate).

The UVLOC-B is a self-contained, lockable enclosure with supervised communications to the UVIC-B. Live Public Address is also available. Activation of pre-recorded messages can be done locally, via the UVLOC-B, via Commander or via an SS2000+. An SS2000+ is a system wide activation point which is typically equipped with a base station radio (approved radio license required at time of order).

The UltraVoice Integrated controller can be activated, managed, set-up and monitored using the Federal Signal Commander® Software which allows simple "point and click" activation and indication of alarms or fault conditions. When used with Commander Assist, the Commander Control Software provides an unique and easy-to-use creation of site specific, alert specific alerting messages.

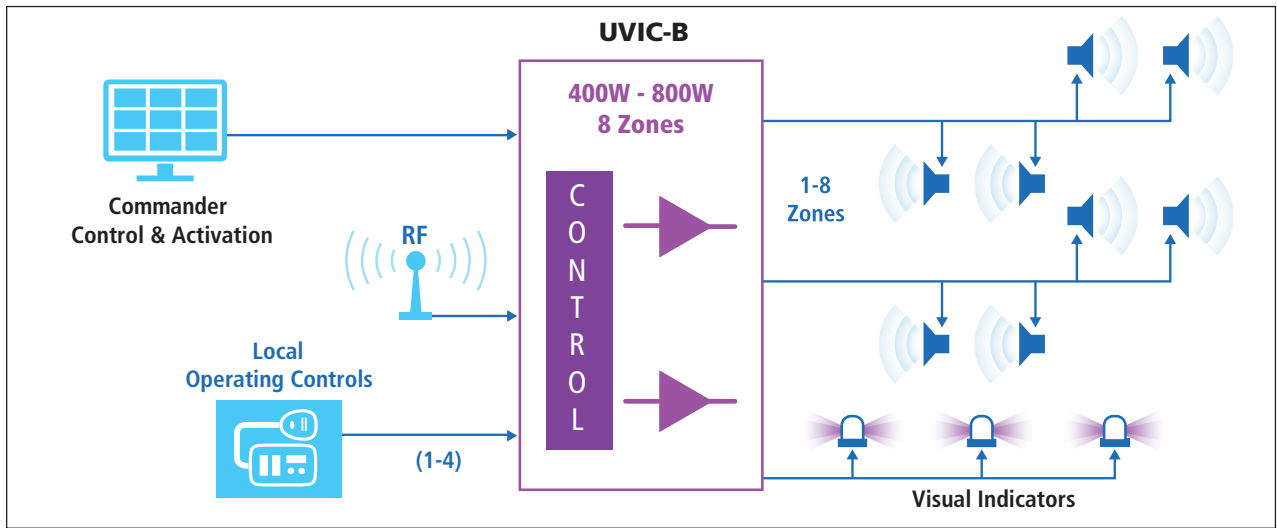
A UVIC-B can be used to power a complete line of indoor or outdoor speakers. Federal Signal's outdoor speakers include the DSA series, MOD1004B or MOD2008B. This controller can also be used with the AM300 and EN series or any 25/70V speakers when equipped with the optional UVADM. For end-of-line speaker monitoring the speakers require use of capacitively coupled devices.

The UVIC-B also incorporates 4 stand-alone relays for activation of external devices, the UV-ARM is not supported with this new system.

FEATURES

- Flexible communications via radio, Ethernet (IP), cellular with two-way status monitoring
- Live Public Address
- Standard and optional tones
- Optional voice message alerts
- Supervised 25/70Vrms Audio speaker output (UVADM)
- Secure communications with 128/256 AES-Bit Encryption
- Programmable relays for control of external equipment
- Local microphone access
- NEMA1 Indoor cabinet
- End-of-line speaker or voltage/current monitoring
- Supervised Local Operating Console for remote activations
- Built in relays for control of external devices
- Battery backup – 72 hour (400 Watt)
- UL and cUL

UltraVoice® Indoor Controller (UVIC-B)



SPECIFICATIONS

Operating Temperature:	-22°F to 120°F	-30°C to 49°C
Input Voltage:	120 or 240VAC,	50/60 Hz Single-phase
Input Current:	5A AC, 45A DC Max	
Internal Operating Voltage:	24VDC	
Continuous Signaling Time:	30 minutes	
Relay Contact Rating:	8A at 24VDC or 250VAC	
Dimensions H x W x D:	27" x 20.3" x 10.7"	(685.5 mm x 515.62 mm x 271.78 mm)
Net Weight: (no amplifiers)	64.55 lbs	9.28 kg
Shipping Weight:	200 lbs	90.7 kg

OPTIONAL ACCESSORIES

Description	Part Number
Amplifier, 400 watt	UV400
Audio distribution module for zone and voltage selection (25/70 V)	UVADM
Local operating console	UVLOC-B
8-port LOC Expansion	UVLOC-B-EXP
Telco Base, Landline	TB-LL
Digital voice mini SD card	DVSD
Digital Voice Recording Fee	DVR
Noise canceling push to talk microphone	MNC-MC
Wall mounted speaker strobe	ENWSSPA
Wall mounted strobe	ENWSTPA
Ceiling mounted strobe	ENCSTA
100W Tappable Speaker	DSA1

HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Description	Part Number
Indoor Controller, 120 VAC	UVIC-B1
Indoor Controller, 240 VAC	UVIC-B2
Indoor Controller, 120 VAC, UHF	UVIC-B1U
Indoor Controller, 120 VAC, VHF	UVIC-B1H
Indoor Controller, 120 VAC, IP-enabled*	UVIC-B1IP
Indoor Controller, 240 VAC, UHF	UVIC-B2U
Indoor Controller, 240 VAC, VHF	UVIC-B2H
Indoor Controller, 240 VAC, IP-enabled*	UVIC-B2IP

*Requires IP Networking Software



UVLOC-B

UltraVoice is a registered trademark of Federal Signal Corporation.



► Model UVLOC-B

UltraVoice® UVLOC-B Local Operating Console



The new Federal Signal UltraVoice® Local Operating Console (UVLOC-B) is an easy to use remote user interface for indoor and outdoor alert and notification systems. The UVLOC-B provides a system operator, building inhabitant or facility personnel, an activation point and indicator of system faults. The UVLOC-B offers the capability to: activate up to ten tone or pre-recorded digital voice messages and conduct live public address (PA) announcements. The Local Operating Console is ideal for providing multiple activation points in an Indoor Mass Notification System. The UVLOC-B is specifically designed to work with the UVIC-B Indoor controller. Each UVIC-B provides support for up to four UVLOC-B consoles. An optional UVLOC-IM-B interface board provides interface for an additional eight UVLOC-B consoles.

The UVLOC-B is rated for Indoor use and designed for surface / wall mounting. A UVIC-B controller supports up to four UVLOC-B consoles with the UVIC-B supplying power and supervision to each unit. The ability to provide up to four (or up to 12 with optional UVLOC-IM-B) remote activation points offers flexibility in large facilities. The UVIC-B controller provides power and battery back-up operation in the case of AC power loss. All UVLOC-B consoles are supervised and can be optioned to indicate (sounder) if the main controller has a fault.

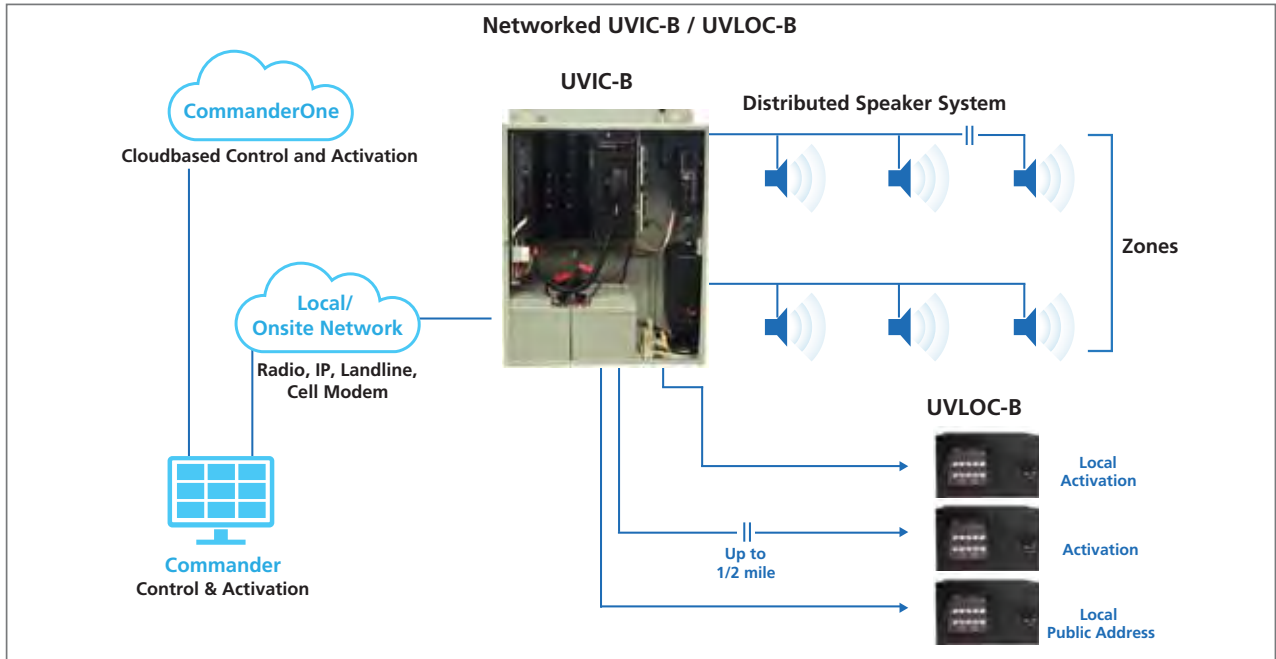
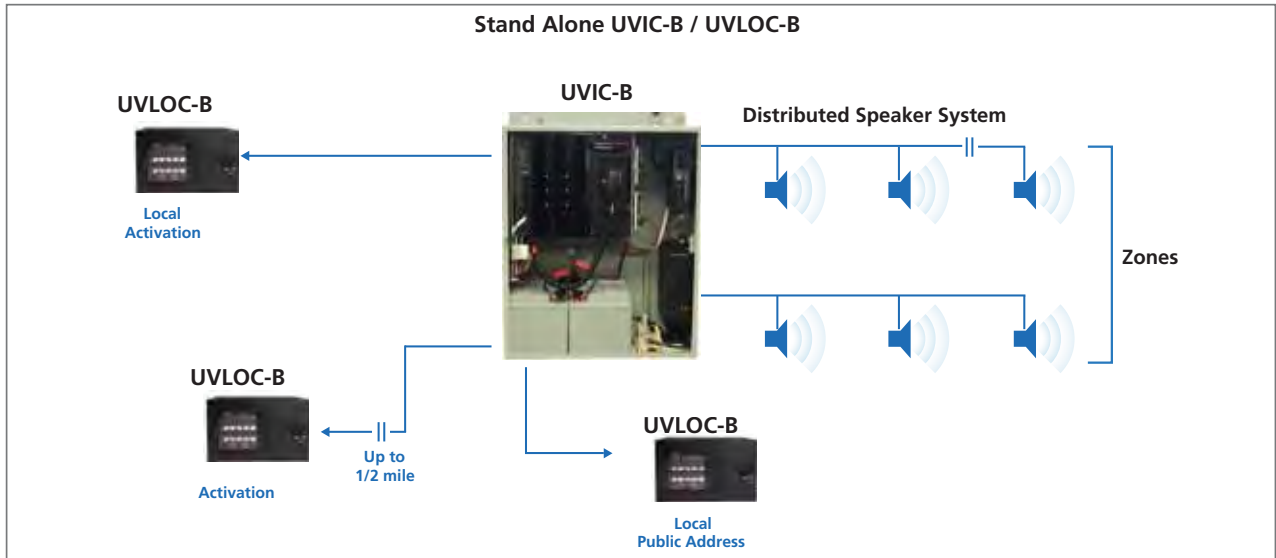
The UVLOC-B provides visual indicators for power, arm and fault status. A UVLOC-B includes a handheld microphone with push-to-talk Live PA functionality. The touch panel has ARM and Cancel functions and ten pushbuttons for activation of pre-determined messages. The UVLOC-B has a locking front door for protection against malicious activity. The UVLOC-B interfaces to the UVIC-B with a single twisted pair cable with range up to ½ mile.

Designed to enhance "all hazard" warning capabilities, the UVLOC-B provides increased system flexibility, redundancy, and reliability, making it a necessary component to any alert and notification system. A UVIC-B can also be used in a standalone mode with remote UVLOC-B's for an integrated plant-wide public address system. The UVIC-B provides up to 800W of capacity for distributed speaker operation and / or to interface outdoor speaker systems such as DSA sirens.

FEATURES

- Powered by UVIC-B Controller with battery back-up
- 10 push button console for remote activations
- Lockable front door with window
- Small and compact wall mount enclosure
- LED status indicators for Power, ARM, Fault
- Supervised two-wire interface

Ultravoice® Local Operating Console (UVLOC-B)



SPECIFICATIONS

Operating Temperature: Indoor use, non condensing humidity
 -22°F to 149°F -30°C to 65°C

Power supplied by UVIC-B cabinet

Number of activation buttons: 10

Maximum number of UVLOC-B: 4

Maximum number of UVLOC-B with expansion: 12

Dimensions H x W x D: 11.27" x 7.0" x 4.97"
 286.1 mm x 180.2 mm x 126.2 mm

Installation Specifications:

Cabling between UVIC-B and UVLOC-B
 Up to 1/2 mile twisted pair

Weight 6.0 lbs 2.72 kg

HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Description	Part Number
UltraVoice Local Operating Console	UVLOC-B
UltraVoice Indoor Controller*	UVIC-B
UltraVoice 8 port Expansion*	UVLOC-IM-B

*See UVIC-B for further information

*Cable not included

UltraVoice is a registered trademark of Federal Signal Corporation.



► Model UV

UltraVoice® Electronic Siren Controller

The Federal Signal UltraVoice® controller combines micro-processor based system control with highly efficient amplifiers to deliver optimized tones and voice capability for electronic sirens. The UltraVoice controller can generate and amplify single or dual frequency warning tones and comes with seven pre-set warning signals. In addition, the controller has been designed specifically to reproduce high quality live or pre-recorded-voice capability.

The controller includes a NEMA 4X cabinet housing the control module, up to eight 400 watt amplifiers, and a NEMA 3R battery cabinet. The unit may be equipped with a plug-in programmable receiver module, utilizing DTMF or two-tone sequential activation protocols. A digital voice option can be added by plugging in a single mini SD card which can store over 4000 voice/tone messages.

Two-way Status System

The UltraVoice Controller can also be a two-way communication system. A transceiver allows the unit to report status back to a central control point utilizing DTMF or the Commander Software System protocol. Two transceiver ports are available for radio repeating or when using multiple frequencies.

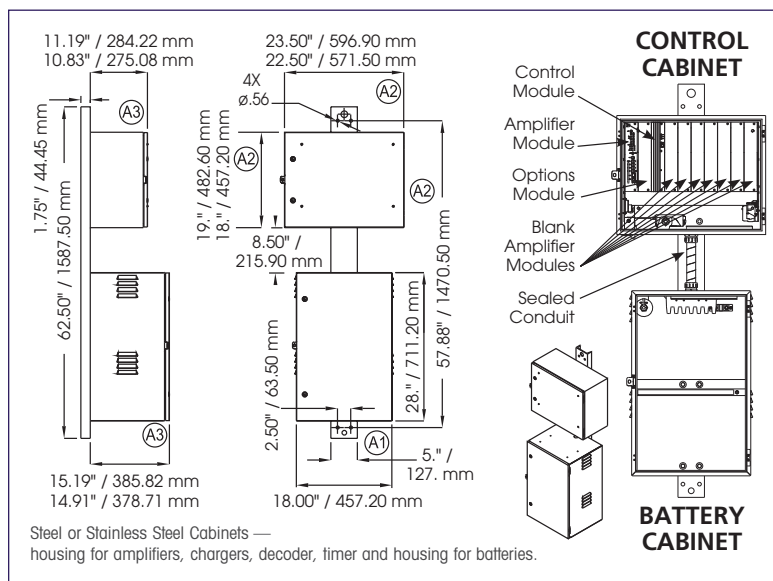
The two-way option provides information on the following conditions:

- AC power
- Battery voltage
- Charger operation
- Activation current
- Amplifier voltage and current
- Quiet test (Speakers & Amps)
- Signal A
- Signal B
- Mode of operation
- Intrusion
- Local activation
- SD card status

F E A T U R E S

- 7 built-in warning signals
- Capable of storing over 4000 voice/tone messages, 17 hours of available audio
- Decodes single-tone, two-tone, DTMF and AFSK digital
- Quiet test standard
- Up to 8 controller zones
- Stackable siren functions
- Distinct dual tone capacity
- Highly efficient pulse width modulated amplifiers
- Windows®-based programming software (optional)

UltraVoice® Electronic Siren Controller (UV)



HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Description	Part Number
Siren control, two-way digital, no radio	UVTD
Siren control, two-way digital, VHF (136-174), UHF (403-470)	UVTDH, UVTDU
IP-enabled, two-way electronic controller (broadband radio and SmartMsg software sold separately)	UVTD-IP
Siren control, two-way, landline	UVTD-LL

SPECIFICATIONS

Operating Temperature**:	-40°F to 149°F	-40°C to 65°C
Input Voltage:	120/240VAC ±10%, 50/60Hz single-phase (two separate models)	
Input Current:	7 A Max.	
Battery Input Voltage:	24 Volts (nom.)	
Operating Voltage:	24VDC	
Standby Time:	> 7 days	
Continuous Signaling Time:	30 min.	
Control Module:		
Signal Duration (auto reset):	3 min. max	
Microphone Input Impedance:	10k Ohms	
Audio Distortion:	1% THD max.	
Maximum Load:	600 Ohms	
Contact Closure:	(min) 500ms <2k Ohms	
Amplifier Module:		
Frequency Response:	(300 to 3 kHz)	±3dB (ref. 1kHz)
Output Voltage (Tone and PA): (to speaker drivers)	70 Vrms (nom.)	
Input Impedance:	(per amplifier)	100k Ohms
Enclosures:		
Control Cabinet:	Type 4X	
Battery Cabinet:	Type 3R	
Net Weight:	170 lb (77.13 kg) (minus amplifiers)	
UV400 Amplifiers Weight:	4.12 lb	(1.9 kg)

** HTR2 or HTR4 battery heater option required for -40°C rating.

Standard Tones

Tone	A/B Tone Frequency Range	Sweep Rate (seconds)
Wail	400/480-850/1020	13.0
Pulsed Wail	400/480-850/1020	1.5/13.0
Alternate Wail	400/480-850/1020	1.5/13.0
Steady	850/1020	N/A
Pulsed Steady	850/1020	1.5
Alternate Steady	850/1020	1.5

OPTIONAL ACCESSORIES

Description	Part Number
Digital voice mini SD card, 250 messages, 17 hours	DVSD
Windows® programming software (Two-tone & DTMF)	FSPWARE
Commander® Software System, *10, 25, 255, or 512 Site License	SFCD*
400 watt amplifier, required with UV controllers	UV400
Telco Base, Landline	TB-LL
Two-way DTMF programming	ES-PROG-DTMF
210-264 VAC Transformer/Rectifier	UVTR

Battery Requirements:
Customer must provide necessary batteries. Call for assistance with specific system requirements.

UltraVoice is a registered trademark of Federal Signal Corporation. Windows and Kenwood are trademarks of their respective owners.



► Model DSA1

100W Non-amplified Speaker

Federal Signal's Directional Speaker Array (DSA) product line now includes a 100 watt non-amplified speaker, model DSA1. The DSA1 provides variable taps for 100, 55, 32 or 18 Watts for use in a variety of applications. It can also be powered from a Ultra-Voice Controller or any 25/70 V amplifier.

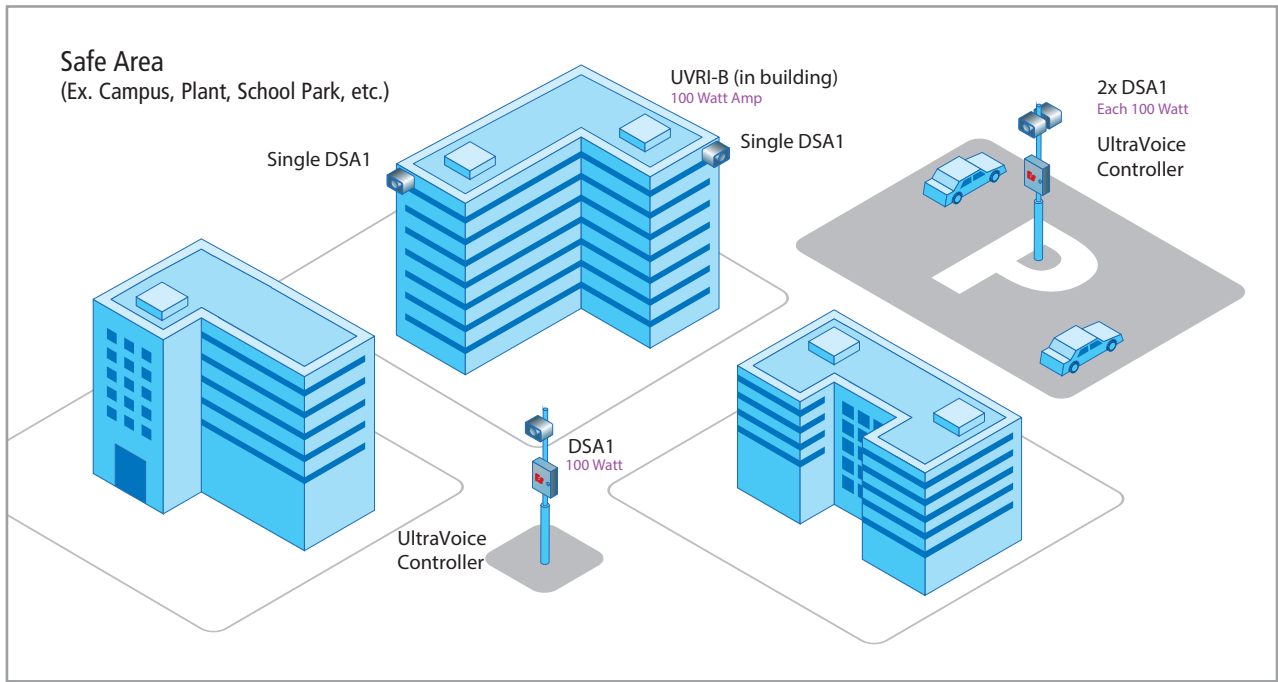
The DSA1 includes stainless steel hardware for wall or ceiling mounting; optional large or small mounting brackets and a unique omni-directional mounting bracket are also available. The DSA1 enclosure has multiple access points to allow installation of strobes, sensors or lights.

The DSA1 can be combined with the DSA 2, 4 or 6 for an integrated mass notification system. With a maximum output of 100 Watts, the DSA1 speaker addresses customer needs for a cost effective voice and/or tone speaker. This speaker is an ideal solution for existing notification systems where lack of coverage exists and doesn't require high power levels.

FEATURES

- Indoor/Outdoor 100 watt tappable speaker with high-powered voice and tone
- 25 V and 70 V input taps
- Easy to install and service design
- Flexible terminal block for daisy-chaining speaker
- 100 W, 55 W, 32 W, and 18 W output taps
- Ceiling or pole mounts available, wall mount standard
- Optional Omni-directional Accessory
- 3/4" and 1/2" NPT conduit or gland openings
- NEMA 4X outdoor rated
- UL and cUL listed
- UL marine rated

DSA1 Non-Amplified Speaker



SPECIFICATIONS

Operating Temperature: -40°F to 150°F (-40°C to 66°C)
 Small size with rugged construction: 7 in x 9 in 10 in (178 mm x 229 mm x 254 mm)
 Maximum Sound Pressure Level @ 100 W:
 103 dB (± 2 dB) @ 100'
 120 dB (± 2 dB) @ 10'
 130 dB (± 2 dB) @ 1 m

Wall or pole mount options

25V and 70V input taps

100 W, 55 W, 32 W, and 18 W output taps

SPL @ 55 W	117 db @ 10'	127 db @ 1 M
SPL @ 32 W	114 db @ 10'	124 db @ 1 M
SPL @ 18 W	111 db @ 10'	121 db @ 1 M
Net Weight	15.6 lbs	7.08 kg

Capacitively coupled speaker

HOW TO ORDER

Description	Part Number
100 Watt wall mount speaker	DSA1
Small (6" or less) Pole Mount Bracket	I-IP100-PM
Large (over 6") Pole Mount Bracket	I-IP100-PMW
Omni-Directional Option	I-IP100-OMNI
UltraVoice Controller	UVRI-B, UVIC-B, UVTD



► Model DSA1X

Hazardous Location 100W Non-Amplified Speaker

Federal Signal's Directional Speaker Array (DSA) product line now includes a 100 W non-amplified speaker for hazardous locations, model DSA1X. The DSA1X provides variable taps for 100, 55, 32 or 18 W for use in a variety of applications. It can be powered from a Ultra-Voice Controller or any 25/70 V amplifier.

The DSA1X includes stainless steel hardware for wall or ceiling mount; optional large or small pole mounting brackets and a unique Omni-directional sound deflector are also available.

Combine multiple DSA1X's with a UV controller to create an integrated mass notification system within a hazardous location environment. The DSA1X can be combined with additional DSA1X speakers for a plant wide notification system. With a maximum output of 100 W, the DSA1X speaker addresses customer needs for a cost effective voice and/or tone speaker. This speaker is an ideal solution for existing notification systems where lack of coverage exists and a small compact design is required.

FEATURES

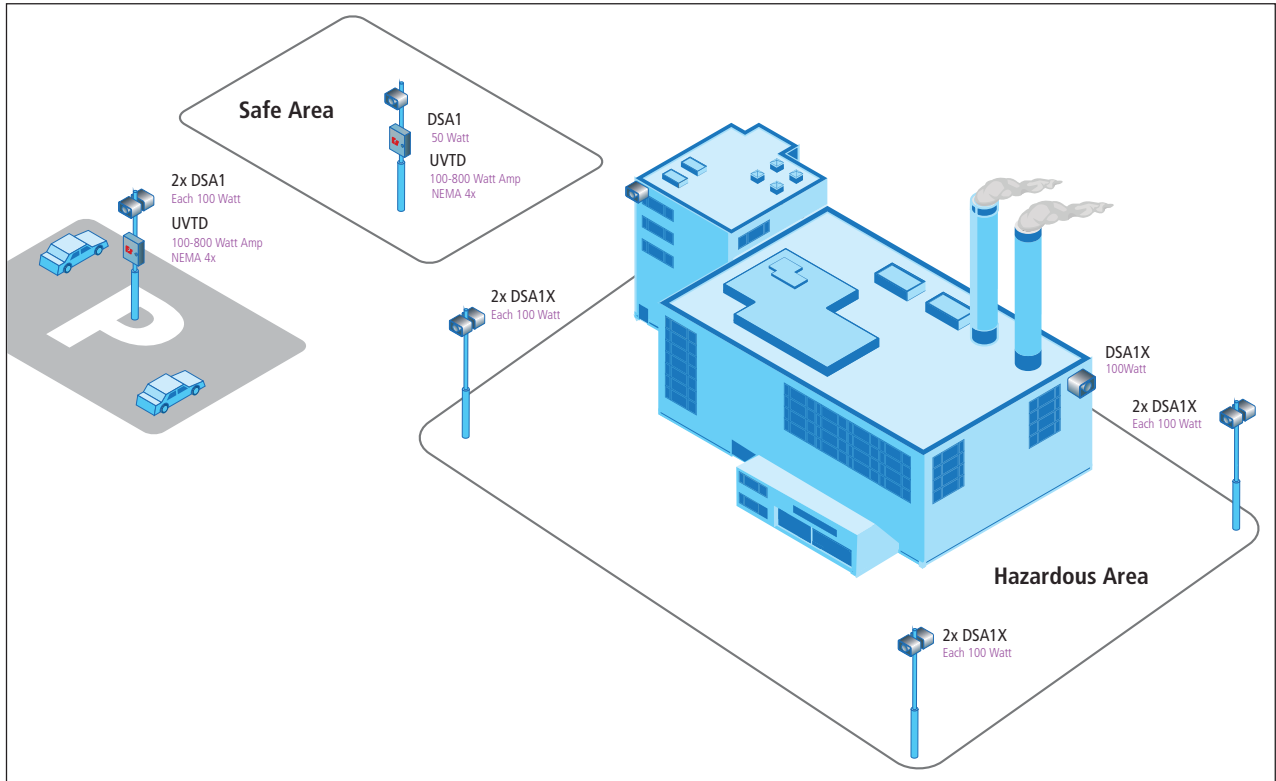
- Indoor/Outdoor 100 W tappable speaker for high-powered voice and tone
- 25 V and 70 V input taps
- Easy to install and service design
- Flexible terminal block for daisy-chaining speaker
- 100 W, 55 W, 32 W, and 18 W output taps
- Ceiling or pole mounts available, wall mount standard
- Optional Omni-directional accessory
- NEMA 4X outdoor rated
- UL and cUL listed for Class I, Division 2; Class II, Division 2; Class III
- 3/4" and 1/2" NPT conduit or gland openings

HAZARDOUS LOCATION RATING: DSA1X

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	66°C
Class I, Division 2, Groups A, B, C, D	T4A
Class II, Division 2, Groups F, G	T4A
Class III	T4A

Hazardous Location 100W Non-Amplified Speaker (DSA1X)



S P E C I F I C A T I O N S

Operating Temperature: -40°F to 150°F (-40°C to 66°C)
 Small size with rugged construction: 7 in x 9 in 10 in (178 mm x 229 mm x 254 mm)
 Maximum Sound Pressure Level @ 100 W:
 103 dB (± 2 dB) @ 100'
 120 dB (± 2 dB) @ 10'
 130 dB (± 2 dB) @ 1 m

Wall or pole mount options

25V and 70V input taps

100 W, 55 W, 32 W, and 18 W output taps

SPL @ 55 W	117 db @ 10'	127 db @ 1 M
SPL @ 32 W	114 db @ 10'	124 db @ 1 M
SPL @ 18 W	111 db @ 10'	121 db @ 1 M
Net Weight	15.6 lbs	7.08 kg

Capacitively coupled speaker

H O W T O O R D E R

Description	Part Number
100 W wall mount speaker	DSA1X
Small (6" or less) Pole Mount Bracket	I-IP100-PM
Large (over 6") Pole Mount Bracket	I-IP100-PMW
Omni Directional Option	I-IP100-OMNI
UltraVoice Controller	UVRI-B, UVIC-B, UVTD

*See fedsig.com for more models



- Models I-HIOW, I-UIOW, I-HIO and I-UIO

Informer Tone-Alert Radio

Alerting the public of an emergency situation is now easier and more reliable than ever with Federal Signal's Informer I-HIO and I-UIO radio receivers. Informer units are designed for one-way radio alerting applications.

Informer Radio receivers come in either VHF or UHF-band models. Standard units decode DTMF, single-tone, and two-tone sequential signals (optionally available are units for decoding EAS/SAME or Federal Signal digital protocols). The Informer is capable of generating four separate alarm sounds that can be accompanied by a live voice message.

Informer units include a LED panel that flashes to immediately indicate transmission of an emergency alert. Other features include a 600-Ohm audio output, dual (N.C./N.O.) relay for external control, built-in diagnostics, and an LED test indicator. The receiver can be programmed to disable the "monitor" button in order to prevent end-users or unauthorized persons from listening to local-channel activity.

The Informer I-HIO and I-UIO desktop versions feature an external AC transformer for power, as well as built-in battery backup. All wiring is routed to connectors located on the back of the unit for convenient access.

Informer I-HIOW and I-UIOW receivers are designed to be wall mounted or recessed into the wall. All wiring is contained within the aluminum case, and five pre-punched, easy-to-remove conduit holes are available to facilitate wiring connections into and out of the unit. Informer I-HIOW and I-UIOW receivers include a 115/230VAC power supply pre-wired to internal terminal blocks and a built-in battery backup. These models feature mounting holes for easy top mounting of an optional Federal Signal LP1 Strobe light. Units are pre-wired to accommodate the LP1 Strobe which operates off the Informer's internal power supply.

Informer units are factory programmed for narrow-band operation and come with a one-year warranty (see owner's manual).

F E A T U R E S

- Instant alerting and notification for emergency situations
- Rugged metal enclosure with internal wiring
- High output speaker for tone and voice notifications
- Optional EAS/SAME or Federal Signal digital protocols
- Windows®-based software for easy programming
- DTMF and two-tone decoding – standard
- Desk or wall mounting models
- External audio and control capabilities
- US ETL Listed to UL Std 60065
- Canadian ETL Listed to UL Std 60065 for I-HIOW and I-UIOW

Informer Tone-Alert Radio (I-HIOW, I-UIOW, I-HIO and I-UIO)

SPECIFICATIONS

	150-170	405-420* 450-470
Frequency Range (MHz) Narrowband:	N	N
Intermodulation Rejection per EIA-603, part 4.1.9	>-75	>-70
Adjacent Channel Selectivity per EIA-603, part 4.1.6	>-70	>-65
Spurious Response & Image Rejection (dBm) per EIA-603, part 4.1.8	>-75	>-70

Reference Sensitivity ¹ : (12dB SINAD)	< 0.35 microvolts
Hum and Noise ¹ : Squelched	> -57 dBc
Unsquelched	> -37 dBc

AC Transformer (UL Listed)

Input:	I-HIOW/UIOW	115 to 230VAC, 50/60 Hz
	I-HIO/UIO	108 to 128VAC, 60Hz
Operating Environment:	-22° F to 140° F	-30 to +60°C
Operating Current:	I-HIOW/UIOW	350mA Maximum
	I-HIO/UIO	<400mA Max

Standard Signaling Formats

Number of codes	Up to 6 activation codes, programmable
Two-Tone Sequential or Single Tone	300 Hz-3000 Hz, tolerance +/- 1.5%
DTMF	1-12 digits
Two-Tone and DTMF Decode Sensitivity	<20 dBc SINAD

CTCSS/CDCSS

Decode with two-tone codes >400 Hz only.
Tone frequency range 36.6 to 254.1 Hz,
Tone accuracy >.05Hz
Tone decode bandwidth +/- 1.1%

Digital, golay (23,12) 23 bit digital word
Digital data rate 134.4 Hz nominal

Decode	Turn on time <250ms., Turn off Time <1.2s.
Acoustic Output: ²	I-HIOW/UIOW 80 dBc
	I-HIO/UIO 85 dBc

External Control/Audio/Antenna

Dual (N.O./N.C.) relay:	5a @ 30VDC
600 Ohm output:	50mv - 2.5vpp into 600 Ohms
Antenna:	Removable rubber duck
External Antenna Connector:	50 Ohm, BNC female

Physical Dimensions H x W x D:

I-HIOW/UIOW	8.3" x 7" x 3.3"
	210.8 mm x 177.8 mm x 83.82 mm
I-HIO/UIO	5" x 7" x 2-1/2"
	127 mm x 177.8 mm x 63.5mm (10°incline)
Weight:	I-HIOW/UIOW 3.2 lbs 1.45 kg
	I-HIO/UIO 4 lbs 1.81 kg

¹ Receiver specifications referenced to TIA/EIA 603

² Acoustic Output measured at 10' on axis in an anechoic environment.
User configurable soft-tones (approximately 55 dBc).

HOW TO ORDER

Description	Part Number
VHF high band, 151-174 MHz - wall mount*	I-HIOW
UHF band, 450-470 MHz - wall mount*	I-UIOW
VHF high band, 151-174 MHz - desk mount	I-HIO
UHF band, 450-470 MHz - desk mount	I-UIO

There is a programming fee associated with Informers programmed at the factory. Contact your local representative for a quotation.

*Units build prior to mid-2015 do not have battery backup.

OPTIONAL ACCESSORIES

Description	Part Number
Installed EAS	I-EAS
Field installable EAS kit	I-EAS-KIT
AFSK installed	I-FSK
Field installable AFSK kit	I-FSK-Kit
Programming software	I-SW
12VDC Strobe compatible with I-HIO and I-UIO models (can be powered by internal power supply)	LP1-012*
Battery	155191A

*(A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

Optional Signaling Formats

Federal Signal (MSK) Digital Option	1200, N, 8, 1 Synchronous, 1200 Hz mark tone, 1800Hz space tone
Digital Decode Sensitivity	<20 dBc SINAD
EAS/SAME Option	User programmable to any EAS event codes and up to three (3) location codes
EAS/SAME Decode Sensitivity	<20 dBc SINAD



A flush mount kit is included for recessed applications as shown.

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- Models EN-WSSPA, EN-WSTPA and EN-CSTA

Speakers & Strobes Emergency Notification

Wall Mounted Speaker Strobe – The wall mounted speaker strobe combo is UL 1638 and 1480 compliant and listed for the purpose of life safety and property protection. The strobe utilizes a Xenon flash tube which generates a high-intensity light visible from all sides with a fixed candela rating of 15/75. This device offers a choice of field selectable power taps of 1/8, 1/4, 1/2, 1, 2, and 4 watts for use with either 25 Vrms or 70.7 Vrms audio amplifiers. The frequency range of the speaker is 400-4000Hz. This device is suitable for line supervision. This device can be mounted to either the EN-SMBS (Surface Mounting Box, Square) or a 4" square X 2 1/8" deep metallic back box.

Wall Mounted Strobe – The wall mounted strobe with amber lens offers a dependable visual alarm for warning and emergency notification. Applications include severe weather, evacuation, emergency response, etc. This device runs on 24VDC. The candela options are 15, 30, 60, 75, and 100. These options are field selectable and tamper resistant. A die cast 4" mounting bracket is included which incorporates the popular Super-Slide™ feature that allows the installer to easily pre-wire the system and test for supervision. The product also features a locking mechanism that secures the product to the bracket without showing any screws. Installers can check the voltage drop, current draw and match it against the blue print with the included Checkmate™ Instant Voltage Verification feature. This wall strobe is UL1638 and UL464 listed and are warranted for three years from the date of purchase.

Ceiling Mounted Strobe – This ceiling mounted strobe offers dependable visual alarms for warning and emergency notification. This device runs on 24VDC. The candela options are 15, 30, 60, 75, and 100. These options are field selectable and tamper resistant. A standard 4" mounting plate is included which incorporates the popular Super-Slide™ feature that allows the installer to easily pre-wire the system and test for supervision. The product also features a locking mechanism that secures the product to the bracket without showing any screws. This wall strobe is UL1638 and UL 464 listed and are warranted for three years from the date of purchase. Mounting option: EN-SMBR (Surface Mounting Box, Round)

FEATURES

- Campus, Military and Indoor Mass Notification
- UL listed
- Amber or Clear lens
- Plain housing or with 'Alert' text for additional notification
- Synchronization of strobe lights

Speakers & Strobes Emergency Notification (EN-WSSPA, EN-WSTPA and EN-CSTA)

SPECIFICATIONS

Ceiling or Wall Mounted Speaker

This ceiling or wall mounted speaker is designed to meet code requirements for audio voice communications. This device can be mounted to either the EN-SMBS (surface mounting box, square) or a 4" square X 2 1/8" deep metallic back box. This speaker provides a 25 or 70.7 Vrms speaker with field selectable power taps of 1/8W, 1/4W, 1/2W, 1W, 2W or 4W. It offers high quality dBA output (Intelligible). The Frequency Range is 400-4000Hz.

Synchronization Module

The synchronization module is designed to provide an easy way to synchronize multiple strobe light flashes using only two wires in instances where a synchronized flash is required.

- Easy to Install
- Rated for 3 Amps continuous current and 5 Amps surge or inrush current
- Synchronizes to 1Hz Flash Rate
- Operates 1 Class 'A' circuit or 2 Class 'B' circuits at 3 Amps per circuit.
- UL 464 and UL 1971 Listed
- CAN/ULC S526-M87/S524-01 Compliant
- This module comes with its own back box and cover

HOW TO ORDER

Description	Part Number
Wall Mounted Speaker Strobe	
Wall Speaker/Strobe, Alert, Amber lens	EN-WSSAA
Wall Speaker/Strobe, Plain, Amber lens	EN-WSSPA
Outdoor Wall Speaker Strobe,	
Alert, Amber lens	EN-OWSSAA
Wall Mounted Strobe	
Wall Strobe, Plain, Amber lens	EN-WSTPA
Wall Strobe, Alert, Amber lens	EN-WSTAA
Wall Strobe, Plain, Clear lens	EN-WSTPC
Wall Strobe, Alert, Clear lens	EN-WSTAC
Synchronization Module	
Synchronization Module, 3 Amps	EN-SM

OPTIONAL ACCESSORIES

Description	Part Number
Surface Mounting Box, Round	EN-SMBR
Surface Mounting Box, Square	EN-SMBS
Ceiling Mounted Strobe	
Ceiling Strobe, Amber lens	EN-CSTA
Ceiling Strobe, Clear lens	EN-CSTC
Ceiling or Wall Mounted Speaker	
Ceiling/Wall Speaker, 25 Vrms or 75 Vrms	EN-CWSP





► Model PVS240W-24 and PVS240W-48

Solar Power Option for Outdoor Sirens

The Federal Signal Solar option provides an all inclusive solar powering option for all outdoor sirens. Solar powering of batteries is an efficient and economical method of powering remote sirens, alerting or control equipment. Solar powering can be engineered for any application. Applications include, but are not limited to, remote tsunami sirens, muster stations and tornado sirens. The PVS240W-24 and PVS240W-48 provide 240W of power for charging of batteries in 24 or 48VDC applications. Both systems are equipped with solar regulators for accurate control, protection and monitoring of the solar panels. Both kits utilize four 60W highly efficient solar panels, each with junction boxes to allow ease of wiring. The mounting hardware is aluminum for light weight and high strength, able to withstand wind loads up to 170 mph. Thirty feet (30') of cable is provided to allow wiring from the panels to the battery cabinet. The solar regulators support gel, sealed or flooded batteries with temperature compensation to extend battery life and improve system performance. Federal Signal will determine the proper direction and tilt for each solar application based on location. Gel batteries are recommended for solar applications.

FEATURES

- Enables remote / unwired deployment of sirens
- Solar power provides continuous charging of batteries
- Radio connectivity for two-way activation and control
- Eliminates expensive trenching of power to remote sites
- Supports mechanical or electronic sirens
- Allows 25 to 60° of tilt for solar optimization
- 24 or 48VDC operation
- Wind loads up to 170 mph

SPECIFICATIONS

Net Weight	115 pounds (52 kg)
Shipping Weight	153 pounds (69 kg)

HOW TO ORDER

Consult the factory for ordering details.

Description	Part Number
Solar Power Option UltraVoice (UV)	PVS240W-24
Solar Power Option Federal Controller (FC)	PVS240W-48

Sample Ordering Configurations for Electronic and Giant Voice Sirens

T W O - W A Y W I T H R A D I O

- Configuration 1: Activation Control Point with GUI/PC and Base Radio**
 X-PC-22 PC with 22 inch monitor
 SFCD255 Federal Commander Software (255 RTU's)
 SS2000+ Digital and DTMF Control Station, Desk Mount
 BSH Base Station High band Radio Package (order part no. BSU for UHF)
 AMB-W Antenna Mounting Bracket, Wall
- Configuration 2: Modulator, Omni-directional electronic speaker array**
 MOD1004B 400W Modulator Siren
 UVTDH High Band UV Two-way Controller
 UV400 Qty 1 – 400W Amplifier
 15500007A-02 Qty 2 to 4 – Battery sealed AGM 105Ah (MK Battery 8A31)
 OMNI-xx OMNI antenna, plus cable (Order OMNI antenna that matches desired frequency range)
- Configuration 3: Modulator, Omni-directional electronic speaker array**
 MOD8032B 3200W Modulator Siren
 UVTDH High Band UV Two-way Controller
 UV400 Qty 8 – 400W Amplifier
 15500007A-02 Qty 4 – Battery sealed AGM 105Ah (MK Battery 8A31)
 OMNI-xx OMNI antenna, plus cable (Order OMNI antenna that matches desired frequency range)
- Configuration 4: DSA, Directional Speaker Array**
 DSA4 Qty 2 – 400W High Powered Directional Speaker Array
 UVTDH High Band UV Two-way Controller
 UV400 Qty 2 – 400W Amplifier
 15500007A-02 Qty 4 – Battery sealed AGM 105Ah (MK Battery 8A31)
 OMNI-xx OMNI antenna, plus cable (Order OMNI antenna that matches desired frequency range)



► Model 2001-130 and Equinox

High Power, Directional Rotating Siren

The Federal Signal 2001-130 and Equinox sirens is a high power, rotating, unidirectional outdoor warning siren. The high-decibel output provides maximum coverage with minimum installation cost. Radio/cellular/satellite or wireless IP activation can further minimize installation costs by eliminating the need for leased dedicated control lines.

The siren's projector produces a 60-degree projection of sound which rotates at 3 RPM and can produce three distinct warning signals: steady, wail and fast wail. The siren will supply a minimum of 15 minutes of full power output from its batteries after AC power loss. The siren controls are available with battery operation, solar, AC operation, and AC operation with battery back-up, one-way and two-way radio control, wired or wireless Ethernet, satellite/cellular or landline. The 2001 Series is offered in low frequency (500 Hz) or mid-range frequency (790 Hz).

Ideal applications for this warning siren include hazardous weather conditions, fires, floods, chemical spills and other types of community or facility emergencies.

FEATURES

- High-powered rotating siren for maximum coverage
- Available in low and mid-range frequency
- Three distinct warning signals
- AC or Solar powered with battery operation or back-up
- Weather-resistant coating



► Model 508-128

High Power, Directional Rotating Siren

Federal Signal's 508-128 siren is a high power, rotating, unidirectional, 500 Hz outdoor warning siren that offers an anechoic chamber-certified rating of 128 dBc. The high-decibel output provides maximum coverage with minimum installation cost. Radio activation can further minimize installation costs by eliminating the need for leased dedicated control lines.

The siren rotates at 3 RPM and can produce three distinct warning signals: steady, wail and fast wail. The 508-128 siren will supply a minimum of 15 minutes of full power output from its batteries after AC power loss. The siren controls are available with battery operation, Solar AC operation, and AC operation with battery back-up, one-way and two-way radio control, wired or wireless Ethernet, satellite, cellular or landline.

Ideal applications for these warning sirens include hazardous weather conditions, fires, floods, chemical spills and other types of emergencies, the 508-128 siren is an excellent choice to protect any community.

F E A T U R E S

- High-powered rotating siren for maximum coverage
- 500 Hz, 128 dBc output
- Three distinct warning signals
- AC or Solar powered with battery operation or back-up
- Weather-resistant coating

High Power, Directional Rotating Siren (508-128 Siren)

SPECIFICATIONS

Power:¹

Siren can be powered from 120VAC, 240VAC, with battery back-up or battery operation. Solar powering can also be provided

Coverage:²

70 dB	7,300'	Calculated ²
60 dB	14,700'	Calculated ²

Signal Information:³

Signal /Sweep Rate	Frequency Range	Sweep Rate
Steady /Continuous	500 Hz	N.A.
Wail /10 sec.	180-500 Hz	10 sec.
Fast Wail /3.5 sec.	300-500 Hz	3.5 sec.

Pole Mounts:

Wood, steel, composite or concrete poles can be provided.

Contact Federal Signal for details

Communications:

Federal Signal can supply one-way and two-way communications. Radio, IP, Landline, Satellite and Cellular can be combined to provide a robust alerting solution

Operating Temperature:⁴ -22°F to 140°F -30°C to 60°C

Dimensions Height x Width x Depth: 70.1" x 53.4" x 43.1"
(1780.5mm x 1356.4mm x 1094.7mm)

Shipping Weight: 590 lbs 268 kg w/mtg. legs

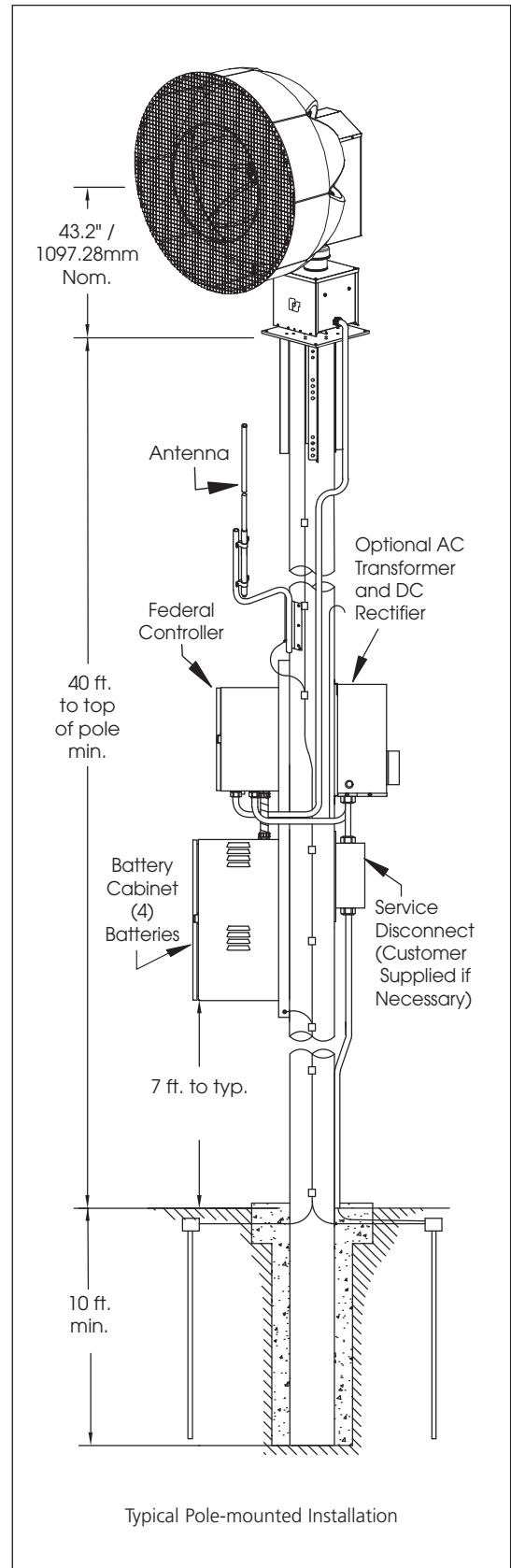
Siren Weight: 430 lbs 195 kg

HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Description	Part Number
Siren Ordering Information: Rotating electro-mechanical siren 128 dBc +/- 1 dBc 48VDC, pole mount included	508-128
Siren Control Ordering Information: One-way FC Controller, 120VAC operation	FC/H/U
Two-way FC Controller, 120VAC operation	FCTBD/H/U
One-way FC Controller, 120VAC to battery operation	DCFCB/H/U⁴
Two-way FC Controller, 120VAC to battery operation	DCFCTBD/H/U⁴
Command and Control for Multiple Siren Installation: Console for siren activation (R for rack mount)	SS2000+/⁵R
Commander software for PC based siren activation, monitoring and control	SFCD⁵

¹ Contact Federal Signal for powering options
² Actual coverage is dependent on many factors, contact Federal Signal for sound analysis of your specific location
³ The siren can operate throughout this temperature range provided that battery temperature is maintained at 18°C or higher
⁴ Batteries not included
⁵ See Product Selection Guide for ordering options





► Model 2

Omni-Directional Siren

Federal Signal's Model 2 siren is the most commonly used siren for fire station and industrial plant alerting. The siren is an outdoor warning siren providing omni-directional coverage capable of producing intense warning signals over a large area. The siren is typically installed on a roof or on a standard utility pole.

The Model 2 is a mechanical single tone siren capable of producing 102 dBc @ 100' while making only moderate power source demands. The Model 2 has a high powered AC motor which operates from either 120VAC/DC or 240VAC/DC. A Federal Signal Model RC2W-120 or -240 motor starter (purchased separately) is required to operate this siren. The Federal Signal motor starter is recommended due to the ability to handle the specific requirements of the Model 2 siren.

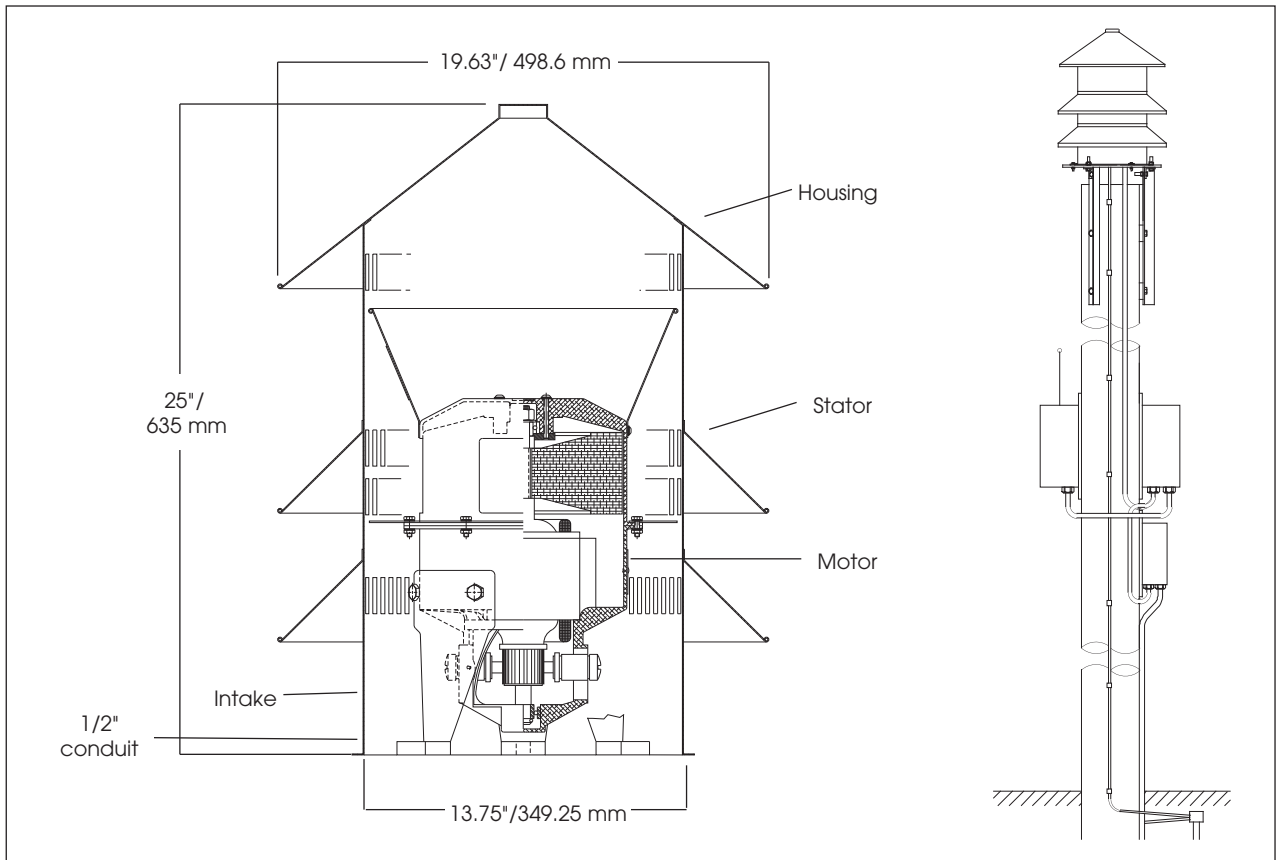
The Model 2 siren and motor starter can be used with the FC controller for further control of the Model 2 siren. The FC provides relay contact closures to activate the RC2W-XXX motor starter. The FC controller can be programmed to activate the siren for a pre-determined interval, can be activated thru radio control or through remote push-buttons.

Federal Signal's Model 2 can serve as an outdoor plant-wide warning system where volume is needed to contrast with high ambient industrial sounds. It is ideal for use in the large, wide open areas found in industrial facilities such as refineries, steel mills and manufacturing plants. The Model 2 can be used for start/stop work signaling, plant evacuation or other emergency situations.

F E A T U R E S

- Available in 120VAC/DC and 240VAC/DC
- High-efficiency design requires only moderate power
- Small compact design
- Powder coating for long life
- Use with RC2W-120/240 motor starter
- Use with FC controller for ease of operation
- Use with FCU/H for remote radio activation
- Produces 102 dBc @ 100'
- Roof mount standard and pole mount optional
- Pole mount with PMS kit

Omni-Directional Siren (Model 2)



SPECIFICATIONS

Recommended Mounting Height:	35-40 feet	10.7-12.2 m
Effective Range*:	1,000 feet	304.8 m
Power Rating:	2 HP	2 HP
Power Requirements:	120VAC/DC 24A, single phase 240VAC/DC 12A, single phase	
Height:	25.5"	65 cm
Diameter:	19.6"	50 cm
Net Weight:	59 lbs	27 kg
Shipping Weight:	85 lbs	36 kg

HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Description	Part Number
120VAC/DC, 102 dBc, Roof mount standard	2-120
240VAC/DC, 102 dBc, Roof mount standard	2-240
120V Motor Starter	RC2W-120
240V Motor Starter	RC2W-240

REPLACEMENT PARTS

Description	Part Number
Bearing (Two Required)	Q8239A045
Brush and Spring (Two Required)	Q8247A020
Brush Holder (Two Required)	Q8247A021

OPTIONAL ACCESSORIES

Description	Part Number
Pole Mount	PMS
Controller, No radio	FC
Controller, VHF radio	FCH
Controller, UHF radio	FCU



► Model Eclipse8

Omni-Directional Siren

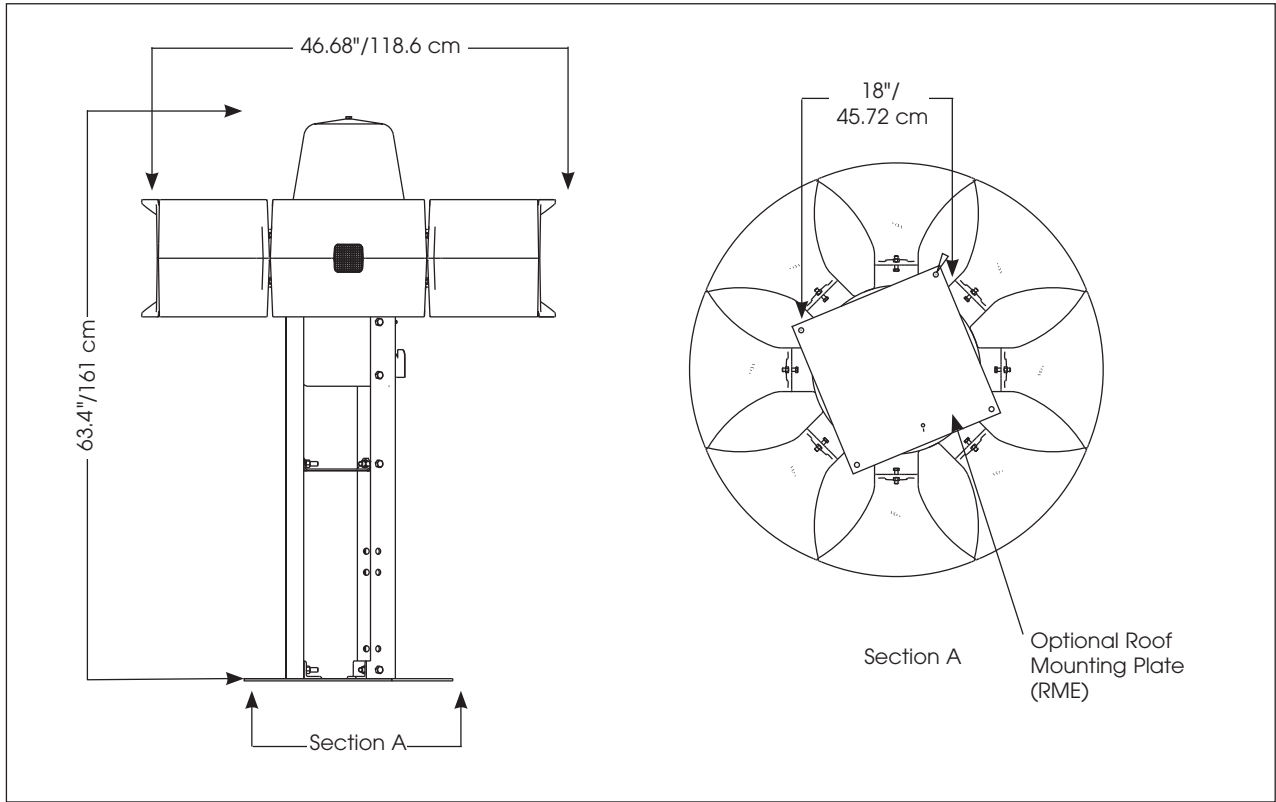
The Eclipse8 is a mid-sized DC-powered omni-directional siren for outdoor warning that produces high intensity warning signals. This powerful and lightweight outdoor siren provides coverage with a maximum sound pressure level of 115 dBc at 100 feet. The high decibel output provides maximum coverage with minimum installation costs. Operating from 48VDC, the siren utilizes the DC motor of our 2001 siren series for proven reliability.

The siren's eight projector horns covers a 360° omni-directional area, with the capability of producing three signal options: steady, wail and fast wail. The Eclipse8 will supply a minimum of 15 minutes of siren operation from its batteries even after 24 hours without AC power. The siren controls are available with battery operation, AC operation and AC operation with battery back-up. One-way and two-way radio control or landline options are available.

FEATURES

- Omni-directional for 360° coverage
- Three distinct warning signals
- Can operate from batteries directly, or using optional AC with battery back-up
- Full battery operation or battery back-up option
- High efficiency design produces 115 dBc @ 100' while making moderate power demands
- Optional roof mount stand
- 100% aluminum design

Omni-Directional Battery Powered Siren (Eclipse8)



SPECIFICATIONS

Operating Temperature:	-22°F to 140°F	-30°C to 60°C
Effective Range @ 70 dBc:		2200'
Height:	63.4"	161.0 cm
Width:	46.68"	118.6 cm
Net Weight:	255 lbs	116.0 kg
Shipping Weight:	380 lbs	173.0 kg

HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Description	Part Number
Siren Ordering Information: Omni-directional siren, includes wood pole mount hardware	Eclipse8
Mounting Ordering Information: Roof Mount Equipment (optional)	RME
Siren Control Ordering Information: Eclipse8 Siren Control AC operated, 208 or 220/240VAC (specify voltage). NEMA 4X aluminum control cabinet, (2) 48VDC contactors, and transformer/rectifier 117 lbs / 53kg	2001-AC
Federal Controller 120VAC NEMA 4X aluminum control cabinet, (4) chargers (2) 48VDC contactors, and NEMA 3R aluminum battery cabinet. (4) preset siren functions. Radio not included. 224 lbs / 102Kg	DCFCB



► Model FC

Siren Controller

The FC Controller is a remote-control activation point for equipment control (such as electro-mechanical sirens) with relay outputs. Ideal for siren control applications and process' controlled via relay contacts. The FC Controller is equipped with a FCX Controller board which can be powered from 12VDC, 48VDC, 120VAC or 220VAC. The FCX Controller board is equipped with 4 relays to control devices such as siren contractors, overhead door controls, lights, beacons, sounders or railway equipment. The FCX Controller board has 4 inputs for use with external switches or contact closures, and can be programmed to activate the onboard relays and/or the audio from the FCM Plus Control board. The FCX Controller board has built-in siren tones that interface to PA or intercom systems. The audio can be activated through physical inputs or the built-in push buttons on the FCX Controller board. The FC is a compact NEMA 4 metal enclosure equipped with a latching and locking mechanism, removable lock not included. The enclosure has a ground stud and three pre-drilled holes for ease of use, and is equipped with a plug for the top RF hole and an AC lightning surge arrester.

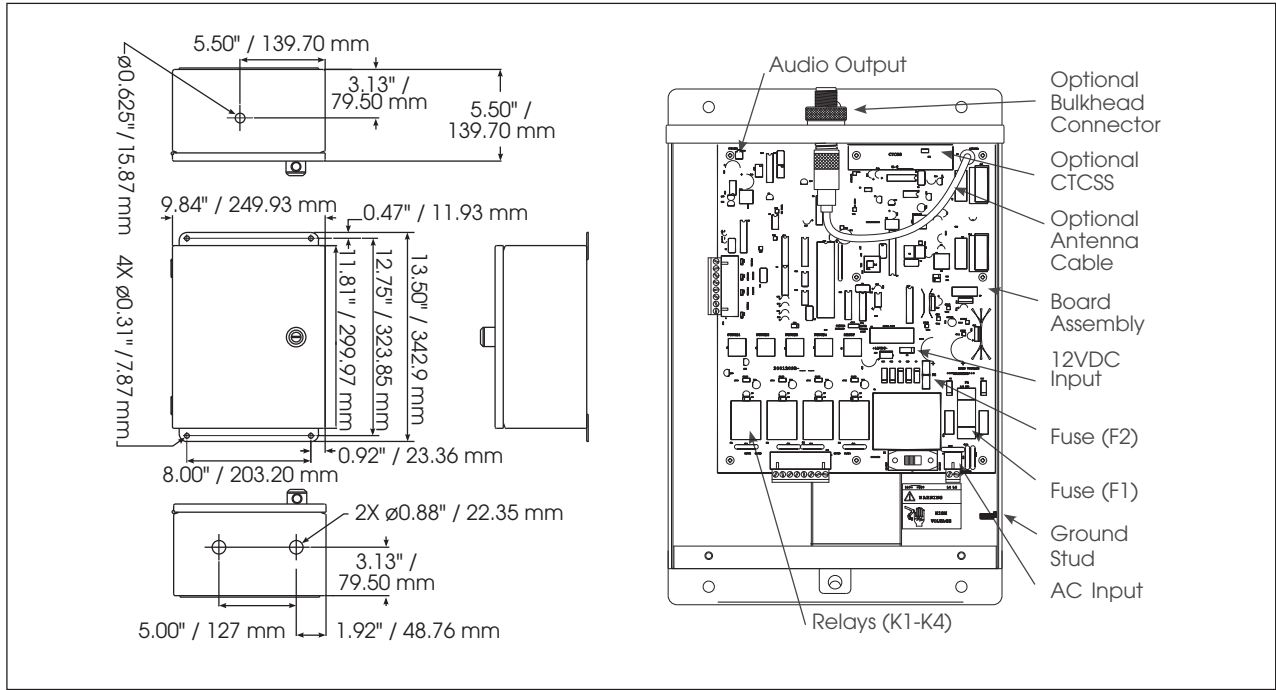
Radios models available are FCH (high-band) and FCU (UHF) which include a synthesized radio receiver. Also available is FSPWARE, a software package that enables computer connection to modify supplied timing or to create unique on/off patterns for control of external equipment. Programming options via FSPWARE include radio receiver frequency, two-tone sequential tones/DTMF decoding digits for security, custom audible signal tones and independent control of output relays and timing patterns for electro-mechanical sirens. Up to six control codes may be programmed and activated through any combination of two-tone sequential, DTMF, EAS, POCSAG, or digital AFSK. Four of the timing sequences can be initiated using local push buttons or remotely through dry contact closures. The use of SFCD Software and SS2000+ allows remote control activation of multiple FC Controllers.

The Federal Controller is an ideal choice to control Eclipse8 and Model 2 siren series, radio activation of indoor PA systems, warning lights or various warning equipment, and fire house alerting applications.

