



# SemiStat® Status Indicator

Models SCB and SCC

## OEM STATUS INDICATOR

- Available in 24VAC/VDC
- Tri or quad-color models
- Available in chrome or white finish
- 100,000 hour vibration-resistant LED lamps
- Integrated sounder
- Surface mount
- Indoor use only

Federal Signal's SemiStat® Status Indicator is designed to meet the needs of the OEM market, the SemiStat is an attractive, easy-to-install and economical status indicator.

SemiStats operate on 24VAC or 24VDC. The snap fit housing cover and a standard terminal block make the installation and wiring of the SemiStat a quick job.

The attractive and durable ABS housing is available with either a white or chrome finish to complement the machine or location of installation.

SemiStat LED light modules utilize extremely bright light emitting diodes for the greatest attention-getting affect. Tri-Color SemiStat features Red, Amber and Green light modules and Quad Color SemiStat features Red, Amber, Green and Blue light modules. Clear LED light modules are available separately. 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 then reconnect in the desired order. Light modules can be set to flashing or steady burning mode.

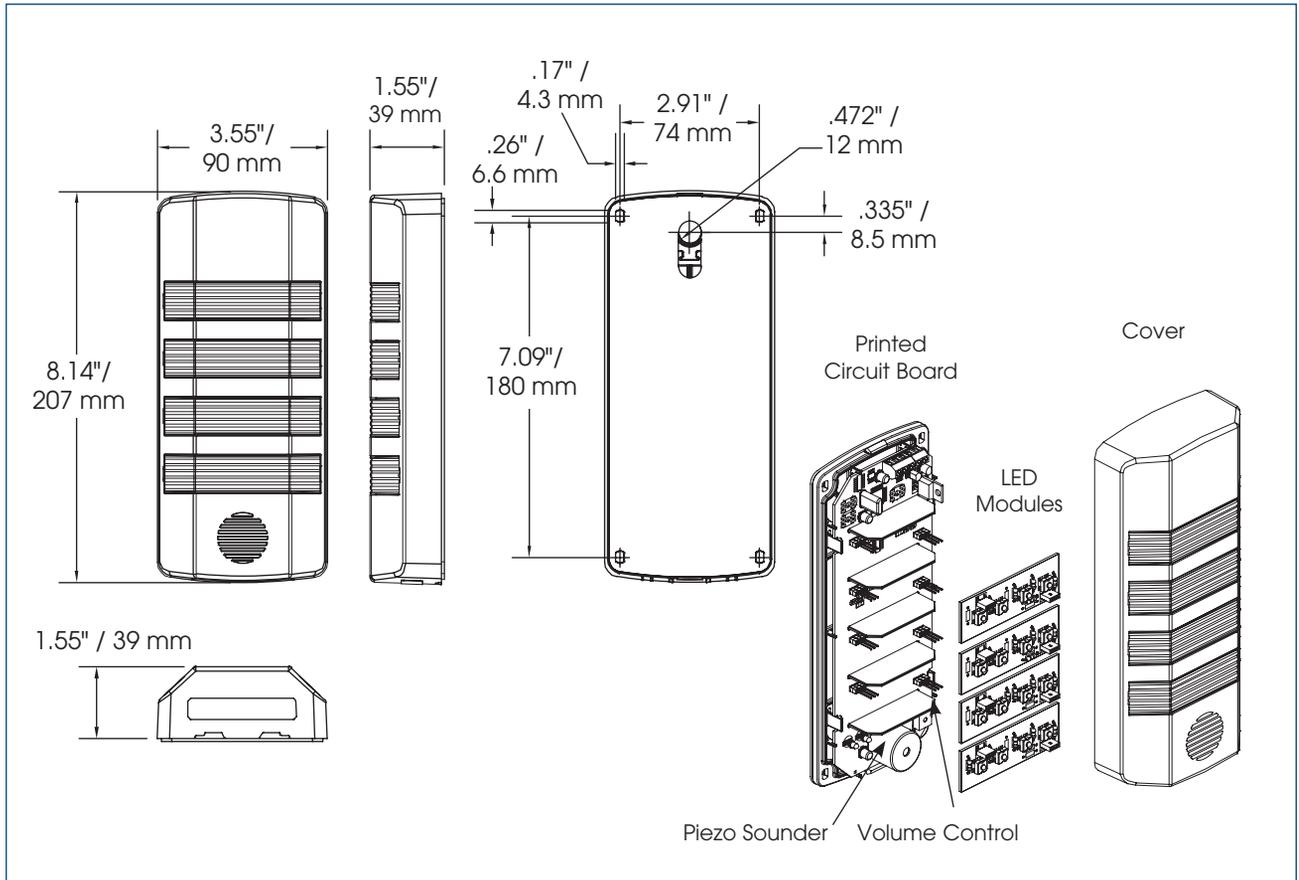
For further utility, each SemiStat is equipped with an integrated piezo sounder. SemiStat sounders produce 60dB at ten feet. A selection of two beep patterns is offered.

Model	Description	Voltage	Operating Current	Decibels @		Mount
				10'	1m	
<b>SCB-024TC</b>	Tri-color, white finish	24VAC/VDC	150 mA*	60	70	Surface
<b>SCB-024QC</b>	Quad-color, white finish	24VAC/VDC	175 mA*	60	70	Surface
<b>SCC-024TC</b>	Tri-color, chrome finish	24VAC/VDC	150 mA*	60	70	Surface
<b>SCC-024QC</b>	Quad-color, chrome finish	24VAC/VDC	175 mA*	60	70	Surface

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



## SEMISTAT® STATUS INDICATOR (SCB/SCC)



### SPECIFICATIONS

Lamp Life:	100,000 Hours	100,000 Hours
Light Source:	LED Lamp	LED Lamp
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"	207.0 mm
Width:	3.55"	90.0 mm
Depth:	1.55"	39.0 mm

### HOW TO ORDER

- Specify finish  
White/Beige (B) or Chrome (C)
- Specify and tri- or quad color
- Please refer to Model Number Index  
SCB/SCC beginning on page 368

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>
PCB Assembly	K2001958A	LED Module, Red	K2001925A
LED Module, Amber	K2001925A-01	LED Module, Green	K2001925A-03
LED Module, Blue	K2001925A-02	LED Module, Clear	K2001925A-04



LED

# UniStat™ Status Indicator

Model USI and USIS

## MULTICOLOR LED TYPE 4X STATUS INDICATOR

- Available in 24DC and 120VAC
- Tri or quad-color models
- 100,000 hour, vibration-resistant LED light source
- Models 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
- UL and cUL Listed

The UniStat™ is an LED (light emitting diode) based, multi-color, single-high status indicator.

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

Ideal for OEM applications, the UniStat is compact, attractive, and easy to install. The low profile UniStat produces as much light as its much larger competitors.

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 the model USIS with an integrated piezo sounder. Producing 60dB at 10 feet, the USIS is the ideal attention getter in process control applications.

Like the multi-level, multi-color, multi-lamp Microstat™, the UniStat is rated Type 4X (models with sounder are rated Type 1). 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", & 32"), a wall mount bracket and a tulip mount base (see page 16).

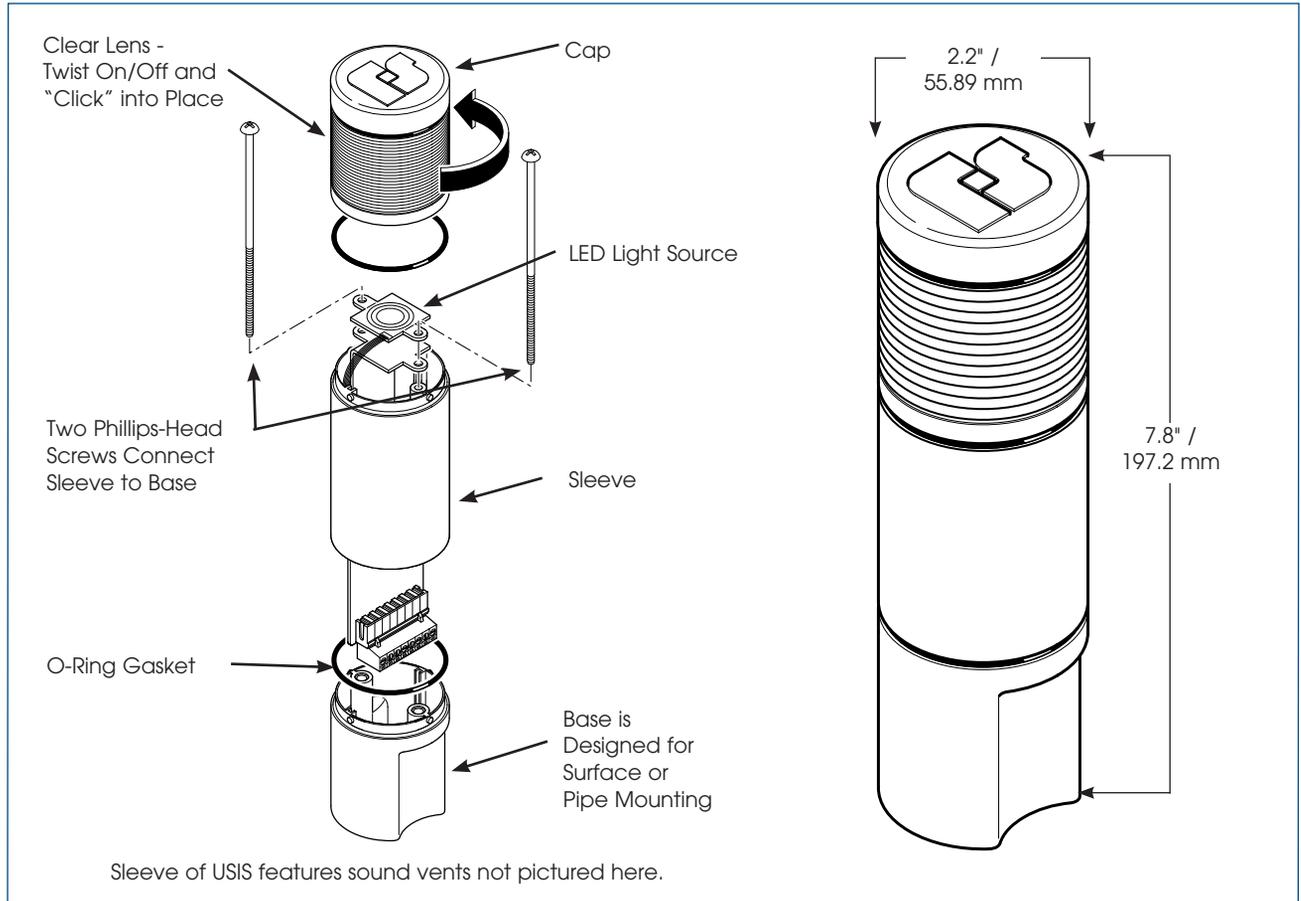
Model	Description	Voltage	Operating Current	Mount
USI/USIS-024TC <sup>1</sup>	Tri-color	24DC	100 mA <sup>2</sup>	3/4" NPT Pipe or Surface
USI/USIS-120TC <sup>1</sup>	Tri-color	120VAC	60 mA <sup>2</sup>	3/4" NPT or Surface
USI/USIS-024QC <sup>1</sup>	Quad-color	24DC	100 mA <sup>2</sup>	3/4" NPT or Surface
USI/USIS-120QC <sup>1</sup>	Quad-color	120VAC	60 mA <sup>2</sup>	3/4" NPT or Surface

<sup>1</sup> USIS indicates built-in Sounder

<sup>2</sup> Sounder draws 100 mA on all models



## UNISTAT™ WITH LED LAMP (USI/USIS)



### SPECIFICATIONS

Lamp Life:	100,000 Hours	100,000 Hours
Light Source:	LED Array	LED Array
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"	197.2 mm
Diameter:	2.2"	55.9 mm

### HOW TO ORDER

- Specify model number, voltage and tri-color or quad-color
- Specify optional sounder
- Specify Accessories from page 16
- Please refer to Model Number Index USI/USIS beginning on page 368

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>
Lens, Clear	K8447042A-02
Cap, Tan	K8447044A
O-Ring	K8447054B
LED Array, Tri-color	K2005328A
LED Array, Quad-color	K2005328A-01
PCB, USI 24VDC	K2005347A
PCB, USI 120VAC	K2005347A-02
PCB, USIS 24VDC	K2005347A-01
PCB, USIS 120VAC	K2005347A-03



LED

# Hazardous Location UniStat™ Status Indicator

Model USIX

## MULTICOLOR LED STATUS INDICATOR FOR HAZARDOUS AREAS

- Available in 24DC and 120VAC
- Tri or quad-color models
- 100,000 hour, vibration-resistant LED light source
- Surface mount
- PLC compatible
- Type 4X, IP66 enclosure
- UL and cUL Listed

The UniStat™ is an LED (light emitting diode) based, multi-color, single-high status indicator.

Using the latest die level LED technology, this unique 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<sup>3/4</sup>-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.

The USIX has been designed for use in Class I, Division 2, Groups A, B, C, D; Class II, Division 2, Groups F and G; and Class III. The USIX is suitable for use in Type 4X applications.

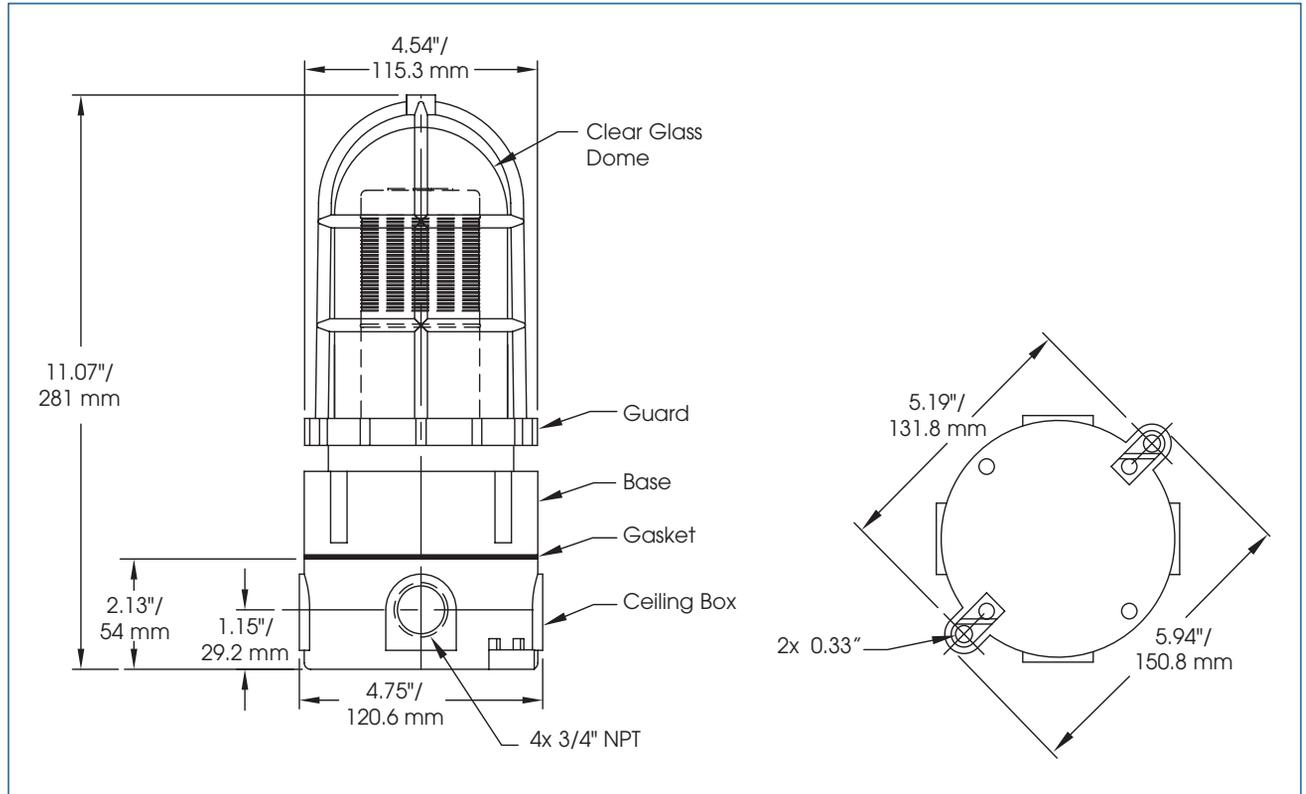
Model	Description	Voltage	Operating Current	Mount
USIX-024TC	Tri-color	24DC	0.087 amps	Surface
USIX-120TC	Tri-color	120VAC	0.058 amps	Surface
USIX-024QC	Quad-color	24DC	0.087 amps	Surface
USIX-120QC	Quad-color	120VAC	0.058 amps	Surface

## Hazardous Location Rating:

Hazardous Location	T-Code at Maximum Ambient Temperature, °C	
	40°C	66°C
Class I, Div 2, Groups A, B, C, D	T6/85°	T5/100°
Class II, Div 2, Groups F, G	T6/85°	T6/85°
Class III	T6/85°	T6/85°



## HAZARDOUS LOCATION UNISTAT™ (USIX)



### SPECIFICATIONS

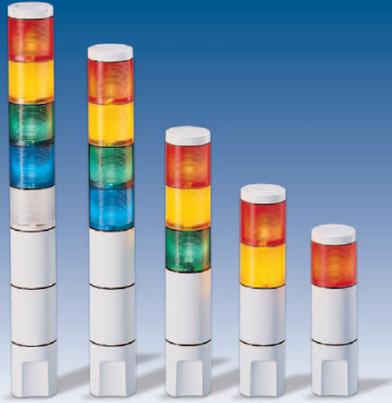
Lamp Life:	100,000 Hours	100,000 Hours
Light Source:	LED Array	LED Array
Operating Temperature:	-40°F to 150°F	-40°C to 66°C
Net Weight:	2.49 lbs.	1.13 kg
Shipping Weight:	2.53 lbs.	1.15 kg
Height:	11.07"	28.11 cm
Diameter:	4.75"	12.06 cm

### HOW TO ORDER

- Specify model number, voltage and tri-color or quad-color
- Please refer to Model Number Index USIX beginning on page 368

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>
Lens, Clear	K8447042A-02
Cap, Clear	K8447044A-02
O-Ring	K8447054B
PCB, USIX 24VAC/DC	K2005347A
PCB, USIX 120VAC	K2005347A-02
LED Array, TC	K2005328A
LED Array, QC	K2005328A-01



# MicroStat® Status Indicator

## Model MSL

### COMPACT STATUS INDICATOR IN WATER-TIGHT ENCLOSURE

- MSL1, MSL2, MSL3 available in 24VAC/DC, 120VAC and 240VAC; MSL4 and MSL5 available in 24VAC/DC and 120VAC
- Factory assembled
- Small footprint — only 2.2" diameter (55.9 mm)
- Vibration-resistant 5.6W wedge lamp
- Surface mount and integrated 3/4-inch NPT pipe mount
- Type 4X enclosure<sup>1</sup>
- Indoor Use only
- Optional Sound Module, LED Lamp, Pipe Mount Base and Flasher
- PLC Compatible
- UL and cUL Listed

The Federal Signal 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 MSL1, MSL2, MSL3 are available in 24VAC/DC, 120VAC and 240VAC; the MSL4 and MSL5 are available in 24VAC/DC and 120VAC. 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 100,000-hour LED light source is available in the five colors. This lamp, made of surface mounted LEDs, plugs directly into the same socket as the standard lamp.

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

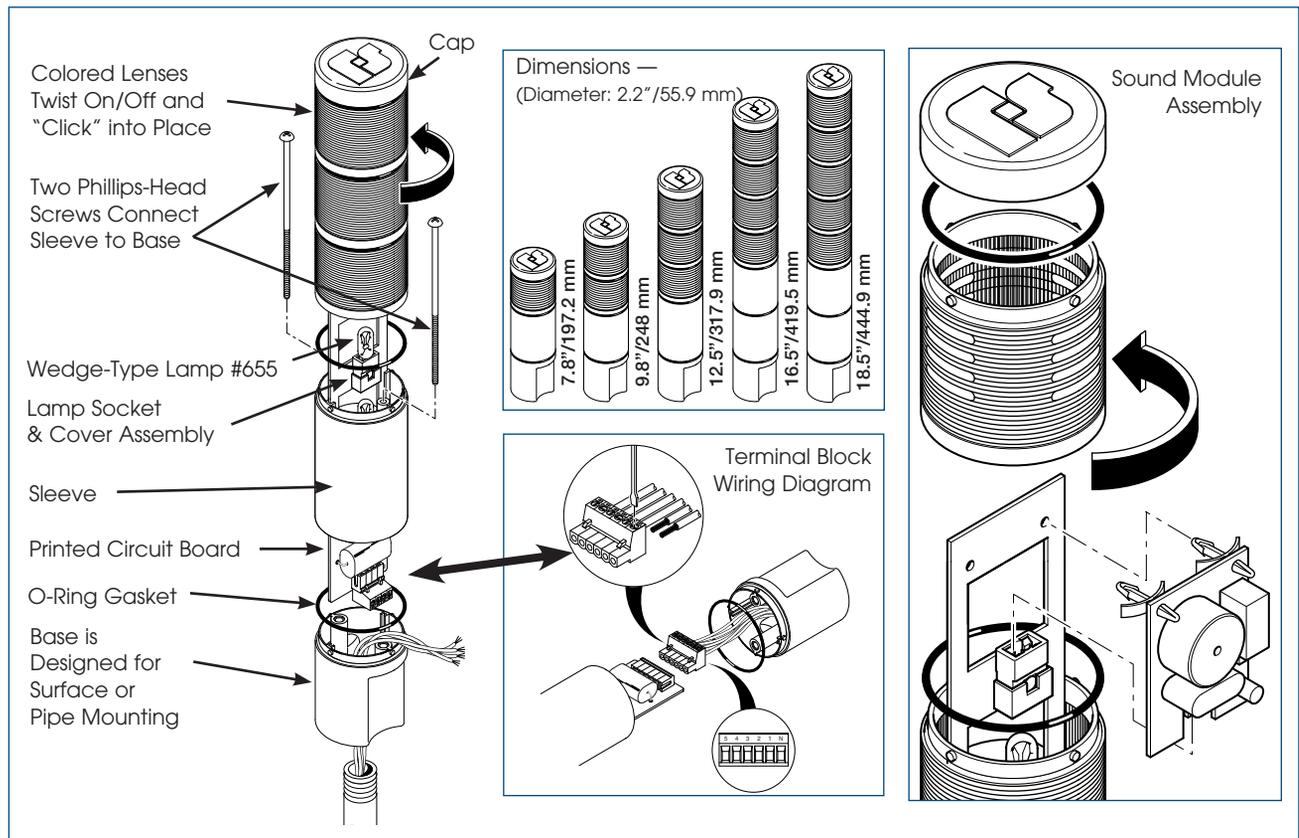
A pipe mount base, pipes and flashers are also available. See page 16 for a complete list of accessories.

Model	Description	Voltage	Operating Current
MSL1	One status segment	24VAC/DC, 120VAC, 240VAC	0.2 amps
MSL2	Two status segments	24VAC/DC, 120VAC, 240VAC	0.4 amps
MSL3	Three status segments	24VAC/DC, 120VAC, 240VAC	0.6 amps
MSL4	Four status segments	24VAC/DC, 120VAC	0.8 amps
MSL5	Five status segments	24VAC/DC, 120VAC	1.0 amps

<sup>1</sup> MSL with optional sounder rated NEMA Type 1.



## MICROSTAT® STATUS INDICATOR (MSL)



### SPECIFICATIONS

Lamp Life:	7,000 Hours	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
Ship. 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

### HOW TO ORDER

- Determine number of status segments required; one for each light segment and one additional for a sounder
- Specify Model MSL1, MSL2, MSL3, MSL4, MSL5.
- Specify colors for MSL1 and MSL2 (MSL3, MSL4 and MSL5 are packaged with one each of the colored lenses)
- Specify voltage
- Specify Accessories (see page 16)
- Please refer to Model Number Index MSL beginning on page 368

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>
Lens, Amber	K8447042A	Terminal Block (3 position)	K140373A-03
Lens, Clear	K8447042A-02	Terminal Block (4 position)	K140373A-04
Lens, Red	K8447042A-04	Terminal Block (6 position)	K140373A-06
Lens, Blue	K8447042A-01	Light Barrier	K8447061A
Lens, Green	K8447042A-03	Cap	K8447044A
Wedge Lamp (#655), .28V	K8107185A	O-Ring	K8447054B
MSLED Lamp	Please refer to page 16		

# Litestak® Status Indicator

## Models LSL



### NOTIFY STATUS CHANGES WITH COLOR AND SOUND

- Available in 24VDC, 120VAC and 240VAC
- Five lens colors
- Surface mount and integrated 3/4-inch NPT pipe mount
- Indoor use only
- Type 1 enclosure
- Optional sounder available
- UL and cUL Listed and CSA Certified

Federal Signal's Litestak® status indicator is a column of signal lights that indicate the status of a process or machine. The units 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 (Models LSS or 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 burn steadily. The flasher is included with the 120VAC LSB model and sold separately for other voltages.

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" NPT pipe mount or surface mounted with the Model LSB Base. If low profile surface mounting is required, Model LSBS is available.

Litestak is UL and cUL Listed, and CSA Certified for indoor use.

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.

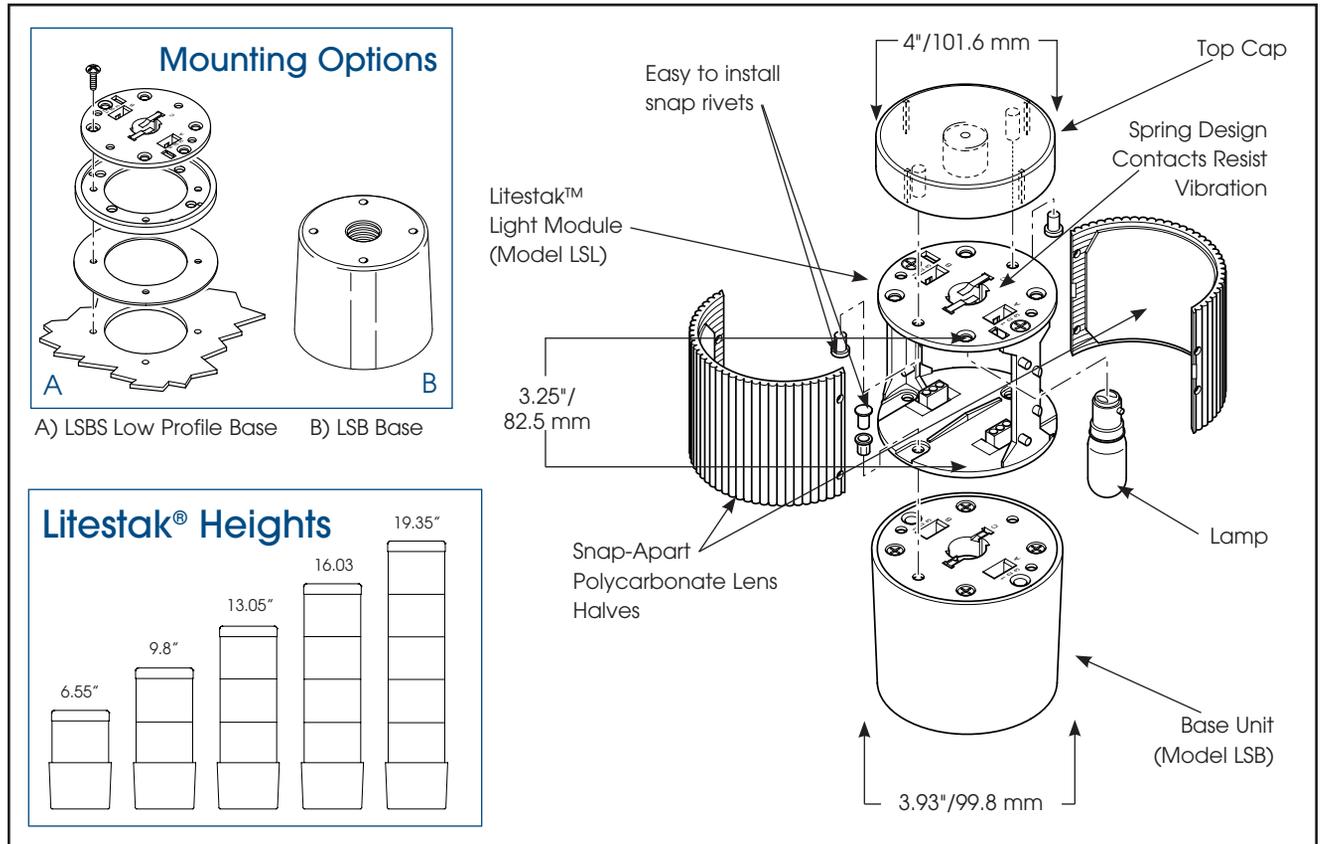
Model	Voltage	Operating Current	Flash Rate/ Minute	Candela	Mount
LSB-024-120 <sup>1</sup>	24-240VAC/DC	N/A	N/A	N/A	3/4" NPT Pipe/Surface
LSB-120 <sup>1</sup>	120VAC 50/60Hz	N/A	70	N/A	3/4" NPT Pipe/Surface
LSBS <sup>1</sup>	24-240VAC/DC	N/A	N/A	N/A	Low Profile Surface
LSL-024 <sup>2</sup>	24VDC	0.76 amps	N/A	123	N/A
LSL-120 <sup>2</sup>	120VAC 50/60Hz	0.13 amps	N/A	123	N/A
LSL-240 <sup>2</sup>	240VAC 50/60Hz	0.11 amps	N/A	123	N/A

<sup>1</sup> Cap kit included.

<sup>2</sup> Model LSL includes lens, lamp and light module.



## LITESTAK® LIGHT (LSL) AND BASE (LSB)



### SPECIFICATIONS

Lamp Life:		7,000 Hours	7,000 Hours
Light Source:		Incandescent	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"	82.5 mm
	LSB	3.3"	82.8 mm
Diameter:	LSL	3.93"	99.8 mm
	LSB	3.93"	99.8 mm

### HOW TO ORDER

- Light modules and base modules are ordered separately
- Specify model and voltage of base unit
- Specify model, voltage and colors of light modules
- Specify optional sound module (page 24 & 26)
- Please refer to Model Number Index LSL/LSB beginning on page 368

### REPLACEMENT PARTS

<i>Description</i>	<i>Part Number</i>	<i>Description</i>	<i>Part Number</i>
Lens Kit, Amber	K8447014A-02	Lamp, 24VDC	K8107210A
Lens Kit, Blue	K8447014A-04	Lamp, 120VAC	K8107194A
Lens Kit, Clear	K8447014A-05	Lamp, 240VAC	K8107A149A
Lens Kit, Green	K8447014A-01	Flasher, 24VDC	K8285237A
Lens Kit, Red	K8447014A-03	Flasher, 120VAC	K8285239A
Lens Kit, Blackout (1/2 lens)	K8447014A-06	Cap Kit-Snap Rivets included	K8447009E
Snap Rivets, 25 pieces	K7099A112A-01		



# Litestak® Status Indicator with LED Lamp

Model LSLD

## LONG LIFE LIGHT SOURCE

- Available in 24VDC and 120VAC
- Five lens colors
- 100,000 hour, vibration-resistant LED lamp
- Surface mount and integrated 3/4-inch NPT pipe mount
- Indoor use only
- Type 1 enclosure
- UL and cUL Listed and CSA Certified

Federal Signal's Litestak® status indicators are vertical columns of light that indicate the status of a machine's operating process in a full 360° radius.

The 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.

Light modules come complete with a 100,000-hour LED lamp; 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.

LED lamps are available in five colors — Amber, Blue, Clear, Green or Red. The standard double-contact bayonet base retrofits into any Federal Signal Litestak unit to replace original incandescent lamps.

An optional Sound Module (Models LSS or LSH) can be added to the top of the Litestak column to create a dual purpose audible/visual status indicating signal. The LSS sound module allows the user to select from 32 tones via a simple dip switch panel. 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" NPT pipe mount.

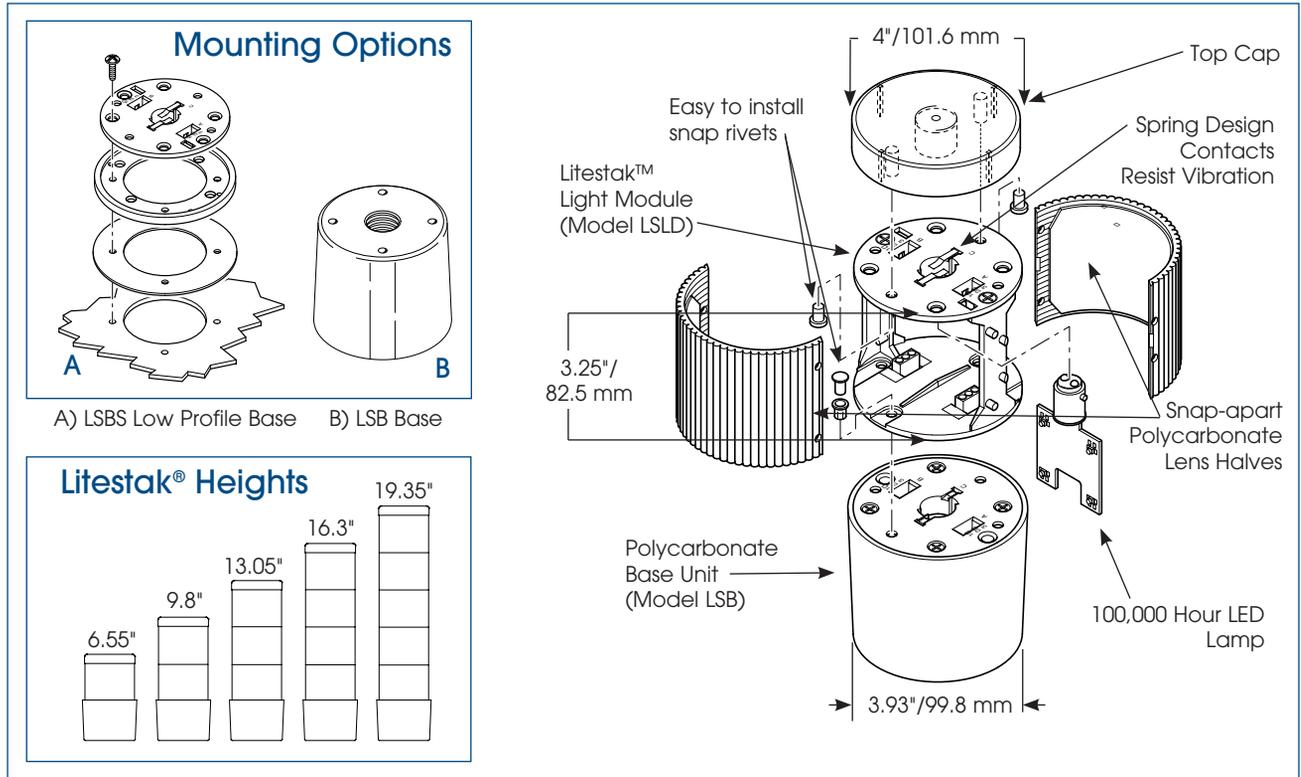
Model	Voltage	Operating Current	Mount
LSB-024-240 <sup>1</sup>	24-240VAC/DC	N/A	3/4" NPT Pipe/Surface
LSB-120 <sup>1</sup>	120VAC 50/60Hz	N/A	3/4" NPT Pipe/Surface
LSBS <sup>1</sup>	24-240VAC/DC	N/A	Surface
LSLD-024 <sup>2</sup>	24VDC	80 mA	N/A
LSLD-120 <sup>2</sup>	120VAC 50/60Hz	45 mA	N/A

<sup>1</sup> Cap kit included.

<sup>2</sup> Includes lens, lamp and light module.



## LITESTAK® WITH LED LAMP (LSLD)



### SPECIFICATIONS

Lamp Life:	100,000 Hours	100,000 Hours
Light Source:	LED Array	LED Array
Operating Temperature:	0°F to 120°F	-18°C to 49°C
Net Weight, LSLD:	0.45 lbs.	0.2 kg
Shipping Weight, LSLD:	0.7 lbs.	0.32 kg
LSLD Height:	3.25"	82.5 mm
LSB Height:	3.3"	83.8 mm
LSLD Diameter:	3.93"	99.82 mm
LSB Diameter:	3.93"	99.82 mm

### HOW TO ORDER

- Light modules and base modules are ordered separately
- Specify model, voltage and color of light modules
- Specify model and voltage of base unit
- Specify optional sound module (page 24 & 26)
- Please refer to Model Number Index LSLD beginning on page 369

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>
Lens Kit, Amber	K8447014A-02	LED Lamp, Amber, 24VDC	LED-024ASB
Lens Kit, Blue	K8447014A-04	LED Lamp, Blue, 24VDC	LED-024BSB
Lens Kit, Clear	K8447014A-05	LED Lamp, Clear, 24VDC	LED-024CSB
Lens Kit, Green	K8447014A-01	LED Lamp, Green, 24VDC	LED-024GSB
Lens Kit, Red	K8447014A-03	LED Lamp, Red, 24VDC	LED-024RSB
Lens Kit, Black-out (1/2 lens)	K8447014A-06	LED Lamp, Amber, 120VAC	LED-120ASB
Flasher, 24VDC	K8285237A	LED Lamp, Blue, 120VAC	LED-120BSB
Flasher, 120VAC	K8285239A	LED Lamp, Clear, 120VAC	LED-120CSB
Cap Kit-Snap Rivets included	K8447009E	LED Lamp, Green, 120VAC	LED-120GSB
Snap Rivets, 25 pieces	K7099A112A-01	LED Lamp, Red, 120VAC	LED-120RSB



LED

# Litestak® Homeland Security Status Indicator

Model LSHLS

## NOTIFY HOMELAND SECURITY STATUS CHANGES

- Available in 24VDC and 120VAC
- Five lens colors
- Surface mount and integrated 3/4-inch NPT pipe mount
- Available with LED or Incandescent Lamps
- Indoor use only
- Type 1 enclosure
- Made in the USA
- UL and cUL Listed and CSA Certified

Federal Signal, the world's largest prime manufacturer of audible and visual signaling for industry has introduced a Homeland Security Advisory Status Indicator. The LiteStak® is an effective tool for communicating the Threat Conditions as outlined in the Homeland Security Presidential Directive; Low (Green), Guarded (Blue), Elevated (Yellow), High (Orange) and Severe (Red). The LiteStak is suitable for use in industrial, commercial and municipal environments.

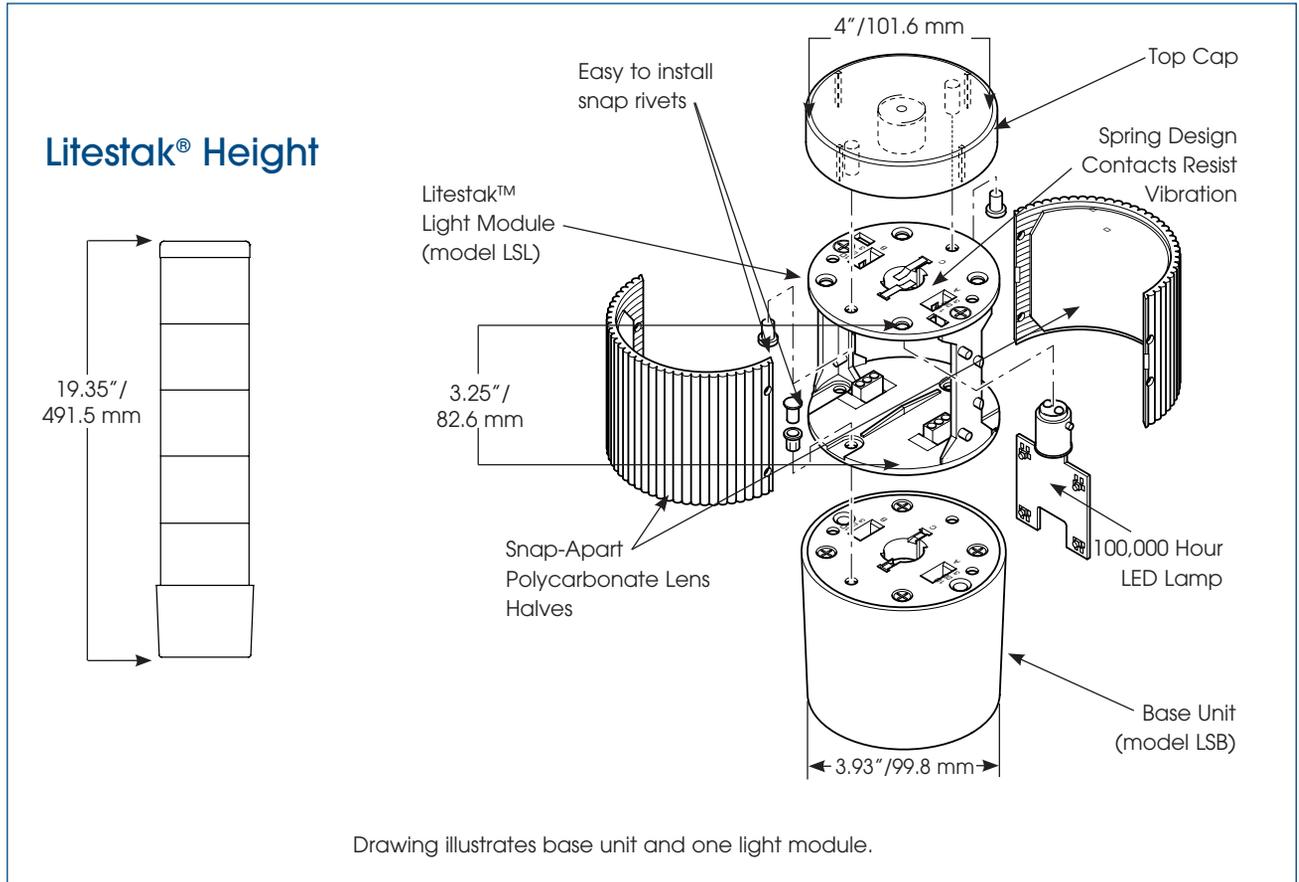
Each light module produces 360 degrees of light dispersion. Optical cross-hatching ensures a lens-filling distribution of light that is free of "hot spots". Each module of the LiteStak can be set up for either steady burning or flashing operation (with relays, flashers or PLCs). The lens of each module snaps on for quick and easy lamp maintenance.

Lamps choices include a rugged 25 watt incandescent bulb or a lifetime guaranteed 100,000 hour LED lamp. The LiteStak can be installed easily in a surface mount or a 3/4" NPT pipe mount configuration. The choice of operating voltages includes 24VDC and 120VAC for incandescent models and 120VAC for LED models.

Model	Voltage	Operating Current	Mount
LSHLS-024	24VDC	760 mA	Pipe/Surface
LSHLS-120	120VAC	230 mA	Pipe/Surface
LSHLS-LED-120	120VAC	40 mA	Pipe/Surface



## HOMELAND SECURITY STATUS INDICATOR (LSHLS)



### SPECIFICATIONS

Lamp Life, Incandescent:	7,000 Hours	7,000 Hours
Lamp Life, LED:	100,000 Hours	100,000 Hours
Operating Temperature:	32°F to 120°F	0°C to 49°C
Net Weight:	3.0 lbs.	1.4 kg
Shipping Weight:	4.8 lbs.	2.2 kg
Height:	19.35"	491.5 mm
Diameter:	3.93"	99.8mm

### HOW TO ORDER

- Specify model, voltage and lamp style (incandescent or LED)
- Please refer to Model Number Index LSL/LSB beginning on page 369

### REPLACEMENT PARTS

<i><b>Description</b></i>	<i><b>Part Number</b></i>	<i><b>Description</b></i>	<i><b>Part Number</b></i>
Lens Kit, Amber	K8447014A-02	Incandescent Lamp, 24VDC	K8107210A
Lens Kit, Blue	K8447014A-04	Incandescent Lamp, 120VAC	K8107194A
Lens Kit, Green	K8447014A-01	LED Lamp, Amber	LED-024ASB
Lens Kit, Orange	K8447014A-08	LED Lamp, Blue	LED-024BSB
Lens Kit, Red	K8447014A-03	LED Lamp, Green	LED-024GSB
Snap Rivets, 25 pieces	K7099A112A-01	LED Lamp, Orange	LED-024ASB
Cap Kit-Snap Rivets included	K8447009E	LED Lamp, Red	LED-024RSB



# Litestak® Sound Module

Model LSS

## ADD SOUND TO A FEDERAL SIGNAL LITESTAK®

- Available in 24VDC and 120VAC
- Modular unit fits on top of any Litestak® configuration
- Select one of 18 tones
- Capable of outputs between 59-69dB @ 10' (69-79dB @ 1m)
- Indoor use only
- Type 1 enclosure
- UL Listed and CSA Certified

The Federal Signal Litestak® Sound Module is a microprocessor-based audible signaling device. The model LSS can be used as a stand-alone audible device or combined with the Federal Signal Litestak light modules to create an audible/visual signal.