F E A T U R E S

- One-way radio control available
- Simultaneous two-tone sequential, DTMF, EAS, POCSAG, and digital AFSK decoding for security
- Four individually programmable output relays
- Six built in siren tone signals for PA / Intercom
- External inputs / push buttons for local activation

Siren Controller (FC)



SPECIFICATIONS

AC Input Voltage:	120 or 240VAC $\pm 10\%$, 60Hz	
DC Input Voltage:	15-75VDC, 400mA max @ 48VDC or 11-15VDC, 400mA max @ 12VDC	
4 Relays, contact rating:	8A @ 120/240VAC 5A @ 24VDC	
Number of remote activation inputs:	4	
Audio Output:	0-2V peak to peak, maximum load 8 ohms	
Environmental:		
Temperature	-22°F to 149°F / -30°C to 65°C	
Humidity	0-98% non-condensing	
Dimensions H x W x D:	13.5" x 10" x 6" (34.3 cm x 25.4 cm x 15.3 cm)	
Net Weight:	12 lbs	5.4 kg
Shipping Weight:	13 lbs	5.9 kg

HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Description	Part Number
Controller with FC Controller Board	FC
Controller with one-way high-band (150 - 174 MHz) radio receiver	FCH
Controller with one-way UHF band (450 - 470MHz) radio receiver	FCU

OPTIONAL ACCESSORIES

Description	Part Number
Federal programming software (Non-digital applications)	FSPWARE
Tone Coded and Digital Coded Squelch Decode	FS-PL1
Outdoor NEMA 4 Push-button Panel	PBS-4
208-240VAC Transformer rectifier with 48VDC, 120VAC and contactors with enclosure	2001-AC
Motor starter/cabinet NEMA 3R 120VAC	RC2W-120
Motor starter/cabinet NEMA 3R 240VAC	RC2W-240
Model 2, 120VAC/DC Omni-directional Siren	2-120
Model 2, 240VAC/DC Omni-directional Siren	2-240
Model 2 Pole Mount	PMS

See Project 25 product on page 276 for optional P25 configuration accessories if desired

REPLACEMENT PARTS

Description	Part Number
FC Control Board	Q20000200D
Radio Receiver High-Band	Q2005240G-02
Radio Receiver UHF Band	Q2005240G-03
Controller board only with one-way high-band (150 - 174 MHz) radio receiver	Q-FCMH
Q-FCMU Controller board only with one-way UHF band (450 - 470MHz) radio receiver	Q-FCMU



► Model FCTBD

Two-way control and status monitoring

The FCTBD controller can control and monitor any electro-mechanical siren, and may be used in conjunction with the SS2000+ or Commander PC based software located at a central command point. The FCTBD will automatically report change in status back to the central command point through radio, IP, cellular, satellite or landline connections. The central command point can also poll the FCTBD for current status conditions. Status indicators are provided for intrusion alerts, activations and power issues. The FCTBD offers the ability to monitor six remote sensor inputs, such as: AC power, low battery and up to three additional sensors to monitor siren operation. The FCTBD is packaged in a NEMA 4 aluminum weatherproof cabinet and comes equipped with DIN rail for 120 or 240VAC power connections, 120/240VAC to 12VDC power supply, gel battery, FCM Plus control board, and AC power surge protection. Power wiring is fuse protected, with replaceable fuses. Standard features include intrusion switch for detection of door opening. Battery backup for FCM Control board and radio communications.

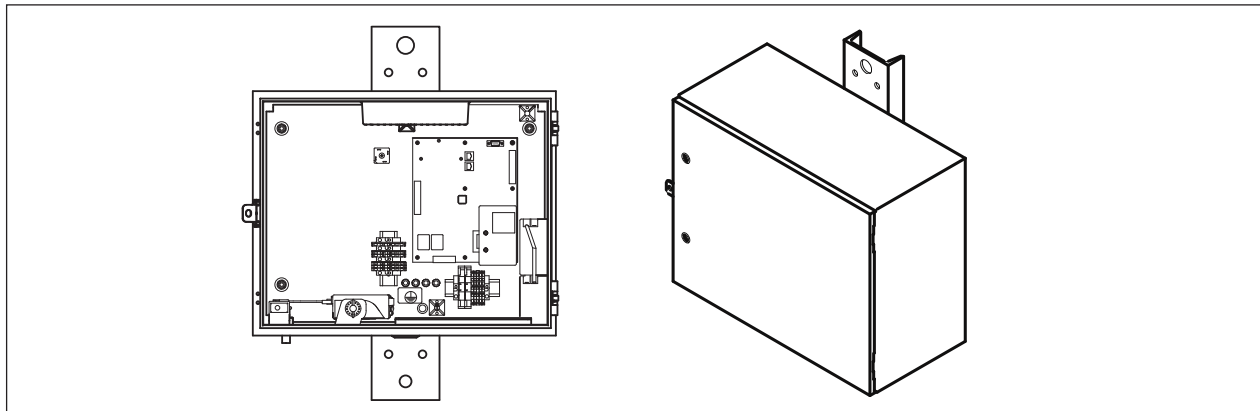
The FCTBD can also be ordered as FCTBDH and FCTBDU which includes a Vertex radio transceiver (FCTBDH = high band or FCTBDU = UHF). FSPWARE, an optional software package, enables connection to a computer to modify supplied timing or to create unique on/off patterns for control of external equipment, such as sirens. Programming options via FSPWARE include radio frequency, two-tone sequential tones/DTMF decoding digits for security, custom audible signal tones and independent control of output relays and timing patterns for electro-mechanical sirens. Up to six control codes may be programmed and activated by any combination of two-tone sequential, DTMF, EAS, POCSAG, and digital AFSK. Four of the timing sequences can be initiated using local push buttons or remotely through dry contact closures. The use of Commander Software and SS2000+ allows remote control activation, monitoring and networking of multiple FCTBD Controllers.

The FCTBD can also be equipped with an IP interface to allow high speed connections to the siren controller. Federal Signal recommends use of Commander software to create a fully redundant siren control system. The FCTBD is an ideal choice for upgrading or retrofitting one-way controls to two-way status monitoring for use with existing electro-mechanical sirens like the Federal Signal 2001-130, Equinox, 508-128, Eclipse8 and Model 2 sirens.

FEATURES

- Two-way control, activation and status monitoring
- Four individually programmable output relays
- Six built in siren tone signals for PA/Intercom
- External inputs for sensors and activation
- Push buttons for local activation
- Internal battery back-up
- 120 or 240VAC power
- UL and cUL listed, and DNV certified
- Simultaneous two-tone sequential, DTMF, EAS, POCSAG, and digital AFSK decoding for security

Two-Way Control and Status Monitoring (FCTBD)



SPECIFICATIONS

AC Input Voltage:	120 or 240VAC ±10%, 60Hz 3A	
DC charger/radio power:	120 or 240VAC switch selectable	
Battery:	Sealed Lead Acid/12A Hr	
4 Relays, contact rating:	8A @ 120/240VAC 5A @ 24VDC	
Number of remote activation inputs:	4	
Audio Output:	0-2V peak to peak, maximum load 8 ohms	
Environmental:		
Temperature	-22°F to 149°F / -30°C to 65°C	
Humidity	0-98% non-condensing	
Net Weight	95 lbs	43.2 kg
Shipping Weight	155 lbs 7	0.5 kg
Dimensions H x W x D:	19" x 23" x 11.2" (48.3 cm x 60 cm x 28.5 cm)	
Shipping Weight:	155 lbs	70.3 kg

HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Description	Part Number
Two-way Controller with FCPlus Control Board and radio	FCTBD
Two-way Controller with FCPlus Control Board and Radio, high band 148-174 MHz	FCTBDH
Two-way Controller with FCPlus Control Board and Radio, UHF band 403-470 MHz	FCTBDU
Two-way IP-enabled Electro-mechanical Controller	FCTBD-IP

Notes:
Antenna and cable are not included with radio activation control and must be ordered separately.
Broadband radio and Commander software sold separately.

REPLACEMENT PARTS

Description	Part Number
12VDC Charger	Q2000288
12VDC Battery	Q155193A
FC+ Control Board	Q2000200C

OPTIONAL ACCESSORIES

Description	Part Number
Windows Programming Software (Non-digital applications)	FSPWARE
Commander® Software System, *10, 25, 255, or 512 Site License	SFCD*
Hardware Controller	SS2000+
Telco Base, Landline	TB-LL
Single motor AC current sensor	SK-SM
Three motor AC current sensor	SK-3M
Single phase, 120VAC voltage sensor	SK1-120
Single phase, 240VAC voltage sensor	SK1-240
3-phase, 240VAC voltage sensor	SK3-240
3-phase, 480VAC voltage sensor	SK3-480

See Project 25 product on page 248 for optional P25 configuration accessories if desired



► Model DCFCTBD

Two-Way Digital Controller for Electro-Mechanical Sirens

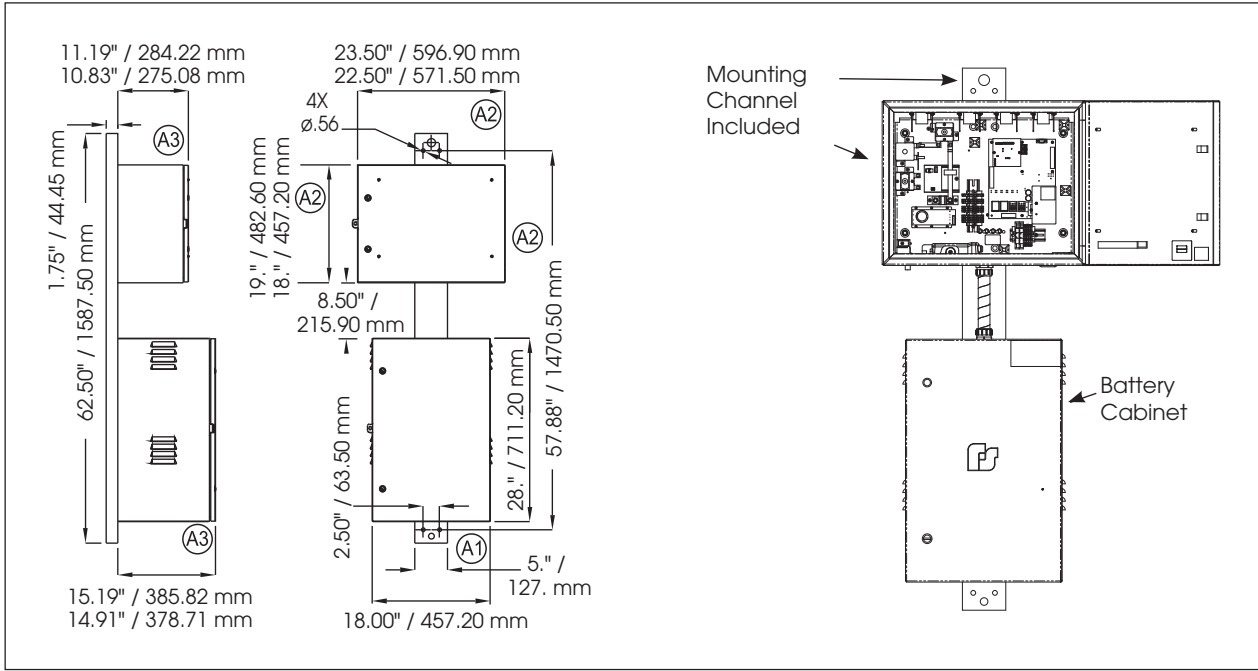
Federal Signal DCFCTBD siren controllers are two-way digital, battery-operated/back-up and status monitoring systems for use with the Federal Signal 2001-130, Equinox, 508-128 and Eclipse8 sirens. The DCFCTBD siren controller typically interfaces with off-the-shelf two-way radio transceivers and communicates to a base controller. DCFCTBD siren controllers can be used with radios utilizing single-tone, two-tone sequential, DTMF, POCSAG, AFSK, EAS and digital formats such as P25 and Tetra. The DCFCTBD controllers can be equipped with optional communications such as landline, IP, fiber, satellite, and cellular. This makes DCFCTBD siren controllers compatible with virtually any existing siren control system or communication method. There are four local inputs and four local push buttons for activation, plus a reset option.

DCFCTBD models come equipped with four independent relay outputs that can be programmed to activate with local inputs, local pushbuttons or via the communications channels. Activation codes, relay timing, and optional warning sounds are programmed into the unit through a standard RS232 serial port or over-the-air from the central control point. The DCFCTBD siren controller offers six user programmable functions in addition to the five pre-set functions (arm, disarm, report, growl test and master reset). These controllers include sensors to supply information on the following areas of operation: AC power status, communications status, low battery status, intrusion, siren activation, current intrusion, siren rotation and local activation.

FEATURES

- Two-way siren controller for 48VDC Sirens
- Two-way radio control and status monitoring
- Simultaneous two-tone sequential, DTMF, EAS, POCSAG, and digital AFSK decoding for security
- Able to utilize multiple communication paths for redundancy
- Controls mechanical sirens, including models 2001-130, Equinox, 508-128 and Eclipse8
- Solar options available
- Push buttons for local activation
- Landline, Ethernet (IP) or radio control
- UL Listed for general signaling
- DNV Certified

Two-Way Digital Controller for Electro-Mechanical Sirens (DCFCTBD)



SPECIFICATIONS

Operating Temperature:	-22°F to 149°F / -30°C to 65°C	
AC supply voltage:	120VAC @ 4.0 Amps 240VAC @ 2.0 Amps	
Battery Backup:	48VDC	
Current Draw:	+/- 10%, 50/60 Hz, maximum standby current	
DCFCTBD Power Supply:	6A @ 13.3VDC	
Battery Backup:	48VDC	
Current Draw:	< 0.2 amps in standby	
Serial Port Protocol:	RS232C 1200, N, 8, 1	
Programmable Frequency:	Power Out and Private Line options. For further details, consult the Vertex® product manual.	
EAS:	Supports standard EAS codes and wildcards	
POCSAG:	Supports binary AFSK 512 Baud numeric messages.	
4 relay outputs:	SPST	
Contact Rating: (4 relays standard)	5A @ 28VDC – 8A @ 240VAC	
Shipping Weight:		
DCFCTB Total Weight (including batteries)	364 lbs	165 kg
Shipping Weight (excluding batteries)	300 lbs	136 kg
2001TRBP Net Weight	150 lbs	68 kg
2001TRBP Shipping Weight	190 lbs	86.2 kg

HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.

Description	Part Number
Two-way Controller DC Powered, no radio	DCFCTBD
Two-way Controller, Radio Controlled, DC Powered (H=high band, U=UHF)	DCFCTBDH/U
Two-way Controller, IP-enabled, DC Powered	DCFCTBD-IP

Note:

Antenna and cable are not included with radio activation control and must be ordered separately

Batteries required. Call for assistance with specific system requirements

OPTIONAL ACCESSORIES

Description	Part Number
Federal programming software (Non-digital applications)	FSPWARE
Commander® Software System, *10, 25, 255, or 512 Site License	SFCD*
208-240VAC operation	2001TRBP
Activation system	SS2000+
Solar powered option	Contact Federal Signal
Antenna	Contact Federal Signal



Sample Ordering Configurations for Electro-Mechanical Sirens

Identify the components needed when ordering

ONE - WAY WITHOUT RADIO

Configuration 1: 2001 Siren with one-way controller, no radio, 240VAC Powering, no batteries

2001-130	Siren Head
2001-AC	AC Transformer and Contractor Enclosure for Eclipse8, 2001 or 508 Sirens
FC	Federal Controller/Timer

Configuration 2: 2001 Siren with one-way controller, no radio, battery operation

2001-130	Siren Head
DCFCB	Federal Controller/Timer
15500007A-02	Qty 4 - Battery sealed AGM 105Ah (MK Battery 8A31)

Configuration 3: 2001 Siren with one-way controller, no radio, battery operation

2001-130	Siren Head
2001TRBP	Nominal 240VAC to 48VDC/120VAC Power Converter
DCFCB	Federal Controller/Timer
15500007A-02	Qty 4 - Battery sealed AGM 105Ah (MK Battery 8A31)

ONE - WAY WITH RADIO

Configuration 4: Activation Control Point

SS2000+	Digital and DTMF Control Station, Desk Mount
BSH	Base Station High band Radio Package (order part no. BSU for UHF)

Configuration 5: 508 Siren with one-way control, radio, 240VAC Powering, no batteries

508-128	Siren Head
2001-AC	AC Transformer and Contractor Enclosure for Eclipse8, 2001 or 508 Sirens
FCH	Federal Controller/Timer (order part no. FCU for UHF)
RP164	Antenna
AMB-RP164	Antenna mounting bracket for RP164
10A3	25 ft. Cable

Configuration 6: 2001 Siren with one-way control, radio, 120VAC to battery operation

2001-130	Siren Head
DCFCBH	High band Federal Controller/Timer (order part no. DCFCBU for UHF)
15500007A-02	Qty 4 - Battery sealed AGM 105Ah (MK Battery 8A31) Antenna
RP164	Antenna mounting bracket for RP164
AMB-RP164	Antenna mounting bracket for RP164
10A3	25 ft. Cable

Configuration 7: 2001 Siren with one-way control, radio, 240VAC to Battery Operation

2001-130	Siren Head
2001TRBP	Nominal 240VAC to 48VDC/120VAC Power Converter
DCFCBH	High band Federal Controller/Timer (order part no. DCFCBU for UHF)
15500007A-02	Qty 4 - Battery sealed AGM 105Ah (MK Battery 8A31) Antenna
RP164	Antenna mounting bracket for RP164
AMB-RP164	Antenna mounting bracket for RP164
10A3	25 ft. Cable



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- Hazardous location models





► Model 310-MV

AudioMaster® Two-Way Intercom

Federal Signal's AudioMaster® 310-MV is an industrial intercom that provides reliable two-way communications and superior sound quality.

The AudioMaster 310-MV's standard features include volume control, call button, balanced line output, dust- and water-tight housing, listen/talk switch, remote device activation and the ability to power another intercom at 24VDC.

This heavy duty intercom will operate from -31°F to 150°F (-35°C to 66°C) in both indoor and outdoor applications. Remote device activation allows you to activate an auxiliary signal such as a horn or light.

The AudioMaster 310-MV intercom is easy to operate. Press the toggle switch to talk and then release to listen. Additionally, press the call button to get the attention of personnel at another intercom.

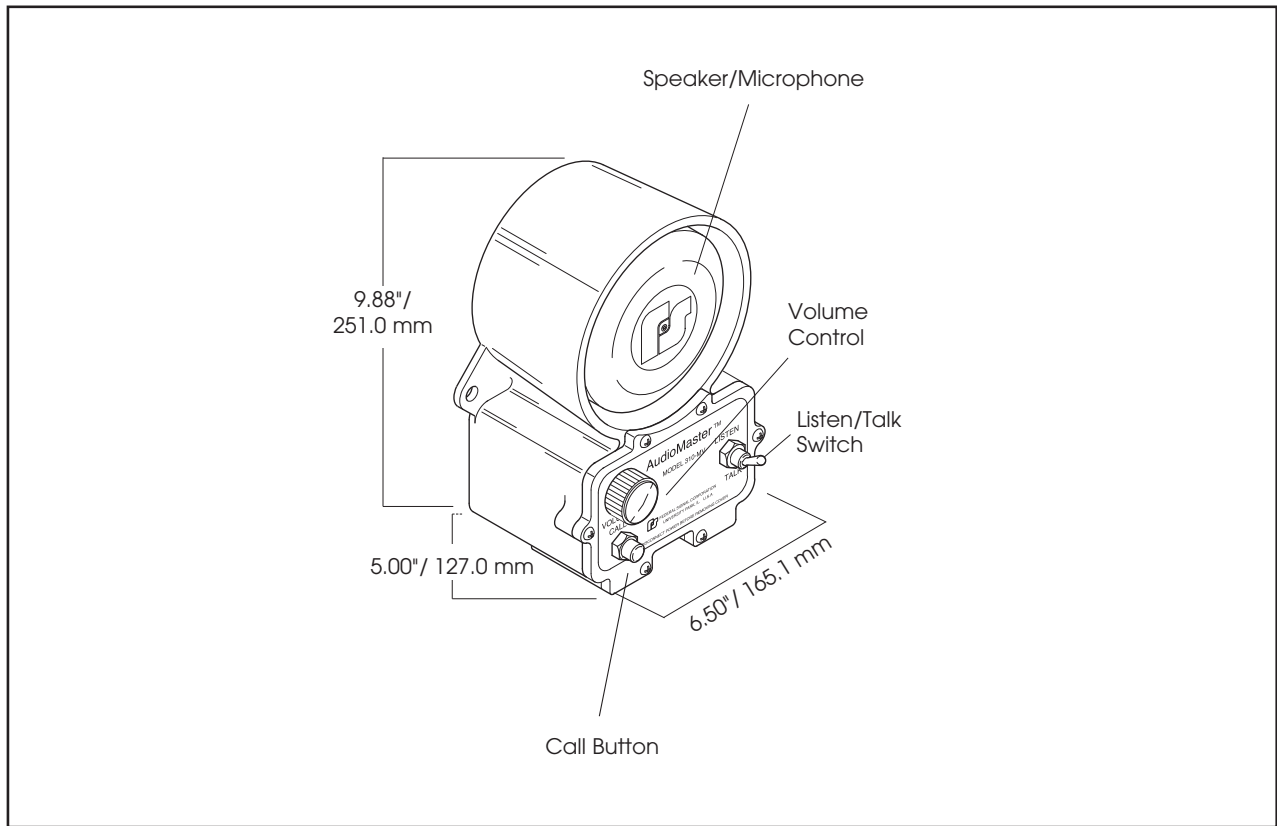
The 310-MV is ideal for use at oil refineries, petrochemical plants, offshore platforms, pulp and paper mills, water treatment facilities, airports, shipyards or anywhere reliable two-way communication is important for safe and efficient operation.

FEATURES

- Multi-voltage design accepts 24VDC and 120VAC/240VAC
- Heavy-duty industrial intercom for indoor or outdoor applications
- Balanced line output
- Call button
- Indoor/outdoor use
- Talk/Listen switch
- Volume control
- Auxiliary remote signal contact
- Conformal coated PCB
- Type 4X, IP65 enclosure
- Marine Listed
- CSA Certified
- UL Listed

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT	FREQUENCY RESPONSE (-6 dBA)	INPUT IMPEDANCE
310-MV	24VDC	465 mA	62 mA	150Hz-12KHz	3400 Ohms
	120VAC 50/60Hz	163 mA	70 mA	150Hz-12KHz	3400 Ohms
	240VAC 50/60Hz	82 mA	35 mA	150Hz-12KHz	3400 Ohms

AudioMaster® Two-Way Intercom (310-MV)



SPECIFICATIONS

Speaker Rating:		25 watt
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	9.9 lbs	4.5 kg
Shipping Weight:	11.5 lbs	5.2 kg
Height:	9.88"	251.0 mm
Width:	6.50"	165.1 mm
Depth:	5.00"	127.0 mm

HOW TO ORDER

Specify Model:

310-MV – Intercom, 24VDC/120VAC/240VAC, industrial, wall mount

REPLACEMENT PARTS

Description	Part Number
PC Board Assembly	K2001915C-02
Connector, 10 Pin	K140A326A-01
Resistors, 1K, 1W	K101216A
Gasket, rubber	K8590013B
Kit, potentiometer	K8590237A
Kit, toggle switch	K122A298A
Kit, call button and boot	K8590241A*

* For use with 120VAC or 240VAC operation



► Model 310X-MV

AudioMaster® Hazardous Location Two-Way Intercom

Federal Signal's AudioMaster® 310X-MV is a two-way industrial intercom that provides reliable communication and superior sound quality.

The AudioMaster 310X-MV's standard features include volume control, call button, balanced line output, dust- and water-tight housing, listen/talk switch, remote device activation, and the ability to power another intercom at 24VDC.

This heavy duty intercom will operate from -31°F to 150°F (-35°C to 66°C) for both indoor and outdoor applications. Remote device activation allows you to activate an auxiliary signal such as a horn or light.

The AudioMaster 310X-MV intercom is easy to operate. Press the toggle switch to talk and then release to listen. Additionally, press the call button to get the attention of personnel at another intercom.

The 310X-MV is ideal for use at oil refineries, petrochemical plants, offshore platforms, pulp and paper mills, water treatment facilities, airports, shipyards or anywhere reliable two-way communication is important for safe and efficient operation.

FEATURES

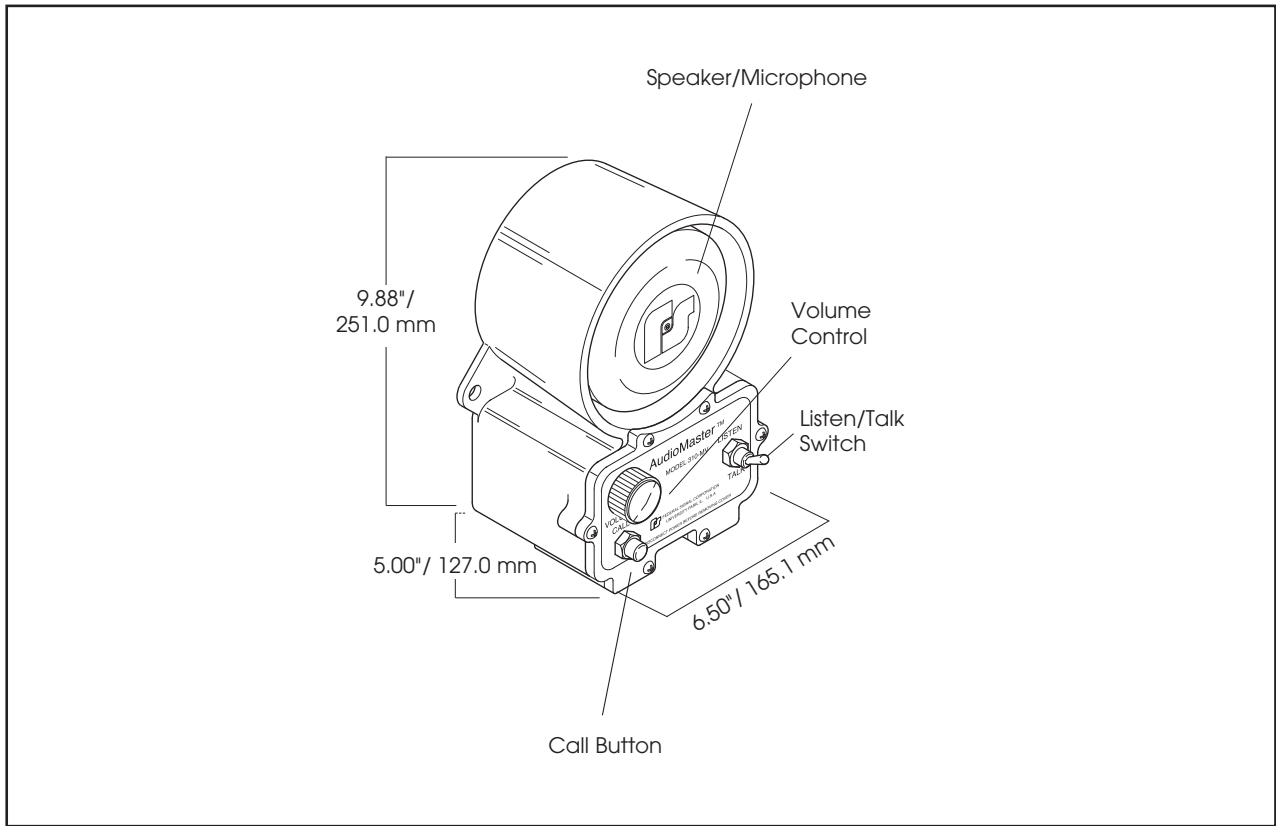
- Multi-voltage design accepts 24VDC, 120VAC and 240VAC
- Heavy-duty industrial intercom for indoor/outdoor applications
- Balanced line output
- Call button
- Talk/Listen switch
- Volume control
- Auxiliary remote signal contact
- Marine Listed
- Conformal coated PCB
- Type 4X, IP65 enclosure
- CSA Certified
- UL and cUL Listed for Class I, Division 2, Group A, B, C and D; Class II, Division 2, Groups F and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT	FREQUENCY RESPONSE (-6 dBA)	INPUT IMPEDANCE
310X-MV	24VDC	465 mA	62 mA	150Hz-12KHz	3400 Ohms
	120VAC 50/60Hz	163 mA	70 mA	150Hz-12KHz	3400 Ohms
	240VAC 50/60Hz	82 mA	35 mA	150Hz-12KHz	3400 Ohms

HAZARDOUS LOCATION RATING: 310X-MV

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C		
HAZARDOUS LOCATION	40 °C	65 °C
Class I, Division 2, Groups A, B, C, D	T4A	T4
Class II, Division 2, Groups F, G	T6	T5
Class III	T6	T5

AudioMaster® Hazardous Location Two-Way Intercom (310X-MV)



SPECIFICATIONS

Speaker Rating:		30 watt
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	9.9 lbs	4.5 kg
Shipping Weight:	11.5 lbs	5.2 kg
Height:	9.88"	251.0 mm
Width:	6.50"	165.1 mm
Depth:	5.00"	127.0 mm

HOW TO ORDER

Specify Model:

310X-MV – Intercom, 24VDC/120VAC/240VAC, hazardous location, wall mount

REPLACEMENT PARTS

Description	Part Number
PC Board Assembly	K2001915C-02
Connector, 10 Pin	K140A326A-01
Resistors, 1K, 1W	K101216A
Gasket, rubber	K8590013B-01
Kit, potentiometer	K8590237A
Kit, toggle switch	K122A298A
Kit, call button and boot	K8590241A*

* For use with 120VAC or 240VAC operation

OPTIONAL ACCESSORIES

Description	Part Number
Listen/Talk Kit	K8502017A



► Model 310-MV-MNC

AudioMaster® Two-way Intercom with Noise Canceling Microphone

Federal Signal's AudioMaster® 310-MV-MNC is a two-way industrial intercom that provides reliable communications and superior sound quality.

The AudioMaster 310-MV-MNC's standard features include volume control, call button, balanced line output, listen/talk switch, remote device activation, and the ability to power another intercom at 24VDC.

This heavy duty intercom will operate from -31°F to 150°F (-35°C to 66°C). The remote device activation feature allows you to activate an auxiliary signal such as a horn or light.

When the ambient noise level is too high for the standard 310-MV integrated microphone, the 310-MV-MNC noise canceling unit is used to improve transmission quality.

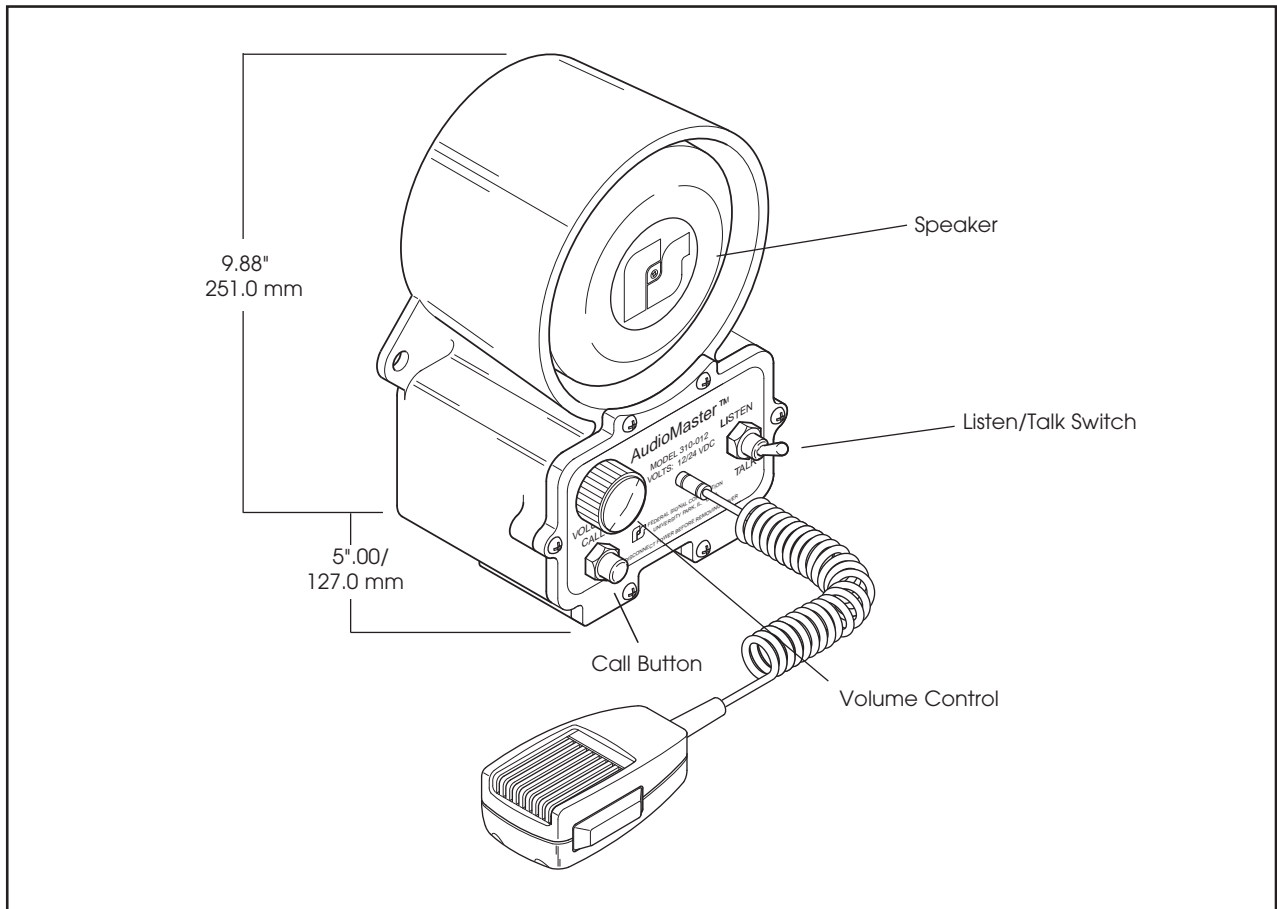
The 310-MV-MNC is ideal for use at oil refineries, petrochemical plants, offshore platforms, pulp and paper mills, water treatment facilities, airports, shipyards or anywhere reliable two-way communication is important for safe, efficient operation.

FEATURES

- Multi-voltage design accepts 24VDC, 120VAC and 240VAC
- Heavy-duty industrial intercom
- Noise canceling microphone
- Call button
- Talk / Listen switch
- Volume control
- Auxiliary remote signal contact
- Balanced line output
- Conformal coated PCB
- Type 3R enclosure
- Marine Listed
- CSA Certified
- UL Listed

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT	FREQUENCY RESPONSE (-6dBA)	INPUT IMPEDANCE
310-MV-MNC	24VDC	465 mA	62 mA	150Hz-12KHz	3400 Ohms
	120VAC 50/60Hz	163 mA	70 mA	150Hz-12KHz	3400 Ohms
	240VAC 50/60Hz	82 mA	35 mA	150Hz-12KHz	3400 Ohms

AudioMaster® Two-way Intercom with Noise Canceling Microphone (310-MV-MNC)



SPECIFICATIONS

Speaker Rating:		30 watt
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	10.1 lbs	4.6 kg
Shipping Weight:	12.0 lbs	5.4 kg
Height:	9.88"	251.0 mm
Width:	6.50"	165.1 mm
Depth:	5.00"	127.0 mm

HOW TO ORDER

Specify Model:

310-MV-MNC – Intercom, 24VDC/120VAC/240VAC, wall mount, with microphone

REPLACEMENT PARTS

Description	Part Number
PC Board Assembly	K2001915C
Connector	K140A326A-01
Microphone	MNC-MC
Kit, potentiometer	K8590237A
Kit, toggle switch	K122A298A
Kit, call button and boot	K8590241A*
Resistors, 1K, 1W	K101216A
Gasket, rubber	K8590013B

* For use with 120VAC or 240VAC operation



Models AD-SF-25, AD-SS-25 and AD-SO-25

Atkinson Dynamics Non-Amplified Speakers

Available for both indoor and outdoor applications, these 25 watt Speakers feature a heavy duty cast aluminum housing with powder coat finish, talk-back capability and optional integrated volume control. Speakers are available for flush, wall and swivel mounting.

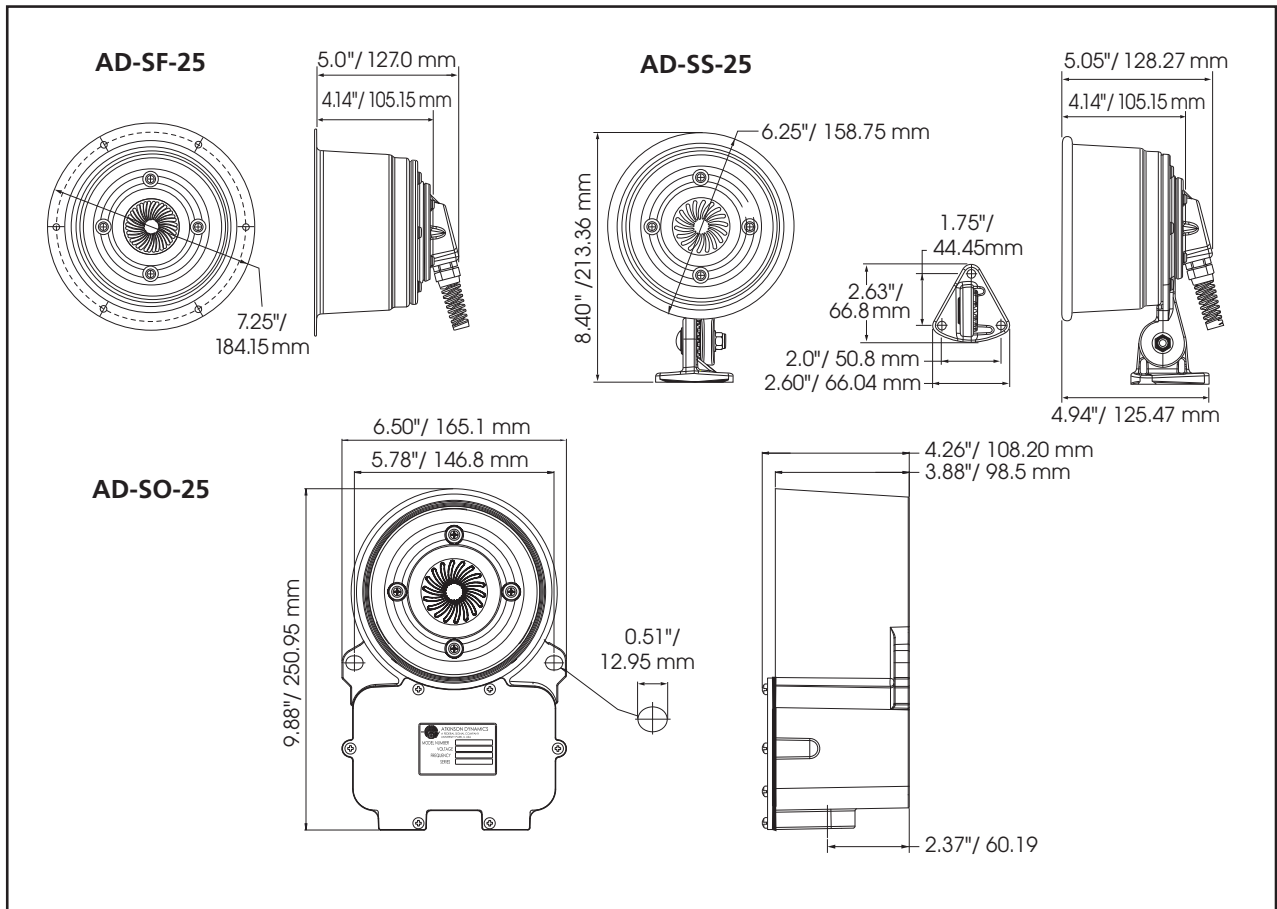
FEATURES

- 25 Watt speakers
- Heavy duty cast aluminum housing
- Powder coat paint finish
- Flush, wall and swivel mount options
- Indoor/outdoor use
- Type 4X, IP66 enclosure

Non-Amplified Speakers Requires option (-8), Pre-Amp Equipped

MODEL	FREQUENCY RESPONSE	INPUT IMPEDANCE	MOUNTING
AD-SF-25	800-5000Hz	8 Ohms	Flush
AD-SS-25	800-5000Hz	8 Ohms	Swivel
AD-SO-25	800-5000Hz	8 Ohms	Wall

Atkinson Dynamics Non-Amplified Speakers (AD-SF-25, AD-SS-25 and AD-SO-25)



SPECIFICATIONS

Speaker Rating:		25 watt
Operating Temperature:	-50°F to 150°F	46°C to 66°C
Net Weight:		
AD-SF-25	5.0 lbs	2.27 kg
AD-SS-25	6.0 lbs	2.72 kg
AD-SO-25	8.0 lbs	3.63 kg
Shipping Weight:		
AD-SF-25	5.5 lbs	2.49 kg
AD-SS-25	6.0 lbs	2.72 kg
AD-SO-25	10.0 lbs	4.53 kg
Dimensions:		
AD-SF-25		
Diameter	7.25"	184.2 mm
Depth	5.00"	127.0 mm
AD-SS-25		
Height	8.40"	213.4 mm
Width	6.25"	158.8 mm
Depth	5.05"	128.3 mm
AD-SO-25		
Height	9.88"	251.0 mm
Width	6.50"	165.1 mm
Depth	4.26"	108.2 mm

HOW TO ORDER

Specify Model:

Non-Amplified Speakers:

- AD-SF-25** (flush mount)
- AD-SS-25** (swivel mount)
- AD-SO-25** (wall mount)



► Model AD-28X-MV

Atkinson Dynamics Hazardous Location Wall Mount Intercom

Designed for single-channel, two-way indoor and outdoor communication applications, the Hazardous Location Wall-Mount Intercoms are UL and cUL listed. Features include integrated volume control, Talk/Listen switch, corrosion resistant cast aluminum housing with rugged powder coat finish (Type 4X, IP65 enclosure), reliable 25-watt speaker and balanced line output. These heavy-duty units are UL and cUL Listed, CSA Certified and Marine rated and are designed for multi-voltage operation: 24VDC, 120VAC and 240 VAC, 50/60Hz.

FEATURES

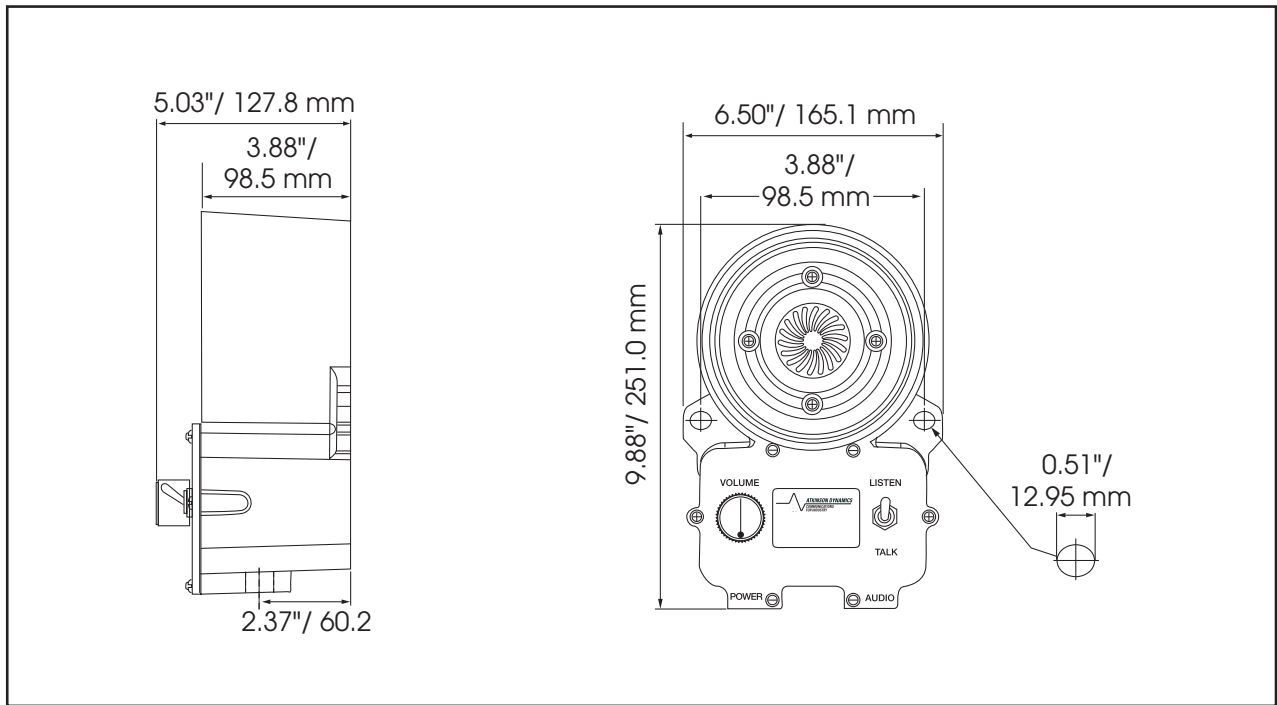
- Heavy-duty industrial intercom for indoor/outdoor applications
- Single channel, two-way communications
- Integrated volume control and Talk/Listen switch
- Call Button
- Balanced line output
- 25 watt speaker
- Cast aluminum housing with rugged powder coat finish
- Multi-voltage operation: 24VDC, 120VAC and 240VAC
- Field configurable master/slave operating mode
- Remote power capable @24VDC
- Auxiliary signal activation contact
- Type 4X, IP65 enclosure
- Marine Listed
- CSA Certified
- UL and cUL Listed for Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups F and G; Class III.

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT	FREQUENCY RESPONSE
AD-28X-MV	24VDC	260 mA	62 mA	150Hz-12.0kHz
	120VAC 50/60Hz	163 mA	70 mA	150Hz-12.0kHz
	240VAC 50/60Hz	82 mA	35 mA	150Hz-12.0kHz

HAZARDOUS LOCATION RATING: AD-28X-MV

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C		
HAZARDOUS LOCATION	40 °C	65 °C
Class I, Division 2, Groups A, B, C, D	T6	T5
Class II, Division 2, Groups F, G	T6	T5
Class III	T6	T5

Atkinson Dynamics Hazardous Location Wall Mount Intercom (AD-28X-MV)



SPECIFICATIONS

Speaker Rating:		25 watt
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	9.25 lbs	4.20 kg
Shipping Weight:	10.7 lbs	4.85 kg
Dimensions:		
Height	9.88"	251.0 mm
Width	6.50"	165.1 mm
Depth	5.03"	127.8 mm

HOW TO ORDER

Specify Model:

AD-28X-MV – Intercom, hazardous location 24VDC/120VAC/240VAC, wall mount

REPLACEMENT PARTS

Description	Part Number
PC Board assembly	K2001915C-02
Connector, 10 pin	K140A326A-01
Kit, potentiometer	K8590237A
Kit, toggle switch	K122A298A
Kit, call button and boot	K8590241A*
Resistors, 1K, 1W	K101216A
Gasket, rubber	K8590013B-01

* For use with 120VAC or 240VAC operation



► Models AD-26, AD-27, AD-56 and AD-57

Atkinson Dynamics Wall Mount Intercoms

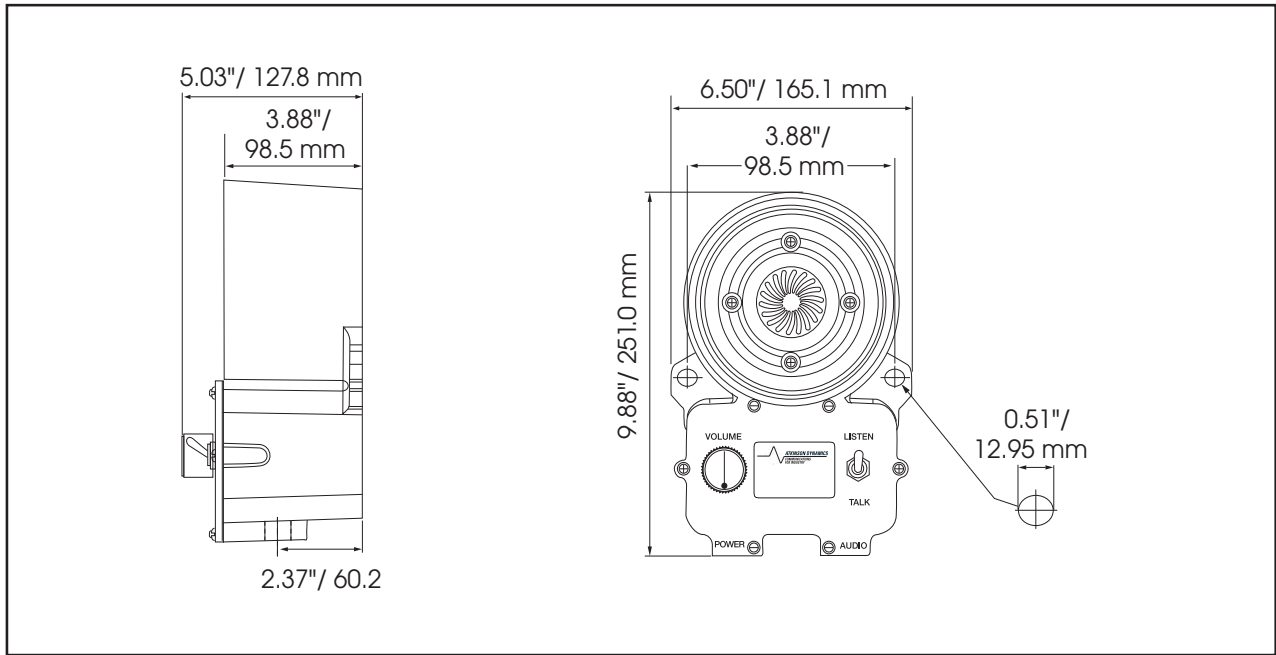
Designed for single-channel, two-way indoor and outdoor communication applications, Wall-Mount Intercoms feature integrated volume control, TALK/LISTEN switch, corrosion resistant cast aluminum housing with rugged powder coat finish (Type 4X enclosure), reliable 25-watt speaker, and balanced line output. These heavy duty units are UL and cUL listed, CSA Certified and Marine rated; and available in 12VDC, 24VDC, 120VAC, or 240VAC 50/60Hz models.

FEATURES

- Available in 12VDC, 24VDC, 120VAC, or 240VAC 50/60Hz
- Heavy-duty industrial intercom for indoor/outdoor application
- Single-channel, two-way communications
- Integrated volume control and Talk/Listen switch
- Balanced line output
- 25 watt speaker
- Cast aluminum housing with rugged powder coat finish
- Conformal coated PCB
- Type 4X enclosure
- Marine Listed
- CSA Certified
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT	FREQUENCY RESPONSE
AD-26	12VDC	1.47 A	100 mA	320Hz - 8.0Khz
AD-27	120VAC 50/60Hz	240 mA	83 mA	320Hz - 8.0Khz
AD-56	24VDC	1.65 A	100 mA	320Hz - 8.0Khz
AD-57	240VAC 50/60Hz	127 mA	83 mA	320Hz - 8.0Khz

Atkinson Dynamics Wall Mount Intercoms (AD-26, AD-27, AD-56 and AD-57)



SPECIFICATIONS

Speaker Rating		25 watt
Operating Temperature	-31°F to 150°F	-35°C to 66°C
Net Weight	9 lbs	4.08 kg
Shipping Weight:		
AD-26	10.0 lbs	4.54 kg
AD-27	10.7 lbs	4.85 kg
AD-56	10.0 lbs	4.54 kg
AD-57	10.7 lbs	4.85 kg
Height	9.88"	251.0 mm
Width	6.50"	165.1 mm
Depth	5.03"	127.8 mm

HOW TO ORDER

Step 1: Specify Base Model

- AD-26** (12VDC, Wall Mount Intercom)
- AD-27** (120VAC, Wall Mount Intercom)
- AD-56** (24VDC, Wall Mount Intercom)
- AD-57** (240VAC, Wall Mount Intercom)

Step 2: Add Optional Features

Example Part Number: AD-27A

OPTIONAL FEATURES

Note: Not all optional features are available for every model. Please consult factory to confirm model variation availability.

Description	Optional Feature
Call Button, Sends call tone to other intercoms on the same audio line	A
Master, controls Talk/Listen function of a Slave unit	C
Slave, allows hands free operation, default Talk mode	D
Foot Pedal Ready, hands free operation of the Talk/Listen switch, pedal sold separately (ADFP)	-2
Auxiliary Signal, remote call button activated contact closure to activate remote strobe for additional attention gathering*	-3
Zoned System Remote, designed to be a remote unit in a zoned system. (Contact factory for zone design assistance)	-6
Noise Canceling Microphone Ready, equipped with a jack for hand held microphone sold separately	-7
Pre-Amp Equipped, pre-amp to power a remote speaker	-8
Remote Volume Control Equipped, equipped with volume control for remote speaker	-M44

*LP3 strobe sold separately



► Models AD-26P, AD-27P and AD-56P

Atkinson Dynamics Panel Mount Intercoms



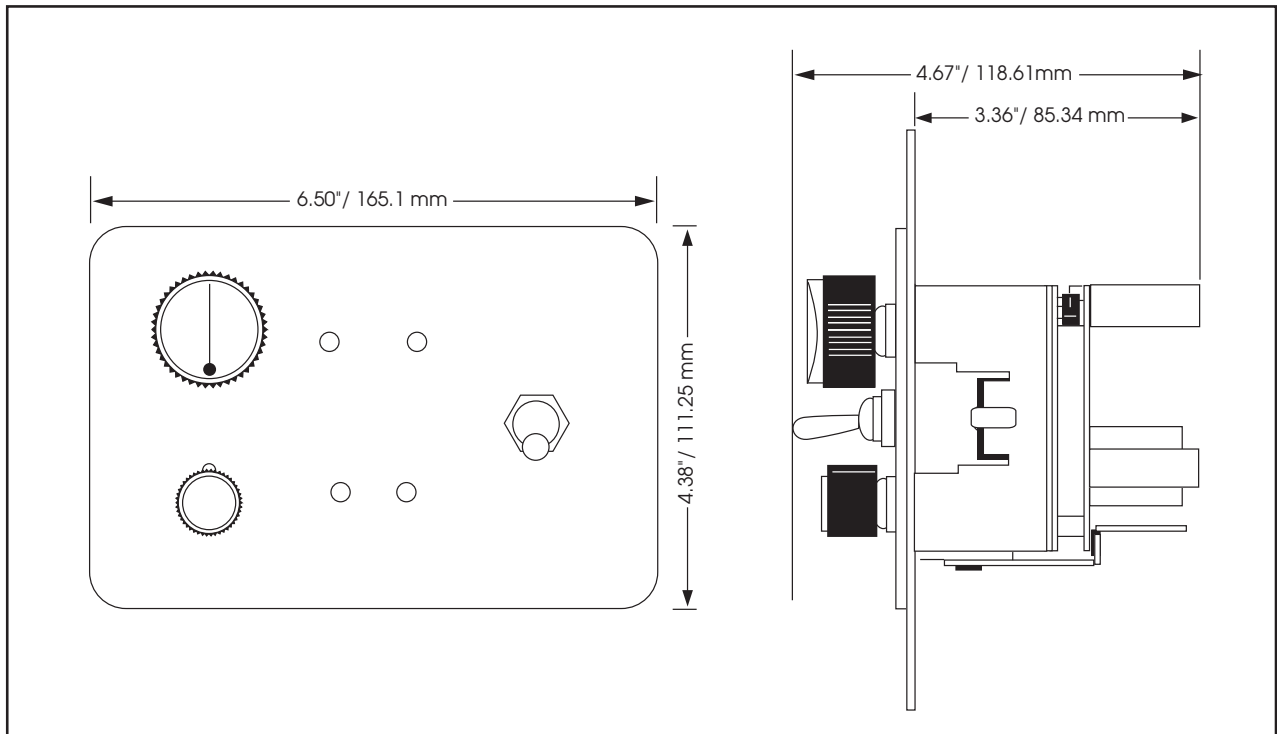
Heavy duty, tamper-resistant Panel-Mount Intercoms, designed for single-channel, two-way communications with integrated volume control, TALK/LISTEN switch, and robust brushed aluminum construction that includes a Neoprene™ gasket and stainless steel hardware. Accommodating the full range of Atkinson Dynamics speakers, the flush-mount units are available in 12VDC, 24VDC, and 120VAC 50/60Hz models.

FEATURES

- Heavy duty tamper resistant intercom
- Single-channel, two-way communications
- Integrated volume control and Talk/Listen switch
- Requires a matching Atkinson Dynamics Speaker: AD-SF-25, AD-SS-25, and AD-SO-25
- Available in 12VDC, 24VDC, and 120VAC 50/60Hz
- UL and cUL Listed

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT
AD-26P	12VDC	1.47 A	100 mA
AD-27P	120VAC 50/60Hz	240 mA	83 mA
AD-56P	24VDC	1.65 A	100 mA

Atkinson Dynamics Panel Mount Intercoms (AD-26P, AD-27P, and AD-56P)



SPECIFICATIONS

Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	3 lbs	1.36 kg
Shipping Weight:	4 lbs	1.81 kg
Dimensions:		
Height	4.38"	112.25 mm
Width	6.50"	165.1 mm
Depth	4.67"	118.61 mm

HOW TO ORDER

Description/Options	Part Number
12VDC Panel Mount Intercom with Master Unit Option (C)	AD-26PC
12VDC Panel Mount Intercom with Master Unit (C) and Remote Power (-1) options	AD-26PC-1
12VDC Panel Mount Intercom with Pre-Amp Equipped (-8) and Remote Volume Control Equipped (-M44) options	AD-26P-8-M44
12VDC Panel Mount Intercom with Slave Unit Option	AD-26PD
120VAC Panel Mount Intercom	AD-27P
120VAC Panel Mount Intercom with Call Button (A) option	AD-27PA
120VAC Panel Mount Intercom with Master Unit (C) option	AD-27PC
24VDC Panel Mount Intercom	AD-56P



Atkinson Dynamics Accessories

► Model ADNCM

Noise Canceling Microphone

FEATURES

- Designed to cancel out 90% of background noise
- Standard 6 foot (1.82m) coiled cord, retracts to only 1 foot (0.30 m)
- Intercom requires the (-7) option, noise canceling microphone ready
- Comfortable 3 inch (7.62cm) wide by 4 inch (10.16cm) high microphone body with a large side mounted push-to-talk button



► Model ADFP

Foot Pedal

FEATURES

- For hands free Push To Talk capability
- Heavy-duty cast iron construction
- Complies with OSHA requirements for full shielding
- Finished in a bright safety orange paint
- Oil and water tight construction, NEMA 2, 4 and 13 Rated
- Large 6 inch (15.24 cm) wide by 4.5 inch (11.43 cm) high pedal opening for ease of operation
- Requires the (-2) option, Foot Pedal Ready



Atkinson Dynamics Accessories

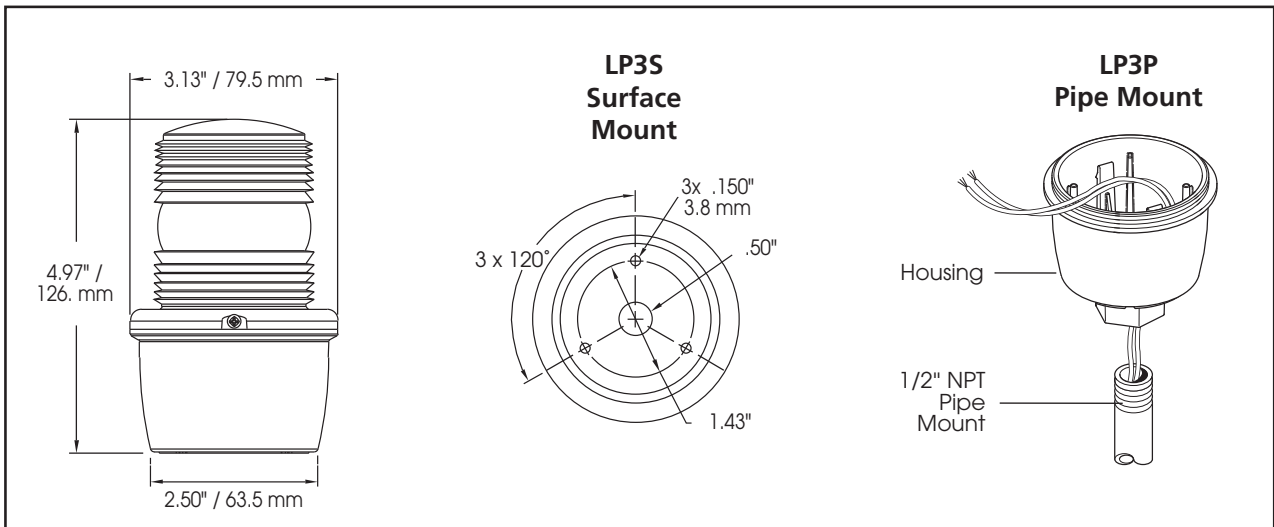
► Models LP3S and LP3P

Auxiliary Strobe Light



FEATURES

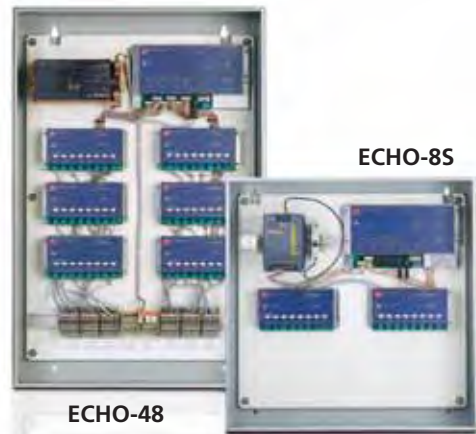
- LP3S – surface mount, LP3P – 1/2" NPT pipe mount
- 175,000 peak candela (51.1 ECP)
- 4,000 hour lamp life
- Type 4X, IP66 enclosure
- IP69K compliant
- Amber, Blue, Clear, Green and Red lens options
- Available in 12-48VDC, 120VAC and 240VAC
- Activated by a second intercom equipped with the Call Button (A) and Auxiliary Signal (-3)
- 80 (+/-15) FPM
- CSA Certified
- UL and cUL Listed



HOW TO ORDER

MODEL	VOLTAGE	OPERATING CURRENT	MOUNT
LP3P-012-048 *	12-48VDC	0.44 - 0.10 amp	Pipe
LP3S-012-048 *	12-48VDC	0.44 - 0.10 amp	Surface
LP3P-120 *	120VAC	0.10 amp	Pipe
LP3S-120 *	120VAC	0.10 amp	Surface
LP3P-240 *	240VAC	0.07 amp	Pipe
LP3S-240 *	240VAC	0.07 amp	Surface

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red



► Model Echo Series Central Control

Digital Intercom and Communication System

ECHO Digital intercom and communication systems provide addressable intercom, public address, general alarm, paging and telecommunication capabilities. A single ECHO system can provide the same level of safety, coverage and reliability normally achieved with multiple systems.

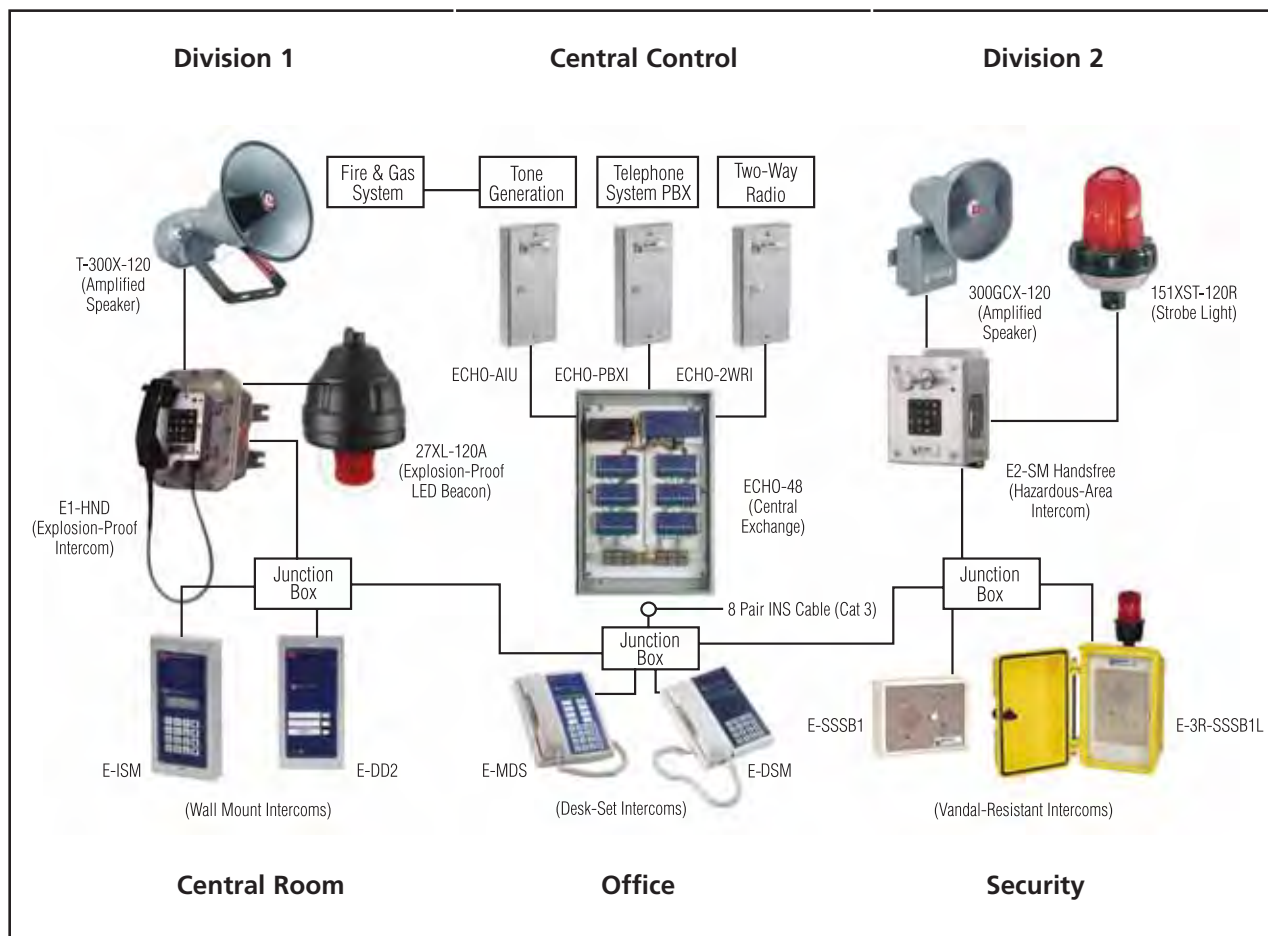
ECHO interfaces simply with a variety of third-party equipment, including fire and gas detection systems, auxiliary security systems and signals, PA/GA systems, two-way radios and telephone PBX. ECHO accepts multiple input sources for tones, pre-recorded voice messages, and background music. ECHO enables you to integrate all of your critical life safety, evacuation and communication systems.

Installation and commissioning is easy and cost effective. Off the shelf, two-conductor cable provides power, communication and control with a range of up to 1.2 miles (2km). Systems can be commissioned and customized quickly in the field or remotely with pushbutton menu selections or a point-and-click software interface. Spare parts are standardized and minimal.

FEATURES

- Up to 9072 field stations
- Addressable intercom control with auto conference
- Public address, general alarm and intercom
- PBX and radio interface
- Safe area location, hazardous area and weatherproof stations
- Supervised fault diagnostics
- Fiber optic ready
- Field programmable
- Pre-recorded messages
- Alarm functions
- Networkable and expandable
- IP enabled
- Windows® based configuration
- Ambient noise monitoring / volume tracking

Digital Intercom and Communication System ECHO 8 – ECHO 48



- Private communication, conference calls and public address
- System supervision and fall fault diagnostics
- DSP technology provides crisp, clear communication and noise immunity
- Standard features include one-touch emergency paging, programmable station directory, speed dialing, caller ID and auto conference
- Hazardous-area, explosion-proof, panel mount, flush-mount, desktop, vandal-resistant and weatherproof stations
- Handset, gooseneck microphone, headset, hands-free and single button communication options
- Fiber optic, PBX, two-way radio, public page and background music interfaces
- Field programmable via Windows interface software
- Echo cancellation, noise and feedback elimination for digital quality/high intelligibility audio
- Industry standard low-cost wiring
- 24 VDC, 120-240 VAC
- Volume tracking automatically adjusts speaker volume to surpass ambient sound level



Rack Mounted ECHO System

HOW TO ORDER

Contact our Federal Signal Sales Engineers to design a system that meets your specific requirements.



► Models ECHO E-DD1 and E-DD2 Single and Dual Direct Dial Sub-Stations

Federal Signal Models E-DD1 and E-DD2 Single and Dual direct dial substations provide efficient, hands free duplex two-way voice communications with single button call capability. Applications include doors, dock areas or any location where limited call selection is needed. The stations instantly adjust volume levels to compensate for high ambient noise levels while providing instantaneous high-speed connections.

Models E-DD1 and E-DD2 direct dial substations may be preprogrammed to call any other station in the system. E-DD1 Single Call Station can call one location, E-DD2 Dual Call Station can call two locations. By pressing the Call button on the station, a call will be placed to the station at the preprogrammed location. A call may be canceled by depressing the cancel button. Built-in relay contacts may be activated from the calling Master Station for remote door control or anything that a normally open dry contact can initiate.

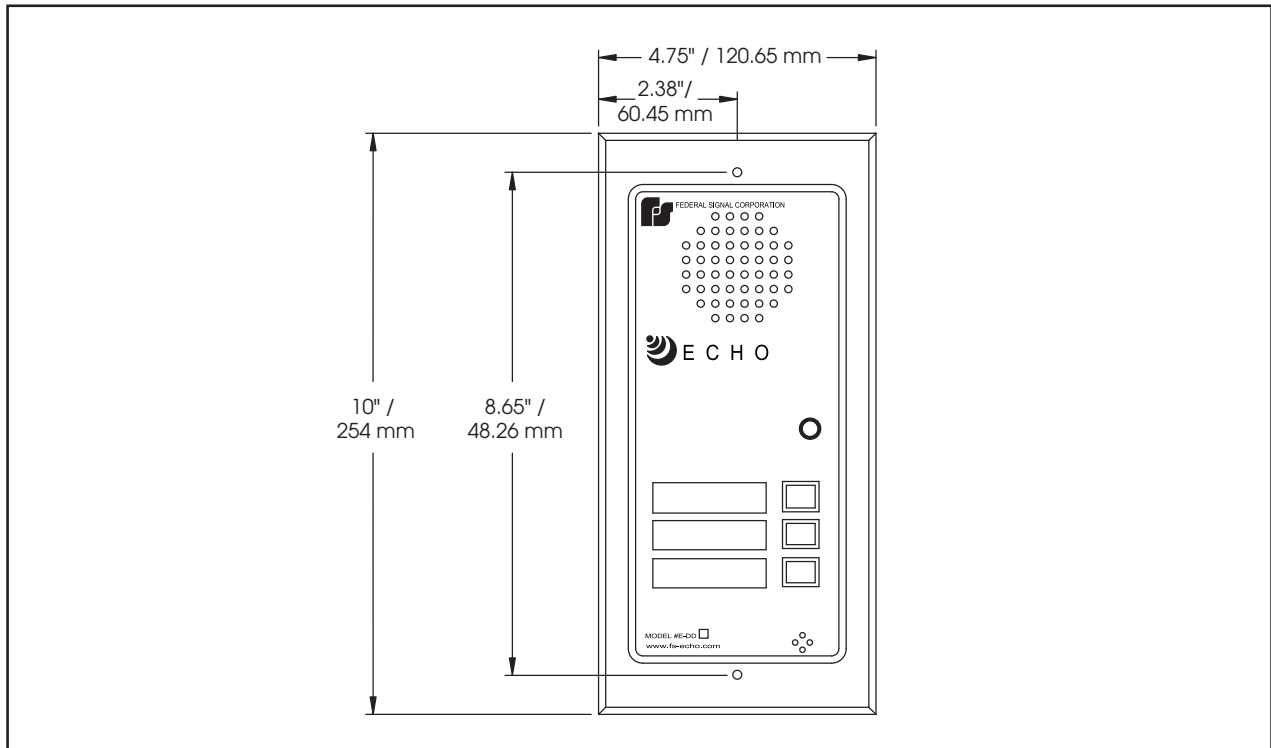
The E-DD stations are constructed of heavy gauge anodized aluminum with a rugged Mylar face plate. The E-DD1 Single Call Station is equipped with one Call and one Cancel button and a Call Placed LED. The E-DD2 Dual Call Station has two Call buttons, one Cancel button and a Call Placed LED. Both units have built-in, heavy-duty relay contacts. The units are intended for indoor use with flush E-BB2 Back box or E-SMB Surface Box.

The E-DD stations may be programmed for call destination, volume level and other features using any LCD Station in the system or via the Windows based programming software Model ECHO-SFW.

F E A T U R E S

- Hands-free duplex voice communication
- Place calls to one or two predetermined locations
- Receive calls from any station in the system
- Remotely controlled contacts for gate/door activation
- Call status LED
- Remotely programmed using LCD stations or ECHO Windows® based software
- CE Certified

Single And Dual Direct Dial Sub-Station (E-DD1 and E-DD2)



SPECIFICATIONS

Operating Voltage:	24VDC nominal (line driven from ECHO control)	
Current Idle:	250 mA	
Current Connected:	650 mA	
Microphone Type:	Electret	
Microphone Sensitivity:	-70dBA	
Audio Output:	1.0 watt	
Loudspeaker Size:	2.5 in	
Loudspeaker Impedance:	45 Ohms	
Volume Control via Keypad:	30dBA in ten steps	
Line Attenuation:	24dBA@160kb/s Max	
Loop Resistance:	170 Ohm Max	
Distance:	1.2 miles	2km Max
Cable:	One twisted pair, non-shielded	
Termination	Plug-in screw terminal, non-polar	
Relay Switching Capacity:	5A at 24VDC 3A at 240VAC	
Net Weight:	1.2 lbs	0.5kg
Shipping Weight:	1.5 lbs	0.68kg
Shipping Dimensions:	13.25" x 7.13" x 3" 337mm x 181mm x 76mm	

HOW TO ORDER

Specify Model:

E-DD1 – Wall mounted single direct dial substation

E-DD2 – Wall mounted dual direct dial substation

OPTIONAL ACCESSORIES

Description	Part Number
Fiber Optic Interface	ECHO-FOTI
Back Box For Flush Mounting	E-BB2
Back Box For Surface Mounting	E-SMB



E-BB2 Flush Mount Back Box
Back box for flush wall mounting, galvanised steel, 0.5 lbs / 0.230 kg



E-SMB Surface Mount Back Box
Back box for surface wall mounting, anodised aluminum, 0.5 lbs / 0.230 kg



► Models ECHO E-DSM and E-DSMG

Desktop or Wall Mount Intercom Stations

Federal Signal Models E-DSM (membrane keypad), E-DSMG (membrane keypad with gooseneck mic), are NEMA 1 handset intercom stations that may be used on a desktop or surface / wall mount application to provide speaker phone or private handset duplex two-way voice communication with LCD visual status display. The station's digital signal processor instantly adjusts speakerphone volume levels to compensate for high ambient noise while providing high-speed connections and clear, crisp voice quality from anywhere in the room. The large, easy-to-read LCD display provides information to identify the name and number of each calling party, provides a name and number directory and an on-line help menu.

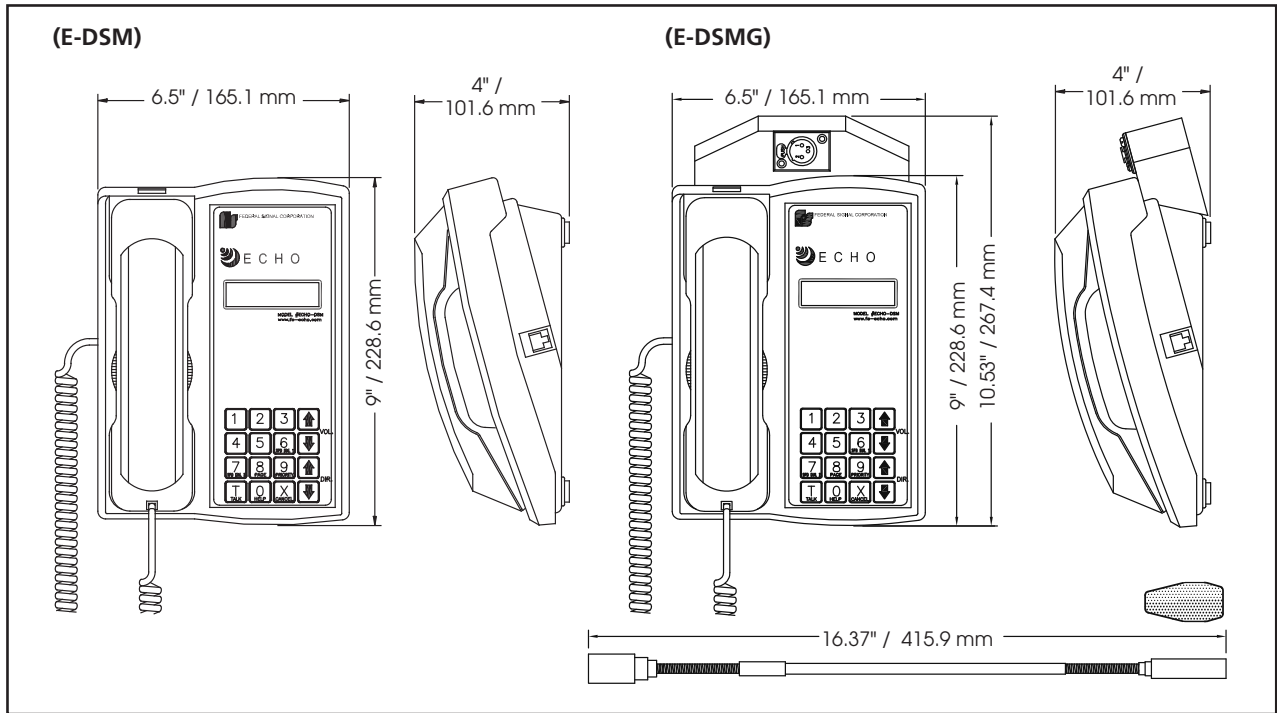
Models E-DSM and E-DSMG Handset Call Stations can call any other station in the system and are capable of full duplex communication using the handset. Since the Digital Central Exchange can process calls simultaneously, there is no dial tone or delay. After keying in the two digits, the call can be connected immediately. The keypad provides tactile and audible feedback for positive activation. The LCD display at each Master station shows the called and calling station ID. A station may be preset to any of four levels of privacy for receiving calls; Non-Private, Semi-Private, Full Privacy, and DND (Do Not Disturb). Volume for both the handset and speaker phone can be adjusted.

The compact console unit is equipped with a handset, panel speaker and electret microphone. A standard 16 button keypad and LCD display with 2 lines of 16 characters is provided. The unit is intended for indoor use.

FEATURES

- Handset or speakerphone duplex voice communication
- Large LCD display with directory scroll
- Requires only one twisted pair of wires
- Speed dial and auto conference
- Caller ID
- Dedicated paging buttons (All Call & Priority)
- Available with gooseneck microphone
- CE Certified

Desktop or Wall Mount Intercom Stations (E-DSM and E-DSMG)



SPECIFICATIONS

Operating Voltage: 24VDC nominal
(line driven from ECHO control)

Current Idle: 25 mA

Current Connected: 100 mA

Microphone Type: Electret

Microphone Sensitivity: -70dBA

Audio Output: 1.0 watt

Enclosure Material: ABS

Display LCD: 2 lines, 16 characters/line

Volume Control via Keypad: 30dBA in ten steps

Keypad Construction:
E-DSM Membrane Keys

Line Attenuation: 24dBA@160kb/s Max

Loop Resistance: 170 Ohm Max

Distance: 1.2 miles 2km Max

Cable: One twisted pair, non-shielded

Termination: Plug-in screw terminal, non-polar

Net Weight: 2.2 lbs 1.0kg

Shipping Weight: 2.5 lbs 1.1kg

Shipping Dimensions: 10.5" x 7.00" x 7.5"
267mm x 178mm x 191mm

HOW TO ORDER

Specify Model:

E-DSM – Desk or wall mounted station with membrane keypad

E-DSMG – Desk or wall mounted station with a gooseneck microphone instead of a panel microphone

OPTIONAL ACCESSORIES

Description	Part Number
Fiber Optic Interface	ECHO-FOTI





► Models ECHO E-MDS and E-MDSG

Administrative Master Stations

Model E-MDS Management Station is used with ECHO® Systems to provide hands-free or private handset duplex two-way voice communication. The LCD call status display provides the ability to review and respond to Substation calls out of sequence. Programmable buttons provide single touch access for features such as Conference, All-Call and Group Call. The large, easy to read LCD display provides vital information to identify the name and location of each calling party, name and number directory as well as an on-line help menu to personalize station features.

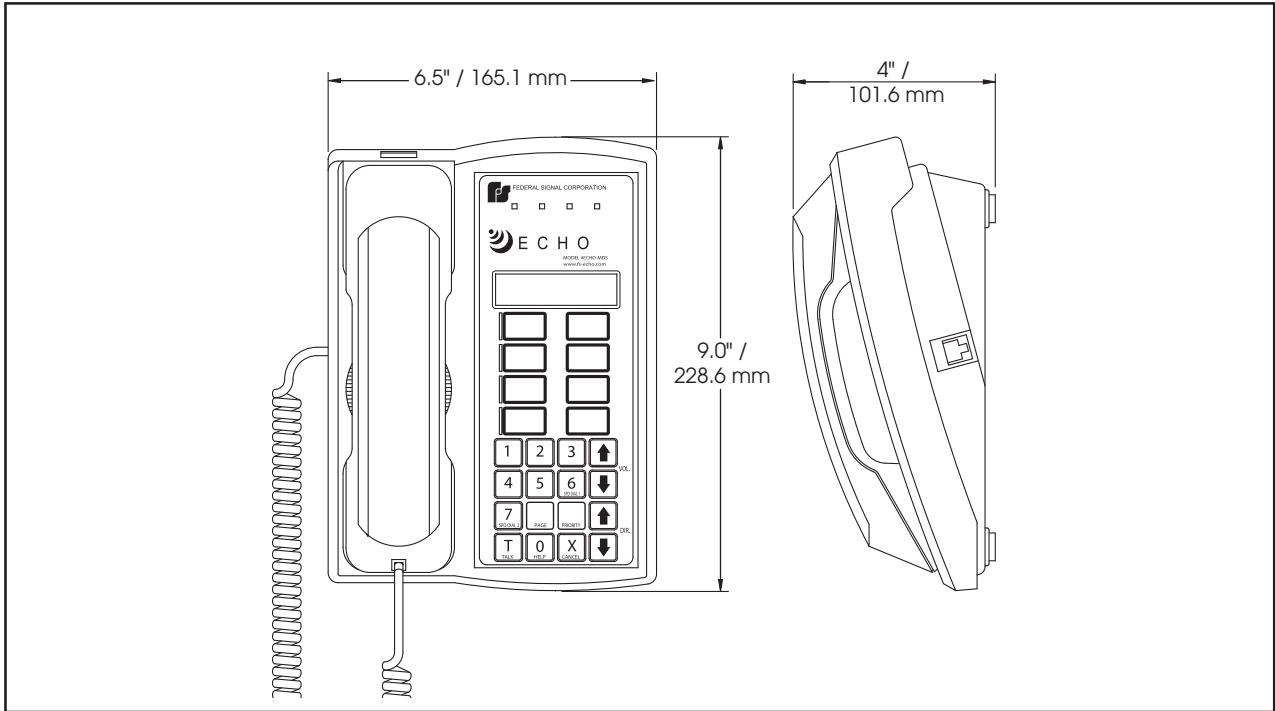
The E-MDS Management Station can be programmed to call any other station in the system. Calls from other masters may be programmed to ring or answer automatically in the speakerphone mode. Master-to-Master calls may manually Camp-on, Message-wait and Pre-empt. Calls from Substations will be stacked in a que by priority and may be answered or reviewed in any order. Substations may each be assigned any of 10 text call messages for Routine or Emergency levels with selectable locking or Non-locking status. Substations can be programmed to report to one, several, or all E-MDS Management Masters. In the Night Mode, one Management Station can assume ownership of another's substations. The keypad volume control keys may be used to adjust voice and ring levels.

This compact unit may be used in a desk top or surface wall mount application. The unit is equipped with a handset, panel microphone and speaker. The flush membrane keypad provides tactile and audible feed back for positive activation. The Model E-MDSMG is furnished with a gooseneck push-to-talk microphone.

FEATURES

- Multiple simultaneous substation call stacking and display
- 10 levels of priority for substation calls
- Flexible substation ownership
- All-call and priority all-call
- Available with gooseneck microphone
- Audible alert with tone silence and resound
- Partitioning
- Call placed indicators; routine and emergency
- Desktop or wall mount
- Call engineer light, system diagnostics and alert tone
- CE Certified

Administrative Master Station (E-MDS and E-MDSG)



SPECIFICATIONS

Operating Voltage: 24VDC nominal
(line driven from ECHO control)

Current Idle: 25 mA

Current Connected: 100 mA

Microphone Type: Electret

Microphone Sensitivity: -70dBA

Audio Output: 1.0 watt

Enclosure Material: ABS

Display LCD: 2 lines, 16 characters/line

Volume Control via Keypad: 30dBA in ten steps

Keypad Construction: Membrane Keys

Line Attenuation: 24dBA@160kb/s Max

Loop Resistance: 170 Ohm Max

Distance: 2km (1.2 miles) Max

Cable: One twisted pair, non-shielded

Termination: Plug-in screw terminal, non-polar

Net Weight: 2.2 lbs 1.0kg

Shipping Weight: 2.5 lbs 1.1kg

Shipping Dimensions: 10.5" x 7" x 7.5"
267mm x 178mm x 191mm

HOW TO ORDER

Specify Model:

E-MDS – Desk or wall mounted administrative master station with membrane keypad

E-MDSMG – Desk or wall mounted administrative master station with 415mm gooseneck microphone instead of a panel microphone

OPTIONAL ACCESSORIES



E-MDSMG

Description

Fiber Optic Interface

Part Number

ECHO-FOTI



► Model ECHO EWP Series

Weather Proof Digital Intercom Station

Model EWP Series ECHO Intercom Stations provide safe and efficient two-way voice communications in ECHO Digital Intercom Systems.

The EWP Series ECHO station provides instantaneous high-speed connections and clear, crisp digital voice quality. Each station offers single-button all call, priority emergency paging, group paging, speed dial, conference call, and relay output.

Any station can call any other station(s) in an ECHO Digital Intercom System. With the headset or gooseneck microphone options, each is capable of hands-free voice communication. Because the ECHO Digital Central Exchange provides 30 channels of simultaneous communication, calls are processed and connected immediately without dial tone or delay.

Model EWP's keypad is designed to provide tactile and audible feedback (via external powered loudspeaker) for a positive activation. Each station may be programmed for four levels of privacy for receiving calls; non-private, semi-private, full privacy and do-not-disturb. Volume for voice and signal levels are easily adjusted on the keypad.

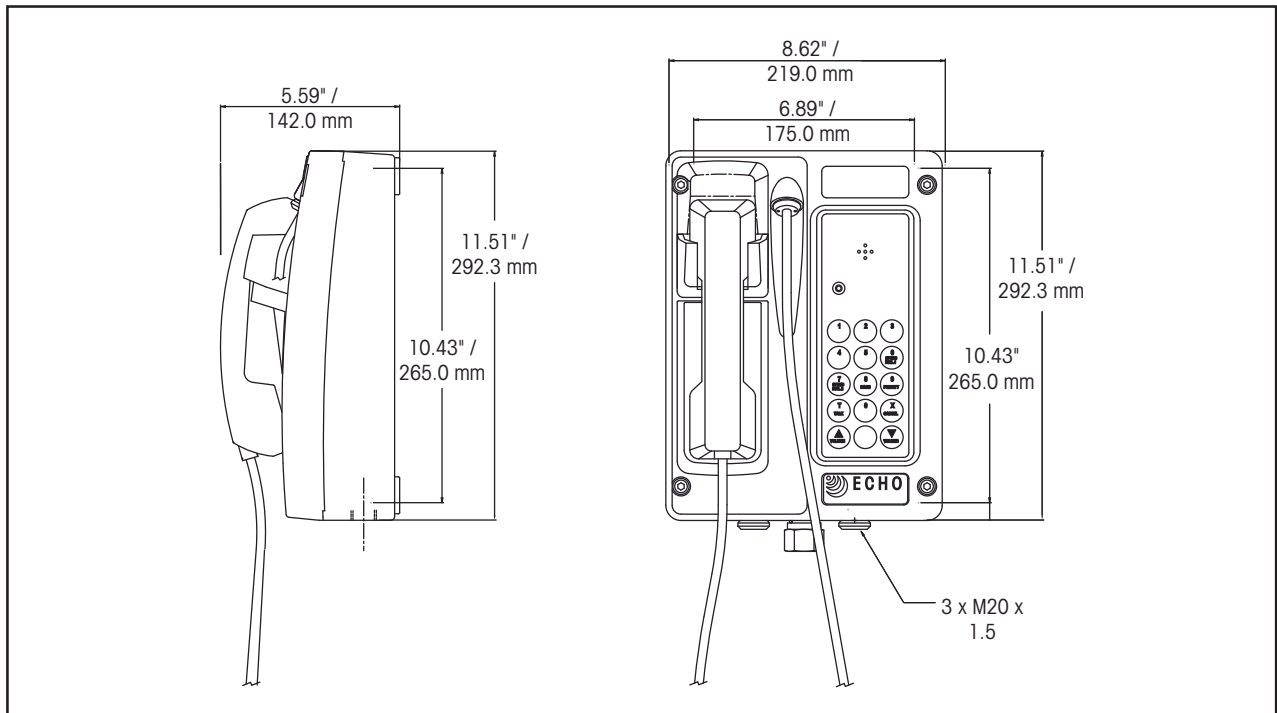
Each Station is constructed of heavy duty glass reinforced polyester (GRP), equipped with a weatherproof keypad, and are rated for use in IP66 dust- and water-tight applications.

Stations can be ordered with polyurethane curly cord, stainless steel cord, headset (with optional extension), stubby microphone or gooseneck microphone.

F E A T U R E S

- Weather and corrosion resistant design
- Private full duplex handset communication
- Headset, gooseneck microphone and handset options
- Single touch speed dialing
- Group call, all-call, priority call
- Simple one pair wiring
- Output to powered loudspeaker
- IP66
- CE Certified

Weather Proof Digital Intercom Stations (EWP Series)



SPECIFICATIONS

Operating Voltage:	24VDC nominal (line driven from ECHO control)
Current Idle:	25 mA
Current Connected:	100 mA
Handset Microphone Type:	Dynamic
Handset Material:	Moulded Polyurethane
Stubby Microphone Type:	Dynamic
Stubby Microphone Sensitivity:	-54dBA
Stubby Microphone Enclosure:	Stainless Steel
Audio Output:	2.7 Vrms / 1.0k Ohm load
Volume Control via Keypad:	30dBA in ten steps
Line Attenuation:	24dBA@160kb/s Max
Loop Resistance:	170 Ohm Max
Distance:	1.2 miles/2.0km Max
Cable:	One twisted pair, non-shielded
Cable Entries (bottom):	3 x M20
Operating Temperature Range:	-35°C to 50°C (T6)
Termination:	EExe screw terminal block
Relay Switching Capacity:	3A at 240VAC
Net Weight:	9.5 lbs / 4.3kg
Shipping Weight:	11.1 lbs / 5.1kg
Shipping Dimensions:	16.25" x 9.5" x 9.25" 413mm x 241mm x 235mm
Certificate Number:	BAS01ATEX2306X
Classification Marking:	II 2 G EEx meib IIC T6
Ingress Protection:	IP66 (IP65 on handset)

HOW TO ORDER

Specify Model:

- EWP-HND-C** – Handset, .35m to 5m curly cord
- EWP-HND-S** – Handset, 1.0m stainless steel cord
- EWP-JS** – Jack station
- EWP-SM** – Station with Stubby Microphone (65mm)
- EWP-GM1** – Gooseneck microphone, 260mm
- EWP-GM2** – Gooseneck microphone, 440mm
- EWP-GM3** – Gooseneck microphone, 590mm

OPTIONAL ACCESSORIES

Description	Part Number
Headset	K137200A-01
Potted relay assembly, EWP	K8601241A
10m Headset extension cord	K1751234A
Handset with 2.5m to 15m curly cord (detachable)	K8601272A



► Model ECHO EZ1 Series

Zone 1 Digital Intercom Station

Model EZ1 Series ECHO Intercom Station provides safe and efficient two-way voice communications in ECHO Digital Intercom Systems. The EZ1 Series ECHO Station is designed and approved for use in Zone 1 Hazardous Areas, Ex II 2 G EEx meib IIC T6.

Model EZ1 Series ECHO ATEX station provides instantaneous high-speed connections and clear, crisp digital voice quality. Each station offers single-button all call, priority emergency paging, group paging, speed dial, conference call, and relay output.

Any station can call any other station(s) in an ECHO Digital Intercom System. With the headset or gooseneck microphone options, each is capable of hands-free voice communication. Because the ECHO Digital Central Exchange provides 30 channels of simultaneous communication, calls are processed and connected immediately without dial tone or delay.

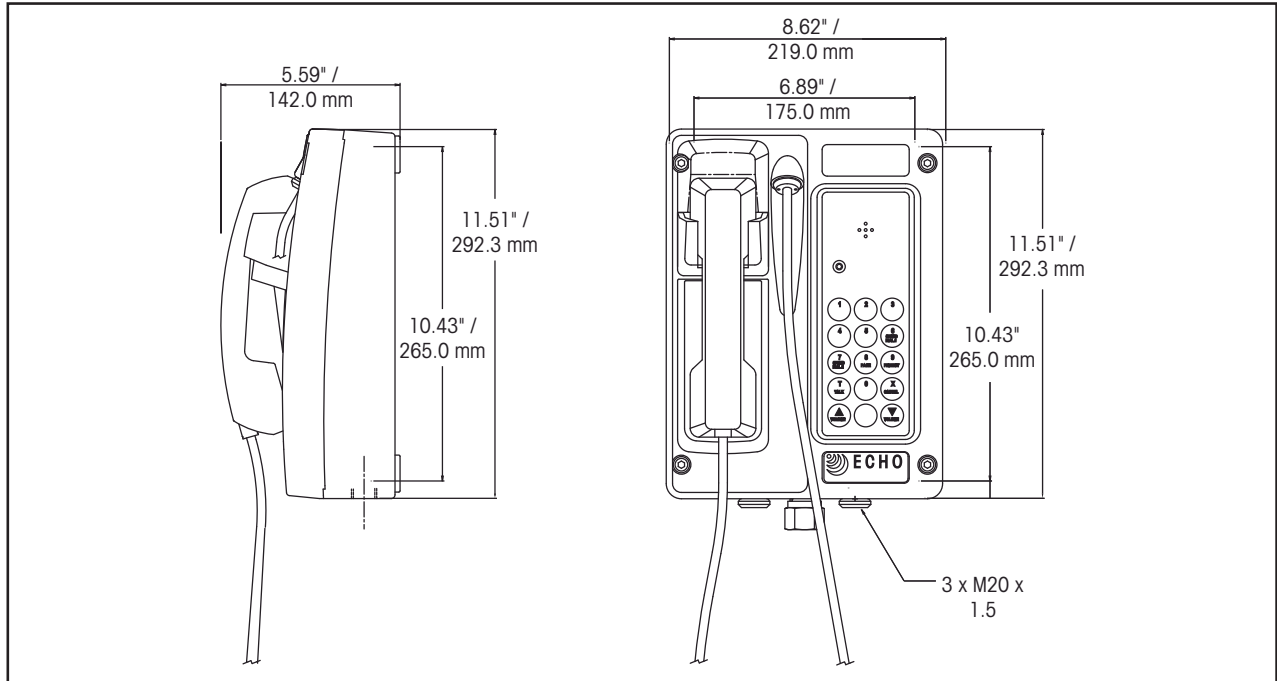
Model EZ1 keypad is designed to provide tactile and audible feedback (via external powered loudspeaker) for a positive activation. Each station may be programmed for four levels of privacy for receiving calls; non-private, semi-private, full privacy and do-not-disturb. Volume for voice and signal levels are easily adjusted on the keypad.

Each Station is constructed of heavy duty glass reinforced polyester (GRP), equipped with a weatherproof keypad, and are rated for use in IP66 dust- and water-tight applications. EZ1 Series Stations can be ordered with curly cord, stainless steel handset cord, stubby/gooseneck microphone or headset.

FEATURES

- Weather and corrosion resistant design
- Private full duplex handset communication
- Headset, gooseneck microphone and handset options
- Single touch speed dialing
- Group call, all-call, priority call, auto conference
- Simple one pair wiring
- Output to powered loudspeaker
- IP66
- CE and ATEX certified

Zone 1 Digital Intercom Stations (EZ1 Series)



SPECIFICATIONS

Operating Voltage:	24VDC nominal (line driven from ECHO control)
Current Idle:	25 mA
Current Connected:	100 mA
Handset Microphone Type:	Dynamic
Handset Material:	Moulded Polyurethane
Stubby Microphone Type:	Dynamic
Stubby Microphone Sensitivity:	-54dBA
Stubby Microphone Enclosure:	Stainless Steel
Audio Output:	2.7 Vrms / 1.0k Ohm load
Volume Control via Keypad:	30dBA in ten steps
Line Attenuation:	24dBA@160kb/s Max
Loop Resistance:	170 Ohm Max
Distance:	1.2 miles/2.0km Max
Cable:	One twisted pair, non-shielded
Cable Entries (bottom):	3 x M20
Operating Temperature Range:	-35°C to 50°C (T6)
Termination:	EExe screw terminal block
Relay Switching Capacity:	3A at 240VAC
Net Weight:	9.5 lbs / 4.3kg
Shipping Weight:	11.1 lbs / 5.1kg
Shipping Dimensions:	16.25" x 9.5" x 9.25" 413mm x 241mm x 235mm
Certificate Number:	BAS01ATEX2306X
Classification Marking:	II 2 G EEx meib IIC T6
Ingress Protection:	IP66 (IP65 on handset)

HOW TO ORDER

Specify Model:

- EZ1-HND-C** – Handset, .35m to 5m curly cord
- EZ1-HND-S** – Handset, 1.0m stainless steel cord
- EZ1-JS** – Jack station
- EZ1-SM** – Station with Stubby Microphone (65mm)
- EZ1-GM1** – Gooseneck microphone, 260mm
- EZ1-GM2** – Gooseneck microphone, 440mm
- EZ1-GM3** – Gooseneck microphone, 590mm

OPTIONAL ACCESSORIES

Description	Part Number
Headset	K137200A-01
Potted relay assembly, EZ1	K8601241A
10m Headset extension cord	K1751234A
Handset with 2.5m to 15m curly cord (detachable)	K8601272A



EZ1-GM1



EZ1-SM

#B50000781 Rev.A0



► Model ECHO E2 Series

Hazardous Location Digital Intercom Station

E2 Series ECHO Intercom Stations provide safe and efficient two-way voice communications in ECHO Digital Intercom Systems. The E2 Series ECHO Station is designed and approved for use in Hazardous Areas including Class 1, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups F and G; and Class III.

The E2 Series ECHO station provides instantaneous high-speed connections and clear, crisp digital voice quality. Each station offers single-button all call, priority emergency paging, group paging, speed dial, conference call, and relay output.

Any station can call any other station(s) in an ECHO Digital Intercom System. With the headset or gooseneck microphone options, each is capable of hands-free voice communication. Because the ECHO Digital Central Exchange provides 30 channels of simultaneous communication, calls are processed and connected immediately without dial tone or delay.

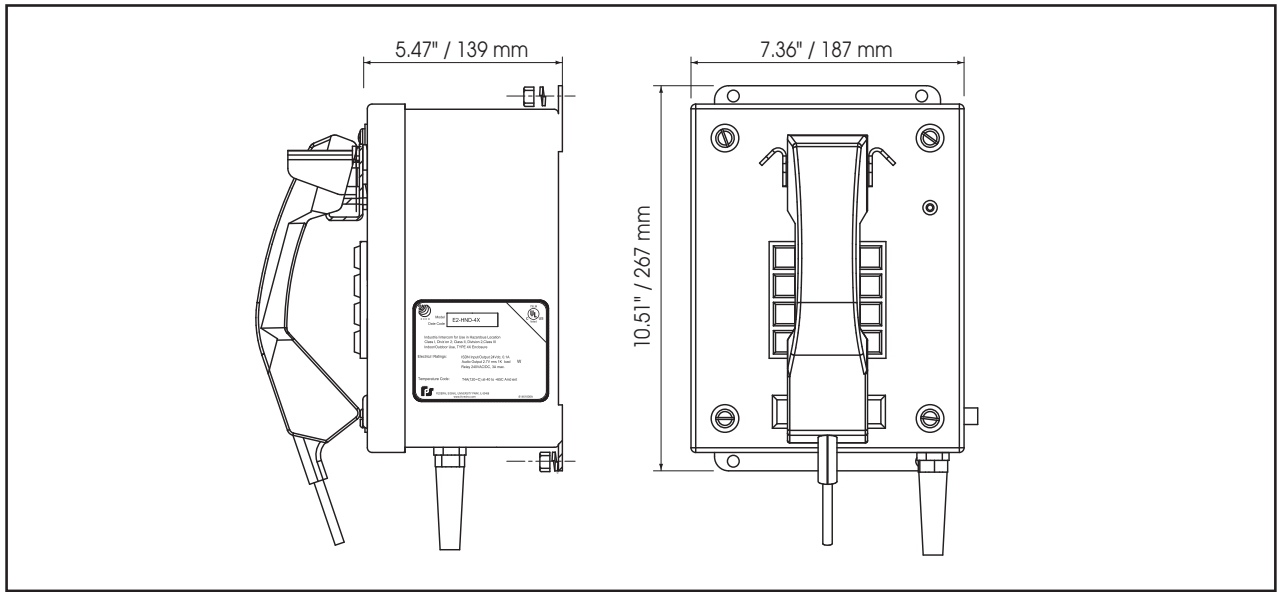
The E2 Series Station keypad is designed to provide tactile and audible feedback (via external powered loudspeaker) for positive activation. Each station may be programmed for four levels of privacy for receiving calls; non-private, semi-private, full privacy and do-not-disturb. Volume for voice and signal levels are easily adjusted on the keypad.

Each station is constructed of heavy duty, corrosion resistant stainless steel, equipped with weatherproof keypads, and are rated for use in Type 4X dust- and water-tight applications.

F E A T U R E S

- All stainless steel construction
- Super-bright LED indicator
- Tactile keypad
- Headset, gooseneck microphone and handset options
- Output to powered loudspeaker
- Designed for Type 4X, IP66
- CE Certified
- UL and cUL Listed

Hazardous Location Digital Intercom Station (E2 Series)



SPECIFICATIONS

Operating Voltage:	24VDC nominal (line driven from ECHO control)
Current Idle:	25 mA
Current Connected:	100 mA
Handset Microphone Type:	Dynamic
Handset Material:	Molded Polycarbonate/ABS Blend
Handset Cord:	Stainless Steel
Stubby Microphone Type:	Dynamic
Stubby Microphone Sensitivity:	-54dBA
Stubby Microphone Enclosure:	Stainless Steel
Audio Output:	2.7 Vrms , 1k load
Volume Control via Keypad:	30dBA in ten steps
Line Attenuation:	24dBA@160kb/s Max
Loop Resistance:	170 Ohm Max
Distance:	1.2 miles 2 km Max
Cable:	One twisted pair, non-shielded
Cable Entries:	3 x 1/2" NPT (ø22mm) hole
Operating Temperature Range:	-50°C to +65°C
Termination:	Plug-in screw terminal, non-polar
Relay Switching Capacity:	3A at 240VAC

Net Weight:	9.9 lbs	4.5kg
Shipping Weight:	14.8 lbs	6.7kg
Shipping Dimensions:	20.63" x 14.13" x 13.63" 524mm x 359mm x 346mm	

HOW TO ORDER

Specify Model:

- E2-HND** – Station with Handset
- E2-SM** – Station with Stubby Microphone (65mm)
- E2-HDS** – Station with Headset
- E2-HND-4X** – E2-HND in 4X enclosure (IP66)
- E2-SM-4X** – E2-SM in 4X enclosure (IP66)
- E2-HDS-4X** – E2-HDS in 4X enclosure (IP66)
- E2-GM1** – Gooseneck microphone, 260mm
- E2-GM2** – Gooseneck microphone, 440mm
- E2-GM3** – Gooseneck microphone, 590mm



E2-SM



E2-HDS



E2-SM-4X



► Model ECHO E1 Series

Explosion-Proof Digital Intercom Stations for UL and cUL Applications

Model E1 Series ECHO Intercom Stations, UL, cUL and CE listed, provide safe and efficient two-way voice communications in ECHO Digital Intercom Systems. The E1 Series ECHO Station is designed and approved for use in Hazardous Areas including Class I, Division 1, Groups C and D; Class II, Division 1, Groups E, F and G; and Class III.

E1 Series ECHO stations provide instantaneous high-speed connections and clear, crisp digital voice quality. Each station offers single-button all call, priority emergency paging, group paging, speed dial, conference call, and relay output.

Any station can call any other station(s) in an ECHO Digital Intercom System. With the headset or gooseneck microphone options, each is capable of hands-free voice communication. Because the ECHO Digital Central Exchange provides 30 channels of simultaneous communication, calls are processed and connected immediately without dial tone or delay.

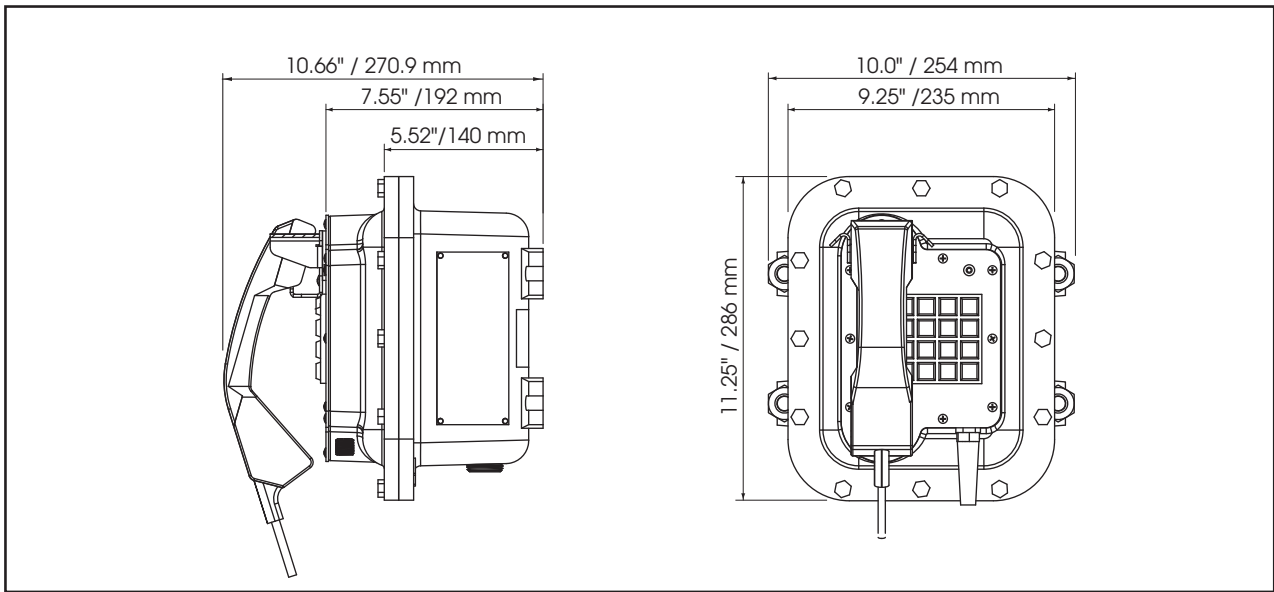
The station keypad is designed to provide tactile and audible feedback (via external powered speaker) for positive activation. Each station may be programmed for four levels of privacy for receiving calls; non-private, semi-private, full privacy and do-not-disturb. Volume for voice and signal levels are easily adjusted on the keypad.

Each station is constructed with a heavy duty, corrosion resistant cast aluminum and a powder coated aluminum faceplate, equipped with weatherproof keypads, and is rated for use in Type 4X dust-and water-tight applications.

FEATURES

- Stainless steel hardware
- Super-bright LED indicator
- Tactile keypad
- Headset, gooseneck microphone and handset interface options
- Hinged front cover
- Output to powered loudspeaker
- Rated Type 4X and IP66
- CE certified
- UL and cUL Listed

Explosion-Proof Digital Intercom Stations for UL and cUL Applications (E1 Series)



SPECIFICATIONS

Operating Voltage:	24VDC nominal (line driven from ECHO control)	
Current Idle:	25 mA	
Current Connected:	100 mA max.	
Handset Microphone Type:	Dynamic	
Handset Material:	Moulded Polycarbonate/ABS Blend	
Handset Cord:	Polyurethane	
Stubby Microphone Type:	Dynamic	
Stubby Mic Sensitivity:	-54dBA format	
Stubby Mic Enclosure:	Stainless Steel	
Audio Output:	2.7 Vrms / 1k Ohm load	
Volume Control via Keypad:	30dBA in ten steps	
Ingress Protection	IP66 (IP65 on handset)	
Line Attenuation:	24dBA@160kb/s Max	
Loop Resistance:	170 Ohm Max	
Distance:	1.2 miles	2.0 kms Max
Cable:	One twisted pair, non-shielded	
Cable Entries:	3 x M20	
Operating Temperature Range:	-40°C to +65°C	
Termination:	Din rail mount tensioned clamp terminals	
Relay Switching Capacity:	3A at 240VAC	
Net Weight:	25 lbs	11.4 kg
Shipping Weight:	30 lbs	13.6 kg
Shipping Dimensions:	20.63" x 14.13" x 13.63" 524mm x 359mm x 346mm	

HOW TO ORDER

Specify Model:

- E1-HND** – Station with Handset
- E1-JS** – Station with Jack Station/Headset Connection
(Headset not included)
- E1-HND-4X** – E1-HND in 4X enclosure
- E1-SM-4X** – E1-SM in 4X enclosure
- E1-HDS-4X** – E1-HDS in 4X enclosure
- E1-SM** – Station with Stubby Microphone (65mm)
- E1-GM1** – Gooseneck microphone, 260mm
- E1-GM2** – Gooseneck microphone, 440mm
- E1-GM3** – Gooseneck microphone, 590mm

OPTIONAL ACCESSORIES

Description	Part Number
Headset	K137200A-01
Hardhat compatible headset	K137200A-02
10m Headset extension cord	K1751234A
Handset with 2.5m to 15m curly cord (detachable)	K8601272A



E1-SM



E1-JS
(headset not included)



► Model ECHO E1-EX Series

Explosion-Proof Digital Intercom Station for ATEX/IEC Applications

Model E1-EX Series ECHO Intercom Stations provide safe and efficient two-way voice communications in ECHO Digital Intercom Systems. This ECHO Station is designed and approved for use in Zone 1 and 2 Hazardous Areas including ATEX/IEC EX Zone 1, Gas Group IIB locations.

Model E1-EX Series provides instantaneous high-speed connections and clear, crisp digital voice quality. Each station offers single-button all call, priority emergency paging, group paging, speed dial, conference call, and relay output.

Any station can call any other station(s) in an ECHO Digital Intercom System. With the headset or gooseneck microphone options, each is capable of hands-free voice communication. Because the ECHO Digital Central Exchange provides 30 channels of simultaneous communication, calls are processed and connected immediately without dial tone or delay.

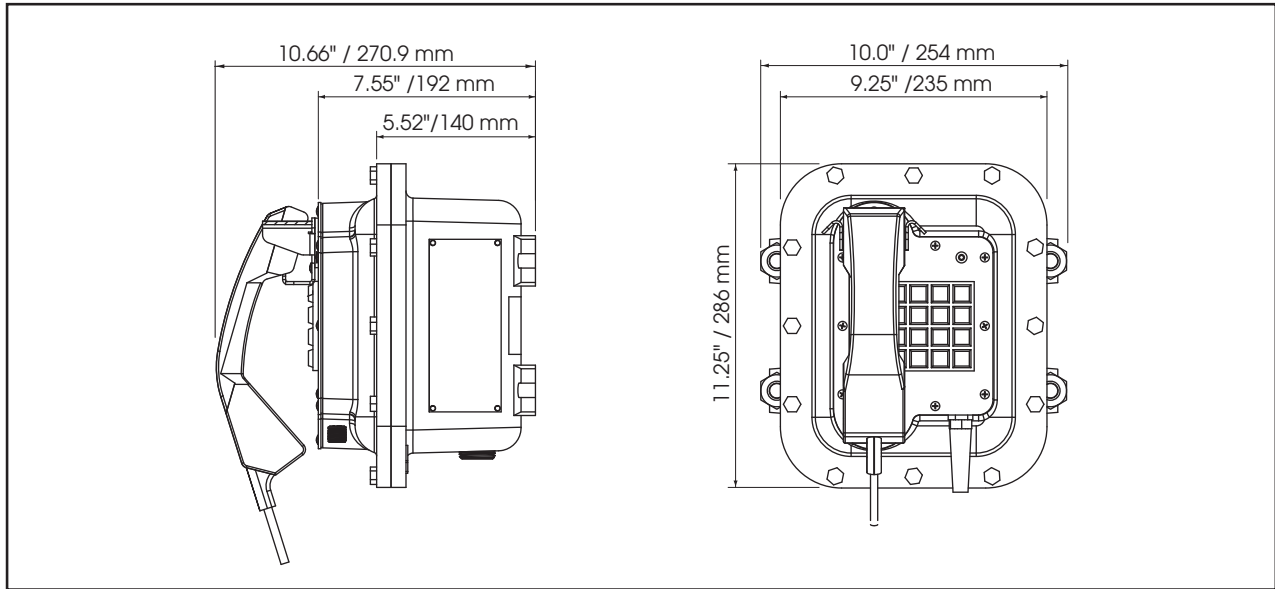
The keypad is designed to provide tactile and audible feedback (via external powered speaker) for positive activation. Each station may be programmed for four levels of privacy for receiving calls; non-private, semi-private, full privacy and do-not-disturb. Volume for voice and signal levels are easily adjusted on the keypad.

This station is constructed with a heavy duty, corrosion resistant cast aluminum and a powder coated aluminum faceplate, equipped with weatherproof keypads, and is rated for use in Type 4X and IP66 dust- and water-tight applications.

FEATURES

- Stainless steel hardware
- Super-bright LED indicator
- Tactile keypad
- Speed dial / auto conference
- Headset, gooseneck microphone and handset interface options
- Output to powered loudspeaker
- Hinged front cover
- Rated Type 4X and IP66
- CE Compliant
- For use in ATEX/IECEx Zone 1 and 2, IIB locations

Explosion-Proof Digital Intercom Station for ATEX/IEC Applications (E1-EX Series)



SPECIFICATIONS

Operating Voltage:	24VDC nominal (line driven from ECHO control)
Current Idle:	25 mA
Current Connected:	100 mA max.
Handset Microphone Type:	Dynamic
Handset Material:	Moulded Polycarbonate/ABS Blend
Handset Cord:	Polyurethane
Stubby Microphone Type:	Dynamic
Stubby Mic Sensitivity:	-54dBA
Stubby Mic Enclosure:	Stainless Steel
Audio Output:	2.7 Vrms / 1k Ohm load
Volume Control via Keypad:	30dBA in ten steps
ATEX Certificate:	DEMKO 13 ATEX 1213079X
IECEx Certificate:	IECEx UL 13.0028X
Protection:	Ex d ib IIB T4 Gb Ex d [ib] IIB T4 Gb -40°C ≤ Ta ≤ +65°C
Ingress Protection	IP66 (IP65 on handset)
Line Attenuation:	24dBA@160kb/s Max
Loop Resistance:	170 Ohm Max
Distance:	1.2 miles 2.0 kms Max
Cable:	One twisted pair, non-shielded
Cable Entries:	3 x M20
Operating Temperature Range:	-40°C to +65°C
Termination:	Din rail mount tensioned clamp terminals
Relay Switching Capacity:	3A at 240VAC
Net Weight:	25 lbs 11.4 kg
Shipping Weight:	30 lbs 13.6 kg
Shipping Dimensions:	20.63" x 14.13" x 13.63" 524mm x 359mm x 346mm

HOW TO ORDER

Specify Model:

- E1-HND-EX** – Station with Handset
 - E1-JS-EX** – Station with Jack Station/Headset connection (Headset not included)
 - E1-SM-EX** – Station with Stubby Microphone (65mm)
 - E1-GM1-EX** – Gooseneck microphone, 260mm
 - E1-GM2-EX** – Gooseneck microphone, 440mm
 - E1-GM3-EX** – Gooseneck microphone, 590mm
- Available for mount in a 4X enclosure

OPTIONAL ACCESSORIES

Description	Part Number
Headset	K137200A-01
Hardhat compatible headset	K137200A-02
10m Headset extension cord	K1751234A
Handset with 2.5m to 15m curly cord (detachable)	K8601272A



E1-SM



E1-JS-EX
(Headset not included)

#850007B0 Rev. A0



Notes



Public Address

Amplifier

CTS2-300, CTS2-600, CTS2-1250, CTS2-2400368

Audiorouter™

AR2000-Z, AR2000-M 370

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A12SA 398

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■ P-NET-G-IP /P-GAP-G	404
I-PAS	406

■ Hazardous location models





► Models CTS2-300, CTS2-600, CTS2-1250 and CTS2-2400

AudioMaster® Public Address High-Powered Amplifiers

The Federal Signal line of high-powered audio amplifiers provides the flexibility, quality, and performance required in a public address system. AudioMaster® amplifiers are available in four different power ratings from 150 to 1000 watts per channel, and can be independently configured to drive either the step-down transformers in a distributed “constant-voltage” loudspeaker system (70-volt or 100-volt mode) or a system of loudspeakers that do not require step-down transformers (8/4 Ohm mode). The 70-volt and 100-volt outputs eliminate the need for step-up transformers, which can create distortion and cause insertion loss.

The amplifiers and speakers are protected against shorted outputs, DC, mismatched loads, overheating, over or under supply voltage and high-frequency overheating. An AUX port provides additional flexibility for amplifiers to be integrated in control systems for remote on/off and amplifier monitoring.

Network monitoring and control models feature continuous load monitoring, comprehensive error reporting, pilot tone monitoring and programmable General Purpose Input/Output (GPIO) parts.

When combined with the AudioMaster AudioRouter and the complete line of AudioMaster Speakers, these high-powered amplifiers are a key component in a high performance, industrial public address system.

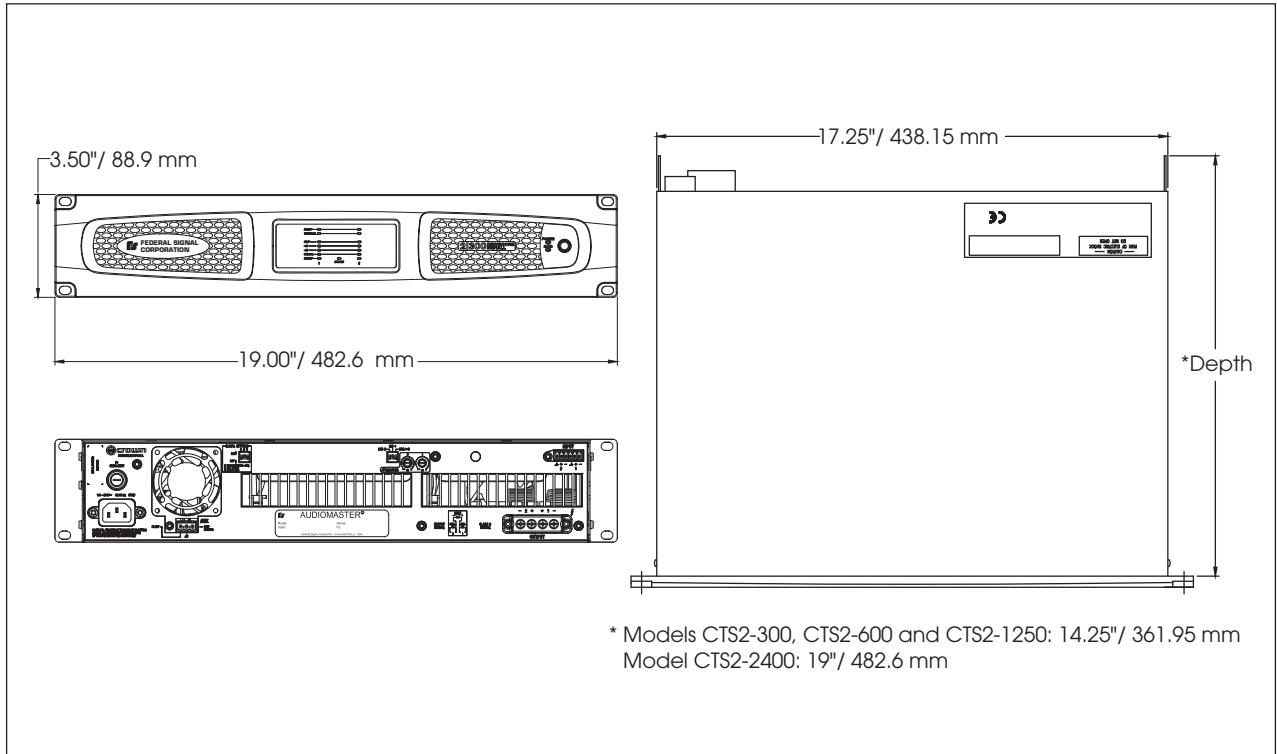
FEATURES

- Available in power ratings of 150, 300, 500, and 1,000 watts per channel
- Two channels
- Selectable dual or mono modes
- In-rush limiting
- Energy efficient
- Dual input sensitivity switches

MODEL	OPERATING POWER	FREQUENCY RESPONSE	OUTPUT POWER
CTS2-300*-120-240	120-240VAC	±0.25dB from 20Hz to 20Khz at 1 watt	150 watts/channel
CTS2-600*-120-240	120-240VAC	±0.25dB from 20Hz to 20Khz at 1 watt	300 watts/channel
CTS2-1250*-120-240	120-240VAC	±0.25dB from 20Hz to 20Khz at 1 watt	500 watts/channel
CTS2-2400N-120-240	120-240VAC	±0.25dB from 20Hz to 20Khz at 1 watt	1,000 watts/channel

* Include (N) for Network Monitoring model
 (Example part number: CTS2-300N-120-240 for Network Monitoring model, CTS2-300-120-240 for standard model)

AudioMaster® Public Address High-Powered Amplifiers (CTS2-300, CTS2-600, CTS2-1250 and CTS2-2400)



SPECIFICATIONS

Net Weight:

CTS2-300	18.8 lbs.	8.5 kg
CTS2-600	18.8 lbs.	8.5 kg
CTS2-1250	23.5 lbs.	10.7 kg
CTS2-2400	24.0 lbs.	10.9 kg

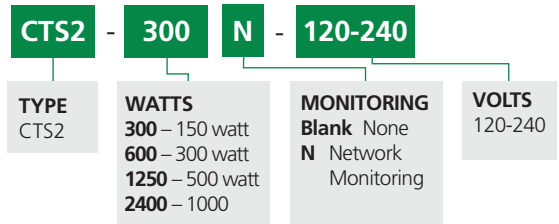
Shipping Weight:

CTS2-300	23.8 lbs.	10.8 kg
CTS2-600	23.8 lbs.	10.8 kg
CTS2-1250	28.5 lbs.	12.9 kg
CTS2-2400	29.0 lbs.	13.2 kg

Dimensions (all models):

Height:	3.5"	88.9 mm
Width:	19.0"	482.6 mm
Depth:	14.25"	361.95 mm
Depth (Model CTS2-2400)	19.0"	482.6 mm

HOW TO ORDER





- Models AR2000-Z and AR2000-M

AudioMaster® Public Address AudioRouter™

AudioRouter™ is an audio multiplexing system capable of directing selected audio inputs to specific zones. The AudioRouter can be used in a public address system as a central control for routing voice pages, pre-recorded messages, and other audio sources to specified zones or areas within a facility.

The center of the AudioRouter system is the Model AR2000-M. Model AR2000-M accepts the following source inputs: 25 Vrms, 70 Vrms, 1 Volt peak-to-peak, a telephone line, and a local microphone. The 25 Vrms and 70 Vrms inputs are designed for use with the AM25CK, AM70CK, or any SelectTone® Command Unit or CommCenter. The 1 Volt peak-to-peak input is suitable for line-level, amplified audio sources, such as CD players. The telephone input allows users to broadcast messages from any telephone in the facility. To page, the user dials the AudioRouter's extension, records a message, and hangs up. The digitally recorded message is stored and broadcast over the system immediately after the call is completed. The local microphone input works with Federal Signal's Models MNC-1 Hand-held Microphone or MSB-1 Desktop Microphone.

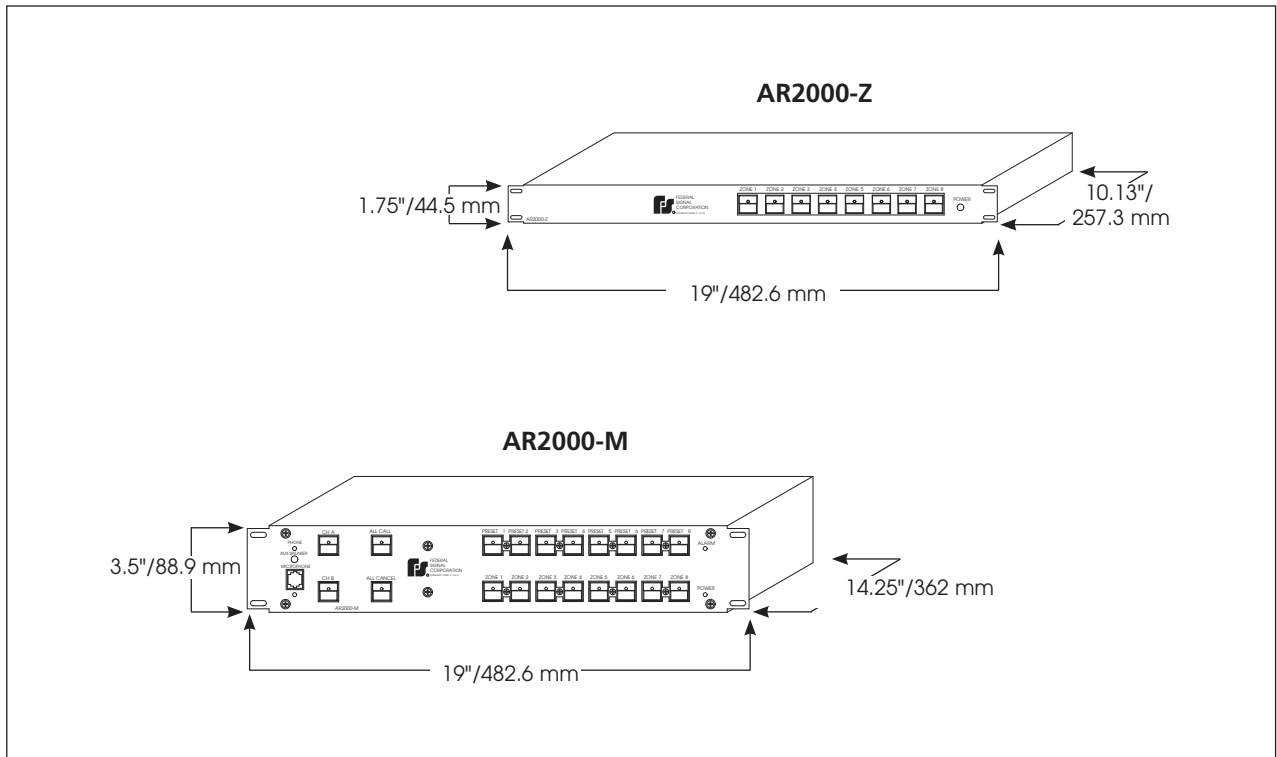
AudioRouter outputs are organized into two source Channels and eight Zones. Combinations of multiple Zones and Channels can be programmed into eight additional Presets. Zones, Channels, and Presets are easily programmed and selected with buttons on the front panel of the unit. Presets can also be activated remotely via dry contacts located on the back panel of the unit. An 'All-Call' button located on the front panel selects all zones simultaneously. Outputs can be configured for 25 Vrms, 70 Vrms, or 1 Volt peak-to-peak. The 25 Vrms and 70 Vrms lines are suitable for use with SelectTone amplified speakers and the 1 Volt peak-to-peak can be coupled with any AudioMaster HP Series Amplifier to drive AudioMaster® Speakers.

Should more than eight Zones and Presets be required, auxiliary units can be added for increased capacity. The AR2000-Z offers eight additional Zones. Seven AudioRouters can be installed with a single AR2000-M to provide for a total of 64 Zones and 64 Presets.

FEATURES

- Operates on 24VDC or 120/240VAC
- Routes audio input to eight zones and eight presets
- Activation of output via buttons or dry contacts
- Access to paging via local microphone or telephone
- Rack mount
- Auxiliary zone and preset models available
- UL and cUL Listed

AudioMaster® Public Address AudioRouter™ (AR2000-Z and AR2000-M)



SPECIFICATIONS

Net Weight:		
AR2000-M	16.5 lbs.	7.5 kg
AR2000-Z	3.9 lbs.	1.77 kg
Shipping Weight:		
AR2000-M	18.5 lbs.	8.39 kg
AR2000-Z	4.9 lbs.	2.22 kg
Height:		
AR2000-M	3.5"	88.9 mm
AR2000-Z	1.75"	44.5 mm
Width:		
AR2000-M	19.0"	482.6 mm
AR2000-Z	19.0"	482.6 mm
Depth:		
AR2000-M	14.25"	362.0 mm
AR2000-Z	10.13"	257.3 mm

HOW TO ORDER

Specify Model:
AR2000-Z – AudioRouter™, auxiliary zone unit, 8 zones
AR2000-M – AudioRouter™, master unit, 8 zones, 8 presets



► Model AM50

AudioMaster® Public Address 2 Watt Re-Entrant Speaker

Federal Signal's AudioMaster® Model AM50 is a compact, two watt, transformer coupled speaker for use in emergency notification or paging applications. The unique design of this four-inch square speaker centers around the short, folded, re-entrant horn that is interposed between the diaphragm and the surrounding space.

This speaker is supplied with wiring terminals and strain relief for inbound and outbound speaker wiring.

Model AM50 is designed primarily for wall mounting and includes a trim ring for adapting to any standard four-inch square or weatherproof back box. This speaker is UL Listed for "Fire Protective Signaling Use" and California State Fire Marshall approved.

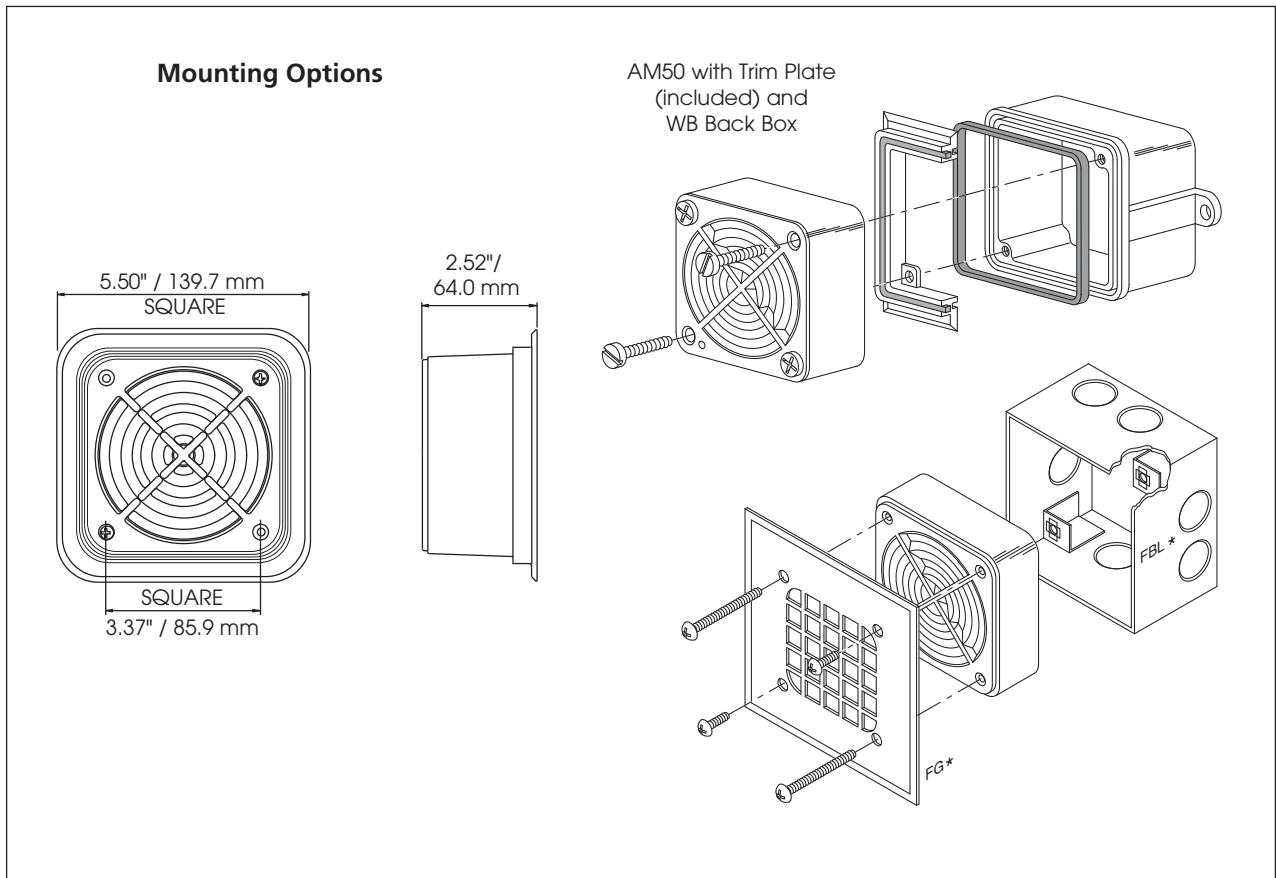
FEATURES

- 25 or 70 Vrms
- Transformer coupled
- Several mounting options
- Pre-assembled
- Indoor/outdoor use
- Type 3R with WB weatherproof back box
- CSFM Approved
- UL Fire Listed

MODEL	POWER HANDLING	FREQUENCY RESPONSE	TRANSFORMER	POWER TAPS	BEAM WIDTH	SPL PER UL 1480	
						10'	1M
AM50-25*	2 watt	140Hz - 10KHz	25 Vrms	2, 1, 1/2, 1/4	170°	87 dBa	97 dBa
AM50-70B	2 watt	140Hz - 10KHz	70 Vrms	2, 1, 1/2, 1/4	170°	87 dBa	97 dBa

* Indicates housing color: (B) for Beige housing, (R) for Red housing. AM50-70B model is only available in Beige.

AudioMaster® Public Address 2 Watt Re-Entrant Speaker (AM50)



SPECIFICATIONS

Operating Temperature:	-40°F to 151°F	-40°C to 66°C
Net Weight:	1.4 lbs	0.64 kg
Shipping Weight:	1.75 lbs	0.79 kg
Height:	5.50"	139.7 mm
Width:	5.50"	139.7 mm
Depth:	2.52"	64.0 mm

HOW TO ORDER

AM50	-	25	B
TYPE		TRANSFORMER	COLOR
AM50		25 25 Vrms	B Beige
		70 70 Vrms*	R Red

* 70 Vrms model is only available in Beige

OPTIONAL ACCESSORIES

Description	Part Number
Weatherproof Back Box	WB
Grille	FG
Flush Mount Back Box	FBL



► Model AMR6

AudioMaster® 8 Watt Ceiling Speaker

Model AMR6 is a high-quality ceiling speaker for public address and music in industrial, municipal and commercial office environments.

Power handling for the AMR6 is eight watt with transformer taps at 8, 4, 2, 1 and 0.5 watts. The AMR6-2570K operates in 25 or 70 Vrms systems and the AMR6-100K operates in 100 Vrms systems.

The speaker is designed to mount flush in a ceiling or wall cavity.

Construction materials were selected to provide years of service in demanding conditions. The steel speaker frame and grille are finished with white staked epoxy for superior durability. Quick release torsion spring mounting is provided for easy installation.