The sound module contains a microprocessor-based tone generator and an integrated speaker which produces one of 18 tones. Select tones by setting five, 2-position DIP-switches. The sound module can work as a stand-alone audible signal when plugged into the Model LSBS Low Profile Surface Mount Base or Model LSB Pipe Mount Base.

The Model LSS can be combined with any Litestak light module configuration of up to four colors. Controlling the sound module is done via the wires normally used for the clear light module. The sound module always occupies the top module position in a Litestak tower.

Ideal applications for the LSS include environments where the ambient noise is not extreme – assembly lines, conveyor systems, automated lines, instrument panels and workshops.

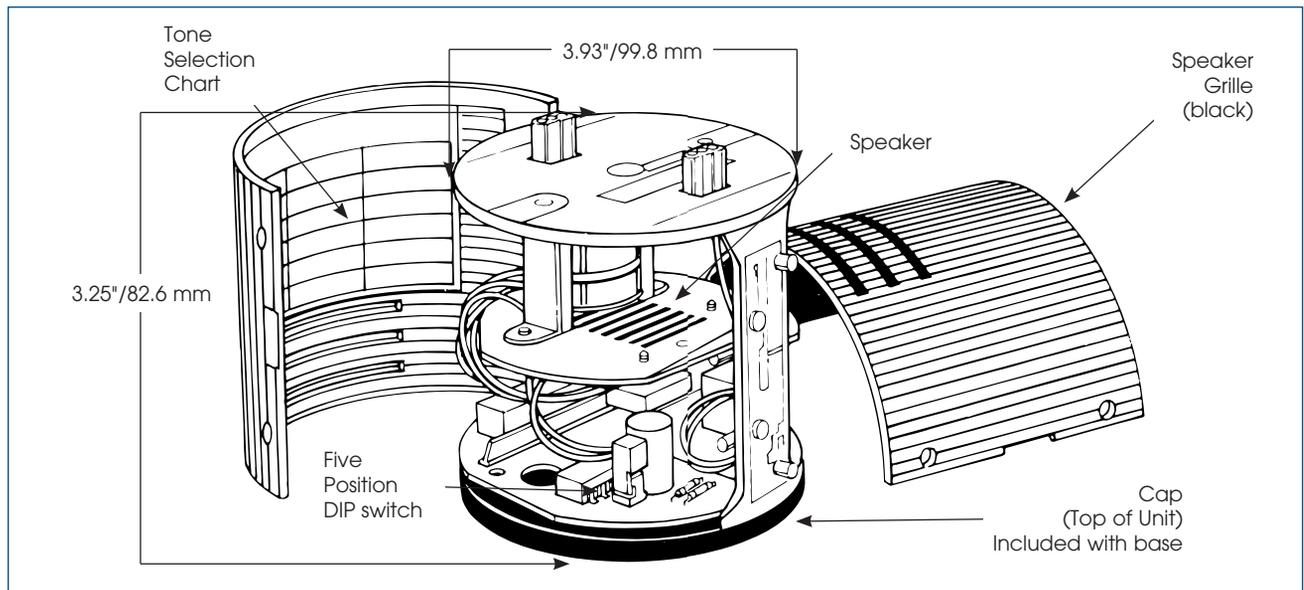
LSS is UL Listed and CSA Certified.

Federal Signal's Litestak Sound Module allows the user to add a distinctive audible signal to a Litestak Status Indicator.

Model	Voltage	Operating Current	dBa Output
LSS-024	24VDC	180 mA	See Page 25
LSS-120	120VAC	70 mA	



## LITESTAK® SOUND MODULE (LSS)



### AVAILABLE TONES

Model	Name	Description	Frequency	Rep. Rate	dBa @ 10'/1m
TM1	Wail	Conventional Siren	560-1055Hz	11 cycles/min.	68.8 / 78.8
TM2	Yelp	Rapid Siren	560-1055Hz	3.3 cycles/min.	67.6 / 77.6
TM3	Hi-Lo	Alternating High & Low	Low: 561Hz High: 760Hz	50 cycles/min.	68.3 / 78.3
TM4	Bell	Bell, struck rapidly	801Hz	50 cycles/min.	59.0 / 69.0
TM5	Yeow	Descending high to low, repeated	Low: 545Hz High: 1295Hz	36 cycles/min.	67.8 / 77.8
TM6	Horn	Steady Horn	470Hz	Continuous	61.0 / 71.0
TM7	Beep	Slow intermittent horn	470Hz	50 cycles/min.	59.6 / 69.6
TM8	Stutter	Rapid intermittent horn	470Hz	5 cycles/sec.	59.4 / 69.4
TM9	Slow Whoop	Slow ascending low to high, repeated	Low: 424Hz High: 1164Hz	15 cycles/min.	66.5 / 76.5
TM10	Gradual Horn	Steady horn, gradually increasing volume	514Hz	Continuous	62.3 / 72.3
TM11	Temp. Slow Whoop	NFPA <sup>1</sup> coded slow whoop	Low: 424Hz High: 774Hz	15 cycles/min.	65.2 / 75.2
TM12	Westminster Chime	Westminster Chime	Musical tone	1 cycle; 8 notes	63.4 / 73.4
TM13	Evac./Radiation	Amplitude modulated horn	479Hz	4.3 cycles/sec.	61.7 / 71.7
TM14	Air Horn	Steady horn	Low: 400Hz High: 800Hz	Continuous	66.2 / 76.2
TM15	Chime	Single strike chime	Musical tone	49 cycles/min.	60.6 / 70.6
TM16	Phaser	Rapid siren	600-1200Hz	15 cycles/sec.	63.7 / 73.7
TM17	Alternating Hi-Lo	Alternating High & Low	Low: 363Hz High: 518Hz	60 cycles/min.	63.8 / 73.8
TM18	Warble	Extremely rapid siren	560-1055Hz	63 cycles/sec.	67.1 / 77.1

### SPECIFICATIONS

Operating Temperature:	32°F to 120°F	0°C to 49°C
Net Weight:	24VDC 0.6 lbs.	0.3 kg
	120VAC 0.9 lbs.	0.4 kg
Shipping Weight:	24VDC 0.8 lbs.	0.4 kg
	120VAC 1.1 lbs.	0.5 kg
Height:	3.25"	82.6 mm
Diameter:	3.93"	99.8 mm

### HOW TO ORDER

- Specify model and voltage of sound module (base required, page 18)
- Please refer to Model Number Index LSS beginning on page 369

### REPLACEMENT PARTS

Description	Part Number
Grille Kit, Black	K8447014A-07
Snap Rivets, 25 pieces	K7099A112A-01



# Litestak® Piezoelectric Horn

Model LSH

## A SINGLE-TONE HORN FOR LITESTAK® STATUS INDICATORS

- Available in 24VDC, 120VAC and 240VAC
- Adjustable volume
- Capable of producing 75-77dB @ 10' (85-87dB @ 1m)
- Indoor use only
- Type 1 enclosure
- UL Listed and CSA Certified

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. The 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 turning the volume control below the horn mechanism.

The 24VDC and 240VAC LSH units produce 75dB @ 10' (85dB @ 1m); the 120VAC unit produces 77dB @ 10' (87dB @ 1m). Litestak is UL Listed for indoor use and CSA Certified.

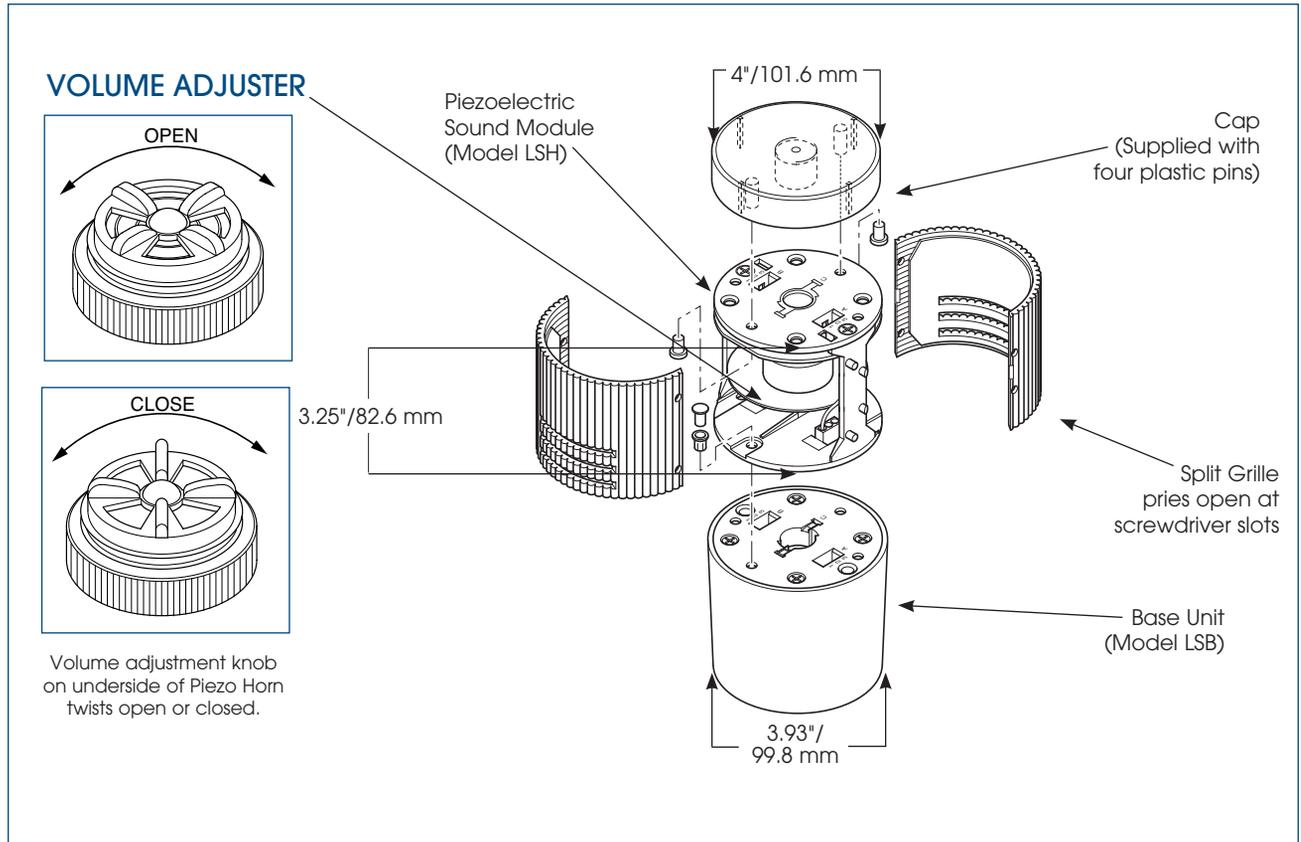
Ideal applications for Litestak audible/visual status indicators include assembly lines, conveyor systems, automated lines, instrument panels, workshops, etc.

Federal Signal's Piezoelectric Horn is an inexpensive way to add an audible signal to Litestak Status Indicators.

Model	Voltage	Operating Current	Decibels @	
			10'	1m
LSH-024	24VDC	70 mA	75	85
LSH-120	120VAC	40 mA	77	87
LSH-240	240VAC	40 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

- Specify model and voltage of sound module (base required, page 18)
- Please refer to Model Number Index LSH beginning on page 369

### REPLACEMENT PARTS

<i>Description</i>	<i>Part Number</i>
Grille Kit, Black	K8447014A-10
Piezo Horn, 24VDC	K8447040A
Piezo Horn, 120VAC	K8447040A-01
Piezo Horn, 240VAC	K8447040A-02

# FireBeam® Compact Vehicular Warning Light

Model FB3SM



## OUR BRIGHTEST VEHICULAR WARNING LIGHT!

- Available in 12VDC
- 68,000 candela output
- 55 watt Halogen lamp
- Dual Speed Motor for 95 or 175 FPM
- Five dome colors
- Low profile — only 3.8" high

Federal Signal's FireBeam® is a super-bright, compact vehicular warning light. This rotating 55 watt halogen light produces 68,000 candelas per flash.

Each lightweight unit features a polycarbonate base and snap-on dome. The light is easily and quickly serviced without the use of tools.

The jewel-shaped lens is available in five colors: Amber, Blue, Clear, Green, and Red. Each FireBeam comes with a black half-dome that snaps over the back of the unit and prevents back flash when used inside vehicles.

The FireBeam features a dual speed motor with a convenient slide switch that allows you to choose an operating speed of 95 or 175 flashes per minute.

Power is supplied to the FireBeam via a 10-foot coil cord with a cigarette lighter-type plug. The FireBeam operates on 12VDC.

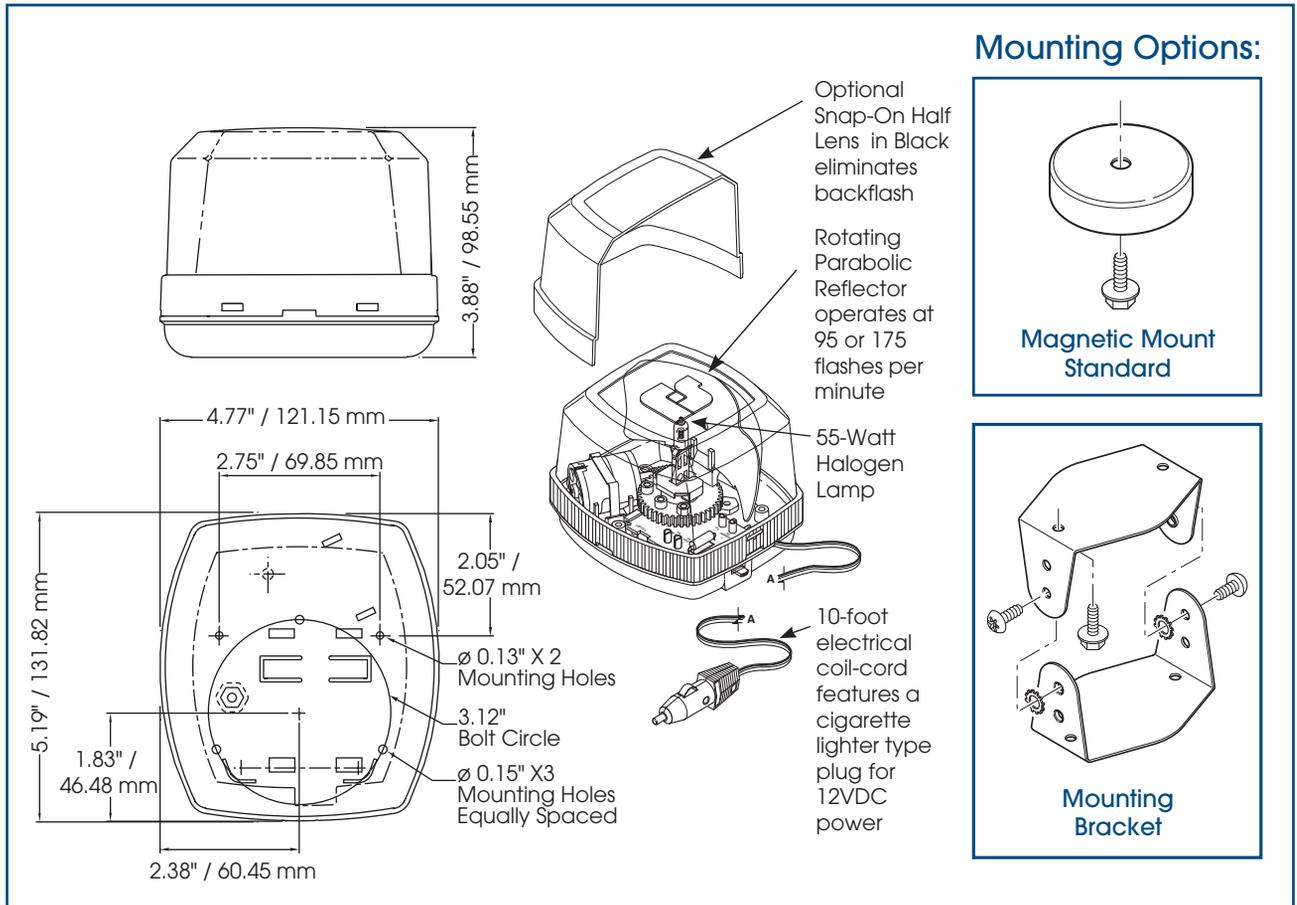
The FireBeam is supplied with both a magnetic mount for use outside the vehicle on the roof or hood and a swivel mount for permanent installation.

Model	Voltage	Operating Current	Flash Rate/Minute	Candela Output
FB3SM-*	12VDC	4.3 amps	95 or 175	68,000

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



## FIREBEAM® COMPACT VEHICULAR WARNING LIGHT (FB3SM)



### SPECIFICATIONS

Lamp Life:	200 Hours	200 Hours
Light Source:	Halogen	Halogen
Net Weight:	1.8 lbs.	0.8 kg
Shipping Weight:	2.0 lbs.	0.9 kg
Height:	4.8"	12.0 cm
Width:	3.8"	9.5 cm
Depth:	5.1"	13.0 cm

### HOW TO ORDER

- Specify model and color
- Please refer to Model Number Index FB3SM beginning on page 369

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>
Dome, Amber	K8550137A-02	55 Watt Halogen Lamp, 12VDC	K8440A265A-02
Dome, Blue	K8550137A-03	Motor for FB3SM	K8422B463B-02
Dome, Clear	K8550137A	Half Lens Cover, Black	K8550140A
Dome, Red	K8550137A-01	Cigarette Plug Cord	K8550318A
Dome, Green	K8550137A-04	Magnet Mount Assembly	K8550A012A

# Vitalite® Rotating Warning Light

Models 121A



## LIGHT DUTY VEHICULAR LIGHT

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

The Federal Signal 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 available in five dome colors — Amber, Blue, Clear, Green and Red.

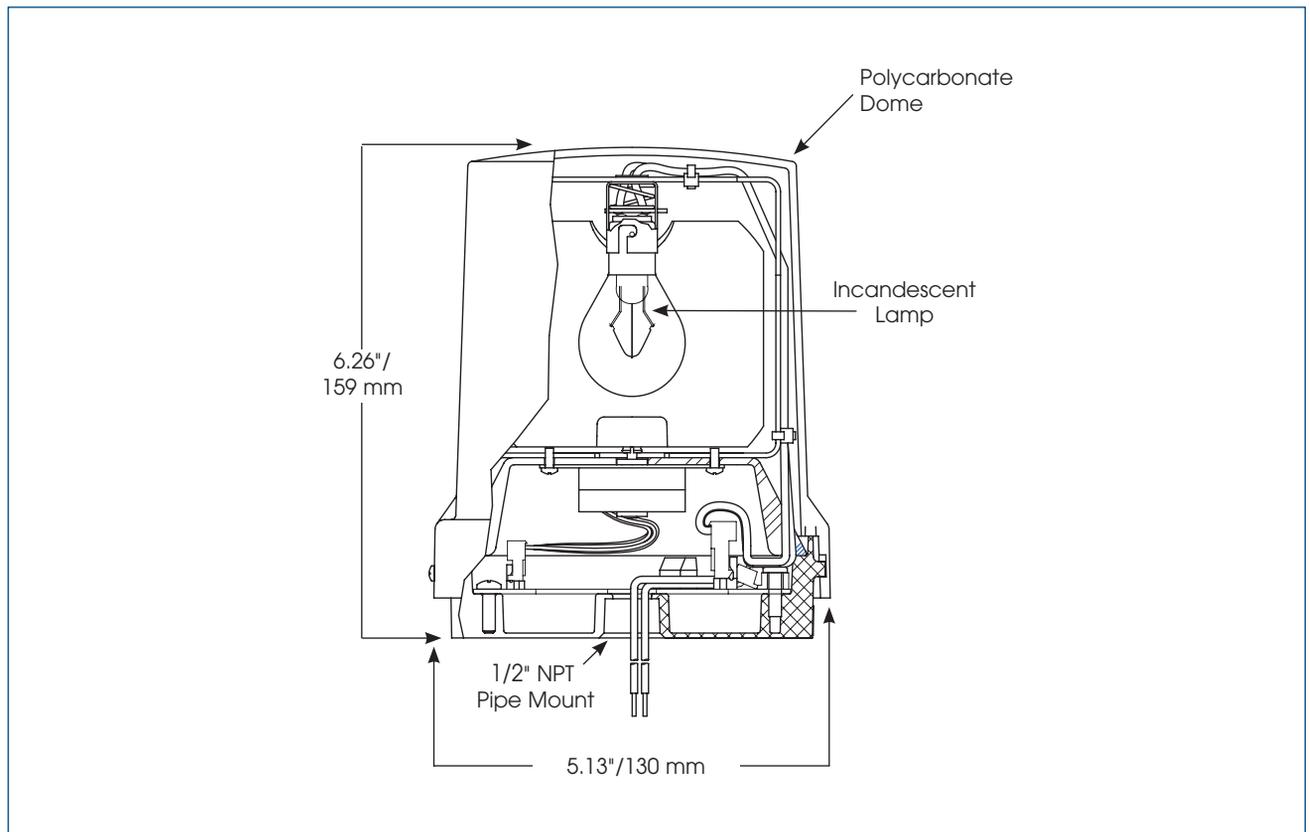
The 121A rotating light is designed for in-plant applications. This unit can be surface mounted or mounted on a 1/2" NPT pipe with the integrated pipe mount. The 121A is available in 24VDC. The enclosure is also rated Type 4X for a water tight and dust tight seal.

Model	Voltage	Operating Current	Flash Rate/ Minute	Candela	Mount
121A-024 *	24VDC	1.3 amps	60	4,000	Pipe/Surface

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



## VITALITE® ROTATING WARNING LIGHT (121A)



### SPECIFICATIONS

Lamp Life:	300 Hours	300 Hours
Light Source:	Incandescent	Incandescent
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	1.8 lbs.	0.79 kg
Shipping Weight:	1.9 lbs.	0.86 kg
Height:	6.26"	159.0 mm
Diameter:	5.13"	130.0 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Corner Bracket (LCMB2)  
Wall Bracket (LWMB2)
- Please refer to Model Number Index 121A beginning on page 369

### REPLACEMENT PARTS

<u>Description (Current Series)</u>	<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>
Dome, Amber, Series C	K8444357A-02	Dome, Red	K8444357A-03
Dome, Blue, Series C	K8444357A-01	Incandescent Lamp, 24VDC	K8107236A
Dome, Clear, Series C	K8444357A	Motor, Stepper	K8444382A
Dome, Green, Series C	K8444357A-04	PC Board Assembly	K2001927A
Dome, Magenta, Series C	K8444357A-05		

Series A & B Domes on page 33

# Vitalite® Rotating Warning Light

Model 121S



## LIGHT DUTY WARNING LIGHT

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

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. The 121S Vitalite® is available in five dome colors (Amber, Blue, Clear, Green and Red). It is UL (Underwriters Laboratories) Listed, cUL Listed, and CSA Certified.

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 page 108). The enclosure is also rated Type 4X for a water tight and dust tight seal.

The lamp projects an intense, fixed beam onto a parabolic reflector which rotates 360°, producing 60 flashes per minute. The 121 features a twist and lock dome which allows for fast and easy access to inspect and change the lamp.

This light is particularly useful as a signaling or warning device in high ambient noise areas where it can supplement audible signaling devices. It is also effective alerting hazardous conditions or dangerous areas.

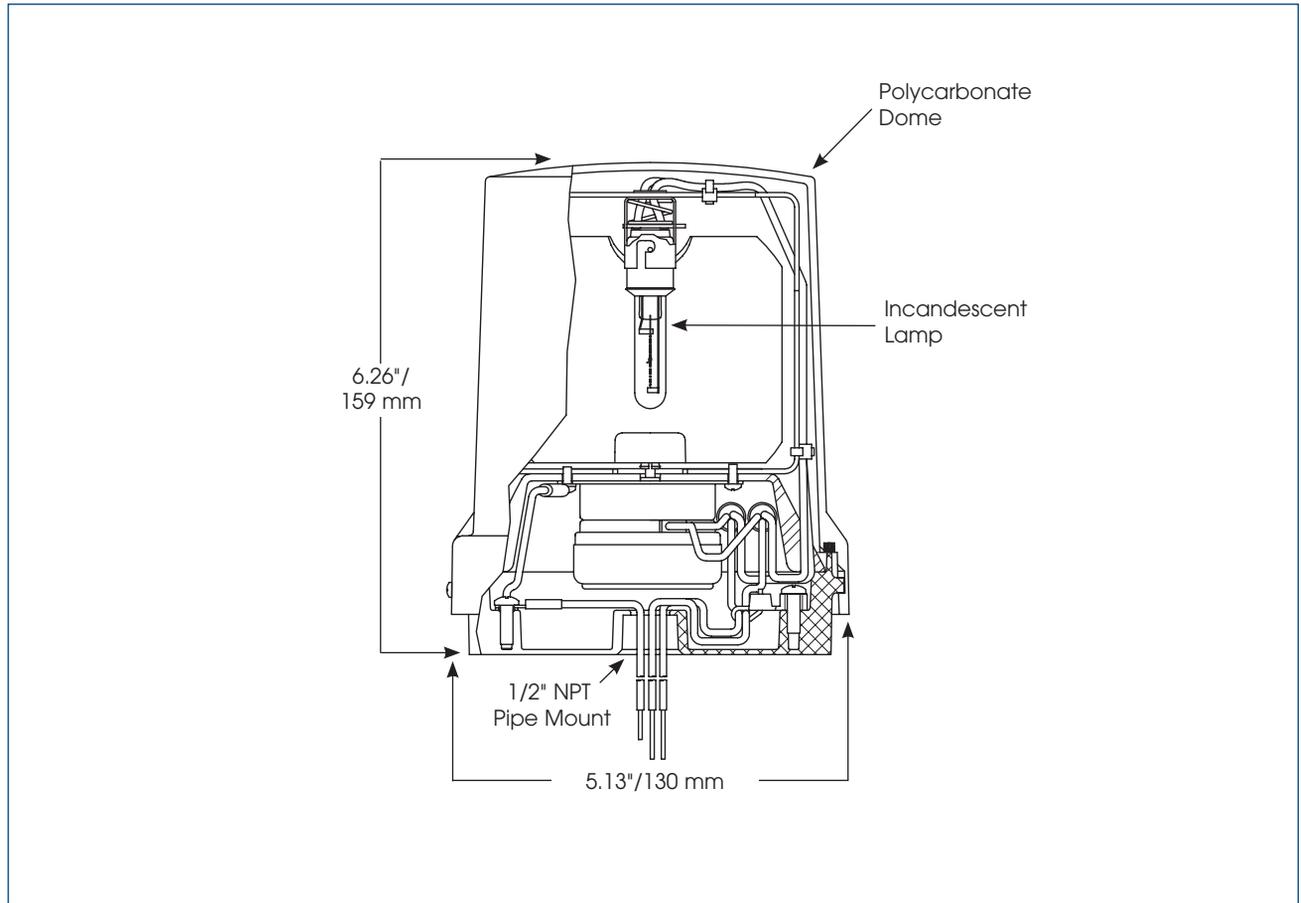
Federal Signal's Vitalite is an economical rotating warning light for emergency warning or status indication in noisy areas.

Model	Voltage	Operating Current	Flash Rate/Minute	Candela	Mount
121S-120*	120VAC 50/60Hz	0.36 amps	60	2,100	Pipe/Surface

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



## VITALITE® ROTATING WARNING LIGHT (121S)



### SPECIFICATIONS

Light Source:	Incandescent	Incandescent
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	2.0 lbs.	0.91 kg
Shipping Weight:	2.1 lbs.	0.96 kg
Height:	6.26"	159.0 mm
Diameter:	5.13"	130.0 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Corner Bracket (LCMB2)  
Wall Bracket (LWMB2)
- Please refer to Model Number Index 121S beginning on page 369

### REPLACEMENT PARTS

<u>Description (Current Series)</u>	<u>Part Number</u>	<u>Description (Older Series)</u>	<u>Part Number</u>
Dome, Amber, Series C	K8444357A-02	Motor, 120VAC	K8241A030-03
Dome, Blue, Series C	K8444357A-01	Dome, Amber, Series A and B	K8444B019A-12
Dome, Clear, Series C	K8444357A	Dome, Blue, Series A and B	K8444B019A-13
Dome, Green, Series C	K8444357A-04	Dome, Clear, Series A and B	K8444B019A-14
Dome, Magenta, Series C	K8444357A-05	Dome, Green, Series A and B	K8444B019A-15
Dome, Red, Series C	K8444357A-03	Dome, Magenta, Series A and B	K8444B019A-17
Incandescent Lamp, 120V, Krypton Series C	K8107251A	Dome, Red, Series A and B	K8444B019A-11
		Incandescent Lamp, 120V, Series A and B	K8107181A

# Electrarray® Rotating Warning Light

Model 225



## ECONOMICAL LIGHT DUTY WARNING LIGHT

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

The Federal Signal Electrarray® Model 225 is a compact, economical rotating warning light designed for industrial uses. This innovative dome design features a single retaining screw that allows quick and easy access for inspection and relamping.

The Federal Signal Electrarray 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 in five dome colors (Amber, Blue, Clear, Green and Red) and is UL Listed for Type 4X. Constructed to IP66 specifications, the Electrarray 225 is ready to mount on a 1/2-inch NPT pipe. Optional mounting brackets are available, simplifying installation on walls and in corners.

The Electrarray 225 is one of the most economical rotating signaling lights in the Federal Signal product line. Its design makes it easily adaptable for a multitude of indoor and outdoor applications. It is designed for permanent mounting where a 120VAC, 50/60Hz line is available. This light provides an effective, economical means of supplementing audible signaling devices.

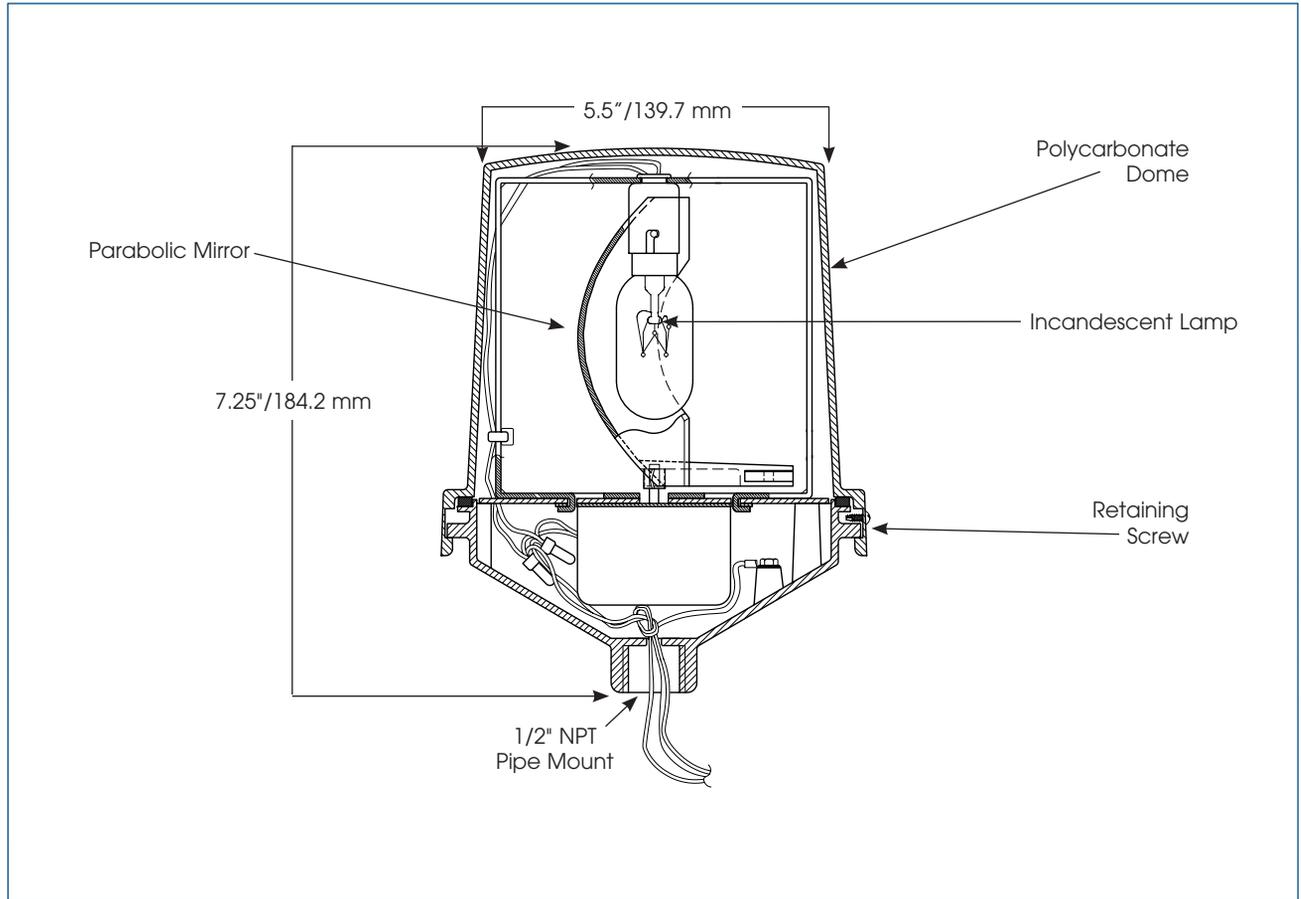
Federal Signal's Electrarray rotating light is an inexpensive warning light for calling attention to emergency situations or process status changes.

Model	Voltage	Operating Current	Flash Rate/ Minute	Candela	Mount
225-120*	120VAC 50/60HZ	0.22 amps	90	1,000	1/2" NPT Pipe

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



## ELECTRARAY® (225)



### SPECIFICATIONS

Lamp Life:	1,000	1,000
Light Source:	Incandescent	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"	184.0 mm
Diameter:	5.5"	140.0 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Corner Bracket (LCMB2)  
Wall Bracket (LWMB2)
- Please refer to Model Number Index 225 beginning on page 369

### REPLACEMENT PARTS

<i><b>Description</b></i>	<i><b>Part Number</b></i>
Dome, Amber	K8444D219C-03
Dome, Blue	K8444D219C-01
Dome, Clear	K8444D219C-04
Dome, Green	K8444D219C-02
Dome, Red	K8444D219C
Lamp	K149123A
Motor, 120VAC	K8241A030-02



# Electraray® Hazardous Location Rotating Warning Light

## Model 225X

### DESIGNED FOR USE IN HAZARDOUS LOCATIONS

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

The new Federal Signal Electraray® Model 225X is a compact, economical rotating warning light designed for a variety industrial applications. This innovative dome design, with a single screw allows quick and easy access for inspection and relamping.

The Federal Signal Electraray 225X features a silicone rubber gasket that provides a water-resistant seal between the dome and the black poly-coated base. The injection molded reflector rotates around a 25 watt lamp producing 90 flashes per minute. It is available in five dome colors (Amber, Blue, Clear, Green and Red) and is UL listed for Class I, Division 2, Group A, B, C and D; Class II, Division 2, Groups F and G; and Class III. The Electraray 225X is ready to mount on a 1/2" NPT pipe.

The Electraray 225X design makes it a good choice for a multitude of indoor and outdoor applications. It is designed for permanent mounting where 120VAC, 50/60Hz is available. This particular light provides an effective means of supplementing audible signaling devices in hazardous environments.

Federal Signal's affordable Electraray rotating warning light is specifically designed for use in hazardous locations or where corrosive materials are present.

Model	Voltage	Operating Current	Flash Rate/ Minute	Candela	Mount
225X-120 *	120VAC 50/60Hz	0.220 amps	90	1,000	1/2" NPT Pipe

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

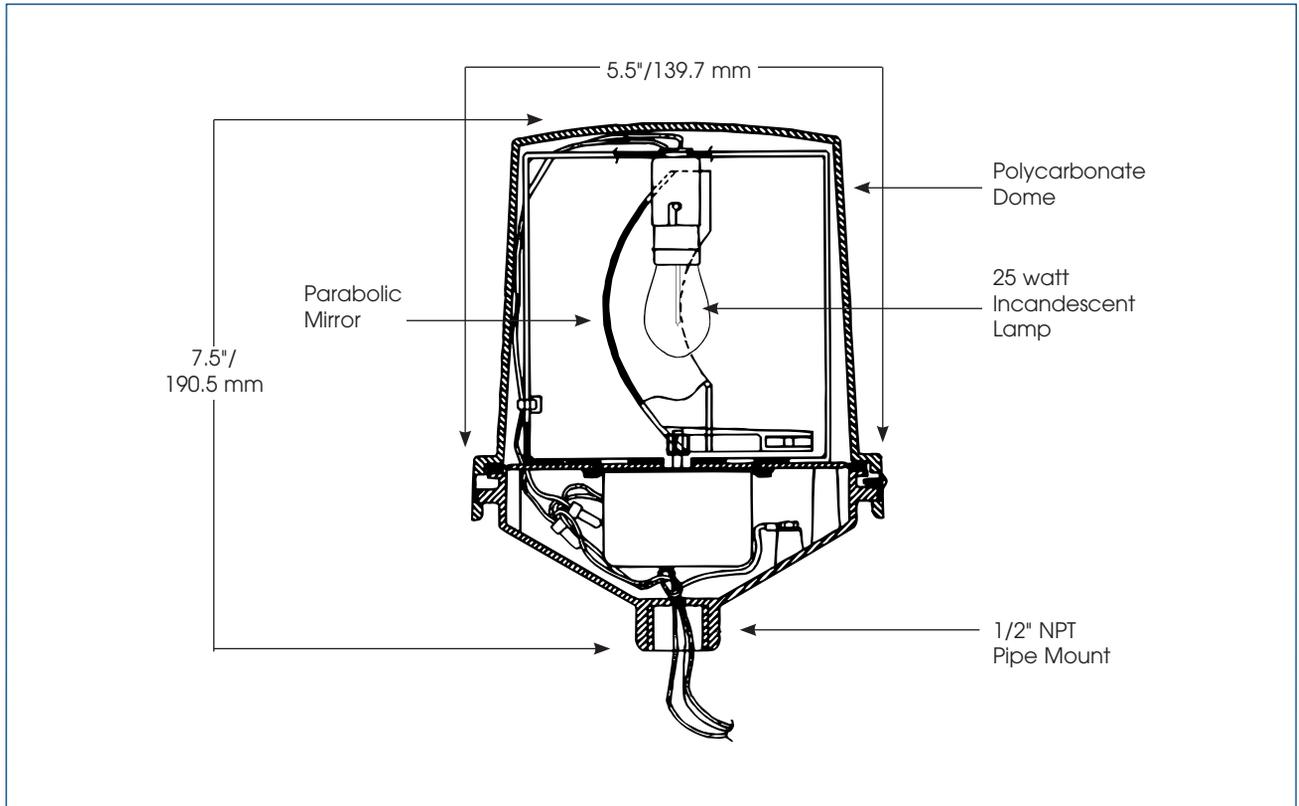
### Hazardous Location Rating:

T-Code at Maximum Ambient Temperature, °C	Hazardous Location	66°C
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Class I, Div 2, Groups A, B, C, D	T2B/260°
Class II, Div 2, Groups F, G	T5/100°
Class III	T5/100°



## ELECTRARAY® HAZARDOUS LOCATION WARNING LIGHT (225X)



### SPECIFICATIONS

Lamp Life:	1,000 Hours	1,000 Hours
Light Source:	Incandescent	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

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Hazardous Location Mounting Bracket (LHWB)
- Please refer to Model Number Index 225X beginning on page 369

### REPLACEMENT PARTS

<i>Description</i>	<i>Part Number</i>
Dome, Amber	K8444D219C-03
Dome, Blue	K8444D219C-01
Dome, Clear	K8444D219C-04
Dome, Green	K8444D219C-02
Dome, Red	K8444D219C
Lamp, 120VAC	K149123A
Motor, 120VAC	K8241A030-02

# Pioneer™ Rotating Beacon Ray

## Model 27S



### MEDIUM DUTY WARNING LIGHT

- Available in 120VAC
- Six lens colors
- 2,000 hour sealed beam lamp
- Integrated 1/2-inch NPT pipe mount
- Type 3R enclosure
- UL and cUL Listed and CSA Certified

Federal Signal's Model 27S is a medium sized, highly effective warning light designed for upright mounting and AC operation.

The 27S streamlined design features a sturdy housing finished in gray enamel. The Pioneer™ is available in six lens colors (Amber, Blue, Clear, Green, Magenta and Red), and is UL Listed and CSA Certified.

The Model 27S is ready to mount on a 1/2" NPT pipe. In addition, optional mounting brackets simplify installation on walls or in corners.

A high intensity 65 watt sealed beam lamp projects a fixed beam downward onto a 360° rotating reflector set at a 45° angle, producing the 60 flashes per minute in all directions.

Model 27S is a versatile warning or signaling light useful in a variety of in-plant applications. It has been designed for permanent installation where a 120VAC, 50/60Hz line voltage is available.

This light is particularly useful as a signaling or warning device in high ambient noise areas where it can be used to supplement or supplant audible signaling devices.

The 27S is effective for alerting of hazardous conditions or identifying dangerous areas.

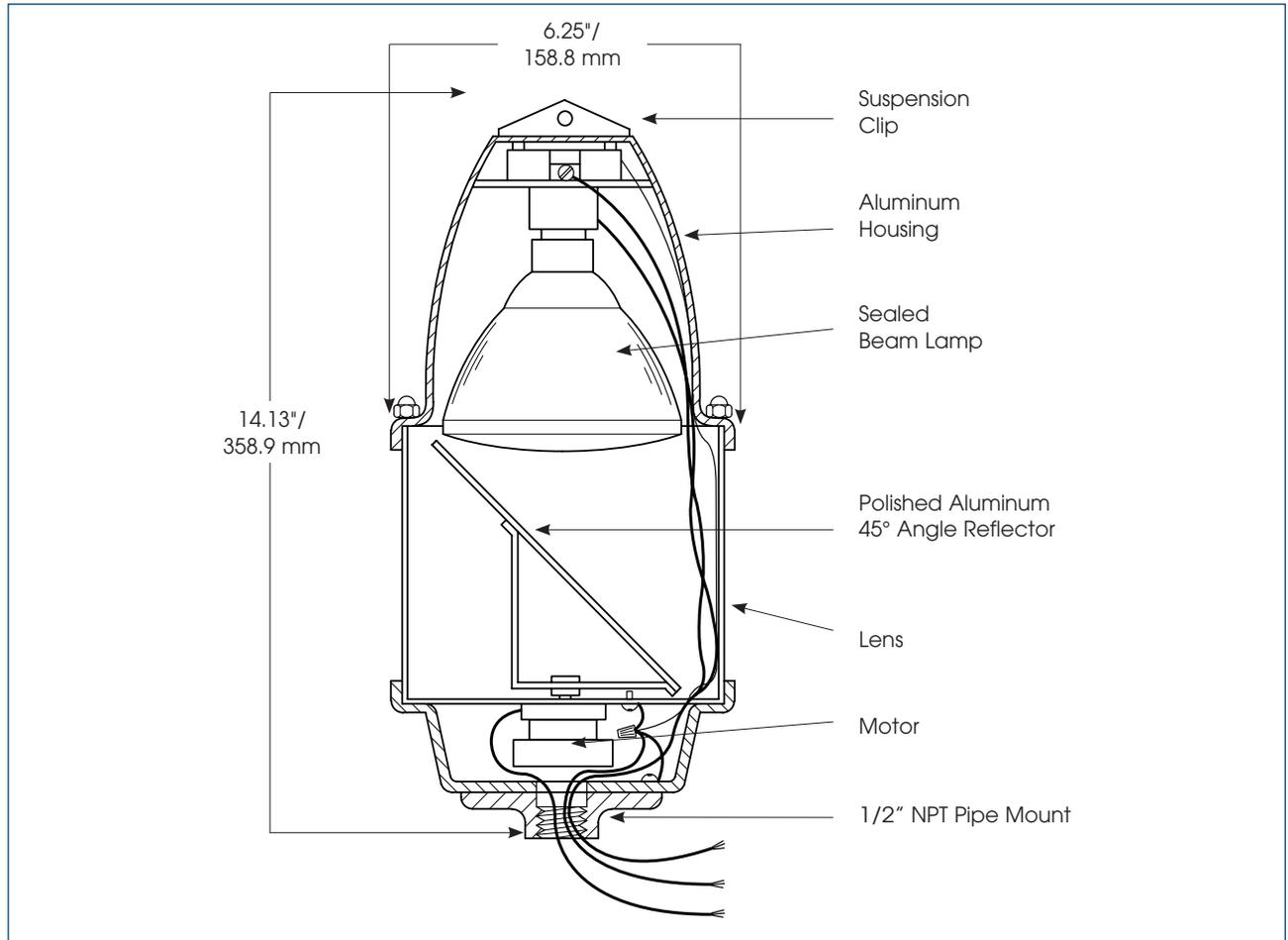
Federal Signal's Pioneer Rotating Beacon Ray is a dependable mid-range warning light which meets or exceeds the durability and light output requirements of most manufacturing environments.