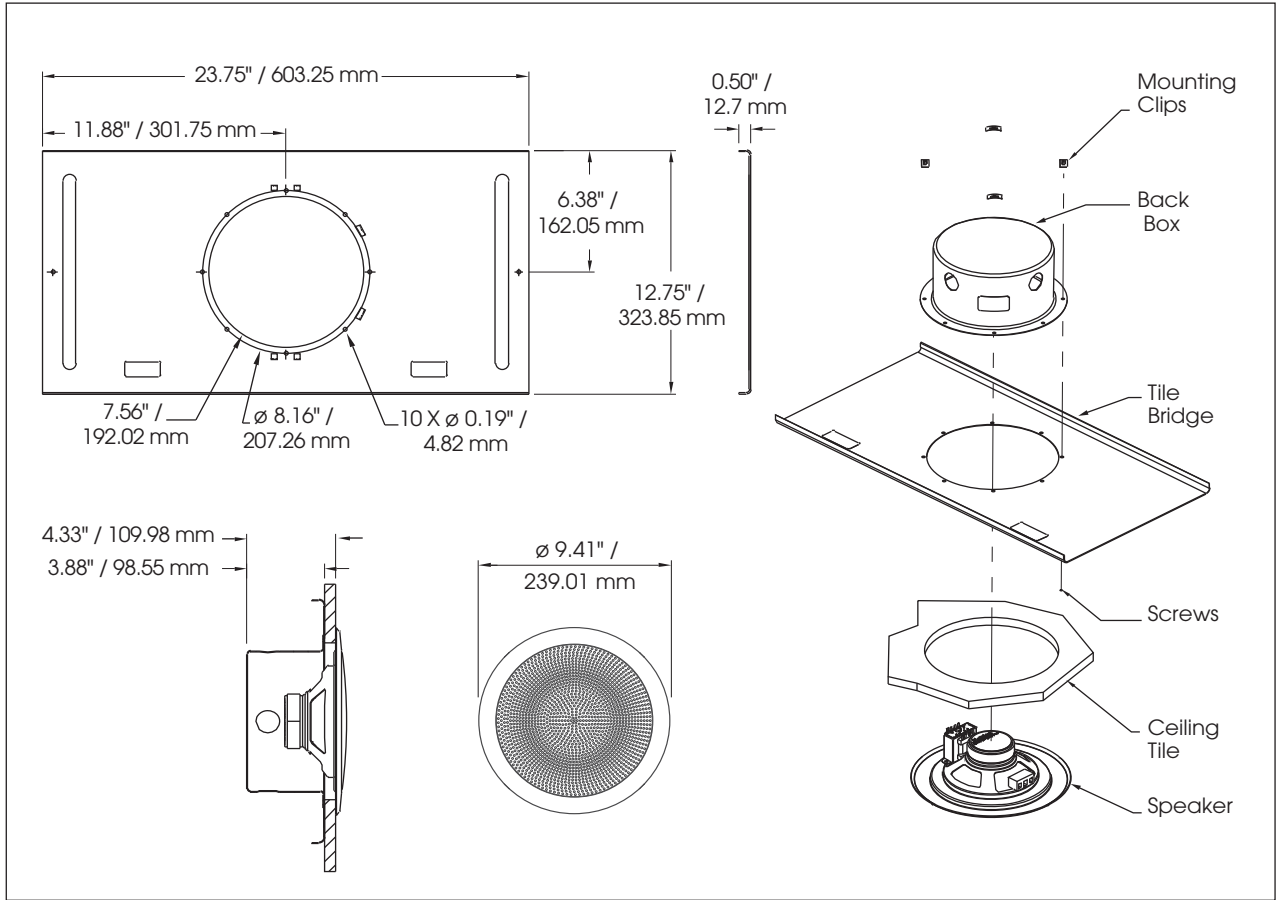
The AMR6 offers a wide frequency response of 110Hz to 20,000Hz that reproduces a full range of voice, music and electronically generated tones. To achieve these impressive results both a woofer and a neodymium tweeter are utilized.

FEATURES

- Transformer coupled for 25, 70 or 100 Vrms systems
- 8 watt
- Flexible mounting
- Back box and tile bridge included

MODEL	POWER HANDLING	FREQUENCY RESPONSE	TRANSFORMER	POWER TAPS	SPL @ 8W	
					10'	1M
AMR6-2570K	8 watt	110-20,000Hz	25 Vrms	8, 4, 2, 1, 0.5	92 dBa	102 dBa
	8 watt	110-20,000Hz	70 Vrms	8, 4, 2, 1, 0.5	92 dBa	102 dBa
AMR6-100K	8 watt	110-20,000Hz	100 Vrms	8, 4, 2, 1, 0.5	92 dBa	102 dBa

AudioMaster® 8 Watt Ceiling Speaker (AMR6)



SPECIFICATIONS

Operating Temperature:	32°F to 120°F	0°C to 49°C
Weight:	3.06 lbs.	1.39 kg
Shipping Weight:	4.75 lbs.	2.15 kg
Diameter:	9.41"	239.0 mm
Depth:	4.33"	110.0 mm

HOW TO ORDER

Specify Model:

AMR6-2570K – Speaker, round, ceiling, 6", transformer coupled, 25/70 Vrms

AMR6-100K – Speaker, round, ceiling, 6", transformer coupled, 100 Vrms



► Model AM15

AudioMaster® Public Address 15 Watt Speaker

Model AM15 is a rugged, re-entrant speaker for use in public address or paging applications. This 15 watt speaker features a rugged speaker cone and projector constructed of spun aluminum. The speaker wiring connections are enclosed in a dust- and moisture-proof, die-cast aluminum compartment. All external surfaces are sealed with gray powder coat paint.

Two screws inserted through the back of the wiring compartment provide for simple wall mount installation. The bottom of the AM15 contains two 1/2-inch conduit openings to accommodate inbound and outbound audio wiring. The unique shape of the AM15 projector provides a 60° sound dispersion. The projector is held in position with a Teflon coated locking ring that can be rotated 180° in order to obtain the desired sound distribution.

Model AM15 is rated for indoor and outdoor use.

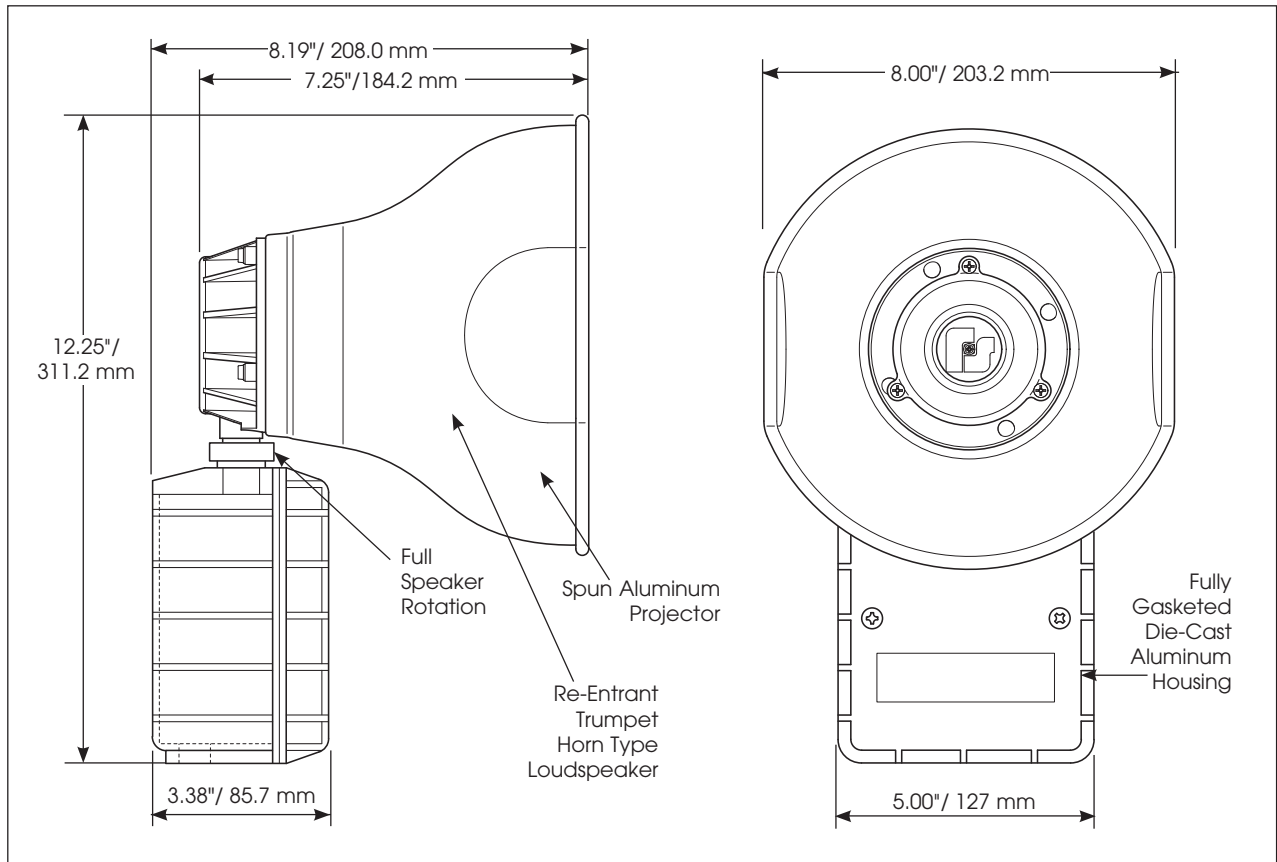
Model AM15 can be used with the AudioMaster® CTS series amplifiers and the AudioRouter™ to complete an industrial grade public address system.

FEATURES

- 8 Ohm
- 15 watt
- Several mounting options
- Re-entrant horn design
- Pre-assembled
- UL and cUL Listed

MODEL	POWER HANDLING	FREQUENCY RESPONSE	IMPEDENCE	BEAM WIDTH	DECIBELS	
					10'	1M
AM15	15 watt	400-4000Hz	8 Ohm	60°	110	120

AudioMaster® Public Address 15 Watt Speaker (AM15)



SPECIFICATIONS

Operating Temperature:	-40°F to 151°F	-40°C to 66°C
Net Weight:	4.85 lbs.	2.2 kg
Shipping Weight:	6.0 lbs.	2.72 kg
Height:	12.25"	311.2 mm
Width:	8.00"	203.2 mm
Depth:	8.19"	208.0 mm

HOW TO ORDER

Specify Model:
AM15 – Speaker, 15 watt, 8 Ohm



► Model AM15XD2

AudioMaster® Public Address Hazardous Location Speaker

Model AM15XD2 is an 8 Ohm, re-entrant, Type 4X speaker for use in public address or paging applications. Model AM15XD2 features a rugged cone and projector constructed of spun aluminum. The speaker wiring connections are enclosed in a dust- and moisture-proof, die-cast aluminum housing. All external surfaces are sealed with a gray powder coat paint.

Four screws inserted through the metal tabs located at the sides of the housing provide a quick wall mount installation. Two 1/2-inch conduit openings in the base of the housing simplify wiring and accommodate inbound and outbound audio wiring. The unique shape of the speaker projector provides a 60° sound dispersion. The projector is held in position with a Teflon coated lock ring that can be rotated 180° in order to obtain the desired sound distribution.

Model AM15XD2 can be used with the AudioMaster® CTS series amplifiers and the AudioRouter™ to complete an industrial-grade public address system.

FEATURES

- 8 Ohm
- 15 watt
- Re-entrant horn design
- Wall mount
- 1/2-inch conduit openings
- Type 4X, IP66 enclosure
- IP69K compliant
- UL and cUL listed for Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups F and G; Class III

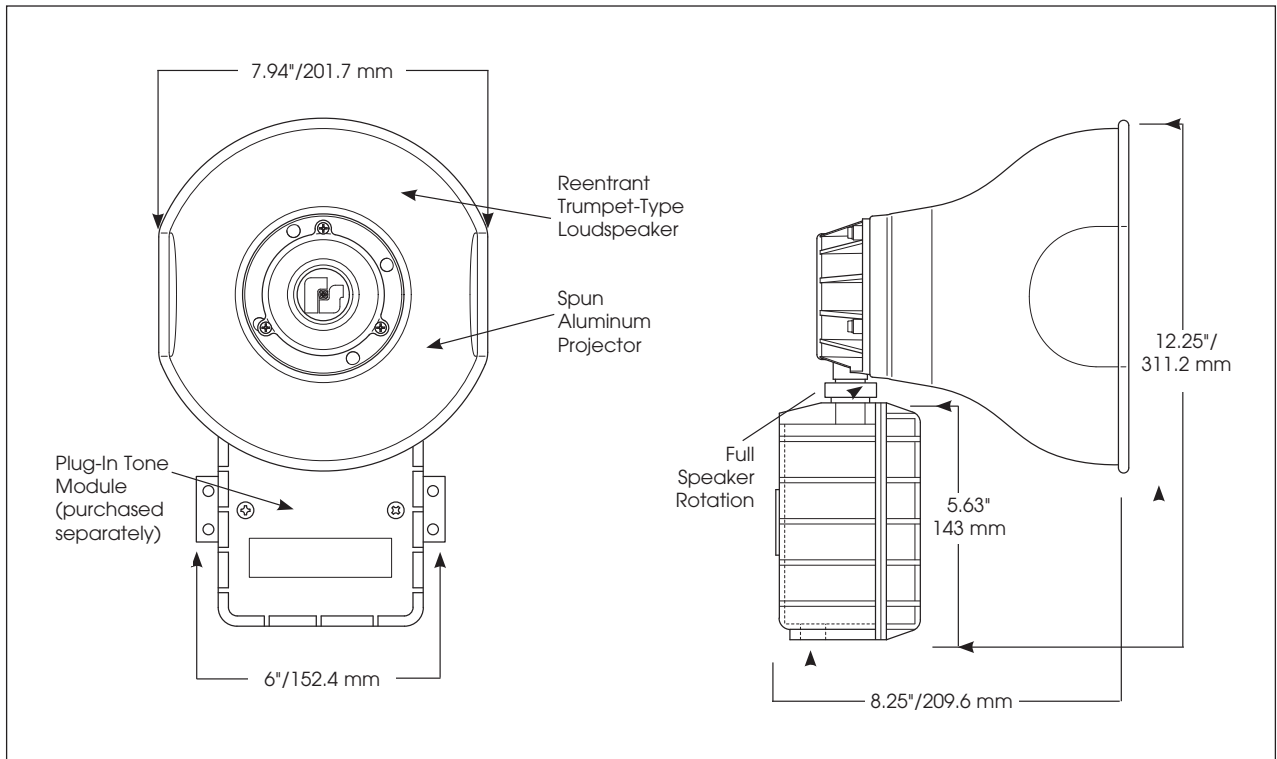
MODEL	POWER HANDLING	FREQUENCY RESPONSE	IMPEDENCE	BEAM WIDTH	DECIBELS	
					10'	1M
AM15XD2	15 watt	400-4000Hz	8 Ohm	60°	110	120

HAZARDOUS LOCATION RATING: AM15XD2

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C	66°C
Class I, Division 2, Groups A, B, C, D	T3C	T3A
Class II, Division 2, Groups F, G	T3C	T3A
Class III	T3C	T3A

AudioMaster® Public Address Hazardous Location Speaker (AM15XD2)



SPECIFICATIONS

Operating Temperature:	-40°F to 151°F	-40°C to 66°C
Net Weight:	4.85 lbs.	2.2 kg
Shipping Weight:	6.0 lbs.	2.72 kg
Height:	12.25"	311.2 mm
Width:	7.94"	201.7 mm
Depth:	8.25"	209.6 mm

HOW TO ORDER

Specify Model:
AM15XD2 – Hazardous Location Speaker,
 15 watt, 8 Ohm



► Models AM300 and AM302

AudioMaster® Public Address Speakers

Models AM300 and AM302 are rugged, transformer coupled, re-entrant speakers for use in public address or paging applications. These 15 and 30 watt speakers feature a durable speaker cone and projector constructed of spun aluminum. The speaker wiring connections are enclosed in a dust- and moisture-proof, die-cast aluminum compartment. All external surfaces are sealed with a red or gray powder coat paint.

The bottom of the the units contain two 1/2-inch conduit openings to accommodate inbound and outbound audio wiring. The unique shape of projector provides a 60° sound dispersion. The projector is held in position with a Teflon coated lock ring that can be rotated 180° in order to obtain the desired sound distribution.

These speakers are UL Listed for "Fire Protective Signaling Use". An in-line capacitor (included) provides the isolation necessary for use in supervised systems. These can be used supervised alarm notification systems or AudioMaster® CTS series amplifiers and the Audio Router to complete an industrial grade public address system.

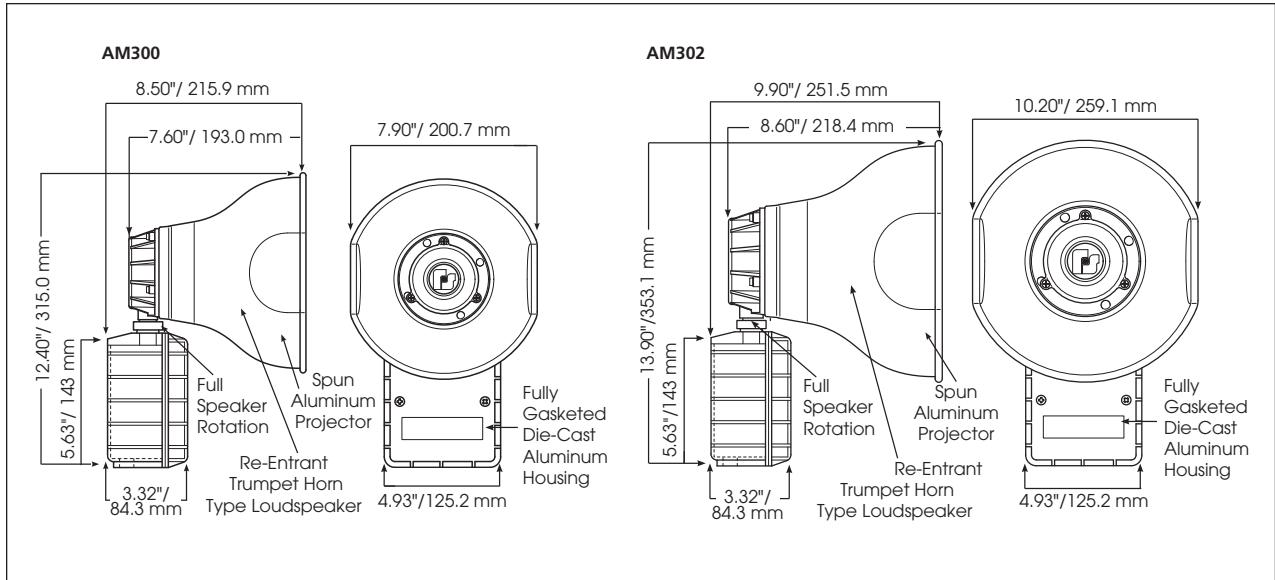
FEATURES

- 15 watt (AM300) or 30 watt (AM302)
- Transformer coupled
- 25 or 70 Vrms
- Re-entrant horn design
- Wall mount
- Indoor/outdoor use
- Type 3R, IP54 enclosure
- CSFM Approved for Model AM300 only
- UL Fire Listed

MODEL	POWER HANDLING	FREQUENCY RESPONSE	TRANSFORMER	POWER TAPS	BEAM WIDTH	SPL ON AXIS	
						10'	1M
AM300-*	15 watt	400-4000Hz	25/70 Vrms	15, 9, 3, 1.5	60°	110 dBa	120 dBa
AM302-*	30 watt	400-4000Hz	25/70 Vrms	30, 15, 7	60°	114 dBa	124 dBa

* Indicates housing color: (-R) for Red housing, leave blank for Gray

AudioMaster® Public Address Speakers (AM300 and AM302)



SPECIFICATIONS

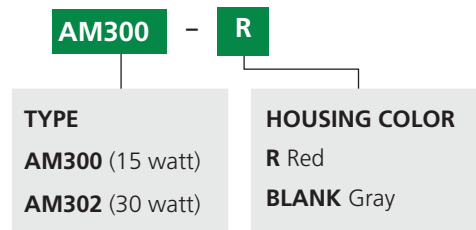
AM300

Net Weight:	4.85 lbs	2.2 kg
Shipping Weight:	6.15 lbs	2.79 kg
Height:	12.40"	315.0 mm
Width:	7.90"	200.7 mm
Depth:	8.50"	215.9 mm

AM302

Net Weight:	7.2 lbs	3.3 kg
Shipping Weight:	8.1 lbs	3.67 kg
Height:	13.90"	353.1 mm
Width:	10.20"	259.1 mm
Depth:	9.90"	251.5 mm

HOW TO ORDER



REPLACEMENT PARTS

Description	Part Number
15W Speaker Assembly, Gray for AM300	K8593082A
15W Diaphragm, Voice Coil, Butterfly Assembly for AM300	K8593035A
30W Speaker Assembly, Gray for AM302	K8593103A
30W Diaphragm, Voice Coil, Butterfly Assembly for AM302	K8590246A
Diaphragm Gasket for AM302	K8590243A
Housing, Gray for AM300/AM302	K8473021A
Housing Gasket for AM300/AM302	K288A043



► Models AM300GCX and AM302GCX

AudioMaster® Public Address Hazardous Location Speakers

Federal Signal Models AM300GCX and AM302GCX are rugged, transformer coupled, re-entrant speakers for use in public address or paging applications. These speakers feature rugged cones and projectors constructed of spun aluminum. The wiring connections are enclosed in a dust- and moisture-proof, die-cast aluminum compartment. All external surfaces are finished with a red or gray powder coat paint.

The unique shape of the speaker projectors provides an impressive 60° sound dispersion pattern. The projectors are held in position with a Teflon coated lock ring that can be rotated 180° in order to obtain the desired sound distribution.

Models AM300GCX and the AM302GCX can be used in supervised alarm notification systems or CTS series amplifiers with the AudioRouter™ to complete an industrial grade public address system.

FEATURES

- 15 watt (AM300GCX) or 30 watt (AM302GCX)
- 25 or 70 Vrms
- Transformer coupled
- Re-entrant horn design
- Wall mount
- 1/2-inch conduit openings
- Type 4X, IP66 enclosure
- IP69K compliant
- CSFM Approved
- UL and cUL Listed for Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups F and G; Class III
- UL Fire Listed

MODEL	POWER HANDLING	FREQUENCY RESPONSE	TRANSFORMER	POWER TAPS	BEAM WIDTH	SPL PER 10'	UL 1480 1M
AM300GCX-*	15 watt	600-5000Hz	25/70 Vrms	15, 9, 3, 1.5	60°	110 dBa	120 dBa
AM302GCX-*	30 watt	400-4000Hz	25/70 Vrms	30, 15, 9	60°	114 dBa	124 dBa

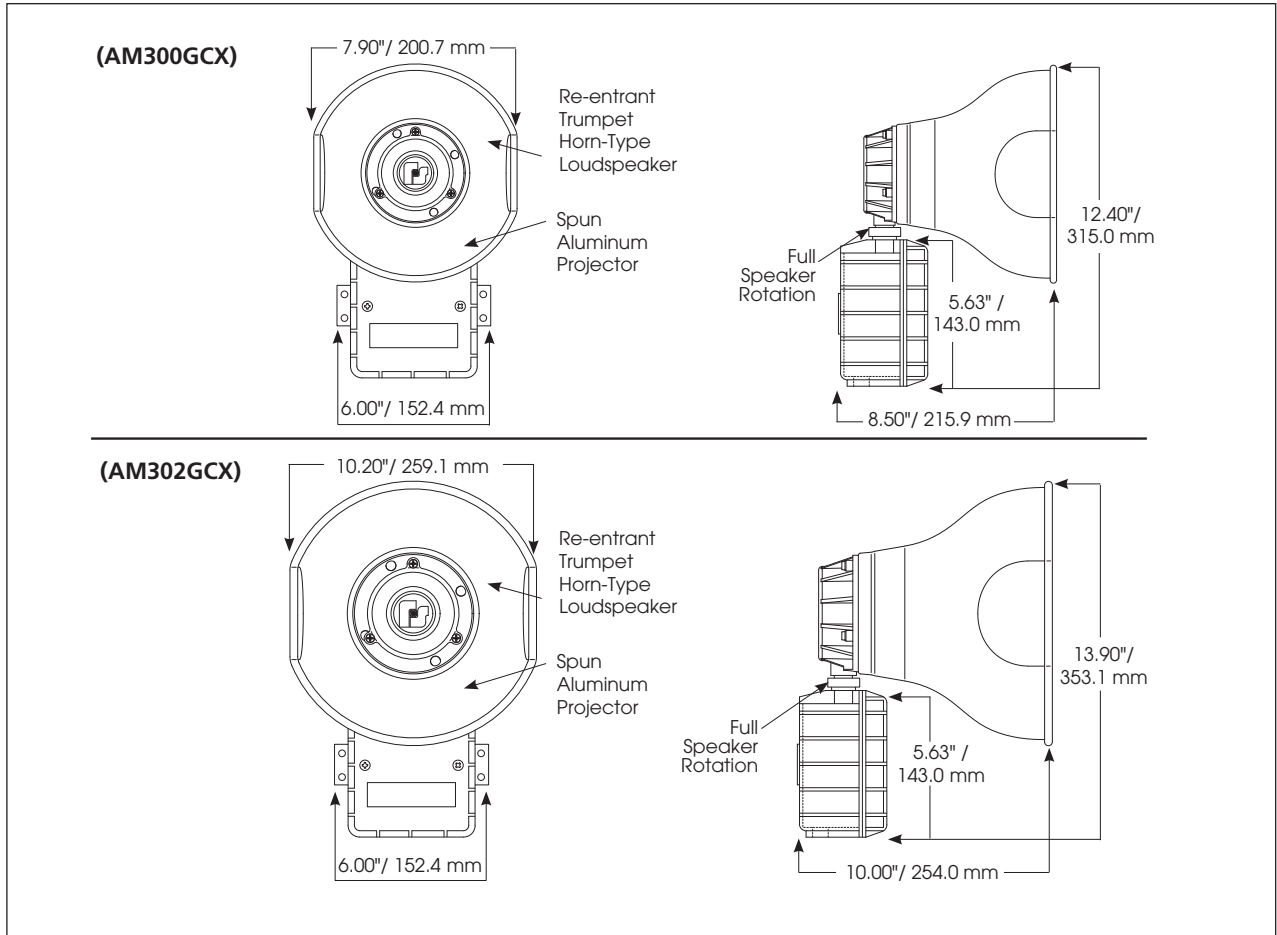
* Indicates housing color: (-R) for Red housing, leave blank for Gray

HAZARDOUS LOCATION RATING: AM300GCX and AM302GCX

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	AM300GCX		AM302GCX	
	40°C	66°C	40°C	66°C
Class I, Division 2, Groups A, B, C, D	T6	T4A	T5	T4A
Class II, Division 2, Groups F, G	T6	T6	T6	T6
Class III	T6	T6	T6	T6

AudioMaster® Public Address Hazardous Location Speakers (AM300GCX and AM302GCX)



SPECIFICATIONS

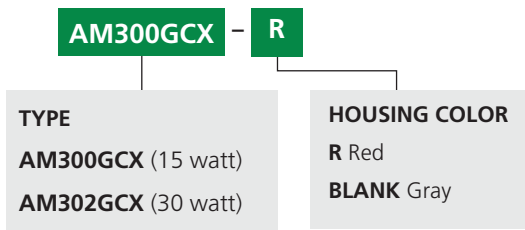
AM300GCX

Operating Temperature:	-67°F to 150°F	-55°C to 66°C
Net Weight:	4.85 lbs	2.2 kg
Shipping Weight:	6.0 lbs	2.72 kg
Height:	12.40"	315.0 mm
Width:	7.90"	200.7 mm
Depth:	8.50"	215.9 mm

AM302GCX-R

Operating Temperature:	-67°F to 150°F	-55°C to 66°C
Net Weight:	7.2 lbs	3.3 kg
Shipping Weight:	8.1 lbs	3.67 kg
Height:	13.90"	353.1 mm
Width:	10.20"	259.1 mm
Depth:	10.00"	254.0 mm

HOW TO ORDER



REPLACEMENT PARTS

Description	Part Number
15W Speaker Assembly, Gray for AM300GCX	K8593082A
15W Diaphragm, Voice Coil, Butterfly Assembly for AM300GCX	K8593035A
30W Speaker Assembly, Gray for AM302GCX	K8593103A
30W Diaphragm, Voice Coil, Butterfly Assembly for AM302GCX	K8590246A
Diaphragm Gasket for AM302GCX	K8590243A
Housing Gasket for AM300GCX/AM302GCX	K288A043



► Model AM30

AudioMaster® Public Address 30 Watt Speaker

Model AM30 is an 8 Ohm constant directivity, re-entrant speaker that is ideal for most public address or paging applications. The constant directivity horn design provides excellent sound coverage throughout the typical frequency range of speech. The AM30 is molded from impact-resistant, beige acrylic-styrene-acrylonitrile (ASA). The unique omni-directional swivel mount of this speaker allows the unit to be pointed anywhere within a 360° half-sphere of area.

The driver of the AM30 employs a rugged phenolic diaphragm, a 1.5-inch diameter voice coil, and “rim centered” ferrite magnet structure for long life and durability under extreme operating conditions. A 12-inch connecting cable, phased and color coded, is provided for connecting the AM30.

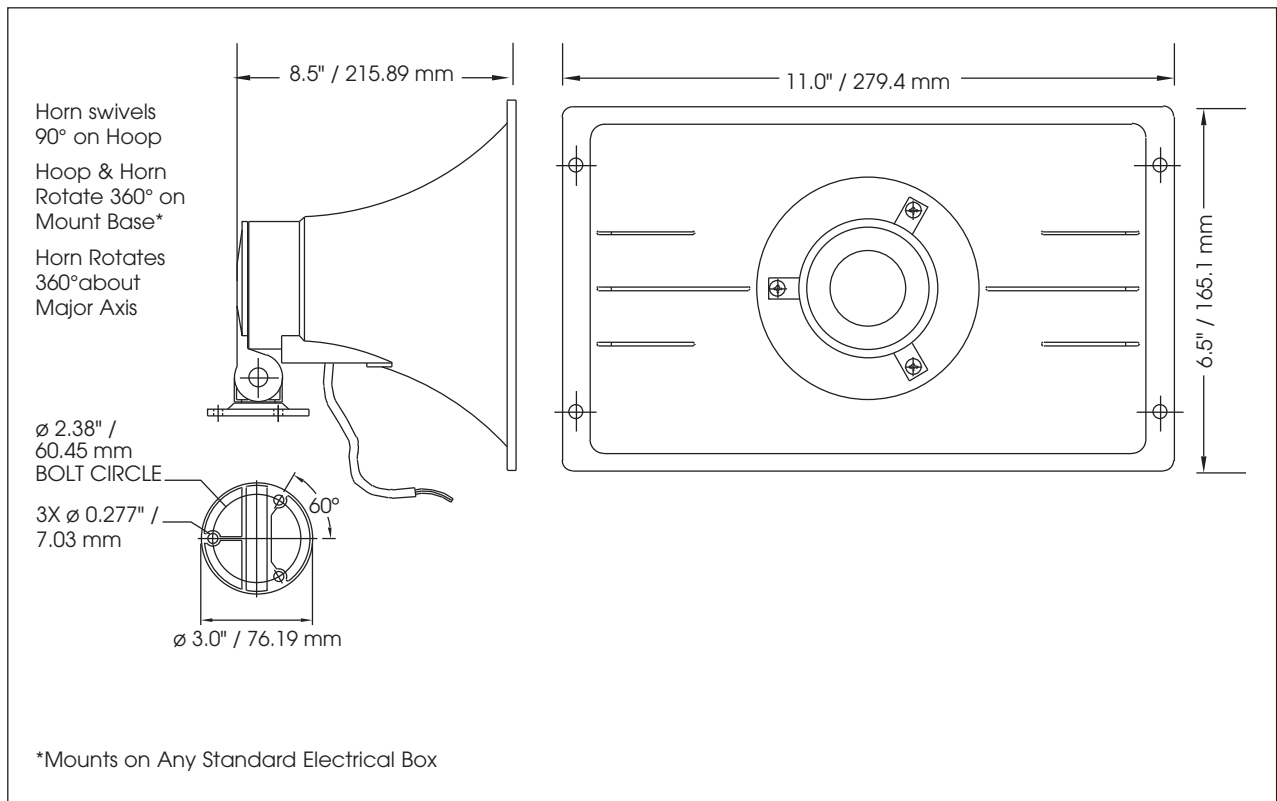
Model AM30 can be used with the AudioMaster® CTS series amplifiers and the AudioRouter™ to complete an industrial grade public address system.

FEATURES

- 8 Ohm
- 30 watt
- Constant directivity horn design
- Omni-directional swivel mount
- Type 3R enclosure

MODEL	POWER HANDLING	FREQUENCY RESPONSE	IMPEDENCE	BEAM WIDTH	DECIBELS	
					10'	1M
AM30	30 watt	400-6500Hz	8 Ohm	80° x 50°	97	107

AudioMaster® Public Address 30 Watt Speaker (AM30)



SPECIFICATIONS

Net Weight:	4.1 lbs.	1.8 kg
Shipping Weight:	4.6 lbs.	2.1 kg
Height:	6.5"	165.1 mm
Width:	11.0"	279.4 mm
Depth:	8.5"	215.9 mm

HOW TO ORDER

Specify Model:

AM30 – Speaker, 30 watt, swivel mount



► Model AM30T

AudioMaster® Public Address 30 Watt Speaker

Model AM30T is a transformer-coupled, constant directivity, re-entrant speaker ideal for most public address or paging applications. The constant directivity design provides excellent sound coverage throughout the frequency range of speech. Model AM30T is molded from impact resistant, beige acrylic-styrene-acrylonitrile (ASA). The omni-directional swivel mount of this speaker allows the unit to be pointed anywhere within a 360° half-sphere of area.

Power handling for the AM30T is 30 watt with transformer taps of 30, 15, 7.5, 3.7, and 1.8. A screwdriver operated power switch is used to select the desired tap. This unit is designed for use in 25, 70, and 100 Vrms distributed systems.

The driver of model AM30T employs a rugged phenolic diaphragm, a 1.5-inch diameter voice coil, and "rim centered" ferrite magnet structure for long life and durability under extreme operating conditions. A 12-inch connecting cable, phased and color coded, is provided for connecting the AM30T.

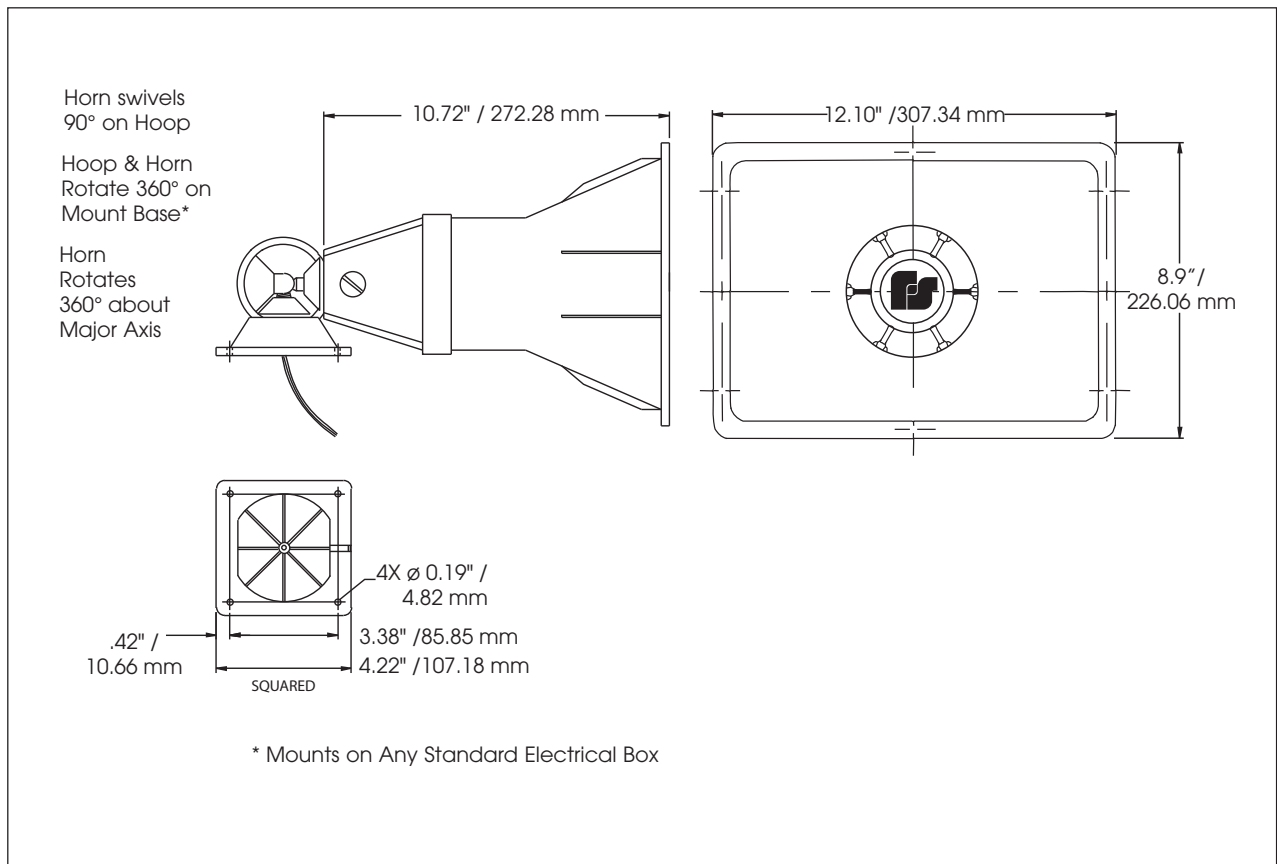
Model AM30T can be used with the AudioMaster® CTS series amplifiers and the AudioRouter™ to complete an industrial grade public address system.

FEATURES

- Transformer Coupled
- 25, 70, or 100 Vrms
- 30 watt
- Omni-directional swivel mount
- Constant directivity horn design
- Type 3R enclosure

MODEL	POWER HANDLING	FREQUENCY RESPONSE	TRANSFORMER	POWER TAPS	BEAM WIDTH	DECIBELS	
						10'	1M
AM30T	30 watt	400-6500Hz	25 Vrms	15, 7.5, 3.7, 1.8	80° x 50°	97	107
			70 Vrms	30, 15, 7.5, 3.7, 1.8			
			100 Vrms	30, 15, 7.5, 3.7			

AudioMaster® Public Address 30 Watt Speaker (AM30T)



SPECIFICATIONS

Net Weight:	5.3 lbs.	2.4 kg
Shipping Weight:	5.8 lbs.	2.6 kg
Height:	8.9"	22.6 cm
Width:	12.1"	30.7 cm
Depth:	12.2"	31.0 cm

HOW TO ORDER

Specify Model:
AM30T – Speaker, 30 watt, swivel mount



► Models AM300X and AM302X

AudioMaster® Public Address Explosion-Proof Speakers

Federal Signal's Models AM300X and AM302X are transformer coupled, re-entrant speakers for use in public address or paging applications. These speakers feature rugged cones and projectors constructed of spun aluminum. The speaker wiring connections are enclosed in a dust- and moisture-proof, die-cast aluminum compartment. All external surfaces are sealed with a red or gray powder coat paint.

The unique shape of the speaker projectors provides a 60° sound dispersion. The entire speaker and can be swiveled 180° in order to direct sound effectively.

Models AM300X and AM302X can be used with supervised alarm notification systems or the AudioMaster® amplifiers with the AudioRouter™ to complete an industrial grade public address system.

FEATURES

- 15 watt (AM300X) or 30 watt (AM302X)
- 25 or 70 Vrms
- Transformer coupled
- Re-entrant horn design
- Heavy-duty U-bracket swivel mount
- Type 4X, IP65 enclosure
- CSFM Approved for Model AM300X only
- UL and cUL Listed for Class I, Division 1, Groups B, C and D; Class I, Division 2, Group A, B, C, and D; Class II, Division 2, Groups F and G; Class III
- UL Fire Listed

MODEL	POWER HANDLING	FREQUENCY RESPONSE	TRANSFORMER	POWER TAPS	SPL PER UL 1480 10'	SPL PER UL 1480 1M	SPL ON AXIS 10'	SPL ON AXIS 1M
AM300X-*	15 watt	400-4000Hz	25/70 Vrms	15, 7, 2, 1	99 dBa	109 dBa	106 dBa	116 dBa
AM302X-*	30 watt	400-4000Hz	25/70 Vrms	30, 15, 8	103 dBa	113 dBa	112 dBa	122 dBa

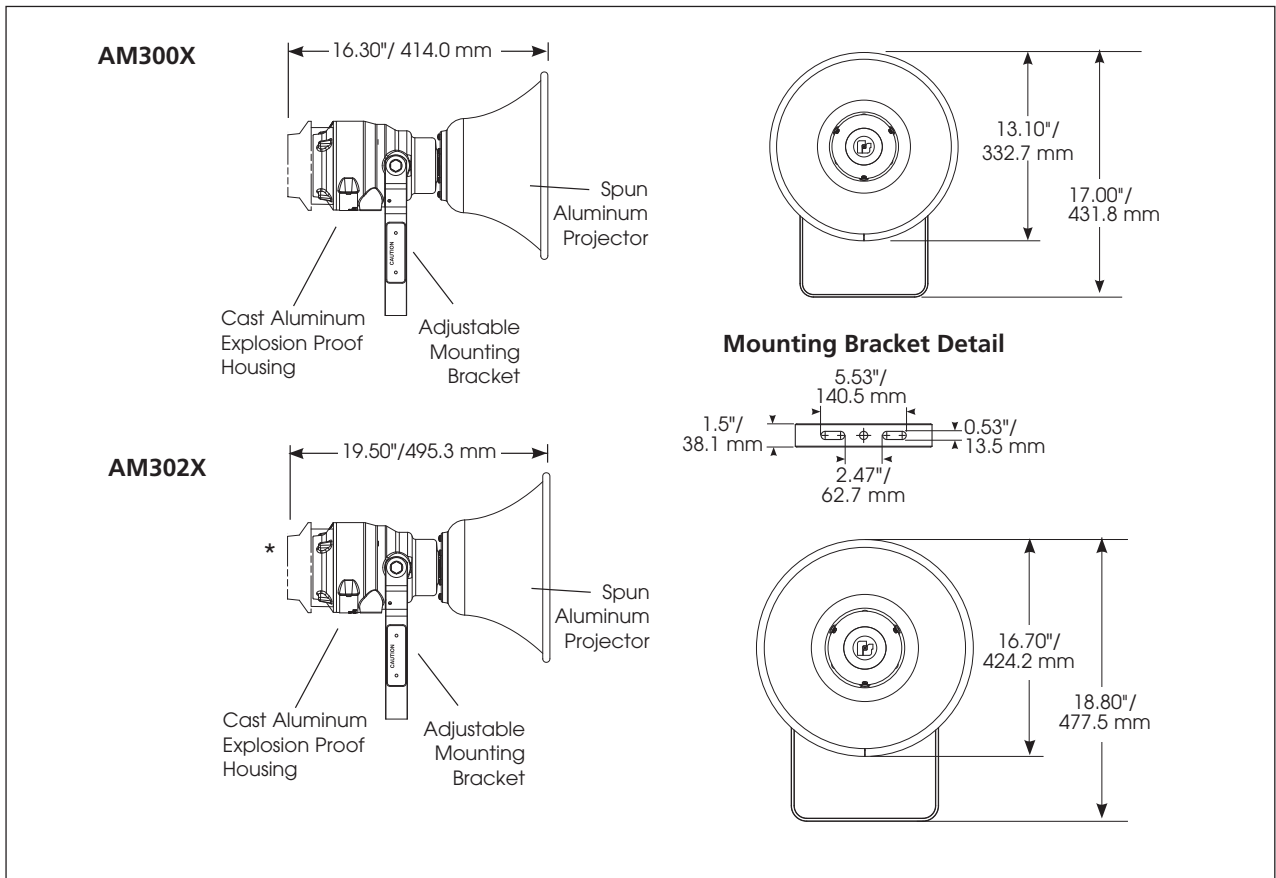
* Indicates housing color: (-R) for Red housing, leave blank for Gray

HAZARDOUS LOCATION RATING: AM300X and AM302X

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	AM300GCX		AM302GCX	
	40°C	66°C	40°C	66°C
Class I, Division 1, Groups B, C, D	T6	T6	T6	T6
Class I, Division 2, Groups A, B, C, D	T4A	T3	T4	T4
Class II, Division 2, Groups F, G	T6	T6	T6	T6
Class III	T6	T6	T6	T6

AudioMaster® Public Address Explosion-Proof Speakers (AM300X and AM302X)



SPECIFICATIONS

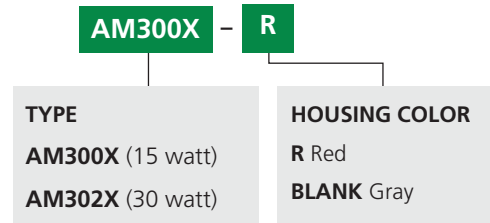
AM300X

Electrical Operating Temperature:	-67°F to 150°F	-55°C to 66°C
Certified Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	15.7 lbs	7.1 kg
Shipping Weight:	23.1 lbs	10.5 kg
Height:	17.00"	431.80 mm
Width:	13.10"	332.7 mm
Depth:	16.30"	414.0 mm

AM302X

Electrical Operating Temperature:	-67°F to 150°F	-55°C to 66°C
Certified Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	17.1 lbs	7.8 kg
Shipping Weight:	33.1 lbs	15.0 kg
Height:	18.80"	477.5 mm
Width:	16.70"	424.2 mm
Depth:	19.50"	495.3 mm

HOW TO ORDER





► Models 110-120 Loudspeakers

Marine/Industrial and Hazardous Area Loudspeakers

Federal Signal's Models 110-120 Series Loudspeakers are designed for use in industrial public address and general alarm applications, where ATEX certification is required. The 110-120 Series Loudspeakers are available in either an ATEX Zone 1 explosion-proof version or a CE compliant, Marine-grade Industrial version.

Model 110-120 Series Loudspeakers are available in three different configurations, from 8 watt to 25 watt, to provide an appropriate amount of sound for the ambient environment. Each speaker is transformer coupled to fine tune the sound output for each application, and balance the audio load. Available audio inputs are 100 Vrms, 70 Vrms and 8-Ohm.

Mounting is provided by a stainless-steel ratcheted mounting bracket that locks the sounder in position at a specific angle without slipping. The bottom surface of the mounting bracket also contains three mounting holes, to adapt to a variety of surfaces.

Models 110-120 Series Loudspeakers are rated for IP66/67 through the use of a neoprene "O" ring seal. All exterior cast aluminum surfaces are finished in powder coat paint and external hardware is manufactured from stainless steel to resist corrosion.

FEATURES

EXPLOSION-PROOF SERIES

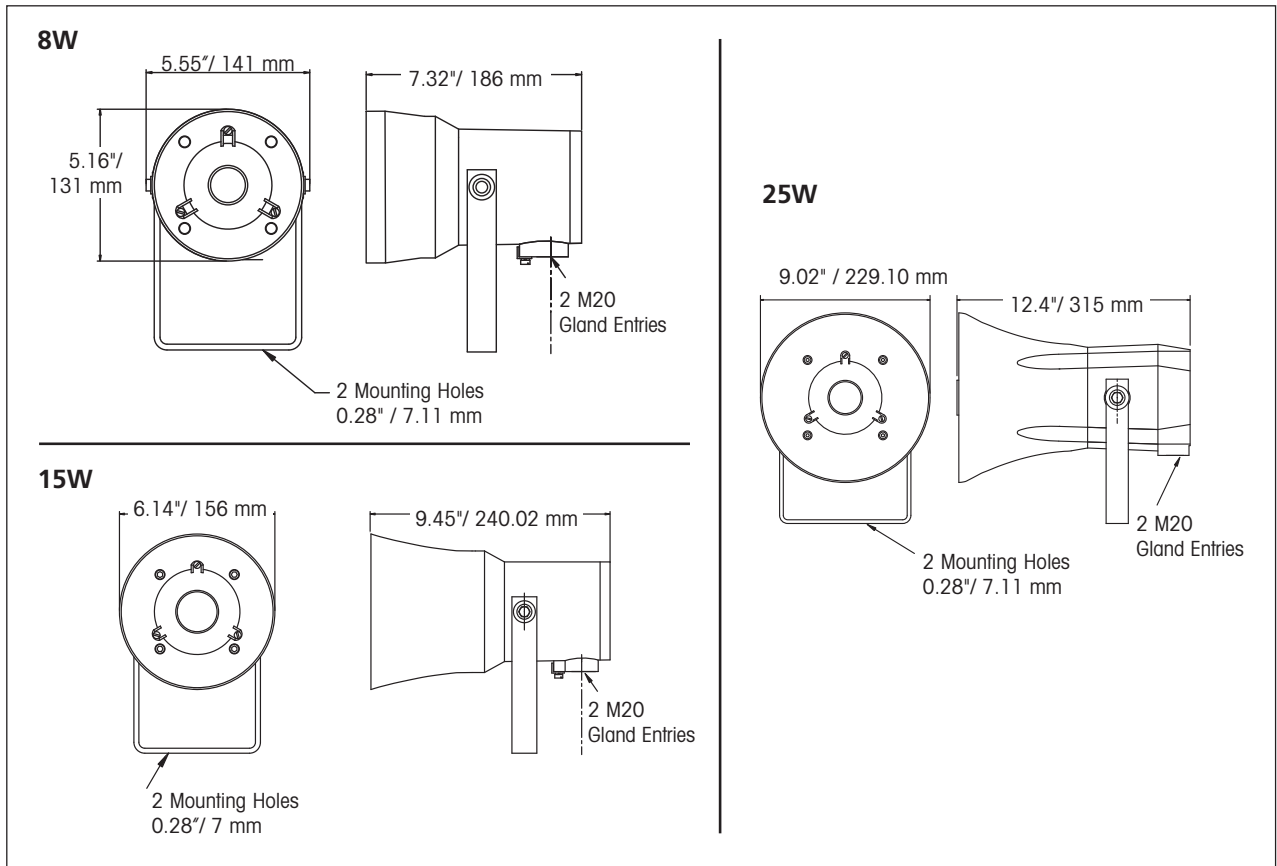
- 8 watt, 110 dBa output
- 15 watt, 116 dBa output
- 25 watt, 123 dBa output
- Approved for Zone 1 IIB and IIC
- CE Compliant
- ATEX certified
- Integrated Speaker Monitoring & remote Tapping (I.S.M.T.)
- IEC Certified (25 watt versions)

MARINE/INDUSTRIAL SERIES

- 8 watt, 114 dBa output
- 15 watt, 118 dBa output
- 25 watt, 125 dBa output
- CE-Compliant
- Integrated Speaker Monitoring & remote Tapping (I.S.M.T.)
- IP66 and IP67 enclosure

Frequency Range				
110 Series (15W) ¹	114 Series (8W) ¹	120 Series (25W) ¹		
390-4500 Hz	600-4000 Hz	350-4000 Hz		
110 Series (8W) ²	114 Series (15W) ²	120 Series (25W) ²		
390-8500 Hz	500-8000 Hz	300-3700 Hz		
Ambient Temperature Range				
T4 ¹	T5 ¹	T6 ¹		
-20°C to +70°C	-20°C to +55°C	-20°C to +40°C		
-20°C to +70°C ²				
¹ Explosion-Proof ² Marine				
Explosion-Proof Rated				
SPL@1kHz (Full power @ 1 meter)				
8W-IIB	8W-IIC	15W-IIB	15W-IIC	25W-IIB
110 dBa	106 dBa	116 dBa	112 dBa	123 dBa
SPL@1kHz (1 watt @ 1 meter)				
8W-IIB	8W-IIC	15W-IIB	15W-IIC	25W-IIB
101 dBa	97 dBa	104 dBa	100 dBa	109 dBa
Marine Rated Power				
SPL@1kHz @ (Full power @ 1 meter)				
8W	15W	25W		
114 dBa	118 dBa	125 dBa		
SPL@1kHz @ (1 watt @ 1 meter)				
8W	15W	25W		
104 dBa	106 dBa	107 dBa		

Marine/Industrial and Hazardous Area Loudspeakers (110-120)



SPECIFICATIONS

Net Weight:			Cable Terminations:	6A, 1.5 mm conductors
8 Watt Short horn Series	6.6 lbs.	3.0 kg	Mounting:	Stainless steel bracket (not painted)
15 Watt Series	7.1 lbs.	3.2 kg	Material:	Body & Horn—Marine Grade Aluminum Alloy
25 Watt Series	14.1 lbs.	6.4 kg	Audio Input:	100 Volt, 70 Volt and 8 Ohms
Shipping Dimensions:			Certification and Approval	
8 watt / 15 watt			110 Series – 8 and 15 Watt:	
Height:	11.4"	289.6 mm	Baseefa 03ATEX0688X	II 2 G EEx d IIB T4 (Tamb -20°C to +70°C)
Width:	11.4"	289.6 mm	Baseefa 03ATEX0689X	II 2 G EEx d IIC T4 (Tamb 20°C to +70°C)
Depth:	11.8"	299.7 mm	120 Series – 25 Watt:	
25 watt			Nemko 05ATEX1036	II 2 G Ex d IIB T4...T6 Gb
Height:	12.6"	320.0 mm	IEC	IECEx NEM 04.0002
Width:	11.8"	299.7 mm	Ingress Protection – Explosion-Proof:	
Depth:	15.0"	381.0 mm	8 Watt/15 Watt	IP66 & IP67-EN60529
Dispersion Angle:			25 Watt	IP66 & IP67-EN60529
Short Horn Series, 8 Watt		180°	Marine	IP66 & IP67-EN60529
Standard Horn Series, 15 Watt		120°		
120 Horn Series, 25 Watt		120°		
Type:	8/15/25 Watt dual entry			
Gland Entries:	2 x M20 x 1.5 mm			

HOW TO ORDER

Contact factory for ordering assistance



Shown with optional swivel mounting bracket

► Models P-LS2B and P-LS2C

Non-Metallic Zone 1 Loudspeakers

Federal Signal's non-metallic loudspeakers, Models P-LS2B and P-LS2C, are designed for use in industrial public address and general alarm applications, where corrosion resistance and ATEX/IEC Certification are required. P-LS2B and P-LS2C loudspeakers are available in an ATEX/IEC Zone 1 explosion-proof version certified IP66 for ingress of dust and combustible gas to either Group IIB or Group IIC.

P-LS2B and P-LS2C loudspeakers, designed to accept an audio input of 100 Vrms, are manufactured from corrosion resistant, anti-static glass-reinforced polyester (GRP). Each speaker is transformer coupled with a maximum power output of 25 watts and is supplied with 10 preset taps (25, 20, 15, 10, 5, 2, 1.5, 1, 0.5 and 0.2 watts) to adjust sound output.

Mounting is provided by a "common template" stainless-steel ratcheted mounting bracket that locks the loudspeaker in position at a specific angle without slipping. Optional swivel mounting bracket contains three slotted mounting holes to further adjust speaker position and adapt to a variety of different surfaces.

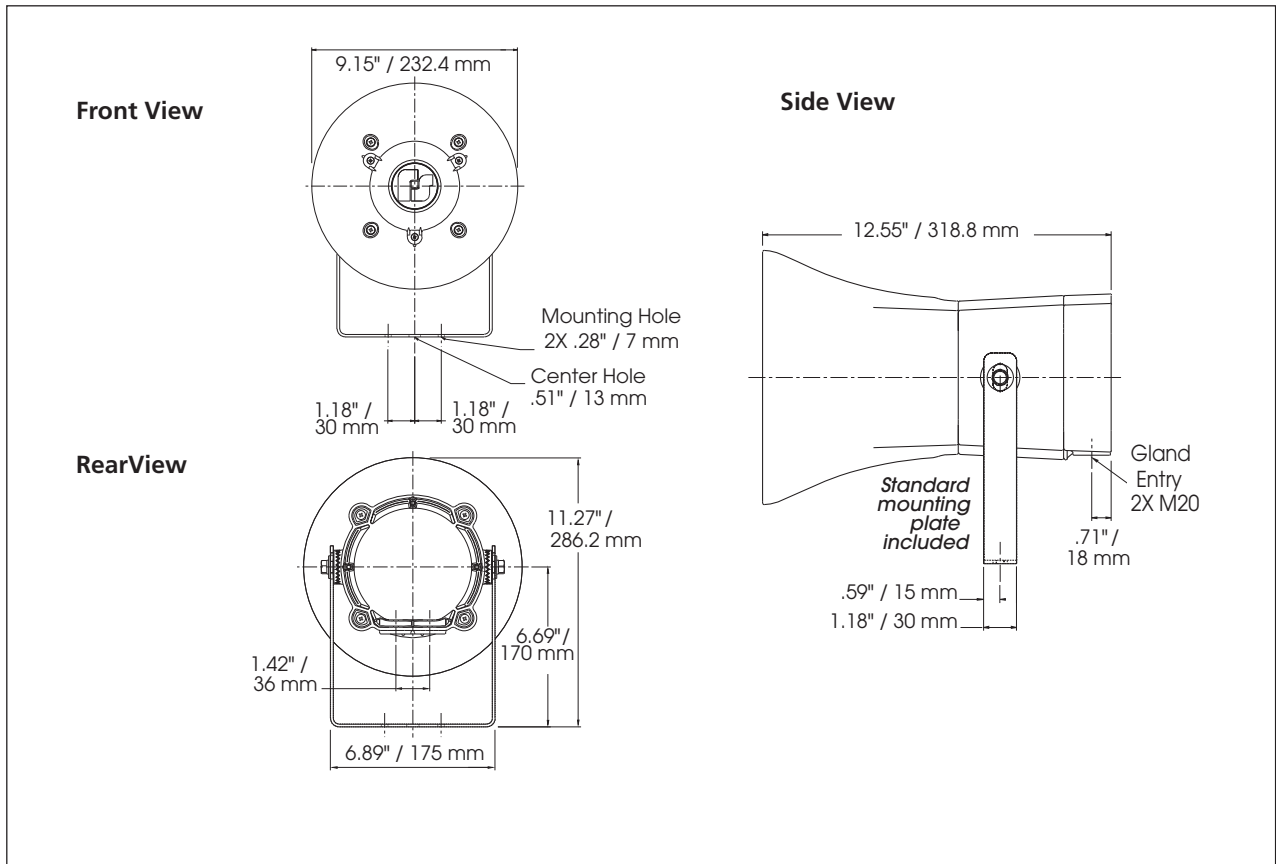
Connection for field wiring is provided by two M20 X 1.5 mm threaded openings in the bottom of the rear cover and terminated via internal terminal blocks. All external hardware is manufactured from stainless steel to resist corrosion and provide serviceability for years to come.

FEATURES

- Transformer coupled
- 100 Vrms
- 25 watt
- Re-entrant horn design
- Indoor/outdoor use
- U-Mounting bracket included, optional swivel mount bracket available
- IP66 rated
- ATEX and IECEx Certified for Zone 1, Gas Groups IIB and IIC

MODEL	POWER HANDLING	FREQUENCY RESPONSE	POWER TRANSFORMER	TAPS	DECIBELS	
					10'	1M
P-LS2B	25 watt	150Hz - 21kHz	100 Vrms	25, 20, 15, 10, 5, 2, 1.5, 1, 0.5, 0.2	114	124
P-LS2C	25 watt	150Hz - 21kHz	100 Vrms	25, 20, 15, 10, 5, 2, 1.5, 1, 0.5, 0.2	113	123

Non-Metallic Zone 1 Loudspeakers (P-LS2B and P-LS2C)



SPECIFICATIONS

Certificate Number:
 ATEX Baseefa10ATEX0096X
 IECEx IECEx BAS 10.0052X
 P-LS2B 0539 II 2G
 Ex d e mb IIB + H2 T5 Gb (-50°C ≤ Ta ≤ +70°C)
 T6 Gb (-50°C ≤ Ta ≤ +55°C)
 P-LS2C 0539 II 2GD
 Ex d e mb IIC T5 Gb Ex tb IIIC IP66 T100°C Db (-50°C ≤ Ta ≤ +70°C)
 T6 Gb Ex tb IIIC IP66 T85°C Db (-50°C ≤ Ta ≤ +55°C)
 Gland Entries: 2 X M20 X 1.5 mm
 Cable Terminations: 0.5 – 4 mm² (22-12 AWG) Conductors
 Material: Glass-Reinforced Polyester (GRP)
 Color: Black
 Audio Input: 100 Vrms
 Max. Audio Output: (max.) 124 dBA @ 25 watt (1 meter)
 Wide Range Frequency Response: 150Hz – 21kHz
 Shipping Dimensions (P-LS2B and P-LS2C):
 Diameter: 9.15" 232.4 mm
 Height: 11.27" 286.2 mm
 Length: 12.55" 318.8 mm
 Net Weight: 13.0 lbs 5.9 kg
 Shipping Weight: 15.3 lbs 6.9 kg

HOW TO ORDER

Specify Model:

P-LS2B – Corrosion Resistant Loudspeaker, ATEX Zone 1 Rated Gas Group IIB

P-LS2C – Corrosion Resistant Loudspeaker, ATEX Zone 1 Rated Gas Group IIC

OPTIONAL ACCESSORIES

Description	Part Number
Swivel Mounting Bracket	K8595172A

REPLACEMENT PARTS

Description	Part Number
Standard Mounting Bracket Kit	K8595171A
Swivel Mounting Bracket Kit	K8595172A
P-LS2 Gasket and Fuse Kit ¹	K859500361A

¹ Includes rear cover gasket kit and fuse module



Shown with optional swivel mounting bracket

► Models P-LS2B-8 and P-LS2C-8

8 Ohm Non-Metallic Zone 1 Loudspeakers

Federal Signal's corrosion resistant loudspeakers, Models P-LS2B-8 and P-LS2C-8, are designed for use in industrial public address and general alarm applications, where corrosion resistance and ATEX/IEC Certification are required. P-LS2B-8 and P-LS2C-8 loudspeakers are available in an ATEX/IEC Zone 1 explosion-proof version certified IP66 for ingress of dust and combustible gas to either Group IIB or Group IIC.

P-LS2B-8 and P-LS2C-8 loudspeakers are manufactured from corrosion resistant, anti-static, glass-reinforced polyester (GRP). These loudspeakers are rated for 25 watts and designed to accept an audio input of 14.1 Vrms maximum into its 8 Ohm rated voice coil.

Mounting is provided by a "common template" stainless-steel ratcheted mounting bracket that locks the sounder in position at a specific angle without slipping. The bottom surface of the standard mounting bracket contains three slotted mounting holes.

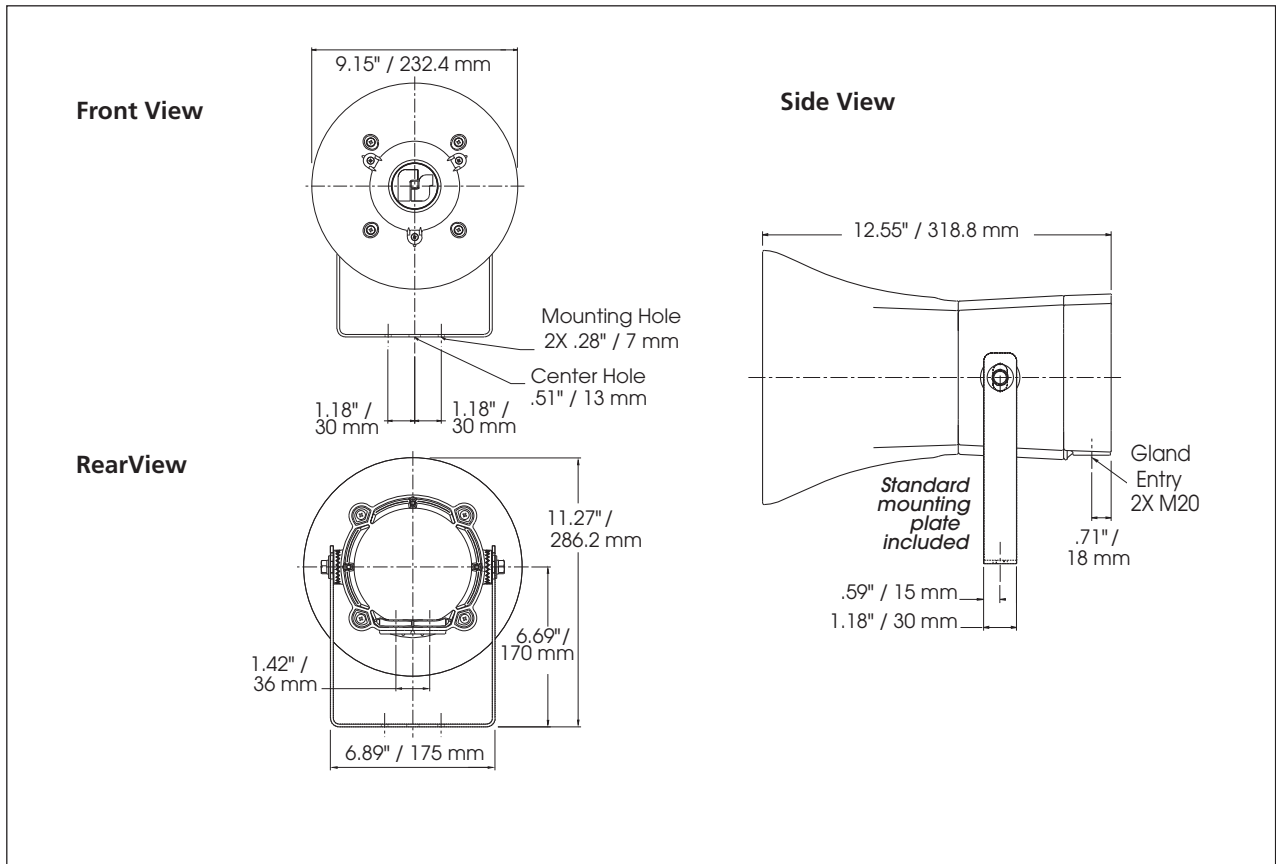
Connection for field wiring is provided by two M20 X 1.5 mm threaded openings in the bottom of the rear cover and terminated via internal terminal blocks. All external hardware is manufactured from stainless steel to resist corrosion and provide serviceability for years to come.

FEATURES

- Corrosion resistant Anti-Static GRP (Glass-Reinforced Polyester) Design
- U-Mounting bracket included, optional swivel mount bracket available
- Stainless-Steel Hardware
- CE Compliant
- ATEX and IECEx Certified for Zone 1 Gas Groups IIB and IIC
- IP66 rated

MODEL	POWER HANDLING	FREQUENCY RESPONSE	MAXIMUM AUDIO INPUT	IMPEDANCE	DECIBELS	
					10'	1M
P-LS2B-8	25 watt	350 - 14kHz	14.1 Vrms	8 Ω	114	124
P-LS2C-8	25 watt	350 - 14kHz	14.1 Vrms	8 Ω	113	123

8 Ohm Non-Metallic Zone 1 Loudspeakers (P-LS2B-8 and P-LS2C-8)



SPECIFICATIONS

Certificate Number:
 ATEX Baseefa 10ATEX0096X
 IECEx IECEX BAS 10.0052X
 P-LS2B-8 CE 0539 Ex II 2G
 Ex d e mb IIB + H2 T5 Gb (-50°C ≤ Ta ≤ +60°C)
 T6 Gb (-50°C ≤ Ta ≤ +45°C)
 P-LS2C-8 CE 0539 Ex II 2GD
 Ex d e mb IIC T5 Gb Ex tb IIIC IP66 T95°C Db
 (-50°C ≤ Ta ≤ +60°C)
 T6 Gb Ex tb IIIC IP66 T80°C Db
 (-50°C ≤ Ta ≤ +45°C)
 Gland Entries: 2 X M20 X 1.5 mm
 Cable Terminations: 0.5 – 4 mm² (22-12 AWG) Conductors
 Material: Glass-Reinforced Polyester (GRP)
 Color: Black
 Audio Input: 14.1 Vrms
 Audio Output (Peak): (max.) 124 dB @ 25 watts (1 meter)
 Frequency Response: 350 – 14kHz
 Diameter: 9.15" 232.4 mm
 Height: 11.27" 286.2 mm
 Length: 12.55" 318.8 mm
 Net Weight: 13.0 lbs 5.9 kg
 Shipping Weight: 15.3 lbs 6.9 kg

HOW TO ORDER

Specify Model:

P-LS2B-8 – Corrosion Resistant Loudspeaker, ATEX Zone 1 Rated Gas Group 2B
P-LS2C-8 – Corrosion Resistant Loudspeaker, ATEX Zone 1 Rated Gas Group 2C

OPTIONAL ACCESSORIES

Description	Part Number
Swivel Mounting Bracket	K8595172A

REPLACEMENT PARTS

Description	Part Number
Standard Mounting Bracket Kit	K8595171A
Swivel Mounting Bracket Kit	K8595172A
Rear Cover Gasket Kit ¹	K859500361A

¹ Includes fuse module



Shown with optional swivel mounting bracket

► Model P-LS70

Corrosion Resistant Loudspeaker

Federal Signal's corrosion resistant loudspeaker, Model P-LS70, is designed for use in industrial public address and general alarm applications, where corrosion resistance is required. Model P-LS70 loudspeaker is certified IP66 for ingress of dust and strong water jets.