Model	Voltage	Operating Current	Flash Rate/Minute	Candela	Mount
27S-120*	120VAC 50/60HZ	0.64 amps	60	6,000	1/2" NPT Pipe

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



## PIONEER™ BEACON RAY (27S)



### SPECIFICATIONS

Lamp Life:	2,000 Hours	2,000 Hours
Light Source:	65 Watt Sealed Beam	65 Watt Sealed Beam
Operating Temperature:	32°F to 120°F	0°C to 49°C
Net Weight:	3.1 lbs.	1.4 kg
Shipping Weight:	4.0 lbs.	1.8 kg
Height:	14.13"	358.9 mm
Diameter:	6.25"	158.9 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Corner Bracket (LCMB2)  
Wall Bracket (LWMB2)
- Please refer to Model Number Index 27S beginning on page 369

### REPLACEMENT PARTS

<i><u>Description</u></i>	<i><u>Part Number</u></i>	<i><u>Description</u></i>	<i><u>Part Number</u></i>
Dome, Amber	K8241B031K-16	Dome, Magenta	K8241B031K-15
Dome, Blue	K8241B031K-14	Dome, Red	K8241B031K-12
Dome, Clear	K8241B031K-13	Sealed Beam Lamp, 120V	K8241A014B
Dome, Green	K8241B031K-11	Motor, 120VAC	K8241A030-03

# Commander® Rotating Warning Lights

Models 371 and 371L



## HEAVY DUTY WARNING LIGHTS

- Available in 120VAC
- Five dome colors
- Pivoting lamp yoke
- Surface mount and integrated 1-inch NPT pipe mount
- Type 4X, IP66 enclosure
- UL and cUL Listed and CSA Certified

Federal Signal Models 371/371L incandescent warning lights have a powerful sealed beam lamp that rotates 360° within a glass or polycarbonate dome. Power is delivered to the Commander's rotating lamp by a unique collector ring. The lamp itself is mounted in a pivoting yoke. This allows the lamp beam angle to be adjusted through 90 degrees from horizontal to vertical. Changing the beam angle allows the user to create unique light patterns and/or direct the light for better visibility.

The Model 371 features a 200 watt sealed beam lamp and a high-temperature resistant glass dome. The glass dome of the 371 is ideal for applications such as steel mills or arc furnaces/smelters where high ambient temperatures or red hot materials would melt or damage the dome.

The Model 371L features a 100 watt sealed beam lamp and an impact-resistant polycarbonate dome. The thinner polycarbonate dome allows more light to pass through while protecting the lamp.

Both models of the Commander® are available in five colors (Amber, Blue, Clear, Green and Red). The dome and ring assembly simply screws on, providing access to the interior of the light.

The new 371/371L base features electrostatically applied (e-coated) black epoxy 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.

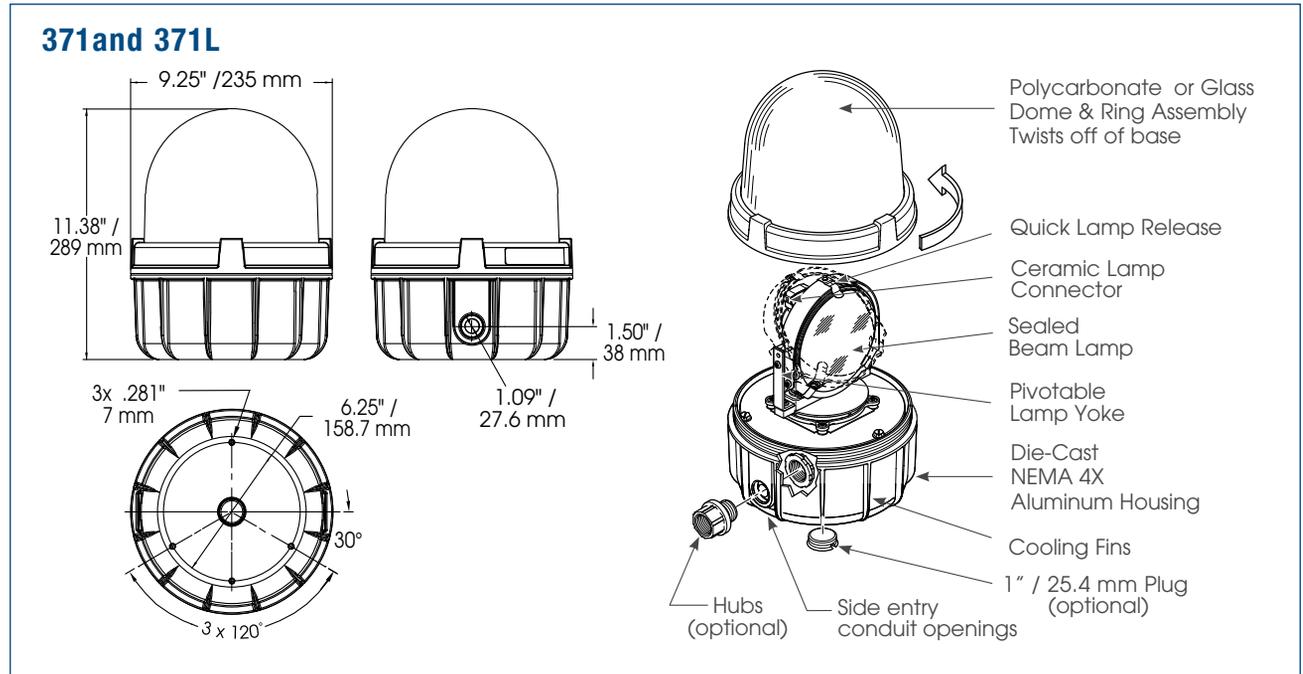
The 371 and 371L are Type 4X, IP66 rated, UL and cUL Listed and CSA Certified.

Model	Voltage	Operating Current	Flash Rate/Minute	Candela	Mount
371-120 *	120VAC 50/60HZ	1.75 amps	60	36,000	1" NPT Pipe/Surface
371L-120 *	120VAC 50/60HZ	0.80 amps	60	20,000	1" NPT Pipe/Surface

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



## COMMANDER® ROTATING LIGHTS (371/371L)



### SPECIFICATIONS

Lamp Life:		2,000 Hours	2,000 Hours
Light Source:	371	200 Watt Sealed Beam	200 Watt Sealed Beam
	371L	100 Watt Sealed Beam	100 Watt Sealed Beam
Operating Temperature:		-31°F to 150°F	-35°C to 66°C
Net Weight:			
	371	13.25 lbs.	6.0 kg
	371L	9.8 lbs.	4.4 kg
Shipping Weight:			
	371	14.25 lbs.	6.5 kg
	371L	10.8 lbs.	4.9 kg
Height:		11.38"	288.9 mm
Diameter:		9.12"	231.8 mm

### HOW TO ORDER

- Specify model, voltage and color
  - Optional Accessories:  
 Corner Bracket (LCMB2)\*  
 Wall Bracket (LWMB2)\*  
 Solid Surface Mounting Bracket (371BRCKT)\*  
 Shock Mount Kit (K8459A076C)  
 3/4" Hub Kit (K8459138A)  
 1" Plug Kit (K8459130A)
  - Please refer to Model Number Index 371/371L beginning on page 369
- \* Rated for NEMA 3R installations.

### REPLACEMENT PARTS

<u>Description (Current Series)</u>	<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>
Series B Dome and Ring Assembly		Lamp (371)	K8442A039
Amber Glass (371)	K8459126A	Lamp (371L)	K8107A130
Blue Glass (371)	K8459126A-01	Motor Replacement Kit (371/371L)	K8459A113B
Clear Glass (371)	K8459126A-03	Worm Gear Assembly (371/371L)	K8459A017
Green Glass (371)	K8459126A-04	Brush and Spring (371/371L)	K8442A028
Red Glass (371)	K8459126A-02	Gasket, Surface Mount	K8459127A
Amber Polycarbonate (371L)	K8459125A		
Blue Polycarbonate (371L)	K8459125A-01		
Clear Polycarbonate (371L)	K8459125A-02		
Green Polycarbonate (371L)	K8459125A-03		
Red Polycarbonate (371L)	K8459125A-04		

# Explosion-Proof Rotating Light

## Model 121X



### DESIGNED FOR USE IN EXPLOSION-PROOF ATMOSPHERES

- Available in 24VDC and 120VAC
- Five lens colors
- 3/4-inch NPT pendant mount standard; other options available
- Optional dome guard
- Type 4X, IP66 enclosure
- UL and cUL Listed, CSA Certified and Marine Rated

Federal Signal's Model 121X rotating light flashes 90 times per minute and produces a 360° visual signal. This explosion-proof light has an incandescent lamp and is available in five lens colors – Amber, Blue, Clear, Green and Red.

The Model 121X is UL Listed for Class I, Division 1, Groups C & D; Class II, Division 1, Groups E, F & G; Class I, Division 2, Groups A, B; and Class III. The 121X is CSA Certified, Marine Rated and constructed to Type 4X, IP66 standards.

This corrosion-resistant unit's copper-free aluminum housing is finished with a powder epoxy. All exposed hardware is constructed of 316 grade stainless steel.

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 lens for quick access when inspecting or relamping. A pendant mount is supplied and a ceiling mount and 90° wall mount are available options. Installation is simple; with the mounting box in place, the fixture is threaded onto the mounting box, making the electrical connection. Electrical continuity is made when five threads are engaged.

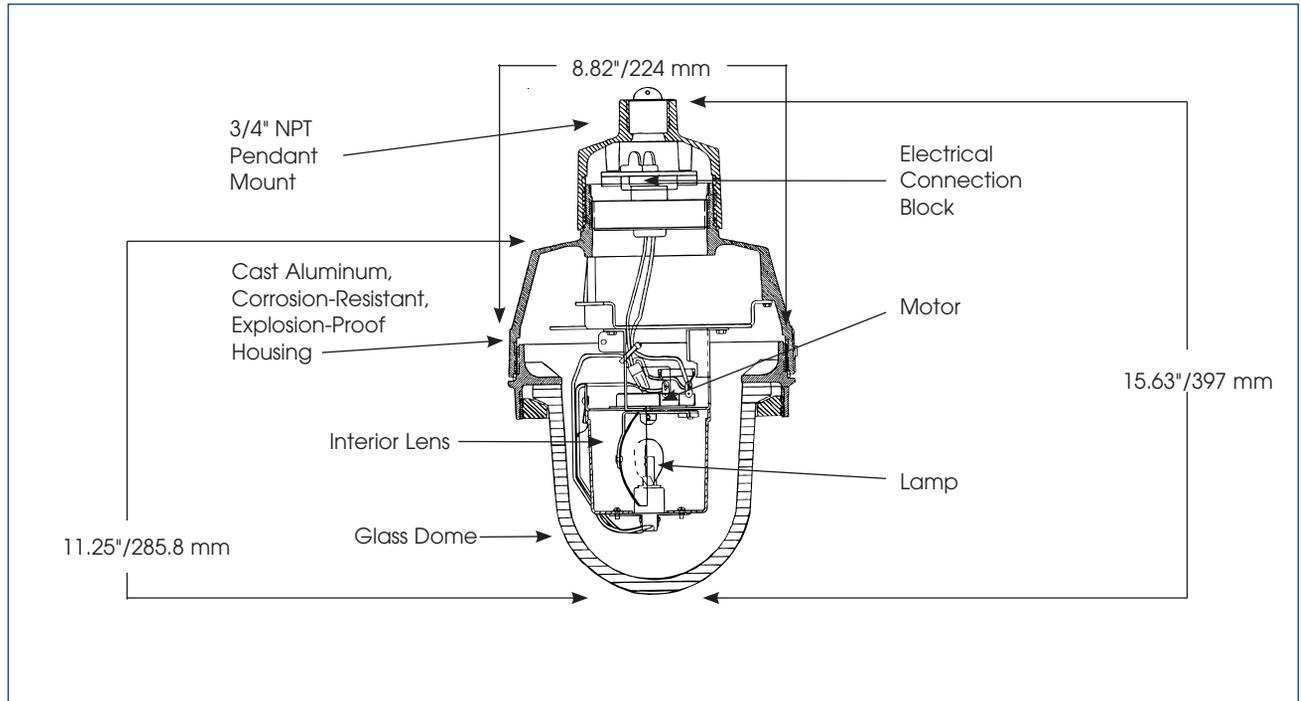
Federal Signal's rugged 121X Warning Light is designed for explosion-proof applications and/or corrosive environments. It is ideal for use in indoor and outdoor areas such as oil rigs, mines, refineries, and chemical plants.

Model	Voltage	Operating Current	Flash Rate/Minute	Candela	Mount
121X-024_*	24VDC	1.05 amps	90	2,350	3/4" NPT Pendant
121X-120_*	120VAC 60Hz	0.33 amps	90	1,800	3/4" NPT Pendant

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



## EXPLOSION-PROOF ROTATING LIGHT (121X)



### SPECIFICATIONS

Lamp Life:	800 Hours	800 Hours
Light Source:	Incandescent	Incandescent
Ambient Temperature Range:	-31°F to 150°F	-35°C to 66°C
Net Weight:	14.75 lbs.	6.69 kg
Shipping Weight:	18.9 lbs.	8.57 kg
Height:	15.63"	397.0 mm
Diameter:	8.82"	224.0 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Ceiling Mount Kit (CMXC)  
Wall Mount (WMXC)  
Dome Guard (DGXC)
- Please refer to Model Number Index 121X beginning on page 369

### REPLACEMENT PARTS

<i><b>Description</b></i>	<i><b>Part Number</b></i>	<i><b>Description</b></i>	<i><b>Part Number</b></i>
Exterior Dome Assembly, Clear	K8444C271A-01	24VDC Mechanism, Amber	K8444269A
Interior Lens, Amber	K8444242A	24VDC Mechanism, Blue	K8444269A-01
Interior Lens, Blue	K8444242A-01	24VDC Mechanism, Clear	K8444269A-02
Interior Lens, Clear	K8444242A-02	24VDC Mechanism, Green	K8444269A-03
Interior Lens, Green	K8444242A-03	24VDC Mechanism, Red	K8444269A-04
Interior Lens, Red	K8444242A-04	120VAC Mechanism, Amber	K8444277A
Lamp, 24VDC	K8107A041	120VAC Mechanism, Blue	K8444277A-01
Lamp, 120VAC	K8444A173A	120VAC Mechanism, Clear	K8444277A-02
		120VAC Mechanism, Green	K8444277A-03
		120VAC Mechanism, Red	K8444277A-04

# Streamline® Low Profile Light

## Model LP2



### PERFECT SIZE MEETS SUPERIOR PERFORMANCE

- Available in 24VAC/VDC and 120VAC
- Surface or panel mount
- Steady burning
- Five dome colors
- Type 4X enclosure
- Low profile — only 2.5" H x 3" diameter (65mm x 76mm)
- Built-in strain relief
- UL and cUL Listed and CE Compliant

The Streamline® Model LP2 is a unique, steady burning incandescent light, ideal for both horizontal and vertical panel mount installation. This device mounts easily through any 1.54" (39mm) diameter hole; a lock nut secures the light firmly in place. A gasket positioned above the mounting surface assures a water-tight and dust-tight fit. The lamp is easily replaced from below the mounting surface. Inherent strain relief secures all wiring from the rear, for added durability. The enclosure consists of a polycarbonate dome in five colors (Amber, Blue, Clear, Green and Red), and a polyamide base; the enclosure with gasket is rated Type 4X.

A 6 watt incandescent lamp is included with the 24VAC/DC and 120VAC units. The double-contact bayonet base (Type S-6) is a standard lamp style, readily available when replacement is required. Lamp life is approximately 1,500 hours when run on AC power.

Like all Federal Signal products, the StreamLine LP2 is designed with customer applications in mind. The LP2 functions in most PLC applications (including triac outputs). Careful consideration has been given to the relationship between lamp shape and lens design for maximum light output.

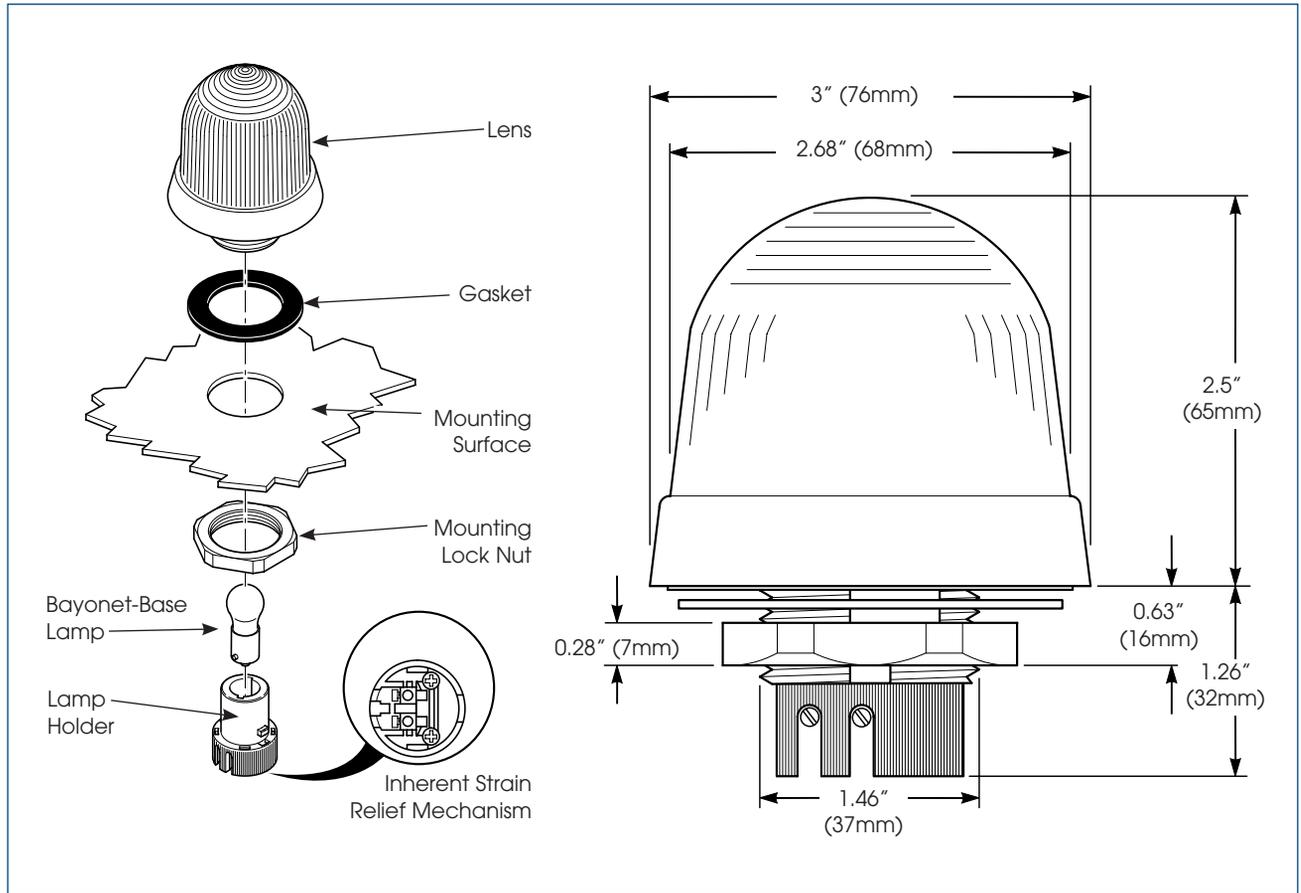
When your application calls for a compact signal with unparalleled reliability, Federal Signal's Streamline products are the clear choice.

Model	Voltage	Power	Operating Current
LP2-024 *	24VAC/DC	6 watt	0.30 amps
LP2-120 *	120VAC	6 watt	0.06 amps

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



## STREAMLINE® LOW PROFILE LIGHT (LP2)



### SPECIFICATIONS

Lamp Life:	1,500 Hours	1,500 Hours
Light Source:	Incandescent	Incandescent
Operating Temperature:	-4°F to 140°F	-20°C to 60°C
Net Weight:	3.4 oz.	96.4 g
Shipping Weight:	4.5 oz.	127.6 g
Height — above surface:	2.5"	65.0 mm
Height — below surface:	1.26"	32.0 mm
Diameter:	3.0"	75.0 mm

### HOW TO ORDER

- Specify model, voltage and color
- Please refer to Model Number Index LP2 beginning on page 369

### REPLACEMENT PARTS

<i>Description</i>	<i>Part Number</i>
Lamp, 24VAC/DC	K8107195A
Lamp, 120VAC	K8107195A-01



# StreamLine® Low Profile Steady Burning Light

Models LP3MI, LP3PI, LP3TI

## COMPACT, ECONOMICAL AND FLEXIBLE

- Available in 24VDC and 120VAC
- T-mount, integrated 1/2-inch NPT pipe mount or 1/2-inch NPT male pipe mount
- Incandescent lamp included
- Five dome colors
- 15 watt incandescent lamp
- Screw-on lens
- Type 4X enclosure
- Optional wire guard
- UL and cUL Listed and CSA Certified

Federal Signal introduces the Model LP3I low profile steady burning light. The Type 4X light is available in five colors: Amber, Blue, Clear, Green, and Red.

The LP3I is offered in three mounting configurations. LP3PI features an integrated 1/2" NPT pipe mount. LP3MI features an integrated 1/2" NPT male pipe mount. The "T-mount" LP3TI has a popular 2-hole design for wall or flush mounting.

Both the LP3MI and LP3TI include a surface gasket to complete the Type 4X installation. All LP3I units feature a threaded screw-on lens. The LP3I comes in two voltages: 24VDC and 120VAC.

A 15 watt incandescent lamp is included with all units. The lamp features a standard double-contact bayonet base readily available when replacement is required.

Like all Streamline® products, the LP3I is designed with OEM applications in mind. It is economical, easy to install and attractive. Careful consideration has been given to the relationship between lamp shape and lens design for maximum light output.

When your application calls for a compact signal with unparalleled reliability, Federal Signal's Streamline products are the clear choice.

Model	Voltage	Power	Operating Current
LP3 <b>** I-024 *</b>	24VDC	15 watt	0.67 amps
LP3 <b>** I-120 *</b>	120VAC	15 watt	0.13 amps

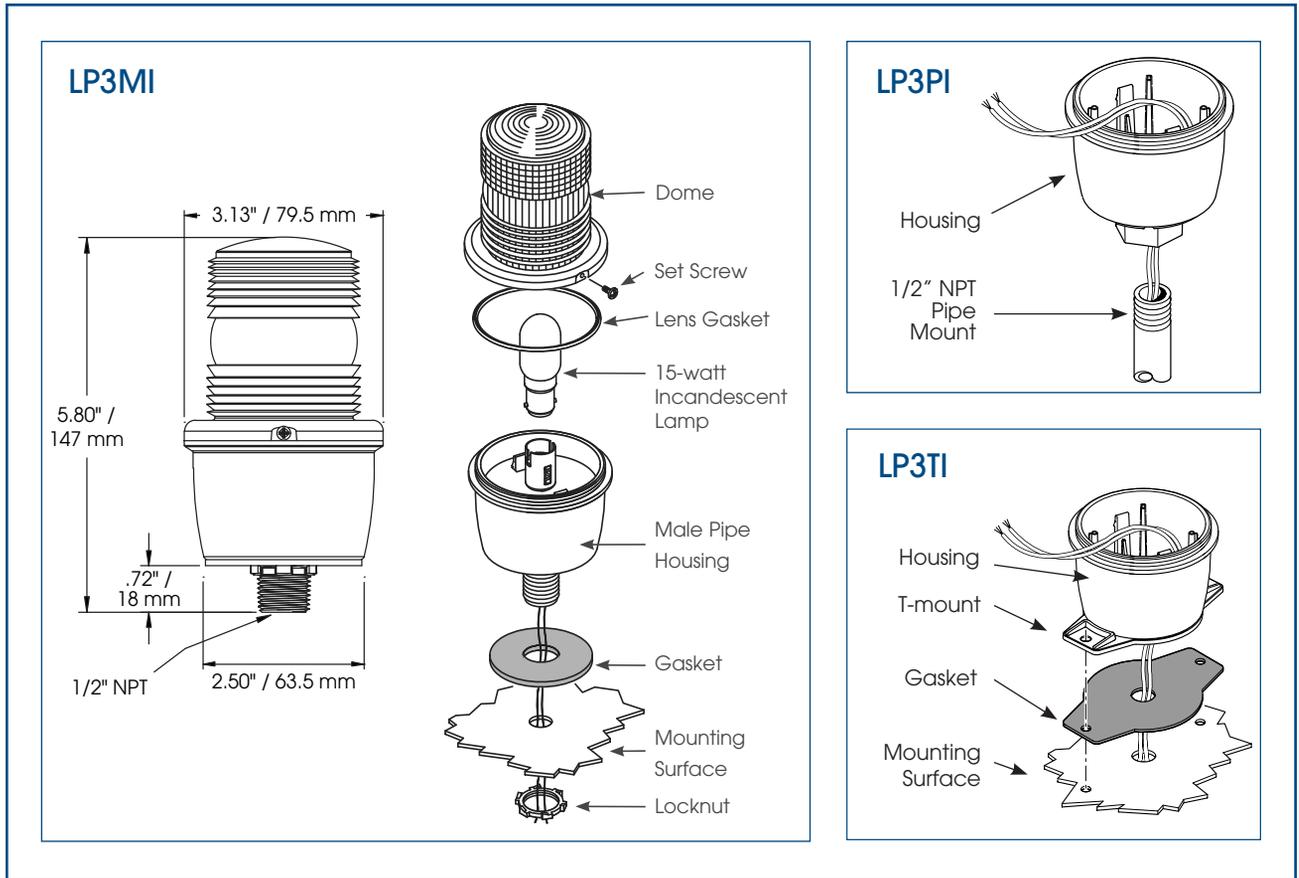
\*\* Indicates Mounting Style:

(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 BURN LIGHT (LP3MI/LP3PI/LP3TI)



### SPECIFICATIONS

Lamp Life:	2,000 Hours	2,000 Hours
Light Source:	Incandescent	Incandescent
Operating Temperature:	-31°F to 150°F	-35°C to 65°C
Net Weight:	7.3 oz.	206.96 g
Shipping Weight:	8.5 oz.	240.98 g
Diameter:	3.13"	7.95 cm
Height (from bottom):		
LP3PI	5.7"	14.48 cm
LP3MI	5.8"	14.7 cm
LP3TI	5.1"	12.95 cm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Wire Guard (LP3G) Compatible with S, T, and M mounts only
- Please refer to Model Number Index LP3I beginning on page 370

### REPLACEMENT PARTS

<i><b>Description</b></i>	<i><b>Part Number</b></i>	<i><b>Description</b></i>	<i><b>Part Number</b></i>
Lens, Amber	K8589063A	Lamp, 120VAC	K8107194A
Lens, Blue	K8589063A-01	Lamp, 24VDC	K8107227A
Lens, Clear	K8589063A-02	Gasket, LP3TI	K8589012A
Lens, Green	K8589063A-03	Gasket, Lens	K8589013A
Lens, Red	K8589063A-04		

LED



# StreamLine® Low Profile Steady Burning LED Light

Model LP3SL, LP3PL, LP3TL, LP3ML

## COMPACT, ECONOMICAL AND FLEXIBLE

- Available in 24VDC and 120VAC
- T-mount, integrated 1/2-inch NPT pipe mount, 1/2-inch NPT male pipe mount or surface mount
- Five dome/lens colors available
- 100,000 Hour LED
- Screw on lens
- Indoor/Outdoor use
- Type 4X enclosure
- Optional wire lens guard
- UL and cUL Listed and CSA Certified

Federal Signal introduces the Model LP3L low profile LED light. The Type 4X light is available in five LED/lens color combinations; Amber, Blue, Clear, Green and Red. All LP3 models feature the easy access screw on lens.

The LP3L 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. The T-mount and Surface mount units include surface gaskets to maintain the 4X installation.

The LP3L series is available in 24VDC and 120VAC. All models include the vibration resistant, double contact bayonet style 100,000 hour LED module.

Like all StreamLine® products, the LP3L is designed with OEM applications in mind. It is economical, easy to install and attractive. Careful consideration has been given to the relationship between the LED light source and the lens design for maximum light output.

When your application calls for a compact signal with unparalleled reliability, Federal Signal's StreamLine products are the clear choice.

Model	Voltage	Operating Current
LP3 <u>** L-024 *</u>	24VDC	0.08 amps
LP3 <u>** L-120 *</u>	120VAC	0.13 amps

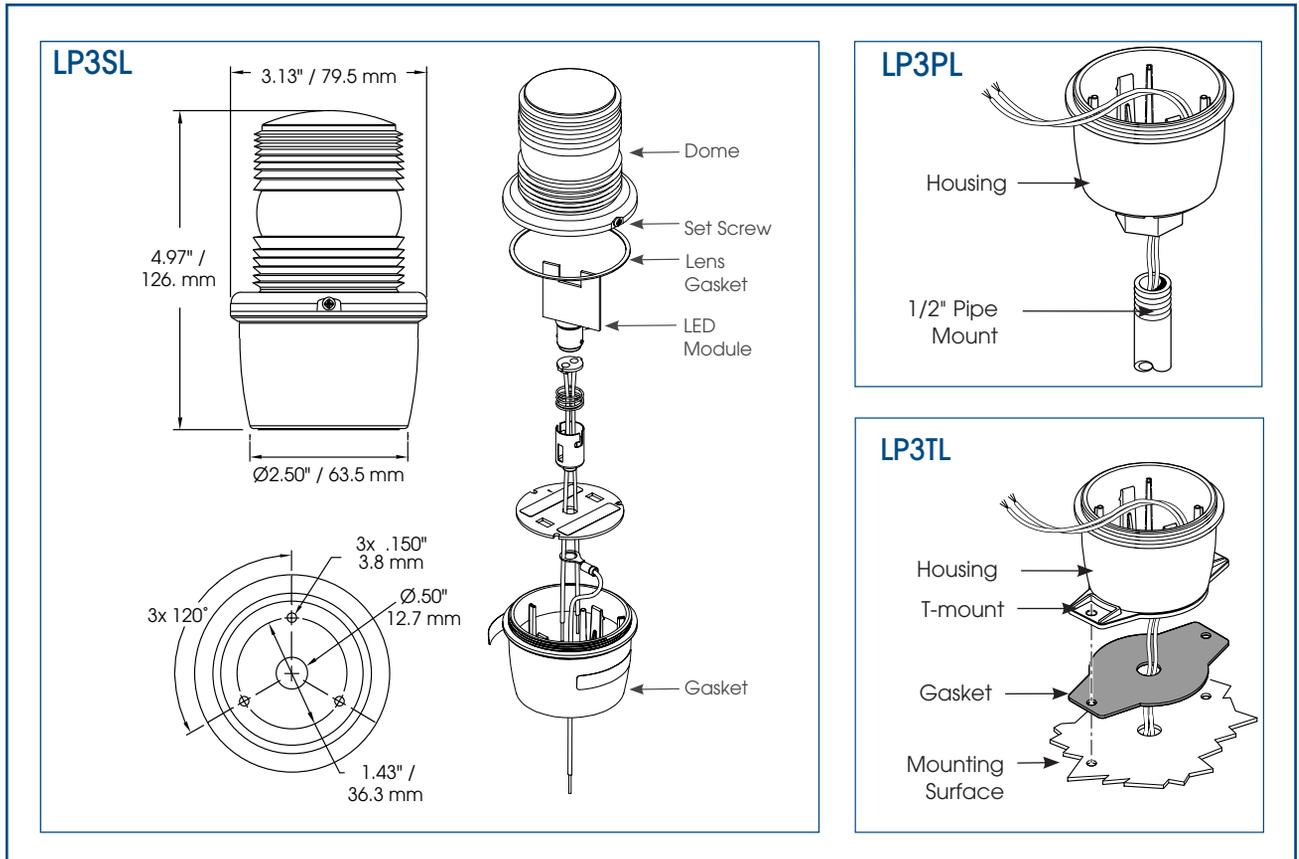
\*\* Indicates Mounting Style:

(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 LIGHT (LP3SL/LP3PL/LP3TL/LP3ML)



### SPECIFICATIONS

Lamp Life:	100,000 Hours	100,000 Hours
Light Source:	LED Array	LED Array
Operating Temperature:	-31°F to 150°F	-35°C to 65°C
Net Weight:	0.46 lbs.	206.96 g
Shipping Weight:	0.53 lbs.	240.98 g
Diameter:	3.13"	7.95 cm
Height (from bottom):		
LP3PL	5.7"	14.48 cm
LP3ML	5.8"	14.7 cm
LP3TL	5.1"	12.95 cm
LP3SL	5.0"	12.7 cm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Wire Guard (LP3G) Compatible with S, T, and M mounts only
- Please refer to Model Number Index LP3L beginning on page 370

### REPLACEMENT PARTS

<i>Description</i>	<i>Part Number</i>	<i>Description</i>	<i>Part Number</i>
Lens, Amber	K8589063A	LED, 24V Amber	K8107199A
Lens, Blue	K8589063A-01	LED, 24V Blue	K8107199A-03
Lens, Clear	K8589063A-02	LED, 24V Clear	K8107199A-04
Lens, Green	K8589063A-03	LED, 24V Green	K8107199A-02
Lens, Red	K8589063A-04	LED, 24V Red	K8107199A-01
Gasket, LP3TL	K8589012A	LED, 120V Amber	K8107200A
Gasket, LP3SL	K8589011A	LED, 120V Blue	K8107200A-03
Gasket, Lens	K8589013A	LED, 120V Clear	K8107200A-04
		LED, 120V Green	K8107200A-02
		LED, 120V Red	K8107200A-01

LED



# Electraray® Hazardous Location LED Flashing Warning Light with XLT™

## Model 225XL

### LED-BASED WARNING LIGHT FOR HEAVY-DUTY INDUSTRIAL APPLICATIONS

- XLT™ Technology
- Available in 24VAC/DC, 120VAC–240VAC
- Five lens/lamp colors
- Flashing mode standard, configurable to Steady-burn
- 60,000-hour, vibration-resistant LED lamp
- 1/2-inch NPT pipe mount
- Type 4X, IP66 enclosure, Marine Listed
- UL and cUL Listed for Class 1, Division 2 applications

The Model 225XL is a hazardous location flashing signal light that features the super bright LED array with XLT™, eXtreme Light Technology. The unit is available in 24VAC/DC, 120-240VAC self detecting voltage and five colors – Amber, Blue, Clear, Green, and Red. The 225XL comes standard in flashing mode and is field configurable to steady burn mode for maximum functionality.

The Model 225XL has been certified by UL as meeting Type 4X water-tight and corrosion-resistant requirements, and is rated for Division 2 applications. This hazardous location warning light has a black polyurethane-coated base and the inner Fresnel lens is available in five colors – Amber, Blue, Clear, Green, and Red. The clear polycarbonate outer dome can be quickly removed for access while changing the LED or inspecting the unit.

Federal Signal's super bright LED array used in the 225XL with XLT inside produces intense light output and 60,000 hours of service. Increased shock and vibration resistance add to this unit's rugged industrial portfolio of features.

The 225XL is UL Listed for Class I, Division 2, Groups A, B, C and D; Class II Division 2, Groups F and G; and Class III.

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

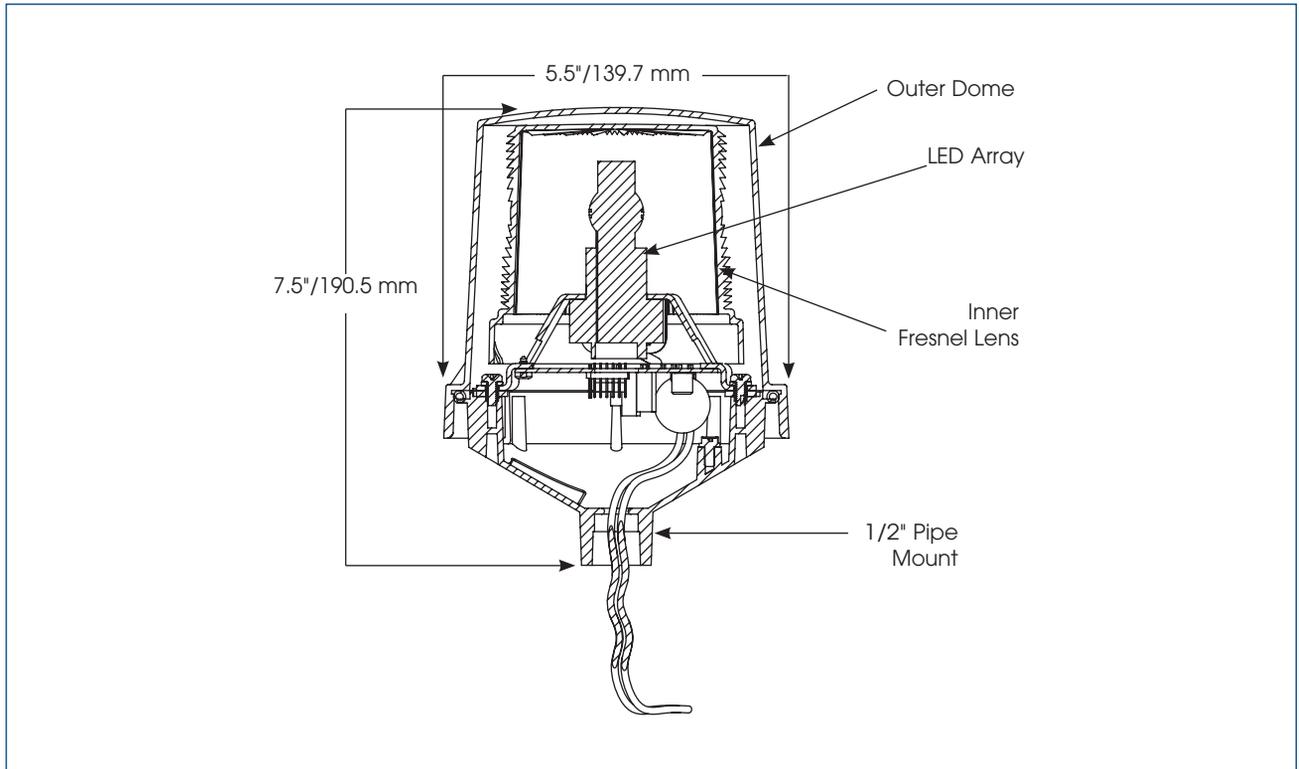
Model	Voltage	Operating Current	In-rush Current	Flash Rate/Minute	Mount
225XL-024 *	24VAC/DC	0.38 amps	1.75 amps, 5.0 mS	60	1/2" NPT Pipe
225XL-120-240 *	120/240VAC	0.21/0.13 amps	2.00 amps, 0.25 mS	60	1/2" NPT Pipe

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



Hazardous Location	T-Code at Maximum Ambient Temperature, °C					
	40°C		55°C		66°C	
	24V	100-265VAC	24V	100-265VAC	24V	100-265VAC
Class I, Div 2, Groups A, B, C, D	T6/85°	T6/85°	T5/100°	T5/100°	T4A/120°	T4A/120°
Class II, Div 2, Groups F, and G	T6/85°	T6/85°	T6/85°	T6/85°	T6/85°	T6/85°
Class III	T6/85°	T6/85°	T6/85°	T6/85°	T6/85°	T6/85°

## ELECTRARAY® HAZARDOUS LOCATION LED LIGHT (225XL)



### SPECIFICATIONS

Lamp Life:	60,000 Hours	60,000 Hours
Light Source:	LED Array	LED Array
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

### HOW TO ORDER

- Specify model, voltage and color
- Please refer to Model Number Index 225XL beginning on page 370

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>
Exterior Dome, Clear	K8444D219C-04	PC Board Assembly, 24VAC/DC	K2005455A
Interior Lens, Amber	K8550292A-02	PC Board Assembly, 120/240VAC	K2005416A
Interior Lens, Blue	K8550292A-01	LED Lamp, Amber	K147169A-06
Interior Lens, Clear	K8550292A	LED Lamp, Blue	K147169A-07
Interior Lens, Green	K8550292A-04	LED Lamp, Clear	K147169A-10
Interior Lens, Red	K8550292A-03	LED Lamp, Green	K147169A-08
		LED Lamp, Red	K147169A-09

# Electraflash® Flashing Lights



## Model 141

### DESIGNED FOR INDUSTRIAL OR VEHICULAR USE

- Available in 12VDC, 24VDC, and 120VAC
- Five dome colors
- Surface mount or integrated 1/2-inch NPT pipe mount
- Type 3R enclosure
- UL Listed and CSA Certified

Federal Signal's Electraflash® Model 141 is an economical incandescent flashing light. The Electraflash is less than six inches high and six inches in diameter. It is available in five impact-resistant fresnel dome colors: Amber, Blue, Clear, Green and Red. The 120VAC model is UL Listed and CSA Certified.

The Model 141 is available in 12VDC, 24VDC, and 120VAC. This light consists of a flasher unit with an incandescent bayonet lamp secured to its base (screw-in type lamp in 120VAC only).

The 12VDC and 24VDC units each provide three holes for easy flat surface mounting. The 120VAC unit is ready to mount on a 1/2-inch NPT pipe. Optional mounting brackets are available for the 120VAC unit, including the Model LWMB2 wall mount bracket and the Model LCMB2 corner mount bracket.

Federal Signal's economical flashing lights are designed for both indoor and outdoor environments. Model 141's convenient size and intense light output are ideal for maintenance vehicles, fork lifts, and other material handling equipment. The Electraflash can effectively identify hazardous conditions or dangerous areas.

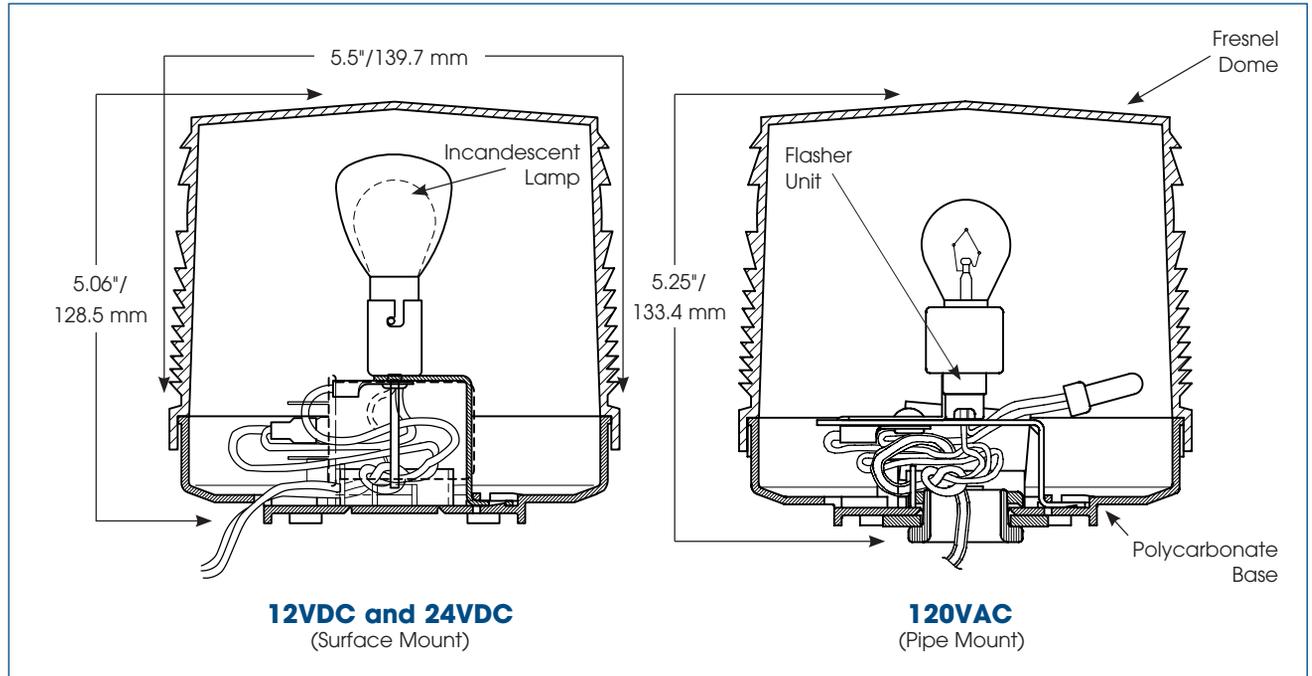
Federal Signal's Electraflash is a compact warning light designed specifically for use in light-duty industrial applications.

Model	Voltage	Operating Current	Flash Rate/ Minute	Candela	Mount
141-012 *	12VDC	3.00 amps	70	325	Surface
141-024 *	24VDC	0.90 amps	70	125	Surface
141-120 *	120VAC 50/60Hz	0.38 amps	70	275	1/2" NPT Pipe

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



## ELECTRAFLASH® FLASHING LIGHT (141)



### SPECIFICATIONS

Lamp Life:		
12VDC - Incandescent	1,000 Hours	1,000 Hours
24VDC - Incandescent	7,000 Hours	7,000 Hours
120VAC - Incandescent	7,000 Hours	7,000 Hours
Operating Temperature:		
DC Versions	-31°F to 150°F	-35°C to 66°C
Net Weight:		
DC Versions	0.8 lbs.	0.4 kg
AC Version	1.0 lb.	0.5 kg
Shipping Weight:		
DC Versions	1.1 lbs.	0.5 kg
AC Version	1.3 lbs.	0.6 kg
Height:		
DC Versions	5.06"	128.5 mm
AC Version	5.25"	133.4 mm
Diameter:		
DC Versions	5.5"	139.7 mm
AC Version	5.5"	139.7 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories: (120VAC only):  
 Corner Bracket (LCMB2)  
 Wall Bracket (LWMB2)
- Please refer to Model Number Index 141 beginning on page 370

### REPLACEMENT PARTS

<b>Description</b>	<b>Part Number</b>	<b>Description</b>	<b>Part Number</b>
Dome, Amber	K8263073A	Incandescent Lamp (24VDC)	K8107213A
Dome, Blue	K8263073A-01	Incandescent Lamp (120VAC)	K8107181A
Dome, Clear	K8263073A-03	Flasher (12VDC)	K8263A083A
Dome, Green	K8263073A-04	Flasher (24VDC)	K8285237A
Dome, Red	K8263073A-02	Flasher (120VAC)	K8285238A-01
Incandescent Lamp (12VDC)	K8107212A	Pipe Mount Kit	K8263093A

# Battery Powered Warning Light

## Model BPL26



### PORTABLE WARNING LIGHT INCLUDING A MOUNTING METHOD

- 12VDC — uses two standard 6VDC lantern batteries (batteries not included)
- Five dome colors
- 300-hour, 5 watt incandescent lamp
- Type 3R enclosure

Federal Signal's Model BPL26 is a portable, battery powered warning light which flashes 65 times per minute. The solid state flasher features components which are moisture-proof and reverse polarity protected to ensure extended battery life and trouble-free performance.

The BPL26 is available in five fresnel dome colors; Amber, Blue, Clear, Green and Red. For increased durability, the dome is made of impact-resistant polycarbonate materials, 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.

A suspension ring on the top of the unit makes this warning light easy to hang. Power is supplied by two standard 6-volt DC, spring terminal lantern batteries (not included).

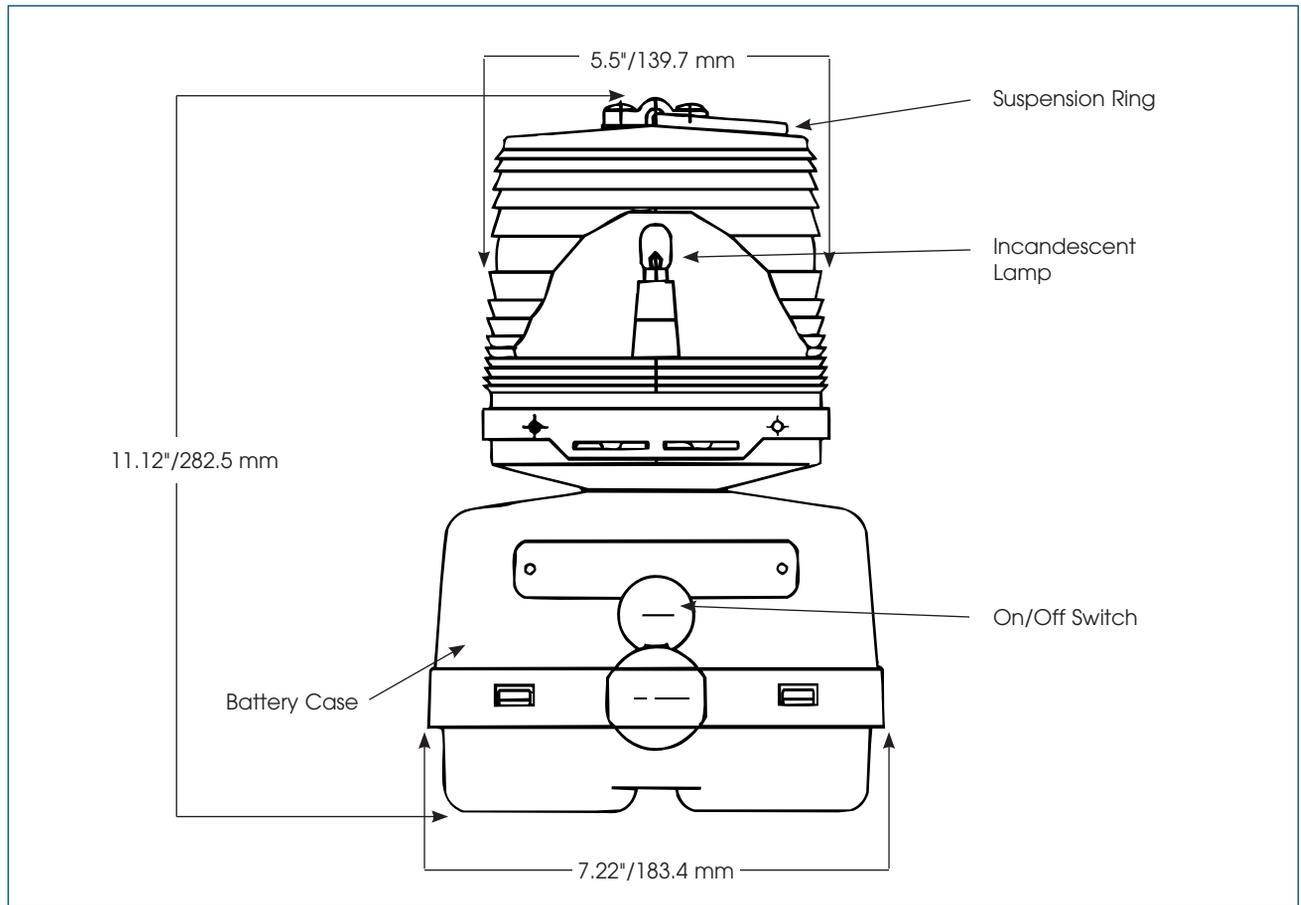
The Model BPL26 is ideal for job sites requiring temporary warning lights or for any location where primary power is unavailable.

Model	Voltage	Operating Current	Flash Rate/Minute	Mount
BPL26 *	12VDC	0.58 amps	65	Portable

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



## BATTERY POWERED LIGHT (BPL26)



### SPECIFICATIONS

Lamp Life:	300 Hours	300 Hours
Light Source:	Incandescent	Incandescent
Operating Voltage:	12VDC	12VDC
Net Weight:	1.9 lbs.	0.86 kg
Shipping Weight:	3.0 lbs.	1.36 kg
Height:	11.12"	282.5 mm
Width:	7.22"	183.4 mm
Diameter of Dome:	5.5"	139.7 mm

\* Optimal hours under ideal conditions.

### HOW TO ORDER

- Specify model number and color
- Please refer to Model Number Index BPL26 beginning on page 370

### REPLACEMENT PARTS

<b>Description</b>	<b>Part Number</b>
Dome, Amber	K8263A084A
Dome, Blue	K8263A084A-01
Dome, Red	K8263A084A-02
Dome, Clear	K8263A084A-03
Dome, Green	K8263A084A-04
12VDC, 5 watt Lamp	K8107A151A



# Flashing LED Hazardous Location Warning Light with XLT™

Model 191XL

## RUGGED DESIGN FOR USE IN HAZARDOUS LOCATIONS

- XLT™ Technology
- Available in 24VAC/DC and 120-240VAC
- Five lamp/lens colors
- Flashing mode standard, configurable to Steady-burn
- 60,000 hour, vibration resistant LED lamp
- 3/4-inch NPT pipe mount
- Dome guard included
- Type 4X, IP66 enclosure, Marine Listed
- UL and cUL Listed

The model 191XL is a hazardous location flashing signal light that features the super bright LED array with XLT™, eXtreme Light Technology. The unit is available in 24VAC/DC, 120VAC or 240VAC and five colors – Amber, Blue, Clear, Green, and Red. The 191XL comes standard in flashing mode and is field configurable to steady burn mode for maximum functionality.

The Model 191XL has been certified by UL as meeting Type 4X watertight and corrosion-resistant requirements, and IP66 rated. This hazardous location warning light has an aluminum base ready for mounting on a 3/4-inch NPT pipe. The base features electrostatically applied (e-coated) epoxy paint for corrosion-resistance. A dome guard fits over the glass dome to protect it against accidental collision with moving equipment, such as a forklift. The outer glass dome and LED pairing are available in five colors – Amber, Blue, Green, Red and Clear.

Federal Signal’s super bright LED array used in the 191XL with XLT inside produces intense light output and 60,000 hours of service. Increased shock and vibration resistance add to this unit’s rugged industrial portfolio of features.

The 191XL is UL Listed for Class I, Division 2, Groups A, B, C and D; Class II Division 1, Groups E, F and G; and Class III.



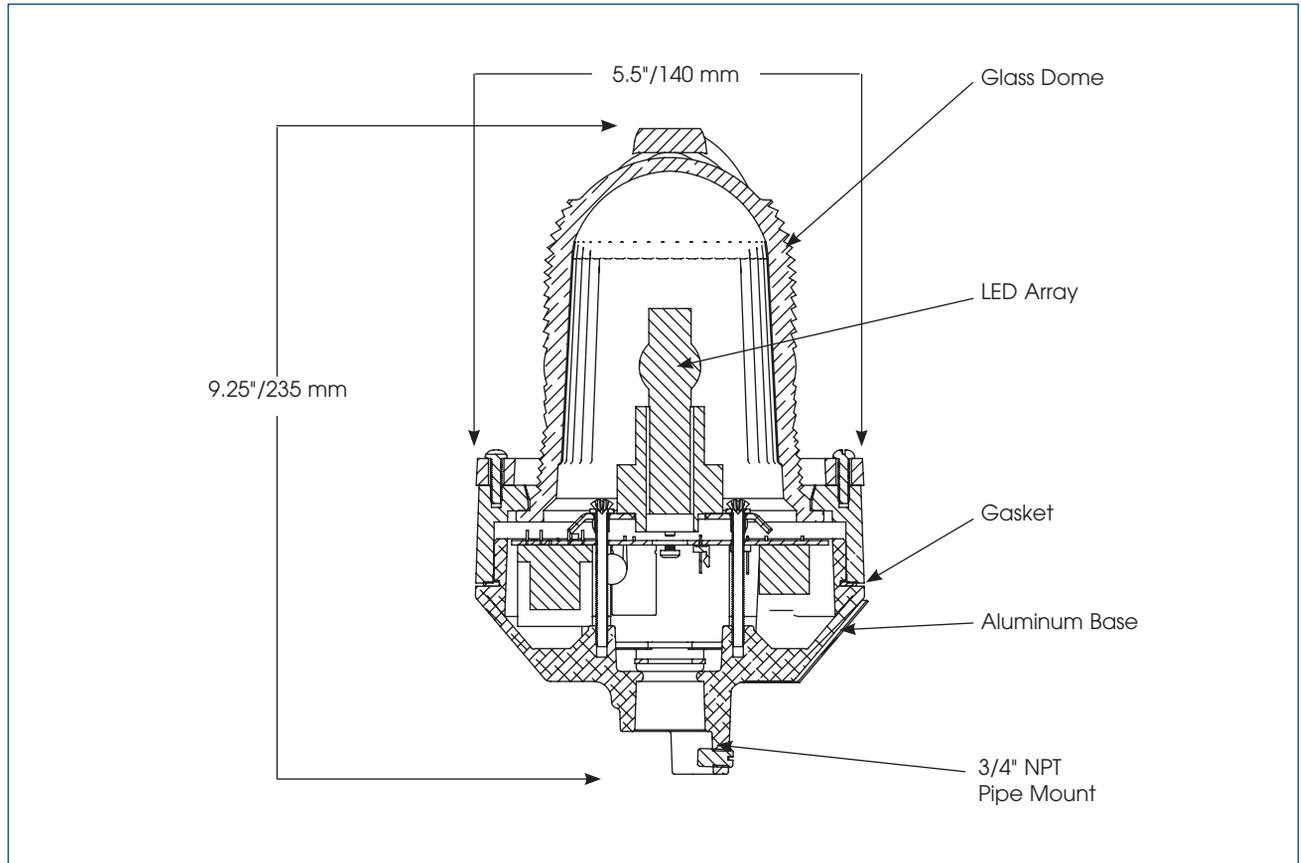
Model	Voltage	Operating Current	In-rush Current	Flash Rate/Minute	Mount
191XL-024 *	24VAC/DC	0.38 amps	1.75 amps, 5.0 mS	60	3/4" NPT Pipe
191XL-120-240 *	120/240VAC	0.21/0.13 amps	2.0 amps, 0.25 mS	60	3/4" NPT Pipe

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

## Hazardous Location Rating:

Hazardous Location	T-Code at Maximum Ambient Temperature, °C					
	40°C		55°C		66°C	
	24V	100-265VAC	24V	100-265VAC	24V	100-265VAC
Class I, Div 2, Groups A, B, C, D	T6	T6	T5	T5	T4A	T4A
Class II, Div 1, Groups E, F and G	T6	T6	T6	T6	T6	T6
Class III	T6	T6	T6	T6	T6	T6

## HAZARDOUS LOCATION LED WARNING LIGHT (191XL)



### SPECIFICATIONS

Lamp Life:	60,000 Hours	60,000 Hours
Light Source:	LED Array	LED Array
Operating Temperature:	-58°F to 150°F	-50°C to 66°C
Net Weight:	4.0 lbs.	1.82 kg
Shipping Weight:	4.25 lbs.	1.93 kg
Height (with Dome Guard):	9.25"	235.0 mm
Diameter:	5.5"	140.0 mm

### HOW TO ORDER

- Specify model, voltage and color
- Please refer to Model Number Index 191XL beginning on page 370

### REPLACEMENT PARTS

<i>Description</i>	<i>Part Number</i>	<i>Dome and Ring Assembly</i>	
PC Board Assembly, 24VDC	K2005455A	Glass Dome/Ring Assembly, Amber	K8449078C-01
PC Board Assembly, 120/240VAC	K2005416A	Glass Dome/Ring Assembly, Blue	K8449078C-06
LED array, Amber	K147169A-06	Glass Dome/Ring Assembly, Clear	K8449078C-04
LED array, Blue	K147169A-07	Glass Dome/Ring Assembly, Green	K8449078C-07
LED array, Clear	K147169A-10	Glass Dome/Ring Assembly, Red	K8449078C
LED array, Green	K147169A-08	Gasket	K8449080B
LED array, Red	K147169A-09		

LED



# Explosion-Proof LED Warning Light with XLT™

## Model 27XL

Federal Signal's Model 27XL explosion-proof LED light with XLT™ produces 60 high-intensity flashes per minute. This warning light operates on 24VAC/DC, 120VAC, and 240VAC 50/60Hz and is UL Listed for Class I, Division 1, Groups C & D; Class II, Division 1, Groups E, F & G; Class I, Division 2, Groups A, B; and Class III. The 27XL is also Marine Rated.

eXtreme Light Technology (XLT) is a break through high-intensity LED array designed to meet the demands of industrial customers, producing maximum light output and superior lens fill. Configurable to either steady burning state or flashing mode XLT provides improved performance over standard LED's and increased versatility while maintaining low power consumption and vibration resistances expected from LED signals.

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.

The 27XL is Type 4X rated; constructed to IP66. Corrosion resistance is achieved with a powder epoxy finish applied over the copper-free aluminum housing. All exposed hardware is 316 grade stainless steel.

Federal Signal's Model 27XL 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.

## DESIGNED FOR USE IN EXPLOSION-PROOF ATMOSPHERES

- XLT™ Technology
- Available in 24VAC/DC and 120-240VAC
- Available in flashing or steady-burn mode
- Five lens colors
- 60,000 hour LED
- 3/4-inch NPT pendant mount standard; other options available
- Dome guard optional
- UL and cUL Listed
- Type 4X, IP66 enclosure
- Marine Listed



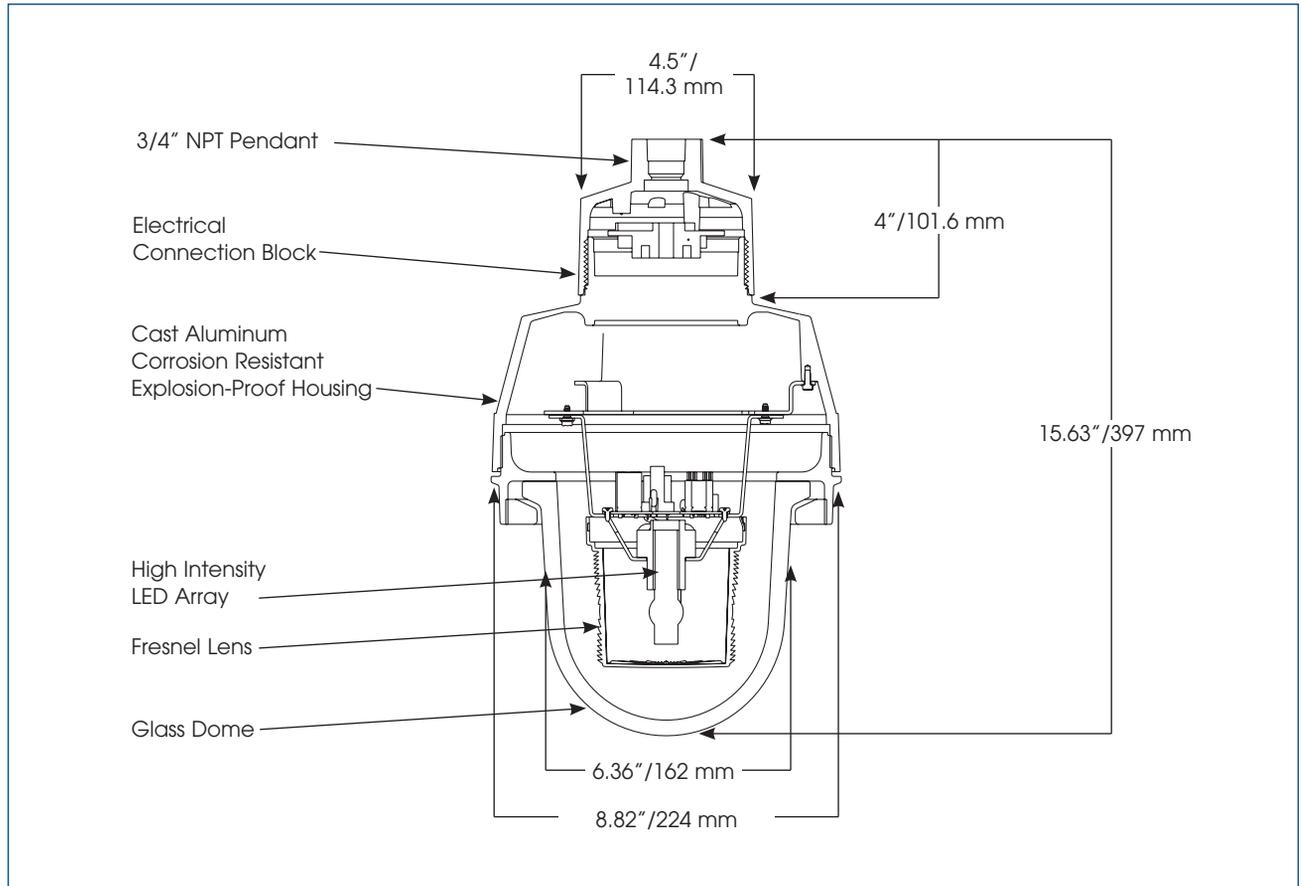
Model	Voltage	Operating Current	In-rush Current	Flash Rate/Minute	Mount
27XL-024 *	24VAC/DC	380mA	1.75 amps, 5.0 mS	60	3/4" NPT Pendant
27XL-120-240 *	120/240VAC	210/130mA	2.00 amps, 0.25 mS	60	3/4" NPT Pendant

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

## Hazardous Location Rating:

Hazardous Location	T-Code at Maximum Ambient Temperature, °C					
	40°C		55°C		66°C	
	24V	100-265VAC	24V	100-265VAC	24V	100-265VAC
Class I, Div 1, Groups C, D	T6	T6	T6	T6	T6	T6
Class I, Div 2, Groups A, B	T6	T6	T6	T5	T5	T4A
Class II, Div 2, Groups E, F, G	T6	T6	T6	T6	T6	T6
Class III	T6	T6	T6	T6	T6	T6

## EXPLOSION-PROOF LED LIGHT (27XL)



### SPECIFICATIONS

Lamp Life:	60,000 Hours	60,000 Hours
Light Source:	LED Array	LED Array
Ambient Operating Temp. Range:	-55°C to 66°C	Canada
	-25° to 65°C	USA
Net Weight:	14.1 lbs.	6.45 kg
Shipping Weight:	18.4 lbs.	8.35 kg
Height:	15.63"	397.0 mm
Diameter:	8.82"	224.0 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Dome Guard (DGXC)  
Ceiling Mount (CMXC)  
Wall Mount (WMXC)
- Please refer to Model Number Index 27XL beginning on page 371

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>
Exterior Dome Assembly, Clear	K8444C271A-01	PC board assembly, 24VDC	K2005455A
Interior Lens Assembly, Amber	K8550292A-02	PC board assembly, 120/240VAC	K2005416A
Interior Lens Assembly, Blue	K8550292A-01	LED array, Amber	K147169A
Interior Lens Assembly, Clear	K8550292A	LED array, Blue	K147169A-01
Interior Lens Assembly, Green	K8550292A-04	LED array, Clear	K147169A-04
Interior Lens Assembly, Red	K8550292A-03	LED array, Green	K147169A-02
		LED array, Red	K147169A-03

# Streamline® Low Profile Mini Strobe

## Model LP1



### COMPACT, ECONOMICAL STROBE LIGHT — IDEAL FOR CONTROL PANEL APPLICATIONS

- Available in 12VDC, 24VDC, 120VAC and 240VAC
- Easy access dome available in five colors
- Surface mount
- Low profile — only 2.6" High by 2.33" Wide by 5" Long
- Type 4X, IP65 enclosure
- UL Listed

Federal Signal 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 polypropylene 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 user replaceable strobe tube is rated for 4,000 hours of life. The LP1 is available in 12VDC, 24VDC, 120VAC and 240VAC versions. The unit is UL and cUL Listed. Access to the printed circuit board and strobe tube is provided through the back of the unit.

With its Type 4X rating, small size, and bright signal, the LP1 suits an endless number of applications. The LP1 is especially suited for use on control panels, machines, above entry ways, on walls, and along assembly lines. The 12/24VDC units are suitable in battery backup systems and vehicular applications such as forklifts and moving guided vehicles.

Model	Voltage	Operating Current	Flash Rate/Minute	Candela		Mount
				Peak <sup>1</sup>	ECP <sup>2</sup>	
LP1-012 *	12VDC	0.18 amps	80	108,000	30	Surface
LP1-024 *	24VDC	0.08 amps	80	108,000	30	Surface
LP1-120 *	120VAC	0.06 amps	80	108,000	30	Surface
LP1-240 *	240VAC	0.03 amps	80	108,000	30	Surface

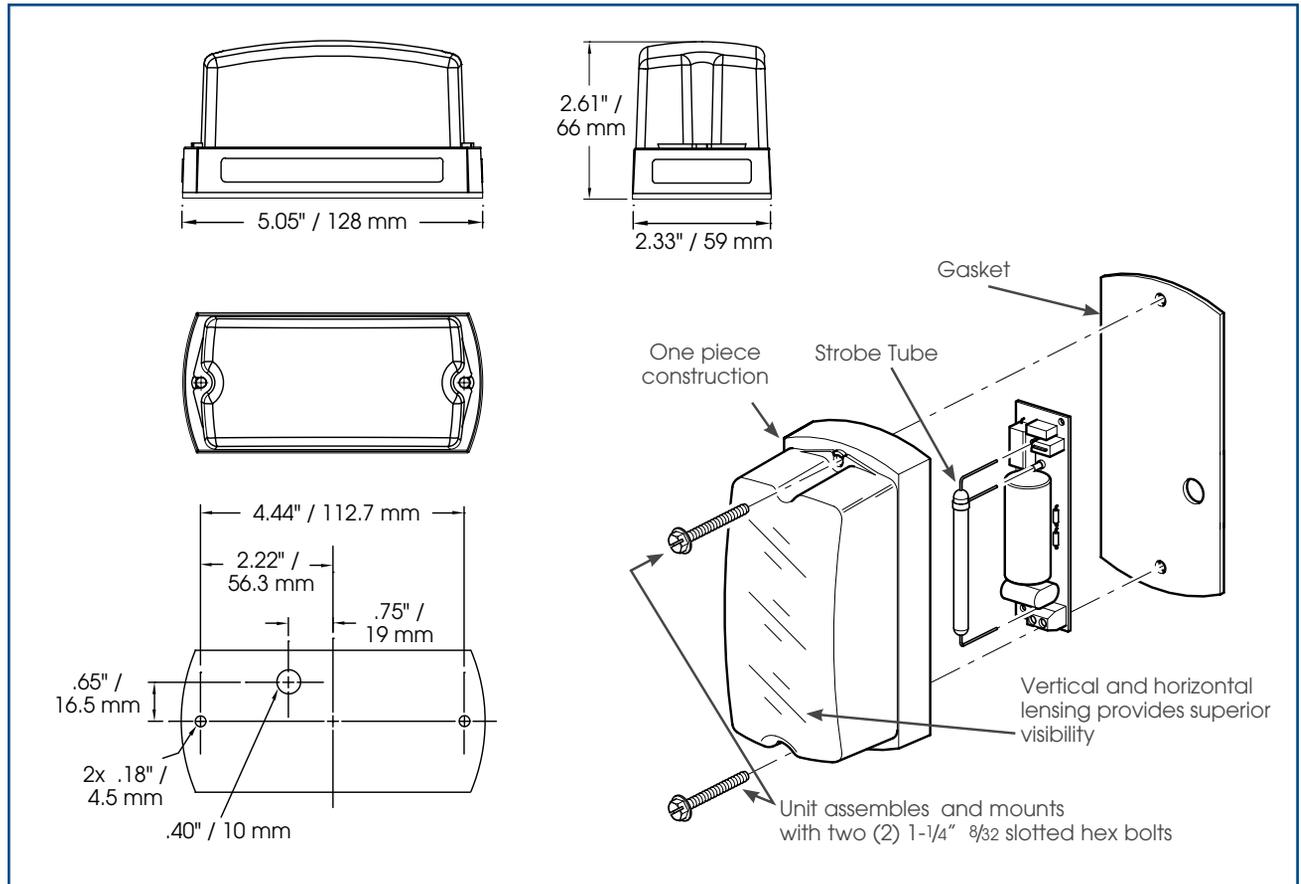
\* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

<sup>1</sup> Peak candela is the maximum light intensity generated by a flashing light during its light pulse

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



## LOW-PROFILE MINI STROBE (LP1)



### SPECIFICATIONS

Lamp Life:	4,000 Hours	4,000 Hours
Light Source:	Strobe tube	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"	6.63 cm
Width:	2.33"	5.92 cm
Length:	5.05"	12.83 cm

### HOW TO ORDER

- Specify model, voltage and color
- Please refer to Model Number Index LP1 beginning on page 371

### REPLACEMENT PARTS

<i>Description</i>	<i>Part Number</i>
Replacement Strobe Tube	K149128A
Dome, Amber	K8435711A-02
Dome, Blue	K8435711A-03
Dome, Clear	K8435711A
Dome, Green	K8435711A-04
Dome, Red	K8435711A-01

# StreamLine® Low Profile Strobe Light

Models LP3P, LP3S, LP3T



## PERFECT SIZE MEETS SUPERIOR PERFORMANCE

- Available in 12-48VDC, 120VAC and 240VAC
- Surface mount, T-mount, or integrated 1/2-inch NPT pipe mount
- Five dome colors
- Screw-on lens
- Low profile — Model LP3S is only 5" high
- Type 4X, IP66 enclosure
- PLC and triac compatible
- Optional dome guard for LP3S and LP3T
- UL and cUL Listed, CSA Certified and CE Approved\*

\* CE Approval for P and S models only.

Federal Signal Model LP3 low profile strobe light is a Type 4X strobe that is available in five colors: Amber, Blue, Clear, Green and Red. An optional dome wire guard is available for the LP3S and LP3T.

The LP3 is offered in three mounting configurations. LP3P features an integrated 1/2-inch NPT pipe mount. LP3S features a three-hole surface mount — ideal for control panels and other flat or flush surfaces. The “T-mount” LP3T has a popular 2-hole design for wall or flush mounting.

Both the LP3S and LP3T include a surface gasket to complete the Type 4X installation. An optional dome guard is available for use with the LP3S and LP3T. All LP3 units feature a threaded screw-on lens that provides tool-free wiring and strobe tube replacement. The strobe tube is rated for 7,000 hours.

The LP3 comes in three voltage variations: 12-48VDC, 120VAC and 240VAC. The state-of-the-art strobe mechanism produces 2.2 joules of energy, while drawing relatively low level amperage.

StreamLine® strobes feature high-quality, long-life strobe lamps which are designed to reduce tungsten build-up for longer lamp maintenance cycles. Careful consideration is given to the relationship between lamp shape and lens design for maximum light output. StreamLine products make use of surface mount technology, which provides a more powerful light in a much smaller package. The dry-electrolyte capacitor used in StreamLine products runs cooler than those used in many competitive strobes, resulting in a more reliable product that won't fail due to overheating.

Model	Voltage	Operating Current	Flash Rate/ Minute	Joule Output	Candela Peak <sup>1</sup>	ECP <sup>2</sup>
LP3 <b>** -012/048 *</b>	12-48VDC	0.44-0.10 amps	65-95	2.2	175,000	51.5
LP3 <b>** -120 *</b>	120VAC	0.10 amps	65-95	2.2	175,000	51.5
LP3 <b>** -240 *</b>	240VAC	0.07 amps	65-95	2.2	175,000	51.5

\*\* Indicates Mounting Style: (S) Surface Mount, (P) Pipe Mount (T) T-Mount,

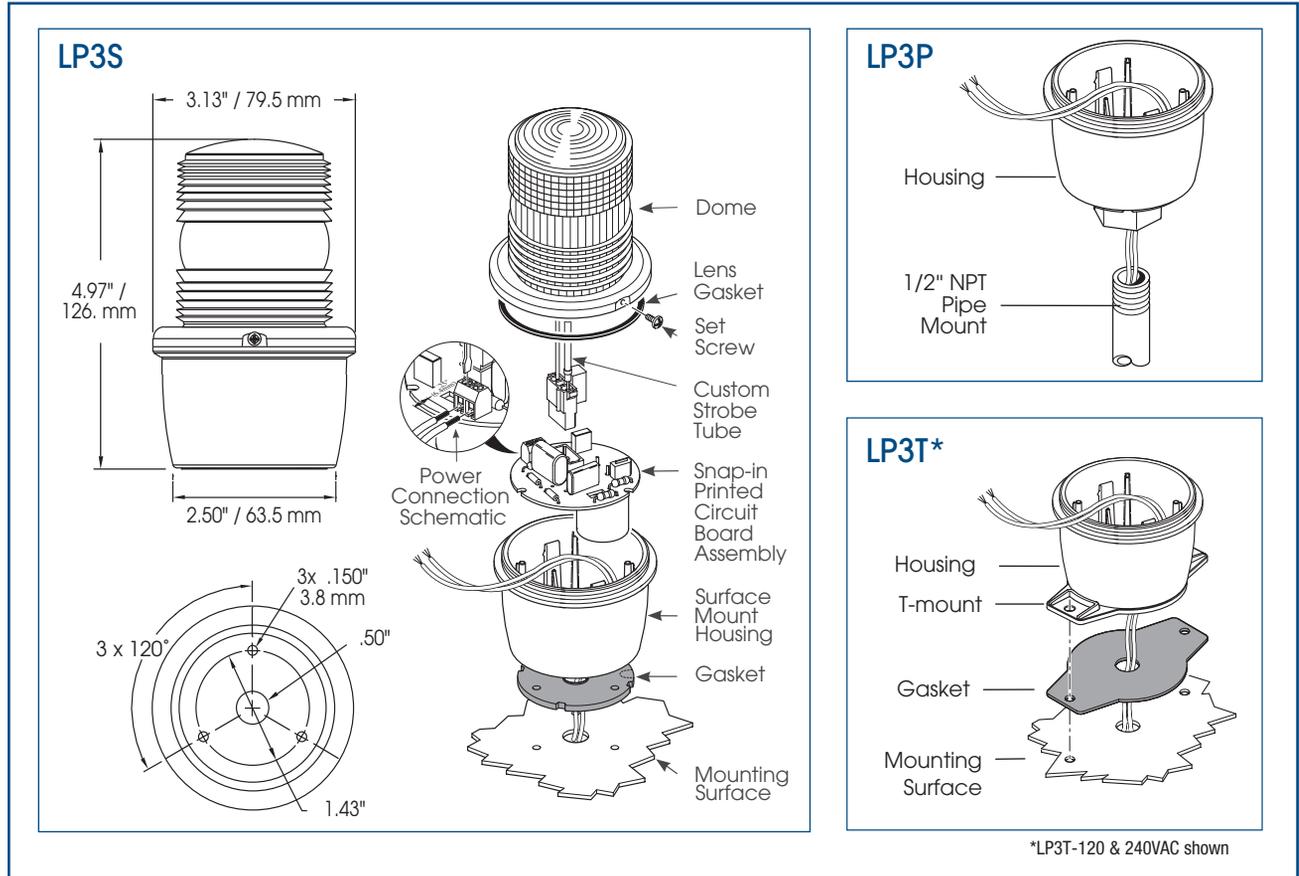
\* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

<sup>1</sup> Peak candela is the maximum light intensity generated by a flashing light during its light pulse

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



## STREAMLINE® LOW PROFILE STROBE LIGHT (LP3S/LP3P/LP3T)



### SPECIFICATIONS

Lamp Life:	7,000 Hours	7,000 Hours
Light Source:	Strobe tube	Strobe tube
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	7.3 oz.	206.96 g
Shipping Weight:	8.5 oz.	240.98 g
Diameter:	3.125"	7.94 cm
Height (from bottom):		
LP3P	5.7"	14.48 cm
LP3S	5.0"	12.7 cm
LP3T	5.1"	12.95 cm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Wire/Dome Guard (LP3G)  
for LP3S, LP3T
- Please refer to Model Number Index  
LP3 (P,S,T) beginning on page 371

### REPLACEMENT PARTS

<i>Description</i>	<i>Part Number</i>	<i>Description</i>	<i>Part Number</i>
Dome, Amber	K8589063A	PC Assembly, 12-48VDC	K2001316B
Dome, Blue	K8589063A-01	PC Assembly, 120VAC	K2001317B
Dome, Clear	K8589063A-02	PC Assembly, 240VAC	K2001317B-01
Dome, Green	K8589063A-03	Gasket, Lens	K8589013A
Dome, Red	K8589063A-04	Gasket, LP3S	K8589011A
Strobe Tube	K149130A	Gasket, LP3T	K8589012A



# Streamline® Low Profile Strobe Light

Models LP3S, LP3E, LP3M

## PERFECT SIZE MEETS SUPERIOR PERFORMANCE

- LP3S and LP3M are available in 12-48VDC, 120VAC and 240VAC; LP3E in 120VAC
- Surface mount, Edison mount, or integrated 1/2-inch NPT pipe mount
- Five dome colors
- Screw-on lens provides easy access
- Low profile — Model LP3S is only 5" high
- Type 4X, IP66 enclosure
- PLC and triac compatible
- UL and cUL Listed, CSA Certified and CE Approved\*

\* CE Approval for S and M models only.

Federal Signal introduces the Model LP3 low profile strobe light. This Type 4X strobe is available in five colors: Amber, Blue, Clear, Green and Red.

The LP3 is offered in three 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.

Both the LP3S and LP3M include a surface gasket to complete the Type 4X installation. An optional dome guard is available for use with the LP3M when installed flush with a panel. All LP3 units feature a unique threaded screw-on lens to provide for tool free wiring and strobe tube replacement. The strobe tube is rated for 7,000 hours.

LP3 comes in three voltage variations: 12-48VDC, 120VAC and 240VAC. The state-of-the-art strobe mechanism produces 2.2 joules of energy, while drawing relatively low amperage.

StreamLine® strobes feature high-quality, long-life strobe tubes which are designed to reduce tungsten build-up for longer lamp maintenance cycles. Careful consideration is given to the relationship between tube shape and lens design for maximum light output. StreamLine products make use of surface mount technology, which provides a more powerful light in a much smaller package. The high-quality dry-electrolyte capacitor used in StreamLine products runs cooler than those used in many competitive strobes, resulting in a more reliable product that won't fail due to overheating.

Model	Voltage	Operating Current	Flash Rate/ Minute	Joule Output	Candela Peak <sup>1</sup>	ECP <sup>2</sup>
LP3 <b>** -012/048 *</b>	12-48VDC	0.44-0.10 amps	65-95	2.2	175,000	51.5
LP3 <b>** -120 *</b>	120VAC	0.10 amps	65-95	2.2	175,000	51.5
LP3 <b>** -240 *</b>	240VAC	0.07 amps	65-95	2.2	175,000	51.5

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

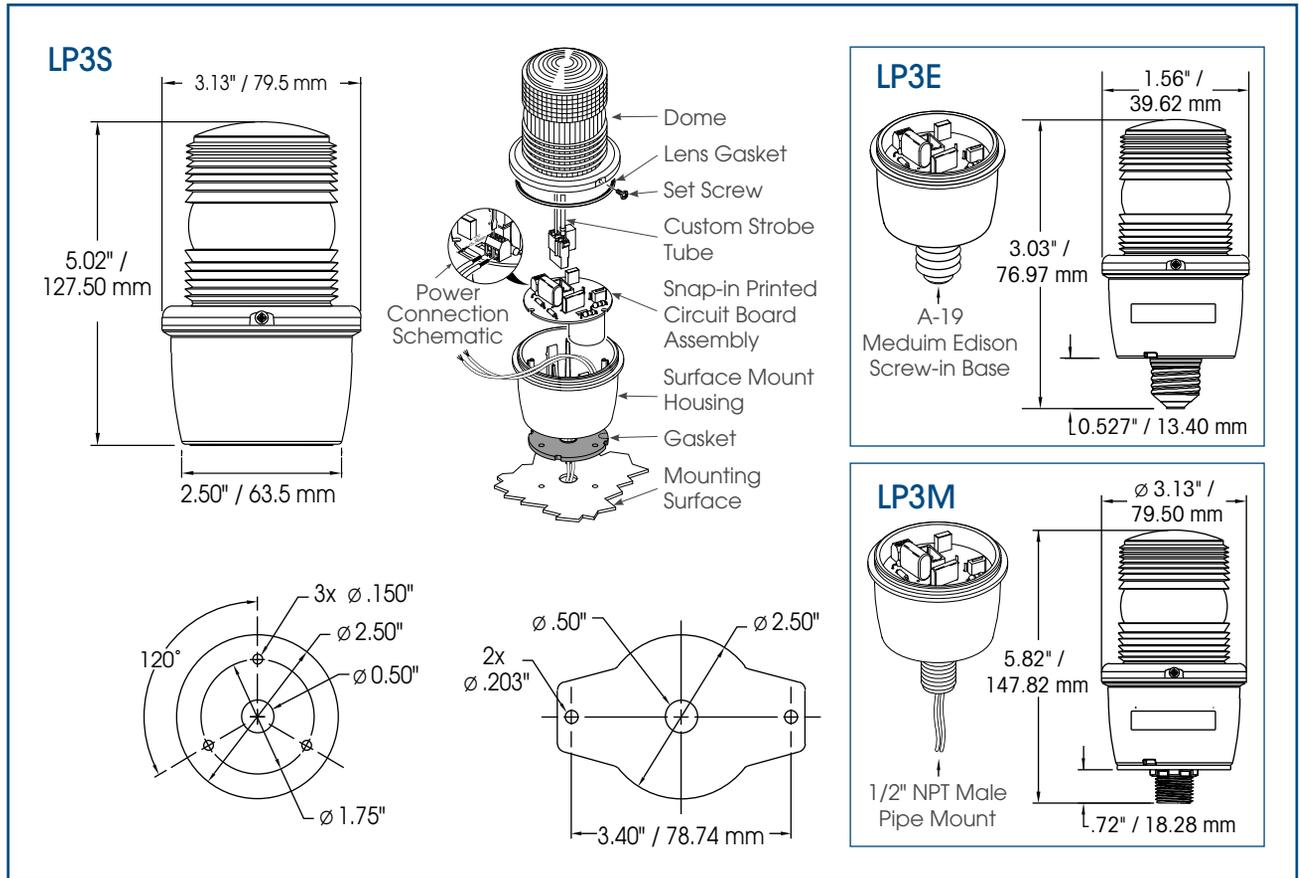
\* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

<sup>1</sup> Peak candela is the maximum light intensity generated by a flashing light during its light pulse

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



## STREAMLINE® LOW PROFILE STROBE LIGHT (LP3S/LP3E/LP3M)



### SPECIFICATIONS

Lamp Life:	7,000 Hours	7,000 Hours
Light Source:	Strobe tube	Strobe tube
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	7.3 oz.	206.96 g
Shipping Weight:	8.5 oz.	240.98 g
Diameter:	3.125"	7.94 cm
Height (from bottom):		
LP3S	5.0"	12.7 cm
LP3E	6.1"	15.5 cm
LP3M	5.8"	14.7 cm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Wire/Dome Guard (LP3G)  
for LP3S and LP3M
- Please refer to Model Number Index  
LP3 (E.M) beginning on page 371

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>
Dome, Amber	K8589063A	PC Assembly, 12-48VDC	K2001316B
Dome, Blue	K8589063A-01	PC Assembly, 120VAC	K2001317B
Dome, Clear	K8589063A-02	PC Assembly, 240VAC	K2001317B-01
Dome, Green	K8589063A-03	Gasket, Lens	K8589013A
Dome, Red	K8589063A-04	Gasket, Base LP3S	K8589011A
Strobe Tube	K149130A		

# Visalert® Strobe Light

Model VALS



## STROBE WARNING LIGHT

- Available in 12VDC and 24VDC, 120VAC and 240VAC
- Five lens colors
- 4,000 hour strobe tube
- Surface mount on Federal Signal audible signaling devices or control panel
- Indoor/outdoor use
- Type 3R, IP44 enclosure
- UL Listed and CSA Certified

Federal Signal's Visalert® is a three dimensional, triangular warning light designed to be mated with Federal Signal's Model 350 Vibratone® horn and the Model 50GC SelecTone® speaker/amplifier. The Model VALS can also be used as a stand alone device. Visalert is available in five lens colors: Amber, Blue, Clear, Green and Red.

Knockouts on the 50GC, 350 and the 450 audible devices (sold separately) ensure easy installation. The units can be either independently or simultaneously wired with the audible device. Model VALS 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. The Visalert can be surface mounted on the Model 350 and 450 horn or Model 50GC speaker/amplifier.