The P-LS70 loudspeaker is manufactured from corrosion resistant, anti-static glass-reinforced polyester (GRP), and is designed to accept an audio input of 70 Vrms. Each speaker is transformer coupled with a maximum power output of 25 watts and is supplied with 10 preset taps (25, 20, 15, 10, 5, 2, 1.5, 1, 0.5 and 0.2 watts) to adjust sound output.

Mounting is provided by a "common template" stainless-steel ratcheted mounting bracket that locks the sounder in position at a specific angle without slipping. The bottom surface of the standard mounting bracket contains three slotted mounting holes.

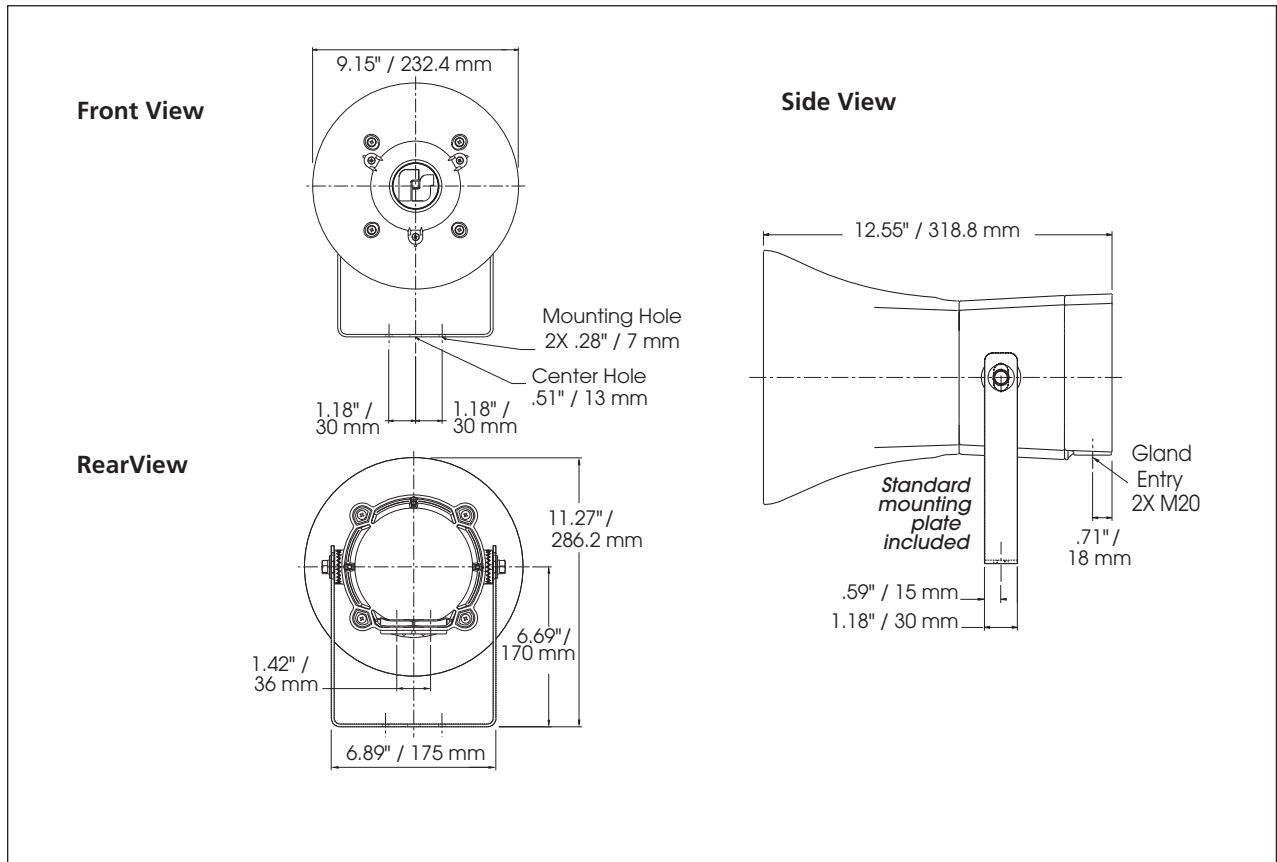
Connection for field wiring is provided by two M20 x 1.5 mm threaded openings in the bottom of the rear cover and terminated via internal terminal blocks. All external hardware is manufactured from stainless steel to resist corrosion and provide serviceability for years to come.

FEATURES

- Corrosion resistant Anti-Static GRP (Glass-Reinforced Polyester) Design
- U-Mounting bracket included, optional swivel mount bracket available
- Stainless-steel hardware
- Indoor/outdoor use
- IP66 rated

MODEL	POWER HANDLING	FREQUENCY RESPONSE	POWER TRANSFORMER	TAPS	DECIBELS	
					10'	1M
P-LS70	25 watt	350 - 5kHz	70 Vrms	25, 20, 15, 10, 5, 2, 1.5, 1, 0.5, 0.2	115	125

Corrosion Resistant Loudspeaker (P-LS70)



SPECIFICATIONS

Operating Temperature:	-50°C to 70°C	
Gland Entries:	2 x M20 x 1.5 mm	
Cable Terminations:	0.5 – 4 mm ² (22-12 AWG) Conductors	
Material:	Glass-Reinforced Polyester (GRP)	
Color:	Black	
Audio Input:	70 Vrms	
Audio Output (Peak):	(max.) 125 dB @ 25 watts (1 meter)	
Frequency Response:	350 – 5kHz	
Diameter:	9.15"	232.4 mm
Height:	11.27"	286.2 mm
Length:	12.55"	318.8 mm
Net Weight:	13.0 lbs	5.9 kg
Shipping Weight:	15.3 lbs	6.9 kg

HOW TO ORDER

Specify Model:

P-LS70 – Corrosion Resistant Loudspeaker

OPTIONAL ACCESSORIES

Description	Part Number
Swivel Mounting Bracket	K8595172A

REPLACEMENT PARTS

Description	Part Number
Standard Mounting Bracket Kit	K8595171A
Swivel Mounting Bracket Kit	K8595172A
Rear Cover Gasket Kit ¹	K859500361A

¹ Includes fuse module



► Model A12SA

Voice Gun® Portable Loudspeaker

Take control of the situation with Federal Signal Voice Guns® —the most powerful lightweight electronic megaphones available. Specialized noise canceling microphones improve voice reproduction even at long distances. Rugged high-impact Cyclac™ parts are virtually indestructible for long service life. Ideal for industrial, fire, marine, athletics, law enforcement and many other applications.

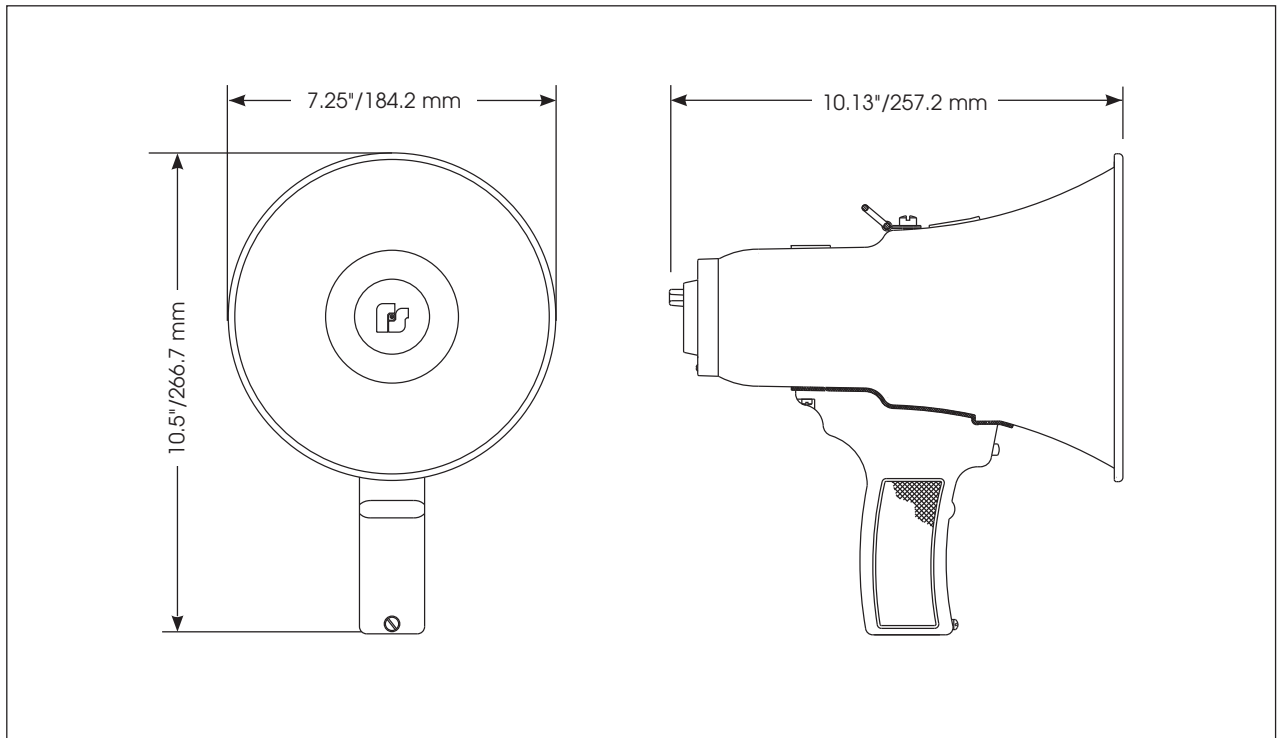
Model A12SA is made of Lexan™ high-impact, self-extinguishing plastic. This benefit makes it appropriate for hazardous environments such as oil refineries and other industries where fire hazard is always present. The A12SA operates on eight “AA” batteries.

F E A T U R E S

- Excellent sound quality
- Trouble-free solid-state design
- Battery operated

MODEL	BATTERIES REQUIRED	POWER OUTPUT	RANGE
A12SA	(8) “AA”	16 watt	1/4 mile

Voice Gun® Portable Loudspeaker (A12SA)



SPECIFICATIONS

Net Weight:	3.0 lbs.	1.36 kg
Diameter:	7.25"	184.2 mm
Height:	10.5"	266.7 mm
Length:	10.13"	257.2 mm

HOW TO ORDER

Specify Model:
A12SA – Voice Gun, 16 watt, red



► Models GEN-IIC and GEN-IIC-ISMT

Non-Metallic Zone 1 Loudspeakers

Federal Signal’s non-metallic loudspeakers, models GEN-IIC and GEN-IIC-ISMT, are designed for use in industrial public address and general alarm applications where corrosion resistance and ATEX/IEC Certification are required. GEN-IIC and GEN-IIC-ISMT loudspeakers are available in an ATEX/IEC Zone 1 (pending) explosion-proof version certified IP66 for ingress of dust and combustible gas to Group IIC. GEN-IIC-ISMT differs from the standard model GEN-IIC, in that it includes an intelligent speaker monitoring and tapping (ISMT) interface built into the speaker to allow remote monitoring and tapping of the speaker without needing to physically access the deployed speaker.

GEN-IIC and GEN-IIC-ISMT loudspeakers, designed to accept an audio input of 100 Vrms, are manufactured from corrosion-resistant, anti-static glass-reinforced polyester (GRP). Each speaker is transformer coupled with a maximum power output of 25 watts and is supplied with preset taps (25, 15, 10, and 6 for GEN-IIC-ISMT, and 25, 15, 10, 8, and 3 watts for GEN-IIC) to adjust sound output.

Mounting is provided by a “common template” stainless-steel ratcheted mounting bracket that locks the loudspeaker in position at a specific angle without slipping. Optional swivel mounting bracket contains three slotted mounting holes to further adjust speaker position and adapt to a variety of different surfaces.

Connection for field wiring is provided by two M20 X 1.5 mm threaded openings in the bottom of the main speaker bottom and terminated via internal terminal blocks. All external hardware is manufactured from stainless steel to resist corrosion and provide serviceability for years to come.

FEATURES

- SPL: 123 +/-3dBA @ 25 W, 1m @ 10'/25 W (tone)
- 100 Vrms
- Max 25 W Output
- Re-entrant horn design
- Non-metallic, UV Solar resistant housing
- Mounting U-Bracket included, optional swivel mount bracket available
- IP66 rated
- ATEX and IECEX Certified for Zone1, Gas Group, IIC
- Cable entry: 2 x M20 X 1.5 mm

MODEL	POWER HANDLING	POWER TRANSFORMER	TAPS (WATTS)	DECIBELS 1 M
GEN-IIC	25 watt	100 Vrms	25, 15, 10, 8, 3	123
GEN-IIC-ISMT	25 watt	100 Vrms	25, 15, 10, 6	123

Non-Metallic Zone 1 Loudspeakers (GEN-IIC and GEN-IIC-ISMT)

SPECIFICATIONS

Gland Entries:	2 X M20 X 1.5B mm	
Cable Terminations:	2.5 mm ²	
	Conductors Size	
Material:	Glass-Reinforced Polyester (GRP)	
Color:	Black	
Audio Input:	100Vms	
Max. Audio Output:	max. 123dB @ 25 Watt (1 meter)	
Height:	9.13"	232.2 mm
Length:	13.66"	347 mm
Net Weight:	14.5 lbs	(6.58 kg)
Shipping Weight:	16.5 lbs	(7.48 kg)

HOW TO ORDER

Description	Part Number
Corrosion Resistant Loudspeaker, ATEX Zone 1 Rated Gas Group IIC	GEN-IIC
Corrosion Resistant Loudspeaker, ATEX Zone 1 Rated Gas Group IIC	GEN-IIC-ISMT

ACCESSORIES

Description	Part Number
Swivel Mounting Bracket	K8595172A
Optional Cover Lanyard	GEN-IIC-LANYARD

REPLACEMENT PARTS

Description	Part Number
Standard Mounting Bracket Kit	K8595171A
Swivel Mounting Bracket Kit	K8595172A



ISMT Module



► Model PAGASYS®

Digital Public Address and General Alarm Systems with Networked Options

Specifically developed for the stringent requirements of the offshore oil and gas markets, PAGASYS® is ideally suited for offshore platforms, land based petro-chemical plants, military, and applications requiring the highest degree of reliability and functionality. Stand-alone or fully duplicated failsafe systems can be customized to meet the specific requirements of the application.

Pulse-width modulated, Class 'D' amplifiers operate with greater than 84% efficiency; minimizing heat generation; and preventing power surges upon start up. Also, these compact PA/GA systems require less space, a smaller UPS, and less cooling than conventional systems.

On-board digital signal processors (DSP) provide tone generation and pre-recorded voice messages. Analog audio inputs permit seamless integration of external tone generators and intercom systems. An expandable I/O card approach allows you to integrate third party alarm systems and auxiliary signals, such as fire & gas detection controls and beacons, for a completely integrated facility emergency notification system.

Each PAGASYS rack can be equipped with hot standby amplifiers that assume the load in the event of an individual amplifier failure. Failed amplifiers and power supplies can be replaced quickly without having to power down the system or disconnect wiring. User controls and fault reporting are easily accessed on the optional touch screen PC or remotely via a computer.

FEATURES

- Stand-alone, Hot Standby, or Duplicated systems with Network Options
- Field configurable zones, I/O, and access panels
- Impedance monitoring of speaker circuits with optional Individual Intelligent Speaker Monitoring and remote Tapping system (ISMT)
- GUI, MIMIC and system diagnostics
- Modular Construction with Hot Swappable Amplifiers & Power Supplies
- UKOOA, PFEER, NORSOK, IMO, ABS, SOLAS, DNV
- PBX Interface & Feedback Eliminator (options)
- Full compliment of safe and hazardous area access panels and microphone stations
- Fiber Optic Ready
- IP-Networkable
- Custom tones and voice messages

Digital Public Address And General Alarm Systems (PAGASYS®)



The PAGASYS system employs modular construction to offer a host of benefits. Key advantages include:

- Commonality of parts reduces system development costs, and minimizes spare part requirements.
- System standardization shortens design and manufacturing times.
- Reduced cabling promotes faster on-site installation.
- System configuration via user-friendly software enables users to bring systems on-line faster.
- Flexible network concept speeds and simplifies future system expansions and upgrades.
- Ethernet/Cobra-Net™ solutions are available for large-scale networked applications.

System Functionality and Capacity

The PAGASYS system provides indoor and outdoor Public Address/General Alarm capabilities for virtually any application calling for safe, high integrity, critical communications. This includes oil and gas exploration and production facilities, petrochemical and industrial plants, and military installations.

At the PAGASYS system's core is the control frame containing the network processor, digital signal processing (DSP), amplifier control/monitoring, and input/output cards. The base configured control frame will accept up to 48 audio inputs, store up to 12 re-recordable tones or digital messages, 40 seconds each and is expandable using Federal Signal's digital storage processor. By connecting to a PC mimic, it is possible to configure the DSP's to:

- Configure external audio input signal monitoring by using 20 Khz, 30 Hz or wide band pilot tone monitoring.
- Select the preferred pre-announcement chime.
- Establish the input/output volume control.
- Set the 30Hz amplifier monitoring tone level.
- Download messages from a PC.

Each rack includes a control frame, amplifiers, power supplies, speaker loop monitoring units and input/output terminations, used to communicate with external systems such as fire and gas and then activate tones, messages or beacons. Test/access panels are also available. Modules are mounted into card-frames housed in one or more, 42U 19" rack. Up to 1,000 watts of amplification power can be fitted into 3U card-frame with a maximum 9,000 watts per control frame. A maximum 36 zones are available in a 9,000-watt rack expandable to 72 zones with an additional rack. Extra racks can be added for future site-wide expansion.

Network and Redundancy

A PAGASYS system can be supplied as a single stand-alone rack, a fully duplicated dual redundant system, or a redundant network system. In the event of a system component failure (such as a DSP card or audio input for an access panel) in a dual redundant or network redundant system, audio is automatically re-routed to assure failsafe operation. Even if the control frame fails completely direct audio analog input will still be available at that rack. PAGASYS is compatible with a variety of network technologies and system topologies based on copper or fiber-optic transmission to meet the level of redundancy required for the application.

System Fault Monitoring

To ensure integrity the PAGASYS system automatically incorporates extensive internal self-monitoring, covering:

- Audio input faults (30Hz, 20 KHz or wide band).
- Internal audio path faults.
- Internal communication path faults (i.e., control system to DSPs and control system to I/O cards).
- Network, amplifier speaker or speaker loop faults.
- Monitored alarm input faults for open and short circuit.
- Program and configuration checksum failures.
- Alarm message generators.



When a fault is detected a PC-connected system logs the fault. The system can also automatically e-mail a user or selected support group the instant a fault occurs. This group could include Federal Signal's Integrated Systems service department, which is able to provide remote support via the internet.

Loudspeaker Loop Monitoring and Optimal Individual Loudspeaker Remote Monitoring and Tapping

A standard system feature is impedance monitoring of the speaker circuits to confirm that speaker circuit loadings remain within a calibrated tolerance band. The system detects loudspeaker shorts or open circuits and earth faults. Optionally, in the event of an amplifier failure, the system will automatically re-route the signal through a standby amplifier. The system employs a 45 Hz infrasonic monitoring signal, which (unlike 20Hz) is generally not affected by signal attenuation caused by cable capacitance, and is virtually immune to spurious readings caused by weather/temperature effects.

Each loudspeaker monitoring card monitors two amplifier loops. An optional individual 'Intelligent Speaker Monitoring and Tapping' (ISMT) module simplifies installation, and increases whole-life system integrity. The ISMT module checks each loudspeaker, for faults. The ISMT module allows for remote volume adjustment of each individual loudspeaker by reconfiguring internal transformer power tapping. Each ISMT module can handle up to 256 speakers per speaker circuit with up to 36 speaker circuits per rack.

PAGASYS 'Power':

The PAGASYS system is powered by state-of-the-art "D" class amplifiers that provide significant performance improvements over traditional class "A" and "B" units. By comparison a typical A/B amplifier consumption at full power is 480VA, PAGASYS D amplifier only 300VA. Also, a typical lightweight class A/B amplifier weighs 10kg, the PAGASYS D amplifier only 3kg.

Federal Signal's 250/500 watt class D amplifiers also feature better than 84% efficiency, while eliminating power surges at start up. This level of efficiency combined with the smaller footprint dramatically reduce rack space requirements, often eliminate the need for auxiliary cooling fans, allowing for continuous operation for extended periods of time without fans and reduces the size of the UPS needed. The unique "super sleep" reduces the current draw to only 60mA when operating on battery backup. These amplifiers include self-monitoring making them suitable for conventional configurations and parallel bank arrangements. An integrated hot standby configuration is also available for backup should an amplifier fail.

Interacting and Interfacing with PAGASYS:

Also available are a wide variety of Engineer's Test Panels. These panels provide direct interaction with the system, local fault indication, and an analog PTT microphone access which can be available in the event of a control frame failure. Standard configurations include a rack mounted field programmable panels, touch screen panels, intrinsically safe panels, safe area panels as well as microphone stations. Access panels can be located at the central rack or a variety of remote locations. PAGASYS offers several connection options to LAN or WAN systems as well as PBX interfaces to enable paging locally/live or via "store-and-forward" in order to avoid feedback.

The PAGASYS system interfaces with all Federal Signal products/systems, including ECHO digital intercom system, party paging systems and outdoor siren products.



Contact the factory for additional information on PAGASYS.



► Model P-NET-G-IP /P-GAP-G

PAGASYS® GEN II Network Features Fan Control and Monitoring Card

Federal Signal's PAGASYS® GEN II Dante® networked audio solution provides synchronized, low latency audio using standard Ethernet switches without complex network configuration typically required by other technologies.

Network connectivity allows PAGASYS GEN II rack system controllers and Global Access Panels (GAPs) to send and receive digital audio from up to 16 remote audio sources over an Ethernet interface. This eliminates the need for discrete audio wiring, which will simplify installation and lower implementation costs.

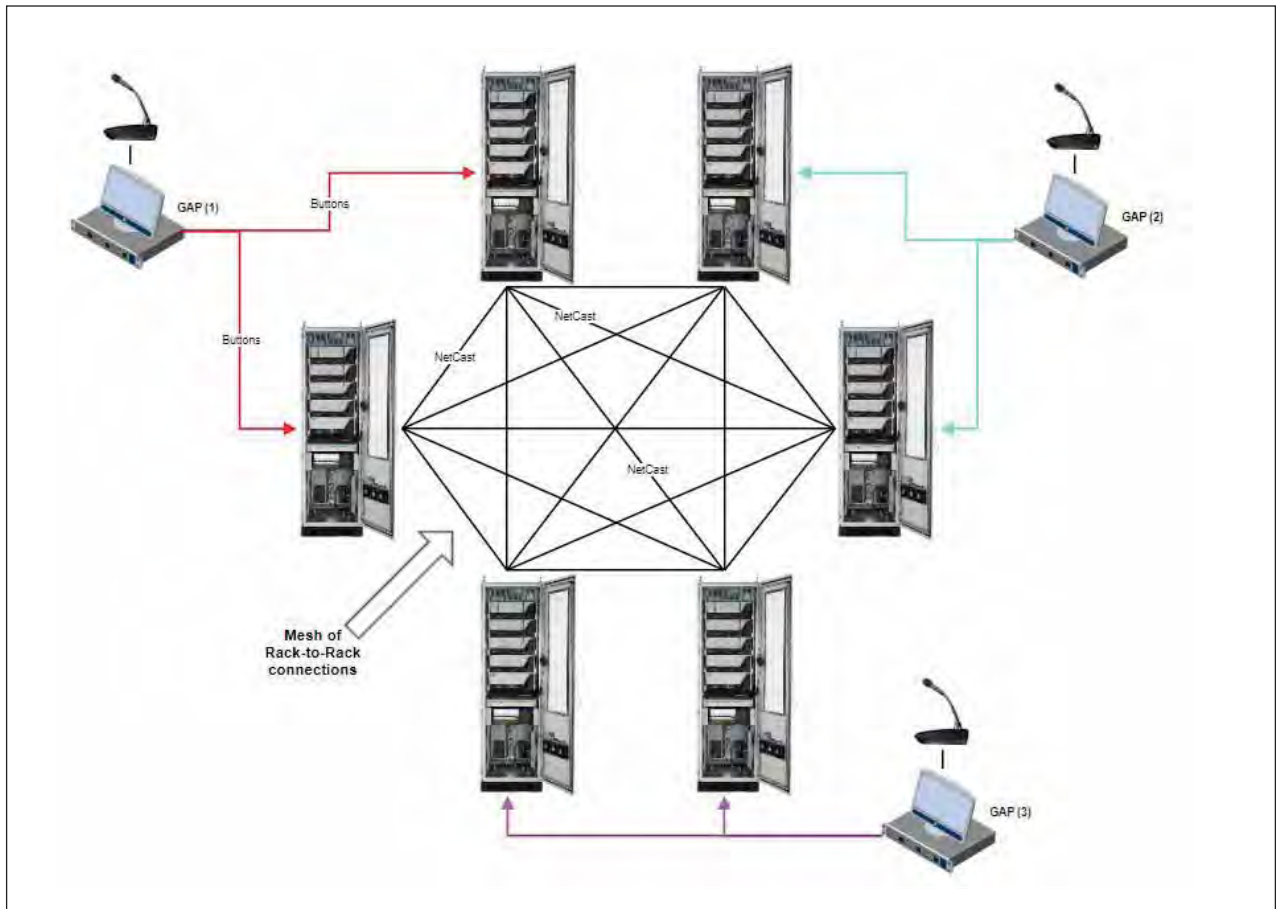
GAPs enable users to send live streaming audio or initiate pre-defined audio broadcasts to one or more networked PAGASYS GEN II system controllers. Multiple “voices” and audio “ducking” are supported enabling controllers to send different audio streams to different zones simultaneously and reduce emergency warning tone volume while live audio messages are broadcasting. GAPs and GAP microphones are supervised by connected controller nodes. GAPs monitor broadcast activity and alarms generated from connected controller nodes in the system.

The networked audio solution supports redundant mission critical system requirements and can be used with ATEX certified hazardous location access panels. The PAGASYS GEN II networked solution can be configured with complex zoning schemes to be easily scalable to support future system expansion.

F E A T U R E S

- Optional ATEX certified hazardous location microphone stations
- IP communication with Dante® audio between PAGASYS Gen II controllers and Global Access Panels (GAPs)
- GAP option provides supervised live mic audio, initiates alarm broadcasts and monitors system activity
- Touchscreen GAP Kiosk mode operation simplifies operation
- System fault status monitoring for all connected controllers can be configured for local and global activation points
- GAP software configuration includes Microsoft Windows® 10 Pro, Internet Information Services, Net Framework, and Microsoft SQL Server

PAGASYS® GEN II Network Features Fan Control and Monitoring Card (P-NET-G-IP /P-GAP-G)



SPECIFICATIONS

- Operating Temperature: 14°F to +131°F (-10°C to +55°C)
- Storage Temperature: -67°F to +167°F (-55°C to +75°C)
- Humidity: 0-98% non-condensing

HOW TO ORDER

Description

IP network controller chassis
 PAGASYS Gen II GAP Server
 Microphone

Part Number

P-NET-G-IP
P-GAP-G
X-USBMIC-1



► Model I-PAS

Industrial Public Address General Alarm System



Shown with optional equipment

Federal Signal's Industrial Public Address System (I-PAS) is a reliable, cost-effective, off-the-shelf solution providing users flexibility to specify a precise combination of features and capabilities previously available only in highly integrated custom communication systems.

The I-PAS system is engineered for tough, demanding industrial applications that call for public address to oversee critical production processes in combination with general alarm communications for safeguarding personnel facility wide. As versatile as it is dependable, I-PAS is compatible with a full range of industrial and commercial speaker options in low to high outputs.

I-PAS is based on the theory that optimum configurability promotes maximum flexibility. A standard graphical user interface (GUI) supports both touchscreen control and the design of application-specific interfaces. The system can be easily wired for single-loop speaker configurations as well as larger, more complex redundant/duplicated or IP/networked solutions.

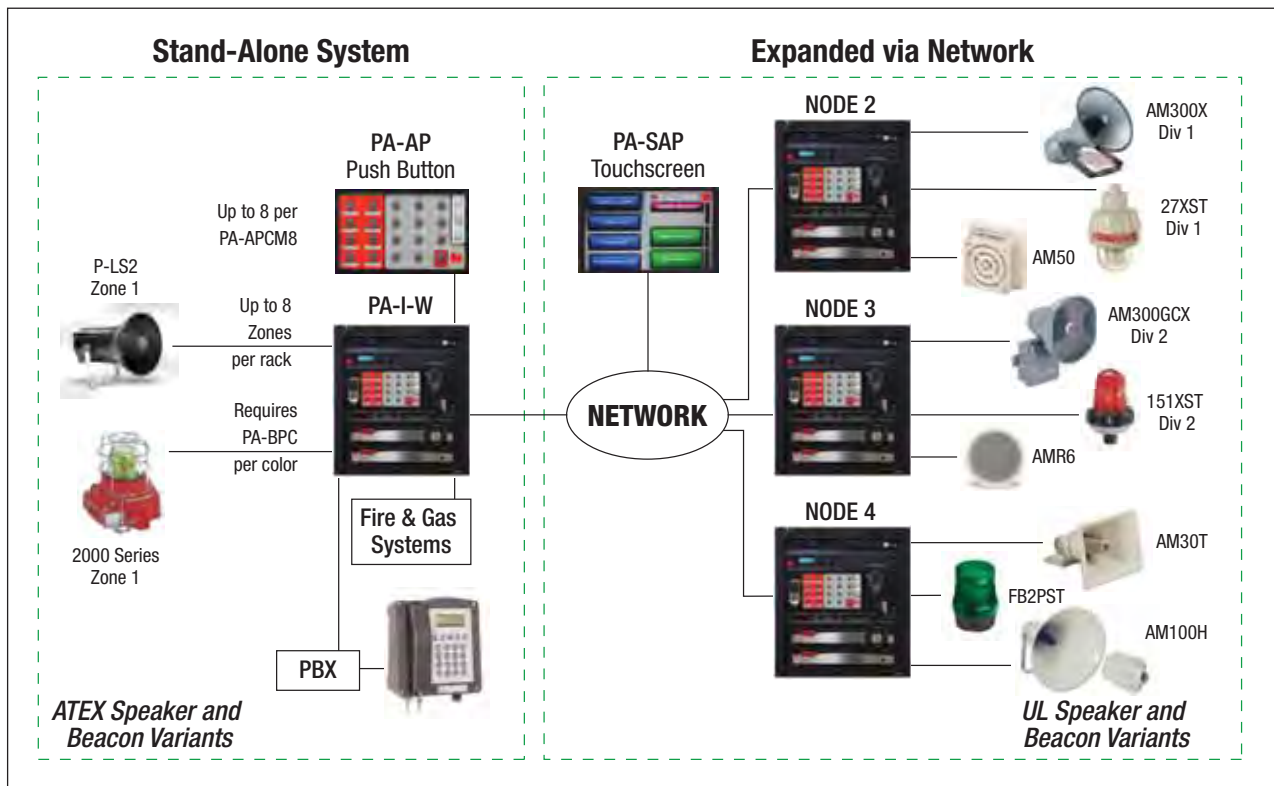
In addition to high quality public address and reliable general alarm, I-PAS supplies the necessary control options (6 inputs and 12 outputs standard) to facilitate easy integration into other disparate systems. I-PAS readily connects to PBX telephone systems through an optional PA-TZM8 telephone module. Using the supervised version of the amplifiers allows for efficient monitoring of both speaker loops and amplifiers for faults. The optional Hot Standby Module (PA-HSM) provides an additional layer of reliability by transferring the speaker load to a standby amplifier in the unlikely event of an amplifier failure.

The ability to integrate across a multitude of platforms, plus the potential utilization of cost-effective networking (when applicable), makes I-PAS the productive solution for both small and large plant communication systems. Seamless integration over hardwire, fiber optics and Ethernet, coupled with a full range of operator controls, including touchscreen GUIs and analog control panels, substantially simplifies the process of integrating a system to meet unique application requirements.

F E A T U R E S

- Stand-alone, Hot Standby, or Duplicated systems with Network Options
- Field configurable zones, I/O, and access panels
- Impedance monitoring of speaker circuits with optional Individual Intelligent Speaker Monitoring and remote Tapping system (ISMT)
- GUI, MIMIC and system diagnostics
- Modular Construction with Hot Swappable Amplifiers and Power Supplies
- UKOOA, PFEER, NORSOK, IMO, ABS, SOLAS, DNV
- Greater than 84% efficiency Class D (Digital) PWM amps
- PBX Interface and Feedback Eliminator (options)
- Full compliment of safe and hazardous area access panels and microphone stations
- Fiber Optic Ready
- IP-Networkable
- Custom tones and voice messages

Industrial Public Address System (I-PAS)



HOW TO ORDER

I-PAS SYSTEM RACK:

PA-I-W – PA-System, Wall Mount 18U, up to 8 Zones. Includes 1 x PA-IPAC Controller, 1 x PA-APCM8 Hard Access Panel Module. Amps and access panels ordered separately.

PA-I-F – PA-System, Floor Mount 42U, bottom entry, up to 8 Zones, includes PA-IPAC Controller, PA-APCM8 Hard Access Panel Module. Amps and access panels ordered separately.

AMPLIFIER SELECTIONS:

Up to 4 per rack cabinet of the same type.

CTS2-300-120-240 – Audiomaster® Public Address High Powered Amplifiers, 150 Watt, 120-240VAC

CTS2-600-120-240 – Audiomaster® Public Address High Powered Amplifiers, 300 Watt, 120-240VAC

CTS2-1250-120-240 – Audiomaster® Public Address High Powered Amplifiers, 500 Watt, 120-240VAC

CTS2-2400N-120-240 – Audiomaster® Public Address High Powered Amplifiers, Network Monitoring, 1000 Watt, 120-240VAC

SBRM4 – Standby Routing Module for CTS2 Series Amplifiers

ACCESS PANEL SELECTIONS:

Max. of 8 per PA-APCM8 module

PA-AP – Hard Access Panel Desk Mount

PA-AP-19SA – Access Panel 19" Rack Mount

PA-SAP* – Soft Access Panel (Touchscreen GUI) unlimited quantity *Requires PA-NS network switch option

PA-SAP-19 – Soft access panel mounted on plate for use in 19" racks or control consoles

OPTIONAL ACCESSORIES

I-PAS RACK OPTIONS:

Description	Part Number
Telephone Zone Management Module, 8 Zones, Store and Forward (Feedback Control)	PA-TZM8
Network Switch (1 per node/rack), required for IP connectivity and soft access panel operation	PA-NS
Beacon Power Circuit, for control and initiation of field beacons (single color)	PA-BPC
Touchscreen PAGA Access Unit	PA-I-GAP

REPLACEMENT PARTS

Description	Part Number
Digital Processing Controller	NION-NE-FS
Access Panel Controller, 8 Channels	PA-APCM8



Notes



Telephony

Extension Ringers

TELB	410
TELC	412
TELH	414





► Model TELB

TelCom® Telephone Extension Ringer Bell

Federal Signal's TELB TelCom® Extension Ringer Bell is a vibrating bell activated by the ringing signal of a telephone system. The TELB is specifically designed for use with an analog telephone. The ringing signal of 40-150VAC, 16-60Hz and local 120VAC power is all that is required to activate a TelCom signal.

This TelCom device is intended to be mounted on a vertical surface such as a rigid wall or post. The TELB has a three-conductor six-foot, 120VAC power cord extending from the unit. Connecting the TelCom device to the telephone network is done by running a modular telephone line cord (RJ11) to an existing jack or a duplex jack (customer supplied) into an existing modular jack. The TELB is designed with a durable zinc die-cast housing painted with gray powder coat enamel, and features an internal solid-state relay.

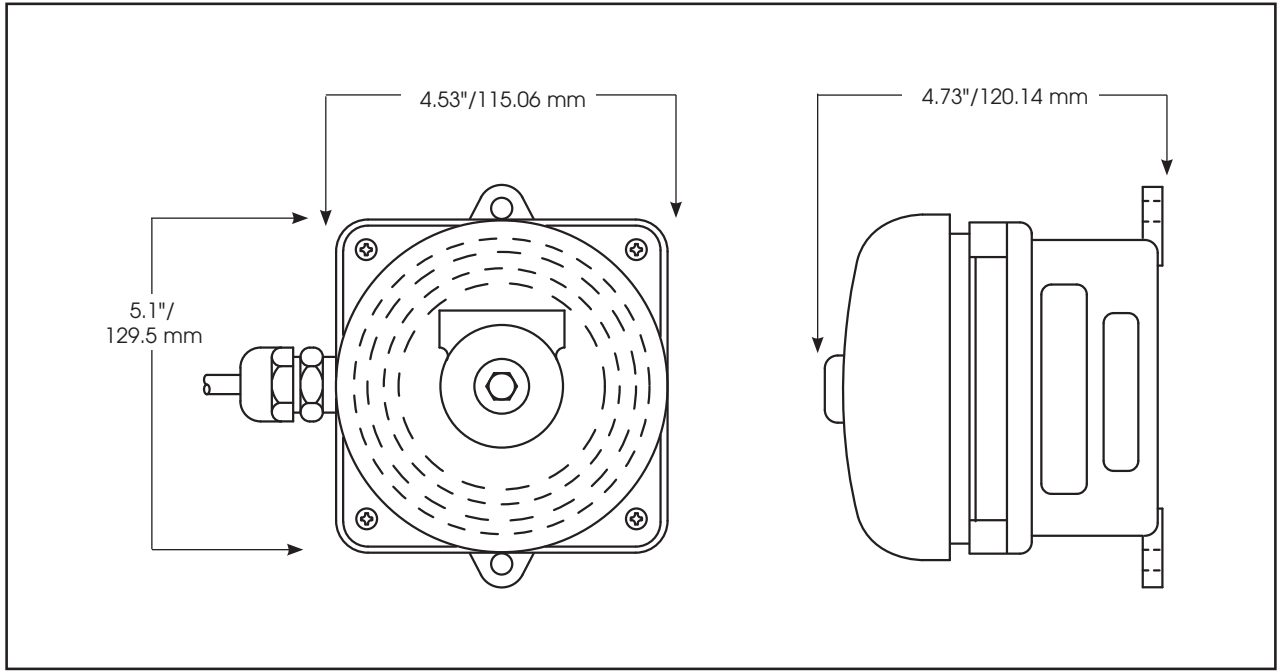
TelCom devices are designed for high ambient noise areas such as manufacturing facilities, machine and sheet metal shops. They are also useful in large open areas such as a warehouse, loading dock, or a large office.

FEATURES

- Available in 120VAC
- Bell signals an incoming call
- Activated by ringing voltage (analog telephone only)
- 98 dBa signal @ 10' (108 dBa @ 1m)
- Type 1 enclosure
- CSA Certified
- UL Listed for indoor use

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS	
			10'	1M
TELB-120	120VAC	0.104 amps	98	108

TelCom® Telephone Extension Ringer Bell (TELB)



S P E C I F I C A T I O N S

Operating Temperature:	32°F to 112°F	0°C to 44°C
Ringing Signal:		90VAC, 20Hz
Ring Detection:		15.8-60Hz, 40-150VAC
Humidity Range (Storage and Operating):		0 to 85% R.H, noncondensing
Net Weight:	2.6 lbs	1.18 kg
Shipping Weight:	3.2 lbs	1.45 kg
Height:	5.10"	129.54 mm
Width:	4.53"	115.06 mm
Depth:	4.73"	120.14 mm

H O W T O O R D E R

Specify Model:

TELB-120 – TelCom® 4" bell, 120VAC



► Model TELC

TelCom[®] Telephone Extension Ringer Horn and Strobe Combination

Model TELC Extension Ringer Combination Horn/Strobe can be activated by a telephone system ringing signal. TELC is specifically designed for use with an analog telephone. The ringing signal of 40-150VAC, 16-60Hz and local 120VAC power is all that is required to activate this model.

This TelCom[®] device is intended to be mounted on a vertical surface such as a rigid wall or post. The TELC has a three-conductor, six-foot, 120VAC power cord extending from the unit. Connecting the TelCom device to the telephone network is accomplished by running a modular telephone line cord (RJ11) to an existing jack or a duplex jack (customer supplied) into an existing modular jack. The TELC is designed with a durable zinc die-cast housing painted with gray powder coat enamel, and feature an internal solid-state relay.

This combination audible/visual signal features the Vibratone[®] horn and a three-dimensional strobe to notify when the telephone rings.

TelCom devices are designed for high ambient noise areas such as manufacturing facilities, machine and sheet metal shops. They are also useful in large open areas such as a warehouse, loading dock or a large office.

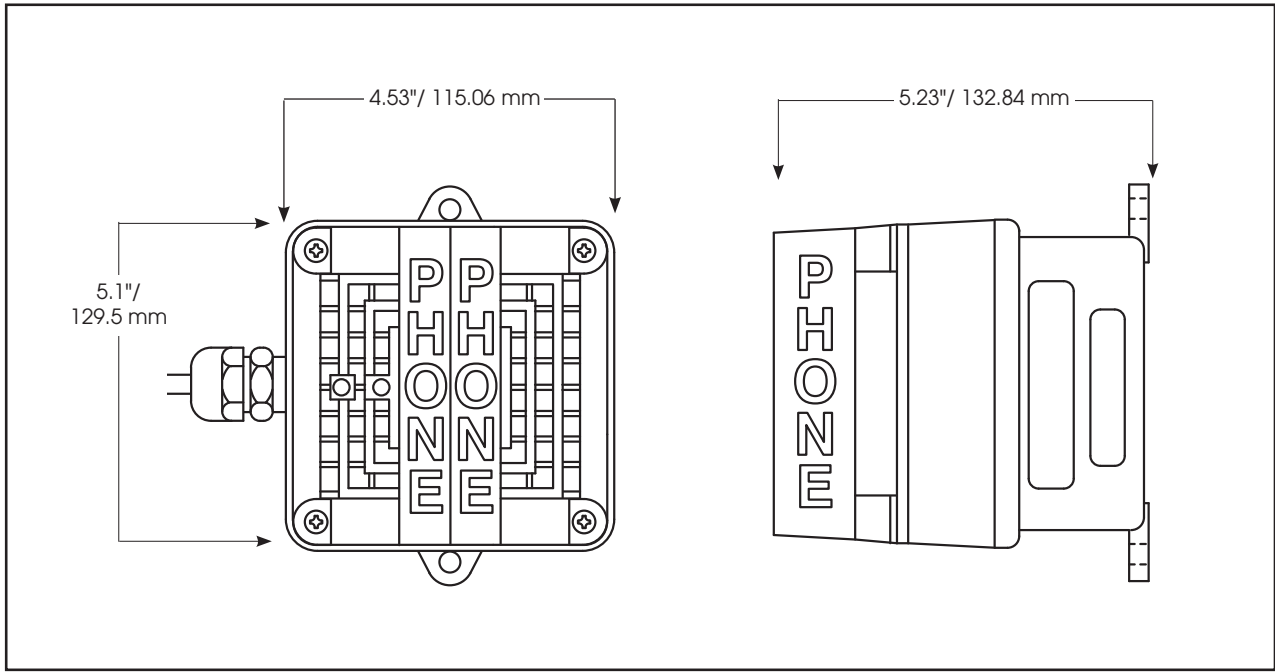
FEATURES

- Available in 120VAC
- Horn and strobe signals an incoming call
- Activated by ringing voltage (analog telephone only)
- 100 dBa signal @ 10' (110 dBa @ 1m)
- Type 1 enclosure
- CSA Certified
- UL Listed for indoor use

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS		FLASH RATE PER MINUTE	CANDELA PEAK ¹
			10'	1M		
TELC-120	120VAC	0.24 amps	100	110	80	108,000

¹ Peak candela is the maximum light intensity generated by a flashing light during its light pulse

TelCom® Telephone Extension Ringer Horn and Strobe Combination (TELC)



SPECIFICATIONS

Operating Temperature:	32°F to 112°F	0°C to 44°C
Ringing Signal:		90VAC, 20Hz
Ring Detection:		15.8-60Hz, 40-150VAC
Humidity Range (Storage and Operating):		0 to 85% R.H, noncondensing
Net Weight:	3.0 lbs	1.36 kg
Shipping Weight:	3.4 lbs	1.54 kg
Height:	5.10"	129.54 mm
Width:	4.53"	115.06 mm
Depth:	5.23"	132.84 mm

HOW TO ORDER

Specify Model:

TELC-120 – TelCom® combination strobe and horn, 120VAC



► Model TELH

TelCom® Telephone Extension Ringer Horn

The TELH Extension Ringer Horn is a vibrating horn that is activated by the ringing signal of a telephone system. This device is specifically designed for use with an analog telephone. The ringing signal of 40-150VAC, 16-60Hz and local 120VAC power is all that is required to activate a TelCom® signal.

This TelCom device is intended to be mounted on a vertical surface such as a rigid wall or post. The TELH ringer has a three-conductor six-foot, 120VAC power cord extending from the unit. Connecting the TelCom device to the telephone network is accomplished by running a modular telephone line cord (RJ11) to an existing jack or a duplex jack (customer supplied) into an existing modular jack. The TELH is designed with a durable zinc die-cast housing painted with gray powder coat enamel, and features an internal solid-state relay.

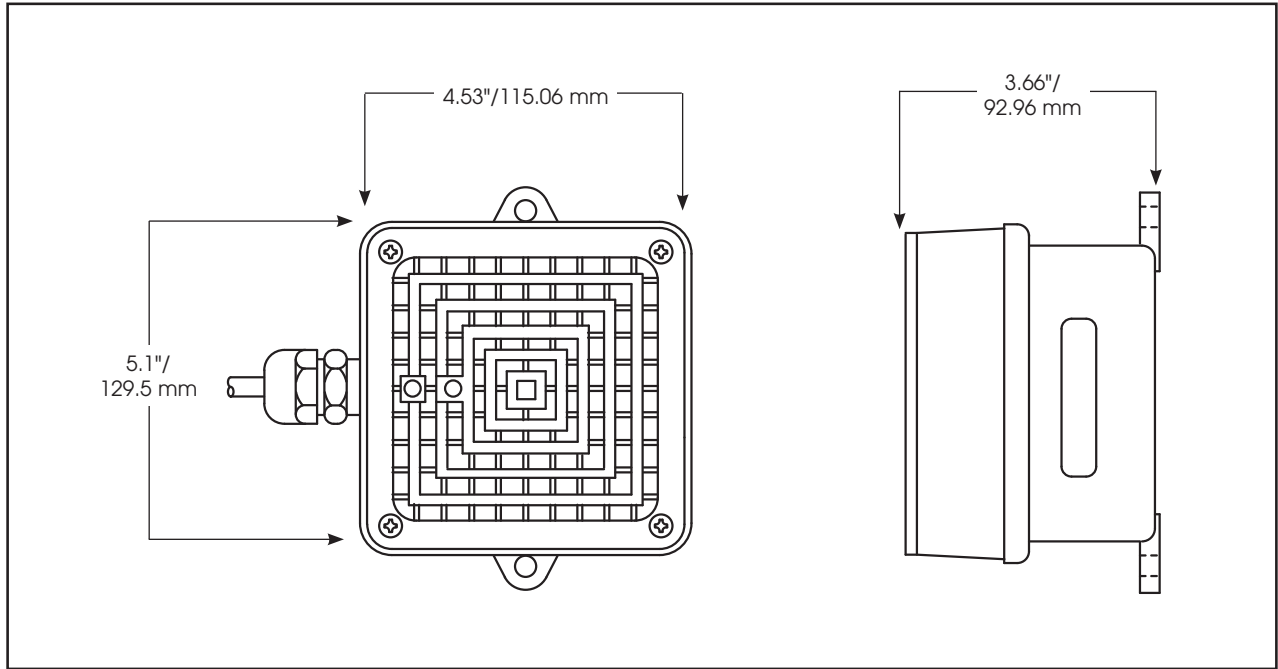
TelCom devices are designed for high ambient noise areas such as manufacturing facilities, machine and sheet metal shops. They are also useful in large open areas such as a warehouse, loading dock or a large office.

FEATURES

- Available in 120VAC
- Horn signals incoming calls
- Activated by ringing voltage (analog telephone only)
- 100 dBa @ 10' (110 dBa @ 1m)
- Type 1 enclosure
- CSA Certified
- UL Listed for indoor use

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS	
			10'	1M
TELH-120	120VAC	0.222 amps	100	110

TelCom® Telephone Extension Ringer Horn (TELH)



SPECIFICATIONS

Operating Temperature:	32°F to 112°F	0°C to 44°C
Ringing Signal:		90VAC, 20Hz
Ring Detection:		15.8-60Hz, 40-150VAC
Humidity Range (Storage and Operating):		0 to 85% R.H, noncondensing
Net Weight:	2.8 lbs	1.27 kg
Shipping Weight:	3.3 lbs	1.5 kg
Height:	5.10"	129.54 mm
Width:	4.53"	115.06 mm
Depth:	3.66"	92.96 mm

HOW TO ORDER

Specify Model:

TELH-120 – TelCom® horn, 120VAC



Notes

Initiating

Initiating Devices

PS Series	418
■ MPEX	420
■ CP-BG	422
■ CP-PB	424
CP-Replacement Parts and Optional Accessories	426

- Hazardous location models





► Model PS Series
Push Button Stations

These multi-purpose, initiating devices cover a wide range of industrial and commercial applications. The Federal Signal push-button stations function like a traditional fire alarm “pull station”, providing a simple latching contact closure or momentary contact to activate emergency equipment, audible and visual signals and alarm panels.

Each unit is available with or without a tamper-resistant polycarbonate cover. Covered units work to protect against physical damage to the station and to prevent false alarms without restricting use in emergency situations. When the cover is lifted to gain access to the alarm, a piercing tone sounds, calling immediate attention to the area. The piezo horn is quiet once the cover is closed. Power to the piezo alarm is provided by a battery (included). The sounder cover mounts easily over the station.

The terminal block provides easy installation and maintenance. Units mount on existing single-gang electrical boxes or 4" x 4" electrical boxes with plaster ring adapters (customer supplied).

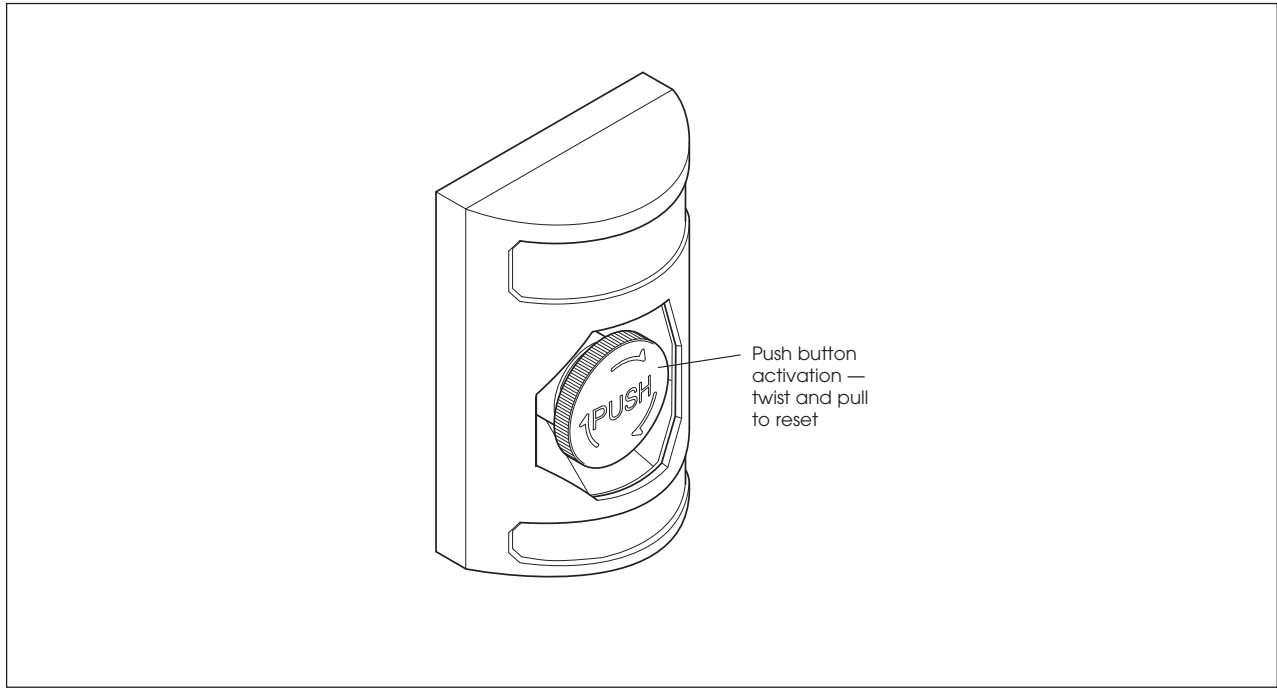
Contact ratings for the Push Button Stations are 600VAC @ 3 amps and 250VDC @ 1 amp.

F E A T U R E S

- Latching contact or momentary activation depending on model
- “Evacuation” and “Emergency” stations available
- Quick reset
- Cover with alarm discourages tampering
- ADA Compliant
- CSFM Approved
- UL and cUL Listed

MODEL	COLOR	TEXT	SWITCH TYPE	SOUNDER & COVER	LOW PROFILE	LED ILLUMINATED	BATTERY (INCLUDED)
PSEM-RM	Red	EMERGENCY	Momentary	No	No	No	No
PSEMSC-RM	Red	EMERGENCY	Momentary	Yes	No	No	9-Volt
PSEVSC-YM	Yellow	EVACUATION	Momentary	Yes	No	No	9-Volt
PSEV-YM	Yellow	EVACUATION	Momentary	No	No	No	No
PSEVSCLP-YM	Yellow	EVACUATION	Momentary	Yes	Yes	Yes	3-Volt (CR123A)
PSEMSCLP-RM	Red	EMERGENCY	Momentary	Yes	Yes	Yes	3-Volt (CR123A))
PSNTSCLP-YM	Yellow	No Text/Blank	Momentary	Yes	Yes	Yes	3-Volt (CR123A)
PSEV-Y	Yellow	EVACUATION	Turn to Reset	No	No	No	No
PSEM-R	Red	EMERGENCY	Turn to Reset	No	No	No	No
PSEVSC-Y	Yellow	EVACUATION	Turn to Reset	Yes	No	No	9-Volt
PSEMSC-R	Red	EMERGENCY	Turn to Reset	Yes	No	No	9-Volt

Push Button Stations (PS Series)



SPECIFICATIONS

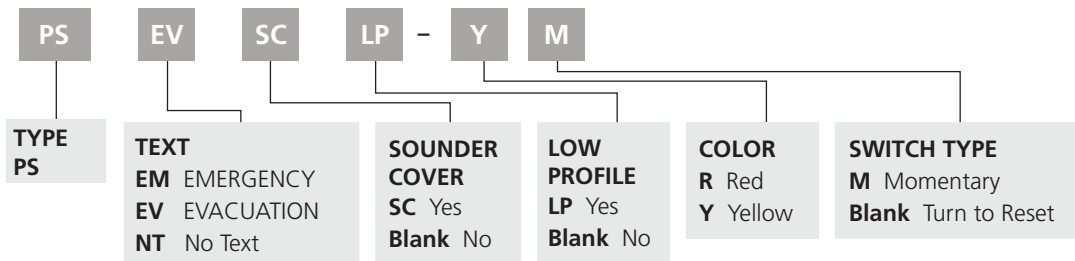
	Standard	Low-Profile
Net Weight	1.3 lbs (0.60 kg)	0.7 lbs (0.32 kg)
Shipping Weight	2.2 lbs (1.00 kg)	1.0 lbs (0.45 kg)
Height w/o Cover	4.9" (124.5 mm)	N/A
Height with Cover	8.15" (207.0 mm)	5.19" (131.83 mm)
Width w/o Cover	3.25" (82.6 mm)	N/A
Width with Cover	5.5" (139.7 mm)	3.25" (82.55 mm)
Depth w/o Cover	3.87" (98.3 mm)	N/A
Depth with Cover	5.13" (130.3 mm)	3.46" (87.88 mm)

REPLACEMENT PARTS

Description	Part Number
Cover Only, Evacuation, Yellow	PSCE-Y
Cover Only, Emergency, Red	PSCE-R
Cover Only, Fire, Red	PSCF-R
Terminal Block Kit ¹	K229277A

¹Includes 1 contact normally open and 1 contact normally closed

HOW TO ORDER





► Model MPEX

Explosion-Proof Fire Alarm Pull Station

Model MPEX Explosion-Proof Pull Station is designed for hazardous locations where flammable gases, vapors, combustible dusts or easily ignitable fibers are present. The unique swing-up front cover exposes a pull-down ring which activates the alarm; this two-step process prevents accidental activation. MPEX is reset by depressing the shaft and returning the plate to its original position.

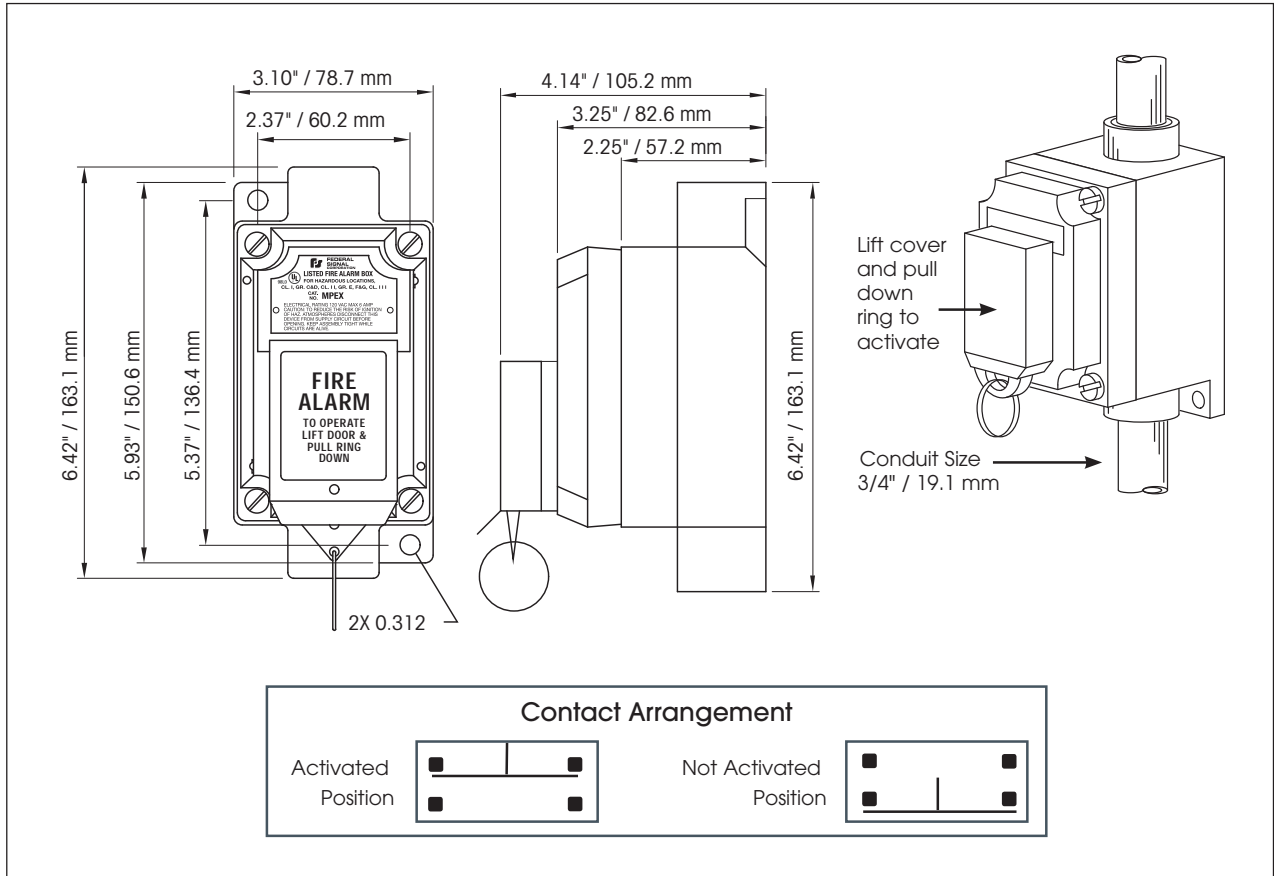
The enclosure is made of copper-free cast aluminum alloy.



F E A T U R E S

- Contacts on the unit are rated 120VAC, 60Hz at 6 amps continuous
- Highly visible red enclosure
- Lift cover and pull down ring to activate
- 2 - 3/4" conduit entry
- CSFM Approved
- UL and cUL Listed for Class I, Division 1, Groups C and D; Class II, Division 1, Groups E, F and G; Class III
- NEMA 7 for Groups C and D and NEMA 9 for Groups E, F and G
- UL Fire Listed and ULC Fire Listed

Explosion-Proof Fire Alarm Pull Station (MPEX)



SPECIFICATIONS

Operating Temperature:	-13°F to 104°F	-25°C to 40°C
Net Weight:	2.4 lbs	1.09 kg
Shipping Weight:	2.7 lbs	1.23 kg
Height:	6.42"	163.1 mm
Width:	3.10"	78.7 mm
Depth:	4.14"	105.2 mm

HOW TO ORDER

Specify Model:
MPEX – Explosion-Proof Pull Station



► Model CP-BG

Flameproof & Hazardous Location Break Glass Call Point

Federal Signal's multi-purpose Break Glass Call Points are compatible with a wide range of flameproof and hazardous location applications. These models feature a UV stable, heat, impact and corrosion resistant, anti-static GRP (Glass Reinforced Polyester) housing. Call Points are ideal for both onshore and offshore applications for activating emergency equipment, audible and visual signals or control panel notification or Fire Alarm activation.

Our Call Point models offer an optional dual color unique LED indicator. The dual color LED indicator displays Green when the unit is in "Normal" or standby mode, and changes to Red when the unit is in "Alarm" mode.

An optional clear polycarbonate lift flap converts any single step device into a two-step device to prevent accidental activation. Lift flaps are also available with four label options with instructions on how to activate the device. Additionally, the integrated tool reset key can be removed to provide a secure tamper resistant option. A variety of modular end of line resistors, series resistors and supervisory diodes are available for up to two modules per model. Modules are easily replaceable and are field installed.

Each Call Point unit comes standard with eight field-installable faceplate labels: FIRE, EVAC, BIOHAZARD, GAS, EMERGENCY, SHUTDOWN, LOCKDOWN, and evacuation logo. For harsher environments, four optional stainless steel faceplate labels are also available: FIRE, EVAC, BIOHAZARD and GAS ALARM. If the application requires a custom faceplate label, the faceplate's labeling surface will accept end-user supplied U-Line #S-19297 weather-resistant labels for laser printers.

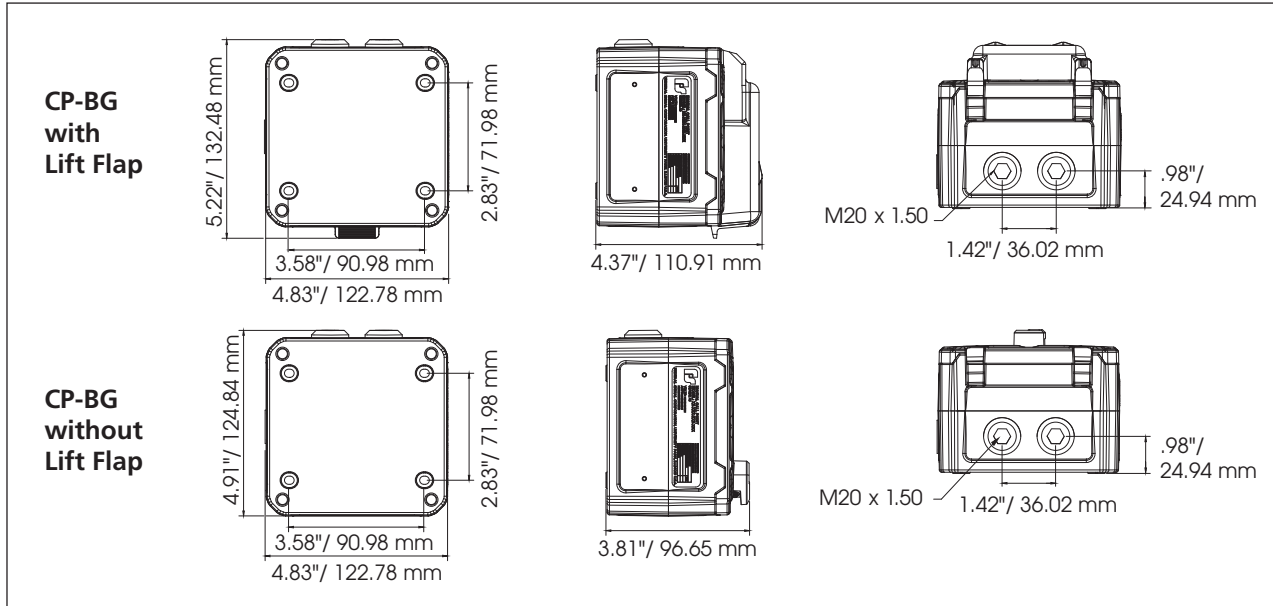
FEATURES

- High visibility, anti-static GRP enclosure faceplate available in Red, Yellow, Blue, Green and Black
- Optional lift flap for two-step operation to prevent accidental activation
- 3 x M20 or 1/2" NPT entries: 2 top and 1 side entry with 180 degrees rotatable mounting orientation
- Integrated tool reset with removable key for tamper resistant reset¹
- Assembled with external 316 stainless steel hardware
- Single and dual switch activation available
- Press down cage clamp or screw down terminal block options
- Optional side mounted break glass hammer²
- Optional dual color indicator LED
- Optional field installed stainless steel faceplate labels and duty labels²
- Optional modular EOL resistors, series resistors and supervisory diode
- EN54-11 models available
- IP66 enclosure
- CE compliant
- IECEx/ATEX rated, Zone 1, 21, Gas Group IIC

¹ EN54-11 models cannot have the reset keyway installed during operation

² Units can include either a stainless steel duty label or a break glass hammer

Flameproof & Hazardous Location Break Glass Call Point (CP-BG)



SPECIFICATIONS

ATEX/IECEx Certification Marking:

II 2 G Ex db eb mb IIC T4 Gb
 Tamb = -40°C to +70°C
 II 2 D Ex tb IIIC T100°C Db IP66

Ex Standards certified to:

60079-0, 60079-1, 60079-7, 60079-18, and 60079-31

Ambient operating: -40°C to 70°C -40°F to 158°F

Ingress protection: IP66

Housing materials: GRP, Glass Reinforced Polyester

EN54-11 color requirement:

Faceplate RAL3000 red, housing black

Cable Entries: 2 x M20 or 1/2" NPT top or bottom reversible; 1 x M20 or 1/2" NPT side

End of the line resistor values: 1kΩ – 47kΩ

Electrical rating: 48V max.

Series resistor values: 1kΩ – 47kΩ

Diode module value: 1N5406

Net Weight: 3.03 lbs 1.4 kg

Shipping Weight: 3.83 lbs 1.7 kg

HOW TO ORDER

CP	BG	M	R	L	FAH	24	1
MODEL	ACTIVATION	ENTRIES	COLOR	SWITCH	LIFT FLAP/BG HAMMER	INDICATOR LED	CERTIFICATION
CP	BG Break Glass	M M20 N 1/2" NPT	R Red Y Yellow K Black B Blue G Green	S Single, Clamp Terminal D Dual, Clamp Terminal L LED, Clamp Terminal 1 Single, Screw Terminal 2 Dual, Screw Terminal 3 LED, Screw Terminal	NNN No lift flap, no label, no hammer NNH No lift flap, no label, hammer FNN Lift flap, no label, no hammer FAN Lift flap, activate label ² , no hammer ¹ FFN Lift flap, fire label ³ , no hammer FNH Lift flap, no label, hammer FAH Lift flap, activate label ² , hammer ¹ FFH Lift flap, fire label ³ , hammer	00 None 06 6V 12 12V 24 24V 48 48V	1 ATEX/IECEx 2 EN54-11

¹ Not available on EN54-11 Certified models

² TO ACTIVATE BREAK GLASS lift flap instruction label

³ IN CASE OF FIRE BREAK GLASS lift flap instruction label

Patent No. 10,410,510 B2

#850000794 Rev. A0



► Model CP-PB

Flameproof & Hazardous Location Push Button Call Point

Federal Signal's multi-purpose Push Button Call Points are compatible with a wide range of flameproof and hazardous location applications. These models feature a UV stable, heat, impact and corrosion resistant, anti-static GRP (Glass Reinforced Polyester) housing. Call Points are ideal for both onshore and offshore applications for activating emergency equipment, audible and visual signals, or control panel notification.