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

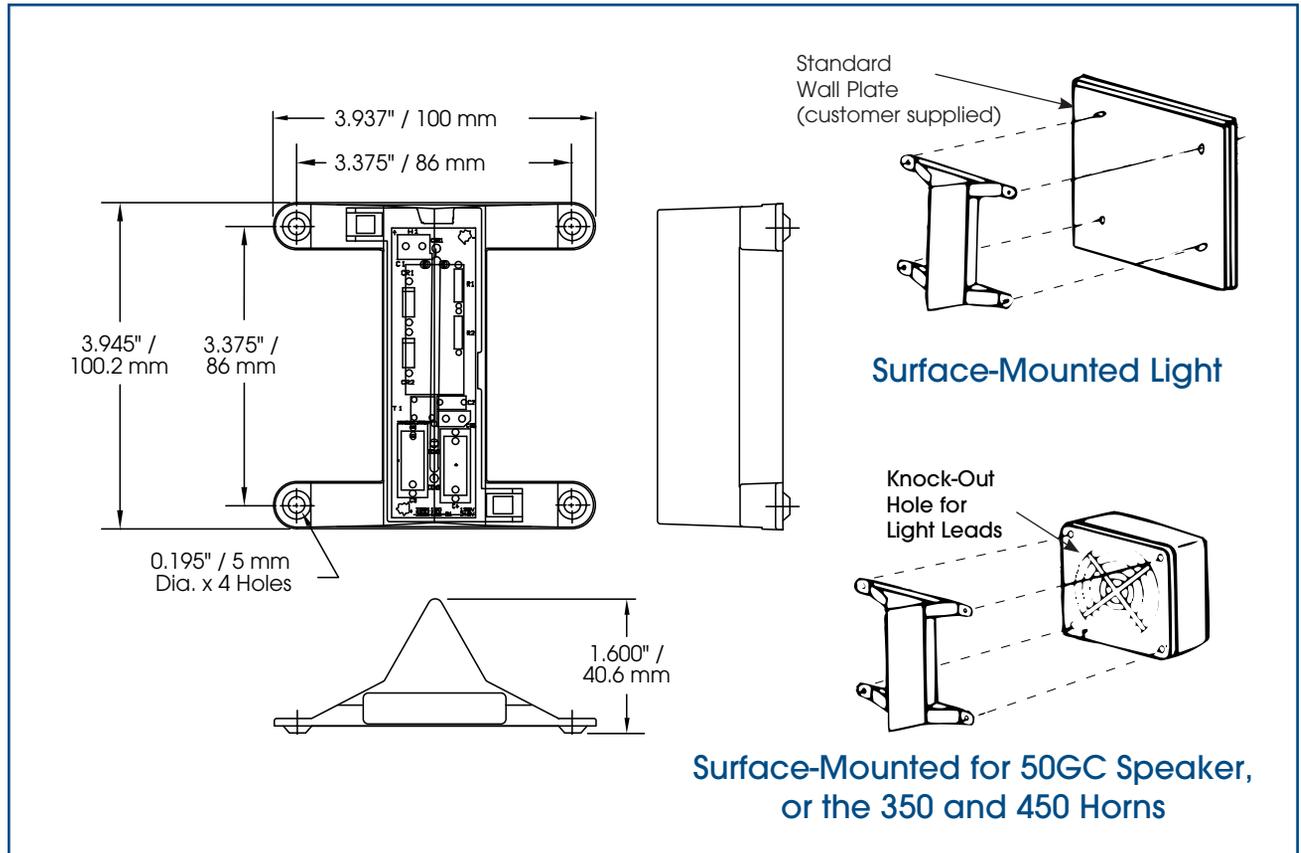
Model	Voltage	Operating Current	Flash Rate/Minute	Candela Peak <sup>1</sup>	Mount
VALS-012*	12VDC	0.18 amps	80	108,000	Surface
VALS-024*	24VDC	0.08 amps	80	108,000	Surface
VALS-120*	120VAC 50/60HZ	0.06 amps	80	108,000	Surface
VALS-240*	240VAC 50/60HZ	0.03 amps	80	108,000	Surface

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

<sup>1</sup> 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	4,000 Hours
Light Source:	Strobe tube	Strobe tube
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	0.1 lbs.	0.057 kg
Shipping Weight:	0.25 lbs.	0.113 kg
Height:	3.95"	100.3 mm
Width:	3.94"	100.0 mm
Depth:	1.6"	40.6 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Speaker (50GC, page 174)  
Horns (350 and 450, page 124)
- Please refer to Model Number Index VALS beginning on page 372

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>
Lens, Amber	K8435D539A	Lens, Green	K8435D539A-03
Lens, Blue	K8435D539A-08	Lens, Red	K8435D539A-07
Lens, Clear	K8435D539A-02	Strobe Tube	K149128A
		Gasket	K8435A225

# Streamline® Low Profile Mini Strobe



## Model LP6

### COMPACT, ECONOMICAL STROBE LIGHT

- Available in 12-48VDC and 120VAC
- Screw-on dome available in five colors
- Surface mount
- Low profile — only 3<sup>5</sup>/<sub>8</sub>" high
- Type 4X enclosure
- UL and cUL Listed and CSA Certified

The Model LP6 is a very compact, high power strobe light designed for applications where space is critical. At 3<sup>5</sup>/<sub>8</sub>" high, this strobe light is ideal for fork lift 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 dome for easy relamping and service. The polycarbonate base and lens combination gives this strobe excellent impact and corrosion resistance and meets Type 4X requirements. The LP6 is also UL Listed, cUL Listed and CSA Certified.

The LP6 is available in five colors — Amber, Blue, Clear, Green and Red.

This economical light does not sacrifice power for price or size.

Model	Voltage	Operating Current	Flash Rate/Minute	Joule Output	Candela Peak <sup>1</sup>	ECP <sup>2</sup>
LP6-012/048 *	12-48VDC	0.44-0.10 amps	65-95	2.2	175,000	51.5
LP6-120 *	120VAC	0.10 amps	65-95	2.2	175,000	51.5

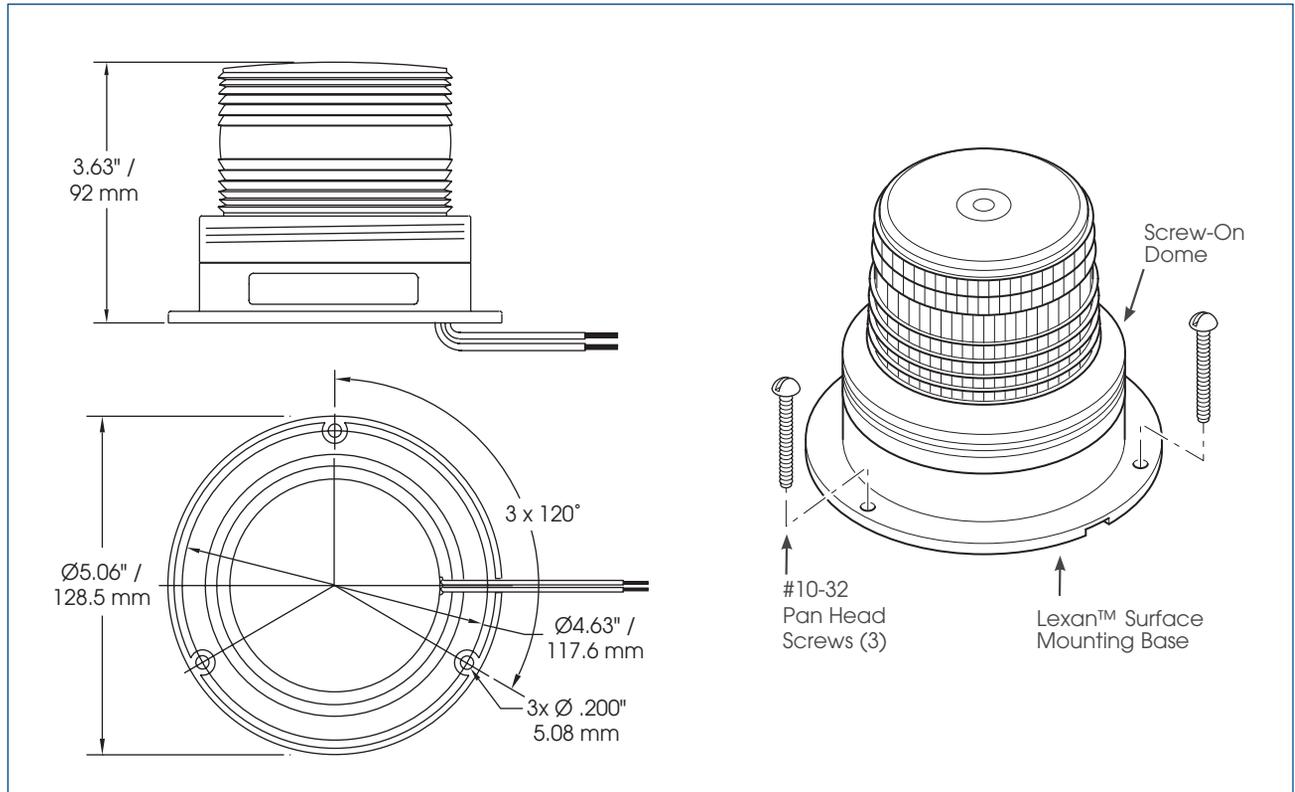
\* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

<sup>1</sup> Peak candela is the maximum light intensity generated by a flashing light during its light pulse

<sup>2</sup> 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	7,000 Hours
Light Source:	Strobe tube	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"	9.2 cm
Diameter:	5.0"	12.7 cm

### HOW TO ORDER

- Specify model, voltage and color
- Please refer to Model Number Index LP6 beginning on page 372

### REPLACEMENT PARTS

<i><b>Description</b></i>	<i><b>Part Number</b></i>	<i><b>Description</b></i>	<i><b>Part Number</b></i>
Dome, Amber	K8589037A	PC Assembly, 012-048VDC	K2005083A-01
Dome, Blue	K8589037A-01	PC Assembly, 120VAC	K2001887A-02
Dome, Clear	K8589037A-02	O-Ring	K8589038A
Dome, Green	K8589037A-03	Base Gasket	K8589039A
Dome, Red	K8589037A-04	Strobe Tube	K149130A

# Electraflash® Strobe Warning Light

## Model 141ST



### DESIGNED FOR INDUSTRIAL OR VEHICULAR USE

- Available in 12VDC, 24VDC, and 120VAC
- Four dome colors
- 4,000 hour strobe tube
- Surface mount or integrated 1/2-inch NPT pipe mount
- Indoor/outdoor use
- Type 3R enclosure
- UL Listed and CSA Certified

Federal Signal's Electraflash® 141ST is an economical strobe light designed for a variety of industrial uses. This compact warning light is less than six inches tall and six inches in diameter. Models are available in four fresnel dome colors, including Amber, Blue, Green and Red. All models are UL Listed for indoor/outdoor use and the 120VAC models are CSA Certified.

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

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. The economical Model 141ST effectively alerts of hazardous conditions or dangerous areas.

Federal Signal's Electraflash strobe warning light is an affordable visual signal which is ideally suited for light duty applications.

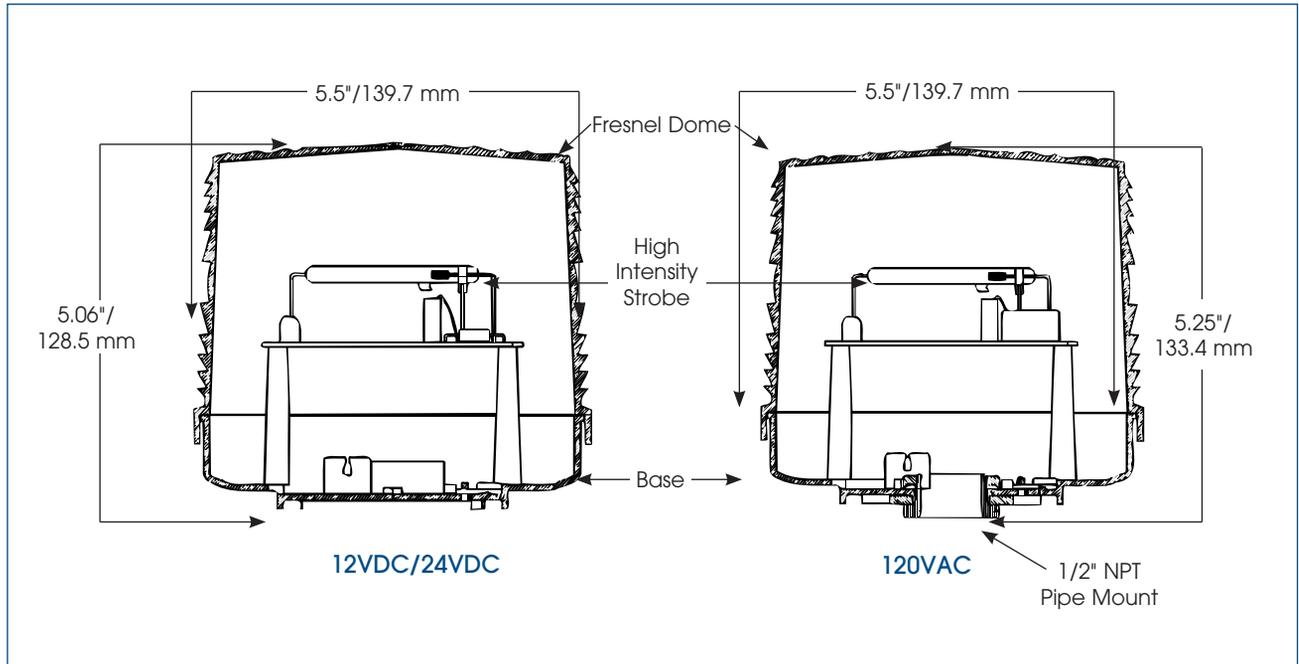
Model	Voltage	Operating Current	Flash Rate/ Minute	Candela Peak <sup>1</sup>	Mount
141ST-012 *	12VDC	0.18 amps	80	100,000	Surface
141ST-024 *	24VDC	0.08 amps	80	100,000	Surface
141ST-120 *	120VAC 50/60HZ	0.06 amps	80	100,000	1/2" NPT Pipe

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

<sup>1</sup> 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	4,000 Hours
Light Source:	Strobe tube	Strobe tube
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:		
DC Models	0.8 lbs.	0.4 kg
AC Models	0.9 lbs.	0.4 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

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories: (120VAC only):  
    Corner Bracket (LCMB2)  
    Wall Bracket (LWMB2)
- Please refer to Model Number Index 141ST beginning on page 372

### REPLACEMENT PARTS

<i><b>Description</b></i>	<i><b>Part Number</b></i>	<i><b>Description</b></i>	<i><b>Part Number</b></i>
Dome, Amber	K8263079A	PC Assembly, 24VDC	K2001201B-01
Dome, Blue	K8263079A-01	PC Assembly, 120VAC	K2001195D
Dome, Green	K8263079A-03	Strobe Tube	K149128A
Dome, Red	K8263079A-02	Pipe Mount Kit	K8263093A
PC Assembly, 12VDC	K2001201B		

# Battery Powered Strobe Warning Light

## Model BPL26ST



### PORTABLE WARNING LIGHT

- 12VDC — uses two standard 6VDC lantern batteries (not included)
- 4,000 Hour strobe tube
- Five dome colors
- Type 3R weatherproof enclosure
- Magnetic mount

Federal Signal's Model BPL26ST is a portable, battery-powered strobe warning light which flashes 65 times per minute. Components are moisture-proof and reverse polarity protected to ensure extended battery life and trouble-free performance.

The BPL26ST is available in five fresnel dome colors – Amber, Blue, Clear, Green and Red. For increased durability, the dome is made of impact-resistant polycarbonate materials 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 (not shown) are included for simple yet secure, temporary mounting.

Power is supplied by two standard 6VDC, spring terminal lantern batteries (not included).

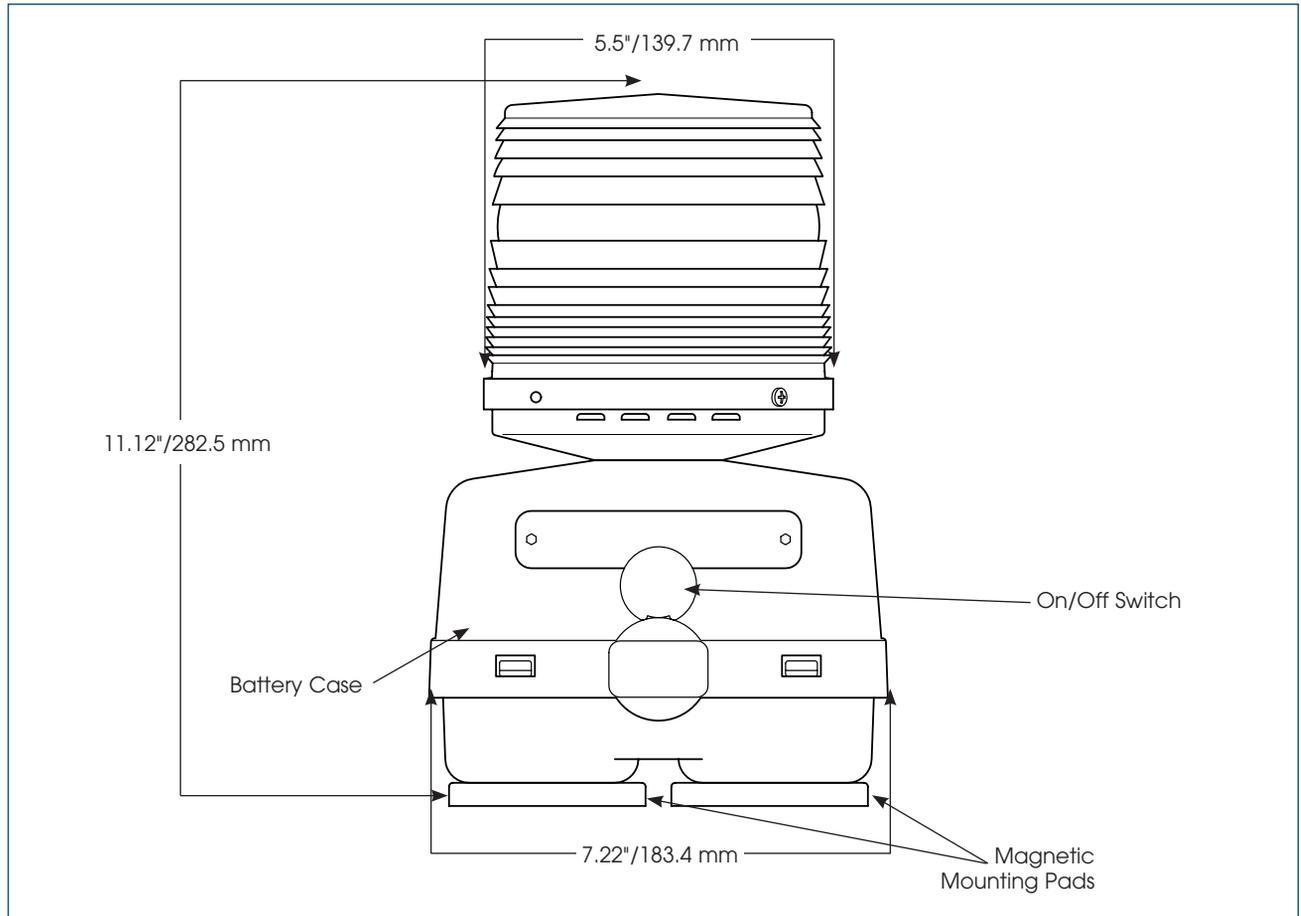
The Model BPL26ST is ideal for job sites requiring temporary warning lights or for any location where primary power is unavailable.

Model	Voltage	Operating Current	Flash Rate/Minute	Mount
BPL26ST-*	12VDC	0.48 amps	60	Magnetic

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



## BATTERY POWERED LIGHT (BPL26ST)



### SPECIFICATIONS

Lamp Life:	4,000 Hours	4,000 Hours
Light Source:	Strobe tube	Strobe tube
Operating Voltage:	12VDC	12VDC
Net Weight:	2.3 lbs.	1.04 kg
Shipping Weight:	3.5 lbs.	1.59 kg
Height:	10.5"	266.7 mm
Width:	7.22"	183.4 mm
Diameter of Dome:	5.5"	139.7 mm

### HOW TO ORDER

- Specify model number and color
- Optional Accessories:  
Hazardous Wall Bracket (LHWB)
- Please refer to Model Number Index  
BPL26ST beginning on page 372

### REPLACEMENT PARTS

<i>Description</i>	<i>Part Number</i>
Dome, Amber	K8263079A
Dome, Blue	K8263079A-01
Dome, Clear	K8263079A-04
Dome, Red	K8263079A-02
Dome, Green	K8263079A-03
Strobe Tube	K8107215A

# Fireball® Strobe Warning Light

## Model FB2PST and FB2PST-I



### LIGHT DUTY STROBE LIGHT

- Available in 12-24VDC, 120VAC and 240VAC
- Six dome colors
- 10,000 hour strobe tube
- Integrated 1/2-inch NPT pipe and surface mount
- Indoor/outdoor use
- Type 4X, IP66 enclosure
- UL and cUL Listed and CSA Certified

Federal Signal's brightest and most compact strobe light, the Fireball® emits a powerful "lightning bolt" flash of light. Approximately five inches tall and four inches in diameter and rated at 300 effective candela, the Fireball is an economical solution to a wide variety of stationary and vehicular warning requirements. The Fireball is available in 12-24VDC, 24VDC, 120VAC and 240VAC. All models are UL Listed and CSA Certified. The FB2PST is available in six colors – Amber, Blue, Clear, Green, Magenta, and Red.

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 unique dome that twists off easily for quick dome and lamp replacements. The newly redesigned base features an integrated 1/2-inch NPT pipe mount base as well as the three holes required for surface mount configurations. Black epoxy paint is electrostatically applied to the base for superior corrosion resistance. The Fireball dome and base design provides a watertight, dust-tight and corrosion resistant Type 4X rating.

The FB2PST is designed for stationary pipe and surface mount applications.

The Fireball can be used in any application where a superior visual signal is needed. It is especially effective in the warning of industrial hazards, process control, status indication and in areas with high ambient noise levels.

Federal Signal's Fireball 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.

Model	Voltage	Operating Current	Flash Rate/ Minute	Candela Peak <sup>1</sup>	Candela ECP <sup>2</sup>	Mount
<b>FB2PST-012-024 *</b>	12-24VDC	1.70-0.70 amps	80	1,000,000	300	1/2" NPT Pipe/Surface
<b>FB2PST-I-024 *</b>	24VDC	0.70 amps (2.0 amp In-rush)	80	1,000,000	300	1/2" NPT Pipe/Surface
<b>FB2PST-120 *</b>	120VAC 50/60Hz	0.25 amps	90	1,000,000	300	1/2" NPT Pipe/Surface
<b>FB2PST- 240 *</b>	240VAC 50/60Hz	0.20 amps	90	1,000,000	300	1/2" NPT Pipe/Surface

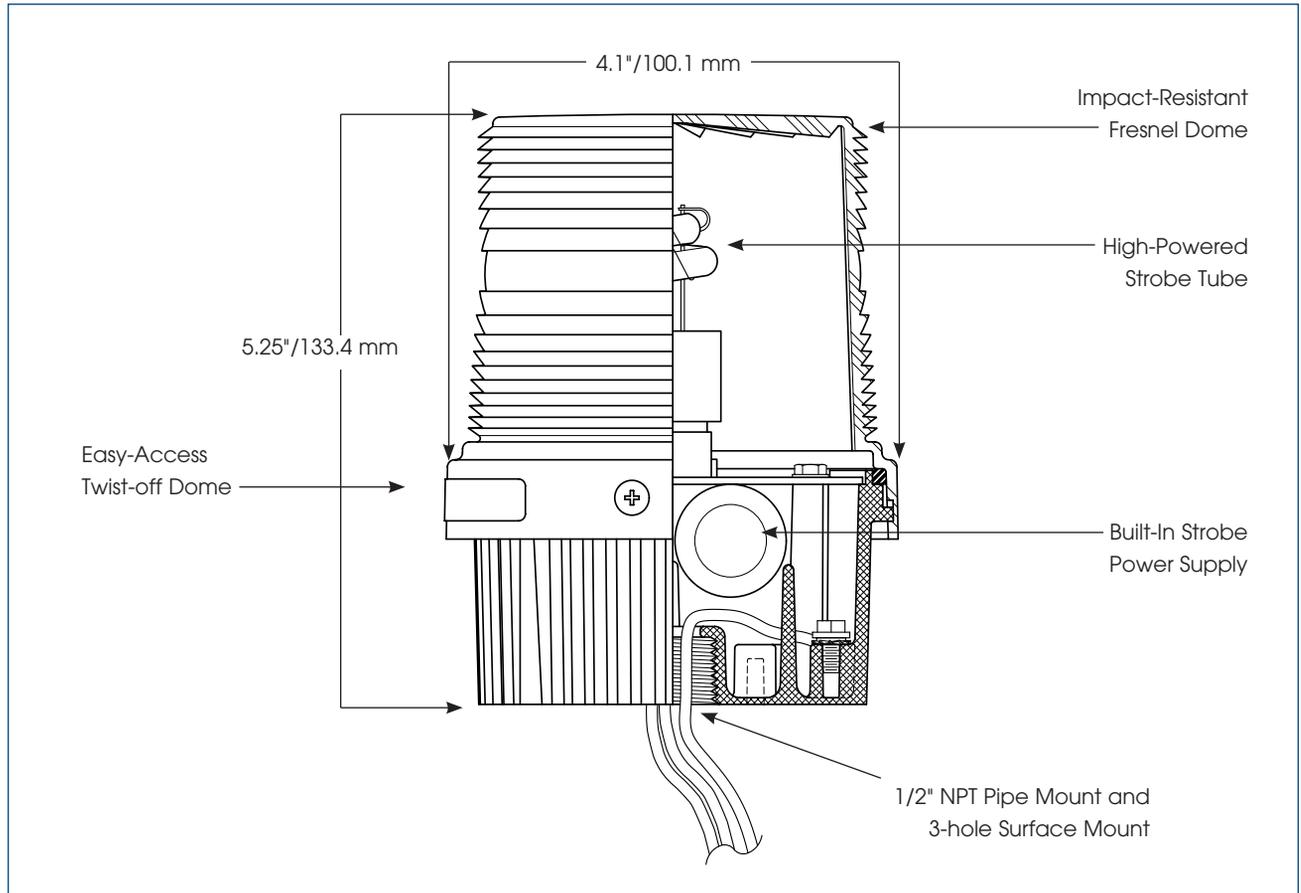
\* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green (M) Magenta or (R) Red

<sup>1</sup> Peak candela is the maximum light intensity generated by a flashing light during its light pulse

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



## FIREBALL® STROBE WARNING LIGHT (FB2PST / FB2PST-1)



### SPECIFICATIONS

Lamp Life:	10,000 Hours	10,000 Hours
Light Source:	Strobe tube	Strobe tube
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	2.0 lbs.	0.9 kg
Shipping Weight:	2.12 lbs.	0.96 kg
Height:	5.25"	133.4 mm
Diameter:	4.10"	100.1 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Corner Bracket (LCMB2)\*  
Wall Bracket (LWMB2)\*
- Please refer to Model Number Index FB2PST beginning on page 372

\* Not Type 4X rated.

### REPLACEMENT PARTS

<i>Description</i>	<i>Part Number</i>	<i>Description</i>	<i>Part Number</i>
Dome, Amber	K8550320A	PC Assembly, 12-24VDC	K2001202C
Dome, Blue	K8550320A-01	PC Assembly, 120VAC	K200D866G
Dome, Clear	K8550320A-02	PC Assembly, 240VAC	K200D866G-01
Dome, Green	K8550320A-03	Strobe Tube, Series A4, A5, B	K8107177A
Dome, Red	K8550320A-04	120VAC Fuse	K148A155A-01
Dome, Magenta	K8550320A-05		

# Electrarray® Hazardous Location Strobe Warning Light

Model 225XST and 225XST-I



## DESIGNED FOR USE IN HAZARDOUS LOCATIONS

- 12-24VDC, 24VDC, 120VAC and 240VAC
- Six lens colors
- 5,000 hour, high-intensity strobe tube
- 1/2-inch NPT pipe mount
- Indoor/outdoor use
- Type 4X, IP66 enclosure (Dome up orientation)
- UL and cUL Listed and CSA Certified

Federal Signal's Electrarray® Model 225XST hazardous location strobe light provides 80 high intensity flashes per minute. This warning light is available in 12-24VDC, 24VDC, 120VAC and 240VAC.

The Model 225XST has been certified by UL as meeting Type 4X water tight and corrosion resistant requirements; constructed to IP66 (in dome up orientation). This hazardous location warning light has a black polyurethane coated base and the inner fresnel lens is available in six colors (including magenta). The clear polycarbonate outer dome can be quickly removed for easy access to inspect the unit or change the lamp. The 225XST has an effective candela of 240 and a 580,000 peak candela.

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.

The 225XST is UL Listed and CSA Certified for Class I, Division 2, Groups A, B, C and D; Class II, Division 2, Groups F and G; and Class III.

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

Federal Signal's affordable Electrarray Strobe Warning Light is specifically designed for use in hazardous locations or where corrosive materials are present.

Model	Voltage	Operating Current	Flash Rate/Minute	Candela Peak <sup>1</sup>	ECP <sup>2</sup>	Mount
<b>225XST-012-024 *</b>	12-24VDC	1.70-0.70 amps	80	580,000	240	1/2" NPT Pipe
<b>225XST-I-024 *</b>	24VDC	0.70 amps (2.0 amp In-rush)	80	580,000	240	1/2" NPT Pipe
<b>225XST-120 *</b>	120VAC	0.25 amps	80	580,000	240	1/2" NPT Pipe
<b>225XST-240 *</b>	240VAC	0.20 amps	80	580,000	240	1/2" NPT Pipe

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

## Hazardous Location Rating:

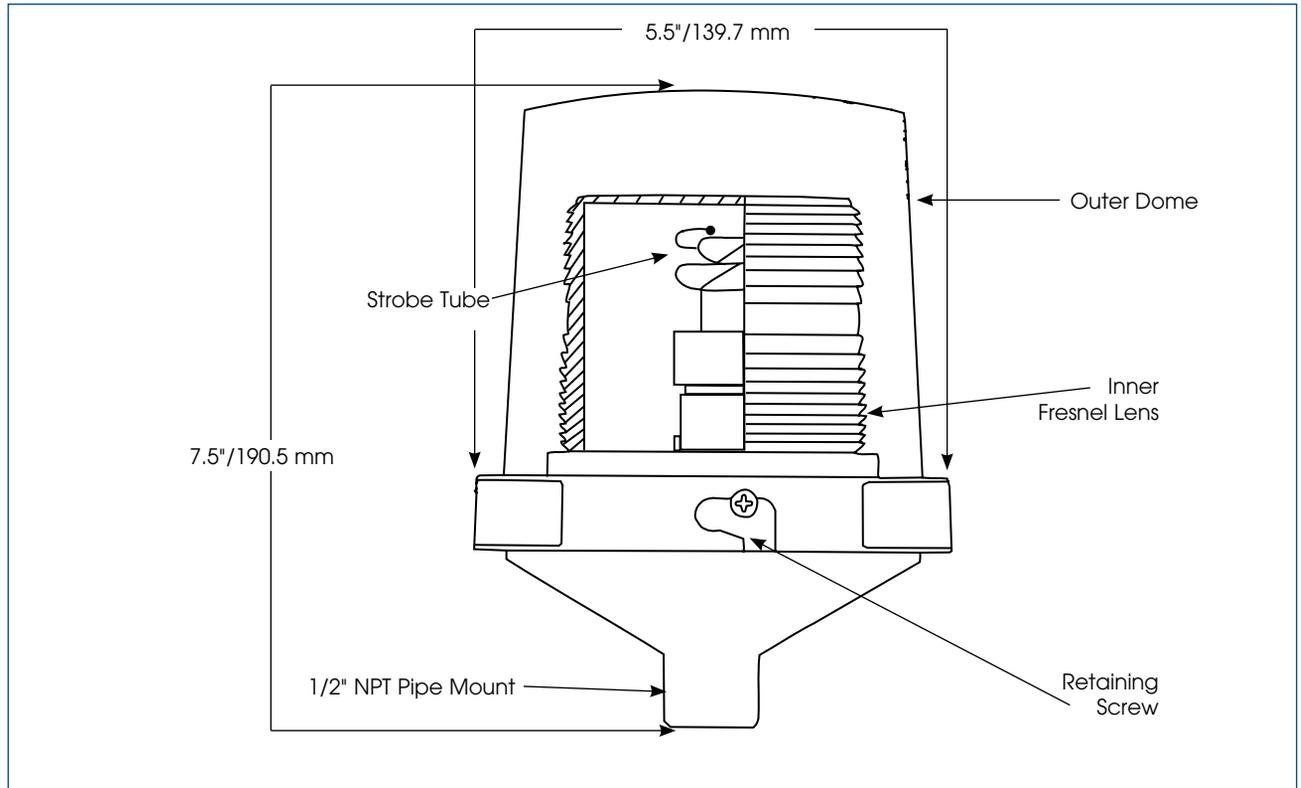
T-Code at Maximum Ambient Temperature, °C	
Hazardous Location	40°C
<b>Class I, Div 2, Groups A, B, C, D</b>	T2A/280
<b>Class II, Div 2, Groups F, G</b>	T5/100
<b>Class III</b>	T5/100

<sup>1</sup> Peak candela is the maximum light intensity generated by a flashing light during its light pulse

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



## ELECTRARAY® HAZARDOUS LOCATION WARNING LIGHT (225XST/225XST-I)



### SPECIFICATIONS

Lamp Life:	10,000 Hours	10,000 Hours
Light Source:	Strobe tube	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.	0.9 kg
Height:	7.5"	190.5 mm
Diameter:	5.5"	139.7 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Hazardous Wall Bracket (LHWB)
- Please refer to Model Number Index 225XST/225XST-I beginning on page 372

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>
<b>Interior Lens</b>		Exterior Dome, Clear	K8444D219C-04
Amber	K8550C095A-02	PC Assembly, 24VDC	K2001202C-01
Blue	K8550C095A-01	PC Assembly, 120VAC	K2001905A
Clear	K8550C095A	PC Assembly, 240VAC	K2001905A-01
Green	K8550C095A-04	Strobe Tube	K8107177A
Magenta	K8550C095A-07		
Red	K8550C095A-03		

# Hazardous Location Warning Light

Model 151XST



## RUGGED DESIGN FOR USE IN HAZARDOUS LOCATIONS

- Available in 12-24VDC, 120VAC and 240VAC
- Six dome colors
- 10,000-hour high-intensity strobe
- 3/4-inch NPT pipe mount
- Dome guard included
- Indoor/outdoor use
- Type 4X, IP66 enclosure
- Marine Rated
- UL and cUL Listed and CSA Certified

Federal Signal's Model 151XST hazardous location strobe light provides 80 high-intensity flashes per minute. This warning light is available in 12-24VDC, 120VAC and 240VAC, 50/60Hz.

The Model 151XST strobe light is UL Listed and CSA Certified for Class I, Division 2, Groups A, B, C and D; Class II, Division 1, Groups E, F and G; and Class III.

The 151XST meets Type 4X water-tight, dust-tight, and corrosion-resistant requirements; constructed to IP66. This hazardous location warning light has an aluminum base, coated for corrosion-resistance that is ready for mounting on a 3/4-inch NPT pipe. The Dome Guard (included) fits over the glass dome to protect it against accidental collision with moving equipment, such as forklifts.

The 151XST has an effective candela (ECP) of 165 and a 520,000 peak candela. It is available in six dome colors, including Amber, Blue, Clear, Green and Red (Magenta upon request).

Federal Signal's rugged 151XST strobe warning 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.

Model	Voltage	Operating Current	Flash Rate/Minute	Candela Peak <sup>1</sup>	ECP <sup>2</sup>	Mount
151XST-012-024_*	12-24VDC	1.3-0.60 amps	80	520,000	165	3/4" NPT Pipe
151XST-120_*	120VAC 50/60Hz	0.35 amps	80	520,000	165	3/4" NPT Pipe
151XST-240_*	240VAC 50/60Hz	0.18 amps	80	520,000	165	3/4" NPT Pipe

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

## Hazardous Location Rating:

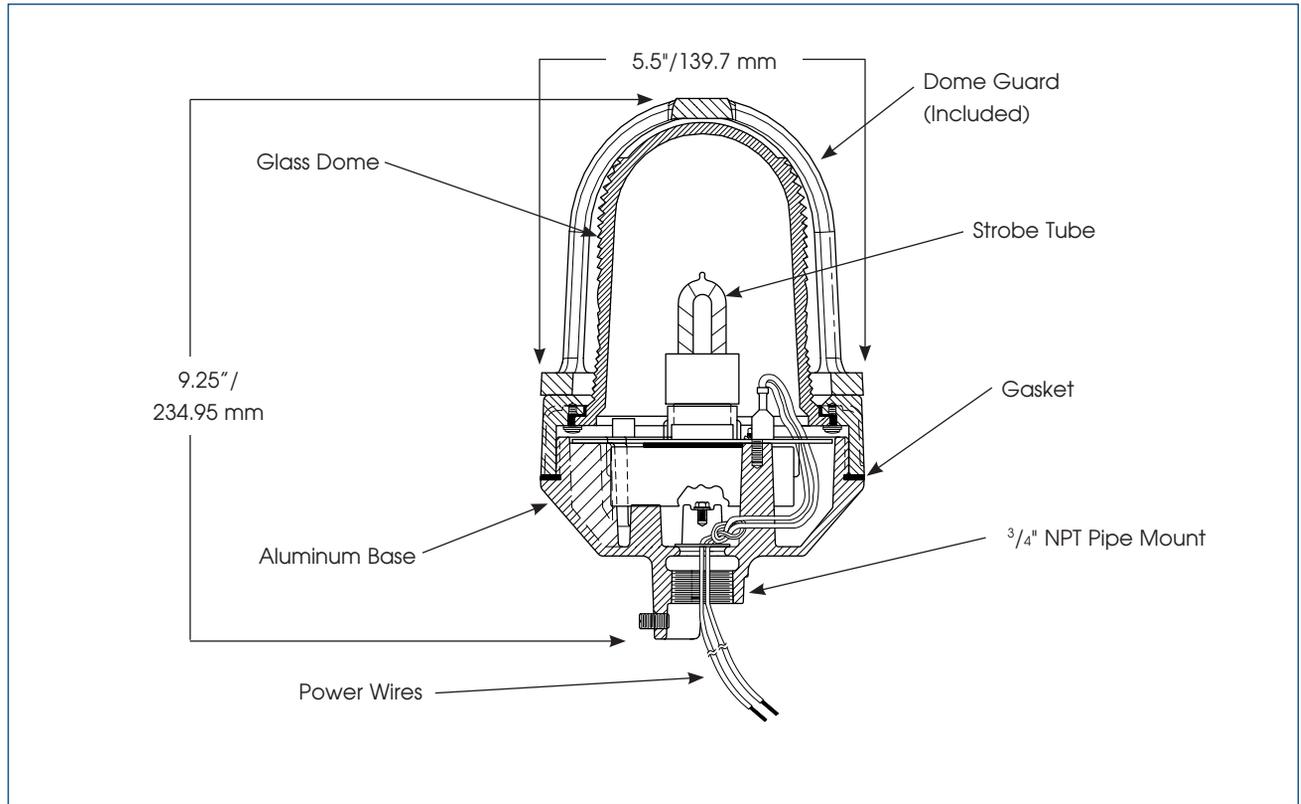
T-Code at Maximum Ambient Temperature, °C	
Hazardous Location	66°C
Class I, Div 2, Groups A, B, C & D	T2B/300°
Class II, Div 1, Groups E, F & G	T5/100°
Class III	T5/100°

<sup>1</sup> Peak candela is the maximum light intensity generated by a flashing light during its light pulse

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



## HAZARDOUS LOCATION STROBE LIGHT (151XST)



### SPECIFICATIONS

Lamp Life:	10,000 Hours	10,000 Hours
Light Source:	Strobe tube	Strobe tube
Operating Temperature:	-67°F to 150°F	-55°C to 65.6°C
Net Weight:	3.8 lbs.	1.7 kg
Shipping Weight:	4.5 lbs.	2.0 kg
Height:	9.25"	234.95 mm
Diameter:	5.5"	139.7 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Hazardous Wall Bracket (LHWB)
- Please refer to Model Number Index 151XST beginning on page 372

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>
Series C Dome and Ring Assembly		PC Assembly, 12-24VDC	K2001173A
Dome & Ring Assembly, Amber	K8449078C-01	PC Assembly, 120VAC	K2001071B
Dome & Ring Assembly, Blue	K8449078C-06	PC Assembly, 240VAC	K2001071B-01
Dome & Ring Assembly, Clear	K8449078C-04	Strobe Tube	K149122B
Dome & Ring Assembly, Green	K8449078C-07	Dome Gaskets	K8449080B
Dome & Ring Assembly, Red	K8449078C	Guard	K8449090B
Dome & Ring Assembly, Magenta	K8449078C-05		

# Starfire® Strobe Warning Lights

Models 131ST and 131DST



## OUR BRIGHTEST MEDIUM DUTY STROBE LIGHT

- Available in 12-24VDC, 120VAC and 240VAC
- Five dome colors
- 10,000 hour strobe tube
- Single or double flash strobe
- 1/2-inch NPT pipe mount
- Indoor/outdoor use
- Type 3R, IP45 enclosure (Dome up orientation)
- UL and cUL Listed and CSA Certified

Federal Signal's Starfire® strobe warning lights are available in single-flash (131ST) and double-flash (131DST) models. Through precise timing of the strobe flash, the double flash unit produces 1,200 effective candela; the single flash unit produces 1,000 effective candela.

Starfire models are available in 12-24VDC, 120VAC (50/60Hz) and 240VAC (50/60Hz). All units are less than nine inches high and six inches in diameter, but powerfully effective.

Starfire strobe warning lights contain their own strobe power supply in the base of the light. The strobe flash tube is mounted in an eight-pin octal socket base. The fresnel dome stands up to impact and abuse and is available in Amber, Blue, Clear, Green and Red. 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 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, the Models 131ST/DST warn of hazardous conditions, mark dangerous areas (either permanently or temporarily) and mounts on lift trucks, cranes and other moving devices. These powerful strobes can be used on emergency, utility, maintenance or any other vehicle requiring emergency warning.

Model	Voltage	Operating Current	Flash Rate/Minute	Candela Peak <sup>1</sup>	ECP <sup>2</sup>	Mount <sup>4</sup>
131DST-012-024 *	12-24VDC	3.0-1.9 amps	80 <sup>3</sup>	1,000,000	1,200	1/2" NPT Pipe
131DST-120 *	120VAC	0.60 amps	80 <sup>3</sup>	1,000,000	1,200	1/2" NPT Pipe
131DST-240 *	240VAC	0.30 amps	80 <sup>3</sup>	1,000,000	1,200	1/2" NPT Pipe
131ST-012-024 *	12-24VDC	2.75-1.25 amps	80	2,000,000	1,000	1/2" NPT Pipe
131ST-120 *	120VAC 50/60Hz	0.60 amps	80	2,000,000	1,000	1/2" NPT Pipe
131ST-240 *	240VAC 50/60Hz	0.30 amps	80	2,000,000	1,000	1/2" NPT Pipe

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

<sup>1</sup> Peak candela is the maximum light intensity generated by a flashing light during its light pulse

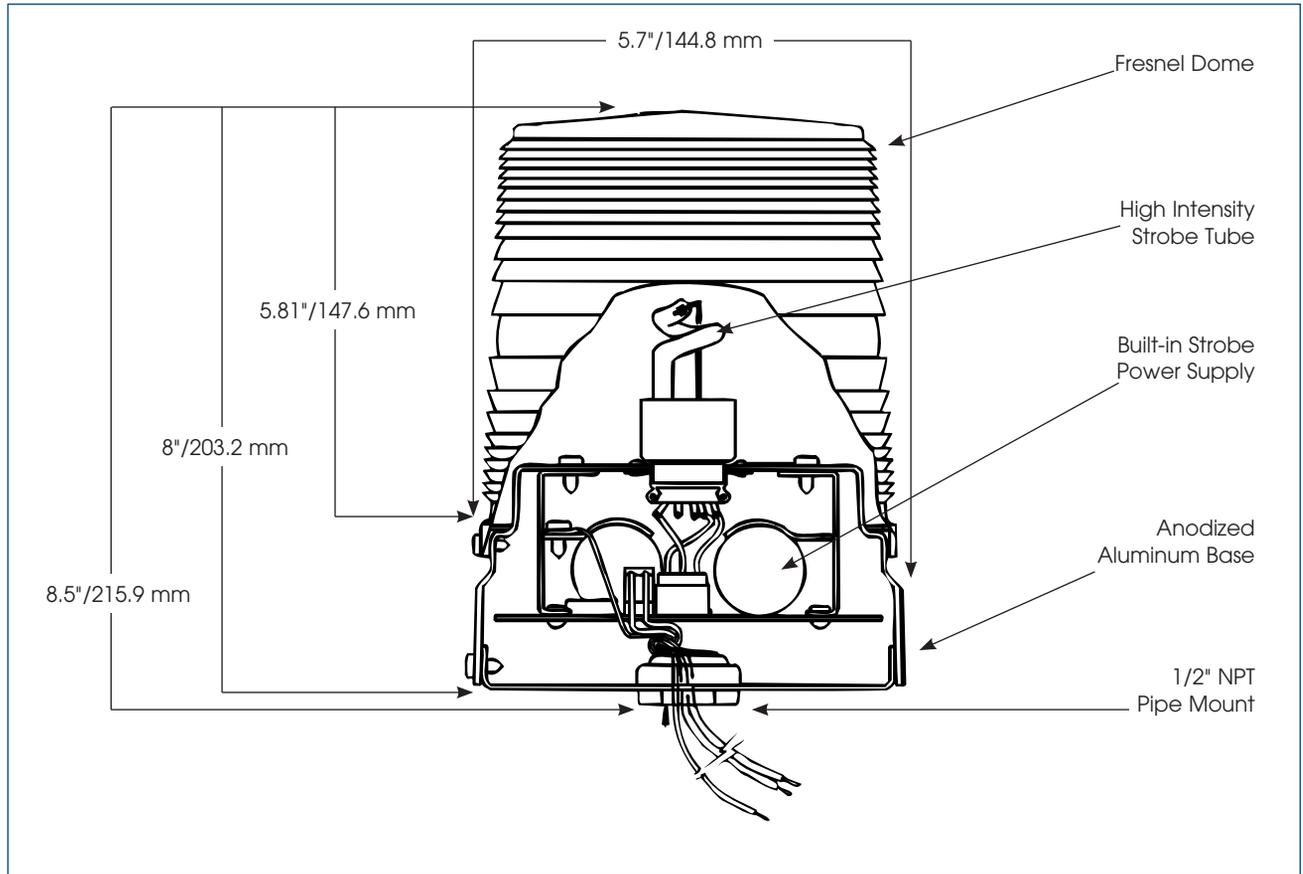
<sup>2</sup> ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

<sup>3</sup> Double Flash

<sup>4</sup> Magnet and surface mount kits available



## STARFIRE® STROBE WARNING LIGHT (131ST/131DST)



### SPECIFICATIONS

Lamp Life:	10,000 Hours	10,000 Hours
Light Source:	Strobe tube	Strobe tube
Operating Ambient Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	2.0 lbs.	1.0 kg
Shipping Weight:	3.4 lbs.	1.5 kg
Height:	8.5"	215.9 mm
Width:	5.7"	144.8 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:
  - Corner Bracket (LCMB2)
  - Wall Bracket (LWMB2)
  - Surface Mount (K8444A211B)
- Please refer to Model Number Index 131ST/131DST beginning on page 373

### REPLACEMENT PARTS

<i><b>Description</b></i>	<i><b>Part Number</b></i>	<i><b>Description</b></i>	<i><b>Part Number</b></i>
Dome, Amber	K8422B428A-01	PC Assembly, 12-24VDC (131ST)	K2001260C
Dome, Blue	K8422B428A-02	PC Assembly, 120VAC (131ST)	K2001188C
Dome, Clear	K8422B428A	PC Assembly, 240VAC (131ST)	K2001188C-01
Dome, Green	K8422B428A-03	PC Assembly, 12-24VDC (131DST)	K2001265D
Dome, Red	K8422B428A-04	PC Assembly, 120VAC (131DST)	K200865G
Strobe Tube	K8107178A	PC Assembly, 120VAC (131DST)	K200865G
Surface Mount Kit	K8444A211B	PC Assembly, 240VAC (131DST)	K200865G-01
		Dome Gasket	K8444A193A

# Commander® Double Strobe Hazardous Location Warning Light



## Model 371DST

### DESIGNED FOR USE IN HAZARDOUS LOCATIONS

- Available in 12-24VDC, 120VAC and 240VAC
- Five dome colors
- Surface mount and integrated 1-inch NPT pipe mount
- Type 4X, IP66 enclosure
- UL and cUL Listed and CSA Certified

Federal Signal 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 371DST features an impact resistant polycarbonate dome available in five colors – Amber, Blue, Clear, Green, and Red. The dome and ring assembly simply screws on, allowing for quick access to the strobe tube and printed circuit board assembly.