Our Call Point models offer an optional dual color unique LED indicator. The dual color LED indicator displays Green when the unit is in "Normal" or standby mode, and changes to Red when the unit is in "Alarm" mode.

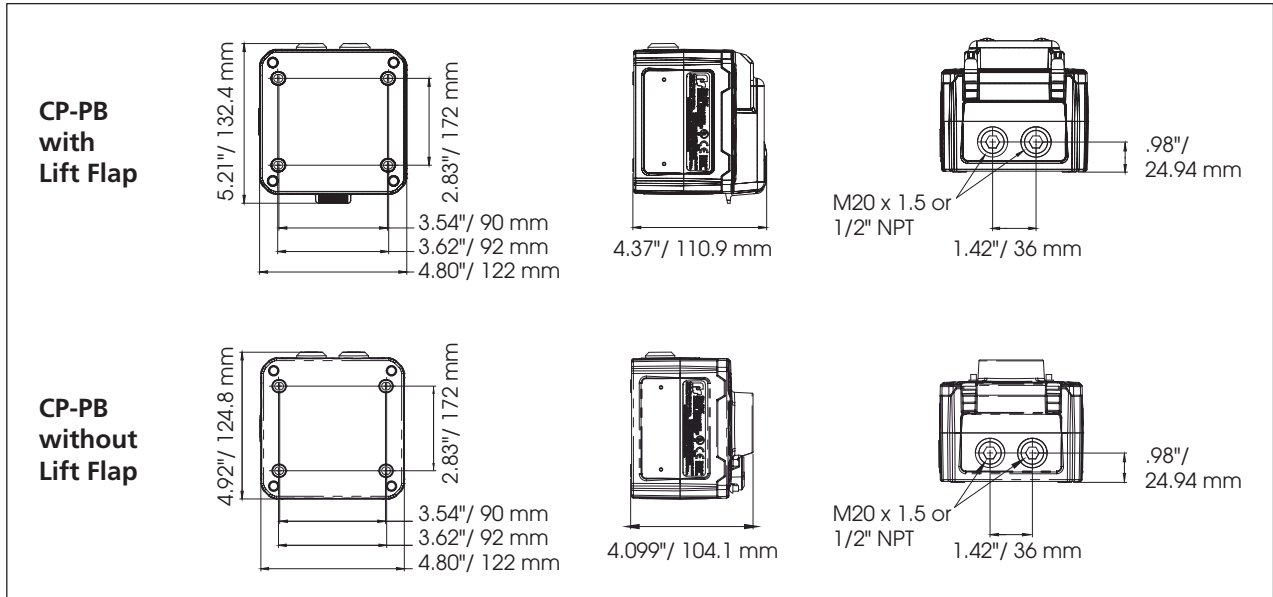
An optional clear polycarbonate lift flap converts any single step device into a two-step device to prevent accidental activation. Lift flaps are also available with four label options with instructions on how to activate the device. Additionally, the integrated tool reset key can be removed to provide a secure tamper resistant option. A variety of modular end of line resistors, series resistors and supervisory diodes are available for up to two modules per model. Modules are easily replaceable and are field installed.

Each Call Point unit comes standard with eight field-installable faceplate labels: FIRE, EVAC, BIOHAZARD, GAS, EMERGENCY, SHUTDOWN, LOCKDOWN, and evacuation logo. For harsher environments, four optional stainless steel faceplate labels are also available: FIRE, EVAC, BIOHAZARD and GAS ALARM. If the application requires a custom faceplate label, the faceplate's labelling surface will accept end-user supplied U-Line #S-19297 weather-resistant labels for laser printers.

FEATURES

- High visibility, anti-static GRP enclosure faceplate available in Red, Yellow, Blue, Green and Black
- Optional lift flap for two-step operation to prevent accidental activation
- 3 x M20 or 1/2" NPT entries: 2 top and 1 side entry with 180 degrees rotatable mounting orientation
- Integrated tool reset with removable key for tamper resistant reset
- Assembled with external 316 stainless steel hardware
- Single and dual switch activation available
- Press down cage clamp or screw down terminal block options
- Optional dual color indicator LED
- Optional field installed stainless steel faceplate labels and duty labels
- Optional modular EOL resistors, series resistors and supervisory diode
- IP66 enclosure
- CE compliant
- IECEx/ATEX rated, Zone 1, 21, Gas Group IIC

Flameproof & Hazardous Location Push Button Call Point (CP-PB)



SPECIFICATIONS

ATEX/IECEx Certification Marking: II 2 G Ex db eb mb IIC T4 Gb
 Tamb = -40°C to +70°C
 II 2 D Ex tb IIIC T100°C Db IP65

Ex Standards certified to:
 60079-0, 60079-1, 60079-7, 60079-18, and 60079-31

Ambient operating: -40°C to 70°C -40°F to 158°F

Ingress protection: IP66

Housing materials: GRP, Glass Reinforced Polyester

Color: Face plate RAL3000 red, housing black

Cable Entries: 2 x M20 or 1/2" NPT top or bottom reversible; 1 x M20 or 1/2" NPT side

End of the line resistor values: 1kΩ – 47kΩ

Electrical rating: 48V max.

Series resistor values: 1kΩ – 47kΩ

Diode module value: 1N5406

Net Weight: 2.08 lbs 0.9 kg

Shipping Weight: 2.88 lbs 1.3 kg

HOW TO ORDER

CP	PB	M	R	L	FAN	24	1
MODEL	ACTIVATION	ENTRIES	COLOR	SWITCH	LIFT FLAP	INDICATOR LED	CERTIFICATION
CP	PB Push Button	M M20 N 1/2" NPT	R Red Y Yellow K Black B Blue G Green	S Single, Clamp Terminal D Dual, Clamp Terminal L LED, Clamp Terminal 1 Single, Screw Terminal 2 Dual, Screw Terminal 3 LED, Screw Terminal	NNN No lift flap, no label FNN Lift flap, no label FAN Lift flap activate label ¹ FFN Lift flap, fire label ²	00 None 06 6V 12 12V 24 24V 48 48V	1 ATEX/IECEx

¹ TO ACTIVATE PUSH BUTTON lift flap instruction label

² IN CASE OF FIRE PUSH BUTTON lift flap instruction label



► Models CP-PB and CP-BG

Replacement Parts and Optional Accessories

REPLACEMENT PARTS

Break Glass Call Points Replacement Parts

K859902275A	Break Glass Panel, 5-Pack
K859902546A	Break Glass Hammer with Chain
K859902471A-BGRD	Break Glass Faceplate, Red
K859902471A-BGYL	Break Glass Faceplate, Yellow
K859902471A-BGBL	Break Glass Faceplate, Blue
K859902471A-BGBK	Break Glass Faceplate, Black
K859902471A-BGGR	Break Glass Faceplate, Green
K71400935A-01	Faceplate Labels, White Text (Red, Blue, Green and Black Units)
K71400935A-02	Faceplate Labels, Black Text (Yellow Units)
K71400701A	Faceplate Label, EN54-11 Model
K859901982A	Lift Flap, No Label
K859901982A-01	Lift Flap with Label, IN CASE OF FIRE BREAK GLASS
K859901982A-02	Lift Flap with Label, TO ACTIVATE BREAK GLASS
K859902467A	Reset Keyway, 5-Pack
K71400699A-01	Bottom Actuation Label, White (Red, Blue, Green and Black Units)
K71400699A-02	Bottom Actuation Label, Black (Yellow Units)
K859902472A-06	LED Replacement Module Kit (LED & Series Resistor), 6VDC
K859902472A-12	LED Replacement Module Kit (LED & Series Resistor), 12VDC
K859902472A-24	LED Replacement Module Kit (LED & Series Resistor), 24VDC
K859902472A-48	LED Replacement Module Kit (LED & Series Resistor), 48VDC

Push Button Call Points Replacement Parts

K859902471A-PBRD	Push Button Faceplate, Red
K859902471A-PBYL	Push Button Faceplate, Yellow
K859902471A-PBBL	Push Button Faceplate, Blue
K859902471A-PBBK	Push Button Faceplate, Black
K859902471A-PBGR	Push Button Faceplate, Green
K71400935A-01	Faceplate Labels, White Text (Red, Blue, Green and Black Units)
K71400935A-02	Faceplate Labels, Black Text (Yellow Units)
K859901982A	Lift Flap, No Label
K859901982A-03	Lift Flap with Label, IN CASE OF FIRE PUSH BUTTON
K859901982A-04	Lift Flap with Label, TO ACTIVATE PUSH BUTTON
K859902467A	Reset Keyway, 5-Pack
K71400699A-01	Bottom Actuation Label, White (Red, Blue, Green and Black Units)
K71400699A-02	Bottom Actuation Label, Black (Yellow Units)
K859902472A-06	LED Replacement Module Kit (LED & Series Resistor), 6VDC
K859902472A-12	LED Replacement Module Kit (LED & Series Resistor), 12VDC
K859902472A-24	LED Replacement Module Kit (LED & Series Resistor), 24VDC
K859902472A-48	LED Replacement Module Kit (LED & Series Resistor), 48VDC

Break Glass Call Points Optional Accessories

K859901989A-0470	EOL/Series Resistor Module, 470 (also for use with 6V LED)
K859901989A-1000	EOL/Series Resistor Module, 1K (also for use with 12V LED)
K859901989A-1800	EOL/Series Resistor Module, 1.8K (also for use with 24V LED)
K859901989A-2200	EOL/Series Resistor Module, 2.2K
K859901989A-2400	EOL/Series Resistor Module, 2.4K
K859901989A-3300	EOL/Series Resistor Module, 3.3K (also for use with 48V LED)
K859901989A-3600	EOL/Series Resistor Module, 3.6K
K859901989A-4700	EOL/Series Resistor Module, 4.7K
K859901989A-5600	EOL/Series Resistor Module, 5.6K
K859901989A-10000	EOL/Series Resistor Module, 10K
K859901989A-12000	EOL/Series Resistor Module, 12K
K859901989A-15000	EOL/Series Resistor Module, 15K
K859901989A-22000	EOL/Series Resistor Module, 22K
K859901989A-33000	EOL/Series Resistor Module, 33K
K859901989A-47000	EOL/Series Resistor Module, 47K
K859901990A	Supervisory Diode Module
K859901982A	Lift Flap, No Label
K859901982A-01	Lift Flap with Label, IN CASE OF FIRE BREAK GLASS
K859901982A-02	Lift Flap with Label, TO ACTIVATE BREAK GLASS
K71400976A-01	Stainless Steel Faceplate Label, FIRE
K71400976A-02	Stainless Steel Faceplate Label, EVAC
K71400976A-03	Stainless Steel Faceplate Label, BIOHAZARD ALARM
K71400976A-04	Stainless Steel Faceplate Label, GAS ALARM
K859902480A	Stainless Steel Duty Label (Customer Provided Artwork and Text)

Push Button Call Points Optional Accessories

K859901989A-0470	EOL/Series Resistor Module, 470 (also for use with 6V LED)
K859901989A-1000	EOL/Series Resistor Module, 1K (also for use with 12V LED)
K859901989A-1800	EOL/Series Resistor Module, 1.8K (also for use with 24V LED)
K859901989A-2200	EOL/Series Resistor Module, 2.2K
K859901989A-2400	EOL/Series Resistor Module, 2.4K
K859901989A-3300	EOL/Series Resistor Module, 3.3K (also for use with 48V LED)
K859901989A-3600	EOL/Series Resistor Module, 3.6K
K859901989A-4700	EOL/Series Resistor Module, 4.7K
K859901989A-5600	EOL/Series Resistor Module, 5.6K
K859901989A-10000	EOL/Series Resistor Module, 10K
K859901989A-12000	EOL/Series Resistor Module, 12K
K859901989A-15000	EOL/Series Resistor Module, 15K
K859901989A-22000	EOL/Series Resistor Module, 22K
K859901989A-33000	EOL/Series Resistor Module, 33K
K859901989A-47000	EOL/Series Resistor Module, 47K
K859901990A	Supervisory Diode Module
K859901982A	Lift Flap, No Label
K859901982A-03	Lift Flap with Label, IN CASE OF FIRE PUSH BUTTON
K859901982A-04	Lift Flap with Label, TO ACTIVATE PUSH BUTTON
K71400976A-01	Stainless Steel Faceplate Label, FIRE
K71400976A-02	Stainless Steel Faceplate Label, EVAC
K71400976A-03	Stainless Steel Faceplate Label, BIOHAZARD ALARM
K71400976A-04	Stainless Steel Faceplate Label, GAS ALARM
K859902480A	Stainless Steel Duty Label (Customer Provided Artwork and Text)



Notes



Fire Alarms

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- FB24STHI and FB24STHI-024C-CN.....430
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- **AM300GCX and AM302GCX**.....446
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- 304GC and 314GC.....450
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- **154XST**.....464
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C

► Models FB24STHI and FB24STHI-024C-CN

Fireball® Supervised Hearing Impaired Strobe Lights

Model FB24STHI features a voltage in-rush limiting PCB design that provides greater compatibility with control systems and panels and less electrical interference with in-rush sensitive devices.

Fireball FB24STHI contains a supervisory diode and four wire leads, for use in fire alarm applications. This strobe is UL Listed and ULC Fire Listed for hearing impaired applications.

FEATURES

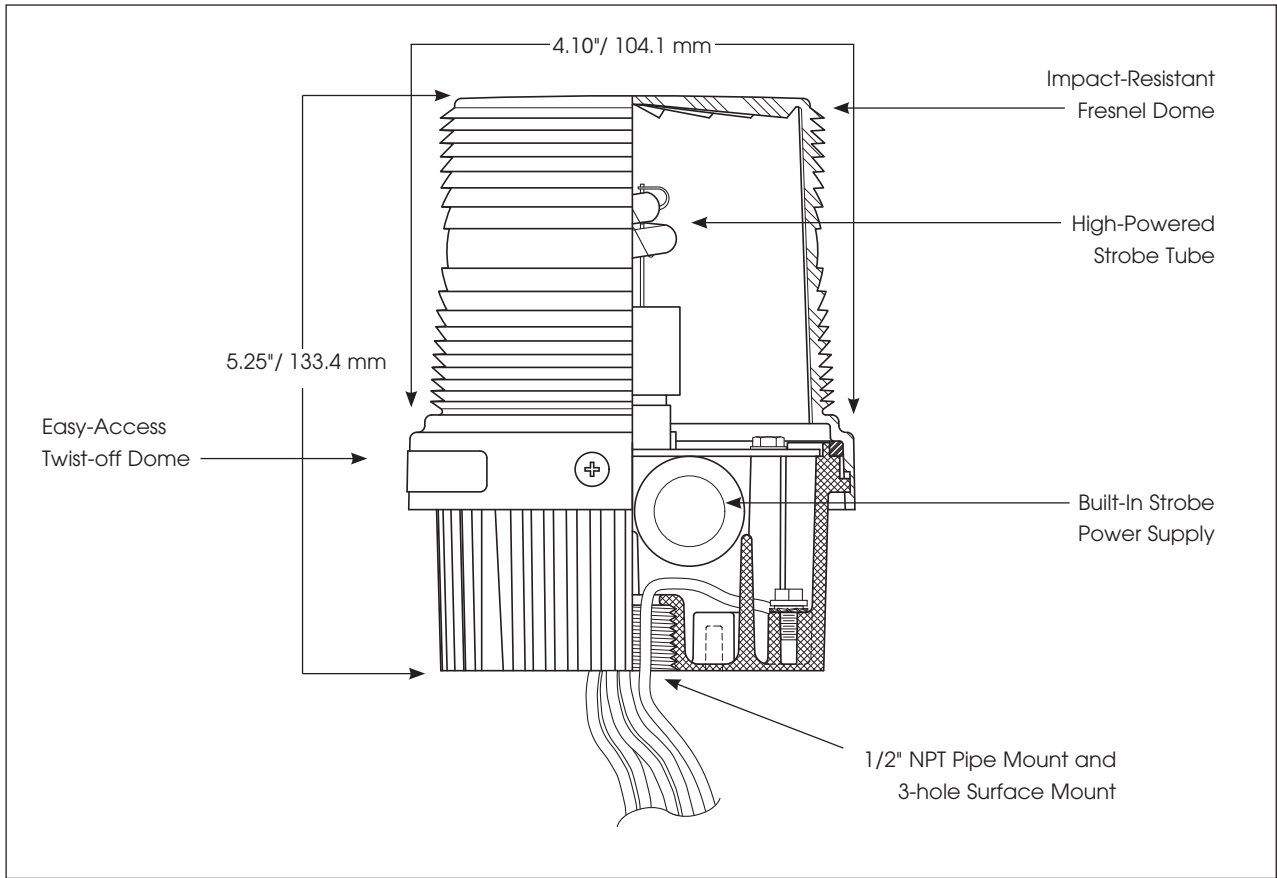
- Available in 24VDC
- Four wires and supervisory diode
- Clear dome
- Easy twist off dome for re-lamping
- Integrated 1/2-inch NPT pipe and surface mount
- 10,000 hour strobe tube
- Black epoxy coating for superior corrosion resistance
- In-rush protected
- Conformal coated PCB
- Type 4X, IP66 enclosure
- IP69K compliant
- CSFM Approved
- FB24STHI-024C is UL Fire Listed
- FB24STHI-024C-CN is ULC Fire Listed

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	CANDELA PEAK ¹	ECP ²	MOUNT
FB24STHI-024C FB24STHI-024C-CN	24VDC	0.7 amps (2.0 amp, in-rush)	80	1,000,000	300	1/2" NPT Pipe/Surface

¹ Peak candela is the maximum light intensity generated by a flashing light during its light pulse

² ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

Fireball® Supervised Hearing Impaired Strobe Lights (FB24STHI and FB24STHI-024C-CN)



SPECIFICATIONS

Lamp Life:	10,000 Hours	
Lamp Source:	Strobe	
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	1.45 lbs	0.7 kg
Shipping Weight:	1.7 lbs	0.8 kg
Height:	5.25 "	133.4 mm
Diameter:	4.10 "	104.1 mm

REPLACEMENT PARTS *

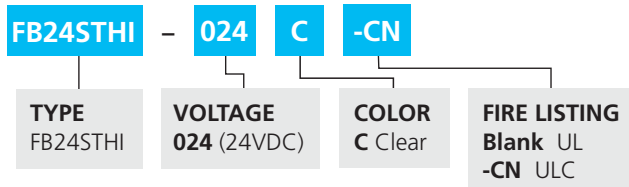
Description	Part Number
Dome, Clear	K8550320A-02
Strobe Tube	K8107177A

OPTIONAL ACCESSORIES

Description	Part Number
Corner Bracket	LCMB2*
Wall Bracket	LWMB2

*Type 3R rated
Mounting Brackets shown on pages 138-141

HOW TO ORDER





► Models 154XSTHI and 154XST-024C-CN
**Hazardous Location
 Supervised Strobe Lights**

These models are hazardous location strobe lights that provide 60 high-intensity flashes per minute. This warning light is available in 24VDC with a 4-wire supervisable power circuit for fire alarm and suppression supervised control panels.

These warning lights offer an aluminum base, coated for corrosion resistance that is ready for mounting on a 3/4-inch pipe. The dome guard (included) fits over the glass dome to protect it against accidental collision with moving equipment, such as forklifts.

These rugged strobe warning lights are specifically designed for hazardous locations or corrosive environments where a very bright visual signal is required. This warning light can be used for plant evacuation or other communication needs.

F E A T U R E S

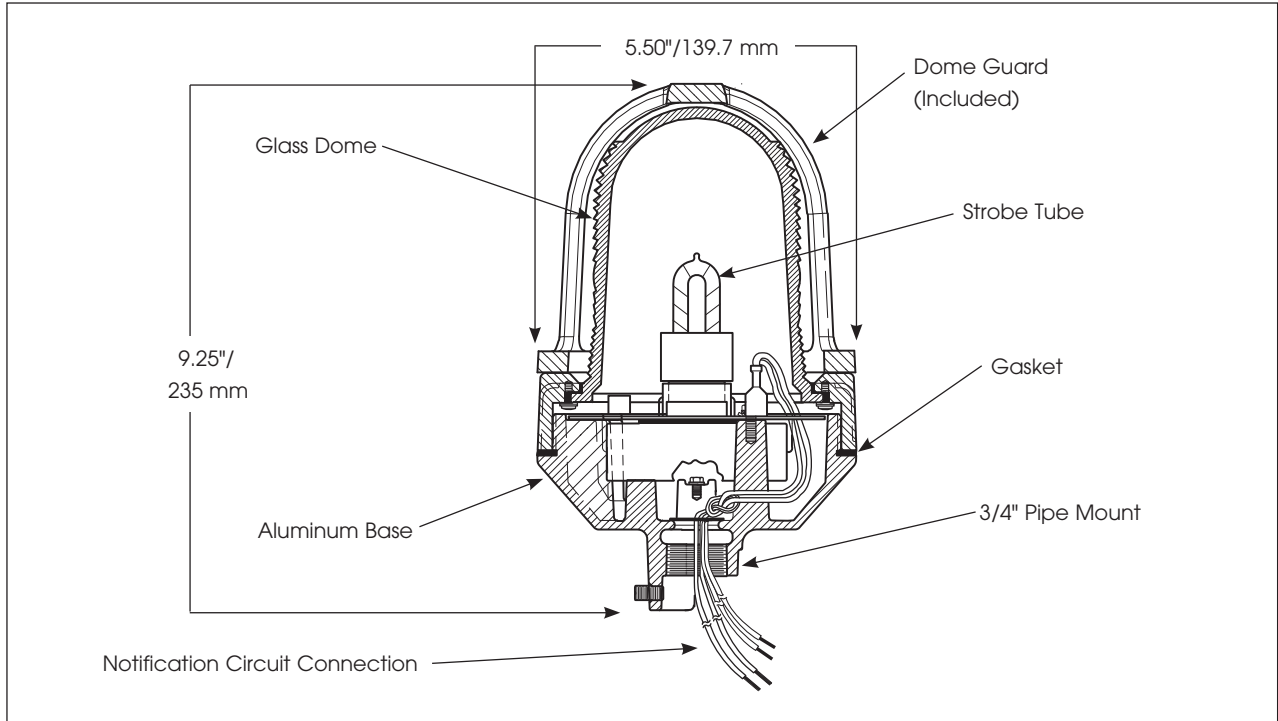
- Available in 24VDC
- Four wires and supervisory diode
- Clear dome
- 3/4-inch pipe mount
- Dome guard included
- Conformal coated PCB
- Type 4X, IP66 enclosure
- IP69K compliant
- Marine Rated
- UL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 1, Groups E, F, and G; Class III
- 154XSTHI is UL Fire Listed
- 154XST-024C-CN is ULC Fire Listed

MODEL	VOLTAGE	CURRENT DRAW	FLASH RATE/ MINUTE	CANDELA EFFECTIVE
154XSTHI	24VDC (regulated 16V-33V)	(0.483 amps – 0.226 amps)	60	17 cd with guard
154XST-024C-CN				25 cd without guard

**HAZARDOUS LOCATION RATING:
 154XSTHI and 154XST-024C-CN**

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C	
HAZARDOUS LOCATION	40°C
Class I, Division 2, Groups A, B, C, D	T4
Class II, Division 1, Groups E, F, G	T5
Class III	T5

Hazardous Location Supervised Strobe Lights (154XSTHI and 154XST-024C-CN)



SPECIFICATIONS

Lamp Life ¹ :	10,000 Hours
Lamp Source	Strobe
Operating Ambient Temperature:	-67°F to 150°F -55°C to 66°C
Net Weight:	3.8 lbs 1.7 kg
Shipping Weight:	4.5 lbs 2.0 kg
Height:	9.25" 235 mm
Diameter:	5.50" 139.7 mm

¹ Optimal hours under ideal conditions.

REPLACEMENT PARTS *

Description	Part Number
Strobe Tube	K149122B
Dome Guard, Red	K8449090B-01
Dome Guard, Black	K8449090B

* ULC prohibits any field servicing of hazardous location products. Part numbers are for reference only.

HOW TO ORDER

Specify Model:

154XSTHI – UL Fire Listed Strobe, 24VDC, hazardous location, 4-wire, clear

154XST-024C-CN – ULC Fire Listed Strobe, 24VDC, hazardous location, 4-wire, clear



C

► Model 224XSTHI

Electrarray® Hazardous Location Supervised Hearing Impaired Strobe Light

Federal Signal's Electrarray® Model 224XSTHI hazardous location strobe light provides 80 high-intensity flashes per minute and is available in 24VDC.

This hazardous location warning light has a black polyurethane-coated base and a clear inner fresnel lens to meet the Hearing Impaired Signal requirements. The clear polycarbonate outer dome can be quickly removed for easy access to inspect the unit or change the lamp.

Model 224XSTHI features a voltage in-rush limiting PCB design that provides greater compatibility with control systems and fire alarm panels and less electrical interference with in-rush sensitive devices.

FEATURES

- 24VDC
- Four wires and supervisory diode
- Voltage in-rush limiting PCBA
- Clear dome
- 10,000 hour, high-intensity strobe tube
- 1/2-inch NPT pipe mount
- 580,000 peak candela (240 effective)
- 80 flashes per minute
- Conformal coated PCB
- Type 4X, IP66 enclosure
- IP69K compliant
- CSFM Approved
- UL and cUL Listed for Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups F and G; Class III
- UL Fire Listed

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE / MINUTE	CANDELA PEAK ¹	ECP ²	MOUNT
224XSTHI-024C	24VDC	0.7 amps (2.0 amp, in-rush)	80	580,000	240	1/2" NPT Pipe

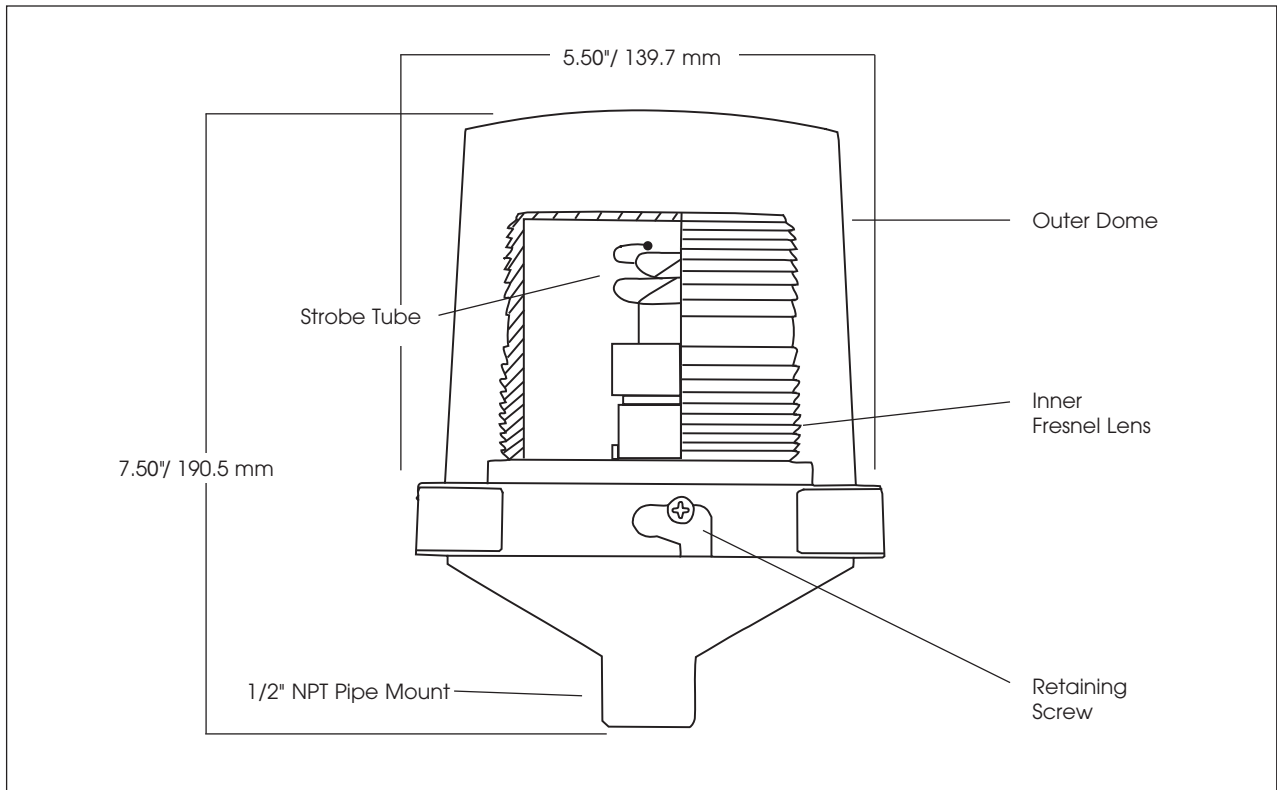
¹ Peak candela is the maximum light intensity generated by a flashing light during its light pulse

² ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

HAZARDOUS LOCATION RATING: 224XSTHI

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C	
HAZARDOUS LOCATION	40°C
Class I, Division 2, Groups A, B, C, D	T2A
Class II, Division 2, Groups F, G	T5
Class III	T5

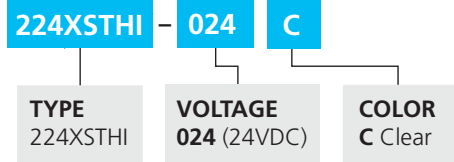
Electraray® Hazardous Location Supervised Hearing Impaired Strobe Light (224XSTHI)



SPECIFICATIONS

Lamp Life:	10,000 Hours	
Lamp Source:	Strobe	
Operating Temperature:	-40°F to 104°F	-40°C to 40°C
Net Weight:	1.5 lbs	0.68 kg
Shipping Weight:	2.0 lbs	0.91 kg
Height:	7.50"	190.5 mm
Diameter:	5.50"	139.7 mm

HOW TO ORDER



REPLACEMENT PARTS

Description	Part Number
Interior Lens, Clear	K8550C095A
Exterior Dome, Clear	K8444D219C-04
Strobe Tube	K8107177A



(Shown with pendant mount)

► Model 24XSTHI-MOD and 24XSTHI-CN

Explosion-Proof Supervised Hearing Impaired Strobe Lights

Model 24XSTHI Explosion-Proof Hearing Impaired Strobe Light produces 80 high-intensity flashes per minute. Model 24XSTHI is Type 4X and IP66 rated. Model 24XSTHI features a current in-rush limiting PCB design to provide improved compatibility with in-rush sensitive devices. This design limits the peak in-rush to 2A and operates on only 0.63A, when powered by 24VDC. To synchronize strobe lights purchase the Synchronization Module (SSM) separately.

The models can be paired with a pendant, ceiling or wall mount sold separately. The installation process is simple; by pre-installing the mounting box, the fixture can be simply threaded onto the mounting box, making an electrical connection when the threads are engaged.

Model 24XSTHI offers a heavy duty, copper-free cast aluminum housing sealed with a red powder coat paint. This unit is specifically designed for explosion-proof atmospheres and/or corrosive environments. The 24XSTHI is ideal for use in areas such as oil rigs, mines, refineries, and chemical plants.

FEATURES

- Available in 24VDC regulated
- 80 flashes per minute
- 3/4" NPT pendant, ceiling and wall mount options available
- Dome guard optional
- Type 4X, IP66 enclosure
- IP69K compliant
- Marine Rated
- UL and cUL Listed for Class I, Division 1, Groups C and D; Class I, Division 2, Groups A, B, C and D; Class II, Groups E, F and G; Class III
- 24XSTHI-MOD is UL Fire Listed
- 24XSTHI-CN is ULC Fire Listed

MODEL	VOLTAGE	PEAK IN-RUSH	OPERATING CURRENT @ 16VDC	OPERATING CURRENT @ 24VDC	FLASH RATE/ MINUTE	CANDELA ECP ¹	UL 1971
24XSTHI-MOD	24VDC Regulated (16-33V)	2 amps	1.02 amps	0.63 amps	80	150	30
24XSTHI-CN							

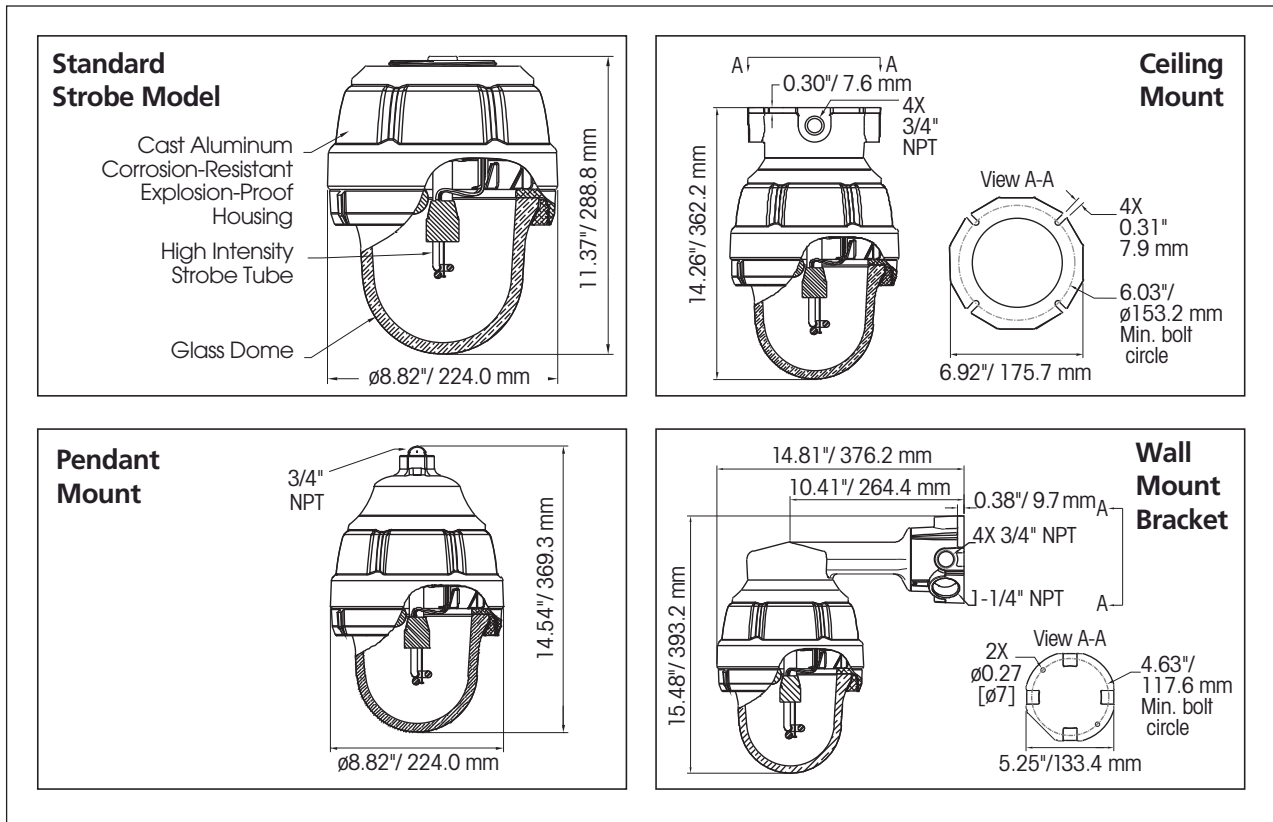
¹ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

HAZARDOUS LOCATION RATING: 24XSTHI-MOD and 24XSTHI-CN

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C	65°C
Class I, Division 1, Groups C, D	T6	T6
Class I, Division 2, Groups A, B, C, D	T4	T3C
Class II, Division 1, Groups E, F, G	T6	T4A
Class III	T6	T4A

Explosion-Proof Supervised Hearing Impaired Strobe Lights (24XSTHI-MOD and 24XSTHI-CN)



SPECIFICATIONS

Lamp Life:	10,000 Hours	
Light Source:	Strobe tube	
Operating Temperature Range:	-67°F to 150°F	-55°C to 66°C
Net Product Weight:		
Signal without Mounting:	13.9 lbs	6.3 kg
Ceiling Mount:	4.5 lbs	2.0 kg
Pendant Mount:	2.0 lbs	0.9 kg
Wall Mount:	5.9 lbs	2.7 kg

REPLACEMENT PARTS

Description	Part Number
24VDC Mechanism	K8436107F-05
Strobe Tube	K8107159A

OPTIONAL ACCESSORIES

Description	Part Number
Dome Guard	DGXC-SB
Synchronization Module	SSM

HOW TO ORDER

Specify Model:

24XSTHI-MOD: UL Fire Listed, Explosion-Proof Hearing Impaired Supervised Strobe Light

24XSTHI-CN: ULC Fire Listed, Explosion-Proof Hearing Impaired Supervised Strobe Light

Specify Mounting:*

Description	Part Number
Ceiling Mount	CMXC-R-SB
Pendant Mount	PMXC-R-SB
Wall Mount	WMXC-4R-SB

* Mounting kit must be ordered with unit, sold separately



(Shown with pendant mount)

► Model FSEX-HI

Explosion-Proof Hearing Impaired Strobe Light

Model FSEX-HI explosion-proof strobe light produces 80 high-intensity flashes per minute. This warning light operates on 24VDC and is unique to the market because it covers an entire range of possible mounting configurations – including dome up. This light is designed for use in alarm notification systems and is compatible with fire alarm and suppression supervised control panels and power boosters.

Model FSEX-HI features a voltage in-rush limiting PCB design that provides greater compatibility with factory automation control systems and less electrical interference with in-rush sensitive devices.

Model FSEX-HI is specifically designed for explosion-proof atmospheres and/or corrosive environments. Since it is easy to install and requires very low maintenance, it is ideal for use in areas such as oil rigs, mines, refineries, and chemical plants.

FEATURES

- Approved for mounting in any manner– including dome up
- Synchronize with SSM module
- Current limited
- 10,000 hour strobe tube
- 3/4" NPT pendant, ceiling and wall mount options available
- Dome guard optional
- Conformal coated PCB
- Type 4X, IP66 enclosure
- IP69K compliant
- Marine Rated
- CSFM Approved
- UL Listed for Class I, Division 1, Group C and D; Class I, Division 2, Groups A, B, C, and D; Class II, Division 1, Groups E, F, and G; Class III
- UL Fire Listed

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	CANDELA PEAK ²	UL 1971	ECP
FSEX-HI-MOD¹	24VDC	1.90 amps (3.0 amps in-rush)	80	2,000,000	150	850

¹ See “how to order” for mounting options

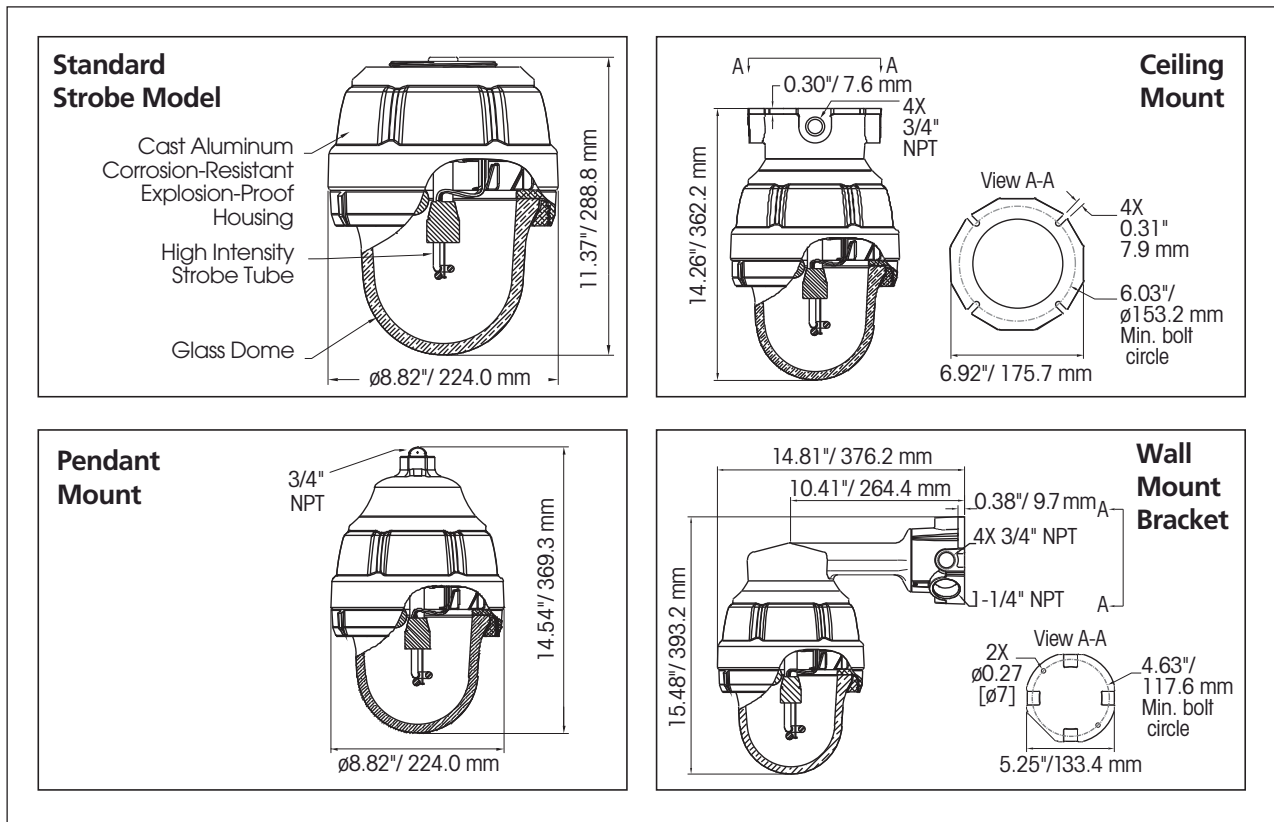
² Peak candela is the maximum light intensity generated by a flashing light during its light pulse

HAZARDOUS LOCATION RATING: FSEX-HI

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C	65°C
Class I, Division 1, Groups C, D	T6	T4A
Class I, Division 2, Groups A, B, C, D	T2B	T2A
Class II, Division 1, Groups E, F, G	T6	T4A
Class III	T6	T4A

Explosion-Proof Hearing Impaired Strobe Light (FSEX-HI)



SPECIFICATIONS

Lamp Life:	10,000 Hours	
Light Source:	Strobe tube	
Operating Temperature Range:	-31°F to 150°F	-55°C to 65°C
Net Product Weight		
Signal without Mounting:	13.9 lbs	6.3 kg
Ceiling Mount:	4.5 lbs	2.0 kg
Pendant Mount:	2.0 lbs	0.9 kg
Wall Mount:	5.9 lbs	2.7 kg

REPLACEMENT PARTS

Description	Part Number
Exterior Dome Assembly, Red	K8436147A-01
24VDC Mechanism	K8436107F-03
Strobe Tube	K8107159A
PC Assembly, 24VDC	K2001918B-01

HOW TO ORDER

Specify Model:
FSEX-HI-MOD – Hearing Impaired Explosion-Proof Strobe Light

Specify Mounting:*

Description	Part Number
Ceiling Mount	CMXC-R-SB
Pendant Mount	PMXC-R-SB
Wall Mount	WMXC-4R-SB

* Mounting kit must be ordered with unit, sold separately

OPTIONAL ACCESSORIES

Description	Part Number
Dome Guard	DGXC-SB
Strobe Synchronization Module	SSM



► Model AM50

AudioMaster® Public Address 2 Watt Re-Entrant Speaker

Federal Signal's AudioMaster® Model AM50 is a compact, two watt, transformer coupled speaker for use in emergency notification or paging applications. The unique design of this four-inch square speaker centers around the short, folded, re-entrant horn that is interposed between the diaphragm and the surrounding space.

This speaker is supplied with wiring terminals and strain relief for inbound and outbound speaker wiring.

Model AM50 is designed primarily for wall mounting and includes a trim ring for adapting to any standard four-inch square or weatherproof back box. This speaker is UL Listed for "Fire Protective Signaling Use" and California State Fire Marshall approved.

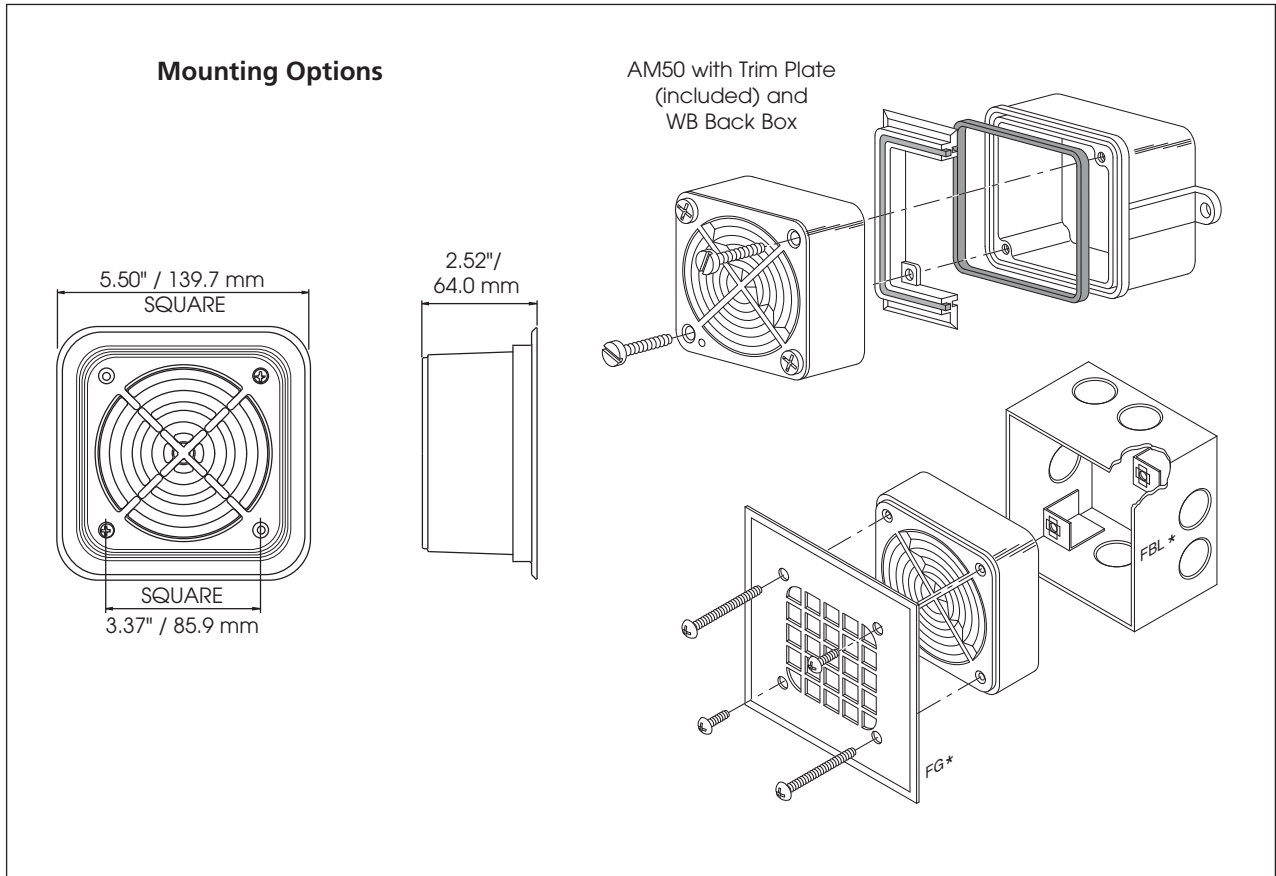
FEATURES

- 25 or 70 Vrms
- Transformer coupled
- Several mounting options
- Pre-assembled
- Indoor/outdoor use
- Type 3R with WB weatherproof back box
- CSFM Approved
- UL Fire Listed

MODEL	POWER HANDLING	FREQUENCY RESPONSE	TRANSFORMER	POWER TAPS	BEAM WIDTH	SPL PER UL 1480	
						10'	1M
AM50-25*	2 watt	140Hz - 10KHz	25 Vrms	2, 1, 1/2, 1/4	170°	87 dBa	97 dBa
AM50-70B	2 watt	140Hz - 10KHz	70 Vrms	2, 1, 1/2, 1/4	170°	87 dBa	97 dBa

* Indicates housing color: (B) for Beige housing, (R) for Red housing. AM50-70B model is only available in Beige.

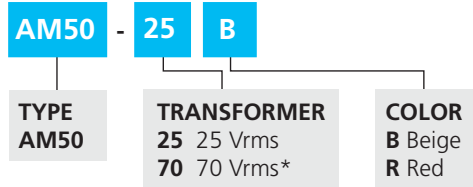
AudioMaster® Public Address 2 Watt Re-Entrant Speaker (AM50)



SPECIFICATIONS

Operating Temperature:	-40°F to 151°F	-40°C to 66°C
Net Weight:	1.4 lbs	0.64 kg
Shipping Weight:	1.75 lbs	0.79 kg
Height:	5.50"	139.7 mm
Width:	5.50"	139.7 mm
Depth:	2.52"	64.0 mm

HOW TO ORDER



* 70 Vrms model is only available in Beige

OPTIONAL ACCESSORIES

Description	Part Number
Weatherproof Back Box	WB
Grille	FG
Flush Mount Back Box	FBL



► Model 450E

Vibratone® Electronic Horn

Model 450E electronic horn offers a loud, clear and distinctive tone. It's often used for general alarming, start and dismissal noticing, coded paging and process control in noisy areas. Its 4-wire terminal block and supervisory diodes design make it ideal for fire alarm applications.

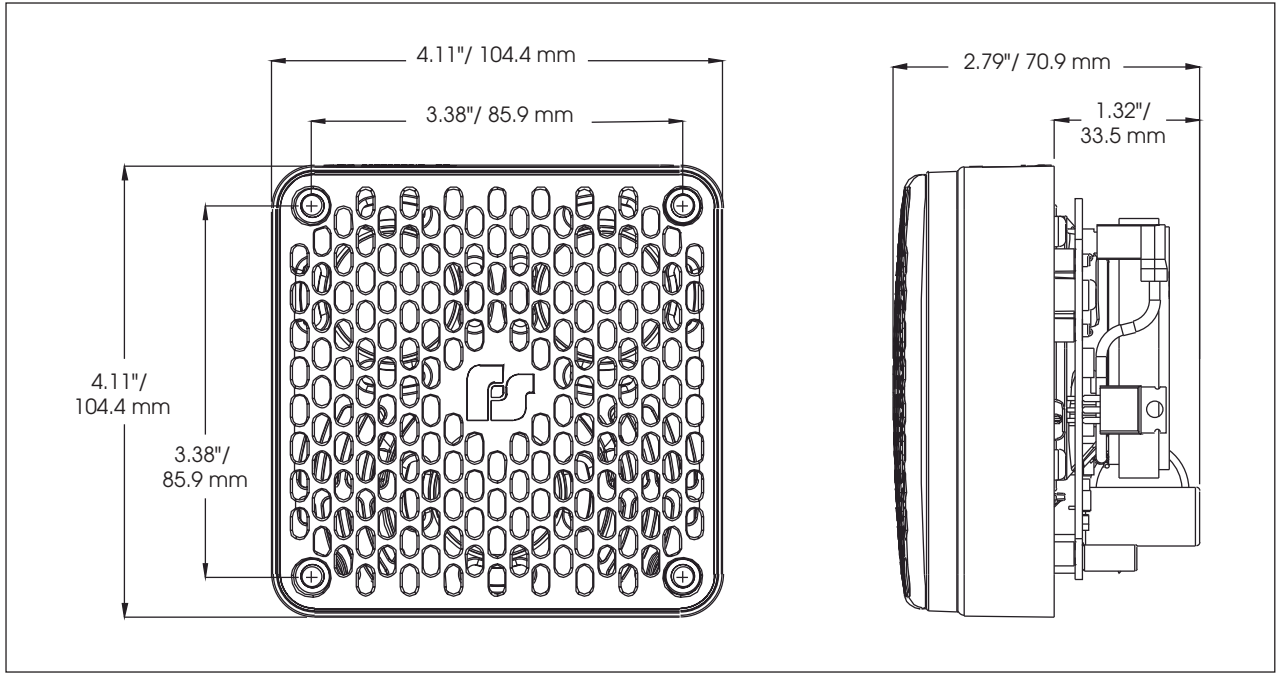
Model 450E's polycarbonate housing and polymeric speaker are corrosion resistant and weatherproof for improved durability in harsh industrial environments. It has no detectable RF emissions in a 30 MHz to 1000 MHz frequency range, which minimizes the potential for electrical device interference.

FEATURES

- Fire Regulated 16-33VDC General Purpose Signal 12-24VDC
- Coded or sustained tones
- No duty cycle or interval limitations
- 99 dBa @ 10' on axis (109 dBa @ 1m on axis)
- Four wire terminal block and supervisory diode
- Type 4X when installed with Panel Mount Gasket (included) or optional Non-metallic Weatherproof Backbox (Model WB-NM)
- Marine Rated
- CSFM Approved
- UL and cUL Listed
- UL Fire Listed
- ULC Fire Listed

MODEL	VOLTAGE	OPERATING CURRENT	DECIBELS 10'	UL 464 1M	DECIBELS ON AXIS 10'	DECIBELS ON AXIS 1M
450E-024	Fire Regulated 16-33VDC	0.25 amps	89	99	98	108
	General Purpose Signal 24VDC	0.22 amps	N/A	N/A	99	109
	General Purpose Signal 12VDC	0.12 amps	N/A	N/A	94	104

Vibratone® Electronic Horn (450E)



SPECIFICATIONS

Operating Temperature:	-65°F to 150°F	-54°C to 66°C
Housing:	Non-metallic Polycarbonate Light Gray (RAL 7035)	
Net Weight:	1.0 lbs	0.45 kg
Shipping Weight:	1.3 lbs	0.59 kg
Height:	4.11"	104.4 mm
Width:	4.11"	104.4 mm
Depth:	2.79"	70.9 mm

HOW TO ORDER

Specify Model:
450E-024 – Vibratone® Electronic Horn

OPTIONAL ACCESSORIES

Description	Part Number
Wall box for flush mounting the Vibratone® horn in stud, 4" block, or other shallow wall construction; 4-3/8" square box; 2-7/8" deep; shipping weight 2 lbs (0.91 kg)	FB
Same as FB, but 3-13/16" deep for 6" x 8" concrete block, cinder block or other deep wall construction; shipping weight 3 lbs (1.36 kg)	FBL
Flush grille which attaches to the basic unit and serves as the cover of the plastered-in FB flush box; 6" H x 6" W x 1/8" D; shipping weight. 1 lb (0.45 kg)	FG
Non-metallic double projector directs sounds to both sides when attached to 350/450E models; ideal for use in hallways; 4" H x 11-1/2" W x 4" D; shipping weight 1 lb (0.45kg)	PR2-NM
Molded thermoplastic neoprene-gasketed weatherproof housing for outside use, complete with mounting lugs; provided with (3) entrances for 1/2" conduit; 4-3/8" square box; 2-7/16" deep, offset mounting lugs on 5" centers; shipping weight 1 lb (0.45kg)	WB-NM





► Models AM300 and AM302

AudioMaster® Public Address Speakers

Models AM300 and AM302 are rugged, transformer coupled, re-entrant speakers for use in public address or paging applications. These 15 and 30 watt speakers feature a durable speaker cone and projector constructed of spun aluminum. The speaker wiring connections are enclosed in a dust- and moisture-proof, die-cast aluminum compartment. All external surfaces are sealed with a red or gray powder coat paint.

The bottom of the the units contain two 1/2-inch conduit openings to accommodate inbound and outbound audio wiring. The unique shape of projector provides a 60° sound dispersion. The projector is held in position with a Teflon coated lock ring that can be rotated 180° in order to obtain the desired sound distribution.

These speakers are UL Listed for "Fire Protective Signaling Use". An in-line capacitor (included) provides the isolation necessary for use in supervised systems. These can be used with supervised alarm notification systems or AudioMaster® CTS series amplifiers and the Audio Router to complete an industrial grade public address system.

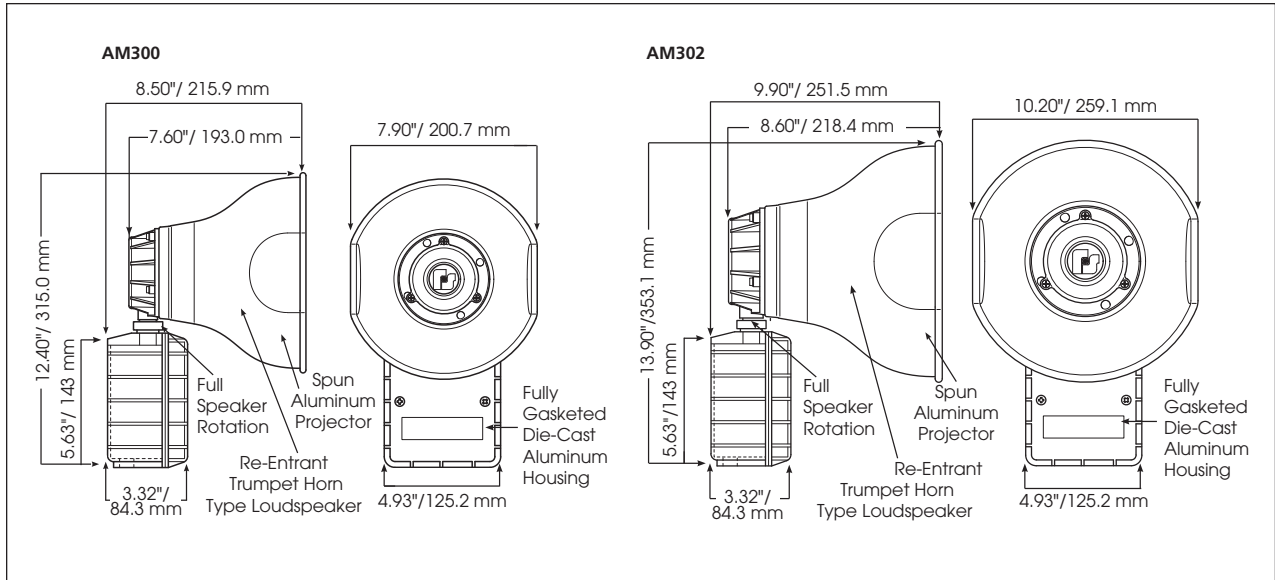
FEATURES

- 15 watt (AM300) or 30 watt (AM302)
- Transformer coupled
- 25 or 70 Vrms
- Re-entrant horn design
- Wall mount
- Indoor/outdoor use
- Type 3R, IP54 enclosure
- CSFM Approved for Model AM300 only
- UL Fire Listed

MODEL	POWER HANDLING	FREQUENCY RESPONSE	TRANSFORMER	POWER TAPS	BEAM WIDTH	SPL ON AXIS	
						10'	1M
AM300-*	15 watt	400-4000Hz	25/70 Vrms	15, 9, 3, 1.5	60°	110 dBa	120 dBa
AM302-*	30 watt	400-4000Hz	25/70 Vrms	30, 15, 7	60°	114 dBa	124 dBa

* Indicates housing color: (-R) for Red housing, leave blank for Gray

AudioMaster® Public Address Speakers (AM300 and AM302)



SPECIFICATIONS

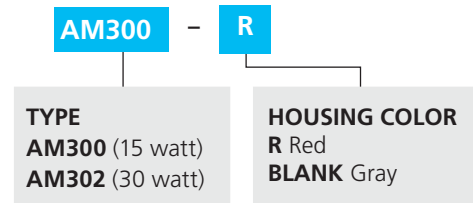
AM300

Net Weight:	4.85 lbs	2.2 kg
Shipping Weight:	6.15 lbs	2.79 kg
Height:	12.40"	315.0 mm
Width:	7.90"	200.7 mm
Depth:	8.50"	215.9 mm

AM302

Net Weight:	7.2 lbs	3.3 kg
Shipping Weight:	8.1 lbs	3.67 kg
Height:	13.90"	353.1 mm
Width:	10.20"	259.1 mm
Depth:	9.90"	251.5 mm

HOW TO ORDER



REPLACEMENT PARTS

Description	Part Number
15W Speaker Assembly, Gray for AM300	K8593082A
15W Diaphragm, Voice Coil, Butterfly Assembly for AM300	K8593035A
30W Speaker Assembly, Gray for AM302	K8593103A
30W Diaphragm, Voice Coil, Butterfly Assembly for AM302	K8590246A
Diaphragm Gasket for AM302	K8590243A
Housing, Gray for AM300/AM302	K8473021A
Housing Gasket for AM300/AM302	K288A043



► Models AM300GCX and AM302GCX

AudioMaster® Public Address Hazardous Location Speakers

Federal Signal Models AM300GCX and AM302GCX are rugged, transformer coupled, re-entrant speakers for use in public address or paging applications. These speakers feature rugged cones and projectors constructed of spun aluminum. The wiring connections are enclosed in a dust- and moisture-proof, die-cast aluminum compartment. All external surfaces are finished with a red or gray powder coat paint.

The unique shape of the speaker projectors provides an impressive 60° sound dispersion pattern. The projectors are held in position with a Teflon coated lock ring that can be rotated 180° in order to obtain the desired sound distribution.

Models AM300GCX and the AM302GCX can be used in supervised alarm notification systems or CTS series amplifiers with the AudioRouter™ to complete an industrial grade public address system.

FEATURES

- 15 watt (AM300GCX) or 30 watt (AM302GCX)
- 25 or 70 Vrms
- Transformer coupled
- Re-entrant horn design
- Wall mount
- 1/2-inch conduit openings
- Type 4X, IP66 enclosure
- IP69K complaint
- CSFM Approved
- UL and cUL Listed for Class I, Division 2, Groups A, B, C, and D; Class II, Division 2, Groups F and G; Class III
- UL Fire Listed

MODEL	POWER HANDLING	FREQUENCY RESPONSE	TRANSFORMER	POWER TAPS	BEAM WIDTH	SPL PER 10'	UL 1480 1M
AM300GCX-*	15 watt	600-5000Hz	25/70 Vrms	15, 9, 3, 1.5	60°	110 dBa	120 dBa
AM302GCX-*	30 watt	400-4000Hz	25/70 Vrms	30, 15, 9	60°	114 dBa	124 dBa

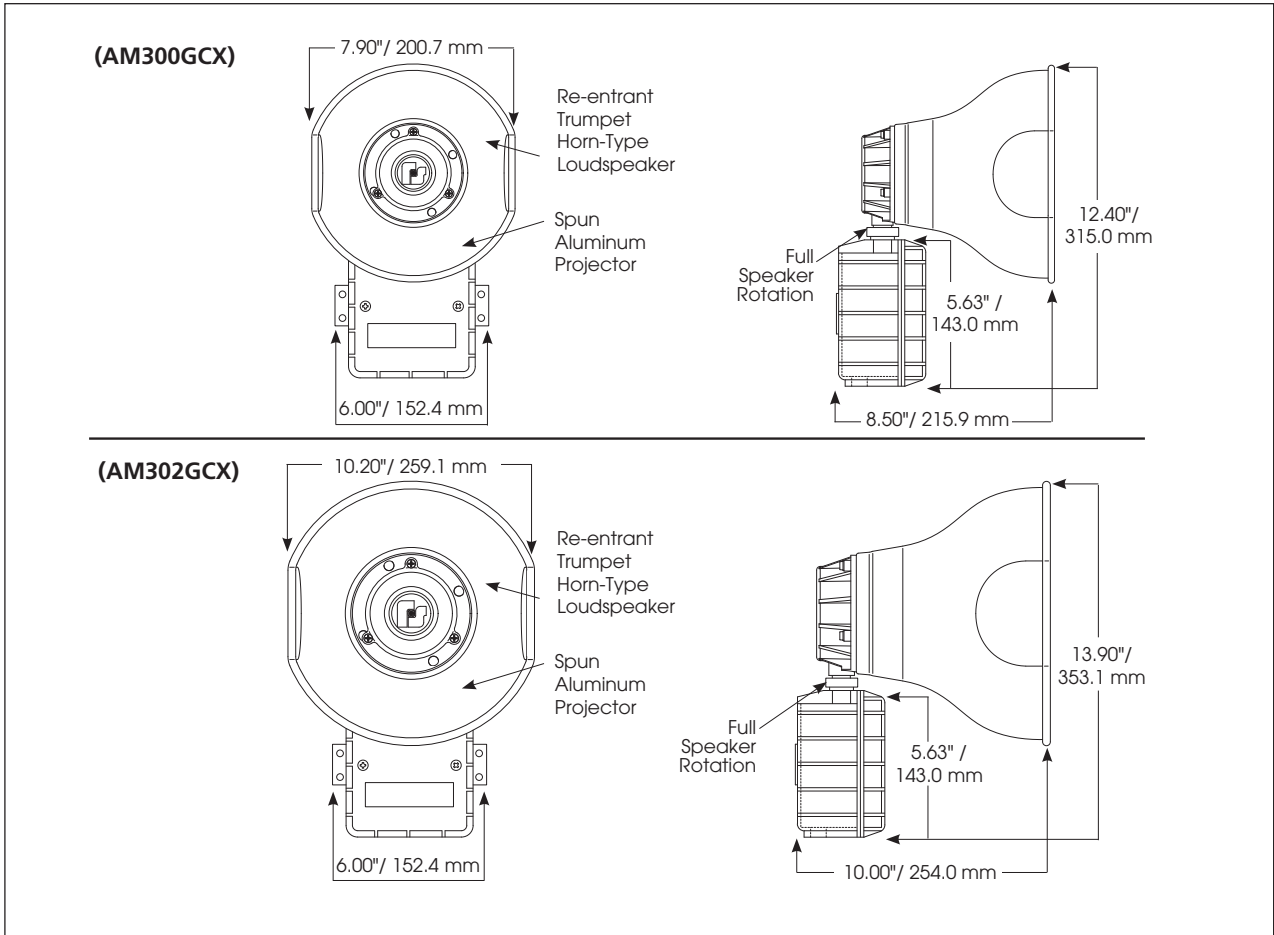
* Indicates housing color: (-R) for Red housing, leave blank for Gray

HAZARDOUS LOCATION RATING: AM300GCX and AM302GCX

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	AM300GCX		AM302GCX	
	40°C	66°C	40°C	66°C
Class I, Division 2, Groups A, B, C, D	T6	T4A	T5	T4A
Class II, Division 2, Groups F, G	T6	T6	T6	T6
Class III	T6	T6	T6	T6

AudioMaster® Public Address Hazardous Location Speakers (AM300GCX and AM302GCX)



SPECIFICATIONS

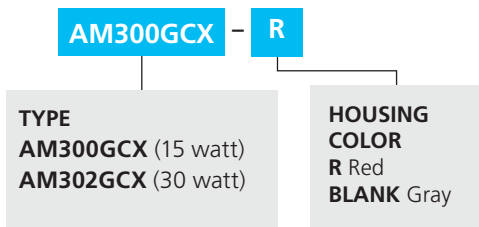
AM300GCX

Operating Temperature:	-67°F to 150°F -55°C to 66°C	
Net Weight:	4.85 lbs	2.2 kg
Shipping Weight:	6.0 lbs	2.72 kg
Height:	12.40"	315.0 mm
Width:	7.90"	200.7 mm
Depth:	8.50"	215.9 mm

AM302GCX-R

Operating Temperature:	-67°F to 150°F -55°C to 66°C	
Net Weight:	7.2 lbs	3.3 kg
Shipping Weight:	8.1 lbs	3.67 kg
Height:	13.90"	353.1 mm
Width:	10.20"	259.1 mm
Depth:	10.00"	254.0 mm

HOW TO ORDER



REPLACEMENT PARTS

Description	Part Number
15W Speaker Assembly, Gray for AM300GCX	K8593082A
15W Diaphragm, Voice Coil, Butterfly Assembly for AM300GCX	K8593035A
30W Speaker Assembly, Gray for AM302GCX	K8593103A
30W Diaphragm, Voice Coil, Butterfly Assembly for AM302GCX	K8590246A
Diaphragm Gasket for AM302GCX	K8590243A
Housing Gasket for AM300GCX/AM302GCX	K288A043



► Models AM300X and AM302X

AudioMaster® Public Address Explosion-Proof Speakers

Federal Signal's Models AM300X and AM302X are transformer coupled, re-entrant speakers for use in public address or paging applications. These speakers feature rugged cones and projectors constructed of spun aluminum. The speaker wiring connections are enclosed in a dust- and moisture-proof, die-cast aluminum compartment. All external surfaces are sealed with a red or gray powder coat paint.