The new base of the Commander features electrostatically applied, black epoxy paint for greater corrosion resistance. Wiring can be routed through the pipe mount opening in the bottom of the light or the 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 for the 371DST. The Commander is rated Type 4X, IP66 (watertight, dust tight, corrosion resistant).

The 371DST is also rated for Hazardous Location, Class I Division 2, Groups A,B,C, and D, Class II Division 2, Groups F & G; and Class III. The LWMB2 wall mount bracket and the LCMB2 corner mount bracket can be used for all non-hazardous environments. This strobe is also UL and cUL Listed and CSA Certified.

Model	Voltage	Operating Current	Flash Rate/ Minute	Candela Peak <sup>1</sup>	ECP <sup>2</sup>	Mount
<b>371DST-012-024</b> *	12-24 VDC	3.00-1.90 amps	80 <sup>3</sup>	750,000	1,000	1" NPT Pipe or Surface
<b>371DST-120</b> *	120VAC 50/60Hz	0.60 amps	80 <sup>3</sup>	750,000	1,000	1" NPT Pipe or Surface
<b>371DST-240</b> *	240VAC 50/60Hz	0.30 amps	80 <sup>3</sup>	750,000	1,000	1" NPT Pipe or Surface

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

### Hazardous Location Rating:

T-Code at Maximum Ambient Temperature, °C	
Hazardous Location	40°C
Class I, Div 2, Groups A, B, C, D	T2/300°
Class II, Div 2, Groups F, G	T6/85°
Class III	T6/85°

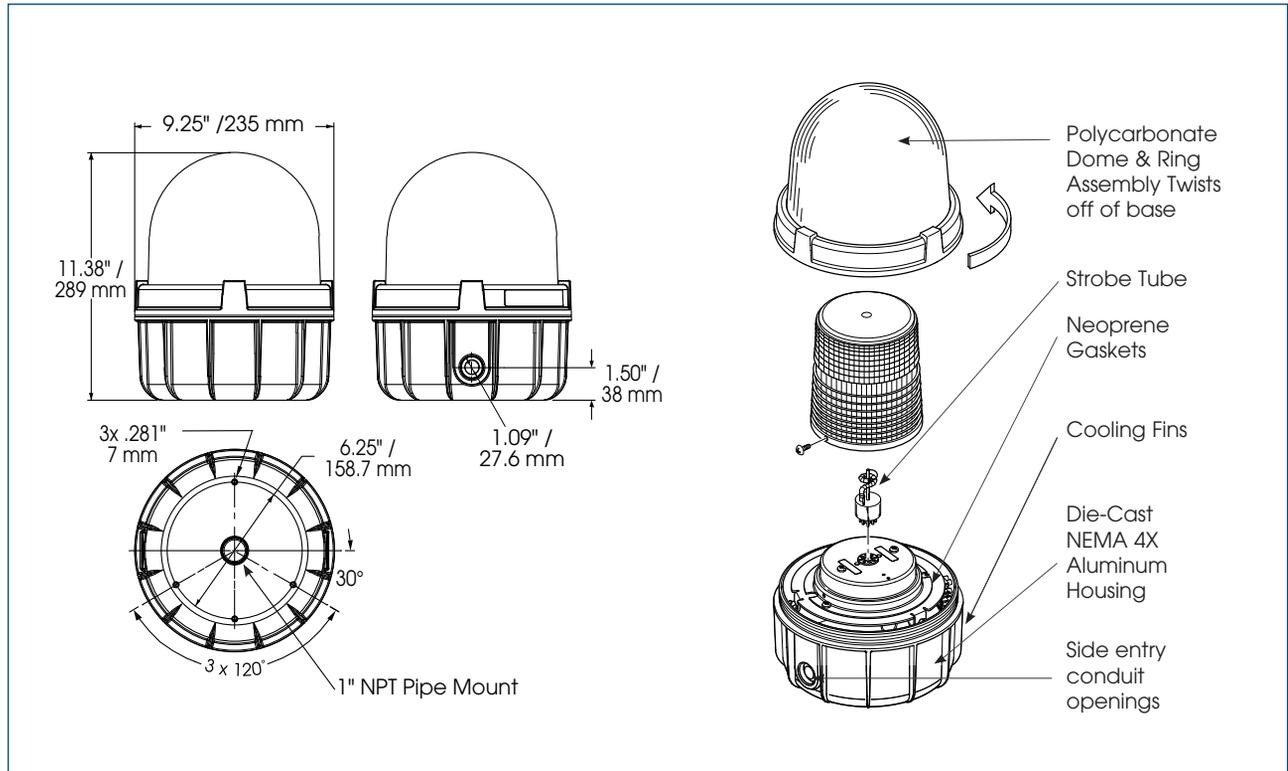
<sup>1</sup> Peak candela is the maximum light intensity generated by a flashing light during its light pulse

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

<sup>3</sup> Double flash



## COMMANDER® STROBE LIGHT (371DST)



### SPECIFICATIONS

Lamp Life:	10,000 Hours	10,000 Hours
Light Source:	Strobe tube	Strobe tube
Operating Temperature:	-31°F to 104°F	-35°C to 40°C
Net Weight:	6.23 lbs.	2.83 kg
Ship. Weight:	8.3 lbs.	3.76 kg
Height:	11.38"	288.9 mm
Diameter:	9.13"	231.8 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:
  - Solid Surface Mounting Bracket (371BRCKT)
  - Shock Mount Kit (K8459A076C)
  - Hazardous Wall Bracket (LHWB)
  - 3/4" Hub Kit (K8459138A)
  - 1" Plug Kit (K8459130A)
- Please refer to Model Number Index 371DST beginning on page 373

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>
Series B Dome and Ring Assembly		PCB Assembly 12-24VDC	K2001265D-01
Amber Polycarbonate	K8459125A	PCB Assembly 120VAC	K200865G-02
Blue Polycarbonate	K8459125A-01	PCB Assembly 240VAC	K200865G-03
Clear Polycarbonate	K8459125A-02	Gasket, Surface Mount	K8459127A
Green Polycarbonate	K8459125A-03	Strobe Tube	K8107178A
Red Polycarbonate	K8459125A-04		
Clear, Inner Polycarbonate, Lens	K8422B428A		

# Commander® Strobe Warning Light

Model 371ST



## HEAVY DUTY STROBE LIGHT

- Available in 250VDC
- Five dome colors
- Surface mount and integrated 1-inch NPT pipe mount
- Type 4X, IP66 enclosure

Federal Signal Model 371ST is a single-flash strobe housed in a Type 4X enclosure. At 60 flashes per minute and 275 effective candela, the Commander® is the largest strobe signal in the Federal Signal product line.

The 371ST features a heat resistant glass dome available in five colors – Amber, Blue, Clear, Green, and Red. The dome and ring assembly simply screws on, allowing for easy access to the strobe tube and printed circuit board assembly.

The new base of the Commander features electrostatically applied, black epoxy paint for greater corrosion resistance. Wiring can be routed through the pipe mount opening in the bottom of the light or the 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 for the 371ST. The Commander is rated Type 4X, IP66 (watertight, dust tight, corrosion resistant).

The LWMB2 wall mount bracket and the LCMB2 corner mount bracket can be used to mount this strobe light.

Model	Voltage	Operating Current	Flash Rate/Minute	Candela Peak <sup>1</sup>	ECP <sup>2</sup>	Mount
371ST-250_*	250VDC	0.25 amps	60	625,000	275	1" NPT Pipe or Surface

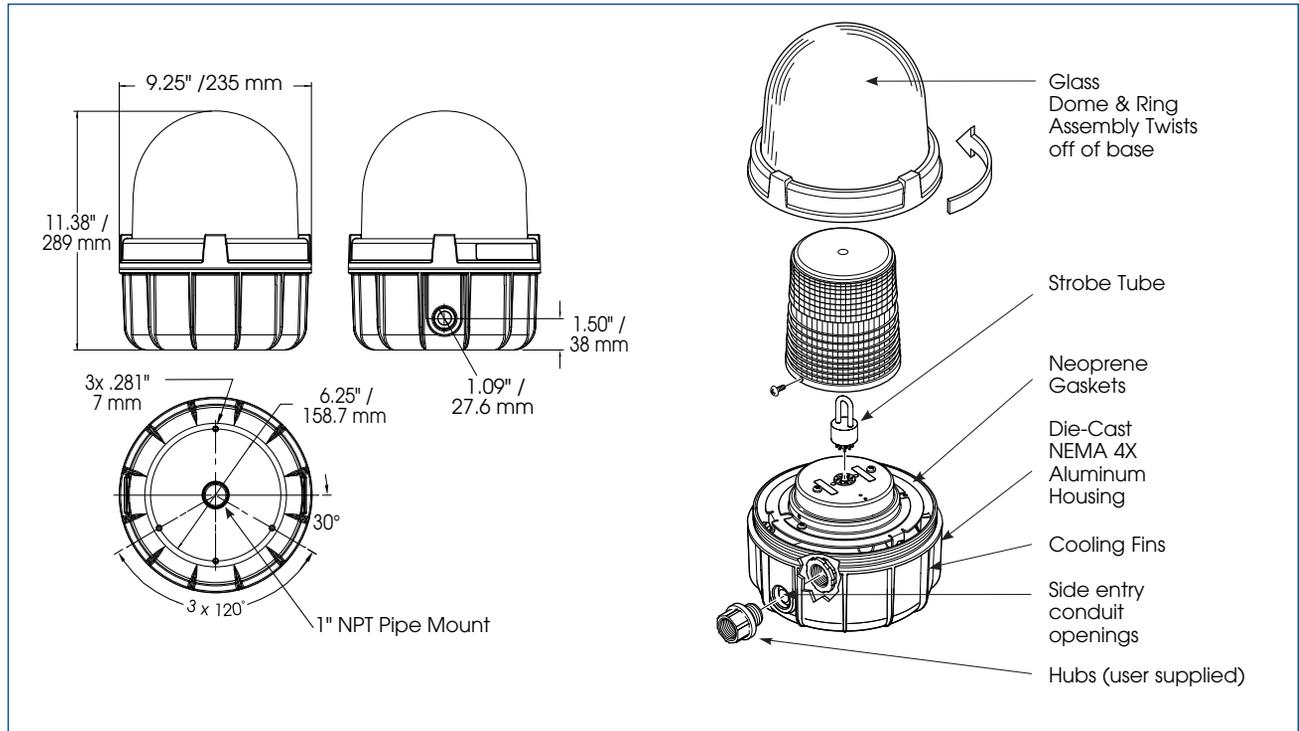
\* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

<sup>1</sup> Peak candela is the maximum light intensity generated by a flashing light during its light pulse

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



## COMMANDER® STROBE LIGHT (371ST)



### SPECIFICATIONS

Lamp Life:	10,000 Hours	10,000 Hours
Light Source:	Strobe tube	Strobe tube
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	10.0 lbs.	4.54 kg
Shipping Weight:	12.4 lbs.	5.62 kg
Height:	11.38"	288.9 mm
Diameter:	9.13"	231.8 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:
  - Corner Bracket (LCMB2)\*
  - Solid Surface Mounting Bracket (371BRCKT)
  - Shock Mount Kit (K8459A076C)
  - Wall Bracket (LWMB2)\*
  - Hazardous Wall Bracket (LHWB)
  - <sup>3</sup>/<sub>4</sub>" Hub Kit (K8459138A)
  - 1" Plug Kit (K8459130A)
- Please refer to Model Number Index 371ST beginning on page 373

\* Type 3R applications.

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>
<u>Series B Dome and Ring Assembly</u>			
Amber Glass	K8459126A	Clear, Inner Polycarbonate Dome	K8422B428A
Blue Glass	K8459126A-01	PC Assembly 250VDC	K2001070B
Clear Glass	K8459126A-03	Gasket, Surface Mount	K8459127A
Green Glass	K8459126A-04	Strobe Tube	K149122B
Red Glass	K8459126A-02		



# Fireball® 2 Explosion-Proof Strobe Warning Light

## Model FB2PSTX and FB2PSTX-I

### DESIGNED FOR USE IN EXPLOSION-PROOF ATMOSPHERES

- Available in 12-24VDC and 120VAC
- Five lens colors
- 10,000 hour strobe tube
- Ceiling mount standard; other options available
- Marine Listed
- Type 4X, IP66 enclosure
- UL and cUL Listed

Federal Signal's FB2PSTX explosion-proof strobe light is a compact unit that produces a "lightning bolt" flash of light. Measuring 13.69" (348mm) high and 7.44" (189mm) in diameter, the FB2PSTX is available in 12-24VDC, 24VDC and 120VAC. These strobe lights are well suited for a wide range of explosion-proof warning light applications.

All models are UL and cUL Listed for indoor/outdoor and marine use. This model is UL 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 II, Division 2, Groups F and G; and Class III.

Model FB2PSTX has a self-contained power supply. The copper-free aluminum finned base dissipates heat and ensures long life. The outer dome is made of tempered glass. Polycarbonate inner lenses are available in Amber, Blue, Clear, Green and Red. A rugged ceiling mount fixture is standard; optional wall mounts and dome guards are also available.

The 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 Model FB2PSTX is suited for any application where a superior visual signal is needed and is especially effective for warning of industrial hazards, process control, status indication or in areas with high ambient noise levels.

Model	Voltage	Operating Current	Flash Rate/Minute	Candela Peak <sup>1</sup>	ECP <sup>2</sup>
<b>FB2PSTX-012-024 *</b>	12-24VDC	1.70-0.70 amps	80	800,000	320
<b>FB2PSTX-I-024 *</b>	24VDC	0.70 amps (2.0 amp In-rush)	80	800,000	320
<b>FB2PSTX-120 *</b>	120VAC 50/60HZ	0.25 amps	80	800,000	320

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

<sup>1</sup> Peak candela is the maximum light intensity generated by a flashing light during its light pulse

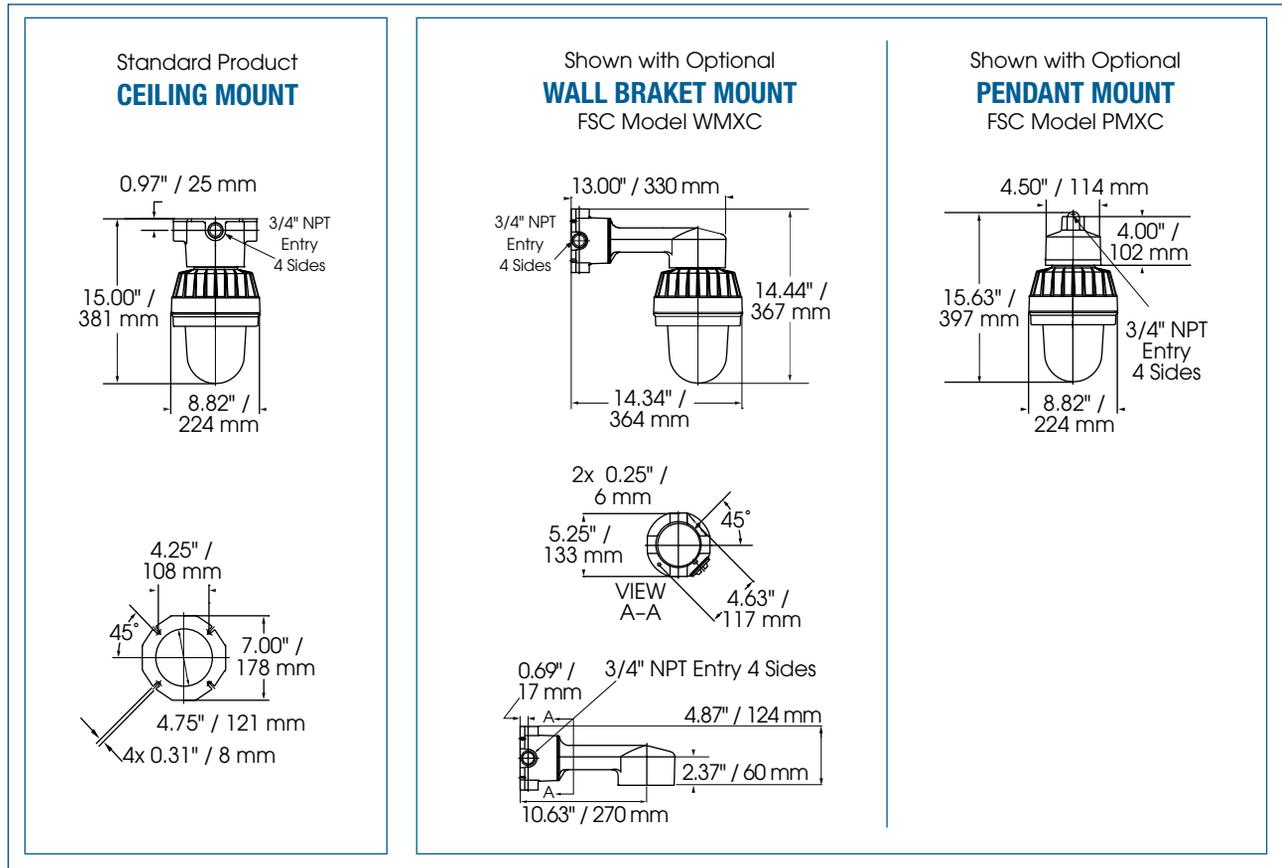
<sup>2</sup> ECP (Effective Candela) is the intensity that would appear to an observer if the light were burning steadily

### Hazardous Location Rating:

Hazardous Location	T-Code at Maximum Ambient Temperature, °C	
	40°C	65°C
Class I, Div 1 & 2, Groups C & D	T6/85°	T6/85°
Class I, Div 2, Groups A & B	T4A/120°	T3C/160°
Class II, Div 1 & 2, Groups E, F & G	T4/135°	T4/135°
Class III	T4/135°	T4/135°



## EXPLOSION-PROOF STROBE LIGHT (FB2PSTX/FB2PSTX-I)



### SPECIFICATIONS

Lamp Life:	10,000 Hours	10,000 Hours
Light Source:	Strobe tube	Strobe tube
Operating Temperature:	-13°F to 149°F	-25°C to 65°C
Net Weight:	9.6 lbs.	4.35 kg
Shipping Weight:	13.1 lbs.	5.94 kg
Height:	13.69"	348.0 mm
Diameter:	7.44"	189.0 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
 Wall Mount (WMXC)  
 Pendant Mount (PMXC)  
 Dome Guard (DGFBX)
- Please refer to Model Number Index FB2PSTX beginning on page 373

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>
Inner Lens, Amber	K8550292A-02
Inner Lens, Blue	K8550292A-01
Inner Lens, Clear	K8550292A
Inner Lens, Green	K8550292A-04
Inner Lens, Red	K8550292A-03
Outer Dome Assembly	K8550272A-01
PC Assembly, 12-24VDC	K2001202C
PC Assembly, 120VAC	K200D866G
Strobe Tube	K8107177A

# Explosion-Proof Strobe Light



## Model 27XST

Federal Signal's Model 27XST explosion-proof strobe light produces 80 high-intensity flashes per minute. This warning light operates on 24VDC, 120VAC, and 240VAC 50/60Hz.

The 27XST is UL Listed for Class I, Division 1, Groups C & D; Class II, Division 1, Groups E, F & G; Class I, Division 2, Groups A, B; and Class III. The 27XST is CSA Certified and Marine Rated.

The 24VDC 27XST 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 27XST is Type 4X rated; constructed to IP66. Corrosion resistance is achieved with a powder epoxy finish applied over the copper-free aluminum housing. All exposed hardware is 316 grade stainless steel.

Federal Signal's Model 27XST has an effective candela (ECP) of 850 and a two million peak candela. A pendant mount is supplied and a ceiling mount and 90° wall mount are available options. 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.

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.

## DESIGNED FOR USE IN EXPLOSION-PROOF ATMOSPHERES

- Available in 24VDC, 120VAC and 240VAC
- Six lens colors
- 10,000 hour strobe tube
- 3/4-inch NPT pendant mount standard; other options available
- Dome guard optional
- Type 4X, IP66 enclosure
- Marine Rated
- UL and cUL Listed, CSA Certified and CSFM Approved

## Hazardous Location Rating:

Hazardous Location	T-Code at Maximum Ambient Temperature, °C	
	40°C	65°C
Class I, Div 1 & 2, Groups C & D	T6/85°	T4A/120°
Class I, Div 2, Groups A & B	T2B/260°	T2A/280°
Class II, Div 1, Groups E, F & G	T6/85°	T4A/120°
Class III	T6/85°	T4A/120°

Model	Voltage	Operating Current	Flash Rate/Minute	Peak <sup>1</sup> Candela	ECP <sup>2</sup>	Mount
27XST-024 *	24VDC	1.90 amps (3.0 amp In-rush)	80	2,000,000	850	3/4" NPT Pendant
27XST-120 *	120VAC 50/60Hz	1.14 amps	80	2,000,000	850	3/4" NPT Pendant
27XST-240 *	240VAC 50/60Hz	0.52 amps	80	2,000,000	850	3/4" NPT Pendant

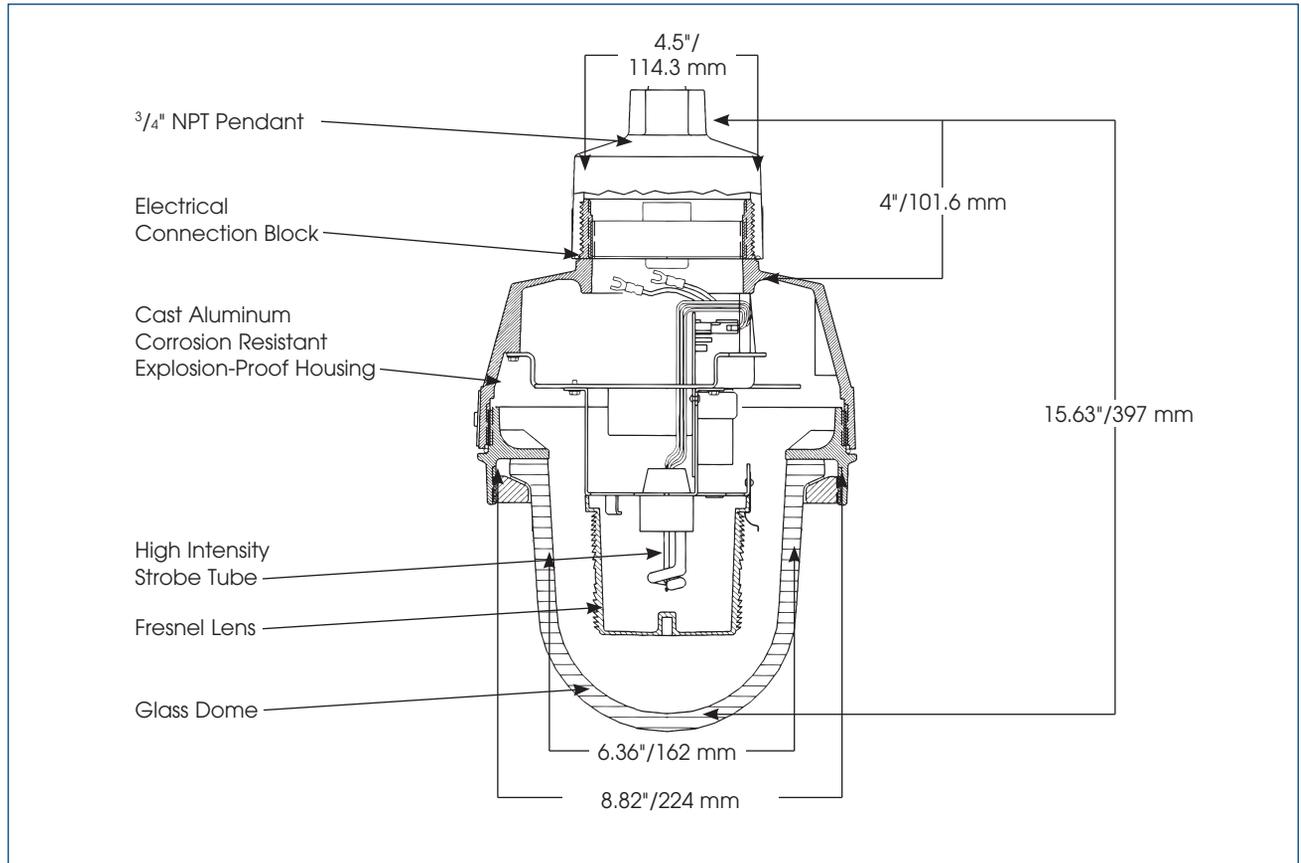
\* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green, (M) Magenta or (R) Red

<sup>1</sup> Peak candela is the maximum light intensity generated by a flashing light during its light pulse

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



## EXPLOSION-PROOF STROBE LIGHT (27XST)



### SPECIFICATIONS

Lamp Life:	10,000 Hours	10,000 Hours
Light Source:	Strobe tube	Strobe tube
Ambient Temp. Range:	-50°C to 65°C	Canada
	-25°C to 65°C	USA
Net Weight:	14 lbs.	6.4 kg
Shipping Weight:	18.1 lbs.	8.2 kg
Height:	15.63"	397.0 mm
Diameter:	8.82"	224.0 mm

### HOW TO ORDER

- Specify model, voltage and color (Magenta upon request)
- Optional Accessories:  
Dome Guard (DGXC)  
Ceiling Mount (CMXC)  
Wall Mount (WMXC)
- Please refer to Model Number Index 27XST beginning on page 373

### REPLACEMENT PARTS

<i><b>Description</b></i>	<i><b>Part Number</b></i>	<i><b>Description</b></i>	<i><b>Part Number</b></i>
Exterior Dome Assembly, Clear	K8444C271A-01	24VDC Mechanism	K8436107F-03
Interior Lens Assembly, Amber	K8550C095A-02	120VAC Mechanism	K8436107E-02
Interior Lens Assembly, Blue	K8550C095A-01	240VAC Mechanism	K8436107E-01
Interior Lens Assembly, Clear	K8550C095A	Strobe Tube, Series C1, C2	K8107159A
Interior Lens Assembly, Green	K8550C095A-04	Pendant Mount	K8444A272A
Interior Lens Assembly, Magenta	K8550C095A-07		
Interior Lens Assembly, Red	K8550C095A-03		

# StreamLine® Low Profile Combination Sounder/Strobe

## Model LP7



### Perfect size meets superior performance

- Available in 18–30VDC
- Fully integrated xenon strobe circuit
- Five dome colors — Amber, Blue, Clear, Green, Red
- Heavy duty ABS plastic body
- Type 4X, IP54 (IP65 with optional deep base)
- 82–100dB @ 10' (92–110dB @ 1m)
- Type 4X, IP54 (IP65 with optional deep base)
- CE Compliant

Providing an audible/visual warning, the LP7 sounder/strobe combines the features of a mini sounder with a fully integrated xenon strobe circuit. The result is an attractive unit suitable for internal or external locations where a combination of high sound output and visual signal is required.

The strobe color choices include Amber, Clear, Green, Blue or Red. The unit comes with a standard shallow base. An optional deeper base allows 20mm diameter conduit entry.

Operating voltage ranges from 18-30VDC with an average of only 68mA current consumption.

The LP7 has two switchable tone patterns - “Sweeping” and “Continuous”.

The LP7 has a range of 82dB–100dB @ 10' (92–110dB @ 1m), dependent upon tone selected. Volume control allows for 20dB 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 with any tone selected.

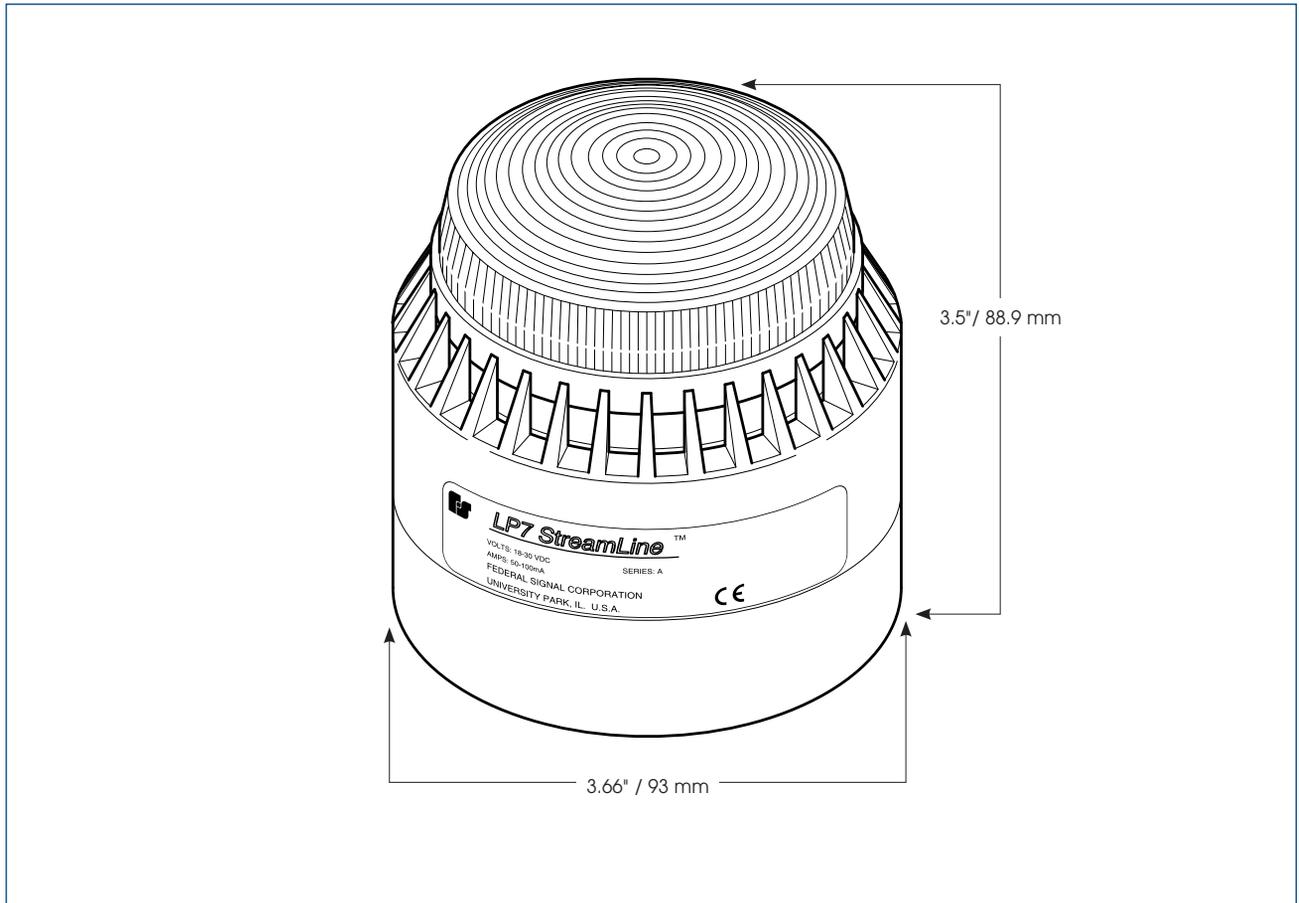
The Federal Signal Model LP7 sounder/strobe is PLC compatible. It is ideal for wall or panel mount applications where low voltage is required.

Model	Voltage	Operating Current	Flash Rate/ Minute	Joule Output	Decibels @ 10'	Decibels @ 1m
LP7-018-030*	18-30VDC	0.068 amps	60	0.7	82-100	92-110

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



## STREAMLINE® LOW PROFILE SOUNDER/STROBE (LP7)



### SPECIFICATIONS

Lamp Life:	10,000 Hours	10,000 Hours
Light Source:	Strobe tube	Strobe tube
Operating Temperature:	14°F to 131°F	-10°C to 55°C
Net Weight:	11.1 oz.	315.0 kg
Shipping Weight:	13.5 oz.	383.0 kg
Height:	3.5"	88.9 mm
Diameter:	3.66"	93.0 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Deep Base (DBLP)
- Please refer to Model Number Index LP7 beginning on page 373



# LED Flashing Combination Audible/Visual Signal

Model AV1-LED

## ECONOMICAL LED AUDIBLE/VISUAL SIGNAL

- Available in 24VDC and 120VAC
- 60,000 hour LED light source
- Surface mount, integrated 1/2-inch NPT pipe mount, and 4-inch electrical box mount
- Five dome colors
- Twist-off lens for easy access
- Internal buzzer produces 85dB at 10' (95dB @ 1m)
- Type 3R enclosure
- UL and cUL Listed

Federal Signal introduces the Model AV1-LED combination audible/visual signal. The AV1-LED features a 100% polycarbonate housing that is rated for Type 3R rain-tight applications. Available dome colors include Amber, Blue, Clear, Green and Red.

The AV1-LED design provides three mounting configurations. The black base will accommodate mounting to a 1/2-inch NPT pipe, a 4-inch octagonal electrical box or any flat surface. The surface mount gasket serves as a template for preparing a flat surface with appropriate mounting holes.

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

The integrated buzzer provides 85dB output at 10 feet (95dB @ 1 meter). 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.

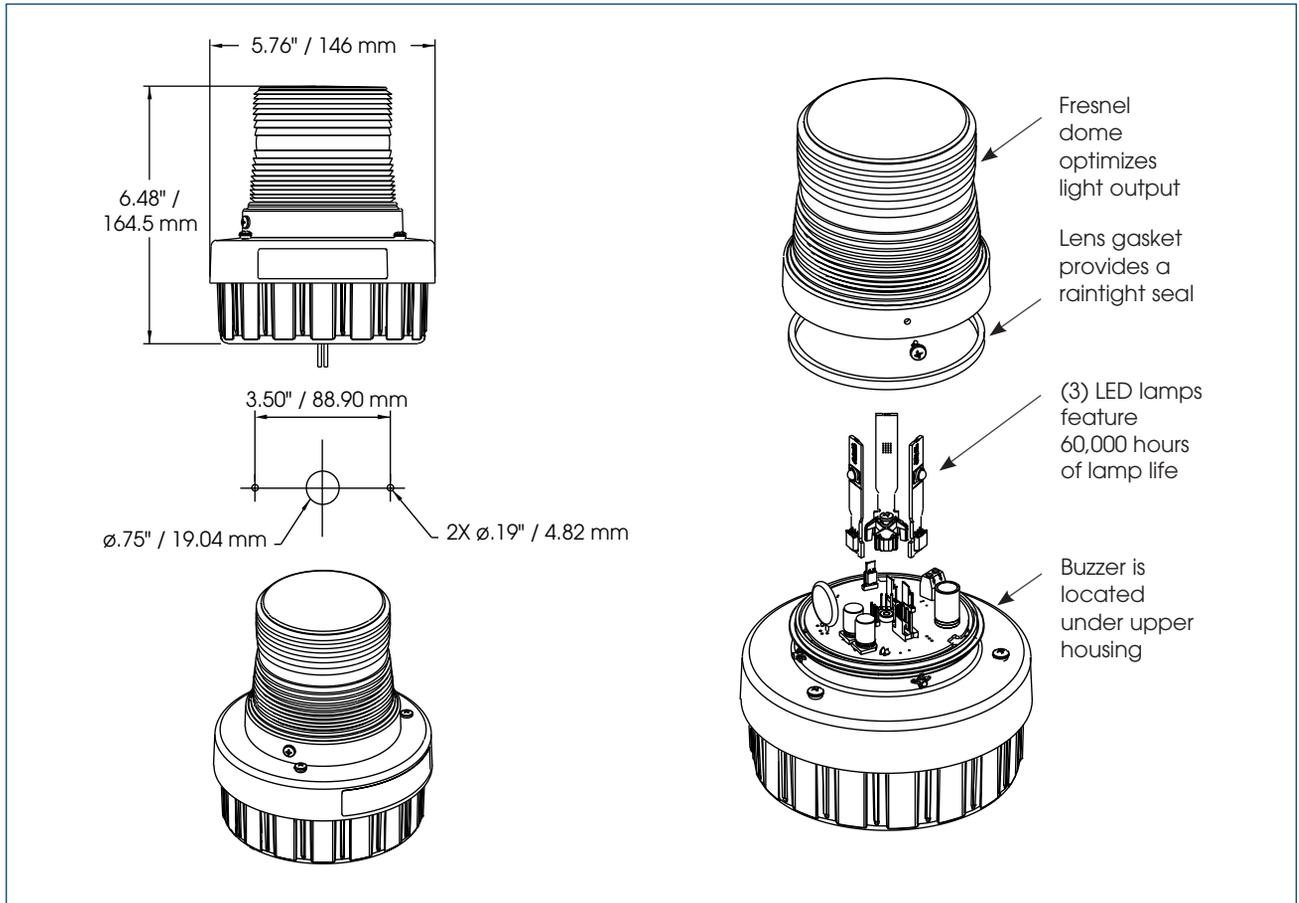
The AV1-LED comes in two voltage variations: 24VDC and 120VAC. Each unit is factory assembled with two color-coded leads. If desired, the user can remove the leads and connect directly to the terminal block located in the base of the unit. The AV1-LED is UL and cUL Listed.

Model	Voltage	Operating Current	Flash Rate/ Minute	Decibels @		Mount
				10'	1m	
AV1-LED-024 *	24VDC	0.27 amps	60/75	85	95	Pipe/Surface
AV1-LED-120 *	120VAC	0.03 amps	60/75	85	85	Pipe/Surface

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



## AUDIBLE/VISUAL SIGNALING DEVICE (AV1 LED)



### SPECIFICATIONS

Lamp Life:	60,000 Hours	60,000 Hours
Light Source:	LED	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 (from bottom):	6.48"	16.5 cm
Diameter:	5.76"	14.6 cm

### HOW TO ORDER

- Specify model, voltage and color
- Please refer to Model Number Index AV1-LED beginning on page 374

### REPLACEMENT PARTS

<i><b>Description</b></i>	<i><b>Part Number</b></i>	<i><b>Description</b></i>	<i><b>Part Number</b></i>
Dome, Amber	K8550292A-02	LED Stick Amber (3 required)	K2005642A-A
Dome, Blue	K8550292A-01	LED Stick Blue (3 required)	K2005633A-B
Dome, Clear	K8550292A	LED Stick Green (3 required)	K2005642A-G
Dome, Green	K8550292A-04	LED Stick Red (3 required)	K2005642A-R
Dome, Red	K8550292A-03	LED Stick White (3 required)	K2005642A-W
Lens Gasket	K8550306A	Buzzer, 24VDC	K8591002A-03
Surface Mount Gasket	K8591003A	Buzzer, 120VAC	K8591002A

# Flashing Combination Audible/Visual Signal

## Model AV1



### ECONOMICAL AUDIBLE/VISUAL SIGNAL

- Available in 24VDC and 120VAC
- Surface mount, integrated 1/2-inch NPT pipe mount, and 4-inch electrical box mount
- Five dome colors
- Twist-off lens for easy access
- Internal buzzer produces 85dB at 10' (95dB @ 1m)
- Type 3R enclosure
- UL and cUL Listed and CSA Certified

Federal Signal introduces the Model AV1 combination audible/visual signal. The AV1 features a 100% polycarbonate housing that is rated for Type 3R rain-tight applications. Available dome colors include Amber, Blue, Clear, Green and Red.

The AV1 design provides three mounting configurations. The black base will accommodate mounting to a 1/2-inch NPT pipe, a 4-inch octagonal electrical box or any flat surface. The surface mount gasket serves as a template for preparing a flat surface with appropriate mounting holes.

All AV1 units feature a unique twist and lock dome to allow for tool-free access to the incandescent lamp. The fresnel lensing provides superior visibility in all directions.

The integrated buzzer provides 85dB output at 10 feet (95dB @ 1 meter). The sounder is synchronized to buzz at the same rate as the visual signal — 75 times per minute.

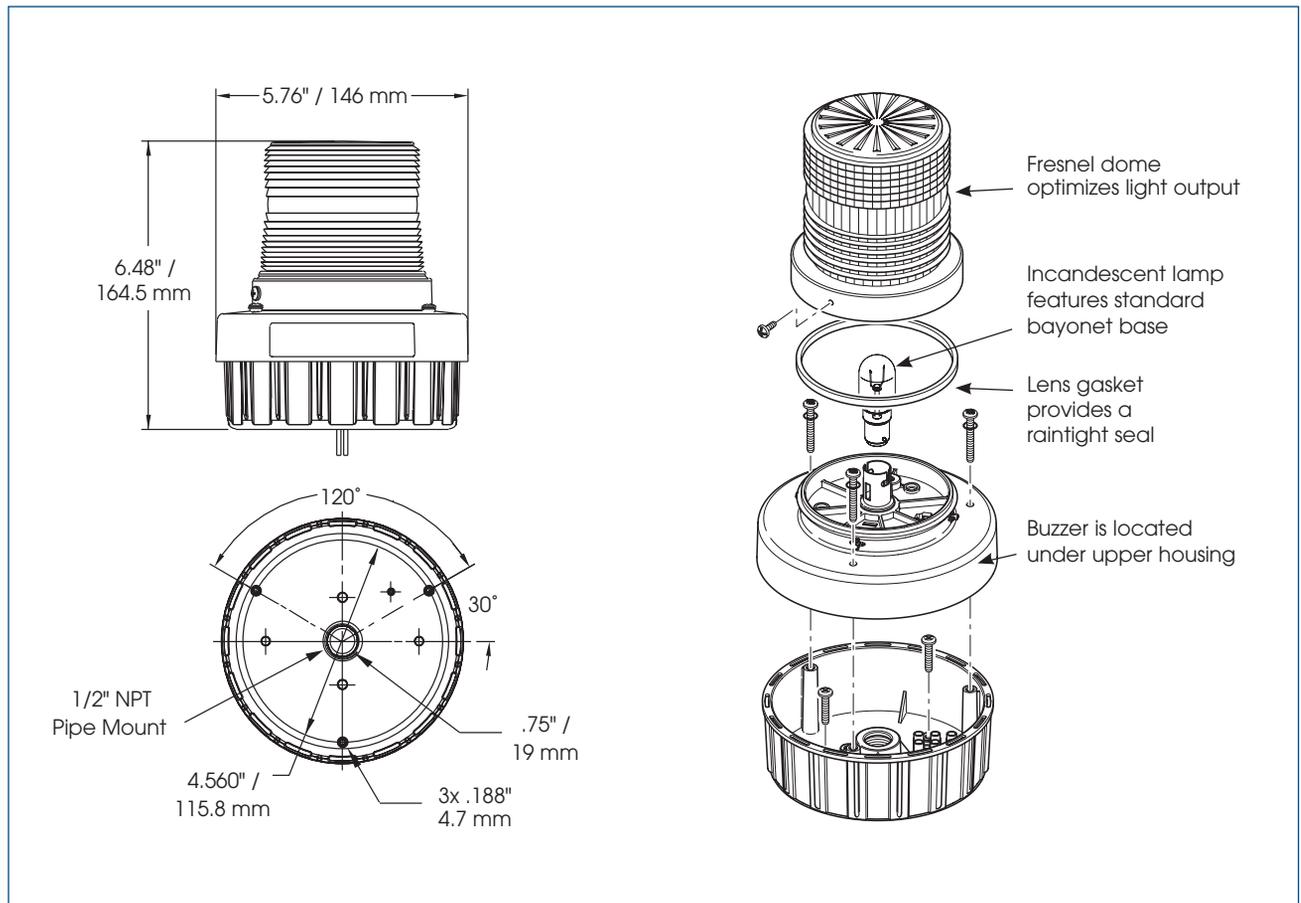
The AV1 comes in two voltage variations: 24VDC and 120VAC. Each unit is factory assembled with two color-coded leads. If desired, the user can remove the leads and connect directly to the terminal block located in the base of the unit. The AV1 is UL and cUL Listed and CSA Certified.

Model	Voltage	Operating Current	Flash Rate/Minute	Decibels @		Mount
				10'	1m	
AV1-024 *	24VDC	0.98 amps	75	85	95	Pipe/Surface
AV1-120 *	120VAC	0.27 amps	75	85	95	Pipe/Surface

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



## AUDIBLE/VISUAL SIGNALING DEVICE (AV1)



### SPECIFICATIONS

Lamp Life:	1,000 Hours	1,000 Hours
Light Source:	Incandescent	Incandescent
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 (from bottom):	6.48"	16.5 cm
Diameter:	5.76"	14.6 cm

### HOW TO ORDER

- Specify model, voltage and color
- Please refer to Model Number Index AV1 beginning on page 374

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>	<u>Description</u>	<u>Part Number</u>
Dome, Amber	K8550292A-02	Incandescent Lamp (24VDC)	K8107210A
Dome, Blue	K8550292A-01	Incandescent Lamp (120VAC)	K149123A
Dome, Clear	K8550292A	Flasher, 24VDC	K8285237A-01
Dome, Green	K8550292A-04	Flasher, 120VAC	K8285238A-01
Dome, Red	K8550292A-03	Buzzer, 24VDC	K8591002A-01
Lens Gasket	K8550306A	Buzzer, 120VAC	K8591002A
Surface Mount Gasket	K8591003A		

# Strobe Combination Audible/Visual Signal

## Model AV1ST



### ECONOMICAL AUDIBLE/ VISUAL SIGNAL

- Available in 24VDC and 120VAC
- Surface mount, integrated 1/2-inch NPT pipe mount, and 4-inch electrical box mount
- Five dome colors
- Twist-off lens for easy access
- Internal buzzer produces 85dB at 10' (95dB @ 1m)
- Type 3R enclosure
- UL and cUL Listed and CSA Certified

Federal Signal introduces the Model AV1ST combination audible/visual signal. The AV1ST features a 100% polycarbonate housing that is rated for Type 3R rain-tight applications. Available dome colors include Amber, Blue, Clear, Green and Red.

The AV1ST design provides three mounting configurations. The black base will accommodate mounting to a 1/2-inch NPT pipe, a 4-inch octagonal electrical box or any flat surface. The surface mount gasket serves as a template for preparing a flat surface with appropriate mounting holes.

All AV1ST units feature a unique twist and lock dome to allow for tool free access to the strobe tube. The fresnel lensing provides superior visibility in all directions.

The integrated buzzer provides 85dB output at 10 feet (95dB @ 1 meter).

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. The AV1ST is UL and cUL Listed and CSA Certified.

Model	Voltage	Operating Current	Flash Rate/ Minute	Joule Output	Candela		Decibels @		Mount
					Peak <sup>1</sup>	ECP <sup>2</sup>	10'	1m	
<b>AV1ST-024 *</b>	24VDC	0.39 amps	65-95	2.2	175,000	51.5	85	95	Pipe/Surface
<b>AV1ST-024 *</b>	120VAC	0.15 amps	65-95	2.2	175,000	51.5	85	95	Pipe/Surface

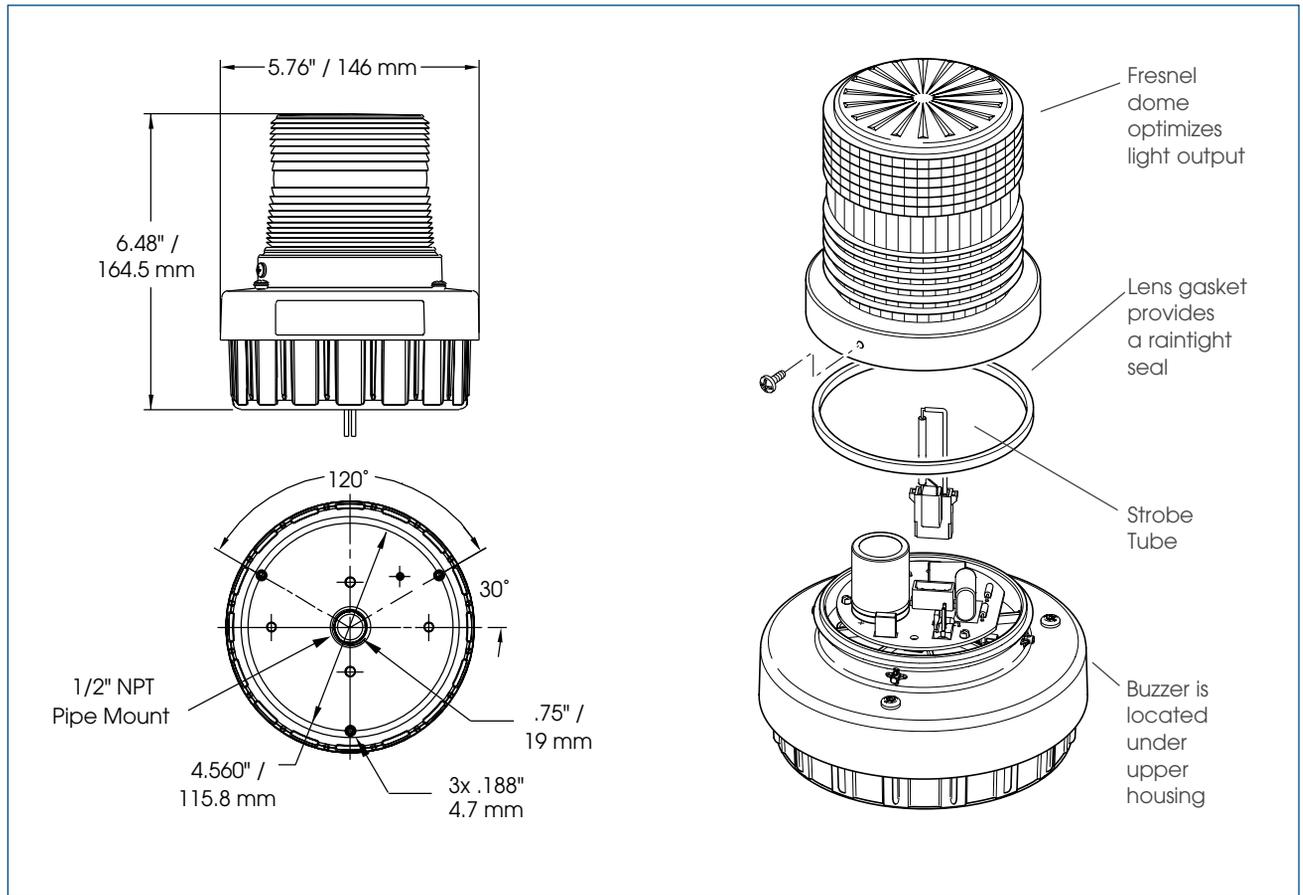
\* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

<sup>1</sup> Peak candela is the maximum light intensity generated by a flashing light during its light pulse

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



## AUDIBLE/VISUAL SIGNALING DEVICE (AV1ST)



### SPECIFICATIONS

Lamp Life	7000 Hours	7000 Hours
Light Source:	Strobe tube	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 (from bottom):	6.48"	16.5 cm
Diameter:	5.76"	14.6 cm

### HOW TO ORDER

- Specify model, voltage and color
- Please refer to Model Number Index AV1ST beginning on page 374

### REPLACEMENT PARTS

<i><b>Description</b></i>	<i><b>Part Number</b></i>	<i><b>Description</b></i>	<i><b>Part Number</b></i>
Dome, Amber	K8550292A-02	PCB Assembly (120VAC)	K2001887A
Dome, Blue	K8550292A-01	PCB Assembly (24VDC)	K2005083A
Dome, Clear	K8550292A	Lens Gasket	K8550306A
Dome, Green	K8550292A-04	Surface Mount Gasket	K8591003A
Dome, Red	K8550292A-03	Strobe Tube	K149130A
		Buzzer, 24VDC	K8591002A-01
		Buzzer, 120VAC	K8591002A

# Rotating Combination Audible/Visual Warning Signal

Model 400R



## AUDIBLE AND VISUAL WARNING IN A SINGLE VERSATILE UNIT

- Available in 120VAC
- Four dome colors
- Wall mount
- Sounder/Horn (Model 350) sold separately
- Indoor/outdoor use
- Type 3R enclosure
- UL and cUL Listed

Federal Signal's Model 400R audible/visual signal combines the effective warning of a rotating light with an optional Federal Signal Model 350 horn.

The Model 400R includes a large 4<sup>1</sup>/<sub>4</sub>-inch diameter rotating reflector assembly for projecting light beams. The unit features an incandescent lamp that produces 60 flashes per minute.

Available in four dome colors – Amber, Blue, Green and Red.

The Model 400R is ideal for use wherever both audible and visual warning signals are needed. This rugged unit is excellent for industrial use and adaptable to most in-plant signaling needs.

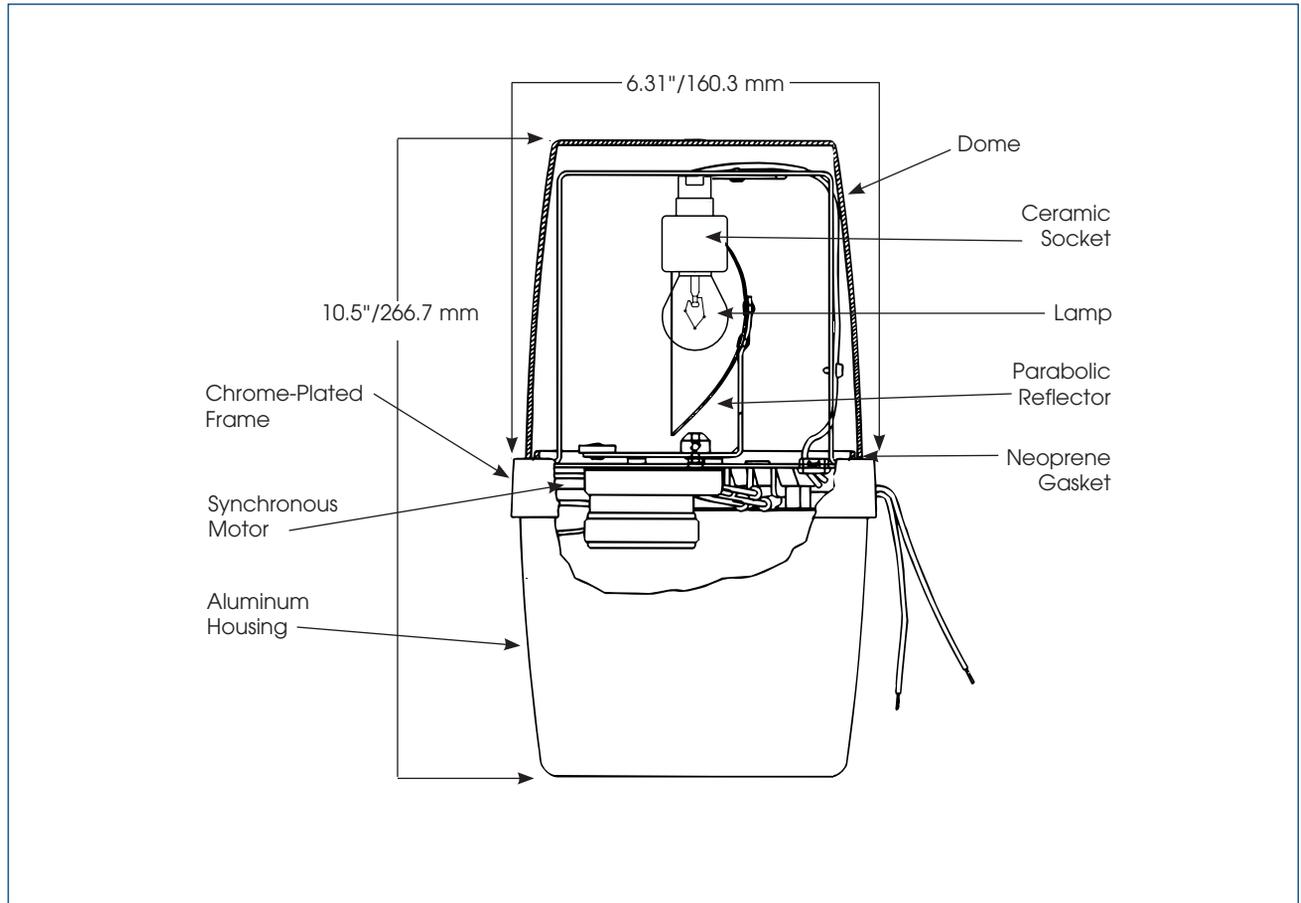
A modern housing design makes the Model 400R suitable for use in institutional or non-industrial settings requiring an audible/ visual alarm system, where heavy-duty industrial equipment might not be appropriate. Sounder/Horn (Model 350 and required 400HMK-AC) sold separately.

Model	Voltage	Operating Current	Flash Rate/Minute	Candela	Mount
400R-120 *	120VAC 50/60Hz	0.33 amps	60	85	Wall/Surface

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



## ROTATING AUDIBLE/VISUAL WARNING SIGNAL (400R)



### SPECIFICATIONS

Lamp Life:	7,000 Hours	7,000 Hours
Light Source:	Incandescent	Incandescent
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	4.5 lbs.	2.0 kg
Shipping Weight:	5.1 lbs.	2.3 kg
Height:	10.5"	266.7 mm
Diameter:	6.31"	160.3 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Audible signaling horn (350)  
and required mounting kit  
(400HMK-AC) sold separately
- Please refer to Model Number Index  
400R beginning on page 374

### REPLACEMENT PARTS

<i>Description</i>	<i>Part Number</i>
Exterior Dome, Amber	K8547C001A-04
Exterior Dome, Blue	K8547C001A-02
Exterior Dome, Clear	K8547C001A-05
Exterior Dome, Green	K8547C001A-03
Exterior Dome, Red	K8547C001A-01
Lamp, 120VAC	K8107181A

# Strobe Combination Audible/Visual Warning Signal

Model 400ST



## AUDIBLE AND VISUAL WARNING IN A SINGLE VERSATILE UNIT

- Available in 120VAC
- Five dome colors
- 10,000 hour strobe tube
- Wall mount
- Sounder/Horn (Model 350) sold separately
- Indoor / outdoor use
- Type 3R enclosure  
(In dome up orientation)
- UL and cUL Listed

Federal Signal's Model 400ST audible/visual signal combines the effective warning of a strobe light with an optional Federal Signal Model 350 horn.

The Model 400ST includes a fresnel lens, providing 360-degree flash coverage. Its strobe tube produces bright, high-intensity flashes at 400 effective candela at 75 flashes per minute.

Available in five dome colors: Amber, Blue, Clear, Green and Red.

The Model 400ST is ideal for use wherever both audible and visual warning signals are needed. This rugged unit is excellent for industrial use and adaptable to most in-plant signaling needs.

A modern housing design makes the Model 400ST suitable for use in institutional or non-industrial settings requiring an audible/visual alarm system, where heavy-duty industrial equipment might not be appropriate. Sounder/Horn (Model 350 and required 400HMK-AC) sold separately.

Model	Voltage	Operating Current	Flash Rate/Minute	Candela Peak <sup>1</sup>	ECP <sup>2</sup>	Mount
400ST-120*	120VAC 50/60Hz	0.6 amps	75	900,000	400	Wall/Surface

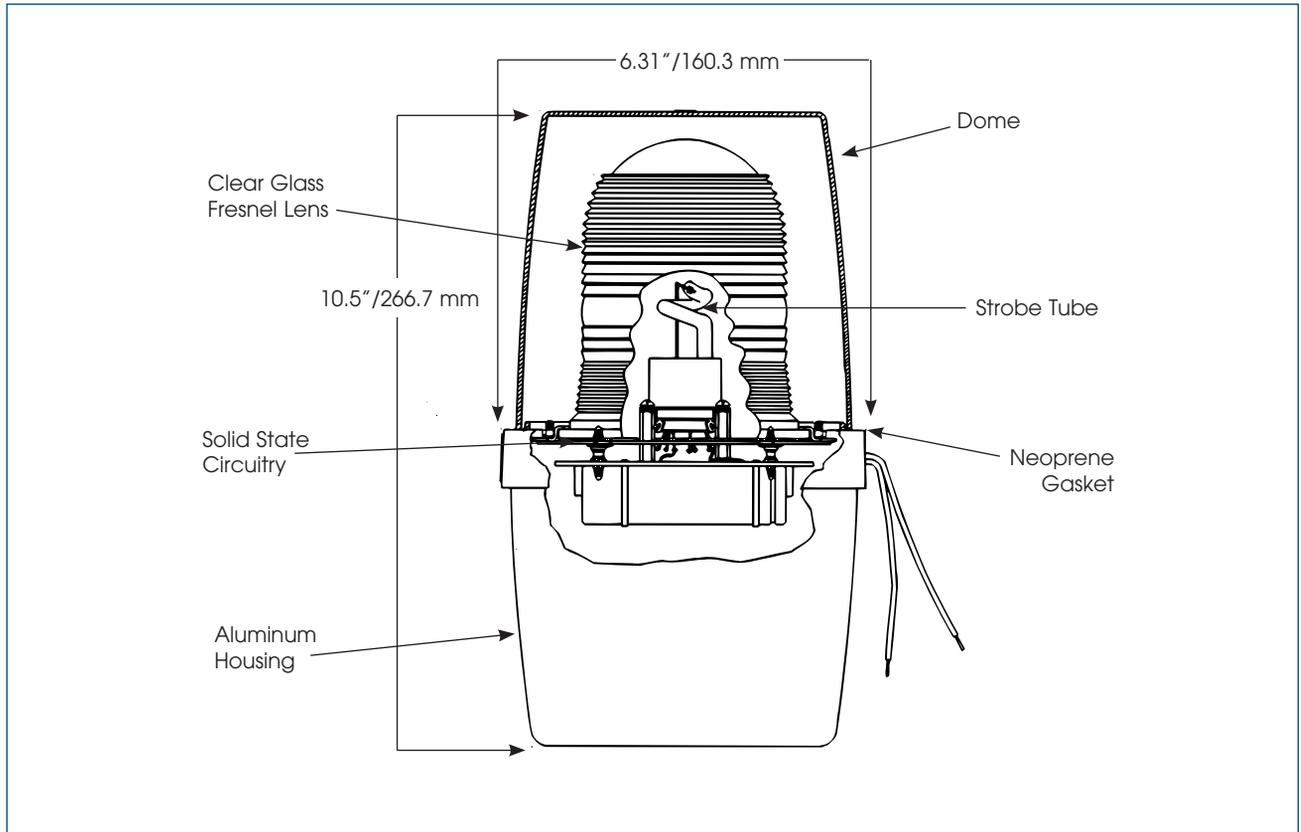
\* Indicates color: (A) Amber, (B) Blue, (C) Clear, (G) Green or (R) Red

<sup>1</sup> Peak candela is the maximum light intensity generated by a flashing light during its light pulse

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



## STROBE AUDIBLE/VISUAL WARNING SIGNAL (400ST)



### SPECIFICATIONS

Lamp Life:	10,000 Hours	10,000 Hours
Light Source:	Strobe tube	Strobe tube
Operating Temperature:	-31°F to 150°F	-35°C to 66°C
Net Weight:	4.5 lbs.	2.0 kg
Shipping Weight:	5.1 lbs.	2.3 kg
Height:	10.5"	266.7 mm
Diameter:	6.31"	160.3 mm

### HOW TO ORDER

- Specify model, voltage and color
- Optional Accessories:  
Audible signaling horn (350) and required mounting kit (400HMK-AC) sold separately
- Please refer to Model Number Index 400ST beginning on page 374

### REPLACEMENT PARTS

<i>Description</i>	<i>Part Number</i>
Exterior Dome, Amber	K8547C001A-04
Exterior Dome, Blue	K8547C001A-02
Exterior Dome, Clear	K8547C001A-05
Exterior Dome, Green	K8547C001A-03
Exterior Dome, Red	K8547C001A-01
Interior Fresnel Lens, Clear	K8248C004E-04
Strobe Tube	K8107178A
PC Assembly, 120VAC	K200D825E

# Mounting Kits

Models LWMB2 and LCMB2



## CUSTOM MOUNTING BRACKETS

- 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

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

Federal Signal's 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, heavy-duty construction and a professional appearance make the brackets suitable for use in commercial, institution and industrial environments.

These brackets are suitable for any Type 3R application in ordinary (non Division 1/Division 2) environments.

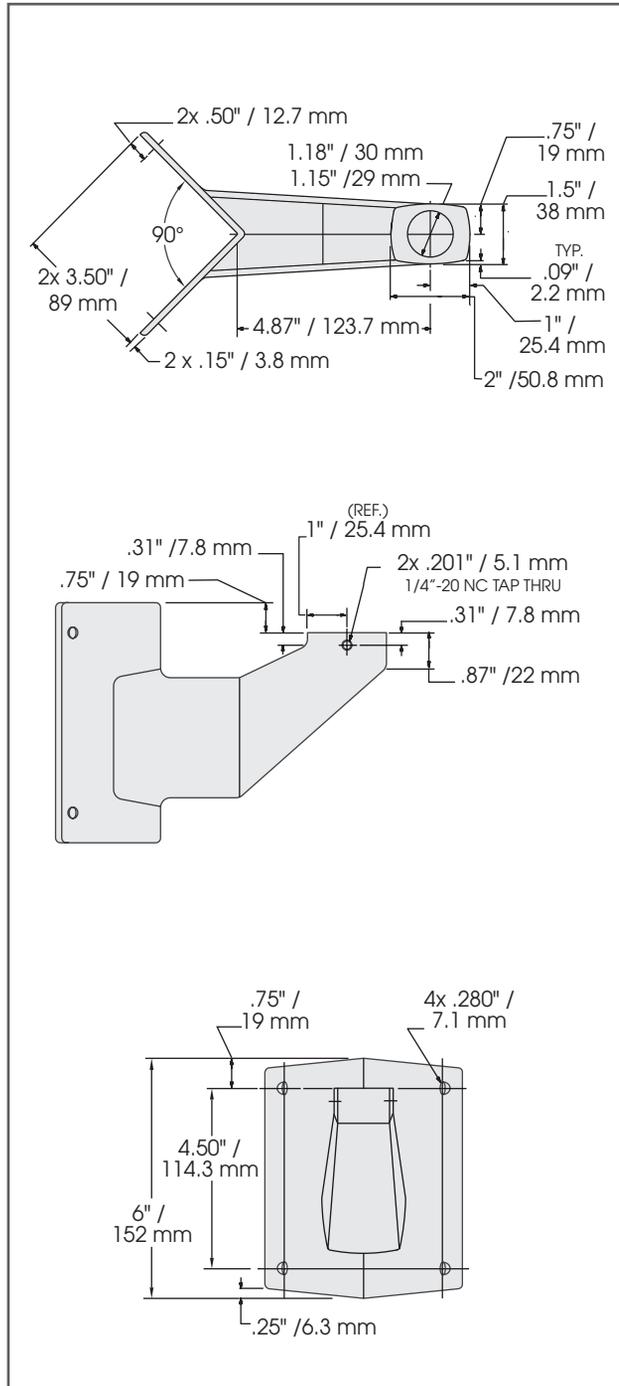
The LCMB2 and LWMB2 mounting kits may be used with the following Federal Signal models: 121S, 131ST, 131DST, 131C, 141(120V), 141ST, 225, 371, 371L, 371ST, 371DST, AV1, AV1ST, FB2PST and the FB24ST.

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.

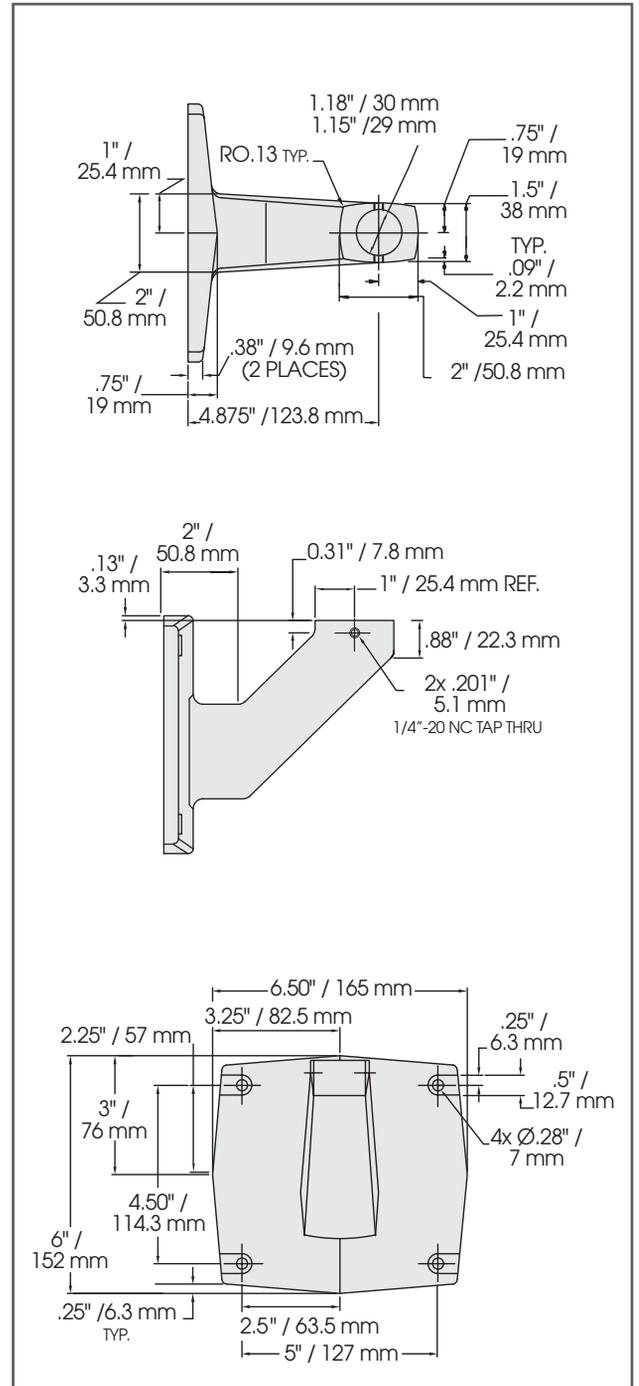


## MOUNTING KITS (LWMB2/LCMB2)

### LCMB2 - Corner Mount



### LWMB2 - Wall Mount



### HOW TO ORDER

- Specify model  
 Corner Bracket (LCMB2)  
 Wall Bracket (LWMB2)

# Hazardous Location Light Mounting Kit

Models LHWB



## CUSTOM MOUNTING BRACKETS

- 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
- Class I, Division 2
- Type 4X
- IP66
- UL & cUL listed

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 available for 1/2-inch and 1 inch fixture mounting.

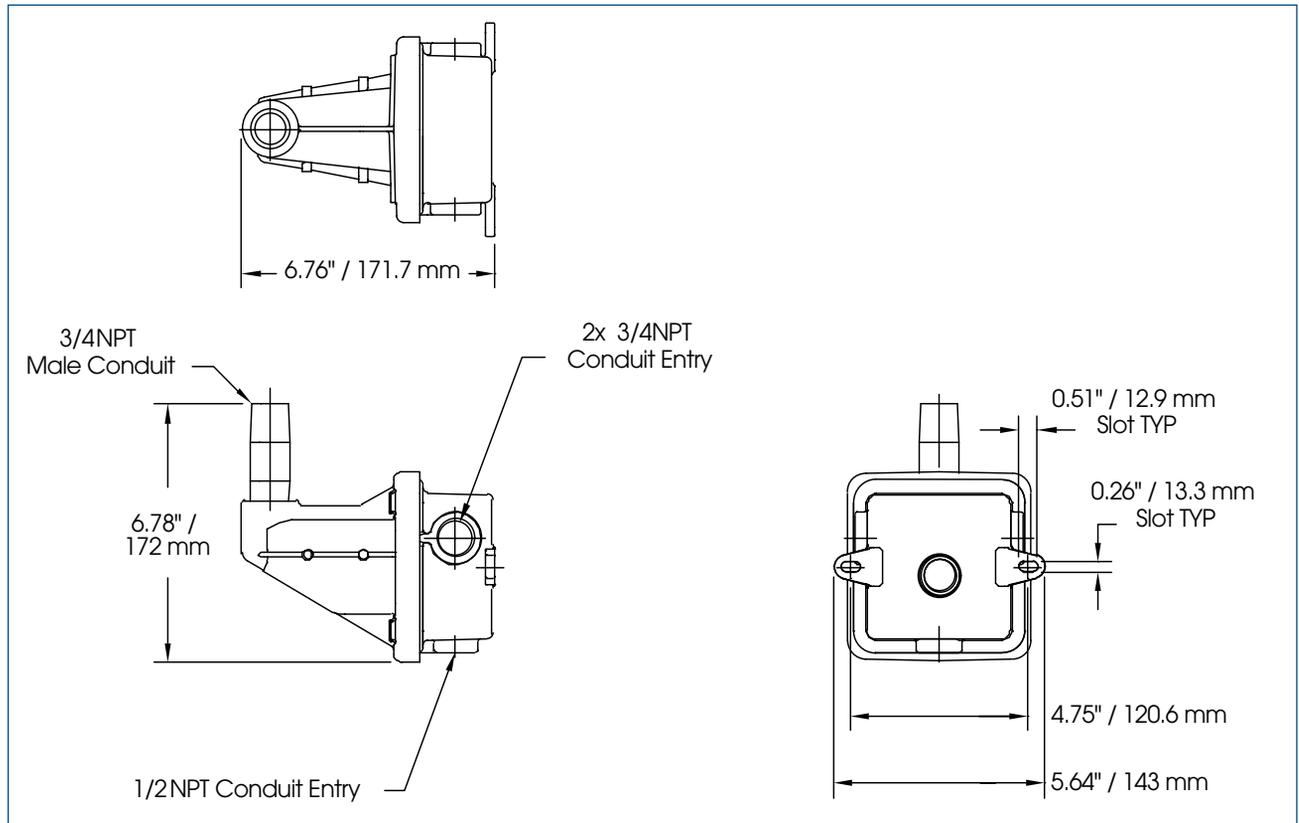
Federal Signal's Model LHWB is constructed of durable cast aluminum and sealed with a durable black powder coat paint. Easy to install, these units can be wired through either the 1/2-inch or 3/4-inch conduit openings located in the weather proof back box, included. Each kit includes a bracket, weather proof 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 bracket is UL Listed for Class I, Division 2, Groups A, B, C and D; Class II Division 2, Groups F and G; and Class III. This bracket may NOT be used in Class II, Division 1 applications. NEMA 4X and IP66 rated when used with the appropriate conduit fittings.

Model	Height	Width	Extension	Net Weight	Shipping Weight
LHWB	6.78"	5.64"	6.76"	2.0 lbs.	2.3 lbs.



## HAZARDOUS LOCATION LIGHT MOUNTING KIT (LHWB)



### SPECIFICATIONS

Operating Temperature:	-58°F to 150°F	-50°C to 66°C
Net Weight:	2 lbs.	0.91 kg
Shipping Weight:	2.3 lbs.	1.04 kg
Height:	6.78"	172.2 mm
Width:	5.64"	143.2 mm
Depth:	6.76"	172.7 mm

### REPLACEMENT PARTS AND OPTIONAL EQUIPMENT

<i>Description</i>	<i>Part Number</i>
Hardware Kit, LHWB	K2881358A
3/4" to 1/2" NPT Pipe Mount	K2881337A
3/4" to 1" NPT Pipe Mount	K2881338A

### HOW TO ORDER

- Specify Model  
LHWB – Wall Bracket
- Please refer to Model Number Index  
LHWB beginning on page 374

# Vehicular Light Bar

## Model VLB



### MINI LIGHTBAR

- Modular system
- 360 degree light distribution
- Quad flash, 9 joule output
- Magnet mount or permanent mount
- Low current draw
- Weather resistant housing
- Meets, SAE J1318 Class II

The Highlighter Strobe is designed for those who prefer the look of the traditional halogen light bar, but require strobe technology.

The Highlighter Strobe features 2 strobe heads and an integrated microprocessor controlled power supply that produces an alternating quad flash of 9-joules per head. The alternating flash tubes are positioned under onmi-directional Fresnel lens for maximum lens fill and off-axis visibility.

All Highlighter Strobe models meet SAE J1318 Class 2 requirements.

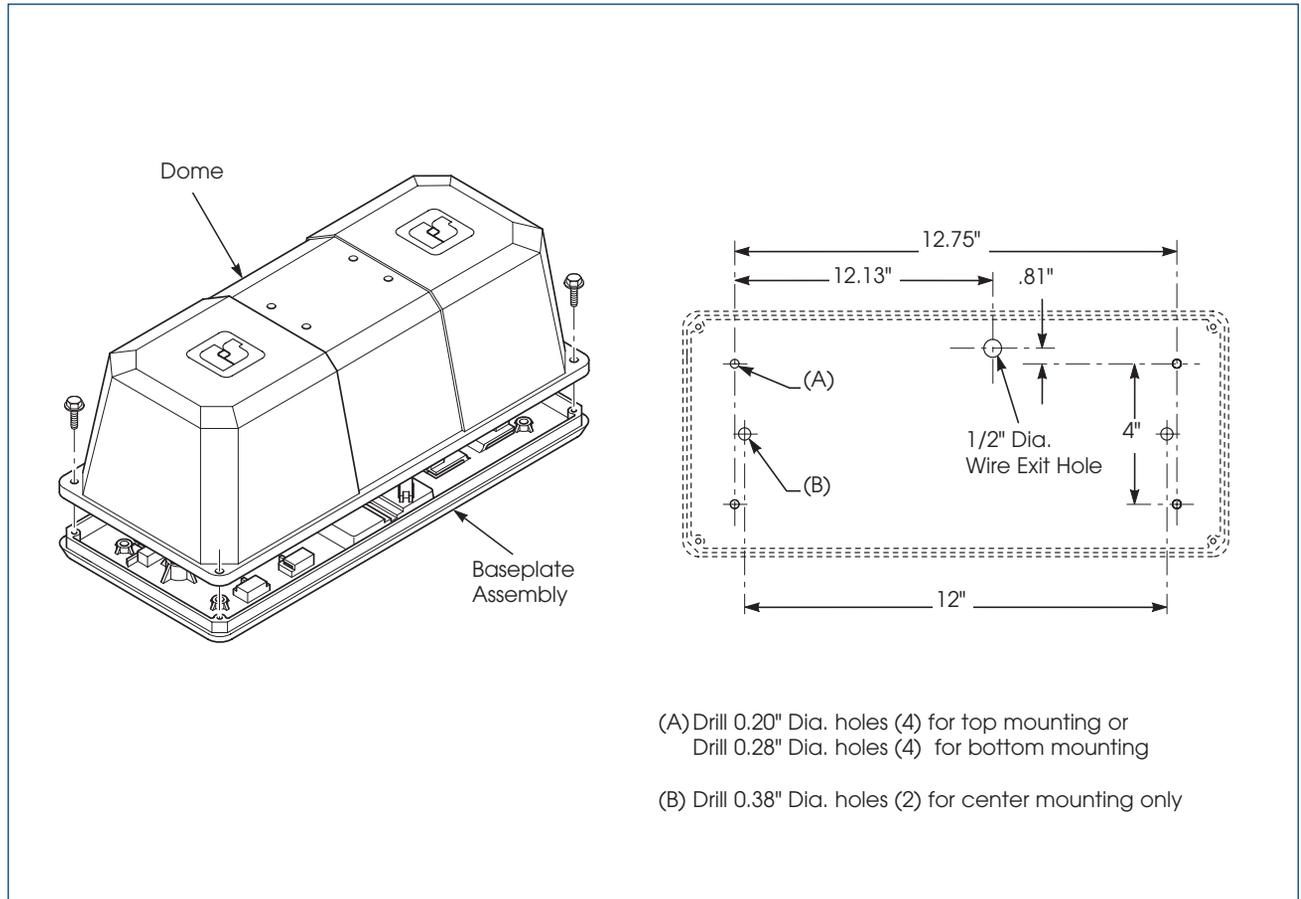
Mounting options include permanent mount or the flexibility of a suction cup/magnetic mounting. Magnetic mount unit come equipped with a cigarette lighter power plug with an integrated ON/OFF switch for easy operational control. Permanent mounting can be achieve with any of the available mounting kits<sup>1</sup>; FMK – Flat Mounting Kit, RMK – Riser Mounting Kit.

<sup>1</sup> Permanent mounting requires one of the available mounting kits for installation

Model	Operating Voltage	Operating Current	Mounting Configuration
VLB-012AP	12VDC	3.6 amps @ 12.8VDC	Permanent
VLB-012AM	12VDC	3.6 amps @ 12.8VDC	Magnetic



## VEHICULAR LIGHT BAR (VLB)



### SPECIFICATIONS

Shipping Weight:		
Permanent	5.0 lbs.	2.3 kg
Magnetic	5.0 lbs.	2.3 kg
Height:		
Permanent	5.0"	127.0 mm
Magnetic	5.0"	127.0 mm
Width:	9.0"	229.0 mm
Length:	15.0"	381.0 mm

### HOW TO ORDER

- Specify model, mounting, color and voltage
- Specify Mandatory Accessories for Permanent Mounting; Flat mount kit (FMK) Riser mount kit (RMK)
- Please refer to Model Number Index VLB beginning on page 374

### REPLACEMENT PARTS

<u>Description</u>	<u>Part Number</u>
Strobe tube assembly with connector	KZ8560082A
Power supply assembly	KZ8560081A
Clear internal lens	K208669
Outer dome, Amber	K452510-02

# Hazardous Location GRP Strobe Light

Model WV450XD and WV450XE



## GLASS REINFORCED POLYESTER DESIGN FOR LOW MAINTENANCE AND CORROSION RESISTANCE

- Available in 24-48VDC, 110VAC, 220-248VAC
- Available in 5, 10, 15 and 21 Joule Units
- Seven available lens colors: Amber, Blue, Clear Green, Magenta, Red and Yellow
- 316 Stainless steel mounting bracket included
- Toughened, impact resistant dome
- IP66
- Included dome guard
- Two M20 entries standard
- Zone rated, IECEx  
ATEX EExd IIB +T3  
ATEX EExd H2 +IIB + T4

The Federal Signal Model WV450X Hazardous Location GRP Strobe Light is designed to serve the needs of rugged land-based and off-shore industrial applications that demand reliable, long life operation while complying with stringent International approval requirements.

The Federal Signal Model WV450X Hazardous Location GRP Strobe Light utilizes the latest technology in non-metallic housing construction. The housing of the WV450X is comprised entirely of Glass Reinforced Polyester (GRP) which makes the product corrosion free and lighter than a comparable metallic fixture. The fact that the WV450X is corrosion free also makes the product safer, and “maintenance-free” by eliminating the need to regularly inspect the flame path. An electro-polished stainless steel dome guard is also provided for protection of the glass lens in the event of accidental impact.

Two versions of the WV450X are available. The “D” version of the product (WV450XD) comes standard with a stainless steel mounting bracket for wall mounting or fastening to a vertical surface. Two holes are tapped for M20 thread in the bottom of the product allowing for field gland connection. The “E” version of the product (WV450XE) includes the same features as the WV450XD, but incorporates a terminal chamber with three M20 tapped holes on the very bottom of the fixture. This terminal chamber is designed to house field terminations and through going power supplies.

The WV450X is available in seven standard colors and three voltage ranges to satisfy most applications. There are also three different Joule output ratings available for each model and each voltage range, providing the ability to tailor the light output and current draw for a given area. The WV450X is ATEX, IECEx approved, making it ideal for applications that require International third party safety standards.

**ATEX**

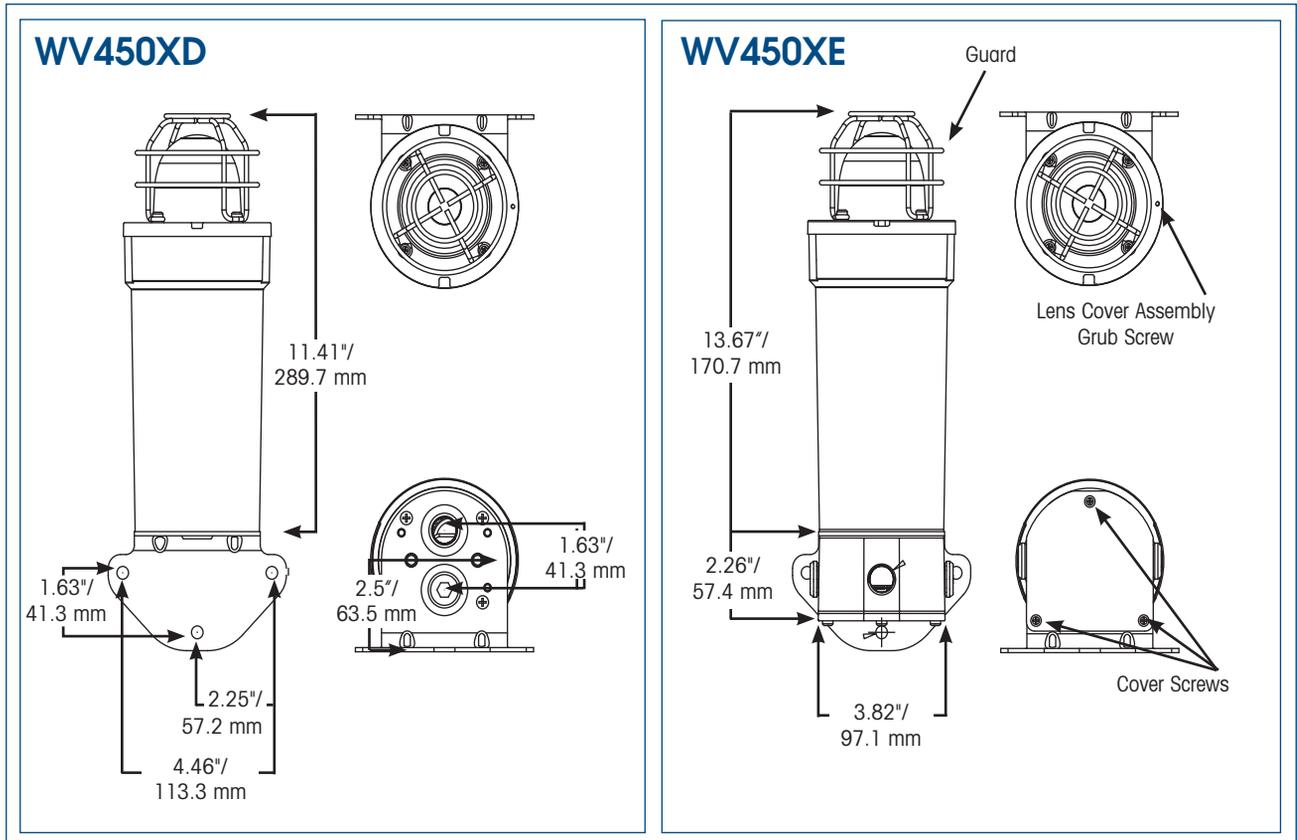


Model	Operating Voltage	Maximum Operating Current	Temperature Code at 55°C	Flash Rate	Lamp Life
WV450	24-48VDC	0.94/0.48 A @ 24-48VDC	T4	60	10,000 hrs
	110VAC	0.57 A @ 110VAC 50/60Hz	T3	60	10,000 hrs
	220-248VAC	0.30 A @ 220-248VAC 50/60Hz	T3	60	10,000 hrs

Specify color: (A) Amber, (B) Blue, (C) Clear, (G) Green, (M) Magenta, (R) Red or (Y) Yellow



# HAZARDOUS GRP STROBE (WV450XD/WV450XE)



## SPECIFICATIONS

Lamp Life:	10,000 Hours	10,000 Hours
Light Source:	Strobe tube	Strobe tube
Operating Temperatures:		
“d” version without terminal chamber	ATEX -55°C to 55°C (-67°F to 131°F) IECEX -20°C to 55°C (-4°F to 131°F)	
“e” version with terminal chamber	ATEX -20°C to 55°C (-22°F to 131°F) IECEX -20°C to 55°C (-4°F to 131°F)	

### WV450XD

Net Weight:	7.1 lbs.	3.23 kg
Shipping Weight:	8.6 lbs.	3.88 kg
Height:	11.41"	289.7 mm
Diameter:	4.46"	113.3 mm

### WV450XE

Net Weight:	8.6 lbs.	3.9 kg
Shipping Weight:	10.0 lbs.	4.54 kg
Height:	13.67"	170.7 mm
Diameter:	3.82"	97.1 mm

Certificate Number:	IECEX UL	06.0010X
	06 UL DEMKO ATEX	0425693X

## HOW TO ORDER

1	2	3	4	5	6
<b>WV450X-D-15-220-R-00</b>					

- 1 **TYPE**
- 2 **PROTECTION**  
**D** Flameproof, Increased Safety  
**E** Terminal Box
- 3 **RATING**  
**05** 5 Joule  
**10** 10 Joule  
**15** 15 Joule  
**21** 21 Joule
- 4 **VOLTAGE ± 15%**  
**024** 24-48VDC  
**110** 110-120VAC  
**220** 220-248VAC
- 5 **COLOR**  
**R** - Red, **A** - Amber, **Y** - Yellow,  
**B** - Blue, **G** - Green,  
**M** - Magenta, **C** - Clear
- 6 **SPECIAL FEATURES**  
**00** None  
— Body Color  
— Retrofit Plate



# Explosion-Proof Static Warning Lights

2000 Series Models FL18 and FL36

## DESIGNED FOR USE IN ATEX ZONE RATED ATMOSPHERES

- Twin Fluorescent lamps for security (sold separately)
- Individual lamp control gear
- 8,000 hour lamp life
- Available in five colors and clear
- Ex 'e' terminal chamber available
- AC and DC voltage ranges
- Approved for use in Zone 1, 2, 21, 22 Atmospheres

The 2000 Series model FL18 and FL36 static warning beacons are visual signals designed for use in hazardous locations that require ATEX approval. At the heart of its design is a compact fluorescent lamp configuration that provides long life, excellent vibration resistance and a signal-specific colored glow.