Model AM300X is 15 watt and the AM302X is 30 watt. The unique shape of the speaker projectors provides a 60° sound dispersion. The entire speaker can be swiveled 180° in order to direct sound effectively.

Models AM300X and AM302X can be used with supervised alarm notification systems or the AudioMaster® amplifiers with the AudioRouter™ to complete an industrial grade public address system.

FEATURES

- 15 watt (AM300X) or 30 watt (AM302X)
- 25 or 70 Vrms
- Transformer coupled
- Re-entrant horn design
- Heavy-duty U-bracket swivel mount
- Type 4X, IP65 enclosure
- CSFM Approved for Model AM300X only
- UL and cUL Listed for Class I, Division 1, Groups B, C and D; Class I, Division 2, Group A, B, C, and D; Class II, Division 2, Groups F and G; Class III
- UL Fire Listed

MODEL	POWER HANDLING	FREQUENCY RESPONSE	TRANSFORMER	POWER TAPS	SPL PER UL 1480 10'	SPL PER UL 1480 1M	SPL ON AXIS 10'	SPL ON AXIS 1M
AM300X-*	15 watt	400-4000Hz	25/70 Vrms	15, 7, 2, 1	99 dBa	109 dBa	106 dBa	116 dBa
AM302X-*	30 watt	400-4000Hz	25/70 Vrms	30, 15, 8	103 dBa	113 dBa	112 dBa	122 dBa

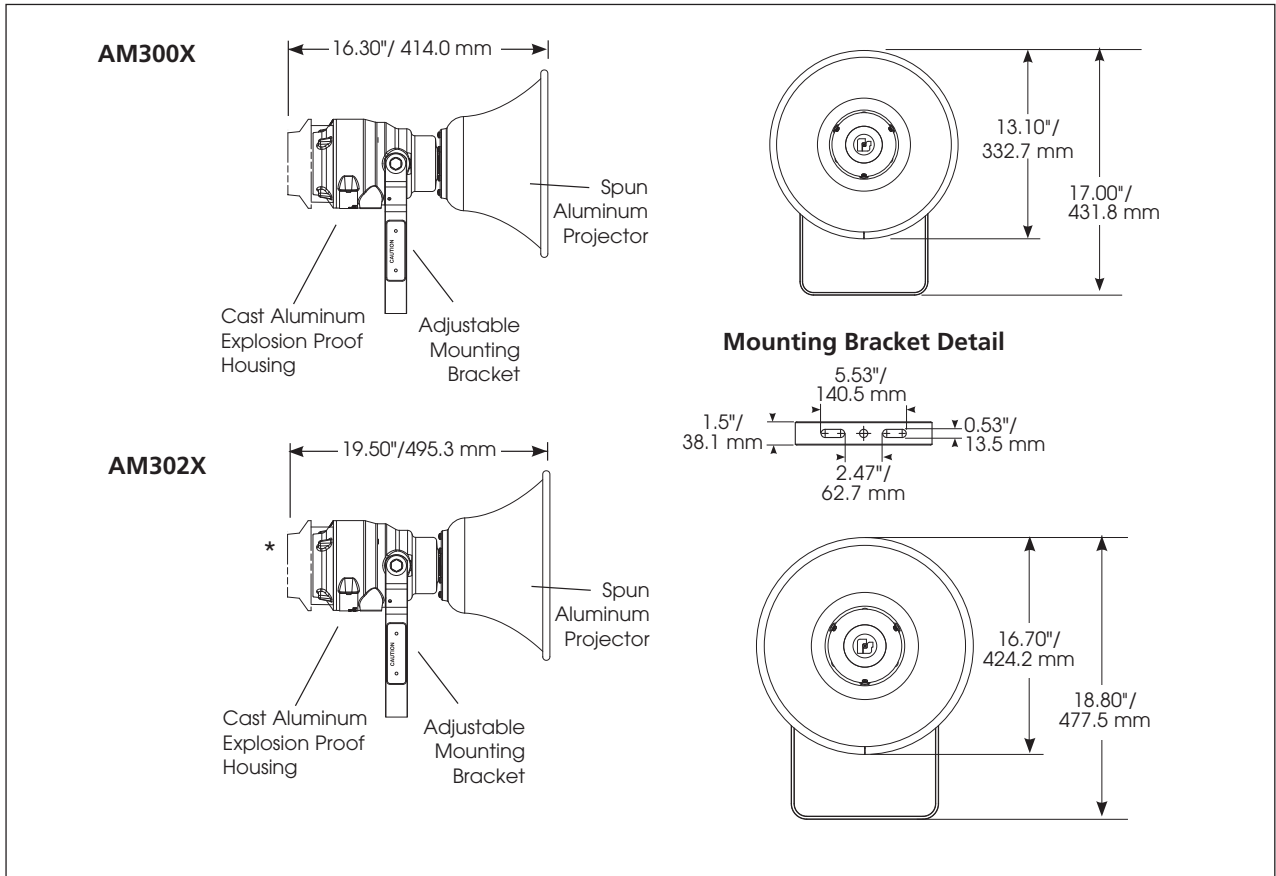
* Indicates housing color: (-R) for Red housing, leave blank for Gray

HAZARDOUS LOCATION RATING: AM300X and AM302X

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	AM300GCX		AM302GCX	
	40°C	66°C	40°C	66°C
Class I, Division 1, Groups B, C, D	T6	T6	T6	T6
Class I, Division 2, Groups A, B, C, D	T4A	T3	T4	T4
Class II, Division 2, Groups F, G	T6	T6	T6	T6
Class III	T6	T6	T6	T6

AudioMaster® Public Address Explosion-Proof Speakers (AM300X and AM302X)



SPECIFICATIONS

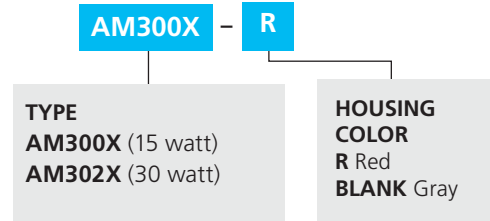
AM300X

Electrical Operating Temperature:	-67°F to 150°F	-55°C to 66°C
Certified Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	15.7 lbs	7.1 kg
Shipping Weight:	23.1 lbs	10.5 kg
Height:	17.00"	431.8 mm
Width:	13.10"	332.7 mm
Depth:	16.30"	414.0 mm

AM302X

Electrical Operating Temperature:	-67°F to 150°F	-55°C to 66°C
Certified Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	17.1 lbs	7.8 kg
Shipping Weight:	33.1 lbs	15.0 kg
Height:	18.80"	477.5 mm
Width:	16.70"	424.2 mm
Depth:	19.50"	495.3 mm

HOW TO ORDER





► Models 304GC, 314GC, 304GC-CN, and 314GC-CN

SelecTone[®] Amplified Speakers

Models 304GC, 314GC, 304GC-CN, and 314GC-CN Amplified Speakers are designed to produce crisp, clear tones in supervised alarm notification systems. These amplified speakers can broadcast tones generated by a tone card installed into the speaker (the plug-in 32-tone UTM*) or by a central tone source in a voice evacuation or paging system. When live public address or voice messages are required, plug-in Connector Cards (AM25CK or AM70CK) interface with the Vrms of the EVAC panel.

Both amplified speakers are compatible with fire alarm and suppression supervised control panels and power boosters.

The rugged construction and high output of these speakers make it ideal for use in harsh environments with high ambient noise levels. Both models feature an internal gain control for adjustment to the suit area.

*ULC Fire Listed Models (-CN models) can only be used with a UTM tone card

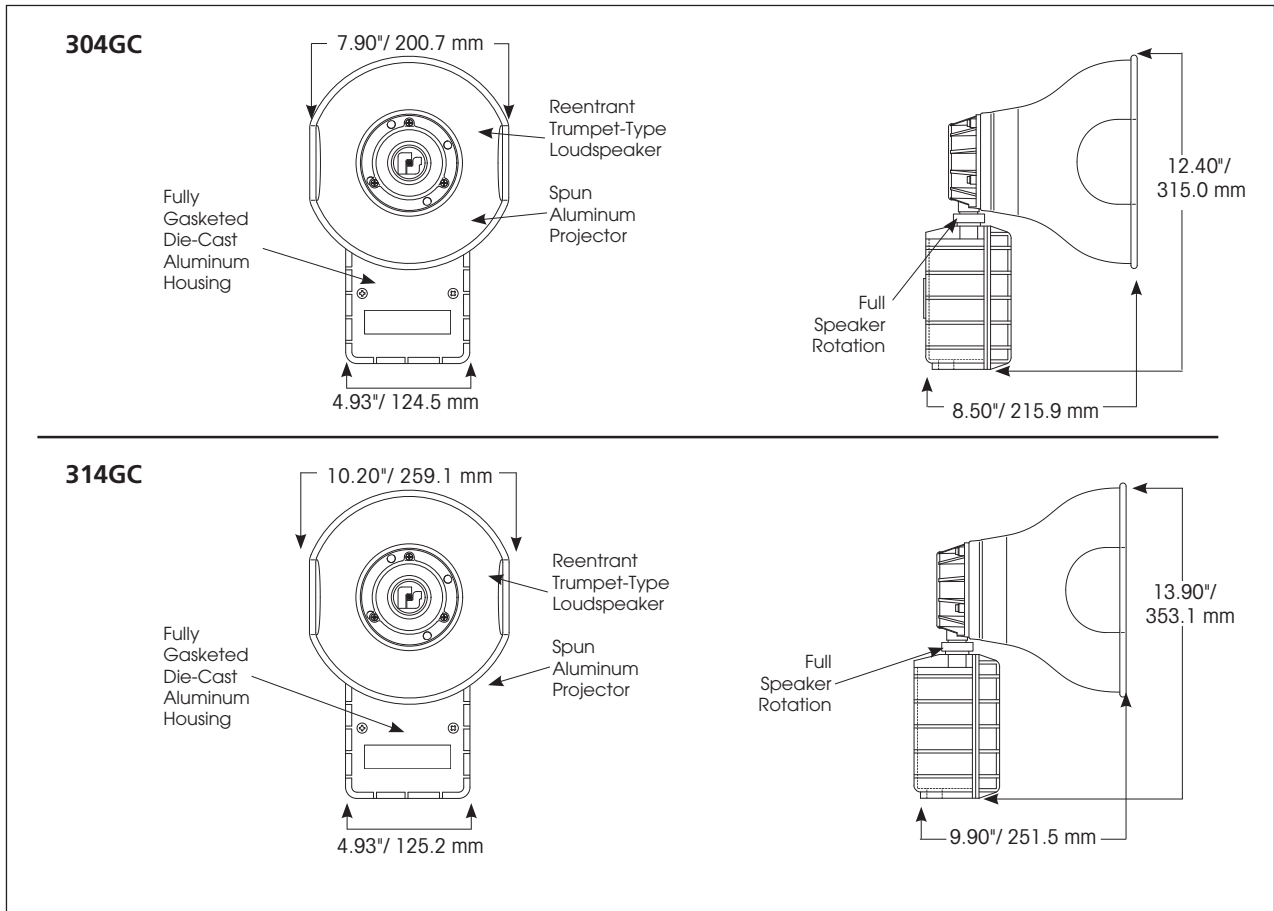
FEATURES

- Available in 24VDC
- Four wire supervisable power circuit
- Capable of producing tones or voice messages
- Built in gain control, 304GC adjustable between 0 dBa to 108 dBa @ 10' (0 dBa to 118 dBa @1m) 314GC adjustable between 0 dBa to 112 dBa @ 10' (0 dBa to 122 dBa @ 1m)
- Digital signal amplification
- Fused input and output
- Cast aluminum housing, spun aluminum protector
- Indoor/outdoor use
- Type 3R, IP54 enclosure
- CSFM Approved
- 304GC/314GC is UL Fire Listed
- 304GC-CN/314GC-CN is ULC Fire Listed

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT	DECIBELS PER UL 1480		DECIBELS ON AXIS	
				10'	1M	10'	1M
304GC-024*	24VDC	0.7A @ 24VDC Nominal 1.0A @ 24VDC Regulated (16-33VDC)	0.15 amps	95	105	108	118
314GC-024*	24VDC	1.3 amps	0.15 amps	100	110	112	122

* Indicates Fire Listing: leave blank for UL Fire Listed models or include (-CN) for ULC Fire Listed models

SelecTone® Amplified Speakers (304GC, 314GC, 304GC-CN, and 314GC-CN)



SPECIFICATIONS

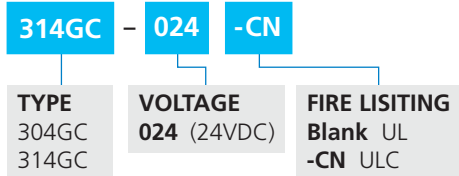
304GC

Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	4.5 lbs	2.0 kg
Shipping Weight:	5.7 lbs	2.6 kg
Height:	12.40"	315.0 mm
Width:	7.90"	200.7 mm
Depth:	8.50"	215.9 mm

314GC

Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	6.1 lbs	2.8 kg
Shipping Weight:	7.5 lbs	3.4 kg
Height:	13.90"	353.1 mm
Width:	10.20"	259.1 mm
Depth:	9.90"	251.5 mm

HOW TO ORDER



REQUIRED ACCESSORIES

Description	Part Number
Universal Tone Module	UTM
Specify Connector Kit for use in systems:	
70 Vrms Connector Kit	AM70CK
25 Vrms Connector Kit	AM25CK

REPLACEMENT PARTS

Description	Part Number
4 Position connector	K140340B
Voice Coil	K8593035A
Speaker Assembly	K8593082A



► Models ASHP and ASUP

Amplified Speakers

Models ASHP and ASUP Amplified Speakers are designed to produce crisp, clear tones in supervised alarm notification systems. These amplified speakers can broadcast tones generated by a tone card installed into the speaker (the plug-in 32-tone UTM) or by a central tone source in a voice evacuation or paging system. When live public address or voice messages are required, plug-in Connector Cards (AM25CK or AM70CK) interface with the Vrms of the EVAC panel.

Both amplified speakers are compatible with fire alarm and suppression supervised control panels and power boosters.

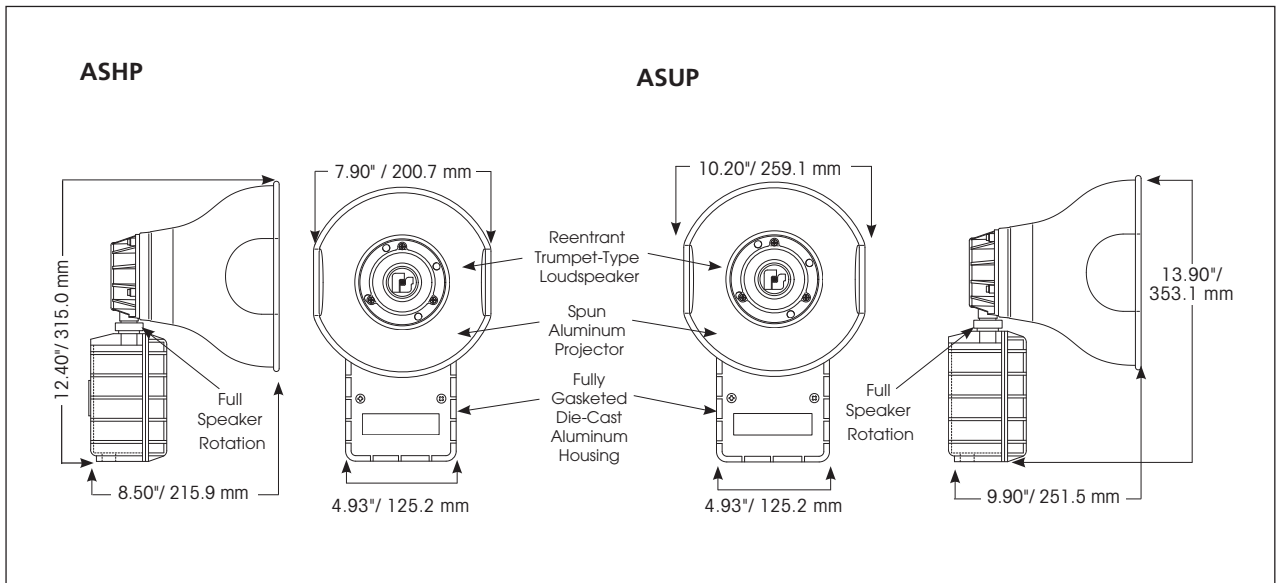
The speaker cone and projector are constructed of rugged spun aluminum. The solid-state amplifier circuit is protected in a die-cast aluminum housing. Dust- and moisture-proof gaskets provide protection from the elements. All external surfaces are sealed with red powder coat paint.

FEATURES

- 15 watt (ASHP) or 30 watt (ASUP)
- 24VDC
- Built-in gain control
- Four wire supervisable power circuit
- Digital signal amplification
- Fused input and output
- Easily installed on any flat surface
- Indoor/outdoor use
- Type 3R enclosure
- CSFM Approved
- UL Fire Listed

MODEL	WATTS	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT	SPL PER UL 1480		DECIBELS	
					10'	1M	10'	1M
ASHP-024	15 W	24VDC	0.7 amps	0.15 amps	95 dBa	105 dBa	108 dBa	118 dBa
ASUP-024	30 W	24VDC	1.3 amps	0.15 amps	100 dBa	110 dBa	112 dBa	122 dBa

Amplified Speakers (ASHP and ASUP)



SPECIFICATIONS

ASHP

Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	4.5 lbs	2.0 kg
Shipping Weight:	5.7 lbs	2.6 kg
Height:	12.40"	315.0 mm
Width:	7.90"	200.7 mm
Depth:	8.50"	215.9 mm

ASUP

Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	6.1 lbs	2.8 kg
Shipping Weight:	7.5 lbs	3.4 kg
Height:	13.90"	353.1 mm
Width:	10.20"	259.1 mm
Depth:	9.90"	251.5 mm

HOW TO ORDER

Specify Model:

ASHP-024 – 15 watt

ASUP-024 – 30 watt

REPLACEMENT PARTS

Description

Part Number

ASHP

Voice Coil	K8593035A
4 Position connector	K140340B

ASUP

Voice Coil	K8593035A
Speaker Assembly, Red	K8590246A
4 Position connector	K140340B

OPTIONAL ACCESSORIES

Description

Part Number

Universal Tone Module UTM

Specify Connector Kit for use in systems:

70 Vrms Connector Kit	AM70CK
25 Vrms Connector Kit	AM25CK



► Models 304GCX, 314GCX, 304GCX-CN, and 314GCX-CN

SelecTone® Hazardous Location Amplified Speakers

Models 304GCX, 314GCX, 304GCX-CN, and 314GCX-CN SelecTone® Hazardous Location Amplified Speakers are designed to produce crisp, clear tones in supervised alarm notification systems. These amplified speakers are compatible with fire alarm, voice evacuation, suppression supervised control panels and power boosters.

These amplified speakers can broadcast tones generated by a Tone Card installed into the speaker (the plug-in 32-tone UTM*) or by a central tone source in a voice evacuation or paging system. When live public address or voice messages are required, plug-in Connector Cards (AM25CK or AM70CK) interface with the audio output of the EVAC panel.

The speaker cone and projector are constructed of rugged spun aluminum. The solid-state amplifier circuit is protected in a die-cast aluminum housing. Dust and moisture-proof gaskets provide protection from the elements. All external surfaces are sealed with gray powder coat paint. These speakers are easily installed with external mounting tabs.

The rugged construction and high output of the Models 304GCX and 314GCX make it ideal for use in harsh environments with high ambient noise levels.

*ULC Fire Listed Models (-CN models) can only be used with a UTM tone card

FEATURES

- Available in 24VDC
- Four wire supervisable power circuit
- Capable of producing tones or voice messages
- Built in gain control
- Digital signal amplification
- Fused input and output
- Cast aluminum housing, spun aluminum projector
- External mounting tabs
- Indoor/outdoor use
- Type 4X, IP66 enclosure
- IP69K compliant
- CSFM Approved
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III
- 304GCX/314GCX are UL Fire Listed
- 304GCX-CN/314GCX-CN are ULC Fire Listed

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT	DECIBELS PER UL1480		DECIBELS ON AXIS	
				10'	1M	10'	1M
304GCX-024*	24VDC	0.7 amps	0.15 amps	95	105	108	118
314GCX-024*	24VDC	1.3 amps	0.15 amps	100	110	112	122

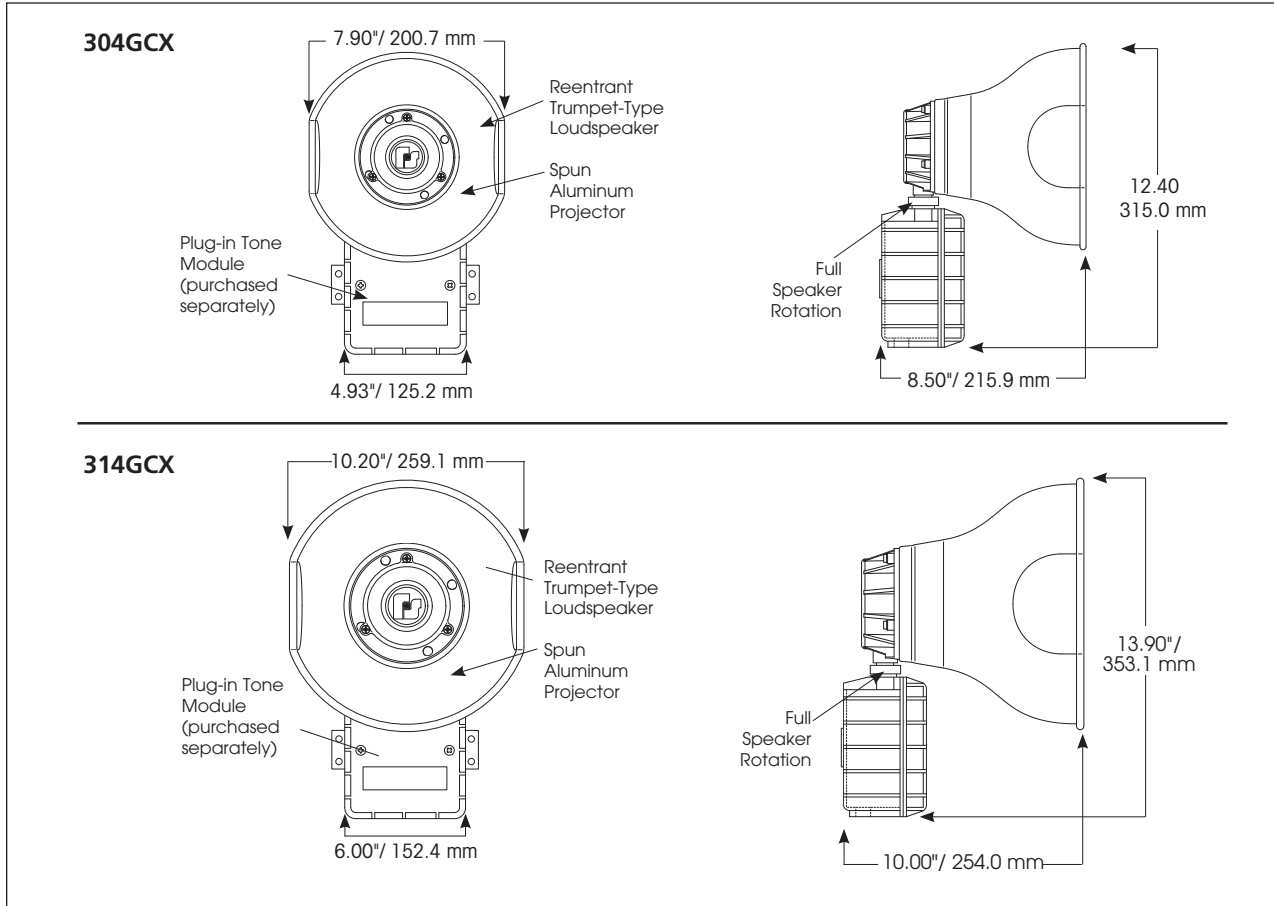
* Indicates Fire Listing: leave blank for UL Fire Listed models or include (-CN) for ULC Fire Listed models

HAZARDOUS LOCATION RATING: 304GCX and 314GCX

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	304GCX		314GCX	
	40°C	66°C	40°C	66°C
Class I, Division 2, Groups A, B, C, D	T2D	T2C	T3A	T3
Class II, Division 2, Groups F, G	T6	T6	T6	T6
Class III	T6	T6	T6	T6

SelecTone® Hazardous Location Amplified Speakers (304GCX, 314GCX, 304GCX-CN, and 314GCX-CN)



SPECIFICATIONS

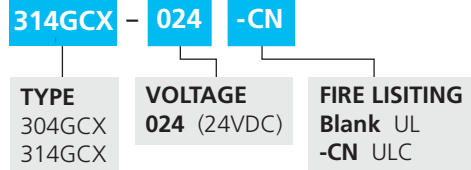
304GCX

Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	4.5 lbs	2.0 kg
Shipping Weight:	5.7 lbs	2.6 kg
Height:	12.40"	315.0 mm
Width:	7.90"	200.7 mm
Depth:	8.50"	215.9 mm

314GCX

Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	6.1 lbs	2.8 kg
Shipping Weight:	7.5 lbs	3.4 kg
Height:	13.90"	353.1 mm
Width:	10.20"	259.1 mm
Depth:	10.00"	254.0 mm

HOW TO ORDER



REQUIRED ACCESSORIES

Description	Part Number
Universal Tone Module	UTM
Specify Connector Kit for use in systems:	
70 Vrms Connector Kit	AM70CK
25 Vrms Connector Kit	AM25CK

REPLACEMENT PARTS

Description	Part Number
4 Position connector	K140340B
Voice Coil	K8593035A
Speaker Assembly	K8593082A



► Models ASHH and ASUH

Hazardous Location Amplified Speakers

Models ASHH and ASUH Hazardous Location Amplified Speakers are designed to produce crisp, clear tones in supervised alarm notification systems. Both amplified speakers are compatible with fire alarm, voice evacuation, suppression supervised control panels and power boosters.

These amplified speakers can broadcast tones generated by a Tone Card installed into the speaker (the plug-in 32-tone UTM) or by a central tone source in a voice evacuation or paging system. When live public address or voice messages are required, plug-in Connector Cards (AM25CK or AM70CK) interface with the audio output of the EVAC panel.

The speaker cone and projector are constructed of rugged spun aluminum. The solid-state amplifier circuit is protected in a die-cast aluminum housing. Dust and moisture-proof gaskets provide protection from the elements. All external surfaces are sealed with red powder coat paint.

FEATURES

- 15 watt (ASHH) or 30 watt (ASUH)
- 24VDC
- Four wire supervisable power circuit
- Reliable, solid-state circuitry
- Digital signal amplification
- Fused input and output
- Built-in gain control
- External mounting tabs
- Type 4X, IP66 enclosure
- IP69K compliant
- CSFM Approved
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; Class III
- UL Fire Listed

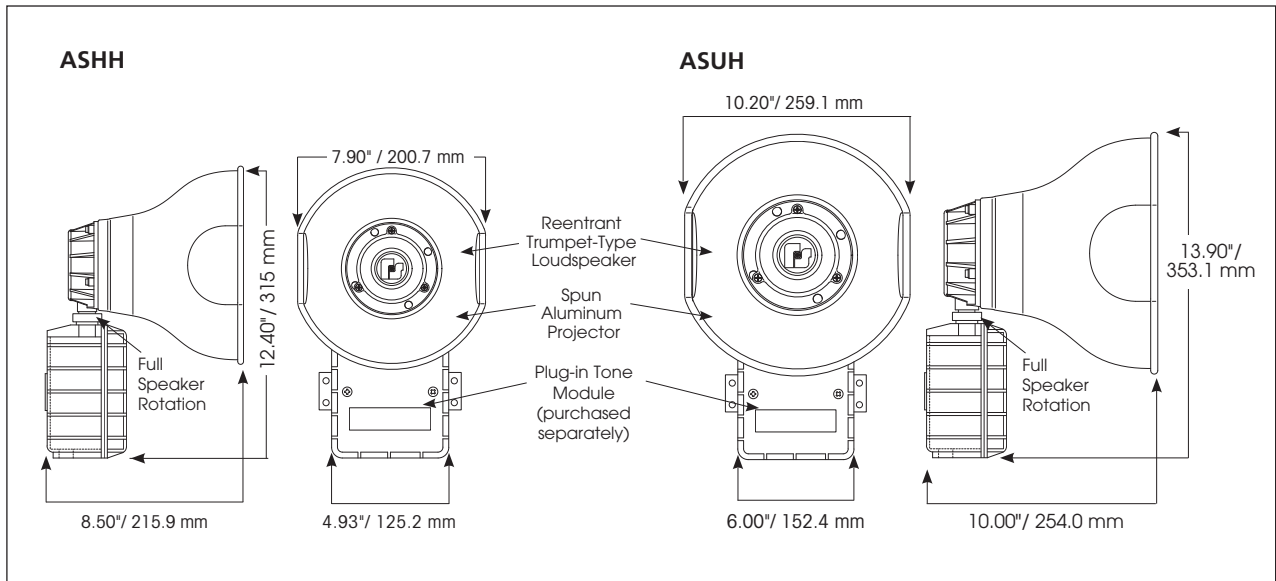
MODEL	WATTS	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT	SPL PER 10'	UL 1480 1 M	SPL ON AXIS 10'	1 M
ASHH-024	15 W	24VDC	0.7 amps	0.15 amps	95 dBa	105 dBa	108 dBa	118 dBa
ASUH-024	30 W	24VDC	1.3 amps	0.15 amps	100 dBa	110 dBa	112 dBa	122 dBa

HAZARDOUS LOCATION RATING: ASHH and ASUH

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	ASHH		ASUH	
	40°C	66°C	40°C	66°C
Class I, Division 2, Groups A, B, C, D	T2D	T2C	T3A	T3
Class II, Division 2, Groups F, G	T6	T6	T6	T6
Class III	T6	T6	T6	T6

Hazardous Location Amplified Speakers (ASHH and ASUH)



S P E C I F I C A T I O N S

ASHH

Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	4.5 lbs	2.0 kg
Shipping Weight:	5.7 lbs	2.6 kg
Height:	12.40"	315.0 mm
Width:	7.90"	200.7 mm
Depth:	8.50"	215.9 mm

ASUH

Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	6.1 lbs	2.8 kg
Shipping Weight:	7.5 lbs	3.4 kg
Height:	13.90"	353.1 mm
Width:	10.20"	259.1 mm
Depth:	10.00"	254.0 mm

R E P L A C E M E N T P A R T S

Description

Part Number

ASHH	
Voice Coil Series B	K8593035A
4 Position connector	K140340B
ASUH	
Speaker Assembly, Red	K8593103A-01
4 Position connector	K140340B

H O W T O O R D E R

Specify Model:

ASHH-024 – 15 watt

ASUH-024 – 30 watt

O P T I O N A L A C C E S S O R I E S

Description

Part Number

Universal Tone Module	UTM
Specify Connector Kit for use in systems:	
70 Vrms Connector Kit	AM70CK
25 Vrms Connector Kit	AM25CK



► Models 304X and 314X
SelecTone[®] Explosion-Proof Amplified Speakers

Federal Signal's Models 304X and 314X Explosion-Proof Amplified Speakers are designed to produce crisp, clear tones in supervised alarm notification systems. Both models are compatible with fire alarm, voice evacuation, suppression supervised control panels, and power boosters.

These amplified speakers can broadcast tones generated by a Tone Card installed into the speaker (the plug-in 32-tone UTM*) or by a central tone source in a voice evacuation or paging system. When live public address or voice messages are required, plug-in Connector Cards (AM25CK or AM70CK) interface with the Vrms of the EVAC panel.

*ULC Fire Listed Models (-CN models) can only be used with a UTM tone card

F E A T U R E S

- Available in 24VDC
- Four wire supervisable power circuit
- Capable of producing tones or voice messages
- Built-in gain control
- Fused input and output
- Cast aluminum housing, spun aluminum projector
- External mounting tabs
- Indoor/outdoor use
- Type 4X enclosure
- CSFM Approved
- UL and cUL Listed for Class I, Division 1, Groups B, C and D; Class I, Division 2, Group A, B, C and D; Class II, Division 2, Groups F and G; Class III
- 304X/314X UL Fire Listed
- 304X-CN/314X-CN ULC Fire Listed

MODEL	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT	DECIBELS PER 10'	DECIBELS PER 1M	DECIBELS ON AXIS 10'	DECIBELS ON AXIS 1M
304X-024*	24VDC	0.7 amps	0.15 amps	95	105	108	118
314X-024*	24VDC	1.3 amps	0.15 amps	100	110	112	122

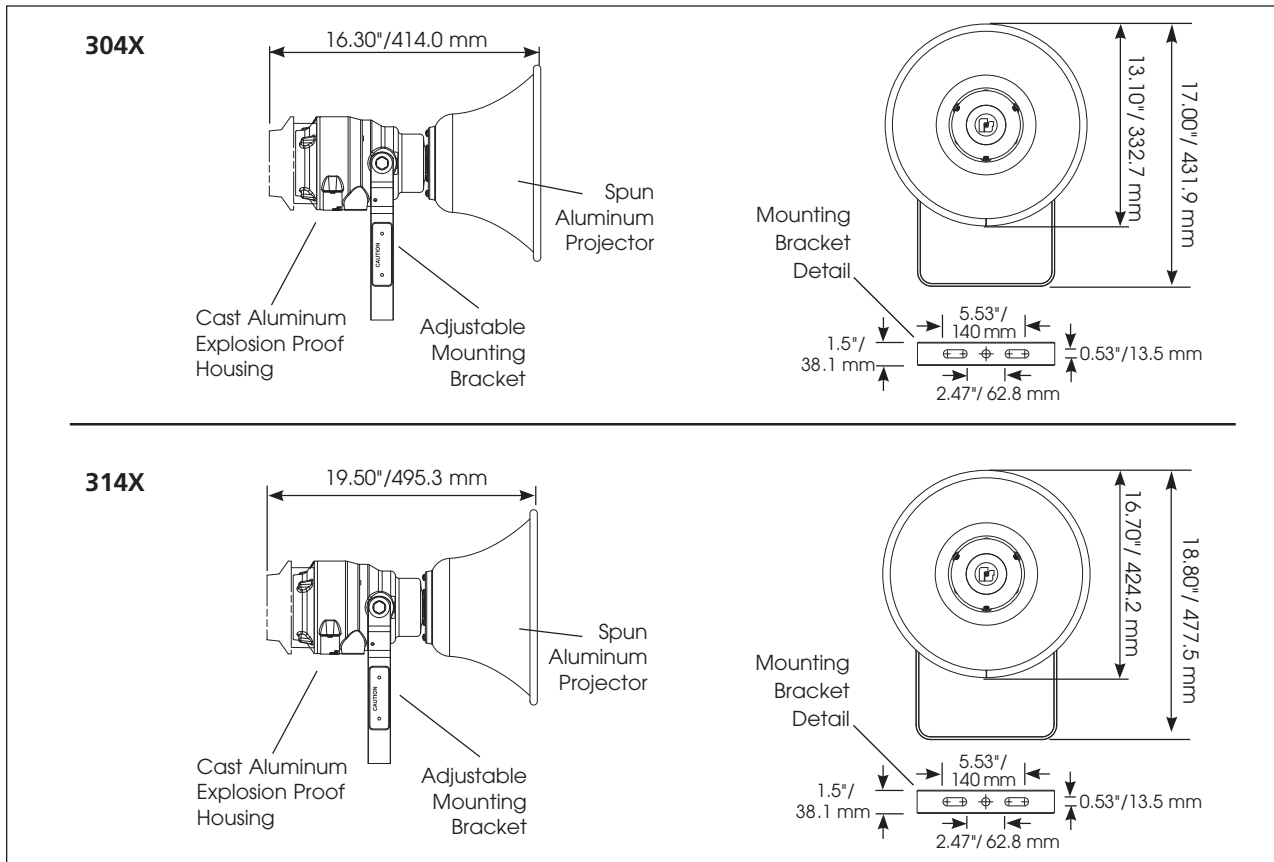
* Indicates Fire Listing: leave blank for UL Fire Listed models or include (-CN) for ULC Fire Listed models

HAZARDOUS LOCATION RATING: 304X and 314X

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	304X		314X	
	40°C	65°C	40°C	65°C
Class I, Division 1, Groups B, C, D	T6	T6	T6	T6
Class I, Division 2, Groups A, B, C, D	T2B	T2A	T3	T2D
Class II, Division 2, Groups F, G	T5	T5	T6	T6
Class III	T5	T5	T6	T6

SelecTone® Explosion-Proof Amplified Speakers (304X and 314X)



SPECIFICATIONS

304X

Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	15.4 lbs	7.0 kg
Shipping Weight:	22.8 lbs	10.4 kg
Height:	17.00"	431.9 mm
Width:	13.10"	332.7 mm
Depth:	16.30"	414.0 mm

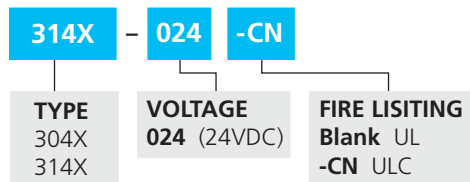
314X

Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	16.4 lbs	7.4 kg
Shipping Weight:	32.4 lbs	14.7 kg
Height:	18.80"	477.5 mm
Width:	16.70"	424.2 mm
Depth:	19.50"	495.3 mm

REQUIRED ACCESSORIES

Description	Part Number
Universal Tone Module	UTM
Specify Connector Kit for use in systems:	
70 Vrms Connector Kit	AM70CK
25 Vrms Connector Kit	AM25CK

HOW TO ORDER



REPLACEMENT PARTS

Description	Part Number
304X	
Amplifier Assembly	K2005618A-02
Horn Assembly	K8593100A
Mounting Bracket Assembly	K8593071A
4 Position connector	K140340B
314X	
Amplifier Assembly	K2005618A-01
Horn Assembly	K8593101A
Mounting Bracket Assembly	K8593071A
4 Position connector	K140340B



► Models ASHX and ASUX

Explosion-Proof Amplified Speakers

Federal Signal's Models ASHX and ASUX Explosion-Proof Amplified Speakers are designed to produce crisp, clear tones in supervised alarm notification systems. Both models are compatible with fire alarm, voice evacuation, suppression supervised control panels, and power boosters.

These amplified speakers can broadcast tones generated by a Tone Card installed into the speaker (the plug-in 32-tone UTM) or by a central tone source in a voice evacuation or paging system. When live public address or voice messages are required, plug-in Connector Cards (AM25CK or AM70CK) interface with the Vrms of the EVAC panel.

The speaker cone and projector are constructed of rugged spun aluminum. The solid-state amplifier circuit is protected in a die-cast aluminum housing. Dust- and moisture-proof gaskets provide protection from the elements. All external surfaces are sealed with red powder coat paint.

FEATURES

- 15 watt (ASHX) or 30 watt (ASUX)
- 24VDC
- Built-in gain control
- Four wire supervisable power circuit
- Swivel mount bracket
- Type 4X, IP66 enclosure
- CSFM Approved
- UL and cUL listed for Class I, Division 1, Groups B, C and D; Class I, Division 2, Group A, B, C, and D; Class II, Division 2, Groups F and G; Class III
- ASHX and ASUX UL Fire Listed

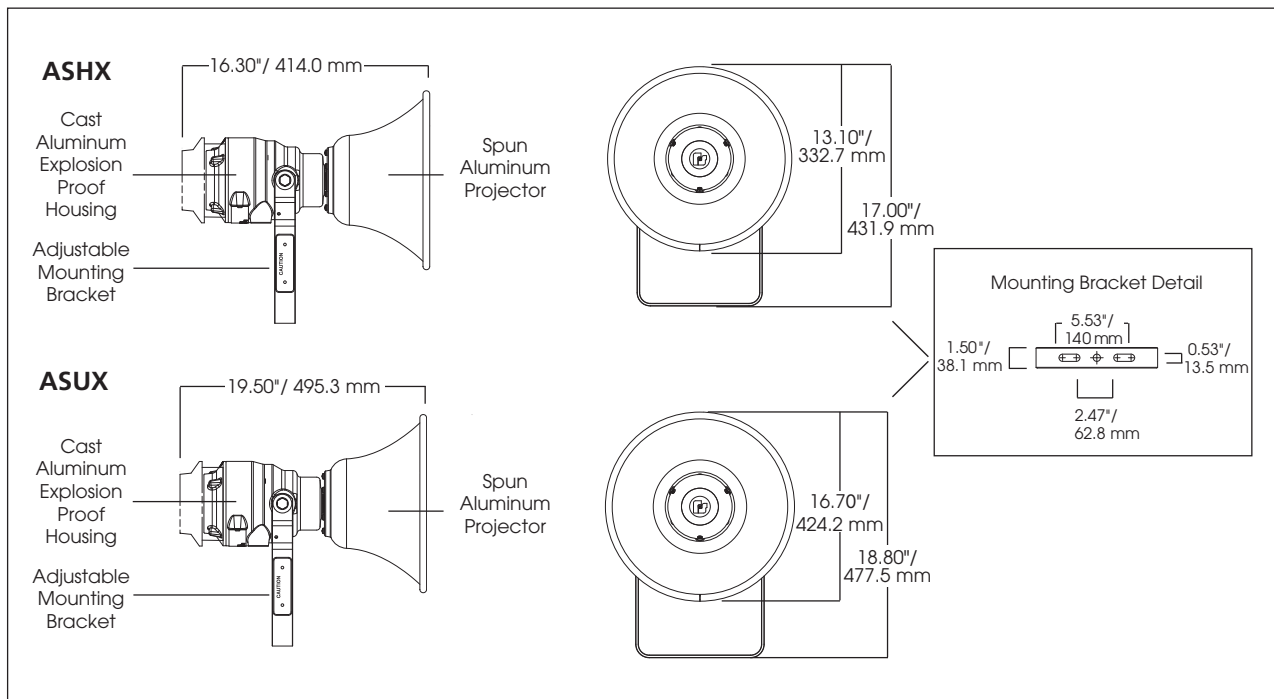
MODEL	WATTS	VOLTAGE	OPERATING CURRENT	STANDBY CURRENT	SPL PER UL 1480 10'	1M	DECIBELS 10'	1M
ASHX-024	15 W	24VDC	0.7 amps	0.13 amps	91 dBa	101 dBa	110 dBa	120 dBa
ASUX-024	30 W	24VDC	1.0 amps	0.13 amps	97 dBa	107 dBa	114 dBa	124 dBa

HAZARDOUS LOCATION RATING: ASHX and ASUX

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	ASHX		ASUX	
	40°C	66°C	40°C	66°C
Class I, Division 1, Groups B, C, D	T6	T6	T6	T6
Class I, Division 2, Groups A, B, C, D	T2B	T2A	T3	T2D
Class II, Division 2, Groups F, G	T5	T5	T6	T6
Class III	T5	T5	T6	T6

Explosion-Proof Amplified Speakers (ASHX and ASUX)



SPECIFICATIONS

ASHX

Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	15.4 lbs	7.0 kg
Shipping Weight:	22.8 lbs	10.4 kg
Height:	17.00"	431.9 mm
Width:	13.10"	332.7 mm
Depth:	16.30"	414.0 mm

ASUX

Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	16.4 lbs	7.4 kg
Shipping Weight:	32.4 lbs	14.7 kg
Height:	18.80"	477.5 mm
Width:	16.70"	424.2 mm
Depth:	19.50"	495.3 mm

REPLACEMENT PARTS

Description

Part Number

ASHX	
Horn Assembly, Red	K8593100A-01
Mounting Bracket Assembly	K8593071A
4 Position connector	K140340B

ASUX

Mounting Bracket Assembly	K8593071A
4 Position connector	K140340B

OPTIONAL ACCESSORIES

Description

Part Number

Universal Tone Module	UTM
Specify Connector Kit for use in systems:	
70 Vrms Connector Kit	AM70CK
25 Vrms Connector Kit	AM25CK

HOW TO ORDER

Specify Model:

ASHX-024 – 15 watt

ASUX-024 – 30 watt



► Model FB24ST
Fireball® Supervised Strobe Light

Federal Signal's Fireball® Supervised Light is an economical solution to a wide variety of stationary requirements.

Model FB24ST features a voltage in-rush limiting PCB design that provides greater compatibility with control systems and less electrical interference with in-rush sensitive devices. Model FB24ST contains a supervisory diode and four wire leads, for use in fire alarm applications

Fireball Supervised Strobe is a very low-maintenance warning light for industrial applications where a vibration-resistant light is required to signal an emergency or process status.

F E A T U R E S

- Available in 24VDC
- Four wires and supervisory diode
- Five dome colors: Amber, Blue, Clear, Green and Red
- Easy twist off dome for re-lamping
- 10,000 hour strobe tube
- Integrated 1/2-inch NPT pipe and surface mount
- Black epoxy coating for superior corrosion resistance
- 1,000,000 peak candela (300 effective)
- Conformal coated PCB
- Type 4X, IP66 enclosure
- IP69K compliant
- CSFM Approved
- UL and cUL Listed

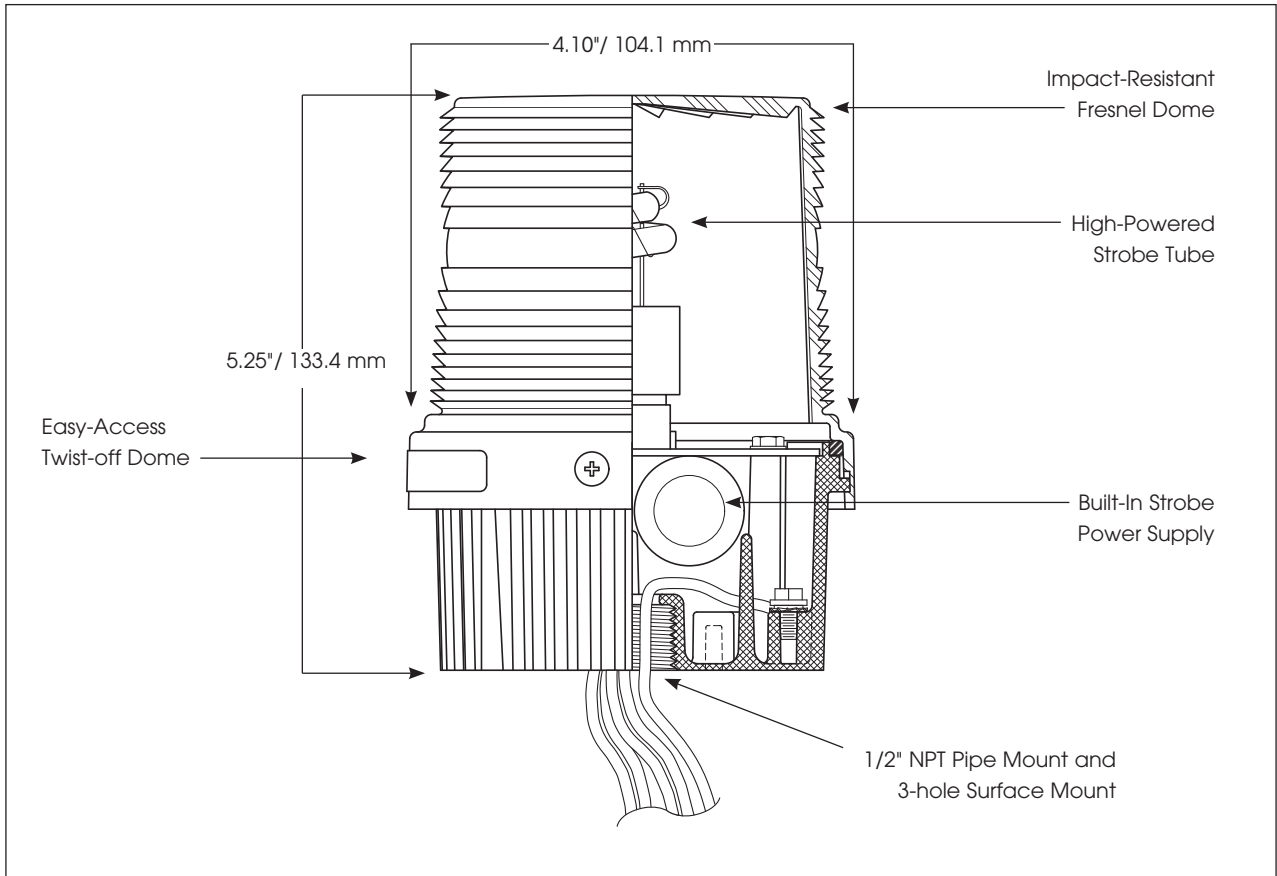
MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	CANDELA PEAK ¹	ECP ²	MOUNT
FB24ST-024_*	24VDC	0.7 amps (2.0 amp, in-rush)	80	1,000,000	300	1/2" NPT Pipe/Surface

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

¹ Peak candela is the maximum light intensity generated by a flashing light during its light pulse

² ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

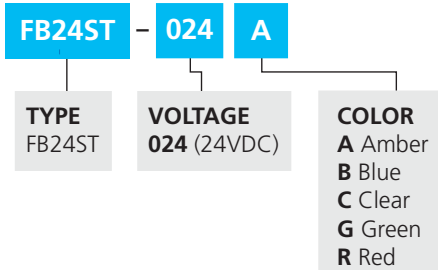
Fireball® Supervised Strobe Light (FB24ST)



SPECIFICATIONS

Lamp Life:	10,000 Hours	
Lamp Source:	Strobe	
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	1.45 lbs	0.7 kg
Shipping Weight:	1.7 lbs	0.8 kg
Height:	5.25"	133.4 mm
Diameter:	4.10"	104.1 mm

HOW TO ORDER



REPLACEMENT PARTS

Description	Part Number
Dome, Amber	K8550320A
Dome, Blue	K8550320A-01
Dome, Clear	K8550320A-02
Dome, Green	K8550320A-03
Dome, Red	K8550320A-04
Strobe Tube, Series A4, A5, B	K8107177A

OPTIONAL ACCESSORIES

Description	Part Number
Corner Bracket	LCMB2*
Wall Bracket	LWMB2

*Type 3R rated
Mounting Brackets shown on pages 138-141



► Model 154XST
**Hazardous Location
 Supervised Strobe Light**

Federal Signal's Model 154XST hazardous location strobe light is available in 24VDC with a 4-wire supervisable power circuit for fire alarm* and suppression supervised control panels.

This hazardous location warning light has an aluminum base, coated for corrosion resistance that is ready for surface mounting or mounting on a 3/4-inch pipe. The dome guard (included) fits over the glass dome to protect it against accidental collision with moving equipment, such as forklifts.

This warning light can be used for plant evacuation or other communication needs.

* Fire alarm applications are outside the scope of the UL and cUL certification, consult local Authorities Having Jurisdiction (AHJ)

F E A T U R E S

- Available in 24VDC
- Four wires and supervisory diode
- Five dome colors: Amber, Blue, Clear, Green and Red
- 10,000-hour high-intensity strobe
- 80 flashes per minute
- 520,000 peak candela (165 effective)
- 3/4-inch NPT pipe mount or surface mount options
- Dome guard included
- Conformal coated PCB
- Indoor/outdoor use
- Type 4X, IP66 enclosure
- IP69K compliant
- Marine Rated
- CSFM Approved
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 1, Groups E, F and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	CANDELA PEAK ¹	MOUNT
154XST-*012-024**	24VDC	0.60 amps	80	520,000	3/4" NPT pipe or surface

*Include (S) for Surface Mount Option (Example part number: 154XST-S012-024R for surface mount option, 154XST-012-024R for pipe mount)

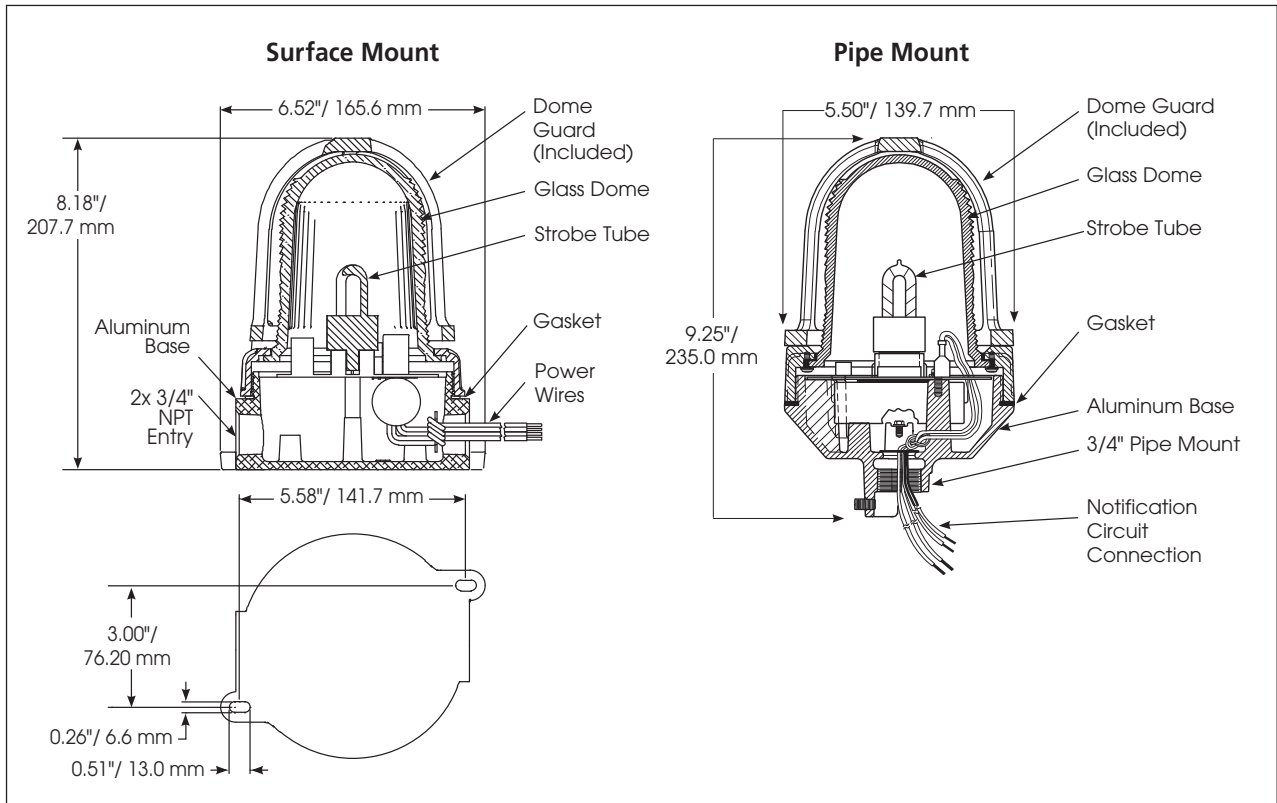
**Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

¹Peak candela is the maximum light intensity generated by a flashing light during its light pulse

HAZARDOUS LOCATION RATING: 154XST

HAZARDOUS LOCATION	T - CODE AT MAXIMUM AMBIENT TEMPERATURE, °C	
	40°C	65°C
Class I, Division 2, Groups A, B, C, D	T2	T1
Class II, Division 1, Groups E, F, G	T5	T5
Class III	T5	T5

Hazardous Location Supervised Strobe Light (154XST)



SPECIFICATIONS

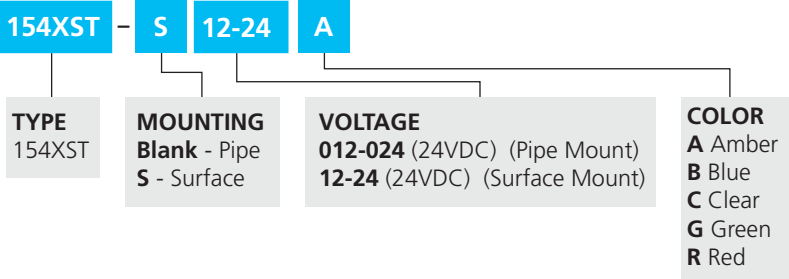
Lamp Life:	10,000 Hours
Lamp Source	Strobe
Operating Ambient Temperature:	-67°F to 150°F -55°C to 66°C
Net Weight:	3.8 lbs 1.7 kg
Shipping Weight:	4.5 lbs 2.0 kg
Height:	9.25" 235.0 mm
Diameter:	5.50" 139.7 mm

REPLACEMENT PARTS

Description	Part Number
Dome & Ring Assembly, Amber ¹	K8449078C-01
Dome & Ring Assembly, Blue ¹	K8449078C-06
Dome & Ring Assembly, Clear ¹	K8449078C-04
Dome & Ring Assembly, Green ¹	K8449078C-07
Dome & Ring Assembly, Red ¹	K8449078C
PC Assembly, 12-24VDC	K2001173C
Strobe Tube	K149122B
Guard	K8449090B

¹ Includes dome gasket

HOW TO ORDER





► Model 224XST

Electraray® Supervised Hazardous Location Strobe Light

Federal Signal's Electraray® Model 224XST hazardous location strobe light provides 80 high-intensity flashes per minute.

The 24VDC 224XST features an in-rush limiting PCB design that provides greater compatibility control systems and less electrical interference with in-rush sensitive devices.

Model 224XST is ideal for wet, corrosive atmospheres or environments that require wash down like those found in food processing, chemical or petro-chemical, or anywhere a highly visible hazardous location signal is needed.

FEATURES

- 24VDC
- Four wires and supervisory diode
- Integrated in-rush limiting circuit
- Five lens colors: Amber, Blue, Clear, Magenta and Red
- 10,000 hour, high-intensity strobe tube
- 1/2-inch NPT pipe mount
- Aluminum base with black polyurethane coating for superior corrosion resistance
- Conformal coated PCB
- Type 4X, IP66 enclosure
- IP69K compliant
- CSFM Approved
- CSA Certified
- UL and cUL Listed for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; and Class III

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	CANDELA PEAK ¹	ECP ²	MOUNT
224XST-024*	24VDC	0.7 amps (2.0 amp, in-rush)	80	580,000	240	1/2" NPT Pipe/Surface

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (M) Magenta or (R) Red

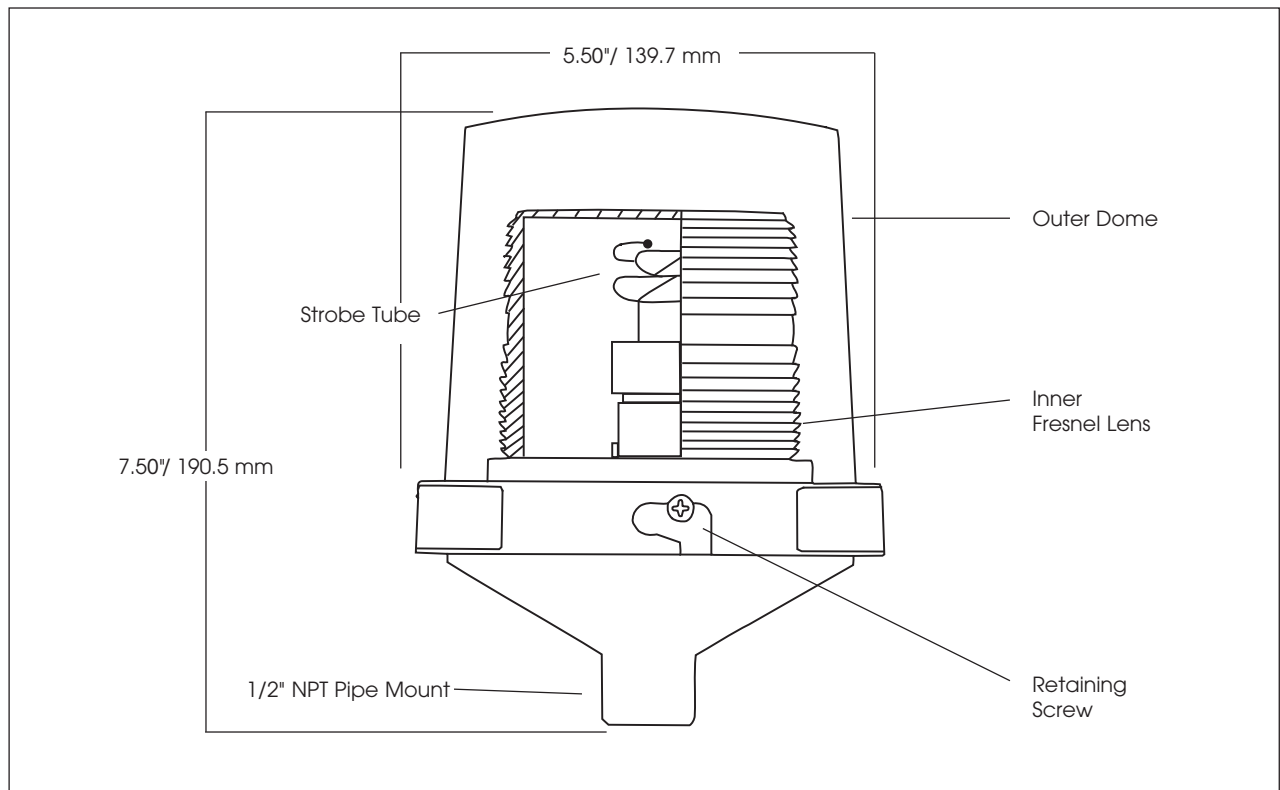
¹ Peak candela is the maximum light intensity generated by a flashing light during its light pulse

² ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

HAZARDOUS LOCATION RATING: 224XST

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C	
HAZARDOUS LOCATION	40°C
Class I, Division 2, Groups A, B, C, D	T2A
Class II, Division 2, Groups F, G	T5
Class III	T5

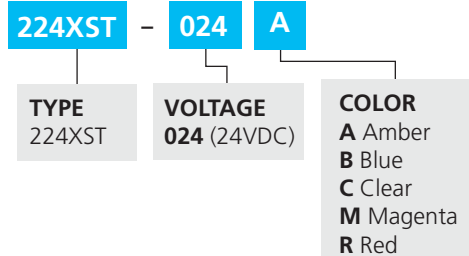
Electraray® Supervised Hazardous Location Strobe Light (224XST)



SPECIFICATIONS

Lamp Life:	10,000 Hours	
Lamp Source:	Strobe	
Operating Temperature:	-40°F to 104°F	-40°C to 40°C
Net Weight:	1.5 lbs	0.68 kg
Shipping Weight:	2.0 lbs	0.9 kg
Height:	7.50"	190.5 mm
Diameter:	5.50"	139.7 mm

HOW TO ORDER



REPLACEMENT PARTS

Description	Part Number
Interior Lens	
Amber	K8550C095A-02
Blue	K8550C095A-01
Clear	K8550C095A
Magenta	K8550C095A-07
Red	K8550C095A-03
Exterior Dome, Clear	K8444D219C-04
Strobe Tube	K8107177A



(Shown with ceiling mount)

► Model 24XST

Explosion-Proof Supervised Strobe Light



Federal Signal's Model 24XST Explosion-Proof Strobe Light produces 60 high-intensity flashes per minute. The 24XST features a current in-rush limiting PCB design to provide improved compatibility with in-rush sensitive devices. This design limits the peak in-rush to 2A and operates on only 0.71A, when powered by 24VDC. To synchronize strobe lights, purchase the Synchronization Module (SSM) separately.

Model 24XST can be paired with a pendant, ceiling or wall mount. The installation process is simple; by pre-installing the mounting box, the fixture can be simply threaded onto the mounting box, making an electrical connection when the threads are engaged.

Model 24XST offers a heavy duty, copper-free cast aluminum housing is sealed with a black powder coat paint. This unit is specifically designed for explosion-proof atmospheres and/or corrosive environments. The 24XST is ideal for use in areas such as oil rigs, mines, refineries, and chemical plants.

FEATURES

- Approved for mounting in any manner– including dome up
- Available in 24VDC
- Six lens colors: Amber, Blue, Clear, Green, Magenta and Red
- 10,000 hour strobe tube
- 3/4" NPT pendant, ceiling and wall mount options available
- Dome guard optional
- Conformal coated PCB
- Type 4X, IP66 enclosure
- IP69K compliant
- Marine Rated
- CSFM Approved
- UL and cUL Class I, Division 1, Groups C and D; Class I, Division 2, Groups A, B, C and D; Class II, Division 1, Groups E, F and G; Class III

MODEL	VOLTAGE	PEAK IN-RUSH	OPERATING CURRENT @ 24VDC	FLASH RATE / MINUTE	CANDELA ECP ²
24XST-024 *-MOD ¹	24VDC	2 amps	0.71 amps	60	280

*Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green, (M) Magenta or (R) Red

¹See "how to order" for mounting options

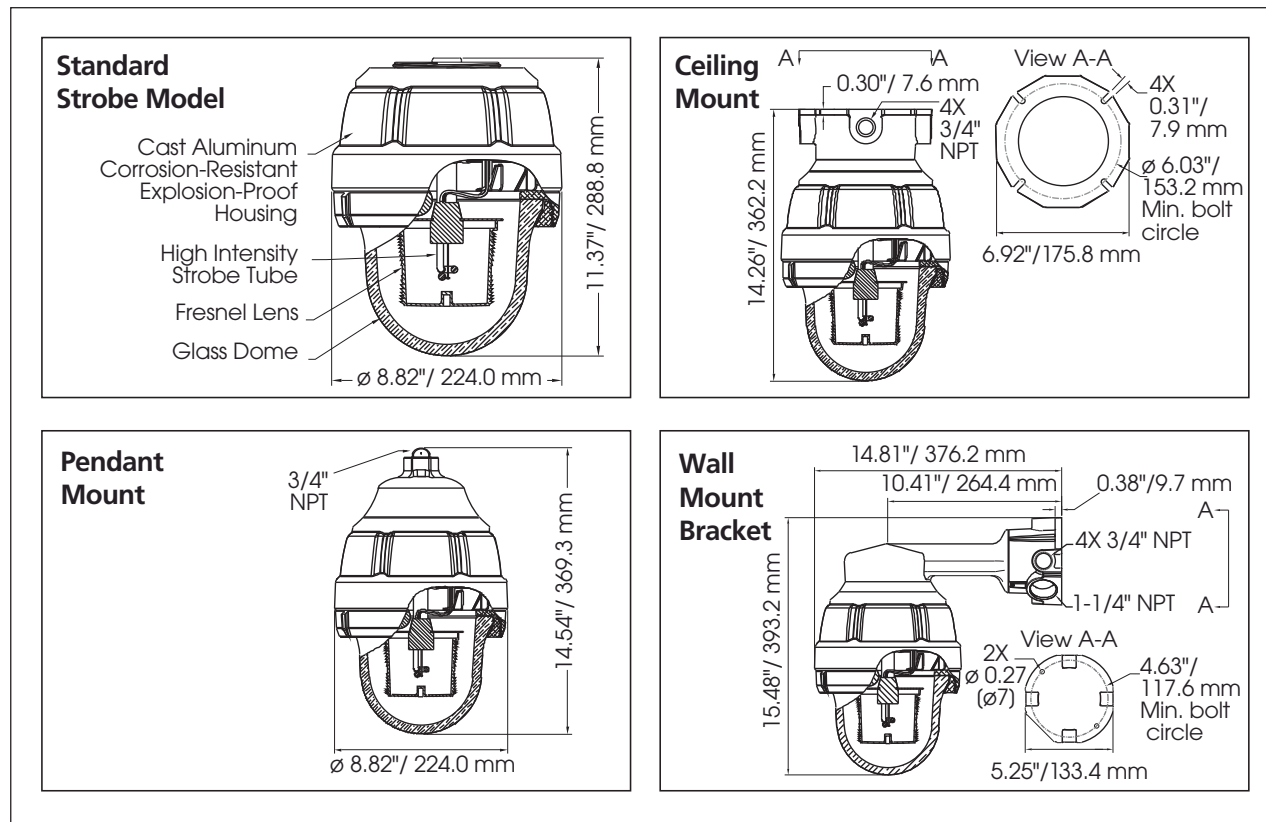
²ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

HAZARDOUS LOCATION RATING: 24XST

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C	65°C
Class I, Division 1, Groups C, D	T6	T4A
Class I, Division 2, Groups A, B, C, D	T2	T2
Class II, Division 1, Groups E, F, G	T6	T4A
Class III	T6	T4A

Explosion-Proof Supervised Strobe Light (24XST)



SPECIFICATIONS

Lamp Life:	10,000 Hours
Light Source:	Strobe tube
Operating Temperature Range:	-67°F to 150°F / -55°C to 65°C
Net Product Weight:	
Signal without Mounting:	13.9 lbs / 6.3 kg
Ceiling Mount:	4.5 lbs / 2.0 kg
Pendant Mount:	2.0 lbs / 0.9 kg
Wall Mount:	5.9 lbs / 2.7 kg

REPLACEMENT PARTS

Description	Part Number
Exterior Dome Assembly, Clear	K8436147A
Interior Lens Assembly, Amber	K8550C095A-02
Interior Lens Assembly, Blue	K8550C095A-01
Interior Lens Assembly, Clear	K8550C095A
Interior Lens Assembly, Green	K8550C095A-04
Interior Lens Assembly, Magenta	K8550C095A-07
Interior Lens Assembly, Red	K8550C095A-03
24VDC Mechanism	K8436107F-05
Strobe Tube	K8107159A

HOW TO ORDER

24XST - **024** **A** - **MOD**

TYPE
24XST

VOLTAGE
024 (24VDC)

COLOR
A Amber
B Blue
C Clear
G Green
M Magenta
R Red

Specify Optional Mounting:*

Description	Part Number
Ceiling Mount	CMXC-SB
Pendant Mount	PMXC-SB
Wall Mount	WMXC-SB

* Mounting kit must be ordered with unit, sold separately

OPTIONAL ACCESSORIES

Description	Part Number
Dome Guard	DGXC-SB
Strobe Synchronization Module	SSM



► Model 27XST-024*-4-MOD

Explosion-Proof Strobe Light

Model 27XST-024*-4-MOD explosion-proof supervised strobe light produces 80 high-intensity flashes per minute. This warning light operates on 24VDC and is unique to the market because it covers an entire range of possible mounting configurations – including dome up.