FL18 and FL36 beacons 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. Available signal colors are Amber, Blue, Clear, Green, Red, and Yellow.

The FL18 and FL36 beacons are externally powered by an AC or DC source. Screw type terminal blocks are provided for field wiring on all units.

All variations of the FL18 and FL36 beacons 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.

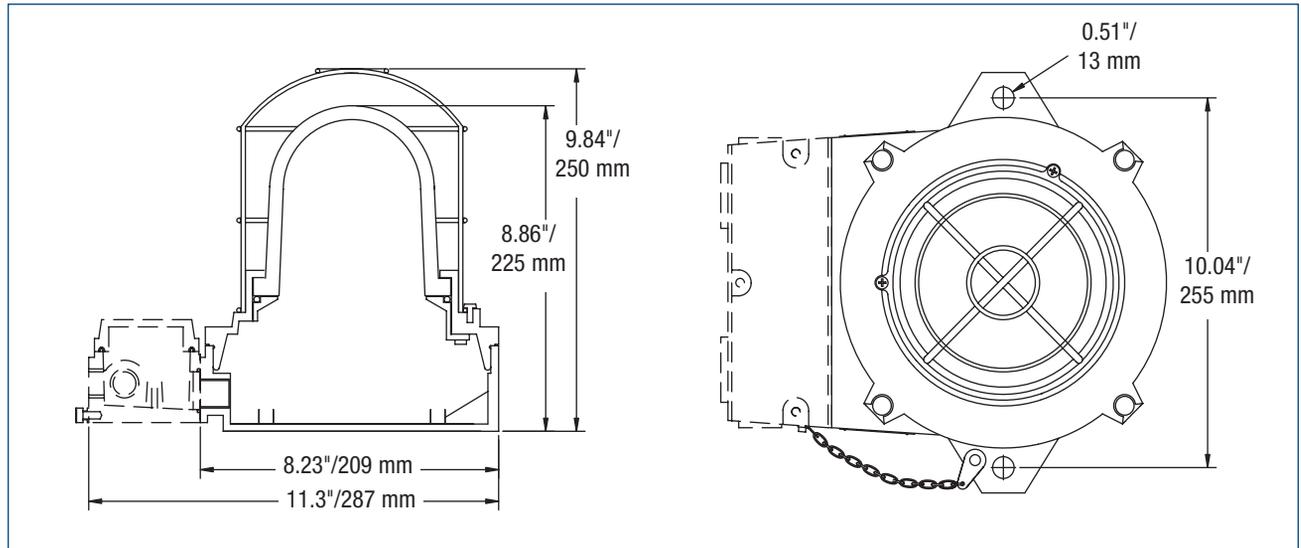
**ATEX IEC**  

Model	Voltage	Operating Current	Equivalent Wattage
FL18	240VAC	0.18 amps	17.5 watt
FL18	110VAC	0.27 amps	16.0 watt
FL18	110VDC	0.14 amps	14.5 watt
FL18	48VDC	0.42 amps	19.2 watt
FL18	24VDC	0.87 amps	20.9 watt
FL36	240VAC	0.18 amps	40.2 watt

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



## EXPLOSION-PROOF STATIC WARNING LIGHTS (2000 SERIES FL18/FL36)



### SPECIFICATIONS

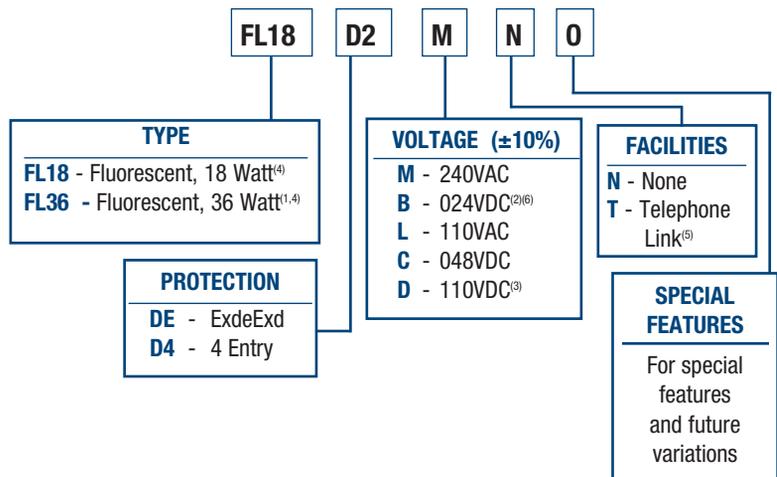
Lamp Life:	8,000 Hours	8,000 Hours	Terminals:	
Light Source:	Fluorescent	Fluorescent	Ex d:	4 way block mounted PCB
Operating Temperature:			Ex de:	12 way block in terminal
Ex d and Ex de:	-40°F to 158°F	-40°C to 70°C(T4)	Cable entries:	
chamber			Ex d:	4 entries - M20 x 1.5
Net Weight:			Ex de:	4 entries - M20 x 1.5
Ex d:	13.23 lbs.	6.0 kg	Mounting:	Via fixed cast lugs at two mounting points
Ex de:	15.43 lbs.	7.0 kg	Body:	Marine Grade Alloy painted Regal Red
Shipping Weight:	16.5 lbs.	7.5 kg	Exterior dome:	Toughened glass
Height:	9.84"	250.0 mm	Guard:	316 Stainless steel
Width:	10.04"	255.0 mm	Ingress Protection:	IP66
Length:	8.23"	209.0 mm		
ATEX Certificate Number:	Baseefa 07ATEX0150			
IECEX Certificate Number:	IECEX BAS 07.0038			
Certification Marking:	Ex d IIB T4 Ex tD A21	Ex de IIB T4 Ex tD A21		

### HOW TO ORDER

Fluorescent Lamps Sold Separately:

Two Required for FL18,  
Four Required for FL36

FL Tube, Amber	P/N A2158A
FL Tube, Blue	P/N A2158B
FL Tube, Clear	P/N A2158
FL Tube, Green	P/N A2158G
FL Tube, Red	P/N A2158R
FL Tube, Yellow	P/N A2158Y



#### NOTES:

- Only the 240VAC voltage is available with FL36 beacon
- Range 22VDC to 32VDC with FL18 beacon
- Range 100VDC to 135VDC with xenon beacons (inclusive of ±10%).  
FL18 is 100VDC to 150VDC inclusive of ±10%.

- 2 pcs. required for FL18, 4 pcs. required for FL36
- Applicable to Xenon AND LED beacons only
- LED beacon available in 24VDC and 110-240VAC only



## DESIGNED FOR USE IN ATEX ZONE RATED ATMOSPHERES

- Single and four tube models
- Internal fresnel lens (sold separately)
- Available in five colors and clear
- Ex 'e' terminal chamber available
- AC and DC voltage ranges
- Approved for use in Zone 1, 2, 21, 22 Atmospheres

**ATEX IEC**  **CE**

# Explosion-Proof Strobe Lights

## 2000 Series Models XEN1 and XEN4

The 2000 Series Models XEN1 and XEN4 Xenon beacons are visual warning lights for use in hazardous locations 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.

The 2000 Series Xenon beacon is 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. Available signal colors are Amber, Blue, Clear Green, Red, and Yellow. An optional telephone initiation feature is also available for either beacon that allows the product to flash when telephone ringing voltage is present.

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

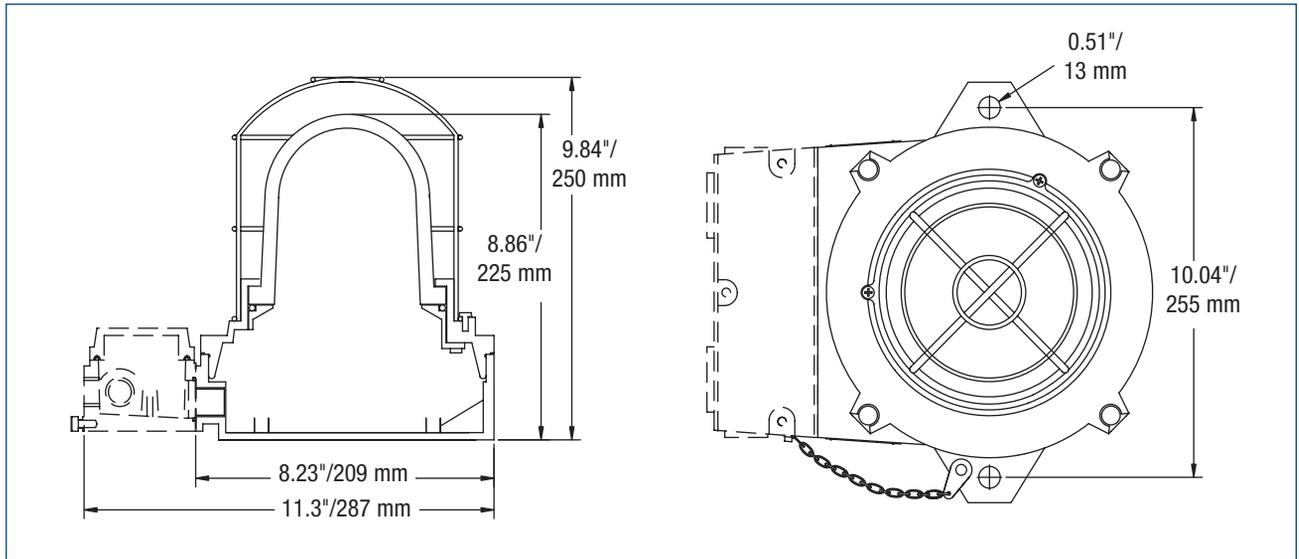
All variations of the 2000 Series Xenon beacon feature a four entry fixture to allow cable looping. These cable entries are metric M20 X 1.5, but other configurations are available upon request.

Model	Voltage	Operating Current	Flash Rate/Minute
XEN1	24VDC	0.93 amps	80
XEN1	48VDC	0.81 amps	80
XEN1	110VDC	0.61 amps	80
XEN1	110VAC	0.48 amps	80
XEN1	240VAC	0.38 amps	80
XEN4	24VDC	1.90 amps	N/A
XEN4	48VDC	1.22 amps	N/A
XEN4	110VDC	0.92 amps	N/A
XEN4	110VAC	0.53 amps	N/A
XEN4	240VAC	0.41 amps	N/A

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



## EXPLOSION-PROOF STROBE LIGHTS (2000 SERIES XEN1/XEN4)



### SPECIFICATIONS

Lamp Life:	5,000 Hours	5,000 Hours	Terminals:	
Light Source:	Xenon	Xenon	Ex d:	4 way block mounted PCB
Operating Temperature:			Ex de:	12 way block in terminal chamber
Ex d and Ex de:	-40°F to 131°F	-40°C to 70°C	Cable entries:	
Net Weight:			Ex d:	4 entries - M20 x 1.5
Ex d:	13.23 lbs.	6.0 kg	Ex de:	4 entries - M20 x 1.5
Ex de:	15.43 lbs.	7.0 kg	Mounting:	Via fixed cast lugs at two mounting points
Shipping Weight:	16.5 lbs.	7.5 kg	Body:	Marine Grade Alloy painted Regal Red
Height:	9.84"	250.0 cm	Exterior dome:	Toughened glass
Width:	10.04"	255.0 cm	Guard:	316 Stainless steel
Length:	8.23"	209.0 cm	Ingress Protection:	IP66
ATEX Certificate Number:	Baseefa 07ATEX0150			
IECEX Certificate Number:	IECEX BAS 07.0038			
Certification Marking:	Ex d IIB T4 Ex tD A21	Ex de IIB T4 Ex tD A21		

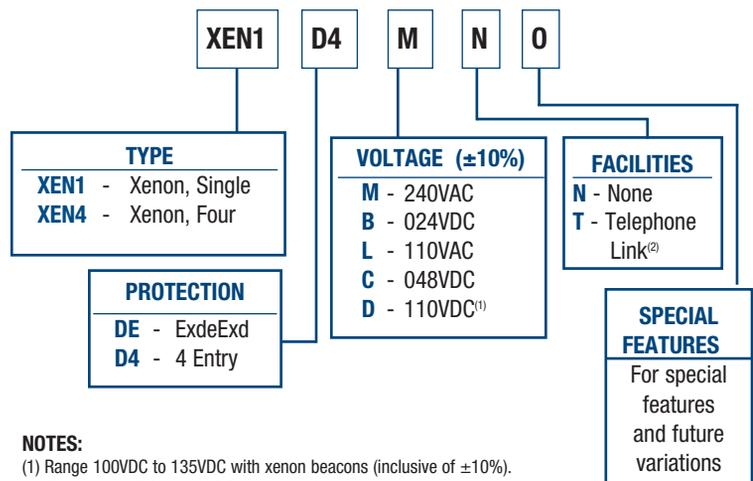
### LIGHT OUTPUT

Colored Xenon Lens Ordered Separately

Part Numbers Are As Follows:

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

### HOW TO ORDER



#### NOTES:

- (1) Range 100VDC to 135VDC with xenon beacons (inclusive of ±10%). FL18 is 100VDC to 150VDC inclusive of ±10%.
- (2) Applicable to Xenon AND LED beacons only



LED

# Explosion-Proof LED Warning Light

2000 Series Model LED

## DESIGNED FOR USE IN ATEX ZONE RATED ATMOSPHERES

- Super bright output with XLT™ Technology
- 3 remotely selectable flash patterns
- 50,000 hour lamp life
- Available in six colors
- Ex 'e' terminal chamber available
- AC and DC voltage ranges
- Approved for use in Zone 1, 2, 21, 22 Atmospheres

The 2000 Series Model LED beacon, with XLT™ technology, is a visual signal warning light for use in hazardous locations requiring ATEX approval. The beacon can produce three light patterns depending on the configuration of a field selectable jumper wire or remote contact closure. The light patterns are: steady-on, slow flash and rapid flash. An optional telephone initiation feature also allows the beacon to flash when telephone ringing voltage is present.

The 2000 Series LED beacon is 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. 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. The current consumption from the beacon is less than 500mA and the in-rush current is low enough to allow PLC initiation 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.

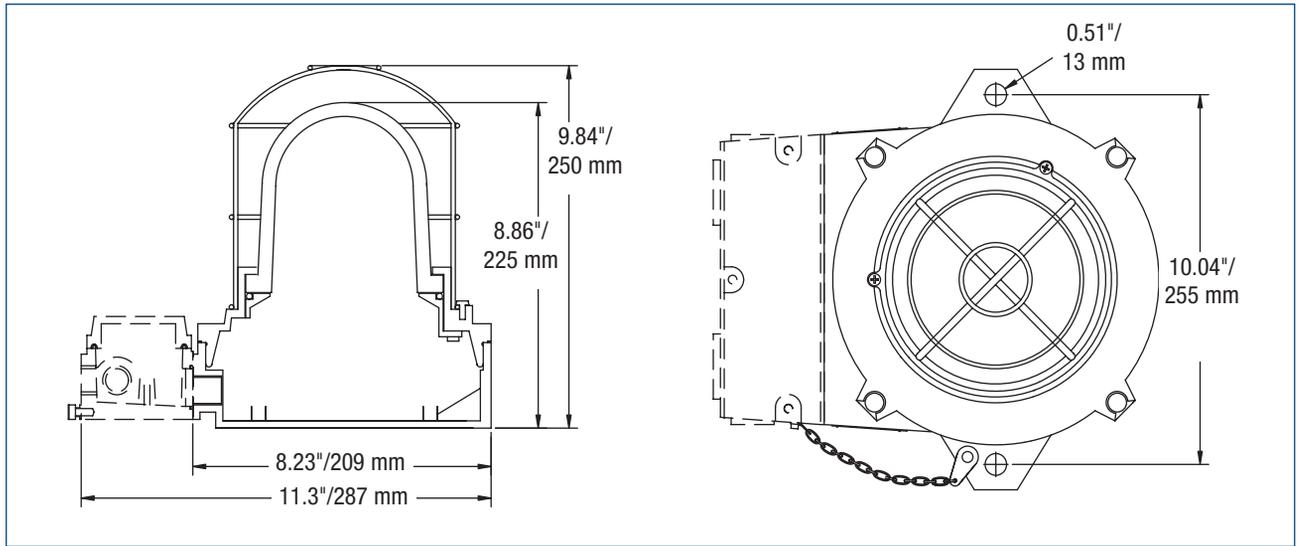
**ATEX IEC**  

Model	Voltage	Operating Current	Flash Rate/Minute	Max In-Rush Current
LED	24VDC	0.50 amps	60-80	1.75A for 5.00mS
LED	110VAC	0.22 amps	60-80	2.00A for 0.25mS
LED	240VAC	0.13 amps	60-80	2.00A for 0.25mS

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



# EXPLOSION-PROOF WARNING LIGHT (2000 SERIES LED)



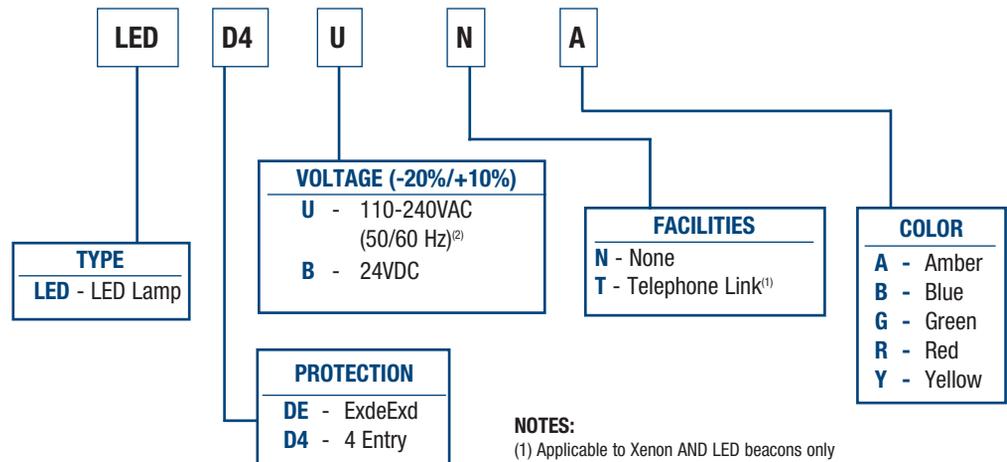
## SPECIFICATIONS

Lamp Life:	50,000 Hours	50,000 Hours	Terminals:	
Light Source:	LED Array	LED Array	Ex d:	4 way block mounted PCB
Operating Temperature:			Ex de:	12 way block in terminal chamber
Ex d and Ex de:	-40°F to 131°F	-40°C to 55°C	Cable entries:	
Net Weight:			Ex d:	4 entries - M20 x 1.5
Ex d:	13.23 lbs.	6.0 kg	Ex de:	4 entries - M20 x 1.5
Ex de:	15.43 lbs.	7.0 kg	Mounting:	Via fixed cast lugs at two mounting points
Shipping Weight:	16.5 lbs.	7.5 kg	Body:	Marine Grade Alloy painted Regal Red
Height:	9.84"	250.0 cm	Exterior dome:	Toughened glass
Width:	10.04"	255.0 cm	Guard:	316 Stainless steel
Length:	8.23"	209.0 cm	Ingress Protection:	IP66
ATEX Certificate Number:	Baseefa 07ATEX0150			
IECEX Certificate Number:	IECEX BAS 07.0038			
Certification Marking:	Ex d IIB T6 Ex tD A21 Ex de IIB T6 Ex tD A21			

## LIGHT OUTPUT

Amber	113cd
Blue	12cd
Green	66cd
Yellow	60cd
Red	63cd

## HOW TO ORDER



### NOTES:

- (1) Applicable to Xenon AND LED beacons only  
 (2) LED beacon available in 24VDC and 110-240VAC only

# ATEX Visual Dual Strobe

## Model WVDS



### FEATURES:

- Automatic synchronisation on multi-strobe system
- Beacons can be set to 'flip-flop' alternating mode with other units on multi-strobe systems
- Xenon tubes mechanically secured against shock & vibration
- Glass lens & stainless steel guard
- Very large termination area
- Ratchet adjustable stainless steel 'U' bracket

The flameproof Model WVDS dual xenon beacons are suitable for Zone 1, 2, 21 & 22 applications.

With a dual flash energy of 5 Joules (60 fpm) the WVDS units are ideal for general signalling duties while their robust construction makes installation in the harshest of environments possible. The beacons may be connected from a single supply for simultaneous operation or from separate supplies for independent operation.

Additional features include automatic synchronisation on multi-beacon systems and stainless steel guard and mounting bracket as standard.

The WVDS range features enclosures manufactured from corrosion proof, marine grade copper free LM6 aluminium which is phosphated and powder coated. All models have two M20 cable entries, large termination areas and an ingress protection of IP66/67.

### APPROVALS:

ATEX certificate: KEMA 01ATEX2222  
 EN 60079-0 : 2006 EN 60079-1 : 2007  
 EN 61241-0 : 2006 EN 61241-1 : 2004

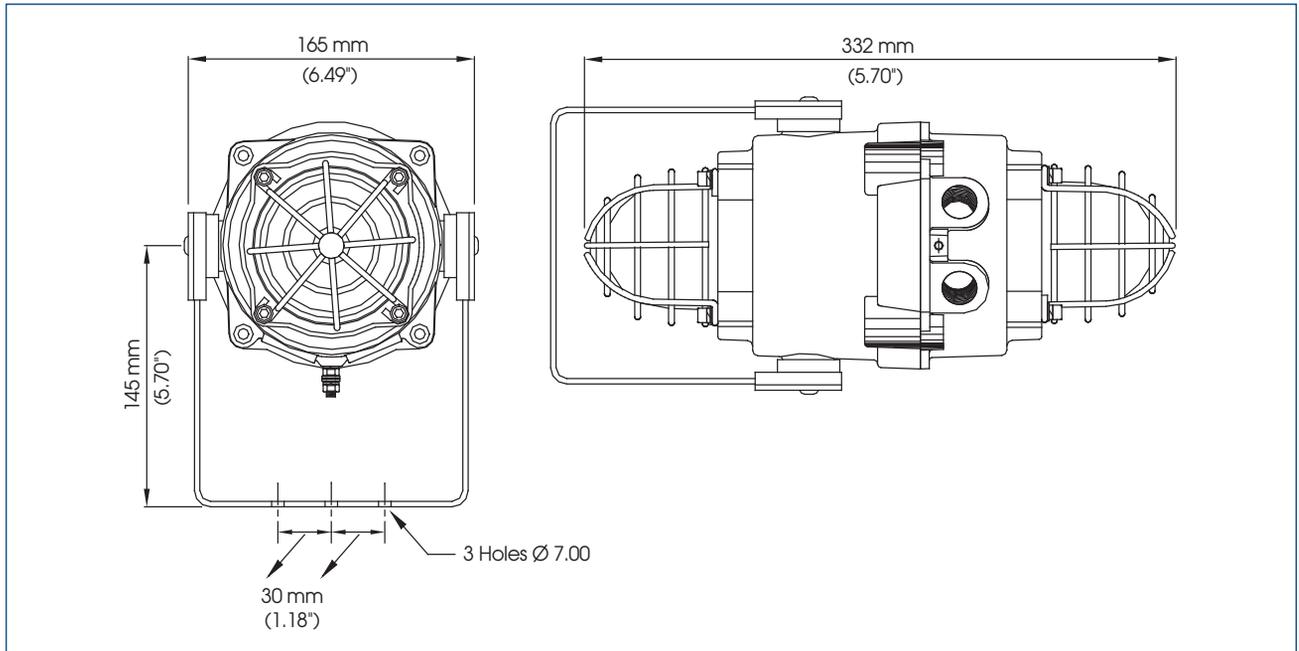
IECEx certificate: IECEx KEM 10.0024  
 IEC 60079-0 : 2004 (Ed4) IEC 60079-1 : 2007 (Ed6)  
 IEC 61241-0 : 2004 (Ed1) IEC 61241-1 : 2004 (Ed1)

- Certificate approvals pending.  
 Visit [www.federal-signal-indust.com](http://www.federal-signal-indust.com) for the latest information.

Model	Voltage	Voltage Range	Operating Current	Flash Rate/
<b>WVDS-024</b>	24VDC	20-24VDC	270mA	60
<b>WVDS-048</b>	48VDC	42-54VDC	180mA	60
<b>WVDS-115</b>	115VAC	104-126	140mA	60
<b>WVDS-230</b>	230VAC	207-253	55mA	60



## ATEX VISUAL DUAL STROBE (WVDS)



### SPECIFICATIONS

ATEX / IECEx:

II 2G Ex d IIC T4 Ta. -50°C to +70°C

II 2G Ex d IIC T5 Ta. -50°C to +55°C

II 2D Ex tD A21 IP67 T115°C

based on max. Ta. of +70°C

Energy: 5 Joules x 2 (5Ws)

Flash rate: 1Hz (60 fpm)

Peak Candela: 34,812 cd x 2

Effective Intensity cd: 54 cd x 2

Lens colors: Amber, Blue, Clear,  
Green, Red & Yellow

Voltages DC: 24VDC; 48VDC

Voltages AC: 115VAC; 230VAC (50  
Hz / 60Hz ±10%)

Ingress protection: IP66/67

Housing material: Marine grade copper free LM6 Aluminium  
Housing finish: Phosphated & powder coated finish - anti-  
corrosion

Colour: RAL3000 Red (others available on request)

Cable entries: Dual M20 ISO (one stopping plug included)

Terminals: 0.5 to 4.0mm<sup>2</sup> cables

Line monitoring : Min. 500 Ohm 2w, or 3k3 Ohm 0.5w res.  
or diode within Exd enclosure (dc versions)

Product Weight : DC: 2.95 Kg

AC: 3.00 Kg

Shipping Weight : DC: 3.70 Kg

AC: 3.75 Kg

### HOW TO ORDER

**WVDS - 024 - R - A**

TYPE	VOLTAGE	1st LENS COLOR	2nd LENS COLOR
<b>WVDS</b> ATEX Visual Dual Strobe	<b>024</b> - 24VDC <b>048</b> - 48VDC <b>115</b> - 115VAC <b>230</b> - 230VAC	<b>R</b> - Red	<b>A</b> - Amber <b>B</b> - Blue <b>C</b> - Clear <b>G</b> - Green <b>R</b> - Red <b>Y</b> - Yellow

#259361A Rev A

2645 Federal Signal Dr., University Park, IL 60484 Tel: 708.534.4756 Fax: 708.534.4852 www.federal-signal-indust.com

Courtesy of Steven Engineering, Inc.-230 Ryan Way, South San Francisco, CA 94080-6370-Main Office: (650) 588-9200-Outside Local Area: (800) 258-9200-www.stevenengineering.com



# ATEX Audible Visual Sounder

Model WAVS

The flameproof Model WAVS combination alarm sounders and Xenon beacons are suitable for Zone 1 & Zone 2 applications.

Sound level outputs are up to 117dB(A) at 1 meter with a choice of 32 alarm tones and 3 remotely selectable stages.

Sounder & beacon may be connected from a single supply for simultaneous operation or from separate supplies for independent operation.

## FEATURES:

- Automatic synchronisation on multi-strobe & sounder systems.
- Beacons can be set to 'flip-flop' alternating mode with other units on multi-strobe systems.
- Xenon tubes mechanically secured against shock & vibration
- Glass lens & Stainless Steel guard
- Very large termination area.
- Ratchet adjustable stainless steel 'U' bracket

ATEX certificate: KEMA 01ATEX2223  
 EN 60079-0 : 2006 EN 60079-1 : 2007  
 EN 61241-0 : 2006 EN 61241-1 : 2004

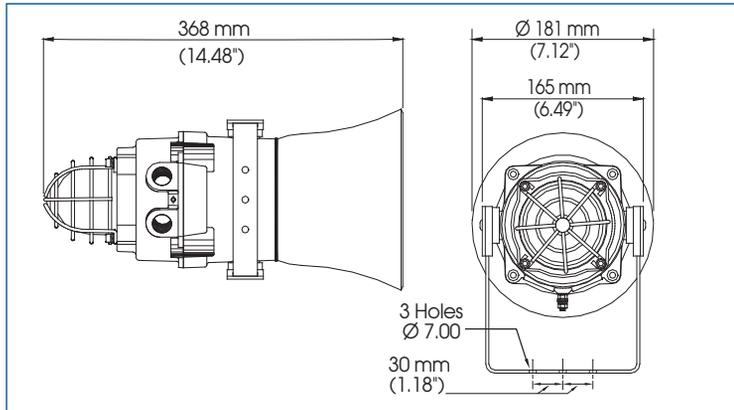
IECEX certificate: IECEX KEM 10.0025  
 IEC 60079-0 : 2004 (Ed4) IEC 60079-1 : 2007 (Ed6)  
 IEC 61241-0 : 2004 (Ed1) IEC 61241-1 : 2004 (Ed1)

- Certificate approvals pending.  
 Visit [www.federal-signal-indust.com](http://www.federal-signal-indust.com)  
 for the latest information.

Model	Voltage	Alarm Sounder		Xenon Beacon		
		Voltage Range	Current	Voltage Range	Current	Flash Rate
<b>WAVS-024</b>	24VDC	+/-25%	265mA	20-28V	300mA	60
<b>WAVS-048</b>	48VDC	+/-25%	130mA	42-54V	180mA	60
<b>WAVS-115</b>	115VAC	+/-10%	110mA	+/-10%	140mA	60
<b>WAVS-230</b>	230VAC	+/-10%	56mA	+/-10%	55mA	60



## ATEX AUDIBLE VISUAL SOUNDER (WAVS)



### HOW TO ORDER

#### WAVS - 024 - A

TYPE	VOLTAGE	LENS COLOR
WAVS	024 - 24VDC	A - Amber
ATEX	048 - 48VDC	B - Blue
Audible	115 - 115VAC	C - Clear
Visual	230 - 230VAC	G - Green
Sounder		R - Red
		Y - Yellow

### SPECIFICATIONS

ATEX / IECEx: II 2G Ex d IIB T4 Ta. -50° to +70°C  
 GOST-R: 1ExdIIBT4 Ta. -50° to +55°C

#### SOUNDER/HORN:

Maximum output: 117dB(A) @ 1 meter  
 Nominal output: 110dB(A) @ 1m +/- 3dB - Tone 2  
 No. of tones: 32 (UK00A / PFEER compliant)  
 No. of stages: 3  
 Volume control: Max. 110dB(A); Min. 72dB(A)-Tone 2  
 Voltages DC: 24VDC; 48VDC  
 Voltages AC: 115VAC; 230VAC (50Hz/60Hz ±10%)  
 Stage switching: Negative or positive

#### BEACON:

Energy: 5 Joules (5Ws)  
 Flash rate: 1Hz (60 fpm)  
 Peak Candela: 34,812 cd  
 Effective Intensity cd: 54 cd  
 Lens colors: Amber, Blue, Clear, Green, Red & Yellow

#### GENERAL:

Ingress protection: IP66/67  
 Housing material: Marine grade copper free LM6 Aluminium  
 Housing finish: Phosphated & powder coated  
 WAVS flare: High impact UL94 V0 & 5VA FR ABS (Red)  
 Cable entries: Dual M20 ISO (one stopping plug included)  
 Terminals: 0.5 to 4.0mm<sup>2</sup> cables.  
 Line monitoring : Min. 500 Ohm 2w, or 3k3 Ohm 0.5w res. or diode within Exd enclosure (dc versions).  
 Product Weight : DC: 4.00 Kg  
 AC: 4.20 Kg  
 Shipping Weight : DC: 4.70 Kg  
 AC: 4.90 Kg

### TONES

Stage 1	Frequency Description	dB @ 1m*	Stage 2	Stage 3
Tone 1	1000 Hz Continuous - PFEER Toxic Gas	110.0dB(A) @ 1m	Tone 31	Tone 11
Tone 2	800/1000Hz @ 0.25 sec Alternating	110.0dB(A) @ 1m	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	110.5dB(A) @ 1m	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	110.0dB(A) @ 1m	Tone 6	Tone 5
Tone 5	2400Hz Continuous	109.0dB(A) @ 1m	Tone 3	Tone 27
Tone 6	2400/2900Hz @ 7Hz Sweeping	109.0dB(A) @ 1m	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	110.0dB(A) @ 1m	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	110.5dB(A) @ 1m	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	110.5dB(A) @ 1m	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	109.0dB(A) @ 1m	Tone 7	Tone 5
Tone 11	1000Hz @ 0.5Hz Intermittent	110.0dB(A) @ 1m	Tone 31	Tone 1
Tone 12	800/1000Hz @ 0.875Hz Alternating	110.0dB(A) @ 1m	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	109.0dB(A) @ 1m	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	103.0dB(A) @ 1m	Tone 4	Tone 5
Tone 15	800Hz Continuous	103.0dB(A) @ 1m	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	104.0dB(A) @ 1m	Tone 18	Tone 5
	544Hz (100mS)/			
Tone 17	440Hz (400mS) - NF S 32-001	107.0dB(A) @ 1m	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	105.0dB(A) @ 1m	Tone 2	Tone 5
	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s			
Tone 19	-NFC48-265	117.0dB(A) @ 1m	Tone 2	Tone 5
Tone 20	660Hz Continuous	104.0dB(A) @ 1m	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	107.0dB(A) @ 1m	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	107.0dB(A) @ 1m	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	103.0dB(A) @ 1m	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	107.0dB(A) @ 1m	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	109.0dB(A) @ 1m	Tone 29	Tone 5
Tone 26	Bell	117.0dB(A) @ 1m	Tone 2	Tone 1
Tone 27	554Hz Continuous	107.0dB(A) @ 1m	Tone 26	Tone 5
Tone 28	440Hz Continuous	104.0dB(A) @ 1m	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping	106.0dB(A) @ 1m	Tone 7	Tone 5
	AS2220: 420Hz repeating 0.625 sec on,			
Tone 30	0.625 sec off.	104.0dB(A) @ 1m	Tone 32	Tone 5
Tone 31	660/1200Hz @ 1Hz Sweeping	110.5dB(A) @ 1m	Tone 11	Tone 1
	AS2220: 500-1200Hz 3.75s on 0.25s off			
Tone 32	(15 cycles/min)	110.5dB(A) @ 1m	Tone 26	Tone 1

#259362A Rev A

# ATEX Audible Visual Sounder LED

Model WAVS-L



## FEATURES:

- Glass dome with optically enhanced Fresnel Polycarbonate lens
- Stainless Steel guard
- Very large termination area.
- Ratchet adjustable stainless steel 'U' bracket.
- The sounder & beacon may be connected from a single supply for simultaneous operation or from separate supplies for independent operation.

The flameproof Model WAVS-L combination alarm sounders and high output LED beacons are suitable for Zone 1 & Zone 2 applications.

The WAVS-L features sound level outputs of up to 117dB(A) at 1 meter with a choice of 32 alarm tones and 3 remotely selectable stages.

The beacon contains an array of 32 high output, multi function LEDs with a total of 9 modes of operation - 4 rotating effect modes, 4 flashing modes and a steady mode for use in indicator/ status applications. Based on the mode selected the user can also select two alternative LED modes remotely.

## APPROVALS:

- ATEX certificate: KEMA 01ATEX2223  
EN 60079-0 : 2006 EN 60079-1 : 2007  
EN 61241-0 : 2006 EN 61241-1 : 2004

IECEx certificate: IECEx KEM 10.0025  
IEC 60079-0 : 2004 (Ed4) IEC 60079-1 : 2007 (Ed6)  
IEC 61241-0 : 2004 (Ed1) IEC 61241-1 : 2004 (Ed1)

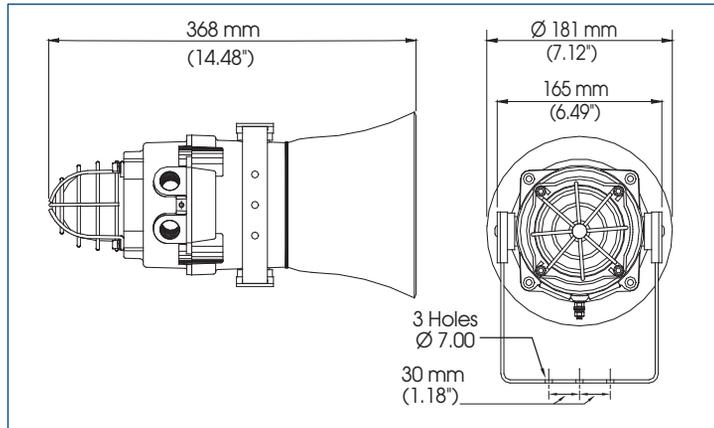
- GOST-R certificate: POCC GB.JB05.B02205
- Safety-integrity suitability: SIL1

- Certificate approvals pending.  
Visit [www.federal-signal-indust.com](http://www.federal-signal-indust.com)  
for the latest information.

Model	Voltage	Alarm Sounder		LED Beacon	
		Voltage Range	Current	Voltage Range	Current
<b>WAVS-L-024</b>	24VDC	+/-25%	265mA	10-50V	400mA
<b>WAVS-L-048</b>	48VDC	+/-25%	130mA	10-50V	210mA
<b>WAVS-L-115</b>	115VAC 50/60Hz	+/-10%	110mA	+/-10%	135mA
<b>WAVS-L-230</b>	230VAC 50/60Hz	+/-10%	56mA	+/-10%	65mA



## ATEX AUDIBLE VISUAL SOUNDER (WAVS-L)



### HOW TO ORDER

#### WAVS-L - 024 - A

TYPE	VOLTAGE	LENS COLOR
WAVS-L	024 - 24VDC	A - Amber
ATEX	048 - 48VDC	B - Blue
Visual	115 - 115VAC	G - Green
Sounder	230 - 230VAC	R - Red
LED		Y - Yellow

### SPECIFICATIONS

ATEX / IECEx: II 2G Ex d IIB T4 Ta. -50° to +70°C  
 GOST-R: 1ExdIIBT4 Ta. -50° to +55°C

#### SOUNDER/HORN:

Maximum output: 117dB(A) @ 1 meter  
 Nominal output: 110dB(A) @ 1m +/- 3dB - Tone 2  
 No. of tones: 32 (UK00A / PFEER compliant)  
 No. of stages: 3  
 Volume control: Max. 110dB(A); Min. 72dB(A) - Tone 2  
 Voltages DC: 24VDC; 48VDC  
 Voltages AC: 115VAC; 230VAC  
 Stage switching: Negative or positive

#### LED BEACON:

Light source: Array of 32 high output LEDs  
 Lens colors: Amber, Blue, Green, Red & Yellow  
 Voltages DC: 10-50VDC  
 Voltages AC: 115VAC; 230VAC (50Hz/60Hz ±10%)

#### GENERAL:

Ingress protection: IP66/67  
 Housing material: Marine grade copper free LM6 Aluminium  
 Housing finish: Phosphated & powder coated  
 WAVS-L flare: High impact UL94 V0 & 5VA FR ABS (Red)  
 Cable entries: Dual M20 ISO (one stopping plug included)  
 Terminals: 0.5 to 4.0mm<sup>2</sup> cables  
 Line monitoring : Min. 500 Ohm 2w, or 3k3 Ohm 0.5w res. or diode within Exd enclosure (dc versions)  
 Product Weight : DC: 4.00 Kg  
 AC: 4.20 Kg  
 Shipping Weight : DC: 4.70 Kg  
 AC: 4.90 Kg

### TONES

Stage 1	Frequency Description	dB @ 1m*	Stage 2	Stage 3
Tone 1	1000 Hz Continuous - PFEER Toxic Gas	110.0dB(A) @ 1m	Tone 31	Tone 11
Tone 2	800/1000Hz @ 0.25 sec Alternating	110.0dB(A) @ 1m	Tone 17	Tone 5
Tone 3	500/1200Hz @ 0.3Hz 0.5 sec Slow Whoop	110.5dB(A) @ 1m	Tone 2	Tone 5
Tone 4	800/1000Hz @ 1Hz Sweeping	110.0dB(A) @ 1m	Tone 6	Tone 5
Tone 5	2400Hz Continuous	109.0dB(A) @ 1m	Tone 3	Tone 27
Tone 6	2400/2900Hz @ 7Hz Sweeping	109.0dB(A) @ 1m	Tone 7	Tone 5
Tone 7	2400/2900Hz @ 1Hz Sweeping	110.0dB(A) @ 1m	Tone 10	Tone 5
Tone 8	500/1200/500Hz @ 0.3Hz Sweeping	110.5dB(A) @ 1m	Tone 2	Tone 5
Tone 9	1200/500Hz @ 1Hz - DIN / PFEER P.T.A.P.	110.5dB(A) @ 1m	Tone 15	Tone 2
Tone 10	2400/2900Hz @ 2Hz Alternating	109.0dB(A) @ 1m	Tone 7	Tone 5
Tone 11	1000Hz @ 0.5Hz Intermittent	110.0dB(A) @ 1m	Tone 31	Tone 1
Tone 12	800/1000Hz @ 0.875Hz Alternating	110.0dB(A) @ 1m	Tone 4	Tone 5
Tone 13	2400Hz @ 1Hz Intermittent	109.0dB(A) @ 1m	Tone 15	Tone 5
Tone 14	800Hz 0.25sec on, 1 sec off Intermittent	103.0dB(A) @ 1m	Tone 4	Tone 5
Tone 15	800Hz Continuous	103.0dB(A) @ 1m	Tone 2	Tone 5
Tone 16	660Hz 150mS on, 150mS off Intermittent	104.0dB(A) @ 1m	Tone 18	Tone 5
Tone 17	544Hz (100mS)/ 440Hz (400mS) - NF S 32-001	107.0dB(A) @ 1m	Tone 2	Tone 27
Tone 18	660Hz 1.8sec on, 1.8sec off Intermittent	105.0dB(A) @ 1m	Tone 2	Tone 5
Tone 19	1.4KHz-1.6KHz 1s, 1.6KHz-1.4KHz 0.5s -NFC48-265	117.0dB(A) @ 1m	Tone 2	Tone 5
Tone 20	660Hz Continuous	104.0dB(A) @ 1m	Tone 2	Tone 5
Tone 21	554Hz/440Hz @ 1Hz Alternating	107.0dB(A) @ 1m	Tone 2	Tone 5
Tone 22	544Hz @ 0.875 sec. Intermittent	107.0dB(A) @ 1m	Tone 2	Tone 5
Tone 23	800Hz @ 2Hz Intermittent	103.0dB(A) @ 1m	Tone 6	Tone 5
Tone 24	800/1000Hz @ 50Hz Sweeping	107.0dB(A) @ 1m	Tone 29	Tone 5
Tone 25	2400/2900Hz @ 50Hz Sweeping	109.0dB(A) @ 1m	Tone 29	Tone 5
Tone 26	Bell	117.0dB(A) @ 1m	Tone 2	Tone 1
Tone 27	554Hz Continuous	107.0dB(A) @ 1m	Tone 26	Tone 5
Tone 28	440Hz Continuous	104.0dB(A) @ 1m	Tone 2	Tone 5
Tone 29	800/1000Hz @ 7Hz Sweeping AS2220: 420Hz repeating 0.625 sec on, 0.625 sec off.	106.0dB(A) @ 1m	Tone 7	Tone 5
Tone 30	660/1200Hz @ 1Hz Sweeping	110.5dB(A) @ 1m	Tone 11	Tone 1
Tone 31	AS2220: 500-1200Hz 3.75s on 0.25s off (15 cycles/min)	110.5dB(A) @ 1m	Tone 26	Tone 1

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