This model features a voltage in-rush limiting PCB design that provides greater compatibility with factory automation control systems and less electrical interference with in-rush sensitive devices. Corrosion resistance is achieved with a powder coat finish applied over the copper-free aluminum housing. It also has an effective candela (ECP) of 850 and a two million peak candela.

For easy installation, the mounting box is first installed and the fixture is then threaded onto the mounting box, making the electrical connection. Electrical continuity is made when five threads are engaged.

Model 27XST-024*-4-MOD is specifically designed for explosion-proof atmospheres and/or corrosive environments. Because it is easy to install and requires very low maintenance, it is ideal for use in areas such as oil rigs, mines, refineries, and chemical plants.

FEATURES

- Approved for mounting in any manner - including dome up
- Available in 24VDC
- Six lens colors: Amber, Blue, Clear, Green, Magenta and Red
- 10,000 hour strobe tube
- 3/4" NPT pendant, ceiling and wall mount options available
- Dome guard optional
- Conformal coated PCB
- Type 4X, IP66 enclosure
- IP69K compliant
- Marine Rated
- CSFM Approved
- UL and cUL Listed for Class I, Division 1, Groups C and D; Class I, Division 2, Groups A, B, C, and D; Class II, Division 1, Groups E, F, and G; Class III

MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	CANDELA PEAK ²	ECP ³
27XST-024*-4-MOD¹	24VDC	1.90 amps (3.0 amp In-rush)	80	2,000,000	850

* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red (Magenta available in 120VAC model only)

¹ See "how to order" for mounting options.

² Peak candela is the maximum light intensity generated by a flashing light during its light pulse

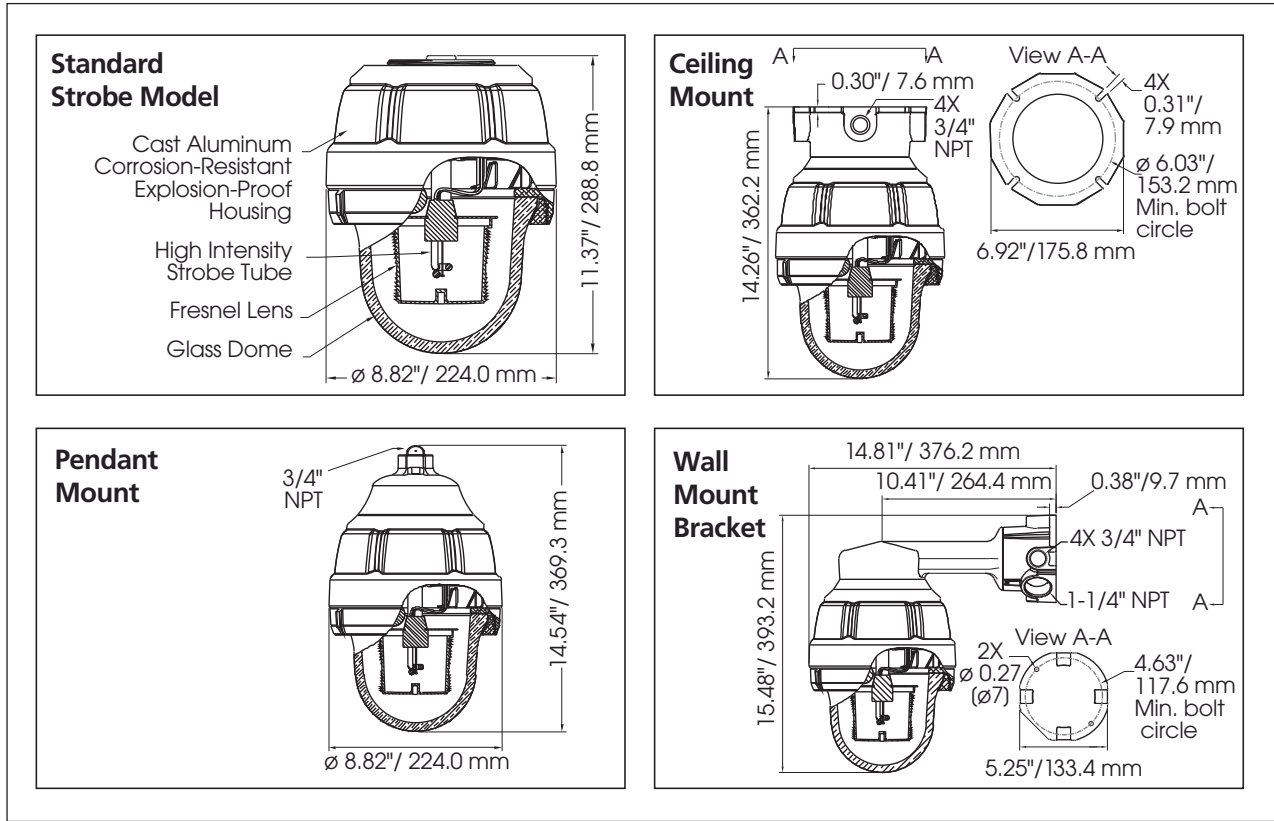
³ ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

HAZARDOUS LOCATION RATING: 27XST-024*-4-MOD

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C	65°C
Class I, Division 1, Groups C, D	T6	T4A
Class I, Division 2, Groups A, B, C, D	T2	T2
Class II, Division 1, Groups E, F, G	T6	T4A
Class III	T6	T4A

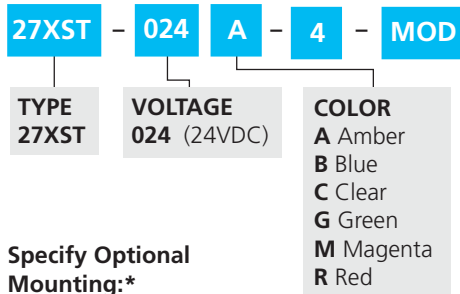
Explosion-Proof Strobe Light (27XST-024*-4-MOD)



SPECIFICATIONS

Lamp Life:	10,000 Hours
Light Source:	Strobe Tube
Operating Temperature:	-67°F to 150°F -55°C to 65°C
Net Product Weight	
Signal without Mounting:	13.9 lbs 6.3 kg
Ceiling Mount:	4.5 lbs 2.0 kg
Pendant Mount:	2.0 lbs 0.9 kg
Wall Mount:	5.9 lbs 2.7 kg

HOW TO ORDER



Specify Optional Mounting:*

Description	Part Number
Ceiling Mount	CMXC-SB
Pendant Mount	PMXC-SB
Wall Mount	WMXC-SB

* Mounting kit must be ordered with unit, sold separately

REPLACEMENT PARTS

Description	Part Number
Exterior Dome Assembly, Clear	K8436147A
Interior Lens Assembly, Amber	K8550C095A-02
Interior Lens Assembly, Blue	K8550C095A-01
Interior Lens Assembly, Clear	K8550C095A
Interior Lens Assembly, Green	K8550C095A-04
Interior Lens Assembly, Magenta	K8550C095A-07
Interior Lens Assembly, Red	K8550C095A-03
24VDC Mechanism	K8436107F-03
Strobe Tube	K8107159A

OPTIONAL ACCESSORIES

Description	Part Number
Dome Guard	DGXC-SB



(Shown with pendant mount)



► Model FSEX

Explosion-Proof Strobe Light

Federal Signal's Model FSEX explosion-proof strobe light produces 80 high-intensity flashes per minute. This warning light operates on 24VDC and is unique to the market because it covers an entire range of possible mounting configurations including dome up. This light is designed for use in alarm notification systems and is compatible with fire alarm and suppression supervised control panels and power boosters.

The 24VDC FSEX features a voltage in-rush limiting PCB design that provides greater compatibility with factory automation control systems and less electrical interference with in-rush sensitive devices.

Federal Signal's Model FSEX is specifically designed for explosion-proof atmospheres and/or corrosive environments. Because it is easy to install and requires very low maintenance, it is ideal for use in areas such as oil rigs, mines, refineries, and chemical plants.

FEATURES

- Approved for mounting in any manner—including dome up
- Synchronize with SSM module
- Four lens colors: Amber, Blue, Clear and Red
- 10,000 hour strobe tube
- 3/4" NPT pendant, ceiling and wall mount options available
- Dome guard optional
- Conformal coated PCB
- Type 4X, IP66 enclosure
- IP69K compliant
- Marine Rated
- CSFM Approved
- UL and cUL listed for Class I, Division 1, Groups C and D; Class I, Division 2, Groups A, B, C and D; Class II, Groups E, F and G; Class III

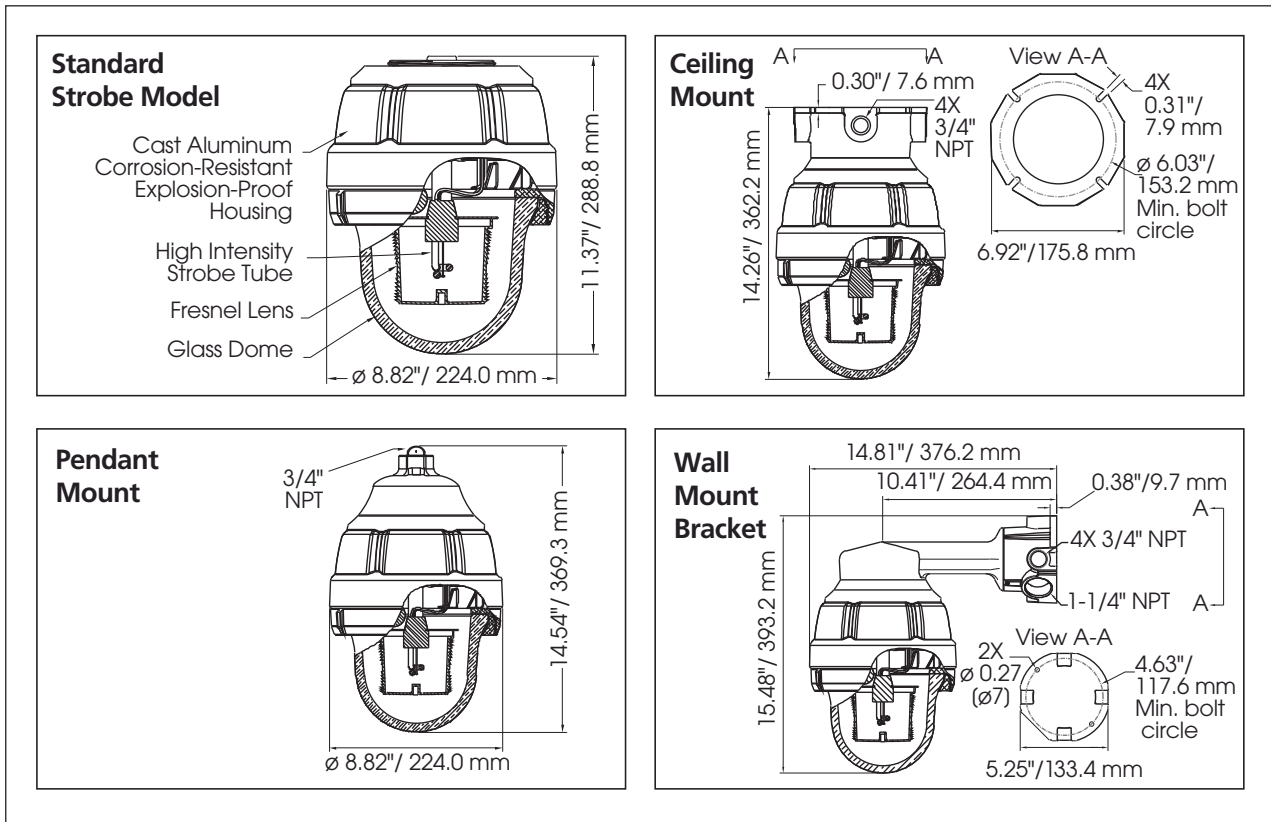
MODEL	VOLTAGE	OPERATING CURRENT	FLASH RATE/ MINUTE	CANDELA PEAK ²	ECP ³
FSEX-24PM *-MOD¹	24VDC	1.90 amps (3.0 amps in-rush)	80	2,000,000	850

* Indicates color: (A) Amber, (B) Blue, (C) Clear, or (R) Red
¹ See "how to order" for mounting options
² Peak candela is the maximum light intensity generated by a flashing light during its light pulse
³ ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

HAZARDOUS LOCATION RATING: FSEX

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C		
Hazardous Location	40°C	65°C
Class I, Division 1, Groups C, D	T6	T4A
Class I, Division 2, Groups A, B, C, D	T2	T2
Class II, Division 1, Groups E, F, G	T6	T4A
Class III	T6	T4A

Explosion-Proof Strobe Light (FSEX)



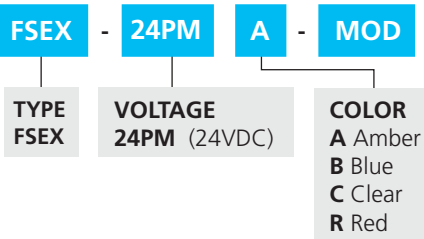
SPECIFICATIONS

Lamp Life:	10,000 Hours	
Light Source:	Strobe tube	
Operating Temperature:	-67°F to 150°F	-55°C to 65°C
Net Product Weight		
Signal without Mounting:	13.9 lbs	6.3 kg
Ceiling Mount:	4.5 lbs	2.0 kg
Pendant Mount:	2.0 lbs	0.9 kg
Wall Mount:	5.9 lbs	2.7 kg

REPLACEMENT PARTS

Description	Part Number
Exterior Dome Assembly, Red	K8436147A-01
Interior Lens Assembly, Amber	K8550C095A-02
Interior Lens Assembly, Blue	K8550C095A-01
Interior Lens Assembly, Clear	K8550C095A
Interior Lens Assembly, Red	K8550C095A-03
24VDC Mechanism	K8436107F-03
Strobe Tube	K8107159A
PC Assembly, 24VDC	K2001918B-01

HOW TO ORDER



OPTIONAL ACCESSORIES

Description	Part Number
Dome Guard	DGXC-SB
Strobe Synchronization Module	SSM

Specify Mounting:*

Description	Part Number
Ceiling Mount	CMXC-R-SB
Pendant Mount	PMXC-R-SB
Wall Mount	WMXC-4R-SB

* Mounting kit must be ordered with unit, sold separately



► Model FHEX

Explosion-Proof Vibrating Horn

Federal Signal's Model FHEX Explosion-Proof Vibrating Horn produces a loud and distinctive tone by the electromechanical vibration of a diaphragm. This horn is designed for use in alarm notification systems and is compatible with fire alarm and suppression supervised control panels and power boosters.

The Model FHEX operates on 24VDC and produces a very loud 99 dBa @ 10' (109 dBa @ 1m).

Model FHEX is housed in a heavy duty, copper-free cast aluminum housing tapped for 3/4" conduit. The housing is sealed with red powder coat paint and utilizes a stainless steel diaphragm for long life.

FEATURES

- 24VDC
- Produces 99 dBa @ 10' (109 dBa @ 1m)
- Supervisory diode and four wires
- Cast aluminum housings
- Duty cycle 5 minutes on – 5 minutes off
- CSFM Approved
- UL and cUL Listed for Class I, Division 1, Groups C and D; Class II, Division 1, Groups E, F, and G; Class III

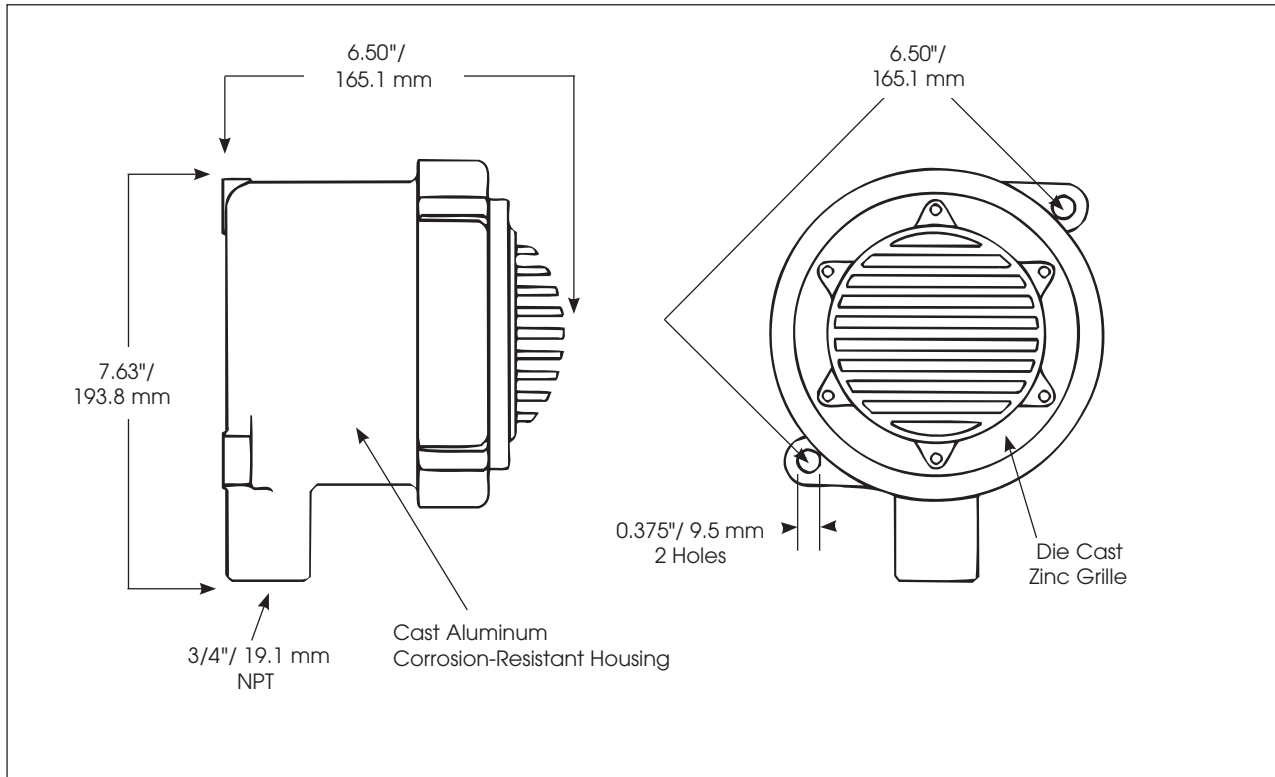
MODEL	VOLTAGE	OPERATING CURRENT	SPL PER UL 1480	
			10'	1M
FHEX-24SMR	24VDC	1.20 amps	99 dBa	109 dBa

HAZARDOUS LOCATION RATING: FHEX

T-CODE AT MAXIMUM AMBIENT TEMPERATURE, °C

Hazardous Location	40°C
Class I, Division 1, Groups C, D	T6
Class II, Division 1, Groups E, F, G	T6
Class III	T6

Explosion-Proof Vibrating Horn (FHEX)



SPECIFICATIONS

Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	9.0 lbs	4.1 kg
Shipping Weight:	10.3 lbs	4.7 kg
Height:	7.63"	193.8 mm
Depth:	6.50"	165.1 mm
Diameter:	6.50"	165.1 mm

HOW TO ORDER

Specify Model:

FHEX-24SMR – Explosion-Proof Vibrating Horn



► Model MPEX

Explosion-Proof Fire Alarm Pull Station

Model MPEX Explosion-Proof Pull Station is designed for hazardous locations where flammable gases, vapors, combustible dusts or easily ignitable fibers are present. The unique swing-up front cover exposes a pull-down ring which activates the alarm; this two-step process prevents accidental activation. MPEX is reset by depressing the shaft and returning the plate to its original position.

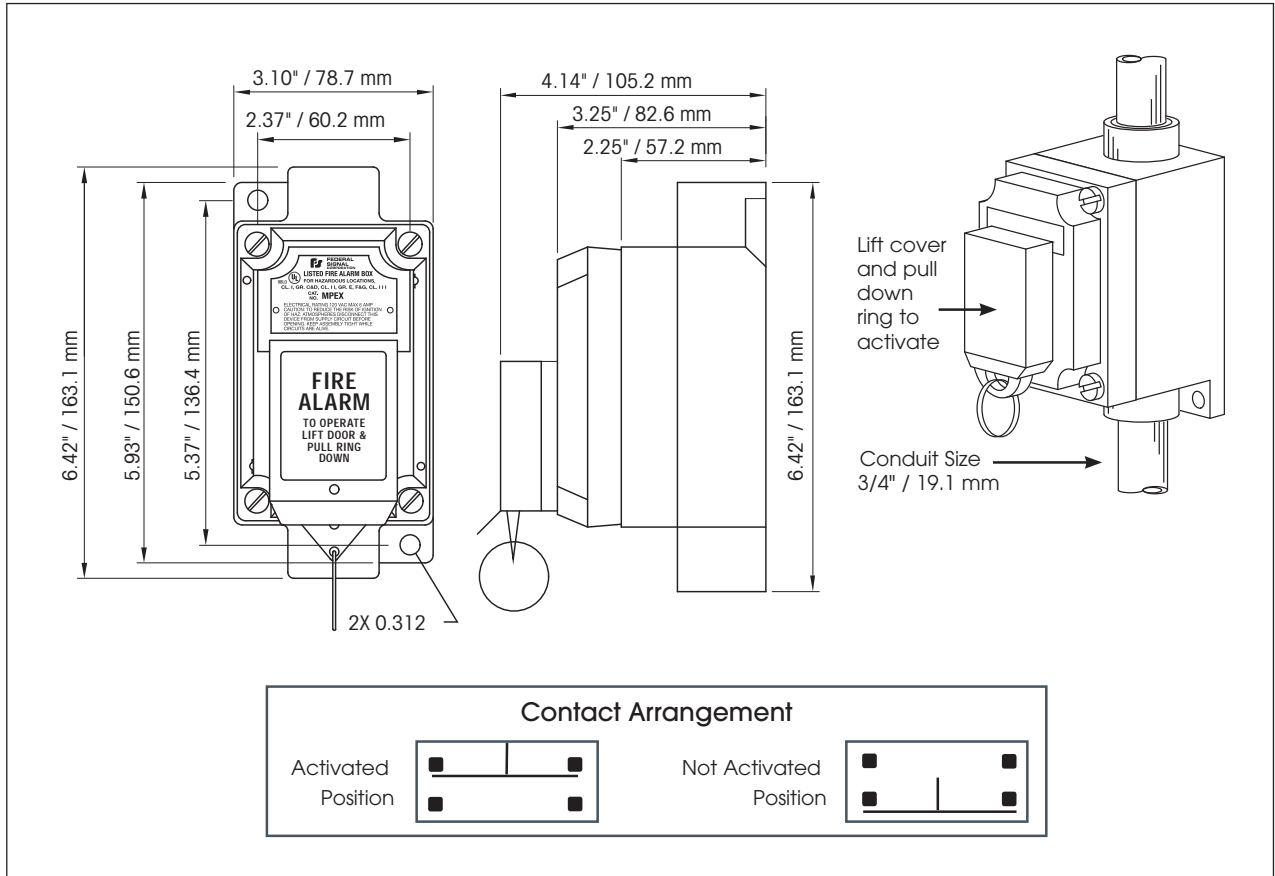
The enclosure is made of copper-free cast aluminum alloy.



FEATURES

- Contacts on the unit are rated 120VAC, 60Hz at 6 amps continuous
- Highly visible red enclosure
- Lift cover and pull down ring to activate
- 2 - 3/4" conduit entry
- CSFM Approved
- UL and cUL Listed for Class I, Division 1, Groups C and D; Class II, Division 1, Groups E, F and G; Class III
- NEMA 7 for Groups C and D and NEMA 9 for Groups E, F and G
- UL Fire Listed and ULC Fire Listed

Explosion-Proof Fire Alarm Pull Station (MPEX)



SPECIFICATIONS

Operating Temperature:	-13°F to 104°F	-25°C to 40°C
Net Weight:	2.4 lbs	1.09 kg
Shipping Weight:	2.7 lbs	1.23 kg
Height:	6.42"	163.1 mm
Width:	3.10"	78.7 mm
Depth:	4.14"	105.2 mm

HOW TO ORDER

Specify Model:
MPEX – Explosion-Proof Pull Station



► Model SSM

Synchronous Strobe Module

Model SSM, Synchronous Strobe Module, is an electronic timing mechanism designed to energize select Federal Signal low in-rush 24VDC strobe lights simultaneously, while maintaining the ability to remotely supervise the strobe light circuit. This module is designed to synchronize a special series of Federal Signal strobe lights, which meet the requirement for Private-Mode Fire Alarm use, while maintaining the agency approval and environmental rating of the strobe light. The SSM is only compatible with Federal Signal brand strobe lights. See compatible models on the “How to Order” page.

Model SSM enables the customer to meet local building codes through a visually appealing “single-flash” created by the simultaneous control of strobe lights connected to it. Mixed signals are reduced to a minimum as reflection of many light pulses are now viewed as one single flash.

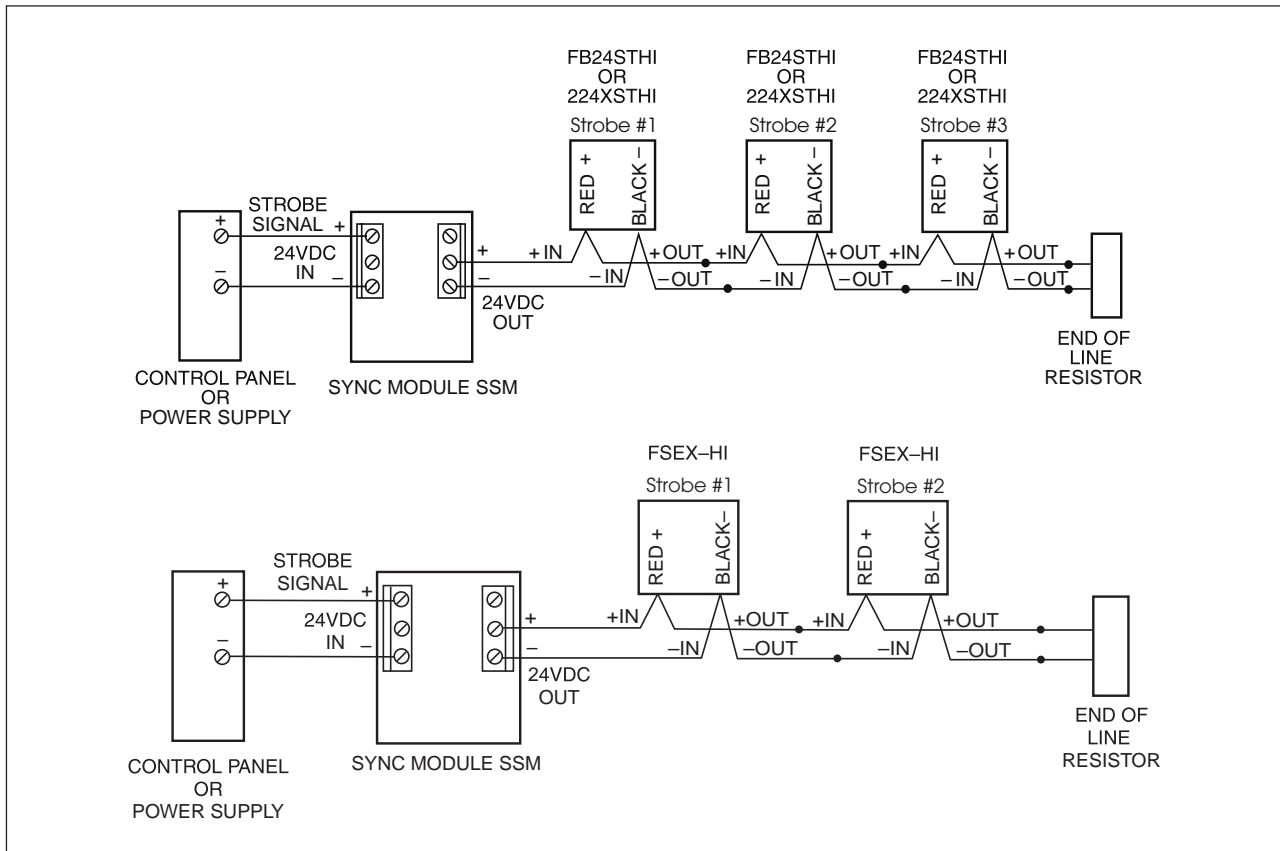
Model SSM mounts to the plaster ring of a double-gang electrical box, and requires 24VDC at all times to operate the timing circuit. Screw terminals are provided for field termination of control wiring and a maximum of three non-explosion-proof strobe lights or two explosion-proof strobe lights may be connected to each SSM. Electrically, the SSM should be mounted in the middle of the circuit, with a maximum cable distance of 100' from the SSM to each strobe light. Supervision is accomplished the same as without the SSM, with a flash rate of 72 flashes per minute in lieu of the advertised flash rate for each strobe light. Model SSM is capable of switching 6 amps of current. Please note: Not all strobe lights have the same in-rush current and therefore the SSM circuit’s switching potential may be reduced. Please see the application drawings on the next page.

FEATURES

- Synchronizes strobe lights to 72 flashes per minute
- Mounts on double-gang electrical box
- UL1971 Approved for hearing impaired applications
- Polarized design allows for remote supervision
- Compatible with select Federal Signal model strobe lights (see chart)

MODEL	VOLTAGE	OPERATING CURRENT
SSM	24VDC	0.95 amps

Synchronous Strobe Module (SSM)



SPECIFICATIONS

Operating Temperature:	32°F to 120°F	0°C to 49°C
Net Weight:	0.53 lbs.	0.24 kg
Shipping Weight:	0.93 lbs.	0.42 kg
Height:	4.50"	114.3 mm
Width:	4.50"	114.3 mm
Depth:	1.12"	28.4 mm

COMPATIBLE STROBE LIGHTS

224XST-024*	Series C	3 per circuit
225XST-I-024*	Series B	3 per circuit
FB2PST-I-024*	Series B	3 per circuit
FB24ST-024*	Series B	3 per circuit
FB24ST-HI-024*	Series C	3 per circuit
224XST-HI-024*	Series B	3 per circuit
FSEX-HI-024*	Series D	2 per circuit
FSEX-024*	Series D	2 per circuit
27XST-024*	Series E	2 per circuit

*Compatible with any color offered per model

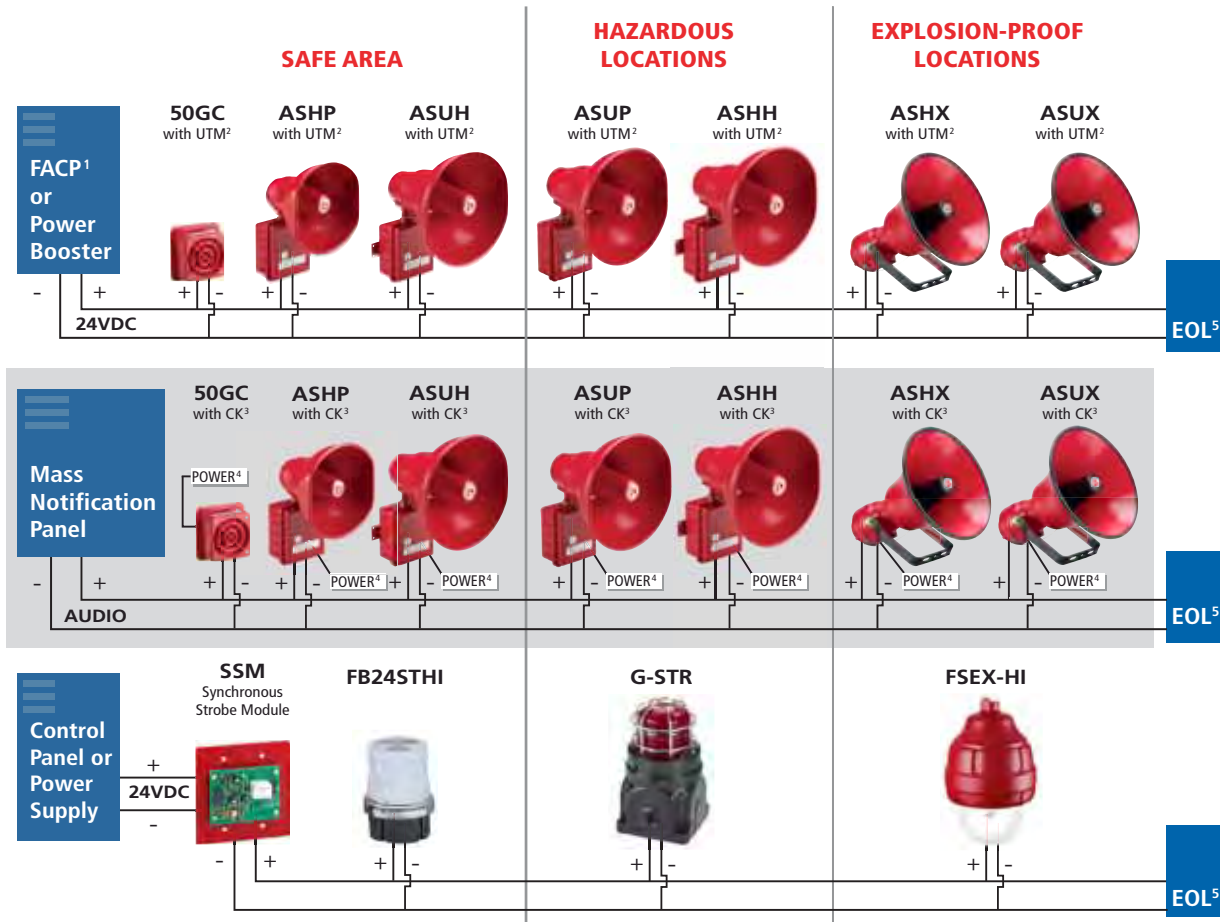
HOW TO ORDER

Specify Model:

SSM – Synchronous Strobe Module



Typical Application Configurations for Fire Alarm Product



¹ FACP – Fire Alarm Control Panel

² UTM – Federal Signal “Universal Tone Module” utilized for on-board tones

³ CK – Federal Signal “Connector Kit” utilized for centralized distributed audio

⁴ Power – Each device requires discrete 24VDC power from either the FACP or a centralized uninterrupted power supply that is in compliance with NFPA72

⁵ EOL – End Of Line resistor

All Federal Signal fire alarm devices contain either 4-lead wire or 4-wiring terminals to facilitate loop in/loop out wiring and internal blocking diodes, or capacitors required for proper FACP supervision.

The FACP or Power Booster configuration utilizes tones onboard the signaling device and distributed power. The devices are wired in a standard loop in/loop out wiring arrangement connecting each device in parallel. These self amplified speakers utilize an onboard UTM (Universal Tone Module) to generate a preselected tone when power is applied from the FACP (Fire Alarm Control Panel) or Power Booster. An EOL (End of Line Resistor) completes the circuit and allows the FACP to supervise the power line and monitor for breaks in the line. If the circuit is broken the FACP will indicate a break, devices downstream of the break will be rendered inactive.

The Mass Notification Panel configuration utilizes centralized distributed audio for tone and voice messaging. The audio signal is wired using a standard loop in/loops out arrangement connecting each device in parallel. Discrete power is required for each device from the FACP or a compliant NFPA72 UPS. An EOL (End of Line Resistor) completes the circuit and allows the FACP to supervise the audio line and monitor for breaks. If the circuit is broken, the FACP will indicate a break and devices downstream of the break will be rendered inactive.

The Control Panel or Power Supply configuration utilizes a standard parallel wiring arrangement for visual signaling devices. If the visual signals are within line of sight of each other, a SSM (Strobe Sync Module) is necessary to synchronize the lights in compliance with NFPA72 regulations (consult NFPA regulations for additional details). An EOL (End of Line Resistor) completes the circuit, allowing the FACP to supervise the main power line and monitor for breaks in the line. If the circuit is broken, the FACP will indicate a break and devices downstream of the break will be rendered inactive.

How To Choose An Audible Signal

Purpose Ambient Noise Coverage

When choosing a signal for an application, remember the acronym PAC. If you determine a signal's purpose, the ambient noise of the environment and the area of coverage that is needed, you will be able to fit the right device to your application.

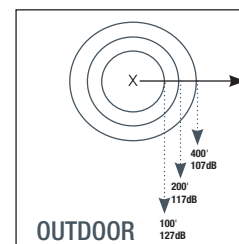
Purpose

Determine whether the signal will be used for the monitoring of a process or for emergency notification (fire, chlorine leak, natural disasters). Study operational uses such as start/stop work, coded paging and voice messages. Also, the type of duty cycle (i.e.: time device is on vs. time off) will determine what device is best suited for a given application.

Ambient Noise Coverage

Ambient noise levels and the frequency (low or high) are critical in determining the type of device to be recommended. Most facilities will have already recorded this information for OSHA compliance.

How big of an area is to be covered? Coverage requirements dictate the type(s) and number of devices that will be needed. A plot plan of the plant or a blueprint of the building can be very helpful in determining area of coverage, and help analyze what obstructions might be a factor in complete plant coverage.



Measuring Sound

The following chart demonstrates the role distance plays in the "loudness" of an audible signal. Most of our devices are measured at a distance of 10 feet (on axis); Outdoor Warning Sirens are measured at 100 feet (on axis). This gives us a common point for comparison.

To understand the range of these devices, use a 6 dB loss per distance doubled for the regular devices and a 10 dB loss per distance doubled for outdoor sirens.

For example, a regular device produces 6 dB less at a distance of 20' than at 10'. An outdoor warning device is 10 dB less at 200' than at 100'.

Outdoor Warning System Design Considerations

- Outdoor sirens can be easily linked to your indoor system, and offer an economical alternative to wide area outdoor coverage.
- Outdoor sirens can be easily activated by radio control, thus eliminating the need for hard-wire hook-ups.
- The critical functions of an outdoor siren can be monitored using 2-way status monitoring equipment.
- A battery back-up power supply can make your system more reliable and flexible.
- Encoders and decoders offer a high level of activation security when using radio control.

Federal Signal designs, manufactures & engineers Systems containing any or all of these components.

Federal Signal Can Help...

Federal Signal's highly trained field sales force have the expertise to help you design a signalling communication system that fits your unique needs. Let us assist you in making your facility a more productive and safe place to work.

We Can Help You:

- Comply with OSHA Standard 1910.165 — Employee Alarm Systems
- Expand your PA System without purchasing a new amplifier
- Tie your phone system to your evacuation/paging system
- Zone your in-plant communication systems
- Save on installation costs with wireless solutions
- Increase productivity and reduce downtime with simple signalling solutions

... and much more. Call (708) 534-4756 to arrange for a plant walk through and system design.



Decibels Reference Chart

DECIBELS (IN FEET)

PRODUCT	10'	20'	40'	80'	160'	320'	640'	1280'
6H	122	116	110	104	98	92	86	80
EHORN	117	111	105	99	93	87	81	71
ESIREN	115	109	103	97	91	85	79	73
52	114	108	102	96	90	84	78	72
302GC	114	108	102	96	90	84	78	72
302GCX	114	108	102	96	90	84	78	72
302X	114	108	102	96	90	84	78	72
AM302	114	108	102	96	90	84	78	72
AM302GCX	114	108	102	96	90	84	78	72
ASUX	114	108	102	96	90	84	78	72
314GC	112	106	100	94	88	82	76	70
314GCX	112	106	100	94	88	82	76	70
314X	112	106	100	94	88	82	76	70
3H	112	106	100	94	88	82	76	70
AM302X	112	106	100	94	88	82	76	70
ASUH	112	106	100	94	88	82	76	70
ASUP	112	106	100	94	88	82	76	70
L	112	106	100	94	88	82	76	70
SST3-MV	111	105	99	93	87	81	75	
300	110	104	98	92	86	80	74	
300GC	110	104	98	92	86	80	74	
300GCX	110	104	98	92	86	80	74	
300X	110	104	98	92	86	80	74	
AM15XD2	110	104	98	92	86	80	74	
AM300	110	104	98	92	86	80	74	
AM300GCX	110	104	98	92	86	80	74	
ASHX	110	104	98	92	86	80	74	
SST3GCX-MV	110	104	98	92	86	80	74	
304GC	108	102	96	90	84	78	72	
304GCX	108	102	96	90	84	78	72	
304X	108	102	96	90	84	78	72	
ASHH	108	102	96	90	84	78	72	
ASHP	108	102	96	90	84	78	72	
SSTX3-MV	108	102	96	90	84	78	72	
56	106	100	94	88	82	76	70	
AM300X	106	100	94	88	82	76	70	
55	105	99	93	87	81	75		

DECIBELS (IN METERS)

3	6	12	25	50	100	200	400
122	116	110	104	98	92	86	80
117	111	105	99	93	87	81	71
115	109	103	97	91	85	79	73
114	108	102	96	90	84	78	72
114	108	102	96	90	84	78	72
114	108	102	96	90	84	78	72
114	108	102	96	90	84	78	72
114	108	102	96	90	84	78	72
114	108	102	96	90	84	78	72
114	108	102	96	90	84	78	72
112	106	100	94	88	82	76	70
112	106	100	94	88	82	76	70
112	106	100	94	88	82	76	70
112	106	100	94	88	82	76	70
112	106	100	94	88	82	76	70
112	106	100	94	88	82	76	70
112	106	100	94	88	82	76	70
111	105	99	93	87	81	75	
110	104	98	92	86	80	74	
110	104	98	92	86	80	74	
110	104	98	92	86	80	74	
110	104	98	92	86	80	74	
110	104	98	92	86	80	74	
110	104	98	92	86	80	74	
110	104	98	92	86	80	74	
110	104	98	92	86	80	74	
108	102	96	90	84	78	72	
108	102	96	90	84	78	72	
108	102	96	90	84	78	72	
108	102	96	90	84	78	72	
108	102	96	90	84	78	72	
108	102	96	90	84	78	72	
106	100	94	88	82	76	70	
106	100	94	88	82	76	70	
105	99	93	87	81	75		

Decibels Reference Chart

DECIBELS (IN FEET)

PRODUCT	10'	20'	40'	80'	160'	320'	640'	1280'
SLM600	105	99	93	87	81	75		
SLM800	105	99	93	87	81	75		
A	103	97	91	85	79	73		
10" Bell	102	96	90	84	78	72		
350	100	94	88	82	76	70		
31X/41X	100	94	88	82	76	70		
350TR	100	94	88	82	76	70		
350WB	100	94	88	82	76	70		
350WBX	100	94	88	82	76	70		
6" Bell	100	94	88	82	76	70		
LP4	100	94	88	82	76	70		
LP7	100	94	88	82	76	70		
TELC	100	94	88	82	76	70		
TELH	100	94	88	82	76	70		
450E	99	93	87	81	75	69		
450EWBX	99	93	87	81	75	69		
FHEX	99	93	87	81	75	69		
4" Bell	98	92	86	80	74			
TELB	98	92	86	80	74			
G-SND	98	92	86	80	74			
G-SPA	96	90	84	78	72			
G-SPK	96	90	84	78	72			
SLM500	95	89	83	77	71			
SLM700	95	89	83	77	71			
50GC	88	82	76	70				
50GCB	88	82	76	70				
AM50	87	81	75	69				
AV1-LED	85	79	73					
AV1ST	85	79	73					
MSS	85	79	73					
RSL	80	74						
LSH	77	71						
PMC	75	69						
PMAMT	75	69						
PMA	60							
USIS	60							
BACK-UP ALARMS								
	4'	8'	16'	32'	64'			
252	97	91	85	79	73			
253	107	101	95	89	83			

DECIBELS (IN METERS)

3	6	12	25	50	100	200	400
105	99	93	87	81	75		
105	99	93	87	81	75		
103	97	91	85	79	73		
102	96	90	84	78	72		
100	94	88	82	76	70		
100	94	88	82	76	70		
100	94	88	82	76	70		
100	94	88	82	76	70		
100	94	88	82	76	70		
100	94	88	82	76	70		
100	94	88	82	76	70		
100	94	88	82	76	70		
100	94	88	82	76	70		
100	94	88	82	76	70		
99	93	87	81	75	69		
99	93	87	81	75	69		
99	93	87	81	75	69		
98	92	86	80	74			
98	92	86	80	74			
98	92	86	80	74			
96	90	84	78	72			
96	90	84	78	72			
95	89	83	77	71			
95	89	83	77	71			
88	82	76	70				
88	82	76	70				
87	81	75	69				
85	79	73					
85	79	73					
85	79	73					
80	74						
77	71						
75	69						
75	69						
60							
60							



► National Electrical Manufacturers Association

NEMA Ratings

Type Indicates

- 1 **General Purpose, Indoor** — To prevent accidental contact of personnel with the enclosed equipment in areas where unusual service conditions do not exist. Provides protection against falling dirt.
- 2 **Drip-Proof, Indoor** — Similar to Type 1, but also protects against falling non-corrosive liquids and falling dirt. Drainage provisions provided.
- 3 **Dust-Tight, Rain-Tight, Sleet-Resistant, Outdoor** — Protected against windblown dust and water.
- 3R **Rainproof, Sleet-Resistant, Outdoor** — Protected against rain.
- 3S **Dust-Tight, Rain-Tight and Sleet-Proof, Outdoor** — Protected against windblown dust and water, remains operable when covered by external ice or sleet. (Not protected against internal icing.)
- 4 **Water-Tight and Dust-Tight, Indoor and Outdoor** — Protected against wind-blown dust and rain, splashing water, seepage water, falling or hose-directed water, and severe external condensation. Mountings are external to cavity.
- 4X **Water-Tight, Dust-Tight, Indoor and Outdoor** — Same as Type 4 but also corrosion-resistant. Passes 200 hour salt spray (fog) test.

Ingress Protection

IP Ratings

Prefix	First #	SOLIDS	Prefix	Second #	WATER
IP	0	No Protection	IP	0	No Protection
IP	1	Over 50mm	IP	1	Dripping
IP	2	Over 12mm	IP	2	Dripping when tilted up to 15°
IP	3	Over 2.5mm	IP	3	Spraying when tilted up to 60°
IP	4	Over 1.0mm	IP	4	Splashing
IP	5	Dust, limited ingress from all directions	IP	5	Low pressure jets
IP	6	Total protection against dust	IP	6	Strong jets
			IP	7	Temporary immersion
			IP	8	Prolonged immersion
			IP	9K	Close range high-pressure and temperature spray-down

National Electrical Code

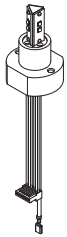
NEC Ratings For Federal Signal Products

CLASS	GROUP	ATMOSPHERES CONTAINING:	DIVISION 1	DIVISION 2
I	A	Acetylene		121X, 151XST, 154XST, 154XSTHI, 191XL, 224XST, 224XST-HI, 225X, 225XL, 225XST, 225XST-I, 24XST, 24XSTHI, 27XL, 27XST, 300GCX, 300X, 302GCX, 302X, 304GCX, 304X, 310X-MV, 314GCX, 314X, 31X, 350WBX, 371DST, 371LEDX, 41X, 450EWBX, AM15XD2, AM300GCX, AM300X, AM302GCX, AM302X, ASHH, ASHX, ASUH, ASUX, E1, E2, FHEX, FSEX, FSEX-HI, G-LED, G-SND, G-SPA, G-SPK, G-STR, SST3GCX-MV, SSTX3-MV, USIX
I	B	Butadiene, Ethylene Oxides, Hydrogen, manufactured gases containing more than 30% Hydrogen (by volume), or Propylene Oxide.	300X, 302X, 304X, 314X, AM300X, AM302X, ASHX, ASUX, SSTX3-MV	121X, 151XST, 154XST, 154XSTHI, 191XL, 224XST, 224XST-HI, 225X, 225XL, 225XST, 225XST-I, 24XST, 24XSTHI, 27XL, 27XST, 300GCX, 300X, 302GCX, 302X, 304GCX, 304X, 310X-MV, 314GCX, 314X, 31X, 350WBX, 371DST, 371LEDX, 41X, 450EWBX, AM15XD2, AM300GCX, AM300X, AM302GCX, AM302X, ASHH, ASHX, ASUH, ASUX, E1, E2, FHEX, FSEX, FSEX-HI, G-LED, G-SND, G-SPA, G-SPK, G-STR, SST3GCX-MV, SSTX3-MV, USIX
I	C	Acetaldehyde, Cyclopropane, Diethyl Ether, Ethylene or Unsymmetrical Dimethyl Hydrazine (UDMH)	121X, 24XST, 24XSTHI, 27XL, 27XST, 300X, 302X, 304X, 314X, 31X, 41X, AM300X, AM302X, ASHX, ASUX, E1, FSEX, FSEX-HI, MPEX, SSTX3-MV	121X, 151XST, 154XST, 154XSTHI, 191XL, 224XST, 224XST-HI, 225X, 225XL, 225XST, 225XST-I, 24XST, 24XSTHI, 27XL, 27XST, 300GCX, 300X, 302GCX, 302X, 304GCX, 304X, 310X-MV, 314GCX, 314X, 31X, 350WBX, 371DST, 371LEDX, 41X, 450EWBX, AM15XD2, AM300GCX, AM300X, AM302GCX, AM302X, ASHH, ASHX, ASUH, ASUX, E1, E2, FHEX, FSEX, FSEX-HI, G-LED, G-SND, G-SPA, G-SPK, G-STR, SST3GCX-MV, SSTX3-MV, USIX
I	D	Acetone, Acrylonitrile, Ammonia, Benzene, Butane Butanol (Butyl Alcohol), Butanol (Secondary Butyl Alcohol), N-Butyl Acetate, Isobutyl Acetate, Ethane, Ethanol (Ethyl Alcohol), E Ethylene Dichloride, Gasoline, Heptanes, Hexanes, Isoprene Methane (Natural Gas), Methanol Ethyl Ketone, Methyl Isobutyl Ketone, Methyl Propanol (Isobutyl Alcohol), Methyl Propanol (Certiary Butyl Alcohol), Petroleum Naphtha, Octanes, Pentanes, Pentanol (Amyl Alcohol), Propane, Propanol (Propyl Alcohol), Propanol (Isopropyl Alcohol), Propylene, Styrene, Toluene, Vinyl Acetate, Vinyl Chloride or Xylenes.	121X, 24XST, 24XSTHI, 27XL, 27XST, 300X, 302X, 304X, 314X, 31X, 41X, AM300X, AM302X, ASHX, ASUX, E1, FSEX, FSEX-HI, MPEX, SSTX3-MV	121X, 151XST, 154XST, 154XSTHI, 191XL, 224XST, 224XST-HI, 225X, 225XL, 225XST, 225XST-I, 24XST, 24XSTHI, 27XL, 27XST, 300GCX, 300X, 302GCX, 302X, 304GCX, 304X, 310X-MV, 314GCX, 314X, 31X, 350WBX, 371DST, 371LEDX, 41X, 450EWBX, AM15XD2, AM300GCX, AM300X, AM302GCX, AM302X, ASHH, ASHX, ASUH, ASUX, E1, E2, FHEX, FSEX, FSEX-HI, G-LED, G-SND, G-SPA, G-SPK, G-STR, SST3GCX-MV, SSTX3-MV, USIX
II	E	Metal Dust including Aluminum, Magnesium and their commercial alloys, and other metals of similar hazardous characteristics	121X, 151XST, 154XST, 154XSTHI, 191XL, 24XST, 24XSTHI, 27XL, 27XST, 31X, 41X, E1, FHEX, FSEX, FSEX-HI, MPEX	
II	F	Carbon Black, Charcoal, Coal or Coke Dust	121X, 151XST, 154XST, 154XSTHI, 191XL, 24XST, 24XSTHI, 27XL, 27XST, 31X, 41X, E1, FHEX, FSEX, FSEX-HI, MPEX	121X, 151XST, 154XST, 154XSTHI, 191XL, 224XST, 224XST-HI, 225X, 225XL, 225XST, 225XST-I, 24XST, 24XSTHI, 27XL, 27XST, 300GCX, 300X, 302GCX, 302X, 304GCX, 304X, 310X-MV, 314GCX, 314X, 31X, 350WBX, 371DST, 371LEDX, 41X, 450EWBX, AM15XD2, AM300GCX, AM300X, AM302GCX, AM302X, ASHH, ASHX, ASUH, ASUX, E1, E2, FHEX, FSEX, FSEX-HI, G-LED, G-SND, G-SPA, G-SPK, G-STR, SST3GCX-MV, SSTX3-MV, USIX
II	G	Flour, Starch, Wood or Grain Dust	121X, 151XST, 154XST, 154XSTHI, 191XL, 24XST, 24XSTHI, 27XL, 27XST, 31X, 41X, E1, FHEX, FSEX, FSEX-HI, MPEX	121X, 151XST, 154XST, 154XSTHI, 191XL, 224XST, 224XST-HI, 225X, 225XL, 225XST, 225XST-I, 24XST, 24XSTHI, 27XL, 27XST, 300GCX, 300X, 302GCX, 302X, 304GCX, 304X, 310X-MV, 314GCX, 314X, 31X, 350WBX, 371DST, 371LEDX, 41X, 450EWBX, AM15XD2, AM300GCX, AM300X, AM302GCX, AM302X, ASHH, ASHX, ASUH, ASUX, E1, E2, FHEX, FSEX, FSEX-HI, G-LED, G-SND, G-SPA, G-SPK, G-STR, SST3GCX-MV, SSTX3-MV, USIX
III		All models approved for Class I and II are also approved for use in Class III		

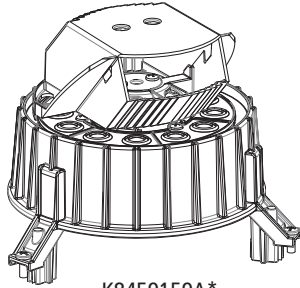


► Replacement Lamps

LED LAMPS



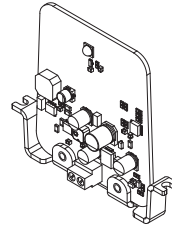
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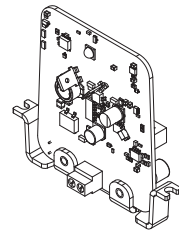
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K2005633A*



K20000401A*

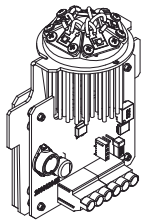


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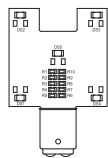
Part	Description	Voltage	Applicable Models
K14700030A-A	LED Module, Amber	All Voltages	191XL, 225XL, 27XL, LEDD
K14700030A-B	LED Module, Blue	All Voltages	191XL, 225XL, 27XL, LEDD
K14700030A-G	LED Module, Green	All Voltages	191XL, 225XL, 27XL, LEDD
K14700030A-R	LED Module, Red	All Voltages	191XL, 225XL, 27XL, LEDD
K14700030A-W	LED Module, White	All Voltages	191XL, 225XL, 27XL, LEDD
K14700030A-Y	LED Module, Yellow	All Voltages	191XL, 225XL, 27XL, LEDD
K8459159A-A	LED PCBA Motor Module, Amber	120V	371LED, 371LEDX
K8459159A-B	LED PCBA Motor Module, Blue	120V	371LED, 371LEDX
K8459159A-G	LED PCBA Motor Module, Green	120V	371LED, 371LEDX
K8459159A-R	LED PCBA Motor Module, Red	120V	371LED, 371LEDX
K8459159A-W	LED PCBA Motor Module, White	120V	371LED, 371LEDX
K2005633A-A	LED PCBA, Amber	All Voltages	AV1-LED
K2005633A-B	LED PCBA, Blue	All Voltages	AV1-LED
K2005633A-G	LED PCBA, Green	All Voltages	AV1-LED
K2005633A-W	LED PCBA, White	All Voltages	AV1-LED
K20000401A	LED PCBA, Amber, Red, Green	12-24V	FB2LED
K20000401A-01	LED PCBA, Clear, Blue	12-24V	FB2LED
K20000426A	LED PCBA, Amber, Red, Green	120-240V	FB2LED
K20000426A-01	LED PCBA, Clear, Blue	120-240V	FB2LED
K859501400-A	LED PCBA, Amber	24V	G-LED
K859501400-B	LED PCBA, Blue	24V	G-LED
K859501400-G	LED PCBA, Green	24V	G-LED
K859501400-R	LED PCBA, Red	24V	G-LED

Replacement Lamps

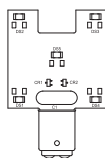
LED LAMPS



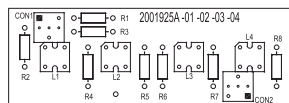
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K859501401*



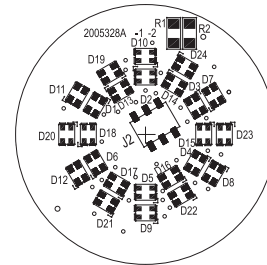
K8107199A*



K8107200A*



K2001925A*



K2005328A*

Part	Description	Voltage	Applicable Models
K859501400-W	LED PCBA, White	24V	G-LED
K859501401-A	LED PCBA, Amber	120-240V	G-LED
K859501401-B	LED PCBA, Blue	120-240V	G-LED
K859501401-G	LED PCBA, Green	120-240V	G-LED
K859501401-R	LED PCBA, Red	120-240V	G-LED
K859501401-W	LED PCBA, White	120-240V	G-LED
K8107199A	LED PCBA, Amber	24V	LP3 LED, LSLD
K8107199A-01	LED PCBA, Red	24V	LP3 LED, LSLD
K8107199A-02	LED PCBA, Green	24V	LP3 LED, LSLD
K8107199A-03	LED PCBA, Blue	24V	LP3 LED, LSLD
K8107199A-04	LED PCBA, Clear,	24V	LP3 LED, LSLD
K8107200A	LED PCBA, Amber	120V	LP3 LED, LSLD
K8107200A-01	LED PCBA, Red	120V	LP3 LED, LSLD
K8107200A-02	LED PCBA, Green	120V	LP3 LED, LSLD
K8107200A-03	LED PCBA, Blue	120V	LP3 LED, LSLD
K8107200A-04	LED PCBA, Clear	120V	LP3 LED, LSLD
K2001925A	LED PCBA, Red	24V	SCB, SCC
K2001925A-01	LED PCBA, Amber	24V	SCB, SCC
K2001925A-02	LED PCBA, Blue	24V	SCB, SCC
K2001925A-03	LED PCBA, Green	24V	SCB, SCC
K2001925A-04	LED PCBA, Clear	24V	SCB, SCC
K2005328A	LED PCBA, Tri-Color	All Voltages	USI, USIX
K2005328A-01	LED PCBA, Quad-Color	All Voltages	USI, USIX

* Indicates color or voltage variation needed for full part number

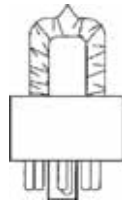


► Replacement Lamps

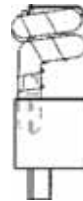
STROBE TUBES



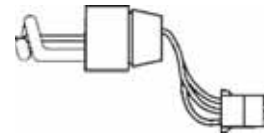
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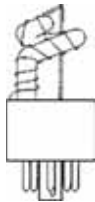
K149122B



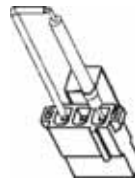
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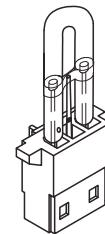
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K8107178A



K149130A

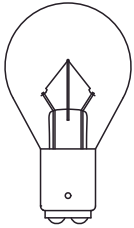


K8107215A

Part	Description	Voltage	Applicable Models
K149128A	Strobe Tube	All Voltages	141ST, LP1, TELC, VALS
K149122B	Strobe Tube	All Voltages	151XST, 154XSTHI
K8107177A	Strobe Tube	All Voltages	224XST, 224XSTHI, 225XST, FB2PST, FB24ST, FB24STHI, G-STR, WV450X
K8107159A	Strobe Tube	All Voltages	24XST, 27XSTHI, 27XST, FSEX, FSEX-HI
K8107178A	Strobe Tube	All Voltages	131DST, 131ST, 371DST
K149130A	Strobe Tube	All Voltages	AV1ST, LP3, LP6

Replacement Lamps

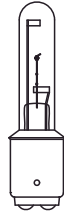
INCANDESCENT LAMPS



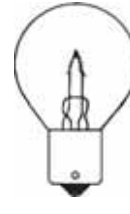
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K8107181A



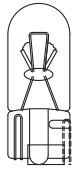
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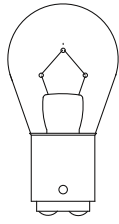
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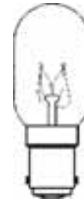
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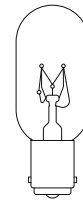
K8107185A



K8107210A



K8107194A



K8107A149A

Part	Description	Voltage	Applicable Models
K8107236A	Incandescent Lamp	24V	121A
K8107181A	Incandescent Lamp	120V, 25W	121S, Series A and B
K8107251A	Incandescent Lamp	120V, 40W	121S, Series C
K8107A041	Incandescent Lamp	24V	121X
K149123A	Incandescent Lamp	120V	225, 225X
K8107185A	Incandescent Lamp	All Voltages	MSL
K8107210A	Incandescent Lamp	24V	LSL
K8107194A	Incandescent Lamp	120V	LSL
K8107A149A	Incandescent Lamp	240V	LSL



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Federal Signal Corporation

LIMITED WARRANTY TERMS AND CONDITIONS

Effective November 1, 2019

Federal Signal Corporation ("Federal Signal"), subject to the terms, conditions and exceptions contained herein, warrants each NEW product to be free from defects in material and workmanship, under normal and proper use, care, maintenance and required service only. Start of Warranty, Warranty periods and exceptions to the foregoing Limited Warranty are contained on the Schedule of Products included in this document, and are subject to change at the sole discretion of Federal Signal.

SPECIFIC EXCLUSIONS AND EXCEPTIONS

This Limited Warranty does NOT apply nor is it extended to products that are not manufactured by Federal Signal. These products may be covered by a separate limited warranty provided by the particular manufacturer and all claims and questions regarding the same are to be directed to the particular manufacturer. Goods sourced by Seller from a third party for resale to Buyer shall carry only the warranty extended by the original manufacturer.

Domes, lenses, lamps and batteries installed on Federal Signal products are specifically excluded. Repair or replacement of any product(s) or part(s) under this warranty does NOT extend the term of this warranty, and such product(s) or part(s) shall remain covered by the unexpired portion of the warranty period or for ninety (90) days from the date of return to Federal Signal, whichever is later. This limited warranty applies ONLY to the initial or first installation of the product. This limited warranty shall not apply to products (1) that have been subjected to neglect, abuse, misuse, improper installation, inadequate maintenance, or damage due to improper use of cleaning or cleaning materials or chemicals, or non-compliance with Federal Signal's storage, installation, operation, maintenance or environmental requirements; (2) that have undergone any modification or repair not previously authorized by Federal Signal in writing, or service, repair or modification by or from any facility other than an authorized Federal Signal service center or technician, or that use non-authorized software or spare or replacement parts; or (3) that fail due to reasonable and normal use or wear and tear, or materials made, furnished or specified by the Buyer or end user.

During the aforesaid warranty period, Federal Signal will, at its sole option, repair or replace the product(s) or particular part(s) that are found to be defective in either material or workmanship, or refund the purchase price for such product(s) or part(s), which are returned or delivered, transport or shipping prepaid by the Buyer or end user, to either Federal Signal or its designated and authorized warranty service center. This limited warranty does not cover travel expenses, the cost of specialized equipment for gaining access to the product(s) or part(s), or labor charges for removal and re-installation of the product.

No person or affiliated company representative is authorized to alter the terms of this warranty, to give any other warranties, to extend the term or duration of this warranty, or to assume any other liability on behalf of Federal Signal in connection with the sale, servicing or repair of any product manufactured by the Federal Signal.

Federal Signal reserves the right to make design changes and improvements in its products without imposing any obligation upon itself to change or improve previously manufactured products.

The use in the product of any part other than parts approved by Federal Signal may invalidate this warranty. Federal Signal reserves the right to determine, in its sole discretion, if the use of non-approved parts invalidates this warranty.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE, AND REGARDLESS OF ANY FAILURE OF ESSENTIAL PURPOSE. ALL OTHER WARRANTIES OF WHATSOEVER KIND AND NATURE, WHETHER EXISTING IN CONTRACT OR AT LAW, ARE HEREBY AND FOREVER DISCLAIMED.

UNDER NO CIRCUMSTANCES WILL FEDERAL SIGNAL BE LIABLE OR RESPONSIBLE FOR SPECIAL, COMPENSATORY, INCIDENTAL, CONSEQUENTIAL OR PUNITIVE DAMAGES, LOST PROFITS, LOST SALES, OR LOSS OF USE OR LOSS OF BUSINESS OPPORTUNITY BY OR THROUGH THE USE OF THE PRODUCT. FEDERAL SIGNAL'S SOLE AND MAXIMUM LIABILITY WITH RESPECT TO THE PRODUCT, OTHER THAN ITS OBLIGATIONS SET FORTH ABOVE, SHALL BE THE TOTAL PURCHASE PRICE PAID FOR THE PRODUCT.

LIMITED WARRANTY – Schedule of Products

Federal Signal Corporation - Integrated Systems Division

PRODUCT*	WARRANTY PERIOD FOR PARTS REPLACEMENT AND FACTORY PERFORMED LABOR**
Mechanical Sirens	5 years parts and labor from date of delivery, return to factory for service
2001-130 / 508-128 / Equinox	
Eclipse8 / Model 2	
ELECTRONIC SIRENS	
MOD1004B / MOD2008B / MOD3012B	2 years parts and labor from date of delivery, return to factory for service
MOD4016B / MOD5020B / MOD6024B	
MOD8032B	
DSA2/3/4/5/6	
CONTROLLERS	
SS2000+	2 years parts and labor from date of delivery, return to factory for service
FC Controllers	
DCFCTBD Controllers	
UV / UVRI/UVIC Controllers	
SIGNALING DEVICES	
Beacons / Speakers / Sounders	5 years parts and labor from date of delivery, return to factory for service
ECHO Intercoms	
SelecTone Controllers	
AudioMaster products	2 years parts and labor from date of delivery, return to factory for service
Atkinson products	
MISCELLANEOUS	
IP Informers / Radio Informers	1 year parts and labor from date of delivery, return to factory for service
SignalTech – Beacons, Sounders, Strobes	
FT400BX	
OEM PRODUCTS (SUCH AS)	
PC Equipment	Federal Signal utilizes the original manufacturer's warranty
Field Devices	
Security and LPR products	
UPS systems	
PABX Systems	
PAGA	
PAGA	18 months from shipment or 12 months from commissioning/system field acceptance whichever is sooner covering parts and labor, return to factory for service.
SOFTWARE	
Commander (SFCD-XX)	Free from defects for 12 months from date of acceptance, Software Maintenance Agreements available
SmartMsg	

* Federal Signal Offers extended warranties and software maintenance agreements – contact Federal Signal for further information

** On-site services not included

*** Domes, lenses, lamps and batteries installed on Federal Signal products are specifically excluded

When Federal Signal has provided a turn-key installation including optimization and/or com-missioning services, Federal Signal will provide on-site warranty service during the first 60-days after completion of the installation.

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Notes



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